



Full wwPDB/EMDatabank EM Map/Model Validation Report ⓘ

Dec 7, 2016 – 05:06 PM EST

PDB ID : 4V3P
EMDB ID: : EMD-2790
Title : The molecular structure of the left-handed supra-molecular helix of eukaryotic polyribosomes
Authors : myasnikov, A.g.; afonina, z.a.; menetret, j.f.; shirokov, v.a.; spirin, A.s.; klaholz, b.p.
Deposited on : 2014-10-20
Resolution : 34.00 Å(reported)
Based on PDB ID : 3IZ6

This is a Full wwPDB/EMDatabank EM Map/Model Validation Report
for a publicly released PDB/EMDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<http://wwpdb.org/validation/2016/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

MolProbity : 4.02b-467
Mogul : unknown
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : rb-20028442

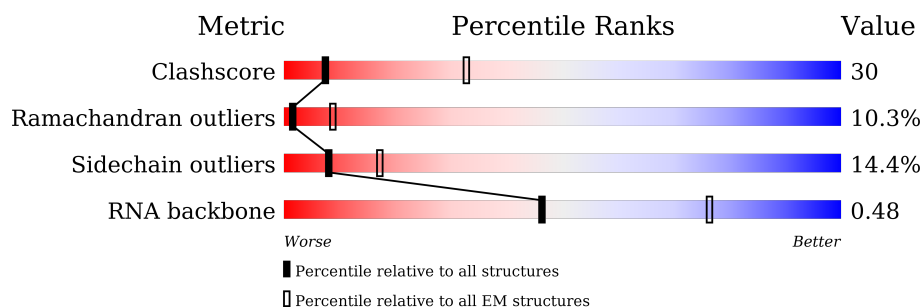
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 34.00 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



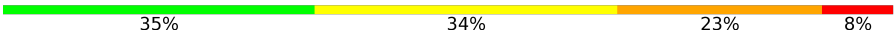

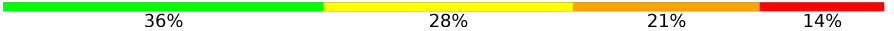

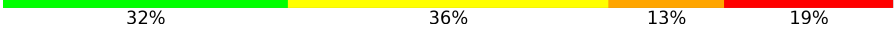



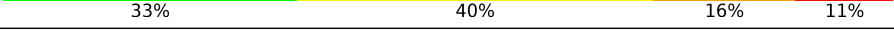


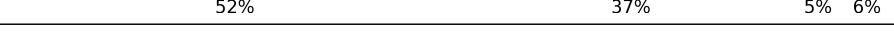
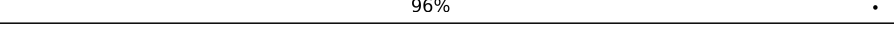
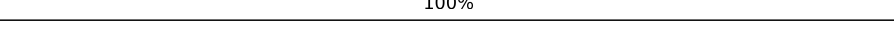





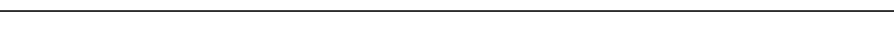

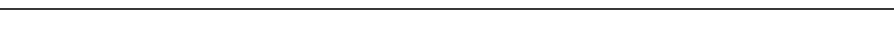
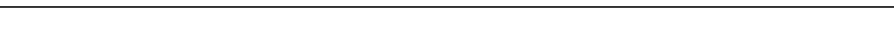


Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686
RNA backbone	3027	244

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$

Mol	Chain	Length	Quality of chain
1	Sa	380	65% 26% 7% .
2	SA	260	35% 40% 18% 6%
3	SB	208	32% 34% 25% 9%
4	SD	200	31% 46% 13% 12%
5	SE	263	52% 30% 15% .
6	SF	191	61% 27% 10% .
7	SI	126	53% 30% 11% 6%
8	SJ	128	59% 30% 8% .

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Mol	Chain	Length	Quality of chain
9	SK	119	
10	SL	142	
11	SM	152	
12	SO	121	
13	SQ	141	
14	SP	85	
15	SS	146	
16	SR	91	
17	SV	100	
18	SW	92	
19	SY	58	
20	SZ	62	
21	Sc	25	
22	Sb	36	
23	SU	98	
24	SX	50	
25	SC	195	
26	SG	143	
27	SH	130	
28	SN	48	
29	ST	82	
30	S3	11	
31	S2	75	
32	S1	1743	
33	L1	3352	

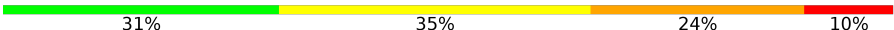



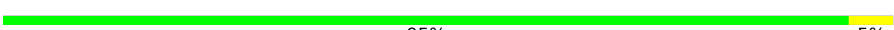





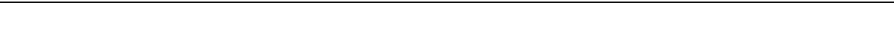

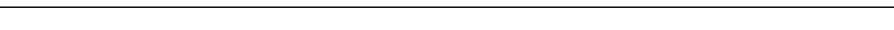
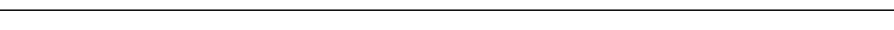





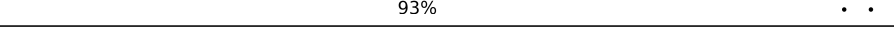





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Mol	Chain	Length	Quality of chain
34	L3	120	
35	L2	159	
36	LA	216	
37	LB	255	
38	LE	170	
39	LF	190	
40	LH	201	
41	LM	140	
42	LP	194	
43	LO	144	
44	LR	163	
45	LQ	304	
46	LT	189	
47	LU	164	
48	LV	171	
49	LX	122	
50	LZ	75	
51	LY	130	
52	Lb	73	
53	Ld	23	
54	Lf	112	
55	Lg	120	
56	Lh	133	
57	Li	94	
58	Ln	69	

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Mol	Chain	Length	Quality of chain
59	Lo	51	
60	Lr	105	
61	Lq	25	
62	Lx	20	
62	Ly	20	
63	Lz	14	
64	LG	219	
65	LL	182	
66	LN	134	
67	LS	167	
68	LW	108	
69	La	99	
70	Li	119	
71	Lj	104	
72	Lk	77	
73	Lp	41	
74	LJ	128	
75	Lt	58	
75	Lu	58	
76	Lv	59	
76	Lw	59	
77	Lc	124	
78	Le	244	
79	Ls	262	
80	LC	389	

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Mol	Chain	Length	Quality of chain
81	LD	372	<div><div></div><div>52%</div><div>29%</div><div>10%</div><div>9%</div></div>
82	LK	206	<div><div></div><div>59%</div><div>23%</div><div>13%</div><div></div></div>
83	Lm	92	<div><div></div><div>71%</div><div>18%</div><div>10%</div><div></div></div>
84	LI	184	<div><div></div><div>68%</div><div>20%</div><div>9%</div><div></div></div>

2 Entry composition

There are 84 unique types of molecules in this entry. The entry contains 195694 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called G protein beta subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	Sa	380	Total	C	N	O	S	0	0
			2842	1758	512	553	19		

- Molecule 2 is a protein called 40S ribosomal protein SA.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	SA	260	Total	C	N	O	S	0	0
			1946	1220	349	367	10		

- Molecule 3 is a protein called Putative 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	SB	208	Total	C	N	O	S	0	0
			1539	964	288	279	8		

- Molecule 4 is a protein called 40S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	SD	200	Total	C	N	O	S	0	0
			1607	1030	290	283	4		

- Molecule 5 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	SE	263	Total	C	N	O	S	0	0
			2028	1283	385	352	8		

- Molecule 6 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	SF	191	Total	C	N	O	S	0	0
			1485	925	281	272	7		

- Molecule 7 is a protein called 40S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	SI	126	Total	C	N	O	S	0	0
			1017	648	195	170	4		

- Molecule 8 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	SJ	128	Total	C	N	O	S	0	0
			887	541	171	171	4		

- Molecule 9 is a protein called 40S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	SK	119	Total	C	N	O	S	0	0
			830	508	159	159	4		

- Molecule 10 is a protein called 40S ribosomal protein S23.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	SL	142	Total	C	N	O	S	0	0
			952	576	197	175	4		

- Molecule 11 is a protein called 40S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	SM	152	Total	C	N	O	S	0	0
			1167	722	233	206	6		

- Molecule 12 is a protein called 40S ribosomal protein S13-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	SO	121	Total	C	N	O	S	0	0
			977	627	180	167	3		

- Molecule 13 is a protein called 40S ribosomal protein S17-4.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	SQ	141	Total	C	N	O	S	0	0
			1129	699	214	210	6		

- Molecule 14 is a protein called 40S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	SP	85	Total	C	N	O	S	0	0
			639	399	130	107	3		

- Molecule 15 is a protein called 40S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	SS	146	Total	C	N	O	S	0	0
			1155	726	218	207	4		

- Molecule 16 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	SR	91	Total	C	N	O	S	0	0
			711	457	130	120	4		

- Molecule 17 is a protein called 40S ribosomal protein S25.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	SV	100	Total	C	N	O	S	0	0
			740	458	142	140			

- Molecule 18 is a protein called 40S WHEAT GERM RIBOSOME1.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	SW	92	Total	C	N	O	S	0	0
			460	276	92	92			

- Molecule 19 is a protein called 40S ribosomal protein S28.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	SY	58	Total	C	N	O	S	0	0
			442	274	83	82	3		

- Molecule 20 is a protein called 40S ribosomal protein S30.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	SZ	62	Total	C	N	O	S	0	0
			469	289	105	73	2		

- Molecule 21 is a protein called Unknown 40S wheat germ ribosome protein 2.

Mol	Chain	Residues	Atoms				AltConf	Trace
21	Sc	25	Total	C	N	O	0	0
			126	75	25	26		

- Molecule 22 is a protein called Unknown 40S wheat germ ribosome protein 3.

Mol	Chain	Residues	Atoms				AltConf	Trace
22	Sb	36	Total	C	N	O	0	0
			181	108	36	37		

- Molecule 23 is a protein called Unknown 40S wheat germ ribosome protein 3.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	SU	98	Total	C	N	O	S	0	0
			732	466	142	123	1		

- Molecule 24 is a protein called 40S ribosomal protein S27.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	SX	50	Total	C	N	O	S	0	0
			375	235	65	68	7		

- Molecule 25 is a protein called 40S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	SC	195	Total	C	N	O	S	0	0
			1535	958	307	265	5		

- Molecule 26 is a protein called Unknown 40S wheat germ ribosome protein 4.

Mol	Chain	Residues	Atoms				AltConf	Trace
26	SG	143	Total	C	N	O	0	0
			716	429	143	144		

- Molecule 27 is a protein called Ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	SH	130	Total	C	N	O	S	0	0
			1042	667	189	181	5		

- Molecule 28 is a protein called 40S ribosomal protein S29.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	SN	48	Total	C	N	O	S	0	0
			313	184	67	56	6		

- Molecule 29 is a protein called 40S ribosomal protein S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	ST	82	Total	C	N	O	S	0	0
			650	400	121	126	3		

- Molecule 30 is a RNA chain called 40S WHEAT GERM RIBOSOME protein 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	S3	11	Total	C	N	O	P	0	0
			236	106	45	74	11		

- Molecule 31 is a RNA chain called 40S rRNA 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	S2	75	Total	C	N	O	P	0	0
			1599	712	280	532	75		

- Molecule 32 is a RNA chain called Triticum aestivum 18S ribosomal RNA gene.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	S1	1743	Total	C	N	O	P	0	11
			33897	14994	5742	11418	1743		

- Molecule 33 is a RNA chain called 26S ribosomal RNA gene.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	L1	3352	Total	C	N	O	P	0	39
			69592	30953	12564	22725	3350		

- Molecule 34 is a RNA chain called Wheat 5S DNA short repeating unit.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	L3	120	Total	C	N	O	P	0	0
			2565	1144	461	840	120		

- Molecule 35 is a RNA chain called Triticum aestivum E-2055 internal transcribed spacer 1, partial sequence; 5.8S ribosomal RNA gene, complete sequence; and internal transcribed spacer 2, partial sequence.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	L2	159	Total	C	N	O	P	0	0
			3192	1415	555	1063	159		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
L2	136	G	C	conflict	GB 17016972

- Molecule 36 is a protein called Ribosomal protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	LA	216	Total	C	N	O	S	0	0
			1718	1092	309	304	13		

- Molecule 37 is a protein called 60S ribosomal protein L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	LB	255	Total	C	N	O	S	0	0
			1933	1200	398	326	9		

- Molecule 38 is a protein called Ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	LE	170	Total	C	N	O	S	0	0
			1376	867	256	244	9		

- Molecule 39 is a protein called 60S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	LF	190	Total	C	N	O	S	0	0
			1500	947	270	277	6		

- Molecule 40 is a protein called 60S ribosomal protein L7a.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	LH	201	Total	C	N	O	S	0	0
			1564	996	289	273	6		

- Molecule 41 is a protein called Ribosomal Pr 117.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	LM	140	Total	C	N	O	S	0	0
			1020	640	192	179	9		

- Molecule 42 is a protein called Ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	LP	194	Total	C	N	O	S	0	0
			1630	1027	342	257	4		

- Molecule 43 is a protein called 60S ribosomal protein L27a-3.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	LO	144	Total	C	N	O	S	0	0
			1086	691	217	173	5		

- Molecule 44 is a protein called 60S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	LR	163	Total	C	N	O	S	0	0
			1284	810	248	219	7		

- Molecule 45 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	LQ	304	Total	C	N	O	S	0	0
			2395	1497	430	461	7		

- Molecule 46 is a protein called Ribosomal protein L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	LT	189	Total	C	N	O	S	0	0
			1569	972	330	257	10		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
LT	184	GLY	UNK	variant	UNP Q7XY20

- Molecule 47 is a protein called 60S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	LU	164	Total	C	N	O	S	0	0
			1266	789	250	225	2		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
LU	65	TRP	CYS	conflict	UNP W5EIT2

- Molecule 48 is a protein called 60S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	LV	171	Total	C	N	O	S	0	0
			1335	826	266	238	5		

- Molecule 49 is a protein called 60S ribosomal protein L23a.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	LX	122	Total	C	N	O	S	0	0
			987	634	178	173	2		

- Molecule 50 is a protein called 60S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	LZ	75	Total	C	N	O	S	0	0
			578	366	115	94	3		

- Molecule 51 is a protein called 60S ribosomal protein L26.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	LY	130	Total	C	N	O	S	0	0
			1048	647	220	178	3		

- Molecule 52 is a protein called 60S ribosomal protein l28.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	Lb	73	Total	C	N	O	S	0	0
			576	364	107	103	2		

- Molecule 53 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms				AltConf	Trace
53	Ld	23	Total	C	N	O	0	0
			199	119	41	39		

- Molecule 54 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	Lf	112	Total	C	N	O	S	0	0
			825	516	146	157	6		

- Molecule 55 is a protein called 60S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	Lg	120	Total	C	N	O	S	0	0
			944	585	185	171	3		

- Molecule 56 is a protein called Ribosomal L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	Lh	133	Total	C	N	O	S	0	0
			1089	688	216	179	6		

- Molecule 57 is a protein called Ribosomal protein L37.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	Ll	94	Total	C	N	O	S	0	0
			725	438	158	122	7		

- Molecule 58 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	Ln	69	Total	C	N	O	S	0	0
			547	347	102	96	2		

- Molecule 59 is a protein called Ribosomal protein L39.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	Lo	51	Total	C	N	O	S	0	0
			460	291	100	67	2		

- Molecule 60 is a protein called 60S ribosomal protein L44.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	Lr	105	Total	C	N	O	S	0	0
			838	523	166	143	6		

- Molecule 61 is a protein called Unknown 60S wheat germ ribosome protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	Lq	25	Total	C	N	O	S	0	0
			238	145	62	28	3		

- Molecule 62 is a protein called Unknown 60S wheat germ ribosome protein 2.

Mol	Chain	Residues	Atoms				AltConf	Trace
62	Ly	20	Total	C	N	O	0	0
			101	60	20	21		
62	Lx	20	Total	C	N	O	0	0
			101	60	20	21		

- Molecule 63 is a protein called Unknown 60S wheat germ ribosome protein 3.

Mol	Chain	Residues	Atoms				AltConf	Trace
63	Lz	14	Total	C	N	O	0	0
			71	42	14	15		

- Molecule 64 is a protein called 60S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	LG	219	Total	C	N	O	S	0	0
			1730	1106	314	306	4		

- Molecule 65 is a protein called Unknown 60S wheat germ ribosome protein 5.

Mol	Chain	Residues	Atoms				AltConf	Trace
65	LL	182	Total	C	N	O	0	0
			910	545	182	183		

- Molecule 66 is a protein called Unknown 60S wheat germ ribosome protein 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	LN	134	Total	C	N	O	S	0	0
			1081	690	201	185	5		

- Molecule 67 is a protein called 60S ribosomal protein L18a.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	LS	167	Total	C	N	O	S	0	0
			1419	916	263	233	7		

- Molecule 68 is a protein called 60S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	LW	108	Total	C	N	O	S	0	0
			839	530	152	155	2		

- Molecule 69 is a protein called 60S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	La	99	Total	C	N	O	S	0	0
			732	463	140	126	3		

- Molecule 70 is a protein called Ribosomal protein l34.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	Li	119	Total	C	N	O	S	0	0
			964	606	195	161	2		

- Molecule 71 is a protein called ribosomal protein L35A.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	Lj	104	Total	C	N	O	S	0	0
			797	498	158	138	3		

- Molecule 72 is a protein called 60S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	Lk	77	Total	C	N	O	S	0	0
			613	383	128	100	2		

- Molecule 73 is a protein called Ubiquitin-60S ribosomal protein L40-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	Lp	41	Total	C	N	O	S	0	0
			344	211	75	53	5		

- Molecule 74 is a protein called 60S ribosomal protein L12.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	LJ	128	Total	C	N	O	S	0	0
			959	601	177	177	4		

- Molecule 75 is a protein called Ribosomal protein P1.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	Lt	58	Total	C	N	O	S	0	0
			432	283	69	79	1		
75	Lu	58	Total	C	N	O	S	0	0
			432	283	69	79	1		

- Molecule 76 is a protein called 60S acidic ribosomal protein P2A.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	Lv	59	Total	C	N	O	S	0	0
			441	278	69	90	4		
76	Lw	59	Total	C	N	O	S	0	0
			441	278	69	90	4		

- Molecule 77 is a protein called 60S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	Lc	124	Total	C	N	O		0	0
			1006	632	202	172			

- Molecule 78 is a protein called Ribosomal protein L7.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	Le	244	Total	C	N	O	S	0	0
			1984	1271	368	339	6		

- Molecule 79 is a protein called 60S acidic ribosomal protein P0.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	Ls	262	Total	C	N	O	S	0	0
			1993	1278	330	377	8		

- Molecule 80 is a protein called Ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	LC	389	Total	C	N	O	S	0	0
			3102	1968	578	538	18		

- Molecule 81 is a protein called 60S ribosomal protein L4/L1.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	LD	372	Total	C	N	O	S	0	0
			2866	1802	555	502	7		

- Molecule 82 is a protein called Ribosomal protein L13a.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	LK	206	Total	C	N	O	S	0	0
			1650	1045	320	274	11		

- Molecule 83 is a protein called 60S ribosomal protein L37a, expressed.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	Lm	92	Total	C	N	O	S	0	0
			715	447	137	124	7		

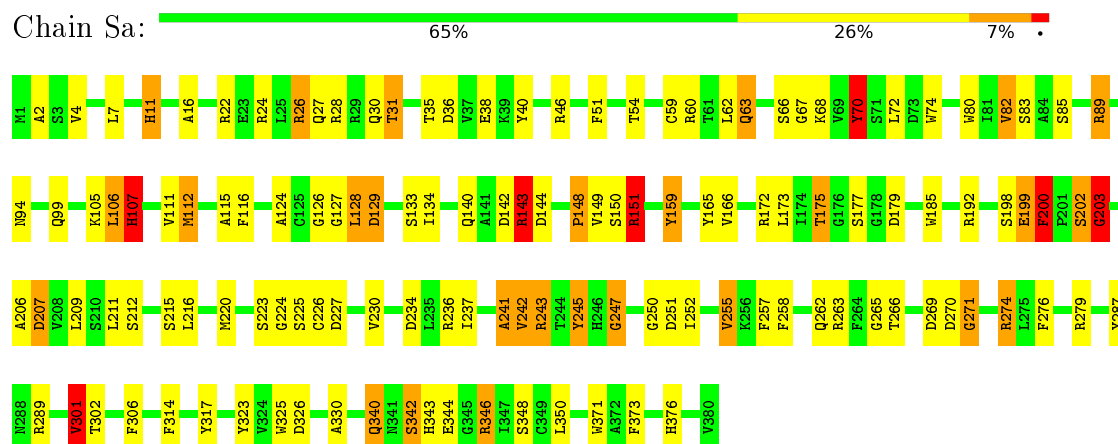
- Molecule 84 is a protein called 60S ribosomal protein L10-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
84	LI	184	Total	C	N	O	S	0	0
			1468	923	288	245	12		

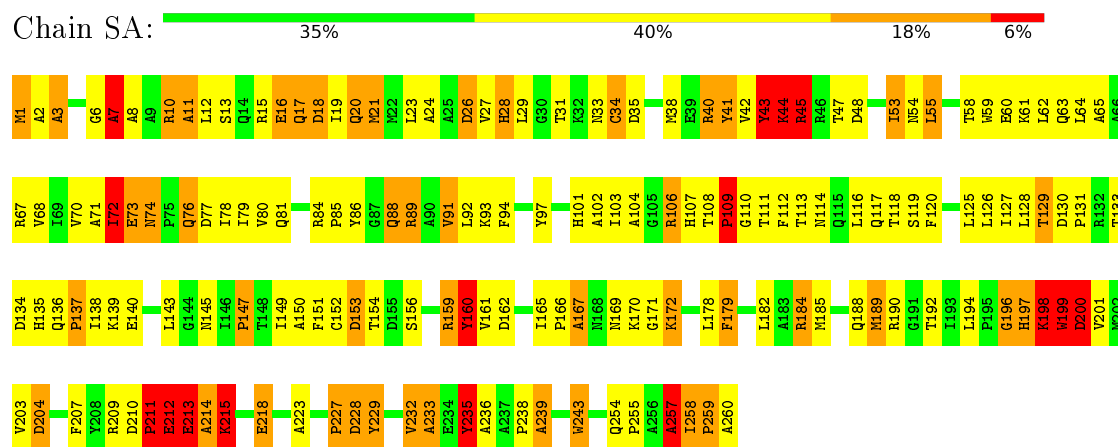
3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

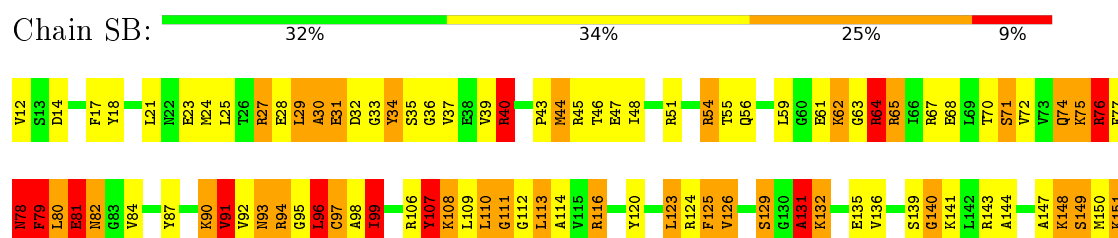
- Molecule 1: G protein beta subunit



- Molecule 2: 40S ribosomal protein SA



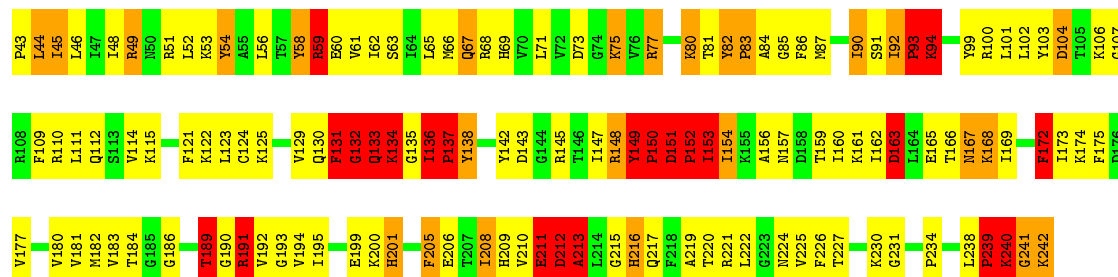
- Molecule 3: Putative 40S ribosomal protein S3





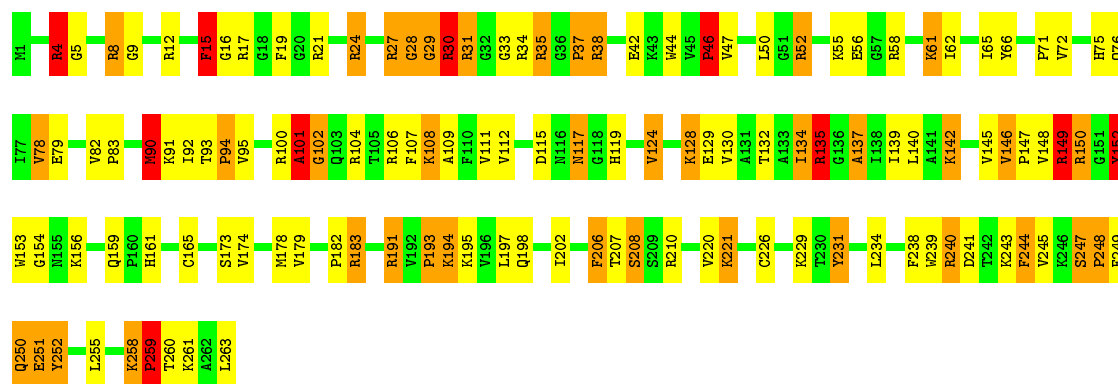
• Molecule 4: 40S ribosomal protein S4

Chain SD: 31% 46% 13% 12%



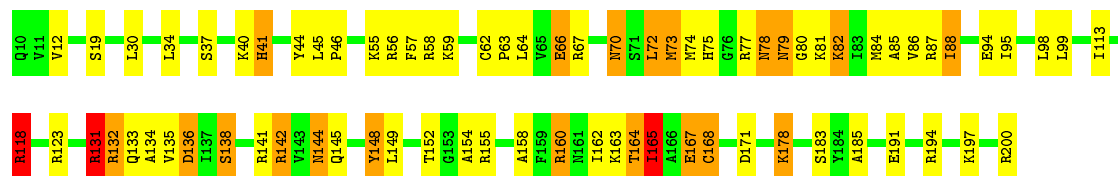
• Molecule 5: 40S ribosomal protein S2

Chain SE: 52% 30% 15%



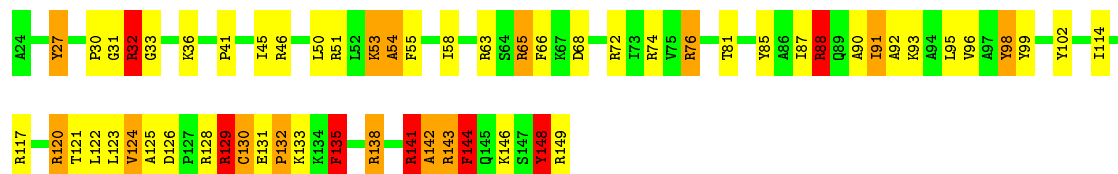
• Molecule 6: 40S ribosomal protein S5

Chain SF: 61% 27% 10%

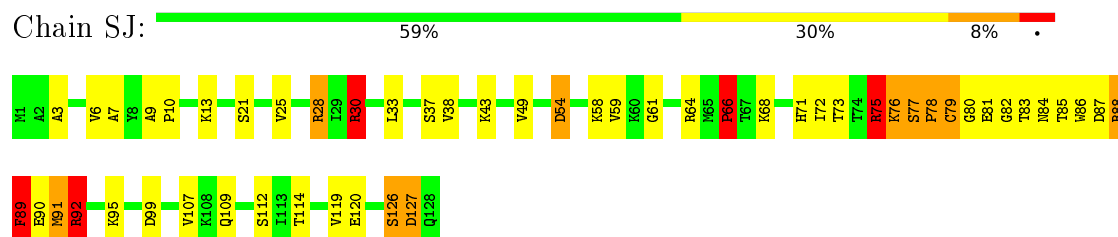


• Molecule 7: 40S ribosomal protein S16

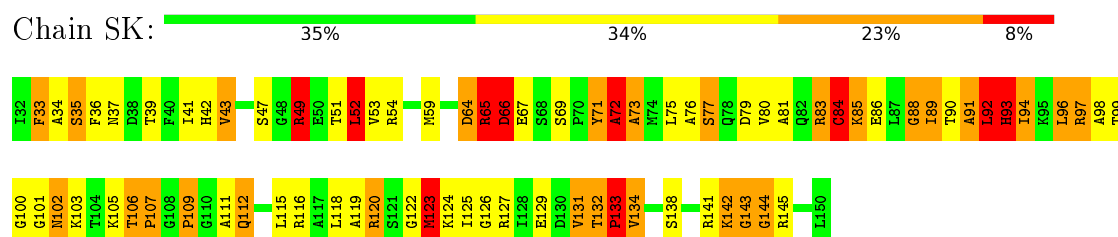
Chain SI: 53% 30% 11% 6%



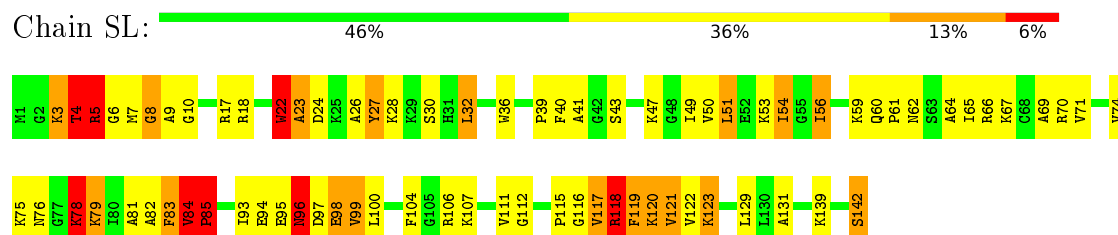
- Molecule 8: 40S ribosomal protein S20



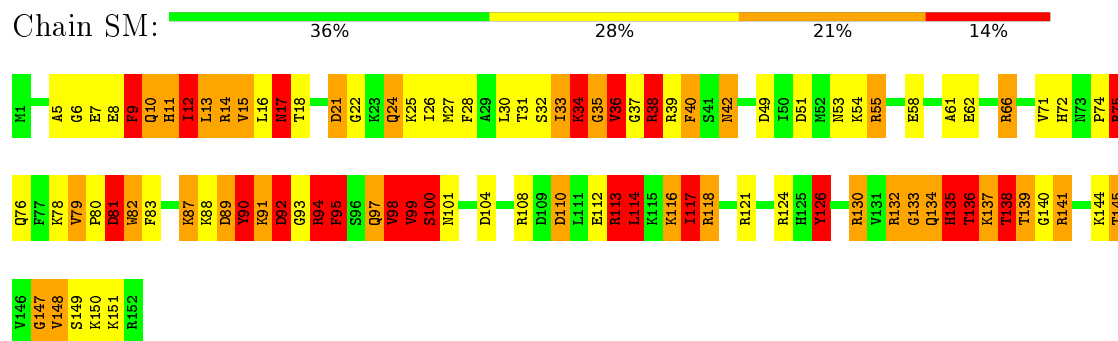
- Molecule 9: 40S ribosomal protein S14



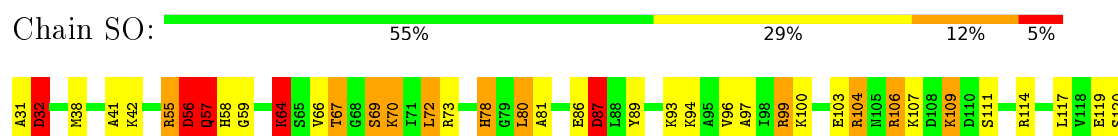
- Molecule 10: 40S ribosomal protein S23

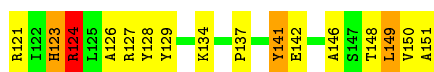


- Molecule 11: 40S ribosomal protein S18



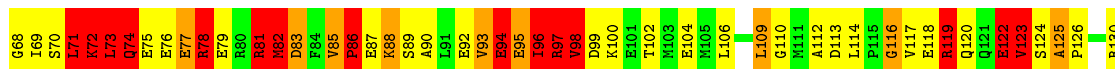
- Molecule 12: 40S ribosomal protein S13-1





- Molecule 13: 40S ribosomal protein S17-4

Chain SQ: 32% 36% 13% 19%



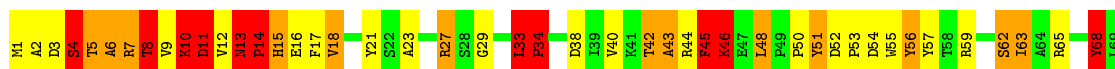
- Molecule 14: 40S ribosomal protein S11

Chain SP: 25% 41% 24% 11%



- Molecule 15: 40S ribosomal protein S19

Chain SS: 47% 27% 16% 10%



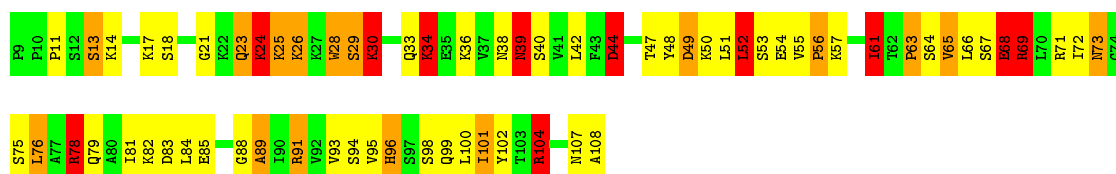
- Molecule 16: 40S ribosomal protein S15

Chain SR: 55% 30% 12%



- Molecule 17: 40S ribosomal protein S25

Chain SV: 33% 40% 16% 11%



- Molecule 18: 40S WHEAT GERM RIBOSOME1

Chain SW: 67% 29% .



- Molecule 19: 40S ribosomal protein S28

Chain SY: 43% 33% 21% .



- Molecule 20: 40S ribosomal protein S30

Chain SZ: 52% 37% 5% 6%



- Molecule 21: Unknown 40S wheat germ ribosome protein 2

Chain Sc: 96% .



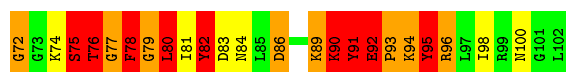
- Molecule 22: Unknown 40S wheat germ ribosome protein 3

Chain Sb: 100%

There are no outlier residues recorded for this chain.

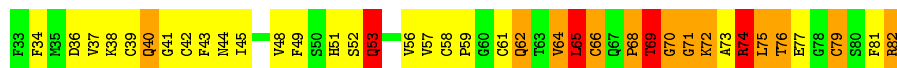
- Molecule 23: Unknown 40S wheat germ ribosome protein 3

Chain SU: 23% 20% 23% 33%



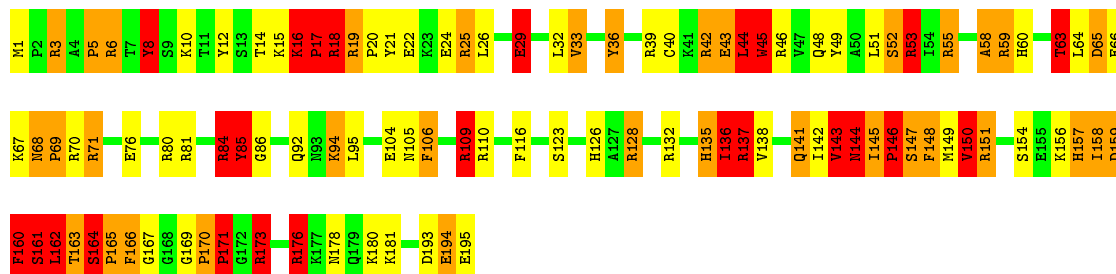
- Molecule 24: 40S ribosomal protein S27

Chain SX: 



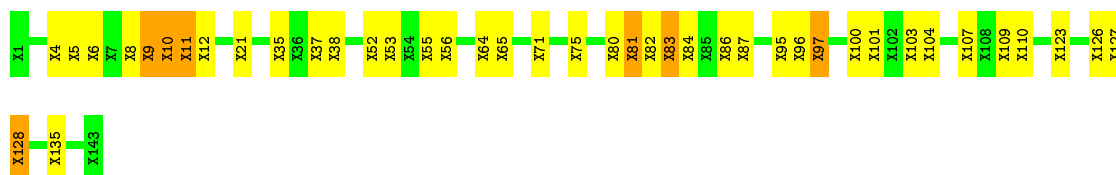
- Molecule 25: 40S ribosomal protein S9

Chain SC: 

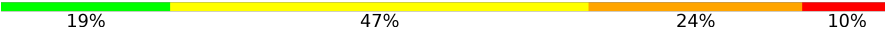


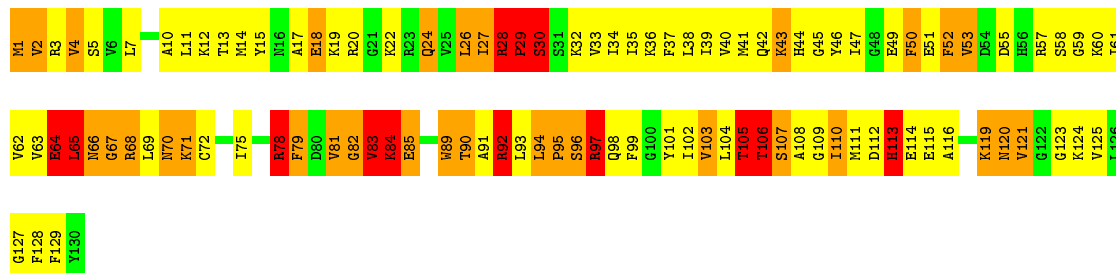
- Molecule 26: Unknown 40S wheat germ ribosome protein 4

Chain SG: 



- Molecule 27: Ribosomal protein S15

Chain SH: 



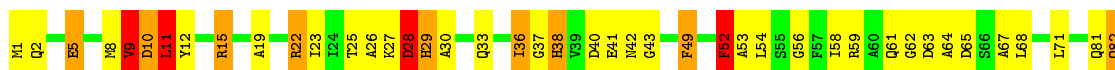
- Molecule 28: 40S ribosomal protein S29

Chain SN: 



- Molecule 29: 40S ribosomal protein S21

Chain ST: 



- Molecule 30: 40S WHEAT GERM RIBOSOME protein 4

Chain S3: 9% 36% 36% 18%



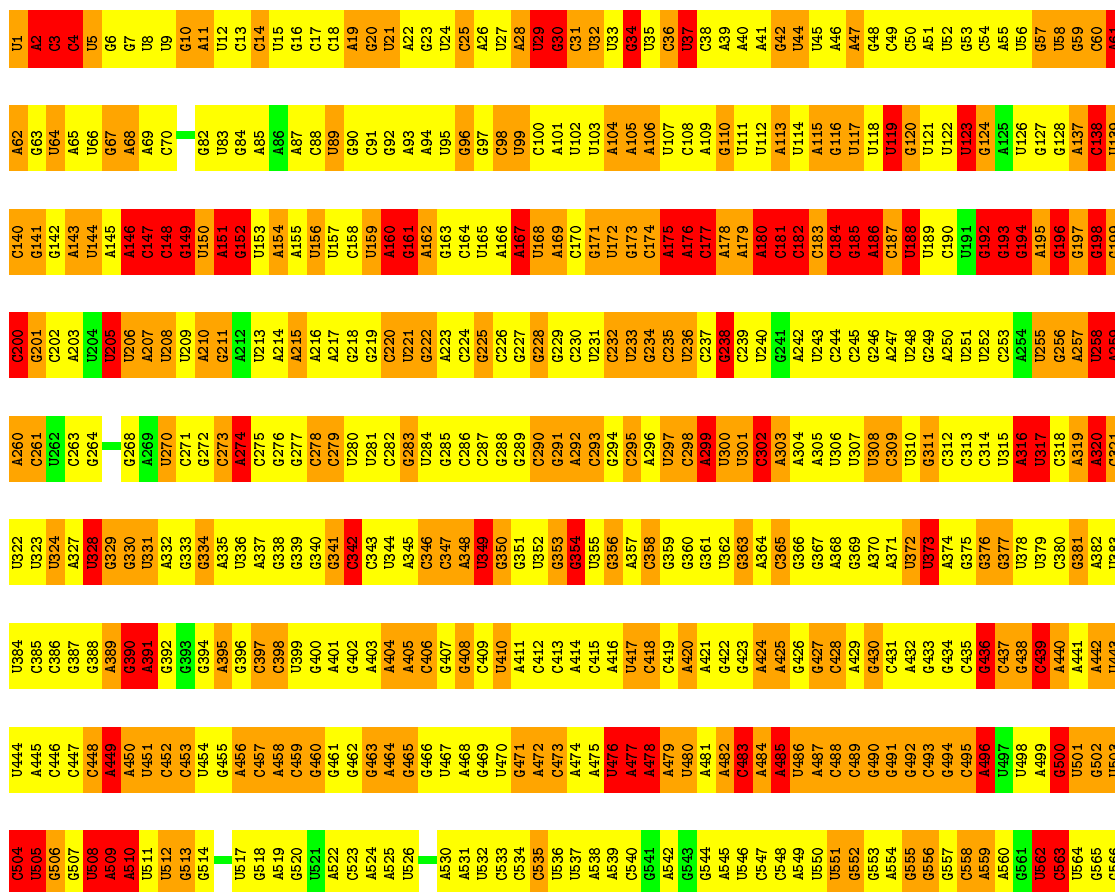
- Molecule 31: 40S rRNA 1

Chain S2: 41% 35% 23%



- Molecule 32: Triticum aestivum 18S ribosomal RNA gene

Chain S1: 7% 47% 35% 11%



U1559	U1426	C1365	U1305	U1244	C1184	G1124	U1063	U1003	G943	G883	U796	C687	A627	U567
U1560	A1427	A1366	U1306	G1245	U1185	U1125	U1064	U1004	A944	G884	A797	U688	G628	G568
G1561	U1428	U1367	U1307	A1246	A1186	C1126	A1065	C1005	A945	C885	C798	C689	C629	C569
C1562	U1429	C1368	G1308	U1187	A1187	G1127	U1066	A1006	A946	A886	A799	G690	U630	C570
A1563	A1430	C1369	U1309	A1248	U1188	C1128	A1067	G1007	G947	U887	U800	A691	C631	A571
A1564	U1431	C1370	G1310	U1249	U1189	A1129	G1068	A1008	C948	U888	U801	C692	G632	G572
U1565	U1432	U1371	U1311	C1250	U1190	A1130	G1069	U1009	A949	C889	A802	C693	U833	C573
U1566	C1433	C1372	G1312	U1251	U1191	A1131	A1070	U1009	U950	C890	G803	C694	A634	A574
G1567	G1434	C1373	G1313	U1252	U1192	G1132	C1071	A1010	U951	U891	A823	C701	G635	A575
U1568	U1435	C1374	U1314	U1253	A1193	C1133	U1072	C1012	U952	A892	U824	U715	U637	C577
U1569	U1436	C1375	U1315	U1254	U1194	C1134	C1073	G1013	G953	U893	U825	U716	G638	G578
G1570	G1437	A1376	A1316	C1255	U1195	G1135	G1074	U1014	C954	U894	G826	A716	G639	G579
G1571	U1438	G1377	A1317	U1256	U1196	A1136	G1075	C1015	C955	U895	C827	G717	G640	G580
U1572	G1439	C1378	U1318	U1257	A1197	A1137	C1076	C1016	A956	C896	G828	C718	A640	G581
C1573	U1440	U1379	U1319	U1258	A1198	A1138	C1077	U1017	A957	A897	G829	C719	C641	G582
U1574	A1441	A1380	C1320	U1259	A1199	C1139	G1078	A1018	G958	U898	U830	U720	C642	U583
U1575	A1442	C1381	C1321	U1260	A1200	U1140	G1079	G1019	G959	A899	C831	U721	U643	A583
C1576	U1443	G1382	G1322	U1261	C1201	U1141	C1080	U1020	A960	G900	C832	U722	U644	A584
A1577	G1444	U1383	U1323	C1262	G1202	A1142	A1081	C1021	U961	U901	U833	U723	G645	U585
G1578	C1445	U1384	U1324	U1263	G1203	A1143	C1082	U1022	G962	C902	A834	U724	G646	U586
C1579	U1446	C1385	A1325	U1264	G1204	A1144	C1083	C1023	U963	C903	U835	G731	G647	C587
U1580	C1447	U1386	A1326	U1265	G1205	G1145	U1084	A1024	U964	G904	G732	U733	C648	C588
A1581	U1448	C1387	C1327	U1266	A1206	G1146	U1085	A1025	U965	A905	U836	U734	C649	A589
G1582	U1449	A1388	G1328	G1267	A1207	A1147	A1086	C1026	U966	G906	U838	C734	G650	G590
G1583	A1450	G1389	A1329	U1268	A1208	A1148	U1088	C1027	C967	G907	G839	C735	G651	C591
A1584	U1452	A1390	U1330	U1270	C1209	U1149	A1089	A1028	A968	U908	U840	U736	G652	U592
U1585	U1453	C1391	C1331	G1271	U1210	U1150	G1090	U1029	U969	G909	U841	U740	U653	C593
U1586	U1454	G1392	G1332	G1272	U1211	G1151	A1091	A1030	U970	A910	G842	U741	C654	C594
G1587	U1455	C1393	A1333	U1273	A1212	A1152	A1092	A1031	A971	A911	G843	C741	G655	A595
C1588	U1456	A1394	G1334	G1274	C1213	G1153	A1093	C1032	A972	G912	C844	U742	G656	A596
G1589	U1457	C1395	A1335	G1275	C1214	G1154	U1094	C1033	U973	U913	C845	U743	C657	U597
U1590	U1458	U1396	C1336	U1276	A1215	G1155	C1095	G1034	C974	U914	U846	U744	C658	A598
A1591	U1459	A1397	C1337	G1277	A1216	A1156	A1096	A1035	A975	C915	U847	U745	G659	A599
U1592	G1460	U1398	C1338	C1278	U1217	A1157	A1097	U1036	A976	U916	C848	U746	G660	C600
G1593	U1461	C1399	C1339	A1279	U1218	G1158	A1098	G1037	G977	U917	G849	A768	U661	G601
A1594	C1462	G1400	A1340	U1280	C1219	G1159	G1099	C1038	A978	G918	G850	G769	C662	G602
U1595	G1463	C1401	G1341	G1281	C1220	G1160	U1100	C1039	A979	G919	G851	U770	C663	A603
U1596	C1464	C1402	C1342	G1282	A1221	C1161	C1101	G1040	C980	A920	A852	G771	G664	U604
U1597	A1466	G1403	C1343	U1283	G1222	A1162	U1102	A1041	G981	U921	U853	C772	C665	A605
C1598	C1467	U1404	U1344	C1284	A1223	C1163	U1103	C1042	A982	U922	G854	U773	C666	U606
G1599	G1468	U1405	G1345	G1285	C1224	C1164	U1104	C1043	A983	U923	G855	C774	U667	U607
U1600	C1469	A1406	C1346	U1286	A1225	A1165	G1105	A1044	A984	A924	G856	A775	C668	U608
A1601	U1470	A1407	U1347	U1287	U1226	C1166	G1106	G1045	G985	U925	A857	A776	A669	A609
G1602	A1348	C1408	A1348	U1288	A1227	C1167	G1107	G1046	U986	G926	G858	A777	G670	A610
U1603	U1349	G1409	U1349	U1289	G1228	A1168	U1108	G1047	U987	A927	U859	C778	G671	G611
C1604	C1472	C1410	C1350	U1290	G1229	G1169	U1109	A1048	G988	A928	A860	C779	G672	U612
A1605	U1473	C1411	U1351	A1291	A1230	G1170	U1049	U1049	G989	A929	A861	U783	C673	U613
U1606	A1474	A1412	A1352	G1292	A1231	C1171	C1110	G1050	G990	G930	U862	C784	G674	G614
G1607	C1475	C1413	G1353	U1293	G1232	A1172	G1111	G1051	G991	A931	G871	A785	A675	U615
U1608	U1476	U1294	C1354	U1294	G1233	U1173	G1112	G1052	G992	C932	G872	U786	G676	U616
G1609	A1477	G1414	U1355	U1295	A1234	G1174	G1113	C1053	C993	G933	G873	C787	C677	G617
U1610	U1478	A1415	G1296	G1296	U1235	G1175	G1114	G1054	U994	A934	A874	U788	A678	G618
C1611	U1479	A1416	C1356	U1297	U1236	A1176	G1115	G1055	C995	A935	C875	C789	C679	A619
U1612	U1480	C1417	U1357	U1297	U1237	G1177	G1116	A1056	G996	C936	G876	C790	C680	G620
G1613	A1481	G1418	C1358	G1298	U1238	C1178	A1118	U1057	A997	A937	G877	U790	G681	U621
A1614	U1482	U1419	C1359	U1299	A1238	C1179	A1119	G1058	A998	A938	U878	C791	C682	G622
G1615	G1483	U1421	G1360	A1300	C1239	C1179	G1119	U1059	G999	C939	C879	U792	C683	A623
U1616	U1484	G1422	G1361	G1301	A1240	U1180	U1120	U1060	G999	U940	G880	G793	C684	A624
U1617	U1485	A1423	A1362	C1302	G1241	G1181	U1121	U1061	C1001	G941	G881	U794	U685	A625
G1618	U1486	G1425	G1363	A1242	A1242	C1182	U1122	C1062	C1002	G942	G882	A795	A686	A626

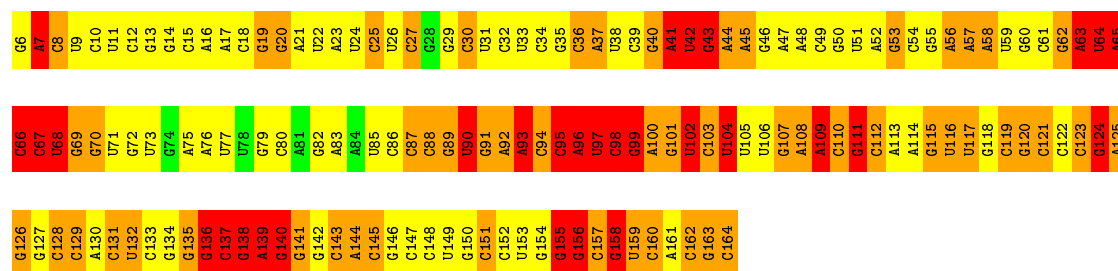






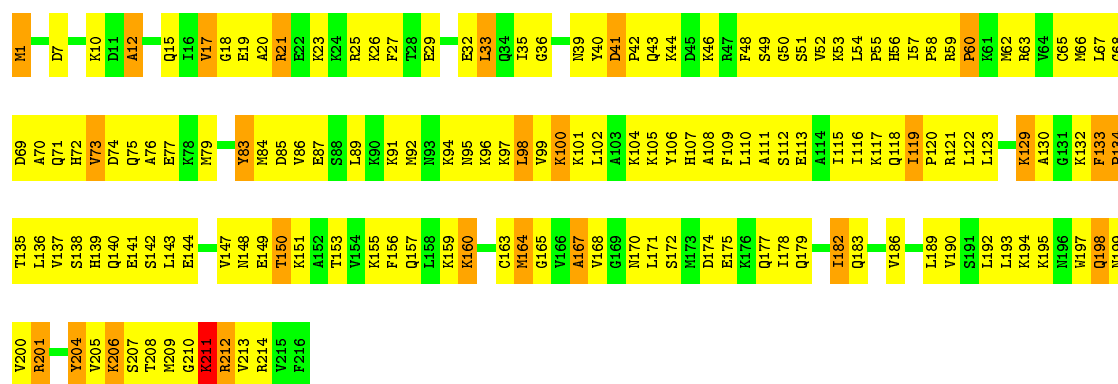


Chain L2: 




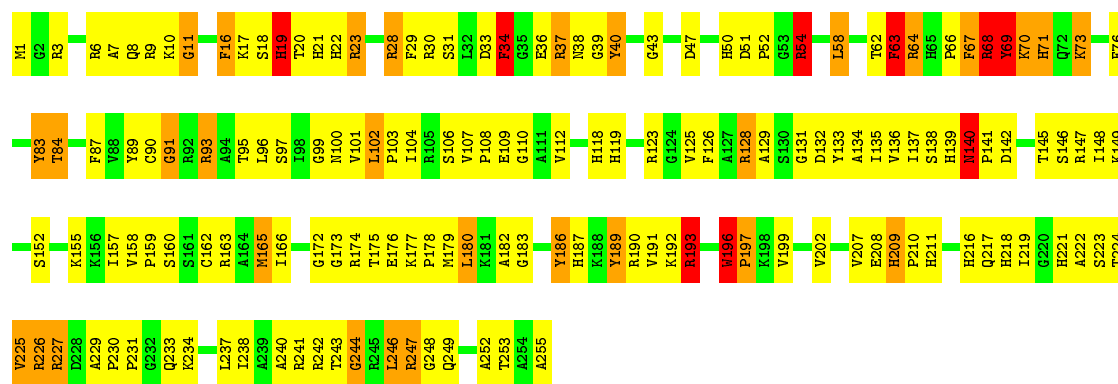
• Molecule 36: Ribosomal protein

Chain LA: 



• Molecule 37: 60S ribosomal protein L2

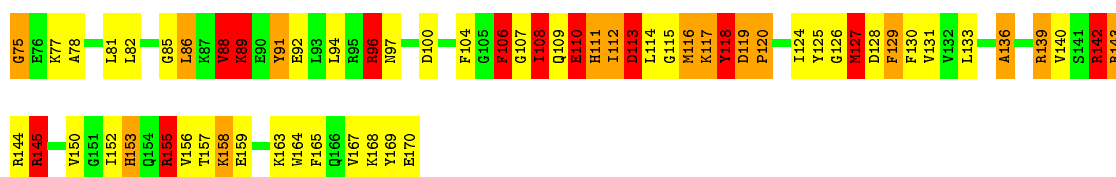
Chain LB: 



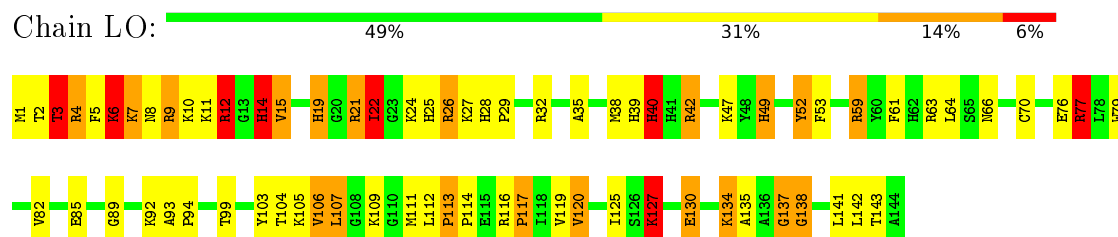
• Molecule 38: Ribosomal protein L11

Chain LE: 

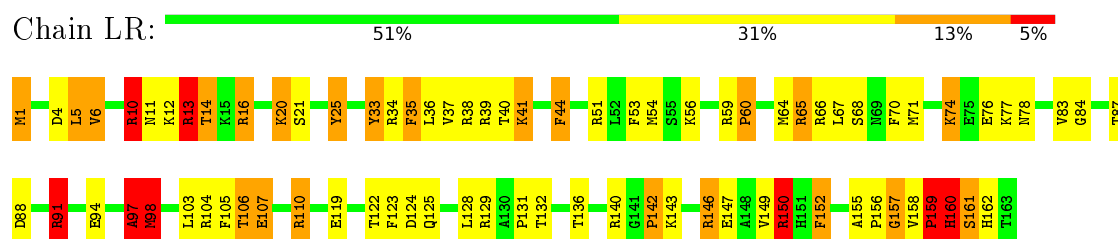




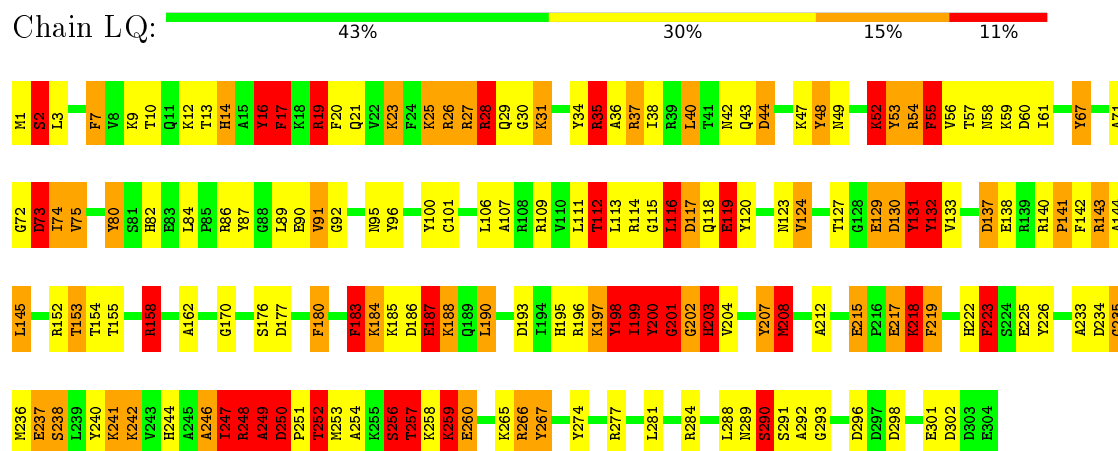
- Molecule 43: 60S ribosomal protein L27a-3



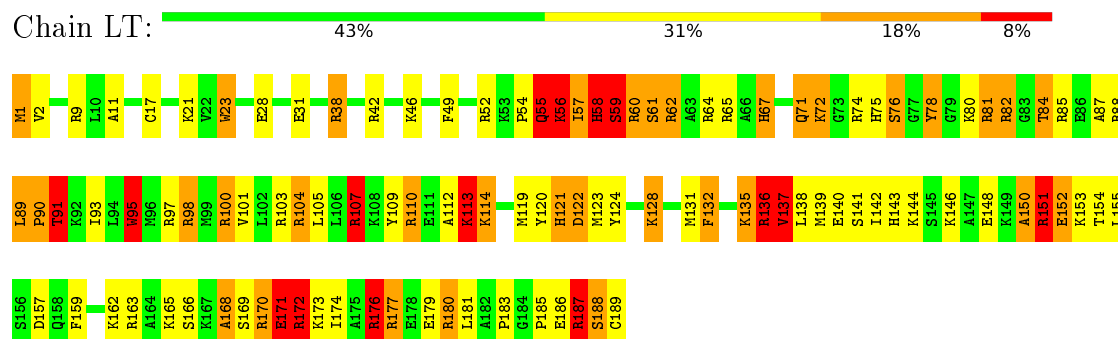
- Molecule 44: 60S ribosomal protein L18



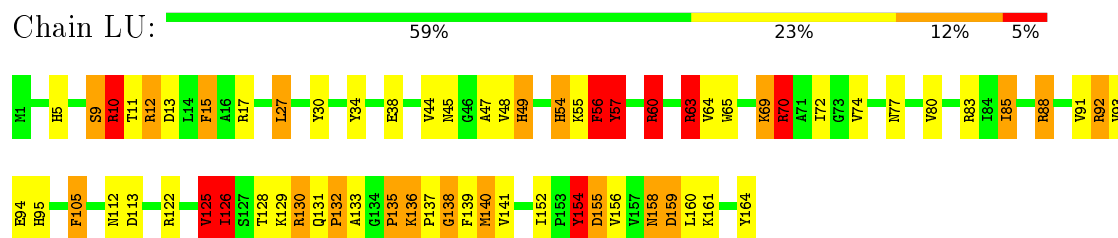
- Molecule 45: 60S ribosomal protein L5



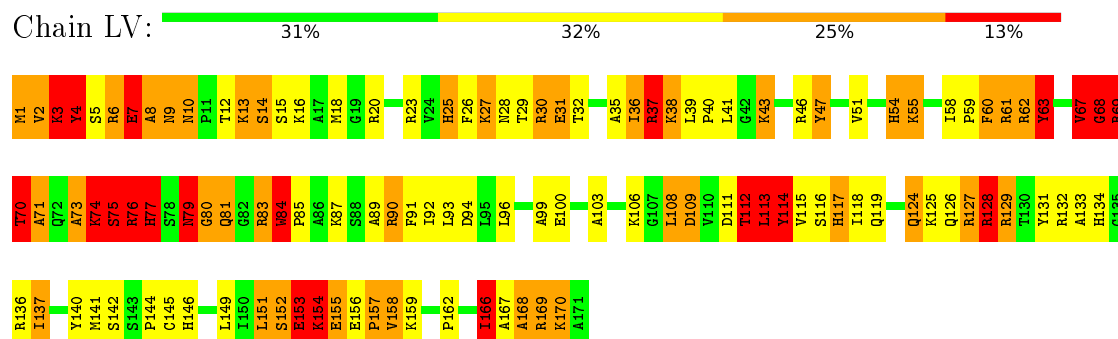
- Molecule 46: Ribosomal protein L19



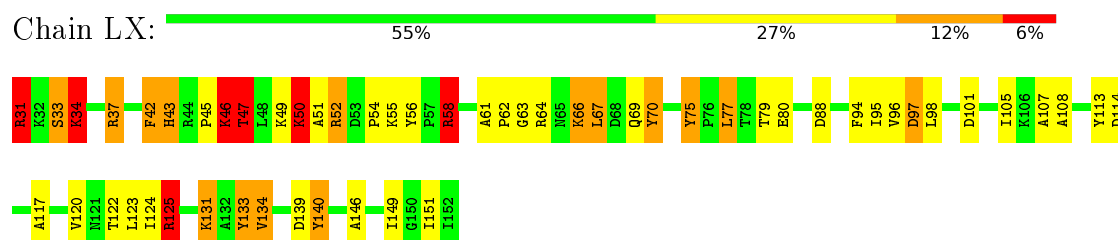
- Molecule 47: 60S ribosomal protein L21



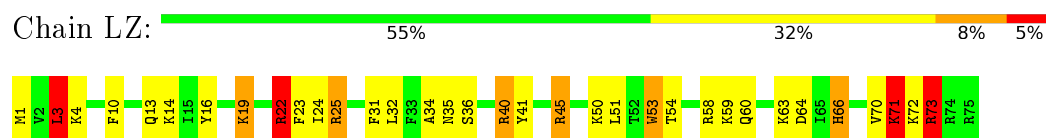
• Molecule 48: 60S ribosomal protein L17



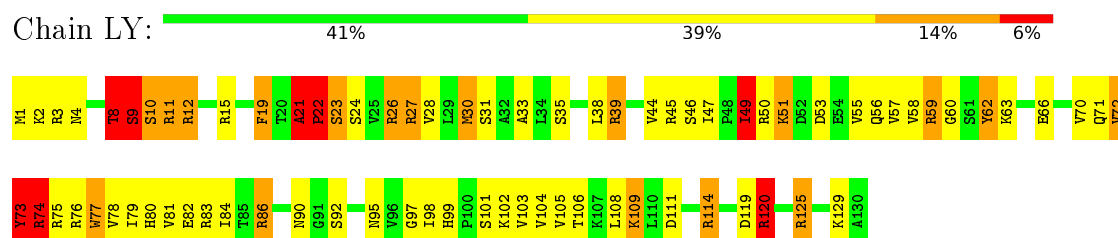
• Molecule 49: 60S ribosomal protein L23a



• Molecule 50: 60S ribosomal protein L24

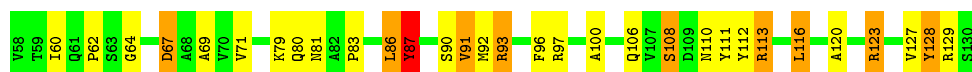


• Molecule 51: 60S ribosomal protein L26



• Molecule 52: 60S ribosomal protein l28





- Molecule 53: 60S ribosomal protein L29

Chain Ld: 83% 9% 9%



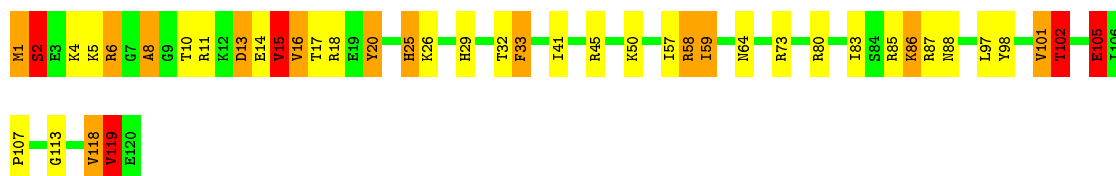
- Molecule 54: 60S ribosomal protein L30

Chain Lf: 71% 19% 7%



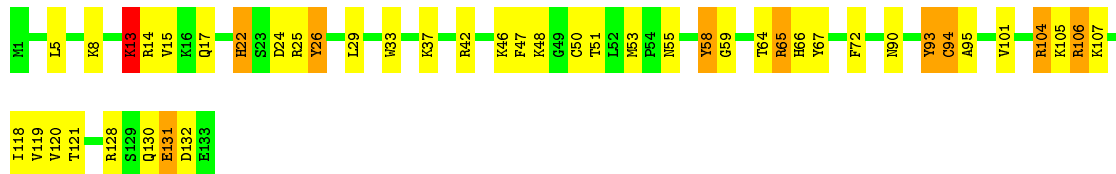
- Molecule 55: 60S ribosomal protein L31

Chain Lg: 64% 21% 11%



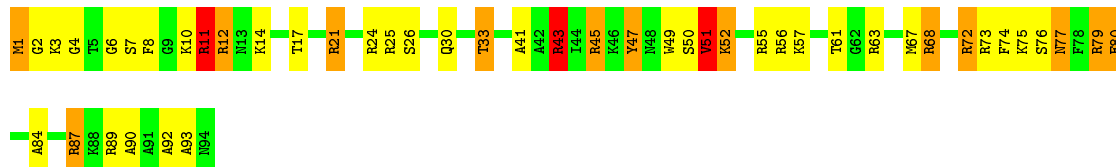
- Molecule 56: Ribosomal L32

Chain Lh: 66% 26% 7%



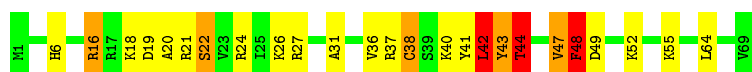
- Molecule 57: Ribosomal protein L37

Chain Ll: 50% 33% 14%

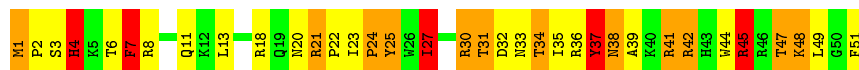


- Molecule 58: 60S ribosomal protein L38

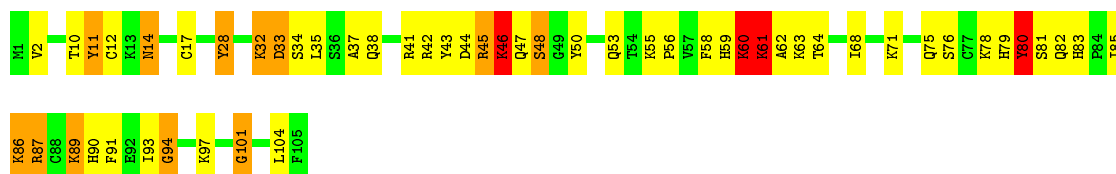
Chain Ln: 64% 25% 7%



- Molecule 59: Ribosomal protein L39



- Molecule 60: 60S ribosomal protein L44



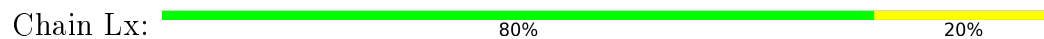
- Molecule 61: Unknown 60S wheat germ ribosome protein 1



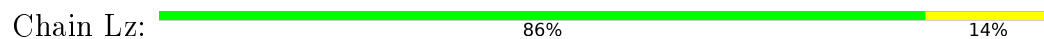
- Molecule 62: Unknown 60S wheat germ ribosome protein 2



- Molecule 62: Unknown 60S wheat germ ribosome protein 2

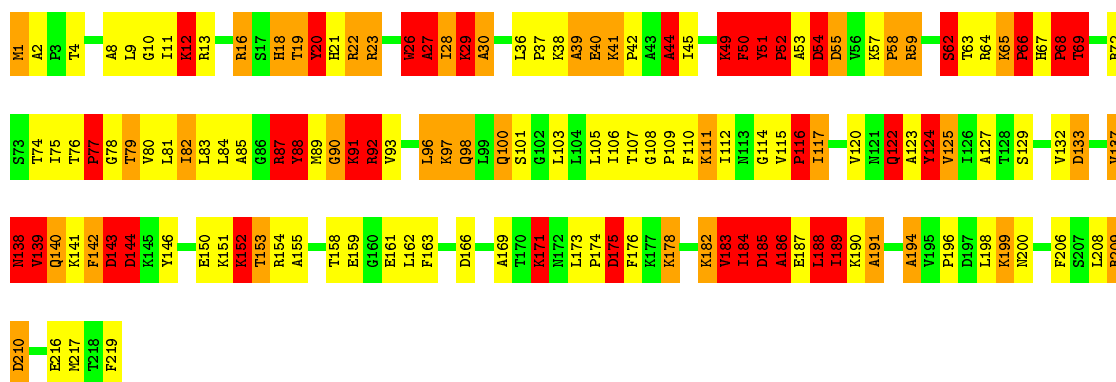


- Molecule 63: Unknown 60S wheat germ ribosome protein 3



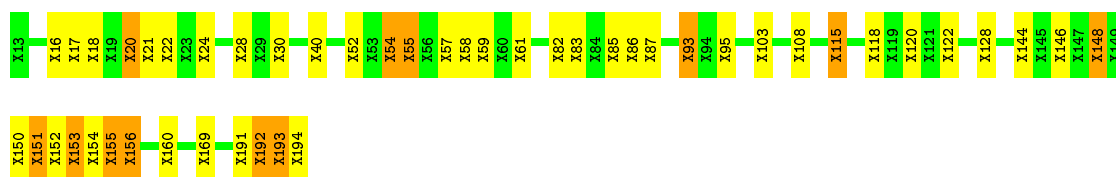
- Molecule 64: 60S ribosomal protein L6





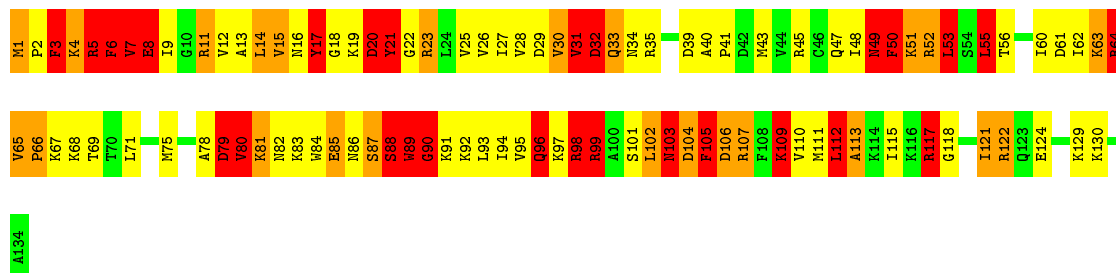
- Molecule 65: Unknown 60S wheat germ ribosome protein 5

Chain LL: 74% 19% 7%



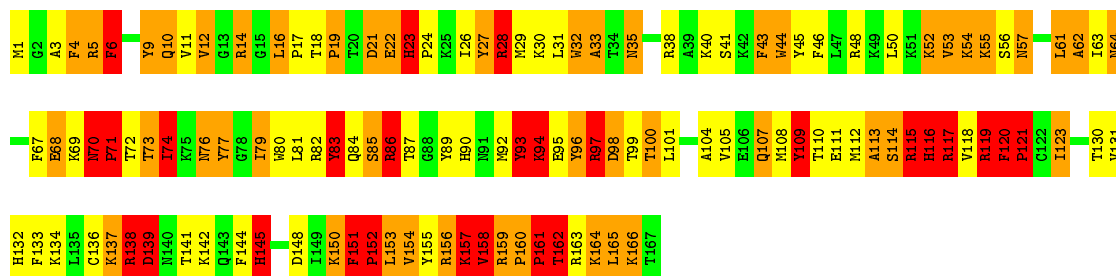
- Molecule 66: Unknown 60S wheat germ ribosome protein 6

Chain LN: 25% 37% 17% 21%



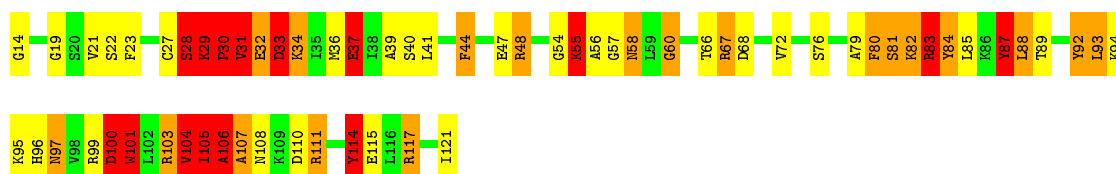
- Molecule 67: 60S ribosomal protein L18a

Chain LS: 25% 31% 28% 16%



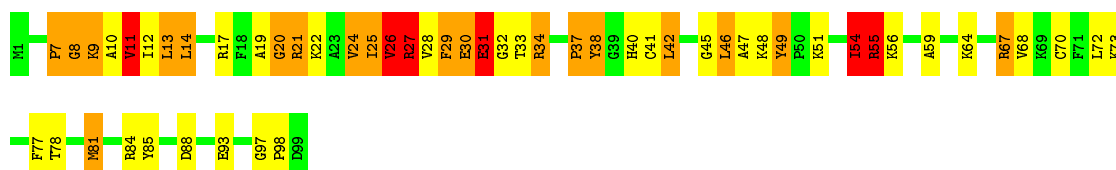
- Molecule 68: 60S ribosomal protein L22

Chain LW: 42% 27% 18% 14%



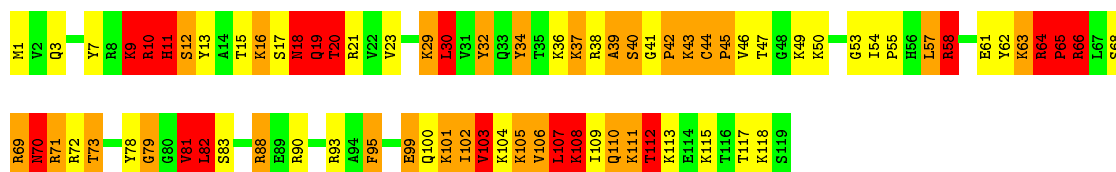
- Molecule 69: 60S ribosomal protein L27

Chain La: 45% 29% 19% 6%



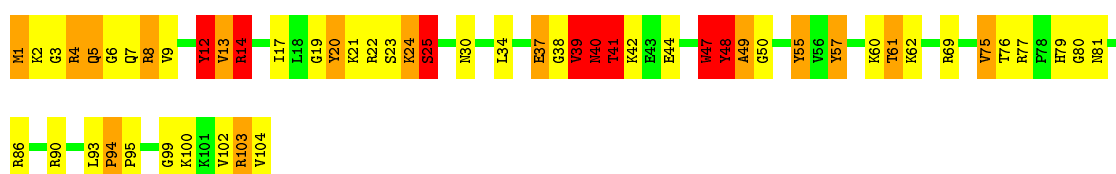
- Molecule 70: Ribosomal protein l34

Chain Li: 34% 28% 23% 15%



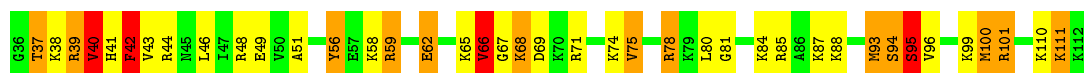
- Molecule 71: ribosomal protein L35A

Chain Lj: 47% 31% 14% 8%



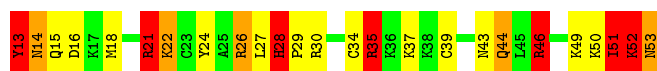
- Molecule 72: 60S ribosomal protein L36

Chain Lk: 48% 30% 17% 5%

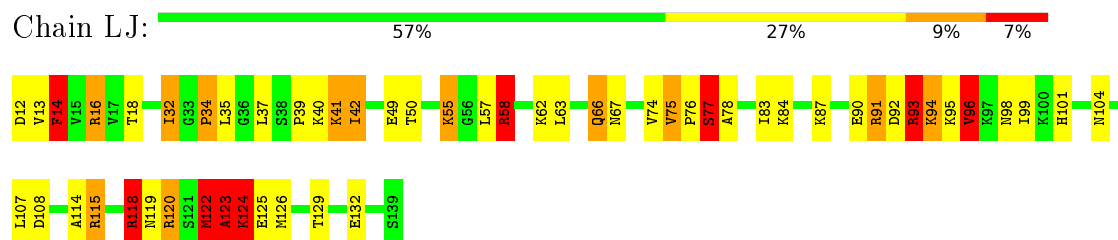


- Molecule 73: Ubiquitin-60S ribosomal protein L40-1

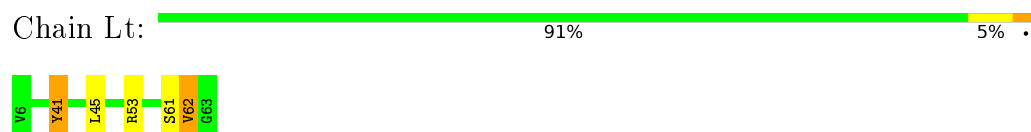
Chain Lp: 39% 32% 12% 17%



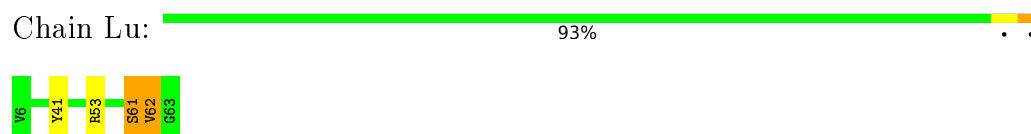
- Molecule 74: 60S ribosomal protein L12



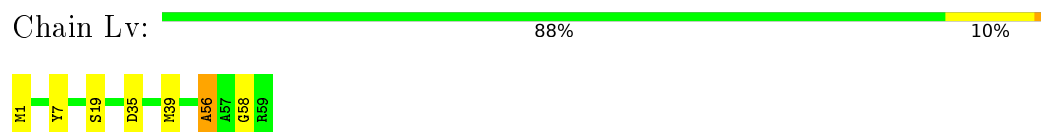
- Molecule 75: Ribosomal protein P1



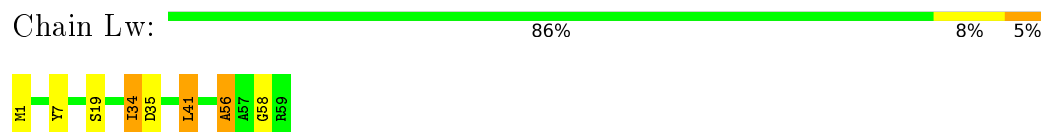
- Molecule 75: Ribosomal protein P1



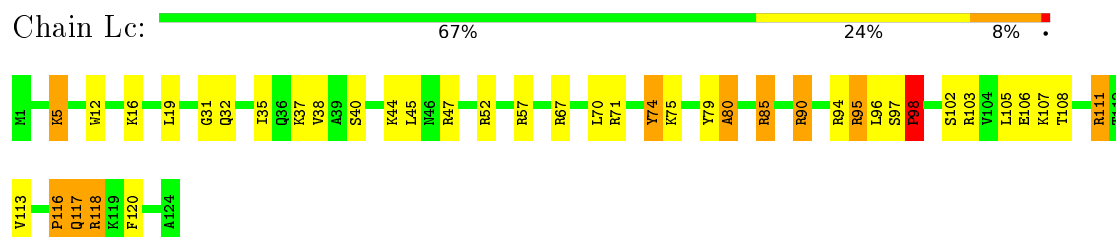
- Molecule 76: 60S acidic ribosomal protein P2A



- Molecule 76: 60S acidic ribosomal protein P2A

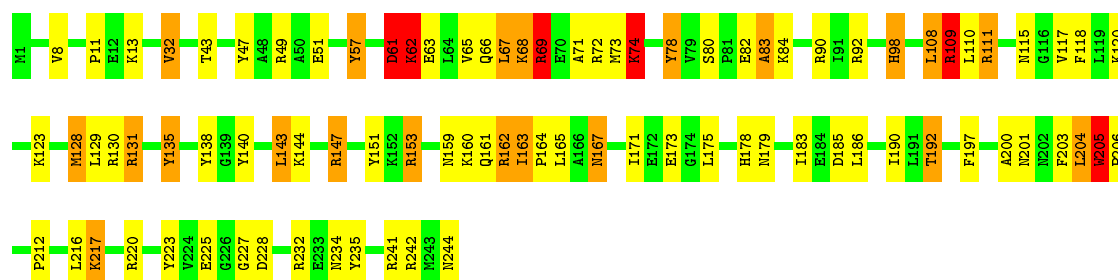


- Molecule 77: 60S ribosomal protein L35



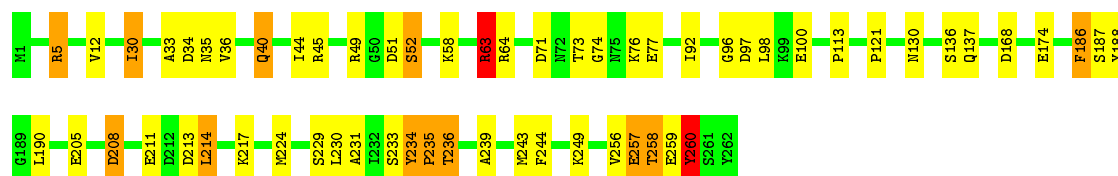
- Molecule 78: Ribosomal protein L7





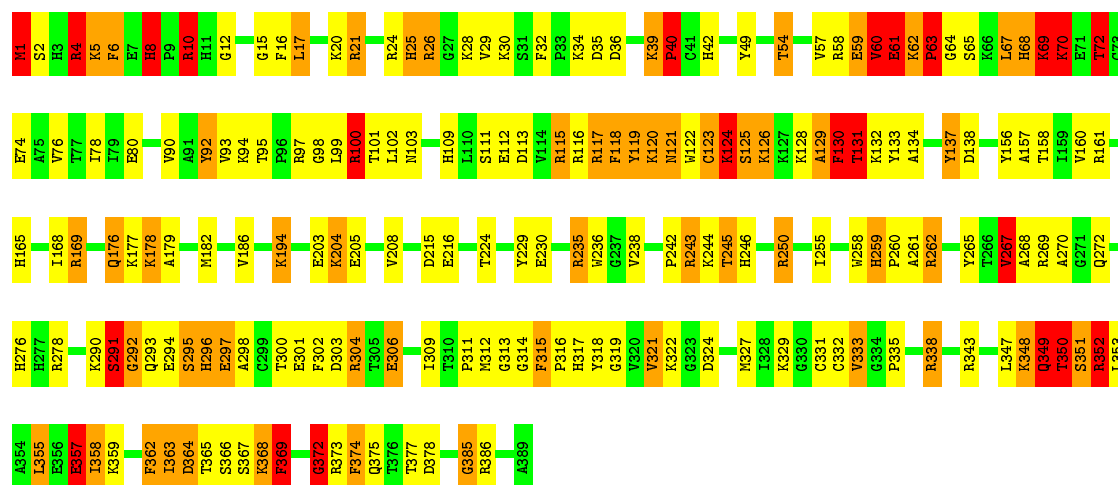
• Molecule 79: 60S acidic ribosomal protein P0

Chain Ls: 77% 18% 5% .



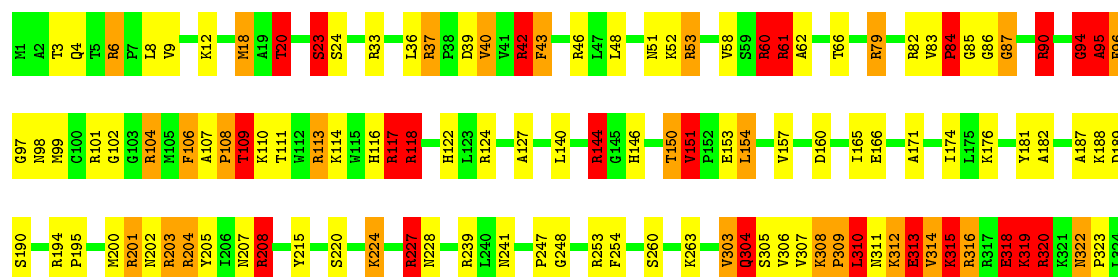
• Molecule 80: Ribosomal protein L3

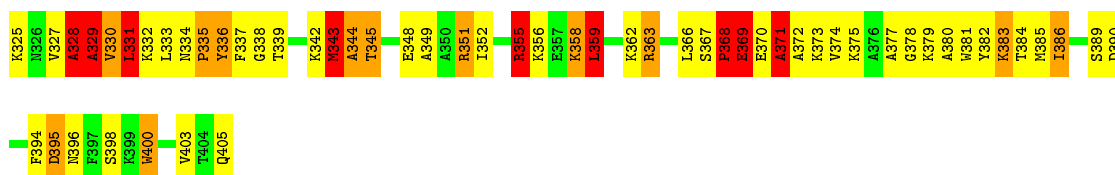
Chain LC: 50% 30% 14% 6%



• Molecule 81: 60S ribosomal protein L4/L1

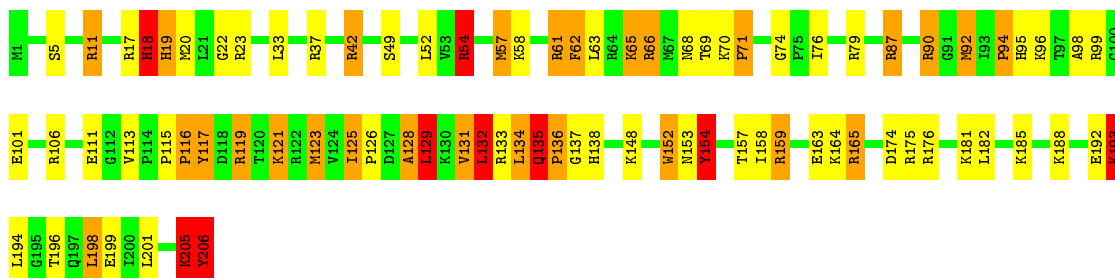
Chain LD: 52% 29% 10% 9%





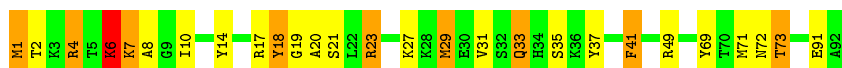
• Molecule 82: Ribosomal protein L13a

Chain LK: 59% 23% 13%



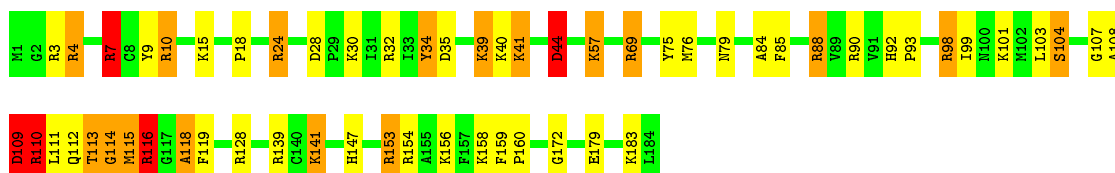
• Molecule 83: 60S ribosomal protein L37a, expressed

Chain Lm: 71% 18% 10%



• Molecule 84: 60S ribosomal protein L10-1

Chain LI: 68% 20% 9%



4 Experimental information

Property	Value	Source
Reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of subtomograms used	106	Depositor
Resolution determination method	Not provided	Depositor
CTF correction method	Not provided	Depositor
Microscope	FEI TECNAI F30	Depositor
Voltage (kV)	150	Depositor
Electron dose ($e^-/\text{\AA}^2$)	30	Depositor
Minimum defocus (nm)	2000	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	41176	Depositor
Image detector	FEI FALCON I (4K X 4K)	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >2	RMSZ	# Z >2
1	Sa	1.90	33/2897 (1.1%)	2.28	124/3917 (3.2%)
10	SL	1.68	18/965 (1.9%)	2.24	35/1271 (2.8%)
11	SM	3.93	25/1185 (2.1%)	3.78	113/1574 (7.2%)
12	SO	0.90	2/994 (0.2%)	2.31	29/1332 (2.2%)
13	SQ	1.81	23/1145 (2.0%)	3.16	96/1531 (6.3%)
14	SP	1.91	10/653 (1.5%)	2.85	41/871 (4.7%)
15	SS	1.88	24/1179 (2.0%)	3.02	80/1586 (5.0%)
16	SR	1.50	6/727 (0.8%)	1.91	29/975 (3.0%)
17	SV	1.18	3/748 (0.4%)	1.77	31/994 (3.1%)
19	SY	1.98	8/443 (1.8%)	2.41	20/592 (3.4%)
2	SA	1.63	11/1988 (0.6%)	2.25	83/2697 (3.1%)
20	SZ	1.54	4/476 (0.8%)	2.82	22/623 (3.5%)
23	SU	2.45	34/745 (4.6%)	3.90	126/988 (12.8%)
24	SX	1.65	9/382 (2.4%)	1.96	15/515 (2.9%)
25	SC	3.58	34/1563 (2.2%)	3.62	136/2086 (6.5%)
27	SH	1.53	10/1060 (0.9%)	2.45	52/1419 (3.7%)
28	SN	2.18	7/317 (2.2%)	2.71	27/414 (6.5%)
29	ST	1.52	4/659 (0.6%)	2.09	29/884 (3.3%)
3	SB	2.02	27/1555 (1.7%)	2.91	115/2077 (5.5%)
30	S3	2.62	16/264 (6.1%)	2.41	16/407 (3.9%)
31	S2	3.33	165/1785 (9.2%)	2.83	192/2779 (6.9%)
32	S1	2.97	2435/37672 (6.5%)	2.60	3313/58357 (5.7%)
33	L1	3.27	5613/77720 (7.2%)	2.85	8211/121026 (6.8%)
34	L3	3.13	166/2868 (5.8%)	2.95	328/4468 (7.3%)
35	L2	3.74	298/3553 (8.4%)	3.05	429/5515 (7.8%)
36	LA	1.27	7/1741 (0.4%)	1.66	27/2323 (1.2%)
37	LB	1.57	15/1979 (0.8%)	2.30	63/2659 (2.4%)
38	LE	2.68	30/1397 (2.1%)	2.43	86/1864 (4.6%)
39	LF	1.25	10/1519 (0.7%)	1.98	45/2042 (2.2%)
4	SD	1.94	35/1637 (2.1%)	3.00	96/2202 (4.4%)
40	LH	1.24	9/1586 (0.6%)	2.43	41/2120 (1.9%)
41	LM	1.36	7/1036 (0.7%)	1.97	40/1388 (2.9%)
42	LP	1.72	23/1669 (1.4%)	2.57	80/2235 (3.6%)
43	LO	1.49	11/1113 (1.0%)	2.62	32/1485 (2.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >2	RMSZ	# Z >2
44	LR	1.36	7/1303 (0.5%)	2.09	41/1748 (2.3%)
45	LQ	1.69	24/2438 (1.0%)	3.26	131/3271 (4.0%)
46	LT	1.73	12/1590 (0.8%)	2.57	88/2100 (4.2%)
47	LU	1.75	9/1290 (0.7%)	2.66	55/1728 (3.2%)
48	LV	2.47	27/1359 (2.0%)	3.07	111/1816 (6.1%)
49	LX	1.71	9/1002 (0.9%)	2.28	42/1340 (3.1%)
5	SE	2.09	32/2068 (1.5%)	2.98	73/2776 (2.6%)
50	LZ	1.42	5/591 (0.8%)	2.45	20/782 (2.6%)
51	LY	1.65	15/1061 (1.4%)	2.37	37/1418 (2.6%)
52	Lb	1.79	9/585 (1.5%)	2.16	31/786 (3.9%)
53	Ld	1.12	0/201	1.55	3/261 (1.1%)
54	Lf	1.22	1/836 (0.1%)	1.85	23/1121 (2.1%)
55	Lg	1.52	7/954 (0.7%)	2.14	42/1272 (3.3%)
56	Lh	1.50	4/1108 (0.4%)	2.35	37/1477 (2.5%)
57	Li	1.67	8/738 (1.1%)	2.57	49/974 (5.0%)
58	Ln	1.11	1/554 (0.2%)	2.46	15/738 (2.0%)
59	Lo	1.87	7/472 (1.5%)	3.05	44/627 (7.0%)
6	SF	0.99	2/1505 (0.1%)	1.58	29/2027 (1.4%)
60	Lr	1.99	14/853 (1.6%)	3.17	41/1124 (3.6%)
61	Lq	1.77	5/239 (2.1%)	3.70	15/302 (5.0%)
64	LG	1.72	25/1765 (1.4%)	3.20	140/2372 (5.9%)
66	LN	1.57	13/1094 (1.2%)	3.36	81/1461 (5.5%)
67	LS	1.93	21/1457 (1.4%)	2.83	120/1957 (6.1%)
68	LW	1.76	14/850 (1.6%)	2.74	55/1135 (4.8%)
69	La	1.69	12/743 (1.6%)	2.67	65/992 (6.6%)
7	SI	1.85	14/1034 (1.4%)	2.36	42/1379 (3.0%)
70	Li	1.87	15/979 (1.5%)	2.91	91/1305 (7.0%)
71	Lj	1.89	20/811 (2.5%)	3.14	58/1083 (5.4%)
72	Lk	1.74	7/618 (1.1%)	3.73	52/809 (6.4%)
73	Lp	2.33	11/349 (3.2%)	3.33	37/458 (8.1%)
74	LJ	1.36	1/967 (0.1%)	2.08	29/1298 (2.2%)
75	Lt	0.83	0/438	1.67	4/596 (0.7%)
75	Lu	0.69	0/438	1.28	2/596 (0.3%)
76	Lv	0.83	0/444	1.42	6/596 (1.0%)
76	Lw	0.97	1/444 (0.2%)	1.61	8/596 (1.3%)
77	Lc	1.69	10/1017 (1.0%)	2.53	27/1351 (2.0%)
78	Le	1.52	13/2018 (0.6%)	2.44	77/2702 (2.8%)
79	Ls	0.90	0/2023	1.71	40/2739 (1.5%)
8	SJ	1.78	13/896 (1.5%)	2.78	34/1193 (2.8%)
80	LC	1.56	35/3168 (1.1%)	3.16	134/4234 (3.2%)
81	LD	1.47	27/2919 (0.9%)	3.04	129/3924 (3.3%)
82	LK	1.33	12/1678 (0.7%)	2.08	44/2246 (2.0%)
83	Lm	1.32	4/724 (0.6%)	2.06	28/958 (2.9%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >2	RMSZ	# Z >2
84	LI	0.93	6/1499 (0.4%)	1.88	31/2001 (1.5%)
9	SK	2.29	11/839 (1.3%)	2.92	43/1120 (3.8%)
All	All	2.71	9615/207179 (4.6%)	2.73	16506/304005 (5.4%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	Sa	1	25
10	SL	0	11
11	SM	1	24
12	SO	0	14
13	SQ	1	37
14	SP	3	6
15	SS	1	25
16	SR	0	4
17	SV	0	5
18	SW	0	12
19	SY	0	6
2	SA	1	24
20	SZ	1	9
21	Sc	0	1
23	SU	3	38
24	SX	0	3
25	SC	6	43
26	SG	8	43
27	SH	0	11
28	SN	1	6
29	ST	2	6
3	SB	0	32
32	S1	9	0
33	L1	49	0
34	L3	2	0
35	L2	4	0
36	LA	0	4
37	LB	0	25
38	LE	1	18
39	LF	0	15
4	SD	1	31
40	LH	0	28

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Mol	Chain	#Chirality outliers	#Planarity outliers
41	LM	0	5
42	LP	0	29
43	LO	0	20
44	LR	0	27
45	LQ	4	59
46	LT	1	26
47	LU	1	21
48	LV	0	29
49	LX	1	11
5	SE	0	23
50	LZ	0	12
51	LY	0	12
52	Lb	0	2
53	Ld	0	2
54	Lf	0	6
55	Lg	0	11
56	Lh	1	13
57	Li	0	11
58	Ln	0	11
59	Lo	0	12
6	SF	0	14
60	Lr	1	28
61	Lq	0	5
62	Lx	0	5
62	Ly	0	1
63	Lz	0	2
64	LG	2	59
65	LL	1	39
66	LN	2	21
67	LS	2	41
68	LW	0	24
69	La	0	28
7	SI	0	5
70	Li	2	43
71	Lj	0	26
72	Lk	1	10
73	Lp	2	10
74	LJ	1	12
75	Lt	0	2
75	Lu	0	3
76	Lv	0	1
76	Lw	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
77	Lc	0	16
78	Le	0	23
79	Ls	1	13
8	SJ	0	16
80	LC	5	58
81	LD	2	58
82	LK	2	26
83	Lm	0	12
84	LI	0	17
9	SK	0	14
All	All	127	1482

All (9615) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	SM	126	TYR	CD2-CE2	112.90	3.08	1.39
25	SC	171	PRO	N-CD	81.71	2.62	1.47
32	S1	1315	U	O3'-P	-72.15	0.74	1.61
32	S1	860	A	O3'-P	-63.70	0.84	1.61
33	L1	2398	A	O3'-P	-57.14	0.92	1.61
25	SC	29	GLU	CD-OE1	56.95	1.88	1.25
32	S1	633	U	C2'-C1'	50.83	2.09	1.53
33	L1	2203	A	C2'-C1'	46.32	2.04	1.53
33	L1	1265	G	C2'-C1'	45.99	2.04	1.53
25	SC	29	GLU	CD-OE2	45.93	1.76	1.25
33	L1	2668	U	C2'-C1'	45.72	2.03	1.53
5	SE	30	ARG	CZ-NH2	-44.61	0.75	1.33
34	L3	1	G	C2'-C1'	-44.06	1.04	1.53
33	L1	3227	U	O4'-C1'	43.52	1.98	1.41
1	Sa	140	GLN	CD-NE2	43.13	2.40	1.32
33	L1	2247	A	C2'-C1'	42.91	2.00	1.53
35	L2	97	U	C2'-C1'	42.32	1.99	1.53
33	L1	716	A	C2'-C1'	42.30	1.99	1.53
32	S1	1083	C	O3'-P	-42.25	1.10	1.61
35	L2	155	G	C2'-C1'	-41.50	1.07	1.53
32	S1	376	G	O4'-C1'	41.43	1.95	1.41
33	L1	1691	U	C2'-C1'	41.28	1.98	1.53
33	L1	803	G	C2'-C1'	40.95	1.98	1.53
35	L2	98	C	O4'-C1'	40.61	1.94	1.41
33	L1	1549	A	O4'-C1'	40.02	1.93	1.41
9	SK	84	CYS	CB-SG	-38.86	1.16	1.82
32	S1	1642	C	C2'-C1'	-38.74	1.10	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	250	C	O4'-C1'	38.32	1.91	1.41
11	SM	126	TYR	CE1-CZ	37.13	1.86	1.38
33	L1	2640	A	C2'-C1'	36.70	1.93	1.53
33	L1	986	G	C2'-C1'	36.38	1.93	1.53
33	L1	3327	A	C2'-C1'	-36.28	1.13	1.53
33	L1	2231	G	C2'-C1'	35.95	1.93	1.53
33	L1	2628	C	O4'-C1'	35.74	1.88	1.41
33	L1	640	C	O4'-C1'	35.67	1.88	1.41
32	S1	1156	A	O3'-P	-35.47	1.18	1.61
33	L1	280	G	C2'-C1'	35.45	1.92	1.53
33	L1	1804	G	O4'-C1'	35.43	1.87	1.41
33	L1	2779	G	C2'-C1'	34.89	1.91	1.53
33	L1	1035	C	C2'-C1'	-34.35	1.15	1.53
33	L1	237	C	O4'-C1'	34.33	1.86	1.41
33	L1	1826	G	C2'-C1'	33.91	1.90	1.53
33	L1	3357	C	C2'-C1'	-33.75	1.16	1.53
35	L2	89	G	C2'-C1'	-33.37	1.16	1.53
34	L3	48	G	C2'-C1'	33.10	1.89	1.53
33	L1	2984	A	C2'-C1'	-33.07	1.17	1.53
32	S1	1004	U	O3'-P	-33.02	1.21	1.61
32	S1	1783	C	O4'-C1'	33.00	1.84	1.41
33	L1	3334	A	C2'-C1'	-32.66	1.17	1.53
31	S2	72	G	C2'-C1'	32.51	1.89	1.53
38	LE	91	TYR	CE2-CZ	32.47	1.80	1.38
33	L1	532	G	C2'-C1'	-32.32	1.17	1.53
38	LE	91	TYR	CG-CD2	32.25	1.81	1.39
33	L1	70	A	C2'-C1'	-32.18	1.18	1.53
25	SC	106	PHE	CD1-CE1	32.13	2.03	1.39
48	LV	114	TYR	CE1-CZ	32.07	1.80	1.38
2	SA	109	PRO	C-N	-31.99	0.75	1.33
33	L1	1818	C	O4'-C1'	31.77	1.82	1.41
33	L1	2318	U	C2'-C1'	31.29	1.87	1.53
33	L1	522	C	O3'-P	-31.18	1.23	1.61
33	L1	2700	A	O3'-P	31.06	1.98	1.61
33	L1	665	G	C2'-C1'	-30.79	1.19	1.53
33	L1	707	G	C2'-C1'	-30.67	1.19	1.53
33	L1	2486	G	C2'-C1'	30.63	1.87	1.53
33	L1	3354	A	C2'-C1'	30.61	1.87	1.53
33	L1	425	G	C2'-C1'	-30.58	1.19	1.53
38	LE	91	TYR	CE1-CZ	30.54	1.78	1.38
38	LE	91	TYR	CG-CD1	30.51	1.78	1.39
33	L1	3048	C	C2'-C1'	-30.41	1.19	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3334	A	O4'-C1'	30.41	1.81	1.41
33	L1	2881	C	C2'-C1'	-30.34	1.20	1.53
33	L1	2290	A	C2'-C1'	-30.24	1.20	1.53
33	L1	3227	U	C2'-C1'	30.20	1.86	1.53
32	S1	1225	A	C2'-C1'	30.11	1.86	1.53
33	L1	3234	G	C2'-C1'	29.91	1.86	1.53
33	L1	2518	A	C2'-C1'	-29.85	1.20	1.53
33	L1	3005	C	C2'-C1'	-29.84	1.20	1.53
33	L1	62	A	O4'-C1'	-29.65	1.03	1.41
33	L1	2059	C	O4'-C1'	29.58	1.80	1.41
32	S1	1346	C	C2'-C1'	-29.43	1.21	1.53
33	L1	1576	C	O4'-C1'	29.38	1.79	1.41
35	L2	63	A	C2'-C1'	-29.22	1.21	1.53
33	L1	1679	U	C2'-C1'	29.18	1.85	1.53
33	L1	2125	A	C2'-C1'	29.10	1.85	1.53
33	L1	997	G	C2'-C1'	28.94	1.85	1.53
33	L1	566	G	C2'-C1'	-28.88	1.21	1.53
32	S1	1678	G	O4'-C1'	-28.84	1.04	1.41
35	L2	53	G	C2'-C1'	-28.84	1.21	1.53
33	L1	1593	C	O4'-C1'	28.84	1.79	1.41
33	L1	1395	A	C2'-C1'	28.59	1.84	1.53
32	S1	823	A	P-OP1	-28.58	1.00	1.49
32	S1	764	U	P-OP1	-28.57	1.00	1.49
32	S1	701	C	P-OP2	-28.56	1.00	1.49
32	S1	701	C	P-OP1	-28.54	1.00	1.49
32	S1	1740	G	C2'-C1'	28.54	1.84	1.53
32	S1	764	U	P-OP2	-28.51	1.00	1.49
32	S1	823	A	P-OP2	-28.46	1.00	1.49
33	L1	3320	G	O4'-C1'	28.41	1.78	1.41
33	L1	1575	G	C2'-C1'	-28.40	1.22	1.53
33	L1	996	A	C2'-C1'	-28.34	1.22	1.53
33	L1	1651	A	C2'-C1'	-28.20	1.22	1.53
33	L1	177	C	C2'-C1'	-28.13	1.22	1.53
32	S1	1572	U	O4'-C1'	27.98	1.78	1.41
33	L1	3156	G	C2'-C1'	27.95	1.84	1.53
33	L1	1081	U	C2'-C1'	27.93	1.84	1.53
33	L1	267	G	O4'-C1'	27.92	1.77	1.41
33	L1	1646	U	C2'-C1'	27.87	1.84	1.53
33	L1	175	G	C2'-C1'	-27.85	1.22	1.53
32	S1	535	C	O3'-P	-27.84	1.27	1.61
33	L1	1564	C	O4'-C1'	27.83	1.77	1.41
33	L1	2216	G	C2'-C1'	27.82	1.83	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1759	A	O4'-C1'	27.76	1.77	1.41
33	L1	3035	C	C2'-C1'	-27.72	1.22	1.53
33	L1	1344	A	O4'-C1'	27.72	1.77	1.41
33	L1	700	C	O4'-C1'	27.69	1.77	1.41
32	S1	1091	A	C2'-C1'	-27.66	1.23	1.53
33	L1	1513	C	C2'-C1'	-27.58	1.23	1.53
33	L1	507	C	O4'-C1'	27.47	1.77	1.41
48	LV	114	TYR	CD1-CE1	27.40	1.80	1.39
33	L1	1309	U	O4'-C1'	27.40	1.77	1.41
34	L3	68	G	C2'-C1'	-27.35	1.23	1.53
48	LV	114	TYR	CE2-CZ	27.33	1.74	1.38
33	L1	1551	C	O4'-C1'	27.24	1.77	1.41
31	S2	41	G	C2'-C1'	-27.23	1.23	1.53
33	L1	2356	A	C2'-C1'	-27.21	1.23	1.53
33	L1	1849	U	C2'-C1'	27.08	1.83	1.53
33	L1	2170	G	C2'-C1'	-27.03	1.23	1.53
33	L1	1804	G	C2'-C1'	-26.93	1.23	1.53
33	L1	2708	A	O4'-C1'	26.90	1.76	1.41
32	S1	632	G	C2'-C1'	26.74	1.82	1.53
33	L1	1513	C	O4'-C1'	26.70	1.76	1.41
32	S1	1759	A	C2'-C1'	26.64	1.82	1.53
33	L1	2450	G	O4'-C1'	-26.62	1.07	1.41
32	S1	1007	G	C2'-C1'	-26.47	1.24	1.53
33	L1	618	G	O3'-P	26.45	1.92	1.61
33	L1	3143	A	O4'-C1'	26.42	1.75	1.41
32	S1	635	G	C2'-C1'	26.38	1.82	1.53
32	S1	303	A	O3'-P	26.36	1.92	1.61
33	L1	1035	C	O4'-C1'	26.36	1.75	1.41
32	S1	1462	C	C2'-C1'	-26.35	1.24	1.53
32	S1	187	C	O3'-P	-26.32	1.29	1.61
35	L2	57	A	O4'-C1'	26.12	1.75	1.41
32	S1	1792	A	C2'-C1'	26.10	1.82	1.53
33	L1	2599	U	C2'-C1'	26.08	1.82	1.53
32	S1	1472	G	C2'-C1'	-26.07	1.24	1.53
33	L1	953	G	C2'-C1'	-26.04	1.24	1.53
33	L1	2437	A	O4'-C1'	26.04	1.75	1.41
35	L2	66	C	C2'-C1'	-26.00	1.24	1.53
3	SB	154	ASP	C-N	25.99	1.79	1.33
33	L1	3092	A	C2'-C1'	-25.98	1.24	1.53
33	L1	1614	G	C2'-C1'	-25.91	1.24	1.53
38	LE	91	TYR	CD1-CE1	25.85	1.78	1.39
32	S1	1642	C	O4'-C1'	25.84	1.75	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2059	C	C2'-C1'	-25.84	1.25	1.53
32	S1	1403	G	C2'-C1'	-25.78	1.25	1.53
33	L1	656	G	C2'-C1'	-25.76	1.25	1.53
35	L2	109	A	C2'-C1'	-25.73	1.25	1.53
32	S1	669	A	P-OP2	25.60	1.92	1.49
33	L1	1034	U	O3'-P	-25.58	1.30	1.61
32	S1	3	C	O4'-C1'	25.56	1.74	1.41
33	L1	2802	G	O4'-C1'	25.43	1.74	1.41
33	L1	2450	G	C2'-C1'	25.41	1.81	1.53
33	L1	811	A	C2'-C1'	-25.35	1.25	1.53
33	L1	102	G	C2'-C1'	25.31	1.81	1.53
33	L1	62	A	C2'-C1'	25.30	1.81	1.53
33	L1	2355	A	C2'-C1'	25.22	1.81	1.53
33	L1	262	A	C2'-C1'	25.21	1.81	1.53
33	L1	2582	G	C2'-C1'	-25.16	1.25	1.53
34	L3	46	C	C2'-C1'	-25.16	1.25	1.53
32	S1	1678	G	C2'-C1'	25.13	1.80	1.53
33	L1	1318	C	O4'-C1'	25.05	1.74	1.41
33	L1	68	U	C2'-C1'	-25.04	1.25	1.53
33	L1	2808	U	C2'-C1'	-24.98	1.25	1.53
33	L1	1050	A	C2'-C1'	24.96	1.80	1.53
33	L1	557	C	C2'-C1'	-24.94	1.25	1.53
33	L1	291	C	C2'-C1'	-24.83	1.26	1.53
33	L1	2290	A	O4'-C1'	24.81	1.74	1.41
48	LV	114	TYR	CG-CD2	24.80	1.71	1.39
33	L1	1628	G	O4'-C1'	24.79	1.73	1.41
60	Lr	101	GLY	C-O	-24.58	0.84	1.23
31	S2	75	A	C2'-C1'	24.54	1.80	1.53
33	L1	177	C	O4'-C1'	24.49	1.73	1.41
33	L1	1551	C	C2'-C1'	-24.49	1.26	1.53
32	S1	200	C	O4'-C1'	24.45	1.73	1.41
33	L1	963	U	O4'-C1'	24.43	1.73	1.41
35	L2	30	C	O4'-C1'	24.43	1.73	1.41
33	L1	563	C	O4'-C1'	24.41	1.73	1.41
33	L1	1672	G	O4'-C1'	-24.36	1.09	1.41
33	L1	3203	G	C2'-C1'	24.36	1.80	1.53
38	LE	91	TYR	CD2-CE2	24.34	1.75	1.39
33	L1	1236	C	C2'-C1'	-24.31	1.26	1.53
33	L1	1754	C	O4'-C1'	24.31	1.73	1.41
32	S1	1748	U	C2'-C1'	-24.27	1.26	1.53
33	L1	1577	A	C2'-C1'	24.26	1.80	1.53
33	L1	2759	C	C2'-C1'	-24.18	1.26	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2622	G	C2'-C1'	-24.17	1.26	1.53
33	L1	2686	U	C2'-C1'	-24.13	1.26	1.53
33	L1	858	U	C2'-C1'	-24.11	1.26	1.53
33	L1	69	U	C2'-C1'	-24.02	1.26	1.53
32	S1	311	G	C2'-C1'	-24.02	1.26	1.53
33	L1	2783	U	C2'-C1'	24.02	1.79	1.53
33	L1	2231	G	O4'-C1'	-24.01	1.10	1.41
33	L1	227	C	C2'-C1'	-24.00	1.26	1.53
33	L1	3218	C	C2'-C1'	-23.96	1.26	1.53
32	S1	1310	C	O4'-C1'	23.93	1.72	1.41
33	L1	164	C	C2'-C1'	-23.93	1.27	1.53
33	L1	1371	G	C2'-C1'	-23.93	1.27	1.53
35	L2	64	U	O4'-C1'	23.92	1.72	1.41
34	L3	56	G	C2'-C1'	-23.85	1.27	1.53
32	S1	582	U	O4'-C1'	23.84	1.72	1.41
33	L1	1151	G	C2'-C1'	-23.81	1.27	1.53
33	L1	1525	U	C2'-C1'	-23.81	1.27	1.53
33	L1	348	C	O4'-C1'	23.74	1.72	1.41
33	L1	3143	A	C2'-C1'	-23.71	1.27	1.53
33	L1	640	C	C2'-C1'	-23.71	1.27	1.53
33	L1	995	C	O4'-C1'	23.69	1.72	1.41
33	L1	1348	G	C2'-C1'	-23.68	1.27	1.53
33	L1	3304	U	C2'-C1'	23.66	1.79	1.53
33	L1	2786	G	O4'-C1'	23.62	1.72	1.41
33	L1	665	G	O4'-C1'	23.61	1.72	1.41
35	L2	44	A	C2'-C1'	-23.60	1.27	1.53
32	S1	1739	U	O4'-C1'	23.58	1.72	1.41
33	L1	2952	G	C2'-C1'	23.56	1.79	1.53
33	L1	1612	C	C2'-C1'	-23.55	1.27	1.53
33	L1	1207	A	C2'-C1'	-23.55	1.27	1.53
33	L1	3350	C	C2'-C1'	-23.55	1.27	1.53
33	L1	804	A	O4'-C1'	23.54	1.72	1.41
32	S1	94	A	C2'-C1'	-23.52	1.27	1.53
33	L1	400	G	O4'-C1'	-23.52	1.11	1.41
33	L1	1077	C	C2'-C1'	-23.51	1.27	1.53
33	L1	1247	G	C2'-C1'	-23.50	1.27	1.53
33	L1	1295	A	C2'-C1'	23.48	1.79	1.53
33	L1	2709	G	C2'-C1'	-23.47	1.27	1.53
33	L1	543	C	O4'-C1'	23.46	1.72	1.41
31	S2	75	A	O4'-C1'	-23.45	1.11	1.41
32	S1	1279	A	C2'-C1'	-23.43	1.27	1.53
33	L1	1949	G	O4'-C1'	-23.39	1.11	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1767	G	C2'-C1'	23.38	1.79	1.53
33	L1	227	C	O4'-C1'	23.35	1.72	1.41
33	L1	1368	U	O4'-C1'	23.33	1.72	1.41
33	L1	1549	A	C2'-C1'	-23.33	1.27	1.53
33	L1	1320	G	O4'-C1'	-23.31	1.11	1.41
33	L1	1070	G	C2'-C1'	-23.30	1.27	1.53
30	S3	16	G	C2'-C1'	23.29	1.78	1.53
33	L1	3093	C	O4'-C1'	23.29	1.72	1.41
35	L2	124	G	C2'-C1'	23.28	1.78	1.53
33	L1	3149	C	O4'-C1'	23.18	1.71	1.41
32	S1	373	U	C2'-C1'	23.15	1.78	1.53
33	L1	2361	C	C2'-C1'	23.14	1.78	1.53
33	L1	299	G	C2'-C1'	23.09	1.78	1.53
33	L1	2493	C	O4'-C1'	23.08	1.71	1.41
33	L1	1241	G	O4'-C1'	23.08	1.71	1.41
33	L1	2362	A	C2'-C1'	23.07	1.78	1.53
35	L2	138	G	O4'-C1'	23.06	1.71	1.41
33	L1	1634	G	C2'-C1'	-23.05	1.27	1.53
33	L1	1087	G	C2'-C1'	-23.04	1.28	1.53
33	L1	1395	A	O4'-C1'	-23.03	1.11	1.41
33	L1	1662	G	C2'-C1'	-23.02	1.28	1.53
33	L1	1430	C	C2'-C1'	-23.02	1.28	1.53
33	L1	9	C	O4'-C1'	22.96	1.71	1.41
33	L1	458	G	C2'-C1'	-22.95	1.28	1.53
35	L2	96	A	O4'-C1'	22.95	1.71	1.41
33	L1	3335	G	O4'-C1'	22.88	1.71	1.41
32	S1	1061	G	C2'-C1'	-22.88	1.28	1.53
33	L1	18	G	O3'-P	-22.84	1.33	1.61
67	LS	151	PHE	CB-CG	22.83	1.90	1.51
32	S1	1346	C	O4'-C1'	22.82	1.71	1.41
35	L2	125	A	C2'-C1'	-22.79	1.28	1.53
35	L2	148	C	C2'-C1'	-22.76	1.28	1.53
33	L1	2585	C	O4'-C1'	22.76	1.71	1.41
34	L3	15	C	O4'-C1'	22.74	1.71	1.41
33	L1	2753	C	O4'-C1'	22.74	1.71	1.41
25	SC	43	GLU	C-N	22.73	1.86	1.34
33	L1	234	G	C2'-C1'	-22.69	1.28	1.53
31	S2	8	U	C2'-C1'	22.62	1.78	1.53
33	L1	707	G	O4'-C1'	22.59	1.71	1.41
33	L1	2585	C	C2'-C1'	-22.57	1.28	1.53
33	L1	2199	C	C2'-C1'	-22.55	1.28	1.53
32	S1	1055	G	C2'-C1'	-22.50	1.28	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	582	C	C2'-C1'	-22.47	1.28	1.53
33	L1	1862	C	C2'-C1'	-22.47	1.28	1.53
32	S1	147	C	O4'-C1'	22.42	1.70	1.41
33	L1	3037	G	C2'-C1'	-22.40	1.28	1.53
4	SD	167	ASN	C-N	22.40	1.85	1.34
33	L1	2597	C	C2'-C1'	-22.39	1.28	1.53
33	L1	2418	A	O4'-C1'	22.39	1.70	1.41
33	L1	2664	G	C2'-C1'	-22.34	1.28	1.53
32	S1	1740	G	O4'-C1'	-22.34	1.12	1.41
9	SK	93	HIS	C-N	22.31	1.85	1.34
33	L1	3299	A	C2'-C1'	22.20	1.77	1.53
33	L1	19	C	O4'-C1'	22.16	1.70	1.41
38	LE	153	HIS	CG-CD2	22.16	1.73	1.35
32	S1	1354	C	C2'-C1'	-22.16	1.28	1.53
33	L1	3001	G	C2'-C1'	-22.11	1.29	1.53
32	S1	1647	C	O3'-P	-22.08	1.34	1.61
32	S1	593	C	O4'-C1'	22.05	1.70	1.41
33	L1	1246	G	C2'-C1'	22.04	1.77	1.53
33	L1	12	G	C2'-C1'	-22.02	1.29	1.53
48	LV	114	TYR	CD2-CE2	22.02	1.72	1.39
32	S1	1308	G	C2'-C1'	21.97	1.77	1.53
33	L1	3036	C	C2'-C1'	-21.95	1.29	1.53
48	LV	114	TYR	CG-CD1	21.94	1.67	1.39
33	L1	584	G	O4'-C1'	21.93	1.70	1.41
33	L1	2252	C	C2'-C1'	21.91	1.77	1.53
33	L1	1564	C	C2'-C1'	-21.88	1.29	1.53
33	L1	596	C	O4'-C1'	21.87	1.70	1.41
33	L1	242	U	O4'-C1'	21.87	1.70	1.41
33	L1	384	A	O4'-C1'	21.86	1.70	1.41
33	L1	3124	A	C2'-C1'	21.84	1.77	1.53
33	L1	2766	U	C2'-C1'	21.81	1.77	1.53
32	S1	152	G	O4'-C1'	21.79	1.70	1.41
33	L1	72	A	C2'-C1'	21.78	1.77	1.53
33	L1	2800	C	C2'-C1'	-21.74	1.29	1.53
33	L1	628	C	O4'-C1'	21.74	1.70	1.41
33	L1	631	C	O4'-C1'	21.73	1.70	1.41
33	L1	3175	C	O4'-C1'	21.73	1.69	1.41
33	L1	2688	G	C2'-C1'	-21.72	1.29	1.53
33	L1	30	C	O4'-C1'	21.70	1.69	1.41
32	S1	823	A	O4'-C1'	21.70	1.69	1.41
32	S1	1198	A	C2'-C1'	-21.70	1.29	1.53
33	L1	1083	C	C2'-C1'	21.68	1.77	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	124	C	C2'-C1'	-21.63	1.29	1.53
33	L1	3149	C	C2'-C1'	-21.62	1.29	1.53
33	L1	2579	G	C2'-C1'	-21.61	1.29	1.53
33	L1	167	C	C2'-C1'	-21.60	1.29	1.53
32	S1	1727	C	C2'-C1'	-21.57	1.29	1.53
33	L1	1823	C	O4'-C1'	21.57	1.69	1.41
33	L1	1752	C	C2'-C1'	-21.51	1.29	1.53
33	L1	490	G	C2'-C1'	-21.51	1.29	1.53
33	L1	534	G	C2'-C1'	-21.48	1.29	1.53
33	L1	542	G	C2'-C1'	-21.48	1.29	1.53
47	LU	138	GLY	C-O	-21.40	0.89	1.23
33	L1	632	C	O4'-C1'	21.36	1.69	1.41
33	L1	2211	G	C2'-C1'	-21.35	1.29	1.53
33	L1	2206	U	C2'-C1'	-21.33	1.29	1.53
33	L1	1057	A	C2'-C1'	21.32	1.76	1.53
33	L1	3317	G	O4'-C1'	-21.27	1.14	1.41
33	L1	568	C	C2'-C1'	-21.21	1.30	1.53
33	L1	1394	C	C2'-C1'	-21.20	1.30	1.53
33	L1	956	G	C2'-C1'	-21.18	1.30	1.53
33	L1	2424	G	C2'-C1'	-21.17	1.30	1.53
33	L1	2793	G	C2'-C1'	-21.12	1.30	1.53
33	L1	1666	C	O4'-C1'	21.07	1.69	1.41
33	L1	1753	A	C2'-C1'	21.07	1.76	1.53
32	S1	1745	U	O4'-C1'	21.04	1.69	1.41
33	L1	917	A	O4'-C1'	21.00	1.69	1.41
32	S1	636	U	O4'-C1'	20.99	1.69	1.41
35	L2	41	A	O4'-C1'	20.99	1.69	1.41
32	S1	1757	G	O4'-C1'	20.96	1.68	1.41
33	L1	242	U	C2'-C1'	-20.93	1.30	1.53
33	L1	555	G	C2'-C1'	-20.90	1.30	1.53
33	L1	521	G	O3'-P	20.87	1.86	1.61
33	L1	2836	G	C2'-C1'	-20.86	1.30	1.53
33	L1	127	G	C2'-C1'	-20.86	1.30	1.53
35	L2	97	U	O4'-C1'	-20.86	1.14	1.41
33	L1	1370	A	O4'-C1'	20.85	1.68	1.41
3	SB	153	LYS	CD-CE	20.84	2.03	1.51
33	L1	3341	C	C2'-C1'	-20.83	1.30	1.53
33	L1	3357	C	O4'-C1'	20.80	1.68	1.41
34	L3	10	C	O4'-C1'	20.79	1.68	1.41
35	L2	90	U	C2'-C1'	20.76	1.76	1.53
33	L1	2887	C	C2'-C1'	-20.72	1.30	1.53
32	S1	1095	C	C2'-C1'	-20.70	1.30	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2669	C	C2'-C1'	-20.67	1.30	1.53
32	S1	1249	G	C2'-C1'	-20.67	1.30	1.53
31	S2	37	G	C2'-C1'	-20.64	1.30	1.53
33	L1	2984	A	O4'-C1'	20.64	1.68	1.41
33	L1	1563	G	O4'-C1'	20.64	1.68	1.41
33	L1	3101	C	O4'-C1'	20.63	1.68	1.41
33	L1	1193	A	O4'-C1'	20.61	1.68	1.41
32	S1	1729	A	C2'-C1'	-20.61	1.30	1.53
33	L1	637	C	O4'-C1'	20.59	1.68	1.41
32	S1	1108	U	C2'-C1'	20.58	1.75	1.53
32	S1	1683	G	C2'-C1'	-20.57	1.30	1.53
32	S1	61	A	C2'-C1'	20.56	1.75	1.53
33	L1	1613	C	P-OP1	-20.54	1.14	1.49
33	L1	2780	G	C2'-C1'	20.54	1.75	1.53
33	L1	487	C	O4'-C1'	20.52	1.68	1.41
33	L1	937	G	C2'-C1'	-20.52	1.30	1.53
33	L1	755	C	C2'-C1'	-20.51	1.30	1.53
33	L1	842	C	C2'-C1'	-20.50	1.30	1.53
33	L1	1018	C	O4'-C1'	20.48	1.68	1.41
33	L1	590	C	O4'-C1'	20.47	1.68	1.41
33	L1	1708	C	C2'-C1'	-20.45	1.30	1.53
33	L1	167	C	O4'-C1'	20.44	1.68	1.41
33	L1	3326	U	C2'-C1'	20.42	1.75	1.53
33	L1	711	A	O4'-C1'	-20.41	1.15	1.41
32	S1	1674	C	O4'-C1'	20.41	1.68	1.41
33	L1	264	C	O4'-C1'	20.39	1.68	1.41
33	L1	3147	G	C2'-C1'	-20.39	1.30	1.53
33	L1	571	G	C2'-C1'	-20.38	1.30	1.53
33	L1	2667	C	C2'-C1'	-20.38	1.30	1.53
33	L1	1634	G	O4'-C1'	20.34	1.68	1.41
32	S1	1184	C	O4'-C1'	20.33	1.68	1.41
33	L1	2332	C	C2'-C1'	-20.32	1.30	1.53
33	L1	238	C	O4'-C1'	20.32	1.68	1.41
33	L1	803	G	O4'-C1'	-20.30	1.15	1.41
35	L2	101	G	C2'-C1'	-20.30	1.31	1.53
33	L1	257	C	C2'-C1'	-20.30	1.31	1.53
33	L1	2725	U	C2'-C1'	-20.29	1.31	1.53
33	L1	3347	U	O4'-C1'	20.28	1.68	1.41
33	L1	2237	A	O4'-C1'	20.27	1.68	1.41
33	L1	533	G	C2'-C1'	-20.26	1.31	1.53
33	L1	307	C	O4'-C1'	20.26	1.68	1.41
33	L1	430	G	C2'-C1'	-20.25	1.31	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	L3	8	A	C2'-C1'	-20.23	1.31	1.53
33	L1	137	C	C2'-C1'	-20.23	1.31	1.53
35	L2	93	A	C2'-C1'	-20.22	1.31	1.53
33	L1	1243	C	C2'-C1'	-20.21	1.31	1.53
35	L2	43	G	O4'-C1'	20.19	1.67	1.41
16	SR	86	ARG	C-N	20.14	1.80	1.34
32	S1	1112	G	C2'-C1'	-20.13	1.31	1.53
32	S1	1713	C	C2'-C1'	-20.11	1.31	1.53
33	L1	1862	C	O4'-C1'	20.11	1.67	1.41
33	L1	2114	A	O4'-C1'	20.11	1.67	1.41
33	L1	2973	A	C2'-C1'	20.10	1.75	1.53
32	S1	1332	G	C2'-C1'	20.09	1.75	1.53
33	L1	2629	C	C2'-C1'	-20.09	1.31	1.53
35	L2	138	G	C2'-C1'	-20.08	1.31	1.53
33	L1	570	G	C2'-C1'	-20.08	1.31	1.53
33	L1	1723	C	O4'-C1'	20.07	1.67	1.41
33	L1	3327	A	O4'-C1'	20.07	1.67	1.41
32	S1	563	C	O4'-C1'	20.07	1.67	1.41
33	L1	283	A	C2'-C1'	20.04	1.75	1.53
32	S1	119	U	C2'-C1'	-19.97	1.31	1.53
33	L1	381	G	C2'-C1'	19.96	1.75	1.53
33	L1	1647	C	O4'-C1'	19.95	1.67	1.41
5	SE	30	ARG	CZ-NH1	19.95	1.58	1.33
33	L1	69	U	O4'-C1'	19.91	1.67	1.41
32	S1	299	A	C2'-C1'	19.89	1.75	1.53
32	S1	152	G	C2'-C1'	-19.88	1.31	1.53
33	L1	1568	A	C2'-C1'	19.87	1.75	1.53
32	S1	138	C	O4'-C1'	19.82	1.67	1.41
33	L1	846	A	O4'-C1'	-19.82	1.15	1.41
33	L1	256	G	C2'-C1'	-19.82	1.31	1.53
33	L1	3385	G	O4'-C1'	-19.81	1.16	1.41
32	S1	1006	A	C2'-C1'	-19.80	1.31	1.53
33	L1	2900	G	C2'-C1'	-19.79	1.31	1.53
33	L1	1211	G	O4'-C1'	-19.79	1.16	1.41
33	L1	1612	C	O4'-C1'	19.76	1.67	1.41
33	L1	1255	A	C2'-C1'	-19.75	1.31	1.53
33	L1	446	C	O4'-C1'	19.74	1.67	1.41
33	L1	1574	C	C2'-C1'	-19.73	1.31	1.53
33	L1	827	C	C2'-C1'	-19.73	1.31	1.53
33	L1	1318	C	C2'-C1'	-19.73	1.31	1.53
33	L1	636	C	C2'-C1'	-19.72	1.31	1.53
33	L1	1817	U	O4'-C1'	19.68	1.67	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	599	C	C2'-C1'	-19.66	1.31	1.53
33	L1	3081	G	O4'-C1'	19.66	1.67	1.41
33	L1	1900	C	C2'-C1'	-19.65	1.31	1.53
33	L1	250	C	C2'-C1'	-19.64	1.31	1.53
33	L1	272	G	C2'-C1'	-19.64	1.31	1.53
33	L1	692	U	O4'-C1'	19.64	1.67	1.41
33	L1	3344	U	C2'-C1'	-19.63	1.31	1.53
33	L1	3218	C	O4'-C1'	19.63	1.67	1.41
33	L1	1450	G	O4'-C1'	19.60	1.67	1.41
33	L1	2903	G	C2'-C1'	-19.59	1.31	1.53
33	L1	1823	C	C2'-C1'	-19.59	1.31	1.53
33	L1	271	G	C2'-C1'	-19.58	1.31	1.53
33	L1	307	C	C2'-C1'	-19.58	1.31	1.53
33	L1	1350	G	C2'-C1'	19.57	1.74	1.53
33	L1	2512	U	C2'-C1'	-19.57	1.31	1.53
33	L1	1061	A	O4'-C1'	19.57	1.67	1.41
33	L1	963	U	C2'-C1'	-19.57	1.31	1.53
33	L1	2726	U	C2'-C1'	-19.56	1.31	1.53
34	L3	73	U	C2'-C1'	19.56	1.74	1.53
32	S1	1214	C	O4'-C1'	19.55	1.67	1.41
32	S1	1536	U	C2'-C1'	-19.55	1.31	1.53
35	L2	158	G	C2'-C1'	19.54	1.74	1.53
35	L2	48	A	C2'-C1'	-19.53	1.31	1.53
33	L1	1530	C	O4'-C1'	19.50	1.67	1.41
32	S1	1715	C	C2'-C1'	-19.47	1.31	1.53
33	L1	1222	U	C2'-C1'	19.45	1.74	1.53
33	L1	1732	G	C2'-C1'	-19.45	1.31	1.53
33	L1	1744	C	C2'-C1'	-19.43	1.31	1.53
33	L1	2437	A	C2'-C1'	-19.40	1.32	1.53
33	L1	2900	G	O4'-C1'	19.39	1.66	1.41
33	L1	557	C	O4'-C1'	19.38	1.66	1.41
32	S1	938	A	C2'-C1'	-19.38	1.32	1.53
33	L1	1885	G	C2'-C1'	-19.38	1.32	1.53
33	L1	423	C	C2'-C1'	-19.36	1.32	1.53
33	L1	1458	U	O4'-C1'	-19.36	1.16	1.41
33	L1	1819	A	C2'-C1'	-19.30	1.32	1.53
33	L1	2750	A	C2'-C1'	-19.27	1.32	1.53
35	L2	155	G	O4'-C1'	19.24	1.66	1.41
31	S2	43	C	C2'-C1'	-19.24	1.32	1.53
33	L1	2474	A	C2'-C1'	19.23	1.74	1.53
33	L1	2759	C	O4'-C1'	19.23	1.66	1.41
32	S1	1797	C	C2'-C1'	-19.22	1.32	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	L2	25	C	O4'-C1'	19.21	1.66	1.41
33	L1	1755	A	O4'-C1'	19.21	1.66	1.41
32	S1	1202	G	C2'-C1'	-19.20	1.32	1.53
33	L1	1258	C	C2'-C1'	19.20	1.74	1.53
33	L1	1078	U	O4'-C1'	19.20	1.66	1.41
32	S1	67	G	C2'-C1'	-19.20	1.32	1.53
33	L1	2166	U	C2'-C1'	-19.16	1.32	1.53
33	L1	510	C	C2'-C1'	-19.16	1.32	1.53
32	S1	1076	C	O4'-C1'	19.14	1.66	1.41
32	S1	988	G	C2'-C1'	-19.12	1.32	1.53
32	S1	1462	C	O4'-C1'	19.11	1.66	1.41
33	L1	3376	C	C2'-C1'	-19.07	1.32	1.53
33	L1	2460	A	O4'-C1'	-19.06	1.16	1.41
32	S1	357	A	C2'-C1'	19.03	1.74	1.53
33	L1	2630	A	O4'-C1'	-19.01	1.17	1.41
33	L1	3310	A	C2'-C1'	-19.00	1.32	1.53
33	L1	1192	A	C2'-C1'	19.00	1.74	1.53
33	L1	472	U	C2'-C1'	-18.99	1.32	1.53
33	L1	1017	G	C2'-C1'	-18.98	1.32	1.53
33	L1	2700	A	C2'-C1'	-18.97	1.32	1.53
33	L1	1135	C	O4'-C1'	18.97	1.66	1.41
33	L1	3328	A	O4'-C1'	18.95	1.66	1.41
33	L1	1800	G	O4'-C1'	-18.93	1.17	1.41
33	L1	1911	A	O4'-C1'	-18.90	1.17	1.41
33	L1	1245	U	C2'-C1'	18.89	1.74	1.53
33	L1	1731	A	C2'-C1'	-18.87	1.32	1.53
33	L1	2235	G	C2'-C1'	-18.87	1.32	1.53
33	L1	2590	C	O4'-C1'	18.86	1.66	1.41
33	L1	1295	A	O4'-C1'	-18.86	1.17	1.41
33	L1	2493	C	C2'-C1'	-18.85	1.32	1.53
33	L1	2748	G	C2'-C1'	18.85	1.74	1.53
32	S1	138	C	C2'-C1'	-18.81	1.32	1.53
33	L1	1822	C	C2'-C1'	-18.81	1.32	1.53
32	S1	1443	U	C2'-C1'	18.81	1.74	1.53
32	S1	1589	C	C2'-C1'	-18.80	1.32	1.53
33	L1	2135	U	O4'-C1'	18.80	1.66	1.41
33	L1	1787	C	C2'-C1'	-18.78	1.32	1.53
33	L1	2684	U	C2'-C1'	-18.77	1.32	1.53
32	S1	483	C	O4'-C1'	18.77	1.66	1.41
33	L1	232	C	O4'-C1'	18.77	1.66	1.41
32	S1	437	C	O4'-C1'	18.76	1.66	1.41
32	S1	950	U	C2'-C1'	-18.74	1.32	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2478	G	C2'-C1'	-18.73	1.32	1.53
32	S1	1279	A	O4'-C1'	18.72	1.66	1.41
33	L1	487	C	C2'-C1'	-18.68	1.32	1.53
33	L1	2061	C	C2'-C1'	-18.66	1.32	1.53
33	L1	1900	C	O4'-C1'	18.65	1.66	1.41
33	L1	1664	G	O4'-C1'	18.64	1.65	1.41
33	L1	3094	C	O4'-C1'	18.63	1.65	1.41
5	SE	30	ARG	CD-NE	18.62	1.78	1.46
33	L1	1254	A	C2'-C1'	18.62	1.73	1.53
33	L1	2696	C	C2'-C1'	-18.61	1.32	1.53
33	L1	1131	U	O4'-C1'	18.61	1.65	1.41
32	S1	850	G	C2'-C1'	-18.61	1.32	1.53
33	L1	2229	G	C2'-C1'	18.60	1.73	1.53
32	S1	1116	G	C2'-C1'	-18.60	1.32	1.53
32	S1	1126	C	C2'-C1'	-18.59	1.32	1.53
32	S1	1290	U	O4'-C1'	18.58	1.65	1.41
33	L1	543	C	C2'-C1'	-18.57	1.32	1.53
33	L1	1211	G	C2'-C1'	18.57	1.73	1.53
33	L1	3207	C	C2'-C1'	-18.56	1.32	1.53
33	L1	2875	U	O4'-C1'	18.55	1.65	1.41
32	S1	317	U	C2'-C1'	-18.53	1.32	1.53
33	L1	2597	C	O4'-C1'	18.53	1.65	1.41
33	L1	922	U	C2'-C1'	-18.52	1.32	1.53
35	L2	107	G	C2'-C1'	-18.52	1.32	1.53
33	L1	310	C	C2'-C1'	-18.50	1.33	1.53
33	L1	1131	U	C2'-C1'	-18.49	1.33	1.53
33	L1	1599	A	C2'-C1'	-18.48	1.33	1.53
33	L1	308	U	C2'-C1'	-18.48	1.33	1.53
32	S1	123	U	C2'-C1'	18.48	1.73	1.53
33	L1	1735	U	C2'-C1'	18.46	1.73	1.53
33	L1	1822	C	O4'-C1'	18.44	1.65	1.41
32	S1	600	C	O4'-C1'	18.43	1.65	1.41
34	L3	26	C	C2'-C1'	-18.43	1.33	1.53
32	S1	1068	G	C2'-C1'	18.43	1.73	1.53
33	L1	763	G	O4'-C1'	18.43	1.65	1.41
33	L1	58	G	C2'-C1'	18.42	1.73	1.53
33	L1	1593	C	C2'-C1'	-18.42	1.33	1.53
33	L1	1086	U	C2'-C1'	18.41	1.73	1.53
34	L3	79	A	C2'-C1'	18.41	1.73	1.53
33	L1	348	C	C2'-C1'	-18.40	1.33	1.53
33	L1	2213	G	C2'-C1'	-18.40	1.33	1.53
33	L1	3363	G	C2'-C1'	-18.39	1.33	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1538	A	O4'-C1'	18.39	1.65	1.41
33	L1	334	A	C2'-C1'	-18.37	1.33	1.53
33	L1	2614	U	C2'-C1'	18.36	1.73	1.53
35	L2	25	C	C2'-C1'	-18.36	1.33	1.53
33	L1	518	G	C2'-C1'	-18.34	1.33	1.53
33	L1	2199	C	O4'-C1'	18.32	1.65	1.41
33	L1	1394	C	O4'-C1'	18.31	1.65	1.41
67	LS	151	PHE	CG-CD2	18.28	1.66	1.38
33	L1	1607	C	O4'-C1'	18.27	1.65	1.41
33	L1	630	C	C2'-C1'	-18.27	1.33	1.53
33	L1	683	U	C2'-C1'	-18.26	1.33	1.53
33	L1	1615	G	C2'-C1'	-18.26	1.33	1.53
33	L1	811	A	O4'-C1'	18.25	1.65	1.41
33	L1	1630	C	O4'-C1'	18.25	1.65	1.41
33	L1	3203	G	O4'-C1'	-18.25	1.18	1.41
33	L1	2386	A	C2'-C1'	-18.24	1.33	1.53
34	L3	111	U	C2'-C1'	-18.23	1.33	1.53
33	L1	628	C	C2'-C1'	-18.22	1.33	1.53
33	L1	124	C	O4'-C1'	18.22	1.65	1.41
32	S1	466	G	C2'-C1'	-18.21	1.33	1.53
33	L1	71	C	C2'-C1'	18.21	1.73	1.53
34	L3	40	A	C2'-C1'	18.21	1.73	1.53
25	SC	63	THR	CB-OG1	18.21	1.79	1.43
33	L1	2354	G	C2'-C1'	18.21	1.73	1.53
32	S1	32	U	C2'-C1'	18.19	1.73	1.53
32	S1	1616	U	C2'-C1'	-18.18	1.33	1.53
34	L3	13	A	C2'-C1'	-18.18	1.33	1.53
32	S1	513	G	C2'-C1'	-18.17	1.33	1.53
33	L1	1913	C	C2'-C1'	-18.16	1.33	1.53
25	SC	106	PHE	CG-CD1	18.15	1.66	1.38
33	L1	1912	U	C2'-C1'	-18.15	1.33	1.53
33	L1	2746	G	C2'-C1'	-18.14	1.33	1.53
32	S1	943	G	C2'-C1'	-18.13	1.33	1.53
32	S1	603	A	C2'-C1'	-18.11	1.33	1.53
33	L1	1949	G	C2'-C1'	18.11	1.73	1.53
32	S1	290	C	C2'-C1'	-18.11	1.33	1.53
33	L1	35	U	C2'-C1'	-18.11	1.33	1.53
33	L1	3137	G	O4'-C1'	-18.10	1.18	1.41
33	L1	643	G	O4'-C1'	-18.10	1.18	1.41
33	L1	2744	C	O4'-C1'	18.10	1.65	1.41
33	L1	2418	A	C2'-C1'	-18.09	1.33	1.53
34	L3	15	C	C2'-C1'	-18.08	1.33	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	576	C	O4'-C1'	18.08	1.65	1.41
33	L1	311	G	C2'-C1'	-18.07	1.33	1.53
32	S1	1088	G	O4'-C1'	18.07	1.65	1.41
33	L1	682	G	C2'-C1'	-18.07	1.33	1.53
32	S1	124	G	C2'-C1'	-18.06	1.33	1.53
32	S1	645	G	C2'-C1'	-18.06	1.33	1.53
33	L1	10	C	C2'-C1'	-18.06	1.33	1.53
32	S1	902	C	O4'-C1'	18.06	1.65	1.41
33	L1	1547	G	O4'-C1'	18.04	1.65	1.41
33	L1	843	C	O4'-C1'	18.03	1.65	1.41
32	S1	1600	G	C2'-C1'	-18.02	1.33	1.53
31	S2	68	C	C2'-C1'	-18.00	1.33	1.53
33	L1	3333	C	C2'-C1'	-18.00	1.33	1.53
33	L1	2863	U	C2'-C1'	-17.99	1.33	1.53
32	S1	1266	U	O4'-C1'	17.99	1.65	1.41
32	S1	504	C	O4'-C1'	17.99	1.65	1.41
33	L1	1744	C	O4'-C1'	17.98	1.65	1.41
34	L3	1	G	O4'-C1'	17.96	1.65	1.41
33	L1	1755	A	C2'-C1'	-17.96	1.33	1.53
33	L1	2848	U	C2'-C1'	17.96	1.73	1.53
33	L1	1010	A	C2'-C1'	17.96	1.73	1.53
33	L1	2105	G	C2'-C1'	17.95	1.73	1.53
35	L2	128	C	O4'-C1'	17.95	1.65	1.41
33	L1	1533	U	O4'-C1'	17.94	1.65	1.41
33	L1	1537	A	C2'-C1'	17.93	1.73	1.53
33	L1	2706	A	O4'-C1'	-17.92	1.18	1.41
33	L1	2388	C	C2'-C1'	-17.91	1.33	1.53
33	L1	2480	G	C2'-C1'	17.89	1.73	1.53
35	L2	119	C	O4'-C1'	17.85	1.64	1.41
33	L1	656	G	O4'-C1'	17.84	1.64	1.41
33	L1	1715	C	C2'-C1'	17.83	1.73	1.53
35	L2	50	G	C2'-C1'	-17.82	1.33	1.53
33	L1	136	C	O4'-C1'	17.82	1.64	1.41
33	L1	3035	C	O4'-C1'	17.81	1.64	1.41
33	L1	2431	U	C2'-C1'	-17.79	1.33	1.53
32	S1	1736	C	O4'-C1'	17.79	1.64	1.41
33	L1	1533	U	C2'-C1'	17.79	1.73	1.53
32	S1	893	U	O4'-C1'	17.79	1.64	1.41
33	L1	1587	G	O4'-C1'	17.77	1.64	1.41
33	L1	1536	U	C2'-C1'	17.76	1.72	1.53
33	L1	1710	G	C2'-C1'	-17.75	1.33	1.53
33	L1	295	U	C2'-C1'	17.74	1.72	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	677	U	C2'-C1'	-17.74	1.33	1.53
33	L1	2459	U	C2'-C1'	17.73	1.72	1.53
33	L1	1312	A	O4'-C1'	17.73	1.64	1.41
33	L1	2949	G	C2'-C1'	-17.71	1.33	1.53
33	L1	527	G	O4'-C1'	17.71	1.64	1.41
33	L1	423	C	O4'-C1'	17.71	1.64	1.41
33	L1	2722	U	C2'-C1'	17.71	1.72	1.53
33	L1	3331	G	O4'-C1'	-17.69	1.18	1.41
33	L1	1366	G	C2'-C1'	-17.68	1.33	1.53
32	S1	128	G	C2'-C1'	17.68	1.72	1.53
32	S1	611	G	C2'-C1'	-17.66	1.33	1.53
33	L1	265	G	O4'-C1'	17.66	1.64	1.41
31	S2	39	G	C2'-C1'	-17.66	1.33	1.53
32	S1	1797	C	O4'-C1'	17.65	1.64	1.41
33	L1	2993	A	C2'-C1'	-17.64	1.33	1.53
32	S1	1593	U	C2'-C1'	17.63	1.72	1.53
32	S1	1719	C	O4'-C1'	17.63	1.64	1.41
33	L1	2723	G	C2'-C1'	-17.63	1.33	1.53
33	L1	814	U	C2'-C1'	-17.62	1.33	1.53
33	L1	763	G	C2'-C1'	-17.62	1.33	1.53
32	S1	1549	G	C2'-C1'	-17.61	1.33	1.53
33	L1	2179	U	O4'-C1'	17.60	1.64	1.41
33	L1	1574	C	O4'-C1'	17.59	1.64	1.41
32	S1	398	C	C2'-C1'	-17.59	1.34	1.53
33	L1	3234	G	O4'-C1'	-17.59	1.18	1.41
33	L1	2899	A	C2'-C1'	17.58	1.72	1.53
33	L1	1904	A	C2'-C1'	-17.58	1.34	1.53
33	L1	2543	G	O4'-C1'	17.58	1.64	1.41
32	S1	1659	A	O4'-C1'	17.58	1.64	1.41
33	L1	3344	U	O4'-C1'	17.56	1.64	1.41
32	S1	618	C	O4'-C1'	17.56	1.64	1.41
33	L1	2762	U	C2'-C1'	17.55	1.72	1.53
33	L1	3316	C	O4'-C1'	17.55	1.64	1.41
33	L1	636	C	O4'-C1'	17.51	1.64	1.41
33	L1	1311	G	O4'-C1'	-17.51	1.18	1.41
33	L1	2393	G	C2'-C1'	-17.51	1.34	1.53
33	L1	2345	C	C2'-C1'	-17.51	1.34	1.53
32	S1	1351	U	O4'-C1'	17.50	1.64	1.41
33	L1	833	G	C2'-C1'	-17.49	1.34	1.53
33	L1	1266	G	C2'-C1'	-17.49	1.34	1.53
34	L3	41	G	C2'-C1'	-17.49	1.34	1.53
32	S1	1063	U	C2'-C1'	17.49	1.72	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	816	G	C2'-C1'	-17.47	1.34	1.53
33	L1	231	C	O4'-C1'	17.45	1.64	1.41
33	L1	507	C	C2'-C1'	-17.44	1.34	1.53
33	L1	1320	G	C2'-C1'	17.44	1.72	1.53
33	L1	2581	C	C2'-C1'	-17.43	1.34	1.53
33	L1	2850	G	C2'-C1'	-17.42	1.34	1.53
33	L1	446	C	C2'-C1'	-17.41	1.34	1.53
33	L1	1545	G	C2'-C1'	-17.39	1.34	1.53
33	L1	1508	C	C2'-C1'	-17.39	1.34	1.53
33	L1	2197	C	C2'-C1'	-17.39	1.34	1.53
32	S1	1632	C	O4'-C1'	17.38	1.64	1.41
33	L1	2391	C	O4'-C1'	17.36	1.64	1.41
33	L1	3036	C	O4'-C1'	17.36	1.64	1.41
45	LQ	202	GLY	N-CA	17.36	1.72	1.46
33	L1	2876	G	C2'-C1'	-17.36	1.34	1.53
32	S1	1761	G	O4'-C1'	17.33	1.64	1.41
33	L1	1863	A	C2'-C1'	17.33	1.72	1.53
32	S1	1589	C	O4'-C1'	17.33	1.64	1.41
35	L2	121	C	O4'-C1'	17.33	1.64	1.41
4	SD	132	GLY	C-O	-17.32	0.95	1.23
32	S1	301	U	O4'-C1'	17.31	1.64	1.41
32	S1	623	A	O3'-P	-17.30	1.40	1.61
33	L1	425	G	O4'-C1'	17.30	1.64	1.41
33	L1	2952	G	O4'-C1'	-17.30	1.19	1.41
33	L1	1450	G	C2'-C1'	-17.29	1.34	1.53
33	L1	49	U	O4'-C1'	17.29	1.64	1.41
32	S1	290	C	O4'-C1'	17.28	1.64	1.41
33	L1	2376	G	O4'-C1'	-17.28	1.19	1.41
32	S1	509	A	O4'-C1'	17.25	1.64	1.41
33	L1	74	G	C2'-C1'	-17.25	1.34	1.53
33	L1	2779	G	O4'-C1'	-17.25	1.19	1.41
32	S1	1614	C	O4'-C1'	17.23	1.64	1.41
33	L1	2734	C	O4'-C1'	17.23	1.64	1.41
33	L1	3090	C	O4'-C1'	17.22	1.64	1.41
33	L1	295	U	O4'-C1'	-17.22	1.19	1.41
33	L1	1778	C	O4'-C1'	17.20	1.64	1.41
33	L1	549	G	C2'-C1'	-17.19	1.34	1.53
33	L1	2748	G	O4'-C1'	-17.18	1.19	1.41
33	L1	140	C	C2'-C1'	-17.17	1.34	1.53
32	S1	1536	U	O4'-C1'	17.17	1.64	1.41
32	S1	1682	U	O4'-C1'	17.16	1.64	1.41
33	L1	840	A	C2'-C1'	-17.15	1.34	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1633	C	C2'-C1'	-17.15	1.34	1.53
33	L1	1892	A	C2'-C1'	-17.15	1.34	1.53
33	L1	2218	A	C2'-C1'	-17.14	1.34	1.53
33	L1	2097	C	O4'-C1'	17.13	1.64	1.41
33	L1	475	U	O4'-C1'	17.13	1.64	1.41
33	L1	2644	U	C2'-C1'	-17.12	1.34	1.53
32	S1	1566	U	O4'-C1'	17.12	1.64	1.41
33	L1	805	C	C2'-C1'	-17.12	1.34	1.53
33	L1	514	G	C2'-C1'	-17.12	1.34	1.53
32	S1	1012	C	O4'-C1'	17.12	1.64	1.41
34	L3	26	C	O4'-C1'	17.11	1.63	1.41
33	L1	433	C	O4'-C1'	17.10	1.63	1.41
32	S1	1688	G	O4'-C1'	-17.09	1.19	1.41
33	L1	424	G	O4'-C1'	17.08	1.63	1.41
33	L1	2396	A	O4'-C1'	17.08	1.63	1.41
33	L1	2649	C	C2'-C1'	-17.08	1.34	1.53
33	L1	41	C	C2'-C1'	-17.06	1.34	1.53
33	L1	1598	U	C2'-C1'	17.06	1.72	1.53
33	L1	3240	C	C2'-C1'	-17.06	1.34	1.53
33	L1	687	C	C2'-C1'	-17.05	1.34	1.53
33	L1	716	A	O4'-C1'	17.04	1.63	1.41
67	LS	151	PHE	CA-CB	-17.03	1.16	1.53
32	S1	882	G	C2'-C1'	-17.03	1.34	1.53
32	S1	1547	G	O4'-C1'	17.03	1.63	1.41
33	L1	641	C	O4'-C1'	17.02	1.63	1.41
33	L1	1254	A	O4'-C1'	-16.98	1.19	1.41
33	L1	959	U	C2'-C1'	-16.97	1.34	1.53
33	L1	3212	C	C2'-C1'	-16.97	1.34	1.53
33	L1	1240	G	C2'-C1'	-16.96	1.34	1.53
33	L1	3335	G	C2'-C1'	-16.96	1.34	1.53
33	L1	1806	C	O4'-C1'	16.96	1.63	1.41
33	L1	1660	C	O4'-C1'	16.95	1.63	1.41
33	L1	3128	A	C2'-C1'	-16.95	1.34	1.53
33	L1	2540	C	C2'-C1'	-16.94	1.34	1.53
33	L1	3005	C	O4'-C1'	16.94	1.63	1.41
33	L1	1807	C	C2'-C1'	16.94	1.72	1.53
32	S1	1512	C	O4'-C1'	16.92	1.63	1.41
33	L1	2104	G	C2'-C1'	-16.92	1.34	1.53
33	L1	233	C	C2'-C1'	-16.92	1.34	1.53
33	L1	1608	C	O4'-C1'	16.90	1.63	1.41
33	L1	3232	C	C2'-C1'	-16.90	1.34	1.53
33	L1	1007	A	C2'-C1'	-16.90	1.34	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1720	G	C2'-C1'	-16.89	1.34	1.53
33	L1	521	G	C2'-C1'	-16.89	1.34	1.53
33	L1	1103	U	C2'-C1'	16.88	1.72	1.53
33	L1	2724	A	O4'-C1'	16.88	1.63	1.41
35	L2	43	G	C2'-C1'	-16.87	1.34	1.53
32	S1	1343	C	O4'-C1'	16.85	1.63	1.41
33	L1	841	G	C2'-C1'	-16.84	1.34	1.53
33	L1	1252	C	O4'-C1'	16.84	1.63	1.41
33	L1	2846	C	C2'-C1'	-16.83	1.34	1.53
33	L1	796	C	O4'-C1'	16.83	1.63	1.41
34	L3	3	A	O4'-C1'	16.82	1.63	1.41
32	S1	317	U	O4'-C1'	16.81	1.63	1.41
33	L1	210	G	C2'-C1'	-16.80	1.34	1.53
28	SN	51	GLY	C-N	16.78	1.72	1.34
33	L1	1767	G	O4'-C1'	-16.77	1.19	1.41
33	L1	691	U	C2'-C1'	16.76	1.71	1.53
33	L1	224	C	C2'-C1'	-16.74	1.34	1.53
33	L1	1883	A	C2'-C1'	16.71	1.71	1.53
33	L1	410	G	C2'-C1'	-16.71	1.34	1.53
33	L1	695	G	C2'-C1'	16.71	1.71	1.53
34	L3	120	C	C2'-C1'	-16.70	1.34	1.53
32	S1	437	C	C2'-C1'	-16.69	1.34	1.53
32	S1	575	G	C2'-C1'	-16.69	1.34	1.53
33	L1	1727	A	O4'-C1'	16.69	1.63	1.41
33	L1	1430	C	O4'-C1'	16.68	1.63	1.41
35	L2	154	G	C2'-C1'	-16.68	1.35	1.53
32	S1	999	G	C2'-C1'	-16.68	1.35	1.53
32	S1	1099	G	C2'-C1'	-16.67	1.35	1.53
33	L1	1120	G	O4'-C1'	16.67	1.63	1.41
33	L1	2216	G	O4'-C1'	-16.66	1.20	1.41
33	L1	2490	U	C2'-C1'	-16.66	1.35	1.53
80	LC	372	GLY	C-O	-16.65	0.97	1.23
32	S1	1746	U	C2'-C1'	-16.65	1.35	1.53
33	L1	19	C	C2'-C1'	-16.64	1.35	1.53
33	L1	339	G	C2'-C1'	-16.64	1.35	1.53
33	L1	1707	C	C2'-C1'	16.64	1.71	1.53
33	L1	2744	C	C2'-C1'	-16.63	1.35	1.53
33	L1	1829	G	C2'-C1'	-16.63	1.35	1.53
33	L1	2105	G	O4'-C1'	-16.62	1.20	1.41
33	L1	1750	A	O4'-C1'	16.61	1.63	1.41
5	SE	30	ARG	CG-CD	-16.61	1.10	1.51
33	L1	1026	A	C2'-C1'	-16.61	1.35	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1015	A	O4'-C1'	16.60	1.63	1.41
32	S1	1453	U	O4'-C1'	16.59	1.63	1.41
33	L1	1004	C	O4'-C1'	16.58	1.63	1.41
33	L1	1877	G	O4'-C1'	-16.58	1.20	1.41
33	L1	1741	G	C2'-C1'	-16.57	1.35	1.53
33	L1	2477	G	C2'-C1'	16.57	1.71	1.53
32	S1	936	C	O4'-C1'	16.56	1.63	1.41
31	S2	68	C	O4'-C1'	16.55	1.63	1.41
33	L1	1508	C	O4'-C1'	16.54	1.63	1.41
33	L1	2350	C	C2'-C1'	-16.53	1.35	1.53
33	L1	2941	G	C2'-C1'	-16.52	1.35	1.53
33	L1	734	C	O4'-C1'	16.51	1.63	1.41
33	L1	140	C	O4'-C1'	16.51	1.63	1.41
33	L1	2530	G	C2'-C1'	-16.50	1.35	1.53
32	S1	580	G	O4'-C1'	16.50	1.63	1.41
32	S1	1691	C	C2'-C1'	-16.49	1.35	1.53
33	L1	2847	A	C2'-C1'	16.47	1.71	1.53
34	L3	28	U	C2'-C1'	-16.46	1.35	1.53
33	L1	2341	U	C2'-C1'	-16.46	1.35	1.53
33	L1	3372	C	O4'-C1'	16.43	1.63	1.41
73	Lp	52	LYS	C-O	-16.43	0.92	1.23
33	L1	2723	G	O4'-C1'	16.42	1.62	1.41
32	S1	501	U	O4'-C1'	16.41	1.62	1.41
32	S1	318	C	C2'-C1'	-16.41	1.35	1.53
33	L1	3270	C	C2'-C1'	-16.41	1.35	1.53
33	L1	627	G	C2'-C1'	-16.40	1.35	1.53
33	L1	1607	C	C2'-C1'	-16.39	1.35	1.53
32	S1	1226	U	P-O5'	-16.39	1.43	1.59
33	L1	1025	G	C2'-C1'	-16.38	1.35	1.53
33	L1	2881	C	O4'-C1'	16.37	1.62	1.41
32	S1	1226	U	C2'-C1'	16.36	1.71	1.53
33	L1	1660	C	C2'-C1'	-16.33	1.35	1.53
33	L1	1136	A	C2'-C1'	-16.32	1.35	1.53
32	S1	1138	A	C2'-C1'	16.32	1.71	1.53
33	L1	842	C	O4'-C1'	16.30	1.62	1.41
68	LW	29	LYS	N-CA	16.29	1.78	1.46
33	L1	1283	C	O4'-C1'	16.29	1.62	1.41
33	L1	702	G	C2'-C1'	-16.28	1.35	1.53
33	L1	2840	A	C2'-C1'	-16.28	1.35	1.53
32	S1	893	U	C2'-C1'	-16.27	1.35	1.53
33	L1	252	A	O4'-C1'	16.27	1.62	1.41
33	L1	175	G	O4'-C1'	16.26	1.62	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	63	G	C2'-C1'	-16.25	1.35	1.53
33	L1	568	C	O4'-C1'	16.25	1.62	1.41
33	L1	2875	U	C2'-C1'	16.25	1.71	1.53
32	S1	1214	C	C2'-C1'	-16.25	1.35	1.53
33	L1	1554	C	C2'-C1'	-16.24	1.35	1.53
33	L1	3236	A	O4'-C1'	16.24	1.62	1.41
33	L1	2485	U	C2'-C1'	16.23	1.71	1.53
33	L1	1272	G	O4'-C1'	16.23	1.62	1.41
33	L1	480	C	C2'-C1'	-16.23	1.35	1.53
13	SQ	82	MET	C-O	-16.23	0.92	1.23
32	S1	473	C	O4'-C1'	16.22	1.62	1.41
32	S1	1389	G	C2'-C1'	-16.22	1.35	1.53
32	S1	1067	A	C2'-C1'	-16.22	1.35	1.53
33	L1	418	G	O4'-C1'	16.21	1.62	1.41
32	S1	631	C	O4'-C1'	16.20	1.62	1.41
32	S1	1606	U	O4'-C1'	16.19	1.62	1.41
33	L1	1573	G	C2'-C1'	-16.19	1.35	1.53
33	L1	1555	G	C2'-C1'	-16.18	1.35	1.53
33	L1	2487	A	O4'-C1'	-16.17	1.20	1.41
33	L1	444	C	O4'-C1'	16.17	1.62	1.41
32	S1	1686	C	C2'-C1'	-16.16	1.35	1.53
33	L1	335	G	O4'-C1'	16.16	1.62	1.41
33	L1	1887	A	O4'-C1'	16.15	1.62	1.41
32	S1	885	C	O4'-C1'	16.14	1.62	1.41
33	L1	2784	U	C2'-C1'	-16.13	1.35	1.53
10	SL	54	ILE	C-N	-16.13	1.04	1.33
33	L1	2411	G	C2'-C1'	-16.12	1.35	1.53
34	L3	10	C	C2'-C1'	-16.11	1.35	1.53
33	L1	1711	G	C2'-C1'	-16.11	1.35	1.53
33	L1	165	C	C2'-C1'	-16.11	1.35	1.53
33	L1	224	C	O4'-C1'	16.11	1.62	1.41
33	L1	2345	C	O4'-C1'	16.11	1.62	1.41
33	L1	1880	A	C3'-C2'	16.10	1.70	1.52
33	L1	2178	G	C2'-C1'	-16.09	1.35	1.53
33	L1	2592	G	C2'-C1'	-16.09	1.35	1.53
32	S1	1397	A	O4'-C1'	16.08	1.62	1.41
33	L1	1873	C	C2'-C1'	-16.08	1.35	1.53
32	S1	589	A	C2'-C1'	-16.08	1.35	1.53
32	S1	648	C	C2'-C1'	16.07	1.71	1.53
33	L1	2789	G	O4'-C1'	-16.07	1.20	1.41
33	L1	571	G	O4'-C1'	16.06	1.62	1.41
33	L1	2475	C	O4'-C1'	16.06	1.62	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	LD	309	PRO	N-CD	-16.06	1.25	1.47
33	L1	1286	G	C2'-C1'	-16.05	1.35	1.53
32	S1	1369	C	O4'-C1'	16.05	1.62	1.41
33	L1	2580	C	C2'-C1'	-16.05	1.35	1.53
33	L1	759	C	C2'-C1'	-16.04	1.35	1.53
32	S1	400	G	C2'-C1'	16.03	1.71	1.53
33	L1	496	U	C2'-C1'	-16.03	1.35	1.53
32	S1	493	C	C2'-C1'	-16.01	1.35	1.53
32	S1	1062	C	O4'-C1'	15.99	1.62	1.41
33	L1	1718	U	C2'-C1'	-15.99	1.35	1.53
33	L1	178	C	C2'-C1'	-15.98	1.35	1.53
33	L1	1756	C	O4'-C1'	15.97	1.62	1.41
35	L2	63	A	O4'-C1'	15.97	1.62	1.41
33	L1	2405	C	C2'-C1'	-15.97	1.35	1.53
32	S1	1748	U	O4'-C1'	15.96	1.62	1.41
33	L1	1132	A	C2'-C1'	-15.95	1.35	1.53
33	L1	1901	G	C2'-C1'	15.94	1.70	1.53
33	L1	1217	G	C2'-C1'	-15.94	1.35	1.53
3	SB	159	SER	CB-OG	-15.93	1.21	1.42
33	L1	3042	U	C2'-C1'	15.91	1.70	1.53
33	L1	1530	C	C2'-C1'	-15.90	1.35	1.53
33	L1	1526	A	C2'-C1'	15.90	1.70	1.53
34	L3	103	U	O4'-C1'	15.89	1.62	1.41
32	S1	1311	U	O4'-C1'	15.88	1.62	1.41
33	L1	220	G	C2'-C1'	-15.87	1.35	1.53
32	S1	449	A	O4'-C1'	15.85	1.62	1.41
32	S1	1774	C	O4'-C1'	15.85	1.62	1.41
33	L1	2081	C	O4'-C1'	15.85	1.62	1.41
33	L1	400	G	C2'-C1'	15.85	1.70	1.53
33	L1	3088	A	C2'-C1'	-15.85	1.35	1.53
34	L3	46	C	O4'-C1'	15.83	1.62	1.41
32	S1	1793	C	O4'-C1'	15.82	1.62	1.41
33	L1	490	G	O4'-C1'	15.82	1.62	1.41
33	L1	25	U	C2'-C1'	15.82	1.70	1.53
33	L1	2407	U	C2'-C1'	-15.82	1.35	1.53
33	L1	729	G	O4'-C1'	-15.82	1.21	1.41
33	L1	1888	G	O4'-C1'	-15.81	1.21	1.41
33	L1	2841	G	C2'-C1'	-15.81	1.35	1.53
32	S1	4	C	O4'-C1'	15.81	1.62	1.41
33	L1	509	G	C2'-C1'	-15.79	1.35	1.53
33	L1	1635	A	C2'-C1'	-15.79	1.35	1.53
33	L1	254	G	C2'-C1'	-15.79	1.35	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1078	U	C2'-C1'	-15.79	1.35	1.53
32	S1	580	G	C2'-C1'	-15.78	1.35	1.53
33	L1	80	C	C2'-C1'	-15.78	1.35	1.53
33	L1	12	G	O4'-C1'	15.78	1.62	1.41
33	L1	615	A	C2'-C1'	-15.77	1.35	1.53
33	L1	2395	G	C2'-C1'	-15.77	1.36	1.53
35	L2	62	G	C2'-C1'	-15.77	1.36	1.53
32	S1	1513	A	C2'-C1'	15.76	1.70	1.53
33	L1	1798	C	O4'-C1'	15.76	1.62	1.41
34	L3	68	G	O4'-C1'	15.76	1.62	1.41
32	S1	358	C	O4'-C1'	15.75	1.62	1.41
33	L1	1056	U	O4'-C1'	15.75	1.62	1.41
33	L1	2544	C	C2'-C1'	-15.75	1.36	1.53
32	S1	1469	C	O4'-C1'	15.73	1.62	1.41
33	L1	2715	U	C2'-C1'	-15.73	1.36	1.53
32	S1	1371	U	C2'-C1'	-15.73	1.36	1.53
33	L1	1814	C	O4'-C1'	15.72	1.62	1.41
33	L1	2887	C	O4'-C1'	15.72	1.62	1.41
34	L3	11	A	C2'-C1'	-15.72	1.36	1.53
33	L1	2518	A	O4'-C1'	15.71	1.62	1.41
33	L1	2375	G	O4'-C1'	15.67	1.62	1.41
33	L1	1368	U	C2'-C1'	-15.66	1.36	1.53
35	L2	160	C	O4'-C1'	15.66	1.62	1.41
33	L1	583	C	O4'-C1'	15.65	1.61	1.41
33	L1	3175	C	C2'-C1'	-15.64	1.36	1.53
32	S1	1060	U	C2'-C1'	-15.64	1.36	1.53
32	S1	1156	A	C2'-C1'	15.64	1.70	1.53
33	L1	2684	U	O4'-C1'	15.63	1.61	1.41
32	S1	1196	C	O4'-C1'	15.62	1.61	1.41
33	L1	1540	G	C2'-C1'	-15.62	1.36	1.53
33	L1	718	C	C2'-C1'	-15.59	1.36	1.53
33	L1	297	G	C2'-C1'	-15.59	1.36	1.53
33	L1	1213	G	C2'-C1'	-15.58	1.36	1.53
32	S1	1229	C	O4'-C1'	15.57	1.61	1.41
33	L1	2758	C	C2'-C1'	-15.57	1.36	1.53
32	S1	1648	C	O4'-C1'	15.57	1.61	1.41
35	L2	152	C	O4'-C1'	15.56	1.61	1.41
33	L1	1619	G	C2'-C1'	-15.55	1.36	1.53
33	L1	2955	U	C2'-C1'	15.55	1.70	1.53
33	L1	165	C	O4'-C1'	15.55	1.61	1.41
33	L1	3003	C	C2'-C1'	-15.55	1.36	1.53
35	L2	32	C	C2'-C1'	-15.54	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1437	G	C2'-C1'	-15.53	1.36	1.53
35	L2	86	C	O4'-C1'	15.53	1.61	1.41
33	L1	448	G	C2'-C1'	-15.53	1.36	1.53
33	L1	1786	G	C2'-C1'	-15.52	1.36	1.53
32	S1	1794	C	O4'-C1'	15.49	1.61	1.41
32	S1	577	C	O4'-C1'	15.48	1.61	1.41
32	S1	1446	C	O4'-C1'	15.48	1.61	1.41
33	L1	2154	G	C2'-C1'	-15.47	1.36	1.53
33	L1	2165	A	C2'-C1'	-15.47	1.36	1.53
33	L1	2858	G	C2'-C1'	-15.47	1.36	1.53
33	L1	1642	G	C2'-C1'	-15.47	1.36	1.53
33	L1	1606	C	C2'-C1'	-15.47	1.36	1.53
35	L2	115	G	C2'-C1'	15.46	1.70	1.53
33	L1	589	G	C2'-C1'	-15.45	1.36	1.53
33	L1	447	C	O4'-C1'	15.45	1.61	1.41
33	L1	1698	C	C2'-C1'	-15.44	1.36	1.53
32	S1	1373	C	O4'-C1'	15.43	1.61	1.41
33	L1	582	C	O4'-C1'	15.43	1.61	1.41
33	L1	2567	C	C2'-C1'	-15.41	1.36	1.53
32	S1	36	C	O4'-C1'	15.40	1.61	1.41
33	L1	1712	A	O4'-C1'	15.40	1.61	1.41
33	L1	333	G	C2'-C1'	-15.38	1.36	1.53
33	L1	493	G	C2'-C1'	-15.38	1.36	1.53
33	L1	105	A	O4'-C1'	15.38	1.61	1.41
33	L1	1742	G	P-O5'	-15.38	1.44	1.59
4	SD	240	LYS	C-O	-15.37	0.94	1.23
33	L1	3063	C	C2'-C1'	-15.37	1.36	1.53
33	L1	1552	C	C2'-C1'	-15.36	1.36	1.53
32	S1	832	C	C2'-C1'	-15.36	1.36	1.53
32	S1	1036	U	O4'-C1'	15.34	1.61	1.41
32	S1	1649	C	O4'-C1'	15.34	1.61	1.41
33	L1	428	G	C2'-C1'	-15.34	1.36	1.53
35	L2	64	U	C2'-C1'	-15.33	1.36	1.53
33	L1	1708	C	O4'-C1'	15.32	1.61	1.41
32	S1	318	C	O4'-C1'	15.32	1.61	1.41
33	L1	2636	U	C2'-C1'	15.31	1.70	1.53
33	L1	2490	U	O4'-C1'	15.31	1.61	1.41
33	L1	105	A	C2'-C1'	15.31	1.70	1.53
33	L1	1789	C	O4'-C1'	15.31	1.61	1.41
33	L1	347	A	C2'-C1'	-15.31	1.36	1.53
33	L1	112	C	C2'-C1'	-15.30	1.36	1.53
33	L1	2274	A	C2'-C1'	-15.30	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	578	C	O4'-C1'	15.28	1.61	1.41
33	L1	854	C	O4'-C1'	15.28	1.61	1.41
33	L1	3247	C	C2'-C1'	-15.27	1.36	1.53
33	L1	973	U	C2'-C1'	-15.27	1.36	1.53
33	L1	1948	G	C2'-C1'	15.26	1.70	1.53
33	L1	607	U	O4'-C1'	-15.26	1.21	1.41
33	L1	2708	A	C2'-C1'	-15.26	1.36	1.53
35	L2	48	A	O4'-C1'	15.25	1.61	1.41
33	L1	282	A	C2'-C1'	15.24	1.70	1.53
32	S1	1406	U	O4'-C1'	15.23	1.61	1.41
32	S1	1303	G	O4'-C1'	15.23	1.61	1.41
32	S1	591	C	C2'-C1'	-15.23	1.36	1.53
33	L1	1499	C	C2'-C1'	-15.22	1.36	1.53
32	S1	181	C	O4'-C1'	15.22	1.61	1.41
33	L1	2439	A	C2'-C1'	-15.22	1.36	1.53
32	S1	1385	C	O4'-C1'	15.20	1.61	1.41
32	S1	1658	U	O4'-C1'	15.20	1.61	1.41
33	L1	2901	C	O4'-C1'	15.20	1.61	1.41
35	L2	41	A	C2'-C1'	-15.19	1.36	1.53
32	S1	558	C	O4'-C1'	15.18	1.61	1.41
33	L1	3216	G	O4'-C1'	-15.18	1.22	1.41
33	L1	1501	A	C2'-C1'	-15.18	1.36	1.53
33	L1	1663	G	C2'-C1'	-15.18	1.36	1.53
32	S1	1727	C	O4'-C1'	15.18	1.61	1.41
32	S1	1300	A	C2'-C1'	-15.17	1.36	1.53
33	L1	1602	A	O4'-C1'	-15.17	1.22	1.41
33	L1	1034	U	C2'-C1'	-15.17	1.36	1.53
33	L1	1579	C	O4'-C1'	15.16	1.61	1.41
33	L1	2572	U	C2'-C1'	15.16	1.70	1.53
33	L1	2829	U	C2'-C1'	15.16	1.70	1.53
5	SE	250	GLN	C-N	15.16	1.69	1.34
33	L1	1408	C	O4'-C1'	15.16	1.61	1.41
33	L1	2478	G	O4'-C1'	15.15	1.61	1.41
33	L1	2942	A	C2'-C1'	-15.15	1.36	1.53
32	S1	604	U	O4'-C1'	15.14	1.61	1.41
33	L1	671	C	C2'-C1'	-15.14	1.36	1.53
33	L1	450	C	C2'-C1'	-15.14	1.36	1.53
33	L1	2469	C	O4'-C1'	15.14	1.61	1.41
32	S1	1139	C	O4'-C1'	15.13	1.61	1.41
32	S1	1227	A	C2'-C1'	15.13	1.70	1.53
33	L1	1253	G	O4'-C1'	-15.12	1.22	1.41
33	L1	973	U	O4'-C1'	15.12	1.61	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1815	G	C2'-C1'	-15.12	1.36	1.53
32	S1	1592	G	O3'-P	15.11	1.79	1.61
33	L1	3144	U	O4'-C1'	15.11	1.61	1.41
32	S1	1298	G	O3'-P	15.10	1.79	1.61
32	S1	1562	C	O4'-C1'	15.10	1.61	1.41
33	L1	2112	C	O4'-C1'	15.09	1.61	1.41
35	L2	109	A	O4'-C1'	15.08	1.61	1.41
32	S1	1042	C	O4'-C1'	15.07	1.61	1.41
32	S1	586	U	C2'-C1'	-15.06	1.36	1.53
32	S1	1731	A	C2'-C1'	-15.06	1.36	1.53
33	L1	164	C	O4'-C1'	15.06	1.61	1.41
33	L1	846	A	C2'-C1'	15.03	1.69	1.53
32	S1	484	A	C2'-C1'	-15.03	1.36	1.53
33	L1	1545	G	O4'-C1'	15.02	1.61	1.41
33	L1	93	G	C2'-C1'	-15.02	1.36	1.53
33	L1	2763	C	C2'-C1'	15.02	1.69	1.53
33	L1	606	C	C2'-C1'	15.01	1.69	1.53
33	L1	1004	C	C2'-C1'	-15.01	1.36	1.53
33	L1	2280	C	O4'-C1'	15.01	1.61	1.41
32	S1	1354	C	O4'-C1'	15.00	1.61	1.41
33	L1	599	C	O4'-C1'	15.00	1.61	1.41
32	S1	1072	U	C2'-C1'	-14.99	1.36	1.53
32	S1	377	G	C2'-C1'	-14.99	1.36	1.53
32	S1	1295	G	C2'-C1'	-14.99	1.36	1.53
33	L1	1391	A	C2'-C1'	-14.98	1.36	1.53
33	L1	1112	C	C2'-C1'	-14.97	1.36	1.53
33	L1	3307	A	C2'-C1'	14.97	1.69	1.53
33	L1	1197	A	C2'-C1'	-14.97	1.36	1.53
33	L1	3222	G	C2'-C1'	-14.97	1.36	1.53
33	L1	1389	C	C2'-C1'	14.96	1.69	1.53
33	L1	2839	A	O4'-C1'	-14.95	1.22	1.41
32	S1	292	A	C2'-C1'	14.95	1.69	1.53
32	S1	1134	U	C2'-C1'	14.94	1.69	1.53
33	L1	1575	G	O4'-C1'	14.94	1.61	1.41
33	L1	173	C	O4'-C1'	14.93	1.61	1.41
33	L1	1442	U	O4'-C1'	14.93	1.61	1.41
32	S1	1588	C	O4'-C1'	14.92	1.61	1.41
33	L1	1873	C	O4'-C1'	14.92	1.61	1.41
33	L1	2229	G	O4'-C1'	-14.92	1.22	1.41
32	S1	1715	C	O4'-C1'	14.91	1.61	1.41
33	L1	3169	C	O4'-C1'	14.91	1.61	1.41
33	L1	679	C	O4'-C1'	14.91	1.61	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	746	C	C2'-C1'	-14.91	1.36	1.53
33	L1	3375	G	C2'-C1'	-14.91	1.36	1.53
32	S1	1098	A	C2'-C1'	-14.89	1.36	1.53
33	L1	2996	A	O4'-C1'	-14.89	1.22	1.41
33	L1	3121	C	C2'-C1'	-14.89	1.36	1.53
33	L1	2667	C	O4'-C1'	14.88	1.60	1.41
34	L3	78	C	O4'-C1'	14.88	1.60	1.41
33	L1	72	A	O4'-C1'	-14.88	1.22	1.41
33	L1	174	G	C2'-C1'	-14.86	1.37	1.53
32	S1	1743	C	O4'-C1'	14.85	1.60	1.41
33	L1	436	G	O4'-C1'	14.85	1.60	1.41
33	L1	887	A	O4'-C1'	-14.85	1.22	1.41
33	L1	30	C	C2'-C1'	-14.84	1.37	1.53
33	L1	1142	G	C2'-C1'	-14.84	1.37	1.53
33	L1	3020	C	O4'-C1'	14.84	1.60	1.41
33	L1	1814	C	C2'-C1'	-14.83	1.37	1.53
33	L1	2456	G	C2'-C1'	-14.81	1.37	1.53
32	S1	1657	C	O4'-C1'	14.81	1.60	1.41
32	S1	397	C	C2'-C1'	-14.80	1.37	1.53
33	L1	952	C	C2'-C1'	-14.79	1.37	1.53
33	L1	607	U	C2'-C1'	14.79	1.69	1.53
33	L1	637	C	C2'-C1'	-14.78	1.37	1.53
33	L1	1806	C	C2'-C1'	-14.77	1.37	1.53
32	S1	1169	G	O4'-C1'	-14.76	1.22	1.41
33	L1	510	C	O4'-C1'	14.76	1.60	1.41
33	L1	1338	C	C2'-C1'	-14.75	1.37	1.53
32	S1	1358	G	C2'-C1'	-14.75	1.37	1.53
33	L1	301	G	C2'-C1'	-14.75	1.37	1.53
33	L1	1367	A	O4'-C1'	14.74	1.60	1.41
33	L1	1824	C	C2'-C1'	-14.74	1.37	1.53
33	L1	2143	A	C2'-C1'	-14.74	1.37	1.53
32	S1	826	C	O4'-C1'	14.74	1.60	1.41
33	L1	530	C	O4'-C1'	14.74	1.60	1.41
33	L1	1344	A	C2'-C1'	-14.74	1.37	1.53
32	S1	483	C	C2'-C1'	-14.73	1.37	1.53
33	L1	922	U	O4'-C1'	14.73	1.60	1.41
32	S1	1184	C	C2'-C1'	-14.73	1.37	1.53
19	SY	47	ARG	C-N	14.72	1.68	1.34
32	S1	1213	C	O4'-C1'	14.72	1.60	1.41
33	L1	2691	U	O4'-C1'	14.71	1.60	1.41
33	L1	1096	C	O4'-C1'	14.71	1.60	1.41
33	L1	1779	C	C2'-C1'	-14.69	1.37	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1878	G	C2'-C1'	-14.69	1.37	1.53
34	L3	75	G	P-O5'	-14.68	1.45	1.59
33	L1	3333	C	O4'-C1'	14.68	1.60	1.41
33	L1	2973	A	O4'-C1'	-14.67	1.22	1.41
33	L1	2730	A	C2'-C1'	14.67	1.69	1.53
34	L3	110	G	C2'-C1'	-14.67	1.37	1.53
33	L1	1252	C	C2'-C1'	-14.67	1.37	1.53
33	L1	1526	A	O4'-C1'	-14.66	1.22	1.41
9	SK	123	MET	CG-SD	-14.66	1.43	1.81
35	L2	136	G	O4'-C1'	14.65	1.60	1.41
33	L1	2438	A	C2'-C1'	-14.65	1.37	1.53
33	L1	80	C	O4'-C1'	14.65	1.60	1.41
33	L1	255	C	O4'-C1'	14.64	1.60	1.41
33	L1	384	A	C2'-C1'	-14.64	1.37	1.53
33	L1	826	C	C2'-C1'	-14.64	1.37	1.53
64	LG	50	PHE	N-CA	14.64	1.75	1.46
33	L1	3026	C	C2'-C1'	-14.64	1.37	1.53
33	L1	218	G	C2'-C1'	-14.62	1.37	1.53
33	L1	215	U	C2'-C1'	-14.61	1.37	1.53
33	L1	691	U	O4'-C1'	-14.61	1.22	1.41
33	L1	2687	C	C2'-C1'	-14.61	1.37	1.53
32	S1	431	C	O4'-C1'	14.60	1.60	1.41
33	L1	519	C	C2'-C1'	-14.60	1.37	1.53
33	L1	688	G	C2'-C1'	-14.60	1.37	1.53
33	L1	739	C	O4'-C1'	14.60	1.60	1.41
33	L1	113	A	C2'-C1'	14.59	1.69	1.53
33	L1	639	A	C2'-C1'	-14.59	1.37	1.53
32	S1	1485	A	C2'-C1'	14.58	1.69	1.53
32	S1	373	U	O4'-C1'	-14.58	1.22	1.41
33	L1	592	U	C2'-C1'	-14.58	1.37	1.53
32	S1	1303	G	C2'-C1'	-14.58	1.37	1.53
33	L1	663	G	C2'-C1'	-14.57	1.37	1.53
33	L1	1007	A	O4'-C1'	14.57	1.60	1.41
32	S1	1718	C	C2'-C1'	-14.57	1.37	1.53
33	L1	81	C	C2'-C1'	-14.57	1.37	1.53
33	L1	3277	C	O4'-C1'	14.56	1.60	1.41
33	L1	267	G	C2'-C1'	-14.56	1.37	1.53
33	L1	594	C	O4'-C1'	14.55	1.60	1.41
34	L3	101	A	O4'-C1'	14.54	1.60	1.41
32	S1	1746	U	O4'-C1'	14.54	1.60	1.41
33	L1	1841	G	O4'-C1'	-14.53	1.22	1.41
33	L1	2097	C	C2'-C1'	-14.51	1.37	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	L3	103	U	C2'-C1'	-14.51	1.37	1.53
33	L1	631	C	C2'-C1'	-14.51	1.37	1.53
32	S1	354	G	O4'-C1'	14.51	1.60	1.41
33	L1	618	G	O4'-C1'	-14.51	1.22	1.41
33	L1	3349	C	C2'-C1'	-14.51	1.37	1.53
33	L1	1748	A	O4'-C1'	14.50	1.60	1.41
33	L1	2770	U	C2'-C1'	14.50	1.69	1.53
33	L1	183	C	O4'-C1'	14.50	1.60	1.41
33	L1	10	C	O4'-C1'	14.49	1.60	1.41
32	S1	1068	G	O4'-C1'	-14.49	1.22	1.41
14	SP	106	SER	CB-OG	14.49	1.61	1.42
33	L1	1171	U	O4'-C1'	-14.48	1.22	1.41
33	L1	3034	A	O4'-C1'	-14.48	1.22	1.41
32	S1	148	C	C2'-C1'	-14.48	1.37	1.53
33	L1	1553	C	O4'-C1'	14.48	1.60	1.41
33	L1	82	C	C2'-C1'	-14.48	1.37	1.53
33	L1	2150	C	O4'-C1'	14.47	1.60	1.41
33	L1	3324	U	C2'-C1'	14.46	1.69	1.53
33	L1	1056	U	C2'-C1'	-14.46	1.37	1.53
33	L1	1628	G	C2'-C1'	-14.46	1.37	1.53
32	S1	1538	C	C2'-C1'	14.46	1.69	1.53
33	L1	1439	U	C2'-C1'	-14.45	1.37	1.53
32	S1	1395	C	C2'-C1'	-14.45	1.37	1.53
33	L1	77	U	C2'-C1'	14.44	1.69	1.53
32	S1	385	C	O4'-C1'	14.43	1.60	1.41
23	SU	72	GLY	N-CA	14.43	1.67	1.46
33	L1	1115	A	C2'-C1'	14.43	1.69	1.53
33	L1	1283	C	C2'-C1'	-14.42	1.37	1.53
32	S1	234	G	C2'-C1'	-14.41	1.37	1.53
33	L1	719	U	C2'-C1'	-14.40	1.37	1.53
34	L3	19	A	C2'-C1'	14.40	1.69	1.53
33	L1	2487	A	C2'-C1'	14.40	1.69	1.53
33	L1	2672	C	C2'-C1'	-14.40	1.37	1.53
32	S1	880	G	C2'-C1'	14.39	1.69	1.53
33	L1	294	A	C2'-C1'	14.39	1.69	1.53
31	S2	14	A	C2'-C1'	-14.39	1.37	1.53
33	L1	411	C	C2'-C1'	-14.38	1.37	1.53
33	L1	1911	A	C2'-C1'	14.38	1.69	1.53
32	S1	295	C	O4'-C1'	14.38	1.60	1.41
32	S1	1375	C	O4'-C1'	14.37	1.60	1.41
32	S1	447	C	O4'-C1'	14.36	1.60	1.41
35	L2	112	C	O4'-C1'	14.36	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	240	U	O4'-C1'	14.35	1.60	1.41
33	L1	1361	G	C2'-C1'	14.35	1.69	1.53
33	L1	579	G	O4'-C1'	14.34	1.60	1.41
33	L1	338	C	O4'-C1'	14.33	1.60	1.41
33	L1	1054	U	C2'-C1'	-14.33	1.37	1.53
33	L1	337	C	O4'-C1'	14.33	1.60	1.41
33	L1	743	C	O4'-C1'	14.33	1.60	1.41
33	L1	1555	G	O4'-C1'	14.32	1.60	1.41
33	L1	690	G	O4'-C1'	-14.32	1.23	1.41
9	SK	126	GLY	C-N	14.30	1.67	1.34
33	L1	3051	U	C2'-C1'	-14.28	1.37	1.53
33	L1	1693	A	O4'-C1'	14.28	1.60	1.41
33	L1	1715	C	P-O5'	-14.28	1.45	1.59
32	S1	1126	C	O4'-C1'	14.27	1.60	1.41
33	L1	1731	A	O4'-C1'	14.27	1.60	1.41
32	S1	652	G	O4'-C1'	14.26	1.60	1.41
32	S1	1566	U	C2'-C1'	14.26	1.69	1.53
34	L3	104	C	O4'-C1'	14.26	1.60	1.41
33	L1	2397	A	O4'-C1'	14.26	1.60	1.41
33	L1	1772	G	C2'-C1'	14.26	1.69	1.53
33	L1	869	A	C2'-C1'	-14.24	1.37	1.53
33	L1	2712	C	O4'-C1'	14.24	1.60	1.41
32	S1	1151	G	C2'-C1'	-14.23	1.37	1.53
32	S1	33	U	C2'-C1'	14.23	1.69	1.53
33	L1	2624	G	C2'-C1'	-14.22	1.37	1.53
32	S1	1693	C	O4'-C1'	14.22	1.60	1.41
33	L1	1085	G	C2'-C1'	-14.22	1.37	1.53
33	L1	596	C	C2'-C1'	-14.21	1.37	1.53
33	L1	1907	A	O4'-C1'	-14.21	1.23	1.41
34	L3	50	A	O4'-C1'	14.20	1.60	1.41
32	S1	1614	C	C2'-C1'	-14.19	1.37	1.53
31	S2	7	A	O4'-C1'	14.19	1.60	1.41
32	S1	979	A	C2'-C1'	-14.19	1.37	1.53
33	L1	1364	C	O4'-C1'	14.18	1.60	1.41
33	L1	3032	G	C2'-C1'	-14.18	1.37	1.53
34	L3	107	C	C2'-C1'	-14.18	1.37	1.53
33	L1	1128	U	C2'-C1'	-14.18	1.37	1.53
33	L1	3039	U	C2'-C1'	-14.17	1.37	1.53
32	S1	1317	A	C2'-C1'	14.17	1.69	1.53
33	L1	1583	G	C2'-C1'	14.16	1.69	1.53
33	L1	333	G	O4'-C1'	14.16	1.60	1.41
32	S1	1517	C	O4'-C1'	14.16	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2300	G	O4'-C1'	14.16	1.60	1.41
35	L2	27	C	O4'-C1'	14.15	1.60	1.41
35	L2	61	C	C2'-C1'	-14.15	1.37	1.53
33	L1	1527	A	O4'-C1'	14.14	1.60	1.41
33	L1	2386	A	O4'-C1'	14.14	1.60	1.41
32	S1	170	C	O4'-C1'	14.13	1.60	1.41
33	L1	1764	G	C2'-C1'	-14.12	1.37	1.53
33	L1	1304	G	C2'-C1'	-14.11	1.37	1.53
4	SD	240	LYS	CA-C	14.10	1.89	1.52
33	L1	3158	C	C2'-C1'	-14.10	1.37	1.53
4	SD	240	LYS	C-N	14.10	1.58	1.33
33	L1	459	G	C2'-C1'	-14.10	1.37	1.53
33	L1	3325	G	C2'-C1'	-14.10	1.37	1.53
35	L2	129	C	O4'-C1'	14.09	1.59	1.41
35	L2	89	G	O4'-C1'	14.09	1.59	1.41
33	L1	2971	A	C2'-C1'	-14.09	1.37	1.53
33	L1	1523	G	O3'-P	14.08	1.78	1.61
33	L1	68	U	O4'-C1'	14.07	1.59	1.41
33	L1	2396	A	C2'-C1'	-14.06	1.37	1.53
32	S1	1094	U	O4'-C1'	14.06	1.59	1.41
33	L1	729	G	C2'-C1'	14.05	1.68	1.53
33	L1	1107	G	C2'-C1'	-14.05	1.37	1.53
33	L1	2632	U	C2'-C1'	14.05	1.68	1.53
33	L1	722	C	C2'-C1'	14.04	1.68	1.53
32	S1	1718	C	O4'-C1'	14.04	1.59	1.41
34	L3	12	U	C2'-C1'	-14.04	1.38	1.53
33	L1	241	G	C2'-C1'	-14.03	1.38	1.53
33	L1	674	G	C2'-C1'	-14.03	1.38	1.53
33	L1	2761	A	C2'-C1'	-14.03	1.38	1.53
32	S1	420	A	O4'-C1'	14.02	1.59	1.41
32	S1	1781	U	C2'-C1'	-14.01	1.38	1.53
33	L1	328	G	O4'-C1'	14.01	1.59	1.41
33	L1	1666	C	C2'-C1'	-14.01	1.38	1.53
32	S1	1643	A	C2'-C1'	14.00	1.68	1.53
33	L1	1516	G	C2'-C1'	-14.00	1.38	1.53
33	L1	2099	G	C2'-C1'	-13.99	1.38	1.53
33	L1	2696	C	O4'-C1'	13.99	1.59	1.41
33	L1	238	C	C2'-C1'	-13.99	1.38	1.53
33	L1	310	C	O4'-C1'	13.98	1.59	1.41
33	L1	1947	U	C2'-C1'	13.98	1.68	1.53
33	L1	131	C	O4'-C1'	13.95	1.59	1.41
32	S1	1794	C	C2'-C1'	-13.93	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	137	A	C2'-C1'	-13.93	1.38	1.53
32	S1	1425	G	O4'-C1'	13.93	1.59	1.41
70	Li	107	LEU	C-O	-13.92	0.96	1.23
33	L1	1698	C	O4'-C1'	13.92	1.59	1.41
32	S1	1775	A	C2'-C1'	-13.91	1.38	1.53
33	L1	1401	C	O4'-C1'	13.91	1.59	1.41
32	S1	562	U	C2'-C1'	13.91	1.68	1.53
33	L1	2302	G	C2'-C1'	-13.90	1.38	1.53
33	L1	650	A	O4'-C1'	-13.90	1.23	1.41
33	L1	237	C	C2'-C1'	-13.89	1.38	1.53
33	L1	1566	C	O4'-C1'	13.89	1.59	1.41
33	L1	3341	C	O4'-C1'	13.89	1.59	1.41
32	S1	67	G	O4'-C1'	13.89	1.59	1.41
33	L1	409	U	C2'-C1'	-13.89	1.38	1.53
33	L1	112	C	O4'-C1'	13.88	1.59	1.41
32	S1	563	C	C2'-C1'	-13.88	1.38	1.53
32	S1	1464	G	C2'-C1'	-13.88	1.38	1.53
32	S1	1722	C	C2'-C1'	-13.88	1.38	1.53
33	L1	60	G	C2'-C1'	-13.88	1.38	1.53
33	L1	887	A	C2'-C1'	13.88	1.68	1.53
32	S1	1250	C	C2'-C1'	-13.88	1.38	1.53
32	S1	877	G	O4'-C1'	13.87	1.59	1.41
33	L1	1912	U	O4'-C1'	13.86	1.59	1.41
32	S1	495	C	C2'-C1'	-13.86	1.38	1.53
32	S1	31	C	O4'-C1'	13.86	1.59	1.41
35	L2	18	C	C2'-C1'	-13.86	1.38	1.53
33	L1	63	G	O4'-C1'	13.85	1.59	1.41
33	L1	3352	C	C2'-C1'	13.84	1.68	1.53
32	S1	1327	C	O4'-C1'	13.84	1.59	1.41
32	S1	1783	C	C2'-C1'	-13.84	1.38	1.53
33	L1	791	C	O4'-C1'	13.84	1.59	1.41
33	L1	1880	A	C3'-O3'	13.84	1.61	1.42
33	L1	2927	C	O4'-C1'	13.83	1.59	1.41
33	L1	2846	C	O4'-C1'	13.83	1.59	1.41
33	L1	562	G	C2'-C1'	-13.83	1.38	1.53
32	S1	1061	G	O4'-C1'	13.82	1.59	1.41
32	S1	1249	G	O4'-C1'	13.82	1.59	1.41
33	L1	1080	C	O4'-C1'	13.82	1.59	1.41
32	S1	1620	C	O4'-C1'	13.82	1.59	1.41
33	L1	1432	G	C2'-C1'	-13.82	1.38	1.53
33	L1	2247	A	O4'-C1'	13.81	1.59	1.41
33	L1	1748	A	C2'-C1'	-13.81	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	27	C	C2'-C1'	-13.81	1.38	1.53
33	L1	2649	C	O4'-C1'	13.81	1.59	1.41
33	L1	2676	A	P-O5'	-13.80	1.46	1.59
32	S1	602	U	C2'-C1'	-13.79	1.38	1.53
33	L1	2825	G	C2'-C1'	13.79	1.68	1.53
47	LU	138	GLY	CA-C	13.78	1.74	1.51
34	L3	3	A	C2'-C1'	13.78	1.68	1.53
33	L1	1458	U	C2'-C1'	13.78	1.68	1.53
32	S1	939	C	O4'-C1'	13.77	1.59	1.41
33	L1	1363	C	C2'-C1'	-13.77	1.38	1.53
31	S2	11	U	C2'-C1'	-13.77	1.38	1.53
32	S1	1326	A	O4'-C1'	13.77	1.59	1.41
32	S1	1799	G	C2'-C1'	-13.76	1.38	1.53
33	L1	686	A	O4'-C1'	13.76	1.59	1.41
33	L1	305	G	O4'-C1'	-13.76	1.23	1.41
33	L1	827	C	O4'-C1'	13.74	1.59	1.41
33	L1	938	U	C2'-C1'	13.74	1.68	1.53
14	SP	50	ILE	C-N	-13.72	1.02	1.34
33	L1	2629	C	O4'-C1'	13.71	1.59	1.41
33	L1	3129	G	C2'-C1'	-13.70	1.38	1.53
35	L2	145	C	C2'-C1'	13.71	1.68	1.53
42	LP	74	PRO	C-O	-13.71	0.95	1.23
35	L2	122	C	C2'-C1'	-13.70	1.38	1.53
1	Sa	83	SER	CB-OG	13.69	1.60	1.42
32	S1	1471	C	O4'-C1'	13.68	1.59	1.41
32	S1	1632	C	C2'-C1'	-13.68	1.38	1.53
33	L1	2160	C	O4'-C1'	13.68	1.59	1.41
27	SH	109	GLY	CA-C	-13.67	1.29	1.51
32	S1	1801	A	O4'-C1'	-13.67	1.23	1.41
33	L1	563	C	C2'-C1'	-13.67	1.38	1.53
33	L1	2758	C	O4'-C1'	13.67	1.59	1.41
33	L1	1070	G	O4'-C1'	13.67	1.59	1.41
35	L2	153	U	O4'-C1'	13.67	1.59	1.41
33	L1	3082	G	O4'-C1'	13.66	1.59	1.41
33	L1	655	G	C2'-C1'	-13.66	1.38	1.53
33	L1	1089	G	O4'-C1'	13.66	1.59	1.41
31	S2	11	U	O4'-C1'	13.66	1.59	1.41
32	S1	1784	G	C2'-C1'	-13.66	1.38	1.53
33	L1	2232	C	O4'-C1'	13.65	1.59	1.41
32	S1	459	C	O4'-C1'	13.65	1.59	1.41
33	L1	350	A	C2'-C1'	13.65	1.68	1.53
33	L1	1273	U	O4'-C1'	13.64	1.59	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3225	G	O4'-C1'	-13.64	1.24	1.41
32	S1	995	C	O4'-C1'	13.64	1.59	1.41
33	L1	513	C	O4'-C1'	13.64	1.59	1.41
35	L2	135	G	C2'-C1'	-13.64	1.38	1.53
33	L1	2419	C	O4'-C1'	13.63	1.59	1.41
33	L1	1542	A	O4'-C1'	13.63	1.59	1.41
32	S1	1770	G	C2'-C1'	-13.63	1.38	1.53
34	L3	49	A	C2'-C1'	-13.63	1.38	1.53
38	LE	153	HIS	CD2-NE2	13.61	1.70	1.42
33	L1	1440	C	C2'-C1'	-13.61	1.38	1.53
33	L1	541	C	O4'-C1'	13.61	1.59	1.41
35	L2	19	G	C2'-C1'	-13.60	1.38	1.53
33	L1	2732	U	O4'-C1'	13.60	1.59	1.41
33	L1	979	C	O4'-C1'	13.59	1.59	1.41
33	L1	1053	C	O4'-C1'	13.59	1.59	1.41
33	L1	2808	U	O4'-C1'	13.59	1.59	1.41
33	L1	627	G	O4'-C1'	13.59	1.59	1.41
31	S2	46	A	C2'-C1'	13.58	1.68	1.53
33	L1	810	A	O4'-C1'	13.58	1.59	1.41
33	L1	2133	A	O4'-C1'	13.58	1.59	1.41
32	S1	1050	C	O4'-C1'	13.58	1.59	1.41
33	L1	1456	A	C2'-C1'	13.57	1.68	1.53
33	L1	1707	C	O4'-C1'	-13.56	1.24	1.41
32	S1	879	C	C2'-C1'	-13.56	1.38	1.53
68	LW	104	VAL	C-O	-13.55	0.97	1.23
33	L1	819	A	O4'-C1'	13.55	1.59	1.41
33	L1	1886	U	C2'-C1'	-13.55	1.38	1.53
33	L1	2739	A	O4'-C1'	-13.54	1.24	1.41
32	S1	1602	G	C2'-C1'	-13.54	1.38	1.53
33	L1	2358	C	O4'-C1'	13.54	1.59	1.41
33	L1	3314	G	C2'-C1'	-13.53	1.38	1.53
33	L1	1811	U	O4'-C1'	13.53	1.59	1.41
33	L1	3011	U	C2'-C1'	13.53	1.68	1.53
33	L1	232	C	C2'-C1'	-13.51	1.38	1.53
33	L1	3296	C	C2'-C1'	13.51	1.68	1.53
32	S1	386	C	O4'-C1'	13.50	1.59	1.41
33	L1	3026	C	O4'-C1'	13.50	1.59	1.41
33	L1	3323	U	C2'-C1'	13.50	1.68	1.53
33	L1	686	A	C2'-C1'	-13.50	1.38	1.53
33	L1	3290	C	C2'-C1'	-13.49	1.38	1.53
45	LQ	124	VAL	C-O	-13.49	0.97	1.23
32	S1	1514	G	C2'-C1'	-13.49	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	125	G	C2'-C1'	-13.48	1.38	1.53
33	L1	3301	G	C2'-C1'	13.48	1.68	1.53
33	L1	2302	G	O4'-C1'	13.46	1.59	1.41
33	L1	2622	G	O4'-C1'	13.46	1.59	1.41
33	L1	2868	C	O4'-C1'	-13.45	1.24	1.41
33	L1	2336	C	C2'-C1'	-13.45	1.38	1.53
33	L1	1483	G	O4'-C1'	-13.44	1.24	1.41
33	L1	1350	G	O4'-C1'	-13.44	1.24	1.41
33	L1	2036	C	O4'-C1'	13.44	1.59	1.41
30	S3	17	A	O4'-C1'	13.43	1.59	1.41
33	L1	960	C	O4'-C1'	13.43	1.59	1.41
33	L1	2491	A	C2'-C1'	-13.42	1.38	1.53
33	L1	1937	C	O4'-C1'	13.42	1.59	1.41
33	L1	231	C	C2'-C1'	-13.41	1.38	1.53
33	L1	489	C	O4'-C1'	13.41	1.59	1.41
33	L1	2753	C	C2'-C1'	-13.40	1.38	1.53
25	SC	143	VAL	C-N	13.39	1.64	1.34
33	L1	3319	G	C2'-C1'	-13.39	1.38	1.53
33	L1	2226	C	O4'-C1'	-13.39	1.24	1.41
33	L1	2738	U	C2'-C1'	-13.39	1.38	1.53
33	L1	3092	A	O4'-C1'	13.39	1.59	1.41
31	S2	61	C	O4'-C1'	13.38	1.59	1.41
33	L1	2801	A	O4'-C1'	13.38	1.59	1.41
33	L1	7	C	O4'-C1'	13.38	1.59	1.41
33	L1	910	G	C2'-C1'	-13.38	1.38	1.53
33	L1	491	G	C2'-C1'	-13.37	1.38	1.53
33	L1	3040	G	O4'-C1'	-13.37	1.24	1.41
32	S1	994	U	C2'-C1'	13.36	1.68	1.53
31	S2	26	G	O4'-C1'	-13.36	1.24	1.41
32	S1	1707	G	C2'-C1'	13.36	1.68	1.53
33	L1	548	G	C2'-C1'	-13.35	1.38	1.53
32	S1	298	C	O4'-C1'	13.35	1.59	1.41
64	LG	44	ALA	C-O	-13.35	0.97	1.23
33	L1	375	G	C2'-C1'	-13.34	1.38	1.53
33	L1	2521	C	C2'-C1'	-13.34	1.38	1.53
33	L1	451	C	O4'-C1'	13.34	1.58	1.41
32	S1	1434	G	C2'-C1'	-13.33	1.38	1.53
33	L1	2998	A	C2'-C1'	13.32	1.68	1.53
33	L1	1414	C	C2'-C1'	-13.32	1.38	1.53
33	L1	2234	G	C2'-C1'	-13.32	1.38	1.53
33	L1	1939	C	O4'-C1'	13.32	1.58	1.41
32	S1	1506	G	C2'-C1'	-13.31	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3231	G	C2'-C1'	-13.30	1.38	1.53
33	L1	2567	C	O4'-C1'	13.30	1.58	1.41
33	L1	3161	C	O4'-C1'	13.30	1.58	1.41
33	L1	2486	G	O4'-C1'	-13.30	1.24	1.41
32	S1	1743	C	C2'-C1'	-13.29	1.38	1.53
33	L1	2462	G	C2'-C1'	13.29	1.68	1.53
32	S1	14	C	O4'-C1'	13.28	1.58	1.41
33	L1	1913	C	O4'-C1'	13.29	1.58	1.41
33	L1	2070	C	O4'-C1'	13.29	1.58	1.41
33	L1	2373	C	C2'-C1'	13.28	1.68	1.53
33	L1	2505	C	O4'-C1'	13.28	1.58	1.41
33	L1	843	C	C2'-C1'	-13.28	1.38	1.53
33	L1	2856	U	C2'-C1'	13.28	1.68	1.53
33	L1	2058	C	O4'-C1'	13.27	1.58	1.41
32	S1	933	G	C2'-C1'	13.27	1.68	1.53
33	L1	178	C	O4'-C1'	13.27	1.58	1.41
33	L1	1000	A	O4'-C1'	13.27	1.58	1.41
32	S1	1358	G	O4'-C1'	13.26	1.58	1.41
32	S1	1667	A	O4'-C1'	13.26	1.58	1.41
33	L1	3183	G	O4'-C1'	13.26	1.58	1.41
33	L1	1703	C	O4'-C1'	13.26	1.58	1.41
33	L1	3229	C	C2'-C1'	-13.26	1.38	1.53
32	S1	336	U	C2'-C1'	13.25	1.68	1.53
33	L1	994	U	C2'-C1'	-13.25	1.38	1.53
33	L1	853	U	C2'-C1'	13.25	1.68	1.53
33	L1	126	G	C2'-C1'	-13.24	1.38	1.53
32	S1	1597	C	O4'-C1'	13.23	1.58	1.41
33	L1	1310	G	O4'-C1'	-13.23	1.24	1.41
33	L1	315	A	C2'-C1'	-13.22	1.38	1.53
33	L1	2726	U	O4'-C1'	13.22	1.58	1.41
32	S1	1645	C	C2'-C1'	-13.22	1.38	1.53
31	S2	47	U	C2'-C1'	13.21	1.67	1.53
33	L1	3349	C	O4'-C1'	13.21	1.58	1.41
33	L1	744	C	C2'-C1'	-13.20	1.38	1.53
32	S1	574	A	C2'-C1'	13.19	1.67	1.53
33	L1	296	C	O4'-C1'	13.19	1.58	1.41
33	L1	1486	G	C2'-C1'	13.19	1.67	1.53
32	S1	1433	A	O4'-C1'	-13.19	1.24	1.41
33	L1	3388	U	C2'-C1'	13.18	1.67	1.53
31	S2	49	G	C2'-C1'	-13.18	1.38	1.53
32	S1	439	C	O4'-C1'	13.18	1.58	1.41
33	L1	2158	C	O4'-C1'	13.18	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1074	C	O4'-C1'	13.17	1.58	1.41
33	L1	442	C	O4'-C1'	13.16	1.58	1.41
32	S1	1167	C	O4'-C1'	13.16	1.58	1.41
33	L1	1736	C	C2'-C1'	-13.16	1.38	1.53
33	L1	1673	A	C2'-C1'	-13.14	1.38	1.53
32	S1	1243	C	O4'-C1'	13.14	1.58	1.41
33	L1	1496	G	C2'-C1'	13.14	1.67	1.53
33	L1	2657	C	O4'-C1'	13.14	1.58	1.41
33	L1	2871	U	O4'-C1'	13.14	1.58	1.41
33	L1	3232	C	O4'-C1'	13.14	1.58	1.41
32	S1	1509	C	O4'-C1'	13.14	1.58	1.41
33	L1	264	C	C2'-C1'	-13.14	1.38	1.53
32	S1	1447	C	O4'-C1'	13.13	1.58	1.41
33	L1	2681	A	O4'-C1'	13.13	1.58	1.41
33	L1	3235	A	P-O5'	-13.13	1.46	1.59
33	L1	1582	C	C2'-C1'	-13.12	1.39	1.53
33	L1	1895	G	C2'-C1'	-13.12	1.39	1.53
32	S1	1761	G	C2'-C1'	-13.12	1.39	1.53
33	L1	2512	U	O4'-C1'	13.12	1.58	1.41
33	L1	2666	G	O4'-C1'	-13.12	1.24	1.41
32	S1	1576	C	O4'-C1'	13.11	1.58	1.41
33	L1	859	G	C2'-C1'	-13.11	1.39	1.53
33	L1	2546	C	C2'-C1'	-13.10	1.39	1.53
32	S1	1549	G	O4'-C1'	13.10	1.58	1.41
33	L1	3291	C	O4'-C1'	13.10	1.58	1.41
32	S1	690	G	O4'-C1'	13.09	1.58	1.41
33	L1	1589	G	O4'-C1'	-13.09	1.24	1.41
32	S1	1174	G	O4'-C1'	13.09	1.58	1.41
33	L1	1363	C	O4'-C1'	13.09	1.58	1.41
32	S1	1353	G	C2'-C1'	-13.09	1.39	1.53
33	L1	664	A	O4'-C1'	-13.08	1.24	1.41
33	L1	492	G	O4'-C1'	-13.08	1.24	1.41
4	SD	241	GLY	CA-C	-13.06	1.30	1.51
33	L1	642	C	O3'-P	-13.06	1.45	1.61
33	L1	974	G	P-O5'	-13.05	1.46	1.59
33	L1	1499	C	O4'-C1'	13.05	1.58	1.41
33	L1	2406	C	O4'-C1'	13.05	1.58	1.41
33	L1	1682	C	C2'-C1'	-13.05	1.39	1.53
33	L1	1935	G	C2'-C1'	-13.05	1.39	1.53
33	L1	2336	C	O4'-C1'	13.05	1.58	1.41
32	S1	377	G	O4'-C1'	13.04	1.58	1.41
33	L1	2331	A	C2'-C1'	13.04	1.67	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	501	U	C2'-C1'	-13.03	1.39	1.53
33	L1	431	G	C2'-C1'	-13.03	1.39	1.53
32	S1	1228	G	O4'-C1'	13.03	1.58	1.41
33	L1	3095	G	C2'-C1'	-13.02	1.39	1.53
33	L1	18	G	C2'-C1'	-13.02	1.39	1.53
33	L1	1286	G	O4'-C1'	13.02	1.58	1.41
33	L1	2454	U	C2'-C1'	-13.02	1.39	1.53
80	LC	357	GLU	C-O	-13.01	0.98	1.23
33	L1	2909	A	C2'-C1'	13.01	1.67	1.53
32	S1	983	A	C2'-C1'	-13.00	1.39	1.53
32	S1	1383	U	C2'-C1'	-13.00	1.39	1.53
32	S1	1245	G	C2'-C1'	13.00	1.67	1.53
33	L1	602	G	C2'-C1'	-13.00	1.39	1.53
33	L1	3063	C	O4'-C1'	13.00	1.58	1.41
33	L1	2697	A	O4'-C1'	13.00	1.58	1.41
33	L1	518	G	O4'-C1'	12.99	1.58	1.41
33	L1	426	A	C2'-C1'	-12.99	1.39	1.53
33	L1	751	C	O4'-C1'	12.99	1.58	1.41
33	L1	720	G	C2'-C1'	12.99	1.67	1.53
33	L1	1749	G	C2'-C1'	-12.99	1.39	1.53
33	L1	2731	G	C2'-C1'	-12.98	1.39	1.53
32	S1	1699	C	C2'-C1'	-12.97	1.39	1.53
33	L1	553	C	O4'-C1'	12.97	1.58	1.41
32	S1	689	C	O4'-C1'	12.97	1.58	1.41
33	L1	975	G	C2'-C1'	-12.97	1.39	1.53
33	L1	302	G	O4'-C1'	-12.96	1.24	1.41
32	S1	1458	U	C2'-C1'	-12.96	1.39	1.53
33	L1	461	A	O4'-C1'	12.96	1.58	1.41
32	S1	683	C	O4'-C1'	12.95	1.58	1.41
33	L1	1180	C	O4'-C1'	12.95	1.58	1.41
33	L1	1696	G	C2'-C1'	12.94	1.67	1.53
33	L1	2228	A	C2'-C1'	12.94	1.67	1.53
4	SD	153	ILE	CA-C	12.93	1.86	1.52
34	L3	12	U	O4'-C1'	12.93	1.58	1.41
33	L1	3241	C	C2'-C1'	-12.92	1.39	1.53
31	S2	31	C	C2'-C1'	-12.91	1.39	1.53
32	S1	1231	A	O4'-C1'	12.91	1.58	1.41
33	L1	2225	C	O4'-C1'	12.91	1.58	1.41
32	S1	1073	C	C2'-C1'	-12.91	1.39	1.53
33	L1	876	C	C2'-C1'	-12.91	1.39	1.53
32	S1	1065	A	O4'-C1'	12.91	1.58	1.41
33	L1	2727	U	C2'-C1'	-12.90	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	697	A	C2'-C1'	-12.89	1.39	1.53
33	L1	681	A	C2'-C1'	12.88	1.67	1.53
33	L1	1135	C	C2'-C1'	-12.89	1.39	1.53
35	L2	99	G	C2'-C1'	12.88	1.67	1.53
32	S1	1021	C	O4'-C1'	12.88	1.58	1.41
33	L1	17	G	C2'-C1'	-12.88	1.39	1.53
33	L1	88	A	C2'-C1'	-12.88	1.39	1.53
33	L1	1736	C	O4'-C1'	12.88	1.58	1.41
33	L1	661	A	C2'-C1'	12.87	1.67	1.53
33	L1	2839	A	C2'-C1'	12.87	1.67	1.53
34	L3	72	G	C2'-C1'	-12.86	1.39	1.53
33	L1	605	A	C2'-C1'	12.86	1.67	1.53
33	L1	703	G	C2'-C1'	-12.86	1.39	1.53
33	L1	784	G	C2'-C1'	-12.86	1.39	1.53
32	S1	663	C	O4'-C1'	12.86	1.58	1.41
33	L1	2430	C	P-O5'	-12.86	1.46	1.59
32	S1	576	C	C2'-C1'	-12.84	1.39	1.53
33	L1	2992	G	O4'-C1'	-12.84	1.25	1.41
32	S1	550	U	O4'-C1'	12.83	1.58	1.41
32	S1	1019	G	C2'-C1'	-12.83	1.39	1.53
33	L1	1675	G	C2'-C1'	12.83	1.67	1.53
35	L2	36	C	O4'-C1'	12.82	1.58	1.41
32	S1	652	G	C2'-C1'	-12.82	1.39	1.53
33	L1	3210	G	C2'-C1'	12.82	1.67	1.53
45	LQ	235	GLY	C-O	-12.82	1.03	1.23
32	S1	398	C	O4'-C1'	12.81	1.58	1.41
32	S1	14	C	C2'-C1'	-12.81	1.39	1.53
11	SM	97	GLN	C-O	-12.80	0.99	1.23
33	L1	1371	G	O4'-C1'	12.79	1.58	1.41
33	L1	2200	U	O4'-C1'	12.79	1.58	1.41
33	L1	2673	G	C2'-C1'	-12.79	1.39	1.53
33	L1	1253	G	C2'-C1'	12.79	1.67	1.53
33	L1	2166	U	O4'-C1'	12.79	1.58	1.41
35	L2	61	C	O4'-C1'	12.79	1.58	1.41
32	S1	397	C	O4'-C1'	12.78	1.58	1.41
33	L1	430	G	O4'-C1'	12.78	1.58	1.41
33	L1	611	C	C2'-C1'	12.78	1.67	1.53
33	L1	2896	C	O4'-C1'	12.78	1.58	1.41
33	L1	2388	C	O4'-C1'	12.78	1.58	1.41
32	S1	1109	U	O4'-C1'	12.77	1.58	1.41
32	S1	350	G	C2'-C1'	-12.77	1.39	1.53
32	S1	1174	G	C2'-C1'	-12.77	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1201	C	O4'-C1'	12.77	1.58	1.41
33	L1	536	C	O4'-C1'	12.76	1.58	1.41
33	L1	2749	A	C2'-C1'	-12.76	1.39	1.53
33	L1	1088	A	O4'-C1'	12.76	1.58	1.41
33	L1	3101	C	C4'-C3'	12.76	1.67	1.53
32	S1	18	C	O4'-C1'	12.76	1.58	1.41
33	L1	931	C	C2'-C1'	-12.76	1.39	1.53
33	L1	2481	C	O4'-C1'	12.76	1.58	1.41
33	L1	1977	C	O4'-C1'	12.75	1.58	1.41
35	L2	44	A	O4'-C1'	12.75	1.58	1.41
32	S1	412	C	O4'-C1'	12.75	1.58	1.41
32	S1	1336	C	O4'-C1'	12.74	1.58	1.41
33	L1	81	C	O4'-C1'	12.74	1.58	1.41
32	S1	1353	G	O4'-C1'	12.73	1.58	1.41
32	S1	1792	A	O4'-C1'	-12.73	1.25	1.41
23	SU	82	TYR	N-CA	12.71	1.71	1.46
32	S1	1695	G	C2'-C1'	-12.71	1.39	1.53
33	L1	558	G	C2'-C1'	-12.71	1.39	1.53
32	S1	1757	G	C2'-C1'	-12.70	1.39	1.53
33	L1	2949	G	O4'-C1'	12.69	1.58	1.41
32	S1	614	G	O4'-C1'	-12.69	1.25	1.41
33	L1	1790	A	C2'-C1'	-12.69	1.39	1.53
32	S1	1299	G	O3'-P	-12.69	1.46	1.61
33	L1	281	G	C2'-C1'	-12.69	1.39	1.53
33	L1	1763	C	O4'-C1'	12.69	1.58	1.41
33	L1	2282	C	O4'-C1'	12.69	1.58	1.41
33	L1	1270	G	C2'-C1'	-12.68	1.39	1.53
33	L1	928	A	O4'-C1'	12.68	1.58	1.41
35	L2	157	C	O4'-C1'	12.68	1.58	1.41
33	L1	679	C	C2'-C1'	-12.68	1.39	1.53
31	S2	3	C	O4'-C1'	12.67	1.58	1.41
32	S1	164	C	C2'-C1'	-12.66	1.39	1.53
32	S1	1050	C	C2'-C1'	-12.66	1.39	1.53
31	S2	27	G	C2'-C1'	-12.65	1.39	1.53
33	L1	632	C	C2'-C1'	-12.65	1.39	1.53
33	L1	2713	G	C2'-C1'	-12.65	1.39	1.53
33	L1	513	C	C2'-C1'	-12.64	1.39	1.53
33	L1	1366	G	O4'-C1'	-12.64	1.25	1.41
33	L1	3322	A	C2'-C1'	-12.63	1.39	1.53
33	L1	2088	C	C2'-C1'	-12.63	1.39	1.53
38	LE	153	HIS	CE1-NE2	12.63	1.61	1.32
71	Lj	24	LYS	C-O	-12.63	0.99	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1315	U	C2'-C1'	12.62	1.67	1.53
33	L1	449	G	O4'-C1'	12.62	1.58	1.41
33	L1	2365	C	C2'-C1'	-12.62	1.39	1.53
33	L1	614	C	O4'-C1'	12.61	1.58	1.41
33	L1	3317	G	C2'-C1'	12.61	1.67	1.53
32	S1	1225	A	O3'-P	-12.60	1.46	1.61
33	L1	2584	U	C2'-C1'	-12.60	1.39	1.53
32	S1	679	C	O4'-C1'	12.60	1.58	1.41
32	S1	1385	C	C2'-C1'	-12.59	1.39	1.53
32	S1	475	A	O4'-C1'	12.59	1.58	1.41
33	L1	3272	A	C2'-C1'	-12.59	1.39	1.53
23	SU	33	LEU	C-O	-12.57	0.99	1.23
32	S1	1686	C	O4'-C1'	12.57	1.57	1.41
33	L1	460	A	C2'-C1'	12.57	1.67	1.53
32	S1	513	G	O4'-C1'	12.56	1.57	1.41
33	L1	1689	G	O4'-C1'	12.56	1.57	1.41
33	L1	2648	G	C2'-C1'	-12.56	1.39	1.53
33	L1	1914	C	O4'-C1'	12.56	1.57	1.41
33	L1	3365	U	O4'-C1'	12.56	1.57	1.41
33	L1	585	A	C2'-C1'	-12.56	1.39	1.53
33	L1	907	A	C2'-C1'	-12.55	1.39	1.53
33	L1	1906	A	C2'-C1'	12.55	1.67	1.53
33	L1	1623	C	C2'-C1'	-12.55	1.39	1.53
33	L1	940	G	O3'-P	-12.55	1.46	1.61
33	L1	2280	C	C2'-C1'	-12.54	1.39	1.53
67	LS	151	PHE	CD2-CE2	-12.54	1.14	1.39
32	S1	23	G	C2'-C1'	-12.54	1.39	1.53
33	L1	778	G	C2'-C1'	-12.54	1.39	1.53
33	L1	27	C	O4'-C1'	12.54	1.57	1.41
32	S1	627	A	C2'-C1'	12.53	1.67	1.53
32	S1	1030	A	O4'-C1'	12.53	1.57	1.41
32	S1	1790	G	C2'-C1'	-12.53	1.39	1.53
33	L1	2227	A	O4'-C1'	12.52	1.57	1.41
32	S1	1128	C	O4'-C1'	12.51	1.57	1.41
33	L1	974	G	C2'-C1'	-12.51	1.39	1.53
33	L1	2532	A	C2'-C1'	-12.51	1.39	1.53
32	S1	1656	C	O4'-C1'	12.51	1.57	1.41
32	S1	1705	C	O4'-C1'	12.51	1.57	1.41
35	L2	36	C	C2'-C1'	-12.51	1.39	1.53
32	S1	1372	C	O4'-C1'	12.51	1.57	1.41
33	L1	2510	U	O4'-C1'	12.50	1.57	1.41
32	S1	854	C	C2'-C1'	-12.50	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1232	G	C2'-C1'	-12.49	1.39	1.53
23	SU	79	GLY	C-O	-12.49	1.03	1.23
33	L1	2173	G	C2'-C1'	-12.49	1.39	1.53
33	L1	2767	C	O4'-C1'	12.49	1.57	1.41
33	L1	581	G	C2'-C1'	-12.49	1.39	1.53
33	L1	888	U	C2'-C1'	12.48	1.67	1.53
33	L1	1027	C	C2'-C1'	12.48	1.67	1.53
33	L1	990	U	C2'-C1'	-12.47	1.39	1.53
31	S2	50	G	C2'-C1'	-12.47	1.39	1.53
31	S2	73	C	O4'-C1'	12.47	1.57	1.41
32	S1	1199	C	O4'-C1'	12.47	1.57	1.41
32	S1	226	C	O4'-C1'	12.47	1.57	1.41
32	S1	906	G	C2'-C1'	-12.47	1.39	1.53
32	S1	1625	U	O4'-C1'	12.47	1.57	1.41
33	L1	1859	G	O4'-C1'	12.47	1.57	1.41
33	L1	2633	C	O4'-C1'	12.47	1.57	1.41
33	L1	2301	C	C2'-C1'	-12.46	1.39	1.53
32	S1	595	A	C2'-C1'	-12.46	1.39	1.53
33	L1	2944	C	O4'-C1'	12.46	1.57	1.41
33	L1	3088	A	O4'-C1'	12.45	1.57	1.41
33	L1	3275	G	C2'-C1'	-12.45	1.39	1.53
33	L1	2369	G	C2'-C1'	-12.45	1.39	1.53
33	L1	1151	G	O4'-C1'	12.44	1.57	1.41
33	L1	890	G	C2'-C1'	-12.43	1.39	1.53
33	L1	2578	G	C2'-C1'	-12.43	1.39	1.53
33	L1	960	C	C2'-C1'	-12.43	1.39	1.53
33	L1	465	C	O4'-C1'	12.43	1.57	1.41
33	L1	433	C	C2'-C1'	-12.42	1.39	1.53
33	L1	2029	G	C2'-C1'	-12.42	1.39	1.53
32	S1	10	G	C2'-C1'	-12.41	1.39	1.53
32	S1	980	C	O4'-C1'	12.41	1.57	1.41
32	S1	889	C	O4'-C1'	12.41	1.57	1.41
32	S1	1005	C	O4'-C1'	12.41	1.57	1.41
33	L1	540	G	C2'-C1'	-12.41	1.39	1.53
33	L1	2795	G	C2'-C1'	-12.41	1.39	1.53
64	LG	184	ILE	C-O	-12.41	0.99	1.23
32	S1	1446	C	C2'-C1'	-12.40	1.39	1.53
33	L1	1112	C	O4'-C1'	12.40	1.57	1.41
31	S2	72	G	O4'-C1'	-12.40	1.25	1.41
33	L1	2151	G	O4'-C1'	12.40	1.57	1.41
32	S1	1607	C	O4'-C1'	12.39	1.57	1.41
32	S1	302	C	O4'-C1'	12.38	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	246	C	C2'-C1'	12.38	1.67	1.53
33	L1	2836	G	O4'-C1'	12.37	1.57	1.41
32	S1	1037	G	O4'-C1'	12.37	1.57	1.41
33	L1	2031	G	C2'-C1'	-12.37	1.39	1.53
33	L1	1633	C	O4'-C1'	12.36	1.57	1.41
33	L1	2362	A	O4'-C1'	-12.36	1.25	1.41
33	L1	2576	C	O4'-C1'	12.36	1.57	1.41
33	L1	1075	G	C2'-C1'	-12.36	1.39	1.53
33	L1	25	U	O4'-C1'	12.36	1.57	1.41
33	L1	2037	C	C2'-C1'	-12.36	1.39	1.53
33	L1	257	C	O4'-C1'	12.35	1.57	1.41
32	S1	351	G	C2'-C1'	-12.35	1.39	1.53
81	LD	351	ARG	CZ-NH2	-12.35	1.17	1.33
32	S1	879	C	O4'-C1'	12.35	1.57	1.41
33	L1	2492	C	O4'-C1'	12.33	1.57	1.41
32	S1	832	C	O4'-C1'	12.32	1.57	1.41
34	L3	98	G	C2'-C1'	-12.32	1.39	1.53
32	S1	275	C	C2'-C1'	-12.31	1.39	1.53
33	L1	519	C	O4'-C1'	12.31	1.57	1.41
32	S1	1514	G	O4'-C1'	12.31	1.57	1.41
32	S1	933	G	O4'-C1'	-12.30	1.25	1.41
33	L1	2586	C	O4'-C1'	12.30	1.57	1.41
32	S1	1209	C	O4'-C1'	12.30	1.57	1.41
33	L1	2745	C	C2'-C1'	-12.30	1.39	1.53
32	S1	633	U	O4'-C1'	12.30	1.57	1.41
32	S1	1731	A	O4'-C1'	12.30	1.57	1.41
33	L1	3215	U	O4'-C1'	-12.30	1.25	1.41
32	S1	947	G	C2'-C1'	-12.30	1.39	1.53
33	L1	2544	C	O4'-C1'	12.29	1.57	1.41
35	L2	156	G	O4'-C1'	12.29	1.57	1.41
33	L1	2482	A	C2'-C1'	-12.29	1.39	1.53
32	S1	1777	G	O4'-C1'	12.29	1.57	1.41
33	L1	3127	C	C2'-C1'	-12.29	1.39	1.53
33	L1	2150	C	C2'-C1'	-12.29	1.39	1.53
38	LE	153	HIS	CG-ND1	12.28	1.65	1.38
33	L1	3147	G	O4'-C1'	12.28	1.57	1.41
32	S1	1423	A	O4'-C1'	12.27	1.57	1.41
33	L1	486	G	C2'-C1'	-12.27	1.39	1.53
33	L1	2037	C	O4'-C1'	12.27	1.57	1.41
11	SM	97	GLN	CD-NE2	-12.27	1.02	1.32
33	L1	1966	C	O4'-C1'	12.26	1.57	1.41
33	L1	892	U	O4'-C1'	12.26	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3216	G	C2'-C1'	12.26	1.66	1.53
33	L1	2619	C	C2'-C1'	-12.25	1.39	1.53
34	L3	39	C	C2'-C1'	-12.23	1.39	1.53
33	L1	1648	C	O4'-C1'	12.23	1.57	1.41
33	L1	2868	C	C2'-C1'	12.23	1.66	1.53
33	L1	111	C	C2'-C1'	-12.23	1.39	1.53
32	S1	1798	G	C2'-C1'	-12.22	1.40	1.53
33	L1	496	U	O4'-C1'	12.21	1.57	1.41
33	L1	1064	U	C2'-C1'	12.21	1.66	1.53
32	S1	1673	C	O4'-C1'	12.21	1.57	1.41
33	L1	1877	G	C2'-C1'	12.21	1.66	1.53
31	S2	29	C	C2'-C1'	-12.19	1.40	1.53
33	L1	3163	G	O4'-C1'	12.19	1.57	1.41
32	S1	934	A	O4'-C1'	-12.19	1.25	1.41
33	L1	1664	G	C2'-C1'	-12.19	1.40	1.53
19	SY	46	VAL	C-N	12.19	1.62	1.34
33	L1	478	G	C2'-C1'	-12.18	1.40	1.53
32	S1	1635	U	C2'-C1'	-12.18	1.40	1.53
33	L1	515	C	C2'-C1'	-12.18	1.40	1.53
33	L1	759	C	O4'-C1'	12.18	1.57	1.41
32	S1	495	C	O4'-C1'	12.17	1.57	1.41
33	L1	800	C	O4'-C1'	12.17	1.57	1.41
33	L1	2543	G	C2'-C1'	-12.17	1.40	1.53
32	S1	943	G	O4'-C1'	12.17	1.57	1.41
33	L1	1437	G	O4'-C1'	12.17	1.57	1.41
33	L1	704	G	O4'-C1'	12.17	1.57	1.41
33	L1	1715	C	C5'-C4'	-12.16	1.36	1.51
33	L1	3099	G	C4'-C3'	12.16	1.66	1.53
34	L3	13	A	O4'-C1'	12.16	1.57	1.41
32	S1	1127	G	O4'-C1'	12.15	1.57	1.41
33	L1	3024	U	C2'-C1'	12.15	1.66	1.53
32	S1	1782	C	C2'-C1'	-12.15	1.40	1.53
32	S1	453	C	C2'-C1'	12.14	1.66	1.53
33	L1	781	C	O4'-C1'	12.14	1.57	1.41
32	S1	692	C	O4'-C1'	12.14	1.57	1.41
33	L1	1258	C	O4'-C1'	12.14	1.57	1.41
33	L1	911	G	O4'-C1'	12.14	1.57	1.41
71	Lj	95	PRO	CA-C	-12.14	1.28	1.52
33	L1	2261	U	C2'-C1'	-12.13	1.40	1.53
33	L1	3250	C	C2'-C1'	-12.13	1.40	1.53
32	S1	1616	U	O4'-C1'	12.12	1.57	1.41
33	L1	642	C	O4'-C1'	12.12	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1644	A	O4'-C1'	12.12	1.57	1.41
33	L1	2446	G	C2'-C1'	-12.12	1.40	1.53
33	L1	1316	C	O4'-C1'	12.11	1.57	1.41
33	L1	230	G	C2'-C1'	-12.11	1.40	1.53
33	L1	687	C	O4'-C1'	12.11	1.57	1.41
33	L1	1002	A	O4'-C1'	12.11	1.57	1.41
33	L1	1165	C	O4'-C1'	12.11	1.57	1.41
33	L1	3059	C	O4'-C1'	12.11	1.57	1.41
24	SX	82	ARG	C-O	-12.10	1.00	1.23
33	L1	2441	G	O4'-C1'	-12.10	1.25	1.41
33	L1	1424	G	O4'-C1'	-12.10	1.25	1.41
33	L1	2009	C	O4'-C1'	12.09	1.57	1.41
33	L1	522	C	O4'-C1'	12.09	1.57	1.41
33	L1	1094	G	C2'-C1'	-12.09	1.40	1.53
32	S1	891	U	O4'-C1'	12.08	1.57	1.41
33	L1	1682	C	O4'-C1'	12.08	1.57	1.41
60	Lr	32	LYS	C-O	-12.08	1.00	1.23
33	L1	2859	C	C2'-C1'	-12.07	1.40	1.53
81	LD	405	GLN	C-O	-12.07	1.00	1.23
33	L1	2299	C	O4'-C1'	12.07	1.57	1.41
33	L1	3207	C	O4'-C1'	12.07	1.57	1.41
33	L1	239	C	C2'-C1'	12.07	1.66	1.53
5	SE	263	LEU	C-O	-12.06	1.00	1.23
33	L1	968	A	O4'-C1'	-12.06	1.25	1.41
33	L1	1279	C	C2'-C1'	12.05	1.66	1.53
33	L1	3088	A	C4'-C3'	12.05	1.66	1.53
10	SL	142	SER	C-O	-12.05	1.00	1.23
32	S1	104	A	O3'-P	-12.05	1.46	1.61
33	L1	1481	C	C2'-C1'	-12.05	1.40	1.53
33	L1	3272	A	O4'-C1'	12.04	1.57	1.41
81	LD	405	GLN	C-OXT	-12.04	1.00	1.23
2	SA	260	ALA	C-O	-12.04	1.00	1.23
33	L1	2631	A	C5'-C4'	12.04	1.65	1.51
10	SL	142	SER	C-OXT	-12.04	1.00	1.23
33	L1	444	C	C2'-C1'	-12.04	1.40	1.53
33	L1	3058	U	O4'-C1'	12.04	1.57	1.41
33	L1	2473	C	C2'-C1'	12.04	1.66	1.53
31	S2	58	U	C2'-C1'	12.03	1.66	1.53
32	S1	1717	C	O4'-C1'	12.03	1.57	1.41
33	L1	1300	C	O4'-C1'	12.03	1.57	1.41
32	S1	993	C	C2'-C1'	-12.02	1.40	1.53
32	S1	1162	A	C2'-C1'	12.02	1.66	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	141	C	O4'-C1'	12.02	1.57	1.41
32	S1	493	C	O4'-C1'	12.02	1.57	1.41
33	L1	188	U	C2'-C1'	12.02	1.66	1.53
35	L2	143	C	O4'-C1'	12.02	1.57	1.41
33	L1	2365	C	O4'-C1'	12.01	1.57	1.41
33	L1	2198	U	C2'-C1'	-12.00	1.40	1.53
33	L1	699	C	C2'-C1'	-12.00	1.40	1.53
33	L1	1875	A	O4'-C1'	12.00	1.57	1.41
33	L1	426	A	O4'-C1'	12.00	1.57	1.41
33	L1	3224	C	C2'-C1'	-11.99	1.40	1.53
33	L1	495	G	O4'-C1'	-11.99	1.26	1.41
32	S1	670	C	O4'-C1'	11.98	1.57	1.41
32	S1	1444	G	O4'-C1'	11.98	1.57	1.41
33	L1	1954	G	C4'-C3'	11.98	1.66	1.53
32	S1	891	U	C2'-C1'	-11.97	1.40	1.53
4	SD	240	LYS	N-CA	11.97	1.70	1.46
32	S1	1359	C	O4'-C1'	11.97	1.57	1.41
32	S1	192	G	C2'-C1'	-11.96	1.40	1.53
33	L1	41	C	O4'-C1'	11.96	1.57	1.41
33	L1	473	G	C2'-C1'	11.96	1.66	1.53
33	L1	725	G	O4'-C1'	11.96	1.57	1.41
32	S1	694	C	C2'-C1'	-11.96	1.40	1.53
33	L1	545	C	O4'-C1'	11.96	1.57	1.41
33	L1	769	C	O4'-C1'	11.96	1.57	1.41
31	S2	33	U	O4'-C1'	11.96	1.57	1.41
33	L1	1120	G	C2'-C1'	-11.95	1.40	1.53
32	S1	570	C	O4'-C1'	11.95	1.57	1.41
32	S1	1478	C	O4'-C1'	11.95	1.57	1.41
33	L1	3354	A	O4'-C1'	-11.95	1.26	1.41
33	L1	1431	G	C2'-C1'	-11.94	1.40	1.53
33	L1	2620	U	O4'-C1'	-11.94	1.26	1.41
33	L1	985	C	O4'-C1'	11.93	1.57	1.41
31	S2	13	U	C2'-C1'	11.92	1.66	1.53
32	S1	51	A	O4'-C1'	11.92	1.57	1.41
32	S1	1146	G	C2'-C1'	-11.92	1.40	1.53
33	L1	1737	C	C2'-C1'	-11.91	1.40	1.53
33	L1	3148	A	C2'-C1'	-11.91	1.40	1.53
32	S1	1213	C	C2'-C1'	-11.90	1.40	1.53
32	S1	1749	C	C2'-C1'	-11.90	1.40	1.53
33	L1	515	C	O4'-C1'	11.89	1.57	1.41
33	L1	833	G	O4'-C1'	11.89	1.57	1.41
33	L1	3250	C	O4'-C1'	11.89	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2028	C	O4'-C1'	11.89	1.57	1.41
33	L1	2882	U	C2'-C1'	-11.89	1.40	1.53
32	S1	690	G	C2'-C1'	-11.89	1.40	1.53
35	L2	39	C	O3'-P	11.89	1.75	1.61
33	L1	1005	C	C2'-C1'	11.89	1.66	1.53
32	S1	38	C	O4'-C1'	11.88	1.57	1.41
33	L1	719	U	O4'-C1'	11.88	1.57	1.41
32	S1	342	C	O4'-C1'	11.88	1.57	1.41
32	S1	1376	A	O4'-C1'	11.88	1.57	1.41
32	S1	859	U	C2'-C1'	11.87	1.66	1.53
32	S1	339	G	C2'-C1'	-11.87	1.40	1.53
33	L1	2626	G	O4'-C1'	11.86	1.57	1.41
33	L1	2790	C	O4'-C1'	11.86	1.57	1.41
32	S1	1790	G	O4'-C1'	11.85	1.57	1.41
33	L1	1511	C	O4'-C1'	11.85	1.57	1.41
33	L1	2377	C	O4'-C1'	11.84	1.57	1.41
33	L1	2864	U	C2'-C1'	-11.83	1.40	1.53
33	L1	1080	C	C2'-C1'	-11.83	1.40	1.53
34	L3	97	G	C2'-C1'	-11.83	1.40	1.53
33	L1	1951	C	O4'-C1'	11.82	1.57	1.41
25	SC	164	SER	CA-CB	11.82	1.70	1.52
33	L1	2593	A	C2'-C1'	-11.82	1.40	1.53
33	L1	3350	C	O4'-C1'	11.82	1.57	1.41
32	S1	417	U	C2'-C1'	-11.81	1.40	1.53
35	L2	104	U	O4'-C1'	11.81	1.57	1.41
32	S1	1388	A	C2'-C1'	-11.81	1.40	1.53
33	L1	480	C	O4'-C1'	11.81	1.57	1.41
33	L1	3277	C	C2'-C1'	-11.81	1.40	1.53
33	L1	1948	G	O4'-C1'	-11.80	1.26	1.41
32	S1	919	G	C2'-C1'	-11.80	1.40	1.53
33	L1	385	A	O4'-C1'	-11.80	1.26	1.41
32	S1	21	U	O4'-C1'	11.80	1.56	1.41
33	L1	2201	G	C2'-C1'	11.80	1.66	1.53
32	S1	1083	C	C2'-C1'	-11.79	1.40	1.53
32	S1	595	A	O4'-C1'	11.79	1.56	1.41
33	L1	389	A	C2'-C1'	-11.79	1.40	1.53
33	L1	137	C	O4'-C1'	11.79	1.56	1.41
32	S1	1791	A	O4'-C1'	11.78	1.56	1.41
33	L1	34	G	C2'-C1'	-11.78	1.40	1.53
32	S1	694	C	O4'-C1'	11.78	1.56	1.41
33	L1	1202	C	O4'-C1'	11.78	1.56	1.41
33	L1	3158	C	O4'-C1'	11.78	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	L3	1	G	OP3-P	-11.77	1.47	1.61
33	L1	110	C	C2'-C1'	-11.77	1.40	1.53
32	S1	1413	C	O4'-C1'	11.77	1.56	1.41
32	S1	1371	U	O4'-C1'	11.77	1.56	1.41
33	L1	2172	C	O4'-C1'	11.77	1.56	1.41
32	S1	453	C	O4'-C1'	11.76	1.56	1.41
32	S1	333	G	C2'-C1'	-11.76	1.40	1.53
33	L1	970	A	C2'-C1'	-11.76	1.40	1.53
33	L1	912	G	C2'-C1'	-11.75	1.40	1.53
34	L3	22	A	O4'-C1'	-11.75	1.26	1.41
32	S1	291	G	C2'-C1'	-11.75	1.40	1.53
33	L1	1415	G	C2'-C1'	-11.74	1.40	1.53
33	L1	1063	G	O4'-C1'	11.74	1.56	1.41
33	L1	517	G	C2'-C1'	-11.73	1.40	1.53
33	L1	2226	C	C2'-C1'	11.73	1.66	1.53
33	L1	3086	G	C2'-C1'	-11.73	1.40	1.53
32	S1	1038	C	O4'-C1'	11.73	1.56	1.41
33	L1	3382	A	C2'-C1'	11.73	1.66	1.53
35	L2	40	G	C2'-C1'	-11.73	1.40	1.53
32	S1	343	C	O4'-C1'	11.72	1.56	1.41
33	L1	2687	C	O4'-C1'	11.72	1.56	1.41
33	L1	1542	A	C2'-C1'	-11.72	1.40	1.53
33	L1	2112	C	C2'-C1'	-11.72	1.40	1.53
33	L1	1303	C	C2'-C1'	-11.71	1.40	1.53
33	L1	745	G	O4'-C1'	11.71	1.56	1.41
33	L1	457	C	C2'-C1'	-11.71	1.40	1.53
33	L1	1592	U	O4'-C1'	11.70	1.56	1.41
33	L1	2503	A	C2'-C1'	-11.70	1.40	1.53
32	S1	1370	C	C2'-C1'	-11.69	1.40	1.53
33	L1	3240	C	O4'-C1'	11.69	1.56	1.41
33	L1	3080	U	O4'-C1'	-11.69	1.26	1.41
33	L1	822	U	C2'-C1'	11.69	1.66	1.53
33	L1	1554	C	O4'-C1'	11.69	1.56	1.41
33	L1	23	A	C2'-C1'	11.68	1.66	1.53
33	L1	2474	A	O4'-C1'	-11.68	1.26	1.41
32	S1	164	C	O4'-C1'	11.67	1.56	1.41
33	L1	1515	U	C2'-C1'	-11.67	1.40	1.53
33	L1	2945	G	C2'-C1'	-11.67	1.40	1.53
33	L1	13	G	C2'-C1'	-11.67	1.40	1.53
33	L1	710	C	O4'-C1'	11.67	1.56	1.41
33	L1	3061	C	O4'-C1'	11.67	1.56	1.41
33	L1	3270	C	O4'-C1'	11.67	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	SU	7	ALA	C-O	-11.66	1.01	1.23
34	L3	69	A	C2'-C1'	-11.66	1.40	1.53
33	L1	1225	A	C2'-C1'	-11.66	1.40	1.53
35	L2	125	A	O4'-C1'	11.66	1.56	1.41
32	S1	108	C	C2'-C1'	-11.66	1.40	1.53
33	L1	2012	C	O4'-C1'	11.66	1.56	1.41
33	L1	2704	U	O4'-C1'	11.66	1.56	1.41
32	S1	1608	A	C2'-C1'	11.65	1.66	1.53
33	L1	2870	U	O4'-C1'	11.65	1.56	1.41
32	S1	1203	G	O4'-C1'	-11.65	1.26	1.41
32	S1	636	U	C2'-C1'	11.64	1.66	1.53
33	L1	1236	C	O4'-C1'	11.64	1.56	1.41
33	L1	3144	U	C2'-C1'	-11.64	1.40	1.53
32	S1	1242	A	C5'-C4'	11.64	1.65	1.51
33	L1	2333	U	O4'-C1'	-11.64	1.26	1.41
33	L1	3066	G	C2'-C1'	-11.64	1.40	1.53
33	L1	128	C	O4'-C1'	11.63	1.56	1.41
33	L1	1096	C	C2'-C1'	-11.63	1.40	1.53
33	L1	630	C	O4'-C1'	11.63	1.56	1.41
33	L1	2385	A	C2'-C1'	-11.63	1.40	1.53
33	L1	2406	C	C2'-C1'	-11.62	1.40	1.53
33	L1	1215	U	C2'-C1'	-11.62	1.40	1.53
33	L1	26	A	O4'-C1'	11.62	1.56	1.41
13	SQ	110	GLY	N-CA	11.62	1.63	1.46
33	L1	2874	A	C2'-C1'	-11.61	1.40	1.53
32	S1	569	C	O4'-C1'	11.61	1.56	1.41
33	L1	2629	C	P-O5'	-11.61	1.48	1.59
32	S1	404	A	O4'-C1'	-11.60	1.26	1.41
33	L1	442	C	C2'-C1'	-11.60	1.40	1.53
38	LE	115	GLY	CA-C	-11.60	1.33	1.51
33	L1	1570	C	C2'-C1'	11.59	1.66	1.53
35	L2	93	A	O4'-C1'	11.59	1.56	1.41
33	L1	397	A	O4'-C1'	-11.59	1.26	1.41
33	L1	2033	C	O4'-C1'	11.59	1.56	1.41
33	L1	2640	A	O4'-C1'	-11.59	1.26	1.41
32	S1	1762	C	O4'-C1'	11.59	1.56	1.41
32	S1	683	C	C2'-C1'	-11.58	1.40	1.53
32	S1	950	U	O4'-C1'	11.58	1.56	1.41
33	L1	1083	C	O4'-C1'	-11.58	1.26	1.41
32	S1	346	C	O4'-C1'	11.57	1.56	1.41
32	S1	693	C	O4'-C1'	11.57	1.56	1.41
32	S1	1043	C	O4'-C1'	11.57	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2676	A	O4'-C1'	11.57	1.56	1.41
32	S1	1537	U	C2'-C1'	-11.57	1.40	1.53
33	L1	1345	U	O4'-C1'	11.56	1.56	1.41
33	L1	2161	G	C2'-C1'	-11.56	1.40	1.53
35	L2	121	C	C2'-C1'	-11.55	1.40	1.53
33	L1	233	C	O4'-C1'	11.55	1.56	1.41
33	L1	2049	C	O4'-C1'	11.55	1.56	1.41
23	SU	82	TYR	CA-C	11.55	1.82	1.52
32	S1	973	U	C2'-C1'	-11.54	1.40	1.53
33	L1	2935	A	O4'-C1'	11.54	1.56	1.41
32	S1	144	U	O4'-C1'	11.54	1.56	1.41
32	S1	1357	U	C2'-C1'	-11.54	1.40	1.53
32	S1	1633	C	O4'-C1'	11.54	1.56	1.41
33	L1	2763	C	C4'-C3'	11.53	1.65	1.53
32	S1	148	C	O4'-C1'	11.53	1.56	1.41
33	L1	726	C	O4'-C1'	11.53	1.56	1.41
32	S1	17	C	O4'-C1'	11.52	1.56	1.41
32	S1	1807	A	O3'-P	-11.52	1.47	1.61
33	L1	4	C	O4'-C1'	11.51	1.56	1.41
33	L1	22	G	C2'-C1'	-11.51	1.40	1.53
32	S1	1337	C	O4'-C1'	11.51	1.56	1.41
31	S2	16	U	O4'-C1'	11.50	1.56	1.41
33	L1	49	U	C2'-C1'	-11.50	1.40	1.53
34	L3	25	G	C2'-C1'	11.50	1.66	1.53
32	S1	962	G	C2'-C1'	-11.50	1.40	1.53
35	L2	13	G	C2'-C1'	-11.49	1.40	1.53
32	S1	416	A	C2'-C1'	11.49	1.66	1.53
33	L1	55	G	O4'-C1'	-11.49	1.26	1.41
33	L1	755	C	O4'-C1'	11.49	1.56	1.41
32	S1	890	G	C2'-C1'	-11.48	1.40	1.53
33	L1	136	C	C2'-C1'	-11.48	1.40	1.53
33	L1	1892	A	O4'-C1'	11.48	1.56	1.41
33	L1	2794	A	C2'-C1'	-11.48	1.40	1.53
33	L1	471	C	O4'-C1'	11.47	1.56	1.41
35	L2	106	U	C2'-C1'	-11.47	1.40	1.53
32	S1	981	G	C2'-C1'	-11.47	1.40	1.53
33	L1	1407	G	C2'-C1'	11.47	1.66	1.53
33	L1	2345	C	P-O5'	-11.47	1.48	1.59
32	S1	1093	A	C2'-C1'	11.46	1.66	1.53
33	L1	3003	C	O4'-C1'	11.46	1.56	1.41
33	L1	586	A	C2'-C1'	-11.45	1.40	1.53
33	L1	183	C	O3'-P	-11.45	1.47	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1572	U	C2'-C1'	-11.45	1.40	1.53
33	L1	2699	A	O4'-C1'	11.44	1.56	1.41
32	S1	1015	C	C2'-C1'	-11.44	1.40	1.53
32	S1	1066	U	O4'-C1'	11.44	1.56	1.41
33	L1	1525	U	O4'-C1'	11.44	1.56	1.41
32	S1	1613	G	C2'-C1'	-11.43	1.40	1.53
32	S1	1172	G	C2'-C1'	-11.43	1.40	1.53
33	L1	3058	U	C2'-C1'	-11.43	1.40	1.53
32	S1	1637	G	C2'-C1'	-11.43	1.40	1.53
33	L1	1467	G	C2'-C1'	11.43	1.66	1.53
33	L1	886	A	O4'-C1'	11.43	1.56	1.41
33	L1	796	C	C2'-C1'	-11.42	1.40	1.53
33	L1	2621	G	C2'-C1'	11.42	1.66	1.53
33	L1	3121	C	O4'-C1'	11.41	1.56	1.41
32	S1	1539	A	O4'-C1'	11.41	1.56	1.41
33	L1	343	G	C2'-C1'	-11.41	1.40	1.53
33	L1	230	G	O4'-C1'	11.41	1.56	1.41
33	L1	3215	U	C2'-C1'	11.41	1.65	1.53
32	S1	1370	C	O4'-C1'	11.40	1.56	1.41
32	S1	108	C	O4'-C1'	11.40	1.56	1.41
33	L1	529	C	C2'-C1'	-11.40	1.40	1.53
32	S1	174	C	O4'-C1'	11.40	1.56	1.41
33	L1	1910	G	C2'-C1'	-11.40	1.40	1.53
33	L1	2025	C	O4'-C1'	11.40	1.56	1.41
33	L1	1997	G	O4'-C1'	11.39	1.56	1.41
25	SC	33	VAL	C-N	11.39	1.53	1.33
32	S1	1288	C	C2'-C1'	11.39	1.65	1.53
69	La	27	ARG	CA-C	11.38	1.82	1.52
32	S1	391	A	C2'-C1'	11.38	1.65	1.53
33	L1	964	C	C2'-C1'	11.38	1.65	1.53
33	L1	3033	A	C2'-C1'	11.38	1.65	1.53
32	S1	1211	U	C2'-C1'	-11.37	1.40	1.53
33	L1	1735	U	O4'-C1'	11.38	1.56	1.41
33	L1	2018	C	O4'-C1'	11.38	1.56	1.41
33	L1	350	A	O4'-C1'	-11.37	1.26	1.41
33	L1	2630	A	C2'-C1'	11.37	1.65	1.53
13	SQ	22	SER	CA-CB	11.37	1.70	1.52
33	L1	1076	G	O4'-C1'	11.36	1.56	1.41
33	L1	1369	G	C2'-C1'	-11.36	1.40	1.53
33	L1	1889	G	C2'-C1'	-11.36	1.40	1.53
33	L1	2685	C	C2'-C1'	-11.36	1.40	1.53
33	L1	2032	C	O4'-C1'	11.36	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	L2	87	C	C2'-C1'	-11.35	1.40	1.53
33	L1	771	G	C2'-C1'	-11.35	1.40	1.53
33	L1	385	A	C2'-C1'	-11.34	1.40	1.53
32	S1	1402	C	O4'-C1'	11.34	1.56	1.41
37	LB	196	TRP	C-O	-11.34	1.01	1.23
32	S1	1765	A	O4'-C1'	-11.34	1.26	1.41
32	S1	586	U	O4'-C1'	11.33	1.56	1.41
33	L1	1299	G	C2'-C1'	-11.32	1.40	1.53
32	S1	88	C	O4'-C1'	11.32	1.56	1.41
33	L1	3021	U	C2'-C1'	11.32	1.65	1.53
32	S1	1391	G	C2'-C1'	-11.32	1.40	1.53
33	L1	1675	G	O4'-C1'	-11.32	1.26	1.41
32	S1	1691	C	O4'-C1'	11.32	1.56	1.41
33	L1	1580	C	C2'-C1'	-11.32	1.40	1.53
32	S1	373	U	P-O5'	-11.31	1.48	1.59
33	L1	2284	U	O4'-C1'	11.31	1.56	1.41
33	L1	2	C	O4'-C1'	11.31	1.56	1.41
33	L1	3342	C	O4'-C1'	11.31	1.56	1.41
32	S1	666	C	O4'-C1'	11.30	1.56	1.41
33	L1	1382	C	O4'-C1'	11.30	1.56	1.41
33	L1	2105	G	P-O5'	-11.30	1.48	1.59
34	L3	40	A	O4'-C1'	-11.30	1.26	1.41
33	L1	3372	C	C2'-C1'	-11.29	1.41	1.53
33	L1	1894	G	C2'-C1'	11.29	1.65	1.53
32	S1	1736	C	C2'-C1'	-11.29	1.41	1.53
33	L1	2299	C	C2'-C1'	-11.28	1.41	1.53
32	S1	591	C	O4'-C1'	11.28	1.56	1.41
33	L1	1095	C	C2'-C1'	-11.28	1.41	1.53
33	L1	2872	C	C2'-C1'	11.27	1.65	1.53
34	L3	104	C	C2'-C1'	-11.27	1.41	1.53
33	L1	21	G	O4'-C1'	-11.26	1.27	1.41
32	S1	1574	U	C2'-C1'	-11.26	1.41	1.53
33	L1	70	A	O4'-C1'	11.26	1.56	1.41
33	L1	1457	A	O4'-C1'	11.26	1.56	1.41
33	L1	722	C	O4'-C1'	-11.26	1.27	1.41
33	L1	372	A	C2'-C1'	11.26	1.65	1.53
33	L1	2503	A	O4'-C1'	11.26	1.56	1.41
33	L1	2507	U	C2'-C1'	-11.26	1.41	1.53
33	L1	2814	C	O4'-C1'	11.25	1.56	1.41
33	L1	916	A	O4'-C1'	-11.25	1.27	1.41
32	S1	1705	C	C2'-C1'	-11.25	1.41	1.53
33	L1	1267	A	C2'-C1'	-11.24	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1547	G	C2'-C1'	-11.24	1.41	1.53
33	L1	1475	U	C2'-C1'	-11.24	1.41	1.53
73	Lp	53	ASN	N-CA	11.24	1.68	1.46
33	L1	2485	U	O4'-C1'	-11.24	1.27	1.41
32	S1	794	G	C3'-O3'	11.23	1.57	1.42
33	L1	1579	C	C2'-C1'	-11.23	1.41	1.53
33	L1	280	G	O4'-C1'	-11.23	1.27	1.41
32	S1	1777	G	P-O5'	-11.22	1.48	1.59
32	S1	154	A	C2'-C1'	11.22	1.65	1.53
32	S1	1654	C	O4'-C1'	11.22	1.56	1.41
33	L1	2580	C	O4'-C1'	11.22	1.56	1.41
33	L1	683	U	O4'-C1'	11.22	1.56	1.41
33	L1	2113	A	C2'-C1'	-11.22	1.41	1.53
33	L1	2638	A	O4'-C1'	11.22	1.56	1.41
34	L3	92	C	C2'-C1'	-11.22	1.41	1.53
32	S1	1735	C	O4'-C1'	11.21	1.56	1.41
33	L1	3375	G	O4'-C1'	11.21	1.56	1.41
32	S1	378	U	O4'-C1'	11.21	1.56	1.41
32	S1	634	A	C5'-C4'	11.21	1.64	1.51
33	L1	2531	G	C2'-C1'	-11.21	1.41	1.53
33	L1	2783	U	O4'-C1'	-11.20	1.27	1.41
45	LQ	116	LEU	C-O	-11.21	1.02	1.23
80	LC	385	GLY	C-O	-11.20	1.05	1.23
14	SP	41	LEU	C-O	-11.20	1.02	1.23
32	S1	1194	C	O4'-C1'	11.20	1.56	1.41
35	L2	32	C	O4'-C1'	11.20	1.56	1.41
33	L1	700	C	C2'-C1'	-11.19	1.41	1.53
35	L2	57	A	C2'-C1'	-11.19	1.41	1.53
43	LO	138	GLY	N-CA	11.19	1.62	1.46
32	S1	896	C	O4'-C1'	11.19	1.56	1.41
32	S1	1389	G	O4'-C1'	11.19	1.56	1.41
33	L1	3306	A	C2'-C1'	-11.19	1.41	1.53
32	S1	1688	G	C2'-C1'	11.19	1.65	1.53
33	L1	1994	C	O4'-C1'	11.19	1.56	1.41
33	L1	92	C	O4'-C1'	11.18	1.56	1.41
35	L2	151	C	O4'-C1'	11.17	1.56	1.41
64	LG	20	TYR	CG-CD1	11.17	1.53	1.39
32	S1	99	U	C2'-C1'	-11.17	1.41	1.53
33	L1	931	C	O4'-C1'	11.17	1.56	1.41
32	S1	324	U	O4'-C1'	11.17	1.56	1.41
33	L1	1305	A	O4'-C1'	11.17	1.56	1.41
33	L1	3211	C	C2'-C1'	11.17	1.65	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	436	G	C2'-C1'	-11.17	1.41	1.53
33	L1	1784	C	O4'-C1'	11.17	1.56	1.41
32	S1	1062	C	C2'-C1'	-11.16	1.41	1.53
44	LR	97	ALA	C-O	-11.16	1.02	1.23
32	S1	670	C	C2'-C1'	-11.16	1.41	1.53
33	L1	2751	A	C2'-C1'	11.16	1.65	1.53
33	L1	2443	C	O4'-C1'	11.16	1.56	1.41
32	S1	1738	U	O4'-C1'	11.16	1.56	1.41
33	L1	2755	U	O4'-C1'	11.16	1.56	1.41
32	S1	16	G	C2'-C1'	-11.15	1.41	1.53
33	L1	11	A	C2'-C1'	-11.15	1.41	1.53
32	S1	654	C	O4'-C1'	11.15	1.56	1.41
33	L1	649	A	C2'-C1'	-11.15	1.41	1.53
33	L1	1921	U	C2'-C1'	11.14	1.65	1.53
32	S1	1072	U	O4'-C1'	11.13	1.56	1.41
33	L1	3365	U	C2'-C1'	11.13	1.65	1.53
32	S1	330	G	C2'-C1'	-11.13	1.41	1.53
33	L1	1143	G	C2'-C1'	-11.13	1.41	1.53
33	L1	3292	U	C2'-C1'	11.13	1.65	1.53
33	L1	7	C	C2'-C1'	-11.13	1.41	1.53
33	L1	708	C	O4'-C1'	11.13	1.56	1.41
33	L1	541	C	C2'-C1'	-11.13	1.41	1.53
33	L1	2026	C	O4'-C1'	11.13	1.56	1.41
32	S1	25	C	O4'-C1'	11.12	1.56	1.41
32	S1	1543	U	O4'-C1'	-11.12	1.27	1.41
60	Lr	61	LYS	C-O	-11.12	1.02	1.23
32	S1	402	G	C2'-C1'	-11.11	1.41	1.53
33	L1	1604	U	C2'-C1'	-11.11	1.41	1.53
33	L1	1391	A	O4'-C1'	11.11	1.56	1.41
32	S1	286	C	O4'-C1'	11.11	1.56	1.41
33	L1	218	G	O4'-C1'	11.11	1.56	1.41
33	L1	1133	A	O4'-C1'	11.11	1.56	1.41
33	L1	392	C	C2'-C1'	-11.10	1.41	1.53
33	L1	1297	U	C2'-C1'	-11.10	1.41	1.53
33	L1	459	G	O4'-C1'	11.09	1.56	1.41
35	L2	104	U	C2'-C1'	-11.09	1.41	1.53
33	L1	2079	A	P-O5'	-11.09	1.48	1.59
33	L1	111	C	O4'-C1'	11.08	1.56	1.41
33	L1	859	G	O4'-C1'	11.08	1.56	1.41
33	L1	1055	U	C2'-C1'	-11.08	1.41	1.53
33	L1	1622	G	O4'-C1'	11.08	1.56	1.41
20	SZ	44	PHE	C-N	11.07	1.59	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2343	U	O4'-C1'	11.07	1.56	1.41
35	L2	18	C	O4'-C1'	11.07	1.56	1.41
33	L1	2515	C	O4'-C1'	11.07	1.56	1.41
32	S1	1681	G	C2'-C1'	-11.07	1.41	1.53
33	L1	2048	C	O4'-C1'	11.06	1.56	1.41
32	S1	1310	C	C4'-C3'	11.06	1.65	1.53
33	L1	1047	C	O4'-C1'	11.05	1.56	1.41
33	L1	1107	G	O4'-C1'	11.05	1.56	1.41
33	L1	2389	A	C2'-C1'	-11.05	1.41	1.53
33	L1	3004	G	C2'-C1'	-11.05	1.41	1.53
34	L3	56	G	O4'-C1'	11.05	1.56	1.41
32	S1	228	G	C2'-C1'	-11.05	1.41	1.53
33	L1	2692	G	C2'-C1'	-11.04	1.41	1.53
32	S1	1698	A	C2'-C1'	11.03	1.65	1.53
33	L1	449	G	C2'-C1'	-11.03	1.41	1.53
33	L1	1952	U	C2'-C1'	11.03	1.65	1.53
33	L1	2883	C	C2'-C1'	11.03	1.65	1.53
33	L1	696	A	O4'-C1'	11.03	1.55	1.41
33	L1	734	C	C2'-C1'	-11.02	1.41	1.53
32	S1	1339	C	O4'-C1'	11.02	1.55	1.41
33	L1	684	C	C2'-C1'	11.01	1.65	1.53
33	L1	508	G	C2'-C1'	-11.01	1.41	1.53
35	L2	55	G	C4'-C3'	11.01	1.65	1.53
33	L1	1991	U	C2'-C1'	-11.00	1.41	1.53
32	S1	449	A	C2'-C1'	-11.00	1.41	1.53
32	S1	1548	G	C2'-C1'	-11.00	1.41	1.53
33	L1	148	U	P-O5'	-11.00	1.48	1.59
33	L1	924	A	C2'-C1'	11.00	1.65	1.53
33	L1	292	A	C2'-C1'	-11.00	1.41	1.53
33	L1	1457	A	C2'-C1'	-10.99	1.41	1.53
32	S1	1773	A	C2'-C1'	-10.99	1.41	1.53
32	S1	38	C	C2'-C1'	-10.99	1.41	1.53
33	L1	1650	G	C2'-C1'	-10.99	1.41	1.53
33	L1	1730	U	C2'-C1'	10.99	1.65	1.53
33	L1	3318	G	C2'-C1'	-10.98	1.41	1.53
34	L3	115	A	C2'-C1'	-10.98	1.41	1.53
33	L1	376	A	C2'-C1'	-10.98	1.41	1.53
33	L1	1260	G	O4'-C1'	10.98	1.55	1.41
33	L1	2223	A	C5'-C4'	10.98	1.64	1.51
33	L1	693	C	O4'-C1'	10.98	1.55	1.41
33	L1	736	U	C2'-C1'	10.98	1.65	1.53
32	S1	657	C	O4'-C1'	10.97	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2498	C	O4'-C1'	10.97	1.55	1.41
33	L1	3183	G	C4'-C3'	10.97	1.65	1.53
8	SJ	78	PRO	C-N	10.96	1.59	1.34
33	L1	1709	U	C2'-C1'	-10.96	1.41	1.53
33	L1	744	C	O4'-C1'	10.96	1.55	1.41
32	S1	337	A	C2'-C1'	-10.96	1.41	1.53
33	L1	445	C	O4'-C1'	10.95	1.55	1.41
33	L1	552	G	O4'-C1'	10.95	1.55	1.41
33	L1	35	U	O4'-C1'	10.94	1.55	1.41
33	L1	390	G	C2'-C1'	10.94	1.65	1.53
33	L1	1818	C	C2'-C1'	-10.94	1.41	1.53
33	L1	1984	C	C2'-C1'	-10.94	1.41	1.53
33	L1	1581	C	C2'-C1'	-10.93	1.41	1.53
35	L2	158	G	O4'-C1'	-10.93	1.27	1.41
32	S1	1015	C	O4'-C1'	10.92	1.55	1.41
32	S1	1316	A	C2'-C1'	10.92	1.65	1.53
32	S1	1516	C	C4'-C3'	10.92	1.65	1.53
33	L1	713	G	C2'-C1'	-10.92	1.41	1.53
33	L1	1203	C	O4'-C1'	10.92	1.55	1.41
32	S1	320	A	O4'-C1'	10.92	1.55	1.41
33	L1	583	C	C2'-C1'	-10.92	1.41	1.53
33	L1	133	G	O4'-C1'	-10.91	1.27	1.41
33	L1	3077	C	O4'-C1'	10.91	1.55	1.41
33	L1	2536	G	C2'-C1'	-10.91	1.41	1.53
32	S1	1506	G	O4'-C1'	10.91	1.55	1.41
33	L1	1034	U	C4'-C3'	-10.91	1.41	1.53
33	L1	1987	C	O4'-C1'	10.91	1.55	1.41
33	L1	1962	C	O4'-C1'	10.90	1.55	1.41
32	S1	305	A	O4'-C1'	-10.89	1.27	1.41
33	L1	578	C	C5'-C4'	10.88	1.64	1.51
33	L1	2763	C	O4'-C1'	10.88	1.55	1.41
73	Lp	51	ILE	CA-C	10.88	1.81	1.52
33	L1	282	A	C5'-C4'	10.87	1.64	1.51
32	S1	1109	U	C2'-C1'	-10.87	1.41	1.53
33	L1	37	U	C2'-C1'	-10.87	1.41	1.53
33	L1	3123	A	C3'-C2'	-10.86	1.40	1.52
33	L1	1208	A	O4'-C1'	10.86	1.55	1.41
33	L1	1223	U	C2'-C1'	10.86	1.65	1.53
33	L1	2279	C	O4'-C1'	10.86	1.55	1.41
32	S1	100	C	O4'-C1'	10.85	1.55	1.41
32	S1	60	C	O4'-C1'	10.85	1.55	1.41
33	L1	602	G	O4'-C1'	10.85	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2613	G	C2'-C1'	10.85	1.65	1.53
82	LK	135	GLN	C-O	-10.84	1.02	1.23
33	L1	141	C	C2'-C1'	-10.84	1.41	1.53
33	L1	903	G	C2'-C1'	10.84	1.65	1.53
33	L1	1088	A	C2'-C1'	-10.84	1.41	1.53
33	L1	3212	C	O4'-C1'	10.84	1.55	1.41
33	L1	589	G	O4'-C1'	10.83	1.55	1.41
33	L1	2497	A	P-O5'	-10.83	1.49	1.59
33	L1	559	U	C2'-C1'	10.83	1.65	1.53
32	S1	29	U	C2'-C1'	-10.83	1.41	1.53
32	S1	439	C	C2'-C1'	-10.83	1.41	1.53
32	S1	61	A	O4'-C1'	10.82	1.55	1.41
33	L1	1713	A	C2'-C1'	-10.82	1.41	1.53
33	L1	1014	G	O4'-C1'	10.82	1.55	1.41
33	L1	1599	A	O4'-C1'	10.82	1.55	1.41
33	L1	1780	C	O4'-C1'	10.82	1.55	1.41
35	L2	133	C	O4'-C1'	10.82	1.55	1.41
33	L1	1072	C	C2'-C1'	-10.81	1.41	1.53
32	S1	1161	C	C2'-C1'	-10.81	1.41	1.53
33	L1	2337	C	C2'-C1'	-10.81	1.41	1.53
33	L1	2910	C	O4'-C1'	10.81	1.55	1.41
33	L1	3099	G	O4'-C1'	10.81	1.55	1.41
33	L1	785	U	O3'-P	-10.81	1.48	1.61
32	S1	1034	G	C2'-C1'	-10.80	1.41	1.53
33	L1	1961	C	O4'-C1'	10.80	1.55	1.41
33	L1	2720	U	C2'-C1'	-10.80	1.41	1.53
33	L1	3271	A	O4'-C1'	10.80	1.55	1.41
33	L1	554	C	O4'-C1'	10.79	1.55	1.41
33	L1	132	U	O4'-C1'	10.79	1.55	1.41
35	L2	23	A	O4'-C1'	-10.78	1.27	1.41
33	L1	1195	C	C5'-C4'	10.78	1.64	1.51
33	L1	1277	A	C2'-C1'	-10.78	1.41	1.53
33	L1	2377	C	C2'-C1'	-10.78	1.41	1.53
67	LS	151	PHE	CG-CD1	-10.78	1.22	1.38
32	S1	352	U	C2'-C1'	-10.77	1.41	1.53
32	S1	677	C	O4'-C1'	10.77	1.55	1.41
33	L1	1375	G	O4'-C1'	10.77	1.55	1.41
81	LD	328	ALA	C-O	-10.77	1.02	1.23
33	L1	1496	G	O4'-C1'	-10.77	1.27	1.41
32	S1	413	C	C2'-C1'	-10.77	1.41	1.53
33	L1	121	A	O3'-P	-10.76	1.48	1.61
32	S1	1802	G	P-O5'	-10.76	1.49	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	235	C	O4'-C1'	10.76	1.55	1.41
32	S1	1666	G	C2'-C1'	-10.76	1.41	1.53
33	L1	2676	A	C2'-C1'	10.76	1.65	1.53
33	L1	2380	G	C2'-C1'	-10.75	1.41	1.53
33	L1	715	A	C2'-C1'	10.75	1.65	1.53
4	SD	153	ILE	C-N	10.74	1.58	1.34
33	L1	2179	U	C2'-C1'	-10.74	1.41	1.53
33	L1	2201	G	C3'-C2'	10.74	1.64	1.52
33	L1	2383	G	C2'-C1'	-10.74	1.41	1.53
33	L1	505	G	O4'-C1'	10.74	1.55	1.41
33	L1	1205	C	C2'-C1'	-10.74	1.41	1.53
33	L1	2789	G	O3'-P	-10.73	1.48	1.61
4	SD	153	ILE	N-CA	10.72	1.67	1.46
32	S1	642	C	O4'-C1'	10.72	1.55	1.41
31	S2	6	G	C2'-C1'	-10.72	1.41	1.53
32	S1	1411	C	O4'-C1'	10.72	1.55	1.41
32	S1	1609	G	C2'-C1'	-10.72	1.41	1.53
3	SB	212	PRO	C-O	-10.71	1.01	1.23
33	L1	3377	G	O4'-C1'	10.71	1.55	1.41
33	L1	1059	A	C2'-C1'	-10.71	1.41	1.53
33	L1	2441	G	C2'-C1'	10.71	1.65	1.53
32	S1	938	A	O4'-C1'	10.71	1.55	1.41
60	Lr	32	LYS	CA-CB	10.70	1.77	1.53
33	L1	1775	C	C2'-C1'	10.70	1.65	1.53
33	L1	95	G	C2'-C1'	-10.70	1.41	1.53
33	L1	1830	U	C2'-C1'	-10.70	1.41	1.53
32	S1	1163	C	O4'-C1'	10.69	1.55	1.41
32	S1	1	U	OP3-P	-10.69	1.48	1.61
33	L1	857	G	O4'-C1'	-10.69	1.27	1.41
32	S1	1434	G	O4'-C1'	10.68	1.55	1.41
35	L2	34	C	O4'-C1'	10.68	1.55	1.41
32	S1	1132	G	O3'-P	-10.68	1.48	1.61
33	L1	244	G	C2'-C1'	-10.68	1.41	1.53
33	L1	1369	G	C5'-C4'	10.68	1.64	1.51
33	L1	2792	A	O4'-C1'	-10.68	1.27	1.41
33	L1	2335	U	C2'-C1'	-10.68	1.41	1.53
32	S1	1557	C	O4'-C1'	10.68	1.55	1.41
33	L1	2035	G	C2'-C1'	-10.68	1.41	1.53
33	L1	2382	C	O4'-C1'	10.68	1.55	1.41
33	L1	479	C	O4'-C1'	10.67	1.55	1.41
33	L1	2904	A	C2'-C1'	10.67	1.65	1.53
32	S1	309	C	O4'-C1'	10.67	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	296	A	C2'-C1'	-10.66	1.41	1.53
33	L1	787	G	C2'-C1'	10.66	1.65	1.53
33	L1	32	G	C2'-C1'	-10.66	1.41	1.53
33	L1	2134	U	O3'-P	-10.66	1.48	1.61
33	L1	1408	C	C2'-C1'	-10.66	1.41	1.53
33	L1	1759	C	O4'-C1'	10.66	1.55	1.41
33	L1	2017	G	C2'-C1'	-10.66	1.41	1.53
33	L1	1251	U	O4'-C1'	-10.65	1.27	1.41
32	S1	259	A	O4'-C1'	10.65	1.55	1.41
33	L1	1343	C	O4'-C1'	10.65	1.55	1.41
33	L1	1737	C	O4'-C1'	10.64	1.55	1.41
68	LW	29	LYS	CA-CB	10.64	1.77	1.53
32	S1	3	C	C2'-C1'	-10.63	1.41	1.53
33	L1	809	A	C2'-C1'	10.63	1.65	1.53
33	L1	3037	G	O4'-C1'	10.63	1.55	1.41
33	L1	1373	A	C2'-C1'	-10.63	1.41	1.53
33	L1	2761	A	C4'-C3'	10.63	1.64	1.53
32	S1	648	C	O4'-C1'	10.62	1.55	1.41
32	S1	1603	U	C2'-C1'	10.62	1.65	1.53
33	L1	2682	A	C2'-C1'	10.62	1.65	1.53
32	S1	1683	G	O4'-C1'	10.62	1.55	1.41
32	S1	788	G	C4'-C3'	10.62	1.64	1.53
32	S1	1112	G	O4'-C1'	10.62	1.55	1.41
32	S1	689	C	C2'-C1'	-10.61	1.41	1.53
33	L1	1543	A	C2'-C1'	10.61	1.65	1.53
33	L1	1550	A	O4'-C1'	10.61	1.55	1.41
33	L1	3269	C	O4'-C1'	10.61	1.55	1.41
32	S1	20	G	C2'-C1'	-10.60	1.41	1.53
32	S1	1696	C	O4'-C1'	10.60	1.55	1.41
33	L1	3048	C	O4'-C1'	10.60	1.55	1.41
32	S1	435	C	C2'-C1'	-10.59	1.41	1.53
32	S1	957	A	C2'-C1'	10.59	1.65	1.53
38	LE	153	HIS	ND1-CE1	10.59	1.61	1.34
32	S1	1261	U	C2'-C1'	10.59	1.65	1.53
23	SU	72	GLY	CA-C	10.58	1.68	1.51
31	S2	42	C	P-O5'	10.58	1.70	1.59
33	L1	2423	A	O4'-C1'	-10.58	1.27	1.41
33	L1	8	C	C2'-C1'	-10.57	1.41	1.53
32	S1	70	C	O4'-C1'	10.57	1.55	1.41
38	LE	34	ARG	CA-CB	10.57	1.77	1.53
33	L1	2540	C	O4'-C1'	10.56	1.55	1.41
33	L1	3360	U	C2'-C1'	-10.56	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	928	A	C2'-C1'	-10.56	1.41	1.53
33	L1	15	C	O4'-C1'	10.56	1.55	1.41
33	L1	1192	A	O4'-C1'	-10.56	1.27	1.41
33	L1	2479	C	O4'-C1'	10.56	1.55	1.41
32	S1	1541	C	C2'-C1'	-10.55	1.41	1.53
33	L1	1022	G	O4'-C1'	-10.56	1.27	1.41
33	L1	603	G	C2'-C1'	-10.55	1.41	1.53
33	L1	609	C	C2'-C1'	-10.55	1.41	1.53
33	L1	1472	C	O4'-C1'	10.55	1.55	1.41
33	L1	2471	C	O4'-C1'	10.55	1.55	1.41
33	L1	272	G	O4'-C1'	10.55	1.55	1.41
33	L1	482	C	O4'-C1'	10.55	1.55	1.41
32	S1	150	U	C2'-C1'	10.55	1.65	1.53
32	S1	1781	U	O4'-C1'	10.54	1.55	1.41
33	L1	2566	C	C2'-C1'	-10.54	1.41	1.53
33	L1	786	U	C2'-C1'	-10.54	1.41	1.53
33	L1	1	G	OP3-P	-10.54	1.48	1.61
32	S1	1503	C	O4'-C1'	10.53	1.55	1.41
33	L1	2481	C	C2'-C1'	-10.53	1.41	1.53
32	S1	654	C	C2'-C1'	-10.53	1.41	1.53
34	L3	76	U	O4'-C1'	10.53	1.55	1.41
33	L1	1237	G	C2'-C1'	-10.53	1.41	1.53
30	S3	12	A	OP3-P	-10.53	1.48	1.61
35	L2	122	C	O4'-C1'	10.53	1.55	1.41
33	L1	2909	A	O4'-C1'	-10.52	1.27	1.41
5	SE	101	ALA	C-O	-10.52	1.03	1.23
33	L1	1081	U	O4'-C1'	-10.52	1.27	1.41
33	L1	3084	G	O4'-C1'	-10.52	1.27	1.41
32	S1	334	G	C2'-C1'	-10.51	1.41	1.53
32	S1	680	C	O4'-C1'	10.51	1.55	1.41
33	L1	669	G	C2'-C1'	-10.51	1.41	1.53
33	L1	1568	A	O4'-C1'	-10.51	1.27	1.41
35	L2	68	U	C4'-C3'	-10.51	1.41	1.53
33	L1	1789	C	C5'-C4'	10.50	1.64	1.51
33	L1	3070	G	C2'-C1'	-10.50	1.41	1.53
33	L1	3072	A	O4'-C1'	10.50	1.55	1.41
33	L1	2994	U	O4'-C1'	10.50	1.55	1.41
32	S1	875	C	O4'-C1'	10.50	1.55	1.41
35	L2	22	U	C2'-C1'	-10.50	1.41	1.53
32	S1	1663	A	O4'-C1'	10.49	1.55	1.41
33	L1	2870	U	C2'-C1'	-10.49	1.41	1.53
33	L1	3101	C	C2'-C1'	-10.49	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1248	A	C2'-C1'	-10.49	1.41	1.53
32	S1	1442	A	O4'-C1'	10.49	1.55	1.41
33	L1	225	G	C2'-C1'	-10.48	1.41	1.53
33	L1	675	C	O4'-C1'	10.48	1.55	1.41
32	S1	1012	C	C2'-C1'	-10.48	1.41	1.53
32	S1	1766	A	C2'-C1'	10.48	1.64	1.53
33	L1	2029	G	O4'-C1'	10.48	1.55	1.41
33	L1	453	U	C2'-C1'	-10.48	1.41	1.53
32	S1	387	G	C2'-C1'	-10.47	1.41	1.53
33	L1	2975	G	C2'-C1'	-10.47	1.41	1.53
32	S1	1219	C	O4'-C1'	10.46	1.55	1.41
34	L3	71	A	C2'-C1'	10.46	1.64	1.53
33	L1	1080	C	P-O5'	-10.46	1.49	1.59
35	L2	44	A	C5'-C4'	10.46	1.64	1.51
32	S1	1082	C	C2'-C1'	-10.46	1.41	1.53
33	L1	775	A	O4'-C1'	10.46	1.55	1.41
33	L1	2566	C	O4'-C1'	10.45	1.55	1.41
33	L1	2132	A	O4'-C1'	-10.45	1.28	1.41
33	L1	2787	A	O3'-P	-10.45	1.48	1.61
33	L1	3094	C	C2'-C1'	10.45	1.64	1.53
34	L3	106	U	O3'-P	-10.45	1.48	1.61
33	L1	1251	U	C2'-C1'	10.45	1.64	1.53
31	S2	1	U	OP3-P	-10.44	1.48	1.61
33	L1	545	C	C2'-C1'	-10.44	1.41	1.53
32	S1	1393	G	C2'-C1'	-10.44	1.41	1.53
33	L1	1973	C	O4'-C1'	10.44	1.55	1.41
33	L1	2042	G	C2'-C1'	-10.43	1.41	1.53
32	S1	1283	C	O4'-C1'	10.43	1.55	1.41
33	L1	1906	A	O4'-C1'	-10.43	1.28	1.41
33	L1	2382	C	C2'-C1'	-10.43	1.41	1.53
32	S1	624	A	O4'-C1'	10.42	1.55	1.41
33	L1	1997	G	C2'-C1'	-10.42	1.41	1.53
33	L1	1384	G	O4'-C1'	-10.42	1.28	1.41
33	L1	454	A	O4'-C1'	10.42	1.55	1.41
33	L1	3224	C	O4'-C1'	10.42	1.55	1.41
33	L1	1321	A	C2'-C1'	-10.42	1.41	1.53
33	L1	1965	C	O4'-C1'	10.42	1.55	1.41
33	L1	2215	A	O4'-C1'	10.42	1.55	1.41
33	L1	3111	C	C2'-C1'	-10.42	1.41	1.53
33	L1	434	C	O4'-C1'	10.41	1.55	1.41
32	S1	623	A	C2'-C1'	10.41	1.64	1.53
33	L1	590	C	C2'-C1'	-10.41	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	578	C	C2'-C1'	-10.41	1.42	1.53
33	L1	3164	C	O4'-C1'	10.40	1.55	1.41
33	L1	2276	A	C2'-C1'	10.40	1.64	1.53
33	L1	2650	A	C2'-C1'	10.40	1.64	1.53
39	LF	187	THR	C-O	-10.40	1.03	1.23
33	L1	1385	C	C2'-C1'	-10.40	1.42	1.53
33	L1	3086	G	O4'-C1'	-10.39	1.28	1.41
33	L1	3170	C	O4'-C1'	10.39	1.55	1.41
33	L1	735	C	O4'-C1'	10.39	1.55	1.41
33	L1	1226	G	O3'-P	-10.39	1.48	1.61
33	L1	1739	G	C2'-C1'	-10.39	1.42	1.53
33	L1	2204	U	C2'-C1'	-10.39	1.42	1.53
31	S2	22	G	C2'-C1'	-10.39	1.42	1.53
32	S1	584	A	O4'-C1'	10.39	1.55	1.41
33	L1	1637	G	O4'-C1'	-10.39	1.28	1.41
33	L1	2837	C	C2'-C1'	-10.39	1.42	1.53
32	S1	1295	G	O4'-C1'	10.38	1.55	1.41
33	L1	210	G	O4'-C1'	10.38	1.55	1.41
33	L1	818	G	O4'-C1'	-10.38	1.28	1.41
32	S1	1091	A	O4'-C1'	10.38	1.55	1.41
32	S1	362	U	O4'-C1'	10.38	1.55	1.41
32	S1	668	C	O4'-C1'	10.38	1.55	1.41
33	L1	3021	U	O4'-C1'	-10.38	1.28	1.41
33	L1	357	C	C2'-C1'	-10.37	1.42	1.53
32	S1	467	U	C2'-C1'	-10.37	1.42	1.53
33	L1	132	U	C2'-C1'	-10.37	1.42	1.53
32	S1	1080	C	O4'-C1'	10.37	1.55	1.41
32	S1	1776	A	C4'-C3'	10.37	1.64	1.53
33	L1	660	A	C2'-C1'	-10.37	1.42	1.53
33	L1	391	U	C2'-C1'	-10.36	1.42	1.53
82	LK	135	GLN	CA-CB	10.36	1.76	1.53
33	L1	2874	A	O4'-C1'	10.36	1.55	1.41
32	S1	1670	G	C2'-C1'	10.35	1.64	1.53
33	L1	1025	G	O4'-C1'	10.35	1.55	1.41
33	L1	1596	G	C2'-C1'	-10.35	1.42	1.53
33	L1	1317	G	C2'-C1'	10.34	1.64	1.53
33	L1	2145	C	O4'-C1'	10.34	1.55	1.41
33	L1	641	C	O3'-P	-10.34	1.48	1.61
23	SU	72	GLY	C-N	10.34	1.51	1.33
33	L1	1235	A	O4'-C1'	10.34	1.55	1.41
33	L1	2883	C	O4'-C1'	10.33	1.55	1.41
35	L2	131	C	O4'-C1'	10.33	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2659	A	C2'-C1'	-10.33	1.42	1.53
32	S1	1278	C	O4'-C1'	-10.33	1.28	1.41
33	L1	3039	U	O4'-C1'	10.33	1.55	1.41
32	S1	915	C	C2'-C1'	10.32	1.64	1.53
32	S1	550	U	C2'-C1'	-10.32	1.42	1.53
32	S1	910	A	C2'-C1'	-10.32	1.42	1.53
33	L1	1614	G	O4'-C1'	10.32	1.55	1.41
33	L1	3223	C	P-O5'	-10.32	1.49	1.59
33	L1	1824	C	O4'-C1'	10.32	1.55	1.41
33	L1	1819	A	O4'-C1'	10.31	1.55	1.41
33	L1	2129	U	C2'-C1'	-10.31	1.42	1.53
32	S1	1788	G	C2'-C1'	10.31	1.64	1.53
32	S1	1708	U	O3'-P	-10.30	1.48	1.61
33	L1	662	G	C2'-C1'	-10.31	1.42	1.53
80	LC	17	LEU	C-O	-10.31	1.03	1.23
33	L1	1996	C	O4'-C1'	10.30	1.55	1.41
33	L1	608	G	C2'-C1'	-10.30	1.42	1.53
33	L1	1993	G	C2'-C1'	-10.29	1.42	1.53
32	S1	1611	U	O4'-C1'	10.29	1.55	1.41
33	L1	1346	C	C2'-C1'	-10.29	1.42	1.53
33	L1	2394	G	C2'-C1'	-10.29	1.42	1.53
32	S1	1069	G	C2'-C1'	10.29	1.64	1.53
32	S1	905	A	C2'-C1'	-10.28	1.42	1.53
33	L1	670	A	C2'-C1'	-10.28	1.42	1.53
33	L1	2436	G	O4'-C1'	-10.27	1.28	1.41
33	L1	921	C	C2'-C1'	10.27	1.64	1.53
33	L1	1912	U	C4'-C3'	10.27	1.64	1.53
33	L1	2699	A	C2'-C1'	-10.27	1.42	1.53
33	L1	1799	C	O4'-C1'	10.27	1.54	1.41
33	L1	291	C	O4'-C1'	10.26	1.54	1.41
32	S1	658	C	O4'-C1'	10.26	1.54	1.41
33	L1	138	G	C2'-C1'	-10.25	1.42	1.53
33	L1	1729	G	C2'-C1'	-10.24	1.42	1.53
32	S1	1347	U	O4'-C1'	10.24	1.54	1.41
83	Lm	7	LYS	C-O	-10.24	1.03	1.23
32	S1	1314	U	C5'-C4'	-10.24	1.39	1.51
33	L1	1953	C	O4'-C1'	10.24	1.54	1.41
32	S1	715	U	P-O5'	-10.23	1.49	1.59
35	L2	56	A	C2'-C1'	10.23	1.64	1.53
32	S1	525	A	C4'-C3'	-10.23	1.41	1.53
32	S1	1396	U	C2'-C1'	10.23	1.64	1.53
33	L1	588	G	C2'-C1'	-10.23	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	617	G	C2'-C1'	-10.22	1.42	1.53
33	L1	3070	G	O4'-C1'	10.22	1.54	1.41
33	L1	1808	G	O4'-C1'	-10.22	1.28	1.41
35	L2	137	C	C2'-C1'	-10.22	1.42	1.53
43	LO	6	LYS	C-O	-10.22	1.03	1.23
32	S1	983	A	O4'-C1'	10.22	1.54	1.41
32	S1	68	A	C2'-C1'	-10.22	1.42	1.53
32	S1	163	G	C2'-C1'	-10.21	1.42	1.53
33	L1	955	A	C2'-C1'	-10.21	1.42	1.53
33	L1	2672	C	O4'-C1'	10.21	1.54	1.41
34	L3	35	C	O4'-C1'	10.21	1.54	1.41
32	S1	271	C	O4'-C1'	10.21	1.54	1.41
35	L2	94	C	O4'-C1'	-10.21	1.28	1.41
35	L2	117	U	O4'-C1'	10.21	1.54	1.41
32	S1	470	U	C2'-C1'	-10.21	1.42	1.53
33	L1	501	U	O4'-C1'	10.21	1.54	1.41
32	S1	147	C	C2'-C1'	-10.20	1.42	1.53
33	L1	245	C	O4'-C1'	10.20	1.54	1.41
33	L1	262	A	O4'-C1'	10.20	1.54	1.41
64	LG	185	ASP	C-O	-10.20	1.03	1.23
33	L1	1256	A	C2'-C1'	-10.20	1.42	1.53
33	L1	1133	A	C2'-C1'	10.20	1.64	1.53
33	L1	3100	C	O4'-C1'	10.19	1.54	1.41
33	L1	2766	U	O4'-C1'	10.19	1.54	1.41
33	L1	953	G	O4'-C1'	10.19	1.54	1.41
33	L1	2065	G	C2'-C1'	10.19	1.64	1.53
33	L1	2219	A	C3'-C2'	10.19	1.64	1.52
32	S1	155	A	C2'-C1'	-10.18	1.42	1.53
33	L1	2496	U	O4'-C1'	-10.18	1.28	1.41
33	L1	11	A	O4'-C1'	10.18	1.54	1.41
33	L1	1689	G	C2'-C1'	-10.18	1.42	1.53
32	S1	456	A	C2'-C1'	10.17	1.64	1.53
33	L1	2095	C	O4'-C1'	10.17	1.54	1.41
32	S1	909	G	C2'-C1'	-10.17	1.42	1.53
33	L1	841	G	O4'-C1'	-10.17	1.28	1.41
33	L1	1260	G	C2'-C1'	-10.17	1.42	1.53
33	L1	2462	G	O4'-C1'	-10.17	1.28	1.41
33	L1	1163	A	O4'-C1'	-10.16	1.28	1.41
33	L1	1506	A	C2'-C1'	-10.16	1.42	1.53
32	S1	973	U	O4'-C1'	10.16	1.54	1.41
33	L1	991	C	O4'-C1'	10.16	1.54	1.41
32	S1	127	G	O4'-C1'	10.16	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	949	A	C2'-C1'	10.16	1.64	1.53
33	L1	1375	G	C3'-O3'	10.16	1.56	1.42
33	L1	584	G	C2'-C1'	10.15	1.64	1.53
33	L1	1087	G	O4'-C1'	10.15	1.54	1.41
33	L1	2366	A	C2'-C1'	-10.15	1.42	1.53
33	L1	2230	C	C2'-C1'	-10.15	1.42	1.53
33	L1	3328	A	C5'-C4'	10.15	1.63	1.51
31	S2	21	A	O4'-C1'	10.15	1.54	1.41
33	L1	2736	A	C2'-C1'	10.14	1.64	1.53
33	L1	690	G	C2'-C1'	10.14	1.64	1.53
33	L1	1163	A	C2'-C1'	-10.14	1.42	1.53
33	L1	1932	A	C2'-C1'	-10.14	1.42	1.53
23	SU	8	PRO	N-CD	-10.14	1.33	1.47
33	L1	2706	A	C2'-C1'	10.14	1.64	1.53
32	S1	539	A	P-O5'	-10.14	1.49	1.59
4	SD	93	PRO	C-O	-10.13	1.02	1.23
32	S1	1578	A	C2'-C1'	-10.13	1.42	1.53
33	L1	528	C	O4'-C1'	10.12	1.54	1.41
33	L1	1271	U	C4'-C3'	10.12	1.64	1.53
32	S1	158	C	O4'-C1'	10.12	1.54	1.41
33	L1	255	C	C2'-C1'	-10.12	1.42	1.53
33	L1	2358	C	C2'-C1'	-10.12	1.42	1.53
32	S1	29	U	O4'-C1'	10.11	1.54	1.41
33	L1	966	G	O4'-C1'	10.11	1.54	1.41
33	L1	1265	G	O4'-C1'	-10.11	1.28	1.41
33	L1	1724	C	O4'-C1'	10.11	1.54	1.41
33	L1	2164	G	C2'-C1'	-10.11	1.42	1.53
33	L1	2842	C	C2'-C1'	10.11	1.64	1.53
33	L1	2066	G	C3'-C2'	10.11	1.64	1.52
45	LQ	9	LYS	C-N	10.11	1.57	1.34
33	L1	1481	C	O4'-C1'	10.10	1.54	1.41
32	S1	293	C	O4'-C1'	10.10	1.54	1.41
32	S1	609	A	O4'-C1'	10.10	1.54	1.41
33	L1	2908	C	C2'-C1'	-10.10	1.42	1.53
31	S2	12	U	C5'-C4'	10.10	1.63	1.51
32	S1	1095	C	O4'-C1'	10.10	1.54	1.41
33	L1	912	G	O4'-C1'	10.10	1.54	1.41
33	L1	2101	A	O4'-C1'	10.10	1.54	1.41
33	L1	2997	C	O4'-C1'	10.10	1.54	1.41
32	S1	1388	A	O4'-C1'	10.09	1.54	1.41
33	L1	1960	C	O4'-C1'	10.09	1.54	1.41
32	S1	1271	G	O4'-C1'	10.09	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	L2	50	G	O4'-C1'	10.09	1.54	1.41
34	L3	26	C	C5'-C4'	10.09	1.63	1.51
32	S1	956	A	C2'-C1'	10.08	1.64	1.53
33	L1	1702	C	O4'-C1'	10.08	1.54	1.41
33	L1	2537	G	C2'-C1'	-10.08	1.42	1.53
32	S1	1363	G	C2'-C1'	-10.08	1.42	1.53
33	L1	808	G	O4'-C1'	-10.08	1.28	1.41
33	L1	2000	C	O4'-C1'	10.08	1.54	1.41
4	SD	239	PRO	C-N	10.08	1.57	1.34
32	S1	256	G	C2'-C1'	-10.07	1.42	1.53
33	L1	1720	C	O4'-C1'	10.07	1.54	1.41
32	S1	103	U	O4'-C1'	10.07	1.54	1.41
33	L1	3229	C	O4'-C1'	10.07	1.54	1.41
32	S1	1037	G	C2'-C1'	-10.07	1.42	1.53
33	L1	498	G	C4'-C3'	10.07	1.64	1.53
32	S1	1099	G	O4'-C1'	10.06	1.54	1.41
32	S1	1543	U	C2'-C1'	10.06	1.64	1.53
32	S1	673	C	O4'-C1'	10.06	1.54	1.41
32	S1	881	G	O4'-C1'	10.06	1.54	1.41
33	L1	676	G	C2'-C1'	-10.06	1.42	1.53
33	L1	1321	A	O4'-C1'	10.06	1.54	1.41
33	L1	3310	A	O4'-C1'	10.06	1.54	1.41
34	L3	94	C	C2'-C1'	-10.05	1.42	1.53
32	S1	1241	G	C2'-C1'	-10.05	1.42	1.53
64	LG	185	ASP	CA-CB	10.05	1.76	1.53
33	L1	1215	U	O4'-C1'	10.05	1.54	1.41
33	L1	1262	U	O4'-C1'	-10.04	1.28	1.41
33	L1	2677	A	C2'-C1'	10.05	1.64	1.53
32	S1	1166	C	O4'-C1'	10.04	1.54	1.41
33	L1	1761	C	O4'-C1'	10.04	1.54	1.41
33	L1	3245	G	C2'-C1'	-10.04	1.42	1.53
32	S1	788	G	C5'-C4'	10.04	1.63	1.51
32	S1	504	C	C2'-C1'	-10.03	1.42	1.53
32	S1	568	G	P-O5'	-10.03	1.49	1.59
33	L1	567	G	C2'-C1'	-10.03	1.42	1.53
33	L1	1866	C	C2'-C1'	-10.03	1.42	1.53
32	S1	1352	A	C3'-C2'	-10.02	1.41	1.52
33	L1	1325	G	C2'-C1'	-10.02	1.42	1.53
73	Lp	52	LYS	C-N	10.02	1.57	1.34
33	L1	1305	A	C2'-C1'	-10.02	1.42	1.53
33	L1	2402	G	C2'-C1'	10.02	1.64	1.53
32	S1	574	A	O4'-C1'	10.01	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	975	G	O4'-C1'	-10.01	1.28	1.41
33	L1	1382	C	C2'-C1'	-10.01	1.42	1.53
33	L1	2501	U	C5'-C4'	10.01	1.63	1.51
33	L1	1958	G	C2'-C1'	-10.00	1.42	1.53
32	S1	991	G	C2'-C1'	-10.00	1.42	1.53
32	S1	1314	U	O5'-C5'	-10.00	1.26	1.42
33	L1	1041	C	O4'-C1'	10.00	1.54	1.41
32	S1	1004	U	C2'-C1'	-10.00	1.42	1.53
33	L1	2230	C	C3'-O3'	10.00	1.56	1.42
33	L1	2661	G	C4'-C3'	10.00	1.64	1.53
32	S1	381	G	O4'-C1'	-9.99	1.28	1.41
32	S1	1294	U	C2'-C1'	-9.99	1.42	1.53
33	L1	185	A	C2'-C1'	-9.99	1.42	1.53
33	L1	598	U	C2'-C1'	-9.99	1.42	1.53
32	S1	1133	C	O4'-C1'	9.99	1.54	1.41
33	L1	338	C	C2'-C1'	-9.99	1.42	1.53
33	L1	1986	G	C2'-C1'	-9.99	1.42	1.53
33	L1	597	C	C4'-C3'	9.99	1.64	1.53
33	L1	1659	G	C2'-C1'	-9.99	1.42	1.53
33	L1	2453	G	C2'-C1'	9.99	1.64	1.53
32	S1	1275	G	C2'-C1'	-9.98	1.42	1.53
33	L1	1127	U	C2'-C1'	-9.98	1.42	1.53
34	L3	108	G	O4'-C1'	-9.98	1.28	1.41
32	S1	40	A	O4'-C1'	9.98	1.54	1.41
32	S1	1405	U	O4'-C1'	9.97	1.54	1.41
33	L1	2908	C	O4'-C1'	9.97	1.54	1.41
33	L1	2132	A	C2'-C1'	9.97	1.64	1.53
33	L1	2796	G	C2'-C1'	9.97	1.64	1.53
32	S1	1060	U	O4'-C1'	9.97	1.54	1.41
33	L1	1933	U	C2'-C1'	-9.96	1.42	1.53
32	S1	468	A	C2'-C1'	9.96	1.64	1.53
33	L1	2896	C	C2'-C1'	9.96	1.64	1.53
32	S1	285	G	O4'-C1'	9.96	1.54	1.41
33	L1	587	A	O4'-C1'	9.95	1.54	1.41
33	L1	608	G	O4'-C1'	9.95	1.54	1.41
33	L1	2319	A	C2'-C1'	9.95	1.64	1.53
33	L1	766	C	O4'-C1'	9.95	1.54	1.41
33	L1	1345	U	C2'-C1'	-9.95	1.42	1.53
33	L1	3164	C	C2'-C1'	-9.95	1.42	1.53
34	L3	35	C	C2'-C1'	-9.95	1.42	1.53
32	S1	825	U	C2'-C1'	-9.94	1.42	1.53
33	L1	935	U	O4'-C1'	9.94	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1228	G	C2'-C1'	-9.94	1.42	1.53
32	S1	1306	U	C2'-C1'	-9.94	1.42	1.53
32	S1	1392	G	O4'-C1'	9.94	1.54	1.41
33	L1	2157	C	O4'-C1'	9.93	1.54	1.41
33	L1	1751	G	O4'-C1'	9.93	1.54	1.41
32	S1	182	C	C2'-C1'	-9.93	1.42	1.53
31	S2	56	A	C2'-C1'	9.93	1.64	1.53
32	S1	144	U	C2'-C1'	-9.93	1.42	1.53
33	L1	1828	C	C2'-C1'	-9.93	1.42	1.53
33	L1	2100	A	O4'-C1'	9.93	1.54	1.41
32	S1	1433	A	C2'-C1'	9.93	1.64	1.53
33	L1	128	C	C2'-C1'	-9.93	1.42	1.53
33	L1	3096	U	P-O5'	-9.93	1.49	1.59
32	S1	365	C	O4'-C1'	9.92	1.54	1.41
32	S1	1146	G	O3'-P	-9.92	1.49	1.61
33	L1	2776	U	O4'-C1'	9.92	1.54	1.41
33	L1	443	G	C2'-C1'	-9.92	1.42	1.53
32	S1	9	U	O4'-C1'	9.92	1.54	1.41
33	L1	314	C	O4'-C1'	9.92	1.54	1.41
32	S1	494	G	C2'-C1'	-9.92	1.42	1.53
33	L1	658	C	O4'-C1'	9.92	1.54	1.41
33	L1	2313	U	C2'-C1'	9.92	1.64	1.53
33	L1	801	G	O4'-C1'	-9.91	1.28	1.41
35	L2	88	C	O4'-C1'	9.91	1.54	1.41
32	S1	1027	C	O4'-C1'	9.91	1.54	1.41
33	L1	660	A	O4'-C1'	9.91	1.54	1.41
33	L1	2038	G	C2'-C1'	-9.91	1.42	1.53
33	L1	2102	C	O4'-C1'	9.90	1.54	1.41
34	L3	30	G	C2'-C1'	-9.90	1.42	1.53
33	L1	825	G	O3'-P	-9.90	1.49	1.61
33	L1	2109	G	C2'-C1'	-9.90	1.42	1.53
32	S1	828	G	O4'-C1'	-9.89	1.28	1.41
32	S1	1161	C	O4'-C1'	9.89	1.54	1.41
33	L1	1526	A	P-O5'	-9.89	1.49	1.59
32	S1	839	G	C2'-C1'	-9.89	1.42	1.53
32	S1	1476	C	O4'-C1'	9.89	1.54	1.41
33	L1	1785	G	O4'-C1'	-9.89	1.28	1.41
33	L1	2087	A	C2'-C1'	9.89	1.64	1.53
33	L1	1015	A	C2'-C1'	9.89	1.64	1.53
33	L1	248	C	O4'-C1'	9.89	1.54	1.41
33	L1	1810	G	C2'-C1'	9.89	1.64	1.53
33	L1	2497	A	O4'-C1'	9.89	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1671	G	O4'-C1'	9.88	1.54	1.41
33	L1	1097	A	O4'-C1'	9.88	1.54	1.41
33	L1	3247	C	O4'-C1'	9.88	1.54	1.41
32	S1	1080	C	C2'-C1'	-9.88	1.42	1.53
32	S1	1122	U	C2'-C1'	-9.88	1.42	1.53
33	L1	676	G	O3'-P	-9.88	1.49	1.61
33	L1	2483	A	O4'-C1'	-9.88	1.28	1.41
33	L1	1511	C	C2'-C1'	-9.87	1.42	1.53
33	L1	2916	G	C2'-C1'	-9.88	1.42	1.53
33	L1	2522	C	O4'-C1'	9.87	1.54	1.41
33	L1	228	C	O4'-C1'	9.87	1.54	1.41
33	L1	1176	U	C3'-C2'	-9.87	1.41	1.52
32	S1	1410	C	O4'-C1'	9.87	1.54	1.41
32	S1	1336	C	C2'-C1'	-9.86	1.42	1.53
33	L1	341	U	C5'-C4'	9.86	1.63	1.51
33	L1	814	U	O4'-C1'	9.86	1.54	1.41
31	S2	2	C	O4'-C1'	9.86	1.54	1.41
31	S2	48	C	O4'-C1'	9.86	1.54	1.41
32	S1	300	U	C2'-C1'	9.86	1.64	1.53
32	S1	1559	U	C2'-C1'	9.86	1.64	1.53
33	L1	2430	C	C2'-C1'	9.86	1.64	1.53
35	L2	147	C	C2'-C1'	-9.86	1.42	1.53
33	L1	795	C	O4'-C1'	9.85	1.54	1.41
33	L1	1146	A	O3'-P	-9.85	1.49	1.61
32	S1	1100	U	O4'-C1'	9.85	1.54	1.41
33	L1	741	G	C2'-C1'	-9.85	1.42	1.53
33	L1	2129	U	O4'-C1'	9.85	1.54	1.41
33	L1	2620	U	C2'-C1'	9.85	1.64	1.53
32	S1	145	A	C2'-C1'	-9.84	1.42	1.53
33	L1	1950	G	C2'-C1'	9.84	1.64	1.53
34	L3	51	G	C2'-C1'	-9.84	1.42	1.53
33	L1	2147	U	O4'-C1'	9.84	1.54	1.41
33	L1	2489	A	O4'-C1'	9.84	1.54	1.41
33	L1	3183	G	C2'-C1'	-9.84	1.42	1.53
34	L3	27	A	C2'-C1'	-9.84	1.42	1.53
33	L1	2673	G	O4'-C1'	9.83	1.54	1.41
32	S1	290	C	C4'-C3'	9.83	1.64	1.53
32	S1	845	C	O4'-C1'	9.83	1.54	1.41
33	L1	2711	U	C2'-C1'	-9.83	1.42	1.53
27	SH	82	GLY	C-O	-9.83	1.07	1.23
32	S1	1282	G	O4'-C1'	9.82	1.54	1.41
32	S1	1390	A	C2'-C1'	-9.82	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	461	A	C2'-C1'	-9.82	1.42	1.53
33	L1	1389	C	O4'-C1'	-9.82	1.28	1.41
33	L1	1876	U	C2'-C1'	-9.82	1.42	1.53
33	L1	2032	C	C2'-C1'	-9.82	1.42	1.53
33	L1	2444	U	C2'-C1'	-9.82	1.42	1.53
33	L1	2594	A	C3'-C2'	9.82	1.63	1.52
33	L1	2934	C	C2'-C1'	9.82	1.64	1.53
32	S1	82	G	C2'-C1'	-9.82	1.42	1.53
32	S1	1764	G	C2'-C1'	-9.82	1.42	1.53
32	S1	687	C	O4'-C1'	9.81	1.54	1.41
33	L1	2354	G	O4'-C1'	-9.81	1.28	1.41
33	L1	2703	G	C2'-C1'	-9.81	1.42	1.53
33	L1	1338	C	O4'-C1'	9.81	1.54	1.41
35	L2	148	C	O4'-C1'	9.81	1.54	1.41
4	SD	153	ILE	C-O	-9.81	1.04	1.23
33	L1	723	G	C5'-C4'	9.81	1.63	1.51
32	S1	1122	U	O4'-C1'	9.81	1.54	1.41
67	LS	120	PHE	C-O	-9.81	1.04	1.23
32	S1	1198	A	O4'-C1'	9.81	1.54	1.41
32	S1	585	U	O4'-C1'	9.80	1.54	1.41
33	L1	649	A	O4'-C1'	9.80	1.54	1.41
33	L1	1486	G	O4'-C1'	-9.80	1.28	1.41
33	L1	2709	G	O4'-C1'	9.80	1.54	1.41
33	L1	3211	C	C4'-O4'	9.80	1.58	1.45
33	L1	999	U	O4'-C1'	9.80	1.54	1.41
73	Lp	52	LYS	CA-CB	9.80	1.75	1.53
33	L1	891	U	C2'-C1'	9.79	1.64	1.53
33	L1	2408	G	O4'-C1'	9.79	1.54	1.41
33	L1	337	C	C2'-C1'	-9.79	1.42	1.53
33	L1	2813	A	C2'-C1'	-9.79	1.42	1.53
32	S1	681	G	C2'-C1'	-9.78	1.42	1.53
33	L1	2412	A	O4'-C1'	-9.78	1.28	1.41
33	L1	3313	C	O4'-C1'	9.78	1.54	1.41
41	LM	68	GLY	CA-C	9.78	1.67	1.51
33	L1	1957	G	O4'-C1'	-9.78	1.28	1.41
33	L1	2855	G	C2'-C1'	9.78	1.64	1.53
32	S1	649	C	O4'-C1'	9.77	1.54	1.41
35	L2	93	A	C3'-C2'	9.77	1.63	1.52
33	L1	2933	C	C5'-C4'	9.77	1.63	1.51
32	S1	940	U	O4'-C1'	9.77	1.54	1.41
33	L1	61	A	C2'-C1'	-9.77	1.42	1.53
33	L1	594	C	C2'-C1'	-9.77	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1474	U	C2'-C1'	-9.77	1.42	1.53
31	S2	45	G	O4'-C1'	9.76	1.54	1.41
33	L1	2341	U	O4'-C1'	9.76	1.54	1.41
32	S1	142	G	C2'-C1'	-9.76	1.42	1.53
33	L1	1273	U	C2'-C1'	-9.76	1.42	1.53
39	LF	188	GLU	N-CA	9.76	1.65	1.46
33	L1	506	U	O4'-C1'	9.76	1.54	1.41
33	L1	1369	G	C4'-C3'	9.76	1.63	1.53
33	L1	3057	A	C2'-C1'	-9.75	1.42	1.53
33	L1	3379	C	O4'-C1'	9.75	1.54	1.41
32	S1	1211	U	O4'-C1'	9.75	1.54	1.41
33	L1	1311	G	P-O5'	-9.75	1.50	1.59
33	L1	2135	U	C2'-C1'	-9.75	1.42	1.53
35	L2	53	G	O4'-C1'	9.75	1.54	1.41
32	S1	619	A	O4'-C1'	9.75	1.54	1.41
66	LN	64	ARG	NE-CZ	-9.75	1.20	1.33
35	L2	27	C	C2'-C1'	-9.74	1.42	1.53
32	S1	619	A	C2'-C1'	-9.74	1.42	1.53
32	S1	914	U	C2'-C1'	9.74	1.64	1.53
33	L1	1026	A	O4'-C1'	9.74	1.54	1.41
34	L3	64	G	C2'-C1'	-9.74	1.42	1.53
32	S1	1082	C	O4'-C1'	9.74	1.54	1.41
35	L2	87	C	O4'-C1'	9.74	1.54	1.41
32	S1	1142	A	O3'-P	-9.73	1.49	1.61
33	L1	633	C	O4'-C1'	9.73	1.54	1.41
33	L1	1132	A	P-O5'	-9.73	1.50	1.59
33	L1	1785	G	C2'-C1'	-9.73	1.42	1.53
33	L1	160	G	C2'-C1'	-9.73	1.42	1.53
33	L1	3122	U	C2'-C1'	-9.73	1.42	1.53
32	S1	333	G	O4'-C1'	9.72	1.54	1.41
32	S1	1656	C	C2'-C1'	-9.72	1.42	1.53
33	L1	1837	A	C2'-C1'	-9.72	1.42	1.53
32	S1	1011	C	O4'-C1'	9.72	1.54	1.41
32	S1	1617	U	P-O5'	-9.72	1.50	1.59
33	L1	1263	A	C2'-C1'	-9.72	1.42	1.53
32	S1	1036	U	C2'-C1'	-9.72	1.42	1.53
33	L1	2232	C	C2'-C1'	-9.72	1.42	1.53
32	S1	1026	C	O4'-C1'	9.71	1.54	1.41
33	L1	2451	G	O4'-C1'	9.71	1.54	1.41
33	L1	1119	G	C4'-C3'	9.71	1.63	1.53
33	L1	2511	U	C2'-C1'	9.71	1.64	1.53
32	S1	219	G	C2'-C1'	-9.71	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1033	C	O3'-P	-9.71	1.49	1.61
33	L1	1191	U	C2'-C1'	9.70	1.64	1.53
4	SD	150	PRO	C-O	-9.69	1.03	1.23
33	L1	251	G	O4'-C1'	-9.69	1.29	1.41
4	SD	93	PRO	CA-CB	9.69	1.73	1.53
33	L1	845	G	P-O5'	-9.69	1.50	1.59
33	L1	1043	U	C2'-C1'	-9.69	1.42	1.53
33	L1	1630	C	P-O5'	-9.69	1.50	1.59
31	S2	18	G	O4'-C1'	-9.68	1.29	1.41
32	S1	1610	C	C2'-C1'	9.68	1.64	1.53
32	S1	1592	G	C2'-C1'	9.67	1.64	1.53
32	S1	1616	U	O3'-P	-9.67	1.49	1.61
33	L1	1754	C	C2'-C1'	-9.67	1.42	1.53
33	L1	1763	C	C2'-C1'	-9.67	1.42	1.53
32	S1	1125	U	C2'-C1'	-9.67	1.42	1.53
33	L1	1977	C	C2'-C1'	-9.67	1.42	1.53
34	L3	67	C	P-O5'	-9.67	1.50	1.59
32	S1	1285	G	C2'-C1'	-9.66	1.42	1.53
59	Lo	30	ARG	CA-CB	9.66	1.75	1.53
32	S1	1083	C	O4'-C1'	9.66	1.54	1.41
32	S1	1611	U	C2'-C1'	9.66	1.64	1.53
33	L1	450	C	O4'-C1'	9.66	1.54	1.41
33	L1	3236	A	C2'-C1'	-9.66	1.42	1.53
43	LO	137	GLY	C-O	-9.65	1.08	1.23
33	L1	468	U	C4'-C3'	9.65	1.63	1.53
33	L1	2076	C	O4'-C1'	-9.65	1.29	1.41
32	S1	914	U	O4'-C1'	9.65	1.54	1.41
33	L1	720	G	O4'-C1'	9.65	1.54	1.41
33	L1	2206	U	C5'-C4'	9.65	1.62	1.51
23	SU	95	TYR	CB-CG	-9.64	1.37	1.51
32	S1	199	G	C2'-C1'	-9.64	1.42	1.53
32	S1	834	A	C2'-C1'	-9.64	1.42	1.53
32	S1	350	G	O4'-C1'	9.64	1.54	1.41
32	S1	1452	A	O4'-C1'	9.64	1.54	1.41
33	L1	424	G	C2'-C1'	-9.64	1.42	1.53
33	L1	2755	U	C2'-C1'	-9.63	1.42	1.53
33	L1	2053	A	O4'-C1'	9.63	1.54	1.41
33	L1	2444	U	O4'-C1'	9.63	1.54	1.41
33	L1	1274	A	C2'-C1'	9.62	1.64	1.53
33	L1	3289	U	O4'-C1'	9.62	1.54	1.41
35	L2	91	G	C2'-C1'	-9.62	1.42	1.53
33	L1	2999	G	O4'-C1'	-9.62	1.29	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1441	U	C2'-C1'	-9.61	1.42	1.53
32	S1	631	C	O3'-P	-9.61	1.49	1.61
32	S1	1707	G	O4'-C1'	-9.61	1.29	1.41
32	S1	771	G	O3'-P	-9.61	1.49	1.61
33	L1	3170	C	C2'-C1'	-9.61	1.42	1.53
33	L1	3343	U	C2'-C1'	-9.60	1.42	1.53
35	L2	24	U	C2'-C1'	-9.60	1.42	1.53
33	L1	598	U	P-O5'	-9.60	1.50	1.59
33	L1	1319	U	O4'-C1'	-9.60	1.29	1.41
33	L1	566	G	O4'-C1'	9.59	1.54	1.41
33	L1	854	C	C2'-C1'	-9.59	1.42	1.53
33	L1	166	U	O4'-C1'	9.59	1.54	1.41
33	L1	1309	U	C2'-C1'	-9.59	1.42	1.53
33	L1	1690	C	C2'-C1'	9.59	1.63	1.53
33	L1	2674	A	O4'-C1'	-9.59	1.29	1.41
33	L1	2108	C	O4'-C1'	9.59	1.54	1.41
33	L1	2178	G	O4'-C1'	9.59	1.54	1.41
70	Li	43	LYS	C-O	9.59	1.41	1.23
33	L1	726	C	C2'-C1'	-9.58	1.42	1.53
33	L1	2757	G	C2'-C1'	9.58	1.63	1.53
33	L1	629	U	O4'-C1'	9.58	1.54	1.41
33	L1	254	G	O4'-C1'	9.58	1.54	1.41
32	S1	1518	C	O4'-C1'	9.58	1.54	1.41
32	S1	1698	A	C5'-C4'	9.57	1.62	1.51
33	L1	752	U	O4'-C1'	9.57	1.54	1.41
33	L1	2283	G	C2'-C1'	-9.57	1.42	1.53
33	L1	677	U	O4'-C1'	9.57	1.54	1.41
33	L1	3007	A	C2'-C1'	-9.57	1.42	1.53
32	S1	1123	G	C2'-C1'	-9.57	1.42	1.53
33	L1	2480	G	O4'-C1'	-9.56	1.29	1.41
48	LV	36	ILE	C-O	-9.56	1.05	1.23
32	S1	1299	G	C2'-C1'	-9.56	1.42	1.53
33	L1	3331	G	C2'-C1'	9.56	1.63	1.53
4	SD	132	GLY	C-N	9.56	1.56	1.34
33	L1	839	A	C3'-C2'	-9.56	1.42	1.52
33	L1	1509	G	C2'-C1'	9.56	1.63	1.53
33	L1	2539	G	O4'-C1'	9.56	1.54	1.41
33	L1	868	A	C4'-C3'	9.55	1.63	1.53
33	L1	2012	C	C2'-C1'	-9.55	1.42	1.53
33	L1	934	C	C2'-C1'	-9.54	1.42	1.53
11	SM	36	VAL	C-N	9.54	1.50	1.33
33	L1	258	C	C2'-C1'	-9.54	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	180	A	C2'-C1'	-9.54	1.42	1.53
33	L1	1190	C	C2'-C1'	-9.54	1.42	1.53
33	L1	2951	U	C2'-C1'	9.54	1.63	1.53
34	L3	119	C	O4'-C1'	9.54	1.54	1.41
13	SQ	22	SER	N-CA	9.54	1.65	1.46
33	L1	2501	U	C2'-C1'	-9.53	1.42	1.53
32	S1	1350	C	O4'-C1'	9.53	1.54	1.41
32	S1	1629	U	C2'-C1'	-9.53	1.42	1.53
35	L2	95	C	C2'-C1'	9.53	1.63	1.53
32	S1	289	G	C2'-C1'	-9.53	1.42	1.53
32	S1	1612	C	C2'-C1'	-9.53	1.42	1.53
33	L1	1787	C	O4'-C1'	9.53	1.54	1.41
33	L1	309	C	C5'-C4'	9.53	1.62	1.51
33	L1	2060	C	O4'-C1'	-9.53	1.29	1.41
34	L3	58	G	O4'-C1'	-9.53	1.29	1.41
33	L1	1042	C	C5'-C4'	9.52	1.62	1.51
33	L1	2793	G	O4'-C1'	-9.52	1.29	1.41
33	L1	3226	G	C2'-C1'	9.52	1.63	1.53
33	L1	659	C	O4'-C1'	9.52	1.54	1.41
32	S1	988	G	C5'-C4'	9.51	1.62	1.51
32	S1	1000	A	O4'-C1'	-9.51	1.29	1.41
32	S1	1024	A	O4'-C1'	9.51	1.54	1.41
32	S1	1333	A	O4'-C1'	9.51	1.54	1.41
33	L1	819	A	C2'-C1'	-9.51	1.42	1.53
33	L1	2862	U	C2'-C1'	9.51	1.63	1.53
33	L1	1351	C	C5'-C4'	9.51	1.62	1.51
32	S1	999	G	O4'-C1'	9.51	1.54	1.41
33	L1	844	A	C2'-C1'	-9.51	1.42	1.53
33	L1	2062	U	C2'-C1'	9.50	1.63	1.53
32	S1	22	A	O4'-C1'	9.50	1.53	1.41
32	S1	408	G	O4'-C1'	9.50	1.53	1.41
33	L1	2042	G	O4'-C1'	9.50	1.53	1.41
32	S1	951	U	C2'-C1'	9.49	1.63	1.53
33	L1	2594	A	O4'-C1'	-9.49	1.29	1.41
33	L1	2612	A	C2'-C1'	9.49	1.63	1.53
32	S1	1654	C	C2'-C1'	-9.48	1.43	1.53
33	L1	793	C	C2'-C1'	-9.48	1.43	1.53
33	L1	1344	A	C5'-C4'	9.48	1.62	1.51
64	LG	51	TYR	C-O	-9.48	1.05	1.23
33	L1	2003	C	O4'-C1'	9.48	1.53	1.41
32	S1	181	C	C2'-C1'	-9.47	1.43	1.53
32	S1	440	A	O4'-C1'	9.47	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	SC	171	PRO	CG-CD	9.47	1.81	1.50
32	S1	272	G	C2'-C1'	-9.47	1.43	1.53
33	L1	2033	C	C2'-C1'	-9.47	1.43	1.53
32	S1	641	C	O4'-C1'	9.46	1.53	1.41
32	S1	1565	U	O4'-C1'	9.46	1.53	1.41
33	L1	2668	U	C4'-O4'	9.46	1.57	1.45
31	S2	74	C	O3'-P	-9.46	1.49	1.61
33	L1	3054	G	C5'-C4'	9.46	1.62	1.51
33	L1	1224	A	P-O5'	-9.45	1.50	1.59
33	L1	2424	G	O4'-C1'	9.45	1.53	1.41
32	S1	97	G	C2'-C1'	-9.45	1.43	1.53
32	S1	948	C	O4'-C1'	9.45	1.53	1.41
32	S1	1145	G	O4'-C1'	9.45	1.53	1.41
66	LN	64	ARG	CZ-NH1	9.45	1.45	1.33
32	S1	1381	G	C2'-C1'	-9.44	1.43	1.53
33	L1	183	C	C2'-C1'	-9.44	1.43	1.53
32	S1	1633	C	C2'-C1'	-9.44	1.43	1.53
33	L1	1701	G	O4'-C1'	-9.44	1.29	1.41
33	L1	3168	C	C2'-C1'	9.44	1.63	1.53
33	L1	3174	C	C5'-C4'	9.44	1.62	1.51
64	LG	52	PRO	N-CA	9.43	1.63	1.47
32	S1	1088	G	C2'-C1'	-9.42	1.43	1.53
33	L1	1661	G	C2'-C1'	-9.42	1.43	1.53
35	L2	70	G	C2'-C1'	-9.42	1.43	1.53
33	L1	2574	A	O4'-C1'	9.42	1.53	1.41
32	S1	1271	G	C2'-C1'	-9.42	1.43	1.53
33	L1	1984	C	O4'-C1'	9.42	1.53	1.41
32	S1	273	C	C2'-C1'	-9.42	1.43	1.53
33	L1	1808	G	P-O5'	-9.42	1.50	1.59
33	L1	3100	C	C5'-C4'	9.41	1.62	1.51
80	LC	295	SER	CA-CB	9.41	1.67	1.52
33	L1	96	C	O4'-C1'	9.41	1.53	1.41
33	L1	312	U	C2'-C1'	-9.41	1.43	1.53
33	L1	2359	C	O4'-C1'	9.41	1.53	1.41
32	S1	404	A	C2'-C1'	9.41	1.63	1.53
32	S1	320	A	C5'-C4'	9.41	1.62	1.51
33	L1	2061	C	O4'-C1'	9.41	1.53	1.41
33	L1	2718	A	C2'-C1'	9.41	1.63	1.53
33	L1	88	A	O3'-P	-9.40	1.49	1.61
33	L1	561	G	C2'-C1'	-9.40	1.43	1.53
33	L1	1618	U	O4'-C1'	9.40	1.53	1.41
33	L1	3282	G	C2'-C1'	-9.40	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1699	C	O4'-C1'	9.40	1.53	1.41
33	L1	108	A	C4'-C3'	9.40	1.63	1.53
33	L1	1119	G	C2'-C1'	-9.40	1.43	1.53
33	L1	1703	C	C2'-C1'	-9.40	1.43	1.53
33	L1	3290	C	O4'-C1'	9.40	1.53	1.41
33	L1	2773	G	C4'-C3'	-9.40	1.42	1.53
32	S1	1348	A	C2'-C1'	9.39	1.63	1.53
33	L1	2743	A	O4'-C1'	-9.39	1.29	1.41
32	S1	371	A	C2'-C1'	9.39	1.63	1.53
32	S1	368	A	C2'-C1'	-9.38	1.43	1.53
33	L1	600	G	C5'-C4'	9.38	1.62	1.51
33	L1	1488	G	O4'-C1'	9.38	1.53	1.41
34	L3	5	G	C2'-C1'	-9.38	1.43	1.53
32	S1	442	A	O4'-C1'	9.37	1.53	1.41
33	L1	1632	G	O3'-P	-9.37	1.50	1.61
33	L1	1696	G	O4'-C1'	9.37	1.53	1.41
33	L1	2374	G	O4'-C1'	-9.37	1.29	1.41
33	L1	3241	C	O4'-C1'	9.36	1.53	1.41
33	L1	685	G	C2'-C1'	-9.36	1.43	1.53
82	LK	134	LEU	N-CA	9.36	1.65	1.46
32	S1	452	C	C2'-C1'	-9.36	1.43	1.53
33	L1	1062	G	C2'-C1'	-9.36	1.43	1.53
32	S1	1425	G	C2'-C1'	-9.35	1.43	1.53
72	Lk	95	SER	CA-CB	9.35	1.67	1.52
33	L1	725	G	C2'-C1'	-9.35	1.43	1.53
33	L1	1387	G	O3'-P	9.35	1.72	1.61
33	L1	1812	A	C5'-C4'	9.35	1.62	1.51
35	L2	140	G	C2'-C1'	-9.35	1.43	1.53
33	L1	2202	A	O4'-C1'	9.34	1.53	1.41
32	S1	1319	U	C4'-C3'	9.34	1.63	1.53
33	L1	2477	G	O4'-C1'	-9.34	1.29	1.41
33	L1	1539	G	O4'-C1'	-9.34	1.29	1.41
33	L1	2705	A	C2'-C1'	-9.34	1.43	1.53
33	L1	900	C	C2'-C1'	-9.33	1.43	1.53
32	S1	313	C	P-O5'	-9.33	1.50	1.59
32	S1	1667	A	C2'-C1'	-9.33	1.43	1.53
33	L1	3311	C	O4'-C1'	9.33	1.53	1.41
33	L1	1968	C	O4'-C1'	9.33	1.53	1.41
32	S1	315	U	C5'-C4'	9.32	1.62	1.51
32	S1	1239	C	O4'-C1'	-9.32	1.29	1.41
32	S1	1705	C	P-O5'	-9.32	1.50	1.59
30	S3	18	C	O4'-C1'	9.32	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1060	U	O3'-P	-9.32	1.50	1.61
33	L1	2800	C	O4'-C1'	9.32	1.53	1.41
32	S1	946	A	C2'-C1'	-9.31	1.43	1.53
33	L1	1561	U	C5'-C4'	9.31	1.62	1.51
33	L1	2359	C	C2'-C1'	-9.31	1.43	1.53
47	LU	140	MET	C-O	-9.31	1.05	1.23
33	L1	1964	G	C2'-C1'	-9.31	1.43	1.53
23	SU	80	LEU	N-CA	9.30	1.65	1.46
32	S1	1124	G	C2'-C1'	-9.30	1.43	1.53
23	SU	35	PRO	N-CA	9.30	1.63	1.47
13	SQ	26	LEU	C-O	-9.30	1.05	1.23
35	L2	129	C	C2'-C1'	-9.30	1.43	1.53
33	L1	2632	U	O4'-C1'	-9.29	1.29	1.41
32	S1	279	C	O4'-C1'	9.29	1.53	1.41
33	L1	1121	C	O4'-C1'	9.29	1.53	1.41
32	S1	35	U	O4'-C1'	9.29	1.53	1.41
35	L2	92	A	C2'-C1'	-9.29	1.43	1.53
32	S1	767	G	O3'-P	-9.28	1.50	1.61
32	S1	662	C	O4'-C1'	9.28	1.53	1.41
32	S1	1022	U	C5'-C4'	9.28	1.62	1.51
35	L2	86	C	C2'-C1'	-9.28	1.43	1.53
32	S1	1607	C	O3'-P	-9.28	1.50	1.61
33	L1	2849	A	O4'-C1'	9.28	1.53	1.41
33	L1	2518	A	C4'-O4'	9.27	1.57	1.45
33	L1	1059	A	O4'-C1'	9.27	1.53	1.41
33	L1	737	C	O4'-C1'	9.27	1.53	1.41
33	L1	2005	C	O4'-C1'	9.27	1.53	1.41
33	L1	2891	C	O4'-C1'	9.27	1.53	1.41
35	L2	15	C	O4'-C1'	9.27	1.53	1.41
33	L1	1160	G	C2'-C1'	-9.26	1.43	1.53
33	L1	2749	A	O3'-P	-9.26	1.50	1.61
33	L1	706	U	C2'-C1'	-9.26	1.43	1.53
33	L1	477	C	O4'-C1'	9.25	1.53	1.41
33	L1	741	G	O4'-C1'	9.25	1.53	1.41
31	S2	66	C	O4'-C1'	9.25	1.53	1.41
32	S1	422	G	P-O5'	-9.25	1.50	1.59
32	S1	1179	C	O4'-C1'	9.25	1.53	1.41
32	S1	801	U	C4'-C3'	-9.25	1.43	1.53
33	L1	1274	A	C5'-C4'	9.25	1.62	1.51
33	L1	1912	U	C4'-O4'	9.25	1.57	1.45
33	L1	3353	G	O4'-C1'	9.24	1.53	1.41
34	L3	77	A	O4'-C1'	9.24	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	766	A	C4'-C3'	-9.24	1.43	1.53
33	L1	1066	G	C2'-C1'	-9.24	1.43	1.53
33	L1	904	G	O3'-P	-9.23	1.50	1.61
33	L1	2023	C	O4'-C1'	9.23	1.53	1.41
32	S1	1004	U	O4'-C1'	9.23	1.53	1.41
31	S2	12	U	C3'-O3'	9.23	1.55	1.42
33	L1	1797	U	P-O5'	-9.23	1.50	1.59
32	S1	610	A	C2'-C1'	-9.23	1.43	1.53
25	SC	162	LEU	CA-CB	-9.22	1.32	1.53
33	L1	2028	C	C2'-C1'	-9.22	1.43	1.53
33	L1	651	A	C2'-C1'	-9.22	1.43	1.53
33	L1	652	C	O4'-C1'	9.22	1.53	1.41
32	S1	789	C	P-O5'	9.22	1.69	1.59
33	L1	1061	A	C2'-C1'	-9.22	1.43	1.53
33	L1	1081	U	C4'-O4'	9.22	1.57	1.45
32	S1	1178	C	O4'-C1'	9.22	1.53	1.41
33	L1	2651	G	O4'-C1'	-9.22	1.29	1.41
71	Lj	25	SER	N-CA	9.22	1.64	1.46
32	S1	1281	G	C5'-C4'	9.22	1.62	1.51
33	L1	1553	C	C2'-C1'	-9.21	1.43	1.53
32	S1	53	G	O4'-C1'	9.21	1.53	1.41
32	S1	1687	G	O4'-C1'	9.21	1.53	1.41
33	L1	410	G	O4'-C1'	9.21	1.53	1.41
33	L1	439	A	P-O5'	-9.21	1.50	1.59
33	L1	2347	A	C2'-C1'	-9.21	1.43	1.53
33	L1	692	U	C2'-C1'	-9.21	1.43	1.53
32	S1	1232	G	O4'-C1'	9.21	1.53	1.41
33	L1	957	U	O4'-C1'	9.21	1.53	1.41
32	S1	1191	U	C2'-C1'	9.20	1.63	1.53
33	L1	25	U	P-O5'	-9.21	1.50	1.59
33	L1	2665	A	O4'-C1'	9.20	1.53	1.41
33	L1	1272	G	P-O5'	9.20	1.69	1.59
33	L1	856	G	C2'-C1'	-9.20	1.43	1.53
33	L1	3364	A	C2'-C1'	-9.20	1.43	1.53
32	S1	789	C	C4'-C3'	9.20	1.63	1.53
32	S1	1504	U	C2'-C1'	9.20	1.63	1.53
33	L1	365	A	C2'-C1'	9.20	1.63	1.53
33	L1	1271	U	C4'-O4'	9.20	1.57	1.45
33	L1	367	A	C5'-C4'	9.20	1.62	1.51
33	L1	36	U	C2'-C1'	-9.19	1.43	1.53
33	L1	2639	A	C2'-C1'	-9.19	1.43	1.53
32	S1	1074	C	O4'-C1'	9.19	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1648	C	C3'-C2'	9.19	1.63	1.52
33	L1	580	C	C4'-C3'	-9.19	1.43	1.53
32	S1	1162	A	O4'-C1'	-9.18	1.29	1.41
33	L1	1247	G	O4'-C1'	9.18	1.53	1.41
33	L1	2453	G	O4'-C1'	9.18	1.53	1.41
33	L1	1868	C	C2'-C1'	-9.18	1.43	1.53
32	S1	1157	A	P-O5'	-9.17	1.50	1.59
25	SC	163	THR	CA-CB	9.17	1.77	1.53
33	L1	409	U	P-O5'	-9.17	1.50	1.59
64	LG	186	ALA	CA-CB	9.17	1.71	1.52
32	S1	776	A	C4'-C3'	-9.17	1.43	1.53
33	L1	666	U	O4'-C1'	9.17	1.53	1.41
33	L1	2734	C	C2'-C1'	-9.17	1.43	1.53
33	L1	516	C	O4'-C1'	9.17	1.53	1.41
33	L1	429	G	O4'-C1'	-9.17	1.29	1.41
32	S1	54	C	C2'-C1'	9.16	1.63	1.53
33	L1	1113	C	C2'-C1'	-9.16	1.43	1.53
32	S1	665	C	O4'-C1'	9.16	1.53	1.41
33	L1	2990	C	O4'-C1'	9.16	1.53	1.41
31	S2	18	G	C5'-C4'	9.16	1.62	1.51
33	L1	733	C	O4'-C1'	9.16	1.53	1.41
33	L1	2617	G	O4'-C1'	9.16	1.53	1.41
33	L1	2795	G	C4'-C3'	9.16	1.63	1.53
33	L1	923	A	C2'-C1'	9.16	1.63	1.53
33	L1	1942	A	O4'-C1'	-9.16	1.29	1.41
32	S1	673	C	C2'-C1'	-9.15	1.43	1.53
33	L1	2162	C	O4'-C1'	9.15	1.53	1.41
32	S1	1349	A	O4'-C1'	9.15	1.53	1.41
33	L1	879	A	O3'-P	-9.15	1.50	1.61
73	Lp	52	LYS	N-CA	9.15	1.64	1.46
33	L1	1706	C	O4'-C1'	9.14	1.53	1.41
32	S1	10	G	P-O5'	-9.14	1.50	1.59
33	L1	2334	G	O4'-C1'	-9.14	1.29	1.41
33	L1	630	C	C5'-C4'	9.14	1.62	1.51
33	L1	1855	A	C2'-C1'	9.14	1.63	1.53
32	S1	1311	U	C2'-C1'	-9.13	1.43	1.53
33	L1	1962	C	C2'-C1'	-9.13	1.43	1.53
33	L1	483	U	C2'-C1'	-9.13	1.43	1.53
33	L1	972	C	P-O5'	-9.13	1.50	1.59
33	L1	2225	C	C2'-C1'	-9.13	1.43	1.53
33	L1	3362	A	C2'-C1'	9.12	1.63	1.53
34	L3	54	A	O3'-P	-9.12	1.50	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	876	C	O4'-C1'	9.12	1.53	1.41
33	L1	2805	A	O4'-C1'	-9.12	1.29	1.41
48	LV	166	ILE	C-O	-9.12	1.06	1.23
32	S1	93	A	O4'-C1'	-9.12	1.29	1.41
33	L1	2091	U	C2'-C1'	9.12	1.63	1.53
32	S1	1262	U	O4'-C1'	9.11	1.53	1.41
33	L1	3019	C	O4'-C1'	9.11	1.53	1.41
31	S2	52	G	C2'-C1'	-9.11	1.43	1.53
32	S1	500	G	C2'-C1'	-9.11	1.43	1.53
32	S1	1225	A	C4'-C3'	-9.11	1.43	1.53
32	S1	1764	G	O4'-C1'	9.11	1.53	1.41
32	S1	1755	G	C2'-C1'	-9.11	1.43	1.53
33	L1	799	U	O4'-C1'	9.10	1.53	1.41
33	L1	1116	G	O4'-C1'	-9.10	1.29	1.41
35	L2	42	U	C2'-C1'	-9.10	1.43	1.53
32	S1	998	A	C2'-C1'	-9.10	1.43	1.53
32	S1	474	A	O4'-C1'	9.10	1.53	1.41
32	S1	1594	A	O4'-C1'	9.10	1.53	1.41
33	L1	551	A	O4'-C1'	9.10	1.53	1.41
32	S1	1437	C	C2'-C1'	9.10	1.63	1.53
33	L1	615	A	O4'-C1'	9.10	1.53	1.41
33	L1	2719	U	O3'-P	-9.10	1.50	1.61
35	L2	123	C	C2'-C1'	-9.10	1.43	1.53
32	S1	352	U	O4'-C1'	9.10	1.53	1.41
32	S1	1605	A	O4'-C1'	9.10	1.53	1.41
32	S1	955	C	O4'-C1'	9.09	1.53	1.41
33	L1	2176	A	C2'-C1'	9.09	1.63	1.53
33	L1	3233	C	O4'-C1'	9.09	1.53	1.41
34	L3	25	G	O4'-C1'	-9.09	1.29	1.41
32	S1	295	C	C2'-C1'	-9.09	1.43	1.53
33	L1	2049	C	C2'-C1'	-9.09	1.43	1.53
33	L1	730	A	O4'-C1'	9.09	1.53	1.41
32	S1	1115	G	C2'-C1'	-9.09	1.43	1.53
33	L1	2036	C	C2'-C1'	-9.09	1.43	1.53
33	L1	338	C	O3'-P	-9.08	1.50	1.61
32	S1	1057	U	C2'-C1'	9.08	1.63	1.53
33	L1	2228	A	O4'-C1'	-9.08	1.29	1.41
35	L2	128	C	C2'-C1'	-9.08	1.43	1.53
33	L1	1083	C	C4'-C3'	9.08	1.63	1.53
33	L1	1996	C	C2'-C1'	-9.08	1.43	1.53
33	L1	2435	U	O4'-C1'	9.08	1.53	1.41
33	L1	1871	G	C2'-C1'	-9.07	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1427	A	C2'-C1'	-9.07	1.43	1.53
15	SS	5	THR	C-N	-9.07	1.13	1.34
32	S1	1587	G	O4'-C1'	9.07	1.53	1.41
33	L1	476	C	O4'-C1'	9.07	1.53	1.41
33	L1	1627	U	C2'-C1'	9.07	1.63	1.53
33	L1	1746	G	O4'-C1'	-9.07	1.29	1.41
32	S1	161	G	O4'-C1'	9.07	1.53	1.41
32	S1	624	A	C2'-C1'	9.07	1.63	1.53
34	L3	100	A	O4'-C1'	9.07	1.53	1.41
35	L2	55	G	C2'-C1'	9.07	1.63	1.53
33	L1	311	G	P-O5'	-9.06	1.50	1.59
33	L1	748	C	C2'-C1'	-9.06	1.43	1.53
33	L1	2572	U	O4'-C1'	-9.06	1.29	1.41
33	L1	3246	U	C2'-C1'	-9.06	1.43	1.53
32	S1	273	C	O4'-C1'	9.06	1.53	1.41
35	L2	65	A	C5'-C4'	9.06	1.62	1.51
33	L1	398	G	C4'-C3'	9.06	1.63	1.53
33	L1	1256	A	O3'-P	-9.06	1.50	1.61
32	S1	1701	G	C5'-C4'	9.06	1.62	1.51
33	L1	1709	U	O4'-C1'	9.05	1.53	1.41
32	S1	1652	C	O4'-C1'	9.05	1.53	1.41
32	S1	1314	U	C2'-C1'	9.05	1.63	1.53
33	L1	1670	G	O4'-C1'	-9.05	1.29	1.41
33	L1	1800	G	C4'-C3'	9.05	1.63	1.53
33	L1	2343	U	C2'-C1'	-9.05	1.43	1.53
33	L1	2703	G	P-O5'	-9.05	1.50	1.59
33	L1	3380	G	C2'-C1'	-9.05	1.43	1.53
32	S1	1476	C	C2'-C1'	-9.05	1.43	1.53
32	S1	1560	U	C2'-C1'	-9.05	1.43	1.53
33	L1	417	G	O4'-C1'	-9.05	1.29	1.41
33	L1	916	A	C2'-C1'	9.05	1.63	1.53
33	L1	1113	C	O4'-C1'	9.05	1.53	1.41
33	L1	841	G	C3'-C2'	9.05	1.62	1.52
33	L1	1507	A	O4'-C1'	-9.05	1.29	1.41
33	L1	245	C	C2'-C1'	-9.05	1.43	1.53
33	L1	1243	C	O4'-C1'	9.05	1.53	1.41
32	S1	1662	G	O4'-C1'	9.04	1.53	1.41
33	L1	2649	C	C3'-O3'	9.04	1.54	1.42
32	S1	935	A	C3'-C2'	9.04	1.62	1.52
33	L1	163	U	C2'-C1'	9.04	1.63	1.53
33	L1	925	U	C2'-C1'	9.04	1.63	1.53
33	L1	930	C	C2'-C1'	-9.04	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2492	C	C5'-C4'	9.04	1.62	1.51
33	L1	2727	U	O4'-C1'	9.04	1.53	1.41
32	S1	1056	A	C2'-C1'	-9.04	1.43	1.53
33	L1	1565	G	C2'-C1'	-9.04	1.43	1.53
33	L1	2025	C	C2'-C1'	-9.04	1.43	1.53
33	L1	2798	G	C4'-C3'	9.04	1.63	1.53
33	L1	3027	G	C2'-C1'	9.04	1.63	1.53
33	L1	1941	G	C2'-C1'	-9.03	1.43	1.53
33	L1	2009	C	C2'-C1'	-9.03	1.43	1.53
33	L1	2024	G	C2'-C1'	-9.03	1.43	1.53
33	L1	3109	G	O4'-C1'	-9.03	1.29	1.41
33	L1	2502	U	O4'-C1'	9.03	1.53	1.41
32	S1	355	U	C4'-O4'	9.02	1.57	1.45
33	L1	86	U	P-O5'	-9.02	1.50	1.59
35	L2	130	A	C2'-C1'	9.02	1.63	1.53
32	S1	16	G	O4'-C1'	9.02	1.53	1.41
33	L1	296	C	C2'-C1'	-9.02	1.43	1.53
33	L1	2438	A	O4'-C1'	9.02	1.53	1.41
32	S1	327	A	C2'-C1'	9.01	1.63	1.53
33	L1	1849	U	O4'-C1'	-9.01	1.29	1.41
33	L1	581	G	O4'-C1'	9.01	1.53	1.41
33	L1	3159	C	O4'-C1'	9.01	1.53	1.41
45	LQ	137	ASP	C-O	-9.01	1.06	1.23
33	L1	957	U	C2'-C1'	-9.01	1.43	1.53
33	L1	1003	G	O4'-C1'	9.01	1.53	1.41
32	S1	1274	G	O4'-C1'	9.00	1.53	1.41
35	L2	137	C	O4'-C1'	9.00	1.53	1.41
33	L1	209	G	P-O5'	-9.00	1.50	1.59
33	L1	874	U	C4'-O4'	9.00	1.57	1.45
4	SD	67	GLN	C-N	8.99	1.54	1.34
32	S1	494	G	O4'-C1'	8.99	1.53	1.41
32	S1	572	G	O4'-C1'	-8.99	1.29	1.41
33	L1	1982	G	C2'-C1'	-8.99	1.43	1.53
32	S1	800	U	O3'-P	8.99	1.72	1.61
33	L1	2800	C	O3'-P	-8.99	1.50	1.61
33	L1	1851	U	O4'-C1'	-8.99	1.29	1.41
33	L1	1923	G	C3'-C2'	8.99	1.62	1.52
33	L1	977	G	C2'-C1'	-8.98	1.43	1.53
33	L1	1581	C	O4'-C1'	8.98	1.53	1.41
33	L1	2508	U	O4'-C1'	-8.98	1.29	1.41
33	L1	240	U	C2'-C1'	-8.98	1.43	1.53
33	L1	2999	G	C2'-C1'	-8.98	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3361	G	C2'-C1'	-8.98	1.43	1.53
34	L3	72	G	P-O5'	-8.98	1.50	1.59
35	L2	103	C	O4'-C1'	8.98	1.53	1.41
77	Lc	98	PRO	C-O	-8.98	1.05	1.23
32	S1	1401	C	O4'-C1'	8.98	1.53	1.41
35	L2	26	U	O3'-P	-8.98	1.50	1.61
32	S1	1119	G	O4'-C1'	-8.97	1.29	1.41
33	L1	2670	A	C2'-C1'	-8.97	1.43	1.53
33	L1	1983	U	O4'-C1'	8.97	1.53	1.41
33	L1	3050	A	C2'-C1'	8.97	1.63	1.53
32	S1	960	A	C2'-C1'	8.97	1.63	1.53
33	L1	723	G	C2'-C1'	8.97	1.63	1.53
35	L2	73	U	O3'-P	-8.97	1.50	1.61
32	S1	884	G	O4'-C1'	-8.96	1.29	1.41
33	L1	2693	G	C2'-C1'	-8.96	1.43	1.53
31	S2	30	G	C2'-C1'	-8.96	1.43	1.53
33	L1	2115	G	O4'-C1'	-8.96	1.29	1.41
33	L1	2262	C	C2'-C1'	-8.96	1.43	1.53
33	L1	3163	G	C2'-C1'	-8.96	1.43	1.53
32	S1	1397	A	C2'-C1'	8.96	1.63	1.53
33	L1	1653	A	C2'-C1'	-8.95	1.43	1.53
33	L1	38	A	C2'-C1'	8.95	1.63	1.53
33	L1	2749	A	P-O5'	-8.95	1.50	1.59
13	SQ	73	LEU	C-O	-8.95	1.06	1.23
32	S1	645	G	O4'-C1'	8.95	1.53	1.41
33	L1	435	G	C2'-C1'	-8.95	1.43	1.53
33	L1	2718	A	O3'-P	-8.95	1.50	1.61
64	LG	52	PRO	CA-C	8.95	1.70	1.52
35	L2	152	C	C2'-C1'	-8.95	1.43	1.53
32	S1	1040	G	O3'-P	-8.94	1.50	1.61
33	L1	2337	C	C4'-C3'	8.94	1.62	1.53
33	L1	1115	A	O4'-C1'	8.94	1.53	1.41
33	L1	1740	U	O4'-C1'	8.94	1.53	1.41
33	L1	2262	C	C4'-O4'	8.94	1.57	1.45
33	L1	2832	G	C2'-C1'	-8.94	1.43	1.53
33	L1	560	C	C2'-C1'	8.93	1.63	1.53
33	L1	2933	C	C2'-C1'	8.93	1.63	1.53
34	L3	72	G	O4'-C1'	8.93	1.53	1.41
33	L1	666	U	C2'-C1'	-8.92	1.43	1.53
33	L1	2660	A	C2'-C1'	8.92	1.63	1.53
33	L1	879	A	C4'-C3'	8.92	1.62	1.53
33	L1	1235	A	C4'-C3'	8.92	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	94	A	O4'-C1'	8.92	1.53	1.41
33	L1	1123	A	O4'-C1'	-8.92	1.30	1.41
33	L1	1789	C	C2'-C1'	-8.92	1.43	1.53
33	L1	2740	C	O4'-C1'	8.92	1.53	1.41
33	L1	3347	U	P-O5'	-8.92	1.50	1.59
32	S1	979	A	O4'-C1'	8.91	1.53	1.41
32	S1	1079	G	O4'-C1'	8.91	1.53	1.41
33	L1	1595	G	O4'-C1'	8.91	1.53	1.41
33	L1	724	A	O4'-C1'	8.91	1.53	1.41
32	S1	579	C	O4'-C1'	8.91	1.53	1.41
32	S1	355	U	O3'-P	-8.90	1.50	1.61
33	L1	882	U	C2'-C1'	-8.90	1.43	1.53
33	L1	1165	C	C2'-C1'	-8.90	1.43	1.53
33	L1	1674	A	O4'-C1'	8.90	1.53	1.41
33	L1	2821	U	C2'-C1'	-8.90	1.43	1.53
33	L1	2099	G	P-O5'	-8.89	1.50	1.59
33	L1	1915	G	C2'-C1'	-8.89	1.43	1.53
33	L1	764	A	O4'-C1'	8.89	1.53	1.41
33	L1	251	G	P-O5'	8.89	1.68	1.59
33	L1	638	G	O3'-P	-8.88	1.50	1.61
33	L1	858	U	O3'-P	-8.88	1.50	1.61
33	L1	2095	C	C2'-C1'	-8.88	1.43	1.53
33	L1	2131	U	C3'-C2'	-8.89	1.43	1.52
32	S1	410	U	C2'-C1'	-8.88	1.43	1.53
33	L1	2007	C	O4'-C1'	8.88	1.53	1.41
33	L1	2169	U	C2'-C1'	-8.88	1.43	1.53
33	L1	2082	A	C5'-C4'	8.88	1.61	1.51
33	L1	2230	C	O4'-C1'	8.88	1.53	1.41
33	L1	2832	G	O4'-C1'	8.87	1.53	1.41
32	S1	487	A	C2'-C1'	-8.87	1.43	1.53
32	S1	1473	C	P-O5'	-8.87	1.50	1.59
33	L1	1608	C	C2'-C1'	-8.87	1.43	1.53
33	L1	1685	U	C2'-C1'	-8.87	1.43	1.53
33	L1	2435	U	C2'-C1'	-8.87	1.43	1.53
35	L2	75	A	O3'-P	-8.87	1.50	1.61
32	S1	848	C	O4'-C1'	8.87	1.53	1.41
33	L1	2493	C	C5'-C4'	8.87	1.61	1.51
33	L1	1249	A	O4'-C1'	8.86	1.53	1.41
32	S1	990	G	C2'-C1'	-8.86	1.43	1.53
33	L1	857	G	C2'-C1'	-8.86	1.43	1.53
33	L1	2499	U	O3'-P	-8.86	1.50	1.61
35	L2	111	G	C2'-C1'	-8.86	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	S2	22	G	O4'-C1'	8.86	1.53	1.41
33	L1	454	A	C2'-C1'	-8.86	1.43	1.53
33	L1	2483	A	C2'-C1'	8.86	1.63	1.53
33	L1	2754	G	P-O5'	-8.86	1.50	1.59
33	L1	337	C	P-O5'	-8.86	1.50	1.59
32	S1	794	G	C4'-C3'	8.85	1.62	1.53
33	L1	918	A	O3'-P	-8.85	1.50	1.61
32	S1	378	U	C2'-C1'	-8.84	1.43	1.53
32	S1	1725	C	C2'-C1'	-8.84	1.43	1.53
32	S1	1327	C	C2'-C1'	-8.84	1.43	1.53
33	L1	1514	U	O4'-C1'	8.84	1.53	1.41
33	L1	1036	C	O4'-C1'	8.84	1.53	1.41
33	L1	1042	C	O4'-C1'	8.84	1.53	1.41
33	L1	1248	A	O4'-C1'	-8.84	1.30	1.41
32	S1	161	G	C2'-C1'	8.84	1.63	1.53
32	S1	1015	C	P-O5'	8.84	1.68	1.59
33	L1	1281	C	P-O5'	-8.84	1.50	1.59
33	L1	2505	C	C2'-C1'	-8.84	1.43	1.53
33	L1	2158	C	C2'-C1'	-8.83	1.43	1.53
33	L1	2224	A	C2'-C1'	8.83	1.63	1.53
32	S1	1468	G	C2'-C1'	8.83	1.63	1.53
33	L1	1850	C	C2'-C1'	8.83	1.63	1.53
32	S1	1154	G	C2'-C1'	-8.83	1.43	1.53
32	S1	1664	U	P-O5'	-8.83	1.50	1.59
33	L1	103	G	C2'-C1'	-8.83	1.43	1.53
33	L1	145	U	P-O5'	-8.83	1.50	1.59
33	L1	1027	C	P-O5'	8.83	1.68	1.59
33	L1	1779	C	O4'-C1'	8.83	1.53	1.41
33	L1	2356	A	O4'-C1'	8.83	1.53	1.41
32	S1	1210	U	O4'-C1'	8.82	1.53	1.41
33	L1	532	G	O4'-C1'	8.82	1.53	1.41
33	L1	2716	U	C3'-C2'	8.82	1.62	1.52
45	LQ	249	ALA	N-CA	8.82	1.64	1.46
33	L1	318	G	O3'-P	-8.82	1.50	1.61
32	S1	674	G	C2'-C1'	-8.81	1.43	1.53
32	S1	1055	G	O4'-C1'	8.81	1.53	1.41
32	S1	1288	C	O4'-C1'	8.81	1.53	1.41
33	L1	892	U	C2'-C1'	-8.81	1.43	1.53
32	S1	471	G	C2'-C1'	8.81	1.63	1.53
32	S1	1053	C	C2'-C1'	-8.81	1.43	1.53
33	L1	304	A	O4'-C1'	-8.81	1.30	1.41
10	SL	84	VAL	C-O	-8.81	1.06	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1163	C	C2'-C1'	8.81	1.63	1.53
33	L1	2481	C	O3'-P	-8.80	1.50	1.61
33	L1	1782	G	C2'-C1'	-8.80	1.43	1.53
32	S1	1373	C	C2'-C1'	-8.80	1.43	1.53
33	L1	3026	C	C4'-C3'	8.80	1.62	1.53
32	S1	784	C	P-O5'	-8.79	1.50	1.59
33	L1	2692	G	C5'-C4'	8.79	1.61	1.51
33	L1	2108	C	C2'-C1'	8.79	1.63	1.53
33	L1	3389	C	O4'-C1'	8.79	1.53	1.41
32	S1	435	C	O4'-C1'	8.79	1.53	1.41
33	L1	493	G	O4'-C1'	8.79	1.53	1.41
33	L1	329	G	O4'-C1'	-8.79	1.30	1.41
33	L1	2803	A	C2'-C1'	-8.79	1.43	1.53
32	S1	1588	C	C2'-C1'	-8.79	1.43	1.53
32	S1	384	U	O4'-C1'	8.78	1.53	1.41
33	L1	1128	U	O4'-C1'	8.79	1.53	1.41
33	L1	1276	C	O4'-C1'	8.79	1.53	1.41
33	L1	3086	G	C5'-C4'	8.79	1.61	1.51
32	S1	1250	C	O4'-C1'	8.78	1.53	1.41
33	L1	2235	G	C5'-C4'	8.78	1.61	1.51
33	L1	1243	C	C5'-C4'	8.78	1.61	1.51
32	S1	315	U	C2'-C1'	-8.78	1.43	1.53
32	S1	477	A	C2'-C1'	-8.78	1.43	1.53
33	L1	2824	U	C2'-C1'	8.78	1.63	1.53
64	LG	49	LYS	C-N	8.78	1.54	1.34
33	L1	1407	G	O4'-C1'	-8.77	1.30	1.41
33	L1	2502	U	C2'-C1'	8.77	1.63	1.53
33	L1	2564	G	C2'-C1'	-8.77	1.43	1.53
11	SM	89	ASP	C-O	-8.77	1.06	1.23
33	L1	2838	C	O4'-C1'	8.77	1.53	1.41
32	S1	903	A	C5'-C4'	8.77	1.61	1.51
33	L1	1009	G	O4'-C1'	-8.77	1.30	1.41
33	L1	1510	G	O4'-C1'	-8.77	1.30	1.41
33	L1	2875	U	O3'-P	8.77	1.71	1.61
32	S1	287	C	O4'-C1'	8.76	1.53	1.41
32	S1	1007	G	O4'-C1'	8.76	1.53	1.41
33	L1	2716	U	C2'-C1'	-8.76	1.43	1.53
33	L1	3168	C	O4'-C1'	8.76	1.53	1.41
33	L1	123	U	C5'-C4'	8.76	1.61	1.51
4	SD	239	PRO	C-O	-8.75	1.05	1.23
42	LP	185	ARG	CZ-NH2	8.75	1.44	1.33
33	L1	3057	A	C3'-C2'	8.75	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	100	C	O4'-C1'	8.75	1.53	1.41
33	L1	2688	G	C3'-O3'	8.75	1.54	1.42
33	L1	3314	G	O4'-C1'	8.75	1.53	1.41
32	S1	1300	A	C5'-C4'	8.74	1.61	1.51
33	L1	1994	C	C2'-C1'	-8.74	1.43	1.53
32	S1	446	C	O4'-C1'	8.73	1.53	1.41
32	S1	140	C	O4'-C1'	8.73	1.53	1.41
33	L1	1168	G	C2'-C1'	8.73	1.62	1.53
35	L2	110	C	O4'-C1'	8.73	1.53	1.41
33	L1	3333	C	C3'-C2'	8.73	1.62	1.52
32	S1	1209	C	C2'-C1'	-8.73	1.43	1.53
33	L1	1512	A	C2'-C1'	8.73	1.62	1.53
35	L2	101	G	O4'-C1'	8.73	1.52	1.41
33	L1	2168	C	O3'-P	-8.72	1.50	1.61
33	L1	2442	A	O4'-C1'	8.72	1.52	1.41
35	L2	19	G	O4'-C1'	8.72	1.52	1.41
32	S1	428	C	C2'-C1'	-8.72	1.43	1.53
33	L1	969	U	C2'-C1'	8.72	1.62	1.53
33	L1	3087	A	O4'-C1'	8.72	1.52	1.41
33	L1	705	A	O4'-C1'	8.72	1.52	1.41
33	L1	3288	A	C5'-C4'	8.72	1.61	1.51
33	L1	229	G	O4'-C1'	8.71	1.52	1.41
33	L1	805	C	C4'-C3'	-8.71	1.43	1.53
33	L1	3214	U	C2'-C1'	8.71	1.62	1.53
33	L1	276	U	O4'-C1'	8.71	1.52	1.41
33	L1	2175	A	C2'-C1'	-8.71	1.43	1.53
33	L1	2461	A	C5'-C4'	8.71	1.61	1.51
33	L1	1253	G	P-O5'	8.71	1.68	1.59
33	L1	1473	U	C2'-C1'	-8.70	1.43	1.53
33	L1	2681	A	C2'-C1'	-8.70	1.43	1.53
32	S1	910	A	O4'-C1'	8.70	1.52	1.41
33	L1	1580	C	O4'-C1'	8.70	1.52	1.41
33	L1	467	C	C2'-C1'	-8.70	1.43	1.53
33	L1	743	C	C2'-C1'	-8.70	1.43	1.53
32	S1	1208	A	C2'-C1'	-8.70	1.43	1.53
33	L1	520	G	C4'-C3'	8.70	1.62	1.53
33	L1	2843	G	P-O5'	-8.69	1.51	1.59
33	L1	1867	U	C2'-C1'	-8.69	1.43	1.53
33	L1	2149	G	C2'-C1'	-8.69	1.43	1.53
33	L1	3055	U	C2'-C1'	8.69	1.62	1.53
33	L1	2576	C	C2'-C1'	-8.69	1.43	1.53
33	L1	3184	G	C5'-C4'	8.69	1.61	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	LH	87	ASN	N-CA	-8.69	1.28	1.46
33	L1	1789	C	O3'-P	-8.69	1.50	1.61
33	L1	2685	C	O4'-C1'	8.68	1.52	1.41
33	L1	21	G	C2'-C1'	8.68	1.62	1.53
33	L1	1770	C	O4'-C1'	8.68	1.52	1.41
45	LQ	256	SER	CA-C	8.67	1.75	1.52
33	L1	1043	U	O4'-C1'	8.67	1.52	1.41
32	S1	17	C	C2'-C1'	-8.67	1.43	1.53
33	L1	2471	C	C2'-C1'	-8.67	1.43	1.53
33	L1	2495	C	C2'-C1'	-8.67	1.43	1.53
33	L1	2644	U	O4'-C1'	8.67	1.52	1.41
33	L1	2772	A	C2'-C1'	-8.67	1.43	1.53
33	L1	3082	G	O3'-P	-8.67	1.50	1.61
32	S1	556	G	C3'-C2'	-8.67	1.43	1.52
32	S1	1018	A	O4'-C1'	8.67	1.52	1.41
33	L1	3035	C	O3'-P	-8.66	1.50	1.61
32	S1	937	A	O4'-C1'	8.66	1.52	1.41
33	L1	398	G	C2'-C1'	-8.66	1.43	1.53
33	L1	1827	U	O4'-C1'	8.66	1.52	1.41
35	L2	105	U	C2'-C1'	-8.66	1.43	1.53
49	LX	34	LYS	N-CA	8.66	1.63	1.46
33	L1	2445	U	C2'-C1'	-8.66	1.43	1.53
33	L1	2231	G	P-O5'	8.66	1.68	1.59
33	L1	302	G	O3'-P	-8.65	1.50	1.61
32	S1	1677	U	P-O5'	-8.65	1.51	1.59
33	L1	138	G	O3'-P	-8.65	1.50	1.61
33	L1	277	U	C2'-C1'	-8.65	1.43	1.53
5	SE	194	LYS	N-CA	8.65	1.63	1.46
32	S1	736	U	C4'-C3'	8.65	1.62	1.53
33	L1	2589	G	O3'-P	-8.65	1.50	1.61
33	L1	384	A	C3'-O3'	8.65	1.54	1.42
33	L1	1869	U	C2'-C1'	-8.65	1.43	1.53
33	L1	2658	U	P-O5'	-8.65	1.51	1.59
33	L1	1312	A	C4'-C3'	8.65	1.62	1.53
33	L1	2617	G	C2'-C1'	-8.65	1.43	1.53
33	L1	2795	G	O3'-P	-8.65	1.50	1.61
33	L1	3006	G	O4'-C1'	-8.65	1.30	1.41
71	Lj	8	ARG	C-O	-8.65	1.06	1.23
31	S2	53	U	C4'-C3'	8.64	1.62	1.53
32	S1	509	A	C2'-C1'	-8.64	1.43	1.53
33	L1	1130	G	P-O5'	-8.64	1.51	1.59
33	L1	1746	G	C2'-C1'	-8.64	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1178	C	C2'-C1'	-8.64	1.43	1.53
33	L1	1277	A	O3'-P	-8.64	1.50	1.61
33	L1	2461	A	C4'-C3'	8.64	1.62	1.53
33	L1	2567	C	O3'-P	-8.64	1.50	1.61
32	S1	650	G	C2'-C1'	-8.64	1.43	1.53
33	L1	208	G	C4'-C3'	8.64	1.62	1.53
33	L1	1959	U	O4'-C1'	8.64	1.52	1.41
32	S1	585	U	C2'-C1'	8.63	1.62	1.53
32	S1	1518	C	C2'-C1'	-8.63	1.43	1.53
33	L1	2973	A	C3'-C2'	8.63	1.62	1.52
9	SK	123	MET	SD-CE	-8.63	1.29	1.77
32	S1	604	U	C2'-C1'	-8.63	1.43	1.53
33	L1	2724	A	C2'-C1'	-8.63	1.43	1.53
30	S3	15	A	C2'-C1'	8.63	1.62	1.53
33	L1	483	U	O4'-C1'	8.63	1.52	1.41
33	L1	818	G	C2'-C1'	-8.63	1.43	1.53
35	L2	67	C	C2'-C1'	-8.63	1.43	1.53
67	LS	28	ARG	CA-CB	8.63	1.73	1.53
32	S1	448	C	O4'-C1'	8.62	1.52	1.41
32	S1	1175	G	C2'-C1'	-8.62	1.43	1.53
33	L1	3358	A	P-O5'	-8.62	1.51	1.59
32	S1	1307	U	O3'-P	-8.62	1.50	1.61
33	L1	73	A	O4'-C1'	-8.62	1.30	1.41
33	L1	701	U	C2'-C1'	8.62	1.62	1.53
33	L1	1618	U	C2'-C1'	-8.62	1.43	1.53
33	L1	3092	A	C4'-O4'	8.62	1.56	1.45
33	L1	971	G	C4'-C3'	8.62	1.62	1.53
32	S1	1702	G	C5'-C4'	8.62	1.61	1.51
31	S2	57	A	O4'-C1'	8.62	1.52	1.41
33	L1	2504	A	O4'-C1'	8.62	1.52	1.41
32	S1	434	G	C2'-C1'	-8.61	1.43	1.53
32	S1	933	G	C4'-C3'	-8.61	1.43	1.53
32	S1	51	A	C2'-C1'	-8.61	1.43	1.53
32	S1	1167	C	C2'-C1'	-8.61	1.43	1.53
33	L1	2936	A	O4'-C1'	8.61	1.52	1.41
35	L2	160	C	C2'-C1'	-8.61	1.43	1.53
33	L1	1775	C	O4'-C1'	8.61	1.52	1.41
33	L1	2774	A	O4'-C1'	8.61	1.52	1.41
33	L1	211	A	P-O5'	-8.60	1.51	1.59
33	L1	249	A	C5'-C4'	8.60	1.61	1.51
32	S1	406	C	O4'-C1'	8.60	1.52	1.41
33	L1	549	G	O4'-C1'	8.60	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	695	G	O4'-C1'	-8.60	1.30	1.41
32	S1	978	A	C2'-C1'	8.59	1.62	1.53
32	S1	931	A	O4'-C1'	-8.59	1.30	1.41
33	L1	2995	G	C2'-C1'	8.59	1.62	1.53
33	L1	1393	G	C2'-C1'	-8.59	1.44	1.53
32	S1	419	C	C2'-C1'	8.58	1.62	1.53
32	S1	1292	G	C2'-C1'	-8.58	1.44	1.53
33	L1	1954	G	O4'-C1'	-8.58	1.30	1.41
33	L1	2628	C	C2'-C1'	-8.58	1.44	1.53
67	LS	70	ASN	C-O	-8.58	1.07	1.23
33	L1	2797	U	C2'-C1'	-8.58	1.44	1.53
32	S1	428	C	O4'-C1'	8.58	1.52	1.41
32	S1	500	G	O4'-C1'	8.58	1.52	1.41
33	L1	3387	U	C3'-C2'	8.58	1.62	1.52
35	L2	135	G	O4'-C1'	8.58	1.52	1.41
33	L1	891	U	O4'-C1'	-8.57	1.30	1.41
32	S1	949	A	O4'-C1'	-8.57	1.30	1.41
33	L1	123	U	O4'-C1'	8.57	1.52	1.41
70	Li	108	LYS	CA-CB	8.57	1.72	1.53
33	L1	739	C	C2'-C1'	-8.57	1.44	1.53
33	L1	1349	G	O4'-C1'	-8.57	1.30	1.41
32	S1	1356	A	O4'-C1'	8.56	1.52	1.41
33	L1	1606	C	O4'-C1'	8.56	1.52	1.41
33	L1	1937	C	C2'-C1'	-8.56	1.44	1.53
32	S1	1660	C	C2'-C1'	-8.56	1.44	1.53
33	L1	2743	A	C2'-C1'	8.56	1.62	1.53
32	S1	858	G	C5'-C4'	8.56	1.61	1.51
33	L1	2075	C	O4'-C1'	8.56	1.52	1.41
33	L1	104	G	C2'-C1'	-8.55	1.44	1.53
33	L1	1146	A	O4'-C1'	-8.55	1.30	1.41
33	L1	447	C	C2'-C1'	-8.55	1.44	1.53
33	L1	1879	A	C4'-C3'	8.55	1.62	1.53
35	L2	53	G	C5'-C4'	8.55	1.61	1.51
33	L1	319	C	P-O5'	-8.54	1.51	1.59
33	L1	609	C	O4'-C1'	8.54	1.52	1.41
33	L1	1018	C	C4'-C3'	8.54	1.62	1.53
33	L1	2018	C	C2'-C1'	-8.54	1.44	1.53
33	L1	3138	C	O4'-C1'	8.54	1.52	1.41
15	SS	92	PRO	CA-CB	8.54	1.70	1.53
32	S1	647	G	C4'-C3'	8.54	1.62	1.53
33	L1	2381	G	O4'-C1'	-8.54	1.30	1.41
34	L3	38	U	O3'-P	8.54	1.71	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	794	G	C2'-C1'	-8.53	1.44	1.53
33	L1	1979	G	C2'-C1'	-8.53	1.44	1.53
33	L1	3120	U	O3'-P	-8.54	1.50	1.61
37	LB	73	LYS	C-O	-8.53	1.07	1.23
32	S1	173	G	C2'-C1'	-8.53	1.44	1.53
32	S1	1694	G	C2'-C1'	-8.53	1.44	1.53
33	L1	2705	A	O4'-C1'	8.53	1.52	1.41
23	SU	24	SER	C-N	8.52	1.53	1.34
33	L1	2422	U	O3'-P	-8.52	1.50	1.61
33	L1	179	G	C5'-C4'	8.52	1.61	1.51
33	L1	2177	U	C2'-C1'	-8.52	1.44	1.53
33	L1	3363	G	C5'-C4'	8.52	1.61	1.51
32	S1	610	A	O4'-C1'	-8.52	1.30	1.41
33	L1	569	C	C2'-C1'	-8.52	1.44	1.53
33	L1	978	C	O4'-C1'	8.51	1.52	1.41
33	L1	1713	A	O4'-C1'	8.51	1.52	1.41
32	S1	1725	C	O4'-C1'	8.51	1.52	1.41
33	L1	601	G	C5'-C4'	8.51	1.61	1.51
33	L1	1567	G	O4'-C1'	-8.51	1.30	1.41
33	L1	3079	G	O4'-C1'	8.51	1.52	1.41
32	S1	1423	A	C2'-C1'	-8.51	1.44	1.53
32	S1	1639	A	O3'-P	-8.51	1.50	1.61
33	L1	1914	C	C2'-C1'	-8.51	1.44	1.53
45	LQ	198	TYR	CE2-CZ	8.51	1.49	1.38
33	L1	411	C	O4'-C1'	8.50	1.52	1.41
4	SD	136	ILE	CA-CB	8.50	1.74	1.54
32	S1	314	C	C2'-C1'	-8.50	1.44	1.53
33	L1	258	C	O4'-C1'	8.50	1.52	1.41
33	L1	560	C	P-O5'	-8.50	1.51	1.59
33	L1	780	U	O4'-C1'	8.50	1.52	1.41
35	L2	56	A	O4'-C1'	8.50	1.52	1.41
33	L1	1003	G	C2'-C1'	-8.49	1.44	1.53
32	S1	967	C	O4'-C1'	8.49	1.52	1.41
11	SM	112	GLU	CA-C	-8.49	1.30	1.52
33	L1	2483	A	P-O5'	8.49	1.68	1.59
32	S1	1713	C	O4'-C1'	8.48	1.52	1.41
33	L1	1199	A	C5'-C4'	8.48	1.61	1.51
33	L1	1734	G	C2'-C1'	-8.48	1.44	1.53
33	L1	1538	A	O3'-P	-8.48	1.50	1.61
33	L1	1669	C	P-O5'	-8.48	1.51	1.59
33	L1	2751	A	C5'-C4'	8.48	1.61	1.51
33	L1	2863	U	O4'-C1'	8.48	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2989	A	O4'-C1'	8.48	1.52	1.41
33	L1	3351	A	C2'-C1'	8.48	1.62	1.53
33	L1	2895	G	O3'-P	-8.48	1.50	1.61
33	L1	1501	A	O4'-C1'	8.48	1.52	1.41
32	S1	940	U	C2'-C1'	-8.48	1.44	1.53
32	S1	126	U	C4'-C3'	8.47	1.62	1.53
32	S1	954	C	O4'-C1'	8.47	1.52	1.41
33	L1	591	G	C2'-C1'	-8.47	1.44	1.53
32	S1	906	G	P-O5'	-8.47	1.51	1.59
33	L1	2350	C	O4'-C1'	8.47	1.52	1.41
32	S1	1545	A	C2'-C1'	-8.47	1.44	1.53
33	L1	469	U	O4'-C1'	8.47	1.52	1.41
33	L1	1241	G	C3'-C2'	8.47	1.62	1.52
33	L1	2484	G	C5'-C4'	8.47	1.61	1.51
33	L1	2738	U	C3'-C2'	8.47	1.62	1.52
32	S1	1700	G	C2'-C1'	-8.47	1.44	1.53
32	S1	159	U	O4'-C1'	8.46	1.52	1.41
33	L1	2508	U	C2'-C1'	8.46	1.62	1.53
32	S1	900	G	C2'-C1'	-8.46	1.44	1.53
33	L1	2862	U	C4'-C3'	-8.46	1.43	1.53
34	L3	94	C	O4'-C1'	8.46	1.52	1.41
33	L1	1038	C	O4'-C1'	8.46	1.52	1.41
32	S1	331	U	O4'-C1'	8.46	1.52	1.41
33	L1	3083	C	O4'-C1'	8.46	1.52	1.41
33	L1	2757	G	C3'-C2'	8.45	1.62	1.52
33	L1	1762	G	C2'-C1'	-8.45	1.44	1.53
33	L1	110	C	O4'-C1'	8.45	1.52	1.41
33	L1	2380	G	P-O5'	8.44	1.68	1.59
33	L1	2910	C	C4'-C3'	8.44	1.62	1.53
32	S1	507	G	C2'-C1'	-8.44	1.44	1.53
32	S1	1758	G	O3'-P	-8.44	1.51	1.61
33	L1	2450	G	P-O5'	-8.44	1.51	1.59
33	L1	3077	C	C2'-C1'	-8.44	1.44	1.53
32	S1	476	U	C2'-C1'	8.44	1.62	1.53
33	L1	3126	U	C2'-C1'	-8.44	1.44	1.53
32	S1	918	G	P-O5'	-8.44	1.51	1.59
33	L1	2704	U	O3'-P	-8.44	1.51	1.61
33	L1	332	A	O4'-C1'	8.44	1.52	1.41
33	L1	2340	G	O4'-C1'	-8.44	1.30	1.41
33	L1	2942	A	O3'-P	-8.43	1.51	1.61
32	S1	1788	G	O4'-C1'	-8.43	1.30	1.41
32	S1	478	A	O4'-C1'	8.43	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1125	U	O4'-C1'	8.42	1.52	1.41
33	L1	186	A	C3'-C2'	-8.42	1.43	1.52
32	S1	1537	U	O4'-C1'	8.42	1.52	1.41
32	S1	955	C	C2'-C1'	-8.42	1.44	1.53
32	S1	1598	G	C2'-C1'	-8.42	1.44	1.53
33	L1	2941	G	C3'-O3'	8.42	1.53	1.42
33	L1	3155	C	O3'-P	-8.42	1.51	1.61
31	S2	20	C	C2'-C1'	8.41	1.62	1.53
32	S1	919	G	O4'-C1'	8.41	1.52	1.41
33	L1	198	A	P-O5'	-8.41	1.51	1.59
33	L1	2202	A	C5'-C4'	8.41	1.61	1.51
33	L1	239	C	O3'-P	-8.41	1.51	1.61
31	S2	7	A	C4'-C3'	8.41	1.62	1.53
32	S1	533	C	O3'-P	-8.41	1.51	1.61
32	S1	844	C	O4'-C1'	8.41	1.52	1.41
32	S1	1309	U	C2'-C1'	-8.41	1.44	1.53
40	LH	233	VAL	C-O	-8.41	1.07	1.23
33	L1	529	C	O4'-C1'	8.40	1.52	1.41
34	L3	105	C	C2'-C1'	-8.40	1.44	1.53
84	LI	109	ASP	CA-C	-8.40	1.31	1.52
31	S2	39	G	C5'-C4'	8.40	1.61	1.51
32	S1	35	U	C2'-C1'	-8.40	1.44	1.53
32	S1	1159	G	C2'-C1'	-8.40	1.44	1.53
33	L1	936	A	C2'-C1'	8.40	1.62	1.53
23	SU	25	ARG	N-CA	8.40	1.63	1.46
33	L1	1019	A	C2'-C1'	8.40	1.62	1.53
68	LW	105	ILE	N-CA	8.40	1.63	1.46
33	L1	1954	G	C2'-C1'	-8.39	1.44	1.53
33	L1	2622	G	P-O5'	-8.39	1.51	1.59
33	L1	2660	A	C4'-C3'	8.39	1.62	1.53
32	S1	1661	C	O4'-C1'	8.39	1.52	1.41
33	L1	1465	A	O4'-C1'	8.39	1.52	1.41
33	L1	595	C	C4'-O4'	8.39	1.56	1.45
33	L1	1107	G	C4'-C3'	8.39	1.62	1.53
33	L1	3090	C	C2'-C1'	-8.39	1.44	1.53
32	S1	1287	U	O4'-C1'	8.39	1.52	1.41
33	L1	2863	U	P-O5'	8.38	1.68	1.59
33	L1	3054	G	C2'-C1'	-8.39	1.44	1.53
60	Lr	61	LYS	CA-CB	8.39	1.72	1.53
70	Li	43	LYS	CA-CB	8.38	1.72	1.53
32	S1	339	G	O4'-C1'	8.38	1.52	1.41
33	L1	585	A	O4'-C1'	8.38	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1548	G	O4'-C1'	8.38	1.52	1.41
33	L1	3326	U	P-O5'	-8.38	1.51	1.59
32	S1	162	A	C2'-C1'	8.38	1.62	1.53
32	S1	846	U	C2'-C1'	-8.38	1.44	1.53
33	L1	2615	U	C2'-C1'	-8.37	1.44	1.53
31	S2	71	A	O4'-C1'	8.37	1.52	1.41
33	L1	131	C	C2'-C1'	8.37	1.62	1.53
33	L1	2274	A	O4'-C1'	8.37	1.52	1.41
33	L1	2348	U	C3'-O3'	8.37	1.53	1.42
35	L2	51	U	O4'-C1'	8.37	1.52	1.41
33	L1	2656	C	C2'-C1'	8.37	1.62	1.53
33	L1	924	A	O4'-C1'	-8.36	1.30	1.41
33	L1	1332	C	C2'-C1'	-8.36	1.44	1.53
31	S2	4	G	C2'-C1'	-8.36	1.44	1.53
32	S1	1032	A	O4'-C1'	8.36	1.52	1.41
33	L1	614	C	O3'-P	-8.35	1.51	1.61
32	S1	1016	C	P-O5'	-8.35	1.51	1.59
32	S1	901	U	C3'-C2'	8.35	1.62	1.52
33	L1	2992	G	C2'-C1'	8.35	1.62	1.53
32	S1	1628	C	O4'-C1'	8.35	1.52	1.41
35	L2	30	C	P-O5'	-8.35	1.51	1.59
32	S1	357	A	O4'-C1'	8.35	1.52	1.41
33	L1	611	C	O4'-C1'	8.35	1.52	1.41
33	L1	1143	G	O4'-C1'	-8.35	1.30	1.41
33	L1	462	C	O4'-C1'	8.34	1.52	1.41
32	S1	1077	C	O4'-C1'	8.34	1.52	1.41
33	L1	2595	G	O4'-C1'	8.34	1.52	1.41
33	L1	2695	A	C2'-C1'	-8.34	1.44	1.53
32	S1	1612	C	O4'-C1'	8.34	1.52	1.41
33	L1	1347	U	C2'-C1'	8.34	1.62	1.53
33	L1	1369	G	O4'-C1'	-8.34	1.30	1.41
33	L1	2643	A	C2'-C1'	8.34	1.62	1.53
33	L1	3002	U	C3'-C2'	8.34	1.62	1.52
33	L1	463	G	O4'-C1'	-8.33	1.30	1.41
33	L1	1759	C	C2'-C1'	-8.33	1.44	1.53
32	S1	454	U	O4'-C1'	8.33	1.52	1.41
32	S1	1225	A	O4'-C1'	8.33	1.52	1.41
32	S1	1288	C	C5'-C4'	8.33	1.61	1.51
32	S1	1390	A	O4'-C1'	8.33	1.52	1.41
33	L1	1881	C	C2'-O2'	-8.33	1.30	1.41
35	L2	58	A	C3'-C2'	8.33	1.62	1.52
32	S1	505	U	C5'-C4'	8.33	1.61	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	565	G	C2'-C1'	-8.33	1.44	1.53
32	S1	1647	C	C2'-C1'	-8.32	1.44	1.53
33	L1	584	G	C3'-C2'	8.32	1.62	1.52
33	L1	1079	G	C5'-C4'	8.32	1.61	1.51
33	L1	2074	C	O4'-C1'	8.32	1.52	1.41
13	SQ	83	ASP	N-CA	8.32	1.62	1.46
33	L1	3270	C	P-O5'	-8.32	1.51	1.59
32	S1	1097	A	C2'-C1'	-8.32	1.44	1.53
32	S1	98	C	O4'-C1'	8.32	1.52	1.41
32	S1	1738	U	C2'-C1'	-8.31	1.44	1.53
33	L1	1126	U	C2'-C1'	8.31	1.62	1.53
33	L1	2595	G	C4'-C3'	8.31	1.62	1.53
33	L1	2665	A	C5'-C4'	8.31	1.61	1.51
32	S1	663	C	C2'-C1'	-8.31	1.44	1.53
33	L1	42	A	O4'-C1'	-8.31	1.30	1.41
33	L1	1377	G	C2'-C1'	-8.31	1.44	1.53
33	L1	810	A	C2'-C1'	8.31	1.62	1.53
33	L1	1541	G	O4'-C1'	-8.31	1.30	1.41
33	L1	1885	G	C4'-O4'	-8.31	1.34	1.45
33	L1	2219	A	C5'-C4'	8.31	1.61	1.51
33	L1	1865	C	O4'-C1'	8.31	1.52	1.41
32	S1	1201	C	O3'-P	-8.30	1.51	1.61
32	S1	1310	C	C2'-C1'	-8.30	1.44	1.53
33	L1	1982	G	O4'-C1'	8.30	1.52	1.41
33	L1	2599	U	O4'-C1'	-8.30	1.30	1.41
32	S1	633	U	C4'-C3'	8.30	1.62	1.53
33	L1	2292	U	C2'-C1'	-8.30	1.44	1.53
33	L1	2736	A	O4'-C1'	-8.30	1.30	1.41
33	L1	835	G	O4'-C1'	-8.30	1.30	1.41
33	L1	932	A	O4'-C1'	-8.30	1.30	1.41
33	L1	1047	C	C2'-C1'	-8.30	1.44	1.53
33	L1	2854	C	O4'-C1'	8.30	1.52	1.41
33	L1	98	A	C2'-C1'	-8.29	1.44	1.53
33	L1	1045	U	C2'-C1'	-8.29	1.44	1.53
33	L1	1439	U	O4'-C1'	8.30	1.52	1.41
33	L1	1909	G	O3'-P	-8.29	1.51	1.61
33	L1	2050	G	C2'-C1'	-8.30	1.44	1.53
81	LD	329	ALA	C-O	-8.29	1.07	1.23
33	L1	2456	G	P-O5'	-8.29	1.51	1.59
32	S1	304	A	O4'-C1'	8.29	1.52	1.41
32	S1	384	U	C2'-C1'	-8.29	1.44	1.53
33	L1	159	G	C2'-C1'	-8.28	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2488	A	C4'-C3'	-8.28	1.44	1.53
33	L1	604	C	O4'-C1'	8.28	1.52	1.41
33	L1	2746	G	O4'-C1'	8.28	1.52	1.41
33	L1	2486	G	O3'-P	-8.28	1.51	1.61
32	S1	1577	A	C2'-C1'	-8.28	1.44	1.53
32	S1	1608	A	O4'-C1'	-8.28	1.30	1.41
33	L1	593	G	C2'-C1'	-8.28	1.44	1.53
35	L2	8	C	O4'-C1'	8.28	1.52	1.41
33	L1	1901	G	O4'-C1'	-8.27	1.30	1.41
35	L2	112	C	C2'-C1'	-8.27	1.44	1.53
33	L1	1515	U	O3'-P	-8.27	1.51	1.61
32	S1	583	A	C2'-C1'	8.27	1.62	1.53
33	L1	934	C	O4'-C1'	8.26	1.52	1.41
33	L1	134	U	O4'-C1'	-8.26	1.30	1.41
33	L1	2347	A	O4'-C1'	8.26	1.52	1.41
35	L2	120	G	C2'-C1'	-8.26	1.44	1.53
4	SD	133	GLN	N-CA	8.26	1.62	1.46
32	S1	1542	G	O4'-C1'	-8.26	1.30	1.41
33	L1	1095	C	O4'-C1'	8.26	1.52	1.41
34	L3	101	A	P-O5'	-8.26	1.51	1.59
35	L2	62	G	O4'-C1'	8.26	1.52	1.41
32	S1	774	C	C4'-C3'	-8.25	1.44	1.53
33	L1	2349	C	P-O5'	-8.25	1.51	1.59
33	L1	2048	C	C2'-C1'	-8.25	1.44	1.53
33	L1	1364	C	C2'-C1'	-8.25	1.44	1.53
23	SU	69	HIS	N-CA	8.25	1.62	1.46
33	L1	338	C	P-O5'	-8.25	1.51	1.59
33	L1	1874	A	C2'-C1'	8.25	1.62	1.53
32	S1	577	C	C5'-C4'	8.25	1.61	1.51
32	S1	1599	C	C2'-C1'	-8.25	1.44	1.53
32	S1	1750	A	C2'-C1'	8.25	1.62	1.53
32	S1	994	U	C4'-O4'	8.24	1.56	1.45
33	L1	2700	A	C5'-C4'	8.24	1.61	1.51
33	L1	3069	U	O4'-C1'	8.24	1.52	1.41
32	S1	1137	A	O4'-C1'	8.23	1.52	1.41
33	L1	1772	G	O4'-C1'	-8.23	1.30	1.41
49	LX	31	ARG	NE-CZ	8.23	1.43	1.33
32	S1	48	G	C2'-C1'	-8.23	1.44	1.53
33	L1	2510	U	C2'-C1'	-8.23	1.44	1.53
33	L1	3384	G	O4'-C1'	8.22	1.52	1.41
33	L1	2210	A	O4'-C1'	8.22	1.52	1.41
33	L1	2673	G	C5'-C4'	8.22	1.61	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1114	A	O4'-C1'	-8.22	1.30	1.41
33	L1	1741	G	O3'-P	8.22	1.71	1.61
33	L1	1955	G	C3'-O3'	8.22	1.53	1.42
33	L1	2702	G	P-O5'	-8.22	1.51	1.59
33	L1	2366	A	O4'-C1'	8.21	1.52	1.41
33	L1	2875	U	C4'-C3'	8.21	1.62	1.53
33	L1	467	C	O4'-C1'	8.21	1.52	1.41
33	L1	2771	U	O4'-C1'	-8.21	1.30	1.41
33	L1	3041	A	C2'-C1'	-8.21	1.44	1.53
32	S1	425	A	O4'-C1'	8.21	1.52	1.41
33	L1	24	C	P-O5'	-8.21	1.51	1.59
33	L1	1197	A	P-O5'	-8.21	1.51	1.59
33	L1	3308	A	O4'-C1'	8.21	1.52	1.41
33	L1	2991	U	O4'-C1'	8.21	1.52	1.41
32	S1	1447	C	C2'-C1'	-8.20	1.44	1.53
33	L1	1194	C	P-O5'	-8.21	1.51	1.59
33	L1	1218	U	P-O5'	-8.20	1.51	1.59
33	L1	1572	C	O4'-C1'	8.21	1.52	1.41
33	L1	2661	G	C5'-C4'	8.20	1.61	1.51
33	L1	318	G	C2'-C1'	-8.20	1.44	1.53
35	L2	118	G	C2'-C1'	-8.20	1.44	1.53
33	L1	469	U	C2'-C1'	-8.20	1.44	1.53
33	L1	897	U	C4'-C3'	8.20	1.62	1.53
32	S1	220	C	O4'-C1'	8.20	1.52	1.41
33	L1	2276	A	O4'-C1'	-8.20	1.30	1.41
33	L1	1753	A	C4'-C3'	-8.20	1.44	1.53
31	S2	18	G	C2'-C1'	-8.19	1.44	1.53
33	L1	1599	A	C3'-O3'	8.20	1.53	1.42
33	L1	2814	C	C2'-C1'	-8.19	1.44	1.53
32	S1	3	C	C3'-C2'	-8.19	1.43	1.52
33	L1	1235	A	C3'-O3'	8.19	1.53	1.42
33	L1	2230	C	C5'-C4'	8.19	1.61	1.51
33	L1	2665	A	C2'-C1'	-8.19	1.44	1.53
33	L1	3294	U	C2'-C1'	8.19	1.62	1.53
33	L1	470	G	O4'-C1'	-8.19	1.31	1.41
13	SQ	74	GLN	N-CA	8.19	1.62	1.46
32	S1	1646	G	O3'-P	-8.19	1.51	1.61
32	S1	1726	G	C2'-C1'	-8.19	1.44	1.53
33	L1	71	C	P-O5'	-8.19	1.51	1.59
33	L1	1181	A	C2'-C1'	8.19	1.62	1.53
33	L1	1596	G	O3'-P	-8.19	1.51	1.61
33	L1	2109	G	O4'-C1'	8.19	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
64	LG	185	ASP	N-CA	8.19	1.62	1.46
33	L1	657	A	C2'-C1'	-8.19	1.44	1.53
32	S1	380	C	O4'-C1'	8.18	1.52	1.41
81	LD	23	SER	CA-CB	8.18	1.65	1.52
33	L1	464	G	O4'-C1'	8.18	1.52	1.41
33	L1	2673	G	C3'-O3'	8.18	1.53	1.42
33	L1	3243	C	O4'-C1'	8.18	1.52	1.41
35	L2	83	A	O3'-P	-8.18	1.51	1.61
32	S1	105	A	O4'-C1'	8.17	1.52	1.41
33	L1	1868	C	O4'-C1'	8.17	1.52	1.41
33	L1	3322	A	O4'-C1'	-8.17	1.31	1.41
33	L1	2373	C	O4'-C1'	8.17	1.52	1.41
33	L1	1714	A	C2'-C1'	-8.17	1.44	1.53
32	S1	773	U	C4'-C3'	-8.16	1.44	1.53
32	S1	1430	A	O4'-C1'	8.16	1.52	1.41
32	S1	360	G	C2'-C1'	-8.16	1.44	1.53
33	L1	1987	C	C2'-C1'	-8.16	1.44	1.53
32	S1	1464	G	O4'-C1'	8.16	1.52	1.41
32	S1	1720	G	C3'-C2'	8.16	1.61	1.52
33	L1	2626	G	C5'-C4'	8.16	1.61	1.51
33	L1	2984	A	C3'-C2'	8.16	1.61	1.52
32	S1	1737	A	O4'-C1'	8.16	1.52	1.41
33	L1	3287	A	C2'-C1'	-8.16	1.44	1.53
35	L2	133	C	C2'-C1'	-8.16	1.44	1.53
33	L1	583	C	C4'-C3'	8.16	1.62	1.53
33	L1	2619	C	O4'-C1'	8.16	1.52	1.41
32	S1	1007	G	P-O5'	-8.15	1.51	1.59
32	S1	1767	G	C2'-C1'	-8.15	1.44	1.53
34	L3	32	A	C2'-C1'	-8.15	1.44	1.53
33	L1	83	U	C2'-C1'	-8.15	1.44	1.53
33	L1	1008	U	O4'-C1'	8.15	1.52	1.41
32	S1	1564	A	O4'-C1'	8.15	1.52	1.41
33	L1	685	G	O4'-C1'	8.15	1.52	1.41
33	L1	1266	G	O4'-C1'	8.15	1.52	1.41
33	L1	1296	C	C5'-C4'	8.15	1.61	1.51
8	SJ	126	SER	C-O	-8.15	1.07	1.23
32	S1	390	G	C2'-C1'	-8.15	1.44	1.53
32	S1	557	G	O4'-C1'	8.14	1.52	1.41
32	S1	1422	G	C2'-C1'	-8.14	1.44	1.53
33	L1	3309	U	P-O5'	-8.14	1.51	1.59
32	S1	489	C	O4'-C1'	8.14	1.52	1.41
33	L1	964	C	O4'-C1'	8.14	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	115	A	C2'-C1'	8.14	1.62	1.53
33	L1	1337	C	O4'-C1'	8.14	1.52	1.41
33	L1	1590	A	C2'-C1'	-8.14	1.44	1.53
33	L1	2521	C	O4'-C1'	8.14	1.52	1.41
33	L1	2562	A	C2'-C1'	8.14	1.62	1.53
32	S1	1254	U	C4'-C3'	-8.13	1.44	1.53
32	S1	1342	C	O4'-C1'	8.13	1.52	1.41
31	S2	71	A	C3'-C2'	-8.13	1.43	1.52
32	S1	1593	U	O4'-C1'	8.13	1.52	1.41
32	S1	15	U	C2'-C1'	-8.12	1.44	1.53
32	S1	1242	A	C3'-C2'	8.12	1.61	1.52
32	S1	1483	G	O4'-C1'	-8.12	1.31	1.41
33	L1	1372	U	C4'-C3'	-8.12	1.44	1.53
32	S1	635	G	O4'-C1'	8.12	1.52	1.41
32	S1	381	G	C2'-C1'	8.12	1.62	1.53
32	S1	511	U	C2'-C1'	-8.12	1.44	1.53
33	L1	2140	C	P-O5'	-8.12	1.51	1.59
33	L1	2708	A	O3'-P	-8.12	1.51	1.61
34	L3	61	C	C2'-C1'	-8.12	1.44	1.53
32	S1	587	C	C2'-C1'	-8.11	1.44	1.53
32	S1	1364	C	O3'-P	-8.11	1.51	1.61
33	L1	2792	A	C3'-O3'	8.11	1.53	1.42
33	L1	3129	G	O4'-C1'	8.11	1.52	1.41
35	L2	114	A	O4'-C1'	8.11	1.52	1.41
32	S1	1555	A	O4'-C1'	8.11	1.52	1.41
33	L1	544	C	P-O5'	-8.11	1.51	1.59
32	S1	1321	C	C4'-O4'	-8.11	1.35	1.45
32	S1	1106	G	C4'-C3'	8.10	1.62	1.53
33	L1	1261	C	C4'-C3'	-8.10	1.44	1.53
38	LE	89	LYS	N-CA	8.10	1.62	1.46
32	S1	1580	G	O4'-C1'	-8.10	1.31	1.41
33	L1	2706	A	C4'-C3'	8.10	1.62	1.53
33	L1	3076	C	O4'-C1'	8.10	1.52	1.41
33	L1	1678	U	O4'-C1'	-8.10	1.31	1.41
32	S1	60	C	C2'-C1'	-8.09	1.44	1.53
33	L1	2131	U	C2'-C1'	-8.09	1.44	1.53
33	L1	1604	U	O4'-C1'	8.09	1.52	1.41
33	L1	2461	A	O4'-C1'	8.09	1.52	1.41
32	S1	1413	C	C2'-C1'	-8.09	1.44	1.53
33	L1	492	G	C2'-C1'	8.09	1.62	1.53
33	L1	1345	U	O3'-P	-8.08	1.51	1.61
32	S1	13	C	C3'-C2'	-8.08	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1387	U	C2'-C1'	8.08	1.62	1.53
32	S1	1265	A	C2'-C1'	-8.08	1.44	1.53
32	S1	1577	A	O4'-C1'	8.08	1.52	1.41
33	L1	2569	G	O4'-C1'	-8.08	1.31	1.41
33	L1	308	U	C3'-O3'	8.07	1.53	1.42
34	L3	28	U	O4'-C1'	8.07	1.52	1.41
80	LC	69	LYS	C-O	-8.07	1.08	1.23
32	S1	765	U	P-O5'	-8.07	1.51	1.59
32	S1	207	A	C2'-C1'	-8.07	1.44	1.53
31	S2	55	C	O4'-C1'	8.07	1.52	1.41
33	L1	733	C	C2'-C1'	-8.07	1.44	1.53
33	L1	207	U	C2'-C1'	8.07	1.62	1.53
32	S1	1218	U	C2'-C1'	-8.06	1.44	1.53
33	L1	689	G	O4'-C1'	-8.06	1.31	1.41
33	L1	1076	G	C5'-C4'	8.06	1.61	1.51
32	S1	90	G	C2'-C1'	-8.06	1.44	1.53
33	L1	327	A	O4'-C1'	-8.06	1.31	1.41
32	S1	1621	U	C2'-C1'	8.06	1.62	1.53
33	L1	315	A	O4'-C1'	8.06	1.52	1.41
33	L1	1024	G	O4'-C1'	8.05	1.52	1.41
33	L1	1041	C	C2'-C1'	8.05	1.62	1.53
33	L1	2203	A	C5'-C4'	8.05	1.61	1.51
33	L1	2245	G	C2'-C1'	-8.05	1.44	1.53
33	L1	2815	A	C2'-C1'	-8.05	1.44	1.53
32	S1	1519	G	O4'-C1'	-8.05	1.31	1.41
34	L3	11	A	P-O5'	8.05	1.67	1.59
31	S2	7	A	O3'-P	-8.05	1.51	1.61
33	L1	366	G	O4'-C1'	8.05	1.52	1.41
33	L1	780	U	C2'-C1'	-8.05	1.44	1.53
43	LO	40	HIS	C-O	-8.05	1.08	1.23
33	L1	1714	A	O3'-P	-8.04	1.51	1.61
33	L1	2044	C	O4'-C1'	8.04	1.52	1.41
33	L1	2133	A	C2'-C1'	-8.04	1.44	1.53
33	L1	2495	C	C3'-C2'	8.04	1.61	1.52
33	L1	2523	G	O4'-C1'	-8.04	1.31	1.41
32	S1	666	C	C2'-C1'	-8.04	1.44	1.53
33	L1	2798	G	O4'-C1'	-8.04	1.31	1.41
44	LR	25	TYR	CG-CD2	8.04	1.49	1.39
32	S1	1139	C	C2'-C1'	-8.03	1.44	1.53
32	S1	1459	G	C4'-C3'	8.03	1.61	1.53
33	L1	2344	A	O3'-P	-8.03	1.51	1.61
33	L1	437	C	C2'-C1'	8.03	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	51	A	O4'-C1'	8.03	1.52	1.41
33	L1	2927	C	C3'-O3'	8.03	1.53	1.42
35	L2	6	G	O4'-C1'	8.03	1.52	1.41
35	L2	69	G	O3'-P	-8.03	1.51	1.61
33	L1	2111	A	O4'-C1'	8.03	1.52	1.41
33	L1	3154	G	C5'-C4'	8.03	1.60	1.51
32	S1	1029	U	C4'-C3'	-8.02	1.44	1.53
32	S1	1653	G	C2'-C1'	-8.02	1.44	1.53
33	L1	6	A	C2'-C1'	8.02	1.62	1.53
33	L1	877	U	C3'-O3'	8.02	1.53	1.42
33	L1	2419	C	C2'-C1'	-8.02	1.44	1.53
33	L1	2732	U	C2'-C1'	-8.02	1.44	1.53
32	S1	1591	A	O3'-P	-8.02	1.51	1.61
33	L1	499	A	P-O5'	-8.02	1.51	1.59
33	L1	1587	G	C2'-C1'	-8.02	1.44	1.53
33	L1	2125	A	O4'-C1'	-8.02	1.31	1.41
60	Lr	62	ALA	N-CA	8.02	1.62	1.46
32	S1	1098	A	O4'-C1'	8.01	1.52	1.41
33	L1	878	G	O4'-C1'	8.01	1.52	1.41
33	L1	1144	C	C2'-C1'	-8.01	1.44	1.53
33	L1	2235	G	O4'-C1'	8.01	1.52	1.41
33	L1	2269	U	C2'-C1'	-8.01	1.44	1.53
32	S1	451	U	C2'-C1'	-8.01	1.44	1.53
35	L2	52	A	O4'-C1'	-8.01	1.31	1.41
32	S1	1374	G	O3'-P	-8.00	1.51	1.61
33	L1	721	A	C2'-C1'	-8.00	1.44	1.53
33	L1	1548	U	O4'-C1'	8.00	1.52	1.41
33	L1	1872	C	C5'-C4'	8.00	1.60	1.51
33	L1	2026	C	C2'-C1'	-8.00	1.44	1.53
35	L2	45	A	C5'-C4'	8.00	1.60	1.51
33	L1	1035	C	P-O5'	-8.00	1.51	1.59
33	L1	2801	A	C5'-C4'	8.00	1.60	1.51
35	L2	102	U	C4'-C3'	-8.00	1.44	1.53
33	L1	1117	U	C4'-C3'	-8.00	1.44	1.53
33	L1	2060	C	C2'-C1'	8.00	1.62	1.53
33	L1	2840	A	C4'-C3'	8.00	1.61	1.53
33	L1	3049	A	C2'-C1'	8.00	1.62	1.53
25	SC	144	ASN	N-CA	8.00	1.62	1.46
32	S1	955	C	C4'-C3'	8.00	1.61	1.53
35	L2	105	U	O4'-C1'	8.00	1.52	1.41
32	S1	1551	A	C2'-C1'	-7.99	1.44	1.53
33	L1	789	A	O4'-C1'	7.99	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2470	C	C5'-C4'	7.99	1.60	1.51
33	L1	2618	G	C4'-C3'	-7.99	1.44	1.53
32	S1	1100	U	C2'-C1'	-7.99	1.44	1.53
32	S1	1808	U	O3'-P	-7.99	1.51	1.61
33	L1	2354	G	O3'-P	-7.99	1.51	1.61
24	SX	70	GLY	C-N	7.99	1.47	1.33
33	L1	1441	U	O4'-C1'	7.99	1.52	1.41
33	L1	1770	C	C2'-C1'	-7.99	1.44	1.53
33	L1	2886	C	C2'-C1'	-7.99	1.44	1.53
33	L1	3381	C	C2'-C1'	-7.99	1.44	1.53
35	L2	23	A	C2'-C1'	7.99	1.62	1.53
35	L2	144	A	O4'-C1'	7.99	1.52	1.41
60	Lr	33	ASP	N-CA	7.99	1.62	1.46
33	L1	2115	G	C2'-C1'	7.98	1.62	1.53
10	SL	36	TRP	NE1-CE2	-7.98	1.27	1.37
33	L1	1765	G	C2'-C1'	7.98	1.62	1.53
69	La	27	ARG	C-N	7.98	1.52	1.34
32	S1	417	U	O4'-C1'	7.98	1.52	1.41
32	S1	1772	A	C4'-C3'	-7.98	1.44	1.53
32	S1	1386	U	C2'-C1'	-7.97	1.44	1.53
33	L1	291	C	C4'-C3'	7.97	1.61	1.53
33	L1	2333	U	C3'-C2'	-7.97	1.44	1.52
33	L1	2669	C	O4'-C1'	7.97	1.52	1.41
32	S1	913	U	P-O5'	-7.97	1.51	1.59
33	L1	2509	A	C2'-C1'	-7.97	1.44	1.53
35	L2	42	U	O4'-C1'	7.97	1.52	1.41
33	L1	1518	A	O4'-C1'	7.97	1.52	1.41
32	S1	1722	C	C4'-C3'	7.97	1.61	1.53
33	L1	1516	G	O4'-C1'	7.97	1.52	1.41
31	S2	52	G	O4'-C1'	-7.97	1.31	1.41
33	L1	279	G	O4'-C1'	-7.97	1.31	1.41
33	L1	1830	U	O4'-C1'	7.97	1.52	1.41
33	L1	2348	U	O4'-C1'	7.97	1.52	1.41
33	L1	2376	G	C2'-C1'	7.97	1.62	1.53
33	L1	2931	C	C2'-C1'	-7.96	1.44	1.53
80	LC	119	TYR	CE2-CZ	7.96	1.49	1.38
33	L1	299	G	O4'-C1'	-7.96	1.31	1.41
33	L1	923	A	O3'-P	-7.96	1.51	1.61
33	L1	2125	A	P-O5'	-7.96	1.51	1.59
33	L1	3287	A	O4'-C1'	7.96	1.52	1.41
32	S1	1744	C	O4'-C1'	7.96	1.51	1.41
81	LD	94	GLY	C-O	-7.96	1.10	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2101	A	C2'-C1'	-7.96	1.44	1.53
64	LG	13	ARG	N-CA	7.96	1.62	1.46
25	SC	163	THR	CB-OG1	-7.96	1.27	1.43
33	L1	1226	G	O4'-C1'	-7.95	1.31	1.41
33	L1	1386	G	C2'-C1'	-7.95	1.44	1.53
32	S1	773	U	P-O5'	-7.95	1.51	1.59
33	L1	45	U	C2'-C1'	-7.95	1.44	1.53
33	L1	501	U	C2'-C1'	-7.95	1.44	1.53
33	L1	2772	A	O4'-C1'	7.95	1.51	1.41
33	L1	544	C	O4'-C1'	7.94	1.51	1.41
33	L1	696	A	C2'-C1'	-7.94	1.44	1.53
34	L3	31	G	C2'-C1'	-7.94	1.44	1.53
34	L3	71	A	C3'-C2'	-7.94	1.44	1.52
32	S1	1750	A	C5'-C4'	7.94	1.60	1.51
33	L1	2825	G	O4'-C1'	-7.94	1.31	1.41
33	L1	919	G	C2'-C1'	-7.93	1.44	1.53
32	S1	1257	U	C4'-C3'	7.93	1.61	1.53
32	S1	1544	G	C2'-C1'	-7.93	1.44	1.53
31	S2	55	C	C2'-C1'	-7.93	1.44	1.53
32	S1	403	A	P-O5'	-7.93	1.51	1.59
33	L1	3237	G	O4'-C1'	-7.93	1.31	1.41
48	LV	128	ARG	CD-NE	7.93	1.59	1.46
80	LC	352	ARG	C-O	-7.93	1.08	1.23
32	S1	12	U	P-O5'	-7.92	1.51	1.59
31	S2	64	G	O3'-P	-7.92	1.51	1.61
32	S1	104	A	C4'-C3'	7.92	1.61	1.53
32	S1	1196	C	P-O5'	7.92	1.67	1.59
33	L1	3246	U	O4'-C1'	7.92	1.51	1.41
33	L1	1942	A	C2'-C1'	-7.92	1.44	1.53
69	La	45	GLY	CA-C	-7.92	1.39	1.51
4	SD	131	PHE	N-CA	-7.92	1.30	1.46
57	L1	12	ARG	N-CA	7.92	1.62	1.46
33	L1	1271	U	O3'-P	7.91	1.70	1.61
33	L1	1619	G	C5'-C4'	7.91	1.60	1.51
33	L1	2157	C	C2'-C1'	-7.91	1.44	1.53
33	L1	2565	C	O4'-C1'	7.91	1.51	1.41
33	L1	3018	A	C3'-O3'	7.91	1.53	1.42
33	L1	3020	C	C2'-C1'	-7.91	1.44	1.53
33	L1	3206	C	O4'-C1'	7.91	1.51	1.41
33	L1	382	A	O4'-C1'	-7.91	1.31	1.41
33	L1	1044	A	O4'-C1'	7.91	1.51	1.41
33	L1	1577	A	C5'-C4'	7.91	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2730	A	C3'-O3'	7.91	1.53	1.42
33	L1	3033	A	O4'-C1'	7.91	1.51	1.41
33	L1	2299	C	C5'-C4'	7.91	1.60	1.51
33	L1	2731	G	C5'-C4'	7.91	1.60	1.51
32	S1	276	G	O4'-C1'	7.91	1.51	1.41
33	L1	1902	G	C2'-C1'	7.91	1.62	1.53
33	L1	2694	A	C2'-C1'	7.91	1.62	1.53
33	L1	2946	U	P-O5'	-7.91	1.51	1.59
33	L1	1080	C	O3'-P	-7.90	1.51	1.61
32	S1	120	G	C2'-C1'	7.90	1.62	1.53
32	S1	1340	A	C2'-C1'	-7.90	1.44	1.53
15	SS	14	PRO	N-CD	-7.90	1.36	1.47
32	S1	1803	G	O4'-C1'	-7.90	1.31	1.41
33	L1	608	G	P-O5'	-7.90	1.51	1.59
33	L1	941	C	C2'-C1'	-7.89	1.44	1.53
33	L1	2740	C	C3'-O3'	7.89	1.53	1.42
34	L3	54	A	O4'-C1'	7.89	1.51	1.41
33	L1	2289	U	O3'-P	-7.89	1.51	1.61
32	S1	1394	A	C2'-C1'	-7.89	1.44	1.53
33	L1	1213	G	O4'-C1'	7.89	1.51	1.41
32	S1	1710	C	P-O5'	7.89	1.67	1.59
33	L1	1945	A	C2'-C1'	-7.89	1.44	1.53
33	L1	2299	C	C4'-C3'	7.89	1.61	1.53
32	S1	312	C	O4'-C1'	7.88	1.51	1.41
33	L1	1945	A	O4'-C1'	7.88	1.51	1.41
33	L1	2936	A	C2'-C1'	7.88	1.62	1.53
33	L1	307	C	C4'-C3'	7.88	1.61	1.53
33	L1	1028	G	C3'-C2'	-7.88	1.44	1.52
33	L1	2650	A	P-O5'	-7.88	1.51	1.59
80	LC	120	LYS	C-O	-7.88	1.08	1.23
33	L1	569	C	O4'-C1'	7.88	1.51	1.41
33	L1	2379	U	O3'-P	-7.88	1.51	1.61
33	L1	2479	C	C2'-C1'	7.88	1.62	1.53
23	SU	71	GLY	C-N	7.87	1.47	1.33
32	S1	977	G	C2'-C1'	-7.87	1.44	1.53
32	S1	1166	C	C2'-C1'	-7.87	1.44	1.53
2	SA	160	TYR	CG-CD2	7.87	1.49	1.39
33	L1	1368	U	C3'-O3'	7.87	1.53	1.42
31	S2	42	C	C5'-C4'	7.87	1.60	1.51
33	L1	1578	U	O4'-C1'	7.87	1.51	1.41
33	L1	2199	C	C3'-C2'	-7.87	1.44	1.52
32	S1	569	C	C5'-C4'	7.87	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	875	A	C2'-C1'	-7.87	1.44	1.53
33	L1	2261	U	O4'-C1'	7.87	1.51	1.41
32	S1	577	C	C2'-C1'	-7.86	1.44	1.53
32	S1	1630	G	C2'-C1'	-7.86	1.44	1.53
32	S1	1711	G	C4'-C3'	7.86	1.61	1.53
33	L1	1218	U	C4'-C3'	-7.86	1.44	1.53
33	L1	3293	U	P-O5'	-7.86	1.51	1.59
50	LZ	3	LEU	C-N	7.86	1.52	1.34
5	SE	58	ARG	NE-CZ	7.86	1.43	1.33
33	L1	2254	A	O4'-C1'	7.86	1.51	1.41
33	L1	3054	G	O4'-C1'	7.86	1.51	1.41
33	L1	3100	C	C2'-C1'	7.86	1.61	1.53
33	L1	230	G	O3'-P	-7.86	1.51	1.61
33	L1	2071	U	C3'-O3'	7.86	1.53	1.42
33	L1	2106	U	O3'-P	-7.86	1.51	1.61
33	L1	328	G	C5'-C4'	7.85	1.60	1.51
33	L1	2577	G	C2'-C1'	-7.85	1.44	1.53
32	S1	347	C	O4'-C1'	7.85	1.51	1.41
32	S1	367	G	C2'-C1'	-7.85	1.44	1.53
33	L1	2755	U	C4'-O4'	7.85	1.55	1.45
30	S3	16	G	P-O5'	-7.85	1.51	1.59
32	S1	1153	C	O4'-C1'	7.85	1.51	1.41
33	L1	545	C	O3'-P	-7.85	1.51	1.61
33	L1	1374	G	O4'-C1'	-7.85	1.31	1.41
33	L1	601	G	C4'-C3'	7.85	1.61	1.53
33	L1	3292	U	C4'-C3'	-7.85	1.44	1.53
33	L1	3316	C	C2'-C1'	-7.85	1.44	1.53
32	S1	656	G	O4'-C1'	7.84	1.51	1.41
33	L1	60	G	O4'-C1'	7.84	1.51	1.41
33	L1	642	C	C2'-C1'	-7.84	1.44	1.53
33	L1	1014	G	C2'-C1'	7.84	1.61	1.53
35	L2	113	A	C2'-C1'	-7.84	1.44	1.53
33	L1	2226	C	O3'-P	-7.84	1.51	1.61
80	LC	367	SER	CA-CB	7.84	1.64	1.52
32	S1	946	A	C5'-C4'	7.84	1.60	1.51
32	S1	1562	C	C4'-C3'	-7.84	1.44	1.53
33	L1	1321	A	O3'-P	-7.84	1.51	1.61
33	L1	2039	G	C2'-C1'	-7.84	1.44	1.53
33	L1	1016	G	C4'-O4'	7.84	1.55	1.45
32	S1	642	C	C2'-C1'	-7.84	1.44	1.53
33	L1	845	G	C2'-C1'	-7.84	1.44	1.53
32	S1	1106	G	O4'-C1'	7.83	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	458	G	P-O5'	-7.83	1.51	1.59
33	L1	3332	G	C2'-C1'	-7.83	1.44	1.53
33	L1	1012	U	O4'-C1'	7.83	1.51	1.41
33	L1	90	G	C2'-C1'	-7.83	1.44	1.53
33	L1	1985	G	C2'-C1'	-7.83	1.44	1.53
33	L1	2034	G	C2'-C1'	-7.83	1.44	1.53
33	L1	247	C	O4'-C1'	7.82	1.51	1.41
33	L1	249	A	C3'-O3'	7.82	1.53	1.42
33	L1	749	C	O4'-C1'	7.82	1.51	1.41
33	L1	1340	G	C2'-C1'	-7.82	1.44	1.53
35	L2	32	C	P-O5'	-7.82	1.51	1.59
33	L1	3213	A	O4'-C1'	7.82	1.51	1.41
32	S1	358	C	C5'-C4'	7.82	1.60	1.51
33	L1	1608	C	C5'-C4'	7.82	1.60	1.51
3	SB	124	ARG	CD-NE	7.82	1.59	1.46
32	S1	684	C	O4'-C1'	7.82	1.51	1.41
33	L1	803	G	O3'-P	-7.82	1.51	1.61
33	L1	3033	A	O3'-P	-7.82	1.51	1.61
38	LE	116	MET	N-CA	-7.82	1.30	1.46
33	L1	198	A	O4'-C1'	-7.82	1.31	1.41
33	L1	632	C	P-O5'	-7.82	1.51	1.59
32	S1	1151	G	O4'-C1'	7.81	1.51	1.41
33	L1	2630	A	P-O5'	-7.81	1.51	1.59
32	S1	789	C	C5'-C4'	7.81	1.60	1.51
33	L1	2877	U	O4'-C1'	-7.81	1.31	1.41
32	S1	877	G	C2'-C1'	7.81	1.61	1.53
33	L1	20	G	C2'-C1'	-7.81	1.44	1.53
33	L1	868	A	C4'-O4'	7.81	1.55	1.45
32	S1	573	C	O4'-C1'	7.80	1.51	1.41
32	S1	826	C	C2'-C1'	-7.80	1.44	1.53
32	S1	1307	U	C2'-C1'	-7.80	1.44	1.53
34	L3	115	A	C4'-C3'	-7.80	1.44	1.53
32	S1	1713	C	O3'-P	-7.80	1.51	1.61
32	S1	1705	C	C3'-C2'	7.79	1.61	1.52
33	L1	1470	A	C2'-C1'	-7.79	1.44	1.53
32	S1	25	C	C2'-C1'	-7.79	1.44	1.53
32	S1	1239	C	C4'-O4'	7.79	1.55	1.45
70	Li	43	LYS	CD-CE	7.79	1.70	1.51
33	L1	2985	C	O4'-C1'	7.79	1.51	1.41
33	L1	2338	C	O3'-P	-7.79	1.51	1.61
33	L1	1742	G	O3'-P	-7.79	1.51	1.61
33	L1	2643	A	O3'-P	-7.79	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	LS	166	LYS	N-CA	7.79	1.61	1.46
33	L1	484	C	C3'-O3'	7.79	1.53	1.42
32	S1	392	G	C2'-C1'	-7.78	1.44	1.53
33	L1	1293	C	C2'-C1'	-7.78	1.44	1.53
33	L1	2110	G	C2'-C1'	-7.78	1.44	1.53
33	L1	2436	G	C2'-C1'	7.78	1.61	1.53
33	L1	1386	G	C5'-C4'	7.78	1.60	1.51
33	L1	1500	C	C2'-C1'	-7.78	1.44	1.53
33	L1	1908	C	C2'-C1'	-7.78	1.44	1.53
33	L1	2591	G	O4'-C1'	-7.78	1.31	1.41
33	L1	3141	G	O4'-C1'	-7.78	1.31	1.41
33	L1	715	A	O4'-C1'	7.78	1.51	1.41
33	L1	3312	G	C4'-C3'	7.78	1.61	1.53
33	L1	186	A	P-O5'	-7.78	1.51	1.59
33	L1	571	G	O3'-P	-7.78	1.51	1.61
33	L1	924	A	C3'-C2'	7.78	1.61	1.52
33	L1	1828	C	O4'-C1'	7.78	1.51	1.41
33	L1	779	U	C2'-C1'	7.77	1.61	1.53
33	L1	1257	U	C4'-C3'	7.77	1.61	1.53
33	L1	1672	G	C3'-C2'	7.77	1.61	1.52
33	L1	3388	U	O3'-P	-7.77	1.51	1.61
35	L2	92	A	P-O5'	7.77	1.67	1.59
33	L1	249	A	C2'-C1'	-7.77	1.44	1.53
33	L1	1844	U	O4'-C1'	7.77	1.51	1.41
33	L1	1613	C	O4'-C1'	7.77	1.51	1.41
33	L1	1618	U	P-OP2	7.77	1.62	1.49
45	LQ	237	GLU	C-O	-7.77	1.08	1.23
33	L1	3041	A	C3'-C2'	-7.76	1.44	1.52
61	Lq	23	ARG	C-O	-7.76	1.08	1.23
33	L1	2223	A	C2'-C1'	-7.76	1.44	1.53
33	L1	2645	A	O4'-C1'	-7.76	1.31	1.41
33	L1	2798	G	C2'-C1'	-7.76	1.44	1.53
32	S1	775	A	O3'-P	7.76	1.70	1.61
32	S1	1195	U	C2'-C1'	-7.76	1.44	1.53
32	S1	546	U	C5'-C4'	7.76	1.60	1.51
33	L1	1861	A	C2'-C1'	7.75	1.61	1.53
33	L1	1827	U	C4'-C3'	7.75	1.61	1.53
33	L1	2640	A	C4'-O4'	7.75	1.55	1.45
15	SS	8	THR	C-N	7.75	1.51	1.34
1	Sa	224	GLY	CA-C	-7.75	1.39	1.51
32	S1	1807	A	C5'-C4'	7.75	1.60	1.51
33	L1	1255	A	O4'-C1'	7.75	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2823	C	O4'-C1'	7.75	1.51	1.41
33	L1	3145	G	O4'-C1'	7.75	1.51	1.41
32	S1	786	U	C4'-C3'	-7.75	1.44	1.53
33	L1	1509	G	O4'-C1'	-7.75	1.31	1.41
33	L1	1692	U	C2'-C1'	7.75	1.61	1.53
33	L1	1694	A	C2'-C1'	7.75	1.61	1.53
32	S1	224	C	O4'-C1'	7.75	1.51	1.41
33	L1	3067	G	O4'-C1'	-7.75	1.31	1.41
33	L1	2613	G	O3'-P	-7.74	1.51	1.61
33	L1	2615	U	P-O5'	-7.74	1.52	1.59
71	Lj	25	SER	CA-C	7.74	1.73	1.52
32	S1	271	C	C2'-C1'	-7.74	1.44	1.53
33	L1	1307	A	C2'-C1'	7.74	1.61	1.53
33	L1	1302	C	C2'-C1'	-7.74	1.44	1.53
33	L1	2331	A	C5'-C4'	7.74	1.60	1.51
33	L1	398	G	O4'-C1'	-7.73	1.31	1.41
33	L1	141	C	C3'-C2'	-7.73	1.44	1.52
33	L1	826	C	O4'-C1'	7.73	1.51	1.41
33	L1	1177	G	O4'-C1'	-7.73	1.31	1.41
33	L1	349	A	P-O5'	-7.72	1.52	1.59
32	S1	1285	G	O4'-C1'	7.72	1.51	1.41
33	L1	2628	C	P-O5'	-7.72	1.52	1.59
32	S1	598	A	C2'-C1'	7.72	1.61	1.53
32	S1	843	G	C2'-C1'	-7.72	1.44	1.53
33	L1	1857	G	O4'-C1'	-7.72	1.31	1.41
32	S1	785	A	C5'-C4'	7.72	1.60	1.51
33	L1	2627	G	O4'-C1'	-7.72	1.31	1.41
32	S1	961	U	O4'-C1'	7.72	1.51	1.41
32	S1	1368	C	C5'-C4'	7.71	1.60	1.51
32	S1	928	A	C3'-C2'	-7.71	1.44	1.52
32	S1	49	C	O4'-C1'	7.71	1.51	1.41
34	L3	12	U	C5'-C4'	7.71	1.60	1.51
33	L1	2003	C	C2'-C1'	-7.71	1.44	1.53
33	L1	2675	G	O3'-P	-7.71	1.51	1.61
29	ST	41	GLU	CA-CB	7.71	1.71	1.53
32	S1	170	C	C2'-C1'	-7.71	1.44	1.53
31	S2	52	G	C3'-O3'	7.71	1.52	1.42
33	L1	2424	G	C3'-C2'	7.71	1.61	1.52
33	L1	998	G	O4'-C1'	-7.70	1.31	1.41
32	S1	1738	U	C5'-C4'	7.70	1.60	1.51
32	S1	192	G	O4'-C1'	-7.70	1.31	1.41
32	S1	1272	G	C2'-C1'	-7.70	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	276	U	P-O5'	-7.70	1.52	1.59
34	L3	62	U	O3'-P	-7.70	1.51	1.61
33	L1	2738	U	C4'-O4'	7.69	1.55	1.45
32	S1	854	C	O4'-C1'	7.69	1.51	1.41
33	L1	3351	A	O4'-C1'	-7.69	1.31	1.41
32	S1	413	C	O4'-C1'	7.69	1.51	1.41
32	S1	1270	U	O4'-C1'	7.69	1.51	1.41
33	L1	1209	G	O4'-C1'	-7.69	1.31	1.41
33	L1	1729	G	C4'-O4'	7.69	1.55	1.45
33	L1	3358	A	O4'-C1'	-7.69	1.31	1.41
33	L1	1196	U	C2'-C1'	7.69	1.61	1.53
33	L1	3319	G	P-O5'	-7.69	1.52	1.59
33	L1	3382	A	C5'-C4'	7.69	1.60	1.51
32	S1	934	A	C2'-C1'	-7.69	1.44	1.53
33	L1	377	C	C2'-C1'	-7.69	1.44	1.53
33	L1	1120	G	C5'-C4'	7.69	1.60	1.51
33	L1	1388	C	C2'-C1'	-7.69	1.44	1.53
33	L1	1711	G	O4'-C1'	7.69	1.51	1.41
32	S1	1134	U	O3'-P	-7.68	1.51	1.61
33	L1	2308	A	O4'-C1'	7.68	1.51	1.41
33	L1	1341	G	C2'-C1'	-7.68	1.45	1.53
33	L1	939	A	P-O5'	-7.68	1.52	1.59
33	L1	1662	G	O4'-C1'	7.68	1.51	1.41
33	L1	3090	C	C3'-O3'	7.68	1.52	1.42
35	L2	161	A	O4'-C1'	7.68	1.51	1.41
33	L1	2787	A	O4'-C1'	-7.68	1.31	1.41
32	S1	916	U	C5'-C4'	7.67	1.60	1.51
32	S1	1029	U	P-O5'	-7.67	1.52	1.59
32	S1	1066	U	C2'-C1'	-7.67	1.45	1.53
32	S1	1669	U	O4'-C1'	7.67	1.51	1.41
32	S1	1181	G	C3'-C2'	-7.67	1.44	1.52
32	S1	1773	A	O4'-C1'	7.67	1.51	1.41
33	L1	3384	G	C2'-C1'	-7.67	1.45	1.53
32	S1	801	U	P-O5'	7.67	1.67	1.59
32	S1	1620	C	C2'-C1'	-7.67	1.45	1.53
33	L1	221	C	C2'-C1'	-7.67	1.45	1.53
33	L1	1155	G	C2'-C1'	-7.67	1.45	1.53
32	S1	11	A	O4'-C1'	7.66	1.51	1.41
32	S1	107	U	C2'-C1'	-7.66	1.45	1.53
32	S1	1677	U	C2'-C1'	7.66	1.61	1.53
32	S1	1071	C	O3'-P	-7.66	1.51	1.61
33	L1	3348	G	O4'-C1'	-7.66	1.31	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	380	C	C2'-C1'	-7.66	1.45	1.53
33	L1	16	A	O3'-P	-7.66	1.51	1.61
33	L1	2706	A	C5'-C4'	7.66	1.60	1.51
28	SN	11	PRO	N-CA	7.65	1.60	1.47
33	L1	2774	A	P-O5'	-7.65	1.52	1.59
33	L1	2911	C	C2'-C1'	-7.65	1.45	1.53
33	L1	198	A	C2'-C1'	7.65	1.61	1.53
32	S1	1469	C	C2'-C1'	-7.65	1.45	1.53
33	L1	958	U	O4'-C1'	7.65	1.51	1.41
33	L1	2229	G	C5'-C4'	7.65	1.60	1.51
32	S1	570	C	C2'-C1'	-7.65	1.45	1.53
33	L1	869	A	P-O5'	-7.65	1.52	1.59
35	L2	88	C	O3'-P	-7.65	1.51	1.61
32	S1	924	A	O4'-C1'	7.65	1.51	1.41
33	L1	1278	A	C2'-C1'	-7.64	1.45	1.53
33	L1	1978	G	C2'-C1'	-7.64	1.45	1.53
33	L1	2562	A	P-O5'	-7.64	1.52	1.59
33	L1	3057	A	O4'-C1'	7.64	1.51	1.41
32	S1	1286	U	O4'-C1'	7.64	1.51	1.41
33	L1	641	C	C4'-O4'	7.64	1.55	1.45
33	L1	2154	G	O4'-C1'	7.64	1.51	1.41
33	L1	3175	C	C3'-O3'	7.64	1.52	1.42
32	S1	1465	C	C2'-C1'	7.64	1.61	1.53
33	L1	170	C	O4'-C1'	7.64	1.51	1.41
32	S1	256	G	O4'-C1'	7.63	1.51	1.41
32	S1	1352	A	C2'-C1'	-7.63	1.45	1.53
33	L1	2765	A	O4'-C1'	-7.63	1.31	1.41
71	Lj	7	GLN	N-CA	7.63	1.61	1.46
33	L1	2492	C	O3'-P	-7.63	1.51	1.61
33	L1	1261	C	C2'-C1'	-7.63	1.45	1.53
32	S1	155	A	O4'-C1'	7.63	1.51	1.41
33	L1	2417	G	O3'-P	7.63	1.70	1.61
31	S2	12	U	C2'-C1'	-7.63	1.45	1.53
33	L1	2021	G	O4'-C1'	7.63	1.51	1.41
34	L3	101	A	O3'-P	-7.63	1.51	1.61
70	Li	111	LYS	N-CA	7.63	1.61	1.46
32	S1	1752	U	O4'-C1'	7.62	1.51	1.41
33	L1	1891	A	P-O5'	-7.62	1.52	1.59
33	L1	2899	A	O4'-C1'	-7.62	1.31	1.41
33	L1	1659	G	O4'-C1'	7.62	1.51	1.41
33	L1	2420	U	O4'-C1'	7.62	1.51	1.41
32	S1	1573	C	O4'-C1'	7.62	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1769	C	C2'-C1'	-7.62	1.45	1.53
33	L1	1743	C	O4'-C1'	7.62	1.51	1.41
33	L1	2902	A	O4'-C1'	-7.62	1.31	1.41
33	L1	1743	C	C2'-C1'	-7.62	1.45	1.53
32	S1	372	U	O4'-C1'	7.62	1.51	1.41
33	L1	1150	G	C2'-C1'	-7.62	1.45	1.53
33	L1	586	A	O4'-C1'	7.61	1.51	1.41
33	L1	1140	C	O4'-C1'	7.61	1.51	1.41
33	L1	1652	G	C2'-C1'	-7.61	1.45	1.53
46	LT	100	ARG	CD-NE	7.61	1.59	1.46
33	L1	950	U	C2'-C1'	-7.61	1.45	1.53
33	L1	1963	G	C2'-C1'	-7.61	1.45	1.53
33	L1	2255	U	C2'-C1'	-7.61	1.45	1.53
33	L1	2542	U	C2'-C1'	7.61	1.61	1.53
33	L1	735	C	C2'-C1'	-7.61	1.45	1.53
33	L1	1337	C	C2'-C1'	-7.61	1.45	1.53
33	L1	1342	C	P-O5'	-7.61	1.52	1.59
32	S1	1461	G	C5'-C4'	7.61	1.60	1.51
34	L3	1	G	P-OP2	7.61	1.61	1.49
34	L3	116	U	O4'-C1'	7.61	1.51	1.41
33	L1	2581	C	O3'-P	-7.60	1.52	1.61
35	L2	16	A	C2'-C1'	7.60	1.61	1.53
33	L1	1674	A	C5'-C4'	7.60	1.60	1.51
8	SJ	82	GLY	N-CA	7.60	1.57	1.46
33	L1	1400	C	C2'-C1'	-7.60	1.45	1.53
33	L1	2068	G	C2'-C1'	-7.60	1.45	1.53
33	L1	1448	U	O4'-C1'	7.60	1.51	1.41
32	S1	556	G	C2'-C1'	-7.59	1.45	1.53
32	S1	1641	A	O4'-C1'	7.59	1.51	1.41
33	L1	2904	A	O4'-C1'	7.59	1.51	1.41
25	SC	165	PRO	N-CA	7.59	1.60	1.47
35	L2	36	C	C4'-C3'	7.59	1.61	1.53
32	S1	1663	A	C2'-C1'	7.59	1.61	1.53
33	L1	3047	A	O4'-C1'	-7.59	1.31	1.41
32	S1	1238	A	C3'-C2'	-7.59	1.44	1.52
33	L1	915	G	P-O5'	-7.59	1.52	1.59
35	L2	126	G	O4'-C1'	7.59	1.51	1.41
32	S1	440	A	C4'-C3'	7.59	1.61	1.53
32	S1	56	U	O4'-C1'	7.58	1.51	1.41
33	L1	2876	G	O3'-P	7.58	1.70	1.61
59	Lo	30	ARG	C-O	-7.58	1.08	1.23
32	S1	388	G	C2'-C1'	-7.58	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1333	C	C3'-C2'	7.58	1.61	1.52
10	SL	117	VAL	N-CA	-7.58	1.31	1.46
33	L1	1991	U	O4'-C1'	7.58	1.51	1.41
32	S1	792	U	P-O5'	7.58	1.67	1.59
33	L1	1801	G	O4'-C1'	7.58	1.51	1.41
33	L1	641	C	P-O5'	7.57	1.67	1.59
32	S1	122	U	O4'-C1'	7.57	1.51	1.41
32	S1	1197	A	O4'-C1'	-7.57	1.31	1.41
32	S1	1664	U	O4'-C1'	7.57	1.51	1.41
33	L1	1119	G	C5'-C4'	7.57	1.60	1.51
35	L2	45	A	C4'-C3'	7.57	1.61	1.53
31	S2	13	U	O4'-C1'	-7.57	1.31	1.41
32	S1	1614	C	O3'-P	-7.57	1.52	1.61
33	L1	2051	G	C2'-C1'	-7.57	1.45	1.53
32	S1	970	U	C2'-C1'	-7.56	1.45	1.53
7	SI	72	ARG	CD-NE	7.56	1.59	1.46
32	S1	149	G	O4'-C1'	7.56	1.51	1.41
32	S1	1093	A	C4'-O4'	7.56	1.55	1.45
32	S1	1515	G	O4'-C1'	7.56	1.51	1.41
33	L1	3145	G	C2'-C1'	7.56	1.61	1.53
33	L1	1766	U	O4'-C1'	7.56	1.51	1.41
33	L1	2464	G	C2'-C1'	-7.56	1.45	1.53
32	S1	311	G	O4'-C1'	7.56	1.51	1.41
33	L1	243	C	O4'-C1'	7.56	1.51	1.41
33	L1	373	A	O4'-C1'	7.56	1.51	1.41
2	SA	211	PRO	C-O	-7.55	1.08	1.23
32	S1	442	A	C2'-C1'	7.55	1.61	1.53
32	S1	1299	G	O4'-C1'	7.55	1.51	1.41
32	S1	1321	C	C2'-C1'	-7.55	1.45	1.53
33	L1	329	G	C2'-C1'	7.55	1.61	1.53
33	L1	1132	A	O4'-C1'	7.55	1.51	1.41
33	L1	2698	A	P-O5'	-7.55	1.52	1.59
32	S1	882	G	C3'-C2'	-7.55	1.44	1.52
32	S1	1307	U	O4'-C1'	7.55	1.51	1.41
33	L1	634	A	O4'-C1'	7.55	1.51	1.41
33	L1	442	C	P-O5'	-7.55	1.52	1.59
33	L1	1467	G	P-O5'	-7.55	1.52	1.59
71	Lj	9	VAL	N-CA	7.55	1.61	1.46
33	L1	1061	A	P-O5'	-7.54	1.52	1.59
32	S1	1664	U	C2'-C1'	-7.54	1.45	1.53
33	L1	1052	A	C2'-C1'	7.54	1.61	1.53
33	L1	2441	G	C5'-C4'	7.54	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	586	U	P-O5'	-7.54	1.52	1.59
32	S1	1248	A	O4'-C1'	7.54	1.51	1.41
32	S1	1647	C	C5'-C4'	7.54	1.60	1.51
32	S1	1184	C	C5'-C4'	7.54	1.60	1.51
32	S1	289	G	O4'-C1'	7.54	1.51	1.41
32	S1	653	U	P-O5'	-7.53	1.52	1.59
32	S1	1351	U	C2'-C1'	-7.53	1.45	1.53
33	L1	858	U	O4'-C1'	7.53	1.51	1.41
33	L1	972	C	O4'-C1'	7.53	1.51	1.41
33	L1	1190	C	O4'-C1'	7.53	1.51	1.41
32	S1	667	U	C2'-C1'	-7.53	1.45	1.53
32	S1	1516	C	C5'-C4'	7.53	1.60	1.51
33	L1	3086	G	C4'-C3'	7.53	1.61	1.53
33	L1	3326	U	O4'-C1'	-7.53	1.31	1.41
33	L1	1306	A	O3'-P	7.53	1.70	1.61
32	S1	358	C	C2'-C1'	-7.53	1.45	1.53
33	L1	1080	C	C3'-C2'	-7.53	1.44	1.52
33	L1	1677	G	C2'-C1'	-7.53	1.45	1.53
33	L1	2824	U	O3'-P	-7.53	1.52	1.61
32	S1	1207	A	O3'-P	-7.52	1.52	1.61
33	L1	2215	A	C2'-C1'	-7.52	1.45	1.53
33	L1	2815	A	O4'-C1'	7.52	1.51	1.41
33	L1	3175	C	C4'-C3'	7.52	1.61	1.53
33	L1	64	A	C4'-C3'	7.51	1.61	1.53
33	L1	1924	G	P-O5'	7.51	1.67	1.59
33	L1	2103	U	C2'-C1'	7.51	1.61	1.53
32	S1	206	U	O4'-C1'	7.51	1.51	1.41
33	L1	1317	G	O4'-C1'	7.51	1.51	1.41
31	S2	67	G	C2'-C1'	-7.51	1.45	1.53
32	S1	345	A	O4'-C1'	7.51	1.51	1.41
34	L3	120	C	O4'-C1'	7.51	1.51	1.41
33	L1	1062	G	O4'-C1'	7.51	1.51	1.41
33	L1	3301	G	O4'-C1'	-7.51	1.31	1.41
33	L1	513	C	C4'-O4'	7.51	1.55	1.45
33	L1	2655	U	C2'-C1'	7.51	1.61	1.53
33	L1	477	C	C2'-C1'	-7.50	1.45	1.53
32	S1	1221	A	C4'-C3'	7.50	1.61	1.53
33	L1	226	U	O4'-C1'	-7.50	1.31	1.41
33	L1	2380	G	C4'-C3'	7.50	1.61	1.53
33	L1	3161	C	C2'-C1'	-7.50	1.45	1.53
33	L1	3295	G	O3'-P	-7.50	1.52	1.61
33	L1	3383	C	C4'-C3'	7.50	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	SA	108	THR	C-N	-7.50	1.20	1.34
31	S2	57	A	C4'-O4'	7.50	1.55	1.45
33	L1	1343	C	C2'-C1'	-7.49	1.45	1.53
33	L1	1647	C	C2'-C1'	-7.49	1.45	1.53
66	LN	64	ARG	CG-CD	7.49	1.70	1.51
32	S1	405	A	O4'-C1'	7.49	1.51	1.41
33	L1	1451	U	C4'-C3'	7.49	1.61	1.53
33	L1	2579	G	O4'-C1'	7.49	1.51	1.41
32	S1	1071	C	C5'-C4'	7.49	1.60	1.51
33	L1	1700	U	O4'-C1'	7.49	1.51	1.41
33	L1	2222	C	C5'-C4'	7.49	1.60	1.51
33	L1	2469	C	C5'-C4'	7.49	1.60	1.51
35	L2	124	G	O4'-C1'	7.49	1.51	1.41
42	LP	192	TRP	CB-CG	7.49	1.63	1.50
32	S1	1417	A	C2'-C1'	7.48	1.61	1.53
33	L1	970	A	O4'-C1'	7.48	1.51	1.41
32	S1	482	A	C3'-O3'	7.48	1.52	1.42
33	L1	1301	C	O4'-C1'	7.48	1.51	1.41
33	L1	1421	A	C2'-C1'	-7.48	1.45	1.53
32	S1	447	C	C4'-C3'	7.48	1.61	1.53
32	S1	1599	C	O4'-C1'	7.48	1.51	1.41
33	L1	2488	A	C2'-C1'	7.48	1.61	1.53
32	S1	1212	A	C2'-C1'	-7.47	1.45	1.53
33	L1	127	G	O3'-P	-7.47	1.52	1.61
33	L1	488	U	O3'-P	-7.47	1.52	1.61
33	L1	1789	C	C3'-C2'	-7.47	1.44	1.52
35	L2	153	U	C2'-C1'	-7.47	1.45	1.53
32	S1	1189	U	C2'-C1'	-7.47	1.45	1.53
5	SE	194	LYS	CA-CB	7.47	1.70	1.53
32	S1	1133	C	C2'-C1'	-7.47	1.45	1.53
33	L1	56	A	C2'-C1'	7.47	1.61	1.53
33	L1	912	G	P-O5'	-7.47	1.52	1.59
32	S1	928	A	C2'-C1'	-7.47	1.45	1.53
33	L1	340	A	C5'-C4'	7.47	1.60	1.51
32	S1	962	G	P-O5'	-7.47	1.52	1.59
33	L1	1510	G	C4'-C3'	7.47	1.61	1.53
33	L1	1966	C	C2'-C1'	-7.47	1.45	1.53
32	S1	1651	U	C2'-C1'	-7.46	1.45	1.53
33	L1	2707	A	O4'-C1'	-7.46	1.31	1.41
33	L1	1191	U	C4'-C3'	7.46	1.61	1.53
32	S1	679	C	C2'-C1'	-7.46	1.45	1.53
33	L1	1034	U	P-O5'	7.46	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2453	G	C5'-C4'	7.46	1.60	1.51
32	S1	1247	G	C2'-C1'	-7.46	1.45	1.53
33	L1	1965	C	C2'-C1'	-7.46	1.45	1.53
33	L1	149	A	C5'-C4'	7.46	1.60	1.51
33	L1	521	G	P-O5'	-7.46	1.52	1.59
33	L1	1574	C	C5'-C4'	7.46	1.60	1.51
33	L1	2422	U	C2'-C1'	-7.46	1.45	1.53
33	L1	2695	A	C5'-C4'	7.46	1.60	1.51
33	L1	3175	C	C5'-C4'	7.46	1.60	1.51
33	L1	2278	G	C2'-C1'	7.46	1.61	1.53
33	L1	547	C	P-O5'	-7.45	1.52	1.59
33	L1	2668	U	O4'-C1'	-7.45	1.31	1.41
33	L1	3365	U	C4'-C3'	7.45	1.61	1.53
33	L1	44	A	O4'-C1'	7.45	1.51	1.41
39	LF	88	ARG	CD-NE	7.45	1.59	1.46
31	S2	57	A	C2'-O2'	-7.45	1.31	1.41
33	L1	570	G	C4'-C3'	7.45	1.61	1.53
33	L1	1101	A	O3'-P	-7.45	1.52	1.61
33	L1	1012	U	C2'-C1'	-7.45	1.45	1.53
32	S1	1456	U	P-O5'	-7.45	1.52	1.59
33	L1	2090	G	C2'-C1'	7.45	1.61	1.53
33	L1	2717	G	C2'-C1'	-7.45	1.45	1.53
64	LG	27	ALA	N-CA	7.45	1.61	1.46
34	L3	115	A	P-O5'	-7.44	1.52	1.59
33	L1	251	G	C5'-C4'	7.44	1.60	1.51
33	L1	1683	U	O4'-C1'	7.44	1.51	1.41
33	L1	3113	G	O4'-C1'	7.44	1.51	1.41
32	S1	1154	G	O3'-P	7.44	1.70	1.61
32	S1	1471	C	C2'-C1'	-7.44	1.45	1.53
33	L1	2696	C	P-O5'	-7.44	1.52	1.59
11	SM	36	VAL	CA-C	7.44	1.72	1.52
11	SM	113	ARG	N-CA	-7.44	1.31	1.46
32	S1	5	U	O4'-C1'	7.44	1.51	1.41
33	L1	525	A	O4'-C1'	7.44	1.51	1.41
33	L1	2526	G	C5'-C4'	7.44	1.60	1.51
49	LX	125	ARG	CD-NE	7.44	1.59	1.46
31	S2	38	C	O4'-C1'	7.43	1.51	1.41
32	S1	1632	C	C4'-C3'	7.43	1.61	1.53
33	L1	2107	A	O4'-C1'	7.43	1.51	1.41
33	L1	2546	C	O4'-C1'	7.43	1.51	1.41
33	L1	508	G	O4'-C1'	7.43	1.51	1.41
33	L1	2955	U	C4'-O4'	7.43	1.55	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	601	G	O4'-C1'	-7.43	1.31	1.41
34	L3	10	C	P-O5'	7.43	1.67	1.59
32	S1	1076	C	C2'-C1'	-7.42	1.45	1.53
32	S1	587	C	O4'-C1'	7.42	1.51	1.41
33	L1	2520	U	O4'-C1'	7.42	1.51	1.41
32	S1	1364	C	P-O5'	-7.42	1.52	1.59
34	L3	73	U	C4'-O4'	7.42	1.55	1.45
32	S1	1345	G	C2'-C1'	7.42	1.61	1.53
35	L2	7	A	O4'-C1'	7.42	1.51	1.41
33	L1	367	A	O4'-C1'	-7.42	1.32	1.41
33	L1	1163	A	C5'-C4'	7.42	1.60	1.51
32	S1	1325	A	P-O5'	-7.42	1.52	1.59
32	S1	1735	C	C2'-C1'	-7.42	1.45	1.53
33	L1	1330	A	C2'-C1'	-7.41	1.45	1.53
32	S1	953	G	O4'-C1'	-7.41	1.32	1.41
32	S1	1126	C	O3'-P	-7.41	1.52	1.61
33	L1	570	G	O3'-P	-7.41	1.52	1.61
33	L1	839	A	C4'-C3'	7.41	1.61	1.53
33	L1	1276	C	C5'-C4'	7.41	1.60	1.51
33	L1	2886	C	O4'-C1'	7.41	1.51	1.41
34	L3	50	A	C2'-C1'	-7.41	1.45	1.53
33	L1	628	C	C4'-C3'	7.41	1.61	1.53
33	L1	1576	C	C3'-C2'	7.41	1.61	1.52
35	L2	96	A	C5'-C4'	7.40	1.60	1.51
33	L1	2934	C	O4'-C1'	-7.40	1.32	1.41
33	L1	3038	U	P-O5'	7.40	1.67	1.59
46	LT	172	ARG	CD-NE	7.40	1.59	1.46
4	SD	131	PHE	C-O	-7.40	1.09	1.23
32	S1	647	G	O4'-C1'	-7.40	1.32	1.41
33	L1	470	G	C5'-C4'	7.40	1.60	1.51
33	L1	2397	A	C5'-C4'	-7.40	1.42	1.51
32	S1	940	U	C4'-C3'	-7.40	1.45	1.53
33	L1	533	G	O4'-C1'	7.40	1.51	1.41
32	S1	1371	U	C4'-O4'	7.39	1.55	1.45
32	S1	1496	A	C5'-C4'	7.39	1.60	1.51
34	L3	24	G	C4'-C3'	-7.39	1.45	1.53
32	S1	1203	G	C2'-C1'	7.39	1.61	1.53
34	L3	39	C	P-O5'	-7.39	1.52	1.59
32	S1	376	G	C4'-O4'	7.39	1.55	1.45
32	S1	1426	C	O4'-C1'	7.39	1.51	1.41
33	L1	3068	U	C2'-C1'	7.39	1.61	1.53
32	S1	716	A	P-O5'	-7.39	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	906	G	C5'-C4'	7.39	1.60	1.51
32	S1	1266	U	C2'-C1'	-7.39	1.45	1.53
33	L1	2460	A	C3'-O3'	7.39	1.52	1.42
77	Lc	5	LYS	C-O	-7.39	1.09	1.23
33	L1	571	G	P-O5'	-7.39	1.52	1.59
32	S1	1183	G	C4'-C3'	7.38	1.61	1.53
32	S1	1506	G	O3'-P	-7.38	1.52	1.61
33	L1	3062	G	C4'-C3'	7.38	1.61	1.53
32	S1	91	C	O4'-C1'	7.38	1.51	1.41
23	SU	81	ILE	C-N	7.38	1.51	1.34
31	S2	15	A	O4'-C1'	-7.38	1.32	1.41
32	S1	985	G	O4'-C1'	7.38	1.51	1.41
33	L1	1058	A	O4'-C1'	7.38	1.51	1.41
33	L1	1513	C	C4'-O4'	-7.38	1.35	1.45
33	L1	2655	U	P-O5'	7.38	1.67	1.59
33	L1	2713	G	O4'-C1'	7.38	1.51	1.41
32	S1	1102	U	C5'-C4'	7.38	1.60	1.51
42	LP	42	PRO	N-CD	-7.38	1.37	1.47
33	L1	1948	G	C4'-C3'	7.38	1.61	1.53
33	L1	3383	C	O4'-C1'	7.37	1.51	1.41
35	L2	102	U	C2'-C1'	-7.37	1.45	1.53
33	L1	1182	A	C5'-C4'	7.37	1.60	1.51
32	S1	875	C	C2'-C1'	-7.37	1.45	1.53
33	L1	2080	G	C3'-O3'	7.37	1.52	1.42
30	S3	22	A	C2'-C1'	7.37	1.61	1.53
32	S1	23	G	O4'-C1'	7.36	1.51	1.41
33	L1	674	G	O4'-C1'	7.36	1.51	1.41
32	S1	1416	A	O4'-C1'	7.36	1.51	1.41
32	S1	1500	A	C5'-C4'	7.36	1.60	1.51
33	L1	1462	C	C2'-C1'	-7.36	1.45	1.53
23	SU	34	HIS	C-O	-7.36	1.09	1.23
32	S1	601	G	C2'-C1'	-7.36	1.45	1.53
32	S1	1197	A	O3'-P	-7.36	1.52	1.61
33	L1	2409	U	O4'-C1'	7.36	1.51	1.41
33	L1	2519	U	C2'-C1'	7.36	1.61	1.53
33	L1	2875	U	P-O5'	-7.36	1.52	1.59
67	LS	138	ARG	CZ-NH2	7.36	1.42	1.33
32	S1	206	U	C2'-C1'	-7.35	1.45	1.53
80	LC	70	LYS	N-CA	7.35	1.61	1.46
32	S1	11	A	C4'-O4'	-7.35	1.35	1.45
32	S1	1169	G	C2'-C1'	7.35	1.61	1.53
32	S1	1768	U	C2'-C1'	-7.35	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3330	U	O4'-C1'	-7.35	1.32	1.41
45	LQ	10	THR	C-N	7.35	1.50	1.34
33	L1	161	C	O4'-C1'	7.35	1.51	1.41
33	L1	2494	A	C5'-C4'	7.34	1.60	1.51
33	L1	2574	A	C2'-C1'	-7.34	1.45	1.53
32	S1	323	U	C2'-C1'	-7.34	1.45	1.53
33	L1	3008	U	C2'-C1'	7.34	1.61	1.53
2	SA	212	GLU	N-CA	7.34	1.61	1.46
32	S1	1140	U	C3'-O3'	7.34	1.52	1.42
33	L1	1276	C	C2'-C1'	-7.34	1.45	1.53
33	L1	2761	A	O4'-C1'	7.34	1.51	1.41
33	L1	1257	U	O4'-C1'	-7.34	1.32	1.41
34	L3	105	C	O4'-C1'	7.34	1.51	1.41
32	S1	1	U	O3'-P	-7.34	1.52	1.61
32	S1	1263	C	C2'-C1'	-7.34	1.45	1.53
32	S1	1623	C	O4'-C1'	7.34	1.51	1.41
33	L1	67	C	O4'-C1'	7.34	1.51	1.41
33	L1	944	G	C2'-C1'	-7.34	1.45	1.53
33	L1	1442	U	O3'-P	7.34	1.70	1.61
33	L1	3046	C	C2'-C1'	-7.33	1.45	1.53
31	S2	64	G	C5'-C4'	7.33	1.60	1.51
33	L1	1199	A	P-O5'	-7.33	1.52	1.59
33	L1	3079	G	P-O5'	-7.33	1.52	1.59
35	L2	46	G	C2'-C1'	7.33	1.61	1.53
32	S1	466	G	O4'-C1'	7.33	1.51	1.41
32	S1	354	G	C3'-C2'	7.33	1.61	1.52
33	L1	316	A	O4'-C1'	7.33	1.51	1.41
32	S1	427	G	O4'-C1'	7.33	1.51	1.41
32	S1	1084	U	C2'-C1'	7.33	1.61	1.53
33	L1	2806	A	C5'-C4'	7.33	1.60	1.51
33	L1	2628	C	C5'-C4'	7.33	1.60	1.51
1	Sa	16	ALA	C-N	7.32	1.50	1.34
78	Le	78	TYR	CG-CD2	7.32	1.48	1.39
34	L3	74	A	C4'-C3'	-7.32	1.45	1.53
33	L1	427	U	O4'-C1'	7.32	1.51	1.41
32	S1	1728	G	C2'-C1'	-7.32	1.45	1.53
32	S1	1330	A	O4'-C1'	7.32	1.51	1.41
32	S1	1541	C	O3'-P	-7.32	1.52	1.61
33	L1	1336	A	O4'-C1'	7.32	1.51	1.41
33	L1	1535	C	O4'-C1'	7.32	1.51	1.41
32	S1	1723	G	C2'-C1'	-7.31	1.45	1.53
33	L1	2014	A	O4'-C1'	7.31	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1042	C	C2'-C1'	-7.31	1.45	1.53
32	S1	1739	U	C2'-C1'	-7.31	1.45	1.53
33	L1	1035	C	O3'-P	-7.31	1.52	1.61
33	L1	2064	C	C5'-C4'	7.31	1.60	1.51
33	L1	2944	C	O3'-P	-7.31	1.52	1.61
33	L1	3012	A	C2'-C1'	7.31	1.61	1.53
32	S1	1173	U	O4'-C1'	7.30	1.51	1.41
33	L1	1465	A	C2'-C1'	-7.30	1.45	1.53
40	LH	87	ASN	C-O	-7.30	1.09	1.23
33	L1	242	U	C5'-C4'	7.30	1.60	1.51
33	L1	721	A	O4'-C1'	7.30	1.51	1.41
33	L1	1639	U	C5'-C4'	7.30	1.60	1.51
32	S1	1660	C	C3'-C2'	-7.30	1.44	1.52
33	L1	293	A	O3'-P	-7.30	1.52	1.61
33	L1	650	A	P-O5'	-7.30	1.52	1.59
33	L1	801	G	C2'-C1'	7.30	1.61	1.53
23	SU	25	ARG	CA-C	7.30	1.72	1.52
32	S1	8	U	C3'-C2'	-7.30	1.44	1.52
32	S1	1244	U	O4'-C1'	7.30	1.51	1.41
33	L1	1449	A	O3'-P	-7.30	1.52	1.61
33	L1	2899	A	P-O5'	7.30	1.67	1.59
32	S1	373	U	C3'-C2'	7.30	1.60	1.52
33	L1	1685	U	O4'-C1'	7.29	1.51	1.41
15	SS	5	THR	CA-CB	7.29	1.72	1.53
33	L1	293	A	O4'-C1'	-7.29	1.32	1.41
31	S2	4	G	C3'-O3'	7.29	1.52	1.42
32	S1	1240	A	C4'-C3'	-7.29	1.45	1.53
33	L1	579	G	C4'-C3'	7.29	1.61	1.53
33	L1	1961	C	C2'-C1'	-7.29	1.45	1.53
33	L1	2665	A	C3'-O3'	7.29	1.52	1.42
33	L1	3005	C	P-O5'	-7.29	1.52	1.59
32	S1	1205	G	O4'-C1'	7.29	1.51	1.41
33	L1	637	C	O3'-P	7.29	1.69	1.61
33	L1	1623	C	O4'-C1'	7.29	1.51	1.41
33	L1	1425	G	O4'-C1'	-7.29	1.32	1.41
33	L1	578	C	C4'-O4'	-7.29	1.36	1.45
33	L1	1037	U	C2'-C1'	-7.29	1.45	1.53
33	L1	2968	G	C2'-C1'	-7.29	1.45	1.53
33	L1	3142	C	P-O5'	-7.29	1.52	1.59
34	L3	120	C	P-O5'	-7.29	1.52	1.59
33	L1	461	A	C4'-C3'	7.28	1.61	1.53
33	L1	1886	U	C5'-C4'	7.28	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3093	C	C5'-C4'	7.28	1.60	1.51
80	LC	49	TYR	CG-CD2	7.28	1.48	1.39
10	SL	119	PHE	C-N	7.28	1.50	1.34
32	S1	675	A	C2'-C1'	-7.28	1.45	1.53
33	L1	210	G	C4'-C3'	7.28	1.61	1.53
34	L3	103	U	C5'-C4'	7.28	1.60	1.51
82	LK	136	PRO	N-CA	7.28	1.59	1.47
33	L1	882	U	O3'-P	-7.28	1.52	1.61
33	L1	955	A	P-O5'	-7.28	1.52	1.59
33	L1	1881	C	O3'-P	-7.28	1.52	1.61
33	L1	2740	C	C2'-C1'	-7.27	1.45	1.53
32	S1	1440	U	C2'-C1'	7.27	1.61	1.53
33	L1	1616	G	C2'-C1'	-7.27	1.45	1.53
33	L1	2040	G	C2'-C1'	-7.27	1.45	1.53
33	L1	2059	C	C3'-C2'	7.27	1.60	1.52
32	S1	1762	C	C2'-C1'	-7.27	1.45	1.53
33	L1	305	G	C4'-C3'	7.27	1.61	1.53
33	L1	2689	U	C3'-O3'	7.27	1.52	1.42
32	S1	68	A	O4'-C1'	7.27	1.51	1.41
33	L1	2653	U	C2'-C1'	-7.27	1.45	1.53
35	L2	92	A	C5'-C4'	7.27	1.60	1.51
33	L1	2582	G	O4'-C1'	7.27	1.51	1.41
9	SK	83	ARG	CD-NE	7.26	1.58	1.46
32	S1	1805	U	O3'-P	-7.26	1.52	1.61
33	L1	790	G	O4'-C1'	7.26	1.51	1.41
32	S1	1382	C	C2'-C1'	-7.26	1.45	1.53
32	S1	402	G	O4'-C1'	7.26	1.51	1.41
33	L1	2725	U	C5'-C4'	7.26	1.60	1.51
32	S1	431	C	C2'-C1'	-7.26	1.45	1.53
33	L1	1190	C	C4'-O4'	-7.26	1.36	1.45
44	LR	98	MET	CA-CB	7.26	1.70	1.53
23	SU	34	HIS	N-CA	7.26	1.60	1.46
33	L1	1632	G	O4'-C1'	-7.26	1.32	1.41
32	S1	1460	G	C2'-C1'	-7.25	1.45	1.53
7	SI	129	ARG	CZ-NH2	7.25	1.42	1.33
33	L1	812	G	C2'-C1'	-7.25	1.45	1.53
33	L1	1195	C	O4'-C1'	7.25	1.51	1.41
33	L1	1583	G	O4'-C1'	7.25	1.51	1.41
33	L1	1752	C	O4'-C1'	7.25	1.51	1.41
33	L1	1934	U	P-O5'	-7.25	1.52	1.59
35	L2	154	G	O4'-C1'	7.25	1.51	1.41
33	L1	1092	G	O4'-C1'	-7.25	1.32	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1729	G	C3'-C2'	-7.25	1.44	1.52
33	L1	2751	A	C4'-C3'	7.25	1.61	1.53
32	S1	423	G	O4'-C1'	7.24	1.51	1.41
32	S1	873	G	O4'-C1'	-7.24	1.32	1.41
32	S1	998	A	O4'-C1'	7.24	1.51	1.41
33	L1	3303	C	C2'-C1'	-7.24	1.45	1.53
34	L3	47	C	C2'-C1'	-7.24	1.45	1.53
33	L1	1569	U	O4'-C1'	-7.24	1.32	1.41
33	L1	1981	U	O4'-C1'	7.24	1.51	1.41
81	LD	60	ARG	CD-NE	7.24	1.58	1.46
7	SI	88	ARG	NE-CZ	7.24	1.42	1.33
33	L1	214	G	O3'-P	-7.24	1.52	1.61
35	L2	86	C	C4'-C3'	7.24	1.61	1.53
33	L1	2991	U	C2'-C1'	-7.24	1.45	1.53
32	S1	647	G	C2'-C1'	7.24	1.61	1.53
33	L1	657	A	O4'-C1'	7.24	1.51	1.41
33	L1	1049	C	C2'-C1'	-7.24	1.45	1.53
37	LB	68	ARG	NE-CZ	7.24	1.42	1.33
32	S1	49	C	C2'-C1'	-7.23	1.45	1.53
33	L1	83	U	P-O5'	-7.23	1.52	1.59
35	L2	25	C	C4'-C3'	7.23	1.61	1.53
33	L1	1525	U	C5'-C4'	7.23	1.60	1.51
35	L2	55	G	C5'-C4'	7.23	1.60	1.51
32	S1	479	A	C2'-C1'	-7.23	1.45	1.53
32	S1	667	U	O4'-C1'	7.23	1.51	1.41
33	L1	1967	C	O4'-C1'	7.23	1.51	1.41
32	S1	34	G	C2'-C1'	7.23	1.61	1.53
33	L1	2093	G	C2'-C1'	-7.23	1.45	1.53
32	S1	1038	C	P-O5'	-7.23	1.52	1.59
33	L1	886	A	O3'-P	-7.22	1.52	1.61
33	L1	1954	G	P-O5'	-7.22	1.52	1.59
33	L1	2587	G	O4'-C1'	-7.22	1.32	1.41
32	S1	1091	A	O3'-P	-7.22	1.52	1.61
32	S1	1703	G	C5'-C4'	7.22	1.60	1.51
33	L1	3183	G	O3'-P	-7.22	1.52	1.61
33	L1	2647	C	O3'-P	-7.22	1.52	1.61
60	Lr	59	HIS	N-CA	7.22	1.60	1.46
32	S1	824	U	O4'-C1'	7.22	1.51	1.41
32	S1	886	A	O4'-C1'	7.22	1.51	1.41
33	L1	1602	A	C4'-C3'	7.22	1.61	1.53
33	L1	1805	A	O4'-C1'	7.22	1.51	1.41
33	L1	2989	A	C2'-C1'	-7.22	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1006	A	O4'-C1'	7.21	1.51	1.41
33	L1	2394	G	O3'-P	-7.21	1.52	1.61
32	S1	1192	G	C2'-C1'	-7.21	1.45	1.53
33	L1	451	C	C2'-C1'	-7.21	1.45	1.53
34	L3	75	G	C2'-C1'	-7.21	1.45	1.53
32	S1	1269	G	C2'-C1'	7.21	1.61	1.53
25	SC	163	THR	N-CA	7.21	1.60	1.46
33	L1	2990	C	C2'-C1'	-7.21	1.45	1.53
33	L1	990	U	O4'-C1'	7.20	1.51	1.41
33	L1	1601	G	C2'-C1'	-7.20	1.45	1.53
33	L1	388	G	P-O5'	-7.20	1.52	1.59
33	L1	3125	G	O3'-P	-7.20	1.52	1.61
32	S1	773	U	O3'-P	-7.20	1.52	1.61
33	L1	1674	A	C3'-O3'	7.20	1.52	1.42
33	L1	1886	U	C4'-C3'	7.20	1.61	1.53
1	Sa	63	GLN	CD-OE1	7.20	1.39	1.24
32	S1	1318	U	O4'-C1'	7.20	1.51	1.41
33	L1	831	G	C3'-O3'	7.20	1.52	1.42
33	L1	1513	C	C5'-C4'	7.20	1.59	1.51
34	L3	118	C	O4'-C1'	7.20	1.51	1.41
32	S1	939	C	C2'-C1'	-7.20	1.45	1.53
32	S1	327	A	O4'-C1'	-7.19	1.32	1.41
32	S1	785	A	P-O5'	-7.19	1.52	1.59
32	S1	1001	C	O4'-C1'	7.19	1.51	1.41
33	L1	3313	C	C2'-C1'	-7.19	1.45	1.53
37	LB	247	ARG	CZ-NH2	7.19	1.42	1.33
32	S1	356	G	O3'-P	-7.19	1.52	1.61
33	L1	2648	G	O3'-P	-7.19	1.52	1.61
33	L1	2392	G	O4'-C1'	-7.19	1.32	1.41
32	S1	985	G	C2'-C1'	-7.18	1.45	1.53
49	LX	140	TYR	CE1-CZ	7.18	1.47	1.38
33	L1	2401	A	C5'-C4'	7.18	1.59	1.51
32	S1	954	C	C5'-C4'	7.18	1.59	1.51
33	L1	2358	C	C5'-C4'	7.18	1.59	1.51
33	L1	2654	G	C3'-C2'	7.18	1.60	1.52
35	L2	67	C	O3'-P	-7.18	1.52	1.61
33	L1	39	A	C2'-C1'	-7.18	1.45	1.53
33	L1	208	G	C2'-C1'	-7.18	1.45	1.53
33	L1	2224	A	O4'-C1'	-7.18	1.32	1.41
33	L1	1765	G	P-O5'	-7.17	1.52	1.59
33	L1	422	G	C2'-C1'	7.17	1.61	1.53
33	L1	3101	C	C5'-C4'	7.17	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1310	G	O3'-P	-7.17	1.52	1.61
34	L3	36	C	O4'-C1'	7.17	1.50	1.41
35	L2	88	C	C4'-O4'	7.17	1.54	1.45
32	S1	314	C	O4'-C1'	7.17	1.50	1.41
32	S1	605	A	C2'-C1'	7.17	1.61	1.53
33	L1	2107	A	C4'-C3'	-7.17	1.45	1.53
32	S1	562	U	C5'-C4'	7.17	1.59	1.51
35	L2	88	C	C5'-C4'	7.17	1.59	1.51
33	L1	1189	G	C5'-C4'	7.16	1.59	1.51
32	S1	1422	G	O4'-C1'	7.16	1.50	1.41
33	L1	84	A	C4'-C3'	7.16	1.61	1.53
33	L1	2390	G	C2'-C1'	-7.16	1.45	1.53
33	L1	746	C	P-O5'	-7.16	1.52	1.59
33	L1	2447	A	P-O5'	7.16	1.67	1.59
34	L3	89	G	C2'-C1'	-7.16	1.45	1.53
33	L1	126	G	C4'-C3'	7.16	1.61	1.53
10	SL	120	LYS	N-CA	7.16	1.60	1.46
32	S1	1171	C	O4'-C1'	7.16	1.50	1.41
33	L1	2770	U	C3'-O3'	7.16	1.52	1.42
32	S1	370	A	O4'-C1'	7.15	1.50	1.41
33	L1	2518	A	C4'-C3'	7.15	1.61	1.53
32	S1	892	A	C4'-C3'	7.15	1.61	1.53
33	L1	174	G	P-O5'	7.15	1.67	1.59
33	L1	3081	G	C3'-C2'	7.15	1.60	1.52
56	Lh	33	TRP	C-N	7.15	1.50	1.34
32	S1	677	C	C2'-C1'	-7.15	1.45	1.53
32	S1	19	A	C2'-C1'	7.15	1.61	1.53
32	S1	1317	A	O4'-C1'	-7.15	1.32	1.41
33	L1	1076	G	C2'-C1'	-7.15	1.45	1.53
33	L1	1299	G	O4'-C1'	7.15	1.50	1.41
33	L1	1428	G	O4'-C1'	-7.15	1.32	1.41
33	L1	1517	C	O4'-C1'	7.15	1.50	1.41
14	SP	78	SER	CA-CB	7.14	1.63	1.52
32	S1	382	A	C2'-C1'	7.14	1.61	1.53
33	L1	2500	U	C5'-C4'	7.14	1.59	1.51
33	L1	3080	U	C2'-C1'	7.14	1.61	1.53
33	L1	503	U	C2'-C1'	-7.14	1.45	1.53
33	L1	1263	A	C4'-C3'	7.14	1.61	1.53
33	L1	1954	G	O3'-P	-7.14	1.52	1.61
33	L1	2064	C	P-O5'	7.14	1.66	1.59
33	L1	3139	U	C2'-C1'	-7.14	1.45	1.53
32	S1	938	A	C4'-C3'	-7.14	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1495	G	C3'-O3'	7.14	1.52	1.42
33	L1	807	C	P-O5'	-7.14	1.52	1.59
32	S1	1386	U	P-O5'	7.14	1.66	1.59
33	L1	714	G	C2'-C1'	-7.14	1.45	1.53
33	L1	1213	G	P-O5'	-7.14	1.52	1.59
15	SS	44	ARG	CZ-NH2	7.13	1.42	1.33
33	L1	47	A	C2'-C1'	-7.13	1.45	1.53
33	L1	1680	A	O4'-C1'	7.13	1.50	1.41
32	S1	982	A	C2'-C1'	-7.13	1.45	1.53
32	S1	1479	U	C5'-C4'	7.13	1.59	1.51
35	L2	39	C	C2'-C1'	-7.13	1.45	1.53
32	S1	1716	C	O4'-C1'	7.13	1.50	1.41
33	L1	1947	U	O3'-P	-7.13	1.52	1.61
33	L1	484	C	C3'-C2'	7.12	1.60	1.52
32	S1	1203	G	P-O5'	-7.12	1.52	1.59
33	L1	612	U	C5'-C4'	7.12	1.59	1.51
33	L1	2418	A	C3'-O3'	7.12	1.52	1.42
33	L1	2674	A	C5'-C4'	7.12	1.59	1.51
32	S1	1124	G	C3'-C2'	7.12	1.60	1.52
32	S1	288	G	C2'-C1'	-7.12	1.45	1.53
32	S1	1249	G	P-O5'	-7.12	1.52	1.59
33	L1	793	C	C4'-O4'	-7.12	1.36	1.45
33	L1	1097	A	C3'-C2'	7.12	1.60	1.52
33	L1	434	C	C2'-C1'	-7.12	1.45	1.53
33	L1	3007	A	O4'-C1'	7.12	1.50	1.41
32	S1	221	U	C2'-C1'	-7.11	1.45	1.53
32	S1	1022	U	O4'-C1'	7.11	1.50	1.41
32	S1	1727	C	C4'-O4'	7.11	1.54	1.45
33	L1	1766	U	O3'-P	-7.11	1.52	1.61
33	L1	549	G	C4'-C3'	-7.11	1.45	1.53
33	L1	1960	C	C5'-C4'	7.11	1.59	1.51
38	LE	34	ARG	CG-CD	7.11	1.69	1.51
80	LC	70	LYS	CA-CB	7.11	1.69	1.53
33	L1	1057	A	C4'-C3'	-7.11	1.45	1.53
33	L1	2227	A	C5'-C4'	7.11	1.59	1.51
33	L1	2822	A	O4'-C1'	7.11	1.50	1.41
33	L1	3140	A	C4'-C3'	7.11	1.60	1.53
33	L1	860	G	O4'-C1'	-7.11	1.32	1.41
33	L1	2643	A	C5'-C4'	7.11	1.59	1.51
32	S1	1063	U	C4'-O4'	7.10	1.54	1.45
33	L1	1764	G	O3'-P	-7.10	1.52	1.61
32	S1	603	A	O4'-C1'	7.10	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1	U	O4'-C1'	-7.10	1.32	1.41
33	L1	509	G	P-O5'	-7.10	1.52	1.59
33	L1	654	C	O4'-C1'	7.10	1.50	1.41
33	L1	2108	C	O3'-P	-7.10	1.52	1.61
48	LV	131	TYR	CE2-CZ	7.10	1.47	1.38
32	S1	510	A	O4'-C1'	7.09	1.50	1.41
32	S1	39	A	C2'-C1'	-7.09	1.45	1.53
33	L1	182	C	O4'-C1'	7.09	1.50	1.41
33	L1	1207	A	P-O5'	-7.09	1.52	1.59
33	L1	1874	A	P-O5'	-7.09	1.52	1.59
33	L1	2334	G	O3'-P	-7.09	1.52	1.61
32	S1	1343	C	C2'-C1'	-7.09	1.45	1.53
33	L1	861	A	O4'-C1'	-7.09	1.32	1.41
66	LN	89	TRP	N-CA	7.08	1.60	1.46
33	L1	999	U	C2'-C1'	-7.08	1.45	1.53
33	L1	2248	G	O4'-C1'	-7.08	1.32	1.41
33	L1	2804	A	C2'-C1'	7.08	1.61	1.53
33	L1	1973	C	C2'-C1'	-7.08	1.45	1.53
32	S1	398	C	O3'-P	-7.08	1.52	1.61
32	S1	913	U	O4'-C1'	7.08	1.50	1.41
33	L1	2811	C	O3'-P	-7.08	1.52	1.61
33	L1	3094	C	P-O5'	-7.08	1.52	1.59
35	L2	141	G	C2'-C1'	-7.08	1.45	1.53
32	S1	1372	C	P-O5'	-7.08	1.52	1.59
32	S1	1724	U	O4'-C1'	7.08	1.50	1.41
42	LP	74	PRO	CA-CB	-7.08	1.39	1.53
33	L1	398	G	O3'-P	-7.08	1.52	1.61
33	L1	831	G	C5'-C4'	7.08	1.59	1.51
33	L1	9	C	P-O5'	-7.07	1.52	1.59
33	L1	541	C	C5'-C4'	7.07	1.59	1.51
33	L1	1407	G	P-O5'	-7.07	1.52	1.59
33	L1	1613	C	C2'-C1'	-7.07	1.45	1.53
33	L1	757	G	C2'-C1'	-7.07	1.45	1.53
33	L1	1370	A	C3'-O3'	7.07	1.52	1.42
32	S1	457	C	O4'-C1'	7.07	1.50	1.41
33	L1	70	A	C3'-C2'	7.07	1.60	1.52
34	L3	86	G	C2'-C1'	-7.07	1.45	1.53
60	Lr	89	LYS	CA-CB	7.07	1.69	1.53
32	S1	37	U	O4'-C1'	7.07	1.50	1.41
33	L1	959	U	C5'-C4'	7.07	1.59	1.51
32	S1	1763	A	C2'-C1'	-7.07	1.45	1.53
33	L1	3074	A	O4'-C1'	7.07	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	L3	107	C	O4'-C1'	7.07	1.50	1.41
33	L1	67	C	C2'-C1'	-7.07	1.45	1.53
33	L1	2063	U	O4'-C1'	7.07	1.50	1.41
33	L1	814	U	C3'-C2'	7.06	1.60	1.52
33	L1	2741	G	C2'-C1'	-7.06	1.45	1.53
33	L1	918	A	C4'-C3'	-7.06	1.45	1.53
33	L1	1119	G	O4'-C1'	-7.06	1.32	1.41
33	L1	2151	G	C5'-C4'	7.06	1.59	1.51
33	L1	1323	G	O4'-C1'	-7.06	1.32	1.41
33	L1	1742	G	O5'-C5'	-7.06	1.31	1.42
33	L1	2140	C	C2'-C1'	-7.06	1.45	1.53
10	SL	119	PHE	CA-C	7.06	1.71	1.52
33	L1	709	G	O4'-C1'	-7.06	1.32	1.41
68	LW	28	SER	CA-CB	7.06	1.63	1.52
33	L1	1422	G	C2'-C1'	7.06	1.61	1.53
33	L1	2207	C	C4'-C3'	7.06	1.60	1.53
33	L1	2474	A	C3'-O3'	7.06	1.52	1.42
33	L1	1896	A	O4'-C1'	-7.05	1.32	1.41
23	SU	81	ILE	CA-C	7.05	1.71	1.52
33	L1	15	C	C5'-C4'	7.05	1.59	1.51
33	L1	890	G	O4'-C1'	7.05	1.50	1.41
33	L1	3138	C	C2'-C1'	-7.05	1.45	1.53
32	S1	270	U	O4'-C1'	7.05	1.50	1.41
33	L1	671	C	C5'-C4'	7.05	1.59	1.51
33	L1	1620	U	O3'-P	-7.05	1.52	1.61
33	L1	3234	G	C5'-C4'	7.05	1.59	1.51
33	L1	804	A	C2'-C1'	-7.05	1.45	1.53
33	L1	3358	A	C2'-C1'	-7.05	1.45	1.53
29	ST	1	MET	N-CA	7.05	1.60	1.46
32	S1	1326	A	C4'-O4'	-7.05	1.36	1.45
33	L1	1112	C	C5'-C4'	7.05	1.59	1.51
33	L1	1201	C	C2'-C1'	7.05	1.61	1.53
33	L1	2069	G	O4'-C1'	7.05	1.50	1.41
33	L1	2996	A	C4'-C3'	7.05	1.60	1.53
33	L1	537	U	O4'-C1'	7.04	1.50	1.41
33	L1	1598	U	O3'-P	-7.04	1.52	1.61
32	S1	1778	G	C2'-C1'	-7.04	1.45	1.53
33	L1	1154	U	O4'-C1'	7.04	1.50	1.41
33	L1	857	G	O3'-P	-7.04	1.52	1.61
33	L1	2132	A	P-O5'	-7.04	1.52	1.59
32	S1	889	C	C2'-C1'	-7.04	1.45	1.53
32	S1	308	U	C2'-C1'	-7.04	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1114	A	C4'-C3'	7.04	1.60	1.53
33	L1	3044	C	O4'-C1'	7.04	1.50	1.41
32	S1	1429	U	O4'-C1'	7.03	1.50	1.41
33	L1	448	G	O4'-C1'	7.03	1.50	1.41
33	L1	1603	U	O3'-P	-7.03	1.52	1.61
33	L1	1562	A	O3'-P	-7.03	1.52	1.61
67	LS	28	ARG	CD-NE	7.03	1.58	1.46
31	S2	21	A	C3'-O3'	7.03	1.51	1.42
33	L1	582	C	P-O5'	-7.03	1.52	1.59
33	L1	1670	G	C5'-C4'	7.03	1.59	1.51
31	S2	50	G	P-O5'	-7.03	1.52	1.59
32	S1	633	U	P-O5'	-7.03	1.52	1.59
33	L1	538	C	C2'-C1'	7.03	1.61	1.53
33	L1	575	C	P-O5'	-7.03	1.52	1.59
33	L1	875	A	O3'-P	-7.03	1.52	1.61
33	L1	2260	C	C2'-C1'	-7.03	1.45	1.53
35	L2	23	A	C4'-C3'	7.03	1.60	1.53
32	S1	772	C	P-O5'	-7.03	1.52	1.59
33	L1	2102	C	C2'-C1'	-7.03	1.45	1.53
39	LF	95	TYR	CZ-OH	7.03	1.49	1.37
32	S1	986	U	O4'-C1'	7.02	1.50	1.41
33	L1	1595	G	C2'-C1'	-7.02	1.45	1.53
32	S1	974	C	C2'-C1'	7.02	1.61	1.53
33	L1	2716	U	O3'-P	-7.02	1.52	1.61
33	L1	5	G	O4'-C1'	7.02	1.50	1.41
33	L1	268	U	O4'-C1'	7.02	1.50	1.41
4	SD	151	ASP	CA-CB	7.02	1.69	1.53
32	S1	1495	U	C4'-C3'	-7.02	1.45	1.53
80	LC	10	ARG	CD-NE	7.02	1.58	1.46
32	S1	370	A	C2'-C1'	-7.02	1.45	1.53
32	S1	1204	G	C2'-C1'	7.02	1.61	1.53
33	L1	3109	G	C2'-C1'	-7.02	1.45	1.53
32	S1	64	U	C2'-C1'	-7.01	1.45	1.53
32	S1	1780	U	C2'-C1'	-7.01	1.45	1.53
33	L1	1808	G	C2'-C1'	7.01	1.61	1.53
33	L1	2103	U	P-O5'	-7.01	1.52	1.59
33	L1	2222	C	C4'-C3'	7.01	1.60	1.53
33	L1	2838	C	C3'-C2'	7.01	1.60	1.52
32	S1	775	A	C3'-O3'	7.01	1.51	1.42
32	S1	1236	U	C5'-C4'	7.01	1.59	1.51
33	L1	2594	A	P-O5'	-7.01	1.52	1.59
32	S1	1435	G	C4'-C3'	-7.01	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1577	A	O4'-C1'	-7.01	1.32	1.41
34	L3	2	G	O4'-C1'	-7.01	1.32	1.41
32	S1	1776	A	O4'-C1'	7.00	1.50	1.41
33	L1	3372	C	P-OP2	7.00	1.60	1.49
33	L1	2502	U	C4'-O4'	7.00	1.54	1.45
33	L1	3337	G	C4'-O4'	7.00	1.54	1.45
35	L2	29	G	C5'-C4'	7.00	1.59	1.51
35	L2	60	G	C4'-O4'	7.00	1.54	1.45
33	L1	843	C	C5'-C4'	7.00	1.59	1.51
33	L1	1571	A	C2'-C1'	7.00	1.61	1.53
33	L1	2877	U	C2'-C1'	-7.00	1.45	1.53
33	L1	3081	G	C5'-C4'	7.00	1.59	1.51
33	L1	1895	G	C4'-C3'	7.00	1.60	1.53
33	L1	1914	C	P-O5'	-7.00	1.52	1.59
27	SH	121	VAL	C-N	6.99	1.45	1.33
32	S1	1561	G	C2'-C1'	6.99	1.61	1.53
33	L1	642	C	C4'-C3'	-6.99	1.45	1.53
33	L1	2247	A	C4'-O4'	6.99	1.54	1.45
33	L1	3167	G	C2'-C1'	6.99	1.61	1.53
45	LQ	238	SER	C-O	-6.99	1.10	1.23
4	SD	132	GLY	CA-C	6.99	1.63	1.51
32	S1	887	U	O3'-P	-6.99	1.52	1.61
33	L1	559	U	P-O5'	-6.99	1.52	1.59
33	L1	902	U	C4'-C3'	6.99	1.60	1.53
33	L1	680	G	C2'-C1'	-6.99	1.45	1.53
33	L1	1323	G	C5'-C4'	6.99	1.59	1.51
33	L1	2353	C	C2'-C1'	-6.99	1.45	1.53
33	L1	3144	U	C3'-C2'	6.99	1.60	1.52
32	S1	1587	G	C2'-C1'	-6.99	1.45	1.53
33	L1	791	C	C2'-C1'	-6.99	1.45	1.53
33	L1	1198	G	O4'-C1'	-6.99	1.32	1.41
66	LN	64	ARG	CD-NE	-6.99	1.34	1.46
33	L1	207	U	C5'-C4'	6.99	1.59	1.51
32	S1	522	A	C5'-C4'	6.99	1.59	1.51
32	S1	856	G	C2'-C1'	-6.99	1.45	1.53
32	S1	1290	U	C4'-C3'	-6.99	1.45	1.53
34	L3	26	C	C4'-C3'	6.99	1.60	1.53
70	Li	108	LYS	N-CA	6.98	1.60	1.46
33	L1	2887	C	C4'-C3'	-6.98	1.45	1.53
32	S1	1157	A	C2'-C1'	6.98	1.61	1.53
33	L1	2756	G	O4'-C1'	-6.98	1.32	1.41
33	L1	1726	G	O3'-P	-6.98	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2226	C	P-O5'	-6.98	1.52	1.59
33	L1	3293	U	C5'-C4'	6.98	1.59	1.51
32	S1	944	A	C2'-C1'	-6.98	1.45	1.53
32	S1	1459	G	O4'-C1'	-6.98	1.32	1.41
33	L1	227	C	C3'-C2'	6.98	1.60	1.52
33	L1	207	U	C4'-C3'	6.98	1.60	1.53
32	S1	1135	G	C4'-O4'	-6.97	1.36	1.45
33	L1	754	G	O4'-C1'	-6.97	1.32	1.41
33	L1	1892	A	C5'-C4'	6.97	1.59	1.51
33	L1	2547	C	C2'-C1'	-6.97	1.45	1.53
32	S1	625	A	C3'-O3'	6.97	1.51	1.42
33	L1	2361	C	O4'-C1'	-6.97	1.32	1.41
33	L1	2993	A	O3'-P	-6.97	1.52	1.61
32	S1	88	C	C2'-C1'	-6.97	1.45	1.53
32	S1	1450	A	O4'-C1'	-6.97	1.32	1.41
33	L1	1345	U	C5'-C4'	6.97	1.59	1.51
33	L1	1905	A	O4'-C1'	6.97	1.50	1.41
33	L1	228	C	C2'-C1'	6.96	1.61	1.53
33	L1	925	U	C5'-C4'	6.96	1.59	1.51
33	L1	1343	C	C4'-C3'	6.96	1.60	1.53
33	L1	3027	G	O4'-C1'	6.96	1.50	1.41
35	L2	22	U	O3'-P	-6.96	1.52	1.61
5	SE	173	SER	CA-CB	6.96	1.63	1.52
33	L1	1110	C	O4'-C1'	6.96	1.50	1.41
32	S1	1662	G	C2'-C1'	-6.96	1.45	1.53
33	L1	1403	G	O4'-C1'	6.96	1.50	1.41
33	L1	1099	G	O3'-P	-6.96	1.52	1.61
33	L1	601	G	C2'-C1'	-6.96	1.45	1.53
33	L1	3308	A	P-O5'	-6.96	1.52	1.59
33	L1	3049	A	O4'-C1'	6.96	1.50	1.41
35	L2	68	U	P-O5'	-6.96	1.52	1.59
27	SH	120	ASN	N-CA	-6.95	1.32	1.46
32	S1	509	A	C5'-C4'	6.95	1.59	1.51
33	L1	181	G	C2'-C1'	-6.95	1.45	1.53
33	L1	1714	A	O4'-C1'	6.95	1.50	1.41
33	L1	2641	A	O4'-C1'	6.95	1.50	1.41
33	L1	218	G	O3'-P	-6.95	1.52	1.61
33	L1	2191	C	C2'-C1'	-6.95	1.45	1.53
33	L1	2337	C	O4'-C1'	6.95	1.50	1.41
33	L1	3217	G	C2'-C1'	6.95	1.60	1.53
35	L2	164	C	O4'-C1'	6.95	1.50	1.41
33	L1	2873	G	C2'-C1'	-6.95	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3	G	C2'-C1'	-6.95	1.45	1.53
33	L1	2807	G	C4'-C3'	6.94	1.60	1.53
33	L1	2801	A	C2'-C1'	-6.94	1.45	1.53
33	L1	2875	U	C3'-C2'	6.94	1.60	1.52
80	LC	352	ARG	CA-CB	6.94	1.69	1.53
32	S1	620	G	C2'-C1'	-6.94	1.45	1.53
33	L1	1245	U	O4'-C1'	-6.94	1.32	1.41
33	L1	1478	A	C2'-C1'	6.94	1.60	1.53
33	L1	1912	U	P-O5'	-6.94	1.52	1.59
52	Lb	87	TYR	CG-CD1	6.94	1.48	1.39
32	S1	1184	C	C4'-C3'	6.94	1.60	1.53
32	S1	1541	C	P-O5'	-6.94	1.52	1.59
32	S1	1755	G	P-O5'	6.94	1.66	1.59
33	L1	1714	A	C4'-C3'	6.94	1.60	1.53
11	SM	33	ILE	CA-C	-6.94	1.34	1.52
33	L1	1755	A	O3'-P	-6.93	1.52	1.61
33	L1	3270	C	C5'-C4'	6.93	1.59	1.51
32	S1	255	U	C2'-C1'	-6.93	1.45	1.53
32	S1	399	U	C4'-C3'	6.93	1.60	1.53
35	L2	13	G	O4'-C1'	-6.93	1.32	1.41
35	L2	150	G	O3'-P	-6.93	1.52	1.61
32	S1	233	U	O4'-C1'	6.93	1.50	1.41
33	L1	1590	A	O4'-C1'	6.93	1.50	1.41
33	L1	2987	C	C2'-C1'	-6.93	1.45	1.53
10	SL	85	PRO	N-CD	-6.92	1.38	1.47
31	S2	3	C	C2'-C1'	-6.92	1.45	1.53
32	S1	316	A	P-O5'	6.92	1.66	1.59
32	S1	557	G	C2'-C1'	-6.92	1.45	1.53
32	S1	916	U	O4'-C1'	-6.92	1.32	1.41
33	L1	2201	G	O3'-P	-6.92	1.52	1.61
33	L1	3041	A	O4'-C1'	-6.92	1.32	1.41
32	S1	904	G	O4'-C1'	6.92	1.50	1.41
33	L1	688	G	O4'-C1'	6.92	1.50	1.41
32	S1	1640	C	C2'-C1'	-6.92	1.45	1.53
32	S1	1689	A	C2'-C1'	-6.92	1.45	1.53
32	S1	581	G	O3'-P	-6.92	1.52	1.61
33	L1	1389	C	P-O5'	-6.92	1.52	1.59
32	S1	775	A	C4'-C3'	-6.92	1.45	1.53
33	L1	2635	G	C2'-C1'	-6.92	1.45	1.53
33	L1	2872	C	P-O5'	-6.92	1.52	1.59
33	L1	3308	A	C2'-C1'	-6.92	1.45	1.53
34	L3	14	C	C3'-C2'	-6.92	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2877	U	P-O5'	-6.92	1.52	1.59
51	LY	15	ARG	CD-NE	6.92	1.58	1.46
8	SJ	30	ARG	NE-CZ	6.92	1.42	1.33
33	L1	2756	G	C3'-O3'	6.92	1.51	1.42
33	L1	3326	U	C4'-C3'	6.92	1.60	1.53
33	L1	341	U	O4'-C1'	-6.91	1.32	1.41
33	L1	821	C	O4'-C1'	6.91	1.50	1.41
33	L1	2674	A	C2'-C1'	6.91	1.60	1.53
33	L1	1254	A	C3'-C2'	-6.91	1.45	1.52
33	L1	2799	U	O3'-P	-6.91	1.52	1.61
32	S1	602	U	O3'-P	-6.91	1.52	1.61
33	L1	2737	A	O4'-C1'	6.91	1.50	1.41
33	L1	3346	C	C2'-C1'	-6.91	1.45	1.53
32	S1	1318	U	C2'-C1'	-6.91	1.45	1.53
31	S2	57	A	P-O5'	-6.91	1.52	1.59
32	S1	364	A	C5'-C4'	6.91	1.59	1.51
33	L1	2646	A	C4'-O4'	-6.91	1.36	1.45
33	L1	249	A	C4'-C3'	-6.90	1.45	1.53
32	S1	1304	A	O4'-C1'	-6.90	1.32	1.41
33	L1	108	A	P-O5'	-6.90	1.52	1.59
33	L1	1118	G	O4'-C1'	6.90	1.50	1.41
33	L1	1773	U	C2'-C1'	-6.90	1.45	1.53
33	L1	2767	C	C2'-C1'	-6.90	1.45	1.53
33	L1	2865	G	O3'-P	-6.90	1.52	1.61
35	L2	155	G	C3'-C2'	6.90	1.60	1.52
13	SQ	95	GLU	N-CA	6.90	1.60	1.46
33	L1	82	C	O4'-C1'	6.90	1.50	1.41
33	L1	1602	A	C2'-C1'	6.90	1.60	1.53
33	L1	2602	U	C3'-O3'	6.90	1.51	1.42
33	L1	1953	C	C3'-C2'	6.90	1.60	1.52
33	L1	2808	U	C3'-O3'	6.90	1.51	1.42
32	S1	1679	A	O4'-C1'	6.89	1.50	1.41
33	L1	123	U	C2'-C1'	-6.89	1.45	1.53
33	L1	915	G	O4'-C1'	-6.89	1.32	1.41
33	L1	1990	A	O4'-C1'	6.89	1.50	1.41
33	L1	2702	G	C2'-C1'	-6.89	1.45	1.53
33	L1	209	G	C3'-O3'	6.89	1.51	1.42
32	S1	28	A	O4'-C1'	6.89	1.50	1.41
33	L1	343	G	C4'-C3'	6.89	1.60	1.53
33	L1	358	G	C2'-C1'	-6.89	1.45	1.53
33	L1	1388	C	C4'-C3'	6.89	1.60	1.53
33	L1	1752	C	P-O5'	-6.89	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2275	A	C5'-C4'	6.89	1.59	1.51
33	L1	3343	U	O4'-C1'	6.89	1.50	1.41
45	LQ	116	LEU	N-CA	6.89	1.60	1.46
31	S2	15	A	C3'-O3'	6.89	1.51	1.42
33	L1	1530	C	C4'-C3'	6.89	1.60	1.53
32	S1	101	A	O4'-C1'	6.89	1.50	1.41
33	L1	839	A	C2'-C1'	6.89	1.60	1.53
33	L1	1656	C	C2'-C1'	-6.89	1.45	1.53
33	L1	2501	U	P-O5'	-6.89	1.52	1.59
32	S1	1044	A	C2'-C1'	-6.88	1.45	1.53
33	L1	392	C	O4'-C1'	6.88	1.50	1.41
77	Lc	98	PRO	CA-CB	-6.88	1.39	1.53
31	S2	48	C	C4'-C3'	6.88	1.60	1.53
33	L1	1365	C	O4'-C1'	6.88	1.50	1.41
32	S1	452	C	O4'-C1'	6.88	1.50	1.41
33	L1	633	C	C2'-C1'	-6.88	1.45	1.53
33	L1	1288	C	O4'-C1'	6.88	1.50	1.41
33	L1	1342	C	C3'-O3'	6.88	1.51	1.42
33	L1	1680	A	C2'-C1'	6.88	1.60	1.53
33	L1	2877	U	C4'-C3'	6.88	1.60	1.53
13	SQ	21	TYR	CA-CB	6.88	1.69	1.53
32	S1	1749	C	O4'-C1'	6.87	1.50	1.41
33	L1	2841	G	C5'-C4'	6.87	1.59	1.51
33	L1	62	A	O3'-P	-6.87	1.52	1.61
33	L1	1933	U	O4'-C1'	6.87	1.50	1.41
35	L2	110	C	C5'-C4'	6.87	1.59	1.51
33	L1	400	G	C3'-C2'	6.87	1.60	1.52
33	L1	908	U	O3'-P	-6.87	1.52	1.61
33	L1	2456	G	O4'-C1'	6.87	1.50	1.41
32	S1	313	C	C3'-O3'	6.86	1.51	1.42
32	S1	1650	G	O4'-C1'	6.86	1.50	1.41
33	L1	382	A	C2'-C1'	6.86	1.60	1.53
33	L1	3152	C	C5'-C4'	6.86	1.59	1.51
32	S1	286	C	C2'-C1'	-6.86	1.45	1.53
32	S1	379	U	C3'-O3'	6.86	1.51	1.42
33	L1	527	G	C2'-C1'	-6.86	1.45	1.53
77	Lc	57	ARG	CZ-NH1	6.86	1.42	1.33
33	L1	1905	A	C3'-O3'	6.86	1.51	1.42
33	L1	2123	C	O4'-C1'	6.86	1.50	1.41
33	L1	2696	C	C3'-O3'	6.86	1.51	1.42
32	S1	179	A	C2'-C1'	-6.86	1.45	1.53
32	S1	368	A	O4'-C1'	6.86	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1858	U	O4'-C1'	6.86	1.50	1.41
33	L1	2222	C	O4'-C1'	6.86	1.50	1.41
33	L1	350	A	C4'-O4'	6.85	1.54	1.45
32	S1	1421	U	O4'-C1'	6.85	1.50	1.41
33	L1	1049	C	O4'-C1'	6.85	1.50	1.41
33	L1	1504	U	C3'-C2'	6.85	1.60	1.52
33	L1	2711	U	O3'-P	-6.85	1.52	1.61
33	L1	3376	C	O4'-C1'	6.85	1.50	1.41
72	Lk	68	LYS	CB-CG	-6.85	1.34	1.52
31	S2	15	A	C4'-C3'	-6.85	1.45	1.53
32	S1	1142	A	P-O5'	-6.85	1.52	1.59
33	L1	2626	G	P-O5'	6.85	1.66	1.59
34	L3	92	C	O4'-C1'	6.85	1.50	1.41
15	SS	14	PRO	CA-CB	-6.85	1.39	1.53
32	S1	329	G	C2'-C1'	6.84	1.60	1.53
33	L1	1731	A	C4'-C3'	6.84	1.60	1.53
33	L1	1890	C	O4'-C1'	6.84	1.50	1.41
33	L1	714	G	O4'-C1'	-6.84	1.32	1.41
32	S1	1479	U	O4'-C1'	-6.84	1.32	1.41
33	L1	2140	C	O3'-P	-6.84	1.52	1.61
33	L1	2368	G	C2'-C1'	-6.84	1.45	1.53
32	S1	1149	U	O4'-C1'	6.84	1.50	1.41
33	L1	911	G	C2'-C1'	6.84	1.60	1.53
35	L2	31	U	P-O5'	-6.84	1.52	1.59
33	L1	790	G	C2'-C1'	-6.84	1.45	1.53
68	LW	88	LEU	CA-CB	-6.84	1.38	1.53
33	L1	518	G	C3'-C2'	-6.83	1.45	1.52
33	L1	2167	G	O4'-C1'	-6.83	1.32	1.41
33	L1	1086	U	O4'-C1'	6.83	1.50	1.41
33	L1	1811	U	C3'-C2'	6.83	1.60	1.52
33	L1	3215	U	C5'-C4'	6.83	1.59	1.51
33	L1	1792	G	O4'-C1'	6.83	1.50	1.41
32	S1	1344	U	O4'-C1'	6.83	1.50	1.41
33	L1	1496	G	O3'-P	-6.83	1.52	1.61
33	L1	2470	C	O4'-C1'	6.83	1.50	1.41
32	S1	1265	A	C5'-C4'	6.82	1.59	1.51
35	L2	157	C	C2'-C1'	-6.82	1.45	1.53
48	LV	170	LYS	C-O	-6.82	1.10	1.23
32	S1	1353	G	C5'-C4'	6.82	1.59	1.51
33	L1	584	G	C2'-O2'	-6.82	1.32	1.41
32	S1	1331	C	C2'-C1'	6.82	1.60	1.53
33	L1	1472	C	C2'-C1'	-6.82	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2104	G	O4'-C1'	6.82	1.50	1.41
33	L1	2658	U	C4'-C3'	6.82	1.60	1.53
33	L1	2601	G	C2'-C1'	-6.82	1.45	1.53
69	La	28	VAL	C-N	6.82	1.49	1.34
33	L1	328	G	C2'-C1'	-6.81	1.45	1.53
35	L2	21	A	O4'-C1'	-6.81	1.32	1.41
33	L1	595	C	O4'-C1'	6.81	1.50	1.41
33	L1	3299	A	C3'-O3'	6.81	1.51	1.42
33	L1	3339	G	O3'-P	-6.81	1.52	1.61
7	SI	126	ASP	CA-CB	6.81	1.69	1.53
32	S1	372	U	C2'-C1'	-6.81	1.45	1.53
32	S1	1132	G	C2'-C1'	-6.81	1.45	1.53
33	L1	961	C	O4'-C1'	6.81	1.50	1.41
33	L1	3176	C	C3'-O3'	6.81	1.51	1.42
32	S1	361	G	C2'-C1'	6.81	1.60	1.53
33	L1	839	A	O3'-P	-6.81	1.52	1.61
33	L1	1571	A	O4'-C1'	-6.81	1.32	1.41
33	L1	1786	G	O4'-C1'	6.81	1.50	1.41
33	L1	2376	G	P-O5'	-6.81	1.52	1.59
33	L1	905	G	P-O5'	-6.81	1.52	1.59
32	S1	397	C	P-O5'	-6.80	1.52	1.59
32	S1	390	G	O4'-C1'	6.80	1.50	1.41
33	L1	1637	G	P-O5'	6.80	1.66	1.59
25	SC	25	ARG	CD-NE	6.80	1.58	1.46
32	S1	1432	C	C2'-C1'	6.80	1.60	1.53
33	L1	896	C	C4'-C3'	6.80	1.60	1.53
33	L1	1953	C	P-O5'	-6.80	1.52	1.59
33	L1	2243	C	C2'-C1'	-6.80	1.45	1.53
33	L1	2622	G	O3'-P	-6.80	1.52	1.61
33	L1	1176	U	C5'-C4'	6.80	1.59	1.51
33	L1	1214	U	O4'-C1'	6.80	1.50	1.41
31	S2	9	A	O3'-P	-6.80	1.52	1.61
33	L1	1835	A	O4'-C1'	6.79	1.50	1.41
33	L1	3296	C	O4'-C1'	-6.79	1.32	1.41
34	L3	29	C	O4'-C1'	6.79	1.50	1.41
68	LW	14	GLY	N-CA	6.79	1.56	1.46
69	La	8	GLY	N-CA	6.79	1.56	1.46
33	L1	2661	G	O4'-C1'	-6.79	1.32	1.41
32	S1	385	C	C2'-C1'	-6.79	1.45	1.53
32	S1	776	A	O3'-P	-6.79	1.52	1.61
34	L3	49	A	C5'-C4'	6.79	1.59	1.51
33	L1	2344	A	O4'-C1'	-6.79	1.32	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1079	G	C2'-C1'	-6.79	1.45	1.53
33	L1	959	U	P-O5'	-6.79	1.52	1.59
32	S1	491	G	O3'-P	-6.79	1.53	1.61
32	S1	717	G	P-O5'	-6.79	1.52	1.59
33	L1	1043	U	P-O5'	-6.79	1.52	1.59
33	L1	2727	U	C5'-C4'	6.79	1.59	1.51
34	L3	26	C	P-O5'	6.79	1.66	1.59
32	S1	777	A	P-O5'	-6.78	1.52	1.59
33	L1	3127	C	O4'-C1'	6.78	1.50	1.41
11	SM	92	ASP	CA-C	-6.78	1.35	1.52
33	L1	309	C	C3'-O3'	6.78	1.51	1.42
4	SD	213	ALA	N-CA	-6.78	1.32	1.46
33	L1	149	A	O3'-P	-6.78	1.53	1.61
33	L1	639	A	O4'-C1'	6.78	1.50	1.41
32	S1	409	C	C3'-C2'	-6.78	1.45	1.52
32	S1	1583	G	O4'-C1'	-6.78	1.32	1.41
33	L1	1504	U	C2'-C1'	-6.77	1.45	1.53
32	S1	1664	U	C5'-C4'	6.77	1.59	1.51
33	L1	1882	A	C5'-C4'	6.77	1.59	1.51
33	L1	2750	A	O4'-C1'	6.77	1.50	1.41
32	S1	1319	U	C4'-O4'	6.77	1.54	1.45
33	L1	2999	G	C4'-O4'	6.77	1.54	1.45
45	LQ	117	ASP	N-CA	6.77	1.59	1.46
32	S1	1158	G	C2'-C1'	-6.77	1.46	1.53
33	L1	820	A	C4'-C3'	6.77	1.60	1.53
33	L1	1119	G	O3'-P	-6.77	1.53	1.61
37	LB	209	HIS	C-N	6.77	1.47	1.34
31	S2	70	G	C2'-C1'	-6.77	1.46	1.53
32	S1	301	U	C2'-C1'	-6.77	1.46	1.53
33	L1	1529	C	P-O5'	-6.77	1.52	1.59
33	L1	2202	A	C3'-C2'	-6.77	1.45	1.52
71	Lj	12	TYR	C-O	-6.77	1.10	1.23
32	S1	1586	U	P-O5'	-6.76	1.52	1.59
33	L1	1830	U	C3'-C2'	-6.76	1.45	1.52
33	L1	2616	U	P-O5'	-6.76	1.52	1.59
33	L1	2562	A	C5'-C4'	6.76	1.59	1.51
33	L1	3208	G	C4'-C3'	6.76	1.60	1.53
81	LD	367	SER	CB-OG	-6.76	1.33	1.42
3	SB	35	SER	CA-CB	6.76	1.63	1.52
33	L1	915	G	C5'-C4'	-6.76	1.43	1.51
33	L1	2237	A	C3'-C2'	6.76	1.60	1.52
33	L1	2320	A	C2'-C1'	-6.76	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3002	U	O4'-C1'	-6.76	1.32	1.41
32	S1	1072	U	O3'-P	-6.76	1.53	1.61
33	L1	2859	C	O4'-C1'	6.76	1.50	1.41
35	L2	151	C	C2'-C1'	-6.76	1.46	1.53
33	L1	3144	U	C4'-C3'	6.76	1.60	1.53
25	SC	80	ARG	NE-CZ	6.75	1.41	1.33
32	S1	1313	G	C2'-C1'	6.75	1.60	1.53
66	LN	21	TYR	CE2-CZ	6.75	1.47	1.38
33	L1	1801	G	O3'-P	-6.75	1.53	1.61
33	L1	343	G	C3'-C2'	-6.75	1.45	1.52
33	L1	667	C	P-O5'	-6.75	1.52	1.59
33	L1	1601	G	O4'-C1'	6.75	1.50	1.41
33	L1	453	U	O4'-C1'	6.75	1.50	1.41
33	L1	252	A	C4'-C3'	6.75	1.60	1.53
33	L1	418	G	C2'-C1'	-6.75	1.46	1.53
33	L1	667	C	C2'-C1'	6.75	1.60	1.53
57	L1	11	ARG	CA-CB	6.75	1.68	1.53
32	S1	616	U	C2'-C1'	6.75	1.60	1.53
33	L1	2856	U	O4'-C1'	-6.75	1.32	1.41
32	S1	1325	A	C5'-C4'	6.74	1.59	1.51
32	S1	1378	C	C2'-C1'	6.74	1.60	1.53
33	L1	2721	C	C3'-O3'	6.74	1.51	1.42
25	SC	44	LEU	C-O	-6.74	1.10	1.23
33	L1	1462	C	O4'-C1'	6.74	1.50	1.41
33	L1	2010	G	C2'-C1'	-6.74	1.46	1.53
32	S1	1278	C	C2'-C1'	6.74	1.60	1.53
33	L1	467	C	C5'-C4'	6.74	1.59	1.51
32	S1	1594	A	C2'-C1'	-6.74	1.46	1.53
33	L1	861	A	C4'-C3'	6.74	1.60	1.53
33	L1	949	C	P-O5'	-6.74	1.53	1.59
32	S1	658	C	C2'-C1'	-6.74	1.46	1.53
33	L1	275	G	O3'-P	-6.74	1.53	1.61
33	L1	1913	C	C3'-C2'	6.74	1.60	1.52
10	SL	120	LYS	CA-C	6.73	1.70	1.52
33	L1	3223	C	C2'-C1'	-6.73	1.46	1.53
33	L1	1899	U	C3'-C2'	6.73	1.60	1.52
32	S1	590	G	O4'-C1'	-6.73	1.32	1.41
32	S1	1495	U	C3'-O3'	6.73	1.51	1.42
31	S2	68	C	P-O5'	6.73	1.66	1.59
33	L1	1193	A	C3'-O3'	6.73	1.51	1.42
33	L1	1880	A	C2'-O2'	6.72	1.50	1.41
32	S1	1716	C	C5'-C4'	6.72	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	87	A	C5'-C4'	6.72	1.59	1.51
33	L1	1955	G	C5'-C4'	6.72	1.59	1.51
33	L1	2676	A	O3'-P	-6.72	1.53	1.61
43	LO	19	HIS	C-N	6.72	1.45	1.33
32	S1	1199	C	C2'-C1'	-6.72	1.46	1.53
33	L1	1063	G	C2'-C1'	-6.72	1.46	1.53
33	L1	3218	C	O3'-P	-6.72	1.53	1.61
33	L1	915	G	C4'-C3'	6.72	1.60	1.53
31	S2	46	A	O3'-P	-6.72	1.53	1.61
32	S1	1696	C	C2'-C1'	-6.72	1.46	1.53
33	L1	959	U	O4'-C1'	6.72	1.50	1.41
33	L1	3348	G	C2'-C1'	6.72	1.60	1.53
31	S2	47	U	O3'-P	-6.71	1.53	1.61
33	L1	3236	A	O3'-P	6.71	1.69	1.61
33	L1	2253	U	O4'-C1'	6.71	1.50	1.41
33	L1	2933	C	C4'-O4'	6.71	1.54	1.45
33	L1	3006	G	C4'-O4'	6.71	1.54	1.45
33	L1	518	G	C4'-C3'	6.71	1.60	1.53
33	L1	1275	A	C2'-C1'	6.71	1.60	1.53
33	L1	1946	C	O4'-C1'	6.71	1.50	1.41
33	L1	2668	U	C4'-C3'	6.71	1.60	1.53
34	L3	27	A	O4'-C1'	6.71	1.50	1.41
33	L1	1275	A	P-O5'	-6.71	1.53	1.59
33	L1	3004	G	O3'-P	-6.71	1.53	1.61
33	L1	73	A	C4'-C3'	6.71	1.60	1.53
33	L1	364	A	C2'-C1'	-6.71	1.46	1.53
33	L1	1886	U	P-O5'	-6.71	1.53	1.59
33	L1	3342	C	C2'-C1'	-6.71	1.46	1.53
32	S1	159	U	C2'-C1'	-6.71	1.46	1.53
33	L1	26	A	C2'-C1'	-6.71	1.46	1.53
32	S1	2	A	C4'-O4'	6.70	1.54	1.45
32	S1	1412	A	O4'-C1'	6.70	1.50	1.41
32	S1	1716	C	C3'-O3'	6.70	1.51	1.42
33	L1	2739	A	O3'-P	-6.70	1.53	1.61
77	Lc	40	SER	CA-CB	6.70	1.63	1.52
33	L1	1679	U	C3'-O3'	6.70	1.51	1.42
1	Sa	177	SER	CB-OG	-6.70	1.33	1.42
32	S1	915	C	C3'-C2'	-6.70	1.45	1.52
32	S1	1225	A	C3'-O3'	-6.70	1.32	1.42
33	L1	2452	U	C2'-C1'	6.70	1.60	1.53
33	L1	3295	G	O4'-C1'	-6.70	1.32	1.41
32	S1	1143	A	C2'-C1'	6.70	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1340	A	O4'-C1'	6.70	1.50	1.41
32	S1	1553	A	C5'-C4'	6.70	1.59	1.51
33	L1	2530	G	O4'-C1'	-6.70	1.32	1.41
31	S2	44	A	O4'-C1'	-6.69	1.32	1.41
32	S1	1160	G	C5'-C4'	6.69	1.59	1.51
33	L1	405	A	O4'-C1'	6.69	1.50	1.41
33	L1	2568	G	C2'-C1'	6.69	1.60	1.53
33	L1	2786	G	C5'-C4'	6.69	1.59	1.51
32	S1	976	A	C3'-C2'	-6.69	1.45	1.52
32	S1	1058	G	P-O5'	-6.69	1.53	1.59
32	S1	1655	U	O4'-C1'	6.69	1.50	1.41
33	L1	3382	A	O4'-C1'	-6.69	1.32	1.41
32	S1	412	C	C2'-C1'	-6.69	1.46	1.53
33	L1	294	A	C5'-C4'	6.69	1.59	1.51
33	L1	593	G	P-O5'	6.69	1.66	1.59
32	S1	188	U	O3'-P	-6.69	1.53	1.61
32	S1	856	G	O3'-P	-6.69	1.53	1.61
33	L1	364	A	C4'-C3'	-6.69	1.45	1.53
32	S1	493	C	P-O5'	-6.68	1.53	1.59
33	L1	328	G	C4'-C3'	6.68	1.60	1.53
33	L1	410	G	C3'-C2'	6.68	1.60	1.52
33	L1	1906	A	C5'-C4'	6.68	1.59	1.51
33	L1	3124	A	C5'-C4'	6.68	1.59	1.51
33	L1	3156	G	C3'-C2'	-6.68	1.45	1.52
31	S2	18	G	O3'-P	-6.68	1.53	1.61
33	L1	2065	G	C5'-C4'	6.68	1.59	1.51
33	L1	2646	A	C2'-C1'	6.68	1.60	1.53
33	L1	1157	A	C2'-C1'	6.68	1.60	1.53
78	Le	242	ARG	CZ-NH2	6.68	1.41	1.33
32	S1	1677	U	C3'-C2'	6.68	1.60	1.52
33	L1	1941	G	C5'-C4'	6.68	1.59	1.51
33	L1	3387	U	O4'-C1'	6.68	1.50	1.41
32	S1	1787	G	C2'-C1'	-6.68	1.46	1.53
33	L1	96	C	C2'-C1'	-6.68	1.46	1.53
34	L3	99	G	C3'-C2'	6.68	1.60	1.52
33	L1	713	G	O4'-C1'	6.68	1.50	1.41
33	L1	3065	U	P-OP2	6.68	1.60	1.49
32	S1	229	G	C2'-C1'	-6.67	1.46	1.53
33	L1	1565	G	C3'-C2'	-6.67	1.45	1.52
33	L1	1920	U	C5'-C4'	6.67	1.59	1.51
33	L1	2737	A	C2'-C1'	-6.67	1.46	1.53
4	SD	151	ASP	N-CA	6.67	1.59	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	979	A	O3'-P	-6.67	1.53	1.61
33	L1	1237	G	C4'-C3'	-6.67	1.45	1.53
33	L1	29	G	C5'-C4'	6.67	1.59	1.51
33	L1	1330	A	C3'-O3'	6.67	1.51	1.42
33	L1	2857	U	C2'-C1'	-6.67	1.46	1.53
32	S1	558	C	O3'-P	-6.67	1.53	1.61
32	S1	981	G	P-O5'	-6.67	1.53	1.59
33	L1	2684	U	O3'-P	-6.67	1.53	1.61
32	S1	928	A	O3'-P	-6.67	1.53	1.61
32	S1	1173	U	C2'-C1'	-6.67	1.46	1.53
33	L1	968	A	C2'-C1'	6.67	1.60	1.53
33	L1	1872	C	P-O5'	-6.67	1.53	1.59
33	L1	3147	G	C4'-O4'	6.67	1.54	1.45
32	S1	626	A	O3'-P	-6.66	1.53	1.61
32	S1	1575	U	C4'-C3'	-6.66	1.45	1.53
33	L1	1887	A	C2'-C1'	6.66	1.60	1.53
33	L1	3133	C	C2'-C1'	-6.66	1.46	1.53
48	LV	90	ARG	CD-NE	6.66	1.57	1.46
32	S1	410	U	O4'-C1'	6.66	1.50	1.41
32	S1	1558	A	O4'-C1'	6.66	1.50	1.41
33	L1	129	G	C4'-C3'	6.66	1.60	1.53
33	L1	1850	C	P-O5'	-6.66	1.53	1.59
7	SI	46	ARG	NE-CZ	6.66	1.41	1.33
81	LD	304	GLN	C-O	-6.66	1.10	1.23
33	L1	2761	A	C2'-O2'	6.66	1.50	1.41
33	L1	1971	A	O4'-C1'	6.66	1.50	1.41
33	L1	3357	C	P-O5'	-6.66	1.53	1.59
33	L1	2867	U	C3'-C2'	-6.65	1.45	1.52
33	L1	3389	C	C5'-C4'	6.65	1.59	1.51
31	S2	60	C	O4'-C1'	6.65	1.50	1.41
32	S1	1278	C	C2'-O2'	6.65	1.50	1.41
32	S1	1279	A	P-O5'	-6.65	1.53	1.59
33	L1	141	C	P-O5'	-6.65	1.53	1.59
33	L1	256	G	O4'-C1'	6.65	1.50	1.41
32	S1	1229	C	C4'-C3'	-6.65	1.45	1.53
39	LF	2	LYS	C-O	-6.65	1.10	1.23
32	S1	1367	U	C5'-C4'	6.65	1.59	1.51
32	S1	1609	G	C3'-C2'	6.65	1.60	1.52
32	S1	1703	G	C2'-C1'	-6.65	1.46	1.53
33	L1	1342	C	O3'-P	-6.65	1.53	1.61
33	L1	2226	C	C4'-O4'	6.65	1.54	1.45
32	S1	1702	G	C2'-C1'	-6.65	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1297	U	C5'-C4'	6.65	1.59	1.51
32	S1	1346	C	C5'-C4'	6.64	1.59	1.51
33	L1	536	C	P-O5'	-6.64	1.53	1.59
33	L1	1014	G	C5'-C4'	6.64	1.59	1.51
31	S2	17	G	C4'-C3'	-6.64	1.45	1.53
33	L1	544	C	C2'-C1'	-6.64	1.46	1.53
31	S2	52	G	C3'-C2'	-6.64	1.45	1.52
32	S1	848	C	C2'-C1'	-6.64	1.46	1.53
32	S1	1581	A	C2'-C1'	6.64	1.60	1.53
30	S3	19	U	O4'-C1'	6.64	1.50	1.41
33	L1	858	U	C4'-C3'	6.64	1.60	1.53
33	L1	2247	A	C3'-O3'	6.64	1.51	1.42
35	L2	44	A	O3'-P	6.64	1.69	1.61
42	LP	143	ARG	NE-CZ	6.64	1.41	1.33
33	L1	1182	A	O4'-C1'	-6.64	1.33	1.41
33	L1	2596	A	O4'-C1'	6.64	1.50	1.41
33	L1	1074	C	C2'-C1'	-6.63	1.46	1.53
33	L1	1152	G	O4'-C1'	6.63	1.50	1.41
9	SK	49	ARG	CD-NE	6.63	1.57	1.46
32	S1	519	A	P-O5'	-6.63	1.53	1.59
32	S1	801	U	O3'-P	-6.63	1.53	1.61
32	S1	1569	U	O4'-C1'	6.63	1.50	1.41
32	S1	1663	A	C3'-C2'	6.63	1.60	1.52
33	L1	1596	G	P-O5'	6.63	1.66	1.59
33	L1	1022	G	C4'-C3'	-6.63	1.45	1.53
32	S1	660	G	C2'-C1'	-6.63	1.46	1.53
32	S1	1690	U	O4'-C1'	6.63	1.50	1.41
33	L1	207	U	O4'-C1'	-6.63	1.33	1.41
33	L1	222	C	O4'-C1'	6.63	1.50	1.41
33	L1	652	C	C2'-C1'	6.63	1.60	1.53
41	LM	69	LYS	N-CA	6.63	1.59	1.46
80	LC	366	SER	CA-CB	6.63	1.62	1.52
2	SA	243	TRP	CD2-CE2	-6.63	1.33	1.41
32	S1	955	C	C5'-C4'	6.63	1.59	1.51
33	L1	135	G	C5'-C4'	6.63	1.59	1.51
33	L1	580	C	O3'-P	-6.63	1.53	1.61
33	L1	962	C	C3'-C2'	-6.63	1.45	1.52
33	L1	2219	A	C2'-C1'	6.63	1.60	1.53
33	L1	5	G	C2'-C1'	-6.62	1.46	1.53
33	L1	213	G	O4'-C1'	-6.62	1.33	1.41
32	S1	386	C	C2'-C1'	-6.62	1.46	1.53
33	L1	2737	A	C4'-O4'	6.62	1.54	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	238	C	C2'-O2'	-6.62	1.33	1.41
33	L1	465	C	C2'-C1'	-6.62	1.46	1.53
33	L1	1291	A	C2'-C1'	6.62	1.60	1.53
33	L1	2070	C	C3'-C2'	6.62	1.60	1.52
14	SP	108	ILE	C-N	6.62	1.46	1.34
33	L1	404	G	O4'-C1'	-6.62	1.33	1.41
33	L1	710	C	C2'-C1'	-6.62	1.46	1.53
33	L1	756	C	O4'-C1'	6.62	1.50	1.41
33	L1	1001	A	C5'-C4'	6.62	1.59	1.51
33	L1	1409	G	C2'-C1'	-6.62	1.46	1.53
33	L1	2653	U	C4'-C3'	6.62	1.60	1.53
70	Li	64	ARG	CZ-NH1	6.62	1.41	1.33
33	L1	1606	C	P-O5'	-6.62	1.53	1.59
32	S1	1073	C	C4'-C3'	-6.62	1.45	1.53
33	L1	422	G	O4'-C1'	-6.62	1.33	1.41
33	L1	1322	A	C3'-O3'	6.62	1.51	1.42
33	L1	3087	A	C5'-C4'	6.62	1.59	1.51
32	S1	82	G	O4'-C1'	6.61	1.50	1.41
32	S1	1564	A	P-O5'	6.61	1.66	1.59
33	L1	6	A	C5'-C4'	6.61	1.59	1.51
33	L1	2966	G	C2'-C1'	6.61	1.60	1.53
33	L1	91	G	C2'-C1'	6.61	1.60	1.53
33	L1	272	G	C5'-C4'	6.61	1.59	1.51
33	L1	1046	U	O4'-C1'	6.61	1.50	1.41
33	L1	2931	C	O3'-P	-6.61	1.53	1.61
33	L1	3158	C	C3'-C2'	-6.61	1.45	1.52
32	S1	833	U	C2'-C1'	6.61	1.60	1.53
32	S1	886	A	O3'-P	-6.61	1.53	1.61
32	S1	1017	U	O4'-C1'	6.61	1.50	1.41
32	S1	1275	G	O4'-C1'	6.61	1.50	1.41
33	L1	2281	U	O4'-C1'	6.61	1.50	1.41
33	L1	2411	G	O4'-C1'	6.61	1.50	1.41
33	L1	2720	U	C4'-C3'	6.61	1.60	1.53
33	L1	3100	C	C4'-C3'	6.61	1.60	1.53
6	SF	165	ILE	CA-C	-6.61	1.35	1.52
48	LV	167	ALA	N-CA	6.61	1.59	1.46
32	S1	22	A	C2'-C1'	-6.60	1.46	1.53
32	S1	719	C	C5'-C4'	-6.60	1.43	1.51
33	L1	595	C	C2'-C1'	-6.60	1.46	1.53
33	L1	1896	A	P-O5'	-6.60	1.53	1.59
33	L1	1765	G	O4'-C1'	-6.60	1.33	1.41
28	SN	10	HIS	C-O	-6.60	1.10	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1899	U	C2'-C1'	-6.60	1.46	1.53
33	L1	2098	A	P-O5'	-6.60	1.53	1.59
32	S1	930	G	C2'-C1'	-6.60	1.46	1.53
33	L1	16	A	C3'-O3'	6.60	1.51	1.42
33	L1	712	A	O4'-C1'	6.60	1.50	1.41
33	L1	1016	G	C2'-C1'	-6.60	1.46	1.53
33	L1	2164	G	O3'-P	-6.60	1.53	1.61
34	L3	2	G	P-O5'	-6.60	1.53	1.59
33	L1	1831	A	O4'-C1'	-6.60	1.33	1.41
33	L1	212	G	C4'-C3'	-6.59	1.45	1.53
33	L1	1729	G	C4'-C3'	6.59	1.60	1.53
33	L1	1502	U	O4'-C1'	6.59	1.50	1.41
32	S1	1198	A	C3'-C2'	-6.59	1.45	1.52
33	L1	1566	C	C2'-C1'	-6.59	1.46	1.53
33	L1	1651	A	O4'-C1'	6.59	1.50	1.41
32	S1	871	G	P-OP2	6.59	1.60	1.49
33	L1	1901	G	C4'-C3'	6.59	1.60	1.53
35	L2	56	A	P-O5'	-6.59	1.53	1.59
32	S1	366	G	C4'-C3'	6.59	1.60	1.53
33	L1	1616	G	C4'-O4'	6.59	1.54	1.45
36	LA	83	TYR	CB-CG	-6.59	1.41	1.51
45	LQ	290	SER	C-O	-6.59	1.10	1.23
32	S1	222	G	C2'-C1'	-6.58	1.46	1.53
33	L1	1734	G	P-OP2	6.58	1.60	1.49
33	L1	3160	G	C5'-C4'	6.58	1.59	1.51
33	L1	1223	U	O3'-P	-6.58	1.53	1.61
33	L1	1235	A	C4'-O4'	6.58	1.54	1.45
33	L1	3183	G	C3'-C2'	6.58	1.60	1.52
32	S1	116	G	C5'-C4'	6.58	1.59	1.51
33	L1	1798	C	O3'-P	-6.58	1.53	1.61
33	L1	1930	G	C2'-C1'	-6.58	1.46	1.53
33	L1	2663	U	C2'-C1'	-6.58	1.46	1.53
32	S1	787	C	O3'-P	-6.58	1.53	1.61
32	S1	1472	G	O4'-C1'	6.58	1.50	1.41
70	Li	69	ARG	NE-CZ	6.58	1.41	1.33
33	L1	430	G	C5'-C4'	6.58	1.59	1.51
33	L1	1089	G	C2'-C1'	-6.58	1.46	1.53
33	L1	1172	A	C3'-O3'	6.58	1.51	1.42
33	L1	3292	U	C3'-C2'	6.58	1.60	1.52
33	L1	728	G	C2'-C1'	6.58	1.60	1.53
33	L1	3093	C	C3'-C2'	6.58	1.60	1.52
35	L2	88	C	C2'-C1'	6.58	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1023	G	C4'-O4'	6.57	1.54	1.45
33	L1	1947	U	C4'-C3'	6.57	1.60	1.53
33	L1	1403	G	P-OP2	6.57	1.60	1.49
33	L1	2500	U	P-O5'	6.57	1.66	1.59
33	L1	2706	A	O3'-P	-6.57	1.53	1.61
34	L3	55	A	O4'-C1'	-6.57	1.33	1.41
35	L2	139	A	O4'-C1'	6.57	1.50	1.41
32	S1	445	A	O4'-C1'	6.57	1.50	1.41
32	S1	499	A	O4'-C1'	6.57	1.50	1.41
33	L1	1	G	P-OP2	6.57	1.60	1.49
33	L1	1564	C	C5'-C4'	6.57	1.59	1.51
33	L1	1657	C	C2'-C1'	-6.57	1.46	1.53
33	L1	2602	U	C5'-C4'	6.57	1.59	1.51
33	L1	2865	G	C3'-C2'	6.56	1.60	1.52
78	Le	204	LEU	N-CA	-6.56	1.33	1.46
32	S1	567	U	C2'-C1'	6.56	1.60	1.53
33	L1	295	U	C5'-C4'	6.56	1.59	1.51
33	L1	597	C	C3'-C2'	-6.56	1.45	1.52
33	L1	985	C	C2'-C1'	-6.56	1.46	1.53
33	L1	2598	A	C2'-C1'	-6.56	1.46	1.53
33	L1	2638	A	C4'-C3'	6.56	1.60	1.53
35	L2	41	A	P-O5'	-6.56	1.53	1.59
32	S1	1032	A	C5'-C4'	6.56	1.59	1.51
32	S1	862	U	O4'-C1'	6.56	1.50	1.41
32	S1	1310	C	O3'-P	6.56	1.69	1.61
32	S1	1411	C	C2'-C1'	-6.56	1.46	1.53
33	L1	1675	G	P-O5'	-6.56	1.53	1.59
33	L1	1940	U	C3'-C2'	6.56	1.60	1.52
33	L1	705	A	C2'-C1'	6.55	1.60	1.53
80	LC	1	MET	C-O	-6.55	1.10	1.23
33	L1	1761	C	C3'-O3'	6.55	1.51	1.42
33	L1	2052	G	O3'-P	-6.55	1.53	1.61
32	S1	258	U	O4'-C1'	6.55	1.50	1.41
33	L1	73	A	C4'-O4'	-6.55	1.37	1.45
33	L1	1191	U	C3'-O3'	6.55	1.51	1.42
33	L1	1264	A	O4'-C1'	-6.55	1.33	1.41
33	L1	2694	A	O4'-C1'	-6.55	1.33	1.41
7	SI	102	TYR	CZ-OH	6.55	1.49	1.37
33	L1	1000	A	C2'-C1'	-6.55	1.46	1.53
32	S1	1137	A	C2'-C1'	-6.55	1.46	1.53
33	L1	1433	U	O3'-P	-6.55	1.53	1.61
45	LQ	196	ARG	CZ-NH2	6.55	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	LD	95	ALA	CA-CB	6.55	1.66	1.52
32	S1	1056	A	C3'-O3'	6.55	1.51	1.42
32	S1	1238	A	O4'-C1'	-6.55	1.33	1.41
32	S1	1461	G	C2'-O2'	-6.55	1.33	1.41
33	L1	565	C	C3'-C2'	-6.55	1.45	1.52
33	L1	1602	A	C5'-C4'	6.54	1.59	1.51
33	L1	3349	C	P-O5'	-6.54	1.53	1.59
32	S1	1069	G	O4'-C1'	6.54	1.50	1.41
33	L1	572	U	O3'-P	-6.54	1.53	1.61
33	L1	823	A	O4'-C1'	6.54	1.50	1.41
33	L1	2635	G	O3'-P	-6.54	1.53	1.61
32	S1	1571	G	C2'-C1'	-6.54	1.46	1.53
33	L1	412	C	C2'-C1'	-6.54	1.46	1.53
33	L1	983	U	O3'-P	6.54	1.69	1.61
33	L1	1676	A	C2'-C1'	-6.54	1.46	1.53
33	L1	2431	U	O4'-C1'	6.54	1.50	1.41
2	SA	11	ALA	N-CA	6.54	1.59	1.46
32	S1	137	A	P-OP2	6.54	1.60	1.49
33	L1	1727	A	C2'-C1'	-6.54	1.46	1.53
32	S1	1101	C	O4'-C1'	6.54	1.50	1.41
33	L1	2622	G	C4'-O4'	-6.54	1.37	1.45
33	L1	374	G	C4'-C3'	6.54	1.60	1.53
33	L1	962	C	P-O5'	-6.54	1.53	1.59
33	L1	1335	C	O4'-C1'	6.54	1.50	1.41
5	SE	28	GLY	C-O	-6.53	1.13	1.23
32	S1	1720	G	C5'-C4'	6.53	1.59	1.51
33	L1	1025	G	O3'-P	-6.53	1.53	1.61
33	L1	2718	A	C3'-O3'	6.53	1.51	1.42
33	L1	3155	C	C4'-C3'	6.53	1.60	1.53
33	L1	3381	C	P-O5'	-6.53	1.53	1.59
80	LC	358	ILE	N-CA	6.53	1.59	1.46
32	S1	317	U	C4'-C3'	6.53	1.60	1.53
32	S1	1063	U	C5'-C4'	6.53	1.59	1.51
33	L1	1020	U	O4'-C1'	6.53	1.50	1.41
33	L1	1612	C	P-O5'	-6.53	1.53	1.59
33	L1	2733	A	C3'-C2'	-6.53	1.45	1.52
33	L1	3198	C	C5'-C4'	6.53	1.59	1.51
35	L2	82	G	C5'-C4'	6.53	1.59	1.51
3	SB	149	SER	N-CA	6.53	1.59	1.46
32	S1	1640	C	O3'-P	-6.53	1.53	1.61
33	L1	429	G	C5'-C4'	6.53	1.59	1.51
33	L1	2210	A	C2'-C1'	-6.53	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	SM	39	ARG	NE-CZ	6.52	1.41	1.33
33	L1	1942	A	P-O5'	-6.52	1.53	1.59
33	L1	2069	G	C2'-C1'	6.52	1.60	1.53
33	L1	2451	G	C2'-C1'	6.52	1.60	1.53
37	LB	152	SER	CA-CB	6.52	1.62	1.52
32	S1	1204	G	C5'-C4'	6.52	1.59	1.51
33	L1	514	G	P-O5'	-6.52	1.53	1.59
33	L1	1205	C	O4'-C1'	6.52	1.50	1.41
33	L1	2000	C	C2'-C1'	-6.52	1.46	1.53
33	L1	2240	C	O4'-C1'	6.52	1.50	1.41
33	L1	2433	U	C2'-C1'	6.52	1.60	1.53
32	S1	942	C	C5'-C4'	6.52	1.59	1.51
33	L1	2599	U	C5'-C4'	6.52	1.59	1.51
33	L1	2795	G	C5'-C4'	6.52	1.59	1.51
33	L1	1578	U	C2'-C1'	-6.52	1.46	1.53
45	LQ	198	TYR	CG-CD1	6.52	1.47	1.39
78	Le	83	ALA	C-O	-6.52	1.10	1.23
32	S1	314	C	C3'-C2'	-6.52	1.45	1.52
32	S1	1299	G	C5'-C4'	6.52	1.59	1.51
33	L1	36	U	O4'-C1'	6.52	1.50	1.41
33	L1	209	G	C2'-C1'	6.52	1.60	1.53
33	L1	340	A	C2'-C1'	-6.52	1.46	1.53
33	L1	1819	A	C5'-C4'	6.52	1.59	1.51
35	L2	14	G	O4'-C1'	-6.51	1.33	1.41
35	L2	49	C	C5'-C4'	6.51	1.59	1.51
31	S2	44	A	P-O5'	-6.51	1.53	1.59
32	S1	327	A	P-OP2	6.51	1.60	1.49
35	L2	39	C	P-O5'	-6.51	1.53	1.59
32	S1	21	U	C2'-C1'	-6.51	1.46	1.53
35	L2	66	C	O4'-C1'	6.51	1.50	1.41
32	S1	568	G	C3'-O3'	6.51	1.51	1.42
33	L1	3042	U	C3'-C2'	-6.51	1.45	1.52
44	LR	98	MET	N-CA	6.51	1.59	1.46
32	S1	1202	G	O3'-P	6.51	1.69	1.61
33	L1	2159	U	O4'-C1'	6.51	1.50	1.41
33	L1	2465	G	O4'-C1'	-6.51	1.33	1.41
37	LB	196	TRP	C-N	6.51	1.46	1.34
55	Lg	41	ILE	CA-CB	-6.51	1.39	1.54
32	S1	1716	C	C2'-C1'	-6.50	1.46	1.53
33	L1	487	C	C5'-C4'	6.50	1.59	1.51
3	SB	144	ALA	CA-CB	6.50	1.66	1.52
32	S1	977	G	C5'-C4'	6.50	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1617	U	C2'-C1'	-6.50	1.46	1.53
33	L1	189	C	C2'-C1'	-6.50	1.46	1.53
34	L3	49	A	C4'-C3'	6.50	1.60	1.53
32	S1	331	U	C2'-C1'	6.50	1.60	1.53
33	L1	282	A	O3'-P	-6.50	1.53	1.61
33	L1	1812	A	O5'-C5'	6.50	1.54	1.44
51	LY	9	SER	N-CA	6.50	1.59	1.46
81	LD	18	MET	C-O	-6.50	1.10	1.23
33	L1	2057	G	C2'-C1'	-6.50	1.46	1.53
32	S1	18	C	C5'-C4'	6.50	1.59	1.51
32	S1	232	C	O4'-C1'	6.50	1.50	1.41
13	SQ	109	LEU	C-O	-6.50	1.11	1.23
32	S1	854	C	O3'-P	-6.50	1.53	1.61
32	S1	1777	G	C5'-C4'	6.50	1.59	1.51
33	L1	268	U	C4'-C3'	6.50	1.60	1.53
60	Lr	38	GLN	C-N	6.50	1.44	1.33
32	S1	127	G	C2'-C1'	6.49	1.60	1.53
32	S1	1135	G	O4'-C1'	6.49	1.50	1.41
33	L1	995	C	C3'-O3'	6.49	1.51	1.42
33	L1	1819	A	O3'-P	-6.49	1.53	1.61
33	L1	2709	G	C5'-C4'	6.49	1.59	1.51
31	S2	62	C	O4'-C1'	6.49	1.50	1.41
30	S3	12	A	P-OP2	6.49	1.59	1.49
33	L1	2837	C	C4'-O4'	6.49	1.53	1.45
34	L3	10	C	C5'-C4'	6.49	1.59	1.51
32	S1	617	G	O4'-C1'	6.49	1.50	1.41
33	L1	3038	U	C2'-C1'	-6.49	1.46	1.53
41	LM	53	PRO	N-CA	-6.49	1.36	1.47
15	SS	13	ASN	C-N	-6.49	1.22	1.34
33	L1	3123	A	O4'-C1'	6.49	1.50	1.41
33	L1	20	G	O3'-P	-6.49	1.53	1.61
32	S1	184	C	C2'-C1'	-6.48	1.46	1.53
32	S1	1143	A	O3'-P	-6.48	1.53	1.61
32	S1	1380	A	O4'-C1'	-6.48	1.33	1.41
33	L1	605	A	O4'-C1'	6.48	1.50	1.41
32	S1	981	G	O4'-C1'	6.48	1.50	1.41
32	S1	1452	A	P-OP2	6.48	1.59	1.49
33	L1	1279	C	P-O5'	6.48	1.66	1.59
33	L1	2581	C	O4'-C1'	6.48	1.50	1.41
48	LV	69	ARG	CA-CB	6.48	1.68	1.53
32	S1	258	U	C2'-C1'	-6.48	1.46	1.53
33	L1	126	G	P-O5'	-6.48	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	882	U	O4'-C1'	6.48	1.50	1.41
33	L1	1347	U	O3'-P	-6.48	1.53	1.61
36	LA	200	VAL	N-CA	6.48	1.59	1.46
32	S1	1756	A	C4'-O4'	6.48	1.53	1.45
33	L1	109	G	C5'-C4'	6.47	1.59	1.51
33	L1	738	A	C2'-C1'	6.47	1.60	1.53
33	L1	3033	A	C4'-C3'	6.47	1.60	1.53
32	S1	1552	U	O4'-C1'	6.47	1.50	1.41
33	L1	1488	G	C3'-C2'	6.47	1.60	1.52
32	S1	622	U	P-O5'	-6.47	1.53	1.59
33	L1	1527	A	C4'-C3'	6.47	1.60	1.53
7	SI	128	ARG	NE-CZ	6.47	1.41	1.33
33	L1	1248	A	C2'-C1'	6.47	1.60	1.53
33	L1	1432	G	O3'-P	-6.47	1.53	1.61
33	L1	2739	A	C4'-C3'	-6.47	1.46	1.53
33	L1	3289	U	C4'-O4'	6.47	1.53	1.45
32	S1	1304	A	C2'-C1'	6.46	1.60	1.53
33	L1	933	U	C2'-C1'	-6.46	1.46	1.53
33	L1	2545	C	C2'-C1'	-6.46	1.46	1.53
32	S1	1629	U	O4'-C1'	6.46	1.50	1.41
35	L2	61	C	C5'-C4'	6.46	1.59	1.51
50	LZ	41	TYR	CG-CD2	6.46	1.47	1.39
32	S1	44	U	P-OP2	6.46	1.59	1.49
33	L1	1456	A	O3'-P	-6.46	1.53	1.61
33	L1	3170	C	C4'-C3'	6.46	1.60	1.53
33	L1	973	U	O3'-P	-6.46	1.53	1.61
33	L1	1852	C	C2'-C1'	-6.46	1.46	1.53
33	L1	2506	G	C2'-C1'	-6.46	1.46	1.53
82	LK	135	GLN	CB-CG	6.46	1.70	1.52
32	S1	1319	U	P-O5'	-6.45	1.53	1.59
33	L1	1893	G	O3'-P	6.45	1.68	1.61
34	L3	52	U	C2'-C1'	-6.45	1.46	1.53
37	LB	186	TYR	CE1-CZ	6.45	1.47	1.38
37	LB	223	SER	CA-CB	6.45	1.62	1.52
33	L1	308	U	O4'-C1'	6.45	1.50	1.41
33	L1	3124	A	O4'-C1'	6.45	1.50	1.41
34	L3	25	G	P-O5'	-6.45	1.53	1.59
33	L1	1625	G	C2'-C1'	6.45	1.60	1.53
33	L1	3176	C	O4'-C1'	6.45	1.50	1.41
33	L1	3000	U	C2'-C1'	6.44	1.60	1.53
33	L1	224	C	C3'-O3'	6.44	1.51	1.42
33	L1	451	C	C4'-C3'	6.44	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	L2	94	C	C2'-C1'	6.44	1.60	1.53
33	L1	1317	G	C5'-C4'	6.44	1.59	1.51
32	S1	381	G	C4'-C3'	6.44	1.60	1.53
32	S1	1474	U	C2'-C1'	6.44	1.60	1.53
72	Lk	93	MET	N-CA	-6.44	1.33	1.46
24	SX	71	GLY	C-N	-6.44	1.19	1.34
33	L1	1079	G	O4'-C1'	6.44	1.50	1.41
33	L1	3208	G	C2'-C1'	6.44	1.60	1.53
64	LG	12	LYS	CA-CB	6.44	1.68	1.53
32	S1	491	G	C5'-C4'	6.43	1.59	1.51
33	L1	1537	A	O4'-C1'	6.43	1.50	1.41
33	L1	2871	U	C2'-C1'	-6.43	1.46	1.53
28	SN	35	GLY	CA-C	6.43	1.62	1.51
32	S1	422	G	C2'-C1'	-6.43	1.46	1.53
35	L2	121	C	C5'-C4'	6.43	1.59	1.51
32	S1	1052	G	C2'-C1'	-6.43	1.46	1.53
32	S1	1540	U	C5'-C4'	6.43	1.59	1.51
33	L1	1131	U	P-O5'	-6.43	1.53	1.59
33	L1	2735	G	C3'-C2'	6.43	1.60	1.52
33	L1	3071	A	O4'-C1'	-6.43	1.33	1.41
35	L2	64	U	O3'-P	-6.43	1.53	1.61
80	LC	17	LEU	CA-CB	6.43	1.68	1.53
33	L1	210	G	C5'-C4'	6.43	1.59	1.51
32	S1	376	G	C2'-C1'	6.43	1.60	1.53
32	S1	480	U	O4'-C1'	6.43	1.50	1.41
33	L1	505	G	C4'-O4'	6.43	1.53	1.45
33	L1	980	C	O4'-C1'	6.43	1.50	1.41
33	L1	2421	C	C2'-C1'	-6.43	1.46	1.53
33	L1	3053	G	C2'-C1'	-6.43	1.46	1.53
32	S1	1734	U	O4'-C1'	6.42	1.50	1.41
33	L1	347	A	O4'-C1'	6.42	1.50	1.41
33	L1	3053	G	O3'-P	-6.42	1.53	1.61
35	L2	102	U	C3'-O3'	6.42	1.51	1.42
32	S1	1266	U	C4'-C3'	-6.42	1.46	1.53
33	L1	222	C	C2'-C1'	-6.42	1.46	1.53
33	L1	1281	C	C3'-C2'	6.42	1.60	1.52
33	L1	2805	A	C2'-C1'	6.42	1.60	1.53
33	L1	3225	G	C2'-C1'	6.42	1.60	1.53
34	L3	67	C	O3'-P	-6.42	1.53	1.61
33	L1	731	G	C2'-C1'	-6.42	1.46	1.53
33	L1	2240	C	C2'-C1'	-6.42	1.46	1.53
33	L1	3279	G	C2'-C1'	-6.42	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	472	A	C2'-C1'	-6.41	1.46	1.53
33	L1	48	A	C2'-C1'	-6.41	1.46	1.53
33	L1	1640	A	C4'-C3'	-6.41	1.46	1.53
33	L1	466	U	C2'-C1'	6.41	1.60	1.53
33	L1	2651	G	C2'-C1'	-6.41	1.46	1.53
32	S1	628	G	C5'-C4'	6.41	1.59	1.51
33	L1	486	G	P-O5'	6.41	1.66	1.59
33	L1	2829	U	O4'-C1'	-6.41	1.33	1.41
33	L1	2943	A	O4'-C1'	6.41	1.50	1.41
49	LX	70	TYR	CZ-OH	6.41	1.48	1.37
32	S1	571	A	P-O5'	-6.41	1.53	1.59
32	S1	607	U	C2'-C1'	-6.41	1.46	1.53
33	L1	1206	A	C4'-C3'	6.41	1.60	1.53
33	L1	3162	C	O4'-C1'	6.41	1.50	1.41
33	L1	175	G	C4'-C3'	6.41	1.60	1.53
33	L1	2236	U	C3'-O3'	6.41	1.51	1.42
31	S2	8	U	O4'-C1'	-6.41	1.33	1.41
33	L1	16	A	C4'-O4'	-6.41	1.37	1.45
33	L1	3335	G	P-O5'	-6.41	1.53	1.59
33	L1	610	G	O4'-C1'	6.40	1.50	1.41
33	L1	712	A	C2'-C1'	6.40	1.60	1.53
32	S1	1366	A	C5'-C4'	6.40	1.59	1.51
32	S1	1445	C	O4'-C1'	6.40	1.50	1.41
33	L1	218	G	C5'-C4'	6.40	1.59	1.51
33	L1	345	G	C2'-C1'	-6.40	1.46	1.53
33	L1	2451	G	O3'-P	-6.40	1.53	1.61
32	S1	1607	C	C4'-C3'	6.40	1.60	1.53
33	L1	1176	U	C4'-O4'	6.40	1.53	1.45
33	L1	1840	C	O4'-C1'	6.40	1.50	1.41
33	L1	2679	A	O4'-C1'	6.40	1.50	1.41
8	SJ	64	ARG	CZ-NH2	6.40	1.41	1.33
31	S2	59	U	P-O5'	-6.40	1.53	1.59
32	S1	765	U	C5'-C4'	6.40	1.59	1.51
33	L1	300	C	C2'-C1'	-6.40	1.46	1.53
33	L1	2906	U	C2'-C1'	-6.40	1.46	1.53
32	S1	46	A	O4'-C1'	-6.39	1.33	1.41
33	L1	1090	C	O4'-C1'	6.39	1.50	1.41
33	L1	1544	G	O4'-C1'	6.39	1.50	1.41
33	L1	1881	C	O4'-C1'	-6.39	1.33	1.41
33	L1	1866	C	O4'-C1'	6.39	1.50	1.41
33	L1	1920	U	O3'-P	-6.39	1.53	1.61
33	L1	2545	C	O4'-C1'	6.39	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	664	A	C2'-C1'	-6.39	1.46	1.53
32	S1	1714	G	C2'-C1'	-6.39	1.46	1.53
33	L1	3139	U	O4'-C1'	6.39	1.50	1.41
7	SI	51	ARG	CZ-NH2	6.39	1.41	1.33
31	S2	72	G	O3'-P	-6.39	1.53	1.61
32	S1	966	U	P-O5'	-6.39	1.53	1.59
32	S1	1362	A	O4'-C1'	6.39	1.50	1.41
33	L1	1113	C	C5'-C4'	6.39	1.59	1.51
33	L1	1873	C	C3'-C2'	6.39	1.59	1.52
33	L1	2129	U	O3'-P	-6.39	1.53	1.61
33	L1	2950	C	O4'-C1'	6.38	1.50	1.41
33	L1	2248	G	P-O5'	-6.38	1.53	1.59
33	L1	2661	G	O3'-P	-6.38	1.53	1.61
4	SD	136	ILE	CA-C	-6.38	1.36	1.52
32	S1	1397	A	O3'-P	-6.38	1.53	1.61
33	L1	1469	G	O3'-P	-6.38	1.53	1.61
67	LS	150	LYS	C-O	-6.38	1.11	1.23
69	La	7	PRO	C-N	6.38	1.44	1.33
32	S1	968	A	C2'-C1'	6.38	1.60	1.53
33	L1	15	C	O3'-P	-6.38	1.53	1.61
33	L1	1880	A	P-O5'	-6.38	1.53	1.59
33	L1	3208	G	P-O5'	-6.38	1.53	1.59
31	S2	20	C	O4'-C1'	6.38	1.50	1.41
32	S1	585	U	P-O5'	-6.38	1.53	1.59
32	S1	860	A	O4'-C1'	6.38	1.50	1.41
33	L1	76	A	O3'-P	6.38	1.68	1.61
33	L1	1589	G	C2'-C1'	6.38	1.60	1.53
84	LI	116	ARG	C-O	-6.38	1.11	1.23
33	L1	3223	C	O4'-C1'	6.38	1.50	1.41
33	L1	3123	A	C2'-C1'	-6.37	1.46	1.53
73	Lp	34	CYS	CB-SG	6.37	1.93	1.82
33	L1	2842	C	O4'-C1'	-6.37	1.33	1.41
32	S1	491	G	C4'-O4'	6.37	1.53	1.45
33	L1	2177	U	O4'-C1'	6.37	1.50	1.41
33	L1	1307	A	O4'-C1'	-6.37	1.33	1.41
33	L1	1344	A	C4'-C3'	6.37	1.60	1.53
33	L1	1728	G	P-O5'	-6.37	1.53	1.59
33	L1	1938	U	O4'-C1'	6.37	1.50	1.41
33	L1	2442	A	C2'-C1'	-6.37	1.46	1.53
81	LD	313	GLU	CG-CD	6.37	1.61	1.51
32	S1	461	G	C2'-C1'	-6.36	1.46	1.53
32	S1	1256	C	C5'-C4'	6.36	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1685	U	C2'-C1'	6.36	1.60	1.53
33	L1	1710	G	O4'-C1'	6.36	1.50	1.41
29	ST	41	GLU	CA-C	6.36	1.69	1.52
32	S1	62	A	O4'-C1'	6.36	1.50	1.41
32	S1	523	C	C5'-C4'	6.36	1.58	1.51
33	L1	29	G	C4'-C3'	6.36	1.60	1.53
32	S1	232	C	C2'-C1'	6.36	1.60	1.53
32	S1	827	C	O4'-C1'	6.36	1.50	1.41
32	S1	488	C	C2'-C1'	-6.35	1.46	1.53
32	S1	36	C	C2'-C1'	-6.35	1.46	1.53
32	S1	169	A	O4'-C1'	6.35	1.50	1.41
32	S1	1460	G	C3'-C2'	-6.35	1.45	1.52
33	L1	3329	G	O4'-C1'	-6.35	1.33	1.41
33	L1	1839	C	C2'-C1'	-6.35	1.46	1.53
32	S1	552	G	O4'-C1'	6.35	1.50	1.41
32	S1	612	U	C2'-C1'	6.35	1.60	1.53
32	S1	1606	U	C3'-C2'	-6.35	1.45	1.52
33	L1	2620	U	P-O5'	-6.35	1.53	1.59
32	S1	1648	C	C2'-C1'	-6.35	1.46	1.53
33	L1	2295	G	C2'-C1'	-6.35	1.46	1.53
33	L1	2562	A	O4'-C1'	-6.35	1.33	1.41
33	L1	547	C	O4'-C1'	6.34	1.49	1.41
33	L1	642	C	C3'-O3'	-6.34	1.33	1.42
33	L1	939	A	O3'-P	-6.34	1.53	1.61
33	L1	3361	G	O4'-C1'	6.34	1.49	1.41
81	LD	90	ARG	C-O	-6.34	1.11	1.23
33	L1	1386	G	P-O5'	-6.34	1.53	1.59
33	L1	3290	C	C5'-C4'	6.34	1.58	1.51
32	S1	1382	C	C4'-C3'	6.34	1.60	1.53
33	L1	498	G	C5'-C4'	6.34	1.58	1.51
33	L1	1090	C	P-O5'	-6.34	1.53	1.59
33	L1	2429	A	C4'-O4'	6.34	1.53	1.45
33	L1	2971	A	C3'-C2'	6.34	1.59	1.52
31	S2	1	U	P-O5'	-6.34	1.53	1.59
32	S1	469	G	C4'-C3'	6.34	1.60	1.53
32	S1	1034	G	O4'-C1'	6.34	1.49	1.41
71	Lj	8	ARG	CA-CB	6.34	1.67	1.53
32	S1	974	C	O4'-C1'	6.34	1.49	1.41
33	L1	1345	U	C3'-O3'	6.34	1.51	1.42
32	S1	1461	G	O4'-C1'	-6.33	1.33	1.41
33	L1	803	G	P-O5'	-6.33	1.53	1.59
32	S1	470	U	O4'-C1'	6.33	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	796	U	C5'-C4'	6.33	1.58	1.51
33	L1	143	A	C2'-C1'	6.33	1.60	1.53
46	LT	65	ARG	CD-NE	6.33	1.57	1.46
33	L1	1172	A	C4'-C3'	6.33	1.60	1.53
33	L1	1222	U	C4'-C3'	6.33	1.60	1.53
32	S1	158	C	C2'-C1'	-6.33	1.46	1.53
13	SQ	61	ILE	CA-C	6.33	1.69	1.52
33	L1	462	C	P-O5'	6.33	1.66	1.59
33	L1	659	C	C2'-C1'	-6.33	1.46	1.53
33	L1	1923	G	O4'-C1'	-6.33	1.33	1.41
32	S1	996	G	P-O5'	-6.33	1.53	1.59
32	S1	1431	A	C4'-C3'	-6.33	1.46	1.53
33	L1	185	A	C4'-C3'	6.33	1.60	1.53
32	S1	237	C	O4'-C1'	6.33	1.49	1.41
32	S1	920	A	O4'-C1'	6.33	1.49	1.41
33	L1	457	C	O4'-C1'	6.33	1.49	1.41
33	L1	521	G	O4'-C1'	6.33	1.49	1.41
33	L1	2267	G	O4'-C1'	-6.33	1.33	1.41
33	L1	2910	C	C4'-O4'	6.33	1.53	1.45
35	L2	6	G	P-OP2	6.33	1.59	1.49
35	L2	75	A	C3'-O3'	6.33	1.51	1.42
32	S1	731	G	C4'-C3'	6.32	1.60	1.53
33	L1	1129	G	O3'-P	-6.32	1.53	1.61
33	L1	1512	A	C3'-O3'	6.32	1.51	1.42
33	L1	2751	A	O4'-C1'	-6.32	1.33	1.41
38	LE	34	ARG	CB-CG	6.32	1.69	1.52
52	Lb	97	ARG	CZ-NH2	6.32	1.41	1.33
3	SB	27	ARG	CZ-NH2	6.32	1.41	1.33
33	L1	3056	C	O3'-P	-6.32	1.53	1.61
33	L1	357	C	C3'-O3'	6.32	1.50	1.42
33	L1	807	C	C3'-C2'	-6.32	1.45	1.52
33	L1	958	U	C4'-O4'	6.32	1.53	1.45
33	L1	1194	C	C2'-C1'	6.32	1.60	1.53
33	L1	1818	C	O3'-P	-6.32	1.53	1.61
33	L1	2613	G	C5'-C4'	6.32	1.58	1.51
32	S1	305	A	C5'-C4'	6.32	1.58	1.51
32	S1	1196	C	C2'-C1'	-6.32	1.46	1.53
33	L1	2038	G	O4'-C1'	6.32	1.49	1.41
30	S3	12	A	C2'-C1'	-6.32	1.46	1.53
32	S1	1666	G	O3'-P	-6.32	1.53	1.61
33	L1	860	G	C2'-C1'	-6.32	1.46	1.53
33	L1	1787	C	P-O5'	-6.32	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	967	G	C2'-C1'	-6.32	1.46	1.53
33	L1	2393	G	O4'-C1'	6.32	1.49	1.41
33	L1	2507	U	O4'-C1'	6.32	1.49	1.41
32	S1	1734	U	C2'-C1'	-6.31	1.46	1.53
32	S1	1155	G	O4'-C1'	-6.31	1.33	1.41
32	S1	1785	U	C2'-C1'	6.31	1.60	1.53
33	L1	365	A	C4'-C3'	6.31	1.60	1.53
11	SM	132	ARG	CD-NE	6.31	1.57	1.46
20	SZ	7	SER	CA-CB	6.31	1.62	1.52
30	S3	17	A	O3'-P	-6.31	1.53	1.61
33	L1	1346	C	O4'-C1'	6.31	1.49	1.41
33	L1	1516	G	C3'-O3'	6.31	1.50	1.42
1	Sa	185	TRP	CD2-CE2	6.31	1.49	1.41
33	L1	513	C	O3'-P	-6.31	1.53	1.61
33	L1	1391	A	P-OP2	6.31	1.59	1.49
33	L1	1599	A	O3'-P	-6.31	1.53	1.61
32	S1	1160	G	C4'-O4'	-6.31	1.37	1.45
32	S1	596	A	O4'-C1'	6.30	1.49	1.41
33	L1	135	G	O4'-C1'	6.30	1.49	1.41
33	L1	1423	C	C2'-C1'	6.30	1.60	1.53
33	L1	2569	G	C2'-C1'	-6.30	1.46	1.53
32	S1	1	U	P-OP2	6.30	1.59	1.49
32	S1	178	A	C2'-C1'	6.30	1.60	1.53
24	SX	53	GLN	N-CA	-6.30	1.33	1.46
32	S1	916	U	C2'-C1'	6.30	1.60	1.53
32	S1	1124	G	P-O5'	6.30	1.66	1.59
33	L1	654	C	C2'-C1'	-6.30	1.46	1.53
33	L1	1120	G	C3'-C2'	6.30	1.59	1.52
33	L1	1867	U	O4'-C1'	6.30	1.49	1.41
33	L1	2220	U	O4'-C1'	6.30	1.49	1.41
34	L3	110	G	O4'-C1'	6.30	1.49	1.41
32	S1	382	A	O4'-C1'	-6.30	1.33	1.41
32	S1	621	U	P-O5'	-6.30	1.53	1.59
32	S1	1070	A	C4'-C3'	-6.30	1.46	1.53
33	L1	309	C	O3'-P	6.30	1.68	1.61
33	L1	363	A	O3'-P	-6.30	1.53	1.61
32	S1	1018	A	C2'-C1'	-6.29	1.46	1.53
33	L1	1174	G	O4'-C1'	-6.29	1.33	1.41
32	S1	231	U	O4'-C1'	-6.29	1.33	1.41
33	L1	71	C	O4'-C1'	6.29	1.49	1.41
33	L1	206	C	O4'-C1'	6.29	1.49	1.41
33	L1	2918	U	C3'-O3'	6.29	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	657	C	C2'-C1'	-6.29	1.46	1.53
33	L1	922	U	P-O5'	-6.29	1.53	1.59
33	L1	1216	G	C2'-C1'	-6.29	1.46	1.53
33	L1	1577	A	C4'-C3'	-6.29	1.46	1.53
31	S2	22	G	C5'-C4'	6.29	1.58	1.51
32	S1	1302	C	C4'-O4'	6.29	1.53	1.45
33	L1	68	U	C3'-O3'	6.29	1.50	1.42
33	L1	1500	C	O4'-C1'	6.29	1.49	1.41
33	L1	2226	C	C5'-C4'	6.29	1.58	1.51
32	S1	288	G	C5'-C4'	6.29	1.58	1.51
33	L1	459	G	C4'-C3'	6.29	1.60	1.53
33	L1	2910	C	C2'-C1'	-6.29	1.46	1.53
81	LD	351	ARG	CD-NE	6.29	1.57	1.46
32	S1	848	C	C5'-C4'	6.29	1.58	1.51
33	L1	1776	G	C2'-C1'	-6.29	1.46	1.53
33	L1	3053	G	O4'-C1'	6.29	1.49	1.41
33	L1	3201	A	C5'-C4'	6.29	1.58	1.51
33	L1	526	A	O4'-C1'	6.28	1.49	1.41
44	LR	160	HIS	CB-CG	6.28	1.61	1.50
31	S2	38	C	C5'-C4'	6.28	1.58	1.51
33	L1	1864	G	O4'-C1'	6.28	1.49	1.41
33	L1	2192	C	O4'-C1'	6.28	1.49	1.41
32	S1	1049	U	P-O5'	-6.28	1.53	1.59
33	L1	855	U	C3'-O3'	6.28	1.50	1.42
33	L1	2738	U	P-O5'	-6.28	1.53	1.59
32	S1	1096	A	C2'-C1'	6.28	1.60	1.53
33	L1	1139	A	C2'-C1'	-6.28	1.46	1.53
32	S1	1432	C	C5'-C4'	-6.28	1.43	1.51
33	L1	1935	G	O4'-C1'	6.28	1.49	1.41
32	S1	1123	G	C3'-O3'	6.28	1.50	1.42
32	S1	1574	U	O4'-C1'	6.28	1.49	1.41
33	L1	519	C	C4'-O4'	6.28	1.53	1.45
33	L1	2902	A	P-O5'	-6.28	1.53	1.59
33	L1	3091	U	C5'-C4'	6.28	1.58	1.51
35	L2	98	C	O3'-P	-6.28	1.53	1.61
66	LN	99	ARG	CA-C	-6.28	1.36	1.52
32	S1	1665	U	C2'-C1'	-6.27	1.46	1.53
33	L1	799	U	C2'-C1'	-6.27	1.46	1.53
33	L1	2301	C	O4'-C1'	6.27	1.49	1.41
32	S1	436	G	O4'-C1'	6.27	1.49	1.41
32	S1	895	U	O4'-C1'	6.27	1.49	1.41
32	S1	1297	U	C4'-C3'	6.27	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1319	U	C2'-C1'	6.27	1.60	1.53
33	L1	748	C	O4'-C1'	6.27	1.49	1.41
33	L1	1361	G	P-O5'	-6.27	1.53	1.59
32	S1	1089	A	O3'-P	-6.27	1.53	1.61
33	L1	162	G	C5'-C4'	6.27	1.58	1.51
33	L1	276	U	C2'-C1'	-6.27	1.46	1.53
33	L1	469	U	P-O5'	6.27	1.66	1.59
33	L1	1655	G	C2'-C1'	-6.27	1.46	1.53
33	L1	2076	C	C2'-C1'	6.27	1.60	1.53
33	L1	2151	G	C2'-C1'	6.27	1.60	1.53
33	L1	206	C	C2'-C1'	-6.27	1.46	1.53
32	S1	1483	G	C2'-C1'	-6.27	1.46	1.53
32	S1	1766	A	O4'-C1'	-6.27	1.33	1.41
33	L1	1505	G	O4'-C1'	-6.27	1.33	1.41
33	L1	460	A	P-O5'	6.26	1.66	1.59
33	L1	1159	C	O4'-C1'	6.26	1.49	1.41
33	L1	2857	U	O4'-C1'	6.26	1.49	1.41
34	L3	38	U	C4'-C3'	-6.26	1.46	1.53
43	LO	137	GLY	C-N	6.26	1.44	1.33
31	S2	52	G	C4'-C3'	6.26	1.60	1.53
81	LD	309	PRO	N-CA	-6.26	1.36	1.47
32	S1	1067	A	C4'-C3'	-6.26	1.46	1.53
33	L1	1243	C	C3'-O3'	6.26	1.50	1.42
33	L1	1385	C	P-O5'	-6.26	1.53	1.59
33	L1	1712	A	C3'-C2'	6.26	1.59	1.52
33	L1	2236	U	O3'-P	-6.26	1.53	1.61
33	L1	2760	U	C5'-C4'	6.26	1.58	1.51
10	SL	121	VAL	N-CA	6.26	1.58	1.46
33	L1	619	C	C4'-C3'	-6.26	1.46	1.53
33	L1	1974	C	O4'-C1'	6.26	1.49	1.41
35	L2	72	G	P-O5'	-6.26	1.53	1.59
36	LA	164	MET	C-N	6.26	1.44	1.33
32	S1	632	G	C5'-C4'	6.26	1.58	1.51
33	L1	2807	G	C2'-C1'	-6.26	1.46	1.53
33	L1	1730	U	O3'-P	-6.25	1.53	1.61
35	L2	37	A	O3'-P	-6.25	1.53	1.61
32	S1	1360	G	C5'-C4'	6.25	1.58	1.51
33	L1	524	A	O4'-C1'	6.25	1.49	1.41
32	S1	471	G	O4'-C1'	-6.25	1.33	1.41
32	S1	1127	G	C2'-C1'	-6.25	1.46	1.53
33	L1	1548	U	C2'-C1'	-6.25	1.46	1.53
32	S1	573	C	P-O5'	-6.25	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3006	G	C5'-C4'	6.25	1.58	1.51
34	L3	70	G	O4'-C1'	-6.25	1.33	1.41
77	Lc	85	ARG	CD-NE	6.25	1.57	1.46
33	L1	204	G	C2'-C1'	6.25	1.60	1.53
33	L1	905	G	C2'-C1'	-6.25	1.46	1.53
66	LN	109	LYS	N-CA	6.25	1.58	1.46
33	L1	2677	A	C5'-C4'	6.25	1.58	1.51
32	S1	501	U	C5'-C4'	6.24	1.58	1.51
32	S1	1736	C	C5'-C4'	6.24	1.58	1.51
33	L1	474	G	C2'-C1'	-6.24	1.46	1.53
33	L1	3361	G	C3'-O3'	6.24	1.50	1.42
32	S1	1049	U	C3'-C2'	6.24	1.59	1.52
33	L1	1122	C	O4'-C1'	6.24	1.49	1.41
32	S1	1730	G	C2'-C1'	6.24	1.60	1.53
33	L1	79	C	C2'-C1'	-6.24	1.46	1.53
33	L1	996	A	O4'-C1'	6.24	1.49	1.41
33	L1	3162	C	C2'-C1'	-6.24	1.46	1.53
70	Li	66	ARG	CD-NE	6.24	1.57	1.46
31	S2	61	C	C5'-C4'	6.24	1.58	1.51
32	S1	418	C	C2'-C1'	-6.24	1.46	1.53
33	L1	369	G	O4'-C1'	-6.24	1.33	1.41
33	L1	539	C	O4'-C1'	6.24	1.49	1.41
33	L1	3157	C	O4'-C1'	6.24	1.49	1.41
32	S1	1559	U	P-O5'	-6.24	1.53	1.59
33	L1	3148	A	O3'-P	-6.24	1.53	1.61
32	S1	1486	U	C2'-C1'	6.24	1.60	1.53
33	L1	1466	U	C2'-C1'	-6.24	1.46	1.53
33	L1	2500	U	C2'-C1'	-6.24	1.46	1.53
32	S1	1131	G	C3'-O3'	6.23	1.50	1.42
33	L1	2273	C	O4'-C1'	6.23	1.49	1.41
33	L1	3308	A	C5'-C4'	6.23	1.58	1.51
7	SI	141	ARG	NE-CZ	6.23	1.41	1.33
32	S1	628	G	O3'-P	-6.23	1.53	1.61
33	L1	2164	G	C4'-C3'	-6.23	1.46	1.53
33	L1	3007	A	O5'-C5'	6.23	1.54	1.44
33	L1	3057	A	O3'-P	-6.23	1.53	1.61
2	SA	11	ALA	CA-C	6.23	1.69	1.52
32	S1	462	G	C2'-C1'	-6.23	1.46	1.53
32	S1	1089	A	O4'-C1'	6.23	1.49	1.41
32	S1	1701	G	C3'-C2'	6.23	1.59	1.52
33	L1	1247	G	O3'-P	-6.23	1.53	1.61
35	L2	50	G	C3'-O3'	6.23	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1747	A	P-O5'	-6.23	1.53	1.59
32	S1	282	C	C2'-C1'	6.23	1.60	1.53
33	L1	580	C	C5'-C4'	6.23	1.58	1.51
33	L1	2337	C	C5'-C4'	6.23	1.58	1.51
32	S1	1557	C	C2'-C1'	-6.23	1.46	1.53
32	S1	1558	A	C2'-C1'	-6.23	1.46	1.53
32	S1	1772	A	C3'-C2'	-6.23	1.46	1.52
32	S1	936	C	C2'-C1'	-6.22	1.46	1.53
32	S1	1261	U	C4'-O4'	-6.22	1.37	1.45
33	L1	1578	U	C5'-C4'	6.22	1.58	1.51
33	L1	2622	G	C4'-C3'	-6.22	1.46	1.53
33	L1	2748	G	P-O5'	-6.22	1.53	1.59
4	SD	212	ASP	N-CA	-6.22	1.33	1.46
32	S1	883	G	C2'-C1'	-6.22	1.46	1.53
33	L1	502	G	C2'-C1'	6.22	1.60	1.53
33	L1	1538	A	C5'-C4'	6.22	1.58	1.51
33	L1	2449	A	O4'-C1'	6.22	1.49	1.41
32	S1	1142	A	O4'-C1'	6.22	1.49	1.41
71	Lj	94	PRO	N-CA	6.22	1.57	1.47
32	S1	400	G	C4'-C3'	6.22	1.59	1.53
32	S1	795	A	O3'-P	-6.22	1.53	1.61
32	S1	1545	A	C5'-C4'	-6.22	1.43	1.51
35	L2	79	G	C4'-C3'	6.22	1.59	1.53
33	L1	1786	G	C3'-C2'	-6.22	1.46	1.52
33	L1	2571	C	O4'-C1'	6.22	1.49	1.41
33	L1	428	G	O4'-C1'	6.21	1.49	1.41
33	L1	767	U	C2'-C1'	-6.21	1.46	1.53
33	L1	131	C	C3'-O3'	6.21	1.50	1.42
32	S1	489	C	C5'-C4'	6.21	1.58	1.51
32	S1	567	U	C5'-C4'	6.21	1.58	1.51
33	L1	1366	G	P-O5'	-6.21	1.53	1.59
33	L1	1702	C	C2'-C1'	-6.21	1.46	1.53
69	La	9	LYS	CA-C	6.21	1.69	1.52
33	L1	432	G	C2'-C1'	-6.21	1.46	1.53
25	SC	136	ILE	C-O	-6.21	1.11	1.23
32	S1	443	U	O4'-C1'	6.21	1.49	1.41
33	L1	246	C	O4'-C1'	6.21	1.49	1.41
33	L1	306	A	C2'-C1'	-6.21	1.46	1.53
33	L1	1550	A	C5'-C4'	6.21	1.58	1.51
32	S1	1297	U	C2'-C1'	6.21	1.60	1.53
33	L1	1981	U	C2'-C1'	-6.21	1.46	1.53
33	L1	356	G	O3'-P	-6.20	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	11	A	C2'-C1'	6.20	1.60	1.53
32	S1	649	C	C2'-C1'	-6.20	1.46	1.53
33	L1	2337	C	C3'-O3'	6.20	1.50	1.42
33	L1	1336	A	P-O5'	-6.20	1.53	1.59
35	L2	100	A	C4'-O4'	6.20	1.53	1.45
83	Lm	8	ALA	N-CA	6.20	1.58	1.46
33	L1	1006	A	O4'-C1'	6.20	1.49	1.41
33	L1	1386	G	O4'-C1'	6.20	1.49	1.41
33	L1	1679	U	C5'-C4'	6.20	1.58	1.51
33	L1	1910	G	O3'-P	-6.20	1.53	1.61
33	L1	2214	A	C2'-C1'	-6.20	1.46	1.53
33	L1	2458	A	O4'-C1'	-6.20	1.33	1.41
33	L1	2538	G	O4'-C1'	-6.20	1.33	1.41
33	L1	2624	G	C3'-O3'	6.20	1.50	1.42
23	SU	68	THR	C-O	-6.20	1.11	1.23
33	L1	488	U	C3'-C2'	6.20	1.59	1.52
73	Lp	51	ILE	C-N	6.20	1.48	1.34
32	S1	55	A	O4'-C1'	6.20	1.49	1.41
32	S1	1760	A	O4'-C1'	6.20	1.49	1.41
33	L1	1473	U	C3'-C2'	-6.20	1.46	1.52
33	L1	1990	A	C2'-C1'	-6.20	1.46	1.53
33	L1	2213	G	C5'-C4'	6.20	1.58	1.51
33	L1	3157	C	O3'-P	-6.20	1.53	1.61
32	S1	996	G	C2'-C1'	6.19	1.60	1.53
33	L1	704	G	C2'-C1'	-6.19	1.46	1.53
48	LV	136	ARG	NE-CZ	6.19	1.41	1.33
32	S1	632	G	C3'-C2'	6.19	1.59	1.52
46	LT	31	GLU	CD-OE2	-6.19	1.18	1.25
32	S1	173	G	O4'-C1'	6.19	1.49	1.41
32	S1	600	C	C2'-C1'	-6.19	1.46	1.53
32	S1	1230	A	O4'-C1'	6.19	1.49	1.41
32	S1	720	U	P-O5'	6.19	1.66	1.59
32	S1	800	U	C4'-C3'	-6.19	1.46	1.53
32	S1	1003	A	C2'-C1'	-6.19	1.46	1.53
33	L1	1395	A	P-O5'	-6.19	1.53	1.59
32	S1	97	G	O4'-C1'	6.19	1.49	1.41
33	L1	2515	C	C2'-C1'	-6.18	1.46	1.53
45	LQ	256	SER	CA-CB	6.18	1.62	1.52
32	S1	1712	C	C3'-C2'	6.18	1.59	1.52
33	L1	626	G	C2'-C1'	-6.18	1.46	1.53
33	L1	1118	G	C2'-C1'	6.18	1.60	1.53
35	L2	53	G	O3'-P	-6.18	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	606	C	O4'-C1'	6.18	1.49	1.41
33	L1	1421	A	C5'-C4'	6.18	1.58	1.51
33	L1	2465	G	C2'-C1'	-6.18	1.46	1.53
33	L1	2479	C	C3'-O3'	6.18	1.50	1.42
33	L1	2677	A	P-O5'	-6.18	1.53	1.59
51	LY	73	TYR	CG-CD1	6.18	1.47	1.39
2	SA	41	TYR	CB-CG	-6.18	1.42	1.51
24	SX	75	LEU	N-CA	-6.18	1.33	1.46
32	S1	1383	U	O4'-C1'	6.18	1.49	1.41
33	L1	2336	C	C5'-C4'	6.18	1.58	1.51
33	L1	1813	C	O4'-C1'	6.18	1.49	1.41
32	S1	466	G	C4'-O4'	-6.18	1.37	1.45
32	S1	599	G	O4'-C1'	6.18	1.49	1.41
33	L1	83	U	O4'-C1'	6.18	1.49	1.41
33	L1	604	C	C2'-C1'	-6.18	1.46	1.53
33	L1	1272	G	C2'-C1'	-6.18	1.46	1.53
33	L1	2123	C	C2'-C1'	-6.18	1.46	1.53
33	L1	2228	A	C4'-O4'	6.18	1.53	1.45
31	S2	4	G	O4'-C1'	-6.17	1.33	1.41
32	S1	408	G	C4'-C3'	-6.17	1.46	1.53
32	S1	496	A	O4'-C1'	6.17	1.49	1.41
33	L1	248	C	C2'-C1'	-6.17	1.46	1.53
33	L1	610	G	C3'-O3'	6.17	1.50	1.42
33	L1	1668	U	C3'-O3'	6.17	1.50	1.42
33	L1	2935	A	C2'-C1'	-6.17	1.46	1.53
33	L1	3146	C	O4'-C1'	6.17	1.49	1.41
32	S1	1107	G	C2'-C1'	-6.17	1.46	1.53
32	S1	207	A	O4'-C1'	6.17	1.49	1.41
32	S1	1448	U	O4'-C1'	6.17	1.49	1.41
33	L1	579	G	C2'-C1'	-6.17	1.46	1.53
33	L1	1168	G	C3'-C2'	6.17	1.59	1.52
33	L1	1198	G	C2'-C1'	6.17	1.60	1.53
33	L1	2740	C	O3'-P	-6.17	1.53	1.61
33	L1	603	G	C4'-O4'	6.17	1.53	1.45
30	S3	20	U	O4'-C1'	6.17	1.49	1.41
32	S1	1157	A	C3'-C2'	6.17	1.59	1.52
32	S1	1330	A	C2'-C1'	-6.17	1.46	1.53
33	L1	1948	G	O3'-P	-6.17	1.53	1.61
33	L1	1988	G	C2'-C1'	-6.17	1.46	1.53
33	L1	770	U	C2'-C1'	6.17	1.60	1.53
33	L1	2473	C	O4'-C1'	6.17	1.49	1.41
71	Lj	57	TYR	CB-CG	-6.17	1.42	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	958	U	C3'-O3'	6.16	1.50	1.42
33	L1	1680	A	O3'-P	-6.16	1.53	1.61
33	L1	2647	C	C2'-C1'	6.16	1.60	1.53
5	SE	38	ARG	CZ-NH1	6.16	1.41	1.33
32	S1	323	U	O4'-C1'	6.16	1.49	1.41
32	S1	1706	G	C2'-C1'	6.16	1.60	1.53
42	LP	187	SER	CA-CB	6.16	1.62	1.52
32	S1	451	U	C5'-C4'	6.16	1.58	1.51
32	S1	1760	A	C5'-C4'	6.16	1.58	1.51
34	L3	97	G	C5'-C4'	6.16	1.58	1.51
32	S1	1093	A	O4'-C1'	6.16	1.49	1.41
33	L1	940	G	O4'-C1'	6.16	1.49	1.41
33	L1	1610	A	C2'-C1'	6.16	1.60	1.53
33	L1	1870	G	C2'-C1'	-6.16	1.46	1.53
69	La	29	PHE	N-CA	6.15	1.58	1.46
10	SL	18	ARG	CZ-NH2	6.15	1.41	1.33
25	SC	143	VAL	C-O	-6.15	1.11	1.23
31	S2	22	G	P-O5'	6.15	1.66	1.59
32	S1	672	G	C2'-C1'	-6.15	1.46	1.53
32	S1	1130	A	O4'-C1'	6.15	1.49	1.41
33	L1	2357	A	C2'-C1'	-6.15	1.46	1.53
33	L1	1370	A	O3'-P	-6.15	1.53	1.61
33	L1	3239	G	O4'-C1'	-6.15	1.33	1.41
32	S1	1098	A	C4'-C3'	6.15	1.59	1.53
33	L1	1534	C	O4'-C1'	6.15	1.49	1.41
67	LS	138	ARG	NE-CZ	6.15	1.41	1.33
33	L1	2972	C	O3'-P	-6.15	1.53	1.61
33	L1	1177	G	C2'-C1'	-6.15	1.46	1.53
33	L1	3341	C	C3'-O3'	6.15	1.50	1.42
11	SM	17	ASN	CB-CG	6.14	1.65	1.51
32	S1	387	G	O4'-C1'	6.14	1.49	1.41
32	S1	1253	U	O3'-P	-6.14	1.53	1.61
33	L1	1440	C	O4'-C1'	6.14	1.49	1.41
33	L1	3355	U	C4'-O4'	6.14	1.53	1.45
34	L3	20	C	O4'-C1'	6.14	1.49	1.41
33	L1	43	U	C2'-C1'	6.14	1.60	1.53
33	L1	1331	C	O4'-C1'	6.14	1.49	1.41
33	L1	1527	A	C2'-C1'	6.14	1.60	1.53
78	Le	227	GLY	CA-C	-6.14	1.42	1.51
80	LC	385	GLY	N-CA	6.14	1.55	1.46
31	S2	40	U	C5'-C4'	6.14	1.58	1.51
32	S1	555	G	C2'-C1'	-6.14	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	581	G	O4'-C1'	-6.14	1.33	1.41
32	S1	1240	A	C5'-C4'	6.14	1.58	1.51
33	L1	32	G	C5'-C4'	6.14	1.58	1.51
31	S2	13	U	O3'-P	-6.14	1.53	1.61
32	S1	1467	C	C2'-C1'	6.14	1.60	1.53
32	S1	1607	C	C5'-C4'	6.14	1.58	1.51
33	L1	277	U	O4'-C1'	6.14	1.49	1.41
33	L1	441	G	O4'-C1'	-6.14	1.33	1.41
33	L1	478	G	P-O5'	-6.14	1.53	1.59
35	L2	102	U	C3'-C2'	6.14	1.59	1.52
32	S1	1257	U	O3'-P	-6.14	1.53	1.61
33	L1	1881	C	C3'-C2'	6.14	1.59	1.52
33	L1	2448	G	C3'-C2'	-6.14	1.46	1.52
33	L1	3305	U	C2'-C1'	6.14	1.60	1.53
35	L2	63	A	O3'-P	-6.14	1.53	1.61
5	SE	147	PRO	N-CA	-6.13	1.36	1.47
32	S1	650	G	O4'-C1'	6.13	1.49	1.41
33	L1	3142	C	C3'-O3'	6.13	1.50	1.42
32	S1	988	G	O4'-C1'	6.13	1.49	1.41
33	L1	522	C	C3'-O3'	6.13	1.50	1.42
33	L1	662	G	O3'-P	-6.13	1.53	1.61
33	L1	1608	C	C3'-O3'	6.13	1.50	1.42
32	S1	1238	A	C2'-C1'	6.13	1.60	1.53
33	L1	974	G	O4'-C1'	-6.13	1.33	1.41
33	L1	1631	G	C3'-C2'	6.13	1.59	1.52
33	L1	2178	G	P-O5'	-6.13	1.53	1.59
33	L1	2339	U	P-O5'	-6.13	1.53	1.59
41	LM	72	LEU	C-N	6.13	1.48	1.34
13	SQ	42	PRO	N-CD	-6.13	1.39	1.47
32	S1	341	G	O4'-C1'	6.13	1.49	1.41
32	S1	966	U	C2'-C1'	-6.13	1.46	1.53
33	L1	3133	C	O4'-C1'	6.13	1.49	1.41
15	SS	68	TYR	CE2-CZ	6.13	1.46	1.38
32	S1	1224	C	O3'-P	-6.13	1.53	1.61
33	L1	955	A	C5'-C4'	6.13	1.58	1.51
33	L1	1188	C	O4'-C1'	6.13	1.49	1.41
33	L1	2675	G	P-O5'	6.13	1.65	1.59
33	L1	2890	U	O4'-C1'	6.13	1.49	1.41
33	L1	986	G	P-O5'	-6.13	1.53	1.59
33	L1	2214	A	C4'-C3'	6.13	1.59	1.53
34	L3	34	C	C2'-C1'	-6.13	1.46	1.53
32	S1	1776	A	C2'-C1'	-6.12	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1856	G	C2'-C1'	6.12	1.60	1.53
57	L1	11	ARG	C-O	-6.12	1.11	1.23
32	S1	608	U	O4'-C1'	-6.12	1.33	1.41
32	S1	1670	G	C5'-C4'	6.12	1.58	1.51
33	L1	644	U	C2'-C1'	-6.12	1.46	1.53
33	L1	565	C	C2'-C1'	-6.12	1.46	1.53
33	L1	1190	C	O3'-P	-6.12	1.53	1.61
33	L1	1455	A	O3'-P	-6.12	1.53	1.61
33	L1	1792	G	C5'-C4'	6.12	1.58	1.51
33	L1	2169	U	P-O5'	-6.12	1.53	1.59
33	L1	2729	C	O3'-P	-6.12	1.53	1.61
32	S1	1475	A	O4'-C1'	6.12	1.49	1.41
32	S1	1606	U	C2'-C1'	-6.12	1.46	1.53
7	SI	63	ARG	NE-CZ	6.12	1.41	1.33
33	L1	1159	C	C4'-C3'	6.12	1.59	1.53
33	L1	1525	U	C3'-C2'	-6.12	1.46	1.52
33	L1	2742	A	P-O5'	-6.12	1.53	1.59
32	S1	1131	G	O4'-C1'	-6.12	1.33	1.41
32	S1	1358	G	C4'-O4'	6.12	1.53	1.45
33	L1	2710	C	O4'-C1'	6.12	1.49	1.41
32	S1	894	U	O4'-C1'	6.12	1.49	1.41
33	L1	516	C	C2'-C1'	-6.12	1.46	1.53
33	L1	2338	C	P-O5'	-6.12	1.53	1.59
33	L1	243	C	C2'-C1'	-6.11	1.46	1.53
33	L1	1720	C	C2'-C1'	-6.11	1.46	1.53
10	SL	84	VAL	N-CA	-6.11	1.34	1.46
32	S1	635	G	C5'-C4'	6.11	1.58	1.51
33	L1	1509	G	P-O5'	-6.11	1.53	1.59
33	L1	1656	C	O4'-C1'	6.11	1.49	1.41
33	L1	2719	U	C5'-C4'	6.11	1.58	1.51
33	L1	2975	G	C5'-C4'	6.11	1.58	1.51
33	L1	1048	U	O4'-C1'	6.11	1.49	1.41
33	L1	2470	C	C3'-O3'	6.11	1.50	1.42
33	L1	805	C	O4'-C1'	6.11	1.49	1.41
33	L1	2671	A	O4'-C1'	-6.11	1.33	1.41
8	SJ	78	PRO	C-O	-6.11	1.11	1.23
32	S1	1031	A	C4'-C3'	6.11	1.59	1.53
33	L1	261	C	O4'-C1'	6.11	1.49	1.41
33	L1	318	G	C4'-C3'	-6.11	1.46	1.53
33	L1	552	G	C2'-C1'	-6.11	1.46	1.53
33	L1	702	G	O4'-C1'	6.11	1.49	1.41
33	L1	873	A	P-O5'	-6.11	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1132	A	O3'-P	-6.11	1.53	1.61
32	S1	1316	A	C4'-C3'	-6.10	1.46	1.53
33	L1	3152	C	O4'-C1'	6.10	1.49	1.41
35	L2	127	G	C2'-C1'	6.10	1.60	1.53
1	Sa	279	ARG	CZ-NH1	6.10	1.41	1.33
32	S1	1793	C	O5'-C5'	6.10	1.54	1.44
7	SI	72	ARG	NE-CZ	6.10	1.41	1.33
19	SY	48	GLU	CB-CG	6.10	1.63	1.52
34	L3	75	G	O4'-C1'	-6.10	1.33	1.41
34	L3	98	G	C4'-O4'	-6.10	1.37	1.45
40	LH	226	ARG	CZ-NH2	6.10	1.41	1.33
33	L1	182	C	C2'-C1'	-6.10	1.46	1.53
33	L1	2760	U	O3'-P	-6.10	1.53	1.61
33	L1	503	U	O4'-C1'	6.10	1.49	1.41
33	L1	1167	G	C3'-O3'	6.10	1.50	1.42
33	L1	1281	C	O3'-P	-6.10	1.53	1.61
33	L1	2679	A	C5'-C4'	6.09	1.58	1.51
33	L1	2713	G	C5'-C4'	6.09	1.58	1.51
33	L1	2904	A	C2'-O2'	6.09	1.49	1.41
13	SQ	63	ARG	CZ-NH1	6.09	1.41	1.33
32	S1	652	G	O3'-P	-6.09	1.53	1.61
33	L1	640	C	C3'-C2'	6.09	1.59	1.52
51	LY	77	TRP	CZ2-CH2	6.09	1.49	1.37
23	SU	29	VAL	CA-CB	-6.09	1.42	1.54
33	L1	233	C	C5'-C4'	6.09	1.58	1.51
33	L1	564	A	C4'-O4'	6.09	1.53	1.45
33	L1	960	C	C5'-C4'	6.09	1.58	1.51
33	L1	1257	U	C2'-C1'	6.09	1.60	1.53
33	L1	1983	U	C2'-C1'	-6.09	1.46	1.53
33	L1	2613	G	O4'-C1'	-6.09	1.33	1.41
32	S1	1180	U	O4'-C1'	6.09	1.49	1.41
33	L1	775	A	C2'-C1'	-6.09	1.46	1.53
33	L1	2754	G	C4'-C3'	-6.09	1.46	1.53
32	S1	1195	U	C5'-C4'	6.09	1.58	1.51
32	S1	1290	U	C5'-C4'	6.09	1.58	1.51
32	S1	1464	G	P-OP2	6.09	1.59	1.49
35	L2	64	U	P-O5'	-6.09	1.53	1.59
32	S1	1421	U	P-OP2	6.08	1.59	1.49
33	L1	174	G	O4'-C1'	6.08	1.49	1.41
33	L1	827	C	P-O5'	-6.08	1.53	1.59
33	L1	1482	C	C2'-C1'	-6.08	1.46	1.53
33	L1	2477	G	O3'-P	-6.08	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2617	G	P-O5'	6.08	1.65	1.59
32	S1	1033	C	O4'-C1'	6.08	1.49	1.41
33	L1	2668	U	C3'-O3'	6.08	1.50	1.42
35	L2	56	A	C4'-C3'	6.08	1.59	1.53
38	LE	143	ARG	CD-NE	6.08	1.56	1.46
33	L1	495	G	C2'-C1'	6.08	1.60	1.53
33	L1	2872	C	C3'-O3'	6.08	1.50	1.42
28	SN	11	PRO	N-CD	-6.08	1.39	1.47
32	S1	823	A	O3'-P	-6.08	1.53	1.61
32	S1	1381	G	O3'-P	-6.08	1.53	1.61
32	S1	1579	C	O4'-C1'	6.08	1.49	1.41
33	L1	221	C	O4'-C1'	6.08	1.49	1.41
33	L1	2992	G	C4'-C3'	-6.08	1.46	1.53
34	L3	1	G	O3'-P	6.08	1.68	1.61
31	S2	9	A	C3'-O3'	6.08	1.50	1.42
33	L1	1441	U	C5'-C4'	6.08	1.58	1.51
33	L1	2561	A	P-OP2	6.08	1.59	1.49
32	S1	783	C	C3'-O3'	6.08	1.50	1.42
32	S1	998	A	P-O5'	-6.08	1.53	1.59
33	L1	208	G	O4'-C1'	6.08	1.49	1.41
33	L1	490	G	O3'-P	-6.08	1.53	1.61
33	L1	971	G	C2'-C1'	-6.08	1.46	1.53
33	L1	1082	U	C5'-C4'	6.08	1.58	1.51
33	L1	2951	U	P-O5'	-6.08	1.53	1.59
33	L1	3279	G	O4'-C1'	6.08	1.49	1.41
70	Li	42	PRO	CA-C	6.07	1.65	1.52
33	L1	564	A	O4'-C1'	6.07	1.49	1.41
33	L1	1382	C	C4'-O4'	6.07	1.53	1.45
33	L1	269	C	C2'-C1'	-6.07	1.46	1.53
33	L1	972	C	C4'-O4'	6.07	1.53	1.45
1	Sa	67	GLY	CA-C	-6.07	1.42	1.51
1	Sa	257	PHE	CG-CD2	6.07	1.47	1.38
32	S1	836	U	C2'-C1'	6.07	1.60	1.53
33	L1	401	C	O4'-C1'	6.07	1.49	1.41
33	L1	1950	G	C5'-C4'	6.07	1.58	1.51
33	L1	2773	G	P-O5'	-6.07	1.53	1.59
35	L2	94	C	O3'-P	-6.07	1.53	1.61
32	S1	827	C	C3'-C2'	6.07	1.59	1.52
33	L1	540	G	C5'-C4'	6.07	1.58	1.51
33	L1	1259	C	O3'-P	-6.07	1.53	1.61
33	L1	1494	A	C2'-C1'	6.07	1.60	1.53
33	L1	2803	A	O4'-C1'	-6.07	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	SS	15	HIS	N-CA	-6.06	1.34	1.46
33	L1	2526	G	O3'-P	-6.06	1.53	1.61
32	S1	582	U	C2'-C1'	-6.06	1.46	1.53
32	S1	1495	U	C5'-C4'	6.06	1.58	1.51
32	S1	1678	G	C4'-C3'	6.06	1.59	1.53
33	L1	918	A	C4'-O4'	6.06	1.53	1.45
33	L1	1608	C	C4'-O4'	6.06	1.53	1.45
33	L1	2420	U	C2'-C1'	-6.06	1.46	1.53
32	S1	261	C	O3'-P	-6.06	1.53	1.61
33	L1	1429	U	O3'-P	-6.06	1.53	1.61
42	LP	94	PHE	CG-CD1	6.06	1.47	1.38
32	S1	1615	G	P-O5'	-6.06	1.53	1.59
32	S1	1756	A	O4'-C1'	6.06	1.49	1.41
59	Lo	22	PRO	CA-C	-6.06	1.40	1.52
31	S2	65	U	C5'-C4'	6.06	1.58	1.51
32	S1	263	C	C3'-O3'	6.06	1.50	1.42
32	S1	356	G	C5'-C4'	6.06	1.58	1.51
33	L1	2418	A	C4'-O4'	-6.06	1.37	1.45
13	SQ	61	ILE	N-CA	6.05	1.58	1.46
31	S2	29	C	O4'-C1'	6.05	1.49	1.41
32	S1	912	A	C4'-O4'	6.05	1.53	1.45
33	L1	273	U	P-O5'	-6.05	1.53	1.59
32	S1	1564	A	C2'-C1'	-6.05	1.46	1.53
33	L1	2142	A	O3'-P	-6.05	1.53	1.61
32	S1	953	G	C2'-C1'	6.05	1.60	1.53
33	L1	301	G	O3'-P	-6.05	1.53	1.61
33	L1	2621	G	C5'-C4'	6.05	1.58	1.51
64	LG	152	LYS	N-CA	-6.05	1.34	1.46
33	L1	2850	G	C3'-O3'	6.05	1.50	1.42
35	L2	86	C	P-O5'	-6.05	1.53	1.59
3	SB	143	ARG	CZ-NH2	6.05	1.41	1.33
5	SE	102	GLY	N-CA	-6.05	1.36	1.46
32	S1	41	A	O4'-C1'	6.05	1.49	1.41
32	S1	530	A	C5'-C4'	6.05	1.58	1.51
32	S1	1475	A	C2'-C1'	-6.05	1.46	1.53
33	L1	693	C	C2'-C1'	-6.05	1.46	1.53
33	L1	2259	U	C3'-O3'	6.05	1.50	1.42
33	L1	3326	U	O3'-P	-6.05	1.53	1.61
51	LY	77	TRP	CE3-CZ3	6.05	1.48	1.38
32	S1	376	G	C3'-O3'	6.04	1.50	1.42
32	S1	967	C	C2'-C1'	-6.04	1.46	1.53
32	S1	1027	C	C2'-C1'	-6.04	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1312	G	C3'-C2'	-6.04	1.46	1.52
33	L1	808	G	C2'-C1'	6.04	1.59	1.53
33	L1	1167	G	O3'-P	-6.04	1.53	1.61
33	L1	1780	C	P-O5'	-6.04	1.53	1.59
32	S1	6	G	C2'-C1'	-6.04	1.46	1.53
33	L1	2717	G	O3'-P	6.04	1.68	1.61
32	S1	1655	U	C2'-C1'	-6.04	1.46	1.53
33	L1	472	U	P-O5'	-6.04	1.53	1.59
32	S1	108	C	P-O5'	-6.04	1.53	1.59
33	L1	925	U	P-O5'	-6.04	1.53	1.59
33	L1	2522	C	C2'-C1'	-6.04	1.46	1.53
32	S1	1582	G	C2'-C1'	-6.04	1.46	1.53
33	L1	897	U	C5'-C4'	-6.04	1.44	1.51
40	LH	61	ARG	CD-NE	6.04	1.56	1.46
32	S1	682	A	O4'-C1'	6.03	1.49	1.41
32	S1	1206	A	C2'-C1'	6.03	1.59	1.53
32	S1	1270	U	C2'-C1'	-6.03	1.46	1.53
32	S1	1222	G	C3'-O3'	6.03	1.50	1.42
33	L1	107	C	C2'-C1'	-6.03	1.46	1.53
33	L1	320	U	O3'-P	-6.03	1.53	1.61
33	L1	617	C	O4'-C1'	6.03	1.49	1.41
33	L1	1343	C	C3'-O3'	6.03	1.50	1.42
11	SM	21	ASP	C-N	6.03	1.44	1.33
32	S1	13	C	P-O5'	-6.03	1.53	1.59
32	S1	375	G	O4'-C1'	-6.03	1.33	1.41
32	S1	1592	G	O4'-C1'	-6.03	1.33	1.41
32	S1	1760	A	C2'-C1'	6.03	1.59	1.53
33	L1	2142	A	O4'-C1'	6.03	1.49	1.41
32	S1	901	U	O4'-C1'	6.03	1.49	1.41
33	L1	1905	A	C2'-C1'	6.03	1.59	1.53
33	L1	2114	A	C2'-C1'	-6.03	1.46	1.53
23	SU	24	SER	N-CA	-6.03	1.34	1.46
32	S1	644	U	O4'-C1'	6.03	1.49	1.41
33	L1	1441	U	P-O5'	-6.03	1.53	1.59
33	L1	1790	A	C3'-O3'	6.03	1.50	1.42
47	LU	164	TYR	CB-CG	-6.03	1.42	1.51
33	L1	25	U	C3'-C2'	6.03	1.59	1.52
33	L1	2516	U	O4'-C1'	6.03	1.49	1.41
32	S1	139	U	C2'-C1'	6.02	1.59	1.53
33	L1	588	G	C3'-C2'	-6.02	1.46	1.52
33	L1	2762	U	C3'-O3'	6.02	1.50	1.42
35	L2	61	C	C4'-C3'	-6.02	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	791	C	C3'-O3'	6.02	1.50	1.42
33	L1	1631	G	O4'-C1'	6.02	1.49	1.41
33	L1	2946	U	C5'-C4'	6.02	1.58	1.51
48	LV	152	SER	CA-CB	6.02	1.61	1.52
60	Lr	46	LYS	C-O	-6.02	1.11	1.23
33	L1	1398	A	C2'-C1'	6.02	1.59	1.53
32	S1	1048	A	C2'-C1'	6.02	1.59	1.53
32	S1	1790	G	C5'-C4'	6.02	1.58	1.51
32	S1	517	U	P-O5'	-6.02	1.53	1.59
33	L1	933	U	O4'-C1'	-6.02	1.33	1.41
33	L1	1672	G	C3'-O3'	6.02	1.50	1.42
33	L1	1705	A	O4'-C1'	6.02	1.49	1.41
33	L1	2349	C	C5'-C4'	6.02	1.58	1.51
33	L1	1242	U	C2'-C1'	-6.02	1.46	1.53
35	L2	157	C	O3'-P	-6.02	1.53	1.61
31	S2	10	G	C2'-C1'	-6.01	1.46	1.53
32	S1	397	C	C5'-C4'	6.01	1.58	1.51
33	L1	1899	U	C5'-C4'	6.01	1.58	1.51
32	S1	905	A	C3'-O3'	6.01	1.50	1.42
33	L1	461	A	P-O5'	-6.01	1.53	1.59
33	L1	1688	U	C2'-C1'	-6.01	1.46	1.53
15	SS	4	SER	CB-OG	6.01	1.50	1.42
32	S1	1565	U	C5'-C4'	6.01	1.58	1.51
32	S1	1739	U	C5'-C4'	6.01	1.58	1.51
33	L1	3376	C	C5'-C4'	6.01	1.58	1.51
32	S1	1263	C	O4'-C1'	6.01	1.49	1.41
33	L1	1582	C	O4'-C1'	6.01	1.49	1.41
33	L1	1084	G	C2'-C1'	-6.01	1.46	1.53
33	L1	3228	C	O4'-C1'	6.01	1.49	1.41
47	LU	65	TRP	CZ3-CH2	6.01	1.49	1.40
31	S2	39	G	C4'-O4'	-6.00	1.37	1.45
33	L1	105	A	O3'-P	-6.00	1.53	1.61
33	L1	613	G	C4'-C3'	-6.00	1.46	1.52
31	S2	69	G	C2'-C1'	-6.00	1.46	1.53
32	S1	921	U	C2'-C1'	-6.00	1.46	1.53
32	S1	961	U	O3'-P	-6.00	1.53	1.61
32	S1	1229	C	C2'-C1'	-6.00	1.46	1.53
33	L1	311	G	C2'-O2'	6.00	1.49	1.41
33	L1	1700	U	C2'-C1'	6.00	1.59	1.53
33	L1	1716	G	C3'-O3'	6.00	1.50	1.42
33	L1	2871	U	P-O5'	6.00	1.65	1.59
33	L1	3225	G	O3'-P	-6.00	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	LR	146	ARG	CD-NE	6.00	1.56	1.46
64	LG	69	THR	N-CA	6.00	1.58	1.46
33	L1	1949	G	C3'-O3'	6.00	1.50	1.42
33	L1	3273	C	O4'-C1'	6.00	1.49	1.41
5	SE	251	GLU	CD-OE1	-6.00	1.19	1.25
11	SM	22	GLY	N-CA	6.00	1.55	1.46
60	Lr	61	LYS	CB-CG	6.00	1.68	1.52
66	LN	79	ASP	CA-C	-6.00	1.37	1.52
80	LC	65	SER	CA-CB	6.00	1.61	1.52
31	S2	57	A	C5'-C4'	5.99	1.58	1.51
32	S1	1748	U	C4'-C3'	5.99	1.59	1.53
33	L1	211	A	O4'-C1'	5.99	1.49	1.41
33	L1	1443	G	C3'-O3'	5.99	1.50	1.42
33	L1	2462	G	O3'-P	-5.99	1.53	1.61
33	L1	2577	G	C5'-C4'	5.99	1.58	1.51
33	L1	3203	G	P-O5'	-5.99	1.53	1.59
32	S1	613	U	O4'-C1'	5.99	1.49	1.41
32	S1	1578	A	O4'-C1'	5.99	1.49	1.41
33	L1	138	G	O4'-C1'	5.99	1.49	1.41
33	L1	1183	C	C2'-C1'	5.99	1.59	1.53
33	L1	1890	C	C3'-O3'	5.99	1.50	1.42
33	L1	2621	G	P-O5'	-5.99	1.53	1.59
32	S1	680	C	C2'-C1'	-5.99	1.46	1.53
33	L1	923	A	P-O5'	-5.99	1.53	1.59
33	L1	1728	G	C2'-C1'	5.99	1.59	1.53
33	L1	2940	G	C2'-C1'	5.99	1.59	1.53
32	S1	1143	A	P-O5'	-5.99	1.53	1.59
32	S1	1805	U	C5'-C4'	5.99	1.58	1.51
33	L1	2200	U	C2'-C1'	-5.99	1.46	1.53
33	L1	2247	A	P-O5'	-5.99	1.53	1.59
33	L1	3170	C	C3'-C2'	5.99	1.59	1.52
32	S1	1763	A	O4'-C1'	5.98	1.49	1.41
33	L1	2794	A	C4'-C3'	5.98	1.59	1.53
33	L1	3391	U	C2'-C1'	5.98	1.59	1.53
19	SY	27	ARG	CD-NE	5.98	1.56	1.46
33	L1	1059	A	P-O5'	-5.98	1.53	1.59
33	L1	3008	U	C5'-C4'	5.98	1.58	1.51
33	L1	309	C	P-O5'	5.98	1.65	1.59
33	L1	1283	C	O3'-P	-5.98	1.53	1.61
33	L1	326	C	C3'-C2'	-5.98	1.46	1.52
33	L1	2011	G	C2'-C1'	-5.98	1.46	1.53
42	LP	49	ARG	CD-NE	5.98	1.56	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	512	U	O3'-P	-5.98	1.53	1.61
33	L1	722	C	O3'-P	-5.98	1.53	1.61
33	L1	1715	C	C3'-C2'	5.98	1.59	1.52
33	L1	2946	U	C2'-C1'	5.98	1.59	1.53
32	S1	1301	G	O3'-P	-5.97	1.53	1.61
32	S1	1305	U	C5'-C4'	5.97	1.58	1.51
33	L1	466	U	O4'-C1'	5.97	1.49	1.41
33	L1	1060	U	O4'-C1'	-5.97	1.33	1.41
33	L1	3310	A	C4'-O4'	5.97	1.53	1.45
32	S1	418	C	C3'-C2'	5.97	1.59	1.52
32	S1	1183	G	C5'-C4'	5.97	1.58	1.51
33	L1	1226	G	O5'-C5'	5.97	1.54	1.44
33	L1	1906	A	O3'-P	-5.97	1.53	1.61
33	L1	2516	U	C2'-C1'	-5.97	1.46	1.53
32	S1	978	A	P-O5'	5.97	1.65	1.59
33	L1	856	G	C4'-O4'	5.97	1.53	1.45
33	L1	887	A	P-O5'	-5.97	1.53	1.59
33	L1	1194	C	C4'-O4'	5.97	1.53	1.45
32	S1	913	U	C3'-O3'	5.97	1.50	1.42
32	S1	1369	C	O3'-P	-5.97	1.53	1.61
33	L1	2205	G	C2'-C1'	5.97	1.59	1.53
33	L1	2750	A	C3'-O3'	5.97	1.50	1.42
33	L1	365	A	C3'-O3'	5.97	1.50	1.42
33	L1	3101	C	C3'-O3'	5.97	1.50	1.42
32	S1	617	G	C5'-C4'	5.97	1.58	1.51
33	L1	522	C	C2'-C1'	5.97	1.59	1.53
33	L1	1268	G	O3'-P	-5.97	1.53	1.61
1	Sa	263	ARG	CZ-NH1	5.96	1.40	1.33
33	L1	1610	A	C3'-C2'	5.96	1.59	1.52
33	L1	1841	G	C5'-C4'	5.96	1.58	1.51
33	L1	2342	C	C5'-C4'	5.96	1.58	1.51
33	L1	3096	U	O4'-C1'	-5.96	1.33	1.41
47	LU	57	TYR	CE1-CZ	5.96	1.46	1.38
33	L1	1278	A	O3'-P	-5.96	1.53	1.61
16	SR	86	ARG	NE-CZ	5.96	1.40	1.33
32	S1	31	C	C2'-C1'	-5.96	1.46	1.53
32	S1	684	C	C2'-C1'	-5.96	1.46	1.53
33	L1	93	G	O4'-C1'	5.96	1.49	1.41
33	L1	910	G	C3'-C2'	-5.96	1.46	1.52
33	L1	1105	G	C2'-C1'	5.96	1.59	1.53
35	L2	113	A	O4'-C1'	5.96	1.49	1.41
32	S1	1218	U	O4'-C1'	-5.96	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1245	G	C5'-C4'	5.96	1.58	1.51
36	LA	1	MET	N-CA	5.96	1.58	1.46
32	S1	302	C	C5'-C4'	5.96	1.58	1.51
33	L1	158	A	O4'-C1'	5.96	1.49	1.41
33	L1	504	U	C2'-C1'	5.96	1.59	1.53
33	L1	2067	G	C2'-C1'	-5.96	1.46	1.53
33	L1	2430	C	C4'-C3'	5.96	1.59	1.53
32	S1	1097	A	C5'-C4'	5.96	1.58	1.51
32	S1	1604	C	O3'-P	-5.95	1.54	1.61
33	L1	226	U	C4'-C3'	-5.95	1.46	1.52
33	L1	1517	C	C2'-C1'	-5.95	1.46	1.53
33	L1	2716	U	P-O5'	-5.95	1.53	1.59
31	S2	61	C	C2'-C1'	-5.95	1.46	1.53
32	S1	770	U	O3'-P	-5.95	1.54	1.61
33	L1	427	U	C2'-C1'	-5.95	1.46	1.53
35	L2	48	A	O3'-P	-5.95	1.54	1.61
32	S1	951	U	O4'-C1'	5.95	1.49	1.41
32	S1	1601	A	C2'-C1'	-5.95	1.46	1.53
33	L1	255	C	O3'-P	-5.95	1.54	1.61
33	L1	1361	G	C5'-C4'	5.95	1.58	1.51
33	L1	3090	C	O3'-P	-5.95	1.54	1.61
33	L1	2519	U	O4'-C1'	5.95	1.49	1.41
31	S2	43	C	P-O5'	-5.95	1.53	1.59
33	L1	2661	G	C4'-O4'	5.95	1.53	1.45
32	S1	575	G	C5'-C4'	5.94	1.58	1.51
32	S1	879	C	C5'-C4'	5.94	1.58	1.51
33	L1	3055	U	O3'-P	-5.94	1.54	1.61
42	LP	24	ARG	NE-CZ	5.94	1.40	1.33
33	L1	1800	G	C2'-C1'	5.94	1.59	1.53
32	S1	1319	U	C5'-C4'	5.94	1.58	1.51
33	L1	1649	G	C4'-O4'	5.94	1.53	1.45
33	L1	1903	C	O3'-P	-5.94	1.54	1.61
33	L1	2577	G	C3'-O3'	5.94	1.50	1.42
33	L1	3150	G	C2'-C1'	5.94	1.59	1.53
33	L1	3391	U	O4'-C1'	5.94	1.49	1.41
34	L3	80	A	O4'-C1'	5.94	1.49	1.41
35	L2	41	A	C2'-O2'	-5.94	1.33	1.41
32	S1	1175	G	O4'-C1'	5.94	1.49	1.41
32	S1	1379	U	O4'-C1'	5.94	1.49	1.41
33	L1	1628	G	O3'-P	-5.94	1.54	1.61
34	L3	120	C	C5'-C4'	5.94	1.58	1.51
31	S2	53	U	C2'-C1'	5.94	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	618	C	C2'-C1'	-5.94	1.46	1.53
32	S1	1092	A	O4'-C1'	-5.94	1.33	1.41
33	L1	897	U	C2'-C1'	-5.94	1.46	1.53
33	L1	2785	U	O4'-C1'	5.94	1.49	1.41
33	L1	3025	A	O3'-P	-5.94	1.54	1.61
33	L1	3096	U	O3'-P	-5.94	1.54	1.61
32	S1	1373	C	C3'-O3'	5.93	1.50	1.42
32	S1	563	C	P-O5'	5.93	1.65	1.59
33	L1	2563	G	C3'-C2'	5.93	1.59	1.52
33	L1	2934	C	P-O5'	-5.93	1.53	1.59
33	L1	1532	A	O4'-C1'	5.93	1.49	1.41
33	L1	3032	G	P-O5'	-5.93	1.53	1.59
32	S1	237	C	C2'-C1'	-5.93	1.46	1.53
32	S1	1322	G	C4'-O4'	5.93	1.53	1.45
32	S1	1644	C	O4'-C1'	5.93	1.49	1.41
33	L1	400	G	O3'-P	-5.93	1.54	1.61
33	L1	767	U	O4'-C1'	5.93	1.49	1.41
33	L1	995	C	C2'-C1'	-5.93	1.46	1.53
33	L1	3339	G	C2'-C1'	-5.93	1.46	1.53
35	L2	71	U	C5'-C4'	5.93	1.58	1.51
33	L1	1818	C	C3'-O3'	-5.93	1.33	1.42
33	L1	2765	A	C2'-C1'	-5.93	1.46	1.53
33	L1	2774	A	C4'-O4'	5.93	1.53	1.45
33	L1	2797	U	O4'-C1'	5.93	1.49	1.41
70	Li	95	PHE	CE2-CZ	5.93	1.48	1.37
33	L1	142	G	P-O5'	5.92	1.65	1.59
33	L1	2134	U	C2'-C1'	-5.92	1.46	1.53
31	S2	62	C	C3'-C2'	-5.92	1.46	1.52
33	L1	727	G	C2'-C1'	-5.92	1.46	1.53
33	L1	2594	A	O3'-P	-5.92	1.54	1.61
42	LP	48	ALA	CA-CB	5.92	1.64	1.52
31	S2	24	A	C5'-C4'	5.92	1.58	1.51
32	S1	590	G	C3'-C2'	-5.92	1.46	1.52
32	S1	637	U	O4'-C1'	5.92	1.49	1.41
33	L1	123	U	P-O5'	-5.92	1.53	1.59
33	L1	1227	A	C5'-C4'	5.92	1.58	1.51
35	L2	150	G	O4'-C1'	-5.92	1.33	1.41
33	L1	614	C	C3'-C2'	5.92	1.59	1.52
33	L1	1473	U	C5'-C4'	5.92	1.58	1.51
1	Sa	202	SER	CA-CB	5.92	1.61	1.52
32	S1	975	A	C3'-O3'	5.92	1.50	1.42
32	S1	422	G	O4'-C1'	5.92	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	510	A	C2'-C1'	-5.92	1.46	1.53
33	L1	889	C	C2'-C1'	-5.92	1.46	1.53
33	L1	1850	C	C4'-O4'	5.92	1.53	1.45
33	L1	2400	A	C2'-C1'	-5.92	1.46	1.53
33	L1	3052	U	C3'-C2'	5.92	1.59	1.52
33	L1	3274	G	O4'-C1'	5.92	1.49	1.41
33	L1	1389	C	C5'-C4'	5.92	1.58	1.51
17	SV	68	GLU	CB-CG	5.91	1.63	1.52
32	S1	306	U	O4'-C1'	5.91	1.49	1.41
33	L1	152	C	C3'-O3'	5.91	1.50	1.42
33	L1	306	A	C4'-C3'	5.91	1.59	1.53
33	L1	1773	U	O3'-P	-5.91	1.54	1.61
33	L1	2475	C	C5'-C4'	5.91	1.58	1.51
60	Lr	42	ARG	CD-NE	5.91	1.56	1.46
32	S1	678	A	C2'-C1'	-5.91	1.46	1.53
32	S1	1740	G	C5'-C4'	5.91	1.58	1.51
35	L2	35	G	O3'-P	-5.91	1.54	1.61
32	S1	1454	G	O4'-C1'	5.91	1.49	1.41
33	L1	54	G	C2'-C1'	-5.91	1.46	1.53
33	L1	89	C	C2'-C1'	-5.91	1.46	1.53
33	L1	1559	G	C5'-C4'	5.91	1.58	1.51
33	L1	2933	C	O4'-C1'	5.91	1.49	1.41
33	L1	3140	A	C3'-C2'	5.91	1.59	1.52
35	L2	22	U	O4'-C1'	5.91	1.49	1.41
32	S1	565	G	O3'-P	-5.91	1.54	1.61
32	S1	1268	G	O4'-C1'	5.91	1.49	1.41
33	L1	2806	A	O3'-P	-5.91	1.54	1.61
33	L1	3228	C	P-O5'	-5.91	1.53	1.59
34	L3	48	G	C4'-O4'	5.91	1.53	1.45
31	S2	75	A	C4'-C3'	5.91	1.59	1.53
32	S1	1604	C	C2'-C1'	-5.91	1.46	1.53
32	S1	23	G	C3'-C2'	5.91	1.59	1.52
33	L1	530	C	C2'-C1'	-5.91	1.46	1.53
33	L1	1446	G	C2'-C1'	-5.91	1.46	1.53
46	LT	136	ARG	C-O	-5.91	1.12	1.23
23	SU	80	LEU	CA-CB	5.90	1.67	1.53
33	L1	832	C	C4'-C3'	5.90	1.59	1.53
33	L1	1323	G	C2'-C1'	-5.90	1.46	1.53
33	L1	645	C	O4'-C1'	5.90	1.49	1.41
33	L1	2475	C	C2'-C1'	-5.90	1.46	1.53
35	L2	85	U	P-O5'	-5.90	1.53	1.59
33	L1	1891	A	C3'-O3'	5.90	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2023	C	C2'-C1'	-5.90	1.46	1.53
32	S1	70	C	C2'-C1'	-5.90	1.46	1.53
33	L1	2519	U	C3'-C2'	-5.90	1.46	1.52
32	S1	1016	C	O4'-C1'	5.90	1.49	1.41
33	L1	176	A	O4'-C1'	5.90	1.49	1.41
33	L1	598	U	O3'-P	-5.90	1.54	1.61
33	L1	1140	C	C2'-C1'	5.90	1.59	1.53
33	L1	1487	A	O4'-C1'	5.90	1.49	1.41
40	LH	87	ASN	CA-CB	5.90	1.68	1.53
15	SS	124	ARG	C-N	5.90	1.47	1.34
33	L1	1892	A	C4'-C3'	5.90	1.59	1.53
10	SL	120	LYS	C-N	5.89	1.47	1.34
33	L1	1824	C	O3'-P	-5.89	1.54	1.61
33	L1	2402	G	O4'-C1'	5.89	1.49	1.41
33	L1	3030	A	O3'-P	-5.89	1.54	1.61
54	Lf	90	ARG	CD-NE	5.89	1.56	1.46
32	S1	276	G	C2'-C1'	-5.89	1.46	1.53
33	L1	61	A	O4'-C1'	5.89	1.49	1.41
33	L1	357	C	O4'-C1'	5.89	1.49	1.41
33	L1	2529	C	O4'-C1'	5.89	1.49	1.41
16	SR	81	LYS	CD-CE	5.89	1.66	1.51
32	S1	912	A	C4'-C3'	5.89	1.59	1.53
33	L1	135	G	C4'-O4'	5.89	1.53	1.45
33	L1	936	A	P-O5'	-5.89	1.53	1.59
33	L1	3119	C	O4'-C1'	5.89	1.49	1.41
78	Le	223	TYR	CG-CD2	5.89	1.46	1.39
31	S2	66	C	O3'-P	-5.89	1.54	1.61
27	SH	79	PHE	N-CA	5.89	1.58	1.46
32	S1	531	A	C5'-C4'	5.89	1.58	1.51
32	S1	1293	U	O4'-C1'	5.89	1.49	1.41
33	L1	310	C	C3'-C2'	5.89	1.59	1.52
33	L1	367	A	C4'-O4'	5.89	1.53	1.45
33	L1	1875	A	C5'-C4'	5.89	1.58	1.51
32	S1	293	C	C2'-C1'	-5.88	1.46	1.53
33	L1	1404	G	C2'-C1'	-5.88	1.46	1.53
33	L1	1594	G	P-O5'	-5.88	1.53	1.59
33	L1	2449	A	C3'-O3'	5.88	1.50	1.42
33	L1	144	A	P-O5'	-5.88	1.53	1.59
11	SM	82	TRP	N-CA	-5.88	1.34	1.46
32	S1	235	C	C2'-C1'	-5.88	1.46	1.53
32	S1	1610	C	O4'-C1'	5.88	1.49	1.41
33	L1	1436	A	C2'-C1'	5.88	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3051	U	O3'-P	-5.88	1.54	1.61
35	L2	16	A	C4'-C3'	5.88	1.59	1.53
81	LD	95	ALA	C-O	-5.88	1.12	1.23
32	S1	1362	A	O3'-P	-5.88	1.54	1.61
32	S1	1691	C	C5'-C4'	-5.88	1.44	1.51
33	L1	2519	U	P-O5'	-5.88	1.53	1.59
67	LS	163	ARG	CA-C	5.88	1.68	1.52
3	SB	148	LYS	CA-C	5.87	1.68	1.52
3	SB	166	GLU	CB-CG	5.87	1.63	1.52
32	S1	887	U	O4'-C1'	5.87	1.49	1.41
32	S1	1285	G	O3'-P	-5.87	1.54	1.61
33	L1	489	C	P-O5'	5.87	1.65	1.59
33	L1	814	U	C2'-O2'	-5.87	1.34	1.41
33	L1	3007	A	C4'-C3'	-5.87	1.46	1.52
33	L1	3141	G	P-O5'	-5.87	1.53	1.59
35	L2	15	C	C2'-C1'	-5.87	1.46	1.53
32	S1	678	A	O4'-C1'	5.87	1.49	1.41
33	L1	1882	A	P-O5'	-5.87	1.53	1.59
33	L1	2199	C	P-O5'	-5.87	1.53	1.59
48	LV	80	GLY	C-N	5.87	1.47	1.34
33	L1	263	A	O4'-C1'	5.87	1.49	1.41
33	L1	284	U	O4'-C1'	5.87	1.49	1.41
33	L1	2354	G	C5'-C4'	5.87	1.58	1.51
33	L1	2716	U	C5'-C4'	5.87	1.58	1.51
33	L1	2876	G	O5'-C5'	5.87	1.53	1.44
35	L2	53	G	C3'-O3'	5.87	1.50	1.42
31	S2	51	G	C4'-C3'	5.87	1.59	1.53
32	S1	573	C	C2'-O2'	-5.87	1.34	1.41
33	L1	1371	G	C5'-C4'	5.87	1.58	1.51
33	L1	2334	G	C4'-C3'	5.87	1.59	1.53
67	LS	150	LYS	CA-CB	5.87	1.66	1.53
77	Lc	102	SER	CA-CB	5.87	1.61	1.52
33	L1	548	G	P-O5'	-5.87	1.53	1.59
33	L1	1425	G	C5'-C4'	5.87	1.58	1.51
33	L1	1735	U	O3'-P	-5.87	1.54	1.61
32	S1	366	G	O4'-C1'	5.86	1.49	1.41
33	L1	1482	C	O4'-C1'	5.86	1.49	1.41
33	L1	2455	A	C5'-C4'	5.86	1.58	1.51
45	LQ	215	GLU	CB-CG	5.86	1.63	1.52
33	L1	2220	U	C4'-O4'	5.86	1.53	1.45
33	L1	2226	C	C3'-O3'	5.86	1.50	1.42
46	LT	166	SER	CA-CB	5.86	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1706	G	C4'-C3'	5.86	1.59	1.53
32	S1	1707	G	C3'-O3'	5.86	1.50	1.42
33	L1	1129	G	C5'-C4'	5.86	1.58	1.51
33	L1	2637	U	C2'-C1'	5.86	1.59	1.53
33	L1	2692	G	P-O5'	5.86	1.65	1.59
33	L1	1089	G	C5'-C4'	5.86	1.58	1.51
3	SB	143	ARG	CD-NE	5.86	1.56	1.46
3	SB	158	ILE	CA-C	5.86	1.68	1.52
32	S1	929	A	C5'-C4'	5.86	1.58	1.51
33	L1	2870	U	C2'-O2'	-5.86	1.34	1.41
33	L1	3129	G	O3'-P	-5.86	1.54	1.61
33	L1	3156	G	C4'-C3'	5.86	1.59	1.53
32	S1	32	U	C4'-C3'	5.86	1.59	1.53
32	S1	830	U	C3'-O3'	5.86	1.50	1.42
32	S1	1568	U	O4'-C1'	5.86	1.49	1.41
33	L1	1225	A	C4'-C3'	5.86	1.59	1.53
33	L1	2663	U	O4'-C1'	5.86	1.49	1.41
33	L1	3211	C	O4'-C1'	5.86	1.49	1.41
33	L1	3288	A	C2'-C1'	-5.86	1.47	1.53
32	S1	622	U	O4'-C1'	5.85	1.49	1.41
32	S1	1757	G	P-O5'	-5.85	1.53	1.59
33	L1	549	G	C5'-C4'	5.85	1.58	1.51
33	L1	585	A	P-O5'	-5.85	1.53	1.59
33	L1	840	A	C3'-C2'	5.85	1.59	1.52
33	L1	1495	G	C5'-C4'	5.85	1.58	1.51
32	S1	1357	U	O4'-C1'	5.85	1.49	1.41
32	S1	1362	A	P-O5'	5.85	1.65	1.59
32	S1	1578	A	O3'-P	-5.85	1.54	1.61
32	S1	1545	A	O4'-C1'	5.85	1.49	1.41
32	S1	1792	A	C3'-O3'	5.85	1.50	1.42
33	L1	1338	C	C4'-C3'	5.85	1.59	1.53
33	L1	1475	U	O4'-C1'	5.85	1.49	1.41
33	L1	1778	C	C2'-C1'	-5.85	1.47	1.53
33	L1	3214	U	C3'-C2'	-5.85	1.46	1.52
33	L1	3338	U	C4'-O4'	5.85	1.53	1.45
59	Lo	31	THR	N-CA	5.85	1.58	1.46
33	L1	923	A	C3'-O3'	5.85	1.50	1.42
33	L1	2205	G	C4'-C3'	5.85	1.59	1.53
33	L1	2827	C	O4'-C1'	5.85	1.49	1.41
33	L1	3002	U	C3'-O3'	5.85	1.50	1.42
33	L1	22	G	C3'-O3'	5.85	1.50	1.42
33	L1	2727	U	P-O5'	-5.85	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	LO	138	GLY	CA-C	5.85	1.61	1.51
33	L1	866	C	C2'-C1'	-5.84	1.47	1.53
33	L1	2022	U	O4'-C1'	5.84	1.49	1.41
33	L1	822	U	C5'-C4'	-5.84	1.44	1.51
33	L1	1276	C	O3'-P	-5.84	1.54	1.61
33	L1	2641	A	C3'-C2'	5.84	1.59	1.52
33	L1	195	G	C2'-C1'	-5.84	1.47	1.53
33	L1	1123	A	C2'-C1'	5.84	1.59	1.53
33	L1	1810	G	P-O5'	-5.84	1.53	1.59
33	L1	1875	A	C2'-C1'	-5.84	1.47	1.53
33	L1	2879	G	C2'-C1'	5.84	1.59	1.53
33	L1	2939	G	C2'-C1'	-5.84	1.47	1.53
35	L2	26	U	C4'-C3'	5.84	1.59	1.53
66	LN	64	ARG	CZ-NH2	-5.84	1.25	1.33
32	S1	882	G	P-O5'	-5.84	1.53	1.59
33	L1	706	U	O4'-C1'	5.84	1.49	1.41
33	L1	1511	C	O3'-P	-5.84	1.54	1.61
33	L1	1616	G	O4'-C1'	-5.84	1.34	1.41
33	L1	1936	G	O4'-C1'	5.84	1.49	1.41
33	L1	180	G	C2'-C1'	-5.84	1.47	1.53
33	L1	348	C	O3'-P	-5.84	1.54	1.61
33	L1	997	G	O4'-C1'	-5.84	1.34	1.41
33	L1	2575	C	C5'-C4'	5.84	1.58	1.51
33	L1	3016	C	P-O5'	-5.84	1.53	1.59
33	L1	3137	G	C4'-C3'	5.84	1.59	1.53
69	La	28	VAL	CA-C	5.84	1.68	1.52
33	L1	1433	U	O4'-C1'	-5.83	1.34	1.41
33	L1	2948	A	O3'-P	-5.83	1.54	1.61
32	S1	1065	A	C2'-C1'	5.83	1.59	1.53
32	S1	1674	C	C4'-O4'	5.83	1.53	1.45
33	L1	1262	U	P-O5'	-5.83	1.53	1.59
15	SS	91	ARG	CD-NE	5.83	1.56	1.46
32	S1	888	U	O4'-C1'	5.83	1.49	1.41
33	L1	2705	A	O3'-P	-5.83	1.54	1.61
31	S2	1	U	C5'-C4'	5.83	1.58	1.51
33	L1	2698	A	C4'-C3'	5.83	1.59	1.53
35	L2	99	G	O3'-P	-5.83	1.54	1.61
32	S1	973	U	C3'-O3'	5.83	1.50	1.42
32	S1	993	C	O4'-C1'	5.83	1.49	1.41
32	S1	835	U	C2'-C1'	5.83	1.59	1.53
33	L1	1897	A	C2'-C1'	-5.83	1.47	1.53
33	L1	3069	U	C2'-C1'	-5.83	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	942	C	P-O5'	5.82	1.65	1.59
33	L1	816	G	O3'-P	-5.82	1.54	1.61
33	L1	1712	A	C2'-C1'	-5.82	1.47	1.53
33	L1	1274	A	C3'-C2'	-5.82	1.46	1.52
33	L1	1901	G	C3'-O3'	5.82	1.50	1.42
31	S2	74	C	C2'-C1'	5.82	1.59	1.53
32	S1	1119	G	C2'-C1'	5.82	1.59	1.53
33	L1	112	C	P-O5'	-5.82	1.53	1.59
33	L1	2459	U	O4'-C1'	5.82	1.49	1.41
33	L1	2571	C	C2'-C1'	5.82	1.59	1.53
32	S1	338	G	C5'-C4'	5.82	1.58	1.51
32	S1	1744	C	C3'-C2'	-5.82	1.46	1.52
33	L1	863	G	C4'-C3'	5.82	1.59	1.53
33	L1	2451	G	C5'-C4'	5.82	1.58	1.51
32	S1	3	C	O3'-P	-5.82	1.54	1.61
32	S1	1094	U	O3'-P	-5.82	1.54	1.61
33	L1	1837	A	C5'-C4'	5.82	1.58	1.51
60	Lr	80	TYR	CD1-CE1	5.82	1.48	1.39
33	L1	1015	A	C5'-C4'	5.81	1.58	1.51
80	LC	161	ARG	CD-NE	5.81	1.56	1.46
32	S1	674	G	O4'-C1'	5.81	1.49	1.41
33	L1	1434	G	C2'-C1'	-5.81	1.47	1.53
32	S1	1565	U	P-O5'	-5.81	1.53	1.59
33	L1	940	G	C2'-C1'	5.81	1.59	1.53
33	L1	2488	A	C3'-O3'	5.81	1.50	1.42
33	L1	3052	U	P-O5'	-5.81	1.53	1.59
31	S2	14	A	O4'-C1'	5.81	1.49	1.41
32	S1	94	A	C3'-O3'	5.81	1.50	1.42
32	S1	564	U	C4'-O4'	5.81	1.53	1.45
33	L1	603	G	P-O5'	-5.81	1.53	1.59
33	L1	1322	A	C4'-C3'	5.81	1.59	1.53
33	L1	1718	U	O4'-C1'	5.81	1.49	1.41
32	S1	451	U	O4'-C1'	5.81	1.49	1.41
32	S1	849	G	O4'-C1'	5.81	1.49	1.41
32	S1	1266	U	C3'-O3'	5.81	1.50	1.42
33	L1	410	G	O3'-P	-5.81	1.54	1.61
33	L1	2602	U	O3'-P	-5.81	1.54	1.61
32	S1	551	U	C2'-C1'	5.81	1.59	1.53
33	L1	538	C	O4'-C1'	5.81	1.49	1.41
33	L1	1505	G	C3'-C2'	5.81	1.59	1.52
33	L1	2680	G	C5'-C4'	5.81	1.58	1.51
33	L1	3309	U	C2'-C1'	-5.80	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3381	C	C5'-C4'	5.80	1.58	1.51
32	S1	823	A	C2'-C1'	5.80	1.59	1.53
33	L1	2660	A	C3'-O3'	5.80	1.50	1.42
32	S1	1793	C	C5'-C4'	5.80	1.58	1.51
33	L1	494	C	C2'-C1'	-5.80	1.47	1.53
33	L1	829	G	C2'-C1'	-5.80	1.47	1.53
33	L1	2446	G	O4'-C1'	5.80	1.49	1.41
33	L1	3358	A	C5'-C4'	-5.80	1.44	1.51
80	LC	133	TYR	CE1-CZ	5.80	1.46	1.38
3	SB	81	GLU	C-O	-5.80	1.12	1.23
33	L1	931	C	C4'-C3'	5.80	1.59	1.53
33	L1	1975	G	O4'-C1'	5.80	1.49	1.41
33	L1	2636	U	C4'-O4'	5.80	1.53	1.45
32	S1	278	C	O4'-C1'	5.80	1.49	1.41
42	LP	31	ARG	CD-NE	5.80	1.56	1.46
32	S1	1372	C	C4'-O4'	5.80	1.53	1.45
32	S1	1385	C	C4'-C3'	5.80	1.59	1.53
33	L1	978	C	C2'-C1'	-5.80	1.47	1.53
33	L1	2787	A	C2'-C1'	-5.80	1.47	1.53
33	L1	832	C	O4'-C1'	5.79	1.49	1.41
33	L1	2288	C	O4'-C1'	5.79	1.49	1.41
33	L1	2332	C	P-O5'	-5.79	1.53	1.59
1	Sa	70	TYR	CE2-CZ	5.79	1.46	1.38
33	L1	846	A	P-O5'	-5.79	1.53	1.59
33	L1	2313	U	C4'-C3'	5.79	1.59	1.53
33	L1	2738	U	O3'-P	5.79	1.68	1.61
45	LQ	290	SER	N-CA	5.79	1.57	1.46
33	L1	892	U	C3'-O3'	5.79	1.50	1.42
33	L1	2147	U	C2'-C1'	-5.79	1.47	1.53
33	L1	2245	G	O4'-C1'	5.79	1.49	1.41
33	L1	45	U	O4'-C1'	5.79	1.49	1.41
33	L1	2739	A	C3'-C2'	5.79	1.59	1.52
35	L2	110	C	O3'-P	-5.79	1.54	1.61
32	S1	768	A	O3'-P	-5.79	1.54	1.61
33	L1	1123	A	C3'-O3'	5.79	1.50	1.42
33	L1	2439	A	C4'-C3'	5.79	1.59	1.53
34	L3	22	A	P-O5'	-5.79	1.53	1.59
33	L1	2610	G	C2'-C1'	-5.79	1.47	1.53
33	L1	2779	G	C3'-C2'	5.79	1.59	1.52
32	S1	460	G	C2'-C1'	-5.79	1.47	1.53
32	S1	485	A	P-O5'	-5.79	1.53	1.59
33	L1	606	C	C4'-C3'	5.79	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1271	U	C5'-C4'	5.79	1.58	1.51
33	L1	2185	U	C2'-C1'	-5.79	1.47	1.53
33	L1	3217	G	O3'-P	-5.79	1.54	1.61
34	L3	17	G	O4'-C1'	-5.79	1.34	1.41
35	L2	149	U	O4'-C1'	5.79	1.49	1.41
51	LY	39	ARG	CD-NE	5.79	1.56	1.46
12	SO	67	THR	C-O	-5.78	1.12	1.23
33	L1	547	C	C2'-C1'	5.78	1.59	1.53
33	L1	1598	U	P-O5'	-5.78	1.53	1.59
32	S1	469	G	P-O5'	-5.78	1.53	1.59
32	S1	1786	A	O4'-C1'	5.78	1.49	1.41
25	SC	85	TYR	CG-CD2	5.78	1.46	1.39
32	S1	1246	A	O4'-C1'	5.78	1.49	1.41
33	L1	1282	A	C5'-C4'	5.78	1.58	1.51
33	L1	2302	G	C5'-C4'	5.78	1.58	1.51
33	L1	2870	U	O3'-P	-5.78	1.54	1.61
32	S1	891	U	C3'-C2'	-5.78	1.46	1.52
32	S1	1282	G	O3'-P	-5.78	1.54	1.61
32	S1	1540	U	O3'-P	-5.78	1.54	1.61
32	S1	1757	G	C4'-C3'	-5.78	1.46	1.52
33	L1	74	G	O3'-P	-5.78	1.54	1.61
33	L1	1128	U	C3'-O3'	5.78	1.50	1.42
33	L1	1367	A	C2'-C1'	-5.78	1.47	1.53
33	L1	3006	G	C2'-C1'	5.78	1.59	1.53
32	S1	446	C	O3'-P	-5.78	1.54	1.61
32	S1	1241	G	O4'-C1'	5.78	1.49	1.41
23	SU	13	ARG	NE-CZ	5.77	1.40	1.33
33	L1	839	A	O4'-C1'	5.77	1.49	1.41
33	L1	1907	A	C2'-C1'	5.77	1.59	1.53
32	S1	638	G	C2'-C1'	5.77	1.59	1.53
33	L1	1891	A	C4'-O4'	5.77	1.53	1.45
33	L1	2678	C	C5'-C4'	5.77	1.58	1.51
33	L1	669	G	P-O5'	-5.77	1.53	1.59
33	L1	857	G	C3'-C2'	5.77	1.59	1.52
32	S1	880	G	O4'-C1'	5.77	1.49	1.41
33	L1	330	C	C4'-C3'	-5.77	1.46	1.52
33	L1	650	A	C4'-O4'	-5.77	1.38	1.45
33	L1	1699	C	O3'-P	-5.77	1.54	1.61
33	L1	1769	C	O4'-C1'	5.77	1.49	1.41
33	L1	1771	G	O4'-C1'	-5.77	1.34	1.41
84	LI	109	ASP	C-N	5.77	1.47	1.34
32	S1	1520	G	C5'-C4'	5.77	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2612	A	O4'-C1'	-5.77	1.34	1.41
33	L1	2632	U	C5'-C4'	5.77	1.58	1.51
33	L1	2658	U	C3'-O3'	5.77	1.50	1.42
33	L1	2786	G	C2'-C1'	-5.77	1.47	1.53
33	L1	3202	G	C4'-C3'	5.77	1.59	1.53
31	S2	64	G	P-O5'	-5.77	1.53	1.59
33	L1	3122	U	C3'-O3'	5.77	1.50	1.42
32	S1	626	A	O4'-C1'	5.76	1.49	1.41
32	S1	1512	C	C5'-C4'	5.76	1.58	1.51
33	L1	1812	A	P-O5'	-5.76	1.53	1.59
41	LM	73	ARG	CA-C	-5.76	1.38	1.52
33	L1	1178	C	O4'-C1'	5.76	1.49	1.41
25	SC	39	ARG	CD-NE	5.76	1.56	1.46
32	S1	1603	U	C4'-O4'	-5.76	1.38	1.45
33	L1	3050	A	O3'-P	-5.76	1.54	1.61
15	SS	56	TYR	CD2-CE2	5.76	1.48	1.39
33	L1	874	U	O4'-C1'	-5.76	1.34	1.41
33	L1	1388	C	C4'-O4'	5.76	1.53	1.45
33	L1	2274	A	C3'-C2'	5.76	1.59	1.52
31	S2	13	U	C4'-C3'	5.76	1.59	1.53
32	S1	1310	C	P-O5'	-5.76	1.53	1.59
48	LV	68	GLY	CA-C	-5.76	1.42	1.51
5	SE	149	ARG	CD-NE	5.76	1.56	1.46
32	S1	1120	U	C3'-O3'	5.76	1.50	1.42
32	S1	1225	A	C3'-C2'	-5.76	1.46	1.52
33	L1	436	G	C2'-C1'	-5.76	1.47	1.53
33	L1	1173	C	C2'-C1'	-5.76	1.47	1.53
33	L1	2380	G	O5'-C5'	5.76	1.53	1.44
33	L1	2778	C	O4'-C1'	5.76	1.49	1.41
34	L3	25	G	C4'-C3'	5.76	1.59	1.53
34	L3	78	C	P-O5'	-5.76	1.53	1.59
35	L2	96	A	C4'-C3'	5.76	1.59	1.53
33	L1	2842	C	C3'-O3'	5.75	1.50	1.42
33	L1	998	G	P-O5'	-5.75	1.53	1.59
32	S1	360	G	O4'-C1'	5.75	1.49	1.41
32	S1	852	A	C4'-O4'	5.75	1.53	1.45
32	S1	989	G	P-O5'	-5.75	1.53	1.59
33	L1	2942	A	O4'-C1'	5.75	1.49	1.41
14	SP	63	GLY	N-CA	-5.75	1.37	1.46
32	S1	922	U	C2'-C1'	5.75	1.59	1.53
33	L1	1128	U	O3'-P	-5.75	1.54	1.61
33	L1	1168	G	O3'-P	-5.75	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1249	A	O3'-P	-5.75	1.54	1.61
33	L1	2650	A	O3'-P	-5.75	1.54	1.61
33	L1	3152	C	C2'-C1'	5.75	1.59	1.53
5	SE	24	ARG	CZ-NH2	5.75	1.40	1.33
33	L1	2605	G	C2'-C1'	-5.75	1.47	1.53
33	L1	3346	C	O4'-C1'	5.75	1.49	1.41
32	S1	1323	U	O4'-C1'	5.75	1.49	1.41
33	L1	869	A	C5'-C4'	5.75	1.58	1.51
33	L1	1172	A	O5'-C5'	5.75	1.53	1.44
33	L1	1331	C	C2'-C1'	-5.75	1.47	1.53
33	L1	2777	U	O4'-C1'	-5.75	1.34	1.41
32	S1	1198	A	P-O5'	-5.75	1.54	1.59
67	LS	28	ARG	CG-CD	5.75	1.66	1.51
33	L1	1869	U	O4'-C1'	5.74	1.49	1.41
34	L3	65	G	C2'-C1'	-5.74	1.47	1.53
32	S1	415	C	O4'-C1'	5.74	1.49	1.41
32	S1	1457	C	O4'-C1'	5.74	1.49	1.41
33	L1	2290	A	O3'-P	-5.74	1.54	1.61
1	Sa	38	GLU	CA-CB	5.74	1.66	1.53
31	S2	65	U	P-O5'	5.74	1.65	1.59
32	S1	604	U	C3'-C2'	5.74	1.59	1.52
32	S1	840	U	P-O5'	-5.74	1.54	1.59
33	L1	342	A	C2'-C1'	-5.74	1.47	1.53
33	L1	906	U	O4'-C1'	-5.74	1.34	1.41
33	L1	3211	C	C4'-C3'	-5.74	1.46	1.52
33	L1	3305	U	O3'-P	-5.74	1.54	1.61
35	L2	119	C	C2'-C1'	-5.74	1.47	1.53
33	L1	2336	C	C4'-C3'	-5.74	1.46	1.52
11	SM	53	ASN	CG-ND2	5.74	1.47	1.32
32	S1	449	A	C3'-O3'	5.74	1.50	1.42
33	L1	306	A	C3'-C2'	-5.74	1.46	1.52
33	L1	593	G	O4'-C1'	5.74	1.49	1.41
33	L1	1041	C	P-O5'	-5.74	1.54	1.59
33	L1	2498	C	C2'-C1'	-5.74	1.47	1.53
33	L1	2643	A	O4'-C1'	-5.74	1.34	1.41
5	SE	100	ARG	CZ-NH1	5.74	1.40	1.33
28	SN	52	PHE	CA-C	-5.74	1.38	1.52
33	L1	2730	A	C5'-C4'	5.74	1.58	1.51
32	S1	1029	U	C2'-C1'	5.73	1.59	1.53
32	S1	1631	C	O4'-C1'	5.73	1.49	1.41
33	L1	1254	A	P-O5'	5.73	1.65	1.59
33	L1	1791	U	C2'-C1'	-5.73	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	LS	24	PRO	N-CD	-5.73	1.39	1.47
32	S1	288	G	C4'-C3'	5.73	1.59	1.53
32	S1	1248	A	C5'-C4'	5.73	1.58	1.51
33	L1	785	U	O4'-C1'	-5.73	1.34	1.41
33	L1	2238	A	O4'-C1'	5.73	1.49	1.41
33	L1	2618	G	C5'-C4'	-5.73	1.44	1.51
11	SM	141	ARG	C-N	-5.73	1.20	1.34
32	S1	1404	U	O4'-C1'	-5.73	1.34	1.41
33	L1	160	G	C5'-C4'	5.73	1.58	1.51
5	SE	193	PRO	C-N	5.73	1.47	1.34
32	S1	589	A	C2'-O2'	-5.73	1.34	1.41
32	S1	1108	U	O4'-C1'	5.73	1.49	1.41
66	LN	66	PRO	N-CD	-5.73	1.39	1.47
32	S1	588	C	C2'-C1'	5.73	1.59	1.53
33	L1	1204	A	O4'-C1'	5.73	1.49	1.41
32	S1	454	U	C2'-C1'	-5.72	1.47	1.53
33	L1	331	G	C3'-O3'	5.72	1.50	1.42
33	L1	953	G	C5'-C4'	5.72	1.58	1.51
33	L1	3201	A	O4'-C1'	-5.72	1.34	1.41
51	LY	9	SER	C-O	-5.72	1.12	1.23
33	L1	128	C	C3'-C2'	-5.72	1.46	1.52
33	L1	443	G	C5'-C4'	5.72	1.58	1.51
3	SB	170	ALA	N-CA	-5.72	1.34	1.46
32	S1	1206	A	P-O5'	-5.72	1.54	1.59
33	L1	938	U	O3'-P	-5.72	1.54	1.61
33	L1	961	C	O3'-P	-5.72	1.54	1.61
33	L1	3287	A	C3'-C2'	-5.72	1.46	1.52
32	S1	625	A	C5'-C4'	5.72	1.58	1.51
33	L1	499	A	C3'-O3'	5.72	1.50	1.42
33	L1	1151	G	C5'-C4'	5.72	1.58	1.51
33	L1	1172	A	P-O5'	-5.72	1.54	1.59
33	L1	1177	G	C3'-O3'	5.72	1.50	1.42
33	L1	1518	A	P-O5'	-5.72	1.54	1.59
33	L1	2404	C	C5'-C4'	5.72	1.58	1.51
33	L1	3352	C	C4'-C3'	5.72	1.59	1.53
35	L2	54	C	O3'-P	-5.72	1.54	1.61
82	LK	11	ARG	C-O	-5.72	1.12	1.23
32	S1	361	G	O4'-C1'	5.72	1.49	1.41
32	S1	503	U	C2'-C1'	5.72	1.59	1.53
32	S1	832	C	O3'-P	-5.72	1.54	1.61
78	Le	242	ARG	CD-NE	5.72	1.56	1.46
32	S1	1297	U	P-O5'	-5.72	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1809	U	C5'-C4'	5.72	1.58	1.51
33	L1	1077	C	O4'-C1'	5.72	1.49	1.41
77	Lc	32	GLN	CG-CD	5.72	1.64	1.51
32	S1	893	U	C4'-C3'	5.71	1.59	1.53
32	S1	1362	A	C4'-O4'	5.71	1.52	1.45
33	L1	3345	G	O4'-C1'	-5.71	1.34	1.41
33	L1	259	G	C2'-C1'	5.71	1.59	1.53
33	L1	2401	A	O3'-P	-5.71	1.54	1.61
32	S1	627	A	O4'-C1'	-5.71	1.34	1.41
32	S1	1628	C	C5'-C4'	5.71	1.58	1.51
33	L1	1072	C	C4'-O4'	5.71	1.52	1.45
33	L1	1695	C	P-O5'	-5.71	1.54	1.59
35	L2	10	C	C2'-C1'	-5.71	1.47	1.53
33	L1	1975	G	C2'-C1'	5.71	1.59	1.53
33	L1	339	G	C3'-C2'	5.71	1.59	1.52
33	L1	488	U	O4'-C1'	5.71	1.49	1.41
33	L1	663	G	O4'-C1'	5.71	1.49	1.41
33	L1	2758	C	C3'-C2'	5.71	1.59	1.52
35	L2	58	A	C2'-C1'	-5.71	1.47	1.53
23	SU	9	ALA	N-CA	5.71	1.57	1.46
32	S1	54	C	O4'-C1'	-5.71	1.34	1.41
32	S1	691	A	C2'-C1'	-5.71	1.47	1.53
33	L1	1939	C	C5'-C4'	5.71	1.58	1.51
56	Lh	93	TYR	CB-CG	-5.71	1.43	1.51
33	L1	531	G	O4'-C1'	-5.71	1.34	1.41
55	Lg	113	GLY	CA-C	-5.71	1.42	1.51
33	L1	2142	A	P-O5'	-5.70	1.54	1.59
33	L1	3016	C	O4'-C1'	5.70	1.49	1.41
33	L1	506	U	O3'-P	-5.70	1.54	1.61
33	L1	3053	G	C5'-C4'	5.70	1.58	1.51
32	S1	1737	A	C3'-O3'	5.70	1.50	1.42
33	L1	812	G	O4'-C1'	-5.70	1.34	1.41
33	L1	1024	G	C2'-C1'	-5.70	1.47	1.53
82	LK	11	ARG	N-CA	-5.70	1.34	1.46
32	S1	1201	C	C4'-O4'	-5.70	1.38	1.45
33	L1	1320	G	C4'-O4'	5.70	1.52	1.45
31	S2	63	C	C3'-C2'	5.70	1.59	1.52
32	S1	1422	G	O3'-P	-5.70	1.54	1.61
3	SB	129	SER	CA-CB	5.70	1.61	1.52
32	S1	1117	G	C5'-C4'	5.70	1.58	1.51
32	S1	1316	A	O4'-C1'	5.70	1.49	1.41
33	L1	479	C	C2'-C1'	-5.70	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	795	C	C2'-C1'	-5.70	1.47	1.53
33	L1	1023	G	C4'-C3'	5.70	1.59	1.53
33	L1	1738	A	O4'-C1'	-5.70	1.34	1.41
33	L1	1850	C	O3'-P	-5.70	1.54	1.61
35	L2	42	U	C4'-C3'	5.70	1.59	1.53
45	LQ	112	THR	C-O	-5.70	1.12	1.23
84	LI	116	ARG	C-N	5.69	1.43	1.33
31	S2	69	G	C4'-C3'	-5.69	1.46	1.52
32	S1	239	C	O4'-C1'	5.69	1.49	1.41
33	L1	2496	U	C4'-C3'	-5.69	1.46	1.52
34	L3	7	G	O4'-C1'	-5.69	1.34	1.41
35	L2	148	C	C4'-C3'	5.69	1.59	1.53
32	S1	1004	U	C4'-C3'	5.69	1.59	1.53
33	L1	966	G	C3'-C2'	5.69	1.59	1.52
32	S1	1197	A	C5'-C4'	5.69	1.58	1.51
32	S1	1195	U	C4'-C3'	5.69	1.59	1.53
32	S1	1375	C	C3'-O3'	-5.69	1.34	1.42
33	L1	678	G	O4'-C1'	5.69	1.49	1.41
33	L1	1669	C	C3'-O3'	5.69	1.50	1.42
71	Lj	12	TYR	CA-CB	5.69	1.66	1.53
32	S1	1063	U	O3'-P	-5.69	1.54	1.61
25	SC	147	SER	CA-CB	5.68	1.61	1.52
32	S1	1712	C	O4'-C1'	5.68	1.49	1.41
33	L1	2502	U	O3'-P	-5.68	1.54	1.61
33	L1	2576	C	C3'-C2'	-5.68	1.46	1.52
33	L1	2595	G	P-O5'	-5.68	1.54	1.59
33	L1	2851	C	C3'-C2'	-5.68	1.46	1.52
67	LS	162	THR	CA-C	5.68	1.67	1.52
31	S2	2	C	O3'-P	-5.68	1.54	1.61
31	S2	43	C	O4'-C1'	5.68	1.49	1.41
33	L1	2892	A	C2'-C1'	-5.68	1.47	1.53
33	L1	2951	U	C4'-O4'	-5.68	1.38	1.45
34	L3	73	U	C4'-C3'	5.68	1.59	1.53
34	L3	114	C	O4'-C1'	5.68	1.49	1.41
32	S1	589	A	O4'-C1'	5.68	1.49	1.41
33	L1	2694	A	O3'-P	-5.68	1.54	1.61
36	LA	41	ASP	C-N	5.68	1.45	1.34
80	LC	295	SER	C-O	-5.68	1.12	1.23
33	L1	13	G	C5'-C4'	5.68	1.58	1.51
33	L1	1288	C	C2'-C1'	-5.68	1.47	1.53
33	L1	2734	C	C5'-C4'	5.68	1.58	1.51
32	S1	312	C	O3'-P	-5.68	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	334	A	O3'-P	-5.68	1.54	1.61
33	L1	2639	A	O4'-C1'	5.68	1.49	1.41
19	SY	47	ARG	NE-CZ	5.68	1.40	1.33
32	S1	503	U	C4'-O4'	5.68	1.52	1.45
42	LP	156	HIS	CB-CG	5.68	1.60	1.50
33	L1	229	G	O3'-P	-5.67	1.54	1.61
33	L1	464	G	C4'-C3'	5.67	1.59	1.53
33	L1	597	C	O4'-C1'	5.67	1.49	1.41
33	L1	1707	C	P-O5'	-5.67	1.54	1.59
33	L1	2643	A	P-O5'	-5.67	1.54	1.59
1	Sa	263	ARG	NE-CZ	5.67	1.40	1.33
32	S1	1751	U	O4'-C1'	5.67	1.49	1.41
33	L1	2601	G	P-O5'	-5.67	1.54	1.59
33	L1	123	U	C4'-C3'	-5.67	1.46	1.52
33	L1	1920	U	C3'-C2'	-5.67	1.46	1.52
33	L1	2927	C	C2'-C1'	-5.67	1.47	1.53
68	LW	105	ILE	CA-C	5.67	1.67	1.52
5	SE	29	GLY	CA-C	-5.67	1.42	1.51
25	SC	164	SER	CB-OG	5.67	1.49	1.42
32	S1	1307	U	C4'-C3'	5.67	1.59	1.53
33	L1	182	C	C4'-O4'	5.67	1.52	1.45
33	L1	1593	C	C3'-C2'	5.67	1.59	1.52
33	L1	1881	C	O5'-C5'	5.67	1.53	1.44
33	L1	2206	U	O4'-C1'	5.67	1.49	1.41
32	S1	505	U	O4'-C1'	5.67	1.49	1.41
33	L1	142	G	O4'-C1'	5.67	1.49	1.41
33	L1	761	C	C2'-C1'	-5.67	1.47	1.53
33	L1	1093	U	C2'-C1'	5.67	1.59	1.53
66	LN	18	GLY	CA-C	-5.67	1.42	1.51
32	S1	411	A	C2'-C1'	5.66	1.59	1.53
33	L1	1065	A	C2'-C1'	5.66	1.59	1.53
33	L1	1105	G	P-O5'	-5.66	1.54	1.59
33	L1	1517	C	C3'-O3'	5.66	1.50	1.42
32	S1	1537	U	P-O5'	-5.66	1.54	1.59
32	S1	1795	U	C2'-C1'	5.66	1.59	1.53
33	L1	17	G	C3'-C2'	-5.66	1.46	1.52
33	L1	514	G	O4'-C1'	5.66	1.49	1.41
33	L1	883	G	C2'-C1'	-5.66	1.47	1.53
32	S1	69	A	O4'-C1'	5.66	1.49	1.41
32	S1	305	A	C3'-O3'	5.66	1.50	1.42
33	L1	2299	C	C4'-O4'	5.66	1.52	1.45
33	L1	3357	C	O3'-P	-5.66	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	L2	51	U	P-O5'	-5.66	1.54	1.59
48	LV	81	GLN	C-N	5.66	1.43	1.33
33	L1	907	A	C5'-C4'	5.66	1.58	1.51
33	L1	1333	C	O4'-C1'	5.66	1.49	1.41
33	L1	3353	G	C3'-O3'	5.66	1.50	1.42
11	SM	75	ARG	CZ-NH1	5.66	1.40	1.33
33	L1	2520	U	C2'-C1'	-5.66	1.47	1.53
52	Lb	123	ARG	CZ-NH2	5.66	1.40	1.33
24	SX	72	LYS	N-CA	-5.66	1.35	1.46
25	SC	163	THR	CB-CG2	5.66	1.71	1.52
32	S1	661	U	O4'-C1'	5.66	1.49	1.41
33	L1	1421	A	C3'-C2'	5.66	1.59	1.52
33	L1	1456	A	C3'-O3'	5.66	1.50	1.42
33	L1	1457	A	P-O5'	-5.66	1.54	1.59
33	L1	1576	C	O3'-P	-5.66	1.54	1.61
33	L1	2743	A	C3'-O3'	5.66	1.50	1.42
33	L1	2502	U	C5'-C4'	5.65	1.58	1.51
33	L1	2866	A	C2'-C1'	-5.65	1.47	1.53
32	S1	628	G	O4'-C1'	5.65	1.49	1.41
32	S1	1247	G	O3'-P	-5.65	1.54	1.61
33	L1	2255	U	O4'-C1'	5.65	1.49	1.41
33	L1	2383	G	O4'-C1'	5.65	1.49	1.41
33	L1	2991	U	O3'-P	-5.65	1.54	1.61
35	L2	56	A	C5'-C4'	5.65	1.58	1.51
33	L1	19	C	C3'-O3'	5.65	1.50	1.42
33	L1	377	C	O4'-C1'	5.65	1.49	1.41
33	L1	858	U	C4'-O4'	5.65	1.52	1.45
33	L1	1594	G	C4'-C3'	5.65	1.59	1.53
33	L1	1653	A	O4'-C1'	5.65	1.49	1.41
33	L1	2621	G	C4'-C3'	-5.65	1.46	1.52
33	L1	2872	C	O4'-C1'	-5.65	1.34	1.41
33	L1	2909	A	C5'-C4'	5.65	1.58	1.51
42	LP	172	ARG	CD-NE	5.65	1.56	1.46
72	Lk	39	ARG	NE-CZ	5.65	1.40	1.33
33	L1	1107	G	C5'-C4'	5.65	1.58	1.51
33	L1	1307	A	C4'-O4'	5.65	1.52	1.45
33	L1	2331	A	O4'-C1'	5.65	1.49	1.41
33	L1	3353	G	O3'-P	-5.65	1.54	1.61
33	L1	58	G	O4'-C1'	-5.65	1.34	1.41
33	L1	1943	G	C2'-C1'	-5.65	1.47	1.53
33	L1	2171	A	C2'-C1'	5.65	1.59	1.53
33	L1	3018	A	O4'-C1'	-5.65	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3235	A	O3'-P	-5.65	1.54	1.61
73	Lp	35	ARG	CD-NE	5.65	1.56	1.46
15	SS	68	TYR	CG-CD1	5.65	1.46	1.39
32	S1	1197	A	O5'-C5'	5.65	1.53	1.44
56	Lh	107	LYS	C-N	5.65	1.47	1.34
3	SB	75	LYS	N-CA	-5.64	1.35	1.46
33	L1	914	C	O3'-P	5.64	1.68	1.61
33	L1	1268	G	C2'-C1'	5.64	1.59	1.53
37	LB	123	ARG	C-N	5.64	1.43	1.33
83	Lm	19	GLY	CA-C	5.64	1.60	1.51
25	SC	60	HIS	CA-CB	5.64	1.66	1.53
32	S1	362	U	C2'-C1'	-5.64	1.47	1.53
32	S1	1308	G	O4'-C1'	-5.64	1.34	1.41
33	L1	306	A	O4'-C1'	-5.64	1.34	1.41
33	L1	2991	U	P-O5'	-5.64	1.54	1.59
33	L1	997	G	P-O5'	-5.64	1.54	1.59
33	L1	2911	C	O4'-C1'	5.64	1.49	1.41
32	S1	1697	G	C4'-O4'	5.64	1.52	1.45
35	L2	83	A	C5'-C4'	5.64	1.58	1.51
84	LI	109	ASP	CB-CG	-5.64	1.40	1.51
33	L1	3019	C	C4'-C3'	5.64	1.59	1.53
33	L1	232	C	O3'-P	-5.64	1.54	1.61
33	L1	2563	G	C5'-C4'	5.64	1.58	1.51
33	L1	3019	C	P-O5'	-5.64	1.54	1.59
33	L1	1528	G	C2'-C1'	-5.63	1.47	1.53
33	L1	2148	U	O4'-C1'	5.63	1.49	1.41
33	L1	2215	A	C5'-C4'	5.63	1.58	1.51
33	L1	2704	U	C2'-C1'	-5.63	1.47	1.53
32	S1	1645	C	O4'-C1'	5.63	1.49	1.41
32	S1	1729	A	O4'-C1'	5.63	1.49	1.41
31	S2	58	U	C3'-C2'	5.63	1.59	1.52
33	L1	1244	A	C2'-C1'	5.63	1.59	1.53
33	L1	1312	A	C4'-O4'	5.63	1.52	1.45
33	L1	3100	C	P-O5'	5.63	1.65	1.59
32	S1	734	C	C5'-C4'	5.63	1.58	1.51
33	L1	2496	U	C2'-C1'	5.63	1.59	1.53
64	LG	141	LYS	C-N	5.63	1.47	1.34
31	S2	60	C	C4'-C3'	5.63	1.59	1.53
31	S2	75	A	C4'-O4'	5.63	1.52	1.45
33	L1	2952	G	C3'-O3'	5.63	1.50	1.42
32	S1	1806	C	C5'-C4'	5.63	1.58	1.51
33	L1	3088	A	C5'-C4'	5.63	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	SE	90	MET	N-CA	-5.62	1.35	1.46
32	S1	399	U	C5'-C4'	5.62	1.58	1.51
33	L1	924	A	O3'-P	-5.62	1.54	1.61
4	SD	205	PHE	CG-CD1	5.62	1.47	1.38
32	S1	1202	G	O4'-C1'	-5.62	1.34	1.41
34	L3	117	U	O4'-C1'	-5.62	1.34	1.41
51	LY	27	ARG	CD-NE	5.62	1.56	1.46
31	S2	63	C	C5'-C4'	5.62	1.58	1.51
32	S1	1041	A	O4'-C1'	5.62	1.49	1.41
33	L1	2111	A	C2'-C1'	-5.62	1.47	1.53
32	S1	1344	U	C3'-C2'	-5.62	1.46	1.52
32	S1	1609	G	C4'-C3'	5.62	1.59	1.53
33	L1	2077	C	C3'-O3'	5.62	1.50	1.42
33	L1	2288	C	C2'-C1'	-5.62	1.47	1.53
33	L1	2637	U	C4'-C3'	-5.62	1.47	1.52
33	L1	2974	G	C2'-C1'	5.62	1.59	1.53
13	SQ	82	MET	CA-CB	5.62	1.66	1.53
32	S1	1170	G	C2'-C1'	-5.62	1.47	1.53
32	S1	1660	C	O4'-C1'	5.62	1.49	1.41
33	L1	431	G	P-O5'	-5.62	1.54	1.59
33	L1	2169	U	O4'-C1'	5.62	1.49	1.41
32	S1	1	U	C3'-O3'	5.62	1.50	1.42
14	SP	41	LEU	C-N	5.61	1.43	1.33
32	S1	662	C	C2'-C1'	-5.61	1.47	1.53
32	S1	1647	C	O4'-C1'	5.61	1.49	1.41
33	L1	2152	A	C2'-C1'	5.61	1.59	1.53
33	L1	2351	A	P-O5'	-5.61	1.54	1.59
33	L1	2448	G	O3'-P	-5.61	1.54	1.61
33	L1	2503	A	P-O5'	-5.61	1.54	1.59
32	S1	504	C	C4'-C3'	-5.61	1.47	1.52
33	L1	257	C	C5'-C4'	5.61	1.58	1.51
33	L1	1348	G	C5'-C4'	5.61	1.58	1.51
32	S1	1049	U	O4'-C1'	5.61	1.49	1.41
33	L1	1512	A	C5'-C4'	5.61	1.58	1.51
33	L1	1878	G	C3'-O3'	5.61	1.50	1.42
33	L1	2671	A	C2'-C1'	5.61	1.59	1.53
39	LF	88	ARG	CZ-NH2	5.61	1.40	1.33
82	LK	111	GLU	CB-CG	5.61	1.62	1.52
32	S1	1064	U	C5'-C4'	5.61	1.58	1.51
33	L1	1623	C	C5'-C4'	5.61	1.58	1.51
33	L1	1919	C	O3'-P	-5.61	1.54	1.61
34	L3	108	G	C2'-C1'	5.61	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	L2	98	C	C5'-C4'	5.61	1.58	1.51
40	LH	233	VAL	CA-CB	-5.61	1.43	1.54
32	S1	618	C	O3'-P	-5.61	1.54	1.61
32	S1	964	U	O4'-C1'	5.61	1.49	1.41
33	L1	25	U	O3'-P	-5.61	1.54	1.61
33	L1	2456	G	O5'-C5'	5.61	1.53	1.44
78	Le	241	ARG	CZ-NH2	5.61	1.40	1.33
1	Sa	203	GLY	N-CA	5.61	1.54	1.46
27	SH	78	ARG	C-O	-5.61	1.12	1.23
32	S1	1195	U	P-O5'	-5.61	1.54	1.59
32	S1	1756	A	C5'-C4'	5.61	1.58	1.51
42	LP	26	ARG	NE-CZ	5.61	1.40	1.33
32	S1	1023	C	C4'-C3'	-5.60	1.47	1.52
32	S1	1703	G	C3'-O3'	5.60	1.50	1.42
33	L1	2089	A	C5'-C4'	5.60	1.58	1.51
35	L2	54	C	C5'-C4'	5.60	1.58	1.51
32	S1	929	A	C4'-O4'	-5.60	1.38	1.45
33	L1	218	G	P-O5'	-5.60	1.54	1.59
33	L1	2064	C	C3'-O3'	5.60	1.50	1.42
33	L1	2093	G	O4'-C1'	-5.60	1.34	1.41
33	L1	2204	U	O4'-C1'	5.60	1.49	1.41
33	L1	3387	U	O3'-P	-5.60	1.54	1.61
33	L1	190	C	C2'-C1'	-5.60	1.47	1.53
33	L1	723	G	O4'-C1'	-5.60	1.34	1.41
33	L1	1144	C	O4'-C1'	5.60	1.49	1.41
33	L1	1282	A	C3'-C2'	5.60	1.59	1.52
33	L1	331	G	P-O5'	5.60	1.65	1.59
33	L1	1139	A	O4'-C1'	5.60	1.49	1.41
33	L1	2769	U	C2'-C1'	-5.60	1.47	1.53
32	S1	143	A	O4'-C1'	-5.60	1.34	1.41
32	S1	884	G	C5'-C4'	5.60	1.58	1.51
32	S1	1323	U	C4'-C3'	-5.60	1.47	1.52
33	L1	1311	G	C4'-C3'	-5.60	1.47	1.52
33	L1	1513	C	C3'-C2'	-5.60	1.46	1.52
61	Lq	2	ARG	CD-NE	5.60	1.55	1.46
33	L1	32	G	C4'-O4'	5.60	1.52	1.45
33	L1	1087	G	O3'-P	-5.60	1.54	1.61
33	L1	2625	C	C2'-C1'	5.60	1.59	1.53
32	S1	447	C	C3'-C2'	5.59	1.59	1.52
32	S1	630	U	O4'-C1'	5.59	1.49	1.41
33	L1	1134	G	O4'-C1'	5.59	1.49	1.41
33	L1	1895	G	O4'-C1'	5.59	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	L3	58	G	C2'-C1'	5.59	1.59	1.53
34	L3	69	A	O3'-P	-5.59	1.54	1.61
32	S1	17	C	C5'-C4'	5.59	1.58	1.51
46	LT	188	SER	CA-CB	5.59	1.61	1.52
31	S2	63	C	O4'-C1'	5.59	1.49	1.41
32	S1	1074	C	C3'-C2'	5.59	1.59	1.52
33	L1	33	A	C2'-C1'	-5.59	1.47	1.53
33	L1	1282	A	C2'-C1'	5.59	1.59	1.53
33	L1	1393	G	C3'-O3'	-5.59	1.34	1.42
33	L1	1995	U	O4'-C1'	5.59	1.49	1.41
33	L1	2067	G	C4'-C3'	5.59	1.59	1.53
33	L1	2497	A	O3'-P	-5.59	1.54	1.61
33	L1	2577	G	O4'-C1'	5.59	1.49	1.41
3	SB	65	ARG	CD-NE	5.59	1.55	1.46
32	S1	1430	A	C3'-O3'	5.59	1.50	1.42
33	L1	600	G	C3'-C2'	-5.59	1.46	1.52
33	L1	2683	A	C2'-C1'	5.59	1.59	1.53
33	L1	2870	U	C5'-C4'	5.59	1.58	1.51
12	SO	80	LEU	CA-CB	5.59	1.66	1.53
33	L1	166	U	O3'-P	5.59	1.67	1.61
33	L1	279	G	C2'-C1'	5.59	1.59	1.53
33	L1	1289	G	O4'-C1'	5.59	1.49	1.41
33	L1	1599	A	C5'-C4'	5.59	1.58	1.51
33	L1	1680	A	C5'-C4'	5.59	1.58	1.51
78	Le	162	ARG	C-O	-5.59	1.12	1.23
32	S1	463	G	O4'-C1'	5.59	1.49	1.41
33	L1	2216	G	C5'-C4'	5.59	1.58	1.51
33	L1	2837	C	O4'-C1'	5.59	1.49	1.41
43	LO	127	LYS	C-O	-5.59	1.12	1.23
5	SE	33	GLY	N-CA	-5.58	1.37	1.46
33	L1	2134	U	C4'-O4'	5.58	1.52	1.45
33	L1	2568	G	C3'-O3'	5.58	1.50	1.42
32	S1	1136	A	C3'-O3'	5.58	1.50	1.42
33	L1	6	A	P-O5'	5.58	1.65	1.59
33	L1	809	A	O3'-P	-5.58	1.54	1.61
33	L1	1728	G	O4'-C1'	5.58	1.49	1.41
35	L2	38	U	O4'-C1'	5.58	1.49	1.41
42	LP	118	SER	CB-OG	5.58	1.49	1.42
70	Li	50	LYS	N-CA	-5.58	1.35	1.46
32	S1	308	U	O4'-C1'	5.58	1.49	1.41
32	S1	849	G	C2'-C1'	5.58	1.59	1.53
32	S1	1701	G	C2'-C1'	-5.58	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	827	C	C4'-C3'	-5.58	1.47	1.52
32	S1	1155	G	C5'-C4'	5.58	1.58	1.51
33	L1	600	G	O4'-C1'	5.58	1.49	1.41
33	L1	383	A	C3'-O3'	5.58	1.50	1.42
33	L1	676	G	C3'-C2'	5.58	1.59	1.52
33	L1	1785	G	C5'-C4'	5.58	1.58	1.51
33	L1	1889	G	O4'-C1'	5.58	1.49	1.41
51	LY	74	ARG	CD-NE	5.58	1.55	1.46
33	L1	2107	A	C3'-C2'	5.58	1.59	1.52
23	SU	80	LEU	CB-CG	5.58	1.68	1.52
32	S1	445	A	C2'-C1'	-5.58	1.47	1.53
32	S1	845	C	C2'-C1'	-5.58	1.47	1.53
32	S1	1550	G	C2'-C1'	5.58	1.59	1.53
32	S1	1672	U	O4'-C1'	5.58	1.48	1.41
33	L1	310	C	C3'-O3'	5.58	1.50	1.42
33	L1	1277	A	C3'-C2'	-5.58	1.46	1.52
33	L1	443	G	C4'-C3'	5.57	1.59	1.53
33	L1	608	G	O3'-P	-5.57	1.54	1.61
33	L1	1116	G	P-O5'	-5.57	1.54	1.59
33	L1	2246	G	P-O5'	-5.57	1.54	1.59
33	L1	2841	G	P-O5'	-5.57	1.54	1.59
35	L2	13	G	C4'-C3'	5.57	1.59	1.53
35	L2	47	A	C2'-C1'	-5.57	1.47	1.53
32	S1	887	U	C2'-C1'	-5.57	1.47	1.53
33	L1	1669	C	C2'-C1'	-5.57	1.47	1.53
3	SB	149	SER	CA-CB	5.57	1.61	1.52
33	L1	1082	U	C2'-C1'	-5.57	1.47	1.53
33	L1	2191	C	O4'-C1'	5.57	1.48	1.41
33	L1	2539	G	C2'-C1'	-5.57	1.47	1.53
32	S1	47	A	O4'-C1'	5.57	1.48	1.41
64	LG	171	LYS	C-O	-5.57	1.12	1.23
3	SB	107	TYR	CE2-CZ	5.57	1.45	1.38
32	S1	443	U	C2'-C1'	-5.57	1.47	1.53
33	L1	507	C	C5'-C4'	5.57	1.58	1.51
33	L1	1725	G	C2'-O2'	5.57	1.48	1.41
33	L1	1880	A	O4'-C1'	-5.57	1.34	1.41
33	L1	1894	G	C4'-C3'	-5.57	1.47	1.52
33	L1	2729	C	P-O5'	-5.57	1.54	1.59
35	L2	51	U	C2'-C1'	5.57	1.59	1.53
33	L1	1505	G	C2'-C1'	5.57	1.59	1.53
33	L1	2022	U	P-O5'	-5.57	1.54	1.59
33	L1	2697	A	P-O5'	-5.57	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2698	A	O3'-P	-5.57	1.54	1.61
33	L1	3235	A	C5'-C4'	5.57	1.58	1.51
32	S1	887	U	P-O5'	-5.56	1.54	1.59
33	L1	1085	G	C4'-C3'	-5.56	1.47	1.52
71	Lj	47	TRP	CB-CG	5.56	1.60	1.50
32	S1	166	A	O4'-C1'	5.56	1.48	1.41
32	S1	1590	U	P-O5'	-5.56	1.54	1.59
33	L1	703	G	O4'-C1'	5.56	1.48	1.41
33	L1	802	G	O3'-P	-5.56	1.54	1.61
33	L1	1136	A	P-O5'	-5.56	1.54	1.59
34	L3	6	C	O4'-C1'	5.56	1.48	1.41
68	LW	82	LYS	N-CA	-5.56	1.35	1.46
25	SC	137	ARG	CZ-NH2	5.56	1.40	1.33
32	S1	861	A	O4'-C1'	-5.56	1.34	1.41
33	L1	671	C	O4'-C1'	5.56	1.48	1.41
33	L1	2206	U	C4'-C3'	5.56	1.59	1.53
35	L2	117	U	C2'-C1'	-5.56	1.47	1.53
32	S1	788	G	P-O5'	5.56	1.65	1.59
33	L1	699	C	O4'-C1'	5.56	1.48	1.41
33	L1	3320	G	C3'-O3'	5.56	1.50	1.42
33	L1	3352	C	O4'-C1'	5.56	1.48	1.41
80	LC	255	ILE	C-N	5.56	1.43	1.33
84	LI	116	ARG	N-CA	5.56	1.57	1.46
32	S1	378	U	C4'-O4'	-5.56	1.38	1.45
33	L1	1407	G	C4'-C3'	-5.56	1.47	1.52
33	L1	2223	A	P-O5'	-5.56	1.54	1.59
14	SP	104	ARG	CZ-NH2	-5.55	1.25	1.33
32	S1	1023	C	C5'-C4'	5.55	1.58	1.51
32	S1	1043	C	C2'-C1'	-5.55	1.47	1.53
32	S1	1615	G	O3'-P	-5.55	1.54	1.61
33	L1	1514	U	P-O5'	-5.55	1.54	1.59
35	L2	34	C	C3'-C2'	5.55	1.59	1.52
81	LD	90	ARG	CA-CB	5.55	1.66	1.53
32	S1	494	G	P-O5'	-5.55	1.54	1.59
33	L1	3004	G	O4'-C1'	5.55	1.48	1.41
31	S2	66	C	C3'-O3'	5.55	1.50	1.42
32	S1	1229	C	C5'-C4'	5.55	1.58	1.51
33	L1	876	C	C4'-O4'	-5.55	1.38	1.45
33	L1	1629	A	O3'-P	-5.55	1.54	1.61
33	L1	2587	G	C4'-C3'	-5.55	1.47	1.52
39	LF	153	VAL	CB-CG1	5.55	1.64	1.52
33	L1	1252	C	C5'-C4'	5.55	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1044	A	O4'-C1'	5.55	1.48	1.41
33	L1	1159	C	P-O5'	-5.55	1.54	1.59
33	L1	1813	C	P-O5'	-5.55	1.54	1.59
43	LO	127	LYS	CA-CB	-5.55	1.41	1.53
33	L1	227	C	C5'-C4'	5.55	1.58	1.51
33	L1	1507	A	C2'-C1'	-5.55	1.47	1.53
33	L1	2718	A	P-O5'	-5.55	1.54	1.59
33	L1	3140	A	P-O5'	-5.55	1.54	1.59
34	L3	65	G	C5'-C4'	5.55	1.58	1.51
42	LP	6	TYR	CG-CD1	5.55	1.46	1.39
69	La	77	PHE	CA-CB	-5.55	1.41	1.53
33	L1	1550	A	C2'-C1'	-5.54	1.47	1.53
31	S2	70	G	O3'-P	-5.54	1.54	1.61
32	S1	1519	G	O3'-P	-5.54	1.54	1.61
32	S1	1592	G	C5'-C4'	5.54	1.58	1.51
32	S1	1721	A	C2'-C1'	5.54	1.59	1.53
33	L1	237	C	C3'-O3'	5.54	1.50	1.42
33	L1	1271	U	C3'-O3'	5.54	1.50	1.42
33	L1	1870	G	O4'-C1'	5.54	1.48	1.41
33	L1	3338	U	P-O5'	-5.54	1.54	1.59
32	S1	1736	C	C4'-C3'	5.54	1.59	1.53
33	L1	1679	U	C4'-O4'	5.54	1.52	1.45
33	L1	2787	A	C5'-C4'	5.54	1.57	1.51
33	L1	3018	A	C4'-C3'	-5.54	1.47	1.52
51	LY	114	ARG	CD-NE	5.54	1.55	1.46
32	S1	306	U	C4'-C3'	-5.54	1.47	1.52
33	L1	167	C	C5'-C4'	5.54	1.57	1.51
33	L1	1715	C	O4'-C1'	5.54	1.48	1.41
33	L1	1813	C	C5'-C4'	5.54	1.57	1.51
33	L1	2375	G	P-O5'	-5.54	1.54	1.59
33	L1	3095	G	C4'-C3'	5.54	1.59	1.53
68	LW	28	SER	C-N	5.54	1.46	1.34
32	S1	1046	G	C2'-C1'	-5.54	1.47	1.53
33	L1	1449	A	C4'-O4'	5.54	1.52	1.45
33	L1	1451	U	C5'-C4'	5.54	1.57	1.51
33	L1	1618	U	C4'-C3'	-5.54	1.47	1.52
33	L1	2185	U	O4'-C1'	5.54	1.48	1.41
33	L1	2973	A	C4'-C3'	5.54	1.59	1.53
33	L1	3031	G	O4'-C1'	-5.54	1.34	1.41
73	Lp	22	LYS	CD-CE	5.54	1.65	1.51
32	S1	1714	G	O4'-C1'	-5.53	1.34	1.41
33	L1	1689	G	O3'-P	-5.53	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	L2	96	A	C2'-C1'	-5.53	1.47	1.53
1	Sa	325	TRP	N-CA	-5.53	1.35	1.46
27	SH	109	GLY	C-O	-5.53	1.14	1.23
32	S1	450	A	O3'-P	-5.53	1.54	1.61
33	L1	1242	U	C3'-C2'	5.53	1.59	1.52
33	L1	1291	A	C4'-C3'	5.53	1.59	1.53
33	L1	1907	A	C5'-C4'	5.53	1.57	1.51
32	S1	313	C	C2'-C1'	-5.53	1.47	1.53
32	S1	1302	C	C4'-C3'	5.53	1.59	1.53
33	L1	1552	C	O4'-C1'	5.53	1.48	1.41
33	L1	1754	C	C5'-C4'	5.53	1.57	1.51
32	S1	1228	G	C2'-O2'	5.53	1.48	1.41
33	L1	1562	A	C4'-C3'	5.53	1.59	1.53
33	L1	1657	C	O4'-C1'	5.53	1.48	1.41
33	L1	2102	C	C3'-O3'	5.53	1.49	1.42
33	L1	2243	C	O4'-C1'	5.53	1.48	1.41
33	L1	3319	G	C4'-C3'	5.53	1.59	1.53
32	S1	1652	C	C2'-C1'	-5.53	1.47	1.53
33	L1	1449	A	C3'-C2'	5.53	1.59	1.52
32	S1	396	G	C5'-C4'	5.52	1.57	1.51
32	S1	1002	G	C2'-C1'	-5.52	1.47	1.53
33	L1	1395	A	C3'-O3'	5.52	1.49	1.42
7	SI	98	TYR	CD2-CE2	5.52	1.47	1.39
31	S2	32	U	O3'-P	-5.52	1.54	1.61
32	S1	831	C	C3'-O3'	5.52	1.49	1.42
32	S1	957	A	C4'-C3'	5.52	1.59	1.53
33	L1	2649	C	O3'-P	-5.52	1.54	1.61
33	L1	1343	C	C5'-C4'	5.52	1.57	1.51
33	L1	1348	G	C3'-C2'	5.52	1.59	1.52
1	Sa	30	GLN	CA-CB	5.52	1.66	1.53
23	SU	8	PRO	N-CA	5.52	1.56	1.47
33	L1	1173	C	O4'-C1'	5.52	1.48	1.41
35	L2	145	C	C4'-C3'	5.52	1.59	1.53
64	LG	62	SER	N-CA	-5.52	1.35	1.46
32	S1	1628	C	C2'-C1'	-5.52	1.47	1.53
33	L1	868	A	O4'-C1'	5.52	1.48	1.41
35	L2	63	A	C4'-O4'	5.52	1.52	1.45
32	S1	33	U	C4'-C3'	5.52	1.59	1.53
33	L1	316	A	C2'-O2'	5.52	1.48	1.41
33	L1	2221	U	O4'-C1'	5.52	1.48	1.41
33	L1	3291	C	C3'-O3'	5.52	1.49	1.42
32	S1	1049	U	O3'-P	-5.51	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	500	C	C4'-C3'	-5.51	1.47	1.52
33	L1	892	U	C4'-C3'	5.51	1.59	1.53
33	L1	1620	U	P-O5'	-5.51	1.54	1.59
34	L3	80	A	C2'-C1'	-5.51	1.47	1.53
33	L1	2476	G	O4'-C1'	-5.51	1.34	1.41
33	L1	3311	C	C2'-C1'	5.51	1.59	1.53
39	LF	119	GLU	CB-CG	5.51	1.62	1.52
16	SR	58	LEU	N-CA	5.51	1.57	1.46
33	L1	2747	U	C3'-O3'	5.51	1.49	1.42
32	S1	1007	G	C3'-C2'	5.51	1.59	1.52
32	S1	1184	C	C3'-O3'	5.51	1.49	1.42
33	L1	47	A	C5'-C4'	5.51	1.57	1.51
33	L1	349	A	O3'-P	-5.51	1.54	1.61
33	L1	498	G	O3'-P	5.51	1.67	1.61
33	L1	689	G	C2'-C1'	-5.51	1.47	1.53
33	L1	921	C	P-O5'	-5.51	1.54	1.59
33	L1	3387	U	P-O5'	-5.51	1.54	1.59
34	L3	54	A	C3'-O3'	-5.51	1.34	1.42
32	S1	1075	G	C4'-O4'	5.51	1.52	1.45
33	L1	160	G	C4'-C3'	5.51	1.59	1.53
33	L1	1262	U	C2'-C1'	5.51	1.59	1.53
33	L1	2233	G	C2'-C1'	-5.51	1.47	1.53
52	Lb	123	ARG	NE-CZ	5.51	1.40	1.33
33	L1	3385	G	O5'-C5'	5.50	1.53	1.44
35	L2	103	C	C3'-O3'	5.50	1.49	1.42
32	S1	1349	A	C4'-C3'	5.50	1.59	1.53
32	S1	1434	G	C4'-O4'	-5.50	1.38	1.45
33	L1	2424	G	C5'-C4'	5.50	1.57	1.51
33	L1	281	G	C3'-C2'	5.50	1.58	1.52
33	L1	1339	C	C5'-C4'	5.50	1.57	1.51
33	L1	1922	C	P-O5'	5.50	1.65	1.59
1	Sa	212	SER	CA-CB	5.50	1.61	1.52
33	L1	376	A	C3'-O3'	5.50	1.49	1.42
33	L1	892	U	C5'-C4'	5.50	1.57	1.51
8	SJ	107	VAL	CA-CB	-5.50	1.43	1.54
23	SU	7	ALA	CA-CB	5.50	1.64	1.52
32	S1	106	A	O4'-C1'	5.50	1.48	1.41
33	L1	53	C	O4'-C1'	5.50	1.48	1.41
33	L1	840	A	C5'-C4'	5.50	1.57	1.51
33	L1	1341	G	C3'-O3'	5.50	1.49	1.42
33	L1	2454	U	O4'-C1'	5.50	1.48	1.41
33	L1	2648	G	C3'-O3'	5.50	1.49	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2705	A	P-O5'	-5.50	1.54	1.59
33	L1	3222	G	C5'-C4'	5.50	1.57	1.51
25	SC	164	SER	C-O	-5.50	1.12	1.23
33	L1	303	U	C2'-C1'	-5.50	1.47	1.53
33	L1	2131	U	C5'-C4'	5.50	1.57	1.51
33	L1	2248	G	C4'-C3'	5.50	1.59	1.53
33	L1	2897	G	C2'-C1'	5.50	1.59	1.53
81	LD	313	GLU	CB-CG	5.50	1.62	1.52
30	S3	18	C	C2'-C1'	-5.49	1.47	1.53
32	S1	990	G	C4'-O4'	-5.49	1.38	1.45
32	S1	1477	A	C2'-C1'	5.49	1.59	1.53
33	L1	3333	C	O3'-P	-5.49	1.54	1.61
71	Lj	2	LYS	N-CA	-5.49	1.35	1.46
78	Le	49	ARG	CD-NE	5.49	1.55	1.46
33	L1	903	G	O3'-P	-5.49	1.54	1.61
33	L1	917	A	C5'-C4'	5.49	1.57	1.51
55	Lg	1	MET	CA-C	-5.49	1.38	1.52
32	S1	913	U	C4'-C3'	-5.49	1.47	1.52
33	L1	1036	C	O3'-P	-5.49	1.54	1.61
33	L1	1286	G	P-O5'	-5.49	1.54	1.59
69	La	34	ARG	N-CA	-5.49	1.35	1.46
32	S1	1715	C	P-O5'	-5.49	1.54	1.59
32	S1	1728	G	C3'-O3'	5.49	1.49	1.42
33	L1	292	A	C3'-O3'	5.49	1.49	1.42
33	L1	1472	C	C4'-C3'	5.49	1.59	1.53
33	L1	2858	G	O3'-P	-5.49	1.54	1.61
35	L2	51	U	C3'-O3'	5.49	1.49	1.42
32	S1	372	U	C4'-O4'	5.49	1.52	1.45
31	S2	4	G	C5'-C4'	5.48	1.57	1.51
33	L1	1765	G	C3'-O3'	5.48	1.49	1.42
33	L1	2806	A	C2'-C1'	-5.48	1.47	1.53
32	S1	1288	C	C4'-C3'	-5.48	1.47	1.52
32	S1	1312	G	C4'-O4'	-5.48	1.38	1.45
33	L1	989	U	O4'-C1'	5.48	1.48	1.41
33	L1	2214	A	O4'-C1'	5.48	1.48	1.41
3	SB	67	ARG	CD-NE	5.48	1.55	1.46
13	SQ	97	ARG	CD-NE	5.48	1.55	1.46
82	LK	54	ARG	CZ-NH2	-5.48	1.25	1.33
15	SS	15	HIS	CA-CB	-5.48	1.42	1.53
32	S1	3	C	C4'-O4'	5.48	1.52	1.45
32	S1	901	U	C2'-C1'	-5.48	1.47	1.53
32	S1	1331	C	O4'-C1'	5.48	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1302	C	O4'-C1'	5.48	1.48	1.41
33	L1	2081	C	C2'-C1'	-5.48	1.47	1.53
37	LB	197	PRO	CA-CB	-5.48	1.42	1.53
38	LE	34	ARG	N-CA	5.48	1.57	1.46
32	S1	502	G	C4'-O4'	5.48	1.52	1.45
32	S1	1565	U	C3'-C2'	-5.48	1.46	1.52
33	L1	1678	U	O3'-P	-5.48	1.54	1.61
33	L1	2794	A	C5'-C4'	5.48	1.57	1.51
35	L2	30	C	C3'-C2'	5.48	1.58	1.52
5	SE	101	ALA	CA-CB	5.47	1.64	1.52
32	S1	178	A	O4'-C1'	5.47	1.48	1.41
33	L1	750	G	C2'-C1'	-5.47	1.47	1.53
33	L1	1195	C	C4'-O4'	5.47	1.52	1.45
33	L1	2672	C	O3'-P	-5.47	1.54	1.61
31	S2	15	A	C2'-C1'	5.47	1.59	1.53
48	LV	131	TYR	CE1-CZ	5.47	1.45	1.38
31	S2	60	C	P-O5'	-5.47	1.54	1.59
32	S1	1	U	C4'-C3'	5.47	1.59	1.53
32	S1	1122	U	C3'-O3'	5.47	1.49	1.42
33	L1	113	A	P-O5'	-5.47	1.54	1.59
33	L1	564	A	C3'-O3'	5.47	1.49	1.42
33	L1	1444	G	C2'-C1'	-5.47	1.47	1.53
33	L1	2185	U	P-O5'	-5.47	1.54	1.59
33	L1	3362	A	C3'-O3'	5.47	1.49	1.42
34	L3	47	C	O4'-C1'	5.47	1.48	1.41
31	S2	48	C	P-O5'	-5.47	1.54	1.59
33	L1	1825	G	C2'-C1'	-5.47	1.47	1.53
33	L1	2632	U	C3'-C2'	-5.47	1.46	1.52
33	L1	2313	U	C3'-C2'	5.47	1.58	1.52
59	Lo	51	PHE	CE1-CZ	5.47	1.47	1.37
81	LD	102	GLY	CA-C	5.47	1.60	1.51
32	S1	626	A	C2'-C1'	-5.46	1.47	1.53
33	L1	2426	C	C2'-C1'	-5.46	1.47	1.53
15	SS	11	ASP	CA-C	5.46	1.67	1.52
55	Lg	6	ARG	CD-NE	5.46	1.55	1.46
4	SD	54	TYR	C-O	-5.46	1.12	1.23
32	S1	899	A	O4'-C1'	5.46	1.48	1.41
33	L1	2495	C	C4'-C3'	-5.46	1.47	1.52
33	L1	926	C	P-O5'	-5.46	1.54	1.59
33	L1	959	U	C4'-C3'	5.46	1.59	1.53
32	S1	182	C	O4'-C1'	5.46	1.48	1.41
32	S1	1391	G	O4'-C1'	5.46	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1395	C	O4'-C1'	5.46	1.48	1.41
33	L1	176	A	C2'-C1'	-5.46	1.47	1.53
33	L1	1910	G	C4'-O4'	5.46	1.52	1.45
15	SS	8	THR	CA-C	-5.46	1.38	1.52
32	S1	6	G	C4'-C3'	5.46	1.59	1.53
32	S1	1070	A	O3'-P	-5.46	1.54	1.61
32	S1	1538	C	O3'-P	-5.46	1.54	1.61
32	S1	1774	C	C5'-C4'	5.46	1.57	1.51
33	L1	2454	U	C5'-C4'	5.46	1.57	1.51
32	S1	873	G	C2'-C1'	5.46	1.59	1.53
33	L1	2482	A	C3'-O3'	-5.46	1.34	1.42
33	L1	2720	U	C3'-C2'	5.46	1.58	1.52
33	L1	2777	U	O3'-P	-5.46	1.54	1.61
47	LU	141	VAL	N-CA	5.46	1.57	1.46
31	S2	17	G	O3'-P	5.45	1.67	1.61
32	S1	686	A	O4'-C1'	5.45	1.48	1.41
32	S1	941	G	C4'-O4'	-5.45	1.38	1.45
32	S1	1063	U	O4'-C1'	-5.45	1.34	1.41
32	S1	1183	G	C2'-C1'	5.45	1.59	1.53
32	S1	1300	A	O3'-P	-5.45	1.54	1.61
32	S1	1319	U	O5'-C5'	-5.45	1.34	1.42
33	L1	102	G	P-O5'	-5.45	1.54	1.59
34	L3	116	U	C3'-O3'	5.45	1.49	1.42
33	L1	367	A	O3'-P	-5.45	1.54	1.61
33	L1	797	U	O4'-C1'	5.45	1.48	1.41
33	L1	2433	U	C5'-C4'	5.45	1.57	1.51
33	L1	2663	U	O3'-P	-5.45	1.54	1.61
32	S1	1789	U	C5'-C4'	5.45	1.57	1.51
33	L1	1394	C	C3'-O3'	5.45	1.49	1.42
33	L1	3040	G	P-O5'	-5.45	1.54	1.59
33	L1	3183	G	C3'-O3'	5.45	1.49	1.42
33	L1	3280	U	O4'-C1'	5.45	1.48	1.41
33	L1	3291	C	P-O5'	-5.45	1.54	1.59
32	S1	1248	A	C4'-O4'	5.45	1.52	1.45
33	L1	31	U	C4'-C3'	5.45	1.59	1.53
33	L1	970	A	C3'-O3'	5.45	1.49	1.42
33	L1	2053	A	C3'-C2'	5.45	1.58	1.52
33	L1	2626	G	C3'-O3'	5.45	1.49	1.42
33	L1	2745	C	P-O5'	-5.45	1.54	1.59
32	S1	20	G	P-O5'	5.44	1.65	1.59
32	S1	1699	C	C4'-C3'	-5.44	1.47	1.52
33	L1	529	C	P-O5'	5.44	1.65	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	562	G	C4'-O4'	-5.44	1.38	1.45
33	L1	1155	G	O3'-P	-5.44	1.54	1.61
33	L1	2501	U	C4'-O4'	-5.44	1.38	1.45
8	SJ	89	PHE	N-CA	-5.44	1.35	1.46
32	S1	18	C	C2'-C1'	-5.44	1.47	1.53
32	S1	994	U	C5'-C4'	5.44	1.57	1.51
32	S1	1325	A	C2'-C1'	-5.44	1.47	1.53
33	L1	142	G	C3'-C2'	-5.44	1.46	1.52
33	L1	327	A	C3'-O3'	5.44	1.49	1.42
33	L1	1383	G	C3'-C2'	5.44	1.58	1.52
29	ST	37	GLY	N-CA	-5.44	1.37	1.46
32	S1	1327	C	P-O5'	-5.44	1.54	1.59
33	L1	3205	C	O4'-C1'	5.44	1.48	1.41
32	S1	889	C	C5'-C4'	5.44	1.57	1.51
31	S2	68	C	C3'-C2'	5.44	1.58	1.52
32	S1	896	C	C2'-C1'	-5.44	1.47	1.53
32	S1	994	U	C4'-C3'	-5.44	1.47	1.52
32	S1	1720	G	C4'-C3'	-5.44	1.47	1.52
33	L1	496	U	P-O5'	-5.44	1.54	1.59
33	L1	2488	A	O3'-P	-5.44	1.54	1.61
33	L1	2993	A	P-O5'	-5.44	1.54	1.59
33	L1	3047	A	P-O5'	-5.44	1.54	1.59
80	LC	1	MET	N-CA	-5.44	1.35	1.46
11	SM	113	ARG	CA-CB	5.43	1.66	1.53
33	L1	2518	A	O3'-P	-5.43	1.54	1.61
33	L1	1409	G	P-O5'	5.43	1.65	1.59
33	L1	2807	G	O4'-C1'	-5.43	1.34	1.41
33	L1	3096	U	C2'-C1'	5.43	1.59	1.53
32	S1	609	A	C3'-O3'	5.43	1.49	1.42
33	L1	184	C	C2'-C1'	5.43	1.59	1.53
33	L1	1878	G	O4'-C1'	-5.43	1.34	1.41
35	L2	108	A	O4'-C1'	5.43	1.48	1.41
33	L1	603	G	O4'-C1'	5.43	1.48	1.41
33	L1	1364	C	O3'-P	-5.43	1.54	1.61
33	L1	3156	G	C5'-C4'	5.43	1.57	1.51
33	L1	3377	G	C2'-C1'	5.43	1.59	1.53
35	L2	101	G	P-O5'	-5.43	1.54	1.59
33	L1	3038	U	C5'-C4'	5.43	1.57	1.51
32	S1	1368	C	C4'-C3'	-5.43	1.47	1.52
33	L1	347	A	P-O5'	-5.43	1.54	1.59
33	L1	846	A	C4'-C3'	5.43	1.59	1.53
33	L1	1889	G	C3'-O3'	5.43	1.49	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2791	U	C2'-C1'	-5.43	1.47	1.53
38	LE	65	GLU	CD-OE2	-5.43	1.19	1.25
32	S1	494	G	C5'-C4'	5.42	1.57	1.51
32	S1	1479	U	C3'-C2'	5.42	1.58	1.52
32	S1	1681	G	C4'-C3'	5.42	1.59	1.53
33	L1	486	G	O4'-C1'	5.42	1.48	1.41
52	Lb	111	TYR	CZ-OH	5.42	1.47	1.37
59	Lo	51	PHE	CG-CD1	5.42	1.46	1.38
43	LO	40	HIS	CA-CB	5.42	1.65	1.53
76	Lw	35	ASP	CA-CB	5.42	1.65	1.53
32	S1	1559	U	C4'-C3'	5.42	1.59	1.53
33	L1	2433	U	C3'-C2'	5.42	1.58	1.52
32	S1	1589	C	O3'-P	-5.42	1.54	1.61
33	L1	1162	A	O3'-P	-5.42	1.54	1.61
34	L3	48	G	P-O5'	-5.42	1.54	1.59
32	S1	563	C	C4'-C3'	5.42	1.59	1.53
33	L1	2729	C	O4'-C1'	5.42	1.48	1.41
33	L1	3016	C	O3'-P	-5.42	1.54	1.61
33	L1	3159	C	C5'-C4'	5.42	1.57	1.51
32	S1	302	C	C2'-C1'	-5.42	1.47	1.53
32	S1	546	U	C4'-C3'	5.42	1.59	1.53
32	S1	587	C	C4'-O4'	-5.42	1.38	1.45
33	L1	1821	G	O5'-C5'	5.42	1.53	1.44
57	L1	6	GLY	CA-C	5.42	1.60	1.51
57	L1	43	ARG	NE-CZ	5.42	1.40	1.33
33	L1	2346	U	C2'-C1'	5.42	1.59	1.53
33	L1	3108	U	C5'-C4'	5.42	1.57	1.51
24	SX	69	THR	C-N	5.41	1.42	1.33
32	S1	1376	A	P-O5'	5.41	1.65	1.59
33	L1	219	A	P-O5'	5.41	1.65	1.59
33	L1	523	C	C5'-C4'	5.41	1.57	1.51
33	L1	567	G	O4'-C1'	5.41	1.48	1.41
33	L1	2201	G	C4'-C3'	5.41	1.59	1.53
33	L1	2870	U	C3'-C2'	-5.41	1.46	1.52
33	L1	1874	A	C3'-O3'	5.41	1.49	1.42
32	S1	1050	C	C4'-C3'	5.41	1.59	1.53
33	L1	2120	A	C2'-C1'	5.41	1.59	1.53
33	L1	2680	G	C2'-C1'	5.41	1.59	1.53
46	LT	170	ARG	CZ-NH1	5.41	1.40	1.33
32	S1	969	U	C2'-C1'	5.41	1.59	1.53
33	L1	878	G	O3'-P	-5.41	1.54	1.61
33	L1	1165	C	P-O5'	-5.41	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1196	U	P-O5'	-5.41	1.54	1.59
33	L1	1726	G	C2'-C1'	-5.41	1.47	1.53
33	L1	3336	A	O3'-P	-5.41	1.54	1.61
50	LZ	53	TRP	C-O	-5.41	1.13	1.23
33	L1	1629	A	C2'-C1'	5.41	1.59	1.53
32	S1	1259	G	C3'-O3'	5.41	1.49	1.42
32	S1	1469	C	C4'-C3'	5.41	1.59	1.53
33	L1	307	C	P-O5'	5.41	1.65	1.59
33	L1	728	G	O4'-C1'	-5.41	1.34	1.41
33	L1	1588	G	O4'-C1'	-5.41	1.34	1.41
33	L1	1802	A	C3'-C2'	5.41	1.58	1.52
33	L1	2331	A	C4'-C3'	5.41	1.59	1.53
33	L1	2616	U	C5'-C4'	5.41	1.57	1.51
33	L1	2883	C	P-O5'	-5.41	1.54	1.59
33	L1	2945	G	P-O5'	-5.41	1.54	1.59
33	L1	365	A	O3'-P	-5.40	1.54	1.61
33	L1	773	G	O4'-C1'	5.40	1.48	1.41
1	Sa	247	GLY	CA-C	-5.40	1.43	1.51
20	SZ	61	GLU	C-N	5.40	1.46	1.34
33	L1	1019	A	C2'-O2'	-5.40	1.34	1.41
33	L1	2806	A	C3'-O3'	5.40	1.49	1.42
33	L1	2871	U	O3'-P	-5.40	1.54	1.61
33	L1	2880	G	O3'-P	-5.40	1.54	1.61
73	Lp	26	ARG	CD-NE	5.40	1.55	1.46
33	L1	153	U	P-O5'	-5.40	1.54	1.59
33	L1	897	U	P-O5'	-5.40	1.54	1.59
33	L1	1670	G	O3'-P	-5.40	1.54	1.61
33	L1	2758	C	C3'-O3'	5.40	1.49	1.42
52	Lb	87	TYR	CD2-CE2	5.40	1.47	1.39
33	L1	339	G	O4'-C1'	-5.40	1.34	1.41
33	L1	1351	C	O4'-C1'	-5.40	1.34	1.41
33	L1	1936	G	C2'-C1'	-5.40	1.47	1.53
51	LY	72	VAL	CA-CB	-5.40	1.43	1.54
33	L1	1718	U	C5'-C4'	5.40	1.57	1.51
33	L1	2762	U	O4'-C1'	-5.40	1.34	1.41
10	SL	5	ARG	CD-NE	5.39	1.55	1.46
31	S2	36	C	C2'-C1'	-5.39	1.47	1.53
33	L1	487	C	C4'-C3'	5.39	1.59	1.53
33	L1	1780	C	C4'-C3'	5.39	1.59	1.53
32	S1	1774	C	O3'-P	-5.39	1.54	1.61
33	L1	1091	C	C2'-C1'	-5.39	1.47	1.53
32	S1	492	G	O3'-P	-5.39	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	191	C	O4'-C1'	5.39	1.48	1.41
33	L1	2821	U	O4'-C1'	5.39	1.48	1.41
33	L1	2916	G	O4'-C1'	5.39	1.48	1.41
33	L1	3202	G	C3'-O3'	5.39	1.49	1.42
32	S1	794	G	O3'-P	5.39	1.67	1.61
32	S1	1113	G	O4'-C1'	-5.39	1.34	1.41
33	L1	838	G	C4'-C3'	5.39	1.59	1.53
33	L1	3062	G	C5'-C4'	5.39	1.57	1.51
32	S1	438	G	C4'-C3'	5.39	1.59	1.53
32	S1	1596	G	C2'-C1'	-5.39	1.47	1.53
33	L1	1284	C	P-O5'	-5.39	1.54	1.59
33	L1	1882	A	C4'-O4'	5.39	1.52	1.45
33	L1	3354	A	P-O5'	-5.39	1.54	1.59
2	SA	212	GLU	CA-C	5.39	1.67	1.52
32	S1	1375	C	P-O5'	5.39	1.65	1.59
32	S1	1579	C	C2'-C1'	-5.39	1.47	1.53
33	L1	496	U	C3'-O3'	5.39	1.49	1.42
33	L1	694	U	O4'-C1'	-5.39	1.34	1.41
33	L1	1175	G	O4'-C1'	-5.39	1.34	1.41
33	L1	1472	C	O3'-P	-5.39	1.54	1.61
33	L1	2163	G	C2'-C1'	-5.39	1.47	1.53
33	L1	2829	U	O3'-P	-5.39	1.54	1.61
61	Lq	23	ARG	CA-CB	-5.39	1.42	1.53
33	L1	97	G	C2'-C1'	-5.38	1.47	1.53
33	L1	215	U	P-O5'	5.38	1.65	1.59
33	L1	3005	C	C3'-C2'	5.38	1.58	1.52
32	S1	1056	A	C3'-C2'	-5.38	1.46	1.52
32	S1	1339	C	C2'-C1'	-5.38	1.47	1.53
1	Sa	66	SER	N-CA	-5.38	1.35	1.46
5	SE	90	MET	CA-CB	5.38	1.65	1.53
33	L1	371	A	P-O5'	-5.38	1.54	1.59
33	L1	1559	G	O3'-P	-5.38	1.54	1.61
33	L1	2575	C	C3'-O3'	5.38	1.49	1.42
33	L1	3382	A	C3'-O3'	5.38	1.49	1.42
32	S1	501	U	C3'-C2'	-5.38	1.46	1.52
32	S1	1584	A	C2'-C1'	5.38	1.59	1.53
33	L1	1212	U	O3'-P	-5.38	1.54	1.61
35	L2	70	G	O3'-P	-5.38	1.54	1.61
32	S1	1458	U	O4'-C1'	5.38	1.48	1.41
32	S1	1497	U	C5'-C4'	5.38	1.57	1.51
33	L1	2082	A	C4'-C3'	5.38	1.59	1.53
33	L1	2496	U	O3'-P	-5.38	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3385	G	C3'-O3'	5.38	1.49	1.42
35	L2	43	G	C3'-C2'	5.38	1.58	1.52
1	Sa	265	GLY	N-CA	-5.38	1.38	1.46
31	S2	71	A	C2'-O2'	-5.38	1.34	1.41
33	L1	1428	G	C3'-O3'	5.38	1.49	1.42
46	LT	120	TYR	CG-CD2	5.38	1.46	1.39
68	LW	114	TYR	CB-CG	5.38	1.59	1.51
33	L1	1799	C	P-O5'	-5.38	1.54	1.59
32	S1	567	U	O4'-C1'	5.37	1.48	1.41
32	S1	945	A	C3'-O3'	5.37	1.49	1.42
33	L1	771	G	O3'-P	-5.37	1.54	1.61
33	L1	1488	G	C5'-C4'	5.37	1.57	1.51
33	L1	3074	A	C2'-C1'	-5.37	1.47	1.53
34	L3	96	U	O3'-P	-5.37	1.54	1.61
10	SL	23	ALA	N-CA	-5.37	1.35	1.46
33	L1	337	C	O3'-P	-5.37	1.54	1.61
33	L1	3328	A	C4'-C3'	5.37	1.59	1.53
33	L1	3383	C	O3'-P	-5.37	1.54	1.61
35	L2	24	U	P-O5'	-5.37	1.54	1.59
35	L2	90	U	C4'-C3'	5.37	1.59	1.53
32	S1	1140	U	C5'-C4'	5.37	1.57	1.51
33	L1	613	G	O3'-P	-5.37	1.54	1.61
33	L1	1363	C	C4'-O4'	5.37	1.52	1.45
13	SQ	138	ARG	CA-C	5.37	1.67	1.52
32	S1	1615	G	C4'-O4'	5.37	1.52	1.45
33	L1	746	C	O4'-C1'	5.37	1.48	1.41
33	L1	907	A	C3'-O3'	5.37	1.49	1.42
33	L1	1207	A	O4'-C1'	5.37	1.48	1.41
33	L1	1283	C	C5'-C4'	5.37	1.57	1.51
32	S1	409	C	O4'-C1'	5.37	1.48	1.41
33	L1	2780	G	C5'-C4'	5.37	1.57	1.51
31	S2	16	U	C3'-C2'	-5.37	1.46	1.52
32	S1	570	C	C3'-O3'	5.37	1.49	1.42
33	L1	1053	C	C2'-C1'	-5.37	1.47	1.53
33	L1	1529	C	O4'-C1'	-5.37	1.34	1.41
33	L1	2757	G	C5'-C4'	5.37	1.57	1.51
33	L1	3155	C	C5'-C4'	5.37	1.57	1.51
33	L1	3328	A	O3'-P	-5.37	1.54	1.61
33	L1	3355	U	C5'-C4'	5.37	1.57	1.51
32	S1	764	U	C4'-C3'	-5.36	1.47	1.52
32	S1	1382	C	P-O5'	5.36	1.65	1.59
32	S1	1676	G	C2'-C1'	-5.36	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	212	G	C3'-O3'	5.36	1.49	1.42
33	L1	570	G	O4'-C1'	5.36	1.48	1.41
33	L1	604	C	O3'-P	5.36	1.67	1.61
32	S1	480	U	O3'-P	-5.36	1.54	1.61
32	S1	1403	G	C5'-C4'	5.36	1.57	1.51
33	L1	448	G	C5'-C4'	5.36	1.57	1.51
33	L1	1383	G	P-O5'	-5.36	1.54	1.59
32	S1	949	A	P-O5'	-5.36	1.54	1.59
32	S1	1243	C	C2'-C1'	-5.36	1.47	1.53
32	S1	1715	C	C5'-C4'	5.36	1.57	1.51
33	L1	351	G	C2'-C1'	-5.36	1.47	1.53
33	L1	2391	C	C2'-C1'	5.36	1.59	1.53
33	L1	2432	U	O4'-C1'	-5.36	1.34	1.41
33	L1	2627	G	O3'-P	-5.36	1.54	1.61
33	L1	3096	U	C3'-C2'	-5.36	1.46	1.52
33	L1	3109	G	P-O5'	-5.36	1.54	1.59
72	Lk	56	TYR	CB-CG	5.36	1.59	1.51
32	S1	444	U	C4'-O4'	-5.36	1.38	1.45
33	L1	281	G	C5'-C4'	5.36	1.57	1.51
48	LV	10	ASN	C-N	5.36	1.44	1.34
4	SD	51	ARG	NE-CZ	5.36	1.40	1.33
32	S1	142	G	O4'-C1'	5.36	1.48	1.41
32	S1	446	C	C3'-C2'	-5.36	1.46	1.52
33	L1	328	G	P-O5'	5.36	1.65	1.59
33	L1	1362	C	C2'-C1'	-5.36	1.47	1.53
33	L1	2135	U	C4'-C3'	5.36	1.59	1.53
33	L1	2219	A	O3'-P	-5.36	1.54	1.61
33	L1	2688	G	C3'-C2'	5.36	1.58	1.52
35	L2	42	U	C3'-O3'	5.36	1.49	1.42
33	L1	975	G	C3'-C2'	-5.35	1.46	1.52
7	SI	76	ARG	NE-CZ	5.35	1.40	1.33
33	L1	1565	G	P-O5'	-5.35	1.54	1.59
33	L1	1742	G	C4'-O4'	5.35	1.52	1.45
35	L2	76	A	C4'-C3'	-5.35	1.47	1.52
32	S1	1250	C	C3'-O3'	5.35	1.49	1.42
32	S1	1583	G	C3'-C2'	-5.35	1.46	1.52
33	L1	307	C	C5'-C4'	5.35	1.57	1.51
33	L1	364	A	C3'-O3'	5.35	1.49	1.42
33	L1	305	G	C5'-C4'	5.35	1.57	1.51
33	L1	1024	G	C4'-O4'	5.35	1.52	1.45
33	L1	1768	U	O4'-C1'	5.35	1.48	1.41
33	L1	2281	U	C2'-C1'	-5.35	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2458	A	C4'-C3'	5.35	1.59	1.53
33	L1	3034	A	O3'-P	-5.35	1.54	1.61
11	SM	95	PHE	CB-CG	5.35	1.60	1.51
32	S1	285	G	C2'-C1'	-5.35	1.47	1.53
33	L1	226	U	C2'-C1'	5.35	1.59	1.53
33	L1	462	C	C2'-C1'	-5.35	1.47	1.53
49	LX	67	LEU	N-CA	-5.35	1.35	1.46
6	SF	165	ILE	CA-CB	-5.35	1.42	1.54
16	SR	86	ARG	CZ-NH1	5.35	1.40	1.33
32	S1	1147	A	C5'-C4'	5.35	1.57	1.51
33	L1	879	A	C4'-O4'	5.35	1.52	1.45
33	L1	967	G	O4'-C1'	5.35	1.48	1.41
33	L1	1388	C	O4'-C1'	5.35	1.48	1.41
33	L1	1427	C	O3'-P	-5.35	1.54	1.61
32	S1	590	G	C4'-O4'	5.34	1.52	1.45
33	L1	1526	A	C4'-C3'	5.34	1.59	1.53
33	L1	1652	G	O4'-C1'	5.34	1.48	1.41
33	L1	1747	A	C4'-C3'	-5.34	1.47	1.52
17	SV	34	LYS	N-CA	-5.34	1.35	1.46
33	L1	1754	C	P-O5'	5.34	1.65	1.59
23	SU	7	ALA	C-N	5.34	1.44	1.34
32	S1	381	G	P-O5'	-5.34	1.54	1.59
33	L1	1016	G	C4'-C3'	5.34	1.59	1.53
33	L1	1382	C	O3'-P	-5.34	1.54	1.61
33	L1	1786	G	O3'-P	-5.34	1.54	1.61
33	L1	2348	U	C4'-O4'	5.34	1.52	1.45
33	L1	2918	U	C4'-O4'	5.34	1.52	1.45
32	S1	340	G	C2'-C1'	-5.34	1.47	1.53
32	S1	1144	A	P-O5'	5.34	1.65	1.59
33	L1	459	G	P-O5'	-5.34	1.54	1.59
32	S1	610	A	C5'-C4'	5.34	1.57	1.51
32	S1	764	U	O3'-P	-5.34	1.54	1.61
33	L1	1309	U	O3'-P	-5.34	1.54	1.61
32	S1	786	U	C5'-C4'	5.34	1.57	1.51
32	S1	797	A	C5'-C4'	-5.34	1.45	1.51
32	S1	912	A	O3'-P	-5.34	1.54	1.61
33	L1	670	A	O4'-C1'	5.34	1.48	1.41
33	L1	1275	A	C3'-C2'	-5.34	1.46	1.52
33	L1	1772	G	C4'-O4'	5.34	1.52	1.45
33	L1	2167	G	C2'-C1'	5.34	1.59	1.53
59	Lo	41	ARG	CD-NE	5.34	1.55	1.46
33	L1	268	U	C5'-C4'	5.33	1.57	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	421	A	O4'-C1'	5.33	1.48	1.41
33	L1	606	C	P-O5'	-5.33	1.54	1.59
32	S1	1045	G	C3'-C2'	-5.33	1.46	1.52
33	L1	840	A	O3'-P	-5.33	1.54	1.61
33	L1	1435	C	O4'-C1'	-5.33	1.34	1.41
33	L1	2216	G	P-O5'	-5.33	1.54	1.59
33	L1	3034	A	P-O5'	-5.33	1.54	1.59
33	L1	3355	U	C2'-C1'	5.33	1.59	1.53
42	LP	45	PRO	CA-C	-5.33	1.42	1.52
25	SC	42	ARG	CZ-NH1	5.33	1.40	1.33
32	S1	33	U	P-O5'	5.33	1.65	1.59
33	L1	1852	C	C5'-C4'	5.33	1.57	1.51
33	L1	2220	U	C5'-C4'	5.33	1.57	1.51
33	L1	2908	C	C4'-O4'	-5.33	1.38	1.45
32	S1	991	G	C5'-C4'	5.33	1.57	1.51
33	L1	887	A	C4'-C3'	5.33	1.59	1.53
33	L1	1192	A	C5'-C4'	5.33	1.57	1.51
33	L1	2339	U	C3'-O3'	5.33	1.49	1.42
33	L1	2909	A	C3'-O3'	5.33	1.49	1.42
32	S1	337	A	O4'-C1'	5.33	1.48	1.41
33	L1	211	A	C2'-C1'	-5.33	1.47	1.53
33	L1	1409	G	C5'-C4'	5.33	1.57	1.51
32	S1	220	C	C2'-C1'	-5.33	1.47	1.53
32	S1	486	U	C2'-C1'	-5.33	1.47	1.53
32	S1	1201	C	C5'-C4'	5.33	1.57	1.51
32	S1	1574	U	C3'-C2'	-5.33	1.46	1.52
33	L1	554	C	O3'-P	-5.33	1.54	1.61
33	L1	2821	U	C5'-C4'	5.33	1.57	1.51
46	LT	137	VAL	N-CA	5.33	1.57	1.46
33	L1	184	C	O3'-P	-5.32	1.54	1.61
33	L1	1290	A	C3'-C2'	5.32	1.58	1.52
33	L1	1900	C	C3'-O3'	5.32	1.49	1.42
33	L1	2570	U	O4'-C1'	5.32	1.48	1.41
33	L1	3224	C	O3'-P	-5.32	1.54	1.61
33	L1	2401	A	O4'-C1'	5.32	1.48	1.41
66	LN	85	GLU	CA-CB	5.32	1.65	1.53
25	SC	126	HIS	CA-CB	5.32	1.65	1.53
31	S2	72	G	C5'-C4'	5.32	1.57	1.51
32	S1	352	U	P-O5'	-5.32	1.54	1.59
32	S1	725	U	O5'-C5'	-5.32	1.34	1.42
33	L1	1621	G	C5'-C4'	5.32	1.57	1.51
33	L1	2680	G	O4'-C1'	5.32	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3209	U	O4'-C1'	5.32	1.48	1.41
35	L2	94	C	C5'-C4'	5.32	1.57	1.51
33	L1	1533	U	O3'-P	-5.32	1.54	1.61
33	L1	3000	U	O4'-C1'	5.32	1.48	1.41
1	Sa	46	ARG	CZ-NH1	5.32	1.40	1.33
33	L1	1264	A	C5'-C4'	5.32	1.57	1.51
33	L1	2064	C	C2'-C1'	-5.32	1.47	1.53
33	L1	2275	A	C2'-C1'	5.32	1.59	1.53
33	L1	3249	G	C2'-C1'	-5.32	1.47	1.53
33	L1	260	U	O4'-C1'	5.32	1.48	1.41
33	L1	1285	U	C5'-C4'	5.32	1.57	1.51
33	L1	1362	C	C3'-O3'	5.32	1.49	1.42
32	S1	1309	U	O4'-C1'	5.31	1.48	1.41
32	S1	1710	C	C5'-C4'	5.31	1.57	1.51
33	L1	273	U	O4'-C1'	5.31	1.48	1.41
33	L1	1388	C	C5'-C4'	5.31	1.57	1.51
33	L1	2428	G	O3'-P	-5.31	1.54	1.61
34	L3	1	G	C5'-C4'	5.31	1.57	1.51
32	S1	1005	C	C3'-C2'	5.31	1.58	1.52
32	S1	1017	U	C2'-C1'	-5.31	1.47	1.53
32	S1	1427	A	P-O5'	5.31	1.65	1.59
33	L1	1429	U	C2'-C1'	5.31	1.59	1.53
33	L1	2470	C	O3'-P	-5.31	1.54	1.61
33	L1	2496	U	P-O5'	-5.31	1.54	1.59
34	L3	1	G	C4'-O4'	5.31	1.52	1.45
1	Sa	192	ARG	CZ-NH2	5.31	1.40	1.33
5	SE	56	GLU	CA-CB	5.31	1.65	1.53
33	L1	2618	G	C3'-O3'	5.31	1.49	1.42
33	L1	1824	C	P-O5'	-5.31	1.54	1.59
33	L1	2519	U	C5'-C4'	5.31	1.57	1.51
33	L1	3307	A	C5'-C4'	5.31	1.57	1.51
11	SM	132	ARG	CG-CD	5.31	1.65	1.51
32	S1	1358	G	O3'-P	-5.31	1.54	1.61
33	L1	1190	C	C2'-O2'	-5.31	1.34	1.41
33	L1	3211	C	C2'-O2'	-5.31	1.34	1.41
32	S1	1014	U	O4'-C1'	5.31	1.48	1.41
32	S1	1428	A	O4'-C1'	5.31	1.48	1.41
33	L1	3320	G	C2'-O2'	5.31	1.48	1.41
39	LF	184	GLY	N-CA	5.31	1.54	1.46
31	S2	24	A	P-O5'	-5.30	1.54	1.59
32	S1	628	G	C3'-C2'	5.30	1.58	1.52
33	L1	1254	A	C3'-O3'	5.30	1.49	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2215	A	C3'-O3'	5.30	1.49	1.42
33	L1	2474	A	C4'-C3'	5.30	1.58	1.53
33	L1	2739	A	C3'-O3'	5.30	1.49	1.42
33	L1	2832	G	C5'-C4'	5.30	1.57	1.51
32	S1	724	U	O3'-P	-5.30	1.54	1.61
32	S1	1504	U	P-O5'	-5.30	1.54	1.59
33	L1	2516	U	C3'-C2'	5.30	1.58	1.52
32	S1	1515	G	C2'-C1'	-5.30	1.47	1.53
32	S1	1737	A	O3'-P	-5.30	1.54	1.61
33	L1	135	G	C3'-C2'	-5.30	1.47	1.52
33	L1	1418	C	C2'-C1'	-5.30	1.47	1.53
9	SK	43	VAL	CB-CG2	5.30	1.64	1.52
32	S1	917	U	O3'-P	-5.30	1.54	1.61
33	L1	61	A	O3'-P	-5.30	1.54	1.61
45	LQ	240	TYR	CZ-OH	5.30	1.46	1.37
48	LV	47	TYR	CZ-OH	5.30	1.46	1.37
32	S1	1014	U	C2'-C1'	-5.30	1.47	1.53
33	L1	176	A	O3'-P	-5.30	1.54	1.61
33	L1	468	U	O4'-C1'	-5.30	1.34	1.41
33	L1	1022	G	C4'-O4'	5.30	1.52	1.45
33	L1	1645	G	C4'-O4'	5.30	1.52	1.45
33	L1	2093	G	C4'-O4'	-5.30	1.38	1.45
52	Lb	96	PHE	CB-CG	5.30	1.60	1.51
32	S1	1440	U	P-O5'	-5.29	1.54	1.59
32	S1	1771	U	C2'-C1'	5.29	1.59	1.53
33	L1	2748	G	C3'-C2'	5.29	1.58	1.52
33	L1	2779	G	C3'-O3'	5.29	1.49	1.42
71	Lj	99	GLY	CA-C	-5.29	1.43	1.51
5	SE	259	PRO	N-CD	-5.29	1.40	1.47
31	S2	46	A	C4'-O4'	5.29	1.52	1.45
32	S1	64	U	O4'-C1'	5.29	1.48	1.41
32	S1	736	U	P-O5'	5.29	1.65	1.59
33	L1	1273	U	C5'-C4'	5.29	1.57	1.51
33	L1	1778	C	O3'-P	-5.29	1.54	1.61
33	L1	1970	A	O4'-C1'	5.29	1.48	1.41
33	L1	2698	A	O4'-C1'	5.29	1.48	1.41
33	L1	2822	A	C3'-O3'	5.29	1.49	1.42
32	S1	353	G	P-O5'	-5.29	1.54	1.59
32	S1	404	A	P-O5'	-5.29	1.54	1.59
32	S1	892	A	O4'-C1'	-5.29	1.34	1.41
32	S1	1719	C	C2'-C1'	-5.29	1.47	1.53
33	L1	301	G	C3'-O3'	5.29	1.49	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3042	U	C5'-C4'	5.29	1.57	1.51
33	L1	3214	U	P-O5'	5.29	1.65	1.59
33	L1	407	A	C2'-C1'	5.29	1.59	1.53
33	L1	466	U	C4'-O4'	-5.29	1.38	1.45
33	L1	1960	C	C2'-C1'	-5.29	1.47	1.53
33	L1	3300	C	O3'-P	-5.29	1.54	1.61
32	S1	581	G	C2'-C1'	5.29	1.59	1.53
32	S1	587	C	C5'-C4'	5.29	1.57	1.51
32	S1	766	A	P-O5'	-5.29	1.54	1.59
33	L1	3058	U	C5'-C4'	5.29	1.57	1.51
35	L2	148	C	C5'-C4'	5.29	1.57	1.51
67	LS	70	ASN	N-CA	-5.29	1.35	1.46
3	SB	131	ALA	C-N	-5.29	1.21	1.34
33	L1	1255	A	C4'-C3'	-5.29	1.47	1.52
33	L1	2575	C	C2'-C1'	5.29	1.59	1.53
32	S1	1379	U	C5'-C4'	5.28	1.57	1.51
33	L1	1069	U	P-O5'	-5.28	1.54	1.59
33	L1	1911	A	O3'-P	-5.28	1.54	1.61
33	L1	3087	A	C4'-C3'	5.28	1.58	1.53
1	Sa	348	SER	CA-CB	5.28	1.60	1.52
32	S1	1636	U	O4'-C1'	5.28	1.48	1.41
38	LE	107	GLY	N-CA	5.28	1.53	1.46
32	S1	676	G	C2'-C1'	-5.28	1.47	1.53
32	S1	1230	A	C4'-C3'	-5.28	1.47	1.52
32	S1	1234	A	C5'-C4'	5.28	1.57	1.51
33	L1	3146	C	O5'-C5'	5.28	1.52	1.44
39	LF	88	ARG	CZ-NH1	5.28	1.40	1.33
32	S1	380	C	O3'-P	5.28	1.67	1.61
32	S1	1499	U	C5'-C4'	5.28	1.57	1.51
33	L1	3091	U	C4'-C3'	5.28	1.58	1.53
64	LG	59	ARG	CD-NE	5.28	1.55	1.46
80	LC	16	PHE	CG-CD1	5.28	1.46	1.38
15	SS	93	PRO	CA-CB	5.28	1.64	1.53
32	S1	499	A	C2'-C1'	-5.28	1.47	1.53
32	S1	1474	U	O3'-P	-5.28	1.54	1.61
33	L1	1368	U	C5'-C4'	5.28	1.57	1.51
33	L1	1944	G	C2'-C1'	-5.28	1.47	1.53
35	L2	149	U	O3'-P	-5.28	1.54	1.61
4	SD	212	ASP	C-N	-5.27	1.22	1.34
33	L1	1045	U	O3'-P	-5.27	1.54	1.61
33	L1	1665	G	P-O5'	-5.27	1.54	1.59
33	L1	1806	C	C2'-O2'	-5.27	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2337	C	O3'-P	-5.27	1.54	1.61
41	LM	33	GLY	N-CA	-5.27	1.38	1.46
74	LJ	91	ARG	CD-NE	5.27	1.55	1.46
80	LC	8	HIS	CG-CD2	5.27	1.44	1.35
32	S1	995	C	C4'-O4'	-5.27	1.38	1.45
33	L1	968	A	C4'-C3'	-5.27	1.47	1.52
33	L1	1278	A	C5'-C4'	5.27	1.57	1.51
33	L1	1340	G	C3'-O3'	5.27	1.49	1.42
33	L1	2204	U	C4'-O4'	5.27	1.52	1.45
33	L1	2584	U	O4'-C1'	5.27	1.48	1.41
48	LV	30	ARG	CD-NE	5.27	1.55	1.46
32	S1	1526	C	P-O5'	-5.27	1.54	1.59
33	L1	533	G	C3'-C2'	5.27	1.58	1.52
33	L1	968	A	O3'-P	-5.27	1.54	1.61
33	L1	1312	A	O3'-P	-5.27	1.54	1.61
33	L1	1382	C	C2'-O2'	-5.27	1.34	1.41
33	L1	1791	U	P-O5'	-5.27	1.54	1.59
37	LB	9	ARG	CD-NE	5.27	1.55	1.46
38	LE	63	ARG	CD-NE	5.27	1.55	1.46
42	LP	160	GLU	CG-CD	5.27	1.59	1.51
78	Le	65	VAL	CB-CG1	5.27	1.64	1.52
80	LC	59	GLU	CD-OE2	5.27	1.31	1.25
8	SJ	71	HIS	CB-CG	5.27	1.59	1.50
13	SQ	63	ARG	C-N	5.27	1.42	1.33
33	L1	9	C	C3'-O3'	5.27	1.49	1.42
33	L1	1028	G	O4'-C1'	-5.27	1.34	1.41
55	Lg	6	ARG	NE-CZ	5.27	1.39	1.33
32	S1	1720	G	O4'-C1'	5.27	1.48	1.41
32	S1	1675	G	C4'-C3'	5.26	1.58	1.53
33	L1	255	C	C5'-C4'	-5.26	1.45	1.51
33	L1	2699	A	P-O5'	5.26	1.65	1.59
37	LB	64	ARG	CD-NE	5.26	1.55	1.46
32	S1	358	C	P-O5'	-5.26	1.54	1.59
33	L1	982	U	C4'-C3'	5.26	1.58	1.53
33	L1	1651	A	C5'-C4'	5.26	1.57	1.51
33	L1	1714	A	C3'-C2'	-5.26	1.47	1.52
1	Sa	323	TYR	CG-CD1	5.26	1.46	1.39
32	S1	770	U	P-O5'	-5.26	1.54	1.59
32	S1	952	U	C3'-O3'	5.26	1.49	1.42
4	SD	240	LYS	CA-CB	-5.26	1.42	1.53
33	L1	1820	C	O4'-C1'	-5.26	1.34	1.41
33	L1	2490	U	C5'-C4'	5.26	1.57	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3177	A	C3'-C2'	5.26	1.58	1.52
13	SQ	63	ARG	NE-CZ	5.26	1.39	1.33
32	S1	1344	U	C2'-C1'	5.26	1.59	1.53
32	S1	99	U	O4'-C1'	5.26	1.48	1.41
32	S1	1611	U	C5'-C4'	-5.26	1.45	1.51
32	S1	1661	C	C3'-C2'	-5.26	1.47	1.52
35	L2	89	G	C3'-O3'	5.26	1.49	1.42
50	LZ	10	PHE	CG-CD2	5.26	1.46	1.38
51	LY	73	TYR	CE2-CZ	5.26	1.45	1.38
72	Lk	62	GLU	CA-CB	5.26	1.65	1.53
52	Lb	112	TYR	CD1-CE1	-5.25	1.31	1.39
32	S1	87	A	O4'-C1'	5.25	1.48	1.41
33	L1	1637	G	C5'-C4'	5.25	1.57	1.51
33	L1	3089	G	C2'-C1'	-5.25	1.47	1.53
33	L1	3145	G	C5'-C4'	5.25	1.57	1.51
33	L1	1313	U	P-O5'	5.25	1.65	1.59
33	L1	1468	A	P-O5'	-5.25	1.54	1.59
32	S1	482	A	P-O5'	-5.25	1.54	1.59
32	S1	1118	A	O3'-P	-5.25	1.54	1.61
32	S1	1380	A	C4'-C3'	-5.25	1.47	1.52
32	S1	1507	G	C2'-C1'	-5.25	1.47	1.53
33	L1	411	C	C4'-C3'	-5.25	1.47	1.52
33	L1	774	A	O4'-C1'	5.25	1.48	1.41
33	L1	1158	C	O4'-C1'	5.25	1.48	1.41
33	L1	1350	G	C3'-O3'	5.25	1.49	1.42
35	L2	33	U	C3'-C2'	5.25	1.58	1.52
35	L2	104	U	C4'-O4'	5.25	1.52	1.45
37	LB	247	ARG	NE-CZ	5.25	1.39	1.33
31	S2	54	U	C3'-O3'	5.25	1.49	1.42
32	S1	225	G	C2'-C1'	-5.25	1.47	1.53
33	L1	1195	C	C3'-O3'	5.25	1.49	1.42
33	L1	1374	G	P-O5'	-5.25	1.54	1.59
33	L1	2678	C	O5'-C5'	5.25	1.52	1.44
33	L1	2737	A	P-O5'	5.25	1.65	1.59
33	L1	2830	G	C3'-C2'	5.25	1.58	1.52
33	L1	2905	A	C4'-C3'	-5.25	1.47	1.52
78	Le	62	LYS	CA-CB	5.25	1.65	1.53
81	LD	204	ARG	CD-NE	5.25	1.55	1.46
32	S1	347	C	C2'-C1'	-5.24	1.47	1.53
32	S1	1146	G	C3'-O3'	5.24	1.49	1.42
33	L1	1506	A	C3'-O3'	5.24	1.49	1.42
33	L1	2479	C	O3'-P	-5.24	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1137	G	C2'-C1'	5.24	1.59	1.53
33	L1	1295	A	C3'-O3'	5.24	1.49	1.42
33	L1	2643	A	C4'-C3'	-5.24	1.47	1.52
64	LG	186	ALA	N-CA	5.24	1.56	1.46
32	S1	824	U	O3'-P	-5.24	1.54	1.61
34	L3	97	G	O4'-C1'	5.24	1.48	1.41
35	L2	26	U	C2'-O2'	5.24	1.48	1.41
7	SI	74	ARG	NE-CZ	5.24	1.39	1.33
33	L1	844	A	C2'-O2'	-5.24	1.34	1.41
33	L1	1474	U	O3'-P	-5.24	1.54	1.61
33	L1	3002	U	O3'-P	-5.24	1.54	1.61
33	L1	3201	A	C2'-C1'	5.24	1.59	1.53
32	S1	948	C	C4'-C3'	5.23	1.58	1.53
32	S1	1591	A	C2'-C1'	5.23	1.59	1.53
33	L1	562	G	O3'-P	5.23	1.67	1.61
33	L1	1671	G	P-O5'	5.23	1.65	1.59
33	L1	3184	G	C3'-O3'	5.23	1.49	1.42
82	LK	49	SER	CA-CB	5.23	1.60	1.52
33	L1	994	U	O4'-C1'	5.23	1.48	1.41
33	L1	1244	A	C5'-C4'	5.23	1.57	1.51
33	L1	2996	A	C2'-C1'	-5.23	1.47	1.53
31	S2	28	G	C2'-C1'	-5.23	1.47	1.53
32	S1	31	C	C4'-C3'	5.23	1.58	1.53
32	S1	1216	G	O4'-C1'	5.23	1.48	1.41
33	L1	852	C	C3'-O3'	5.23	1.49	1.42
33	L1	1890	C	C3'-C2'	-5.23	1.47	1.52
35	L2	103	C	O3'-P	5.23	1.67	1.61
57	L1	79	ARG	NE-CZ	5.23	1.39	1.33
80	LC	229	TYR	CZ-OH	5.23	1.46	1.37
19	SY	47	ARG	CZ-NH1	5.23	1.39	1.33
32	S1	664	G	C2'-C1'	-5.23	1.47	1.53
32	S1	1083	C	P-O5'	-5.23	1.54	1.59
33	L1	953	G	O3'-P	-5.23	1.54	1.61
33	L1	1280	U	P-O5'	5.23	1.65	1.59
8	SJ	28	ARG	CZ-NH2	5.22	1.39	1.33
32	S1	409	C	C4'-C3'	5.22	1.58	1.53
33	L1	130	G	C4'-C3'	5.22	1.58	1.53
33	L1	1819	A	C3'-O3'	5.22	1.49	1.42
52	Lb	97	ARG	CD-NE	5.22	1.55	1.46
31	S2	37	G	O4'-C1'	5.22	1.48	1.41
32	S1	170	C	O3'-P	-5.22	1.54	1.61
32	S1	1253	U	P-O5'	5.22	1.65	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1540	G	O3'-P	-5.22	1.54	1.61
33	L1	2239	A	C2'-C1'	-5.22	1.47	1.53
13	SQ	97	ARG	NE-CZ	5.22	1.39	1.33
32	S1	1182	C	O4'-C1'	5.22	1.48	1.41
33	L1	867	G	C5'-C4'	5.22	1.57	1.51
33	L1	2182	G	O3'-P	-5.22	1.54	1.61
32	S1	502	G	O4'-C1'	-5.22	1.34	1.41
33	L1	375	G	O4'-C1'	-5.22	1.34	1.41
33	L1	1275	A	O5'-C5'	5.22	1.52	1.44
33	L1	1701	G	C2'-C1'	5.22	1.59	1.53
33	L1	2319	A	C5'-C4'	5.22	1.57	1.51
33	L1	2616	U	C2'-C1'	-5.22	1.47	1.53
33	L1	2950	C	C2'-C1'	-5.22	1.47	1.53
15	SS	15	HIS	CB-CG	5.22	1.59	1.50
32	S1	369	G	O4'-C1'	5.22	1.48	1.41
32	S1	1362	A	C2'-C1'	-5.22	1.47	1.53
32	S1	1435	G	C2'-C1'	-5.22	1.47	1.53
33	L1	967	G	C5'-C4'	5.22	1.57	1.51
33	L1	1119	G	C4'-O4'	5.22	1.52	1.45
33	L1	2193	A	C2'-C1'	5.22	1.59	1.53
48	LV	69	ARG	C-O	-5.22	1.13	1.23
32	S1	1555	A	C2'-C1'	-5.21	1.47	1.53
32	S1	1606	U	O3'-P	-5.21	1.54	1.61
33	L1	107	C	O4'-C1'	5.21	1.48	1.41
33	L1	523	C	C2'-C1'	5.21	1.59	1.53
33	L1	1339	C	O3'-P	-5.21	1.54	1.61
33	L1	1734	G	O4'-C1'	5.21	1.48	1.41
33	L1	2843	G	C5'-C4'	5.21	1.57	1.51
77	Lc	12	TRP	CZ2-CH2	5.21	1.47	1.37
32	S1	1069	G	O3'-P	-5.21	1.54	1.61
33	L1	756	C	C2'-C1'	-5.21	1.47	1.53
32	S1	964	U	O3'-P	-5.21	1.54	1.61
32	S1	1282	G	C5'-C4'	5.21	1.57	1.51
33	L1	333	G	C4'-O4'	5.21	1.52	1.45
33	L1	918	A	C5'-C4'	5.21	1.57	1.51
33	L1	1323	G	C4'-C3'	-5.21	1.47	1.52
33	L1	2212	U	C4'-C3'	5.21	1.58	1.53
33	L1	366	G	C5'-C4'	5.21	1.57	1.51
35	L2	68	U	C3'-O3'	5.21	1.49	1.42
42	LP	41	ARG	NE-CZ	5.21	1.39	1.33
31	S2	45	G	P-O5'	5.21	1.65	1.59
32	S1	965	U	O4'-C1'	5.21	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1570	G	C2'-C1'	-5.21	1.47	1.53
33	L1	950	U	O4'-C1'	5.21	1.48	1.41
33	L1	1245	U	C3'-C2'	-5.21	1.47	1.52
33	L1	1447	G	O3'-P	-5.21	1.54	1.61
33	L1	1599	A	P-OP1	-5.21	1.40	1.49
33	L1	2098	A	C2'-C1'	-5.21	1.47	1.53
33	L1	2697	A	C2'-C1'	-5.21	1.47	1.53
33	L1	2968	G	O4'-C1'	5.21	1.48	1.41
32	S1	378	U	C5'-C4'	5.21	1.57	1.51
32	S1	539	A	C3'-O3'	5.21	1.49	1.42
32	S1	852	A	C2'-C1'	-5.21	1.47	1.53
33	L1	2086	A	O3'-P	-5.21	1.54	1.61
33	L1	2778	C	C2'-C1'	-5.21	1.47	1.53
34	L3	102	G	C2'-C1'	5.21	1.59	1.53
35	L2	150	G	C2'-C1'	5.21	1.59	1.53
45	LQ	131	TYR	CZ-OH	5.21	1.46	1.37
48	LV	63	TYR	CZ-OH	5.21	1.46	1.37
33	L1	312	U	C5'-C4'	5.21	1.57	1.51
3	SB	33	GLY	CA-C	-5.20	1.43	1.51
32	S1	502	G	O3'-P	-5.20	1.54	1.61
33	L1	98	A	C3'-C2'	5.20	1.58	1.52
33	L1	1688	U	O4'-C1'	5.20	1.48	1.41
35	L2	64	U	C2'-O2'	5.20	1.48	1.41
5	SE	35	ARG	CZ-NH2	5.20	1.39	1.33
24	SX	74	ARG	CA-CB	5.20	1.65	1.53
27	SH	18	GLU	CA-CB	5.20	1.65	1.53
32	S1	1604	C	O4'-C1'	5.20	1.48	1.41
24	SX	64	VAL	N-CA	-5.20	1.35	1.46
30	S3	15	A	O3'-P	5.20	1.67	1.61
31	S2	25	U	C2'-C1'	-5.20	1.47	1.53
32	S1	1026	C	C2'-C1'	-5.20	1.47	1.53
32	S1	1035	A	C2'-C1'	5.20	1.59	1.53
32	S1	1634	U	O4'-C1'	5.20	1.48	1.41
33	L1	35	U	P-O5'	-5.20	1.54	1.59
33	L1	137	C	O3'-P	-5.20	1.54	1.61
33	L1	2671	A	C3'-O3'	5.20	1.49	1.42
51	LY	12	ARG	NE-CZ	5.20	1.39	1.33
32	S1	1580	G	C2'-C1'	5.20	1.59	1.53
32	S1	1809	U	O3'-P	-5.20	1.54	1.61
33	L1	737	C	C2'-C1'	-5.20	1.47	1.53
33	L1	784	G	O4'-C1'	-5.20	1.34	1.41
33	L1	1045	U	C4'-O4'	-5.20	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1385	C	O4'-C1'	5.20	1.48	1.41
33	L1	1434	G	O4'-C1'	5.20	1.48	1.41
33	L1	2827	C	C2'-C1'	-5.20	1.47	1.53
33	L1	3327	A	O3'-P	-5.20	1.54	1.61
33	L1	3372	C	O3'-P	-5.20	1.54	1.61
28	SN	40	ARG	CZ-NH1	5.20	1.39	1.33
31	S2	31	C	O4'-C1'	5.20	1.48	1.41
32	S1	1335	A	O4'-C1'	5.20	1.48	1.41
33	L1	356	G	C2'-C1'	5.20	1.59	1.53
33	L1	1176	U	O3'-P	-5.20	1.54	1.61
33	L1	1511	C	C4'-O4'	5.20	1.52	1.45
33	L1	1896	A	C2'-C1'	-5.20	1.47	1.53
38	LE	59	PHE	CG-CD1	5.20	1.46	1.38
38	LE	118	TYR	CZ-OH	5.20	1.46	1.37
32	S1	656	G	C2'-C1'	-5.19	1.47	1.53
32	S1	1134	U	O4'-C1'	-5.19	1.34	1.41
33	L1	837	C	C2'-C1'	-5.19	1.47	1.53
33	L1	2300	G	P-O5'	-5.19	1.54	1.59
35	L2	24	U	C3'-O3'	5.19	1.49	1.42
38	LE	130	PHE	CE1-CZ	5.19	1.47	1.37
32	S1	151	A	O4'-C1'	5.19	1.48	1.41
32	S1	1745	U	C2'-C1'	5.19	1.59	1.53
33	L1	90	G	O4'-C1'	5.19	1.48	1.41
33	L1	838	G	C3'-O3'	5.19	1.49	1.42
33	L1	1296	C	C2'-O2'	5.19	1.48	1.41
33	L1	1384	G	C2'-C1'	-5.19	1.47	1.53
33	L1	2467	A	C2'-C1'	5.19	1.59	1.53
33	L1	3125	G	C3'-C2'	-5.19	1.47	1.52
33	L1	3306	A	C3'-C2'	5.19	1.58	1.52
33	L1	1394	C	C3'-C2'	5.19	1.58	1.52
33	L1	1622	G	C4'-O4'	5.19	1.52	1.45
32	S1	492	G	C2'-C1'	-5.19	1.47	1.53
33	L1	505	G	C2'-C1'	-5.19	1.47	1.53
33	L1	608	G	C4'-C3'	-5.19	1.47	1.52
33	L1	881	G	O3'-P	-5.19	1.54	1.61
33	L1	918	A	C2'-C1'	-5.19	1.47	1.53
33	L1	1550	A	C3'-C2'	5.19	1.58	1.52
33	L1	2773	G	C5'-C4'	-5.19	1.45	1.51
33	L1	2569	G	P-O5'	-5.18	1.54	1.59
1	Sa	346	ARG	CZ-NH1	5.18	1.39	1.33
33	L1	167	C	C4'-O4'	-5.18	1.38	1.45
33	L1	289	C	O4'-C1'	5.18	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1261	C	O4'-C1'	5.18	1.48	1.41
33	L1	2482	A	C4'-O4'	5.18	1.52	1.45
33	L1	2875	U	C3'-O3'	5.18	1.49	1.42
33	L1	3172	G	O3'-P	-5.18	1.54	1.61
33	L1	2668	U	O3'-P	-5.18	1.54	1.61
80	LC	49	TYR	CE2-CZ	5.18	1.45	1.38
32	S1	272	G	O4'-C1'	5.18	1.48	1.41
32	S1	880	G	C3'-C2'	5.18	1.58	1.52
33	L1	265	G	C2'-C1'	5.18	1.59	1.53
33	L1	304	A	C4'-C3'	5.18	1.58	1.53
33	L1	1365	C	C5'-C4'	5.18	1.57	1.51
48	LV	25	HIS	N-CA	-5.18	1.35	1.46
81	LD	23	SER	C-O	-5.18	1.13	1.23
33	L1	926	C	C2'-O2'	5.18	1.48	1.41
33	L1	1563	G	C4'-O4'	5.18	1.52	1.45
33	L1	2475	C	P-O5'	-5.18	1.54	1.59
16	SR	127	GLU	CG-CD	5.18	1.59	1.51
32	S1	377	G	P-O5'	-5.18	1.54	1.59
32	S1	1065	A	C3'-C2'	5.18	1.58	1.52
33	L1	219	A	C2'-C1'	-5.18	1.47	1.53
33	L1	253	G	C3'-O3'	5.18	1.49	1.42
33	L1	284	U	C3'-O3'	5.18	1.49	1.42
33	L1	2736	A	C5'-C4'	5.18	1.57	1.51
33	L1	2745	C	P-OP1	-5.18	1.40	1.49
23	SU	81	ILE	N-CA	5.17	1.56	1.46
25	SC	110	ARG	NE-CZ	5.17	1.39	1.33
32	S1	377	G	C5'-C4'	5.17	1.57	1.51
32	S1	800	U	C3'-O3'	5.17	1.49	1.42
32	S1	1201	C	C3'-O3'	5.17	1.49	1.42
32	S1	1431	A	C2'-C1'	-5.17	1.47	1.53
33	L1	220	G	O3'-P	-5.17	1.54	1.61
33	L1	809	A	C4'-O4'	5.17	1.52	1.45
56	Lh	46	LYS	CA-CB	5.17	1.65	1.53
8	SJ	92	ARG	CZ-NH2	5.17	1.39	1.33
32	S1	1479	U	P-O5'	-5.17	1.54	1.59
35	L2	110	C	C3'-C2'	5.17	1.58	1.52
5	SE	179	VAL	C-N	5.17	1.44	1.34
33	L1	863	G	C2'-O2'	-5.17	1.34	1.41
33	L1	2937	U	C2'-C1'	-5.17	1.47	1.53
33	L1	3304	U	C5'-C4'	5.17	1.57	1.51
80	LC	292	GLY	C-O	-5.17	1.15	1.23
32	S1	883	G	O4'-C1'	5.17	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1650	G	C5'-C4'	5.17	1.57	1.51
33	L1	1285	U	C2'-C1'	-5.17	1.47	1.53
33	L1	1788	C	C3'-C2'	5.17	1.58	1.52
33	L1	2275	A	O4'-C1'	-5.17	1.34	1.41
33	L1	2357	A	C4'-C3'	5.17	1.58	1.53
33	L1	3233	C	C4'-C3'	-5.17	1.47	1.52
32	S1	802	A	O3'-P	-5.17	1.54	1.61
33	L1	1421	A	C4'-O4'	5.17	1.52	1.45
33	L1	1575	G	C3'-O3'	5.17	1.49	1.42
33	L1	1599	A	P-O5'	-5.17	1.54	1.59
36	LA	159	LYS	CE-NZ	5.17	1.61	1.49
44	LR	34	ARG	CD-NE	5.17	1.55	1.46
32	S1	947	G	C4'-C3'	5.17	1.58	1.53
33	L1	610	G	C3'-C2'	5.17	1.58	1.52
33	L1	1497	U	C4'-O4'	5.17	1.52	1.45
32	S1	1760	A	C4'-O4'	5.16	1.52	1.45
33	L1	30	C	C5'-C4'	5.16	1.57	1.51
33	L1	1115	A	C5'-C4'	5.16	1.57	1.51
33	L1	2089	A	O3'-P	-5.16	1.54	1.61
33	L1	2388	C	C4'-O4'	5.16	1.52	1.45
33	L1	2970	G	O3'-P	-5.16	1.54	1.61
71	Lj	94	PRO	N-CD	5.16	1.55	1.47
10	SL	6	GLY	N-CA	5.16	1.53	1.46
33	L1	784	G	O3'-P	-5.16	1.54	1.61
33	L1	2625	C	O4'-C1'	5.16	1.48	1.41
15	SS	104	ARG	CZ-NH1	5.16	1.39	1.33
32	S1	457	C	C2'-C1'	5.16	1.59	1.53
33	L1	3202	G	O4'-C1'	-5.16	1.34	1.41
15	SS	131	ARG	CD-NE	5.16	1.55	1.46
31	S2	61	C	C3'-O3'	5.16	1.49	1.42
32	S1	557	G	C3'-O3'	5.16	1.49	1.42
32	S1	855	G	C4'-O4'	5.16	1.52	1.45
32	S1	1482	U	O3'-P	-5.16	1.54	1.61
33	L1	84	A	C3'-O3'	-5.16	1.34	1.42
33	L1	1227	A	C4'-C3'	-5.16	1.47	1.52
33	L1	1320	G	P-O5'	-5.16	1.54	1.59
35	L2	145	C	O4'-C1'	5.16	1.48	1.41
42	LP	68	ARG	CD-NE	5.16	1.55	1.46
33	L1	2615	U	C3'-O3'	5.16	1.49	1.42
33	L1	2720	U	C4'-O4'	5.16	1.52	1.45
34	L3	29	C	C2'-C1'	-5.16	1.47	1.53
32	S1	52	U	O4'-C1'	5.16	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	108	C	C5'-C4'	5.16	1.57	1.51
32	S1	1386	U	O3'-P	-5.16	1.54	1.61
33	L1	642	C	C5'-C4'	5.16	1.57	1.51
33	L1	1246	G	C5'-C4'	5.16	1.57	1.51
33	L1	2467	A	C4'-C3'	-5.16	1.47	1.52
70	Li	107	LEU	C-N	5.16	1.46	1.34
71	Lj	5	GLN	N-CA	-5.16	1.36	1.46
33	L1	70	A	C4'-C3'	5.15	1.58	1.53
33	L1	497	G	C4'-C3'	-5.15	1.47	1.52
27	SH	110	ILE	C-N	-5.15	1.22	1.34
32	S1	470	U	O3'-P	-5.15	1.54	1.61
32	S1	573	C	C4'-O4'	5.15	1.52	1.45
33	L1	1227	A	P-O5'	-5.15	1.54	1.59
33	L1	1316	C	O3'-P	-5.15	1.54	1.61
33	L1	2392	G	P-O5'	-5.15	1.54	1.59
61	Lq	18	ARG	CZ-NH1	5.15	1.39	1.33
1	Sa	262	GLN	CA-CB	5.15	1.65	1.53
33	L1	153	U	O3'-P	-5.15	1.54	1.61
33	L1	1772	G	C3'-O3'	5.15	1.49	1.42
33	L1	3051	U	P-O5'	-5.15	1.54	1.59
38	LE	3	THR	C-N	5.15	1.45	1.34
81	LD	304	GLN	CA-CB	5.15	1.65	1.53
32	S1	93	A	C2'-C1'	5.15	1.59	1.53
32	S1	1381	G	C3'-O3'	5.15	1.49	1.42
33	L1	1207	A	C3'-O3'	5.15	1.49	1.42
1	Sa	60	ARG	CZ-NH1	5.15	1.39	1.33
33	L1	2682	A	P-O5'	-5.15	1.54	1.59
32	S1	1104	U	P-O5'	5.14	1.64	1.59
32	S1	1600	G	O4'-C1'	5.14	1.48	1.41
33	L1	951	C	C3'-O3'	5.14	1.49	1.42
33	L1	1166	C	C3'-O3'	5.14	1.49	1.42
33	L1	1958	G	C5'-C4'	5.14	1.57	1.51
33	L1	2650	A	O4'-C1'	5.14	1.48	1.41
33	L1	3124	A	C3'-O3'	5.14	1.49	1.42
46	LT	38	ARG	NE-CZ	5.14	1.39	1.33
81	LD	6	ARG	CZ-NH2	5.14	1.39	1.33
32	S1	1564	A	C4'-C3'	-5.14	1.47	1.52
33	L1	2686	U	O5'-C5'	5.14	1.52	1.44
35	L2	102	U	O5'-C5'	5.14	1.52	1.44
64	LG	108	GLY	C-N	-5.14	1.24	1.34
33	L1	2654	G	C2'-C1'	-5.14	1.47	1.53
83	Lm	8	ALA	CA-C	-5.14	1.39	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1780	U	C4'-C3'	5.14	1.58	1.53
33	L1	376	A	C5'-C4'	5.14	1.57	1.51
33	L1	2357	A	C5'-C4'	5.14	1.57	1.51
32	S1	1658	U	C2'-C1'	-5.14	1.47	1.53
33	L1	2338	C	C4'-C3'	5.14	1.58	1.53
32	S1	277	G	O4'-C1'	5.14	1.48	1.41
32	S1	1739	U	C4'-O4'	5.14	1.52	1.45
33	L1	134	U	C2'-C1'	5.14	1.58	1.53
33	L1	1466	U	O4'-C1'	-5.14	1.34	1.41
33	L1	1959	U	C5'-C4'	5.14	1.57	1.51
1	Sa	224	GLY	N-CA	-5.13	1.38	1.46
32	S1	165	U	O4'-C1'	5.13	1.48	1.41
32	S1	846	U	O4'-C1'	5.13	1.48	1.41
38	LE	111	HIS	CB-CG	-5.13	1.40	1.50
5	SE	24	ARG	CZ-NH1	5.13	1.39	1.33
33	L1	1896	A	C5'-C4'	5.13	1.57	1.51
33	L1	2742	A	C4'-O4'	5.13	1.52	1.45
40	LH	233	VAL	CB-CG2	5.13	1.63	1.52
68	LW	19	GLY	N-CA	-5.13	1.38	1.46
30	S3	12	A	O4'-C1'	-5.13	1.34	1.41
32	S1	1510	G	O4'-C1'	5.13	1.48	1.41
32	S1	1681	G	C5'-C4'	5.13	1.57	1.51
33	L1	63	G	O3'-P	-5.13	1.54	1.61
33	L1	294	A	C4'-O4'	5.13	1.52	1.45
33	L1	2421	C	C5'-C4'	5.13	1.57	1.51
33	L1	2762	U	C4'-C3'	5.13	1.58	1.53
32	S1	584	A	P-O5'	-5.13	1.54	1.59
32	S1	1128	C	C2'-C1'	-5.13	1.47	1.53
4	SD	152	PRO	C-N	5.13	1.45	1.34
32	S1	363	G	O4'-C1'	5.13	1.48	1.41
32	S1	668	C	C2'-C1'	-5.13	1.47	1.53
32	S1	990	G	O4'-C1'	5.13	1.48	1.41
32	S1	1344	U	P-O5'	-5.13	1.54	1.59
33	L1	1163	A	P-O5'	5.13	1.64	1.59
33	L1	1475	U	O3'-P	-5.13	1.54	1.61
33	L1	2619	C	C4'-C3'	5.13	1.58	1.53
35	L2	24	U	O4'-C1'	5.13	1.48	1.41
38	LE	34	ARG	CD-NE	5.13	1.55	1.46
33	L1	21	G	C5'-C4'	5.13	1.57	1.51
33	L1	143	A	C5'-C4'	5.13	1.57	1.51
33	L1	640	C	C3'-O3'	5.13	1.49	1.42
33	L1	1046	U	C2'-C1'	-5.13	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1879	A	C5'-C4'	5.13	1.57	1.51
33	L1	2769	U	C4'-C3'	-5.13	1.47	1.52
33	L1	3376	C	C4'-C3'	5.13	1.58	1.53
34	L3	52	U	O4'-C1'	5.13	1.48	1.41
15	SS	56	TYR	CZ-OH	5.12	1.46	1.37
32	S1	1132	G	O4'-C1'	-5.12	1.34	1.41
32	S1	1442	A	C3'-O3'	5.12	1.49	1.42
33	L1	1197	A	O3'-P	-5.12	1.54	1.61
33	L1	1385	C	C3'-O3'	5.12	1.49	1.42
31	S2	73	C	C4'-C3'	5.12	1.58	1.53
33	L1	1277	A	C4'-C3'	5.12	1.58	1.53
33	L1	1835	A	C2'-C1'	-5.12	1.47	1.53
33	L1	2837	C	C3'-O3'	5.12	1.49	1.42
33	L1	2852	G	C3'-O3'	5.12	1.49	1.42
35	L2	108	A	O3'-P	-5.12	1.55	1.61
38	LE	96	ARG	C-N	5.12	1.45	1.34
69	La	26	VAL	N-CA	-5.12	1.36	1.46
71	Lj	20	TYR	CE1-CZ	5.12	1.45	1.38
31	S2	37	G	O3'-P	-5.12	1.55	1.61
32	S1	872	G	C2'-C1'	-5.12	1.47	1.53
33	L1	302	G	C5'-C4'	5.12	1.57	1.51
33	L1	1078	U	C4'-O4'	5.12	1.52	1.45
33	L1	1089	G	C4'-C3'	-5.12	1.47	1.52
33	L1	1242	U	O4'-C1'	5.12	1.48	1.41
33	L1	1483	G	C2'-C1'	-5.12	1.47	1.53
33	L1	2090	G	C4'-O4'	-5.12	1.38	1.45
33	L1	2755	U	C5'-C4'	5.12	1.57	1.51
33	L1	2831	U	P-O5'	-5.12	1.54	1.59
33	L1	3308	A	O3'-P	-5.12	1.55	1.61
33	L1	3350	C	C4'-C3'	5.12	1.58	1.53
55	Lg	18	ARG	CD-NE	5.12	1.55	1.46
32	S1	984	A	O4'-C1'	5.12	1.48	1.41
33	L1	1367	A	C2'-O2'	-5.12	1.34	1.41
33	L1	2259	U	C4'-O4'	5.12	1.52	1.45
33	L1	2810	A	O4'-C1'	-5.12	1.34	1.41
9	SK	47	SER	CA-CB	5.12	1.60	1.52
32	S1	148	C	P-O5'	-5.12	1.54	1.59
33	L1	1470	A	O4'-C1'	5.12	1.48	1.41
34	L3	25	G	O3'-P	5.12	1.67	1.61
82	LK	22	GLY	N-CA	5.12	1.53	1.46
33	L1	1825	G	O3'-P	-5.12	1.55	1.61
33	L1	2591	G	C2'-C1'	-5.12	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3235	A	C3'-O3'	5.12	1.49	1.42
33	L1	3285	U	C4'-C3'	5.12	1.58	1.53
9	SK	127	ARG	CD-NE	5.12	1.55	1.46
23	SU	77	GLY	CA-C	-5.12	1.43	1.51
32	S1	259	A	P-O5'	-5.12	1.54	1.59
32	S1	309	C	C2'-C1'	-5.12	1.47	1.53
32	S1	940	U	C3'-C2'	-5.12	1.47	1.52
33	L1	1083	C	C3'-C2'	-5.12	1.47	1.52
33	L1	2202	A	C3'-O3'	5.12	1.49	1.42
33	L1	2780	G	O4'-C1'	-5.12	1.34	1.41
35	L2	40	G	O4'-C1'	-5.12	1.34	1.41
47	LU	15	PHE	CB-CG	5.12	1.60	1.51
71	Lj	3	GLY	CA-C	-5.12	1.43	1.51
32	S1	947	G	O4'-C1'	-5.11	1.35	1.41
33	L1	369	G	C5'-C4'	5.11	1.57	1.51
57	L1	80	GLU	CG-CD	5.11	1.59	1.51
8	SJ	6	VAL	C-N	5.11	1.45	1.34
33	L1	1614	G	O3'-P	-5.11	1.55	1.61
33	L1	2698	A	C2'-C1'	5.11	1.58	1.53
33	L1	3149	C	P-O5'	-5.11	1.54	1.59
31	S2	41	G	P-O5'	-5.11	1.54	1.59
32	S1	321	C	O3'-P	-5.11	1.55	1.61
33	L1	3227	U	C3'-C2'	5.11	1.58	1.52
81	LD	101	ARG	CD-NE	5.11	1.55	1.46
32	S1	911	A	C2'-C1'	-5.11	1.47	1.53
33	L1	1654	C	O4'-C1'	5.11	1.48	1.41
33	L1	1951	C	C5'-C4'	5.11	1.57	1.51
33	L1	2218	A	C4'-C3'	5.11	1.58	1.53
33	L1	2695	A	P-O5'	-5.11	1.54	1.59
33	L1	143	A	C4'-C3'	-5.11	1.47	1.52
33	L1	213	G	C2'-C1'	5.11	1.58	1.53
33	L1	1099	G	P-O5'	-5.11	1.54	1.59
33	L1	1473	U	P-O5'	-5.11	1.54	1.59
33	L1	2946	U	C4'-C3'	5.11	1.58	1.53
32	S1	978	A	O3'-P	-5.10	1.55	1.61
33	L1	2491	A	C3'-C2'	5.10	1.58	1.52
9	SK	143	GLY	N-CA	-5.10	1.38	1.46
32	S1	1064	U	C2'-C1'	5.10	1.58	1.53
33	L1	388	G	C5'-C4'	5.10	1.57	1.51
33	L1	1019	A	C4'-C3'	5.10	1.58	1.53
33	L1	1324	C	C2'-C1'	-5.10	1.47	1.53
33	L1	1913	C	P-O5'	-5.10	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1989	G	O4'-C1'	-5.10	1.35	1.41
33	L1	2468	G	O4'-C1'	-5.10	1.35	1.41
33	L1	2711	U	P-O5'	5.10	1.64	1.59
33	L1	2908	C	C5'-C4'	5.10	1.57	1.51
46	LT	28	GLU	CB-CG	5.10	1.61	1.52
11	SM	35	GLY	C-N	5.10	1.45	1.34
33	L1	1197	A	C4'-C3'	-5.10	1.47	1.52
33	L1	1803	G	C5'-C4'	5.10	1.57	1.51
5	SE	19	PHE	CE1-CZ	5.10	1.47	1.37
32	S1	1020	U	O4'-C1'	5.10	1.48	1.41
33	L1	283	A	C4'-O4'	5.10	1.52	1.45
33	L1	1222	U	P-O5'	-5.10	1.54	1.59
33	L1	1874	A	O4'-C1'	5.10	1.48	1.41
51	LY	46	SER	CA-CB	5.10	1.60	1.52
57	L1	24	ARG	CZ-NH2	5.10	1.39	1.33
3	SB	166	GLU	CG-CD	5.10	1.59	1.51
32	S1	647	G	O3'-P	-5.10	1.55	1.61
33	L1	2090	G	O4'-C1'	5.10	1.48	1.41
32	S1	1378	C	C3'-C2'	5.10	1.58	1.52
33	L1	1098	U	P-O5'	5.10	1.64	1.59
33	L1	1513	C	P-O5'	-5.10	1.54	1.59
33	L1	2090	G	P-O5'	-5.10	1.54	1.59
33	L1	894	G	O4'-C1'	-5.09	1.35	1.41
33	L1	1151	G	C2'-O2'	5.09	1.48	1.41
33	L1	1999	G	C2'-C1'	-5.09	1.47	1.53
33	L1	2356	A	C4'-C3'	-5.09	1.47	1.52
33	L1	2738	U	C3'-O3'	5.09	1.49	1.42
33	L1	3065	U	C2'-C1'	-5.09	1.47	1.53
61	Lq	18	ARG	CG-CD	5.09	1.64	1.51
32	S1	494	G	C3'-C2'	5.09	1.58	1.52
32	S1	1632	C	P-O5'	-5.09	1.54	1.59
33	L1	397	A	O3'-P	-5.09	1.55	1.61
47	LU	138	GLY	C-N	5.09	1.45	1.34
33	L1	1300	C	C2'-C1'	-5.09	1.47	1.53
36	LA	7	ASP	CA-CB	5.09	1.65	1.53
14	SP	81	MET	C-N	5.09	1.45	1.34
30	S3	18	C	C2'-O2'	5.09	1.48	1.41
33	L1	680	G	O4'-C1'	5.09	1.48	1.41
33	L1	2470	C	P-O5'	5.09	1.64	1.59
33	L1	2649	C	P-O5'	-5.09	1.54	1.59
51	LY	12	ARG	CD-NE	5.09	1.55	1.46
33	L1	813	A	C3'-O3'	5.09	1.49	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1850	C	O4'-C1'	5.09	1.48	1.41
33	L1	1955	G	O3'-P	5.09	1.67	1.61
33	L1	2077	C	C4'-O4'	5.09	1.52	1.45
33	L1	2145	C	C2'-C1'	5.09	1.58	1.53
33	L1	3285	U	C3'-O3'	5.09	1.49	1.42
31	S2	72	G	C3'-C2'	5.09	1.58	1.52
32	S1	187	C	C2'-C1'	-5.09	1.47	1.53
32	S1	935	A	O4'-C1'	5.09	1.48	1.41
33	L1	2196	G	O3'-P	-5.09	1.55	1.61
33	L1	2527	G	C5'-C4'	5.09	1.57	1.51
80	LC	265	TYR	CB-CG	5.09	1.59	1.51
32	S1	918	G	C5'-C4'	5.08	1.57	1.51
32	S1	1101	C	C2'-C1'	5.08	1.58	1.53
33	L1	2500	U	O3'-P	-5.08	1.55	1.61
33	L1	2661	G	P-OP2	-5.08	1.40	1.49
35	L2	103	C	C4'-C3'	5.08	1.58	1.53
31	S2	21	A	C5'-C4'	5.08	1.57	1.51
32	S1	1016	C	C4'-O4'	-5.08	1.39	1.45
32	S1	1507	G	P-O5'	-5.08	1.54	1.59
33	L1	805	C	O5'-C5'	5.08	1.52	1.44
33	L1	926	C	C4'-C3'	5.08	1.58	1.53
33	L1	1561	U	C4'-C3'	5.08	1.58	1.53
33	L1	2901	C	C4'-C3'	5.08	1.58	1.53
33	L1	3137	G	C2'-C1'	5.08	1.58	1.53
70	Li	64	ARG	NE-CZ	5.08	1.39	1.33
81	LD	113	ARG	CZ-NH1	5.08	1.39	1.33
82	LK	66	ARG	NE-CZ	5.08	1.39	1.33
3	SB	212	PRO	C-N	5.08	1.44	1.34
33	L1	485	G	P-O5'	5.08	1.64	1.59
27	SH	68	ARG	CA-C	-5.08	1.39	1.52
32	S1	1066	U	C3'-C2'	5.08	1.58	1.52
32	S1	1729	A	C4'-O4'	-5.08	1.39	1.45
33	L1	987	A	C2'-C1'	5.08	1.58	1.53
33	L1	3091	U	C3'-O3'	5.08	1.49	1.42
42	LP	26	ARG	CZ-NH2	5.08	1.39	1.33
33	L1	182	C	O3'-P	-5.08	1.55	1.61
33	L1	2402	G	C4'-C3'	5.08	1.58	1.53
35	L2	73	U	P-O5'	-5.08	1.54	1.59
43	LO	106	VAL	CB-CG1	5.08	1.63	1.52
31	S2	41	G	C4'-O4'	-5.08	1.39	1.45
32	S1	301	U	C5'-C4'	5.08	1.57	1.51
32	S1	953	G	O3'-P	-5.08	1.55	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1319	U	O4'-C1'	5.08	1.48	1.41
33	L1	72	A	O3'-P	-5.08	1.55	1.61
33	L1	271	G	O4'-C1'	5.08	1.48	1.41
33	L1	677	U	P-O5'	-5.08	1.54	1.59
33	L1	1149	C	O4'-C1'	5.08	1.48	1.41
33	L1	1852	C	P-O5'	5.08	1.64	1.59
33	L1	2081	C	C4'-O4'	5.08	1.52	1.45
33	L1	2617	G	C3'-O3'	5.08	1.49	1.42
49	LX	70	TYR	CE2-CZ	5.08	1.45	1.38
67	LS	89	TYR	CZ-OH	5.08	1.46	1.37
32	S1	114	U	C2'-C1'	5.07	1.58	1.53
32	S1	1507	G	O4'-C1'	-5.07	1.35	1.41
33	L1	1338	C	C5'-C4'	5.07	1.57	1.51
33	L1	2495	C	O3'-P	-5.07	1.55	1.61
33	L1	3136	A	O4'-C1'	5.07	1.48	1.41
58	Ln	47	VAL	C-O	-5.07	1.13	1.23
72	Lk	66	VAL	N-CA	-5.07	1.36	1.46
19	SY	25	GLN	CG-CD	5.07	1.62	1.51
32	S1	768	A	C5'-C4'	5.07	1.57	1.51
32	S1	1383	U	P-O5'	-5.07	1.54	1.59
33	L1	2153	U	C4'-O4'	5.07	1.52	1.45
33	L1	2865	G	C2'-O2'	-5.07	1.35	1.41
77	Lc	67	ARG	CZ-NH1	5.07	1.39	1.33
32	S1	1436	U	C2'-C1'	5.07	1.58	1.53
32	S1	1576	C	P-O5'	-5.07	1.54	1.59
35	L2	155	G	C3'-O3'	5.07	1.49	1.42
31	S2	9	A	C2'-C1'	5.07	1.58	1.53
32	S1	842	G	C2'-C1'	-5.07	1.47	1.53
32	S1	1456	U	C2'-C1'	-5.07	1.47	1.53
32	S1	1482	U	O4'-C1'	5.07	1.48	1.41
41	LM	14	PHE	CB-CG	5.07	1.59	1.51
64	LG	29	LYS	C-O	-5.07	1.13	1.23
33	L1	1416	G	O4'-C1'	-5.07	1.35	1.41
33	L1	1801	G	C4'-O4'	-5.07	1.39	1.45
33	L1	1831	A	C2'-C1'	5.07	1.58	1.53
33	L1	3052	U	C2'-C1'	-5.07	1.47	1.53
32	S1	1231	A	C2'-O2'	5.06	1.48	1.41
33	L1	2175	A	O3'-P	-5.06	1.55	1.61
33	L1	2529	C	P-O5'	-5.06	1.54	1.59
38	LE	69	CYS	N-CA	-5.06	1.36	1.46
20	SZ	61	GLU	N-CA	5.06	1.56	1.46
33	L1	354	C	O4'-C1'	5.06	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1300	C	P-O5'	-5.06	1.54	1.59
33	L1	2076	C	C3'-O3'	5.06	1.49	1.42
33	L1	2458	A	P-O5'	5.06	1.64	1.59
33	L1	2612	A	P-O5'	-5.06	1.54	1.59
33	L1	2712	C	P-O5'	-5.06	1.54	1.59
33	L1	3063	C	P-O5'	-5.06	1.54	1.59
35	L2	99	G	O4'-C1'	5.06	1.48	1.41
32	S1	1294	U	O4'-C1'	5.06	1.48	1.41
33	L1	71	C	O3'-P	-5.06	1.55	1.61
33	L1	1466	U	C4'-C3'	-5.06	1.47	1.52
33	L1	1638	U	O5'-C5'	5.06	1.52	1.44
35	L2	10	C	O4'-C1'	5.06	1.48	1.41
32	S1	995	C	O3'-P	-5.06	1.55	1.61
32	S1	1298	G	C2'-C1'	-5.06	1.47	1.53
32	S1	1364	C	C4'-C3'	5.06	1.58	1.53
32	S1	1465	C	O4'-C1'	5.06	1.48	1.41
33	L1	593	G	C5'-C4'	5.06	1.57	1.51
33	L1	813	A	P-O5'	-5.06	1.54	1.59
33	L1	2137	A	C2'-C1'	5.06	1.58	1.53
50	LZ	45	ARG	CD-NE	5.06	1.55	1.46
1	Sa	159	TYR	CG-CD2	5.06	1.45	1.39
32	S1	1761	G	C3'-O3'	5.06	1.49	1.42
33	L1	798	G	C2'-C1'	-5.06	1.47	1.53
33	L1	1802	A	C2'-C1'	-5.06	1.47	1.53
33	L1	2402	G	C5'-C4'	5.06	1.57	1.51
33	L1	2949	G	C3'-O3'	5.06	1.49	1.42
33	L1	2950	C	P-O5'	5.06	1.64	1.59
40	LH	181	ARG	CD-NE	5.06	1.55	1.46
32	S1	1319	U	C2'-C1'	-5.06	1.47	1.53
33	L1	785	U	P-O5'	-5.06	1.54	1.59
33	L1	1673	A	C3'-O3'	5.06	1.49	1.42
13	SQ	37	GLU	CB-CG	5.05	1.61	1.52
19	SY	48	GLU	CD-OE2	5.05	1.31	1.25
33	L1	1456	A	O4'-C1'	-5.05	1.35	1.41
49	LX	51	ALA	N-CA	-5.05	1.36	1.46
32	S1	661	U	C2'-C1'	-5.05	1.47	1.53
32	S1	798	C	C3'-O3'	5.05	1.49	1.42
78	Le	153	ARG	CD-NE	5.05	1.55	1.46
32	S1	409	C	C2'-C1'	-5.05	1.47	1.53
32	S1	629	C	C2'-C1'	-5.05	1.47	1.53
32	S1	1406	U	C2'-C1'	-5.05	1.47	1.53
32	S1	1419	U	C2'-C1'	5.05	1.58	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1790	G	C4'-O4'	5.05	1.52	1.45
33	L1	373	A	C3'-O3'	5.05	1.49	1.42
33	L1	796	C	P-O5'	-5.05	1.54	1.59
33	L1	868	A	C2'-C1'	-5.05	1.47	1.53
33	L1	1794	A	C2'-C1'	-5.05	1.47	1.53
49	LX	77	LEU	C-N	5.05	1.45	1.34
68	LW	83	ARG	CD-NE	5.05	1.55	1.46
33	L1	59	A	O3'-P	-5.05	1.55	1.61
33	L1	787	G	O4'-C1'	-5.05	1.35	1.41
33	L1	1588	G	C2'-C1'	-5.05	1.47	1.53
33	L1	494	C	O4'-C1'	5.05	1.48	1.41
33	L1	513	C	C4'-C3'	-5.05	1.47	1.52
33	L1	1214	U	C4'-O4'	5.05	1.52	1.45
33	L1	1690	C	P-O5'	-5.05	1.54	1.59
33	L1	1888	G	C2'-C1'	5.05	1.58	1.53
35	L2	38	U	C2'-C1'	5.05	1.58	1.53
33	L1	863	G	C5'-C4'	5.04	1.57	1.51
80	LC	350	THR	CA-CB	5.04	1.66	1.53
15	SS	98	SER	C-O	-5.04	1.13	1.23
32	S1	1380	A	C2'-C1'	5.04	1.58	1.53
33	L1	173	C	C4'-C3'	-5.04	1.47	1.52
33	L1	2078	G	C2'-C1'	-5.04	1.47	1.53
33	L1	2782	G	C5'-C4'	5.04	1.57	1.51
32	S1	1410	C	C2'-C1'	-5.04	1.47	1.53
32	S1	1556	U	O3'-P	-5.04	1.55	1.61
33	L1	1458	U	C4'-O4'	-5.04	1.39	1.45
33	L1	1469	G	C2'-C1'	-5.04	1.47	1.53
33	L1	2529	C	C5'-C4'	5.04	1.57	1.51
64	LG	26	TRP	C-O	-5.04	1.13	1.23
33	L1	1524	G	C2'-C1'	-5.04	1.47	1.53
33	L1	2129	U	P-O5'	-5.04	1.54	1.59
55	Lg	98	TYR	CB-CG	5.04	1.59	1.51
14	SP	98	TYR	CE1-CZ	5.04	1.45	1.38
32	S1	1158	G	C3'-O3'	5.04	1.49	1.42
32	S1	1222	G	O3'-P	-5.04	1.55	1.61
33	L1	1179	C	O3'-P	5.04	1.67	1.61
33	L1	1374	G	O3'-P	-5.04	1.55	1.61
33	L1	3364	A	C3'-O3'	5.04	1.49	1.42
32	S1	779	C	C3'-O3'	5.04	1.49	1.42
32	S1	942	C	O5'-C5'	-5.04	1.34	1.42
32	S1	1327	C	C3'-C2'	5.04	1.58	1.52
32	S1	1355	U	O4'-C1'	-5.04	1.35	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1363	G	O4'-C1'	-5.04	1.35	1.41
33	L1	1263	A	O4'-C1'	-5.04	1.35	1.41
33	L1	2726	U	C3'-O3'	5.04	1.49	1.42
33	L1	1431	G	O4'-C1'	5.03	1.48	1.41
33	L1	2355	A	C5'-C4'	5.03	1.57	1.51
33	L1	2502	U	P-O5'	5.03	1.64	1.59
33	L1	2666	G	O3'-P	-5.03	1.55	1.61
33	L1	2862	U	C5'-C4'	5.03	1.57	1.51
1	Sa	314	PHE	CB-CG	-5.03	1.42	1.51
13	SQ	94	GLU	CA-CB	5.03	1.65	1.53
33	L1	1634	G	O3'-P	-5.03	1.55	1.61
33	L1	2470	C	C4'-O4'	-5.03	1.39	1.45
33	L1	3271	A	C2'-C1'	-5.03	1.47	1.53
32	S1	314	C	P-O5'	-5.03	1.54	1.59
33	L1	1113	C	C2'-O2'	5.03	1.48	1.41
33	L1	3360	U	C5'-C4'	5.03	1.57	1.51
33	L1	13	G	O4'-C1'	5.03	1.48	1.41
33	L1	2319	A	C4'-O4'	5.03	1.52	1.45
8	SJ	112	SER	CA-CB	5.03	1.60	1.52
32	S1	1444	G	C2'-C1'	-5.03	1.47	1.53
33	L1	1886	U	O4'-C1'	5.03	1.48	1.41
33	L1	2932	A	C2'-C1'	-5.03	1.47	1.53
42	LP	38	ARG	NE-CZ	5.03	1.39	1.33
48	LV	154	LYS	C-O	-5.03	1.13	1.23
32	S1	1136	A	O4'-C1'	5.03	1.48	1.41
33	L1	253	G	C2'-C1'	-5.03	1.47	1.53
33	L1	428	G	C4'-C3'	5.03	1.58	1.53
33	L1	2659	A	P-O5'	-5.03	1.54	1.59
33	L1	792	A	O4'-C1'	5.02	1.48	1.41
33	L1	3222	G	C4'-C3'	5.02	1.58	1.53
25	SC	71	ARG	CD-NE	5.02	1.54	1.46
33	L1	67	C	P-O5'	-5.02	1.54	1.59
33	L1	765	U	O4'-C1'	5.02	1.48	1.41
33	L1	1221	A	C2'-C1'	5.02	1.58	1.53
67	LS	137	LYS	CA-CB	5.02	1.65	1.53
33	L1	1812	A	C3'-C2'	5.02	1.58	1.52
1	Sa	371	TRP	CG-CD1	5.02	1.43	1.36
32	S1	854	C	C3'-O3'	5.02	1.49	1.42
32	S1	974	C	C2'-O2'	-5.02	1.35	1.41
32	S1	1257	U	C5'-C4'	5.02	1.57	1.51
68	LW	115	GLU	CB-CG	5.02	1.61	1.52
3	SB	210	ILE	C-O	-5.02	1.13	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	545	A	C5'-C4'	-5.02	1.45	1.51
33	L1	329	G	C5'-C4'	5.02	1.57	1.51
33	L1	2850	G	O3'-P	-5.02	1.55	1.61
32	S1	372	U	C3'-C2'	-5.02	1.47	1.52
33	L1	3020	C	C3'-O3'	5.02	1.49	1.42
31	S2	65	U	C4'-C3'	5.01	1.58	1.53
33	L1	1249	A	C4'-C3'	5.01	1.58	1.53
33	L1	1791	U	C4'-O4'	-5.01	1.39	1.45
33	L1	2593	A	O4'-C1'	5.01	1.48	1.41
33	L1	3340	G	O3'-P	-5.01	1.55	1.61
71	Lj	48	TYR	CE1-CZ	5.01	1.45	1.38
80	LC	17	LEU	N-CA	-5.01	1.36	1.46
33	L1	216	G	C2'-C1'	-5.01	1.47	1.53
33	L1	1681	U	C2'-C1'	5.01	1.58	1.53
33	L1	2184	U	C2'-C1'	-5.01	1.47	1.53
33	L1	2732	U	C3'-O3'	5.01	1.49	1.42
4	SD	136	ILE	CB-CG1	5.01	1.68	1.54
32	S1	901	U	O3'-P	-5.01	1.55	1.61
33	L1	169	G	O4'-C1'	5.01	1.48	1.41
33	L1	1834	C	O4'-C1'	5.01	1.48	1.41
33	L1	2457	G	C3'-O3'	5.01	1.49	1.42
33	L1	2749	A	C5'-C4'	5.01	1.57	1.51
32	S1	1193	A	O4'-C1'	5.01	1.48	1.41
33	L1	2645	A	O3'-P	-5.01	1.55	1.61
34	L3	39	C	O4'-C1'	5.01	1.48	1.41
35	L2	121	C	C4'-C3'	5.01	1.58	1.53
23	SU	95	TYR	CE1-CZ	5.01	1.45	1.38
32	S1	988	G	O3'-P	-5.01	1.55	1.61
11	SM	62	GLU	CG-CD	-5.01	1.44	1.51
32	S1	1255	U	P-O5'	-5.01	1.54	1.59
33	L1	1495	G	O3'-P	-5.01	1.55	1.61
33	L1	3021	U	P-O5'	5.01	1.64	1.59
33	L1	3292	U	C2'-O2'	5.01	1.48	1.41
45	LQ	249	ALA	C-O	-5.01	1.13	1.23
33	L1	179	G	O3'-P	-5.00	1.55	1.61
33	L1	1094	G	P-O5'	-5.00	1.54	1.59
33	L1	1752	C	C4'-C3'	5.00	1.58	1.53
33	L1	1774	G	O4'-C1'	5.00	1.48	1.41
37	LB	34	PHE	CG-CD2	5.00	1.46	1.38
17	SV	69	ARG	CD-NE	5.00	1.54	1.46
32	S1	1403	G	O3'-P	-5.00	1.55	1.61
32	S1	1445	C	C2'-C1'	-5.00	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	711	A	C2'-C1'	5.00	1.58	1.53
33	L1	1088	A	C4'-O4'	-5.00	1.39	1.45
33	L1	2098	A	C2'-O2'	5.00	1.48	1.41
33	L1	2352	G	O4'-C1'	-5.00	1.35	1.41
33	L1	2504	A	C2'-C1'	-5.00	1.47	1.53
5	SE	52	ARG	CZ-NH2	5.00	1.39	1.33
32	S1	179	A	O4'-C1'	5.00	1.48	1.41
32	S1	1312	G	C5'-C4'	5.00	1.57	1.51
33	L1	221	C	P-O5'	-5.00	1.54	1.59
33	L1	231	C	C4'-O4'	5.00	1.52	1.45
33	L1	510	C	O3'-P	-5.00	1.55	1.61
33	L1	1949	G	C3'-C2'	5.00	1.58	1.52

All (16506) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	SE	30	ARG	NE-CZ-NH2	-75.84	82.38	120.30
66	LN	64	ARG	NE-CZ-NH2	-64.81	87.90	120.30
11	SM	126	TYR	CZ-CE2-CD2	-63.49	62.66	119.80
33	L1	1395	A	O4'-C1'-N9	60.43	156.54	108.20
33	L1	62	A	O4'-C1'-N9	55.67	152.73	108.20
32	S1	1678	G	O4'-C1'-N9	47.59	146.27	108.20
11	SM	126	TYR	CG-CD2-CE2	-47.51	83.29	121.30
32	S1	1506	G	P-O3'-C3'	43.93	172.42	119.70
33	L1	641	C	P-O3'-C3'	43.42	171.80	119.70
20	SZ	44	PHE	O-C-N	-42.07	55.39	122.70
4	SD	239	PRO	O-C-N	-40.77	57.46	122.70
25	SC	143	VAL	O-C-N	-39.82	58.98	122.70
25	SC	29	GLU	OE1-CD-OE2	-39.08	76.40	123.30
8	SJ	78	PRO	O-C-N	-38.90	60.46	122.70
4	SD	132	GLY	O-C-N	-38.89	60.48	122.70
9	SK	123	MET	CG-SD-CE	38.78	162.26	100.20
47	LU	138	GLY	CA-C-O	-38.46	51.37	120.60
33	L1	3333	C	P-O3'-C3'	37.79	165.05	119.70
45	LQ	137	ASP	O-C-N	-37.69	62.40	122.70
33	L1	1081	U	O4'-C1'-N1	37.60	138.28	108.20
40	LH	233	VAL	O-C-N	-37.55	62.63	122.70
71	Lj	12	TYR	O-C-N	-37.48	62.74	122.70
33	L1	72	A	O4'-C1'-N9	37.40	138.12	108.20
81	LD	304	GLN	O-C-N	-37.30	63.02	122.70
25	SC	136	ILE	O-C-N	-37.21	63.16	122.70
45	LQ	290	SER	O-C-N	-36.62	64.11	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	LU	126	ILE	O-C-N	-36.61	64.12	122.70
31	S2	75	A	O4'-C1'-N9	36.53	137.43	108.20
81	LD	94	GLY	O-C-N	-36.53	64.25	122.70
45	LQ	124	VAL	O-C-N	-36.43	64.41	122.70
33	L1	2483	A	O4'-C1'-N9	36.41	137.33	108.20
48	LV	36	ILE	O-C-N	-36.32	64.59	122.70
5	SE	90	MET	O-C-N	-36.29	64.64	122.70
8	SJ	126	SER	O-C-N	-36.28	64.64	122.70
33	L1	3156	G	O4'-C1'-N9	36.17	137.14	108.20
80	LC	292	GLY	O-C-N	-36.12	64.90	122.70
64	LG	79	THR	O-C-N	-36.10	64.93	122.70
45	LQ	237	GLU	O-C-N	-35.98	65.12	122.70
43	LO	40	HIS	O-C-N	-35.96	65.16	122.70
42	LP	74	PRO	O-C-N	-35.88	65.30	122.70
81	LD	329	ALA	O-C-N	-35.84	65.36	122.70
80	LC	352	ARG	O-C-N	-35.82	65.39	122.70
25	SC	171	PRO	CA-N-CD	-35.76	61.44	111.50
39	LF	2	LYS	O-C-N	-35.72	65.55	122.70
58	Ln	47	VAL	O-C-N	-35.70	65.57	122.70
78	Le	204	LEU	O-C-N	-35.64	65.68	122.70
60	Lr	101	GLY	CA-C-O	-35.56	56.59	120.60
61	Lq	23	ARG	O-C-N	-35.55	65.82	122.70
80	LC	295	SER	O-C-N	-35.52	65.87	122.70
51	LY	9	SER	O-C-N	-35.49	65.92	122.70
15	SS	93	PRO	O-C-N	-35.47	65.95	122.70
80	LC	130	PHE	O-C-N	-35.44	66.00	122.70
81	LD	95	ALA	O-C-N	-35.42	66.02	122.70
11	SM	97	GLN	O-C-N	-35.38	66.09	122.70
45	LQ	238	SER	O-C-N	-35.36	66.13	122.70
72	Lk	93	MET	O-C-N	-35.35	66.14	122.70
33	L1	3227	U	O4'-C1'-C2'	-35.32	70.48	105.80
13	SQ	26	LEU	O-C-N	-35.26	66.29	122.70
4	SD	153	ILE	O-C-N	-35.26	66.29	122.70
80	LC	385	GLY	O-C-N	-35.25	66.30	122.70
37	LB	73	LYS	O-C-N	-35.21	66.37	122.70
34	L3	54	A	P-O3'-C3'	35.16	161.89	119.70
80	LC	120	LYS	O-C-N	-35.12	66.52	122.70
80	LC	349	GLN	O-C-N	-35.08	66.58	122.70
81	LD	20	THR	O-C-N	-35.08	66.57	122.70
80	LC	1	MET	O-C-N	-35.08	66.58	122.70
45	LQ	235	GLY	O-C-N	-35.06	66.60	122.70
4	SD	131	PHE	O-C-N	-34.81	64.03	123.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	SH	82	GLY	O-C-N	-34.77	67.07	122.70
48	LV	170	LYS	O-C-N	-34.75	67.10	122.70
72	Lk	95	SER	O-C-N	-34.74	67.12	122.70
82	LK	11	ARG	O-C-N	-34.73	67.13	122.70
81	LD	90	ARG	O-C-N	-34.70	67.18	122.70
40	LH	87	ASN	O-C-N	-34.58	67.38	122.70
12	SO	80	LEU	O-C-N	-34.53	67.45	122.70
77	Lc	5	LYS	O-C-N	-34.53	67.45	122.70
5	SE	28	GLY	O-C-N	-34.52	64.51	123.20
45	LQ	249	ALA	O-C-N	-34.50	67.50	122.70
80	LC	372	GLY	CA-C-O	-34.45	58.58	120.60
80	LC	292	GLY	CA-C-O	-34.44	58.60	120.60
3	SB	210	ILE	O-C-N	-34.38	67.69	122.70
81	LD	23	SER	O-C-N	-34.29	67.84	122.70
32	S1	647	G	P-O3'-C3'	34.24	160.79	119.70
81	LD	18	MET	O-C-N	-34.22	67.95	122.70
2	SA	204	ASP	O-C-N	-34.18	68.01	122.70
81	LD	328	ALA	O-C-N	-34.17	68.02	122.70
33	L1	2487	A	O4'-C1'-N9	34.06	135.45	108.20
32	S1	1239	C	O4'-C1'-N1	34.04	135.44	108.20
13	SQ	82	MET	O-C-N	-34.00	68.29	122.70
67	LS	150	LYS	O-C-N	-33.92	68.43	122.70
5	SE	101	ALA	O-C-N	-33.89	65.59	123.20
23	SU	82	TYR	CA-C-O	-33.88	48.95	120.10
60	Lr	101	GLY	O-C-N	-33.86	68.52	122.70
84	LI	116	ARG	O-C-N	-33.84	65.67	123.20
33	L1	607	U	O4'-C1'-N1	33.82	135.25	108.20
50	LZ	53	TRP	O-C-N	-33.80	68.61	122.70
73	Lp	52	LYS	O-C-N	-33.70	68.79	122.70
33	L1	1672	G	O4'-C1'-N9	33.62	135.09	108.20
80	LC	350	THR	O-C-N	-33.50	69.09	122.70
45	LQ	235	GLY	CA-C-O	-33.50	60.30	120.60
5	SE	28	GLY	CA-C-O	-33.46	60.38	120.60
43	LO	127	LYS	O-C-N	-33.32	69.38	122.70
33	L1	499	A	P-O5'-C5'	33.18	173.99	120.90
64	LG	49	LYS	O-C-N	-33.14	69.67	122.70
81	LD	84	PRO	O-C-N	-33.08	66.96	123.20
33	L1	1766	U	P-O3'-C3'	33.07	159.39	119.70
33	L1	3234	G	O4'-C1'-N9	33.02	134.62	108.20
33	L1	3322	A	O4'-C1'-N9	32.96	134.57	108.20
80	LC	372	GLY	O-C-N	-32.93	70.01	122.70
78	Le	83	ALA	O-C-N	-32.78	70.25	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	LD	94	GLY	CA-C-O	-32.76	61.64	120.60
33	L1	3375	G	P-O3'-C3'	32.75	159.00	119.70
66	LN	89	TRP	O-C-N	-32.70	67.61	123.20
80	LC	291	SER	O-C-N	-32.63	67.72	123.20
12	SO	67	THR	O-C-N	-32.62	67.75	123.20
33	L1	1083	C	O4'-C1'-N1	32.56	134.25	108.20
32	S1	1541	C	P-O3'-C3'	32.56	158.77	119.70
80	LC	385	GLY	CA-C-O	-32.49	62.12	120.60
15	SS	98	SER	O-C-N	-32.32	70.98	122.70
64	LG	171	LYS	O-C-N	-32.25	71.10	122.70
32	S1	1443	U	P-O3'-C3'	32.08	158.19	119.70
77	Lc	98	PRO	O-C-N	-32.03	71.45	122.70
45	LQ	16	TYR	O-C-N	-31.82	71.78	122.70
60	Lr	89	LYS	O-C-N	-31.62	72.10	122.70
33	L1	3317	G	O4'-C1'-N9	31.57	133.46	108.20
32	S1	174	C	P-O3'-C3'	31.48	157.48	119.70
33	L1	2973	A	O4'-C1'-N9	31.47	133.37	108.20
64	LG	185	ASP	CA-C-O	-31.46	54.04	120.10
32	S1	1616	U	P-O3'-C3'	31.32	157.28	119.70
46	LT	71	GLN	O-C-N	-31.30	72.63	122.70
33	L1	570	G	P-O3'-C3'	31.16	157.09	119.70
33	L1	1577	A	O4'-C1'-N9	31.06	133.05	108.20
33	L1	2362	A	O4'-C1'-N9	31.00	133.00	108.20
56	Lh	13	LYS	O-C-N	-30.97	73.15	122.70
14	SP	41	LEU	O-C-N	-30.96	70.57	123.20
27	SH	82	GLY	CA-C-O	-30.78	65.19	120.60
32	S1	2	A	O4'-C1'-N9	30.77	132.81	108.20
11	SM	89	ASP	O-C-N	-30.71	73.57	122.70
32	S1	1404	U	O4'-C1'-N1	30.66	132.73	108.20
32	S1	376	G	N9-C1'-C2'	30.62	153.81	114.00
33	L1	1458	U	O4'-C1'-N1	30.53	132.62	108.20
33	L1	2508	U	O4'-C1'-N1	30.49	132.59	108.20
33	L1	1383	G	O4'-C1'-N9	30.49	132.59	108.20
48	LV	69	ARG	O-C-N	-30.38	74.09	122.70
4	SD	240	LYS	CA-C-O	-30.29	56.50	120.10
32	S1	404	A	O4'-C1'-N9	30.20	132.36	108.20
11	SM	97	GLN	CA-C-O	-30.16	56.77	120.10
32	S1	1766	A	O4'-C1'-N9	30.12	132.29	108.20
78	Le	83	ALA	CA-C-O	-30.12	56.86	120.10
45	LQ	112	THR	O-C-N	-30.07	74.58	122.70
33	L1	722	C	P-O3'-C3'	29.99	155.69	119.70
33	L1	1742	G	P-O5'-C5'	29.92	168.77	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	LQ	290	SER	CA-C-O	-29.91	57.29	120.10
5	SE	101	ALA	CA-C-O	-29.91	57.29	120.10
9	SK	93	HIS	O-C-N	-29.88	74.89	122.70
37	LB	196	TRP	O-C-N	-29.88	64.33	121.10
35	L2	98	C	O4'-C1'-N1	-29.87	84.31	108.20
80	LC	17	LEU	O-C-N	-29.84	64.41	121.10
33	L1	2226	C	O4'-C1'-N1	29.79	132.03	108.20
46	LT	71	GLN	CA-C-O	-29.51	58.13	120.10
72	Lk	66	VAL	O-C-N	-29.45	73.14	123.20
33	L1	3336	A	P-O3'-C3'	29.39	154.97	119.70
32	S1	633	U	O4'-C1'-C2'	-29.38	76.42	105.80
72	Lk	93	MET	CA-C-O	-29.31	58.55	120.10
43	LO	127	LYS	CA-C-O	-29.29	58.60	120.10
33	L1	3227	U	C3'-C2'-C1'	29.19	124.85	101.50
45	LQ	249	ALA	CA-C-O	-29.11	58.96	120.10
33	L1	2502	U	O4'-C1'-N1	29.11	131.49	108.20
33	L1	1616	G	O4'-C1'-N9	29.07	131.46	108.20
66	LN	64	ARG	NH1-CZ-NH2	29.03	151.34	119.40
10	SL	84	VAL	CA-C-O	-29.02	59.17	120.10
81	LD	328	ALA	CA-C-O	-28.99	59.23	120.10
35	L2	158	G	O4'-C1'-N9	28.97	131.38	108.20
33	L1	1496	G	O4'-C1'-N9	28.96	131.37	108.20
56	Lh	13	LYS	CA-C-O	-28.93	59.34	120.10
67	LS	150	LYS	CA-C-O	-28.93	59.36	120.10
33	L1	789	A	P-O3'-C3'	28.92	154.40	119.70
32	S1	1740	G	O4'-C1'-N9	28.87	131.29	108.20
15	SS	98	SER	CA-C-O	-28.86	59.50	120.10
33	L1	2450	G	O4'-C1'-N9	28.78	131.23	108.20
80	LC	357	GLU	O-C-N	-28.78	76.65	122.70
14	SP	41	LEU	CA-C-O	-28.76	59.70	120.10
33	L1	2640	A	O4'-C1'-N9	28.76	131.21	108.20
72	Lk	66	VAL	CA-C-O	-28.74	59.75	120.10
32	S1	1225	A	P-O3'-C3'	28.73	154.17	119.70
81	LD	18	MET	CA-C-O	-28.66	59.91	120.10
45	LQ	112	THR	CA-C-O	-28.64	59.96	120.10
81	LD	329	ALA	CA-C-O	-28.53	60.19	120.10
4	SD	131	PHE	CA-C-O	-28.49	60.26	120.10
33	L1	384	A	N9-C1'-C2'	28.48	151.02	114.00
33	L1	1211	G	O4'-C1'-N9	28.47	130.97	108.20
32	S1	652	G	P-O3'-C3'	28.43	153.82	119.70
71	Lj	12	TYR	CA-C-O	-28.43	60.40	120.10
48	LV	170	LYS	CA-C-O	-28.41	60.44	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	LD	95	ALA	CA-C-O	-28.33	60.61	120.10
2	SA	204	ASP	CA-C-O	-28.29	60.68	120.10
77	Lc	5	LYS	CA-C-O	-28.27	60.72	120.10
81	LD	90	ARG	CA-C-O	-28.24	60.80	120.10
25	SC	143	VAL	CA-C-O	-28.22	60.84	120.10
32	S1	1278	C	O4'-C1'-N1	28.22	130.77	108.20
33	L1	62	A	P-O3'-C3'	28.22	153.56	119.70
33	L1	2135	U	O4'-C1'-N1	-28.21	85.63	108.20
43	LO	40	HIS	CA-C-O	-28.14	61.01	120.10
45	LQ	137	ASP	CA-C-O	-28.11	61.06	120.10
33	L1	887	A	O4'-C1'-N9	28.11	130.69	108.20
66	LN	89	TRP	CA-C-O	-28.09	61.12	120.10
80	LC	352	ARG	CA-C-O	-28.09	61.12	120.10
51	LY	9	SER	CA-C-O	-28.07	61.14	120.10
60	Lr	89	LYS	CA-C-O	-28.04	61.21	120.10
32	S1	1203	G	O4'-C1'-N9	28.02	130.61	108.20
45	LQ	124	VAL	CA-C-O	-27.93	61.46	120.10
80	LC	130	PHE	CA-C-O	-27.93	61.45	120.10
12	SO	80	LEU	CA-C-O	-27.87	61.57	120.10
33	L1	996	A	C1'-O4'-C4'	-27.83	87.64	109.90
15	SS	92	PRO	O-C-N	-27.82	68.24	121.10
37	LB	196	TRP	CA-C-O	-27.81	61.70	120.10
32	S1	303	A	O3'-P-O5'	27.80	156.81	104.00
45	LQ	238	SER	CA-C-O	-27.80	61.73	120.10
37	LB	73	LYS	CA-C-O	-27.78	61.75	120.10
64	LG	184	ILE	CA-C-O	-27.69	61.95	120.10
59	Lo	30	ARG	CA-C-O	-27.69	61.96	120.10
32	S1	663	C	P-O3'-C3'	27.60	152.82	119.70
33	L1	1265	G	O4'-C1'-N9	27.58	130.26	108.20
10	SL	84	VAL	O-C-N	-27.52	68.80	121.10
25	SC	44	LEU	CA-C-O	-27.51	62.33	120.10
80	LC	295	SER	CA-C-O	-27.50	62.36	120.10
81	LD	304	GLN	CA-C-O	-27.48	62.39	120.10
23	SU	7	ALA	O-C-N	-27.39	69.06	121.10
33	L1	2730	A	O4'-C1'-N9	27.37	130.10	108.20
33	L1	2361	C	O4'-C1'-N1	27.31	130.05	108.20
81	LD	23	SER	CA-C-O	-27.30	62.76	120.10
80	LC	120	LYS	CA-C-O	-27.27	62.84	120.10
32	S1	1571	G	P-O3'-C3'	27.24	152.39	119.70
58	Ln	47	VAL	CA-C-O	-27.24	62.90	120.10
81	LD	20	THR	CA-C-O	-27.12	63.15	120.10
35	L2	98	C	C3'-C2'-C1'	27.11	123.19	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	LK	11	ARG	CA-C-O	-27.07	63.24	120.10
31	S2	74	C	P-O3'-C3'	27.07	152.18	119.70
70	Li	107	LEU	O-C-N	-27.06	79.40	122.70
32	S1	1614	C	P-O3'-C3'	27.05	152.16	119.70
48	LV	69	ARG	CA-C-O	-27.03	63.34	120.10
32	S1	533	C	P-O3'-C3'	26.96	152.06	119.70
61	Lq	23	ARG	CA-C-O	-26.93	63.54	120.10
80	LC	350	THR	CA-C-O	-26.86	63.70	120.10
5	SE	90	MET	CA-C-O	-26.84	63.74	120.10
72	Lk	95	SER	CA-C-O	-26.78	63.86	120.10
33	L1	722	C	O4'-C1'-N1	26.77	129.62	108.20
32	S1	261	C	P-O3'-C3'	26.75	151.80	119.70
33	L1	2622	G	P-O3'-C3'	26.72	151.76	119.70
68	LW	28	SER	O-C-N	-26.70	79.98	122.70
80	LC	1	MET	CA-C-O	-26.70	64.04	120.10
33	L1	1549	A	O4'-C1'-N9	-26.69	86.84	108.20
32	S1	151	A	P-O3'-C3'	26.69	151.72	119.70
64	LG	171	LYS	CA-C-O	-26.64	64.16	120.10
78	Le	204	LEU	CA-C-O	-26.63	64.18	120.10
33	L1	998	G	O4'-C1'-N9	26.57	129.45	108.20
33	L1	1394	C	N1-C1'-C2'	26.56	148.52	114.00
8	SJ	126	SER	CA-C-O	-26.49	64.48	120.10
12	SO	67	THR	CA-C-O	-26.46	64.53	120.10
33	L1	1265	G	N9-C1'-C2'	-26.46	79.60	114.00
33	L1	1254	A	O4'-C1'-N9	26.43	129.35	108.20
32	S1	861	A	O4'-C1'-N9	26.42	129.34	108.20
40	LH	233	VAL	CA-C-O	-26.42	64.61	120.10
33	L1	729	G	O4'-C1'-N9	26.39	129.31	108.20
64	LG	49	LYS	CA-C-O	-26.37	64.72	120.10
40	LH	87	ASN	CA-C-O	-26.36	64.74	120.10
84	LI	116	ARG	CA-C-O	-26.35	64.77	120.10
35	L2	79	G	P-O3'-C3'	26.31	151.28	119.70
33	L1	1949	G	O4'-C1'-N9	26.31	129.25	108.20
33	L1	2462	G	O4'-C1'-N9	26.29	129.24	108.20
33	L1	1620	U	P-O3'-C3'	26.26	151.21	119.70
33	L1	2203	A	P-O3'-C3'	26.18	151.11	119.70
68	LW	28	SER	CA-C-O	-26.15	65.18	120.10
25	SC	171	PRO	N-CD-CG	-26.12	64.02	103.20
80	LC	291	SER	CA-C-O	-26.09	65.32	120.10
70	Li	107	LEU	CA-C-O	-26.08	65.32	120.10
45	LQ	16	TYR	CA-C-O	-26.08	65.34	120.10
39	LF	2	LYS	CA-C-O	-26.07	65.35	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	SC	33	VAL	O-C-N	-26.04	78.93	123.20
80	LC	349	GLN	CA-C-O	-25.97	65.56	120.10
31	S2	72	G	O4'-C1'-N9	25.96	128.97	108.20
33	L1	1691	U	N1-C1'-C2'	-25.95	80.27	114.00
48	LV	36	ILE	CA-C-O	-25.88	65.74	120.10
32	S1	1538	C	P-O3'-C3'	25.88	150.76	119.70
13	SQ	26	LEU	CA-C-O	-25.87	65.77	120.10
5	SE	30	ARG	NE-CZ-NH1	25.82	133.21	120.30
33	L1	716	A	O4'-C1'-C2'	-25.80	80.00	105.80
49	LX	33	SER	O-C-N	-25.78	81.45	122.70
80	LC	17	LEU	CA-C-O	-25.78	65.96	120.10
25	SC	136	ILE	CA-C-O	-25.76	66.01	120.10
42	LP	74	PRO	CA-C-O	-25.70	58.51	120.20
33	L1	3227	U	O4'-C1'-N1	-25.68	87.65	108.20
33	L1	2247	A	C1'-O4'-C4'	25.67	130.44	109.90
32	S1	376	G	O4'-C1'-C2'	-25.67	80.13	105.80
47	LU	138	GLY	O-C-N	-25.66	81.64	122.70
50	LZ	53	TRP	CA-C-O	-25.64	66.25	120.10
64	LG	79	THR	CA-C-O	-25.63	66.28	120.10
32	S1	1183	G	P-O3'-C3'	25.61	150.43	119.70
45	LQ	237	GLU	CA-C-O	-25.59	66.36	120.10
32	S1	1443	U	O5'-P-OP2	-25.56	80.03	110.70
33	L1	711	A	O4'-C1'-N9	25.54	128.63	108.20
33	L1	2572	U	O4'-C1'-N1	25.46	128.56	108.20
32	S1	373	U	O4'-C1'-N1	25.40	128.52	108.20
32	S1	1759	A	O4'-C1'-C2'	-25.40	80.40	105.80
40	LH	97	PRO	O-C-N	-25.34	82.15	122.70
78	Le	162	ARG	O-C-N	-25.29	82.23	122.70
33	L1	968	A	O4'-C1'-N9	25.26	128.41	108.20
35	L2	97	U	O4'-C1'-N1	25.24	128.40	108.20
33	L1	3216	G	O4'-C1'-N9	25.23	128.38	108.20
32	S1	964	U	P-O3'-C3'	25.17	149.90	119.70
3	SB	210	ILE	CA-C-O	-25.16	67.27	120.10
47	LU	126	ILE	CA-C-O	-25.12	67.35	120.10
68	LW	104	VAL	O-C-N	-25.05	82.62	122.70
33	L1	785	U	P-O3'-C3'	25.03	149.74	119.70
20	SZ	44	PHE	CA-C-O	-24.98	67.64	120.10
33	L1	695	G	O4'-C1'-N9	24.96	128.17	108.20
77	Lc	98	PRO	CA-C-O	-24.91	60.41	120.20
9	SK	84	CYS	CA-CB-SG	24.88	158.78	114.00
33	L1	2621	G	O4'-C1'-N9	24.88	128.10	108.20
11	SM	89	ASP	CA-C-O	-24.82	67.98	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	SS	93	PRO	CA-C-O	-24.78	60.72	120.20
33	L1	2247	A	O4'-C1'-C2'	-24.76	81.04	105.80
25	SC	106	PHE	CB-CG-CD1	24.76	138.13	120.80
60	Lr	32	LYS	CA-C-O	-24.68	68.28	120.10
33	L1	2643	A	O4'-C1'-N9	24.65	127.92	108.20
42	LP	12	ARG	NE-CZ-NH1	24.62	132.61	120.30
81	LD	84	PRO	CA-C-O	-24.61	61.15	120.20
35	L2	48	A	P-O3'-C3'	24.52	149.12	119.70
64	LG	44	ALA	CA-C-O	-24.47	68.71	120.10
33	L1	2723	G	P-O3'-C3'	24.47	149.06	119.70
33	L1	1549	A	C3'-C2'-C1'	24.46	121.07	101.50
25	SC	106	PHE	CB-CG-CD2	-24.46	103.68	120.80
32	S1	1479	U	O4'-C1'-N1	24.43	127.75	108.20
32	S1	934	A	O4'-C1'-N9	24.42	127.73	108.20
32	S1	1587	G	P-O3'-C3'	24.39	148.97	119.70
43	LO	137	GLY	CA-C-O	-24.39	76.70	120.60
33	L1	3354	A	O4'-C1'-N9	24.39	127.71	108.20
32	S1	630	U	O4'-C1'-N1	24.34	127.67	108.20
33	L1	2669	C	P-O3'-C3'	24.34	148.91	119.70
33	L1	227	C	N1-C1'-C2'	24.32	145.62	114.00
33	L1	1888	G	O4'-C1'-N9	24.32	127.66	108.20
33	L1	1272	G	P-O3'-C3'	24.32	148.88	119.70
33	L1	1192	A	O4'-C1'-N9	24.31	127.65	108.20
13	SQ	73	LEU	O-C-N	-24.31	83.81	122.70
66	LN	113	ALA	N-CA-CB	-24.30	76.07	110.10
3	SB	212	PRO	O-C-N	-24.20	75.11	121.10
33	L1	1746	G	C3'-C2'-C1'	-24.16	82.17	101.50
33	L1	21	G	O4'-C1'-N9	24.10	127.48	108.20
32	S1	653	U	O4'-C1'-N1	24.09	127.47	108.20
25	SC	162	LEU	CB-CG-CD1	-24.06	70.10	111.00
33	L1	3296	C	O4'-C1'-N1	24.05	127.44	108.20
33	L1	2630	A	O4'-C1'-N9	24.05	127.44	108.20
32	S1	231	U	O4'-C1'-N1	23.98	127.39	108.20
33	L1	1526	A	O4'-C1'-N9	23.98	127.39	108.20
33	L1	1621	G	O4'-C1'-N9	23.95	127.36	108.20
33	L1	1675	G	O4'-C1'-N9	23.91	127.33	108.20
33	L1	239	C	O4'-C1'-N1	23.87	127.30	108.20
33	L1	2399	G	P-O3'-C3'	23.87	148.35	119.70
33	L1	1616	G	C3'-C2'-C1'	-23.82	82.45	101.50
23	SU	33	LEU	O-C-N	-23.81	84.60	122.70
33	L1	2793	G	O4'-C1'-C2'	23.81	129.61	105.80
32	S1	1543	U	O4'-C1'-N1	23.79	127.23	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	716	A	C1'-O4'-C4'	23.76	128.91	109.90
33	L1	1320	G	O4'-C1'-N9	23.76	127.21	108.20
33	L1	2748	G	O4'-C1'-N9	23.75	127.20	108.20
33	L1	2829	U	O4'-C1'-N1	23.74	127.19	108.20
33	L1	1911	A	O4'-C1'-N9	23.68	127.15	108.20
32	S1	303	A	P-O3'-C3'	-23.62	91.36	119.70
32	S1	1169	G	O4'-C1'-N9	23.60	127.08	108.20
32	S1	1443	U	O5'-P-OP1	23.59	139.01	110.70
33	L1	641	C	O4'-C1'-N1	23.56	127.05	108.20
33	L1	723	G	O4'-C1'-N9	23.53	127.02	108.20
32	S1	1765	A	O4'-C1'-N9	23.52	127.01	108.20
32	S1	3	C	C3'-C2'-C1'	23.45	120.26	101.50
33	L1	1486	G	O4'-C1'-N9	23.44	126.95	108.20
33	L1	996	A	C3'-C2'-C1'	-23.42	82.76	101.50
33	L1	2810	A	O4'-C1'-N9	23.35	126.88	108.20
35	L2	97	U	C1'-O4'-C4'	23.35	128.58	109.90
43	LO	137	GLY	O-C-N	-23.32	83.56	123.20
33	L1	3143	A	N9-C1'-C2'	23.31	144.30	114.00
33	L1	3137	G	O4'-C1'-N9	23.31	126.85	108.20
35	L2	94	C	O4'-C1'-N1	23.28	126.82	108.20
83	Lm	7	LYS	O-C-N	-23.27	85.47	122.70
33	L1	641	C	O4'-C1'-C2'	-23.25	82.55	105.80
4	SD	240	LYS	O-C-N	-23.21	83.75	123.20
33	L1	1628	G	O4'-C1'-N9	-23.18	89.65	108.20
33	L1	470	G	O4'-C1'-N9	23.18	126.75	108.20
33	L1	3137	G	P-O3'-C3'	23.14	147.47	119.70
8	SJ	78	PRO	CA-C-O	-23.06	64.86	120.20
45	LQ	116	LEU	O-C-N	-23.04	85.83	122.70
33	L1	2793	G	C1'-O4'-C4'	-23.04	91.47	109.90
33	L1	2668	U	O4'-C1'-N1	23.00	126.60	108.20
33	L1	1742	G	O4'-C1'-N9	22.97	126.58	108.20
4	SD	132	GLY	CA-C-O	-22.94	79.31	120.60
25	SC	44	LEU	O-C-N	-22.91	86.05	122.70
32	S1	1589	C	O5'-P-OP2	22.90	138.18	110.70
33	L1	1748	A	P-O3'-C3'	22.87	147.15	119.70
32	S1	1473	C	P-O5'-C5'	22.84	157.44	120.90
33	L1	3320	G	O4'-C1'-C2'	-22.84	82.97	105.80
35	L2	57	A	C3'-C2'-C1'	22.81	119.75	101.50
33	L1	69	U	N1-C1'-C2'	22.77	143.60	114.00
32	S1	93	A	O4'-C1'-N9	22.75	126.40	108.20
4	SD	150	PRO	O-C-N	-22.69	86.40	122.70
33	L1	1265	G	C1'-O4'-C4'	22.66	128.03	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	280	G	O4'-C1'-N9	22.64	126.31	108.20
33	L1	2203	A	O4'-C1'-C2'	-22.56	83.24	105.80
33	L1	2076	C	O4'-C1'-N1	22.52	126.21	108.20
33	L1	2290	A	N9-C1'-C2'	22.48	143.23	114.00
34	L3	48	G	O4'-C1'-N9	22.47	126.18	108.20
33	L1	1691	U	O4'-C1'-N1	22.45	126.16	108.20
33	L1	2594	A	P-O3'-C3'	22.36	146.53	119.70
33	L1	3234	G	N9-C1'-C2'	-22.36	84.94	114.00
33	L1	488	U	P-O3'-C3'	22.34	146.50	119.70
2	SA	40	ARG	NE-CZ-NH1	22.32	131.46	120.30
32	S1	1608	A	O4'-C1'-N9	22.28	126.02	108.20
33	L1	936	A	O4'-C1'-N9	22.25	126.00	108.20
4	SD	153	ILE	CA-C-O	-22.23	73.42	120.10
38	LE	34	ARG	NE-CZ-NH1	22.21	131.40	120.30
33	L1	1602	A	O4'-C1'-N9	22.17	125.94	108.20
33	L1	2376	G	O4'-C1'-N9	22.16	125.93	108.20
5	SE	30	ARG	NH1-CZ-NH2	22.10	143.71	119.40
33	L1	2436	G	O4'-C1'-N9	22.09	125.87	108.20
71	Lj	86	ARG	NE-CZ-NH1	22.07	131.33	120.30
33	L1	640	C	N1-C1'-C2'	22.06	142.68	114.00
80	LC	357	GLU	CA-C-O	-22.05	73.79	120.10
33	L1	997	G	O4'-C1'-N9	22.02	125.81	108.20
33	L1	1649	G	O4'-C1'-N9	21.95	125.76	108.20
35	L2	99	G	O4'-C1'-N9	21.88	125.70	108.20
33	L1	1455	A	P-O3'-C3'	21.87	145.95	119.70
34	L3	48	G	P-O3'-C3'	21.87	145.94	119.70
71	Lj	24	LYS	CA-C-O	-21.87	74.18	120.10
33	L1	1867	U	O4'-C1'-N1	21.82	125.66	108.20
33	L1	2203	A	N9-C1'-C2'	-21.75	85.72	114.00
57	L1	11	ARG	O-C-N	-21.69	87.99	122.70
33	L1	3334	A	C3'-C2'-C1'	21.65	118.82	101.50
33	L1	309	C	O5'-C5'-C4'	21.64	152.82	111.70
11	SM	126	TYR	CD1-CE1-CZ	-21.62	100.34	119.80
33	L1	70	A	N9-C1'-C2'	21.62	142.10	114.00
32	S1	544	G	P-O3'-C3'	21.57	145.58	119.70
33	L1	434	C	P-O3'-C3'	21.55	145.56	119.70
33	L1	1948	G	O4'-C1'-N9	21.55	125.44	108.20
32	S1	1803	G	O4'-C1'-N9	21.54	125.43	108.20
33	L1	3087	A	P-O3'-C3'	21.50	145.50	119.70
33	L1	691	U	O4'-C1'-N1	21.47	125.37	108.20
33	L1	716	A	N9-C1'-C2'	-21.46	86.10	114.00
33	L1	2108	C	P-O3'-C3'	21.45	145.44	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2808	U	C1'-O4'-C4'	-21.45	92.74	109.90
33	L1	1576	C	P-O3'-C3'	21.44	145.42	119.70
32	S1	1422	G	P-O3'-C3'	21.43	145.42	119.70
33	L1	640	C	C3'-C2'-C1'	21.43	118.64	101.50
33	L1	2627	G	P-O3'-C3'	21.40	145.38	119.70
3	SB	212	PRO	CA-C-O	-21.38	68.88	120.20
33	L1	2274	A	N9-C1'-C2'	21.38	141.80	114.00
32	S1	633	U	N1-C1'-C2'	-21.38	86.21	114.00
35	L2	93	A	P-O3'-C3'	21.38	145.35	119.70
32	S1	669	A	O5'-P-OP2	21.34	136.31	110.70
15	SS	92	PRO	CA-C-O	-21.31	69.06	120.20
33	L1	1198	G	O4'-C1'-N9	21.28	125.22	108.20
32	S1	1070	A	O4'-C1'-N9	21.26	125.21	108.20
33	L1	803	G	O4'-C1'-N9	21.21	125.17	108.20
32	S1	170	C	P-O3'-C3'	21.20	145.15	119.70
33	L1	690	G	O4'-C1'-N9	21.18	125.15	108.20
34	L3	40	A	O4'-C1'-N9	21.18	125.14	108.20
33	L1	2480	G	O4'-C1'-N9	21.17	125.13	108.20
32	S1	1279	A	P-O5'-C5'	21.15	154.74	120.90
33	L1	1699	C	P-O3'-C3'	21.15	145.08	119.70
32	S1	1459	G	O4'-C1'-N9	21.13	125.10	108.20
33	L1	484	C	O4'-C1'-N1	21.13	125.10	108.20
32	S1	1225	A	N9-C1'-C2'	-21.12	86.55	114.00
33	L1	1347	U	P-O3'-C3'	21.12	145.04	119.70
44	LR	97	ALA	CA-C-O	-21.12	75.75	120.10
33	L1	1701	G	P-O3'-C3'	21.11	145.03	119.70
66	LN	64	ARG	CD-NE-CZ	-21.09	94.08	123.60
34	L3	2	G	P-O3'-C3'	21.09	145.00	119.70
33	L1	2802	G	C3'-C2'-C1'	21.07	118.36	101.50
33	L1	2503	A	P-O3'-C3'	21.02	144.93	119.70
33	L1	1101	A	P-O3'-C3'	20.98	144.87	119.70
33	L1	1394	C	O4'-C1'-N1	-20.97	91.43	108.20
33	L1	2629	C	N1-C1'-C2'	20.96	141.25	114.00
33	L1	1679	U	C1'-O4'-C4'	20.96	126.67	109.90
33	L1	2252	C	O4'-C1'-N1	20.93	124.95	108.20
33	L1	2973	A	P-O3'-C3'	20.93	144.81	119.70
33	L1	3337	G	O4'-C1'-N9	20.92	124.93	108.20
33	L1	1263	A	O4'-C1'-N9	20.90	124.92	108.20
33	L1	2474	A	O4'-C1'-N9	20.89	124.92	108.20
32	S1	1688	G	O4'-C1'-N9	20.87	124.90	108.20
32	S1	477	A	P-O3'-C3'	20.87	144.74	119.70
35	L2	43	G	O4'-C1'-N9	-20.84	91.53	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	54	C	O4'-C1'-N1	20.83	124.86	108.20
33	L1	73	A	O4'-C1'-N9	20.82	124.86	108.20
32	S1	372	U	P-O3'-C3'	20.82	144.68	119.70
31	S2	73	C	P-O3'-C3'	20.80	144.66	119.70
40	LH	78	ARG	NE-CZ-NH1	20.77	130.69	120.30
33	L1	691	U	P-O3'-C3'	20.74	144.59	119.70
32	S1	1580	G	O4'-C1'-N9	20.74	124.79	108.20
33	L1	1067	G	P-O3'-C3'	20.74	144.59	119.70
33	L1	2204	U	P-O3'-C3'	20.74	144.59	119.70
33	L1	1350	G	O4'-C1'-N9	20.73	124.78	108.20
71	Lj	24	LYS	O-C-N	-20.73	89.53	122.70
32	S1	1606	U	P-O3'-C3'	20.71	144.56	119.70
34	L3	58	G	O4'-C1'-N9	20.71	124.77	108.20
33	L1	2881	C	N1-C1'-C2'	20.70	140.91	114.00
33	L1	3021	U	O4'-C1'-N1	20.68	124.74	108.20
33	L1	3326	U	O4'-C1'-N1	20.66	124.73	108.20
35	L2	44	A	N9-C1'-C2'	20.66	140.85	114.00
32	S1	1132	G	P-O3'-C3'	20.64	144.47	119.70
33	L1	1576	C	C3'-C2'-C1'	20.63	118.01	101.50
33	L1	167	C	N1-C1'-C2'	20.61	140.80	114.00
35	L2	43	G	C3'-C2'-C1'	20.58	117.96	101.50
33	L1	2100	A	P-O3'-C3'	20.56	144.37	119.70
33	L1	3317	G	P-O3'-C3'	20.56	144.37	119.70
33	L1	1374	G	O4'-C1'-N9	20.53	124.62	108.20
32	S1	1289	U	P-O3'-C3'	20.53	144.33	119.70
35	L2	97	U	N1-C1'-C2'	-20.53	87.32	114.00
32	S1	1615	G	O4'-C1'-N9	20.51	124.61	108.20
33	L1	513	C	P-O3'-C3'	20.47	144.27	119.70
33	L1	2513	U	O4'-C1'-N1	20.47	124.57	108.20
33	L1	2465	G	O4'-C1'-N9	20.46	124.57	108.20
33	L1	55	G	O4'-C1'-N9	20.45	124.56	108.20
33	L1	803	G	N9-C1'-C2'	-20.45	87.42	114.00
33	L1	707	G	N9-C1'-C2'	20.42	140.55	114.00
48	LV	166	ILE	CA-C-O	-20.40	77.25	120.10
33	L1	2105	G	O4'-C1'-N9	20.38	124.50	108.20
33	L1	2640	A	N9-C1'-C2'	-20.35	87.55	114.00
33	L1	2668	U	N1-C1'-C2'	-20.31	87.60	114.00
3	SB	81	GLU	O-C-N	-20.30	90.21	122.70
32	S1	576	C	N1-C1'-C2'	20.29	140.38	114.00
33	L1	3092	A	O4'-C1'-N9	-20.27	91.98	108.20
32	S1	1355	U	O4'-C1'-N1	20.25	124.40	108.20
33	L1	440	U	P-O3'-C3'	20.24	143.99	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1880	A	C5'-C4'-O4'	-20.19	84.87	109.10
33	L1	2059	C	N1-C1'-C2'	20.19	140.25	114.00
9	SK	102	ASN	CB-CG-ND2	20.18	165.14	116.70
32	S1	683	C	P-O3'-C3'	20.18	143.92	119.70
33	L1	2477	G	P-O3'-C3'	20.17	143.91	119.70
47	LU	140	MET	O-C-N	-20.17	90.42	122.70
33	L1	3143	A	O4'-C1'-N9	-20.17	92.06	108.20
33	L1	296	C	P-O3'-C3'	20.16	143.89	119.70
33	L1	250	C	N1-C1'-C2'	20.15	140.20	114.00
32	S1	259	A	P-O5'-C5'	20.14	153.13	120.90
33	L1	1371	G	N9-C1'-C2'	20.14	140.19	114.00
33	L1	618	G	P-O3'-C3'	-20.13	95.55	119.70
33	L1	1691	U	C1'-O4'-C4'	20.11	125.99	109.90
4	SD	239	PRO	CA-C-O	-20.11	71.94	120.20
33	L1	1628	G	C3'-C2'-C1'	20.07	117.56	101.50
33	L1	858	U	P-O3'-C3'	19.97	143.66	119.70
33	L1	3295	G	C3'-C2'-C1'	-19.96	85.53	101.50
33	L1	1533	U	O4'-C1'-C2'	-19.96	85.84	105.80
33	L1	463	G	O4'-C1'-N9	19.95	124.16	108.20
33	L1	73	A	C5'-C4'-C3'	19.95	147.92	116.00
33	L1	1599	A	N9-C1'-C2'	19.94	139.92	114.00
33	L1	3150	G	O4'-C1'-N9	19.93	124.15	108.20
33	L1	2496	U	O4'-C1'-N1	19.91	124.12	108.20
33	L1	2984	A	O4'-C1'-N9	-19.90	92.28	108.20
33	L1	2438	A	P-O3'-C3'	19.87	143.54	119.70
33	L1	689	G	O4'-C1'-N9	19.86	124.08	108.20
33	L1	620	C	P-O3'-C3'	19.85	143.53	119.70
32	S1	916	U	O4'-C1'-N1	19.84	124.07	108.20
33	L1	308	U	N1-C1'-C2'	19.83	139.78	114.00
32	S1	859	U	O4'-C1'-N1	19.82	124.06	108.20
32	S1	1433	A	O4'-C1'-N9	19.81	124.05	108.20
33	L1	811	A	N9-C1'-C2'	19.80	139.74	114.00
33	L1	3334	A	O4'-C1'-N9	-19.78	92.37	108.20
33	L1	1318	C	N1-C1'-C2'	19.77	139.70	114.00
33	L1	2594	A	O4'-C1'-N9	19.70	123.96	108.20
33	L1	2992	G	O4'-C1'-N9	19.69	123.95	108.20
33	L1	2628	C	C3'-C2'-C1'	19.67	117.24	101.50
32	S1	1070	A	P-O3'-C3'	19.66	143.29	119.70
33	L1	1742	G	P-O3'-C3'	19.62	143.25	119.70
33	L1	3080	U	O4'-C1'-N1	19.62	123.89	108.20
35	L2	41	A	O4'-C1'-N9	-19.62	92.50	108.20
33	L1	3304	U	O4'-C1'-N1	19.61	123.89	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1103	U	O4'-C1'-N1	19.59	123.88	108.20
33	L1	1767	G	P-O3'-C3'	19.59	143.21	119.70
35	L2	53	G	N9-C1'-C2'	19.59	139.47	114.00
33	L1	1024	G	P-O3'-C3'	19.58	143.19	119.70
33	L1	998	G	P-O3'-C3'	19.57	143.19	119.70
23	SU	79	GLY	O-C-N	-19.57	91.39	122.70
33	L1	1826	G	C1'-O4'-C4'	19.53	125.52	109.90
34	L3	75	G	P-O3'-C3'	19.52	143.13	119.70
30	S3	16	G	N9-C1'-C2'	-19.49	88.66	114.00
33	L1	1746	G	O4'-C1'-C2'	19.48	125.28	105.80
33	L1	1045	U	P-O3'-C3'	19.48	143.08	119.70
61	Lq	15	ARG	NE-CZ-NH2	-19.48	110.56	120.30
32	S1	632	G	O4'-C1'-N9	19.45	123.76	108.20
33	L1	3327	A	N9-C1'-C2'	19.44	139.27	114.00
32	S1	1556	U	P-O3'-C3'	19.43	143.02	119.70
33	L1	2318	U	C1'-O4'-C4'	19.43	125.44	109.90
40	LH	66	ARG	NE-CZ-NH2	19.42	130.01	120.30
72	Lk	59	ARG	NE-CZ-NH1	-19.42	110.59	120.30
33	L1	62	A	C3'-C2'-C1'	-19.40	85.98	101.50
33	L1	1619	G	P-O3'-C3'	19.39	142.97	119.70
33	L1	2460	A	O4'-C1'-C2'	19.38	125.18	105.80
32	S1	123	U	O4'-C1'-N1	19.38	123.70	108.20
13	SQ	82	MET	CA-C-O	-19.38	79.41	120.10
32	S1	98	C	P-O3'-C3'	19.37	142.94	119.70
32	S1	114	U	O4'-C1'-N1	19.36	123.69	108.20
33	L1	1281	C	O4'-C1'-N1	19.36	123.69	108.20
33	L1	234	G	C1'-O4'-C4'	-19.35	94.42	109.90
35	L2	93	A	N9-C1'-C2'	19.34	139.14	114.00
33	L1	1531	G	O4'-C1'-N9	19.33	123.66	108.20
35	L2	98	C	O4'-C1'-C2'	-19.33	86.47	105.80
32	S1	1589	C	P-O3'-C3'	19.31	142.87	119.70
33	L1	1589	G	O4'-C1'-N9	19.24	123.59	108.20
32	S1	1364	C	P-O3'-C3'	19.23	142.78	119.70
56	Lh	67	TYR	CB-CG-CD1	19.20	132.52	121.00
33	L1	1508	C	N1-C1'-C2'	19.20	138.96	114.00
33	L1	1123	A	O4'-C1'-N9	19.20	123.56	108.20
35	L2	102	U	P-O5'-C5'	-19.20	90.19	120.90
32	S1	1744	C	P-O3'-C3'	19.19	142.73	119.70
32	S1	1795	U	P-O3'-C3'	19.18	142.72	119.70
33	L1	986	G	C1'-O4'-C4'	19.16	125.23	109.90
32	S1	949	A	O4'-C1'-N9	19.15	123.52	108.20
33	L1	3354	A	C1'-O4'-C4'	19.12	125.19	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2229	G	O4'-C1'-N9	19.11	123.49	108.20
33	L1	1907	A	O4'-C1'-N9	19.10	123.48	108.20
33	L1	1059	A	P-O5'-C5'	19.08	151.43	120.90
32	S1	1783	C	C3'-C2'-C1'	19.08	116.76	101.50
33	L1	2789	G	O4'-C1'-N9	19.06	123.45	108.20
35	L2	63	A	N9-C1'-C2'	19.06	138.78	114.00
32	S1	1474	U	P-O3'-C3'	19.06	142.57	119.70
33	L1	3109	G	O4'-C1'-N9	19.06	123.45	108.20
33	L1	3372	C	N1-C1'-C2'	19.05	138.76	114.00
33	L1	1880	A	C4'-C3'-C2'	-19.03	83.57	102.60
33	L1	2216	G	C1'-O4'-C4'	19.02	125.12	109.90
32	S1	1435	G	O4'-C1'-N9	19.02	123.42	108.20
33	L1	3071	A	O4'-C1'-N9	19.02	123.42	108.20
33	L1	1698	C	N1-C1'-C2'	19.02	138.72	114.00
33	L1	1691	U	O4'-C1'-C2'	-19.01	86.79	105.80
33	L1	2582	G	O4'-C1'-C2'	19.00	124.80	105.80
7	SI	27	TYR	CB-CG-CD2	-19.00	109.60	121.00
33	L1	803	G	C1'-O4'-C4'	19.00	125.10	109.90
33	L1	1779	C	P-O5'-C5'	18.97	151.26	120.90
33	L1	2375	G	P-O3'-C3'	18.95	142.44	119.70
33	L1	3357	C	N1-C1'-C2'	18.94	138.62	114.00
33	L1	2782	G	O4'-C1'-N9	18.91	123.33	108.20
83	Lm	4	ARG	NE-CZ-NH2	-18.87	110.86	120.30
33	L1	1270	G	C3'-C2'-C1'	-18.82	86.45	101.50
33	L1	2802	G	O4'-C1'-N9	-18.81	93.15	108.20
33	L1	1549	A	N9-C1'-C2'	18.81	138.46	114.00
34	L3	75	G	P-O5'-C5'	18.81	151.00	120.90
33	L1	487	C	P-O3'-C3'	18.80	142.26	119.70
33	L1	1257	U	O4'-C1'-N1	18.77	123.22	108.20
33	L1	1450	G	O4'-C1'-N9	-18.77	93.18	108.20
33	L1	1366	G	O4'-C1'-C2'	18.76	124.56	105.80
1	Sa	128	LEU	CB-CA-C	18.75	145.81	110.20
33	L1	3281	G	O4'-C1'-N9	18.73	123.19	108.20
32	S1	1057	U	O4'-C1'-N1	18.73	123.19	108.20
33	L1	1251	U	O4'-C1'-N1	18.73	123.19	108.20
33	L1	2771	U	O4'-C1'-N1	18.72	123.18	108.20
33	L1	20	G	O4'-C1'-N9	18.71	123.17	108.20
33	L1	986	G	N9-C1'-C2'	-18.71	89.67	114.00
33	L1	857	G	O4'-C1'-N9	18.70	123.16	108.20
19	SY	46	VAL	C-N-CA	-18.69	74.98	121.70
33	L1	2231	G	O4'-C1'-N9	18.68	123.14	108.20
33	L1	2237	A	O4'-C1'-N9	-18.67	93.26	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1566	U	O4'-C1'-C2'	-18.66	87.14	105.80
32	S1	1311	U	N1-C1'-C2'	18.66	138.26	114.00
33	L1	112	C	N1-C1'-C2'	18.66	138.26	114.00
33	L1	1395	A	P-O5'-C5'	18.65	150.73	120.90
33	L1	3319	G	O5'-P-OP1	-18.63	88.34	110.70
32	S1	933	G	O4'-C1'-N9	18.63	123.10	108.20
35	L2	39	C	P-O3'-C3'	-18.62	97.35	119.70
32	S1	140	C	P-O3'-C3'	18.61	142.04	119.70
33	L1	1620	U	O4'-C1'-N1	18.60	123.08	108.20
33	L1	1009	G	O4'-C1'-N9	18.59	123.08	108.20
74	LJ	58	ARG	NE-CZ-NH1	18.59	129.59	120.30
33	L1	1944	G	P-O3'-C3'	18.58	142.00	119.70
66	LN	99	ARG	NE-CZ-NH2	18.58	129.59	120.30
33	L1	1060	U	O4'-C1'-N1	18.57	123.06	108.20
32	S1	483	C	C3'-C2'-C1'	18.54	116.33	101.50
33	L1	1407	G	O4'-C1'-N9	18.54	123.03	108.20
33	L1	251	G	O4'-C1'-N9	18.54	123.03	108.20
67	LS	70	ASN	CA-C-O	-18.53	81.18	120.10
33	L1	1383	G	P-O3'-C3'	18.53	141.94	119.70
33	L1	262	A	O4'-C1'-C2'	-18.53	87.27	105.80
25	SC	63	THR	OG1-CB-CG2	-18.52	67.40	110.00
33	L1	2502	U	P-O3'-C3'	18.51	141.91	119.70
33	L1	3225	G	O4'-C1'-N9	18.47	122.98	108.20
13	SQ	109	LEU	O-C-N	-18.41	91.90	123.20
33	L1	1879	A	O4'-C1'-N9	18.40	122.92	108.20
33	L1	2629	C	P-O3'-C3'	-18.40	97.62	119.70
34	L3	48	G	C1'-O4'-C4'	18.40	124.62	109.90
32	S1	1740	G	C1'-O4'-C4'	18.38	124.61	109.90
32	S1	583	A	O4'-C1'-N9	18.36	122.89	108.20
35	L2	155	G	N9-C1'-C2'	18.33	137.82	114.00
32	S1	1674	C	C3'-C2'-C1'	18.32	116.16	101.50
25	SC	29	GLU	CG-CD-OE2	18.31	154.93	118.30
32	S1	1759	A	C3'-C2'-C1'	18.31	116.15	101.50
75	Lt	41	TYR	CB-CG-CD2	-18.31	110.01	121.00
32	S1	623	A	P-O3'-C3'	18.30	141.66	119.70
33	L1	2622	G	N9-C1'-C2'	18.29	137.77	114.00
33	L1	571	G	P-O3'-C3'	18.27	141.63	119.70
32	S1	435	C	P-O3'-C3'	18.22	141.56	119.70
33	L1	2518	A	C1'-O4'-C4'	-18.20	95.34	109.90
33	L1	858	U	N1-C1'-C2'	18.16	137.60	114.00
33	L1	1576	C	O4'-C1'-C2'	-18.16	87.64	105.80
33	L1	164	C	N1-C1'-C2'	18.15	137.60	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2984	A	N9-C1'-C2'	18.14	137.59	114.00
33	L1	2779	G	C1'-O4'-C4'	18.14	124.41	109.90
33	L1	3092	A	C1'-O4'-C4'	-18.13	95.40	109.90
33	L1	1921	U	O4'-C1'-N1	18.09	122.67	108.20
67	LS	28	ARG	NE-CZ-NH1	18.09	129.34	120.30
33	L1	2628	C	O4'-C1'-N1	-18.08	93.74	108.20
33	L1	1781	C	P-O3'-C3'	18.05	141.37	119.70
33	L1	3143	A	C3'-C2'-C1'	18.03	115.92	101.50
32	S1	614	G	O4'-C1'-N9	18.03	122.62	108.20
33	L1	1536	U	O4'-C1'-N1	18.03	122.62	108.20
34	L3	79	A	C1'-O4'-C4'	18.02	124.31	109.90
33	L1	1028	G	O4'-C1'-N9	18.01	122.61	108.20
40	LH	66	ARG	NE-CZ-NH1	-17.98	111.31	120.30
33	L1	874	U	O4'-C1'-N1	17.97	122.58	108.20
33	L1	1045	U	O4'-C1'-N1	17.96	122.57	108.20
33	L1	2518	A	C3'-C2'-C1'	-17.94	87.15	101.50
25	SC	33	VAL	CA-C-N	17.94	152.07	116.20
33	L1	1066	G	P-O3'-C3'	17.94	141.22	119.70
34	L3	3	A	O4'-C1'-C2'	-17.92	87.88	105.80
33	L1	1241	G	C3'-C2'-C1'	17.91	115.83	101.50
33	L1	1118	G	P-O3'-C3'	17.89	141.17	119.70
33	L1	68	U	N1-C1'-C2'	17.89	137.26	114.00
33	L1	291	C	C1'-O4'-C4'	-17.89	95.59	109.90
33	L1	2477	G	O4'-C1'-N9	17.88	122.50	108.20
33	L1	2501	U	O3'-P-O5'	-17.88	70.03	104.00
33	L1	2701	G	P-O3'-C3'	17.87	141.14	119.70
71	Lj	8	ARG	O-C-N	-17.85	94.14	122.70
45	LQ	116	LEU	CA-C-O	-17.84	82.63	120.10
32	S1	1059	U	O4'-C1'-N1	17.84	122.47	108.20
32	S1	1782	C	P-O5'-C5'	17.83	149.43	120.90
32	S1	1516	C	P-O3'-C3'	17.83	141.10	119.70
32	S1	1519	G	O4'-C1'-N9	17.82	122.46	108.20
33	L1	1772	G	O4'-C1'-N9	17.80	122.44	108.20
33	L1	2766	U	O4'-C1'-C2'	-17.80	88.00	105.80
33	L1	1826	G	N9-C1'-C2'	-17.79	90.87	114.00
32	S1	321	C	P-O3'-C3'	17.78	141.04	119.70
33	L1	996	A	N9-C1'-C2'	17.77	137.10	114.00
64	LG	184	ILE	O-C-N	-17.74	94.31	122.70
32	S1	1626	C	O4'-C1'-N1	17.74	122.39	108.20
33	L1	1746	G	C1'-O4'-C4'	-17.74	95.71	109.90
33	L1	1450	G	N9-C1'-C2'	17.74	137.06	114.00
33	L1	1486	G	P-O3'-C3'	17.72	140.96	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	636	U	O4'-C1'-C2'	-17.71	88.09	105.80
33	L1	1623	C	O5'-C5'-C4'	17.70	145.33	111.70
33	L1	1538	A	C3'-C2'-C1'	17.70	115.66	101.50
32	S1	381	G	O4'-C1'-N9	17.68	122.34	108.20
33	L1	1078	U	N1-C1'-C2'	17.64	136.93	114.00
33	L1	1568	A	O4'-C1'-N9	17.64	122.31	108.20
32	S1	476	U	P-O3'-C3'	17.63	140.85	119.70
33	L1	2518	A	N9-C1'-C2'	17.62	136.91	114.00
33	L1	1163	A	O4'-C1'-C2'	17.58	123.42	107.60
33	L1	2434	G	O4'-C1'-N9	17.56	122.25	108.20
33	L1	1057	A	O4'-C1'-N9	17.56	122.25	108.20
33	L1	3292	U	O4'-C1'-N1	17.55	122.24	108.20
33	L1	1665	G	P-O3'-C3'	17.52	140.72	119.70
33	L1	2482	A	C1'-O4'-C4'	-17.52	95.89	109.90
33	L1	2774	A	O4'-C1'-N9	17.52	122.22	108.20
33	L1	2738	U	O4'-C1'-N1	17.51	122.21	108.20
33	L1	3094	C	O4'-C1'-N1	-17.50	94.20	108.20
33	L1	3357	C	C1'-O4'-C4'	-17.50	95.90	109.90
33	L1	2596	A	P-O3'-C3'	17.50	140.69	119.70
32	S1	187	C	OP2-P-O3'	-17.49	66.72	105.20
32	S1	1227	A	O4'-C1'-N9	17.49	122.19	108.20
32	S1	1759	A	C1'-O4'-C4'	17.48	123.89	109.90
33	L1	1050	A	O4'-C1'-N9	17.48	122.18	108.20
33	L1	1384	G	C3'-C2'-C1'	-17.47	87.52	101.50
33	L1	3203	G	O4'-C1'-N9	17.46	122.17	108.20
33	L1	2066	G	O4'-C1'-N9	17.46	122.17	108.20
33	L1	23	A	O4'-C1'-N9	17.45	122.16	108.20
33	L1	1667	C	O4'-C1'-N1	17.44	122.15	108.20
34	L3	117	U	P-O3'-C3'	17.44	140.62	119.70
3	SB	106	ARG	NE-CZ-NH1	17.43	129.01	120.30
32	S1	1034	G	P-O3'-C3'	17.40	140.58	119.70
33	L1	424	G	C3'-C2'-C1'	17.38	115.41	101.50
66	LN	98	ARG	NE-CZ-NH1	17.38	128.99	120.30
33	L1	1223	U	O4'-C1'-N1	17.37	122.10	108.20
33	L1	1707	C	O4'-C1'-N1	17.36	122.09	108.20
33	L1	1309	U	O4'-C1'-N1	-17.35	94.32	108.20
47	LU	140	MET	CA-C-O	-17.35	83.66	120.10
33	L1	531	G	O4'-C1'-N9	17.35	122.08	108.20
33	L1	1366	G	C1'-O4'-C4'	-17.34	96.03	109.90
33	L1	2902	A	O4'-C1'-N9	17.34	122.08	108.20
33	L1	3108	U	O4'-C1'-N1	17.34	122.07	108.20
33	L1	224	C	N1-C1'-C2'	17.34	136.54	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2900	G	O4'-C1'-N9	-17.34	94.33	108.20
33	L1	2562	A	P-O3'-C3'	17.32	140.49	119.70
33	L1	2363	G	P-O3'-C3'	17.32	140.48	119.70
67	LS	120	PHE	CA-C-N	17.30	165.54	117.10
33	L1	1035	C	P-O3'-C3'	17.30	140.46	119.70
34	L3	106	U	P-O3'-C3'	17.30	140.45	119.70
33	L1	2881	C	C1'-O4'-C4'	-17.29	96.07	109.90
32	S1	1758	G	O4'-C1'-N9	17.29	122.03	108.20
33	L1	997	G	P-O3'-C3'	17.27	140.43	119.70
33	L1	134	U	O4'-C1'-N1	17.26	122.01	108.20
23	SU	71	GLY	O-C-N	-17.25	93.87	123.20
32	S1	1472	G	P-O3'-C3'	-17.25	99.00	119.70
33	L1	500	C	P-O5'-C5'	17.25	148.50	120.90
32	S1	1748	U	N1-C1'-C2'	17.23	136.41	114.00
33	L1	2486	G	C1'-O4'-C4'	17.23	123.69	109.90
32	S1	1225	A	O4'-C1'-C2'	-17.21	88.59	105.80
33	L1	1369	G	O4'-C1'-C2'	17.21	123.09	107.60
33	L1	1757	G	O4'-C1'-N9	17.21	121.97	108.20
33	L1	1818	C	O4'-C1'-C2'	-17.21	88.59	105.80
33	L1	1073	G	O4'-C1'-N9	17.20	121.96	108.20
32	S1	1104	U	P-O3'-C3'	17.19	140.33	119.70
32	S1	559	A	P-O3'-C3'	17.19	140.33	119.70
3	SB	76	ARG	NE-CZ-NH1	17.18	128.89	120.30
33	L1	755	C	N1-C1'-C2'	17.17	136.32	114.00
33	L1	1274	A	O4'-C1'-N9	17.16	121.93	108.20
33	L1	1533	U	P-O3'-C3'	17.14	140.27	119.70
32	S1	508	U	O4'-C1'-N1	17.14	121.91	108.20
32	S1	1064	U	O4'-C1'-N1	17.14	121.91	108.20
33	L1	2736	A	O4'-C1'-N9	17.13	121.91	108.20
33	L1	1741	G	P-O3'-C3'	-17.12	99.15	119.70
33	L1	1715	C	O4'-C1'-C2'	-17.12	88.68	105.80
25	SC	33	VAL	C-N-CA	17.10	158.20	122.30
3	SB	51	ARG	NE-CZ-NH1	17.09	128.85	120.30
8	SJ	75	ARG	NE-CZ-NH1	17.09	128.84	120.30
34	L3	22	A	O4'-C1'-N9	17.09	121.87	108.20
33	L1	3377	G	P-O3'-C3'	17.09	140.20	119.70
33	L1	772	U	P-O3'-C3'	17.08	140.19	119.70
33	L1	1247	G	C1'-O4'-C4'	-17.07	96.24	109.90
33	L1	2232	C	C3'-C2'-C1'	17.07	115.15	101.50
33	L1	1428	G	O4'-C1'-N9	17.06	121.85	108.20
33	L1	1767	G	O4'-C1'-N9	17.05	121.84	108.20
33	L1	69	U	O4'-C1'-N1	-17.04	94.57	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	155	G	P-O3'-C3'	17.01	140.11	119.70
33	L1	2152	A	O4'-C1'-N9	17.01	121.81	108.20
32	S1	1358	G	N9-C1'-C2'	16.99	136.08	114.00
33	L1	237	C	C3'-C2'-C1'	16.98	115.08	101.50
32	S1	1645	C	N1-C1'-C2'	16.96	136.05	114.00
33	L1	640	C	O4'-C1'-C2'	-16.96	88.84	105.80
45	LQ	256	SER	N-CA-CB	-16.96	85.06	110.50
33	L1	631	C	N1-C1'-C2'	16.94	136.03	114.00
32	S1	1237	G	P-O3'-C3'	16.94	140.03	119.70
33	L1	700	C	C3'-C2'-C1'	16.93	115.04	101.50
82	LK	135	GLN	CA-C-O	-16.93	84.56	120.10
33	L1	3320	G	C3'-C2'-C1'	16.92	115.04	101.50
32	S1	1588	C	O3'-P-O5'	-16.92	71.86	104.00
32	S1	1511	A	O4'-C1'-N9	16.91	121.73	108.20
33	L1	2151	G	P-O3'-C3'	16.91	139.99	119.70
33	L1	506	U	P-O3'-C3'	16.91	139.99	119.70
33	L1	2355	A	C1'-O4'-C4'	16.90	123.42	109.90
33	L1	3360	U	P-O3'-C3'	16.89	139.97	119.70
32	S1	1642	C	N1-C1'-C2'	16.89	135.95	114.00
33	L1	2587	G	O4'-C1'-N9	16.89	121.71	108.20
33	L1	1958	G	P-O3'-C3'	16.89	139.96	119.70
35	L2	50	G	N9-C1'-C2'	16.89	135.95	114.00
33	L1	2096	U	O4'-C1'-N1	16.88	121.71	108.20
33	L1	1690	C	O4'-C1'-N1	16.88	121.70	108.20
33	L1	1369	G	C3'-C2'-C1'	-16.87	88.00	101.50
3	SB	150	MET	CG-SD-CE	16.86	127.18	100.20
64	LG	29	LYS	O-C-N	-16.86	95.72	122.70
33	L1	1270	G	C1'-O4'-C4'	-16.85	96.42	109.90
13	SQ	81	ARG	CA-C-N	16.84	154.24	117.20
33	L1	250	C	O4'-C1'-C2'	-16.83	88.97	105.80
33	L1	1893	G	O4'-C1'-N9	16.83	121.67	108.20
33	L1	2176	A	O4'-C1'-N9	16.83	121.66	108.20
33	L1	999	U	P-O3'-C3'	16.83	139.89	119.70
33	L1	3175	C	N1-C1'-C2'	16.83	135.88	114.00
33	L1	2630	A	P-O3'-C3'	16.82	139.88	119.70
33	L1	2511	U	O4'-C1'-N1	16.80	121.64	108.20
33	L1	3081	G	C3'-C2'-C1'	16.80	114.94	101.50
33	L1	492	G	O4'-C1'-N9	16.78	121.63	108.20
33	L1	3331	G	O4'-C1'-N9	16.78	121.62	108.20
32	S1	1589	C	O5'-P-OP1	-16.77	90.57	110.70
67	LS	120	PHE	CA-C-O	-16.77	84.89	120.10
33	L1	2502	U	O4'-C1'-C2'	-16.76	89.04	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2482	A	P-O3'-C3'	16.74	139.79	119.70
33	L1	2504	A	P-O3'-C3'	16.74	139.79	119.70
33	L1	2490	U	N1-C1'-C2'	16.74	135.76	114.00
32	S1	1421	U	P-O3'-C3'	16.73	139.78	119.70
33	L1	2153	U	O4'-C1'-N1	16.73	121.58	108.20
33	L1	28	C	P-O3'-C3'	16.71	139.76	119.70
33	L1	3208	G	O4'-C1'-N9	16.70	121.56	108.20
33	L1	845	G	O4'-C1'-N9	16.67	121.54	108.20
33	L1	2	C	P-O3'-C3'	16.67	139.70	119.70
33	L1	2059	C	P-O3'-C3'	-16.66	99.71	119.70
33	L1	1271	U	P-O3'-C3'	-16.64	99.73	119.70
33	L1	2460	A	O4'-C1'-N9	16.64	121.51	108.20
32	S1	32	U	N1-C1'-C2'	-16.63	92.38	114.00
32	S1	535	C	OP2-P-O3'	-16.62	68.64	105.20
33	L1	1258	C	O4'-C1'-C2'	-16.62	89.18	105.80
33	L1	2125	A	N9-C1'-C2'	-16.60	92.42	114.00
84	LI	109	ASP	N-CA-CB	16.59	140.46	110.60
33	L1	3322	A	C3'-C2'-C1'	-16.58	88.24	101.50
33	L1	534	G	C1'-O4'-C4'	-16.57	96.65	109.90
42	LP	12	ARG	NE-CZ-NH2	-16.56	112.02	120.30
32	S1	33	U	C1'-O4'-C4'	16.56	123.15	109.90
33	L1	2876	G	C1'-O4'-C4'	-16.56	96.65	109.90
33	L1	2743	A	O4'-C1'-N9	16.55	121.44	108.20
33	L1	1449	A	P-O3'-C3'	16.55	139.56	119.70
60	Lr	42	ARG	NE-CZ-NH1	16.55	128.57	120.30
28	SN	10	HIS	O-C-N	-16.52	89.71	121.10
56	Lh	67	TYR	CB-CG-CD2	-16.52	111.09	121.00
32	S1	46	A	O4'-C1'-N9	16.51	121.41	108.20
33	L1	138	G	P-O3'-C3'	16.50	139.50	119.70
33	L1	754	G	O4'-C1'-N9	16.50	121.40	108.20
32	S1	1338	U	O4'-C1'-N1	16.49	121.39	108.20
32	S1	1715	C	N1-C1'-C2'	16.49	135.44	114.00
44	LR	10	ARG	NE-CZ-NH1	16.49	128.54	120.30
32	S1	187	C	OP1-P-O3'	16.48	141.47	105.20
33	L1	400	G	O4'-C1'-N9	16.48	121.39	108.20
32	S1	1664	U	O4'-C1'-N1	16.48	121.38	108.20
32	S1	476	U	O4'-C1'-N1	16.47	121.38	108.20
33	L1	234	G	O4'-C1'-C2'	16.47	122.43	107.60
33	L1	1898	G	O4'-C1'-N9	16.46	121.37	108.20
34	L3	26	C	P-O3'-C3'	16.46	139.45	119.70
34	L3	24	G	P-O3'-C3'	-16.45	99.95	119.70
32	S1	119	U	C1'-O4'-C4'	-16.45	96.74	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1752	C	C5'-C4'-C3'	16.44	142.31	116.00
33	L1	98	A	P-O3'-C3'	16.43	139.42	119.70
33	L1	2876	G	O4'-C1'-C2'	16.43	122.39	107.60
42	LP	24	ARG	NE-CZ-NH1	16.43	128.51	120.30
11	SM	95	PHE	CB-CG-CD2	-16.43	109.30	120.80
4	SD	150	PRO	CA-C-O	-16.41	80.80	120.20
33	L1	250	C	C3'-C2'-C1'	16.41	114.63	101.50
32	S1	1387	U	O4'-C1'-N1	16.41	121.33	108.20
33	L1	963	U	O4'-C1'-N1	-16.39	95.09	108.20
33	L1	2354	G	N9-C1'-C2'	-16.38	92.71	114.00
33	L1	175	G	N9-C1'-C2'	16.38	135.29	114.00
79	Ls	235	PRO	CA-N-CD	-16.38	88.57	111.50
32	S1	1395	C	P-O3'-C3'	16.37	139.35	119.70
33	L1	3227	U	C1'-O4'-C4'	16.37	123.00	109.90
33	L1	618	G	O4'-C1'-N9	16.36	121.29	108.20
33	L1	669	G	P-O5'-C5'	16.35	147.06	120.90
32	S1	1443	U	OP1-P-OP2	-16.34	95.09	119.60
32	S1	1589	C	OP1-P-OP2	-16.34	95.09	119.60
32	S1	376	G	C3'-C2'-C1'	16.34	114.57	101.50
33	L1	2499	U	O4'-C1'-N1	16.33	121.26	108.20
33	L1	1625	G	O4'-C1'-N9	16.31	121.25	108.20
33	L1	121	A	P-O3'-C3'	16.31	139.27	119.70
25	SC	106	PHE	CG-CD1-CE1	-16.31	102.86	120.80
33	L1	1616	G	C1'-O4'-C4'	-16.31	96.86	109.90
9	SK	123	MET	CB-CG-SD	16.30	161.31	112.40
33	L1	2486	G	N9-C1'-C2'	-16.30	92.81	114.00
33	L1	2595	G	P-O3'-C3'	16.30	139.25	119.70
5	SE	30	ARG	CB-CG-CD	-16.29	69.25	111.60
32	S1	1745	U	O4'-C1'-C2'	-16.28	89.52	105.80
4	SD	136	ILE	CA-CB-CG1	16.28	141.93	111.00
33	L1	668	U	O4'-C1'-N1	16.27	121.21	108.20
33	L1	776	G	O4'-C1'-N9	16.26	121.21	108.20
33	L1	3101	C	C5'-C4'-C3'	16.26	142.02	116.00
32	S1	1771	U	O4'-C1'-N1	16.24	121.19	108.20
33	L1	3322	A	O5'-P-OP2	-16.24	91.09	105.70
33	L1	532	G	C1'-O4'-C4'	-16.23	96.92	109.90
33	L1	997	G	C1'-O4'-C4'	16.23	122.88	109.90
33	L1	1804	G	N9-C1'-C2'	16.23	135.09	114.00
34	L3	97	G	O4'-C1'-N9	16.23	121.18	108.20
33	L1	348	C	C3'-C2'-C1'	16.21	114.47	101.50
33	L1	2056	C	P-O3'-C3'	16.21	139.15	119.70
33	L1	2783	U	O4'-C1'-N1	16.20	121.16	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1295	A	O4'-C1'-N9	16.20	121.16	108.20
32	S1	205	U	O4'-C1'-N1	16.19	121.15	108.20
32	S1	192	G	O4'-C1'-N9	16.18	121.14	108.20
32	S1	1621	U	O4'-C1'-N1	16.18	121.14	108.20
33	L1	176	A	P-O3'-C3'	16.18	139.11	119.70
2	SA	108	THR	O-C-N	-16.17	90.38	121.10
3	SB	153	LYS	CD-CE-NZ	-16.15	74.56	111.70
35	L2	157	C	P-O3'-C3'	16.14	139.07	119.70
33	L1	1658	G	P-O3'-C3'	16.14	139.07	119.70
47	LU	10	ARG	NE-CZ-NH1	16.14	128.37	120.30
33	L1	1727	A	C3'-C2'-C1'	16.12	114.40	101.50
32	S1	1099	G	P-O3'-C3'	16.11	139.03	119.70
51	LY	26	ARG	NE-CZ-NH1	16.11	128.35	120.30
33	L1	1735	U	O4'-C1'-C2'	-16.11	89.69	105.80
32	S1	626	A	P-O3'-C3'	16.11	139.03	119.70
32	S1	1591	A	O4'-C1'-N9	16.10	121.08	108.20
33	L1	1035	C	N1-C1'-C2'	16.10	134.93	114.00
33	L1	2381	G	O4'-C1'-N9	16.10	121.08	108.20
33	L1	1658	G	O4'-C1'-N9	16.09	121.08	108.20
33	L1	1683	U	P-O3'-C3'	16.09	139.01	119.70
33	L1	2523	G	O4'-C1'-N9	16.09	121.08	108.20
33	L1	2246	G	O4'-C1'-N9	16.09	121.07	108.20
32	S1	512	U	P-O3'-C3'	16.09	139.00	119.70
32	S1	1759	A	O4'-C1'-N9	-16.08	95.34	108.20
34	L3	3	A	P-O3'-C3'	16.07	138.99	119.70
33	L1	846	A	O4'-C1'-N9	16.07	121.05	108.20
32	S1	138	C	P-O5'-C5'	16.06	146.59	120.90
33	L1	3235	A	O4'-C1'-N9	16.05	121.04	108.20
32	S1	471	G	O4'-C1'-N9	16.04	121.03	108.20
33	L1	2800	C	P-O3'-C3'	16.04	138.94	119.70
32	S1	1035	A	O4'-C1'-N9	16.02	121.02	108.20
13	SQ	21	TYR	O-C-N	-16.02	97.06	122.70
32	S1	532	U	P-O3'-C3'	16.02	138.92	119.70
32	S1	391	A	O4'-C1'-N9	16.02	121.01	108.20
33	L1	686	A	P-O3'-C3'	16.02	138.92	119.70
33	L1	1735	U	P-O3'-C3'	16.01	138.92	119.70
33	L1	7	C	N1-C1'-C2'	16.01	134.81	114.00
33	L1	213	G	O4'-C1'-N9	16.01	121.01	108.20
33	L1	3005	C	N1-C1'-C2'	16.01	134.81	114.00
33	L1	543	C	N1-C1'-C2'	15.99	134.79	114.00
32	S1	1678	G	N9-C1'-C2'	-15.99	93.21	114.00
35	L2	104	U	N1-C1'-C2'	15.99	134.78	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3086	G	O4'-C1'-C2'	15.98	121.99	107.60
33	L1	280	G	C1'-O4'-C4'	15.98	122.68	109.90
33	L1	1852	C	O4'-C1'-N1	15.98	120.98	108.20
33	L1	612	U	P-O3'-C3'	15.98	138.88	119.70
33	L1	1684	U	O4'-C1'-N1	15.98	120.98	108.20
27	SH	92	ARG	NE-CZ-NH1	15.97	128.29	120.30
33	L1	1745	G	P-O3'-C3'	15.97	138.87	119.70
32	S1	404	A	P-O3'-C3'	15.96	138.86	119.70
70	Li	110	GLN	CA-C-O	-15.96	86.58	120.10
11	SM	92	ASP	CB-CA-C	-15.95	78.50	110.40
55	Lg	58	ARG	NE-CZ-NH1	15.94	128.27	120.30
32	S1	1346	C	N1-C1'-C2'	15.94	134.72	114.00
33	L1	1670	G	O4'-C1'-N9	15.94	120.95	108.20
35	L2	96	A	C3'-C2'-C1'	15.93	114.24	101.50
33	L1	2702	G	O4'-C1'-N9	15.92	120.94	108.20
32	S1	1450	A	O4'-C1'-N9	15.90	120.92	108.20
33	L1	1466	U	O4'-C1'-N1	15.90	120.92	108.20
33	L1	3048	C	C1'-O4'-C4'	-15.89	97.18	109.90
33	L1	2231	G	N9-C1'-C2'	-15.89	93.34	114.00
33	L1	2680	G	O4'-C1'-N9	15.88	120.91	108.20
33	L1	2903	G	O4'-C1'-C2'	15.88	121.89	107.60
33	L1	2205	G	O4'-C1'-N9	15.88	120.90	108.20
32	S1	1029	U	O4'-C1'-N1	15.88	120.90	108.20
46	LT	176	ARG	CB-CA-C	15.87	142.14	110.40
33	L1	2995	G	P-O3'-C3'	15.87	138.74	119.70
32	S1	1225	A	C1'-O4'-C4'	15.86	122.58	109.90
32	S1	1296	G	O4'-C1'-N9	15.82	120.86	108.20
32	S1	1314	U	C5'-C4'-C3'	-15.82	90.69	116.00
33	L1	175	G	C1'-O4'-C4'	-15.80	97.26	109.90
33	L1	337	C	C1'-O4'-C4'	-15.79	97.27	109.90
32	S1	260	A	O4'-C1'-N9	15.78	120.83	108.20
33	L1	692	U	P-O3'-C3'	15.78	138.64	119.70
33	L1	637	C	N1-C1'-C2'	15.77	134.50	114.00
33	L1	2796	G	P-O3'-C3'	15.76	138.61	119.70
32	S1	1063	U	O4'-C1'-N1	15.75	120.80	108.20
32	S1	1142	A	P-O3'-C3'	15.74	138.59	119.70
33	L1	2290	A	O4'-C1'-N9	-15.74	95.61	108.20
33	L1	1701	G	O4'-C1'-N9	15.73	120.78	108.20
33	L1	3337	G	P-O3'-C3'	15.73	138.58	119.70
38	LE	139	ARG	NE-CZ-NH1	15.73	128.17	120.30
60	Lr	61	LYS	CA-C-O	-15.72	87.09	120.10
33	L1	745	G	P-O3'-C3'	15.72	138.56	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1576	C	O4'-C1'-N1	-15.71	95.64	108.20
33	L1	1366	G	C3'-C2'-C1'	-15.69	88.95	101.50
33	L1	102	G	O4'-C1'-C2'	-15.69	90.11	105.80
32	S1	1674	C	O4'-C1'-C2'	-15.68	90.12	105.80
33	L1	2125	A	C1'-O4'-C4'	15.66	122.43	109.90
33	L1	1467	G	O4'-C1'-N9	15.66	120.73	108.20
35	L2	40	G	O4'-C1'-C2'	15.65	121.69	107.60
33	L1	1319	U	O4'-C1'-N1	15.64	120.71	108.20
33	L1	2113	A	O4'-C1'-N9	15.64	120.72	108.20
33	L1	1370	A	C3'-C2'-C1'	15.63	114.01	101.50
33	L1	1345	U	N1-C1'-C2'	15.63	134.32	114.00
33	L1	1391	A	OP1-P-OP2	-15.63	96.15	119.60
32	S1	373	U	N1-C1'-C2'	-15.63	93.68	114.00
33	L1	2380	G	O4'-C1'-C2'	15.62	121.66	107.60
33	L1	2875	U	C3'-C2'-C1'	15.61	113.99	101.50
33	L1	2759	C	N1-C1'-C2'	15.61	134.29	114.00
33	L1	566	G	N9-C1'-C2'	15.60	134.28	114.00
1	Sa	140	GLN	CG-CD-NE2	-15.58	79.30	116.70
34	L3	1	G	N9-C1'-C2'	15.58	134.26	114.00
32	S1	1504	U	O4'-C1'-N1	15.57	120.65	108.20
33	L1	2440	U	O4'-C1'-N1	15.57	120.65	108.20
32	S1	1661	C	P-O3'-C3'	15.56	138.37	119.70
33	L1	283	A	O4'-C1'-C2'	-15.55	90.25	105.80
33	L1	2793	G	C3'-C2'-C1'	-15.55	89.06	101.50
33	L1	3204	G	P-O3'-C3'	15.55	138.36	119.70
33	L1	1820	C	O4'-C1'-N1	15.54	120.64	108.20
44	LR	97	ALA	O-C-N	-15.54	97.83	122.70
32	S1	150	U	O4'-C1'-N1	15.53	120.62	108.20
33	L1	841	G	C5'-C4'-O4'	-15.53	90.46	109.10
33	L1	3144	U	P-O3'-C3'	15.53	138.33	119.70
33	L1	178	C	N1-C1'-C2'	15.52	134.17	114.00
33	L1	2164	G	O4'-C1'-N9	15.52	120.61	108.20
33	L1	259	G	O4'-C1'-N9	15.51	120.61	108.20
33	L1	787	G	O4'-C1'-N9	15.51	120.61	108.20
33	L1	2875	U	O4'-C1'-C2'	-15.51	90.29	105.80
33	L1	1867	U	C3'-C2'-C1'	-15.51	89.09	101.50
33	L1	2085	A	P-O3'-C3'	15.51	138.31	119.70
32	S1	1097	A	OP1-P-O3'	-15.50	71.11	105.20
33	L1	2669	C	N1-C1'-C2'	15.50	134.15	114.00
32	S1	610	A	O4'-C1'-N9	15.49	120.59	108.20
33	L1	130	G	O4'-C1'-N9	15.49	120.59	108.20
33	L1	2212	U	O4'-C1'-N1	15.48	120.59	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2361	C	N1-C1'-C2'	-15.48	93.88	114.00
32	S1	1206	A	O4'-C1'-N9	15.47	120.58	108.20
33	L1	772	U	O4'-C1'-N1	15.47	120.58	108.20
32	S1	1746	U	N1-C1'-C2'	15.47	134.11	114.00
67	LS	28	ARG	N-CA-CB	15.46	138.43	110.60
33	L1	475	U	O4'-C1'-C2'	-15.45	90.35	105.80
32	S1	306	U	O4'-C1'-N1	15.44	120.56	108.20
33	L1	536	C	N1-C1'-C2'	15.44	134.07	114.00
1	Sa	243	ARG	NE-CZ-NH1	15.43	128.01	120.30
33	L1	2511	U	N1-C1'-C2'	-15.41	93.96	114.00
33	L1	1432	G	O4'-C1'-C2'	15.41	121.47	107.60
33	L1	2799	U	P-O3'-C3'	15.41	138.19	119.70
33	L1	1516	G	N9-C1'-C2'	15.40	134.02	114.00
33	L1	3201	A	O4'-C1'-N9	15.40	120.52	108.20
33	L1	1193	A	O4'-C1'-C2'	-15.39	90.41	105.80
70	Li	46	VAL	N-CA-CB	-15.39	77.63	111.50
33	L1	804	A	O4'-C1'-N9	-15.39	95.89	108.20
33	L1	2903	G	C1'-O4'-C4'	-15.39	97.59	109.90
35	L2	53	G	C1'-O4'-C4'	-15.39	97.59	109.90
33	L1	2166	U	N1-C1'-C2'	15.38	134.00	114.00
32	S1	32	U	C1'-O4'-C4'	15.38	122.20	109.90
33	L1	2738	U	P-O3'-C3'	-15.38	101.24	119.70
33	L1	580	C	P-O3'-C3'	15.37	138.14	119.70
33	L1	1253	G	O4'-C1'-N9	15.37	120.49	108.20
33	L1	2290	A	C1'-O4'-C4'	-15.37	97.61	109.90
32	S1	422	G	O4'-C1'-N9	15.36	120.48	108.20
14	SP	88	ARG	NE-CZ-NH1	15.35	127.97	120.30
46	LT	64	ARG	NE-CZ-NH1	15.35	127.97	120.30
32	S1	1	U	O4'-C1'-N1	15.35	120.48	108.20
32	S1	1379	U	O4'-C1'-N1	15.35	120.48	108.20
33	L1	2708	A	O4'-C1'-N9	-15.33	95.93	108.20
32	S1	1134	U	O4'-C1'-N1	15.33	120.47	108.20
32	S1	1609	G	O4'-C1'-N9	15.33	120.47	108.20
33	L1	665	G	C1'-O4'-C4'	-15.32	97.64	109.90
33	L1	2233	G	O4'-C1'-N9	15.32	120.46	108.20
33	L1	262	A	N9-C1'-C2'	-15.32	94.08	114.00
33	L1	105	A	O4'-C1'-N9	-15.32	95.95	108.20
33	L1	809	A	O4'-C1'-C2'	-15.31	90.48	105.80
33	L1	307	C	C5'-C4'-C3'	15.30	140.48	116.00
33	L1	542	G	O4'-C1'-C2'	15.30	121.37	107.60
32	S1	452	C	P-O3'-C3'	15.30	138.06	119.70
33	L1	1814	C	N1-C1'-C2'	15.29	133.88	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
64	LG	51	TYR	O-C-N	-15.29	92.04	121.10
32	S1	1666	G	P-O3'-C3'	15.29	138.05	119.70
33	L1	1368	U	C3'-C2'-C1'	15.29	113.73	101.50
33	L1	1539	G	P-O3'-C3'	15.29	138.05	119.70
32	S1	156	U	O4'-C1'-N1	15.29	120.43	108.20
32	S1	956	A	O4'-C1'-N9	15.28	120.43	108.20
33	L1	423	C	P-O3'-C3'	15.28	138.04	119.70
33	L1	2103	U	O4'-C1'-N1	15.28	120.42	108.20
33	L1	891	U	O4'-C1'-N1	15.27	120.42	108.20
33	L1	963	U	N1-C1'-C2'	15.27	133.84	114.00
32	S1	31	C	N1-C1'-C2'	15.26	133.83	114.00
32	S1	1483	G	O4'-C1'-N9	15.25	120.40	108.20
33	L1	1708	C	N1-C1'-C2'	15.25	133.83	114.00
33	L1	2770	U	O4'-C1'-N1	15.24	120.39	108.20
33	L1	1728	G	O4'-C1'-C2'	-15.23	90.56	105.80
33	L1	2484	G	O4'-C1'-N9	15.22	120.38	108.20
3	SB	125	PHE	CB-CG-CD1	-15.22	110.15	120.80
33	L1	572	U	P-O3'-C3'	15.22	137.96	119.70
9	SK	120	ARG	NE-CZ-NH1	15.21	127.91	120.30
32	S1	492	G	O4'-C1'-N9	15.21	120.37	108.20
33	L1	1826	G	O4'-C1'-C2'	-15.21	90.59	105.80
33	L1	1624	G	O4'-C1'-N9	15.21	120.36	108.20
33	L1	2791	U	O4'-C1'-N1	15.20	120.36	108.20
33	L1	786	U	P-O3'-C3'	15.19	137.93	119.70
32	S1	1238	A	O4'-C1'-N9	15.18	120.34	108.20
33	L1	3376	C	O4'-C1'-N1	15.18	120.34	108.20
33	L1	335	G	O4'-C1'-C2'	-15.17	90.63	105.80
33	L1	1238	G	O4'-C1'-N9	15.17	120.33	108.20
70	Li	43	LYS	CD-CE-NZ	15.17	146.58	111.70
74	LJ	118	ARG	NE-CZ-NH1	15.16	127.88	120.30
33	L1	2914	G	P-O3'-C3'	15.16	137.89	119.70
34	L3	102	G	O4'-C1'-N9	15.16	120.33	108.20
37	LB	37	ARG	NE-CZ-NH1	15.15	127.88	120.30
33	L1	309	C	P-O3'-C3'	-15.15	101.52	119.70
32	S1	1097	A	P-O5'-C5'	15.14	145.12	120.90
33	L1	1679	U	O4'-C1'-N1	15.13	120.31	108.20
33	L1	3327	A	C1'-O4'-C4'	-15.13	97.79	109.90
7	SI	27	TYR	CB-CG-CD1	15.13	130.08	121.00
33	L1	1318	C	O4'-C1'-N1	-15.12	96.10	108.20
33	L1	1483	G	O4'-C1'-C2'	15.12	121.20	107.60
33	L1	2540	C	N1-C1'-C2'	15.12	133.65	114.00
82	LK	117	TYR	CB-CG-CD2	-15.12	111.93	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	632	G	C1'-O4'-C4'	15.11	121.99	109.90
33	L1	3155	C	P-O3'-C3'	15.09	137.81	119.70
33	L1	1265	G	O4'-C1'-C2'	-15.08	90.72	105.80
32	S1	1740	G	N9-C1'-C2'	-15.08	94.40	114.00
33	L1	2824	U	O4'-C1'-N1	15.07	120.26	108.20
31	S2	15	A	O4'-C1'-N9	15.07	120.26	108.20
33	L1	317	G	O4'-C1'-N9	15.06	120.25	108.20
33	L1	937	G	C1'-O4'-C4'	-15.05	97.86	109.90
19	SY	46	VAL	O-C-N	15.05	146.78	122.70
64	LG	26	TRP	O-C-N	-15.04	98.63	122.70
33	L1	2355	A	N9-C1'-C2'	-15.03	94.46	114.00
33	L1	2356	A	C1'-O4'-C4'	-15.03	97.87	109.90
33	L1	846	A	N9-C1'-C2'	-15.03	94.46	114.00
27	SH	83	VAL	CG1-CB-CG2	15.03	134.94	110.90
33	L1	2389	A	O4'-C1'-N9	15.02	120.21	108.20
33	L1	2841	G	O4'-C1'-N9	15.01	120.21	108.20
33	L1	3344	U	N1-C1'-C2'	15.01	133.51	114.00
33	L1	458	G	C1'-O4'-C4'	-15.00	97.90	109.90
33	L1	3041	A	O4'-C1'-N9	14.99	120.19	108.20
33	L1	2731	G	O4'-C1'-C2'	14.98	121.09	107.60
33	L1	504	U	O4'-C1'-N1	14.97	120.18	108.20
32	S1	632	G	P-O3'-C3'	14.97	137.66	119.70
33	L1	1679	U	O4'-C1'-C2'	-14.96	90.83	105.80
39	LF	187	THR	O-C-N	-14.97	98.75	122.70
33	L1	1513	C	O4'-C1'-N1	-14.95	96.24	108.20
33	L1	549	G	C1'-O4'-C4'	-14.93	97.95	109.90
32	S1	635	G	O4'-C1'-C2'	-14.92	90.88	105.80
33	L1	2955	U	O4'-C1'-N1	14.92	120.14	108.20
11	SM	95	PHE	CB-CG-CD1	14.90	131.23	120.80
30	S3	12	A	O4'-C1'-N9	14.90	120.12	108.20
33	L1	2362	A	N9-C1'-C2'	-14.89	94.64	114.00
33	L1	2390	G	O4'-C1'-N9	14.89	120.11	108.20
33	L1	1900	C	N1-C1'-C2'	14.89	133.35	114.00
33	L1	640	C	O4'-C1'-N1	-14.89	96.29	108.20
33	L1	1880	A	O4'-C1'-C2'	-14.88	90.92	105.80
33	L1	2597	C	N1-C1'-C2'	14.88	133.35	114.00
33	L1	549	G	N9-C1'-C2'	14.88	133.34	114.00
33	L1	2766	U	C1'-O4'-C4'	14.87	121.80	109.90
32	S1	1068	G	O4'-C1'-N9	14.87	120.10	108.20
33	L1	2109	G	N9-C1'-C2'	14.87	133.33	114.00
33	L1	1277	A	P-O3'-C3'	14.86	137.53	119.70
34	L3	10	C	C3'-C2'-C1'	14.86	113.39	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	124	G	O4'-C1'-C2'	-14.86	90.94	105.80
32	S1	682	A	P-O3'-C3'	14.85	137.52	119.70
81	LD	351	ARG	NE-CZ-NH2	14.85	127.73	120.30
33	L1	3304	U	N1-C1'-C2'	-14.85	94.69	114.00
33	L1	2216	G	N9-C1'-C2'	-14.85	94.70	114.00
33	L1	1384	G	O4'-C1'-N9	14.84	120.08	108.20
33	L1	1892	A	N9-C1'-C2'	14.84	133.29	114.00
15	SS	123	GLY	O-C-N	-14.83	98.97	122.70
33	L1	1361	G	P-O3'-C3'	14.83	137.50	119.70
33	L1	2211	G	C1'-O4'-C4'	-14.83	98.04	109.90
33	L1	3040	G	O4'-C1'-N9	14.83	120.06	108.20
32	S1	1592	G	O4'-C1'-N9	14.82	120.06	108.20
33	L1	2502	U	C1'-O4'-C4'	14.82	121.76	109.90
33	L1	584	G	O4'-C1'-C2'	-14.82	90.98	105.80
33	L1	639	A	O4'-C1'-N9	14.82	120.06	108.20
33	L1	2513	U	P-O5'-C5'	14.82	144.61	120.90
33	L1	2735	G	O4'-C1'-N9	14.81	120.05	108.20
33	L1	2590	C	O4'-C1'-C2'	-14.81	90.99	105.80
33	L1	2909	A	O4'-C1'-N9	14.80	120.04	108.20
35	L2	93	A	C3'-C2'-C1'	14.80	113.34	101.50
33	L1	2380	G	O5'-P-OP2	14.80	128.46	110.70
33	L1	2374	G	O4'-C1'-N9	14.79	120.03	108.20
32	S1	1119	G	O4'-C1'-N9	14.79	120.03	108.20
33	L1	1932	A	O4'-C1'-N9	14.79	120.03	108.20
44	LR	152	PHE	CB-CG-CD1	-14.78	110.45	120.80
33	L1	1761	C	P-O3'-C3'	-14.77	101.98	119.70
33	L1	3011	U	O4'-C1'-N1	14.75	120.00	108.20
38	LE	88	VAL	CA-C-N	14.74	149.64	117.20
33	L1	2132	A	O4'-C1'-N9	14.74	119.99	108.20
11	SM	113	ARG	NE-CZ-NH1	-14.74	112.93	120.30
32	S1	1763	A	P-O3'-C3'	14.73	137.38	119.70
33	L1	20	G	C3'-C2'-C1'	-14.73	89.71	101.50
64	LG	12	LYS	CA-C-O	-14.73	89.16	120.10
33	L1	299	G	O4'-C1'-N9	14.73	119.98	108.20
33	L1	1092	G	O4'-C1'-N9	14.73	119.98	108.20
33	L1	2431	U	N1-C1'-C2'	14.72	133.14	114.00
33	L1	2497	A	P-O3'-C3'	14.72	137.37	119.70
33	L1	1714	A	O4'-C1'-N9	-14.72	96.43	108.20
33	L1	1430	C	C1'-O4'-C4'	-14.71	98.13	109.90
32	S1	594	C	P-O3'-C3'	14.71	137.35	119.70
33	L1	570	G	C1'-O4'-C4'	-14.71	98.13	109.90
33	L1	1395	A	N9-C1'-C2'	-14.71	94.88	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	L3	79	A	O4'-C1'-N9	14.71	119.97	108.20
32	S1	1269	G	O4'-C1'-N9	14.70	119.96	108.20
33	L1	483	U	P-O3'-C3'	14.69	137.33	119.70
33	L1	72	A	C1'-O4'-C4'	14.69	121.65	109.90
33	L1	1050	A	O4'-C1'-C2'	-14.69	91.11	105.80
33	L1	1855	A	N9-C1'-C2'	-14.69	94.91	114.00
33	L1	701	U	O4'-C1'-N1	14.67	119.94	108.20
38	LE	96	ARG	NE-CZ-NH2	14.67	127.64	120.30
33	L1	1136	A	C1'-O4'-C4'	-14.67	98.17	109.90
33	L1	1384	G	C1'-O4'-C4'	-14.66	98.17	109.90
33	L1	1395	A	C1'-O4'-C4'	14.65	121.62	109.90
33	L1	566	G	C1'-O4'-C4'	-14.64	98.19	109.90
33	L1	2502	U	O4'-C4'-C3'	-14.64	89.36	104.00
80	LC	278	ARG	NE-CZ-NH2	-14.64	112.98	120.30
49	LX	33	SER	C-N-CA	-14.64	85.11	121.70
33	L1	495	G	O4'-C1'-N9	14.63	119.91	108.20
33	L1	1571	A	O4'-C1'-N9	14.63	119.90	108.20
33	L1	728	G	O4'-C1'-N9	14.62	119.90	108.20
33	L1	339	G	O4'-C1'-C2'	14.62	120.76	107.60
33	L1	2862	U	P-O3'-C3'	14.62	137.25	119.70
31	S2	26	G	C3'-C2'-C1'	-14.62	89.81	101.50
32	S1	1588	C	OP2-P-O3'	-14.62	73.04	105.20
33	L1	311	G	C1'-O4'-C4'	-14.62	98.21	109.90
33	L1	1806	C	N1-C1'-C2'	14.62	133.00	114.00
33	L1	993	A	P-O3'-C3'	14.61	137.24	119.70
34	L3	25	G	O4'-C1'-N9	14.61	119.89	108.20
33	L1	987	A	O4'-C1'-N9	14.60	119.88	108.20
33	L1	2486	G	O4'-C1'-N9	14.59	119.88	108.20
33	L1	3005	C	C1'-O4'-C4'	-14.59	98.22	109.90
33	L1	305	G	O4'-C1'-C2'	14.59	120.73	107.60
32	S1	1240	A	O4'-C1'-N9	14.58	119.87	108.20
33	L1	861	A	O4'-C1'-N9	14.58	119.86	108.20
35	L2	62	G	P-O3'-C3'	14.58	137.19	119.70
23	SU	80	LEU	CB-CG-CD1	14.57	135.77	111.00
33	L1	1484	A	P-O3'-C3'	14.57	137.18	119.70
32	S1	855	G	O4'-C1'-N9	14.57	119.85	108.20
33	L1	1614	G	N9-C1'-C2'	14.56	132.94	114.00
32	S1	1195	U	O4'-C1'-N1	14.56	119.85	108.20
33	L1	2952	G	O4'-C1'-N9	14.56	119.85	108.20
33	L1	665	G	O4'-C1'-N9	-14.55	96.56	108.20
33	L1	1505	G	O4'-C1'-N9	14.55	119.84	108.20
33	L1	3048	C	N1-C1'-C2'	14.55	132.91	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	90	U	C1'-O4'-C4'	14.55	121.54	109.90
33	L1	691	U	N1-C1'-C2'	-14.55	95.09	114.00
33	L1	1863	A	O4'-C1'-N9	14.55	119.84	108.20
33	L1	1034	U	N1-C1'-C2'	14.54	132.91	114.00
33	L1	2787	A	C5'-C4'-C3'	-14.54	92.73	116.00
33	L1	1197	A	C1'-O4'-C4'	-14.54	98.27	109.90
33	L1	1764	G	C3'-C2'-C1'	-14.54	89.87	101.50
32	S1	61	A	O4'-C1'-C2'	-14.53	91.27	105.80
33	L1	70	A	O4'-C1'-N9	-14.54	96.57	108.20
32	S1	288	G	O4'-C1'-N9	14.53	119.82	108.20
33	L1	207	U	O4'-C1'-N1	14.52	119.82	108.20
33	L1	3294	U	O4'-C1'-N1	14.52	119.82	108.20
33	L1	2620	U	P-O3'-C3'	14.52	137.12	119.70
33	L1	1057	A	O4'-C1'-C2'	-14.51	91.29	105.80
33	L1	1344	A	C3'-C2'-C1'	14.51	113.11	101.50
33	L1	656	G	N9-C1'-C2'	14.51	132.86	114.00
42	LP	24	ARG	NE-CZ-NH2	-14.51	113.05	120.30
33	L1	1830	U	C1'-O4'-C4'	-14.51	98.29	109.90
32	S1	564	U	O4'-C1'-N1	14.51	119.80	108.20
33	L1	156	A	P-O3'-C3'	14.50	137.10	119.70
33	L1	684	C	O4'-C1'-N1	14.50	119.80	108.20
33	L1	1646	U	O4'-C1'-C2'	-14.50	91.30	105.80
33	L1	62	A	N9-C1'-C2'	-14.50	95.16	114.00
33	L1	2468	G	P-O3'-C3'	14.50	137.09	119.70
13	SQ	61	ILE	N-CA-C	14.49	150.13	111.00
33	L1	1348	G	O4'-C1'-C2'	14.49	120.64	107.60
70	Li	43	LYS	CG-CD-CE	14.49	155.36	111.90
33	L1	2334	G	O4'-C1'-N9	14.49	119.79	108.20
32	S1	1482	U	P-O3'-C3'	14.48	137.07	119.70
33	L1	2334	G	O4'-C1'-C2'	14.46	120.62	107.60
77	Lc	47	ARG	NE-CZ-NH1	14.46	127.53	120.30
33	L1	986	G	O4'-C1'-C2'	-14.46	91.34	105.80
33	L1	3361	G	P-O5'-C5'	14.46	144.04	120.90
33	L1	2083	U	P-O3'-C3'	14.45	137.04	119.70
33	L1	707	G	O4'-C1'-N9	-14.44	96.64	108.20
78	Le	241	ARG	NE-CZ-NH1	14.44	127.52	120.30
33	L1	642	C	C5'-C4'-O4'	14.43	126.42	109.10
33	L1	3334	A	C1'-O4'-C4'	-14.43	98.36	109.90
32	S1	664	G	P-O5'-C5'	14.43	143.99	120.90
33	L1	1880	A	C5'-C4'-C3'	14.42	139.08	116.00
81	LD	318	GLU	CB-CA-C	-14.42	81.55	110.40
33	L1	2476	G	O4'-C1'-N9	14.41	119.73	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	341	G	P-O3'-C3'	14.41	136.99	119.70
33	L1	56	A	O4'-C1'-N9	14.41	119.73	108.20
33	L1	2089	A	O4'-C1'-N9	14.40	119.72	108.20
64	LG	51	TYR	CA-C-O	-14.40	89.86	120.10
33	L1	3345	G	O4'-C1'-N9	14.40	119.72	108.20
35	L2	66	C	N1-C1'-C2'	14.40	132.72	114.00
34	L3	58	G	N9-C1'-C2'	-14.39	95.29	114.00
33	L1	3035	C	C1'-O4'-C4'	-14.38	98.40	109.90
33	L1	167	C	P-O3'-C3'	14.38	136.95	119.70
37	LB	128	ARG	NE-CZ-NH2	-14.38	113.11	120.30
33	L1	1752	C	C3'-C2'-C1'	14.37	113.00	101.50
33	L1	2584	U	N1-C1'-C2'	14.37	132.68	114.00
25	SC	46	ARG	NE-CZ-NH1	14.37	127.48	120.30
34	L3	109	U	P-O5'-C5'	14.36	143.88	120.90
35	L2	53	G	O4'-C1'-N9	-14.36	96.71	108.20
33	L1	3096	U	O4'-C1'-N1	14.35	119.68	108.20
69	La	27	ARG	N-CA-CB	-14.35	84.77	110.60
33	L1	1022	G	O4'-C1'-N9	14.35	119.68	108.20
2	SA	215	LYS	C-N-CA	14.33	157.52	121.70
33	L1	2204	U	O4'-C1'-N1	14.33	119.66	108.20
27	SH	3	ARG	NE-CZ-NH2	14.32	127.46	120.30
33	L1	1155	G	P-O3'-C3'	14.32	136.89	119.70
33	L1	2355	A	O4'-C1'-C2'	-14.32	91.48	105.80
33	L1	2634	U	P-O3'-C3'	14.32	136.88	119.70
11	SM	34	LYS	C-N-CA	14.31	152.34	122.30
32	S1	1460	G	O4'-C1'-N9	14.30	119.64	108.20
33	L1	1015	A	O4'-C1'-C2'	-14.30	91.50	105.80
33	L1	262	A	C1'-O4'-C4'	14.30	121.34	109.90
33	L1	2640	A	C1'-O4'-C4'	14.29	121.34	109.90
33	L1	127	G	O4'-C1'-C2'	14.29	120.46	107.60
32	S1	389	A	P-O3'-C3'	14.29	136.84	119.70
33	L1	1577	A	N9-C1'-C2'	-14.28	95.44	114.00
33	L1	1880	A	P-O3'-C3'	-14.28	102.57	119.70
48	LV	136	ARG	NE-CZ-NH2	-14.28	113.16	120.30
32	S1	297	U	P-O3'-C3'	14.27	136.83	119.70
73	Lp	52	LYS	CA-CB-CG	14.27	144.80	113.40
33	L1	431	G	C3'-C2'-C1'	-14.27	90.08	101.50
64	LG	20	TYR	CB-CG-CD2	-14.27	112.44	121.00
44	LR	152	PHE	CB-CG-CD2	14.27	130.79	120.80
32	S1	470	U	P-O3'-C3'	14.26	136.82	119.70
33	L1	2763	C	C1'-O4'-C4'	14.26	121.31	109.90
32	S1	1317	A	O4'-C1'-N9	14.26	119.61	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1855	A	O4'-C1'-C2'	-14.26	91.54	105.80
33	L1	1433	U	O4'-C1'-N1	14.25	119.60	108.20
33	L1	2651	G	O4'-C1'-N9	14.25	119.60	108.20
33	L1	1408	C	N1-C1'-C2'	14.25	132.52	114.00
33	L1	146	U	P-O3'-C3'	14.25	136.80	119.70
33	L1	975	G	O4'-C1'-C2'	14.25	120.42	107.60
33	L1	3372	C	C3'-C2'-C1'	14.25	112.90	101.50
33	L1	19	C	C3'-C2'-C1'	14.24	112.89	101.50
32	S1	1801	A	O4'-C1'-C2'	14.23	120.41	107.60
33	L1	3295	G	C1'-O4'-C4'	-14.23	98.51	109.90
31	S2	72	G	C1'-O4'-C4'	14.23	121.28	109.90
32	S1	1538	C	O4'-C1'-N1	14.23	119.58	108.20
33	L1	603	G	C1'-O4'-C4'	-14.23	98.52	109.90
64	LG	209	ARG	NE-CZ-NH2	-14.22	113.19	120.30
33	L1	237	C	N1-C1'-C2'	14.22	132.49	114.00
34	L3	48	G	O4'-C1'-C2'	-14.22	91.58	105.80
33	L1	2436	G	P-O3'-C3'	14.20	136.75	119.70
33	L1	2627	G	O4'-C1'-N9	14.20	119.56	108.20
33	L1	3142	C	O4'-C1'-N1	-14.20	96.84	108.20
33	L1	643	G	O4'-C1'-N9	14.20	119.56	108.20
33	L1	1270	G	O4'-C1'-N9	14.19	119.56	108.20
1	Sa	16	ALA	O-C-N	14.19	145.40	122.70
33	L1	1311	G	O4'-C1'-C2'	14.18	120.37	107.60
33	L1	1651	A	C1'-O4'-C4'	-14.18	98.56	109.90
33	L1	2079	A	O4'-C1'-N9	14.18	119.54	108.20
33	L1	640	C	P-O5'-C5'	14.17	143.58	120.90
33	L1	2461	A	P-O3'-C3'	14.17	136.71	119.70
33	L1	267	G	O4'-C1'-N9	-14.16	96.87	108.20
33	L1	915	G	O4'-C1'-N9	14.16	119.53	108.20
33	L1	1348	G	C1'-O4'-C4'	-14.16	98.57	109.90
33	L1	1753	A	P-O3'-C3'	14.16	136.69	119.70
33	L1	2380	G	P-O5'-C5'	14.16	143.55	120.90
69	La	27	ARG	N-CA-C	14.16	149.22	111.00
32	S1	517	U	P-O3'-C3'	14.15	136.68	119.70
33	L1	2628	C	O4'-C1'-C2'	-14.15	91.65	105.80
33	L1	105	A	N9-C1'-C2'	-14.15	95.61	114.00
33	L1	563	C	N1-C1'-C2'	14.15	132.40	114.00
35	L2	30	C	O4'-C1'-C2'	-14.15	91.65	105.80
33	L1	2719	U	O4'-C1'-N1	14.15	119.52	108.20
33	L1	1369	G	C5'-C4'-C3'	14.14	138.63	116.00
33	L1	1849	U	N1-C1'-C2'	-14.13	95.62	114.00
32	S1	1060	U	N1-C1'-C2'	14.13	132.37	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1421	A	O4'-C1'-N9	14.12	119.50	108.20
33	L1	1527	A	O4'-C1'-N9	-14.12	96.90	108.20
32	S1	1586	U	P-O3'-C3'	14.12	136.64	119.70
15	SS	91	ARG	NE-CZ-NH2	-14.12	113.24	120.30
33	L1	1663	G	P-O3'-C3'	14.12	136.64	119.70
32	S1	1160	G	O4'-C1'-N9	14.11	119.49	108.20
32	S1	879	C	C3'-C2'-C1'	14.11	112.79	101.50
42	LP	49	ARG	NE-CZ-NH1	14.11	127.35	120.30
32	S1	877	G	O4'-C1'-C2'	-14.11	91.69	105.80
33	L1	964	C	O4'-C1'-C2'	-14.11	91.69	105.80
33	L1	1881	C	O4'-C1'-N1	14.10	119.48	108.20
71	Lj	7	GLN	N-CA-CB	14.10	135.98	110.60
32	S1	952	U	O4'-C1'-N1	14.10	119.48	108.20
32	S1	1320	C	O4'-C1'-N1	14.09	119.47	108.20
9	SK	93	HIS	C-N-CA	14.09	156.92	121.70
33	L1	2247	A	C3'-C2'-C1'	14.09	112.77	101.50
33	L1	3301	G	O4'-C1'-N9	14.09	119.47	108.20
33	L1	643	G	O4'-C1'-C2'	14.08	120.28	107.60
64	LG	59	ARG	NE-CZ-NH1	-14.08	113.26	120.30
32	S1	1068	G	C1'-O4'-C4'	14.08	121.16	109.90
32	S1	32	U	O4'-C1'-C2'	-14.08	91.72	105.80
33	L1	784	G	O4'-C1'-N9	14.07	119.46	108.20
35	L2	42	U	N1-C1'-C2'	14.07	132.29	114.00
33	L1	665	G	N9-C1'-C2'	14.07	132.29	114.00
57	L1	55	ARG	NE-CZ-NH1	14.06	127.33	120.30
64	LG	209	ARG	NE-CZ-NH1	14.06	127.33	120.30
32	S1	514	G	P-O3'-C3'	14.06	136.57	119.70
33	L1	3270	C	N1-C1'-C2'	14.06	132.28	114.00
33	L1	834	G	O4'-C1'-N9	14.06	119.45	108.20
33	L1	1841	G	C3'-C2'-C1'	-14.06	90.25	101.50
35	L2	155	G	C5'-C4'-C3'	14.05	138.49	116.00
25	SC	49	TYR	CB-CG-CD1	14.05	129.43	121.00
33	L1	2751	A	C1'-O4'-C4'	14.05	121.14	109.90
33	L1	3095	G	C1'-O4'-C4'	-14.05	98.66	109.90
33	L1	1773	U	P-O3'-C3'	14.05	136.56	119.70
33	L1	1827	U	N1-C1'-C2'	14.04	132.25	114.00
33	L1	3304	U	C1'-O4'-C4'	14.04	121.13	109.90
68	LW	104	VAL	CA-C-O	-14.04	90.62	120.10
40	LH	78	ARG	NE-CZ-NH2	-14.04	113.28	120.30
33	L1	2672	C	C3'-C2'-C1'	14.03	112.73	101.50
32	S1	648	C	O4'-C1'-C2'	-14.03	91.77	105.80
33	L1	3237	G	O4'-C1'-N9	14.03	119.42	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1058	A	P-O3'-C3'	14.03	136.53	119.70
33	L1	755	C	C1'-O4'-C4'	-14.02	98.68	109.90
9	SK	43	VAL	CG1-CB-CG2	14.02	133.33	110.90
32	S1	828	G	O4'-C1'-N9	14.02	119.41	108.20
33	L1	3293	U	O4'-C1'-N1	14.02	119.42	108.20
64	LG	20	TYR	CD1-CE1-CZ	-14.02	107.19	119.80
31	S2	22	G	N9-C1'-C2'	14.01	132.22	114.00
33	L1	1081	U	N1-C1'-C2'	-14.01	95.78	114.00
33	L1	1989	G	O4'-C1'-N9	14.01	119.41	108.20
33	L1	1180	C	C3'-C2'-C1'	14.01	112.71	101.50
32	S1	801	U	P-O5'-C5'	-14.01	98.48	120.90
32	S1	1648	C	N1-C1'-C2'	14.01	132.21	114.00
33	L1	2453	G	O4'-C1'-N9	14.01	119.41	108.20
35	L2	124	G	C1'-O4'-C4'	14.00	121.10	109.90
32	S1	126	U	O4'-C1'-N1	14.00	119.40	108.20
32	S1	1442	A	OP1-P-O3'	-14.00	74.41	105.20
33	L1	2235	G	C1'-O4'-C4'	-14.00	98.70	109.90
33	L1	1881	C	C5'-C4'-C3'	13.99	138.39	116.00
33	L1	1822	C	N1-C1'-C2'	13.99	132.18	114.00
32	S1	1642	C	C1'-O4'-C4'	-13.98	98.71	109.90
33	L1	1063	G	N9-C1'-C2'	13.98	132.18	114.00
33	L1	1646	U	N1-C1'-C2'	-13.98	95.82	114.00
32	S1	1788	G	O4'-C1'-N9	13.98	119.38	108.20
33	L1	1941	G	O4'-C1'-C2'	13.98	120.18	107.60
33	L1	2161	G	O4'-C1'-N9	13.98	119.38	108.20
34	L3	3	A	C3'-C2'-C1'	13.97	112.68	101.50
33	L1	1344	A	N9-C1'-C2'	13.97	132.16	114.00
33	L1	2722	U	C1'-O4'-C4'	13.96	121.07	109.90
33	L1	2701	G	O4'-C1'-N9	13.96	119.37	108.20
33	L1	2972	C	P-O3'-C3'	13.96	136.45	119.70
32	S1	519	A	P-O3'-C3'	13.96	136.45	119.70
33	L1	771	G	P-O3'-C3'	13.94	136.43	119.70
1	Sa	243	ARG	NE-CZ-NH2	-13.94	113.33	120.30
33	L1	126	G	O4'-C1'-C2'	13.94	120.15	107.60
32	S1	300	U	O4'-C1'-N1	13.94	119.35	108.20
32	S1	503	U	O4'-C1'-N1	13.94	119.35	108.20
32	S1	1685	U	P-O3'-C3'	13.94	136.42	119.70
32	S1	1754	A	O4'-C1'-N9	13.94	119.35	108.20
33	L1	1034	U	O3'-P-O5'	-13.94	77.52	104.00
33	L1	2485	U	O4'-C1'-N1	13.93	119.35	108.20
32	S1	1745	U	P-O3'-C3'	13.93	136.42	119.70
33	L1	2780	G	O4'-C1'-N9	13.93	119.34	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	188	U	P-O3'-C3'	13.92	136.41	119.70
32	S1	1703	G	O4'-C1'-N9	13.92	119.33	108.20
33	L1	343	G	O4'-C1'-C2'	13.92	120.13	107.60
33	L1	3239	G	O4'-C1'-N9	13.92	119.33	108.20
33	L1	237	C	O4'-C1'-C2'	-13.91	91.89	105.80
33	L1	1298	A	O4'-C1'-N9	13.91	119.33	108.20
33	L1	1638	U	O4'-C1'-N1	13.91	119.33	108.20
33	L1	49	U	N1-C1'-C2'	13.91	132.09	114.00
32	S1	1407	A	P-O3'-C3'	13.91	136.39	119.70
33	L1	1689	G	P-O3'-C3'	13.91	136.39	119.70
33	L1	123	U	N1-C1'-C2'	13.90	132.07	114.00
2	SA	108	THR	C-N-CD	-13.90	90.02	120.60
33	L1	1880	A	C3'-C2'-C1'	13.89	112.62	101.50
34	L3	48	G	N9-C1'-C2'	-13.89	95.94	114.00
33	L1	964	C	C1'-O4'-C4'	13.88	121.00	109.90
33	L1	2722	U	P-O3'-C3'	13.88	136.36	119.70
33	L1	1533	U	N1-C1'-C2'	-13.88	95.96	114.00
33	L1	2376	G	P-O5'-C5'	13.87	143.10	120.90
32	S1	479	A	O4'-C1'-N9	13.87	119.30	108.20
32	S1	389	A	O4'-C1'-N9	13.86	119.29	108.20
32	S1	1094	U	O4'-C1'-N1	13.86	119.29	108.20
42	LP	20	ARG	NE-CZ-NH1	13.86	127.23	120.30
33	L1	1937	C	P-O3'-C3'	13.86	136.33	119.70
33	L1	1646	U	C1'-O4'-C4'	13.85	120.98	109.90
33	L1	667	C	P-O5'-C5'	13.84	143.05	120.90
35	L2	97	U	P-O3'-C3'	13.84	136.31	119.70
33	L1	583	C	N1-C1'-C2'	13.84	131.99	114.00
33	L1	309	C	N1-C1'-C2'	13.84	131.99	114.00
1	Sa	60	ARG	NE-CZ-NH2	-13.84	113.38	120.30
33	L1	209	G	O4'-C1'-N9	-13.84	97.13	108.20
33	L1	2115	G	O4'-C1'-N9	13.84	119.27	108.20
33	L1	2909	A	C1'-O4'-C4'	13.84	120.97	109.90
3	SB	34	TYR	CB-CG-CD2	13.83	129.30	121.00
33	L1	2676	A	P-O5'-C5'	13.83	143.03	120.90
33	L1	2468	G	O4'-C1'-N9	13.83	119.26	108.20
32	S1	1789	U	O4'-C1'-N1	13.82	119.25	108.20
33	L1	2900	G	C3'-C2'-C1'	13.82	112.55	101.50
33	L1	858	U	C5'-C4'-C3'	13.81	138.10	116.00
33	L1	1593	C	C3'-C2'-C1'	13.81	112.55	101.50
33	L1	3041	A	C3'-C2'-C1'	-13.81	90.45	101.50
60	Lr	32	LYS	O-C-N	-13.81	100.61	122.70
33	L1	1025	G	P-O3'-C3'	13.80	136.26	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	SC	3	ARG	NE-CZ-NH2	-13.80	113.40	120.30
32	S1	200	C	O4'-C1'-C2'	-13.79	92.01	105.80
32	S1	1715	C	C1'-O4'-C4'	-13.79	98.87	109.90
33	L1	714	G	O4'-C1'-N9	13.79	119.23	108.20
32	S1	647	G	O4'-C1'-N9	13.79	119.23	108.20
33	L1	1766	U	O4'-C1'-N1	13.79	119.23	108.20
80	LC	315	PHE	CB-CG-CD2	-13.79	111.15	120.80
81	LD	117	ARG	NE-CZ-NH2	13.78	127.19	120.30
33	L1	2518	A	P-O3'-C3'	13.78	136.24	119.70
33	L1	2599	U	O4'-C1'-N1	13.78	119.22	108.20
1	Sa	83	SER	CA-CB-OG	13.78	148.40	111.20
5	SE	194	LYS	N-CA-CB	13.77	135.39	110.60
33	L1	28	C	O4'-C1'-N1	13.77	119.22	108.20
33	L1	3223	C	O4'-C1'-N1	13.77	119.22	108.20
61	Lq	11	ARG	NE-CZ-NH2	-13.77	113.42	120.30
33	L1	2855	G	O4'-C1'-N9	13.77	119.21	108.20
33	L1	2903	G	C3'-C2'-C1'	-13.76	90.49	101.50
33	L1	777	G	O4'-C1'-N9	13.76	119.21	108.20
32	S1	1508	C	P-O3'-C3'	13.75	136.20	119.70
33	L1	1027	C	P-O3'-C3'	13.75	136.20	119.70
33	L1	801	G	O4'-C1'-N9	13.75	119.20	108.20
34	L3	68	G	N9-C1'-C2'	13.75	131.87	114.00
33	L1	441	G	O4'-C1'-N9	13.74	119.19	108.20
33	L1	1164	G	O4'-C1'-N9	13.73	119.18	108.20
33	L1	2615	U	O4'-C1'-N1	13.72	119.18	108.20
34	L3	13	A	N9-C1'-C2'	13.72	131.84	114.00
32	S1	1279	A	N9-C1'-C2'	13.72	131.84	114.00
32	S1	187	C	P-O3'-C3'	13.72	136.16	119.70
46	LT	180	ARG	NE-CZ-NH1	13.71	127.16	120.30
11	SM	53	ASN	OD1-CG-ND2	-13.71	90.37	121.90
33	L1	177	C	N1-C1'-C2'	13.71	131.82	114.00
33	L1	310	C	P-O3'-C3'	-13.71	103.25	119.70
33	L1	677	U	C1'-O4'-C4'	-13.71	98.93	109.90
33	L1	3156	G	N9-C1'-C2'	-13.71	96.17	114.00
35	L2	89	G	N9-C1'-C2'	13.71	131.82	114.00
32	S1	30	G	O4'-C1'-N9	13.71	119.17	108.20
7	SI	53	LYS	CB-CA-C	13.70	137.80	110.40
33	L1	1254	A	N9-C1'-C2'	-13.70	96.19	114.00
33	L1	3320	G	N9-C1'-C2'	13.69	131.80	114.00
32	S1	139	U	O4'-C1'-N1	13.69	119.15	108.20
33	L1	1818	C	N1-C1'-C2'	13.68	131.78	114.00
69	La	31	GLU	O-C-N	-13.68	99.95	123.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	507	C	C3'-C2'-C1'	13.67	112.44	101.50
35	L2	41	A	C3'-C2'-C1'	13.67	112.44	101.50
33	L1	2944	C	N1-C1'-C2'	13.67	131.77	114.00
35	L2	138	G	C3'-C2'-C1'	13.66	112.43	101.50
33	L1	2096	U	P-O3'-C3'	13.66	136.09	119.70
72	Lk	42	PHE	CB-CG-CD1	13.66	130.36	120.80
23	SU	8	PRO	O-C-N	-13.65	100.86	122.70
33	L1	1312	A	C3'-C2'-C1'	13.65	112.42	101.50
32	S1	147	C	C3'-C2'-C1'	13.65	112.42	101.50
33	L1	1740	U	O4'-C1'-N1	13.64	119.11	108.20
14	SP	94	PHE	CB-CG-CD1	-13.64	111.25	120.80
33	L1	1662	G	C1'-O4'-C4'	-13.63	98.99	109.90
32	S1	631	C	P-O3'-C3'	13.63	136.06	119.70
33	L1	68	U	C1'-O4'-C4'	-13.63	99.00	109.90
33	L1	163	U	O4'-C1'-N1	13.63	119.10	108.20
9	SK	93	HIS	CA-C-N	13.63	147.18	117.20
32	S1	857	A	O4'-C1'-N9	13.62	119.10	108.20
32	S1	504	C	C3'-C2'-C1'	13.62	112.40	101.50
33	L1	102	G	C1'-O4'-C4'	13.62	120.80	109.90
34	L3	25	G	P-O3'-C3'	13.62	136.05	119.70
46	LT	100	ARG	NE-CZ-NH2	-13.62	113.49	120.30
33	L1	105	A	O4'-C1'-C2'	-13.61	92.19	105.80
33	L1	2313	U	O4'-C1'-N1	13.61	119.09	108.20
33	L1	177	C	C1'-O4'-C4'	-13.61	99.02	109.90
32	S1	562	U	O4'-C1'-N1	13.60	119.08	108.20
32	S1	1371	U	C1'-O4'-C4'	-13.60	99.02	109.90
32	S1	1670	G	O4'-C1'-N9	13.60	119.08	108.20
33	L1	940	G	P-O3'-C3'	13.60	136.02	119.70
33	L1	2613	G	O4'-C1'-N9	13.60	119.08	108.20
38	LE	34	ARG	CB-CG-CD	13.60	146.97	111.60
33	L1	183	C	P-O3'-C3'	13.60	136.02	119.70
33	L1	2441	G	O4'-C1'-N9	13.58	119.06	108.20
33	L1	1873	C	P-O3'-C3'	13.58	135.99	119.70
33	L1	664	A	O4'-C1'-C2'	13.58	119.82	107.60
33	L1	2786	G	C3'-C2'-C1'	13.57	112.36	101.50
34	L3	40	A	C1'-O4'-C4'	13.57	120.76	109.90
33	L1	1206	A	O4'-C1'-N9	13.57	119.06	108.20
41	LM	68	GLY	N-CA-C	13.57	147.02	113.10
33	L1	557	C	N1-C1'-C2'	13.57	131.64	114.00
33	L1	2519	U	O4'-C1'-N1	13.57	119.05	108.20
70	Li	46	VAL	CB-CA-C	-13.57	85.62	111.40
33	L1	25	U	P-O5'-C5'	13.56	142.60	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	554	C	P-O3'-C3'	13.56	135.98	119.70
33	L1	2783	U	C1'-O4'-C4'	13.56	120.75	109.90
33	L1	785	U	O4'-C1'-N1	13.56	119.05	108.20
32	S1	1685	U	O4'-C1'-N1	13.56	119.05	108.20
33	L1	473	G	O4'-C1'-N9	13.56	119.05	108.20
34	L3	115	A	P-O3'-C3'	13.56	135.97	119.70
32	S1	578	G	O4'-C1'-N9	13.55	119.04	108.20
33	L1	2714	U	O4'-C1'-N1	13.55	119.04	108.20
33	L1	3236	A	C3'-C2'-C1'	13.55	112.34	101.50
25	SC	162	LEU	CA-C-O	-13.55	91.65	120.10
32	S1	1063	U	C1'-O4'-C4'	13.55	120.74	109.90
32	S1	128	G	C1'-O4'-C4'	13.54	120.73	109.90
33	L1	2174	C	O4'-C1'-N1	13.54	119.03	108.20
34	L3	70	G	O4'-C1'-N9	13.54	119.03	108.20
33	L1	2433	U	P-O3'-C3'	13.53	135.94	119.70
33	L1	384	A	O4'-C1'-C2'	-13.53	92.27	105.80
33	L1	2318	U	N1-C1'-C2'	-13.53	96.41	114.00
33	L1	582	C	N1-C1'-C2'	13.53	131.59	114.00
33	L1	1395	A	C5'-C4'-C3'	13.53	137.64	116.00
33	L1	2318	U	O4'-C1'-C2'	-13.53	92.28	105.80
33	L1	105	A	C3'-C2'-C1'	13.52	112.32	101.50
34	L3	38	U	P-O3'-C3'	-13.52	103.47	119.70
33	L1	1168	G	O4'-C1'-N9	13.52	119.02	108.20
33	L1	350	A	O4'-C1'-N9	13.51	119.01	108.20
34	L3	73	U	P-O3'-C3'	13.51	135.91	119.70
29	ST	22	ARG	NE-CZ-NH1	13.51	127.05	120.30
33	L1	556	U	O4'-C1'-N1	13.50	119.00	108.20
32	S1	7	G	O4'-C1'-N9	13.50	119.00	108.20
33	L1	531	G	C3'-C2'-C1'	-13.49	90.70	101.50
33	L1	2509	A	O4'-C1'-N9	13.48	118.98	108.20
33	L1	694	U	O4'-C1'-N1	13.48	118.98	108.20
33	L1	2478	G	N9-C1'-C2'	13.48	131.52	114.00
35	L2	137	C	P-O3'-C3'	13.48	135.87	119.70
4	SD	239	PRO	C-N-CA	13.47	155.38	121.70
33	L1	2530	G	O4'-C1'-C2'	13.47	119.72	107.60
33	L1	2668	U	O4'-C1'-C2'	-13.46	92.34	105.80
33	L1	2278	G	P-O3'-C3'	13.45	135.84	119.70
33	L1	1196	U	O4'-C1'-N1	13.45	118.96	108.20
33	L1	1829	G	O4'-C1'-C2'	13.45	119.71	107.60
33	L1	250	C	O4'-C1'-N1	-13.45	97.44	108.20
33	L1	1756	C	N1-C1'-C2'	13.44	131.48	114.00
25	SC	164	SER	C-N-CD	13.44	156.63	128.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1513	C	N1-C1'-C2'	13.44	131.48	114.00
32	S1	953	G	O4'-C1'-N9	13.43	118.95	108.20
32	S1	1288	C	O4'-C1'-C2'	-13.43	92.37	105.80
32	S1	1414	G	P-O3'-C3'	13.43	135.81	119.70
25	SC	49	TYR	CB-CG-CD2	-13.42	112.95	121.00
33	L1	2216	G	O4'-C1'-N9	13.42	118.94	108.20
33	L1	2231	G	C1'-O4'-C4'	13.42	120.64	109.90
33	L1	1634	G	P-O3'-C3'	13.41	135.80	119.70
32	S1	444	U	O4'-C1'-N1	13.41	118.93	108.20
33	L1	1262	U	O4'-C1'-N1	13.41	118.93	108.20
33	L1	3240	C	N1-C1'-C2'	13.41	131.43	114.00
32	S1	446	C	C3'-C2'-C1'	13.40	112.22	101.50
33	L1	2731	G	C1'-O4'-C4'	-13.40	99.18	109.90
32	S1	1446	C	P-O3'-C3'	13.40	135.78	119.70
33	L1	804	A	O4'-C1'-C2'	-13.39	92.41	105.80
33	L1	3363	G	C3'-C2'-C1'	-13.39	90.79	101.50
32	S1	969	U	O4'-C1'-N1	13.39	118.91	108.20
32	S1	1108	U	C1'-O4'-C4'	13.39	120.61	109.90
33	L1	2795	G	C5'-C4'-C3'	13.39	137.42	116.00
33	L1	2774	A	P-O3'-C3'	13.38	135.76	119.70
33	L1	1730	U	C1'-O4'-C4'	13.38	120.60	109.90
71	Lj	14	ARG	CB-CA-C	13.38	137.16	110.40
1	Sa	82	VAL	CA-C-N	-13.37	87.79	117.20
32	S1	838	U	O4'-C1'-N1	13.36	118.89	108.20
32	S1	1303	G	C3'-C2'-C1'	13.35	112.18	101.50
32	S1	1410	C	P-O3'-C3'	13.35	135.72	119.70
23	SU	78	PHE	CB-CG-CD2	-13.35	111.46	120.80
33	L1	1539	G	O4'-C1'-N9	13.35	118.88	108.20
33	L1	2333	U	O4'-C1'-N1	13.35	118.88	108.20
33	L1	2352	G	O4'-C1'-N9	13.35	118.88	108.20
75	Lt	41	TYR	CB-CG-CD1	13.35	129.01	121.00
33	L1	641	C	O5'-C5'-C4'	13.34	137.05	111.70
33	L1	2875	U	C1'-O4'-C4'	13.34	120.57	109.90
35	L2	143	C	P-O3'-C3'	13.34	135.70	119.70
33	L1	241	G	C3'-C2'-C1'	-13.34	90.83	101.50
33	L1	2496	U	P-O3'-C3'	13.34	135.70	119.70
32	S1	1369	C	P-O3'-C3'	13.33	135.70	119.70
32	S1	1547	G	O4'-C1'-C2'	-13.33	92.47	105.80
32	S1	1694	G	P-O3'-C3'	13.33	135.69	119.70
33	L1	1394	C	C3'-C2'-C1'	13.32	112.16	101.50
33	L1	1211	G	N9-C1'-C2'	-13.32	96.68	114.00
31	S2	8	U	O4'-C1'-N1	13.32	118.85	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	417	G	O4'-C1'-N9	13.31	118.85	108.20
33	L1	3037	G	C1'-O4'-C4'	-13.31	99.25	109.90
33	L1	1389	C	O4'-C1'-N1	13.31	118.85	108.20
33	L1	2999	G	O4'-C1'-N9	13.31	118.84	108.20
33	L1	218	G	C3'-C2'-C1'	13.31	112.14	101.50
32	S1	1541	C	C1'-O4'-C4'	-13.30	99.26	109.90
33	L1	1050	A	C1'-O4'-C4'	13.30	120.54	109.90
33	L1	2508	U	N1-C1'-C2'	-13.30	96.70	114.00
33	L1	2579	G	C1'-O4'-C4'	-13.30	99.26	109.90
35	L2	42	U	C3'-C2'-C1'	13.30	112.14	101.50
57	L1	79	ARG	NE-CZ-NH2	-13.30	113.65	120.30
33	L1	1901	G	C1'-O4'-C4'	13.29	120.53	109.90
31	S2	75	A	N9-C1'-C2'	-13.29	96.73	114.00
32	S1	373	U	C1'-O4'-C4'	13.29	120.53	109.90
33	L1	305	G	C3'-C2'-C1'	-13.29	90.87	101.50
33	L1	1370	A	O4'-C1'-C2'	-13.28	92.52	105.80
33	L1	2502	U	C5'-C4'-O4'	-13.28	93.16	109.10
35	L2	57	A	O4'-C1'-C2'	-13.28	92.52	105.80
32	S1	1615	G	P-O3'-C3'	13.28	135.63	119.70
33	L1	1058	A	O4'-C1'-N9	13.28	118.82	108.20
82	LK	117	TYR	CB-CG-CD1	13.28	128.97	121.00
33	L1	1642	G	O4'-C1'-C2'	13.27	119.54	107.60
33	L1	2444	U	N1-C1'-C2'	13.27	131.25	114.00
32	S1	1683	G	C1'-O4'-C4'	-13.27	99.28	109.90
60	Lr	61	LYS	O-C-N	-13.27	101.47	122.70
38	LE	88	VAL	O-C-N	-13.26	101.48	122.70
33	L1	261	C	P-O3'-C3'	13.26	135.61	119.70
33	L1	1087	G	C1'-O4'-C4'	-13.26	99.30	109.90
9	SK	120	ARG	NE-CZ-NH2	-13.25	113.67	120.30
19	SY	47	ARG	O-C-N	-13.25	101.50	122.70
32	S1	1346	C	C3'-C2'-C1'	13.25	112.10	101.50
33	L1	745	G	O3'-P-O5'	-13.25	78.82	104.00
35	L2	63	A	O4'-C1'-N9	-13.25	97.60	108.20
23	SU	78	PHE	CB-CA-C	13.25	136.90	110.40
33	L1	280	G	N9-C1'-C2'	-13.24	96.79	114.00
33	L1	1804	G	O4'-C1'-N9	-13.24	97.61	108.20
33	L1	3378	U	O4'-C1'-N1	13.24	118.79	108.20
33	L1	3338	U	O4'-C1'-N1	13.23	118.79	108.20
13	SQ	81	ARG	CA-C-O	-13.23	92.31	120.10
33	L1	3352	C	O4'-C1'-N1	13.23	118.78	108.20
32	S1	860	A	O3'-P-O5'	-13.23	78.86	104.00
32	S1	180	A	P-O3'-C3'	13.22	135.57	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1132	A	N9-C1'-C2'	13.22	131.19	114.00
33	L1	1753	A	O4'-C1'-C2'	-13.22	92.58	105.80
33	L1	1241	G	O4'-C1'-C2'	-13.21	92.58	105.80
32	S1	1069	G	O4'-C1'-C2'	-13.21	92.59	105.80
33	L1	3326	U	C1'-O4'-C4'	13.21	120.47	109.90
38	LE	34	ARG	NE-CZ-NH2	-13.21	113.70	120.30
32	S1	1617	U	O4'-C1'-N1	13.21	118.76	108.20
32	S1	1566	U	C1'-O4'-C4'	13.20	120.46	109.90
32	S1	627	A	O4'-C1'-N9	13.20	118.76	108.20
33	L1	568	C	N1-C1'-C2'	13.19	131.15	114.00
32	S1	1395	C	O4'-C1'-N1	13.19	118.75	108.20
33	L1	844	A	C1'-O4'-C4'	-13.19	99.35	109.90
33	L1	3099	G	C3'-C2'-C1'	13.19	112.05	101.50
33	L1	676	G	P-O3'-C3'	13.19	135.52	119.70
33	L1	1662	G	N9-C1'-C2'	13.19	131.14	114.00
33	L1	325	A	O4'-C1'-N9	13.18	118.75	108.20
33	L1	1242	U	O4'-C1'-N1	13.18	118.75	108.20
33	L1	1364	C	P-O3'-C3'	13.18	135.52	119.70
33	L1	2802	G	O4'-C1'-C2'	-13.18	92.62	105.80
33	L1	1320	G	C3'-C2'-C1'	-13.17	90.96	101.50
33	L1	2220	U	O4'-C1'-N1	13.16	118.73	108.20
33	L1	3341	C	P-O5'-C5'	13.16	141.96	120.90
1	Sa	266	THR	N-CA-C	-13.16	75.46	111.00
46	LT	109	TYR	CB-CG-CD2	-13.16	113.10	121.00
33	L1	2779	G	O4'-C1'-N9	13.16	118.73	108.20
33	L1	3215	U	O4'-C1'-N1	13.16	118.73	108.20
33	L1	2752	G	O4'-C1'-N9	13.15	118.72	108.20
39	LF	172	ARG	NE-CZ-NH1	13.15	126.88	120.30
33	L1	2199	C	N1-C1'-C2'	13.15	131.10	114.00
33	L1	2213	G	C1'-O4'-C4'	-13.15	99.38	109.90
35	L2	36	C	N1-C1'-C2'	13.15	131.10	114.00
32	S1	16	G	N9-C1'-C2'	13.15	131.09	114.00
64	LG	20	TYR	CB-CG-CD1	13.15	128.89	121.00
32	S1	4	C	P-O3'-C3'	13.15	135.48	119.70
34	L3	23	A	O4'-C1'-N9	13.15	118.72	108.20
72	Lk	71	ARG	NE-CZ-NH1	13.15	126.87	120.30
34	L3	114	C	P-O3'-C3'	13.14	135.47	119.70
46	LT	62	ARG	NE-CZ-NH2	13.14	126.87	120.30
33	L1	1050	A	N9-C1'-C2'	-13.14	96.92	114.00
33	L1	797	U	O4'-C1'-N1	13.13	118.71	108.20
1	Sa	94	ASN	C-N-CA	13.13	154.52	121.70
33	L1	2984	A	C1'-O4'-C4'	-13.13	99.40	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	L3	15	C	C3'-C2'-C1'	13.13	112.00	101.50
33	L1	272	G	C1'-O4'-C4'	-13.12	99.40	109.90
33	L1	2794	A	C1'-O4'-C4'	-13.12	99.40	109.90
32	S1	1768	U	O4'-C1'-N1	13.12	118.69	108.20
59	Lo	7	PHE	CB-CG-CD2	13.12	129.98	120.80
54	Lf	90	ARG	NE-CZ-NH1	13.11	126.86	120.30
32	S1	1261	U	O4'-C1'-N1	13.11	118.69	108.20
33	L1	3360	U	N1-C1'-C2'	13.11	131.04	114.00
13	SQ	139	ASP	N-CA-C	13.11	146.39	111.00
66	LN	89	TRP	CA-CB-CG	13.11	138.60	113.70
32	S1	853	U	O4'-C1'-N1	13.10	118.68	108.20
33	L1	2592	G	C3'-C2'-C1'	-13.10	91.02	101.50
32	S1	632	G	O4'-C1'-C2'	-13.10	92.70	105.80
33	L1	265	G	O4'-C1'-C2'	-13.10	92.70	105.80
33	L1	327	A	O4'-C1'-N9	13.10	118.68	108.20
25	SC	164	SER	CA-C-O	-13.10	92.60	120.10
33	L1	1878	G	C1'-O4'-C4'	-13.09	99.43	109.90
33	L1	1472	C	N1-C1'-C2'	13.09	131.01	114.00
46	LT	42	ARG	NE-CZ-NH1	13.09	126.84	120.30
32	S1	1307	U	N1-C1'-C2'	13.08	131.00	114.00
32	S1	1108	U	O4'-C1'-C2'	-13.07	92.73	105.80
35	L2	94	C	P-O5'-C5'	13.07	141.81	120.90
33	L1	1533	U	C1'-O4'-C4'	13.06	120.35	109.90
67	LS	85	SER	N-CA-CB	-13.06	90.90	110.50
32	S1	994	U	O4'-C1'-N1	13.06	118.65	108.20
31	S2	8	U	C1'-O4'-C4'	13.06	120.35	109.90
35	L2	104	U	C1'-O4'-C4'	-13.06	99.45	109.90
32	S1	1682	U	N1-C1'-C2'	13.05	130.97	114.00
32	S1	1714	G	O4'-C1'-N9	13.05	118.64	108.20
33	L1	324	U	P-O3'-C3'	13.05	135.36	119.70
33	L1	1130	G	O4'-C1'-N9	13.05	118.64	108.20
32	S1	1456	U	P-O5'-C5'	13.05	141.78	120.90
47	LU	10	ARG	NE-CZ-NH2	-13.05	113.78	120.30
32	S1	1237	G	O4'-C1'-N9	13.05	118.64	108.20
33	L1	2516	U	P-O3'-C3'	13.05	135.35	119.70
33	L1	458	G	O4'-C1'-C2'	13.04	119.34	107.60
32	S1	1072	U	P-O3'-C3'	13.04	135.35	119.70
32	S1	824	U	O4'-C1'-N1	13.04	118.63	108.20
33	L1	1836	U	P-O3'-C3'	13.04	135.34	119.70
33	L1	150	G	P-O3'-C3'	13.03	135.33	119.70
35	L2	86	C	C3'-C2'-C1'	13.03	111.92	101.50
4	SD	93	PRO	O-C-N	-13.02	101.86	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	635	G	N9-C1'-C2'	-13.02	97.07	114.00
32	S1	1224	C	O4'-C1'-N1	13.00	118.60	108.20
32	S1	1265	A	O4'-C1'-N9	13.00	118.60	108.20
33	L1	1258	C	C3'-C2'-C1'	13.00	111.90	101.50
45	LQ	183	PHE	CB-CG-CD1	-13.00	111.70	120.80
33	L1	1177	G	O4'-C1'-N9	12.99	118.59	108.20
31	S2	7	A	O4'-C1'-N9	-12.98	97.81	108.20
33	L1	1543	A	O4'-C1'-N9	12.98	118.58	108.20
33	L1	812	G	O4'-C1'-N9	12.98	118.58	108.20
33	L1	555	G	C1'-O4'-C4'	-12.97	99.52	109.90
33	L1	1081	U	C3'-C2'-C1'	-12.97	91.12	101.50
33	L1	2711	U	C1'-O4'-C4'	-12.97	99.52	109.90
32	S1	882	G	C1'-O4'-C4'	-12.97	99.52	109.90
33	L1	1027	C	O4'-C1'-N1	12.97	118.58	108.20
33	L1	1622	G	O4'-C1'-N9	12.97	118.58	108.20
34	L3	13	A	O4'-C1'-N9	-12.97	97.82	108.20
83	Lm	4	ARG	CD-NE-CZ	12.97	141.76	123.60
69	La	27	ARG	CB-CG-CD	12.97	145.32	111.60
33	L1	1564	C	P-O5'-C5'	12.96	141.64	120.90
51	LY	11	ARG	NE-CZ-NH2	12.96	126.78	120.30
32	S1	1113	G	O4'-C1'-N9	12.95	118.56	108.20
33	L1	2766	U	N1-C1'-C2'	-12.95	97.16	114.00
33	L1	1878	G	O4'-C1'-C2'	12.95	119.26	107.60
33	L1	835	G	O4'-C1'-N9	12.95	118.56	108.20
33	L1	2065	G	O4'-C1'-N9	12.95	118.56	108.20
33	L1	3099	G	P-O3'-C3'	12.94	135.22	119.70
33	L1	875	A	O4'-C1'-C2'	12.94	119.24	107.60
33	L1	1054	U	N1-C1'-C2'	12.93	130.81	114.00
33	L1	1696	G	O4'-C1'-C2'	-12.93	92.87	105.80
33	L1	2780	G	C1'-O4'-C4'	12.93	120.25	109.90
32	S1	1443	U	O4'-C1'-N1	12.93	118.54	108.20
33	L1	3238	U	O4'-C1'-N1	12.93	118.55	108.20
32	S1	928	A	O4'-C1'-N9	12.92	118.53	108.20
43	LO	77	ARG	NE-CZ-NH1	-12.92	113.84	120.30
33	L1	2679	A	P-O3'-C3'	12.91	135.19	119.70
33	L1	1883	A	N9-C1'-C2'	-12.91	97.22	114.00
42	LP	81	TYR	CB-CG-CD1	-12.91	113.25	121.00
33	L1	2407	U	P-O3'-C3'	12.90	135.18	119.70
59	Lo	42	ARG	NE-CZ-NH1	12.89	126.75	120.30
14	SP	98	TYR	CB-CG-CD2	-12.89	113.27	121.00
33	L1	1623	C	O4'-C1'-N1	12.89	118.51	108.20
32	S1	1485	A	N9-C1'-C2'	-12.89	97.25	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	418	G	C3'-C2'-C1'	12.89	111.81	101.50
33	L1	534	G	O4'-C1'-C2'	12.88	119.20	107.60
33	L1	254	G	N9-C1'-C2'	12.88	130.75	114.00
31	S2	26	G	O4'-C1'-N9	12.88	118.50	108.20
32	S1	1442	A	O3'-P-O5'	-12.88	79.53	104.00
33	L1	1764	G	N9-C1'-C2'	12.87	130.74	114.00
33	L1	2746	G	N9-C1'-C2'	12.87	130.73	114.00
33	L1	1947	U	N1-C1'-C2'	-12.87	97.27	114.00
33	L1	917	A	O4'-C1'-C2'	-12.87	92.93	105.80
51	LY	73	TYR	CB-CG-CD1	12.86	128.72	121.00
33	L1	2219	A	P-O3'-C3'	12.86	135.13	119.70
33	L1	291	C	O4'-C1'-C2'	12.86	119.17	107.60
32	S1	359	G	O4'-C1'-N9	12.86	118.48	108.20
31	S2	37	G	P-O3'-C3'	12.85	135.12	119.70
32	S1	989	G	O4'-C1'-N9	12.85	118.48	108.20
33	L1	1340	G	O4'-C1'-N9	12.85	118.48	108.20
33	L1	1901	G	O4'-C1'-N9	12.84	118.47	108.20
33	L1	3324	U	O4'-C1'-N1	12.84	118.47	108.20
33	L1	857	G	O4'-C1'-C2'	12.84	119.15	107.60
33	L1	822	U	C1'-O4'-C4'	12.83	120.17	109.90
67	LS	166	LYS	N-CA-C	12.83	145.64	111.00
33	L1	1243	C	N1-C1'-C2'	12.83	130.67	114.00
14	SP	88	ARG	NE-CZ-NH2	-12.82	113.89	120.30
1	Sa	60	ARG	NE-CZ-NH1	12.82	126.71	120.30
32	S1	327	A	O4'-C1'-N9	12.82	118.46	108.20
33	L1	2424	G	C1'-O4'-C4'	-12.82	99.64	109.90
33	L1	997	G	O4'-C1'-C2'	-12.82	92.98	105.80
34	L3	17	G	O4'-C1'-N9	12.82	118.45	108.20
60	Lr	42	ARG	NE-CZ-NH2	-12.81	113.90	120.30
33	L1	2135	U	N1-C1'-C2'	12.80	130.64	114.00
33	L1	3354	A	N9-C1'-C2'	-12.80	97.36	114.00
33	L1	131	C	O4'-C1'-C2'	-12.80	93.00	105.80
33	L1	2502	U	N1-C1'-C2'	-12.80	97.36	114.00
33	L1	3156	G	O4'-C4'-C3'	-12.80	91.20	104.00
7	SI	65	ARG	NE-CZ-NH1	12.79	126.70	120.30
33	L1	3323	U	N1-C1'-C2'	-12.79	97.37	114.00
33	L1	2373	C	O4'-C1'-C2'	-12.79	93.01	105.80
33	L1	2387	U	O4'-C1'-N1	12.79	118.43	108.20
33	L1	2388	C	C1'-O4'-C4'	-12.79	99.67	109.90
33	L1	811	A	C1'-O4'-C4'	-12.79	99.67	109.90
56	Lh	26	TYR	CB-CG-CD2	-12.79	113.33	121.00
33	L1	1384	G	O4'-C1'-C2'	12.78	119.11	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	841	G	O4'-C1'-C2'	12.78	119.10	107.60
33	L1	1043	U	O4'-C1'-N1	12.78	118.42	108.20
35	L2	61	C	N1-C1'-C2'	12.78	130.62	114.00
69	La	26	VAL	CB-CA-C	12.78	135.68	111.40
33	L1	1258	C	C1'-O4'-C4'	12.78	120.12	109.90
33	L1	2482	A	O4'-C1'-N9	12.78	118.42	108.20
79	Ls	186	PHE	CB-CG-CD1	-12.78	111.86	120.80
33	L1	1827	U	P-O5'-C5'	12.77	141.34	120.90
33	L1	3051	U	O4'-C1'-N1	12.77	118.42	108.20
61	Lq	15	ARG	NE-CZ-NH1	12.77	126.69	120.30
32	S1	1686	C	N1-C1'-C2'	12.77	130.60	114.00
33	L1	599	C	C3'-C2'-C1'	12.77	111.71	101.50
33	L1	2640	A	O4'-C1'-C2'	-12.77	93.03	105.80
13	SQ	22	SER	N-CA-CB	12.76	129.64	110.50
32	S1	67	G	N9-C1'-C2'	12.76	130.59	114.00
14	SP	89	ARG	NE-CZ-NH2	-12.75	113.92	120.30
33	L1	676	G	C3'-C2'-C1'	-12.75	91.30	101.50
32	S1	1643	A	O4'-C1'-N9	12.75	118.40	108.20
23	SU	24	SER	C-N-CA	12.75	153.57	121.70
33	L1	24	C	C5'-C4'-C3'	-12.75	95.60	116.00
33	L1	2496	U	N1-C1'-C2'	-12.75	97.43	114.00
33	L1	1668	U	O4'-C1'-N1	12.75	118.40	108.20
32	S1	1590	U	O4'-C1'-N1	12.74	118.40	108.20
33	L1	2108	C	O4'-C1'-C2'	-12.74	93.06	105.80
46	LT	107	ARG	NE-CZ-NH2	-12.74	113.93	120.30
32	S1	1063	U	N1-C1'-C2'	-12.74	97.44	114.00
33	L1	968	A	C3'-C2'-C1'	-12.74	91.31	101.50
33	L1	481	G	P-O3'-C3'	12.74	134.98	119.70
32	S1	1314	U	O5'-C5'-C4'	12.73	135.90	111.70
15	SS	15	HIS	N-CA-CB	-12.73	87.68	110.60
33	L1	1538	A	P-O3'-C3'	12.73	134.98	119.70
33	L1	1672	G	N9-C1'-C2'	-12.73	97.45	114.00
67	LS	113	ALA	N-CA-CB	-12.73	92.28	110.10
32	S1	801	U	O5'-C5'-C4'	12.73	135.88	111.70
31	S2	37	G	C1'-O4'-C4'	-12.72	99.72	109.90
32	S1	562	U	P-O3'-C3'	12.72	134.96	119.70
33	L1	2944	C	C3'-C2'-C1'	12.72	111.67	101.50
23	SU	25	ARG	CD-NE-CZ	12.71	141.40	123.60
33	L1	70	A	P-O3'-C3'	12.71	134.96	119.70
33	L1	2318	U	O4'-C1'-N1	12.71	118.37	108.20
33	L1	2896	C	O4'-C1'-C2'	-12.71	93.09	105.80
32	S1	841	U	O4'-C1'-N1	12.71	118.37	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2934	C	O4'-C1'-N1	12.71	118.37	108.20
34	L3	2	G	O4'-C1'-N9	12.70	118.36	108.20
33	L1	1303	C	O4'-C1'-N1	12.70	118.36	108.20
32	S1	1513	A	N9-C1'-C2'	-12.70	97.49	114.00
24	SX	74	ARG	NE-CZ-NH1	12.69	126.65	120.30
33	L1	175	G	C3'-C2'-C1'	-12.69	91.35	101.50
38	LE	34	ARG	N-CA-CB	12.69	133.44	110.60
72	Lk	59	ARG	NE-CZ-NH2	12.69	126.64	120.30
78	Le	90	ARG	NE-CZ-NH2	-12.69	113.96	120.30
32	S1	1217	G	O4'-C1'-N9	12.68	118.34	108.20
32	S1	635	G	C1'-O4'-C4'	12.67	120.04	109.90
33	L1	1050	A	P-O3'-C3'	12.67	134.91	119.70
33	L1	2099	G	C1'-O4'-C4'	-12.67	99.76	109.90
13	SQ	94	GLU	CA-C-O	-12.67	93.50	120.10
33	L1	460	A	O4'-C1'-N9	12.67	118.33	108.20
33	L1	384	A	P-O3'-C3'	-12.66	104.50	119.70
33	L1	3316	C	C3'-C2'-C1'	12.66	111.63	101.50
35	L2	45	A	C5'-C4'-C3'	12.65	136.25	116.00
33	L1	1197	A	P-O3'-C3'	12.65	134.88	119.70
32	S1	115	A	O4'-C1'-N9	12.65	118.32	108.20
33	L1	1316	C	C3'-C2'-C1'	12.65	111.62	101.50
35	L2	70	G	C1'-O4'-C4'	-12.65	99.78	109.90
81	LD	61	ARG	NE-CZ-NH2	12.65	126.62	120.30
32	S1	1677	U	C1'-O4'-C4'	12.64	120.01	109.90
33	L1	1697	G	P-O3'-C3'	12.64	134.87	119.70
33	L1	1873	C	N1-C1'-C2'	12.64	130.43	114.00
33	L1	2087	A	O4'-C1'-N9	12.64	118.31	108.20
33	L1	1549	A	O4'-C1'-C2'	-12.63	93.17	105.80
33	L1	1744	C	N1-C1'-C2'	12.63	130.42	114.00
33	L1	2224	A	O4'-C1'-N9	12.63	118.31	108.20
33	L1	2792	A	O4'-C1'-N9	12.63	118.31	108.20
33	L1	989	U	O4'-C1'-N1	12.63	118.30	108.20
33	L1	1863	A	C1'-O4'-C4'	12.63	120.00	109.90
25	SC	144	ASN	CA-C-O	-12.62	93.59	120.10
33	L1	3124	A	N9-C1'-C2'	-12.63	97.59	114.00
32	S1	420	A	C3'-C2'-C1'	12.62	111.60	101.50
32	S1	458	A	O4'-C1'-N9	12.62	118.29	108.20
32	S1	1397	A	O4'-C1'-C2'	-12.62	93.18	105.80
30	S3	16	G	O4'-C1'-C2'	-12.61	93.19	105.80
33	L1	2507	U	O4'-C1'-N1	12.61	118.29	108.20
33	L1	1958	G	O4'-C1'-N9	12.61	118.29	108.20
80	LC	69	LYS	O-C-N	-12.61	102.52	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	Lm	7	LYS	CA-C-O	-12.61	93.61	120.10
42	LP	172	ARG	NE-CZ-NH1	12.61	126.60	120.30
33	L1	3328	A	O4'-C1'-C2'	-12.60	93.20	105.80
32	S1	840	U	O4'-C1'-N1	12.60	118.28	108.20
33	L1	1589	G	P-O3'-C3'	12.60	134.82	119.70
32	S1	456	A	O4'-C1'-N9	12.60	118.28	108.20
33	L1	2875	U	P-O3'-C3'	-12.60	104.58	119.70
33	L1	2160	C	C3'-C2'-C1'	12.59	111.57	101.50
31	S2	51	G	O4'-C1'-N9	12.58	118.27	108.20
71	Lj	14	ARG	N-CA-CB	-12.58	87.95	110.60
33	L1	3320	G	O4'-C1'-N9	-12.58	98.14	108.20
33	L1	3376	C	C5'-C4'-C3'	12.58	136.12	116.00
33	L1	1442	U	P-O3'-C3'	-12.57	104.61	119.70
33	L1	1941	G	C3'-C2'-C1'	-12.57	91.44	101.50
34	L3	73	U	O4'-C1'-C2'	-12.57	93.23	105.80
59	Lo	7	PHE	CB-CG-CD1	-12.57	112.00	120.80
32	S1	903	A	P-O3'-C3'	12.57	134.78	119.70
82	LK	129	LEU	CB-CA-C	-12.57	86.32	110.20
32	S1	960	A	O4'-C1'-N9	12.56	118.25	108.20
32	S1	1028	A	P-O3'-C3'	12.56	134.78	119.70
32	S1	1442	A	OP2-P-O3'	12.56	132.84	105.20
33	L1	860	G	O4'-C1'-N9	12.56	118.25	108.20
33	L1	1895	G	C1'-O4'-C4'	-12.56	99.85	109.90
70	Li	93	ARG	NE-CZ-NH1	-12.56	114.02	120.30
32	S1	468	A	O4'-C1'-N9	12.56	118.25	108.20
32	S1	501	U	N1-C1'-C2'	12.56	130.32	114.00
32	S1	1736	C	N1-C1'-C2'	12.56	130.32	114.00
33	L1	1769	C	O4'-C1'-N1	12.55	118.24	108.20
33	L1	2738	U	C5'-C4'-C3'	-12.55	95.92	116.00
48	LV	70	THR	N-CA-CB	12.55	134.15	110.30
33	L1	1777	C	O4'-C1'-N1	12.54	118.24	108.20
33	L1	357	C	N1-C1'-C2'	12.54	130.31	114.00
33	L1	1612	C	N1-C1'-C2'	12.54	130.31	114.00
33	L1	2544	C	N1-C1'-C2'	12.54	130.30	114.00
32	S1	1540	U	O4'-C1'-N1	12.53	118.22	108.20
33	L1	1312	A	O4'-C1'-C2'	-12.53	93.27	105.80
33	L1	1513	C	C3'-C2'-C1'	12.53	111.52	101.50
34	L3	25	G	O3'-P-O5'	12.53	127.80	104.00
81	LD	308	LYS	O-C-N	-12.53	97.30	121.10
32	S1	268	G	P-O3'-C3'	12.52	134.73	119.70
32	S1	1748	U	C1'-O4'-C4'	-12.52	99.89	109.90
33	L1	1330	A	O4'-C1'-N9	12.51	118.21	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	123	U	N1-C1'-C2'	-12.51	97.74	114.00
33	L1	1821	G	O4'-C1'-N9	12.51	118.20	108.20
32	S1	303	A	OP2-P-O3'	-12.50	77.69	105.20
34	L3	53	U	P-O3'-C3'	12.50	134.70	119.70
15	SS	104	ARG	NE-CZ-NH2	-12.50	114.05	120.30
33	L1	906	U	O4'-C1'-N1	12.50	118.20	108.20
33	L1	833	G	C1'-O4'-C4'	-12.49	99.91	109.90
33	L1	1900	C	C1'-O4'-C4'	-12.49	99.91	109.90
33	L1	3310	A	N9-C1'-C2'	12.49	130.23	114.00
32	S1	1315	U	OP2-P-O3'	-12.47	77.76	105.20
33	L1	635	U	O4'-C1'-N1	12.47	118.18	108.20
33	L1	1765	G	O4'-C1'-N9	12.47	118.18	108.20
32	S1	1071	C	O4'-C1'-N1	12.47	118.17	108.20
33	L1	1817	U	O4'-C1'-C2'	-12.47	93.33	105.80
33	L1	3291	C	P-O5'-C5'	12.46	140.84	120.90
33	L1	3325	G	N9-C1'-C2'	12.46	130.20	114.00
32	S1	1225	A	P-O5'-C5'	-12.46	100.97	120.90
33	L1	2538	G	O4'-C1'-N9	12.46	118.17	108.20
32	S1	1575	U	O4'-C1'-N1	12.45	118.16	108.20
33	L1	2591	G	C1'-O4'-C4'	-12.45	99.94	109.90
33	L1	2941	G	C1'-O4'-C4'	-12.45	99.94	109.90
15	SS	104	ARG	NE-CZ-NH1	12.45	126.53	120.30
33	L1	1369	G	P-O5'-C5'	12.45	140.82	120.90
33	L1	2632	U	O4'-C1'-N1	12.45	118.16	108.20
23	SU	34	HIS	O-C-N	-12.44	97.46	121.10
33	L1	1432	G	C1'-O4'-C4'	-12.44	99.94	109.90
32	S1	119	U	C3'-C2'-C1'	-12.44	91.55	101.50
32	S1	316	A	P-O3'-C3'	12.44	134.63	119.70
32	S1	584	A	P-O3'-C3'	12.44	134.63	119.70
33	L1	305	G	O4'-C1'-N9	12.44	118.16	108.20
35	L2	93	A	O4'-C1'-N9	-12.44	98.25	108.20
33	L1	25	U	O4'-C1'-N1	12.43	118.15	108.20
33	L1	1755	A	C3'-C2'-C1'	12.43	111.44	101.50
32	S1	572	G	O4'-C1'-N9	12.43	118.14	108.20
32	S1	608	U	O4'-C1'-N1	12.43	118.14	108.20
33	L1	538	C	O4'-C1'-C2'	-12.42	93.38	105.80
46	LT	136	ARG	O-C-N	-12.42	102.82	122.70
31	S2	72	G	P-O3'-C3'	12.42	134.60	119.70
33	L1	1692	U	O4'-C1'-N1	12.42	118.13	108.20
33	L1	3084	G	O4'-C1'-C2'	12.42	118.78	107.60
32	S1	192	G	P-O3'-C3'	12.41	134.60	119.70
32	S1	319	A	O4'-C1'-N9	12.41	118.13	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1546	G	O4'-C1'-N9	12.41	118.13	108.20
32	S1	1290	U	O4'-C1'-N1	-12.41	98.28	108.20
32	S1	1777	G	P-O3'-C3'	12.41	134.59	119.70
33	L1	1075	G	C1'-O4'-C4'	-12.41	99.97	109.90
25	SC	109	ARG	NE-CZ-NH2	-12.40	114.10	120.30
33	L1	2292	U	N1-C1'-C2'	12.40	130.12	114.00
48	LV	69	ARG	C-N-CA	12.40	152.71	121.70
32	S1	1014	U	P-O3'-C3'	12.40	134.58	119.70
32	S1	1635	U	O4'-C1'-N1	12.40	118.12	108.20
33	L1	1627	U	O4'-C1'-N1	12.40	118.12	108.20
33	L1	3188	G	P-O3'-C3'	12.40	134.58	119.70
31	S2	75	A	P-O5'-C5'	12.40	140.73	120.90
33	L1	1713	A	N9-C1'-C2'	12.40	130.12	114.00
33	L1	1245	U	P-O3'-C3'	12.39	134.57	119.70
33	L1	1439	U	N1-C1'-C2'	12.39	130.11	114.00
33	L1	2252	C	C1'-O4'-C4'	12.39	119.81	109.90
32	S1	624	A	P-O3'-C3'	12.39	134.57	119.70
31	S2	50	G	O4'-C1'-C2'	12.39	118.75	107.60
33	L1	3275	G	O4'-C1'-C2'	12.39	118.75	107.60
3	SB	125	PHE	CB-CG-CD2	12.38	129.47	120.80
14	SP	83	ARG	NE-CZ-NH1	12.38	126.49	120.30
32	S1	44	U	P-O3'-C3'	12.38	134.56	119.70
33	L1	2361	C	O4'-C1'-C2'	-12.38	93.42	105.80
33	L1	628	C	N1-C1'-C2'	12.38	130.09	114.00
33	L1	964	C	C3'-C2'-C1'	12.38	111.40	101.50
33	L1	1568	A	N9-C1'-C2'	-12.38	97.91	114.00
33	L1	2796	G	C3'-C2'-C1'	12.38	111.40	101.50
32	S1	1508	C	O4'-C1'-N1	12.37	118.10	108.20
33	L1	709	G	O4'-C1'-N9	12.37	118.10	108.20
32	S1	1760	A	O4'-C1'-N9	12.37	118.09	108.20
33	L1	1266	G	C1'-O4'-C4'	-12.37	100.01	109.90
33	L1	2592	G	O4'-C1'-C2'	12.37	118.73	107.60
33	L1	3353	G	P-O3'-C3'	12.37	134.54	119.70
33	L1	1942	A	O4'-C1'-C2'	12.37	118.73	107.60
33	L1	2352	G	C3'-C2'-C1'	-12.36	91.61	101.50
33	L1	903	G	O4'-C1'-N9	12.36	118.09	108.20
33	L1	3136	A	P-O3'-C3'	12.36	134.53	119.70
33	L1	3001	G	C1'-O4'-C4'	-12.36	100.01	109.90
33	L1	475	U	C3'-C2'-C1'	12.36	111.39	101.50
35	L2	32	C	C1'-O4'-C4'	-12.36	100.02	109.90
33	L1	1888	G	C3'-C2'-C1'	-12.35	91.62	101.50
32	S1	150	U	P-O3'-C3'	12.35	134.52	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
70	Li	68	SER	N-CA-CB	12.35	129.03	110.50
34	L3	55	A	O4'-C1'-N9	12.35	118.08	108.20
33	L1	484	C	O3'-P-O5'	12.35	127.46	104.00
32	S1	594	C	O4'-C1'-N1	12.35	118.08	108.20
33	L1	707	G	C1'-O4'-C4'	-12.35	100.02	109.90
32	S1	1678	G	C3'-C2'-C1'	-12.34	91.63	101.50
33	L1	133	G	O4'-C1'-C2'	12.34	118.71	107.60
33	L1	137	C	P-O3'-C3'	12.34	134.51	119.70
33	L1	1709	U	P-O3'-C3'	12.34	134.51	119.70
33	L1	1862	C	N1-C1'-C2'	12.34	130.04	114.00
33	L1	3348	G	O4'-C1'-N9	12.34	118.07	108.20
32	S1	1566	U	O4'-C1'-N1	-12.34	98.33	108.20
45	LQ	48	TYR	CB-CG-CD1	-12.34	113.60	121.00
32	S1	1123	G	O4'-C1'-N9	12.33	118.07	108.20
33	L1	3024	U	O4'-C1'-N1	12.33	118.06	108.20
33	L1	3175	C	C3'-C2'-C1'	12.33	111.36	101.50
32	S1	382	A	O4'-C1'-N9	12.33	118.06	108.20
33	L1	563	C	P-O3'-C3'	12.33	134.49	119.70
33	L1	962	C	P-O3'-C3'	12.33	134.49	119.70
33	L1	2801	A	P-O3'-C3'	12.32	134.49	119.70
33	L1	614	C	O4'-C1'-N1	12.32	118.06	108.20
33	L1	1255	A	C1'-O4'-C4'	-12.32	100.04	109.90
68	LW	29	LYS	N-CA-CB	12.32	132.77	110.60
33	L1	159	G	O4'-C1'-C2'	12.32	118.69	107.60
33	L1	2362	A	P-O3'-C3'	12.32	134.48	119.70
33	L1	2612	A	O4'-C1'-N9	12.32	118.05	108.20
32	S1	1643	A	N9-C1'-C2'	-12.31	98.00	114.00
33	L1	812	G	C3'-C2'-C1'	-12.31	91.65	101.50
33	L1	2418	A	N9-C1'-C2'	12.31	130.00	114.00
32	S1	1138	A	C1'-O4'-C4'	12.31	119.75	109.90
33	L1	1163	A	P-O3'-C3'	12.31	134.47	119.70
42	LP	96	ARG	NE-CZ-NH1	12.31	126.45	120.30
32	S1	217	A	O4'-C1'-N9	12.30	118.04	108.20
32	S1	1045	G	O4'-C1'-N9	12.31	118.05	108.20
33	L1	3240	C	P-O3'-C3'	12.30	134.46	119.70
32	S1	480	U	O4'-C1'-C2'	-12.30	93.50	105.80
31	S2	58	U	C1'-O4'-C4'	12.30	119.74	109.90
32	S1	633	U	C5'-C4'-O4'	12.29	123.85	109.10
35	L2	90	U	O4'-C1'-C2'	-12.29	93.51	105.80
33	L1	790	G	P-O5'-C5'	12.28	140.55	120.90
32	S1	823	A	O4'-C1'-C2'	-12.28	93.52	105.80
33	L1	639	A	N9-C1'-C2'	12.28	129.96	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1563	G	O4'-C1'-C2'	-12.28	93.52	105.80
33	L1	2099	G	O4'-C1'-C2'	12.28	118.65	107.60
4	SD	136	ILE	CA-C-N	12.28	151.47	117.10
33	L1	2763	C	C3'-C2'-C1'	12.28	111.32	101.50
33	L1	1586	A	O4'-C1'-N9	12.27	118.02	108.20
33	L1	2882	U	O4'-C1'-C2'	12.27	118.64	107.60
38	LE	170	GLU	CB-CA-C	12.27	134.94	110.40
59	Lo	8	ARG	NE-CZ-NH1	12.27	126.44	120.30
32	S1	715	U	P-O3'-C3'	-12.27	104.98	119.70
33	L1	533	G	N9-C1'-C2'	12.26	129.94	114.00
33	L1	1344	A	O4'-C1'-N9	-12.26	98.39	108.20
33	L1	1911	A	C3'-C2'-C1'	-12.26	91.69	101.50
34	L3	1	G	P-O3'-C3'	-12.26	104.98	119.70
81	LD	309	PRO	CB-CA-C	12.26	142.65	112.00
33	L1	684	C	P-O3'-C3'	12.26	134.41	119.70
33	L1	1005	C	O4'-C1'-N1	12.26	118.01	108.20
33	L1	2795	G	O4'-C1'-C2'	12.26	118.63	107.60
33	L1	662	G	O4'-C1'-C2'	12.25	118.63	107.60
33	L1	306	A	P-O5'-C5'	12.25	140.50	120.90
33	L1	309	C	C3'-C2'-C1'	12.25	111.30	101.50
33	L1	326	C	P-O3'-C3'	12.25	134.40	119.70
33	L1	2411	G	C1'-O4'-C4'	-12.25	100.10	109.90
33	L1	804	A	C3'-C2'-C1'	12.25	111.30	101.50
33	L1	2375	G	P-O5'-C5'	12.25	140.50	120.90
42	LP	63	ARG	NE-CZ-NH1	12.25	126.42	120.30
33	L1	423	C	O4'-C1'-N1	-12.24	98.41	108.20
33	L1	2769	U	O4'-C1'-N1	12.24	118.00	108.20
35	L2	99	G	O4'-C1'-C2'	-12.24	93.56	105.80
7	SI	141	ARG	NE-CZ-NH2	-12.24	114.18	120.30
28	SN	22	ARG	NE-CZ-NH2	12.24	126.42	120.30
32	S1	592	U	O4'-C1'-N1	12.23	117.99	108.20
32	S1	898	U	O4'-C1'-N1	12.23	117.98	108.20
33	L1	972	C	O4'-C1'-N1	12.23	117.98	108.20
33	L1	3363	G	O4'-C1'-C2'	12.23	118.60	107.60
33	L1	3094	C	C3'-C2'-C1'	12.22	111.28	101.50
33	L1	513	C	O4'-C1'-N1	12.21	117.97	108.20
33	L1	404	G	O4'-C1'-N9	12.21	117.97	108.20
33	L1	2061	C	C1'-O4'-C4'	-12.21	100.13	109.90
33	L1	1579	C	N1-C1'-C2'	12.21	129.87	114.00
32	S1	7	G	C3'-C2'-C1'	-12.20	91.74	101.50
35	L2	124	G	N9-C1'-C2'	-12.20	98.14	114.00
38	LE	34	ARG	CA-CB-CG	12.20	140.24	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1792	A	N9-C1'-C2'	-12.20	98.14	114.00
33	L1	1086	U	O4'-C1'-C2'	-12.19	93.61	105.80
15	SS	44	ARG	NE-CZ-NH1	12.19	126.39	120.30
34	L3	9	U	P-O3'-C3'	12.19	134.33	119.70
14	SP	41	LEU	CB-CA-C	12.18	133.34	110.20
32	S1	505	U	O4'-C1'-N1	12.18	117.94	108.20
33	L1	2431	U	C1'-O4'-C4'	-12.18	100.16	109.90
36	LA	201	ARG	NE-CZ-NH1	-12.18	114.21	120.30
33	L1	1010	A	N9-C1'-C2'	-12.17	98.17	114.00
33	L1	1297	U	C1'-O4'-C4'	-12.17	100.16	109.90
43	LO	6	LYS	CA-C-N	12.17	143.98	117.20
33	L1	1034	U	O5'-C5'-C4'	12.16	134.81	111.70
33	L1	1551	C	N1-C1'-C2'	12.16	129.81	114.00
81	LD	79	ARG	NE-CZ-NH2	-12.16	114.22	120.30
33	L1	1103	U	N1-C1'-C2'	-12.16	98.19	114.00
68	LW	114	TYR	CB-CG-CD2	-12.16	113.70	121.00
32	S1	1276	U	O4'-C1'-N1	12.15	117.92	108.20
32	S1	1363	G	O4'-C1'-N9	12.15	117.92	108.20
33	L1	1019	A	O4'-C1'-N9	12.15	117.92	108.20
33	L1	2887	C	N1-C1'-C2'	12.15	129.80	114.00
35	L2	97	U	O4'-C1'-C2'	-12.15	93.65	105.80
23	SU	95	TYR	CB-CG-CD1	-12.15	113.71	121.00
33	L1	1035	C	O3'-P-O5'	-12.15	80.92	104.00
33	L1	2302	G	O4'-C1'-N9	-12.15	98.48	108.20
11	SM	108	ARG	NE-CZ-NH2	-12.14	114.23	120.30
31	S2	70	G	O4'-C1'-N9	12.14	117.91	108.20
33	L1	1690	C	P-O5'-C5'	12.14	140.32	120.90
32	S1	1314	U	P-O5'-C5'	12.14	140.32	120.90
67	LS	5	ARG	NE-CZ-NH2	-12.13	114.23	120.30
32	S1	882	G	N9-C1'-C2'	12.13	129.77	114.00
32	S1	933	G	N9-C1'-C2'	-12.13	98.23	114.00
32	S1	128	G	O4'-C1'-C2'	-12.13	93.67	105.80
64	LG	185	ASP	O-C-N	-12.13	103.30	122.70
33	L1	574	C	P-O3'-C3'	12.12	134.25	119.70
33	L1	1370	A	C1'-O4'-C4'	12.12	119.60	109.90
33	L1	3202	G	O4'-C1'-C2'	12.12	118.51	107.60
32	S1	299	A	N9-C1'-C2'	-12.12	98.24	114.00
33	L1	1369	G	C1'-O4'-C4'	-12.12	100.20	109.90
33	L1	2783	U	P-O5'-C5'	12.12	140.29	120.90
25	SC	163	THR	OG1-CB-CG2	12.11	137.86	110.00
35	L2	162	C	P-O3'-C3'	12.11	134.24	119.70
33	L1	720	G	C3'-C2'-C1'	12.11	111.19	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	431	G	P-O3'-C3'	12.11	134.23	119.70
30	S3	18	C	P-O3'-C3'	12.11	134.23	119.70
33	L1	975	G	C5'-C4'-C3'	12.11	135.38	116.00
33	L1	295	U	O4'-C1'-N1	12.11	117.89	108.20
33	L1	720	G	O4'-C1'-C2'	-12.11	93.69	105.80
33	L1	2199	C	C1'-O4'-C4'	-12.11	100.22	109.90
33	L1	2379	U	P-O3'-C3'	12.11	134.22	119.70
33	L1	1305	A	O4'-C1'-N9	-12.10	98.52	108.20
33	L1	1771	G	O4'-C1'-N9	12.10	117.88	108.20
32	S1	1541	C	O4'-C1'-N1	12.10	117.88	108.20
33	L1	1351	C	C5'-C4'-C3'	12.10	135.36	116.00
33	L1	1209	G	O4'-C1'-N9	12.10	117.88	108.20
33	L1	1615	G	C1'-O4'-C4'	-12.10	100.22	109.90
33	L1	2437	A	C3'-C2'-C1'	12.10	111.18	101.50
33	L1	2165	A	C1'-O4'-C4'	-12.10	100.22	109.90
32	S1	1765	A	P-O3'-C3'	12.10	134.22	119.70
23	SU	52	LEU	CB-CA-C	12.10	133.18	110.20
33	L1	2482	A	O4'-C1'-C2'	12.10	118.49	107.60
78	Le	109	ARG	NE-CZ-NH1	12.10	126.35	120.30
35	L2	94	C	O4'-C1'-C2'	12.09	118.48	107.60
25	SC	164	SER	CA-C-N	12.09	150.95	117.10
7	SI	53	LYS	N-CA-CB	-12.09	88.84	110.60
33	L1	457	C	N1-C1'-C2'	12.09	129.72	114.00
32	S1	800	U	P-O3'-C3'	12.08	134.19	119.70
11	SM	35	GLY	N-CA-C	12.07	143.28	113.10
32	S1	1783	C	O4'-C1'-N1	-12.07	98.54	108.20
33	L1	2380	G	O5'-C5'-C4'	12.07	134.64	111.70
31	S2	68	C	N1-C1'-C2'	12.07	129.69	114.00
32	S1	1733	G	O4'-C1'-N9	12.07	117.86	108.20
33	L1	2169	U	N1-C1'-C2'	12.07	129.69	114.00
34	L3	74	A	O4'-C1'-N9	12.07	117.86	108.20
33	L1	2418	A	O4'-C1'-N9	-12.07	98.55	108.20
11	SM	126	TYR	CE1-CZ-CE2	12.07	139.11	119.80
32	S1	717	G	P-O5'-C5'	12.07	140.21	120.90
33	L1	1858	U	P-O3'-C3'	12.06	134.18	119.70
32	S1	1739	U	N1-C1'-C2'	12.06	129.68	114.00
33	L1	2739	A	O4'-C1'-N9	12.06	117.85	108.20
33	L1	861	A	P-O3'-C3'	12.06	134.17	119.70
33	L1	3121	C	N1-C1'-C2'	12.06	129.68	114.00
32	S1	860	A	OP2-P-O3'	12.06	131.72	105.20
33	L1	1311	G	O4'-C1'-N9	12.05	117.84	108.20
33	L1	2876	G	C3'-C2'-C1'	-12.05	91.86	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	292	A	C1'-O4'-C4'	12.05	119.54	109.90
33	L1	1395	A	P-O3'-C3'	12.05	134.16	119.70
33	L1	555	G	O4'-C1'-C2'	12.05	118.44	107.60
33	L1	714	G	P-O3'-C3'	12.05	134.16	119.70
33	L1	1871	G	O4'-C1'-N9	12.05	117.84	108.20
33	L1	2350	C	C1'-O4'-C4'	-12.05	100.26	109.90
33	L1	3035	C	N1-C1'-C2'	12.05	129.66	114.00
33	L1	1894	G	C1'-O4'-C4'	12.04	119.53	109.90
31	S2	21	A	O4'-C1'-N9	12.04	117.83	108.20
33	L1	3295	G	O4'-C1'-N9	12.04	117.83	108.20
33	L1	2060	C	O4'-C1'-N1	12.04	117.83	108.20
33	L1	2909	A	N9-C1'-C2'	-12.04	98.35	114.00
32	S1	1773	A	P-O3'-C3'	12.03	134.14	119.70
33	L1	299	G	N9-C1'-C2'	-12.03	98.36	114.00
33	L1	502	G	O4'-C1'-N9	12.03	117.83	108.20
33	L1	860	G	P-O3'-C3'	12.03	134.13	119.70
33	L1	1510	G	O4'-C1'-N9	12.03	117.82	108.20
33	L1	2385	A	P-O3'-C3'	12.03	134.13	119.70
23	SU	34	HIS	CA-C-O	-12.02	94.85	120.10
33	L1	2597	C	C1'-O4'-C4'	-12.02	100.28	109.90
33	L1	1245	U	O4'-C1'-N1	12.02	117.82	108.20
33	L1	2617	G	O3'-P-O5'	-12.02	81.16	104.00
33	L1	3363	G	C1'-O4'-C4'	-12.02	100.28	109.90
34	L3	112	U	O4'-C1'-N1	12.02	117.82	108.20
32	S1	1315	U	O3'-P-O5'	12.02	126.83	104.00
32	S1	110	G	O4'-C1'-N9	12.02	117.81	108.20
33	L1	3326	U	P-O3'-C3'	12.01	134.11	119.70
35	L2	158	G	C3'-C2'-C1'	-12.01	91.89	101.50
33	L1	641	C	P-O5'-C5'	-12.01	101.69	120.90
34	L3	45	U	O4'-C1'-N1	12.01	117.81	108.20
32	S1	893	U	N1-C1'-C2'	12.00	129.60	114.00
32	S1	1156	A	N9-C1'-C2'	-12.00	98.40	114.00
33	L1	430	G	C1'-O4'-C4'	-12.00	100.30	109.90
34	L3	79	A	O4'-C1'-C2'	-12.00	93.80	105.80
23	SU	68	THR	O-C-N	-12.00	103.50	122.70
33	L1	397	A	O4'-C1'-C2'	11.99	118.39	107.60
33	L1	549	G	C3'-C2'-C1'	-11.99	91.90	101.50
33	L1	2739	A	C5'-C4'-C3'	11.99	135.19	116.00
35	L2	125	A	P-O3'-C3'	11.99	134.09	119.70
33	L1	341	U	O4'-C1'-N1	11.99	117.79	108.20
33	L1	1932	A	C1'-O4'-C4'	-11.99	100.31	109.90
32	S1	962	G	O4'-C1'-C2'	11.99	118.39	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	L3	108	G	O4'-C1'-N9	11.99	117.79	108.20
13	SQ	28	PHE	CB-CG-CD2	-11.98	112.41	120.80
33	L1	579	G	C3'-C2'-C1'	11.98	111.09	101.50
19	SY	47	ARG	NE-CZ-NH1	-11.98	114.31	120.30
70	Li	46	VAL	N-CA-C	11.98	143.34	111.00
33	L1	2669	C	C1'-O4'-C4'	-11.98	100.32	109.90
66	LN	122	ARG	NE-CZ-NH1	11.98	126.29	120.30
32	S1	551	U	O4'-C1'-N1	11.98	117.78	108.20
33	L1	1401	C	O4'-C1'-C2'	-11.97	93.83	105.80
16	SR	117	LYS	N-CA-CB	11.97	132.14	110.60
25	SC	162	LEU	C-N-CA	-11.97	91.78	121.70
33	L1	1511	C	N1-C1'-C2'	11.97	129.56	114.00
31	S2	47	U	N1-C1'-C2'	-11.96	98.44	114.00
32	S1	1048	A	O4'-C1'-N9	11.96	117.77	108.20
33	L1	2394	G	O4'-C1'-C2'	11.96	118.36	107.60
29	ST	22	ARG	NE-CZ-NH2	-11.96	114.32	120.30
32	S1	1713	C	N1-C1'-C2'	11.96	129.55	114.00
33	L1	3214	U	O4'-C1'-N1	11.96	117.77	108.20
32	S1	37	U	O4'-C1'-N1	11.96	117.77	108.20
33	L1	3025	A	O4'-C1'-N9	11.95	117.76	108.20
35	L2	63	A	C3'-C2'-C1'	11.95	111.06	101.50
31	S2	8	U	N1-C1'-C2'	-11.95	98.47	114.00
32	S1	1802	G	O4'-C1'-N9	11.95	117.76	108.20
33	L1	784	G	C3'-C2'-C1'	-11.95	91.94	101.50
33	L1	605	A	C3'-C2'-C1'	11.94	111.06	101.50
33	L1	2002	G	O4'-C1'-N9	11.94	117.75	108.20
33	L1	2818	G	P-O3'-C3'	11.94	134.03	119.70
33	L1	3330	U	O4'-C1'-N1	11.94	117.75	108.20
33	L1	3312	G	O4'-C1'-N9	11.93	117.75	108.20
32	S1	1474	U	O4'-C1'-N1	11.93	117.74	108.20
33	L1	2167	G	P-O3'-C3'	11.93	134.02	119.70
33	L1	2721	C	O4'-C1'-N1	11.93	117.74	108.20
33	L1	3202	G	O4'-C1'-N9	11.93	117.74	108.20
71	Lj	86	ARG	NE-CZ-NH2	-11.93	114.33	120.30
33	L1	1012	U	O4'-C1'-N1	11.92	117.74	108.20
45	LQ	256	SER	O-C-N	-11.92	103.63	122.70
33	L1	3006	G	O4'-C1'-N9	11.92	117.73	108.20
48	LV	76	ARG	NE-CZ-NH1	11.92	126.26	120.30
40	LH	226	ARG	NE-CZ-NH1	11.92	126.26	120.30
32	S1	1630	G	O4'-C1'-N9	11.91	117.73	108.20
33	L1	1623	C	P-O3'-C3'	11.91	134.00	119.70
33	L1	1789	C	C1'-O4'-C4'	-11.91	100.37	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
79	Ls	234	TYR	C-N-CD	-11.91	94.39	120.60
33	L1	2629	C	C1'-O4'-C4'	-11.91	100.37	109.90
33	L1	83	U	P-O5'-C5'	11.91	139.95	120.90
33	L1	309	C	C4'-C3'-C2'	-11.91	90.69	102.60
33	L1	1614	G	C1'-O4'-C4'	-11.91	100.38	109.90
32	S1	1069	G	C1'-O4'-C4'	11.90	119.42	109.90
32	S1	372	U	O4'-C1'-N1	11.90	117.72	108.20
46	LT	159	PHE	CB-CG-CD2	11.90	129.13	120.80
32	S1	1427	A	O4'-C1'-C2'	11.90	118.31	107.60
33	L1	2779	G	N9-C1'-C2'	-11.89	98.54	114.00
32	S1	850	G	N9-C1'-C2'	11.89	129.46	114.00
32	S1	1507	G	O4'-C1'-N9	11.89	117.71	108.20
7	SI	63	ARG	NE-CZ-NH2	-11.89	114.36	120.30
33	L1	468	U	O4'-C1'-N1	11.89	117.71	108.20
33	L1	532	G	O4'-C1'-C2'	11.89	118.30	107.60
33	L1	1551	C	O4'-C1'-N1	-11.89	98.69	108.20
33	L1	460	A	N9-C1'-C2'	-11.88	98.55	114.00
33	L1	605	A	O4'-C1'-C2'	-11.88	93.92	105.80
33	L1	1849	U	O4'-C1'-N1	11.89	117.71	108.20
33	L1	2742	A	O4'-C1'-N9	11.88	117.71	108.20
31	S2	72	G	N9-C1'-C2'	-11.88	98.55	114.00
32	S1	891	U	C1'-O4'-C4'	-11.88	100.39	109.90
33	L1	2629	C	P-O5'-C5'	11.88	139.91	120.90
33	L1	987	A	P-O3'-C3'	11.88	133.96	119.70
33	L1	2125	A	O4'-C1'-C2'	-11.88	93.92	105.80
33	L1	1632	G	P-O3'-C3'	11.87	133.94	119.70
33	L1	1551	C	C3'-C2'-C1'	11.87	111.00	101.50
35	L2	115	G	O4'-C1'-C2'	-11.87	93.93	105.80
34	L3	78	C	O4'-C1'-C2'	-11.87	93.93	105.80
32	S1	1184	C	C3'-C2'-C1'	11.87	110.99	101.50
32	S1	1097	A	O3'-P-O5'	11.86	126.54	104.00
32	S1	1106	G	O4'-C1'-N9	11.86	117.69	108.20
33	L1	1133	A	C3'-C2'-C1'	11.86	110.99	101.50
33	L1	2992	G	N9-C1'-C2'	-11.86	98.58	114.00
32	S1	1513	A	C1'-O4'-C4'	11.86	119.39	109.90
33	L1	47	A	C3'-C2'-C1'	-11.86	92.01	101.50
33	L1	113	A	N9-C1'-C2'	-11.86	98.59	114.00
33	L1	1743	C	P-O3'-C3'	11.86	133.93	119.70
33	L1	1060	U	P-O3'-C3'	11.85	133.93	119.70
33	L1	1058	A	P-O5'-C5'	11.85	139.86	120.90
33	L1	2477	G	N9-C1'-C2'	-11.85	98.60	114.00
34	L3	120	C	N1-C1'-C2'	11.85	129.40	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1226	G	O4'-C1'-N9	11.85	117.68	108.20
33	L1	3206	C	P-O3'-C3'	11.85	133.92	119.70
33	L1	1863	A	N9-C1'-C2'	-11.84	98.61	114.00
35	L2	70	G	O4'-C1'-C2'	11.84	118.26	107.60
33	L1	1086	U	C1'-O4'-C4'	11.84	119.37	109.90
67	LS	28	ARG	CA-CB-CG	11.84	139.45	113.40
33	L1	1739	G	P-O3'-C3'	11.84	133.90	119.70
31	S2	67	G	P-O3'-C3'	11.83	133.89	119.70
33	L1	385	A	C5'-C4'-C3'	11.83	134.93	116.00
33	L1	3339	G	O4'-C1'-N9	11.83	117.66	108.20
58	Ln	21	ARG	NE-CZ-NH1	11.83	126.22	120.30
81	LD	201	ARG	NE-CZ-NH2	-11.83	114.39	120.30
80	LC	26	ARG	NE-CZ-NH1	11.83	126.21	120.30
32	S1	1646	G	O4'-C1'-N9	11.82	117.66	108.20
33	L1	521	G	P-O3'-C3'	11.82	133.89	119.70
33	L1	2693	G	O4'-C1'-N9	11.82	117.66	108.20
33	L1	2725	U	C1'-O4'-C4'	-11.82	100.45	109.90
32	S1	788	G	P-O3'-C3'	11.81	133.88	119.70
33	L1	267	G	C3'-C2'-C1'	11.81	110.95	101.50
33	L1	1101	A	O3'-P-O5'	-11.81	81.55	104.00
33	L1	2081	C	C3'-C2'-C1'	11.81	110.95	101.50
33	L1	3327	A	O4'-C1'-N9	-11.81	98.75	108.20
32	S1	1095	C	C1'-O4'-C4'	-11.81	100.45	109.90
33	L1	1377	G	O4'-C1'-C2'	11.81	118.23	107.60
33	L1	1021	U	O4'-C1'-N1	11.80	117.64	108.20
33	L1	2974	G	O4'-C1'-N9	11.80	117.64	108.20
33	L1	3347	U	O4'-C1'-C2'	-11.80	94.00	105.80
37	LB	123	ARG	NE-CZ-NH2	-11.80	114.40	120.30
33	L1	1778	C	P-O3'-C3'	11.80	133.86	119.70
33	L1	1061	A	O4'-C1'-C2'	-11.80	94.00	105.80
11	SM	124	ARG	NE-CZ-NH2	-11.79	114.41	120.30
33	L1	2528	U	P-O3'-C3'	11.79	133.84	119.70
33	L1	2696	C	N1-C1'-C2'	11.78	129.32	114.00
54	Lf	88	TYR	CB-CG-CD1	-11.78	113.93	121.00
32	S1	1315	U	O4'-C1'-N1	11.78	117.62	108.20
33	L1	446	C	N1-C1'-C2'	11.77	129.30	114.00
33	L1	2167	G	N9-C1'-C2'	-11.77	98.69	114.00
33	L1	126	G	C1'-O4'-C4'	-11.77	100.48	109.90
33	L1	3012	A	O4'-C1'-N9	11.77	117.61	108.20
34	L3	106	U	OP1-P-O3'	11.76	131.08	105.20
4	SD	65	LEU	CB-CA-C	11.76	132.55	110.20
33	L1	1036	C	O4'-C1'-N1	11.76	117.61	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1070	G	C1'-O4'-C4'	-11.76	100.49	109.90
32	S1	1301	G	O4'-C1'-N9	11.76	117.61	108.20
32	S1	1781	U	O5'-P-OP2	-11.76	95.12	105.70
33	L1	400	G	P-O3'-C3'	11.76	133.81	119.70
33	L1	1196	U	P-O3'-C3'	-11.76	105.59	119.70
33	L1	1568	A	C1'-O4'-C4'	11.76	119.31	109.90
33	L1	1607	C	N1-C1'-C2'	11.76	129.28	114.00
33	L1	2591	G	O4'-C1'-C2'	11.76	118.18	107.60
34	L3	101	A	P-O3'-C3'	11.76	133.81	119.70
35	L2	63	A	P-O3'-C3'	11.76	133.81	119.70
32	S1	1473	C	P-O3'-C3'	11.75	133.80	119.70
32	S1	1226	U	O4'-C1'-C2'	-11.74	94.06	105.80
33	L1	609	C	C3'-C2'-C1'	11.74	110.89	101.50
31	S2	13	U	O4'-C1'-N1	11.74	117.59	108.20
81	LD	309	PRO	CA-N-CD	-11.73	95.07	111.50
11	SM	113	ARG	CB-CA-C	-11.73	86.93	110.40
33	L1	3158	C	N1-C1'-C2'	11.73	129.25	114.00
1	Sa	192	ARG	NE-CZ-NH1	11.73	126.16	120.30
33	L1	1222	U	C1'-O4'-C4'	11.73	119.28	109.90
33	L1	531	G	O4'-C1'-C2'	11.72	118.15	107.60
33	L1	207	U	N1-C1'-C2'	-11.72	98.76	114.00
33	L1	282	A	O4'-C1'-C2'	-11.72	94.08	105.80
33	L1	329	G	O4'-C1'-N9	11.72	117.58	108.20
33	L1	1746	G	O4'-C1'-N9	11.72	117.58	108.20
27	SH	78	ARG	CA-C-O	-11.72	95.49	120.10
33	L1	1623	C	P-O5'-C5'	-11.72	102.15	120.90
33	L1	2729	C	P-O3'-C3'	11.72	133.76	119.70
11	SM	14	ARG	NE-CZ-NH1	11.71	126.16	120.30
34	L3	14	C	C5'-C4'-C3'	11.71	134.75	116.00
32	S1	1516	C	C5'-C4'-C3'	11.71	134.73	116.00
51	LY	125	ARG	NE-CZ-NH1	11.71	126.15	120.30
33	L1	331	G	O4'-C1'-N9	11.71	117.56	108.20
33	L1	2691	U	O4'-C1'-C2'	-11.70	94.10	105.80
33	L1	3344	U	C3'-C2'-C1'	11.70	110.86	101.50
32	S1	1659	A	O4'-C1'-C2'	-11.70	94.10	105.80
33	L1	420	A	O4'-C1'-N9	11.70	117.56	108.20
33	L1	1430	C	N1-C1'-C2'	11.70	129.21	114.00
34	L3	82	G	O4'-C1'-N9	11.70	117.56	108.20
33	L1	1753	A	C1'-O4'-C4'	11.70	119.26	109.90
41	LM	15	ARG	NE-CZ-NH2	11.69	126.15	120.30
32	S1	1037	G	C1'-O4'-C4'	-11.69	100.55	109.90
32	S1	1226	U	O3'-P-O5'	-11.69	81.80	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1818	C	C4'-C3'-C2'	11.68	114.28	102.60
34	L3	19	A	O4'-C1'-C2'	-11.68	94.12	105.80
32	S1	1141	U	O4'-C1'-N1	11.67	117.54	108.20
33	L1	579	G	N9-C1'-C2'	11.67	129.17	114.00
33	L1	1880	A	O4'-C1'-N9	11.67	117.54	108.20
34	L3	49	A	O4'-C1'-N9	11.67	117.54	108.20
35	L2	40	G	OP1-P-OP2	-11.67	102.09	119.60
32	S1	1783	C	O4'-C1'-C2'	-11.67	94.13	105.80
35	L2	87	C	C1'-O4'-C4'	-11.67	100.56	109.90
32	S1	25	C	P-O3'-C3'	11.66	133.70	119.70
33	L1	2732	U	C3'-C2'-C1'	11.66	110.83	101.50
33	L1	3031	G	O4'-C1'-N9	11.66	117.53	108.20
32	S1	1697	G	O4'-C1'-N9	11.66	117.53	108.20
1	Sa	346	ARG	NE-CZ-NH1	11.66	126.13	120.30
33	L1	2674	A	N9-C1'-C2'	-11.66	98.84	114.00
33	L1	3059	C	C3'-C2'-C1'	11.66	110.83	101.50
33	L1	542	G	C1'-O4'-C4'	-11.65	100.58	109.90
33	L1	2882	U	C1'-O4'-C4'	-11.65	100.58	109.90
32	S1	467	U	O4'-C1'-N1	11.65	117.52	108.20
33	L1	18	G	P-O3'-C3'	11.65	133.68	119.70
33	L1	2666	G	O4'-C1'-N9	11.65	117.52	108.20
33	L1	3329	G	O4'-C1'-N9	11.65	117.52	108.20
32	S1	1072	U	N1-C1'-C2'	11.64	129.14	114.00
32	S1	1677	U	O4'-C1'-C2'	-11.64	94.16	105.80
19	SY	46	VAL	CA-C-N	-11.64	91.58	117.20
33	L1	484	C	C4'-C3'-C2'	-11.64	90.96	102.60
33	L1	951	C	O4'-C1'-N1	11.64	117.51	108.20
33	L1	1841	G	O4'-C1'-N9	11.64	117.51	108.20
33	L1	2362	A	C1'-O4'-C4'	11.64	119.21	109.90
33	L1	42	A	O4'-C1'-N9	11.64	117.51	108.20
33	L1	924	A	O4'-C1'-N9	11.64	117.51	108.20
33	L1	1751	G	P-O3'-C3'	11.63	133.66	119.70
32	S1	1346	C	C1'-O4'-C4'	-11.63	100.60	109.90
31	S2	6	G	N9-C1'-C2'	11.63	129.12	114.00
33	L1	2384	G	O4'-C1'-N9	11.63	117.50	108.20
32	S1	1545	A	P-O3'-C3'	11.62	133.65	119.70
33	L1	938	U	N1-C1'-C2'	-11.62	98.89	114.00
33	L1	58	G	C3'-C2'-C1'	-11.62	92.21	101.50
33	L1	2207	C	O4'-C1'-N1	11.62	117.49	108.20
33	L1	2734	C	C3'-C2'-C1'	11.62	110.79	101.50
34	L3	40	A	N9-C1'-C2'	-11.61	98.90	114.00
46	LT	9	ARG	NE-CZ-NH1	11.61	126.11	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2273	C	P-O3'-C3'	11.61	133.63	119.70
33	L1	1849	U	C1'-O4'-C4'	11.61	119.19	109.90
33	L1	2984	A	C3'-C2'-C1'	11.61	110.78	101.50
80	LC	250	ARG	NE-CZ-NH1	11.61	126.10	120.30
34	L3	3	A	C1'-O4'-C4'	11.60	119.18	109.90
82	LK	165	ARG	NE-CZ-NH1	11.60	126.10	120.30
32	S1	1640	C	P-O3'-C3'	11.60	133.62	119.70
33	L1	339	G	P-O3'-C3'	11.60	133.62	119.70
33	L1	596	C	N1-C1'-C2'	11.60	129.07	114.00
1	Sa	82	VAL	C-N-CA	-11.59	92.72	121.70
33	L1	1775	C	O4'-C1'-C2'	-11.59	94.21	105.80
67	LS	16	LEU	N-CA-CB	-11.59	87.21	110.40
33	L1	1511	C	C3'-C2'-C1'	11.59	110.77	101.50
31	S2	41	G	C1'-O4'-C4'	-11.58	100.63	109.90
48	LV	166	ILE	O-C-N	-11.58	104.17	122.70
33	L1	1070	G	N9-C1'-C2'	11.58	129.06	114.00
14	SP	107	ASN	O-C-N	-11.58	104.17	122.70
33	L1	484	C	OP1-P-O3'	-11.58	79.73	105.20
33	L1	1754	C	N1-C1'-C2'	11.57	129.05	114.00
33	L1	996	A	O4'-C1'-C2'	11.57	118.02	107.60
33	L1	1115	A	O4'-C1'-C2'	-11.57	94.23	105.80
33	L1	2479	C	O4'-C1'-C2'	-11.57	94.23	105.80
32	S1	616	U	O4'-C1'-N1	11.57	117.45	108.20
23	SU	95	TYR	CB-CG-CD2	-11.56	114.06	121.00
33	L1	2237	A	C3'-C2'-C1'	11.56	110.75	101.50
2	SA	198	LYS	CB-CA-C	11.56	133.52	110.40
32	S1	1177	G	O4'-C1'-N9	11.56	117.45	108.20
33	L1	226	U	C1'-O4'-C4'	11.56	119.15	109.90
33	L1	2721	C	P-O3'-C3'	-11.56	105.83	119.70
45	LQ	201	GLY	C-N-CA	-11.56	98.03	122.30
33	L1	9	C	O4'-C1'-C2'	-11.55	94.25	105.80
33	L1	154	G	P-O3'-C3'	11.55	133.56	119.70
33	L1	1132	A	O4'-C1'-N9	-11.55	98.96	108.20
33	L1	25	U	O4'-C1'-C2'	-11.55	94.25	105.80
33	L1	796	C	C3'-C2'-C1'	11.54	110.74	101.50
33	L1	1835	A	N9-C1'-C2'	11.54	129.01	114.00
34	L3	75	G	O4'-C1'-N9	11.54	117.44	108.20
34	L3	106	U	O4'-C1'-N1	11.54	117.43	108.20
32	S1	159	U	P-O3'-C3'	11.54	133.55	119.70
33	L1	1254	A	C5'-C4'-C3'	11.54	134.46	116.00
33	L1	1958	G	O4'-C1'-C2'	11.54	117.98	107.60
33	L1	2582	G	C1'-O4'-C4'	-11.54	100.67	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2661	G	O4'-C1'-N9	11.54	117.43	108.20
33	L1	3390	G	P-O3'-C3'	11.53	133.54	119.70
34	L3	19	A	C1'-O4'-C4'	11.53	119.13	109.90
32	S1	1549	G	N9-C1'-C2'	11.53	128.99	114.00
33	L1	2584	U	P-O3'-C3'	11.53	133.54	119.70
32	S1	1247	G	O4'-C1'-N9	11.53	117.42	108.20
33	L1	1056	U	P-O3'-C3'	11.53	133.53	119.70
33	L1	2011	G	P-O3'-C3'	11.53	133.53	119.70
34	L3	115	A	P-O5'-C5'	11.53	139.34	120.90
32	S1	493	C	P-O3'-C3'	11.52	133.53	119.70
33	L1	3093	C	O4'-C1'-C2'	-11.52	94.28	105.80
32	S1	1544	G	O4'-C1'-N9	11.52	117.42	108.20
33	L1	138	G	C5'-C4'-C3'	11.52	134.43	116.00
33	L1	695	G	N9-C1'-C2'	-11.52	99.02	114.00
33	L1	1317	G	N9-C1'-C2'	-11.52	99.02	114.00
33	L1	147	G	P-O3'-C3'	11.52	133.52	119.70
32	S1	89	U	O4'-C1'-N1	11.52	117.41	108.20
33	L1	1941	G	C1'-O4'-C4'	-11.52	100.69	109.90
69	La	8	GLY	CA-C-O	-11.52	99.87	120.60
12	SO	64	LYS	CB-CA-C	11.51	133.43	110.40
32	S1	29	U	P-O3'-C3'	11.51	133.51	119.70
33	L1	2439	A	C3'-C2'-C1'	-11.51	92.29	101.50
33	L1	2503	A	P-O5'-C5'	11.51	139.31	120.90
33	L1	3150	G	O3'-P-O5'	-11.51	82.13	104.00
60	Lr	41	ARG	NE-CZ-NH1	11.51	126.05	120.30
32	S1	592	U	P-O3'-C3'	11.51	133.51	119.70
33	L1	1457	A	P-O3'-C3'	11.50	133.50	119.70
33	L1	3057	A	O4'-C1'-N9	-11.50	99.00	108.20
33	L1	3326	U	N1-C1'-C2'	-11.50	99.05	114.00
33	L1	755	C	P-O3'-C3'	11.49	133.49	119.70
34	L3	26	C	N1-C1'-C2'	11.49	128.94	114.00
33	L1	719	U	P-O3'-C3'	11.49	133.49	119.70
32	S1	1464	G	N9-C1'-C2'	11.49	128.94	114.00
32	S1	1760	A	P-O3'-C3'	11.49	133.49	119.70
34	L3	7	G	O4'-C1'-N9	11.49	117.39	108.20
32	S1	1191	U	O4'-C1'-N1	11.48	117.39	108.20
32	S1	1554	G	O4'-C1'-N9	11.48	117.39	108.20
33	L1	385	A	O4'-C1'-C2'	11.48	117.93	107.60
23	SU	68	THR	CA-C-O	-11.48	95.99	120.10
32	S1	1613	G	P-O3'-C3'	11.48	133.48	119.70
33	L1	3057	A	P-O3'-C3'	11.48	133.48	119.70
32	S1	891	U	N1-C1'-C2'	11.48	128.92	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	901	U	O4'-C1'-N1	11.48	117.38	108.20
33	L1	853	U	O4'-C1'-C2'	-11.48	94.32	105.80
33	L1	853	U	C1'-O4'-C4'	11.48	119.08	109.90
32	S1	1345	G	O4'-C1'-N9	11.47	117.38	108.20
32	S1	934	A	C3'-C2'-C1'	-11.47	92.32	101.50
33	L1	400	G	C3'-C2'-C1'	-11.47	92.33	101.50
33	L1	2479	C	C3'-C2'-C1'	11.47	110.67	101.50
48	LV	158	VAL	CA-CB-CG2	11.47	128.10	110.90
32	S1	1143	A	O4'-C1'-N9	11.46	117.36	108.20
33	L1	1539	G	O4'-C1'-C2'	11.46	117.91	107.60
33	L1	2763	C	N1-C1'-C2'	-11.46	99.11	114.00
17	SV	29	SER	N-CA-CB	11.45	127.68	110.50
32	S1	638	G	O4'-C1'-N9	11.45	117.36	108.20
33	L1	2391	C	O4'-C1'-C2'	-11.45	94.35	105.80
33	L1	2996	A	O4'-C1'-C2'	11.45	117.91	107.60
10	SL	17	ARG	NE-CZ-NH2	-11.45	114.58	120.30
11	SM	90	TYR	CB-CG-CD1	-11.45	114.13	121.00
31	S2	9	A	O4'-C1'-N9	11.45	117.36	108.20
33	L1	803	G	O4'-C1'-C2'	-11.45	94.35	105.80
33	L1	3234	G	C4'-C3'-C2'	-11.44	91.16	102.60
33	L1	1536	U	C1'-O4'-C4'	11.43	119.05	109.90
33	L1	1064	U	O4'-C1'-C2'	-11.43	94.37	105.80
78	Le	74	LYS	CB-CA-C	11.43	133.26	110.40
34	L3	68	G	C1'-O4'-C4'	-11.42	100.76	109.90
32	S1	1547	G	O4'-C1'-N9	-11.42	99.06	108.20
33	L1	1010	A	O4'-C1'-N9	11.42	117.34	108.20
33	L1	3035	C	O4'-C1'-C2'	11.42	117.87	107.60
32	S1	655	G	O4'-C1'-N9	11.41	117.33	108.20
33	L1	937	G	N9-C1'-C2'	11.41	128.83	114.00
40	LH	226	ARG	NE-CZ-NH2	-11.41	114.60	120.30
32	S1	184	C	P-O3'-C3'	11.41	133.39	119.70
33	L1	102	G	O4'-C1'-N9	11.40	117.32	108.20
33	L1	2594	A	C4'-C3'-C2'	-11.40	91.20	102.60
33	L1	311	G	O4'-C1'-C2'	11.40	117.86	107.60
33	L1	842	C	P-O3'-C3'	11.40	133.38	119.70
33	L1	3365	U	P-O5'-C5'	11.40	139.13	120.90
33	L1	1363	C	N1-C1'-C2'	11.39	128.81	114.00
23	SU	25	ARG	CB-CA-C	-11.39	87.61	110.40
33	L1	3382	A	O4'-C1'-N9	11.39	117.31	108.20
33	L1	2562	A	O4'-C1'-N9	11.39	117.31	108.20
33	L1	2706	A	O4'-C1'-N9	11.39	117.31	108.20
33	L1	1647	C	N1-C1'-C2'	11.39	128.80	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1658	U	P-O5'-C5'	11.38	139.12	120.90
60	Lr	41	ARG	NE-CZ-NH2	-11.38	114.61	120.30
32	S1	1631	C	O4'-C1'-N1	11.38	117.30	108.20
78	Le	74	LYS	CA-CB-CG	11.38	138.43	113.40
33	L1	1630	C	O4'-C1'-C2'	-11.37	94.43	105.80
33	L1	407	A	O4'-C1'-N9	11.37	117.30	108.20
32	S1	1163	C	O3'-P-O5'	-11.37	82.40	104.00
32	S1	1588	C	OP1-P-O3'	11.37	130.21	105.20
33	L1	2299	C	P-O3'-C3'	11.37	133.34	119.70
32	S1	1381	G	O4'-C1'-N9	11.36	117.29	108.20
33	L1	839	A	C5'-C4'-C3'	11.36	134.18	116.00
33	L1	2856	U	O4'-C1'-N1	11.36	117.29	108.20
32	S1	1315	U	C1'-O4'-C4'	11.35	118.98	109.90
33	L1	58	G	O4'-C1'-N9	11.35	117.28	108.20
33	L1	1151	G	C1'-O4'-C4'	-11.35	100.82	109.90
72	Lk	68	LYS	CA-CB-CG	-11.35	88.43	113.40
33	L1	1407	G	N9-C1'-C2'	-11.35	99.25	114.00
33	L1	2230	C	N1-C1'-C2'	11.35	128.75	114.00
32	S1	1568	U	P-O3'-C3'	11.35	133.31	119.70
33	L1	2453	G	O4'-C1'-C2'	-11.35	94.45	105.80
33	L1	1163	A	C1'-O4'-C4'	-11.34	100.83	109.90
32	S1	1614	C	O3'-P-O5'	-11.34	82.45	104.00
33	L1	347	A	O4'-C1'-N9	-11.34	99.13	108.20
32	S1	1202	G	O4'-C1'-C2'	11.34	117.80	107.60
33	L1	492	G	C3'-C2'-C1'	-11.33	92.43	101.50
33	L1	343	G	C1'-O4'-C4'	-11.33	100.84	109.90
33	L1	3303	C	C1'-O4'-C4'	-11.33	100.84	109.90
34	L3	39	C	N1-C1'-C2'	11.33	128.73	114.00
48	LV	129	ARG	NE-CZ-NH2	11.33	125.97	120.30
32	S1	1354	C	C1'-O4'-C4'	-11.32	100.84	109.90
33	L1	795	C	O4'-C1'-N1	11.32	117.26	108.20
35	L2	154	G	N9-C1'-C2'	11.32	128.72	114.00
33	L1	1621	G	P-O5'-C5'	11.32	139.02	120.90
32	S1	634	A	N9-C1'-C2'	-11.32	99.28	114.00
33	L1	1575	G	C1'-O4'-C4'	-11.32	100.84	109.90
81	LD	101	ARG	NE-CZ-NH1	11.32	125.96	120.30
32	S1	1423	A	C3'-C2'-C1'	11.32	110.55	101.50
33	L1	1748	A	O4'-C1'-N9	-11.32	99.15	108.20
33	L1	2105	G	C1'-O4'-C4'	11.32	118.95	109.90
33	L1	2299	C	N1-C1'-C2'	11.32	128.71	114.00
32	S1	1343	C	C3'-C2'-C1'	11.31	110.55	101.50
34	L3	12	U	N1-C1'-C2'	11.31	128.71	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	L3	78	C	C3'-C2'-C1'	11.31	110.55	101.50
35	L2	119	C	N1-C1'-C2'	11.31	128.71	114.00
32	S1	137	A	N9-C1'-C2'	11.31	128.71	114.00
32	S1	1572	U	O4'-C1'-C2'	-11.31	94.49	105.80
33	L1	159	G	C1'-O4'-C4'	-11.31	100.85	109.90
33	L1	518	G	C1'-O4'-C4'	-11.31	100.85	109.90
13	SQ	109	LEU	C-N-CA	-11.31	98.56	122.30
33	L1	553	C	P-O3'-C3'	11.30	133.26	119.70
77	Lc	120	PHE	CB-CG-CD2	-11.30	112.89	120.80
33	L1	1786	G	C1'-O4'-C4'	-11.30	100.86	109.90
33	L1	2418	A	P-O3'-C3'	-11.30	106.14	119.70
32	S1	292	A	O4'-C1'-N9	11.29	117.23	108.20
33	L1	841	G	P-O3'-C3'	11.29	133.25	119.70
33	L1	3079	G	P-O3'-C3'	11.29	133.25	119.70
33	L1	2725	U	O4'-C1'-C2'	11.29	117.76	107.60
46	LT	98	ARG	NE-CZ-NH1	11.29	125.94	120.30
33	L1	2053	A	C1'-O4'-C4'	11.29	118.93	109.90
33	L1	2762	U	C5'-C4'-C3'	11.29	134.06	116.00
32	S1	545	A	P-O3'-C3'	11.29	133.24	119.70
32	S1	192	G	C3'-C2'-C1'	-11.28	92.48	101.50
32	S1	689	C	P-O3'-C3'	11.28	133.24	119.70
33	L1	3324	U	N1-C1'-C2'	-11.28	99.34	114.00
32	S1	63	G	O4'-C1'-N9	11.28	117.22	108.20
33	L1	841	G	C5'-C4'-C3'	11.28	134.04	116.00
33	L1	492	G	P-O3'-C3'	11.27	133.23	119.70
34	L3	71	A	N9-C1'-C2'	-11.27	99.35	114.00
31	S2	41	G	N9-C1'-C2'	11.27	128.65	114.00
33	L1	1813	C	O4'-C1'-N1	11.27	117.21	108.20
32	S1	1361	G	P-O3'-C3'	11.26	133.22	119.70
33	L1	2739	A	O5'-P-OP2	-11.26	95.56	105.70
32	S1	1659	A	C3'-C2'-C1'	11.26	110.51	101.50
33	L1	1157	A	O4'-C1'-N9	11.26	117.21	108.20
33	L1	796	C	N1-C1'-C2'	11.26	128.63	114.00
33	L1	1931	G	N9-C1'-C2'	-11.26	99.37	114.00
2	SA	214	ALA	C-N-CA	11.25	149.84	121.70
33	L1	2946	U	C1'-O4'-C4'	11.25	118.90	109.90
32	S1	988	G	C1'-O4'-C4'	-11.25	100.90	109.90
33	L1	1663	G	O4'-C1'-N9	11.25	117.20	108.20
32	S1	1068	G	N9-C1'-C2'	-11.25	99.38	114.00
32	S1	1793	C	C3'-C2'-C1'	11.25	110.50	101.50
13	SQ	78	ARG	NE-CZ-NH2	11.24	125.92	120.30
43	LO	6	LYS	CA-C-O	-11.24	96.49	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2711	U	O4'-C1'-C2'	11.24	117.72	107.60
44	LR	91	ARG	NE-CZ-NH1	-11.24	114.68	120.30
33	L1	2267	G	O4'-C1'-N9	11.24	117.19	108.20
32	S1	388	G	P-O3'-C3'	11.24	133.18	119.70
32	S1	398	C	C3'-C2'-C1'	11.24	110.49	101.50
34	L3	101	A	O4'-C1'-N9	11.24	117.19	108.20
34	L3	33	U	O4'-C1'-N1	11.23	117.19	108.20
32	S1	1461	G	O4'-C1'-N9	11.23	117.18	108.20
33	L1	2396	A	C3'-C2'-C1'	11.23	110.48	101.50
33	L1	2448	G	O4'-C1'-N9	11.22	117.18	108.20
35	L2	64	U	C3'-C2'-C1'	11.22	110.48	101.50
33	L1	2112	C	C3'-C2'-C1'	11.22	110.48	101.50
33	L1	1132	A	P-O3'-C3'	11.22	133.16	119.70
33	L1	1789	C	P-O3'-C3'	11.22	133.16	119.70
7	SI	53	LYS	CA-CB-CG	11.21	138.07	113.40
32	S1	154	A	O4'-C1'-N9	11.21	117.17	108.20
33	L1	1564	C	O4'-C1'-N1	-11.21	99.23	108.20
33	L1	2344	A	O4'-C1'-N9	11.21	117.17	108.20
33	L1	2825	G	O4'-C1'-N9	11.21	117.17	108.20
35	L2	99	G	C1'-O4'-C4'	11.21	118.87	109.90
32	S1	1650	G	O4'-C1'-N9	11.21	117.17	108.20
32	S1	193	G	P-O3'-C3'	11.20	133.14	119.70
32	S1	1054	G	O4'-C1'-N9	11.20	117.16	108.20
32	S1	1771	U	P-O3'-C3'	11.20	133.14	119.70
33	L1	1954	G	O4'-C1'-C2'	11.20	117.68	107.60
32	S1	299	A	C1'-O4'-C4'	11.20	118.86	109.90
32	S1	922	U	O4'-C1'-N1	11.20	117.16	108.20
33	L1	1815	G	O4'-C1'-N9	11.20	117.16	108.20
32	S1	1126	C	C1'-O4'-C4'	-11.19	100.94	109.90
33	L1	2984	A	C5'-C4'-O4'	11.20	122.53	109.10
32	S1	473	C	O4'-C1'-C2'	-11.19	94.61	105.80
33	L1	3084	G	C1'-O4'-C4'	-11.19	100.95	109.90
32	S1	612	U	O4'-C1'-N1	11.19	117.15	108.20
33	L1	425	G	N9-C1'-C2'	11.19	128.54	114.00
34	L3	49	A	C5'-C4'-C3'	11.19	133.90	116.00
71	Lj	103	ARG	NE-CZ-NH2	-11.19	114.71	120.30
33	L1	2793	G	P-O3'-C3'	11.18	133.12	119.70
33	L1	2794	A	O4'-C1'-C2'	11.18	117.67	107.60
32	S1	1058	G	P-O3'-C3'	11.18	133.11	119.70
33	L1	1887	A	O4'-C1'-C2'	-11.18	94.62	105.80
32	S1	1682	U	O4'-C1'-C2'	-11.18	94.62	105.80
33	L1	330	C	P-O5'-C5'	11.18	138.78	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1000	A	O4'-C1'-N9	11.17	117.14	108.20
33	L1	840	A	C5'-C4'-C3'	11.17	133.87	116.00
33	L1	307	C	N1-C1'-C2'	11.17	128.52	114.00
33	L1	1801	G	P-O3'-C3'	11.17	133.10	119.70
33	L1	3244	G	P-O3'-C3'	11.17	133.10	119.70
34	L3	64	G	O4'-C1'-N9	11.16	117.13	108.20
32	S1	390	G	P-O3'-C3'	11.16	133.10	119.70
33	L1	77	U	O4'-C1'-N1	11.16	117.13	108.20
33	L1	350	A	C3'-C2'-C1'	-11.16	92.57	101.50
33	L1	808	G	O4'-C1'-N9	11.16	117.13	108.20
80	LC	169	ARG	NE-CZ-NH1	11.16	125.88	120.30
33	L1	2466	G	O4'-C1'-N9	11.16	117.12	108.20
33	L1	3291	C	C3'-C2'-C1'	11.15	110.42	101.50
23	SU	7	ALA	CB-CA-C	-11.15	93.38	110.10
33	L1	2592	G	C1'-O4'-C4'	-11.15	100.98	109.90
46	LT	151	ARG	NE-CZ-NH1	11.15	125.87	120.30
20	SZ	28	LYS	CB-CA-C	11.14	132.69	110.40
23	SU	80	LEU	CA-CB-CG	11.14	140.93	115.30
33	L1	2632	U	N1-C1'-C2'	-11.14	99.51	114.00
33	L1	2709	G	C1'-O4'-C4'	-11.14	100.98	109.90
33	L1	1781	C	O4'-C1'-N1	11.14	117.11	108.20
30	S3	16	G	C1'-O4'-C4'	11.14	118.81	109.90
32	S1	1559	U	O4'-C1'-N1	11.14	117.11	108.20
33	L1	521	G	C1'-O4'-C4'	-11.13	101.00	109.90
33	L1	3203	G	C1'-O4'-C4'	11.13	118.81	109.90
33	L1	3230	G	O4'-C1'-N9	11.13	117.11	108.20
33	L1	722	C	N1-C1'-C2'	-11.13	99.53	114.00
33	L1	2091	U	C1'-O4'-C4'	11.13	118.80	109.90
33	L1	2760	U	P-O3'-C3'	11.13	133.05	119.70
33	L1	1136	A	O4'-C1'-C2'	11.12	117.61	107.60
33	L1	1189	G	O4'-C1'-N9	11.12	117.10	108.20
32	S1	1406	U	C3'-C2'-C1'	11.12	110.40	101.50
33	L1	493	G	C3'-C2'-C1'	11.12	110.40	101.50
33	L1	1907	A	C3'-C2'-C1'	-11.12	92.60	101.50
33	L1	859	G	P-O3'-C3'	11.12	133.04	119.70
33	L1	227	C	O4'-C1'-N1	-11.12	99.31	108.20
33	L1	1804	G	C3'-C2'-C1'	11.12	110.39	101.50
33	L1	2805	A	O4'-C1'-N9	11.12	117.09	108.20
33	L1	1093	U	O4'-C1'-N1	11.12	117.09	108.20
33	L1	2630	A	N9-C1'-C2'	-11.12	99.55	114.00
28	SN	38	CYS	CB-CA-C	11.11	132.62	110.40
32	S1	1393	G	P-O5'-C5'	11.11	138.68	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2213	G	O4'-C1'-C2'	11.11	117.60	107.60
33	L1	1081	U	O4'-C1'-C2'	-11.11	94.69	105.80
33	L1	1696	G	P-O3'-C3'	11.11	133.03	119.70
33	L1	2436	G	N9-C1'-C2'	-11.10	99.56	114.00
35	L2	123	C	P-O3'-C3'	11.10	133.02	119.70
25	SC	63	THR	CA-CB-OG1	-11.10	85.69	109.00
33	L1	1666	C	N1-C1'-C2'	11.10	128.43	114.00
33	L1	1715	C	C1'-O4'-C4'	11.10	118.78	109.90
34	L3	25	G	N9-C1'-C2'	-11.10	99.57	114.00
38	LE	106	PHE	CB-CG-CD2	-11.10	113.03	120.80
32	S1	1290	U	C3'-C2'-C1'	11.09	110.37	101.50
33	L1	47	A	C1'-O4'-C4'	-11.09	101.03	109.90
33	L1	603	G	O4'-C1'-N9	11.09	117.08	108.20
33	L1	1628	G	O4'-C1'-C2'	-11.09	94.71	105.80
33	L1	2846	C	N1-C1'-C2'	11.09	128.42	114.00
32	S1	1111	C	O4'-C1'-N1	11.09	117.07	108.20
33	L1	1024	G	O4'-C1'-N9	11.08	117.06	108.20
33	L1	2030	U	O4'-C1'-N1	11.08	117.06	108.20
33	L1	473	G	C1'-O4'-C4'	11.08	118.76	109.90
78	Le	242	ARG	NE-CZ-NH2	-11.08	114.76	120.30
33	L1	1237	G	N9-C1'-C2'	11.07	128.40	114.00
33	L1	2490	U	C3'-C2'-C1'	11.07	110.36	101.50
25	SC	8	TYR	CB-CG-CD2	-11.07	114.36	121.00
33	L1	2129	U	N1-C1'-C2'	11.07	128.39	114.00
33	L1	237	C	O4'-C1'-N1	-11.07	99.34	108.20
33	L1	2229	G	N9-C1'-C2'	-11.07	99.61	114.00
33	L1	642	C	O4'-C1'-N1	11.07	117.05	108.20
71	Lj	95	PRO	CA-C-O	-11.07	93.64	120.20
4	SD	136	ILE	O-C-N	-11.06	100.08	121.10
35	L2	9	U	O4'-C1'-N1	11.06	117.05	108.20
3	SB	44	MET	CA-CB-CG	11.06	132.10	113.30
33	L1	1696	G	C1'-O4'-C4'	11.06	118.75	109.90
33	L1	2213	G	C3'-C2'-C1'	-11.06	92.65	101.50
33	L1	2994	U	C3'-C2'-C1'	11.06	110.34	101.50
73	Lp	52	LYS	CA-C-O	-11.06	96.88	120.10
32	S1	1746	U	O3'-P-O5'	-11.06	82.99	104.00
33	L1	700	C	O4'-C1'-C2'	-11.06	94.74	105.80
33	L1	3388	U	O4'-C1'-N1	11.05	117.04	108.20
32	S1	1061	G	N9-C1'-C2'	11.05	128.37	114.00
27	SH	78	ARG	O-C-N	-11.05	105.02	122.70
33	L1	2602	U	O4'-C1'-N1	11.05	117.04	108.20
33	L1	1931	G	O4'-C1'-N9	11.05	117.04	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2506	G	O4'-C1'-N9	11.05	117.04	108.20
68	LW	83	ARG	C-N-CA	11.04	149.31	121.70
32	S1	873	G	O4'-C1'-N9	11.04	117.03	108.20
2	SA	211	PRO	CA-C-O	-11.04	93.70	120.20
25	SC	173	ARG	NE-CZ-NH2	-11.04	114.78	120.30
31	S2	4	G	C3'-C2'-C1'	-11.04	92.67	101.50
33	L1	1061	A	P-O5'-C5'	11.04	138.56	120.90
33	L1	330	C	O4'-C1'-N1	11.04	117.03	108.20
33	L1	2753	C	N1-C1'-C2'	11.04	128.35	114.00
33	L1	2684	U	N1-C1'-C2'	11.03	128.34	114.00
33	L1	2786	G	O4'-C1'-C2'	-11.04	94.77	105.80
32	S1	631	C	O4'-C1'-N1	11.03	117.03	108.20
32	S1	202	C	P-O3'-C3'	11.03	132.93	119.70
33	L1	1682	C	P-O3'-C3'	11.03	132.93	119.70
35	L2	96	A	O4'-C1'-C2'	-11.02	94.78	105.80
35	L2	155	G	C1'-O4'-C4'	-11.02	101.08	109.90
45	LQ	277	ARG	NE-CZ-NH1	11.02	125.81	120.30
32	S1	1566	U	C3'-C2'-C1'	11.02	110.31	101.50
33	L1	1803	G	O4'-C1'-N9	11.02	117.02	108.20
33	L1	2439	A	C1'-O4'-C4'	-11.02	101.09	109.90
33	L1	2726	U	C1'-O4'-C4'	-11.02	101.08	109.90
33	L1	408	U	O4'-C1'-N1	11.02	117.01	108.20
33	L1	570	G	O4'-C1'-C2'	11.02	117.52	107.60
33	L1	3304	U	O4'-C1'-C2'	-11.02	94.78	105.80
33	L1	3379	C	O4'-C1'-N1	11.02	117.01	108.20
33	L1	972	C	O4'-C1'-C2'	-11.01	94.79	105.80
32	S1	348	A	O4'-C1'-N9	11.01	117.00	108.20
33	L1	1372	U	O4'-C1'-N1	11.00	117.00	108.20
25	SC	106	PHE	CG-CD2-CE2	11.00	132.90	120.80
33	L1	937	G	O4'-C1'-C2'	11.00	117.50	107.60
3	SB	154	ASP	O-C-N	11.00	141.89	123.20
31	S2	16	U	C3'-C2'-C1'	11.00	110.30	101.50
33	L1	938	U	O4'-C1'-N1	11.00	117.00	108.20
33	L1	2361	C	C1'-O4'-C4'	11.00	118.70	109.90
34	L3	93	U	O4'-C1'-N1	10.99	116.99	108.20
33	L1	2356	A	O4'-C1'-C2'	10.99	117.49	107.60
34	L3	101	A	P-O5'-C5'	10.99	138.49	120.90
32	S1	1132	G	O4'-C1'-N9	10.99	116.99	108.20
33	L1	1485	A	P-O3'-C3'	10.99	132.88	119.70
35	L2	62	G	N9-C1'-C2'	10.99	128.28	114.00
33	L1	604	C	O4'-C1'-N1	10.98	116.99	108.20
34	L3	88	U	O4'-C1'-N1	10.98	116.98	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2022	U	O4'-C1'-N1	10.98	116.98	108.20
32	S1	1700	G	O4'-C1'-N9	10.98	116.98	108.20
32	S1	1513	A	O4'-C1'-N9	10.97	116.98	108.20
32	S1	1585	A	P-O3'-C3'	-10.97	106.54	119.70
32	S1	1572	U	C3'-C2'-C1'	10.97	110.27	101.50
33	L1	3041	A	O4'-C1'-C2'	10.97	117.47	107.60
32	S1	512	U	O4'-C1'-N1	10.96	116.97	108.20
33	L1	3093	C	O4'-C1'-N1	-10.96	99.43	108.20
81	LD	358	LYS	CB-CA-C	-10.96	88.47	110.40
32	S1	1185	U	O4'-C1'-N1	10.96	116.97	108.20
33	L1	1593	C	N1-C1'-C2'	10.96	128.25	114.00
33	L1	1940	U	C5'-C4'-C3'	-10.96	98.46	116.00
33	L1	2585	C	N1-C1'-C2'	10.96	128.25	114.00
33	L1	1180	C	O4'-C1'-N1	-10.96	99.44	108.20
35	L2	24	U	N1-C1'-C2'	10.96	128.24	114.00
32	S1	1665	U	C5'-C4'-C3'	10.95	133.52	116.00
33	L1	1041	C	O4'-C1'-C2'	-10.95	94.85	105.80
33	L1	3067	G	O4'-C1'-N9	10.95	116.96	108.20
32	S1	3	C	O4'-C1'-C2'	-10.95	94.85	105.80
11	SM	92	ASP	CB-CG-OD1	-10.94	108.45	118.30
32	S1	322	U	O4'-C1'-N1	10.94	116.95	108.20
33	L1	1064	U	O4'-C1'-N1	10.94	116.95	108.20
33	L1	3156	G	C1'-O4'-C4'	10.94	118.65	109.90
32	S1	1710	C	P-O3'-C3'	10.94	132.83	119.70
33	L1	2216	G	O4'-C1'-C2'	-10.94	94.86	105.80
33	L1	2439	A	O4'-C1'-C2'	10.94	117.44	107.60
32	S1	1615	G	P-O5'-C5'	10.93	138.39	120.90
33	L1	3128	A	O4'-C1'-C2'	10.93	117.44	107.60
33	L1	423	C	C3'-C2'-C1'	10.93	110.24	101.50
33	L1	424	G	N9-C1'-C2'	10.93	128.21	114.00
33	L1	2628	C	N1-C1'-C2'	10.93	128.21	114.00
13	SQ	23	ARG	NE-CZ-NH2	10.93	125.76	120.30
33	L1	860	G	C3'-C2'-C1'	-10.93	92.76	101.50
33	L1	1207	A	N9-C1'-C2'	10.93	128.20	114.00
33	L1	2132	A	P-O3'-C3'	10.92	132.80	119.70
10	SL	119	PHE	C-N-CA	10.92	148.99	121.70
33	L1	69	U	C3'-C2'-C1'	10.92	110.23	101.50
33	L1	294	A	C1'-O4'-C4'	10.92	118.63	109.90
33	L1	3168	C	P-O3'-C3'	10.92	132.80	119.70
33	L1	1311	G	C3'-C2'-C1'	-10.91	92.77	101.50
33	L1	2402	G	O4'-C1'-C2'	-10.91	94.89	105.80
33	L1	1507	A	P-O3'-C3'	-10.91	106.61	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	LP	21	PHE	CB-CG-CD1	10.91	128.44	120.80
33	L1	3385	G	O4'-C1'-N9	10.91	116.93	108.20
33	L1	1371	G	O4'-C1'-N9	-10.90	99.48	108.20
33	L1	1735	U	N1-C1'-C2'	-10.90	99.83	114.00
34	L3	8	A	C1'-O4'-C4'	-10.90	101.18	109.90
33	L1	818	G	O4'-C1'-N9	10.90	116.92	108.20
32	S1	1757	G	C3'-C2'-C1'	10.90	110.22	101.50
33	L1	1225	A	P-O3'-C3'	10.90	132.78	119.70
32	S1	310	U	O4'-C1'-N1	10.89	116.92	108.20
33	L1	135	G	P-O3'-C3'	10.89	132.77	119.70
33	L1	233	C	C1'-O4'-C4'	-10.89	101.19	109.90
33	L1	2489	A	O4'-C1'-N9	10.89	116.91	108.20
46	LT	180	ARG	NE-CZ-NH2	-10.89	114.85	120.30
32	S1	1435	G	C1'-O4'-C4'	-10.89	101.19	109.90
33	L1	327	A	C4'-C3'-C2'	10.89	113.49	102.60
7	SI	46	ARG	NE-CZ-NH2	-10.88	114.86	120.30
33	L1	1456	A	N9-C1'-C2'	-10.88	99.85	114.00
33	L1	2494	A	O4'-C1'-N9	10.88	116.91	108.20
35	L2	16	A	N9-C1'-C2'	-10.88	99.85	114.00
32	S1	379	U	N1-C1'-C2'	10.88	128.15	114.00
33	L1	306	A	O4'-C1'-N9	10.88	116.91	108.20
33	L1	1741	G	N9-C1'-C2'	10.88	128.15	114.00
33	L1	1201	C	P-O3'-C3'	10.88	132.75	119.70
33	L1	372	A	P-O3'-C3'	10.88	132.75	119.70
32	S1	1075	G	O4'-C1'-N9	10.87	116.90	108.20
32	S1	1785	U	O4'-C1'-N1	10.88	116.90	108.20
33	L1	485	G	O4'-C1'-N9	10.87	116.90	108.20
33	L1	1825	G	C1'-O4'-C4'	-10.87	101.20	109.90
33	L1	3375	G	N9-C1'-C2'	10.87	128.13	114.00
33	L1	459	G	O4'-C1'-N9	10.87	116.89	108.20
32	S1	936	C	P-O5'-C5'	10.86	138.28	120.90
32	S1	1468	G	O4'-C1'-N9	10.86	116.89	108.20
33	L1	543	C	C5'-C4'-O4'	10.86	122.14	109.10
81	LD	227	ARG	NE-CZ-NH1	10.86	125.73	120.30
33	L1	718	C	N1-C1'-C2'	10.86	128.12	114.00
33	L1	1010	A	O4'-C1'-C2'	-10.86	94.94	105.80
33	L1	1764	G	O4'-C1'-N9	10.85	116.88	108.20
72	Lk	71	ARG	NE-CZ-NH2	-10.85	114.87	120.30
33	L1	280	G	P-O3'-C3'	10.85	132.72	119.70
33	L1	2622	G	C1'-O4'-C4'	-10.85	101.22	109.90
33	L1	2643	A	C3'-C2'-C1'	-10.85	92.82	101.50
34	L3	75	G	C1'-O4'-C4'	-10.85	101.22	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	453	C	C3'-C2'-C1'	10.85	110.18	101.50
32	S1	483	C	O4'-C1'-N1	-10.85	99.52	108.20
35	L2	77	U	C5'-C4'-C3'	-10.85	98.64	116.00
33	L1	1800	G	C5'-C4'-C3'	10.85	133.36	116.00
33	L1	571	G	N9-C1'-C2'	10.85	128.10	114.00
32	S1	1462	C	C3'-C2'-C1'	10.84	110.17	101.50
33	L1	3278	G	O4'-C1'-N9	10.84	116.88	108.20
33	L1	1501	A	C1'-O4'-C4'	-10.84	101.23	109.90
32	S1	1302	C	C3'-C2'-C1'	10.84	110.17	101.50
33	L1	74	G	C1'-O4'-C4'	-10.84	101.23	109.90
56	Lh	58	TYR	CB-CG-CD2	-10.84	114.50	121.00
33	L1	3350	C	C1'-O4'-C4'	-10.83	101.23	109.90
3	SB	51	ARG	NE-CZ-NH2	-10.83	114.89	120.30
32	S1	653	U	P-O5'-C5'	10.83	138.23	120.90
33	L1	69	U	C1'-O4'-C4'	-10.83	101.23	109.90
33	L1	2479	C	C5'-C4'-C3'	10.83	133.33	116.00
33	L1	3326	U	O4'-C1'-C2'	-10.83	94.97	105.80
12	SO	64	LYS	CG-CD-CE	10.83	144.38	111.90
33	L1	462	C	C1'-O4'-C4'	-10.83	101.24	109.90
33	L1	135	G	C5'-C4'-C3'	10.82	133.32	116.00
33	L1	2337	C	N1-C1'-C2'	10.82	128.07	114.00
33	L1	2842	C	N1-C1'-C2'	-10.82	99.93	114.00
64	LG	13	ARG	NE-CZ-NH2	-10.82	114.89	120.30
33	L1	138	G	N9-C1'-C2'	10.82	128.07	114.00
2	SA	108	THR	CA-C-N	10.82	147.39	117.10
33	L1	301	G	N9-C1'-C2'	10.82	128.07	114.00
33	L1	2686	U	C1'-O4'-C4'	-10.82	101.25	109.90
33	L1	2748	G	P-O5'-C5'	10.82	138.21	120.90
33	L1	1351	C	P-O3'-C3'	10.82	132.68	119.70
33	L1	1818	C	O4'-C4'-C3'	-10.82	93.18	104.00
33	L1	2459	U	C1'-O4'-C4'	10.82	118.55	109.90
33	L1	3015	U	O4'-C1'-N1	10.82	116.85	108.20
32	S1	549	A	P-O5'-C5'	10.81	138.20	120.90
33	L1	381	G	C1'-O4'-C4'	10.81	118.55	109.90
33	L1	507	C	N1-C1'-C2'	10.81	128.05	114.00
33	L1	3068	U	O4'-C1'-N1	10.81	116.84	108.20
32	S1	1169	G	C3'-C2'-C1'	-10.80	92.86	101.50
32	S1	1517	C	C3'-C2'-C1'	10.80	110.14	101.50
33	L1	819	A	O4'-C1'-N9	-10.80	99.56	108.20
33	L1	3218	C	C1'-O4'-C4'	-10.80	101.26	109.90
60	Lr	61	LYS	C-N-CA	-10.80	94.69	121.70
32	S1	1649	C	O4'-C1'-C2'	-10.80	95.00	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2407	U	N1-C1'-C2'	10.80	128.04	114.00
23	SU	78	PHE	N-CA-CB	-10.80	91.16	110.60
33	L1	639	A	C1'-O4'-C4'	-10.80	101.26	109.90
33	L1	891	U	C1'-O4'-C4'	10.80	118.54	109.90
32	S1	1097	A	N9-C1'-C2'	10.79	128.03	114.00
33	L1	62	A	P-O5'-C5'	-10.79	103.63	120.90
33	L1	2899	A	N9-C1'-C2'	-10.79	99.97	114.00
55	Lg	6	ARG	NE-CZ-NH2	-10.79	114.90	120.30
32	S1	652	G	O3'-P-O5'	-10.79	83.50	104.00
33	L1	266	A	P-O3'-C3'	10.79	132.65	119.70
72	Lk	94	SER	N-CA-CB	10.79	126.68	110.50
67	LS	28	ARG	CB-CG-CD	10.79	139.64	111.60
32	S1	315	U	O4'-C1'-N1	10.78	116.83	108.20
32	S1	992	G	O4'-C1'-N9	10.78	116.82	108.20
33	L1	1046	U	O4'-C1'-N1	10.78	116.82	108.20
33	L1	2771	U	C5'-C4'-C3'	10.78	133.25	116.00
33	L1	1817	U	P-O3'-C3'	-10.78	106.77	119.70
33	L1	2829	U	N1-C1'-C2'	-10.78	99.99	114.00
34	L3	24	G	O4'-C1'-N9	10.78	116.82	108.20
32	S1	1163	C	OP1-P-O3'	10.77	128.89	105.20
33	L1	2274	A	C3'-C2'-C1'	10.77	110.12	101.50
33	L1	234	G	C3'-C2'-C1'	-10.77	92.89	101.50
33	L1	1948	G	C1'-O4'-C4'	10.77	118.52	109.90
33	L1	3304	U	P-O5'-C5'	10.77	138.13	120.90
3	SB	29	LEU	CB-CG-CD2	10.77	129.30	111.00
32	S1	591	C	N1-C1'-C2'	10.77	128.00	114.00
33	L1	1019	A	C1'-O4'-C4'	10.76	118.51	109.90
33	L1	2105	G	C3'-C2'-C1'	-10.76	92.89	101.50
33	L1	997	G	N9-C1'-C2'	-10.76	100.02	114.00
33	L1	1262	U	N1-C1'-C2'	-10.76	100.02	114.00
33	L1	2700	A	N9-C1'-C2'	10.76	127.98	114.00
3	SB	149	SER	N-CA-CB	10.75	126.63	110.50
35	L2	76	A	P-O3'-C3'	-10.75	106.80	119.70
33	L1	1682	C	N1-C1'-C2'	10.75	127.98	114.00
33	L1	1196	U	P-O5'-C5'	10.75	138.10	120.90
33	L1	2501	U	P-O3'-C3'	10.75	132.60	119.70
33	L1	467	C	C3'-C2'-C1'	10.75	110.10	101.50
33	L1	1454	C	O4'-C1'-N1	10.75	116.80	108.20
27	SH	27	ILE	CA-CB-CG1	10.74	131.41	111.00
32	S1	391	A	P-O3'-C3'	10.74	132.59	119.70
33	L1	425	G	C1'-O4'-C4'	-10.74	101.30	109.90
33	L1	1133	A	O4'-C1'-C2'	-10.74	95.06	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3149	C	C1'-O4'-C4'	-10.74	101.31	109.90
32	S1	966	U	O4'-C1'-N1	10.74	116.79	108.20
32	S1	1108	U	O4'-C1'-N1	10.74	116.79	108.20
33	L1	2836	G	C1'-O4'-C4'	-10.74	101.31	109.90
33	L1	2837	C	C3'-C2'-C1'	10.74	110.09	101.50
33	L1	3063	C	N1-C1'-C2'	10.74	127.96	114.00
33	L1	3365	U	C3'-C2'-C1'	10.74	110.09	101.50
33	L1	3156	G	O4'-C1'-C2'	-10.73	95.06	105.80
33	L1	2675	G	C5'-C4'-C3'	10.73	133.17	116.00
33	L1	2868	C	O4'-C1'-N1	10.73	116.79	108.20
38	LE	142	ARG	NE-CZ-NH1	-10.73	114.93	120.30
34	L3	102	G	P-O3'-C3'	10.73	132.57	119.70
32	S1	292	A	N9-C1'-C2'	-10.73	100.06	114.00
33	L1	2614	U	C1'-O4'-C4'	10.73	118.48	109.90
33	L1	211	A	C3'-C2'-C1'	10.72	110.08	101.50
33	L1	2236	U	O4'-C1'-N1	10.72	116.78	108.20
33	L1	2682	A	P-O3'-C3'	10.72	132.56	119.70
32	S1	1472	G	C1'-O4'-C4'	-10.72	101.33	109.90
33	L1	758	A	O4'-C1'-N9	10.72	116.77	108.20
33	L1	3383	C	C3'-C2'-C1'	10.72	110.07	101.50
33	L1	1588	G	O4'-C1'-N9	10.71	116.77	108.20
41	LM	68	GLY	CA-C-N	10.71	140.77	117.20
33	L1	2569	G	O4'-C1'-N9	10.71	116.77	108.20
35	L2	106	U	O4'-C1'-N1	10.71	116.77	108.20
44	LR	25	TYR	CB-CG-CD2	10.71	127.43	121.00
32	S1	1195	U	P-O3'-C3'	10.71	132.55	119.70
32	S1	1753	U	O3'-P-O5'	-10.71	83.65	104.00
33	L1	1857	G	P-O3'-C3'	10.71	132.55	119.70
72	Lk	100	MET	CG-SD-CE	-10.71	83.06	100.20
33	L1	1895	G	O4'-C1'-C2'	10.71	117.24	107.60
33	L1	1670	G	O4'-C1'-C2'	10.71	117.23	107.60
33	L1	1888	G	O4'-C1'-C2'	10.71	117.23	107.60
57	L1	68	ARG	NE-CZ-NH2	-10.71	114.95	120.30
33	L1	1598	U	O4'-C1'-C2'	-10.70	95.10	105.80
35	L2	67	C	C1'-O4'-C4'	-10.70	101.34	109.90
32	S1	1704	G	O4'-C1'-N9	10.70	116.76	108.20
33	L1	1666	C	C3'-C2'-C1'	10.70	110.06	101.50
33	L1	1948	G	N9-C1'-C2'	-10.70	100.09	114.00
76	Lw	35	ASP	CB-CA-C	-10.70	89.00	110.40
34	L3	1	G	C4'-C3'-C2'	10.70	113.30	102.60
32	S1	199	G	P-O3'-C3'	10.69	132.53	119.70
33	L1	3292	U	C1'-O4'-C4'	10.69	118.45	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1634	G	N9-C1'-C2'	10.69	127.90	114.00
60	Lr	32	LYS	C-N-CA	-10.69	94.97	121.70
32	S1	1804	A	O4'-C1'-N9	10.68	116.75	108.20
33	L1	136	C	C1'-O4'-C4'	-10.68	101.35	109.90
35	L2	87	C	N1-C1'-C2'	10.68	127.89	114.00
23	SU	38	ALA	N-CA-CB	-10.68	95.15	110.10
33	L1	2591	G	C3'-C2'-C1'	-10.68	92.96	101.50
32	S1	1513	A	O4'-C1'-C2'	-10.68	95.12	105.80
33	L1	2245	G	O3'-P-O5'	-10.67	83.73	104.00
33	L1	3241	C	N1-C1'-C2'	10.67	127.87	114.00
32	S1	1231	A	C3'-C2'-C1'	10.66	110.03	101.50
33	L1	3168	C	C3'-C2'-C1'	10.66	110.03	101.50
33	L1	1163	A	C3'-C2'-C1'	-10.66	92.97	101.50
33	L1	1367	A	C3'-C2'-C1'	10.66	110.03	101.50
31	S2	49	G	C1'-O4'-C4'	-10.66	101.37	109.90
33	L1	1286	G	N9-C1'-C2'	10.66	127.86	114.00
33	L1	235	G	O4'-C1'-N9	10.66	116.73	108.20
33	L1	2275	A	P-O3'-C3'	10.66	132.49	119.70
33	L1	2247	A	N9-C1'-C2'	-10.66	100.15	114.00
32	S1	1759	A	N9-C1'-C2'	-10.65	100.16	114.00
33	L1	2495	C	P-O3'-C3'	10.65	132.48	119.70
32	S1	1757	G	O4'-C1'-C2'	-10.64	95.16	105.80
33	L1	2887	C	C1'-O4'-C4'	-10.64	101.39	109.90
33	L1	3124	A	O4'-C1'-C2'	-10.64	95.16	105.80
32	S1	829	G	O4'-C1'-N9	10.64	116.71	108.20
33	L1	1383	G	C3'-C2'-C1'	-10.64	92.99	101.50
33	L1	1785	G	O4'-C1'-C2'	10.64	117.18	107.60
32	S1	1658	U	C3'-C2'-C1'	10.63	110.01	101.50
33	L1	1879	A	O3'-P-O5'	10.64	124.21	104.00
33	L1	801	G	N9-C1'-C2'	-10.63	100.18	114.00
48	LV	63	TYR	CB-CG-CD1	10.63	127.38	121.00
32	S1	16	G	C1'-O4'-C4'	-10.63	101.40	109.90
33	L1	1246	G	O4'-C1'-N9	10.63	116.70	108.20
35	L2	45	A	N9-C1'-C2'	-10.63	100.18	114.00
33	L1	2746	G	C1'-O4'-C4'	-10.63	101.40	109.90
35	L2	109	A	N9-C1'-C2'	10.63	127.81	114.00
35	L2	110	C	C3'-C2'-C1'	10.62	110.00	101.50
32	S1	15	U	O4'-C1'-N1	10.62	116.70	108.20
32	S1	453	C	O4'-C1'-C2'	-10.62	95.18	105.80
32	S1	1473	C	O4'-C1'-N1	10.62	116.70	108.20
32	S1	1749	C	C1'-O4'-C4'	-10.62	101.40	109.90
33	L1	1525	U	C3'-C2'-C1'	10.62	110.00	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
44	LR	38	ARG	NE-CZ-NH2	10.62	125.61	120.30
33	L1	1880	A	O4'-C4'-C3'	-10.62	93.38	104.00
33	L1	1569	U	O4'-C1'-N1	10.62	116.69	108.20
33	L1	1881	C	C4'-C3'-C2'	-10.62	91.98	102.60
25	SC	85	TYR	CB-CG-CD1	-10.61	114.63	121.00
32	S1	1010	A	O4'-C1'-N9	10.61	116.69	108.20
33	L1	3311	C	O4'-C1'-C2'	-10.62	95.19	105.80
73	Lp	51	ILE	O-C-N	-10.61	105.72	122.70
33	L1	2643	A	N9-C1'-C2'	-10.61	100.21	114.00
33	L1	3177	A	N9-C1'-C2'	-10.61	100.21	114.00
32	S1	1121	A	O4'-C1'-N9	10.61	116.69	108.20
33	L1	2765	A	O4'-C1'-N9	10.61	116.69	108.20
73	Lp	53	ASN	N-CA-CB	10.60	129.69	110.60
33	L1	230	G	C1'-O4'-C4'	-10.60	101.42	109.90
32	S1	1758	G	P-O3'-C3'	10.60	132.42	119.70
33	L1	2368	G	O4'-C1'-N9	10.60	116.68	108.20
33	L1	148	U	P-O3'-C3'	10.60	132.41	119.70
7	SI	51	ARG	NE-CZ-NH1	10.59	125.60	120.30
33	L1	1217	G	C1'-O4'-C4'	-10.59	101.42	109.90
33	L1	271	G	N9-C1'-C2'	10.59	127.77	114.00
56	Lh	104	ARG	NE-CZ-NH1	10.59	125.60	120.30
32	S1	1245	G	O4'-C1'-N9	10.59	116.67	108.20
13	SQ	39	SER	CA-C-O	-10.59	97.87	120.10
44	LR	25	TYR	CB-CG-CD1	-10.59	114.65	121.00
3	SB	154	ASP	C-N-CA	-10.58	100.08	122.30
25	SC	176	ARG	NE-CZ-NH2	-10.58	115.01	120.30
32	S1	489	C	P-O3'-C3'	10.58	132.39	119.70
33	L1	435	G	P-O3'-C3'	10.57	132.39	119.70
32	S1	1567	G	C5'-C4'-O4'	10.57	121.79	109.10
33	L1	972	C	P-O3'-C3'	10.57	132.39	119.70
33	L1	1540	G	C1'-O4'-C4'	-10.57	101.44	109.90
33	L1	1567	G	O4'-C1'-N9	10.57	116.66	108.20
80	LC	70	LYS	N-CA-CB	10.57	129.64	110.60
33	L1	2041	G	O4'-C1'-N9	10.57	116.66	108.20
32	S1	593	C	O4'-C1'-C2'	-10.57	95.23	105.80
33	L1	334	A	O4'-C1'-C2'	10.57	117.11	107.60
32	S1	620	G	P-O3'-C3'	10.57	132.38	119.70
33	L1	1307	A	O4'-C1'-N9	10.57	116.66	108.20
33	L1	1749	G	O4'-C1'-C2'	10.57	117.11	107.60
33	L1	2796	G	O4'-C1'-C2'	-10.57	95.23	105.80
33	L1	280	G	O4'-C1'-C2'	-10.57	95.23	105.80
33	L1	1363	C	C1'-O4'-C4'	-10.57	101.45	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	48	A	C4'-C3'-C2'	-10.56	92.03	102.60
33	L1	2703	G	P-O3'-C3'	10.56	132.38	119.70
34	L3	25	G	C4'-C3'-C2'	-10.56	92.03	102.60
33	L1	63	G	N9-C1'-C2'	10.56	127.73	114.00
33	L1	64	A	P-O3'-C3'	10.56	132.37	119.70
33	L1	1685	U	P-O3'-C3'	10.56	132.37	119.70
73	Lp	51	ILE	CB-CA-C	10.56	132.72	111.60
33	L1	1913	C	P-O3'-C3'	-10.56	107.03	119.70
13	SQ	73	LEU	CA-C-O	-10.55	97.94	120.10
1	Sa	199	GLU	C-N-CA	10.55	148.08	121.70
32	S1	380	C	O4'-C1'-N1	10.55	116.64	108.20
32	S1	606	U	O4'-C1'-N1	10.55	116.64	108.20
14	SP	100	ARG	NE-CZ-NH2	-10.55	115.03	120.30
32	S1	1474	U	N1-C1'-C2'	-10.55	100.29	114.00
33	L1	1524	G	O4'-C1'-N9	10.55	116.64	108.20
33	L1	2480	G	C1'-O4'-C4'	10.55	118.34	109.90
33	L1	2512	U	P-O3'-C3'	10.55	132.36	119.70
33	L1	2722	U	O4'-C1'-N1	10.55	116.64	108.20
33	L1	1388	C	O4'-C1'-N1	10.55	116.64	108.20
33	L1	2480	G	N9-C1'-C2'	-10.55	100.29	114.00
33	L1	3387	U	O4'-C1'-N1	10.54	116.64	108.20
33	L1	735	C	N1-C1'-C2'	10.54	127.70	114.00
33	L1	3310	A	C1'-O4'-C4'	-10.54	101.47	109.90
35	L2	65	A	O4'-C1'-C2'	10.54	117.09	107.60
33	L1	2126	C	O4'-C1'-N1	10.54	116.63	108.20
32	S1	1107	G	O4'-C1'-N9	10.54	116.63	108.20
33	L1	2129	U	O4'-C1'-N1	10.53	116.63	108.20
32	S1	962	G	C3'-C2'-C1'	-10.53	93.07	101.50
33	L1	3137	G	C3'-C2'-C1'	-10.53	93.07	101.50
32	S1	449	A	C3'-C2'-C1'	10.53	109.92	101.50
33	L1	1368	U	P-O3'-C3'	-10.52	107.07	119.70
35	L2	53	G	O4'-C1'-C2'	10.52	117.07	107.60
15	SS	124	ARG	C-N-CA	10.52	148.00	121.70
32	S1	974	C	C3'-C2'-C1'	10.52	109.92	101.50
33	L1	1096	C	O4'-C1'-N1	10.52	116.61	108.20
33	L1	2391	C	C3'-C2'-C1'	10.52	109.92	101.50
32	S1	148	C	P-O3'-C3'	10.52	132.32	119.70
32	S1	1211	U	N1-C1'-C2'	10.52	127.67	114.00
33	L1	2945	G	P-O5'-C5'	10.52	137.73	120.90
33	L1	2133	A	N9-C1'-C2'	10.52	127.67	114.00
32	S1	1326	A	C5'-C4'-C3'	-10.51	99.18	116.00
33	L1	1342	C	C5'-C4'-C3'	10.51	132.82	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3365	U	O4'-C1'-N1	10.51	116.61	108.20
32	S1	61	A	C1'-O4'-C4'	10.51	118.31	109.90
32	S1	645	G	N9-C1'-C2'	10.51	127.66	114.00
33	L1	1762	G	P-O3'-C3'	10.51	132.31	119.70
4	SD	133	GLN	N-CA-C	10.50	139.36	111.00
33	L1	1897	A	N9-C1'-C2'	10.50	127.65	114.00
67	LS	28	ARG	CD-NE-CZ	10.50	138.30	123.60
32	S1	923	U	O4'-C1'-N1	10.50	116.60	108.20
11	SM	89	ASP	N-CA-CB	-10.49	91.71	110.60
33	L1	521	G	OP2-P-O3'	10.49	128.29	105.20
32	S1	1593	U	N1-C1'-C2'	-10.49	100.36	114.00
32	S1	1779	U	O4'-C1'-N1	10.49	116.59	108.20
33	L1	1141	U	O4'-C1'-N1	10.49	116.59	108.20
36	LA	21	ARG	NE-CZ-NH2	-10.49	115.05	120.30
33	L1	2488	A	O4'-C1'-N9	10.49	116.59	108.20
32	S1	1349	A	O4'-C1'-N9	10.49	116.59	108.20
49	LX	58	ARG	N-CA-CB	-10.49	91.72	110.60
55	Lg	45	ARG	NE-CZ-NH1	10.49	125.54	120.30
32	S1	600	C	O4'-C1'-C2'	-10.48	95.32	105.80
33	L1	770	U	O4'-C1'-N1	10.48	116.59	108.20
32	S1	1430	A	O4'-C1'-C2'	-10.48	95.32	105.80
32	S1	1313	G	O4'-C1'-N9	10.48	116.58	108.20
33	L1	886	A	P-O3'-C3'	10.48	132.28	119.70
33	L1	619	C	O5'-P-OP2	-10.48	96.27	105.70
33	L1	2579	G	N9-C1'-C2'	10.48	127.62	114.00
33	L1	1599	A	C1'-O4'-C4'	-10.47	101.52	109.90
32	S1	328	U	O4'-C1'-N1	10.47	116.58	108.20
32	S1	691	A	O4'-C1'-N9	10.47	116.58	108.20
33	L1	1362	C	O4'-C1'-N1	10.47	116.58	108.20
33	L1	2412	A	O4'-C1'-N9	10.47	116.58	108.20
41	LM	72	LEU	N-CA-C	10.47	139.27	111.00
33	L1	2614	U	O4'-C1'-C2'	-10.46	95.33	105.80
33	L1	2739	A	C4'-C3'-C2'	-10.47	92.13	102.60
61	Lq	18	ARG	NE-CZ-NH1	-10.47	115.07	120.30
32	S1	636	U	C3'-C2'-C1'	10.46	109.87	101.50
35	L2	51	U	O4'-C1'-N1	10.46	116.57	108.20
33	L1	3277	C	P-O3'-C3'	10.46	132.25	119.70
32	S1	414	A	O4'-C1'-N9	10.46	116.56	108.20
33	L1	3027	G	O4'-C1'-C2'	-10.46	95.34	105.80
33	L1	2831	U	O4'-C1'-N1	10.45	116.56	108.20
32	S1	84	G	O4'-C1'-N9	10.45	116.56	108.20
33	L1	1686	U	O4'-C1'-N1	10.45	116.56	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1642	C	O4'-C1'-N1	-10.45	99.84	108.20
33	L1	2664	G	C1'-O4'-C4'	-10.45	101.54	109.90
33	L1	1758	U	O4'-C1'-N1	10.45	116.56	108.20
32	S1	32	U	O4'-C1'-N1	10.44	116.55	108.20
32	S1	484	A	O4'-C1'-C2'	10.44	117.00	107.60
32	S1	648	C	C1'-O4'-C4'	10.44	118.25	109.90
33	L1	418	G	N9-C1'-C2'	10.44	127.57	114.00
33	L1	1197	A	O4'-C1'-N9	10.44	116.55	108.20
33	L1	795	C	P-O3'-C3'	-10.44	107.17	119.70
33	L1	3152	C	O4'-C1'-C2'	-10.44	95.36	105.80
1	Sa	317	TYR	CB-CG-CD1	-10.44	114.74	121.00
33	L1	1131	U	C3'-C2'-C1'	10.44	109.85	101.50
33	L1	3232	C	N1-C1'-C2'	10.44	127.57	114.00
34	L3	120	C	C1'-O4'-C4'	-10.44	101.55	109.90
33	L1	124	C	N1-C1'-C2'	10.43	127.56	114.00
33	L1	614	C	O4'-C1'-C2'	-10.43	95.37	105.80
33	L1	601	G	O4'-C1'-C2'	10.43	116.99	107.60
33	L1	875	A	O4'-C1'-N9	10.43	116.55	108.20
35	L2	87	C	O4'-C1'-N1	10.43	116.55	108.20
32	S1	575	G	N9-C1'-C2'	10.43	127.56	114.00
33	L1	1247	G	N9-C1'-C2'	10.43	127.56	114.00
33	L1	2008	G	O4'-C1'-N9	10.43	116.54	108.20
32	S1	492	G	P-O3'-C3'	10.43	132.21	119.70
32	S1	11	A	C3'-C2'-C1'	10.43	109.84	101.50
33	L1	2146	A	C5'-C4'-C3'	10.42	132.68	116.00
23	SU	8	PRO	CA-C-N	10.42	140.13	117.20
33	L1	1537	A	O4'-C1'-C2'	-10.42	95.38	105.80
33	L1	2348	U	P-O3'-C3'	-10.42	107.20	119.70
31	S2	13	U	C1'-O4'-C4'	10.42	118.23	109.90
31	S2	24	A	O4'-C1'-N9	10.42	116.53	108.20
32	S1	209	U	O4'-C1'-N1	10.42	116.53	108.20
32	S1	1112	G	N9-C1'-C2'	10.42	127.54	114.00
33	L1	843	C	C3'-C2'-C1'	10.42	109.83	101.50
33	L1	1485	A	O4'-C1'-N9	10.42	116.53	108.20
56	Lh	48	LYS	CB-CA-C	10.42	131.24	110.40
8	SJ	89	PHE	CB-CG-CD2	10.41	128.09	120.80
32	S1	1004	U	O3'-P-O5'	-10.41	84.21	104.00
1	Sa	202	SER	CB-CA-C	10.41	129.88	110.10
33	L1	2936	A	P-O3'-C3'	10.41	132.19	119.70
33	L1	1866	C	O4'-C1'-N1	10.41	116.53	108.20
33	L1	2172	C	P-O3'-C3'	10.41	132.19	119.70
49	LX	52	ARG	NE-CZ-NH2	10.41	125.51	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2218	A	N9-C1'-C2'	10.41	127.53	114.00
33	L1	1674	A	C3'-C2'-C1'	10.41	109.83	101.50
45	LQ	158	ARG	CD-NE-CZ	-10.41	109.03	123.60
33	L1	2846	C	O4'-C1'-N1	-10.40	99.88	108.20
33	L1	2840	A	C1'-O4'-C4'	-10.40	101.58	109.90
23	SU	70	PHE	CB-CA-C	-10.40	89.61	110.40
32	S1	1332	G	N9-C1'-C2'	-10.40	100.48	114.00
33	L1	484	C	P-O3'-C3'	-10.40	107.22	119.70
33	L1	946	U	C2'-C3'-O3'	10.40	132.38	109.50
33	L1	1822	C	C1'-O4'-C4'	-10.40	101.58	109.90
33	L1	2114	A	C3'-C2'-C1'	10.40	109.82	101.50
84	LI	34	TYR	CB-CG-CD1	10.40	127.24	121.00
27	SH	67	GLY	O-C-N	10.39	139.33	122.70
33	L1	310	C	N1-C1'-C2'	10.39	127.51	114.00
35	L2	25	C	N1-C1'-C2'	10.39	127.51	114.00
59	Lo	30	ARG	C-N-CA	-10.39	95.72	121.70
33	L1	553	C	C3'-C2'-C1'	10.39	109.81	101.50
33	L1	1642	G	C1'-O4'-C4'	-10.39	101.59	109.90
33	L1	2722	U	O4'-C1'-C2'	-10.39	95.41	105.80
33	L1	3245	G	O4'-C1'-N9	10.39	116.51	108.20
33	L1	2620	U	O4'-C1'-N1	10.38	116.51	108.20
33	L1	1193	A	C3'-C2'-C1'	10.38	109.80	101.50
33	L1	1368	U	O4'-C1'-N1	-10.38	99.90	108.20
33	L1	1651	A	O4'-C1'-C2'	10.38	116.94	107.60
34	L3	1	G	O4'-C1'-C2'	10.38	116.94	107.60
13	SQ	139	ASP	C-N-CA	10.38	147.64	121.70
31	S2	47	U	P-O3'-C3'	10.38	132.15	119.70
33	L1	566	G	O4'-C1'-N9	-10.38	99.90	108.20
32	S1	1443	U	N1-C1'-C2'	-10.37	100.51	114.00
33	L1	1277	A	C1'-O4'-C4'	-10.38	101.60	109.90
33	L1	3042	U	O4'-C1'-N1	10.37	116.50	108.20
33	L1	606	C	O4'-C1'-N1	10.37	116.50	108.20
33	L1	3094	C	O4'-C1'-C2'	-10.37	95.43	105.80
33	L1	1530	C	C1'-O4'-C4'	-10.37	101.60	109.90
35	L2	96	A	P-O5'-C5'	10.37	137.50	120.90
33	L1	1540	G	O4'-C1'-C2'	10.37	116.93	107.60
33	L1	2762	U	C1'-O4'-C4'	10.37	118.19	109.90
32	S1	626	A	C3'-C2'-C1'	10.37	109.79	101.50
33	L1	494	C	O4'-C1'-N1	10.37	116.49	108.20
33	L1	2656	C	O4'-C1'-N1	10.37	116.49	108.20
32	S1	1344	U	O4'-C1'-N1	10.36	116.49	108.20
68	LW	82	LYS	N-CA-CB	-10.37	91.94	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	601	G	O4'-C1'-N9	10.36	116.49	108.20
33	L1	1613	C	O5'-P-OP1	-10.36	96.37	105.70
32	S1	987	U	O4'-C1'-N1	10.36	116.49	108.20
33	L1	2274	A	O4'-C1'-N9	-10.36	99.91	108.20
33	L1	2657	C	C5'-C4'-C3'	10.36	132.58	116.00
16	SR	117	LYS	CB-CA-C	-10.36	89.68	110.40
33	L1	2789	G	P-O3'-C3'	10.36	132.13	119.70
33	L1	844	A	C3'-C2'-C1'	-10.36	93.21	101.50
32	S1	580	G	C3'-C2'-C1'	10.36	109.78	101.50
32	S1	1016	C	O4'-C1'-N1	10.36	116.49	108.20
33	L1	1884	U	O4'-C1'-N1	10.36	116.49	108.20
32	S1	1645	C	O4'-C1'-N1	10.35	116.48	108.20
33	L1	2463	U	O4'-C1'-N1	10.35	116.48	108.20
33	L1	73	A	C5'-C4'-O4'	-10.35	96.68	109.10
35	L2	54	C	P-O3'-C3'	10.35	132.12	119.70
15	SS	51	TYR	CB-CG-CD2	10.35	127.21	121.00
33	L1	1366	G	O4'-C1'-N9	10.35	116.48	108.20
70	Li	42	PRO	C-N-CA	10.35	147.56	121.70
32	S1	275	C	O4'-C1'-N1	10.34	116.47	108.20
33	L1	643	G	C3'-C2'-C1'	-10.34	93.23	101.50
34	L3	54	A	O4'-C1'-N9	10.34	116.47	108.20
32	S1	29	U	N1-C1'-C2'	10.34	127.44	114.00
32	S1	400	G	O4'-C1'-N9	10.34	116.47	108.20
33	L1	1690	C	N1-C1'-C2'	-10.34	100.56	114.00
32	S1	1719	C	C3'-C2'-C1'	10.34	109.77	101.50
33	L1	1692	U	N1-C1'-C2'	-10.34	100.56	114.00
33	L1	1750	A	O4'-C1'-C2'	-10.34	95.47	105.80
32	S1	956	A	N9-C1'-C2'	-10.33	100.57	114.00
33	L1	2870	U	N1-C1'-C2'	10.33	127.43	114.00
33	L1	1599	A	O4'-C1'-N9	-10.33	99.94	108.20
5	SE	193	PRO	C-N-CA	10.33	147.53	121.70
32	S1	1266	U	N1-C1'-C2'	10.33	127.43	114.00
33	L1	424	G	P-O3'-C3'	10.33	132.10	119.70
33	L1	615	A	C1'-O4'-C4'	-10.33	101.64	109.90
35	L2	63	A	C1'-O4'-C4'	-10.33	101.64	109.90
33	L1	2999	G	O4'-C1'-C2'	10.33	116.89	107.60
32	S1	1739	U	P-O3'-C3'	-10.33	107.31	119.70
32	S1	457	C	O4'-C1'-C2'	-10.32	95.47	105.80
32	S1	578	G	C1'-O4'-C4'	10.32	118.16	109.90
33	L1	3020	C	C3'-C2'-C1'	10.32	109.76	101.50
35	L2	62	G	C3'-C2'-C1'	10.32	109.76	101.50
32	S1	546	U	P-O3'-C3'	10.32	132.09	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	618	G	O4'-C1'-C2'	10.32	116.89	107.60
68	LW	80	PHE	CB-CG-CD2	-10.32	113.58	120.80
32	S1	200	C	C3'-C2'-C1'	10.32	109.75	101.50
32	S1	1781	U	C3'-C2'-C1'	10.32	109.75	101.50
33	L1	533	G	C1'-O4'-C4'	-10.32	101.65	109.90
32	S1	433	G	O4'-C1'-N9	10.31	116.45	108.20
34	L3	63	U	P-O3'-C3'	10.31	132.07	119.70
33	L1	1583	G	O4'-C1'-C2'	-10.30	95.50	105.80
32	S1	1443	U	C1'-O4'-C4'	10.30	118.14	109.90
33	L1	334	A	P-O3'-C3'	10.30	132.06	119.70
33	L1	3152	C	O4'-C1'-N1	10.30	116.44	108.20
33	L1	2204	U	C5'-C4'-C3'	10.30	132.48	116.00
32	S1	424	A	O4'-C1'-N9	10.29	116.44	108.20
56	Lh	37	LYS	C-N-CA	10.30	143.92	122.30
33	L1	1375	G	N9-C1'-C2'	10.29	127.38	114.00
33	L1	2676	A	C3'-C2'-C1'	10.29	109.73	101.50
33	L1	729	G	N9-C1'-C2'	-10.29	100.62	114.00
33	L1	1735	U	C1'-O4'-C4'	10.29	118.13	109.90
33	L1	2653	U	C1'-O4'-C4'	-10.29	101.67	109.90
33	L1	2474	A	N9-C1'-C2'	-10.29	100.62	114.00
42	LP	81	TYR	CB-CG-CD2	10.29	127.17	121.00
44	LR	110	ARG	NE-CZ-NH1	10.29	125.44	120.30
33	L1	1240	G	C1'-O4'-C4'	-10.29	101.67	109.90
32	S1	1085	U	O4'-C1'-N1	10.28	116.43	108.20
32	S1	1611	U	O4'-C1'-C2'	-10.29	95.52	105.80
33	L1	2204	U	N1-C1'-C2'	-10.29	100.63	114.00
33	L1	1310	G	P-O3'-C3'	10.28	132.04	119.70
1	Sa	159	TYR	CB-CG-CD1	-10.28	114.83	121.00
39	LF	155	ARG	NE-CZ-NH2	10.28	125.44	120.30
32	S1	1676	G	O4'-C1'-N9	10.28	116.42	108.20
32	S1	828	G	C3'-C2'-C1'	-10.28	93.28	101.50
33	L1	1236	C	N1-C1'-C2'	10.28	127.36	114.00
33	L1	2013	G	O4'-C1'-N9	10.28	116.42	108.20
32	S1	1387	U	C1'-O4'-C4'	10.28	118.12	109.90
33	L1	2161	G	O3'-P-O5'	-10.28	84.47	104.00
79	Ls	258	THR	CA-CB-CG2	10.27	126.78	112.40
32	S1	593	C	C3'-C2'-C1'	10.27	109.72	101.50
33	L1	2688	G	C1'-O4'-C4'	-10.27	101.68	109.90
71	Lj	103	ARG	NE-CZ-NH1	10.27	125.43	120.30
32	S1	1489	A	P-O3'-C3'	10.27	132.02	119.70
33	L1	220	G	N9-C1'-C2'	10.27	127.34	114.00
33	L1	905	G	P-O5'-C5'	10.27	137.33	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1722	C	O4'-C1'-C2'	10.26	116.84	107.60
33	L1	1800	G	O4'-C1'-N9	10.26	116.41	108.20
33	L1	555	G	C3'-C2'-C1'	-10.26	93.29	101.50
33	L1	610	G	O4'-C1'-N9	10.26	116.41	108.20
33	L1	3081	G	O4'-C1'-C2'	-10.26	95.54	105.80
33	L1	560	C	O4'-C1'-N1	10.26	116.41	108.20
35	L2	25	C	C1'-O4'-C4'	-10.26	101.69	109.90
33	L1	464	G	O4'-C1'-N9	10.26	116.40	108.20
42	LP	21	PHE	CB-CG-CD2	-10.26	113.62	120.80
33	L1	2114	A	O4'-C1'-C2'	-10.26	95.55	105.80
33	L1	3218	C	N1-C1'-C2'	10.26	127.33	114.00
39	LF	187	THR	CA-C-O	-10.26	98.56	120.10
33	L1	2020	G	O4'-C1'-N9	10.25	116.40	108.20
33	L1	2590	C	C1'-O4'-C4'	10.25	118.10	109.90
33	L1	2724	A	O4'-C1'-N9	-10.25	100.00	108.20
41	LM	72	LEU	CA-C-N	10.25	139.75	117.20
32	S1	1707	G	N9-C1'-C2'	-10.25	100.67	114.00
33	L1	2261	U	O4'-C1'-N1	10.25	116.40	108.20
33	L1	3101	C	C3'-C2'-C1'	10.25	109.70	101.50
2	SA	215	LYS	N-CA-C	10.25	138.67	111.00
25	SC	17	PRO	N-CA-C	10.25	138.74	112.10
51	LY	15	ARG	NE-CZ-NH2	-10.24	115.18	120.30
32	S1	1588	C	P-O3'-C3'	10.24	131.99	119.70
33	L1	2210	A	O4'-C1'-N9	10.24	116.39	108.20
73	Lp	51	ILE	CA-C-N	10.24	139.72	117.20
33	L1	691	U	C1'-O4'-C4'	10.24	118.09	109.90
33	L1	2903	G	N9-C1'-C2'	10.24	127.31	114.00
13	SQ	94	GLU	O-C-N	-10.23	106.33	122.70
32	S1	1505	U	O4'-C1'-N1	10.23	116.39	108.20
33	L1	2644	U	C1'-O4'-C4'	-10.23	101.71	109.90
33	L1	2739	A	P-O3'-C3'	10.23	131.98	119.70
33	L1	1868	C	O4'-C1'-N1	10.23	116.39	108.20
33	L1	763	G	N9-C1'-C2'	10.23	127.29	114.00
33	L1	1790	A	N9-C1'-C2'	10.23	127.29	114.00
66	LN	99	ARG	CD-NE-CZ	10.23	137.92	123.60
33	L1	1072	C	C1'-O4'-C4'	-10.22	101.72	109.90
69	La	27	ARG	C-N-CA	10.22	147.25	121.70
33	L1	639	A	P-O3'-C3'	-10.21	107.44	119.70
33	L1	1801	G	C3'-C2'-C1'	10.21	109.67	101.50
32	S1	400	G	C1'-O4'-C4'	10.21	118.07	109.90
33	L1	230	G	C5'-C4'-C3'	-10.21	99.67	116.00
3	SB	79	PHE	N-CA-CB	-10.21	92.23	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3203	G	N9-C1'-C2'	-10.21	100.73	114.00
33	L1	3358	A	O4'-C1'-C2'	10.21	116.78	107.60
33	L1	29	G	C5'-C4'-C3'	10.20	132.32	116.00
33	L1	1723	C	C3'-C2'-C1'	10.20	109.66	101.50
33	L1	1821	G	C4'-C3'-C2'	-10.20	92.40	102.60
33	L1	2657	C	O4'-C1'-C2'	-10.20	95.60	105.80
33	L1	2769	U	P-O5'-C5'	10.20	137.22	120.90
33	L1	575	C	P-O3'-C3'	10.19	131.93	119.70
33	L1	2995	G	C3'-C2'-C1'	10.20	109.66	101.50
34	L3	67	C	O4'-C1'-N1	10.20	116.36	108.20
23	SU	25	ARG	CG-CD-NE	10.19	133.20	111.80
33	L1	374	G	C3'-C2'-C1'	-10.19	93.35	101.50
33	L1	2991	U	N1-C1'-C2'	10.19	127.25	114.00
33	L1	3101	C	C5'-C4'-O4'	-10.19	96.87	109.10
32	S1	1462	C	C1'-O4'-C4'	-10.19	101.75	109.90
13	SQ	21	TYR	CA-C-N	10.18	139.60	117.20
33	L1	779	U	O4'-C1'-N1	10.18	116.35	108.20
33	L1	1587	G	C3'-C2'-C1'	10.18	109.65	101.50
33	L1	1851	U	O4'-C1'-N1	10.18	116.35	108.20
33	L1	2419	C	N1-C1'-C2'	10.18	127.24	114.00
71	Lj	95	PRO	C-N-CA	-10.18	96.24	121.70
32	S1	415	C	O4'-C1'-N1	10.18	116.34	108.20
33	L1	1647	C	P-O5'-C5'	10.18	137.19	120.90
33	L1	2715	U	O4'-C1'-N1	10.18	116.34	108.20
33	L1	3100	C	O4'-C1'-C2'	-10.18	95.62	105.80
32	S1	636	U	C1'-O4'-C4'	10.18	118.04	109.90
32	S1	1332	G	C1'-O4'-C4'	10.18	118.04	109.90
32	S1	1435	G	C3'-C2'-C1'	-10.18	93.36	101.50
32	S1	1592	G	P-O3'-C3'	10.18	131.91	119.70
33	L1	1087	G	N9-C1'-C2'	10.18	127.23	114.00
33	L1	1175	G	O4'-C1'-N9	10.18	116.34	108.20
34	L3	87	G	O4'-C1'-N9	10.18	116.34	108.20
44	LR	35	PHE	CB-CG-CD2	-10.18	113.68	120.80
33	L1	949	C	O4'-C1'-N1	10.17	116.34	108.20
33	L1	2694	A	O4'-C1'-N9	10.17	116.34	108.20
32	S1	1740	G	O4'-C1'-C2'	-10.17	95.63	105.80
33	L1	50	A	O4'-C1'-N9	10.17	116.34	108.20
33	L1	2848	U	C1'-O4'-C4'	10.17	118.03	109.90
33	L1	3088	A	O4'-C1'-N9	-10.17	100.07	108.20
32	S1	197	G	O4'-C1'-N9	10.16	116.33	108.20
33	L1	2686	U	O4'-C1'-C2'	10.16	116.75	107.60
66	LN	50	PHE	CB-CG-CD1	10.16	127.92	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	17	G	C1'-O4'-C4'	-10.16	101.77	109.90
7	SI	32	ARG	NE-CZ-NH2	10.16	125.38	120.30
33	L1	1126	U	O4'-C1'-N1	10.16	116.33	108.20
33	L1	2708	A	C3'-C2'-C1'	10.16	109.63	101.50
33	L1	2474	A	C1'-O4'-C4'	10.16	118.03	109.90
33	L1	786	U	O4'-C1'-N1	10.16	116.33	108.20
33	L1	3388	U	N1-C1'-C2'	-10.16	100.80	114.00
32	S1	995	C	N1-C1'-C2'	10.15	127.20	114.00
34	L3	116	U	O4'-C1'-N1	10.15	116.32	108.20
32	S1	1639	A	P-O3'-C3'	10.15	131.88	119.70
32	S1	161	G	O4'-C1'-N9	10.15	116.32	108.20
32	S1	716	A	C5'-C4'-C3'	-10.15	99.77	116.00
33	L1	560	C	C1'-O4'-C4'	10.15	118.02	109.90
33	L1	3041	A	C1'-O4'-C4'	-10.15	101.78	109.90
32	S1	284	U	O4'-C1'-N1	10.14	116.31	108.20
33	L1	1057	A	N9-C1'-C2'	-10.14	100.81	114.00
33	L1	91	G	O4'-C1'-C2'	-10.14	95.66	105.80
32	S1	1541	C	O3'-P-O5'	10.14	123.26	104.00
5	SE	193	PRO	O-C-N	-10.14	106.48	122.70
32	S1	1761	G	C1'-O4'-C4'	-10.14	101.79	109.90
33	L1	442	C	N1-C1'-C2'	10.14	127.18	114.00
33	L1	810	A	O4'-C1'-C2'	-10.14	95.66	105.80
32	S1	329	G	O4'-C1'-N9	10.14	116.31	108.20
33	L1	1348	G	P-O5'-C5'	10.14	137.12	120.90
34	L3	76	U	O4'-C1'-N1	10.13	116.31	108.20
35	L2	158	G	N9-C1'-C2'	-10.13	100.82	114.00
48	LV	158	VAL	CB-CA-C	-10.13	92.14	111.40
5	SE	38	ARG	NE-CZ-NH2	-10.13	115.23	120.30
33	L1	251	G	C3'-C2'-C1'	-10.13	93.39	101.50
78	Le	242	ARG	NE-CZ-NH1	10.13	125.36	120.30
32	S1	621	U	O4'-C1'-N1	10.13	116.30	108.20
3	SB	106	ARG	NE-CZ-NH2	-10.13	115.24	120.30
33	L1	2420	U	C3'-C2'-C1'	10.12	109.60	101.50
33	L1	2581	C	C1'-O4'-C4'	-10.12	101.80	109.90
40	LH	58	ARG	NE-CZ-NH1	10.12	125.36	120.30
33	L1	2154	G	N9-C1'-C2'	10.12	127.16	114.00
11	SM	53	ASN	CB-CG-OD1	10.12	141.84	121.60
32	S1	1319	U	O4'-C1'-N1	10.12	116.30	108.20
32	S1	1507	G	C3'-C2'-C1'	-10.12	93.41	101.50
33	L1	2164	G	C3'-C2'-C1'	-10.12	93.41	101.50
33	L1	2231	G	C5'-C4'-C3'	10.12	132.19	116.00
67	LS	6	PHE	N-CA-CB	10.12	128.81	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1326	A	P-O3'-C3'	10.12	131.84	119.70
33	L1	1263	A	O4'-C1'-C2'	10.12	116.70	107.60
33	L1	1583	G	C3'-C2'-C1'	10.12	109.59	101.50
33	L1	713	G	N9-C1'-C2'	10.11	127.15	114.00
37	LB	123	ARG	NE-CZ-NH1	10.11	125.36	120.30
13	SQ	95	GLU	CB-CA-C	-10.11	90.18	110.40
32	S1	1651	U	C3'-C2'-C1'	-10.11	93.41	101.50
33	L1	1576	C	C1'-O4'-C4'	10.11	117.99	109.90
33	L1	3082	G	C3'-C2'-C1'	10.11	109.59	101.50
33	L1	3056	C	O4'-C1'-N1	10.11	116.28	108.20
33	L1	2877	U	O4'-C1'-N1	10.11	116.28	108.20
35	L2	155	G	P-O3'-C3'	10.11	131.83	119.70
32	S1	1088	G	C3'-C2'-C1'	10.10	109.58	101.50
33	L1	242	U	N1-C1'-C2'	10.10	127.13	114.00
34	L3	30	G	O4'-C1'-N9	10.10	116.28	108.20
33	L1	1237	G	O4'-C1'-N9	10.10	116.28	108.20
32	S1	1109	U	C3'-C2'-C1'	10.10	109.58	101.50
33	L1	492	G	C4'-C3'-C2'	10.10	112.70	102.60
32	S1	301	U	C3'-C2'-C1'	10.10	109.58	101.50
33	L1	3095	G	O4'-C1'-C2'	10.10	116.69	107.60
32	S1	486	U	O4'-C1'-N1	10.09	116.28	108.20
33	L1	10	C	N1-C1'-C2'	10.09	127.12	114.00
33	L1	3275	G	C1'-O4'-C4'	-10.09	101.83	109.90
33	L1	1084	G	N9-C1'-C2'	10.09	127.12	114.00
33	L1	429	G	O4'-C1'-N9	10.09	116.27	108.20
33	L1	1905	A	O4'-C1'-N9	10.09	116.27	108.20
33	L1	1912	U	C1'-O4'-C4'	-10.09	101.83	109.90
45	LQ	248	ARG	NE-CZ-NH1	10.09	125.34	120.30
33	L1	1499	C	N1-C1'-C2'	10.09	127.11	114.00
33	L1	2617	G	P-O3'-C3'	10.09	131.81	119.70
32	S1	1516	C	O4'-C1'-N1	10.09	116.27	108.20
33	L1	390	G	O4'-C1'-N9	10.09	116.27	108.20
33	L1	3237	G	C3'-C2'-C1'	-10.09	93.43	101.50
32	S1	119	U	O4'-C1'-C2'	10.08	116.67	107.60
32	S1	238	G	O4'-C1'-N9	10.08	116.27	108.20
33	L1	594	C	N1-C1'-C2'	10.08	127.10	114.00
33	L1	1753	A	O5'-C5'-C4'	10.08	130.85	111.70
33	L1	294	A	O4'-C1'-C2'	-10.08	95.72	105.80
32	S1	1299	G	C3'-C2'-C1'	-10.08	93.44	101.50
33	L1	2077	C	O4'-C1'-N1	10.07	116.26	108.20
25	SC	84	ARG	NE-CZ-NH2	-10.07	115.27	120.30
32	S1	153	U	O4'-C1'-N1	10.07	116.26	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2540	C	C1'-O4'-C4'	-10.07	101.84	109.90
34	L3	19	A	N9-C1'-C2'	-10.07	100.91	114.00
23	SU	23	LEU	CB-CG-CD2	10.07	128.11	111.00
32	S1	535	C	O3'-P-O5'	10.07	123.13	104.00
32	S1	850	G	C1'-O4'-C4'	-10.07	101.85	109.90
64	LG	185	ASP	C-N-CA	-10.07	96.53	121.70
32	S1	1775	A	N9-C1'-C2'	10.06	127.08	114.00
33	L1	265	G	C3'-C2'-C1'	10.06	109.55	101.50
33	L1	1942	A	O4'-C1'-N9	10.06	116.25	108.20
33	L1	2847	A	C1'-O4'-C4'	10.06	117.95	109.90
33	L1	3109	G	O4'-C1'-C2'	10.06	116.66	107.60
3	SB	139	SER	N-CA-CB	-10.06	95.41	110.50
33	L1	1824	C	N1-C1'-C2'	10.06	127.08	114.00
81	LD	43	PHE	CB-CG-CD2	-10.06	113.76	120.80
32	S1	1000	A	C3'-C2'-C1'	-10.06	93.45	101.50
33	L1	1778	C	C3'-C2'-C1'	10.06	109.55	101.50
32	S1	958	G	O4'-C1'-N9	10.06	116.25	108.20
32	S1	1727	C	N1-C1'-C2'	10.06	127.07	114.00
80	LC	10	ARG	NE-CZ-NH2	-10.06	115.27	120.30
10	SL	17	ARG	NE-CZ-NH1	10.05	125.33	120.30
32	S1	847	U	O4'-C1'-N1	10.06	116.25	108.20
32	S1	856	G	C3'-C2'-C1'	-10.05	93.46	101.50
33	L1	1878	G	C3'-C2'-C1'	-10.05	93.46	101.50
33	L1	2493	C	C1'-O4'-C4'	-10.05	101.86	109.90
34	L3	23	A	P-O3'-C3'	10.05	131.76	119.70
33	L1	607	U	C1'-O4'-C4'	10.05	117.94	109.90
33	L1	692	U	C3'-C2'-C1'	10.05	109.54	101.50
33	L1	2419	C	C3'-C2'-C1'	10.05	109.54	101.50
33	L1	3176	C	C3'-C2'-C1'	10.05	109.54	101.50
32	S1	694	C	N1-C1'-C2'	10.05	127.06	114.00
33	L1	1236	C	O5'-P-OP1	-10.05	96.66	105.70
37	LB	186	TYR	CB-CG-CD2	-10.05	114.97	121.00
32	S1	112	U	O4'-C1'-N1	10.04	116.23	108.20
32	S1	1034	G	C5'-C4'-O4'	10.04	121.15	109.10
32	S1	1504	U	N1-C1'-C2'	-10.04	100.95	114.00
32	S1	1538	C	C1'-O4'-C4'	10.04	117.93	109.90
33	L1	684	C	N1-C1'-C2'	-10.04	100.95	114.00
33	L1	74	G	O4'-C1'-C2'	10.04	116.64	107.60
33	L1	2848	U	N1-C1'-C2'	-10.04	100.95	114.00
33	L1	2915	U	O4'-C1'-N1	10.04	116.23	108.20
33	L1	3084	G	O4'-C1'-N9	10.04	116.23	108.20
31	S2	5	U	O4'-C1'-N1	10.04	116.23	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1545	G	N9-C1'-C2'	10.04	127.05	114.00
33	L1	2949	G	C1'-O4'-C4'	-10.04	101.87	109.90
32	S1	1264	U	O4'-C1'-N1	10.03	116.22	108.20
33	L1	555	G	O3'-P-O5'	10.03	123.06	104.00
33	L1	1783	G	O4'-C1'-N9	10.03	116.23	108.20
33	L1	753	G	O4'-C1'-N9	10.03	116.22	108.20
34	L3	73	U	C1'-O4'-C4'	10.03	117.92	109.90
42	LP	50	ARG	NE-CZ-NH2	10.03	125.31	120.30
33	L1	183	C	N1-C1'-C2'	10.03	127.04	114.00
33	L1	3001	G	O4'-C1'-C2'	10.03	116.63	107.60
13	SQ	33	LYS	N-CA-CB	10.03	128.65	110.60
31	S2	73	C	N1-C1'-C2'	10.03	127.03	114.00
33	L1	632	C	C1'-O4'-C4'	-10.03	101.88	109.90
33	L1	816	G	N9-C1'-C2'	10.03	127.03	114.00
32	S1	788	G	O3'-P-O5'	10.02	123.05	104.00
33	L1	1222	U	N1-C1'-C2'	-10.02	100.97	114.00
32	S1	495	C	N1-C1'-C2'	10.02	127.03	114.00
32	S1	633	U	C1'-O4'-C4'	10.02	117.92	109.90
33	L1	1525	U	N1-C1'-C2'	10.02	127.03	114.00
33	L1	578	C	P-O3'-C3'	10.02	131.72	119.70
33	L1	3007	A	C1'-O4'-C4'	-10.02	101.88	109.90
33	L1	474	G	O4'-C1'-N9	10.02	116.22	108.20
33	L1	1119	G	P-O3'-C3'	10.02	131.72	119.70
30	S3	18	C	C3'-C2'-C1'	10.02	109.51	101.50
33	L1	507	C	O4'-C1'-C2'	-10.02	95.78	105.80
64	LG	68	PRO	CA-C-O	-10.02	96.16	120.20
14	SP	98	TYR	CB-CG-CD1	10.01	127.01	121.00
33	L1	729	G	C3'-C2'-C1'	-10.01	93.49	101.50
33	L1	2245	G	O4'-C1'-N9	10.01	116.21	108.20
32	S1	609	A	C3'-C2'-C1'	10.01	109.51	101.50
84	LI	34	TYR	CB-CG-CD2	-10.01	114.99	121.00
32	S1	1712	C	P-O5'-C5'	10.01	136.91	120.90
23	SU	22	LEU	CB-CG-CD2	10.01	128.01	111.00
33	L1	1861	A	O4'-C1'-N9	10.01	116.20	108.20
32	S1	951	U	O4'-C1'-N1	10.00	116.20	108.20
33	L1	716	A	C3'-C2'-C1'	10.00	109.50	101.50
33	L1	723	G	O5'-C5'-C4'	10.00	130.71	111.70
33	L1	1071	G	O4'-C1'-N9	10.00	116.20	108.20
33	L1	1675	G	N9-C1'-C2'	-10.00	101.00	112.00
32	S1	888	U	O4'-C1'-N1	10.00	116.20	108.20
32	S1	19	A	O4'-C1'-N9	10.00	116.20	108.20
9	SK	96	LEU	CB-CA-C	-9.99	91.21	110.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	208	U	O4'-C1'-N1	9.99	116.19	108.20
32	S1	1271	G	P-O3'-C3'	9.99	131.69	119.70
33	L1	3043	U	O4'-C1'-N1	9.99	116.19	108.20
33	L1	3292	U	O4'-C1'-C2'	-9.99	95.81	105.80
33	L1	858	U	O3'-P-O5'	-9.99	85.02	104.00
33	L1	2789	G	O4'-C1'-C2'	9.99	116.59	107.60
35	L2	100	A	O4'-C1'-N9	9.99	116.19	108.20
33	L1	2874	A	P-O3'-C3'	-9.98	107.72	119.70
33	L1	278	U	P-O3'-C3'	9.98	131.68	119.70
33	L1	1081	U	C1'-O4'-C4'	9.98	117.89	109.90
48	LV	37	ARG	NE-CZ-NH2	-9.98	115.31	120.30
81	LD	344	ALA	N-CA-CB	9.98	124.08	110.10
33	L1	416	A	O4'-C1'-N9	9.98	116.18	108.20
33	L1	3057	A	N9-C1'-C2'	9.98	126.97	114.00
33	L1	2808	U	N1-C1'-C2'	9.97	126.97	114.00
32	S1	611	G	P-O3'-C3'	9.97	131.67	119.70
33	L1	229	G	P-O3'-C3'	9.97	131.67	119.70
33	L1	3051	U	O4'-C1'-C2'	9.97	116.58	107.60
33	L1	1255	A	N9-C1'-C2'	9.97	126.96	114.00
25	SC	161	SER	N-CA-CB	9.97	125.45	110.50
32	S1	1439	G	O4'-C1'-N9	9.97	116.18	108.20
33	L1	6	A	C1'-O4'-C4'	9.97	117.88	109.90
33	L1	535	G	O4'-C1'-N9	9.97	116.18	108.20
35	L2	14	G	O4'-C1'-N9	9.97	116.18	108.20
33	L1	973	U	C1'-O4'-C4'	-9.97	101.92	109.90
23	SU	52	LEU	CA-CB-CG	9.96	138.22	115.30
32	S1	1055	G	N9-C1'-C2'	9.96	126.95	114.00
32	S1	1718	C	N1-C1'-C2'	9.97	126.96	114.00
33	L1	1969	G	P-O3'-C3'	9.96	131.66	119.70
32	S1	957	A	O4'-C1'-N9	9.96	116.17	108.20
33	L1	1115	A	C3'-C2'-C1'	9.96	109.47	101.50
33	L1	1906	A	O4'-C1'-N9	9.96	116.17	108.20
15	SS	5	THR	CA-CB-OG1	9.96	129.91	109.00
32	S1	906	G	C1'-O4'-C4'	-9.96	101.93	109.90
33	L1	325	A	P-O5'-C5'	9.96	136.84	120.90
32	S1	1607	C	C3'-C2'-C1'	9.96	109.47	101.50
33	L1	1272	G	N9-C1'-C2'	9.96	126.94	114.00
33	L1	1730	U	O4'-C1'-C2'	-9.96	95.84	105.80
35	L2	13	G	O4'-C1'-C2'	9.96	116.56	107.60
33	L1	3356	C	P-O5'-C5'	9.95	136.83	120.90
32	S1	1134	U	C1'-O4'-C4'	9.95	117.86	109.90
33	L1	1400	C	C1'-O4'-C4'	-9.95	101.94	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1331	C	O4'-C1'-N1	9.95	116.16	108.20
32	S1	1456	U	O4'-C1'-N1	9.95	116.16	108.20
33	L1	608	G	N9-C1'-C2'	9.94	126.93	114.00
33	L1	1620	U	N1-C1'-C2'	-9.94	101.06	112.00
33	L1	1624	G	N9-C1'-C2'	-9.95	101.06	112.00
25	SC	17	PRO	CA-N-CD	-9.94	97.58	111.50
33	L1	715	A	O4'-C1'-C2'	-9.94	95.86	105.80
34	L3	62	U	O4'-C1'-N1	9.94	116.15	108.20
64	LG	184	ILE	CA-CB-CG2	-9.94	91.02	110.90
33	L1	1076	G	N9-C1'-C2'	9.94	126.92	114.00
33	L1	1223	U	C5'-C4'-O4'	-9.94	97.17	109.10
35	L2	162	C	O4'-C1'-N1	9.94	116.15	108.20
23	SU	18	MET	CG-SD-CE	9.94	116.10	100.20
17	SV	69	ARG	NE-CZ-NH2	9.94	125.27	120.30
23	SU	35	PRO	CA-N-CD	-9.94	97.59	111.50
33	L1	584	G	C3'-C2'-C1'	9.94	109.45	101.50
32	S1	1063	U	O4'-C1'-C2'	-9.93	95.87	105.80
33	L1	3042	U	N1-C1'-C2'	-9.93	101.07	112.00
33	L1	2345	C	N1-C1'-C2'	9.93	126.91	114.00
32	S1	1294	U	N1-C1'-C2'	9.93	126.91	114.00
37	LB	186	TYR	CB-CG-CD1	9.93	126.96	121.00
31	S2	4	G	P-O5'-C5'	-9.93	105.02	120.90
32	S1	3	C	P-O5'-C5'	9.93	136.78	120.90
32	S1	399	U	O4'-C1'-N1	9.93	116.14	108.20
33	L1	1222	U	O4'-C1'-C2'	-9.93	95.87	105.80
33	L1	3308	A	P-O3'-C3'	9.93	131.61	119.70
49	LX	34	LYS	CB-CA-C	-9.92	90.55	110.40
1	Sa	346	ARG	NE-CZ-NH2	-9.92	115.34	120.30
33	L1	1696	G	N9-C1'-C2'	-9.92	101.09	112.00
33	L1	88	A	C3'-C2'-C1'	-9.92	93.57	101.50
33	L1	267	G	C1'-O4'-C4'	-9.92	101.97	109.90
23	SU	34	HIS	N-CA-CB	9.91	128.45	110.60
32	S1	1743	C	C3'-C2'-C1'	9.91	109.43	101.50
33	L1	590	C	N1-C1'-C2'	9.91	126.89	114.00
33	L1	2863	U	C1'-O4'-C4'	-9.91	101.97	109.90
35	L2	104	U	O4'-C1'-N1	9.91	116.13	108.20
32	S1	1385	C	N1-C1'-C2'	9.91	126.88	114.00
32	S1	1459	G	C3'-C2'-C1'	-9.91	93.57	101.50
32	S1	1792	A	C1'-O4'-C4'	9.91	117.83	109.90
33	L1	1831	A	C1'-O4'-C4'	9.91	117.83	109.90
13	SQ	138	ARG	C-N-CA	9.90	146.46	121.70
32	S1	218	G	O4'-C1'-N9	9.90	116.12	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1108	U	O4'-C1'-N1	9.90	116.12	108.20
33	L1	2197	C	C1'-O4'-C4'	-9.90	101.98	109.90
33	L1	462	C	N1-C1'-C2'	9.90	126.87	114.00
33	L1	974	G	O4'-C1'-N9	9.90	116.12	108.20
64	LG	87	ARG	NE-CZ-NH2	-9.90	115.35	120.30
32	S1	290	C	C1'-O4'-C4'	-9.90	101.98	109.90
33	L1	3289	U	O4'-C1'-C2'	-9.90	95.90	105.80
33	L1	255	C	N1-C1'-C2'	9.90	126.86	114.00
33	L1	283	A	N9-C1'-C2'	-9.90	101.11	112.00
33	L1	306	A	O4'-C1'-C2'	9.90	116.51	107.60
67	LS	70	ASN	N-CA-CB	9.90	128.42	110.60
33	L1	716	A	O4'-C1'-N9	-9.89	100.29	108.20
35	L2	25	C	C3'-C2'-C1'	9.89	109.42	101.50
4	SD	240	LYS	CA-C-N	9.89	135.98	116.20
32	S1	1067	A	O3'-P-O5'	-9.89	85.20	104.00
33	L1	241	G	O4'-C1'-C2'	9.89	116.50	107.60
33	L1	1171	U	O4'-C1'-N1	9.89	116.11	108.20
33	L1	3234	G	C3'-C2'-C1'	-9.89	93.59	101.50
32	S1	298	C	C3'-C2'-C1'	9.88	109.41	101.50
32	S1	835	U	O4'-C1'-N1	9.88	116.11	108.20
33	L1	2390	G	C5'-C4'-C3'	9.88	131.81	116.00
32	S1	1484	U	O4'-C1'-N1	9.88	116.11	108.20
33	L1	1116	G	O4'-C1'-N9	9.88	116.11	108.20
33	L1	1812	A	C1'-O4'-C4'	-9.88	102.00	109.90
1	Sa	28	ARG	NE-CZ-NH2	-9.88	115.36	120.30
32	S1	24	U	O4'-C1'-N1	9.88	116.10	108.20
33	L1	1013	A	P-O3'-C3'	9.87	131.55	119.70
33	L1	1564	C	C3'-C2'-C1'	9.88	109.40	101.50
33	L1	2379	U	O3'-P-O5'	-9.87	85.24	104.00
33	L1	2763	C	O4'-C1'-C2'	-9.87	95.93	105.80
33	L1	3352	C	N1-C1'-C2'	-9.87	101.14	112.00
33	L1	944	G	O4'-C1'-N9	9.87	116.09	108.20
32	S1	1663	A	C3'-C2'-C1'	9.87	109.39	101.50
51	LY	23	SER	N-CA-CB	9.87	125.30	110.50
12	SO	57	GLN	N-CA-CB	9.86	128.35	110.60
32	S1	1638	U	O4'-C1'-N1	9.86	116.09	108.20
33	L1	246	C	O4'-C1'-N1	9.86	116.09	108.20
42	LP	67	ARG	NE-CZ-NH1	9.86	125.23	120.30
33	L1	882	U	N1-C1'-C2'	9.86	126.82	114.00
80	LC	69	LYS	CA-C-O	-9.86	99.40	120.10
32	S1	1210	U	O4'-C1'-N1	9.86	116.08	108.20
33	L1	597	C	O4'-C1'-N1	9.86	116.08	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2517	U	O4'-C1'-N1	9.86	116.08	108.20
33	L1	3306	A	C1'-O4'-C4'	-9.86	102.01	109.90
67	LS	28	ARG	N-CA-C	-9.86	84.39	111.00
32	S1	542	A	P-O3'-C3'	9.85	131.52	119.70
32	S1	430	G	O4'-C1'-N9	9.85	116.08	108.20
33	L1	2108	C	C5'-C4'-C3'	-9.85	100.25	116.00
33	L1	2836	G	N9-C1'-C2'	9.85	126.80	114.00
47	LU	122	ARG	NE-CZ-NH2	-9.85	115.38	120.30
79	Ls	231	ALA	CB-CA-C	9.84	124.86	110.10
33	L1	528	C	O4'-C1'-C2'	-9.84	95.96	105.80
33	L1	2632	U	C1'-O4'-C4'	9.84	117.77	109.90
79	Ls	258	THR	N-CA-CB	-9.84	91.60	110.30
15	SS	27	ARG	NE-CZ-NH1	9.84	125.22	120.30
32	S1	253	C	P-O3'-C3'	9.84	131.50	119.70
33	L1	263	A	O4'-C1'-N9	-9.84	100.33	108.20
33	L1	543	C	C2'-C3'-O3'	9.84	131.14	109.50
33	L1	846	A	P-O3'-C3'	9.84	131.50	119.70
66	LN	99	ARG	CB-CA-C	-9.84	90.73	110.40
33	L1	935	U	O4'-C1'-C2'	-9.83	95.97	105.80
35	L2	94	C	C3'-C2'-C1'	-9.83	93.63	101.50
32	S1	1467	C	O4'-C1'-N1	9.83	116.07	108.20
33	L1	1038	C	O4'-C1'-N1	9.83	116.07	108.20
66	LN	109	LYS	N-CA-CB	9.83	128.30	110.60
32	S1	12	U	O4'-C1'-N1	9.83	116.06	108.20
32	S1	951	U	C1'-O4'-C4'	9.83	117.77	109.90
32	S1	1163	C	O4'-C1'-C2'	-9.83	95.97	105.80
33	L1	2059	C	O4'-C1'-C2'	-9.83	95.97	105.80
35	L2	65	A	O4'-C1'-N9	9.83	116.06	108.20
33	L1	1035	C	C1'-O4'-C4'	-9.83	102.04	109.90
33	L1	1192	A	N9-C1'-C2'	-9.83	101.19	112.00
33	L1	1541	G	O4'-C1'-N9	9.83	116.06	108.20
33	L1	3234	G	C5'-C4'-O4'	9.83	120.89	109.10
33	L1	3309	U	O4'-C1'-N1	-9.83	100.34	108.20
3	SB	30	ALA	CB-CA-C	-9.83	95.36	110.10
33	L1	975	G	C1'-O4'-C4'	-9.83	102.04	109.90
33	L1	682	G	P-O3'-C3'	9.82	131.49	119.70
33	L1	2369	G	N9-C1'-C2'	9.82	126.77	114.00
32	S1	833	U	O4'-C1'-N1	9.82	116.06	108.20
23	SU	72	GLY	CA-C-N	9.82	135.83	116.20
33	L1	282	A	C1'-O4'-C4'	9.82	117.75	109.90
33	L1	327	A	P-O3'-C3'	-9.82	107.92	119.70
33	L1	599	C	C1'-O4'-C4'	-9.82	102.05	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1700	U	O4'-C1'-C2'	-9.82	95.98	105.80
37	LB	93	ARG	NE-CZ-NH1	9.81	125.21	120.30
39	LF	174	PHE	CB-CG-CD2	-9.81	113.93	120.80
23	SU	25	ARG	C-N-CA	9.81	146.23	121.70
32	S1	624	A	O4'-C1'-C2'	-9.81	95.99	105.80
33	L1	2731	G	C3'-C2'-C1'	-9.81	93.65	101.50
51	LY	74	ARG	NE-CZ-NH2	9.81	125.21	120.30
70	Li	43	LYS	C-N-CA	9.81	146.22	121.70
45	LQ	120	TYR	CB-CG-CD2	9.81	126.89	121.00
67	LS	70	ASN	CA-C-N	9.81	144.56	117.10
33	L1	2614	U	N1-C1'-C2'	-9.81	101.21	112.00
66	LN	50	PHE	CB-CG-CD2	-9.80	113.94	120.80
32	S1	1040	G	O4'-C1'-N9	9.80	116.04	108.20
33	L1	1297	U	O4'-C1'-C2'	9.80	116.42	107.60
35	L2	138	G	O4'-C1'-N9	-9.80	100.36	108.20
73	Lp	21	ARG	NE-CZ-NH2	9.80	125.20	120.30
33	L1	1361	G	O4'-C1'-N9	9.80	116.04	108.20
33	L1	1802	A	N9-C1'-C2'	9.80	126.74	114.00
33	L1	1236	C	C1'-O4'-C4'	-9.80	102.06	109.90
33	L1	802	G	O4'-C1'-N9	9.79	116.03	108.20
32	S1	161	G	O4'-C1'-C2'	-9.79	96.01	105.80
32	S1	357	A	O4'-C1'-C2'	-9.79	96.01	105.80
32	S1	374	A	N9-C1'-C2'	-9.79	101.23	112.00
32	S1	893	U	C1'-O4'-C4'	-9.79	102.07	109.90
33	L1	2749	A	C1'-O4'-C4'	-9.79	102.07	109.90
64	LG	97	LYS	N-CA-CB	9.79	128.22	110.60
33	L1	1772	G	N9-C1'-C2'	-9.79	101.23	112.00
32	S1	1091	A	C1'-O4'-C4'	-9.79	102.07	109.90
33	L1	528	C	C3'-C2'-C1'	9.78	109.33	101.50
33	L1	2355	A	C3'-C2'-C1'	9.79	109.33	101.50
33	L1	2720	U	P-O3'-C3'	-9.78	107.96	119.70
32	S1	574	A	N9-C1'-C2'	-9.78	101.24	112.00
33	L1	2475	C	C3'-C2'-C1'	9.78	109.32	101.50
33	L1	306	A	O5'-P-OP2	-9.78	96.90	105.70
33	L1	1445	U	O4'-C1'-N1	9.78	116.02	108.20
8	SJ	86	TRP	CB-CG-CD2	-9.78	113.89	126.60
33	L1	3169	C	O4'-C1'-C2'	-9.78	96.02	105.80
33	L1	3354	A	O4'-C1'-C2'	-9.78	96.02	105.80
7	SI	129	ARG	NE-CZ-NH2	9.77	125.19	120.30
32	S1	198	G	O4'-C1'-N9	9.77	116.02	108.20
10	SL	116	GLY	O-C-N	9.77	138.33	122.70
33	L1	2882	U	N1-C1'-C2'	9.77	126.70	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	LV	4	TYR	CB-CG-CD2	-9.77	115.14	121.00
32	S1	1603	U	O4'-C1'-N1	9.77	116.01	108.20
33	L1	932	A	O4'-C1'-N9	9.77	116.01	108.20
34	L3	61	C	O4'-C1'-N1	9.77	116.01	108.20
33	L1	2868	C	C1'-O4'-C4'	9.76	117.71	109.90
11	SM	27	MET	CG-SD-CE	9.76	115.82	100.20
33	L1	19	C	O4'-C1'-N1	-9.76	100.39	108.20
33	L1	180	G	O4'-C1'-N9	9.76	116.01	108.20
33	L1	2724	A	C3'-C2'-C1'	9.76	109.31	101.50
33	L1	2885	U	O4'-C1'-N1	9.76	116.01	108.20
5	SE	21	ARG	NE-CZ-NH1	9.76	125.18	120.30
32	S1	472	A	O4'-C1'-N9	9.76	116.01	108.20
33	L1	1259	C	O4'-C1'-C2'	-9.76	96.04	105.80
6	SF	148	TYR	CB-CG-CD1	9.76	126.85	121.00
33	L1	1253	G	N9-C1'-C2'	-9.76	101.27	112.00
33	L1	1739	G	O4'-C1'-N9	9.76	116.01	108.20
33	L1	2105	G	N9-C1'-C2'	-9.76	101.27	112.00
6	SF	81	LYS	CB-CA-C	-9.76	90.89	110.40
33	L1	181	G	O4'-C1'-N9	9.76	116.00	108.20
33	L1	1007	A	N9-C1'-C2'	9.76	126.68	114.00
59	Lo	49	LEU	C-N-CA	9.75	142.78	122.30
33	L1	1014	G	O4'-C1'-C2'	-9.75	96.05	105.80
33	L1	1103	U	C1'-O4'-C4'	9.75	117.70	109.90
32	S1	1225	A	O3'-P-O5'	-9.75	85.48	104.00
23	SU	95	TYR	CG-CD1-CE1	-9.74	113.50	121.30
31	S2	37	G	O4'-C1'-C2'	9.74	116.37	107.60
33	L1	3308	A	C3'-C2'-C1'	9.74	109.30	101.50
32	S1	372	U	C3'-C2'-C1'	-9.74	93.71	101.50
33	L1	1127	U	N1-C1'-C2'	9.74	126.67	114.00
33	L1	1710	G	C3'-C2'-C1'	-9.74	93.71	101.50
33	L1	2467	A	P-O3'-C3'	9.74	131.39	119.70
33	L1	2786	G	O3'-P-O5'	-9.74	85.49	104.00
23	SU	7	ALA	CA-C-O	-9.74	99.65	120.10
33	L1	907	A	O4'-C1'-N9	-9.74	100.41	108.20
32	S1	1581	A	O4'-C1'-N9	9.74	115.99	108.20
33	L1	2534	G	O4'-C1'-N9	9.74	115.99	108.20
33	L1	1943	G	P-O3'-C3'	9.74	131.39	119.70
31	S2	49	G	O4'-C1'-N9	9.74	115.99	108.20
33	L1	1592	U	O4'-C1'-C2'	-9.74	96.06	105.80
35	L2	92	A	C3'-C2'-C1'	9.74	109.29	101.50
33	L1	1259	C	O4'-C1'-N1	9.73	115.99	108.20
32	S1	147	C	P-O3'-C3'	-9.73	108.02	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1810	G	O4'-C1'-N9	9.73	115.99	108.20
32	S1	1761	G	N9-C1'-C2'	9.73	126.65	114.00
33	L1	496	U	O4'-C1'-N1	9.73	115.98	108.20
33	L1	1143	G	C3'-C2'-C1'	-9.73	93.71	101.50
33	L1	3211	C	O4'-C1'-C2'	-9.73	96.07	105.80
33	L1	681	A	O4'-C1'-C2'	-9.73	96.07	105.80
33	L1	1382	C	C5'-C4'-C3'	9.73	131.56	116.00
33	L1	1919	C	O4'-C1'-N1	9.73	115.98	108.20
32	S1	1741	A	P-O3'-C3'	9.73	131.37	119.70
33	L1	2165	A	C5'-C4'-C3'	-9.73	100.44	116.00
32	S1	404	A	C3'-C2'-C1'	-9.72	93.72	101.50
32	S1	1727	C	C1'-O4'-C4'	-9.72	102.12	109.90
33	L1	272	G	C3'-C2'-C1'	-9.72	93.72	101.50
31	S2	57	A	O4'-C1'-N9	9.72	115.98	108.20
34	L3	74	A	P-O3'-C3'	-9.72	108.03	119.70
47	LU	63	ARG	NE-CZ-NH2	-9.72	115.44	120.30
80	LC	315	PHE	CB-CG-CD1	9.72	127.60	120.80
33	L1	3372	C	OP1-P-OP2	-9.71	105.04	119.60
48	LV	37	ARG	NE-CZ-NH1	9.71	125.15	120.30
33	L1	2927	C	O4'-C1'-C2'	-9.71	96.09	105.80
32	S1	1593	U	O4'-C1'-N1	9.70	115.96	108.20
34	L3	41	G	O4'-C1'-N9	-9.71	100.44	108.20
32	S1	553	G	O4'-C1'-N9	9.70	115.96	108.20
32	S1	610	A	O4'-C1'-C2'	9.70	116.33	107.60
32	S1	959	G	O4'-C1'-N9	9.70	115.96	108.20
27	SH	121	VAL	CA-CB-CG2	9.70	125.44	110.90
32	S1	716	A	P-O5'-C5'	9.70	136.41	120.90
32	S1	1756	A	O3'-P-O5'	-9.69	85.58	104.00
33	L1	108	A	C4'-C3'-C2'	-9.69	92.91	102.60
33	L1	1247	G	O4'-C1'-C2'	9.69	116.32	107.60
35	L2	56	A	O4'-C1'-C2'	-9.69	96.11	105.80
33	L1	1369	G	O4'-C1'-N9	9.69	115.95	108.20
33	L1	1766	U	P-O5'-C5'	9.69	136.40	120.90
35	L2	115	G	C1'-O4'-C4'	9.69	117.65	109.90
33	L1	2654	G	P-O3'-C3'	9.69	131.32	119.70
43	LO	26	ARG	NE-CZ-NH1	9.69	125.14	120.30
33	L1	1863	A	O4'-C1'-C2'	-9.68	96.12	105.80
32	S1	1371	U	N1-C1'-C2'	9.68	126.58	114.00
33	L1	1100	G	P-O3'-C3'	9.68	131.31	119.70
32	S1	605	A	C1'-O4'-C4'	9.68	117.64	109.90
33	L1	1634	G	C1'-O4'-C4'	-9.68	102.16	109.90
33	L1	82	C	N1-C1'-C2'	9.67	126.57	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	SC	18	ARG	O-C-N	9.67	138.17	122.70
32	S1	1138	A	O4'-C1'-N9	9.67	115.94	108.20
33	L1	514	G	P-O5'-C5'	9.67	136.37	120.90
32	S1	1457	C	P-O3'-C3'	-9.67	108.10	119.70
33	L1	1665	G	O4'-C1'-N9	9.67	115.93	108.20
33	L1	2470	C	C5'-C4'-C3'	9.67	131.47	116.00
33	L1	31	U	C5'-C4'-C3'	9.67	131.47	116.00
42	LP	44	ARG	NE-CZ-NH1	9.67	125.13	120.30
32	S1	1109	U	O4'-C1'-C2'	-9.66	96.14	105.80
33	L1	1037	U	O4'-C1'-N1	9.66	115.93	108.20
33	L1	2723	G	C3'-C2'-C1'	9.66	109.23	101.50
71	Lj	3	GLY	N-CA-C	-9.66	88.94	113.10
35	L2	27	C	P-O3'-C3'	9.66	131.29	119.70
32	S1	1803	G	N9-C1'-C2'	-9.66	101.37	112.00
66	LN	48	ILE	C-N-CA	9.66	145.85	121.70
32	S1	794	G	P-O3'-C3'	9.66	131.29	119.70
33	L1	409	U	O4'-C1'-C2'	9.66	116.29	107.60
33	L1	805	C	C3'-C2'-C1'	9.66	109.22	101.50
33	L1	1942	A	C3'-C2'-C1'	-9.66	93.77	101.50
14	SP	91	TYR	CB-CG-CD1	-9.65	115.21	121.00
32	S1	58	U	O4'-C1'-N1	9.65	115.92	108.20
33	L1	1450	G	P-O3'-C3'	9.65	131.28	119.70
33	L1	1729	G	C1'-O4'-C4'	-9.65	102.18	109.90
33	L1	2848	U	O4'-C1'-N1	9.65	115.92	108.20
33	L1	3058	U	O4'-C1'-N1	-9.65	100.48	108.20
33	L1	12	G	C1'-O4'-C4'	-9.65	102.18	109.90
54	Lf	90	ARG	NE-CZ-NH2	-9.65	115.47	120.30
33	L1	1773	U	O4'-C1'-N1	9.65	115.92	108.20
42	LP	188	ARG	NE-CZ-NH2	-9.65	115.47	120.30
4	SD	137	PRO	N-CA-CB	-9.65	91.72	103.30
32	S1	582	U	O4'-C1'-C2'	-9.65	96.15	105.80
32	S1	1427	A	C3'-C2'-C1'	-9.65	93.78	101.50
42	LP	108	ARG	NE-CZ-NH1	9.64	125.12	120.30
32	S1	305	A	O4'-C1'-N9	9.64	115.91	108.20
32	S1	1224	C	O3'-P-O5'	9.64	122.31	104.00
81	LD	60	ARG	CD-NE-CZ	-9.64	110.11	123.60
31	S2	64	G	C3'-C2'-C1'	9.63	109.21	101.50
35	L2	142	G	O4'-C1'-N9	9.63	115.91	108.20
31	S2	52	G	O4'-C1'-C2'	9.63	116.27	107.60
33	L1	1075	G	O4'-C1'-N9	9.63	115.91	108.20
34	L3	8	A	O4'-C1'-C2'	9.63	116.27	107.60
33	L1	6	A	O4'-C1'-C2'	-9.63	96.17	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	70	A	O4'-C1'-C2'	9.63	116.27	107.60
32	S1	998	A	P-O5'-C5'	9.63	136.31	120.90
34	L3	90	A	O4'-C1'-N9	9.63	115.90	108.20
32	S1	1280	U	O4'-C1'-N1	9.62	115.90	108.20
33	L1	461	A	N9-C1'-C2'	9.62	126.51	114.00
33	L1	911	G	O4'-C1'-C2'	-9.62	96.18	105.80
33	L1	1034	U	P-O5'-C5'	-9.62	105.50	120.90
33	L1	3127	C	C1'-O4'-C4'	-9.62	102.20	109.90
56	Lh	128	ARG	NE-CZ-NH1	9.63	125.11	120.30
32	S1	938	A	N9-C1'-C2'	9.62	126.51	114.00
33	L1	549	G	P-O3'-C3'	9.62	131.25	119.70
33	L1	2492	C	P-O3'-C3'	9.62	131.24	119.70
33	L1	3059	C	P-O5'-C5'	9.62	136.29	120.90
32	S1	1065	A	O4'-C1'-C2'	-9.62	96.18	105.80
32	S1	1442	A	P-O3'-C3'	-9.62	108.16	119.70
33	L1	1163	A	O4'-C1'-N9	9.62	115.89	108.20
32	S1	455	G	P-O3'-C3'	9.62	131.24	119.70
33	L1	3231	G	O4'-C1'-N9	9.62	115.89	108.20
64	LG	69	THR	N-CA-CB	9.61	128.57	110.30
81	LD	314	VAL	N-CA-CB	-9.61	90.35	111.50
33	L1	2377	C	N1-C1'-C2'	9.61	126.49	114.00
64	LG	44	ALA	O-C-N	9.61	138.08	122.70
33	L1	801	G	P-O3'-C3'	9.61	131.23	119.70
33	L1	692	U	O4'-C1'-C2'	-9.61	96.19	105.80
33	L1	1764	G	C1'-O4'-C4'	-9.61	102.22	109.90
33	L1	2946	U	O5'-P-OP2	-9.61	97.06	105.70
32	S1	830	U	O4'-C1'-N1	9.60	115.88	108.20
33	L1	2581	C	P-O3'-C3'	9.60	131.22	119.70
33	L1	961	C	O4'-C1'-N1	9.60	115.88	108.20
33	L1	3142	C	N1-C1'-C2'	9.60	126.48	114.00
60	Lr	45	ARG	NE-CZ-NH1	9.60	125.10	120.30
81	LD	303	VAL	C-N-CA	9.60	145.69	121.70
33	L1	668	U	P-O3'-C3'	-9.60	108.18	119.70
32	S1	1722	C	C1'-O4'-C4'	-9.59	102.23	109.90
33	L1	2091	U	O4'-C1'-N1	9.59	115.87	108.20
4	SD	94	LYS	CB-CA-C	9.59	129.58	110.40
33	L1	11	A	N9-C1'-C2'	9.59	126.47	114.00
33	L1	736	U	O4'-C1'-N1	9.59	115.87	108.20
33	L1	2450	G	C4'-C3'-C2'	-9.59	93.01	102.60
32	S1	931	A	O4'-C1'-N9	9.58	115.87	108.20
32	S1	1156	A	O4'-C1'-N9	9.58	115.86	108.20
33	L1	1775	C	O4'-C1'-N1	9.58	115.86	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	30	C	N1-C1'-C2'	9.58	126.45	114.00
33	L1	1711	G	C1'-O4'-C4'	-9.58	102.24	109.90
33	L1	2751	A	O4'-C1'-N9	9.57	115.86	108.20
33	L1	642	C	P-O3'-C3'	9.57	131.19	119.70
33	L1	3210	G	O4'-C1'-N9	9.57	115.86	108.20
33	L1	3358	A	C3'-C2'-C1'	-9.57	93.84	101.50
15	SS	27	ARG	NE-CZ-NH2	-9.57	115.51	120.30
32	S1	391	A	N9-C1'-C2'	-9.57	101.47	112.00
32	S1	1093	A	O4'-C1'-C2'	-9.57	96.23	105.80
32	S1	1485	A	O4'-C1'-N9	9.57	115.86	108.20
33	L1	1808	G	O4'-C1'-N9	9.57	115.86	108.20
36	LA	214	ARG	NE-CZ-NH2	9.57	125.08	120.30
15	SS	80	LYS	CB-CA-C	9.57	129.53	110.40
33	L1	1224	A	P-O3'-C3'	9.57	131.18	119.70
4	SD	153	ILE	CA-C-N	9.56	138.24	117.20
32	S1	1076	C	N1-C1'-C2'	9.56	126.43	114.00
33	L1	305	G	N9-C1'-C2'	-9.56	101.48	112.00
33	L1	655	G	C1'-O4'-C4'	-9.56	102.25	109.90
33	L1	896	C	O4'-C1'-N1	9.56	115.85	108.20
60	Lr	11	TYR	CB-CG-CD1	9.56	126.74	121.00
33	L1	431	G	N9-C1'-C2'	9.56	126.43	114.00
20	SZ	44	PHE	C-N-CA	9.56	145.60	121.70
33	L1	527	G	C3'-C2'-C1'	9.56	109.15	101.50
32	S1	1249	G	C1'-O4'-C4'	-9.56	102.25	109.90
33	L1	3023	G	O4'-C1'-N9	9.56	115.84	108.20
81	LD	308	LYS	CA-C-N	9.56	143.86	117.10
3	SB	64	ARG	NE-CZ-NH1	-9.55	115.52	120.30
33	L1	618	G	C3'-C2'-C1'	-9.55	93.86	101.50
33	L1	840	A	O4'-C1'-C2'	9.55	116.20	107.60
33	L1	2067	G	N9-C1'-C2'	9.55	126.42	114.00
1	Sa	82	VAL	O-C-N	9.55	137.98	122.70
32	S1	441	A	O4'-C1'-N9	9.55	115.84	108.20
33	L1	365	A	C1'-O4'-C4'	9.55	117.54	109.90
33	L1	2219	A	C4'-C3'-C2'	-9.55	93.05	102.60
45	LQ	257	THR	CA-CB-CG2	9.55	125.77	112.40
34	L3	55	A	N9-C1'-C2'	-9.54	101.50	112.00
32	S1	1537	U	O3'-P-O5'	-9.54	85.87	104.00
59	Lo	21	ARG	NE-CZ-NH1	-9.54	115.53	120.30
33	L1	725	G	P-O3'-C3'	9.54	131.15	119.70
33	L1	2813	A	O4'-C1'-C2'	9.54	116.19	107.60
33	L1	1824	C	C1'-O4'-C4'	-9.54	102.27	109.90
33	L1	2755	U	C3'-C2'-C1'	9.54	109.13	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1663	A	O4'-C1'-C2'	-9.54	96.27	105.80
33	L1	1538	A	O4'-C1'-C2'	-9.54	96.26	105.80
33	L1	809	A	O4'-C1'-N9	-9.53	100.57	108.20
33	L1	815	G	O4'-C1'-N9	9.53	115.83	108.20
13	SQ	45	ARG	NE-CZ-NH2	9.53	125.07	120.30
33	L1	2988	U	O4'-C1'-N1	9.53	115.83	108.20
33	L1	1197	A	C3'-C2'-C1'	-9.53	93.88	101.50
33	L1	3377	G	O4'-C1'-C2'	-9.53	96.27	105.80
35	L2	54	C	O4'-C1'-N1	9.53	115.82	108.20
33	L1	110	C	N1-C1'-C2'	9.53	126.38	114.00
33	L1	1812	A	C4'-C3'-C2'	-9.52	93.08	102.60
35	L2	64	U	N1-C1'-C2'	9.52	126.38	114.00
33	L1	1449	A	O4'-C1'-N9	9.52	115.82	108.20
33	L1	1959	U	O4'-C1'-N1	9.52	115.82	108.20
20	SZ	42	ARG	C-N-CA	9.52	145.50	121.70
8	SJ	86	TRP	CB-CG-CD1	9.52	139.37	127.00
33	L1	272	G	N9-C1'-C2'	9.52	126.37	114.00
33	L1	1649	G	C5'-C4'-C3'	9.52	131.23	116.00
33	L1	1885	G	O4'-C1'-C2'	9.52	116.17	107.60
33	L1	2804	A	P-O3'-C3'	9.52	131.12	119.70
23	SU	83	ASP	N-CA-C	9.52	136.69	111.00
33	L1	366	G	C1'-O4'-C4'	9.52	117.51	109.90
33	L1	1010	A	C1'-O4'-C4'	9.52	117.51	109.90
33	L1	2518	A	O3'-P-O5'	-9.52	85.92	104.00
32	S1	599	G	P-O3'-C3'	9.51	131.11	119.70
33	L1	2613	G	N9-C1'-C2'	-9.51	101.53	112.00
33	L1	639	A	C3'-C2'-C1'	-9.51	93.89	101.50
33	L1	2252	C	O4'-C1'-C2'	-9.51	96.29	105.80
33	L1	3030	A	P-O3'-C3'	9.51	131.11	119.70
33	L1	3328	A	C3'-C2'-C1'	9.51	109.11	101.50
44	LR	35	PHE	CB-CG-CD1	9.51	127.46	120.80
64	LG	26	TRP	C-N-CA	-9.51	97.92	121.70
32	S1	373	U	P-O5'-C5'	9.51	136.11	120.90
33	L1	1316	C	O4'-C1'-C2'	-9.51	96.29	105.80
3	SB	161	GLY	N-CA-C	-9.51	89.34	113.10
33	L1	174	G	C1'-O4'-C4'	-9.51	102.30	109.90
7	SI	76	ARG	NE-CZ-NH2	-9.50	115.55	120.30
32	S1	1232	G	C1'-O4'-C4'	-9.50	102.30	109.90
33	L1	311	G	O4'-C1'-N9	9.50	115.80	108.20
33	L1	3000	U	O4'-C1'-N1	9.50	115.80	108.20
33	L1	2006	A	P-O3'-C3'	9.50	131.10	119.70
39	LF	89	TYR	CB-CG-CD1	-9.50	115.30	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	97	G	O4'-C1'-N9	9.50	115.80	108.20
33	L1	2260	C	O5'-P-OP2	-9.50	97.15	105.70
32	S1	1453	U	O4'-C1'-C2'	-9.49	96.31	105.80
33	L1	2478	G	O4'-C1'-N9	-9.49	100.61	108.20
33	L1	2543	G	N9-C1'-C2'	9.49	126.34	114.00
32	S1	631	C	O4'-C1'-C2'	-9.49	96.31	105.80
33	L1	1959	U	C5'-C4'-C3'	9.48	131.18	116.00
33	L1	2054	A	O5'-C5'-C4'	9.48	129.72	111.70
78	Le	223	TYR	CB-CG-CD2	-9.48	115.31	121.00
32	S1	873	G	N9-C1'-C2'	-9.48	101.57	112.00
35	L2	94	C	P-O3'-C3'	9.48	131.07	119.70
27	SH	78	ARG	C-N-CA	-9.47	98.02	121.70
33	L1	1373	A	P-O3'-C3'	-9.47	108.34	119.70
47	LU	12	ARG	NE-CZ-NH1	9.47	125.03	120.30
33	L1	826	C	C1'-O4'-C4'	-9.47	102.33	109.90
33	L1	2493	C	N1-C1'-C2'	9.47	126.31	114.00
33	L1	1923	G	O4'-C1'-N9	9.47	115.77	108.20
35	L2	155	G	O4'-C1'-N9	-9.47	100.63	108.20
32	S1	357	A	C1'-O4'-C4'	9.46	117.47	109.90
33	L1	255	C	P-O3'-C3'	9.46	131.06	119.70
33	L1	2760	U	O4'-C1'-N1	9.46	115.77	108.20
33	L1	818	G	O4'-C1'-C2'	9.46	116.11	107.60
33	L1	1488	G	C3'-C2'-C1'	9.46	109.07	101.50
32	S1	513	G	O4'-C1'-N9	-9.46	100.63	108.20
35	L2	45	A	O4'-C1'-N9	9.46	115.77	108.20
32	S1	925	U	O4'-C1'-N1	9.46	115.77	108.20
33	L1	1671	G	O4'-C1'-N9	9.45	115.76	108.20
33	L1	3156	G	P-O5'-C5'	9.45	136.03	120.90
32	S1	50	C	O4'-C1'-N1	9.45	115.76	108.20
32	S1	1639	A	O3'-P-O5'	-9.45	86.04	104.00
32	S1	1743	C	P-O5'-C5'	9.45	136.02	120.90
31	S2	75	A	C1'-O4'-C4'	9.45	117.46	109.90
33	L1	1804	G	O4'-C1'-C2'	-9.45	96.35	105.80
33	L1	3211	C	C3'-C2'-C1'	9.45	109.06	101.50
33	L1	3389	C	P-O3'-C3'	9.45	131.04	119.70
71	Lj	57	TYR	CB-CG-CD1	-9.45	115.33	121.00
33	L1	2935	A	N9-C1'-C2'	9.45	126.28	114.00
33	L1	1737	C	C3'-C2'-C1'	9.44	109.06	101.50
33	L1	2618	G	O4'-C1'-N9	9.44	115.75	108.20
32	S1	1214	C	N1-C1'-C2'	9.44	126.27	114.00
32	S1	504	C	O4'-C1'-C2'	-9.44	96.36	105.80
32	S1	882	G	C3'-C2'-C1'	-9.44	93.95	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	9	C	N1-C1'-C2'	9.44	126.27	114.00
33	L1	452	G	O4'-C1'-N9	9.44	115.75	108.20
33	L1	3353	G	O4'-C1'-C2'	-9.44	96.36	105.80
32	S1	1096	A	O3'-P-O5'	-9.44	86.07	104.00
32	S1	1398	U	O4'-C1'-N1	9.44	115.75	108.20
33	L1	212	G	O4'-C1'-N9	9.44	115.75	108.20
33	L1	1894	G	C5'-C4'-C3'	9.44	131.10	116.00
33	L1	1270	G	N9-C1'-C2'	9.43	126.26	114.00
33	L1	2460	A	C3'-C2'-C1'	-9.43	93.95	101.50
33	L1	3100	C	C3'-C2'-C1'	9.43	109.05	101.50
33	L1	3148	A	N9-C1'-C2'	9.43	126.26	114.00
33	L1	2059	C	O4'-C1'-N1	-9.43	100.66	108.20
33	L1	1545	G	P-O3'-C3'	9.43	131.01	119.70
33	L1	3341	C	C1'-O4'-C4'	-9.43	102.36	109.90
66	LN	99	ARG	NE-CZ-NH1	-9.43	115.59	120.30
33	L1	157	G	O4'-C1'-N9	9.42	115.74	108.20
34	L3	40	A	O4'-C1'-C2'	-9.42	96.38	105.80
23	SU	19	THR	CA-CB-OG1	9.42	128.78	109.00
33	L1	1243	C	C1'-O4'-C4'	-9.42	102.36	109.90
33	L1	1957	G	P-O3'-C3'	9.42	131.00	119.70
11	SM	126	TYR	CE1-CZ-OH	-9.42	94.67	120.10
32	S1	108	C	O4'-C1'-N1	9.41	115.73	108.20
33	L1	1804	G	P-O5'-C5'	9.41	135.96	120.90
32	S1	450	A	O4'-C1'-N9	9.41	115.73	108.20
33	L1	1755	A	C4'-C3'-C2'	-9.41	93.19	102.60
33	L1	318	G	C1'-O4'-C4'	-9.41	102.37	109.90
33	L1	690	G	N9-C1'-C2'	-9.41	101.65	112.00
33	L1	1618	U	O4'-C1'-N1	9.41	115.73	108.20
45	LQ	7	PHE	CB-CG-CD1	9.41	127.39	120.80
46	LT	163	ARG	NE-CZ-NH1	9.41	125.00	120.30
33	L1	12	G	N9-C1'-C2'	9.41	126.23	114.00
33	L1	520	G	O4'-C1'-N9	9.41	115.73	108.20
33	L1	811	A	C3'-C2'-C1'	-9.40	93.98	101.50
13	SQ	86	PRO	CA-N-CD	-9.40	98.34	111.50
33	L1	472	U	O4'-C1'-C2'	9.40	116.06	107.60
33	L1	898	G	N9-C1'-C2'	9.40	126.22	114.00
33	L1	2170	G	C1'-O4'-C4'	-9.40	102.38	109.90
32	S1	929	A	O4'-C1'-N9	9.40	115.72	108.20
33	L1	2755	U	N1-C1'-C2'	9.40	126.22	114.00
35	L2	152	C	N1-C1'-C2'	9.40	126.22	114.00
32	S1	1200	A	O4'-C1'-N9	9.40	115.72	108.20
32	S1	1290	U	O4'-C1'-C2'	-9.40	96.40	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1112	C	O5'-P-OP2	-9.40	97.24	105.70
33	L1	1269	U	O4'-C1'-N1	9.40	115.72	108.20
35	L2	31	U	P-O5'-C5'	9.40	135.94	120.90
64	LG	64	ARG	NE-CZ-NH2	-9.40	115.60	120.30
78	Le	241	ARG	NE-CZ-NH2	-9.40	115.60	120.30
33	L1	1072	C	O4'-C1'-C2'	9.39	116.06	107.60
33	L1	1146	A	O4'-C1'-N9	9.39	115.72	108.20
35	L2	18	C	N1-C1'-C2'	9.39	126.21	114.00
31	S2	67	G	O4'-C1'-N9	9.39	115.71	108.20
32	S1	278	C	P-O3'-C3'	9.39	130.97	119.70
33	L1	2200	U	C3'-C2'-C1'	9.39	109.01	101.50
55	Lg	80	ARG	NE-CZ-NH2	-9.39	115.61	120.30
10	SL	120	LYS	N-CA-C	9.39	136.34	111.00
32	S1	1586	U	P-O5'-C5'	9.39	135.92	120.90
32	S1	1658	U	C5'-C4'-O4'	9.39	120.36	109.10
33	L1	1119	G	C3'-C2'-C1'	-9.39	93.99	101.50
33	L1	1648	C	O4'-C1'-N1	9.39	115.71	108.20
33	L1	2668	U	C3'-C2'-C1'	-9.39	93.99	101.50
33	L1	2400	A	C3'-C2'-C1'	9.38	109.01	101.50
33	L1	3092	A	N9-C1'-C2'	9.38	126.20	114.00
35	L2	128	C	C3'-C2'-C1'	9.38	109.01	101.50
56	Lh	42	ARG	NE-CZ-NH1	9.39	124.99	120.30
81	LD	368	PRO	CA-N-CD	-9.39	98.36	111.50
32	S1	66	U	O4'-C1'-N1	9.38	115.70	108.20
32	S1	94	A	O4'-C1'-C2'	9.38	116.05	107.60
32	S1	933	G	C3'-C2'-C1'	-9.38	94.00	101.50
32	S1	1202	G	C1'-O4'-C4'	-9.38	102.39	109.90
33	L1	860	G	P-O5'-C5'	9.38	135.91	120.90
32	S1	280	U	O4'-C1'-N1	9.38	115.70	108.20
33	L1	667	C	O4'-C1'-N1	9.38	115.70	108.20
33	L1	818	G	C3'-C2'-C1'	-9.38	94.00	101.50
33	L1	1622	G	O4'-C1'-C2'	-9.38	96.42	105.80
33	L1	1749	G	C1'-O4'-C4'	-9.38	102.40	109.90
33	L1	1904	A	C1'-O4'-C4'	-9.38	102.40	109.90
33	L1	2624	G	C1'-O4'-C4'	-9.38	102.40	109.90
32	S1	1443	U	P-O5'-C5'	9.38	135.90	120.90
33	L1	844	A	O4'-C1'-C2'	9.37	116.04	107.60
33	L1	2667	C	C1'-O4'-C4'	-9.38	102.40	109.90
33	L1	2669	C	C3'-C2'-C1'	-9.37	94.00	101.50
33	L1	2754	G	N9-C1'-C2'	-9.38	101.69	112.00
35	L2	163	G	O4'-C1'-N9	9.37	115.70	108.20
23	SU	89	LYS	CA-C-N	9.37	137.82	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	231	C	N1-C1'-C2'	9.37	126.18	114.00
33	L1	1271	U	O4'-C1'-N1	9.37	115.70	108.20
33	L1	1793	A	O4'-C1'-N9	9.37	115.70	108.20
32	S1	1395	C	N1-C1'-C2'	9.37	126.18	114.00
33	L1	1822	C	C3'-C2'-C1'	9.37	108.99	101.50
37	LB	128	ARG	NE-CZ-NH1	9.37	124.98	120.30
60	Lr	46	LYS	CB-CA-C	9.37	129.13	110.40
25	SC	171	PRO	N-CA-CB	9.37	114.54	103.30
33	L1	2131	U	O4'-C1'-N1	9.37	115.69	108.20
10	SL	119	PHE	N-CA-C	9.36	136.28	111.00
32	S1	1279	A	C1'-O4'-C4'	-9.36	102.41	109.90
35	L2	73	U	P-O3'-C3'	9.36	130.94	119.70
33	L1	762	U	O4'-C1'-N1	9.36	115.69	108.20
33	L1	2808	U	O4'-C1'-C2'	9.36	116.03	107.60
33	L1	2991	U	P-O5'-C5'	9.36	135.87	120.90
34	L3	50	A	C3'-C2'-C1'	9.35	108.98	101.50
33	L1	700	C	O4'-C1'-N1	-9.35	100.72	108.20
33	L1	2688	G	O4'-C1'-C2'	9.35	116.01	107.60
33	L1	3301	G	N9-C1'-C2'	-9.35	101.72	112.00
59	Lo	36	ARG	NE-CZ-NH1	9.35	124.97	120.30
32	S1	823	A	C3'-C2'-C1'	9.35	108.98	101.50
32	S1	856	G	O4'-C1'-N9	9.35	115.68	108.20
32	S1	1431	A	P-O3'-C3'	9.35	130.91	119.70
33	L1	550	C	O4'-C1'-N1	9.35	115.68	108.20
48	LV	158	VAL	N-CA-CB	9.35	132.06	111.50
32	S1	1022	U	O4'-C1'-N1	9.34	115.67	108.20
32	S1	1486	U	O4'-C1'-N1	9.34	115.67	108.20
32	S1	1611	U	O4'-C1'-N1	9.34	115.67	108.20
33	L1	1732	G	O4'-C1'-C2'	9.34	116.01	107.60
33	L1	204	G	O4'-C1'-N9	9.34	115.67	108.20
33	L1	1350	G	C1'-O4'-C4'	9.34	117.37	109.90
34	L3	14	C	C3'-C2'-C1'	9.34	108.97	101.50
33	L1	348	C	O4'-C1'-N1	-9.34	100.73	108.20
35	L2	150	G	O4'-C1'-N9	9.34	115.67	108.20
33	L1	6	A	O4'-C1'-N9	9.34	115.67	108.20
33	L1	1227	A	O4'-C1'-N9	9.34	115.67	108.20
33	L1	2580	C	N1-C1'-C2'	9.34	126.14	114.00
3	SB	148	LYS	CA-C-N	9.33	137.74	117.20
32	S1	776	A	P-O5'-C5'	-9.33	105.97	120.90
33	L1	374	G	O4'-C1'-N9	9.33	115.67	108.20
33	L1	408	U	P-O5'-C5'	9.33	135.83	120.90
33	L1	1507	A	O4'-C1'-C2'	9.33	116.00	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	LH	98	GLU	N-CA-C	9.33	136.20	111.00
32	S1	943	G	C1'-O4'-C4'	-9.33	102.44	109.90
33	L1	643	G	C1'-O4'-C4'	-9.33	102.44	109.90
33	L1	1165	C	O4'-C1'-N1	9.33	115.66	108.20
33	L1	165	C	N1-C1'-C2'	9.32	126.12	114.00
33	L1	769	C	C3'-C2'-C1'	9.32	108.96	101.50
33	L1	2219	A	O4'-C1'-N9	9.32	115.66	108.20
33	L1	3072	A	C3'-C2'-C1'	9.32	108.96	101.50
34	L3	2	G	O3'-P-O5'	9.32	121.71	104.00
52	Lb	111	TYR	CB-CG-CD2	-9.32	115.41	121.00
42	LP	6	TYR	CB-CG-CD1	-9.32	115.41	121.00
79	Ls	239	ALA	N-CA-CB	-9.32	97.05	110.10
31	S2	58	U	O4'-C1'-C2'	-9.32	96.48	105.80
2	SA	38	MET	CG-SD-CE	-9.31	85.30	100.20
33	L1	77	U	C1'-O4'-C4'	9.31	117.35	109.90
33	L1	112	C	C3'-C2'-C1'	9.31	108.95	101.50
33	L1	671	C	O4'-C1'-N1	9.31	115.65	108.20
33	L1	2228	A	N9-C1'-C2'	-9.31	101.75	112.00
49	LX	61	ALA	N-CA-CB	9.31	123.14	110.10
73	Lp	16	ASP	CB-CA-C	9.31	129.03	110.40
67	LS	109	TYR	CB-CG-CD2	-9.31	115.41	121.00
33	L1	3358	A	C1'-O4'-C4'	-9.31	102.45	109.90
33	L1	837	C	P-O3'-C3'	9.31	130.87	119.70
33	L1	1649	G	P-O3'-C3'	9.30	130.86	119.70
33	L1	3269	C	O4'-C1'-N1	9.30	115.64	108.20
32	S1	391	A	O3'-P-O5'	9.30	121.67	104.00
33	L1	2170	G	O4'-C1'-C2'	9.30	115.97	107.60
34	L3	4	U	O3'-P-O5'	-9.30	86.33	104.00
64	LG	88	TYR	CB-CG-CD2	-9.30	115.42	121.00
33	L1	2465	G	C1'-O4'-C4'	-9.30	102.46	109.90
32	S1	598	A	O4'-C1'-N9	9.30	115.64	108.20
32	S1	897	A	O4'-C1'-N9	9.30	115.64	108.20
32	S1	1560	U	O4'-C1'-C2'	9.30	115.97	107.60
69	La	11	VAL	CB-CA-C	-9.30	93.73	111.40
13	SQ	109	LEU	CA-C-O	-9.29	100.58	120.10
33	L1	3024	U	O4'-C1'-C2'	-9.30	96.50	105.80
31	S2	61	C	N1-C1'-C2'	9.29	126.08	114.00
32	S1	1449	U	O4'-C1'-N1	9.29	115.64	108.20
33	L1	1886	U	O4'-C1'-N1	9.29	115.64	108.20
33	L1	2125	A	O4'-C1'-N9	9.29	115.64	108.20
33	L1	3299	A	C1'-O4'-C4'	9.29	117.34	109.90
34	L3	64	G	N9-C1'-C2'	9.29	126.08	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2423	A	O4'-C1'-C2'	9.29	115.96	107.60
33	L1	3317	G	P-O5'-C5'	-9.29	106.03	120.90
32	S1	119	U	P-O3'-C3'	9.29	130.85	119.70
33	L1	641	C	C4'-C3'-C2'	-9.29	93.31	102.60
33	L1	55	G	C3'-C2'-C1'	-9.29	94.07	101.50
33	L1	422	G	O4'-C1'-N9	9.29	115.63	108.20
33	L1	1019	A	O4'-C1'-C2'	-9.29	96.51	105.80
33	L1	1868	C	N1-C1'-C2'	9.29	126.07	114.00
33	L1	2437	A	O4'-C1'-N9	-9.29	100.77	108.20
33	L1	892	U	C3'-C2'-C1'	9.29	108.93	101.50
33	L1	1016	G	O4'-C1'-N9	9.29	115.63	108.20
33	L1	2666	G	C3'-C2'-C1'	-9.28	94.07	101.50
32	S1	1083	C	N1-C1'-C2'	9.28	126.06	114.00
33	L1	875	A	C3'-C2'-C1'	-9.28	94.08	101.50
33	L1	1323	G	O4'-C1'-N9	9.28	115.62	108.20
34	L3	20	C	O4'-C1'-N1	9.28	115.62	108.20
57	L1	43	ARG	NE-CZ-NH2	-9.28	115.66	120.30
33	L1	1883	A	C1'-O4'-C4'	9.28	117.32	109.90
34	L3	1	G	O3'-P-O5'	9.28	121.63	104.00
32	S1	1386	U	O4'-C1'-N1	9.28	115.62	108.20
33	L1	226	U	O4'-C1'-N1	9.28	115.62	108.20
32	S1	148	C	N1-C1'-C2'	9.27	126.06	114.00
33	L1	254	G	C1'-O4'-C4'	-9.27	102.48	109.90
57	L1	8	PHE	CB-CG-CD2	9.27	127.29	120.80
33	L1	2202	A	C3'-C2'-C1'	9.27	108.92	101.50
33	L1	3342	C	C3'-C2'-C1'	9.27	108.92	101.50
32	S1	354	G	C3'-C2'-C1'	9.27	108.92	101.50
32	S1	1749	C	N1-C1'-C2'	9.27	126.05	114.00
33	L1	2053	A	C3'-C2'-C1'	9.27	108.91	101.50
33	L1	2624	G	N9-C1'-C2'	9.27	126.05	114.00
31	S2	4	G	C1'-O4'-C4'	-9.27	102.49	109.90
32	S1	5	U	O4'-C1'-N1	9.27	115.61	108.20
33	L1	2584	U	C1'-O4'-C4'	-9.27	102.49	109.90
33	L1	3086	G	P-O3'-C3'	9.27	130.82	119.70
33	L1	3390	G	O4'-C1'-N9	9.27	115.61	108.20
42	LP	94	PHE	CB-CG-CD1	-9.27	114.31	120.80
33	L1	3144	U	C3'-C2'-C1'	9.26	108.91	101.50
32	S1	1689	A	O4'-C1'-N9	9.26	115.61	108.20
33	L1	88	A	O4'-C1'-N9	9.26	115.61	108.20
33	L1	1577	A	C4'-C3'-C2'	-9.26	93.34	102.60
34	L3	18	C	O4'-C1'-N1	9.26	115.61	108.20
32	S1	954	C	O4'-C1'-N1	9.26	115.60	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	311	G	C4'-C3'-C2'	-9.26	93.34	102.60
33	L1	2165	A	C4'-C3'-C2'	-9.26	93.34	102.60
33	L1	2659	A	N9-C1'-C2'	9.26	126.03	114.00
33	L1	2758	C	N1-C1'-C2'	9.26	126.03	114.00
33	L1	1574	C	N1-C1'-C2'	9.25	126.03	114.00
32	S1	230	C	O4'-C1'-N1	9.25	115.60	108.20
33	L1	3099	G	C5'-C4'-C3'	9.25	130.80	116.00
34	L3	77	A	O4'-C1'-C2'	-9.25	96.55	105.80
34	L3	117	U	O4'-C1'-N1	9.25	115.60	108.20
32	S1	1759	A	C5'-C4'-O4'	9.25	120.20	109.10
32	S1	1791	A	C3'-C2'-C1'	9.25	108.90	101.50
33	L1	348	C	N1-C1'-C2'	9.25	126.02	114.00
33	L1	1403	G	OP1-P-OP2	-9.24	105.73	119.60
64	LG	12	LYS	O-C-N	-9.24	107.91	122.70
33	L1	845	G	C1'-O4'-C4'	-9.24	102.50	109.90
33	L1	1708	C	C1'-O4'-C4'	-9.24	102.51	109.90
33	L1	1753	A	P-O5'-C5'	9.24	135.69	120.90
33	L1	267	G	O4'-C1'-C2'	-9.24	96.56	105.80
33	L1	1564	C	O4'-C1'-C2'	-9.24	96.56	105.80
25	SC	147	SER	N-CA-CB	9.24	124.36	110.50
32	S1	44	U	OP1-P-OP2	-9.24	105.74	119.60
32	S1	1684	U	O4'-C1'-N1	9.24	115.59	108.20
33	L1	714	G	C1'-O4'-C4'	-9.24	102.51	109.90
33	L1	2667	C	N1-C1'-C2'	9.24	126.01	114.00
13	SQ	71	LEU	C-N-CA	9.23	144.79	121.70
33	L1	3218	C	P-O3'-C3'	9.23	130.78	119.70
33	L1	812	G	C1'-O4'-C4'	-9.23	102.51	109.90
33	L1	1257	U	N1-C1'-C2'	-9.23	101.84	112.00
31	S2	7	A	P-O3'-C3'	9.23	130.78	119.70
32	S1	61	A	N9-C1'-C2'	-9.23	101.85	112.00
32	S1	293	C	C3'-C2'-C1'	9.23	108.89	101.50
33	L1	2022	U	P-O5'-C5'	9.23	135.67	120.90
33	L1	2478	G	C1'-O4'-C4'	-9.23	102.52	109.90
64	LG	152	LYS	CB-CA-C	9.23	128.86	110.40
31	S2	57	A	C3'-C2'-C1'	9.23	108.88	101.50
33	L1	244	G	O4'-C1'-N9	9.23	115.58	108.20
33	L1	714	G	C3'-C2'-C1'	-9.23	94.12	101.50
33	L1	719	U	N1-C1'-C2'	9.23	126.00	114.00
32	S1	1714	G	C1'-O4'-C4'	-9.23	102.52	109.90
33	L1	888	U	P-O5'-C5'	9.23	135.66	120.90
33	L1	1555	G	N9-C1'-C2'	9.23	126.00	114.00
34	L3	46	C	C1'-O4'-C4'	-9.22	102.52	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	SM	121	ARG	NE-CZ-NH2	-9.22	115.69	120.30
33	L1	2020	G	P-O3'-C3'	9.22	130.77	119.70
33	L1	1785	G	C3'-C2'-C1'	-9.22	94.12	101.50
5	SE	135	ARG	NE-CZ-NH2	9.22	124.91	120.30
80	LC	117	ARG	NE-CZ-NH1	9.22	124.91	120.30
33	L1	210	G	O4'-C1'-N9	-9.22	100.83	108.20
31	S2	50	G	O4'-C1'-N9	9.21	115.57	108.20
33	L1	1365	C	C3'-C2'-C1'	9.21	108.87	101.50
34	L3	2	G	C1'-O4'-C4'	9.21	117.27	109.90
24	SX	75	LEU	CB-CA-C	-9.21	92.70	110.20
33	L1	20	G	P-O3'-C3'	9.21	130.75	119.70
33	L1	3013	A	O4'-C1'-N9	9.21	115.57	108.20
64	LG	16	ARG	NE-CZ-NH1	9.21	124.91	120.30
32	S1	1470	G	O4'-C1'-N9	9.21	115.57	108.20
33	L1	141	C	N1-C1'-C2'	9.21	125.97	114.00
33	L1	2883	C	O4'-C1'-N1	9.21	115.57	108.20
32	S1	688	U	O4'-C1'-N1	9.21	115.57	108.20
33	L1	1576	C	P-O5'-C5'	9.21	135.63	120.90
33	L1	3246	U	N1-C1'-C2'	9.21	125.97	114.00
12	SO	64	LYS	O-C-N	-9.20	107.97	122.70
44	LR	39	ARG	NE-CZ-NH1	9.20	124.90	120.30
59	Lo	30	ARG	N-CA-CB	-9.20	94.03	110.60
32	S1	147	C	O4'-C1'-C2'	-9.20	96.60	105.80
32	S1	1640	C	O4'-C1'-N1	9.20	115.56	108.20
33	L1	840	A	O3'-P-O5'	-9.20	86.52	104.00
33	L1	1275	A	O4'-C1'-N9	9.20	115.56	108.20
33	L1	2451	G	O4'-C1'-C2'	-9.20	96.60	105.80
33	L1	1436	A	C3'-C2'-C1'	-9.20	94.14	101.50
32	S1	288	G	C1'-O4'-C4'	-9.20	102.54	109.90
33	L1	745	G	O4'-C1'-C2'	-9.20	96.60	105.80
33	L1	1414	C	O4'-C1'-C2'	9.20	115.88	107.60
33	L1	1361	G	N9-C1'-C2'	-9.20	101.89	112.00
33	L1	2668	U	C1'-O4'-C4'	9.19	117.25	109.90
55	Lg	119	VAL	N-CA-C	9.19	135.82	111.00
4	SD	205	PHE	CB-CG-CD1	-9.19	114.36	120.80
32	S1	1322	G	O4'-C1'-N9	9.19	115.55	108.20
33	L1	264	C	C3'-C2'-C1'	9.19	108.85	101.50
33	L1	661	A	N9-C1'-C2'	-9.19	101.89	112.00
32	S1	1057	U	N1-C1'-C2'	-9.19	101.89	112.00
33	L1	212	G	C1'-O4'-C4'	9.19	117.25	109.90
33	L1	1115	A	C1'-O4'-C4'	9.19	117.25	109.90
33	L1	2758	C	C3'-C2'-C1'	9.19	108.85	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3149	C	C3'-C2'-C1'	9.19	108.85	101.50
79	Ls	77	GLU	N-CA-CB	-9.19	94.06	110.60
8	SJ	75	ARG	NE-CZ-NH2	-9.19	115.71	120.30
11	SM	116	LYS	CB-CA-C	9.19	128.77	110.40
33	L1	1798	C	O4'-C1'-C2'	-9.19	96.61	105.80
33	L1	2766	U	O4'-C1'-N1	9.19	115.55	108.20
43	LO	53	PHE	CB-CG-CD2	-9.19	114.37	120.80
33	L1	3374	C	O4'-C1'-N1	9.19	115.55	108.20
57	L1	79	ARG	NH1-CZ-NH2	9.19	129.50	119.40
32	S1	610	A	C5'-C4'-O4'	9.18	120.12	109.10
32	S1	1093	A	C3'-C2'-C1'	9.18	108.85	101.50
32	S1	1419	U	O4'-C1'-N1	9.18	115.55	108.20
33	L1	3373	C	O4'-C1'-N1	9.18	115.55	108.20
32	S1	788	G	C5'-C4'-C3'	9.18	130.69	116.00
33	L1	1955	G	C3'-C2'-C1'	-9.18	94.16	101.50
33	L1	740	G	P-O3'-C3'	9.18	130.72	119.70
33	L1	2766	U	P-O3'-C3'	9.18	130.71	119.70
33	L1	3099	G	C1'-O4'-C4'	9.18	117.24	109.90
33	L1	3151	C	P-O3'-C3'	9.18	130.72	119.70
81	LD	367	SER	C-N-CD	-9.18	100.41	120.60
31	S2	16	U	P-O3'-C3'	9.18	130.71	119.70
33	L1	2673	G	N9-C1'-C2'	9.18	125.93	114.00
33	L1	3222	G	C5'-C4'-C3'	9.18	130.68	116.00
33	L1	320	U	O4'-C1'-N1	9.18	115.54	108.20
17	SV	34	LYS	N-CA-CB	9.17	127.11	110.60
32	S1	1332	G	O4'-C1'-C2'	-9.17	96.63	105.80
33	L1	817	U	P-O3'-C3'	-9.17	108.69	119.70
33	L1	2623	G	C5'-C4'-C3'	9.17	130.68	116.00
68	LW	28	SER	C-N-CA	-9.17	98.76	121.70
33	L1	2701	G	OP1-P-O3'	9.17	125.38	105.20
33	L1	510	C	C1'-O4'-C4'	-9.17	102.56	109.90
33	L1	1367	A	P-O3'-C3'	9.17	130.70	119.70
33	L1	1923	G	OP1-P-OP2	-9.17	105.85	119.60
45	LQ	16	TYR	CB-CA-C	9.17	128.74	110.40
52	Lb	123	ARG	NE-CZ-NH2	-9.17	115.72	120.30
33	L1	1622	G	P-O5'-C5'	9.17	135.57	120.90
68	LW	80	PHE	CB-CG-CD1	9.17	127.22	120.80
32	S1	836	U	O4'-C1'-N1	9.16	115.53	108.20
32	S1	1754	A	P-O3'-C3'	9.16	130.70	119.70
33	L1	1098	U	P-O3'-C3'	9.16	130.70	119.70
33	L1	2896	C	C3'-C2'-C1'	9.16	108.83	101.50
32	S1	1262	U	O4'-C1'-N1	9.16	115.53	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	SB	154	ASP	CA-C-N	-9.16	97.88	116.20
32	S1	1556	U	O4'-C1'-N1	9.16	115.53	108.20
33	L1	347	A	N9-C1'-C2'	9.16	125.91	114.00
33	L1	1196	U	N1-C1'-C2'	-9.16	101.92	112.00
33	L1	2765	A	P-O3'-C3'	9.16	130.69	119.70
33	L1	2798	G	O4'-C1'-N9	9.16	115.53	108.20
33	L1	2841	G	N9-C1'-C2'	9.16	125.91	114.00
33	L1	297	G	C5'-C4'-C3'	9.16	130.65	116.00
33	L1	1241	G	O4'-C1'-N9	-9.16	100.87	108.20
32	S1	1323	U	O4'-C1'-C2'	-9.16	96.64	105.80
33	L1	1739	G	O4'-C1'-C2'	9.16	115.84	107.60
33	L1	1817	U	N1-C1'-C2'	9.16	125.90	114.00
33	L1	1991	U	C5'-C4'-C3'	9.16	130.65	116.00
33	L1	2393	G	C1'-O4'-C4'	-9.16	102.57	109.90
33	L1	2595	G	C1'-O4'-C4'	9.16	117.22	109.90
33	L1	3019	C	O4'-C1'-N1	9.16	115.53	108.20
33	L1	400	G	O4'-C1'-C2'	9.15	115.84	107.60
33	L1	1066	G	O4'-C1'-C2'	9.15	115.84	107.60
33	L1	2151	G	O4'-C1'-C2'	-9.15	96.64	105.80
32	S1	491	G	O4'-C1'-N9	9.15	115.52	108.20
33	L1	521	G	O4'-C1'-C2'	9.15	115.84	107.60
33	L1	1364	C	C3'-C2'-C1'	9.15	108.82	101.50
33	L1	1867	U	C1'-O4'-C4'	-9.15	102.58	109.90
33	L1	2482	A	C3'-C2'-C1'	-9.15	94.18	101.50
35	L2	119	C	C1'-O4'-C4'	-9.15	102.58	109.90
33	L1	571	G	C3'-C2'-C1'	9.15	108.82	101.50
33	L1	2781	A	P-O3'-C3'	9.15	130.68	119.70
32	S1	11	A	O4'-C1'-C2'	-9.14	96.66	105.80
32	S1	884	G	O4'-C1'-N9	9.14	115.51	108.20
68	LW	29	LYS	CB-CA-C	-9.14	92.11	110.40
32	S1	1083	C	O4'-C1'-N1	9.14	115.51	108.20
33	L1	1022	G	C3'-C2'-C1'	-9.14	94.19	101.50
33	L1	1182	A	O4'-C1'-N9	9.14	115.51	108.20
33	L1	2171	A	O4'-C1'-C2'	-9.14	96.66	105.80
32	S1	407	G	O4'-C1'-N9	9.14	115.51	108.20
33	L1	1123	A	C3'-C2'-C1'	-9.13	94.19	101.50
68	LW	117	ARG	NE-CZ-NH1	9.13	124.87	120.30
7	SI	51	ARG	NE-CZ-NH2	-9.13	115.73	120.30
38	LE	143	ARG	NE-CZ-NH2	-9.13	115.73	120.30
31	S2	1	U	OP1-P-OP2	-9.13	105.91	119.60
32	S1	932	C	O4'-C1'-N1	9.13	115.50	108.20
33	L1	148	U	P-O5'-C5'	9.13	135.51	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1508	C	C1'-O4'-C4'	-9.13	102.59	109.90
32	S1	1336	C	C3'-C2'-C1'	9.13	108.80	101.50
33	L1	559	U	O4'-C1'-N1	9.13	115.50	108.20
33	L1	779	U	N1-C1'-C2'	-9.13	101.96	112.00
47	LU	56	PHE	CB-CG-CD1	-9.13	114.41	120.80
32	S1	83	U	O4'-C1'-N1	9.13	115.50	108.20
32	S1	447	C	O4'-C1'-C2'	-9.13	96.67	105.80
57	L1	72	ARG	NE-CZ-NH2	-9.13	115.74	120.30
33	L1	2795	G	C3'-C2'-C1'	-9.13	94.20	101.50
31	S2	4	G	O4'-C1'-C2'	9.12	115.81	107.60
33	L1	457	C	C3'-C2'-C1'	9.12	108.80	101.50
33	L1	1061	A	C3'-C2'-C1'	9.12	108.80	101.50
33	L1	1066	G	C1'-O4'-C4'	-9.12	102.60	109.90
31	S2	41	G	O4'-C1'-C2'	9.12	115.81	107.60
33	L1	1000	A	C3'-C2'-C1'	9.12	108.80	101.50
35	L2	151	C	C5'-C4'-O4'	9.12	120.04	109.10
33	L1	2398	A	O3'-P-O5'	9.12	121.32	104.00
48	LV	166	ILE	C-N-CA	-9.12	98.90	121.70
33	L1	487	C	N1-C1'-C2'	9.11	125.85	114.00
33	L1	1636	C	P-O3'-C3'	9.12	130.64	119.70
33	L1	1912	U	N1-C1'-C2'	9.12	125.85	114.00
33	L1	1950	G	O4'-C1'-N9	9.12	115.49	108.20
34	L3	14	C	C1'-O4'-C4'	9.12	117.19	109.90
4	SD	148	ARG	CA-C-N	9.11	137.25	117.20
33	L1	262	A	C3'-C2'-C1'	9.11	108.79	101.50
33	L1	1147	U	N1-C1'-C2'	9.11	125.85	114.00
33	L1	2099	G	C3'-C2'-C1'	-9.11	94.21	101.50
33	L1	389	A	C1'-O4'-C4'	-9.11	102.61	109.90
32	S1	1100	U	N1-C1'-C2'	9.11	125.84	114.00
64	LG	13	ARG	NE-CZ-NH1	9.11	124.86	120.30
33	L1	1393	G	P-O3'-C3'	9.11	130.63	119.70
33	L1	1534	C	O4'-C1'-N1	9.11	115.49	108.20
33	L1	2862	U	O4'-C1'-C2'	-9.11	96.69	105.80
32	S1	581	G	P-O3'-C3'	9.11	130.63	119.70
33	L1	102	G	C3'-C2'-C1'	9.11	108.78	101.50
33	L1	1710	G	C1'-O4'-C4'	-9.11	102.61	109.90
33	L1	2511	U	C1'-O4'-C4'	9.11	117.19	109.90
32	S1	376	G	O4'-C1'-N9	9.10	115.48	108.20
32	S1	1600	G	C1'-O4'-C4'	-9.10	102.62	109.90
39	LF	187	THR	C-N-CA	-9.10	98.96	121.70
32	S1	1150	U	O4'-C1'-N1	9.10	115.48	108.20
32	S1	1537	U	O4'-C1'-N1	9.10	115.48	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1647	C	O4'-C1'-C2'	-9.10	96.70	105.80
33	L1	1788	C	P-O3'-C3'	9.10	130.61	119.70
35	L2	159	U	P-O3'-C3'	9.09	130.61	119.70
32	S1	1245	G	O4'-C1'-C2'	-9.09	96.71	105.80
33	L1	3023	G	N9-C1'-C2'	9.09	125.82	114.00
6	SF	165	ILE	CG1-CB-CG2	9.09	131.40	111.40
33	L1	406	A	O4'-C1'-N9	9.09	115.47	108.20
33	L1	1841	G	O4'-C1'-C2'	9.09	115.78	107.60
33	L1	1875	A	P-O3'-C3'	9.09	130.61	119.70
33	L1	1064	U	N1-C1'-C2'	-9.09	102.00	112.00
33	L1	3307	A	O4'-C1'-C2'	-9.09	96.71	105.80
32	S1	1133	C	C5'-C4'-C3'	-9.09	101.46	116.00
39	LF	89	TYR	CB-CG-CD2	9.09	126.45	121.00
48	LV	91	PHE	CB-CG-CD2	-9.09	114.44	120.80
4	SD	167	ASN	CA-C-N	-9.08	97.22	117.20
32	S1	182	C	O4'-C1'-N1	9.08	115.47	108.20
37	LB	34	PHE	N-CA-CB	9.08	126.95	110.60
33	L1	1216	G	O4'-C1'-N9	9.08	115.46	108.20
33	L1	3206	C	O4'-C1'-N1	9.08	115.46	108.20
33	L1	1792	G	C3'-C2'-C1'	9.08	108.76	101.50
33	L1	2348	U	N1-C1'-C2'	9.08	125.80	114.00
43	LO	53	PHE	CB-CG-CD1	9.08	127.16	120.80
33	L1	375	G	O4'-C1'-C2'	9.08	115.77	107.60
33	L1	725	G	N9-C1'-C2'	9.08	125.80	114.00
33	L1	966	G	O4'-C1'-C2'	-9.08	96.72	105.80
33	L1	1249	A	O4'-C1'-C2'	-9.08	96.72	105.80
45	LQ	198	TYR	CB-CG-CD1	9.08	126.44	121.00
46	LT	110	ARG	NE-CZ-NH2	-9.08	115.76	120.30
35	L2	27	C	C1'-O4'-C4'	-9.07	102.64	109.90
32	S1	124	G	C3'-C2'-C1'	-9.07	94.25	101.50
33	L1	1826	G	P-O3'-C3'	-9.07	108.82	119.70
34	L3	1	G	OP1-P-OP2	-9.07	106.00	119.60
11	SM	113	ARG	CA-CB-CG	9.07	133.35	113.40
32	S1	509	A	C3'-C2'-C1'	9.07	108.75	101.50
32	S1	1609	G	N9-C1'-C2'	9.07	125.79	114.00
33	L1	2799	U	C1'-O4'-C4'	-9.07	102.65	109.90
32	S1	292	A	O4'-C1'-C2'	-9.06	96.74	105.80
32	S1	1147	A	C3'-C2'-C1'	9.06	108.75	101.50
33	L1	1361	G	C1'-O4'-C4'	9.06	117.15	109.90
33	L1	1806	C	P-O3'-C3'	9.06	130.58	119.70
33	L1	3145	G	C3'-C2'-C1'	9.06	108.75	101.50
33	L1	3002	U	O4'-C1'-N1	9.06	115.45	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	198	A	C1'-O4'-C4'	9.06	117.15	109.90
33	L1	2996	A	C3'-C2'-C1'	-9.06	94.25	101.50
32	S1	1458	U	P-O5'-C5'	9.06	135.40	120.90
64	LG	65	LYS	CA-C-N	9.06	142.47	117.10
2	SA	84	ARG	NE-CZ-NH1	9.06	124.83	120.30
13	SQ	23	ARG	NE-CZ-NH1	-9.06	115.77	120.30
33	L1	1143	G	O4'-C1'-C2'	9.06	115.75	107.60
10	SL	54	ILE	O-C-N	-9.05	107.81	123.20
33	L1	2203	A	C1'-O4'-C4'	9.05	117.14	109.90
73	Lp	13	TYR	CB-CG-CD2	9.06	126.43	121.00
33	L1	2647	C	C1'-O4'-C4'	9.05	117.14	109.90
35	L2	59	U	P-O5'-C5'	9.05	135.38	120.90
77	Lc	47	ARG	NE-CZ-NH2	-9.05	115.77	120.30
73	Lp	52	LYS	N-CA-C	9.05	135.44	111.00
33	L1	2763	C	O4'-C1'-N1	9.05	115.44	108.20
33	L1	2952	G	N9-C1'-C2'	-9.05	102.05	112.00
33	L1	3343	U	N1-C1'-C2'	9.05	125.77	114.00
32	S1	302	C	C3'-C2'-C1'	9.05	108.74	101.50
32	S1	1198	A	C1'-O4'-C4'	-9.05	102.66	109.90
33	L1	3140	A	N9-C1'-C2'	-9.05	102.05	112.00
45	LQ	27	ARG	NE-CZ-NH1	9.05	124.82	120.30
47	LU	122	ARG	NE-CZ-NH1	9.05	124.82	120.30
4	SD	240	LYS	C-N-CA	-9.04	103.31	122.30
32	S1	1657	C	O4'-C1'-C2'	-9.05	96.75	105.80
33	L1	595	C	O4'-C1'-N1	9.04	115.44	108.20
33	L1	2145	C	O4'-C1'-C2'	-9.04	96.76	105.80
32	S1	1246	A	P-O3'-C3'	9.04	130.55	119.70
32	S1	1795	U	O4'-C1'-N1	9.04	115.44	108.20
33	L1	558	G	C1'-O4'-C4'	-9.04	102.67	109.90
33	L1	1027	C	C5'-C4'-C3'	9.04	130.47	116.00
64	LG	140	GLN	N-CA-CB	9.04	126.88	110.60
33	L1	1133	A	C1'-O4'-C4'	9.04	117.13	109.90
33	L1	2636	U	O4'-C1'-C2'	-9.04	96.76	105.80
6	SF	164	THR	C-N-CA	9.04	144.30	121.70
32	S1	1736	C	O4'-C1'-N1	-9.04	100.97	108.20
33	L1	246	C	O4'-C1'-C2'	-9.04	96.76	105.80
51	LY	62	TYR	CG-CD2-CE2	-9.04	114.07	121.30
32	S1	1616	U	O3'-P-O5'	-9.04	86.83	104.00
33	L1	1850	C	O4'-C1'-N1	9.04	115.43	108.20
33	L1	2762	U	O4'-C1'-C2'	-9.04	96.76	105.80
33	L1	3052	U	O4'-C1'-N1	9.04	115.43	108.20
32	S1	1485	A	C1'-O4'-C4'	9.04	117.13	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1741	G	O4'-C1'-C2'	9.04	115.73	107.60
72	Lk	56	TYR	CB-CG-CD1	9.04	126.42	121.00
84	LI	109	ASP	CA-CB-CG	-9.04	93.52	113.40
68	LW	88	LEU	CB-CA-C	9.03	127.36	110.20
32	S1	1228	G	C3'-C2'-C1'	9.03	108.72	101.50
32	S1	1350	C	N1-C1'-C2'	9.03	125.74	114.00
35	L2	67	C	P-O3'-C3'	9.03	130.53	119.70
33	L1	802	G	P-O3'-C3'	9.03	130.53	119.70
33	L1	994	U	C1'-O4'-C4'	-9.03	102.68	109.90
33	L1	1664	G	O4'-C1'-C2'	-9.03	96.78	105.80
32	S1	1323	U	C1'-O4'-C4'	9.02	117.12	109.90
33	L1	1091	C	O4'-C1'-N1	9.02	115.42	108.20
33	L1	1623	C	C3'-C2'-C1'	9.02	108.72	101.50
31	S2	53	U	O4'-C1'-N1	9.02	115.42	108.20
38	LE	108	ILE	O-C-N	-9.02	108.27	122.70
33	L1	1408	C	C1'-O4'-C4'	-9.02	102.69	109.90
32	S1	899	A	P-O5'-C5'	9.02	135.33	120.90
33	L1	2480	G	C3'-C2'-C1'	-9.02	94.29	101.50
33	L1	2620	U	N1-C1'-C2'	-9.02	102.08	112.00
72	Lk	68	LYS	CG-CD-CE	9.02	138.95	111.90
33	L1	975	G	O4'-C1'-N9	9.02	115.41	108.20
33	L1	1734	G	OP1-P-OP2	-9.02	106.08	119.60
33	L1	2506	G	P-O3'-C3'	9.02	130.52	119.70
33	L1	1754	C	C5'-C4'-C3'	-9.01	101.58	116.00
42	LP	30	TYR	CB-CG-CD1	9.01	126.41	121.00
23	SU	80	LEU	CB-CG-CD2	9.01	126.32	111.00
12	SO	124	ARG	N-CA-CB	-9.01	94.39	110.60
31	S2	48	C	C3'-C2'-C1'	9.01	108.70	101.50
33	L1	513	C	C3'-C2'-C1'	9.01	108.70	101.50
59	Lo	25	TYR	CD1-CG-CD2	9.01	127.81	117.90
67	LS	138	ARG	NE-CZ-NH1	9.01	124.80	120.30
32	S1	469	G	O4'-C1'-N9	9.00	115.40	108.20
33	L1	324	U	N1-C1'-C2'	9.00	125.70	114.00
33	L1	2762	U	N1-C1'-C2'	-9.00	102.10	112.00
71	Lj	79	HIS	N-CA-C	-9.00	86.70	111.00
32	S1	523	C	P-O3'-C3'	9.00	130.50	119.70
33	L1	2722	U	N1-C1'-C2'	-9.00	102.10	112.00
32	S1	121	U	O4'-C1'-N1	9.00	115.40	108.20
32	S1	327	A	OP1-P-OP2	-9.00	106.11	119.60
32	S1	915	C	O4'-C1'-N1	9.00	115.40	108.20
32	S1	377	G	N9-C1'-C2'	8.99	125.69	114.00
33	L1	1823	C	C1'-O4'-C4'	-8.99	102.70	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
73	Lp	35	ARG	CB-CA-C	-8.99	92.42	110.40
32	S1	33	U	O4'-C1'-C2'	-8.99	96.81	105.80
33	L1	1112	C	N1-C1'-C2'	8.99	125.69	114.00
33	L1	2177	U	C5'-C4'-C3'	8.99	130.38	116.00
33	L1	2457	G	O4'-C1'-N9	8.99	115.39	108.20
33	L1	2842	C	O4'-C1'-N1	8.99	115.39	108.20
33	L1	3158	C	C5'-C4'-C3'	8.99	130.38	116.00
35	L2	102	U	N1-C1'-C2'	8.99	125.69	114.00
33	L1	430	G	N9-C1'-C2'	8.99	125.68	114.00
36	LA	83	TYR	CB-CG-CD1	-8.99	115.61	121.00
32	S1	1156	A	O3'-P-O5'	8.99	121.07	104.00
33	L1	1181	A	C4'-C3'-C2'	8.99	111.59	102.60
33	L1	2318	U	OP1-P-OP2	-8.98	106.12	119.60
32	S1	1443	U	O4'-C1'-C2'	-8.98	96.82	105.80
33	L1	1509	G	P-O3'-C3'	-8.98	108.92	119.70
13	SQ	33	LYS	CB-CG-CD	8.98	134.95	111.60
32	S1	508	U	P-O3'-C3'	8.98	130.48	119.70
33	L1	228	C	O4'-C1'-C2'	-8.98	96.82	105.80
33	L1	807	C	O4'-C1'-N1	8.98	115.38	108.20
74	LJ	93	ARG	CD-NE-CZ	-8.98	111.03	123.60
32	S1	1574	U	C1'-O4'-C4'	-8.98	102.72	109.90
33	L1	312	U	P-O5'-C5'	-8.98	106.53	120.90
33	L1	537	U	C3'-C2'-C1'	8.98	108.68	101.50
33	L1	1169	G	O4'-C1'-N9	8.98	115.38	108.20
33	L1	596	C	C3'-C2'-C1'	8.98	108.68	101.50
33	L1	1023	G	O4'-C1'-N9	8.98	115.38	108.20
35	L2	6	G	OP1-P-OP2	-8.98	106.14	119.60
32	S1	880	G	O4'-C1'-C2'	-8.97	96.83	105.80
33	L1	2077	C	C3'-C2'-C1'	-8.97	94.32	101.50
33	L1	2681	A	O5'-P-OP1	-8.97	97.62	105.70
33	L1	538	C	N1-C1'-C2'	-8.97	102.13	112.00
33	L1	2626	G	O4'-C1'-C2'	-8.97	96.83	105.80
57	L1	12	ARG	NE-CZ-NH1	8.97	124.79	120.30
9	SK	85	LYS	CG-CD-CE	-8.97	85.00	111.90
32	S1	715	U	P-O5'-C5'	8.97	135.25	120.90
33	L1	2497	A	O4'-C1'-N9	8.97	115.38	108.20
52	Lb	96	PHE	CB-CG-CD2	-8.97	114.52	120.80
32	S1	1683	G	O4'-C1'-C2'	8.97	115.67	107.60
33	L1	63	G	C3'-C2'-C1'	8.97	108.67	101.50
34	L3	79	A	N9-C1'-C2'	-8.97	102.14	112.00
32	S1	1387	U	N1-C1'-C2'	-8.96	102.14	112.00
33	L1	1368	U	N1-C1'-C2'	8.96	125.65	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1456	A	O4'-C1'-N9	8.96	115.37	108.20
33	L1	2656	C	P-O3'-C3'	-8.96	108.94	119.70
35	L2	64	U	O4'-C1'-N1	-8.96	101.03	108.20
55	Lg	8	ALA	CB-CA-C	8.96	123.54	110.10
13	SQ	100	LYS	CB-CA-C	8.96	128.32	110.40
33	L1	828	U	O4'-C1'-N1	8.96	115.37	108.20
33	L1	650	A	C1'-O4'-C4'	8.96	117.07	109.90
33	L1	1295	A	N9-C1'-C2'	-8.96	102.15	112.00
33	L1	2459	U	C3'-C2'-C1'	8.96	108.67	101.50
35	L2	64	U	P-O3'-C3'	8.96	130.45	119.70
33	L1	3153	U	P-O5'-C5'	8.95	135.23	120.90
32	S1	21	U	O4'-C1'-N1	8.95	115.36	108.20
32	S1	1692	G	O4'-C1'-N9	8.95	115.36	108.20
33	L1	677	U	O4'-C1'-C2'	8.95	115.66	107.60
33	L1	1277	A	O3'-P-O5'	-8.95	86.99	104.00
33	L1	1438	A	P-O3'-C3'	8.95	130.44	119.70
32	S1	1561	G	O4'-C1'-N9	8.95	115.36	108.20
33	L1	858	U	O4'-C4'-C3'	-8.95	95.05	104.00
33	L1	1902	G	N9-C1'-C2'	-8.95	102.16	112.00
33	L1	2513	U	N1-C1'-C2'	-8.95	102.16	112.00
35	L2	40	G	O5'-P-OP2	8.95	121.44	110.70
25	SC	65	ASP	CB-CG-OD2	8.95	126.35	118.30
32	S1	181	C	O4'-C1'-C2'	-8.95	96.85	105.80
32	S1	1095	C	N1-C1'-C2'	8.95	125.63	114.00
33	L1	2401	A	O4'-C1'-C2'	-8.95	96.85	105.80
33	L1	3149	C	N1-C1'-C2'	8.95	125.63	114.00
33	L1	3088	A	N9-C1'-C2'	8.95	125.63	114.00
34	L3	51	G	O4'-C1'-N9	8.95	115.36	108.20
64	LG	12	LYS	C-N-CA	-8.95	99.34	121.70
31	S2	16	U	C5'-C4'-C3'	8.94	130.31	116.00
33	L1	372	A	N9-C1'-C2'	-8.94	102.16	112.00
34	L3	113	G	O4'-C1'-N9	8.94	115.35	108.20
35	L2	55	G	C1'-O4'-C4'	8.94	117.05	109.90
82	LK	154	TYR	CB-CG-CD1	-8.94	115.64	121.00
3	SB	30	ALA	C-N-CA	8.94	144.05	121.70
32	S1	303	A	OP1-P-O3'	-8.94	85.53	105.20
33	L1	1747	A	O4'-C1'-N9	8.94	115.35	108.20
32	S1	1651	U	C1'-O4'-C4'	-8.94	102.75	109.90
33	L1	1955	G	O4'-C1'-C2'	8.94	115.64	107.60
34	L3	95	U	O4'-C1'-N1	8.94	115.35	108.20
32	S1	1383	U	O4'-C1'-N1	8.94	115.35	108.20
33	L1	2223	A	O4'-C1'-N9	8.94	115.35	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	LP	49	ARG	NE-CZ-NH2	-8.94	115.83	120.30
33	L1	1130	G	P-O3'-C3'	-8.94	108.98	119.70
33	L1	2248	G	C4'-C3'-C2'	-8.94	93.67	102.60
33	L1	2800	C	N1-C1'-C2'	8.94	125.62	114.00
33	L1	2673	G	C1'-O4'-C4'	-8.93	102.75	109.90
33	L1	1575	G	N9-C1'-C2'	8.93	125.61	114.00
33	L1	1904	A	N9-C1'-C2'	8.93	125.61	114.00
9	SK	92	LEU	CB-CG-CD1	8.93	126.18	111.00
84	LI	32	ARG	NE-CZ-NH2	-8.93	115.84	120.30
4	SD	93	PRO	CA-C-O	-8.93	98.78	120.20
32	S1	1190	U	O4'-C1'-N1	8.92	115.34	108.20
32	S1	1226	U	C5'-C4'-C3'	-8.92	101.72	116.00
33	L1	2730	A	N9-C1'-C2'	-8.92	102.18	112.00
33	L1	2756	G	C5'-C4'-C3'	8.92	130.28	116.00
15	SS	8	THR	C-N-CA	-8.92	99.41	121.70
32	S1	1421	U	OP1-P-OP2	-8.92	106.22	119.60
33	L1	490	G	C1'-O4'-C4'	-8.92	102.77	109.90
23	SU	90	LYS	N-CA-CB	8.91	126.64	110.60
33	L1	1261	C	O4'-C1'-N1	8.91	115.33	108.20
81	LD	208	ARG	NE-CZ-NH1	-8.91	115.84	120.30
31	S2	58	U	N1-C1'-C2'	-8.91	102.20	112.00
33	L1	1015	A	C1'-O4'-C4'	8.91	117.03	109.90
33	L1	1952	U	O4'-C1'-N1	8.91	115.33	108.20
33	L1	2073	U	O4'-C1'-N1	8.91	115.33	108.20
33	L1	2950	C	O4'-C1'-N1	8.91	115.33	108.20
33	L1	3331	G	C3'-C2'-C1'	-8.91	94.37	101.50
32	S1	152	G	P-O5'-C5'	8.91	135.15	120.90
32	S1	1661	C	O4'-C1'-N1	8.91	115.33	108.20
59	Lo	37	TYR	CB-CG-CD2	-8.91	115.66	121.00
33	L1	3128	A	C1'-O4'-C4'	-8.90	102.78	109.90
32	S1	1730	G	O4'-C1'-N9	8.90	115.32	108.20
33	L1	3173	A	P-O3'-C3'	8.90	130.38	119.70
11	SM	94	ARG	N-CA-CB	8.90	126.61	110.60
33	L1	3036	C	N1-C1'-C2'	8.90	125.57	114.00
32	S1	902	C	O4'-C1'-C2'	-8.90	96.90	105.80
32	S1	917	U	C5'-C4'-C3'	-8.90	101.77	116.00
33	L1	2278	G	C2'-C3'-O3'	8.90	129.07	109.50
32	S1	685	U	O4'-C1'-N1	8.89	115.31	108.20
33	L1	268	U	C5'-C4'-C3'	8.89	130.23	116.00
34	L3	13	A	P-O5'-C5'	-8.89	106.67	120.90
33	L1	745	G	O4'-C1'-N9	8.89	115.31	108.20
33	L1	2300	G	P-O5'-C5'	8.89	135.13	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	154	A	N9-C1'-C2'	-8.89	102.22	112.00
32	S1	1138	A	O4'-C1'-C2'	-8.89	96.91	105.80
74	LJ	126	MET	CG-SD-CE	-8.89	85.97	100.20
33	L1	543	C	C1'-O4'-C4'	-8.89	102.79	109.90
33	L1	1732	G	C1'-O4'-C4'	-8.89	102.79	109.90
33	L1	590	C	P-O5'-C5'	8.88	135.11	120.90
32	S1	1797	C	C3'-C2'-C1'	8.88	108.60	101.50
33	L1	127	G	C1'-O4'-C4'	-8.88	102.80	109.90
33	L1	1517	C	C3'-C2'-C1'	8.88	108.61	101.50
33	L1	2230	C	C3'-C2'-C1'	-8.88	94.39	101.50
34	L3	117	U	C5'-C4'-C3'	8.88	130.21	116.00
31	S2	70	G	C1'-O4'-C4'	-8.88	102.80	109.90
33	L1	24	C	C4'-C3'-C2'	-8.88	93.72	102.60
32	S1	1090	G	O4'-C1'-N9	8.88	115.30	108.20
32	S1	1468	G	N9-C1'-C2'	-8.88	102.23	112.00
33	L1	2665	A	O4'-C1'-N9	-8.88	101.10	108.20
34	L3	85	G	O4'-C1'-N9	8.88	115.30	108.20
32	S1	137	A	OP1-P-OP2	-8.88	106.29	119.60
33	L1	1496	G	N9-C1'-C2'	-8.88	102.24	112.00
33	L1	2748	G	C1'-O4'-C4'	8.88	117.00	109.90
35	L2	46	G	C5'-C4'-C3'	-8.87	101.80	116.00
33	L1	809	A	N9-C1'-C2'	-8.87	102.24	112.00
32	S1	119	U	N1-C1'-C2'	8.87	125.53	114.00
33	L1	511	C	O4'-C1'-N1	8.87	115.30	108.20
33	L1	722	C	P-O5'-C5'	8.87	135.09	120.90
35	L2	34	C	N1-C1'-C2'	-8.87	102.24	112.00
43	LO	42	ARG	NE-CZ-NH1	8.87	124.74	120.30
33	L1	2518	A	O4'-C4'-C3'	-8.87	95.13	104.00
33	L1	2658	U	O4'-C1'-N1	8.87	115.30	108.20
33	L1	2184	U	O4'-C1'-N1	8.87	115.30	108.20
33	L1	3353	G	C5'-C4'-O4'	8.87	119.74	109.10
13	SQ	66	VAL	N-CA-C	8.87	134.94	111.00
32	S1	947	G	O4'-C1'-C2'	8.87	115.58	107.60
33	L1	1134	G	C2'-C3'-O3'	8.87	129.00	109.50
33	L1	2302	G	C3'-C2'-C1'	8.87	108.59	101.50
34	L3	98	G	O4'-C1'-N9	8.87	115.29	108.20
33	L1	141	C	C1'-O4'-C4'	-8.86	102.81	109.90
38	LE	2	SER	C-N-CA	8.86	143.85	121.70
32	S1	344	U	O4'-C1'-N1	8.86	115.29	108.20
33	L1	209	G	C1'-O4'-C4'	-8.86	102.81	109.90
33	L1	2390	G	O4'-C1'-C2'	8.86	115.57	107.60
33	L1	2803	A	O4'-C1'-N9	8.86	115.29	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	LS	120	PHE	N-CA-CB	8.86	126.55	110.60
31	S2	6	G	C1'-O4'-C4'	-8.86	102.81	109.90
32	S1	1226	U	C4'-C3'-C2'	-8.86	93.74	102.60
33	L1	72	A	P-O3'-C3'	8.86	130.33	119.70
33	L1	507	C	O4'-C1'-N1	-8.86	101.11	108.20
33	L1	3296	C	C3'-C2'-C1'	-8.86	94.42	101.50
35	L2	40	G	C3'-C2'-C1'	-8.86	94.42	101.50
32	S1	1317	A	N9-C1'-C2'	-8.85	102.26	112.00
33	L1	1057	A	C1'-O4'-C4'	8.85	116.98	109.90
32	S1	963	U	O4'-C1'-N1	8.85	115.28	108.20
32	S1	1027	C	C3'-C2'-C1'	8.85	108.58	101.50
33	L1	2771	U	N1-C1'-C2'	-8.85	102.26	112.00
33	L1	3249	G	O4'-C1'-N9	8.85	115.28	108.20
32	S1	364	A	C5'-C4'-C3'	8.85	130.16	116.00
32	S1	1199	C	C3'-C2'-C1'	8.85	108.58	101.50
33	L1	1957	G	O4'-C1'-N9	8.85	115.28	108.20
33	L1	2204	U	C5'-C4'-O4'	-8.85	98.48	109.10
33	L1	3307	A	C3'-C2'-C1'	8.85	108.58	101.50
33	L1	693	C	C3'-C2'-C1'	8.85	108.58	101.50
35	L2	29	G	C3'-C2'-C1'	-8.85	94.42	101.50
32	S1	513	G	N9-C1'-C2'	8.84	125.50	114.00
33	L1	1843	A	P-O3'-C3'	8.84	130.31	119.70
33	L1	2807	G	O4'-C1'-C2'	8.84	115.56	107.60
33	L1	2941	G	O4'-C1'-C2'	8.84	115.56	107.60
51	LY	125	ARG	NH1-CZ-NH2	-8.84	109.67	119.40
32	S1	1116	G	N9-C1'-C2'	8.84	125.49	114.00
32	S1	452	C	O4'-C1'-N1	8.84	115.27	108.20
1	Sa	251	ASP	CB-CA-C	-8.84	92.72	110.40
32	S1	550	U	O4'-C1'-N1	8.84	115.27	108.20
33	L1	1280	U	O4'-C1'-N1	8.84	115.27	108.20
30	S3	12	A	OP1-P-OP2	-8.84	106.35	119.60
33	L1	1504	U	N1-C1'-C2'	8.83	125.48	114.00
33	L1	2437	A	N9-C1'-C2'	8.83	125.48	114.00
3	SB	34	TYR	CB-CG-CD1	-8.83	115.70	121.00
23	SU	78	PHE	CA-CB-CG	8.83	135.09	113.90
33	L1	1351	C	O4'-C1'-N1	8.83	115.27	108.20
33	L1	3295	G	O4'-C1'-C2'	8.83	115.55	107.60
32	S1	643	U	O4'-C1'-N1	8.83	115.26	108.20
33	L1	2783	U	O4'-C1'-C2'	-8.83	96.97	105.80
32	S1	377	G	C1'-O4'-C4'	-8.83	102.84	109.90
32	S1	1281	G	O4'-C1'-N9	8.83	115.26	108.20
33	L1	2109	G	P-O3'-C3'	8.83	130.29	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1382	C	O4'-C1'-N1	8.82	115.26	108.20
32	S1	1651	U	O4'-C1'-C2'	8.82	115.54	107.60
33	L1	1415	G	O4'-C1'-N9	8.82	115.26	108.20
33	L1	2809	U	P-O3'-C3'	-8.82	109.11	119.70
37	LB	252	ALA	C-N-CA	8.82	143.76	121.70
45	LQ	143	ARG	N-CA-CB	8.82	126.48	110.60
48	LV	83	ARG	NE-CZ-NH1	-8.82	115.89	120.30
33	L1	1574	C	C3'-C2'-C1'	8.82	108.56	101.50
32	S1	111	U	O4'-C1'-N1	8.82	115.25	108.20
33	L1	1532	A	O4'-C1'-N9	8.82	115.25	108.20
33	L1	689	G	C3'-C2'-C1'	-8.82	94.45	101.50
32	S1	1760	A	O4'-C1'-C2'	-8.82	96.98	105.80
33	L1	1949	G	C1'-O4'-C4'	8.82	116.95	109.90
25	SC	128	ARG	NE-CZ-NH2	8.81	124.71	120.30
25	SC	65	ASP	CB-CA-C	8.81	128.03	110.40
33	L1	649	A	O4'-C1'-N9	-8.81	101.15	108.20
33	L1	1215	U	N1-C1'-C2'	8.81	125.46	114.00
33	L1	1563	G	P-O3'-C3'	8.81	130.28	119.70
33	L1	1575	G	O3'-P-O5'	8.81	120.75	104.00
32	S1	597	U	O4'-C1'-N1	8.81	115.25	108.20
33	L1	3207	C	C1'-O4'-C4'	-8.81	102.85	109.90
35	L2	130	A	O4'-C1'-N9	8.81	115.25	108.20
33	L1	1855	A	O4'-C1'-N9	8.81	115.25	108.20
33	L1	2789	G	C3'-C2'-C1'	-8.81	94.45	101.50
31	S2	41	G	C3'-C2'-C1'	-8.81	94.45	101.50
33	L1	24	C	O4'-C1'-N1	8.81	115.25	108.20
33	L1	342	A	P-O3'-C3'	-8.81	109.13	119.70
33	L1	763	G	O4'-C1'-N9	-8.81	101.15	108.20
4	SD	205	PHE	CB-CG-CD2	8.81	126.97	120.80
7	SI	128	ARG	NE-CZ-NH2	-8.80	115.90	120.30
33	L1	969	U	C5'-C4'-C3'	-8.81	101.91	116.00
33	L1	1518	A	C3'-C2'-C1'	8.81	108.55	101.50
33	L1	1650	G	C3'-C2'-C1'	8.81	108.55	101.50
32	S1	14	C	C1'-O4'-C4'	-8.80	102.86	109.90
32	S1	1663	A	P-O5'-C5'	8.80	134.99	120.90
33	L1	13	G	C1'-O4'-C4'	-8.80	102.86	109.90
33	L1	1207	A	C1'-O4'-C4'	-8.80	102.86	109.90
33	L1	2177	U	O4'-C1'-N1	8.80	115.24	108.20
7	SI	32	ARG	N-CA-CB	8.80	126.44	110.60
32	S1	1665	U	N1-C1'-C2'	8.80	125.44	114.00
33	L1	1174	G	O4'-C1'-N9	8.80	115.24	108.20
33	L1	2839	A	O4'-C1'-N9	8.80	115.24	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3347	U	P-O5'-C5'	8.80	134.98	120.90
34	L3	86	G	O4'-C1'-N9	8.80	115.24	108.20
33	L1	723	G	C5'-C4'-C3'	8.80	130.08	116.00
33	L1	869	A	O4'-C1'-N9	8.80	115.24	108.20
42	LP	71	ARG	NE-CZ-NH1	8.80	124.70	120.30
33	L1	2708	A	P-O3'-C3'	8.80	130.26	119.70
33	L1	3049	A	C3'-C2'-C1'	8.80	108.54	101.50
33	L1	312	U	C1'-O4'-C4'	-8.79	102.86	109.90
33	L1	1242	U	C3'-C2'-C1'	-8.79	94.47	101.50
84	LI	109	ASP	CB-CG-OD2	-8.79	110.39	118.30
1	Sa	215	SER	N-CA-CB	8.79	123.69	110.50
32	S1	1452	A	OP1-P-OP2	-8.79	106.41	119.60
33	L1	1651	A	O4'-C1'-N9	-8.79	101.17	108.20
60	Lr	87	ARG	NE-CZ-NH1	8.79	124.70	120.30
6	SF	144	ASN	CB-CA-C	-8.79	92.83	110.40
27	SH	78	ARG	CA-C-N	8.79	136.53	117.20
33	L1	842	C	C3'-C2'-C1'	8.79	108.53	101.50
33	L1	3090	C	N1-C1'-C2'	8.79	125.42	114.00
33	L1	231	C	C3'-C2'-C1'	8.79	108.53	101.50
69	La	27	ARG	NE-CZ-NH2	-8.79	115.91	120.30
23	SU	70	PHE	N-CA-C	-8.78	87.29	111.00
32	S1	871	G	OP1-P-OP2	-8.78	106.43	119.60
33	L1	975	G	N9-C1'-C2'	-8.78	102.34	112.00
33	L1	2744	C	N1-C1'-C2'	8.78	125.42	114.00
33	L1	3096	U	P-O5'-C5'	8.78	134.95	120.90
2	SA	45	ARG	N-CA-C	8.78	134.71	111.00
3	SB	148	LYS	O-C-N	-8.78	108.65	122.70
25	SC	164	SER	O-C-N	-8.78	104.42	121.10
33	L1	2590	C	C3'-C2'-C1'	8.78	108.52	101.50
32	S1	926	G	O4'-C1'-N9	8.78	115.22	108.20
32	S1	1797	C	N1-C1'-C2'	8.78	125.41	114.00
33	L1	3216	G	N9-C1'-C2'	-8.78	102.34	112.00
41	LM	68	GLY	CA-C-O	-8.78	104.80	120.60
32	S1	1464	G	OP1-P-OP2	-8.78	106.44	119.60
32	S1	189	U	P-O3'-C3'	8.78	130.23	119.70
33	L1	671	C	C1'-O4'-C4'	-8.78	102.88	109.90
33	L1	1312	A	P-O3'-C3'	8.78	130.23	119.70
33	L1	3122	U	C1'-O4'-C4'	-8.78	102.88	109.90
32	S1	1483	G	O4'-C1'-C2'	8.77	115.50	107.60
33	L1	357	C	O4'-C1'-N1	8.77	115.22	108.20
32	S1	118	U	O4'-C1'-N1	8.77	115.22	108.20
33	L1	3168	C	O4'-C1'-C2'	-8.77	97.03	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	Lm	1	MET	CG-SD-CE	-8.77	86.16	100.20
83	Lm	7	LYS	N-CA-CB	8.77	126.39	110.60
33	L1	1350	G	N9-C1'-C2'	-8.77	102.35	112.00
23	SU	33	LEU	CB-CG-CD1	8.77	125.91	111.00
32	S1	1261	U	N1-C1'-C2'	-8.77	102.36	112.00
33	L1	988	G	O4'-C1'-N9	8.77	115.22	108.20
32	S1	38	C	C3'-C2'-C1'	8.77	108.51	101.50
32	S1	1004	U	OP2-P-O3'	8.77	124.48	105.20
33	L1	2113	A	P-O3'-C3'	8.77	130.22	119.70
40	LH	76	PHE	CB-CG-CD1	-8.77	114.66	120.80
32	S1	391	A	C1'-O4'-C4'	8.76	116.91	109.90
23	SU	25	ARG	N-CA-C	8.76	134.66	111.00
32	S1	1196	C	N1-C1'-C2'	8.76	125.39	114.00
33	L1	1066	G	O4'-C1'-N9	8.76	115.21	108.20
33	L1	1944	G	O4'-C1'-N9	8.76	115.21	108.20
33	L1	2106	U	C1'-O4'-C4'	-8.76	102.89	109.90
10	SL	120	LYS	CA-C-N	8.76	136.47	117.20
23	SU	24	SER	CA-C-N	-8.76	97.93	117.20
27	SH	120	ASN	CB-CA-C	8.76	127.92	110.40
32	S1	278	C	O4'-C1'-N1	8.76	115.21	108.20
32	S1	1183	G	C5'-C4'-C3'	8.76	130.02	116.00
32	S1	1517	C	O4'-C1'-C2'	-8.76	97.04	105.80
64	LG	62	SER	CB-CA-C	8.76	126.75	110.10
33	L1	3084	G	C3'-C2'-C1'	-8.76	94.49	101.50
35	L2	89	G	C1'-O4'-C4'	-8.76	102.89	109.90
27	SH	121	VAL	CG1-CB-CG2	-8.76	96.89	110.90
32	S1	1	U	OP1-P-OP2	-8.76	106.46	119.60
32	S1	1753	U	C5'-C4'-C3'	8.76	130.01	116.00
33	L1	3100	C	C1'-O4'-C4'	8.76	116.91	109.90
32	S1	1550	G	O4'-C1'-N9	8.76	115.20	108.20
33	L1	1664	G	C3'-C2'-C1'	8.76	108.50	101.50
34	L3	25	G	O5'-C5'-C4'	-8.76	95.06	111.70
32	S1	942	C	O4'-C1'-N1	8.75	115.20	108.20
32	S1	127	G	C3'-C2'-C1'	8.75	108.50	101.50
33	L1	3109	G	C3'-C2'-C1'	-8.75	94.50	101.50
33	L1	299	G	C1'-O4'-C4'	8.75	116.90	109.90
33	L1	2850	G	C1'-O4'-C4'	-8.75	102.90	109.90
33	L1	641	C	O4'-C4'-C3'	-8.75	95.25	104.00
33	L1	2134	U	P-O3'-C3'	8.75	130.20	119.70
33	L1	2176	A	O4'-C1'-C2'	-8.75	97.05	105.80
32	S1	220	C	P-O5'-C5'	8.75	134.90	120.90
29	ST	15	ARG	NE-CZ-NH2	8.75	124.67	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	109	G	C1'-O4'-C4'	8.75	116.90	109.90
33	L1	771	G	O4'-C1'-N9	8.75	115.20	108.20
33	L1	627	G	N9-C1'-C2'	8.75	125.37	114.00
33	L1	3334	A	C4'-C3'-C2'	-8.75	93.85	102.60
4	SD	148	ARG	NE-CZ-NH2	-8.74	115.93	120.30
32	S1	1073	C	O4'-C1'-N1	8.74	115.19	108.20
33	L1	1853	C	O4'-C1'-N1	8.74	115.20	108.20
33	L1	1893	G	C3'-C2'-C1'	-8.74	94.50	101.50
33	L1	2951	U	O4'-C1'-N1	8.74	115.19	108.20
33	L1	3065	U	OP1-P-OP2	-8.74	106.48	119.60
32	S1	377	G	P-O5'-C5'	8.74	134.89	120.90
32	S1	1728	G	OP2-P-O3'	-8.74	85.97	105.20
33	L1	2469	C	C3'-C2'-C1'	8.74	108.49	101.50
23	SU	68	THR	C-N-CA	-8.74	99.85	121.70
33	L1	995	C	P-O5'-C5'	-8.74	106.92	120.90
46	LT	74	ARG	NE-CZ-NH2	-8.74	115.93	120.30
79	Ls	249	LYS	CB-CA-C	-8.74	92.92	110.40
82	LK	79	ARG	NE-CZ-NH1	8.74	124.67	120.30
25	SC	106	PHE	N-CA-CB	8.74	126.33	110.60
32	S1	113	A	O4'-C1'-N9	8.74	115.19	108.20
33	L1	1255	A	O4'-C1'-C2'	8.74	115.46	107.60
33	L1	3347	U	C3'-C2'-C1'	8.74	108.49	101.50
35	L2	40	G	C1'-O4'-C4'	-8.74	102.91	109.90
35	L2	58	A	P-O3'-C3'	8.74	130.18	119.70
33	L1	519	C	N1-C1'-C2'	8.73	125.36	114.00
1	Sa	234	ASP	CB-CG-OD2	-8.73	110.44	118.30
31	S2	18	G	O4'-C1'-C2'	8.73	115.46	107.60
32	S1	1677	U	O4'-C1'-N1	8.73	115.19	108.20
33	L1	1914	C	C3'-C2'-C1'	8.73	108.49	101.50
33	L1	2201	G	O4'-C1'-C2'	-8.73	97.07	105.80
33	L1	2772	A	C5'-C4'-C3'	-8.73	102.03	116.00
33	L1	3365	U	O4'-C1'-C2'	-8.73	97.06	105.80
35	L2	145	C	C1'-O4'-C4'	8.73	116.89	109.90
32	S1	970	U	O4'-C1'-N1	8.73	115.19	108.20
33	L1	1610	A	O4'-C1'-N9	8.73	115.18	108.20
32	S1	1155	G	O4'-C1'-C2'	8.73	115.46	107.60
33	L1	3288	A	P-O3'-C3'	-8.73	109.22	119.70
57	L1	2	GLY	N-CA-C	8.73	134.92	113.10
31	S2	69	G	O4'-C1'-N9	8.73	115.18	108.20
33	L1	3002	U	C3'-C2'-C1'	-8.73	94.52	101.50
33	L1	684	C	C1'-O4'-C4'	8.72	116.88	109.90
33	L1	1754	C	O4'-C1'-C2'	-8.72	97.08	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1671	G	O4'-C1'-N9	8.72	115.18	108.20
33	L1	2729	C	OP1-P-OP2	-8.72	106.51	119.60
32	S1	1445	C	P-O3'-C3'	8.72	130.17	119.70
32	S1	1799	G	P-O3'-C3'	-8.72	109.23	119.70
33	L1	240	U	N1-C1'-C2'	8.72	125.34	114.00
60	Lr	61	LYS	CA-C-N	8.72	136.38	117.20
32	S1	1542	G	P-O5'-C5'	8.72	134.85	120.90
32	S1	1747	A	O4'-C1'-N9	8.72	115.17	108.20
33	L1	1776	G	O4'-C1'-C2'	8.72	115.45	107.60
33	L1	3355	U	O4'-C1'-C2'	-8.72	97.08	105.80
33	L1	381	G	N9-C1'-C2'	-8.72	102.41	112.00
33	L1	755	C	P-O5'-C5'	8.71	134.84	120.90
33	L1	2918	U	P-O3'-C3'	-8.71	109.24	119.70
71	Lj	8	ARG	CA-C-N	8.71	136.37	117.20
2	SA	43	TYR	CB-CG-CD1	8.71	126.23	121.00
33	L1	308	U	C5'-C4'-C3'	8.71	129.94	116.00
34	L3	56	G	P-O3'-C3'	-8.71	109.25	119.70
32	S1	188	U	O4'-C1'-N1	8.71	115.17	108.20
32	S1	871	G	O4'-C1'-N9	8.71	115.17	108.20
33	L1	1541	G	O4'-C1'-C2'	8.71	115.44	107.60
33	L1	1877	G	O4'-C1'-N9	8.71	115.17	108.20
33	L1	781	C	O4'-C1'-C2'	-8.71	97.09	105.80
33	L1	1011	U	O4'-C1'-N1	8.71	115.17	108.20
32	S1	962	G	O4'-C1'-N9	8.71	115.16	108.20
33	L1	2997	C	P-O3'-C3'	8.70	130.14	119.70
35	L2	127	G	O4'-C1'-N9	8.70	115.16	108.20
36	LA	12	ALA	CB-CA-C	8.70	123.15	110.10
32	S1	1283	C	O4'-C1'-N1	8.70	115.16	108.20
33	L1	644	U	O4'-C1'-N1	8.70	115.16	108.20
33	L1	1348	G	N9-C1'-C2'	8.70	125.31	114.00
11	SM	133	GLY	N-CA-C	8.70	134.84	113.10
31	S2	44	A	O4'-C1'-N9	8.70	115.16	108.20
32	S1	646	G	O4'-C1'-N9	8.70	115.16	108.20
32	S1	791	C	P-O3'-C3'	8.70	130.13	119.70
32	S1	919	G	C5'-C4'-C3'	8.70	129.91	116.00
33	L1	887	A	N9-C1'-C2'	-8.70	102.43	112.00
33	L1	3227	U	N1-C1'-C2'	-8.70	102.43	112.00
4	SD	167	ASN	C-N-CA	-8.69	99.97	121.70
32	S1	1169	G	N9-C1'-C2'	-8.70	102.44	112.00
31	S2	52	G	C1'-O4'-C4'	-8.69	102.95	109.90
33	L1	1673	A	O4'-C1'-C2'	8.69	115.42	107.60
32	S1	272	G	C1'-O4'-C4'	-8.69	102.95	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1117	G	C3'-C2'-C1'	-8.69	94.55	101.50
33	L1	23	A	P-O3'-C3'	-8.69	109.27	119.70
33	L1	521	G	OP1-P-O3'	-8.69	86.08	105.20
33	L1	2375	G	C3'-C2'-C1'	8.69	108.45	101.50
57	L1	21	ARG	NE-CZ-NH1	-8.69	115.95	120.30
11	SM	92	ASP	CA-CB-CG	8.69	132.51	113.40
32	S1	904	G	C3'-C2'-C1'	8.69	108.45	101.50
33	L1	2544	C	C1'-O4'-C4'	-8.69	102.95	109.90
33	L1	232	C	N1-C1'-C2'	8.69	125.30	114.00
33	L1	3021	U	C5'-C4'-C3'	8.69	129.90	116.00
33	L1	3390	G	C3'-C2'-C1'	8.69	108.45	101.50
35	L2	136	G	O4'-C1'-C2'	-8.69	97.11	105.80
33	L1	328	G	O4'-C1'-N9	8.69	115.15	108.20
33	L1	1056	U	N1-C1'-C2'	8.69	125.29	114.00
33	L1	1559	G	P-O3'-C3'	8.69	130.12	119.70
69	La	29	PHE	CA-CB-CG	8.69	134.75	113.90
33	L1	2906	U	O4'-C1'-C2'	8.69	115.42	107.60
67	LS	165	LEU	CB-CA-C	8.68	126.70	110.20
33	L1	1237	G	C1'-O4'-C4'	-8.68	102.95	109.90
33	L1	2376	G	C1'-O4'-C4'	8.68	116.84	109.90
33	L1	1618	U	C1'-O4'-C4'	-8.68	102.96	109.90
74	LJ	14	PHE	CB-CG-CD2	8.68	126.88	120.80
78	Le	57	TYR	CB-CG-CD1	8.68	126.21	121.00
32	S1	1189	U	O4'-C1'-N1	8.68	115.14	108.20
33	L1	430	G	C3'-C2'-C1'	-8.68	94.56	101.50
33	L1	1700	U	O4'-C1'-N1	8.68	115.14	108.20
45	LQ	183	PHE	N-CA-CB	-8.68	94.98	110.60
25	SC	164	SER	CB-CA-C	-8.68	93.61	110.10
32	S1	300	U	N1-C1'-C2'	-8.68	102.46	112.00
33	L1	334	A	C1'-O4'-C4'	-8.68	102.96	109.90
33	L1	684	C	O4'-C1'-C2'	-8.68	97.12	105.80
81	LD	313	GLU	OE1-CD-OE2	-8.68	112.89	123.30
32	S1	1751	U	O4'-C1'-N1	8.67	115.14	108.20
33	L1	307	C	O3'-P-O5'	-8.67	87.52	104.00
33	L1	1638	U	N1-C1'-C2'	-8.67	102.46	112.00
33	L1	3215	U	N1-C1'-C2'	-8.67	102.46	112.00
74	LJ	58	ARG	NE-CZ-NH2	-8.67	115.96	120.30
10	SL	116	GLY	CA-C-N	-8.67	98.12	117.20
32	S1	505	U	P-O3'-C3'	8.67	130.10	119.70
33	L1	69	U	P-O3'-C3'	8.67	130.10	119.70
33	L1	1344	A	O4'-C1'-C2'	-8.67	97.13	105.80
32	S1	1662	G	O4'-C1'-N9	8.67	115.14	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1483	G	O4'-C1'-N9	8.67	115.14	108.20
33	L1	1675	G	C1'-O4'-C4'	8.67	116.83	109.90
35	L2	24	U	C1'-O4'-C4'	-8.67	102.97	109.90
33	L1	1066	G	C3'-C2'-C1'	-8.67	94.56	101.50
33	L1	1425	G	O4'-C1'-N9	8.67	115.14	108.20
33	L1	101	C	P-O3'-C3'	8.67	130.10	119.70
36	LA	83	TYR	CA-CB-CG	-8.67	96.93	113.40
80	LC	116	ARG	NE-CZ-NH1	-8.67	115.97	120.30
32	S1	161	G	C3'-C2'-C1'	8.66	108.43	101.50
32	S1	1084	U	O4'-C1'-C2'	-8.66	97.14	105.80
32	S1	416	A	N9-C1'-C2'	-8.66	102.47	112.00
33	L1	159	G	P-O5'-C5'	-8.66	107.04	120.90
33	L1	1254	A	C1'-O4'-C4'	8.66	116.83	109.90
33	L1	1131	U	O4'-C1'-N1	-8.66	101.27	108.20
33	L1	2595	G	C3'-C2'-C1'	8.66	108.43	101.50
33	L1	2792	A	O4'-C1'-C2'	8.66	115.40	107.60
31	S2	45	G	O4'-C1'-C2'	-8.66	97.14	105.80
33	L1	8	C	O4'-C1'-N1	8.66	115.13	108.20
1	Sa	16	ALA	CA-C-N	-8.66	98.16	117.20
32	S1	150	U	N1-C1'-C2'	-8.66	102.48	112.00
34	L3	9	U	O4'-C1'-N1	8.66	115.13	108.20
70	Li	110	GLN	CA-C-N	8.66	136.25	117.20
33	L1	798	G	O4'-C1'-N9	8.65	115.12	108.20
33	L1	1508	C	P-O3'-C3'	8.65	130.09	119.70
10	SL	120	LYS	C-N-CA	8.65	143.33	121.70
32	S1	195	A	P-O3'-C3'	8.65	130.08	119.70
33	L1	527	G	O4'-C1'-C2'	-8.65	97.15	105.80
45	LQ	199	ILE	N-CA-CB	8.65	130.70	110.80
2	SA	200	ASP	N-CA-C	8.65	134.36	111.00
32	S1	148	C	P-O5'-C5'	8.65	134.74	120.90
33	L1	381	G	O4'-C1'-C2'	-8.65	97.15	105.80
33	L1	2796	G	O4'-C1'-N9	8.65	115.12	108.20
33	L1	2392	G	O4'-C1'-N9	8.65	115.12	108.20
34	L3	119	C	P-O3'-C3'	8.65	130.08	119.70
80	LC	351	SER	N-CA-CB	8.65	123.47	110.50
83	Lm	14	TYR	CB-CG-CD2	-8.65	115.81	121.00
31	S2	6	G	O4'-C1'-C2'	8.65	115.38	107.60
33	L1	249	A	O4'-C1'-N9	8.65	115.12	108.20
33	L1	406	A	P-O3'-C3'	8.65	130.08	119.70
33	L1	1449	A	C3'-C2'-C1'	8.65	108.42	101.50
33	L1	1565	G	C5'-C4'-C3'	-8.65	102.16	116.00
25	SC	163	THR	CB-CA-C	-8.65	88.26	111.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	S2	27	G	O4'-C1'-N9	8.65	115.12	108.20
33	L1	2166	U	C1'-O4'-C4'	-8.65	102.98	109.90
33	L1	2690	G	P-O3'-C3'	8.65	130.08	119.70
33	L1	2093	G	O4'-C1'-C2'	8.64	115.38	107.60
28	SN	22	ARG	N-CA-CB	-8.64	95.05	110.60
31	S2	32	U	O4'-C1'-N1	8.64	115.11	108.20
32	S1	164	C	N1-C1'-C2'	8.64	125.23	114.00
32	S1	614	G	O4'-C1'-C2'	8.64	115.38	107.60
32	S1	208	U	P-O3'-C3'	8.64	130.07	119.70
33	L1	2230	C	P-O3'-C3'	-8.64	109.33	119.70
33	L1	2230	C	C1'-O4'-C4'	-8.64	102.99	109.90
27	SH	121	VAL	CA-CB-CG1	8.64	123.86	110.90
32	S1	484	A	C1'-O4'-C4'	-8.64	102.99	109.90
33	L1	607	U	C3'-C2'-C1'	-8.64	94.59	101.50
33	L1	1608	C	C3'-C2'-C1'	8.64	108.41	101.50
33	L1	2619	C	C3'-C2'-C1'	8.64	108.41	101.50
39	LF	36	ARG	NH1-CZ-NH2	-8.64	109.90	119.40
33	L1	87	A	O4'-C1'-N9	8.64	115.11	108.20
33	L1	1060	U	C5'-C4'-O4'	8.63	119.46	109.10
33	L1	3042	U	C1'-O4'-C4'	8.64	116.81	109.90
33	L1	1083	C	N1-C1'-C2'	-8.63	102.50	112.00
33	L1	1239	U	N1-C1'-C2'	8.63	125.23	114.00
67	LS	28	ARG	CB-CA-C	-8.63	93.13	110.40
32	S1	1418	G	O4'-C1'-N9	8.63	115.11	108.20
33	L1	1	G	OP1-P-OP2	-8.63	106.65	119.60
33	L1	2569	G	C3'-C2'-C1'	-8.63	94.59	101.50
33	L1	3306	A	C4'-C3'-C2'	-8.63	93.97	102.60
37	LB	87	PHE	CB-CG-CD2	-8.63	114.76	120.80
33	L1	2441	G	C3'-C2'-C1'	-8.63	94.60	101.50
3	SB	44	MET	CG-SD-CE	-8.63	86.40	100.20
33	L1	1527	A	O4'-C1'-C2'	-8.63	97.17	105.80
33	L1	257	C	N1-C1'-C2'	8.62	125.21	114.00
33	L1	545	C	N1-C1'-C2'	8.62	125.21	114.00
33	L1	1785	G	C1'-O4'-C4'	-8.62	103.00	109.90
33	L1	2931	C	O4'-C1'-N1	8.63	115.10	108.20
47	LU	155	ASP	N-CA-CB	-8.62	95.08	110.60
33	L1	767	U	O4'-C1'-N1	8.62	115.10	108.20
33	L1	1948	G	P-O3'-C3'	8.62	130.05	119.70
66	LN	48	ILE	CB-CA-C	8.62	128.85	111.60
69	La	22	LYS	CB-CA-C	8.62	127.64	110.40
32	S1	119	U	O4'-C1'-N1	8.62	115.09	108.20
32	S1	501	U	O3'-P-O5'	-8.62	87.62	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	338	C	C1'-O4'-C4'	-8.62	103.00	109.90
33	L1	1651	A	N9-C1'-C2'	8.62	125.20	114.00
32	S1	947	G	O4'-C1'-N9	8.61	115.09	108.20
32	S1	1067	A	C3'-C2'-C1'	8.62	108.39	101.50
33	L1	1253	G	C3'-C2'-C1'	-8.62	94.61	101.50
33	L1	1775	C	P-O3'-C3'	-8.61	109.36	119.70
33	L1	2684	U	C1'-O4'-C4'	-8.61	103.01	109.90
33	L1	2846	C	C3'-C2'-C1'	8.61	108.39	101.50
35	L2	159	U	O4'-C1'-N1	8.61	115.09	108.20
3	SB	31	GLU	N-CA-CB	8.61	126.10	110.60
33	L1	855	U	O4'-C1'-N1	8.61	115.09	108.20
32	S1	512	U	O3'-P-O5'	-8.61	87.64	104.00
40	LH	130	TYR	CB-CG-CD1	-8.61	115.83	121.00
64	LG	26	TRP	CA-C-N	8.61	136.14	117.20
33	L1	14	U	O4'-C1'-N1	8.61	115.08	108.20
33	L1	1211	G	C1'-O4'-C4'	8.61	116.79	109.90
33	L1	785	U	P-O5'-C5'	8.61	134.67	120.90
33	L1	2117	G	O4'-C1'-N9	8.60	115.08	108.20
35	L2	145	C	O4'-C1'-C2'	-8.60	97.20	105.80
32	S1	371	A	N9-C1'-C2'	-8.60	102.54	112.00
32	S1	1714	G	C3'-C2'-C1'	-8.60	94.62	101.50
35	L2	65	A	C4'-C3'-C2'	8.60	111.20	102.60
32	S1	623	A	C3'-C2'-C1'	8.60	108.38	101.50
33	L1	601	G	C1'-O4'-C4'	-8.60	103.02	109.90
42	LP	62	TYR	CB-CG-CD2	-8.60	115.84	121.00
64	LG	87	ARG	NE-CZ-NH1	8.60	124.60	120.30
81	LD	336	TYR	CB-CG-CD1	8.60	126.16	121.00
32	S1	1438	U	P-O3'-C3'	8.60	130.02	119.70
33	L1	316	A	O4'-C1'-N9	8.60	115.08	108.20
33	L1	2772	A	C1'-O4'-C4'	-8.60	103.02	109.90
32	S1	301	U	N1-C1'-C2'	8.60	125.17	114.00
32	S1	1201	C	O4'-C1'-C2'	-8.60	97.20	105.80
33	L1	238	C	O4'-C1'-C2'	-8.60	97.20	105.80
33	L1	1260	G	N9-C1'-C2'	8.60	125.18	114.00
33	L1	2579	G	O4'-C1'-C2'	8.60	115.34	107.60
81	LD	150	THR	C-N-CA	8.60	143.19	121.70
32	S1	1608	A	C1'-O4'-C4'	8.60	116.78	109.90
33	L1	1699	C	N1-C1'-C2'	8.60	125.17	114.00
33	L1	2375	G	O4'-C1'-C2'	-8.60	97.20	105.80
1	Sa	66	SER	N-CA-CB	-8.59	97.61	110.50
32	S1	1037	G	N9-C1'-C2'	8.59	125.17	114.00
33	L1	310	C	C3'-C2'-C1'	8.59	108.38	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	869	A	C1'-O4'-C4'	-8.59	103.03	109.90
33	L1	2562	A	C1'-O4'-C4'	8.59	116.77	109.90
71	Lj	1	MET	CA-C-N	-8.59	98.30	117.20
32	S1	289	G	C1'-O4'-C4'	-8.59	103.03	109.90
32	S1	1425	G	N9-C1'-C2'	8.59	125.17	114.00
32	S1	1632	C	N1-C1'-C2'	8.59	125.16	114.00
33	L1	2162	C	C3'-C2'-C1'	8.59	108.37	101.50
33	L1	2530	G	C1'-O4'-C4'	-8.59	103.03	109.90
33	L1	3187	C	P-O3'-C3'	8.59	130.00	119.70
32	S1	358	C	C3'-C2'-C1'	8.58	108.37	101.50
33	L1	3016	C	C4'-C3'-C2'	-8.58	94.02	102.60
34	L3	3	A	O4'-C1'-N9	-8.58	101.33	108.20
32	S1	18	C	C3'-C2'-C1'	8.58	108.36	101.50
33	L1	1882	A	O4'-C1'-N9	8.58	115.06	108.20
66	LN	104	ASP	N-CA-CB	-8.58	95.15	110.60
33	L1	857	G	O3'-P-O5'	-8.58	87.70	104.00
34	L3	81	G	O4'-C1'-N9	8.58	115.06	108.20
64	LG	186	ALA	N-CA-CB	8.58	122.11	110.10
32	S1	1622	A	O4'-C1'-N9	8.58	115.06	108.20
33	L1	1099	G	P-O3'-C3'	8.58	129.99	119.70
33	L1	2707	A	O4'-C1'-C2'	8.58	115.32	107.60
9	SK	134	VAL	N-CA-C	-8.57	87.85	111.00
32	S1	1201	C	C5'-C4'-O4'	8.57	119.39	109.10
33	L1	734	C	C3'-C2'-C1'	8.57	108.36	101.50
34	L3	14	C	O4'-C1'-N1	8.57	115.06	108.20
80	LC	160	VAL	CA-CB-CG1	8.57	123.76	110.90
31	S2	13	U	N1-C1'-C2'	-8.57	102.57	112.00
33	L1	2441	G	N9-C1'-C2'	-8.57	102.57	112.00
33	L1	2992	G	C3'-C2'-C1'	-8.57	94.64	101.50
32	S1	128	G	N9-C1'-C2'	-8.57	102.57	112.00
32	S1	692	C	C3'-C2'-C1'	8.57	108.36	101.50
33	L1	2613	G	C1'-O4'-C4'	8.57	116.76	109.90
33	L1	2955	U	C5'-C4'-O4'	8.57	119.39	109.10
35	L2	49	C	N1-C1'-C2'	8.57	125.14	114.00
46	LT	136	ARG	CA-C-N	8.57	136.06	117.20
33	L1	1707	C	C3'-C2'-C1'	-8.57	94.64	101.50
33	L1	3333	C	N1-C1'-C2'	8.57	125.14	114.00
38	LE	126	GLY	CA-C-N	-8.57	98.34	117.20
49	LX	52	ARG	NE-CZ-NH1	-8.57	116.02	120.30
33	L1	971	G	C5'-C4'-C3'	8.57	129.71	116.00
35	L2	66	C	C1'-O4'-C4'	-8.57	103.05	109.90
49	LX	34	LYS	N-CA-C	8.57	134.13	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	L3	56	G	N9-C1'-C2'	8.56	125.13	114.00
33	L1	73	A	C1'-O4'-C4'	8.56	116.75	109.90
33	L1	918	A	C1'-O4'-C4'	-8.56	103.05	109.90
32	S1	1506	G	OP1-P-O3'	8.56	124.03	105.20
33	L1	228	C	O4'-C1'-N1	8.56	115.05	108.20
51	LY	120	ARG	NE-CZ-NH1	8.56	124.58	120.30
33	L1	1976	U	O4'-C1'-N1	8.56	115.05	108.20
33	L1	2438	A	C1'-O4'-C4'	-8.56	103.05	109.90
33	L1	2351	A	O4'-C1'-N9	8.56	115.05	108.20
35	L2	67	C	N1-C1'-C2'	8.56	125.13	114.00
32	S1	1698	A	O4'-C1'-C2'	-8.56	97.24	105.80
32	S1	1353	G	C3'-C2'-C1'	8.55	108.34	101.50
32	S1	1455	U	O4'-C1'-N1	8.55	115.04	108.20
33	L1	2197	C	O4'-C1'-N1	8.55	115.04	108.20
33	L1	2740	C	N1-C1'-C2'	8.55	125.12	114.00
33	L1	584	G	C1'-O4'-C4'	8.55	116.74	109.90
33	L1	1298	A	C1'-O4'-C4'	8.55	116.74	109.90
50	LZ	54	THR	CA-CB-CG2	-8.55	100.43	112.40
78	Le	57	TYR	CB-CG-CD2	-8.55	115.87	121.00
13	SQ	81	ARG	CB-CA-C	8.55	127.50	110.40
32	S1	872	G	O4'-C1'-N9	8.55	115.04	108.20
33	L1	304	A	O4'-C1'-C2'	8.55	115.29	107.60
33	L1	328	G	O5'-C5'-C4'	8.55	127.94	111.70
33	L1	1537	A	C3'-C2'-C1'	8.55	108.34	101.50
52	Lb	116	LEU	CB-CG-CD2	8.55	125.53	111.00
69	La	45	GLY	N-CA-C	-8.55	91.73	113.10
23	SU	96	ARG	NE-CZ-NH2	-8.55	116.03	120.30
33	L1	38	A	O4'-C1'-N9	8.55	115.04	108.20
33	L1	484	C	C3'-C2'-C1'	8.54	108.33	101.50
33	L1	1905	A	O4'-C1'-C2'	-8.54	97.26	105.80
33	L1	3352	C	O4'-C1'-C2'	-8.54	97.25	105.80
32	S1	1303	G	O4'-C1'-C2'	-8.54	97.26	105.80
33	L1	555	G	OP2-P-O3'	-8.54	86.41	105.20
33	L1	2260	C	P-O3'-C3'	8.54	129.95	119.70
17	SV	34	LYS	CB-CA-C	8.54	127.48	110.40
33	L1	2159	U	O4'-C1'-C2'	-8.54	97.26	105.80
37	LB	174	ARG	NE-CZ-NH1	8.54	124.57	120.30
48	LV	25	HIS	CA-CB-CG	8.54	128.12	113.60
15	SS	5	THR	N-CA-C	8.54	134.05	111.00
33	L1	1277	A	O4'-C1'-N9	8.54	115.03	108.20
48	LV	155	GLU	CA-CB-CG	8.54	132.18	113.40
32	S1	114	U	N1-C1'-C2'	-8.54	102.61	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1456	U	C4'-C3'-C2'	-8.54	94.06	102.60
33	L1	1271	U	O4'-C4'-C3'	-8.54	95.46	104.00
33	L1	2743	A	C3'-C2'-C1'	-8.54	94.67	101.50
78	Le	11	PRO	N-CA-CB	8.54	113.54	103.30
28	SN	38	CYS	N-CA-CB	8.53	125.96	110.60
33	L1	1311	G	N9-C1'-C2'	-8.53	102.62	112.00
33	L1	1695	C	O4'-C1'-N1	8.53	115.03	108.20
33	L1	1081	U	P-O3'-C3'	-8.53	109.47	119.70
33	L1	3001	G	N9-C1'-C2'	8.53	125.09	114.00
34	L3	118	C	O5'-P-OP2	-8.53	98.02	105.70
34	L3	91	C	O4'-C1'-N1	8.53	115.02	108.20
32	S1	1610	C	O4'-C1'-C2'	-8.53	97.27	105.80
32	S1	1006	A	C3'-C2'-C1'	8.53	108.32	101.50
32	S1	1609	G	P-O3'-C3'	8.53	129.93	119.70
33	L1	532	G	C3'-C2'-C1'	-8.53	94.68	101.50
33	L1	766	C	N1-C1'-C2'	8.53	125.08	114.00
33	L1	814	U	C1'-O4'-C4'	-8.53	103.08	109.90
45	LQ	19	ARG	O-C-N	-8.53	109.06	122.70
15	SS	11	ASP	N-CA-C	8.52	134.01	111.00
33	L1	1662	G	C3'-C2'-C1'	-8.52	94.68	101.50
33	L1	3279	G	P-O3'-C3'	8.52	129.93	119.70
10	SL	3	LYS	O-C-N	-8.52	109.06	122.70
32	S1	1038	C	O4'-C1'-C2'	-8.52	97.28	105.80
17	SV	69	ARG	NH1-CZ-NH2	-8.52	110.03	119.40
32	S1	124	G	C1'-O4'-C4'	-8.52	103.08	109.90
32	S1	1597	C	O4'-C1'-C2'	-8.52	97.28	105.80
32	S1	1645	C	P-O3'-C3'	8.52	129.93	119.70
33	L1	856	G	C1'-O4'-C4'	-8.52	103.08	109.90
33	L1	910	G	P-O3'-C3'	8.52	129.93	119.70
33	L1	1082	U	OP1-P-OP2	-8.52	106.82	119.60
33	L1	1341	G	O4'-C1'-N9	8.52	115.02	108.20
37	LB	196	TRP	CB-CA-C	8.52	127.44	110.40
33	L1	1197	A	N9-C1'-C2'	8.52	125.07	114.00
67	LS	83	TYR	N-CA-CB	8.52	125.93	110.60
7	SI	76	ARG	NE-CZ-NH1	8.51	124.56	120.30
34	L3	29	C	O4'-C1'-N1	8.51	115.01	108.20
32	S1	426	G	O4'-C1'-N9	8.51	115.01	108.20
33	L1	579	G	P-O3'-C3'	-8.51	109.48	119.70
33	L1	1240	G	N9-C1'-C2'	8.51	125.07	114.00
33	L1	1316	C	P-O3'-C3'	-8.51	109.48	119.70
33	L1	2064	C	O4'-C1'-N1	-8.51	101.39	108.20
33	L1	2900	G	N9-C1'-C2'	8.51	125.07	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3016	C	O4'-C1'-C2'	-8.51	97.29	105.80
33	L1	1105	G	O4'-C1'-N9	8.51	115.01	108.20
33	L1	2370	G	O4'-C1'-N9	8.51	115.01	108.20
33	L1	1871	G	C3'-C2'-C1'	-8.51	94.69	101.50
33	L1	2468	G	C3'-C2'-C1'	-8.51	94.69	101.50
33	L1	3157	C	C3'-C2'-C1'	8.51	108.31	101.50
33	L1	431	G	C1'-O4'-C4'	-8.51	103.09	109.90
33	L1	2755	U	O4'-C1'-N1	-8.51	101.39	108.20
33	L1	718	C	C1'-O4'-C4'	-8.51	103.09	109.90
33	L1	1715	C	C5'-C4'-O4'	8.51	119.31	109.10
33	L1	2481	C	P-O3'-C3'	8.51	129.91	119.70
70	Li	9	LYS	CB-CA-C	8.51	127.41	110.40
32	S1	1120	U	O4'-C1'-N1	8.50	115.00	108.20
33	L1	1467	G	P-O3'-C3'	8.50	129.91	119.70
57	L1	45	ARG	NE-CZ-NH2	-8.50	116.05	120.30
33	L1	2176	A	C1'-O4'-C4'	8.50	116.70	109.90
32	S1	1539	A	O4'-C1'-C2'	-8.50	97.30	105.80
32	S1	1628	C	C3'-C2'-C1'	8.50	108.30	101.50
33	L1	492	G	N9-C1'-C2'	-8.50	102.65	112.00
33	L1	928	A	C1'-O4'-C4'	-8.50	103.10	109.90
33	L1	2797	U	O4'-C1'-N1	8.50	115.00	108.20
32	S1	1399	G	O4'-C1'-N9	8.50	115.00	108.20
32	S1	1464	G	C1'-O4'-C4'	-8.50	103.10	109.90
32	S1	1619	A	O4'-C1'-N9	8.50	115.00	108.20
33	L1	1005	C	C1'-O4'-C4'	8.50	116.70	109.90
33	L1	2725	U	N1-C1'-C2'	8.50	125.05	114.00
33	L1	2784	U	C1'-O4'-C4'	-8.50	103.10	109.90
33	L1	2927	C	C3'-C2'-C1'	8.50	108.30	101.50
15	SS	11	ASP	CB-CG-OD2	-8.49	110.66	118.30
32	S1	968	A	O4'-C1'-N9	8.49	115.00	108.20
32	S1	1133	C	O4'-C1'-N1	8.49	115.00	108.20
32	S1	1123	G	C3'-C2'-C1'	-8.49	94.71	101.50
33	L1	639	A	O5'-C5'-C4'	8.49	127.83	111.70
33	L1	963	U	C1'-O4'-C4'	-8.49	103.11	109.90
69	La	25	ILE	N-CA-C	-8.49	88.07	111.00
33	L1	945	U	O4'-C1'-N1	8.49	114.99	108.20
33	L1	1894	G	O4'-C1'-C2'	-8.49	97.31	105.80
33	L1	3081	G	P-O3'-C3'	8.49	129.89	119.70
33	L1	1056	U	C3'-C2'-C1'	8.49	108.29	101.50
33	L1	1880	A	P-O5'-C5'	8.49	134.48	120.90
33	L1	2657	C	C1'-O4'-C4'	8.49	116.69	109.90
33	L1	3236	A	O4'-C1'-N9	-8.49	101.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	584	A	C3'-C2'-C1'	8.48	108.29	101.50
32	S1	611	G	N9-C1'-C2'	8.48	125.03	114.00
32	S1	1119	G	C4'-C3'-C2'	-8.48	94.12	102.60
32	S1	1361	G	O4'-C1'-C2'	8.48	115.24	107.60
33	L1	347	A	P-O5'-C5'	8.48	134.47	120.90
33	L1	1706	C	C3'-C2'-C1'	8.48	108.29	101.50
33	L1	2772	A	N9-C1'-C2'	8.48	125.03	114.00
33	L1	2784	U	O4'-C1'-C2'	8.48	115.23	107.60
48	LV	113	LEU	CB-CG-CD1	-8.48	96.58	111.00
33	L1	852	C	O4'-C1'-N1	8.48	114.98	108.20
33	L1	2501	U	O4'-C1'-N1	8.48	114.99	108.20
33	L1	2585	C	C1'-O4'-C4'	-8.48	103.12	109.90
32	S1	1186	U	O4'-C1'-N1	8.48	114.98	108.20
33	L1	30	C	N1-C1'-C2'	8.48	125.02	114.00
33	L1	1075	G	N9-C1'-C2'	8.48	125.02	114.00
33	L1	1078	U	O4'-C1'-C2'	-8.48	97.32	105.80
33	L1	2053	A	O3'-P-O5'	8.48	120.10	104.00
33	L1	2459	U	O4'-C1'-C2'	-8.48	97.32	105.80
33	L1	2562	A	C5'-C4'-C3'	8.48	129.56	116.00
34	L3	48	G	O3'-P-O5'	-8.48	87.89	104.00
32	S1	308	U	N1-C1'-C2'	8.47	125.02	114.00
5	SE	35	ARG	NE-CZ-NH1	-8.47	116.06	120.30
32	S1	1134	U	P-O3'-C3'	8.47	129.87	119.70
33	L1	260	U	O4'-C1'-N1	8.47	114.98	108.20
33	L1	2465	G	C3'-C2'-C1'	-8.47	94.72	101.50
33	L1	2882	U	C3'-C2'-C1'	-8.47	94.72	101.50
35	L2	135	G	P-O3'-C3'	8.47	129.87	119.70
32	S1	379	U	C3'-C2'-C1'	-8.47	94.72	101.50
32	S1	1250	C	C1'-O4'-C4'	-8.47	103.12	109.90
33	L1	1325	G	O4'-C1'-N9	8.47	114.98	108.20
33	L1	1409	G	C3'-C2'-C1'	-8.47	94.72	101.50
33	L1	2813	A	C1'-O4'-C4'	-8.47	103.12	109.90
15	SS	132	ARG	NE-CZ-NH2	8.47	124.53	120.30
16	SR	130	ILE	CB-CA-C	8.47	128.54	111.60
66	LN	79	ASP	CB-CG-OD2	-8.47	110.68	118.30
32	S1	196	G	O4'-C1'-N9	8.47	114.97	108.20
32	S1	221	U	O4'-C1'-N1	8.47	114.97	108.20
32	S1	1070	A	P-O5'-C5'	8.47	134.45	120.90
48	LV	70	THR	N-CA-C	-8.47	88.13	111.00
32	S1	263	C	P-O3'-C3'	-8.47	109.54	119.70
32	S1	1729	A	N9-C1'-C2'	8.47	125.01	114.00
49	LX	31	ARG	NE-CZ-NH2	-8.47	116.07	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	913	U	O4'-C1'-N1	8.46	114.97	108.20
34	L3	57	C	O4'-C1'-N1	8.46	114.97	108.20
33	L1	2070	C	O4'-C1'-C2'	-8.46	97.34	105.80
33	L1	2585	C	O4'-C1'-N1	-8.46	101.43	108.20
32	S1	161	G	C4'-C3'-C2'	-8.46	94.14	102.60
33	L1	846	A	O4'-C4'-C3'	-8.46	95.54	104.00
32	S1	1427	A	O4'-C1'-N9	8.46	114.97	108.20
34	L3	20	C	P-O5'-C5'	8.46	134.43	120.90
32	S1	955	C	N1-C1'-C2'	8.46	124.99	114.00
33	L1	498	G	OP1-P-O3'	8.46	123.80	105.20
3	SB	160	SER	O-C-N	8.45	137.57	123.20
32	S1	1168	A	P-O3'-C3'	8.46	129.85	119.70
32	S1	1349	A	C3'-C2'-C1'	8.46	108.26	101.50
33	L1	2109	G	C1'-O4'-C4'	-8.45	103.14	109.90
33	L1	2533	A	O4'-C1'-N9	8.45	114.96	108.20
25	SC	45	TRP	N-CA-CB	8.45	125.81	110.60
32	S1	465	G	O4'-C1'-N9	8.45	114.96	108.20
32	S1	1787	G	O4'-C1'-N9	8.45	114.96	108.20
33	L1	282	A	P-O3'-C3'	8.45	129.84	119.70
33	L1	1670	G	C3'-C2'-C1'	-8.45	94.74	101.50
33	L1	2738	U	C4'-C3'-C2'	-8.45	94.15	102.60
32	S1	258	U	N1-C1'-C2'	8.45	124.98	114.00
32	S1	1308	G	O4'-C1'-N9	8.45	114.96	108.20
32	S1	1804	A	N9-C1'-C2'	-8.45	102.71	112.00
33	L1	953	G	C1'-O4'-C4'	-8.45	103.14	109.90
33	L1	77	U	O4'-C1'-C2'	-8.45	97.35	105.80
68	LW	87	TYR	CB-CG-CD2	8.45	126.07	121.00
32	S1	1195	U	C1'-O4'-C4'	-8.45	103.14	109.90
32	S1	1593	U	O4'-C1'-C2'	-8.44	97.36	105.80
33	L1	2796	G	C4'-C3'-C2'	-8.45	94.16	102.60
33	L1	3271	A	C3'-C2'-C1'	8.44	108.25	101.50
35	L2	31	U	O4'-C1'-N1	8.44	114.95	108.20
33	L1	2904	A	O4'-C1'-C2'	-8.44	97.36	105.80
33	L1	475	U	O4'-C1'-N1	8.44	114.95	108.20
33	L1	1937	C	C3'-C2'-C1'	8.44	108.25	101.50
7	SI	148	TYR	CB-CG-CD1	-8.43	115.94	121.00
33	L1	2459	U	O4'-C1'-N1	8.43	114.94	108.20
33	L1	2587	G	C3'-C2'-C1'	-8.43	94.75	101.50
35	L2	51	U	O4'-C1'-C2'	-8.43	97.37	105.80
82	LK	11	ARG	NE-CZ-NH1	8.43	124.52	120.30
31	S2	50	G	C1'-O4'-C4'	-8.43	103.16	109.90
32	S1	396	G	O4'-C1'-N9	8.43	114.94	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1655	U	O4'-C1'-N1	8.43	114.94	108.20
33	L1	1552	C	C1'-O4'-C4'	-8.43	103.16	109.90
33	L1	3295	G	N9-C1'-C2'	8.43	124.96	114.00
32	S1	1094	U	O4'-C1'-C2'	-8.43	97.37	105.80
32	S1	1628	C	O4'-C1'-C2'	-8.43	97.37	105.80
33	L1	2676	A	O4'-C1'-C2'	-8.43	97.37	105.80
48	LV	94	ASP	CB-CG-OD1	8.43	125.89	118.30
32	S1	534	C	P-O5'-C5'	-8.43	107.42	120.90
32	S1	336	U	O4'-C1'-C2'	-8.43	97.38	105.80
32	S1	1370	C	N1-C1'-C2'	8.43	124.95	114.00
33	L1	465	C	N1-C1'-C2'	8.43	124.95	114.00
33	L1	655	G	O4'-C1'-C2'	8.43	115.18	107.60
33	L1	1506	A	N9-C1'-C2'	8.43	124.95	114.00
33	L1	1664	G	C4'-C3'-C2'	-8.43	94.17	102.60
33	L1	3213	A	O4'-C1'-C2'	-8.43	97.37	105.80
25	SC	144	ASN	C-N-CA	-8.42	100.64	121.70
33	L1	261	C	O4'-C1'-N1	8.42	114.94	108.20
33	L1	2514	A	O4'-C1'-N9	8.42	114.94	108.20
32	S1	4	C	C3'-C2'-C1'	8.42	108.24	101.50
32	S1	1008	A	O4'-C1'-N9	8.42	114.94	108.20
33	L1	1401	C	C1'-O4'-C4'	8.42	116.64	109.90
33	L1	1824	C	C4'-C3'-C2'	-8.42	94.18	102.60
33	L1	2966	G	O4'-C1'-N9	8.42	114.94	108.20
33	L1	1748	A	C3'-C2'-C1'	8.42	108.24	101.50
55	Lg	18	ARG	NE-CZ-NH2	-8.42	116.09	120.30
33	L1	1480	G	O4'-C1'-N9	8.42	114.93	108.20
33	L1	2004	U	O4'-C1'-N1	8.42	114.93	108.20
35	L2	47	A	O4'-C1'-N9	8.42	114.93	108.20
41	LM	131	ARG	NE-CZ-NH2	-8.42	116.09	120.30
8	SJ	30	ARG	NE-CZ-NH1	8.41	124.51	120.30
32	S1	903	A	C1'-O4'-C4'	8.41	116.63	109.90
33	L1	82	C	O4'-C1'-N1	8.41	114.93	108.20
33	L1	2354	G	O4'-C1'-N9	8.41	114.93	108.20
33	L1	2469	C	O4'-C1'-C2'	-8.41	97.39	105.80
33	L1	1840	C	O5'-P-OP2	-8.41	98.13	105.70
33	L1	2564	G	C1'-O4'-C4'	-8.41	103.17	109.90
33	L1	3053	G	C1'-O4'-C4'	-8.41	103.17	109.90
32	S1	1145	G	O4'-C1'-N9	8.41	114.93	108.20
33	L1	2787	A	C3'-C2'-C1'	-8.41	94.77	101.50
33	L1	1786	G	O4'-C1'-N9	8.41	114.92	108.20
34	L3	49	A	N9-C1'-C2'	8.41	124.93	114.00
35	L2	44	A	P-O3'-C3'	-8.41	109.61	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	SI	141	ARG	NE-CZ-NH1	8.40	124.50	120.30
33	L1	1533	U	C3'-C2'-C1'	8.40	108.22	101.50
33	L1	1829	G	C1'-O4'-C4'	-8.40	103.18	109.90
33	L1	2179	U	N1-C1'-C2'	8.40	124.92	114.00
33	L1	3038	U	C1'-O4'-C4'	-8.40	103.18	109.90
47	LU	63	ARG	NE-CZ-NH1	8.40	124.50	120.30
32	S1	979	A	C5'-C4'-O4'	8.40	119.18	109.10
33	L1	785	U	C5'-C4'-O4'	8.40	119.18	109.10
33	L1	1620	U	O3'-P-O5'	-8.40	88.03	104.00
81	LD	117	ARG	NE-CZ-NH1	-8.40	116.10	120.30
81	LD	118	ARG	NE-CZ-NH1	8.40	124.50	120.30
33	L1	219	A	OP1-P-OP2	-8.40	107.00	119.60
33	L1	302	G	O4'-C1'-N9	8.40	114.92	108.20
33	L1	857	G	C3'-C2'-C1'	-8.40	94.78	101.50
33	L1	1062	G	O4'-C1'-N9	8.40	114.92	108.20
16	SR	98	MET	CG-SD-CE	8.39	113.63	100.20
33	L1	711	A	C3'-C2'-C1'	-8.39	94.78	101.50
33	L1	1626	U	O4'-C1'-N1	8.39	114.92	108.20
33	L1	2697	A	N9-C1'-C2'	8.39	124.91	114.00
73	Lp	35	ARG	NE-CZ-NH1	8.39	124.50	120.30
33	L1	3218	C	C3'-C2'-C1'	8.39	108.21	101.50
32	S1	668	C	OP2-P-O3'	-8.39	86.74	105.20
2	SA	40	ARG	NE-CZ-NH2	-8.39	116.11	120.30
33	L1	222	C	N1-C1'-C2'	8.39	124.91	114.00
33	L1	747	A	O4'-C1'-N9	8.39	114.91	108.20
33	L1	2897	G	O4'-C1'-N9	8.39	114.91	108.20
33	L1	877	U	C1'-O4'-C4'	-8.39	103.19	109.90
33	L1	2433	U	O4'-C1'-N1	8.39	114.91	108.20
64	LG	12	LYS	CA-C-N	8.39	135.66	117.20
31	S2	56	A	O4'-C1'-N9	8.39	114.91	108.20
32	S1	1453	U	C3'-C2'-C1'	8.39	108.21	101.50
33	L1	1389	C	N1-C1'-C2'	-8.39	102.77	112.00
5	SE	90	MET	N-CA-CB	8.39	125.70	110.60
32	S1	669	A	OP1-P-OP2	-8.39	107.02	119.60
33	L1	1723	C	O4'-C1'-C2'	-8.39	97.41	105.80
33	L1	2793	G	O4'-C1'-N9	8.39	114.91	108.20
49	LX	75	TYR	CB-CG-CD2	-8.39	115.97	121.00
15	SS	93	PRO	N-CA-CB	-8.38	93.24	103.30
30	S3	15	A	P-O3'-C3'	-8.38	109.64	119.70
32	S1	573	C	C3'-C2'-C1'	8.38	108.21	101.50
32	S1	607	U	O4'-C1'-N1	8.38	114.91	108.20
33	L1	297	G	O4'-C1'-N9	8.38	114.91	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	714	G	O4'-C1'-C2'	8.38	115.14	107.60
33	L1	1073	G	C3'-C2'-C1'	-8.38	94.79	101.50
33	L1	2202	A	O4'-C1'-N9	-8.38	101.49	108.20
35	L2	13	G	C1'-O4'-C4'	-8.38	103.19	109.90
13	SQ	97	ARG	CB-CA-C	8.38	127.16	110.40
33	L1	1008	U	O4'-C1'-C2'	-8.38	97.42	105.80
53	Ld	45	TYR	CB-CG-CD2	-8.38	115.97	121.00
32	S1	1777	G	O4'-C1'-N9	-8.38	101.50	108.20
33	L1	1479	G	O4'-C1'-N9	8.38	114.90	108.20
33	L1	3042	U	O4'-C1'-C2'	-8.38	97.42	105.80
33	L1	268	U	O5'-P-OP2	8.38	120.75	110.70
33	L1	2165	A	O4'-C1'-C2'	8.38	115.14	107.60
32	S1	1316	A	O4'-C1'-C2'	-8.37	97.43	105.80
33	L1	235	G	P-O3'-C3'	8.37	129.75	119.70
34	L3	21	U	O4'-C1'-N1	8.37	114.90	108.20
33	L1	1406	C	P-O3'-C3'	-8.37	109.66	119.70
33	L1	2747	U	N1-C1'-C2'	8.37	124.88	114.00
33	L1	1367	A	O4'-C1'-C2'	-8.37	97.43	105.80
33	L1	1507	A	O4'-C1'-N9	8.37	114.89	108.20
33	L1	1646	U	O4'-C1'-N1	8.37	114.89	108.20
32	S1	372	U	O4'-C4'-C3'	-8.37	95.63	104.00
32	S1	937	A	O4'-C1'-C2'	-8.37	97.43	105.80
32	S1	1314	U	N1-C1'-C2'	-8.36	102.80	112.00
33	L1	2619	C	N1-C1'-C2'	8.36	124.87	114.00
33	L1	3349	C	N1-C1'-C2'	8.37	124.87	114.00
32	S1	493	C	C1'-O4'-C4'	-8.36	103.21	109.90
32	S1	513	G	C3'-C2'-C1'	8.36	108.19	101.50
32	S1	951	U	O4'-C1'-C2'	-8.36	97.44	105.80
33	L1	1474	U	O4'-C1'-N1	8.36	114.89	108.20
33	L1	1801	G	O4'-C1'-N9	-8.36	101.51	108.20
33	L1	97	G	C4'-C3'-C2'	-8.36	94.24	102.60
33	L1	922	U	N1-C1'-C2'	8.36	124.87	114.00
33	L1	1498	U	N1-C1'-C2'	8.36	124.87	114.00
34	L3	117	U	P-O5'-C5'	-8.36	107.52	120.90
35	L2	97	U	C3'-C2'-C1'	-8.36	94.81	101.50
50	LZ	31	PHE	CB-CG-CD1	-8.36	114.95	120.80
71	Lj	95	PRO	CA-C-N	8.36	135.59	117.20
33	L1	1587	G	O4'-C1'-C2'	-8.36	97.44	105.80
33	L1	2497	A	P-O5'-C5'	8.36	134.27	120.90
45	LQ	180	PHE	CB-CG-CD1	8.36	126.65	120.80
35	L2	125	A	C1'-O4'-C4'	-8.35	103.22	109.90
15	SS	14	PRO	N-CA-C	8.35	133.81	112.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	35	U	C1'-O4'-C4'	-8.35	103.22	109.90
33	L1	226	U	P-O5'-C5'	8.35	134.26	120.90
33	L1	1252	C	C1'-O4'-C4'	-8.35	103.22	109.90
33	L1	1317	G	O5'-P-OP2	-8.35	98.18	105.70
33	L1	1800	G	C5'-C4'-O4'	-8.35	99.08	109.10
32	S1	1658	U	N1-C1'-C2'	8.35	124.85	114.00
33	L1	1550	A	C3'-C2'-C1'	8.35	108.18	101.50
33	L1	166	U	N1-C1'-C2'	8.35	124.85	114.00
33	L1	366	G	O4'-C1'-C2'	-8.35	97.45	105.80
33	L1	397	A	C5'-C4'-C3'	-8.35	102.65	116.00
33	L1	1137	G	O4'-C1'-N9	8.35	114.88	108.20
33	L1	2626	G	O4'-C1'-N9	8.35	114.88	108.20
33	L1	3087	A	C3'-C2'-C1'	8.35	108.18	101.50
33	L1	3147	G	C1'-O4'-C4'	-8.35	103.22	109.90
35	L2	99	G	P-O3'-C3'	8.34	129.71	119.70
32	S1	1065	A	P-O3'-C3'	8.34	129.71	119.70
33	L1	2774	A	O3'-P-O5'	-8.34	88.15	104.00
33	L1	2950	C	O5'-P-OP2	-8.34	98.19	105.70
32	S1	338	G	O4'-C1'-N9	8.34	114.87	108.20
33	L1	1310	G	C3'-C2'-C1'	-8.34	94.83	101.50
33	L1	1536	U	N1-C1'-C2'	-8.34	102.83	112.00
35	L2	128	C	N1-C1'-C2'	8.34	124.84	114.00
81	LD	227	ARG	NH1-CZ-NH2	-8.34	110.23	119.40
15	SS	70	ARG	NE-CZ-NH1	8.34	124.47	120.30
30	S3	16	G	P-O3'-C3'	8.34	129.71	119.70
32	S1	1624	G	O4'-C1'-N9	8.34	114.87	108.20
33	L1	19	C	O4'-C1'-C2'	-8.34	97.46	105.80
33	L1	81	C	C3'-C2'-C1'	8.34	108.17	101.50
33	L1	1095	C	N1-C1'-C2'	8.34	124.84	114.00
33	L1	2390	G	C3'-C2'-C1'	-8.34	94.83	101.50
67	LS	138	ARG	CD-NE-CZ	8.34	135.27	123.60
33	L1	2677	A	C1'-O4'-C4'	8.34	116.57	109.90
33	L1	3142	C	O4'-C1'-C2'	-8.34	97.47	105.80
23	SU	62	PHE	CB-CG-CD1	-8.33	114.97	120.80
32	S1	7	G	O4'-C1'-C2'	8.33	115.10	107.60
33	L1	581	G	C1'-O4'-C4'	-8.33	103.23	109.90
33	L1	715	A	P-O3'-C3'	8.33	129.70	119.70
33	L1	1083	C	C3'-C2'-C1'	-8.33	94.83	101.50
33	L1	1102	A	O3'-P-O5'	-8.33	88.17	104.00
33	L1	1625	G	N9-C1'-C2'	-8.33	102.83	112.00
46	LT	151	ARG	NE-CZ-NH2	-8.33	116.13	120.30
25	SC	176	ARG	NE-CZ-NH1	8.33	124.47	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	222	G	P-O5'-C5'	8.33	134.23	120.90
33	L1	1512	A	O4'-C1'-C2'	-8.33	97.47	105.80
35	L2	151	C	O4'-C1'-C2'	-8.33	97.47	105.80
6	SF	167	GLU	N-CA-CB	8.33	125.59	110.60
33	L1	487	C	C3'-C2'-C1'	8.33	108.16	101.50
33	L1	2561	A	C1'-O4'-C4'	8.33	116.56	109.90
33	L1	1598	U	C1'-O4'-C4'	8.33	116.56	109.90
33	L1	2870	U	O5'-P-OP2	-8.33	98.21	105.70
33	L1	3080	U	C1'-O4'-C4'	8.33	116.56	109.90
78	Le	69	ARG	NE-CZ-NH2	8.32	124.46	120.30
2	SA	43	TYR	CB-CG-CD2	-8.32	116.01	121.00
32	S1	1714	G	O4'-C1'-C2'	8.32	115.09	107.60
32	S1	114	U	C1'-O4'-C4'	8.32	116.56	109.90
33	L1	1002	A	C3'-C2'-C1'	8.32	108.16	101.50
33	L1	2405	C	C1'-O4'-C4'	-8.32	103.24	109.90
25	SC	18	ARG	CA-C-N	-8.32	98.90	117.20
32	S1	36	C	N1-C1'-C2'	8.32	124.81	114.00
32	S1	317	U	C3'-C2'-C1'	8.32	108.15	101.50
32	S1	1030	A	O4'-C1'-C2'	-8.32	97.48	105.80
33	L1	3240	C	C1'-O4'-C4'	-8.32	103.25	109.90
33	L1	3294	U	P-O3'-C3'	-8.32	109.72	119.70
1	Sa	144	ASP	CB-CG-OD1	-8.31	110.82	118.30
32	S1	54	C	N1-C1'-C2'	-8.31	102.85	112.00
32	S1	1521	G	P-O3'-C3'	8.31	129.68	119.70
33	L1	54	G	O4'-C1'-N9	8.31	114.85	108.20
33	L1	2502	U	O3'-P-O5'	-8.31	88.20	104.00
33	L1	1222	U	O4'-C1'-N1	8.31	114.85	108.20
32	S1	1480	G	O4'-C1'-N9	8.31	114.85	108.20
33	L1	264	C	C5'-C4'-O4'	8.31	119.07	109.10
33	L1	978	C	C3'-C2'-C1'	8.31	108.15	101.50
33	L1	1042	C	C3'-C2'-C1'	8.31	108.15	101.50
33	L1	1728	G	N9-C1'-C2'	-8.31	102.86	112.00
34	L3	13	A	C3'-C2'-C1'	8.31	108.15	101.50
33	L1	340	A	P-O3'-C3'	8.31	129.67	119.70
33	L1	361	G	O4'-C1'-N9	8.31	114.85	108.20
33	L1	2234	G	C1'-O4'-C4'	-8.31	103.25	109.90
57	L1	11	ARG	NE-CZ-NH1	8.31	124.45	120.30
3	SB	40	ARG	NE-CZ-NH1	8.30	124.45	120.30
32	S1	994	U	N1-C1'-C2'	-8.30	102.86	112.00
33	L1	1512	A	P-O3'-C3'	-8.30	109.73	119.70
32	S1	416	A	O4'-C1'-C2'	-8.30	97.50	105.80
48	LV	91	PHE	CB-CG-CD1	8.30	126.61	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	223	A	O4'-C1'-N9	8.30	114.84	108.20
33	L1	373	A	O4'-C1'-N9	8.30	114.84	108.20
33	L1	3087	A	N9-C1'-C2'	8.30	124.79	114.00
45	LQ	252	THR	CB-CA-C	-8.30	89.19	111.60
33	L1	723	G	N9-C1'-C2'	-8.30	102.87	112.00
33	L1	1415	G	C1'-O4'-C4'	-8.30	103.26	109.90
33	L1	1947	U	O4'-C1'-N1	8.30	114.84	108.20
33	L1	2936	A	C3'-C2'-C1'	8.30	108.14	101.50
68	LW	114	TYR	CB-CG-CD1	8.30	125.98	121.00
33	L1	246	C	N1-C1'-C2'	-8.30	102.88	112.00
33	L1	3280	U	P-O3'-C3'	8.30	129.66	119.70
33	L1	1254	A	C3'-C2'-C1'	-8.29	94.86	101.50
33	L1	1524	G	C3'-C2'-C1'	-8.29	94.86	101.50
2	SA	235	TYR	CB-CG-CD2	-8.29	116.03	121.00
33	L1	491	G	C4'-C3'-C2'	-8.29	94.31	102.60
33	L1	667	C	P-O3'-C3'	8.29	129.65	119.70
33	L1	3365	U	C1'-O4'-C4'	8.29	116.53	109.90
17	SV	56	PRO	CA-N-CD	-8.29	99.89	111.50
32	S1	1636	U	O4'-C1'-N1	8.29	114.83	108.20
4	SD	149	TYR	CB-CG-CD1	-8.29	116.03	121.00
33	L1	784	G	C1'-O4'-C4'	-8.29	103.27	109.90
33	L1	2114	A	P-O3'-C3'	-8.29	109.76	119.70
33	L1	3232	C	C1'-O4'-C4'	-8.29	103.27	109.90
34	L3	15	C	O4'-C1'-N1	-8.29	101.57	108.20
33	L1	2332	C	C1'-O4'-C4'	-8.28	103.28	109.90
32	S1	102	U	O4'-C1'-N1	8.28	114.82	108.20
33	L1	590	C	C5'-C4'-O4'	8.28	119.03	109.10
33	L1	1650	G	C5'-C4'-C3'	8.28	129.24	116.00
33	L1	1247	G	C4'-C3'-C2'	-8.28	94.33	102.60
41	LM	14	PHE	CB-CG-CD2	-8.28	115.01	120.80
23	SU	79	GLY	CA-C-N	8.27	135.40	117.20
32	S1	605	A	O4'-C1'-N9	8.27	114.82	108.20
13	SQ	62	GLN	C-N-CA	8.27	142.38	121.70
33	L1	1855	A	C5'-C4'-C3'	-8.27	102.77	116.00
32	S1	190	C	P-O3'-C3'	8.27	129.62	119.70
32	S1	221	U	P-O5'-C5'	8.27	134.13	120.90
32	S1	258	U	C4'-C3'-C2'	-8.27	94.33	102.60
32	S1	1516	C	O3'-P-O5'	8.27	119.71	104.00
33	L1	784	G	O4'-C1'-C2'	8.27	115.04	107.60
33	L1	2087	A	N9-C1'-C2'	-8.27	102.91	112.00
25	SC	3	ARG	NE-CZ-NH1	8.27	124.43	120.30
33	L1	1272	G	C3'-C2'-C1'	8.27	108.11	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3011	U	N1-C1'-C2'	-8.27	102.91	112.00
33	L1	3092	A	P-O3'-C3'	8.27	129.62	119.70
33	L1	3310	A	C5'-C4'-C3'	8.27	129.22	116.00
59	Lo	25	TYR	CB-CG-CD2	-8.27	116.04	121.00
33	L1	2354	G	C1'-O4'-C4'	8.26	116.51	109.90
33	L1	2464	G	C1'-O4'-C4'	-8.26	103.29	109.90
33	L1	2760	U	P-O5'-C5'	8.26	134.12	120.90
32	S1	1011	C	C3'-C2'-C1'	8.26	108.11	101.50
33	L1	472	U	C1'-O4'-C4'	-8.26	103.29	109.90
34	L3	41	G	N9-C1'-C2'	8.26	124.74	114.00
35	L2	101	G	O3'-P-O5'	8.26	119.70	104.00
33	L1	333	G	C1'-O4'-C4'	-8.26	103.29	109.90
33	L1	347	A	C1'-O4'-C4'	-8.26	103.29	109.90
33	L1	667	C	C5'-C4'-C3'	8.26	129.22	116.00
33	L1	2726	U	N1-C1'-C2'	8.26	124.74	114.00
33	L1	3071	A	C3'-C2'-C1'	-8.26	94.89	101.50
80	LC	352	ARG	NE-CZ-NH2	-8.26	116.17	120.30
11	SM	94	ARG	CB-CA-C	8.26	126.92	110.40
32	S1	1083	C	P-O3'-C3'	-8.26	109.79	119.70
33	L1	2182	G	P-O3'-C3'	8.26	129.61	119.70
33	L1	2784	U	P-O3'-C3'	-8.26	109.79	119.70
46	LT	64	ARG	NE-CZ-NH2	-8.26	116.17	120.30
32	S1	880	G	O4'-C1'-N9	8.26	114.80	108.20
33	L1	443	G	O4'-C1'-C2'	8.26	115.03	107.60
33	L1	1787	C	C1'-O4'-C4'	-8.26	103.30	109.90
33	L1	2218	A	C1'-O4'-C4'	-8.26	103.30	109.90
33	L1	2738	U	O5'-P-OP1	-8.26	98.27	105.70
38	LE	33	THR	C-N-CA	8.26	142.34	121.70
33	L1	2577	G	C1'-O4'-C4'	-8.25	103.30	109.90
57	L1	52	LYS	N-CA-CB	-8.25	95.74	110.60
33	L1	1662	G	O4'-C1'-C2'	8.25	115.03	107.60
33	L1	1261	C	C3'-C2'-C1'	-8.25	94.90	101.50
33	L1	1875	A	N9-C1'-C2'	8.25	124.72	114.00
33	L1	2668	U	C5'-C4'-C3'	-8.25	102.80	116.00
68	LW	82	LYS	CB-CA-C	8.25	126.90	110.40
33	L1	2274	A	C4'-C3'-C2'	-8.25	94.35	102.60
33	L1	3379	C	O4'-C1'-C2'	-8.25	97.55	105.80
80	LC	364	ASP	C-N-CA	8.25	142.32	121.70
33	L1	138	G	C1'-O4'-C4'	-8.25	103.30	109.90
33	L1	2215	A	O4'-C1'-N9	-8.25	101.60	108.20
7	SI	117	ARG	NE-CZ-NH1	8.25	124.42	120.30
32	S1	124	G	O4'-C1'-N9	8.25	114.80	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1273	U	O4'-C1'-N1	8.25	114.80	108.20
33	L1	518	G	N9-C1'-C2'	8.25	124.72	114.00
33	L1	569	C	N1-C1'-C2'	8.25	124.72	114.00
48	LV	70	THR	CA-CB-OG1	8.25	126.32	109.00
16	SR	86	ARG	NE-CZ-NH2	-8.24	116.18	120.30
32	S1	362	U	O4'-C1'-N1	8.24	114.79	108.20
33	L1	662	G	C1'-O4'-C4'	-8.24	103.31	109.90
32	S1	221	U	P-O3'-C3'	-8.24	109.81	119.70
33	L1	327	A	O4'-C1'-C2'	8.24	115.02	107.60
33	L1	958	U	C3'-C2'-C1'	8.24	108.09	101.50
33	L1	1181	A	P-O3'-C3'	8.24	129.59	119.70
66	LN	85	GLU	N-CA-CB	8.24	125.43	110.60
32	S1	1720	G	N9-C1'-C2'	8.24	124.71	114.00
33	L1	2858	G	C3'-C2'-C1'	-8.24	94.91	101.50
37	LB	83	TYR	CB-CG-CD2	-8.24	116.06	121.00
33	L1	897	U	N1-C1'-C2'	8.24	124.71	114.00
33	L1	905	G	O4'-C1'-N9	8.24	114.79	108.20
71	Lj	8	ARG	CB-CA-C	-8.24	93.93	110.40
33	L1	854	C	N1-C1'-C2'	8.23	124.70	114.00
32	S1	569	C	O4'-C1'-C2'	-8.23	97.57	105.80
32	S1	1326	A	C3'-C2'-C1'	8.23	108.08	101.50
33	L1	437	C	O4'-C1'-N1	8.23	114.78	108.20
55	Lg	83	ILE	N-CA-CB	-8.23	91.88	110.80
33	L1	725	G	C3'-C2'-C1'	8.22	108.08	101.50
32	S1	356	G	O4'-C1'-N9	8.22	114.78	108.20
32	S1	1218	U	O4'-C1'-N1	8.22	114.78	108.20
33	L1	3304	U	P-O3'-C3'	-8.22	109.83	119.70
33	L1	978	C	O4'-C1'-N1	8.22	114.78	108.20
33	L1	1261	C	P-O5'-C5'	8.22	134.05	120.90
33	L1	2077	C	O5'-P-OP2	-8.22	98.30	105.70
70	Li	108	LYS	N-CA-CB	8.22	125.40	110.60
1	Sa	165	TYR	CB-CG-CD1	8.22	125.93	121.00
32	S1	416	A	O4'-C1'-N9	8.22	114.77	108.20
32	S1	1275	G	O3'-P-O5'	-8.22	88.38	104.00
33	L1	400	G	N9-C1'-C2'	-8.22	102.96	112.00
32	S1	1195	U	C3'-C2'-C1'	-8.22	94.93	101.50
33	L1	1348	G	C5'-C4'-C3'	8.22	129.15	116.00
4	SD	212	ASP	CA-C-N	-8.21	99.13	117.20
33	L1	1103	U	O4'-C1'-C2'	-8.21	97.59	105.80
32	S1	1396	U	C1'-O4'-C4'	8.21	116.47	109.90
33	L1	3376	C	C5'-C4'-O4'	-8.21	99.24	109.10
25	SC	194	GLU	O-C-N	-8.21	109.56	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	248	U	P-O3'-C3'	8.21	129.55	119.70
33	L1	1659	G	P-O3'-C3'	8.21	129.55	119.70
81	LD	335	PRO	CA-N-CD	-8.21	100.00	111.50
1	Sa	89	ARG	NE-CZ-NH1	8.21	124.40	120.30
32	S1	1112	G	C1'-O4'-C4'	-8.21	103.33	109.90
32	S1	1585	A	O4'-C1'-N9	8.21	114.76	108.20
33	L1	238	C	C3'-C2'-C1'	8.21	108.06	101.50
35	L2	110	C	P-O3'-C3'	8.21	129.55	119.70
32	S1	1753	U	O4'-C1'-N1	8.20	114.76	108.20
56	Lh	105	LYS	O-C-N	-8.20	109.57	122.70
33	L1	664	A	C3'-C2'-C1'	-8.20	94.94	101.50
34	L3	114	C	O3'-P-O5'	-8.20	88.42	104.00
32	S1	408	G	O4'-C1'-C2'	-8.20	97.60	105.80
33	L1	1569	U	P-O3'-C3'	8.20	129.54	119.70
33	L1	2313	U	N1-C1'-C2'	-8.20	102.98	112.00
64	LG	52	PRO	CA-N-CD	-8.20	100.02	111.50
32	S1	274	A	O4'-C1'-N9	8.20	114.76	108.20
32	S1	485	A	P-O5'-C5'	8.20	134.02	120.90
32	S1	1184	C	N1-C1'-C2'	8.20	124.66	114.00
32	S1	1328	G	C1'-O4'-C4'	-8.20	103.34	109.90
33	L1	2866	A	C3'-C2'-C1'	-8.20	94.94	101.50
33	L1	271	G	C1'-O4'-C4'	-8.20	103.34	109.90
33	L1	856	G	O4'-C1'-N9	8.19	114.75	108.20
33	L1	1094	G	C1'-O4'-C4'	-8.20	103.34	109.90
33	L1	2501	U	C3'-C2'-C1'	-8.20	94.94	101.50
34	L3	101	A	N9-C1'-C2'	8.20	124.65	114.00
82	LK	66	ARG	NE-CZ-NH2	-8.20	116.20	120.30
31	S2	70	G	O4'-C1'-C2'	8.19	114.97	107.60
32	S1	1007	G	C1'-O4'-C4'	-8.19	103.35	109.90
33	L1	2112	C	N1-C1'-C2'	8.19	124.65	114.00
37	LB	9	ARG	NE-CZ-NH2	8.19	124.40	120.30
33	L1	2974	G	P-O3'-C3'	-8.19	109.87	119.70
1	Sa	54	THR	CA-CB-CG2	8.19	123.86	112.40
5	SE	12	ARG	NE-CZ-NH2	8.19	124.39	120.30
32	S1	1278	C	C3'-C2'-C1'	-8.19	94.95	101.50
33	L1	695	G	C1'-O4'-C4'	8.19	116.45	109.90
33	L1	913	G	O4'-C1'-N9	8.19	114.75	108.20
33	L1	2275	A	C1'-O4'-C4'	8.19	116.45	109.90
33	L1	2456	G	O4'-C1'-C2'	8.19	114.97	107.60
29	ST	15	ARG	NE-CZ-NH1	-8.19	116.21	120.30
33	L1	2211	G	C4'-C3'-C2'	-8.19	94.42	102.60
33	L1	2756	G	P-O3'-C3'	8.19	129.52	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3087	A	C5'-C4'-C3'	8.19	129.10	116.00
5	SE	24	ARG	NE-CZ-NH1	8.18	124.39	120.30
32	S1	321	C	C3'-C2'-C1'	8.18	108.05	101.50
33	L1	178	C	C1'-O4'-C4'	-8.18	103.35	109.90
33	L1	1266	G	N9-C1'-C2'	8.18	124.63	114.00
33	L1	1346	C	N1-C1'-C2'	8.18	124.63	114.00
66	LN	117	ARG	NE-CZ-NH1	-8.18	116.21	120.30
75	Lt	62	VAL	CA-CB-CG1	8.18	123.17	110.90
14	SP	107	ASN	CA-C-N	8.18	135.19	117.20
6	SF	148	TYR	CB-CG-CD2	-8.18	116.09	121.00
32	S1	615	U	O4'-C1'-N1	8.18	114.74	108.20
34	L3	19	A	P-O3'-C3'	8.18	129.51	119.70
33	L1	74	G	N9-C1'-C2'	8.17	124.62	114.00
33	L1	227	C	P-O3'-C3'	8.17	129.51	119.70
2	SA	34	CYS	CA-CB-SG	8.17	128.70	114.00
32	S1	1192	G	O4'-C1'-N9	8.17	114.74	108.20
32	S1	1649	C	C3'-C2'-C1'	8.17	108.04	101.50
33	L1	2775	C	P-O3'-C3'	-8.17	109.89	119.70
33	L1	2369	G	C1'-O4'-C4'	-8.17	103.36	109.90
33	L1	3011	U	C1'-O4'-C4'	8.17	116.44	109.90
34	L3	9	U	P-O5'-C5'	8.17	133.97	120.90
32	S1	1204	G	O4'-C1'-N9	8.17	114.73	108.20
33	L1	113	A	O4'-C1'-C2'	-8.17	97.63	105.80
33	L1	336	A	O4'-C1'-N9	-8.17	101.67	108.20
33	L1	2228	A	C1'-O4'-C4'	8.17	116.43	109.90
6	SF	144	ASN	N-CA-CB	-8.16	95.91	110.60
33	L1	1131	U	C1'-O4'-C4'	-8.16	103.37	109.90
32	S1	1541	C	C3'-C2'-C1'	-8.16	94.97	101.50
33	L1	2389	A	C1'-O4'-C4'	-8.16	103.37	109.90
61	Lq	23	ARG	NE-CZ-NH1	8.16	124.38	120.30
46	LT	109	TYR	CG-CD1-CE1	-8.16	114.77	121.30
32	S1	631	C	C3'-C2'-C1'	8.16	108.03	101.50
33	L1	1411	G	O4'-C1'-N9	8.16	114.73	108.20
33	L1	2213	G	N9-C1'-C2'	8.16	124.61	114.00
68	LW	44	PHE	CB-CG-CD1	8.16	126.51	120.80
80	LC	117	ARG	NE-CZ-NH2	-8.16	116.22	120.30
32	S1	586	U	C3'-C2'-C1'	8.15	108.02	101.50
33	L1	80	C	N1-C1'-C2'	8.15	124.60	114.00
33	L1	2012	C	P-O3'-C3'	8.15	129.49	119.70
33	L1	2529	C	O4'-C1'-N1	8.15	114.72	108.20
68	LW	82	LYS	N-CA-C	-8.15	88.99	111.00
23	SU	79	GLY	CA-C-O	-8.15	105.93	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1462	C	N1-C1'-C2'	8.15	124.59	114.00
32	S1	526	U	O5'-C5'-C4'	8.15	127.18	111.70
32	S1	1587	G	O3'-P-O5'	8.15	119.48	104.00
33	L1	840	A	C3'-C2'-C1'	-8.15	94.98	101.50
33	L1	1142	G	C1'-O4'-C4'	-8.15	103.38	109.90
33	L1	1208	A	O4'-C1'-C2'	-8.15	97.65	105.80
33	L1	1286	G	C1'-O4'-C4'	-8.15	103.38	109.90
33	L1	2245	G	P-O3'-C3'	8.15	129.48	119.70
33	L1	1860	A	O4'-C1'-N9	8.15	114.72	108.20
33	L1	2790	C	N1-C1'-C2'	8.15	124.59	114.00
39	LF	147	GLY	O-C-N	-8.15	109.66	122.70
33	L1	2460	A	P-O5'-C5'	8.14	133.93	120.90
33	L1	2507	U	N1-C1'-C2'	8.14	124.59	114.00
33	L1	2569	G	O4'-C1'-C2'	8.14	114.93	107.60
42	LP	120	TRP	N-CA-CB	-8.14	95.94	110.60
32	S1	932	C	P-O3'-C3'	8.14	129.47	119.70
32	S1	1058	G	O5'-P-OP2	-8.14	98.37	105.70
33	L1	70	A	C1'-O4'-C4'	-8.14	103.39	109.90
35	L2	50	G	C1'-O4'-C4'	-8.14	103.39	109.90
15	SS	131	ARG	NE-CZ-NH2	-8.14	116.23	120.30
33	L1	1862	C	C3'-C2'-C1'	8.14	108.01	101.50
33	L1	2769	U	P-O3'-C3'	-8.14	109.93	119.70
33	L1	471	C	C3'-C2'-C1'	8.14	108.01	101.50
15	SS	8	THR	N-CA-CB	8.13	125.76	110.30
32	S1	1058	G	P-O5'-C5'	8.13	133.91	120.90
33	L1	897	U	P-O3'-C3'	8.13	129.46	119.70
33	L1	1278	A	P-O3'-C3'	8.13	129.46	119.70
33	L1	2233	G	O4'-C1'-C2'	8.13	114.92	107.60
33	L1	2234	G	N9-C1'-C2'	8.13	124.58	114.00
33	L1	2617	G	P-O5'-C5'	-8.13	107.88	120.90
33	L1	3095	G	N9-C1'-C2'	8.13	124.58	114.00
33	L1	3121	C	P-O3'-C3'	-8.14	109.94	119.70
34	L3	49	A	C4'-C3'-C2'	-8.14	94.46	102.60
39	LF	1	MET	N-CA-CB	-8.14	95.95	110.60
32	S1	1547	G	C3'-C2'-C1'	8.13	108.01	101.50
33	L1	1912	U	C3'-C2'-C1'	8.13	108.01	101.50
33	L1	2561	A	O4'-C1'-N9	8.13	114.71	108.20
64	LG	20	TYR	CA-CB-CG	-8.13	97.95	113.40
1	Sa	128	LEU	CA-CB-CG	8.13	134.00	115.30
4	SD	149	TYR	CB-CG-CD2	8.13	125.88	121.00
32	S1	1098	A	C3'-C2'-C1'	8.13	108.00	101.50
33	L1	327	A	C3'-C2'-C1'	-8.13	95.00	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1660	C	C3'-C2'-C1'	8.13	108.00	101.50
33	L1	2772	A	P-O3'-C3'	-8.13	109.94	119.70
64	LG	68	PRO	CA-C-N	8.13	135.09	117.20
33	L1	177	C	O4'-C1'-N1	-8.13	101.70	108.20
33	L1	1107	G	N9-C1'-C2'	8.13	124.56	114.00
32	S1	629	C	O4'-C1'-N1	8.13	114.70	108.20
32	S1	1314	U	O4'-C1'-N1	8.13	114.70	108.20
33	L1	9	C	C3'-C2'-C1'	8.12	108.00	101.50
33	L1	706	U	N1-C1'-C2'	8.12	124.56	114.00
33	L1	973	U	N1-C1'-C2'	8.13	124.56	114.00
33	L1	1223	U	C3'-C2'-C1'	-8.12	95.00	101.50
33	L1	2824	U	N1-C1'-C2'	-8.12	103.06	112.00
33	L1	3183	G	N9-C1'-C2'	8.12	124.56	114.00
34	L3	27	A	C3'-C2'-C1'	8.12	108.00	101.50
34	L3	32	A	N9-C1'-C2'	8.12	124.56	114.00
71	Lj	37	GLU	N-CA-CB	-8.12	95.97	110.60
29	ST	38	HIS	CA-CB-CG	-8.12	99.79	113.60
33	L1	1422	G	O4'-C1'-N9	8.12	114.70	108.20
33	L1	2418	A	C1'-O4'-C4'	-8.12	103.40	109.90
33	L1	3046	C	O4'-C1'-N1	8.12	114.70	108.20
35	L2	68	U	O4'-C1'-N1	8.12	114.70	108.20
33	L1	2850	G	O4'-C1'-N9	8.12	114.70	108.20
34	L3	37	G	O4'-C1'-N9	8.12	114.70	108.20
64	LG	143	ASP	CA-CB-CG	8.12	131.27	113.40
74	LJ	95	LYS	N-CA-C	8.12	132.93	111.00
35	L2	30	C	C3'-C2'-C1'	8.12	108.00	101.50
33	L1	50	A	O5'-P-OP1	8.12	120.44	110.70
33	L1	838	G	C3'-C2'-C1'	8.12	108.00	101.50
33	L1	2821	U	C4'-C3'-C2'	-8.12	94.48	102.60
33	L1	1201	C	O4'-C1'-C2'	-8.12	97.68	105.80
70	Li	66	ARG	NE-CZ-NH1	-8.12	116.24	120.30
32	S1	94	A	C1'-O4'-C4'	-8.11	103.41	109.90
33	L1	84	A	O5'-P-OP2	8.11	120.44	110.70
33	L1	822	U	O4'-C1'-N1	8.11	114.69	108.20
38	LE	1	MET	C-N-CA	8.12	141.99	121.70
27	SH	67	GLY	CA-C-N	-8.11	99.35	117.20
33	L1	1621	G	P-O3'-C3'	8.11	129.44	119.70
35	L2	148	C	N1-C1'-C2'	8.11	124.55	114.00
32	S1	904	G	O4'-C1'-C2'	-8.11	97.69	105.80
33	L1	1589	G	C3'-C2'-C1'	-8.11	95.02	101.50
33	L1	2479	C	C1'-O4'-C4'	8.11	116.38	109.90
67	LS	77	TYR	CB-CG-CD2	-8.11	116.14	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1145	G	O4'-C1'-C2'	-8.10	97.70	105.80
32	S1	1163	C	C1'-O4'-C4'	8.10	116.38	109.90
32	S1	1549	G	C1'-O4'-C4'	-8.10	103.42	109.90
33	L1	1710	G	O4'-C1'-N9	8.10	114.68	108.20
32	S1	452	C	C3'-C2'-C1'	8.10	107.98	101.50
33	L1	2818	G	C2'-C3'-O3'	8.10	127.32	109.50
32	S1	1538	C	O4'-C1'-C2'	-8.10	97.70	105.80
33	L1	641	C	C5'-C4'-C3'	-8.10	103.04	116.00
33	L1	1527	A	C3'-C2'-C1'	8.10	107.98	101.50
33	L1	1874	A	O4'-C1'-C2'	-8.10	97.70	105.80
33	L1	1995	U	P-O3'-C3'	8.10	129.42	119.70
33	L1	2491	A	O4'-C1'-C2'	8.10	114.89	107.60
33	L1	2748	G	C4'-C3'-C2'	-8.10	94.50	102.60
72	Lk	44	ARG	NE-CZ-NH1	8.10	124.35	120.30
13	SQ	53	PHE	CB-CA-C	8.10	126.59	110.40
33	L1	138	G	C3'-C2'-C1'	-8.10	95.02	101.50
33	L1	71	C	P-O3'-C3'	8.09	129.41	119.70
33	L1	2672	C	C4'-C3'-C2'	-8.09	94.51	102.60
42	LP	188	ARG	NE-CZ-NH1	8.09	124.35	120.30
23	SU	15	ARG	NE-CZ-NH2	-8.09	116.25	120.30
23	SU	89	LYS	O-C-N	-8.09	109.75	122.70
33	L1	162	G	O4'-C1'-N9	8.09	114.67	108.20
32	S1	1674	C	O3'-P-O5'	-8.09	88.63	104.00
33	L1	2918	U	O4'-C1'-N1	8.09	114.67	108.20
14	SP	50	ILE	O-C-N	-8.09	109.76	122.70
33	L1	19	C	N1-C1'-C2'	8.09	124.52	114.00
33	L1	543	C	O4'-C1'-C2'	-8.09	97.71	105.80
33	L1	1086	U	N1-C1'-C2'	-8.09	103.10	112.00
33	L1	3335	G	O4'-C4'-C3'	-8.09	95.91	104.00
59	Lo	25	TYR	CB-CG-CD1	-8.09	116.15	121.00
33	L1	1116	G	P-O3'-C3'	8.09	129.40	119.70
33	L1	1952	U	C1'-O4'-C4'	8.09	116.37	109.90
33	L1	2141	A	P-O3'-C3'	8.09	129.40	119.70
33	L1	2887	C	O4'-C1'-N1	-8.09	101.73	108.20
33	L1	3303	C	N1-C1'-C2'	8.09	124.51	114.00
80	LC	367	SER	N-CA-C	8.09	132.83	111.00
32	S1	258	U	P-O5'-C5'	8.08	133.83	120.90
33	L1	1654	C	P-O3'-C3'	8.08	129.40	119.70
33	L1	2807	G	C3'-C2'-C1'	-8.08	95.03	101.50
33	L1	3111	C	N1-C1'-C2'	8.08	124.51	114.00
35	L2	147	C	O4'-C1'-N1	8.08	114.67	108.20
20	SZ	46	THR	N-CA-CB	8.08	125.65	110.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	SU	81	ILE	C-N-CA	8.08	141.90	121.70
27	SH	57	ARG	NE-CZ-NH1	8.08	124.34	120.30
32	S1	1137	A	P-O3'-C3'	8.08	129.40	119.70
32	S1	1512	C	C3'-C2'-C1'	8.08	107.96	101.50
33	L1	2537	G	O4'-C1'-N9	8.08	114.67	108.20
33	L1	2680	G	C4'-C3'-C2'	-8.08	94.52	102.60
33	L1	1044	A	P-O3'-C3'	8.08	129.40	119.70
33	L1	1648	C	O4'-C1'-C2'	-8.08	97.72	105.80
25	SC	163	THR	O-C-N	8.08	135.62	122.70
33	L1	3332	G	O4'-C1'-C2'	8.08	114.87	107.60
33	L1	1095	C	O4'-C1'-N1	8.08	114.66	108.20
32	S1	1704	G	C3'-C2'-C1'	8.07	107.96	101.50
33	L1	971	G	C5'-C4'-O4'	-8.07	99.41	109.10
33	L1	3295	G	P-O3'-C3'	8.07	129.39	119.70
35	L2	140	G	O4'-C1'-N9	8.07	114.66	108.20
57	L1	51	VAL	CG1-CB-CG2	-8.07	97.98	110.90
33	L1	846	A	C4'-C3'-C2'	-8.07	94.53	102.60
33	L1	1722	G	O4'-C1'-N9	8.07	114.66	108.20
45	LQ	124	VAL	CB-CA-C	8.07	126.73	111.40
10	SL	106	ARG	NE-CZ-NH1	8.07	124.33	120.30
32	S1	1483	G	C3'-C2'-C1'	-8.07	95.05	101.50
33	L1	734	C	P-O3'-C3'	8.07	129.38	119.70
33	L1	2060	C	O4'-C4'-C3'	8.07	112.55	106.10
33	L1	2621	G	O4'-C1'-C2'	-8.07	97.73	105.80
38	LE	89	LYS	CB-CA-C	-8.07	94.26	110.40
11	SM	82	TRP	C-N-CA	8.06	141.86	121.70
33	L1	1529	C	O4'-C1'-N1	8.06	114.65	108.20
32	S1	480	U	C5'-C4'-O4'	8.06	118.78	109.10
32	S1	1312	G	O4'-C1'-N9	8.06	114.65	108.20
32	S1	417	U	N1-C1'-C2'	8.06	124.48	114.00
5	SE	117	ASN	N-CA-CB	8.06	125.11	110.60
32	S1	1132	G	C3'-C2'-C1'	-8.06	95.05	101.50
33	L1	1018	C	C3'-C2'-C1'	8.06	107.95	101.50
33	L1	2378	U	O4'-C1'-N1	8.06	114.65	108.20
35	L2	57	A	O4'-C1'-N9	-8.06	101.75	108.20
82	LK	66	ARG	NE-CZ-NH1	8.06	124.33	120.30
15	SS	5	THR	CB-CA-C	-8.06	89.84	111.60
13	SQ	53	PHE	CB-CG-CD1	-8.06	115.16	120.80
33	L1	539	C	O4'-C1'-N1	8.06	114.65	108.20
33	L1	1754	C	O4'-C1'-N1	-8.06	101.75	108.20
33	L1	1980	C	O3'-P-O5'	8.06	119.31	104.00
34	L3	41	G	C1'-O4'-C4'	-8.06	103.45	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1197	A	O4'-C1'-C2'	8.06	114.85	107.60
33	L1	2596	A	C3'-C2'-C1'	8.06	107.94	101.50
33	L1	304	A	N9-C1'-C2'	-8.05	103.14	112.00
33	L1	731	G	O4'-C1'-N9	8.06	114.64	108.20
33	L1	1279	C	N1-C1'-C2'	-8.05	103.14	112.00
33	L1	1607	C	C1'-O4'-C4'	-8.06	103.46	109.90
33	L1	1523	G	P-O3'-C3'	-8.05	110.04	119.70
33	L1	1564	C	N1-C1'-C2'	8.05	124.47	114.00
33	L1	2945	G	C1'-O4'-C4'	-8.05	103.46	109.90
81	LD	322	ASN	CB-CA-C	-8.05	94.29	110.40
33	L1	1610	A	C4'-C3'-C2'	-8.05	94.55	102.60
33	L1	2725	U	C3'-C2'-C1'	-8.05	95.06	101.50
35	L2	107	G	N9-C1'-C2'	8.05	124.47	114.00
64	LG	140	GLN	C-N-CA	-8.05	101.57	121.70
4	SD	93	PRO	CA-C-N	8.05	134.91	117.20
32	S1	1588	C	C3'-C2'-C1'	8.05	107.94	101.50
33	L1	2178	G	C1'-O4'-C4'	-8.05	103.46	109.90
49	LX	37	ARG	NE-CZ-NH2	-8.05	116.28	120.30
32	S1	885	C	O4'-C1'-C2'	-8.05	97.75	105.80
33	L1	566	G	O4'-C1'-C2'	8.05	114.84	107.60
33	L1	1501	A	N9-C1'-C2'	8.05	124.46	114.00
33	L1	1967	C	O4'-C1'-N1	8.05	114.64	108.20
25	SC	162	LEU	CA-C-N	8.04	134.90	117.20
33	L1	226	U	P-O3'-C3'	8.04	129.35	119.70
38	LE	130	PHE	CB-CG-CD1	-8.04	115.17	120.80
32	S1	288	G	C3'-C2'-C1'	-8.04	95.06	101.50
32	S1	357	A	P-O3'-C3'	8.04	129.35	119.70
32	S1	586	U	N1-C1'-C2'	8.04	124.46	114.00
33	L1	560	C	N1-C1'-C2'	-8.04	103.15	112.00
33	L1	1284	C	O4'-C1'-N1	8.04	114.63	108.20
33	L1	2696	C	C3'-C2'-C1'	8.04	107.93	101.50
48	LV	128	ARG	NE-CZ-NH1	8.04	124.32	120.30
12	SO	142	GLU	N-CA-CB	-8.04	96.13	110.60
33	L1	2908	C	C3'-C2'-C1'	8.04	107.93	101.50
33	L1	1017	G	P-O5'-C5'	8.04	133.76	120.90
33	L1	1765	G	O5'-P-OP2	8.04	120.34	110.70
67	LS	111	GLU	O-C-N	-8.04	109.84	122.70
67	LS	152	PRO	CA-N-CD	-8.04	100.25	111.50
32	S1	169	A	P-O3'-C3'	8.04	129.34	119.70
32	S1	776	A	O5'-P-OP2	-8.04	98.47	105.70
33	L1	135	G	C5'-C4'-O4'	8.04	118.74	109.10
33	L1	431	G	O4'-C1'-N9	8.04	114.63	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1924	G	O4'-C1'-N9	8.04	114.63	108.20
33	L1	3086	G	C3'-C2'-C1'	-8.04	95.07	101.50
73	Lp	52	LYS	CB-CA-C	-8.04	94.33	110.40
31	S2	11	U	C3'-C2'-C1'	8.03	107.92	101.50
33	L1	1163	A	O5'-P-OP1	-8.03	98.47	105.70
33	L1	2784	U	C3'-C2'-C1'	-8.03	95.07	101.50
33	L1	1309	U	C1'-O4'-C4'	-8.03	103.47	109.90
33	L1	1663	G	C1'-O4'-C4'	-8.03	103.47	109.90
31	S2	46	A	N9-C1'-C2'	-8.03	103.17	112.00
32	S1	1347	U	O4'-C1'-N1	8.03	114.62	108.20
33	L1	30	C	C3'-C2'-C1'	8.03	107.92	101.50
32	S1	1038	C	O4'-C1'-N1	8.03	114.62	108.20
33	L1	309	C	C5'-C4'-C3'	8.03	128.84	116.00
33	L1	339	G	C1'-O4'-C4'	-8.03	103.48	109.90
33	L1	1027	C	N1-C1'-C2'	-8.03	103.17	112.00
33	L1	1637	G	O4'-C1'-N9	8.03	114.62	108.20
33	L1	1868	C	C1'-O4'-C4'	-8.03	103.48	109.90
33	L1	256	G	N9-C1'-C2'	8.02	124.43	114.00
33	L1	3175	C	O4'-C1'-C2'	-8.02	97.78	105.80
33	L1	3210	G	C1'-O4'-C4'	8.02	116.32	109.90
4	SD	61	VAL	C-N-CA	8.02	141.75	121.70
23	SU	25	ARG	NE-CZ-NH1	8.02	124.31	120.30
33	L1	1273	U	N1-C1'-C2'	8.02	124.42	114.00
33	L1	3128	A	N9-C1'-C2'	8.02	124.42	114.00
38	LE	114	LEU	C-N-CA	-8.02	105.46	122.30
69	La	28	VAL	CA-CB-CG2	8.02	122.93	110.90
81	LD	371	ALA	CB-CA-C	8.02	122.13	110.10
27	SH	82	GLY	N-CA-C	8.02	133.14	113.10
31	S2	68	C	O4'-C1'-N1	-8.02	101.79	108.20
32	S1	1641	A	P-O5'-C5'	-8.02	108.07	120.90
33	L1	761	C	O4'-C1'-N1	8.02	114.61	108.20
33	L1	1488	G	O4'-C1'-N9	8.02	114.61	108.20
33	L1	2673	G	P-O3'-C3'	-8.02	110.08	119.70
32	S1	144	U	C3'-C2'-C1'	8.01	107.91	101.50
32	S1	622	U	C3'-C2'-C1'	8.01	107.91	101.50
32	S1	1801	A	C3'-C2'-C1'	-8.01	95.09	101.50
33	L1	294	A	C3'-C2'-C1'	8.01	107.91	101.50
33	L1	522	C	C3'-C2'-C1'	8.01	107.91	101.50
33	L1	949	C	C1'-O4'-C4'	8.01	116.31	109.90
33	L1	1473	U	O4'-C1'-N1	8.01	114.61	108.20
33	L1	2219	A	C1'-O4'-C4'	8.01	116.31	109.90
33	L1	178	C	P-O3'-C3'	8.01	129.31	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	LT	85	ARG	NE-CZ-NH1	-8.01	116.29	120.30
32	S1	978	A	P-O5'-C5'	-8.01	108.09	120.90
33	L1	629	U	C3'-C2'-C1'	8.01	107.91	101.50
1	Sa	128	LEU	CB-CG-CD2	8.01	124.61	111.00
33	L1	2843	G	C5'-C4'-C3'	8.01	128.81	116.00
33	L1	3024	U	C1'-O4'-C4'	8.01	116.30	109.90
34	L3	77	A	C3'-C2'-C1'	8.01	107.91	101.50
41	LM	70	PRO	C-N-CA	8.01	141.71	121.70
32	S1	449	A	O4'-C1'-C2'	-8.00	97.80	105.80
32	S1	1243	C	C3'-C2'-C1'	8.00	107.90	101.50
33	L1	443	G	C1'-O4'-C4'	-8.00	103.50	109.90
33	L1	592	U	O4'-C1'-N1	8.00	114.60	108.20
33	L1	656	G	C3'-C2'-C1'	8.00	107.90	101.50
33	L1	1499	C	C1'-O4'-C4'	-8.00	103.50	109.90
33	L1	3094	C	P-O3'-C3'	8.00	129.30	119.70
45	LQ	266	ARG	NE-CZ-NH2	-8.00	116.30	120.30
33	L1	41	C	N1-C1'-C2'	8.00	124.40	114.00
33	L1	2866	A	C1'-O4'-C4'	-8.00	103.50	109.90
33	L1	3202	G	C3'-C2'-C1'	-8.00	95.10	101.50
32	S1	316	A	C1'-O4'-C4'	-8.00	103.50	109.90
33	L1	1432	G	P-O3'-C3'	8.00	129.30	119.70
33	L1	2019	G	O4'-C1'-N9	8.00	114.60	108.20
33	L1	867	G	O4'-C1'-N9	8.00	114.60	108.20
33	L1	3014	U	O4'-C1'-N1	8.00	114.60	108.20
33	L1	295	U	C1'-O4'-C4'	7.99	116.30	109.90
33	L1	1054	U	C1'-O4'-C4'	-7.99	103.50	109.90
33	L1	1875	A	C3'-C2'-C1'	7.99	107.89	101.50
33	L1	642	C	C1'-O4'-C4'	-7.99	103.51	109.90
33	L1	1880	A	O5'-P-OP1	-7.99	98.51	105.70
33	L1	1606	C	N1-C1'-C2'	7.99	124.39	114.00
33	L1	2376	G	P-O3'-C3'	7.99	129.29	119.70
33	L1	2867	U	C3'-C2'-C1'	7.99	107.89	101.50
34	L3	99	G	P-O5'-C5'	-7.99	108.11	120.90
67	LS	166	LYS	CB-CA-C	-7.99	94.42	110.40
33	L1	673	U	O4'-C1'-N1	7.99	114.59	108.20
52	Lb	127	VAL	CA-CB-CG1	7.99	122.88	110.90
33	L1	2465	G	O4'-C1'-C2'	7.99	114.79	107.60
33	L1	3319	G	C5'-C4'-C3'	-7.99	103.22	116.00
66	LN	117	ARG	CB-CA-C	7.99	126.37	110.40
33	L1	1436	A	N9-C1'-C2'	-7.99	103.22	112.00
33	L1	1361	G	O4'-C4'-C3'	-7.98	96.02	104.00
32	S1	602	U	O4'-C1'-N1	7.98	114.59	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1257	U	C1'-O4'-C4'	7.98	116.28	109.90
33	L1	1317	G	P-O5'-C5'	-7.98	108.13	120.90
33	L1	3385	G	O4'-C1'-C2'	7.98	114.78	107.60
34	L3	116	U	N1-C1'-C2'	7.98	124.38	114.00
33	L1	3081	G	O4'-C1'-N9	-7.98	101.82	108.20
34	L3	46	C	N1-C1'-C2'	7.98	124.37	114.00
70	Li	65	PRO	CA-N-CD	-7.98	100.33	111.50
45	LQ	180	PHE	CB-CG-CD2	-7.98	115.22	120.80
33	L1	456	G	O4'-C1'-N9	7.98	114.58	108.20
33	L1	1998	A	O4'-C1'-N9	7.98	114.58	108.20
33	L1	3040	G	O4'-C1'-C2'	7.98	114.78	107.60
35	L2	125	A	N9-C1'-C2'	7.98	124.37	114.00
38	LE	63	ARG	N-CA-CB	7.98	124.96	110.60
31	S2	32	U	O4'-C1'-C2'	7.98	114.78	107.60
33	L1	605	A	C4'-C3'-C2'	-7.98	94.62	102.60
33	L1	1317	G	O4'-C1'-N9	7.97	114.58	108.20
1	Sa	323	TYR	CG-CD1-CE1	-7.97	114.92	121.30
31	S2	1	U	O4'-C1'-N1	7.97	114.58	108.20
32	S1	1798	G	O4'-C1'-N9	7.97	114.58	108.20
33	L1	816	G	O4'-C1'-C2'	7.97	114.78	107.60
33	L1	2639	A	O5'-P-OP1	7.97	120.27	110.70
80	LC	61	GLU	N-CA-CB	7.97	124.95	110.60
25	SC	144	ASN	O-C-N	7.97	135.45	122.70
32	S1	1065	A	C3'-C2'-C1'	7.97	107.88	101.50
32	S1	1677	U	C3'-C2'-C1'	7.97	107.88	101.50
33	L1	238	C	N1-C1'-C2'	7.97	124.36	114.00
33	L1	1142	G	O4'-C1'-C2'	7.97	114.77	107.60
54	Lf	88	TYR	CB-CG-CD2	7.97	125.78	121.00
70	Li	66	ARG	NE-CZ-NH2	7.97	124.28	120.30
33	L1	1618	U	OP1-P-OP2	-7.97	107.65	119.60
81	LD	118	ARG	NE-CZ-NH2	-7.97	116.32	120.30
9	SK	34	ALA	N-CA-C	-7.96	89.50	111.00
11	SM	99	VAL	CA-CB-CG1	-7.96	98.95	110.90
31	S2	46	A	P-O3'-C3'	7.96	129.26	119.70
33	L1	922	U	C1'-O4'-C4'	-7.96	103.53	109.90
33	L1	1318	C	C3'-C2'-C1'	7.96	107.87	101.50
33	L1	1394	C	P-O3'-C3'	7.96	129.26	119.70
33	L1	2183	A	O4'-C1'-N9	7.96	114.57	108.20
29	ST	41	GLU	N-CA-C	7.96	132.50	111.00
33	L1	92	C	C3'-C2'-C1'	7.96	107.87	101.50
33	L1	1196	U	O4'-C4'-C3'	-7.96	96.04	104.00
33	L1	3220	A	P-O3'-C3'	7.96	129.25	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
79	Ls	186	PHE	CB-CG-CD2	7.96	126.37	120.80
32	S1	1474	U	O4'-C1'-C2'	-7.96	97.84	105.80
33	L1	3161	C	P-O3'-C3'	-7.96	110.15	119.70
33	L1	3226	G	O4'-C1'-C2'	-7.96	97.84	105.80
33	L1	2508	U	C4'-C3'-C2'	7.96	110.56	102.60
33	L1	2716	U	P-O5'-C5'	7.96	133.63	120.90
33	L1	3323	U	O4'-C1'-N1	7.96	114.56	108.20
32	S1	582	U	O4'-C1'-N1	-7.95	101.84	108.20
33	L1	2102	C	C3'-C2'-C1'	7.95	107.86	101.50
33	L1	3337	G	C3'-C2'-C1'	-7.95	95.14	101.50
33	L1	1311	G	C1'-O4'-C4'	-7.95	103.54	109.90
33	L1	1673	A	N9-C1'-C2'	7.95	124.34	114.00
48	LV	37	ARG	N-CA-CB	7.95	124.91	110.60
32	S1	1546	U	O4'-C1'-C2'	-7.95	97.85	105.80
38	LE	145	ARG	NE-CZ-NH2	7.95	124.27	120.30
32	S1	7	G	C1'-O4'-C4'	-7.95	103.54	109.90
33	L1	2789	G	OP1-P-O3'	7.95	122.68	105.20
48	LV	31	GLU	N-CA-CB	7.95	124.90	110.60
33	L1	641	C	OP1-P-OP2	-7.94	107.68	119.60
34	L3	38	U	N1-C1'-C2'	7.94	124.33	114.00
38	LE	31	ARG	NE-CZ-NH1	7.94	124.27	120.30
32	S1	980	C	O4'-C1'-C2'	-7.94	97.86	105.80
33	L1	64	A	O4'-C1'-C2'	7.94	114.75	107.60
33	L1	943	G	O4'-C1'-N9	7.94	114.55	108.20
33	L1	2166	U	O5'-C5'-C4'	7.94	126.79	111.70
33	L1	2279	C	C3'-C2'-C1'	7.94	107.85	101.50
33	L1	2411	G	O4'-C1'-C2'	7.94	114.75	107.60
35	L2	154	G	C1'-O4'-C4'	-7.94	103.55	109.90
79	Ls	34	ASP	N-CA-CB	-7.94	96.31	110.60
35	L2	76	A	O3'-P-O5'	-7.94	88.92	104.00
48	LV	90	ARG	NE-CZ-NH1	7.94	124.27	120.30
33	L1	589	G	N9-C1'-C2'	7.94	124.32	114.00
33	L1	679	C	N1-C1'-C2'	7.94	124.32	114.00
34	L3	103	U	C3'-C2'-C1'	7.94	107.85	101.50
68	LW	117	ARG	NE-CZ-NH2	-7.94	116.33	120.30
33	L1	827	C	C1'-O4'-C4'	-7.94	103.55	109.90
32	S1	511	U	O4'-C1'-N1	7.93	114.55	108.20
32	S1	919	G	O4'-C1'-C2'	-7.93	97.86	105.80
32	S1	1518	C	O4'-C1'-N1	7.93	114.55	108.20
33	L1	690	G	C3'-C2'-C1'	-7.93	95.15	101.50
33	L1	770	U	P-O3'-C3'	7.93	129.22	119.70
32	S1	950	U	C1'-O4'-C4'	-7.93	103.55	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	160	G	O4'-C1'-C2'	7.93	114.74	107.60
33	L1	372	A	O4'-C1'-N9	7.93	114.55	108.20
33	L1	1697	G	O4'-C1'-N9	7.93	114.55	108.20
72	Lk	42	PHE	CB-CG-CD2	-7.93	115.25	120.80
32	S1	1263	C	C3'-C2'-C1'	7.93	107.84	101.50
33	L1	2036	C	C3'-C2'-C1'	7.93	107.84	101.50
33	L1	2842	C	C3'-C2'-C1'	-7.93	95.16	101.50
10	SL	5	ARG	NE-CZ-NH1	-7.93	116.34	120.30
32	S1	1734	U	O4'-C1'-N1	7.93	114.54	108.20
33	L1	3318	G	P-O3'-C3'	-7.93	110.19	119.70
33	L1	1644	A	C3'-C2'-C1'	7.92	107.84	101.50
33	L1	2411	G	C3'-C2'-C1'	-7.92	95.16	101.50
33	L1	2771	U	C5'-C4'-O4'	-7.92	99.59	109.10
33	L1	3244	G	O4'-C1'-N9	7.92	114.54	108.20
32	S1	1116	G	C3'-C2'-C1'	-7.92	95.17	101.50
33	L1	522	C	C5'-C4'-O4'	7.92	118.60	109.10
33	L1	1048	U	O4'-C1'-N1	7.92	114.53	108.20
32	S1	1461	G	P-O5'-C5'	-7.92	108.23	120.90
33	L1	140	C	C1'-O4'-C4'	-7.92	103.57	109.90
33	L1	705	A	P-O3'-C3'	7.92	129.20	119.70
33	L1	2275	A	O4'-C1'-N9	7.92	114.53	108.20
5	SE	191	ARG	NE-CZ-NH1	7.92	124.26	120.30
33	L1	1554	C	N1-C1'-C2'	7.92	124.29	114.00
4	SD	94	LYS	CA-C-O	-7.91	103.48	120.10
32	S1	4	C	O4'-C1'-C2'	-7.91	97.89	105.80
32	S1	438	G	C4'-C3'-C2'	-7.91	94.69	102.60
32	S1	1699	C	C1'-O4'-C4'	-7.91	103.57	109.90
33	L1	16	A	O4'-C4'-C3'	7.91	112.43	106.10
33	L1	1875	A	O4'-C1'-C2'	-7.91	97.89	105.80
66	LN	29	ASP	CB-CG-OD1	7.91	125.42	118.30
32	S1	33	U	C3'-C2'-C1'	7.91	107.83	101.50
32	S1	1315	U	OP1-P-O3'	7.91	122.60	105.20
33	L1	1589	G	N9-C1'-C2'	-7.91	103.30	112.00
34	L3	68	G	O4'-C1'-N9	-7.91	101.87	108.20
33	L1	2373	C	C5'-C4'-O4'	7.91	118.59	109.10
33	L1	43	U	O4'-C1'-N1	7.91	114.53	108.20
33	L1	230	G	N9-C1'-C2'	7.91	124.28	114.00
35	L2	101	G	P-O3'-C3'	7.91	129.19	119.70
50	LZ	23	PHE	CB-CG-CD1	-7.91	115.27	120.80
32	S1	192	G	O4'-C1'-C2'	7.91	114.72	107.60
32	S1	258	U	O3'-P-O5'	7.91	119.02	104.00
32	S1	405	A	O4'-C1'-C2'	-7.91	97.89	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1673	A	C1'-O4'-C4'	-7.91	103.58	109.90
33	L1	1866	C	P-O3'-C3'	7.91	129.19	119.70
33	L1	2790	C	C3'-C2'-C1'	7.91	107.83	101.50
33	L1	3145	G	P-O5'-C5'	7.91	133.55	120.90
45	LQ	198	TYR	CB-CG-CD2	-7.91	116.26	121.00
33	L1	1058	A	O3'-P-O5'	-7.90	88.98	104.00
33	L1	2900	G	P-O5'-C5'	7.90	133.55	120.90
32	S1	915	C	O4'-C1'-C2'	-7.90	97.90	105.80
33	L1	367	A	C2'-C3'-O3'	7.90	126.88	109.50
33	L1	782	G	O4'-C1'-N9	7.90	114.52	108.20
33	L1	831	G	O5'-P-OP2	-7.90	98.59	105.70
33	L1	1054	U	C3'-C2'-C1'	-7.90	95.18	101.50
32	S1	1652	C	P-O3'-C3'	7.90	129.18	119.70
33	L1	48	A	C5'-C4'-O4'	7.90	118.58	109.10
33	L1	2749	A	O4'-C1'-C2'	7.90	114.71	107.60
67	LS	118	VAL	N-CA-C	-7.90	89.67	111.00
33	L1	2910	C	C1'-O4'-C4'	-7.90	103.58	109.90
32	S1	32	U	C5'-C4'-C3'	7.90	128.63	116.00
34	L3	3	A	N9-C1'-C2'	-7.90	103.31	112.00
66	LN	8	GLU	C-N-CA	7.90	141.45	121.70
33	L1	1529	C	P-O3'-C3'	7.89	129.17	119.70
33	L1	2133	A	C1'-O4'-C4'	-7.89	103.58	109.90
33	L1	29	G	O4'-C1'-N9	7.89	114.52	108.20
33	L1	71	C	O4'-C1'-C2'	-7.89	97.91	105.80
33	L1	3054	G	O5'-P-OP1	7.89	120.17	110.70
35	L2	101	G	C1'-O4'-C4'	-7.89	103.58	109.90
69	La	40	HIS	C-N-CA	7.89	141.43	121.70
33	L1	1575	G	C5'-C4'-C3'	-7.89	103.37	116.00
32	S1	378	U	N1-C1'-C2'	7.89	124.26	114.00
32	S1	1224	C	N1-C1'-C2'	-7.89	103.32	112.00
33	L1	567	G	O4'-C1'-N9	7.89	114.51	108.20
34	L3	115	A	C4'-C3'-O3'	-7.89	92.83	109.40
8	SJ	99	ASP	CB-CG-OD1	-7.89	111.20	118.30
33	L1	233	C	N1-C1'-C2'	7.89	124.25	114.00
35	L2	98	C	C5'-C4'-O4'	7.89	118.56	109.10
32	S1	1766	A	N9-C1'-C2'	-7.89	103.32	112.00
33	L1	1075	G	C3'-C2'-C1'	-7.89	95.19	101.50
46	LT	23	TRP	CA-CB-CG	7.89	128.69	113.70
57	L1	55	ARG	NE-CZ-NH2	-7.89	116.36	120.30
32	S1	1553	A	C4'-C3'-C2'	-7.88	94.72	102.60
33	L1	1887	A	P-O3'-C3'	-7.88	110.24	119.70
33	L1	2405	C	O4'-C1'-C2'	7.88	114.70	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2647	C	O4'-C1'-C2'	-7.88	97.92	105.80
33	L1	271	G	C3'-C2'-C1'	-7.88	95.19	101.50
32	S1	1405	U	O4'-C1'-N1	-7.88	101.89	108.20
32	S1	1771	U	P-O5'-C5'	7.88	133.51	120.90
33	L1	1703	C	N1-C1'-C2'	7.88	124.25	114.00
61	Lq	9	ARG	NE-CZ-NH2	-7.88	116.36	120.30
33	L1	1761	C	O4'-C1'-N1	7.88	114.50	108.20
33	L1	2762	U	O4'-C1'-N1	7.88	114.50	108.20
46	LT	187	ARG	NE-CZ-NH1	7.88	124.24	120.30
57	Ll	52	LYS	N-CA-C	7.88	132.28	111.00
59	Lo	1	MET	CG-SD-CE	-7.88	87.59	100.20
33	L1	380	U	O4'-C1'-N1	7.88	114.50	108.20
33	L1	1946	C	O4'-C1'-N1	7.88	114.50	108.20
33	L1	251	G	C1'-O4'-C4'	-7.88	103.60	109.90
33	L1	711	A	P-O3'-C3'	7.88	129.15	119.70
33	L1	823	A	C3'-C2'-C1'	7.88	107.80	101.50
46	LT	104	ARG	NE-CZ-NH2	7.88	124.24	120.30
47	LU	126	ILE	N-CA-C	7.88	132.26	111.00
31	S2	71	A	C4'-C3'-C2'	7.88	110.47	102.60
32	S1	302	C	OP1-P-O3'	7.88	122.53	105.20
33	L1	1865	C	O4'-C1'-N1	7.88	114.50	108.20
32	S1	1080	C	C3'-C2'-C1'	7.87	107.80	101.50
33	L1	449	G	C1'-O4'-C4'	-7.87	103.60	109.90
45	LQ	249	ALA	CB-CA-C	7.87	121.91	110.10
31	S2	45	G	C1'-O4'-C4'	7.87	116.20	109.90
33	L1	1432	G	O4'-C1'-N9	-7.87	101.90	108.20
33	L1	1922	C	O5'-C5'-C4'	7.87	126.66	111.70
33	L1	2394	G	C1'-O4'-C4'	-7.87	103.60	109.90
33	L1	279	G	O4'-C1'-N9	7.87	114.50	108.20
33	L1	1255	A	P-O5'-C5'	7.87	133.49	120.90
32	S1	1007	G	O4'-C1'-N9	-7.87	101.90	108.20
35	L2	102	U	O3'-P-O5'	-7.87	89.05	104.00
32	S1	1226	U	O4'-C1'-N1	7.87	114.49	108.20
33	L1	2764	G	C1'-O4'-C4'	-7.87	103.61	109.90
33	L1	3332	G	P-O3'-C3'	7.87	129.14	119.70
32	S1	33	U	O4'-C1'-N1	7.86	114.49	108.20
33	L1	966	G	C1'-O4'-C4'	7.86	116.19	109.90
45	LQ	48	TYR	CG-CD1-CE1	-7.86	115.01	121.30
32	S1	1248	A	O4'-C1'-N9	7.86	114.49	108.20
33	L1	137	C	N1-C1'-C2'	7.86	124.22	114.00
33	L1	1517	C	N1-C1'-C2'	7.86	124.22	114.00
33	L1	2225	C	P-O5'-C5'	7.86	133.47	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	LS	121	PRO	CA-N-CD	-7.86	100.50	111.50
33	L1	1767	G	C1'-O4'-C4'	7.86	116.18	109.90
81	LD	37	ARG	NE-CZ-NH2	-7.86	116.37	120.30
33	L1	1909	G	O4'-C1'-N9	7.85	114.48	108.20
17	SV	78	ARG	NE-CZ-NH2	-7.85	116.37	120.30
35	L2	24	U	O5'-P-OP2	-7.85	98.63	105.70
78	Le	235	TYR	CB-CG-CD2	-7.85	116.29	121.00
81	LD	109	THR	C-N-CA	7.85	141.33	121.70
16	SR	127	GLU	O-C-N	-7.85	110.14	122.70
32	S1	1586	U	C4'-C3'-C2'	-7.85	94.75	102.60
33	L1	1869	U	N1-C1'-C2'	7.85	124.21	114.00
33	L1	153	U	P-O3'-C3'	7.85	129.12	119.70
48	LV	60	PHE	CB-CG-CD2	-7.85	115.31	120.80
32	S1	1453	U	O4'-C1'-N1	-7.85	101.92	108.20
33	L1	2106	U	N1-C1'-C2'	7.85	124.20	114.00
11	SM	12	ILE	CA-CB-CG2	-7.85	95.21	110.90
33	L1	522	C	O3'-P-O5'	7.85	118.91	104.00
33	L1	543	C	C5'-C4'-C3'	7.85	128.55	116.00
33	L1	3234	G	O4'-C4'-C3'	-7.85	96.15	104.00
59	Lo	42	ARG	NE-CZ-NH2	-7.85	116.38	120.30
6	SF	141	ARG	NE-CZ-NH1	7.84	124.22	120.30
32	S1	1239	C	C3'-C2'-C1'	-7.84	95.22	101.50
33	L1	652	C	O4'-C1'-C2'	-7.84	97.95	105.80
33	L1	1576	C	N1-C1'-C2'	7.84	124.20	114.00
13	SQ	73	LEU	N-CA-C	-7.84	89.83	111.00
32	S1	239	C	P-O3'-C3'	7.84	129.11	119.70
32	S1	1482	U	O4'-C1'-N1	7.84	114.47	108.20
32	S1	1703	G	C5'-C4'-C3'	7.84	128.55	116.00
33	L1	213	G	C4'-C3'-C2'	-7.84	94.76	102.60
33	L1	746	C	O4'-C1'-N1	7.84	114.47	108.20
32	S1	890	G	N9-C1'-C2'	7.84	124.19	114.00
32	S1	2	A	C5'-C4'-O4'	7.84	118.50	109.10
32	S1	44	U	O4'-C1'-N1	7.84	114.47	108.20
33	L1	931	C	C1'-O4'-C4'	-7.83	103.63	109.90
33	L1	1342	C	O4'-C1'-N1	7.83	114.47	108.20
33	L1	2952	G	P-O3'-C3'	7.83	129.10	119.70
11	SM	55	ARG	NE-CZ-NH1	7.83	124.22	120.30
33	L1	1222	U	C3'-C2'-C1'	7.83	107.77	101.50
76	Lv	39	MET	CG-SD-CE	-7.83	87.67	100.20
32	S1	1007	G	O4'-C1'-C2'	7.83	114.65	107.60
32	S1	1063	U	P-O3'-C3'	7.83	129.10	119.70
33	L1	705	A	O4'-C1'-C2'	-7.83	97.97	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1899	U	O4'-C1'-C2'	7.83	114.65	107.60
33	L1	2404	C	C3'-C2'-C1'	-7.83	95.24	101.50
32	S1	1380	A	N9-C1'-C2'	-7.83	103.39	112.00
33	L1	980	C	O4'-C1'-N1	7.83	114.46	108.20
33	L1	2373	C	C5'-C4'-C3'	-7.83	103.48	116.00
51	LY	15	ARG	NE-CZ-NH1	7.83	124.21	120.30
33	L1	1064	U	P-O3'-C3'	-7.82	110.31	119.70
33	L1	1285	U	O4'-C1'-N1	7.82	114.46	108.20
33	L1	1716	G	O4'-C1'-N9	7.82	114.46	108.20
34	L3	15	C	O4'-C1'-C2'	-7.82	97.98	105.80
32	S1	1561	G	O4'-C1'-C2'	-7.82	97.98	105.80
33	L1	1804	G	C1'-O4'-C4'	-7.82	103.64	109.90
33	L1	2901	C	N1-C1'-C2'	7.82	124.17	114.00
33	L1	3007	A	N9-C1'-C2'	7.82	124.17	114.00
32	S1	578	G	O4'-C4'-C3'	-7.82	96.18	104.00
32	S1	1091	A	N9-C1'-C2'	7.82	124.16	114.00
33	L1	1332	C	O4'-C1'-N1	7.82	114.45	108.20
33	L1	1624	G	C5'-C4'-C3'	-7.82	103.49	116.00
32	S1	1674	C	C1'-O4'-C4'	7.82	116.15	109.90
33	L1	786	U	N1-C1'-C2'	7.82	124.16	114.00
23	SU	8	PRO	C-N-CA	-7.81	102.17	121.70
41	LM	69	LYS	CA-C-N	7.81	138.98	117.10
32	S1	918	G	O4'-C1'-N9	7.81	114.45	108.20
33	L1	360	G	O4'-C1'-N9	7.81	114.45	108.20
33	L1	2773	G	O4'-C1'-N9	7.81	114.45	108.20
33	L1	3379	C	P-O5'-C5'	-7.81	108.40	120.90
33	L1	484	C	P-O5'-C5'	7.81	133.40	120.90
33	L1	2645	A	O4'-C1'-C2'	7.81	114.63	107.60
33	L1	2765	A	C5'-C4'-C3'	7.81	128.50	116.00
33	L1	2875	U	N1-C1'-C2'	-7.81	103.41	112.00
32	S1	352	U	O4'-C1'-N1	7.81	114.45	108.20
33	L1	2780	G	O4'-C1'-C2'	-7.81	97.99	105.80
33	L1	2942	A	N9-C1'-C2'	7.81	124.15	114.00
32	S1	1355	U	N1-C1'-C2'	-7.81	103.41	112.00
33	L1	907	A	C5'-C4'-O4'	7.81	118.47	109.10
34	L3	4	U	P-O3'-C3'	7.81	129.07	119.70
35	L2	118	G	O4'-C1'-N9	7.80	114.44	108.20
33	L1	2235	G	N9-C1'-C2'	7.80	124.14	114.00
33	L1	2899	A	C1'-O4'-C4'	7.80	116.14	109.90
33	L1	3225	G	O4'-C1'-C2'	7.80	114.62	107.60
13	SQ	139	ASP	CA-C-O	7.80	136.49	120.10
32	S1	1802	G	P-O5'-C5'	7.80	133.38	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	31	U	P-O5'-C5'	7.80	133.38	120.90
33	L1	740	G	O4'-C1'-N9	7.80	114.44	108.20
33	L1	2628	C	P-O3'-C3'	7.80	129.06	119.70
33	L1	558	G	C4'-C3'-C2'	-7.80	94.80	102.60
33	L1	2174	C	C5'-C4'-O4'	-7.80	99.74	109.10
33	L1	2232	C	C4'-C3'-C2'	-7.80	94.80	102.60
33	L1	2974	G	C5'-C4'-O4'	-7.80	99.74	109.10
33	L1	3333	C	C3'-C2'-C1'	7.80	107.74	101.50
33	L1	498	G	P-O5'-C5'	7.80	133.38	120.90
33	L1	568	C	C3'-C2'-C1'	7.80	107.74	101.50
33	L1	619	C	O5'-C5'-C4'	7.80	126.51	111.70
33	L1	1912	U	O5'-P-OP2	-7.80	98.68	105.70
33	L1	2163	G	O4'-C1'-N9	7.80	114.44	108.20
33	L1	2497	A	O4'-C1'-C2'	-7.80	98.00	105.80
32	S1	584	A	O4'-C4'-C3'	7.79	112.34	106.10
33	L1	651	A	O4'-C1'-C2'	-7.79	98.01	105.80
11	SM	12	ILE	CA-CB-CG1	7.79	125.80	111.00
32	S1	1247	G	C3'-C2'-C1'	-7.79	95.27	101.50
33	L1	603	G	N9-C1'-C2'	7.79	124.13	114.00
48	LV	136	ARG	NE-CZ-NH1	7.79	124.20	120.30
56	Lh	48	LYS	C-N-CA	7.79	138.66	122.30
20	SZ	43	ARG	N-CA-CB	-7.79	96.58	110.60
33	L1	3003	C	C1'-O4'-C4'	-7.79	103.67	109.90
60	Lr	89	LYS	C-N-CA	7.79	141.17	121.70
78	Le	68	LYS	CB-CG-CD	7.79	131.85	111.60
32	S1	1775	A	C1'-O4'-C4'	-7.79	103.67	109.90
33	L1	643	G	C4'-C3'-C2'	-7.79	94.81	102.60
33	L1	2770	U	C1'-O4'-C4'	7.79	116.13	109.90
59	Lo	49	LEU	CA-C-N	-7.79	100.62	116.20
33	L1	285	G	O4'-C1'-N9	7.79	114.43	108.20
70	Li	19	GLN	N-CA-CB	7.79	124.62	110.60
32	S1	1473	C	C4'-C3'-C2'	-7.79	94.81	102.60
70	Li	44	CYS	N-CA-C	-7.79	89.98	111.00
8	SJ	88	ARG	O-C-N	7.78	135.16	122.70
33	L1	2754	G	C5'-C4'-O4'	7.78	118.44	109.10
6	SF	131	ARG	NE-CZ-NH1	7.78	124.19	120.30
6	SF	142	ARG	NE-CZ-NH1	7.78	124.19	120.30
32	S1	60	C	N1-C1'-C2'	7.78	124.11	114.00
33	L1	1115	A	P-O3'-C3'	7.78	129.04	119.70
33	L1	2165	A	O4'-C1'-N9	7.78	114.42	108.20
33	L1	2407	U	C1'-O4'-C4'	-7.78	103.67	109.90
32	S1	1288	C	C1'-O4'-C4'	7.78	116.12	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1458	U	N1-C1'-C2'	7.78	124.11	114.00
67	LS	158	VAL	CB-CA-C	-7.78	96.62	111.40
32	S1	143	A	O4'-C1'-N9	7.78	114.42	108.20
32	S1	970	U	N1-C1'-C2'	7.78	124.11	114.00
32	S1	1143	A	C1'-O4'-C4'	7.78	116.12	109.90
33	L1	891	U	O4'-C1'-C2'	-7.78	98.02	105.80
69	La	28	VAL	N-CA-CB	-7.78	94.39	111.50
32	S1	611	G	O4'-C1'-C2'	7.78	114.60	107.60
33	L1	2893	U	O4'-C1'-N1	7.78	114.42	108.20
33	L1	766	C	C3'-C2'-C1'	7.77	107.72	101.50
33	L1	3386	A	P-O5'-C5'	7.77	133.34	120.90
10	SL	96	ASN	CA-CB-CG	-7.77	96.30	113.40
33	L1	348	C	O4'-C1'-C2'	-7.77	98.03	105.80
33	L1	2491	A	N9-C1'-C2'	7.77	124.10	114.00
32	S1	1752	U	O4'-C1'-N1	7.77	114.42	108.20
32	S1	350	G	N9-C1'-C2'	7.77	124.10	114.00
32	S1	1022	U	N1-C1'-C2'	7.77	124.10	114.00
33	L1	337	C	N1-C1'-C2'	7.77	124.10	114.00
33	L1	883	G	N9-C1'-C2'	7.77	124.10	114.00
33	L1	1005	C	O4'-C1'-C2'	-7.77	98.03	105.80
33	L1	1337	C	C3'-C2'-C1'	7.77	107.72	101.50
33	L1	1474	U	P-O5'-C5'	7.77	133.33	120.90
33	L1	1622	G	C3'-C2'-C1'	7.77	107.72	101.50
33	L1	2866	A	O4'-C1'-N9	7.77	114.42	108.20
33	L1	2996	A	C5'-C4'-C3'	7.77	128.43	116.00
13	SQ	139	ASP	CA-C-N	-7.77	100.11	117.20
28	SN	52	PHE	N-CA-C	-7.77	90.03	111.00
31	S2	74	C	O4'-C1'-N1	7.77	114.42	108.20
32	S1	1782	C	O5'-P-OP1	-7.77	98.71	105.70
33	L1	2674	A	C1'-O4'-C4'	7.77	116.11	109.90
33	L1	2756	G	O4'-C1'-N9	7.77	114.41	108.20
32	S1	1289	U	O4'-C1'-N1	7.77	114.41	108.20
33	L1	20	G	C1'-O4'-C4'	-7.76	103.69	109.90
33	L1	84	A	N9-C1'-C2'	-7.76	103.46	112.00
11	SM	32	SER	O-C-N	7.76	135.12	122.70
32	S1	1660	C	N1-C1'-C2'	7.76	124.09	114.00
33	L1	1318	C	C1'-O4'-C4'	-7.76	103.69	109.90
33	L1	2237	A	N9-C1'-C2'	7.76	124.09	114.00
33	L1	3126	U	O4'-C1'-N1	7.76	114.41	108.20
41	LM	15	ARG	NE-CZ-NH1	-7.76	116.42	120.30
69	La	31	GLU	CA-C-N	7.76	131.72	116.20
33	L1	471	C	O4'-C1'-N1	7.76	114.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1907	A	O4'-C1'-C2'	7.76	114.58	107.60
33	L1	2149	G	O4'-C1'-N9	7.76	114.40	108.20
32	S1	651	G	O4'-C1'-N9	7.75	114.40	108.20
81	LD	351	ARG	NH1-CZ-NH2	-7.75	110.87	119.40
33	L1	1873	C	C1'-O4'-C4'	-7.75	103.70	109.90
35	L2	148	C	C1'-O4'-C4'	-7.75	103.70	109.90
32	S1	476	U	N1-C1'-C2'	-7.75	103.48	112.00
33	L1	842	C	C5'-C4'-C3'	7.75	128.40	116.00
33	L1	1277	A	C5'-C4'-C3'	7.75	128.40	116.00
33	L1	2052	G	O4'-C1'-N9	7.75	114.40	108.20
33	L1	2172	C	C3'-C2'-C1'	7.75	107.70	101.50
34	L3	55	A	P-O3'-C3'	7.75	129.00	119.70
32	S1	1457	C	P-O5'-C5'	7.75	133.29	120.90
41	LM	131	ARG	NE-CZ-NH1	7.75	124.17	120.30
33	L1	2519	U	O4'-C1'-C2'	-7.74	98.06	105.80
33	L1	2734	C	O4'-C1'-C2'	-7.74	98.06	105.80
33	L1	2745	C	C1'-O4'-C4'	-7.74	103.71	109.90
33	L1	3316	C	P-O3'-C3'	7.74	128.99	119.70
66	LN	122	ARG	NH1-CZ-NH2	-7.74	110.88	119.40
46	LT	187	ARG	CB-CA-C	7.74	125.88	110.40
71	Lj	1	MET	CG-SD-CE	7.74	112.58	100.20
32	S1	1022	U	P-O5'-C5'	-7.74	108.52	120.90
35	L2	100	A	P-O3'-C3'	7.74	128.99	119.70
33	L1	1277	A	N9-C1'-C2'	7.74	124.06	114.00
33	L1	1320	G	C4'-C3'-C2'	-7.74	94.86	102.60
33	L1	1819	A	C1'-O4'-C4'	-7.74	103.71	109.90
33	L1	2076	C	C3'-C2'-C1'	-7.74	95.31	101.50
44	LR	34	ARG	NE-CZ-NH1	7.74	124.17	120.30
32	S1	152	G	C3'-C2'-C1'	7.73	107.69	101.50
33	L1	2765	A	C3'-C2'-C1'	-7.73	95.31	101.50
33	L1	3056	C	C3'-C2'-C1'	7.73	107.69	101.50
13	SQ	97	ARG	NE-CZ-NH1	-7.73	116.43	120.30
32	S1	448	C	C3'-C2'-C1'	7.73	107.69	101.50
33	L1	1678	U	P-O5'-C5'	7.73	133.27	120.90
33	L1	1799	C	O4'-C1'-N1	7.73	114.39	108.20
33	L1	2717	G	P-O3'-C3'	-7.73	110.42	119.70
32	S1	397	C	C1'-O4'-C4'	-7.73	103.72	109.90
33	L1	204	G	N9-C1'-C2'	-7.73	103.50	112.00
33	L1	890	G	C1'-O4'-C4'	-7.73	103.72	109.90
32	S1	624	A	C3'-C2'-C1'	7.73	107.68	101.50
47	LU	159	ASP	CB-CG-OD2	-7.73	111.34	118.30
33	L1	127	G	C3'-C2'-C1'	-7.73	95.32	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	441	G	C3'-C2'-C1'	-7.73	95.32	101.50
33	L1	1297	U	O4'-C1'-N1	7.73	114.38	108.20
33	L1	2998	A	P-O5'-C5'	-7.73	108.54	120.90
33	L1	3238	U	C4'-C3'-C2'	-7.73	94.87	102.60
32	S1	916	U	N1-C1'-C2'	-7.72	103.50	112.00
32	S1	1683	G	N9-C1'-C2'	7.72	124.04	114.00
33	L1	2219	A	O4'-C1'-C2'	-7.72	98.08	105.80
80	LC	362	PHE	CB-CG-CD2	-7.72	115.39	120.80
32	S1	1155	G	C1'-O4'-C4'	-7.72	103.72	109.90
34	L3	109	U	O4'-C1'-N1	7.72	114.38	108.20
32	S1	1012	C	C3'-C2'-C1'	7.72	107.68	101.50
33	L1	1371	G	P-O3'-C3'	-7.72	110.44	119.70
33	L1	2475	C	O4'-C1'-C2'	-7.72	98.08	105.80
33	L1	537	U	O4'-C1'-C2'	-7.72	98.08	105.80
33	L1	674	G	C1'-O4'-C4'	-7.72	103.72	109.90
33	L1	679	C	C3'-C2'-C1'	7.72	107.68	101.50
33	L1	2700	A	O3'-P-O5'	-7.72	89.33	104.00
33	L1	2771	U	C3'-C2'-C1'	-7.72	95.32	101.50
32	S1	1372	C	C3'-C2'-C1'	7.72	107.67	101.50
32	S1	1643	A	C1'-O4'-C4'	7.72	116.07	109.90
33	L1	985	C	O4'-C1'-N1	7.72	114.37	108.20
33	L1	1743	C	C4'-C3'-C2'	-7.72	94.88	102.60
33	L1	2810	A	C5'-C4'-C3'	7.72	128.35	116.00
73	Lp	43	ASN	CB-CA-C	7.72	125.83	110.40
10	SL	5	ARG	C-N-CA	7.71	138.50	122.30
15	SS	139	GLY	N-CA-C	7.71	132.38	113.10
25	SC	166	PHE	N-CA-C	-7.71	90.17	111.00
32	S1	1225	A	C4'-C3'-C2'	7.71	110.31	102.60
33	L1	959	U	P-O5'-C5'	7.71	133.24	120.90
33	L1	1931	G	C3'-C2'-C1'	7.71	107.67	101.50
71	Lj	4	ARG	N-CA-C	-7.71	90.17	111.00
32	S1	1137	A	O4'-C1'-N9	7.71	114.37	108.20
33	L1	2578	G	C1'-O4'-C4'	-7.71	103.73	109.90
34	L3	47	C	O4'-C1'-N1	7.71	114.37	108.20
36	LA	21	ARG	NE-CZ-NH1	7.71	124.16	120.30
48	LV	75	SER	C-N-CA	7.71	140.98	121.70
32	S1	1299	G	O4'-C1'-N9	7.71	114.37	108.20
32	S1	1690	U	O4'-C1'-N1	7.71	114.37	108.20
33	L1	1039	G	O4'-C1'-N9	7.71	114.37	108.20
33	L1	17	G	O4'-C1'-C2'	7.71	114.54	107.60
33	L1	1633	C	P-O5'-C5'	7.71	133.24	120.90
33	L1	2188	U	O4'-C1'-N1	7.71	114.37	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1912	U	P-O5'-C5'	7.71	133.23	120.90
33	L1	2225	C	C1'-O4'-C4'	-7.71	103.74	109.90
33	L1	2699	A	C3'-C2'-C1'	7.71	107.67	101.50
33	L1	3147	G	O4'-C1'-N9	7.71	114.37	108.20
51	LY	45	ARG	NE-CZ-NH1	7.71	124.15	120.30
33	L1	473	G	O4'-C4'-C3'	-7.71	96.30	104.00
33	L1	25	U	C5'-C4'-O4'	-7.70	99.86	109.10
33	L1	1635	A	O4'-C1'-N9	7.70	114.36	108.20
23	SU	18	MET	N-CA-CB	7.70	124.46	110.60
33	L1	1574	C	O4'-C1'-N1	-7.70	102.04	108.20
33	L1	1955	G	C1'-O4'-C4'	-7.70	103.74	109.90
72	Lk	100	MET	N-CA-CB	-7.70	96.74	110.60
32	S1	1801	A	P-O3'-C3'	7.70	128.94	119.70
35	L2	7	A	O4'-C1'-C2'	-7.70	98.10	105.80
35	L2	155	G	C5'-C4'-O4'	-7.70	99.86	109.10
33	L1	841	G	C4'-C3'-C2'	-7.70	94.91	102.60
33	L1	1458	U	C3'-C2'-C1'	-7.70	95.34	101.50
42	LP	53	TYR	CB-CG-CD1	-7.70	116.38	121.00
66	LN	99	ARG	N-CA-C	7.70	131.78	111.00
33	L1	423	C	N1-C1'-C2'	7.69	124.00	114.00
32	S1	934	A	P-O5'-C5'	-7.69	108.59	120.90
33	L1	656	G	C1'-O4'-C4'	-7.69	103.75	109.90
33	L1	2486	G	O4'-C1'-C2'	-7.69	98.11	105.80
78	Le	197	PHE	CB-CG-CD2	-7.69	115.42	120.80
33	L1	2199	C	O4'-C1'-N1	-7.69	102.05	108.20
33	L1	2975	G	O4'-C1'-N9	7.69	114.35	108.20
34	L3	38	U	O4'-C1'-N1	7.69	114.35	108.20
45	LQ	183	PHE	CB-CG-CD2	7.69	126.18	120.80
32	S1	903	A	C3'-C2'-C1'	7.69	107.65	101.50
33	L1	897	U	O4'-C1'-C2'	7.69	114.52	107.60
33	L1	2481	C	N1-C1'-C2'	7.69	124.00	114.00
33	L1	2564	G	C3'-C2'-C1'	-7.69	95.35	101.50
23	SU	82	TYR	C-N-CA	-7.69	102.48	121.70
33	L1	3353	G	C2'-C3'-O3'	7.69	126.41	109.50
32	S1	222	G	O4'-C1'-N9	7.69	114.35	108.20
33	L1	1725	G	C5'-C4'-C3'	-7.69	103.70	116.00
32	S1	1244	U	O4'-C1'-N1	7.68	114.35	108.20
33	L1	810	A	C3'-C2'-C1'	7.68	107.65	101.50
33	L1	1192	A	C1'-O4'-C4'	7.68	116.05	109.90
33	L1	1821	G	O4'-C1'-C2'	-7.68	98.12	105.80
33	L1	3334	A	P-O3'-C3'	-7.68	110.48	119.70
33	L1	2062	U	O4'-C1'-N1	7.68	114.34	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2532	A	C1'-O4'-C4'	-7.68	103.75	109.90
40	LH	61	ARG	NE-CZ-NH1	7.68	124.14	120.30
11	SM	36	VAL	CA-C-N	7.68	131.56	116.20
32	S1	123	U	O4'-C1'-C2'	-7.68	98.12	105.80
32	S1	562	U	C1'-O4'-C4'	7.68	116.04	109.90
32	S1	1278	C	P-O3'-C3'	-7.68	110.48	119.70
32	S1	1348	A	C1'-O4'-C4'	7.68	116.04	109.90
32	S1	1613	G	C1'-O4'-C4'	-7.68	103.76	109.90
32	S1	1614	C	C5'-C4'-O4'	7.68	118.32	109.10
33	L1	2375	G	O3'-P-O5'	-7.68	89.41	104.00
33	L1	1881	C	O5'-P-OP1	7.68	119.91	110.70
32	S1	467	U	C1'-O4'-C4'	-7.68	103.76	109.90
32	S1	1128	C	C3'-C2'-C1'	7.68	107.64	101.50
33	L1	2598	A	P-O3'-C3'	-7.68	110.49	119.70
53	Ld	45	TYR	CB-CG-CD1	7.68	125.61	121.00
83	Lm	20	ALA	CB-CA-C	-7.68	98.59	110.10
32	S1	953	G	N9-C1'-C2'	-7.67	103.56	112.00
33	L1	686	A	N9-C1'-C2'	7.67	123.98	114.00
33	L1	903	G	N9-C1'-C2'	-7.67	103.56	112.00
33	L1	1049	C	O4'-C1'-N1	7.67	114.34	108.20
33	L1	2871	U	C3'-C2'-C1'	7.67	107.64	101.50
32	S1	684	C	O4'-C1'-N1	7.67	114.34	108.20
33	L1	771	G	C4'-C3'-C2'	-7.67	94.93	102.60
33	L1	3362	A	N9-C1'-C2'	-7.67	103.56	112.00
33	L1	1119	G	O4'-C1'-N9	7.67	114.34	108.20
43	LO	79	TRP	CB-CG-CD2	7.67	136.57	126.60
32	S1	950	U	N1-C1'-C2'	7.67	123.97	114.00
32	S1	1430	A	C3'-C2'-C1'	7.67	107.64	101.50
48	LV	76	ARG	CB-CA-C	-7.67	95.06	110.40
59	Lo	25	TYR	CG-CD2-CE2	-7.67	115.17	121.30
67	LS	117	ARG	N-CA-CB	7.67	124.40	110.60
28	SN	51	GLY	CA-C-N	-7.67	100.33	117.20
33	L1	963	U	C3'-C2'-C1'	7.67	107.63	101.50
33	L1	2015	G	O4'-C1'-N9	7.67	114.33	108.20
80	LC	261	ALA	N-CA-CB	-7.67	99.37	110.10
32	S1	1196	C	O4'-C1'-N1	-7.67	102.07	108.20
33	L1	304	A	O4'-C1'-N9	7.67	114.33	108.20
33	L1	385	A	C1'-O4'-C4'	-7.66	103.77	109.90
45	LQ	248	ARG	CB-CG-CD	7.66	131.53	111.60
32	S1	1305	U	O4'-C1'-N1	7.66	114.33	108.20
32	S1	297	U	O4'-C1'-N1	7.66	114.33	108.20
33	L1	2631	A	C5'-C4'-C3'	-7.66	103.74	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3150	G	O4'-C4'-C3'	-7.66	96.34	104.00
8	SJ	89	PHE	CB-CG-CD1	-7.66	115.44	120.80
32	S1	1041	A	O4'-C1'-N9	7.66	114.33	108.20
32	S1	1769	C	O4'-C1'-N1	7.66	114.33	108.20
33	L1	650	A	P-O3'-C3'	7.66	128.89	119.70
33	L1	2465	G	C4'-C3'-C2'	-7.66	94.94	102.60
33	L1	3202	G	C1'-O4'-C4'	-7.66	103.77	109.90
34	L3	72	G	C1'-O4'-C4'	-7.66	103.77	109.90
13	SQ	30	THR	CA-CB-CG2	-7.66	101.68	112.40
32	S1	1563	A	C1'-O4'-C4'	7.66	116.03	109.90
70	Li	10	ARG	N-CA-CB	7.66	124.38	110.60
33	L1	2568	G	O4'-C1'-C2'	-7.65	98.15	105.80
32	S1	484	A	O4'-C1'-N9	7.65	114.32	108.20
33	L1	1282	A	P-O5'-C5'	-7.65	108.66	120.90
33	L1	3242	G	O4'-C1'-N9	7.65	114.32	108.20
33	L1	1610	A	N9-C1'-C2'	-7.65	103.58	112.00
33	L1	2394	G	C3'-C2'-C1'	-7.65	95.38	101.50
33	L1	3033	A	N9-C1'-C2'	-7.65	103.58	112.00
32	S1	556	G	O4'-C1'-N9	7.65	114.32	108.20
32	S1	1373	C	N1-C1'-C2'	7.65	123.94	114.00
58	Ln	37	ARG	NE-CZ-NH2	-7.65	116.47	120.30
14	SP	43	PHE	CB-CG-CD1	-7.65	115.45	120.80
33	L1	1745	G	O4'-C1'-N9	7.65	114.32	108.20
33	L1	2362	A	O4'-C1'-C2'	-7.65	98.15	105.80
32	S1	36	C	C3'-C2'-C1'	7.64	107.62	101.50
32	S1	984	A	O4'-C1'-N9	7.64	114.31	108.20
32	S1	59	G	O4'-C1'-N9	7.64	114.31	108.20
32	S1	787	C	P-O3'-C3'	7.64	128.87	119.70
33	L1	1171	U	C4'-C3'-C2'	-7.64	94.96	102.60
32	S1	1572	U	O3'-P-O5'	-7.64	89.48	104.00
33	L1	547	C	O4'-C1'-C2'	-7.64	98.16	105.80
33	L1	2225	C	N1-C1'-C2'	7.64	123.93	114.00
33	L1	2450	G	P-O5'-C5'	7.64	133.12	120.90
32	S1	172	U	O4'-C1'-N1	7.64	114.31	108.20
35	L2	157	C	P-O5'-C5'	7.64	133.12	120.90
13	SQ	138	ARG	NE-CZ-NH2	-7.64	116.48	120.30
33	L1	778	G	C1'-O4'-C4'	-7.64	103.79	109.90
33	L1	1606	C	C3'-C2'-C1'	7.64	107.61	101.50
32	S1	127	G	O4'-C1'-C2'	-7.63	98.17	105.80
33	L1	1753	A	O4'-C1'-N9	7.63	114.31	108.20
33	L1	2640	A	O4'-C4'-C3'	-7.63	96.36	104.00
69	La	25	ILE	CA-CB-CG1	7.63	125.51	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	SE	21	ARG	NH1-CZ-NH2	-7.63	111.00	119.40
32	S1	647	G	C5'-C4'-C3'	7.63	128.21	116.00
33	L1	1240	G	O4'-C1'-N9	7.63	114.31	108.20
14	SP	41	LEU	CB-CG-CD1	7.63	123.97	111.00
32	S1	1183	G	O3'-P-O5'	7.63	118.50	104.00
32	S1	1541	C	O4'-C1'-C2'	7.63	114.47	107.60
33	L1	1565	G	C1'-O4'-C4'	-7.63	103.80	109.90
33	L1	1942	A	P-O5'-C5'	7.63	133.11	120.90
33	L1	2451	G	C3'-C2'-C1'	7.63	107.61	101.50
33	L1	2935	A	C3'-C2'-C1'	7.63	107.61	101.50
69	La	8	GLY	CA-C-N	7.63	133.99	117.20
74	LJ	94	LYS	C-N-CA	7.63	140.77	121.70
33	L1	840	A	C5'-C4'-O4'	-7.63	99.95	109.10
33	L1	1755	A	C1'-O4'-C4'	-7.63	103.80	109.90
33	L1	2282	C	O4'-C1'-C2'	-7.63	98.17	105.80
33	L1	3113	G	N9-C1'-C2'	-7.63	103.61	112.00
33	L1	3166	C	P-O3'-C3'	7.63	128.85	119.70
69	La	34	ARG	CG-CD-NE	7.63	127.82	111.80
32	S1	61	A	C3'-C2'-C1'	7.63	107.60	101.50
32	S1	1021	C	O4'-C1'-C2'	-7.63	98.17	105.80
33	L1	531	G	P-O5'-C5'	-7.63	108.70	120.90
35	L2	27	C	C3'-C2'-C1'	7.63	107.60	101.50
48	LV	157	PRO	CA-N-CD	-7.63	100.82	111.50
33	L1	384	A	C5'-C4'-O4'	-7.62	99.95	109.10
33	L1	1075	G	O4'-C1'-C2'	7.62	114.46	107.60
20	SZ	5	HIS	N-CA-CB	7.62	124.32	110.60
33	L1	1004	C	N1-C1'-C2'	7.62	123.91	114.00
33	L1	2374	G	P-O3'-C3'	7.62	128.85	119.70
33	L1	2759	C	C1'-O4'-C4'	-7.62	103.80	109.90
35	L2	92	A	P-O3'-C3'	-7.62	110.55	119.70
82	LK	119	ARG	CD-NE-CZ	7.62	134.27	123.60
32	S1	734	C	C5'-C4'-C3'	7.62	128.19	116.00
33	L1	1715	C	C4'-C3'-C2'	-7.62	94.98	102.60
33	L1	318	G	O4'-C1'-N9	7.62	114.30	108.20
33	L1	1615	G	O4'-C1'-N9	7.62	114.30	108.20
15	SS	124	ARG	CB-CA-C	-7.62	95.17	110.40
32	S1	1165	A	O4'-C1'-N9	7.62	114.30	108.20
33	L1	2685	C	C5'-C4'-C3'	7.62	128.19	116.00
33	L1	2001	U	O4'-C1'-N1	7.62	114.29	108.20
32	S1	351	G	O4'-C1'-N9	7.62	114.29	108.20
32	S1	934	A	O4'-C1'-C2'	7.62	114.45	107.60
32	S1	1346	C	O4'-C1'-N1	-7.62	102.11	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1755	A	O4'-C1'-C2'	-7.62	98.18	105.80
33	L1	2502	U	O5'-C5'-C4'	7.62	126.17	111.70
32	S1	1713	C	C1'-O4'-C4'	-7.61	103.81	109.90
33	L1	1730	U	N1-C1'-C2'	-7.61	103.63	112.00
33	L1	2572	U	C1'-O4'-C4'	7.61	115.99	109.90
59	Lo	51	PHE	N-CA-C	7.61	131.56	111.00
81	LD	203	ARG	NE-CZ-NH1	7.61	124.11	120.30
32	S1	35	U	O4'-C1'-N1	7.61	114.29	108.20
33	L1	248	C	P-O3'-C3'	-7.61	110.57	119.70
33	L1	1537	A	C1'-O4'-C4'	7.61	115.99	109.90
33	L1	1571	A	P-O3'-C3'	7.61	128.83	119.70
35	L2	109	A	C1'-O4'-C4'	-7.61	103.81	109.90
74	LJ	93	ARG	O-C-N	-7.61	110.52	122.70
81	LD	53	ARG	NE-CZ-NH2	7.61	124.11	120.30
33	L1	656	G	O4'-C1'-N9	-7.61	102.11	108.20
35	L2	119	C	P-O3'-C3'	7.61	128.83	119.70
32	S1	341	G	O4'-C1'-C2'	-7.61	98.19	105.80
32	S1	1080	C	N1-C1'-C2'	7.61	123.89	114.00
33	L1	917	A	C3'-C2'-C1'	7.61	107.59	101.50
79	Ls	235	PRO	N-CA-C	7.61	131.88	112.10
32	S1	876	A	O4'-C1'-N9	7.61	114.28	108.20
31	S2	29	C	P-O5'-C5'	7.60	133.07	120.90
33	L1	1008	U	C3'-C2'-C1'	7.60	107.58	101.50
33	L1	1563	G	C3'-C2'-C1'	7.60	107.58	101.50
33	L1	2497	A	C3'-C2'-C1'	7.60	107.58	101.50
33	L1	1602	A	P-O3'-C3'	7.60	128.82	119.70
33	L1	2345	C	C1'-O4'-C4'	-7.60	103.82	109.90
64	LG	59	ARG	CD-NE-CZ	-7.60	112.96	123.60
33	L1	1677	G	P-O3'-C3'	7.60	128.82	119.70
52	Lb	128	TYR	CG-CD1-CE1	7.60	127.38	121.30
32	S1	576	C	C1'-O4'-C4'	-7.60	103.82	109.90
32	S1	1158	G	O4'-C1'-N9	7.60	114.28	108.20
80	LC	236	TRP	CH2-CZ2-CE2	7.60	125.00	117.40
6	SF	118	ARG	NE-CZ-NH1	7.59	124.10	120.30
46	LT	78	TYR	CB-CG-CD2	-7.59	116.44	121.00
11	SM	117	ILE	CA-CB-CG2	7.59	126.08	110.90
33	L1	3348	G	C1'-O4'-C4'	7.59	115.97	109.90
31	S2	30	G	O4'-C1'-N9	7.59	114.27	108.20
32	S1	34	G	O4'-C1'-N9	7.59	114.27	108.20
32	S1	1249	G	N9-C1'-C2'	7.59	123.87	114.00
33	L1	682	G	N9-C1'-C2'	7.59	123.87	114.00
33	L1	1612	C	C1'-O4'-C4'	-7.59	103.83	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1886	U	P-O5'-C5'	7.59	133.04	120.90
33	L1	1903	C	C3'-C2'-C1'	7.59	107.57	101.50
33	L1	3320	G	C1'-O4'-C4'	7.59	115.97	109.90
46	LT	159	PHE	CB-CG-CD1	-7.59	115.49	120.80
33	L1	1952	U	O4'-C1'-C2'	-7.59	98.21	105.80
35	L2	112	C	C3'-C2'-C1'	7.59	107.57	101.50
46	LT	88	ARG	NE-CZ-NH1	7.59	124.09	120.30
32	S1	1663	A	C1'-O4'-C4'	7.59	115.97	109.90
33	L1	1132	A	C3'-C2'-C1'	7.59	107.57	101.50
33	L1	3322	A	O4'-C4'-C3'	-7.59	96.41	104.00
33	L1	3328	A	O4'-C1'-N9	-7.59	102.13	108.20
31	S2	6	G	C3'-C2'-C1'	-7.58	95.43	101.50
33	L1	840	A	C1'-O4'-C4'	-7.58	103.83	109.90
32	S1	1774	C	C3'-C2'-C1'	7.58	107.57	101.50
33	L1	131	C	C1'-O4'-C4'	7.58	115.97	109.90
33	L1	811	A	C4'-C3'-C2'	7.58	110.18	102.60
33	L1	1416	G	O4'-C1'-N9	7.58	114.27	108.20
33	L1	2999	G	C2'-C3'-O3'	7.58	126.18	109.50
33	L1	491	G	C1'-O4'-C4'	-7.58	103.83	109.90
32	S1	54	C	C1'-O4'-C4'	7.58	115.96	109.90
32	S1	1354	C	N1-C1'-C2'	7.58	123.86	114.00
32	S1	257	A	O4'-C1'-N9	7.58	114.26	108.20
33	L1	1587	G	O4'-C1'-N9	-7.58	102.14	108.20
34	L3	19	A	C3'-C2'-C1'	7.58	107.56	101.50
69	La	28	VAL	N-CA-C	7.58	131.46	111.00
2	SA	197	HIS	N-CA-C	-7.58	90.54	111.00
32	S1	1583	G	O4'-C1'-N9	7.58	114.26	108.20
32	S1	178	A	O4'-C1'-C2'	-7.58	98.22	105.80
32	S1	957	A	C1'-O4'-C4'	7.58	115.96	109.90
33	L1	201	G	O4'-C1'-N9	7.58	114.26	108.20
33	L1	721	A	P-O3'-C3'	7.58	128.79	119.70
33	L1	1513	C	C1'-O4'-C4'	-7.58	103.84	109.90
33	L1	2080	G	P-O3'-C3'	-7.58	110.61	119.70
33	L1	2516	U	C3'-C2'-C1'	7.58	107.56	101.50
33	L1	3048	C	C4'-C3'-C2'	-7.58	95.02	102.60
32	S1	1759	A	P-O3'-C3'	7.57	128.79	119.70
33	L1	3020	C	O4'-C1'-C2'	-7.57	98.23	105.80
57	L1	92	ALA	C-N-CA	7.57	140.64	121.70
32	S1	587	C	N1-C1'-C2'	7.57	123.84	114.00
33	L1	1714	A	N9-C1'-C2'	7.57	123.84	114.00
33	L1	2654	G	C1'-O4'-C4'	-7.57	103.84	109.90
33	L1	2753	C	O4'-C1'-C2'	-7.57	98.23	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
72	Lk	78	ARG	NE-CZ-NH1	7.57	124.08	120.30
33	L1	515	C	C3'-C2'-C1'	7.57	107.55	101.50
32	S1	1373	C	C3'-C2'-C1'	7.57	107.55	101.50
33	L1	3112	U	N1-C1'-C2'	-7.57	103.68	112.00
52	Lb	87	TYR	N-CA-CB	7.56	124.22	110.60
2	SA	235	TYR	N-CA-CB	7.56	124.21	110.60
33	L1	64	A	C2'-C3'-O3'	7.56	126.14	109.50
33	L1	309	C	C5'-C4'-O4'	-7.56	100.03	109.10
33	L1	1885	G	O4'-C1'-N9	7.56	114.25	108.20
33	L1	3348	G	C4'-C3'-C2'	-7.56	95.04	102.60
1	Sa	36	ASP	CB-CG-OD1	7.56	125.10	118.30
32	S1	1427	A	C1'-O4'-C4'	-7.56	103.85	109.90
33	L1	846	A	C1'-O4'-C4'	7.56	115.95	109.90
33	L1	886	A	C1'-O4'-C4'	-7.56	103.85	109.90
33	L1	2562	A	P-O5'-C5'	7.56	133.00	120.90
46	LT	98	ARG	CB-CA-C	-7.56	95.28	110.40
64	LG	110	PHE	CB-CG-CD1	-7.56	115.51	120.80
33	L1	209	G	O4'-C1'-C2'	-7.56	98.24	105.80
1	Sa	257	PHE	CB-CG-CD2	7.56	126.09	120.80
13	SQ	39	SER	CB-CA-C	7.56	124.46	110.10
32	S1	1254	U	P-O3'-C3'	7.56	128.77	119.70
33	L1	2781	A	O4'-C1'-N9	7.56	114.24	108.20
33	L1	301	G	O4'-C1'-C2'	7.55	114.40	107.60
33	L1	472	U	O4'-C1'-N1	7.55	114.24	108.20
33	L1	1414	C	C1'-O4'-C4'	-7.55	103.86	109.90
33	L1	2037	C	C3'-C2'-C1'	7.55	107.54	101.50
35	L2	136	G	C3'-C2'-C1'	7.55	107.54	101.50
32	S1	1648	C	O4'-C1'-C2'	-7.55	98.25	105.80
32	S1	1705	C	C1'-O4'-C4'	-7.55	103.86	109.90
33	L1	1694	A	O4'-C1'-C2'	-7.55	98.25	105.80
33	L1	1752	C	P-O3'-C3'	7.55	128.76	119.70
33	L1	2062	U	C1'-O4'-C4'	7.55	115.94	109.90
33	L1	3355	U	P-O5'-C5'	7.55	132.98	120.90
72	Lk	56	TYR	CD1-CE1-CZ	7.55	126.60	119.80
15	SS	5	THR	CA-C-N	-7.55	100.59	117.20
33	L1	972	C	O4'-C4'-C3'	-7.55	96.45	104.00
33	L1	2594	A	N9-C1'-C2'	-7.55	103.69	112.00
33	L1	1057	A	C4'-C3'-C2'	-7.55	95.05	102.60
32	S1	961	U	N1-C1'-C2'	7.55	123.81	114.00
33	L1	1792	G	O4'-C1'-N9	-7.55	102.16	108.20
33	L1	2260	C	C3'-C2'-C1'	-7.55	95.46	101.50
69	La	9	LYS	N-CA-C	7.55	131.38	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	64	A	O4'-C1'-N9	7.54	114.24	108.20
1	Sa	165	TYR	CB-CG-CD2	-7.54	116.47	121.00
32	S1	938	A	C1'-O4'-C4'	-7.54	103.86	109.90
33	L1	2994	U	O4'-C1'-C2'	-7.54	98.26	105.80
33	L1	699	C	C1'-O4'-C4'	-7.54	103.87	109.90
33	L1	1237	G	C3'-C2'-C1'	-7.54	95.47	101.50
33	L1	1409	G	P-O3'-C3'	7.54	128.75	119.70
33	L1	1518	A	P-O5'-C5'	7.54	132.97	120.90
33	L1	1910	G	C1'-O4'-C4'	-7.54	103.87	109.90
73	Lp	35	ARG	N-CA-C	7.54	131.36	111.00
80	LC	26	ARG	NH1-CZ-NH2	-7.54	111.10	119.40
81	LD	329	ALA	N-CA-C	7.54	131.36	111.00
81	LD	363	ARG	NE-CZ-NH2	-7.54	116.53	120.30
33	L1	721	A	N9-C1'-C2'	7.54	123.80	114.00
32	S1	921	U	O4'-C1'-N1	7.54	114.23	108.20
33	L1	1894	G	O4'-C1'-N9	7.54	114.23	108.20
33	L1	2053	A	O4'-C1'-C2'	-7.54	98.26	105.80
33	L1	81	C	N1-C1'-C2'	7.54	123.80	114.00
33	L1	347	A	O4'-C1'-C2'	7.54	114.38	107.60
33	L1	384	A	O4'-C1'-N9	-7.54	102.17	108.20
23	SU	80	LEU	CA-C-N	7.54	133.78	117.20
33	L1	1199	A	O4'-C1'-N9	7.54	114.23	108.20
33	L1	2505	C	O4'-C1'-N1	7.54	114.23	108.20
12	SO	56	ASP	CB-CG-OD2	-7.53	111.52	118.30
33	L1	123	U	C5'-C4'-O4'	7.53	118.14	109.10
35	L2	69	G	O4'-C1'-N9	7.53	114.23	108.20
33	L1	1823	C	N1-C1'-C2'	7.53	123.79	114.00
33	L1	2910	C	C5'-C4'-C3'	-7.53	103.95	116.00
32	S1	1224	C	C5'-C4'-C3'	7.53	128.05	116.00
34	L3	74	A	C3'-C2'-C1'	-7.53	95.48	101.50
35	L2	44	A	O4'-C1'-N9	-7.53	102.17	108.20
11	SM	133	GLY	CA-C-N	7.53	133.76	117.20
32	S1	302	C	N1-C1'-C2'	7.53	123.79	114.00
31	S2	71	A	N9-C1'-C2'	7.53	123.79	114.00
33	L1	2151	G	C3'-C2'-C1'	7.53	107.52	101.50
11	SM	34	LYS	N-CA-C	-7.53	90.68	111.00
32	S1	1592	G	C3'-C2'-C1'	-7.53	95.48	101.50
33	L1	3387	U	P-O5'-C5'	7.53	132.94	120.90
32	S1	1237	G	N9-C1'-C2'	-7.52	103.72	112.00
33	L1	407	A	O4'-C1'-C2'	-7.52	98.28	105.80
33	L1	1080	C	C3'-C2'-C1'	7.52	107.52	101.50
34	L3	8	A	C3'-C2'-C1'	-7.52	95.48	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1672	U	O4'-C1'-N1	7.52	114.22	108.20
33	L1	39	A	O4'-C1'-N9	7.52	114.22	108.20
33	L1	279	G	N9-C1'-C2'	-7.52	103.73	112.00
33	L1	838	G	P-O3'-C3'	-7.52	110.67	119.70
35	L2	146	G	O4'-C1'-N9	7.52	114.22	108.20
64	LG	26	TRP	CA-C-O	-7.52	104.30	120.10
33	L1	845	G	C5'-C4'-C3'	-7.52	103.97	116.00
32	S1	32	U	C3'-C2'-C1'	7.52	107.52	101.50
32	S1	1153	C	O4'-C1'-N1	7.52	114.22	108.20
33	L1	1014	G	C1'-O4'-C4'	7.52	115.92	109.90
33	L1	2637	U	C5'-C4'-O4'	7.52	118.12	109.10
32	S1	843	G	O4'-C1'-N9	7.52	114.21	108.20
32	S1	1648	C	C3'-C2'-C1'	7.52	107.51	101.50
33	L1	283	A	C1'-O4'-C4'	7.52	115.91	109.90
33	L1	1518	A	O4'-C1'-N9	-7.52	102.19	108.20
32	S1	300	U	C1'-O4'-C4'	7.52	115.91	109.90
31	S2	75	A	C5'-C4'-C3'	-7.51	103.98	116.00
33	L1	2483	A	C5'-C4'-C3'	7.51	128.02	116.00
67	LS	109	TYR	CB-CG-CD1	7.51	125.51	121.00
33	L1	2684	U	O4'-C1'-N1	-7.51	102.19	108.20
42	LP	63	ARG	NE-CZ-NH2	-7.51	116.54	120.30
44	LR	5	LEU	N-CA-CB	-7.51	95.37	110.40
33	L1	886	A	C3'-C2'-C1'	7.51	107.51	101.50
33	L1	2876	G	P-O3'-C3'	-7.51	110.69	119.70
44	LR	10	ARG	NE-CZ-NH2	-7.51	116.55	120.30
11	SM	82	TRP	N-CA-C	-7.51	90.72	111.00
33	L1	547	C	C3'-C2'-C1'	7.51	107.51	101.50
33	L1	1725	G	P-O3'-C3'	-7.51	110.69	119.70
33	L1	3320	G	C4'-C3'-C2'	-7.51	95.09	102.60
33	L1	44	A	P-O3'-C3'	7.51	128.71	119.70
15	SS	98	SER	CB-CA-C	7.51	124.36	110.10
33	L1	890	G	O4'-C1'-N9	7.51	114.21	108.20
33	L1	1507	A	C5'-C4'-C3'	7.51	128.01	116.00
33	L1	2758	C	C4'-C3'-C2'	-7.51	95.09	102.60
32	S1	634	A	O4'-C1'-N9	7.50	114.20	108.20
32	S1	1266	U	O4'-C1'-N1	-7.50	102.20	108.20
35	L2	66	C	C3'-C2'-C1'	7.50	107.50	101.50
15	SS	8	THR	CA-C-O	-7.50	104.34	120.10
32	S1	406	C	C3'-C2'-C1'	7.50	107.50	101.50
32	S1	663	C	O3'-P-O5'	7.50	118.25	104.00
32	S1	1147	A	O4'-C1'-C2'	-7.50	98.30	105.80
32	S1	1702	G	N9-C1'-C2'	7.50	123.75	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2618	G	C5'-C4'-C3'	7.50	128.00	116.00
33	L1	2763	C	C5'-C4'-C3'	7.50	128.00	116.00
33	L1	2840	A	C4'-C3'-C2'	-7.50	95.10	102.60
4	SD	191	ARG	NE-CZ-NH2	7.50	124.05	120.30
56	Lh	22	HIS	N-CA-CB	7.50	124.10	110.60
32	S1	890	G	C3'-C2'-C1'	-7.50	95.50	101.50
33	L1	406	A	N9-C1'-C2'	-7.50	103.75	112.00
33	L1	676	G	O4'-C1'-C2'	7.50	114.35	107.60
33	L1	2308	A	O4'-C1'-C2'	-7.50	98.30	105.80
32	S1	989	G	P-O5'-C5'	7.50	132.89	120.90
33	L1	1191	U	O4'-C1'-N1	7.50	114.20	108.20
33	L1	1281	C	O4'-C1'-C2'	-7.50	98.30	105.80
33	L1	1451	U	O4'-C1'-N1	7.50	114.20	108.20
33	L1	1888	G	N9-C1'-C2'	-7.50	103.75	112.00
33	L1	2059	C	C5'-C4'-C3'	7.50	128.00	116.00
42	LP	147	ARG	NE-CZ-NH1	7.50	124.05	120.30
64	LG	74	THR	C-N-CA	7.50	140.44	121.70
32	S1	1558	A	C1'-O4'-C4'	-7.50	103.90	109.90
78	Le	90	ARG	NE-CZ-NH1	7.50	124.05	120.30
33	L1	1387	G	P-O3'-C3'	-7.49	110.71	119.70
33	L1	308	U	P-O3'-C3'	-7.49	110.71	119.70
33	L1	1193	A	P-O5'-C5'	-7.49	108.92	120.90
42	LP	172	ARG	NH1-CZ-NH2	-7.49	111.16	119.40
31	S2	26	G	O4'-C1'-C2'	7.49	114.34	107.60
33	L1	1392	U	O5'-P-OP1	7.49	119.68	110.70
33	L1	1525	U	C1'-O4'-C4'	-7.49	103.91	109.90
33	L1	2246	G	C1'-O4'-C4'	-7.49	103.91	109.90
34	L3	114	C	O4'-C1'-N1	7.49	114.19	108.20
2	SA	211	PRO	CA-C-N	7.49	133.67	117.20
27	SH	89	TRP	N-CA-CB	7.49	124.08	110.60
32	S1	483	C	O4'-C1'-C2'	-7.49	98.31	105.80
32	S1	836	U	N1-C1'-C2'	-7.49	103.77	112.00
32	S1	1789	U	C3'-C2'-C1'	-7.49	95.51	101.50
33	L1	2998	A	P-O3'-C3'	7.49	128.68	119.70
32	S1	1308	G	C1'-O4'-C4'	7.48	115.89	109.90
32	S1	1784	G	O4'-C1'-C2'	7.48	114.33	107.60
38	LE	127	MET	CG-SD-CE	7.48	112.17	100.20
6	SF	165	ILE	C-N-CA	-7.48	102.99	121.70
32	S1	120	G	O4'-C1'-N9	7.48	114.19	108.20
32	S1	162	A	O4'-C1'-N9	7.48	114.19	108.20
32	S1	1651	U	O4'-C1'-N1	7.48	114.19	108.20
33	L1	1949	G	O5'-P-OP2	-7.48	98.97	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2463	U	O4'-C4'-C3'	-7.48	96.52	104.00
70	Li	15	THR	CA-CB-CG2	-7.48	101.92	112.40
30	S3	12	A	O4'-C1'-C2'	7.48	114.33	107.60
33	L1	1164	G	C5'-C4'-C3'	-7.48	104.03	116.00
19	SY	47	ARG	NE-CZ-NH2	7.48	124.04	120.30
32	S1	1296	G	C3'-C2'-C1'	-7.48	95.52	101.50
32	S1	1504	U	O4'-C1'-C2'	-7.48	98.32	105.80
80	LC	350	THR	N-CA-CB	7.48	124.51	110.30
67	LS	115	ARG	NE-CZ-NH1	7.48	124.04	120.30
32	S1	916	U	O3'-P-O5'	-7.47	89.80	104.00
33	L1	1020	U	O4'-C1'-N1	7.47	114.18	108.20
33	L1	1508	C	O4'-C1'-N1	-7.47	102.22	108.20
33	L1	1743	C	P-O5'-C5'	-7.47	108.94	120.90
34	L3	57	C	P-O5'-C5'	7.47	132.86	120.90
78	Le	162	ARG	CB-CA-C	-7.47	95.45	110.40
4	SD	136	ILE	CG1-CB-CG2	-7.47	94.96	111.40
32	S1	1147	A	C1'-O4'-C4'	7.47	115.88	109.90
33	L1	622	U	P-O3'-C3'	7.47	128.67	119.70
33	L1	701	U	C1'-O4'-C4'	7.47	115.88	109.90
33	L1	1232	A	O4'-C1'-N9	7.47	114.18	108.20
33	L1	1952	U	P-O5'-C5'	7.47	132.86	120.90
33	L1	2094	A	P-O3'-C3'	7.47	128.67	119.70
33	L1	290	C	P-O3'-C3'	-7.47	110.73	119.70
33	L1	105	A	C5'-C4'-C3'	-7.47	104.05	116.00
33	L1	1240	G	P-O3'-C3'	-7.47	110.74	119.70
33	L1	1706	C	P-O3'-C3'	7.47	128.66	119.70
33	L1	3336	A	O4'-C1'-N9	7.47	114.18	108.20
34	L3	111	U	C1'-O4'-C4'	-7.47	103.92	109.90
45	LQ	247	ILE	C-N-CA	7.47	140.38	121.70
32	S1	331	U	O5'-P-OP2	7.47	119.66	110.70
32	S1	1071	C	P-O3'-C3'	7.47	128.66	119.70
33	L1	256	G	C1'-O4'-C4'	-7.47	103.93	109.90
33	L1	366	G	O4'-C1'-N9	7.47	114.17	108.20
33	L1	1923	G	O4'-C1'-C2'	7.47	114.32	107.60
33	L1	3059	C	O4'-C1'-C2'	-7.47	98.33	105.80
33	L1	3307	A	C1'-O4'-C4'	7.47	115.87	109.90
37	LB	63	PHE	CB-CG-CD2	7.47	126.03	120.80
31	S2	11	U	N1-C1'-C2'	7.46	123.70	114.00
33	L1	2079	A	N9-C1'-C2'	-7.46	103.79	112.00
68	LW	60	GLY	CA-C-N	-7.46	100.78	117.20
23	SU	17	PHE	CB-CG-CD1	7.46	126.02	120.80
25	SC	92	GLN	CB-CA-C	7.46	125.32	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	769	C	P-O3'-C3'	7.46	128.65	119.70
12	SO	89	TYR	CB-CG-CD1	-7.46	116.53	121.00
33	L1	528	C	C4'-C3'-C2'	-7.46	95.14	102.60
33	L1	2563	G	P-O3'-C3'	-7.46	110.75	119.70
57	L1	43	ARG	NE-CZ-NH1	7.46	124.03	120.30
32	S1	258	U	C5'-C4'-C3'	-7.46	104.07	116.00
32	S1	1452	A	O4'-C1'-C2'	-7.46	98.34	105.80
34	L3	67	C	O3'-P-O5'	-7.46	89.83	104.00
37	LB	31	SER	N-CA-CB	7.46	121.69	110.50
60	Lr	46	LYS	CA-C-N	7.46	133.61	117.20
33	L1	1667	C	P-O3'-C3'	-7.46	110.75	119.70
52	Lb	129	ARG	NE-CZ-NH1	-7.46	116.57	120.30
5	SE	195	LYS	N-CA-CB	7.45	124.02	110.60
33	L1	747	A	C5'-C4'-O4'	7.45	118.04	109.10
33	L1	989	U	O4'-C1'-C2'	-7.45	98.35	105.80
34	L3	54	A	O4'-C4'-C3'	-7.45	96.55	104.00
33	L1	1483	G	C3'-C2'-C1'	-7.45	95.54	101.50
33	L1	3107	A	O4'-C1'-N9	7.45	114.16	108.20
33	L1	446	C	C1'-O4'-C4'	-7.45	103.94	109.90
33	L1	2773	G	C5'-C4'-C3'	-7.45	104.08	116.00
33	L1	3125	G	O4'-C1'-N9	7.45	114.16	108.20
32	S1	363	G	C3'-C2'-C1'	7.45	107.46	101.50
32	S1	1242	A	N9-C1'-C2'	-7.45	103.81	112.00
33	L1	71	C	C1'-O4'-C4'	7.45	115.86	109.90
33	L1	557	C	C1'-O4'-C4'	-7.45	103.94	109.90
33	L1	1679	U	N1-C1'-C2'	-7.45	103.81	112.00
33	L1	1942	A	C1'-O4'-C4'	-7.45	103.94	109.90
33	L1	3296	C	N1-C1'-C2'	-7.45	103.81	112.00
67	LS	12	VAL	N-CA-CB	7.45	127.89	111.50
81	LD	310	LEU	O-C-N	-7.45	110.78	122.70
32	S1	219	G	O4'-C1'-N9	7.45	114.16	108.20
32	S1	1755	G	O4'-C1'-N9	7.45	114.16	108.20
33	L1	1136	A	C3'-C2'-C1'	-7.45	95.54	101.50
33	L1	1954	G	O4'-C1'-N9	7.45	114.16	108.20
37	LB	193	ARG	NE-CZ-NH1	7.45	124.02	120.30
45	LQ	28	ARG	NH1-CZ-NH2	-7.45	111.21	119.40
64	LG	210	ASP	CB-CG-OD2	-7.45	111.60	118.30
11	SM	21	ASP	CA-C-N	7.44	131.09	116.20
16	SR	127	GLU	N-CA-CB	-7.44	97.20	110.60
32	S1	273	C	OP1-P-OP2	-7.44	108.43	119.60
32	S1	453	C	C1'-O4'-C4'	7.44	115.86	109.90
33	L1	183	C	O5'-P-OP1	-7.44	99.00	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	22	U	O5'-P-OP2	-7.44	99.00	105.70
32	S1	939	C	O4'-C1'-C2'	-7.44	98.36	105.80
33	L1	1254	A	P-O3'-C3'	-7.44	110.77	119.70
33	L1	2151	G	O4'-C1'-N9	-7.44	102.25	108.20
33	L1	2404	C	O4'-C1'-N1	7.44	114.15	108.20
33	L1	3289	U	C3'-C2'-C1'	7.44	107.45	101.50
32	S1	177	C	O4'-C1'-N1	7.44	114.15	108.20
32	S1	836	U	O4'-C1'-C2'	-7.44	98.36	105.80
32	S1	1275	G	O4'-C1'-N9	7.44	114.15	108.20
32	S1	1567	G	P-O3'-C3'	7.44	128.63	119.70
33	L1	478	G	C3'-C2'-C1'	7.44	107.45	101.50
33	L1	1910	G	N9-C1'-C2'	7.44	123.67	114.00
33	L1	2876	G	P-O5'-C5'	-7.44	109.00	120.90
33	L1	489	C	O4'-C1'-C2'	-7.44	98.36	105.80
33	L1	1912	U	C4'-C3'-C2'	-7.44	95.16	102.60
33	L1	3016	C	O4'-C1'-N1	7.44	114.15	108.20
16	SR	139	ARG	CB-CA-C	-7.44	95.53	110.40
33	L1	1876	U	C1'-O4'-C4'	-7.44	103.95	109.90
33	L1	342	A	P-O5'-C5'	7.43	132.80	120.90
33	L1	2058	C	O4'-C1'-C2'	-7.43	98.36	105.80
55	Lg	4	LYS	N-CA-CB	7.43	123.98	110.60
32	S1	636	U	O4'-C1'-N1	-7.43	102.25	108.20
32	S1	885	C	C3'-C2'-C1'	7.43	107.45	101.50
32	S1	975	A	O4'-C1'-N9	7.43	114.15	108.20
33	L1	1738	A	O4'-C1'-N9	7.43	114.14	108.20
33	L1	1871	G	O4'-C1'-C2'	7.43	114.29	107.60
33	L1	2273	C	O5'-P-OP2	-7.43	99.01	105.70
34	L3	2	G	P-O5'-C5'	7.43	132.79	120.90
32	S1	174	C	O4'-C1'-C2'	-7.43	98.37	105.80
32	S1	1299	G	OP1-P-O3'	7.43	121.54	105.20
33	L1	127	G	N9-C1'-C2'	7.43	123.66	114.00
33	L1	906	U	N1-C1'-C2'	-7.43	103.83	112.00
33	L1	1210	G	O4'-C1'-N9	7.43	114.14	108.20
33	L1	2644	U	O4'-C1'-C2'	7.43	114.29	107.60
39	LF	98	PHE	CB-CG-CD2	7.43	126.00	120.80
32	S1	354	G	O4'-C1'-C2'	-7.43	98.37	105.80
32	S1	159	U	C3'-C2'-C1'	7.43	107.44	101.50
32	S1	1378	C	O4'-C1'-C2'	-7.43	98.37	105.80
33	L1	534	G	P-O5'-C5'	-7.43	109.02	120.90
33	L1	1768	U	P-O3'-C3'	7.43	128.61	119.70
33	L1	2199	C	P-O3'-C3'	7.43	128.61	119.70
32	S1	646	G	N9-C1'-C2'	-7.42	103.83	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1465	C	O4'-C1'-C2'	-7.42	98.38	105.80
33	L1	47	A	N9-C1'-C2'	-7.42	103.83	112.00
64	LG	19	THR	C-N-CA	7.42	140.26	121.70
31	S2	27	G	O4'-C1'-C2'	7.42	114.28	107.60
32	S1	35	U	P-O3'-C3'	7.42	128.61	119.70
33	L1	1825	G	O4'-C1'-C2'	7.42	114.28	107.60
32	S1	572	G	C3'-C2'-C1'	-7.42	95.56	101.50
32	S1	646	G	C3'-C2'-C1'	7.42	107.44	101.50
33	L1	292	A	P-O3'-C3'	-7.42	110.80	119.70
33	L1	974	G	P-O3'-C3'	7.42	128.61	119.70
33	L1	2580	C	C1'-O4'-C4'	-7.42	103.96	109.90
33	L1	2910	C	N1-C1'-C2'	7.42	123.65	114.00
35	L2	64	U	C1'-O4'-C4'	-7.42	103.96	109.90
80	LC	369	PHE	CB-CG-CD2	7.42	126.00	120.80
33	L1	108	A	C3'-C2'-C1'	7.42	107.44	101.50
33	L1	2131	U	N1-C1'-C2'	-7.42	103.84	112.00
33	L1	306	A	C3'-C2'-C1'	-7.42	95.56	101.50
33	L1	1508	C	P-O5'-C5'	7.42	132.77	120.90
33	L1	1547	G	N9-C1'-C2'	7.42	123.64	114.00
33	L1	1867	U	P-O3'-C3'	-7.42	110.80	119.70
33	L1	3161	C	C3'-C2'-C1'	7.42	107.43	101.50
33	L1	3322	A	OP1-P-OP2	-7.42	108.47	119.60
32	S1	1038	C	C3'-C2'-C1'	7.42	107.43	101.50
33	L1	2997	C	C3'-C2'-C1'	7.42	107.43	101.50
33	L1	24	C	O5'-P-OP1	-7.41	99.03	105.70
33	L1	294	A	O4'-C1'-N9	7.41	114.13	108.20
33	L1	1035	C	C5'-C4'-C3'	7.41	127.86	116.00
33	L1	1593	C	O4'-C1'-N1	-7.41	102.27	108.20
33	L1	1614	G	C5'-C4'-C3'	-7.41	104.14	116.00
33	L1	1756	C	C3'-C2'-C1'	7.41	107.43	101.50
33	L1	2009	C	N1-C1'-C2'	7.41	123.64	114.00
4	SD	186	GLY	N-CA-C	7.41	131.63	113.10
33	L1	563	C	C2'-C3'-O3'	7.41	125.81	109.50
33	L1	31	U	C1'-O4'-C4'	7.41	115.83	109.90
33	L1	962	C	O4'-C1'-C2'	-7.41	98.39	105.80
33	L1	1248	A	O4'-C1'-N9	7.41	114.13	108.20
33	L1	1648	C	C3'-C2'-C1'	7.41	107.43	101.50
33	L1	3343	U	C5'-C4'-C3'	7.41	127.85	116.00
46	LT	177	ARG	NE-CZ-NH1	-7.41	116.60	120.30
33	L1	2356	A	N9-C1'-C2'	7.41	123.63	114.00
33	L1	2408	G	O4'-C1'-C2'	-7.41	98.39	105.80
32	S1	1754	A	O3'-P-O5'	-7.41	89.93	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2643	A	C5'-C4'-O4'	7.41	117.99	109.10
67	LS	28	ARG	NH1-CZ-NH2	-7.41	111.25	119.40
32	S1	1659	A	P-O3'-C3'	-7.40	110.81	119.70
33	L1	3292	U	N1-C1'-C2'	-7.40	103.86	112.00
48	LV	4	TYR	N-CA-C	7.40	130.99	111.00
67	LS	12	VAL	CB-CA-C	-7.40	97.33	111.40
33	L1	682	G	C1'-O4'-C4'	-7.40	103.98	109.90
33	L1	858	U	C1'-O4'-C4'	-7.40	103.98	109.90
33	L1	1496	G	OP1-P-OP2	-7.40	108.50	119.60
61	Lq	21	ARG	NE-CZ-NH1	7.40	124.00	120.30
33	L1	180	G	P-O3'-C3'	-7.40	110.82	119.70
33	L1	1751	G	C3'-C2'-C1'	7.40	107.42	101.50
33	L1	1954	G	C1'-O4'-C4'	-7.40	103.98	109.90
33	L1	2449	A	C5'-C4'-C3'	7.40	127.84	116.00
33	L1	2939	G	O4'-C1'-N9	7.40	114.12	108.20
35	L2	56	A	N9-C1'-C2'	-7.40	103.86	112.00
25	SC	171	PRO	CB-CG-CD	-7.40	77.64	106.50
32	S1	1734	U	P-O5'-C5'	7.40	132.74	120.90
32	S1	259	A	C3'-C2'-C1'	7.40	107.42	101.50
32	S1	1797	C	C1'-O4'-C4'	-7.40	103.98	109.90
33	L1	2268	G	N9-C1'-C2'	7.40	123.62	114.00
33	L1	3037	G	C5'-C4'-C3'	-7.40	104.17	116.00
82	LK	134	LEU	CB-CG-CD1	-7.40	98.42	111.00
1	Sa	115	ALA	N-CA-CB	7.40	120.45	110.10
25	SC	161	SER	N-CA-C	-7.40	91.03	111.00
32	S1	1413	C	C3'-C2'-C1'	7.40	107.42	101.50
32	S1	1676	G	C3'-C2'-C1'	-7.40	95.58	101.50
23	SU	81	ILE	N-CA-C	7.39	130.97	111.00
32	S1	1760	A	C3'-C2'-C1'	7.39	107.42	101.50
33	L1	542	G	N9-C1'-C2'	7.39	123.61	114.00
70	Li	13	TYR	CB-CA-C	7.39	125.19	110.40
32	S1	1589	C	C1'-O4'-C4'	-7.39	103.99	109.90
33	L1	2165	A	C3'-C2'-C1'	-7.39	95.59	101.50
73	Lp	46	ARG	CB-CA-C	7.39	125.18	110.40
33	L1	1763	C	N1-C1'-C2'	7.39	123.61	114.00
32	S1	1197	A	O4'-C1'-N9	7.39	114.11	108.20
32	S1	1350	C	C3'-C2'-C1'	7.39	107.41	101.50
1	Sa	63	GLN	CB-CG-CD	7.39	130.81	111.60
33	L1	3372	C	O4'-C1'-C2'	-7.39	98.41	105.80
32	S1	1131	G	C5'-C4'-O4'	7.39	117.96	109.10
32	S1	1677	U	P-O3'-C3'	7.39	128.56	119.70
32	S1	1792	A	O4'-C1'-N9	7.39	114.11	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	LV	155	GLU	N-CA-CB	-7.39	97.30	110.60
71	Lj	14	ARG	NE-CZ-NH1	7.39	123.99	120.30
81	LD	358	LYS	CA-CB-CG	-7.39	97.15	113.40
33	L1	315	A	N9-C1'-C2'	7.38	123.60	114.00
33	L1	2564	G	O4'-C1'-N9	7.38	114.11	108.20
33	L1	3349	C	C1'-O4'-C4'	-7.38	103.99	109.90
4	SD	133	GLN	O-C-N	-7.38	110.89	122.70
32	S1	621	U	P-O3'-C3'	7.38	128.56	119.70
33	L1	1336	A	C3'-C2'-C1'	7.38	107.41	101.50
33	L1	2955	U	O5'-P-OP2	-7.38	99.06	105.70
48	LV	74	LYS	CB-CA-C	7.38	125.17	110.40
7	SI	99	TYR	CB-CG-CD1	7.38	125.43	121.00
32	S1	1014	U	O4'-C1'-N1	7.38	114.11	108.20
33	L1	2088	C	O4'-C1'-N1	7.38	114.10	108.20
33	L1	3034	A	C3'-C2'-C1'	-7.38	95.60	101.50
33	L1	3142	C	C3'-C2'-C1'	7.38	107.40	101.50
33	L1	811	A	O3'-P-O5'	-7.38	89.98	104.00
33	L1	1361	G	P-O5'-C5'	7.38	132.70	120.90
33	L1	1688	U	P-O3'-C3'	7.38	128.56	119.70
70	Li	103	VAL	CB-CA-C	-7.38	97.38	111.40
33	L1	297	G	C5'-C4'-O4'	-7.38	100.25	109.10
33	L1	2106	U	O4'-C1'-C2'	7.38	114.24	107.60
1	Sa	373	PHE	CB-CG-CD2	-7.38	115.64	120.80
32	S1	1116	G	C1'-O4'-C4'	-7.38	104.00	109.90
33	L1	1818	C	C5'-C4'-C3'	7.38	127.80	116.00
33	L1	2737	A	N9-C1'-C2'	7.38	123.59	114.00
32	S1	1473	C	C3'-C2'-C1'	7.37	107.40	101.50
33	L1	2512	U	N1-C1'-C2'	7.37	123.59	114.00
33	L1	3048	C	C5'-C4'-O4'	-7.37	100.25	109.10
33	L1	3207	C	N1-C1'-C2'	7.37	123.58	114.00
35	L2	141	G	O4'-C1'-N9	7.37	114.10	108.20
64	LG	142	PHE	CB-CG-CD2	-7.37	115.64	120.80
14	SP	109	PRO	CB-CA-C	-7.37	93.57	112.00
32	S1	1042	C	C3'-C2'-C1'	7.37	107.40	101.50
33	L1	22	G	C1'-O4'-C4'	-7.37	104.00	109.90
33	L1	705	A	C1'-O4'-C4'	7.37	115.80	109.90
33	L1	2340	G	OP1-P-OP2	-7.37	108.54	119.60
33	L1	2582	G	C4'-C3'-C2'	7.37	109.97	102.60
54	Lf	39	ARG	NE-CZ-NH2	-7.37	116.61	120.30
3	SB	178	ARG	NE-CZ-NH1	-7.37	116.61	120.30
33	L1	2901	C	O4'-C1'-C2'	-7.37	98.43	105.80
32	S1	67	G	C1'-O4'-C4'	-7.37	104.00	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1710	G	OP2-P-O3'	7.37	121.41	105.20
32	S1	1755	G	P-O3'-C3'	7.37	128.54	119.70
55	Lg	16	VAL	CA-CB-CG1	7.37	121.95	110.90
32	S1	1375	C	O4'-C1'-C2'	-7.37	98.43	105.80
33	L1	1736	C	C3'-C2'-C1'	7.37	107.39	101.50
33	L1	3135	A	O4'-C1'-N9	7.37	114.09	108.20
33	L1	3353	G	O4'-C1'-N9	7.37	114.09	108.20
33	L1	2276	A	O4'-C1'-N9	7.36	114.09	108.20
33	L1	2653	U	O4'-C1'-N1	7.36	114.09	108.20
33	L1	2709	G	O4'-C1'-C2'	7.36	114.23	107.60
40	LH	98	GLU	CB-CA-C	-7.36	95.67	110.40
74	LJ	124	LYS	N-CA-CB	7.36	123.85	110.60
33	L1	376	A	N9-C1'-C2'	7.36	123.57	114.00
32	S1	1076	C	C3'-C2'-C1'	7.36	107.39	101.50
32	S1	1309	U	N1-C1'-C2'	7.36	123.57	114.00
33	L1	1974	C	O4'-C1'-N1	7.36	114.09	108.20
33	L1	2101	A	O3'-P-O5'	-7.36	90.02	104.00
8	SJ	92	ARG	NE-CZ-NH1	7.36	123.98	120.30
33	L1	409	U	C1'-O4'-C4'	-7.36	104.02	109.90
33	L1	590	C	C2'-C3'-O3'	7.36	125.69	109.50
33	L1	2985	C	O4'-C1'-C2'	-7.36	98.44	105.80
35	L2	115	G	N9-C1'-C2'	-7.36	103.91	112.00
70	Li	111	LYS	N-CA-CB	7.36	123.84	110.60
33	L1	1694	A	O4'-C1'-N9	7.36	114.08	108.20
33	L1	304	A	O3'-P-O5'	7.35	117.97	104.00
23	SU	24	SER	O-C-N	7.35	134.46	122.70
33	L1	2567	C	P-O3'-C3'	7.35	128.52	119.70
74	LJ	14	PHE	CB-CG-CD1	-7.35	115.65	120.80
79	Ls	257	GLU	C-N-CA	7.35	140.08	121.70
33	L1	1112	C	P-O5'-C5'	7.35	132.66	120.90
64	LG	92	ARG	NE-CZ-NH1	7.35	123.97	120.30
3	SB	30	ALA	O-C-N	-7.35	110.94	122.70
33	L1	58	G	C1'-O4'-C4'	7.35	115.78	109.90
33	L1	309	C	C1'-O4'-C4'	-7.35	104.02	109.90
33	L1	3060	G	O4'-C1'-N9	7.35	114.08	108.20
10	SL	117	VAL	N-CA-C	-7.35	91.16	111.00
32	S1	839	G	O4'-C1'-N9	7.35	114.08	108.20
32	S1	1069	G	O4'-C1'-N9	7.35	114.08	108.20
33	L1	611	C	O4'-C1'-C2'	-7.35	98.45	105.80
33	L1	2027	G	O4'-C1'-N9	7.35	114.08	108.20
81	LD	303	VAL	CA-C-O	7.35	135.53	120.10
33	L1	1558	A	P-O3'-C3'	7.35	128.51	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2632	U	P-O3'-C3'	-7.35	110.89	119.70
34	L3	2	G	C4'-C3'-O3'	-7.35	93.97	109.40
33	L1	87	A	O4'-C1'-C2'	7.34	114.21	107.60
33	L1	1911	A	P-O5'-C5'	-7.34	109.15	120.90
33	L1	2235	G	O4'-C1'-C2'	7.34	114.21	107.60
81	LD	303	VAL	CA-C-N	-7.34	101.04	117.20
33	L1	3093	C	P-O3'-C3'	7.34	128.51	119.70
17	SV	63	PRO	CA-N-CD	-7.34	101.22	111.50
33	L1	1567	G	C3'-C2'-C1'	-7.34	95.63	101.50
34	L3	10	C	O4'-C1'-N1	-7.34	102.33	108.20
7	SI	144	PHE	CB-CG-CD2	7.34	125.94	120.80
17	SV	52	LEU	CB-CG-CD2	7.34	123.48	111.00
33	L1	2201	G	N9-C1'-C2'	-7.34	103.93	112.00
33	L1	537	U	C1'-O4'-C4'	7.34	115.77	109.90
33	L1	1588	G	O4'-C1'-C2'	7.34	114.20	107.60
64	LG	122	GLN	C-N-CA	7.34	140.04	121.70
3	SB	190	LEU	CB-CA-C	7.34	124.14	110.20
32	S1	1282	G	O4'-C1'-C2'	-7.34	98.46	105.80
33	L1	1103	U	O3'-P-O5'	-7.34	90.06	104.00
33	L1	2450	G	P-O3'-C3'	7.34	128.50	119.70
33	L1	2532	A	O4'-C1'-N9	7.34	114.07	108.20
45	LQ	153	THR	N-CA-CB	7.34	124.24	110.30
27	SH	107	SER	N-CA-CB	7.33	121.50	110.50
32	S1	937	A	C3'-C2'-C1'	7.33	107.37	101.50
32	S1	380	C	P-O3'-C3'	7.33	128.50	119.70
32	S1	1541	C	N1-C1'-C2'	7.33	123.53	114.00
33	L1	1252	C	N1-C1'-C2'	7.33	123.53	114.00
35	L2	96	A	C4'-C3'-C2'	-7.33	95.27	102.60
35	L2	144	A	C3'-C2'-C1'	7.33	107.37	101.50
32	S1	959	G	N9-C1'-C2'	-7.33	103.94	112.00
33	L1	398	G	O4'-C1'-C2'	7.33	114.20	107.60
33	L1	1629	A	O4'-C1'-N9	7.33	114.06	108.20
23	SU	62	PHE	CB-CG-CD2	7.33	125.93	120.80
32	S1	234	G	C1'-O4'-C4'	-7.33	104.04	109.90
32	S1	1597	C	C3'-C2'-C1'	7.33	107.36	101.50
33	L1	3044	C	O4'-C1'-N1	7.33	114.06	108.20
13	SQ	94	GLU	C-N-CA	-7.33	103.38	121.70
33	L1	77	U	N1-C1'-C2'	-7.33	103.94	112.00
33	L1	1582	C	C1'-O4'-C4'	-7.33	104.04	109.90
33	L1	2215	A	P-O3'-C3'	-7.33	110.91	119.70
25	SC	163	THR	CA-C-N	-7.33	101.08	117.20
33	L1	877	U	P-O3'-C3'	-7.33	110.91	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	973	U	C5'-C4'-C3'	-7.33	104.28	116.00
33	L1	2339	U	P-O3'-C3'	-7.33	110.91	119.70
33	L1	3036	C	C1'-O4'-C4'	-7.33	104.04	109.90
66	LN	55	LEU	CB-CA-C	7.33	124.12	110.20
78	Le	223	TYR	CG-CD1-CE1	-7.33	115.44	121.30
32	S1	384	U	N1-C1'-C2'	7.32	123.52	114.00
33	L1	1375	G	O4'-C1'-N9	7.32	114.06	108.20
33	L1	1495	G	C1'-O4'-C4'	7.32	115.76	109.90
32	S1	875	C	O4'-C1'-N1	7.32	114.06	108.20
33	L1	3237	G	O4'-C1'-C2'	7.32	114.19	107.60
32	S1	1653	G	O4'-C1'-N9	7.32	114.06	108.20
33	L1	3049	A	P-O5'-C5'	-7.32	109.19	120.90
33	L1	3107	A	C3'-C2'-C1'	7.32	107.36	101.50
66	LN	32	ASP	N-CA-CB	7.32	123.78	110.60
32	S1	645	G	C1'-O4'-C4'	-7.32	104.05	109.90
32	S1	1110	C	O4'-C1'-N1	7.32	114.06	108.20
33	L1	306	A	C1'-O4'-C4'	-7.32	104.05	109.90
33	L1	2746	G	C3'-C2'-C1'	-7.32	95.65	101.50
33	L1	2778	C	P-O3'-C3'	-7.32	110.92	119.70
74	LJ	115	ARG	NE-CZ-NH1	7.32	123.96	120.30
23	SU	23	LEU	N-CA-CB	-7.32	95.77	110.40
33	L1	1753	A	C5'-C4'-C3'	7.32	127.71	116.00
33	L1	1777	C	O4'-C1'-C2'	-7.32	98.48	105.80
33	L1	2640	A	C3'-C2'-C1'	-7.32	95.65	101.50
32	S1	1519	G	C3'-C2'-C1'	-7.31	95.65	101.50
32	S1	1751	U	C5'-C4'-C3'	-7.31	104.30	116.00
33	L1	1205	C	C1'-O4'-C4'	-7.31	104.05	109.90
33	L1	2343	U	N1-C1'-C2'	7.31	123.51	114.00
33	L1	3033	A	O4'-C1'-C2'	-7.31	98.49	105.80
5	SE	27	ARG	NE-CZ-NH1	-7.31	116.64	120.30
32	S1	1372	C	O4'-C1'-N1	7.31	114.05	108.20
33	L1	1819	A	N9-C1'-C2'	7.31	123.51	114.00
32	S1	1229	C	C3'-C2'-C1'	7.31	107.35	101.50
32	S1	1391	G	N9-C1'-C2'	7.31	123.50	114.00
33	L1	642	C	C3'-C2'-C1'	7.31	107.35	101.50
33	L1	1050	A	C5'-C4'-C3'	7.31	127.70	116.00
33	L1	2664	G	O4'-C1'-C2'	7.31	114.18	107.60
33	L1	2686	U	C5'-C4'-O4'	-7.31	100.33	109.10
32	S1	1329	A	O4'-C1'-N9	7.31	114.05	108.20
33	L1	1887	A	C1'-O4'-C4'	7.31	115.75	109.90
35	L2	69	G	P-O3'-C3'	7.31	128.47	119.70
33	L1	832	C	N1-C1'-C2'	-7.31	103.96	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1415	G	C3'-C2'-C1'	-7.31	95.65	101.50
33	L1	1835	A	O4'-C1'-N9	-7.31	102.36	108.20
32	S1	962	G	C1'-O4'-C4'	-7.31	104.06	109.90
33	L1	3123	A	C3'-C2'-C1'	7.31	107.34	101.50
55	Lg	118	VAL	C-N-CA	7.31	139.97	121.70
60	Lr	28	TYR	CB-CG-CD1	-7.31	116.62	121.00
11	SM	132	ARG	NE-CZ-NH1	7.30	123.95	120.30
17	SV	91	ARG	NE-CZ-NH2	-7.30	116.65	120.30
32	S1	146	A	P-O3'-C3'	7.30	128.47	119.70
32	S1	890	G	O4'-C1'-C2'	7.30	114.17	107.60
32	S1	1729	A	C5'-C4'-C3'	7.30	127.69	116.00
33	L1	3183	G	C5'-C4'-C3'	7.30	127.69	116.00
81	LD	227	ARG	NE-CZ-NH2	7.30	123.95	120.30
33	L1	2624	G	O4'-C1'-C2'	7.30	114.17	107.60
35	L2	145	C	O4'-C1'-N1	7.30	114.04	108.20
32	S1	442	A	C3'-C2'-C1'	7.30	107.34	101.50
32	S1	1146	G	C4'-C3'-C2'	-7.30	95.30	102.60
32	S1	1602	G	P-O3'-C3'	-7.30	110.94	119.70
33	L1	32	G	C1'-O4'-C4'	-7.30	104.06	109.90
33	L1	229	G	O4'-C1'-C2'	-7.30	98.50	105.80
33	L1	465	C	C3'-C2'-C1'	7.30	107.34	101.50
71	Lj	8	ARG	C-N-CA	-7.30	103.45	121.70
80	LC	92	TYR	CG-CD1-CE1	-7.30	115.46	121.30
82	LK	42	ARG	NE-CZ-NH2	-7.30	116.65	120.30
17	SV	13	SER	O-C-N	-7.30	111.02	122.70
23	SU	17	PHE	CA-C-N	7.30	133.26	117.20
33	L1	1281	C	P-O3'-C3'	7.30	128.46	119.70
33	L1	2081	C	P-O3'-C3'	7.30	128.46	119.70
33	L1	2829	U	OP2-P-O3'	7.30	121.26	105.20
34	L3	21	U	P-O3'-C3'	7.30	128.46	119.70
73	Lp	35	ARG	N-CA-CB	-7.30	97.46	110.60
34	L3	41	G	P-O3'-C3'	7.30	128.46	119.70
3	SB	64	ARG	NE-CZ-NH2	7.30	123.95	120.30
32	S1	772	C	P-O3'-C3'	7.30	128.46	119.70
32	S1	1229	C	C1'-O4'-C4'	-7.30	104.06	109.90
33	L1	1208	A	C1'-O4'-C4'	7.30	115.74	109.90
33	L1	2493	C	O5'-P-OP2	-7.30	99.13	105.70
33	L1	2703	G	C1'-O4'-C4'	-7.29	104.06	109.90
32	S1	1071	C	O4'-C4'-C3'	-7.29	96.71	104.00
32	S1	1184	C	C5'-C4'-C3'	7.29	127.67	116.00
32	S1	1544	G	N9-C1'-C2'	7.29	123.48	114.00
33	L1	3234	G	C1'-O4'-C4'	7.29	115.73	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1501	A	P-O3'-C3'	7.29	128.45	119.70
33	L1	2738	U	C1'-O4'-C4'	-7.29	104.07	109.90
33	L1	3290	C	C3'-C2'-C1'	7.29	107.33	101.50
33	L1	3336	A	O3'-P-O5'	-7.29	90.14	104.00
33	L1	1336	A	OP1-P-OP2	-7.29	108.67	119.60
33	L1	2381	G	O4'-C1'-C2'	7.29	114.16	107.60
32	S1	1512	C	P-O3'-C3'	7.29	128.44	119.70
33	L1	68	U	C5'-C4'-C3'	7.29	127.66	116.00
33	L1	1621	G	O4'-C4'-C3'	-7.29	96.71	104.00
33	L1	2021	G	O3'-P-O5'	-7.29	90.15	104.00
33	L1	2162	C	O4'-C1'-C2'	-7.29	98.51	105.80
66	LN	87	SER	N-CA-C	7.29	130.68	111.00
33	L1	565	C	N1-C1'-C2'	7.29	123.47	114.00
33	L1	2380	G	C1'-O4'-C4'	-7.29	104.07	109.90
33	L1	3033	A	C1'-O4'-C4'	7.29	115.73	109.90
35	L2	48	A	O3'-P-O5'	-7.29	90.16	104.00
66	LN	98	ARG	NH1-CZ-NH2	-7.29	111.39	119.40
5	SE	72	VAL	CA-CB-CG1	7.29	121.83	110.90
33	L1	563	C	C1'-O4'-C4'	-7.29	104.07	109.90
33	L1	2202	A	P-O5'-C5'	-7.29	109.24	120.90
33	L1	3140	A	C3'-C2'-C1'	7.29	107.33	101.50
32	S1	1540	U	O3'-P-O5'	7.28	117.84	104.00
67	LS	138	ARG	N-CA-CB	7.28	123.71	110.60
80	LC	69	LYS	C-N-CA	-7.28	103.49	121.70
33	L1	1105	G	C1'-O4'-C4'	7.28	115.73	109.90
33	L1	2849	A	C3'-C2'-C1'	7.28	107.33	101.50
33	L1	387	A	P-O3'-C3'	7.28	128.44	119.70
33	L1	619	C	OP1-P-OP2	-7.28	108.68	119.60
15	SS	7	ARG	CB-CA-C	7.28	124.95	110.40
32	S1	357	A	C3'-C2'-C1'	7.28	107.32	101.50
33	L1	1624	G	P-O3'-C3'	-7.28	110.97	119.70
33	L1	2804	A	N9-C1'-C2'	-7.28	104.00	112.00
33	L1	3072	A	P-O5'-C5'	7.28	132.54	120.90
67	LS	48	ARG	NE-CZ-NH2	-7.28	116.66	120.30
33	L1	186	A	C1'-O4'-C4'	-7.28	104.08	109.90
33	L1	1509	G	C5'-C4'-C3'	-7.28	104.36	116.00
33	L1	1643	A	P-O5'-C5'	-7.28	109.26	120.90
31	S2	20	C	O4'-C1'-N1	7.27	114.02	108.20
33	L1	536	C	C3'-C2'-C1'	7.27	107.32	101.50
33	L1	661	A	C1'-O4'-C4'	7.27	115.72	109.90
32	S1	1543	U	C5'-C4'-C3'	-7.27	104.37	116.00
33	L1	1850	C	O4'-C1'-C2'	-7.27	98.53	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	467	U	N1-C1'-C2'	7.27	123.45	114.00
33	L1	640	C	O5'-P-OP2	-7.27	99.16	105.70
33	L1	1689	G	O3'-P-O5'	-7.27	90.19	104.00
33	L1	1749	G	OP1-P-OP2	-7.27	108.70	119.60
33	L1	1880	A	O5'-C5'-C4'	7.27	125.51	111.70
2	SA	35	ASP	CB-CG-OD2	7.27	124.84	118.30
3	SB	178	ARG	NE-CZ-NH2	7.27	123.93	120.30
32	S1	530	A	C5'-C4'-C3'	-7.27	104.37	116.00
32	S1	1798	G	C1'-O4'-C4'	-7.27	104.09	109.90
33	L1	1237	G	C5'-C4'-O4'	-7.27	100.38	109.10
44	LR	65	ARG	NE-CZ-NH2	-7.27	116.67	120.30
32	S1	1460	G	C1'-O4'-C4'	-7.27	104.09	109.90
33	L1	542	G	C3'-C2'-C1'	-7.27	95.69	101.50
33	L1	1291	A	C1'-O4'-C4'	7.27	115.71	109.90
38	LE	50	SER	N-CA-CB	7.27	121.40	110.50
11	SM	104	ASP	CB-CA-C	-7.26	95.87	110.40
46	LT	81	ARG	NE-CZ-NH1	-7.26	116.67	120.30
11	SM	112	GLU	C-N-CA	-7.26	103.54	121.70
32	S1	1285	G	N9-C1'-C2'	7.26	123.44	114.00
34	L3	1	G	O4'-C4'-C3'	-7.26	96.74	104.00
41	LM	59	ASP	CB-CG-OD1	-7.26	111.77	118.30
78	Le	130	ARG	NE-CZ-NH2	7.26	123.93	120.30
3	SB	76	ARG	NH1-CZ-NH2	-7.26	111.42	119.40
32	S1	666	C	N1-C1'-C2'	7.26	123.44	114.00
33	L1	1760	G	O4'-C1'-N9	7.26	114.01	108.20
33	L1	3361	G	O5'-P-OP2	-7.26	99.17	105.70
34	L3	35	C	C3'-C2'-C1'	7.26	107.31	101.50
33	L1	967	G	P-O3'-C3'	-7.26	110.99	119.70
32	S1	630	U	C4'-C3'-C2'	7.26	109.86	102.60
32	S1	1144	A	P-O3'-C3'	7.26	128.41	119.70
33	L1	813	A	O4'-C1'-N9	7.26	114.00	108.20
33	L1	3269	C	N1-C1'-C2'	7.26	123.43	114.00
67	LS	164	LYS	CA-CB-CG	7.26	129.36	113.40
35	L2	122	C	C1'-O4'-C4'	-7.25	104.10	109.90
64	LG	65	LYS	CB-CA-C	7.25	124.91	110.40
32	S1	1163	C	C3'-C2'-C1'	7.25	107.30	101.50
33	L1	49	U	C3'-C2'-C1'	7.25	107.30	101.50
33	L1	323	A	O4'-C1'-C2'	7.25	114.13	107.60
33	L1	974	G	C1'-O4'-C4'	-7.25	104.10	109.90
33	L1	906	U	C5'-C4'-C3'	7.25	127.60	116.00
33	L1	1566	C	C3'-C2'-C1'	7.25	107.30	101.50
33	L1	2619	C	P-O3'-C3'	7.25	128.40	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3162	C	C3'-C2'-C1'	7.25	107.30	101.50
33	L1	875	A	C1'-O4'-C4'	-7.25	104.10	109.90
33	L1	2445	U	N1-C1'-C2'	7.25	123.42	114.00
33	L1	3299	A	N9-C1'-C2'	-7.25	104.03	112.00
32	S1	1200	A	O4'-C1'-C2'	-7.25	98.55	105.80
32	S1	1315	U	O4'-C1'-C2'	-7.25	98.55	105.80
33	L1	732	G	O4'-C1'-N9	7.25	114.00	108.20
33	L1	1910	G	O4'-C1'-C2'	7.25	114.12	107.60
32	S1	441	A	P-O3'-C3'	7.25	128.40	119.70
32	S1	501	U	C1'-O4'-C4'	-7.25	104.10	109.90
33	L1	239	C	C1'-O4'-C4'	7.25	115.70	109.90
33	L1	1507	A	C3'-C2'-C1'	-7.25	95.70	101.50
33	L1	2639	A	P-O3'-C3'	7.25	128.40	119.70
33	L1	1778	C	O3'-P-O5'	-7.25	90.23	104.00
23	SU	51	LYS	CB-CA-C	-7.24	95.91	110.40
32	S1	37	U	C3'-C2'-C1'	7.24	107.29	101.50
32	S1	622	U	O4'-C1'-N1	7.24	114.00	108.20
32	S1	1212	A	O4'-C1'-N9	7.24	114.00	108.20
33	L1	3107	A	C4'-C3'-C2'	-7.24	95.36	102.60
78	Le	163	ILE	N-CA-CB	-7.24	94.14	110.80
23	SU	68	THR	CA-C-N	7.24	133.13	117.20
30	S3	12	A	C3'-C2'-C1'	-7.24	95.71	101.50
33	L1	2820	U	O4'-C1'-N1	7.24	113.99	108.20
72	Lk	96	VAL	CG1-CB-CG2	-7.24	99.31	110.90
33	L1	1233	G	P-O5'-C5'	7.24	132.48	120.90
33	L1	2092	C	C5'-C4'-C3'	7.24	127.59	116.00
23	SU	8	PRO	CA-C-O	-7.24	102.83	120.20
23	SU	23	LEU	CB-CG-CD1	-7.24	98.69	111.00
32	S1	301	U	P-O3'-C3'	7.24	128.39	119.70
32	S1	1478	C	C3'-C2'-C1'	7.24	107.29	101.50
33	L1	238	C	C4'-C3'-C2'	-7.24	95.36	102.60
33	L1	338	C	N1-C1'-C2'	7.24	123.41	114.00
4	SD	45	ILE	CA-CB-CG2	7.24	125.38	110.90
23	SU	21	ARG	N-CA-C	7.24	130.54	111.00
32	S1	1707	G	O4'-C1'-N9	7.24	113.99	108.20
32	S1	157	U	O4'-C1'-N1	7.24	113.99	108.20
33	L1	1727	A	N9-C1'-C2'	7.24	123.41	114.00
33	L1	1812	A	O4'-C1'-N9	7.24	113.99	108.20
33	L1	2999	G	C1'-O4'-C4'	-7.24	104.11	109.90
57	Ll	79	ARG	NE-CZ-NH1	-7.24	116.68	120.30
79	Ls	33	ALA	N-CA-CB	7.24	120.23	110.10
33	L1	1164	G	C1'-O4'-C4'	-7.23	104.11	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3024	U	C5'-C4'-O4'	7.23	117.78	109.10
32	S1	852	A	C1'-O4'-C4'	-7.23	104.11	109.90
33	L1	2665	A	C3'-C2'-C1'	7.23	107.29	101.50
33	L1	3065	U	O4'-C1'-N1	7.23	113.99	108.20
34	L3	77	A	C1'-O4'-C4'	7.23	115.69	109.90
34	L3	89	G	O4'-C1'-N9	7.23	113.99	108.20
60	Lr	61	LYS	CB-CA-C	-7.23	95.94	110.40
31	S2	21	A	C3'-C2'-C1'	7.23	107.28	101.50
32	S1	103	U	O4'-C1'-N1	7.23	113.98	108.20
33	L1	2046	G	O4'-C1'-N9	7.23	113.98	108.20
67	LS	121	PRO	N-CA-CB	7.23	111.98	103.30
32	S1	631	C	N1-C1'-C2'	-7.23	104.05	112.00
33	L1	1422	G	N9-C1'-C2'	-7.23	104.05	112.00
84	LI	69	ARG	NE-CZ-NH1	7.23	123.92	120.30
32	S1	137	A	O4'-C1'-N9	7.23	113.98	108.20
32	S1	392	G	O4'-C1'-N9	7.23	113.98	108.20
32	S1	508	U	C2'-C3'-O3'	7.23	125.40	109.50
32	S1	1096	A	O4'-C1'-N9	7.23	113.98	108.20
31	S2	25	U	O4'-C1'-N1	7.23	113.98	108.20
32	S1	1434	G	C1'-O4'-C4'	-7.23	104.12	109.90
33	L1	306	A	C5'-C4'-C3'	7.23	127.56	116.00
33	L1	533	G	C5'-C4'-C3'	7.23	127.56	116.00
33	L1	990	U	O4'-C1'-N1	7.23	113.98	108.20
72	Lk	96	VAL	CA-CB-CG1	7.23	121.74	110.90
33	L1	455	U	O4'-C1'-N1	7.22	113.98	108.20
32	S1	1096	A	P-O3'-C3'	-7.22	111.03	119.70
32	S1	1688	G	C3'-C2'-C1'	-7.22	95.72	101.50
33	L1	20	G	O4'-C1'-C2'	7.22	114.10	107.60
33	L1	371	A	O4'-C1'-C2'	7.22	114.10	107.60
33	L1	1394	C	C5'-C4'-C3'	7.22	127.56	116.00
33	L1	1242	U	P-O3'-C3'	7.22	128.36	119.70
33	L1	1776	G	O4'-C1'-N9	7.22	113.97	108.20
33	L1	2134	U	P-O5'-C5'	7.22	132.45	120.90
33	L1	2430	C	O5'-P-OP2	-7.22	99.20	105.70
33	L1	2543	G	O4'-C1'-N9	-7.22	102.42	108.20
34	L3	116	U	O4'-C1'-C2'	-7.22	98.58	105.80
35	L2	51	U	C3'-C2'-C1'	7.22	107.28	101.50
46	LT	136	ARG	N-CA-C	-7.22	91.51	111.00
33	L1	2487	A	C3'-C2'-C1'	-7.22	95.72	101.50
31	S2	49	G	O4'-C1'-C2'	7.22	114.09	107.60
33	L1	1388	C	P-O3'-C3'	7.22	128.36	119.70
33	L1	1525	U	O5'-P-OP1	7.22	119.36	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1273	U	C1'-O4'-C4'	-7.21	104.13	109.90
33	L1	1596	G	N9-C1'-C2'	7.21	123.38	114.00
33	L1	548	G	P-O5'-C5'	-7.21	109.36	120.90
33	L1	2689	U	O4'-C1'-N1	7.21	113.97	108.20
35	L2	131	C	C3'-C2'-C1'	7.21	107.27	101.50
10	SL	106	ARG	CD-NE-CZ	7.21	133.70	123.60
32	S1	498	U	O4'-C1'-N1	7.21	113.97	108.20
33	L1	619	C	P-O5'-C5'	-7.21	109.36	120.90
33	L1	926	C	O4'-C1'-N1	7.21	113.97	108.20
33	L1	997	G	O5'-P-OP1	-7.21	99.21	105.70
33	L1	1494	A	N9-C1'-C2'	-7.21	104.07	112.00
32	S1	1663	A	O4'-C1'-N9	7.21	113.97	108.20
33	L1	1577	A	C5'-C4'-O4'	7.21	117.75	109.10
33	L1	1757	G	N9-C1'-C2'	-7.21	104.07	112.00
32	S1	179	A	P-O3'-C3'	7.21	128.35	119.70
33	L1	215	U	C1'-O4'-C4'	-7.21	104.13	109.90
33	L1	311	G	OP1-P-OP2	-7.21	108.79	119.60
33	L1	339	G	N9-C1'-C2'	7.21	123.37	114.00
33	L1	389	A	O4'-C1'-C2'	7.21	114.09	107.60
33	L1	638	G	C1'-O4'-C4'	-7.21	104.13	109.90
33	L1	2171	A	C1'-O4'-C4'	7.21	115.67	109.90
39	LF	31	ARG	NE-CZ-NH2	-7.21	116.70	120.30
32	S1	1299	G	C1'-O4'-C4'	-7.21	104.14	109.90
33	L1	1176	U	O5'-P-OP2	-7.21	99.21	105.70
33	L1	1752	C	C5'-C4'-O4'	-7.21	100.45	109.10
33	L1	2875	U	C5'-C4'-C3'	-7.21	104.47	116.00
84	LI	109	ASP	CA-C-O	-7.21	104.97	120.10
32	S1	140	C	O4'-C1'-N1	7.21	113.96	108.20
32	S1	257	A	C4'-C3'-C2'	-7.21	95.39	102.60
11	SM	117	ILE	CA-CB-CG1	-7.20	97.31	111.00
33	L1	882	U	P-O3'-C3'	7.20	128.34	119.70
33	L1	1906	A	N9-C1'-C2'	-7.20	104.08	112.00
33	L1	2762	U	P-O5'-C5'	7.20	132.42	120.90
84	LI	10	ARG	NE-CZ-NH2	-7.20	116.70	120.30
33	L1	1249	A	P-O3'-C3'	7.20	128.34	119.70
45	LQ	259	LYS	CB-CA-C	7.20	124.80	110.40
50	LZ	22	ARG	NE-CZ-NH1	7.20	123.90	120.30
32	S1	900	G	O4'-C1'-N9	7.20	113.96	108.20
33	L1	45	U	O4'-C1'-N1	7.20	113.96	108.20
33	L1	3287	A	C3'-C2'-C1'	7.20	107.26	101.50
35	L2	46	G	O4'-C1'-C2'	-7.20	98.60	105.80
69	La	28	VAL	C-N-CA	7.20	139.70	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	502	G	O4'-C1'-N9	7.20	113.96	108.20
32	S1	1039	C	C3'-C2'-C1'	7.20	107.26	101.50
32	S1	1167	C	N1-C1'-C2'	7.20	123.36	114.00
32	S1	1614	C	C1'-O4'-C4'	-7.20	104.14	109.90
33	L1	1125	U	O4'-C1'-N1	7.20	113.96	108.20
33	L1	2097	C	C3'-C2'-C1'	7.20	107.26	101.50
33	L1	2179	U	O4'-C1'-C2'	-7.20	98.60	105.80
33	L1	3361	G	O4'-C1'-N9	-7.20	102.44	108.20
33	L1	2798	G	C5'-C4'-O4'	7.20	117.74	109.10
2	SA	26	ASP	CB-CG-OD2	-7.20	111.82	118.30
10	SL	118	ARG	N-CA-C	-7.20	91.57	111.00
11	SM	100	SER	CA-CB-OG	7.20	130.63	111.20
33	L1	676	G	C1'-O4'-C4'	-7.20	104.14	109.90
33	L1	1903	C	N1-C1'-C2'	-7.20	104.08	112.00
33	L1	2092	C	O4'-C1'-N1	7.20	113.96	108.20
33	L1	2896	C	C5'-C4'-C3'	-7.20	104.49	116.00
34	L3	39	C	O4'-C1'-C2'	-7.20	98.61	105.80
82	LK	135	GLN	O-C-N	-7.20	107.43	121.10
32	S1	1794	C	N1-C1'-C2'	7.19	123.35	114.00
33	L1	1118	G	C3'-C2'-C1'	7.19	107.25	101.50
34	L3	67	C	C5'-C4'-C3'	7.19	127.51	116.00
46	LT	172	ARG	CB-CA-C	-7.19	96.01	110.40
32	S1	1602	G	OP1-P-O3'	7.19	121.02	105.20
33	L1	605	A	C5'-C4'-C3'	-7.19	104.49	116.00
33	L1	2774	A	C3'-C2'-C1'	7.19	107.25	101.50
35	L2	92	A	O4'-C1'-N9	-7.19	102.45	108.20
35	L2	122	C	N1-C1'-C2'	7.19	123.35	114.00
1	Sa	234	ASP	CB-CG-OD1	7.19	124.77	118.30
32	S1	1310	C	C3'-C2'-C1'	7.19	107.25	101.50
33	L1	407	A	C4'-C3'-C2'	-7.19	95.41	102.60
33	L1	422	G	P-O5'-C5'	7.19	132.40	120.90
33	L1	921	C	N1-C1'-C2'	-7.19	104.09	112.00
33	L1	1762	G	N9-C1'-C2'	7.19	123.35	114.00
33	L1	1806	C	C1'-O4'-C4'	-7.19	104.15	109.90
64	LG	144	ASP	N-CA-C	7.19	130.41	111.00
69	La	78	THR	N-CA-CB	7.19	123.96	110.30
32	S1	1698	A	C1'-O4'-C4'	7.19	115.65	109.90
33	L1	1920	U	C3'-C2'-C1'	7.19	107.25	101.50
33	L1	1954	G	C4'-C3'-C2'	-7.19	95.41	102.60
64	LG	79	THR	C-N-CA	7.19	139.67	121.70
67	LS	10	GLN	CA-CB-CG	7.19	129.21	113.40
67	LS	141	THR	C-N-CA	7.19	139.67	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2661	G	C4'-C3'-C2'	-7.19	95.41	102.60
32	S1	459	C	O4'-C1'-C2'	-7.18	98.62	105.80
33	L1	651	A	P-O3'-C3'	7.18	128.32	119.70
33	L1	2150	C	N1-C1'-C2'	7.18	123.34	114.00
32	S1	412	C	C3'-C2'-C1'	7.18	107.25	101.50
33	L1	1859	G	O4'-C1'-C2'	-7.18	98.62	105.80
33	L1	2044	C	O4'-C1'-N1	7.18	113.95	108.20
33	L1	3123	A	N9-C1'-C2'	7.18	123.34	114.00
67	LS	44	TRP	CB-CA-C	7.18	124.77	110.40
33	L1	1587	G	P-O5'-C5'	7.18	132.39	120.90
70	Li	110	GLN	C-N-CA	-7.18	103.75	121.70
32	S1	372	U	N1-C1'-C2'	7.18	123.33	114.00
48	LV	117	HIS	CB-CA-C	7.18	124.76	110.40
33	L1	683	U	N1-C1'-C2'	7.18	123.33	114.00
34	L3	11	A	C4'-C3'-C2'	-7.18	95.42	102.60
64	LG	139	VAL	N-CA-CB	7.18	127.29	111.50
33	L1	2562	A	C5'-C4'-O4'	-7.18	100.49	109.10
33	L1	1005	C	N1-C1'-C2'	-7.17	104.11	112.00
25	SC	43	GLU	CA-C-N	7.17	132.98	117.20
31	S2	66	C	O4'-C1'-N1	7.17	113.94	108.20
33	L1	541	C	N1-C1'-C2'	7.17	123.33	114.00
33	L1	3052	U	P-O3'-C3'	-7.17	111.09	119.70
32	S1	574	A	O4'-C1'-C2'	-7.17	98.63	105.80
33	L1	765	U	O4'-C1'-N1	7.17	113.94	108.20
33	L1	785	U	C1'-O4'-C4'	-7.17	104.16	109.90
67	LS	89	TYR	CG-CD1-CE1	-7.17	115.56	121.30
33	L1	450	C	N1-C1'-C2'	7.17	123.32	114.00
33	L1	1281	C	C1'-O4'-C4'	7.17	115.64	109.90
33	L1	1664	G	O4'-C1'-N9	-7.17	102.46	108.20
80	LC	355	LEU	CB-CG-CD1	-7.17	98.81	111.00
32	S1	422	G	C1'-O4'-C4'	-7.17	104.17	109.90
32	S1	784	C	P-O3'-C3'	7.17	128.30	119.70
27	SH	120	ASN	N-CA-C	-7.17	91.65	111.00
33	L1	793	C	P-O3'-C3'	-7.17	111.10	119.70
33	L1	2229	G	C3'-C2'-C1'	-7.17	95.77	101.50
32	S1	419	C	O4'-C1'-C2'	-7.17	98.64	105.80
35	L2	76	A	C5'-C4'-C3'	-7.17	104.54	116.00
32	S1	299	A	O4'-C1'-N9	7.16	113.93	108.20
32	S1	1745	U	C1'-O4'-C4'	7.16	115.63	109.90
33	L1	319	C	O4'-C1'-N1	7.16	113.93	108.20
33	L1	2466	G	C4'-C3'-C2'	-7.16	95.44	102.60
70	Li	70	ASN	N-CA-CB	7.16	123.50	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	232	C	O4'-C1'-C2'	-7.16	98.64	105.80
33	L1	760	C	O4'-C1'-N1	7.16	113.93	108.20
33	L1	2167	G	O4'-C1'-N9	7.16	113.93	108.20
33	L1	2456	G	C1'-O4'-C4'	-7.16	104.17	109.90
49	LX	139	ASP	CB-CG-OD1	-7.16	111.86	118.30
32	S1	324	U	C3'-C2'-C1'	7.16	107.23	101.50
32	S1	1657	C	C3'-C2'-C1'	7.16	107.23	101.50
33	L1	2498	C	C4'-C3'-C2'	-7.16	95.44	102.60
33	L1	3051	U	C1'-O4'-C4'	-7.16	104.17	109.90
33	L1	1525	U	P-O3'-C3'	7.16	128.29	119.70
32	S1	159	U	C4'-C3'-C2'	-7.16	95.44	102.60
33	L1	1320	G	C1'-O4'-C4'	-7.16	104.18	109.90
35	L2	164	C	O4'-C1'-N1	7.16	113.92	108.20
32	S1	1247	G	C1'-O4'-C4'	-7.15	104.18	109.90
33	L1	1911	A	N9-C1'-C2'	-7.15	104.13	112.00
33	L1	2204	U	O5'-C5'-C4'	7.15	125.29	111.70
11	SM	118	ARG	NE-CZ-NH1	7.15	123.88	120.30
33	L1	2156	U	O4'-C1'-N1	7.15	113.92	108.20
8	SJ	64	ARG	NE-CZ-NH2	7.15	123.88	120.30
33	L1	810	A	O4'-C1'-N9	-7.15	102.48	108.20
33	L1	2944	C	O4'-C1'-C2'	-7.15	98.65	105.80
35	L2	21	A	O4'-C1'-C2'	7.15	114.03	107.60
33	L1	1245	U	N1-C1'-C2'	-7.15	104.14	112.00
33	L1	1424	G	C3'-C2'-C1'	-7.15	95.78	101.50
2	SA	228	ASP	CB-CG-OD2	-7.15	111.87	118.30
32	S1	293	C	N1-C1'-C2'	7.15	123.29	114.00
32	S1	1784	G	C1'-O4'-C4'	-7.15	104.18	109.90
57	L1	11	ARG	CA-C-O	-7.15	105.09	120.10
32	S1	1179	C	O4'-C1'-N1	7.14	113.92	108.20
33	L1	326	C	C4'-C3'-C2'	7.14	109.74	102.60
33	L1	2114	A	C5'-C4'-C3'	-7.14	104.57	116.00
33	L1	2865	G	O4'-C1'-N9	7.14	113.92	108.20
32	S1	176	A	O4'-C1'-N9	7.14	113.91	108.20
32	S1	1226	U	C2'-C3'-O3'	7.14	125.21	109.50
33	L1	1738	A	O3'-P-O5'	-7.14	90.43	104.00
33	L1	2093	G	O4'-C1'-N9	7.14	113.91	108.20
33	L1	2813	A	C3'-C2'-C1'	-7.14	95.79	101.50
80	LC	245	THR	CA-CB-CG2	-7.14	102.40	112.40
83	Lm	14	TYR	CB-CG-CD1	7.14	125.28	121.00
31	S2	9	A	P-O3'-C3'	7.14	128.27	119.70
32	S1	475	A	C3'-C2'-C1'	7.14	107.21	101.50
33	L1	2424	G	O4'-C1'-C2'	7.14	114.03	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	439	C	C4'-C3'-C2'	7.14	109.74	102.60
33	L1	381	G	O4'-C1'-N9	7.14	113.91	108.20
33	L1	476	C	O4'-C1'-N1	7.14	113.91	108.20
33	L1	1731	A	N9-C1'-C2'	7.14	123.28	114.00
33	L1	1807	C	O4'-C1'-N1	7.14	113.91	108.20
33	L1	3100	C	O3'-P-O5'	7.14	117.56	104.00
33	L1	3211	C	O4'-C1'-N1	7.14	113.91	108.20
70	Li	41	GLY	CA-C-N	7.14	137.09	117.10
33	L1	1374	G	C4'-C3'-C2'	-7.14	95.46	102.60
32	S1	357	A	N9-C1'-C2'	-7.14	104.15	112.00
33	L1	502	G	N9-C1'-C2'	-7.14	104.15	112.00
33	L1	2750	A	C3'-C2'-C1'	7.14	107.21	101.50
33	L1	3231	G	C1'-O4'-C4'	-7.14	104.19	109.90
64	LG	49	LYS	C-N-CA	-7.14	103.86	121.70
79	Ls	260	TYR	CB-CG-CD1	7.14	125.28	121.00
82	LK	135	GLN	CB-CA-C	-7.14	96.13	110.40
32	S1	1064	U	O4'-C1'-C2'	-7.13	98.67	105.80
33	L1	1595	G	P-O3'-C3'	-7.13	111.14	119.70
33	L1	1644	A	O4'-C1'-N9	-7.13	102.49	108.20
32	S1	1803	G	P-O5'-C5'	-7.13	109.49	120.90
33	L1	71	C	O4'-C1'-N1	7.13	113.91	108.20
31	S2	55	C	P-O3'-C3'	7.13	128.26	119.70
45	LQ	246	ALA	N-CA-C	-7.13	91.74	111.00
47	LU	159	ASP	CB-CG-OD1	7.13	124.72	118.30
32	S1	1046	G	O4'-C1'-N9	7.13	113.90	108.20
33	L1	182	C	OP2-P-O3'	7.13	120.88	105.20
33	L1	282	A	C5'-C4'-C3'	-7.13	104.60	116.00
33	L1	676	G	C5'-C4'-O4'	7.13	117.65	109.10
33	L1	1510	G	C3'-C2'-C1'	-7.13	95.80	101.50
27	SH	113	HIS	N-CA-CB	7.13	123.43	110.60
33	L1	1082	U	O4'-C1'-N1	7.13	113.90	108.20
33	L1	2502	U	P-O5'-C5'	-7.13	109.50	120.90
33	L1	2562	A	N9-C1'-C2'	-7.13	104.16	112.00
33	L1	685	G	N9-C1'-C2'	7.12	123.26	114.00
33	L1	1018	C	O4'-C1'-C2'	-7.12	98.67	105.80
33	L1	2362	A	C3'-C2'-C1'	-7.12	95.80	101.50
32	S1	181	C	N1-C1'-C2'	7.12	123.26	114.00
33	L1	639	A	P-O5'-C5'	-7.12	109.50	120.90
23	SU	33	LEU	CB-CA-C	7.12	123.73	110.20
33	L1	1940	U	C5'-C4'-O4'	7.12	117.64	109.10
34	L3	102	G	C1'-O4'-C4'	7.12	115.60	109.90
55	Lg	83	ILE	CB-CA-C	7.12	125.84	111.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	SR	117	LYS	CA-CB-CG	7.12	129.06	113.40
33	L1	188	U	N1-C1'-C2'	-7.12	104.17	112.00
33	L1	614	C	C3'-C2'-C1'	7.12	107.20	101.50
3	SB	158	ILE	CA-C-N	7.12	132.86	117.20
33	L1	1753	A	C2'-C3'-O3'	7.12	125.16	109.50
35	L2	23	A	C3'-C2'-C1'	-7.12	95.81	101.50
32	S1	255	U	O4'-C1'-N1	7.12	113.89	108.20
32	S1	1099	G	N9-C1'-C2'	7.12	123.25	114.00
32	S1	1385	C	C5'-C4'-O4'	7.12	117.64	109.10
33	L1	2255	U	O4'-C1'-N1	7.12	113.89	108.20
64	LG	153	THR	N-CA-CB	7.12	123.82	110.30
32	S1	1051	G	O4'-C1'-N9	7.12	113.89	108.20
33	L1	1304	G	C1'-O4'-C4'	-7.12	104.21	109.90
33	L1	2087	A	C4'-C3'-C2'	-7.12	95.48	102.60
33	L1	3305	U	C5'-C4'-O4'	7.12	117.64	109.10
32	S1	365	C	C3'-C2'-C1'	7.11	107.19	101.50
32	S1	474	A	O4'-C1'-C2'	-7.11	98.69	105.80
33	L1	949	C	C3'-C2'-C1'	7.11	107.19	101.50
33	L1	1104	C	P-O5'-C5'	7.11	132.28	120.90
33	L1	2546	C	N1-C1'-C2'	7.11	123.25	114.00
33	L1	3335	G	C5'-C4'-O4'	-7.11	100.56	109.10
60	Lr	43	TYR	CB-CG-CD1	7.11	125.27	121.00
15	SS	7	ARG	O-C-N	7.11	134.08	122.70
17	SV	78	ARG	N-CA-CB	7.11	123.40	110.60
32	S1	396	G	C1'-O4'-C4'	-7.11	104.21	109.90
32	S1	579	C	C3'-C2'-C1'	7.11	107.19	101.50
33	L1	486	G	P-O3'-C3'	-7.11	111.17	119.70
33	L1	2332	C	O4'-C1'-C2'	7.11	114.00	107.60
33	L1	2729	C	C5'-C4'-O4'	7.11	117.63	109.10
33	L1	3359	C	O4'-C1'-N1	7.11	113.89	108.20
56	Lh	5	LEU	CB-CA-C	7.11	123.71	110.20
32	S1	1563	A	P-O3'-C3'	7.11	128.23	119.70
33	L1	599	C	C5'-C4'-O4'	7.11	117.63	109.10
33	L1	1442	U	C1'-O4'-C4'	-7.11	104.22	109.90
33	L1	2118	G	O4'-C1'-N9	7.11	113.89	108.20
33	L1	2227	A	C1'-O4'-C4'	-7.11	104.21	109.90
32	S1	107	U	O4'-C1'-N1	7.11	113.88	108.20
33	L1	2302	G	P-O3'-C3'	7.11	128.23	119.70
33	L1	2369	G	O4'-C1'-N9	7.11	113.89	108.20
33	L1	451	C	N1-C1'-C2'	7.10	123.23	114.00
33	L1	499	A	P-O3'-C3'	7.10	128.22	119.70
33	L1	611	C	C3'-C2'-C1'	7.10	107.18	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1624	G	P-O5'-C5'	7.10	132.26	120.90
53	Ld	49	HIS	CA-CB-CG	7.10	125.67	113.60
33	L1	2748	G	C3'-C2'-C1'	-7.10	95.82	101.50
24	SX	52	SER	O-C-N	7.10	134.06	122.70
32	S1	174	C	C3'-C2'-C1'	7.10	107.18	101.50
33	L1	640	C	OP1-P-O3'	7.10	120.82	105.20
38	LE	12	ARG	NE-CZ-NH1	7.10	123.85	120.30
81	LD	359	LEU	CB-CA-C	-7.10	96.71	110.20
33	L1	13	G	N9-C1'-C2'	7.10	123.23	114.00
33	L1	3318	G	O4'-C1'-N9	7.10	113.88	108.20
3	SB	87	TYR	CB-CG-CD2	-7.09	116.74	121.00
28	SN	40	ARG	NE-CZ-NH2	7.09	123.85	120.30
33	L1	2653	U	C4'-C3'-C2'	-7.09	95.50	102.60
33	L1	3322	A	C5'-C4'-C3'	7.09	127.35	116.00
32	S1	333	G	N9-C1'-C2'	7.09	123.22	114.00
32	S1	607	U	N1-C1'-C2'	7.09	123.22	114.00
33	L1	3337	G	O4'-C4'-C3'	-7.09	96.91	104.00
69	La	26	VAL	N-CA-CB	-7.09	95.89	111.50
81	LD	95	ALA	N-CA-CB	-7.09	100.17	110.10
5	SE	137	ALA	N-CA-CB	7.09	120.03	110.10
31	S2	28	G	N9-C1'-C2'	-7.09	104.20	112.00
32	S1	1146	G	N9-C1'-C2'	7.09	123.22	114.00
32	S1	1473	C	O5'-C5'-C4'	-7.09	98.22	111.70
32	S1	1641	A	O4'-C1'-N9	7.09	113.87	108.20
32	S1	1669	U	O4'-C1'-N1	7.09	113.87	108.20
33	L1	364	A	C1'-O4'-C4'	-7.09	104.23	109.90
33	L1	1633	C	C3'-C2'-C1'	7.09	107.17	101.50
33	L1	2843	G	O4'-C4'-C3'	-7.09	96.91	104.00
64	LG	96	LEU	CB-CA-C	7.09	123.67	110.20
32	S1	1661	C	O3'-P-O5'	7.09	117.47	104.00
33	L1	2442	A	O4'-C1'-N9	7.09	113.87	108.20
32	S1	199	G	N9-C1'-C2'	7.09	123.22	114.00
33	L1	2098	A	O4'-C1'-N9	7.09	113.87	108.20
78	Le	47	TYR	CB-CG-CD2	-7.09	116.75	121.00
33	L1	3034	A	P-O3'-C3'	7.09	128.20	119.70
64	LG	68	PRO	O-C-N	-7.09	111.36	122.70
32	S1	557	G	C1'-O4'-C4'	-7.08	104.23	109.90
32	S1	1139	C	C3'-C2'-C1'	7.08	107.17	101.50
33	L1	1630	C	C3'-C2'-C1'	7.08	107.17	101.50
33	L1	845	G	O4'-C1'-C2'	7.08	113.97	107.60
32	S1	1088	G	O4'-C1'-C2'	-7.08	98.72	105.80
33	L1	138	G	C4'-C3'-O3'	7.08	127.16	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1317	G	O5'-P-OP1	7.08	119.20	110.70
33	L1	2792	A	P-O3'-C3'	-7.08	111.20	119.70
2	SA	211	PRO	C-N-CA	-7.08	104.00	121.70
4	SD	189	THR	N-CA-CB	7.08	123.75	110.30
20	SZ	1	MET	CG-SD-CE	-7.08	88.88	100.20
32	S1	1602	G	C1'-O4'-C4'	-7.08	104.24	109.90
33	L1	1260	G	P-O3'-C3'	7.08	128.19	119.70
33	L1	2738	U	C4'-C3'-O3'	7.08	127.16	113.00
33	L1	2801	A	C3'-C2'-C1'	7.08	107.16	101.50
33	L1	473	G	O4'-C1'-C2'	-7.08	98.72	105.80
33	L1	2223	A	P-O5'-C5'	7.08	132.22	120.90
33	L1	2595	G	O4'-C4'-C3'	-7.08	96.92	104.00
35	L2	41	A	C1'-O4'-C4'	-7.08	104.24	109.90
77	Lc	95	ARG	CA-CB-CG	7.08	128.97	113.40
15	SS	51	TYR	CB-CG-CD1	-7.07	116.76	121.00
32	S1	1442	A	O4'-C1'-C2'	-7.07	98.73	105.80
33	L1	3217	G	P-O3'-C3'	7.07	128.19	119.70
33	L1	2171	A	P-O3'-C3'	7.07	128.19	119.70
32	S1	152	G	O4'-C1'-N9	-7.07	102.54	108.20
32	S1	1101	C	O4'-C1'-C2'	-7.07	98.73	105.80
33	L1	800	C	O4'-C1'-C2'	-7.07	98.73	105.80
33	L1	2628	C	C4'-C3'-C2'	7.07	109.67	102.60
33	L1	2770	U	P-O5'-C5'	7.07	132.21	120.90
34	L3	84	U	P-O3'-C3'	7.07	128.18	119.70
32	S1	442	A	O4'-C1'-C2'	-7.07	98.73	105.80
32	S1	1750	A	N9-C1'-C2'	-7.07	104.22	112.00
33	L1	637	C	O4'-C1'-C2'	-7.07	98.73	105.80
33	L1	668	U	C4'-C3'-C2'	-7.07	95.53	102.60
33	L1	689	G	O4'-C1'-C2'	7.07	113.96	107.60
33	L1	1042	C	O4'-C1'-C2'	-7.07	98.73	105.80
44	LR	25	TYR	CZ-CE2-CD2	-7.07	113.44	119.80
32	S1	411	A	O4'-C1'-N9	7.07	113.85	108.20
32	S1	570	C	C1'-O4'-C4'	-7.07	104.25	109.90
33	L1	297	G	P-O3'-C3'	7.07	128.18	119.70
33	L1	1135	C	C3'-C2'-C1'	7.07	107.16	101.50
33	L1	1180	C	OP2-P-O3'	7.07	120.75	105.20
11	SM	66	ARG	NE-CZ-NH1	-7.07	116.77	120.30
32	S1	880	G	C1'-O4'-C4'	7.07	115.55	109.90
33	L1	1664	G	N9-C1'-C2'	7.07	123.19	114.00
33	L1	1812	A	O4'-C1'-C2'	7.07	113.96	107.60
33	L1	3065	U	N1-C1'-C2'	7.07	123.18	114.00
33	L1	3087	A	P-O5'-C5'	7.07	132.21	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3287	A	P-O5'-C5'	7.07	132.20	120.90
33	L1	975	G	P-O5'-C5'	-7.06	109.60	120.90
33	L1	2021	G	O4'-C1'-C2'	-7.06	98.74	105.80
38	LE	30	ASP	CB-CA-C	7.06	124.53	110.40
32	S1	1472	G	O4'-C1'-C2'	7.06	113.96	107.60
33	L1	816	G	C1'-O4'-C4'	-7.06	104.25	109.90
33	L1	972	C	C1'-O4'-C4'	7.06	115.55	109.90
33	L1	1954	G	C5'-C4'-C3'	7.06	127.30	116.00
33	L1	2618	G	C1'-O4'-C4'	7.06	115.55	109.90
33	L1	3245	G	N9-C1'-C2'	7.06	123.18	114.00
3	SB	107	TYR	CB-CG-CD1	7.06	125.24	121.00
28	SN	14	TYR	N-CA-CB	7.06	123.31	110.60
32	S1	502	G	P-O5'-C5'	7.06	132.19	120.90
33	L1	540	G	C1'-O4'-C4'	-7.06	104.25	109.90
57	L1	47	TYR	CG-CD1-CE1	-7.06	115.65	121.30
33	L1	1428	G	C5'-C4'-O4'	7.06	117.57	109.10
33	L1	2234	G	C5'-C4'-C3'	7.06	127.29	116.00
56	Lh	106	ARG	NE-CZ-NH1	7.06	123.83	120.30
66	LN	53	LEU	N-CA-C	-7.06	91.95	111.00
32	S1	831	C	O4'-C1'-N1	7.06	113.84	108.20
37	LB	16	PHE	CB-CG-CD2	7.06	125.74	120.80
8	SJ	30	ARG	NE-CZ-NH2	-7.05	116.77	120.30
32	S1	11	A	O4'-C1'-N9	7.05	113.84	108.20
33	L1	881	G	P-O3'-C3'	7.05	128.16	119.70
34	L3	1	G	C3'-C2'-C1'	7.05	107.14	101.50
66	LN	89	TRP	CB-CG-CD2	7.05	135.77	126.60
32	S1	912	A	C4'-C3'-C2'	-7.05	95.55	102.60
33	L1	3037	G	N9-C1'-C2'	7.05	123.17	114.00
25	SC	46	ARG	NH1-CZ-NH2	-7.05	111.65	119.40
32	S1	512	U	C5'-C4'-C3'	7.05	127.28	116.00
32	S1	1357	U	O4'-C1'-N1	7.05	113.84	108.20
32	S1	1648	C	O4'-C1'-N1	7.05	113.84	108.20
33	L1	1850	C	C4'-C3'-C2'	-7.05	95.55	102.60
34	L3	15	C	O3'-P-O5'	-7.05	90.61	104.00
33	L1	1180	C	O4'-C4'-C3'	7.05	111.74	106.10
33	L1	3027	G	C3'-C2'-C1'	7.05	107.14	101.50
33	L1	3034	A	O4'-C1'-N9	7.05	113.84	108.20
12	SO	89	TYR	CB-CG-CD2	7.05	125.23	121.00
31	S2	20	C	P-O3'-C3'	7.05	128.16	119.70
32	S1	1325	A	O4'-C1'-N9	7.05	113.84	108.20
33	L1	3049	A	C1'-O4'-C4'	7.05	115.54	109.90
69	La	38	TYR	O-C-N	-7.05	111.22	123.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
79	Ls	49	ARG	NE-CZ-NH1	7.05	123.82	120.30
33	L1	2707	A	C3'-C2'-C1'	-7.04	95.86	101.50
45	LQ	162	ALA	CB-CA-C	7.04	120.67	110.10
32	S1	1110	C	O4'-C1'-C2'	-7.04	98.76	105.80
33	L1	1248	A	C4'-C3'-C2'	-7.04	95.56	102.60
33	L1	1826	G	O4'-C4'-C3'	-7.04	96.96	104.00
40	LH	137	TYR	CZ-CE2-CD2	7.04	126.14	119.80
32	S1	559	A	O4'-C1'-N9	7.04	113.83	108.20
33	L1	938	U	P-O5'-C5'	7.04	132.17	120.90
33	L1	1620	U	C4'-C3'-C2'	-7.04	95.56	102.60
33	L1	2644	U	N1-C1'-C2'	7.04	123.15	114.00
34	L3	67	C	P-O3'-C3'	7.04	128.15	119.70
78	Le	192	THR	CA-CB-CG2	7.04	122.26	112.40
32	S1	1301	G	N9-C1'-C2'	-7.04	104.26	112.00
33	L1	371	A	O4'-C4'-C3'	7.04	111.73	106.10
33	L1	444	C	C1'-O4'-C4'	-7.04	104.27	109.90
33	L1	957	U	N1-C1'-C2'	7.04	123.15	114.00
33	L1	1409	G	O4'-C1'-C2'	7.04	113.94	107.60
36	LA	83	TYR	CD1-CG-CD2	7.04	125.64	117.90
37	LB	9	ARG	NH1-CZ-NH2	-7.04	111.66	119.40
69	La	10	ALA	N-CA-CB	7.04	119.95	110.10
69	La	11	VAL	CG1-CB-CG2	7.04	122.16	110.90
73	Lp	51	ILE	N-CA-C	7.04	130.00	111.00
80	LC	6	PHE	CB-CG-CD1	-7.04	115.87	120.80
33	L1	1630	C	N1-C1'-C2'	7.04	123.15	114.00
33	L1	1696	G	C3'-C2'-C1'	7.04	107.13	101.50
33	L1	3351	A	O4'-C1'-N9	7.04	113.83	108.20
2	SA	108	THR	C-N-CA	7.04	151.55	122.00
31	S2	43	C	N1-C1'-C2'	7.04	123.15	114.00
33	L1	1437	G	C1'-O4'-C4'	-7.04	104.27	109.90
33	L1	1681	U	N1-C1'-C2'	-7.04	104.26	112.00
33	L1	2601	G	C4'-C3'-C2'	-7.04	95.56	102.60
33	L1	2636	U	C1'-O4'-C4'	7.04	115.53	109.90
33	L1	2918	U	OP1-P-OP2	-7.04	109.05	119.60
32	S1	946	A	O4'-C1'-N9	7.03	113.83	108.20
32	S1	1549	G	O4'-C1'-N9	-7.03	102.57	108.20
33	L1	1503	G	P-O3'-C3'	7.03	128.14	119.70
33	L1	2876	G	C5'-C4'-C3'	-7.03	104.75	116.00
34	L3	26	C	C1'-O4'-C4'	-7.03	104.27	109.90
66	LN	49	ASN	N-CA-C	-7.03	92.01	111.00
33	L1	495	G	C3'-C2'-C1'	-7.03	95.87	101.50
33	L1	3085	C	C5'-C4'-C3'	7.03	127.25	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	LB	87	PHE	CB-CG-CD1	7.03	125.72	120.80
33	L1	239	C	C5'-C4'-C3'	7.03	127.25	116.00
33	L1	2253	U	N1-C1'-C2'	7.03	123.14	114.00
48	LV	152	SER	CA-C-O	-7.03	105.33	120.10
33	L1	1717	G	N9-C1'-C2'	-7.03	104.27	112.00
9	SK	83	ARG	NE-CZ-NH1	7.03	123.81	120.30
32	S1	1767	G	O4'-C1'-N9	7.03	113.82	108.20
33	L1	2338	C	N1-C1'-C2'	7.03	123.14	114.00
33	L1	3035	C	O4'-C1'-N1	-7.03	102.58	108.20
34	L3	76	U	O3'-P-O5'	-7.03	90.65	104.00
48	LV	51	VAL	CG1-CB-CG2	-7.03	99.66	110.90
15	SS	8	THR	OG1-CB-CG2	-7.03	93.84	110.00
32	S1	1179	C	C3'-C2'-C1'	7.03	107.12	101.50
33	L1	681	A	N9-C1'-C2'	-7.03	104.27	112.00
33	L1	1630	C	P-O3'-C3'	7.03	128.13	119.70
33	L1	1826	G	O4'-C1'-N9	7.03	113.82	108.20
33	L1	2160	C	O4'-C1'-C2'	-7.03	98.77	105.80
34	L3	15	C	OP2-P-O3'	7.03	120.65	105.20
78	Le	49	ARG	NE-CZ-NH2	7.03	123.81	120.30
82	LK	134	LEU	CB-CA-C	-7.03	96.85	110.20
32	S1	1265	A	C4'-C3'-C2'	-7.02	95.58	102.60
32	S1	1405	U	P-O5'-C5'	7.02	132.14	120.90
33	L1	2460	A	C1'-O4'-C4'	-7.02	104.28	109.90
33	L1	2472	U	O4'-C1'-N1	7.02	113.82	108.20
64	LG	20	TYR	CZ-CE2-CD2	-7.02	113.48	119.80
32	S1	582	U	C3'-C2'-C1'	7.02	107.12	101.50
32	S1	1640	C	N1-C1'-C2'	7.02	123.12	114.00
33	L1	1885	G	C1'-O4'-C4'	-7.02	104.28	109.90
33	L1	2722	U	P-O5'-C5'	7.02	132.13	120.90
13	SQ	82	MET	CB-CA-C	-7.02	96.36	110.40
32	S1	151	A	O4'-C1'-N9	7.02	113.81	108.20
33	L1	2686	U	C5'-C4'-C3'	7.02	127.23	116.00
33	L1	3315	A	O4'-C1'-N9	7.02	113.81	108.20
33	L1	3324	U	O5'-P-OP2	-7.02	99.38	105.70
34	L3	5	G	O4'-C1'-N9	7.02	113.81	108.20
81	LD	400	TRP	CA-CB-CG	7.02	127.03	113.70
33	L1	1950	G	P-O5'-C5'	7.02	132.13	120.90
33	L1	3150	G	C3'-C2'-C1'	-7.02	95.89	101.50
13	SQ	45	ARG	NE-CZ-NH1	-7.01	116.79	120.30
25	SC	36	TYR	CB-CG-CD1	-7.01	116.79	121.00
32	S1	1220	C	P-O3'-C3'	-7.01	111.28	119.70
33	L1	98	A	O4'-C4'-C3'	-7.01	96.98	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1269	U	P-O3'-C3'	-7.01	111.28	119.70
32	S1	438	G	O4'-C1'-N9	7.01	113.81	108.20
33	L1	3197	C	O3'-P-O5'	-7.01	90.68	104.00
35	L2	43	G	N9-C1'-C2'	7.01	123.12	114.00
33	L1	1278	A	P-O5'-C5'	7.01	132.12	120.90
33	L1	1949	G	C3'-C2'-C1'	-7.01	95.89	101.50
16	SR	126	ALA	N-CA-C	-7.01	92.07	111.00
32	S1	1400	G	O4'-C1'-N9	7.01	113.81	108.20
33	L1	579	G	C5'-C4'-C3'	7.01	127.22	116.00
33	L1	924	A	O4'-C1'-C2'	-7.01	98.79	105.80
34	L3	8	A	O5'-P-OP1	-7.01	99.39	105.70
38	LE	170	GLU	N-CA-C	-7.01	92.08	111.00
33	L1	636	C	N1-C1'-C2'	7.01	123.11	114.00
33	L1	2649	C	C1'-O4'-C4'	-7.01	104.29	109.90
38	LE	58	SER	N-CA-CB	7.01	121.01	110.50
49	LX	97	ASP	CB-CG-OD2	-7.01	111.99	118.30
57	L1	73	ARG	NE-CZ-NH1	7.01	123.80	120.30
33	L1	789	A	O4'-C1'-C2'	-7.00	98.80	105.80
33	L1	1259	C	C3'-C2'-C1'	7.00	107.10	101.50
33	L1	2635	G	P-O5'-C5'	-7.00	109.69	120.90
2	SA	227	PRO	CA-N-CD	-7.00	101.70	111.50
32	S1	138	C	N1-C1'-C2'	7.00	123.11	114.00
32	S1	566	G	O4'-C1'-N9	7.00	113.80	108.20
32	S1	1073	C	C3'-C2'-C1'	-7.00	95.90	101.50
33	L1	796	C	P-O5'-C5'	7.00	132.10	120.90
33	L1	994	U	C5'-C4'-O4'	7.00	117.50	109.10
33	L1	2538	G	C3'-C2'-C1'	-7.00	95.90	101.50
33	L1	3190	U	P-O3'-C3'	7.00	128.10	119.70
44	LR	83	VAL	N-CA-CB	-7.00	96.09	111.50
32	S1	64	U	O4'-C1'-N1	7.00	113.80	108.20
32	S1	944	A	O4'-C1'-N9	7.00	113.80	108.20
32	S1	1084	U	O4'-C1'-N1	7.00	113.80	108.20
32	S1	1328	G	P-O5'-C5'	7.00	132.10	120.90
32	S1	1668	A	O4'-C1'-N9	7.00	113.80	108.20
33	L1	1664	G	P-O3'-C3'	7.00	128.10	119.70
33	L1	1896	A	O4'-C1'-C2'	7.00	113.90	107.60
33	L1	2201	G	P-O3'-C3'	7.00	128.10	119.70
33	L1	1119	G	N9-C1'-C2'	-7.00	104.30	112.00
33	L1	2904	A	N9-C1'-C2'	-7.00	104.30	112.00
32	S1	1225	A	C5'-C4'-O4'	7.00	117.50	109.10
33	L1	1194	C	O4'-C1'-C2'	-7.00	98.80	105.80
33	L1	2259	U	O4'-C1'-N1	7.00	113.80	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	SM	36	VAL	CA-CB-CG1	7.00	121.39	110.90
32	S1	171	G	O4'-C1'-N9	7.00	113.80	108.20
32	S1	400	G	O4'-C1'-C2'	-7.00	98.80	105.80
32	S1	1771	U	C1'-O4'-C4'	7.00	115.50	109.90
33	L1	277	U	O4'-C1'-N1	7.00	113.80	108.20
33	L1	812	G	O4'-C1'-C2'	7.00	113.90	107.60
33	L1	2590	C	O4'-C4'-C3'	-7.00	97.00	104.00
2	SA	211	PRO	O-C-N	-7.00	111.51	122.70
32	S1	1060	U	P-O3'-C3'	7.00	128.09	119.70
32	S1	1472	G	N9-C1'-C2'	6.99	123.09	114.00
32	S1	1659	A	N9-C1'-C2'	6.99	123.09	114.00
33	L1	2152	A	C1'-O4'-C4'	6.99	115.50	109.90
23	SU	92	GLU	N-CA-CB	-6.99	98.02	110.60
32	S1	95	U	O4'-C1'-N1	6.99	113.79	108.20
32	S1	302	C	OP2-P-O3'	-6.99	89.82	105.20
33	L1	1236	C	C4'-C3'-C2'	-6.99	95.61	102.60
33	L1	1528	G	O5'-P-OP2	-6.99	99.41	105.70
33	L1	3281	G	C4'-C3'-C2'	-6.99	95.61	102.60
25	SC	58	ALA	N-CA-CB	6.99	119.89	110.10
32	S1	1349	A	C5'-C4'-C3'	6.99	127.18	116.00
33	L1	2143	A	O4'-C1'-C2'	6.99	113.89	107.60
34	L3	55	A	O3'-P-O5'	6.99	117.28	104.00
66	LN	8	GLU	N-CA-CB	6.99	123.18	110.60
80	LC	5	LYS	N-CA-CB	6.99	123.18	110.60
32	S1	57	G	O4'-C1'-N9	6.99	113.79	108.20
32	S1	1569	U	C3'-C2'-C1'	6.99	107.09	101.50
32	S1	1628	C	O4'-C1'-N1	6.99	113.79	108.20
33	L1	2451	G	O4'-C1'-N9	-6.99	102.61	108.20
33	L1	3250	C	P-O3'-C3'	6.99	128.08	119.70
64	LG	137	VAL	C-N-CA	6.99	139.17	121.70
32	S1	1178	C	O4'-C1'-C2'	-6.99	98.81	105.80
32	S1	1540	U	C3'-C2'-C1'	-6.99	95.91	101.50
33	L1	1570	C	O4'-C1'-C2'	-6.99	98.81	105.80
33	L1	1829	G	N9-C1'-C2'	6.99	123.08	114.00
33	L1	1855	A	C3'-C2'-C1'	-6.99	95.91	101.50
32	S1	1101	C	C5'-C4'-O4'	6.98	117.48	109.10
33	L1	1267	A	O4'-C1'-N9	6.98	113.79	108.20
33	L1	1959	U	C5'-C4'-O4'	-6.98	100.72	109.10
33	L1	2313	U	C4'-C3'-C2'	-6.98	95.62	102.60
33	L1	1385	C	C1'-O4'-C4'	-6.98	104.31	109.90
33	L1	1752	C	C4'-C3'-O3'	6.98	126.97	113.00
33	L1	2658	U	C5'-C4'-O4'	6.98	117.48	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	LH	61	ARG	CD-NE-CZ	6.98	133.38	123.60
32	S1	148	C	O3'-P-O5'	-6.98	90.74	104.00
32	S1	301	U	O4'-C1'-C2'	-6.98	98.82	105.80
32	S1	571	A	C3'-C2'-C1'	6.98	107.08	101.50
33	L1	736	U	N1-C1'-C2'	-6.98	104.32	112.00
33	L1	3312	G	O4'-C1'-C2'	6.98	113.88	107.60
71	Lj	12	TYR	N-CA-CB	6.98	123.16	110.60
11	SM	99	VAL	CB-CA-C	6.98	124.66	111.40
32	S1	1465	C	O4'-C1'-N1	6.98	113.78	108.20
34	L3	103	U	N1-C1'-C2'	6.98	123.07	114.00
72	Lk	62	GLU	CB-CA-C	6.98	124.36	110.40
32	S1	1068	G	C4'-C3'-C2'	6.98	109.58	102.60
33	L1	83	U	O3'-P-O5'	-6.98	90.74	104.00
33	L1	374	G	C1'-O4'-C4'	-6.98	104.32	109.90
33	L1	555	G	O4'-C1'-N9	6.98	113.78	108.20
33	L1	705	A	C5'-C4'-C3'	6.98	127.17	116.00
33	L1	1081	U	C4'-C3'-C2'	-6.98	95.62	102.60
33	L1	1527	A	C2'-C3'-O3'	6.98	124.86	113.70
33	L1	1613	C	N1-C1'-C2'	6.98	123.07	114.00
33	L1	2212	U	P-O5'-C5'	6.98	132.06	120.90
33	L1	3039	U	O4'-C1'-N1	6.98	113.78	108.20
33	L1	589	G	O4'-C1'-N9	6.98	113.78	108.20
33	L1	1535	C	C3'-C2'-C1'	6.98	107.08	101.50
32	S1	664	G	O3'-P-O5'	-6.97	90.75	104.00
32	S1	1134	U	N1-C1'-C2'	-6.97	104.33	112.00
33	L1	831	G	O4'-C1'-N9	6.97	113.78	108.20
33	L1	1904	A	C4'-C3'-C2'	-6.97	95.63	102.60
2	SA	43	TYR	CA-CB-CG	6.97	126.65	113.40
32	S1	1643	A	O4'-C1'-C2'	-6.97	98.83	105.80
33	L1	3351	A	C3'-C2'-C1'	-6.97	95.92	101.50
38	LE	126	GLY	CA-C-O	6.97	133.15	120.60
67	LS	164	LYS	CB-CA-C	-6.97	96.45	110.40
33	L1	2906	U	C1'-O4'-C4'	-6.97	104.32	109.90
3	SB	217	ASN	C-N-CA	6.97	139.12	121.70
4	SD	67	GLN	O-C-N	6.97	133.85	122.70
32	S1	466	G	C1'-O4'-C4'	-6.97	104.33	109.90
32	S1	1342	C	C3'-C2'-C1'	6.97	107.08	101.50
33	L1	1815	G	C5'-C4'-O4'	-6.97	100.74	109.10
33	L1	2339	U	C5'-C4'-C3'	-6.97	104.85	116.00
35	L2	49	C	C5'-C4'-C3'	6.97	127.15	116.00
43	LO	137	GLY	C-N-CA	-6.97	107.67	122.30
46	LT	23	TRP	CZ3-CH2-CZ2	-6.97	113.24	121.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	SS	11	ASP	O-C-N	-6.97	111.55	122.70
32	S1	141	G	P-O3'-C3'	6.97	128.06	119.70
32	S1	1145	G	N9-C1'-C2'	6.97	123.06	114.00
32	S1	1351	U	C3'-C2'-C1'	6.97	107.07	101.50
33	L1	2850	G	C4'-C3'-C2'	-6.97	95.63	102.60
33	L1	423	C	C1'-O4'-C4'	-6.96	104.33	109.90
33	L1	722	C	C5'-C4'-C3'	6.96	127.14	116.00
33	L1	780	U	C5'-C4'-C3'	6.96	127.14	116.00
33	L1	1731	A	C1'-O4'-C4'	-6.96	104.33	109.90
33	L1	2516	U	O4'-C1'-C2'	-6.96	98.83	105.80
32	S1	149	G	C5'-C4'-C3'	-6.96	104.86	116.00
32	S1	1483	G	C1'-O4'-C4'	-6.96	104.33	109.90
33	L1	731	G	C5'-C4'-C3'	6.96	127.14	116.00
33	L1	1551	C	C1'-O4'-C4'	-6.96	104.33	109.90
33	L1	3205	C	O4'-C1'-N1	6.96	113.77	108.20
84	LI	24	ARG	NE-CZ-NH1	6.96	123.78	120.30
2	SA	7	ALA	N-CA-CB	6.96	119.84	110.10
10	SL	3	LYS	N-CA-C	-6.96	92.21	111.00
78	Le	110	LEU	N-CA-CB	6.96	124.32	110.40
1	Sa	306	PHE	CB-CG-CD1	-6.96	115.93	120.80
32	S1	1613	G	O4'-C1'-N9	6.96	113.77	108.20
33	L1	956	G	N9-C1'-C2'	6.96	123.05	114.00
33	L1	1289	G	C2'-C3'-O3'	6.96	124.83	113.70
33	L1	1740	U	P-O5'-C5'	6.96	132.03	120.90
84	LI	109	ASP	C-N-CA	-6.96	104.30	121.70
23	SU	33	LEU	CA-C-O	-6.96	105.49	120.10
32	S1	271	C	N1-C1'-C2'	6.96	123.04	114.00
32	S1	332	A	N9-C1'-C2'	-6.96	104.35	112.00
33	L1	1389	C	O5'-P-OP2	-6.96	99.44	105.70
11	SM	79	VAL	CG1-CB-CG2	-6.96	99.77	110.90
33	L1	391	U	C1'-O4'-C4'	-6.96	104.34	109.90
33	L1	1052	A	C1'-O4'-C4'	6.96	115.46	109.90
33	L1	645	C	O4'-C1'-N1	6.95	113.76	108.20
33	L1	2937	U	O4'-C1'-C2'	-6.95	98.85	105.80
40	LH	234	MET	CG-SD-CE	-6.95	89.08	100.20
72	Lk	56	TYR	CB-CG-CD2	-6.95	116.83	121.00
51	LY	39	ARG	NE-CZ-NH2	6.95	123.78	120.30
60	Lr	87	ARG	NE-CZ-NH2	-6.95	116.82	120.30
66	LN	29	ASP	CB-CG-OD2	-6.95	112.04	118.30
32	S1	614	G	C3'-C2'-C1'	-6.95	95.94	101.50
32	S1	1124	G	O4'-C1'-N9	6.95	113.76	108.20
33	L1	1226	G	OP1-P-OP2	-6.95	109.17	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1259	C	C1'-O4'-C4'	6.95	115.46	109.90
32	S1	186	A	O4'-C1'-N9	6.95	113.76	108.20
33	L1	704	G	O4'-C1'-C2'	-6.95	98.85	105.80
33	L1	1674	A	O4'-C1'-C2'	-6.95	98.85	105.80
35	L2	13	G	O4'-C1'-N9	6.95	113.76	108.20
3	SB	76	ARG	CB-CA-C	-6.95	96.50	110.40
33	L1	771	G	O3'-P-O5'	-6.95	90.80	104.00
33	L1	2918	U	C5'-C4'-O4'	6.95	117.44	109.10
52	Lb	128	TYR	CD1-CE1-CZ	-6.95	113.55	119.80
1	Sa	26	ARG	NE-CZ-NH1	6.95	123.77	120.30
32	S1	281	U	O4'-C1'-N1	6.95	113.76	108.20
33	L1	303	U	O4'-C1'-N1	6.95	113.76	108.20
33	L1	343	G	O4'-C1'-N9	-6.95	102.64	108.20
33	L1	744	C	P-O3'-C3'	6.95	128.03	119.70
1	Sa	16	ALA	C-N-CA	-6.94	104.34	121.70
38	LE	8	LEU	N-CA-C	6.94	129.75	111.00
33	L1	1887	A	C3'-C2'-C1'	6.94	107.05	101.50
33	L1	2110	G	O4'-C1'-N9	6.94	113.75	108.20
66	LN	113	ALA	N-CA-C	6.94	129.74	111.00
82	LK	54	ARG	NE-CZ-NH1	-6.94	116.83	120.30
32	S1	1383	U	C1'-O4'-C4'	-6.94	104.35	109.90
33	L1	1247	G	C5'-C4'-O4'	6.94	117.43	109.10
33	L1	3363	G	P-O5'-C5'	6.94	132.01	120.90
35	L2	68	U	O3'-P-O5'	-6.94	90.81	104.00
33	L1	308	U	C5'-C4'-O4'	-6.94	100.77	109.10
33	L1	2614	U	C3'-C2'-C1'	6.94	107.05	101.50
57	L1	11	ARG	CA-C-N	6.94	132.47	117.20
32	S1	558	C	O4'-C1'-C2'	-6.94	98.86	105.80
33	L1	1857	G	O4'-C1'-N9	6.94	113.75	108.20
32	S1	1397	A	C3'-C2'-C1'	6.94	107.05	101.50
48	LV	131	TYR	CB-CG-CD2	-6.94	116.84	121.00
32	S1	178	A	N9-C1'-C2'	-6.93	104.37	112.00
32	S1	1036	U	C3'-C2'-C1'	6.93	107.05	101.50
32	S1	1226	U	C3'-C2'-C1'	6.93	107.05	101.50
33	L1	532	G	N9-C1'-C2'	6.93	123.01	114.00
33	L1	2973	A	C1'-O4'-C4'	6.93	115.45	109.90
35	L2	95	C	P-O3'-C3'	-6.93	111.38	119.70
35	L2	117	U	O4'-C1'-N1	6.93	113.75	108.20
57	L1	52	LYS	CB-CA-C	-6.93	96.53	110.40
32	S1	1005	C	P-O5'-C5'	6.93	131.99	120.90
32	S1	1761	G	C3'-C2'-C1'	6.93	107.05	101.50
33	L1	711	A	C4'-C3'-C2'	-6.93	95.67	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1188	C	N1-C1'-C2'	-6.93	104.37	112.00
2	SA	40	ARG	NH1-CZ-NH2	-6.93	111.78	119.40
32	S1	565	G	O4'-C1'-N9	6.93	113.74	108.20
32	S1	1290	U	P-O5'-C5'	-6.93	109.81	120.90
33	L1	1693	A	C3'-C2'-C1'	6.93	107.05	101.50
33	L1	3330	U	N1-C1'-C2'	-6.93	104.38	112.00
32	S1	288	G	N9-C1'-C2'	6.93	123.01	114.00
33	L1	459	G	C1'-O4'-C4'	-6.93	104.36	109.90
33	L1	1545	G	C1'-O4'-C4'	-6.93	104.36	109.90
33	L1	2687	C	P-O5'-C5'	-6.93	109.81	120.90
80	LC	169	ARG	NE-CZ-NH2	-6.93	116.83	120.30
25	SC	162	LEU	CB-CG-CD2	6.93	122.78	111.00
15	SS	85	ARG	NE-CZ-NH2	-6.93	116.84	120.30
32	S1	142	G	O4'-C1'-N9	6.93	113.74	108.20
33	L1	841	G	C1'-O4'-C4'	-6.93	104.36	109.90
33	L1	1728	G	O5'-P-OP2	-6.93	99.47	105.70
33	L1	3087	A	O4'-C4'-C3'	-6.93	97.07	104.00
34	L3	96	U	O4'-C1'-N1	6.93	113.74	108.20
16	SR	124	TYR	CB-CG-CD1	6.92	125.16	121.00
32	S1	919	G	C4'-C3'-C2'	-6.92	95.68	102.60
32	S1	1803	G	C3'-C2'-C1'	-6.92	95.96	101.50
33	L1	854	C	OP1-P-OP2	-6.92	109.21	119.60
33	L1	2455	A	N9-C1'-C2'	-6.92	104.38	112.00
35	L2	108	A	O4'-C1'-N9	-6.92	102.66	108.20
51	LY	62	TYR	CB-CG-CD2	-6.92	116.84	121.00
67	LS	38	ARG	NE-CZ-NH2	-6.92	116.84	120.30
17	SV	30	LYS	N-CA-CB	6.92	123.06	110.60
33	L1	281	G	C1'-O4'-C4'	-6.92	104.36	109.90
32	S1	991	G	N9-C1'-C2'	6.92	123.00	114.00
33	L1	23	A	C3'-C2'-C1'	-6.92	95.96	101.50
33	L1	2654	G	C4'-C3'-C2'	-6.92	95.68	102.60
48	LV	151	LEU	CB-CA-C	-6.92	97.05	110.20
59	Lo	36	ARG	NE-CZ-NH2	-6.92	116.84	120.30
60	Lr	61	LYS	CA-CB-CG	6.92	128.63	113.40
64	LG	51	TYR	N-CA-C	6.92	129.69	111.00
80	LC	123	CYS	CA-CB-SG	6.92	126.46	114.00
1	Sa	51	PHE	CB-CG-CD2	-6.92	115.96	120.80
3	SB	29	LEU	CD1-CG-CD2	-6.92	89.74	110.50
32	S1	576	C	O4'-C1'-C2'	-6.92	98.88	105.80
33	L1	1092	G	C3'-C2'-C1'	-6.92	95.96	101.50
32	S1	1799	G	O4'-C1'-N9	6.92	113.73	108.20
33	L1	135	G	C1'-O4'-C4'	-6.92	104.36	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	607	U	N1-C1'-C2'	-6.92	104.39	112.00
33	L1	721	A	O4'-C1'-N9	6.92	113.73	108.20
33	L1	1064	U	C4'-C3'-C2'	-6.92	95.68	102.60
33	L1	1321	A	O4'-C1'-N9	-6.92	102.67	108.20
33	L1	2676	A	P-O3'-C3'	6.92	128.00	119.70
42	LP	74	PRO	N-CA-CB	6.92	111.60	103.30
64	LG	88	TYR	CG-CD2-CE2	-6.92	115.77	121.30
32	S1	296	A	C3'-C2'-C1'	6.92	107.03	101.50
32	S1	436	G	P-O3'-C3'	6.92	128.00	119.70
32	S1	1097	A	C4'-C3'-C2'	-6.92	95.68	102.60
32	S1	1262	U	C3'-C2'-C1'	6.92	107.03	101.50
33	L1	22	G	C3'-C2'-C1'	-6.92	95.97	101.50
33	L1	221	C	N1-C1'-C2'	6.92	122.99	114.00
33	L1	1817	U	O4'-C1'-N1	6.92	113.73	108.20
33	L1	2616	U	P-O3'-C3'	-6.92	111.40	119.70
33	L1	2862	U	C1'-O4'-C4'	6.92	115.43	109.90
35	L2	54	C	C3'-C2'-C1'	6.92	107.03	101.50
13	SQ	53	PHE	CB-CG-CD2	6.92	125.64	120.80
33	L1	826	C	N1-C1'-C2'	6.92	122.99	114.00
32	S1	1753	U	P-O5'-C5'	-6.91	109.84	120.90
33	L1	2546	C	C1'-O4'-C4'	-6.91	104.37	109.90
35	L2	94	C	C4'-C3'-C2'	6.91	109.51	102.60
64	LG	20	TYR	CG-CD2-CE2	-6.91	115.77	121.30
13	SQ	140	ARG	NE-CZ-NH2	-6.91	116.84	120.30
33	L1	858	U	O5'-P-OP2	6.91	119.00	110.70
33	L1	1059	A	C1'-O4'-C4'	-6.91	104.37	109.90
33	L1	1394	C	P-O5'-C5'	6.91	131.96	120.90
42	LP	20	ARG	N-CA-CB	6.91	123.04	110.60
27	SH	97	ARG	N-CA-CB	6.91	123.04	110.60
32	S1	1206	A	P-O3'-C3'	6.91	127.99	119.70
32	S1	1226	U	P-O5'-C5'	6.91	131.96	120.90
32	S1	1320	C	P-O3'-C3'	6.91	127.99	119.70
33	L1	52	G	O4'-C1'-N9	6.91	113.73	108.20
35	L2	56	A	C1'-O4'-C4'	6.91	115.43	109.90
57	L1	74	PHE	N-CA-CB	6.91	123.04	110.60
33	L1	2628	C	C2'-C3'-O3'	6.91	124.75	113.70
81	LD	322	ASN	CA-CB-CG	6.91	128.60	113.40
32	S1	622	U	O4'-C1'-C2'	-6.91	98.89	105.80
33	L1	2896	C	C1'-O4'-C4'	6.91	115.42	109.90
32	S1	311	G	O4'-C4'-C3'	-6.90	97.10	104.00
33	L1	2273	C	O4'-C1'-N1	6.90	113.72	108.20
8	SJ	88	ARG	CA-C-N	-6.90	102.01	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	913	G	O5'-P-OP2	-6.90	99.49	105.70
33	L1	1306	A	P-O3'-C3'	-6.90	111.42	119.70
33	L1	1701	G	C1'-O4'-C4'	-6.90	104.38	109.90
34	L3	56	G	C1'-O4'-C4'	-6.90	104.38	109.90
67	LS	158	VAL	CG1-CB-CG2	6.90	121.95	110.90
11	SM	40	PHE	CB-CG-CD1	-6.90	115.97	120.80
33	L1	563	C	C5'-C4'-C3'	6.90	127.04	116.00
33	L1	963	U	C5'-C4'-O4'	6.90	117.38	109.10
33	L1	1226	G	O5'-P-OP1	6.90	118.98	110.70
33	L1	2498	C	O3'-P-O5'	-6.90	90.89	104.00
37	LB	179	MET	CG-SD-CE	-6.90	89.16	100.20
67	LS	115	ARG	NE-CZ-NH2	-6.90	116.85	120.30
33	L1	514	G	N9-C1'-C2'	6.90	122.97	114.00
33	L1	1232	A	C5'-C4'-C3'	6.90	127.03	116.00
64	LG	124	TYR	O-C-N	-6.90	111.67	122.70
64	LG	143	ASP	CB-CA-C	6.90	124.19	110.40
80	LC	369	PHE	CG-CD2-CE2	6.90	128.39	120.80
83	Lm	71	MET	CG-SD-CE	-6.90	89.17	100.20
8	SJ	90	GLU	N-CA-CB	6.89	123.01	110.60
32	S1	193	G	O4'-C1'-N9	6.89	113.72	108.20
33	L1	2169	U	P-O3'-C3'	-6.89	111.43	119.70
33	L1	2476	G	P-O5'-C5'	6.89	131.93	120.90
33	L1	2655	U	P-O3'-C3'	-6.89	111.43	119.70
33	L1	2771	U	O4'-C1'-C2'	6.89	113.81	107.60
32	S1	563	C	C3'-C2'-C1'	6.89	107.01	101.50
32	S1	1757	G	O5'-P-OP1	6.89	118.97	110.70
33	L1	651	A	N9-C1'-C2'	6.89	122.96	114.00
33	L1	2505	C	O4'-C1'-C2'	-6.89	98.91	105.80
31	S2	58	U	C3'-C2'-C1'	6.89	107.01	101.50
33	L1	825	G	O4'-C1'-N9	6.89	113.71	108.20
33	L1	894	G	O4'-C1'-N9	6.89	113.71	108.20
32	S1	100	C	O4'-C1'-C2'	-6.89	98.91	105.80
32	S1	1172	G	C1'-O4'-C4'	-6.89	104.39	109.90
33	L1	1718	U	P-O3'-C3'	-6.89	111.43	119.70
67	LS	113	ALA	N-CA-C	6.89	129.60	111.00
84	LI	116	ARG	C-N-CA	6.89	136.77	122.30
31	S2	51	G	O4'-C1'-C2'	6.89	113.80	107.60
32	S1	419	C	C3'-C2'-C1'	6.89	107.01	101.50
33	L1	1113	C	O4'-C1'-N1	6.89	113.71	108.20
33	L1	2536	G	C1'-O4'-C4'	-6.89	104.39	109.90
35	L2	107	G	C1'-O4'-C4'	-6.89	104.39	109.90
41	LM	49	LEU	C-N-CA	6.89	138.92	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	Lg	15	VAL	CB-CA-C	-6.89	98.31	111.40
71	Lj	69	ARG	NE-CZ-NH2	-6.89	116.86	120.30
16	SR	129	SER	CB-CA-C	-6.88	97.02	110.10
10	SL	118	ARG	CA-C-N	-6.88	102.06	117.20
11	SM	136	THR	CA-CB-CG2	-6.88	102.77	112.40
32	S1	1324	U	O4'-C1'-N1	6.88	113.70	108.20
33	L1	1737	C	O3'-P-O5'	6.88	117.08	104.00
33	L1	2517	U	O4'-C1'-C2'	-6.88	98.92	105.80
33	L1	3193	C	P-O5'-C5'	6.88	131.91	120.90
33	L1	56	A	C1'-O4'-C4'	6.88	115.40	109.90
33	L1	536	C	O4'-C1'-C2'	-6.88	98.92	105.80
33	L1	560	C	C5'-C4'-C3'	6.88	127.01	116.00
33	L1	1598	U	C3'-C2'-C1'	6.88	107.00	101.50
33	L1	2365	C	N1-C1'-C2'	6.88	122.94	114.00
33	L1	2450	G	C3'-C2'-C1'	-6.88	96.00	101.50
32	S1	1729	A	P-O3'-C3'	6.88	127.95	119.70
33	L1	1434	G	N9-C1'-C2'	6.88	122.94	114.00
33	L1	3051	U	C3'-C2'-C1'	-6.88	96.00	101.50
33	L1	778	G	O4'-C1'-C2'	6.88	113.79	107.60
33	L1	2814	C	C3'-C2'-C1'	6.88	107.00	101.50
33	L1	1074	C	N1-C1'-C2'	6.87	122.94	114.00
33	L1	2197	C	O4'-C1'-C2'	6.87	113.79	107.60
33	L1	2876	G	N9-C1'-C2'	6.87	122.94	114.00
33	L1	2909	A	C5'-C4'-C3'	6.87	127.00	116.00
33	L1	2998	A	O4'-C1'-N9	6.87	113.70	108.20
46	LT	136	ARG	CA-C-O	-6.87	105.67	120.10
13	SQ	63	ARG	C-N-CA	-6.87	107.87	122.30
32	S1	437	C	N1-C1'-C2'	6.87	122.93	114.00
32	S1	590	G	O4'-C1'-N9	6.87	113.70	108.20
33	L1	312	U	O4'-C1'-C2'	6.87	113.78	107.60
33	L1	1392	U	C4'-C3'-C2'	-6.87	95.73	102.60
33	L1	3093	C	C3'-C2'-C1'	6.87	107.00	101.50
33	L1	3317	G	C1'-O4'-C4'	6.87	115.40	109.90
34	L3	22	A	O4'-C1'-C2'	6.87	113.78	107.60
45	LQ	274	TYR	CB-CG-CD2	-6.87	116.88	121.00
67	LS	133	PHE	CD1-CE1-CZ	-6.87	111.86	120.10
32	S1	37	U	P-O5'-C5'	-6.87	109.91	120.90
33	L1	2507	U	O4'-C4'-C3'	-6.87	97.13	104.00
70	Li	90	ARG	NE-CZ-NH1	6.87	123.73	120.30
4	SD	60	GLU	CB-CA-C	6.87	124.14	110.40
32	S1	524	A	P-O3'-C3'	-6.87	111.46	119.70
33	L1	473	G	N9-C1'-C2'	-6.87	104.44	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1843	A	C2'-C3'-O3'	6.87	124.69	113.70
33	L1	2129	U	C1'-O4'-C4'	-6.87	104.41	109.90
33	L1	2518	A	C5'-C4'-C3'	6.87	126.99	116.00
33	L1	1077	C	C1'-O4'-C4'	-6.87	104.41	109.90
33	L1	1274	A	C4'-C3'-C2'	6.87	109.47	102.60
2	SA	196	GLY	C-N-CA	-6.87	104.54	121.70
33	L1	1684	U	N1-C1'-C2'	-6.87	104.45	112.00
30	S3	19	U	O4'-C1'-N1	6.86	113.69	108.20
31	S2	2	C	C1'-O4'-C4'	-6.86	104.41	109.90
32	S1	1262	U	O4'-C1'-C2'	-6.86	98.94	105.80
32	S1	1512	C	N1-C1'-C2'	6.86	122.92	114.00
32	S1	1561	G	C3'-C2'-C1'	6.86	106.99	101.50
32	S1	1583	G	O4'-C1'-C2'	6.86	113.78	107.60
33	L1	1087	G	O4'-C1'-C2'	6.86	113.78	107.60
33	L1	2226	C	C5'-C4'-O4'	6.86	117.34	109.10
45	LQ	7	PHE	CD1-CE1-CZ	-6.86	111.86	120.10
33	L1	124	C	C1'-O4'-C4'	-6.86	104.41	109.90
33	L1	1742	G	O4'-C1'-C2'	-6.86	98.94	105.80
33	L1	2651	G	O4'-C1'-C2'	6.86	113.78	107.60
33	L1	2769	U	OP2-P-O3'	6.86	120.30	105.20
9	SK	142	LYS	N-CA-C	6.86	129.52	111.00
32	S1	789	C	O5'-C5'-C4'	6.86	124.74	111.70
33	L1	138	G	C2'-C3'-O3'	6.86	124.68	113.70
33	L1	829	G	O4'-C1'-N9	6.86	113.69	108.20
33	L1	1624	G	O4'-C1'-C2'	-6.86	98.94	105.80
11	SM	110	ASP	O-C-N	-6.86	111.72	122.70
32	S1	1300	A	C1'-O4'-C4'	-6.86	104.41	109.90
32	S1	1362	A	C5'-C4'-O4'	6.86	117.33	109.10
33	L1	241	G	C1'-O4'-C4'	-6.86	104.41	109.90
32	S1	982	A	C5'-C4'-O4'	6.86	117.33	109.10
32	S1	1759	A	C5'-C4'-C3'	-6.86	105.03	116.00
33	L1	1122	C	O4'-C1'-C2'	-6.86	98.94	105.80
33	L1	3346	C	O4'-C1'-N1	6.86	113.69	108.20
32	S1	27	U	O4'-C1'-N1	6.86	113.69	108.20
32	S1	299	A	O4'-C1'-C2'	-6.86	98.94	105.80
32	S1	1082	C	N1-C1'-C2'	6.86	122.91	114.00
32	S1	1227	A	C1'-O4'-C4'	6.86	115.38	109.90
35	L2	154	G	P-O3'-C3'	6.86	127.93	119.70
47	LU	88	ARG	NE-CZ-NH1	6.86	123.73	120.30
33	L1	220	G	C1'-O4'-C4'	-6.85	104.42	109.90
33	L1	2858	G	O4'-C1'-C2'	6.85	113.77	107.60
33	L1	3093	C	N1-C1'-C2'	6.85	122.91	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	SD	148	ARG	NE-CZ-NH1	6.85	123.73	120.30
33	L1	3377	G	C1'-O4'-C4'	6.85	115.38	109.90
32	S1	1731	A	N9-C1'-C2'	6.85	122.91	114.00
33	L1	2124	G	P-O3'-C3'	6.85	127.92	119.70
33	L1	2198	U	O4'-C1'-N1	6.85	113.68	108.20
33	L1	2223	A	N9-C1'-C2'	6.85	122.91	114.00
80	LC	69	LYS	CA-C-N	6.85	132.27	117.20
12	SO	124	ARG	CA-CB-CG	-6.85	98.33	113.40
23	SU	41	SER	N-CA-CB	6.85	120.78	110.50
32	S1	1730	G	P-O3'-C3'	6.85	127.92	119.70
33	L1	1541	G	P-O5'-C5'	6.85	131.86	120.90
34	L3	60	G	O4'-C1'-N9	6.85	113.68	108.20
80	LC	115	ARG	NE-CZ-NH2	-6.85	116.88	120.30
14	SP	100	ARG	CG-CD-NE	-6.85	97.42	111.80
32	S1	974	C	O4'-C1'-C2'	-6.85	98.95	105.80
33	L1	649	A	C3'-C2'-C1'	-6.85	96.02	101.50
33	L1	1583	G	C1'-O4'-C4'	6.85	115.38	109.90
33	L1	2131	U	P-O5'-C5'	-6.85	109.94	120.90
33	L1	2542	U	O4'-C1'-N1	6.85	113.68	108.20
35	L2	13	G	C4'-C3'-C2'	-6.85	95.75	102.60
47	LU	15	PHE	CB-CG-CD2	-6.85	116.01	120.80
59	Lo	30	ARG	CB-CA-C	-6.85	96.70	110.40
15	SS	8	THR	CA-CB-OG1	6.85	123.38	109.00
33	L1	129	G	O4'-C1'-C2'	6.85	113.76	107.60
33	L1	1553	C	C3'-C2'-C1'	6.85	106.98	101.50
33	L1	1698	C	P-O3'-C3'	-6.85	111.48	119.70
71	Lj	93	LEU	CB-CA-C	-6.85	97.19	110.20
1	Sa	67	GLY	N-CA-C	-6.84	95.99	113.10
7	SI	85	TYR	CD1-CE1-CZ	6.84	125.96	119.80
32	S1	501	U	P-O3'-C3'	-6.84	111.49	119.70
32	S1	1336	C	N1-C1'-C2'	6.84	122.90	114.00
32	S1	1612	C	O4'-C1'-N1	6.84	113.68	108.20
33	L1	628	C	C3'-C2'-C1'	6.84	106.98	101.50
33	L1	1395	A	C5'-C4'-O4'	-6.84	100.89	109.10
33	L1	2615	U	N1-C1'-C2'	6.84	122.90	114.00
33	L1	3037	G	O4'-C1'-C2'	6.84	113.76	107.60
42	LP	26	ARG	NE-CZ-NH1	6.84	123.72	120.30
69	La	10	ALA	N-CA-C	6.84	129.48	111.00
33	L1	928	A	O4'-C1'-N9	-6.84	102.73	108.20
33	L1	2902	A	P-O3'-C3'	6.84	127.91	119.70
33	L1	3156	G	OP1-P-OP2	-6.84	109.34	119.60
5	SE	207	THR	CA-CB-CG2	6.84	121.98	112.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	SU	71	GLY	CA-C-N	6.84	129.88	116.20
32	S1	3	C	C4'-C3'-C2'	6.84	109.44	102.60
33	L1	707	G	C3'-C2'-C1'	6.84	106.97	101.50
33	L1	2595	G	P-O5'-C5'	6.84	131.84	120.90
32	S1	1214	C	C1'-O4'-C4'	-6.84	104.43	109.90
33	L1	307	C	C5'-C4'-O4'	-6.84	100.89	109.10
33	L1	1879	A	C4'-C3'-C2'	-6.84	95.76	102.60
35	L2	33	U	O4'-C1'-N1	6.84	113.67	108.20
35	L2	132	U	O4'-C1'-N1	6.84	113.67	108.20
5	SE	8	ARG	NE-CZ-NH2	-6.84	116.88	120.30
32	S1	237	C	O4'-C1'-N1	6.84	113.67	108.20
33	L1	735	C	C3'-C2'-C1'	6.84	106.97	101.50
33	L1	1197	A	C5'-C4'-O4'	-6.84	100.90	109.10
33	L1	1350	G	O5'-P-OP2	-6.84	99.55	105.70
33	L1	1415	G	O4'-C1'-C2'	6.84	113.75	107.60
33	L1	2390	G	P-O3'-C3'	-6.84	111.50	119.70
33	L1	2638	A	OP1-P-O3'	-6.84	90.16	105.20
33	L1	3086	G	O4'-C1'-N9	6.84	113.67	108.20
37	LB	196	TRP	N-CA-C	-6.84	92.54	111.00
32	S1	1745	U	C5'-C4'-C3'	-6.83	105.06	116.00
33	L1	125	G	C1'-O4'-C4'	-6.83	104.43	109.90
33	L1	1466	U	C3'-C2'-C1'	-6.83	96.03	101.50
70	Li	11	HIS	CB-CA-C	6.83	124.07	110.40
16	SR	116	ILE	N-CA-CB	-6.83	95.08	110.80
32	S1	647	G	C5'-C4'-O4'	-6.83	100.90	109.10
32	S1	795	A	P-O5'-C5'	6.83	131.84	120.90
32	S1	1294	U	P-O3'-C3'	6.83	127.90	119.70
32	S1	1517	C	P-O3'-C3'	-6.83	111.50	119.70
32	S1	1662	G	O5'-P-OP2	-6.83	99.55	105.70
33	L1	48	A	N9-C1'-C2'	6.83	122.89	114.00
33	L1	1439	U	C1'-O4'-C4'	-6.83	104.43	109.90
33	L1	2059	C	C1'-O4'-C4'	-6.83	104.43	109.90
33	L1	2275	A	C4'-C3'-C2'	6.83	109.43	102.60
34	L3	83	A	N9-C1'-C2'	-6.83	104.48	112.00
44	LR	97	ALA	C-N-CA	-6.83	104.62	121.70
70	Li	64	ARG	NE-CZ-NH1	6.83	123.72	120.30
32	S1	1476	C	N1-C1'-C2'	6.83	122.88	114.00
33	L1	503	U	O4'-C1'-N1	6.83	113.67	108.20
33	L1	1154	U	C3'-C2'-C1'	6.83	106.97	101.50
33	L1	1588	G	C3'-C2'-C1'	-6.83	96.03	101.50
33	L1	1875	A	P-O5'-C5'	6.83	131.83	120.90
33	L1	2218	A	O4'-C1'-C2'	6.83	113.75	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2678	C	O4'-C1'-N1	6.83	113.67	108.20
33	L1	3380	G	O4'-C1'-N9	6.83	113.67	108.20
64	LG	154	ARG	NE-CZ-NH1	6.83	123.72	120.30
81	LD	315	LYS	CA-CB-CG	-6.83	98.37	113.40
32	S1	377	G	C3'-C2'-C1'	-6.83	96.04	101.50
32	S1	1352	A	O5'-P-OP1	6.83	118.90	110.70
33	L1	1421	A	C5'-C4'-C3'	-6.83	105.07	116.00
33	L1	1528	G	N9-C1'-C2'	6.83	122.88	114.00
41	LM	72	LEU	CA-C-O	-6.83	105.76	120.10
32	S1	1064	U	C1'-O4'-C4'	6.83	115.36	109.90
33	L1	1432	G	P-O5'-C5'	-6.83	109.97	120.90
33	L1	2336	C	O4'-C1'-N1	6.83	113.66	108.20
1	Sa	257	PHE	CG-CD1-CE1	6.83	128.31	120.80
33	L1	173	C	P-O3'-C3'	-6.83	111.51	119.70
33	L1	787	G	C1'-O4'-C4'	6.83	115.36	109.90
33	L1	1625	G	O4'-C1'-C2'	-6.83	98.97	105.80
33	L1	1883	A	O4'-C1'-C2'	-6.83	98.97	105.80
33	L1	2101	A	C3'-C2'-C1'	6.83	106.96	101.50
33	L1	2529	C	C4'-C3'-C2'	-6.83	95.78	102.60
74	LJ	91	ARG	NE-CZ-NH2	6.83	123.71	120.30
32	S1	1303	G	O4'-C1'-N9	-6.82	102.74	108.20
33	L1	1424	G	O4'-C1'-C2'	6.82	113.74	107.60
70	Li	58	ARG	CB-CA-C	-6.82	96.75	110.40
32	S1	940	U	O4'-C1'-N1	6.82	113.66	108.20
33	L1	418	G	O4'-C1'-N9	-6.82	102.74	108.20
33	L1	3177	A	C5'-C4'-O4'	6.82	117.29	109.10
33	L1	3299	A	C4'-C3'-C2'	6.82	109.42	102.60
32	S1	1031	A	C3'-C2'-C1'	6.82	106.96	101.50
32	S1	1674	C	C5'-C4'-C3'	6.82	126.91	116.00
48	LV	113	LEU	CB-CG-CD2	6.82	122.60	111.00
32	S1	690	G	O3'-P-O5'	-6.82	91.05	104.00
32	S1	1379	U	C1'-O4'-C4'	-6.82	104.44	109.90
34	L3	98	G	C1'-O4'-C4'	-6.82	104.44	109.90
5	SE	27	ARG	NE-CZ-NH2	6.82	123.71	120.30
32	S1	446	C	O4'-C1'-C2'	-6.82	98.98	105.80
33	L1	2344	A	C5'-C4'-C3'	-6.82	105.09	116.00
33	L1	2855	G	N9-C1'-C2'	-6.82	104.50	112.00
39	LF	180	VAL	CA-CB-CG2	-6.82	100.67	110.90
84	LI	109	ASP	CA-C-N	6.82	132.20	117.20
1	Sa	74	TRP	CB-CG-CD2	-6.82	117.74	126.60
33	L1	215	U	O5'-P-OP2	6.82	118.88	110.70
33	L1	332	A	O4'-C1'-N9	6.82	113.65	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1443	G	O4'-C1'-N9	6.82	113.65	108.20
33	L1	2459	U	P-O5'-C5'	-6.82	110.00	120.90
32	S1	283	G	O4'-C1'-N9	6.81	113.65	108.20
60	Lr	90	HIS	N-CA-CB	6.81	122.86	110.60
32	S1	1174	G	N9-C1'-C2'	6.81	122.86	114.00
33	L1	811	A	P-O5'-C5'	6.81	131.80	120.90
33	L1	857	G	O4'-C4'-C3'	-6.81	97.19	104.00
33	L1	1214	U	O4'-C1'-N1	6.81	113.65	108.20
33	L1	1552	C	O4'-C1'-C2'	6.81	113.73	107.60
33	L1	1579	C	C3'-C2'-C1'	6.81	106.95	101.50
33	L1	1727	A	O4'-C1'-C2'	-6.81	98.99	105.80
33	L1	2159	U	N1-C1'-C2'	-6.81	104.50	112.00
33	L1	1922	C	O4'-C1'-C2'	-6.81	98.99	105.80
33	L1	2199	C	C5'-C4'-C3'	6.81	126.90	116.00
2	SA	235	TYR	CB-CG-CD1	6.81	125.08	121.00
32	S1	1095	C	O4'-C1'-C2'	6.81	113.73	107.60
33	L1	2227	A	N9-C1'-C2'	6.81	122.85	114.00
38	LE	74	ARG	CB-CA-C	6.81	124.02	110.40
32	S1	1303	G	N9-C1'-C2'	6.81	122.85	114.00
32	S1	1713	C	C5'-C4'-O4'	6.81	117.27	109.10
33	L1	108	A	O4'-C1'-N9	6.81	113.64	108.20
33	L1	1774	G	P-O3'-C3'	-6.81	111.53	119.70
67	LS	119	ARG	N-CA-C	-6.81	92.62	111.00
32	S1	1801	A	C1'-O4'-C4'	-6.81	104.45	109.90
33	L1	1076	G	O4'-C1'-N9	6.81	113.64	108.20
33	L1	2464	G	O4'-C1'-C2'	6.81	113.73	107.60
35	L2	23	A	O4'-C1'-C2'	6.81	113.72	107.60
32	S1	117	U	O4'-C1'-N1	6.80	113.64	108.20
32	S1	1181	G	O4'-C1'-N9	6.80	113.64	108.20
33	L1	972	C	C5'-C4'-O4'	-6.80	100.93	109.10
33	L1	1322	A	O4'-C1'-N9	6.80	113.64	108.20
33	L1	1693	A	O4'-C1'-N9	-6.80	102.76	108.20
58	Ln	38	CYS	N-CA-CB	6.80	122.85	110.60
11	SM	135	HIS	N-CA-CB	6.80	122.84	110.60
33	L1	806	C	O4'-C1'-N1	6.80	113.64	108.20
32	S1	347	C	O4'-C1'-N1	6.80	113.64	108.20
32	S1	1306	U	N1-C1'-C2'	6.80	122.84	114.00
33	L1	296	C	C3'-C2'-C1'	6.80	106.94	101.50
33	L1	390	G	C1'-O4'-C4'	6.80	115.34	109.90
81	LD	39	ASP	N-CA-CB	-6.80	98.36	110.60
11	SM	36	VAL	CG1-CB-CG2	-6.80	100.02	110.90
32	S1	1249	G	O4'-C1'-N9	-6.80	102.76	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	803	G	C3'-C2'-C1'	-6.80	96.06	101.50
33	L1	1646	U	C3'-C2'-C1'	6.80	106.94	101.50
33	L1	1889	G	C1'-O4'-C4'	-6.80	104.46	109.90
24	SX	74	ARG	N-CA-CB	-6.80	98.37	110.60
32	S1	1196	C	O5'-P-OP1	-6.80	99.58	105.70
33	L1	3001	G	C3'-C2'-C1'	-6.80	96.06	101.50
33	L1	3127	C	N1-C1'-C2'	6.80	122.84	114.00
78	Le	131	ARG	NE-CZ-NH1	6.80	123.70	120.30
32	S1	1467	C	P-O3'-C3'	6.79	127.85	119.70
32	S1	1610	C	C1'-O4'-C4'	6.79	115.34	109.90
31	S2	45	G	N9-C1'-C2'	-6.79	104.53	112.00
32	S1	937	A	P-O5'-C5'	-6.79	110.03	120.90
33	L1	998	G	C3'-C2'-C1'	-6.79	96.06	101.50
33	L1	1547	G	C3'-C2'-C1'	6.79	106.93	101.50
33	L1	3142	C	C5'-C4'-C3'	-6.79	105.13	116.00
49	LX	140	TYR	CB-CG-CD1	-6.79	116.92	121.00
66	LN	111	MET	CG-SD-CE	-6.79	89.33	100.20
31	S2	62	C	N1-C1'-C2'	6.79	122.83	114.00
33	L1	29	G	P-O3'-C3'	6.79	127.85	119.70
33	L1	326	C	C3'-C2'-C1'	6.79	106.93	101.50
33	L1	523	C	N1-C1'-C2'	-6.79	104.53	112.00
33	L1	538	C	C1'-O4'-C4'	6.79	115.33	109.90
33	L1	1214	U	C4'-C3'-C2'	-6.79	95.81	102.60
33	L1	1257	U	P-O3'-C3'	6.79	127.85	119.70
33	L1	3011	U	O4'-C1'-C2'	-6.79	99.01	105.80
58	Ln	37	ARG	NE-CZ-NH1	6.79	123.70	120.30
33	L1	1923	G	P-O5'-C5'	-6.79	110.03	120.90
33	L1	3146	C	N1-C1'-C2'	-6.79	104.53	112.00
32	S1	279	C	O4'-C1'-N1	6.79	113.63	108.20
33	L1	58	G	O4'-C1'-C2'	-6.79	99.01	105.80
33	L1	160	G	C5'-C4'-O4'	6.79	117.25	109.10
33	L1	969	U	O4'-C1'-N1	6.79	113.63	108.20
33	L1	1437	G	O4'-C1'-N9	-6.79	102.77	108.20
33	L1	2336	C	N1-C1'-C2'	6.79	122.83	114.00
33	L1	3208	G	O4'-C4'-C3'	-6.79	97.21	104.00
35	L2	8	C	O4'-C1'-C2'	-6.79	99.01	105.80
33	L1	1547	G	C5'-C4'-O4'	6.79	117.24	109.10
33	L1	1818	C	O3'-P-O5'	-6.79	91.10	104.00
58	Ln	27	ARG	NE-CZ-NH2	6.79	123.69	120.30
32	S1	586	U	C5'-C4'-C3'	-6.79	105.14	116.00
32	S1	1239	C	O4'-C4'-C3'	-6.79	97.21	104.00
33	L1	1193	A	C5'-C4'-C3'	-6.79	105.14	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1684	U	C5'-C4'-C3'	6.79	126.86	116.00
33	L1	2847	A	O4'-C1'-C2'	-6.79	99.01	105.80
33	L1	3149	C	O4'-C1'-N1	-6.79	102.77	108.20
33	L1	3236	A	C5'-C4'-C3'	-6.79	105.14	116.00
34	L3	50	A	O4'-C1'-C2'	-6.79	99.01	105.80
69	La	46	LEU	N-CA-CB	6.79	123.97	110.40
70	Li	10	ARG	CD-NE-CZ	-6.79	114.10	123.60
1	Sa	143	ARG	NE-CZ-NH1	6.78	123.69	120.30
32	S1	1596	G	O4'-C1'-N9	6.78	113.63	108.20
32	S1	1606	U	OP1-P-O3'	6.78	120.12	105.20
33	L1	376	A	P-O3'-C3'	-6.78	111.56	119.70
33	L1	978	C	C2'-C3'-O3'	6.78	124.55	113.70
33	L1	1317	G	C1'-O4'-C4'	6.78	115.33	109.90
33	L1	2112	C	P-O3'-C3'	6.78	127.84	119.70
33	L1	2547	C	O4'-C1'-C2'	6.78	113.71	107.60
33	L1	2601	G	O4'-C1'-N9	6.78	113.63	108.20
33	L1	3212	C	C1'-O4'-C4'	-6.78	104.47	109.90
33	L1	1338	C	OP1-P-OP2	-6.78	109.43	119.60
34	L3	117	U	O3'-P-O5'	6.78	116.89	104.00
68	LW	83	ARG	CA-C-N	-6.78	102.28	117.20
33	L1	21	G	P-O5'-C5'	-6.78	110.05	120.90
33	L1	869	A	C3'-C2'-C1'	-6.78	96.08	101.50
33	L1	2234	G	P-O3'-C3'	6.78	127.84	119.70
32	S1	1736	C	P-O3'-C3'	-6.78	111.56	119.70
33	L1	971	G	OP1-P-O3'	6.78	120.11	105.20
33	L1	745	G	C1'-O4'-C4'	6.78	115.32	109.90
33	L1	1577	A	O4'-C1'-C2'	-6.78	99.02	105.80
33	L1	1710	G	P-O3'-C3'	-6.78	111.57	119.70
33	L1	2002	G	P-O3'-C3'	6.78	127.83	119.70
33	L1	3326	U	O5'-P-OP2	-6.78	99.60	105.70
40	LH	58	ARG	NH1-CZ-NH2	-6.78	111.94	119.40
33	L1	36	U	O4'-C1'-N1	6.78	113.62	108.20
33	L1	701	U	O4'-C1'-C2'	-6.78	99.03	105.80
33	L1	1701	G	P-O5'-C5'	6.78	131.74	120.90
33	L1	2787	A	C5'-C4'-O4'	6.77	117.23	109.10
32	S1	1518	C	P-O3'-C3'	-6.77	111.57	119.70
32	S1	1602	G	N9-C1'-C2'	6.77	122.80	114.00
33	L1	959	U	C3'-C2'-C1'	6.77	106.92	101.50
32	S1	572	G	C5'-C4'-O4'	6.77	117.22	109.10
32	S1	1304	A	O4'-C1'-N9	6.77	113.62	108.20
33	L1	2088	C	C1'-O4'-C4'	-6.77	104.48	109.90
35	L2	29	G	O4'-C1'-N9	6.77	113.62	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Le	68	LYS	CB-CA-C	6.77	123.94	110.40
33	L1	470	G	P-O5'-C5'	6.77	131.73	120.90
33	L1	617	C	O4'-C1'-N1	6.77	113.61	108.20
33	L1	763	G	C3'-C2'-C1'	6.77	106.92	101.50
33	L1	793	C	O4'-C1'-N1	6.77	113.61	108.20
33	L1	2526	G	O5'-P-OP1	-6.77	99.61	105.70
33	L1	2939	G	P-O3'-C3'	-6.77	111.58	119.70
44	LR	146	ARG	NE-CZ-NH2	-6.77	116.92	120.30
32	S1	1263	C	C5'-C4'-O4'	6.77	117.22	109.10
33	L1	248	C	OP2-P-O3'	6.77	120.09	105.20
33	L1	248	C	O4'-C1'-N1	6.77	113.61	108.20
32	S1	906	G	O4'-C1'-C2'	6.77	113.69	107.60
32	S1	1458	U	C1'-O4'-C4'	-6.77	104.49	109.90
33	L1	3017	A	P-O3'-C3'	6.77	127.82	119.70
33	L1	3027	G	N9-C1'-C2'	-6.77	104.56	112.00
5	SE	115	ASP	CB-CG-OD1	-6.76	112.21	118.30
13	SQ	11	LYS	CA-CB-CG	6.76	128.28	113.40
32	S1	276	G	O4'-C1'-N9	6.76	113.61	108.20
33	L1	937	G	C3'-C2'-C1'	-6.76	96.09	101.50
33	L1	1536	U	O4'-C1'-C2'	-6.76	99.03	105.80
33	L1	1768	U	O4'-C1'-N1	6.76	113.61	108.20
33	L1	2640	A	C4'-C3'-C2'	-6.76	95.84	102.60
33	L1	2721	C	C4'-C3'-C2'	-6.76	95.84	102.60
33	L1	3057	A	C5'-C4'-O4'	-6.76	100.98	109.10
48	LV	76	ARG	CA-CB-CG	6.76	128.28	113.40
11	SM	33	ILE	N-CA-CB	6.76	126.36	110.80
32	S1	19	A	O4'-C1'-C2'	-6.76	99.04	105.80
32	S1	1537	U	N1-C1'-C2'	6.76	122.79	114.00
33	L1	615	A	O4'-C1'-N9	6.76	113.61	108.20
33	L1	1683	U	O4'-C1'-C2'	-6.76	99.04	105.80
43	LO	79	TRP	CB-CG-CD1	-6.76	118.21	127.00
81	LD	312	LYS	CB-CA-C	6.76	123.92	110.40
32	S1	32	U	O4'-C4'-C3'	-6.76	97.24	104.00
32	S1	318	C	N1-C1'-C2'	6.76	122.79	114.00
33	L1	501	U	O4'-C1'-N1	6.76	113.61	108.20
33	L1	516	C	O4'-C1'-N1	6.76	113.61	108.20
33	L1	1089	G	N9-C1'-C2'	6.76	122.79	114.00
33	L1	1593	C	O4'-C1'-C2'	-6.76	99.04	105.80
33	L1	2526	G	P-O3'-C3'	6.76	127.81	119.70
33	L1	2787	A	C1'-O4'-C4'	-6.76	104.49	109.90
33	L1	3323	U	P-O3'-C3'	-6.76	111.59	119.70
34	L3	75	G	C5'-C4'-O4'	6.76	117.21	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	Lq	11	ARG	NE-CZ-NH1	6.76	123.68	120.30
67	LS	160	PRO	N-CA-CB	6.76	111.41	103.30
33	L1	229	G	O4'-C1'-N9	6.76	113.61	108.20
33	L1	1307	A	OP1-P-OP2	-6.76	109.46	119.60
33	L1	1607	C	C3'-C2'-C1'	6.76	106.91	101.50
33	L1	1680	A	C3'-C2'-C1'	6.76	106.91	101.50
32	S1	645	G	P-O3'-C3'	6.76	127.81	119.70
32	S1	1083	C	C1'-O4'-C4'	-6.76	104.50	109.90
33	L1	160	G	C1'-O4'-C4'	-6.76	104.50	109.90
33	L1	2101	A	P-O3'-C3'	6.76	127.81	119.70
36	LA	211	LYS	N-CA-CB	-6.76	98.44	110.60
69	La	26	VAL	CA-CB-CG1	6.76	121.03	110.90
70	Li	78	TYR	CB-CG-CD1	6.76	125.05	121.00
23	SU	24	SER	N-CA-CB	6.75	120.63	110.50
32	S1	915	C	C1'-O4'-C4'	6.75	115.30	109.90
33	L1	2343	U	C1'-O4'-C4'	-6.75	104.50	109.90
32	S1	1447	C	P-O3'-C3'	6.75	127.80	119.70
33	L1	702	G	N9-C1'-C2'	6.75	122.78	114.00
33	L1	2280	C	C3'-C2'-C1'	6.75	106.90	101.50
1	Sa	22	ARG	NE-CZ-NH2	-6.75	116.92	120.30
13	SQ	67	ARG	C-N-CA	-6.75	108.12	122.30
32	S1	686	A	O4'-C1'-N9	6.75	113.60	108.20
32	S1	998	A	C1'-O4'-C4'	-6.75	104.50	109.90
33	L1	88	A	O4'-C1'-C2'	6.75	113.68	107.60
33	L1	1137	G	C4'-C3'-C2'	-6.75	95.85	102.60
33	L1	1631	G	C2'-C3'-O3'	6.75	124.50	113.70
33	L1	2895	G	O4'-C1'-N9	6.75	113.60	108.20
33	L1	3098	U	P-O3'-C3'	6.75	127.80	119.70
32	S1	1591	A	P-O3'-C3'	6.75	127.80	119.70
33	L1	757	G	O4'-C1'-N9	6.75	113.60	108.20
46	LT	67	HIS	CA-CB-CG	-6.75	102.12	113.60
32	S1	480	U	P-O3'-C3'	6.75	127.80	119.70
33	L1	55	G	O4'-C1'-C2'	6.75	113.67	107.60
33	L1	1636	C	N1-C1'-C2'	6.75	122.77	114.00
33	L1	2230	C	C5'-C4'-C3'	6.75	126.80	116.00
33	L1	2395	G	O4'-C1'-C2'	6.75	113.67	107.60
33	L1	2940	G	O4'-C1'-N9	6.75	113.60	108.20
33	L1	3010	G	O4'-C1'-N9	6.75	113.60	108.20
69	La	10	ALA	CB-CA-C	-6.75	99.98	110.10
33	L1	325	A	C3'-C2'-C1'	-6.75	96.10	101.50
33	L1	846	A	C3'-C2'-C1'	-6.75	96.10	101.50
33	L1	1855	A	P-O5'-C5'	-6.75	110.10	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2276	A	C2'-C3'-O3'	6.75	124.49	113.70
33	L1	2447	A	O5'-P-OP1	6.75	118.80	110.70
33	L1	2822	A	P-O3'-C3'	-6.75	111.61	119.70
33	L1	3247	C	C1'-O4'-C4'	-6.75	104.50	109.90
38	LE	110	GLU	CB-CA-C	-6.75	96.91	110.40
67	LS	61	LEU	CB-CG-CD2	6.75	122.47	111.00
33	L1	631	C	C1'-O4'-C4'	-6.75	104.50	109.90
11	SM	21	ASP	C-N-CA	6.74	136.46	122.30
33	L1	638	G	C4'-C3'-C2'	6.74	109.34	102.60
33	L1	724	A	C5'-C4'-C3'	6.74	126.79	116.00
33	L1	3157	C	O4'-C1'-C2'	-6.74	99.06	105.80
32	S1	933	G	C1'-O4'-C4'	6.74	115.29	109.90
32	S1	1485	A	O4'-C1'-C2'	-6.74	99.06	105.80
33	L1	316	A	N9-C1'-C2'	6.74	122.76	114.00
33	L1	2051	G	O4'-C1'-N9	6.74	113.59	108.20
70	Li	58	ARG	N-CA-CB	6.74	122.74	110.60
28	SN	34	TYR	CB-CG-CD2	-6.74	116.96	121.00
33	L1	856	G	C5'-C4'-C3'	6.74	126.79	116.00
33	L1	1552	C	N1-C1'-C2'	6.74	122.76	114.00
33	L1	1902	G	O4'-C1'-C2'	-6.74	99.06	105.80
33	L1	2091	U	C5'-C4'-C3'	6.74	126.78	116.00
33	L1	2566	C	C1'-O4'-C4'	-6.74	104.51	109.90
33	L1	3335	G	O4'-C1'-C2'	-6.74	99.06	105.80
69	La	24	VAL	CA-CB-CG1	6.74	121.01	110.90
32	S1	289	G	C5'-C4'-C3'	-6.74	105.22	116.00
33	L1	557	C	O4'-C1'-N1	-6.74	102.81	108.20
33	L1	3020	C	P-O5'-C5'	6.74	131.68	120.90
38	LE	88	VAL	CA-C-O	-6.74	105.95	120.10
32	S1	1445	C	O4'-C1'-N1	6.74	113.59	108.20
33	L1	1299	G	C1'-O4'-C4'	-6.74	104.51	109.90
33	L1	2449	A	O4'-C1'-N9	6.74	113.59	108.20
33	L1	2693	G	P-O3'-C3'	6.74	127.78	119.70
33	L1	3166	C	O4'-C1'-N1	6.74	113.59	108.20
34	L3	4	U	O4'-C1'-N1	6.74	113.59	108.20
32	S1	882	G	O4'-C1'-C2'	6.74	113.66	107.60
32	S1	1791	A	N9-C1'-C2'	6.74	122.76	114.00
33	L1	1368	U	C5'-C4'-C3'	6.74	126.78	116.00
33	L1	1409	G	C1'-O4'-C4'	-6.74	104.51	109.90
33	L1	1714	A	P-O3'-C3'	6.74	127.78	119.70
33	L1	1744	C	C1'-O4'-C4'	-6.74	104.51	109.90
34	L3	115	A	N9-C1'-C2'	6.74	122.76	114.00
33	L1	2564	G	O4'-C1'-C2'	6.73	113.66	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	L3	43	A	O4'-C1'-N9	6.73	113.59	108.20
46	LT	163	ARG	NE-CZ-NH2	-6.73	116.93	120.30
23	SU	34	HIS	CA-C-N	6.73	135.95	117.10
33	L1	877	U	O4'-C1'-C2'	6.73	113.66	107.60
33	L1	1899	U	O4'-C1'-N1	6.73	113.58	108.20
33	L1	1913	C	C1'-O4'-C4'	-6.73	104.51	109.90
33	L1	2865	G	C4'-C3'-C2'	-6.73	95.87	102.60
4	SD	136	ILE	CA-C-O	-6.73	105.97	120.10
9	SK	43	VAL	CA-CB-CG2	-6.73	100.80	110.90
32	S1	417	U	C1'-O4'-C4'	-6.73	104.52	109.90
32	S1	1778	G	N9-C1'-C2'	6.73	122.75	114.00
33	L1	614	C	C4'-C3'-C2'	-6.73	95.87	102.60
33	L1	632	C	N1-C1'-C2'	6.73	122.75	114.00
33	L1	2538	G	O4'-C1'-C2'	6.73	113.66	107.60
35	L2	8	C	O4'-C1'-N1	6.73	113.58	108.20
37	LB	16	PHE	CB-CG-CD1	-6.73	116.09	120.80
64	LG	68	PRO	C-N-CA	-6.73	104.87	121.70
78	Le	32	VAL	N-CA-CB	6.73	126.31	111.50
82	LK	165	ARG	NE-CZ-NH2	-6.73	116.93	120.30
25	SC	55	ARG	NE-CZ-NH2	6.73	123.67	120.30
32	S1	1226	U	O5'-C5'-C4'	-6.73	98.91	111.70
32	S1	565	G	O4'-C1'-C2'	6.73	113.65	107.60
32	S1	1298	G	P-O3'-C3'	-6.73	111.63	119.70
32	S1	1405	U	C5'-C4'-C3'	6.73	126.76	116.00
33	L1	61	A	P-O3'-C3'	6.73	127.77	119.70
33	L1	799	U	N1-C1'-C2'	6.73	122.75	114.00
33	L1	2171	A	C3'-C2'-C1'	6.73	106.88	101.50
74	LJ	14	PHE	N-CA-CB	6.73	122.71	110.60
32	S1	637	U	O4'-C1'-N1	6.73	113.58	108.20
33	L1	940	G	O4'-C1'-N9	-6.73	102.82	108.20
33	L1	1488	G	O4'-C1'-C2'	-6.73	99.07	105.80
33	L1	1751	G	C4'-C3'-C2'	-6.73	95.87	102.60
33	L1	3241	C	C1'-O4'-C4'	-6.73	104.52	109.90
13	SQ	82	MET	C-N-CA	-6.72	104.89	121.70
32	S1	1790	G	C3'-C2'-C1'	6.72	106.88	101.50
33	L1	98	A	OP2-P-O3'	-6.72	90.41	105.20
33	L1	1060	U	C4'-C3'-C2'	-6.72	95.88	102.60
33	L1	2484	G	C4'-C3'-C2'	-6.72	95.88	102.60
34	L3	15	C	C5'-C4'-O4'	6.72	117.17	109.10
48	LV	7	GLU	CA-CB-CG	6.72	128.19	113.40
52	Lb	96	PHE	CG-CD1-CE1	-6.72	113.40	120.80
64	LG	23	ARG	CB-CA-C	-6.72	96.95	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	SD	136	ILE	CB-CG1-CD1	6.72	132.72	113.90
11	SM	21	ASP	O-C-N	-6.72	111.77	123.20
32	S1	355	U	C3'-C2'-C1'	6.72	106.88	101.50
33	L1	300	C	O4'-C1'-N1	6.72	113.58	108.20
33	L1	1526	A	C3'-C2'-C1'	-6.72	96.12	101.50
33	L1	2839	A	C1'-O4'-C4'	6.72	115.28	109.90
33	L1	3385	G	C4'-C3'-C2'	-6.72	95.88	102.60
40	LH	90	LYS	O-C-N	-6.72	111.95	122.70
32	S1	1326	A	O4'-C1'-C2'	-6.72	99.08	105.80
33	L1	164	C	C1'-O4'-C4'	-6.72	104.52	109.90
33	L1	936	A	C3'-C2'-C1'	-6.72	96.12	101.50
33	L1	1256	A	C5'-C4'-O4'	6.72	117.17	109.10
33	L1	2151	G	C5'-C4'-C3'	6.72	126.75	116.00
44	LR	150	ARG	NE-CZ-NH1	6.72	123.66	120.30
67	LS	30	LYS	N-CA-CB	6.72	122.70	110.60
32	S1	455	G	O4'-C1'-N9	6.72	113.58	108.20
35	L2	52	A	O4'-C1'-C2'	6.72	113.65	107.60
67	LS	62	ALA	N-CA-CB	6.72	119.51	110.10
32	S1	1592	G	OP1-P-O3'	6.72	119.98	105.20
14	SP	103	LYS	CG-CD-CE	6.72	132.05	111.90
33	L1	1821	G	O4'-C4'-C3'	-6.72	97.28	104.00
33	L1	2458	A	O4'-C1'-N9	6.72	113.57	108.20
33	L1	2770	U	O3'-P-O5'	-6.72	91.24	104.00
1	Sa	323	TYR	CB-CG-CD2	-6.71	116.97	121.00
33	L1	1140	C	O4'-C1'-C2'	-6.71	99.08	105.80
33	L1	1382	C	P-O5'-C5'	6.71	131.64	120.90
33	L1	1685	U	O4'-C1'-N1	6.71	113.57	108.20
33	L1	2200	U	O4'-C1'-C2'	-6.71	99.09	105.80
46	LT	80	LYS	N-CA-CB	6.71	122.69	110.60
32	S1	389	A	N9-C1'-C2'	-6.71	104.62	112.00
51	LY	10	SER	N-CA-CB	6.71	120.57	110.50
11	SM	118	ARG	N-CA-CB	6.71	122.68	110.60
33	L1	712	A	O4'-C1'-C2'	-6.71	99.09	105.80
33	L1	841	G	O3'-P-O5'	-6.71	91.25	104.00
33	L1	1298	A	O4'-C4'-C3'	-6.71	97.29	104.00
33	L1	2792	A	C3'-C2'-C1'	-6.71	96.13	101.50
33	L1	2900	G	C4'-C3'-C2'	6.71	109.31	102.60
80	LC	278	ARG	CG-CD-NE	-6.71	97.71	111.80
33	L1	3124	A	C3'-C2'-C1'	6.71	106.87	101.50
32	S1	1200	A	C1'-O4'-C4'	-6.71	104.53	109.90
33	L1	1004	C	C1'-O4'-C4'	-6.71	104.53	109.90
29	ST	12	TYR	CB-CG-CD2	-6.71	116.98	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2927	C	N1-C1'-C2'	6.71	122.72	114.00
33	L1	3360	U	C1'-O4'-C4'	-6.71	104.54	109.90
32	S1	21	U	C5'-C4'-O4'	6.70	117.14	109.10
32	S1	1198	A	N9-C1'-C2'	6.70	122.72	114.00
33	L1	1937	C	N1-C1'-C2'	6.70	122.71	114.00
33	L1	3237	G	C5'-C4'-C3'	-6.70	105.28	116.00
33	L1	3331	G	N9-C1'-C2'	-6.70	104.63	112.00
57	L1	11	ARG	NE-CZ-NH2	-6.70	116.95	120.30
66	LN	23	ARG	NE-CZ-NH2	-6.70	116.95	120.30
32	S1	937	A	C1'-O4'-C4'	6.70	115.26	109.90
33	L1	1598	U	OP1-P-OP2	-6.70	109.55	119.60
79	Ls	36	VAL	CA-CB-CG1	6.70	120.95	110.90
33	L1	105	A	C1'-O4'-C4'	6.70	115.26	109.90
33	L1	1596	G	P-O5'-C5'	-6.70	110.18	120.90
42	LP	127	TYR	CG-CD1-CE1	-6.70	115.94	121.30
27	SH	78	ARG	CB-CA-C	-6.70	97.01	110.40
31	S2	26	G	C1'-O4'-C4'	-6.70	104.54	109.90
54	Lf	21	VAL	CA-CB-CG1	6.70	120.94	110.90
73	Lp	30	ARG	NE-CZ-NH1	6.70	123.65	120.30
33	L1	923	A	N9-C1'-C2'	-6.69	104.64	112.00
3	SB	27	ARG	NE-CZ-NH2	-6.69	116.95	120.30
32	S1	385	C	C3'-C2'-C1'	6.69	106.85	101.50
32	S1	849	G	P-O3'-C3'	6.69	127.73	119.70
33	L1	1351	C	C5'-C4'-O4'	-6.69	101.07	109.10
33	L1	1524	G	C1'-O4'-C4'	-6.69	104.55	109.90
32	S1	1632	C	C4'-C3'-C2'	-6.69	95.91	102.60
33	L1	2917	U	O4'-C1'-N1	6.69	113.55	108.20
35	L2	39	C	C1'-O4'-C4'	-6.69	104.55	109.90
45	LQ	219	PHE	CB-CG-CD1	6.69	125.48	120.80
25	SC	43	GLU	O-C-N	-6.69	112.00	122.70
33	L1	1761	C	O4'-C1'-C2'	-6.69	99.11	105.80
2	SA	257	ALA	CB-CA-C	6.69	120.13	110.10
23	SU	72	GLY	CA-C-O	-6.69	108.56	120.60
33	L1	428	G	C3'-C2'-C1'	6.69	106.85	101.50
33	L1	566	G	OP1-P-O3'	6.69	119.91	105.20
33	L1	1181	A	C1'-O4'-C4'	6.69	115.25	109.90
33	L1	2806	A	C3'-C2'-C1'	6.69	106.85	101.50
64	LG	184	ILE	C-N-CA	-6.69	104.98	121.70
81	LD	400	TRP	CB-CG-CD1	6.69	135.69	127.00
32	S1	1199	C	C5'-C4'-O4'	6.69	117.12	109.10
32	S1	1644	C	P-O3'-C3'	-6.69	111.68	119.70
33	L1	3341	C	N1-C1'-C2'	6.69	122.69	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	L3	99	G	O3'-P-O5'	-6.69	91.30	104.00
5	SE	193	PRO	CA-C-N	6.68	131.90	117.20
33	L1	1747	A	C3'-C2'-C1'	-6.68	96.15	101.50
33	L1	1797	U	O4'-C1'-N1	6.68	113.55	108.20
20	SZ	7	SER	O-C-N	-6.68	112.01	122.70
32	S1	1600	G	N9-C1'-C2'	6.68	122.69	114.00
33	L1	1276	C	O4'-C1'-N1	6.68	113.55	108.20
33	L1	1284	C	C4'-C3'-C2'	-6.68	95.92	102.60
33	L1	1953	C	C3'-C2'-C1'	6.68	106.85	101.50
67	LS	33	ALA	N-CA-CB	-6.68	100.74	110.10
12	SO	141	TYR	CB-CG-CD2	-6.68	116.99	121.00
32	S1	1600	G	O4'-C1'-C2'	6.68	113.61	107.60
32	S1	1745	U	O4'-C4'-C3'	-6.68	97.32	104.00
33	L1	1621	G	O3'-P-O5'	-6.68	91.31	104.00
13	SQ	137	ARG	NE-CZ-NH1	6.68	123.64	120.30
32	S1	1712	C	O4'-C1'-N1	6.68	113.54	108.20
33	L1	347	A	C5'-C4'-C3'	6.68	126.69	116.00
33	L1	447	C	P-O5'-C5'	6.68	131.59	120.90
33	L1	1052	A	P-O3'-C3'	6.68	127.72	119.70
33	L1	1171	U	P-O3'-C3'	-6.68	111.69	119.70
33	L1	2493	C	P-O3'-C3'	6.68	127.72	119.70
56	Lh	95	ALA	CB-CA-C	-6.68	100.08	110.10
70	Li	46	VAL	CA-CB-CG2	-6.68	100.88	110.90
32	S1	383	U	O4'-C1'-N1	6.68	113.54	108.20
33	L1	453	U	N1-C1'-C2'	6.68	122.68	114.00
33	L1	1681	U	O4'-C1'-N1	6.68	113.54	108.20
33	L1	2745	C	O5'-P-OP1	6.68	118.71	110.70
32	S1	1300	A	N9-C1'-C2'	6.68	122.68	114.00
33	L1	1694	A	N9-C1'-C2'	-6.68	104.66	112.00
33	L1	1748	A	C2'-C3'-O3'	6.68	124.38	113.70
33	L1	3149	C	P-O3'-C3'	-6.68	111.69	119.70
35	L2	126	G	P-O5'-C5'	6.68	131.58	120.90
32	S1	431	C	C3'-C2'-C1'	6.67	106.84	101.50
32	S1	545	A	C5'-C4'-C3'	6.67	126.68	116.00
33	L1	18	G	O4'-C1'-N9	6.67	113.54	108.20
33	L1	297	G	P-O5'-C5'	-6.67	110.22	120.90
33	L1	1622	G	O4'-C4'-C3'	-6.67	97.33	104.00
35	L2	86	C	P-O5'-C5'	6.67	131.58	120.90
64	LG	111	LYS	N-CA-C	6.67	129.02	111.00
66	LN	87	SER	O-C-N	6.67	133.38	122.70
32	S1	367	G	O4'-C1'-N9	6.67	113.54	108.20
32	S1	1021	C	N1-C1'-C2'	6.67	122.67	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1016	G	O3'-P-O5'	6.67	116.68	104.00
32	S1	1056	A	C1'-O4'-C4'	-6.67	104.56	109.90
32	S1	1291	A	O4'-C1'-N9	6.67	113.54	108.20
32	S1	1341	G	O4'-C1'-N9	6.67	113.54	108.20
33	L1	1384	G	O5'-P-OP1	-6.67	99.70	105.70
33	L1	2543	G	C3'-C2'-C1'	6.67	106.84	101.50
33	L1	3317	G	O4'-C1'-C2'	6.67	113.61	107.60
37	LB	9	ARG	NE-CZ-NH1	6.67	123.64	120.30
45	LQ	249	ALA	C-N-CA	6.67	138.38	121.70
70	Li	102	ILE	O-C-N	-6.67	112.03	122.70
4	SD	107	GLY	O-C-N	-6.67	112.03	122.70
4	SD	163	ASP	CB-CA-C	6.67	123.74	110.40
33	L1	713	G	C1'-O4'-C4'	-6.67	104.56	109.90
33	L1	2458	A	O4'-C1'-C2'	6.67	113.60	107.60
33	L1	1731	A	P-O5'-C5'	6.67	131.57	120.90
33	L1	3303	C	O5'-P-OP2	-6.67	99.70	105.70
35	L2	123	C	O4'-C1'-N1	6.67	113.53	108.20
52	Lb	69	ALA	CB-CA-C	-6.67	100.10	110.10
78	Le	43	THR	CA-CB-CG2	-6.67	103.06	112.40
32	S1	146	A	O4'-C1'-N9	6.67	113.53	108.20
33	L1	669	G	O4'-C1'-N9	6.67	113.53	108.20
33	L1	1822	C	C4'-C3'-C2'	-6.67	95.93	102.60
33	L1	1893	G	C1'-O4'-C4'	-6.67	104.57	109.90
33	L1	2569	G	P-O3'-C3'	6.67	127.70	119.70
42	LP	44	ARG	NH1-CZ-NH2	-6.67	112.07	119.40
72	Lk	93	MET	CA-CB-CG	6.67	124.63	113.30
32	S1	993	C	O4'-C1'-N1	6.67	113.53	108.20
33	L1	1008	U	O4'-C1'-N1	6.67	113.53	108.20
33	L1	1585	A	C1'-O4'-C4'	-6.67	104.57	109.90
2	SA	199	TRP	N-CA-CB	6.66	122.59	110.60
33	L1	1623	C	N1-C1'-C2'	6.66	122.66	114.00
32	S1	1660	C	C5'-C4'-C3'	6.66	126.66	116.00
33	L1	21	G	N9-C1'-C2'	-6.66	104.67	112.00
33	L1	1707	C	N1-C1'-C2'	-6.66	104.67	112.00
34	L3	69	A	O4'-C1'-N9	6.66	113.53	108.20
34	L3	71	A	C1'-O4'-C4'	6.66	115.23	109.90
6	SF	82	LYS	N-CA-CB	6.66	122.59	110.60
32	S1	111	U	P-O5'-C5'	6.66	131.56	120.90
33	L1	1119	G	O4'-C4'-C3'	-6.66	97.34	104.00
33	L1	2383	G	N9-C1'-C2'	6.66	122.66	114.00
33	L1	2662	A	O4'-C4'-C3'	-6.66	97.34	104.00
33	L1	2918	U	O3'-P-O5'	-6.66	91.34	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	LQ	44	ASP	CB-CG-OD2	6.66	124.30	118.30
58	Ln	42	LEU	N-CA-C	6.66	128.99	111.00
33	L1	1262	U	C3'-C2'-C1'	-6.66	96.17	101.50
33	L1	1731	A	C3'-C2'-C1'	6.66	106.83	101.50
33	L1	2404	C	O4'-C1'-C2'	6.66	113.59	107.60
33	L1	2946	U	C3'-C2'-C1'	6.66	106.83	101.50
33	L1	3305	U	O4'-C1'-C2'	-6.66	99.14	105.80
45	LQ	267	TYR	CG-CD1-CE1	-6.66	115.97	121.30
55	Lg	10	THR	CA-CB-CG2	-6.66	103.08	112.40
33	L1	2578	G	O4'-C1'-N9	6.66	113.53	108.20
34	L3	92	C	O4'-C1'-N1	6.66	113.53	108.20
23	SU	28	PHE	C-N-CA	6.66	138.34	121.70
32	S1	1091	A	O4'-C1'-C2'	6.66	113.59	107.60
33	L1	345	G	N9-C1'-C2'	6.66	122.65	114.00
38	LE	70	TYR	CB-CG-CD1	-6.66	117.01	121.00
1	Sa	70	TYR	CB-CG-CD1	-6.65	117.01	121.00
32	S1	1212	A	N9-C1'-C2'	6.65	122.65	114.00
33	L1	1225	A	O4'-C1'-C2'	6.65	113.59	107.60
13	SQ	94	GLU	CA-C-N	6.65	131.84	117.20
25	SC	59	ARG	NE-CZ-NH2	-6.65	116.97	120.30
30	S3	19	U	O4'-C1'-C2'	-6.65	99.15	105.80
33	L1	3150	G	N9-C1'-C2'	-6.65	104.68	112.00
36	LA	121	ARG	CB-CA-C	6.65	123.70	110.40
33	L1	104	G	O4'-C1'-N9	6.65	113.52	108.20
33	L1	265	G	O4'-C1'-N9	-6.65	102.88	108.20
33	L1	372	A	C2'-C3'-O3'	6.65	124.34	113.70
33	L1	1063	G	C3'-C2'-C1'	6.65	106.82	101.50
33	L1	1282	A	O5'-C5'-C4'	6.65	124.33	111.70
33	L1	1849	U	O4'-C1'-C2'	-6.65	99.15	105.80
33	L1	2687	C	C3'-C2'-C1'	6.65	106.82	101.50
33	L1	3229	C	C1'-O4'-C4'	-6.65	104.58	109.90
48	LV	30	ARG	NE-CZ-NH1	6.65	123.62	120.30
59	Lo	30	ARG	O-C-N	-6.65	112.06	122.70
46	LT	137	VAL	N-CA-CB	6.65	126.13	111.50
33	L1	60	G	C5'-C4'-C3'	-6.65	105.36	116.00
33	L1	1550	A	O3'-P-O5'	6.65	116.63	104.00
33	L1	2222	C	O4'-C1'-N1	6.65	113.52	108.20
33	L1	2369	G	C3'-C2'-C1'	-6.65	96.18	101.50
3	SB	147	ALA	N-CA-CB	6.64	119.40	110.10
25	SC	164	SER	C-N-CA	-6.64	94.10	122.00
32	S1	355	U	O4'-C1'-N1	6.64	113.52	108.20
32	S1	1093	A	O4'-C1'-N9	6.64	113.52	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	563	C	O4'-C1'-C2'	-6.64	99.16	105.80
33	L1	936	A	C2'-C3'-O3'	6.64	124.33	113.70
33	L1	1215	U	C4'-C3'-C2'	-6.64	95.96	102.60
33	L1	2108	C	O3'-P-O5'	6.64	116.62	104.00
33	L1	283	A	P-O5'-C5'	-6.64	110.27	120.90
33	L1	310	C	C5'-C4'-O4'	-6.64	101.13	109.10
33	L1	1572	C	O4'-C1'-C2'	-6.64	99.16	105.80
33	L1	2381	G	C3'-C2'-C1'	-6.64	96.19	101.50
33	L1	2392	G	P-O5'-C5'	6.64	131.53	120.90
34	L3	111	U	O4'-C1'-N1	6.64	113.52	108.20
58	Ln	20	ALA	N-CA-CB	-6.64	100.80	110.10
73	Lp	37	LYS	CB-CA-C	-6.64	97.12	110.40
33	L1	1577	A	C3'-C2'-C1'	-6.64	96.19	101.50
31	S2	69	G	N9-C1'-C2'	6.64	122.63	114.00
32	S1	141	G	O4'-C1'-N9	6.64	113.51	108.20
33	L1	994	U	O4'-C1'-C2'	6.64	113.58	107.60
33	L1	1669	C	P-O5'-C5'	6.64	131.52	120.90
33	L1	182	C	C1'-O4'-C4'	-6.64	104.59	109.90
33	L1	183	C	O4'-C1'-C2'	-6.64	99.16	105.80
33	L1	297	G	C1'-O4'-C4'	-6.64	104.59	109.90
33	L1	522	C	O4'-C1'-C2'	-6.64	99.16	105.80
33	L1	2437	A	O4'-C1'-C2'	-6.64	99.16	105.80
32	S1	201	G	P-O3'-C3'	-6.64	111.74	119.70
33	L1	2386	A	N9-C1'-C2'	6.64	122.63	114.00
35	L2	70	G	N9-C1'-C2'	-6.64	104.70	112.00
35	L2	147	C	C1'-O4'-C4'	-6.64	104.59	109.90
32	S1	1071	C	C3'-C2'-C1'	-6.63	96.19	101.50
33	L1	3168	C	O4'-C1'-N1	6.63	113.51	108.20
81	LD	37	ARG	NE-CZ-NH1	6.63	123.62	120.30
32	S1	1437	C	O4'-C1'-N1	6.63	113.51	108.20
33	L1	556	U	C1'-O4'-C4'	6.63	115.21	109.90
42	LP	127	TYR	CB-CG-CD2	-6.63	117.02	121.00
32	S1	1240	A	C1'-O4'-C4'	-6.63	104.59	109.90
32	S1	1447	C	P-O5'-C5'	-6.63	110.29	120.90
33	L1	247	C	O4'-C1'-N1	6.63	113.50	108.20
33	L1	2751	A	O4'-C4'-C3'	-6.63	97.37	104.00
33	L1	2347	A	N9-C1'-C2'	6.63	122.62	114.00
4	SD	134	LYS	N-CA-CB	6.63	122.53	110.60
33	L1	433	C	N1-C1'-C2'	6.63	122.62	114.00
33	L1	1296	C	P-O3'-C3'	6.63	127.65	119.70
33	L1	2338	C	P-O3'-C3'	6.63	127.66	119.70
35	L2	95	C	C5'-C4'-O4'	-6.63	101.15	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	LA	83	TYR	CG-CD1-CE1	-6.63	116.00	121.30
84	LI	108	ALA	O-C-N	-6.63	112.09	122.70
32	S1	908	U	O4'-C1'-N1	6.63	113.50	108.20
32	S1	1389	G	C1'-O4'-C4'	-6.63	104.60	109.90
33	L1	1068	A	P-O3'-C3'	-6.63	111.75	119.70
33	L1	3129	G	C1'-O4'-C4'	-6.63	104.60	109.90
47	LU	56	PHE	CB-CG-CD2	6.63	125.44	120.80
33	L1	2837	C	C4'-C3'-C2'	-6.62	95.97	102.60
31	S2	2	C	C5'-C4'-O4'	6.62	117.05	109.10
32	S1	54	C	C4'-C3'-C2'	-6.62	95.98	102.60
32	S1	605	A	O4'-C4'-C3'	-6.62	97.38	104.00
32	S1	1676	G	O4'-C1'-C2'	6.62	113.56	107.60
33	L1	293	A	C3'-C2'-C1'	-6.62	96.20	101.50
33	L1	1572	C	C3'-C2'-C1'	6.62	106.80	101.50
33	L1	1872	C	C4'-C3'-C2'	-6.62	95.98	102.60
32	S1	1206	A	C3'-C2'-C1'	-6.62	96.20	101.50
32	S1	1642	C	C5'-C4'-C3'	6.62	126.60	116.00
33	L1	1016	G	P-O3'-C3'	-6.62	111.75	119.70
33	L1	1077	C	O4'-C1'-N1	6.62	113.50	108.20
68	LW	87	TYR	CB-CA-C	6.62	123.64	110.40
80	LC	302	PHE	C-N-CA	6.62	138.25	121.70
33	L1	876	C	C3'-C2'-C1'	6.62	106.80	101.50
1	Sa	129	ASP	CB-CA-C	-6.62	97.16	110.40
32	S1	1036	U	N1-C1'-C2'	6.62	122.60	114.00
33	L1	460	A	O4'-C1'-C2'	-6.62	99.18	105.80
33	L1	492	G	O4'-C1'-C2'	6.62	113.56	107.60
33	L1	1780	C	C3'-C2'-C1'	6.62	106.80	101.50
33	L1	2846	C	O5'-P-OP1	-6.62	99.74	105.70
38	LE	126	GLY	N-CA-C	6.62	129.65	113.10
5	SE	152	TYR	CB-CG-CD2	-6.62	117.03	121.00
32	S1	946	A	P-O3'-C3'	6.62	127.64	119.70
32	S1	1623	C	C3'-C2'-C1'	6.62	106.79	101.50
32	S1	1640	C	C4'-C3'-C2'	-6.62	95.98	102.60
32	S1	1788	G	N9-C1'-C2'	-6.62	104.72	112.00
33	L1	1683	U	P-O5'-C5'	6.62	131.49	120.90
45	LQ	256	SER	CA-C-N	6.62	131.76	117.20
80	LC	366	SER	CB-CA-C	6.62	122.67	110.10
33	L1	967	G	C5'-C4'-O4'	6.62	117.04	109.10
33	L1	2994	U	N1-C1'-C2'	6.62	122.60	114.00
33	L1	3290	C	O5'-C5'-C4'	-6.62	99.13	111.70
32	S1	152	G	N9-C1'-C2'	6.61	122.60	114.00
32	S1	1149	U	O4'-C1'-N1	6.61	113.49	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1081	U	O4'-C4'-C3'	-6.61	97.39	104.00
33	L1	2280	C	P-O3'-C3'	6.61	127.64	119.70
33	L1	2490	U	C5'-C4'-C3'	6.61	126.58	116.00
33	L1	2881	C	O4'-C1'-N1	-6.61	102.91	108.20
33	L1	3351	A	O4'-C4'-C3'	-6.61	97.39	104.00
45	LQ	7	PHE	CB-CG-CD2	-6.61	116.17	120.80
32	S1	298	C	N1-C1'-C2'	6.61	122.59	114.00
32	S1	628	G	C3'-C2'-C1'	6.61	106.79	101.50
32	S1	944	A	C1'-O4'-C4'	-6.61	104.61	109.90
33	L1	316	A	C5'-C4'-C3'	6.61	126.58	116.00
33	L1	781	C	C3'-C2'-C1'	6.61	106.79	101.50
33	L1	1050	A	C2'-C3'-O3'	6.61	124.28	113.70
33	L1	1478	A	N9-C1'-C2'	-6.61	104.73	112.00
33	L1	1890	C	P-O5'-C5'	6.61	131.48	120.90
33	L1	1969	G	O4'-C1'-N9	6.61	113.49	108.20
39	LF	172	ARG	NE-CZ-NH2	-6.61	116.99	120.30
80	LC	68	HIS	C-N-CA	6.61	138.22	121.70
32	S1	986	U	O4'-C1'-N1	6.61	113.49	108.20
33	L1	429	G	O4'-C1'-C2'	6.61	113.55	107.60
33	L1	755	C	C3'-C2'-C1'	-6.61	96.22	101.50
33	L1	891	U	P-O5'-C5'	6.61	131.47	120.90
33	L1	1874	A	C1'-O4'-C4'	6.61	115.19	109.90
33	L1	2658	U	C1'-O4'-C4'	-6.61	104.61	109.90
42	LP	1	MET	CG-SD-CE	-6.61	89.63	100.20
67	LS	94	LYS	CA-CB-CG	6.61	127.94	113.40
33	L1	68	U	C4'-C3'-C2'	-6.61	95.99	102.60
33	L1	659	C	C5'-C4'-C3'	6.61	126.57	116.00
33	L1	2108	C	O4'-C1'-N1	6.61	113.48	108.20
33	L1	2877	U	C4'-C3'-C2'	-6.61	95.99	102.60
70	Li	78	TYR	CB-CG-CD2	-6.61	117.04	121.00
32	S1	1729	A	O4'-C1'-C2'	6.60	113.54	107.60
32	S1	92	G	O4'-C1'-N9	6.60	113.48	108.20
33	L1	995	C	O4'-C4'-C3'	-6.60	97.40	104.00
33	L1	2621	G	P-O3'-C3'	-6.60	111.78	119.70
46	LT	55	GLN	N-CA-CB	6.60	122.48	110.60
32	S1	1799	G	C1'-O4'-C4'	-6.60	104.62	109.90
33	L1	640	C	O5'-P-OP1	6.60	118.62	110.70
33	L1	1143	G	O4'-C4'-C3'	-6.60	97.40	104.00
34	L3	6	C	O4'-C1'-N1	6.60	113.48	108.20
70	Li	42	PRO	O-C-N	-6.60	112.14	122.70
32	S1	1447	C	N1-C1'-C2'	6.60	122.58	114.00
33	L1	1139	A	P-O3'-C3'	6.60	127.62	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	SK	77	SER	C-N-CA	6.60	138.19	121.70
13	SQ	61	ILE	N-CA-CB	-6.60	95.63	110.80
33	L1	31	U	O4'-C1'-N1	6.60	113.48	108.20
33	L1	372	A	O4'-C1'-C2'	-6.60	99.20	105.80
33	L1	3357	C	P-O5'-C5'	6.60	131.46	120.90
67	LS	21	ASP	N-CA-CB	-6.60	98.72	110.60
81	LD	320	ARG	NE-CZ-NH1	-6.60	117.00	120.30
35	L2	36	C	C3'-C2'-C1'	6.60	106.78	101.50
33	L1	540	G	P-O3'-C3'	-6.59	111.79	119.70
33	L1	2507	U	P-O3'-C3'	-6.59	111.79	119.70
9	SK	72	ALA	N-CA-CB	6.59	119.33	110.10
33	L1	785	U	C3'-C2'-C1'	-6.59	96.23	101.50
33	L1	1990	A	P-O3'-C3'	6.59	127.61	119.70
32	S1	376	G	C4'-C3'-C2'	-6.59	96.01	102.60
33	L1	258	C	N1-C1'-C2'	6.59	122.57	114.00
33	L1	1543	A	N9-C1'-C2'	-6.59	104.75	112.00
33	L1	1897	A	OP1-P-OP2	-6.59	109.71	119.60
33	L1	2273	C	O4'-C1'-C2'	-6.59	99.21	105.80
35	L2	96	A	P-O3'-C3'	-6.59	111.79	119.70
15	SS	142	ASP	CB-CG-OD1	6.59	124.23	118.30
32	S1	401	A	O4'-C1'-N9	6.59	113.47	108.20
32	S1	1065	A	C1'-O4'-C4'	6.59	115.17	109.90
33	L1	2716	U	C3'-C2'-C1'	-6.59	96.23	101.50
33	L1	3339	G	C4'-C3'-C2'	-6.59	96.01	102.60
36	LA	27	PHE	N-CA-CB	-6.59	98.74	110.60
49	LX	140	TYR	CB-CG-CD2	6.59	124.95	121.00
19	SY	8	ALA	N-CA-CB	6.59	119.32	110.10
32	S1	139	U	C5'-C4'-O4'	6.59	117.01	109.10
32	S1	1504	U	C1'-O4'-C4'	6.59	115.17	109.90
33	L1	534	G	C5'-C4'-O4'	6.59	117.01	109.10
33	L1	2883	C	O4'-C1'-C2'	-6.59	99.21	105.80
44	LR	160	HIS	N-CA-CB	6.59	122.46	110.60
1	Sa	179	ASP	C-N-CA	6.59	138.17	121.70
10	SL	5	ARG	CA-CB-CG	6.59	127.89	113.40
29	ST	42	ASN	N-CA-CB	6.59	122.45	110.60
32	S1	1007	G	N9-C1'-C2'	6.59	122.56	114.00
34	L3	39	C	P-O3'-C3'	6.59	127.60	119.70
67	LS	71	PRO	CA-N-CD	-6.59	102.28	111.50
32	S1	82	G	C3'-C2'-C1'	6.58	106.77	101.50
33	L1	1249	A	O4'-C1'-N9	-6.58	102.93	108.20
33	L1	3027	G	C1'-O4'-C4'	6.58	115.17	109.90
41	LM	69	LYS	N-CA-CB	6.58	122.45	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	SE	152	TYR	N-CA-CB	6.58	122.45	110.60
33	L1	3239	G	C3'-C2'-C1'	-6.58	96.23	101.50
74	LJ	96	VAL	CA-CB-CG1	6.58	120.77	110.90
3	SB	27	ARG	NE-CZ-NH1	6.58	123.59	120.30
31	S2	2	C	N1-C1'-C2'	6.58	122.56	114.00
33	L1	113	A	O4'-C1'-N9	6.58	113.47	108.20
33	L1	294	A	N9-C1'-C2'	-6.58	104.76	112.00
33	L1	1332	C	P-O3'-C3'	6.58	127.60	119.70
33	L1	2200	U	O4'-C1'-N1	6.58	113.47	108.20
11	SM	36	VAL	O-C-N	-6.58	112.02	123.20
13	SQ	97	ARG	C-N-CA	6.58	138.15	121.70
38	LE	136	ALA	N-CA-CB	-6.58	100.89	110.10
45	LQ	120	TYR	CG-CD2-CE2	6.58	126.56	121.30
32	S1	1361	G	O4'-C1'-N9	6.58	113.46	108.20
32	S1	1404	U	O4'-C1'-C2'	6.58	113.52	107.60
33	L1	1627	U	O4'-C1'-C2'	-6.58	99.22	105.80
33	L1	2599	U	N1-C1'-C2'	-6.58	104.77	112.00
33	L1	2664	G	N9-C1'-C2'	6.58	122.55	114.00
46	LT	74	ARG	NE-CZ-NH1	6.58	123.59	120.30
1	Sa	209	LEU	N-CA-CB	6.58	123.56	110.40
32	S1	1195	U	O4'-C1'-C2'	6.58	113.52	107.60
33	L1	694	U	N1-C1'-C2'	-6.58	104.77	112.00
33	L1	1883	A	O4'-C1'-N9	6.58	113.46	108.20
33	L1	3145	G	O4'-C1'-C2'	-6.58	99.22	105.80
2	SA	11	ALA	O-C-N	-6.58	112.18	122.70
33	L1	867	G	N9-C1'-C2'	-6.58	104.77	112.00
33	L1	1135	C	N1-C1'-C2'	6.58	122.55	114.00
33	L1	1458	U	O4'-C1'-C2'	6.58	113.52	107.60
33	L1	2592	G	N9-C1'-C2'	6.58	122.55	114.00
35	L2	142	G	C3'-C2'-C1'	-6.58	96.24	101.50
45	LQ	119	GLU	CB-CA-C	6.58	123.55	110.40
32	S1	572	G	C2'-C3'-O3'	6.57	124.22	113.70
32	S1	1720	G	C1'-O4'-C4'	-6.57	104.64	109.90
33	L1	933	U	O4'-C1'-N1	6.57	113.46	108.20
33	L1	3123	A	C5'-C4'-C3'	-6.57	105.48	116.00
57	L1	11	ARG	CB-CA-C	-6.57	97.25	110.40
78	Le	67	LEU	C-N-CA	6.57	138.13	121.70
32	S1	37	U	O4'-C1'-C2'	-6.57	99.23	105.80
33	L1	1151	G	O4'-C1'-C2'	6.57	113.52	107.60
33	L1	2629	C	C4'-C3'-C2'	-6.57	96.03	102.60
34	L3	1	G	C1'-O4'-C4'	-6.57	104.64	109.90
33	L1	1053	C	N1-C1'-C2'	6.57	122.54	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1580	C	C1'-O4'-C4'	-6.57	104.64	109.90
33	L1	3285	U	OP1-P-OP2	-6.57	109.75	119.60
35	L2	160	C	C3'-C2'-C1'	6.57	106.76	101.50
48	LV	7	GLU	C-N-CA	6.57	138.13	121.70
25	SC	137	ARG	N-CA-CB	6.57	122.42	110.60
33	L1	32	G	P-O5'-C5'	6.57	131.41	120.90
33	L1	228	C	C1'-O4'-C4'	6.57	115.15	109.90
37	LB	165	MET	CG-SD-CE	-6.57	89.69	100.20
45	LQ	277	ARG	NH1-CZ-NH2	-6.57	112.18	119.40
32	S1	1434	G	N9-C1'-C2'	6.57	122.53	114.00
32	S1	1733	G	O3'-P-O5'	-6.57	91.52	104.00
33	L1	545	C	C1'-O4'-C4'	-6.57	104.65	109.90
33	L1	2502	U	C4'-C3'-C2'	6.57	109.17	102.60
33	L1	2966	G	N9-C1'-C2'	-6.57	104.78	112.00
33	L1	3063	C	C1'-O4'-C4'	-6.57	104.65	109.90
33	L1	3376	C	C4'-C3'-C2'	6.57	109.17	102.60
84	LI	10	ARG	NE-CZ-NH1	6.57	123.58	120.30
32	S1	1067	A	P-O3'-C3'	6.56	127.58	119.70
32	S1	1673	C	P-O5'-C5'	6.56	131.40	120.90
33	L1	1248	A	O4'-C1'-C2'	-6.56	99.24	105.80
33	L1	1663	G	O4'-C1'-C2'	6.56	113.51	107.60
33	L1	2344	A	C3'-C2'-C1'	-6.56	96.25	101.50
33	L1	3008	U	C1'-O4'-C4'	6.56	115.15	109.90
3	SB	160	SER	N-CA-CB	-6.56	100.66	110.50
33	L1	750	G	O4'-C1'-N9	6.56	113.45	108.20
33	L1	1741	G	C1'-O4'-C4'	-6.56	104.65	109.90
34	L3	41	G	O4'-C1'-C2'	6.56	113.51	107.60
32	S1	449	A	P-O3'-C3'	-6.56	111.83	119.70
33	L1	877	U	OP1-P-OP2	-6.56	109.76	119.60
33	L1	1755	A	O4'-C1'-N9	-6.56	102.95	108.20
46	LT	62	ARG	NH1-CZ-NH2	-6.56	112.18	119.40
33	L1	280	G	C2'-C3'-O3'	6.56	124.19	113.70
33	L1	1619	G	P-O5'-C5'	-6.56	110.41	120.90
33	L1	2933	C	P-O3'-C3'	-6.56	111.83	119.70
33	L1	3343	U	C5'-C4'-O4'	-6.56	101.23	109.10
35	L2	133	C	N1-C1'-C2'	6.56	122.53	114.00
48	LV	154	LYS	N-CA-CB	6.56	122.41	110.60
50	LZ	53	TRP	CB-CA-C	6.56	123.52	110.40
64	LG	141	LYS	CB-CA-C	-6.56	97.28	110.40
32	S1	1611	U	C3'-C2'-C1'	6.56	106.75	101.50
33	L1	466	U	O4'-C1'-N1	6.56	113.45	108.20
33	L1	640	C	C1'-O4'-C4'	-6.56	104.65	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1626	U	C1'-O4'-C4'	-6.56	104.65	109.90
33	L1	3082	G	O4'-C1'-C2'	-6.56	99.24	105.80
32	S1	1552	U	O4'-C1'-N1	6.56	113.44	108.20
33	L1	568	C	C1'-O4'-C4'	-6.56	104.66	109.90
33	L1	652	C	C1'-O4'-C4'	6.56	115.14	109.90
33	L1	756	C	O4'-C1'-N1	6.56	113.44	108.20
33	L1	771	G	O4'-C4'-C3'	-6.56	97.44	104.00
33	L1	2221	U	O4'-C1'-C2'	-6.56	99.24	105.80
80	LC	312	MET	CG-SD-CE	-6.56	89.71	100.20
10	SL	22	TRP	CD1-CG-CD2	-6.55	101.06	106.30
32	S1	1084	U	C1'-O4'-C4'	6.55	115.14	109.90
33	L1	26	A	C1'-O4'-C4'	-6.55	104.66	109.90
33	L1	902	U	C2'-C3'-O3'	6.55	124.19	113.70
33	L1	1650	G	P-O5'-C5'	-6.55	110.41	120.90
24	SX	74	ARG	CG-CD-NE	6.55	125.56	111.80
32	S1	388	G	O4'-C1'-N9	6.55	113.44	108.20
33	L1	1041	C	C1'-O4'-C4'	6.55	115.14	109.90
33	L1	1251	U	P-O5'-C5'	6.55	131.38	120.90
32	S1	1232	G	O4'-C1'-N9	6.55	113.44	108.20
33	L1	2421	C	O4'-C1'-N1	6.55	113.44	108.20
33	L1	3275	G	O4'-C1'-N9	6.55	113.44	108.20
70	Li	107	LEU	C-N-CA	-6.55	105.32	121.70
73	Lp	51	ILE	N-CA-CB	-6.55	95.73	110.80
10	SL	54	ILE	CA-C-N	6.55	129.30	116.20
32	S1	138	C	C1'-O4'-C4'	-6.55	104.66	109.90
32	S1	630	U	C5'-C4'-C3'	6.55	126.48	116.00
32	S1	1618	G	P-O5'-C5'	-6.55	110.42	120.90
33	L1	264	C	C1'-O4'-C4'	-6.55	104.66	109.90
33	L1	434	C	P-O5'-C5'	6.55	131.38	120.90
33	L1	2818	G	C3'-C2'-C1'	6.55	106.74	101.50
35	L2	20	G	O4'-C1'-N9	6.55	113.44	108.20
35	L2	153	U	N1-C1'-C2'	6.55	122.51	114.00
33	L1	2671	A	P-O3'-C3'	-6.55	111.84	119.70
1	Sa	323	TYR	N-CA-CB	6.55	122.38	110.60
31	S2	75	A	C3'-C2'-C1'	-6.55	96.26	101.50
33	L1	1181	A	N9-C1'-C2'	-6.55	104.80	112.00
33	L1	1336	A	P-O3'-C3'	6.55	127.56	119.70
33	L1	3309	U	P-O5'-C5'	6.55	131.38	120.90
44	LR	34	ARG	NE-CZ-NH2	6.55	123.57	120.30
33	L1	1857	G	N9-C1'-C2'	-6.54	104.80	112.00
3	SB	212	PRO	CA-C-N	6.54	135.42	117.10
11	SM	82	TRP	CB-CG-CD2	-6.54	118.09	126.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	513	C	N1-C1'-C2'	6.54	122.51	114.00
33	L1	2396	A	N9-C1'-C2'	6.54	122.51	114.00
33	L1	2708	A	C4'-C3'-C2'	6.54	109.14	102.60
32	S1	988	G	N9-C1'-C2'	6.54	122.50	114.00
33	L1	1533	U	O3'-P-O5'	-6.54	91.57	104.00
33	L1	2043	A	O4'-C1'-N9	6.54	113.43	108.20
33	L1	2347	A	O4'-C1'-N9	6.54	113.43	108.20
33	L1	2646	A	C1'-O4'-C4'	6.54	115.13	109.90
70	Li	65	PRO	N-CA-CB	6.54	111.15	103.30
9	SK	66	ASP	N-CA-CB	6.54	122.37	110.60
15	SS	46	LYS	N-CA-C	6.54	128.66	111.00
33	L1	841	G	O5'-P-OP2	6.54	118.55	110.70
33	L1	1429	U	O4'-C1'-C2'	-6.54	99.26	105.80
33	L1	1814	C	C1'-O4'-C4'	-6.54	104.67	109.90
34	L3	15	C	P-O3'-C3'	-6.54	111.85	119.70
50	LZ	31	PHE	CB-CG-CD2	6.54	125.38	120.80
11	SM	81	ASP	CB-CG-OD1	6.54	124.19	118.30
32	S1	679	C	C3'-C2'-C1'	6.54	106.73	101.50
32	S1	852	A	O4'-C1'-N9	6.54	113.43	108.20
32	S1	1001	C	O4'-C1'-N1	6.54	113.43	108.20
33	L1	1146	A	O5'-P-OP1	-6.54	99.81	105.70
33	L1	1388	C	C1'-O4'-C4'	-6.54	104.67	109.90
33	L1	2724	A	N9-C1'-C2'	6.54	122.50	114.00
33	L1	2956	U	C1'-O4'-C4'	6.54	115.13	109.90
42	LP	79	ILE	CB-CA-C	6.54	124.67	111.60
33	L1	84	A	O4'-C1'-C2'	-6.54	99.26	105.80
33	L1	1746	G	P-O3'-C3'	6.54	127.55	119.70
29	ST	42	ASN	CB-CA-C	-6.54	97.33	110.40
32	S1	567	U	C1'-O4'-C4'	6.54	115.13	109.90
33	L1	641	C	C1'-O4'-C4'	6.54	115.13	109.90
33	L1	2621	G	OP2-P-O3'	6.54	119.58	105.20
44	LR	34	ARG	NH1-CZ-NH2	-6.54	112.21	119.40
32	S1	834	A	O4'-C1'-N9	-6.53	102.97	108.20
33	L1	439	A	P-O3'-C3'	6.53	127.54	119.70
33	L1	2236	U	P-O3'-C3'	6.53	127.54	119.70
33	L1	2397	A	O4'-C1'-N9	-6.53	102.97	108.20
34	L3	75	G	C4'-C3'-C2'	-6.53	96.07	102.60
72	Lk	59	ARG	CD-NE-CZ	-6.53	114.45	123.60
15	SS	14	PRO	N-CD-CG	-6.53	93.40	103.20
35	L2	101	G	C5'-C4'-C3'	6.53	126.45	116.00
32	S1	938	A	C3'-C2'-C1'	6.53	106.72	101.50
33	L1	594	C	C5'-C4'-O4'	6.53	116.94	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1644	A	O4'-C1'-C2'	-6.53	99.27	105.80
33	L1	2627	G	C1'-O4'-C4'	-6.53	104.67	109.90
35	L2	66	C	O4'-C1'-C2'	6.53	113.48	107.60
33	L1	16	A	C4'-C3'-C2'	-6.53	96.07	102.60
33	L1	1754	C	C3'-C2'-C1'	6.53	106.72	101.50
33	L1	2232	C	O4'-C1'-N1	-6.53	102.98	108.20
32	S1	1331	C	O4'-C1'-C2'	-6.53	99.27	105.80
33	L1	391	U	O4'-C1'-N1	6.53	113.42	108.20
33	L1	528	C	O3'-P-O5'	-6.53	91.60	104.00
33	L1	2104	G	O4'-C1'-C2'	6.53	113.47	107.60
49	LX	88	ASP	CB-CG-OD2	-6.53	112.43	118.30
78	Le	147	ARG	NE-CZ-NH2	6.53	123.56	120.30
4	SD	54	TYR	CB-CA-C	6.53	123.45	110.40
4	SD	136	ILE	CB-CA-C	-6.53	98.55	111.60
32	S1	439	C	C1'-O4'-C4'	-6.53	104.68	109.90
32	S1	1389	G	O4'-C1'-N9	6.53	113.42	108.20
33	L1	513	C	C4'-C3'-C2'	6.53	109.13	102.60
33	L1	517	G	O4'-C1'-C2'	6.53	113.47	107.60
32	S1	1678	G	C4'-C3'-C2'	-6.52	96.08	102.60
33	L1	1756	C	O4'-C1'-C2'	-6.52	99.28	105.80
33	L1	3362	A	C1'-O4'-C4'	6.52	115.12	109.90
67	LS	61	LEU	CA-CB-CG	6.52	130.30	115.30
32	S1	1191	U	C1'-O4'-C4'	6.52	115.12	109.90
35	L2	155	G	O4'-C1'-C2'	6.52	113.47	107.60
70	Li	81	VAL	N-CA-CB	6.52	125.85	111.50
23	SU	21	ARG	NE-CZ-NH2	-6.52	117.04	120.30
32	S1	610	A	C4'-C3'-C2'	6.52	109.12	102.60
32	S1	1548	G	N9-C1'-C2'	6.52	122.47	114.00
33	L1	2936	A	O4'-C1'-C2'	-6.52	99.28	105.80
7	SI	102	TYR	CG-CD1-CE1	6.52	126.52	121.30
33	L1	975	G	O4'-C4'-C3'	6.52	111.31	106.10
33	L1	2087	A	P-O3'-C3'	-6.52	111.88	119.70
33	L1	2692	G	O4'-C1'-C2'	6.52	113.47	107.60
57	Ll	1	MET	CG-SD-CE	-6.52	89.77	100.20
60	Lr	80	TYR	N-CA-CB	-6.52	98.87	110.60
32	S1	203	A	P-O3'-C3'	6.52	127.52	119.70
33	L1	2134	U	O4'-C1'-N1	6.52	113.41	108.20
33	L1	2518	A	C4'-C3'-C2'	6.52	109.12	102.60
33	L1	3066	G	C1'-O4'-C4'	-6.52	104.69	109.90
64	LG	65	LYS	CA-C-O	-6.52	106.42	120.10
68	LW	100	ASP	N-CA-CB	6.52	122.33	110.60
32	S1	216	A	O4'-C1'-N9	6.51	113.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1855	A	P-O3'-C3'	6.51	127.52	119.70
33	L1	2739	A	C5'-C4'-O4'	-6.51	101.28	109.10
34	L3	20	C	O4'-C1'-C2'	-6.51	99.29	105.80
32	S1	965	U	O4'-C1'-N1	6.51	113.41	108.20
33	L1	2620	U	P-O5'-C5'	6.51	131.32	120.90
37	LB	67	PHE	CB-CG-CD1	-6.51	116.24	120.80
70	Li	112	THR	N-CA-C	6.51	128.59	111.00
33	L1	2058	C	C5'-C4'-C3'	6.51	126.42	116.00
33	L1	2510	U	P-O3'-C3'	6.51	127.52	119.70
33	L1	2519	U	O5'-P-OP2	6.51	118.51	110.70
34	L3	22	A	C3'-C2'-C1'	-6.51	96.29	101.50
25	SC	71	ARG	NE-CZ-NH1	6.51	123.56	120.30
33	L1	697	A	O4'-C1'-N9	6.51	113.41	108.20
33	L1	2839	A	P-O3'-C3'	-6.51	111.89	119.70
81	LD	314	VAL	CA-CB-CG1	6.51	120.67	110.90
32	S1	1278	C	O3'-P-O5'	6.51	116.37	104.00
33	L1	1615	G	C4'-C3'-C2'	-6.51	96.09	102.60
33	L1	2653	U	OP1-P-OP2	-6.51	109.84	119.60
32	S1	168	U	O4'-C1'-N1	6.51	113.41	108.20
32	S1	1118	A	O4'-C1'-N9	-6.51	103.00	108.20
32	S1	1122	U	C5'-C4'-C3'	6.51	126.41	116.00
33	L1	822	U	N1-C1'-C2'	-6.51	104.84	112.00
33	L1	1295	A	C1'-O4'-C4'	6.51	115.11	109.90
33	L1	1436	A	O5'-P-OP1	-6.51	99.84	105.70
33	L1	2737	A	C3'-C2'-C1'	6.51	106.70	101.50
33	L1	2773	G	O3'-P-O5'	-6.51	91.64	104.00
64	LG	27	ALA	N-CA-CB	6.51	119.21	110.10
3	SB	159	SER	CA-CB-OG	-6.50	93.64	111.20
32	S1	41	A	C3'-C2'-C1'	6.50	106.70	101.50
68	LW	19	GLY	N-CA-C	-6.50	96.84	113.10
79	Ls	30	ILE	CB-CA-C	6.50	124.61	111.60
32	S1	1084	U	P-O5'-C5'	-6.50	110.49	120.90
33	L1	411	C	N1-C1'-C2'	6.50	122.45	114.00
33	L1	666	U	O3'-P-O5'	-6.50	91.64	104.00
33	L1	1296	C	C1'-O4'-C4'	6.50	115.10	109.90
33	L1	1717	G	O4'-C1'-C2'	6.50	113.45	107.60
69	La	84	ARG	NE-CZ-NH2	-6.50	117.05	120.30
82	LK	57	MET	CA-CB-CG	6.50	124.36	113.30
33	L1	1487	A	C3'-C2'-C1'	6.50	106.70	101.50
33	L1	2070	C	C1'-O4'-C4'	6.50	115.10	109.90
33	L1	2565	C	O4'-C1'-C2'	-6.50	99.30	105.80
68	LW	57	GLY	C-N-CA	6.50	137.96	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	Lm	33	GLN	CA-CB-CG	6.50	127.70	113.40
32	S1	431	C	N1-C1'-C2'	6.50	122.45	114.00
32	S1	1159	G	O4'-C1'-N9	6.50	113.40	108.20
32	S1	1643	A	C4'-C3'-C2'	-6.50	96.10	102.60
33	L1	180	G	P-O5'-C5'	-6.50	110.50	120.90
33	L1	916	A	P-O3'-C3'	-6.50	111.90	119.70
33	L1	1954	G	P-O5'-C5'	6.50	131.30	120.90
33	L1	2397	A	O4'-C1'-C2'	-6.50	99.30	105.80
4	SD	93	PRO	CB-CA-C	-6.50	95.75	112.00
4	SD	150	PRO	CA-N-CD	-6.50	102.40	111.50
32	S1	298	C	O4'-C1'-C2'	-6.50	99.30	105.80
33	L1	2497	A	O4'-C4'-C3'	-6.50	97.50	104.00
66	LN	81	LYS	CB-CA-C	6.50	123.40	110.40
84	LI	110	ARG	C-N-CA	6.50	137.95	121.70
33	L1	888	U	O4'-C1'-C2'	-6.50	99.30	105.80
33	L1	3327	A	P-O3'-C3'	6.50	127.50	119.70
34	L3	30	G	C1'-O4'-C4'	-6.50	104.70	109.90
72	Lk	84	LYS	CB-CA-C	-6.50	97.41	110.40
75	Lu	62	VAL	CA-CB-CG1	6.50	120.64	110.90
3	SB	151	LYS	CB-CA-C	6.49	123.39	110.40
3	SB	211	HIS	CA-C-N	6.49	135.28	117.10
33	L1	1711	G	N9-C1'-C2'	6.49	122.44	114.00
33	L1	2507	U	C5'-C4'-C3'	6.49	126.39	116.00
33	L1	2621	G	N9-C1'-C2'	-6.49	104.86	112.00
33	L1	3237	G	O5'-P-OP1	-6.49	99.86	105.70
29	ST	11	LEU	N-CA-C	6.49	128.53	111.00
33	L1	2730	A	C1'-O4'-C4'	6.49	115.09	109.90
33	L1	3177	A	O4'-C1'-N9	6.49	113.39	108.20
11	SM	75	ARG	CA-CB-CG	6.49	127.68	113.40
11	SM	124	ARG	NE-CZ-NH1	6.49	123.55	120.30
15	SS	11	ASP	CB-CG-OD1	6.49	124.14	118.30
33	L1	328	G	O5'-P-OP1	6.49	118.49	110.70
33	L1	1386	G	C1'-O4'-C4'	-6.49	104.71	109.90
42	LP	31	ARG	NE-CZ-NH1	6.49	123.55	120.30
44	LR	38	ARG	NE-CZ-NH1	-6.49	117.05	120.30
13	SQ	61	ILE	CA-CB-CG1	6.49	123.33	111.00
32	S1	905	A	P-O5'-C5'	6.49	131.28	120.90
32	S1	1059	U	O4'-C4'-C3'	-6.49	97.51	104.00
33	L1	528	C	N1-C1'-C2'	6.49	122.44	114.00
33	L1	1429	U	C3'-C2'-C1'	6.49	106.69	101.50
33	L1	1433	U	C3'-C2'-C1'	-6.49	96.31	101.50
33	L1	2485	U	N1-C1'-C2'	-6.49	104.86	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3210	G	N9-C1'-C2'	-6.49	104.86	112.00
32	S1	93	A	C3'-C2'-C1'	-6.49	96.31	101.50
32	S1	1662	G	P-O3'-C3'	-6.49	111.92	119.70
33	L1	1827	U	O4'-C1'-N1	6.49	113.39	108.20
33	L1	2391	C	O3'-P-O5'	-6.49	91.68	104.00
33	L1	2787	A	P-O5'-C5'	-6.49	110.52	120.90
48	LV	69	ARG	CA-C-N	6.49	131.47	117.20
25	SC	145	ILE	O-C-N	6.48	133.42	121.10
33	L1	839	A	C5'-C4'-O4'	-6.48	101.32	109.10
33	L1	1257	U	C5'-C4'-C3'	6.48	126.37	116.00
33	L1	1742	G	OP1-P-OP2	-6.48	109.87	119.60
33	L1	2185	U	P-O3'-C3'	6.48	127.48	119.70
48	LV	128	ARG	NH1-CZ-NH2	-6.48	112.27	119.40
59	Lo	47	THR	O-C-N	-6.48	112.33	122.70
13	SQ	21	TYR	CA-C-O	-6.48	106.49	120.10
33	L1	1317	G	P-O3'-C3'	6.48	127.48	119.70
33	L1	1604	U	O4'-C1'-N1	-6.48	103.01	108.20
32	S1	554	A	O4'-C1'-C2'	-6.48	99.32	105.80
32	S1	1229	C	O4'-C1'-C2'	-6.48	99.32	105.80
33	L1	68	U	C3'-C2'-C1'	-6.48	96.31	101.50
33	L1	632	C	O4'-C1'-N1	-6.48	103.02	108.20
33	L1	1095	C	O5'-P-OP2	-6.48	99.87	105.70
33	L1	1296	C	C5'-C4'-C3'	6.48	126.37	116.00
33	L1	3376	C	P-O3'-C3'	-6.48	111.92	119.70
33	L1	398	G	C4'-C3'-C2'	-6.48	96.12	102.60
33	L1	582	C	C1'-O4'-C4'	-6.48	104.72	109.90
33	L1	1423	C	C4'-C3'-C2'	-6.48	96.12	102.60
42	LP	53	TYR	CB-CG-CD2	6.48	124.89	121.00
32	S1	623	A	C1'-O4'-C4'	6.48	115.08	109.90
33	L1	2336	C	C1'-O4'-C4'	-6.48	104.72	109.90
82	LK	154	TYR	CG-CD1-CE1	-6.48	116.12	121.30
31	S2	10	G	P-O5'-C5'	-6.48	110.54	120.90
33	L1	224	C	O4'-C4'-C3'	-6.48	97.52	104.00
32	S1	15	U	C5'-C4'-O4'	6.47	116.87	109.10
32	S1	1396	U	O4'-C1'-C2'	-6.47	99.33	105.80
33	L1	133	G	C3'-C2'-C1'	-6.47	96.32	101.50
33	L1	933	U	C3'-C2'-C1'	-6.47	96.32	101.50
33	L1	1076	G	C5'-C4'-C3'	6.47	126.36	116.00
33	L1	1875	A	O4'-C4'-C3'	-6.47	97.53	104.00
33	L1	1881	C	P-O5'-C5'	-6.47	110.54	120.90
45	LQ	28	ARG	NE-CZ-NH1	6.47	123.54	120.30
33	L1	2573	U	O4'-C1'-N1	6.47	113.38	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2751	A	O4'-C1'-C2'	-6.47	99.33	105.80
55	Lg	13	ASP	CA-C-N	-6.47	102.96	117.20
32	S1	94	A	N9-C1'-C2'	6.47	122.41	114.00
32	S1	1562	C	O4'-C1'-C2'	-6.47	99.33	105.80
32	S1	1650	G	C4'-C3'-C2'	-6.47	96.13	102.60
33	L1	492	G	C1'-O4'-C4'	6.47	115.08	109.90
35	L2	87	C	P-O5'-C5'	6.47	131.25	120.90
33	L1	60	G	C1'-O4'-C4'	-6.47	104.72	109.90
33	L1	619	C	P-O3'-C3'	-6.47	111.94	119.70
33	L1	1213	G	N9-C1'-C2'	6.47	122.41	114.00
33	L1	1474	U	O4'-C1'-C2'	6.47	113.42	107.60
33	L1	2278	G	C1'-O4'-C4'	6.47	115.08	109.90
33	L1	2337	C	C4'-C3'-C2'	-6.47	96.13	102.60
72	Lk	41	HIS	CA-CB-CG	6.47	124.60	113.60
33	L1	608	G	C3'-C2'-C1'	6.47	106.67	101.50
33	L1	876	C	P-O3'-C3'	6.47	127.46	119.70
33	L1	974	G	O4'-C1'-C2'	6.47	113.42	107.60
33	L1	3248	G	O4'-C1'-N9	6.47	113.37	108.20
33	L1	3329	G	C3'-C2'-C1'	-6.47	96.33	101.50
34	L3	77	A	O4'-C4'-C3'	-6.47	97.53	104.00
79	Ls	64	ARG	NE-CZ-NH1	6.47	123.53	120.30
27	SH	108	ALA	C-N-CA	6.46	135.88	122.30
32	S1	303	A	O4'-C1'-N9	6.46	113.37	108.20
32	S1	661	U	O4'-C1'-N1	6.46	113.37	108.20
33	L1	138	G	O4'-C1'-C2'	6.46	113.42	107.60
33	L1	198	A	N9-C1'-C2'	-6.46	104.89	112.00
33	L1	236	A	O4'-C1'-N9	6.46	113.37	108.20
33	L1	1543	A	P-O5'-C5'	-6.46	110.56	120.90
33	L1	1623	C	C5'-C4'-O4'	-6.46	101.34	109.10
33	L1	2053	A	P-O3'-C3'	6.46	127.46	119.70
33	L1	2637	U	P-O5'-C5'	6.46	131.24	120.90
33	L1	2703	G	C3'-C2'-C1'	-6.46	96.33	101.50
35	L2	48	A	N9-C1'-C2'	6.46	122.40	114.00
66	LN	31	VAL	CG1-CB-CG2	6.46	121.24	110.90
70	Li	90	ARG	NE-CZ-NH2	-6.46	117.07	120.30
32	S1	226	C	C3'-C2'-C1'	6.46	106.67	101.50
32	S1	449	A	P-O5'-C5'	6.46	131.24	120.90
32	S1	1498	A	P-O3'-C3'	6.46	127.45	119.70
33	L1	28	C	C4'-C3'-C2'	-6.46	96.14	102.60
33	L1	469	U	P-O3'-C3'	6.46	127.45	119.70
33	L1	2512	U	O4'-C1'-N1	6.46	113.37	108.20
33	L1	2839	A	C3'-C2'-C1'	-6.46	96.33	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	L3	34	C	O4'-C1'-N1	6.46	113.37	108.20
35	L2	32	C	C4'-C3'-C2'	-6.46	96.14	102.60
54	Lf	54	PRO	N-CA-CB	-6.46	95.49	102.60
64	LG	23	ARG	N-CA-CB	6.46	122.23	110.60
74	LJ	123	ALA	N-CA-C	6.46	128.45	111.00
32	S1	1611	U	C4'-C3'-C2'	-6.46	96.14	102.60
33	L1	1423	C	P-O3'-C3'	-6.46	111.95	119.70
32	S1	408	G	C3'-C2'-C1'	6.46	106.67	101.50
32	S1	770	U	O3'-P-O5'	-6.46	91.73	104.00
33	L1	581	G	P-O3'-C3'	6.46	127.45	119.70
33	L1	1393	G	O3'-P-O5'	-6.46	91.73	104.00
33	L1	1631	G	O4'-C1'-N9	6.46	113.37	108.20
33	L1	1807	C	N1-C1'-C2'	-6.46	104.90	112.00
33	L1	2041	G	P-O3'-C3'	6.46	127.45	119.70
34	L3	59	U	O4'-C1'-N1	6.46	113.37	108.20
70	Li	43	LYS	N-CA-C	6.46	128.44	111.00
7	SI	120	ARG	NE-CZ-NH1	-6.46	117.07	120.30
32	S1	646	G	C1'-O4'-C4'	6.46	115.06	109.90
32	S1	1350	C	O4'-C1'-C2'	-6.46	99.34	105.80
33	L1	166	U	O4'-C1'-N1	6.46	113.36	108.20
33	L1	533	G	O4'-C1'-C2'	6.46	113.41	107.60
33	L1	1940	U	O4'-C1'-N1	6.46	113.36	108.20
33	L1	2720	U	O4'-C1'-C2'	6.46	113.41	107.60
35	L2	46	G	O5'-P-OP1	-6.46	99.89	105.70
32	S1	336	U	C1'-O4'-C4'	6.46	115.06	109.90
33	L1	1320	G	P-O5'-C5'	-6.46	110.57	120.90
33	L1	3036	C	P-O5'-C5'	6.46	131.23	120.90
80	LC	61	GLU	N-CA-C	-6.46	93.57	111.00
32	S1	794	G	C5'-C4'-C3'	6.45	126.33	116.00
33	L1	655	G	C3'-C2'-C1'	-6.45	96.34	101.50
33	L1	1276	C	C3'-C2'-C1'	6.45	106.66	101.50
33	L1	1879	A	P-O5'-C5'	-6.45	110.57	120.90
33	L1	1886	U	O4'-C4'-C3'	-6.45	97.55	104.00
32	S1	878	U	O4'-C1'-N1	6.45	113.36	108.20
33	L1	356	G	O4'-C1'-N9	6.45	113.36	108.20
33	L1	1736	C	N1-C1'-C2'	6.45	122.39	114.00
33	L1	2226	C	N1-C1'-C2'	-6.45	104.91	112.00
33	L1	3352	C	C1'-O4'-C4'	6.45	115.06	109.90
32	S1	1298	G	C4'-C3'-C2'	-6.45	96.15	102.60
32	S1	1446	C	N1-C1'-C2'	6.45	122.38	114.00
32	S1	1606	U	C3'-C2'-C1'	6.45	106.66	101.50
33	L1	49	U	O4'-C1'-C2'	-6.45	99.35	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	137	C	C3'-C2'-C1'	6.45	106.66	101.50
33	L1	888	U	C1'-O4'-C4'	6.45	115.06	109.90
33	L1	1694	A	C3'-C2'-C1'	6.45	106.66	101.50
33	L1	2790	C	O4'-C1'-C2'	-6.45	99.35	105.80
33	L1	2875	U	C5'-C4'-O4'	6.45	116.84	109.10
60	Lr	12	CYS	C-N-CA	6.45	137.82	121.70
64	LG	62	SER	N-CA-CB	-6.45	100.83	110.50
33	L1	1751	G	C2'-C3'-O3'	6.45	124.02	113.70
33	L1	3233	C	P-O3'-C3'	6.45	127.44	119.70
33	L1	1055	U	O4'-C1'-N1	6.45	113.36	108.20
33	L1	2862	U	O4'-C4'-C3'	-6.45	97.56	104.00
48	LV	73	ALA	C-N-CA	6.45	137.82	121.70
1	Sa	251	ASP	C-N-CA	-6.44	105.59	121.70
32	S1	19	A	C3'-C2'-C1'	6.44	106.66	101.50
33	L1	1310	G	O4'-C1'-N9	6.44	113.36	108.20
33	L1	2677	A	O4'-C1'-C2'	-6.44	99.36	105.80
33	L1	3227	U	C4'-C3'-C2'	-6.44	96.16	102.60
32	S1	1667	A	C3'-C2'-C1'	6.44	106.65	101.50
33	L1	301	G	C1'-O4'-C4'	-6.44	104.75	109.90
33	L1	1425	G	C3'-C2'-C1'	-6.44	96.35	101.50
33	L1	2520	U	O4'-C1'-N1	6.44	113.35	108.20
54	Lf	56	ARG	NE-CZ-NH1	-6.44	117.08	120.30
27	SH	109	GLY	O-C-N	-6.44	112.39	122.70
33	L1	2142	A	C3'-C2'-C1'	6.44	106.65	101.50
73	Lp	13	TYR	N-CA-CB	-6.44	99.01	110.60
78	Le	244	ASN	CB-CA-C	-6.44	97.52	110.40
32	S1	33	U	C5'-C4'-O4'	6.44	116.83	109.10
33	L1	759	C	N1-C1'-C2'	6.44	122.37	114.00
1	Sa	63	GLN	CA-CB-CG	6.44	127.56	113.40
32	S1	380	C	N1-C1'-C2'	6.44	122.37	114.00
32	S1	1184	C	O4'-C1'-N1	-6.44	103.05	108.20
32	S1	1226	U	C1'-O4'-C4'	6.44	115.05	109.90
32	S1	1688	G	N9-C1'-C2'	-6.44	104.92	112.00
33	L1	510	C	N1-C1'-C2'	6.44	122.37	114.00
33	L1	952	C	P-O3'-C3'	-6.44	111.98	119.70
33	L1	1044	A	O4'-C1'-N9	6.44	113.35	108.20
33	L1	1350	G	C5'-C4'-O4'	-6.44	101.37	109.10
33	L1	1530	C	C3'-C2'-C1'	6.44	106.65	101.50
33	L1	2098	A	C3'-C2'-C1'	-6.44	96.35	101.50
33	L1	3156	G	O3'-P-O5'	-6.44	91.77	104.00
38	LE	117	LYS	CB-CA-C	-6.44	97.53	110.40
69	La	21	ARG	NE-CZ-NH2	-6.44	117.08	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	S2	30	G	C1'-O4'-C4'	-6.43	104.75	109.90
32	S1	846	U	O4'-C1'-N1	6.43	113.35	108.20
32	S1	1245	G	C3'-C2'-C1'	6.43	106.65	101.50
33	L1	309	C	O4'-C1'-C2'	-6.43	99.36	105.80
33	L1	1340	G	C3'-C2'-C1'	-6.43	96.35	101.50
33	L1	1432	G	N9-C1'-C2'	6.43	122.36	114.00
33	L1	1741	G	OP2-P-O3'	6.43	119.36	105.20
68	LW	87	TYR	CA-C-N	-6.43	103.05	117.20
81	LD	204	ARG	NE-CZ-NH1	6.43	123.52	120.30
32	S1	1656	C	C3'-C2'-C1'	6.43	106.64	101.50
33	L1	229	G	O3'-P-O5'	-6.43	91.78	104.00
33	L1	384	A	C4'-C3'-C2'	-6.43	96.17	102.60
33	L1	452	G	P-O3'-C3'	6.43	127.42	119.70
36	LA	33	LEU	CA-CB-CG	6.43	130.09	115.30
68	LW	106	ALA	N-CA-CB	6.43	119.11	110.10
32	S1	1649	C	C1'-O4'-C4'	6.43	115.05	109.90
33	L1	436	G	O4'-C1'-C2'	-6.43	99.37	105.80
33	L1	2362	A	P-O5'-C5'	-6.43	110.61	120.90
28	SN	10	HIS	CA-C-O	-6.43	106.60	120.10
32	S1	220	C	O3'-P-O5'	6.43	116.22	104.00
32	S1	584	A	O4'-C1'-C2'	-6.43	99.37	105.80
32	S1	594	C	C5'-C4'-C3'	6.43	126.29	116.00
33	L1	168	A	O4'-C1'-N9	6.43	113.34	108.20
33	L1	460	A	C1'-O4'-C4'	6.43	115.04	109.90
32	S1	1144	A	P-O5'-C5'	-6.43	110.61	120.90
32	S1	1543	U	C1'-O4'-C4'	6.43	115.04	109.90
32	S1	127	G	N9-C1'-C2'	-6.43	104.93	112.00
33	L1	583	C	C3'-C2'-C1'	6.43	106.64	101.50
33	L1	1166	C	C3'-C2'-C1'	6.43	106.64	101.50
33	L1	1561	U	O5'-C5'-C4'	6.43	123.91	111.70
33	L1	3350	C	O4'-C1'-C2'	6.43	113.38	107.60
33	L1	3358	A	C4'-C3'-C2'	-6.43	96.17	102.60
80	LC	373	ARG	NE-CZ-NH1	6.43	123.51	120.30
82	LK	134	LEU	N-CA-C	6.43	128.35	111.00
32	S1	575	G	C1'-O4'-C4'	-6.42	104.76	109.90
32	S1	850	G	C5'-C4'-O4'	6.42	116.81	109.10
33	L1	1820	C	O3'-P-O5'	-6.42	91.79	104.00
31	S2	70	G	C3'-C2'-C1'	-6.42	96.36	101.50
33	L1	102	G	C4'-C3'-C2'	-6.42	96.18	102.60
33	L1	1182	A	P-O5'-C5'	6.42	131.18	120.90
33	L1	2665	A	P-O3'-C3'	-6.42	111.99	119.70
33	L1	2736	A	N9-C1'-C2'	-6.42	104.93	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	39	C	O4'-C1'-N1	6.42	113.34	108.20
19	SY	47	ARG	CA-C-N	6.42	131.32	117.20
33	L1	2121	U	O4'-C1'-N1	6.42	113.34	108.20
33	L1	2406	C	N1-C1'-C2'	6.42	122.35	114.00
33	L1	2625	C	O4'-C1'-N1	6.42	113.34	108.20
33	L1	2633	C	O4'-C1'-C2'	-6.42	99.38	105.80
35	L2	107	G	P-O3'-C3'	-6.42	111.99	119.70
64	LG	53	ALA	C-N-CA	6.42	137.75	121.70
25	SC	15	LYS	N-CA-C	6.42	128.33	111.00
32	S1	123	U	C1'-O4'-C4'	6.42	115.04	109.90
33	L1	1853	C	P-O3'-C3'	6.42	127.41	119.70
33	L1	2350	C	C4'-C3'-C2'	-6.42	96.18	102.60
33	L1	2600	U	O4'-C1'-N1	6.42	113.34	108.20
70	Li	88	ARG	NE-CZ-NH1	6.42	123.51	120.30
3	SB	62	LYS	C-N-CA	6.42	135.78	122.30
3	SB	131	ALA	C-N-CA	6.42	137.75	121.70
33	L1	21	G	P-O3'-C3'	6.42	127.40	119.70
33	L1	351	G	N9-C1'-C2'	6.42	122.34	114.00
33	L1	1246	G	O4'-C1'-C2'	-6.42	99.38	105.80
33	L1	1526	A	C5'-C4'-O4'	6.42	116.80	109.10
33	L1	1788	C	P-O5'-C5'	-6.42	110.63	120.90
70	Li	41	GLY	CA-C-O	-6.42	109.05	120.60
32	S1	1212	A	O4'-C1'-C2'	6.42	113.38	107.60
33	L1	1128	U	C1'-O4'-C4'	-6.42	104.77	109.90
33	L1	1302	C	O4'-C1'-N1	6.42	113.33	108.20
64	LG	174	PRO	CA-C-N	6.42	131.32	117.20
1	Sa	74	TRP	CB-CG-CD1	6.42	135.34	127.00
33	L1	2283	G	N9-C1'-C2'	6.42	122.34	114.00
33	L1	2764	G	C3'-C2'-C1'	-6.42	96.37	101.50
35	L2	99	G	N9-C1'-C2'	-6.42	104.94	112.00
64	LG	39	ALA	N-CA-CB	6.42	119.08	110.10
84	LI	118	ALA	C-N-CA	6.42	137.74	121.70
23	SU	76	THR	N-CA-C	-6.41	93.69	111.00
32	S1	1775	A	O4'-C1'-C2'	6.41	113.37	107.60
33	L1	1416	G	C3'-C2'-C1'	-6.41	96.37	101.50
33	L1	1524	G	OP1-P-OP2	-6.41	109.98	119.60
33	L1	1825	G	O4'-C1'-N9	6.41	113.33	108.20
33	L1	2431	U	P-O3'-C3'	6.41	127.40	119.70
33	L1	2787	A	O4'-C1'-N9	6.41	113.33	108.20
32	S1	856	G	C1'-O4'-C4'	-6.41	104.77	109.90
33	L1	2759	C	O5'-P-OP2	-6.41	99.93	105.70
33	L1	2823	C	O4'-C1'-N1	6.41	113.33	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	S2	1	U	O5'-P-OP2	-6.41	99.93	105.70
32	S1	1363	G	O4'-C1'-C2'	6.41	113.37	107.60
32	S1	1424	G	O4'-C1'-N9	6.41	113.33	108.20
33	L1	2731	G	P-O3'-C3'	6.41	127.39	119.70
33	L1	2807	G	C1'-O4'-C4'	-6.41	104.77	109.90
33	L1	1953	C	C5'-C4'-C3'	6.41	126.25	116.00
11	SM	12	ILE	CB-CA-C	-6.41	98.78	111.60
31	S2	18	G	C4'-C3'-C2'	-6.41	96.19	102.60
33	L1	1693	A	N9-C1'-C2'	6.41	122.33	114.00
34	L3	115	A	O4'-C1'-N9	6.41	113.33	108.20
1	Sa	142	ASP	CB-CG-OD1	-6.41	112.53	118.30
32	S1	349	U	O4'-C1'-N1	6.41	113.33	108.20
32	S1	978	A	O4'-C1'-N9	6.41	113.32	108.20
32	S1	1592	G	O4'-C1'-C2'	-6.41	99.39	105.80
33	L1	1140	C	C3'-C2'-C1'	6.41	106.62	101.50
33	L1	1688	U	O4'-C1'-N1	6.41	113.32	108.20
33	L1	1732	G	N9-C1'-C2'	6.41	122.33	114.00
41	LM	90	ARG	NE-CZ-NH1	6.41	123.50	120.30
64	LG	152	LYS	N-CA-C	6.41	128.30	111.00
1	Sa	266	THR	CA-CB-OG1	6.40	122.44	109.00
23	SU	11	THR	C-N-CA	6.40	137.71	121.70
33	L1	73	A	O3'-P-O5'	-6.40	91.83	104.00
33	L1	281	G	O4'-C1'-C2'	6.40	113.36	107.60
33	L1	978	C	C4'-C3'-C2'	6.40	109.00	102.60
33	L1	1340	G	O4'-C1'-C2'	6.40	113.36	107.60
33	L1	2112	C	C2'-C3'-O3'	6.40	123.94	113.70
33	L1	2200	U	C5'-C4'-C3'	6.40	126.24	116.00
33	L1	2764	G	O5'-P-OP1	6.40	118.38	110.70
54	Lf	88	TYR	CZ-CE2-CD2	-6.40	114.04	119.80
79	Ls	64	ARG	NE-CZ-NH2	-6.40	117.10	120.30
25	SC	171	PRO	CB-CA-C	6.40	128.00	112.00
31	S2	28	G	O4'-C1'-N9	6.40	113.32	108.20
32	S1	36	C	O4'-C1'-C2'	-6.40	99.40	105.80
33	L1	1088	A	O4'-C1'-N9	6.40	113.32	108.20
33	L1	1154	U	P-O3'-C3'	-6.40	112.02	119.70
33	L1	2738	U	N1-C1'-C2'	6.40	122.32	114.00
33	L1	3095	G	C3'-C2'-C1'	-6.40	96.38	101.50
69	La	33	THR	CA-CB-CG2	-6.40	103.44	112.40
2	SA	212	GLU	N-CA-C	6.40	128.28	111.00
32	S1	1	U	C1'-O4'-C4'	6.40	115.02	109.90
32	S1	623	A	O4'-C1'-C2'	-6.40	99.40	105.80
12	SO	129	TYR	CB-CG-CD2	-6.40	117.16	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	169	A	O4'-C1'-C2'	-6.40	99.40	105.80
32	S1	203	A	OP1-P-OP2	-6.40	110.00	119.60
32	S1	227	G	O4'-C1'-N9	6.40	113.32	108.20
33	L1	1636	C	OP1-P-O3'	6.40	119.28	105.20
33	L1	1762	G	P-O5'-C5'	6.40	131.14	120.90
34	L3	74	A	C1'-O4'-C4'	-6.40	104.78	109.90
35	L2	102	U	O5'-P-OP2	-6.40	99.94	105.70
82	LK	135	GLN	CA-C-N	6.40	135.01	117.10
33	L1	88	A	C1'-O4'-C4'	-6.39	104.78	109.90
33	L1	1715	C	O5'-C5'-C4'	6.39	123.85	111.70
33	L1	1768	U	O4'-C1'-C2'	-6.39	99.41	105.80
34	L3	97	G	C5'-C4'-C3'	-6.39	105.77	116.00
35	L2	90	U	P-O5'-C5'	6.39	131.13	120.90
16	SR	120	MET	CG-SD-CE	-6.39	89.97	100.20
32	S1	302	C	O4'-C1'-N1	6.39	113.31	108.20
32	S1	1213	C	N1-C1'-C2'	6.39	122.31	114.00
32	S1	1621	U	N1-C1'-C2'	-6.39	104.97	112.00
33	L1	445	C	O4'-C1'-C2'	-6.39	99.41	105.80
33	L1	529	C	P-O5'-C5'	-6.39	110.67	120.90
33	L1	729	G	P-O3'-C3'	-6.39	112.03	119.70
33	L1	1613	C	C1'-O4'-C4'	-6.39	104.79	109.90
33	L1	2103	U	N1-C1'-C2'	-6.39	104.97	112.00
33	L1	2248	G	OP1-P-OP2	-6.39	110.01	119.60
33	L1	2334	G	C1'-O4'-C4'	-6.39	104.79	109.90
33	L1	2677	A	P-O3'-C3'	6.39	127.37	119.70
33	L1	2968	G	N9-C1'-C2'	6.39	122.31	114.00
34	L3	74	A	N9-C1'-C2'	6.39	122.31	114.00
13	SQ	98	VAL	CA-CB-CG2	6.39	120.49	110.90
33	L1	2627	G	O4'-C1'-C2'	6.39	113.35	107.60
35	L2	147	C	N1-C1'-C2'	6.39	122.31	114.00
47	LU	83	ARG	CD-NE-CZ	6.39	132.55	123.60
64	LG	174	PRO	O-C-N	-6.39	112.47	122.70
32	S1	890	G	C1'-O4'-C4'	-6.39	104.79	109.90
33	L1	1258	C	O5'-C5'-C4'	6.39	123.84	111.70
33	L1	3183	G	C4'-C3'-C2'	-6.39	96.21	102.60
33	L1	3384	G	P-O5'-C5'	6.39	131.12	120.90
34	L3	120	C	O4'-C1'-C2'	6.39	113.35	107.60
35	L2	33	U	C4'-C3'-C2'	-6.39	96.21	102.60
37	LB	28	ARG	NE-CZ-NH1	6.39	123.50	120.30
38	LE	31	ARG	NE-CZ-NH2	-6.39	117.11	120.30
32	S1	998	A	O4'-C1'-N9	6.39	113.31	108.20
32	S1	1665	U	O3'-P-O5'	-6.39	91.86	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	168	A	O4'-C1'-C2'	-6.39	99.41	105.80
33	L1	855	U	P-O3'-C3'	-6.39	112.03	119.70
33	L1	2918	U	OP1-P-O3'	6.39	119.25	105.20
33	L1	3059	C	C5'-C4'-O4'	-6.39	101.44	109.10
33	L1	3246	U	C1'-O4'-C4'	-6.39	104.79	109.90
33	L1	3387	U	C3'-C2'-C1'	6.39	106.61	101.50
43	LO	120	VAL	CB-CA-C	6.39	123.54	111.40
32	S1	965	U	O3'-P-O5'	6.39	116.14	104.00
32	S1	1740	G	C4'-C3'-C2'	-6.39	96.21	102.60
33	L1	281	G	OP1-P-OP2	-6.39	110.02	119.60
33	L1	1860	A	O4'-C1'-C2'	-6.39	99.41	105.80
33	L1	2633	C	O4'-C4'-C3'	-6.39	97.61	104.00
33	L1	2646	A	O4'-C1'-C2'	-6.39	99.41	105.80
39	LF	31	ARG	NE-CZ-NH1	6.39	123.49	120.30
45	LQ	260	GLU	CA-C-N	6.39	134.98	117.10
32	S1	624	A	C2'-C3'-O3'	6.38	123.92	113.70
32	S1	1571	G	O4'-C1'-N9	6.38	113.31	108.20
33	L1	128	C	C3'-C2'-C1'	6.38	106.61	101.50
33	L1	2480	G	C5'-C4'-O4'	6.38	116.76	109.10
33	L1	3031	G	C5'-C4'-C3'	6.38	126.22	116.00
64	LG	210	ASP	CB-CG-OD1	6.38	124.05	118.30
68	LW	66	THR	N-CA-CB	6.38	122.43	110.30
33	L1	2750	A	O4'-C1'-N9	6.38	113.31	108.20
32	S1	13	C	C1'-O4'-C4'	-6.38	104.79	109.90
32	S1	259	A	O4'-C1'-C2'	-6.38	99.42	105.80
32	S1	1297	U	N1-C1'-C2'	-6.38	104.98	112.00
32	S1	1561	G	C1'-O4'-C4'	6.38	115.00	109.90
33	L1	2590	C	P-O3'-C3'	-6.38	112.04	119.70
48	LV	14	SER	CB-CA-C	-6.38	97.98	110.10
32	S1	622	U	C5'-C4'-O4'	6.38	116.76	109.10
32	S1	834	A	O4'-C1'-C2'	6.38	113.34	107.60
33	L1	2495	C	C1'-O4'-C4'	-6.38	104.80	109.90
1	Sa	200	PHE	CB-CG-CD1	-6.38	116.33	120.80
32	S1	1057	U	O4'-C1'-C2'	-6.38	99.42	105.80
32	S1	1397	A	C1'-O4'-C4'	6.38	115.00	109.90
32	S1	1565	U	O4'-C1'-C2'	-6.38	99.42	105.80
33	L1	53	C	O4'-C1'-N1	6.38	113.30	108.20
33	L1	995	C	O4'-C1'-N1	6.38	113.30	108.20
33	L1	1980	C	P-O3'-C3'	6.38	127.36	119.70
33	L1	2627	G	C3'-C2'-C1'	-6.38	96.40	101.50
33	L1	2795	G	C1'-O4'-C4'	-6.38	104.80	109.90
33	L1	3304	U	O4'-C4'-C3'	-6.38	97.62	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
80	LC	49	TYR	CB-CG-CD1	-6.38	117.17	121.00
32	S1	1713	C	P-O3'-C3'	6.38	127.35	119.70
33	L1	12	G	O4'-C1'-N9	-6.38	103.10	108.20
33	L1	1150	G	O4'-C1'-N9	6.38	113.30	108.20
33	L1	1182	A	P-O3'-C3'	-6.38	112.05	119.70
33	L1	1694	A	C1'-O4'-C4'	6.38	115.00	109.90
33	L1	1800	G	N9-C1'-C2'	-6.38	104.98	112.00
33	L1	2685	C	O4'-C1'-N1	6.38	113.30	108.20
33	L1	2748	G	N9-C1'-C2'	-6.38	104.98	112.00
33	L1	3168	C	C1'-O4'-C4'	6.38	115.00	109.90
33	L1	3169	C	P-O5'-C5'	6.38	131.10	120.90
32	S1	456	A	C1'-O4'-C4'	6.38	115.00	109.90
32	S1	802	A	P-O5'-C5'	-6.38	110.70	120.90
33	L1	72	A	O3'-P-O5'	-6.38	91.89	104.00
72	Lk	39	ARG	C-N-CA	6.38	137.64	121.70
79	Ls	260	TYR	CB-CG-CD2	-6.38	117.17	121.00
1	Sa	192	ARG	NE-CZ-NH2	-6.37	117.11	120.30
32	S1	1006	A	N9-C1'-C2'	6.37	122.28	114.00
33	L1	242	U	C1'-O4'-C4'	-6.37	104.80	109.90
33	L1	642	C	OP1-P-O3'	-6.37	91.18	105.20
33	L1	831	G	P-O3'-C3'	-6.37	112.05	119.70
80	LC	17	LEU	CB-CA-C	-6.37	98.09	110.20
80	LC	373	ARG	NE-CZ-NH2	-6.37	117.11	120.30
83	Lm	4	ARG	CB-CG-CD	-6.37	95.03	111.60
9	SK	33	PHE	C-N-CA	6.37	137.63	121.70
27	SH	92	ARG	NH1-CZ-NH2	-6.37	112.39	119.40
32	S1	153	U	P-O3'-C3'	6.37	127.35	119.70
33	L1	1438	A	O4'-C1'-C2'	6.37	113.33	107.60
33	L1	3156	G	C3'-C2'-C1'	-6.37	96.40	101.50
35	L2	89	G	O4'-C1'-N9	-6.37	103.10	108.20
82	LK	206	TYR	CD1-CE1-CZ	-6.37	114.07	119.80
32	S1	1282	G	C3'-C2'-C1'	6.37	106.60	101.50
33	L1	1496	G	C3'-C2'-C1'	-6.37	96.40	101.50
33	L1	1766	U	C5'-C4'-O4'	6.37	116.74	109.10
7	SI	135	PHE	CB-CG-CD1	6.37	125.26	120.80
32	S1	37	U	P-O3'-C3'	6.37	127.34	119.70
32	S1	437	C	C3'-C2'-C1'	6.37	106.59	101.50
32	S1	540	C	OP1-P-OP2	-6.37	110.05	119.60
32	S1	1241	G	C1'-O4'-C4'	-6.37	104.81	109.90
33	L1	800	C	C3'-C2'-C1'	6.37	106.59	101.50
33	L1	3004	G	C1'-O4'-C4'	-6.37	104.81	109.90
33	L1	3303	C	O4'-C1'-C2'	6.37	113.33	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	141	G	C1'-O4'-C4'	-6.37	104.81	109.90
38	LE	170	GLU	CA-CB-CG	6.37	127.41	113.40
11	SM	99	VAL	CA-CB-CG2	6.37	120.45	110.90
32	S1	1469	C	C4'-C3'-C2'	-6.37	96.23	102.60
33	L1	896	C	OP1-P-O3'	6.37	119.21	105.20
33	L1	1429	U	C4'-C3'-C2'	-6.37	96.23	102.60
33	L1	1698	C	C1'-O4'-C4'	-6.37	104.81	109.90
33	L1	2866	A	O4'-C1'-C2'	6.37	113.33	107.60
35	L2	55	G	O4'-C1'-C2'	-6.37	99.43	105.80
78	Le	69	ARG	C-N-CA	6.37	137.62	121.70
33	L1	26	A	OP1-P-OP2	-6.37	110.05	119.60
33	L1	171	G	O4'-C1'-N9	6.37	113.29	108.20
33	L1	1690	C	C1'-O4'-C4'	6.37	114.99	109.90
33	L1	3361	G	P-O3'-C3'	-6.37	112.06	119.70
47	LU	10	ARG	N-CA-CB	6.37	122.06	110.60
64	LG	52	PRO	N-CA-C	6.37	128.65	112.10
5	SE	38	ARG	NE-CZ-NH1	6.36	123.48	120.30
23	SU	78	PHE	CA-C-N	6.36	128.93	116.20
33	L1	3295	G	C5'-C4'-C3'	-6.36	105.82	116.00
35	L2	140	G	O4'-C1'-C2'	6.36	113.33	107.60
44	LR	10	ARG	CD-NE-CZ	6.36	132.51	123.60
47	LU	105	PHE	CB-CG-CD2	-6.36	116.35	120.80
72	Lk	75	VAL	CA-CB-CG1	6.36	120.44	110.90
33	L1	2644	U	C5'-C4'-C3'	-6.36	105.82	116.00
33	L1	2870	U	OP1-P-OP2	6.36	129.14	119.60
32	S1	318	C	C1'-O4'-C4'	-6.36	104.81	109.90
33	L1	228	C	C5'-C4'-C3'	-6.36	105.82	116.00
33	L1	463	G	P-O3'-C3'	6.36	127.33	119.70
33	L1	2450	G	N9-C1'-C2'	-6.36	105.00	112.00
33	L1	3280	U	O4'-C1'-N1	6.36	113.29	108.20
55	Lg	5	LYS	CB-CA-C	6.36	123.12	110.40
67	LS	12	VAL	CG1-CB-CG2	-6.36	100.72	110.90
8	SJ	114	THR	CA-CB-CG2	-6.36	103.50	112.40
32	S1	475	A	O4'-C1'-C2'	-6.36	99.44	105.80
33	L1	2386	A	O4'-C1'-N9	-6.36	103.11	108.20
31	S2	57	A	P-O5'-C5'	6.36	131.07	120.90
32	S1	1207	A	C3'-C2'-C1'	6.36	106.59	101.50
32	S1	1681	G	P-O3'-C3'	6.36	127.33	119.70
33	L1	1763	C	C3'-C2'-C1'	6.36	106.59	101.50
33	L1	2223	A	C1'-O4'-C4'	-6.36	104.81	109.90
33	L1	2587	G	O4'-C1'-C2'	6.36	113.32	107.60
14	SP	100	ARG	NE-CZ-NH1	6.36	123.48	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	590	C	C3'-C2'-C1'	-6.36	96.42	101.50
33	L1	954	A	OP1-P-OP2	-6.36	110.07	119.60
33	L1	1728	G	C3'-C2'-C1'	6.36	106.58	101.50
33	L1	1742	G	O5'-P-OP1	-6.36	99.98	105.70
33	L1	1900	C	O5'-P-OP1	-6.36	99.98	105.70
33	L1	2803	A	N9-C1'-C2'	6.36	122.26	114.00
33	L1	3081	G	OP1-P-O3'	6.36	119.18	105.20
57	L1	8	PHE	CG-CD1-CE1	6.36	127.79	120.80
57	L1	33	THR	CA-CB-CG2	-6.36	103.50	112.40
33	L1	1764	G	O3'-P-O5'	-6.35	91.93	104.00
32	S1	417	U	O4'-C1'-N1	6.35	113.28	108.20
32	S1	1430	A	O4'-C1'-N9	6.35	113.28	108.20
33	L1	1951	C	P-O5'-C5'	6.35	131.06	120.90
33	L1	2456	G	P-O3'-C3'	6.35	127.32	119.70
33	L1	2774	A	OP1-P-O3'	6.35	119.17	105.20
45	LQ	158	ARG	NE-CZ-NH1	6.35	123.48	120.30
55	Lg	29	HIS	N-CA-CB	6.35	122.03	110.60
70	Li	111	LYS	C-N-CA	6.35	137.58	121.70
80	LC	321	VAL	CA-CB-CG2	-6.35	101.37	110.90
33	L1	421	A	P-O3'-C3'	-6.35	112.08	119.70
33	L1	2201	G	C2'-C3'-O3'	6.35	123.86	113.70
32	S1	1181	G	O3'-P-O5'	6.35	116.06	104.00
32	S1	1539	A	C3'-C2'-C1'	6.35	106.58	101.50
33	L1	3	G	O4'-C1'-N9	6.35	113.28	108.20
33	L1	112	C	P-O5'-C5'	6.35	131.06	120.90
33	L1	125	G	N9-C1'-C2'	6.35	122.25	114.00
33	L1	972	C	O3'-P-O5'	-6.35	91.93	104.00
33	L1	1394	C	O5'-C5'-C4'	-6.35	99.64	111.70
33	L1	2691	U	C4'-C3'-C2'	-6.35	96.25	102.60
33	L1	2782	G	C3'-C2'-C1'	-6.35	96.42	101.50
49	LX	107	ALA	N-CA-CB	6.35	118.99	110.10
32	S1	1364	C	O4'-C1'-N1	6.35	113.28	108.20
32	S1	1514	G	N9-C1'-C2'	6.35	122.25	114.00
32	S1	1639	A	O4'-C1'-N9	6.35	113.28	108.20
33	L1	371	A	N9-C1'-C2'	-6.35	105.02	112.00
33	L1	597	C	C4'-C3'-C2'	-6.35	96.25	102.60
33	L1	1026	A	C1'-O4'-C4'	-6.35	104.82	109.90
33	L1	2280	C	N1-C1'-C2'	6.35	122.25	114.00
33	L1	2808	U	P-O3'-C3'	-6.35	112.08	119.70
33	L1	3010	G	C5'-C4'-C3'	6.35	126.16	116.00
40	LH	181	ARG	NE-CZ-NH1	6.35	123.47	120.30
47	LU	48	VAL	N-CA-C	-6.35	93.86	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	528	C	C5'-C4'-C3'	-6.35	105.85	116.00
32	S1	1728	G	OP1-P-O3'	6.34	119.16	105.20
33	L1	2177	U	C5'-C4'-O4'	-6.34	101.49	109.10
8	SJ	49	VAL	CA-CB-CG1	6.34	120.41	110.90
11	SM	145	THR	O-C-N	-6.34	112.55	122.70
32	S1	185	G	O4'-C1'-N9	6.34	113.27	108.20
32	S1	569	C	O4'-C1'-N1	6.34	113.27	108.20
32	S1	1122	U	C4'-C3'-C2'	6.34	108.94	102.60
32	S1	1403	G	N9-C1'-C2'	6.34	122.25	114.00
33	L1	188	U	C4'-C3'-C2'	6.34	108.94	102.60
33	L1	1943	G	O4'-C1'-N9	6.34	113.27	108.20
33	L1	1951	C	P-O3'-C3'	6.34	127.31	119.70
33	L1	2742	A	C4'-C3'-C2'	-6.34	96.26	102.60
33	L1	2763	C	C5'-C4'-O4'	-6.34	101.49	109.10
42	LP	120	TRP	CB-CG-CD2	-6.34	118.36	126.60
32	S1	1034	G	O4'-C1'-C2'	-6.34	99.46	105.80
32	S1	1107	G	P-O3'-C3'	-6.34	112.09	119.70
33	L1	2076	C	N1-C1'-C2'	-6.34	105.03	112.00
32	S1	1710	C	O5'-C5'-C4'	6.34	123.74	111.70
45	LQ	17	PHE	N-CA-CB	6.34	122.01	110.60
32	S1	1254	U	C5'-C4'-C3'	6.34	126.14	116.00
33	L1	995	C	P-O3'-C3'	6.34	127.30	119.70
33	L1	2744	C	C3'-C2'-C1'	6.34	106.57	101.50
33	L1	2856	U	N1-C1'-C2'	-6.34	105.03	112.00
56	Lh	42	ARG	NH1-CZ-NH2	-6.34	112.43	119.40
81	LD	166	GLU	OE1-CD-OE2	6.34	130.90	123.30
33	L1	1666	C	O4'-C1'-C2'	-6.33	99.47	105.80
33	L1	1820	C	O4'-C4'-C3'	-6.33	97.67	104.00
39	LF	135	ARG	NE-CZ-NH1	6.33	123.47	120.30
41	LM	72	LEU	CB-CA-C	-6.33	98.16	110.20
5	SE	56	GLU	CB-CA-C	-6.33	97.73	110.40
10	SL	6	GLY	N-CA-C	6.33	128.93	113.10
32	S1	2	A	C5'-C4'-C3'	6.33	126.14	116.00
32	S1	49	C	O4'-C1'-N1	6.33	113.27	108.20
32	S1	1804	A	C5'-C4'-C3'	6.33	126.13	116.00
80	LC	278	ARG	NE-CZ-NH1	6.33	123.47	120.30
45	LQ	257	THR	CB-CA-C	-6.33	94.50	111.60
4	SD	148	ARG	CA-C-O	-6.33	106.81	120.10
32	S1	644	U	O4'-C1'-N1	6.33	113.26	108.20
33	L1	103	G	O4'-C1'-N9	6.33	113.26	108.20
33	L1	2013	G	C5'-C4'-O4'	6.33	116.70	109.10
33	L1	2567	C	C1'-O4'-C4'	-6.33	104.84	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	LD	311	ASN	O-C-N	-6.33	112.57	122.70
31	S2	47	U	O4'-C1'-N1	6.33	113.26	108.20
32	S1	492	G	C2'-C3'-O3'	6.33	123.83	113.70
32	S1	1183	G	C1'-O4'-C4'	6.33	114.96	109.90
33	L1	487	C	O4'-C1'-C2'	-6.33	99.47	105.80
33	L1	3234	G	O4'-C1'-C2'	-6.33	99.47	105.80
33	L1	3383	C	P-O3'-C3'	6.33	127.29	119.70
34	L3	73	U	O4'-C1'-N1	6.33	113.26	108.20
34	L3	110	G	O4'-C1'-N9	6.33	113.26	108.20
67	LS	35	ASN	N-CA-CB	6.33	121.99	110.60
32	S1	1283	C	C3'-C2'-C1'	6.33	106.56	101.50
33	L1	2587	G	C1'-O4'-C4'	-6.33	104.84	109.90
35	L2	61	C	C1'-O4'-C4'	-6.33	104.84	109.90
32	S1	1151	G	N9-C1'-C2'	6.33	122.22	114.00
32	S1	1381	G	C4'-C3'-C2'	-6.33	96.28	102.60
32	S1	1477	A	O4'-C1'-N9	6.33	113.26	108.20
42	LP	194	ARG	NE-CZ-NH2	-6.33	117.14	120.30
70	Li	43	LYS	CA-C-N	6.33	131.12	117.20
73	Lp	53	ASN	CB-CA-C	-6.33	97.75	110.40
33	L1	1457	A	P-O5'-C5'	6.32	131.02	120.90
33	L1	2398	A	P-O3'-C3'	-6.32	112.11	119.70
70	Li	99	GLU	OE1-CD-OE2	-6.32	115.71	123.30
32	S1	888	U	O4'-C1'-C2'	-6.32	99.48	105.80
32	S1	1576	C	O4'-C1'-C2'	-6.32	99.48	105.80
33	L1	2493	C	C3'-C2'-C1'	6.32	106.56	101.50
45	LQ	73	ASP	O-C-N	-6.32	112.58	122.70
33	L1	754	G	C3'-C2'-C1'	-6.32	96.44	101.50
31	S2	39	G	C5'-C4'-C3'	6.32	126.11	116.00
32	S1	568	G	N9-C1'-C2'	-6.32	105.05	112.00
33	L1	1701	G	C2'-C3'-O3'	6.32	123.81	113.70
33	L1	1995	U	O4'-C1'-N1	6.32	113.26	108.20
64	LG	138	ASN	N-CA-CB	6.32	121.97	110.60
1	Sa	271	GLY	N-CA-C	6.32	128.89	113.10
32	S1	169	A	N9-C1'-C2'	-6.32	105.05	112.00
32	S1	1119	G	P-O3'-C3'	6.32	127.28	119.70
32	S1	1231	A	O4'-C1'-C2'	-6.32	99.48	105.80
32	S1	1369	C	C3'-C2'-C1'	6.32	106.55	101.50
32	S1	1417	A	N9-C1'-C2'	-6.32	105.05	112.00
32	S1	1688	G	C1'-O4'-C4'	6.32	114.95	109.90
33	L1	293	A	O4'-C1'-C2'	6.32	113.29	107.60
33	L1	1224	A	C5'-C4'-O4'	-6.32	101.52	109.10
33	L1	2409	U	N1-C1'-C2'	-6.32	105.05	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2683	A	C1'-O4'-C4'	6.32	114.95	109.90
45	LQ	296	ASP	CB-CG-OD1	6.32	123.98	118.30
46	LT	109	TYR	CB-CG-CD1	6.32	124.79	121.00
32	S1	194	G	OP1-P-OP2	-6.32	110.13	119.60
33	L1	1391	A	C1'-O4'-C4'	-6.32	104.85	109.90
33	L1	1695	C	P-O3'-C3'	6.32	127.28	119.70
46	LT	42	ARG	NE-CZ-NH2	-6.32	117.14	120.30
32	S1	767	G	C5'-C4'-C3'	-6.31	105.90	116.00
32	S1	1625	U	C3'-C2'-C1'	6.31	106.55	101.50
33	L1	478	G	C1'-O4'-C4'	-6.31	104.85	109.90
33	L1	1115	A	C2'-C3'-O3'	6.31	123.80	113.70
33	L1	1858	U	O4'-C1'-C2'	-6.31	99.49	105.80
36	LA	83	TYR	CG-CD2-CE2	-6.31	116.25	121.30
33	L1	2629	C	C3'-C2'-C1'	-6.31	96.45	101.50
32	S1	2	A	C2'-C3'-O3'	6.31	123.80	113.70
33	L1	3276	G	O4'-C1'-N9	6.31	113.25	108.20
33	L1	3296	C	P-O3'-C3'	-6.31	112.13	119.70
45	LQ	177	ASP	CB-CG-OD2	6.31	123.98	118.30
15	SS	7	ARG	NE-CZ-NH2	6.31	123.45	120.30
15	SS	63	ILE	CB-CA-C	6.31	124.22	111.60
23	SU	94	LYS	N-CA-CB	6.31	121.95	110.60
33	L1	163	U	N1-C1'-C2'	-6.31	105.06	112.00
33	L1	253	G	C1'-O4'-C4'	-6.31	104.85	109.90
33	L1	3362	A	C5'-C4'-C3'	-6.31	105.91	116.00
35	L2	163	G	P-O3'-C3'	6.31	127.27	119.70
32	S1	1276	U	O3'-P-O5'	6.31	115.98	104.00
33	L1	746	C	C1'-O4'-C4'	-6.31	104.86	109.90
11	SM	121	ARG	NE-CZ-NH1	6.30	123.45	120.30
29	ST	15	ARG	CB-CA-C	-6.30	97.79	110.40
32	S1	1099	G	C1'-O4'-C4'	-6.30	104.86	109.90
33	L1	503	U	N1-C1'-C2'	6.30	122.19	114.00
32	S1	1191	U	O4'-C1'-C2'	-6.30	99.50	105.80
32	S1	1302	C	O4'-C1'-N1	6.30	113.24	108.20
33	L1	1515	U	C1'-O4'-C4'	-6.30	104.86	109.90
33	L1	2703	G	N9-C1'-C2'	6.30	122.19	114.00
33	L1	2879	G	N9-C1'-C2'	-6.30	105.07	112.00
35	L2	126	G	O4'-C1'-C2'	-6.30	99.50	105.80
57	L1	12	ARG	NE-CZ-NH2	-6.30	117.15	120.30
25	SC	136	ILE	N-CA-C	6.30	128.01	111.00
32	S1	578	G	N9-C1'-C2'	-6.30	105.07	112.00
33	L1	575	C	C5'-C4'-C3'	-6.30	105.92	116.00
33	L1	663	G	C1'-O4'-C4'	-6.30	104.86	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	665	G	P-O5'-C5'	-6.30	110.82	120.90
33	L1	2656	C	C3'-C2'-C1'	-6.30	96.46	101.50
33	L1	2899	A	O4'-C1'-C2'	-6.30	99.50	105.80
33	L1	3049	A	O4'-C1'-C2'	-6.30	99.50	105.80
13	SQ	69	ILE	CB-CA-C	6.30	124.20	111.60
33	L1	1211	G	C4'-C3'-C2'	-6.30	96.30	102.60
33	L1	1631	G	P-O3'-C3'	6.30	127.26	119.70
3	SB	162	GLN	O-C-N	-6.30	109.14	121.10
32	S1	686	A	P-O3'-C3'	6.30	127.25	119.70
33	L1	211	A	O4'-C1'-C2'	-6.30	99.50	105.80
33	L1	702	G	C1'-O4'-C4'	-6.30	104.86	109.90
33	L1	1058	A	C1'-O4'-C4'	-6.30	104.86	109.90
33	L1	2589	G	P-O5'-C5'	6.30	130.97	120.90
33	L1	2741	G	OP1-P-OP2	-6.30	110.16	119.60
33	L1	2909	A	O4'-C1'-C2'	-6.30	99.50	105.80
45	LQ	237	GLU	C-N-CA	6.30	137.44	121.70
47	LU	88	ARG	O-C-N	-6.30	112.63	122.70
25	SC	160	PHE	CB-CG-CD1	6.29	125.21	120.80
32	S1	834	A	C1'-O4'-C4'	-6.29	104.86	109.90
33	L1	789	A	O3'-P-O5'	6.29	115.96	104.00
33	L1	2744	C	C5'-C4'-C3'	-6.29	105.93	116.00
15	SS	51	TYR	CA-CB-CG	6.29	125.36	113.40
33	L1	1666	C	C1'-O4'-C4'	-6.29	104.86	109.90
33	L1	2599	U	C1'-O4'-C4'	6.29	114.93	109.90
33	L1	3287	A	OP1-P-OP2	-6.29	110.16	119.60
45	LQ	183	PHE	CA-CB-CG	6.29	129.00	113.90
32	S1	1683	G	O4'-C1'-N9	-6.29	103.17	108.20
33	L1	2502	U	C3'-C2'-C1'	-6.29	96.47	101.50
33	L1	3339	G	OP2-P-O3'	6.29	119.04	105.20
49	LX	56	TYR	CG-CD2-CE2	6.29	126.33	121.30
67	LS	114	SER	CB-CA-C	6.29	122.06	110.10
32	S1	589	A	N9-C1'-C2'	6.29	122.18	114.00
33	L1	960	C	C1'-O4'-C4'	-6.29	104.87	109.90
33	L1	1388	C	C2'-C3'-O3'	6.29	123.77	113.70
33	L1	2670	A	C3'-C2'-C1'	6.29	106.53	101.50
81	LD	328	ALA	CB-CA-C	-6.29	100.67	110.10
20	SZ	11	ALA	N-CA-CB	6.29	118.90	110.10
25	SC	161	SER	C-N-CA	6.29	137.42	121.70
33	L1	548	G	C1'-O4'-C4'	-6.29	104.87	109.90
33	L1	1534	C	P-O5'-C5'	6.29	130.96	120.90
33	L1	3040	G	C3'-C2'-C1'	-6.29	96.47	101.50
33	L1	3048	C	C3'-C2'-C1'	6.29	106.53	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3099	G	N9-C1'-C2'	6.29	122.17	114.00
33	L1	3112	U	O4'-C1'-N1	6.29	113.23	108.20
41	LM	51	ARG	N-CA-C	6.29	127.98	111.00
57	L1	77	ASN	N-CA-CB	6.29	121.92	110.60
72	Lk	49	GLU	CB-CA-C	-6.29	97.82	110.40
4	SD	153	ILE	CA-CB-CG2	6.29	123.47	110.90
32	S1	611	G	C4'-C3'-C2'	6.29	108.89	102.60
32	S1	1098	A	P-O3'-C3'	-6.29	112.16	119.70
33	L1	759	C	C1'-O4'-C4'	-6.29	104.87	109.90
33	L1	2679	A	O4'-C1'-N9	6.29	113.23	108.20
2	SA	228	ASP	CB-CG-OD1	6.29	123.96	118.30
31	S2	56	A	C1'-O4'-C4'	6.29	114.93	109.90
32	S1	210	A	O4'-C1'-N9	6.29	113.23	108.20
32	S1	1421	U	C4'-C3'-C2'	-6.29	96.31	102.60
33	L1	1742	G	C4'-C3'-C2'	-6.29	96.31	102.60
33	L1	2633	C	O3'-P-O5'	-6.29	92.06	104.00
33	L1	3031	G	N9-C1'-C2'	6.29	122.17	114.00
33	L1	3155	C	C5'-C4'-C3'	-6.29	105.94	116.00
33	L1	3236	A	N9-C1'-C2'	6.29	122.17	114.00
83	Lm	27	LYS	N-CA-CB	6.29	121.91	110.60
33	L1	2654	G	N9-C1'-C2'	6.28	122.17	114.00
33	L1	2680	G	P-O3'-C3'	6.28	127.24	119.70
81	LD	313	GLU	C-N-CA	6.28	137.41	121.70
32	S1	988	G	P-O3'-C3'	6.28	127.24	119.70
2	SA	159	ARG	NE-CZ-NH1	6.28	123.44	120.30
23	SU	16	LYS	N-CA-CB	6.28	121.90	110.60
32	S1	375	G	O4'-C1'-N9	6.28	113.22	108.20
32	S1	1665	U	O5'-C5'-C4'	6.28	123.64	111.70
33	L1	318	G	C4'-C3'-C2'	-6.28	96.32	102.60
33	L1	989	U	P-O3'-C3'	6.28	127.24	119.70
33	L1	1515	U	O4'-C1'-N1	6.28	113.22	108.20
33	L1	1751	G	C5'-C4'-C3'	-6.28	105.95	116.00
33	L1	2636	U	C3'-C2'-C1'	6.28	106.53	101.50
48	LV	154	LYS	CB-CA-C	-6.28	97.84	110.40
33	L1	2599	U	O4'-C4'-C3'	6.28	111.12	106.10
52	Lb	93	ARG	NE-CZ-NH1	-6.28	117.16	120.30
32	S1	990	G	C3'-C2'-C1'	6.28	106.52	101.50
32	S1	1401	C	C3'-C2'-C1'	6.28	106.52	101.50
32	S1	1795	U	O4'-C1'-C2'	-6.28	99.52	105.80
33	L1	474	G	O4'-C1'-C2'	6.28	113.25	107.60
33	L1	491	G	N9-C1'-C2'	6.28	122.16	114.00
33	L1	616	A	O4'-C1'-N9	6.28	113.22	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	LQ	248	ARG	NE-CZ-NH2	-6.28	117.16	120.30
1	Sa	257	PHE	CB-CG-CD1	-6.28	116.41	120.80
15	SS	92	PRO	N-CA-CB	-6.28	95.70	102.60
32	S1	1297	U	C4'-C3'-C2'	-6.28	96.32	102.60
33	L1	664	A	O4'-C1'-N9	6.28	113.22	108.20
33	L1	1975	G	P-O5'-C5'	6.28	130.94	120.90
33	L1	2852	G	C3'-C2'-C1'	6.28	106.52	101.50
79	Ls	234	TYR	CB-CA-C	6.28	122.95	110.40
13	SQ	98	VAL	N-CA-CB	6.27	125.30	111.50
25	SC	71	ARG	NE-CZ-NH2	-6.27	117.16	120.30
32	S1	1741	A	O4'-C1'-N9	6.27	113.22	108.20
32	S1	1742	A	O4'-C1'-N9	6.27	113.22	108.20
70	Li	93	ARG	CB-CA-C	6.27	122.94	110.40
33	L1	427	U	O4'-C1'-N1	6.27	113.22	108.20
33	L1	3121	C	C1'-O4'-C4'	-6.27	104.88	109.90
80	LC	5	LYS	O-C-N	-6.27	112.67	122.70
2	SA	11	ALA	CA-C-N	6.27	130.99	117.20
20	SZ	10	ARG	NE-CZ-NH2	6.27	123.44	120.30
32	S1	353	G	O4'-C1'-N9	6.27	113.22	108.20
32	S1	693	C	O4'-C1'-C2'	-6.27	99.53	105.80
33	L1	1200	A	O4'-C1'-N9	6.27	113.22	108.20
33	L1	3329	G	O4'-C1'-C2'	6.27	113.24	107.60
35	L2	151	C	P-O3'-C3'	6.27	127.22	119.70
14	SP	91	TYR	CB-CG-CD2	6.27	124.76	121.00
32	S1	538	A	P-O3'-C3'	6.27	127.22	119.70
32	S1	584	A	O4'-C1'-N9	-6.27	103.19	108.20
33	L1	1090	C	C4'-C3'-C2'	-6.27	96.33	102.60
33	L1	3236	A	C1'-O4'-C4'	-6.27	104.89	109.90
59	Lo	24	PRO	N-CA-C	-6.27	95.80	112.10
71	Lj	9	VAL	N-CA-CB	6.27	125.29	111.50
78	Le	67	LEU	N-CA-CB	6.27	122.93	110.40
3	SB	148	LYS	CB-CA-C	6.27	122.93	110.40
23	SU	81	ILE	CA-C-N	6.27	130.98	117.20
32	S1	416	A	C1'-O4'-C4'	6.27	114.91	109.90
33	L1	557	C	C3'-C2'-C1'	6.26	106.51	101.50
33	L1	1083	C	P-O5'-C5'	6.26	130.92	120.90
33	L1	1276	C	N1-C1'-C2'	-6.26	105.11	112.00
33	L1	2412	A	OP1-P-O3'	6.26	118.98	105.20
33	L1	2611	G	OP2-P-O3'	6.26	118.98	105.20
33	L1	2741	G	O4'-C1'-N9	6.26	113.21	108.20
33	L1	2808	U	C3'-C2'-C1'	-6.26	96.49	101.50
33	L1	3269	C	C3'-C2'-C1'	6.26	106.51	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
71	Lj	4	ARG	N-CA-CB	6.26	121.88	110.60
73	Lp	52	LYS	CB-CG-CD	6.26	127.89	111.60
33	L1	678	G	C3'-C2'-C1'	6.26	106.51	101.50
32	S1	1780	U	OP1-P-O3'	6.26	118.97	105.20
33	L1	720	G	O4'-C1'-N9	-6.26	103.19	108.20
33	L1	1067	G	O3'-P-O5'	6.26	115.90	104.00
33	L1	2615	U	O5'-P-OP2	-6.26	100.06	105.70
80	LC	352	ARG	CB-CA-C	-6.26	97.88	110.40
4	SD	54	TYR	N-CA-C	-6.26	94.10	111.00
5	SE	100	ARG	NE-CZ-NH1	-6.26	117.17	120.30
27	SH	110	ILE	CA-CB-CG2	-6.26	98.38	110.90
31	S2	64	G	O4'-C1'-N9	6.26	113.21	108.20
32	S1	1592	G	C5'-C4'-O4'	6.26	116.61	109.10
32	S1	1685	U	N1-C1'-C2'	-6.26	105.12	112.00
33	L1	1405	G	N9-C1'-C2'	-6.26	105.11	112.00
33	L1	1525	U	OP1-P-OP2	-6.26	110.21	119.60
33	L1	2061	C	O4'-C1'-C2'	6.26	113.23	107.60
34	L3	25	G	C5'-C4'-C3'	6.26	126.02	116.00
32	S1	479	A	C5'-C4'-C3'	-6.26	105.99	116.00
33	L1	1025	G	O4'-C1'-N9	6.26	113.20	108.20
33	L1	3241	C	C3'-C2'-C1'	6.26	106.50	101.50
55	Lg	86	LYS	CB-CA-C	-6.26	97.89	110.40
69	La	93	GLU	CB-CA-C	6.26	122.91	110.40
79	Ls	235	PRO	C-N-CA	-6.26	106.06	121.70
2	SA	44	LYS	C-N-CA	6.25	137.34	121.70
10	SL	5	ARG	O-C-N	-6.25	112.57	123.20
27	SH	90	THR	O-C-N	-6.25	112.69	122.70
32	S1	1537	U	P-O3'-C3'	6.25	127.20	119.70
32	S1	1631	C	C1'-O4'-C4'	-6.25	104.90	109.90
33	L1	1373	A	O4'-C1'-C2'	6.25	113.23	107.60
33	L1	1606	C	OP1-P-OP2	-6.25	110.22	119.60
33	L1	1710	G	O4'-C1'-C2'	6.25	113.23	107.60
33	L1	3085	C	C3'-C2'-C1'	6.25	106.50	101.50
34	L3	14	C	C5'-C4'-O4'	-6.25	101.60	109.10
23	SU	28	PHE	O-C-N	6.25	132.70	122.70
33	L1	1160	G	C1'-O4'-C4'	-6.25	104.90	109.90
33	L1	1537	A	N9-C1'-C2'	-6.25	105.12	112.00
33	L1	3094	C	C2'-C3'-O3'	6.25	123.70	113.70
34	L3	8	A	N9-C1'-C2'	6.25	122.13	114.00
33	L1	3011	U	C5'-C4'-C3'	6.25	126.00	116.00
37	LB	126	PHE	CB-CG-CD2	6.25	125.17	120.80
32	S1	1073	C	C1'-O4'-C4'	-6.25	104.90	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	397	A	O5'-P-OP2	6.25	118.20	110.70
33	L1	642	C	N1-C1'-C2'	-6.25	105.13	112.00
33	L1	683	U	P-O3'-C3'	6.25	127.20	119.70
33	L1	1142	G	N9-C1'-C2'	6.25	122.12	114.00
33	L1	2701	G	O3'-P-O5'	-6.25	92.13	104.00
33	L1	2999	G	C4'-C3'-O3'	6.25	125.50	113.00
33	L1	3379	C	C5'-C4'-O4'	-6.25	101.60	109.10
80	LC	32	PHE	CB-CG-CD2	-6.25	116.43	120.80
23	SU	17	PHE	CA-C-O	-6.25	106.98	120.10
32	S1	1156	A	OP1-P-O3'	-6.25	91.46	105.20
33	L1	907	A	P-O3'-C3'	-6.25	112.20	119.70
33	L1	1150	G	C1'-O4'-C4'	-6.25	104.90	109.90
33	L1	1371	G	C1'-O4'-C4'	-6.25	104.90	109.90
33	L1	1385	C	O4'-C1'-N1	6.25	113.20	108.20
33	L1	1515	U	N1-C1'-C2'	6.25	122.12	114.00
33	L1	1780	C	O4'-C1'-C2'	-6.25	99.55	105.80
15	SS	124	ARG	N-CA-CB	-6.25	99.36	110.60
33	L1	220	G	C3'-C2'-C1'	-6.25	96.50	101.50
32	S1	94	A	O4'-C1'-N9	6.24	113.19	108.20
32	S1	584	A	C2'-C3'-O3'	6.24	123.69	113.70
32	S1	1509	C	C3'-C2'-C1'	6.24	106.50	101.50
32	S1	1804	A	C1'-O4'-C4'	6.24	114.89	109.90
33	L1	38	A	O4'-C1'-C2'	-6.24	99.56	105.80
33	L1	718	C	O4'-C1'-N1	6.24	113.19	108.20
33	L1	1486	G	C3'-C2'-C1'	-6.24	96.50	101.50
33	L1	2011	G	O4'-C1'-N9	6.24	113.19	108.20
71	Lj	8	ARG	CA-C-O	-6.24	106.99	120.10
32	S1	1503	C	O4'-C1'-C2'	-6.24	99.56	105.80
33	L1	1737	C	C5'-C4'-C3'	-6.24	106.01	116.00
32	S1	1402	C	O4'-C1'-C2'	-6.24	99.56	105.80
33	L1	1205	C	N1-C1'-C2'	6.24	122.11	114.00
33	L1	1753	A	C3'-C2'-C1'	6.24	106.49	101.50
33	L1	3057	A	C3'-C2'-C1'	6.24	106.49	101.50
43	LO	14	HIS	C-N-CA	6.24	137.30	121.70
4	SD	130	GLN	N-CA-C	-6.24	94.16	111.00
32	S1	476	U	C3'-C2'-C1'	6.24	106.49	101.50
32	S1	611	G	C1'-O4'-C4'	-6.24	104.91	109.90
32	S1	909	G	O4'-C1'-N9	6.24	113.19	108.20
33	L1	581	G	P-O5'-C5'	-6.24	110.92	120.90
33	L1	710	C	P-O5'-C5'	6.24	130.88	120.90
33	L1	1650	G	N9-C1'-C2'	6.24	122.11	114.00
33	L1	2668	U	O5'-C5'-C4'	6.24	123.55	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	SM	42	ASN	CA-CB-CG	6.24	127.12	113.40
32	S1	1682	U	C3'-C2'-C1'	6.24	106.49	101.50
33	L1	383	A	C3'-C2'-C1'	6.24	106.49	101.50
4	SD	138	TYR	N-CA-C	-6.24	94.16	111.00
32	S1	578	G	C4'-C3'-C2'	6.24	108.84	102.60
32	S1	1122	U	O4'-C4'-C3'	-6.24	97.77	104.00
33	L1	307	C	O5'-C5'-C4'	6.24	123.55	111.70
33	L1	1335	C	O4'-C1'-N1	-6.24	103.21	108.20
33	L1	1744	C	C3'-C2'-C1'	6.24	106.49	101.50
33	L1	2620	U	C1'-O4'-C4'	6.24	114.89	109.90
34	L3	117	U	C5'-C4'-O4'	-6.24	101.62	109.10
83	Lm	20	ALA	N-CA-C	6.24	127.83	111.00
33	L1	1268	G	O4'-C1'-N9	6.23	113.19	108.20
33	L1	2397	A	C3'-C2'-C1'	6.23	106.49	101.50
33	L1	2862	U	P-O5'-C5'	6.23	130.87	120.90
33	L1	3137	G	O4'-C1'-C2'	6.23	113.21	107.60
32	S1	1017	U	C1'-O4'-C4'	-6.23	104.91	109.90
33	L1	1007	A	C3'-C2'-C1'	6.23	106.48	101.50
33	L1	1194	C	O4'-C1'-N1	-6.23	103.21	108.20
33	L1	2253	U	O4'-C1'-N1	6.23	113.19	108.20
33	L1	3334	A	C5'-C4'-C3'	-6.23	106.03	116.00
80	LC	92	TYR	CB-CG-CD1	-6.23	117.26	121.00
3	SB	29	LEU	CB-CG-CD1	6.23	121.59	111.00
32	S1	1802	G	O4'-C1'-C2'	6.23	113.21	107.60
33	L1	132	U	O4'-C1'-N1	6.23	113.18	108.20
33	L1	488	U	C5'-C4'-O4'	6.23	116.58	109.10
33	L1	571	G	C1'-O4'-C4'	-6.23	104.92	109.90
33	L1	1627	U	C3'-C2'-C1'	6.23	106.48	101.50
33	L1	1975	G	O4'-C1'-N9	6.23	113.19	108.20
33	L1	2064	C	C1'-O4'-C4'	-6.23	104.92	109.90
64	LG	194	ALA	N-CA-CB	6.23	118.82	110.10
32	S1	410	U	O4'-C1'-N1	6.23	113.18	108.20
32	S1	716	A	O5'-C5'-C4'	6.23	123.53	111.70
33	L1	302	G	C1'-O4'-C4'	6.23	114.88	109.90
33	L1	814	U	N1-C1'-C2'	6.23	122.10	114.00
33	L1	25	U	C1'-O4'-C4'	6.23	114.88	109.90
33	L1	551	A	C3'-C2'-C1'	6.23	106.48	101.50
33	L1	953	G	N9-C1'-C2'	6.23	122.09	114.00
33	L1	966	G	C3'-C2'-C1'	6.23	106.48	101.50
33	L1	1564	C	O4'-C4'-C3'	-6.23	97.77	104.00
33	L1	1683	U	O4'-C1'-N1	6.23	113.18	108.20
33	L1	1828	C	N1-C1'-C2'	6.23	122.10	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3339	G	O3'-P-O5'	-6.23	92.17	104.00
32	S1	977	G	C1'-O4'-C4'	-6.23	104.92	109.90
33	L1	1458	U	C5'-C4'-C3'	-6.23	106.04	116.00
33	L1	3298	G	O4'-C4'-C3'	-6.23	97.77	104.00
48	LV	26	PHE	CB-CG-CD1	6.23	125.16	120.80
4	SD	151	ASP	N-CA-CB	6.22	121.80	110.60
32	S1	565	G	C3'-C2'-C1'	-6.22	96.52	101.50
32	S1	1134	U	O4'-C1'-C2'	-6.22	99.58	105.80
33	L1	704	G	C3'-C2'-C1'	6.22	106.48	101.50
33	L1	1134	G	O4'-C1'-N9	-6.22	103.22	108.20
33	L1	3297	A	P-O3'-C3'	6.22	127.17	119.70
27	SH	70	ASN	N-CA-CB	-6.22	99.40	110.60
32	S1	484	A	P-O5'-C5'	6.22	130.85	120.90
32	S1	574	A	OP2-P-O3'	6.22	118.89	105.20
33	L1	567	G	N9-C1'-C2'	6.22	122.09	114.00
33	L1	1604	U	C3'-C2'-C1'	6.22	106.48	101.50
32	S1	1342	C	O4'-C1'-C2'	-6.22	99.58	105.80
32	S1	1788	G	C4'-C3'-C2'	-6.22	96.38	102.60
33	L1	742	G	O4'-C1'-N9	6.22	113.17	108.20
33	L1	1373	A	C3'-C2'-C1'	-6.22	96.53	101.50
33	L1	2124	G	O4'-C1'-N9	6.22	113.18	108.20
33	L1	2356	A	O4'-C1'-N9	-6.22	103.22	108.20
33	L1	2529	C	C1'-O4'-C4'	-6.22	104.92	109.90
35	L2	151	C	C3'-C2'-C1'	6.22	106.47	101.50
78	Le	61	ASP	CB-CG-OD2	-6.22	112.70	118.30
84	LI	108	ALA	CA-C-N	6.22	130.88	117.20
6	SF	70	ASN	N-CA-CB	-6.22	99.41	110.60
33	L1	208	G	P-O5'-C5'	6.22	130.85	120.90
33	L1	2159	U	C3'-C2'-C1'	6.22	106.47	101.50
40	LH	76	PHE	O-C-N	-6.22	112.75	122.70
4	SD	133	GLN	CA-CB-CG	6.22	127.08	113.40
32	S1	591	C	C1'-O4'-C4'	-6.22	104.93	109.90
32	S1	1287	U	O4'-C1'-N1	6.22	113.17	108.20
33	L1	212	G	O4'-C1'-C2'	-6.22	99.58	105.80
33	L1	2753	C	C1'-O4'-C4'	-6.22	104.93	109.90
33	L1	3045	A	C3'-C2'-C1'	6.22	106.47	101.50
35	L2	8	C	O3'-P-O5'	6.22	115.81	104.00
33	L1	1038	C	O4'-C1'-C2'	-6.21	99.59	105.80
33	L1	2219	A	C3'-C2'-C1'	6.21	106.47	101.50
35	L2	27	C	O4'-C1'-C2'	-6.21	99.58	105.80
47	LU	57	TYR	CB-CG-CD2	-6.21	117.27	121.00
32	S1	167	A	O4'-C1'-N9	6.21	113.17	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	665	G	C3'-C2'-C1'	6.21	106.47	101.50
33	L1	1959	U	C1'-O4'-C4'	6.21	114.87	109.90
67	LS	120	PHE	O-C-N	-6.21	109.30	121.10
78	Le	205	TRP	N-CA-CB	6.21	121.78	110.60
1	Sa	126	GLY	C-N-CA	-6.21	109.26	122.30
17	SV	28	TRP	N-CA-CB	6.21	121.78	110.60
32	S1	31	C	O4'-C1'-N1	6.21	113.17	108.20
33	L1	1542	A	N9-C1'-C2'	6.21	122.08	114.00
33	L1	1693	A	O4'-C1'-C2'	-6.21	99.59	105.80
33	L1	2632	U	O4'-C1'-C2'	-6.21	99.59	105.80
33	L1	2858	G	C1'-O4'-C4'	-6.21	104.93	109.90
33	L1	3304	U	C3'-C2'-C1'	-6.21	96.53	101.50
33	L1	3337	G	C5'-C4'-O4'	-6.21	101.65	109.10
33	L1	1343	C	C4'-C3'-C2'	6.21	108.81	102.60
68	LW	107	ALA	N-CA-CB	6.21	118.79	110.10
33	L1	592	U	P-O3'-C3'	-6.21	112.25	119.70
33	L1	2776	U	O4'-C1'-C2'	-6.21	99.59	105.80
33	L1	2859	C	C1'-O4'-C4'	-6.21	104.93	109.90
33	L1	3174	C	P-O3'-C3'	6.21	127.15	119.70
32	S1	1396	U	O4'-C1'-N1	6.21	113.17	108.20
32	S1	1421	U	O4'-C1'-N1	6.21	113.17	108.20
32	S1	1543	U	P-O3'-C3'	-6.21	112.25	119.70
33	L1	1865	C	O4'-C1'-C2'	-6.21	99.59	105.80
33	L1	2681	A	C3'-C2'-C1'	6.21	106.46	101.50
52	Lb	93	ARG	N-CA-CB	6.21	121.77	110.60
72	Lk	101	ARG	NE-CZ-NH2	6.21	123.40	120.30
32	S1	483	C	O3'-P-O5'	6.21	115.79	104.00
32	S1	1748	U	O4'-C1'-N1	-6.21	103.24	108.20
33	L1	2507	U	C4'-C3'-C2'	6.21	108.81	102.60
78	Le	197	PHE	CB-CG-CD1	6.21	125.14	120.80
32	S1	1294	U	O4'-C1'-N1	6.20	113.16	108.20
33	L1	164	C	P-O5'-C5'	6.20	130.83	120.90
33	L1	255	C	C3'-C2'-C1'	6.20	106.46	101.50
33	L1	562	G	C4'-C3'-C2'	-6.20	96.40	102.60
33	L1	1262	U	C5'-C4'-C3'	6.20	125.92	116.00
33	L1	1905	A	C1'-O4'-C4'	6.20	114.86	109.90
33	L1	2409	U	C5'-C4'-C3'	-6.20	106.08	116.00
33	L1	2766	U	O4'-C4'-C3'	-6.20	97.80	104.00
46	LT	9	ARG	NH1-CZ-NH2	-6.20	112.58	119.40
47	LU	126	ILE	CB-CA-C	-6.20	99.19	111.60
47	LU	140	MET	N-CA-C	-6.20	94.25	111.00
66	LN	64	ARG	C-N-CA	6.20	137.21	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	SM	117	ILE	CA-C-O	6.20	133.12	120.10
33	L1	1110	C	O4'-C1'-N1	6.20	113.16	108.20
33	L1	1715	C	P-O5'-C5'	6.20	130.82	120.90
33	L1	2100	A	C3'-C2'-C1'	6.20	106.46	101.50
33	L1	2568	G	C3'-C2'-C1'	6.20	106.46	101.50
33	L1	2851	C	O4'-C1'-N1	6.20	113.16	108.20
3	SB	78	ASN	CB-CA-C	6.20	122.80	110.40
32	S1	1753	U	C3'-C2'-C1'	-6.20	96.54	101.50
33	L1	176	A	OP1-P-OP2	-6.20	110.30	119.60
33	L1	1778	C	O4'-C1'-C2'	-6.20	99.60	105.80
33	L1	3169	C	C3'-C2'-C1'	6.20	106.46	101.50
33	L1	3247	C	N1-C1'-C2'	6.20	122.06	114.00
79	Ls	35	ASN	N-CA-CB	-6.20	99.44	110.60
4	SD	136	ILE	N-CA-CB	6.20	125.06	110.80
23	SU	16	LYS	CA-CB-CG	6.20	127.03	113.40
33	L1	498	G	C4'-C3'-O3'	6.20	125.40	113.00
33	L1	2663	U	O4'-C1'-N1	6.20	113.16	108.20
33	L1	2906	U	N1-C1'-C2'	6.20	122.06	114.00
35	L2	53	G	C3'-C2'-C1'	-6.20	96.54	101.50
66	LN	21	TYR	CD1-CE1-CZ	6.20	125.38	119.80
70	Li	43	LYS	N-CA-CB	6.20	121.76	110.60
33	L1	449	G	N9-C1'-C2'	6.20	122.06	114.00
33	L1	1789	C	P-O5'-C5'	-6.20	110.99	120.90
33	L1	2945	G	O5'-P-OP2	-6.20	100.12	105.70
38	LE	116	MET	C-N-CA	6.20	137.19	121.70
80	LC	179	ALA	CB-CA-C	-6.20	100.80	110.10
33	L1	585	A	N9-C1'-C2'	6.20	122.05	114.00
33	L1	1391	A	O3'-P-O5'	-6.20	92.23	104.00
33	L1	2867	U	O4'-C1'-N1	6.20	113.16	108.20
34	L3	110	G	O4'-C4'-C3'	-6.20	97.81	104.00
73	Lp	26	ARG	NE-CZ-NH1	6.20	123.40	120.30
32	S1	826	C	P-O5'-C5'	6.19	130.81	120.90
32	S1	1136	A	O4'-C1'-N9	6.19	113.16	108.20
32	S1	109	A	P-O3'-C3'	6.19	127.13	119.70
32	S1	896	C	C3'-C2'-C1'	6.19	106.45	101.50
32	S1	936	C	OP1-P-OP2	-6.19	110.31	119.60
33	L1	1723	C	N1-C1'-C2'	6.19	122.05	114.00
35	L2	112	C	N1-C1'-C2'	6.19	122.05	114.00
73	Lp	51	ILE	C-N-CA	6.19	137.18	121.70
32	S1	1297	U	O4'-C1'-C2'	-6.19	99.61	105.80
32	S1	1615	G	O4'-C1'-C2'	-6.19	99.61	105.80
33	L1	2791	U	C4'-C3'-C2'	-6.19	96.41	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2998	A	O4'-C1'-C2'	-6.19	99.61	105.80
34	L3	100	A	P-O3'-C3'	-6.19	112.27	119.70
42	LP	13	ARG	NE-CZ-NH2	-6.19	117.20	120.30
32	S1	1664	U	P-O3'-C3'	-6.19	112.27	119.70
33	L1	1165	C	P-O3'-C3'	6.19	127.13	119.70
33	L1	2205	G	C5'-C4'-C3'	6.19	125.90	116.00
33	L1	2740	C	P-O3'-C3'	-6.19	112.27	119.70
32	S1	1092	A	P-O5'-C5'	6.19	130.80	120.90
33	L1	4	C	O4'-C1'-C2'	-6.19	99.61	105.80
33	L1	58	G	OP1-P-OP2	-6.19	110.32	119.60
33	L1	2582	G	P-O3'-C3'	6.19	127.12	119.70
33	L1	3091	U	C3'-C2'-C1'	6.19	106.45	101.50
33	L1	460	A	P-O5'-C5'	-6.19	111.00	120.90
33	L1	1954	G	O3'-P-O5'	6.19	115.75	104.00
32	S1	1512	C	O4'-C1'-C2'	-6.18	99.61	105.80
32	S1	1660	C	O4'-C4'-C3'	-6.18	97.81	104.00
33	L1	2679	A	N9-C1'-C2'	6.18	122.04	114.00
33	L1	3160	G	C5'-C4'-C3'	-6.18	106.11	116.00
33	L1	3305	U	C2'-C3'-O3'	6.18	123.60	113.70
44	LR	88	ASP	CB-CG-OD2	6.18	123.87	118.30
20	SZ	24	GLN	N-CA-CB	6.18	121.73	110.60
25	SC	162	LEU	CA-CB-CG	-6.18	101.08	115.30
33	L1	331	G	OP2-P-O3'	6.18	118.80	105.20
33	L1	426	A	N9-C1'-C2'	6.18	122.04	114.00
33	L1	437	C	C1'-O4'-C4'	6.18	114.85	109.90
33	L1	1802	A	O4'-C1'-C2'	6.18	113.16	107.60
33	L1	2774	A	O4'-C1'-C2'	-6.18	99.62	105.80
32	S1	350	G	C1'-O4'-C4'	-6.18	104.95	109.90
33	L1	1057	A	C5'-C4'-C3'	6.18	125.89	116.00
42	LP	192	TRP	CB-CG-CD2	-6.18	118.56	126.60
69	La	88	ASP	CB-CG-OD1	6.18	123.86	118.30
81	LD	113	ARG	NE-CZ-NH1	-6.18	117.21	120.30
32	S1	124	G	P-O3'-C3'	6.18	127.11	119.70
32	S1	160	A	O4'-C1'-N9	6.18	113.14	108.20
32	S1	625	A	O4'-C1'-N9	6.18	113.14	108.20
32	S1	1175	G	N9-C1'-C2'	6.18	122.03	114.00
32	S1	1732	A	O4'-C1'-N9	6.18	113.14	108.20
33	L1	398	G	OP1-P-OP2	-6.18	110.33	119.60
33	L1	564	A	O4'-C1'-N9	6.18	113.14	108.20
33	L1	1226	G	O5'-C5'-C4'	6.18	123.44	111.70
33	L1	1329	G	O4'-C1'-N9	6.18	113.14	108.20
33	L1	1785	G	P-O3'-C3'	-6.18	112.28	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1939	C	N1-C1'-C2'	6.18	122.03	114.00
33	L1	1967	C	O4'-C1'-C2'	-6.18	99.62	105.80
33	L1	2247	A	C5'-C4'-C3'	-6.18	106.11	116.00
33	L1	2396	A	O4'-C1'-N9	-6.18	103.26	108.20
35	L2	41	A	OP1-P-OP2	-6.18	110.33	119.60
32	S1	480	U	C4'-C3'-C2'	-6.18	96.42	102.60
33	L1	1150	G	O4'-C1'-C2'	6.18	113.16	107.60
33	L1	2174	C	P-O3'-C3'	6.18	127.11	119.70
36	LA	119	ILE	CA-C-N	6.18	134.40	117.10
49	LX	101	ASP	CB-CG-OD2	6.18	123.86	118.30
32	S1	670	C	N1-C1'-C2'	6.18	122.03	114.00
32	S1	1306	U	O4'-C1'-N1	6.18	113.14	108.20
33	L1	1893	G	O4'-C1'-C2'	6.18	113.16	107.60
74	LJ	122	MET	CB-CA-C	6.18	122.75	110.40
33	L1	227	C	C3'-C2'-C1'	6.17	106.44	101.50
33	L1	2213	G	O4'-C1'-N9	6.17	113.14	108.20
33	L1	2989	A	C3'-C2'-C1'	6.17	106.44	101.50
69	La	38	TYR	N-CA-CB	-6.17	99.49	110.60
12	SO	123	HIS	N-CA-CB	6.17	121.71	110.60
33	L1	926	C	P-O3'-C3'	6.17	127.11	119.70
15	SS	124	ARG	CA-CB-CG	6.17	126.98	113.40
23	SU	64	PHE	CB-CG-CD2	6.17	125.12	120.80
33	L1	2125	A	P-O3'-C3'	-6.17	112.29	119.70
33	L1	2226	C	C3'-C2'-C1'	-6.17	96.56	101.50
49	LX	146	ALA	CB-CA-C	-6.17	100.84	110.10
2	SA	199	TRP	C-N-CA	6.17	137.12	121.70
45	LQ	142	PHE	C-N-CA	6.17	137.13	121.70
80	LC	72	THR	N-CA-CB	6.17	122.02	110.30
8	SJ	54	ASP	CB-CG-OD2	6.17	123.85	118.30
32	S1	159	U	P-O5'-C5'	6.17	130.77	120.90
32	S1	854	C	C3'-C2'-C1'	6.17	106.44	101.50
33	L1	1217	G	O4'-C1'-C2'	6.17	113.15	107.60
33	L1	3088	A	OP1-P-O3'	6.17	118.77	105.20
46	LT	98	ARG	NH1-CZ-NH2	-6.17	112.61	119.40
33	L1	1827	U	C3'-C2'-C1'	-6.17	96.57	101.50
42	LP	50	ARG	NE-CZ-NH1	-6.17	117.22	120.30
33	L1	2347	A	C5'-C4'-O4'	6.17	116.50	109.10
33	L1	3234	G	P-O3'-C3'	-6.17	112.30	119.70
33	L1	68	U	P-O3'-C3'	-6.16	112.30	119.70
33	L1	1509	G	O4'-C1'-N9	6.16	113.13	108.20
33	L1	2469	C	P-O5'-C5'	-6.16	111.04	120.90
33	L1	3039	U	O5'-P-OP2	6.16	118.10	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3226	G	C3'-C2'-C1'	6.16	106.43	101.50
35	L2	38	U	O4'-C1'-N1	6.16	113.13	108.20
47	LU	105	PHE	CB-CG-CD1	6.16	125.11	120.80
80	LC	368	LYS	N-CA-C	-6.16	94.36	111.00
32	S1	8	U	P-O3'-C3'	6.16	127.09	119.70
39	LF	167	LYS	CA-CB-CG	6.16	126.95	113.40
3	SB	162	GLN	CA-C-N	6.16	134.35	117.10
32	S1	557	G	C3'-C2'-C1'	6.16	106.43	101.50
32	S1	1737	A	O4'-C1'-C2'	-6.16	99.64	105.80
33	L1	1193	A	O4'-C1'-N9	-6.16	103.27	108.20
33	L1	2591	G	O4'-C1'-N9	6.16	113.13	108.20
33	L1	2748	G	P-O3'-C3'	-6.16	112.31	119.70
33	L1	3379	C	O5'-C5'-C4'	6.16	123.40	111.70
38	LE	46	SER	N-CA-CB	6.16	119.74	110.50
32	S1	185	G	OP1-P-OP2	-6.16	110.36	119.60
33	L1	1530	C	N1-C1'-C2'	6.16	122.01	114.00
33	L1	2299	C	C5'-C4'-C3'	6.16	125.86	116.00
35	L2	51	U	C4'-C3'-C2'	-6.16	96.44	102.60
80	LC	357	GLU	C-N-CA	-6.16	106.30	121.70
32	S1	381	G	C3'-C2'-C1'	-6.16	96.57	101.50
32	S1	884	G	C4'-C3'-C2'	-6.16	96.44	102.60
33	L1	734	C	N1-C1'-C2'	6.16	122.00	114.00
33	L1	3306	A	OP1-P-OP2	-6.16	110.36	119.60
8	SJ	59	VAL	CA-CB-CG1	6.16	120.13	110.90
13	SQ	39	SER	CA-C-N	6.16	130.74	117.20
24	SX	74	ARG	C-N-CA	-6.16	106.31	121.70
33	L1	197	A	O4'-C1'-N9	6.16	113.12	108.20
33	L1	1538	A	O4'-C1'-N9	-6.16	103.28	108.20
33	L1	3082	G	OP1-P-OP2	-6.16	110.37	119.60
33	L1	226	U	O3'-P-O5'	-6.15	92.31	104.00
33	L1	444	C	N1-C1'-C2'	6.15	122.00	114.00
33	L1	1207	A	O4'-C1'-C2'	6.15	113.14	107.60
45	LQ	37	ARG	NE-CZ-NH1	6.15	123.38	120.30
83	Lm	7	LYS	C-N-CA	-6.15	106.31	121.70
1	Sa	317	TYR	CG-CD2-CE2	-6.15	116.38	121.30
33	L1	71	C	C5'-C4'-C3'	-6.15	106.16	116.00
33	L1	442	C	P-O3'-C3'	-6.15	112.32	119.70
33	L1	1710	G	P-O5'-C5'	6.15	130.74	120.90
33	L1	2940	G	O5'-P-OP2	-6.15	100.16	105.70
44	LR	21	SER	N-CA-CB	6.15	119.73	110.50
25	SC	178	ASN	N-CA-CB	6.15	121.67	110.60
32	S1	236	U	O4'-C1'-N1	6.15	113.12	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	563	C	N1-C1'-C2'	6.15	122.00	114.00
33	L1	1279	C	O4'-C1'-C2'	-6.15	99.65	105.80
33	L1	2173	G	N9-C1'-C2'	6.15	122.00	114.00
64	LG	55	ASP	N-CA-CB	6.15	121.67	110.60
82	LK	136	PRO	N-CA-CB	6.15	110.68	103.30
33	L1	860	G	O4'-C1'-C2'	6.15	113.13	107.60
33	L1	1167	G	N9-C1'-C2'	-6.15	105.24	112.00
68	LW	36	MET	N-CA-C	-6.15	94.40	111.00
9	SK	91	ALA	C-N-CA	6.15	137.07	121.70
33	L1	460	A	C5'-C4'-C3'	6.15	125.83	116.00
33	L1	1201	C	C1'-O4'-C4'	6.15	114.82	109.90
33	L1	1575	G	O4'-C1'-N9	-6.15	103.28	108.20
33	L1	1991	U	O4'-C1'-N1	6.15	113.12	108.20
33	L1	3274	G	C3'-C2'-C1'	6.15	106.42	101.50
1	Sa	376	HIS	O-C-N	6.15	132.53	122.70
32	S1	892	A	P-O5'-C5'	-6.15	111.07	120.90
33	L1	1289	G	C4'-C3'-O3'	6.15	125.29	113.00
33	L1	1483	G	C1'-O4'-C4'	-6.15	104.98	109.90
33	L1	2358	C	N1-C1'-C2'	6.15	121.99	114.00
33	L1	2400	A	P-O3'-C3'	6.15	127.08	119.70
32	S1	520	G	P-O5'-C5'	-6.14	111.07	120.90
32	S1	1369	C	N1-C1'-C2'	6.14	121.99	114.00
32	S1	1664	U	P-O5'-C5'	6.14	130.73	120.90
33	L1	2206	U	O4'-C1'-C2'	6.14	113.13	107.60
33	L1	3152	C	C1'-O4'-C4'	6.14	114.82	109.90
40	LH	234	MET	CB-CA-C	6.14	122.69	110.40
74	LJ	115	ARG	NH1-CZ-NH2	-6.14	112.64	119.40
31	S2	15	A	C3'-C2'-C1'	-6.14	96.59	101.50
32	S1	788	G	C4'-C3'-O3'	6.14	125.28	113.00
33	L1	1226	G	N9-C1'-C2'	-6.14	105.24	112.00
33	L1	1233	G	O5'-P-OP2	6.14	118.07	110.70
33	L1	1567	G	O4'-C1'-C2'	6.14	113.13	107.60
33	L1	3149	C	P-O5'-C5'	6.14	130.73	120.90
64	LG	183	VAL	N-CA-C	6.14	127.58	111.00
73	Lp	44	GLN	N-CA-CB	-6.14	99.54	110.60
32	S1	991	G	C1'-O4'-C4'	-6.14	104.99	109.90
33	L1	218	G	P-O5'-C5'	-6.14	111.07	120.90
33	L1	358	G	N9-C1'-C2'	6.14	121.98	114.00
33	L1	590	C	C1'-O4'-C4'	-6.14	104.99	109.90
33	L1	1056	U	O4'-C1'-N1	-6.14	103.29	108.20
33	L1	2390	G	C4'-C3'-C2'	6.14	108.74	102.60
33	L1	3055	U	C1'-O4'-C4'	6.14	114.81	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3231	G	O4'-C1'-C2'	6.14	113.13	107.60
67	LS	83	TYR	CB-CG-CD1	-6.14	117.32	121.00
32	S1	442	A	C5'-C4'-O4'	6.14	116.47	109.10
32	S1	948	C	O4'-C1'-N1	6.14	113.11	108.20
32	S1	1285	G	C4'-C3'-C2'	-6.14	96.46	102.60
32	S1	1287	U	C3'-C2'-C1'	6.14	106.41	101.50
33	L1	212	G	O4'-C4'-C3'	-6.14	97.86	104.00
33	L1	592	U	N1-C1'-C2'	6.14	121.98	114.00
33	L1	858	U	C4'-C3'-C2'	-6.14	96.46	102.60
33	L1	1876	U	O4'-C1'-N1	6.14	113.11	108.20
32	S1	409	C	N1-C1'-C2'	6.14	121.98	114.00
32	S1	481	A	C5'-C4'-C3'	6.14	125.82	116.00
37	LB	93	ARG	CB-CA-C	6.14	122.68	110.40
48	LV	47	TYR	O-C-N	-6.14	112.88	122.70
31	S2	24	A	O4'-C1'-C2'	6.14	113.12	107.60
32	S1	1151	G	C1'-O4'-C4'	-6.14	104.99	109.90
33	L1	685	G	C3'-C2'-C1'	6.14	106.41	101.50
33	L1	918	A	O5'-P-OP1	6.14	118.06	110.70
33	L1	1251	U	N1-C1'-C2'	-6.14	105.25	112.00
33	L1	3210	G	P-O3'-C3'	6.14	127.06	119.70
73	Lp	14	ASN	N-CA-CB	6.14	121.65	110.60
82	LK	134	LEU	CD1-CG-CD2	6.14	128.91	110.50
12	SO	123	HIS	CB-CA-C	6.13	122.67	110.40
33	L1	2902	A	C4'-C3'-C2'	-6.13	96.47	102.60
1	Sa	7	LEU	CB-CG-CD2	-6.13	100.57	111.00
32	S1	512	U	N1-C1'-C2'	-6.13	105.25	112.00
33	L1	316	A	P-O5'-C5'	-6.13	111.09	120.90
33	L1	650	A	P-O5'-C5'	-6.13	111.09	120.90
33	L1	1113	C	C1'-O4'-C4'	-6.13	104.99	109.90
33	L1	1233	G	O4'-C4'-C3'	-6.13	97.87	104.00
33	L1	3221	A	P-O3'-C3'	6.13	127.06	119.70
35	L2	130	A	N9-C1'-C2'	-6.13	105.25	112.00
37	LB	89	TYR	CA-CB-CG	-6.13	101.75	113.40
52	Lb	108	SER	N-CA-CB	6.13	119.70	110.50
32	S1	1802	G	C1'-O4'-C4'	-6.13	104.99	109.90
33	L1	2358	C	C1'-O4'-C4'	-6.13	105.00	109.90
35	L2	44	A	C1'-O4'-C4'	-6.13	105.00	109.90
35	L2	102	U	C5'-C4'-C3'	-6.13	106.19	116.00
40	LH	60	ARG	NE-CZ-NH2	6.13	123.37	120.30
31	S2	66	C	C3'-C2'-C1'	6.13	106.40	101.50
33	L1	308	U	C4'-C3'-C2'	-6.13	96.47	102.60
33	L1	1563	G	O3'-P-O5'	-6.13	92.35	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	SU	11	THR	N-CA-C	6.13	127.55	111.00
33	L1	1317	G	O4'-C1'-C2'	-6.13	99.67	105.80
33	L1	1710	G	O3'-P-O5'	-6.13	92.36	104.00
33	L1	2708	A	O4'-C1'-C2'	-6.13	99.67	105.80
80	LC	112	GLU	C-N-CA	6.13	137.02	121.70
11	SM	88	LYS	C-N-CA	6.13	137.01	121.70
27	SH	81	VAL	C-N-CA	6.13	135.17	122.30
32	S1	771	G	O3'-P-O5'	-6.13	92.36	104.00
33	L1	847	G	O4'-C1'-N9	6.13	113.10	108.20
33	L1	1104	C	C5'-C4'-O4'	6.13	116.45	109.10
33	L1	1495	G	OP1-P-O3'	6.13	118.68	105.20
32	S1	442	A	C4'-C3'-C2'	6.12	108.72	102.60
33	L1	1233	G	O4'-C1'-N9	6.12	113.10	108.20
33	L1	1642	G	C3'-C2'-C1'	-6.12	96.60	101.50
33	L1	2221	U	C4'-C3'-C2'	-6.12	96.47	102.60
59	Lo	36	ARG	N-CA-CB	6.12	121.63	110.60
32	S1	374	A	O4'-C1'-N9	6.12	113.10	108.20
33	L1	83	U	O5'-P-OP2	-6.12	100.19	105.70
33	L1	1085	G	P-O3'-C3'	6.12	127.05	119.70
33	L1	2167	G	C1'-O4'-C4'	6.12	114.80	109.90
33	L1	2633	C	N1-C1'-C2'	6.12	121.96	114.00
33	L1	2648	G	O4'-C1'-N9	6.12	113.10	108.20
33	L1	3034	A	O4'-C1'-C2'	6.12	113.11	107.60
71	Lj	13	VAL	N-CA-CB	6.12	124.97	111.50
71	Lj	24	LYS	C-N-CA	-6.12	106.39	121.70
28	SN	30	LEU	CA-C-N	-6.12	103.73	117.20
33	L1	179	G	C4'-C3'-C2'	-6.12	96.48	102.60
33	L1	415	G	N9-C1'-C2'	-6.12	105.27	112.00
46	LT	113	LYS	N-CA-CB	6.12	121.62	110.60
33	L1	338	C	OP1-P-OP2	-6.12	110.42	119.60
33	L1	1730	U	P-O3'-C3'	-6.12	112.36	119.70
33	L1	2131	U	C5'-C4'-C3'	6.12	125.79	116.00
78	Le	167	ASN	C-N-CA	6.12	137.00	121.70
32	S1	147	C	O4'-C1'-N1	-6.12	103.31	108.20
32	S1	493	C	C5'-C4'-O4'	6.12	116.44	109.10
32	S1	724	U	P-O3'-C3'	6.12	127.04	119.70
32	S1	1771	U	C5'-C4'-O4'	6.12	116.44	109.10
33	L1	502	G	C1'-O4'-C4'	6.12	114.79	109.90
33	L1	2782	G	O4'-C4'-C3'	-6.12	97.88	104.00
34	L3	39	C	C3'-C2'-C1'	6.12	106.39	101.50
81	LD	390	ASP	C-N-CA	6.12	137.00	121.70
8	SJ	92	ARG	NE-CZ-NH2	-6.12	117.24	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	SO	106	ARG	NE-CZ-NH1	6.12	123.36	120.30
32	S1	1760	A	C1'-O4'-C4'	6.12	114.79	109.90
69	La	22	LYS	CD-CE-NZ	6.12	125.77	111.70
32	S1	1179	C	O4'-C1'-C2'	-6.12	99.68	105.80
32	S1	1297	U	C1'-O4'-C4'	6.12	114.79	109.90
32	S1	1308	G	N9-C1'-C2'	-6.12	105.27	112.00
32	S1	1707	G	C1'-O4'-C4'	6.12	114.79	109.90
32	S1	1750	A	C1'-O4'-C4'	6.12	114.79	109.90
33	L1	84	A	O3'-P-O5'	-6.12	92.38	104.00
33	L1	979	C	C5'-C4'-O4'	6.12	116.44	109.10
33	L1	2149	G	O4'-C1'-C2'	6.12	113.10	107.60
33	L1	2638	A	O3'-P-O5'	6.12	115.62	104.00
3	SB	148	LYS	C-N-CA	6.11	136.99	121.70
4	SD	242	LYS	N-CA-CB	6.11	121.61	110.60
15	SS	18	VAL	CA-CB-CG2	-6.11	101.73	110.90
25	SC	3	ARG	N-CA-CB	6.11	121.61	110.60
32	S1	690	G	O4'-C1'-C2'	-6.11	99.69	105.80
32	S1	1656	C	N1-C1'-C2'	6.11	121.95	114.00
33	L1	1297	U	C4'-C3'-C2'	-6.11	96.49	102.60
33	L1	1879	A	OP1-P-OP2	-6.11	110.43	119.60
33	L1	1989	G	P-O3'-C3'	-6.11	112.36	119.70
34	L3	12	U	OP1-P-OP2	-6.11	110.43	119.60
35	L2	15	C	P-O3'-C3'	-6.11	112.36	119.70
55	Lg	13	ASP	C-N-CA	6.11	136.99	121.70
68	LW	36	MET	CG-SD-CE	-6.11	90.42	100.20
33	L1	548	G	P-O3'-C3'	6.11	127.03	119.70
33	L1	2380	G	C5'-C4'-C3'	-6.11	106.22	116.00
10	SL	122	VAL	N-CA-C	-6.11	94.50	111.00
33	L1	2516	U	N1-C1'-C2'	6.11	121.94	114.00
67	LS	43	PHE	CB-CG-CD2	-6.11	116.52	120.80
70	Li	42	PRO	CA-C-N	6.11	130.64	117.20
82	LK	18	HIS	CB-CA-C	6.11	122.62	110.40
32	S1	854	C	N1-C1'-C2'	6.11	121.94	114.00
33	L1	2699	A	N9-C1'-C2'	6.11	121.94	114.00
35	L2	116	U	C1'-O4'-C4'	6.11	114.79	109.90
23	SU	41	SER	CB-CA-C	-6.11	98.50	110.10
33	L1	93	G	N9-C1'-C2'	6.11	121.94	114.00
2	SA	215	LYS	CA-C-N	-6.11	103.77	117.20
32	S1	397	C	P-O3'-C3'	6.11	127.03	119.70
32	S1	1672	U	O3'-P-O5'	-6.11	92.40	104.00
33	L1	525	A	O4'-C1'-N9	6.11	113.08	108.20
33	L1	1391	A	C5'-C4'-O4'	6.11	116.43	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2691	U	C5'-C4'-O4'	6.11	116.43	109.10
35	L2	139	A	P-O3'-C3'	6.11	127.03	119.70
38	LE	63	ARG	NE-CZ-NH2	-6.11	117.25	120.30
38	LE	108	ILE	CB-CA-C	-6.11	99.39	111.60
51	LY	45	ARG	N-CA-CB	6.11	121.59	110.60
57	LI	25	ARG	NE-CZ-NH2	-6.11	117.25	120.30
64	LG	142	PHE	CB-CG-CD1	6.11	125.07	120.80
23	SU	34	HIS	CA-CB-CG	6.10	123.97	113.60
28	SN	21	CYS	O-C-N	6.10	132.46	122.70
32	S1	453	C	O4'-C1'-N1	6.10	113.08	108.20
33	L1	565	C	O4'-C1'-N1	6.10	113.08	108.20
33	L1	578	C	C5'-C4'-O4'	-6.10	101.78	109.10
33	L1	1126	U	O4'-C1'-C2'	-6.10	99.70	105.80
33	L1	1747	A	C5'-C4'-C3'	6.10	125.77	116.00
39	LF	187	THR	CA-CB-CG2	6.10	120.94	112.40
2	SA	223	ALA	N-CA-CB	6.10	118.64	110.10
33	L1	2695	A	C1'-O4'-C4'	-6.10	105.02	109.90
35	L2	45	A	O4'-C4'-C3'	-6.10	97.90	104.00
45	LQ	208	MET	CG-SD-CE	-6.10	90.44	100.20
80	LC	131	THR	CA-CB-CG2	6.10	120.94	112.40
32	S1	290	C	N1-C1'-C2'	6.10	121.93	114.00
32	S1	590	G	N9-C1'-C2'	-6.10	105.29	112.00
32	S1	1062	C	N1-C1'-C2'	6.10	121.93	114.00
33	L1	167	C	C3'-C2'-C1'	6.10	106.38	101.50
33	L1	1711	G	P-O5'-C5'	6.10	130.66	120.90
33	L1	1826	G	C3'-C2'-C1'	-6.10	96.62	101.50
33	L1	2418	A	P-O5'-C5'	-6.10	111.14	120.90
33	L1	2438	A	N9-C1'-C2'	6.10	121.93	114.00
66	LN	31	VAL	CB-CA-C	6.10	122.99	111.40
32	S1	1204	G	N9-C1'-C2'	-6.10	105.29	112.00
33	L1	1089	G	O4'-C1'-C2'	-6.10	99.70	105.80
33	L1	1248	A	O4'-C4'-C3'	6.10	110.98	106.10
36	LA	25	ARG	CB-CA-C	-6.10	98.21	110.40
56	Lh	26	TYR	CG-CD1-CE1	-6.10	116.42	121.30
31	S2	67	G	C1'-O4'-C4'	-6.10	105.02	109.90
33	L1	609	C	C5'-C4'-O4'	6.10	116.42	109.10
33	L1	3222	G	C1'-O4'-C4'	-6.10	105.02	109.90
32	S1	1440	U	O4'-C1'-N1	6.09	113.08	108.20
33	L1	708	C	O4'-C1'-C2'	-6.09	99.70	105.80
33	L1	784	G	O3'-P-O5'	-6.09	92.42	104.00
33	L1	1034	U	O4'-C1'-N1	6.09	113.08	108.20
35	L2	26	U	C5'-C4'-C3'	-6.09	106.25	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	SB	131	ALA	N-CA-C	6.09	127.45	111.00
33	L1	979	C	C2'-C3'-O3'	6.09	123.45	113.70
33	L1	1318	C	P-O3'-C3'	-6.09	112.39	119.70
33	L1	1923	G	C5'-C4'-O4'	6.09	116.41	109.10
33	L1	3061	C	O3'-P-O5'	6.09	115.58	104.00
34	L3	14	C	P-O5'-C5'	-6.09	111.15	120.90
35	L2	57	A	O4'-C4'-C3'	-6.09	97.91	104.00
3	SB	190	LEU	CA-CB-CG	6.09	129.31	115.30
7	SI	33	GLY	N-CA-C	-6.09	97.87	113.10
9	SK	112	GLN	CB-CA-C	-6.09	98.22	110.40
13	SQ	38	VAL	N-CA-C	-6.09	94.55	111.00
32	S1	183	C	O4'-C1'-N1	6.09	113.07	108.20
32	S1	1375	C	C3'-C2'-C1'	6.09	106.37	101.50
33	L1	128	C	N1-C1'-C2'	6.09	121.92	114.00
33	L1	396	G	O4'-C1'-C2'	6.09	113.08	107.60
33	L1	472	U	C5'-C4'-C3'	6.09	125.75	116.00
33	L1	1002	A	O4'-C1'-N9	-6.09	103.33	108.20
33	L1	1290	A	O4'-C1'-C2'	-6.09	99.71	105.80
33	L1	1742	G	N9-C1'-C2'	-6.09	105.30	112.00
33	L1	1852	C	C4'-C3'-C2'	6.09	108.69	102.60
33	L1	2708	A	C5'-C4'-C3'	-6.09	106.25	116.00
33	L1	2730	A	P-O3'-C3'	-6.09	112.39	119.70
33	L1	2796	G	N9-C1'-C2'	-6.09	105.30	112.00
51	LY	119	ASP	CB-CG-OD1	6.09	123.78	118.30
31	S2	25	U	C3'-C2'-C1'	-6.09	96.63	101.50
32	S1	140	C	O4'-C1'-C2'	-6.09	99.71	105.80
32	S1	639	G	O4'-C1'-N9	6.09	113.07	108.20
32	S1	1090	G	N9-C1'-C2'	-6.09	105.30	112.00
32	S1	1507	G	C2'-C3'-O3'	6.09	123.44	113.70
33	L1	371	A	C1'-O4'-C4'	-6.09	105.03	109.90
33	L1	2031	G	C1'-O4'-C4'	-6.09	105.03	109.90
33	L1	2185	U	O4'-C1'-N1	6.09	113.07	108.20
4	SD	145	ARG	N-CA-CB	6.09	121.56	110.60
81	LD	144	ARG	NE-CZ-NH1	6.09	123.34	120.30
31	S2	49	G	C4'-C3'-C2'	-6.09	96.51	102.60
33	L1	630	C	C5'-C4'-C3'	6.09	125.74	116.00
33	L1	1567	G	P-O3'-C3'	6.09	127.00	119.70
33	L1	2174	C	P-O5'-C5'	-6.09	111.16	120.90
33	L1	3232	C	P-O5'-C5'	6.09	130.64	120.90
42	LP	77	LYS	C-N-CA	6.09	135.08	122.30
78	Le	109	ARG	NH1-CZ-NH2	-6.09	112.71	119.40
1	Sa	124	ALA	CB-CA-C	-6.08	100.97	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	691	U	C2'-C3'-O3'	6.08	123.44	113.70
33	L1	1440	C	C1'-O4'-C4'	-6.08	105.03	109.90
46	LT	72	LYS	N-CA-CB	6.08	121.55	110.60
33	L1	93	G	C1'-O4'-C4'	-6.08	105.03	109.90
33	L1	1535	C	O4'-C1'-N1	6.08	113.07	108.20
33	L1	2784	U	N1-C1'-C2'	6.08	121.91	114.00
33	L1	3215	U	C4'-C3'-C2'	-6.08	96.52	102.60
4	SD	145	ARG	CB-CA-C	-6.08	98.24	110.40
33	L1	1143	G	O4'-C1'-N9	6.08	113.07	108.20
33	L1	2577	G	C3'-C2'-C1'	-6.08	96.63	101.50
33	L1	3231	G	N9-C1'-C2'	6.08	121.91	114.00
35	L2	54	C	O4'-C1'-C2'	-6.08	99.72	105.80
49	LX	64	ARG	NE-CZ-NH1	6.08	123.34	120.30
60	Lr	89	LYS	N-CA-C	6.08	127.42	111.00
32	S1	1686	C	P-O3'-C3'	6.08	127.00	119.70
33	L1	1606	C	C1'-O4'-C4'	-6.08	105.04	109.90
33	L1	1955	G	O3'-P-O5'	6.08	115.55	104.00
32	S1	127	G	C1'-O4'-C4'	6.08	114.76	109.90
32	S1	995	C	O4'-C1'-C2'	-6.08	99.72	105.80
32	S1	1397	A	O4'-C1'-N9	-6.08	103.34	108.20
33	L1	133	G	O4'-C1'-N9	6.08	113.06	108.20
33	L1	439	A	C5'-C4'-C3'	-6.08	106.27	116.00
33	L1	596	C	C1'-O4'-C4'	-6.08	105.04	109.90
33	L1	843	C	O5'-C5'-C4'	6.08	123.25	111.70
33	L1	1180	C	C5'-C4'-C3'	-6.08	106.27	116.00
33	L1	1608	C	N1-C1'-C2'	6.08	121.90	114.00
33	L1	2759	C	C4'-C3'-C2'	-6.08	96.52	102.60
33	L1	2765	A	C5'-C4'-O4'	-6.08	101.81	109.10
33	L1	3163	G	C3'-C2'-C1'	6.08	106.36	101.50
40	LH	89	PHE	CB-CG-CD1	-6.08	116.54	120.80
2	SA	41	TYR	O-C-N	-6.08	112.98	122.70
32	S1	331	U	O4'-C1'-N1	6.08	113.06	108.20
32	S1	483	C	C5'-C4'-C3'	6.08	125.72	116.00
32	S1	1131	G	O4'-C1'-N9	6.08	113.06	108.20
33	L1	336	A	P-O3'-C3'	6.08	126.99	119.70
44	LR	159	PRO	C-N-CA	6.08	136.89	121.70
76	Lw	35	ASP	N-CA-C	6.08	127.41	111.00
77	Lc	111	ARG	NE-CZ-NH2	6.08	123.34	120.30
29	ST	59	ARG	CG-CD-NE	-6.08	99.04	111.80
33	L1	86	U	O4'-C1'-N1	6.08	113.06	108.20
33	L1	745	G	N9-C1'-C2'	-6.08	105.32	112.00
33	L1	3099	G	O4'-C1'-C2'	-6.08	99.72	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
64	LG	29	LYS	CG-CD-CE	6.08	130.13	111.90
32	S1	1586	U	O4'-C1'-N1	6.07	113.06	108.20
33	L1	1105	G	C3'-C2'-C1'	6.07	106.36	101.50
33	L1	1373	A	C1'-O4'-C4'	-6.07	105.04	109.90
33	L1	1984	C	O4'-C1'-N1	6.07	113.06	108.20
33	L1	2318	U	C3'-C2'-C1'	-6.07	96.64	101.50
33	L1	2374	G	C1'-O4'-C4'	-6.07	105.04	109.90
35	L2	115	G	O4'-C1'-N9	6.07	113.06	108.20
47	LU	83	ARG	NE-CZ-NH2	6.07	123.34	120.30
78	Le	13	LYS	O-C-N	-6.07	112.98	122.70
79	Ls	234	TYR	C-N-CA	6.07	147.51	122.00
33	L1	1325	G	O4'-C1'-C2'	6.07	113.06	107.60
33	L1	1874	A	C5'-C4'-O4'	6.07	116.39	109.10
33	L1	2105	G	OP2-P-O3'	6.07	118.56	105.20
33	L1	2861	U	O3'-P-O5'	-6.07	92.46	104.00
33	L1	1382	C	C4'-C3'-C2'	6.07	108.67	102.60
33	L1	2945	G	P-O3'-C3'	6.07	126.98	119.70
33	L1	3050	A	O4'-C1'-C2'	-6.07	99.73	105.80
33	L1	225	G	O4'-C1'-N9	6.07	113.06	108.20
33	L1	2259	U	O5'-P-OP2	-6.07	100.24	105.70
32	S1	1154	G	O4'-C1'-N9	6.07	113.05	108.20
32	S1	1205	G	O4'-C1'-N9	6.07	113.05	108.20
32	S1	1665	U	C5'-C4'-O4'	-6.07	101.82	109.10
71	Lj	102	VAL	CB-CA-C	6.07	122.93	111.40
3	SB	34	TYR	CG-CD1-CE1	6.07	126.15	121.30
33	L1	22	G	O4'-C1'-N9	6.07	113.05	108.20
33	L1	531	G	C1'-O4'-C4'	-6.07	105.05	109.90
33	L1	811	A	O4'-C4'-C3'	-6.07	97.94	104.00
33	L1	1346	C	O4'-C1'-N1	6.07	113.05	108.20
33	L1	1790	A	C1'-O4'-C4'	-6.07	105.05	109.90
33	L1	1927	A	O4'-C1'-N9	-6.07	103.35	108.20
33	L1	2631	A	P-O3'-C3'	-6.07	112.42	119.70
33	L1	1938	U	O4'-C1'-N1	6.06	113.05	108.20
33	L1	2617	G	C1'-O4'-C4'	-6.06	105.05	109.90
33	L1	3167	G	O4'-C1'-C2'	-6.06	99.74	105.80
29	ST	5	GLU	CB-CA-C	-6.06	98.27	110.40
32	S1	545	A	P-O5'-C5'	6.06	130.60	120.90
32	S1	859	U	N1-C1'-C2'	-6.06	105.33	112.00
32	S1	1123	G	C5'-C4'-O4'	6.06	116.38	109.10
33	L1	339	G	C2'-C3'-O3'	6.06	123.40	113.70
33	L1	564	A	C5'-C4'-C3'	6.06	125.70	116.00
33	L1	722	C	C4'-C3'-O3'	6.06	125.12	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1272	G	C1'-O4'-C4'	-6.06	105.05	109.90
33	L1	1472	C	P-O5'-C5'	6.06	130.60	120.90
33	L1	2653	U	O4'-C1'-C2'	6.06	113.06	107.60
45	LQ	115	GLY	C-N-CA	6.06	136.86	121.70
13	SQ	140	ARG	CD-NE-CZ	6.06	132.09	123.60
32	S1	144	U	N1-C1'-C2'	6.06	121.88	114.00
15	SS	84	GLY	N-CA-C	-6.06	97.95	113.10
32	S1	397	C	C3'-C2'-C1'	6.06	106.35	101.50
32	S1	1354	C	C3'-C2'-C1'	6.06	106.35	101.50
33	L1	2333	U	C5'-C4'-C3'	6.06	125.70	116.00
33	L1	3190	U	P-O5'-C5'	6.06	130.59	120.90
10	SL	8	GLY	N-CA-C	6.06	128.24	113.10
32	S1	1191	U	N1-C1'-C2'	-6.06	105.34	112.00
32	S1	1437	C	C1'-O4'-C4'	6.06	114.75	109.90
33	L1	392	C	P-O5'-C5'	6.06	130.59	120.90
33	L1	490	G	N9-C1'-C2'	6.06	121.88	114.00
33	L1	653	A	O4'-C1'-N9	6.06	113.05	108.20
33	L1	1080	C	P-O3'-C3'	6.06	126.97	119.70
33	L1	1474	U	C1'-O4'-C4'	-6.06	105.05	109.90
33	L1	1615	G	O4'-C1'-C2'	6.06	113.05	107.60
33	L1	1680	A	C1'-O4'-C4'	6.06	114.75	109.90
33	L1	2702	G	C4'-C3'-C2'	-6.06	96.54	102.60
42	LP	73	ARG	NE-CZ-NH2	6.06	123.33	120.30
79	Ls	230	LEU	CB-CG-CD2	6.06	121.30	111.00
81	LD	318	GLU	CG-CD-OE2	-6.06	106.18	118.30
32	S1	1417	A	C1'-O4'-C4'	6.06	114.74	109.90
33	L1	1695	C	C5'-C4'-C3'	6.06	125.69	116.00
33	L1	2221	U	P-O5'-C5'	6.06	130.59	120.90
33	L1	2700	A	C4'-C3'-C2'	-6.06	96.54	102.60
33	L1	3158	C	C3'-C2'-C1'	6.06	106.34	101.50
78	Le	111	ARG	NE-CZ-NH1	-6.06	117.27	120.30
29	ST	9	VAL	C-N-CA	6.05	136.84	121.70
32	S1	1091	A	O3'-P-O5'	-6.05	92.50	104.00
32	S1	1297	U	O4'-C1'-N1	6.05	113.04	108.20
33	L1	214	G	P-O3'-C3'	6.05	126.97	119.70
33	L1	1167	G	O4'-C1'-N9	6.05	113.04	108.20
33	L1	1180	C	N1-C1'-C2'	6.05	121.87	114.00
33	L1	1206	A	P-O5'-C5'	6.05	130.59	120.90
33	L1	1957	G	C3'-C2'-C1'	-6.05	96.66	101.50
33	L1	2092	C	O4'-C4'-C3'	-6.05	97.94	104.00
34	L3	45	U	C3'-C2'-C1'	6.05	106.34	101.50
34	L3	119	C	C3'-C2'-C1'	6.05	106.34	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	Lg	13	ASP	O-C-N	6.05	132.39	122.70
67	LS	151	PHE	CB-CA-C	6.05	122.51	110.40
33	L1	2439	A	O4'-C1'-N9	6.05	113.04	108.20
33	L1	2641	A	P-O3'-C3'	-6.05	112.44	119.70
64	LG	18	HIS	CA-CB-CG	6.05	123.89	113.60
72	Lk	96	VAL	N-CA-CB	6.05	124.82	111.50
78	Le	92	ARG	NE-CZ-NH2	-6.05	117.27	120.30
32	S1	263	C	O3'-P-O5'	6.05	115.50	104.00
32	S1	1040	G	C1'-O4'-C4'	6.05	114.74	109.90
32	S1	1507	G	OP1-P-OP2	-6.05	110.52	119.60
33	L1	1668	U	C5'-C4'-O4'	6.05	116.36	109.10
33	L1	1709	U	O4'-C1'-N1	6.05	113.04	108.20
30	S3	18	C	P-O5'-C5'	6.05	130.58	120.90
32	S1	603	A	O4'-C1'-C2'	6.05	113.05	107.60
32	S1	1586	U	O3'-P-O5'	6.05	115.49	104.00
33	L1	121	A	OP1-P-O3'	6.05	118.51	105.20
33	L1	743	C	N1-C1'-C2'	6.05	121.86	114.00
33	L1	2148	U	O4'-C1'-N1	6.05	113.04	108.20
33	L1	2362	A	C4'-C3'-C2'	-6.05	96.55	102.60
33	L1	2671	A	N9-C1'-C2'	-6.05	105.35	112.00
33	L1	3137	G	C4'-C3'-C2'	-6.05	96.55	102.60
32	S1	890	G	O4'-C1'-N9	6.05	113.04	108.20
36	LA	25	ARG	NE-CZ-NH2	-6.05	117.28	120.30
33	L1	2933	C	O4'-C1'-C2'	-6.05	99.75	105.80
68	LW	44	PHE	CB-CG-CD2	-6.05	116.57	120.80
33	L1	1548	U	O4'-C1'-N1	6.04	113.04	108.20
33	L1	2561	A	C3'-C2'-C1'	6.04	106.34	101.50
72	Lk	62	GLU	CB-CG-CD	6.04	130.52	114.20
32	S1	51	A	C3'-C2'-C1'	6.04	106.33	101.50
32	S1	1064	U	O3'-P-O5'	-6.04	92.52	104.00
32	S1	1304	A	P-O3'-C3'	6.04	126.95	119.70
32	S1	1666	G	C1'-O4'-C4'	-6.04	105.07	109.90
33	L1	1595	G	O4'-C1'-N9	6.04	113.03	108.20
33	L1	2686	U	N1-C1'-C2'	6.04	121.86	114.00
33	L1	2864	U	C4'-C3'-C2'	-6.04	96.56	102.60
32	S1	993	C	C4'-C3'-C2'	-6.04	96.56	102.60
32	S1	1283	C	O4'-C1'-C2'	-6.04	99.76	105.80
33	L1	176	A	C2'-C3'-O3'	6.04	123.37	113.70
33	L1	3330	U	C4'-C3'-C2'	-6.04	96.56	102.60
35	L2	106	U	N1-C1'-C2'	6.04	121.85	114.00
43	LO	25	HIS	N-CA-C	-6.04	94.69	111.00
47	LU	65	TRP	N-CA-CB	-6.04	99.72	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	SB	112	GLY	C-N-CA	6.04	136.80	121.70
33	L1	15	C	P-O3'-C3'	-6.04	112.45	119.70
33	L1	1080	C	O4'-C4'-C3'	-6.04	97.96	104.00
33	L1	3008	U	O4'-C1'-N1	6.04	113.03	108.20
3	SB	94	ARG	N-CA-CB	-6.04	99.73	110.60
32	S1	96	G	O4'-C1'-N9	6.04	113.03	108.20
32	S1	931	A	C5'-C4'-C3'	-6.04	106.34	116.00
33	L1	164	C	O5'-C5'-C4'	6.04	123.17	111.70
33	L1	227	C	OP2-P-O3'	6.04	118.48	105.20
33	L1	2465	G	O5'-C5'-C4'	6.04	123.17	111.70
33	L1	2703	G	C4'-C3'-C2'	-6.04	96.56	102.60
33	L1	3177	A	C3'-C2'-C1'	-6.04	96.67	101.50
68	LW	89	THR	CA-CB-CG2	-6.04	103.95	112.40
78	Le	67	LEU	CA-C-N	-6.04	103.91	117.20
82	LK	106	ARG	NE-CZ-NH1	6.04	123.32	120.30
4	SD	107	GLY	N-CA-C	6.04	128.19	113.10
33	L1	1343	C	P-O5'-C5'	6.04	130.56	120.90
2	SA	11	ALA	N-CA-C	6.04	127.30	111.00
2	SA	35	ASP	CB-CG-OD1	-6.04	112.87	118.30
14	SP	112	VAL	N-CA-CB	6.04	124.78	111.50
32	S1	1065	A	N9-C1'-C2'	-6.04	105.36	112.00
33	L1	229	G	C4'-C3'-C2'	-6.04	96.56	102.60
33	L1	1382	C	N1-C1'-C2'	6.04	121.85	114.00
33	L1	2221	U	O4'-C1'-N1	6.04	113.03	108.20
38	LE	111	HIS	N-CA-CB	-6.04	99.73	110.60
11	SM	14	ARG	CB-CA-C	-6.03	98.33	110.40
31	S2	59	U	O4'-C1'-N1	6.03	113.03	108.20
33	L1	1512	A	C1'-O4'-C4'	6.03	114.73	109.90
33	L1	2692	G	C5'-C4'-C3'	6.03	125.65	116.00
33	L1	2837	C	N1-C1'-C2'	6.03	121.84	114.00
34	L3	76	U	O4'-C4'-C3'	-6.03	97.97	104.00
33	L1	1598	U	O4'-C1'-N1	6.03	113.03	108.20
24	SX	52	SER	CA-C-N	-6.03	103.93	117.20
33	L1	2674	A	O4'-C1'-N9	6.03	113.02	108.20
32	S1	1074	C	P-O3'-C3'	6.03	126.94	119.70
1	Sa	226	CYS	CA-CB-SG	6.03	124.85	114.00
32	S1	1208	A	N9-C1'-C2'	6.03	121.84	114.00
32	S1	1506	G	O3'-P-O5'	-6.03	92.55	104.00
32	S1	1625	U	O4'-C1'-C2'	-6.03	99.77	105.80
33	L1	959	U	O4'-C1'-N1	-6.03	103.38	108.20
33	L1	1880	A	N9-C1'-C2'	6.03	121.84	114.00
33	L1	2274	A	O4'-C4'-C3'	6.03	110.92	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	Ln	22	SER	N-CA-C	6.03	127.27	111.00
60	Lr	80	TYR	N-CA-C	6.03	127.27	111.00
80	LC	291	SER	CA-C-N	6.03	128.26	116.20
23	SU	93	PRO	O-C-N	-6.03	113.06	122.70
31	S2	3	C	O4'-C1'-N1	6.03	113.02	108.20
32	S1	624	A	C1'-O4'-C4'	6.03	114.72	109.90
32	S1	1457	C	O4'-C1'-N1	6.03	113.02	108.20
33	L1	139	U	O4'-C1'-N1	6.03	113.02	108.20
33	L1	859	G	N9-C1'-C2'	6.03	121.83	114.00
33	L1	1275	A	O3'-P-O5'	6.03	115.45	104.00
33	L1	2142	A	P-O3'-C3'	6.03	126.93	119.70
33	L1	3138	C	C3'-C2'-C1'	6.03	106.32	101.50
33	L1	3323	U	P-O5'-C5'	-6.03	111.26	120.90
34	L3	72	G	C5'-C4'-C3'	6.03	125.64	116.00
57	Ll	3	LYS	C-N-CA	6.03	134.96	122.30
69	La	32	GLY	N-CA-C	-6.03	98.03	113.10
33	L1	86	U	P-O3'-C3'	6.02	126.93	119.70
33	L1	2412	A	C4'-C3'-C2'	-6.02	96.58	102.60
32	S1	1465	C	N1-C1'-C2'	-6.02	105.38	112.00
33	L1	328	G	P-O5'-C5'	-6.02	111.26	120.90
33	L1	1203	C	O4'-C1'-C2'	-6.02	99.78	105.80
33	L1	1337	C	OP1-P-OP2	-6.02	110.56	119.60
33	L1	1992	U	O4'-C1'-N1	6.02	113.02	108.20
31	S2	17	G	O4'-C1'-N9	6.02	113.02	108.20
32	S1	482	A	O3'-P-O5'	6.02	115.44	104.00
33	L1	3003	C	OP1-P-OP2	-6.02	110.57	119.60
57	Ll	45	ARG	NE-CZ-NH1	6.02	123.31	120.30
33	L1	1619	G	O4'-C1'-N9	6.02	113.02	108.20
33	L1	1954	G	C5'-C4'-O4'	-6.02	101.88	109.10
33	L1	3058	U	N1-C1'-C2'	6.02	121.83	114.00
35	L2	67	C	O4'-C1'-N1	6.02	113.02	108.20
58	Ln	27	ARG	NE-CZ-NH1	6.02	123.31	120.30
64	LG	80	VAL	CG1-CB-CG2	-6.02	101.27	110.90
66	LN	8	GLU	CA-C-N	-6.02	103.95	117.20
71	Lj	19	GLY	O-C-N	-6.02	113.07	122.70
71	Lj	55	TYR	CB-CG-CD1	-6.02	117.39	121.00
32	S1	52	U	P-O3'-C3'	6.02	126.92	119.70
32	S1	371	A	O4'-C1'-C2'	-6.02	99.78	105.80
32	S1	1300	A	C4'-C3'-C2'	-6.02	96.58	102.60
32	S1	1696	C	C3'-C2'-C1'	6.02	106.31	101.50
33	L1	1767	G	C4'-C3'-C2'	-6.02	96.58	102.60
33	L1	2500	U	C5'-C4'-C3'	-6.02	106.37	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2755	U	O5'-P-OP2	-6.02	100.28	105.70
46	LT	150	ALA	CB-CA-C	6.02	119.12	110.10
46	LT	152	GLU	OE1-CD-OE2	-6.02	116.08	123.30
32	S1	274	A	O5'-C5'-C4'	-6.02	100.27	111.70
32	S1	581	G	O4'-C1'-N9	6.02	113.01	108.20
32	S1	911	A	O4'-C1'-N9	6.02	113.01	108.20
35	L2	140	G	C1'-O4'-C4'	-6.02	105.09	109.90
7	SI	72	ARG	CA-CB-CG	6.01	126.63	113.40
11	SM	32	SER	CA-C-N	-6.01	103.97	117.20
27	SH	89	TRP	CD1-CG-CD2	-6.01	101.49	106.30
32	S1	1352	A	N9-C1'-C2'	6.01	121.82	114.00
33	L1	244	G	O4'-C1'-C2'	6.01	113.01	107.60
33	L1	925	U	C5'-C4'-O4'	6.01	116.32	109.10
33	L1	2047	A	O4'-C1'-N9	6.01	113.01	108.20
33	L1	2440	U	C3'-C2'-C1'	-6.01	96.69	101.50
33	L1	2727	U	C1'-O4'-C4'	-6.01	105.09	109.90
33	L1	3169	C	O4'-C1'-N1	6.01	113.01	108.20
35	L2	45	A	C1'-O4'-C4'	6.01	114.71	109.90
77	Lc	74	TYR	CZ-CE2-CD2	6.01	125.21	119.80
1	Sa	151	ARG	N-CA-CB	6.01	121.42	110.60
32	S1	1232	G	N9-C1'-C2'	6.01	121.82	114.00
33	L1	1259	C	P-O3'-C3'	6.01	126.92	119.70
33	L1	2657	C	C3'-C2'-C1'	6.01	106.31	101.50
33	L1	3350	C	N1-C1'-C2'	6.01	121.82	114.00
38	LE	85	GLY	CA-C-O	-6.01	109.78	120.60
80	LC	301	GLU	C-N-CA	6.01	136.73	121.70
1	Sa	266	THR	C-N-CA	-6.01	109.67	122.30
30	S3	15	A	N9-C1'-C2'	-6.01	105.39	112.00
32	S1	300	U	C5'-C4'-C3'	6.01	125.62	116.00
32	S1	1659	A	O4'-C1'-N9	-6.01	103.39	108.20
33	L1	1679	U	P-O3'-C3'	6.01	126.92	119.70
33	L1	2279	C	N1-C1'-C2'	6.01	121.81	114.00
33	L1	2389	A	C3'-C2'-C1'	-6.01	96.69	101.50
33	L1	2405	C	O5'-P-OP2	-6.01	100.29	105.70
33	L1	2870	U	C1'-O4'-C4'	-6.01	105.09	109.90
33	L1	3238	U	N1-C1'-C2'	-6.01	105.39	112.00
37	LB	67	PHE	CB-CG-CD2	6.01	125.01	120.80
58	Ln	27	ARG	NH1-CZ-NH2	-6.01	112.79	119.40
80	LC	49	TYR	CG-CD2-CE2	-6.01	116.49	121.30
3	SB	160	SER	C-N-CA	6.01	134.92	122.30
32	S1	170	C	N1-C1'-C2'	6.01	121.81	114.00
32	S1	1617	U	P-O5'-C5'	6.01	130.51	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	442	C	C3'-C2'-C1'	6.01	106.31	101.50
33	L1	2821	U	O4'-C1'-N1	6.01	113.01	108.20
33	L1	3332	G	C1'-O4'-C4'	-6.01	105.09	109.90
32	S1	1509	C	C5'-C4'-O4'	6.01	116.31	109.10
33	L1	1271	U	OP2-P-O3'	6.01	118.42	105.20
72	Lk	42	PHE	CG-CD2-CE2	6.01	127.41	120.80
81	LD	343	MET	O-C-N	-6.01	113.09	122.70
32	S1	579	C	O4'-C1'-C2'	-6.01	99.79	105.80
32	S1	996	G	O4'-C1'-N9	6.01	113.00	108.20
33	L1	60	G	N9-C1'-C2'	6.01	121.81	114.00
33	L1	738	A	O4'-C1'-N9	6.01	113.00	108.20
33	L1	996	A	C1'-C2'-O2'	6.01	128.62	110.60
33	L1	3335	G	O4'-C1'-N9	6.01	113.00	108.20
64	LG	54	ASP	CB-CG-OD2	-6.01	112.89	118.30
64	LG	161	GLU	N-CA-CB	-6.01	99.79	110.60
72	Lk	85	ARG	NE-CZ-NH2	6.01	123.30	120.30
80	LC	302	PHE	CB-CG-CD2	-6.01	116.60	120.80
32	S1	432	A	O4'-C1'-N9	6.00	113.00	108.20
33	L1	252	A	O4'-C1'-C2'	-6.00	99.80	105.80
33	L1	2655	U	O4'-C1'-N1	6.00	113.00	108.20
1	Sa	326	ASP	CB-CG-OD2	6.00	123.70	118.30
5	SE	140	LEU	CB-CG-CD2	6.00	121.21	111.00
10	SL	120	LYS	O-C-N	-6.00	113.09	122.70
33	L1	571	G	O4'-C1'-N9	-6.00	103.40	108.20
33	L1	738	A	N9-C1'-C2'	-6.00	105.39	112.00
33	L1	2452	U	C1'-O4'-C4'	6.00	114.70	109.90
33	L1	2465	G	C5'-C4'-C3'	6.00	125.61	116.00
32	S1	909	G	C1'-O4'-C4'	-6.00	105.10	109.90
33	L1	1481	C	N1-C1'-C2'	6.00	121.80	114.00
33	L1	1936	G	P-O3'-C3'	-6.00	112.50	119.70
33	L1	2340	G	C3'-C2'-C1'	-6.00	96.70	101.50
23	SU	22	LEU	CB-CA-C	6.00	121.60	110.20
33	L1	2070	C	N1-C1'-C2'	6.00	121.80	114.00
33	L1	2561	A	OP1-P-OP2	-6.00	110.60	119.60
23	SU	70	PHE	N-CA-CB	6.00	121.40	110.60
32	S1	956	A	C1'-O4'-C4'	6.00	114.70	109.90
32	S1	1777	G	C3'-C2'-C1'	6.00	106.30	101.50
33	L1	785	U	C4'-C3'-C2'	6.00	108.60	102.60
33	L1	1458	U	P-O3'-C3'	6.00	126.90	119.70
35	L2	42	U	OP1-P-OP2	-6.00	110.60	119.60
37	LB	182	ALA	N-CA-CB	6.00	118.50	110.10
31	S2	44	A	O4'-C1'-C2'	6.00	113.00	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	732	G	P-O3'-C3'	6.00	126.90	119.70
32	S1	1118	A	P-O3'-C3'	6.00	126.90	119.70
32	S1	1271	G	N9-C1'-C2'	6.00	121.80	114.00
33	L1	1041	C	P-O3'-C3'	6.00	126.90	119.70
33	L1	1491	G	O4'-C1'-N9	6.00	113.00	108.20
33	L1	1680	A	O4'-C1'-N9	6.00	113.00	108.20
33	L1	2482	A	C4'-C3'-C2'	-6.00	96.60	102.60
33	L1	2771	U	O3'-P-O5'	-6.00	92.61	104.00
33	L1	3143	A	C1'-O4'-C4'	-6.00	105.10	109.90
34	L3	25	G	C5'-C4'-O4'	-6.00	101.90	109.10
48	LV	108	LEU	CB-CG-CD1	6.00	121.19	111.00
33	L1	2704	U	O4'-C1'-N1	6.00	113.00	108.20
55	Lg	98	TYR	CG-CD2-CE2	-6.00	116.50	121.30
2	SA	21	MET	N-CA-CB	5.99	121.39	110.60
15	SS	142	ASP	CB-CG-OD2	-5.99	112.91	118.30
33	L1	1444	G	O4'-C1'-N9	5.99	112.99	108.20
33	L1	2691	U	C3'-C2'-C1'	5.99	106.29	101.50
33	L1	3055	U	O4'-C1'-N1	5.99	113.00	108.20
34	L3	96	U	P-O3'-C3'	-5.99	112.51	119.70
44	LR	155	ALA	N-CA-CB	5.99	118.49	110.10
47	LU	85	ILE	O-C-N	-5.99	113.11	122.70
54	Lf	35	LEU	CA-CB-CG	5.99	129.09	115.30
66	LN	84	TRP	O-C-N	5.99	132.29	122.70
15	SS	7	ARG	CG-CD-NE	-5.99	99.22	111.80
33	L1	822	U	C5'-C4'-O4'	5.99	116.29	109.10
33	L1	1931	G	C1'-O4'-C4'	5.99	114.69	109.90
66	LN	79	ASP	C-N-CA	5.99	136.68	121.70
5	SE	15	PHE	CZ-CE2-CD2	5.99	127.29	120.10
32	S1	1344	U	P-O5'-C5'	5.99	130.49	120.90
32	S1	1790	G	P-O3'-C3'	5.99	126.89	119.70
33	L1	98	A	C5'-C4'-O4'	-5.99	101.91	109.10
33	L1	180	G	C3'-C2'-C1'	-5.99	96.71	101.50
33	L1	198	A	O4'-C1'-C2'	-5.99	99.81	105.80
45	LQ	87	TYR	CB-CG-CD2	5.99	124.59	121.00
81	LD	318	GLU	CB-CG-CD	-5.99	98.03	114.20
3	SB	111	GLY	N-CA-C	5.99	128.07	113.10
32	S1	1614	C	C5'-C4'-C3'	-5.99	106.42	116.00
33	L1	875	A	C2'-C3'-O3'	5.99	123.28	113.70
33	L1	2013	G	C1'-O4'-C4'	-5.99	105.11	109.90
33	L1	2269	U	N1-C1'-C2'	5.99	121.78	114.00
33	L1	2485	U	C4'-C3'-C2'	-5.99	96.61	102.60
39	LF	173	LYS	N-CA-C	5.99	127.17	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	630	U	C2'-C3'-O3'	5.99	123.28	113.70
33	L1	1164	G	C3'-C2'-C1'	-5.99	96.71	101.50
33	L1	1776	G	C1'-O4'-C4'	-5.99	105.11	109.90
33	L1	2103	U	O4'-C1'-C2'	-5.99	99.81	105.80
33	L1	2537	G	C1'-O4'-C4'	-5.99	105.11	109.90
34	L3	65	G	P-O3'-C3'	-5.99	112.52	119.70
35	L2	119	C	C5'-C4'-C3'	-5.99	106.42	116.00
32	S1	800	U	C5'-C4'-C3'	-5.99	106.42	116.00
32	S1	1679	A	O4'-C1'-C2'	-5.99	99.81	105.80
33	L1	1022	G	N9-C1'-C2'	-5.99	105.42	112.00
33	L1	1868	C	C3'-C2'-C1'	5.99	106.29	101.50
33	L1	2183	A	P-O5'-C5'	5.99	130.48	120.90
35	L2	125	A	O4'-C1'-N9	-5.99	103.41	108.20
33	L1	791	C	C3'-C2'-C1'	5.98	106.29	101.50
33	L1	2090	G	O4'-C1'-C2'	-5.98	99.82	105.80
33	L1	2806	A	C5'-C4'-C3'	5.98	125.58	116.00
35	L2	41	A	N9-C1'-C2'	5.98	121.78	114.00
3	SB	31	GLU	N-CA-C	-5.98	94.85	111.00
32	S1	35	U	O4'-C4'-C3'	-5.98	98.02	104.00
32	S1	99	U	O4'-C1'-N1	5.98	112.98	108.20
32	S1	360	G	P-O3'-C3'	-5.98	112.52	119.70
32	S1	366	G	O4'-C1'-N9	5.98	112.99	108.20
33	L1	2246	G	O3'-P-O5'	-5.98	92.63	104.00
77	Lc	103	ARG	NE-CZ-NH2	-5.98	117.31	120.30
8	SJ	28	ARG	NE-CZ-NH2	-5.98	117.31	120.30
33	L1	1325	G	C1'-O4'-C4'	-5.98	105.12	109.90
33	L1	1382	C	O3'-P-O5'	-5.98	92.64	104.00
34	L3	62	U	P-O3'-C3'	5.98	126.88	119.70
45	LQ	219	PHE	CB-CG-CD2	-5.98	116.61	120.80
25	SC	43	GLU	C-N-CA	5.98	136.65	121.70
32	S1	1545	A	N9-C1'-C2'	5.98	121.77	114.00
32	S1	1607	C	O4'-C1'-C2'	-5.98	99.82	105.80
16	SR	139	ARG	CD-NE-CZ	-5.98	115.23	123.60
29	ST	64	ALA	N-CA-C	5.98	127.14	111.00
32	S1	342	C	C3'-C2'-C1'	5.98	106.28	101.50
32	S1	1715	C	C3'-C2'-C1'	-5.98	96.72	101.50
32	S1	1802	G	O5'-P-OP2	5.98	117.87	110.70
33	L1	544	C	C1'-O4'-C4'	-5.98	105.12	109.90
33	L1	2154	G	C1'-O4'-C4'	-5.98	105.12	109.90
33	L1	3055	U	N1-C1'-C2'	-5.98	105.42	112.00
36	LA	160	LYS	N-CA-CB	5.98	121.36	110.60
48	LV	132	ARG	CD-NE-CZ	5.98	131.97	123.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	Lo	13	LEU	CB-CA-C	5.98	121.56	110.20
81	LD	369	GLU	N-CA-CB	5.98	121.36	110.60
7	SI	148	TYR	CB-CG-CD2	5.98	124.59	121.00
33	L1	1078	U	C3'-C2'-C1'	5.98	106.28	101.50
52	Lb	87	TYR	CA-CB-CG	5.98	124.75	113.40
64	LG	87	ARG	N-CA-CB	5.98	121.36	110.60
70	Li	30	LEU	C-N-CA	5.98	136.64	121.70
32	S1	1071	C	C5'-C4'-O4'	5.97	116.27	109.10
32	S1	1076	C	OP1-P-OP2	-5.97	110.64	119.60
33	L1	263	A	P-O5'-C5'	5.97	130.46	120.90
33	L1	1320	G	O4'-C1'-C2'	5.97	112.98	107.60
33	L1	1815	G	P-O5'-C5'	5.97	130.46	120.90
33	L1	1887	A	O4'-C1'-N9	-5.97	103.42	108.20
33	L1	2341	U	C3'-C2'-C1'	5.97	106.28	101.50
33	L1	2637	U	O4'-C1'-N1	5.97	112.98	108.20
33	L1	3140	A	C4'-C3'-C2'	-5.97	96.62	102.60
33	L1	3274	G	C5'-C4'-O4'	5.97	116.27	109.10
69	La	67	ARG	NE-CZ-NH1	-5.97	117.31	120.30
27	SH	97	ARG	NE-CZ-NH1	5.97	123.29	120.30
29	ST	29	HIS	N-CA-CB	5.97	121.35	110.60
33	L1	1906	A	C1'-O4'-C4'	5.97	114.68	109.90
33	L1	2864	U	C3'-C2'-C1'	5.97	106.28	101.50
33	L1	3384	G	OP1-P-OP2	-5.97	110.64	119.60
69	La	41	CYS	CB-CA-C	5.97	122.34	110.40
32	S1	442	A	P-O3'-C3'	5.97	126.86	119.70
33	L1	819	A	C1'-O4'-C4'	-5.97	105.12	109.90
33	L1	2428	G	C3'-C2'-C1'	-5.97	96.72	101.50
56	Lh	48	LYS	CB-CG-CD	5.97	127.12	111.60
33	L1	3018	A	P-O3'-C3'	-5.97	112.54	119.70
24	SX	74	ARG	O-C-N	-5.97	113.15	122.70
31	S2	8	U	O4'-C1'-C2'	-5.97	99.83	105.80
33	L1	126	G	C3'-C2'-C1'	-5.97	96.73	101.50
33	L1	2051	G	P-O3'-C3'	-5.97	112.54	119.70
4	SD	59	ARG	NE-CZ-NH1	-5.97	117.32	120.30
32	S1	633	U	O5'-C5'-C4'	-5.97	100.36	111.70
33	L1	744	C	C2'-C3'-O3'	5.97	123.25	113.70
33	L1	1890	C	C3'-C2'-C1'	5.97	106.27	101.50
33	L1	2801	A	C5'-C4'-O4'	5.97	116.26	109.10
39	LF	88	ARG	NE-CZ-NH1	5.97	123.28	120.30
60	Lr	46	LYS	CA-C-O	-5.97	107.57	120.10
32	S1	1226	U	OP1-P-O3'	5.96	118.32	105.20
32	S1	1295	G	N9-C1'-C2'	5.96	121.75	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1307	U	C4'-C3'-C2'	-5.96	96.64	102.60
32	S1	1678	G	P-O3'-C3'	5.96	126.86	119.70
67	LS	28	ARG	CG-CD-NE	5.96	124.33	111.80
70	Li	83	SER	N-CA-C	5.96	127.10	111.00
71	Lj	1	MET	N-CA-C	5.96	127.10	111.00
1	Sa	31	THR	CA-C-N	5.96	130.32	117.20
33	L1	2121	U	N1-C1'-C2'	-5.96	105.44	112.00
33	L1	3077	C	N1-C1'-C2'	5.96	121.75	114.00
33	L1	3213	A	C3'-C2'-C1'	5.96	106.27	101.50
1	Sa	242	VAL	CB-CA-C	-5.96	100.07	111.40
4	SD	93	PRO	C-N-CA	-5.96	106.80	121.70
16	SR	126	ALA	CB-CA-C	5.96	119.04	110.10
32	S1	1574	U	O4'-C1'-N1	5.96	112.97	108.20
33	L1	2435	U	C3'-C2'-C1'	5.96	106.27	101.50
33	L1	2724	A	OP2-P-O3'	5.96	118.32	105.20
37	LB	31	SER	C-N-CA	5.96	136.60	121.70
32	S1	1801	A	C5'-C4'-O4'	5.96	116.25	109.10
33	L1	1876	U	O4'-C1'-C2'	5.96	112.96	107.60
33	L1	2220	U	N1-C1'-C2'	-5.96	105.44	112.00
33	L1	2498	C	P-O3'-C3'	-5.96	112.55	119.70
33	L1	3216	G	C3'-C2'-C1'	-5.96	96.73	101.50
33	L1	3323	U	O5'-P-OP1	5.96	117.85	110.70
34	L3	84	U	O4'-C1'-N1	5.96	112.97	108.20
45	LQ	250	ASP	N-CA-CB	5.96	121.33	110.60
32	S1	264	G	C5'-C4'-C3'	5.96	125.53	116.00
32	S1	1055	G	C5'-C4'-C3'	5.96	125.53	116.00
32	S1	1517	C	O4'-C1'-N1	-5.96	103.43	108.20
33	L1	547	C	O4'-C1'-N1	5.96	112.97	108.20
33	L1	1298	A	N9-C1'-C2'	-5.96	105.44	112.00
33	L1	2281	U	N1-C1'-C2'	5.96	121.75	114.00
33	L1	2456	G	C5'-C4'-C3'	5.96	125.53	116.00
25	SC	166	PHE	N-CA-CB	5.96	121.32	110.60
33	L1	1239	U	O4'-C1'-N1	-5.96	103.43	108.20
33	L1	2790	C	P-O3'-C3'	-5.96	112.55	119.70
33	L1	2983	U	OP1-P-O3'	5.96	118.31	105.20
33	L1	3316	C	C5'-C4'-C3'	5.96	125.53	116.00
49	LX	34	LYS	C-N-CA	-5.96	106.81	121.70
69	La	9	LYS	CA-CB-CG	5.96	126.50	113.40
32	S1	1306	U	C1'-O4'-C4'	-5.96	105.14	109.90
33	L1	638	G	OP1-P-OP2	-5.96	110.67	119.60
33	L1	2901	C	C3'-C2'-C1'	5.96	106.26	101.50
64	LG	85	ALA	O-C-N	-5.96	113.08	123.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	840	A	N9-C1'-C2'	5.95	121.74	114.00
33	L1	2455	A	P-O5'-C5'	5.95	130.43	120.90
33	L1	3388	U	C5'-C4'-C3'	5.95	125.53	116.00
67	LS	5	ARG	N-CA-CB	5.95	121.32	110.60
71	Lj	25	SER	CB-CA-C	-5.95	98.79	110.10
77	Lc	74	TYR	CB-CG-CD1	-5.95	117.43	121.00
31	S2	56	A	O4'-C1'-C2'	-5.95	99.85	105.80
32	S1	878	U	C5'-C4'-O4'	5.95	116.24	109.10
32	S1	1127	G	P-O5'-C5'	-5.95	111.38	120.90
33	L1	563	C	C5'-C4'-O4'	5.95	116.24	109.10
34	L3	10	C	O4'-C1'-C2'	-5.95	99.85	105.80
25	SC	149	MET	N-CA-CB	5.95	121.31	110.60
31	S2	1	U	P-O3'-C3'	5.95	126.84	119.70
32	S1	1443	U	O3'-P-O5'	5.95	115.31	104.00
33	L1	1063	G	O4'-C1'-N9	-5.95	103.44	108.20
33	L1	2361	C	C5'-C4'-O4'	-5.95	101.96	109.10
33	L1	3210	G	O4'-C1'-C2'	-5.95	99.85	105.80
35	L2	15	C	C1'-O4'-C4'	-5.95	105.14	109.90
35	L2	100	A	C4'-C3'-C2'	-5.95	96.65	102.60
48	LV	145	CYS	N-CA-CB	5.95	121.31	110.60
17	SV	99	GLN	N-CA-CB	5.95	121.31	110.60
32	S1	295	C	C3'-C2'-C1'	5.95	106.26	101.50
32	S1	334	G	C1'-O4'-C4'	-5.95	105.14	109.90
32	S1	1481	A	O4'-C1'-N9	5.95	112.96	108.20
32	S1	1634	U	O4'-C1'-N1	5.95	112.96	108.20
33	L1	391	U	O4'-C1'-C2'	5.95	112.95	107.60
33	L1	492	G	P-O5'-C5'	-5.95	111.38	120.90
33	L1	2712	C	C3'-C2'-C1'	5.95	106.26	101.50
33	L1	2758	C	O4'-C4'-C3'	5.95	110.86	106.10
39	LF	174	PHE	CG-CD1-CE1	-5.95	114.26	120.80
59	Lo	45	ARG	NE-CZ-NH2	5.95	123.27	120.30
1	Sa	24	ARG	NE-CZ-NH2	5.95	123.27	120.30
23	SU	52	LEU	O-C-N	-5.95	113.19	122.70
33	L1	2166	U	P-O3'-C3'	5.95	126.84	119.70
3	SB	131	ALA	O-C-N	-5.95	113.19	122.70
32	S1	91	C	O4'-C1'-N1	5.95	112.96	108.20
33	L1	333	G	N9-C1'-C2'	5.95	121.73	114.00
33	L1	3297	A	O3'-P-O5'	5.95	115.30	104.00
33	L1	3323	U	O5'-P-OP2	-5.95	100.35	105.70
33	L1	3337	G	N9-C1'-C2'	-5.95	105.46	112.00
43	LO	52	TYR	CD1-CE1-CZ	5.95	125.15	119.80
84	LI	109	ASP	CB-CA-C	-5.95	98.51	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	SM	114	LEU	CB-CA-C	5.94	121.49	110.20
32	S1	336	U	C4'-C3'-C2'	-5.94	96.66	102.60
33	L1	437	C	O4'-C1'-C2'	-5.94	99.86	105.80
35	L2	105	U	O4'-C1'-N1	5.94	112.95	108.20
10	SL	54	ILE	C-N-CA	5.94	134.78	122.30
33	L1	772	U	C1'-O4'-C4'	5.94	114.65	109.90
33	L1	1892	A	C1'-O4'-C4'	-5.94	105.15	109.90
82	LK	136	PRO	CA-N-CD	-5.94	103.18	111.50
1	Sa	276	PHE	CB-CG-CD1	-5.94	116.64	120.80
5	SE	21	ARG	NE-CZ-NH2	5.94	123.27	120.30
32	S1	234	G	O4'-C1'-C2'	5.94	112.95	107.60
32	S1	626	A	N9-C1'-C2'	5.94	121.72	114.00
33	L1	933	U	C1'-O4'-C4'	-5.94	105.15	109.90
33	L1	1000	A	O4'-C1'-C2'	-5.94	99.86	105.80
33	L1	1040	A	O4'-C1'-N9	5.94	112.95	108.20
33	L1	1742	G	C1'-O4'-C4'	5.94	114.65	109.90
33	L1	3299	A	O4'-C1'-C2'	-5.94	99.86	105.80
35	L2	24	U	C3'-C2'-C1'	-5.94	96.75	101.50
47	LU	45	ASN	CA-CB-CG	-5.94	100.33	113.40
5	SE	52	ARG	N-CA-CB	5.94	121.29	110.60
64	LG	139	VAL	C-N-CA	5.94	136.55	121.70
1	Sa	177	SER	CA-C-N	5.94	128.07	116.20
2	SA	18	ASP	N-CA-CB	5.94	121.29	110.60
32	S1	675	A	O4'-C1'-N9	5.94	112.95	108.20
32	S1	1343	C	O4'-C1'-N1	-5.94	103.45	108.20
33	L1	228	C	N1-C1'-C2'	-5.94	105.47	112.00
33	L1	962	C	O4'-C1'-N1	5.94	112.95	108.20
33	L1	1166	C	C5'-C4'-C3'	5.94	125.50	116.00
33	L1	2113	A	C5'-C4'-O4'	5.94	116.23	109.10
33	L1	2161	G	C3'-C2'-C1'	-5.94	96.75	101.50
33	L1	2421	C	N1-C1'-C2'	5.94	121.72	114.00
33	L1	2779	G	O4'-C1'-C2'	-5.94	99.86	105.80
35	L2	53	G	C5'-C4'-O4'	5.94	116.22	109.10
42	LP	164	LEU	CB-CA-C	-5.94	98.92	110.20
44	LR	160	HIS	C-N-CA	5.94	136.54	121.70
11	SM	36	VAL	N-CA-C	5.94	127.03	111.00
33	L1	445	C	O4'-C1'-N1	5.94	112.95	108.20
33	L1	1267	A	O4'-C1'-C2'	5.94	112.94	107.60
35	L2	62	G	O5'-P-OP1	5.94	117.82	110.70
72	Lk	66	VAL	N-CA-CB	5.94	124.56	111.50
13	SQ	72	LYS	N-CA-C	5.93	127.02	111.00
28	SN	14	TYR	CA-C-O	5.93	132.56	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1015	C	P-O5'-C5'	-5.93	111.40	120.90
33	L1	495	G	N9-C1'-C2'	-5.93	105.47	112.00
33	L1	1112	C	OP1-P-OP2	-5.93	110.70	119.60
33	L1	1549	A	C1'-O4'-C4'	-5.93	105.15	109.90
33	L1	1878	G	O4'-C1'-N9	5.93	112.95	108.20
35	L2	50	G	C3'-C2'-C1'	-5.93	96.75	101.50
15	SS	44	ARG	C-N-CA	5.93	136.53	121.70
25	SC	162	LEU	O-C-N	5.93	132.19	122.70
32	S1	1599	C	O4'-C1'-N1	5.93	112.95	108.20
33	L1	37	U	O4'-C1'-N1	5.93	112.95	108.20
33	L1	2739	A	OP2-P-O3'	5.93	118.25	105.20
33	L1	2783	U	C5'-C4'-O4'	-5.93	101.98	109.10
33	L1	2795	G	P-O5'-C5'	5.93	130.39	120.90
33	L1	3054	G	OP1-P-OP2	-5.93	110.70	119.60
33	L1	3317	G	C3'-C2'-C1'	-5.93	96.75	101.50
64	LG	26	TRP	N-CA-CB	5.93	121.28	110.60
23	SU	91	TYR	CB-CA-C	5.93	122.26	110.40
33	L1	528	C	O4'-C4'-C3'	5.93	110.84	106.10
33	L1	1645	G	C3'-C2'-C1'	5.93	106.25	101.50
33	L1	2753	C	C4'-C3'-C2'	-5.93	96.67	102.60
33	L1	2863	U	O4'-C1'-N1	5.93	112.94	108.20
13	SQ	73	LEU	C-N-CA	-5.93	106.88	121.70
31	S2	62	C	O4'-C4'-C3'	-5.93	98.07	104.00
32	S1	196	G	OP1-P-OP2	-5.93	110.70	119.60
32	S1	378	U	OP1-P-OP2	-5.93	110.70	119.60
33	L1	1114	A	O4'-C1'-C2'	5.93	112.94	107.60
33	L1	2731	G	OP1-P-OP2	-5.93	110.70	119.60
33	L1	2984	A	OP1-P-OP2	-5.93	110.70	119.60
33	L1	3227	U	P-O5'-C5'	5.93	130.39	120.90
33	L1	3325	G	C1'-O4'-C4'	-5.93	105.16	109.90
35	L2	152	C	C3'-C2'-C1'	5.93	106.24	101.50
39	LF	88	ARG	CD-NE-CZ	-5.93	115.30	123.60
59	Lo	6	THR	CA-CB-CG2	-5.93	104.10	112.40
5	SE	152	TYR	CG-CD2-CE2	-5.93	116.56	121.30
33	L1	1074	C	O4'-C1'-N1	5.93	112.94	108.20
66	LN	90	GLY	N-CA-C	5.93	127.92	113.10
13	SQ	93	VAL	CA-CB-CG2	5.93	119.79	110.90
25	SC	8	TYR	N-CA-CB	5.93	121.27	110.60
33	L1	705	A	O4'-C4'-C3'	-5.93	98.07	104.00
33	L1	745	G	O4'-C4'-C3'	-5.93	98.07	104.00
33	L1	764	A	C3'-C2'-C1'	5.93	106.24	101.50
33	L1	940	G	OP1-P-O3'	5.93	118.24	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1975	G	O4'-C1'-C2'	-5.93	99.87	105.80
33	L1	2013	G	O4'-C1'-C2'	5.93	112.93	107.60
33	L1	2430	C	N1-C1'-C2'	-5.93	105.48	112.00
35	L2	38	U	N1-C1'-C2'	5.93	121.70	114.00
25	SC	148	PHE	CB-CG-CD1	5.92	124.95	120.80
32	S1	337	A	O4'-C1'-N9	5.92	112.94	108.20
33	L1	74	G	C3'-C2'-C1'	-5.92	96.76	101.50
33	L1	1067	G	O4'-C1'-N9	5.92	112.94	108.20
33	L1	2332	C	O4'-C1'-N1	5.92	112.94	108.20
33	L1	2694	A	C4'-C3'-C2'	-5.92	96.67	102.60
33	L1	2723	G	O4'-C1'-N9	-5.92	103.46	108.20
34	L3	75	G	O3'-P-O5'	5.92	115.25	104.00
43	LO	32	ARG	NE-CZ-NH1	5.92	123.26	120.30
80	LC	25	HIS	N-CA-CB	-5.92	99.94	110.60
31	S2	55	C	C1'-O4'-C4'	-5.92	105.16	109.90
33	L1	814	U	O4'-C1'-C2'	5.92	112.93	107.60
33	L1	839	A	O4'-C1'-C2'	-5.92	99.88	105.80
50	LZ	13	GLN	O-C-N	-5.92	113.22	122.70
1	Sa	252	ILE	CB-CA-C	5.92	123.44	111.60
16	SR	144	ALA	N-CA-CB	5.92	118.39	110.10
32	S1	1009	U	O4'-C1'-N1	5.92	112.94	108.20
33	L1	257	C	C1'-O4'-C4'	-5.92	105.16	109.90
33	L1	433	C	C3'-C2'-C1'	5.92	106.24	101.50
33	L1	1300	C	O4'-C1'-C2'	-5.92	99.88	105.80
33	L1	2765	A	O4'-C1'-C2'	5.92	112.93	107.60
28	SN	11	PRO	C-N-CA	5.92	136.50	121.70
33	L1	687	C	C3'-C2'-C1'	5.92	106.24	101.50
52	Lb	113	ARG	NE-CZ-NH2	-5.92	117.34	120.30
3	SB	75	LYS	N-CA-C	-5.92	95.02	111.00
31	S2	42	C	N1-C1'-C2'	5.92	121.69	114.00
32	S1	88	C	C3'-C2'-C1'	5.92	106.23	101.50
32	S1	331	U	OP1-P-OP2	-5.92	110.72	119.60
33	L1	652	C	C3'-C2'-C1'	5.92	106.23	101.50
33	L1	1654	C	O4'-C1'-N1	-5.92	103.47	108.20
33	L1	1674	A	P-O5'-C5'	5.92	130.37	120.90
33	L1	2736	A	O5'-P-OP1	-5.92	100.37	105.70
38	LE	3	THR	C-N-CA	5.92	136.49	121.70
49	LX	88	ASP	CB-CG-OD1	5.92	123.63	118.30
32	S1	1263	C	O4'-C1'-C2'	-5.92	99.88	105.80
33	L1	1441	U	O3'-P-O5'	-5.92	92.76	104.00
33	L1	1595	G	C1'-O4'-C4'	-5.92	105.17	109.90
33	L1	1611	G	O4'-C1'-N9	5.92	112.93	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1648	C	N1-C1'-C2'	-5.92	105.49	112.00
33	L1	2346	U	C1'-O4'-C4'	5.92	114.63	109.90
33	L1	2946	U	O4'-C1'-N1	5.92	112.93	108.20
33	L1	3274	G	N9-C1'-C2'	5.92	121.69	114.00
33	L1	1740	U	O4'-C1'-C2'	-5.92	99.89	105.80
33	L1	1785	G	O4'-C1'-N9	5.92	112.93	108.20
33	L1	1873	C	O4'-C1'-N1	-5.92	103.47	108.20
33	L1	1891	A	C3'-C2'-C1'	5.92	106.23	101.50
31	S2	17	G	O5'-C5'-C4'	5.91	122.94	111.70
33	L1	838	G	C5'-C4'-C3'	5.91	125.46	116.00
33	L1	1077	C	O4'-C1'-C2'	5.91	112.92	107.60
33	L1	1681	U	OP1-P-OP2	-5.91	110.73	119.60
33	L1	1709	U	N1-C1'-C2'	5.91	121.69	114.00
33	L1	2088	C	O4'-C1'-C2'	5.91	112.92	107.60
33	L1	2563	G	P-O5'-C5'	5.91	130.36	120.90
42	LP	166	SER	CB-CA-C	-5.91	98.86	110.10
55	Lg	85	ARG	N-CA-CB	-5.91	99.95	110.60
5	SE	4	ARG	NE-CZ-NH2	-5.91	117.34	120.30
33	L1	3167	G	C1'-O4'-C4'	5.91	114.63	109.90
5	SE	79	GLU	N-CA-CB	5.91	121.24	110.60
27	SH	28	ARG	CA-C-N	5.91	133.65	117.10
32	S1	1603	U	C4'-C3'-C2'	5.91	108.51	102.60
33	L1	856	G	C3'-C2'-C1'	-5.91	96.77	101.50
33	L1	2177	U	P-O3'-C3'	5.91	126.79	119.70
66	LN	87	SER	CA-C-O	-5.91	107.69	120.10
81	LD	124	ARG	NE-CZ-NH1	5.91	123.26	120.30
32	S1	1328	G	N9-C1'-C2'	-5.91	105.50	112.00
33	L1	917	A	O4'-C1'-N9	-5.91	103.47	108.20
33	L1	2532	A	O4'-C1'-C2'	5.91	112.92	107.60
37	LB	141	PRO	N-CA-C	-5.91	96.74	112.10
42	LP	30	TYR	CB-CG-CD2	-5.91	117.45	121.00
45	LQ	256	SER	C-N-CA	-5.91	106.93	121.70
45	LQ	298	ASP	CB-CG-OD1	-5.91	112.98	118.30
66	LN	28	VAL	CA-CB-CG1	-5.91	102.04	110.90
33	L1	2199	C	O3'-P-O5'	-5.91	92.78	104.00
33	L1	3151	C	C5'-C4'-C3'	5.91	125.45	116.00
34	L3	100	A	C3'-C2'-C1'	5.91	106.22	101.50
32	S1	273	C	P-O5'-C5'	-5.91	111.45	120.90
32	S1	1224	C	O4'-C4'-C3'	-5.91	98.09	104.00
33	L1	71	C	P-O5'-C5'	5.91	130.35	120.90
33	L1	1043	U	C1'-O4'-C4'	-5.91	105.18	109.90
64	LG	59	ARG	NE-CZ-NH2	5.91	123.25	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	LI	35	ASP	CB-CG-OD1	5.91	123.61	118.30
23	SU	92	GLU	C-N-CD	-5.90	107.61	120.60
32	S1	652	G	O4'-C1'-C2'	-5.90	99.90	105.80
34	L3	74	A	OP2-P-O3'	5.90	118.19	105.20
45	LQ	55	PHE	CB-CG-CD2	-5.90	116.67	120.80
32	S1	535	C	P-O3'-C3'	5.90	126.78	119.70
33	L1	2376	G	C4'-C3'-C2'	5.90	108.50	102.60
33	L1	2578	G	N9-C1'-C2'	5.90	121.67	114.00
32	S1	912	A	C1'-O4'-C4'	-5.90	105.18	109.90
32	S1	1155	G	C5'-C4'-C3'	5.90	125.44	116.00
32	S1	1468	G	C5'-C4'-C3'	5.90	125.44	116.00
32	S1	1468	G	C1'-O4'-C4'	5.90	114.62	109.90
33	L1	530	C	O4'-C4'-C3'	-5.90	98.10	104.00
33	L1	2782	G	P-O3'-C3'	-5.90	112.62	119.70
45	LQ	1	MET	CG-SD-CE	-5.90	90.76	100.20
33	L1	1381	G	O4'-C1'-N9	5.90	112.92	108.20
33	L1	1717	G	C5'-C4'-C3'	5.90	125.44	116.00
33	L1	2652	G	OP1-P-O3'	5.90	118.18	105.20
25	SC	109	ARG	NE-CZ-NH1	5.90	123.25	120.30
32	S1	104	A	C3'-C2'-C1'	5.90	106.22	101.50
32	S1	1544	G	C3'-C2'-C1'	-5.90	96.78	101.50
33	L1	589	G	C1'-O4'-C4'	-5.90	105.18	109.90
34	L3	71	A	O4'-C1'-N9	5.90	112.92	108.20
38	LE	63	ARG	NE-CZ-NH1	5.90	123.25	120.30
42	LP	11	TRP	CB-CG-CD1	5.90	134.67	127.00
52	Lb	86	LEU	CB-CG-CD1	-5.90	100.97	111.00
52	Lb	116	LEU	CB-CG-CD1	-5.90	100.97	111.00
32	S1	562	U	O4'-C1'-C2'	-5.90	99.90	105.80
32	S1	1629	U	O4'-C4'-C3'	-5.90	98.10	104.00
33	L1	1921	U	C1'-O4'-C4'	5.90	114.62	109.90
33	L1	2621	G	OP1-P-OP2	-5.90	110.75	119.60
32	S1	1746	U	O4'-C1'-N1	-5.89	103.48	108.20
33	L1	1025	G	C5'-C4'-C3'	5.89	125.43	116.00
33	L1	1621	G	C4'-C3'-C2'	-5.89	96.71	102.60
33	L1	1789	C	O4'-C1'-C2'	-5.89	99.91	105.80
33	L1	2876	G	O5'-C5'-C4'	5.89	122.90	111.70
37	LB	83	TYR	CB-CA-C	-5.89	98.61	110.40
4	SD	130	GLN	N-CA-CB	5.89	121.21	110.60
32	S1	427	G	O4'-C1'-C2'	-5.89	99.91	105.80
33	L1	212	G	N9-C1'-C2'	-5.89	105.52	112.00
33	L1	418	G	C5'-C4'-C3'	-5.89	106.57	116.00
33	L1	495	G	O4'-C1'-C2'	5.89	112.90	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	LA	27	PHE	CB-CG-CD1	-5.89	116.67	120.80
39	LF	184	GLY	N-CA-C	-5.89	98.37	113.10
41	LM	51	ARG	NE-CZ-NH1	5.89	123.25	120.30
46	LT	177	ARG	CD-NE-CZ	5.89	131.85	123.60
32	S1	851	G	O4'-C4'-C3'	-5.89	98.11	104.00
32	S1	1161	C	C3'-C2'-C1'	5.89	106.21	101.50
32	S1	1402	C	P-O3'-C3'	5.89	126.77	119.70
25	SC	160	PHE	CB-CG-CD2	-5.89	116.68	120.80
33	L1	145	U	P-O5'-C5'	5.89	130.32	120.90
33	L1	1195	C	N1-C1'-C2'	5.89	121.66	114.00
33	L1	3322	A	C1'-O4'-C4'	-5.89	105.19	109.90
37	LB	76	PHE	CB-CG-CD1	5.89	124.92	120.80
43	LO	120	VAL	N-CA-CB	5.89	124.46	111.50
64	LG	191	ALA	N-CA-CB	5.89	118.34	110.10
77	Lc	95	ARG	NH1-CZ-NH2	-5.89	112.92	119.40
33	L1	597	C	P-O3'-C3'	5.89	126.77	119.70
32	S1	884	G	N9-C1'-C2'	-5.89	105.53	112.00
33	L1	279	G	OP1-P-OP2	-5.89	110.77	119.60
33	L1	1893	G	C5'-C4'-C3'	5.89	125.42	116.00
33	L1	1930	G	O4'-C1'-N9	5.89	112.91	108.20
33	L1	3384	G	P-O3'-C3'	5.89	126.76	119.70
37	LB	93	ARG	NE-CZ-NH2	-5.89	117.36	120.30
48	LV	127	ARG	O-C-N	-5.89	113.28	122.70
25	SC	68	ASN	CA-C-O	-5.88	107.74	120.10
32	S1	337	A	N9-C1'-C2'	5.88	121.65	114.00
32	S1	949	A	C1'-O4'-C4'	5.88	114.61	109.90
32	S1	1660	C	P-O5'-C5'	5.88	130.31	120.90
33	L1	3316	C	C4'-C3'-C2'	5.88	108.48	102.60
33	L1	3351	A	C1'-O4'-C4'	5.88	114.61	109.90
51	LY	62	TYR	CD1-CG-CD2	5.88	124.37	117.90
66	LN	80	VAL	C-N-CA	5.88	136.41	121.70
78	Le	78	TYR	CB-CG-CD2	-5.88	117.47	121.00
9	SK	49	ARG	NE-CZ-NH2	-5.88	117.36	120.30
32	S1	1127	G	C3'-C2'-C1'	5.88	106.21	101.50
33	L1	1819	A	C5'-C4'-C3'	5.88	125.41	116.00
6	SF	171	ASP	N-CA-CB	-5.88	100.01	110.60
32	S1	857	A	C5'-C4'-C3'	5.88	125.41	116.00
32	S1	944	A	C4'-C3'-C2'	-5.88	96.72	102.60
32	S1	1207	A	C4'-C3'-C2'	-5.88	96.72	102.60
33	L1	2211	G	O4'-C1'-C2'	5.88	112.89	107.60
33	L1	2864	U	P-O5'-C5'	5.88	130.31	120.90
69	La	10	ALA	CA-C-N	5.88	130.14	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3053	G	C4'-C3'-C2'	-5.88	96.72	102.60
45	LQ	48	TYR	CD1-CG-CD2	5.88	124.37	117.90
74	LJ	115	ARG	NE-CZ-NH2	5.88	123.24	120.30
82	LK	17	ARG	NE-CZ-NH1	5.88	123.24	120.30
1	Sa	270	ASP	CB-CG-OD2	5.88	123.59	118.30
32	S1	971	A	O4'-C1'-N9	5.88	112.90	108.20
32	S1	1055	G	OP1-P-OP2	-5.88	110.78	119.60
32	S1	1088	G	O5'-C5'-C4'	-5.88	100.53	111.70
33	L1	1888	G	C5'-C4'-O4'	5.88	116.16	109.10
33	L1	2531	G	C1'-O4'-C4'	-5.88	105.20	109.90
33	L1	3373	C	P-O5'-C5'	-5.88	111.49	120.90
19	SY	5	VAL	CA-CB-CG1	-5.88	102.09	110.90
33	L1	1064	U	C1'-O4'-C4'	5.88	114.60	109.90
33	L1	1551	C	C5'-C4'-O4'	5.88	116.15	109.10
33	L1	2274	A	OP2-P-O3'	5.88	118.13	105.20
33	L1	2351	A	P-O5'-C5'	5.88	130.30	120.90
33	L1	2466	G	P-O3'-C3'	5.88	126.75	119.70
33	L1	2508	U	C1'-O4'-C4'	5.88	114.60	109.90
35	L2	88	C	O4'-C1'-C2'	-5.88	99.92	105.80
67	LS	98	ASP	C-N-CA	5.88	136.39	121.70
33	L1	599	C	P-O5'-C5'	-5.88	111.50	120.90
33	L1	606	C	O4'-C1'-C2'	-5.88	99.92	105.80
33	L1	1424	G	O4'-C1'-N9	5.88	112.90	108.20
1	Sa	175	THR	CA-CB-CG2	-5.87	104.18	112.40
32	S1	323	U	O4'-C1'-N1	5.87	112.90	108.20
32	S1	689	C	N1-C1'-C2'	5.87	121.64	114.00
32	S1	913	U	O4'-C4'-C3'	-5.87	98.13	104.00
32	S1	1613	G	O3'-P-O5'	5.87	115.16	104.00
33	L1	1168	G	C1'-O4'-C4'	5.87	114.60	109.90
39	LF	152	LEU	CB-CA-C	5.87	121.36	110.20
46	LT	59	SER	N-CA-CB	5.87	119.31	110.50
67	LS	93	TYR	CB-CG-CD2	5.87	124.52	121.00
79	Ls	213	ASP	N-CA-CB	-5.87	100.03	110.60
32	S1	159	U	O3'-P-O5'	5.87	115.15	104.00
32	S1	192	G	C1'-O4'-C4'	-5.87	105.20	109.90
32	S1	1393	G	C1'-O4'-C4'	-5.87	105.20	109.90
33	L1	312	U	O5'-P-OP2	-5.87	100.42	105.70
33	L1	1034	U	C5'-C4'-C3'	5.87	125.39	116.00
33	L1	3214	U	C3'-C2'-C1'	-5.87	96.80	101.50
34	L3	65	G	P-O5'-C5'	5.87	130.29	120.90
35	L2	96	A	C5'-C4'-O4'	5.87	116.15	109.10
69	La	34	ARG	CB-CA-C	5.87	122.14	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	830	U	N1-C1'-C2'	-5.87	105.54	112.00
33	L1	1022	G	O5'-P-OP2	-5.87	100.42	105.70
67	LS	139	ASP	N-CA-CB	5.87	121.17	110.60
32	S1	593	C	P-O3'-C3'	-5.87	112.66	119.70
32	S1	1799	G	OP2-P-O3'	5.87	118.11	105.20
33	L1	1244	A	OP2-P-O3'	5.87	118.11	105.20
33	L1	1651	A	O4'-C4'-C3'	5.87	110.79	106.10
33	L1	3342	C	C4'-C3'-C2'	-5.87	96.73	102.60
33	L1	2621	G	C2'-C3'-O3'	5.87	123.09	113.70
66	LN	96	GLN	CA-CB-CG	5.87	126.31	113.40
72	Lk	49	GLU	CA-CB-CG	5.87	126.31	113.40
8	SJ	89	PHE	N-CA-C	-5.87	95.16	111.00
31	S2	26	G	P-O5'-C5'	5.87	130.28	120.90
32	S1	1156	A	O4'-C1'-C2'	-5.87	99.93	105.80
33	L1	1914	C	O4'-C1'-N1	5.87	112.89	108.20
33	L1	2057	G	O4'-C1'-N9	5.87	112.89	108.20
33	L1	2284	U	C1'-O4'-C4'	-5.87	105.21	109.90
33	L1	2461	A	O4'-C1'-N9	5.87	112.89	108.20
33	L1	2918	U	O5'-P-OP2	-5.87	100.42	105.70
48	LV	112	THR	O-C-N	-5.87	113.31	122.70
57	Ll	57	LYS	O-C-N	5.87	132.09	122.70
64	LG	44	ALA	CB-CA-C	5.87	118.90	110.10
27	SH	119	LYS	N-CA-CB	5.86	121.16	110.60
31	S2	74	C	P-O5'-C5'	5.86	130.28	120.90
33	L1	325	A	P-O3'-C3'	5.86	126.74	119.70
33	L1	650	A	O5'-P-OP2	-5.86	100.42	105.70
33	L1	681	A	O4'-C1'-N9	5.86	112.89	108.20
33	L1	1902	G	C5'-C4'-O4'	5.86	116.14	109.10
35	L2	138	G	C4'-C3'-C2'	5.86	108.46	102.60
47	LU	136	LYS	N-CA-C	5.86	126.83	111.00
69	La	29	PHE	N-CA-C	5.86	126.83	111.00
77	Lc	95	ARG	NE-CZ-NH2	5.86	123.23	120.30
5	SE	24	ARG	NH1-CZ-NH2	-5.86	112.95	119.40
33	L1	2643	A	O4'-C4'-C3'	-5.86	98.14	104.00
33	L1	3086	G	O3'-P-O5'	5.86	115.14	104.00
23	SU	10	VAL	CA-CB-CG1	5.86	119.69	110.90
25	SC	60	HIS	N-CA-C	5.86	126.82	111.00
32	S1	118	U	P-O3'-C3'	-5.86	112.67	119.70
32	S1	1615	G	C4'-C3'-C2'	-5.86	96.74	102.60
33	L1	496	U	C4'-C3'-C2'	-5.86	96.74	102.60
33	L1	844	A	P-O3'-C3'	-5.86	112.67	119.70
33	L1	1825	G	C4'-C3'-C2'	-5.86	96.74	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1990	A	O4'-C1'-N9	5.86	112.89	108.20
34	L3	107	C	O4'-C1'-N1	5.86	112.89	108.20
58	Ln	22	SER	CB-CA-C	-5.86	98.97	110.10
33	L1	2661	G	P-O5'-C5'	5.86	130.28	120.90
32	S1	1461	G	O4'-C1'-C2'	5.86	112.87	107.60
33	L1	588	G	O4'-C1'-C2'	5.86	112.87	107.60
33	L1	729	G	C1'-O4'-C4'	5.86	114.59	109.90
33	L1	1109	G	O4'-C1'-N9	5.86	112.89	108.20
46	LT	88	ARG	N-CA-CB	-5.86	100.06	110.60
47	LU	54	HIS	C-N-CA	5.86	136.34	121.70
33	L1	141	C	OP2-P-O3'	5.86	118.08	105.20
33	L1	410	G	C5'-C4'-C3'	5.86	125.37	116.00
33	L1	1250	G	O4'-C1'-N9	5.86	112.89	108.20
33	L1	1576	C	OP1-P-OP2	-5.86	110.82	119.60
33	L1	2729	C	C4'-C3'-C2'	-5.86	96.75	102.60
35	L2	96	A	O5'-C5'-C4'	5.86	122.83	111.70
32	S1	577	C	N1-C1'-C2'	5.85	121.61	114.00
33	L1	2858	G	O4'-C1'-N9	5.85	112.88	108.20
33	L1	2998	A	C1'-O4'-C4'	5.85	114.58	109.90
33	L1	588	G	O4'-C1'-N9	5.85	112.88	108.20
33	L1	1130	G	C1'-O4'-C4'	-5.85	105.22	109.90
33	L1	1349	G	O4'-C1'-C2'	5.85	112.87	107.60
33	L1	1369	G	C5'-C4'-O4'	-5.85	102.08	109.10
33	L1	1431	G	C1'-O4'-C4'	-5.85	105.22	109.90
33	L1	2346	U	O4'-C1'-N1	5.85	112.88	108.20
33	L1	228	C	C5'-C4'-O4'	5.85	116.12	109.10
33	L1	938	U	C1'-O4'-C4'	5.85	114.58	109.90
33	L1	2239	A	O4'-C1'-N9	5.85	112.88	108.20
35	L2	89	G	C3'-C2'-C1'	5.85	106.18	101.50
45	LQ	267	TYR	CB-CG-CD1	-5.85	117.49	121.00
80	LC	369	PHE	CB-CG-CD1	-5.85	116.70	120.80
32	S1	1314	U	C1'-O4'-C4'	5.85	114.58	109.90
32	S1	1572	U	N1-C1'-C2'	5.85	121.60	114.00
33	L1	98	A	P-O5'-C5'	5.85	130.26	120.90
33	L1	458	G	O4'-C1'-N9	5.85	112.88	108.20
33	L1	1389	C	C5'-C4'-C3'	-5.85	106.64	116.00
33	L1	2783	U	N1-C1'-C2'	-5.85	105.57	112.00
33	L1	3328	A	P-O3'-C3'	5.85	126.72	119.70
55	Lg	5	LYS	N-CA-C	-5.85	95.21	111.00
32	S1	1324	U	C5'-C4'-O4'	5.85	116.12	109.10
33	L1	1213	G	C1'-O4'-C4'	-5.85	105.22	109.90
33	L1	2483	A	O4'-C1'-C2'	5.85	112.86	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	LP	124	ASP	CB-CG-OD2	5.85	123.56	118.30
2	SA	20	GLN	N-CA-CB	5.85	121.12	110.60
32	S1	1738	U	N1-C1'-C2'	5.85	121.60	114.00
39	LF	114	ARG	NE-CZ-NH1	5.85	123.22	120.30
80	LC	258	TRP	CH2-CZ2-CE2	-5.85	111.55	117.40
32	S1	372	U	O3'-P-O5'	-5.84	92.90	104.00
32	S1	1155	G	C3'-C2'-C1'	-5.84	96.82	101.50
33	L1	495	G	P-O5'-C5'	-5.84	111.55	120.90
33	L1	874	U	C3'-C2'-C1'	-5.84	96.82	101.50
33	L1	2149	G	C3'-C2'-C1'	-5.84	96.83	101.50
54	Lf	26	LYS	CA-CB-CG	5.84	126.26	113.40
67	LS	159	ARG	C-N-CD	-5.84	107.74	120.60
33	L1	1747	A	P-O3'-C3'	-5.84	112.69	119.70
32	S1	881	G	C5'-C4'-O4'	5.84	116.11	109.10
32	S1	1471	C	N1-C1'-C2'	5.84	121.59	114.00
33	L1	570	G	C4'-C3'-C2'	-5.84	96.76	102.60
33	L1	2468	G	C5'-C4'-C3'	5.84	125.35	116.00
27	SH	91	ALA	N-CA-CB	5.84	118.28	110.10
33	L1	447	C	C3'-C2'-C1'	5.84	106.17	101.50
33	L1	1347	U	O4'-C1'-N1	5.84	112.87	108.20
33	L1	3212	C	P-O3'-C3'	5.84	126.71	119.70
38	LE	139	ARG	NE-CZ-NH2	-5.84	117.38	120.30
32	S1	1356	A	P-O3'-C3'	5.84	126.71	119.70
33	L1	1546	G	C5'-C4'-O4'	5.84	116.11	109.10
33	L1	2732	U	C1'-O4'-C4'	-5.84	105.23	109.90
29	ST	12	TYR	CB-CG-CD1	5.84	124.50	121.00
33	L1	2512	U	C4'-C3'-C2'	-5.84	96.76	102.60
34	L3	30	G	O4'-C1'-C2'	5.84	112.85	107.60
6	SF	168	CYS	N-CA-CB	5.83	121.10	110.60
32	S1	594	C	C4'-C3'-C2'	-5.83	96.77	102.60
32	S1	1182	C	O3'-P-O5'	5.83	115.09	104.00
25	SC	5	PRO	N-CD-CG	5.83	111.95	103.20
32	S1	683	C	N1-C1'-C2'	5.83	121.58	114.00
32	S1	1320	C	P-O5'-C5'	-5.83	111.57	120.90
32	S1	1568	U	O4'-C1'-N1	5.83	112.87	108.20
33	L1	525	A	P-O3'-C3'	-5.83	112.70	119.70
33	L1	886	A	O4'-C1'-N9	-5.83	103.53	108.20
33	L1	2829	U	C1'-O4'-C4'	5.83	114.57	109.90
70	Li	88	ARG	N-CA-CB	5.83	121.10	110.60
14	SP	112	VAL	CB-CA-C	-5.83	100.32	111.40
19	SY	16	ARG	CA-CB-CG	5.83	126.23	113.40
25	SC	146	PRO	N-CA-CB	5.83	110.30	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2230	C	O4'-C1'-N1	5.83	112.86	108.20
33	L1	2771	U	C1'-O4'-C4'	-5.83	105.23	109.90
33	L1	3334	A	O4'-C1'-C2'	-5.83	99.97	105.80
37	LB	91	GLY	C-N-CA	5.83	136.28	121.70
80	LC	124	LYS	CB-CA-C	5.83	122.06	110.40
33	L1	2058	C	C5'-C4'-O4'	-5.83	102.10	109.10
58	Ln	43	TYR	C-N-CA	5.83	136.28	121.70
32	S1	1068	G	C5'-C4'-C3'	5.83	125.33	116.00
33	L1	977	G	P-O3'-C3'	-5.83	112.71	119.70
33	L1	1190	C	O4'-C1'-N1	5.83	112.86	108.20
33	L1	2062	U	O4'-C1'-C2'	-5.83	99.97	105.80
69	La	42	LEU	CB-CA-C	5.83	121.27	110.20
32	S1	1036	U	O4'-C1'-C2'	-5.83	99.97	105.80
33	L1	397	A	C1'-O4'-C4'	-5.83	105.24	109.90
41	LM	71	ASP	N-CA-C	-5.83	95.27	111.00
32	S1	1757	G	O5'-P-OP2	-5.83	100.46	105.70
33	L1	271	G	O4'-C1'-C2'	5.83	112.84	107.60
33	L1	475	U	C1'-O4'-C4'	5.83	114.56	109.90
33	L1	1542	A	P-O3'-C3'	5.83	126.69	119.70
33	L1	1800	G	C1'-O4'-C4'	5.83	114.56	109.90
33	L1	2463	U	P-O3'-C3'	-5.83	112.71	119.70
33	L1	2645	A	P-O3'-C3'	5.83	126.69	119.70
38	LE	110	GLU	N-CA-CB	5.83	121.09	110.60
32	S1	582	U	N1-C1'-C2'	5.82	121.57	114.00
33	L1	911	G	C3'-C2'-C1'	5.82	106.16	101.50
33	L1	1276	C	O3'-P-O5'	5.82	115.06	104.00
33	L1	3323	U	OP2-P-O3'	5.82	118.01	105.20
78	Le	118	PHE	CB-CG-CD2	5.82	124.88	120.80
32	S1	307	U	O4'-C1'-N1	5.82	112.86	108.20
32	S1	1543	U	O5'-C5'-C4'	-5.82	100.64	111.70
33	L1	902	U	C3'-C2'-C1'	5.82	106.16	101.50
33	L1	2676	A	C1'-O4'-C4'	5.82	114.56	109.90
46	LT	88	ARG	CG-CD-NE	-5.82	99.57	111.80
77	Lc	85	ARG	CA-CB-CG	5.82	126.21	113.40
9	SK	132	THR	CA-C-O	5.82	132.32	120.10
32	S1	832	C	C5'-C4'-O4'	5.82	116.08	109.10
33	L1	1078	U	C1'-O4'-C4'	-5.82	105.24	109.90
33	L1	1128	U	C3'-C2'-C1'	5.82	106.16	101.50
33	L1	2363	G	O4'-C1'-N9	5.82	112.86	108.20
33	L1	2666	G	O4'-C1'-C2'	5.82	112.84	107.60
33	L1	2730	A	O4'-C1'-C2'	-5.82	99.98	105.80
39	LF	92	ARG	NE-CZ-NH2	-5.82	117.39	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	SO	80	LEU	CB-CA-C	-5.82	99.14	110.20
31	S2	54	U	C5'-C4'-C3'	5.82	125.31	116.00
33	L1	972	C	C5'-C4'-C3'	5.82	125.31	116.00
19	SY	2	ASP	N-CA-C	-5.82	95.29	111.00
19	SY	24	THR	CB-CA-C	5.82	127.31	111.60
32	S1	657	C	C3'-C2'-C1'	5.82	106.15	101.50
33	L1	1192	A	P-O5'-C5'	5.82	130.21	120.90
33	L1	1215	U	C1'-O4'-C4'	-5.82	105.25	109.90
33	L1	1691	U	P-O3'-C3'	-5.82	112.72	119.70
83	Lm	73	THR	N-CA-CB	5.82	121.35	110.30
32	S1	663	C	C3'-C2'-C1'	5.82	106.15	101.50
32	S1	875	C	C4'-C3'-C2'	-5.82	96.78	102.60
32	S1	1359	C	O4'-C1'-N1	5.82	112.85	108.20
33	L1	970	A	P-O3'-C3'	-5.82	112.72	119.70
33	L1	1252	C	O4'-C1'-N1	-5.82	103.55	108.20
33	L1	1866	C	N1-C1'-C2'	5.82	121.56	114.00
34	L3	27	A	C4'-C3'-C2'	-5.82	96.78	102.60
32	S1	977	G	O4'-C1'-N9	5.81	112.85	108.20
33	L1	1959	U	O4'-C1'-C2'	-5.81	99.99	105.80
66	LN	93	LEU	O-C-N	-5.81	113.40	122.70
70	Li	1	MET	CB-CA-C	5.81	122.03	110.40
5	SE	5	GLY	N-CA-C	-5.81	98.57	113.10
25	SC	8	TYR	CB-CA-C	-5.81	98.78	110.40
31	S2	54	U	O4'-C1'-N1	5.81	112.85	108.20
32	S1	1024	A	O4'-C1'-C2'	-5.81	99.99	105.80
33	L1	364	A	C3'-C2'-C1'	-5.81	96.85	101.50
33	L1	873	A	O3'-P-O5'	-5.81	92.96	104.00
35	L2	103	C	C3'-C2'-C1'	5.81	106.15	101.50
59	Lo	32	ASP	CB-CA-C	5.81	122.02	110.40
77	Lc	31	GLY	CA-C-O	-5.81	110.14	120.60
83	Lm	8	ALA	CB-CA-C	5.81	118.82	110.10
32	S1	1211	U	C3'-C2'-C1'	5.81	106.15	101.50
33	L1	305	G	C1'-O4'-C4'	-5.81	105.25	109.90
33	L1	1331	C	C3'-C2'-C1'	5.81	106.15	101.50
33	L1	3050	A	N9-C1'-C2'	-5.81	105.61	112.00
35	L2	48	A	C1'-O4'-C4'	-5.81	105.25	109.90
67	LS	41	SER	C-N-CA	5.81	136.23	121.70
32	S1	556	G	P-O3'-C3'	5.81	126.67	119.70
32	S1	1177	G	N9-C1'-C2'	-5.81	105.61	112.00
33	L1	265	G	C1'-O4'-C4'	5.81	114.55	109.90
33	L1	788	G	O4'-C1'-N9	5.81	112.85	108.20
33	L1	1627	U	C5'-C4'-O4'	5.81	116.07	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	LO	135	ALA	N-CA-C	5.81	126.69	111.00
48	LV	157	PRO	N-CA-CB	5.81	110.27	103.30
80	LC	235	ARG	CD-NE-CZ	5.81	131.73	123.60
1	Sa	107	HIS	CA-C-N	5.81	129.98	117.20
32	S1	1225	A	C4'-C3'-O3'	-5.81	97.20	109.40
33	L1	44	A	O4'-C1'-C2'	-5.81	99.99	105.80
33	L1	1143	G	N9-C1'-C2'	5.81	121.55	114.00
33	L1	1611	G	C4'-C3'-C2'	-5.81	96.79	102.60
33	L1	3245	G	C1'-O4'-C4'	-5.81	105.25	109.90
38	LE	169	TYR	N-CA-CB	5.81	121.05	110.60
56	Lh	58	TYR	CB-CG-CD1	5.81	124.48	121.00
12	SO	56	ASP	CB-CG-OD1	5.81	123.53	118.30
32	S1	447	C	O4'-C1'-N1	5.81	112.84	108.20
33	L1	995	C	O4'-C1'-C2'	-5.81	99.99	105.80
33	L1	2635	G	C5'-C4'-C3'	5.81	125.29	116.00
39	LF	186	ILE	CB-CA-C	5.81	123.21	111.60
66	LN	52	ARG	C-N-CA	5.81	136.21	121.70
28	SN	32	ARG	NE-CZ-NH1	-5.80	117.40	120.30
32	S1	620	G	C1'-O4'-C4'	-5.80	105.26	109.90
32	S1	656	G	C3'-C2'-C1'	5.80	106.14	101.50
33	L1	1583	G	C4'-C3'-C2'	-5.80	96.80	102.60
33	L1	1949	G	N9-C1'-C2'	-5.80	105.62	112.00
33	L1	2595	G	C5'-C4'-C3'	5.80	125.29	116.00
49	LX	58	ARG	N-CA-C	5.80	126.67	111.00
83	Lm	1	MET	N-CA-CB	-5.80	100.15	110.60
32	S1	434	G	O4'-C1'-N9	5.80	112.84	108.20
32	S1	1697	G	P-O3'-C3'	-5.80	112.74	119.70
33	L1	111	C	C3'-C2'-C1'	5.80	106.14	101.50
33	L1	561	G	O4'-C4'-C3'	-5.80	98.20	104.00
33	L1	1743	C	O4'-C1'-N1	5.80	112.84	108.20
33	L1	2219	A	C5'-C4'-O4'	-5.80	102.14	109.10
64	LG	30	ALA	N-CA-CB	-5.80	101.98	110.10
32	S1	797	A	P-O3'-C3'	5.80	126.66	119.70
32	S1	1467	C	O4'-C1'-C2'	-5.80	100.00	105.80
33	L1	111	C	O4'-C1'-N1	5.80	112.84	108.20
33	L1	164	C	O4'-C4'-C3'	-5.80	98.20	104.00
33	L1	554	C	O3'-P-O5'	-5.80	92.98	104.00
33	L1	1163	A	C4'-C3'-C2'	-5.80	96.80	102.60
33	L1	1288	C	N1-C1'-C2'	5.80	121.54	114.00
33	L1	1953	C	C1'-O4'-C4'	5.80	114.54	109.90
33	L1	2740	C	C3'-C2'-C1'	5.80	106.14	101.50
33	L1	2839	A	N9-C1'-C2'	-5.80	105.62	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3225	G	N9-C1'-C2'	-5.80	105.62	112.00
35	L2	128	C	O4'-C1'-C2'	-5.80	100.00	105.80
41	LM	97	TYR	CB-CG-CD2	5.80	124.48	121.00
17	SV	69	ARG	NE-CZ-NH1	5.80	123.20	120.30
32	S1	656	G	P-O5'-C5'	5.80	130.18	120.90
32	S1	1222	G	C5'-C4'-C3'	5.80	125.28	116.00
33	L1	1059	A	C3'-C2'-C1'	5.80	106.14	101.50
33	L1	1087	G	C5'-C4'-C3'	5.80	125.28	116.00
33	L1	1310	G	P-O5'-C5'	-5.80	111.62	120.90
33	L1	1856	G	O4'-C1'-C2'	-5.80	100.00	105.80
33	L1	2228	A	O4'-C1'-N9	5.80	112.84	108.20
33	L1	3092	A	C4'-C3'-C2'	-5.80	96.80	102.60
33	L1	3240	C	P-O5'-C5'	5.80	130.18	120.90
33	L1	3316	C	O3'-P-O5'	-5.80	92.98	104.00
45	LQ	44	ASP	N-CA-CB	5.80	121.04	110.60
81	LD	345	THR	N-CA-CB	5.80	121.32	110.30
31	S2	33	U	O4'-C1'-N1	5.80	112.84	108.20
33	L1	1473	U	C1'-O4'-C4'	-5.80	105.26	109.90
33	L1	2724	A	C1'-O4'-C4'	-5.80	105.26	109.90
33	L1	3057	A	P-O5'-C5'	-5.80	111.62	120.90
51	LY	28	VAL	CA-CB-CG2	-5.80	102.20	110.90
32	S1	1147	A	C4'-C3'-C2'	-5.80	96.80	102.60
32	S1	1747	A	O4'-C1'-C2'	-5.80	100.00	105.80
35	L2	55	G	OP2-P-O3'	5.80	117.95	105.20
13	SQ	81	ARG	O-C-N	-5.79	113.43	122.70
32	S1	1310	C	O4'-C1'-C2'	-5.79	100.00	105.80
33	L1	1232	A	P-O5'-C5'	5.79	130.17	120.90
33	L1	3019	C	C5'-C4'-C3'	5.79	125.27	116.00
48	LV	152	SER	C-N-CA	5.79	136.19	121.70
2	SA	89	ARG	NE-CZ-NH1	5.79	123.20	120.30
27	SH	81	VAL	CB-CA-C	5.79	122.41	111.40
32	S1	225	G	O4'-C1'-N9	5.79	112.83	108.20
33	L1	1090	C	P-O3'-C3'	5.79	126.65	119.70
33	L1	1146	A	C4'-C3'-C2'	-5.79	96.81	102.60
33	L1	2172	C	O4'-C1'-C2'	-5.79	100.01	105.80
56	Lh	26	TYR	CZ-CE2-CD2	-5.79	114.59	119.80
3	SB	110	LEU	N-CA-C	-5.79	95.36	111.00
12	SO	80	LEU	N-CA-C	5.79	126.64	111.00
23	SU	75	SER	N-CA-C	-5.79	95.36	111.00
32	S1	732	G	C5'-C4'-C3'	5.79	125.27	116.00
33	L1	105	A	C5'-C4'-O4'	5.79	116.05	109.10
33	L1	330	C	C5'-C4'-C3'	5.79	125.27	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	852	C	C3'-C2'-C1'	5.79	106.13	101.50
33	L1	919	G	N9-C1'-C2'	5.79	121.53	114.00
33	L1	1968	C	O4'-C1'-N1	5.79	112.83	108.20
33	L1	2622	G	C4'-C3'-C2'	-5.79	96.81	102.60
33	L1	2758	C	C1'-O4'-C4'	-5.79	105.27	109.90
33	L1	2995	G	O4'-C1'-C2'	-5.79	100.01	105.80
35	L2	67	C	OP2-P-O3'	5.79	117.94	105.20
35	L2	69	G	C5'-C4'-O4'	5.79	116.05	109.10
46	LT	81	ARG	O-C-N	-5.79	113.43	122.70
32	S1	488	C	O4'-C4'-C3'	-5.79	98.21	104.00
33	L1	530	C	O4'-C1'-C2'	-5.79	100.01	105.80
33	L1	1224	A	C2'-C3'-O3'	5.79	122.96	113.70
33	L1	1800	G	O4'-C4'-C3'	-5.79	98.21	104.00
33	L1	2454	U	C5'-C4'-O4'	5.79	116.05	109.10
33	L1	2863	U	P-O5'-C5'	-5.79	111.64	120.90
33	L1	3293	U	C1'-O4'-C4'	-5.79	105.27	109.90
71	Lj	4	ARG	CA-C-N	-5.79	104.46	117.20
33	L1	396	G	O4'-C1'-N9	5.79	112.83	108.20
33	L1	715	A	C1'-O4'-C4'	5.79	114.53	109.90
33	L1	1053	C	C3'-C2'-C1'	5.79	106.13	101.50
33	L1	2513	U	O4'-C4'-C3'	-5.79	98.21	104.00
33	L1	2589	G	O5'-P-OP2	-5.79	100.49	105.70
33	L1	2808	U	P-O5'-C5'	5.79	130.16	120.90
42	LP	86	HIS	CA-CB-CG	-5.79	103.76	113.60
57	Ll	11	ARG	N-CA-C	5.79	126.63	111.00
32	S1	1245	G	C1'-O4'-C4'	5.79	114.53	109.90
33	L1	2404	C	C1'-O4'-C4'	-5.79	105.27	109.90
33	L1	2828	U	N1-C1'-C2'	5.79	121.52	114.00
37	LB	51	ASP	CB-CG-OD2	-5.79	113.09	118.30
32	S1	517	U	C5'-C4'-C3'	5.79	125.26	116.00
32	S1	1020	U	O4'-C1'-N1	5.79	112.83	108.20
32	S1	1314	U	O4'-C1'-C2'	-5.79	100.02	105.80
32	S1	1760	A	P-O5'-C5'	5.79	130.16	120.90
33	L1	121	A	P-O5'-C5'	5.79	130.16	120.90
33	L1	868	A	O4'-C1'-C2'	5.79	112.81	107.60
35	L2	48	A	OP1-P-O3'	5.79	117.93	105.20
73	Lp	18	MET	CG-SD-CE	5.79	109.46	100.20
13	SQ	81	ARG	NE-CZ-NH1	5.78	123.19	120.30
31	S2	5	U	C3'-C2'-C1'	-5.78	96.87	101.50
32	S1	1072	U	C1'-O4'-C4'	-5.78	105.27	109.90
32	S1	1194	C	C3'-C2'-C1'	5.78	106.13	101.50
33	L1	126	G	O4'-C1'-N9	5.78	112.83	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3027	G	P-O3'-C3'	5.78	126.64	119.70
64	LG	101	SER	N-CA-CB	5.78	119.18	110.50
72	Lk	48	ARG	N-CA-CB	5.78	121.01	110.60
33	L1	603	G	C3'-C2'-C1'	-5.78	96.87	101.50
33	L1	1871	G	C1'-O4'-C4'	-5.78	105.27	109.90
33	L1	2877	U	O4'-C1'-C2'	5.78	112.80	107.60
35	L2	33	U	O5'-P-OP1	5.78	117.64	110.70
1	Sa	134	ILE	N-CA-C	-5.78	95.39	111.00
3	SB	110	LEU	N-CA-CB	5.78	121.96	110.40
7	SI	66	PHE	CB-CG-CD1	-5.78	116.75	120.80
11	SM	116	LYS	CA-CB-CG	5.78	126.12	113.40
25	SC	194	GLU	C-N-CA	5.78	136.15	121.70
32	S1	138	C	O4'-C1'-N1	-5.78	103.58	108.20
33	L1	804	A	C1'-C2'-O2'	-5.78	93.26	110.60
33	L1	1417	G	O4'-C1'-N9	5.78	112.83	108.20
71	Lj	20	TYR	CB-CG-CD1	-5.78	117.53	121.00
23	SU	80	LEU	CD1-CG-CD2	-5.78	93.16	110.50
32	S1	596	A	O4'-C1'-N9	5.78	112.82	108.20
33	L1	915	G	O5'-P-OP2	-5.78	100.50	105.70
80	LC	100	ARG	NE-CZ-NH2	-5.78	117.41	120.30
32	S1	496	A	O4'-C1'-C2'	-5.78	100.02	105.80
32	S1	965	U	O4'-C1'-C2'	-5.78	100.02	105.80
33	L1	1534	C	C4'-C3'-C2'	-5.78	96.82	102.60
33	L1	1601	G	O4'-C1'-N9	-5.78	103.58	108.20
56	Lh	13	LYS	CB-CA-C	5.78	121.96	110.40
32	S1	16	G	C4'-C3'-C2'	-5.78	96.82	102.60
32	S1	394	G	O4'-C1'-N9	5.78	112.82	108.20
32	S1	609	A	O4'-C1'-C2'	-5.78	100.02	105.80
32	S1	1060	U	C1'-O4'-C4'	-5.78	105.28	109.90
32	S1	1426	C	P-O5'-C5'	-5.78	111.66	120.90
33	L1	1654	C	N1-C1'-C2'	5.78	121.51	114.00
33	L1	2685	C	C5'-C4'-O4'	-5.78	102.17	109.10
33	L1	2972	C	C5'-C4'-C3'	5.78	125.24	116.00
37	LB	225	VAL	CA-CB-CG1	5.78	119.56	110.90
49	LX	108	ALA	N-CA-CB	5.78	118.19	110.10
77	Lc	95	ARG	NE-CZ-NH1	5.78	123.19	120.30
7	SI	99	TYR	CB-CG-CD2	-5.77	117.54	121.00
32	S1	523	C	P-O5'-C5'	5.77	130.14	120.90
32	S1	1032	A	C3'-C2'-C1'	5.77	106.12	101.50
33	L1	398	G	C1'-O4'-C4'	-5.77	105.28	109.90
33	L1	1643	A	P-O3'-C3'	-5.77	112.77	119.70
32	S1	1162	A	O4'-C1'-N9	5.77	112.82	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1781	U	OP2-P-O3'	5.77	117.90	105.20
33	L1	2109	G	C3'-C2'-C1'	-5.77	96.88	101.50
33	L1	2278	G	C4'-C3'-C2'	5.77	108.37	102.60
33	L1	2364	C	O4'-C1'-N1	5.77	112.82	108.20
33	L1	2800	C	O4'-C1'-C2'	5.77	112.80	107.60
46	LT	62	ARG	NE-CZ-NH1	-5.77	117.41	120.30
49	LX	94	PHE	CB-CG-CD1	5.77	124.84	120.80
32	S1	206	U	O4'-C1'-N1	5.77	112.82	108.20
3	SB	189	MET	N-CA-CB	-5.77	100.21	110.60
32	S1	340	G	O4'-C1'-N9	5.77	112.82	108.20
32	S1	984	A	P-O3'-C3'	-5.77	112.78	119.70
32	S1	1226	U	C5'-C4'-O4'	5.77	116.02	109.10
33	L1	1071	G	C3'-C2'-C1'	-5.77	96.88	101.50
33	L1	3150	G	C1'-O4'-C4'	5.77	114.52	109.90
34	L3	38	U	C5'-C4'-C3'	-5.77	106.77	116.00
35	L2	58	A	O4'-C1'-N9	5.77	112.81	108.20
35	L2	100	A	C5'-C4'-C3'	5.77	125.23	116.00
37	LB	140	ASN	N-CA-C	-5.77	95.42	111.00
31	S2	47	U	C5'-C4'-O4'	5.77	116.02	109.10
32	S1	1040	G	O4'-C4'-C3'	-5.77	98.23	104.00
33	L1	281	G	N9-C1'-C2'	5.77	121.50	114.00
33	L1	1646	U	C4'-C3'-C2'	-5.77	96.83	102.60
33	L1	2586	C	O4'-C1'-C2'	-5.77	100.03	105.80
42	LP	75	VAL	CA-C-N	5.77	133.25	117.10
49	LX	63	GLY	O-C-N	-5.77	113.47	122.70
66	LN	107	ARG	NE-CZ-NH1	5.77	123.18	120.30
32	S1	1629	U	O4'-C1'-N1	5.77	112.81	108.20
33	L1	3298	G	C3'-C2'-C1'	-5.77	96.89	101.50
1	Sa	223	SER	CB-CA-C	5.76	121.05	110.10
4	SD	131	PHE	N-CA-CB	-5.76	100.22	110.60
33	L1	638	G	O4'-C4'-C3'	-5.76	98.24	104.00
33	L1	1135	C	O4'-C1'-C2'	-5.76	100.03	105.80
33	L1	1191	U	O5'-P-OP2	-5.76	100.51	105.70
33	L1	1266	G	P-O5'-C5'	5.76	130.12	120.90
33	L1	2424	G	P-O3'-C3'	5.76	126.62	119.70
35	L2	43	G	C5'-C4'-O4'	-5.76	102.18	109.10
42	LP	93	LYS	CB-CA-C	5.76	121.93	110.40
60	Lr	17	CYS	N-CA-CB	5.76	120.98	110.60
70	Li	49	LYS	O-C-N	5.76	131.92	122.70
32	S1	1777	G	C5'-C4'-C3'	-5.76	106.78	116.00
35	L2	99	G	C2'-C3'-O3'	5.76	122.92	113.70
33	L1	1451	U	C1'-O4'-C4'	5.76	114.51	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1603	U	C1'-O4'-C4'	-5.76	105.29	109.90
33	L1	1805	A	P-O5'-C5'	5.76	130.12	120.90
33	L1	2658	U	N1-C1'-C2'	-5.76	105.66	112.00
33	L1	3142	C	C4'-C3'-C2'	-5.76	96.84	102.60
45	LQ	153	THR	C-N-CA	5.76	136.11	121.70
48	LV	137	ILE	O-C-N	-5.76	113.48	122.70
25	SC	94	LYS	C-N-CA	5.76	136.10	121.70
32	S1	282	C	C1'-O4'-C4'	5.76	114.51	109.90
32	S1	1587	G	C5'-C4'-O4'	5.76	116.01	109.10
33	L1	448	G	C1'-O4'-C4'	-5.76	105.29	109.90
33	L1	506	U	O4'-C1'-N1	5.76	112.81	108.20
33	L1	1729	G	C3'-C2'-C1'	-5.76	96.89	101.50
33	L1	1960	C	C5'-C4'-C3'	5.76	125.21	116.00
33	L1	2076	C	C4'-C3'-C2'	-5.76	96.84	102.60
33	L1	2736	A	C1'-O4'-C4'	5.76	114.51	109.90
33	L1	3377	G	O4'-C1'-N9	5.76	112.81	108.20
48	LV	84	TRP	CE3-CZ3-CH2	-5.76	114.86	121.20
64	LG	141	LYS	CA-CB-CG	5.76	126.07	113.40
80	LC	349	GLN	C-N-CA	5.76	136.10	121.70
16	SR	116	ILE	CA-C-O	-5.76	108.01	120.10
23	SU	12	LEU	CB-CG-CD1	5.76	120.79	111.00
32	S1	974	C	C5'-C4'-O4'	5.76	116.01	109.10
33	L1	900	C	N1-C1'-C2'	5.76	121.48	114.00
33	L1	1582	C	N1-C1'-C2'	5.76	121.48	114.00
33	L1	2626	G	C4'-C3'-C2'	-5.76	96.84	102.60
32	S1	524	A	C4'-C3'-O3'	5.76	124.51	113.00
32	S1	1108	U	O4'-C4'-C3'	-5.76	98.24	104.00
33	L1	646	U	O4'-C1'-N1	5.76	112.81	108.20
11	SM	112	GLU	O-C-N	5.75	131.91	122.70
33	L1	1226	G	C3'-C2'-C1'	-5.75	96.90	101.50
33	L1	1794	A	O4'-C1'-N9	5.75	112.80	108.20
33	L1	2069	G	C3'-C2'-C1'	5.75	106.10	101.50
32	S1	577	C	C1'-O4'-C4'	-5.75	105.30	109.90
32	S1	611	G	C3'-C2'-C1'	-5.75	96.90	101.50
32	S1	974	C	N1-C1'-C2'	-5.75	105.67	112.00
33	L1	787	G	N9-C1'-C2'	-5.75	105.67	112.00
33	L1	1350	G	C4'-C3'-C2'	-5.75	96.85	102.60
33	L1	2418	A	O3'-P-O5'	-5.75	93.07	104.00
33	L1	2521	C	O4'-C1'-N1	5.75	112.80	108.20
33	L1	2698	A	C3'-C2'-C1'	5.75	106.10	101.50
35	L2	95	C	O4'-C1'-N1	5.75	112.80	108.20
40	LH	122	ALA	O-C-N	-5.75	113.50	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	LT	23	TRP	CH2-CZ2-CE2	5.75	123.15	117.40
79	Ls	97	ASP	N-CA-CB	5.75	120.96	110.60
82	LK	92	MET	CG-SD-CE	-5.75	91.00	100.20
5	SE	30	ARG	N-CA-CB	5.75	120.95	110.60
32	S1	489	C	C3'-C2'-C1'	5.75	106.10	101.50
32	S1	1374	G	C3'-C2'-C1'	-5.75	96.90	101.50
33	L1	602	G	C1'-O4'-C4'	-5.75	105.30	109.90
33	L1	3390	G	P-O5'-C5'	5.75	130.10	120.90
54	Lf	102	SER	N-CA-CB	5.75	119.13	110.50
80	LC	300	THR	N-CA-CB	5.75	121.23	110.30
4	SD	52	LEU	CB-CA-C	-5.75	99.28	110.20
33	L1	826	C	C3'-C2'-C1'	-5.75	96.90	101.50
33	L1	1370	A	C4'-C3'-C2'	5.75	108.35	102.60
33	L1	2063	U	C3'-C2'-C1'	5.75	106.10	101.50
33	L1	2078	G	C4'-C3'-C2'	-5.75	96.85	102.60
31	S2	18	G	C1'-O4'-C4'	-5.75	105.30	109.90
32	S1	619	A	C5'-C4'-O4'	5.75	116.00	109.10
32	S1	1587	G	N9-C1'-C2'	5.75	121.47	114.00
33	L1	954	A	O5'-P-OP1	5.75	117.60	110.70
33	L1	1326	C	C3'-C2'-C1'	5.75	106.10	101.50
33	L1	2185	U	C4'-C3'-C2'	-5.75	96.85	102.60
33	L1	2695	A	P-O5'-C5'	5.75	130.10	120.90
33	L1	2873	G	N9-C1'-C2'	5.75	121.47	114.00
33	L1	3035	C	P-O5'-C5'	5.75	130.10	120.90
33	L1	3334	A	OP2-P-O3'	5.75	117.85	105.20
34	L3	63	U	C4'-C3'-C2'	-5.75	96.85	102.60
35	L2	19	G	N9-C1'-C2'	5.75	121.47	114.00
38	LE	115	GLY	CA-C-N	-5.75	104.55	117.20
67	LS	155	TYR	CB-CA-C	-5.75	98.90	110.40
72	Lk	84	LYS	CA-CB-CG	5.75	126.05	113.40
32	S1	50	C	O3'-P-O5'	5.75	114.92	104.00
32	S1	335	A	O4'-C1'-N9	5.75	112.80	108.20
33	L1	1495	G	O4'-C4'-C3'	-5.75	98.25	104.00
33	L1	2072	U	P-O3'-C3'	5.75	126.60	119.70
33	L1	2393	G	N9-C1'-C2'	5.75	121.47	114.00
33	L1	2647	C	C3'-C2'-C1'	5.75	106.10	101.50
33	L1	3365	U	OP1-P-OP2	-5.75	110.98	119.60
35	L2	107	G	O4'-C1'-C2'	5.75	112.77	107.60
45	LQ	186	ASP	CB-CG-OD1	-5.75	113.13	118.30
47	LU	158	ASN	CB-CA-C	5.75	121.89	110.40
67	LS	163	ARG	CA-CB-CG	5.75	126.04	113.40
25	SC	162	LEU	CB-CA-C	-5.75	99.28	110.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1498	U	O4'-C4'-C3'	-5.75	98.25	104.00
33	L1	2499	U	P-O5'-C5'	5.75	130.09	120.90
3	SB	172	VAL	CA-CB-CG2	5.74	119.52	110.90
32	S1	323	U	C3'-C2'-C1'	5.74	106.09	101.50
32	S1	1070	A	O4'-C1'-C2'	-5.74	100.06	105.80
32	S1	1274	G	O4'-C1'-C2'	-5.74	100.06	105.80
32	S1	1311	U	C1'-O4'-C4'	-5.74	105.31	109.90
33	L1	450	C	O4'-C4'-C3'	-5.74	98.26	104.00
33	L1	959	U	C1'-O4'-C4'	-5.74	105.31	109.90
33	L1	1064	U	C3'-C2'-C1'	5.74	106.09	101.50
33	L1	2529	C	N1-C1'-C2'	5.74	121.47	114.00
38	LE	142	ARG	NH1-CZ-NH2	5.74	125.72	119.40
64	LG	182	LYS	C-N-CA	5.74	136.06	121.70
32	S1	648	C	C3'-C2'-C1'	5.74	106.09	101.50
32	S1	1304	A	N9-C1'-C2'	-5.74	105.68	112.00
33	L1	1053	C	O4'-C1'-C2'	-5.74	100.06	105.80
33	L1	1899	U	OP2-P-O3'	5.74	117.83	105.20
33	L1	2468	G	C2'-C3'-O3'	5.74	122.89	113.70
45	LQ	259	LYS	N-CA-CB	5.74	120.94	110.60
32	S1	1413	C	N1-C1'-C2'	5.74	121.46	114.00
32	S1	1545	A	OP1-P-OP2	-5.74	110.99	119.60
32	S1	1562	C	C3'-C2'-C1'	5.74	106.09	101.50
33	L1	743	C	O4'-C1'-C2'	-5.74	100.06	105.80
33	L1	1095	C	C4'-C3'-C2'	-5.74	96.86	102.60
33	L1	1371	G	C3'-C2'-C1'	5.74	106.09	101.50
33	L1	2675	G	O3'-P-O5'	-5.74	93.09	104.00
46	LT	172	ARG	CD-NE-CZ	-5.74	115.56	123.60
48	LV	128	ARG	CA-CB-CG	5.74	126.03	113.40
51	LY	27	ARG	N-CA-CB	-5.74	100.27	110.60
33	L1	1578	U	O4'-C1'-N1	5.74	112.79	108.20
1	Sa	330	ALA	N-CA-CB	5.74	118.13	110.10
32	S1	381	G	N9-C1'-C2'	-5.74	105.69	112.00
33	L1	1948	G	C4'-C3'-C2'	-5.74	96.86	102.60
48	LV	112	THR	C-N-CA	-5.74	107.36	121.70
67	LS	94	LYS	CB-CG-CD	5.74	126.52	111.60
17	SV	76	LEU	CB-CG-CD2	5.74	120.75	111.00
32	S1	1059	U	P-O5'-C5'	5.74	130.08	120.90
32	S1	1681	G	O4'-C1'-N9	5.74	112.79	108.20
33	L1	860	G	C1'-O4'-C4'	-5.74	105.31	109.90
33	L1	974	G	P-O5'-C5'	-5.74	111.72	120.90
33	L1	1892	A	C5'-C4'-C3'	-5.74	106.82	116.00
33	L1	2410	U	P-O3'-C3'	-5.74	112.82	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2691	U	N1-C1'-C2'	5.74	121.46	114.00
66	LN	109	LYS	CA-CB-CG	5.74	126.02	113.40
78	Le	128	MET	CB-CA-C	5.74	121.87	110.40
33	L1	381	G	P-O3'-C3'	5.73	126.58	119.70
33	L1	841	G	OP1-P-OP2	-5.73	111.00	119.60
33	L1	1129	G	C5'-C4'-C3'	5.73	125.17	116.00
33	L1	2171	A	C2'-C3'-O3'	5.73	122.88	113.70
33	L1	2568	G	C1'-O4'-C4'	5.73	114.49	109.90
33	L1	3026	C	C1'-O4'-C4'	-5.73	105.31	109.90
15	SS	44	ARG	NH1-CZ-NH2	-5.73	113.09	119.40
32	S1	124	G	O3'-P-O5'	-5.73	93.11	104.00
32	S1	404	A	P-O5'-C5'	5.73	130.07	120.90
32	S1	565	G	P-O3'-C3'	-5.73	112.82	119.70
32	S1	1290	U	OP1-P-OP2	-5.73	111.00	119.60
33	L1	639	A	C1'-C2'-O2'	5.73	127.80	110.60
33	L1	1495	G	P-O3'-C3'	5.73	126.58	119.70
33	L1	1972	C	O4'-C1'-N1	5.73	112.79	108.20
33	L1	2758	C	OP2-P-O3'	5.73	117.81	105.20
34	L3	107	C	C1'-O4'-C4'	-5.73	105.31	109.90
70	Li	40	SER	N-CA-C	5.73	126.48	111.00
2	SA	88	GLN	CB-CA-C	-5.73	98.94	110.40
29	ST	12	TYR	CB-CA-C	5.73	121.86	110.40
32	S1	476	U	O4'-C1'-C2'	-5.73	100.07	105.80
32	S1	1414	G	O4'-C1'-N9	5.73	112.78	108.20
33	L1	303	U	C4'-C3'-C2'	-5.73	96.87	102.60
33	L1	705	A	O4'-C1'-N9	5.73	112.78	108.20
33	L1	1028	G	C5'-C4'-C3'	5.73	125.17	116.00
33	L1	1202	C	N1-C1'-C2'	5.73	121.45	114.00
33	L1	1877	G	C3'-C2'-C1'	-5.73	96.92	101.50
33	L1	2417	G	OP2-P-O3'	5.73	117.81	105.20
33	L1	2669	C	O4'-C1'-C2'	5.73	112.76	107.60
33	L1	2951	U	P-O5'-C5'	5.73	130.07	120.90
33	L1	3362	A	O4'-C1'-N9	5.73	112.78	108.20
42	LP	68	ARG	NE-CZ-NH1	-5.73	117.44	120.30
45	LQ	197	LYS	C-N-CA	5.73	136.03	121.70
59	Lo	21	ARG	NE-CZ-NH2	5.73	123.17	120.30
70	Li	71	ARG	CA-CB-CG	5.73	126.01	113.40
2	SA	171	GLY	C-N-CA	5.73	136.02	121.70
32	S1	1138	A	O4'-C4'-C3'	-5.73	98.27	104.00
33	L1	1088	A	N9-C1'-C2'	5.73	121.45	114.00
33	L1	2417	G	O4'-C1'-N9	5.73	112.78	108.20
33	L1	2936	A	O4'-C1'-N9	5.73	112.78	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	LV	60	PHE	CB-CG-CD1	5.73	124.81	120.80
70	Li	18	ASN	N-CA-CB	5.73	120.91	110.60
31	S2	33	U	O4'-C4'-C3'	-5.73	98.27	104.00
32	S1	250	A	P-O3'-C3'	5.73	126.57	119.70
32	S1	618	C	C3'-C2'-C1'	5.73	106.08	101.50
32	S1	842	G	O4'-C1'-N9	5.73	112.78	108.20
33	L1	1350	G	C3'-C2'-C1'	-5.73	96.92	101.50
33	L1	2090	G	C4'-C3'-C2'	-5.73	96.87	102.60
33	L1	2761	A	N9-C1'-C2'	5.73	121.45	114.00
33	L1	2803	A	O4'-C1'-C2'	5.73	112.75	107.60
72	Lk	66	VAL	CA-C-N	5.73	127.65	116.20
33	L1	2485	U	C1'-O4'-C4'	5.73	114.48	109.90
32	S1	1701	G	O4'-C1'-C2'	5.72	112.75	107.60
33	L1	914	C	P-O3'-C3'	-5.72	112.83	119.70
33	L1	1007	A	C1'-O4'-C4'	-5.72	105.32	109.90
33	L1	1666	C	P-O3'-C3'	-5.72	112.83	119.70
33	L1	2975	G	O4'-C1'-C2'	5.72	112.75	107.60
35	L2	119	C	C4'-C3'-C2'	-5.72	96.88	102.60
67	LS	5	ARG	NH1-CZ-NH2	5.72	125.70	119.40
81	LD	359	LEU	N-CA-CB	5.72	121.85	110.40
32	S1	82	G	O5'-P-OP1	5.72	117.57	110.70
32	S1	103	U	C3'-C2'-C1'	5.72	106.08	101.50
33	L1	555	G	N9-C1'-C2'	5.72	121.44	114.00
33	L1	1022	G	O4'-C1'-C2'	5.72	112.75	107.60
33	L1	1111	U	P-O3'-C3'	-5.72	112.83	119.70
33	L1	1321	A	C3'-C2'-C1'	5.72	106.08	101.50
33	L1	1666	C	C5'-C4'-O4'	5.72	115.97	109.10
33	L1	2659	A	C4'-C3'-O3'	5.72	124.44	113.00
33	L1	2721	C	C5'-C4'-O4'	-5.72	102.23	109.10
46	LT	124	TYR	CB-CG-CD1	-5.72	117.57	121.00
54	Lf	20	LEU	N-CA-CB	-5.72	98.95	110.40
32	S1	1069	G	O4'-C4'-C3'	-5.72	98.28	104.00
33	L1	879	A	C5'-C4'-O4'	5.72	115.97	109.10
33	L1	2630	A	P-O5'-C5'	5.72	130.05	120.90
33	L1	2803	A	C1'-O4'-C4'	-5.72	105.32	109.90
10	SL	22	TRP	CA-CB-CG	5.72	124.57	113.70
33	L1	877	U	O5'-P-OP1	5.72	117.56	110.70
33	L1	2621	G	C1'-O4'-C4'	5.72	114.48	109.90
33	L1	2975	G	C5'-C4'-C3'	5.72	125.15	116.00
68	LW	68	ASP	CB-CG-OD1	5.72	123.45	118.30
81	LD	335	PRO	O-C-N	-5.72	113.55	122.70
33	L1	1507	A	OP2-P-O3'	5.72	117.78	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	57	A	C1'-O4'-C4'	-5.72	105.33	109.90
33	L1	209	G	P-O5'-C5'	5.72	130.04	120.90
33	L1	1115	A	O4'-C1'-N9	-5.72	103.63	108.20
33	L1	1282	A	C1'-O4'-C4'	5.72	114.47	109.90
38	LE	86	LEU	N-CA-CB	5.72	121.83	110.40
38	LE	108	ILE	CG1-CB-CG2	5.72	123.98	111.40
39	LF	119	GLU	N-CA-CB	5.72	120.89	110.60
42	LP	99	ARG	NE-CZ-NH1	5.72	123.16	120.30
84	LI	153	ARG	NE-CZ-NH1	5.72	123.16	120.30
32	S1	409	C	C3'-C2'-C1'	5.71	106.07	101.50
32	S1	1115	G	O4'-C1'-N9	5.71	112.77	108.20
33	L1	406	A	C4'-C3'-C2'	-5.71	96.89	102.60
33	L1	917	A	O5'-P-OP1	5.71	117.56	110.70
45	LQ	260	GLU	CB-CA-C	5.71	121.83	110.40
64	LG	184	ILE	N-CA-CB	-5.71	97.66	110.80
81	LD	42	ARG	N-CA-CB	5.71	120.89	110.60
32	S1	2	A	P-O5'-C5'	5.71	130.04	120.90
32	S1	1069	G	P-O5'-C5'	5.71	130.04	120.90
33	L1	1427	C	OP2-P-O3'	5.71	117.77	105.20
33	L1	1768	U	C4'-C3'-C2'	-5.71	96.89	102.60
33	L1	2489	A	O4'-C1'-C2'	-5.71	100.09	105.80
33	L1	2631	A	O4'-C1'-N9	5.71	112.77	108.20
34	L3	101	A	O4'-C1'-C2'	-5.71	100.09	105.80
47	LU	74	VAL	CA-CB-CG1	5.71	119.47	110.90
1	Sa	59	CYS	CA-CB-SG	-5.71	103.72	114.00
4	SD	153	ILE	N-CA-CB	-5.71	97.67	110.80
32	S1	979	A	O5'-C5'-C4'	-5.71	100.85	111.70
33	L1	2620	U	C3'-C2'-C1'	-5.71	96.93	101.50
33	L1	2870	U	C5'-C4'-O4'	5.71	115.95	109.10
33	L1	3170	C	C4'-C3'-C2'	-5.71	96.89	102.60
33	L1	3375	G	P-O5'-C5'	5.71	130.04	120.90
51	LY	109	LYS	N-CA-CB	5.71	120.88	110.60
52	Lb	67	ASP	C-N-CA	5.71	135.98	121.70
84	LI	32	ARG	NE-CZ-NH1	5.71	123.16	120.30
32	S1	25	C	N1-C1'-C2'	5.71	121.42	114.00
32	S1	982	A	O4'-C1'-N9	5.71	112.77	108.20
33	L1	612	U	P-O5'-C5'	-5.71	111.76	120.90
33	L1	2746	G	P-O3'-C3'	5.71	126.55	119.70
33	L1	3225	G	P-O3'-C3'	5.71	126.55	119.70
16	SR	128	PHE	N-CA-C	5.71	126.41	111.00
32	S1	1200	A	P-O3'-C3'	5.71	126.55	119.70
33	L1	2340	G	O4'-C1'-C2'	5.71	112.74	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	LM	71	ASP	N-CA-CB	5.71	120.88	110.60
47	LU	158	ASN	CA-CB-CG	5.71	125.96	113.40
55	Lg	102	THR	CA-CB-CG2	5.71	120.39	112.40
72	Lk	93	MET	CG-SD-CE	-5.71	91.07	100.20
32	S1	1587	G	C3'-C2'-C1'	5.71	106.06	101.50
33	L1	810	A	C1'-O4'-C4'	5.71	114.47	109.90
33	L1	1638	U	C1'-O4'-C4'	5.71	114.47	109.90
40	LH	137	TYR	CG-CD2-CE2	-5.71	116.73	121.30
45	LQ	21	GLN	N-CA-CB	-5.71	100.33	110.60
45	LQ	141	PRO	N-CA-C	5.71	126.94	112.10
84	LI	7	ARG	NE-CZ-NH2	-5.71	117.45	120.30
33	L1	2532	A	N9-C1'-C2'	5.71	121.42	114.00
81	LD	104	ARG	NE-CZ-NH2	5.71	123.15	120.30
33	L1	1164	G	N9-C1'-C2'	5.70	121.42	114.00
33	L1	2109	G	P-O5'-C5'	5.70	130.03	120.90
33	L1	2476	G	C3'-C2'-C1'	-5.70	96.94	101.50
33	L1	2681	A	O4'-C1'-C2'	-5.70	100.10	105.80
33	L1	2858	G	N9-C1'-C2'	5.70	121.42	114.00
33	L1	3349	C	O4'-C1'-N1	5.70	112.76	108.20
33	L1	3357	C	C4'-C3'-C2'	-5.70	96.90	102.60
37	LB	20	THR	N-CA-CB	5.70	121.14	110.30
73	Lp	53	ASN	CA-CB-CG	5.70	125.95	113.40
31	S2	10	G	C4'-C3'-C2'	5.70	108.30	102.60
33	L1	2386	A	C1'-O4'-C4'	-5.70	105.34	109.90
66	LN	98	ARG	CA-CB-CG	5.70	125.94	113.40
24	SX	53	GLN	N-CA-CB	-5.70	100.34	110.60
33	L1	618	G	P-O5'-C5'	-5.70	111.78	120.90
33	L1	1245	U	OP1-P-OP2	-5.70	111.05	119.60
33	L1	1830	U	OP1-P-O3'	5.70	117.74	105.20
33	L1	2653	U	C2'-C3'-O3'	5.70	122.82	113.70
33	L1	3101	C	N1-C1'-C2'	5.70	121.41	114.00
32	S1	955	C	O4'-C4'-C3'	-5.70	98.30	104.00
33	L1	1368	U	OP1-P-OP2	-5.70	111.05	119.60
33	L1	1388	C	C5'-C4'-C3'	5.70	125.12	116.00
33	L1	1530	C	P-O3'-C3'	-5.70	112.86	119.70
33	L1	1900	C	O5'-C5'-C4'	5.70	122.53	111.70
33	L1	2877	U	P-O3'-C3'	5.70	126.54	119.70
35	L2	62	G	O4'-C1'-N9	-5.70	103.64	108.20
48	LV	114	TYR	CB-CA-C	5.70	121.80	110.40
54	Lf	39	ARG	CG-CD-NE	-5.70	99.83	111.80
59	Lo	41	ARG	CD-NE-CZ	-5.70	115.62	123.60
16	SR	124	TYR	CB-CG-CD2	-5.70	117.58	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1800	G	O4'-C1'-C2'	5.70	112.73	107.60
32	S1	659	G	O4'-C1'-N9	5.70	112.76	108.20
32	S1	1055	G	C1'-O4'-C4'	-5.70	105.34	109.90
32	S1	1416	A	C3'-C2'-C1'	5.70	106.06	101.50
33	L1	992	U	O4'-C1'-N1	5.70	112.76	108.20
33	L1	1964	G	O4'-C1'-N9	5.70	112.76	108.20
33	L1	3141	G	C3'-C2'-C1'	-5.70	96.94	101.50
33	L1	3198	C	P-O3'-C3'	5.70	126.53	119.70
33	L1	3381	C	C5'-C4'-C3'	5.70	125.11	116.00
34	L3	11	A	O4'-C1'-N9	5.70	112.76	108.20
38	LE	106	PHE	CB-CG-CD1	5.70	124.79	120.80
64	LG	58	PRO	N-CD-CG	5.70	111.74	103.20
1	Sa	62	LEU	CB-CA-C	-5.69	99.38	110.20
33	L1	1825	G	OP1-P-OP2	-5.69	111.06	119.60
33	L1	2715	U	O4'-C1'-C2'	5.69	112.72	107.60
33	L1	2854	C	N1-C1'-C2'	5.69	121.40	114.00
51	LY	111	ASP	CB-CG-OD1	-5.69	113.17	118.30
32	S1	1171	C	O4'-C1'-N1	5.69	112.75	108.20
33	L1	136	C	C3'-C2'-C1'	5.69	106.05	101.50
33	L1	1822	C	O3'-P-O5'	-5.69	93.19	104.00
33	L1	2498	C	C5'-C4'-C3'	5.69	125.11	116.00
33	L1	2636	U	O4'-C1'-N1	5.69	112.75	108.20
45	LQ	265	LYS	CB-CA-C	-5.69	99.01	110.40
32	S1	975	A	C1'-O4'-C4'	5.69	114.45	109.90
32	S1	1061	G	C1'-O4'-C4'	-5.69	105.35	109.90
33	L1	282	A	O5'-C5'-C4'	5.69	122.51	111.70
33	L1	468	U	C4'-C3'-C2'	-5.69	96.91	102.60
33	L1	1624	G	O4'-C4'-C3'	-5.69	98.31	104.00
33	L1	3093	C	P-O5'-C5'	5.69	130.00	120.90
33	L1	3327	A	O3'-P-O5'	-5.69	93.19	104.00
32	S1	355	U	P-O3'-C3'	5.69	126.53	119.70
33	L1	3059	C	N1-C1'-C2'	5.69	121.39	114.00
1	Sa	199	GLU	N-CA-C	5.69	126.35	111.00
3	SB	131	ALA	CB-CA-C	-5.69	101.57	110.10
33	L1	1560	A	OP1-P-O3'	5.69	117.71	105.20
33	L1	1996	C	O4'-C1'-N1	5.69	112.75	108.20
33	L1	2453	G	O3'-P-O5'	-5.69	93.19	104.00
33	L1	2586	C	C3'-C2'-C1'	5.69	106.05	101.50
35	L2	106	U	C1'-O4'-C4'	-5.69	105.35	109.90
36	LA	63	ARG	CD-NE-CZ	5.69	131.56	123.60
76	Lv	1	MET	CG-SD-CE	-5.69	91.10	100.20
78	Le	49	ARG	NH1-CZ-NH2	-5.69	113.14	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Sa	129	ASP	N-CA-C	5.69	126.35	111.00
32	S1	1119	G	C5'-C4'-O4'	5.69	115.92	109.10
32	S1	1123	G	N9-C1'-C2'	5.69	121.39	114.00
32	S1	1226	U	OP2-P-O3'	5.69	117.71	105.20
32	S1	1457	C	O5'-C5'-C4'	-5.69	100.90	111.70
33	L1	1824	C	C3'-C2'-C1'	5.69	106.05	101.50
38	LE	119	ASP	CB-CG-OD2	-5.69	113.18	118.30
80	LC	122	TRP	CB-CG-CD2	-5.69	119.21	126.60
32	S1	1023	C	O4'-C1'-N1	5.68	112.75	108.20
32	S1	1091	A	OP1-P-OP2	-5.68	111.07	119.60
33	L1	129	G	O4'-C1'-N9	5.68	112.75	108.20
33	L1	1320	G	OP1-P-OP2	-5.68	111.08	119.60
67	LS	138	ARG	NE-CZ-NH2	-5.68	117.46	120.30
82	LK	62	PHE	CB-CG-CD2	5.68	124.78	120.80
9	SK	51	THR	C-N-CA	5.68	135.91	121.70
33	L1	174	G	O4'-C1'-C2'	5.68	112.72	107.60
33	L1	176	A	C5'-C4'-O4'	5.68	115.92	109.10
33	L1	216	G	N9-C1'-C2'	5.68	121.39	114.00
33	L1	789	A	C4'-C3'-C2'	-5.68	96.92	102.60
33	L1	1074	C	C3'-C2'-C1'	5.68	106.05	101.50
33	L1	1368	U	O4'-C4'-C3'	5.68	110.65	106.10
33	L1	1404	G	O4'-C1'-N9	5.68	112.75	108.20
33	L1	1938	U	P-O5'-C5'	-5.68	111.81	120.90
33	L1	2670	A	O5'-P-OP1	-5.68	100.59	105.70
33	L1	3085	C	O4'-C1'-N1	5.68	112.75	108.20
35	L2	111	G	O4'-C1'-C2'	5.68	112.71	107.60
45	LQ	256	SER	CB-CA-C	5.68	120.90	110.10
64	LG	171	LYS	CA-C-N	5.68	129.70	117.20
76	Lw	1	MET	CG-SD-CE	-5.68	91.11	100.20
13	SQ	97	ARG	O-C-N	-5.68	113.61	122.70
32	S1	299	A	C5'-C4'-C3'	5.68	125.09	116.00
32	S1	338	G	P-O5'-C5'	-5.68	111.81	120.90
33	L1	19	C	C5'-C4'-C3'	5.68	125.09	116.00
33	L1	897	U	O4'-C1'-N1	5.68	112.75	108.20
33	L1	2031	G	O4'-C1'-N9	5.68	112.75	108.20
17	SV	65	VAL	CB-CA-C	5.68	122.19	111.40
25	SC	51	LEU	CB-CA-C	-5.68	99.41	110.20
32	S1	1508	C	C5'-C4'-O4'	-5.68	102.28	109.10
33	L1	415	G	O4'-C1'-N9	5.68	112.74	108.20
33	L1	506	U	OP1-P-OP2	-5.68	111.08	119.60
33	L1	1991	U	P-O5'-C5'	-5.68	111.81	120.90
33	L1	2575	C	O4'-C1'-N1	5.68	112.74	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	LS	104	ALA	N-CA-CB	-5.68	102.15	110.10
32	S1	419	C	C1'-O4'-C4'	5.68	114.44	109.90
32	S1	1105	G	P-O3'-C3'	-5.68	112.89	119.70
32	S1	1783	C	N1-C1'-C2'	5.68	121.38	114.00
33	L1	2747	U	C4'-C3'-C2'	-5.68	96.92	102.60
33	L1	2849	A	OP1-P-OP2	-5.68	111.08	119.60
45	LQ	107	ALA	N-CA-CB	-5.68	102.15	110.10
76	Lw	56	ALA	C-N-CA	-5.68	107.50	121.70
32	S1	610	A	C3'-C2'-C1'	-5.68	96.96	101.50
32	S1	1299	G	O3'-P-O5'	-5.68	93.22	104.00
33	L1	80	C	C1'-O4'-C4'	-5.68	105.36	109.90
33	L1	542	G	P-O3'-C3'	5.68	126.51	119.70
33	L1	1238	G	P-O3'-C3'	5.68	126.51	119.70
33	L1	1874	A	C5'-C4'-C3'	-5.68	106.92	116.00
33	L1	2459	U	OP1-P-O3'	5.68	117.69	105.20
33	L1	3228	C	P-O3'-C3'	5.68	126.51	119.70
42	LP	6	TYR	CB-CG-CD2	5.68	124.41	121.00
73	Lp	26	ARG	NE-CZ-NH2	-5.68	117.46	120.30
76	Lv	56	ALA	C-N-CA	-5.68	107.51	121.70
27	SH	109	GLY	CA-C-O	5.67	130.81	120.60
32	S1	466	G	O4'-C1'-C2'	5.67	112.71	107.60
32	S1	1728	G	P-O3'-C3'	5.67	126.51	119.70
33	L1	1239	U	C1'-O4'-C4'	5.67	114.44	109.90
33	L1	1667	C	C5'-C4'-C3'	-5.67	106.92	116.00
31	S2	73	C	C5'-C4'-C3'	-5.67	106.92	116.00
33	L1	92	C	O4'-C1'-C2'	-5.67	100.13	105.80
33	L1	102	G	N9-C1'-C2'	-5.67	105.76	112.00
33	L1	1034	U	OP2-P-O3'	5.67	117.68	105.20
33	L1	2389	A	O4'-C1'-C2'	5.67	112.70	107.60
46	LT	119	MET	CG-SD-CE	-5.67	91.13	100.20
32	S1	1603	U	OP1-P-OP2	-5.67	111.09	119.60
33	L1	843	C	O4'-C1'-N1	-5.67	103.66	108.20
11	SM	133	GLY	O-C-N	-5.67	113.63	122.70
27	SH	105	THR	N-CA-CB	5.67	121.07	110.30
32	S1	42	G	O4'-C1'-N9	5.67	112.73	108.20
33	L1	323	A	C3'-C2'-C1'	-5.67	96.97	101.50
33	L1	1188	C	O4'-C1'-N1	5.67	112.73	108.20
33	L1	1668	U	O5'-P-OP2	-5.67	100.60	105.70
33	L1	1960	C	P-O5'-C5'	-5.67	111.83	120.90
3	SB	82	ASN	N-CA-C	5.67	126.30	111.00
12	SO	55	ARG	NE-CZ-NH2	5.67	123.13	120.30
32	S1	124	G	O4'-C1'-C2'	5.67	112.70	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	646	G	O4'-C1'-C2'	-5.67	100.13	105.80
32	S1	1033	C	C5'-C4'-O4'	5.67	115.90	109.10
32	S1	1443	U	C4'-C3'-C2'	-5.67	96.93	102.60
33	L1	697	A	C5'-C4'-C3'	5.67	125.07	116.00
33	L1	1514	U	C3'-C2'-C1'	5.67	106.03	101.50
33	L1	1714	A	C3'-C2'-C1'	5.67	106.03	101.50
33	L1	2750	A	N9-C1'-C2'	5.67	121.37	114.00
38	LE	74	ARG	NE-CZ-NH2	-5.67	117.47	120.30
3	SB	75	LYS	CB-CG-CD	5.67	126.33	111.60
33	L1	8	C	P-O5'-C5'	-5.67	111.84	120.90
33	L1	567	G	C1'-O4'-C4'	-5.67	105.37	109.90
33	L1	2582	G	O4'-C1'-N9	-5.67	103.67	108.20
33	L1	3033	A	OP1-P-OP2	-5.67	111.10	119.60
47	LU	60	ARG	NE-CZ-NH2	-5.67	117.47	120.30
3	SB	172	VAL	N-CA-C	-5.66	95.71	111.00
32	S1	331	U	N1-C1'-C2'	-5.66	105.77	112.00
32	S1	1455	U	N1-C1'-C2'	5.66	121.36	114.00
33	L1	382	A	O5'-P-OP1	-5.66	100.60	105.70
33	L1	1997	G	N9-C1'-C2'	5.66	121.36	114.00
73	Lp	15	GLN	CA-C-N	-5.66	104.74	117.20
33	L1	933	U	C4'-C3'-C2'	-5.66	96.94	102.60
33	L1	2797	U	N1-C1'-C2'	5.66	121.36	114.00
38	LE	145	ARG	N-CA-CB	5.66	120.79	110.60
73	Lp	30	ARG	NE-CZ-NH2	-5.66	117.47	120.30
24	SX	53	GLN	CA-C-O	-5.66	108.21	120.10
31	S2	72	G	O4'-C1'-C2'	-5.66	100.14	105.80
32	S1	567	U	O4'-C1'-C2'	-5.66	100.14	105.80
32	S1	671	G	O4'-C1'-N9	5.66	112.73	108.20
32	S1	1003	A	O4'-C1'-N9	5.66	112.73	108.20
32	S1	1162	A	O3'-P-O5'	5.66	114.75	104.00
33	L1	81	C	P-O3'-C3'	5.66	126.49	119.70
33	L1	246	C	C1'-O4'-C4'	5.66	114.43	109.90
33	L1	513	C	C2'-C3'-O3'	5.66	122.76	113.70
33	L1	618	G	OP2-P-O3'	5.66	117.65	105.20
33	L1	789	A	C2'-C3'-O3'	5.66	122.76	113.70
33	L1	1717	G	C5'-C4'-O4'	-5.66	102.31	109.10
33	L1	3005	C	O4'-C1'-N1	-5.66	103.67	108.20
33	L1	3300	C	O5'-P-OP2	-5.66	100.61	105.70
33	L1	3335	G	C4'-C3'-O3'	5.66	124.32	113.00
64	LG	175	ASP	N-CA-CB	5.66	120.79	110.60
5	SE	142	LYS	N-CA-CB	5.66	120.78	110.60
9	SK	96	LEU	N-CA-CB	5.66	121.72	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	SS	5	THR	CA-C-O	5.66	131.98	120.10
32	S1	1266	U	C1'-O4'-C4'	-5.66	105.37	109.90
32	S1	1358	G	C5'-C4'-O4'	5.66	115.89	109.10
33	L1	507	C	P-O3'-C3'	-5.66	112.91	119.70
33	L1	2235	G	O4'-C1'-N9	5.66	112.73	108.20
50	LZ	36	SER	O-C-N	-5.66	113.65	122.70
32	S1	635	G	C5'-C4'-O4'	5.66	115.89	109.10
33	L1	210	G	C1'-O4'-C4'	-5.66	105.38	109.90
33	L1	1560	A	C5'-C4'-C3'	-5.66	106.95	116.00
33	L1	1786	G	C4'-C3'-C2'	-5.66	96.94	102.60
33	L1	1919	C	N1-C1'-C2'	5.66	121.35	114.00
33	L1	3212	C	C3'-C2'-C1'	5.66	106.03	101.50
35	L2	49	C	O5'-P-OP2	-5.66	100.61	105.70
51	LY	26	ARG	NH1-CZ-NH2	-5.66	113.18	119.40
1	Sa	276	PHE	CB-CG-CD2	5.66	124.76	120.80
13	SQ	34	VAL	CA-CB-CG1	5.66	119.38	110.90
14	SP	109	PRO	CA-N-CD	-5.66	103.58	111.50
32	S1	397	C	N1-C1'-C2'	5.66	121.35	114.00
33	L1	469	U	O4'-C1'-N1	5.66	112.72	108.20
33	L1	712	A	N9-C1'-C2'	-5.66	105.78	112.00
33	L1	1613	C	O4'-C1'-N1	5.66	112.72	108.20
70	Li	20	THR	N-CA-CB	5.66	121.05	110.30
71	Lj	39	VAL	CB-CA-C	5.66	122.15	111.40
32	S1	844	C	P-O3'-C3'	5.65	126.48	119.70
33	L1	1734	G	C1'-O4'-C4'	-5.65	105.38	109.90
11	SM	89	ASP	CA-C-N	5.65	129.64	117.20
27	SH	110	ILE	CG1-CB-CG2	5.65	123.83	111.40
32	S1	1201	C	O4'-C1'-N1	5.65	112.72	108.20
33	L1	421	A	O4'-C1'-C2'	-5.65	100.15	105.80
33	L1	2518	A	C4'-C3'-O3'	5.65	124.31	113.00
48	LV	83	ARG	NE-CZ-NH2	5.65	123.13	120.30
67	LS	6	PHE	CB-CG-CD1	5.65	124.76	120.80
76	Lw	56	ALA	CA-C-N	5.65	129.63	117.20
1	Sa	289	ARG	N-CA-C	-5.65	95.75	111.00
5	SE	206	PHE	N-CA-CB	5.65	120.77	110.60
32	S1	176	A	OP1-P-OP2	-5.65	111.12	119.60
32	S1	256	G	O4'-C1'-N9	5.65	112.72	108.20
32	S1	1613	G	C4'-C3'-C2'	-5.65	96.95	102.60
33	L1	1931	G	C2'-C3'-O3'	5.65	122.74	113.70
33	L1	3060	G	C5'-C4'-C3'	5.65	125.04	116.00
78	Le	204	LEU	C-N-CA	5.65	135.83	121.70
33	L1	173	C	OP1-P-OP2	-5.65	111.13	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1942	A	O5'-P-OP2	-5.65	100.62	105.70
33	L1	2720	U	C4'-C3'-C2'	-5.65	96.95	102.60
33	L1	2996	A	N9-C1'-C2'	-5.65	105.79	112.00
81	LD	224	LYS	N-CA-CB	-5.65	100.43	110.60
82	LK	123	MET	CA-CB-CG	5.65	122.90	113.30
11	SM	28	PHE	CA-CB-CG	-5.65	100.35	113.90
16	SR	116	ILE	N-CA-C	5.65	126.25	111.00
19	SY	27	ARG	N-CA-CB	5.65	120.77	110.60
27	SH	28	ARG	CA-C-O	-5.65	108.24	120.10
33	L1	109	G	O4'-C1'-N9	5.65	112.72	108.20
33	L1	863	G	O4'-C1'-N9	5.65	112.72	108.20
33	L1	2039	G	O4'-C1'-N9	5.65	112.72	108.20
33	L1	3056	C	O5'-P-OP1	-5.65	100.62	105.70
33	L1	3388	U	C1'-O4'-C4'	5.65	114.42	109.90
35	L2	56	A	O4'-C1'-N9	-5.65	103.68	108.20
60	Lr	48	SER	N-CA-CB	5.65	118.97	110.50
81	LD	316	ARG	CA-CB-CG	5.65	125.83	113.40
32	S1	1705	C	O4'-C1'-C2'	5.65	112.68	107.60
33	L1	1	G	P-O3'-C3'	5.65	126.47	119.70
19	SY	16	ARG	CB-CG-CD	5.64	126.27	111.60
20	SZ	51	PHE	C-N-CA	5.64	134.15	122.30
25	SC	165	PRO	CA-N-CD	-5.64	103.60	111.50
32	S1	485	A	O4'-C1'-N9	5.64	112.72	108.20
32	S1	1603	U	C1'-O4'-C4'	5.64	114.42	109.90
33	L1	272	G	O4'-C1'-C2'	5.64	112.68	107.60
33	L1	309	C	P-O5'-C5'	-5.64	111.87	120.90
33	L1	337	C	O5'-P-OP1	5.64	117.47	110.70
33	L1	811	A	O4'-C1'-N9	-5.64	103.68	108.20
33	L1	906	U	O4'-C4'-C3'	-5.64	98.36	104.00
33	L1	1279	C	O5'-P-OP2	5.64	117.47	110.70
33	L1	1573	G	C5'-C4'-C3'	5.64	125.03	116.00
33	L1	1802	A	O4'-C1'-N9	-5.64	103.69	108.20
33	L1	2696	C	P-O5'-C5'	5.64	129.93	120.90
80	LC	63	PRO	CA-N-CD	-5.64	103.60	111.50
82	LK	133	ARG	N-CA-C	-5.64	95.76	111.00
15	SS	68	TYR	CB-CG-CD2	-5.64	117.61	121.00
32	S1	214	A	OP1-P-OP2	-5.64	111.14	119.60
32	S1	1050	C	C1'-O4'-C4'	-5.64	105.39	109.90
32	S1	1056	A	OP2-P-O3'	5.64	117.61	105.20
32	S1	1307	U	C5'-C4'-O4'	5.64	115.87	109.10
33	L1	1574	C	P-O3'-C3'	5.64	126.47	119.70
33	L1	1606	C	O4'-C1'-N1	-5.64	103.69	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1971	A	O4'-C1'-C2'	-5.64	100.16	105.80
33	L1	2692	G	N9-C1'-C2'	5.64	121.34	114.00
35	L2	36	C	P-O5'-C5'	5.64	129.93	120.90
51	LY	30	MET	CA-CB-CG	5.64	122.89	113.30
70	Li	19	GLN	CB-CA-C	5.64	121.69	110.40
5	SE	79	GLU	OE1-CD-OE2	5.64	130.07	123.30
15	SS	57	TYR	CG-CD2-CE2	-5.64	116.79	121.30
33	L1	1772	G	P-O3'-C3'	-5.64	112.93	119.70
70	Li	107	LEU	N-CA-CB	5.64	121.68	110.40
25	SC	68	ASN	CA-C-N	5.64	132.89	117.10
32	S1	1178	C	C3'-C2'-C1'	5.64	106.01	101.50
33	L1	1916	U	O4'-C1'-N1	5.64	112.71	108.20
32	S1	903	A	C2'-C3'-O3'	5.64	122.72	113.70
70	Li	66	ARG	CB-CA-C	-5.64	99.12	110.40
83	Lm	8	ALA	N-CA-C	-5.64	95.78	111.00
3	SB	29	LEU	CA-CB-CG	-5.64	102.33	115.30
32	S1	22	A	P-O3'-C3'	-5.64	112.94	119.70
32	S1	1536	U	OP1-P-O3'	5.64	117.60	105.20
33	L1	505	G	P-O3'-C3'	-5.64	112.94	119.70
33	L1	1385	C	P-O3'-C3'	-5.64	112.94	119.70
33	L1	1693	A	OP1-P-O3'	5.64	117.60	105.20
33	L1	2069	G	C5'-C4'-C3'	5.64	125.02	116.00
33	L1	2274	A	C5'-C4'-C3'	5.64	125.02	116.00
33	L1	2639	A	N9-C1'-C2'	5.64	121.33	114.00
34	L3	104	C	C3'-C2'-C1'	5.64	106.01	101.50
79	Ls	256	VAL	N-CA-C	5.64	126.22	111.00
33	L1	248	C	O4'-C1'-C2'	-5.63	100.17	105.80
33	L1	506	U	C5'-C4'-O4'	-5.63	102.34	109.10
33	L1	1239	U	P-O3'-C3'	5.63	126.46	119.70
33	L1	2021	G	O4'-C1'-N9	5.63	112.71	108.20
33	L1	2134	U	C5'-C4'-C3'	5.63	125.02	116.00
33	L1	2178	G	N9-C1'-C2'	5.63	121.32	114.00
33	L1	2446	G	C1'-O4'-C4'	-5.63	105.39	109.90
33	L1	3385	G	OP1-P-OP2	-5.63	111.15	119.60
64	LG	91	LYS	CA-CB-CG	5.63	125.80	113.40
32	S1	686	A	C3'-C2'-C1'	5.63	106.01	101.50
33	L1	283	A	C5'-C4'-C3'	-5.63	106.99	116.00
33	L1	607	U	O4'-C4'-C3'	-5.63	98.37	104.00
33	L1	2192	C	O4'-C1'-N1	-5.63	103.69	108.20
70	Li	112	THR	C-N-CA	-5.63	107.62	121.70
24	SX	65	LEU	CB-CA-C	5.63	120.90	110.20
31	S2	73	C	C1'-O4'-C4'	-5.63	105.39	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	409	C	O4'-C4'-C3'	-5.63	98.37	104.00
33	L1	398	G	O4'-C1'-N9	5.63	112.71	108.20
33	L1	681	A	C1'-O4'-C4'	5.63	114.41	109.90
33	L1	1730	U	OP1-P-OP2	-5.63	111.15	119.60
33	L1	2622	G	O4'-C1'-N9	-5.63	103.69	108.20
64	LG	68	PRO	N-CA-C	-5.63	97.46	112.10
68	LW	60	GLY	O-C-N	5.63	131.71	122.70
80	LC	128	LYS	C-N-CA	5.63	135.78	121.70
32	S1	32	U	C5'-C4'-O4'	-5.63	102.34	109.10
32	S1	690	G	O4'-C4'-C3'	-5.63	98.37	104.00
32	S1	1791	A	O4'-C1'-C2'	-5.63	100.17	105.80
33	L1	819	A	P-O3'-C3'	-5.63	112.94	119.70
33	L1	2628	C	O5'-C5'-C4'	-5.63	101.00	111.70
39	LF	70	ARG	NE-CZ-NH1	5.63	123.11	120.30
43	LO	26	ARG	CB-CG-CD	5.63	126.24	111.60
67	LS	131	VAL	CB-CA-C	5.63	122.10	111.40
68	LW	93	LEU	CB-CA-C	-5.63	99.50	110.20
68	LW	104	VAL	N-CA-CB	5.63	123.89	111.50
4	SD	153	ILE	CB-CA-C	5.63	122.86	111.60
33	L1	244	G	C1'-O4'-C4'	-5.63	105.40	109.90
33	L1	806	C	C3'-C2'-C1'	-5.63	97.00	101.50
33	L1	1625	G	P-O3'-C3'	-5.63	112.95	119.70
33	L1	1753	A	OP1-P-O3'	5.63	117.58	105.20
33	L1	2150	C	C3'-C2'-C1'	5.63	106.00	101.50
33	L1	2949	G	O5'-P-OP2	5.63	117.45	110.70
16	SR	146	HIS	N-CA-CB	5.63	120.73	110.60
32	S1	30	G	C4'-C3'-C2'	-5.63	96.97	102.60
32	S1	826	C	C3'-C2'-C1'	5.63	106.00	101.50
32	S1	1618	G	O4'-C1'-N9	5.63	112.70	108.20
33	L1	1236	C	O5'-P-OP2	5.63	117.45	110.70
33	L1	2059	C	OP2-P-O3'	5.63	117.58	105.20
33	L1	2707	A	OP2-P-O3'	5.63	117.58	105.20
48	LV	74	LYS	N-CA-CB	5.63	120.73	110.60
68	LW	34	LYS	CB-CA-C	-5.63	99.15	110.40
1	Sa	80	TRP	CG-CD2-CE3	-5.62	128.84	133.90
32	S1	773	U	O3'-P-O5'	-5.62	93.31	104.00
32	S1	1472	G	OP2-P-O3'	5.62	117.58	105.20
33	L1	916	A	O4'-C1'-N9	5.62	112.70	108.20
67	LS	27	TYR	C-N-CA	5.62	135.76	121.70
32	S1	329	G	N9-C1'-C2'	-5.62	105.81	112.00
33	L1	385	A	C5'-C4'-O4'	-5.62	102.35	109.10
33	L1	1119	G	O5'-C5'-C4'	5.62	122.39	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1416	G	C1'-O4'-C4'	-5.62	105.40	109.90
33	L1	3225	G	C3'-C2'-C1'	-5.62	97.00	101.50
54	Lf	63	TYR	CB-CG-CD2	-5.62	117.63	121.00
32	S1	1507	G	P-O3'-C3'	5.62	126.45	119.70
32	S1	1780	U	C4'-C3'-C2'	-5.62	96.98	102.60
33	L1	839	A	C4'-C3'-O3'	5.62	124.24	113.00
33	L1	942	U	O4'-C1'-N1	5.62	112.70	108.20
33	L1	2879	G	O4'-C1'-N9	5.62	112.70	108.20
34	L3	11	A	N9-C1'-C2'	5.62	121.31	114.00
35	L2	34	C	O5'-P-OP2	-5.62	100.64	105.70
49	LX	46	LYS	N-CA-CB	5.62	120.72	110.60
66	LN	20	ASP	N-CA-CB	5.62	120.72	110.60
67	LS	32	TRP	CG-CD2-CE3	-5.62	128.84	133.90
68	LW	58	ASN	N-CA-C	5.62	126.18	111.00
33	L1	87	A	P-O5'-C5'	5.62	129.89	120.90
7	SI	85	TYR	CG-CD1-CE1	-5.62	116.81	121.30
25	SC	150	VAL	C-N-CA	5.62	135.75	121.70
31	S2	29	C	C3'-C2'-C1'	5.62	105.99	101.50
32	S1	167	A	O4'-C1'-C2'	-5.62	100.18	105.80
32	S1	533	C	P-O5'-C5'	-5.62	111.91	120.90
32	S1	630	U	OP1-P-O3'	5.62	117.56	105.20
32	S1	1209	C	P-O3'-C3'	5.62	126.44	119.70
32	S1	1375	C	N1-C1'-C2'	5.62	121.30	114.00
32	S1	1563	A	O4'-C1'-N9	5.62	112.69	108.20
33	L1	86	U	O5'-P-OP2	-5.62	100.64	105.70
33	L1	1736	C	C1'-O4'-C4'	-5.62	105.41	109.90
33	L1	2090	G	O4'-C1'-N9	5.62	112.69	108.20
33	L1	2342	C	O4'-C1'-N1	5.62	112.69	108.20
33	L1	2376	G	C2'-C3'-O3'	5.62	122.69	113.70
33	L1	2944	C	C1'-O4'-C4'	5.62	114.39	109.90
78	Le	117	VAL	O-C-N	-5.62	113.71	122.70
32	S1	1477	A	C1'-O4'-C4'	5.62	114.39	109.90
33	L1	273	U	O5'-P-OP2	-5.62	100.64	105.70
33	L1	1613	C	P-O3'-C3'	-5.62	112.96	119.70
33	L1	2424	G	O4'-C1'-N9	-5.62	103.71	108.20
33	L1	2527	G	P-O3'-C3'	5.62	126.44	119.70
35	L2	64	U	O4'-C1'-C2'	-5.62	100.18	105.80
44	LR	13	ARG	N-CA-CB	-5.62	100.49	110.60
17	SV	61	ILE	CB-CA-C	-5.62	100.37	111.60
32	S1	898	U	P-O3'-C3'	-5.62	112.96	119.70
32	S1	983	A	N9-C1'-C2'	5.62	121.30	114.00
32	S1	1371	U	C5'-C4'-O4'	5.62	115.84	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1560	U	C1'-O4'-C4'	-5.62	105.41	109.90
33	L1	827	C	N1-C1'-C2'	5.62	121.30	114.00
33	L1	2233	G	C5'-C4'-C3'	5.62	124.98	116.00
33	L1	2942	A	C1'-O4'-C4'	-5.62	105.41	109.90
33	L1	2950	C	C1'-O4'-C4'	-5.62	105.41	109.90
34	L3	103	U	OP1-P-OP2	-5.62	111.18	119.60
5	SE	9	GLY	N-CA-C	-5.61	99.06	113.10
20	SZ	5	HIS	N-CA-C	5.61	126.16	111.00
32	S1	50	C	C4'-C3'-C2'	-5.61	96.99	102.60
32	S1	154	A	O4'-C1'-C2'	-5.61	100.19	105.80
32	S1	332	A	C1'-O4'-C4'	5.61	114.39	109.90
32	S1	670	C	C3'-C2'-C1'	5.61	105.99	101.50
32	S1	686	A	C5'-C4'-C3'	5.61	124.98	116.00
32	S1	1262	U	O3'-P-O5'	5.61	114.67	104.00
32	S1	1747	A	N9-C1'-C2'	-5.61	105.83	112.00
33	L1	138	G	C5'-C4'-O4'	5.61	115.84	109.10
33	L1	483	U	N1-C1'-C2'	5.61	121.30	114.00
33	L1	1002	A	N9-C1'-C2'	-5.61	105.83	112.00
33	L1	1382	C	C1'-O4'-C4'	-5.61	105.41	109.90
33	L1	1680	A	O4'-C1'-C2'	-5.61	100.19	105.80
33	L1	1689	G	O4'-C1'-C2'	-5.61	100.19	105.80
33	L1	2232	C	O5'-P-OP2	5.61	117.44	110.70
33	L1	2339	U	O4'-C1'-N1	5.61	112.69	108.20
33	L1	2737	A	O4'-C1'-N9	5.61	112.69	108.20
33	L1	3095	G	C5'-C4'-C3'	-5.61	107.02	116.00
38	LE	85	GLY	C-N-CA	5.61	135.73	121.70
38	LE	96	ARG	NH1-CZ-NH2	-5.61	113.22	119.40
52	Lb	67	ASP	CB-CG-OD1	5.61	123.35	118.30
57	Ll	25	ARG	CD-NE-CZ	-5.61	115.74	123.60
66	LN	52	ARG	NE-CZ-NH1	5.61	123.11	120.30
78	Le	69	ARG	NH1-CZ-NH2	-5.61	113.22	119.40
13	SQ	21	TYR	CB-CG-CD2	5.61	124.37	121.00
32	S1	249	G	OP1-P-OP2	-5.61	111.18	119.60
32	S1	1645	C	C5'-C4'-O4'	5.61	115.83	109.10
33	L1	326	C	O3'-P-O5'	5.61	114.66	104.00
33	L1	588	G	N9-C1'-C2'	-5.61	105.83	112.00
33	L1	2789	G	N9-C1'-C2'	-5.61	105.83	112.00
25	SC	49	TYR	CG-CD1-CE1	5.61	125.79	121.30
32	S1	513	G	C1'-O4'-C4'	-5.61	105.41	109.90
32	S1	1271	G	C3'-C2'-C1'	5.61	105.99	101.50
32	S1	1339	C	C3'-C2'-C1'	5.61	105.99	101.50
45	LQ	256	SER	CA-CB-OG	5.61	126.35	111.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	373	U	C4'-C3'-C2'	-5.61	96.99	102.60
32	S1	1603	U	P-O3'-C3'	5.61	126.43	119.70
33	L1	581	G	N9-C1'-C2'	5.61	121.29	114.00
33	L1	2386	A	C3'-C2'-C1'	5.61	105.99	101.50
33	L1	3284	C	O3'-P-O5'	5.61	114.66	104.00
1	Sa	40	TYR	CG-CD2-CE2	-5.61	116.81	121.30
1	Sa	274	ARG	NE-CZ-NH1	5.61	123.10	120.30
3	SB	79	PHE	CA-CB-CG	5.61	127.36	113.90
33	L1	41	C	C1'-O4'-C4'	-5.61	105.42	109.90
33	L1	1206	A	N9-C1'-C2'	5.61	121.29	114.00
33	L1	1235	A	O5'-C5'-C4'	5.61	122.36	111.70
33	L1	1246	G	N9-C1'-C2'	-5.61	105.83	112.00
33	L1	3277	C	N1-C1'-C2'	5.61	121.29	114.00
70	Li	70	ASN	N-CA-C	5.61	126.14	111.00
3	SB	46	THR	N-CA-CB	5.61	120.95	110.30
32	S1	483	C	P-O3'-C3'	-5.61	112.97	119.70
33	L1	939	A	O4'-C1'-C2'	5.61	112.64	107.60
33	L1	2401	A	P-O3'-C3'	-5.61	112.97	119.70
33	L1	3086	G	C2'-C3'-O3'	5.61	122.67	113.70
34	L3	1	G	C2'-C3'-O3'	5.61	122.67	113.70
35	L2	70	G	C3'-C2'-C1'	-5.61	97.02	101.50
81	LD	400	TRP	N-CA-CB	5.61	120.69	110.60
32	S1	1791	A	OP2-P-O3'	5.60	117.53	105.20
33	L1	108	A	N9-C1'-C2'	5.60	121.28	114.00
33	L1	1633	C	C1'-O4'-C4'	-5.60	105.42	109.90
33	L1	3391	U	O4'-C1'-N1	5.60	112.68	108.20
45	LQ	251	PRO	N-CA-CB	5.60	110.02	103.30
71	Lj	39	VAL	CA-CB-CG1	5.60	119.31	110.90
76	Lv	56	ALA	CA-C-N	5.60	129.53	117.20
3	SB	178	ARG	CD-NE-CZ	-5.60	115.76	123.60
32	S1	512	U	P-O5'-C5'	5.60	129.86	120.90
32	S1	1099	G	C4'-C3'-C2'	-5.60	97.00	102.60
33	L1	730	A	O4'-C1'-N9	5.60	112.68	108.20
33	L1	2596	A	C2'-C3'-O3'	5.60	122.66	113.70
33	L1	3318	G	OP1-P-O3'	5.60	117.52	105.20
35	L2	65	A	C3'-C2'-C1'	-5.60	97.02	101.50
67	LS	9	TYR	C-N-CA	5.60	135.70	121.70
27	SH	92	ARG	NE-CZ-NH2	-5.60	117.50	120.30
33	L1	1361	G	O4'-C1'-C2'	-5.60	100.20	105.80
33	L1	2059	C	C5'-C4'-O4'	-5.60	102.38	109.10
33	L1	2419	C	C1'-O4'-C4'	-5.60	105.42	109.90
33	L1	2583	A	O4'-C1'-N9	5.60	112.68	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2680	G	O4'-C1'-C2'	-5.60	100.20	105.80
33	L1	2763	C	OP1-P-OP2	-5.60	111.20	119.60
34	L3	14	C	C4'-C3'-C2'	5.60	108.20	102.60
29	ST	29	HIS	C-N-CA	5.60	135.70	121.70
32	S1	1238	A	C4'-C3'-C2'	-5.60	97.00	102.60
33	L1	588	G	C1'-O4'-C4'	-5.60	105.42	109.90
33	L1	1939	C	O4'-C1'-C2'	-5.60	100.20	105.80
33	L1	2390	G	C5'-C4'-O4'	-5.60	102.38	109.10
33	L1	2455	A	C5'-C4'-C3'	5.60	124.96	116.00
33	L1	2850	G	O4'-C1'-C2'	5.60	112.64	107.60
35	L2	83	A	C5'-C4'-C3'	-5.60	107.04	116.00
46	LT	187	ARG	CB-CG-CD	5.60	126.16	111.60
64	LG	186	ALA	CB-CA-C	-5.60	101.70	110.10
5	SE	15	PHE	CB-CG-CD1	-5.60	116.88	120.80
17	SV	39	ASN	O-C-N	-5.60	113.74	122.70
32	S1	491	G	C1'-O4'-C4'	-5.60	105.42	109.90
33	L1	1310	G	C1'-O4'-C4'	-5.60	105.42	109.90
33	L1	1799	C	O4'-C1'-C2'	-5.60	100.20	105.80
33	L1	3005	C	O4'-C1'-C2'	5.60	112.64	107.60
39	LF	92	ARG	NE-CZ-NH1	5.60	123.10	120.30
78	Le	186	LEU	CB-CG-CD2	-5.60	101.48	111.00
32	S1	1660	C	C4'-C3'-C2'	5.60	108.20	102.60
33	L1	2646	A	C3'-C2'-C1'	5.60	105.98	101.50
33	L1	2889	A	O4'-C1'-N9	-5.60	103.72	108.20
33	L1	3078	A	C3'-C2'-C1'	5.60	105.98	101.50
40	LH	129	LYS	CB-CA-C	5.60	121.59	110.40
79	Ls	77	GLU	CA-CB-CG	5.60	125.71	113.40
11	SM	33	ILE	CB-CA-C	5.59	122.79	111.60
32	S1	1508	C	C4'-C3'-C2'	-5.59	97.01	102.60
33	L1	1272	G	C5'-C4'-C3'	5.59	124.95	116.00
33	L1	1773	U	O3'-P-O5'	-5.59	93.37	104.00
33	L1	2390	G	C2'-C3'-O3'	5.59	122.65	113.70
33	L1	2712	C	C1'-O4'-C4'	-5.59	105.42	109.90
33	L1	3150	G	O4'-C1'-C2'	-5.59	100.20	105.80
34	L3	66	G	C3'-C2'-C1'	5.59	105.97	101.50
35	L2	150	G	C3'-C2'-C1'	-5.59	97.03	101.50
42	LP	88	GLY	CA-C-O	-5.59	110.53	120.60
61	Lq	11	ARG	O-C-N	-5.59	113.75	122.70
69	La	11	VAL	N-CA-C	5.59	126.11	111.00
32	S1	1388	A	C5'-C4'-O4'	5.59	115.81	109.10
33	L1	1870	G	C5'-C4'-O4'	5.59	115.81	109.10
33	L1	2353	C	O4'-C1'-N1	5.59	112.67	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2612	A	C1'-O4'-C4'	5.59	114.37	109.90
33	L1	2744	C	C1'-O4'-C4'	-5.59	105.43	109.90
11	SM	98	VAL	CB-CA-C	5.59	122.02	111.40
14	SP	86	ILE	CA-CB-CG2	5.59	122.08	110.90
32	S1	861	A	C5'-C4'-O4'	5.59	115.81	109.10
32	S1	1586	U	C3'-C2'-C1'	5.59	105.97	101.50
33	L1	38	A	P-O3'-C3'	5.59	126.41	119.70
33	L1	1668	U	C1'-O4'-C4'	-5.59	105.43	109.90
33	L1	2561	A	P-O3'-C3'	5.59	126.41	119.70
49	LX	125	ARG	NE-CZ-NH1	5.59	123.10	120.30
55	Lg	41	ILE	CB-CA-C	5.59	122.78	111.60
82	LK	128	ALA	C-N-CA	5.59	135.68	121.70
12	SO	67	THR	CA-C-N	5.59	127.38	116.20
32	S1	18	C	O4'-C1'-N1	5.59	112.67	108.20
32	S1	480	U	O4'-C1'-N1	5.59	112.67	108.20
33	L1	311	G	P-O3'-C3'	-5.59	112.99	119.70
33	L1	525	A	O4'-C1'-C2'	-5.59	100.21	105.80
33	L1	1323	G	C3'-C2'-C1'	-5.59	97.03	101.50
33	L1	1504	U	C1'-O4'-C4'	-5.59	105.43	109.90
33	L1	2587	G	O5'-P-OP1	-5.59	100.67	105.70
33	L1	2617	G	O4'-C1'-N9	5.59	112.67	108.20
33	L1	2681	A	O4'-C4'-C3'	-5.59	98.41	104.00
33	L1	2734	C	C5'-C4'-C3'	5.59	124.94	116.00
33	L1	3215	U	C5'-C4'-O4'	5.59	115.81	109.10
33	L1	140	C	N1-C1'-C2'	5.59	121.26	114.00
33	L1	184	C	N1-C1'-C2'	-5.59	105.85	112.00
33	L1	565	C	C5'-C4'-C3'	5.59	124.94	116.00
33	L1	1561	U	P-O5'-C5'	5.59	129.84	120.90
11	SM	108	ARG	NE-CZ-NH1	5.59	123.09	120.30
32	S1	15	U	C1'-O4'-C4'	-5.59	105.43	109.90
32	S1	377	G	C4'-C3'-C2'	5.59	108.19	102.60
32	S1	1097	A	C5'-C4'-O4'	5.59	115.80	109.10
33	L1	2	C	O4'-C1'-N1	5.59	112.67	108.20
33	L1	1336	A	N9-C1'-C2'	5.59	121.26	114.00
33	L1	1852	C	N1-C1'-C2'	-5.59	105.86	112.00
33	L1	1989	G	N9-C1'-C2'	-5.59	105.86	112.00
33	L1	2831	U	C1'-O4'-C4'	5.59	114.37	109.90
38	LE	31	ARG	CD-NE-CZ	5.59	131.42	123.60
42	LP	59	TYR	CB-CG-CD1	5.59	124.35	121.00
48	LV	153	GLU	N-CA-CB	5.59	120.66	110.60
59	Lo	7	PHE	N-CA-CB	-5.59	100.54	110.60
32	S1	1265	A	C1'-O4'-C4'	-5.58	105.43	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	769	C	O4'-C1'-C2'	-5.58	100.22	105.80
23	SU	27	GLN	CB-CA-C	-5.58	99.23	110.40
31	S2	45	G	C5'-C4'-O4'	5.58	115.80	109.10
33	L1	570	G	C3'-C2'-C1'	-5.58	97.03	101.50
33	L1	1518	A	C4'-C3'-C2'	-5.58	97.02	102.60
33	L1	1878	G	P-O3'-C3'	-5.58	113.00	119.70
33	L1	1945	A	O4'-C4'-C3'	-5.58	98.42	104.00
33	L1	3206	C	O4'-C1'-C2'	-5.58	100.22	105.80
33	L1	3340	G	O4'-C1'-N9	5.58	112.67	108.20
38	LE	108	ILE	N-CA-C	5.58	126.08	111.00
81	LD	33	ARG	NE-CZ-NH1	5.58	123.09	120.30
7	SI	32	ARG	CD-NE-CZ	-5.58	115.79	123.60
32	S1	646	G	P-O3'-C3'	5.58	126.40	119.70
33	L1	611	C	O4'-C1'-N1	5.58	112.67	108.20
33	L1	1063	G	C5'-C4'-C3'	5.58	124.93	116.00
33	L1	2231	G	C3'-C2'-C1'	-5.58	97.03	101.50
33	L1	2588	G	P-O3'-C3'	-5.58	113.00	119.70
34	L3	5	G	C1'-O4'-C4'	-5.58	105.44	109.90
45	LQ	116	LEU	C-N-CA	-5.58	107.75	121.70
66	LN	96	GLN	CB-CA-C	-5.58	99.24	110.40
81	LD	227	ARG	CA-CB-CG	5.58	125.68	113.40
32	S1	1544	G	O4'-C1'-C2'	5.58	112.62	107.60
33	L1	650	A	C5'-C4'-O4'	-5.58	102.40	109.10
34	L3	77	A	C5'-C4'-C3'	5.58	124.93	116.00
46	LT	157	ASP	CB-CG-OD1	5.58	123.32	118.30
81	LD	400	TRP	CB-CG-CD2	-5.58	119.35	126.60
3	SB	120	TYR	CB-CG-CD2	-5.58	117.65	121.00
32	S1	127	G	C5'-C4'-O4'	5.58	115.79	109.10
32	S1	200	C	P-O5'-C5'	5.58	129.83	120.90
32	S1	473	C	C3'-C2'-C1'	5.58	105.96	101.50
32	S1	903	A	O4'-C1'-C2'	-5.58	100.22	105.80
32	S1	1343	C	O4'-C1'-C2'	-5.58	100.22	105.80
33	L1	1076	G	C3'-C2'-C1'	5.58	105.96	101.50
33	L1	2391	C	C1'-O4'-C4'	5.58	114.36	109.90
33	L1	2523	G	O4'-C1'-C2'	5.58	112.62	107.60
33	L1	3310	A	C3'-C2'-C1'	-5.58	97.04	101.50
35	L2	89	G	O4'-C4'-C3'	-5.58	98.42	104.00
59	Lo	44	TRP	CE3-CZ3-CH2	-5.58	115.06	121.20
66	LN	85	GLU	CB-CG-CD	5.58	129.26	114.20
80	LC	268	ALA	O-C-N	-5.58	113.77	122.70
2	SA	153	ASP	O-C-N	-5.58	113.78	122.70
33	L1	1019	A	O4'-C4'-C3'	-5.58	98.42	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1401	C	C3'-C2'-C1'	5.58	105.96	101.50
33	L1	2952	G	C1'-O4'-C4'	5.58	114.36	109.90
38	LE	30	ASP	CB-CG-OD2	-5.58	113.28	118.30
61	Lq	15	ARG	CB-CG-CD	5.58	126.10	111.60
32	S1	1433	A	C1'-O4'-C4'	5.58	114.36	109.90
33	L1	1271	U	O3'-P-O5'	-5.58	93.41	104.00
33	L1	1407	G	C4'-C3'-C2'	-5.58	97.03	102.60
33	L1	1423	C	C3'-C2'-C1'	5.58	105.96	101.50
33	L1	1808	G	C2'-C3'-O3'	5.58	122.62	113.70
33	L1	2758	C	C5'-C4'-C3'	-5.58	107.08	116.00
33	L1	2990	C	O4'-C1'-N1	5.58	112.66	108.20
33	L1	3228	C	C3'-C2'-C1'	5.58	105.96	101.50
15	SS	8	THR	N-CA-C	-5.57	95.95	111.00
25	SC	106	PHE	C-N-CA	5.57	135.63	121.70
32	S1	1445	C	C5'-C4'-C3'	5.57	124.92	116.00
33	L1	733	C	O4'-C1'-N1	5.57	112.66	108.20
33	L1	3027	G	C5'-C4'-C3'	5.57	124.92	116.00
35	L2	37	A	P-O3'-C3'	5.57	126.39	119.70
47	LU	92	ARG	CB-CA-C	-5.57	99.25	110.40
48	LV	154	LYS	CA-C-N	5.57	129.46	117.20
59	Lo	20	ASN	CB-CG-OD1	-5.57	110.45	121.60
80	LC	295	SER	CB-CA-C	-5.57	99.51	110.10
12	SO	81	ALA	N-CA-CB	-5.57	102.30	110.10
33	L1	396	G	N9-C1'-C2'	5.57	121.24	114.00
9	SK	91	ALA	CA-C-N	-5.57	104.94	117.20
32	S1	468	A	C1'-O4'-C4'	5.57	114.36	109.90
32	S1	483	C	O5'-C5'-C4'	-5.57	101.11	111.70
32	S1	1224	C	C2'-C3'-O3'	5.57	122.61	113.70
32	S1	1564	A	O4'-C1'-C2'	-5.57	100.23	105.80
32	S1	1608	A	N9-C1'-C2'	-5.57	105.87	112.00
33	L1	384	A	C5'-C4'-C3'	5.57	124.91	116.00
33	L1	1270	G	O4'-C1'-C2'	5.57	112.61	107.60
33	L1	2219	A	OP1-P-OP2	-5.57	111.25	119.60
33	L1	2518	A	C1'-C2'-O2'	5.57	127.31	110.60
33	L1	2730	A	C5'-C4'-C3'	-5.57	107.09	116.00
33	L1	3151	C	C2'-C3'-O3'	5.57	122.61	113.70
67	LS	145	HIS	CA-CB-CG	-5.57	104.13	113.60
32	S1	1718	C	C1'-O4'-C4'	-5.57	105.44	109.90
33	L1	816	G	C3'-C2'-C1'	-5.57	97.05	101.50
33	L1	1436	A	O4'-C1'-N9	5.57	112.66	108.20
33	L1	2212	U	C5'-C4'-C3'	5.57	124.91	116.00
35	L2	105	U	N1-C1'-C2'	5.57	121.24	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1173	U	O4'-C1'-N1	5.57	112.66	108.20
32	S1	1394	A	N9-C1'-C2'	5.57	121.24	114.00
32	S1	1739	U	O4'-C1'-C2'	-5.57	100.23	105.80
33	L1	109	G	P-O3'-C3'	5.57	126.38	119.70
33	L1	3018	A	O4'-C1'-N9	5.57	112.65	108.20
33	L1	3358	A	O4'-C1'-N9	5.57	112.66	108.20
55	Lg	107	PRO	N-CA-CB	5.57	109.98	103.30
81	LD	61	ARG	NH1-CZ-NH2	-5.57	113.28	119.40
29	ST	25	THR	CA-CB-OG1	5.57	120.69	109.00
33	L1	184	C	O3'-P-O5'	5.57	114.58	104.00
33	L1	1043	U	C5'-C4'-C3'	5.57	124.91	116.00
33	L1	1120	G	N9-C1'-C2'	5.57	121.23	114.00
33	L1	1277	A	C3'-C2'-C1'	-5.57	97.05	101.50
33	L1	1423	C	OP1-P-OP2	-5.57	111.25	119.60
33	L1	3143	A	C5'-C4'-O4'	5.57	115.78	109.10
46	LT	76	SER	CB-CA-C	-5.57	99.53	110.10
46	LT	90	PRO	O-C-N	-5.57	113.80	122.70
2	SA	179	PHE	CB-CG-CD1	-5.56	116.91	120.80
32	S1	584	A	C5'-C4'-C3'	-5.56	107.10	116.00
33	L1	956	G	O4'-C4'-C3'	-5.56	98.44	104.00
33	L1	2428	G	O4'-C1'-C2'	5.56	112.61	107.60
66	LN	109	LYS	CD-CE-NZ	5.56	124.50	111.70
32	S1	240	U	OP1-P-OP2	-5.56	111.25	119.60
32	S1	1161	C	P-O5'-C5'	-5.56	112.00	120.90
32	S1	1581	A	N9-C1'-C2'	-5.56	105.88	112.00
33	L1	326	C	O4'-C1'-N1	5.56	112.65	108.20
33	L1	1226	G	O4'-C1'-C2'	5.56	112.61	107.60
33	L1	3001	G	C5'-C4'-C3'	5.56	124.90	116.00
77	Lc	118	ARG	NE-CZ-NH2	-5.56	117.52	120.30
32	S1	632	G	N9-C1'-C2'	-5.56	105.88	112.00
32	S1	1573	C	C3'-C2'-C1'	5.56	105.95	101.50
33	L1	840	A	OP2-P-O3'	5.56	117.44	105.20
33	L1	2040	G	O4'-C1'-N9	5.56	112.65	108.20
37	LB	193	ARG	N-CA-CB	-5.56	100.59	110.60
66	LN	4	LYS	CB-CA-C	-5.56	99.28	110.40
2	SA	184	ARG	NE-CZ-NH2	-5.56	117.52	120.30
23	SU	95	TYR	CD1-CG-CD2	5.56	124.02	117.90
33	L1	367	A	C1'-O4'-C4'	5.56	114.35	109.90
33	L1	672	A	O4'-C1'-N9	5.56	112.65	108.20
33	L1	708	C	C3'-C2'-C1'	5.56	105.95	101.50
33	L1	1263	A	OP1-P-OP2	-5.56	111.26	119.60
33	L1	1532	A	O4'-C1'-C2'	-5.56	100.24	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
44	LR	91	ARG	NH1-CZ-NH2	5.56	125.52	119.40
47	LU	130	ARG	N-CA-CB	5.56	120.61	110.60
80	LC	314	GLY	CA-C-O	5.56	130.61	120.60
32	S1	180	A	C4'-C3'-C2'	-5.56	97.04	102.60
32	S1	918	G	O4'-C1'-C2'	-5.56	100.24	105.80
33	L1	971	G	OP2-P-O3'	-5.56	92.98	105.20
70	Li	102	ILE	CB-CA-C	5.56	122.72	111.60
13	SQ	67	ARG	CD-NE-CZ	-5.56	115.82	123.60
25	SC	145	ILE	CA-C-O	-5.56	108.43	120.10
32	S1	1620	C	C3'-C2'-C1'	5.56	105.94	101.50
33	L1	27	C	N1-C1'-C2'	5.56	121.22	114.00
45	LQ	266	ARG	NE-CZ-NH1	5.56	123.08	120.30
15	SS	11	ASP	C-N-CA	5.55	135.59	121.70
28	SN	14	TYR	C-N-CA	5.55	133.96	122.30
32	S1	1069	G	C4'-C3'-C2'	-5.55	97.05	102.60
32	S1	1322	G	O4'-C4'-C3'	-5.55	98.45	104.00
32	S1	1693	C	P-O3'-C3'	-5.55	113.03	119.70
33	L1	1518	A	OP2-P-O3'	5.55	117.42	105.20
33	L1	2022	U	C5'-C4'-C3'	5.55	124.89	116.00
44	LR	34	ARG	N-CA-CB	5.55	120.60	110.60
38	LE	127	MET	CA-CB-CG	5.55	122.74	113.30
80	LC	57	VAL	CA-CB-CG2	-5.55	102.57	110.90
11	SM	104	ASP	N-CA-CB	5.55	120.59	110.60
31	S2	72	G	P-O5'-C5'	-5.55	112.02	120.90
33	L1	466	U	P-O3'-C3'	5.55	126.36	119.70
33	L1	721	A	C5'-C4'-C3'	5.55	124.88	116.00
33	L1	1250	G	O4'-C1'-C2'	5.55	112.60	107.60
33	L1	2496	U	C4'-C3'-C2'	-5.55	97.05	102.60
33	L1	3302	A	OP2-P-O3'	5.55	117.41	105.20
33	L1	3325	G	O4'-C1'-N9	5.55	112.64	108.20
35	L2	23	A	N9-C1'-C2'	-5.55	105.89	112.00
80	LC	102	LEU	CB-CA-C	-5.55	99.65	110.20
32	S1	151	A	O3'-P-O5'	-5.55	93.45	104.00
32	S1	282	C	O4'-C1'-C2'	-5.55	100.25	105.80
32	S1	1132	G	O4'-C1'-C2'	5.55	112.59	107.60
33	L1	1097	A	C3'-C2'-C1'	-5.55	97.06	101.50
33	L1	1279	C	O4'-C1'-N1	5.55	112.64	108.20
34	L3	18	C	N1-C1'-C2'	-5.55	105.89	112.00
41	LM	55	ALA	N-CA-CB	-5.55	102.33	110.10
3	SB	74	GLN	CB-CA-C	-5.55	99.31	110.40
33	L1	1130	G	O3'-P-O5'	5.55	114.54	104.00
45	LQ	109	ARG	NE-CZ-NH1	5.55	123.07	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
72	Lk	96	VAL	CB-CA-C	-5.55	100.86	111.40
32	S1	1224	C	OP2-P-O3'	-5.55	93.00	105.20
33	L1	1511	C	O3'-P-O5'	-5.55	93.46	104.00
32	S1	23	G	P-O5'-C5'	-5.54	112.03	120.90
32	S1	1540	U	C5'-C4'-C3'	5.54	124.87	116.00
33	L1	1865	C	C3'-C2'-C1'	5.54	105.94	101.50
56	Lh	107	LYS	O-C-N	5.54	131.57	122.70
32	S1	158	C	P-O3'-C3'	-5.54	113.05	119.70
32	S1	273	C	C5'-C4'-C3'	-5.54	107.13	116.00
32	S1	1378	C	P-O3'-C3'	-5.54	113.05	119.70
32	S1	1383	U	C5'-C4'-O4'	5.54	115.75	109.10
33	L1	161	C	N1-C1'-C2'	5.54	121.21	114.00
33	L1	1289	G	OP1-P-O3'	5.54	117.39	105.20
33	L1	2477	G	OP1-P-OP2	-5.54	111.28	119.60
48	LV	112	THR	CA-CB-OG1	5.54	120.64	109.00
70	Li	47	THR	N-CA-C	-5.54	96.03	111.00
80	LC	129	ALA	N-CA-C	5.54	125.97	111.00
32	S1	1748	U	O5'-C5'-C4'	-5.54	101.17	111.70
33	L1	239	C	C3'-C2'-C1'	-5.54	97.07	101.50
33	L1	302	G	P-O3'-C3'	5.54	126.35	119.70
33	L1	2283	G	O4'-C1'-N9	5.54	112.63	108.20
33	L1	3203	G	C3'-C2'-C1'	-5.54	97.07	101.50
38	LE	1	MET	CG-SD-CE	-5.54	91.33	100.20
41	LM	69	LYS	O-C-N	-5.54	110.57	121.10
41	LM	89	ARG	CG-CD-NE	-5.54	100.16	111.80
68	LW	105	ILE	O-C-N	-5.54	113.83	122.70
69	La	28	VAL	CA-C-N	5.54	129.39	117.20
23	SU	7	ALA	N-CA-C	5.54	125.96	111.00
33	L1	2702	G	P-O5'-C5'	5.54	129.76	120.90
70	Li	19	GLN	N-CA-C	-5.54	96.04	111.00
27	SH	28	ARG	NE-CZ-NH2	-5.54	117.53	120.30
32	S1	9	U	O4'-C1'-C2'	-5.54	100.26	105.80
32	S1	1076	C	O4'-C1'-C2'	-5.54	100.26	105.80
32	S1	1593	U	O5'-P-OP1	5.54	117.35	110.70
32	S1	1632	C	P-O5'-C5'	-5.54	112.04	120.90
33	L1	1369	G	O5'-C5'-C4'	5.54	122.22	111.70
33	L1	1684	U	P-O3'-C3'	5.54	126.34	119.70
33	L1	3101	C	O4'-C1'-C2'	-5.54	100.26	105.80
34	L3	16	A	O4'-C1'-N9	5.54	112.63	108.20
35	L2	54	C	C4'-C3'-C2'	-5.54	97.06	102.60
54	Lf	20	LEU	CB-CG-CD2	5.54	120.42	111.00
31	S2	47	U	O4'-C1'-C2'	-5.54	100.26	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1375	C	O4'-C1'-N1	5.54	112.63	108.20
32	S1	1625	U	O4'-C4'-C3'	5.54	110.53	106.10
33	L1	527	G	P-O3'-C3'	5.54	126.34	119.70
6	SF	123	ARG	NE-CZ-NH1	5.54	123.07	120.30
31	S2	62	C	C4'-C3'-C2'	5.54	108.14	102.60
32	S1	1331	C	N1-C1'-C2'	-5.54	105.91	112.00
33	L1	637	C	C3'-C2'-C1'	5.54	105.93	101.50
33	L1	912	G	O4'-C4'-C3'	-5.54	98.47	104.00
33	L1	2206	U	C3'-C2'-C1'	5.54	105.93	101.50
33	L1	2798	G	O4'-C4'-C3'	-5.54	98.46	104.00
67	LS	10	GLN	N-CA-CB	-5.54	100.64	110.60
16	SR	128	PHE	CB-CG-CD2	5.53	124.67	120.80
31	S2	17	G	C3'-C2'-C1'	5.53	105.93	101.50
33	L1	1754	C	OP2-P-O3'	5.53	117.37	105.20
33	L1	2494	A	O5'-P-OP2	5.53	117.34	110.70
33	L1	2849	A	P-O3'-C3'	-5.53	113.06	119.70
33	L1	2927	C	O4'-C1'-N1	5.53	112.63	108.20
45	LQ	250	ASP	CB-CA-C	5.53	121.47	110.40
48	LV	79	ASN	N-CA-C	-5.53	96.06	111.00
67	LS	82	ARG	N-CA-CB	5.53	120.56	110.60
72	Lk	67	GLY	N-CA-C	5.53	126.94	113.10
32	S1	1281	G	C4'-C3'-C2'	-5.53	97.07	102.60
33	L1	163	U	C4'-C3'-C2'	-5.53	97.07	102.60
33	L1	437	C	N1-C1'-C2'	-5.53	105.92	112.00
33	L1	878	G	P-O3'-C3'	5.53	126.34	119.70
37	LB	84	THR	N-CA-CB	5.53	120.81	110.30
46	LT	61	SER	CB-CA-C	-5.53	99.59	110.10
32	S1	337	A	C1'-O4'-C4'	-5.53	105.48	109.90
32	S1	385	C	N1-C1'-C2'	5.53	121.19	114.00
32	S1	1747	A	C5'-C4'-C3'	5.53	124.85	116.00
33	L1	2467	A	C2'-C3'-O3'	5.53	122.55	113.70
33	L1	2596	A	C5'-C4'-O4'	5.53	115.74	109.10
33	L1	3175	C	OP1-P-OP2	-5.53	111.30	119.60
33	L1	3292	U	C4'-C3'-C2'	-5.53	97.07	102.60
34	L3	111	U	O4'-C1'-C2'	5.53	112.58	107.60
35	L2	158	G	P-O3'-C3'	-5.53	113.06	119.70
60	Lr	60	LYS	C-N-CA	-5.53	107.87	121.70
68	LW	23	PHE	CB-CG-CD2	5.53	124.67	120.80
83	Lm	4	ARG	CA-CB-CG	-5.53	101.23	113.40
10	SL	23	ALA	C-N-CA	5.53	135.52	121.70
33	L1	734	C	P-O5'-C5'	5.53	129.75	120.90
33	L1	2510	U	P-O5'-C5'	-5.53	112.05	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
70	Li	101	LYS	C-N-CA	5.53	135.52	121.70
16	SR	116	ILE	CA-C-N	5.53	129.36	117.20
23	SU	19	THR	OG1-CB-CG2	-5.53	97.29	110.00
33	L1	1021	U	OP2-P-O3'	5.53	117.36	105.20
33	L1	1151	G	N9-C1'-C2'	5.53	121.19	114.00
33	L1	1290	A	P-O3'-C3'	5.53	126.33	119.70
33	L1	1336	A	C5'-C4'-C3'	-5.53	107.16	116.00
2	SA	185	MET	CG-SD-CE	-5.53	91.36	100.20
32	S1	827	C	O4'-C1'-N1	5.53	112.62	108.20
32	S1	1019	G	O4'-C1'-N9	5.53	112.62	108.20
32	S1	1566	U	OP1-P-OP2	-5.53	111.31	119.60
32	S1	1626	C	C3'-C2'-C1'	-5.53	97.08	101.50
32	S1	1637	G	C1'-O4'-C4'	-5.53	105.48	109.90
33	L1	749	C	O4'-C1'-N1	5.53	112.62	108.20
33	L1	939	A	P-O3'-C3'	5.53	126.33	119.70
33	L1	1015	A	C3'-C2'-C1'	5.53	105.92	101.50
33	L1	1772	G	C1'-O4'-C4'	5.53	114.32	109.90
33	L1	2260	C	O4'-C1'-N1	5.53	112.62	108.20
33	L1	2758	C	O3'-P-O5'	-5.53	93.50	104.00
33	L1	2767	C	C3'-C2'-C1'	5.53	105.92	101.50
33	L1	2774	A	O5'-P-OP2	5.53	117.33	110.70
35	L2	117	U	P-O3'-C3'	-5.53	113.07	119.70
71	Lj	90	ARG	NE-CZ-NH2	-5.53	117.54	120.30
32	S1	1319	U	O4'-C4'-C3'	-5.52	98.48	104.00
32	S1	1567	G	C3'-C2'-C1'	5.52	105.92	101.50
39	LF	185	THR	CA-CB-CG2	-5.52	104.67	112.40
1	Sa	198	SER	C-N-CA	5.52	135.51	121.70
32	S1	1515	G	O3'-P-O5'	5.52	114.49	104.00
32	S1	1579	C	O4'-C1'-N1	5.52	112.62	108.20
33	L1	64	A	N9-C1'-C2'	5.52	121.18	114.00
33	L1	997	G	C2'-C3'-O3'	5.52	122.54	113.70
33	L1	1194	C	C3'-C2'-C1'	-5.52	97.08	101.50
33	L1	1431	G	N9-C1'-C2'	5.52	121.18	114.00
33	L1	1771	G	C4'-C3'-C2'	-5.52	97.08	102.60
33	L1	3081	G	C2'-C3'-O3'	5.52	122.53	113.70
34	L3	103	U	O4'-C1'-N1	-5.52	103.78	108.20
35	L2	48	A	OP2-P-O3'	5.52	117.35	105.20
14	SP	50	ILE	CA-C-N	5.52	129.35	117.20
20	SZ	44	PHE	CA-C-N	-5.52	105.05	117.20
33	L1	213	G	C3'-C2'-C1'	-5.52	97.08	101.50
33	L1	282	A	N9-C1'-C2'	-5.52	105.93	112.00
33	L1	1383	G	C1'-O4'-C4'	-5.52	105.48	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2515	C	C3'-C2'-C1'	5.52	105.92	101.50
32	S1	1047	G	O4'-C1'-N9	5.52	112.61	108.20
32	S1	1504	U	C3'-C2'-C1'	5.52	105.92	101.50
33	L1	459	G	N9-C1'-C2'	5.52	121.17	114.00
33	L1	615	A	N9-C1'-C2'	5.52	121.17	114.00
33	L1	2114	A	P-O5'-C5'	5.52	129.73	120.90
33	L1	2364	C	C5'-C4'-C3'	5.52	124.83	116.00
33	L1	3233	C	OP2-P-O3'	5.52	117.34	105.20
35	L2	22	U	C1'-O4'-C4'	-5.52	105.48	109.90
35	L2	98	C	C4'-C3'-C2'	5.52	108.12	102.60
42	LP	13	ARG	CG-CD-NE	-5.52	100.21	111.80
32	S1	231	U	C3'-C2'-C1'	-5.52	97.09	101.50
32	S1	1353	G	N9-C1'-C2'	5.52	121.17	114.00
32	S1	1477	A	O4'-C1'-C2'	-5.52	100.28	105.80
32	S1	1793	C	O4'-C4'-C3'	5.52	110.51	106.10
33	L1	2841	G	C4'-C3'-C2'	-5.52	97.08	102.60
33	L1	3377	G	O4'-C4'-C3'	-5.52	98.48	104.00
35	L2	157	C	C5'-C4'-O4'	5.52	115.72	109.10
56	Lh	26	TYR	CG-CD2-CE2	5.52	125.71	121.30
61	Lq	9	ARG	NE-CZ-NH1	5.52	123.06	120.30
74	LJ	39	PRO	N-CD-CG	5.52	111.48	103.20
31	S2	39	G	O4'-C1'-C2'	5.52	112.56	107.60
48	LV	169	ARG	C-N-CA	5.52	135.49	121.70
70	Li	41	GLY	C-N-CD	-5.52	108.47	120.60
14	SP	116	PHE	CZ-CE2-CD2	-5.51	113.48	120.10
15	SS	68	TYR	CB-CG-CD1	5.51	124.31	121.00
32	S1	1146	G	C5'-C4'-O4'	5.51	115.72	109.10
32	S1	1648	C	P-O3'-C3'	-5.51	113.08	119.70
33	L1	1532	A	P-O3'-C3'	5.51	126.32	119.70
33	L1	1554	C	C1'-O4'-C4'	-5.51	105.49	109.90
33	L1	3124	A	C1'-O4'-C4'	5.51	114.31	109.90
35	L2	67	C	C2'-C3'-O3'	5.51	122.52	113.70
45	LQ	34	TYR	CB-CG-CD2	-5.51	117.69	121.00
51	LY	8	THR	N-CA-CB	5.51	120.78	110.30
68	LW	88	LEU	N-CA-CB	-5.51	99.37	110.40
15	SS	34	PRO	CA-N-CD	-5.51	103.78	111.50
25	SC	25	ARG	NE-CZ-NH1	-5.51	117.54	120.30
32	S1	973	U	O4'-C1'-N1	5.51	112.61	108.20
33	L1	1172	A	C1'-O4'-C4'	5.51	114.31	109.90
33	L1	2091	U	O4'-C1'-C2'	-5.51	100.29	105.80
27	SH	26	LEU	CB-CA-C	-5.51	99.73	110.20
31	S2	43	C	C1'-O4'-C4'	-5.51	105.49	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	257	A	P-O3'-C3'	5.51	126.31	119.70
32	S1	942	C	C4'-C3'-C2'	-5.51	97.09	102.60
33	L1	207	U	C4'-C3'-C2'	-5.51	97.09	102.60
33	L1	1377	G	O4'-C1'-N9	5.51	112.61	108.20
33	L1	2007	C	O4'-C1'-C2'	-5.51	100.29	105.80
33	L1	2174	C	C4'-C3'-C2'	-5.51	97.09	102.60
33	L1	2687	C	C1'-O4'-C4'	-5.51	105.49	109.90
32	S1	731	G	P-O3'-C3'	-5.51	113.09	119.70
32	S1	776	A	O5'-C5'-C4'	5.51	122.17	111.70
32	S1	1745	U	C3'-C2'-C1'	5.51	105.91	101.50
32	S1	1747	A	O3'-P-O5'	-5.51	93.53	104.00
33	L1	2143	A	O4'-C1'-N9	5.51	112.61	108.20
33	L1	2576	C	P-O5'-C5'	-5.51	112.09	120.90
33	L1	2612	A	N9-C1'-C2'	-5.51	105.94	112.00
38	LE	129	PHE	CZ-CE2-CD2	-5.51	113.49	120.10
42	LP	120	TRP	CB-CG-CD1	5.51	134.16	127.00
76	Lv	35	ASP	CB-CG-OD2	-5.51	113.34	118.30
11	SM	12	ILE	N-CA-CB	5.51	123.47	110.80
11	SM	39	ARG	NE-CZ-NH1	5.51	123.05	120.30
33	L1	300	C	N1-C1'-C2'	5.51	121.16	114.00
57	L1	17	THR	N-CA-CB	5.51	120.77	110.30
7	SI	32	ARG	NH1-CZ-NH2	-5.51	113.34	119.40
32	S1	213	U	OP1-P-OP2	-5.51	111.34	119.60
32	S1	1023	C	C5'-C4'-O4'	5.51	115.71	109.10
32	S1	1062	C	O3'-P-O5'	-5.51	93.54	104.00
32	S1	1757	G	P-O5'-C5'	5.51	129.71	120.90
33	L1	309	C	O3'-P-O5'	5.51	114.46	104.00
33	L1	319	C	P-O3'-C3'	-5.51	113.09	119.70
33	L1	1050	A	P-O5'-C5'	-5.51	112.09	120.90
33	L1	1395	A	C1'-C2'-O2'	5.51	127.12	110.60
33	L1	1921	U	C5'-C4'-C3'	-5.51	107.19	116.00
33	L1	1924	G	C5'-C4'-C3'	5.51	124.81	116.00
33	L1	3087	A	C4'-C3'-C2'	5.51	108.11	102.60
33	L1	3364	A	C5'-C4'-C3'	5.51	124.81	116.00
38	LE	130	PHE	CG-CD1-CE1	-5.51	114.74	120.80
40	LH	106	ARG	NE-CZ-NH1	5.51	123.05	120.30
48	LV	132	ARG	N-CA-CB	-5.51	100.69	110.60
32	S1	672	G	O4'-C1'-N9	5.50	112.60	108.20
37	LB	50	HIS	O-C-N	-5.50	113.89	122.70
55	Lg	97	LEU	O-C-N	-5.50	113.89	122.70
67	LS	77	TYR	CG-CD1-CE1	-5.50	116.90	121.30
32	S1	564	U	C3'-C2'-C1'	5.50	105.90	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	839	G	C1'-O4'-C4'	-5.50	105.50	109.90
32	S1	1182	C	C5'-C4'-C3'	5.50	124.81	116.00
33	L1	584	G	O4'-C1'-N9	-5.50	103.80	108.20
33	L1	1373	A	O4'-C1'-N9	5.50	112.60	108.20
33	L1	1948	G	C3'-C2'-C1'	-5.50	97.10	101.50
33	L1	3271	A	N9-C1'-C2'	5.50	121.16	114.00
14	SP	104	ARG	NE-CZ-NH1	-5.50	117.55	120.30
25	SC	8	TYR	CB-CG-CD1	5.50	124.30	121.00
33	L1	29	G	N9-C1'-C2'	-5.50	105.95	112.00
33	L1	124	C	O4'-C1'-N1	-5.50	103.80	108.20
33	L1	1539	G	C3'-C2'-C1'	-5.50	97.10	101.50
33	L1	1665	G	N9-C1'-C2'	-5.50	105.95	112.00
33	L1	1693	A	P-O3'-C3'	-5.50	113.10	119.70
33	L1	1867	U	N1-C1'-C2'	5.50	121.15	114.00
13	SQ	125	ALA	CA-C-N	5.50	132.50	117.10
33	L1	2232	C	C1'-O4'-C4'	-5.50	105.50	109.90
48	LV	157	PRO	N-CD-CG	5.50	111.45	103.20
5	SE	148	VAL	N-CA-C	-5.50	96.15	111.00
32	S1	226	C	O4'-C1'-C2'	-5.50	100.30	105.80
32	S1	1767	G	C1'-O4'-C4'	-5.50	105.50	109.90
33	L1	2750	A	P-O3'-C3'	-5.50	113.10	119.70
33	L1	3056	C	O4'-C1'-C2'	-5.50	100.30	105.80
56	Lh	131	GLU	C-N-CA	5.50	135.44	121.70
69	La	25	ILE	CG1-CB-CG2	-5.50	99.30	111.40
32	S1	420	A	O4'-C1'-C2'	-5.50	100.30	105.80
33	L1	506	U	C5'-C4'-C3'	5.50	124.79	116.00
33	L1	1121	C	O4'-C1'-N1	5.50	112.60	108.20
33	L1	1573	G	N9-C1'-C2'	5.50	121.14	114.00
33	L1	1798	C	N1-C1'-C2'	5.50	121.15	114.00
33	L1	1985	G	O4'-C1'-N9	5.50	112.60	108.20
33	L1	2449	A	O3'-P-O5'	-5.50	93.56	104.00
33	L1	3376	C	C4'-C3'-O3'	5.50	123.99	113.00
2	SA	73	GLU	OE1-CD-OE2	5.50	129.89	123.30
32	S1	468	A	P-O5'-C5'	5.50	129.69	120.90
32	S1	825	U	P-O3'-C3'	-5.50	113.11	119.70
32	S1	1097	A	OP2-P-O3'	5.50	117.29	105.20
33	L1	1283	C	C4'-C3'-C2'	5.50	108.09	102.60
39	LF	91	MET	CG-SD-CE	-5.50	91.41	100.20
5	SE	124	VAL	CA-CB-CG1	5.49	119.14	110.90
7	SI	135	PHE	CA-CB-CG	5.49	127.09	113.90
32	S1	967	C	O4'-C1'-N1	5.49	112.59	108.20
33	L1	139	U	N1-C1'-C2'	5.49	121.14	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	312	U	N1-C1'-C2'	-5.49	105.96	112.00
33	L1	638	G	P-O5'-C5'	5.49	129.69	120.90
33	L1	1264	A	O4'-C4'-C3'	-5.49	98.51	104.00
33	L1	2115	G	C5'-C4'-C3'	5.49	124.79	116.00
71	Lj	34	LEU	N-CA-CB	-5.49	99.41	110.40
81	LD	101	ARG	NH1-CZ-NH2	-5.49	113.36	119.40
32	S1	224	C	O4'-C1'-N1	5.49	112.59	108.20
32	S1	774	C	O3'-P-O5'	-5.49	93.56	104.00
32	S1	1328	G	C5'-C4'-O4'	5.49	115.69	109.10
33	L1	1268	G	P-O3'-C3'	5.49	126.29	119.70
33	L1	1660	C	P-O5'-C5'	5.49	129.69	120.90
47	LU	135	PRO	N-CA-C	5.49	126.38	112.10
59	Lo	27	ILE	N-CA-C	5.49	125.83	111.00
32	S1	421	A	P-O5'-C5'	-5.49	112.11	120.90
33	L1	1423	C	N1-C1'-C2'	-5.49	105.96	112.00
33	L1	2466	G	P-O5'-C5'	-5.49	112.12	120.90
33	L1	2722	U	C4'-C3'-C2'	-5.49	97.11	102.60
33	L1	2824	U	C3'-C2'-C1'	-5.49	97.11	101.50
39	LF	95	TYR	N-CA-C	-5.49	96.17	111.00
3	SB	97	CYS	CA-CB-SG	5.49	123.88	114.00
33	L1	1663	G	N9-C1'-C2'	5.49	121.13	114.00
33	L1	1739	G	C1'-O4'-C4'	-5.49	105.51	109.90
33	L1	1873	C	C4'-C3'-C2'	-5.49	97.11	102.60
33	L1	2075	C	P-O5'-C5'	5.49	129.68	120.90
33	L1	3175	C	O3'-P-O5'	-5.49	93.57	104.00
80	LC	343	ARG	NE-CZ-NH1	5.49	123.04	120.30
23	SU	25	ARG	CB-CG-CD	5.49	125.87	111.60
32	S1	1317	A	C1'-O4'-C4'	5.49	114.29	109.90
32	S1	1758	G	OP2-P-O3'	5.49	117.27	105.20
33	L1	2135	U	C4'-C3'-C2'	5.49	108.09	102.60
32	S1	548	C	O3'-P-O5'	5.49	114.42	104.00
32	S1	1544	G	C1'-O4'-C4'	-5.49	105.51	109.90
33	L1	125	G	C3'-C2'-C1'	-5.49	97.11	101.50
33	L1	180	G	O5'-P-OP2	5.49	117.28	110.70
33	L1	409	U	OP2-P-O3'	5.49	117.27	105.20
33	L1	1655	G	N9-C1'-C2'	5.49	121.13	114.00
35	L2	102	U	C4'-C3'-C2'	-5.49	97.11	102.60
32	S1	736	U	C4'-C3'-O3'	5.48	123.97	113.00
32	S1	1132	G	O3'-P-O5'	-5.48	93.58	104.00
33	L1	1301	C	P-O5'-C5'	5.48	129.67	120.90
33	L1	3323	U	C5'-C4'-C3'	-5.48	107.23	116.00
34	L3	106	U	OP2-P-O3'	-5.48	93.14	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	LX	114	ASP	O-C-N	-5.48	113.93	122.70
55	Lg	16	VAL	N-CA-C	-5.48	96.19	111.00
81	LD	319	LYS	N-CA-C	-5.48	96.19	111.00
23	SU	7	ALA	CA-C-N	-5.48	101.75	117.10
32	S1	477	A	C3'-C2'-C1'	5.48	105.89	101.50
32	S1	851	G	O4'-C1'-N9	5.48	112.58	108.20
32	S1	997	A	O4'-C1'-N9	5.48	112.59	108.20
32	S1	1024	A	O4'-C4'-C3'	-5.48	98.52	104.00
32	S1	1677	U	C4'-C3'-C2'	-5.48	97.12	102.60
33	L1	2439	A	C4'-C3'-C2'	-5.48	97.12	102.60
33	L1	2795	G	O4'-C1'-N9	5.48	112.59	108.20
35	L2	14	G	C1'-O4'-C4'	5.48	114.29	109.90
66	LN	17	TYR	N-CA-CB	5.48	120.47	110.60
28	SN	43	PHE	CG-CD1-CE1	5.48	126.83	120.80
33	L1	527	G	O4'-C1'-N9	-5.48	103.82	108.20
33	L1	1165	C	N1-C1'-C2'	5.48	121.13	114.00
33	L1	1174	G	OP1-P-OP2	-5.48	111.38	119.60
33	L1	1746	G	P-O5'-C5'	-5.48	112.13	120.90
33	L1	3059	C	C5'-C4'-C3'	5.48	124.77	116.00
43	LO	107	LEU	CB-CG-CD1	-5.48	101.69	111.00
32	S1	1000	A	O4'-C1'-C2'	5.48	112.53	107.60
32	S1	1373	C	P-O5'-C5'	-5.48	112.13	120.90
32	S1	1693	C	O4'-C1'-C2'	-5.48	100.32	105.80
33	L1	1133	A	P-O3'-C3'	5.48	126.28	119.70
33	L1	1505	G	O4'-C4'-C3'	5.48	110.48	106.10
33	L1	2646	A	P-O5'-C5'	-5.48	112.13	120.90
40	LH	127	VAL	CG1-CB-CG2	5.48	119.67	110.90
32	S1	630	U	P-O3'-C3'	5.48	126.27	119.70
32	S1	940	U	C4'-C3'-C2'	5.48	108.08	102.60
33	L1	1744	C	P-O3'-C3'	5.48	126.27	119.70
33	L1	1764	G	C1'-C2'-O2'	5.48	127.03	110.60
33	L1	1936	G	O4'-C1'-N9	5.48	112.58	108.20
33	L1	2260	C	C5'-C4'-C3'	5.48	124.76	116.00
33	L1	2438	A	C5'-C4'-O4'	5.48	115.67	109.10
33	L1	2506	G	O4'-C4'-C3'	-5.48	98.52	104.00
33	L1	2640	A	P-O3'-C3'	-5.48	113.13	119.70
35	L2	95	C	O4'-C1'-C2'	-5.48	100.32	105.80
38	LE	12	ARG	NE-CZ-NH2	-5.48	117.56	120.30
32	S1	232	C	C1'-O4'-C4'	5.48	114.28	109.90
12	SO	129	TYR	CB-CG-CD1	5.47	124.28	121.00
32	S1	844	C	O4'-C1'-N1	5.47	112.58	108.20
32	S1	972	A	O4'-C1'-N9	5.47	112.58	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1408	G	O4'-C1'-N9	5.47	112.58	108.20
33	L1	1953	C	C5'-C4'-O4'	-5.47	102.53	109.10
35	L2	12	C	P-O3'-C3'	-5.47	113.13	119.70
23	SU	92	GLU	CA-C-N	5.47	132.42	117.10
32	S1	178	A	O4'-C1'-N9	5.47	112.58	108.20
32	S1	439	C	N1-C1'-C2'	5.47	121.11	114.00
32	S1	1145	G	C3'-C2'-C1'	5.47	105.88	101.50
32	S1	1541	C	C4'-C3'-C2'	-5.47	97.13	102.60
33	L1	299	G	O4'-C1'-C2'	-5.47	100.33	105.80
33	L1	1150	G	C3'-C2'-C1'	-5.47	97.12	101.50
33	L1	1604	U	C5'-C4'-C3'	-5.47	107.24	116.00
33	L1	2340	G	O4'-C1'-N9	5.47	112.58	108.20
33	L1	2491	A	P-O5'-C5'	5.47	129.66	120.90
33	L1	2941	G	P-O3'-C3'	-5.47	113.13	119.70
12	SO	141	TYR	CB-CG-CD1	5.47	124.28	121.00
32	S1	627	A	N9-C1'-C2'	-5.47	105.98	112.00
32	S1	1344	U	O4'-C1'-C2'	-5.47	100.33	105.80
33	L1	797	U	O4'-C1'-C2'	-5.47	100.33	105.80
33	L1	2052	G	N9-C1'-C2'	-5.47	105.98	112.00
64	LG	65	LYS	O-C-N	-5.47	110.70	121.10
84	LI	107	GLY	N-CA-C	-5.47	99.42	113.10
6	SF	70	ASN	CB-CA-C	5.47	121.34	110.40
29	ST	52	PHE	N-CA-CB	5.47	120.44	110.60
32	S1	791	C	P-O5'-C5'	5.47	129.65	120.90
32	S1	1321	C	O4'-C1'-N1	5.47	112.58	108.20
33	L1	711	A	O4'-C1'-C2'	5.47	112.52	107.60
33	L1	1747	A	P-O5'-C5'	-5.47	112.15	120.90
33	L1	1752	C	N1-C1'-C2'	5.47	121.11	114.00
33	L1	1980	C	O4'-C1'-N1	5.47	112.58	108.20
33	L1	2464	G	P-O5'-C5'	-5.47	112.15	120.90
33	L1	3122	U	C4'-C3'-C2'	-5.47	97.13	102.60
35	L2	104	U	C5'-C4'-C3'	-5.47	107.25	116.00
32	S1	1803	G	O5'-C5'-C4'	5.47	122.09	111.70
33	L1	2949	G	C3'-C2'-C1'	5.47	105.87	101.50
36	LA	119	ILE	O-C-N	-5.47	110.71	121.10
45	LQ	241	LYS	O-C-N	-5.47	113.95	122.70
9	SK	59	MET	N-CA-CB	5.47	120.44	110.60
23	SU	72	GLY	N-CA-C	5.47	126.77	113.10
33	L1	554	C	O4'-C1'-C2'	-5.47	100.33	105.80
33	L1	3090	C	O4'-C1'-C2'	-5.47	100.33	105.80
69	La	26	VAL	N-CA-C	-5.47	96.24	111.00
23	SU	16	LYS	N-CA-C	-5.46	96.25	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	391	A	O4'-C1'-C2'	-5.46	100.34	105.80
32	S1	443	U	C5'-C4'-C3'	-5.46	107.26	116.00
33	L1	162	G	P-O3'-C3'	5.46	126.26	119.70
33	L1	232	C	C3'-C2'-C1'	5.46	105.87	101.50
33	L1	867	G	C3'-C2'-C1'	5.46	105.87	101.50
49	LX	33	SER	N-CA-CB	5.46	118.70	110.50
9	SK	96	LEU	CA-CB-CG	-5.46	102.73	115.30
33	L1	335	G	OP2-P-O3'	5.46	117.22	105.20
33	L1	1140	C	C1'-O4'-C4'	5.46	114.27	109.90
33	L1	1183	C	C2'-C3'-O3'	5.46	122.44	113.70
28	SN	10	HIS	C-N-CD	5.46	139.87	128.40
32	S1	1123	G	O4'-C1'-C2'	5.46	112.52	107.60
32	S1	1739	U	O3'-P-O5'	-5.46	93.62	104.00
32	S1	1764	G	N9-C1'-C2'	5.46	121.10	114.00
33	L1	924	A	C1'-O4'-C4'	5.46	114.27	109.90
33	L1	1362	C	C2'-C3'-O3'	5.46	122.44	113.70
33	L1	2045	G	O4'-C1'-N9	5.46	112.57	108.20
33	L1	2076	C	O4'-C4'-C3'	-5.46	98.54	104.00
33	L1	2581	C	C4'-C3'-C2'	-5.46	97.14	102.60
33	L1	2782	G	OP1-P-OP2	-5.46	111.41	119.60
33	L1	2868	C	N1-C1'-C2'	-5.46	105.99	112.00
35	L2	64	U	OP1-P-OP2	-5.46	111.41	119.60
46	LT	176	ARG	N-CA-CB	-5.46	100.77	110.60
48	LV	76	ARG	CD-NE-CZ	5.46	131.25	123.60
67	LS	137	LYS	CB-CA-C	5.46	121.33	110.40
70	Li	10	ARG	C-N-CA	5.46	135.35	121.70
33	L1	349	A	N9-C1'-C2'	-5.46	105.99	112.00
81	LD	309	PRO	CB-CG-CD	-5.46	85.20	106.50
11	SM	133	GLY	CA-C-O	-5.46	110.77	120.60
23	SU	76	THR	C-N-CA	-5.46	110.84	122.30
32	S1	932	C	O4'-C1'-C2'	-5.46	100.34	105.80
33	L1	314	C	C3'-C2'-C1'	5.46	105.87	101.50
33	L1	876	C	C1'-O4'-C4'	-5.46	105.53	109.90
33	L1	2806	A	P-O3'-C3'	-5.46	113.15	119.70
33	L1	3216	G	C1'-O4'-C4'	5.46	114.27	109.90
34	L3	31	G	O4'-C1'-N9	5.46	112.57	108.20
34	L3	69	A	C4'-C3'-C2'	-5.46	97.14	102.60
38	LE	41	GLN	CB-CG-CD	-5.46	97.41	111.60
23	SU	36	GLY	N-CA-C	-5.46	99.46	113.10
32	S1	291	G	O4'-C1'-N9	5.46	112.56	108.20
32	S1	410	U	N1-C1'-C2'	5.46	121.09	114.00
32	S1	927	A	OP1-P-O3'	5.46	117.20	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	975	A	C4'-C3'-C2'	-5.46	97.14	102.60
32	S1	1026	C	C3'-C2'-C1'	5.46	105.87	101.50
32	S1	1077	C	O4'-C1'-N1	5.46	112.56	108.20
33	L1	1742	G	O4'-C4'-C3'	-5.46	98.54	104.00
33	L1	1820	C	C5'-C4'-C3'	5.46	124.73	116.00
33	L1	2104	G	C1'-O4'-C4'	-5.46	105.53	109.90
33	L1	2952	G	C2'-C3'-O3'	5.46	122.43	113.70
35	L2	116	U	P-O5'-C5'	-5.46	112.17	120.90
37	LB	207	VAL	CA-CB-CG1	5.46	119.08	110.90
74	LJ	93	ARG	NE-CZ-NH1	-5.46	117.57	120.30
6	SF	85	ALA	N-CA-CB	5.46	117.74	110.10
23	SU	80	LEU	O-C-N	-5.46	113.97	122.70
32	S1	35	U	C5'-C4'-C3'	5.46	124.73	116.00
33	L1	907	A	N9-C1'-C2'	5.46	121.09	114.00
51	LY	24	SER	N-CA-CB	5.46	118.68	110.50
19	SY	39	MET	N-CA-CB	5.45	120.42	110.60
32	S1	435	C	O4'-C1'-N1	5.45	112.56	108.20
32	S1	1069	G	P-O3'-C3'	5.45	126.24	119.70
32	S1	1197	A	C3'-C2'-C1'	-5.45	97.14	101.50
32	S1	1592	G	C1'-O4'-C4'	5.45	114.26	109.90
33	L1	1374	G	OP1-P-OP2	-5.45	111.42	119.60
35	L2	57	A	C4'-C3'-C2'	-5.45	97.15	102.60
81	LD	311	ASN	CA-C-N	5.45	129.20	117.20
83	Lm	41	PHE	CB-CG-CD1	5.45	124.62	120.80
32	S1	919	G	P-O5'-C5'	5.45	129.62	120.90
32	S1	1426	C	C3'-C2'-C1'	5.45	105.86	101.50
33	L1	1	G	O4'-C1'-N9	5.45	112.56	108.20
33	L1	405	A	P-O3'-C3'	-5.45	113.16	119.70
33	L1	3080	U	O5'-P-OP2	-5.45	100.79	105.70
48	LV	157	PRO	CA-C-N	5.45	129.19	117.20
31	S2	44	A	P-O5'-C5'	5.45	129.62	120.90
32	S1	1017	U	C3'-C2'-C1'	5.45	105.86	101.50
32	S1	1686	C	C1'-O4'-C4'	-5.45	105.54	109.90
33	L1	243	C	O4'-C1'-N1	5.45	112.56	108.20
33	L1	307	C	C1'-O4'-C4'	-5.45	105.54	109.90
33	L1	1757	G	C4'-C3'-C2'	-5.45	97.15	102.60
33	L1	2829	U	O4'-C1'-C2'	-5.45	100.35	105.80
33	L1	424	G	O4'-C1'-C2'	-5.45	100.35	105.80
34	L3	73	U	C4'-C3'-C2'	-5.45	97.15	102.60
43	LO	12	ARG	NE-CZ-NH2	-5.45	117.58	120.30
54	Lf	39	ARG	CB-CG-CD	-5.45	97.44	111.60
82	LK	133	ARG	C-N-CA	-5.45	108.08	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	SF	165	ILE	CA-CB-CG2	-5.45	100.01	110.90
32	S1	996	G	C5'-C4'-C3'	-5.45	107.28	116.00
33	L1	1102	A	O5'-C5'-C4'	5.45	122.05	111.70
33	L1	1401	C	O4'-C1'-N1	5.45	112.56	108.20
33	L1	1602	A	O5'-P-OP2	-5.45	100.80	105.70
33	L1	1691	U	C4'-C3'-C2'	-5.45	97.15	102.60
33	L1	2706	A	O5'-C5'-C4'	5.45	122.05	111.70
34	L3	2	G	C5'-C4'-O4'	-5.45	102.56	109.10
41	LM	15	ARG	CD-NE-CZ	5.45	131.23	123.60
47	LU	131	GLN	CA-C-O	-5.45	108.66	120.10
4	SD	149	TYR	CA-CB-CG	5.45	123.75	113.40
32	S1	8	U	C1'-O4'-C4'	-5.45	105.54	109.90
32	S1	1794	C	P-O5'-C5'	-5.45	112.19	120.90
33	L1	973	U	P-O3'-C3'	-5.45	113.17	119.70
33	L1	1202	C	O4'-C1'-C2'	-5.45	100.36	105.80
33	L1	2234	G	C4'-C3'-C2'	-5.45	97.15	102.60
5	SE	78	VAL	CG1-CB-CG2	5.44	119.61	110.90
33	L1	727	G	O4'-C1'-N9	5.44	112.56	108.20
33	L1	2724	A	O4'-C1'-C2'	-5.44	100.36	105.80
42	LP	21	PHE	CA-CB-CG	5.44	126.97	113.90
81	LD	310	LEU	CB-CG-CD2	5.44	120.25	111.00
13	SQ	96	ILE	CA-CB-CG1	5.44	121.34	111.00
32	S1	199	G	OP1-P-OP2	-5.44	111.44	119.60
32	S1	1642	C	P-O3'-C3'	5.44	126.23	119.70
33	L1	599	C	N1-C1'-C2'	5.44	121.08	114.00
33	L1	1773	U	C3'-C2'-C1'	-5.44	97.15	101.50
33	L1	1775	C	C4'-C3'-C2'	-5.44	97.16	102.60
33	L1	2159	U	O4'-C1'-N1	5.44	112.55	108.20
35	L2	70	G	OP1-P-OP2	-5.44	111.44	119.60
32	S1	494	G	C4'-C3'-C2'	-5.44	97.16	102.60
33	L1	1141	U	C5'-C4'-C3'	5.44	124.70	116.00
33	L1	1282	A	C3'-C2'-C1'	5.44	105.85	101.50
33	L1	1517	C	O4'-C1'-C2'	-5.44	100.36	105.80
33	L1	1526	A	O4'-C1'-C2'	5.44	112.50	107.60
33	L1	2641	A	O5'-P-OP2	-5.44	100.80	105.70
64	LG	20	TYR	CE1-CZ-CE2	-5.44	111.10	119.80
67	LS	32	TRP	CE3-CZ3-CH2	-5.44	115.22	121.20
4	SD	65	LEU	N-CA-CB	-5.44	99.52	110.40
32	S1	1630	G	C5'-C4'-O4'	5.44	115.63	109.10
33	L1	251	G	O4'-C1'-C2'	5.44	112.50	107.60
33	L1	508	G	O4'-C4'-C3'	-5.44	98.56	104.00
33	L1	1264	A	P-O5'-C5'	-5.44	112.20	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	SH	89	TRP	CB-CG-CD1	5.44	134.07	127.00
32	S1	380	C	O3'-P-O5'	-5.44	93.67	104.00
33	L1	26	A	O5'-C5'-C4'	5.44	122.03	111.70
33	L1	1469	G	N9-C1'-C2'	5.44	121.07	114.00
33	L1	1527	A	P-O3'-C3'	5.44	126.22	119.70
33	L1	1682	C	C3'-C2'-C1'	5.44	105.85	101.50
33	L1	1932	A	O4'-C1'-C2'	5.44	112.49	107.60
33	L1	2113	A	C2'-C3'-O3'	5.44	122.40	113.70
33	L1	2139	A	OP1-P-O3'	5.44	117.16	105.20
35	L2	86	C	O4'-C1'-C2'	-5.44	100.36	105.80
8	SJ	127	ASP	N-CA-C	-5.44	96.32	111.00
32	S1	1110	C	C1'-O4'-C4'	5.44	114.25	109.90
32	S1	1591	A	C3'-C2'-C1'	5.44	105.85	101.50
33	L1	11	A	C1'-O4'-C4'	-5.44	105.55	109.90
33	L1	375	G	C1'-O4'-C4'	-5.44	105.55	109.90
33	L1	897	U	C2'-C3'-O3'	5.44	122.40	113.70
33	L1	1169	G	C5'-C4'-O4'	5.44	115.62	109.10
33	L1	1942	A	P-O3'-C3'	-5.44	113.18	119.70
35	L2	101	G	N9-C1'-C2'	5.44	121.07	114.00
36	LA	157	GLN	CB-CA-C	5.44	121.27	110.40
38	LE	22	ASN	N-CA-C	-5.44	96.32	111.00
1	Sa	26	ARG	NE-CZ-NH2	-5.43	117.58	120.30
32	S1	287	C	O4'-C1'-N1	5.43	112.55	108.20
32	S1	1508	C	O4'-C1'-C2'	-5.43	100.37	105.80
33	L1	593	G	C1'-O4'-C4'	-5.43	105.55	109.90
33	L1	856	G	O4'-C1'-C2'	5.43	112.49	107.60
33	L1	1101	A	C4'-C3'-O3'	5.43	123.87	113.00
33	L1	2593	A	P-O3'-C3'	-5.43	113.18	119.70
33	L1	2886	C	N1-C1'-C2'	5.43	121.06	114.00
52	Lb	86	LEU	CB-CG-CD2	5.43	120.24	111.00
64	LG	64	ARG	NE-CZ-NH1	5.43	123.02	120.30
80	LC	276	HIS	CA-CB-CG	5.43	122.84	113.60
83	Lm	27	LYS	CB-CA-C	-5.43	99.53	110.40
2	SA	94	PHE	CB-CA-C	-5.43	99.54	110.40
3	SB	90	LYS	C-N-CA	5.43	135.28	121.70
32	S1	308	U	O4'-C1'-N1	5.43	112.55	108.20
32	S1	406	C	O4'-C1'-C2'	-5.43	100.37	105.80
33	L1	1576	C	C2'-C3'-O3'	5.43	122.39	113.70
33	L1	1699	C	C4'-C3'-C2'	5.43	108.03	102.60
33	L1	2738	U	C3'-C2'-C1'	-5.43	97.15	101.50
33	L1	2779	G	C3'-C2'-C1'	-5.43	97.15	101.50
33	L1	2881	C	C4'-C3'-C2'	-5.43	97.17	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	30	C	C4'-C3'-C2'	-5.43	97.17	102.60
35	L2	100	A	O5'-C5'-C4'	5.43	122.02	111.70
42	LP	29	GLU	OE1-CD-OE2	-5.43	116.78	123.30
33	L1	296	C	N1-C1'-C2'	5.43	121.06	114.00
33	L1	650	A	O4'-C1'-N9	5.43	112.55	108.20
33	L1	2313	U	O5'-P-OP2	-5.43	100.81	105.70
33	L1	2823	C	C1'-O4'-C4'	5.43	114.25	109.90
45	LQ	207	TYR	CG-CD1-CE1	-5.43	116.95	121.30
73	Lp	14	ASN	C-N-CA	-5.43	108.12	121.70
8	SJ	64	ARG	CG-CD-NE	-5.43	100.40	111.80
32	S1	1625	U	O4'-C1'-N1	-5.43	103.86	108.20
33	L1	1725	G	C1'-O4'-C4'	-5.43	105.56	109.90
33	L1	2178	G	P-O3'-C3'	-5.43	113.19	119.70
33	L1	2905	A	P-O3'-C3'	-5.43	113.18	119.70
33	L1	33	A	OP1-P-OP2	-5.43	111.46	119.60
33	L1	861	A	C5'-C4'-C3'	-5.43	107.31	116.00
33	L1	870	G	N9-C1'-C2'	-5.43	106.03	112.00
33	L1	1123	A	C1'-O4'-C4'	-5.43	105.56	109.90
33	L1	1890	C	O4'-C1'-N1	5.43	112.54	108.20
46	LT	171	GLU	CB-CA-C	5.43	121.26	110.40
31	S2	39	G	O4'-C1'-N9	5.43	112.54	108.20
32	S1	947	G	C3'-C2'-C1'	-5.43	97.16	101.50
32	S1	1574	U	OP1-P-OP2	-5.43	111.46	119.60
33	L1	35	U	OP1-P-OP2	-5.43	111.46	119.60
33	L1	43	U	O4'-C1'-C2'	-5.43	100.37	105.80
33	L1	1533	U	C5'-C4'-C3'	-5.43	107.32	116.00
33	L1	3223	C	C5'-C4'-C3'	-5.43	107.32	116.00
35	L2	124	G	C3'-C2'-C1'	5.43	105.84	101.50
67	LS	48	ARG	NE-CZ-NH1	5.43	123.01	120.30
81	LD	166	GLU	CG-CD-OE2	-5.43	107.45	118.30
4	SD	184	THR	CA-C-N	5.42	127.05	116.20
32	S1	1406	U	C1'-O4'-C4'	-5.42	105.56	109.90
32	S1	1505	U	P-O3'-C3'	-5.42	113.19	119.70
32	S1	1713	C	P-O5'-C5'	-5.42	112.22	120.90
33	L1	185	A	O4'-C1'-C2'	5.42	112.48	107.60
33	L1	1695	C	C5'-C4'-O4'	-5.42	102.59	109.10
33	L1	1990	A	N9-C1'-C2'	5.42	121.05	114.00
33	L1	2464	G	C4'-C3'-C2'	-5.42	97.18	102.60
33	L1	2673	G	C5'-C4'-C3'	5.42	124.68	116.00
37	LB	189	TYR	CB-CG-CD1	-5.42	117.75	121.00
42	LP	41	ARG	NE-CZ-NH2	-5.42	117.59	120.30
45	LQ	14	HIS	N-CA-CB	5.42	120.36	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
80	LC	60	VAL	N-CA-C	5.42	125.64	111.00
32	S1	1200	A	C5'-C4'-O4'	5.42	115.61	109.10
32	S1	1675	G	C1'-O4'-C4'	5.42	114.24	109.90
33	L1	384	A	C1'-C2'-O2'	5.42	126.87	110.60
33	L1	2176	A	N9-C1'-C2'	-5.42	106.03	112.00
33	L1	2501	U	P-O5'-C5'	5.42	129.58	120.90
33	L1	3215	U	C5'-C4'-C3'	-5.42	107.32	116.00
34	L3	14	C	C2'-C3'-O3'	5.42	122.38	113.70
45	LQ	40	LEU	CB-CG-CD1	5.42	120.22	111.00
45	LQ	67	TYR	CB-CG-CD2	-5.42	117.75	121.00
32	S1	1212	A	C1'-O4'-C4'	-5.42	105.56	109.90
33	L1	601	G	C4'-C3'-C2'	-5.42	97.18	102.60
33	L1	999	U	C3'-C2'-C1'	5.42	105.84	101.50
33	L1	1126	U	C1'-O4'-C4'	5.42	114.24	109.90
33	L1	1663	G	C4'-C3'-C2'	-5.42	97.18	102.60
33	L1	2543	G	O4'-C1'-C2'	-5.42	100.38	105.80
33	L1	3163	G	N9-C1'-C2'	5.42	121.05	114.00
35	L2	129	C	C3'-C2'-C1'	5.42	105.84	101.50
36	LA	204	TYR	CA-CB-CG	5.42	123.70	113.40
40	LH	60	ARG	N-CA-CB	5.42	120.36	110.60
46	LT	157	ASP	CB-CG-OD2	-5.42	113.42	118.30
51	LY	45	ARG	NH1-CZ-NH2	-5.42	113.44	119.40
67	LS	72	THR	N-CA-CB	5.42	120.60	110.30
15	SS	92	PRO	CA-C-N	5.42	132.28	117.10
33	L1	388	G	O4'-C1'-N9	-5.42	103.86	108.20
33	L1	1017	G	C5'-C4'-C3'	5.42	124.67	116.00
33	L1	1625	G	OP2-P-O3'	5.42	117.12	105.20
33	L1	2984	A	O4'-C1'-C2'	5.42	112.48	107.60
56	Lh	24	ASP	O-C-N	-5.42	114.03	122.70
3	SB	123	LEU	C-N-CA	5.42	135.25	121.70
32	S1	919	G	O4'-C1'-N9	-5.42	103.86	108.20
33	L1	869	A	C5'-C4'-O4'	5.42	115.60	109.10
33	L1	976	A	O4'-C1'-N9	5.42	112.53	108.20
33	L1	1645	G	N9-C1'-C2'	-5.42	106.04	112.00
33	L1	1922	C	C1'-O4'-C4'	5.42	114.23	109.90
33	L1	3085	C	N1-C1'-C2'	-5.42	106.04	112.00
33	L1	3152	C	N1-C1'-C2'	-5.42	106.04	112.00
34	L3	25	G	P-O5'-C5'	5.42	129.57	120.90
35	L2	116	U	O4'-C1'-N1	5.42	112.53	108.20
37	LB	87	PHE	CD1-CE1-CZ	-5.42	113.60	120.10
59	Lo	4	HIS	CA-C-O	5.42	131.48	120.10
67	LS	162	THR	N-CA-C	5.42	125.63	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	Lm	41	PHE	CB-CG-CD2	-5.42	117.01	120.80
5	SE	106	ARG	NE-CZ-NH2	5.42	123.01	120.30
32	S1	1744	C	C3'-C2'-C1'	5.42	105.83	101.50
35	L2	58	A	C1'-O4'-C4'	5.42	114.23	109.90
1	Sa	31	THR	CA-C-O	-5.42	108.73	120.10
3	SB	82	ASN	CB-CG-ND2	-5.42	103.70	116.70
14	SP	104	ARG	NE-CZ-NH2	5.42	123.01	120.30
20	SZ	21	VAL	C-N-CA	5.42	135.24	121.70
32	S1	128	G	C3'-C2'-C1'	5.42	105.83	101.50
32	S1	502	G	C5'-C4'-C3'	5.42	124.66	116.00
32	S1	1782	C	P-O3'-C3'	-5.42	113.20	119.70
33	L1	1115	A	N9-C1'-C2'	-5.42	106.04	112.00
33	L1	2703	G	O3'-P-O5'	-5.42	93.71	104.00
4	SD	215	GLY	O-C-N	-5.41	114.04	122.70
13	SQ	95	GLU	C-N-CA	5.41	135.23	121.70
31	S2	52	G	O5'-C5'-C4'	5.41	121.99	111.70
32	S1	1514	G	C1'-O4'-C4'	-5.41	105.57	109.90
32	S1	1570	G	O4'-C1'-N9	5.41	112.53	108.20
33	L1	1086	U	C3'-C2'-C1'	5.41	105.83	101.50
33	L1	1372	U	N1-C1'-C2'	5.41	121.04	114.00
33	L1	2577	G	O4'-C1'-N9	5.41	112.53	108.20
69	La	28	VAL	CG1-CB-CG2	-5.41	102.24	110.90
33	L1	2690	G	OP1-P-OP2	-5.41	111.48	119.60
35	L2	22	U	N1-C1'-C2'	5.41	121.03	114.00
9	SK	77	SER	CA-C-O	5.41	131.46	120.10
25	SC	16	LYS	CA-C-N	5.41	132.25	117.10
32	S1	34	G	N9-C1'-C2'	-5.41	106.05	112.00
32	S1	53	G	C3'-C2'-C1'	5.41	105.83	101.50
32	S1	571	A	N9-C1'-C2'	-5.41	106.05	112.00
32	S1	1246	A	O3'-P-O5'	5.41	114.28	104.00
32	S1	1330	A	P-O3'-C3'	5.41	126.19	119.70
33	L1	113	A	C3'-C2'-C1'	5.41	105.83	101.50
33	L1	249	A	OP2-P-O3'	5.41	117.11	105.20
33	L1	295	U	C3'-C2'-C1'	-5.41	97.17	101.50
33	L1	2077	C	C1'-O4'-C4'	-5.41	105.57	109.90
33	L1	2406	C	P-O3'-C3'	-5.41	113.21	119.70
34	L3	78	C	C1'-O4'-C4'	5.41	114.23	109.90
34	L3	97	G	C1'-O4'-C4'	-5.41	105.57	109.90
38	LE	127	MET	N-CA-CB	-5.41	100.86	110.60
48	LV	90	ARG	NE-CZ-NH2	-5.41	117.59	120.30
49	LX	117	ALA	N-CA-CB	5.41	117.67	110.10
78	Le	200	ALA	CB-CA-C	-5.41	101.98	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	883	G	C4'-C3'-C2'	-5.41	97.19	102.60
32	S1	1219	C	C3'-C2'-C1'	5.41	105.83	101.50
32	S1	1654	C	C3'-C2'-C1'	5.41	105.83	101.50
33	L1	1810	G	C5'-C4'-O4'	5.41	115.59	109.10
33	L1	1934	U	C3'-C2'-C1'	5.41	105.83	101.50
33	L1	2740	C	C2'-C3'-O3'	5.41	122.35	113.70
35	L2	59	U	O4'-C1'-N1	5.41	112.53	108.20
54	Lf	89	TYR	O-C-N	-5.41	114.05	122.70
69	La	25	ILE	CB-CG1-CD1	5.41	129.04	113.90
79	Ls	96	GLY	CA-C-N	5.41	129.10	117.20
81	LD	363	ARG	NE-CZ-NH1	5.41	123.00	120.30
32	S1	539	A	OP1-P-OP2	-5.41	111.49	119.60
32	S1	931	A	C3'-C2'-C1'	-5.41	97.17	101.50
27	SH	119	LYS	CB-CA-C	5.41	121.21	110.40
32	S1	170	C	C3'-C2'-C1'	5.41	105.83	101.50
33	L1	626	G	O4'-C1'-N9	5.41	112.53	108.20
33	L1	720	G	C1'-O4'-C4'	5.41	114.22	109.90
33	L1	1113	C	C4'-C3'-C2'	-5.41	97.19	102.60
33	L1	2429	A	C1'-O4'-C4'	-5.41	105.58	109.90
33	L1	2460	A	C1'-C2'-O2'	5.41	126.82	110.60
33	L1	2651	G	C5'-C4'-C3'	5.41	124.65	116.00
33	L1	3233	C	O4'-C1'-N1	5.41	112.53	108.20
34	L3	2	G	O5'-C5'-C4'	-5.41	101.43	111.70
46	LT	85	ARG	CB-CA-C	-5.41	99.59	110.40
67	LS	23	HIS	CA-C-N	5.41	132.23	117.10
80	LC	122	TRP	CG-CD2-CE3	-5.41	129.03	133.90
32	S1	1130	A	O4'-C1'-C2'	-5.40	100.40	105.80
33	L1	1432	G	C3'-C2'-C1'	-5.40	97.18	101.50
33	L1	1797	U	C3'-C2'-C1'	-5.40	97.18	101.50
33	L1	2102	C	O4'-C1'-N1	5.40	112.52	108.20
33	L1	2339	U	C3'-C2'-C1'	-5.40	97.18	101.50
33	L1	2500	U	O4'-C1'-N1	5.40	112.52	108.20
4	SD	191	ARG	CD-NE-CZ	-5.40	116.04	123.60
33	L1	40	G	O4'-C1'-N9	5.40	112.52	108.20
33	L1	175	G	P-O3'-C3'	-5.40	113.22	119.70
33	L1	918	A	P-O5'-C5'	5.40	129.54	120.90
33	L1	1122	C	O5'-P-OP2	-5.40	100.84	105.70
35	L2	152	C	P-O5'-C5'	5.40	129.54	120.90
64	LG	189	ILE	N-CA-CB	5.40	123.23	110.80
70	Li	45	PRO	CA-N-CD	-5.40	103.94	111.50
80	LC	262	ARG	N-CA-CB	5.40	120.33	110.60
1	Sa	342	SER	N-CA-CB	5.40	118.60	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	SD	184	THR	O-C-N	-5.40	114.02	123.20
33	L1	461	A	O4'-C1'-N9	-5.40	103.88	108.20
33	L1	1090	C	O4'-C1'-N1	5.40	112.52	108.20
33	L1	1423	C	O4'-C1'-C2'	-5.40	100.40	105.80
33	L1	1486	G	C1'-O4'-C4'	5.40	114.22	109.90
33	L1	1740	U	OP1-P-O3'	5.40	117.08	105.20
33	L1	2776	U	O4'-C1'-N1	5.40	112.52	108.20
6	SF	163	LYS	N-CA-C	-5.40	96.42	111.00
33	L1	608	G	O4'-C1'-C2'	-5.40	100.40	105.80
33	L1	1634	G	C5'-C4'-O4'	5.40	115.58	109.10
64	LG	91	LYS	N-CA-CB	5.40	120.32	110.60
2	SA	91	VAL	CA-CB-CG1	5.40	119.00	110.90
32	S1	1213	C	C3'-C2'-C1'	5.40	105.82	101.50
32	S1	1432	C	P-O3'-C3'	5.40	126.18	119.70
32	S1	1593	U	O5'-P-OP2	-5.40	100.84	105.70
33	L1	993	A	O4'-C1'-C2'	-5.40	100.40	105.80
33	L1	1174	G	C4'-C3'-C2'	-5.40	97.20	102.60
33	L1	2331	A	O4'-C1'-C2'	-5.40	100.40	105.80
33	L1	3305	U	C1'-O4'-C4'	5.40	114.22	109.90
46	LT	170	ARG	NE-CZ-NH2	-5.40	117.60	120.30
13	SQ	27	ASP	N-CA-C	5.40	125.57	111.00
29	ST	30	ALA	N-CA-C	-5.40	96.43	111.00
32	S1	114	U	OP1-P-OP2	-5.40	111.51	119.60
40	LH	97	PRO	C-N-CA	-5.40	108.21	121.70
40	LH	181	ARG	NE-CZ-NH2	5.40	123.00	120.30
47	LU	138	GLY	C-N-CA	-5.40	108.21	121.70
80	LC	357	GLU	CB-CA-C	5.40	121.19	110.40
2	SA	153	ASP	CA-CB-CG	5.39	125.27	113.40
32	S1	909	G	N9-C1'-C2'	5.39	121.01	114.00
33	L1	30	C	O4'-C1'-C2'	-5.39	100.41	105.80
33	L1	666	U	N1-C1'-C2'	5.39	121.01	114.00
33	L1	676	G	O4'-C1'-N9	5.39	112.52	108.20
33	L1	843	C	P-O5'-C5'	-5.39	112.27	120.90
33	L1	887	A	C1'-O4'-C4'	5.39	114.22	109.90
33	L1	1592	U	O3'-P-O5'	-5.39	93.75	104.00
32	S1	1030	A	P-O3'-C3'	5.39	126.17	119.70
32	S1	1224	C	P-O3'-C3'	-5.39	113.23	119.70
32	S1	1358	G	O4'-C1'-N9	-5.39	103.89	108.20
33	L1	509	G	O4'-C4'-C3'	-5.39	98.61	104.00
33	L1	1035	C	O4'-C4'-C3'	-5.39	98.61	104.00
33	L1	1179	C	P-O3'-C3'	-5.39	113.23	119.70
33	L1	3019	C	O4'-C1'-C2'	-5.39	100.41	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	SN	12	LYS	C-N-CA	5.39	135.18	121.70
32	S1	82	G	O4'-C1'-N9	5.39	112.51	108.20
32	S1	916	U	P-O5'-C5'	5.39	129.53	120.90
32	S1	1623	C	O4'-C1'-C2'	-5.39	100.41	105.80
33	L1	133	G	N9-C1'-C2'	-5.39	106.07	112.00
33	L1	327	A	P-O5'-C5'	-5.39	112.27	120.90
33	L1	1963	G	O4'-C1'-N9	5.39	112.51	108.20
33	L1	2232	C	O4'-C1'-C2'	-5.39	100.41	105.80
32	S1	1073	C	P-O3'-C3'	-5.39	113.23	119.70
32	S1	1380	A	P-O5'-C5'	-5.39	112.28	120.90
33	L1	1642	G	P-O3'-C3'	5.39	126.17	119.70
33	L1	1897	A	OP2-P-O3'	5.39	117.06	105.20
33	L1	3093	C	O5'-C5'-C4'	5.39	121.94	111.70
33	L1	3176	C	O4'-C1'-C2'	-5.39	100.41	105.80
39	LF	95	TYR	N-CA-CB	5.39	120.30	110.60
47	LU	47	ALA	N-CA-CB	-5.39	102.56	110.10
70	Li	32	TYR	CB-CG-CD2	-5.39	117.77	121.00
1	Sa	134	ILE	C-N-CA	-5.39	108.23	121.70
2	SA	218	GLU	N-CA-CB	-5.39	100.90	110.60
15	SS	57	TYR	CB-CG-CD2	-5.39	117.77	121.00
31	S2	16	U	O4'-C1'-C2'	-5.39	100.41	105.80
32	S1	1465	C	P-O3'-C3'	5.39	126.17	119.70
32	S1	1747	A	C3'-C2'-C1'	5.39	105.81	101.50
33	L1	398	G	P-O3'-C3'	5.39	126.17	119.70
33	L1	631	C	O4'-C1'-C2'	-5.39	100.41	105.80
33	L1	1500	C	P-O3'-C3'	-5.39	113.23	119.70
33	L1	1668	U	P-O3'-C3'	-5.39	113.23	119.70
33	L1	2574	A	O3'-P-O5'	-5.39	93.76	104.00
33	L1	2685	C	OP1-P-OP2	-5.39	111.52	119.60
33	L1	2757	G	C2'-C3'-O3'	5.39	122.32	113.70
55	Lg	64	ASN	O-C-N	-5.39	114.08	122.70
1	Sa	106	LEU	N-CA-C	-5.39	96.46	111.00
32	S1	162	A	C1'-O4'-C4'	5.39	114.21	109.90
32	S1	551	U	N1-C1'-C2'	-5.39	106.08	112.00
32	S1	1148	A	C3'-C2'-C1'	5.39	105.81	101.50
32	S1	1437	C	O4'-C1'-C2'	-5.39	100.41	105.80
33	L1	58	G	C5'-C4'-C3'	5.39	124.62	116.00
33	L1	511	C	P-O5'-C5'	-5.39	112.28	120.90
33	L1	576	C	P-O5'-C5'	-5.39	112.28	120.90
33	L1	1085	G	O4'-C1'-C2'	5.39	112.45	107.60
33	L1	2159	U	C1'-O4'-C4'	5.39	114.21	109.90
33	L1	2634	U	O4'-C1'-N1	5.39	112.51	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2732	U	P-O5'-C5'	-5.39	112.28	120.90
34	L3	78	C	P-O3'-C3'	-5.39	113.24	119.70
70	Li	37	LYS	N-CA-CB	5.39	120.30	110.60
11	SM	36	VAL	CB-CA-C	5.38	121.63	111.40
15	SS	54	ASP	CB-CG-OD2	-5.38	113.45	118.30
25	SC	123	SER	CB-CA-C	-5.38	99.87	110.10
33	L1	231	C	P-O3'-C3'	5.38	126.16	119.70
33	L1	427	U	N1-C1'-C2'	5.38	121.00	114.00
33	L1	506	U	C2'-C3'-O3'	5.38	122.31	113.70
33	L1	1152	G	C3'-C2'-C1'	5.38	105.81	101.50
33	L1	1225	A	N9-C1'-C2'	5.38	121.00	114.00
33	L1	2632	U	O3'-P-O5'	-5.38	93.77	104.00
33	L1	2709	G	O4'-C1'-N9	5.38	112.51	108.20
33	L1	3246	U	C5'-C4'-O4'	5.38	115.56	109.10
46	LT	95	TRP	CE3-CZ3-CH2	-5.38	115.28	121.20
71	Lj	1	MET	CA-C-O	5.38	131.41	120.10
3	SB	141	LYS	N-CA-CB	5.38	120.29	110.60
32	S1	1407	A	O4'-C1'-N9	5.38	112.51	108.20
32	S1	1731	A	O3'-P-O5'	-5.38	93.77	104.00
33	L1	636	C	C3'-C2'-C1'	5.38	105.81	101.50
33	L1	861	A	O5'-P-OP1	-5.38	100.86	105.70
33	L1	985	C	O4'-C1'-C2'	-5.38	100.42	105.80
33	L1	1209	G	O4'-C1'-C2'	5.38	112.44	107.60
33	L1	1457	A	C1'-O4'-C4'	-5.38	105.59	109.90
33	L1	2723	G	N9-C1'-C2'	5.38	121.00	114.00
32	S1	182	C	O4'-C4'-C3'	-5.38	98.62	104.00
33	L1	1260	G	OP2-P-O3'	5.38	117.03	105.20
33	L1	2700	A	C1'-O4'-C4'	-5.38	105.60	109.90
57	L1	73	ARG	NH1-CZ-NH2	-5.38	113.48	119.40
2	SA	54	ASN	CB-CG-OD1	5.38	132.36	121.60
2	SA	147	PRO	N-CA-CB	5.38	109.75	103.30
5	SE	82	VAL	CA-CB-CG1	-5.38	102.83	110.90
32	S1	251	U	OP1-P-OP2	-5.38	111.53	119.60
33	L1	522	C	C5'-C4'-C3'	-5.38	107.39	116.00
33	L1	1256	A	P-O3'-C3'	5.38	126.16	119.70
33	L1	1377	G	C1'-O4'-C4'	-5.38	105.60	109.90
33	L1	2797	U	C1'-O4'-C4'	-5.38	105.60	109.90
33	L1	3010	G	P-O3'-C3'	5.38	126.15	119.70
33	L1	3067	G	O4'-C1'-C2'	5.38	112.44	107.60
35	L2	39	C	P-O5'-C5'	5.38	129.51	120.90
45	LQ	207	TYR	CD1-CE1-CZ	5.38	124.64	119.80
64	LG	66	PRO	C-N-CA	5.38	135.15	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
64	LG	124	TYR	CG-CD2-CE2	5.38	125.60	121.30
64	LG	141	LYS	O-C-N	-5.38	114.09	122.70
69	La	32	GLY	C-N-CA	-5.38	108.25	121.70
80	LC	67	LEU	CB-CA-C	5.38	120.42	110.20
14	SP	92	LEU	CB-CG-CD1	-5.38	101.86	111.00
32	S1	879	C	O4'-C1'-N1	-5.38	103.90	108.20
33	L1	1457	A	O4'-C4'-C3'	5.38	110.40	106.10
33	L1	1544	G	P-O3'-C3'	5.38	126.15	119.70
33	L1	2462	G	C1'-O4'-C4'	5.38	114.20	109.90
33	L1	2677	A	C5'-C4'-O4'	5.38	115.55	109.10
33	L1	3306	A	P-O5'-C5'	-5.38	112.30	120.90
47	LU	155	ASP	O-C-N	-5.38	114.10	122.70
32	S1	19	A	P-O3'-C3'	-5.38	113.25	119.70
32	S1	451	U	O4'-C1'-N1	5.38	112.50	108.20
33	L1	1145	G	OP1-P-O3'	5.38	117.03	105.20
42	LP	11	TRP	CB-CG-CD2	-5.38	119.61	126.60
11	SM	10	GLN	O-C-N	-5.37	114.10	122.70
32	S1	1508	C	C5'-C4'-C3'	5.37	124.60	116.00
33	L1	295	U	OP1-P-OP2	-5.37	111.54	119.60
33	L1	1118	G	O4'-C1'-C2'	-5.37	100.43	105.80
33	L1	1388	C	C3'-C2'-C1'	5.37	105.80	101.50
33	L1	3055	U	C3'-C2'-C1'	5.37	105.80	101.50
33	L1	3237	G	C2'-C3'-O3'	5.37	122.30	113.70
33	L1	3356	C	C5'-C4'-O4'	5.37	115.55	109.10
55	Lg	59	ILE	O-C-N	-5.37	114.10	122.70
68	LW	33	ASP	CB-CG-OD2	-5.37	113.46	118.30
70	Li	10	ARG	CA-C-N	-5.37	105.38	117.20
80	LC	122	TRP	CD1-NE1-CE2	-5.37	104.16	109.00
80	LC	230	GLU	CB-CA-C	-5.37	99.65	110.40
32	S1	1036	U	OP1-P-OP2	-5.37	111.54	119.60
33	L1	547	C	C4'-C3'-C2'	-5.37	97.23	102.60
33	L1	628	C	O4'-C1'-C2'	-5.37	100.43	105.80
33	L1	1650	G	O4'-C4'-C3'	5.37	110.40	106.10
33	L1	1877	G	N9-C1'-C2'	-5.37	106.09	112.00
33	L1	1881	C	C5'-C4'-O4'	-5.37	102.66	109.10
33	L1	3344	U	C1'-O4'-C4'	-5.37	105.60	109.90
51	LY	77	TRP	CB-CG-CD2	-5.37	119.62	126.60
64	LG	12	LYS	CB-CA-C	-5.37	99.66	110.40
66	LN	23	ARG	CB-CA-C	-5.37	99.66	110.40
84	LI	7	ARG	CD-NE-CZ	-5.37	116.08	123.60
25	SC	15	LYS	C-N-CA	5.37	135.12	121.70
32	S1	915	C	OP2-P-O3'	5.37	117.01	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1575	U	N1-C1'-C2'	5.37	120.98	114.00
33	L1	1482	C	O4'-C1'-N1	5.37	112.50	108.20
49	LX	75	TYR	CG-CD2-CE2	-5.37	117.00	121.30
32	S1	52	U	O4'-C1'-N1	5.37	112.50	108.20
32	S1	1298	G	OP2-P-O3'	5.37	117.01	105.20
33	L1	561	G	C5'-C4'-O4'	5.37	115.54	109.10
33	L1	869	A	O4'-C1'-C2'	5.37	112.43	107.60
33	L1	906	U	C3'-C2'-C1'	-5.37	97.20	101.50
33	L1	1837	A	O4'-C1'-C2'	5.37	112.43	107.60
33	L1	2440	U	O4'-C1'-C2'	5.37	112.43	107.60
33	L1	3282	G	C5'-C4'-O4'	5.37	115.54	109.10
50	LZ	3	LEU	CA-C-N	5.37	129.01	117.20
55	Lg	80	ARG	NE-CZ-NH1	5.37	122.98	120.30
32	S1	856	G	O4'-C1'-C2'	5.37	112.43	107.60
33	L1	1262	U	C4'-C3'-C2'	-5.37	97.23	102.60
33	L1	1696	G	C5'-C4'-C3'	5.37	124.59	116.00
46	LT	121	HIS	CB-CA-C	-5.37	99.67	110.40
84	LI	101	LYS	CB-CA-C	-5.37	99.67	110.40
25	SC	141	GLN	C-N-CA	5.37	135.11	121.70
27	SH	3	ARG	C-N-CA	5.37	135.11	121.70
28	SN	54	LYS	N-CA-C	-5.37	96.51	111.00
33	L1	92	C	O4'-C1'-N1	5.37	112.49	108.20
33	L1	2455	A	P-O3'-C3'	5.37	126.14	119.70
33	L1	2945	G	N9-C1'-C2'	5.37	120.98	114.00
33	L1	3086	G	C1'-O4'-C4'	-5.37	105.61	109.90
57	LI	7	SER	C-N-CA	5.37	135.11	121.70
67	LS	32	TRP	CA-CB-CG	5.37	123.89	113.70
32	S1	1632	C	C1'-O4'-C4'	-5.36	105.61	109.90
32	S1	1632	C	C3'-C2'-C1'	5.36	105.79	101.50
33	L1	504	U	C1'-O4'-C4'	5.36	114.19	109.90
33	L1	3233	C	C2'-C3'-O3'	5.36	122.28	113.70
33	L1	3322	A	O4'-C1'-C2'	5.36	112.43	107.60
35	L2	82	G	OP1-P-O3'	5.36	117.00	105.20
35	L2	126	G	O4'-C1'-N9	5.36	112.49	108.20
4	SD	216	HIS	O-C-N	5.36	131.28	122.70
25	SC	12	TYR	CB-CG-CD2	5.36	124.22	121.00
32	S1	271	C	C3'-C2'-C1'	5.36	105.79	101.50
24	SX	75	LEU	CB-CG-CD2	5.36	120.11	111.00
25	SC	69	PRO	CA-C-N	-5.36	105.41	117.20
32	S1	593	C	C5'-C4'-O4'	5.36	115.53	109.10
32	S1	1218	U	C4'-C3'-C2'	-5.36	97.24	102.60
33	L1	56	A	O4'-C1'-C2'	-5.36	100.44	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	912	G	C5'-C4'-C3'	-5.36	107.42	116.00
33	L1	1700	U	C1'-O4'-C4'	5.36	114.19	109.90
33	L1	2584	U	O4'-C1'-C2'	5.36	112.42	107.60
33	L1	3326	U	C3'-C2'-C1'	-5.36	97.21	101.50
34	L3	1	G	C4'-C3'-O3'	5.36	123.72	113.00
34	L3	39	C	O5'-C5'-C4'	-5.36	101.52	111.70
35	L2	130	A	C1'-O4'-C4'	5.36	114.19	109.90
45	LQ	257	THR	C-N-CA	5.36	135.10	121.70
71	Lj	40	ASN	C-N-CA	5.36	135.10	121.70
33	L1	2140	C	OP1-P-OP2	-5.36	111.56	119.60
33	L1	3308	A	N9-C1'-C2'	5.36	120.97	114.00
48	LV	3	LYS	C-N-CA	5.36	135.10	121.70
5	SE	106	ARG	N-CA-CB	5.36	120.25	110.60
31	S2	52	G	C3'-C2'-C1'	-5.36	97.21	101.50
32	S1	405	A	P-O5'-C5'	-5.36	112.33	120.90
32	S1	1568	U	N1-C1'-C2'	-5.36	106.11	112.00
32	S1	1703	G	P-O3'-C3'	5.36	126.13	119.70
33	L1	1229	A	O4'-C1'-N9	5.36	112.48	108.20
33	L1	1810	G	P-O3'-C3'	5.36	126.13	119.70
33	L1	1903	C	C5'-C4'-O4'	5.36	115.53	109.10
33	L1	2491	A	C5'-C4'-C3'	5.36	124.57	116.00
58	Ln	48	PHE	N-CA-CB	5.36	120.24	110.60
60	Lr	11	TYR	CB-CG-CD2	-5.36	117.79	121.00
64	LG	116	PRO	N-CA-CB	5.36	109.73	103.30
72	Lk	93	MET	C-N-CA	5.36	135.10	121.70
77	Lc	38	VAL	CA-CB-CG2	5.36	118.94	110.90
1	Sa	27	GLN	CB-CA-C	5.36	121.11	110.40
7	SI	124	VAL	CA-CB-CG1	-5.36	102.87	110.90
8	SJ	78	PRO	N-CA-CB	5.36	109.73	103.30
11	SM	117	ILE	CG1-CB-CG2	5.36	123.18	111.40
32	S1	676	G	O4'-C1'-N9	5.36	112.48	108.20
33	L1	712	A	P-O5'-C5'	5.36	129.47	120.90
33	L1	1019	A	C4'-C3'-C2'	-5.36	97.24	102.60
33	L1	2995	G	N9-C1'-C2'	-5.36	106.11	112.00
43	LO	2	THR	C-N-CA	5.36	135.09	121.70
17	SV	68	GLU	CB-CG-CD	5.35	128.66	114.20
32	S1	653	U	N1-C1'-C2'	-5.35	106.11	112.00
33	L1	2206	U	C4'-C3'-C2'	5.35	107.95	102.60
33	L1	2933	C	C1'-O4'-C4'	5.35	114.18	109.90
49	LX	139	ASP	CB-CG-OD2	5.35	123.12	118.30
4	SD	240	LYS	N-CA-C	5.35	125.45	111.00
32	S1	253	C	OP1-P-OP2	-5.35	111.57	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1670	G	C1'-O4'-C4'	5.35	114.18	109.90
32	S1	1750	A	O4'-C1'-N9	5.35	112.48	108.20
33	L1	1400	C	C4'-C3'-C2'	-5.35	97.25	102.60
33	L1	2175	A	C5'-C4'-C3'	5.35	124.56	116.00
33	L1	2501	U	OP1-P-O3'	5.35	116.97	105.20
34	L3	39	C	O4'-C1'-N1	5.35	112.48	108.20
34	L3	110	G	P-O3'-C3'	-5.35	113.28	119.70
34	L3	118	C	O4'-C1'-N1	5.35	112.48	108.20
47	LU	10	ARG	O-C-N	-5.35	114.14	122.70
54	Lf	22	MET	CG-SD-CE	-5.35	91.64	100.20
82	LK	176	ARG	NE-CZ-NH1	5.35	122.98	120.30
25	SC	16	LYS	CA-C-O	-5.35	108.86	120.10
31	S2	47	U	C1'-O4'-C4'	5.35	114.18	109.90
32	S1	94	A	C3'-C2'-C1'	5.35	105.78	101.50
32	S1	1743	C	C5'-C4'-C3'	5.35	124.56	116.00
33	L1	2536	G	O4'-C1'-N9	5.35	112.48	108.20
69	La	77	PHE	CB-CA-C	5.35	121.10	110.40
70	Li	49	LYS	N-CA-CB	5.35	120.23	110.60
8	SJ	91	MET	N-CA-CB	5.35	120.23	110.60
19	SY	9	VAL	CA-CB-CG1	5.35	118.92	110.90
19	SY	47	ARG	N-CA-C	-5.35	96.56	111.00
32	S1	248	U	OP1-P-OP2	-5.35	111.58	119.60
32	S1	282	C	P-O3'-C3'	5.35	126.12	119.70
32	S1	913	U	C4'-C3'-C2'	5.35	107.95	102.60
32	S1	947	G	C1'-O4'-C4'	-5.35	105.62	109.90
32	S1	1096	A	C1'-O4'-C4'	5.35	114.18	109.90
33	L1	356	G	OP2-P-O3'	5.35	116.97	105.20
33	L1	1448	U	O4'-C1'-N1	5.35	112.48	108.20
33	L1	1989	G	C3'-C2'-C1'	-5.35	97.22	101.50
13	SQ	92	GLU	O-C-N	5.35	131.26	122.70
32	S1	293	C	O4'-C1'-N1	5.35	112.48	108.20
32	S1	599	G	O5'-C5'-C4'	5.35	121.86	111.70
32	S1	1433	A	OP1-P-OP2	-5.35	111.58	119.60
33	L1	1058	A	O4'-C4'-C3'	-5.35	98.65	104.00
33	L1	1602	A	OP2-P-O3'	5.35	116.96	105.20
33	L1	1736	C	C4'-C3'-C2'	-5.35	97.25	102.60
35	L2	55	G	C3'-C2'-C1'	5.35	105.78	101.50
68	LW	121	ILE	N-CA-C	-5.35	96.56	111.00
15	SS	11	ASP	CA-C-N	5.35	128.96	117.20
33	L1	291	C	N1-C1'-C2'	5.35	120.95	114.00
35	L2	130	A	O4'-C1'-C2'	-5.35	100.45	105.80
41	LM	18	LEU	O-C-N	-5.35	114.11	123.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Le	78	TYR	CB-CG-CD1	5.35	124.21	121.00
25	SC	36	TYR	N-CA-CB	5.34	120.22	110.60
32	S1	1220	C	C5'-C4'-C3'	-5.34	107.45	116.00
33	L1	1305	A	N9-C1'-C2'	5.34	120.95	114.00
33	L1	2320	A	O4'-C1'-N9	5.34	112.47	108.20
35	L2	25	C	O4'-C1'-N1	-5.34	103.92	108.20
42	LP	4	TYR	CB-CG-CD2	5.34	124.21	121.00
57	L1	80	GLU	OE1-CD-OE2	5.34	129.71	123.30
70	Li	19	GLN	CA-C-N	-5.34	105.44	117.20
81	LD	43	PHE	CG-CD2-CE2	-5.34	114.92	120.80
31	S2	7	A	C3'-C2'-C1'	-5.34	97.23	101.50
32	S1	1307	U	C1'-O4'-C4'	-5.34	105.62	109.90
33	L1	1734	G	C5'-C4'-O4'	5.34	115.51	109.10
33	L1	3161	C	O4'-C1'-C2'	-5.34	100.46	105.80
33	L1	3336	A	OP2-P-O3'	5.34	116.95	105.20
40	LH	102	ALA	N-CA-CB	-5.34	102.62	110.10
23	SU	78	PHE	O-C-N	-5.34	114.12	123.20
32	S1	63	G	N9-C1'-C2'	-5.34	106.12	112.00
33	L1	67	C	C3'-C2'-C1'	5.34	105.77	101.50
33	L1	675	C	O4'-C1'-N1	5.34	112.47	108.20
33	L1	1059	A	O4'-C1'-N9	5.34	112.47	108.20
33	L1	1060	U	C2'-C3'-O3'	5.34	122.25	113.70
33	L1	1146	A	P-O5'-C5'	-5.34	112.35	120.90
70	Li	64	ARG	N-CA-CB	-5.34	100.98	110.60
78	Le	140	TYR	CD1-CE1-CZ	5.34	124.61	119.80
32	S1	301	U	P-O5'-C5'	5.34	129.44	120.90
32	S1	366	G	C4'-C3'-C2'	-5.34	97.26	102.60
32	S1	1358	G	C1'-O4'-C4'	-5.34	105.63	109.90
32	S1	1557	C	P-O3'-C3'	5.34	126.11	119.70
32	S1	1689	A	C5'-C4'-C3'	5.34	124.54	116.00
32	S1	1695	G	C1'-O4'-C4'	-5.34	105.63	109.90
33	L1	1890	C	O5'-P-OP1	5.34	117.11	110.70
33	L1	1898	G	O5'-P-OP2	-5.34	100.89	105.70
33	L1	2203	A	C2'-C3'-O3'	5.34	122.24	113.70
33	L1	3088	A	C5'-C4'-C3'	5.34	124.54	116.00
40	LH	181	ARG	NH1-CZ-NH2	-5.34	113.53	119.40
51	LY	39	ARG	CA-CB-CG	5.34	125.15	113.40
16	SR	65	LEU	CB-CG-CD2	-5.34	101.93	111.00
33	L1	149	A	OP1-P-OP2	-5.34	111.59	119.60
33	L1	715	A	C3'-C2'-C1'	5.34	105.77	101.50
33	L1	907	A	OP2-P-O3'	5.34	116.94	105.20
2	SA	1	MET	N-CA-CB	-5.34	100.99	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	SB	65	ARG	NE-CZ-NH2	-5.34	117.63	120.30
4	SD	137	PRO	N-CD-CG	-5.34	95.20	103.20
32	S1	965	U	O5'-C5'-C4'	5.34	121.84	111.70
32	S1	980	C	O4'-C1'-N1	5.34	112.47	108.20
32	S1	1058	G	O3'-P-O5'	5.34	114.14	104.00
32	S1	1654	C	O4'-C1'-N1	5.34	112.47	108.20
33	L1	267	G	O5'-P-OP2	-5.34	100.90	105.70
33	L1	2349	C	O4'-C1'-N1	5.34	112.47	108.20
33	L1	2495	C	O4'-C1'-C2'	5.34	112.40	107.60
33	L1	2673	G	C4'-C3'-C2'	-5.34	97.26	102.60
33	L1	2738	U	OP2-P-O3'	5.34	116.94	105.20
32	S1	604	U	C3'-C2'-C1'	5.33	105.77	101.50
32	S1	622	U	P-O3'-C3'	-5.33	113.30	119.70
33	L1	1311	G	C5'-C4'-O4'	5.33	115.50	109.10
33	L1	1957	G	C5'-C4'-C3'	5.33	124.53	116.00
33	L1	2785	U	C4'-C3'-C2'	-5.33	97.27	102.60
38	LE	100	ASP	CB-CA-C	5.33	121.07	110.40
1	Sa	4	VAL	CA-CB-CG2	-5.33	102.90	110.90
4	SD	94	LYS	CA-C-N	5.33	128.93	117.20
11	SM	82	TRP	CB-CG-CD1	5.33	133.93	127.00
31	S2	60	C	OP2-P-O3'	5.33	116.94	105.20
32	S1	10	G	N9-C1'-C2'	5.33	120.93	114.00
32	S1	138	C	O5'-C5'-C4'	5.33	121.83	111.70
32	S1	1382	C	N1-C1'-C2'	5.33	120.93	114.00
32	S1	1617	U	O5'-C5'-C4'	-5.33	101.57	111.70
32	S1	1729	A	O3'-P-O5'	-5.33	93.87	104.00
33	L1	20	G	O3'-P-O5'	5.33	114.14	104.00
33	L1	162	G	N9-C1'-C2'	-5.33	106.13	112.00
33	L1	470	G	OP1-P-OP2	-5.33	111.60	119.60
33	L1	1425	G	O5'-C5'-C4'	-5.33	101.57	111.70
33	L1	2641	A	O5'-P-OP1	-5.33	100.90	105.70
46	LT	81	ARG	N-CA-CB	-5.33	101.00	110.60
55	Lg	33	PHE	CB-CG-CD1	5.33	124.53	120.80
70	Li	30	LEU	O-C-N	-5.33	114.17	122.70
11	SM	38	ARG	NE-CZ-NH1	5.33	122.97	120.30
11	SM	92	ASP	CB-CG-OD2	5.33	123.10	118.30
31	S2	31	C	C3'-C2'-C1'	5.33	105.77	101.50
32	S1	205	U	P-O5'-C5'	5.33	129.43	120.90
32	S1	502	G	C1'-O4'-C4'	5.33	114.17	109.90
32	S1	1253	U	P-O3'-C3'	5.33	126.10	119.70
33	L1	1319	U	N1-C1'-C2'	-5.33	106.14	112.00
33	L1	1755	A	OP1-P-OP2	-5.33	111.60	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1856	G	C1'-O4'-C4'	5.33	114.17	109.90
33	L1	1960	C	O4'-C1'-C2'	-5.33	100.47	105.80
33	L1	2204	U	C1'-O4'-C4'	-5.33	105.64	109.90
33	L1	3038	U	O4'-C1'-C2'	5.33	112.40	107.60
33	L1	3046	C	P-O3'-C3'	-5.33	113.30	119.70
46	LT	122	ASP	CB-CG-OD2	-5.33	113.50	118.30
5	SE	94	PRO	N-CD-CG	5.33	111.19	103.20
33	L1	770	U	C1'-O4'-C4'	5.33	114.16	109.90
33	L1	2623	G	N9-C1'-C2'	-5.33	106.14	112.00
46	LT	2	VAL	N-CA-C	-5.33	96.61	111.00
28	SN	15	GLY	N-CA-C	-5.33	99.78	113.10
32	S1	166	A	O4'-C1'-N9	5.33	112.46	108.20
32	S1	1356	A	O4'-C1'-C2'	-5.33	100.47	105.80
32	S1	1744	C	N1-C1'-C2'	5.33	120.93	114.00
33	L1	330	C	C3'-C2'-C1'	5.33	105.76	101.50
33	L1	1191	U	P-O3'-C3'	-5.33	113.31	119.70
33	L1	1953	C	O5'-P-OP2	-5.33	100.91	105.70
33	L1	2479	C	P-O3'-C3'	5.33	126.09	119.70
33	L1	2539	G	N9-C1'-C2'	5.33	120.93	114.00
45	LQ	34	TYR	CB-CG-CD1	5.33	124.20	121.00
78	Le	8	VAL	CB-CA-C	5.33	121.53	111.40
32	S1	1658	U	O4'-C1'-C2'	-5.33	100.47	105.80
33	L1	1225	A	C1'-O4'-C4'	-5.33	105.64	109.90
33	L1	1819	A	OP2-P-O3'	5.33	116.92	105.20
33	L1	2081	C	OP1-P-OP2	-5.33	111.61	119.60
17	SV	73	ASN	CB-CA-C	5.33	121.05	110.40
32	S1	579	C	C5'-C4'-O4'	5.33	115.49	109.10
32	S1	680	C	N1-C1'-C2'	5.33	120.92	114.00
32	S1	968	A	N9-C1'-C2'	-5.33	106.14	112.00
32	S1	1069	G	O5'-P-OP1	5.33	117.09	110.70
32	S1	1702	G	O4'-C1'-N9	5.33	112.46	108.20
33	L1	604	C	C5'-C4'-O4'	5.33	115.49	109.10
33	L1	1080	C	O4'-C1'-C2'	-5.33	100.47	105.80
33	L1	2680	G	O4'-C4'-C3'	5.33	110.36	106.10
33	L1	2737	A	P-O3'-C3'	-5.33	113.31	119.70
33	L1	2793	G	OP2-P-O3'	5.33	116.92	105.20
38	LE	77	LYS	O-C-N	-5.33	114.18	122.70
47	LU	56	PHE	CA-CB-CG	5.33	126.68	113.90
78	Le	135	TYR	N-CA-CB	5.33	120.19	110.60
4	SD	184	THR	C-N-CA	-5.32	111.12	122.30
24	SX	70	GLY	CA-C-N	-5.32	105.55	116.20
31	S2	50	G	C3'-C2'-C1'	-5.32	97.24	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1510	G	C5'-C4'-O4'	5.32	115.49	109.10
33	L1	1079	G	O4'-C1'-N9	5.32	112.46	108.20
33	L1	1596	G	OP1-P-OP2	-5.32	111.61	119.60
33	L1	1668	U	C4'-C3'-C2'	-5.32	97.28	102.60
35	L2	58	A	N9-C1'-C2'	5.32	120.92	114.00
48	LV	5	SER	CB-CA-C	5.32	120.22	110.10
50	LZ	14	LYS	N-CA-CB	-5.32	101.02	110.60
74	LJ	123	ALA	O-C-N	-5.32	114.18	122.70
33	L1	1528	G	OP1-P-OP2	-5.32	111.62	119.60
33	L1	2569	G	C1'-O4'-C4'	-5.32	105.64	109.90
33	L1	3090	C	C3'-C2'-C1'	5.32	105.76	101.50
41	LM	69	LYS	N-CA-C	5.32	125.37	111.00
1	Sa	301	VAL	CA-CB-CG2	5.32	118.88	110.90
9	SK	54	ARG	N-CA-CB	5.32	120.18	110.60
32	S1	32	U	C4'-C3'-C2'	-5.32	97.28	102.60
32	S1	137	A	C3'-C2'-C1'	5.32	105.76	101.50
32	S1	927	A	O4'-C1'-N9	5.32	112.46	108.20
32	S1	1508	C	C3'-C2'-C1'	5.32	105.76	101.50
33	L1	366	G	C3'-C2'-C1'	5.32	105.76	101.50
33	L1	835	G	C3'-C2'-C1'	-5.32	97.24	101.50
33	L1	1457	A	C3'-C2'-C1'	5.32	105.76	101.50
33	L1	2434	G	C4'-C3'-C2'	-5.32	97.28	102.60
57	L1	10	LYS	N-CA-CB	5.32	120.17	110.60
32	S1	552	G	P-O5'-C5'	5.32	129.41	120.90
32	S1	842	G	C5'-C4'-O4'	5.32	115.48	109.10
32	S1	1791	A	C4'-C3'-C2'	-5.32	97.28	102.60
33	L1	3058	U	OP1-P-OP2	-5.32	111.62	119.60
79	Ls	188	TYR	CB-CG-CD2	5.32	124.19	121.00
3	SB	158	ILE	O-C-N	-5.32	114.19	122.70
13	SQ	117	VAL	N-CA-C	-5.32	96.64	111.00
23	SU	81	ILE	CA-C-O	-5.32	108.93	120.10
31	S2	11	U	O4'-C1'-C2'	-5.32	100.48	105.80
32	S1	170	C	O3'-P-O5'	5.32	114.10	104.00
32	S1	1589	C	C3'-C2'-C1'	5.32	105.75	101.50
33	L1	369	G	N9-C1'-C2'	-5.32	106.15	112.00
33	L1	425	G	O4'-C1'-N9	-5.32	103.95	108.20
46	LT	49	PHE	CB-CG-CD1	-5.32	117.08	120.80
48	LV	109	ASP	CA-CB-CG	-5.32	101.70	113.40
49	LX	69	GLN	N-CA-CB	5.32	120.17	110.60
72	Lk	62	GLU	OE1-CD-OE2	-5.32	116.92	123.30
3	SB	215	GLU	N-CA-C	-5.32	96.65	111.00
4	SD	81	THR	N-CA-CB	5.32	120.40	110.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	108	C	C4'-C3'-C2'	-5.32	97.28	102.60
32	S1	1648	C	C1'-O4'-C4'	-5.32	105.65	109.90
33	L1	969	U	O4'-C1'-C2'	-5.32	100.48	105.80
33	L1	1339	C	P-O3'-C3'	-5.32	113.32	119.70
67	LS	96	TYR	CB-CG-CD1	5.32	124.19	121.00
77	Lc	67	ARG	NE-CZ-NH1	-5.32	117.64	120.30
79	Ls	249	LYS	CA-CB-CG	5.32	125.09	113.40
9	SK	131	VAL	O-C-N	-5.31	114.20	122.70
32	S1	376	G	O4'-C4'-C3'	-5.31	98.69	104.00
32	S1	1367	U	P-O3'-C3'	5.31	126.08	119.70
33	L1	2993	A	O4'-C1'-C2'	5.31	112.38	107.60
34	L3	2	G	OP1-P-O3'	-5.31	93.51	105.20
34	L3	49	A	C1'-O4'-C4'	-5.31	105.65	109.90
32	S1	1014	U	OP2-P-O3'	-5.31	93.51	105.20
33	L1	581	G	C5'-C4'-C3'	5.31	124.50	116.00
33	L1	603	G	O4'-C1'-C2'	5.31	112.38	107.60
33	L1	1211	G	P-O3'-C3'	5.31	126.08	119.70
33	L1	1784	C	O4'-C1'-C2'	-5.31	100.49	105.80
33	L1	2763	C	C4'-C3'-C2'	5.31	107.91	102.60
33	L1	3137	G	C5'-C4'-O4'	-5.31	102.72	109.10
50	LZ	73	ARG	NE-CZ-NH1	5.31	122.96	120.30
70	Li	21	ARG	C-N-CA	5.31	134.98	121.70
80	LC	74	GLU	N-CA-C	-5.31	96.66	111.00
81	LD	405	GLN	CA-C-O	-5.31	108.94	120.10
3	SB	194	PRO	O-C-N	-5.31	114.20	122.70
7	SI	66	PHE	N-CA-CB	5.31	120.16	110.60
32	S1	573	C	P-O5'-C5'	5.31	129.40	120.90
33	L1	903	G	C1'-O4'-C4'	5.31	114.15	109.90
33	L1	2434	G	O4'-C4'-C3'	-5.31	98.69	104.00
33	L1	2770	U	OP1-P-OP2	-5.31	111.63	119.60
32	S1	6	G	C5'-C4'-O4'	5.31	115.47	109.10
32	S1	228	G	C1'-O4'-C4'	-5.31	105.65	109.90
32	S1	1247	G	O4'-C1'-C2'	5.31	112.38	107.60
33	L1	2023	C	O4'-C1'-N1	5.31	112.45	108.20
33	L1	2162	C	C5'-C4'-C3'	5.31	124.49	116.00
49	LX	50	LYS	N-CA-C	5.31	125.34	111.00
64	LG	188	LEU	CB-CA-C	-5.31	100.11	110.20
66	LN	3	PHE	N-CA-C	5.31	125.34	111.00
32	S1	192	G	O4'-C4'-C3'	-5.31	98.69	104.00
32	S1	321	C	O4'-C1'-N1	5.31	112.45	108.20
32	S1	1061	G	C5'-C4'-C3'	5.31	124.49	116.00
32	S1	1269	G	N9-C1'-C2'	-5.31	106.16	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1756	A	OP2-P-O3'	5.31	116.88	105.20
33	L1	215	U	N1-C1'-C2'	5.31	120.90	114.00
33	L1	2625	C	C5'-C4'-C3'	-5.31	107.51	116.00
75	Lu	61	SER	CB-CA-C	5.31	120.19	110.10
79	Ls	224	MET	CA-CB-CG	5.31	122.32	113.30
13	SQ	69	ILE	C-N-CA	5.31	134.97	121.70
32	S1	311	G	C1'-O4'-C4'	-5.31	105.66	109.90
32	S1	580	G	O5'-P-OP2	-5.31	100.92	105.70
32	S1	653	U	C1'-O4'-C4'	5.31	114.14	109.90
33	L1	737	C	C3'-C2'-C1'	5.31	105.75	101.50
33	L1	2091	U	O3'-P-O5'	-5.31	93.92	104.00
33	L1	2755	U	C1'-O4'-C4'	-5.31	105.66	109.90
5	SE	108	LYS	CA-CB-CG	5.30	125.07	113.40
28	SN	38	CYS	CA-CB-SG	5.30	123.55	114.00
32	S1	1621	U	C1'-O4'-C4'	5.30	114.14	109.90
33	L1	1975	G	C1'-O4'-C4'	5.30	114.14	109.90
33	L1	2453	G	P-O5'-C5'	-5.30	112.41	120.90
33	L1	2473	C	O4'-C1'-C2'	-5.30	100.50	105.80
33	L1	2677	A	O4'-C1'-N9	5.30	112.44	108.20
33	L1	2862	U	O4'-C1'-N1	5.30	112.44	108.20
71	Lj	38	GLY	N-CA-C	5.30	126.36	113.10
84	LI	128	ARG	NE-CZ-NH1	5.30	122.95	120.30
9	SK	106	THR	CB-CA-C	5.30	125.92	111.60
32	S1	164	C	C1'-O4'-C4'	-5.30	105.66	109.90
32	S1	464	A	O4'-C1'-N9	5.30	112.44	108.20
32	S1	1312	G	N9-C1'-C2'	-5.30	106.17	112.00
33	L1	1261	C	P-O3'-C3'	-5.30	113.34	119.70
33	L1	2097	C	P-O3'-C3'	-5.30	113.34	119.70
13	SQ	137	ARG	CD-NE-CZ	5.30	131.02	123.60
32	S1	1101	C	P-O3'-C3'	5.30	126.06	119.70
32	S1	1372	C	P-O5'-C5'	5.30	129.38	120.90
33	L1	717	G	C5'-C4'-C3'	-5.30	107.52	116.00
33	L1	930	C	N1-C1'-C2'	5.30	120.89	114.00
33	L1	968	A	C4'-C3'-C2'	5.30	107.90	102.60
33	L1	1393	G	O4'-C1'-C2'	5.30	112.37	107.60
33	L1	1801	G	OP1-P-O3'	5.30	116.86	105.20
33	L1	1870	G	O4'-C1'-N9	5.30	112.44	108.20
42	LP	96	ARG	NE-CZ-NH2	-5.30	117.65	120.30
83	Lm	35	SER	N-CA-CB	5.30	118.45	110.50
3	SB	75	LYS	CG-CD-CE	5.30	127.80	111.90
9	SK	86	GLU	OE1-CD-OE2	5.30	129.66	123.30
33	L1	815	G	C5'-C4'-C3'	5.30	124.48	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1912	U	O4'-C1'-N1	-5.30	103.96	108.20
33	L1	2001	U	P-O3'-C3'	5.30	126.06	119.70
44	LR	147	GLU	C-N-CA	5.30	134.95	121.70
71	Lj	14	ARG	NH1-CZ-NH2	-5.30	113.57	119.40
76	Lv	58	GLY	N-CA-C	-5.30	99.85	113.10
76	Lw	58	GLY	N-CA-C	-5.30	99.85	113.10
8	SJ	86	TRP	CA-CB-CG	5.30	123.77	113.70
17	SV	21	GLY	CA-C-N	-5.30	105.54	117.20
32	S1	518	G	C5'-C4'-C3'	-5.30	107.52	116.00
32	S1	1082	C	O4'-C1'-N1	5.30	112.44	108.20
33	L1	348	C	C5'-C4'-C3'	-5.30	107.52	116.00
33	L1	1254	A	C4'-C3'-O3'	5.30	123.60	113.00
35	L2	21	A	O4'-C1'-N9	5.30	112.44	108.20
38	LE	8	LEU	C-N-CA	5.30	134.94	121.70
32	S1	1474	U	C1'-O4'-C4'	5.30	114.14	109.90
33	L1	152	C	C5'-C4'-C3'	5.30	124.47	116.00
37	LB	246	LEU	CB-CG-CD1	5.30	120.00	111.00
61	Lq	18	ARG	NE-CZ-NH2	5.30	122.95	120.30
80	LC	243	ARG	N-CA-C	-5.30	96.70	111.00
5	SE	263	LEU	CA-C-O	-5.29	108.98	120.10
33	L1	2156	U	P-O5'-C5'	5.29	129.37	120.90
33	L1	2877	U	C1'-O4'-C4'	-5.29	105.66	109.90
35	L2	54	C	C1'-O4'-C4'	5.29	114.14	109.90
38	LE	69	CYS	N-CA-CB	5.29	120.13	110.60
2	SA	229	TYR	C-N-CA	5.29	133.42	122.30
13	SQ	118	GLU	CB-CA-C	-5.29	99.81	110.40
32	S1	1203	G	C1'-O4'-C4'	5.29	114.13	109.90
32	S1	1574	U	C3'-C2'-C1'	-5.29	97.27	101.50
33	L1	2229	G	C1'-O4'-C4'	5.29	114.14	109.90
35	L2	32	C	O4'-C1'-N1	5.29	112.44	108.20
41	LM	83	ARG	NE-CZ-NH1	5.29	122.95	120.30
48	LV	129	ARG	NH1-CZ-NH2	-5.29	113.58	119.40
57	Ll	67	MET	O-C-N	-5.29	114.23	122.70
67	LS	166	LYS	N-CA-CB	-5.29	101.07	110.60
5	SE	75	HIS	N-CA-CB	5.29	120.13	110.60
31	S2	7	A	C2'-C3'-O3'	5.29	122.17	113.70
32	S1	638	G	N9-C1'-C2'	-5.29	106.18	112.00
33	L1	994	U	P-O3'-C3'	5.29	126.05	119.70
33	L1	1851	U	C3'-C2'-C1'	-5.29	97.27	101.50
33	L1	1863	A	O3'-P-O5'	5.29	114.06	104.00
33	L1	1896	A	OP2-P-O3'	5.29	116.84	105.20
33	L1	2139	A	O4'-C1'-N9	-5.29	103.97	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2642	G	P-O3'-C3'	-5.29	113.35	119.70
33	L1	3158	C	P-O3'-C3'	5.29	126.05	119.70
34	L3	49	A	O3'-P-O5'	5.29	114.05	104.00
69	La	81	MET	CA-CB-CG	5.29	122.30	113.30
70	Li	58	ARG	CA-C-N	5.29	131.92	117.10
5	SE	30	ARG	CD-NE-CZ	-5.29	116.19	123.60
32	S1	618	C	N1-C1'-C2'	5.29	120.88	114.00
33	L1	517	G	C1'-O4'-C4'	-5.29	105.67	109.90
33	L1	1462	C	O4'-C1'-N1	-5.29	103.97	108.20
33	L1	2431	U	O4'-C1'-C2'	5.29	112.36	107.60
70	Li	10	ARG	CB-CG-CD	5.29	125.36	111.60
6	SF	72	LEU	CB-CA-C	-5.29	100.15	110.20
11	SM	61	ALA	CB-CA-C	-5.29	102.17	110.10
33	L1	292	A	N9-C1'-C2'	5.29	120.88	114.00
33	L1	545	C	P-O3'-C3'	-5.29	113.35	119.70
33	L1	596	C	O4'-C1'-N1	-5.29	103.97	108.20
33	L1	1518	A	P-O3'-C3'	5.29	126.05	119.70
46	LT	128	LYS	O-C-N	-5.29	114.21	123.20
59	Lo	37	TYR	CG-CD2-CE2	-5.29	117.07	121.30
66	LN	17	TYR	CB-CA-C	5.29	120.97	110.40
81	LD	313	GLU	CA-CB-CG	5.29	125.03	113.40
82	LK	61	ARG	N-CA-CB	5.29	120.12	110.60
32	S1	1039	C	N1-C1'-C2'	-5.29	106.18	112.00
32	S1	1061	G	O4'-C1'-N9	-5.29	103.97	108.20
33	L1	1549	A	C5'-C4'-C3'	-5.29	107.54	116.00
52	Lb	100	ALA	N-CA-CB	5.29	117.50	110.10
61	Lq	14	LYS	O-C-N	-5.29	114.24	122.70
71	Lj	14	ARG	NE-CZ-NH2	-5.29	117.66	120.30
77	Lc	96	LEU	CA-CB-CG	5.29	127.46	115.30
32	S1	856	G	O5'-P-OP2	-5.29	100.94	105.70
32	S1	1295	G	C1'-O4'-C4'	-5.29	105.67	109.90
32	S1	1348	A	O4'-C1'-N9	5.29	112.43	108.20
33	L1	219	A	O5'-P-OP2	5.29	117.04	110.70
33	L1	1273	U	OP1-P-OP2	-5.29	111.67	119.60
33	L1	1867	U	O4'-C4'-C3'	-5.29	98.71	104.00
33	L1	1988	G	O4'-C1'-N9	5.29	112.43	108.20
33	L1	2348	U	C5'-C4'-C3'	-5.29	107.54	116.00
33	L1	2680	G	C3'-C2'-C1'	5.29	105.73	101.50
33	L1	2695	A	O3'-P-O5'	5.29	114.04	104.00
72	Lk	51	ALA	CB-CA-C	-5.29	102.17	110.10
81	LD	368	PRO	N-CD-CG	5.29	111.13	103.20
3	SB	126	VAL	CA-CB-CG2	-5.28	102.97	110.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	SP	42	GLY	O-C-N	-5.28	114.25	122.70
32	S1	414	A	C4'-C3'-C2'	-5.28	97.32	102.60
32	S1	537	U	P-O3'-C3'	5.28	126.04	119.70
32	S1	640	A	O4'-C1'-N9	5.28	112.43	108.20
32	S1	1017	U	O4'-C4'-C3'	5.28	110.33	106.10
32	S1	1460	G	C3'-C2'-C1'	-5.28	97.27	101.50
32	S1	1673	C	P-O3'-C3'	5.28	126.04	119.70
33	L1	629	U	O4'-C1'-C2'	-5.28	100.52	105.80
35	L2	43	G	O4'-C1'-C2'	-5.28	100.52	105.80
14	SP	94	PHE	CB-CG-CD2	5.28	124.50	120.80
32	S1	1507	G	O4'-C1'-C2'	5.28	112.35	107.60
32	S1	1691	C	C1'-O4'-C4'	-5.28	105.67	109.90
33	L1	170	C	O4'-C1'-N1	5.28	112.42	108.20
33	L1	3021	U	C5'-C4'-O4'	-5.28	102.76	109.10
67	LS	159	ARG	CB-CA-C	5.28	120.96	110.40
74	LJ	124	LYS	CA-CB-CG	5.28	125.02	113.40
81	LD	355	ARG	N-CA-CB	5.28	120.11	110.60
1	Sa	302	THR	O-C-N	-5.28	114.25	122.70
2	SA	260	ALA	CA-C-O	-5.28	109.01	120.10
15	SS	94	HIS	N-CA-CB	5.28	120.10	110.60
32	S1	491	G	O4'-C1'-C2'	5.28	112.35	107.60
32	S1	1042	C	N1-C1'-C2'	5.28	120.86	114.00
33	L1	22	G	P-O3'-C3'	-5.28	113.36	119.70
33	L1	333	G	OP1-P-OP2	-5.28	111.68	119.60
33	L1	389	A	C5'-C4'-C3'	5.28	124.45	116.00
33	L1	407	A	P-O5'-C5'	5.28	129.35	120.90
33	L1	989	U	C1'-O4'-C4'	5.28	114.12	109.90
33	L1	1128	U	C4'-C3'-C2'	-5.28	97.32	102.60
33	L1	1800	G	O3'-P-O5'	5.28	114.03	104.00
33	L1	1897	A	O5'-P-OP2	5.28	117.04	110.70
33	L1	2133	A	P-O5'-C5'	-5.28	112.45	120.90
33	L1	2390	G	O4'-C4'-C3'	-5.28	98.72	104.00
33	L1	2772	A	C4'-C3'-C2'	-5.28	97.32	102.60
35	L2	103	C	C5'-C4'-C3'	5.28	124.45	116.00
69	La	42	LEU	CB-CG-CD1	5.28	119.98	111.00
33	L1	614	C	C1'-O4'-C4'	5.28	114.12	109.90
35	L2	58	A	O4'-C4'-C3'	-5.28	98.72	104.00
56	Lh	53	MET	O-C-N	-5.28	111.07	121.10
1	Sa	107	HIS	O-C-N	-5.28	114.26	122.70
1	Sa	236	ARG	NE-CZ-NH1	-5.28	117.66	120.30
12	SO	127	ARG	NE-CZ-NH2	-5.28	117.66	120.30
24	SX	82	ARG	CA-C-O	-5.28	109.02	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	S2	65	U	C4'-C3'-C2'	-5.28	97.32	102.60
32	S1	1403	G	P-O5'-C5'	5.28	129.34	120.90
32	S1	1568	U	C5'-C4'-O4'	5.28	115.43	109.10
33	L1	763	G	C1'-O4'-C4'	-5.28	105.68	109.90
33	L1	1062	G	C4'-C3'-C2'	-5.28	97.32	102.60
33	L1	1766	U	O4'-C1'-C2'	-5.28	100.52	105.80
33	L1	3101	C	O4'-C1'-N1	-5.28	103.98	108.20
33	L1	3288	A	OP1-P-OP2	-5.28	111.68	119.60
33	L1	3360	U	P-O5'-C5'	-5.28	112.46	120.90
34	L3	52	U	O4'-C1'-N1	5.28	112.42	108.20
38	LE	120	PRO	N-CA-CB	5.28	109.63	103.30
52	Lb	113	ARG	N-CA-CB	5.28	120.10	110.60
78	Le	179	ASN	N-CA-CB	5.28	120.10	110.60
80	LC	16	PHE	CA-CB-CG	-5.28	101.24	113.90
83	Lm	23	ARG	NE-CZ-NH1	5.28	122.94	120.30
84	LI	109	ASP	OD1-CG-OD2	5.28	133.33	123.30
1	Sa	306	PHE	CG-CD1-CE1	-5.28	115.00	120.80
25	SC	95	LEU	O-C-N	-5.28	114.26	122.70
32	S1	60	C	C3'-C2'-C1'	5.28	105.72	101.50
32	S1	513	G	P-O3'-C3'	5.28	126.03	119.70
32	S1	1362	A	C3'-C2'-C1'	5.28	105.72	101.50
32	S1	1498	A	O3'-P-O5'	5.28	114.02	104.00
33	L1	516	C	N1-C1'-C2'	5.28	120.86	114.00
33	L1	1289	G	C4'-C3'-C2'	5.28	107.88	102.60
33	L1	2741	G	N9-C1'-C2'	5.28	120.86	114.00
33	L1	2941	G	C3'-C2'-C1'	-5.28	97.28	101.50
34	L3	105	C	O4'-C1'-N1	5.28	112.42	108.20
45	LQ	35	ARG	NE-CZ-NH2	-5.28	117.66	120.30
54	Lf	53	PRO	CA-C-N	5.28	131.87	117.10
32	S1	1057	U	OP2-P-O3'	5.27	116.80	105.20
32	S1	1478	C	O4'-C1'-C2'	-5.27	100.53	105.80
33	L1	141	C	C3'-C2'-C1'	5.27	105.72	101.50
33	L1	1691	U	O4'-C4'-C3'	-5.27	98.73	104.00
33	L1	2588	G	OP2-P-O3'	5.27	116.80	105.20
1	Sa	340	GLN	CA-C-N	-5.27	105.60	117.20
32	S1	1229	C	C4'-C3'-C2'	-5.27	97.33	102.60
32	S1	1284	C	C3'-C2'-C1'	5.27	105.72	101.50
32	S1	1388	A	O4'-C1'-N9	5.27	112.42	108.20
33	L1	38	A	C3'-C2'-C1'	5.27	105.72	101.50
33	L1	952	C	C4'-C3'-C2'	-5.27	97.33	102.60
33	L1	1862	C	C1'-O4'-C4'	-5.27	105.68	109.90
71	Lj	60	LYS	C-N-CA	5.27	134.88	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	SE	145	VAL	CA-CB-CG1	-5.27	102.99	110.90
13	SQ	21	TYR	CB-CA-C	-5.27	99.86	110.40
31	S2	21	A	N9-C1'-C2'	-5.27	106.20	112.00
32	S1	1518	C	C5'-C4'-O4'	5.27	115.42	109.10
33	L1	142	G	N9-C1'-C2'	5.27	120.85	114.00
33	L1	281	G	P-O5'-C5'	5.27	129.33	120.90
33	L1	1342	C	C5'-C4'-O4'	-5.27	102.78	109.10
13	SQ	139	ASP	N-CA-CB	-5.27	101.11	110.60
16	SR	132	TYR	CB-CG-CD2	-5.27	117.84	121.00
25	SC	85	TYR	CB-CG-CD2	5.27	124.16	121.00
31	S2	43	C	C5'-C4'-O4'	5.27	115.42	109.10
32	S1	1054	G	P-O5'-C5'	-5.27	112.47	120.90
33	L1	2227	A	P-O3'-C3'	5.27	126.02	119.70
33	L1	2412	A	P-O5'-C5'	5.27	129.33	120.90
33	L1	2482	A	C5'-C4'-C3'	5.27	124.43	116.00
33	L1	2973	A	C3'-C2'-C1'	-5.27	97.28	101.50
55	Lg	26	LYS	CA-CB-CG	5.27	124.99	113.40
69	La	26	VAL	CA-CB-CG2	5.27	118.80	110.90
69	La	38	TYR	CA-C-O	5.27	131.17	120.10
32	S1	297	U	N1-C1'-C2'	5.27	120.85	114.00
32	S1	312	C	N1-C1'-C2'	-5.27	106.21	112.00
32	S1	624	A	OP2-P-O3'	5.27	116.79	105.20
33	L1	517	G	N9-C1'-C2'	5.27	120.85	114.00
33	L1	801	G	C1'-O4'-C4'	5.27	114.11	109.90
33	L1	1345	U	C1'-O4'-C4'	-5.27	105.69	109.90
33	L1	1576	C	OP1-P-O3'	5.27	116.79	105.20
33	L1	2468	G	C5'-C4'-O4'	5.27	115.42	109.10
33	L1	2666	G	N9-C1'-C2'	-5.27	106.21	112.00
56	Lh	64	THR	CA-CB-CG2	-5.27	105.03	112.40
11	SM	40	PHE	O-C-N	5.27	131.12	122.70
32	S1	1766	A	C1'-O4'-C4'	5.27	114.11	109.90
33	L1	1331	C	C5'-C4'-C3'	-5.27	107.57	116.00
33	L1	2792	A	C4'-C3'-C2'	-5.27	97.33	102.60
39	LF	187	THR	N-CA-C	-5.27	96.78	111.00
48	LV	54	HIS	O-C-N	-5.27	114.28	122.70
52	Lb	64	GLY	N-CA-C	-5.27	99.94	113.10
32	S1	886	A	C5'-C4'-O4'	5.26	115.42	109.10
32	S1	1446	C	P-O5'-C5'	5.26	129.32	120.90
33	L1	1241	G	C1'-O4'-C4'	5.26	114.11	109.90
33	L1	2747	U	P-O3'-C3'	-5.26	113.38	119.70
35	L2	32	C	OP1-P-OP2	-5.26	111.70	119.60
38	LE	165	PHE	CA-CB-CG	-5.26	101.26	113.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Le	92	ARG	CG-CD-NE	-5.26	100.75	111.80
83	Lm	37	TYR	CB-CG-CD2	-5.26	117.84	121.00
32	S1	1182	C	O4'-C1'-N1	5.26	112.41	108.20
33	L1	185	A	OP1-P-OP2	-5.26	111.71	119.60
33	L1	2761	A	O4'-C1'-N9	5.26	112.41	108.20
1	Sa	255	VAL	CB-CA-C	-5.26	101.40	111.40
10	SL	142	SER	CA-C-O	-5.26	109.05	120.10
25	SC	71	ARG	CG-CD-NE	-5.26	100.75	111.80
32	S1	1604	C	C5'-C4'-O4'	5.26	115.41	109.10
33	L1	98	A	C5'-C4'-C3'	5.26	124.42	116.00
33	L1	639	A	C5'-C4'-O4'	5.26	115.41	109.10
33	L1	1209	G	C3'-C2'-C1'	-5.26	97.29	101.50
33	L1	1364	C	C1'-O4'-C4'	-5.26	105.69	109.90
33	L1	1395	A	C3'-C2'-C1'	-5.26	97.29	101.50
33	L1	1734	G	P-O3'-C3'	-5.26	113.39	119.70
33	L1	1998	A	P-O3'-C3'	5.26	126.01	119.70
33	L1	3165	C	O4'-C1'-N1	5.26	112.41	108.20
41	LM	83	ARG	NE-CZ-NH2	-5.26	117.67	120.30
56	Lh	26	TYR	CB-CG-CD1	5.26	124.16	121.00
5	SE	244	PHE	CB-CA-C	5.26	120.92	110.40
32	S1	195	A	OP1-P-OP2	-5.26	111.71	119.60
32	S1	1328	G	C5'-C4'-C3'	5.26	124.42	116.00
32	S1	1518	C	N1-C1'-C2'	5.26	120.84	114.00
33	L1	1713	A	C3'-C2'-C1'	5.26	105.71	101.50
33	L1	1836	U	C2'-C3'-O3'	5.26	122.12	113.70
45	LQ	36	ALA	CB-CA-C	5.26	117.99	110.10
68	LW	82	LYS	O-C-N	5.26	131.12	122.70
78	Le	217	LYS	N-CA-CB	5.26	120.07	110.60
32	S1	836	U	P-O3'-C3'	5.26	126.01	119.70
33	L1	559	U	C1'-O4'-C4'	5.26	114.11	109.90
33	L1	2651	G	C4'-C3'-C2'	-5.26	97.34	102.60
33	L1	2722	U	O4'-C4'-C3'	-5.26	98.74	104.00
37	LB	47	ASP	CB-CG-OD2	-5.26	113.57	118.30
6	SF	73	MET	N-CA-CB	5.26	120.06	110.60
32	S1	243	U	OP1-P-OP2	-5.26	111.72	119.60
32	S1	346	C	C3'-C2'-C1'	5.26	105.70	101.50
32	S1	680	C	O4'-C1'-N1	5.26	112.41	108.20
33	L1	925	U	P-O5'-C5'	5.26	129.31	120.90
33	L1	1196	U	C3'-C2'-C1'	-5.26	97.30	101.50
33	L1	1223	U	P-O3'-C3'	5.26	126.01	119.70
33	L1	2917	U	OP2-P-O3'	5.26	116.76	105.20
33	L1	2985	C	C1'-O4'-C4'	5.26	114.11	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3223	C	O3'-P-O5'	-5.26	94.01	104.00
37	LB	58	LEU	CB-CA-C	-5.26	100.21	110.20
43	LO	21	ARG	NE-CZ-NH1	5.26	122.93	120.30
71	Lj	7	GLN	N-CA-C	-5.26	96.81	111.00
81	LD	395	ASP	CB-CG-OD2	5.26	123.03	118.30
31	S2	74	C	O3'-P-O5'	5.25	113.98	104.00
32	S1	1294	U	C1'-O4'-C4'	-5.25	105.70	109.90
33	L1	528	C	C2'-C3'-O3'	5.25	122.11	113.70
33	L1	1437	G	N9-C1'-C2'	5.25	120.83	114.00
29	ST	10	ASP	CB-CG-OD1	-5.25	113.57	118.30
32	S1	30	G	C5'-C4'-C3'	5.25	124.41	116.00
32	S1	680	C	O4'-C1'-C2'	-5.25	100.55	105.80
32	S1	1793	C	C5'-C4'-O4'	5.25	115.41	109.10
33	L1	409	U	O3'-P-O5'	-5.25	94.02	104.00
33	L1	2997	C	C5'-C4'-C3'	-5.25	107.59	116.00
50	LZ	34	ALA	N-CA-C	5.25	125.19	111.00
57	Ll	11	ARG	C-N-CA	-5.25	108.57	121.70
60	Lr	80	TYR	CB-CA-C	5.25	120.91	110.40
66	LN	112	LEU	N-CA-CB	5.25	120.91	110.40
7	SI	117	ARG	CD-NE-CZ	-5.25	116.25	123.60
15	SS	54	ASP	N-CA-C	5.25	125.18	111.00
23	SU	69	HIS	C-N-CA	5.25	134.83	121.70
32	S1	124	G	C5'-C4'-C3'	5.25	124.40	116.00
32	S1	895	U	O4'-C1'-N1	5.25	112.40	108.20
33	L1	391	U	P-O5'-C5'	5.25	129.30	120.90
33	L1	1369	G	P-O3'-C3'	5.25	126.00	119.70
41	LM	72	LEU	CA-CB-CG	5.25	127.38	115.30
46	LT	11	ALA	N-CA-CB	5.25	117.45	110.10
66	LN	61	ASP	CA-CB-CG	-5.25	101.85	113.40
78	Le	143	LEU	CB-CG-CD1	5.25	119.93	111.00
33	L1	1497	U	O5'-P-OP2	5.25	117.00	110.70
33	L1	2216	G	C5'-C4'-O4'	-5.25	102.80	109.10
33	L1	2908	C	C4'-C3'-C2'	-5.25	97.35	102.60
33	L1	3159	C	O4'-C1'-N1	5.25	112.40	108.20
15	SS	14	PRO	N-CA-CB	5.25	109.60	103.30
32	S1	1178	C	C1'-O4'-C4'	5.25	114.10	109.90
33	L1	606	C	C2'-C3'-O3'	5.25	122.10	113.70
33	L1	1074	C	O4'-C1'-C2'	-5.25	100.55	105.80
33	L1	1298	A	P-O5'-C5'	5.25	129.30	120.90
33	L1	1730	U	C3'-C2'-C1'	5.25	105.70	101.50
33	L1	2109	G	O4'-C1'-N9	5.25	112.40	108.20
34	L3	12	U	C1'-O4'-C4'	-5.25	105.70	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	LM	48	ARG	NE-CZ-NH2	-5.25	117.68	120.30
15	SS	43	ALA	N-CA-CB	-5.25	102.75	110.10
31	S2	10	G	C1'-O4'-C4'	-5.25	105.70	109.90
33	L1	481	G	O4'-C1'-N9	5.25	112.40	108.20
33	L1	1136	A	N9-C1'-C2'	5.25	120.82	114.00
33	L1	1983	U	O3'-P-O5'	-5.25	94.03	104.00
33	L1	2512	U	O4'-C4'-C3'	-5.25	98.75	104.00
33	L1	2581	C	O4'-C1'-N1	5.25	112.40	108.20
45	LQ	52	LYS	CA-CB-CG	5.25	124.94	113.40
50	LZ	3	LEU	C-N-CA	-5.25	108.58	121.70
66	LN	121	ILE	CB-CA-C	-5.25	101.11	111.60
3	SB	168	ILE	N-CA-C	-5.25	96.84	111.00
17	SV	83	ASP	CB-CG-OD2	5.25	123.02	118.30
32	S1	959	G	O4'-C4'-C3'	-5.25	98.75	104.00
33	L1	180	G	OP1-P-OP2	-5.25	111.73	119.60
33	L1	2229	G	O3'-P-O5'	5.25	113.97	104.00
55	Lg	105	GLU	CA-CB-CG	5.25	124.94	113.40
81	LD	369	GLU	CB-CA-C	5.25	120.89	110.40
81	LD	400	TRP	CB-CA-C	-5.25	99.91	110.40
82	LK	135	GLN	C-N-CA	-5.25	99.97	122.00
1	Sa	22	ARG	NE-CZ-NH1	5.24	122.92	120.30
3	SB	218	GLU	N-CA-C	-5.24	96.84	111.00
32	S1	1068	G	C2'-C3'-O3'	5.24	122.09	113.70
32	S1	1101	C	C4'-C3'-C2'	-5.24	97.36	102.60
32	S1	1435	G	O4'-C1'-C2'	5.24	112.32	107.60
32	S1	1673	C	O4'-C1'-C2'	-5.24	100.56	105.80
33	L1	505	G	C5'-C4'-C3'	5.24	124.39	116.00
33	L1	586	A	C1'-O4'-C4'	-5.24	105.70	109.90
33	L1	2302	G	P-O5'-C5'	5.24	129.29	120.90
33	L1	2745	C	N1-C1'-C2'	5.24	120.82	114.00
42	LP	118	SER	O-C-N	-5.24	114.31	122.70
70	Li	37	LYS	CB-CA-C	5.24	120.89	110.40
32	S1	250	A	OP1-P-OP2	-5.24	111.74	119.60
33	L1	2354	G	C4'-C3'-C2'	5.24	107.84	102.60
33	L1	3152	C	C4'-C3'-C2'	-5.24	97.36	102.60
81	LD	319	LYS	C-N-CA	-5.24	108.59	121.70
32	S1	447	C	OP1-P-OP2	-5.24	111.74	119.60
33	L1	407	A	P-O3'-C3'	5.24	125.99	119.70
33	L1	1017	G	N9-C1'-C2'	5.24	120.81	114.00
33	L1	1555	G	C1'-O4'-C4'	-5.24	105.71	109.90
48	LV	71	ALA	CB-CA-C	5.24	117.96	110.10
6	SF	67	ARG	NE-CZ-NH1	5.24	122.92	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	33	U	N1-C1'-C2'	-5.24	106.24	112.00
32	S1	935	A	C5'-C4'-O4'	5.24	115.39	109.10
32	S1	1504	U	C5'-C4'-O4'	5.24	115.39	109.10
33	L1	108	A	OP1-P-O3'	5.24	116.72	105.20
33	L1	595	C	N1-C1'-C2'	5.24	120.81	114.00
33	L1	628	C	P-O3'-C3'	5.24	125.99	119.70
33	L1	2035	G	O4'-C1'-N9	5.24	112.39	108.20
33	L1	2471	C	O5'-P-OP1	5.24	116.99	110.70
33	L1	2785	U	C5'-C4'-O4'	5.24	115.39	109.10
33	L1	2940	G	OP1-P-O3'	5.24	116.73	105.20
78	Le	73	MET	N-CA-CB	5.24	120.03	110.60
7	SI	124	VAL	CG1-CB-CG2	5.24	119.28	110.90
32	S1	1803	G	O4'-C1'-C2'	5.24	112.31	107.60
33	L1	1298	A	P-O3'-C3'	-5.24	113.42	119.70
6	SF	171	ASP	CA-CB-CG	5.24	124.92	113.40
9	SK	77	SER	CA-C-N	-5.24	105.68	117.20
9	SK	143	GLY	N-CA-C	5.24	126.19	113.10
31	S2	73	C	O3'-P-O5'	5.24	113.95	104.00
33	L1	594	C	P-O5'-C5'	-5.24	112.52	120.90
33	L1	781	C	C5'-C4'-C3'	-5.24	107.62	116.00
33	L1	1226	G	O5'-P-OP2	5.24	116.98	110.70
33	L1	2366	A	N9-C1'-C2'	5.24	120.81	114.00
33	L1	3213	A	C1'-O4'-C4'	5.24	114.09	109.90
33	L1	3362	A	C4'-C3'-C2'	5.24	107.84	102.60
51	LY	9	SER	CB-CA-C	5.24	120.05	110.10
52	Lb	106	GLN	N-CA-CB	5.24	120.03	110.60
68	LW	55	LYS	CA-CB-CG	5.24	124.92	113.40
75	Lt	45	LEU	CB-CG-CD2	5.24	119.90	111.00
33	L1	183	C	C1'-O4'-C4'	-5.23	105.71	109.90
33	L1	962	C	P-O5'-C5'	-5.23	112.53	120.90
33	L1	1299	G	C4'-C3'-C2'	-5.23	97.37	102.60
33	L1	2261	U	C1'-O4'-C4'	-5.23	105.71	109.90
33	L1	2732	U	O5'-C5'-C4'	5.23	121.64	111.70
33	L1	3048	C	OP1-P-OP2	-5.23	111.75	119.60
32	S1	1565	U	N1-C1'-C2'	5.23	120.80	114.00
33	L1	472	U	C3'-C2'-C1'	-5.23	97.31	101.50
33	L1	659	C	P-O5'-C5'	-5.23	112.53	120.90
33	L1	916	A	N9-C1'-C2'	-5.23	106.25	112.00
33	L1	1596	G	C3'-C2'-C1'	5.23	105.69	101.50
33	L1	1678	U	C1'-O4'-C4'	5.23	114.09	109.90
33	L1	1734	G	O4'-C1'-N9	5.23	112.39	108.20
33	L1	1743	C	C3'-C2'-C1'	5.23	105.69	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1838	A	O4'-C1'-N9	-5.23	104.01	108.20
33	L1	2149	G	C1'-O4'-C4'	-5.23	105.71	109.90
33	L1	2598	A	O3'-P-O5'	-5.23	94.06	104.00
33	L1	2782	G	O3'-P-O5'	-5.23	94.06	104.00
33	L1	2812	C	P-O3'-C3'	-5.23	113.42	119.70
70	Li	105	LYS	N-CA-C	5.23	125.13	111.00
81	LD	106	PHE	CB-CG-CD2	-5.23	117.14	120.80
32	S1	90	G	O4'-C1'-N9	5.23	112.39	108.20
32	S1	1158	G	C1'-O4'-C4'	-5.23	105.72	109.90
32	S1	1301	G	P-O5'-C5'	-5.23	112.53	120.90
32	S1	1343	C	N1-C1'-C2'	5.23	120.80	114.00
32	S1	1716	C	P-O3'-C3'	-5.23	113.42	119.70
33	L1	129	G	C3'-C2'-C1'	-5.23	97.31	101.50
33	L1	1053	C	OP2-P-O3'	5.23	116.71	105.20
33	L1	1270	G	C1'-C2'-O2'	5.23	126.29	110.60
33	L1	2219	A	N9-C1'-C2'	-5.23	106.25	112.00
33	L1	2741	G	O5'-P-OP2	5.23	116.98	110.70
78	Le	71	ALA	N-CA-CB	5.23	117.42	110.10
32	S1	922	U	C1'-O4'-C4'	5.23	114.08	109.90
32	S1	1559	U	C1'-O4'-C4'	5.23	114.08	109.90
33	L1	3276	G	P-O3'-C3'	5.23	125.97	119.70
5	SE	100	ARG	NE-CZ-NH2	5.23	122.91	120.30
25	SC	8	TYR	CG-CD1-CE1	-5.23	117.12	121.30
32	S1	571	A	C2'-C3'-O3'	5.23	122.06	113.70
32	S1	594	C	C5'-C4'-O4'	-5.23	102.83	109.10
32	S1	918	G	N9-C1'-C2'	-5.23	106.25	112.00
33	L1	282	A	C5'-C4'-O4'	5.23	115.37	109.10
33	L1	2620	U	C4'-C3'-C2'	5.23	107.83	102.60
46	LT	1	MET	CA-CB-CG	5.23	122.19	113.30
48	LV	47	TYR	CB-CG-CD1	5.23	124.14	121.00
59	Lo	47	THR	CA-C-N	5.23	128.70	117.20
76	Lw	34	ILE	CA-C-N	-5.23	105.70	117.20
81	LD	344	ALA	C-N-CA	5.23	134.77	121.70
33	L1	678	G	P-O3'-C3'	5.23	125.97	119.70
33	L1	993	A	O3'-P-O5'	-5.23	94.07	104.00
33	L1	1570	C	C1'-O4'-C4'	5.23	114.08	109.90
33	L1	2098	A	C5'-C4'-C3'	-5.23	107.64	116.00
33	L1	2562	A	O5'-C5'-C4'	5.23	121.63	111.70
33	L1	3333	C	C1'-O4'-C4'	-5.23	105.72	109.90
64	LG	13	ARG	N-CA-CB	5.23	120.01	110.60
6	SF	148	TYR	CD1-CE1-CZ	-5.22	115.10	119.80
13	SQ	92	GLU	CA-C-N	-5.22	105.71	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	SH	64	GLU	N-CA-CB	5.22	120.00	110.60
32	S1	162	A	N9-C1'-C2'	-5.22	106.25	112.00
80	LC	90	VAL	CG1-CB-CG2	-5.22	102.54	110.90
3	SB	81	GLU	CA-C-N	-5.22	105.71	117.20
32	S1	192	G	C4'-C3'-C2'	-5.22	97.38	102.60
32	S1	1042	C	O4'-C1'-C2'	-5.22	100.58	105.80
32	S1	1171	C	C3'-C2'-C1'	5.22	105.68	101.50
32	S1	1462	C	O4'-C1'-N1	-5.22	104.02	108.20
32	S1	1721	A	P-O3'-C3'	-5.22	113.43	119.70
33	L1	305	G	O3'-P-O5'	5.22	113.92	104.00
33	L1	639	A	C5'-C4'-C3'	-5.22	107.64	116.00
33	L1	946	U	N1-C1'-C2'	5.22	120.79	114.00
33	L1	1400	C	OP1-P-OP2	-5.22	111.77	119.60
33	L1	1611	G	C5'-C4'-C3'	-5.22	107.64	116.00
33	L1	2114	A	N9-C1'-C2'	5.22	120.79	114.00
33	L1	2341	U	C1'-O4'-C4'	-5.22	105.72	109.90
33	L1	2566	C	N1-C1'-C2'	5.22	120.79	114.00
33	L1	2622	G	O3'-P-O5'	-5.22	94.08	104.00
35	L2	6	G	O4'-C1'-C2'	-5.22	100.58	105.80
35	L2	16	A	C1'-O4'-C4'	5.22	114.08	109.90
35	L2	37	A	C1'-O4'-C4'	-5.22	105.72	109.90
72	Lk	66	VAL	C-N-CA	5.22	133.27	122.30
78	Le	49	ARG	NE-CZ-NH1	5.22	122.91	120.30
79	Ls	190	LEU	O-C-N	-5.22	114.34	122.70
27	SH	24	GLN	O-C-N	-5.22	114.35	122.70
32	S1	1227	A	C3'-C2'-C1'	-5.22	97.32	101.50
32	S1	1559	U	O4'-C1'-C2'	-5.22	100.58	105.80
32	S1	1628	C	C4'-C3'-C2'	-5.22	97.38	102.60
59	Lo	48	LYS	CB-CA-C	-5.22	99.96	110.40
17	SV	49	ASP	CB-CG-OD2	5.22	123.00	118.30
25	SC	85	TYR	CG-CD2-CE2	-5.22	117.12	121.30
32	S1	855	G	P-O5'-C5'	-5.22	112.55	120.90
32	S1	1355	U	C5'-C4'-O4'	5.22	115.36	109.10
32	S1	1547	G	C1'-O4'-C4'	5.22	114.08	109.90
33	L1	245	C	C3'-C2'-C1'	5.22	105.67	101.50
33	L1	1044	A	C5'-C4'-O4'	5.22	115.36	109.10
33	L1	1168	G	C5'-C4'-O4'	-5.22	102.84	109.10
33	L1	1235	A	O3'-P-O5'	5.22	113.92	104.00
33	L1	1897	A	C3'-C2'-C1'	5.22	105.68	101.50
45	LQ	154	THR	N-CA-C	-5.22	96.91	111.00
59	Lo	4	HIS	O-C-N	-5.22	114.35	122.70
1	Sa	36	ASP	CB-CG-OD2	-5.22	113.60	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	SV	44	ASP	CB-CG-OD2	5.22	123.00	118.30
32	S1	403	A	P-O3'-C3'	5.22	125.96	119.70
32	S1	831	C	C3'-C2'-C1'	5.22	105.67	101.50
33	L1	311	G	O5'-P-OP2	5.22	116.96	110.70
33	L1	1515	U	C5'-C4'-O4'	-5.22	102.84	109.10
33	L1	2615	U	C4'-C3'-C2'	-5.22	97.38	102.60
78	Le	118	PHE	CB-CG-CD1	-5.22	117.15	120.80
1	Sa	89	ARG	NE-CZ-NH2	-5.22	117.69	120.30
1	Sa	346	ARG	CD-NE-CZ	-5.22	116.30	123.60
3	SB	152	PHE	CB-CG-CD1	5.22	124.45	120.80
5	SE	208	SER	N-CA-CB	-5.22	102.67	110.50
11	SM	95	PHE	N-CA-CB	5.22	119.99	110.60
13	SQ	73	LEU	N-CA-CB	-5.22	99.97	110.40
20	SZ	7	SER	N-CA-CB	-5.22	102.67	110.50
23	SU	15	ARG	NE-CZ-NH1	5.22	122.91	120.30
32	S1	1021	C	C4'-C3'-C2'	-5.22	97.38	102.60
32	S1	1387	U	O4'-C4'-C3'	-5.22	98.78	104.00
33	L1	73	A	N9-C1'-C2'	-5.22	106.26	112.00
33	L1	649	A	O4'-C1'-C2'	-5.22	100.58	105.80
33	L1	712	A	O4'-C1'-N9	5.22	112.37	108.20
33	L1	2445	U	O4'-C1'-N1	5.22	112.37	108.20
33	L1	3101	C	P-O3'-C3'	5.22	125.96	119.70
23	SU	42	LYS	N-CA-C	5.21	125.08	111.00
32	S1	1079	G	C3'-C2'-C1'	5.21	105.67	101.50
32	S1	1302	C	C4'-C3'-C2'	-5.21	97.39	102.60
32	S1	1747	A	O5'-C5'-C4'	-5.21	101.79	111.70
33	L1	142	G	O4'-C1'-C2'	-5.21	100.59	105.80
33	L1	1634	G	O4'-C1'-N9	-5.21	104.03	108.20
33	L1	1754	C	P-O5'-C5'	-5.21	112.56	120.90
33	L1	2248	G	O4'-C1'-N9	5.21	112.37	108.20
33	L1	2685	C	C4'-C3'-C2'	-5.21	97.39	102.60
41	LM	68	GLY	O-C-N	-5.21	114.36	122.70
67	LS	100	THR	CA-CB-CG2	-5.21	105.10	112.40
68	LW	101	TRP	N-CA-CB	5.21	119.98	110.60
13	SQ	70	SER	C-N-CA	5.21	134.73	121.70
35	L2	127	G	O4'-C1'-C2'	-5.21	100.59	105.80
42	LP	12	ARG	NH1-CZ-NH2	-5.21	113.67	119.40
29	ST	63	ASP	C-N-CA	5.21	134.73	121.70
32	S1	211	G	OP1-P-OP2	-5.21	111.78	119.60
32	S1	312	C	C3'-C2'-C1'	5.21	105.67	101.50
32	S1	1704	G	O4'-C4'-C3'	5.21	110.27	106.10
33	L1	1659	G	C3'-C2'-C1'	5.21	105.67	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1922	C	P-O3'-C3'	-5.21	113.45	119.70
33	L1	3303	C	C3'-C2'-C1'	-5.21	97.33	101.50
45	LQ	2	SER	CB-CA-C	5.21	120.00	110.10
32	S1	1650	G	O4'-C1'-C2'	-5.21	100.59	105.80
33	L1	671	C	P-O3'-C3'	-5.21	113.45	119.70
33	L1	768	U	O4'-C1'-N1	5.21	112.37	108.20
35	L2	80	C	P-O5'-C5'	5.21	129.24	120.90
19	SY	24	THR	N-CA-CB	5.21	120.20	110.30
32	S1	385	C	O4'-C1'-C2'	-5.21	100.59	105.80
32	S1	1209	C	O4'-C4'-C3'	-5.21	98.79	104.00
32	S1	1474	U	C4'-C3'-C2'	-5.21	97.39	102.60
33	L1	1456	A	C3'-C2'-C1'	-5.21	97.33	101.50
33	L1	3202	G	P-O3'-C3'	-5.21	113.45	119.70
35	L2	16	A	O4'-C1'-N9	5.21	112.37	108.20
37	LB	64	ARG	NE-CZ-NH1	5.21	122.90	120.30
37	LB	69	TYR	CB-CG-CD2	-5.21	117.88	121.00
71	Lj	25	SER	N-CA-C	5.21	125.06	111.00
79	Ls	5	ARG	NE-CZ-NH1	5.21	122.91	120.30
32	S1	689	C	C3'-C2'-C1'	5.21	105.67	101.50
32	S1	1091	A	C4'-C3'-C2'	-5.21	97.39	102.60
32	S1	1135	G	OP1-P-OP2	-5.21	111.79	119.60
32	S1	1727	C	C4'-C3'-C2'	5.21	107.81	102.60
33	L1	8	C	C3'-C2'-C1'	5.21	105.67	101.50
33	L1	819	A	C5'-C4'-C3'	-5.21	107.67	116.00
33	L1	2984	A	C5'-C4'-C3'	-5.21	107.67	116.00
33	L1	3209	U	C5'-C4'-C3'	5.21	124.33	116.00
33	L1	3289	U	C4'-C3'-C2'	-5.21	97.39	102.60
36	LA	200	VAL	O-C-N	-5.21	114.37	122.70
48	LV	63	TYR	CG-CD2-CE2	5.21	125.47	121.30
50	LZ	23	PHE	CB-CG-CD2	5.21	124.44	120.80
74	LJ	118	ARG	NE-CZ-NH2	-5.21	117.70	120.30
4	SD	73	ASP	CB-CG-OD2	5.21	122.98	118.30
32	S1	831	C	P-O5'-C5'	-5.21	112.57	120.90
33	L1	818	G	P-O3'-C3'	5.21	125.95	119.70
3	SB	12	VAL	C-N-CA	5.20	134.71	121.70
9	SK	52	LEU	CA-CB-CG	5.20	127.27	115.30
31	S2	1	U	C5'-C4'-O4'	5.20	115.34	109.10
32	S1	791	C	C5'-C4'-C3'	5.20	124.32	116.00
32	S1	913	U	P-O5'-C5'	5.20	129.22	120.90
32	S1	1790	G	C1'-O4'-C4'	-5.20	105.74	109.90
33	L1	471	C	P-O5'-C5'	5.20	129.22	120.90
33	L1	2910	C	C4'-C3'-C2'	-5.20	97.40	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3009	A	O4'-C1'-N9	5.20	112.36	108.20
33	L1	3335	G	C2'-C3'-O3'	5.20	122.02	113.70
35	L2	70	G	P-O3'-C3'	5.20	125.94	119.70
35	L2	160	C	O4'-C1'-C2'	-5.20	100.60	105.80
55	Lg	20	TYR	N-CA-CB	5.20	119.97	110.60
57	Ll	33	THR	CA-CB-OG1	5.20	119.93	109.00
67	LS	151	PHE	C-N-CD	-5.20	109.15	120.60
80	LC	122	TRP	CB-CG-CD1	5.20	133.76	127.00
7	SI	50	LEU	N-CA-CB	5.20	120.80	110.40
11	SM	110	ASP	N-CA-CB	-5.20	101.24	110.60
32	S1	436	G	N9-C1'-C2'	5.20	120.76	114.00
32	S1	1287	U	O4'-C1'-C2'	-5.20	100.60	105.80
33	L1	471	C	O4'-C1'-C2'	-5.20	100.60	105.80
32	S1	461	G	O4'-C1'-N9	5.20	112.36	108.20
32	S1	495	C	C1'-O4'-C4'	-5.20	105.74	109.90
33	L1	185	A	O4'-C1'-N9	-5.20	104.04	108.20
33	L1	1208	A	N9-C1'-C2'	5.20	120.76	114.00
33	L1	1388	C	O4'-C1'-C2'	5.20	112.28	107.60
33	L1	3047	A	C4'-C3'-C2'	-5.20	97.40	102.60
45	LQ	188	LYS	C-N-CA	5.20	134.70	121.70
71	Lj	93	LEU	O-C-N	5.20	130.98	121.10
33	L1	1035	C	O5'-P-OP1	5.20	116.94	110.70
33	L1	1625	G	C4'-C3'-C2'	-5.20	97.40	102.60
33	L1	2171	A	O4'-C1'-N9	5.20	112.36	108.20
33	L1	2594	A	O3'-P-O5'	-5.20	94.12	104.00
33	L1	3070	G	C5'-C4'-O4'	5.20	115.34	109.10
33	L1	3250	C	C3'-C2'-C1'	5.20	105.66	101.50
39	LF	95	TYR	CB-CG-CD1	5.20	124.12	121.00
47	LU	132	PRO	N-CA-C	5.20	125.62	112.10
67	LS	155	TYR	CB-CG-CD2	-5.20	117.88	121.00
78	Le	147	ARG	CA-CB-CG	5.20	124.84	113.40
5	SE	191	ARG	NE-CZ-NH2	-5.20	117.70	120.30
14	SP	99	GLN	O-C-N	-5.20	114.38	122.70
51	LY	35	SER	N-CA-CB	5.20	118.30	110.50
23	SU	28	PHE	CB-CG-CD1	5.20	124.44	120.80
32	S1	252	U	OP1-P-OP2	-5.20	111.81	119.60
32	S1	341	G	C2'-C3'-O3'	5.20	122.01	113.70
32	S1	450	A	C3'-C2'-C1'	5.20	105.66	101.50
32	S1	485	A	C5'-C4'-O4'	5.20	115.33	109.10
32	S1	1075	G	P-O5'-C5'	-5.20	112.59	120.90
33	L1	1852	C	O4'-C1'-C2'	5.20	112.28	107.60
33	L1	2021	G	C1'-O4'-C4'	5.20	114.06	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	LK	198	LEU	CA-CB-CG	5.20	127.25	115.30
32	S1	118	U	P-O5'-C5'	5.19	129.21	120.90
33	L1	2424	G	N9-C1'-C2'	5.19	120.75	114.00
68	LW	82	LYS	CA-C-O	-5.19	109.19	120.10
82	LK	113	VAL	O-C-N	-5.19	111.23	121.10
32	S1	1287	U	P-O5'-C5'	-5.19	112.59	120.90
32	S1	1435	G	O5'-C5'-C4'	-5.19	101.83	111.70
32	S1	1688	G	O3'-P-O5'	-5.19	94.13	104.00
33	L1	155	G	C5'-C4'-C3'	5.19	124.31	116.00
33	L1	593	G	O4'-C1'-N9	5.19	112.35	108.20
33	L1	1681	U	C5'-C4'-O4'	5.19	115.33	109.10
33	L1	3012	A	C1'-O4'-C4'	5.19	114.05	109.90
45	LQ	25	LYS	O-C-N	-5.19	114.39	122.70
48	LV	67	VAL	N-CA-CB	-5.19	100.08	111.50
81	LD	254	PHE	CB-CG-CD2	-5.19	117.17	120.80
33	L1	978	C	P-O3'-C3'	5.19	125.93	119.70
32	S1	975	A	O4'-C1'-C2'	-5.19	100.61	105.80
33	L1	993	A	OP1-P-O3'	5.19	116.62	105.20
33	L1	1835	A	C3'-C2'-C1'	5.19	105.65	101.50
33	L1	2568	G	N9-C1'-C2'	-5.19	106.29	112.00
11	SM	15	VAL	CB-CA-C	5.19	121.26	111.40
20	SZ	51	PHE	N-CA-CB	5.19	119.94	110.60
32	S1	239	C	OP1-P-OP2	-5.19	111.82	119.60
32	S1	477	A	P-O5'-C5'	-5.19	112.60	120.90
32	S1	1240	A	C3'-C2'-C1'	-5.19	97.35	101.50
33	L1	902	U	O4'-C1'-N1	5.19	112.35	108.20
33	L1	1393	G	C1'-O4'-C4'	-5.19	105.75	109.90
33	L1	2142	A	O4'-C1'-N9	-5.19	104.05	108.20
33	L1	2579	G	C3'-C2'-C1'	-5.19	97.35	101.50
33	L1	2614	U	C4'-C3'-C2'	-5.19	97.41	102.60
33	L1	2721	C	OP1-P-OP2	-5.19	111.82	119.60
33	L1	2933	C	P-O5'-C5'	-5.19	112.60	120.90
74	LJ	77	SER	C-N-CA	5.19	134.67	121.70
80	LC	338	ARG	NE-CZ-NH1	5.19	122.89	120.30
32	S1	36	C	P-O5'-C5'	-5.19	112.60	120.90
33	L1	126	G	C5'-C4'-O4'	5.19	115.32	109.10
33	L1	1331	C	C4'-C3'-C2'	-5.19	97.41	102.60
33	L1	1488	G	C1'-O4'-C4'	5.19	114.05	109.90
33	L1	3146	C	O4'-C1'-N1	5.19	112.35	108.20
80	LC	312	MET	CB-CA-C	5.19	120.77	110.40
4	SD	212	ASP	CA-C-O	5.18	130.99	120.10
13	SQ	122	GLU	N-CA-C	5.18	125.00	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	SP	117	ARG	NE-CZ-NH1	5.18	122.89	120.30
16	SR	124	TYR	O-C-N	-5.18	114.41	122.70
32	S1	1245	G	C4'-C3'-C2'	-5.18	97.42	102.60
32	S1	1403	G	O4'-C1'-C2'	5.18	112.27	107.60
33	L1	55	G	N9-C1'-C2'	-5.18	106.30	112.00
33	L1	859	G	C3'-C2'-C1'	5.18	105.65	101.50
33	L1	881	G	N9-C1'-C2'	5.18	120.74	114.00
33	L1	1244	A	P-O3'-C3'	5.18	125.92	119.70
33	L1	2659	A	C4'-C3'-C2'	5.18	107.78	102.60
37	LB	28	ARG	CD-NE-CZ	-5.18	116.34	123.60
48	LV	61	ARG	CA-CB-CG	5.18	124.81	113.40
50	LZ	40	ARG	NE-CZ-NH2	5.18	122.89	120.30
57	L1	8	PHE	CD1-CE1-CZ	-5.18	113.88	120.10
66	LN	88	SER	C-N-CA	5.18	134.66	121.70
1	Sa	4	VAL	C-N-CA	5.18	134.66	121.70
4	SD	216	HIS	N-CA-C	5.18	124.99	111.00
14	SP	61	PHE	CB-CG-CD1	5.18	124.43	120.80
32	S1	359	G	N9-C1'-C2'	5.18	120.74	114.00
32	S1	1059	U	C3'-C2'-C1'	-5.18	97.35	101.50
33	L1	232	C	C1'-O4'-C4'	-5.18	105.75	109.90
33	L1	513	C	C5'-C4'-O4'	-5.18	102.88	109.10
35	L2	48	A	O4'-C4'-C3'	-5.18	98.82	104.00
32	S1	1149	U	O4'-C1'-C2'	-5.18	100.62	105.80
32	S1	1303	G	O3'-P-O5'	-5.18	94.16	104.00
33	L1	1810	G	O4'-C1'-C2'	-5.18	100.62	105.80
33	L1	2247	A	C2'-C3'-O3'	5.18	121.99	113.70
33	L1	2840	A	O4'-C1'-C2'	5.18	112.26	107.60
23	SU	94	LYS	N-CA-C	-5.18	97.02	111.00
32	S1	1157	A	N9-C1'-C2'	-5.18	106.30	112.00
32	S1	1334	G	O4'-C1'-N9	5.18	112.34	108.20
33	L1	430	G	O4'-C1'-C2'	5.18	112.26	107.60
33	L1	1067	G	OP2-P-O3'	5.18	116.60	105.20
33	L1	2371	A	N9-C1'-C2'	5.18	120.73	114.00
33	L1	3209	U	O5'-C5'-C4'	5.18	121.54	111.70
33	L1	3347	U	C4'-C3'-C2'	-5.18	97.42	102.60
44	LR	37	VAL	CA-CB-CG2	-5.18	103.13	110.90
47	LU	133	ALA	N-CA-CB	5.18	117.35	110.10
70	Li	11	HIS	C-N-CA	5.18	134.65	121.70
2	SA	59	TRP	CB-CG-CD2	-5.18	119.87	126.60
11	SM	34	LYS	N-CA-CB	-5.18	101.28	110.60
32	S1	1563	A	C4'-C3'-C2'	5.18	107.78	102.60
33	L1	649	A	C1'-O4'-C4'	-5.18	105.76	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
77	Lc	19	LEU	CB-CG-CD1	5.18	119.80	111.00
14	SP	89	ARG	NE-CZ-NH1	5.18	122.89	120.30
25	SC	53	ARG	NE-CZ-NH1	5.18	122.89	120.30
32	S1	858	G	O4'-C1'-C2'	-5.18	100.62	105.80
32	S1	920	A	O4'-C1'-N9	5.18	112.34	108.20
32	S1	1772	A	C5'-C4'-O4'	5.18	115.31	109.10
33	L1	225	G	N9-C1'-C2'	5.18	120.73	114.00
33	L1	551	A	O4'-C1'-C2'	-5.18	100.62	105.80
33	L1	1082	U	OP2-P-O3'	5.18	116.59	105.20
33	L1	1625	G	C1'-O4'-C4'	5.18	114.04	109.90
33	L1	1759	C	C3'-C2'-C1'	5.18	105.64	101.50
33	L1	1786	G	O5'-P-OP2	5.18	116.91	110.70
33	L1	2197	C	N1-C1'-C2'	5.18	120.73	114.00
33	L1	2804	A	C4'-C3'-C2'	5.18	107.78	102.60
33	L1	3070	G	C1'-O4'-C4'	-5.18	105.76	109.90
33	L1	3288	A	P-O5'-C5'	5.18	129.18	120.90
33	L1	3317	G	N9-C1'-C2'	-5.18	106.31	112.00
38	LE	139	ARG	N-CA-CB	-5.18	101.28	110.60
67	LS	82	ARG	NE-CZ-NH2	-5.18	117.71	120.30
81	LD	207	ASN	O-C-N	-5.18	114.42	122.70
82	LK	132	LEU	N-CA-CB	5.18	120.75	110.40
3	SB	35	SER	C-N-CA	5.17	133.17	122.30
3	SB	76	ARG	N-CA-C	5.17	124.97	111.00
7	SI	54	ALA	CB-CA-C	-5.17	102.34	110.10
23	SU	78	PHE	CB-CG-CD1	5.17	124.42	120.80
32	S1	558	C	O4'-C1'-N1	-5.17	104.06	108.20
32	S1	1143	A	C5'-C4'-C3'	-5.17	107.72	116.00
33	L1	1547	G	O4'-C1'-C2'	-5.17	100.62	105.80
33	L1	1818	C	C4'-C3'-O3'	5.17	123.35	113.00
33	L1	1868	C	P-O3'-C3'	5.17	125.91	119.70
33	L1	2941	G	N9-C1'-C2'	5.17	120.73	114.00
67	LS	53	VAL	CB-CA-C	5.17	121.23	111.40
2	SA	228	ASP	O-C-N	-5.17	114.42	122.70
23	SU	94	LYS	C-N-CA	5.17	134.63	121.70
32	S1	1494	G	C5'-C4'-C3'	5.17	124.28	116.00
33	L1	2380	G	C3'-C2'-C1'	-5.17	97.36	101.50
67	LS	111	GLU	CB-CA-C	5.17	120.75	110.40
78	Le	203	PHE	CB-CG-CD1	-5.17	117.18	120.80
16	SR	116	ILE	CB-CA-C	-5.17	101.26	111.60
23	SU	38	ALA	N-CA-C	5.17	124.96	111.00
32	S1	300	U	O4'-C1'-C2'	-5.17	100.63	105.80
32	S1	790	U	P-O5'-C5'	5.17	129.17	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	828	G	O4'-C1'-C2'	5.17	112.25	107.60
32	S1	1170	G	O4'-C1'-N9	5.17	112.34	108.20
33	L1	381	G	C3'-C2'-C1'	5.17	105.64	101.50
33	L1	905	G	C4'-C3'-C2'	-5.17	97.43	102.60
33	L1	1034	U	O4'-C4'-C3'	-5.17	98.83	104.00
33	L1	1268	G	OP1-P-OP2	-5.17	111.84	119.60
33	L1	1392	U	C5'-C4'-C3'	-5.17	107.73	116.00
33	L1	3296	C	O4'-C1'-C2'	-5.17	100.63	105.80
48	LV	27	LYS	CB-CA-C	5.17	120.74	110.40
48	LV	55	LYS	CB-CA-C	5.17	120.74	110.40
51	LY	3	ARG	N-CA-C	5.17	124.96	111.00
51	LY	74	ARG	NH1-CZ-NH2	-5.17	113.71	119.40
80	LC	120	LYS	N-CA-CB	5.17	119.91	110.60
33	L1	856	G	O3'-P-O5'	-5.17	94.18	104.00
33	L1	2770	U	N1-C1'-C2'	-5.17	106.31	112.00
32	S1	1043	C	C3'-C2'-C1'	5.17	105.64	101.50
32	S1	1283	C	N1-C1'-C2'	5.17	120.72	114.00
32	S1	1310	C	N1-C1'-C2'	5.17	120.72	114.00
32	S1	1492	G	P-O3'-C3'	-5.17	113.50	119.70
32	S1	1514	G	C5'-C4'-O4'	5.17	115.30	109.10
33	L1	159	G	C3'-C2'-C1'	-5.17	97.37	101.50
33	L1	819	A	P-O5'-C5'	-5.17	112.63	120.90
33	L1	1176	U	O4'-C1'-N1	5.17	112.33	108.20
33	L1	2714	U	C4'-C3'-C2'	-5.17	97.43	102.60
33	L1	2717	G	C1'-O4'-C4'	-5.17	105.77	109.90
34	L3	115	A	O4'-C4'-C3'	-5.17	98.83	104.00
73	Lp	50	LYS	C-N-CA	5.17	134.62	121.70
76	Lw	41	LEU	N-CA-CB	5.17	120.74	110.40
1	Sa	269	ASP	CB-CA-C	5.17	120.73	110.40
9	SK	52	LEU	C-N-CA	5.17	134.62	121.70
33	L1	542	G	C5'-C4'-C3'	5.17	124.27	116.00
33	L1	875	A	C4'-C3'-C2'	5.17	107.77	102.60
33	L1	1767	G	N9-C1'-C2'	-5.17	106.32	112.00
33	L1	1921	U	P-O5'-C5'	-5.17	112.63	120.90
33	L1	2145	C	C1'-O4'-C4'	5.17	114.03	109.90
33	L1	2335	U	N1-C1'-C2'	5.17	120.72	114.00
33	L1	2515	C	C5'-C4'-C3'	-5.17	107.73	116.00
39	LF	188	GLU	N-CA-CB	5.17	119.90	110.60
43	LO	77	ARG	NH1-CZ-NH2	5.17	125.08	119.40
78	Le	68	LYS	CA-CB-CG	5.17	124.76	113.40
9	SK	71	TYR	CA-C-N	5.17	128.56	117.20
25	SC	55	ARG	NH1-CZ-NH2	-5.17	113.72	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	187	C	OP1-P-OP2	-5.17	111.85	119.60
32	S1	286	C	C3'-C2'-C1'	5.17	105.63	101.50
32	S1	884	G	O4'-C1'-C2'	5.17	112.25	107.60
32	S1	1746	U	C1'-O4'-C4'	-5.17	105.77	109.90
33	L1	260	U	C5'-C4'-C3'	-5.17	107.74	116.00
33	L1	1899	U	OP1-P-O3'	-5.17	93.84	105.20
33	L1	2028	C	C3'-C2'-C1'	5.17	105.63	101.50
31	S2	49	G	C3'-C2'-C1'	-5.16	97.37	101.50
31	S2	60	C	O4'-C1'-N1	5.16	112.33	108.20
33	L1	310	C	C1'-O4'-C4'	-5.16	105.77	109.90
33	L1	548	G	C5'-C4'-O4'	5.16	115.30	109.10
33	L1	564	A	P-O3'-C3'	-5.16	113.50	119.70
33	L1	1394	C	OP1-P-O3'	5.16	116.56	105.20
33	L1	1625	G	O4'-C4'-C3'	-5.16	98.84	104.00
33	L1	1798	C	C4'-C3'-C2'	-5.16	97.44	102.60
33	L1	2161	G	C5'-C4'-C3'	5.16	124.26	116.00
33	L1	2388	C	O5'-P-OP1	5.16	116.90	110.70
33	L1	2476	G	C5'-C4'-C3'	5.16	124.26	116.00
33	L1	2999	G	P-O3'-C3'	5.16	125.90	119.70
35	L2	143	C	C3'-C2'-C1'	5.16	105.63	101.50
46	LT	91	THR	C-N-CA	5.16	134.61	121.70
66	LN	85	GLU	OE1-CD-OE2	5.16	129.50	123.30
8	SJ	119	VAL	CA-CB-CG2	-5.16	103.16	110.90
32	S1	195	A	O4'-C1'-N9	5.16	112.33	108.20
32	S1	913	U	O4'-C1'-C2'	-5.16	100.64	105.80
32	S1	1167	C	C3'-C2'-C1'	5.16	105.63	101.50
32	S1	1730	G	C1'-O4'-C4'	5.16	114.03	109.90
55	Lg	59	ILE	CA-C-O	5.16	130.94	120.10
71	Lj	75	VAL	CA-CB-CG1	5.16	118.64	110.90
81	LD	394	PHE	C-N-CA	5.16	134.60	121.70
31	S2	51	G	C1'-O4'-C4'	-5.16	105.77	109.90
32	S1	144	U	C1'-O4'-C4'	-5.16	105.77	109.90
32	S1	309	C	P-O3'-C3'	-5.16	113.51	119.70
32	S1	1225	A	OP1-P-OP2	-5.16	111.86	119.60
32	S1	1402	C	OP1-P-O3'	5.16	116.56	105.20
32	S1	1572	U	O4'-C1'-N1	-5.16	104.07	108.20
33	L1	1389	C	C1'-O4'-C4'	5.16	114.03	109.90
33	L1	1400	C	N1-C1'-C2'	5.16	120.71	114.00
33	L1	1636	C	O4'-C1'-N1	5.16	112.33	108.20
33	L1	2225	C	O4'-C1'-N1	-5.16	104.07	108.20
33	L1	2512	U	C5'-C4'-C3'	5.16	124.26	116.00
36	LA	40	TYR	CG-CD2-CE2	-5.16	117.17	121.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	LE	38	VAL	CB-CA-C	5.16	121.20	111.40
38	LE	69	CYS	CA-CB-SG	-5.16	104.71	114.00
45	LQ	124	VAL	N-CA-C	-5.16	97.07	111.00
80	LC	357	GLU	N-CA-CB	5.16	119.89	110.60
11	SM	130	ARG	CB-CA-C	5.16	120.72	110.40
29	ST	28	ASP	CB-CA-C	5.16	120.72	110.40
33	L1	699	C	N1-C1'-C2'	5.16	120.71	114.00
33	L1	1561	U	O5'-P-OP1	5.16	116.89	110.70
33	L1	1960	C	C3'-C2'-C1'	5.16	105.63	101.50
33	L1	2269	U	C1'-O4'-C4'	-5.16	105.77	109.90
33	L1	2333	U	O4'-C4'-C3'	-5.16	98.84	104.00
33	L1	2353	C	N1-C1'-C2'	5.16	120.71	114.00
33	L1	2841	G	C1'-O4'-C4'	-5.16	105.77	109.90
33	L1	3174	C	OP1-P-OP2	-5.16	111.86	119.60
67	LS	83	TYR	CB-CG-CD2	5.16	124.09	121.00
80	LC	21	ARG	NE-CZ-NH2	5.16	122.88	120.30
80	LC	116	ARG	CB-CG-CD	5.16	125.01	111.60
2	SA	189	MET	C-N-CA	5.16	134.59	121.70
13	SQ	86	PRO	N-CA-C	5.16	125.51	112.10
32	S1	177	C	N1-C1'-C2'	-5.16	106.33	112.00
33	L1	1434	G	O4'-C1'-N9	-5.16	104.07	108.20
32	S1	632	G	O5'-P-OP1	5.16	116.89	110.70
32	S1	877	G	C1'-O4'-C4'	5.16	114.03	109.90
33	L1	1083	C	C5'-C4'-C3'	-5.16	107.75	116.00
33	L1	1122	C	P-O5'-C5'	5.16	129.15	120.90
33	L1	1254	A	P-O5'-C5'	5.16	129.15	120.90
33	L1	3233	C	C4'-C3'-C2'	5.16	107.76	102.60
2	SA	161	VAL	CA-CB-CG1	-5.15	103.17	110.90
32	S1	1720	G	O4'-C1'-C2'	5.15	112.24	107.60
33	L1	19	C	O4'-C4'-C3'	-5.15	98.85	104.00
33	L1	125	G	P-O5'-C5'	-5.15	112.65	120.90
33	L1	1887	A	N9-C1'-C2'	-5.15	106.33	112.00
33	L1	3317	G	C2'-C3'-O3'	5.15	121.95	113.70
41	LM	72	LEU	O-C-N	-5.15	114.45	122.70
71	Lj	94	PRO	CA-C-N	5.15	131.53	117.10
3	SB	152	PHE	CB-CG-CD2	-5.15	117.19	120.80
3	SB	178	ARG	CG-CD-NE	5.15	122.62	111.80
9	SK	35	SER	N-CA-CB	5.15	118.23	110.50
32	S1	1021	C	C3'-C2'-C1'	5.15	105.62	101.50
33	L1	120	G	P-O3'-C3'	-5.15	113.52	119.70
33	L1	161	C	O4'-C1'-N1	5.15	112.32	108.20
33	L1	552	G	C3'-C2'-C1'	5.15	105.62	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	792	A	O4'-C1'-N9	5.15	112.32	108.20
33	L1	2395	G	O5'-P-OP1	5.15	116.88	110.70
33	L1	2773	G	C4'-C3'-C2'	-5.15	97.45	102.60
45	LQ	52	LYS	CA-C-N	5.15	128.53	117.20
57	L1	49	TRP	CB-CG-CD2	5.15	133.30	126.60
2	SA	43	TYR	CB-CA-C	5.15	120.70	110.40
32	S1	9	U	C1'-O4'-C4'	-5.15	105.78	109.90
32	S1	154	A	C1'-O4'-C4'	5.15	114.02	109.90
32	S1	471	G	N9-C1'-C2'	-5.15	106.33	112.00
32	S1	849	G	C1'-O4'-C4'	5.15	114.02	109.90
32	S1	1363	G	P-O5'-C5'	5.15	129.14	120.90
32	S1	1465	C	C1'-O4'-C4'	5.15	114.02	109.90
33	L1	206	C	P-O3'-C3'	-5.15	113.52	119.70
33	L1	748	C	N1-C1'-C2'	5.15	120.69	114.00
33	L1	1181	A	OP1-P-OP2	-5.15	111.87	119.60
33	L1	1470	A	C3'-C2'-C1'	-5.15	97.38	101.50
33	L1	1632	G	C1'-O4'-C4'	-5.15	105.78	109.90
33	L1	1791	U	P-O3'-C3'	5.15	125.88	119.70
33	L1	2004	U	C5'-C4'-O4'	5.15	115.28	109.10
33	L1	3083	C	C5'-C4'-O4'	-5.15	102.92	109.10
33	L1	3301	G	C1'-O4'-C4'	5.15	114.02	109.90
33	L1	3302	A	N9-C1'-C2'	-5.15	106.33	112.00
66	LN	33	GLN	CA-CB-CG	5.15	124.73	113.40
78	Le	173	GLU	N-CA-CB	5.15	119.87	110.60
29	ST	10	ASP	C-N-CA	5.15	134.57	121.70
32	S1	331	U	C3'-C2'-C1'	5.15	105.62	101.50
32	S1	1716	C	C1'-O4'-C4'	-5.15	105.78	109.90
33	L1	1591	A	O3'-P-O5'	-5.15	94.22	104.00
33	L1	1769	C	C3'-C2'-C1'	5.15	105.62	101.50
33	L1	2106	U	O5'-P-OP1	-5.15	101.07	105.70
32	S1	11	A	C4'-C3'-C2'	-5.15	97.45	102.60
32	S1	64	U	P-O3'-C3'	5.15	125.88	119.70
32	S1	138	C	C5'-C4'-O4'	5.15	115.28	109.10
32	S1	692	C	C5'-C4'-O4'	5.15	115.28	109.10
32	S1	1020	U	C3'-C2'-C1'	5.15	105.62	101.50
33	L1	304	A	C3'-C2'-C1'	-5.15	97.38	101.50
33	L1	819	A	O5'-C5'-C4'	-5.15	101.92	111.70
33	L1	844	A	N9-C1'-C2'	5.15	120.69	114.00
33	L1	1246	G	O5'-C5'-C4'	5.15	121.48	111.70
33	L1	2614	U	O4'-C1'-N1	5.15	112.32	108.20
33	L1	2661	G	C5'-C4'-O4'	-5.15	102.92	109.10
35	L2	93	A	C5'-C4'-C3'	5.15	124.23	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	LM	70	PRO	CB-CA-C	-5.15	99.13	112.00
44	LR	25	TYR	CB-CA-C	5.15	120.70	110.40
55	Lg	20	TYR	CB-CG-CD2	-5.15	117.91	121.00
7	SI	65	ARG	NE-CZ-NH2	-5.15	117.73	120.30
32	S1	244	C	OP1-P-OP2	-5.15	111.88	119.60
32	S1	1146	G	C5'-C4'-C3'	-5.15	107.77	116.00
33	L1	941	C	C1'-O4'-C4'	-5.15	105.78	109.90
33	L1	1117	U	C5'-C4'-C3'	-5.15	107.77	116.00
33	L1	1950	G	C1'-O4'-C4'	5.15	114.02	109.90
33	L1	2641	A	O4'-C1'-C2'	-5.15	100.65	105.80
33	L1	2840	A	N9-C1'-C2'	5.15	120.69	114.00
33	L1	3160	G	O4'-C1'-N9	5.15	112.32	108.20
39	LF	170	ASP	N-CA-CB	5.15	119.86	110.60
47	LU	154	TYR	CB-CG-CD1	-5.15	117.91	121.00
56	Lh	37	LYS	N-CA-C	5.15	124.89	111.00
13	SQ	78	ARG	NH1-CZ-NH2	-5.14	113.74	119.40
20	SZ	7	SER	C-N-CA	5.14	134.56	121.70
32	S1	447	C	C4'-C3'-C2'	-5.14	97.45	102.60
32	S1	946	A	P-O5'-C5'	-5.14	112.67	120.90
32	S1	1013	G	O4'-C1'-N9	5.14	112.32	108.20
32	S1	1363	G	C1'-O4'-C4'	-5.14	105.78	109.90
33	L1	38	A	N9-C1'-C2'	-5.14	106.34	112.00
33	L1	518	G	OP1-P-OP2	-5.14	111.88	119.60
33	L1	1335	C	N1-C1'-C2'	5.14	120.69	114.00
33	L1	1375	G	P-O3'-C3'	-5.14	113.53	119.70
33	L1	1602	A	C2'-C3'-O3'	5.14	121.93	113.70
33	L1	1890	C	C2'-C3'-O3'	5.14	121.93	113.70
33	L1	2802	G	P-O5'-C5'	5.14	129.13	120.90
64	LG	188	LEU	CD1-CG-CD2	5.14	125.93	110.50
4	SD	67	GLN	CA-C-N	-5.14	105.89	117.20
8	SJ	82	GLY	N-CA-C	-5.14	100.24	113.10
32	S1	5	U	P-O5'-C5'	-5.14	112.67	120.90
32	S1	119	U	C4'-C3'-C2'	-5.14	97.46	102.60
32	S1	575	G	O4'-C1'-C2'	5.14	112.23	107.60
32	S1	943	G	O4'-C1'-C2'	5.14	112.23	107.60
32	S1	1364	C	O4'-C4'-C3'	-5.14	98.86	104.00
32	S1	1649	C	P-O3'-C3'	5.14	125.87	119.70
32	S1	1761	G	C4'-C3'-C2'	-5.14	97.46	102.60
33	L1	337	C	C5'-C4'-C3'	-5.14	107.77	116.00
33	L1	428	G	N9-C1'-C2'	5.14	120.69	114.00
33	L1	764	A	O4'-C1'-C2'	-5.14	100.66	105.80
33	L1	1137	G	O5'-P-OP2	-5.14	101.07	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2668	U	OP1-P-O3'	5.14	116.51	105.20
34	L3	34	C	C1'-O4'-C4'	-5.14	105.79	109.90
66	LN	93	LEU	CB-CG-CD2	5.14	119.74	111.00
68	LW	39	ALA	CB-CA-C	5.14	117.81	110.10
32	S1	969	U	O4'-C1'-C2'	-5.14	100.66	105.80
33	L1	1268	G	P-O5'-C5'	5.14	129.12	120.90
33	L1	2494	A	O3'-P-O5'	-5.14	94.23	104.00
33	L1	3042	U	C5'-C4'-O4'	5.14	115.27	109.10
43	LO	3	THR	CA-C-O	5.14	130.90	120.10
6	SF	87	ARG	NE-CZ-NH1	5.14	122.87	120.30
25	SC	25	ARG	CD-NE-CZ	-5.14	116.41	123.60
32	S1	1728	G	N9-C1'-C2'	5.14	120.68	114.00
33	L1	967	G	C5'-C4'-C3'	-5.14	107.78	116.00
33	L1	1575	G	O5'-P-OP2	-5.14	101.08	105.70
33	L1	3002	U	O4'-C1'-C2'	5.14	112.23	107.60
33	L1	3331	G	O4'-C1'-C2'	5.14	112.23	107.60
79	Ls	121	PRO	CB-CA-C	5.14	124.85	112.00
4	SD	48	ILE	CG1-CB-CG2	5.14	122.70	111.40
33	L1	1966	C	N1-C1'-C2'	5.14	120.68	114.00
33	L1	2135	U	C5'-C4'-O4'	5.14	115.27	109.10
3	SB	182	LEU	C-N-CA	5.14	133.09	122.30
32	S1	1699	C	N1-C1'-C2'	5.14	120.68	114.00
33	L1	407	A	O3'-P-O5'	5.14	113.76	104.00
33	L1	904	G	P-O3'-C3'	5.14	125.86	119.70
33	L1	2221	U	O5'-P-OP1	5.14	116.86	110.70
33	L1	2354	G	OP1-P-OP2	-5.14	111.89	119.60
33	L1	3156	G	C5'-C4'-C3'	-5.14	107.78	116.00
45	LQ	145	LEU	N-CA-CB	-5.14	100.13	110.40
48	LV	63	TYR	CA-C-O	5.14	130.89	120.10
52	Lb	79	LYS	N-CA-C	-5.14	97.13	111.00
60	Lr	86	LYS	N-CA-CB	5.14	119.85	110.60
66	LN	111	MET	N-CA-C	5.14	124.87	111.00
80	LC	350	THR	CA-C-N	5.14	128.50	117.20
11	SM	89	ASP	CB-CG-OD1	5.13	122.92	118.30
24	SX	70	GLY	C-N-CA	5.13	133.08	122.30
28	SN	30	LEU	O-C-N	5.13	130.91	122.70
32	S1	691	A	P-O3'-C3'	-5.13	113.54	119.70
32	S1	1007	G	C5'-C4'-C3'	5.13	124.21	116.00
32	S1	1101	C	O4'-C1'-N1	5.13	112.31	108.20
32	S1	1747	A	C4'-C3'-C2'	-5.13	97.47	102.60
32	S1	1809	U	O5'-P-OP2	-5.13	101.08	105.70
33	L1	720	G	N9-C1'-C2'	-5.13	106.35	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1539	G	P-O5'-C5'	5.13	129.12	120.90
33	L1	1983	U	O4'-C1'-N1	5.13	112.31	108.20
48	LV	69	ARG	CB-CG-CD	5.13	124.95	111.60
64	LG	59	ARG	O-C-N	-5.13	114.48	122.70
66	LN	15	VAL	O-C-N	-5.13	114.48	122.70
71	Lj	41	THR	CA-CB-CG2	5.13	119.59	112.40
81	LD	316	ARG	CD-NE-CZ	-5.13	116.41	123.60
31	S2	57	A	OP1-P-OP2	-5.13	111.90	119.60
33	L1	533	G	C4'-C3'-C2'	-5.13	97.47	102.60
33	L1	1321	A	O5'-P-OP2	-5.13	101.08	105.70
32	S1	875	C	C3'-C2'-C1'	5.13	105.61	101.50
33	L1	739	C	N1-C1'-C2'	5.13	120.67	114.00
33	L1	1167	G	C1'-O4'-C4'	-5.13	105.80	109.90
33	L1	1430	C	C5'-C4'-C3'	5.13	124.21	116.00
33	L1	1649	G	C5'-C4'-O4'	-5.13	102.94	109.10
38	LE	31	ARG	CB-CA-C	-5.13	100.14	110.40
81	LD	208	ARG	O-C-N	-5.13	114.49	122.70
14	SP	44	LYS	CD-CE-NZ	5.13	123.50	111.70
32	S1	435	C	N1-C1'-C2'	5.13	120.67	114.00
32	S1	506	G	O4'-C1'-N9	5.13	112.30	108.20
32	S1	1337	C	C3'-C2'-C1'	5.13	105.60	101.50
33	L1	900	C	C1'-O4'-C4'	-5.13	105.80	109.90
33	L1	1612	C	P-O3'-C3'	-5.13	113.54	119.70
33	L1	1648	C	C1'-O4'-C4'	5.13	114.00	109.90
33	L1	3209	U	O4'-C1'-N1	5.13	112.30	108.20
33	L1	3332	G	O4'-C1'-N9	5.13	112.30	108.20
42	LP	103	GLU	CB-CG-CD	-5.13	100.35	114.20
77	Lc	105	LEU	O-C-N	-5.13	114.49	122.70
79	Ls	208	ASP	CB-CG-OD1	5.13	122.92	118.30
1	Sa	142	ASP	CB-CG-OD2	5.13	122.92	118.30
32	S1	128	G	O4'-C1'-N9	5.13	112.30	108.20
32	S1	715	U	OP2-P-O3'	5.13	116.48	105.20
40	LH	137	TYR	CB-CG-CD1	-5.13	117.92	121.00
64	LG	55	ASP	CA-CB-CG	-5.13	102.12	113.40
32	S1	418	C	C3'-C2'-C1'	5.13	105.60	101.50
32	S1	776	A	C4'-C3'-O3'	-5.13	98.63	109.40
32	S1	913	U	C1'-O4'-C4'	5.13	114.00	109.90
32	S1	1629	U	N1-C1'-C2'	-5.13	106.36	112.00
32	S1	1662	G	C5'-C4'-C3'	-5.13	107.80	116.00
33	L1	98	A	O4'-C1'-N9	5.13	112.30	108.20
33	L1	445	C	C1'-O4'-C4'	5.13	114.00	109.90
33	L1	1466	U	P-O5'-C5'	5.13	129.10	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1897	A	C1'-O4'-C4'	-5.13	105.80	109.90
33	L1	2288	C	O4'-C1'-N1	-5.13	104.10	108.20
33	L1	3062	G	P-O5'-C5'	5.13	129.10	120.90
46	LT	52	ARG	CA-CB-CG	5.13	124.68	113.40
48	LV	111	ASP	O-C-N	5.13	130.90	122.70
64	LG	91	LYS	CB-CG-CD	5.13	124.93	111.60
67	LS	72	THR	C-N-CA	5.13	134.52	121.70
32	S1	175	A	OP1-P-OP2	-5.12	111.91	119.60
32	S1	777	A	C5'-C4'-C3'	-5.12	107.80	116.00
32	S1	1558	A	C5'-C4'-O4'	5.12	115.25	109.10
33	L1	1706	C	O4'-C1'-C2'	-5.12	100.67	105.80
33	L1	3111	C	C4'-C3'-C2'	-5.12	97.47	102.60
60	Lr	32	LYS	N-CA-CB	-5.12	101.38	110.60
82	LK	193	LYS	N-CA-C	5.12	124.84	111.00
4	SD	107	GLY	CA-C-N	5.12	128.47	117.20
29	ST	27	LYS	C-N-CA	5.12	134.51	121.70
32	S1	98	C	C3'-C2'-C1'	5.12	105.60	101.50
32	S1	1551	A	O4'-C1'-N9	5.12	112.30	108.20
32	S1	1755	G	C1'-O4'-C4'	-5.12	105.80	109.90
33	L1	24	C	P-O5'-C5'	-5.12	112.70	120.90
33	L1	959	U	P-O3'-C3'	-5.12	113.55	119.70
33	L1	1462	C	N1-C1'-C2'	5.12	120.66	114.00
33	L1	1953	C	O4'-C1'-C2'	-5.12	100.68	105.80
33	L1	2349	C	C3'-C2'-C1'	-5.12	97.40	101.50
33	L1	2523	G	C3'-C2'-C1'	-5.12	97.40	101.50
33	L1	3222	G	O4'-C1'-C2'	5.12	112.21	107.60
33	L1	3228	C	N1-C1'-C2'	5.12	120.66	114.00
39	LF	88	ARG	CB-CA-C	-5.12	100.15	110.40
42	LP	95	GLN	CG-CD-OE1	-5.12	111.35	121.60
47	LU	9	SER	N-CA-C	5.12	124.83	111.00
48	LV	13	LYS	CB-CG-CD	5.12	124.92	111.60
48	LV	124	GLN	N-CA-C	-5.12	97.17	111.00
64	LG	178	LYS	N-CA-CB	5.12	119.82	110.60
78	Le	135	TYR	CB-CG-CD1	-5.12	117.93	121.00
83	Lm	91	GLU	C-N-CA	5.12	134.51	121.70
5	SE	106	ARG	N-CA-C	-5.12	97.17	111.00
32	S1	181	C	O4'-C4'-C3'	-5.12	98.88	104.00
32	S1	193	G	OP1-P-OP2	-5.12	111.92	119.60
32	S1	547	C	P-O3'-C3'	-5.12	113.56	119.70
32	S1	1746	U	C3'-C2'-C1'	5.12	105.60	101.50
33	L1	316	A	C4'-C3'-C2'	5.12	107.72	102.60
33	L1	1000	A	C5'-C4'-C3'	5.12	124.19	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1316	C	C2'-C3'-O3'	5.12	121.89	113.70
33	L1	1618	U	O3'-P-O5'	-5.12	94.27	104.00
33	L1	1627	U	C4'-C3'-C2'	-5.12	97.48	102.60
33	L1	3291	C	O4'-C1'-C2'	-5.12	100.68	105.80
33	L1	3305	U	O4'-C1'-N1	5.12	112.30	108.20
54	Lf	20	LEU	CA-CB-CG	5.12	127.08	115.30
32	S1	1431	A	C3'-C2'-C1'	5.12	105.60	101.50
33	L1	159	G	O4'-C1'-N9	5.12	112.30	108.20
33	L1	245	C	O4'-C1'-N1	5.12	112.30	108.20
33	L1	1223	U	OP1-P-OP2	-5.12	111.92	119.60
33	L1	1317	G	C4'-C3'-C2'	5.12	107.72	102.60
33	L1	2102	C	O4'-C1'-C2'	-5.12	100.68	105.80
33	L1	3197	C	P-O3'-C3'	5.12	125.84	119.70
35	L2	150	G	P-O3'-C3'	5.12	125.84	119.70
1	Sa	245	TYR	CG-CD1-CE1	5.12	125.39	121.30
27	SH	89	TRP	CA-CB-CG	5.12	123.42	113.70
32	S1	445	A	N9-C1'-C2'	5.12	120.65	114.00
33	L1	212	G	P-O3'-C3'	-5.12	113.56	119.70
33	L1	1206	A	O4'-C4'-C3'	-5.12	98.88	104.00
35	L2	26	U	P-O3'-C3'	-5.12	113.56	119.70
36	LA	210	GLY	C-N-CA	5.12	134.50	121.70
80	LC	238	VAL	CA-CB-CG2	-5.12	103.22	110.90
32	S1	1415	G	C3'-C2'-C1'	5.12	105.59	101.50
32	S1	1521	G	OP1-P-OP2	-5.12	111.92	119.60
33	L1	279	G	OP1-P-O3'	5.12	116.46	105.20
33	L1	526	A	C3'-C2'-C1'	5.12	105.59	101.50
33	L1	1634	G	C2'-C3'-O3'	5.12	121.89	113.70
33	L1	2099	G	N9-C1'-C2'	5.12	120.65	114.00
41	LM	42	VAL	O-C-N	-5.12	114.51	122.70
59	Lo	45	ARG	N-CA-C	5.12	124.82	111.00
66	LN	85	GLU	O-C-N	-5.12	114.51	122.70
77	Lc	117	GLN	C-N-CA	5.12	134.49	121.70
77	Lc	120	PHE	CG-CD2-CE2	-5.12	115.17	120.80
79	Ls	214	LEU	CB-CA-C	5.12	119.92	110.20
25	SC	19	ARG	CB-CA-C	-5.12	100.17	110.40
32	S1	857	A	C3'-C2'-C1'	-5.12	97.41	101.50
33	L1	183	C	C4'-C3'-C2'	-5.12	97.48	102.60
33	L1	1481	C	C1'-O4'-C4'	-5.12	105.81	109.90
33	L1	1630	C	P-O5'-C5'	5.12	129.09	120.90
33	L1	2262	C	O4'-C1'-N1	5.12	112.29	108.20
33	L1	2616	U	C1'-O4'-C4'	-5.12	105.81	109.90
33	L1	2741	G	C3'-C2'-C1'	-5.12	97.41	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	LH	196	LEU	CB-CG-CD1	5.12	119.70	111.00
52	Lb	71	VAL	O-C-N	5.12	130.89	122.70
77	Lc	67	ARG	CD-NE-CZ	-5.12	116.44	123.60
32	S1	1019	G	C1'-O4'-C4'	-5.11	105.81	109.90
32	S1	1244	U	O4'-C1'-C2'	-5.11	100.69	105.80
33	L1	70	A	C3'-C2'-C1'	5.11	105.59	101.50
33	L1	517	G	C3'-C2'-C1'	-5.11	97.41	101.50
33	L1	977	G	O4'-C1'-N9	5.11	112.29	108.20
33	L1	1394	C	C2'-C3'-O3'	5.11	121.88	113.70
33	L1	1498	U	C3'-C2'-C1'	5.11	105.59	101.50
33	L1	1788	C	O4'-C1'-N1	5.11	112.29	108.20
33	L1	2151	G	C2'-C3'-O3'	5.11	121.88	113.70
33	L1	2804	A	O4'-C1'-N9	5.11	112.29	108.20
33	L1	2871	U	C1'-O4'-C4'	-5.11	105.81	109.90
44	LR	41	LYS	N-CA-CB	-5.11	101.40	110.60
20	SZ	5	HIS	CA-C-N	5.11	126.42	116.20
32	S1	109	A	O4'-C1'-N9	5.11	112.29	108.20
33	L1	853	U	C5'-C4'-C3'	5.11	124.18	116.00
33	L1	1264	A	C5'-C4'-O4'	5.11	115.23	109.10
33	L1	3082	G	P-O3'-C3'	5.11	125.83	119.70
35	L2	127	G	N9-C1'-C2'	-5.11	106.38	112.00
64	LG	1	MET	O-C-N	-5.11	114.52	122.70
74	LJ	74	VAL	CA-CB-CG1	5.11	118.57	110.90
33	L1	1041	C	C4'-C3'-C2'	-5.11	97.49	102.60
33	L1	1286	G	C3'-C2'-C1'	5.11	105.59	101.50
33	L1	2419	C	C4'-C3'-C2'	-5.11	97.49	102.60
48	LV	128	ARG	N-CA-CB	5.11	119.80	110.60
64	LG	29	LYS	CA-C-O	-5.11	109.37	120.10
11	SM	132	ARG	NH1-CZ-NH2	-5.11	113.78	119.40
32	S1	731	G	C5'-C4'-C3'	-5.11	107.83	116.00
32	S1	1092	A	C1'-O4'-C4'	5.11	113.99	109.90
40	LH	230	GLY	N-CA-C	-5.11	100.33	113.10
80	LC	235	ARG	NE-CZ-NH2	-5.11	117.75	120.30
14	SP	43	PHE	CB-CG-CD2	5.11	124.38	120.80
28	SN	36	LEU	CB-CG-CD2	5.11	119.68	111.00
32	S1	440	A	C5'-C4'-C3'	-5.11	107.83	116.00
32	S1	1567	G	C5'-C4'-C3'	-5.11	107.83	116.00
32	S1	1583	G	C1'-O4'-C4'	-5.11	105.81	109.90
33	L1	136	C	O4'-C4'-C3'	5.11	110.19	106.10
33	L1	1078	U	C4'-C3'-C2'	-5.11	97.49	102.60
33	L1	1534	C	O4'-C1'-C2'	-5.11	100.69	105.80
33	L1	2588	G	C5'-C4'-C3'	5.11	124.17	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	LV	153	GLU	CB-CG-CD	5.11	127.99	114.20
11	SM	97	GLN	CG-CD-NE2	-5.11	104.44	116.70
32	S1	1653	G	C1'-O4'-C4'	-5.11	105.82	109.90
32	S1	1785	U	N1-C1'-C2'	-5.11	106.38	112.00
33	L1	130	G	C3'-C2'-C1'	-5.11	97.42	101.50
33	L1	268	U	C3'-C2'-C1'	5.11	105.58	101.50
33	L1	958	U	P-O3'-C3'	5.11	125.83	119.70
33	L1	1024	G	C1'-O4'-C4'	-5.11	105.82	109.90
33	L1	2074	C	O4'-C1'-N1	5.11	112.28	108.20
33	L1	2735	G	OP2-P-O3'	5.11	116.43	105.20
56	Lh	8	LYS	O-C-N	-5.11	114.53	122.70
13	SQ	97	ARG	CB-CG-CD	5.10	124.87	111.60
32	S1	964	U	C3'-C2'-C1'	5.10	105.58	101.50
32	S1	1740	G	C5'-C4'-C3'	5.10	124.17	116.00
33	L1	543	C	C1'-C2'-O2'	5.10	125.91	110.60
33	L1	638	G	O4'-C1'-N9	5.10	112.28	108.20
33	L1	928	A	O3'-P-O5'	-5.10	94.30	104.00
33	L1	1443	G	OP1-P-OP2	-5.10	111.94	119.60
33	L1	2176	A	O5'-C5'-C4'	-5.10	102.00	111.70
33	L1	3349	C	P-O3'-C3'	5.10	125.83	119.70
34	L3	5	G	O4'-C1'-C2'	5.10	112.19	107.60
81	LD	351	ARG	C-N-CA	5.10	134.46	121.70
1	Sa	11	HIS	CA-CB-CG	5.10	122.27	113.60
5	SE	149	ARG	NE-CZ-NH2	-5.10	117.75	120.30
25	SC	161	SER	O-C-N	-5.10	114.54	122.70
32	S1	483	C	OP1-P-OP2	-5.10	111.95	119.60
32	S1	799	A	P-O3'-C3'	-5.10	113.58	119.70
32	S1	1330	A	C3'-C2'-C1'	5.10	105.58	101.50
33	L1	208	G	O4'-C1'-N9	5.10	112.28	108.20
33	L1	744	C	O4'-C1'-N1	5.10	112.28	108.20
33	L1	1789	C	C5'-C4'-C3'	-5.10	107.83	116.00
33	L1	2745	C	C5'-C4'-O4'	5.10	115.22	109.10
33	L1	3127	C	O4'-C1'-N1	5.10	112.28	108.20
35	L2	117	U	N1-C1'-C2'	5.10	120.63	114.00
59	Lo	21	ARG	CA-CB-CG	5.10	124.62	113.40
70	Li	10	ARG	NE-CZ-NH2	-5.10	117.75	120.30
72	Lk	111	LYS	N-CA-CB	5.10	119.79	110.60
32	S1	648	C	P-O3'-C3'	5.10	125.82	119.70
32	S1	1293	U	C4'-C3'-C2'	-5.10	97.50	102.60
33	L1	546	C	C2'-C3'-O3'	5.10	121.86	113.70
33	L1	2565	C	C3'-C2'-C1'	5.10	105.58	101.50
33	L1	2660	A	O4'-C1'-N9	-5.10	104.12	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	LV	26	PHE	CB-CG-CD2	-5.10	117.23	120.80
67	LS	61	LEU	CB-CG-CD1	5.10	119.67	111.00
81	LD	253	ARG	NE-CZ-NH1	5.10	122.85	120.30
1	Sa	28	ARG	CA-CB-CG	5.10	124.62	113.40
9	SK	33	PHE	CA-C-N	-5.10	105.98	117.20
15	SS	95	PHE	CB-CG-CD1	-5.10	117.23	120.80
32	S1	245	C	OP1-P-OP2	-5.10	111.95	119.60
32	S1	447	C	C3'-C2'-C1'	5.10	105.58	101.50
33	L1	668	U	O3'-P-O5'	5.10	113.69	104.00
33	L1	1003	G	P-O3'-C3'	5.10	125.82	119.70
33	L1	1164	G	P-O5'-C5'	5.10	129.06	120.90
33	L1	1297	U	P-O5'-C5'	5.10	129.06	120.90
33	L1	1952	U	C3'-C2'-C1'	5.10	105.58	101.50
33	L1	2308	A	C3'-C2'-C1'	5.10	105.58	101.50
33	L1	2758	C	C5'-C4'-O4'	5.10	115.22	109.10
33	L1	2796	G	OP1-P-OP2	-5.10	111.95	119.60
33	L1	3151	C	C4'-C3'-C2'	-5.10	97.50	102.60
66	LN	5	ARG	N-CA-CB	5.10	119.78	110.60
67	LS	154	VAL	C-N-CA	5.10	134.45	121.70
69	La	11	VAL	C-N-CA	5.10	134.45	121.70
78	Le	120	LYS	CB-CA-C	5.10	120.60	110.40
2	SA	60	GLU	OE1-CD-OE2	-5.10	117.18	123.30
29	ST	42	ASN	CA-CB-CG	5.10	124.61	113.40
32	S1	917	U	O3'-P-O5'	-5.10	94.31	104.00
32	S1	1755	G	C3'-C2'-C1'	-5.10	97.42	101.50
33	L1	526	A	C5'-C4'-C3'	-5.10	107.84	116.00
33	L1	1084	G	C1'-O4'-C4'	5.10	113.98	109.90
33	L1	1279	C	P-O5'-C5'	-5.10	112.74	120.90
33	L1	1684	U	C4'-C3'-C2'	-5.10	97.50	102.60
33	L1	2644	U	P-O5'-C5'	5.10	129.06	120.90
33	L1	3000	U	C1'-O4'-C4'	5.10	113.98	109.90
34	L3	73	U	N1-C1'-C2'	-5.10	106.39	112.00
40	LH	224	GLU	C-N-CA	5.10	134.44	121.70
45	LQ	242	LYS	O-C-N	-5.10	114.54	122.70
2	SA	17	GLN	N-CA-CB	5.10	119.77	110.60
32	S1	565	G	O4'-C4'-C3'	-5.10	98.90	104.00
33	L1	2299	C	C1'-O4'-C4'	-5.10	105.82	109.90
33	L1	3162	C	C4'-C3'-C2'	-5.10	97.50	102.60
39	LF	120	LYS	CB-CA-C	5.10	120.59	110.40
49	LX	43	HIS	CA-CB-CG	5.10	122.26	113.60
69	La	40	HIS	N-CA-CB	-5.10	101.43	110.60
74	LJ	16	ARG	N-CA-C	-5.10	97.24	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	SS	23	ALA	CB-CA-C	5.09	117.74	110.10
32	S1	603	A	C5'-C4'-O4'	5.09	115.21	109.10
33	L1	715	A	C2'-C3'-O3'	5.09	121.85	113.70
33	L1	743	C	C3'-C2'-C1'	5.09	105.58	101.50
33	L1	2281	U	C3'-C2'-C1'	5.09	105.58	101.50
33	L1	2571	C	O4'-C1'-N1	5.09	112.28	108.20
33	L1	2677	A	N9-C1'-C2'	-5.09	106.40	112.00
33	L1	2723	G	O3'-P-O5'	-5.09	94.32	104.00
33	L1	2801	A	O5'-P-OP2	-5.09	101.12	105.70
35	L2	102	U	C2'-C3'-O3'	5.09	121.85	113.70
3	SB	167	TYR	CB-CG-CD2	-5.09	117.94	121.00
30	S3	18	C	O5'-P-OP2	5.09	116.81	110.70
33	L1	211	A	P-O3'-C3'	-5.09	113.59	119.70
33	L1	738	A	C1'-O4'-C4'	5.09	113.97	109.90
33	L1	1278	A	O4'-C1'-N9	5.09	112.27	108.20
33	L1	1448	U	P-O3'-C3'	-5.09	113.59	119.70
11	SM	99	VAL	CG1-CB-CG2	-5.09	102.75	110.90
25	SC	164	SER	CA-CB-OG	5.09	124.95	111.20
32	S1	11	A	C1'-O4'-C4'	5.09	113.97	109.90
32	S1	831	C	O4'-C1'-C2'	-5.09	100.71	105.80
32	S1	849	G	C5'-C4'-O4'	5.09	115.21	109.10
33	L1	956	G	C1'-O4'-C4'	-5.09	105.83	109.90
33	L1	3333	C	O3'-P-O5'	5.09	113.67	104.00
35	L2	89	G	P-O5'-C5'	5.09	129.05	120.90
35	L2	98	C	N1-C1'-C2'	5.09	120.62	114.00
49	LX	34	LYS	CA-C-N	5.09	128.40	117.20
69	La	21	ARG	CA-C-N	5.09	128.40	117.20
17	SV	14	LYS	N-CA-C	-5.09	97.26	111.00
25	SC	145	ILE	N-CA-CB	5.09	122.51	110.80
27	SH	84	LYS	C-N-CA	5.09	134.43	121.70
32	S1	371	A	O4'-C1'-N9	5.09	112.27	108.20
32	S1	1131	G	C4'-C3'-C2'	-5.09	97.51	102.60
32	S1	1673	C	O4'-C1'-N1	5.09	112.27	108.20
33	L1	1361	G	C3'-C2'-C1'	-5.09	97.43	101.50
33	L1	1577	A	P-O3'-C3'	5.09	125.81	119.70
33	L1	1581	C	C1'-O4'-C4'	-5.09	105.83	109.90
33	L1	2452	U	C3'-C2'-C1'	5.09	105.57	101.50
33	L1	3002	U	O5'-P-OP2	-5.09	101.12	105.70
33	L1	3338	U	O4'-C4'-C3'	-5.09	98.91	104.00
34	L3	3	A	O5'-P-OP2	-5.09	101.12	105.70
38	LE	94	LEU	N-CA-CB	5.09	120.58	110.40
64	LG	151	LYS	CB-CA-C	5.09	120.58	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	SV	68	GLU	CB-CA-C	5.09	120.58	110.40
32	S1	1479	U	C1'-O4'-C4'	5.09	113.97	109.90
32	S1	1722	C	N1-C1'-C2'	5.09	120.61	114.00
33	L1	3121	C	P-O5'-C5'	5.09	129.04	120.90
41	LM	73	ARG	CA-CB-CG	5.09	124.59	113.40
6	SF	41	HIS	N-CA-CB	5.09	119.75	110.60
14	SP	63	GLY	N-CA-C	-5.09	100.39	113.10
19	SY	2	ASP	N-CA-CB	5.09	119.75	110.60
32	S1	599	G	O3'-P-O5'	5.09	113.66	104.00
32	S1	631	C	C5'-C4'-O4'	-5.09	103.00	109.10
32	S1	840	U	C5'-C4'-C3'	-5.09	107.86	116.00
32	S1	965	U	C4'-C3'-C2'	-5.09	97.51	102.60
33	L1	35	U	O5'-P-OP1	5.09	116.80	110.70
33	L1	1844	U	P-O5'-C5'	5.09	129.04	120.90
33	L1	2741	G	C1'-O4'-C4'	-5.09	105.83	109.90
34	L3	102	G	N9-C1'-C2'	-5.09	106.41	112.00
35	L2	116	U	C3'-C2'-C1'	5.09	105.57	101.50
68	LW	34	LYS	N-CA-CB	5.09	119.75	110.60
3	SB	170	ALA	CB-CA-C	-5.08	102.47	110.10
33	L1	100	C	C3'-C2'-C1'	5.08	105.57	101.50
33	L1	1548	U	P-O3'-C3'	5.08	125.80	119.70
33	L1	1844	U	O4'-C1'-N1	-5.08	104.13	108.20
33	L1	2252	C	N1-C1'-C2'	-5.08	106.41	112.00
33	L1	2756	G	N9-C1'-C2'	-5.08	106.41	112.00
33	L1	3213	A	O4'-C1'-N9	5.08	112.27	108.20
35	L2	31	U	O5'-P-OP2	-5.08	101.12	105.70
8	SJ	79	CYS	N-CA-CB	5.08	119.75	110.60
32	S1	311	G	N9-C1'-C2'	5.08	120.61	114.00
32	S1	1058	G	C4'-C3'-C2'	-5.08	97.52	102.60
32	S1	1157	A	O4'-C1'-N9	5.08	112.27	108.20
32	S1	1298	G	C1'-O4'-C4'	-5.08	105.83	109.90
32	S1	1309	U	P-O3'-C3'	5.08	125.80	119.70
32	S1	1511	A	O4'-C4'-C3'	-5.08	98.92	104.00
33	L1	303	U	O3'-P-O5'	5.08	113.66	104.00
33	L1	818	G	C5'-C4'-O4'	5.08	115.20	109.10
33	L1	949	C	O4'-C1'-C2'	-5.08	100.72	105.80
33	L1	1271	U	C3'-C2'-C1'	-5.08	97.43	101.50
33	L1	1429	U	O5'-P-OP2	5.08	116.80	110.70
33	L1	1974	C	O4'-C1'-C2'	-5.08	100.72	105.80
35	L2	27	C	N1-C1'-C2'	5.08	120.61	114.00
49	LX	134	VAL	O-C-N	-5.08	114.57	122.70
59	Lo	25	TYR	O-C-N	-5.08	114.57	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	LS	116	HIS	N-CA-C	5.08	124.72	111.00
8	SJ	33	LEU	N-CA-CB	5.08	120.56	110.40
32	S1	554	A	N9-C1'-C2'	-5.08	106.41	112.00
32	S1	623	A	OP1-P-OP2	-5.08	111.98	119.60
32	S1	1467	C	O3'-P-O5'	-5.08	94.35	104.00
33	L1	37	U	N1-C1'-C2'	5.08	120.61	114.00
33	L1	233	C	OP1-P-OP2	-5.08	111.98	119.60
33	L1	545	C	C5'-C4'-C3'	5.08	124.13	116.00
33	L1	636	C	O4'-C1'-C2'	-5.08	100.72	105.80
33	L1	1193	A	C1'-O4'-C4'	5.08	113.96	109.90
33	L1	2322	G	O4'-C1'-N9	5.08	112.27	108.20
33	L1	2871	U	P-O5'-C5'	-5.08	112.77	120.90
34	L3	97	G	P-O3'-C3'	-5.08	113.60	119.70
38	LE	73	ILE	CA-CB-CG1	5.08	120.66	111.00
46	LT	23	TRP	CG-CD1-NE1	5.08	115.18	110.10
48	LV	62	ARG	O-C-N	5.08	130.83	122.70
48	LV	70	THR	C-N-CA	5.08	134.40	121.70
32	S1	1103	U	P-O3'-C3'	5.08	125.80	119.70
32	S1	1282	G	O4'-C1'-N9	-5.08	104.14	108.20
32	S1	1288	C	P-O5'-C5'	-5.08	112.77	120.90
33	L1	2952	G	O4'-C4'-C3'	5.08	110.16	106.10
74	LJ	107	LEU	C-N-CA	5.08	134.40	121.70
15	SS	79	GLN	C-N-CA	5.08	134.40	121.70
27	SH	106	THR	C-N-CA	-5.08	109.00	121.70
33	L1	139	U	C1'-O4'-C4'	-5.08	105.84	109.90
33	L1	181	G	C3'-C2'-C1'	-5.08	97.44	101.50
33	L1	616	A	N9-C1'-C2'	-5.08	106.41	112.00
33	L1	815	G	C1'-O4'-C4'	5.08	113.96	109.90
33	L1	1882	A	C5'-C4'-C3'	5.08	124.13	116.00
33	L1	2050	G	O4'-C1'-N9	5.08	112.26	108.20
33	L1	2822	A	C3'-C2'-C1'	5.08	105.56	101.50
45	LQ	131	TYR	CB-CG-CD1	-5.08	117.95	121.00
1	Sa	211	LEU	N-CA-CB	5.08	120.55	110.40
2	SA	44	LYS	CB-CA-C	-5.08	100.25	110.40
13	SQ	21	TYR	CB-CG-CD1	-5.08	117.95	121.00
33	L1	454	A	N9-C1'-C2'	5.08	120.60	114.00
33	L1	2108	C	C1'-O4'-C4'	5.08	113.96	109.90
33	L1	2783	U	C3'-C2'-C1'	-5.08	97.44	101.50
56	Lh	101	VAL	CA-CB-CG2	-5.08	103.28	110.90
33	L1	937	G	C1'-C2'-O2'	5.08	125.82	110.60
33	L1	1052	A	O4'-C1'-C2'	-5.08	100.72	105.80
33	L1	1264	A	O4'-C1'-N9	5.08	112.26	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2420	U	O4'-C1'-N1	5.08	112.26	108.20
33	L1	2508	U	C3'-C2'-C1'	-5.08	97.44	101.50
33	L1	2748	G	C5'-C4'-O4'	5.08	115.19	109.10
33	L1	2995	G	C4'-C3'-C2'	-5.08	97.53	102.60
38	LE	113	ASP	N-CA-CB	5.08	119.74	110.60
42	LP	180	THR	CA-CB-CG2	5.08	119.50	112.40
32	S1	1545	A	O4'-C4'-C3'	-5.07	98.93	104.00
33	L1	230	G	O5'-C5'-C4'	5.07	121.34	111.70
33	L1	534	G	C2'-C3'-O3'	5.07	121.82	113.70
33	L1	609	C	O4'-C1'-N1	5.07	112.26	108.20
33	L1	1191	U	P-O5'-C5'	-5.07	112.78	120.90
33	L1	1866	C	C5'-C4'-C3'	5.07	124.12	116.00
56	Lh	22	HIS	CA-CB-CG	5.07	122.23	113.60
69	La	70	CYS	N-CA-CB	5.07	119.73	110.60
15	SS	45	PHE	C-N-CA	5.07	134.38	121.70
32	S1	877	G	P-O3'-C3'	5.07	125.79	119.70
33	L1	1152	G	C5'-C4'-O4'	5.07	115.19	109.10
33	L1	1666	C	C5'-C4'-C3'	-5.07	107.88	116.00
33	L1	2081	C	N1-C1'-C2'	5.07	120.59	114.00
51	LY	19	PHE	CB-CG-CD1	5.07	124.35	120.80
1	Sa	40	TYR	CB-CG-CD2	-5.07	117.96	121.00
32	S1	215	A	OP1-P-OP2	-5.07	111.99	119.60
32	S1	914	U	O4'-C1'-N1	5.07	112.26	108.20
32	S1	1288	C	C5'-C4'-O4'	5.07	115.18	109.10
33	L1	2462	G	C5'-C4'-C3'	5.07	124.11	116.00
33	L1	2998	A	C4'-C3'-C2'	-5.07	97.53	102.60
51	LY	21	ALA	N-CA-C	5.07	124.69	111.00
68	LW	104	VAL	CA-CB-CG1	5.07	118.50	110.90
11	SM	37	GLY	N-CA-C	-5.07	100.43	113.10
32	S1	1012	C	O4'-C1'-C2'	-5.07	100.73	105.80
33	L1	489	C	O4'-C1'-N1	5.07	112.25	108.20
33	L1	1212	U	O4'-C1'-N1	5.07	112.25	108.20
81	LD	40	VAL	O-C-N	-5.07	114.59	122.70
17	SV	17	LYS	N-CA-C	-5.07	97.31	111.00
32	S1	1782	C	O4'-C1'-N1	5.07	112.25	108.20
33	L1	2641	A	C5'-C4'-O4'	5.07	115.18	109.10
33	L1	3236	A	OP1-P-O3'	5.07	116.35	105.20
41	LM	33	GLY	CA-C-O	-5.07	111.48	120.60
49	LX	77	LEU	CB-CG-CD1	5.07	119.61	111.00
68	LW	103	ARG	C-N-CA	5.07	134.37	121.70
11	SM	34	LYS	CB-CA-C	5.07	120.53	110.40
32	S1	1344	U	C3'-C2'-C1'	5.07	105.55	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	72	A	O4'-C1'-C2'	-5.07	100.73	105.80
33	L1	844	A	O4'-C1'-N9	5.07	112.25	108.20
33	L1	1307	A	N9-C1'-C2'	-5.07	106.43	112.00
33	L1	2659	A	OP1-P-O3'	5.07	116.34	105.20
33	L1	2711	U	C3'-C2'-C1'	-5.07	97.45	101.50
33	L1	2747	U	C5'-C4'-C3'	-5.07	107.89	116.00
50	LZ	25	ARG	NE-CZ-NH1	5.07	122.83	120.30
50	LZ	36	SER	CB-CA-C	-5.07	100.47	110.10
52	Lb	106	GLN	CG-CD-OE1	5.07	131.73	121.60
67	LS	1	MET	CG-SD-CE	-5.07	92.09	100.20
81	LD	24	SER	N-CA-CB	5.07	118.10	110.50
2	SA	21	MET	CG-SD-CE	-5.06	92.10	100.20
15	SS	54	ASP	CB-CA-C	-5.06	100.27	110.40
32	S1	1125	U	O4'-C1'-N1	5.06	112.25	108.20
32	S1	1784	G	N9-C1'-C2'	5.06	120.58	114.00
33	L1	1089	G	P-O3'-C3'	-5.06	113.62	119.70
33	L1	1217	G	C4'-C3'-C2'	-5.06	97.54	102.60
33	L1	1790	A	C3'-C2'-C1'	5.06	105.55	101.50
33	L1	2888	U	O4'-C1'-N1	5.06	112.25	108.20
48	LV	76	ARG	CB-CG-CD	5.06	124.77	111.60
80	LC	230	GLU	CB-CG-CD	-5.06	100.53	114.20
1	Sa	207	ASP	O-C-N	-5.06	114.60	122.70
32	S1	482	A	P-O5'-C5'	5.06	129.00	120.90
32	S1	672	G	O4'-C1'-C2'	5.06	112.16	107.60
32	S1	919	G	C3'-C2'-C1'	5.06	105.55	101.50
32	S1	1351	U	C4'-C3'-C2'	5.06	107.66	102.60
32	S1	1433	A	N9-C1'-C2'	-5.06	106.43	112.00
32	S1	1580	G	C5'-C4'-O4'	5.06	115.18	109.10
32	S1	1637	G	O4'-C1'-C2'	5.06	112.16	107.60
33	L1	468	U	C3'-C2'-C1'	5.06	105.55	101.50
33	L1	921	C	P-O3'-C3'	-5.06	113.63	119.70
33	L1	2547	C	C4'-C3'-C2'	5.06	107.66	102.60
33	L1	2691	U	O4'-C1'-N1	5.06	112.25	108.20
33	L1	2796	G	P-O5'-C5'	-5.06	112.80	120.90
33	L1	3383	C	C4'-C3'-C2'	-5.06	97.54	102.60
49	LX	131	LYS	CA-CB-CG	5.06	124.54	113.40
52	Lb	120	ALA	C-N-CA	5.06	134.36	121.70
55	Lg	105	GLU	N-CA-CB	-5.06	101.49	110.60
80	LC	54	THR	N-CA-CB	5.06	119.92	110.30
32	S1	182	C	C4'-C3'-C2'	-5.06	97.54	102.60
33	L1	46	A	O4'-C1'-N9	5.06	112.25	108.20
33	L1	1020	U	O4'-C1'-C2'	-5.06	100.74	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2918	U	C4'-C3'-C2'	-5.06	97.54	102.60
34	L3	23	A	N9-C1'-C2'	-5.06	106.43	112.00
5	SE	94	PRO	CA-N-CD	-5.06	104.42	111.50
32	S1	603	A	O4'-C1'-N9	5.06	112.25	108.20
33	L1	147	G	C5'-C4'-C3'	5.06	124.10	116.00
33	L1	173	C	O4'-C1'-C2'	-5.06	100.74	105.80
33	L1	388	G	C4'-C3'-C2'	-5.06	97.54	102.60
33	L1	494	C	N1-C1'-C2'	5.06	120.58	114.00
33	L1	899	A	O4'-C1'-N9	5.06	112.25	108.20
33	L1	1817	U	C3'-C2'-C1'	5.06	105.55	101.50
33	L1	2230	C	C1'-C2'-O2'	5.06	125.78	110.60
34	L3	104	C	N1-C1'-C2'	5.06	120.58	114.00
49	LX	70	TYR	CB-CG-CD1	-5.06	117.96	121.00
55	Lg	18	ARG	NE-CZ-NH1	5.06	122.83	120.30
66	LN	3	PHE	CB-CG-CD2	5.06	124.34	120.80
3	SB	136	VAL	O-C-N	-5.06	114.61	122.70
15	SS	98	SER	N-CA-C	-5.06	97.35	111.00
32	S1	946	A	O4'-C1'-C2'	5.06	112.15	107.60
32	S1	1133	C	C5'-C4'-O4'	5.06	115.17	109.10
33	L1	545	C	O4'-C1'-N1	5.06	112.25	108.20
33	L1	1563	G	OP1-P-O3'	5.06	116.33	105.20
33	L1	1636	C	O3'-P-O5'	-5.06	94.39	104.00
33	L1	1830	U	O4'-C1'-N1	-5.06	104.16	108.20
32	S1	904	G	O4'-C1'-N9	5.06	112.25	108.20
33	L1	307	C	O4'-C4'-C3'	-5.06	98.94	104.00
33	L1	1428	G	O5'-P-OP1	-5.06	101.15	105.70
33	L1	2066	G	C4'-C3'-C2'	-5.06	97.54	102.60
33	L1	2204	U	O4'-C4'-C3'	-5.06	98.94	104.00
55	Lg	58	ARG	C-N-CA	5.06	134.34	121.70
72	Lk	48	ARG	CA-C-N	5.06	128.32	117.20
16	SR	60	ARG	NE-CZ-NH1	5.05	122.83	120.30
32	S1	17	C	O4'-C1'-N1	5.05	112.24	108.20
32	S1	985	G	P-O3'-C3'	5.05	125.77	119.70
32	S1	1088	G	C5'-C4'-O4'	5.05	115.16	109.10
33	L1	337	C	O4'-C4'-C3'	5.05	110.14	106.10
33	L1	474	G	C3'-C2'-C1'	-5.05	97.46	101.50
33	L1	1235	A	P-O3'-C3'	-5.05	113.63	119.70
33	L1	1442	U	P-O5'-C5'	5.05	128.99	120.90
33	L1	1560	A	O3'-P-O5'	-5.05	94.40	104.00
33	L1	2335	U	C1'-O4'-C4'	-5.05	105.86	109.90
44	LR	146	ARG	CG-CD-NE	-5.05	101.18	111.80
12	SO	87	ASP	N-CA-CB	5.05	119.69	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1756	A	O4'-C1'-C2'	-5.05	100.75	105.80
33	L1	90	G	P-O3'-C3'	-5.05	113.64	119.70
33	L1	2861	U	P-O3'-C3'	-5.05	113.64	119.70
33	L1	2972	C	C4'-C3'-C2'	-5.05	97.55	102.60
32	S1	1028	A	C4'-C3'-C2'	-5.05	97.55	102.60
32	S1	1070	A	C4'-C3'-C2'	-5.05	97.55	102.60
33	L1	241	G	N9-C1'-C2'	5.05	120.57	114.00
33	L1	534	G	O4'-C1'-N9	-5.05	104.16	108.20
33	L1	715	A	C4'-C3'-C2'	-5.05	97.55	102.60
33	L1	2168	C	C2'-C3'-O3'	5.05	121.78	113.70
33	L1	2516	U	C2'-C3'-O3'	5.05	121.78	113.70
33	L1	2955	U	N1-C1'-C2'	-5.05	106.44	112.00
45	LQ	187	GLU	N-CA-CB	5.05	119.69	110.60
46	LT	52	ARG	NE-CZ-NH1	5.05	122.83	120.30
55	Lg	2	SER	N-CA-C	5.05	124.64	111.00
67	LS	46	PHE	CB-CG-CD2	-5.05	117.26	120.80
67	LS	162	THR	CA-C-N	5.05	128.31	117.20
81	LD	151	VAL	CA-CB-CG2	5.05	118.48	110.90
25	SC	16	LYS	CB-CA-C	5.05	120.50	110.40
32	S1	936	C	C3'-C2'-C1'	5.05	105.54	101.50
32	S1	1139	C	C5'-C4'-O4'	5.05	115.16	109.10
32	S1	1512	C	C5'-C4'-O4'	5.05	115.16	109.10
33	L1	263	A	C3'-C2'-C1'	5.05	105.54	101.50
33	L1	2379	U	OP1-P-O3'	5.05	116.31	105.20
33	L1	2903	G	P-O5'-C5'	-5.05	112.82	120.90
33	L1	3000	U	C5'-C4'-C3'	5.05	124.08	116.00
52	Lb	123	ARG	NE-CZ-NH1	5.05	122.83	120.30
70	Li	71	ARG	N-CA-CB	5.05	119.69	110.60
25	SC	52	SER	N-CA-CB	5.05	118.07	110.50
33	L1	1792	G	N9-C1'-C2'	5.05	120.56	114.00
33	L1	2219	A	P-O5'-C5'	5.05	128.98	120.90
66	LN	103	ASN	CA-C-N	-5.05	106.09	117.20
1	Sa	252	ILE	N-CA-C	-5.05	97.38	111.00
2	SA	188	GLN	C-N-CA	-5.05	109.08	121.70
11	SM	33	ILE	N-CA-C	-5.05	97.38	111.00
31	S2	25	U	C5'-C4'-C3'	5.05	124.07	116.00
31	S2	49	G	P-O5'-C5'	5.05	128.97	120.90
32	S1	437	C	C1'-O4'-C4'	-5.05	105.86	109.90
32	S1	505	U	C3'-C2'-C1'	5.05	105.54	101.50
32	S1	605	A	C5'-C4'-C3'	5.05	124.08	116.00
33	L1	24	C	P-O3'-C3'	-5.05	113.64	119.70
33	L1	348	C	C1'-O4'-C4'	-5.05	105.86	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	643	G	P-O5'-C5'	-5.05	112.82	120.90
33	L1	1514	U	O4'-C4'-C3'	5.05	110.14	106.10
33	L1	1710	G	N9-C1'-C2'	5.05	120.56	114.00
33	L1	2734	C	N1-C1'-C2'	5.05	120.56	114.00
33	L1	3378	U	C1'-O4'-C4'	5.05	113.94	109.90
45	LQ	35	ARG	CB-CG-CD	5.05	124.72	111.60
78	Le	63	GLU	O-C-N	-5.05	114.63	122.70
80	LC	169	ARG	CD-NE-CZ	-5.05	116.53	123.60
32	S1	1801	A	OP1-P-OP2	-5.04	112.03	119.60
33	L1	520	G	O4'-C1'-C2'	5.04	112.14	107.60
33	L1	684	C	O4'-C4'-C3'	-5.04	98.95	104.00
33	L1	1473	U	N1-C1'-C2'	5.04	120.56	114.00
33	L1	2350	C	N1-C1'-C2'	5.04	120.56	114.00
33	L1	2563	G	OP1-P-OP2	-5.04	112.03	119.60
34	L3	28	U	C1'-O4'-C4'	-5.04	105.86	109.90
55	Lg	58	ARG	NE-CZ-NH2	-5.04	117.78	120.30
5	SE	58	ARG	N-CA-CB	5.04	119.68	110.60
29	ST	67	ALA	N-CA-CB	5.04	117.16	110.10
32	S1	189	U	OP1-P-OP2	-5.04	112.03	119.60
32	S1	1309	U	O4'-C1'-N1	5.04	112.23	108.20
33	L1	51	A	O4'-C1'-C2'	-5.04	100.76	105.80
33	L1	1202	C	C3'-C2'-C1'	5.04	105.53	101.50
33	L1	2247	A	C5'-C4'-O4'	5.04	115.15	109.10
33	L1	2800	C	O4'-C1'-N1	-5.04	104.17	108.20
39	LF	95	TYR	CB-CG-CD2	-5.04	117.97	121.00
56	Lh	55	ASN	O-C-N	-5.04	114.63	122.70
67	LS	19	PRO	N-CA-C	5.04	125.21	112.10
67	LS	23	HIS	O-C-N	-5.04	111.52	121.10
32	S1	652	G	O4'-C4'-C3'	-5.04	98.96	104.00
32	S1	1320	C	C1'-O4'-C4'	5.04	113.93	109.90
33	L1	461	A	OP1-P-OP2	-5.04	112.04	119.60
33	L1	1768	U	N1-C1'-C2'	5.04	120.55	114.00
33	L1	1935	G	N9-C1'-C2'	5.04	120.56	114.00
33	L1	3270	C	C3'-C2'-C1'	5.04	105.53	101.50
33	L1	3337	G	O3'-P-O5'	-5.04	94.42	104.00
34	L3	55	A	C4'-C3'-C2'	-5.04	97.56	102.60
48	LV	43	LYS	CB-CA-C	5.04	120.48	110.40
54	Lf	88	TYR	CG-CD1-CE1	-5.04	117.27	121.30
10	SL	8	GLY	CA-C-O	-5.04	111.53	120.60
32	S1	503	U	C5'-C4'-O4'	5.04	115.15	109.10
33	L1	548	G	O4'-C1'-N9	-5.04	104.17	108.20
33	L1	2936	A	C1'-O4'-C4'	5.04	113.93	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	SA	3	ALA	N-CA-CB	5.04	117.15	110.10
32	S1	1083	C	O3'-P-O5'	5.04	113.57	104.00
32	S1	1219	C	C5'-C4'-O4'	5.04	115.15	109.10
32	S1	1757	G	P-O3'-C3'	-5.04	113.66	119.70
33	L1	1210	G	N9-C1'-C2'	-5.04	106.46	112.00
33	L1	2068	G	O4'-C1'-N9	5.04	112.23	108.20
33	L1	2096	U	N1-C1'-C2'	-5.04	106.46	112.00
33	L1	2234	G	O5'-C5'-C4'	5.04	121.27	111.70
42	LP	135	VAL	CA-CB-CG1	5.04	118.46	110.90
68	LW	83	ARG	N-CA-C	5.04	124.60	111.00
32	S1	1361	G	C1'-O4'-C4'	-5.04	105.87	109.90
33	L1	1675	G	O4'-C1'-C2'	-5.04	100.76	105.80
33	L1	1691	U	C5'-C4'-O4'	5.04	115.14	109.10
33	L1	2439	A	C5'-C4'-C3'	5.04	124.06	116.00
48	LV	61	ARG	CD-NE-CZ	5.04	130.65	123.60
80	LC	267	VAL	CB-CA-C	5.04	120.97	111.40
20	SZ	22	ALA	CB-CA-C	5.04	117.66	110.10
25	SC	166	PHE	C-N-CA	5.04	132.87	122.30
31	S2	31	C	C1'-O4'-C4'	-5.04	105.87	109.90
32	S1	220	C	O4'-C1'-N1	5.04	112.23	108.20
33	L1	474	G	OP1-P-OP2	-5.04	112.05	119.60
33	L1	548	G	N9-C1'-C2'	5.04	120.55	114.00
33	L1	1729	G	O4'-C1'-C2'	5.04	112.13	107.60
33	L1	1771	G	N9-C1'-C2'	-5.04	106.46	112.00
33	L1	2645	A	C1'-O4'-C4'	-5.04	105.87	109.90
33	L1	2800	C	C1'-O4'-C4'	-5.04	105.87	109.90
50	LZ	53	TRP	CA-C-N	5.04	128.28	117.20
4	SD	211	GLU	O-C-N	5.03	130.75	122.70
32	S1	13	C	C4'-C3'-C2'	-5.03	97.57	102.60
32	S1	242	A	OP1-P-OP2	-5.03	112.05	119.60
32	S1	883	G	C3'-C2'-C1'	5.03	105.53	101.50
32	S1	997	A	C5'-C4'-C3'	-5.03	107.95	116.00
32	S1	1210	U	O4'-C1'-C2'	-5.03	100.77	105.80
33	L1	279	G	P-O3'-C3'	-5.03	113.66	119.70
33	L1	680	G	C5'-C4'-O4'	5.03	115.14	109.10
33	L1	703	G	C3'-C2'-C1'	5.03	105.53	101.50
33	L1	815	G	C3'-C2'-C1'	5.03	105.53	101.50
33	L1	1027	C	O4'-C1'-C2'	-5.03	100.77	105.80
33	L1	1122	C	O4'-C1'-N1	5.03	112.23	108.20
33	L1	1304	G	O4'-C1'-C2'	5.03	112.13	107.60
33	L1	1672	G	C5'-C4'-C3'	5.03	124.05	116.00
33	L1	2479	C	C5'-C4'-O4'	-5.03	103.06	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	LB	73	LYS	CB-CA-C	5.03	120.47	110.40
42	LP	186	PRO	N-CD-CG	5.03	110.75	103.20
44	LR	6	VAL	CA-CB-CG1	-5.03	103.35	110.90
46	LT	168	ALA	N-CA-CB	5.03	117.15	110.10
59	Lo	51	PHE	CB-CG-CD2	-5.03	117.28	120.80
67	LS	63	ILE	O-C-N	-5.03	114.64	122.70
79	Ls	40	GLN	N-CA-CB	-5.03	101.54	110.60
4	SD	172	PHE	CA-CB-CG	-5.03	101.82	113.90
32	S1	1349	A	O4'-C1'-C2'	-5.03	100.77	105.80
33	L1	1036	C	O5'-C5'-C4'	-5.03	102.14	111.70
33	L1	1308	A	O3'-P-O5'	5.03	113.56	104.00
33	L1	1626	U	N1-C1'-C2'	5.03	120.54	114.00
33	L1	1948	G	O4'-C1'-C2'	-5.03	100.77	105.80
33	L1	3372	C	C4'-C3'-C2'	-5.03	97.57	102.60
34	L3	49	A	O5'-C5'-C4'	-5.03	102.14	111.70
37	LB	34	PHE	O-C-N	-5.03	114.64	123.20
45	LQ	27	ARG	NE-CZ-NH2	-5.03	117.78	120.30
80	LC	165	HIS	O-C-N	-5.03	114.65	122.70
2	SA	70	VAL	CA-CB-CG1	5.03	118.45	110.90
33	L1	1119	G	O4'-C1'-C2'	5.03	112.13	107.60
33	L1	2945	G	O4'-C1'-C2'	5.03	112.13	107.60
35	L2	30	C	P-O5'-C5'	5.03	128.95	120.90
36	LA	212	ARG	C-N-CA	5.03	134.27	121.70
42	LP	1	MET	C-N-CA	5.03	132.86	122.30
43	LO	127	LYS	CB-CA-C	5.03	120.46	110.40
54	Lf	19	GLN	CA-C-O	5.03	130.66	120.10
70	Li	49	LYS	C-N-CA	5.03	134.28	121.70
73	Lp	14	ASN	CB-CG-OD1	-5.03	111.54	121.60
4	SD	49	ARG	NE-CZ-NH2	-5.03	117.78	120.30
32	S1	1789	U	C4'-C3'-C2'	-5.03	97.57	102.60
35	L2	96	A	N9-C1'-C2'	5.03	120.54	114.00
11	SM	81	ASP	CA-C-N	-5.03	106.14	117.20
32	S1	1301	G	C5'-C4'-O4'	5.03	115.13	109.10
32	S1	1770	G	O4'-C1'-N9	5.03	112.22	108.20
33	L1	1790	A	P-O5'-C5'	-5.03	112.86	120.90
33	L1	2397	A	O3'-P-O5'	5.03	113.55	104.00
33	L1	2718	A	P-O5'-C5'	5.03	128.94	120.90
33	L1	3008	U	O4'-C1'-C2'	-5.03	100.77	105.80
33	L1	3310	A	C5'-C4'-O4'	5.03	115.13	109.10
35	L2	123	C	C4'-C3'-C2'	-5.03	97.57	102.60
80	LC	5	LYS	CB-CA-C	-5.03	100.35	110.40
3	SB	91	VAL	CB-CA-C	-5.03	101.85	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	SQ	77	GLU	C-N-CA	5.03	134.26	121.70
32	S1	469	G	N9-C1'-C2'	-5.03	106.47	112.00
33	L1	128	C	C1'-O4'-C4'	-5.03	105.88	109.90
33	L1	627	G	C1'-O4'-C4'	-5.03	105.88	109.90
33	L1	688	G	N9-C1'-C2'	5.03	120.53	114.00
33	L1	778	G	O4'-C1'-N9	5.03	112.22	108.20
33	L1	1276	C	C5'-C4'-O4'	5.03	115.13	109.10
33	L1	1626	U	C5'-C4'-C3'	5.03	124.04	116.00
33	L1	1774	G	C5'-C4'-C3'	5.03	124.04	116.00
33	L1	2641	A	N9-C1'-C2'	5.03	120.53	114.00
33	L1	3352	C	OP2-P-O3'	5.03	116.26	105.20
33	L1	3361	G	C3'-C2'-C1'	5.03	105.52	101.50
37	LB	67	PHE	N-CA-CB	5.03	119.65	110.60
47	LU	38	GLU	N-CA-CB	5.03	119.64	110.60
81	LD	314	VAL	CB-CA-C	-5.03	101.85	111.40
4	SD	93	PRO	N-CA-CB	-5.02	97.07	102.60
14	SP	83	ARG	NH1-CZ-NH2	-5.02	113.87	119.40
17	SV	24	LYS	CB-CA-C	-5.02	100.35	110.40
17	SV	108	ALA	N-CA-CB	5.02	117.13	110.10
32	S1	1041	A	N9-C1'-C2'	-5.02	106.47	112.00
33	L1	494	C	O4'-C4'-C3'	-5.02	98.98	104.00
33	L1	1047	C	C3'-C2'-C1'	5.02	105.52	101.50
33	L1	2073	U	N1-C1'-C2'	5.02	120.53	114.00
70	Li	45	PRO	N-CA-CB	-5.02	97.07	102.60
33	L1	922	U	C5'-C4'-O4'	5.02	115.13	109.10
33	L1	1707	C	O5'-C5'-C4'	-5.02	102.16	111.70
33	L1	2092	C	C1'-O4'-C4'	5.02	113.92	109.90
33	L1	2203	A	C3'-C2'-C1'	-5.02	97.48	101.50
33	L1	2412	A	C1'-O4'-C4'	5.02	113.92	109.90
33	L1	3332	G	N9-C1'-C2'	5.02	120.53	114.00
34	L3	2	G	C5'-C4'-C3'	5.02	124.04	116.00
35	L2	43	G	C1'-C2'-O2'	-5.02	95.53	110.60
42	LP	136	ASP	CB-CG-OD1	-5.02	113.78	118.30
32	S1	850	G	C5'-C4'-C3'	-5.02	107.97	116.00
32	S1	1422	G	O4'-C1'-N9	5.02	112.22	108.20
33	L1	843	C	C1'-O4'-C4'	-5.02	105.88	109.90
33	L1	920	A	OP1-P-O3'	5.02	116.25	105.20
33	L1	2418	A	O4'-C4'-C3'	5.02	110.12	106.10
35	L2	119	C	P-O5'-C5'	5.02	128.93	120.90
3	SB	132	LYS	N-CA-CB	5.02	119.63	110.60
19	SY	40	ARG	NE-CZ-NH2	-5.02	117.79	120.30
32	S1	395	A	O4'-C1'-N9	5.02	112.22	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	525	A	O5'-P-OP1	-5.02	101.18	105.70
32	S1	635	G	P-O3'-C3'	-5.02	113.68	119.70
32	S1	1062	C	O4'-C1'-C2'	-5.02	100.78	105.80
32	S1	1306	U	P-O3'-C3'	5.02	125.72	119.70
32	S1	1347	U	C1'-O4'-C4'	-5.02	105.89	109.90
33	L1	155	G	P-O5'-C5'	5.02	128.93	120.90
33	L1	169	G	O4'-C1'-N9	5.02	112.22	108.20
33	L1	422	G	P-O3'-C3'	5.02	125.72	119.70
33	L1	922	U	O4'-C1'-N1	-5.02	104.18	108.20
33	L1	990	U	C1'-O4'-C4'	-5.02	105.88	109.90
33	L1	3153	U	OP2-P-O3'	5.02	116.24	105.20
35	L2	79	G	OP1-P-OP2	-5.02	112.07	119.60
47	LU	56	PHE	N-CA-CB	-5.02	101.56	110.60
52	Lb	97	ARG	NE-CZ-NH1	5.02	122.81	120.30
60	Lr	81	SER	CB-CA-C	-5.02	100.56	110.10
3	SB	107	TYR	CG-CD1-CE1	5.02	125.31	121.30
23	SU	95	TYR	O-C-N	-5.02	114.67	122.70
25	SC	162	LEU	CD1-CG-CD2	5.02	125.55	110.50
33	L1	1119	G	C1'-O4'-C4'	-5.02	105.89	109.90
33	L1	1367	A	O3'-P-O5'	-5.02	94.47	104.00
33	L1	2092	C	P-O3'-C3'	-5.02	113.68	119.70
33	L1	2660	A	O3'-P-O5'	5.02	113.53	104.00
33	L1	3183	G	C1'-O4'-C4'	-5.02	105.89	109.90
74	LJ	12	ASP	CB-CG-OD2	-5.02	113.78	118.30
11	SM	148	VAL	N-CA-C	-5.02	97.46	111.00
33	L1	1214	U	O4'-C1'-C2'	-5.02	100.78	105.80
33	L1	1313	U	O4'-C1'-N1	5.02	112.21	108.20
33	L1	1497	U	OP1-P-OP2	-5.02	112.08	119.60
33	L1	1981	U	O4'-C1'-N1	5.02	112.21	108.20
33	L1	2881	C	C1'-C2'-O2'	5.02	125.65	110.60
34	L3	42	A	C3'-C2'-C1'	5.02	105.51	101.50
39	LF	139	VAL	C-N-CA	5.02	134.24	121.70
13	SQ	60	ARG	O-C-N	-5.01	114.68	122.70
31	S2	12	U	N1-C1'-C2'	-5.01	106.48	112.00
32	S1	178	A	C1'-O4'-C4'	5.01	113.91	109.90
32	S1	1543	U	N1-C1'-C2'	-5.01	106.48	112.00
33	L1	717	G	O4'-C1'-N9	5.01	112.21	108.20
33	L1	1322	A	C3'-C2'-C1'	5.01	105.51	101.50
33	L1	1419	G	N9-C1'-C2'	5.01	120.52	114.00
33	L1	1795	A	O4'-C1'-N9	5.01	112.21	108.20
33	L1	2233	G	C1'-O4'-C4'	-5.01	105.89	109.90
33	L1	2491	A	OP1-P-OP2	-5.01	112.08	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2770	U	C5'-C4'-O4'	5.01	115.12	109.10
33	L1	2955	U	P-O5'-C5'	5.01	128.92	120.90
2	SA	243	TRP	CG-CD2-CE3	-5.01	129.39	133.90
32	S1	478	A	O4'-C1'-C2'	-5.01	100.79	105.80
33	L1	366	G	C5'-C4'-C3'	5.01	124.02	116.00
3	SB	177	LEU	N-CA-C	-5.01	97.47	111.00
32	S1	353	G	C4'-C3'-C2'	-5.01	97.59	102.60
32	S1	414	A	C5'-C4'-C3'	-5.01	107.98	116.00
32	S1	929	A	C4'-C3'-C2'	-5.01	97.59	102.60
32	S1	1302	C	C5'-C4'-C3'	5.01	124.02	116.00
33	L1	336	A	OP1-P-OP2	-5.01	112.08	119.60
33	L1	971	G	C4'-C3'-C2'	-5.01	97.59	102.60
33	L1	1895	G	P-O3'-C3'	-5.01	113.69	119.70
33	L1	2068	G	C1'-O4'-C4'	-5.01	105.89	109.90
34	L3	14	C	O5'-C5'-C4'	-5.01	102.18	111.70
45	LQ	183	PHE	CB-CA-C	5.01	120.42	110.40
64	LG	92	ARG	CD-NE-CZ	-5.01	116.58	123.60
1	Sa	250	GLY	O-C-N	-5.01	114.69	122.70
2	SA	72	ILE	CB-CA-C	5.01	121.62	111.60
3	SB	171	ALA	N-CA-CB	-5.01	103.09	110.10
15	SS	52	ASP	CA-C-N	5.01	131.12	117.10
31	S2	61	C	C3'-C2'-C1'	5.01	105.51	101.50
32	S1	216	A	OP1-P-OP2	-5.01	112.08	119.60
32	S1	1565	U	C3'-C2'-C1'	5.01	105.51	101.50
33	L1	255	C	O4'-C1'-C2'	-5.01	100.79	105.80
33	L1	317	G	C4'-C3'-C2'	-5.01	97.59	102.60
33	L1	899	A	C2'-C3'-O3'	5.01	121.71	113.70
33	L1	1285	U	C4'-C3'-C2'	-5.01	97.59	102.60
33	L1	1349	G	N9-C1'-C2'	-5.01	106.49	112.00
33	L1	1571	A	C3'-C2'-C1'	-5.01	97.49	101.50
33	L1	1766	U	O4'-C4'-C3'	-5.01	98.99	104.00
33	L1	2727	U	P-O3'-C3'	-5.01	113.69	119.70
35	L2	135	G	N9-C1'-C2'	5.01	120.51	114.00
56	Lh	101	VAL	O-C-N	-5.01	114.69	122.70
60	Lr	89	LYS	CA-C-N	5.01	128.22	117.20
72	Lk	51	ALA	N-CA-CB	5.01	117.11	110.10
77	Lc	98	PRO	CA-N-CD	-5.01	104.49	111.50
78	Le	123	LYS	N-CA-CB	5.01	119.62	110.60
84	LI	30	LYS	C-N-CA	5.01	134.23	121.70
25	SC	135	HIS	C-N-CA	5.01	134.22	121.70
32	S1	1721	A	OP2-P-O3'	5.01	116.22	105.20
33	L1	728	G	N9-C1'-C2'	-5.01	106.49	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	885	A	OP2-P-O3'	5.01	116.22	105.20
33	L1	2804	A	C1'-O4'-C4'	5.01	113.91	109.90
42	LP	110	LEU	N-CA-C	-5.01	97.48	111.00
43	LO	3	THR	CA-CB-CG2	5.01	119.41	112.40
68	LW	47	GLU	CB-CA-C	5.01	120.42	110.40
81	LD	154	LEU	CB-CG-CD2	5.01	119.51	111.00
83	Lm	29	MET	CG-SD-CE	-5.01	92.19	100.20
15	SS	6	ALA	O-C-N	5.01	130.71	122.70
32	S1	67	G	P-O3'-C3'	5.01	125.71	119.70
32	S1	300	U	O3'-P-O5'	5.01	113.51	104.00
32	S1	351	G	C1'-O4'-C4'	-5.01	105.89	109.90
32	S1	951	U	C3'-C2'-C1'	5.01	105.51	101.50
33	L1	137	C	C1'-O4'-C4'	-5.01	105.89	109.90
33	L1	878	G	O4'-C1'-C2'	-5.01	100.79	105.80
33	L1	960	C	P-O3'-C3'	-5.01	113.69	119.70
33	L1	1638	U	C5'-C4'-O4'	5.01	115.11	109.10
33	L1	1880	A	C4'-C3'-O3'	5.01	123.01	113.00
33	L1	2138	A	O4'-C1'-N9	5.01	112.20	108.20
33	L1	2974	G	C3'-C2'-C1'	-5.01	97.50	101.50
33	L1	3035	C	P-O3'-C3'	5.01	125.71	119.70
69	La	24	VAL	C-N-CA	5.01	134.22	121.70
5	SE	135	ARG	NE-CZ-NH1	-5.00	117.80	120.30
25	SC	157	HIS	N-CA-CB	5.00	119.61	110.60
32	S1	216	A	P-O3'-C3'	5.00	125.71	119.70
32	S1	1107	G	C1'-O4'-C4'	-5.00	105.90	109.90
33	L1	103	G	C5'-C4'-C3'	5.00	124.01	116.00
33	L1	1081	U	O3'-P-O5'	5.00	113.51	104.00
33	L1	2115	G	N9-C1'-C2'	-5.00	106.49	112.00
33	L1	2166	U	P-O5'-C5'	-5.00	112.89	120.90
35	L2	103	C	O5'-P-OP1	5.00	116.71	110.70
37	LB	54	ARG	NE-CZ-NH2	-5.00	117.80	120.30
71	Lj	41	THR	N-CA-C	5.00	124.51	111.00
28	SN	10	HIS	N-CA-C	-5.00	97.49	111.00
28	SN	51	GLY	C-N-CA	-5.00	109.19	121.70
31	S2	42	C	O4'-C1'-C2'	-5.00	100.80	105.80
32	S1	589	A	C5'-C4'-O4'	5.00	115.11	109.10
33	L1	165	C	C3'-C2'-C1'	5.00	105.50	101.50
33	L1	2207	C	P-O5'-C5'	5.00	128.90	120.90
33	L1	2351	A	P-O3'-C3'	-5.00	113.70	119.70
33	L1	2482	A	C5'-C4'-O4'	5.00	115.11	109.10
33	L1	2891	C	O4'-C1'-N1	5.00	112.20	108.20
35	L2	35	G	C4'-C3'-C2'	-5.00	97.60	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	52	A	OP2-P-O3'	5.00	116.21	105.20
48	LV	13	LYS	O-C-N	-5.00	114.69	122.70
67	LS	136	CYS	CA-CB-SG	5.00	123.01	114.00
32	S1	142	G	O3'-P-O5'	-5.00	94.50	104.00
32	S1	602	U	OP2-P-O3'	5.00	116.20	105.20
32	S1	1804	A	O3'-P-O5'	5.00	113.50	104.00
33	L1	447	C	C1'-O4'-C4'	-5.00	105.90	109.90
33	L1	719	U	C3'-C2'-C1'	5.00	105.50	101.50
33	L1	770	U	O3'-P-O5'	5.00	113.50	104.00
33	L1	852	C	C4'-C3'-C2'	-5.00	97.60	102.60
33	L1	1035	C	O5'-P-OP2	-5.00	101.20	105.70
33	L1	1430	C	C4'-C3'-C2'	-5.00	97.60	102.60
34	L3	98	G	OP1-P-O3'	5.00	116.20	105.20
41	LM	71	ASP	C-N-CA	5.00	134.20	121.70
46	LT	84	THR	CA-CB-CG2	5.00	119.40	112.40
56	Lh	94	CYS	CA-CB-SG	5.00	123.00	114.00

All (127) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	Sa	128	LEU	CA
2	SA	199	TRP	CA
4	SD	56	LEU	CA
11	SM	116	LYS	CA
13	SQ	139	ASP	CA
14	SP	56	ASP	CA
14	SP	57	LYS	CA
14	SP	58	LYS	CA
15	SS	80	LYS	CA
20	SZ	24	GLN	CA
23	SU	34	HIS	CA
23	SU	65	LYS	CA
23	SU	91	TYR	CA
25	SC	17	PRO	CA
25	SC	60	HIS	CA
25	SC	65	ASP	CA
25	SC	76	GLU	CA
25	SC	163	THR	CB
25	SC	171	PRO	CA
26	SG	9	UNK	CA
26	SG	10	UNK	CA
26	SG	55	UNK	CA

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Mol	Chain	Res	Type	Atom
26	SG	82	UNK	CA
26	SG	85	UNK	CA
26	SG	86	UNK	CA
26	SG	101	UNK	CA
26	SG	104	UNK	CA
28	SN	38	CYS	CA
29	ST	41	GLU	CA
29	ST	54	LEU	CA
32	S1	119	U	C1'
32	S1	297	U	C1'
32	S1	562	U	C3'
32	S1	934	A	C1'
32	S1	968	A	C3'
32	S1	1341	G	C3'
32	S1	1440	U	C3'
32	S1	1450	A	C2'
32	S1	1766	A	C1'
33	L1	138	G	C3'
33	L1	492	G	C3'
33	L1	513	C	C3'
33	L1	522	C	C3'
33	L1	639	A	C1'
33	L1	641	C	C3'
33	L1	704	G	C4'
33	L1	708	C	C3'
33	L1	785	U	C2'
33	L1	946	U	C3'
33	L1	978	C	C3'
33	L1	996	A	C1'
33	L1	1050	A	C3'
33	L1	1263	A	C1'
33	L1	1270	G	C1'
33	L1	1289	G	C3'
33	L1	1366	G	C1'
33	L1	1369	G	C1'
33	L1	1384	G	C1'
33	L1	1388	C	C3'
33	L1	1540	G	C3'
33	L1	1616	G	C1'
33	L1	1698	C	C3'
33	L1	1746	G	C1'
33	L1	1752	C	C3'

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Mol	Chain	Res	Type	Atom
33	L1	1764	G	C1'
33	L1	1767	G	C4',C2',C3'
33	L1	1852	C	C3'
33	L1	2082	A	C3'
33	L1	2083	U	C4',C3'
33	L1	2084	G	C4'
33	L1	2131	U	C3'
33	L1	2206	U	C3'
33	L1	2361	C	C3'
33	L1	2383	G	C3'
33	L1	2460	A	C1'
33	L1	2483	A	C1'
33	L1	2518	A	C1'
33	L1	2760	U	C2'
33	L1	2763	C	C3'
33	L1	2793	G	C1'
33	L1	2972	C	C3'
33	L1	3023	G	C1'
33	L1	3045	A	C3'
33	L1	3093	C	C3'
33	L1	3295	G	C1'
34	L3	1	G	C3'
34	L3	10	C	C4'
35	L2	98	C	C3'
35	L2	124	G	C3'
35	L2	138	G	C3'
35	L2	144	A	C3'
38	LE	1	MET	CA
45	LQ	17	PHE	CA
45	LQ	119	GLU	CA
45	LQ	143	ARG	CA
45	LQ	259	LYS	CA
46	LT	187	ARG	CA
47	LU	83	ARG	CA
49	LX	46	LYS	CA
56	Lh	13	LYS	CA
60	Lr	46	LYS	CA
64	LG	26	TRP	CA
64	LG	152	LYS	CA
65	LL	194	UNK	CA
66	LN	1	MET	CA
66	LN	117	ARG	CA

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Mol	Chain	Res	Type	Atom
67	LS	117	ARG	CA
67	LS	161	PRO	CA
70	Li	70	ASN	CA
70	Li	71	ARG	CA
72	Lk	66	VAL	CA
73	Lp	51	ILE	CB,CA
74	LJ	124	LYS	CA
79	Ls	231	ALA	CA
80	LC	67	LEU	CA
80	LC	123	CYS	CA
80	LC	129	ALA	CA
80	LC	350	THR	CA
80	LC	369	PHE	CA
81	LD	90	ARG	CA
81	LD	344	ALA	CA
82	LK	136	PRO	CA
82	LK	153	ASN	CA

All (1482) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
36	LA	1	MET	Peptide
36	LA	163	CYS	Peptide
36	LA	204	TYR	Sidechain
36	LA	208	THR	Peptide
37	LB	128	ARG	Sidechain
37	LB	180	LEU	Peptide
37	LB	189	TYR	Sidechain
37	LB	19	HIS	Sidechain
37	LB	190	ARG	Sidechain
37	LB	196	TRP	Mainchain
37	LB	225	VAL	Peptide
37	LB	226	ARG	Sidechain
37	LB	244	GLY	Peptide
37	LB	28	ARG	Sidechain
37	LB	29	PHE	Sidechain
37	LB	33	ASP	Mainchain
37	LB	36	GLU	Peptide
37	LB	39	GLY	Peptide
37	LB	40	TYR	Sidechain,Peptide
37	LB	54	ARG	Sidechain
37	LB	62	THR	Peptide

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Mol	Chain	Res	Type	Group
37	LB	64	ARG	Sidechain
37	LB	68	ARG	Peptide
37	LB	69	TYR	Sidechain,Peptide
37	LB	70	LYS	Peptide
37	LB	73	LYS	Mainchain
37	LB	93	ARG	Sidechain
80	LC	1	MET	Mainchain
80	LC	10	ARG	Sidechain
80	LC	100	ARG	Sidechain
80	LC	109	HIS	Peptide
80	LC	115	ARG	Sidechain
80	LC	119	TYR	Sidechain
80	LC	120	LYS	Mainchain,Peptide
80	LC	121	ASN	Peptide
80	LC	130	PHE	Mainchain,Peptide
80	LC	137	TYR	Sidechain
80	LC	138	ASP	Peptide
80	LC	156	TYR	Sidechain
80	LC	157	ALA	Peptide
80	LC	169	ARG	Sidechain
80	LC	17	LEU	Mainchain,Peptide
80	LC	235	ARG	Sidechain
80	LC	24	ARG	Sidechain
80	LC	243	ARG	Sidechain
80	LC	245	THR	Peptide
80	LC	250	ARG	Sidechain
80	LC	259	HIS	Peptide
80	LC	291	SER	Mainchain,Peptide
80	LC	292	GLY	Mainchain,Peptide
80	LC	294	GLU	Peptide
80	LC	295	SER	Mainchain,Peptide
80	LC	298	ALA	Peptide
80	LC	304	ARG	Sidechain
80	LC	318	TYR	Peptide
80	LC	349	GLN	Mainchain,Peptide
80	LC	350	THR	Mainchain,Peptide
80	LC	352	ARG	Sidechain,Mainchain
80	LC	357	GLU	Mainchain,Peptide
80	LC	362	PHE	Peptide
80	LC	369	PHE	Sidechain
80	LC	372	GLY	Mainchain
80	LC	374	PHE	Sidechain

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Mol	Chain	Res	Type	Group
80	LC	385	GLY	Mainchain,Peptide
80	LC	4	ARG	Sidechain
80	LC	40	PRO	Peptide
80	LC	42	HIS	Peptide
80	LC	5	LYS	Peptide
80	LC	58	ARG	Sidechain
80	LC	59	GLU	Peptide
80	LC	61	GLU	Peptide
80	LC	69	LYS	Mainchain
80	LC	8	HIS	Sidechain
80	LC	92	TYR	Sidechain
81	LD	104	ARG	Mainchain,Peptide
81	LD	107	ALA	Peptide
81	LD	108	PRO	Peptide
81	LD	117	ARG	Sidechain
81	LD	118	ARG	Sidechain
81	LD	12	LYS	Peptide
81	LD	144	ARG	Sidechain
81	LD	153	GLU	Peptide
81	LD	18	MET	Mainchain,Peptide
81	LD	181	TYR	Sidechain
81	LD	194	ARG	Sidechain
81	LD	20	THR	Mainchain,Peptide
81	LD	201	ARG	Sidechain
81	LD	208	ARG	Sidechain
81	LD	215	TYR	Sidechain
81	LD	227	ARG	Sidechain
81	LD	23	SER	Mainchain,Peptide
81	LD	304	GLN	Mainchain,Peptide
81	LD	310	LEU	Mainchain
81	LD	316	ARG	Sidechain
81	LD	318	GLU	Sidechain
81	LD	320	ARG	Sidechain
81	LD	323	PRO	Mainchain
81	LD	328	ALA	Mainchain,Peptide
81	LD	329	ALA	Mainchain,Peptide
81	LD	331	LEU	Peptide
81	LD	355	ARG	Sidechain,Peptide
81	LD	363	ARG	Sidechain
81	LD	369	GLU	Mainchain
81	LD	37	ARG	Sidechain
81	LD	371	ALA	Mainchain

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Mol	Chain	Res	Type	Group
81	LD	383	LYS	Peptide
81	LD	4	GLN	Peptide
81	LD	42	ARG	Sidechain
81	LD	46	ARG	Sidechain
81	LD	51	ASN	Peptide
81	LD	53	ARG	Sidechain
81	LD	6	ARG	Sidechain
81	LD	60	ARG	Sidechain
81	LD	61	ARG	Sidechain
81	LD	79	ARG	Sidechain
81	LD	83	VAL	Peptide
81	LD	84	PRO	Mainchain,Peptide
81	LD	85	GLY	Peptide
81	LD	90	ARG	Mainchain
81	LD	94	GLY	Mainchain
81	LD	95	ALA	Mainchain,Peptide
81	LD	96	PHE	Peptide
38	LE	118	TYR	Sidechain
38	LE	128	ASP	Peptide
38	LE	136	ALA	Mainchain
38	LE	142	ARG	Sidechain
38	LE	143	ARG	Sidechain
38	LE	144	ARG	Sidechain
38	LE	155	ARG	Sidechain
38	LE	31	ARG	Sidechain
38	LE	55	THR	Peptide
38	LE	6	LYS	Peptide
38	LE	62	ARG	Sidechain,Peptide
38	LE	7	GLN	Peptide
38	LE	74	ARG	Sidechain
38	LE	88	VAL	Mainchain
38	LE	89	LYS	Peptide
38	LE	9	ASN	Peptide
38	LE	96	ARG	Sidechain
39	LF	1	MET	Peptide
39	LF	123	ARG	Sidechain
39	LF	136	SER	Peptide
39	LF	168	ASN	Peptide
39	LF	169	LYS	Peptide
39	LF	172	ARG	Sidechain
39	LF	187	THR	Mainchain,Peptide
39	LF	2	LYS	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
39	LF	31	ARG	Sidechain
39	LF	36	ARG	Sidechain
39	LF	42	ASN	Peptide
39	LF	70	ARG	Sidechain
39	LF	95	TYR	Sidechain
64	LG	10	GLY	Peptide
64	LG	100	GLN	Peptide
64	LG	106	ILE	Peptide
64	LG	114	GLY	Peptide
64	LG	116	PRO	Mainchain,Peptide
64	LG	12	LYS	Mainchain,Peptide
64	LG	122	GLN	Peptide
64	LG	124	TYR	Sidechain
64	LG	133	ASP	Peptide
64	LG	139	VAL	Peptide
64	LG	142	PHE	Sidechain
64	LG	143	ASP	Peptide
64	LG	144	ASP	Peptide
64	LG	146	TYR	Peptide
64	LG	16	ARG	Sidechain
64	LG	163	PHE	Sidechain
64	LG	169	ALA	Peptide
64	LG	171	LYS	Mainchain
64	LG	175	ASP	Peptide
64	LG	183	VAL	Peptide
64	LG	184	ILE	Mainchain,Peptide
64	LG	185	ASP	Mainchain,Peptide
64	LG	20	TYR	Sidechain
64	LG	206	PHE	Sidechain
64	LG	209	ARG	Sidechain
64	LG	216	GLU	Peptide
64	LG	23	ARG	Sidechain
64	LG	26	TRP	Mainchain
64	LG	27	ALA	Peptide
64	LG	29	LYS	Mainchain,Peptide
64	LG	36	LEU	Peptide
64	LG	40	GLU	Peptide
64	LG	41	LYS	Peptide
64	LG	44	ALA	Mainchain,Peptide
64	LG	49	LYS	Mainchain,Peptide
64	LG	51	TYR	Sidechain,Mainchain,Peptide
64	LG	59	ARG	Sidechain

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Mol	Chain	Res	Type	Group
64	LG	62	SER	Mainchain
64	LG	66	PRO	Peptide
64	LG	68	PRO	Mainchain,Peptide
64	LG	78	GLY	Peptide
64	LG	79	THR	Mainchain,Peptide
64	LG	8	ALA	Peptide
64	LG	87	ARG	Sidechain
64	LG	88	TYR	Peptide
64	LG	9	LEU	Peptide
64	LG	92	ARG	Sidechain
64	LG	98	GLN	Peptide
40	LH	106	ARG	Sidechain
40	LH	110	ARG	Sidechain
40	LH	113	ALA	Peptide
40	LH	115	ALA	Peptide
40	LH	126	ILE	Peptide
40	LH	130	TYR	Sidechain
40	LH	134	HIS	Sidechain
40	LH	137	TYR	Sidechain
40	LH	154	ASP	Peptide
40	LH	202	GLU	Peptide
40	LH	222	PHE	Peptide
40	LH	233	VAL	Mainchain,Peptide
40	LH	256	ARG	Peptide
40	LH	60	ARG	Sidechain
40	LH	63	LEU	Peptide
40	LH	66	ARG	Sidechain
40	LH	76	PHE	Sidechain
40	LH	87	ASN	Mainchain,Peptide
40	LH	90	LYS	Peptide
40	LH	93	LEU	Peptide
40	LH	94	LYS	Peptide
40	LH	95	TYR	Peptide
40	LH	96	ARG	Sidechain,Peptide
40	LH	97	PRO	Mainchain
40	LH	98	GLU	Peptide
84	LI	104	SER	Peptide
84	LI	109	ASP	Peptide
84	LI	116	ARG	Mainchain
84	LI	139	ARG	Sidechain
84	LI	141	LYS	Peptide
84	LI	153	ARG	Sidechain

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Mol	Chain	Res	Type	Group
84	LI	154	ARG	Sidechain
84	LI	172	GLY	Peptide
84	LI	24	ARG	Sidechain
84	LI	3	ARG	Sidechain,Peptide
84	LI	4	ARG	Sidechain
84	LI	7	ARG	Sidechain
84	LI	75	TYR	Sidechain
84	LI	88	ARG	Sidechain
84	LI	9	TYR	Sidechain
84	LI	98	ARG	Sidechain
74	LJ	115	ARG	Sidechain
74	LJ	118	ARG	Sidechain,Peptide
74	LJ	120	ARG	Sidechain,Peptide
74	LJ	123	ALA	Peptide
74	LJ	34	PRO	Peptide
74	LJ	40	LYS	Peptide
74	LJ	58	ARG	Sidechain
74	LJ	75	VAL	Peptide
74	LJ	91	ARG	Sidechain
74	LJ	93	ARG	Sidechain
82	LK	11	ARG	Sidechain,Mainchain,Peptide
82	LK	115	PRO	Peptide
82	LK	116	PRO	Peptide
82	LK	117	TYR	Sidechain
82	LK	125	ILE	Peptide
82	LK	132	LEU	Peptide
82	LK	135	GLN	Mainchain,Peptide
82	LK	154	TYR	Sidechain
82	LK	159	ARG	Sidechain
82	LK	165	ARG	Sidechain
82	LK	175	ARG	Sidechain
82	LK	192	GLU	Peptide
82	LK	196	THR	Peptide
82	LK	205	LYS	Peptide
82	LK	206	TYR	Sidechain
82	LK	5	SER	Peptide
82	LK	54	ARG	Sidechain
82	LK	61	ARG	Sidechain
82	LK	69	THR	Peptide
82	LK	70	LYS	Peptide
82	LK	71	PRO	Peptide
82	LK	87	ARG	Sidechain

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Mol	Chain	Res	Type	Group
82	LK	90	ARG	Sidechain
65	LL	103	UNK	Mainchain
65	LL	108	UNK	Peptide
65	LL	115	UNK	Peptide
65	LL	122	UNK	Peptide
65	LL	128	UNK	Mainchain,Peptide
65	LL	146	UNK	Mainchain,Peptide
65	LL	148	UNK	Peptide
65	LL	150	UNK	Peptide
65	LL	151	UNK	Peptide
65	LL	153	UNK	Peptide
65	LL	155	UNK	Peptide
65	LL	156	UNK	Peptide
65	LL	16	UNK	Peptide
65	LL	169	UNK	Peptide
65	LL	191	UNK	Peptide
65	LL	192	UNK	Mainchain
65	LL	193	UNK	Peptide
65	LL	20	UNK	Mainchain,Peptide
65	LL	22	UNK	Peptide
65	LL	24	UNK	Peptide
65	LL	28	UNK	Peptide
65	LL	52	UNK	Peptide
65	LL	54	UNK	Mainchain
65	LL	55	UNK	Peptide
65	LL	57	UNK	Peptide
65	LL	58	UNK	Peptide
65	LL	59	UNK	Peptide
65	LL	61	UNK	Peptide
65	LL	82	UNK	Peptide
65	LL	83	UNK	Peptide
65	LL	85	UNK	Mainchain,Peptide
65	LL	86	UNK	Peptide
65	LL	87	UNK	Mainchain,Peptide
65	LL	93	UNK	Peptide
41	LM	38	TYR	Sidechain
41	LM	71	ASP	Mainchain
41	LM	73	ARG	Sidechain
41	LM	8	GLY	Peptide
41	LM	89	ARG	Sidechain
66	LN	1	MET	Peptide
66	LN	103	ASN	Peptide

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Mol	Chain	Res	Type	Group
66	LN	105	PHE	Sidechain
66	LN	107	ARG	Sidechain
66	LN	11	ARG	Sidechain
66	LN	117	ARG	Sidechain
66	LN	122	ARG	Sidechain
66	LN	16	ASN	Peptide
66	LN	2	PRO	Peptide
66	LN	20	ASP	Peptide
66	LN	22	GLY	Peptide
66	LN	30	VAL	Peptide
66	LN	31	VAL	Peptide
66	LN	45	ARG	Sidechain
66	LN	51	LYS	Peptide
66	LN	6	PHE	Peptide
66	LN	87	SER	Peptide
66	LN	88	SER	Peptide
66	LN	89	TRP	Mainchain,Peptide
66	LN	90	GLY	Peptide
43	LO	116	ARG	Sidechain,Peptide
43	LO	12	ARG	Sidechain
43	LO	127	LYS	Mainchain,Peptide
43	LO	137	GLY	Mainchain,Peptide
43	LO	14	HIS	Sidechain,Peptide
43	LO	22	ILE	Peptide
43	LO	24	LYS	Peptide
43	LO	29	PRO	Peptide
43	LO	3	THR	Peptide
43	LO	40	HIS	Mainchain,Peptide
43	LO	42	ARG	Sidechain
43	LO	59	ARG	Sidechain
43	LO	70	CYS	Peptide
43	LO	77	ARG	Sidechain
43	LO	8	ASN	Peptide
42	LP	114	ARG	Sidechain
42	LP	12	ARG	Sidechain
42	LP	127	TYR	Sidechain
42	LP	129	TYR	Sidechain
42	LP	13	ARG	Sidechain
42	LP	137	VAL	Peptide
42	LP	162	ARG	Sidechain
42	LP	171	TYR	Sidechain
42	LP	177	LYS	Peptide

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Mol	Chain	Res	Type	Group
42	LP	193	LYS	Peptide
42	LP	194	ARG	Sidechain
42	LP	20	ARG	Sidechain
42	LP	24	ARG	Sidechain
42	LP	26	ARG	Sidechain
42	LP	30	TYR	Sidechain
42	LP	31	ARG	Sidechain
42	LP	41	ARG	Sidechain
42	LP	47	LYS	Peptide
42	LP	50	ARG	Sidechain
42	LP	6	TYR	Sidechain
42	LP	62	TYR	Sidechain
42	LP	63	ARG	Sidechain
42	LP	67	ARG	Sidechain
42	LP	74	PRO	Mainchain,Peptide
42	LP	80	VAL	Peptide
42	LP	81	TYR	Sidechain
42	LP	94	PHE	Sidechain
42	LP	95	GLN	Peptide
45	LQ	100	TYR	Sidechain
45	LQ	112	THR	Mainchain,Peptide
45	LQ	113	LEU	Peptide
45	LQ	114	ARG	Peptide
45	LQ	116	LEU	Mainchain,Peptide
45	LQ	124	VAL	Mainchain
45	LQ	129	GLU	Peptide
45	LQ	130	ASP	Peptide
45	LQ	131	TYR	Sidechain
45	LQ	132	TYR	Sidechain
45	LQ	133	VAL	Peptide
45	LQ	137	ASP	Mainchain,Peptide
45	LQ	138	GLU	Peptide
45	LQ	152	ARG	Sidechain,Peptide
45	LQ	158	ARG	Sidechain
45	LQ	16	TYR	Sidechain,Mainchain,Peptide
45	LQ	170	GLY	Peptide
45	LQ	183	PHE	Sidechain
45	LQ	185	LYS	Peptide
45	LQ	187	GLU	Peptide
45	LQ	190	LEU	Peptide
45	LQ	198	TYR	Sidechain
45	LQ	2	SER	Peptide

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Mol	Chain	Res	Type	Group
45	LQ	201	GLY	Peptide
45	LQ	203	HIS	Peptide
45	LQ	217	GLU	Peptide
45	LQ	218	LYS	Peptide
45	LQ	223	PHE	Sidechain
45	LQ	226	TYR	Peptide
45	LQ	233	ALA	Peptide
45	LQ	235	GLY	Mainchain
45	LQ	237	GLU	Mainchain
45	LQ	238	SER	Mainchain,Peptide
45	LQ	247	ILE	Peptide
45	LQ	248	ARG	Peptide
45	LQ	249	ALA	Mainchain
45	LQ	256	SER	Mainchain
45	LQ	257	THR	Mainchain,Peptide
45	LQ	260	GLU	Peptide
45	LQ	266	ARG	Sidechain
45	LQ	267	TYR	Sidechain
45	LQ	27	ARG	Sidechain
45	LQ	28	ARG	Sidechain
45	LQ	290	SER	Mainchain
45	LQ	291	SER	Peptide
45	LQ	35	ARG	Sidechain
45	LQ	44	ASP	Peptide
45	LQ	53	TYR	Sidechain
45	LQ	55	PHE	Peptide
45	LQ	67	TYR	Sidechain
45	LQ	80	TYR	Sidechain
44	LR	1	MET	Peptide
44	LR	10	ARG	Sidechain
44	LR	12	LYS	Peptide
44	LR	129	ARG	Sidechain
44	LR	13	ARG	Sidechain
44	LR	14	THR	Peptide
44	LR	142	PRO	Peptide
44	LR	150	ARG	Sidechain
44	LR	157	GLY	Peptide
44	LR	159	PRO	Peptide
44	LR	16	ARG	Peptide
44	LR	162	HIS	Peptide
44	LR	20	LYS	Peptide
44	LR	25	TYR	Sidechain

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Mol	Chain	Res	Type	Group
44	LR	33	TYR	Sidechain
44	LR	44	PHE	Sidechain
44	LR	51	ARG	Sidechain
44	LR	53	PHE	Peptide
44	LR	59	ARG	Sidechain
44	LR	60	PRO	Peptide
44	LR	65	ARG	Sidechain
44	LR	66	ARG	Sidechain
44	LR	71	MET	Peptide
44	LR	74	LYS	Peptide
44	LR	91	ARG	Sidechain
44	LR	97	ALA	Mainchain,Peptide
67	LS	109	TYR	Sidechain
67	LS	119	ARG	Sidechain
67	LS	121	PRO	Peptide
67	LS	137	LYS	Peptide
67	LS	138	ARG	Sidechain
67	LS	139	ASP	Peptide
67	LS	14	ARG	Peptide
67	LS	144	PHE	Sidechain
67	LS	145	HIS	Sidechain
67	LS	150	LYS	Mainchain,Peptide
67	LS	151	PHE	Sidechain,Peptide
67	LS	153	LEU	Peptide
67	LS	156	ARG	Peptide
67	LS	157	LYS	Peptide
67	LS	159	ARG	Sidechain,Peptide
67	LS	161	PRO	Peptide
67	LS	165	LEU	Peptide
67	LS	18	THR	Peptide
67	LS	28	ARG	Sidechain,Peptide
67	LS	4	PHE	Peptide
67	LS	43	PHE	Sidechain
67	LS	5	ARG	Sidechain
67	LS	57	ASN	Peptide
67	LS	64	ASN	Mainchain
67	LS	67	PHE	Peptide
67	LS	69	LYS	Peptide
67	LS	70	ASN	Mainchain
67	LS	73	THR	Peptide
67	LS	74	ILE	Peptide
67	LS	77	TYR	Sidechain

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Mol	Chain	Res	Type	Group
67	LS	80	TRP	Peptide
67	LS	83	TYR	Sidechain
67	LS	9	TYR	Sidechain
67	LS	93	TYR	Sidechain
67	LS	95	GLU	Mainchain
67	LS	96	TYR	Sidechain
67	LS	97	ARG	Sidechain
46	LT	100	ARG	Sidechain
46	LT	103	ARG	Sidechain
46	LT	107	ARG	Sidechain
46	LT	136	ARG	Mainchain
46	LT	137	VAL	Peptide
46	LT	151	ARG	Sidechain
46	LT	172	ARG	Sidechain
46	LT	187	ARG	Sidechain
46	LT	55	GLN	Peptide
46	LT	58	HIS	Peptide
46	LT	59	SER	Peptide
46	LT	60	ARG	Sidechain
46	LT	67	HIS	Sidechain
46	LT	71	GLN	Mainchain,Peptide
46	LT	76	SER	Peptide
46	LT	78	TYR	Sidechain
46	LT	81	ARG	Sidechain,Peptide
46	LT	82	ARG	Sidechain,Peptide
46	LT	84	THR	Peptide
46	LT	90	PRO	Mainchain
46	LT	91	THR	Peptide
46	LT	97	ARG	Sidechain
46	LT	98	ARG	Sidechain
47	LU	10	ARG	Sidechain,Peptide
47	LU	125	VAL	Peptide
47	LU	126	ILE	Mainchain,Peptide
47	LU	130	ARG	Sidechain
47	LU	135	PRO	Peptide
47	LU	136	LYS	Peptide
47	LU	138	GLY	Mainchain,Peptide
47	LU	140	MET	Mainchain,Peptide
47	LU	15	PHE	Sidechain
47	LU	152	ILE	Peptide
47	LU	154	TYR	Peptide
47	LU	17	ARG	Sidechain

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Mol	Chain	Res	Type	Group
47	LU	57	TYR	Sidechain
47	LU	60	ARG	Sidechain
47	LU	63	ARG	Sidechain
47	LU	69	LYS	Peptide
47	LU	70	ARG	Sidechain
48	LV	1	MET	Peptide
48	LV	112	THR	Peptide
48	LV	114	TYR	Sidechain
48	LV	128	ARG	Sidechain
48	LV	140	TYR	Sidechain
48	LV	153	GLU	Peptide
48	LV	162	PRO	Peptide
48	LV	166	ILE	Mainchain,Peptide
48	LV	168	ALA	Peptide
48	LV	170	LYS	Mainchain,Peptide
48	LV	25	HIS	Sidechain
48	LV	3	LYS	Peptide
48	LV	36	ILE	Mainchain
48	LV	4	TYR	Sidechain
48	LV	46	ARG	Sidechain
48	LV	47	TYR	Sidechain
48	LV	62	ARG	Sidechain
48	LV	63	TYR	Sidechain
48	LV	67	VAL	Peptide
48	LV	69	ARG	Sidechain,Mainchain
48	LV	7	GLU	Sidechain
48	LV	74	LYS	Peptide
48	LV	75	SER	Peptide
48	LV	76	ARG	Sidechain
48	LV	77	HIS	Peptide
48	LV	90	ARG	Sidechain
68	LW	100	ASP	Peptide
68	LW	104	VAL	Mainchain,Peptide
68	LW	105	ILE	Peptide
68	LW	106	ALA	Peptide
68	LW	110	ASP	Peptide
68	LW	114	TYR	Sidechain
68	LW	27	CYS	Peptide
68	LW	28	SER	Mainchain,Peptide
68	LW	30	PRO	Peptide
68	LW	32	GLU	Peptide
68	LW	33	ASP	Peptide

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Mol	Chain	Res	Type	Group
68	LW	37	GLU	Peptide
68	LW	48	ARG	Sidechain
68	LW	54	GLY	Peptide
68	LW	60	GLY	Peptide
68	LW	80	PHE	Mainchain
68	LW	83	ARG	Sidechain
68	LW	84	TYR	Sidechain
68	LW	87	TYR	Mainchain
68	LW	92	TYR	Sidechain
68	LW	96	HIS	Peptide
68	LW	97	ASN	Peptide
49	LX	113	TYR	Sidechain
49	LX	125	ARG	Sidechain
49	LX	31	ARG	Sidechain
49	LX	33	SER	Mainchain
49	LX	34	LYS	Peptide
49	LX	42	PHE	Sidechain
49	LX	45	PRO	Peptide
49	LX	52	ARG	Peptide
49	LX	58	ARG	Sidechain
49	LX	70	TYR	Sidechain
49	LX	75	TYR	Sidechain
51	LY	109	LYS	Mainchain
51	LY	120	ARG	Sidechain
51	LY	2	LYS	Peptide
51	LY	21	ALA	Peptide
51	LY	22	PRO	Peptide
51	LY	27	ARG	Sidechain
51	LY	39	ARG	Sidechain
51	LY	49	ILE	Peptide
51	LY	62	TYR	Sidechain
51	LY	86	ARG	Sidechain
51	LY	9	SER	Mainchain,Peptide
50	LZ	16	TYR	Sidechain,Peptide
50	LZ	22	ARG	Sidechain
50	LZ	25	ARG	Sidechain
50	LZ	3	LEU	Peptide
50	LZ	50	LYS	Peptide
50	LZ	53	TRP	Mainchain,Peptide
50	LZ	58	ARG	Sidechain
50	LZ	64	ASP	Peptide
50	LZ	71	LYS	Peptide

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Mol	Chain	Res	Type	Group
50	LZ	73	ARG	Sidechain
69	La	12	ILE	Peptide
69	La	13	LEU	Peptide
69	La	20	GLY	Peptide
69	La	21	ARG	Sidechain,Peptide
69	La	25	ILE	Peptide
69	La	26	VAL	Peptide
69	La	27	ARG	Sidechain,Peptide
69	La	29	PHE	Mainchain,Peptide
69	La	30	GLU	Peptide
69	La	31	GLU	Mainchain
69	La	37	PRO	Peptide
69	La	38	TYR	Sidechain
69	La	46	LEU	Peptide
69	La	47	ALA	Peptide
69	La	48	LYS	Peptide
69	La	49	TYR	Peptide
69	La	54	ILE	Peptide
69	La	55	ARG	Sidechain,Peptide
69	La	64	LYS	Peptide
69	La	67	ARG	Sidechain
69	La	7	PRO	Mainchain
69	La	8	GLY	Mainchain,Peptide
69	La	85	TYR	Sidechain
52	Lb	123	ARG	Sidechain
52	Lb	128	TYR	Sidechain
77	Lc	106	GLU	Peptide
77	Lc	111	ARG	Sidechain
77	Lc	116	PRO	Peptide
77	Lc	118	ARG	Sidechain
77	Lc	5	LYS	Mainchain,Peptide
77	Lc	52	ARG	Sidechain
77	Lc	71	ARG	Sidechain
77	Lc	74	TYR	Sidechain
77	Lc	79	TYR	Sidechain
77	Lc	80	ALA	Peptide
77	Lc	85	ARG	Sidechain
77	Lc	94	ARG	Sidechain
77	Lc	95	ARG	Sidechain
77	Lc	98	PRO	Mainchain,Peptide
53	Ld	47	ARG	Sidechain
53	Ld	49	HIS	Peptide

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Mol	Chain	Res	Type	Group
78	Le	108	LEU	Peptide
78	Le	111	ARG	Sidechain
78	Le	131	ARG	Sidechain
78	Le	135	TYR	Sidechain
78	Le	138	TYR	Sidechain
78	Le	147	ARG	Sidechain
78	Le	151	TYR	Sidechain
78	Le	153	ARG	Sidechain
78	Le	161	GLN	Peptide
78	Le	162	ARG	Mainchain,Peptide
78	Le	163	ILE	Peptide
78	Le	204	LEU	Mainchain
78	Le	216	LEU	Peptide
78	Le	217	LYS	Peptide
78	Le	220	ARG	Sidechain
78	Le	57	TYR	Sidechain
78	Le	61	ASP	Peptide
78	Le	69	ARG	Sidechain
78	Le	74	LYS	Peptide
78	Le	83	ALA	Mainchain,Peptide
78	Le	98	HIS	Sidechain
54	Lf	102	SER	Peptide
54	Lf	25	GLY	Peptide
54	Lf	27	TYR	Sidechain
54	Lf	56	ARG	Sidechain
54	Lf	89	TYR	Sidechain
54	Lf	90	ARG	Sidechain
55	Lg	101	VAL	Peptide
55	Lg	102	THR	Peptide
55	Lg	118	VAL	Peptide
55	Lg	119	VAL	Peptide
55	Lg	2	SER	Peptide
55	Lg	20	TYR	Sidechain
55	Lg	25	HIS	Sidechain
55	Lg	58	ARG	Sidechain
55	Lg	6	ARG	Peptide
55	Lg	73	ARG	Sidechain
55	Lg	8	ALA	Peptide
56	Lh	104	ARG	Sidechain
56	Lh	106	ARG	Sidechain
56	Lh	13	LYS	Mainchain
56	Lh	130	GLN	Peptide

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Mol	Chain	Res	Type	Group
56	Lh	131	GLU	Peptide
56	Lh	14	ARG	Sidechain
56	Lh	15	VAL	Peptide
56	Lh	26	TYR	Sidechain
56	Lh	47	PHE	Sidechain
56	Lh	58	TYR	Sidechain
56	Lh	65	ARG	Sidechain
56	Lh	72	PHE	Sidechain
56	Lh	93	TYR	Sidechain
70	Li	10	ARG	Sidechain,Mainchain,Peptide
70	Li	106	VAL	Peptide
70	Li	107	LEU	Mainchain,Peptide
70	Li	11	HIS	Sidechain,Peptide
70	Li	110	GLN	Mainchain,Peptide
70	Li	112	THR	Peptide
70	Li	117	THR	Peptide
70	Li	12	SER	Peptide
70	Li	16	LYS	Peptide
70	Li	17	SER	Peptide
70	Li	29	LYS	Mainchain
70	Li	30	LEU	Peptide
70	Li	32	TYR	Sidechain
70	Li	34	TYR	Peptide
70	Li	38	ARG	Sidechain
70	Li	39	ALA	Peptide
70	Li	42	PRO	Mainchain,Peptide
70	Li	44	CYS	Mainchain,Peptide
70	Li	53	GLY	Peptide
70	Li	54	ILE	Peptide
70	Li	61	GLU	Peptide
70	Li	62	TYR	Peptide
70	Li	64	ARG	Peptide
70	Li	65	PRO	Peptide
70	Li	66	ARG	Peptide
70	Li	7	TYR	Sidechain
70	Li	70	ASN	Mainchain,Peptide
70	Li	71	ARG	Sidechain
70	Li	73	THR	Peptide
70	Li	79	GLY	Peptide
70	Li	81	VAL	Peptide
70	Li	82	LEU	Peptide
70	Li	88	ARG	Sidechain

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Mol	Chain	Res	Type	Group
70	Li	9	LYS	Peptide
70	Li	95	PHE	Sidechain
71	Lj	1	MET	Peptide
71	Lj	103	ARG	Sidechain,Peptide
71	Lj	12	TYR	Mainchain
71	Lj	14	ARG	Sidechain
71	Lj	20	TYR	Sidechain
71	Lj	24	LYS	Mainchain,Peptide
71	Lj	25	SER	Mainchain,Peptide
71	Lj	37	GLU	Peptide
71	Lj	39	VAL	Peptide
71	Lj	4	ARG	Peptide
71	Lj	40	ASN	Peptide
71	Lj	41	THR	Peptide
71	Lj	44	GLU	Peptide
71	Lj	47	TRP	Peptide
71	Lj	48	TYR	Peptide
71	Lj	49	ALA	Peptide
71	Lj	55	TYR	Sidechain
71	Lj	57	TYR	Sidechain
71	Lj	6	GLY	Peptide
71	Lj	61	THR	Peptide
71	Lj	8	ARG	Mainchain
71	Lj	80	GLY	Peptide
71	Lj	94	PRO	Peptide
72	Lk	111	LYS	Peptide
72	Lk	37	THR	Peptide
72	Lk	39	ARG	Sidechain
72	Lk	40	VAL	Peptide
72	Lk	56	TYR	Sidechain
72	Lk	59	ARG	Sidechain
72	Lk	66	VAL	Mainchain
72	Lk	93	MET	Mainchain
72	Lk	95	SER	Mainchain,Peptide
57	Ll	11	ARG	Mainchain,Peptide
57	Ll	12	ARG	Peptide
57	Ll	21	ARG	Sidechain
57	Ll	43	ARG	Sidechain
57	Ll	45	ARG	Sidechain
57	Ll	47	TYR	Sidechain
57	Ll	51	VAL	Peptide
57	Ll	56	ARG	Sidechain

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Mol	Chain	Res	Type	Group
57	Ll	68	ARG	Sidechain
57	Ll	87	ARG	Peptide
83	Lm	1	MET	Peptide
83	Lm	10	ILE	Peptide
83	Lm	17	ARG	Sidechain
83	Lm	18	TYR	Sidechain
83	Lm	23	ARG	Sidechain
83	Lm	4	ARG	Sidechain
83	Lm	49	ARG	Sidechain
83	Lm	6	LYS	Peptide
83	Lm	69	TYR	Sidechain
83	Lm	7	LYS	Mainchain,Peptide
83	Lm	72	ASN	Peptide
58	Ln	16	ARG	Sidechain
58	Ln	24	ARG	Peptide
58	Ln	26	LYS	Peptide
58	Ln	40	LYS	Peptide
58	Ln	41	TYR	Peptide
58	Ln	42	LEU	Peptide
58	Ln	43	TYR	Peptide
58	Ln	44	THR	Peptide
58	Ln	47	VAL	Mainchain,Peptide
58	Ln	48	PHE	Peptide
59	Lo	18	ARG	Sidechain
59	Lo	3	SER	Peptide
59	Lo	30	ARG	Mainchain,Peptide
59	Lo	34	THR	Peptide
59	Lo	37	TYR	Sidechain
59	Lo	38	ASN	Peptide
59	Lo	4	HIS	Sidechain
59	Lo	41	ARG	Sidechain
59	Lo	42	ARG	Sidechain
59	Lo	45	ARG	Sidechain
59	Lo	7	PHE	Sidechain
73	Lp	13	TYR	Sidechain
73	Lp	21	ARG	Sidechain
73	Lp	24	TYR	Sidechain
73	Lp	28	HIS	Peptide
73	Lp	35	ARG	Sidechain
73	Lp	39	CYS	Peptide
73	Lp	46	ARG	Sidechain
73	Lp	49	LYS	Peptide

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Mol	Chain	Res	Type	Group
73	Lp	52	LYS	Mainchain,Peptide
61	Lq	12	ARG	Sidechain
61	Lq	15	ARG	Sidechain
61	Lq	17	ARG	Sidechain
61	Lq	23	ARG	Mainchain,Peptide
60	Lr	101	GLY	Mainchain,Peptide
60	Lr	104	LEU	Peptide
60	Lr	11	TYR	Sidechain
60	Lr	2	VAL	Peptide
60	Lr	28	TYR	Peptide
60	Lr	32	LYS	Mainchain,Peptide
60	Lr	45	ARG	Peptide
60	Lr	46	LYS	Mainchain,Peptide
60	Lr	55	LYS	Peptide
60	Lr	58	PHE	Peptide
60	Lr	60	LYS	Peptide
60	Lr	61	LYS	Mainchain,Peptide
60	Lr	63	LYS	Peptide
60	Lr	64	THR	Peptide
60	Lr	68	ILE	Peptide
60	Lr	79	HIS	Peptide
60	Lr	80	TYR	Sidechain
60	Lr	83	HIS	Sidechain
60	Lr	85	ILE	Peptide
60	Lr	86	LYS	Peptide
60	Lr	87	ARG	Sidechain
60	Lr	89	LYS	Mainchain,Peptide
60	Lr	94	GLY	Peptide
79	Ls	186	PHE	Sidechain
79	Ls	208	ASP	Peptide
79	Ls	234	TYR	Sidechain
79	Ls	235	PRO	Peptide
79	Ls	236	THR	Peptide
79	Ls	244	PHE	Sidechain
79	Ls	257	GLU	Peptide
79	Ls	259	GLU	Peptide
79	Ls	260	TYR	Peptide
79	Ls	45	ARG	Sidechain
79	Ls	5	ARG	Sidechain
79	Ls	52	SER	Peptide
79	Ls	63	ARG	Sidechain
75	Lt	53	ARG	Peptide

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Mol	Chain	Res	Type	Group
75	Lt	61	SER	Peptide
75	Lu	41	TYR	Sidechain
75	Lu	53	ARG	Peptide
75	Lu	61	SER	Peptide
76	Lv	56	ALA	Peptide
76	Lw	34	ILE	Peptide
76	Lw	56	ALA	Peptide
62	Lx	17	UNK	Peptide
62	Lx	3	UNK	Mainchain,Peptide
62	Lx	6	UNK	Peptide
62	Lx	8	UNK	Peptide
62	Ly	19	UNK	Peptide
63	Lz	1	UNK	Peptide
63	Lz	2	UNK	Mainchain
2	SA	109	PRO	Mainchain
2	SA	160	TYR	Sidechain
2	SA	17	GLN	Peptide
2	SA	184	ARG	Sidechain
2	SA	19	ILE	Peptide
2	SA	196	GLY	Peptide
2	SA	197	HIS	Peptide
2	SA	198	LYS	Peptide
2	SA	199	TRP	Peptide
2	SA	200	ASP	Peptide
2	SA	204	ASP	Mainchain
2	SA	207	PHE	Peptide
2	SA	211	PRO	Mainchain,Peptide
2	SA	213	GLU	Peptide
2	SA	235	TYR	Sidechain
2	SA	27	VAL	Peptide
2	SA	28	HIS	Sidechain
2	SA	41	TYR	Sidechain
2	SA	45	ARG	Peptide
2	SA	72	ILE	Peptide
2	SA	74	ASN	Peptide
2	SA	89	ARG	Sidechain
2	SA	97	TYR	Sidechain
3	SB	107	TYR	Sidechain
3	SB	116	ARG	Sidechain
3	SB	129	SER	Peptide
3	SB	152	PHE	Sidechain
3	SB	156	TYR	Sidechain

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Mol	Chain	Res	Type	Group
3	SB	157	MET	Peptide
3	SB	161	GLY	Peptide
3	SB	167	TYR	Sidechain
3	SB	171	ALA	Peptide
3	SB	173	ARG	Sidechain
3	SB	174	HIS	Mainchain
3	SB	178	ARG	Sidechain
3	SB	179	GLN	Peptide
3	SB	192	TRP	Peptide
3	SB	193	ASP	Peptide
3	SB	210	ILE	Mainchain
3	SB	212	PRO	Mainchain,Peptide
3	SB	218	GLU	Peptide
3	SB	27	ARG	Sidechain
3	SB	34	TYR	Sidechain
3	SB	45	ARG	Sidechain
3	SB	54	ARG	Peptide
3	SB	64	ARG	Sidechain
3	SB	76	ARG	Sidechain
3	SB	77	PHE	Peptide
3	SB	78	ASN	Peptide
3	SB	79	PHE	Peptide
3	SB	81	GLU	Mainchain
3	SB	93	ASN	Peptide
3	SB	94	ARG	Sidechain
3	SB	96	LEU	Peptide
25	SC	105	ASN	Peptide
25	SC	109	ARG	Sidechain
25	SC	116	PHE	Sidechain
25	SC	128	ARG	Sidechain
25	SC	132	ARG	Sidechain
25	SC	135	HIS	Sidechain
25	SC	136	ILE	Mainchain
25	SC	137	ARG	Peptide
25	SC	14	THR	Peptide
25	SC	143	VAL	Mainchain,Peptide
25	SC	144	ASN	Mainchain,Peptide
25	SC	146	PRO	Mainchain
25	SC	150	VAL	Peptide
25	SC	158	ILE	Peptide
25	SC	159	ASP	Peptide
25	SC	16	LYS	Peptide

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Mol	Chain	Res	Type	Group
25	SC	161	SER	Mainchain,Peptide
25	SC	162	LEU	Peptide
25	SC	164	SER	Mainchain
25	SC	173	ARG	Sidechain
25	SC	176	ARG	Sidechain
25	SC	18	ARG	Peptide
25	SC	194	GLU	Mainchain
25	SC	24	GLU	Mainchain
25	SC	25	ARG	Sidechain
25	SC	29	GLU	Sidechain
25	SC	33	VAL	Mainchain
25	SC	36	TYR	Sidechain
25	SC	42	ARG	Sidechain
25	SC	44	LEU	Mainchain,Peptide
25	SC	53	ARG	Sidechain
25	SC	55	ARG	Sidechain
25	SC	6	ARG	Sidechain
25	SC	65	ASP	Peptide
25	SC	70	ARG	Sidechain
25	SC	8	TYR	Sidechain
25	SC	81	ARG	Sidechain
25	SC	84	ARG	Sidechain
25	SC	85	TYR	Sidechain
4	SD	131	PHE	Mainchain,Peptide
4	SD	132	GLY	Mainchain,Peptide
4	SD	134	LYS	Peptide
4	SD	136	ILE	Mainchain
4	SD	150	PRO	Mainchain,Peptide
4	SD	153	ILE	Mainchain,Peptide
4	SD	172	PHE	Sidechain
4	SD	191	ARG	Sidechain
4	SD	201	HIS	Sidechain
4	SD	211	GLU	Peptide
4	SD	212	ASP	Peptide
4	SD	221	ARG	Sidechain
4	SD	239	PRO	Mainchain,Peptide
4	SD	240	LYS	Mainchain,Peptide
4	SD	49	ARG	Sidechain
4	SD	54	TYR	Sidechain
4	SD	59	ARG	Sidechain
4	SD	75	LYS	Mainchain
4	SD	77	ARG	Sidechain

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Mol	Chain	Res	Type	Group
4	SD	82	TYR	Sidechain
4	SD	90	ILE	Peptide
4	SD	93	PRO	Mainchain,Peptide
4	SD	94	LYS	Peptide
4	SD	99	TYR	Sidechain
5	SE	101	ALA	Mainchain,Peptide
5	SE	104	ARG	Sidechain
5	SE	137	ALA	Peptide
5	SE	146	VAL	Peptide
5	SE	149	ARG	Sidechain
5	SE	15	PHE	Sidechain
5	SE	150	ARG	Sidechain
5	SE	152	TYR	Sidechain
5	SE	183	ARG	Sidechain
5	SE	206	PHE	Sidechain
5	SE	240	ARG	Sidechain
5	SE	252	TYR	Sidechain
5	SE	28	GLY	Mainchain,Peptide
5	SE	30	ARG	Sidechain
5	SE	31	ARG	Sidechain
5	SE	38	ARG	Sidechain
5	SE	4	ARG	Peptide
5	SE	8	ARG	Sidechain
5	SE	90	MET	Mainchain,Peptide
5	SE	94	PRO	Peptide
6	SF	118	ARG	Sidechain
6	SF	131	ARG	Sidechain
6	SF	132	ARG	Sidechain
6	SF	138	SER	Peptide
6	SF	148	TYR	Sidechain
6	SF	160	ARG	Sidechain
6	SF	165	ILE	Peptide
6	SF	44	TYR	Sidechain
6	SF	55	LYS	Peptide
6	SF	58	ARG	Sidechain,Peptide
6	SF	62	CYS	Peptide
6	SF	66	GLU	Mainchain
6	SF	78	ASN	Peptide
26	SG	10	UNK	Mainchain,Peptide
26	SG	100	UNK	Mainchain,Peptide
26	SG	101	UNK	Mainchain
26	SG	103	UNK	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
26	SG	104	UNK	Mainchain,Peptide
26	SG	107	UNK	Peptide
26	SG	109	UNK	Peptide
26	SG	11	UNK	Mainchain,Peptide
26	SG	128	UNK	Mainchain
26	SG	21	UNK	Mainchain,Peptide
26	SG	35	UNK	Mainchain,Peptide
26	SG	37	UNK	Peptide
26	SG	38	UNK	Peptide
26	SG	52	UNK	Mainchain,Peptide
26	SG	53	UNK	Peptide
26	SG	55	UNK	Mainchain
26	SG	56	UNK	Peptide
26	SG	71	UNK	Peptide
26	SG	75	UNK	Mainchain,Peptide
26	SG	80	UNK	Peptide
26	SG	81	UNK	Mainchain,Peptide
26	SG	83	UNK	Mainchain,Peptide
26	SG	86	UNK	Mainchain,Peptide
26	SG	87	UNK	Mainchain,Peptide
26	SG	9	UNK	Mainchain,Peptide
26	SG	96	UNK	Mainchain,Peptide
26	SG	97	UNK	Mainchain,Peptide
27	SH	105	THR	Peptide
27	SH	106	THR	Peptide
27	SH	120	ASN	Mainchain
27	SH	30	SER	Peptide
27	SH	78	ARG	Mainchain
27	SH	82	GLY	Mainchain,Peptide
27	SH	83	VAL	Peptide
27	SH	84	LYS	Peptide
27	SH	85	GLU	Peptide
27	SH	92	ARG	Sidechain
7	SI	125	ALA	Peptide
7	SI	129	ARG	Sidechain
7	SI	141	ARG	Sidechain
7	SI	148	TYR	Peptide
7	SI	98	TYR	Sidechain
8	SJ	10	PRO	Peptide
8	SJ	126	SER	Mainchain,Peptide
8	SJ	21	SER	Peptide
8	SJ	28	ARG	Peptide

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Mol	Chain	Res	Type	Group
8	SJ	30	ARG	Sidechain
8	SJ	66	PRO	Peptide
8	SJ	75	ARG	Sidechain
8	SJ	76	LYS	Peptide
8	SJ	77	SER	Peptide
8	SJ	78	PRO	Mainchain,Peptide
8	SJ	79	CYS	Peptide
8	SJ	81	GLU	Peptide
8	SJ	87	ASP	Peptide
8	SJ	89	PHE	Peptide
9	SK	132	THR	Peptide
9	SK	133	PRO	Peptide
9	SK	141	ARG	Peptide
9	SK	144	GLY	Peptide
9	SK	49	ARG	Sidechain
9	SK	64	ASP	Peptide
9	SK	65	ARG	Sidechain
9	SK	69	SER	Mainchain
9	SK	71	TYR	Peptide
9	SK	72	ALA	Peptide
9	SK	73	ALA	Peptide
9	SK	83	ARG	Sidechain
9	SK	88	GLY	Mainchain
9	SK	91	ALA	Mainchain
10	SL	118	ARG	Peptide
10	SL	121	VAL	Peptide
10	SL	123	LYS	Peptide
10	SL	27	TYR	Peptide
10	SL	3	LYS	Mainchain
10	SL	32	LEU	Peptide
10	SL	4	THR	Peptide
10	SL	5	ARG	Sidechain
10	SL	81	ALA	Peptide
10	SL	84	VAL	Mainchain,Peptide
11	SM	113	ARG	Sidechain,Peptide
11	SM	114	LEU	Mainchain
11	SM	118	ARG	Sidechain
11	SM	126	TYR	Sidechain
11	SM	13	LEU	Peptide
11	SM	132	ARG	Sidechain
11	SM	133	GLY	Mainchain
11	SM	134	GLN	Peptide

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Mol	Chain	Res	Type	Group
11	SM	136	THR	Peptide
11	SM	138	THR	Peptide
11	SM	144	LYS	Peptide
11	SM	147	GLY	Peptide
11	SM	148	VAL	Peptide
11	SM	34	LYS	Peptide
11	SM	82	TRP	Peptide
11	SM	89	ASP	Mainchain,Peptide
11	SM	9	PHE	Peptide
11	SM	90	TYR	Sidechain
11	SM	94	ARG	Sidechain
11	SM	95	PHE	Sidechain
11	SM	97	GLN	Mainchain
11	SM	98	VAL	Mainchain
28	SN	10	HIS	Mainchain
28	SN	22	ARG	Sidechain
28	SN	30	LEU	Peptide
28	SN	34	TYR	Mainchain,Peptide
28	SN	55	TYR	Peptide
12	SO	104	ARG	Sidechain
12	SO	106	ARG	Sidechain
12	SO	121	ARG	Sidechain
12	SO	124	ARG	Mainchain
12	SO	141	TYR	Sidechain
12	SO	31	ALA	Peptide
12	SO	55	ARG	Sidechain
12	SO	56	ASP	Mainchain
12	SO	64	LYS	Mainchain
12	SO	67	THR	Mainchain,Peptide
12	SO	80	LEU	Mainchain,Peptide
12	SO	99	ARG	Sidechain
14	SP	41	LEU	Mainchain
14	SP	53	THR	Peptide
14	SP	83	ARG	Sidechain
14	SP	89	ARG	Sidechain
14	SP	91	TYR	Sidechain
14	SP	98	TYR	Sidechain
13	SQ	109	LEU	Mainchain
13	SQ	112	ALA	Peptide
13	SQ	116	GLY	Peptide
13	SQ	119	ARG	Sidechain
13	SQ	123	VAL	Peptide

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Mol	Chain	Res	Type	Group
13	SQ	124	SER	Peptide
13	SQ	130	ARG	Peptide
13	SQ	136	PRO	Peptide
13	SQ	14	ARG	Sidechain
13	SQ	140	ARG	Sidechain
13	SQ	21	TYR	Mainchain,Peptide
13	SQ	23	ARG	Sidechain
13	SQ	26	LEU	Mainchain,Peptide
13	SQ	38	VAL	Peptide
13	SQ	47	ARG	Sidechain
13	SQ	60	ARG	Peptide
13	SQ	61	ILE	Peptide
13	SQ	63	ARG	Peptide
13	SQ	65	PRO	Peptide
13	SQ	67	ARG	Sidechain,Peptide
13	SQ	73	LEU	Mainchain,Peptide
13	SQ	74	GLN	Peptide
13	SQ	76	GLU	Peptide
13	SQ	81	ARG	Peptide
13	SQ	82	MET	Mainchain,Peptide
13	SQ	83	ASP	Peptide
13	SQ	86	PRO	Peptide
13	SQ	94	GLU	Mainchain,Peptide
13	SQ	96	ILE	Peptide
13	SQ	97	ARG	Sidechain,Peptide
16	SR	106	TYR	Sidechain
16	SR	139	ARG	Sidechain
16	SR	74	LYS	Peptide
16	SR	90	ARG	Sidechain
15	SS	123	GLY	Mainchain
15	SS	13	ASN	Mainchain
15	SS	132	ARG	Sidechain
15	SS	138	ALA	Mainchain,Peptide
15	SS	14	PRO	Mainchain
15	SS	17	PHE	Sidechain
15	SS	27	ARG	Sidechain
15	SS	29	GLY	Peptide
15	SS	33	LEU	Peptide
15	SS	4	SER	Mainchain
15	SS	42	THR	Peptide
15	SS	48	LEU	Peptide
15	SS	50	PRO	Peptide

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Mol	Chain	Res	Type	Group
15	SS	62	SER	Mainchain
15	SS	65	ARG	Sidechain
15	SS	68	TYR	Sidechain
15	SS	80	LYS	Peptide
15	SS	82	TYR	Sidechain
15	SS	92	PRO	Mainchain,Peptide
15	SS	93	PRO	Mainchain,Peptide
15	SS	98	SER	Mainchain,Peptide
29	ST	15	ARG	Sidechain
29	ST	26	ALA	Peptide
29	ST	28	ASP	Peptide
29	ST	40	ASP	Peptide
29	ST	8	MET	Peptide
29	ST	9	VAL	Peptide
23	SU	100	ASN	Peptide
23	SU	17	PHE	Sidechain
23	SU	22	LEU	Peptide
23	SU	25	ARG	Sidechain
23	SU	26	LYS	Peptide
23	SU	30	LEU	Peptide
23	SU	32	VAL	Peptide
23	SU	33	LEU	Mainchain,Peptide
23	SU	34	HIS	Mainchain,Peptide
23	SU	37	ARG	Peptide
23	SU	38	ALA	Peptide
23	SU	39	ASN	Peptide
23	SU	41	SER	Peptide
23	SU	5	LYS	Peptide
23	SU	53	TYR	Peptide
23	SU	68	THR	Mainchain,Peptide
23	SU	7	ALA	Mainchain,Peptide
23	SU	70	PHE	Peptide
23	SU	71	GLY	Mainchain,Peptide
23	SU	74	LYS	Peptide
23	SU	75	SER	Peptide
23	SU	76	THR	Peptide
23	SU	77	GLY	Peptide
23	SU	78	PHE	Sidechain
23	SU	79	GLY	Mainchain,Peptide
23	SU	8	PRO	Mainchain
23	SU	82	TYR	Mainchain,Peptide
23	SU	91	TYR	Sidechain

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Mol	Chain	Res	Type	Group
23	SU	92	GLU	Peptide
23	SU	95	TYR	Sidechain,Peptide
17	SV	104	ARG	Sidechain
17	SV	107	ASN	Peptide
17	SV	30	LYS	Peptide
17	SV	39	ASN	Mainchain
17	SV	78	ARG	Sidechain
18	SW	106	UNK	Peptide
18	SW	107	UNK	Mainchain,Peptide
18	SW	108	UNK	Peptide
18	SW	13	UNK	Peptide
18	SW	14	UNK	Mainchain,Peptide
18	SW	76	UNK	Peptide
18	SW	79	UNK	Peptide
18	SW	80	UNK	Peptide
18	SW	81	UNK	Peptide
18	SW	87	UNK	Peptide
24	SX	53	GLN	Mainchain
24	SX	65	LEU	Peptide
24	SX	74	ARG	Mainchain
19	SY	1	MET	Peptide
19	SY	21	GLY	Peptide
19	SY	22	GLN	Peptide
19	SY	23	VAL	Peptide
19	SY	27	ARG	Sidechain
19	SY	54	LEU	Peptide
20	SZ	1	MET	Peptide
20	SZ	10	ARG	Sidechain
20	SZ	18	THR	Peptide
20	SZ	22	ALA	Peptide
20	SZ	24	GLN	Peptide
20	SZ	3	LYS	Peptide
20	SZ	44	PHE	Mainchain,Peptide
20	SZ	46	THR	Peptide
1	Sa	105	LYS	Peptide
1	Sa	107	HIS	Peptide
1	Sa	133	SER	Peptide
1	Sa	143	ARG	Sidechain
1	Sa	148	PRO	Peptide
1	Sa	151	ARG	Sidechain
1	Sa	159	TYR	Sidechain
1	Sa	172	ARG	Sidechain

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Mol	Chain	Res	Type	Group
1	Sa	173	LEU	Peptide
1	Sa	200	PHE	Peptide
1	Sa	203	GLY	Peptide
1	Sa	206	ALA	Peptide
1	Sa	241	ALA	Peptide
1	Sa	243	ARG	Sidechain
1	Sa	245	TYR	Sidechain
1	Sa	247	GLY	Mainchain
1	Sa	26	ARG	Sidechain
1	Sa	274	ARG	Sidechain
1	Sa	287	TYR	Sidechain
1	Sa	301	VAL	Peptide
1	Sa	344	GLU	Peptide
1	Sa	346	ARG	Sidechain
1	Sa	63	GLN	Sidechain
1	Sa	70	TYR	Sidechain
1	Sa	82	VAL	Mainchain
21	Sc	3	UNK	Peptide

5.2 Too-close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	Sa	2842	0	2691	0	0
2	SA	1946	0	1876	281	0
3	SB	1539	0	1537	60	0
4	SD	1607	0	1675	235	0
5	SE	2028	0	2104	259	0
6	SF	1485	0	1525	103	0
7	SI	1017	0	1080	68	0
8	SJ	887	0	861	48	0
9	SK	830	0	806	104	0
10	SL	952	0	875	82	0
11	SM	1167	0	1141	137	0
12	SO	977	0	1056	106	0
13	SQ	1129	0	1160	66	0
14	SP	639	0	625	269	0
15	SS	1155	0	1173	103	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
16	SR	711	0	758	24	0
17	SV	740	0	746	196	0
18	SW	460	0	111	24	0
19	SY	442	0	467	34	0
20	SZ	469	0	500	24	0
21	Sc	126	0	26	0	0
22	Sb	181	0	39	0	0
23	SU	732	0	740	108	0
24	SX	375	0	367	96	0
25	SC	1535	0	1556	106	0
26	SG	716	0	160	74	0
27	SH	1042	0	1086	309	0
28	SN	313	0	269	33	0
29	ST	650	0	636	32	0
30	S3	236	0	120	15	0
31	S2	1599	0	797	277	0
32	S1	33897	0	16592	1570	0
33	L1	69592	0	34889	2810	0
34	L3	2565	0	1293	389	0
35	L2	3192	0	1590	112	0
36	LA	1718	0	1841	311	0
37	LB	1933	0	1932	305	0
38	LE	1376	0	1417	206	0
39	LF	1500	0	1564	88	0
40	LH	1564	0	1658	26	0
41	LM	1020	0	1059	88	0
42	LP	1630	0	1704	74	0
43	LO	1086	0	1127	63	0
44	LR	1284	0	1376	74	0
45	LQ	2395	0	2337	196	0
46	LT	1569	0	1676	382	0
47	LU	1266	0	1268	26	0
48	LV	1335	0	1337	168	0
49	LX	987	0	1083	37	0
50	LZ	578	0	566	27	0
51	LY	1048	0	1130	66	0
52	Lb	576	0	616	0	0
53	Ld	199	0	193	0	0
54	Lf	825	0	830	0	0
55	Lg	944	0	992	0	0
56	Lh	1089	0	1164	0	0
57	Li	725	0	718	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	Ln	547	0	578	0	0
59	Lo	460	0	490	0	0
60	Lr	838	0	887	0	0
61	Lq	238	0	289	0	0
62	Lx	101	0	24	0	0
62	Ly	101	0	23	0	0
63	Lz	71	0	16	0	0
64	LG	1730	0	1824	123	0
65	LL	910	0	202	82	0
66	LN	1081	0	1170	199	0
67	LS	1419	0	1465	179	0
68	LW	839	0	863	36	0
69	La	732	0	754	0	0
70	Li	964	0	1053	0	0
71	Lj	797	0	804	0	0
72	Lk	613	0	684	0	0
73	Lp	344	0	371	0	0
74	LJ	959	0	1039	22	0
75	Lt	432	0	463	0	0
75	Lu	432	0	463	0	0
76	Lv	441	0	453	0	0
76	Lw	441	0	453	0	0
77	Lc	1006	0	1100	0	0
78	Le	1984	0	2090	0	0
79	Ls	1993	0	2086	0	0
80	LC	3102	0	3191	69	0
81	LD	2866	0	2967	261	0
82	LK	1650	0	1771	118	0
83	Lm	715	0	756	0	0
84	LI	1468	0	1506	83	0
All	All	195694	0	140350	8317	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 30.

All (8317) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:LE:91:TYR:CG	38:LE:91:TYR:CD1	1.78	1.70
38:LE:91:TYR:CD2	38:LE:91:TYR:CE2	1.75	1.69
38:LE:91:TYR:CZ	38:LE:91:TYR:CE2	1.80	1.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:LE:91:TYR:CD1	38:LE:91:TYR:CE1	1.78	1.68
17:SV:48:TYR:CD1	17:SV:81:ILE:HG23	1.16	1.66
48:LV:114:TYR:CZ	48:LV:114:TYR:CE1	1.80	1.66
48:LV:114:TYR:CD1	48:LV:114:TYR:CE1	1.80	1.66
32:S1:320:A:P	33:L1:854:C:H4'	1.36	1.66
66:LN:110:VAL:CG1	82:LK:201:LEU:HD23	1.25	1.66
2:SA:64:LEU:CG	5:SE:44:TRP:CD1	1.77	1.65
33:L1:1364:C:H4'	81:LD:337:PHE:CZ	1.23	1.65
38:LE:91:TYR:CZ	38:LE:91:TYR:CE1	1.78	1.64
84:LI:110:ARG:HG2	84:LI:116:ARG:CG	1.26	1.63
11:SM:126:TYR:CE1	11:SM:126:TYR:CZ	1.86	1.63
38:LE:91:TYR:CD2	38:LE:91:TYR:CG	1.81	1.62
65:LL:153:UNK:C	65:LL:153:UNK:CA	1.76	1.62
33:L1:1753:A:C2'	33:L1:1753:A:C1'	1.76	1.62
65:LL:152:UNK:C	65:LL:152:UNK:CA	1.77	1.62
65:LL:151:UNK:CA	65:LL:151:UNK:C	1.75	1.61
32:S1:991:G:H5'	37:LB:133:TYR:CE1	1.28	1.61
33:L1:1364:C:C4'	81:LD:337:PHE:HZ	1.12	1.60
33:L1:3299:A:C1'	33:L1:3299:A:C2'	1.77	1.60
64:LG:185:ASP:CB	64:LG:185:ASP:CA	1.76	1.60
66:LN:41:PRO:CG	66:LN:75:MET:HG3	1.28	1.60
32:S1:1664:U:H4'	33:L1:2119:A:C4'	1.27	1.60
33:L1:1246:G:C1'	33:L1:1246:G:C2'	1.77	1.60
33:L1:1222:U:C1'	33:L1:1222:U:C2'	1.74	1.59
25:SC:163:THR:CA	25:SC:163:THR:CB	1.77	1.59
33:L1:2355:A:C1'	33:L1:2355:A:C2'	1.81	1.58
33:L1:2766:U:C1'	33:L1:2766:U:C2'	1.77	1.58
33:L1:299:G:C1'	33:L1:299:G:C2'	1.78	1.58
84:LI:110:ARG:H	84:LI:116:ARG:CZ	1.09	1.58
33:L1:262:A:C1'	33:L1:262:A:C2'	1.81	1.57
65:LL:154:UNK:C	65:LL:154:UNK:CA	1.81	1.57
65:LL:192:UNK:C	65:LL:192:UNK:CA	1.77	1.57
2:SA:64:LEU:HD12	5:SE:44:TRP:CG	1.34	1.57
68:LW:29:LYS:CB	68:LW:29:LYS:CA	1.77	1.57
25:SC:171:PRO:CG	25:SC:171:PRO:CD	1.81	1.57
35:L2:90:U:C2'	35:L2:90:U:C1'	1.76	1.57
33:L1:1258:C:C2'	33:L1:1258:C:C1'	1.74	1.57
33:L1:2780:G:C1'	33:L1:2780:G:C2'	1.75	1.56
2:SA:64:LEU:HG	5:SE:44:TRP:CD1	1.30	1.56
23:SU:72:GLY:N	23:SU:72:GLY:CA	1.67	1.56
82:LK:135:GLN:CB	82:LK:135:GLN:CA	1.76	1.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:LE:34:ARG:CB	38:LE:34:ARG:CA	1.77	1.56
32:S1:1759:A:C1'	32:S1:1759:A:C2'	1.82	1.56
7:SI:133:LYS:CE	32:S1:1592:G:C3'	1.81	1.56
32:S1:61:A:C2'	32:S1:61:A:C1'	1.76	1.56
2:SA:64:LEU:CD1	5:SE:44:TRP:CD1	1.79	1.55
33:L1:283:A:C2'	33:L1:283:A:C1'	1.75	1.55
7:SI:133:LYS:HE3	32:S1:1592:G:C3'	1.35	1.55
32:S1:373:U:C1'	32:S1:373:U:C2'	1.78	1.55
32:S1:1664:U:C5'	33:L1:2119:A:H5''	1.24	1.54
32:S1:976:A:N6	33:L1:849:A:C8	1.68	1.54
33:L1:381:G:C2'	33:L1:381:G:C1'	1.75	1.54
35:L2:124:G:C2'	35:L2:124:G:C1'	1.79	1.54
45:LQ:256:SER:C	45:LQ:256:SER:CA	1.75	1.54
33:L1:3124:A:C2'	33:L1:3124:A:C1'	1.77	1.54
4:SD:153:ILE:CA	4:SD:153:ILE:N	1.67	1.54
26:SG:128:UNK:HA	32:S1:642:C:C4'	1.37	1.54
33:L1:2474:A:C1'	33:L1:2474:A:C2'	1.74	1.54
32:S1:860:A:C1'	46:LT:173:LYS:HD2	1.37	1.54
33:L1:3227:U:C1'	33:L1:3227:U:C2'	1.86	1.54
34:L3:73:U:C2'	34:L3:73:U:C1'	1.74	1.53
33:L1:99:A:H5'	42:LP:182:HIS:CE1	1.40	1.53
33:L1:102:G:C1'	33:L1:102:G:C2'	1.81	1.53
38:LE:153:HIS:NE2	38:LE:153:HIS:CD2	1.70	1.53
33:L1:2599:U:C1'	33:L1:2599:U:C2'	1.82	1.53
32:S1:1108:U:C2'	32:S1:1108:U:C1'	1.76	1.53
32:S1:632:G:C2'	32:S1:632:G:C1'	1.82	1.53
32:S1:860:A:H1'	46:LT:173:LYS:CD	1.11	1.53
32:S1:927:A:C4'	37:LB:140:ASN:ND2	1.69	1.52
32:S1:1664:U:C4'	33:L1:2119:A:H4'	1.30	1.52
32:S1:635:G:C2'	32:S1:635:G:C1'	1.82	1.52
33:L1:1057:A:C1'	33:L1:1057:A:C2'	1.76	1.52
30:S3:16:G:C2'	30:S3:16:G:C1'	1.79	1.52
34:L3:116:U:H4'	45:LQ:80:TYR:CE1	1.37	1.52
32:S1:1225:A:C2'	32:S1:1225:A:C1'	1.86	1.52
23:SU:82:TYR:CA	23:SU:82:TYR:N	1.71	1.51
31:S2:8:U:C1'	31:S2:8:U:C2'	1.78	1.51
33:L1:2125:A:C2'	33:L1:2125:A:C1'	1.85	1.51
11:SM:14:ARG:NH1	38:LE:109:GLN:CB	1.73	1.51
5:SE:258:LYS:NZ	27:SH:69:LEU:HB2	1.25	1.51
33:L1:2252:C:C1'	33:L1:2252:C:C2'	1.77	1.51
32:S1:860:A:C1'	46:LT:173:LYS:CD	1.87	1.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1613:C:P	33:L1:1613:C:OP1	1.14	1.50
67:LS:151:PHE:CB	67:LS:151:PHE:CG	1.90	1.50
32:S1:978:A:C2	33:L1:849:A:H2	1.28	1.50
84:LI:110:ARG:CG	84:LI:116:ARG:CD	1.86	1.50
26:SG:12:UNK:CA	26:SG:12:UNK:N	1.67	1.50
32:S1:299:A:C1'	32:S1:299:A:C2'	1.75	1.50
33:L1:1679:U:C2'	33:L1:1679:U:C1'	1.85	1.49
33:L1:3326:U:C1'	33:L1:3326:U:C2'	1.75	1.49
33:L1:1081:U:C2'	33:L1:1081:U:C1'	1.84	1.49
33:L1:2952:G:C2'	33:L1:2952:G:C1'	1.79	1.49
33:L1:3203:G:C1'	33:L1:3203:G:C2'	1.80	1.49
65:LL:154:UNK:N	65:LL:154:UNK:CA	1.68	1.49
5:SE:258:LYS:CE	27:SH:69:LEU:HB2	1.38	1.49
45:LQ:202:GLY:N	45:LQ:202:GLY:CA	1.72	1.49
33:L1:1849:U:C2'	33:L1:1849:U:C1'	1.83	1.49
33:L1:2783:U:C2'	33:L1:2783:U:C1'	1.79	1.49
32:S1:329:G:H21	33:L1:2085:A:C5'	1.26	1.49
33:L1:2361:C:C1'	33:L1:2361:C:C2'	1.78	1.49
33:L1:3156:G:C1'	33:L1:3156:G:C2'	1.84	1.49
33:L1:1646:U:C2'	33:L1:1646:U:C1'	1.84	1.49
26:SG:64:UNK:C	26:SG:65:UNK:N	1.72	1.49
4:SD:240:LYS:N	4:SD:240:LYS:CA	1.70	1.48
33:L1:2450:G:C2'	33:L1:2450:G:C1'	1.81	1.48
64:LG:50:PHE:N	64:LG:50:PHE:CA	1.75	1.48
32:S1:1332:G:C1'	32:S1:1332:G:C2'	1.75	1.48
12:SO:93:LYS:HE3	39:LF:23:LYS:CA	175.91	1.48
33:L1:2779:G:C1'	33:L1:2779:G:C2'	1.91	1.47
19:SY:47:ARG:C	19:SY:48:GLU:N	1.67	1.47
32:S1:1308:G:C1'	32:S1:1308:G:C2'	1.77	1.47
32:S1:843:G:N2	33:L1:2063:U:C5	1.83	1.47
66:LN:41:PRO:HG3	66:LN:75:MET:CG	1.40	1.47
31:S2:72:G:C1'	31:S2:72:G:C2'	1.89	1.47
34:L3:3:A:O4'	34:L3:3:A:C1'	1.63	1.47
25:SC:106:PHE:CE1	25:SC:106:PHE:CD1	2.03	1.47
33:L1:2973:A:C1'	33:L1:2973:A:C2'	1.75	1.46
33:L1:1050:A:C2'	33:L1:1050:A:C1'	1.80	1.46
32:S1:860:A:C5'	46:LT:177:ARG:HB2	1.46	1.46
33:L1:1767:G:C2'	33:L1:1767:G:C1'	1.79	1.46
33:L1:1568:A:C2'	33:L1:1568:A:C1'	1.75	1.46
68:LW:29:LYS:N	68:LW:29:LYS:CA	1.78	1.46
5:SE:30:ARG:CD	5:SE:30:ARG:NE	1.78	1.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:997:G:C1'	33:L1:997:G:C2'	1.85	1.45
6:SF:99:LEU:HD11	17:SV:66:LEU:CD1	1.46	1.45
33:L1:3304:U:C2'	33:L1:3304:U:C1'	1.79	1.45
35:L2:158:G:C2'	35:L2:158:G:C1'	1.74	1.45
32:S1:1663:A:C3'	33:L1:1918:A:H1'	1.28	1.45
33:L1:1577:A:C2'	33:L1:1577:A:C1'	1.80	1.45
14:SP:124:VAL:C	46:LT:165:LYS:HG3	1.28	1.45
32:S1:1566:U:O4'	32:S1:1566:U:C1'	1.63	1.44
17:SV:48:TYR:CD1	17:SV:81:ILE:CG2	2.01	1.44
33:L1:1083:C:C1'	33:L1:1083:C:C2'	1.77	1.44
4:SD:153:ILE:CA	4:SD:153:ILE:C	1.86	1.44
13:SQ:104:GLU:CG	20:SZ:31:ARG:NH1	1.78	1.44
17:SV:48:TYR:CE1	17:SV:81:ILE:HG23	1.53	1.44
32:S1:1673:C:C1'	33:L1:1914:C:O2'	1.63	1.43
7:SI:133:LYS:HE2	32:S1:1592:G:C5'	1.48	1.43
33:L1:716:A:O4'	33:L1:716:A:C1'	1.63	1.43
34:L3:48:G:C1'	34:L3:48:G:C2'	1.89	1.43
33:L1:1364:C:O3'	81:LD:337:PHE:CE1	1.70	1.43
65:LL:55:UNK:CA	65:LL:55:UNK:N	1.82	1.43
14:SP:122:ASP:O	46:LT:162:LYS:CG	1.67	1.43
32:S1:991:G:C5'	37:LB:133:TYR:HE1	1.30	1.42
33:L1:72:A:C2'	33:L1:72:A:C1'	1.77	1.42
32:S1:1678:G:C1'	32:S1:1678:G:C2'	1.81	1.42
2:SA:109:PRO:C	2:SA:110:GLY:CA	1.86	1.42
27:SH:94:LEU:CD1	27:SH:95:PRO:HD2	1.46	1.42
7:SI:133:LYS:NZ	32:S1:1592:G:H4'	1.22	1.42
5:SE:250:GLN:C	5:SE:251:GLU:N	1.68	1.42
7:SI:133:LYS:CE	32:S1:1592:G:C4'	1.98	1.42
33:L1:3354:A:C2'	33:L1:3354:A:C1'	1.87	1.42
34:L3:116:U:C4'	45:LQ:80:TYR:OH	1.65	1.42
14:SP:89:ARG:HG3	46:LT:151:ARG:NH2	1.24	1.42
32:S1:1686:C:C5'	33:L1:3334:A:OP1	1.65	1.41
33:L1:1395:A:C1'	33:L1:1395:A:C2'	1.84	1.41
33:L1:2486:G:C2'	33:L1:2486:G:C1'	1.87	1.41
32:S1:887:U:C6	41:LM:85:ARG:NH2	99.11	1.41
31:S2:75:A:OP2	33:L1:2957:U:C4'	1.66	1.41
65:LL:192:UNK:C	65:LL:192:UNK:N	1.76	1.41
14:SP:93:HIS:CE1	33:L1:2080:G:C4'	2.04	1.41
33:L1:2216:G:C2'	33:L1:2216:G:C1'	1.84	1.41
33:L1:1691:U:C2'	33:L1:1691:U:C1'	1.98	1.41
33:L1:986:G:C1'	33:L1:986:G:C2'	1.93	1.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:SP:94:PHE:H	46:LT:151:ARG:CG	1.33	1.41
26:SG:11:UNK:N	26:SG:11:UNK:CA	1.83	1.41
17:SV:96:HIS:CD2	17:SV:101:ILE:HA	1.55	1.41
33:L1:280:G:C1'	33:L1:280:G:C2'	1.92	1.41
33:L1:3094:C:C1'	33:L1:3094:C:O4'	1.65	1.41
13:SQ:104:GLU:HG3	20:SZ:31:ARG:NH1	1.13	1.41
33:L1:1312:A:O4'	33:L1:1312:A:C1'	1.64	1.40
32:S1:1676:G:C8	33:L1:1932:A:O3'	1.71	1.40
12:SO:93:LYS:CE	39:LF:23:LYS:HA	175.79	1.40
33:L1:2318:U:C1'	33:L1:2318:U:C2'	1.87	1.40
32:S1:989:G:H5'	37:LB:173:GLY:CA	1.49	1.40
33:L1:2362:A:C2'	33:L1:2362:A:C1'	1.78	1.40
32:S1:701:C:OP1	32:S1:701:C:P	1.00	1.40
32:S1:1792:A:C2'	32:S1:1792:A:C1'	1.82	1.40
32:S1:701:C:OP2	32:S1:701:C:P	1.00	1.40
32:S1:823:A:OP2	32:S1:823:A:P	1.00	1.40
14:SP:92:LEU:HA	46:LT:151:ARG:NH2	1.30	1.40
32:S1:1659:A:O4'	32:S1:1659:A:C1'	1.64	1.39
32:S1:636:U:O4'	32:S1:636:U:C1'	1.68	1.39
31:S2:74:C:H1'	33:L1:2404:C:C5'	1.49	1.39
33:L1:62:A:C1'	33:L1:62:A:C2'	1.81	1.39
33:L1:1533:U:C1'	33:L1:1533:U:O4'	1.65	1.39
32:S1:764:U:OP2	32:S1:764:U:P	1.00	1.39
28:SN:51:GLY:C	28:SN:52:PHE:N	1.72	1.39
66:LN:110:VAL:HG11	82:LK:201:LEU:CD2	1.53	1.39
32:S1:1682:U:O4'	32:S1:1682:U:C1'	1.64	1.39
33:L1:1295:A:C1'	33:L1:1295:A:C2'	1.79	1.39
33:L1:716:A:C1'	33:L1:716:A:C2'	1.99	1.39
33:L1:1867:U:C5'	46:LT:57:ILE:O	1.71	1.39
8:SJ:68:LYS:HE2	32:S1:1524:A:C4'	1.51	1.39
32:S1:823:A:N7	46:LT:172:ARG:CB	1.83	1.39
32:S1:861:A:C5	46:LT:171:GLU:OE1	1.75	1.39
35:L2:97:U:C1'	35:L2:97:U:C2'	1.99	1.39
32:S1:329:G:N2	33:L1:2085:A:C5'	1.83	1.38
33:L1:1018:C:C1'	33:L1:1018:C:O4'	1.68	1.38
32:S1:354:G:N1	33:L1:847:G:H4'	1.34	1.38
32:S1:929:A:H5'	37:LB:137:ILE:CA	1.52	1.38
33:L1:1826:G:C1'	33:L1:1826:G:C2'	1.90	1.38
32:S1:1745:U:C5'	33:L1:1931:G:H5''	1.41	1.38
32:S1:977:G:C5'	33:L1:851:A:N1	1.80	1.38
33:L1:3234:G:C1'	33:L1:3234:G:C2'	1.86	1.38

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:764:U:P	32:S1:764:U:OP1	1.00	1.38
33:L1:475:U:O4'	33:L1:475:U:C1'	1.63	1.38
84:LI:110:ARG:NE	84:LI:116:ARG:HB2	1.36	1.38
32:S1:860:A:C1'	46:LT:173:LYS:CG	2.00	1.38
32:S1:860:A:N9	46:LT:173:LYS:HB3	1.30	1.37
84:LI:110:ARG:CG	84:LI:116:ARG:HD2	1.44	1.37
33:L1:2247:A:C1'	33:L1:2247:A:C2'	2.00	1.37
44:LR:41:LYS:N	81:LD:325:LYS:HD3	1.39	1.37
32:S1:1266:U:O4'	32:S1:1266:U:C1'	1.65	1.37
32:S1:1547:G:C1'	32:S1:1547:G:O4'	1.63	1.37
2:SA:109:PRO:CA	2:SA:110:GLY:N	1.86	1.37
32:S1:1747:A:C8	33:L1:1930:G:N3	1.93	1.36
33:L1:2160:C:OP1	42:LP:76:PRO:CG	1.73	1.36
31:S2:75:A:H5''	33:L1:2956:U:C1'	1.53	1.36
32:S1:1351:U:C1'	32:S1:1351:U:O4'	1.64	1.36
33:L1:641:C:O4'	33:L1:641:C:C1'	1.63	1.36
32:S1:861:A:C6	46:LT:171:GLU:OE1	1.78	1.36
32:S1:918:G:N1	33:L1:2202:A:OP2	1.58	1.36
33:L1:1350:G:C1'	33:L1:1350:G:C2'	1.74	1.36
84:LI:110:ARG:HG2	84:LI:116:ARG:CD	1.47	1.36
33:L1:2391:C:O4'	33:L1:2391:C:C1'	1.64	1.36
32:S1:976:A:N6	33:L1:849:A:H8	0.86	1.36
3:SB:153:LYS:CD	3:SB:153:LYS:CE	2.03	1.36
14:SP:56:ASP:CA	46:LT:123:MET:CE	2.00	1.36
32:S1:978:A:OP1	33:L1:852:C:C1'	1.71	1.36
14:SP:94:PHE:N	46:LT:151:ARG:HG3	1.35	1.35
32:S1:1343:C:O4'	32:S1:1343:C:C1'	1.63	1.35
27:SH:64:GLU:O	27:SH:65:LEU:CG	1.73	1.35
33:L1:2875:U:O4'	33:L1:2875:U:C1'	1.65	1.35
31:S2:3:C:P	33:L1:2626:G:H5'	1.57	1.35
29:ST:82:GLN:CA	33:L1:2540:C:O2'	1.72	1.35
32:S1:1664:U:C5'	33:L1:2119:A:C5'	2.02	1.35
33:L1:265:G:C1'	33:L1:265:G:O4'	1.64	1.35
33:L1:1370:A:C1'	33:L1:1370:A:O4'	1.68	1.35
33:L1:1563:G:O4'	33:L1:1563:G:C1'	1.68	1.35
33:L1:2640:A:C1'	33:L1:2640:A:C2'	1.93	1.35
32:S1:929:A:O4'	37:LB:137:ILE:CD1	1.75	1.35
14:SP:60:PRO:CB	33:L1:2083:U:OP1	1.72	1.34
32:S1:992:G:C5'	37:LB:149:LYS:NZ	1.84	1.34
27:SH:94:LEU:CG	27:SH:95:PRO:HD2	1.56	1.34
33:L1:49:U:C1'	33:L1:49:U:O4'	1.64	1.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L3:20:C:O2'	45:LQ:252:THR:CG2	1.74	1.34
2:SA:72:ILE:CG1	5:SE:66:TYR:CE1	2.10	1.34
10:SL:65:ILE:CD1	32:S1:438:G:OP1	1.73	1.34
14:SP:122:ASP:H	46:LT:162:LYS:CE	1.41	1.34
32:S1:1512:C:C1'	32:S1:1512:C:O4'	1.63	1.34
32:S1:902:C:C1'	32:S1:902:C:O4'	1.65	1.34
32:S1:1747:A:C1'	33:L1:1915:G:N3	1.89	1.34
32:S1:1747:A:C5'	33:L1:1930:G:N7	1.87	1.34
32:S1:354:G:C6	33:L1:847:G:H4'	1.60	1.34
32:S1:978:A:C2	33:L1:849:A:C2	2.15	1.33
11:SM:14:ARG:NH1	38:LE:109:GLN:OE1	1.60	1.33
33:L1:2668:U:C1'	33:L1:2668:U:C2'	2.03	1.33
32:S1:1737:A:P	33:L1:2102:C:H6	1.50	1.33
33:L1:2590:C:C1'	33:L1:2590:C:O4'	1.66	1.33
32:S1:301:U:C1'	32:S1:301:U:O4'	1.64	1.33
33:L1:1265:G:C2'	33:L1:1265:G:C1'	2.03	1.33
14:SP:93:HIS:ND1	33:L1:2080:G:H4'	1.36	1.33
11:SM:14:ARG:CZ	38:LE:109:GLN:HB3	1.57	1.33
33:L1:2135:U:O4'	33:L1:2135:U:C1'	1.66	1.33
32:S1:977:G:C4	33:L1:850:A:C5	2.02	1.33
11:SM:14:ARG:NH1	38:LE:109:GLN:HB3	1.35	1.33
2:SA:113:THR:HG22	32:S1:1298:G:O2'	1.28	1.33
33:L1:3328:A:O4'	33:L1:3328:A:C1'	1.66	1.33
32:S1:1740:G:C2'	32:S1:1740:G:C1'	1.84	1.33
32:S1:509:A:O4'	32:S1:509:A:C1'	1.64	1.33
16:SR:86:ARG:C	16:SR:87:THR:N	1.80	1.33
33:L1:1778:C:O4'	33:L1:1778:C:C1'	1.64	1.32
32:S1:1758:G:OP1	33:L1:2298:A:H5''	1.25	1.32
32:S1:187:C:N4	32:S1:188:U:C4	1.97	1.32
33:L1:1608:C:C1'	33:L1:1608:C:O4'	1.63	1.32
32:S1:593:C:C1'	32:S1:593:C:O4'	1.70	1.32
3:SB:154:ASP:C	3:SB:155:GLY:N	1.79	1.32
25:SC:10:LYS:HZ3	32:S1:505:U:C5'	1.39	1.32
32:S1:895:U:O2'	37:LB:155:LYS:NZ	1.58	1.32
14:SP:90:ASN:O	33:L1:2081:C:C4'	1.77	1.32
33:L1:2203:A:C2'	33:L1:2203:A:C1'	2.04	1.32
33:L1:917:A:O4'	33:L1:917:A:C1'	1.68	1.32
35:L2:119:C:C1'	35:L2:119:C:O4'	1.64	1.32
32:S1:1664:U:H5''	33:L1:2119:A:C5'	1.59	1.32
34:L3:116:U:H4'	45:LQ:80:TYR:CZ	1.64	1.32
32:S1:860:A:C4	46:LT:173:LYS:HB3	1.63	1.32

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:SS:2:ALA:HB2	32:S1:1364:C:C4'	1.59	1.32
33:L1:2231:G:C2'	33:L1:2231:G:C1'	1.92	1.31
32:S1:823:A:N7	46:LT:172:ARG:HB2	1.01	1.31
33:L1:1723:C:C1'	33:L1:1723:C:O4'	1.67	1.31
32:S1:1759:A:C1'	32:S1:1759:A:O4'	1.77	1.31
27:SH:94:LEU:HD13	27:SH:95:PRO:CD	1.61	1.31
14:SP:94:PHE:H	46:LT:151:ARG:CD	1.40	1.31
33:L1:288:G:H5''	42:LP:98:LYS:CE	1.59	1.31
31:S2:69:G:C5'	33:L1:2965:C:OP1	1.77	1.31
33:L1:527:G:O4'	33:L1:527:G:C1'	1.64	1.31
81:LD:370:GLU:O	81:LD:374:VAL:HG23	1.26	1.31
33:L1:1630:C:C1'	33:L1:1630:C:O4'	1.65	1.31
33:L1:1817:U:C1'	33:L1:1817:U:O4'	1.67	1.31
29:ST:82:GLN:CB	33:L1:2540:C:O2'	1.67	1.31
5:SE:258:LYS:CE	27:SH:69:LEU:CB	2.06	1.31
33:L1:2543:G:C1'	33:L1:2543:G:O4'	1.64	1.30
32:S1:1674:C:C1'	32:S1:1674:C:O4'	1.68	1.30
32:S1:582:U:O4'	32:S1:582:U:C1'	1.72	1.30
32:S1:600:C:O4'	32:S1:600:C:C1'	1.65	1.30
25:SC:63:THR:CB	25:SC:63:THR:OG1	1.79	1.30
32:S1:823:A:C5	46:LT:172:ARG:HB2	1.35	1.30
35:L2:140:G:H5''	49:LX:66:LYS:CD	1.61	1.30
32:S1:1012:C:O4'	32:S1:1012:C:C1'	1.63	1.30
32:S1:618:C:O4'	32:S1:618:C:C1'	1.64	1.30
32:S1:918:G:C2	33:L1:2202:A:OP2	1.82	1.30
33:L1:3081:G:C1'	33:L1:3081:G:O4'	1.67	1.30
32:S1:563:C:O4'	32:S1:563:C:C1'	1.67	1.30
32:S1:990:G:H5'	37:LB:131:GLY:O	1.14	1.30
84:LI:110:ARG:CD	84:LI:114:GLY:O	1.79	1.30
33:L1:529:C:OP1	66:LN:69:THR:CG2	1.79	1.30
32:S1:576:C:C1'	32:S1:576:C:O4'	1.65	1.30
7:SI:133:LYS:NZ	32:S1:1592:G:C4'	1.91	1.30
32:S1:1747:A:C8	33:L1:1930:G:C2	2.20	1.30
33:L1:1547:G:C1'	33:L1:1547:G:O4'	1.65	1.30
4:SD:167:ASN:C	4:SD:168:LYS:N	1.85	1.30
27:SH:52:PHE:O	27:SH:53:VAL:HG23	1.14	1.30
12:SO:69:SER:HB2	24:SX:49:PHE:CE2	1.67	1.30
32:S1:823:A:C1'	32:S1:823:A:O4'	1.69	1.30
27:SH:94:LEU:HD22	27:SH:95:PRO:CD	1.61	1.30
41:LM:91:LYS:NZ	80:LC:72:THR:OG1	1.57	1.30
14:SP:121:GLY:CA	46:LT:162:LYS:NZ	1.93	1.30

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:633:U:C1'	32:S1:633:U:C2'	2.09	1.30
33:L1:264:C:C1'	33:L1:264:C:O4'	1.68	1.30
7:SI:130:CYS:O	32:S1:1592:G:H2'	1.26	1.30
32:S1:893:U:O4'	32:S1:893:U:C1'	1.64	1.30
33:L1:1193:A:O4'	33:L1:1193:A:C1'	1.68	1.29
32:S1:1676:G:C8	33:L1:1933:U:P	2.22	1.29
33:L1:803:G:C1'	33:L1:803:G:C2'	1.98	1.29
33:L1:584:G:O4'	33:L1:584:G:C1'	1.70	1.29
33:L1:2802:G:O4'	33:L1:2802:G:C1'	1.74	1.29
33:L1:697:A:OP1	65:LL:30:UNK:CB	1.81	1.29
34:L3:46:C:H4'	45:LQ:96:TYR:CE1	1.66	1.29
34:L3:56:G:H21	45:LQ:54:ARG:NH2	1.27	1.29
33:L1:9:C:O4'	33:L1:9:C:C1'	1.71	1.29
33:L1:1218:U:C5'	67:LS:93:TYR:O	1.79	1.29
41:LM:91:LYS:NZ	80:LC:72:THR:CB	1.94	1.29
84:LI:110:ARG:N	84:LI:116:ARG:CZ	1.94	1.29
26:SG:127:UNK:C	32:S1:642:C:H4'	1.62	1.29
14:SP:92:LEU:HA	46:LT:151:ARG:CZ	1.61	1.29
32:S1:329:G:N2	33:L1:2085:A:C4'	1.94	1.29
33:L1:2786:G:O4'	33:L1:2786:G:C1'	1.72	1.29
33:L1:1241:G:C1'	33:L1:1241:G:O4'	1.71	1.29
33:L1:1647:C:C1'	33:L1:1647:C:O4'	1.67	1.29
25:SC:171:PRO:CB	25:SC:171:PRO:CD	2.10	1.29
26:SG:123:UNK:CB	27:SH:52:PHE:CE1	2.16	1.29
5:SE:258:LYS:HZ1	27:SH:69:LEU:CB	1.44	1.29
32:S1:1719:C:O4'	32:S1:1719:C:C1'	1.64	1.28
14:SP:54:TYR:O	46:LT:144:LYS:NZ	1.65	1.28
14:SP:94:PHE:N	46:LT:151:ARG:CG	1.91	1.28
33:L1:3316:C:C1'	33:L1:3316:C:O4'	1.64	1.28
34:L3:116:U:C4'	45:LQ:80:TYR:CZ	2.14	1.28
32:S1:349:U:C5'	46:LT:141:SER:OG	1.81	1.28
9:SK:93:HIS:C	9:SK:94:ILE:N	1.85	1.28
33:L1:1061:A:O4'	33:L1:1061:A:C1'	1.67	1.28
31:S2:26:G:C8	33:L1:2260:C:H5'	1.68	1.28
33:L1:446:C:O4'	33:L1:446:C:C1'	1.67	1.28
81:LD:379:LYS:O	81:LD:383:LYS:HG3	1.31	1.28
32:S1:1739:U:C1'	32:S1:1739:U:O4'	1.72	1.28
8:SJ:68:LYS:HE2	32:S1:1524:A:C3'	1.63	1.28
32:S1:1745:U:C5'	33:L1:1931:G:C5'	2.10	1.27
33:L1:2744:C:C1'	33:L1:2744:C:O4'	1.65	1.27
11:SM:12:ILE:HG12	38:LE:117:LYS:O	1.21	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:LN:95:VAL:HG13	82:LK:206:TYR:C	1.52	1.27
10:SL:5:ARG:O	27:SH:84:LYS:HB2	1.32	1.27
32:S1:1589:C:O4'	32:S1:1589:C:C1'	1.64	1.27
32:S1:1747:A:C4'	33:L1:1915:G:H21	1.46	1.27
32:S1:861:A:N6	46:LT:171:GLU:OE1	1.63	1.27
33:L1:232:C:O4'	33:L1:232:C:C1'	1.66	1.27
33:L1:238:C:C1'	33:L1:238:C:O4'	1.68	1.27
81:LD:332:LYS:O	81:LD:335:PRO:CD	1.82	1.27
2:SA:72:ILE:HB	5:SE:66:TYR:CE1	1.70	1.27
32:S1:1674:C:OP1	33:L1:1914:C:H5'	1.29	1.27
33:L1:796:C:O4'	33:L1:796:C:C1'	1.63	1.27
81:LD:333:LEU:O	81:LD:337:PHE:CD2	1.87	1.27
33:L1:288:G:OP1	42:LP:98:LYS:HG3	1.28	1.26
14:SP:121:GLY:CA	46:LT:162:LYS:HZ1	1.44	1.26
4:SD:219:ALA:O	32:S1:653:U:H5'	1.34	1.26
11:SM:14:ARG:HD2	38:LE:109:GLN:CG	1.65	1.26
33:L1:1806:C:C1'	33:L1:1806:C:O4'	1.63	1.26
81:LD:377:ALA:O	81:LD:381:TRP:CD1	1.88	1.26
25:SC:43:GLU:C	25:SC:44:LEU:N	1.86	1.26
35:L2:121:C:C1'	35:L2:121:C:O4'	1.64	1.26
33:L1:529:C:OP1	66:LN:69:THR:HG21	1.24	1.26
33:L1:1538:A:O4'	33:L1:1538:A:C1'	1.65	1.26
33:L1:632:C:O4'	33:L1:632:C:C1'	1.69	1.26
32:S1:989:G:H5'	37:LB:173:GLY:N	1.48	1.26
32:S1:988:G:O2'	37:LB:173:GLY:CA	1.84	1.26
81:LD:366:LEU:O	81:LD:370:GLU:HG3	1.09	1.26
81:LD:377:ALA:O	81:LD:381:TRP:HD1	1.18	1.26
6:SF:80:GLY:N	32:S1:1479:U:H6	1.34	1.26
32:S1:861:A:H62	46:LT:171:GLU:CG	1.47	1.26
33:L1:1754:C:O4'	33:L1:1754:C:C1'	1.73	1.26
32:S1:1736:C:OP1	33:L1:2103:U:H6	1.18	1.26
14:SP:124:VAL:N	46:LT:165:LYS:CB	1.98	1.26
33:L1:1664:G:O4'	33:L1:1664:G:C1'	1.65	1.25
35:L2:128:C:O4'	35:L2:128:C:C1'	1.65	1.25
34:L3:26:C:C1'	34:L3:26:C:O4'	1.63	1.25
5:SE:31:ARG:NE	27:SH:67:GLY:CA	1.99	1.25
32:S1:1748:U:OP1	33:L1:1916:U:O2'	1.53	1.25
32:S1:1088:G:C1'	32:S1:1088:G:O4'	1.65	1.25
32:S1:1746:U:C2	33:L1:1930:G:N2	2.03	1.25
32:S1:200:C:O4'	32:S1:200:C:C1'	1.73	1.25
10:SL:118:ARG:N	32:S1:590:G:OP2	1.69	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:SP:92:LEU:CD2	46:LT:151:ARG:HH12	1.46	1.25
33:L1:1364:C:H1'	81:LD:333:LEU:CD2	1.66	1.25
84:LI:110:ARG:N	84:LI:116:ARG:NH2	1.83	1.25
66:LN:95:VAL:HG13	82:LK:206:TYR:O	1.32	1.25
33:L1:2724:A:C1'	33:L1:2724:A:O4'	1.63	1.25
32:S1:999:G:O2'	37:LB:246:LEU:HD22	1.10	1.25
33:L1:596:C:C1'	33:L1:596:C:O4'	1.70	1.25
14:SP:93:HIS:HE1	33:L1:2080:G:O4'	1.15	1.25
32:S1:989:G:C5'	37:LB:173:GLY:H	1.48	1.25
20:SZ:10:ARG:HG2	32:S1:1255:U:OP2	1.09	1.25
34:L3:116:U:C4'	45:LQ:80:TYR:CE1	2.18	1.25
32:S1:929:A:C5'	37:LB:137:ILE:HG13	1.64	1.25
33:L1:995:C:C1'	33:L1:995:C:O4'	1.72	1.25
32:S1:504:C:C1'	32:S1:504:C:O4'	1.65	1.25
2:SA:64:LEU:HG	5:SE:44:TRP:NE1	1.50	1.25
33:L1:3101:C:C1'	33:L1:3101:C:O4'	1.68	1.25
32:S1:317:U:C1'	32:S1:317:U:O4'	1.63	1.25
33:L1:1530:C:C1'	33:L1:1530:C:O4'	1.67	1.25
33:L1:3036:C:C1'	33:L1:3036:C:O4'	1.64	1.25
25:SC:10:LYS:HD3	32:S1:505:U:O5'	1.37	1.24
9:SK:84:CYS:CB	9:SK:84:CYS:SG	1.16	1.24
33:L1:1131:U:C1'	33:L1:1131:U:O4'	1.65	1.24
33:L1:1823:C:O4'	33:L1:1823:C:C1'	1.69	1.24
33:L1:3090:C:C1'	33:L1:3090:C:O4'	1.64	1.24
84:LI:110:ARG:HD3	84:LI:114:GLY:O	1.12	1.24
32:S1:1214:C:O4'	32:S1:1214:C:C1'	1.67	1.24
32:S1:1663:A:C3'	33:L1:1918:A:C1'	2.11	1.24
33:L1:1450:G:C1'	33:L1:1450:G:O4'	1.67	1.24
81:LD:383:LYS:O	81:LD:386:ILE:HG13	1.36	1.24
15:SS:9:VAL:HA	15:SS:138:ALA:CB	1.65	1.24
33:L1:2179:U:O4'	33:L1:2179:U:C1'	1.64	1.24
15:SS:2:ALA:HB2	32:S1:1364:C:O4'	1.37	1.24
33:L1:1587:G:C1'	33:L1:1587:G:O4'	1.64	1.24
35:L2:25:C:O4'	35:L2:25:C:C1'	1.66	1.24
81:LD:333:LEU:O	81:LD:337:PHE:HD2	1.16	1.24
32:S1:437:C:O4'	32:S1:437:C:C1'	1.66	1.24
11:SM:14:ARG:CG	38:LE:111:HIS:CD2	2.11	1.24
17:SV:95:VAL:O	17:SV:96:HIS:CD2	1.89	1.24
33:L1:3093:C:O4'	33:L1:3093:C:C1'	1.71	1.23
6:SF:80:GLY:CA	32:S1:1479:U:H1'	1.65	1.23
2:SA:72:ILE:CB	5:SE:66:TYR:CE1	2.21	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:823:A:C5	46:LT:172:ARG:CB	2.07	1.23
25:SC:29:GLU:CD	25:SC:29:GLU:OE2	1.76	1.23
33:L1:590:C:C1'	33:L1:590:C:O4'	1.68	1.23
33:L1:637:C:O4'	33:L1:637:C:C1'	1.68	1.23
32:S1:859:U:C5'	46:LT:180:ARG:HB2	1.67	1.23
31:S2:75:A:OP2	33:L1:2957:U:C1'	1.83	1.23
33:L1:2418:A:C1'	33:L1:2418:A:O4'	1.70	1.23
33:L1:307:C:O4'	33:L1:307:C:C1'	1.68	1.23
33:L1:3347:U:C1'	33:L1:3347:U:O4'	1.68	1.23
32:S1:991:G:C5'	37:LB:133:TYR:CE1	2.09	1.23
33:L1:136:C:O4'	33:L1:136:C:C1'	1.64	1.23
32:S1:1310:C:C1'	32:S1:1310:C:O4'	1.72	1.23
14:SP:93:HIS:CE1	33:L1:2080:G:O4'	1.89	1.23
12:SO:103:GLU:O	39:LF:78:ASN:ND2	155.93	1.23
84:LI:110:ARG:H	84:LI:116:ARG:NH2	1.36	1.23
33:L1:289:C:P	42:LP:98:LYS:NZ	2.11	1.23
17:SV:63:PRO:CG	17:SV:66:LEU:HD12	1.68	1.23
33:L1:1607:C:C1'	33:L1:1607:C:O4'	1.65	1.23
33:L1:3175:C:O4'	33:L1:3175:C:C1'	1.69	1.23
33:L1:3320:G:C1'	33:L1:3320:G:O4'	1.78	1.23
25:SC:10:LYS:CE	32:S1:505:U:OP1	1.84	1.23
25:SC:63:THR:OG1	25:SC:63:THR:CG2	1.86	1.23
32:S1:1736:C:O3'	33:L1:2102:C:H6	1.19	1.23
32:S1:929:A:C5'	37:LB:137:ILE:HA	1.69	1.23
33:L1:1252:C:C1'	33:L1:1252:C:O4'	1.63	1.23
32:S1:1674:C:H5'	33:L1:1913:C:O2'	1.38	1.23
33:L1:487:C:O4'	33:L1:487:C:C1'	1.68	1.23
32:S1:887:U:H5''	41:LM:85:ARG:O	106.11	1.22
32:S1:860:A:O4'	46:LT:173:LYS:CG	1.82	1.22
32:S1:483:C:O4'	32:S1:483:C:C1'	1.66	1.22
33:L1:631:C:C1'	33:L1:631:C:O4'	1.69	1.22
33:L1:763:G:O4'	33:L1:763:G:C1'	1.65	1.22
34:L3:87:G:OP1	67:LS:117:ARG:NH2	1.72	1.22
14:SP:90:ASN:O	33:L1:2081:C:C5'	1.88	1.22
32:S1:886:A:C4	41:LM:85:ARG:NH2	97.78	1.22
32:S1:1614:C:O4'	32:S1:1614:C:C1'	1.64	1.22
26:SG:123:UNK:CB	27:SH:52:PHE:CZ	2.22	1.22
35:L2:41:A:C1'	35:L2:41:A:O4'	1.68	1.22
31:S2:3:C:O4'	33:L1:2625:C:H5''	1.31	1.22
17:SV:49:ASP:O	17:SV:53:SER:OG	1.57	1.22
33:L1:99:A:H5'	42:LP:182:HIS:ND1	1.52	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:SG:5:UNK:HA	46:LT:189:CYS:CA	1.69	1.22
33:L1:1867:U:H5''	46:LT:57:ILE:O	1.16	1.22
33:L1:968:A:OP1	43:LO:9:ARG:HG2	1.36	1.22
32:S1:3:C:O4'	32:S1:3:C:C1'	1.74	1.22
33:L1:3335:G:C1'	33:L1:3335:G:O4'	1.71	1.22
81:LD:378:GLY:O	81:LD:382:TYR:HD2	1.20	1.22
14:SP:54:TYR:C	46:LT:144:LYS:HZ1	1.42	1.22
32:S1:823:A:P	46:LT:165:LYS:O	1.96	1.21
32:S1:1632:C:O4'	32:S1:1632:C:C1'	1.64	1.21
32:S1:1673:C:O2'	33:L1:1914:C:C4'	1.87	1.21
34:L3:114:C:O2'	45:LQ:74:ILE:HA	1.08	1.21
34:L3:115:A:O2'	45:LQ:75:VAL:HG11	1.39	1.21
31:S2:74:C:O2	33:L1:2404:C:C5'	1.86	1.21
34:L3:10:C:O4'	34:L3:10:C:C1'	1.68	1.21
32:S1:1290:U:C1'	32:S1:1290:U:O4'	1.65	1.21
32:S1:844:C:H5'	33:L1:2061:C:O2'	1.06	1.21
35:L2:30:C:C1'	35:L2:30:C:O4'	1.73	1.21
33:L1:1135:C:O4'	33:L1:1135:C:C1'	1.66	1.21
33:L1:1900:C:O4'	33:L1:1900:C:C1'	1.65	1.21
11:SM:14:ARG:HG3	38:LE:111:HIS:CD2	1.38	1.21
32:S1:1536:U:C1'	32:S1:1536:U:O4'	1.64	1.21
32:S1:1757:G:C1'	32:S1:1757:G:O4'	1.68	1.21
32:S1:989:G:H5''	33:L1:2172:C:O2	1.40	1.21
14:SP:124:VAL:H	46:LT:165:LYS:CB	1.51	1.21
33:L1:2493:C:C1'	33:L1:2493:C:O4'	1.71	1.21
32:S1:928:A:H5''	37:LB:109:GLU:OE2	1.40	1.21
32:S1:152:G:O4'	32:S1:152:G:C1'	1.70	1.21
33:L1:2237:A:C1'	33:L1:2237:A:O4'	1.68	1.21
33:L1:1666:C:O4'	33:L1:1666:C:C1'	1.69	1.21
25:SC:195:GLU:O	33:L1:2251:A:H3'	1.38	1.21
33:L1:2734:C:O4'	33:L1:2734:C:C1'	1.64	1.21
31:S2:74:C:O2	33:L1:2404:C:H5''	1.37	1.21
33:L1:1344:A:O4'	33:L1:1344:A:C1'	1.77	1.20
33:L1:1634:G:C1'	33:L1:1634:G:O4'	1.68	1.20
31:S2:26:G:O4'	33:L1:2260:C:C5'	1.88	1.20
31:S2:72:G:O5'	33:L1:2972:C:H5'	1.37	1.20
33:L1:1744:C:O4'	33:L1:1744:C:C1'	1.65	1.20
33:L1:2700:A:O3'	33:L1:2701:G:P	1.98	1.20
33:L1:30:C:O4'	33:L1:30:C:C1'	1.69	1.20
33:L1:3097:G:N3	80:LC:331:CYS:SG	2.14	1.20
34:L3:47:C:OP1	45:LQ:95:ASN:HA	1.36	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1184:C:C1'	32:S1:1184:C:O4'	1.68	1.20
32:S1:1797:C:O4'	32:S1:1797:C:C1'	1.64	1.20
32:S1:349:U:C4'	46:LT:141:SER:OG	1.88	1.20
32:S1:918:G:N1	33:L1:2203:A:C8	2.07	1.20
33:L1:433:C:O4'	33:L1:433:C:C1'	1.63	1.20
14:SP:124:VAL:CA	46:LT:165:LYS:CG	2.18	1.20
5:SE:240:ARG:NH1	32:S1:1302:C:O2'	1.74	1.20
17:SV:100:LEU:O	17:SV:101:ILE:HG13	1.06	1.20
32:S1:349:U:H5'	46:LT:141:SER:OG	1.32	1.20
33:L1:423:C:O4'	33:L1:423:C:C1'	1.64	1.20
12:SO:57:GLN:NE2	39:LF:99:PRO:O	155.01	1.20
32:S1:1663:A:O3'	33:L1:1918:A:H1'	1.41	1.20
25:SC:10:LYS:HE2	32:S1:505:U:OP1	1.35	1.20
26:SG:10:UNK:O	26:SG:11:UNK:CA	1.89	1.20
31:S2:69:G:O2'	33:L1:2966:G:P	1.98	1.20
33:L1:2149:G:OP1	37:LB:241:ARG:CD	1.90	1.20
33:L1:692:U:O4'	33:L1:692:U:C1'	1.67	1.20
33:L1:1320:G:O6	66:LN:1:MET:N	1.73	1.20
44:LR:40:THR:OG1	81:LD:325:LYS:HD2	1.04	1.20
12:SO:150:VAL:CG1	33:L1:1714:A:H1'	1.69	1.20
33:L1:507:C:C1'	33:L1:507:C:O4'	1.77	1.20
33:L1:811:A:O4'	33:L1:811:A:C1'	1.65	1.20
66:LN:41:PRO:HG2	66:LN:75:MET:CE	1.71	1.20
33:L1:1822:C:C1'	33:L1:1822:C:O4'	1.65	1.19
33:L1:963:U:C1'	33:L1:963:U:O4'	1.73	1.19
35:L2:96:A:O4'	35:L2:96:A:C1'	1.71	1.19
32:S1:844:C:C5'	33:L1:2061:C:O2'	1.90	1.19
33:L1:2114:A:C1'	33:L1:2114:A:O4'	1.67	1.19
26:SG:128:UNK:CA	32:S1:642:C:C4'	2.19	1.19
5:SE:30:ARG:NE	27:SH:67:GLY:H	1.39	1.19
6:SF:56:ARG:HD2	19:SY:50:ASP:CG	1.62	1.19
33:L1:19:C:O4'	33:L1:19:C:C1'	1.70	1.19
33:L1:700:C:O4'	33:L1:700:C:C1'	1.77	1.19
14:SP:94:PHE:O	46:LT:151:ARG:HD3	1.42	1.19
32:S1:1572:U:O4'	32:S1:1572:U:C1'	1.78	1.19
26:SG:128:UNK:C	32:S1:642:C:C1'	2.20	1.19
33:L1:1576:C:O4'	33:L1:1576:C:C1'	1.79	1.19
33:L1:2097:C:O4'	33:L1:2097:C:C1'	1.63	1.19
32:S1:1737:A:P	33:L1:2102:C:C6	2.36	1.19
14:SP:124:VAL:N	46:LT:165:LYS:HB2	1.52	1.19
5:SE:258:LYS:NZ	27:SH:69:LEU:CB	1.97	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1318:C:C1'	33:L1:1318:C:O4'	1.74	1.19
33:L1:1368:U:O4'	33:L1:1368:U:C1'	1.72	1.19
32:S1:887:U:C5'	41:LM:85:ARG:O	105.93	1.19
8:SJ:68:LYS:CE	32:S1:1524:A:C4'	2.20	1.19
33:L1:1862:C:O4'	33:L1:1862:C:C1'	1.67	1.19
10:SL:65:ILE:HD11	32:S1:438:G:OP1	1.02	1.19
14:SP:104:ARG:NH2	32:S1:113:A:H1'	1.57	1.19
33:L1:231:C:O4'	33:L1:231:C:C1'	1.64	1.18
5:SE:234:LEU:HD12	32:S1:14:C:OP2	1.39	1.18
32:S1:860:A:O4'	46:LT:173:LYS:HG2	1.02	1.18
81:LD:338:GLY:O	81:LD:342:LYS:CG	1.89	1.18
32:S1:290:C:C1'	32:S1:290:C:O4'	1.64	1.18
32:S1:989:G:OP1	37:LB:175:THR:CB	1.89	1.18
32:S1:1747:A:H5'	33:L1:1930:G:C5	1.75	1.18
27:SH:94:LEU:CD2	27:SH:95:PRO:HD2	1.73	1.18
17:SV:95:VAL:C	17:SV:101:ILE:HG12	1.63	1.18
31:S2:3:C:P	33:L1:2626:G:C5'	2.11	1.18
32:S1:1279:A:O4'	32:S1:1279:A:C1'	1.66	1.18
7:SI:133:LYS:CE	32:S1:1592:G:H3'	1.50	1.18
33:L1:843:C:O4'	33:L1:843:C:C1'	1.65	1.18
32:S1:320:A:P	33:L1:854:C:C4'	2.30	1.18
7:SI:133:LYS:HE2	32:S1:1592:G:C4'	1.67	1.18
33:L1:804:A:C1'	33:L1:804:A:O4'	1.72	1.18
33:L1:288:G:C5'	42:LP:98:LYS:HE3	1.72	1.18
4:SD:200:LYS:NZ	32:S1:740:U:H5''	1.59	1.18
31:S2:26:G:O4'	33:L1:2260:C:O4'	1.62	1.18
33:L1:557:C:C1'	33:L1:557:C:O4'	1.66	1.18
34:L3:47:C:OP1	45:LQ:95:ASN:CA	1.91	1.18
32:S1:918:G:O6	33:L1:2201:G:O2'	1.58	1.18
33:L1:384:A:C1'	33:L1:384:A:O4'	1.70	1.18
34:L3:116:U:O4'	45:LQ:80:TYR:OH	1.59	1.18
33:L1:2708:A:O4'	33:L1:2708:A:C1'	1.76	1.17
32:S1:1076:C:O4'	32:S1:1076:C:C1'	1.66	1.17
32:S1:349:U:H5'	46:LT:141:SER:CB	1.74	1.17
8:SJ:75:ARG:HA	8:SJ:88:ARG:O	1.40	1.17
32:S1:861:A:H62	46:LT:171:GLU:CD	1.46	1.17
27:SH:52:PHE:O	27:SH:53:VAL:CG2	1.91	1.17
34:L3:21:U:O4	34:L3:56:G:O6	1.63	1.17
34:L3:7:G:H4'	45:LQ:37:ARG:CZ	1.74	1.17
32:S1:1761:G:C1'	32:S1:1761:G:O4'	1.64	1.17
4:SD:153:ILE:CA	4:SD:153:ILE:O	1.86	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:124:C:O4'	33:L1:124:C:C1'	1.65	1.17
33:L1:177:C:O4'	33:L1:177:C:C1'	1.73	1.17
32:S1:843:G:N2	33:L1:2063:U:C4	2.11	1.17
33:L1:2759:C:C1'	33:L1:2759:C:O4'	1.66	1.17
27:SH:15:TYR:CD2	27:SH:65:LEU:HD21	1.77	1.17
33:L1:424:G:O4'	33:L1:424:G:C1'	1.63	1.17
33:L1:2900:G:O4'	33:L1:2900:G:C1'	1.66	1.17
4:SD:219:ALA:O	32:S1:653:U:C5'	1.92	1.17
34:L3:1:G:C1'	34:L3:1:G:O4'	1.65	1.17
33:L1:3149:C:O4'	33:L1:3149:C:C1'	1.71	1.17
66:LN:40:ALA:HB3	66:LN:43:MET:HB2	1.22	1.17
31:S2:75:A:P	33:L1:2957:U:O4'	2.03	1.17
20:SZ:10:ARG:CG	32:S1:1255:U:OP2	1.93	1.17
14:SP:98:TYR:CE1	46:LT:155:LEU:HD21	1.78	1.17
6:SF:56:ARG:HD2	19:SY:50:ASP:OD1	1.44	1.17
33:L1:167:C:O4'	33:L1:167:C:C1'	1.68	1.16
33:L1:1818:C:C1'	33:L1:1818:C:O4'	1.83	1.16
33:L1:2437:A:C1'	33:L1:2437:A:O4'	1.75	1.16
32:S1:1744:C:O2	33:L1:1932:A:OP1	1.62	1.16
33:L1:1309:U:C1'	33:L1:1309:U:O4'	1.77	1.16
33:L1:2160:C:OP1	42:LP:76:PRO:HG3	1.33	1.16
66:LN:110:VAL:CG1	82:LK:201:LEU:CD2	2.10	1.16
25:SC:63:THR:HG23	25:SC:63:THR:OG1	1.43	1.16
32:S1:1747:A:H1'	33:L1:1915:G:N3	1.46	1.16
35:L2:57:A:O4'	35:L2:57:A:C1'	1.75	1.16
8:SJ:68:LYS:HE2	32:S1:1524:A:O3'	1.42	1.16
32:S1:992:G:H5''	37:LB:149:LYS:NZ	1.28	1.16
6:SF:80:GLY:HA3	32:S1:1479:U:C1'	1.74	1.16
15:SS:5:THR:OG1	32:S1:1363:G:H4'	1.44	1.16
32:S1:187:C:N4	32:S1:188:U:O4	1.75	1.16
32:S1:861:A:N7	46:LT:171:GLU:OE1	1.78	1.16
33:L1:1478:A:H4'	64:LG:65:LYS:CD	131.34	1.16
65:LL:54:UNK:C	65:LL:55:UNK:CA	2.22	1.16
32:S1:147:C:O4'	32:S1:147:C:C1'	1.70	1.16
32:S1:929:A:H5'	37:LB:137:ILE:CB	1.75	1.16
14:SP:89:ARG:CG	46:LT:151:ARG:NH2	2.08	1.16
5:SE:142:LYS:CE	32:S1:1304:A:H5'	1.74	1.16
84:LI:110:ARG:HG3	84:LI:116:ARG:CD	1.57	1.16
41:LM:96:MET:CE	50:LZ:22:ARG:HD2	1.74	1.16
15:SS:2:ALA:HB1	32:S1:1363:G:C2'	1.73	1.16
32:S1:1686:C:H5'	33:L1:3334:A:OP1	1.01	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:320:A:O5'	33:L1:854:C:C4'	1.90	1.16
6:SF:94:GLU:C	17:SV:102:TYR:OH	1.84	1.16
33:L1:1660:C:O4'	33:L1:1660:C:C1'	1.63	1.16
11:SM:12:ILE:CG1	38:LE:117:LYS:O	1.94	1.16
32:S1:320:A:OP2	33:L1:854:C:H4'	1.41	1.16
35:L2:43:G:C1'	35:L2:43:G:O4'	1.67	1.16
14:SP:124:VAL:CA	46:LT:165:LYS:HG3	1.76	1.16
31:S2:72:G:C3'	33:L1:2972:C:H5''	1.75	1.16
17:SV:48:TYR:CE1	17:SV:81:ILE:HA	1.81	1.16
32:S1:348:A:H1'	33:L1:2085:A:C5'	1.73	1.15
34:L3:114:C:O2'	45:LQ:74:ILE:CA	1.93	1.15
35:L2:140:G:H5''	49:LX:66:LYS:HD2	1.23	1.15
32:S1:1674:C:OP1	33:L1:1914:C:C5'	1.94	1.15
33:L1:2597:C:C1'	33:L1:2597:C:O4'	1.65	1.15
33:L1:348:C:C1'	33:L1:348:C:O4'	1.72	1.15
32:S1:990:G:C5'	37:LB:131:GLY:O	1.92	1.15
33:L1:576:C:OP1	81:LD:342:LYS:NZ	1.75	1.15
33:L1:1593:C:C1'	33:L1:1593:C:O4'	1.79	1.15
33:L1:2199:C:C1'	33:L1:2199:C:O4'	1.65	1.15
32:S1:1736:C:O3'	33:L1:2102:C:C6	1.98	1.15
32:S1:187:C:C4	32:S1:188:U:C5	2.34	1.15
4:SD:181:VAL:HG11	4:SD:225:VAL:HG13	1.22	1.15
12:SO:97:ALA:HB3	39:LF:19:GLN:OE1	182.23	1.15
32:S1:1346:C:O4'	32:S1:1346:C:C1'	1.71	1.15
32:S1:1462:C:C1'	32:S1:1462:C:O4'	1.66	1.15
2:SA:113:THR:CG2	32:S1:1298:G:O2'	1.93	1.15
33:L1:267:G:O4'	33:L1:267:G:C1'	1.77	1.15
33:L1:3035:C:C1'	33:L1:3035:C:O4'	1.64	1.15
33:L1:563:C:C1'	33:L1:563:C:O4'	1.73	1.15
7:SI:133:LYS:CE	32:S1:1592:G:C5'	2.22	1.15
33:L1:1078:U:O4'	33:L1:1078:U:C1'	1.66	1.15
33:L1:636:C:C1'	33:L1:636:C:O4'	1.64	1.15
31:S2:26:G:C8	33:L1:2260:C:C5'	2.30	1.14
32:S1:992:G:C5'	37:LB:149:LYS:HZ1	1.50	1.14
3:SB:116:ARG:HH21	5:SE:161:HIS:CD2	1.64	1.14
14:SP:56:ASP:CA	46:LT:123:MET:HE1	1.69	1.14
33:L1:1365:C:P	81:LD:337:PHE:CE1	2.41	1.14
33:L1:2290:A:C1'	33:L1:2290:A:O4'	1.73	1.14
33:L1:1179:C:O2'	82:LK:94:PRO:HD3	1.46	1.14
32:S1:989:G:H5'	37:LB:173:GLY:HA2	1.23	1.14
33:L1:3005:C:C1'	33:L1:3005:C:O4'	1.63	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:99:A:C5'	42:LP:182:HIS:CE1	2.30	1.14
31:S2:71:A:H5'	33:L1:2971:A:H1'	1.19	1.14
33:L1:2753:C:O4'	33:L1:2753:C:C1'	1.71	1.14
32:S1:138:C:O4'	32:S1:138:C:C1'	1.67	1.14
11:SM:14:ARG:HD2	38:LE:109:GLN:HG2	1.25	1.14
17:SV:95:VAL:O	17:SV:96:HIS:CG	2.01	1.14
33:L1:2396:A:O4'	33:L1:2396:A:C1'	1.63	1.14
31:S2:72:G:C3'	33:L1:2972:C:OP1	1.94	1.14
33:L1:69:U:O4'	33:L1:69:U:C1'	1.67	1.14
5:SE:142:LYS:HE3	32:S1:1304:A:H5'	1.17	1.14
26:SG:128:UNK:C	32:S1:642:C:H1'	1.74	1.14
33:L1:3218:C:C1'	33:L1:3218:C:O4'	1.67	1.14
35:L2:138:G:C1'	35:L2:138:G:O4'	1.71	1.14
33:L1:883:G:C8	48:LV:133:ALA:HB1	1.83	1.14
12:SO:58:HIS:HB2	39:LF:23:LYS:HZ1	185.71	1.14
33:L1:1394:C:C1'	33:L1:1394:C:O4'	1.65	1.13
33:L1:2984:A:C1'	33:L1:2984:A:O4'	1.68	1.13
12:SO:124:ARG:NH1	33:L1:849:A:O2'	1.80	1.13
5:SE:258:LYS:HZ2	27:SH:69:LEU:HD12	0.98	1.13
5:SE:31:ARG:NE	27:SH:67:GLY:HA3	1.63	1.13
33:L1:227:C:O4'	33:L1:227:C:C1'	1.72	1.13
32:S1:376:G:O4'	32:S1:376:G:C1'	1.95	1.13
31:S2:26:G:C1'	33:L1:2260:C:O4'	1.96	1.13
33:L1:665:G:C1'	33:L1:665:G:O4'	1.72	1.13
32:S1:989:G:OP1	37:LB:175:THR:HB	0.96	1.13
32:S1:859:U:C5'	46:LT:180:ARG:CB	2.25	1.13
32:S1:1745:U:H5'	33:L1:1931:G:C5'	1.65	1.13
2:SA:109:PRO:O	2:SA:110:GLY:N	1.79	1.13
12:SO:107:LYS:HB2	39:LF:78:ASN:ND2	154.95	1.13
17:SV:48:TYR:CE1	17:SV:81:ILE:CG2	2.26	1.13
84:LI:110:ARG:CG	84:LI:116:ARG:CG	2.14	1.13
32:S1:1748:U:P	33:L1:1916:U:O2'	2.06	1.13
32:S1:1747:A:C5'	33:L1:1930:G:C5	2.18	1.13
81:LD:378:GLY:O	81:LD:382:TYR:CD2	1.99	1.13
32:S1:860:A:N9	46:LT:173:LYS:CB	2.12	1.13
33:L1:1564:C:C1'	33:L1:1564:C:O4'	1.77	1.13
35:L2:98:C:O4'	35:L2:98:C:C1'	1.94	1.13
66:LN:41:PRO:CG	66:LN:75:MET:CG	2.10	1.13
25:SC:10:LYS:CD	32:S1:505:U:O5'	1.96	1.13
5:SE:142:LYS:NZ	32:S1:1304:A:H5''	1.63	1.13
26:SG:128:UNK:CA	32:S1:642:C:C1'	2.19	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:SG:11:UNK:O	26:SG:12:UNK:CA	1.94	1.13
12:SO:150:VAL:HG11	33:L1:1714:A:H1'	1.13	1.12
32:S1:349:U:H4'	46:LT:141:SER:OG	1.46	1.12
33:L1:543:C:O4'	33:L1:543:C:C1'	1.72	1.12
14:SP:95:VAL:HG23	46:LT:152:GLU:HB2	1.23	1.12
26:SG:5:UNK:HA	46:LT:189:CYS:HA	1.28	1.12
31:S2:75:A:C5'	33:L1:2956:U:H1'	1.71	1.12
32:S1:1783:C:C1'	32:S1:1783:C:O4'	1.84	1.12
5:SE:258:LYS:HE2	27:SH:69:LEU:HB2	1.25	1.12
33:L1:3227:U:O4'	33:L1:3227:U:C1'	1.98	1.12
36:LA:57:ILE:HD11	36:LA:179:GLN:HB3	1.31	1.12
33:L1:689:G:OP1	65:LL:40:UNK:CB	1.96	1.12
31:S2:75:A:H5''	33:L1:2956:U:O4'	1.47	1.12
33:L1:99:A:C5'	42:LP:182:HIS:ND1	2.12	1.12
14:SP:124:VAL:CA	46:LT:165:LYS:CB	2.26	1.12
33:L1:3357:C:C1'	33:L1:3357:C:O4'	1.68	1.12
32:S1:928:A:OP1	37:LB:109:GLU:OE2	1.67	1.12
32:S1:1747:A:H1'	33:L1:1915:G:C4	1.84	1.12
10:SL:98:GLU:HG2	10:SL:99:VAL:HG23	1.31	1.12
17:SV:96:HIS:HD2	17:SV:101:ILE:CA	1.60	1.12
33:L1:1364:C:C1'	81:LD:333:LEU:HD22	1.78	1.12
33:L1:1755:A:C1'	33:L1:1755:A:O4'	1.66	1.12
81:LD:366:LEU:O	81:LD:370:GLU:CG	1.98	1.12
27:SH:14:MET:HE2	27:SH:22:LYS:HB3	1.27	1.12
33:L1:2149:G:OP1	37:LB:241:ARG:HD3	0.94	1.12
64:LG:49:LYS:O	64:LG:50:PHE:CA	1.96	1.12
33:L1:1612:C:C1'	33:L1:1612:C:O4'	1.67	1.11
33:L1:1628:G:O4'	33:L1:1628:G:C1'	1.73	1.11
31:S2:72:G:C4'	33:L1:2972:C:H5''	1.79	1.11
9:SK:116:ARG:CZ	9:SK:129:GLU:OE2	1.98	1.11
32:S1:1746:U:C6	33:L1:1931:G:H1'	1.85	1.11
34:L3:28:U:H1'	34:L3:54:A:H61	1.13	1.11
33:L1:2157:C:OP1	37:LB:231:PRO:HB3	1.49	1.11
81:LD:383:LYS:O	81:LD:386:ILE:CG1	1.96	1.11
33:L1:1364:C:C3'	81:LD:337:PHE:CZ	2.32	1.11
33:L1:1574:C:C1'	33:L1:1574:C:O4'	1.64	1.11
12:SO:107:LYS:HD2	39:LF:78:ASN:ND2	155.36	1.11
48:LV:127:ARG:HD2	48:LV:141:MET:HE3	1.27	1.11
25:SC:29:GLU:CD	25:SC:29:GLU:OE1	1.88	1.11
27:SH:94:LEU:HD22	27:SH:95:PRO:HD3	1.12	1.11
14:SP:93:HIS:CE1	33:L1:2080:G:H4'	1.73	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:SM:14:ARG:HD2	38:LE:109:GLN:CD	1.69	1.11
44:LR:40:THR:OG1	81:LD:325:LYS:CD	1.99	1.11
31:S2:12:U:H5'	33:L1:2246:G:C6	1.78	1.11
17:SV:95:VAL:HA	17:SV:101:ILE:HD13	1.25	1.11
36:LA:137:VAL:HG12	36:LA:139:HIS:H	1.16	1.11
32:S1:988:G:O2'	37:LB:173:GLY:HA3	1.45	1.11
2:SA:72:ILE:HG13	5:SE:66:TYR:CZ	1.84	1.11
13:SQ:59:ARG:HH11	32:S1:1225:A:H1'	1.07	1.11
32:S1:321:C:OP2	33:L1:855:U:H4'	1.46	1.11
38:LE:14:ILE:HD11	38:LE:133:LEU:HB3	1.23	1.11
14:SP:41:LEU:HD12	14:SP:103:LYS:HD3	1.33	1.11
33:L1:3344:U:C1'	33:L1:3344:U:O4'	1.64	1.11
33:L1:628:C:C1'	33:L1:628:C:O4'	1.69	1.11
11:SM:14:ARG:NH1	38:LE:109:GLN:HB2	1.60	1.11
33:L1:2628:C:C1'	33:L1:2628:C:O4'	1.88	1.11
32:S1:632:G:H1'	33:L1:849:A:H1'	1.24	1.10
32:S1:1663:A:H5'	33:L1:1919:C:H5'	1.27	1.10
33:L1:2158:C:OP1	37:LB:8:GLN:NE2	1.80	1.10
32:S1:989:G:H5''	33:L1:2172:C:C2	1.79	1.10
32:S1:843:G:C2	33:L1:2063:U:H5	1.69	1.10
12:SO:58:HIS:HB2	39:LF:23:LYS:NZ	185.39	1.10
32:S1:187:C:C4	32:S1:188:U:C4	2.38	1.10
2:SA:120:PHE:CE1	5:SE:102:GLY:HA3	1.87	1.10
17:SV:100:LEU:O	17:SV:101:ILE:CG1	1.99	1.10
33:L1:180:G:OP1	35:L2:98:C:N4	1.83	1.10
32:S1:1736:C:OP1	33:L1:2103:U:C6	2.04	1.10
14:SP:92:LEU:HD22	46:LT:151:ARG:NH1	1.64	1.10
64:LG:185:ASP:O	64:LG:185:ASP:CB	1.98	1.10
33:L1:2585:C:O4'	33:L1:2585:C:C1'	1.71	1.10
82:LK:135:GLN:O	82:LK:135:GLN:CB	1.97	1.10
14:SP:89:ARG:HE	46:LT:151:ARG:NH1	1.47	1.10
2:SA:114:ASN:HD21	32:S1:1298:G:H1'	1.04	1.10
25:SC:10:LYS:HD3	32:S1:505:U:C5'	1.81	1.10
25:SC:10:LYS:HE2	32:S1:505:U:P	1.91	1.10
33:L1:242:U:C1'	33:L1:242:U:O4'	1.70	1.10
33:L1:425:G:C1'	33:L1:425:G:O4'	1.64	1.10
11:SM:14:ARG:CZ	38:LE:109:GLN:OE1	1.98	1.10
14:SP:54:TYR:C	46:LT:144:LYS:NZ	2.01	1.10
3:SB:153:LYS:CD	3:SB:153:LYS:NZ	2.15	1.10
4:SD:208:ILE:HG21	4:SD:225:VAL:HG21	1.32	1.10
10:SL:84:VAL:HG23	10:SL:85:PRO:HA	1.30	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:SO:107:LYS:HB2	39:LF:78:ASN:HD21	154.54	1.10
33:L1:1179:C:O2'	82:LK:94:PRO:CD	2.00	1.10
33:L1:1364:C:H1'	81:LD:333:LEU:HD22	1.20	1.10
32:S1:927:A:H4'	37:LB:140:ASN:ND2	0.77	1.09
36:LA:55:PRO:HG3	36:LA:186:VAL:HG11	1.27	1.09
25:SC:10:LYS:CE	32:S1:505:U:P	2.40	1.09
33:L1:237:C:C1'	33:L1:237:C:O4'	1.86	1.09
33:L1:656:G:O4'	33:L1:656:G:C1'	1.64	1.09
66:LN:41:PRO:HG2	66:LN:75:MET:HE2	1.11	1.09
48:LV:114:TYR:CE1	48:LV:155:GLU:CG	2.36	1.09
5:SE:142:LYS:HZ1	32:S1:1304:A:H5''	1.02	1.09
2:SA:64:LEU:HD12	5:SE:44:TRP:CD1	1.57	1.09
6:SF:78:ASN:O	32:S1:1479:U:C6	2.06	1.09
5:SE:258:LYS:NZ	27:SH:69:LEU:HD12	1.66	1.09
14:SP:93:HIS:C	46:LT:151:ARG:HG3	1.71	1.09
32:S1:977:G:H5''	33:L1:851:A:N1	1.46	1.09
32:S1:1663:A:H3'	33:L1:1918:A:C1'	1.75	1.09
5:SE:258:LYS:HE2	27:SH:69:LEU:CB	1.75	1.09
24:SX:51:HIS:CG	24:SX:72:LYS:HZ1	1.70	1.09
32:S1:977:G:C4'	33:L1:848:G:H1'	1.82	1.09
6:SF:80:GLY:N	32:S1:1479:U:C6	2.19	1.09
27:SH:94:LEU:CD2	27:SH:95:PRO:CD	2.30	1.09
17:SV:63:PRO:HG2	17:SV:66:LEU:CG	1.82	1.09
31:S2:72:G:C5'	33:L1:2972:C:P	2.35	1.09
41:LM:91:LYS:HZ3	80:LC:72:THR:CB	1.56	1.09
2:SA:74:ASN:OD1	5:SE:66:TYR:CE2	2.06	1.09
12:SO:97:ALA:CB	39:LF:19:GLN:HB2	180.72	1.09
14:SP:92:LEU:CA	46:LT:151:ARG:NH2	2.15	1.09
81:LD:338:GLY:O	81:LD:342:LYS:HG3	0.93	1.09
31:S2:72:G:O5'	33:L1:2972:C:C5'	2.00	1.09
14:SP:124:VAL:C	46:LT:165:LYS:CG	2.19	1.09
11:SM:14:ARG:HB2	38:LE:111:HIS:ND1	1.68	1.09
3:SB:44:MET:HB3	3:SB:82:ASN:HD21	1.17	1.08
34:L3:15:C:O4'	34:L3:15:C:C1'	1.71	1.08
5:SE:258:LYS:HE2	27:SH:69:LEU:CA	1.82	1.08
5:SE:30:ARG:CD	27:SH:67:GLY:H	1.65	1.08
31:S2:69:G:O2'	33:L1:2966:G:OP1	1.68	1.08
15:SS:2:ALA:CB	32:S1:1364:C:O4'	2.01	1.08
32:S1:764:U:OP2	32:S1:764:U:OP1	1.70	1.08
25:SC:10:LYS:CE	32:S1:505:U:O5'	2.02	1.08
32:S1:1747:A:O3'	33:L1:1916:U:H1'	1.50	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1745:U:H5''	33:L1:1931:G:H5''	1.13	1.08
25:SC:171:PRO:CA	25:SC:171:PRO:CD	2.31	1.08
26:SG:128:UNK:CA	32:S1:642:C:O4'	2.00	1.08
27:SH:64:GLU:C	27:SH:65:LEU:HG	1.74	1.08
14:SP:121:GLY:HA3	46:LT:162:LYS:NZ	1.57	1.08
66:LN:129:LYS:HE2	82:LK:182:LEU:HD21	1.21	1.08
35:L2:140:G:C5'	49:LX:66:LYS:HD2	1.83	1.08
32:S1:1685:U:O2'	33:L1:3334:A:H5''	1.50	1.08
14:SP:90:ASN:O	33:L1:2081:C:H5''	1.48	1.08
15:SS:2:ALA:HB1	32:S1:1363:G:O2'	1.53	1.08
32:S1:1758:G:OP1	33:L1:2298:A:C5'	2.00	1.08
68:LW:28:SER:O	68:LW:29:LYS:CA	2.02	1.08
2:SA:64:LEU:CD1	5:SE:44:TRP:CG	2.13	1.08
7:SI:133:LYS:CE	32:S1:1592:G:H5'	1.79	1.08
35:L2:64:U:O4'	35:L2:64:U:C1'	1.72	1.08
33:L1:1867:U:OP2	46:LT:56:LYS:NZ	1.86	1.08
3:SB:153:LYS:HZ3	3:SB:153:LYS:HG3	1.10	1.08
48:LV:114:TYR:CD1	48:LV:155:GLU:CG	2.37	1.07
32:S1:1747:A:H4'	33:L1:1915:G:N2	1.66	1.07
32:S1:1748:U:OP1	33:L1:1928:A:N7	1.87	1.07
31:S2:11:U:O2'	33:L1:2260:C:N3	1.85	1.07
25:SC:10:LYS:NZ	32:S1:505:U:C5'	2.16	1.07
17:SV:101:ILE:HG22	17:SV:102:TYR:H	1.10	1.07
33:L1:1241:G:N2	33:L1:1255:A:N7	2.01	1.07
32:S1:1642:C:O4'	32:S1:1642:C:C1'	1.75	1.07
32:S1:1737:A:OP1	33:L1:2102:C:C5	2.07	1.07
33:L1:1804:G:C1'	33:L1:1804:G:O4'	1.87	1.07
66:LN:64:ARG:HH12	67:LS:151:PHE:HB3	1.16	1.07
16:SR:142:ILE:HG23	32:S1:1188:A:H61	1.01	1.07
32:S1:1745:U:H5'	33:L1:1931:G:H5''	1.20	1.07
32:S1:979:A:OP2	33:L1:851:A:O2'	1.69	1.07
2:SA:72:ILE:CG1	5:SE:66:TYR:HE1	1.56	1.07
34:L3:113:G:H4'	45:LQ:71:ALA:HB1	1.23	1.07
81:LD:383:LYS:O	81:LD:386:ILE:CD1	2.02	1.07
26:SG:9:UNK:N	46:LT:188:SER:HB3	1.70	1.07
30:S3:13:A:N6	32:S1:1157:A:OP1	1.88	1.07
25:SC:10:LYS:NZ	32:S1:505:U:P	2.27	1.07
5:SE:31:ARG:HE	27:SH:67:GLY:HA2	1.06	1.07
27:SH:15:TYR:CD2	27:SH:65:LEU:CD2	2.37	1.07
33:L1:1218:U:H5'	67:LS:93:TYR:O	0.90	1.07
81:LD:330:VAL:HG12	81:LD:331:LEU:HG	1.36	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
84:LI:110:ARG:CG	84:LI:116:ARG:HG3	1.80	1.07
43:LO:142:LEU:O	65:LL:144:UNK:CB	2.02	1.07
32:S1:999:G:O2'	37:LB:246:LEU:CD2	2.03	1.07
33:L1:1478:A:H4'	64:LG:65:LYS:HD3	131.74	1.07
9:SK:39:THR:HG21	9:SK:103:LYS:HD2	1.31	1.07
14:SP:56:ASP:CA	46:LT:123:MET:HE2	1.80	1.07
33:L1:1880:A:H2'	33:L1:1881:C:H5'	1.30	1.07
31:S2:72:G:C1'	33:L1:2972:C:H5''	1.84	1.07
33:L1:3143:A:O4'	33:L1:3143:A:C1'	1.76	1.07
34:L3:6:C:OP1	45:LQ:31:LYS:NZ	1.85	1.07
84:LI:110:ARG:NE	84:LI:116:ARG:CB	2.17	1.07
48:LV:114:TYR:CZ	48:LV:155:GLU:CG	2.37	1.07
33:L1:1035:C:C1'	33:L1:1035:C:O4'	1.75	1.07
48:LV:41:LEU:HD13	48:LV:100:GLU:HG2	1.30	1.07
5:SE:31:ARG:NE	27:SH:67:GLY:HA2	1.61	1.07
9:SK:81:ALA:HB2	9:SK:111:ALA:HB1	1.34	1.07
33:L1:1551:C:O4'	33:L1:1551:C:C1'	1.77	1.07
25:SC:10:LYS:NZ	32:S1:505:U:OP1	1.87	1.07
26:SG:128:UNK:CB	26:SG:135:UNK:CB	2.33	1.07
15:SS:9:VAL:HG21	15:SS:135:ASP:CB	1.85	1.07
66:LN:64:ARG:HD3	67:LS:154:VAL:HG21	1.37	1.06
29:ST:82:GLN:HB3	33:L1:2540:C:O2'	1.44	1.06
33:L1:707:G:O4'	33:L1:707:G:C1'	1.71	1.06
32:S1:991:G:OP1	37:LB:133:TYR:O	1.73	1.06
37:LB:96:LEU:HD23	37:LB:166:ILE:HD13	1.38	1.06
5:SE:142:LYS:CE	32:S1:1304:A:C5'	2.32	1.06
31:S2:26:G:H1'	33:L1:2260:C:O4'	1.52	1.06
14:SP:98:TYR:HE1	46:LT:155:LEU:HD21	1.08	1.06
33:L1:288:G:H5''	42:LP:98:LYS:HE3	1.06	1.06
2:SA:72:ILE:CB	5:SE:66:TYR:HE1	1.59	1.06
32:S1:701:C:OP2	32:S1:701:C:OP1	1.70	1.06
14:SP:104:ARG:NH2	32:S1:113:A:C1'	2.18	1.06
23:SU:10:VAL:HG22	23:SU:33:LEU:O	1.55	1.06
17:SV:48:TYR:CE1	17:SV:81:ILE:CA	2.39	1.06
33:L1:3327:A:O4'	33:L1:3327:A:C1'	1.67	1.06
33:L1:1549:A:O4'	33:L1:1549:A:C1'	1.93	1.06
65:LL:54:UNK:O	65:LL:55:UNK:CA	2.04	1.06
31:S2:69:G:C2'	33:L1:2965:C:O3'	2.03	1.06
31:S2:75:A:C5'	33:L1:2956:U:C1'	2.22	1.06
33:L1:1206:A:H4'	34:L3:88:U:H1'	1.28	1.06
6:SF:99:LEU:HD11	17:SV:66:LEU:HD13	1.19	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1673:C:O2'	33:L1:1914:C:O4'	1.73	1.06
32:S1:1737:A:OP1	33:L1:2102:C:C6	2.09	1.06
32:S1:823:A:OP2	32:S1:823:A:OP1	1.70	1.06
32:S1:929:A:C4'	37:LB:137:ILE:HG13	1.86	1.05
32:S1:1747:A:H5'	33:L1:1930:G:N7	1.23	1.05
7:SI:133:LYS:HE3	32:S1:1592:G:O3'	1.56	1.05
14:SP:122:ASP:O	46:LT:162:LYS:HG3	0.88	1.05
11:SM:12:ILE:HG21	38:LE:120:PRO:O	1.56	1.05
26:SG:4:UNK:O	46:LT:187:ARG:O	1.72	1.05
32:S1:119:U:O2	32:S1:303:A:C2	2.09	1.05
32:S1:823:A:OP2	46:LT:169:SER:HB2	1.57	1.05
32:S1:843:G:O2'	33:L1:2061:C:C2'	2.04	1.05
15:SS:9:VAL:CG2	15:SS:135:ASP:HA	1.86	1.05
32:S1:320:A:O5'	33:L1:854:C:H4'	1.51	1.05
48:LV:114:TYR:CG	48:LV:155:GLU:CG	2.39	1.05
31:S2:11:U:C1'	33:L1:2260:C:N3	2.14	1.05
31:S2:3:C:O4'	33:L1:2625:C:C5'	2.04	1.05
25:SC:106:PHE:CD1	32:S1:670:C:O2	2.09	1.05
5:SE:258:LYS:HZ2	27:SH:69:LEU:CD1	1.69	1.05
33:L1:2196:G:H21	37:LB:224:THR:HG21	1.19	1.05
33:L1:2650:A:OP2	84:LI:119:PHE:CE1	2.09	1.05
32:S1:927:A:H4'	37:LB:140:ASN:CG	1.64	1.05
2:SA:72:ILE:HG13	5:SE:66:TYR:CE1	1.83	1.05
14:SP:60:PRO:HB2	33:L1:2083:U:OP1	0.90	1.05
33:L1:99:A:H5'	42:LP:182:HIS:CG	1.91	1.05
36:LA:87:GLU:HG2	36:LA:91:LYS:HD3	1.33	1.05
38:LE:91:TYR:CD2	38:LE:92:GLU:CB	2.40	1.05
66:LN:110:VAL:HG13	82:LK:201:LEU:HD23	1.06	1.05
14:SP:122:ASP:H	46:LT:162:LYS:NZ	1.55	1.05
35:L2:155:G:C1'	35:L2:155:G:O4'	1.66	1.04
32:S1:1758:G:P	33:L1:2298:A:H5''	1.96	1.04
32:S1:896:C:H5''	37:LB:255:ALA:H	0.99	1.04
17:SV:48:TYR:OH	17:SV:84:LEU:HD12	1.56	1.04
6:SF:56:ARG:HD3	19:SY:50:ASP:HB3	1.38	1.04
33:L1:634:A:OP1	82:LK:98:ALA:HB3	1.57	1.04
36:LA:87:GLU:HA	36:LA:91:LYS:HD2	1.33	1.04
12:SO:97:ALA:HB2	39:LF:19:GLN:HB2	181.07	1.04
66:LN:129:LYS:HE2	82:LK:182:LEU:CD2	1.86	1.04
48:LV:15:SER:HB3	48:LV:151:LEU:HD12	1.35	1.04
26:SG:128:UNK:HA	32:S1:642:C:H4'	1.09	1.04
32:S1:329:G:N2	33:L1:2085:A:O5'	1.73	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:SK:109:PRO:HD2	9:SK:112:GLN:HB2	1.33	1.04
32:S1:1673:C:O2'	33:L1:1914:C:H4'	1.58	1.04
32:S1:354:G:N1	33:L1:847:G:C4'	2.20	1.04
9:SK:116:ARG:NE	9:SK:129:GLU:OE1	1.90	1.04
24:SX:70:GLY:HA2	32:S1:877:G:C5'	1.87	1.04
38:LE:91:TYR:CD1	38:LE:92:GLU:CB	2.39	1.04
4:SD:199:GLU:OE1	32:S1:687:C:O2'	1.76	1.04
32:S1:1674:C:C5'	33:L1:1913:C:O2'	2.06	1.04
34:L3:116:U:C5'	45:LQ:80:TYR:OH	2.04	1.04
14:SP:92:LEU:HD22	46:LT:151:ARG:HH12	0.91	1.04
32:S1:1685:U:O2'	33:L1:3334:A:C5'	2.06	1.04
33:L1:289:C:P	42:LP:98:LYS:HZ1	1.78	1.04
17:SV:63:PRO:HG2	17:SV:66:LEU:HG	1.31	1.04
31:S2:13:U:O3'	33:L1:2263:U:C6	2.10	1.03
6:SF:56:ARG:CD	19:SY:50:ASP:CG	2.25	1.03
5:SE:197:LEU:CD2	32:S1:1092:A:OP1	2.06	1.03
36:LA:43:GLN:HB2	36:LA:195:LYS:HE2	1.34	1.03
6:SF:78:ASN:O	32:S1:1479:U:C5	2.09	1.03
33:L1:2148:U:H4'	37:LB:240:ALA:CB	1.88	1.03
31:S2:12:U:O2'	33:L1:2261:U:N3	1.67	1.03
26:SG:11:UNK:N	26:SG:11:UNK:O	1.89	1.03
11:SM:14:ARG:NH1	38:LE:109:GLN:CD	2.11	1.03
32:S1:1698:A:N1	32:S1:1721:A:N1	2.06	1.03
14:SP:71:ILE:CD1	27:SH:84:LYS:HE2	1.88	1.03
33:L1:640:C:C1'	33:L1:640:C:O4'	1.88	1.03
38:LE:91:TYR:CG	38:LE:92:GLU:CB	2.41	1.03
32:S1:1745:U:H5'	33:L1:1931:G:P	1.96	1.03
31:S2:13:U:OP1	33:L1:2244:G:C2	2.11	1.03
5:SE:30:ARG:HD3	27:SH:67:GLY:C	1.78	1.03
26:SG:11:UNK:C	26:SG:12:UNK:CA	2.35	1.03
33:L1:1034:U:H2'	33:L1:1035:C:O4'	1.56	1.03
38:LE:91:TYR:CE2	38:LE:92:GLU:CB	2.41	1.03
43:LO:142:LEU:HB3	65:LL:118:UNK:CB	1.88	1.03
32:S1:929:A:O4'	37:LB:137:ILE:CG1	2.05	1.03
31:S2:74:C:C1'	33:L1:2404:C:C5'	2.37	1.03
36:LA:55:PRO:HB3	36:LA:186:VAL:HG21	1.38	1.03
17:SV:40:SER:HB2	17:SV:44:ASP:OD2	1.56	1.03
32:S1:861:A:N6	46:LT:171:GLU:CG	2.22	1.03
33:L1:563:C:P	64:LG:2:ALA:HB3	1.98	1.02
41:LM:91:LYS:NZ	80:LC:72:THR:HB	1.70	1.02
15:SS:2:ALA:HB2	32:S1:1364:C:C5'	1.89	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:SI:133:LYS:HE2	32:S1:1592:G:H5'	1.04	1.02
32:S1:1663:A:H3'	33:L1:1918:A:H1'	1.05	1.02
44:LR:41:LYS:HB2	81:LD:325:LYS:CE	1.89	1.02
34:L3:85:G:H4'	67:LS:120:PHE:CE1	1.93	1.02
14:SP:90:ASN:O	33:L1:2081:C:C3'	2.01	1.02
38:LE:91:TYR:CZ	38:LE:92:GLU:CB	2.41	1.02
33:L1:3334:A:C1'	33:L1:3334:A:O4'	1.81	1.02
41:LM:91:LYS:HZ3	80:LC:72:THR:HB	1.21	1.02
27:SH:64:GLU:O	27:SH:65:LEU:HG	0.86	1.02
32:S1:859:U:H5'	46:LT:180:ARG:HB2	1.41	1.02
5:SE:31:ARG:CZ	27:SH:67:GLY:HA3	1.89	1.02
23:SU:29:VAL:HA	23:SU:78:PHE:CD1	1.95	1.02
81:LD:332:LYS:O	81:LD:335:PRO:HD2	1.56	1.02
32:S1:859:U:C4'	46:LT:180:ARG:HB2	1.88	1.02
48:LV:114:TYR:CD2	48:LV:155:GLU:CG	2.42	1.02
14:SP:98:TYR:CE1	46:LT:155:LEU:CD2	2.42	1.02
14:SP:122:ASP:CA	46:LT:162:LYS:HD3	1.89	1.02
24:SX:72:LYS:HE3	24:SX:72:LYS:HA	1.39	1.02
4:SD:153:ILE:O	4:SD:154:ILE:HG13	1.60	1.02
38:LE:91:TYR:CE1	38:LE:92:GLU:CB	2.42	1.02
66:LN:64:ARG:HD3	67:LS:154:VAL:CG2	1.89	1.02
14:SP:89:ARG:CD	46:LT:151:ARG:CZ	2.38	1.02
32:S1:861:A:N7	46:LT:171:GLU:CD	2.13	1.02
33:L1:1867:U:H5'	46:LT:57:ILE:O	1.59	1.02
15:SS:9:VAL:HA	15:SS:138:ALA:HB1	1.35	1.02
44:LR:41:LYS:N	81:LD:325:LYS:CD	2.23	1.01
33:L1:99:A:C5'	42:LP:182:HIS:CG	2.43	1.01
32:S1:222:G:C8	33:L1:2063:U:O4'	2.12	1.01
2:SA:64:LEU:CG	5:SE:44:TRP:NE1	2.11	1.01
33:L1:1320:G:O6	82:LK:131:VAL:HG11	1.59	1.01
32:S1:1735:C:O2	33:L1:3334:A:O2'	1.78	1.01
2:SA:72:ILE:CD1	5:SE:66:TYR:CE1	2.43	1.01
32:S1:1746:U:N1	33:L1:1930:G:N2	1.91	1.01
33:L1:2147:U:O2	37:LB:237:LEU:HD21	1.60	1.01
32:S1:824:U:O4	46:LT:172:ARG:HD2	1.57	1.01
32:S1:1747:A:H1'	33:L1:1915:G:H1'	1.41	1.01
32:S1:860:A:H1'	46:LT:173:LYS:CG	1.75	1.01
17:SV:63:PRO:CG	17:SV:66:LEU:CD1	2.37	1.01
43:LO:141:LEU:HD13	65:LL:144:UNK:O	1.60	1.01
32:S1:977:G:O4'	33:L1:848:G:C1'	2.07	1.01
81:LD:335:PRO:HD2	81:LD:336:TYR:H	1.25	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:978:A:N3	33:L1:849:A:C2	2.04	1.01
6:SF:46:PRO:HG2	7:SI:65:ARG:HH21	1.25	1.01
14:SP:122:ASP:H	46:LT:162:LYS:CD	1.72	1.01
33:L1:2059:C:O4'	33:L1:2059:C:C1'	1.80	1.01
32:S1:348:A:H1'	33:L1:2085:A:H5'	1.43	1.01
31:S2:72:G:H5''	33:L1:2972:C:P	1.91	1.01
14:SP:122:ASP:N	46:LT:162:LYS:NZ	2.09	1.01
32:S1:1685:U:C2'	33:L1:3334:A:H5''	1.90	1.01
34:L3:15:C:N4	34:L3:64:G:O6	1.92	1.01
34:L3:18:C:OP2	38:LE:153:HIS:HE1	1.44	1.01
26:SG:128:UNK:O	32:S1:642:C:O4'	1.79	1.01
25:SC:106:PHE:CE1	32:S1:670:C:O2	2.14	1.01
4:SD:124:CYS:HA	4:SD:142:TYR:HE2	1.24	1.01
44:LR:41:LYS:HB2	81:LD:325:LYS:HE2	1.41	1.01
81:LD:380:ALA:O	81:LD:384:THR:CG2	2.09	1.01
9:SK:93:HIS:O	9:SK:94:ILE:N	1.94	1.01
31:S2:72:G:O4'	33:L1:2972:C:H5''	1.60	1.00
4:SD:86:PHE:HE1	4:SD:102:LEU:HD12	1.26	1.00
33:L1:271:G:H5'	82:LK:65:LYS:HB3	116.06	1.00
32:S1:861:A:H62	46:LT:171:GLU:HG3	1.20	1.00
33:L1:250:C:C1'	33:L1:250:C:O4'	1.91	1.00
26:SG:123:UNK:CB	27:SH:52:PHE:HE1	1.73	1.00
14:SP:88:ARG:HH21	33:L1:2082:A:C3'	1.74	1.00
33:L1:289:C:P	42:LP:98:LYS:HZ2	1.82	1.00
5:SE:258:LYS:NZ	27:SH:69:LEU:CD1	2.25	1.00
32:S1:1745:U:H5'	33:L1:1931:G:OP1	1.62	1.00
4:SD:206:GLU:HG3	32:S1:686:A:O2'	1.61	1.00
32:S1:329:G:H21	33:L1:2085:A:H5''	1.25	1.00
35:L2:140:G:H5''	49:LX:66:LYS:HD3	1.39	1.00
81:LD:370:GLU:O	81:LD:374:VAL:CG2	2.09	1.00
32:S1:1758:G:OP1	33:L1:2298:A:OP1	1.79	1.00
32:S1:1659:A:N1	32:S1:1759:A:N1	2.10	1.00
31:S2:14:A:P	33:L1:2263:U:H6	1.85	1.00
31:S2:74:C:C1'	33:L1:2404:C:H5''	1.92	1.00
4:SD:137:PRO:HD2	32:S1:247:A:OP2	1.61	1.00
32:S1:977:G:O5'	33:L1:851:A:N1	1.95	1.00
2:SA:72:ILE:HD12	5:SE:66:TYR:CE1	1.97	1.00
15:SS:9:VAL:CA	15:SS:138:ALA:CB	2.40	1.00
34:L3:56:G:N2	45:LQ:54:ARG:NH2	2.09	0.99
14:SP:89:ARG:HG3	46:LT:151:ARG:CZ	1.90	0.99
29:ST:82:GLN:HA	33:L1:2540:C:O2'	1.59	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L3:113:G:O2'	45:LQ:71:ALA:CB	2.09	0.99
34:L3:46:C:C4'	45:LQ:96:TYR:HE1	1.74	0.99
32:S1:860:A:O5'	46:LT:177:ARG:HB2	1.24	0.99
26:SG:128:UNK:CA	32:S1:642:C:H4'	1.87	0.99
33:L1:2053:A:H5''	33:L1:2054:A:H5'	1.44	0.99
34:L3:20:C:O2'	45:LQ:252:THR:HG21	1.59	0.99
14:SP:122:ASP:C	46:LT:162:LYS:HG3	1.81	0.99
31:S2:10:G:O3'	33:L1:2247:A:O2'	1.80	0.99
32:S1:929:A:O4'	37:LB:137:ILE:HD12	1.59	0.99
33:L1:1320:G:C8	82:LK:134:LEU:HD13	1.97	0.99
8:SJ:68:LYS:CD	32:S1:1524:A:C4'	2.40	0.99
32:S1:347:C:C6	46:LT:136:ARG:NH1	2.08	0.99
32:S1:989:G:C5'	37:LB:173:GLY:N	2.14	0.99
31:S2:72:G:O3'	33:L1:2972:C:OP1	1.81	0.99
2:SA:92:LEU:HD21	2:SA:104:ALA:HB2	1.42	0.99
14:SP:124:VAL:H	46:LT:165:LYS:HB2	0.83	0.99
11:SM:11:HIS:CD2	38:LE:118:TYR:N	2.28	0.99
14:SP:122:ASP:N	46:LT:162:LYS:CE	2.25	0.99
31:S2:3:C:OP1	33:L1:2626:G:C8	2.15	0.99
17:SV:63:PRO:HG3	17:SV:66:LEU:HD12	1.44	0.99
34:L3:43:A:OP1	38:LE:139:ARG:HG3	1.62	0.99
32:S1:929:A:C5'	37:LB:137:ILE:CG1	2.41	0.99
2:SA:64:LEU:HD12	5:SE:44:TRP:CB	1.92	0.99
8:SJ:75:ARG:HG3	8:SJ:88:ARG:H	1.23	0.99
31:S2:11:U:C2'	33:L1:2260:C:N3	2.26	0.99
33:L1:3234:G:C2'	33:L1:3234:G:N9	2.26	0.99
32:S1:354:G:C6	33:L1:847:G:C4'	2.46	0.99
34:L3:21:U:O4	34:L3:56:G:C6	2.15	0.99
11:SM:14:ARG:CD	38:LE:109:GLN:CD	2.30	0.99
5:SE:30:ARG:CZ	27:SH:66:ASN:HA	1.92	0.99
9:SK:84:CYS:SG	9:SK:84:CYS:HB2	1.59	0.99
14:SP:94:PHE:N	46:LT:151:ARG:CD	2.21	0.99
32:S1:1747:A:H4'	33:L1:1915:G:H21	0.83	0.98
31:S2:34:G:C4'	32:S1:1195:U:C6	2.46	0.98
3:SB:153:LYS:HG3	3:SB:153:LYS:NZ	1.77	0.98
6:SF:99:LEU:CD1	17:SV:66:LEU:CD1	2.41	0.98
14:SP:94:PHE:O	46:LT:151:ARG:CD	2.11	0.98
32:S1:1747:A:O4'	33:L1:1930:G:C6	2.16	0.98
25:SC:10:LYS:CD	32:S1:505:U:C5'	2.39	0.98
6:SF:99:LEU:HD11	17:SV:66:LEU:HD11	1.43	0.98
32:S1:1757:G:O3'	33:L1:2297:G:O3'	1.79	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:SP:122:ASP:N	46:LT:162:LYS:HZ3	1.61	0.98
2:SA:239:ALA:HB3	2:SA:243:TRP:CB	1.93	0.98
32:S1:1758:G:P	33:L1:2298:A:OP1	2.22	0.98
33:L1:2398:A:O2'	33:L1:2399:G:H5'	1.62	0.98
33:L1:99:A:H5'	42:LP:182:HIS:CD2	1.98	0.98
66:LN:129:LYS:CE	82:LK:182:LEU:HD21	1.92	0.98
31:S2:13:U:O3'	33:L1:2263:U:H6	1.45	0.98
5:SE:142:LYS:HE3	32:S1:1304:A:C5'	1.90	0.98
10:SL:39:PRO:HB3	10:SL:64:ALA:HA	1.45	0.98
31:S2:26:G:O4'	33:L1:2260:C:C4'	2.11	0.98
15:SS:2:ALA:CB	32:S1:1364:C:C4'	2.41	0.98
17:SV:48:TYR:CG	17:SV:81:ILE:HG23	1.98	0.98
33:L1:1513:C:C1'	33:L1:1513:C:O4'	1.76	0.98
12:SO:150:VAL:CB	33:L1:1714:A:H1'	1.88	0.98
32:S1:977:G:O4'	33:L1:848:G:H1'	1.56	0.98
33:L1:2160:C:P	42:LP:76:PRO:HG2	2.03	0.98
16:SR:142:ILE:HG23	32:S1:1188:A:N6	1.78	0.98
33:L1:1691:U:N1	33:L1:1691:U:C2'	2.26	0.98
9:SK:116:ARG:CD	9:SK:129:GLU:OE1	2.12	0.98
11:SM:126:TYR:CZ	11:SM:126:TYR:CD1	2.51	0.98
33:L1:99:A:H5'	42:LP:182:HIS:NE2	1.77	0.98
41:LM:34:ALA:HA	41:LM:68:GLY:HA3	1.45	0.98
33:L1:1867:U:P	46:LT:56:LYS:NZ	2.37	0.98
17:SV:101:ILE:HG22	17:SV:102:TYR:N	1.76	0.98
32:S1:320:A:OP2	33:L1:854:C:C4'	2.11	0.98
25:SC:10:LYS:NZ	32:S1:505:U:H5'	1.79	0.98
26:SG:64:UNK:C	26:SG:65:UNK:H	1.49	0.98
27:SH:15:TYR:HD2	27:SH:65:LEU:CD2	1.74	0.98
32:S1:1664:U:H5'	33:L1:2119:A:H5''	1.43	0.98
32:S1:858:G:O5'	46:LT:179:GLU:CG	2.12	0.97
2:SA:110:GLY:HA2	2:SA:113:THR:HB	1.43	0.97
2:SA:64:LEU:CB	5:SE:44:TRP:NE1	2.27	0.97
14:SP:124:VAL:CA	46:LT:165:LYS:HB3	1.92	0.97
31:S2:69:G:H5'	33:L1:2965:C:OP1	0.80	0.97
32:S1:843:G:O2'	33:L1:2061:C:H2'	1.62	0.97
32:S1:329:G:H22	33:L1:2085:A:C4'	1.65	0.97
33:L1:1298:A:H5''	67:LS:90:HIS:NE2	1.78	0.97
32:S1:927:A:C5'	37:LB:140:ASN:ND2	2.27	0.97
31:S2:34:G:H4'	32:S1:1195:U:C6	1.98	0.97
81:LD:344:ALA:HB3	81:LD:351:ARG:HD2	1.44	0.97
32:S1:1758:G:P	33:L1:2298:A:C5'	2.51	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:860:A:C1'	46:LT:173:LYS:CB	2.42	0.97
32:S1:896:C:C5'	37:LB:255:ALA:O	2.11	0.97
32:S1:886:A:C4	41:LM:85:ARG:CZ	98.33	0.97
48:LV:114:TYR:CE2	48:LV:155:GLU:CG	2.47	0.97
31:S2:74:C:O2	33:L1:2404:C:C4'	2.05	0.97
11:SM:11:HIS:NE2	38:LE:118:TYR:N	1.81	0.97
17:SV:95:VAL:HG12	17:SV:96:HIS:N	1.78	0.97
32:S1:989:G:C5'	37:LB:173:GLY:CA	2.43	0.97
27:SH:32:LYS:HB3	27:SH:110:ILE:HG21	1.47	0.97
33:L1:180:G:H5''	35:L2:98:C:N4	1.80	0.97
36:LA:49:SER:HA	36:LA:192:LEU:HD22	1.45	0.97
32:S1:861:A:N6	46:LT:171:GLU:HG3	1.77	0.97
27:SH:94:LEU:HD13	27:SH:95:PRO:HD2	1.12	0.97
9:SK:84:CYS:SG	9:SK:84:CYS:HB3	1.59	0.97
17:SV:53:SER:O	17:SV:56:PRO:CD	2.13	0.97
32:S1:928:A:C5'	37:LB:109:GLU:OE2	2.12	0.96
32:S1:1279:A:N6	32:S1:1437:C:N3	2.11	0.96
7:SI:120:ARG:NH2	32:S1:1414:G:OP2	1.96	0.96
14:SP:90:ASN:O	33:L1:2081:C:H4'	1.64	0.96
24:SX:72:LYS:CE	32:S1:1054:G:OP1	2.12	0.96
15:SS:2:ALA:HB1	32:S1:1363:G:H2'	1.45	0.96
32:S1:859:U:H4'	46:LT:180:ARG:HB2	1.47	0.96
13:SQ:104:GLU:HG3	20:SZ:31:ARG:CZ	1.95	0.96
7:SI:133:LYS:HZ3	32:S1:1592:G:H4'	1.29	0.96
20:SZ:10:ARG:HG2	32:S1:1255:U:P	2.04	0.96
33:L1:883:G:C8	48:LV:133:ALA:CB	2.48	0.96
43:LO:142:LEU:CB	65:LL:118:UNK:CB	2.43	0.96
2:SA:72:ILE:HB	5:SE:66:TYR:CD1	2.00	0.96
30:S3:16:G:N9	30:S3:16:G:C2'	2.28	0.96
13:SQ:104:GLU:HG2	20:SZ:31:ARG:NH1	1.78	0.96
4:SD:200:LYS:HZ1	32:S1:740:U:H5''	1.22	0.96
24:SX:51:HIS:CD2	24:SX:72:LYS:HZ1	1.81	0.96
34:L3:46:C:H4'	45:LQ:96:TYR:HE1	0.81	0.96
27:SH:65:LEU:HD22	27:SH:70:ASN:ND2	1.78	0.96
32:S1:1686:C:H5''	33:L1:3334:A:OP1	1.64	0.96
33:L1:2148:U:H4'	37:LB:240:ALA:HB1	1.45	0.96
33:L1:1867:U:P	46:LT:56:LYS:HZ2	1.89	0.96
34:L3:7:G:H5'	45:LQ:37:ARG:CD	1.94	0.96
34:L3:116:U:O4'	45:LQ:80:TYR:CZ	2.16	0.96
31:S2:26:G:O4'	33:L1:2260:C:H5'	1.62	0.96
6:SF:118:ARG:HD3	19:SY:56:GLU:OE2	1.66	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1259:C:H2'	33:L1:1260:G:C8	2.01	0.96
32:S1:1747:A:H8	33:L1:1930:G:N3	1.48	0.96
32:S1:977:G:H3'	33:L1:850:A:C6	2.00	0.96
34:L3:6:C:H4'	45:LQ:49:ASN:HD21	1.30	0.96
14:SP:53:THR:CA	46:LT:148:GLU:OE1	2.13	0.96
25:SC:163:THR:C	25:SC:163:THR:CB	2.33	0.96
26:SG:11:UNK:O	26:SG:12:UNK:HA	1.63	0.96
34:L3:85:G:H4'	67:LS:120:PHE:CD1	2.01	0.95
32:S1:929:A:H5'	37:LB:137:ILE:HA	0.99	0.95
31:S2:34:G:C5'	32:S1:1195:U:C6	2.48	0.95
31:S2:70:G:C4'	33:L1:2966:G:H5'	1.94	0.95
9:SK:90:THR:HA	9:SK:93:HIS:CE1	2.00	0.95
17:SV:64:SER:HB2	17:SV:82:LYS:NZ	1.81	0.95
66:LN:64:ARG:HD3	67:LS:154:VAL:CB	1.95	0.95
14:SP:122:ASP:C	46:LT:162:LYS:CG	2.35	0.95
32:S1:222:G:H8	33:L1:2063:U:O4'	1.40	0.95
6:SF:74:MET:O	32:S1:1479:U:O4	1.83	0.95
15:SS:9:VAL:HG11	15:SS:135:ASP:OD1	1.66	0.95
31:S2:24:A:C1'	33:L1:2261:U:H5''	1.96	0.95
12:SO:94:LYS:O	39:LF:19:GLN:OE1	181.09	0.95
32:S1:859:U:H5'	46:LT:180:ARG:CA	1.96	0.95
25:SC:63:THR:OG1	25:SC:63:THR:N	1.98	0.95
27:SH:40:VAL:HB	27:SH:42:GLN:HE22	1.29	0.95
33:L1:1478:A:H5''	64:LG:65:LYS:HZ3	136.07	0.95
81:LD:338:GLY:C	81:LD:342:LYS:HG3	1.87	0.95
32:S1:348:A:H5''	46:LT:140:GLU:N	1.79	0.95
14:SP:55:ILE:O	46:LT:141:SER:O	1.85	0.95
5:SE:258:LYS:NZ	27:SH:69:LEU:CG	2.28	0.95
7:SI:120:ARG:HH22	32:S1:1414:G:P	1.88	0.95
12:SO:58:HIS:CB	39:LF:23:LYS:NZ	185.68	0.95
29:ST:23:ILE:HG21	29:ST:58:ILE:HG21	1.45	0.95
33:L1:1265:G:N9	33:L1:1265:G:C2'	2.28	0.95
32:S1:556:G:H1	32:S1:576:C:H42	1.15	0.95
5:SE:258:LYS:CE	27:SH:69:LEU:H	1.80	0.95
45:LQ:201:GLY:C	45:LQ:202:GLY:CA	2.34	0.95
31:S2:34:G:H4'	32:S1:1195:U:N1	1.80	0.95
27:SH:94:LEU:CD1	27:SH:95:PRO:CD	2.30	0.95
31:S2:34:G:H5'	32:S1:1195:U:C6	2.01	0.95
17:SV:51:LEU:O	17:SV:55:VAL:HG23	1.67	0.95
32:S1:1747:A:O2'	33:L1:1916:U:C1'	2.14	0.95
11:SM:12:ILE:H	38:LE:118:TYR:HA	1.31	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:LR:132:THR:HA	81:LD:325:LYS:HZ2	1.32	0.95
26:SG:5:UNK:HA	46:LT:189:CYS:C	1.85	0.94
32:S1:1747:A:O2'	33:L1:1916:U:N1	2.00	0.94
8:SJ:68:LYS:CE	32:S1:1524:A:O3'	2.13	0.94
84:LI:110:ARG:CD	84:LI:116:ARG:HB2	1.97	0.94
32:S1:860:A:H5''	46:LT:177:ARG:HB2	1.47	0.94
2:SA:109:PRO:O	2:SA:110:GLY:CA	2.14	0.94
27:SH:52:PHE:C	27:SH:53:VAL:HG23	1.86	0.94
14:SP:123:HIS:O	46:LT:162:LYS:HG2	1.67	0.94
17:SV:63:PRO:CD	17:SV:66:LEU:HD12	1.96	0.94
32:S1:978:A:OP1	33:L1:852:C:H1'	0.78	0.94
81:LD:379:LYS:O	81:LD:383:LYS:CG	2.15	0.94
84:LI:110:ARG:HG3	84:LI:116:ARG:HD2	0.97	0.94
32:S1:1698:A:C2	32:S1:1721:A:C2	2.55	0.94
32:S1:861:A:H2'	46:LT:170:ARG:HD3	1.46	0.94
32:S1:929:A:O4'	37:LB:137:ILE:HG13	1.66	0.94
32:S1:860:A:OP2	46:LT:173:LYS:O	1.85	0.94
32:S1:1676:G:H8	33:L1:1933:U:P	1.86	0.94
12:SO:97:ALA:CB	39:LF:19:GLN:OE1	182.13	0.94
12:SO:107:LYS:CB	39:LF:78:ASN:HD21	153.57	0.94
4:SD:124:CYS:HA	4:SD:142:TYR:CE2	2.03	0.94
4:SD:67:GLN:O	4:SD:69:HIS:CD2	2.20	0.94
5:SE:197:LEU:HD21	32:S1:1092:A:OP1	1.68	0.94
2:SA:64:LEU:HD11	5:SE:44:TRP:CD1	2.03	0.94
14:SP:95:VAL:HB	46:LT:152:GLU:HA	1.49	0.94
31:S2:69:G:O2'	33:L1:2965:C:O3'	1.84	0.94
33:L1:415:G:H21	33:L1:631:C:C5'	1.81	0.94
65:LL:154:UNK:N	65:LL:154:UNK:HA	1.79	0.94
2:SA:145:ASN:OD1	5:SE:78:VAL:HG12	1.68	0.94
32:S1:988:G:O2'	37:LB:173:GLY:HA2	1.66	0.94
23:SU:54:GLU:O	50:LZ:1:MET:N	2.00	0.94
14:SP:121:GLY:CA	46:LT:162:LYS:HZ3	1.79	0.94
48:LV:125:LYS:HA	48:LV:144:PRO:HD2	1.48	0.94
32:S1:1225:A:C2'	32:S1:1225:A:N9	2.29	0.94
32:S1:918:G:H1	33:L1:2203:A:H8	1.01	0.94
33:L1:1365:C:OP1	81:LD:337:PHE:CD1	2.21	0.94
32:S1:1664:U:C5'	33:L1:2119:A:C4'	2.41	0.94
32:S1:1747:A:H1'	33:L1:1915:G:C1'	1.98	0.94
5:SE:30:ARG:NE	27:SH:67:GLY:N	2.15	0.94
81:LD:303:VAL:HG12	81:LD:304:GLN:HB2	1.50	0.93
33:L1:2160:C:P	42:LP:76:PRO:CG	2.56	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:976:A:N6	33:L1:849:A:OP1	1.86	0.93
31:S2:69:G:H5'	33:L1:2965:C:P	2.09	0.93
31:S2:72:G:C3'	33:L1:2972:C:C5'	2.46	0.93
81:LD:306:VAL:HB	81:LD:309:PRO:HD3	1.50	0.93
32:S1:1663:A:O3'	33:L1:1918:A:N3	2.00	0.93
4:SD:201:HIS:CE1	32:S1:687:C:H4'	2.02	0.93
6:SF:56:ARG:HD3	19:SY:50:ASP:CB	1.99	0.93
11:SM:14:ARG:CB	38:LE:111:HIS:CG	2.43	0.93
34:L3:20:C:O2'	45:LQ:252:THR:HG22	1.66	0.93
32:S1:896:C:H5''	37:LB:255:ALA:N	1.83	0.93
2:SA:72:ILE:CD1	5:SE:66:TYR:HE1	1.81	0.93
36:LA:54:LEU:HD13	36:LA:134:PRO:HD2	1.47	0.93
32:S1:859:U:H5'	46:LT:180:ARG:CB	1.96	0.93
26:SG:64:UNK:C	26:SG:65:UNK:CA	2.47	0.93
11:SM:11:HIS:HE2	38:LE:118:TYR:H	0.94	0.93
2:SA:129:THR:HG23	2:SA:130:ASP:H	1.34	0.93
2:SA:128:LEU:HD11	2:SA:134:ASP:CB	1.98	0.93
17:SV:48:TYR:HE1	17:SV:81:ILE:CA	1.80	0.93
13:SQ:104:GLU:CG	20:SZ:31:ARG:HH11	1.59	0.93
33:L1:641:C:O2'	33:L1:642:C:H6	1.49	0.93
32:S1:989:G:C4'	37:LB:173:GLY:H	1.81	0.93
33:L1:3301:G:H4'	48:LV:70:THR:C	1.89	0.93
32:S1:989:G:C5'	37:LB:173:GLY:HA2	1.98	0.93
31:S2:72:G:H3'	33:L1:2972:C:P	2.07	0.93
5:SE:258:LYS:HE2	27:SH:69:LEU:N	1.83	0.93
48:LV:127:ARG:HD2	48:LV:141:MET:CE	1.98	0.93
33:L1:2289:U:C5	41:LM:74:LYS:NZ	2.37	0.93
33:L1:529:C:OP1	66:LN:69:THR:HG23	1.69	0.93
5:SE:15:PHE:HZ	5:SE:221:LYS:HE3	1.34	0.93
32:S1:843:G:C2	33:L1:2063:U:C5	2.51	0.93
34:L3:113:G:O2'	45:LQ:71:ALA:HB3	1.67	0.93
33:L1:1364:C:C4'	81:LD:337:PHE:CZ	2.02	0.92
81:LD:333:LEU:HB3	81:LD:337:PHE:HE2	1.32	0.92
84:LI:110:ARG:HG2	84:LI:116:ARG:HG3	0.93	0.92
32:S1:1676:G:H5''	33:L1:1934:U:OP2	1.68	0.92
25:SC:195:GLU:C	33:L1:2251:A:H3'	1.89	0.92
84:LI:110:ARG:CG	84:LI:116:ARG:NE	2.31	0.92
34:L3:86:G:H4'	67:LS:119:ARG:HD2	1.51	0.92
14:SP:88:ARG:NH2	33:L1:2082:A:O3'	2.02	0.92
33:L1:1364:C:O3'	81:LD:337:PHE:CZ	2.23	0.92
32:S1:978:A:N3	33:L1:849:A:H2	1.24	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:929:A:O4'	37:LB:137:ILE:HD11	1.69	0.92
34:L3:46:C:OP1	45:LQ:158:ARG:NH1	2.02	0.92
34:L3:113:G:C4'	45:LQ:71:ALA:HB1	1.99	0.92
2:SA:239:ALA:CB	2:SA:243:TRP:HB2	2.00	0.92
4:SD:159:THR:HG23	4:SD:227:THR:HG22	1.49	0.92
14:SP:56:ASP:N	46:LT:123:MET:CE	2.31	0.92
81:LD:330:VAL:CG1	81:LD:331:LEU:HG	1.99	0.92
33:L1:1320:G:H8	82:LK:134:LEU:CD1	1.83	0.92
31:S2:26:G:C1'	33:L1:2260:C:H5'	1.98	0.92
32:S1:976:A:H61	33:L1:849:A:H8	0.98	0.92
14:SP:121:GLY:HA3	46:LT:162:LYS:HZ1	0.75	0.92
26:SG:9:UNK:N	46:LT:188:SER:CB	2.32	0.92
15:SS:9:VAL:HA	15:SS:138:ALA:HB2	1.49	0.92
17:SV:96:HIS:HB2	17:SV:100:LEU:O	1.69	0.92
17:SV:25:LYS:O	17:SV:26:LYS:CB	2.18	0.92
33:L1:1505:G:N2	33:L1:1516:G:O6	2.03	0.92
5:SE:142:LYS:NZ	32:S1:1304:A:C5'	2.31	0.92
5:SE:255:LEU:HD23	27:SH:71:LYS:O	1.69	0.92
5:SE:30:ARG:NE	27:SH:66:ASN:HA	1.84	0.92
8:SJ:75:ARG:CA	8:SJ:88:ARG:O	2.17	0.92
33:L1:308:U:H3'	33:L1:309:C:H5'	1.52	0.92
32:S1:928:A:H5''	37:LB:109:GLU:CD	1.90	0.92
64:LG:49:LYS:O	64:LG:50:PHE:HA	1.69	0.92
66:LN:110:VAL:HG11	82:LK:201:LEU:HD23	1.08	0.92
66:LN:64:ARG:CZ	67:LS:151:PHE:CG	2.53	0.92
48:LV:113:LEU:HD22	48:LV:157:PRO:HD2	1.50	0.92
11:SM:14:ARG:HB2	38:LE:111:HIS:CG	2.05	0.92
33:L1:463:G:H22	33:L1:472:U:H3	1.18	0.92
32:S1:929:A:H5'	37:LB:137:ILE:CG1	1.97	0.92
31:S2:72:G:C4'	33:L1:2972:C:C5'	2.46	0.92
2:SA:72:ILE:CD1	5:SE:66:TYR:OH	2.16	0.92
6:SF:99:LEU:CD1	17:SV:66:LEU:HD13	1.99	0.92
34:L3:48:G:O6	45:LQ:58:ASN:HB3	1.70	0.92
36:LA:62:MET:CE	36:LA:171:LEU:HD21	2.00	0.92
34:L3:18:C:OP2	38:LE:153:HIS:CE1	2.22	0.92
66:LN:9:ILE:HD12	66:LN:64:ARG:HA	1.49	0.92
33:L1:289:C:OP1	42:LP:98:LYS:NZ	2.03	0.92
32:S1:858:G:O5'	46:LT:179:GLU:HG2	1.67	0.92
32:S1:859:U:H5''	46:LT:180:ARG:CB	1.94	0.92
14:SP:104:ARG:HH22	32:S1:113:A:C1'	1.80	0.92
2:SA:113:THR:HG22	32:S1:1298:G:HO2'	1.01	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:SM:12:ILE:HG23	38:LE:117:LYS:O	1.70	0.92
31:S2:73:C:OP1	33:L1:2973:A:OP1	1.86	0.91
35:L2:140:G:C4'	49:LX:66:LYS:HD2	1.99	0.91
34:L3:53:U:H4'	34:L3:54:A:H5'	1.48	0.91
32:S1:918:G:C2	33:L1:2202:A:P	2.63	0.91
5:SE:142:LYS:CE	32:S1:1304:A:OP1	2.18	0.91
2:SA:128:LEU:HD11	2:SA:134:ASP:HB2	1.52	0.91
29:ST:53:ALA:N	32:S1:1069:G:H21	1.68	0.91
33:L1:885:A:OP1	33:L1:1843:A:N6	2.02	0.91
14:SP:104:ARG:NH2	32:S1:113:A:O4'	2.03	0.91
33:L1:2256:G:H21	33:L1:2257:A:N6	1.68	0.91
31:S2:74:C:H1'	33:L1:2404:C:H5''	0.98	0.91
81:LD:380:ALA:O	81:LD:384:THR:HG23	1.68	0.91
9:SK:109:PRO:CD	9:SK:112:GLN:HB2	2.01	0.91
64:LG:188:LEU:HD11	66:LN:104:ASP:HA	1.49	0.91
34:L3:87:G:H5''	67:LS:117:ARG:HH21	1.35	0.91
68:LW:29:LYS:C	68:LW:29:LYS:CB	2.38	0.91
27:SH:42:GLN:HG3	27:SH:129:PHE:CE1	2.05	0.91
36:LA:189:LEU:O	65:LL:192:UNK:CA	2.18	0.91
2:SA:239:ALA:HB3	2:SA:243:TRP:HB2	1.52	0.91
11:SM:14:ARG:NH1	38:LE:109:GLN:CG	2.34	0.91
32:S1:1674:C:H5'	33:L1:1913:C:HO2'	1.35	0.91
32:S1:1747:A:C1'	33:L1:1915:G:H1'	1.88	0.91
32:S1:989:G:C5'	33:L1:2172:C:C2	2.51	0.91
34:L3:86:G:H4'	67:LS:119:ARG:CG	2.00	0.91
36:LA:69:ASP:HB3	36:LA:79:MET:HE2	1.50	0.91
32:S1:1663:A:H5'	33:L1:1919:C:C5'	1.99	0.91
32:S1:929:A:C4'	37:LB:137:ILE:CG1	2.49	0.91
2:SA:120:PHE:CE1	5:SE:102:GLY:CA	2.54	0.91
3:SB:153:LYS:CG	3:SB:153:LYS:NZ	2.33	0.91
37:LB:202:VAL:HG12	37:LB:217:GLN:HB3	1.51	0.91
14:SP:89:ARG:HG3	46:LT:151:ARG:HH22	1.22	0.91
26:SG:8:UNK:CA	46:LT:186:GLU:C	2.39	0.91
14:SP:104:ARG:HH22	32:S1:113:A:H1'	1.27	0.91
32:S1:843:G:N2	33:L1:2063:U:H5	1.46	0.91
32:S1:860:A:H2'	32:S1:861:A:O4'	1.71	0.91
10:SL:96:ASN:HB3	32:S1:1141:U:OP2	1.70	0.91
12:SO:69:SER:CB	24:SX:49:PHE:CE2	2.53	0.91
32:S1:823:A:OP1	46:LT:165:LYS:O	1.88	0.91
16:SR:68:LYS:HD3	32:S1:1559:U:OP2	1.69	0.91
32:S1:1664:U:H4'	33:L1:2119:A:C5'	2.00	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:SB:116:ARG:HH21	5:SE:161:HIS:HD2	1.13	0.91
29:ST:2:GLN:NE2	33:L1:2544:C:H2'	1.86	0.91
37:LB:104:ILE:HG12	37:LB:139:HIS:NE2	1.85	0.90
32:S1:887:U:H6	41:LM:85:ARG:HH21	98.79	0.90
14:SP:122:ASP:O	46:LT:162:LYS:CD	2.19	0.90
14:SP:122:ASP:N	46:LT:162:LYS:HD3	1.84	0.90
7:SI:133:LYS:HE2	32:S1:1592:G:C3'	1.66	0.90
14:SP:95:VAL:HG23	46:LT:152:GLU:CB	2.01	0.90
33:L1:180:G:H5''	35:L2:98:C:H41	1.34	0.90
33:L1:1880:A:C2'	33:L1:1881:C:H5'	2.00	0.90
33:L1:2201:G:N2	33:L1:2203:A:H61	1.67	0.90
36:LA:60:PRO:HA	36:LA:150:THR:HG21	1.52	0.90
32:S1:1659:A:H61	32:S1:1759:A:N6	1.69	0.90
14:SP:57:LYS:N	46:LT:142:ILE:O	2.04	0.90
33:L1:2160:C:OP1	42:LP:76:PRO:HG2	1.72	0.90
33:L1:537:U:O3'	67:LS:134:LYS:NZ	2.04	0.90
33:L1:841:G:H1	33:L1:858:U:H3	1.16	0.90
32:S1:860:A:C1'	46:LT:173:LYS:HB3	2.01	0.90
32:S1:860:A:C8	46:LT:173:LYS:HB3	2.05	0.90
26:SG:8:UNK:CA	46:LT:186:GLU:O	2.20	0.90
26:SG:128:UNK:O	32:S1:642:C:C1'	2.20	0.90
11:SM:14:ARG:HG3	38:LE:111:HIS:HD2	1.27	0.90
36:LA:70:ALA:HB3	36:LA:107:HIS:CD2	2.06	0.90
33:L1:579:G:H1'	64:LG:54:ASP:OD2	1.71	0.90
33:L1:288:G:H5''	42:LP:98:LYS:HE2	1.51	0.90
32:S1:1747:A:C4'	33:L1:1915:G:N2	2.28	0.90
36:LA:91:LYS:HG2	36:LA:94:LYS:HE2	1.53	0.90
37:LB:104:ILE:HD12	37:LB:148:ILE:HD11	1.52	0.90
81:LD:332:LYS:O	81:LD:335:PRO:CG	2.18	0.90
26:SG:10:UNK:C	26:SG:11:UNK:CA	2.47	0.90
14:SP:57:LYS:N	46:LT:141:SER:O	2.02	0.90
14:SP:60:PRO:HB2	33:L1:2083:U:P	2.10	0.90
33:L1:1364:C:O2'	81:LD:337:PHE:CZ	2.24	0.90
32:S1:1747:A:O2'	33:L1:1915:G:N3	2.03	0.90
32:S1:896:C:H5''	37:LB:255:ALA:O	1.72	0.90
33:L1:1523:G:H5''	49:LX:79:THR:HG22	1.52	0.90
32:S1:918:G:N1	33:L1:2203:A:N7	2.14	0.90
14:SP:98:TYR:HE1	46:LT:155:LEU:CD2	1.79	0.90
24:SX:51:HIS:CG	24:SX:72:LYS:NZ	2.38	0.90
32:S1:858:G:H3'	46:LT:176:ARG:HD3	1.53	0.90
32:S1:1673:C:H1'	33:L1:1914:C:O2'	0.73	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:SD:137:PRO:CD	32:S1:247:A:OP2	2.19	0.90
33:L1:1364:C:C3'	81:LD:337:PHE:HZ	1.75	0.90
38:LE:14:ILE:HD11	38:LE:133:LEU:CB	2.01	0.90
66:LN:64:ARG:NH1	67:LS:151:PHE:HB3	1.86	0.90
32:S1:349:U:H5'	46:LT:141:SER:HB2	1.52	0.90
25:SC:10:LYS:HZ3	32:S1:505:U:H5'	1.33	0.90
33:L1:1265:G:C4	33:L1:1265:G:C2'	2.55	0.90
81:LD:303:VAL:HG12	81:LD:304:GLN:CB	2.01	0.90
65:LL:153:UNK:CB	65:LL:153:UNK:C	2.50	0.90
32:S1:348:A:H3'	46:LT:140:GLU:OE2	1.42	0.90
5:SE:24:ARG:O	27:SH:69:LEU:HG	1.72	0.90
12:SO:107:LYS:HD2	39:LF:78:ASN:HD22	155.01	0.90
17:SV:25:LYS:O	17:SV:26:LYS:CG	2.21	0.90
33:L1:2921:A:H61	33:L1:2929:C:H42	1.12	0.89
48:LV:99:ALA:HB2	48:LV:149:LEU:HD23	1.53	0.89
2:SA:114:ASN:ND2	32:S1:1298:G:H1'	1.86	0.89
7:SI:130:CYS:O	32:S1:1592:G:C2'	2.17	0.89
32:S1:978:A:H4'	33:L1:851:A:O5'	1.69	0.89
13:SQ:59:ARG:NH1	32:S1:1225:A:H1'	1.86	0.89
3:SB:18:TYR:HE2	8:SJ:120:GLU:OE2	1.55	0.89
17:SV:53:SER:O	17:SV:56:PRO:CG	2.21	0.89
14:SP:89:ARG:NE	46:LT:151:ARG:NH1	2.20	0.89
11:SM:12:ILE:HG13	38:LE:117:LYS:HG2	1.52	0.89
45:LQ:17:PHE:N	45:LQ:20:PHE:CE2	2.40	0.89
14:SP:89:ARG:HD2	46:LT:151:ARG:CZ	2.01	0.89
5:SE:240:ARG:CZ	32:S1:1302:C:O2'	2.19	0.89
34:L3:87:G:OP1	67:LS:117:ARG:CZ	2.21	0.89
4:SD:100:ARG:HB2	4:SD:114:VAL:HG21	1.54	0.89
27:SH:94:LEU:HD13	27:SH:95:PRO:CG	2.02	0.89
11:SM:14:ARG:HB2	38:LE:111:HIS:CE1	2.07	0.89
14:SP:91:TYR:C	33:L1:2081:C:H5''	1.93	0.89
17:SV:25:LYS:O	17:SV:26:LYS:HG3	1.72	0.89
5:SE:142:LYS:HE3	32:S1:1304:A:OP1	1.71	0.89
5:SE:234:LEU:CD1	32:S1:14:C:OP2	2.20	0.89
2:SA:103:ILE:HD13	2:SA:107:HIS:HA	1.54	0.89
27:SH:22:LYS:HG2	27:SH:61:ILE:HD11	1.54	0.89
23:SU:29:VAL:HA	23:SU:78:PHE:CE1	2.08	0.89
31:S2:72:G:H3'	33:L1:2972:C:O5'	1.72	0.89
66:LN:64:ARG:CZ	67:LS:151:PHE:CB	2.50	0.89
12:SO:97:ALA:HB2	39:LF:19:GLN:CB	180.39	0.89
14:SP:71:ILE:HD12	27:SH:84:LYS:HE2	1.53	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:LB:211:HIS:NE2	37:LB:219:ILE:HD12	1.87	0.89
41:LM:96:MET:HE2	50:LZ:22:ARG:HD2	1.54	0.89
14:SP:88:ARG:NH2	33:L1:2082:A:C3'	2.36	0.89
32:S1:886:A:N3	41:LM:85:ARG:NH2	99.10	0.89
14:SP:89:ARG:CG	46:LT:151:ARG:CZ	2.50	0.89
31:S2:75:A:O4'	33:L1:2956:U:O4'	1.91	0.89
5:SE:30:ARG:CD	27:SH:67:GLY:N	2.35	0.89
17:SV:64:SER:HB2	17:SV:82:LYS:HZ2	1.37	0.89
17:SV:64:SER:CB	17:SV:82:LYS:NZ	2.35	0.89
31:S2:26:G:H8	33:L1:2260:C:H5'	1.24	0.88
11:SM:12:ILE:CG2	38:LE:117:LYS:O	2.21	0.88
66:LN:95:VAL:CG1	82:LK:206:TYR:C	2.41	0.88
34:L3:116:U:O2'	45:LQ:80:TYR:CE1	2.25	0.88
14:SP:121:GLY:C	46:LT:162:LYS:HZ3	1.77	0.88
27:SH:33:VAL:HG22	27:SH:37:PHE:CE2	2.07	0.88
15:SS:9:VAL:HG21	15:SS:135:ASP:CA	2.02	0.88
23:SU:33:LEU:HD12	23:SU:35:PRO:CD	2.03	0.88
33:L1:414:G:H1	35:L2:11:U:H3	1.21	0.88
44:LR:40:THR:HG1	81:LD:325:LYS:HD2	1.37	0.88
12:SO:149:LEU:O	39:LF:82:GLY:O	165.55	0.88
2:SA:64:LEU:CD1	5:SE:44:TRP:CB	2.51	0.88
14:SP:121:GLY:HA2	46:LT:162:LYS:NZ	1.89	0.88
17:SV:101:ILE:CG2	17:SV:102:TYR:H	1.86	0.88
17:SV:63:PRO:HD2	17:SV:66:LEU:HB2	1.55	0.88
12:SO:93:LYS:HE3	39:LF:23:LYS:N	176.42	0.88
14:SP:89:ARG:HD2	46:LT:151:ARG:NE	1.88	0.88
24:SX:69:THR:O	32:S1:877:G:P	2.31	0.88
30:S3:13:A:H61	32:S1:1157:A:P	1.96	0.88
34:L3:7:G:H5'	45:LQ:37:ARG:HD3	1.55	0.88
44:LR:41:LYS:HB3	81:LD:325:LYS:NZ	1.89	0.88
48:LV:113:LEU:HD12	48:LV:152:SER:O	1.73	0.88
27:SH:47:ILE:HG22	27:SH:60:LYS:HB3	1.52	0.88
12:SO:150:VAL:HG11	33:L1:1714:A:C1'	2.00	0.88
44:LR:41:LYS:H	81:LD:325:LYS:CD	1.86	0.88
23:SU:20:ASN:H	23:SU:25:ARG:HG3	1.39	0.88
44:LR:41:LYS:H	81:LD:325:LYS:HD3	1.36	0.88
12:SO:107:LYS:CB	39:LF:78:ASN:ND2	153.99	0.88
84:LI:110:ARG:H	84:LI:116:ARG:NE	1.70	0.88
66:LN:64:ARG:NE	67:LS:154:VAL:HB	1.88	0.88
41:LM:140:VAL:HG21	50:LZ:24:ILE:HD12	1.54	0.88
17:SV:95:VAL:HA	17:SV:101:ILE:CD1	2.04	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1179:C:C2'	82:LK:94:PRO:HD3	2.02	0.88
33:L1:1369:G:OP2	44:LR:1:MET:SD	2.31	0.88
14:SP:124:VAL:N	46:LT:165:LYS:HB3	1.89	0.88
10:SL:66:ARG:HH22	32:S1:438:G:H4'	1.36	0.88
32:S1:215:A:OP2	32:S1:834:A:H4'	1.72	0.88
35:L2:140:G:C5'	49:LX:66:LYS:CD	2.45	0.88
27:SH:65:LEU:HD13	27:SH:66:ASN:H	1.38	0.88
32:S1:1747:A:C2'	33:L1:1916:U:O4'	2.22	0.88
32:S1:823:A:C8	46:LT:172:ARG:HB2	2.06	0.88
26:SG:127:UNK:HA	26:SG:128:UNK:N	1.87	0.88
24:SX:57:VAL:HG11	24:SX:62:GLN:HG3	1.56	0.88
34:L3:43:A:H1'	38:LE:142:ARG:HH21	1.37	0.87
26:SG:5:UNK:CA	46:LT:189:CYS:HA	2.02	0.87
14:SP:58:LYS:O	46:LT:144:LYS:HA	1.72	0.87
32:S1:1664:U:OP1	33:L1:1917:A:H2	1.56	0.87
37:LB:202:VAL:CG1	37:LB:217:GLN:HB3	2.03	0.87
32:S1:1673:C:C4'	33:L1:1914:C:H4'	2.04	0.87
33:L1:716:A:H1'	33:L1:2776:U:O2'	1.73	0.87
8:SJ:92:ARG:HG2	28:SN:52:PHE:N	1.88	0.87
31:S2:70:G:H4'	33:L1:2966:G:H5'	1.55	0.87
14:SP:92:LEU:CD2	46:LT:151:ARG:NH1	2.28	0.87
32:S1:977:G:H4'	33:L1:848:G:H1'	1.56	0.87
17:SV:42:LEU:HB3	17:SV:47:THR:HG21	1.56	0.87
17:SV:96:HIS:HD2	17:SV:101:ILE:HA	0.72	0.87
33:L1:2149:G:H4'	37:LB:227:ARG:HH22	1.39	0.87
33:L1:2355:A:N1	33:L1:2984:A:C2	2.42	0.87
33:L1:1320:G:N7	82:LK:134:LEU:HD22	1.90	0.87
32:S1:347:C:O2'	33:L1:2086:A:OP1	1.93	0.87
24:SX:70:GLY:CA	32:S1:877:G:H4'	2.05	0.87
2:SA:135:HIS:HA	2:SA:138:ILE:HG12	1.53	0.87
2:SA:72:ILE:CG1	5:SE:66:TYR:CZ	2.50	0.87
23:SU:25:ARG:HD2	23:SU:27:GLN:CD	1.93	0.87
66:LN:41:PRO:HG2	66:LN:75:MET:HG3	1.56	0.87
40:LH:64:LYS:HG3	49:LX:42:PHE:CE1	2.09	0.87
16:SR:142:ILE:CG2	32:S1:1188:A:H61	1.86	0.87
2:SA:64:LEU:HG	5:SE:44:TRP:HD1	1.15	0.87
3:SB:76:ARG:HA	13:SQ:33:LYS:CG	2.05	0.87
17:SV:54:GLU:C	17:SV:56:PRO:HD3	1.94	0.87
43:LO:61:PHE:CD2	65:LL:152:UNK:HA	2.09	0.87
3:SB:116:ARG:NH2	5:SE:161:HIS:CD2	2.42	0.87
17:SV:56:PRO:HD2	17:SV:57:LYS:H	1.40	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1747:A:N9	33:L1:1930:G:C2	2.43	0.87
33:L1:2237:A:C2	33:L1:2240:C:N4	2.42	0.87
34:L3:86:G:H4'	67:LS:119:ARG:CD	2.05	0.87
33:L1:1320:G:C8	82:LK:134:LEU:CD1	2.58	0.87
33:L1:1179:C:C3'	82:LK:94:PRO:HD3	2.05	0.87
31:S2:74:C:H1'	33:L1:2404:C:H5'	1.54	0.87
9:SK:116:ARG:NE	9:SK:129:GLU:CD	2.28	0.87
33:L1:1364:C:O3'	81:LD:337:PHE:HE1	1.19	0.87
33:L1:3115:A:O2'	39:LF:63:ARG:HD3	1.75	0.87
5:SE:27:ARG:O	27:SH:69:LEU:HD23	1.75	0.87
17:SV:95:VAL:HG12	17:SV:96:HIS:H	1.35	0.87
31:S2:24:A:N9	33:L1:2261:U:H5''	1.01	0.86
34:L3:56:G:H21	45:LQ:54:ARG:HH22	1.16	0.86
84:LI:110:ARG:HG3	84:LI:116:ARG:NE	1.89	0.86
44:LR:40:THR:C	81:LD:325:LYS:HD3	1.94	0.86
32:S1:858:G:C3'	46:LT:176:ARG:HD3	2.05	0.86
4:SD:147:ILE:CD1	4:SD:169:ILE:HD11	2.03	0.86
6:SF:56:ARG:CD	19:SY:50:ASP:HB3	2.05	0.86
81:LD:339:THR:HA	81:LD:342:LYS:HD2	1.57	0.86
66:LN:64:ARG:CZ	67:LS:154:VAL:HB	2.05	0.86
32:S1:1664:U:C4'	33:L1:2119:A:C5'	2.46	0.86
26:SG:128:UNK:C	32:S1:642:C:O4'	2.18	0.86
2:SA:64:LEU:CD1	5:SE:44:TRP:HB2	2.05	0.86
34:L3:58:G:H5'	45:LQ:29:GLN:NE2	1.89	0.86
32:S1:896:C:C5'	37:LB:255:ALA:H	1.88	0.86
48:LV:1:MET:HB3	48:LV:16:LYS:HD3	1.57	0.86
6:SF:84:MET:HG2	32:S1:1479:U:H4'	1.57	0.86
32:S1:1747:A:O2'	33:L1:1916:U:C6	2.28	0.86
31:S2:34:G:H5'	32:S1:1195:U:C5	2.10	0.86
9:SK:81:ALA:HB2	9:SK:111:ALA:CB	2.05	0.86
11:SM:12:ILE:CG1	38:LE:117:LYS:HG2	2.05	0.86
7:SI:58:ILE:HG21	15:SS:12:VAL:HA	1.55	0.86
23:SU:20:ASN:HB3	23:SU:23:LEU:HD12	1.56	0.86
33:L1:1034:U:C2'	33:L1:1035:C:O4'	2.23	0.86
34:L3:28:U:H1'	34:L3:54:A:N6	1.90	0.86
34:L3:7:G:OP1	45:LQ:37:ARG:HD2	1.75	0.86
67:LS:151:PHE:CG	67:LS:151:PHE:CA	2.57	0.86
2:SA:135:HIS:CD2	2:SA:138:ILE:HD11	2.10	0.86
13:SQ:33:LYS:HG2	13:SQ:36:GLU:OE1	1.75	0.86
33:L1:2240:C:O4'	37:LB:222:ALA:HA	1.74	0.86
33:L1:2640:A:N9	33:L1:2640:A:C2'	2.37	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:SG:127:UNK:C	26:SG:128:UNK:CA	2.53	0.86
24:SX:34:PHE:CE2	24:SX:81:PHE:HB3	2.10	0.86
81:LD:379:LYS:HB3	81:LD:383:LYS:HE3	1.58	0.86
31:S2:72:G:C2'	33:L1:2972:C:H5''	2.05	0.86
34:L3:41:G:H1'	34:L3:44:C:N4	1.90	0.86
32:S1:991:G:P	37:LB:133:TYR:CE1	2.64	0.86
32:S1:1757:G:O3'	33:L1:2298:A:P	2.33	0.86
29:ST:53:ALA:H	32:S1:1069:G:H21	1.23	0.86
33:L1:2201:G:N2	33:L1:2203:A:N6	2.23	0.86
6:SF:46:PRO:CG	7:SI:65:ARG:HH21	1.88	0.86
5:SE:30:ARG:HD3	27:SH:67:GLY:O	1.74	0.86
33:L1:1263:A:H61	67:LS:33:ALA:H	67.71	0.86
32:S1:1673:C:H4'	33:L1:1914:C:H4'	1.56	0.86
36:LA:68:GLY:HA3	36:LA:102:LEU:HD22	1.57	0.86
32:S1:373:U:C2'	32:S1:373:U:N1	2.38	0.86
33:L1:2157:C:H1'	37:LB:11:GLY:H	1.39	0.86
32:S1:1747:A:C8	33:L1:1930:G:N2	2.44	0.86
27:SH:11:LEU:HG	27:SH:15:TYR:HE1	1.41	0.86
33:L1:288:G:OP1	42:LP:98:LYS:CG	2.21	0.85
34:L3:55:A:H2	38:LE:140:VAL:HG21	1.41	0.85
32:S1:329:G:H21	33:L1:2085:A:C4'	1.73	0.85
27:SH:37:PHE:CG	27:SH:43:LYS:HE3	2.11	0.85
7:SI:133:LYS:HE3	32:S1:1592:G:H3'	1.04	0.85
15:SS:2:ALA:O	32:S1:1363:G:O2'	1.92	0.85
33:L1:2361:C:N1	33:L1:2361:C:C2'	2.38	0.85
43:LO:61:PHE:CG	65:LL:152:UNK:HA	2.11	0.85
2:SA:229:TYR:O	2:SA:232:VAL:HG23	1.76	0.85
4:SD:102:LEU:HG	4:SD:103:TYR:H	1.41	0.85
4:SD:208:ILE:HG21	4:SD:225:VAL:CG2	2.05	0.85
11:SM:12:ILE:O	38:LE:117:LYS:C	2.09	0.85
33:L1:2059:C:H2'	33:L1:2060:C:H5'	1.58	0.85
31:S2:73:C:O2'	33:L1:2810:A:C4	2.30	0.85
32:S1:1678:G:C2'	32:S1:1678:G:N9	2.38	0.85
32:S1:320:A:C5'	33:L1:855:U:H5'	2.05	0.85
15:SS:9:VAL:HG22	15:SS:138:ALA:HB3	1.58	0.85
33:L1:2362:A:C2'	33:L1:2362:A:N9	2.39	0.85
65:LL:151:UNK:HA	65:LL:151:UNK:C	2.06	0.85
32:S1:858:G:C2'	46:LT:176:ARG:HD3	2.06	0.85
9:SK:39:THR:CG2	9:SK:103:LYS:HD2	2.04	0.85
14:SP:57:LYS:O	46:LT:141:SER:O	1.95	0.85
17:SV:71:ARG:HD2	17:SV:78:ARG:HH12	1.39	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2647:C:O2	84:LI:115:MET:CE	2.24	0.85
33:L1:576:C:P	81:LD:342:LYS:NZ	2.49	0.85
9:SK:109:PRO:HG2	9:SK:112:GLN:N	1.91	0.85
14:SP:47:ARG:HG2	14:SP:66:SER:HB2	1.58	0.85
17:SV:95:VAL:CG1	17:SV:96:HIS:H	1.89	0.85
33:L1:716:A:N9	33:L1:716:A:C2'	2.39	0.85
36:LA:79:MET:O	36:LA:83:TYR:HB3	1.76	0.85
14:SP:121:GLY:C	46:LT:162:LYS:NZ	2.30	0.85
26:SG:123:UNK:CB	27:SH:52:PHE:HZ	1.86	0.85
27:SH:94:LEU:CG	27:SH:95:PRO:CD	2.47	0.85
33:L1:1320:G:OP1	82:LK:134:LEU:HD21	1.77	0.85
14:SP:90:ASN:C	33:L1:2081:C:H5''	1.96	0.85
32:S1:918:G:N3	33:L1:2202:A:H2'	1.91	0.85
34:L3:47:C:OP1	45:LQ:96:TYR:N	2.10	0.85
8:SJ:95:LYS:NZ	32:S1:1388:A:OP1	2.09	0.85
33:L1:2647:C:O2	84:LI:115:MET:HE2	1.76	0.85
31:S2:26:G:H8	33:L1:2260:C:C5'	1.80	0.85
25:SC:171:PRO:HB3	25:SC:171:PRO:CD	2.05	0.85
10:SL:41:ALA:HB2	10:SL:62:ASN:HA	1.58	0.85
12:SO:107:LYS:CD	39:LF:78:ASN:ND2	154.47	0.85
84:LI:110:ARG:CD	84:LI:116:ARG:HD2	2.07	0.85
66:LN:41:PRO:CG	66:LN:75:MET:SD	2.65	0.85
24:SX:69:THR:O	32:S1:877:G:O5'	1.95	0.85
3:SB:153:LYS:HZ3	3:SB:153:LYS:CG	1.88	0.85
17:SV:71:ARG:HB2	17:SV:78:ARG:HH22	1.39	0.85
32:S1:1747:A:H2'	33:L1:1916:U:O4'	1.75	0.85
36:LA:43:GLN:CB	36:LA:195:LYS:HE2	2.07	0.85
38:LE:163:LYS:O	38:LE:167:VAL:HG23	1.77	0.85
24:SX:72:LYS:CD	32:S1:1054:G:OP1	2.24	0.85
9:SK:116:ARG:NH2	9:SK:129:GLU:OE2	2.09	0.85
12:SO:107:LYS:CD	39:LF:78:ASN:HD22	154.12	0.85
32:S1:992:G:C5'	37:LB:149:LYS:HZ2	1.53	0.84
5:SE:258:LYS:CE	27:SH:69:LEU:N	2.39	0.84
34:L3:6:C:OP1	45:LQ:31:LYS:CE	2.26	0.84
44:LR:132:THR:HA	81:LD:325:LYS:NZ	1.91	0.84
26:SG:8:UNK:CB	46:LT:186:GLU:O	2.26	0.84
14:SP:49:ALA:HB2	14:SP:100:ARG:HH22	1.43	0.84
6:SF:56:ARG:CD	19:SY:50:ASP:CB	2.56	0.84
33:L1:1259:C:H2'	33:L1:1260:G:H8	1.42	0.84
31:S2:72:G:H3'	33:L1:2972:C:OP1	1.76	0.84
4:SD:195:ILE:HG23	4:SD:208:ILE:HD11	1.59	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2125:A:C2'	33:L1:2125:A:N9	2.40	0.84
66:LN:64:ARG:HH12	67:LS:151:PHE:CB	1.90	0.84
14:SP:56:ASP:N	46:LT:123:MET:HE1	1.91	0.84
15:SS:9:VAL:CG2	15:SS:135:ASP:CA	2.55	0.84
33:L1:1391:A:H61	33:L1:1423:C:H42	1.24	0.84
32:S1:918:G:O6	33:L1:2201:G:C2'	2.25	0.84
33:L1:262:A:N9	33:L1:262:A:C2'	2.40	0.84
33:L1:803:G:C2'	33:L1:803:G:N9	2.40	0.84
12:SO:58:HIS:CB	39:LF:23:LYS:HZ1	186.00	0.84
15:SS:2:ALA:CB	32:S1:1363:G:O2'	2.26	0.84
11:SM:92:ASP:HB2	11:SM:94:ARG:H	1.42	0.84
24:SX:70:GLY:HA2	32:S1:877:G:H5'	1.56	0.84
33:L1:424:G:H5''	33:L1:425:G:C8	2.13	0.84
33:L1:2289:U:OP2	41:LM:74:LYS:HD2	1.76	0.84
6:SF:95:ILE:N	17:SV:102:TYR:OH	2.11	0.84
33:L1:870:G:H1	33:L1:895:U:H3	1.24	0.84
36:LA:79:MET:HA	36:LA:140:GLN:NE2	1.92	0.84
33:L1:2607:U:O2'	37:LB:226:ARG:NH2	2.11	0.84
65:LL:154:UNK:CB	65:LL:154:UNK:C	2.56	0.84
66:LN:110:VAL:HG11	82:LK:201:LEU:HD21	1.59	0.84
14:SP:95:VAL:CG2	46:LT:152:GLU:HB2	2.06	0.84
4:SD:85:GLY:C	4:SD:101:LEU:HD13	1.97	0.84
4:SD:133:GLN:O	4:SD:136:ILE:HG23	1.77	0.84
17:SV:96:HIS:N	17:SV:101:ILE:HG12	1.91	0.84
31:S2:3:C:OP1	33:L1:2626:G:H8	1.57	0.84
7:SI:133:LYS:HE2	32:S1:1592:G:H3'	1.40	0.84
32:S1:991:G:H5'	37:LB:133:TYR:CD1	2.11	0.84
2:SA:232:VAL:O	2:SA:233:ALA:HB2	1.77	0.84
4:SD:181:VAL:HG11	4:SD:225:VAL:CG1	2.06	0.84
14:SP:122:ASP:N	46:LT:162:LYS:CD	2.40	0.84
33:L1:1387:G:O3'	81:LD:144:ARG:NH2	2.11	0.84
41:LM:140:VAL:HG21	50:LZ:24:ILE:CD1	2.07	0.84
45:LQ:155:THR:HG21	45:LQ:195:HIS:CE1	2.13	0.84
31:S2:72:G:H3'	33:L1:2972:C:C5'	2.08	0.84
4:SD:86:PHE:CE2	4:SD:87:MET:HG2	2.13	0.84
11:SM:11:HIS:C	38:LE:117:LYS:NZ	2.28	0.84
8:SJ:92:ARG:CG	28:SN:52:PHE:N	2.40	0.84
33:L1:1640:A:OP2	33:L1:1817:U:H1'	1.78	0.83
31:S2:75:A:C5'	33:L1:2956:U:O4'	2.23	0.83
36:LA:52:VAL:HG22	36:LA:155:LYS:HD2	1.56	0.83
4:SD:200:LYS:HZ2	32:S1:740:U:H5''	1.39	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:823:A:OP2	46:LT:169:SER:CB	2.25	0.83
4:SD:153:ILE:C	4:SD:153:ILE:HA	1.98	0.83
33:L1:1880:A:H2'	33:L1:1881:C:C5'	2.08	0.83
36:LA:133:PHE:O	36:LA:135:THR:HG23	1.77	0.83
11:SM:12:ILE:CB	38:LE:117:LYS:O	2.26	0.83
68:LW:29:LYS:HA	68:LW:29:LYS:N	1.91	0.83
4:SD:153:ILE:O	4:SD:153:ILE:HG12	1.78	0.83
3:SB:76:ARG:HA	13:SQ:33:LYS:HG3	1.59	0.83
81:LD:332:LYS:C	81:LD:335:PRO:HD3	1.99	0.83
14:SP:92:LEU:CA	46:LT:151:ARG:CZ	2.50	0.83
2:SA:64:LEU:HB2	5:SE:44:TRP:NE1	1.93	0.83
33:L1:1265:G:C4	33:L1:1265:G:H2'	2.14	0.83
33:L1:1432:G:N3	81:LD:108:PRO:HB3	1.94	0.83
33:L1:2148:U:H5'	37:LB:242:ARG:O	1.78	0.83
2:SA:165:ILE:CG2	2:SA:178:LEU:HD21	2.08	0.83
8:SJ:75:ARG:HG3	8:SJ:88:ARG:N	1.93	0.83
15:SS:2:ALA:C	32:S1:1363:G:O2'	2.16	0.83
17:SV:75:SER:O	17:SV:79:GLN:HG3	1.79	0.83
33:L1:1826:G:N9	33:L1:1826:G:C2'	2.41	0.83
37:LB:96:LEU:HD12	37:LB:108:PRO:HG2	1.60	0.83
81:LD:330:VAL:HG12	81:LD:331:LEU:N	1.92	0.83
33:L1:563:C:OP2	64:LG:2:ALA:HB3	1.78	0.83
15:SS:9:VAL:CA	15:SS:138:ALA:HB1	2.06	0.83
31:S2:72:G:N2	33:L1:2972:C:C6	2.41	0.83
32:S1:976:A:C6	33:L1:849:A:C8	2.66	0.83
33:L1:1179:C:C4'	82:LK:94:PRO:HD3	2.09	0.83
32:S1:860:A:C1'	46:LT:173:LYS:HG2	1.86	0.83
4:SD:58:TYR:CD1	32:S1:451:U:OP1	2.32	0.83
17:SV:72:ILE:HG22	17:SV:72:ILE:O	1.79	0.83
24:SX:51:HIS:CD2	24:SX:72:LYS:CE	2.61	0.83
27:SH:33:VAL:HG22	27:SH:37:PHE:HE2	1.39	0.83
5:SE:30:ARG:HD3	27:SH:67:GLY:CA	2.06	0.83
8:SJ:68:LYS:HD3	32:S1:1524:A:C4'	2.08	0.83
81:LD:380:ALA:O	81:LD:384:THR:HG22	1.77	0.83
82:LK:135:GLN:CB	82:LK:135:GLN:C	2.46	0.83
14:SP:89:ARG:HD2	46:LT:151:ARG:CD	2.08	0.83
68:LW:28:SER:C	68:LW:29:LYS:CA	2.47	0.83
24:SX:70:GLY:HA2	32:S1:877:G:H4'	1.61	0.83
4:SD:210:VAL:HG12	4:SD:212:ASP:H	1.43	0.83
33:L1:1577:A:C2'	33:L1:1577:A:N9	2.42	0.83
14:SP:93:HIS:HD1	33:L1:2080:G:H4'	1.44	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2147:U:O2	37:LB:237:LEU:CD2	2.27	0.83
81:LD:332:LYS:O	81:LD:335:PRO:HD3	1.79	0.83
44:LR:41:LYS:HB3	81:LD:325:LYS:HZ3	1.43	0.83
27:SH:52:PHE:CD2	27:SH:53:VAL:HG23	2.14	0.83
10:SL:41:ALA:CB	10:SL:62:ASN:HA	2.09	0.83
33:L1:2157:C:O2'	37:LB:8:GLN:O	1.95	0.83
33:L1:52:G:H22	33:L1:1549:A:H61	1.27	0.83
33:L1:1179:C:H4'	82:LK:94:PRO:HD3	1.61	0.83
65:LL:152:UNK:C	65:LL:152:UNK:CB	2.56	0.83
14:SP:93:HIS:CA	46:LT:151:ARG:HG3	2.09	0.83
7:SI:58:ILE:CG2	15:SS:11:ASP:O	2.27	0.83
33:L1:1761:C:H2'	33:L1:1762:G:H5'	1.58	0.82
33:L1:3304:U:C2'	33:L1:3304:U:N1	2.40	0.82
32:S1:347:C:P	46:LT:136:ARG:HD2	2.15	0.82
2:SA:239:ALA:HB3	2:SA:243:TRP:HB3	1.61	0.82
33:L1:2203:A:N9	33:L1:2203:A:C2'	2.41	0.82
36:LA:107:HIS:ND1	36:LA:129:LYS:HD3	1.94	0.82
36:LA:48:PHE:CD2	36:LA:192:LEU:HD21	2.14	0.82
33:L1:2607:U:H4'	37:LB:226:ARG:NH2	1.92	0.82
32:S1:1674:C:H1'	33:L1:1913:C:O2	1.79	0.82
2:SA:112:PHE:HZ	2:SA:126:LEU:HD12	1.44	0.82
4:SD:206:GLU:CG	32:S1:686:A:O2'	2.26	0.82
14:SP:94:PHE:H	46:LT:151:ARG:NE	1.76	0.82
15:SS:8:THR:HG21	15:SS:142:ASP:HB2	1.62	0.82
17:SV:88:GLY:O	17:SV:89:ALA:HB3	1.77	0.82
33:L1:1207:A:H5'	34:L3:88:U:C2	2.14	0.82
32:S1:989:G:C4'	37:LB:173:GLY:N	2.39	0.82
66:LN:64:ARG:NH1	67:LS:151:PHE:CB	2.42	0.82
2:SA:128:LEU:HA	32:S1:1392:G:OP1	55.77	0.82
32:S1:1673:C:H1'	33:L1:1914:C:C2'	2.09	0.82
32:S1:633:U:H2'	32:S1:633:U:C6	2.15	0.82
25:SC:63:THR:CA	25:SC:63:THR:OG1	2.25	0.82
33:L1:986:G:C2'	33:L1:986:G:N9	2.41	0.82
37:LB:139:HIS:O	37:LB:142:ASP:HB2	1.79	0.82
81:LD:362:LYS:O	81:LD:366:LEU:HG	1.77	0.82
32:S1:775:A:C3'	32:S1:776:A:H5'	2.08	0.82
31:S2:22:G:H22	33:L1:2262:C:H5''	1.44	0.82
3:SB:153:LYS:CD	3:SB:153:LYS:HZ2	1.91	0.82
5:SE:240:ARG:NH1	32:S1:1302:C:HO2'	1.74	0.82
14:SP:45:THR:HG21	14:SP:47:ARG:HE	1.45	0.82
33:L1:2237:A:H2	33:L1:2240:C:N4	1.77	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2355:A:N9	33:L1:2355:A:C2'	2.41	0.82
33:L1:2486:G:C2'	33:L1:2486:G:N9	2.42	0.82
33:L1:2777:U:H3	33:L1:2787:A:H61	1.26	0.82
37:LB:104:ILE:O	37:LB:107:VAL:HG12	1.79	0.82
33:L1:1526:A:H5'	49:LX:123:LEU:HD21	1.62	0.82
8:SJ:84:ASN:ND2	32:S1:1201:C:H4'	1.94	0.82
27:SH:110:ILE:HG23	27:SH:110:ILE:O	1.78	0.82
32:S1:1674:C:C1'	33:L1:1913:C:O2	2.28	0.82
2:SA:64:LEU:CG	5:SE:44:TRP:HD1	1.58	0.82
2:SA:147:PRO:HD3	5:SE:76:GLN:HG3	1.59	0.82
33:L1:1568:A:N9	33:L1:1568:A:C2'	2.42	0.82
36:LA:49:SER:CA	36:LA:192:LEU:HD22	2.09	0.82
36:LA:69:ASP:HB3	36:LA:79:MET:CE	2.09	0.82
36:LA:79:MET:SD	36:LA:86:VAL:HG13	2.20	0.82
4:SD:160:ILE:HD11	4:SD:169:ILE:HD13	1.62	0.82
17:SV:48:TYR:CZ	17:SV:81:ILE:HA	2.14	0.82
31:S2:72:G:H5''	33:L1:2972:C:OP1	1.78	0.82
33:L1:697:A:P	65:LL:30:UNK:CB	2.68	0.82
50:LZ:4:LYS:N	80:LC:304:ARG:NH2	2.27	0.82
25:SC:10:LYS:NZ	32:S1:505:U:O5'	2.12	0.82
4:SD:101:LEU:HD21	4:SD:109:PHE:HB3	1.59	0.82
27:SH:4:VAL:HG23	27:SH:5:SER:N	1.94	0.82
24:SX:34:PHE:HE2	24:SX:81:PHE:HB3	1.42	0.82
32:S1:1736:C:O2'	33:L1:2101:A:O2'	1.76	0.82
31:S2:26:G:C1'	33:L1:2260:C:C4'	2.58	0.82
2:SA:64:LEU:CD1	5:SE:44:TRP:HD1	1.69	0.82
2:SA:159:ARG:O	5:SE:37:PRO:HG3	1.77	0.82
17:SV:25:LYS:O	17:SV:26:LYS:HB2	1.78	0.82
33:L1:1207:A:H5''	34:L3:88:U:C4	2.15	0.82
32:S1:844:C:H5'	33:L1:2061:C:HO2'	1.00	0.82
14:SP:88:ARG:CZ	33:L1:2083:U:O5'	2.28	0.82
35:L2:97:U:N1	35:L2:97:U:C2'	2.42	0.82
5:SE:130:VAL:H	32:S1:11:A:H4'	1.44	0.82
9:SK:84:CYS:HG	9:SK:84:CYS:CB	1.93	0.82
32:S1:1747:A:O4'	33:L1:1930:G:C5	2.33	0.81
31:S2:72:G:H21	33:L1:2971:A:H2'	1.44	0.81
67:LS:12:VAL:HG23	67:LS:61:LEU:HB3	1.60	0.81
2:SA:145:ASN:CG	5:SE:78:VAL:HG12	1.99	0.81
2:SA:145:ASN:HD21	5:SE:78:VAL:CG1	1.93	0.81
31:S2:26:G:N9	33:L1:2260:C:H5'	1.95	0.81
31:S2:71:A:OP2	33:L1:2971:A:C2	2.34	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:968:A:OP1	43:LO:9:ARG:CG	2.24	0.81
84:LI:110:ARG:CZ	84:LI:116:ARG:HB2	2.10	0.81
66:LN:9:ILE:CD1	66:LN:64:ARG:HA	2.09	0.81
32:S1:1686:C:OP2	50:LZ:70:VAL:HA	1.78	0.81
32:S1:299:A:C2'	32:S1:299:A:N9	2.43	0.81
2:SA:92:LEU:CD2	2:SA:104:ALA:HB2	2.09	0.81
27:SH:65:LEU:CD1	27:SH:66:ASN:H	1.92	0.81
33:L1:2131:U:H5	33:L1:2136:A:N7	1.79	0.81
29:ST:82:GLN:HB3	33:L1:2541:A:OP1	1.78	0.81
31:S2:73:C:O2'	33:L1:2810:A:N3	2.12	0.81
31:S2:69:G:H2'	33:L1:2965:C:O3'	1.81	0.81
33:L1:99:A:H5''	42:LP:182:HIS:ND1	1.95	0.81
34:L3:46:C:P	45:LQ:158:ARG:HH12	2.04	0.81
32:S1:199:G:H2'	32:S1:200:C:C6	2.15	0.81
2:SA:128:LEU:HD23	2:SA:129:THR:N	1.94	0.81
4:SD:200:LYS:NZ	32:S1:740:U:C5'	2.43	0.81
8:SJ:92:ARG:NE	28:SN:50:ILE:O	2.12	0.81
17:SV:42:LEU:O	17:SV:47:THR:CG2	2.27	0.81
17:SV:95:VAL:C	17:SV:101:ILE:CG1	2.48	0.81
24:SX:51:HIS:CD2	24:SX:72:LYS:NZ	2.49	0.81
32:S1:1571:G:H2'	32:S1:1572:U:C5	2.15	0.81
23:SU:82:TYR:O	23:SU:82:TYR:N	2.12	0.81
17:SV:42:LEU:O	17:SV:47:THR:OG1	1.98	0.81
24:SX:36:ASP:HB2	24:SX:82:ARG:HB2	1.62	0.81
32:S1:979:A:OP2	33:L1:851:A:C2'	2.23	0.81
2:SA:72:ILE:CD1	5:SE:66:TYR:CZ	2.62	0.81
27:SH:114:GLU:OE2	27:SH:115:GLU:HG2	1.80	0.81
33:L1:2158:C:P	37:LB:8:GLN:NE2	2.52	0.81
33:L1:2216:G:N9	33:L1:2216:G:C2'	2.43	0.81
36:LA:79:MET:HA	36:LA:140:GLN:HE22	1.45	0.81
32:S1:348:A:OP1	46:LT:139:MET:HB2	1.80	0.81
33:L1:2135:U:O4'	33:L1:2135:U:N1	2.13	0.81
33:L1:62:A:N9	33:L1:62:A:C2'	2.42	0.81
33:L1:1310:G:OP1	82:LK:68:ASN:HB2	1.80	0.81
66:LN:14:LEU:HD22	66:LN:15:VAL:H	1.43	0.81
66:LN:41:PRO:CG	66:LN:75:MET:CE	2.56	0.81
32:S1:860:A:C5'	46:LT:177:ARG:CB	2.30	0.81
15:SS:6:ALA:HB2	32:S1:1363:G:H1'	1.63	0.81
31:S2:70:G:OP1	33:L1:2965:C:C6	2.34	0.81
4:SD:153:ILE:CB	4:SD:153:ILE:N	2.44	0.81
7:SI:133:LYS:HZ1	32:S1:1592:G:C4'	1.70	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2766:U:N1	33:L1:2766:U:C2'	2.43	0.81
45:LQ:202:GLY:N	45:LQ:203:HIS:N	2.28	0.81
2:SA:55:LEU:HD12	2:SA:55:LEU:H	1.45	0.81
7:SI:133:LYS:NZ	32:S1:1592:G:C5'	2.40	0.81
10:SL:5:ARG:O	27:SH:84:LYS:CB	2.24	0.81
81:LD:377:ALA:C	81:LD:381:TRP:HD1	1.83	0.81
48:LV:35:ALA:HB2	48:LV:59:PRO:HD2	1.62	0.81
3:SB:154:ASP:C	3:SB:155:GLY:CA	2.49	0.81
33:L1:1483:G:H1	33:L1:1867:U:H3	1.28	0.81
81:LD:327:VAL:HG12	81:LD:328:ALA:N	1.95	0.81
66:LN:40:ALA:CB	66:LN:43:MET:HB2	2.07	0.81
2:SA:127:ILE:HB	2:SA:149:ILE:HD11	1.62	0.81
17:SV:55:VAL:N	17:SV:56:PRO:HD3	1.95	0.81
33:L1:2147:U:O2'	37:LB:243:THR:HG22	1.81	0.81
33:L1:2959:G:H1	33:L1:2977:U:H3	1.29	0.81
34:L3:55:A:C2	38:LE:140:VAL:HG21	2.17	0.81
10:SL:118:ARG:CA	32:S1:590:G:OP2	2.30	0.81
4:SD:67:GLN:HB3	4:SD:69:HIS:CD2	2.15	0.81
34:L3:116:U:H5''	45:LQ:80:TYR:OH	1.81	0.80
34:L3:20:C:O2'	45:LQ:252:THR:HG23	1.80	0.80
44:LR:41:LYS:CB	81:LD:325:LYS:NZ	2.44	0.80
32:S1:330:G:O4'	33:L1:2083:U:O3'	1.80	0.80
5:SE:27:ARG:O	27:SH:69:LEU:CD2	2.29	0.80
14:SP:93:HIS:ND1	33:L1:2080:G:C4'	2.22	0.80
33:L1:1395:A:N9	33:L1:1395:A:C2'	2.44	0.80
32:S1:1615:G:H2'	32:S1:1616:U:C6	2.16	0.80
32:S1:857:A:H2'	46:LT:176:ARG:NH2	1.95	0.80
12:SO:93:LYS:HE3	39:LF:23:LYS:HA	176.72	0.80
33:L1:2053:A:H5''	33:L1:2054:A:C5'	2.10	0.80
31:S2:13:U:O5'	33:L1:2244:G:N2	2.14	0.80
31:S2:72:G:O4'	33:L1:2972:C:C5'	2.30	0.80
32:S1:988:G:O3'	37:LB:176:GLU:HG3	1.12	0.80
66:LN:4:LYS:HG3	67:LS:164:LYS:HG3	1.62	0.80
43:LO:64:LEU:HD12	65:LL:156:UNK:HA	1.63	0.80
5:SE:30:ARG:CG	5:SE:30:ARG:NE	2.40	0.80
15:SS:4:SER:O	15:SS:8:THR:HG22	1.80	0.80
36:LA:87:GLU:CA	36:LA:91:LYS:HD2	2.09	0.80
34:L3:113:G:O2'	45:LQ:71:ALA:C	2.15	0.80
27:SH:14:MET:SD	27:SH:63:VAL:HB	2.21	0.80
9:SK:105:LYS:HE2	9:SK:131:VAL:HG22	1.64	0.80
9:SK:111:ALA:O	9:SK:115:LEU:HG	1.82	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1849:U:C2'	33:L1:1849:U:N1	2.45	0.80
31:S2:74:C:C2	33:L1:2404:C:H5''	2.16	0.80
29:ST:5:GLU:OE2	33:L1:2539:G:H1'	1.81	0.80
33:L1:384:A:C2'	33:L1:385:A:H5'	2.11	0.80
37:LB:104:ILE:HG22	37:LB:160:SER:O	1.82	0.80
43:LO:64:LEU:CD1	65:LL:156:UNK:HA	2.10	0.80
45:LQ:202:GLY:N	45:LQ:203:HIS:H	1.79	0.80
33:L1:1298:A:H5''	67:LS:90:HIS:CE1	2.15	0.80
33:L1:1364:C:H1'	81:LD:333:LEU:HD21	1.62	0.80
33:L1:1965:C:H42	33:L1:2047:A:H61	1.29	0.80
32:S1:918:G:C6	33:L1:2202:A:OP2	2.35	0.80
33:L1:3124:A:N9	33:L1:3124:A:C2'	2.43	0.80
34:L3:48:G:N2	34:L3:50:A:N6	2.29	0.80
38:LE:34:ARG:CB	38:LE:34:ARG:HA	2.08	0.80
64:LG:125:VAL:H	64:LG:183:VAL:HG21	1.46	0.80
32:S1:1675:G:H1'	33:L1:1932:A:C4	2.08	0.80
32:S1:1740:G:C2'	32:S1:1740:G:N9	2.43	0.80
32:S1:183:C:H2'	32:S1:184:C:C6	2.17	0.80
2:SA:72:ILE:HD11	5:SE:66:TYR:OH	1.81	0.80
27:SH:20:ARG:O	27:SH:63:VAL:HG12	1.81	0.80
17:SV:48:TYR:CE1	17:SV:81:ILE:CB	2.64	0.80
31:S2:12:U:C5'	33:L1:2246:G:C6	2.64	0.80
33:L1:810:A:H62	33:L1:937:G:H1	1.28	0.80
34:L3:57:C:O3'	45:LQ:29:GLN:HG2	1.76	0.80
36:LA:57:ILE:CD1	36:LA:179:GLN:HB3	2.10	0.80
84:LI:110:ARG:N	84:LI:116:ARG:NE	2.29	0.80
14:SP:123:HIS:O	46:LT:162:LYS:CG	2.29	0.80
32:S1:860:A:H5'	46:LT:177:ARG:CG	2.12	0.80
27:SH:65:LEU:CD2	27:SH:70:ASN:HA	2.12	0.80
36:LA:112:SER:O	36:LA:115:ILE:HG12	1.82	0.80
31:S2:75:A:C1'	33:L1:2956:U:O4'	2.30	0.80
33:L1:69:U:H2'	33:L1:70:A:C8	2.16	0.80
34:L3:6:C:OP2	45:LQ:31:LYS:HG2	1.82	0.80
33:L1:576:C:P	81:LD:342:LYS:HZ3	2.04	0.80
34:L3:116:U:H4'	45:LQ:80:TYR:HE1	0.98	0.80
48:LV:15:SER:HB3	48:LV:151:LEU:CD1	2.11	0.80
29:ST:53:ALA:H	32:S1:1069:G:N2	1.78	0.80
31:S2:23:A:N3	33:L1:2262:C:OP1	2.00	0.80
2:SA:109:PRO:C	2:SA:110:GLY:N	0.75	0.80
2:SA:145:ASN:ND2	5:SE:78:VAL:HG12	1.97	0.80
10:SL:5:ARG:HB2	27:SH:84:LYS:O	1.81	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:SQ:51:ALA:O	13:SQ:55:THR:HG23	1.81	0.80
33:L1:1050:A:C2'	33:L1:1050:A:N9	2.45	0.80
66:LN:95:VAL:CG1	82:LK:206:TYR:O	2.24	0.80
31:S2:26:G:C1'	33:L1:2260:C:C5'	2.58	0.80
14:SP:57:LYS:CA	46:LT:143:HIS:C	2.36	0.80
17:SV:50:LYS:O	17:SV:54:GLU:HB2	1.82	0.80
33:L1:996:A:N6	33:L1:1061:A:H1'	1.97	0.79
84:LI:110:ARG:HE	84:LI:116:ARG:CB	1.90	0.79
34:L3:46:C:C4'	45:LQ:96:TYR:CE1	2.57	0.79
48:LV:89:ALA:O	48:LV:92:ILE:HG22	1.81	0.79
26:SG:11:UNK:N	26:SG:11:UNK:C	2.45	0.79
33:L1:180:G:H5'	35:L2:98:C:C5	2.18	0.79
32:S1:347:C:OP1	33:L1:1942:A:OP1	1.99	0.79
66:LN:64:ARG:CG	67:LS:154:VAL:HG11	2.12	0.79
2:SA:127:ILE:HD12	2:SA:149:ILE:HD12	1.61	0.79
25:SC:106:PHE:CG	32:S1:670:C:O2	2.35	0.79
5:SE:15:PHE:CZ	5:SE:221:LYS:HE3	2.17	0.79
17:SV:53:SER:O	17:SV:56:PRO:HD3	1.79	0.79
24:SX:70:GLY:HA2	32:S1:877:G:C4'	2.12	0.79
33:L1:2147:U:H4'	37:LB:244:GLY:H	1.45	0.79
32:S1:918:G:N1	33:L1:2203:A:H8	1.62	0.79
33:L1:377:C:H42	33:L1:388:G:H1	1.29	0.79
34:L3:83:A:H61	34:L3:93:U:H3	1.25	0.79
36:LA:55:PRO:HG3	36:LA:186:VAL:CG1	2.10	0.79
33:L1:3201:A:OP1	66:LN:99:ARG:HG2	1.83	0.79
33:L1:3295:G:N2	33:L1:3304:U:H1'	1.97	0.79
36:LA:179:GLN:O	36:LA:182:ILE:HG22	1.82	0.79
51:LY:70:VAL:CG1	51:LY:80:HIS:HB2	2.13	0.79
28:SN:51:GLY:CA	28:SN:52:PHE:N	2.46	0.79
17:SV:49:ASP:C	17:SV:53:SER:OG	2.20	0.79
32:S1:1747:A:O4'	33:L1:1915:G:N3	2.16	0.79
34:L3:75:G:H21	34:L3:101:A:H62	1.30	0.79
36:LA:73:VAL:HG12	36:LA:74:ASP:H	1.46	0.79
81:LD:309:PRO:HA	81:LD:313:GLU:CD	2.03	0.79
38:LE:31:ARG:HH11	38:LE:35:ALA:H	1.27	0.79
32:S1:928:A:OP1	37:LB:109:GLU:CD	2.21	0.79
32:S1:929:A:P	37:LB:109:GLU:HB3	2.22	0.79
2:SA:120:PHE:CZ	5:SE:102:GLY:HA3	2.18	0.79
33:L1:1650:G:H2'	33:L1:1651:A:C8	2.17	0.79
33:L1:2059:C:C2'	33:L1:2060:C:H5'	2.11	0.79
32:S1:1664:U:H5'	33:L1:2119:A:C5'	2.05	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:LG:143:ASP:HA	64:LG:210:ASP:HB3	1.64	0.79
9:SK:109:PRO:HG2	9:SK:112:GLN:H	1.45	0.79
17:SV:76:LEU:HD23	17:SV:79:GLN:OE1	1.82	0.79
33:L1:299:G:N9	33:L1:299:G:C2'	2.46	0.79
4:SD:195:ILE:HG12	4:SD:208:ILE:HD11	1.65	0.79
23:SU:33:LEU:HD12	23:SU:35:PRO:HD3	1.63	0.79
17:SV:100:LEU:C	17:SV:101:ILE:HG13	2.02	0.79
17:SV:63:PRO:HG2	17:SV:66:LEU:CD1	2.07	0.79
32:S1:1747:A:C2'	33:L1:1915:G:N3	2.45	0.79
34:L3:47:C:P	45:LQ:95:ASN:HA	2.22	0.79
46:LT:136:ARG:O	46:LT:137:VAL:HG22	1.82	0.79
33:L1:1523:G:O3'	49:LX:79:THR:HG21	1.83	0.79
31:S2:34:G:N2	32:S1:1645:C:C4	2.50	0.79
9:SK:116:ARG:CZ	9:SK:129:GLU:CD	2.51	0.79
9:SK:90:THR:HA	9:SK:93:HIS:HE1	1.46	0.79
24:SX:39:CYS:HB3	24:SX:42:CYS:HB3	1.63	0.79
4:SD:102:LEU:HB2	4:SD:112:GLN:HE21	1.48	0.79
33:L1:3156:G:C2'	33:L1:3156:G:N9	2.46	0.79
36:LA:59:ARG:HH11	36:LA:175:GLU:HG2	1.46	0.79
33:L1:1081:U:C2'	33:L1:1081:U:N1	2.46	0.78
33:L1:1646:U:N1	33:L1:1646:U:C2'	2.46	0.78
33:L1:2668:U:N1	33:L1:2668:U:C2'	2.45	0.78
36:LA:57:ILE:HG22	36:LA:150:THR:CG2	2.12	0.78
9:SK:81:ALA:CB	9:SK:111:ALA:HB1	2.12	0.78
17:SV:95:VAL:O	17:SV:101:ILE:HG12	1.81	0.78
33:L1:1478:A:O3'	64:LG:65:LYS:NZ	133.72	0.78
33:L1:2668:U:C6	33:L1:2668:U:C2'	2.66	0.78
34:L3:106:U:H2'	34:L3:107:C:C6	2.18	0.78
81:LD:335:PRO:O	81:LD:339:THR:HG23	1.83	0.78
31:S2:24:A:H2'	33:L1:2261:U:OP1	1.83	0.78
11:SM:14:ARG:HH12	38:LE:109:GLN:HB2	1.46	0.78
7:SI:58:ILE:HG21	15:SS:11:ASP:O	1.84	0.78
33:L1:180:G:C5'	35:L2:98:C:N4	2.46	0.78
32:S1:918:G:N1	33:L1:2202:A:P	2.54	0.78
6:SF:98:LEU:HD11	17:SV:102:TYR:CE2	2.13	0.78
33:L1:3326:U:C2'	33:L1:3326:U:N1	2.45	0.78
36:LA:60:PRO:HA	36:LA:150:THR:CG2	2.14	0.78
14:SP:95:VAL:CG2	46:LT:152:GLU:CB	2.61	0.78
13:SQ:38:VAL:HG12	13:SQ:39:SER:H	1.48	0.78
33:L1:1034:U:H2'	33:L1:1035:C:C6	2.18	0.78
33:L1:3233:C:H3'	33:L1:3234:G:H5''	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L3:2:G:N2	34:L3:25:G:O6	2.17	0.78
5:SE:153:TRP:CE2	5:SE:243:LYS:NZ	2.51	0.78
10:SL:93:ILE:HG12	10:SL:95:GLU:H	1.48	0.78
11:SM:35:GLY:HA2	11:SM:99:VAL:HG23	1.64	0.78
12:SO:64:LYS:HD3	12:SO:64:LYS:C	2.03	0.78
36:LA:98:LEU:HD23	36:LA:98:LEU:O	1.83	0.78
37:LB:136:VAL:HG11	37:LB:139:HIS:CE1	2.18	0.78
32:S1:633:U:C2'	32:S1:633:U:C6	2.67	0.78
32:S1:633:U:N1	32:S1:633:U:C2'	2.47	0.78
5:SE:258:LYS:CE	27:SH:69:LEU:CG	2.61	0.78
33:L1:1365:C:H4'	81:LD:336:TYR:HB3	1.65	0.78
13:SQ:97:ARG:HD2	13:SQ:98:VAL:HA	1.65	0.78
81:LD:332:LYS:C	81:LD:335:PRO:CD	2.53	0.78
38:LE:14:ILE:CD1	38:LE:133:LEU:HB3	2.09	0.78
33:L1:1217:G:H4'	67:LS:94:LYS:HG2	1.64	0.78
32:S1:1332:G:N9	32:S1:1332:G:C2'	2.47	0.78
32:S1:918:G:C6	33:L1:2203:A:N7	2.52	0.78
31:S2:72:G:C3'	33:L1:2972:C:P	2.69	0.78
2:SA:112:PHE:CZ	2:SA:126:LEU:HD12	2.18	0.78
7:SI:133:LYS:HZ1	32:S1:1592:G:H4'	0.88	0.78
24:SX:72:LYS:HD3	32:S1:1054:G:P	2.24	0.78
33:L1:1835:A:H2	33:L1:1849:U:H3	1.31	0.78
31:S2:11:U:O2'	33:L1:2260:C:C4	2.37	0.78
34:L3:46:C:O2'	45:LQ:200:TYR:HE1	1.66	0.78
33:L1:1298:A:C5'	67:LS:90:HIS:NE2	2.47	0.78
33:L1:384:A:H2'	33:L1:385:A:H5'	1.64	0.78
33:L1:2201:G:C2	33:L1:2203:A:N6	2.52	0.77
34:L3:116:U:H2'	34:L3:117:U:H5'	1.66	0.77
33:L1:1207:A:C5'	34:L3:88:U:N3	2.47	0.77
36:LA:137:VAL:HG12	36:LA:139:HIS:N	1.97	0.77
32:S1:860:A:C8	46:LT:173:LYS:CB	2.63	0.77
7:SI:133:LYS:HZ3	32:S1:1592:G:C5'	1.96	0.77
32:S1:184:C:H42	32:S1:196:G:H1	1.29	0.77
2:SA:92:LEU:HD21	2:SA:104:ALA:CB	2.12	0.77
2:SA:63:GLN:O	2:SA:67:ARG:HG2	1.84	0.77
2:SA:159:ARG:HA	5:SE:37:PRO:CG	2.15	0.77
33:L1:1563:G:O6	33:L1:1576:C:N4	2.16	0.77
14:SP:91:TYR:C	33:L1:2081:C:C5'	2.52	0.77
36:LA:59:ARG:HD3	36:LA:175:GLU:OE2	1.83	0.77
4:SD:201:HIS:CG	32:S1:687:C:H5''	2.18	0.77
27:SH:32:LYS:O	27:SH:35:ILE:HG22	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:SP:47:ARG:NE	14:SP:66:SER:HB2	1.99	0.77
14:SP:47:ARG:CD	14:SP:66:SER:HB2	2.15	0.77
15:SS:6:ALA:HB2	32:S1:1363:G:C1'	2.14	0.77
34:L3:48:G:O6	45:LQ:58:ASN:CB	2.32	0.77
31:S2:8:U:N1	31:S2:8:U:C2'	2.46	0.77
35:L2:158:G:C2'	35:L2:158:G:N9	2.47	0.77
36:LA:67:LEU:CD2	36:LA:147:VAL:HG21	2.14	0.77
14:SP:54:TYR:N	46:LT:144:LYS:HZ3	1.82	0.77
32:S1:861:A:N6	46:LT:171:GLU:HA	1.99	0.77
32:S1:1745:U:C5'	33:L1:1931:G:OP1	2.31	0.77
5:SE:30:ARG:CD	5:SE:30:ARG:CZ	2.63	0.77
35:L2:124:G:C2'	35:L2:124:G:N9	2.46	0.77
34:L3:41:G:H1'	34:L3:44:C:H42	1.47	0.77
81:LD:330:VAL:HG12	81:LD:331:LEU:CG	2.14	0.77
32:S1:1674:C:C4'	33:L1:1913:C:O2'	2.32	0.77
24:SX:69:THR:O	32:S1:877:G:OP1	2.02	0.77
32:S1:929:A:C1'	37:LB:137:ILE:CD1	2.62	0.77
31:S2:39:G:P	32:S1:1006:A:H5'	2.20	0.77
26:SG:127:UNK:CA	26:SG:128:UNK:N	2.43	0.77
16:SR:139:ARG:HG2	32:S1:1566:U:O2	1.83	0.77
33:L1:1179:C:O3'	82:LK:94:PRO:HG3	1.83	0.77
43:LO:64:LEU:HA	65:LL:155:UNK:H	1.50	0.77
34:L3:116:U:C4'	45:LQ:80:TYR:HE1	1.76	0.77
32:S1:635:G:C2'	32:S1:635:G:N9	2.47	0.77
26:SG:127:UNK:C	26:SG:128:UNK:HA	2.15	0.77
32:S1:1757:G:O3'	33:L1:2298:A:OP1	2.01	0.77
33:L1:2700:A:C6	33:L1:2701:G:C6	2.72	0.77
40:LH:126:ILE:HG22	40:LH:201:ASN:HD22	1.49	0.77
4:SD:167:ASN:C	4:SD:168:LYS:CA	2.53	0.77
33:L1:2474:A:C2'	33:L1:2474:A:N9	2.47	0.77
33:L1:180:G:H5'	35:L2:98:C:C4	2.19	0.77
36:LA:174:ASP:O	36:LA:177:GLN:HG2	1.85	0.77
36:LA:79:MET:HG2	36:LA:83:TYR:CD2	2.20	0.77
81:LD:309:PRO:C	81:LD:313:GLU:HG2	2.06	0.77
39:LF:113:ILE:HD12	39:LF:163:LYS:HD2	1.66	0.77
67:LS:94:LYS:HD3	67:LS:108:MET:SD	2.25	0.77
48:LV:113:LEU:HD13	48:LV:156:GLU:N	2.00	0.77
48:LV:13:LYS:HE2	48:LV:154:LYS:HG3	1.67	0.77
4:SD:87:MET:HE2	4:SD:123:LEU:H	1.50	0.77
23:SU:20:ASN:HA	23:SU:96:ARG:H	1.49	0.77
33:L1:2231:G:N9	33:L1:2231:G:C2'	2.48	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:S2:72:G:C1'	33:L1:2972:C:C5'	2.63	0.77
33:L1:3048:C:H2'	33:L1:3049:A:H5''	1.67	0.77
33:L1:415:G:H21	33:L1:631:C:H5'	1.49	0.77
36:LA:52:VAL:HG22	36:LA:155:LYS:CD	2.14	0.77
36:LA:54:LEU:HD13	36:LA:134:PRO:CD	2.14	0.77
43:LO:14:HIS:CG	43:LO:15:VAL:H	2.03	0.77
32:S1:186:A:N6	32:S1:194:G:H1'	2.00	0.77
27:SH:64:GLU:O	27:SH:65:LEU:CB	2.33	0.77
27:SH:65:LEU:HD22	27:SH:70:ASN:CG	2.06	0.77
34:L3:21:U:O4	34:L3:56:G:N1	2.18	0.77
40:LH:64:LYS:HG3	49:LX:42:PHE:CZ	2.20	0.77
48:LV:59:PRO:HA	48:LV:76:ARG:HE	1.47	0.77
32:S1:1664:U:H5'	33:L1:2119:A:O3'	1.84	0.77
32:S1:918:G:C2	33:L1:2203:A:H8	2.03	0.77
32:S1:989:G:H1	32:S1:1022:U:H3	1.31	0.77
4:SD:94:LYS:H	4:SD:94:LYS:CE	1.97	0.77
11:SM:12:ILE:HG12	38:LE:117:LYS:C	2.04	0.77
33:L1:377:C:N3	33:L1:388:G:N2	2.33	0.76
2:SA:151:PHE:HA	2:SA:165:ILE:HB	1.66	0.76
2:SA:229:TYR:O	2:SA:232:VAL:CG2	2.32	0.76
33:L1:2240:C:H4'	37:LB:221:HIS:O	1.85	0.76
34:L3:6:C:C4'	45:LQ:49:ASN:HD21	1.97	0.76
48:LV:15:SER:CB	48:LV:151:LEU:HD12	2.14	0.76
4:SD:87:MET:HE3	4:SD:100:ARG:NH1	2.00	0.76
18:SW:8:UNK:O	18:SW:12:UNK:N	2.19	0.76
9:SK:116:ARG:HD2	9:SK:129:GLU:OE1	1.84	0.76
17:SV:63:PRO:HG3	17:SV:66:LEU:CD1	2.11	0.76
34:L3:14:C:H2'	34:L3:15:C:C6	2.19	0.76
10:SL:51:LEU:HD21	32:S1:1141:U:H4'	1.66	0.76
32:S1:1163:C:C5	32:S1:1589:C:H2'	2.20	0.76
3:SB:44:MET:HB3	3:SB:82:ASN:ND2	1.98	0.76
26:SG:128:UNK:HA	32:S1:642:C:O4'	1.75	0.76
36:LA:48:PHE:HD2	36:LA:192:LEU:HD21	1.49	0.76
33:L1:2149:G:C4'	37:LB:227:ARG:HH22	1.98	0.76
33:L1:2160:C:P	42:LP:76:PRO:HG3	2.24	0.76
32:S1:860:A:C2'	46:LT:173:LYS:HD2	2.14	0.76
32:S1:1737:A:OP1	33:L1:2102:C:H5	1.68	0.76
32:S1:1792:A:C2'	32:S1:1792:A:N9	2.48	0.76
32:S1:632:G:N2	33:L1:849:A:N7	2.33	0.76
6:SF:80:GLY:CA	32:S1:1479:U:C6	2.68	0.76
36:LA:60:PRO:HB3	36:LA:149:GLU:O	1.86	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:349:U:OP2	46:LT:142:ILE:N	2.19	0.76
32:S1:632:G:H1'	33:L1:849:A:C1'	2.12	0.76
3:SB:154:ASP:CA	3:SB:155:GLY:N	2.49	0.76
9:SK:39:THR:HG21	9:SK:103:LYS:CD	2.14	0.76
11:SM:126:TYR:CD2	11:SM:126:TYR:CZ	2.74	0.76
33:L1:1298:A:H5'	67:LS:90:HIS:CD2	2.21	0.76
32:S1:1746:U:H1'	33:L1:1931:G:N3	1.76	0.76
48:LV:127:ARG:HA	48:LV:141:MET:HE3	1.66	0.76
9:SK:85:LYS:HE2	9:SK:119:ALA:HB2	1.66	0.76
12:SO:64:LYS:O	12:SO:64:LYS:HD3	1.85	0.76
13:SQ:52:GLY:O	13:SQ:56:HIS:CD2	2.39	0.76
33:L1:1057:A:N9	33:L1:1057:A:C2'	2.49	0.76
33:L1:2502:U:H3'	33:L1:2502:U:C6	2.21	0.76
66:LN:41:PRO:HG2	66:LN:75:MET:CG	2.05	0.76
32:S1:1735:C:H1'	33:L1:3334:A:O2'	1.85	0.76
27:SH:32:LYS:HZ1	32:S1:692:C:H4'	1.51	0.76
32:S1:858:G:O3'	46:LT:179:GLU:O	1.90	0.76
25:SC:170:PRO:C	25:SC:171:PRO:HG2	2.05	0.76
8:SJ:72:ILE:CD1	28:SN:33:LYS:HE2	2.16	0.76
36:LA:186:VAL:O	36:LA:190:VAL:HG23	1.86	0.76
65:LL:154:UNK:C	65:LL:154:UNK:HA	2.11	0.76
32:S1:348:A:C5'	46:LT:140:GLU:N	2.41	0.76
51:LY:90:ASN:HD21	51:LY:92:SER:HB2	1.51	0.76
32:S1:1205:G:C5	32:S1:1607:C:C4	2.73	0.76
7:SI:32:ARG:CZ	32:S1:1343:C:H5''	2.16	0.76
32:S1:1659:A:H61	32:S1:1759:A:H61	1.34	0.76
31:S2:13:U:C5'	33:L1:2244:G:H22	1.98	0.76
25:SC:44:LEU:O	25:SC:45:TRP:CB	2.31	0.76
4:SD:153:ILE:O	4:SD:154:ILE:CG1	2.34	0.76
14:SP:92:LEU:HA	46:LT:151:ARG:HH22	1.51	0.76
36:LA:106:TYR:CE2	36:LA:140:GLN:HA	2.19	0.76
2:SA:114:ASN:HD21	32:S1:1298:G:C1'	1.93	0.76
6:SF:118:ARG:HD2	19:SY:56:GLU:HB3	1.68	0.76
10:SL:65:ILE:HG23	10:SL:66:ARG:HD2	1.66	0.76
13:SQ:104:GLU:HG3	20:SZ:31:ARG:HH11	0.75	0.76
18:SW:111:UNK:O	18:SW:115:UNK:N	2.19	0.76
33:L1:283:A:C2'	33:L1:283:A:N9	2.48	0.75
33:L1:379:U:H3	33:L1:386:G:H1	1.31	0.75
33:L1:919:G:H5'	33:L1:920:A:OP1	1.86	0.75
34:L3:46:C:H2'	34:L3:47:C:H5'	1.68	0.75
36:LA:57:ILE:HG12	36:LA:179:GLN:HG2	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:LD:303:VAL:CG1	81:LD:304:GLN:HB2	2.16	0.75
33:L1:549:G:OP1	81:LD:396:ASN:CG	2.25	0.75
66:LN:64:ARG:NH2	67:LS:151:PHE:CG	2.54	0.75
32:S1:1663:A:O3'	33:L1:1918:A:C1'	2.22	0.75
32:S1:887:U:O5'	41:LM:85:ARG:NE	99.59	0.75
31:S2:34:G:H4'	32:S1:1195:U:H1'	1.66	0.75
31:S2:75:A:C8	33:L1:2956:U:O5'	2.39	0.75
27:SH:47:ILE:CG2	27:SH:60:LYS:HB3	2.15	0.75
14:SP:41:LEU:HG	14:SP:103:LYS:NZ	2.01	0.75
13:SQ:59:ARG:HH11	32:S1:1225:A:C1'	1.96	0.75
24:SX:39:CYS:HA	24:SX:77:GLU:CD	2.05	0.75
33:L1:1222:U:N1	33:L1:1222:U:C2'	2.48	0.75
33:L1:2157:C:O2'	37:LB:11:GLY:N	2.19	0.75
32:S1:320:A:H5'	33:L1:855:U:H5'	1.66	0.75
36:LA:53:LYS:C	36:LA:54:LEU:HD12	2.06	0.75
33:L1:2157:C:H4'	37:LB:7:ALA:O	1.86	0.75
66:LN:124:GLU:OE2	82:LK:194:LEU:HD12	1.85	0.75
33:L1:1298:A:C5'	67:LS:90:HIS:CD2	2.68	0.75
25:SC:162:LEU:HB3	25:SC:163:THR:HA	1.66	0.75
4:SD:133:GLN:N	4:SD:136:ILE:HG13	2.02	0.75
3:SB:116:ARG:NH2	5:SE:161:HIS:HD2	1.82	0.75
34:L3:6:C:H4'	45:LQ:49:ASN:ND2	2.01	0.75
34:L3:83:A:N6	34:L3:93:U:H3	1.84	0.75
81:LD:306:VAL:HB	81:LD:309:PRO:CD	2.15	0.75
31:S2:34:G:H4'	32:S1:1195:U:C1'	2.17	0.75
23:SU:25:ARG:NH1	23:SU:26:LYS:H	1.84	0.75
33:L1:2149:G:H4'	37:LB:227:ARG:NH2	2.00	0.75
44:LR:41:LYS:CB	81:LD:325:LYS:HZ3	1.99	0.75
34:L3:114:C:C2'	45:LQ:74:ILE:HA	2.15	0.75
34:L3:86:G:H4'	67:LS:119:ARG:HG2	1.66	0.75
2:SA:80:VAL:HG22	2:SA:127:ILE:CG2	2.17	0.75
18:SW:99:UNK:O	18:SW:103:UNK:N	2.19	0.75
18:SW:4:UNK:O	18:SW:8:UNK:N	2.19	0.75
33:L1:2650:A:OP2	84:LI:119:PHE:CZ	2.39	0.75
33:L1:1179:C:H4'	82:LK:94:PRO:CD	2.17	0.75
65:LL:192:UNK:N	65:LL:193:UNK:N	2.34	0.75
51:LY:99:HIS:HD2	51:LY:101:SER:H	1.32	0.75
32:S1:199:G:H2'	32:S1:200:C:C5	2.22	0.75
33:L1:2398:A:C2'	33:L1:2399:G:H5'	2.16	0.75
33:L1:835:G:H1	33:L1:865:U:H3	1.31	0.75
35:L2:140:G:H4'	49:LX:66:LYS:HD2	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:LA:189:LEU:HD23	65:LL:192:UNK:CA	2.16	0.75
48:LV:99:ALA:HB1	48:LV:151:LEU:HD21	1.66	0.75
25:SC:10:LYS:CD	32:S1:505:U:H5'	2.17	0.75
2:SA:72:ILE:HG13	5:SE:66:TYR:OH	1.85	0.75
4:SD:160:ILE:HD11	4:SD:169:ILE:CD1	2.17	0.75
6:SF:98:LEU:CD1	17:SV:102:TYR:CE2	2.58	0.75
17:SV:88:GLY:O	17:SV:89:ALA:CB	2.34	0.75
33:L1:2318:U:C2'	33:L1:2318:U:N1	2.50	0.75
34:L3:58:G:H2'	34:L3:59:U:C6	2.21	0.75
81:LD:303:VAL:HG12	81:LD:304:GLN:N	2.00	0.75
12:SO:93:LYS:CD	39:LF:23:LYS:HA	175.33	0.75
32:S1:861:A:N7	46:LT:171:GLU:OE2	2.20	0.75
32:S1:1685:U:O2	33:L1:3334:A:O3'	2.04	0.75
4:SD:159:THR:CG2	4:SD:227:THR:HG22	2.17	0.75
36:LA:110:LEU:O	36:LA:110:LEU:HD23	1.87	0.75
36:LA:89:LEU:HD21	36:LA:111:ALA:CB	2.17	0.75
11:SM:14:ARG:CD	38:LE:109:GLN:OE1	2.35	0.75
34:L3:114:C:H4'	45:LQ:74:ILE:HD12	1.69	0.75
14:SP:95:VAL:HG21	46:LT:152:GLU:HG3	1.67	0.75
8:SJ:92:ARG:HG2	28:SN:52:PHE:CA	2.16	0.75
15:SS:9:VAL:HG22	15:SS:135:ASP:HA	1.68	0.75
23:SU:12:LEU:HD23	23:SU:30:LEU:HD22	1.68	0.75
18:SW:107:UNK:O	18:SW:108:UNK:CB	2.30	0.75
18:SW:7:UNK:O	18:SW:11:UNK:N	2.18	0.75
33:L1:1127:U:H3	33:L1:1137:G:H22	1.30	0.75
31:S2:25:U:O2'	33:L1:2260:C:P	2.37	0.75
33:L1:3320:G:H2'	33:L1:3322:A:C8	2.22	0.75
81:LD:335:PRO:HD2	81:LD:336:TYR:N	2.00	0.75
82:LK:135:GLN:CG	82:LK:135:GLN:O	2.35	0.75
41:LM:69:LYS:H	41:LM:72:LEU:HB2	1.51	0.75
32:S1:348:A:O2'	46:LT:140:GLU:C	2.23	0.75
32:S1:1588:C:H2'	32:S1:1589:C:C6	2.22	0.75
3:SB:76:ARG:HA	13:SQ:33:LYS:CD	2.17	0.75
5:SE:30:ARG:CZ	27:SH:67:GLY:H	2.00	0.75
6:SF:46:PRO:HG2	7:SI:65:ARG:NH2	2.02	0.75
3:SB:18:TYR:CE2	8:SJ:120:GLU:OE2	2.40	0.75
15:SS:9:VAL:HG21	15:SS:135:ASP:CG	2.08	0.75
17:SV:48:TYR:HE1	17:SV:81:ILE:O	1.68	0.75
24:SX:72:LYS:HE3	24:SX:72:LYS:CA	2.17	0.75
33:L1:639:A:H5''	33:L1:640:C:H4'	1.69	0.74
44:LR:97:ALA:O	44:LR:98:MET:HB2	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:LV:35:ALA:HB3	48:LV:58:ILE:CD1	2.17	0.74
12:SO:93:LYS:HG2	39:LF:19:GLN:O	180.43	0.74
24:SX:57:VAL:CG1	24:SX:62:GLN:HA	2.17	0.74
24:SX:72:LYS:HD3	32:S1:1054:G:OP1	1.84	0.74
6:SF:118:ARG:HD2	19:SY:56:GLU:CB	2.17	0.74
33:L1:1061:A:H2'	33:L1:1062:G:C8	2.21	0.74
33:L1:174:G:H1	33:L1:240:U:H3	1.35	0.74
33:L1:506:U:H2'	33:L1:507:C:C6	2.22	0.74
84:LI:110:ARG:HD2	84:LI:114:GLY:O	1.87	0.74
67:LS:99:THR:HG22	67:LS:100:THR:HG22	1.69	0.74
33:L1:2240:C:C4'	37:LB:222:ALA:HA	2.17	0.74
34:L3:35:C:H1'	45:LQ:200:TYR:CE2	2.22	0.74
32:S1:929:A:C1'	37:LB:137:ILE:HD11	2.16	0.74
66:LN:99:ARG:HA	82:LK:205:LYS:HE2	1.69	0.74
33:L1:2160:C:OP1	42:LP:76:PRO:CD	2.35	0.74
34:L3:115:A:HO2'	45:LQ:75:VAL:HG11	1.50	0.74
33:L1:3301:G:O2'	48:LV:70:THR:CG2	2.35	0.74
32:S1:1698:A:C2	32:S1:1721:A:N1	2.53	0.74
25:SC:10:LYS:HZ3	32:S1:505:U:H5''	1.47	0.74
4:SD:181:VAL:CG1	4:SD:225:VAL:HG13	2.12	0.74
34:L3:3:A:H1'	34:L3:21:U:O2'	1.87	0.74
32:S1:929:A:OP1	37:LB:110:GLY:N	2.20	0.74
65:LL:54:UNK:O	65:LL:55:UNK:HA	1.87	0.74
14:SP:47:ARG:CG	14:SP:66:SER:HB2	2.16	0.74
3:SB:76:ARG:HA	13:SQ:33:LYS:HD2	1.69	0.74
18:SW:98:UNK:O	18:SW:102:UNK:N	2.19	0.74
33:L1:2196:G:H21	37:LB:224:THR:CG2	2.00	0.74
33:L1:2617:G:O2'	33:L1:2630:A:N6	2.20	0.74
34:L3:43:A:H1'	38:LE:142:ARG:NH2	2.02	0.74
33:L1:271:G:C5'	82:LK:65:LYS:HB3	115.12	0.74
27:SH:32:LYS:NZ	32:S1:692:C:H4'	2.02	0.74
6:SF:77:ARG:HA	32:S1:1479:U:O4	1.88	0.74
27:SH:11:LEU:HG	27:SH:15:TYR:CE1	2.23	0.74
33:L1:308:U:H3'	33:L1:309:C:C5'	2.16	0.74
34:L3:14:C:H2'	34:L3:15:C:C5	2.22	0.74
81:LD:383:LYS:O	81:LD:386:ILE:HD11	1.88	0.74
4:SD:177:VAL:HG13	4:SD:195:ILE:O	1.88	0.74
33:L1:3354:A:C2'	33:L1:3354:A:N9	2.51	0.74
32:S1:354:G:C2	33:L1:847:G:H4'	2.23	0.74
36:LA:182:ILE:HD13	36:LA:186:VAL:HG23	1.68	0.74
32:S1:999:G:HO2'	37:LB:246:LEU:HD22	1.47	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1325:G:O2'	67:LS:113:ALA:HB1	1.88	0.74
14:SP:94:PHE:C	46:LT:151:ARG:HD3	2.07	0.74
51:LY:81:VAL:O	51:LY:84:ILE:HG22	1.88	0.74
32:S1:887:U:C6	41:LM:85:ARG:CZ	99.65	0.74
4:SD:240:LYS:N	4:SD:240:LYS:CB	2.50	0.74
14:SP:47:ARG:HG2	14:SP:66:SER:CB	2.17	0.74
36:LA:182:ILE:O	36:LA:186:VAL:HG23	1.88	0.74
37:LB:91:GLY:O	37:LB:102:LEU:HB3	1.87	0.74
81:LD:306:VAL:HG12	81:LD:308:LYS:H	1.51	0.74
84:LI:103:LEU:HA	84:LI:116:ARG:HH22	1.52	0.74
48:LV:60:PHE:CD2	48:LV:67:VAL:HG11	2.23	0.74
51:LY:70:VAL:HG12	51:LY:80:HIS:O	1.87	0.74
2:SA:128:LEU:HD11	2:SA:134:ASP:HB3	1.70	0.74
27:SH:14:MET:CE	27:SH:22:LYS:HB3	2.13	0.74
27:SH:52:PHE:O	27:SH:53:VAL:CB	2.35	0.74
17:SV:64:SER:HA	17:SV:82:LYS:HZ1	1.52	0.74
33:L1:1613:C:O5'	33:L1:1613:C:OP1	2.04	0.74
33:L1:2001:U:H3	33:L1:2010:G:H1	1.36	0.74
33:L1:3048:C:C2'	33:L1:3049:A:H5"	2.18	0.74
36:LA:55:PRO:CB	36:LA:186:VAL:HG21	2.18	0.74
66:LN:64:ARG:NH2	67:LS:151:PHE:CD2	2.56	0.74
40:LH:64:LYS:N	49:LX:42:PHE:O	2.20	0.74
51:LY:72:VAL:HG22	51:LY:79:ILE:HG22	1.70	0.74
31:S2:72:G:C5'	33:L1:2972:C:C5'	2.65	0.74
2:SA:109:PRO:C	2:SA:110:GLY:C	2.46	0.74
11:SM:35:GLY:HA2	11:SM:99:VAL:CG2	2.17	0.74
14:SP:88:ARG:CZ	33:L1:2082:A:O3'	2.36	0.74
14:SP:93:HIS:NE2	46:LT:154:THR:OG1	2.10	0.74
15:SS:9:VAL:CG1	15:SS:135:ASP:HA	2.18	0.74
33:L1:1368:U:H4'	44:LR:5:LEU:HB3	1.69	0.74
33:L1:2077:C:H5"	46:LT:113:LYS:HB2	1.69	0.74
33:L1:57:G:H4'	42:LP:155:VAL:HG22	1.68	0.74
32:S1:929:A:C5'	37:LB:137:ILE:CB	2.62	0.74
46:LT:58:HIS:CE1	46:LT:61:SER:H	2.05	0.74
32:S1:1748:U:C6	33:L1:1915:G:O2'	2.41	0.74
2:SA:103:ILE:CD1	2:SA:107:HIS:HA	2.18	0.74
2:SA:80:VAL:HG22	2:SA:127:ILE:HG22	1.69	0.74
25:SC:163:THR:CB	25:SC:164:SER:N	2.51	0.74
26:SG:127:UNK:C	26:SG:128:UNK:N	2.51	0.74
28:SN:51:GLY:N	28:SN:52:PHE:N	2.36	0.74
36:LA:182:ILE:O	36:LA:182:ILE:HD13	1.87	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1388:C:H4'	81:LD:144:ARG:O	1.88	0.73
41:LM:65:VAL:HG21	41:LM:72:LEU:HD12	1.68	0.73
41:LM:69:LYS:CB	41:LM:72:LEU:HD23	2.17	0.73
66:LN:41:PRO:HG2	66:LN:75:MET:SD	2.25	0.73
32:S1:1747:A:C1'	33:L1:1915:G:C1'	2.58	0.73
32:S1:450:A:H62	32:S1:465:G:H21	1.33	0.73
32:S1:61:A:N9	32:S1:61:A:C2'	2.50	0.73
32:S1:992:G:H5''	37:LB:149:LYS:HZ2	1.16	0.73
2:SA:106:ARG:HD2	2:SA:106:ARG:N	2.01	0.73
4:SD:125:LYS:H	4:SD:142:TYR:HD2	1.35	0.73
4:SD:86:PHE:CD2	4:SD:87:MET:HG2	2.22	0.73
6:SF:95:ILE:N	17:SV:102:TYR:HH	1.85	0.73
9:SK:33:PHE:HB2	9:SK:35:SER:HB3	1.70	0.73
24:SX:38:LYS:O	24:SX:77:GLU:HG3	1.88	0.73
32:S1:918:G:N2	33:L1:2203:A:H8	1.86	0.73
34:L3:48:G:N9	34:L3:48:G:C2'	2.51	0.73
32:S1:823:A:N7	46:LT:172:ARG:CA	2.45	0.73
31:S2:75:A:H5''	33:L1:2956:U:H1'	1.36	0.73
27:SH:15:TYR:CE2	27:SH:65:LEU:HD21	2.22	0.73
27:SH:15:TYR:CE2	27:SH:65:LEU:CD2	2.71	0.73
33:L1:3203:G:N9	33:L1:3203:G:C2'	2.52	0.73
36:LA:106:TYR:OH	36:LA:137:VAL:HB	1.89	0.73
34:L3:47:C:OP1	45:LQ:95:ASN:C	2.26	0.73
32:S1:861:A:N1	46:LT:174:ILE:CD1	2.30	0.73
32:S1:1663:A:O2'	33:L1:2120:A:OP1	2.06	0.73
4:SD:160:ILE:HD11	4:SD:169:ILE:CG1	2.18	0.73
9:SK:39:THR:CG2	9:SK:103:LYS:HA	2.18	0.73
33:L1:1350:G:C2'	33:L1:1350:G:N9	2.50	0.73
33:L1:52:G:N2	33:L1:1549:A:N6	2.36	0.73
34:L3:15:C:N3	34:L3:64:G:N1	2.36	0.73
34:L3:43:A:OP1	38:LE:139:ARG:CG	2.37	0.73
33:L1:528:C:H5'	66:LN:68:LYS:HD2	1.68	0.73
34:L3:48:G:C6	45:LQ:58:ASN:HB3	2.23	0.73
10:SL:98:GLU:CG	10:SL:99:VAL:HG23	2.16	0.73
15:SS:9:VAL:HG21	15:SS:135:ASP:HB3	1.70	0.73
32:S1:347:C:P	33:L1:1942:A:OP1	2.47	0.73
33:L1:2157:C:O3'	37:LB:8:GLN:HA	1.88	0.73
33:L1:2269:U:H2'	33:L1:2270:A:H5'	1.71	0.73
33:L1:2149:G:O2'	37:LB:227:ARG:NH2	2.22	0.73
11:SM:14:ARG:NE	38:LE:109:GLN:OE1	2.21	0.73
43:LO:59:ARG:HG3	65:LL:148:UNK:HA	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:SE:197:LEU:HD22	32:S1:1092:A:OP1	1.87	0.73
32:S1:988:G:C2'	37:LB:173:GLY:HA2	2.17	0.73
6:SF:40:LYS:HE2	7:SI:122:LEU:HD13	1.70	0.73
32:S1:918:G:H22	33:L1:2203:A:H8	1.37	0.73
32:S1:320:A:C5'	33:L1:854:C:O3'	2.36	0.73
36:LA:71:GLN:NE2	36:LA:75:GLN:HB3	2.03	0.73
67:LS:151:PHE:N	67:LS:151:PHE:CG	2.55	0.73
66:LN:64:ARG:CD	67:LS:154:VAL:CB	2.66	0.73
14:SP:92:LEU:HD23	46:LT:151:ARG:HH12	1.50	0.73
33:L1:1478:A:H4'	64:LG:65:LYS:HD2	131.06	0.73
32:S1:918:G:O6	33:L1:2203:A:N7	2.22	0.73
31:S2:3:C:O4'	33:L1:2625:C:C4'	2.32	0.73
33:L1:3319:G:H21	80:LC:313:GLY:HA2	1.53	0.73
34:L3:41:G:H4'	34:L3:42:A:C8	2.23	0.73
81:LD:328:ALA:HA	81:LD:329:ALA:HB3	1.69	0.73
33:L1:1364:C:C3'	81:LD:337:PHE:CE1	2.62	0.73
81:LD:375:LYS:O	81:LD:379:LYS:HG3	1.89	0.73
41:LM:96:MET:CE	50:LZ:22:ARG:CD	2.63	0.73
67:LS:81:LEU:HD12	67:LS:92:MET:HB3	1.70	0.73
12:SO:58:HIS:CB	39:LF:23:LYS:HZ2	186.33	0.73
33:L1:985:C:H41	33:L1:1105:G:H21	1.36	0.73
36:LA:62:MET:HE1	36:LA:171:LEU:HD21	1.70	0.73
36:LA:71:GLN:CD	36:LA:75:GLN:HB3	2.08	0.73
11:SM:11:HIS:O	38:LE:117:LYS:NZ	2.22	0.73
32:S1:929:A:O5'	37:LB:137:ILE:HG13	1.88	0.73
10:SL:5:ARG:HA	14:SP:77:HIS:HB2	1.71	0.73
17:SV:93:VAL:HG12	17:SV:94:SER:N	2.02	0.73
33:L1:1752:C:O2'	33:L1:1753:A:H5'	1.88	0.73
33:L1:1834:C:H4'	33:L1:1835:A:C8	2.24	0.73
32:S1:1676:G:H8	33:L1:1932:A:O3'	1.63	0.73
31:S2:3:C:OP2	33:L1:2626:G:H5'	1.88	0.73
33:L1:381:G:C2'	33:L1:381:G:N9	2.50	0.73
33:L1:974:G:H2'	33:L1:975:G:C8	2.23	0.73
36:LA:60:PRO:HA	36:LA:150:THR:CB	2.19	0.73
44:LR:40:THR:CB	81:LD:325:LYS:HD2	2.19	0.73
66:LN:117:ARG:HH12	82:LK:194:LEU:HD22	1.54	0.73
2:SA:232:VAL:O	2:SA:233:ALA:CB	2.37	0.73
27:SH:37:PHE:HA	27:SH:42:GLN:HE21	1.53	0.73
36:LA:62:MET:SD	36:LA:171:LEU:HD21	2.29	0.73
32:S1:928:A:H1'	37:LB:147:ARG:NH1	2.02	0.73
66:LN:109:LYS:HE2	82:LK:198:LEU:CD2	2.19	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:SP:122:ASP:C	46:LT:162:LYS:CD	2.57	0.73
32:S1:843:G:N3	33:L1:2062:U:H5'	1.94	0.73
3:SB:44:MET:CB	3:SB:82:ASN:HD21	1.99	0.73
7:SI:54:ALA:HB1	15:SS:11:ASP:HB3	1.71	0.73
34:L3:3:A:H3'	34:L3:4:U:H5	1.54	0.72
44:LR:41:LYS:CB	81:LD:325:LYS:CE	2.66	0.72
32:S1:1747:A:H1'	33:L1:1915:G:N9	2.03	0.72
32:S1:349:U:C5'	46:LT:141:SER:CB	2.48	0.72
32:S1:978:A:H4'	33:L1:850:A:C3'	2.13	0.72
27:SH:22:LYS:HG2	27:SH:61:ILE:CD1	2.18	0.72
17:SV:49:ASP:HA	17:SV:53:SER:OG	1.89	0.72
32:S1:1758:G:P	33:L1:2298:A:P	2.86	0.72
34:L3:28:U:H2'	34:L3:29:C:H5'	1.71	0.72
4:SD:167:ASN:CA	4:SD:168:LYS:N	2.52	0.72
12:SO:69:SER:HB2	24:SX:49:PHE:CD2	2.22	0.72
32:S1:183:C:H2'	32:S1:184:C:H6	1.53	0.72
4:SD:121:PHE:HB3	4:SD:161:LYS:HE2	1.72	0.72
2:SA:64:LEU:CB	5:SE:44:TRP:CD1	2.69	0.72
27:SH:15:TYR:CD2	27:SH:65:LEU:HD23	2.22	0.72
23:SU:25:ARG:HD3	23:SU:26:LYS:N	2.03	0.72
17:SV:63:PRO:HD3	17:SV:66:LEU:HD12	1.69	0.72
32:S1:1676:G:C5'	33:L1:1933:U:O5'	2.32	0.72
34:L3:25:G:N2	34:L3:117:U:H1'	2.04	0.72
32:S1:860:A:C4	46:LT:173:LYS:CB	2.59	0.72
31:S2:12:U:O2'	33:L1:2245:G:O6	1.95	0.72
2:SA:72:ILE:CG1	5:SE:66:TYR:OH	2.38	0.72
4:SD:208:ILE:HD13	4:SD:209:HIS:N	2.05	0.72
12:SO:149:LEU:C	39:LF:82:GLY:O	165.53	0.72
31:S2:75:A:P	33:L1:2957:U:C4'	2.72	0.72
34:L3:116:U:C2'	34:L3:117:U:H5'	2.19	0.72
33:L1:1365:C:OP1	81:LD:337:PHE:CE1	2.38	0.72
32:S1:843:G:O2'	33:L1:2061:C:O2'	2.07	0.72
34:L3:119:C:O2	45:LQ:250:ASP:OD1	2.08	0.72
37:LB:112:VAL:HG13	37:LB:133:TYR:HB2	1.71	0.72
80:LC:69:LYS:O	80:LC:70:LYS:CB	2.33	0.72
38:LE:21:LEU:CD1	38:LE:39:LEU:HD22	2.20	0.72
67:LS:115:ARG:HA	67:LS:115:ARG:CZ	2.19	0.72
32:S1:977:G:O5'	33:L1:850:A:N6	2.23	0.72
2:SA:72:ILE:HD12	5:SE:66:TYR:CZ	2.24	0.72
11:SM:126:TYR:OH	11:SM:126:TYR:CE1	2.41	0.72
17:SV:42:LEU:O	17:SV:47:THR:HG23	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:LG:92:ARG:HB2	64:LG:155:ALA:HB2	1.72	0.72
27:SH:37:PHE:CD1	27:SH:43:LYS:HE3	2.25	0.72
17:SV:48:TYR:HE1	17:SV:81:ILE:C	1.93	0.72
33:L1:1740:U:H2'	33:L1:1742:G:C8	2.25	0.72
36:LA:43:GLN:HG3	36:LA:49:SER:O	1.89	0.72
32:S1:990:G:H5''	37:LB:132:ASP:HA	1.69	0.72
33:L1:2952:G:C2'	33:L1:2952:G:N9	2.53	0.72
36:LA:122:LEU:HD13	36:LA:129:LYS:HZ1	1.55	0.72
43:LO:142:LEU:HB2	65:LL:118:UNK:CB	2.20	0.72
6:SF:78:ASN:C	32:S1:1479:U:C5	2.63	0.72
32:S1:1758:G:OP1	33:L1:2298:A:P	2.47	0.72
32:S1:1759:A:N9	32:S1:1759:A:C2'	2.52	0.72
10:SL:43:SER:HB3	10:SL:61:PRO:HB2	1.72	0.72
15:SS:6:ALA:HB2	32:S1:1363:G:O4'	1.90	0.72
33:L1:415:G:H21	33:L1:631:C:H5''	1.55	0.72
33:L1:1295:A:C2'	33:L1:1295:A:N9	2.53	0.71
31:S2:11:U:O2'	33:L1:2260:C:N4	2.23	0.71
31:S2:70:G:H4'	33:L1:2966:G:C5'	2.19	0.71
33:L1:1179:C:O2'	82:LK:94:PRO:N	2.23	0.71
8:SJ:72:ILE:HD13	28:SN:33:LYS:HE2	1.72	0.71
31:S2:75:A:H5'	33:L1:2956:U:H1'	1.71	0.71
33:L1:2902:A:H5''	39:LF:172:ARG:HH22	1.55	0.71
32:S1:334:G:H1	32:S1:342:C:H42	1.38	0.71
2:SA:64:LEU:HD23	2:SA:64:LEU:O	1.89	0.71
2:SA:81:GLN:NE2	2:SA:128:LEU:HD12	2.05	0.71
15:SS:2:ALA:HA	32:S1:1363:G:O3'	1.90	0.71
32:S1:918:G:C6	33:L1:2201:G:O2'	2.31	0.71
33:L1:2647:C:C1'	84:LI:115:MET:HE1	2.20	0.71
33:L1:2996:A:C2	33:L1:3143:A:N6	2.59	0.71
36:LA:67:LEU:HD21	36:LA:147:VAL:HG21	1.71	0.71
33:L1:1260:G:N2	74:LJ:122:MET:SD	2.63	0.71
4:SD:160:ILE:CG1	4:SD:169:ILE:HG23	2.20	0.71
4:SD:181:VAL:HG13	4:SD:226:PHE:O	1.89	0.71
24:SX:57:VAL:CG1	24:SX:62:GLN:HG3	2.20	0.71
33:L1:1520:A:O2'	33:L1:1521:U:H5'	1.90	0.71
33:L1:2201:G:H21	33:L1:2203:A:N6	1.86	0.71
14:SP:68:ARG:HE	32:S1:311:G:P	2.13	0.71
25:SC:144:ASN:O	25:SC:145:ILE:HB	1.87	0.71
4:SD:58:TYR:HD1	32:S1:451:U:OP1	1.72	0.71
2:SA:120:PHE:HE1	5:SE:102:GLY:CA	2.04	0.71
17:SV:48:TYR:HE1	17:SV:81:ILE:HA	1.34	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:918:G:N3	33:L1:2202:A:H8	1.85	0.71
33:L1:2398:A:C6	33:L1:2399:G:C5	2.78	0.71
33:L1:288:G:O3'	42:LP:98:LYS:NZ	2.17	0.71
51:LY:105:VAL:HG11	51:LY:108:LEU:CD2	2.21	0.71
41:LM:96:MET:HE2	50:LZ:22:ARG:CD	2.19	0.71
32:S1:186:A:H61	32:S1:194:G:H1'	1.54	0.71
31:S2:73:C:N3	33:L1:2405:C:OP1	2.24	0.71
5:SE:30:ARG:CZ	27:SH:66:ASN:CA	2.68	0.71
24:SX:74:ARG:HD2	24:SX:75:LEU:N	2.05	0.71
33:L1:2425:U:H3	33:L1:2606:G:H1	1.38	0.71
33:L1:381:G:H1'	33:L1:384:A:H61	1.56	0.71
36:LA:102:LEU:O	36:LA:102:LEU:HD12	1.90	0.71
34:L3:27:A:OP2	45:LQ:57:THR:N	2.23	0.71
32:S1:1736:C:HO2'	33:L1:2101:A:HO2'	0.88	0.71
2:SA:65:ALA:CB	2:SA:165:ILE:HD11	2.21	0.71
2:SA:64:LEU:HD11	5:SE:44:TRP:HB2	1.71	0.71
17:SV:48:TYR:CZ	17:SV:84:LEU:HD12	2.26	0.71
33:L1:1265:G:N3	33:L1:1265:G:H3'	2.06	0.71
32:S1:331:U:P	33:L1:2083:U:OP2	2.48	0.71
36:LA:192:LEU:HG	36:LA:194:LYS:H	1.55	0.71
33:L1:2157:C:H1'	37:LB:11:GLY:N	2.05	0.71
81:LD:315:LYS:HG3	81:LD:319:LYS:HG3	1.72	0.71
48:LV:1:MET:HB3	48:LV:16:LYS:CD	2.20	0.71
6:SF:80:GLY:HA3	32:S1:1479:U:H1'	0.79	0.71
32:S1:1659:A:C2	32:S1:1759:A:C2	2.78	0.71
32:S1:1674:C:H1'	33:L1:1931:G:N2	2.05	0.71
32:S1:861:A:N1	46:LT:174:ILE:HD13	2.04	0.71
14:SP:41:LEU:CD1	14:SP:103:LYS:HD3	2.18	0.71
17:SV:48:TYR:CD1	17:SV:81:ILE:HG22	2.20	0.71
33:L1:1817:U:H2'	33:L1:1818:C:H5'	1.72	0.71
33:L1:3227:U:O4'	33:L1:3227:U:C6	2.43	0.71
36:LA:43:GLN:HG2	36:LA:44:LYS:N	2.05	0.71
37:LB:137:ILE:HD13	37:LB:147:ARG:NH1	2.06	0.71
81:LD:358:LYS:HE2	81:LD:362:LYS:HZ1	1.56	0.71
6:SF:80:GLY:CA	32:S1:1479:U:H6	2.02	0.71
32:S1:354:G:N1	33:L1:847:G:C5'	2.53	0.71
10:SL:65:ILE:HD13	32:S1:438:G:OP1	1.84	0.71
24:SX:70:GLY:C	32:S1:877:G:H4'	2.11	0.71
31:S2:26:G:O4'	33:L1:2260:C:O5'	2.08	0.71
30:S3:13:A:N6	32:S1:1157:A:P	2.58	0.71
25:SC:171:PRO:HD3	25:SC:171:PRO:HB3	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:SK:81:ALA:HB1	9:SK:115:LEU:CD2	2.21	0.71
17:SV:64:SER:O	17:SV:67:SER:OG	2.07	0.71
33:L1:280:G:N9	33:L1:280:G:C2'	2.54	0.71
34:L3:58:G:H2'	34:L3:59:U:H6	1.56	0.71
36:LA:91:LYS:HG2	36:LA:94:LYS:CE	2.21	0.71
66:LN:64:ARG:HG3	67:LS:154:VAL:HG11	1.72	0.71
32:S1:348:A:H5''	46:LT:140:GLU:H	1.54	0.71
2:SA:165:ILE:HG22	2:SA:178:LEU:HD21	1.71	0.71
27:SH:51:GLU:O	27:SH:52:PHE:HB2	1.91	0.71
32:S1:1664:U:H5'	33:L1:2119:A:C4'	2.17	0.71
81:LD:338:GLY:C	81:LD:342:LYS:HE3	2.12	0.71
66:LN:99:ARG:CA	82:LK:205:LYS:HE2	2.20	0.71
66:LN:110:VAL:HG13	82:LK:201:LEU:CD2	2.02	0.71
66:LN:64:ARG:HG2	66:LN:65:VAL:HG23	1.73	0.71
2:SA:71:ALA:HB2	5:SE:65:ILE:HB	1.73	0.71
27:SH:11:LEU:CG	27:SH:15:TYR:HE1	2.03	0.71
33:L1:1691:U:H3	33:L1:1751:G:H1	1.38	0.70
32:S1:1745:U:C5'	33:L1:1931:G:P	2.78	0.70
33:L1:82:C:H2'	33:L1:83:U:C6	2.26	0.70
2:SA:64:LEU:HG	5:SE:44:TRP:HE1	1.50	0.70
7:SI:58:ILE:HG21	15:SS:12:VAL:CA	2.21	0.70
15:SS:6:ALA:O	15:SS:9:VAL:HG23	1.90	0.70
24:SX:72:LYS:HA	24:SX:72:LYS:CE	2.07	0.70
33:L1:506:U:H2'	33:L1:507:C:C5	2.25	0.70
81:LD:332:LYS:O	81:LD:335:PRO:HG2	1.89	0.70
33:L1:2707:A:H4'	45:LQ:35:ARG:HG3	1.72	0.70
31:S2:11:U:H4'	33:L1:2247:A:C5	2.08	0.70
2:SA:165:ILE:HG21	2:SA:178:LEU:HD21	1.71	0.70
27:SH:64:GLU:C	27:SH:65:LEU:CG	2.41	0.70
12:SO:107:LYS:CG	39:LF:78:ASN:ND2	153.47	0.70
33:L1:1879:A:H2'	33:L1:1880:A:H5'	1.73	0.70
29:ST:82:GLN:C	33:L1:2540:C:O2'	2.29	0.70
31:S2:70:G:P	33:L1:2965:C:C6	2.84	0.70
66:LN:113:ALA:HB1	82:LK:198:LEU:HG	1.72	0.70
65:LL:54:UNK:C	65:LL:55:UNK:HA	2.16	0.70
48:LV:41:LEU:HD13	48:LV:100:GLU:CG	2.14	0.70
17:SV:49:ASP:CA	17:SV:53:SER:OG	2.39	0.70
33:L1:1083:C:N1	33:L1:1083:C:C2'	2.53	0.70
32:S1:1673:C:C2'	33:L1:1914:C:H4'	2.20	0.70
32:S1:1745:U:O2	33:L1:1932:A:C8	2.43	0.70
33:L1:715:A:H2	33:L1:2789:G:H21	1.39	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:LM:69:LYS:CA	41:LM:72:LEU:HD23	2.21	0.70
32:S1:977:G:C3'	33:L1:850:A:C6	2.66	0.70
2:SA:131:PRO:HG3	2:SA:152:CYS:HB2	1.73	0.70
13:SQ:93:VAL:HB	13:SQ:95:GLU:HG3	1.72	0.70
37:LB:96:LEU:CD2	37:LB:166:ILE:HD13	2.18	0.70
64:LG:49:LYS:C	64:LG:50:PHE:CA	2.59	0.70
66:LN:95:VAL:HG13	82:LK:206:TYR:OXT	1.92	0.70
34:L3:115:A:O3'	45:LQ:75:VAL:HG21	1.92	0.70
66:LN:64:ARG:CD	67:LS:154:VAL:HG11	2.22	0.70
32:S1:1659:A:N6	32:S1:1759:A:H61	1.88	0.70
2:SA:81:GLN:HG3	2:SA:128:LEU:HG	1.73	0.70
25:SC:171:PRO:CB	25:SC:171:PRO:HD3	2.18	0.70
5:SE:258:LYS:HE3	27:SH:69:LEU:H	1.55	0.70
33:L1:1692:U:H3	33:L1:1750:A:H61	1.36	0.70
33:L1:2113:A:H2'	33:L1:2114:A:C8	2.26	0.70
34:L3:45:U:H2'	34:L3:46:C:H5	1.57	0.70
11:SM:14:ARG:CD	38:LE:109:GLN:CG	2.57	0.70
33:L1:2381:G:OP2	82:LK:95:HIS:CD2	2.45	0.70
32:S1:1663:A:O3'	33:L1:1918:A:C4	2.44	0.70
3:SB:24:MET:CE	13:SQ:30:THR:HG22	2.22	0.70
11:SM:55:ARG:HH21	17:SV:38:ASN:ND2	1.90	0.70
33:L1:1394:C:N1	33:L1:1394:C:O4'	2.23	0.70
32:S1:1746:U:C6	33:L1:1931:G:C1'	2.66	0.70
33:L1:2621:G:OP1	84:LI:115:MET:SD	2.49	0.70
33:L1:3296:C:N3	80:LC:25:HIS:CE1	2.59	0.70
34:L3:21:U:C5	34:L3:22:A:C2	2.79	0.70
34:L3:48:G:C6	45:LQ:58:ASN:O	2.45	0.70
36:LA:175:GLU:O	36:LA:178:ILE:HG22	1.91	0.70
36:LA:192:LEU:HD23	36:LA:194:LYS:HB3	1.74	0.70
33:L1:2148:U:OP1	37:LB:242:ARG:HG3	1.92	0.70
11:SM:10:GLN:O	38:LE:118:TYR:CD2	2.43	0.70
11:SM:139:THR:HG21	32:S1:1178:C:C5	2.27	0.70
32:S1:1678:G:C2'	32:S1:1678:G:C4	2.74	0.70
12:SO:124:ARG:HG2	32:S1:632:G:H5'	1.72	0.70
12:SO:128:TYR:HE1	32:S1:971:A:OP2	1.74	0.70
31:S2:72:G:C5'	33:L1:2972:C:OP1	2.36	0.70
27:SH:94:LEU:HD13	27:SH:95:PRO:HG2	1.73	0.70
9:SK:90:THR:O	9:SK:93:HIS:CE1	2.44	0.70
31:S2:71:A:C5'	33:L1:2971:A:H1'	2.10	0.70
81:LD:327:VAL:HG12	81:LD:328:ALA:H	1.56	0.70
33:L1:1478:A:C4'	64:LG:65:LYS:HD3	131.57	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:3301:G:H4'	48:LV:70:THR:CA	2.21	0.70
5:SE:240:ARG:CZ	32:S1:1302:C:HO2'	2.04	0.70
32:S1:1395:C:H2'	32:S1:1396:U:H4'	1.73	0.70
31:S2:72:G:N9	31:S2:72:G:C2'	2.55	0.70
36:LA:71:GLN:HB2	36:LA:79:MET:HE3	1.74	0.70
33:L1:689:G:P	65:LL:40:UNK:CB	2.79	0.70
32:S1:858:G:H2'	46:LT:176:ARG:HD3	1.72	0.70
32:S1:858:G:O5'	46:LT:179:GLU:HG3	1.89	0.70
26:SG:8:UNK:CB	46:LT:189:CYS:SG	2.80	0.70
33:L1:308:U:C3'	33:L1:309:C:C5'	2.70	0.70
33:L1:2149:G:H5"	37:LB:241:ARG:NH1	2.06	0.70
32:S1:180:A:H61	32:S1:200:C:H42	1.39	0.70
32:S1:990:G:C5'	33:L1:2172:C:N4	2.49	0.70
8:SJ:84:ASN:HD21	32:S1:1201:C:H4'	1.56	0.70
9:SK:43:VAL:H	9:SK:106:THR:CG2	2.05	0.70
14:SP:60:PRO:O	33:L1:2083:U:OP1	2.09	0.70
16:SR:83:GLU:O	16:SR:87:THR:HG22	1.91	0.70
17:SV:25:LYS:C	17:SV:26:LYS:HG3	2.11	0.70
33:L1:881:G:C2	33:L1:2982:U:H5"	2.26	0.69
36:LA:106:TYR:CE1	36:LA:143:LEU:HG	2.26	0.69
38:LE:74:ARG:CZ	38:LE:74:ARG:HB3	2.22	0.69
41:LM:34:ALA:HA	41:LM:68:GLY:CA	2.20	0.69
14:SP:122:ASP:CA	46:LT:162:LYS:CD	2.68	0.69
51:LY:76:ARG:HA	51:LY:76:ARG:HE	1.57	0.69
32:S1:844:C:P	33:L1:2061:C:O2'	2.47	0.69
35:L2:98:C:H6	35:L2:98:C:H5"	1.56	0.69
34:L3:33:U:H3'	34:L3:34:C:H5"	1.74	0.69
36:LA:132:LYS:O	36:LA:134:PRO:HD3	1.92	0.69
33:L1:1261:C:H5'	74:LJ:123:ALA:HA	1.73	0.69
6:SF:80:GLY:CA	32:S1:1479:U:C1'	2.51	0.69
4:SD:150:PRO:O	4:SD:151:ASP:CB	2.35	0.69
9:SK:105:LYS:CE	9:SK:131:VAL:HG22	2.22	0.69
17:SV:53:SER:C	17:SV:56:PRO:HD3	2.13	0.69
33:L1:3097:G:H1'	80:LC:331:CYS:SG	2.32	0.69
33:L1:640:C:OP1	33:L1:650:A:H1'	1.91	0.69
51:LY:55:VAL:HG22	51:LY:103:VAL:HG22	1.73	0.69
32:S1:1745:U:H2'	33:L1:1931:G:C8	2.27	0.69
9:SK:39:THR:HG22	9:SK:103:LYS:HA	1.74	0.69
9:SK:81:ALA:O	9:SK:115:LEU:HD23	1.92	0.69
33:L1:30:C:H1'	33:L1:1549:A:N1	2.07	0.69
32:S1:1747:A:H8	33:L1:1930:G:C4	2.11	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2148:U:H3	33:L1:2175:A:H61	1.39	0.69
37:LB:104:ILE:CG2	37:LB:160:SER:HA	2.23	0.69
32:S1:989:G:H4'	37:LB:173:GLY:H	1.57	0.69
11:SM:18:THR:HA	38:LE:109:GLN:NE2	2.07	0.69
64:LG:185:ASP:CA	64:LG:185:ASP:CG	2.60	0.69
43:LO:63:ARG:HH12	65:LL:152:UNK:CA	2.04	0.69
51:LY:33:ALA:O	51:LY:104:VAL:HG13	1.93	0.69
33:L1:1888:G:H21	33:L1:3057:A:N6	1.90	0.69
33:L1:2688:G:H5'	38:LE:155:ARG:HE	1.58	0.69
36:LA:112:SER:HA	36:LA:115:ILE:HG12	1.75	0.69
36:LA:68:GLY:HA2	36:LA:83:TYR:OH	1.92	0.69
32:S1:1747:A:O2'	33:L1:1916:U:O4'	2.10	0.69
23:SU:25:ARG:HD2	23:SU:27:GLN:HG3	1.75	0.69
33:L1:180:G:C5'	35:L2:98:C:C4	2.75	0.69
41:LM:96:MET:HE3	50:LZ:22:ARG:HD2	1.74	0.69
32:S1:1664:U:H5'	33:L1:2119:A:C3'	2.21	0.69
4:SD:150:PRO:O	4:SD:151:ASP:HB2	1.92	0.69
31:S2:13:U:OP1	33:L1:2244:G:N2	2.25	0.69
35:L2:43:G:N9	35:L2:43:G:O4'	2.25	0.69
45:LQ:247:ILE:HG23	45:LQ:248:ARG:HG2	1.74	0.69
27:SH:4:VAL:HG23	27:SH:5:SER:H	1.58	0.69
5:SE:31:ARG:CD	27:SH:67:GLY:CA	2.71	0.69
7:SI:91:ILE:HG21	7:SI:95:LEU:HD22	1.73	0.69
33:L1:1620:U:H2'	33:L1:1621:G:C8	2.27	0.69
33:L1:2647:C:H1'	84:LI:115:MET:HE1	1.74	0.69
32:S1:977:G:C5	33:L1:850:A:C5	2.75	0.69
34:L3:93:U:H2'	34:L3:94:C:C6	2.26	0.69
33:L1:2352:G:H5''	48:LV:87:LYS:HB2	1.75	0.69
26:SG:10:UNK:O	26:SG:11:UNK:CB	2.39	0.69
29:ST:2:GLN:HE21	33:L1:2544:C:H2'	1.55	0.69
36:LA:53:LYS:HG3	36:LA:54:LEU:H	1.57	0.69
66:LN:12:VAL:O	66:LN:56:THR:HG22	1.92	0.69
32:S1:1735:C:H4'	33:L1:2103:U:H5''	1.74	0.69
4:SD:220:THR:HA	32:S1:653:U:H4'	1.75	0.69
27:SH:22:LYS:HG2	27:SH:61:ILE:CG1	2.23	0.69
27:SH:65:LEU:CB	27:SH:70:ASN:HA	2.23	0.69
33:L1:1174:G:C5'	34:L3:84:U:H3	2.06	0.69
33:L1:52:G:H22	33:L1:1549:A:N6	1.89	0.69
66:LN:64:ARG:HG2	66:LN:65:VAL:N	2.08	0.69
66:LN:64:ARG:CD	67:LS:154:VAL:HB	2.22	0.69
30:S3:22:A:C5	32:S1:1642:C:N4	2.61	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:180:A:N6	32:S1:200:C:H42	1.91	0.69
5:SE:15:PHE:HD2	5:SE:182:PRO:HD2	1.58	0.69
33:L1:1394:C:H4'	33:L1:1395:A:C5'	2.23	0.69
33:L1:2750:A:H2'	33:L1:2751:A:C8	2.27	0.69
33:L1:997:G:C2'	33:L1:997:G:N9	2.54	0.69
45:LQ:17:PHE:N	45:LQ:20:PHE:CD2	2.61	0.69
33:L1:885:A:OP2	48:LV:133:ALA:HB2	1.92	0.69
32:S1:1676:G:C5'	33:L1:1934:U:OP2	2.41	0.69
2:SA:135:HIS:CA	2:SA:138:ILE:HG12	2.23	0.69
4:SD:195:ILE:HG23	4:SD:208:ILE:CD1	2.22	0.69
4:SD:94:LYS:H	4:SD:94:LYS:HE3	1.56	0.69
11:SM:81:ASP:HB2	11:SM:93:GLY:HA2	1.73	0.69
33:L1:1628:G:N9	33:L1:1628:G:O4'	2.26	0.68
33:L1:216:G:O6	51:LY:60:GLY:HA2	1.93	0.68
44:LR:132:THR:CA	81:LD:325:LYS:HZ2	2.04	0.68
33:L1:2647:C:C2	84:LI:115:MET:HE1	2.28	0.68
34:L3:58:G:C5'	45:LQ:29:GLN:NE2	2.55	0.68
32:S1:859:U:H4'	46:LT:180:ARG:CB	2.21	0.68
8:SJ:92:ARG:HE	28:SN:50:ILE:C	1.95	0.68
33:L1:528:C:H2'	33:L1:529:C:C6	2.27	0.68
35:L2:93:A:C6	35:L2:95:C:C5	2.81	0.68
64:LG:152:LYS:O	64:LG:155:ALA:HB3	1.92	0.68
64:LG:51:TYR:O	64:LG:52:PRO:C	2.30	0.68
84:LI:110:ARG:NE	84:LI:116:ARG:HD2	2.09	0.68
66:LN:32:ASP:HA	67:LS:145:HIS:CD2	2.28	0.68
48:LV:113:LEU:HG	48:LV:153:GLU:HA	1.74	0.68
25:SC:10:LYS:CE	32:S1:505:U:C5'	2.68	0.68
4:SD:194:VAL:O	4:SD:210:VAL:HG13	1.93	0.68
33:L1:641:C:C2	33:L1:642:C:C6	2.82	0.68
32:S1:992:G:H5'	37:LB:149:LYS:HZ1	1.54	0.68
64:LG:185:ASP:O	64:LG:186:ALA:HB2	1.92	0.68
84:LI:110:ARG:CD	84:LI:116:ARG:CB	2.69	0.68
32:S1:860:A:H5'	46:LT:177:ARG:CD	2.23	0.68
32:S1:1664:U:OP1	33:L1:1917:A:C2	2.44	0.68
5:SE:30:ARG:HE	27:SH:66:ASN:HA	1.58	0.68
15:SS:9:VAL:HG21	15:SS:135:ASP:HA	1.62	0.68
23:SU:62:PHE:CB	23:SU:80:LEU:HD23	2.24	0.68
31:S2:74:C:N1	33:L1:2404:C:H4'	2.03	0.68
38:LE:91:TYR:CG	38:LE:92:GLU:CA	2.76	0.68
33:L1:1320:G:C8	82:LK:134:LEU:HD22	2.27	0.68
32:S1:887:U:C5	41:LM:85:ARG:NH2	98.33	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:LN:110:VAL:HG21	82:LK:201:LEU:HD21	1.76	0.68
4:SD:101:LEU:HD21	4:SD:109:PHE:CB	2.23	0.68
17:SV:63:PRO:CD	17:SV:66:LEU:HB2	2.22	0.68
33:L1:2115:G:H2'	33:L1:2116:G:H4'	1.74	0.68
33:L1:2398:A:N1	33:L1:2399:G:C4	2.61	0.68
34:L3:87:G:C5'	67:LS:117:ARG:HH21	2.05	0.68
2:SA:152:CYS:O	2:SA:166:PRO:HA	1.94	0.68
5:SE:197:LEU:HD22	32:S1:1091:A:H5''	1.76	0.68
31:S2:3:C:C4'	33:L1:2625:C:H5''	2.24	0.68
33:L1:3296:C:N4	80:LC:176:GLN:HE22	1.91	0.68
44:LR:97:ALA:O	44:LR:98:MET:CB	2.36	0.68
32:S1:857:A:N3	46:LT:176:ARG:NH2	2.42	0.68
32:S1:1017:U:OP1	37:LB:249:GLN:CA	2.41	0.68
5:SE:197:LEU:HD11	32:S1:1302:C:O2	1.93	0.68
32:S1:184:C:N4	32:S1:196:G:H1	1.91	0.68
32:S1:987:U:H3	32:S1:1024:A:H61	1.41	0.68
2:SA:135:HIS:CG	2:SA:138:ILE:HD11	2.28	0.68
4:SD:102:LEU:HG	4:SD:103:TYR:N	2.08	0.68
11:SM:14:ARG:CB	38:LE:111:HIS:CD2	2.71	0.68
23:SU:25:ARG:HD2	23:SU:27:GLN:CG	2.23	0.68
34:L3:115:A:H4'	45:LQ:75:VAL:HG22	1.75	0.68
84:LI:112:GLN:O	84:LI:113:THR:HG23	1.93	0.68
20:SZ:10:ARG:CB	32:S1:1255:U:OP2	2.41	0.68
32:S1:918:G:C6	33:L1:2201:G:C2'	2.64	0.68
31:S2:70:G:C5'	33:L1:2966:G:O5'	2.40	0.68
4:SD:86:PHE:CE1	4:SD:102:LEU:HD12	2.19	0.68
33:L1:1387:G:H4'	81:LD:247:PRO:O	1.94	0.68
34:L3:51:G:H2'	34:L3:52:U:H5'	1.75	0.68
34:L3:87:G:P	67:LS:117:ARG:NH2	2.66	0.68
32:S1:928:A:P	37:LB:109:GLU:OE2	2.52	0.68
38:LE:21:LEU:HD12	38:LE:39:LEU:HD22	1.76	0.68
33:L1:3115:A:O2'	39:LF:63:ARG:CD	2.42	0.68
84:LI:110:ARG:CD	84:LI:116:ARG:CG	2.72	0.68
48:LV:125:LYS:CA	48:LV:144:PRO:HD2	2.24	0.68
32:S1:1659:A:N6	32:S1:1759:A:N6	2.42	0.68
4:SD:100:ARG:HH12	4:SD:122:LYS:HA	1.58	0.68
31:S2:75:A:H5''	33:L1:2956:U:C4'	2.24	0.68
33:L1:720:G:H5''	43:LO:109:LYS:HD2	1.76	0.68
33:L1:1387:G:H4'	81:LD:247:PRO:C	2.14	0.68
66:LN:89:TRP:H	66:LN:91:LYS:H	1.42	0.68
34:L3:46:C:HO2'	45:LQ:200:TYR:HE1	1.38	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:LR:128:LEU:HD22	81:LD:313:GLU:HG3	1.76	0.68
14:SP:94:PHE:N	46:LT:151:ARG:NE	2.39	0.68
11:SM:14:ARG:CG	38:LE:109:GLN:CD	2.61	0.68
14:SP:55:ILE:O	46:LT:141:SER:C	2.31	0.68
33:L1:3296:C:C2	80:LC:25:HIS:HE1	2.11	0.68
38:LE:38:VAL:HG23	38:LE:120:PRO:CB	2.24	0.68
14:SP:95:VAL:CB	46:LT:152:GLU:HA	2.22	0.68
32:S1:918:G:O6	33:L1:2201:G:C1'	2.42	0.68
32:S1:928:A:H5'	37:LB:139:HIS:H	1.58	0.68
31:S2:72:G:C4'	33:L1:2972:C:OP1	2.42	0.68
4:SD:166:THR:HG23	4:SD:168:LYS:N	2.08	0.68
5:SE:31:ARG:HE	27:SH:67:GLY:CA	1.78	0.68
6:SF:200:ARG:HB3	9:SK:79:ASP:OD2	1.93	0.68
14:SP:56:ASP:N	46:LT:123:MET:HE3	2.09	0.68
23:SU:69:HIS:HB2	23:SU:72:GLY:H	1.59	0.68
35:L2:93:A:C5	35:L2:95:C:H5	2.13	0.67
36:LA:111:ALA:O	36:LA:115:ILE:HG23	1.94	0.67
33:L1:549:G:OP1	81:LD:396:ASN:OD1	2.12	0.67
24:SX:72:LYS:NZ	32:S1:1054:G:OP1	2.28	0.67
25:SC:106:PHE:CZ	32:S1:670:C:O2	2.47	0.67
14:SP:44:LYS:HE2	14:SP:117:ARG:HD3	1.76	0.67
34:L3:45:U:H2'	34:L3:46:C:C5	2.30	0.67
34:L3:5:G:OP2	45:LQ:26:ARG:NH1	2.28	0.67
36:LA:189:LEU:HD23	36:LA:189:LEU:O	1.94	0.67
33:L1:1432:G:N3	81:LD:108:PRO:CB	2.56	0.67
31:S2:75:A:O5'	33:L1:2957:U:H5'	1.93	0.67
27:SH:94:LEU:CB	27:SH:95:PRO:HD2	2.25	0.67
31:S2:11:U:O4'	33:L1:2247:A:C4	2.40	0.67
33:L1:2355:A:N1	33:L1:2984:A:H2	1.93	0.67
34:L3:28:U:C1'	34:L3:54:A:H61	2.00	0.67
36:LA:89:LEU:HD21	36:LA:111:ALA:HB1	1.76	0.67
11:SM:17:ASN:OD1	38:LE:125:TYR:CD2	2.47	0.67
32:S1:1664:U:P	33:L1:1918:A:H1'	2.34	0.67
32:S1:1664:U:H5''	33:L1:2119:A:H5''	0.68	0.67
33:L1:2779:G:N9	33:L1:2779:G:C2'	2.57	0.67
11:SM:14:ARG:HG2	38:LE:109:GLN:NE2	2.09	0.67
32:S1:188:U:O2	32:S1:193:G:C2	2.47	0.67
14:SP:98:TYR:CE1	46:LT:155:LEU:CG	2.78	0.67
15:SS:5:THR:HG22	15:SS:139:GLY:HA2	1.75	0.67
23:SU:62:PHE:HB3	23:SU:80:LEU:HD23	1.77	0.67
33:L1:228:C:H3'	33:L1:229:G:H5'	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2607:U:O3'	37:LB:226:ARG:NH2	2.27	0.67
33:L1:308:U:C3'	33:L1:309:C:H5'	2.24	0.67
12:SO:103:GLU:C	39:LF:78:ASN:HB3	158.27	0.67
32:S1:348:A:C3'	46:LT:140:GLU:OE2	2.17	0.67
7:SI:87:ILE:HG21	32:S1:1354:C:OP1	1.95	0.67
32:S1:200:C:H3'	32:S1:201:G:H5''	1.74	0.67
5:SE:30:ARG:CD	27:SH:67:GLY:CA	2.71	0.67
33:L1:1391:A:C2	33:L1:1424:G:C4	2.83	0.67
33:L1:99:A:P	42:LP:182:HIS:CE1	2.87	0.67
33:L1:1217:G:O3'	67:LS:94:LYS:HA	1.94	0.67
48:LV:99:ALA:HB1	48:LV:151:LEU:HD11	1.77	0.67
68:LW:104:VAL:O	68:LW:105:ILE:O	2.13	0.67
32:S1:887:U:N1	41:LM:85:ARG:NH2	100.39	0.67
31:S2:11:U:OP1	33:L1:2247:A:H4'	1.95	0.67
4:SD:101:LEU:HD23	4:SD:102:LEU:N	2.10	0.67
5:SE:258:LYS:HE3	27:SH:69:LEU:HG	1.75	0.67
27:SH:96:SER:OG	27:SH:99:PHE:N	2.27	0.67
33:L1:1476:G:H5''	46:LT:23:TRP:CD1	2.29	0.67
33:L1:3068:U:H3	33:L1:3075:G:H1	1.43	0.67
34:L3:21:U:C4	34:L3:56:G:O6	2.47	0.67
36:LA:51:SER:OG	36:LA:190:VAL:HG11	1.95	0.67
33:L1:1263:A:N6	67:LS:33:ALA:H	67.32	0.67
32:S1:860:A:H5'	46:LT:177:ARG:CB	2.24	0.67
32:S1:354:G:H1	33:L1:847:G:C5'	2.07	0.67
10:SL:82:ALA:H	10:SL:85:PRO:HD3	1.58	0.67
19:SY:47:ARG:O	19:SY:48:GLU:N	2.27	0.67
33:L1:1992:U:H3	33:L1:2019:G:H1	1.42	0.67
31:S2:11:U:OP1	33:L1:2247:A:C4'	2.42	0.67
34:L3:25:G:H22	34:L3:117:U:H1'	1.59	0.67
34:L3:37:G:H21	34:L3:43:A:N6	1.92	0.67
34:L3:56:G:H2'	34:L3:57:C:H5'	1.76	0.67
50:LZ:4:LYS:N	80:LC:304:ARG:HH22	1.90	0.67
81:LD:333:LEU:HB3	81:LD:337:PHE:CE2	2.24	0.67
38:LE:75:GLY:H	67:LS:12:VAL:HG12	89.93	0.67
2:SA:114:ASN:OD1	32:S1:1298:G:O4'	2.13	0.67
6:SF:80:GLY:N	32:S1:1479:U:O2'	2.28	0.67
2:SA:78:ILE:HG23	2:SA:125:LEU:CD1	2.24	0.67
10:SL:74:VAL:HB	10:SL:104:PHE:CZ	2.29	0.67
33:L1:1261:C:C5'	74:LJ:124:LYS:H	2.08	0.67
33:L1:2237:A:O4'	33:L1:2237:A:N9	2.28	0.67
33:L1:2287:U:H3	33:L1:2295:G:H1	1.41	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:ST:2:GLN:NE2	33:L1:2544:C:C2'	2.57	0.67
35:L2:41:A:N9	35:L2:41:A:O4'	2.27	0.67
34:L3:115:A:O3'	45:LQ:75:VAL:CG2	2.43	0.67
34:L3:35:C:C1'	45:LQ:200:TYR:HE2	2.08	0.67
81:LD:381:TRP:HA	81:LD:384:THR:CG2	2.24	0.67
33:L1:2621:G:P	84:LI:115:MET:SD	2.93	0.67
15:SS:5:THR:HG1	32:S1:1363:G:H4'	1.58	0.67
5:SE:153:TRP:NE1	5:SE:243:LYS:NZ	2.41	0.67
14:SP:89:ARG:NE	46:LT:151:ARG:CZ	2.57	0.67
32:S1:1676:G:N9	33:L1:1932:A:O3'	2.26	0.67
32:S1:632:G:C1'	33:L1:849:A:H1'	2.14	0.67
34:L3:21:U:C5	34:L3:22:A:N1	2.63	0.67
36:LA:87:GLU:HB3	36:LA:91:LYS:HB2	1.76	0.67
32:S1:929:A:C4'	37:LB:137:ILE:CD1	2.72	0.67
64:LG:185:ASP:O	64:LG:185:ASP:HB3	1.92	0.67
34:L3:35:C:C1'	45:LQ:200:TYR:CE2	2.78	0.67
13:SQ:104:GLU:CG	20:SZ:31:ARG:CZ	2.62	0.67
33:L1:1081:U:H3'	33:L1:1081:U:C6	2.29	0.66
33:L1:1901:G:H2'	33:L1:1902:G:H5''	1.75	0.66
33:L1:2984:A:N9	33:L1:2984:A:O4'	2.27	0.66
64:LG:171:LYS:C	66:LN:109:LYS:HD2	2.15	0.66
34:L3:7:G:H4'	45:LQ:37:ARG:NE	2.09	0.66
5:SE:197:LEU:CD1	32:S1:1302:C:O2	2.43	0.66
2:SA:118:THR:HG22	2:SA:119:SER:H	1.60	0.66
5:SE:15:PHE:HZ	5:SE:221:LYS:CE	2.06	0.66
23:SU:10:VAL:HG21	23:SU:40:VAL:HA	1.77	0.66
34:L3:3:A:C4	34:L3:4:U:C5	2.84	0.66
36:LA:123:LEU:HD23	36:LA:123:LEU:O	1.96	0.66
36:LA:92:MET:CE	36:LA:117:LYS:HB2	2.24	0.66
81:LD:306:VAL:CB	81:LD:309:PRO:HD3	2.24	0.66
32:S1:823:A:N7	46:LT:172:ARG:CG	2.55	0.66
5:SE:15:PHE:CZ	5:SE:221:LYS:CE	2.78	0.66
8:SJ:7:ALA:O	32:S1:1377:G:O2'	2.06	0.66
33:L1:1292:U:H2'	33:L1:1293:C:C6	2.30	0.66
81:LD:309:PRO:HB3	81:LD:313:GLU:OE1	1.94	0.66
33:L1:1365:C:P	81:LD:337:PHE:CD1	2.88	0.66
66:LN:64:ARG:NH2	67:LS:151:PHE:HB2	2.10	0.66
31:S2:70:G:P	33:L1:2965:C:H6	2.18	0.66
5:SE:197:LEU:HD11	32:S1:1302:C:C2	2.29	0.66
27:SH:40:VAL:HB	27:SH:42:GLN:NE2	2.09	0.66
28:SN:47:ALA:C	28:SN:49:ASP:H	1.99	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:SV:34:LYS:HZ2	17:SV:76:LEU:HD22	1.60	0.66
33:L1:2166:U:H5'	37:LB:193:ARG:HD2	1.78	0.66
31:S2:2:C:H4'	33:L1:2625:C:H1'	1.78	0.66
32:S1:1685:U:C2'	33:L1:3334:A:C5'	2.66	0.66
34:L3:3:A:H1'	34:L3:21:U:H1'	1.76	0.66
84:LI:112:GLN:O	84:LI:113:THR:CG2	2.42	0.66
66:LN:64:ARG:HH22	67:LS:151:PHE:HB2	1.59	0.66
4:SD:124:CYS:HB2	4:SD:160:ILE:HG22	1.78	0.66
10:SL:41:ALA:HB2	10:SL:62:ASN:CA	2.24	0.66
24:SX:74:ARG:C	24:SX:75:LEU:HD23	2.16	0.66
33:L1:2149:G:H1	33:L1:2174:C:H42	1.44	0.66
34:L3:114:C:O2'	45:LQ:75:VAL:N	2.29	0.66
34:L3:27:A:OP2	45:LQ:56:VAL:HA	1.94	0.66
48:LV:9:ASN:ND2	48:LV:10:ASN:H	1.93	0.66
8:SJ:66:PRO:HG2	32:S1:1387:U:O2'	1.93	0.66
32:S1:1587:G:H2'	32:S1:1588:C:C6	2.31	0.66
32:S1:1205:G:N7	32:S1:1607:C:N4	2.43	0.66
32:S1:861:A:H2'	46:LT:170:ARG:CD	2.24	0.66
26:SG:8:UNK:CB	46:LT:189:CYS:HG	2.07	0.66
15:SS:5:THR:CA	15:SS:139:GLY:HA2	2.26	0.66
33:L1:2700:A:C5	33:L1:2701:G:C5	2.83	0.66
33:L1:3094:C:N1	33:L1:3094:C:O4'	2.29	0.66
45:LQ:202:GLY:C	45:LQ:202:GLY:N	2.48	0.66
5:SE:142:LYS:CE	32:S1:1304:A:H5''	2.14	0.66
31:S2:8:U:C5	31:S2:13:U:O4	2.48	0.66
3:SB:113:LEU:O	3:SB:114:ALA:C	2.31	0.66
4:SD:180:VAL:HG22	4:SD:194:VAL:HG12	1.76	0.66
27:SH:94:LEU:HD21	27:SH:128:PHE:CE1	2.31	0.66
14:SP:57:LYS:H	46:LT:142:ILE:C	1.99	0.66
14:SP:71:ILE:CD1	27:SH:84:LYS:CE	2.69	0.66
33:L1:1533:U:H3	33:L1:1589:G:H22	1.44	0.66
48:LV:35:ALA:HB2	48:LV:59:PRO:CD	2.25	0.66
51:LY:59:ARG:HD3	51:LY:102:LYS:HA	1.77	0.66
2:SA:113:THR:HG21	32:S1:1298:G:O2'	1.89	0.66
11:SM:99:VAL:HG11	32:S1:1574:U:H4'	1.76	0.66
32:S1:161:G:H2'	32:S1:162:A:H5'	1.78	0.66
2:SA:55:LEU:N	2:SA:55:LEU:HD12	2.10	0.66
4:SD:219:ALA:O	32:S1:653:U:C4'	2.44	0.66
6:SF:74:MET:O	32:S1:1479:U:C4	2.48	0.66
17:SV:63:PRO:CG	17:SV:66:LEU:CG	2.64	0.66
33:L1:1896:A:N6	33:L1:1904:A:H61	1.93	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:990:G:H5'	33:L1:2172:C:N4	2.09	0.66
33:L1:2398:A:C6	33:L1:2399:G:C4	2.83	0.66
32:S1:632:G:HO2'	33:L1:849:A:C4'	2.09	0.66
32:S1:991:G:O5'	37:LB:133:TYR:CE1	2.49	0.66
81:LD:330:VAL:CG1	81:LD:331:LEU:N	2.59	0.66
38:LE:31:ARG:CG	38:LE:34:ARG:H	2.08	0.66
33:L1:1804:G:H5''	84:LI:10:ARG:HH12	146.91	0.66
2:SA:109:PRO:HG2	32:S1:1325:A:O4'	1.95	0.66
32:S1:1678:G:H2'	32:S1:1678:G:N3	2.10	0.66
3:SB:24:MET:HE3	13:SQ:30:THR:HG22	1.77	0.66
9:SK:116:ARG:NH1	18:SW:7:UNK:CB	2.59	0.66
12:SO:150:VAL:CB	33:L1:1714:A:C1'	2.64	0.66
14:SP:91:TYR:CA	33:L1:2081:C:H5''	2.25	0.66
33:L1:1722:G:H21	33:L1:1785:G:H5''	1.60	0.66
33:L1:2398:A:C2'	33:L1:2399:G:C5'	2.74	0.66
33:L1:528:C:C5'	66:LN:68:LYS:HD2	2.26	0.66
34:L3:54:A:H5''	38:LE:6:LYS:NZ	2.11	0.66
31:S2:72:G:H2'	33:L1:2972:C:O3'	1.96	0.66
11:SM:18:THR:H	38:LE:109:GLN:NE2	1.93	0.66
23:SU:34:HIS:O	23:SU:35:PRO:O	2.14	0.66
33:L1:3047:A:H5''	80:LC:224:THR:HG21	1.77	0.66
35:L2:41:A:H5'	35:L2:41:A:C8	2.31	0.66
34:L3:34:C:N3	34:L3:46:C:C2	2.64	0.66
37:LB:96:LEU:CD1	37:LB:108:PRO:HG2	2.26	0.66
33:L1:3296:C:N3	80:LC:25:HIS:HE1	1.94	0.66
33:L1:1364:C:C2'	81:LD:337:PHE:CZ	2.79	0.66
11:SM:12:ILE:O	38:LE:117:LYS:O	2.14	0.66
34:L3:120:C:O2	45:LQ:249:ALA:HB2	1.96	0.66
32:S1:1659:A:N1	32:S1:1759:A:C6	2.64	0.66
32:S1:180:A:H61	32:S1:200:C:N4	1.94	0.66
4:SD:200:LYS:HZ2	32:S1:740:U:C5'	2.06	0.66
5:SE:30:ARG:NH1	27:SH:66:ASN:N	2.44	0.66
8:SJ:75:ARG:CB	8:SJ:88:ARG:O	2.44	0.66
9:SK:105:LYS:HE2	9:SK:131:VAL:CG2	2.26	0.66
6:SF:56:ARG:HE	19:SY:52:LEU:HD21	1.61	0.66
33:L1:1394:C:H4'	33:L1:1395:A:O5'	1.96	0.65
33:L1:881:G:C2	33:L1:2982:U:C5'	2.79	0.65
33:L1:629:U:H2'	33:L1:630:C:C6	2.31	0.65
33:L1:962:C:H5'	33:L1:963:U:C4	2.31	0.65
33:L1:1207:A:H5'	34:L3:88:U:N3	2.09	0.65
64:LG:184:ILE:O	64:LG:185:ASP:CB	2.44	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:118:THR:HG22	2:SA:119:SER:N	2.11	0.65
2:SA:143:LEU:HD23	2:SA:143:LEU:O	1.95	0.65
2:SA:239:ALA:HB2	2:SA:243:TRP:HB2	1.78	0.65
27:SH:42:GLN:HG3	27:SH:129:PHE:CZ	2.31	0.65
33:L1:1450:G:N9	33:L1:1450:G:O4'	2.27	0.65
33:L1:1650:G:H2'	33:L1:1651:A:H8	1.59	0.65
32:S1:1747:A:C2'	33:L1:1916:U:C1'	2.73	0.65
11:SM:14:ARG:CD	38:LE:109:GLN:HG2	2.15	0.65
64:LG:91:LYS:HA	64:LG:159:GLU:OE2	1.95	0.65
45:LQ:31:LYS:HD3	45:LQ:55:PHE:CE2	2.31	0.65
48:LV:113:LEU:HD22	48:LV:157:PRO:CD	2.24	0.65
32:S1:228:G:H1	32:S1:236:U:H3	1.42	0.65
25:SC:10:LYS:HD3	32:S1:505:U:C4'	2.26	0.65
2:SA:78:ILE:HG23	2:SA:125:LEU:HD12	1.78	0.65
27:SH:61:ILE:HG13	27:SH:61:ILE:O	1.96	0.65
15:SS:85:ARG:HA	15:SS:85:ARG:HE	1.61	0.65
33:L1:1981:U:H3	33:L1:2029:G:H1	1.45	0.65
34:L3:3:A:C2	34:L3:4:U:C6	2.84	0.65
66:LN:110:VAL:CG2	82:LK:201:LEU:CD2	2.75	0.65
33:L1:1217:G:O3'	67:LS:93:TYR:O	2.14	0.65
25:SC:10:LYS:HZ3	32:S1:505:U:P	2.02	0.65
11:SM:55:ARG:HH21	17:SV:38:ASN:HD21	1.44	0.65
17:SV:73:ASN:H	17:SV:78:ARG:HH21	1.44	0.65
24:SX:40:GLN:H	24:SX:40:GLN:NE2	1.94	0.65
32:S1:918:G:H21	33:L1:2202:A:H3'	1.62	0.65
33:L1:3236:A:OP2	33:L1:3236:A:C8	2.49	0.65
32:S1:977:G:H3'	33:L1:850:A:N6	2.12	0.65
33:L1:99:A:C5'	42:LP:182:HIS:CD2	2.71	0.65
33:L1:1236:C:O2	74:LJ:122:MET:SD	2.54	0.65
66:LN:110:VAL:HG11	82:LK:201:LEU:CG	2.23	0.65
66:LN:6:PHE:CZ	67:LS:161:PRO:HB2	2.31	0.65
34:L3:48:G:C5	45:LQ:58:ASN:O	2.49	0.65
33:L1:3301:G:C5'	48:LV:70:THR:C	2.64	0.65
51:LY:99:HIS:CD2	51:LY:101:SER:H	2.13	0.65
51:LY:55:VAL:HG22	51:LY:103:VAL:CG2	2.27	0.65
17:SV:63:PRO:O	17:SV:63:PRO:HD2	1.97	0.65
31:S2:10:G:N1	33:L1:2260:C:O2'	2.26	0.65
31:S2:74:C:C2	33:L1:2404:C:C5'	2.65	0.65
33:L1:2157:C:C1'	37:LB:11:GLY:H	2.07	0.65
82:LK:18:HIS:O	82:LK:129:LEU:HB2	1.96	0.65
32:S1:1673:C:O2'	33:L1:1914:C:C1'	2.43	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1676:G:H5'	33:L1:1933:U:H3'	1.77	0.65
32:S1:824:U:O4	46:LT:172:ARG:CD	2.38	0.65
17:SV:64:SER:CB	17:SV:82:LYS:HZ3	2.08	0.65
36:LA:112:SER:HA	36:LA:115:ILE:CG2	2.27	0.65
33:L1:2148:U:C4'	37:LB:240:ALA:HB1	2.23	0.65
12:SO:97:ALA:HB2	39:LF:19:GLN:CG	180.82	0.65
33:L1:506:U:H4'	64:LG:66:PRO:HG3	1.78	0.65
33:L1:1179:C:H5''	82:LK:33:LEU:CD1	2.26	0.65
32:S1:353:G:O6	33:L1:846:A:H4'	1.97	0.65
2:SA:127:ILE:HA	2:SA:149:ILE:O	1.97	0.65
14:SP:44:LYS:CE	14:SP:117:ARG:HD3	2.26	0.65
17:SV:48:TYR:CE1	17:SV:81:ILE:O	2.50	0.65
31:S2:12:U:O2'	33:L1:2262:C:C2	2.50	0.65
33:L1:2398:A:H2'	33:L1:2399:G:C5'	2.25	0.65
33:L1:383:A:C6	33:L1:384:A:C2	2.84	0.65
33:L1:691:U:H2'	33:L1:692:U:C5	2.32	0.65
65:LL:54:UNK:O	65:LL:55:UNK:CB	2.45	0.65
66:LN:4:LYS:HE3	67:LS:164:LYS:HB2	1.77	0.65
14:SP:124:VAL:CA	46:LT:165:LYS:CD	2.73	0.65
2:SA:136:GLN:OE1	32:S1:1325:A:N7	2.30	0.65
32:S1:860:A:C5'	46:LT:177:ARG:CG	2.73	0.65
5:SE:130:VAL:HG23	32:S1:11:A:H5'	1.78	0.65
27:SH:15:TYR:CZ	27:SH:63:VAL:HG23	2.31	0.65
23:SU:20:ASN:CG	23:SU:23:LEU:HD11	2.17	0.65
33:L1:1336:A:H2'	33:L1:1337:C:C6	2.32	0.65
33:L1:1365:C:OP1	81:LD:337:PHE:HD1	1.78	0.65
32:S1:1662:G:H5''	33:L1:1919:C:P	2.17	0.65
33:L1:3098:U:OP1	80:LC:329:LYS:HE2	1.96	0.65
11:SM:12:ILE:CG2	38:LE:120:PRO:O	2.34	0.65
32:S1:1205:G:C4	32:S1:1607:C:N3	2.64	0.65
25:SC:162:LEU:HB3	25:SC:163:THR:CA	2.27	0.65
4:SD:153:ILE:CB	4:SD:153:ILE:O	2.43	0.65
5:SE:142:LYS:HE3	32:S1:1304:A:P	2.37	0.65
33:L1:3299:A:C2'	33:L1:3299:A:N9	2.55	0.65
33:L1:513:C:H2'	33:L1:514:G:C8	2.32	0.65
11:SM:14:ARG:HB3	38:LE:109:GLN:OE1	1.97	0.65
38:LE:88:VAL:O	38:LE:89:LYS:C	2.35	0.65
39:LF:111:ILE:O	39:LF:163:LYS:NZ	2.30	0.65
33:L1:507:C:O2'	64:LG:62:SER:HB2	1.97	0.65
67:LS:22:GLU:HG3	67:LS:23:HIS:H	1.62	0.65
32:S1:860:A:C5	32:S1:861:A:C4	2.85	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:SP:47:ARG:HD2	14:SP:64:THR:OG1	1.96	0.65
13:SQ:21:TYR:O	13:SQ:22:SER:CB	2.44	0.65
13:SQ:52:GLY:O	13:SQ:55:THR:OG1	2.13	0.65
33:L1:1179:C:O2'	82:LK:94:PRO:CB	2.45	0.65
33:L1:1237:G:O4'	74:LJ:122:MET:SD	2.55	0.65
33:L1:1394:C:H4'	33:L1:1395:A:H5'	1.79	0.65
33:L1:2509:A:H2'	33:L1:2510:U:C5	2.32	0.65
33:L1:381:G:H1'	33:L1:384:A:N6	2.12	0.65
34:L3:116:U:O2'	45:LQ:80:TYR:CD1	2.46	0.65
34:L3:32:A:H2	34:L3:34:C:H41	1.42	0.65
34:L3:73:U:C2'	34:L3:73:U:N1	2.57	0.65
26:SG:81:UNK:O	26:SG:82:UNK:C	2.37	0.65
9:SK:109:PRO:CG	9:SK:112:GLN:HB2	2.27	0.65
33:L1:2783:U:N1	33:L1:2783:U:C2'	2.60	0.64
84:LI:110:ARG:HG2	84:LI:116:ARG:NE	2.03	0.64
65:LL:151:UNK:CB	65:LL:151:UNK:C	2.74	0.64
66:LN:64:ARG:CZ	67:LS:151:PHE:HB2	2.26	0.64
9:SK:116:ARG:CZ	18:SW:7:UNK:CB	2.74	0.64
12:SO:58:HIS:CG	12:SO:59:GLY:H	2.15	0.64
36:LA:83:TYR:HE2	36:LA:86:VAL:N	1.94	0.64
6:SF:79:ASN:HB3	32:S1:1479:U:O2'	1.97	0.64
31:S2:70:G:C5'	33:L1:2966:G:C5'	2.74	0.64
4:SD:181:VAL:O	4:SD:192:VAL:HG13	1.97	0.64
5:SE:194:LYS:HZ3	5:SE:248:PRO:HG2	1.61	0.64
5:SE:194:LYS:NZ	5:SE:248:PRO:HG2	2.12	0.64
11:SM:36:VAL:HB	11:SM:40:PHE:CD2	2.32	0.64
28:SN:51:GLY:C	28:SN:52:PHE:CA	2.66	0.64
33:L1:1532:A:H3'	33:L1:1533:U:C5	2.32	0.64
31:S2:14:A:OP1	33:L1:2263:U:H3'	1.97	0.64
31:S2:2:C:C4'	33:L1:2625:C:H1'	2.25	0.64
33:L1:69:U:N1	33:L1:69:U:O4'	2.31	0.64
37:LB:145:THR:HG21	37:LB:157:ILE:HG23	1.79	0.64
44:LR:41:LYS:H	81:LD:325:LYS:HZ3	1.44	0.64
66:LN:64:ARG:HD3	67:LS:154:VAL:CG1	2.28	0.64
4:SD:122:LYS:HE2	4:SD:142:TYR:OH	1.96	0.64
5:SE:31:ARG:CZ	27:SH:67:GLY:CA	2.59	0.64
11:SM:16:LEU:HD13	11:SM:100:SER:HB3	1.79	0.64
33:L1:1532:A:H3'	33:L1:1533:U:C6	2.32	0.64
33:L1:2900:G:O4'	33:L1:2900:G:N9	2.29	0.64
31:S2:70:G:C5'	33:L1:2966:G:H5'	2.27	0.64
35:L2:93:A:C6	35:L2:95:C:H5	2.16	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
84:LI:113:THR:OG1	84:LI:115:MET:HG2	1.97	0.64
34:L3:48:G:N7	45:LQ:58:ASN:O	2.30	0.64
44:LR:132:THR:OG1	81:LD:325:LYS:NZ	2.28	0.64
31:S2:70:G:H4'	33:L1:2966:G:O4'	1.97	0.64
4:SD:136:ILE:HG22	4:SD:149:TYR:HB2	1.78	0.64
6:SF:154:ALA:C	6:SF:165:ILE:HD12	2.18	0.64
9:SK:81:ALA:HB1	9:SK:115:LEU:HG	1.80	0.64
13:SQ:81:ARG:O	13:SQ:82:MET:O	2.15	0.64
24:SX:72:LYS:CA	24:SX:72:LYS:CE	2.71	0.64
33:L1:563:C:P	64:LG:2:ALA:CB	2.81	0.64
36:LA:112:SER:CA	36:LA:115:ILE:HG12	2.28	0.64
37:LB:112:VAL:CG1	37:LB:133:TYR:HB2	2.27	0.64
81:LD:381:TRP:HA	81:LD:384:THR:HG23	1.80	0.64
32:S1:1745:U:OP2	33:L1:1931:G:OP1	2.16	0.64
15:SS:2:ALA:N	32:S1:1364:C:H5'	2.12	0.64
33:L1:1989:G:H1	33:L1:2022:U:H3	1.45	0.64
33:L1:2160:C:OP2	42:LP:76:PRO:HG2	1.96	0.64
33:L1:180:G:OP1	35:L2:98:C:C4	2.48	0.64
36:LA:109:PHE:HA	36:LA:136:LEU:HD21	1.80	0.64
33:L1:1526:A:C5'	49:LX:123:LEU:HD21	2.28	0.64
32:S1:1758:G:P	33:L1:2298:A:H5'	2.35	0.64
32:S1:354:G:N2	33:L1:847:G:H5"	2.12	0.64
2:SA:76:GLN:O	2:SA:76:GLN:HG3	1.96	0.64
15:SS:9:VAL:HG13	15:SS:134:LEU:O	1.98	0.64
33:L1:1646:U:H2'	33:L1:1647:C:C6	2.33	0.64
32:S1:1663:A:C5'	33:L1:1919:C:H5'	2.17	0.64
33:L1:2509:A:H2'	33:L1:2510:U:C6	2.33	0.64
34:L3:35:C:H2'	34:L3:36:C:H5'	1.80	0.64
37:LB:211:HIS:CD2	37:LB:219:ILE:HD12	2.33	0.64
33:L1:549:G:OP1	81:LD:396:ASN:ND2	2.31	0.64
84:LI:110:ARG:N	84:LI:116:ARG:HH21	1.91	0.64
45:LQ:256:SER:HA	45:LQ:256:SER:C	2.09	0.64
67:LS:6:PHE:CD2	67:LS:105:VAL:HG11	2.33	0.64
48:LV:1:MET:HB3	48:LV:16:LYS:CG	2.27	0.64
48:LV:1:MET:H1	48:LV:16:LYS:HG2	1.63	0.64
48:LV:40:PRO:HG2	48:LV:43:LYS:HB3	1.78	0.64
51:LY:38:LEU:HD11	51:LY:106:THR:O	1.98	0.64
4:SD:121:PHE:CB	4:SD:161:LYS:HE2	2.28	0.64
27:SH:65:LEU:CD2	27:SH:70:ASN:ND2	2.56	0.64
11:SM:35:GLY:O	11:SM:36:VAL:HG12	1.97	0.64
17:SV:51:LEU:O	17:SV:55:VAL:CG2	2.43	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2668:U:H2'	33:L1:2668:U:C6	2.32	0.64
33:L1:801:G:H2'	33:L1:802:G:C8	2.32	0.64
36:LA:116:ILE:O	36:LA:119:ILE:HG22	1.98	0.64
64:LG:68:PRO:O	64:LG:69:THR:CB	2.46	0.64
43:LO:64:LEU:HD22	65:LL:155:UNK:N	2.13	0.64
41:LM:69:LYS:N	41:LM:72:LEU:HB2	2.12	0.64
32:S1:860:A:O4'	46:LT:173:LYS:CD	2.31	0.64
32:S1:1542:G:OP1	32:S1:1547:G:C6	2.51	0.64
32:S1:977:G:C3'	33:L1:850:A:N6	2.61	0.64
2:SA:113:THR:CG2	32:S1:1299:G:H5'	2.28	0.64
4:SD:240:LYS:H	4:SD:240:LYS:CA	2.01	0.64
27:SH:43:LYS:HB3	27:SH:62:VAL:O	1.97	0.64
23:SU:29:VAL:HG22	23:SU:78:PHE:CZ	2.33	0.64
33:L1:3101:C:H42	33:L1:3135:A:H61	1.45	0.64
33:L1:731:G:H4'	44:LR:44:PHE:CZ	2.33	0.64
14:SP:94:PHE:C	46:LT:151:ARG:HG2	2.17	0.64
4:SD:124:CYS:SG	4:SD:162:ILE:HD12	2.38	0.64
14:SP:41:LEU:HB2	14:SP:103:LYS:CD	2.28	0.64
14:SP:64:THR:OG1	14:SP:85:ILE:HG22	1.97	0.64
29:ST:23:ILE:HG23	29:ST:36:ILE:HD12	1.80	0.64
24:SX:65:LEU:HD23	24:SX:66:CYS:H	1.63	0.64
33:L1:806:C:H5''	81:LD:106:PHE:HD2	1.63	0.64
36:LA:87:GLU:HG2	36:LA:91:LYS:CD	2.20	0.64
33:L1:2148:U:C5'	37:LB:242:ARG:O	2.46	0.64
44:LR:132:THR:CB	81:LD:325:LYS:NZ	2.61	0.64
14:SP:57:LYS:N	46:LT:142:ILE:C	2.51	0.64
32:S1:823:A:N7	46:LT:172:ARG:N	2.45	0.64
5:SE:152:TYR:CD1	5:SE:220:VAL:HG12	2.33	0.64
5:SE:258:LYS:HZ1	27:SH:69:LEU:HB2	0.97	0.64
6:SF:158:ALA:HB2	6:SF:165:ILE:HB	1.79	0.64
12:SO:128:TYR:CE1	32:S1:971:A:OP2	2.51	0.64
33:L1:1246:G:C2'	33:L1:1246:G:N9	2.58	0.63
33:L1:1817:U:C2	33:L1:1818:C:C6	2.85	0.63
33:L1:641:C:C4	33:L1:642:C:C5	2.86	0.63
36:LA:42:PRO:HD2	36:LA:199:ASN:O	1.97	0.63
36:LA:48:PHE:O	36:LA:192:LEU:HD13	1.98	0.63
36:LA:53:LYS:HG3	36:LA:54:LEU:N	2.13	0.63
36:LA:73:VAL:HG12	36:LA:74:ASP:N	2.13	0.63
81:LD:327:VAL:CG1	81:LD:328:ALA:H	2.11	0.63
68:LW:104:VAL:O	68:LW:105:ILE:C	2.34	0.63
32:S1:146:A:H3'	32:S1:147:C:C5	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:823:A:OP2	46:LT:169:SER:CA	2.45	0.63
2:SA:81:GLN:HE21	2:SA:128:LEU:HD12	1.62	0.63
4:SD:200:LYS:HZ1	32:S1:740:U:C5'	2.04	0.63
4:SD:191:ARG:HH12	4:SD:213:ALA:HA	1.61	0.63
5:SE:152:TYR:CG	5:SE:220:VAL:HG12	2.33	0.63
2:SA:72:ILE:HB	5:SE:66:TYR:HE1	1.22	0.63
27:SH:38:LEU:HD11	27:SH:45:GLY:CA	2.27	0.63
6:SF:45:LEU:HD13	7:SI:68:ASP:HA	1.79	0.63
23:SU:20:ASN:CB	23:SU:23:LEU:HD12	2.28	0.63
33:L1:2647:C:O2	84:LI:115:MET:HE1	1.97	0.63
31:S2:73:C:C2'	33:L1:2810:A:N3	2.60	0.63
33:L1:637:C:C5	33:L1:638:G:H1'	2.33	0.63
33:L1:728:G:H3'	33:L1:729:G:H8	1.64	0.63
34:L3:35:C:O4'	45:LQ:200:TYR:HE2	1.81	0.63
33:L1:2157:C:H4'	37:LB:8:GLN:HA	1.79	0.63
44:LR:132:THR:CA	81:LD:325:LYS:NZ	2.62	0.63
51:LY:72:VAL:HG22	51:LY:79:ILE:CG2	2.28	0.63
32:S1:1662:G:O2'	32:S1:1756:A:N6	2.30	0.63
3:SB:23:GLU:OE2	28:SN:22:ARG:NH1	2.31	0.63
25:SC:106:PHE:CE1	32:S1:670:C:C2	2.86	0.63
4:SD:159:THR:OG1	4:SD:173:ILE:HB	1.99	0.63
26:SG:9:UNK:O	26:SG:10:UNK:O	2.13	0.63
14:SP:94:PHE:O	46:LT:151:ARG:CG	2.45	0.63
32:S1:330:G:O3'	33:L1:2083:U:OP2	2.16	0.63
33:L1:3335:G:H3'	33:L1:3335:G:C8	2.31	0.63
33:L1:803:G:C2'	33:L1:803:G:C4	2.81	0.63
32:S1:320:A:H5'	33:L1:854:C:O3'	1.99	0.63
33:L1:974:G:H2'	33:L1:975:G:H8	1.62	0.63
36:LA:57:ILE:HG22	36:LA:150:THR:HG23	1.80	0.63
43:LO:63:ARG:NH1	65:LL:152:UNK:C	2.62	0.63
66:LN:30:VAL:HG21	67:LS:154:VAL:HG13	1.79	0.63
31:S2:13:U:P	33:L1:2244:G:C2	2.91	0.63
2:SA:79:ILE:O	2:SA:126:LEU:HG	1.98	0.63
2:SA:74:ASN:OD1	5:SE:66:TYR:CZ	2.50	0.63
26:SG:82:UNK:C	26:SG:83:UNK:O	2.44	0.63
33:L1:1034:U:C2'	33:L1:1035:C:C6	2.81	0.63
33:L1:1184:U:C4	82:LK:23:ARG:HD3	2.32	0.63
33:L1:1756:C:H42	33:L1:1764:G:H1	1.45	0.63
37:LB:97:SER:HB3	37:LB:100:ASN:ND2	2.14	0.63
32:S1:1034:G:N3	32:S1:1036:U:C5	2.66	0.63
4:SD:160:ILE:HD11	4:SD:169:ILE:CG2	2.28	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:SP:123:HIS:O	46:LT:162:LYS:O	2.16	0.63
17:SV:95:VAL:CA	17:SV:101:ILE:HD13	2.15	0.63
34:L3:48:G:O6	45:LQ:58:ASN:O	2.17	0.63
26:SG:8:UNK:C	46:LT:186:GLU:C	2.67	0.63
48:LV:35:ALA:HB3	48:LV:58:ILE:HD12	1.80	0.63
33:L1:1524:G:P	49:LX:79:THR:HG21	2.39	0.63
2:SA:199:TRP:CE3	2:SA:199:TRP:HA	2.34	0.63
3:SB:78:ASN:HB2	3:SB:79:PHE:HB3	1.80	0.63
4:SD:136:ILE:CG1	4:SD:136:ILE:O	2.42	0.63
5:SE:197:LEU:HD11	32:S1:1302:C:H1'	1.79	0.63
9:SK:105:LYS:HE3	9:SK:112:GLN:OE1	1.98	0.63
13:SQ:33:LYS:HD3	13:SQ:33:LYS:O	1.98	0.63
33:L1:1750:A:H5'	33:L1:1750:A:H8	1.63	0.63
33:L1:1692:U:H3	33:L1:1750:A:N6	1.97	0.63
33:L1:2165:A:H5''	37:LB:17:LYS:NZ	2.13	0.63
35:L2:98:C:O4'	35:L2:98:C:N1	2.31	0.63
34:L3:73:U:O5'	34:L3:73:U:H6	1.82	0.63
36:LA:112:SER:HA	36:LA:115:ILE:CG1	2.28	0.63
33:L1:2607:U:C4'	37:LB:226:ARG:NH2	2.62	0.63
81:LD:327:VAL:CG1	81:LD:328:ALA:N	2.61	0.63
24:SX:72:LYS:HE2	32:S1:1054:G:OP1	1.98	0.63
32:S1:1616:U:H2'	32:S1:1617:U:C6	2.33	0.63
32:S1:188:U:C2	32:S1:193:G:N1	2.66	0.63
31:S2:70:G:OP2	33:L1:2964:U:H2'	1.98	0.63
26:SG:128:UNK:HA	32:S1:642:C:C3'	2.00	0.63
27:SH:4:VAL:CG2	27:SH:5:SER:N	2.60	0.63
8:SJ:66:PRO:O	32:S1:1387:U:H4'	1.99	0.63
33:L1:1435:C:H4'	33:L1:1435:C:OP1	1.97	0.63
33:L1:329:G:N7	33:L1:330:C:C5	2.67	0.63
35:L2:98:C:H5''	35:L2:98:C:C6	2.32	0.63
11:SM:14:ARG:HH12	38:LE:109:GLN:CB	1.96	0.63
32:S1:110:G:H1	32:S1:309:C:H42	1.47	0.63
2:SA:127:ILE:HD11	2:SA:151:PHE:CZ	2.34	0.63
10:SL:84:VAL:CG2	10:SL:85:PRO:HA	2.20	0.63
33:L1:1265:G:C2'	33:L1:1265:G:N3	2.62	0.63
33:L1:1383:G:H2'	33:L1:1384:G:C8	2.34	0.63
33:L1:1916:U:O2	33:L1:1928:A:H5'	1.98	0.63
33:L1:2381:G:OP1	82:LK:87:ARG:NH2	2.32	0.63
33:L1:2702:G:N2	47:LU:49:HIS:CE1	2.67	0.63
33:L1:99:A:H4'	42:LP:182:HIS:CG	2.34	0.63
32:S1:1747:A:C8	33:L1:1930:G:C4	2.85	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:187:C:C5	32:S1:188:U:C5	2.85	0.63
32:S1:483:C:H2'	32:S1:484:A:H5'	1.81	0.63
26:SG:127:UNK:C	32:S1:642:C:C4'	2.58	0.63
23:SU:71:GLY:O	23:SU:72:GLY:CA	2.46	0.63
33:L1:1450:G:H1'	33:L1:2354:G:O6	1.98	0.63
33:L1:1507:A:C2	33:L1:1518:A:O2'	2.45	0.63
33:L1:1761:C:C2'	33:L1:1762:G:H5'	2.29	0.63
33:L1:1722:G:H21	33:L1:1785:G:C5'	2.11	0.63
33:L1:1826:G:C4	33:L1:1826:G:C2'	2.82	0.63
33:L1:3236:A:H3'	33:L1:3237:G:H8	1.64	0.63
33:L1:3301:G:C4'	48:LV:70:THR:C	2.66	0.63
36:LA:19:GLU:OE2	36:LA:35:ILE:HD12	1.99	0.63
34:L3:43:A:C1'	38:LE:142:ARG:HH21	2.11	0.63
32:S1:187:C:N3	32:S1:188:U:C5	2.67	0.63
12:SO:114:ARG:NH1	32:S1:945:A:N7	2.46	0.63
31:S2:24:A:C2'	33:L1:2261:U:O5'	2.46	0.63
2:SA:64:LEU:CB	5:SE:44:TRP:HE1	2.09	0.63
7:SI:88:ARG:HH11	7:SI:96:VAL:HA	1.64	0.63
13:SQ:104:GLU:HG2	20:SZ:31:ARG:HH12	1.56	0.63
24:SX:69:THR:HG23	24:SX:71:GLY:N	2.13	0.63
33:L1:1478:A:H5''	64:LG:65:LYS:NZ	135.50	0.62
33:L1:2398:A:N6	33:L1:2399:G:C6	2.67	0.62
33:L1:771:G:H2'	33:L1:772:U:C6	2.33	0.62
38:LE:86:LEU:HD23	38:LE:89:LYS:NZ	2.14	0.62
33:L1:563:C:OP1	64:LG:2:ALA:HB3	1.98	0.62
66:LN:4:LYS:HG2	67:LS:161:PRO:HB3	1.79	0.62
48:LV:1:MET:HB2	48:LV:16:LYS:NZ	2.13	0.62
25:SC:6:ARG:HH21	25:SC:85:TYR:HB3	1.63	0.62
4:SD:87:MET:HB2	4:SD:142:TYR:OH	1.99	0.62
14:SP:98:TYR:CE2	14:SP:119:LYS:HB2	2.33	0.62
33:L1:1928:A:H2'	33:L1:1929:A:H5'	1.79	0.62
32:S1:1747:A:C4'	33:L1:1930:G:C5	2.82	0.62
64:LG:49:LYS:C	64:LG:50:PHE:HA	2.19	0.62
33:L1:288:G:O5'	42:LP:98:LYS:HE3	1.99	0.62
34:L3:86:G:C4'	67:LS:119:ARG:HD2	2.28	0.62
48:LV:35:ALA:HB3	48:LV:58:ILE:HD11	1.79	0.62
31:S2:8:U:C5	31:S2:13:U:C4	2.87	0.62
25:SC:171:PRO:N	25:SC:171:PRO:CD	2.62	0.62
4:SD:199:GLU:HB3	4:SD:201:HIS:CE1	2.34	0.62
23:SU:12:LEU:HD12	23:SU:12:LEU:H	1.64	0.62
24:SX:57:VAL:HG13	24:SX:62:GLN:HA	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1817:U:C2'	33:L1:1818:C:H5'	2.28	0.62
33:L1:920:A:H62	37:LB:3:ARG:NH1	1.97	0.62
34:L3:5:G:P	45:LQ:26:ARG:HH12	2.22	0.62
34:L3:85:G:C5'	67:LS:120:PHE:HE1	2.12	0.62
67:LS:79:ILE:HG22	67:LS:94:LYS:HB2	1.80	0.62
4:SD:181:VAL:HG13	4:SD:226:PHE:C	2.19	0.62
26:SG:82:UNK:O	26:SG:83:UNK:O	2.17	0.62
14:SP:122:ASP:H	46:LT:162:LYS:HE2	1.54	0.62
17:SV:56:PRO:HD2	17:SV:57:LYS:N	2.09	0.62
32:S1:1747:A:C5	33:L1:1930:G:N2	2.68	0.62
33:L1:280:G:O6	42:LP:183:LYS:HD3	1.99	0.62
36:LA:67:LEU:HD22	36:LA:144:GLU:OE1	2.00	0.62
33:L1:1368:U:H5''	44:LR:5:LEU:HD13	1.81	0.62
14:SP:95:VAL:HG12	46:LT:155:LEU:HG	1.80	0.62
48:LV:106:LYS:HD3	48:LV:106:LYS:O	2.00	0.62
32:S1:1179:C:N4	32:S1:1471:C:H42	1.97	0.62
32:S1:1506:G:H3'	32:S1:1507:G:C8	2.35	0.62
32:S1:978:A:H4'	33:L1:851:A:P	2.40	0.62
31:S2:74:C:H6	33:L1:2810:A:H2	1.48	0.62
5:SE:24:ARG:O	27:SH:69:LEU:CG	2.46	0.62
15:SS:5:THR:HG22	15:SS:139:GLY:CA	2.29	0.62
33:L1:2053:A:C5'	33:L1:2054:A:H5'	2.26	0.62
33:L1:2707:A:C8	33:L1:2709:G:C5	2.88	0.62
37:LB:145:THR:CG2	37:LB:157:ILE:HG23	2.29	0.62
32:S1:1308:G:N9	32:S1:1308:G:C2'	2.57	0.62
32:S1:992:G:H5''	37:LB:149:LYS:HZ1	1.14	0.62
31:S2:75:A:H8	33:L1:2956:U:O5'	1.80	0.62
24:SX:51:HIS:CD2	24:SX:72:LYS:HE2	2.34	0.62
31:S2:23:A:N1	33:L1:2261:U:H4'	2.14	0.62
33:L1:2450:G:N9	33:L1:2450:G:C2'	2.60	0.62
33:L1:711:A:N6	33:L1:720:G:H1'	2.14	0.62
36:LA:71:GLN:HB3	36:LA:75:GLN:HB2	1.81	0.62
33:L1:915:G:H1	37:LB:208:GLU:CD	2.03	0.62
15:SS:2:ALA:CA	32:S1:1363:G:O2'	2.47	0.62
6:SF:154:ALA:O	6:SF:165:ILE:HD12	1.99	0.62
27:SH:1:MET:C	32:S1:638:G:H4'	2.19	0.62
12:SO:99:ARG:HH11	12:SO:123:HIS:CD2	2.18	0.62
23:SU:22:LEU:N	23:SU:23:LEU:HG	2.14	0.62
33:L1:1174:G:H5'	34:L3:84:U:H3	1.63	0.62
33:L1:1219:C:H42	33:L1:1294:A:H61	1.46	0.62
14:SP:60:PRO:HB3	33:L1:2083:U:OP1	1.93	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:3227:U:N1	33:L1:3227:U:C2'	2.60	0.62
36:LA:71:GLN:HG3	36:LA:79:MET:CE	2.30	0.62
44:LR:128:LEU:HD13	81:LD:313:GLU:CD	2.20	0.62
4:SD:136:ILE:HG22	4:SD:149:TYR:CB	2.29	0.62
4:SD:153:ILE:CG1	4:SD:153:ILE:O	2.46	0.62
5:SE:258:LYS:HE2	27:SH:69:LEU:H	1.44	0.62
27:SH:52:PHE:CD2	27:SH:52:PHE:O	2.53	0.62
8:SJ:92:ARG:CG	28:SN:52:PHE:CA	2.77	0.62
14:SP:47:ARG:HB3	14:SP:65:VAL:O	1.99	0.62
6:SF:99:LEU:CD1	17:SV:66:LEU:HD11	2.22	0.62
33:L1:1395:A:H2'	33:L1:1395:A:C8	2.35	0.62
33:L1:1722:G:N2	33:L1:1785:G:H5'	2.14	0.62
33:L1:2701:G:N2	33:L1:2760:U:C2	2.68	0.62
33:L1:2759:C:H4'	47:LU:49:HIS:HB3	1.82	0.62
36:LA:59:ARG:HH11	36:LA:175:GLU:CG	2.12	0.62
36:LA:23:LYS:HZ1	36:LA:205:VAL:HG12	1.64	0.62
37:LB:209:HIS:CD2	37:LB:210:PRO:HD2	2.35	0.62
81:LD:378:GLY:C	81:LD:382:TYR:HD2	1.98	0.62
38:LE:34:ARG:CB	38:LE:34:ARG:C	2.66	0.62
39:LF:33:LYS:O	39:LF:148:ASN:ND2	2.33	0.62
32:S1:861:A:C2'	46:LT:170:ARG:HD3	2.12	0.62
32:S1:1547:G:C8	32:S1:1547:G:H3'	2.34	0.62
2:SA:127:ILE:HA	2:SA:149:ILE:HG13	1.80	0.62
2:SA:79:ILE:HG23	2:SA:126:LEU:HG	1.80	0.62
5:SE:30:ARG:HD3	27:SH:67:GLY:N	2.06	0.62
14:SP:94:PHE:O	46:LT:151:ARG:HG2	1.99	0.62
24:SX:74:ARG:CD	24:SX:75:LEU:N	2.62	0.62
33:L1:2607:U:H4'	37:LB:226:ARG:HH22	1.64	0.62
33:L1:2827:C:H42	33:L1:2866:A:H61	1.46	0.62
33:L1:70:A:H3'	43:LO:38:MET:SD	2.40	0.62
37:LB:135:ILE:HG22	37:LB:149:LYS:HB3	1.81	0.62
4:SD:135:GLY:N	32:S1:247:A:OP1	2.32	0.62
4:SD:195:ILE:CG2	4:SD:208:ILE:HD11	2.29	0.62
27:SH:102:ILE:HD12	27:SH:128:PHE:CE1	2.35	0.62
12:SO:146:ALA:O	33:L1:1715:C:OP2	2.18	0.62
33:L1:1241:G:H1'	33:L1:1255:A:N6	2.15	0.62
33:L1:1364:C:C1'	81:LD:333:LEU:CD2	2.50	0.62
33:L1:1547:G:H21	33:L1:2160:C:H42	1.45	0.62
33:L1:2087:A:H2'	33:L1:2088:C:H5'	1.81	0.62
25:SC:195:GLU:C	33:L1:2251:A:C3'	2.66	0.62
33:L1:2647:C:O2'	84:LI:115:MET:CE	2.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:LA:115:ILE:HG13	36:LA:116:ILE:N	2.14	0.62
27:SH:65:LEU:CD2	27:SH:70:ASN:CA	2.77	0.62
9:SK:43:VAL:HG22	9:SK:109:PRO:HG3	1.80	0.62
35:L2:102:U:H6	35:L2:102:U:O5'	1.82	0.61
40:LH:135:VAL:HA	40:LH:196:LEU:HD23	1.81	0.61
32:S1:348:A:P	46:LT:137:VAL:H	2.23	0.61
48:LV:113:LEU:CG	48:LV:153:GLU:HA	2.30	0.61
41:LM:96:MET:CE	50:LZ:22:ARG:HB3	2.29	0.61
32:S1:1758:G:OP2	33:L1:2298:A:H5'	2.00	0.61
32:S1:860:A:C1'	46:LT:173:LYS:HD3	2.17	0.61
4:SD:92:ILE:HB	4:SD:93:PRO:HD3	1.82	0.61
27:SH:79:PHE:CZ	27:SH:83:VAL:HG11	2.35	0.61
17:SV:93:VAL:CG1	17:SV:94:SER:N	2.63	0.61
31:S2:13:U:H5'	33:L1:2244:G:H22	1.64	0.61
32:S1:1757:G:OP1	33:L1:2297:G:H1'	2.00	0.61
33:L1:2899:A:C8	33:L1:2901:C:C6	2.88	0.61
34:L3:56:G:C2'	34:L3:57:C:H5'	2.30	0.61
34:L3:56:G:H21	45:LQ:54:ARG:CZ	2.10	0.61
37:LB:96:LEU:HD12	37:LB:108:PRO:CG	2.29	0.61
66:LN:64:ARG:NH2	67:LS:151:PHE:CB	2.63	0.61
24:SX:72:LYS:HD3	32:S1:1053:C:O3'	2.00	0.61
32:S1:222:G:H1'	33:L1:2063:U:P	2.26	0.61
17:SV:64:SER:HA	17:SV:82:LYS:NZ	2.15	0.61
33:L1:1206:A:H4'	34:L3:88:U:C1'	2.17	0.61
34:L3:20:C:H4'	45:LQ:252:THR:HG23	1.82	0.61
46:LT:136:ARG:O	46:LT:137:VAL:CG2	2.48	0.61
32:S1:349:U:OP2	46:LT:138:LEU:O	2.17	0.61
32:S1:859:U:O5'	46:LT:176:ARG:HA	2.00	0.61
31:S2:26:G:C8	33:L1:2260:C:C4'	2.82	0.61
2:SA:79:ILE:HG23	2:SA:126:LEU:CG	2.31	0.61
14:SP:41:LEU:HG	14:SP:103:LYS:HZ2	1.63	0.61
24:SX:38:LYS:HG3	24:SX:44:ASN:O	2.00	0.61
33:L1:1115:A:H2'	33:L1:1116:G:C8	2.35	0.61
33:L1:282:A:N6	33:L1:2786:G:H21	1.97	0.61
33:L1:576:C:P	81:LD:342:LYS:HZ1	2.24	0.61
33:L1:881:G:N1	33:L1:2982:U:H5''	2.16	0.61
36:LA:192:LEU:CD2	36:LA:194:LYS:HB3	2.30	0.61
33:L1:2647:C:H1'	84:LI:115:MET:CE	2.31	0.61
45:LQ:252:THR:O	45:LQ:256:SER:HB2	2.00	0.61
48:LV:59:PRO:HB3	48:LV:76:ARG:CG	2.30	0.61
32:S1:1004:U:C5	32:S1:1005:C:C4	2.88	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:977:G:C4	33:L1:850:A:C4	2.80	0.61
25:SC:150:VAL:HG13	25:SC:160:PHE:CE2	2.34	0.61
2:SA:120:PHE:HZ	5:SE:101:ALA:HB1	1.65	0.61
13:SQ:29:HIS:HB2	28:SN:22:ARG:HG3	1.83	0.61
33:L1:2170:G:C6	37:LB:125:VAL:HG13	2.36	0.61
31:S2:26:G:N9	33:L1:2260:C:C4'	2.63	0.61
33:L1:276:U:H3	33:L1:285:G:H1	1.47	0.61
34:L3:93:U:H4'	67:LS:84:GLN:NE2	2.16	0.61
36:LA:182:ILE:HD13	36:LA:186:VAL:CG2	2.31	0.61
32:S1:929:A:C4'	37:LB:137:ILE:HD12	2.29	0.61
80:LC:130:PHE:O	80:LC:131:THR:O	2.19	0.61
81:LD:332:LYS:O	81:LD:336:TYR:CD2	2.53	0.61
65:LL:153:UNK:C	65:LL:153:UNK:HA	2.17	0.61
41:LM:72:LEU:HD21	41:LM:113:LYS:NZ	2.15	0.61
33:L1:2731:G:OP1	47:LU:85:ILE:HG21	1.99	0.61
33:L1:3301:G:H5''	48:LV:70:THR:C	2.21	0.61
20:SZ:10:ARG:NH1	32:S1:1254:U:OP2	2.33	0.61
2:SA:78:ILE:HG13	2:SA:125:LEU:HD11	1.82	0.61
2:SA:213:GLU:C	2:SA:215:LYS:H	2.04	0.61
18:SW:115:UNK:O	18:SW:116:UNK:C	2.47	0.61
19:SY:46:VAL:HG22	19:SY:47:ARG:N	2.15	0.61
33:L1:1034:U:H2'	33:L1:1035:C:C1'	2.31	0.61
33:L1:1265:G:C3'	33:L1:1265:G:N3	2.64	0.61
33:L1:1635:A:C2	33:L1:1736:C:H4'	2.36	0.61
31:S2:13:U:P	33:L1:2244:G:N2	2.73	0.61
33:L1:2380:G:H5''	82:LK:96:LYS:HZ2	1.65	0.61
33:L1:2607:U:C3'	37:LB:226:ARG:NH2	2.63	0.61
34:L3:3:A:H3'	34:L3:4:U:C5	2.35	0.61
36:LA:42:PRO:HG2	36:LA:198:GLN:O	2.01	0.61
82:LK:135:GLN:O	82:LK:135:GLN:HG3	2.00	0.61
32:S1:1108:U:N1	32:S1:1108:U:C2'	2.60	0.61
32:S1:187:C:N3	32:S1:188:U:C4	2.69	0.61
2:SA:64:LEU:HB2	5:SE:44:TRP:CE2	2.36	0.61
4:SD:100:ARG:CB	4:SD:114:VAL:HG21	2.28	0.61
6:SF:164:THR:HG21	17:SV:100:LEU:HD11	1.81	0.61
10:SL:41:ALA:HB2	10:SL:62:ASN:CB	2.30	0.61
14:SP:86:ILE:HD12	14:SP:112:VAL:HG22	1.82	0.61
33:L1:2252:C:N1	33:L1:2252:C:C2'	2.60	0.61
33:L1:3143:A:O4'	33:L1:3143:A:N9	2.32	0.61
34:L3:115:A:O2'	45:LQ:75:VAL:CG1	2.33	0.61
64:LG:185:ASP:O	64:LG:186:ALA:CB	2.32	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1320:G:C8	82:LK:134:LEU:CD2	2.83	0.61
65:LL:55:UNK:N	65:LL:55:UNK:C	2.60	0.61
32:S1:1745:U:H5''	33:L1:1931:G:C5'	2.00	0.61
32:S1:800:U:C3'	32:S1:801:U:C5'	2.79	0.61
15:SS:9:VAL:CG1	15:SS:135:ASP:OD1	2.45	0.61
17:SV:55:VAL:N	17:SV:56:PRO:CD	2.64	0.61
33:L1:975:G:H5'	33:L1:1375:G:H21	1.65	0.61
33:L1:2780:G:N9	33:L1:2780:G:C2'	2.61	0.61
36:LA:107:HIS:CD2	36:LA:115:ILE:HG22	2.36	0.61
84:LI:110:ARG:CA	84:LI:116:ARG:NE	2.64	0.61
67:LS:54:LYS:HB3	67:LS:57:ASN:H	1.66	0.61
32:S1:1224:C:H4'	32:S1:1225:A:OP1	2.01	0.61
5:SE:258:LYS:HZ2	27:SH:69:LEU:CG	2.07	0.61
27:SH:112:ASP:OD2	27:SH:114:GLU:HG3	2.00	0.61
27:SH:38:LEU:CD1	27:SH:45:GLY:HA2	2.31	0.61
23:SU:17:PHE:CD2	23:SU:28:PHE:HA	2.35	0.61
24:SX:72:LYS:HG3	32:S1:1054:G:OP2	2.01	0.61
33:L1:1867:U:H3'	33:L1:1867:U:C6	2.35	0.61
32:S1:1685:U:O2'	33:L1:3334:A:P	2.59	0.61
65:LL:20:UNK:CB	65:LL:21:UNK:HA	2.31	0.61
66:LN:6:PHE:CE1	67:LS:161:PRO:HB2	2.35	0.61
50:LZ:4:LYS:H	80:LC:304:ARG:NH2	1.97	0.61
32:S1:1616:U:O5'	32:S1:1616:U:H6	1.84	0.61
4:SD:67:GLN:HB3	4:SD:69:HIS:HD2	1.61	0.61
27:SH:14:MET:HE2	27:SH:22:LYS:CB	2.19	0.61
12:SO:69:SER:C	24:SX:49:PHE:CZ	2.74	0.61
17:SV:54:GLU:C	17:SV:56:PRO:CD	2.66	0.61
17:SV:48:TYR:HD1	17:SV:81:ILE:CG2	2.02	0.61
33:L1:1263:A:H61	67:LS:33:ALA:N	67.75	0.61
33:L1:2149:G:H21	33:L1:2155:G:H21	1.47	0.61
34:L3:49:A:C2	34:L3:50:A:C6	2.89	0.61
36:LA:109:PHE:CE2	36:LA:136:LEU:HD22	2.36	0.61
36:LA:67:LEU:C	36:LA:83:TYR:HE1	2.04	0.61
33:L1:3307:A:N7	80:LC:125:SER:HB2	2.16	0.61
33:L1:1868:C:H5''	46:LT:55:GLN:O	2.01	0.61
32:S1:348:A:C8	46:LT:140:GLU:HG2	2.29	0.61
32:S1:886:A:O5'	41:LM:85:ARG:HD3	95.53	0.61
2:SA:58:THR:HG22	2:SA:62:LEU:HD21	1.83	0.61
4:SD:152:PRO:C	4:SD:153:ILE:HG22	2.22	0.61
27:SH:4:VAL:CG2	27:SH:5:SER:H	2.14	0.61
27:SH:94:LEU:HD21	27:SH:102:ILE:HD12	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:SP:93:HIS:CE1	33:L1:2080:G:C5'	2.83	0.61
16:SR:139:ARG:H	16:SR:140:PRO:HD2	1.66	0.61
33:L1:1598:U:H1'	33:L1:1601:G:O6	2.01	0.60
33:L1:1604:U:H3'	33:L1:1606:C:H5	1.66	0.60
33:L1:2165:A:H5''	37:LB:17:LYS:HZ3	1.66	0.60
34:L3:47:C:OP1	45:LQ:95:ASN:CB	2.48	0.60
84:LI:110:ARG:HE	84:LI:116:ARG:CD	2.14	0.60
48:LV:35:ALA:HB2	48:LV:59:PRO:CG	2.31	0.60
32:S1:485:A:N6	32:S1:510:A:H61	1.99	0.60
14:SP:94:PHE:CA	46:LT:151:ARG:HD3	2.30	0.60
14:SP:95:VAL:CG2	46:LT:152:GLU:HA	2.30	0.60
33:L1:1819:A:H2'	33:L1:1820:C:H5'	1.83	0.60
33:L1:384:A:C3'	33:L1:385:A:H5'	2.31	0.60
36:LA:143:LEU:O	36:LA:143:LEU:HD13	2.00	0.60
32:S1:988:G:O3'	37:LB:176:GLU:CG	1.79	0.60
37:LB:229:ALA:HB1	37:LB:233:GLN:CG	2.30	0.60
66:LN:64:ARG:CG	66:LN:65:VAL:N	2.63	0.60
48:LV:113:LEU:HD13	48:LV:156:GLU:H	1.65	0.60
51:LY:105:VAL:HG11	51:LY:108:LEU:HD23	1.82	0.60
32:S1:151:A:H2'	32:S1:152:G:C8	2.36	0.60
31:S2:14:A:P	33:L1:2263:U:C6	2.77	0.60
7:SI:131:GLU:HG2	7:SI:132:PRO:HD2	1.83	0.60
23:SU:49:LEU:O	23:SU:49:LEU:HD12	2.02	0.60
17:SV:48:TYR:CZ	17:SV:81:ILE:HG12	2.36	0.60
33:L1:1058:A:H2'	33:L1:1059:A:C8	2.36	0.60
33:L1:2604:A:H2'	33:L1:2605:G:C8	2.36	0.60
31:S2:69:G:C5'	33:L1:2965:C:H5''	2.29	0.60
41:LM:69:LYS:HB3	41:LM:72:LEU:HD23	1.83	0.60
32:S1:185:G:N1	32:S1:194:G:N1	2.49	0.60
32:S1:927:A:C4'	37:LB:140:ASN:CG	2.39	0.60
2:SA:1:MET:HA	2:SA:2:ALA:HB3	1.83	0.60
2:SA:78:ILE:HD12	2:SA:78:ILE:N	2.16	0.60
4:SD:43:PRO:HA	4:SD:83:PRO:HA	1.83	0.60
6:SF:56:ARG:HG3	19:SY:47:ARG:NH2	2.17	0.60
27:SH:65:LEU:HD23	27:SH:70:ASN:CA	2.30	0.60
15:SS:63:ILE:HD12	15:SS:106:ILE:HD12	1.83	0.60
15:SS:8:THR:CG2	15:SS:142:ASP:HB2	2.31	0.60
32:S1:918:G:N2	33:L1:2202:A:H3'	2.16	0.60
33:L1:640:C:C5'	33:L1:640:C:H6	2.14	0.60
32:S1:978:A:N1	33:L1:849:A:C2	2.33	0.60
36:LA:58:PRO:HD3	36:LA:182:ILE:HG21	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:LD:333:LEU:C	81:LD:337:PHE:HD2	2.00	0.60
33:L1:2380:G:C5'	82:LK:95:HIS:NE2	2.63	0.60
48:LV:35:ALA:CB	48:LV:59:PRO:HD2	2.31	0.60
31:S2:34:G:N2	32:S1:1645:C:N3	2.49	0.60
32:S1:861:A:N6	46:LT:171:GLU:CD	2.22	0.60
31:S2:26:G:C8	33:L1:2260:C:H4'	2.37	0.60
9:SK:96:LEU:O	9:SK:97:ARG:HB3	2.01	0.60
10:SL:41:ALA:HB1	10:SL:61:PRO:O	2.00	0.60
18:SW:102:UNK:O	18:SW:103:UNK:C	2.47	0.60
33:L1:996:A:H62	33:L1:1061:A:H1'	1.66	0.60
33:L1:1391:A:C2	33:L1:1424:G:C5	2.90	0.60
33:L1:308:U:C3'	33:L1:309:C:H5''	2.32	0.60
33:L1:962:C:OP2	33:L1:963:U:C5	2.54	0.60
41:LM:136:ALA:HB3	41:LM:139:ILE:HD11	1.83	0.60
48:LV:114:TYR:CE1	48:LV:155:GLU:CB	2.85	0.60
32:S1:775:A:C3'	32:S1:776:A:C5'	2.79	0.60
4:SD:136:ILE:O	4:SD:137:PRO:C	2.37	0.60
7:SI:130:CYS:O	32:S1:1592:G:H8	1.85	0.60
9:SK:52:LEU:HD11	9:SK:92:LEU:HD23	1.83	0.60
31:S2:26:G:N9	33:L1:2260:C:C5'	2.61	0.60
31:S2:13:U:O2'	33:L1:2262:C:C6	2.55	0.60
33:L1:2507:U:H2'	33:L1:2508:U:C6	2.37	0.60
33:L1:2751:A:C5	33:L1:2752:G:H1'	2.36	0.60
31:S2:72:G:C5'	33:L1:2972:C:H5'	2.29	0.60
33:L1:3047:A:H5''	80:LC:224:THR:CG2	2.30	0.60
33:L1:3151:C:H5'	80:LC:134:ALA:HB2	1.84	0.60
34:L3:75:G:N2	34:L3:101:A:H62	1.99	0.60
36:LA:67:LEU:HD21	36:LA:147:VAL:CG2	2.32	0.60
36:LA:87:GLU:HA	36:LA:91:LYS:CD	2.22	0.60
33:L1:2647:C:O2'	84:LI:115:MET:HE1	2.02	0.60
66:LN:4:LYS:CG	67:LS:161:PRO:HB3	2.32	0.60
2:SA:79:ILE:CG2	2:SA:126:LEU:HB2	2.32	0.60
27:SH:101:TYR:CZ	27:SH:129:PHE:HB3	2.36	0.60
27:SH:52:PHE:CD2	27:SH:53:VAL:CG2	2.84	0.60
9:SK:43:VAL:HG13	9:SK:109:PRO:HB3	1.84	0.60
14:SP:98:TYR:CE1	46:LT:155:LEU:HG	2.37	0.60
6:SF:56:ARG:HH11	19:SY:52:LEU:HD21	1.67	0.60
33:L1:1911:A:H2'	33:L1:1912:U:C6	2.36	0.60
33:L1:2169:U:H5''	37:LB:54:ARG:HG2	1.82	0.60
34:L3:48:G:N2	34:L3:50:A:H62	1.97	0.60
36:LA:137:VAL:HG12	36:LA:138:SER:N	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:LA:87:GLU:CG	36:LA:91:LYS:HD3	2.20	0.60
37:LB:147:ARG:HH21	37:LB:155:LYS:CD	2.14	0.60
33:L1:3097:G:C4	80:LC:331:CYS:SG	2.94	0.60
66:LN:109:LYS:HE2	82:LK:198:LEU:HD22	1.83	0.60
66:LN:64:ARG:HD3	67:LS:154:VAL:HG11	1.84	0.60
34:L3:116:U:C3'	45:LQ:80:TYR:CE1	2.85	0.60
14:SP:95:VAL:HG11	46:LT:155:LEU:HD12	1.82	0.60
48:LV:2:VAL:HG11	48:LV:18:MET:SD	2.41	0.60
32:S1:800:U:C3'	32:S1:801:U:H5'	2.31	0.60
2:SA:129:THR:HG23	2:SA:130:ASP:N	2.12	0.60
33:L1:2789:G:H2'	33:L1:2790:C:C6	2.37	0.60
37:LB:137:ILE:HG23	37:LB:138:SER:N	2.16	0.60
43:LO:64:LEU:CA	65:LL:155:UNK:H	2.13	0.60
33:L1:99:A:C4'	42:LP:182:HIS:CG	2.85	0.60
67:LS:6:PHE:HB2	67:LS:105:VAL:HG21	1.84	0.60
32:S1:1542:G:OP1	32:S1:1547:G:C5	2.55	0.60
32:S1:1674:C:OP1	33:L1:1914:C:C4'	2.49	0.60
32:S1:1747:A:C4	33:L1:1930:G:N2	2.70	0.60
27:SH:10:ALA:O	27:SH:13:THR:HG22	2.02	0.60
10:SL:94:GLU:OE2	10:SL:100:LEU:HD23	2.01	0.60
15:SS:1:MET:O	15:SS:5:THR:HG23	2.01	0.60
17:SV:65:VAL:HA	17:SV:68:GLU:HB2	1.84	0.60
33:L1:102:G:N9	33:L1:102:G:C2'	2.61	0.60
31:S2:24:A:C1'	33:L1:2261:U:C5'	2.67	0.60
33:L1:2620:U:C4	33:L1:2623:G:H5''	2.36	0.60
33:L1:299:G:H1	33:L1:312:U:H3	1.49	0.60
81:LD:335:PRO:CD	81:LD:336:TYR:H	2.10	0.60
34:L3:27:A:P	45:LQ:56:VAL:HA	2.42	0.60
51:LY:56:GLN:HB3	51:LY:66:GLU:HG2	1.84	0.60
2:SA:147:PRO:CD	5:SE:76:GLN:HG3	2.32	0.60
5:SE:30:ARG:CG	27:SH:67:GLY:CA	2.79	0.60
11:SM:126:TYR:CG	11:SM:126:TYR:CZ	2.89	0.60
12:SO:150:VAL:HB	33:L1:1714:A:C1'	2.30	0.60
18:SW:7:UNK:O	18:SW:8:UNK:C	2.47	0.60
38:LE:91:TYR:CD2	38:LE:92:GLU:HA	2.36	0.60
51:LY:72:VAL:CG2	51:LY:79:ILE:HG22	2.32	0.60
8:SJ:68:LYS:NZ	32:S1:1524:A:O3'	2.35	0.60
4:SD:201:HIS:CG	32:S1:687:C:C5'	2.85	0.60
32:S1:887:U:C5'	41:LM:85:ARG:C	105.61	0.60
2:SA:133:THR:HG23	2:SA:134:ASP:OD1	2.02	0.60
4:SD:85:GLY:O	4:SD:101:LEU:HD13	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1192:A:H2	82:LK:137:GLY:O	1.84	0.59
33:L1:1303:C:H2'	33:L1:1304:G:C8	2.37	0.59
36:LA:99:VAL:O	36:LA:100:LYS:HD2	2.01	0.59
36:LA:91:LYS:CG	36:LA:94:LYS:HE2	2.29	0.59
39:LF:187:THR:HG23	39:LF:187:THR:O	2.02	0.59
33:L1:1944:G:H5''	46:LT:101:VAL:HG21	1.83	0.59
68:LW:28:SER:O	68:LW:29:LYS:CB	2.49	0.59
51:LY:105:VAL:HG11	51:LY:108:LEU:HD21	1.84	0.59
32:S1:119:U:C2	32:S1:303:A:C2	2.90	0.59
32:S1:1747:A:C3'	33:L1:1916:U:H1'	2.31	0.59
14:SP:49:ALA:CB	14:SP:100:ARG:HH22	2.14	0.59
17:SV:53:SER:O	17:SV:56:PRO:HG2	2.01	0.59
33:L1:1722:G:N2	33:L1:1785:G:C5'	2.65	0.59
33:L1:2642:G:H4'	47:LU:56:PHE:CD2	2.37	0.59
32:S1:978:A:C4'	33:L1:850:A:C3'	2.61	0.59
34:L3:48:G:H21	34:L3:50:A:H62	1.50	0.59
38:LE:38:VAL:HG23	38:LE:120:PRO:HB3	1.84	0.59
33:L1:952:C:H4'	44:LR:10:ARG:HB2	1.83	0.59
46:LT:168:ALA:O	46:LT:172:ARG:HG3	2.02	0.59
48:LV:39:LEU:O	48:LV:114:TYR:HA	2.01	0.59
2:SA:71:ALA:CB	5:SE:65:ILE:HB	2.32	0.59
16:SR:139:ARG:H	16:SR:140:PRO:CD	2.16	0.59
18:SW:114:UNK:O	18:SW:115:UNK:C	2.47	0.59
33:L1:1272:G:C2'	33:L1:1277:A:H61	2.15	0.59
33:L1:3339:G:H2'	33:L1:3340:G:C8	2.38	0.59
33:L1:463:G:H2'	33:L1:464:G:C8	2.37	0.59
33:L1:68:U:H2'	33:L1:69:U:H5'	1.83	0.59
36:LA:71:GLN:HE21	36:LA:108:ALA:HB2	1.68	0.59
37:LB:137:ILE:HD13	37:LB:147:ARG:HH12	1.65	0.59
33:L1:1526:A:C2	49:LX:133:TYR:CE1	2.90	0.59
51:LY:72:VAL:HG13	51:LY:79:ILE:HG22	1.83	0.59
32:S1:119:U:O2	32:S1:303:A:N1	2.33	0.59
32:S1:320:A:H5''	33:L1:855:U:H5'	1.84	0.59
31:S2:24:A:H2'	33:L1:2261:U:P	2.40	0.59
2:SA:138:ILE:HG13	2:SA:139:LYS:N	2.17	0.59
5:SE:258:LYS:CE	27:SH:69:LEU:CA	2.58	0.59
12:SO:38:MET:SD	26:SG:110:UNK:CB	2.90	0.59
24:SX:36:ASP:OD2	24:SX:45:ILE:HD11	2.02	0.59
33:L1:1034:U:H3'	33:L1:1035:C:C6	2.37	0.59
33:L1:2157:C:O2'	37:LB:11:GLY:CA	2.51	0.59
31:S2:74:C:C1'	33:L1:2404:C:H4'	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L3:56:G:C6	34:L3:57:C:C4	2.91	0.59
36:LA:57:ILE:HG23	36:LA:59:ARG:O	2.02	0.59
32:S1:990:G:O3'	37:LB:133:TYR:CD1	2.31	0.59
66:LN:113:ALA:HB1	82:LK:198:LEU:CG	2.31	0.59
33:L1:287:A:OP1	42:LP:97:ASN:OD1	2.21	0.59
27:SH:79:PHE:CZ	27:SH:85:GLU:O	2.56	0.59
14:SP:71:ILE:HD11	27:SH:84:LYS:CD	2.31	0.59
14:SP:90:ASN:ND2	33:L1:2082:A:OP2	2.32	0.59
14:SP:92:LEU:N	46:LT:151:ARG:NH2	2.51	0.59
3:SB:76:ARG:CA	13:SQ:33:LYS:HG3	2.30	0.59
33:L1:1254:A:H2'	33:L1:1255:A:H5'	1.85	0.59
33:L1:1679:U:C2'	33:L1:1679:U:N1	2.62	0.59
12:SO:150:VAL:HB	33:L1:1714:A:H1'	1.79	0.59
31:S2:24:A:N1	33:L1:2260:C:O2'	2.35	0.59
31:S2:25:U:C5'	33:L1:2261:U:OP1	2.22	0.59
33:L1:1174:G:OP1	34:L3:84:U:C4	2.56	0.59
36:LA:147:VAL:HG23	36:LA:148:ASN:N	2.16	0.59
81:LD:358:LYS:CE	81:LD:362:LYS:HZ1	2.15	0.59
64:LG:26:TRP:O	64:LG:26:TRP:CG	2.54	0.59
34:L3:7:G:OP1	45:LQ:37:ARG:CD	2.49	0.59
2:SA:117:GLN:NE2	32:S1:1327:C:O2'	2.35	0.59
27:SH:94:LEU:HD21	27:SH:128:PHE:CD1	2.38	0.59
12:SO:114:ARG:HH11	32:S1:945:A:H62	1.49	0.59
12:SO:69:SER:HB2	24:SX:49:PHE:CZ	2.34	0.59
17:SV:64:SER:CA	17:SV:82:LYS:NZ	2.65	0.59
33:L1:2700:A:N6	33:L1:2701:G:C6	2.70	0.59
44:LR:40:THR:HA	81:LD:325:LYS:CB	2.33	0.59
32:S1:1308:G:O2'	32:S1:1308:G:C1'	2.46	0.59
27:SH:27:ILE:HG13	32:S1:641:C:OP2	2.03	0.59
4:SD:175:PHE:CE1	4:SD:195:ILE:HD13	2.38	0.59
5:SE:194:LYS:HB2	5:SE:245:VAL:HG22	1.84	0.59
5:SE:258:LYS:CE	27:SH:69:LEU:HG	2.31	0.59
6:SF:131:ARG:HH21	6:SF:133:GLN:HA	1.68	0.59
14:SP:41:LEU:HB2	14:SP:103:LYS:CE	2.33	0.59
15:SS:14:PRO:HD2	15:SS:15:HIS:CE1	2.37	0.59
33:L1:1387:G:O4'	81:LD:248:GLY:HA3	2.02	0.59
33:L1:1817:U:H2'	33:L1:1818:C:C5'	2.32	0.59
33:L1:1910:G:H21	46:LT:82:ARG:HG3	1.68	0.59
33:L1:2869:C:H6	33:L1:2869:C:H5'	1.68	0.59
80:LC:21:ARG:HH21	80:LC:272:GLN:NE2	2.01	0.59
67:LS:156:ARG:HG2	67:LS:157:LYS:H	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:LV:125:LYS:HA	48:LV:144:PRO:CD	2.28	0.59
68:LW:85:LEU:HG	68:LW:114:TYR:HB3	1.83	0.59
51:LY:78:VAL:HG12	51:LY:79:ILE:N	2.18	0.59
4:SD:137:PRO:HD3	32:S1:247:A:OP2	2.01	0.59
32:S1:860:A:C8	32:S1:861:A:C2	2.91	0.59
2:SA:81:GLN:NE2	2:SA:126:LEU:HD11	2.18	0.59
27:SH:14:MET:CG	27:SH:19:LYS:HB2	2.33	0.59
18:SW:98:UNK:O	18:SW:99:UNK:C	2.47	0.59
33:L1:1123:A:H61	33:L1:1141:U:H3	1.50	0.59
33:L1:1819:A:C2'	33:L1:1820:C:H5'	2.32	0.59
31:S2:70:G:H8	33:L1:2965:C:H4'	1.66	0.59
36:LA:106:TYR:HE2	36:LA:140:GLN:CB	2.16	0.59
33:L1:1364:C:O2'	81:LD:337:PHE:CE2	2.50	0.59
38:LE:31:ARG:HG3	38:LE:34:ARG:HG3	1.83	0.59
41:LM:32:THR:O	41:LM:69:LYS:HB2	2.02	0.59
33:L1:99:A:C4'	42:LP:182:HIS:CD2	2.85	0.59
46:LT:137:VAL:H	46:LT:140:GLU:CD	2.05	0.59
47:LU:128:THR:O	47:LU:132:PRO:HD2	2.02	0.59
68:LW:29:LYS:HB3	68:LW:29:LYS:C	2.22	0.59
32:S1:1659:A:N1	32:S1:1759:A:C2	2.71	0.59
2:SA:145:ASN:HD21	5:SE:78:VAL:HG12	1.57	0.59
2:SA:189:MET:CE	5:SE:62:ILE:HD11	2.33	0.59
8:SJ:92:ARG:HG3	28:SN:52:PHE:N	2.17	0.59
12:SO:69:SER:C	24:SX:49:PHE:CE2	2.76	0.59
17:SV:64:SER:CA	17:SV:82:LYS:HZ1	2.16	0.59
18:SW:11:UNK:O	18:SW:12:UNK:C	2.47	0.59
33:L1:1549:A:O4'	33:L1:1549:A:N9	2.35	0.59
31:S2:13:U:C5'	33:L1:2244:G:N2	2.66	0.59
33:L1:2802:G:O4'	33:L1:2802:G:N9	2.33	0.59
34:L3:48:G:H22	34:L3:50:A:H61	1.49	0.59
51:LY:70:VAL:HG13	51:LY:71:GLN:N	2.18	0.59
24:SX:72:LYS:CD	32:S1:1054:G:P	2.90	0.59
2:SA:85:PRO:HA	2:SA:88:GLN:HG3	1.85	0.59
6:SF:94:GLU:CB	17:SV:102:TYR:OH	2.51	0.59
18:SW:100:UNK:O	18:SW:101:UNK:C	2.47	0.59
33:L1:1767:G:C2'	33:L1:1767:G:N9	2.60	0.59
32:S1:354:G:C2	33:L1:847:G:H5''	2.38	0.59
66:LN:64:ARG:NH1	67:LS:151:PHE:CG	2.71	0.59
34:L3:58:G:H5'	45:LQ:29:GLN:HE22	1.62	0.59
48:LV:127:ARG:HA	48:LV:141:MET:CE	2.32	0.59
51:LY:56:GLN:O	51:LY:103:VAL:CG2	2.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1062:C:H2'	32:S1:1063:U:H1'	1.85	0.59
32:S1:1747:A:O3'	33:L1:1916:U:C1'	2.36	0.59
2:SA:149:ILE:O	2:SA:149:ILE:HG13	2.02	0.59
4:SD:192:VAL:HG12	4:SD:193:GLY:N	2.18	0.59
14:SP:94:PHE:C	46:LT:151:ARG:CG	2.71	0.59
33:L1:2385:A:N6	33:L1:2995:G:H1'	2.18	0.58
33:L1:329:G:C8	33:L1:330:C:C5	2.91	0.58
36:LA:195:LYS:HD3	36:LA:199:ASN:HD22	1.68	0.58
33:L1:2902:A:H5''	39:LF:172:ARG:NH2	2.17	0.58
44:LR:128:LEU:HD13	81:LD:313:GLU:CG	2.33	0.58
33:L1:3301:G:C1'	48:LV:70:THR:HG23	2.33	0.58
32:S1:860:A:H1'	46:LT:173:LYS:CB	2.23	0.58
32:S1:929:A:OP1	37:LB:109:GLU:HB3	2.03	0.58
2:SA:23:LEU:O	2:SA:28:HIS:CE1	2.56	0.58
27:SH:71:LYS:HB2	27:SH:71:LYS:HZ3	1.68	0.58
9:SK:85:LYS:HE2	9:SK:119:ALA:CB	2.33	0.58
10:SL:69:ALA:O	10:SL:70:ARG:HD2	2.03	0.58
14:SP:92:LEU:HD23	46:LT:151:ARG:HH22	1.66	0.58
23:SU:30:LEU:O	23:SU:78:PHE:CD2	2.56	0.58
18:SW:99:UNK:O	18:SW:100:UNK:C	2.47	0.58
6:SF:118:ARG:CD	19:SY:56:GLU:OE2	2.46	0.58
33:L1:1034:U:O2'	33:L1:1035:C:O4'	2.21	0.58
32:S1:1748:U:C1'	33:L1:1915:G:O3'	2.38	0.58
32:S1:1747:A:O4'	33:L1:1930:G:N1	2.37	0.58
32:S1:1736:C:H5'	33:L1:2103:U:H5'	1.85	0.58
36:LA:57:ILE:HG22	36:LA:150:THR:HG21	1.85	0.58
81:LD:204:ARG:HD3	81:LD:205:TYR:CE1	2.39	0.58
38:LE:158:LYS:HD2	38:LE:159:GLU:N	2.18	0.58
12:SO:97:ALA:CB	39:LF:19:GLN:CB	180.04	0.58
34:L3:85:G:C4'	67:LS:120:PHE:CE1	2.78	0.58
14:SP:92:LEU:C	46:LT:151:ARG:CZ	2.71	0.58
48:LV:113:LEU:HB3	48:LV:156:GLU:H	1.67	0.58
32:S1:1745:U:H2'	33:L1:1931:G:N9	2.06	0.58
31:S2:26:G:C8	33:L1:2260:C:H5''	2.34	0.58
4:SD:167:ASN:C	4:SD:168:LYS:HA	2.23	0.58
27:SH:119:LYS:HB3	27:SH:121:VAL:HG23	1.84	0.58
14:SP:88:ARG:HG2	14:SP:112:VAL:HG11	1.85	0.58
33:L1:1190:C:H4'	67:LS:115:ARG:CZ	2.32	0.58
33:L1:2618:G:H2'	33:L1:2619:C:C6	2.39	0.58
33:L1:3143:A:C2	33:L1:3145:G:N2	2.71	0.58
33:L1:82:C:C2	33:L1:83:U:C5	2.92	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:LA:189:LEU:HA	65:LL:192:UNK:C	2.34	0.58
41:LM:72:LEU:HD11	41:LM:105:ILE:CD1	2.33	0.58
66:LN:64:ARG:CD	67:LS:154:VAL:CG1	2.81	0.58
47:LU:64:VAL:HG13	47:LU:72:ILE:HD11	1.85	0.58
48:LV:9:ASN:HD21	48:LV:154:LYS:CE	2.16	0.58
32:S1:1678:G:H2'	32:S1:1678:G:C4	2.39	0.58
31:S2:47:U:N3	31:S2:58:U:H1'	2.17	0.58
2:SA:58:THR:CG2	2:SA:62:LEU:HD21	2.33	0.58
4:SD:160:ILE:HD11	4:SD:169:ILE:HG12	1.85	0.58
12:SO:58:HIS:HB3	39:LF:23:LYS:NZ	185.41	0.58
29:ST:49:PHE:CE1	29:ST:65:ASP:HB3	2.39	0.58
17:SV:94:SER:C	17:SV:101:ILE:HG21	2.23	0.58
33:L1:1826:G:H2'	33:L1:1826:G:N3	2.19	0.58
33:L1:2664:G:H2'	33:L1:2665:A:C8	2.39	0.58
33:L1:3004:G:H2'	33:L1:3005:C:C6	2.39	0.58
35:L2:62:G:N2	35:L2:63:A:N1	2.50	0.58
34:L3:2:G:N2	34:L3:3:A:N6	2.50	0.58
34:L3:86:G:H5'	67:LS:119:ARG:HB3	1.86	0.58
37:LB:90:CYS:HA	37:LB:101:VAL:CG1	2.33	0.58
38:LE:82:LEU:HD12	38:LE:86:LEU:HD21	1.83	0.58
64:LG:109:PRO:HB3	64:LG:144:ASP:HA	1.83	0.58
48:LV:99:ALA:CB	48:LV:149:LEU:HD23	2.29	0.58
48:LV:1:MET:CB	48:LV:16:LYS:HD3	2.31	0.58
32:S1:1205:G:C8	32:S1:1607:C:N4	2.72	0.58
32:S1:662:C:H42	32:S1:678:A:H61	1.51	0.58
2:SA:79:ILE:HG23	2:SA:126:LEU:CB	2.33	0.58
27:SH:40:VAL:O	27:SH:40:VAL:HG12	2.02	0.58
27:SH:65:LEU:CD1	27:SH:66:ASN:N	2.64	0.58
8:SJ:68:LYS:CE	32:S1:1524:A:C5'	2.81	0.58
10:SL:56:ILE:HG23	10:SL:56:ILE:O	2.04	0.58
11:SM:16:LEU:HD13	11:SM:100:SER:CB	2.33	0.58
14:SP:45:THR:CG2	14:SP:47:ARG:HE	2.14	0.58
14:SP:95:VAL:HG21	46:LT:152:GLU:CG	2.32	0.58
23:SU:71:GLY:O	23:SU:72:GLY:HA2	2.03	0.58
33:L1:14:U:H2'	33:L1:15:C:C6	2.39	0.58
33:L1:1596:G:C5'	33:L1:1752:C:H4'	2.34	0.58
33:L1:2398:A:HO2'	33:L1:2399:G:H5'	1.66	0.58
33:L1:3097:G:H2'	33:L1:3098:U:C6	2.39	0.58
36:LA:107:HIS:CE1	36:LA:129:LYS:HD3	2.38	0.58
37:LB:137:ILE:CG2	37:LB:147:ARG:HG2	2.34	0.58
81:LD:333:LEU:C	81:LD:337:PHE:CD2	2.76	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:LL:154:UNK:N	65:LL:154:UNK:CB	2.62	0.58
32:S1:1083:C:N3	32:S1:1084:U:H1'	2.18	0.58
31:S2:75:A:O4'	33:L1:2956:U:C1'	2.49	0.58
27:SH:7:LEU:HD23	27:SH:7:LEU:O	2.03	0.58
9:SK:37:ASN:HB2	9:SK:98:ALA:HB1	1.86	0.58
33:L1:1218:U:H5'	67:LS:93:TYR:C	2.03	0.58
66:LN:19:LYS:O	66:LN:21:TYR:HA	2.04	0.58
51:LY:58:VAL:HG12	51:LY:59:ARG:NH1	2.18	0.58
32:S1:347:C:C2	33:L1:2085:A:OP1	2.57	0.58
32:S1:349:U:H3'	46:LT:132:PHE:CD1	2.39	0.58
33:L1:1622:G:C3'	33:L1:1623:C:H5'	2.34	0.58
33:L1:1730:U:H2'	33:L1:1731:A:H5'	1.84	0.58
33:L1:3237:G:C6	33:L1:3238:U:H1'	2.39	0.58
34:L3:37:G:H2'	34:L3:38:U:C6	2.39	0.58
39:LF:2:LYS:NZ	66:LN:33:GLN:HB3	2.18	0.58
64:LG:50:PHE:N	64:LG:50:PHE:HA	1.97	0.58
66:LN:64:ARG:HH22	67:LS:151:PHE:CB	2.17	0.58
41:LM:96:MET:HE1	50:LZ:22:ARG:HD2	1.78	0.58
32:S1:632:G:N2	33:L1:849:A:C8	2.67	0.58
4:SD:230:LYS:HG2	4:SD:231:GLY:H	1.68	0.58
12:SO:100:LYS:CB	39:LF:82:GLY:H	167.18	0.58
33:L1:2231:G:C4	33:L1:2231:G:C2'	2.86	0.58
33:L1:2607:U:O2'	37:LB:226:ARG:CZ	2.52	0.58
33:L1:283:A:C2'	33:L1:283:A:C8	2.86	0.58
33:L1:711:A:C8	33:L1:720:G:N2	2.72	0.58
35:L2:96:A:C4	35:L2:97:U:H1'	2.39	0.58
32:S1:860:A:H5'	46:LT:177:ARG:HD2	1.84	0.58
33:L1:3301:G:H1'	48:LV:69:ARG:HD3	1.86	0.58
32:S1:1566:U:O4'	32:S1:1566:U:N1	2.35	0.58
25:SC:170:PRO:O	25:SC:171:PRO:HG2	2.03	0.58
5:SE:30:ARG:NE	27:SH:66:ASN:CA	2.63	0.58
14:SP:122:ASP:O	46:LT:162:LYS:HE2	2.03	0.58
31:S2:11:U:O4'	33:L1:2247:A:N3	2.36	0.58
33:L1:639:A:C5'	33:L1:640:C:H4'	2.34	0.58
33:L1:716:A:C4'	33:L1:716:A:C1'	2.79	0.58
36:LA:79:MET:SD	36:LA:86:VAL:HA	2.44	0.58
37:LB:202:VAL:HG11	37:LB:217:GLN:HB3	1.84	0.58
33:L1:3123:A:C2'	39:LF:64:ARG:HH12	2.16	0.58
34:L3:115:A:C2'	45:LQ:75:VAL:HG11	2.33	0.58
44:LR:128:LEU:HD13	81:LD:313:GLU:HA	1.84	0.58
48:LV:13:LYS:HB3	48:LV:154:LYS:HE2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:140:GLU:HG2	32:S1:1325:A:N6	2.18	0.58
32:S1:535:C:C4'	32:S1:536:U:OP2	2.38	0.58
2:SA:126:LEU:C	2:SA:126:LEU:HD23	2.25	0.58
25:SC:163:THR:CA	25:SC:163:THR:CG2	2.78	0.58
8:SJ:72:ILE:CD1	28:SN:33:LYS:CE	2.82	0.58
33:L1:1664:G:H2'	33:L1:1665:G:C8	2.38	0.58
33:L1:2157:C:OP1	37:LB:231:PRO:CB	2.39	0.58
33:L1:396:G:C5'	48:LV:3:LYS:HZ3	2.16	0.58
33:L1:507:C:OP1	64:LG:66:PRO:CD	2.52	0.58
33:L1:779:U:H2'	33:L1:780:U:C6	2.38	0.58
36:LA:54:LEU:HD11	36:LA:133:PHE:HA	1.86	0.58
38:LE:42:LEU:HD23	38:LE:42:LEU:O	2.03	0.58
66:LN:89:TRP:N	66:LN:91:LYS:H	2.02	0.58
14:SP:122:ASP:O	46:LT:162:LYS:CE	2.50	0.58
51:LY:12:ARG:HH11	51:LY:12:ARG:HG2	1.69	0.58
2:SA:136:GLN:OE1	32:S1:1325:A:C8	2.57	0.58
7:SI:144:PHE:CE1	32:S1:1588:C:H1'	2.38	0.58
2:SA:128:LEU:O	2:SA:150:ALA:HB1	2.03	0.58
5:SE:252:TYR:HB3	27:SH:99:PHE:HB3	1.86	0.58
17:SV:96:HIS:N	17:SV:101:ILE:CG1	2.64	0.58
32:S1:221:U:C6	33:L1:2063:U:C4	2.73	0.57
33:L1:2599:U:N1	33:L1:2599:U:C2'	2.61	0.57
36:LA:60:PRO:CB	36:LA:150:THR:HB	2.34	0.57
81:LD:380:ALA:HA	81:LD:383:LYS:HD2	1.85	0.57
66:LN:89:TRP:O	66:LN:91:LYS:N	2.37	0.57
34:L3:113:G:N3	45:LQ:72:GLY:HA3	2.19	0.57
44:LR:64:MET:O	44:LR:68:SER:HB2	2.03	0.57
46:LT:136:ARG:O	46:LT:137:VAL:CB	2.50	0.57
33:L1:1868:C:C5'	46:LT:55:GLN:O	2.52	0.57
49:LX:96:VAL:HG11	49:LX:105:ILE:HD12	1.84	0.57
32:S1:690:G:H3'	32:S1:690:G:C8	2.39	0.57
31:S2:11:U:O2	33:L1:2260:C:H2'	2.04	0.57
31:S2:25:U:C6	33:L1:2261:U:OP1	2.50	0.57
2:SA:109:PRO:CB	2:SA:110:GLY:N	2.66	0.57
2:SA:65:ALA:HB2	2:SA:165:ILE:HD11	1.85	0.57
33:L1:1691:U:C6	33:L1:1691:U:C2'	2.86	0.57
32:S1:331:U:OP1	33:L1:2083:U:OP2	2.21	0.57
36:LA:106:TYR:CZ	36:LA:140:GLN:HA	2.40	0.57
36:LA:195:LYS:HD3	36:LA:199:ASN:ND2	2.19	0.57
36:LA:49:SER:HA	36:LA:192:LEU:CD2	2.29	0.57
36:LA:59:ARG:HD2	36:LA:175:GLU:HG2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:LE:86:LEU:HA	38:LE:89:LYS:NZ	2.20	0.57
39:LF:113:ILE:CD1	39:LF:163:LYS:HD2	2.33	0.57
12:SO:93:LYS:CG	39:LF:19:GLN:O	179.49	0.57
43:LO:64:LEU:HD13	65:LL:156:UNK:HA	1.84	0.57
33:L1:1219:C:OP2	67:LS:138:ARG:CZ	2.52	0.57
66:LN:47:GLN:CD	67:LS:99:THR:HG23	2.24	0.57
14:SP:123:HIS:O	46:LT:162:LYS:HA	2.04	0.57
48:LV:59:PRO:HA	48:LV:76:ARG:NE	2.19	0.57
5:SE:142:LYS:HE2	32:S1:1304:A:H5'	1.78	0.57
32:S1:1738:U:H2'	32:S1:1739:U:C6	2.39	0.57
27:SH:106:THR:HG22	27:SH:121:VAL:CG1	2.33	0.57
12:SO:103:GLU:O	39:LF:78:ASN:CG	157.14	0.57
24:SX:66:CYS:HB3	24:SX:75:LEU:CD2	2.33	0.57
33:L1:3028:A:H2'	33:L1:3029:G:O4'	2.03	0.57
33:L1:3124:A:O2'	33:L1:3124:A:C1'	2.50	0.57
33:L1:355:C:H4'	81:LD:87:GLY:HA3	1.85	0.57
34:L3:20:C:O2	34:L3:20:C:H2'	2.04	0.57
34:L3:3:A:N3	34:L3:4:U:C6	2.72	0.57
34:L3:73:U:O2'	34:L3:73:U:C1'	2.47	0.57
36:LA:119:ILE:HG12	36:LA:123:LEU:HB2	1.86	0.57
32:S1:119:U:O2	32:S1:303:A:H2	1.78	0.57
32:S1:1803:G:H2'	32:S1:1804:A:C8	2.40	0.57
32:S1:860:A:C6	32:S1:861:A:C5	2.92	0.57
9:SK:99:THR:HG23	9:SK:100:GLY:N	2.19	0.57
31:S2:27:G:OP2	33:L1:2259:U:O2'	2.06	0.57
33:L1:3011:U:H1'	80:LC:15:GLY:CA	2.35	0.57
33:L1:3295:G:H21	33:L1:3304:U:H1'	1.66	0.57
33:L1:98:A:O3'	42:LP:182:HIS:CE1	2.56	0.57
34:L3:60:G:H1'	45:LQ:256:SER:HA	1.87	0.57
36:LA:141:GLU:HG3	36:LA:142:SER:N	2.20	0.57
36:LA:43:GLN:HA	36:LA:195:LYS:HG2	1.87	0.57
32:S1:928:A:C5'	37:LB:139:HIS:H	2.17	0.57
38:LE:75:GLY:H	67:LS:12:VAL:CG1	90.31	0.57
39:LF:2:LYS:HZ1	66:LN:33:GLN:HB3	1.69	0.57
66:LN:110:VAL:HG21	82:LK:201:LEU:CD2	2.33	0.57
33:L1:1216:G:H21	67:LS:92:MET:CE	2.18	0.57
5:SE:132:THR:HG22	32:S1:10:G:N3	2.19	0.57
32:S1:1542:G:H21	32:S1:1543:U:H3	1.52	0.57
32:S1:183:C:C2	32:S1:184:C:C5	2.91	0.57
31:S2:75:A:OP2	33:L1:2957:U:C5'	2.49	0.57
25:SC:195:GLU:OXT	33:L1:2250:A:O2'	2.22	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:SG:12:UNK:CB	26:SG:12:UNK:N	2.60	0.57
9:SK:112:GLN:HA	9:SK:115:LEU:HD12	1.85	0.57
14:SP:45:THR:HG22	14:SP:102:GLU:HB3	1.87	0.57
23:SU:48:LYS:O	23:SU:52:LEU:HB2	2.04	0.57
33:L1:1384:G:H1	33:L1:1429:U:H3	1.53	0.57
33:L1:1640:A:OP2	33:L1:1817:U:C2	2.57	0.57
34:L3:16:A:N6	34:L3:62:U:H3	2.02	0.57
34:L3:21:U:C4	34:L3:57:C:N3	2.73	0.57
36:LA:70:ALA:HB3	36:LA:107:HIS:NE2	2.18	0.57
81:LD:306:VAL:HB	81:LD:309:PRO:CG	2.34	0.57
32:S1:887:U:C1'	41:LM:85:ARG:HH21	101.26	0.57
5:SE:30:ARG:HG2	27:SH:67:GLY:HA2	1.86	0.57
15:SS:5:THR:OG1	32:S1:1363:G:C4'	2.36	0.57
17:SV:78:ARG:H	17:SV:78:ARG:HD2	1.69	0.57
32:S1:843:G:N2	33:L1:2063:U:O4	2.14	0.57
35:L2:97:U:C2	35:L2:97:U:C2'	2.88	0.57
33:L1:2465:G:H4'	36:LA:206:LYS:NZ	2.18	0.57
33:L1:2241:G:OP1	37:LB:219:ILE:O	2.23	0.57
81:LD:383:LYS:HA	81:LD:386:ILE:HD11	1.87	0.57
38:LE:38:VAL:HG22	38:LE:110:GLU:CD	2.24	0.57
64:LG:184:ILE:O	64:LG:185:ASP:HB2	2.04	0.57
48:LV:2:VAL:HG22	48:LV:3:LYS:H	1.68	0.57
32:S1:1736:C:O2'	33:L1:2102:C:O4'	2.18	0.57
32:S1:1758:G:OP2	33:L1:2298:A:C5'	2.53	0.57
32:S1:861:A:C5	46:LT:171:GLU:CD	2.64	0.57
4:SD:166:THR:CG2	4:SD:168:LYS:HB2	2.34	0.57
27:SH:65:LEU:HD22	27:SH:70:ASN:HA	1.84	0.57
15:SS:123:GLY:HA2	32:S1:1507:G:OP1	2.05	0.57
33:L1:2256:G:N2	33:L1:2257:A:N6	2.46	0.57
33:L1:2704:U:H6	33:L1:2704:U:O5'	1.88	0.57
33:L1:3148:A:H2'	33:L1:3149:C:C6	2.39	0.57
33:L1:804:A:O4'	33:L1:804:A:N9	2.36	0.57
33:L1:997:G:C2'	33:L1:997:G:C8	2.88	0.57
34:L3:106:U:H2'	34:L3:107:C:H6	1.69	0.57
34:L3:115:A:H4'	45:LQ:75:VAL:CG2	2.35	0.57
38:LE:91:TYR:CD2	38:LE:92:GLU:CA	2.87	0.57
41:LM:52:LEU:CD1	41:LM:52:LEU:H	2.17	0.57
33:L1:68:U:H5''	42:LP:179:HIS:H	1.68	0.57
33:L1:287:A:H5''	42:LP:97:ASN:HB3	1.87	0.57
5:SE:71:PRO:HB3	5:SE:261:LYS:HE3	1.86	0.57
15:SS:9:VAL:N	15:SS:138:ALA:HB1	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1395:A:C2'	33:L1:1395:A:C8	2.87	0.57
33:L1:2252:C:C6	33:L1:2252:C:C2'	2.87	0.57
33:L1:999:U:H2'	33:L1:1000:A:C8	2.39	0.57
35:L2:45:A:H61	35:L2:107:G:C2'	2.18	0.57
35:L2:99:G:H3'	35:L2:99:G:H8	1.70	0.57
81:LD:335:PRO:CD	81:LD:336:TYR:N	2.68	0.57
33:L1:1478:A:C3'	64:LG:65:LYS:HZ2	132.82	0.57
84:LI:110:ARG:HE	84:LI:116:ARG:HD2	1.70	0.57
33:L1:1179:C:O2'	82:LK:94:PRO:CA	2.52	0.57
33:L1:529:C:P	66:LN:69:THR:CG2	2.92	0.57
33:L1:2077:C:C5'	46:LT:113:LYS:HB2	2.34	0.57
14:SP:98:TYR:CZ	46:LT:155:LEU:HD21	2.38	0.57
48:LV:1:MET:N	48:LV:16:LYS:HB3	2.18	0.57
68:LW:41:LEU:HD21	68:LW:67:ARG:HE	1.69	0.57
32:S1:1181:G:H1	32:S1:1469:C:H42	1.52	0.57
31:S2:11:U:OP1	33:L1:2247:A:O4'	2.22	0.57
6:SF:118:ARG:CD	19:SY:56:GLU:CB	2.82	0.57
27:SH:94:LEU:CB	27:SH:95:PRO:CD	2.80	0.57
10:SL:49:ILE:HG12	10:SL:50:VAL:H	1.69	0.57
33:L1:1055:U:H2'	33:L1:1056:U:C6	2.40	0.57
33:L1:52:G:N2	33:L1:1549:A:H61	1.95	0.57
33:L1:2706:A:H61	45:LQ:30:GLY:C	2.08	0.57
33:L1:180:G:C5'	35:L2:98:C:C5	2.87	0.57
34:L3:38:U:H1'	34:L3:42:A:H61	1.70	0.57
33:L1:1432:G:N3	81:LD:108:PRO:CG	2.68	0.57
65:LL:153:UNK:CA	65:LL:153:UNK:O	2.44	0.57
34:L3:5:G:O3'	45:LQ:55:PHE:CE1	2.58	0.57
7:SI:132:PRO:HG2	32:S1:1616:U:C5	2.40	0.57
32:S1:1736:C:H6	33:L1:2102:C:O3'	1.87	0.57
31:S2:8:U:C1'	31:S2:8:U:O2'	2.50	0.57
30:S3:16:G:C4	30:S3:16:G:C2'	2.88	0.57
4:SD:166:THR:HG21	4:SD:168:LYS:HB2	1.87	0.57
27:SH:102:ILE:CG2	27:SH:113:HIS:HB3	2.34	0.57
24:SX:74:ARG:CD	24:SX:75:LEU:H	2.18	0.57
33:L1:2148:U:H2'	33:L1:2149:G:C8	2.40	0.57
33:L1:2149:G:C3'	37:LB:227:ARG:HH22	2.18	0.57
33:L1:2290:A:N9	33:L1:2290:A:O4'	2.37	0.57
33:L1:2607:U:H4'	37:LB:226:ARG:HH21	1.70	0.57
33:L1:2984:A:C8	33:L1:2984:A:O4'	2.57	0.57
33:L1:72:A:C2'	33:L1:72:A:N9	2.63	0.57
34:L3:7:G:H4'	45:LQ:37:ARG:NH1	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:LE:31:ARG:HG3	38:LE:34:ARG:CG	2.34	0.57
48:LV:126:GLN:HA	48:LV:126:GLN:OE1	2.05	0.57
48:LV:1:MET:HB2	48:LV:16:LYS:HZ2	1.69	0.57
2:SA:127:ILE:HB	2:SA:149:ILE:CD1	2.34	0.57
33:L1:1147:U:O2'	33:L1:1148:G:H8	1.88	0.56
33:L1:1678:U:O4	68:LW:93:LEU:HD12	2.04	0.56
33:L1:1752:C:C2'	33:L1:1753:A:H5'	2.35	0.56
33:L1:1448:U:O2'	33:L1:2357:A:N6	2.33	0.56
36:LA:35:ILE:HD11	36:LA:167:ALA:HB3	1.86	0.56
37:LB:104:ILE:HG21	37:LB:160:SER:HA	1.86	0.56
33:L1:2196:G:N2	37:LB:224:THR:HG21	2.03	0.56
32:S1:861:A:C6	46:LT:171:GLU:HA	2.40	0.56
48:LV:154:LYS:H	48:LV:154:LYS:HE2	1.70	0.56
15:SS:2:ALA:CB	32:S1:1363:G:C2'	2.66	0.56
2:SA:127:ILE:HD12	2:SA:149:ILE:CD1	2.35	0.56
2:SA:79:ILE:O	2:SA:79:ILE:HG23	2.05	0.56
4:SD:101:LEU:HD21	4:SD:109:PHE:CD2	2.40	0.56
11:SM:12:ILE:HG23	38:LE:118:TYR:HA	1.87	0.56
29:ST:2:GLN:HE21	33:L1:2544:C:C2'	2.16	0.56
33:L1:1218:U:H4'	67:LS:93:TYR:HB3	1.86	0.56
33:L1:463:G:N2	33:L1:472:U:H3	1.95	0.56
32:S1:978:A:C4'	33:L1:851:A:O5'	2.47	0.56
36:LA:57:ILE:HD11	36:LA:179:GLN:CB	2.21	0.56
39:LF:149:ASP:O	39:LF:153:VAL:HG23	2.05	0.56
43:LO:64:LEU:HB3	65:LL:155:UNK:C	2.36	0.56
41:LM:72:LEU:HD22	41:LM:72:LEU:H	1.69	0.56
51:LY:84:ILE:O	51:LY:84:ILE:HG23	2.04	0.56
4:SD:67:GLN:O	4:SD:69:HIS:CG	2.58	0.56
6:SF:200:ARG:O	9:SK:79:ASP:OD1	2.23	0.56
16:SR:139:ARG:HH22	32:S1:1460:G:H5''	1.69	0.56
15:SS:9:VAL:CG2	15:SS:138:ALA:HB3	2.33	0.56
15:SS:6:ALA:CB	32:S1:1363:G:H1'	2.33	0.56
33:L1:1523:G:O3'	49:LX:79:THR:CG2	2.51	0.56
33:L1:2149:G:N2	33:L1:2155:G:H21	2.03	0.56
33:L1:2215:A:H2'	33:L1:2216:G:H5'	1.86	0.56
31:S2:26:G:C4'	33:L1:2260:C:H5'	2.29	0.56
34:L3:113:G:O2'	45:LQ:71:ALA:HB1	2.03	0.56
34:L3:19:A:N6	34:L3:59:U:H3	2.03	0.56
32:S1:929:A:C1'	37:LB:137:ILE:HD12	2.34	0.56
32:S1:988:G:HO2'	37:LB:173:GLY:CA	2.11	0.56
81:LD:332:LYS:HB3	81:LD:336:TYR:HE2	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:354:C:O2'	81:LD:87:GLY:O	2.24	0.56
64:LG:107:THR:HA	64:LG:117:ILE:HG12	1.85	0.56
84:LI:109:ASP:C	84:LI:116:ARG:NH2	2.58	0.56
43:LO:63:ARG:HH12	65:LL:152:UNK:CB	2.18	0.56
67:LS:99:THR:HG22	67:LS:100:THR:CG2	2.33	0.56
27:SH:102:ILE:O	27:SH:102:ILE:HG23	2.05	0.56
33:L1:1193:A:H61	33:L1:1321:A:H61	1.54	0.56
33:L1:164:C:H2'	33:L1:165:C:C6	2.41	0.56
33:L1:2157:C:H2'	37:LB:11:GLY:HA2	1.88	0.56
36:LA:112:SER:C	36:LA:115:ILE:HG12	2.25	0.56
40:LH:126:ILE:HD12	40:LH:127:VAL:HA	1.87	0.56
66:LN:50:PHE:CD2	66:LN:53:LEU:HD22	2.41	0.56
33:L1:98:A:O3'	42:LP:182:HIS:HE1	1.87	0.56
48:LV:117:HIS:CE1	48:LV:119:GLN:HG3	2.41	0.56
33:L1:3301:G:H5''	48:LV:71:ALA:N	2.19	0.56
7:SI:91:ILE:CG1	32:S1:1616:U:H5'	2.35	0.56
32:S1:1736:C:O3'	33:L1:2101:A:H2'	1.98	0.56
32:S1:210:A:C2'	32:S1:211:G:H5'	2.36	0.56
32:S1:485:A:H61	32:S1:510:A:H61	1.53	0.56
4:SD:160:ILE:CD1	4:SD:169:ILE:HG12	2.35	0.56
4:SD:160:ILE:HG12	4:SD:169:ILE:HG23	1.85	0.56
4:SD:183:VAL:HG13	4:SD:183:VAL:O	2.05	0.56
27:SH:10:ALA:HB1	27:SH:22:LYS:HD2	1.86	0.56
15:SS:107:LEU:HD13	15:SS:124:ARG:HE	1.68	0.56
23:SU:20:ASN:N	23:SU:25:ARG:HG3	2.17	0.56
33:L1:1298:A:H5''	67:LS:90:HIS:CD2	2.35	0.56
33:L1:2148:U:OP1	37:LB:242:ARG:CG	2.53	0.56
33:L1:2669:C:H41	33:L1:2690:G:H2'	1.70	0.56
33:L1:282:A:N6	33:L1:2787:A:H1'	2.19	0.56
33:L1:273:U:H3	33:L1:288:G:H22	1.53	0.56
33:L1:375:G:N2	33:L1:389:A:H61	2.03	0.56
33:L1:883:G:C2	48:LV:134:HIS:CE1	2.94	0.56
36:LA:36:GLY:HA2	36:LA:165:GLY:HA2	1.86	0.56
37:LB:134:ALA:HB1	37:LB:148:ILE:CG2	2.35	0.56
37:LB:104:ILE:HD13	37:LB:146:SER:CB	2.35	0.56
48:LV:15:SER:C	48:LV:16:LYS:HG3	2.25	0.56
31:S2:75:A:OP2	33:L1:2957:U:O4'	0.56	0.56
2:SA:133:THR:HG23	2:SA:134:ASP:N	2.21	0.56
2:SA:67:ARG:NH1	5:SE:61:LYS:CE	2.67	0.56
23:SU:19:THR:HB	23:SU:93:PRO:HA	1.87	0.56
33:L1:1563:G:H3'	33:L1:1564:C:C5	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2164:G:N2	37:LB:11:GLY:O	2.38	0.56
33:L1:250:C:N3	33:L1:251:G:C6	2.74	0.56
33:L1:3049:A:C2	33:L1:3092:A:N7	2.73	0.56
64:LG:138:ASN:O	64:LG:139:VAL:HG23	2.04	0.56
66:LN:14:LEU:HD13	66:LN:14:LEU:C	2.24	0.56
66:LN:3:PHE:CZ	66:LN:5:ARG:HB3	2.41	0.56
66:LN:64:ARG:NH1	67:LS:154:VAL:CG2	2.68	0.56
43:LO:63:ARG:NH1	65:LL:152:UNK:CA	2.68	0.56
32:S1:1392:G:H3'	32:S1:1393:G:C5'	2.36	0.56
10:SL:67:LYS:HZ2	32:S1:1753:U:H4'	1.70	0.56
2:SA:77:ASP:C	2:SA:78:ILE:HD12	2.26	0.56
27:SH:102:ILE:HG22	27:SH:113:HIS:CG	2.40	0.56
10:SL:83:PHE:HD2	10:SL:84:VAL:HG22	1.71	0.56
14:SP:119:LYS:HG3	14:SP:120:GLU:H	1.71	0.56
33:L1:123:U:H2'	33:L1:124:C:C6	2.40	0.56
31:S2:12:U:O2'	33:L1:2262:C:N3	2.38	0.56
33:L1:2842:C:HO2'	33:L1:2843:G:H8	1.52	0.56
33:L1:803:G:H2'	33:L1:804:A:N7	2.20	0.56
34:L3:87:G:H5''	67:LS:117:ARG:NH2	2.15	0.56
33:L1:2157:C:C2'	37:LB:11:GLY:H	2.17	0.56
33:L1:1351:C:OP1	81:LD:328:ALA:HB2	2.05	0.56
14:SP:54:TYR:H	46:LT:144:LYS:HZ3	1.51	0.56
51:LY:90:ASN:HD21	51:LY:92:SER:CB	2.18	0.56
32:S1:1676:G:H5'	33:L1:1933:U:O5'	2.04	0.56
32:S1:200:C:H3'	32:S1:201:G:C5'	2.36	0.56
32:S1:348:A:C5'	46:LT:140:GLU:H	2.16	0.56
32:S1:989:G:H4'	37:LB:173:GLY:N	2.18	0.56
2:SA:64:LEU:HA	5:SE:44:TRP:HE1	1.71	0.56
10:SL:94:GLU:OE1	10:SL:97:ASP:HB2	2.06	0.56
14:SP:123:HIS:O	46:LT:162:LYS:CA	2.54	0.56
24:SX:74:ARG:C	24:SX:75:LEU:CG	2.72	0.56
33:L1:1858:U:H3	33:L1:1864:G:H1	1.52	0.56
32:S1:1745:U:H1'	33:L1:1932:A:H8	1.69	0.56
33:L1:2396:A:H1'	33:L1:2943:A:H61	1.71	0.56
34:L3:113:G:H4'	45:LQ:71:ALA:CB	2.17	0.56
36:LA:54:LEU:CD1	36:LA:134:PRO:HD2	2.29	0.56
81:LD:334:ASN:N	81:LD:335:PRO:HD3	2.20	0.56
39:LF:187:THR:O	39:LF:187:THR:CG2	2.48	0.56
14:SP:54:TYR:N	46:LT:144:LYS:NZ	2.50	0.56
32:S1:1745:U:O2	33:L1:1932:A:O4'	2.23	0.56
31:S2:17:G:H3'	31:S2:18:G:H5''	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:SB:131:ALA:HB2	3:SB:190:LEU:HD12	1.87	0.56
4:SD:153:ILE:C	4:SD:154:ILE:HG13	2.20	0.56
5:SE:197:LEU:CD2	32:S1:1091:A:H5'	2.35	0.56
9:SK:99:THR:O	9:SK:124:LYS:HE2	2.06	0.56
11:SM:14:ARG:N	38:LE:111:HIS:NE2	2.53	0.56
13:SQ:71:LEU:HD21	13:SQ:77:GLU:H	1.70	0.56
15:SS:2:ALA:CA	32:S1:1363:G:O3'	2.54	0.56
33:L1:2441:G:C5	33:L1:2509:A:C2	2.94	0.56
81:LD:332:LYS:O	81:LD:336:TYR:HD2	1.87	0.56
45:LQ:25:LYS:H	45:LQ:25:LYS:HD2	4.76	0.56
48:LV:9:ASN:HD21	48:LV:154:LYS:HE3	1.71	0.56
32:S1:161:G:C2'	32:S1:162:A:H5'	2.36	0.56
32:S1:1676:G:O5'	33:L1:1933:U:OP1	2.23	0.56
2:SA:198:LYS:HB3	2:SA:218:GLU:HA	1.88	0.56
4:SD:90:ILE:HD12	4:SD:111:LEU:HD21	1.87	0.56
5:SE:30:ARG:CG	27:SH:67:GLY:N	2.67	0.56
27:SH:94:LEU:CD2	27:SH:128:PHE:CE1	2.89	0.56
33:L1:576:C:OP1	81:LD:342:LYS:CE	2.54	0.56
66:LN:95:VAL:CG1	82:LK:206:TYR:OXT	2.52	0.56
14:SP:89:ARG:CB	46:LT:151:ARG:NH2	2.68	0.56
48:LV:70:THR:HG22	48:LV:80:GLY:HA2	1.86	0.56
32:S1:1678:G:N3	32:S1:1678:G:C2'	2.68	0.56
25:SC:106:PHE:CD2	32:S1:670:C:O2	2.58	0.56
31:S2:40:U:N3	31:S2:41:G:N7	2.53	0.56
4:SD:103:TYR:CE1	4:SD:109:PHE:CZ	2.94	0.56
5:SE:258:LYS:HZ1	27:SH:69:LEU:CD1	2.08	0.56
27:SH:52:PHE:C	27:SH:53:VAL:CG2	2.59	0.56
27:SH:7:LEU:HD23	27:SH:22:LYS:NZ	2.21	0.56
9:SK:109:PRO:HG2	9:SK:112:GLN:CA	2.35	0.56
9:SK:125:ILE:HG23	9:SK:125:ILE:O	2.05	0.56
23:SU:32:VAL:O	23:SU:33:LEU:HD13	2.05	0.56
17:SV:95:VAL:CA	17:SV:101:ILE:CD1	2.79	0.56
33:L1:1707:C:C5	33:L1:1728:G:OP2	2.59	0.56
14:SP:91:TYR:O	33:L1:2081:C:H5'	2.06	0.56
33:L1:2619:C:C5	33:L1:2620:U:C4	2.94	0.56
33:L1:721:A:H62	33:L1:784:G:H1'	1.71	0.56
36:LA:143:LEU:HD13	36:LA:143:LEU:C	2.27	0.56
36:LA:192:LEU:HG	36:LA:193:LEU:N	2.21	0.56
33:L1:1365:C:C4'	81:LD:336:TYR:HB3	2.34	0.56
41:LM:140:VAL:HG21	50:LZ:24:ILE:HD11	1.87	0.56
41:LM:72:LEU:HD22	41:LM:72:LEU:N	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:LN:30:VAL:CG2	67:LS:154:VAL:HG22	2.35	0.56
48:LV:113:LEU:N	48:LV:113:LEU:HD23	2.21	0.56
32:S1:858:G:C2'	46:LT:176:ARG:CD	2.81	0.56
32:S1:860:A:C2'	32:S1:861:A:C5'	2.82	0.56
2:SA:76:GLN:HG3	2:SA:78:ILE:HD11	1.87	0.56
4:SD:102:LEU:HB2	4:SD:112:GLN:NE2	2.19	0.56
27:SH:49:GLU:HG3	27:SH:50:PHE:HD1	1.71	0.56
5:SE:30:ARG:HD3	27:SH:67:GLY:H	1.57	0.56
9:SK:92:LEU:HD22	9:SK:92:LEU:C	2.27	0.56
13:SQ:21:TYR:O	13:SQ:22:SER:HB3	2.05	0.56
13:SQ:57:LEU:O	13:SQ:61:ILE:HD12	2.05	0.56
33:L1:1269:U:H2'	33:L1:1270:G:C8	2.41	0.55
31:S2:25:U:HO2'	33:L1:2260:C:P	2.29	0.55
33:L1:2562:A:N6	33:L1:2582:G:O2'	2.39	0.55
33:L1:961:C:O2	33:L1:967:G:C2	2.59	0.55
34:L3:115:A:C4'	45:LQ:75:VAL:HG13	2.36	0.55
34:L3:21:U:O4	34:L3:26:C:O2	2.24	0.55
34:L3:48:G:H21	34:L3:50:A:N6	2.03	0.55
36:LA:105:LYS:HB2	36:LA:129:LYS:HE2	1.88	0.55
36:LA:137:VAL:CG1	36:LA:139:HIS:H	2.05	0.55
36:LA:60:PRO:CA	36:LA:150:THR:HG21	2.32	0.55
33:L1:1365:C:P	81:LD:337:PHE:HE1	2.03	0.55
81:LD:356:LYS:HB3	81:LD:359:LEU:H	1.72	0.55
81:LD:381:TRP:CA	81:LD:384:THR:HG23	2.36	0.55
33:L1:1179:C:O3'	82:LK:94:PRO:CG	2.52	0.55
48:LV:126:GLN:O	48:LV:141:MET:HB3	2.05	0.55
32:S1:977:G:C4	33:L1:850:A:C6	2.69	0.55
32:S1:978:A:N3	33:L1:850:A:H1'	2.18	0.55
4:SD:153:ILE:HG23	4:SD:154:ILE:HD11	1.88	0.55
5:SE:30:ARG:CZ	27:SH:67:GLY:N	2.66	0.55
11:SM:14:ARG:CG	38:LE:109:GLN:OE1	2.55	0.55
15:SS:8:THR:O	15:SS:9:VAL:C	2.42	0.55
23:SU:25:ARG:HH11	23:SU:26:LYS:H	1.53	0.55
36:LA:66:MET:HG2	36:LA:84:MET:HE2	1.87	0.55
37:LB:191:VAL:HB	37:LB:192:LYS:HD3	1.87	0.55
64:LG:51:TYR:O	64:LG:52:PRO:O	2.24	0.55
84:LI:103:LEU:HA	84:LI:116:ARG:NH2	2.21	0.55
36:LA:189:LEU:CD1	65:LL:194:UNK:CA	2.84	0.55
43:LO:12:ARG:NH2	65:LL:18:UNK:CB	2.68	0.55
47:LU:34:TYR:CE1	47:LU:93:VAL:HG23	2.41	0.55
48:LV:23:ARG:HG3	48:LV:23:ARG:O	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:LH:64:LYS:CG	49:LX:42:PHE:CZ	2.89	0.55
32:S1:1280:U:H3	32:S1:1442:A:H61	1.55	0.55
30:S3:13:A:N6	32:S1:1156:A:O3'	2.38	0.55
2:SA:130:ASP:O	2:SA:133:THR:HG22	2.06	0.55
16:SR:146:HIS:HD1	32:S1:1185:U:HO2'	1.54	0.55
23:SU:33:LEU:HA	23:SU:35:PRO:HD2	1.88	0.55
33:L1:1596:G:H5'	33:L1:1752:C:H4'	1.88	0.55
33:L1:1888:G:H21	33:L1:3057:A:H62	1.53	0.55
33:L1:2247:A:C2'	33:L1:2247:A:N9	2.67	0.55
33:L1:2692:G:H5''	33:L1:2693:G:C4	2.41	0.55
33:L1:716:A:C1'	33:L1:2776:U:O2'	2.51	0.55
36:LA:67:LEU:HD22	36:LA:147:VAL:HG21	1.87	0.55
33:L1:1261:C:H5'	74:LJ:124:LYS:H	1.70	0.55
66:LN:9:ILE:HD12	66:LN:64:ARG:CA	2.32	0.55
33:L1:1299:G:OP1	67:LS:85:SER:HB2	2.07	0.55
20:SZ:13:LYS:NZ	32:S1:1254:U:OP1	2.38	0.55
32:S1:222:G:C4	33:L1:2063:U:OP1	2.60	0.55
4:SD:147:ILE:HD12	4:SD:169:ILE:HD11	1.85	0.55
24:SX:51:HIS:CE1	24:SX:72:LYS:HZ1	2.24	0.55
24:SX:74:ARG:O	24:SX:75:LEU:HD23	2.06	0.55
33:L1:2663:U:H2'	33:L1:2664:G:C8	2.41	0.55
33:L1:2962:C:H42	33:L1:2974:G:H1	1.54	0.55
33:L1:692:U:H2'	33:L1:693:C:C6	2.41	0.55
32:S1:320:A:O5'	33:L1:854:C:O3'	2.19	0.55
34:L3:37:G:H21	34:L3:43:A:H62	1.54	0.55
34:L3:3:A:C1'	34:L3:21:U:H1'	2.36	0.55
34:L3:93:U:H4'	67:LS:84:GLN:HE22	1.71	0.55
37:LB:90:CYS:SG	37:LB:101:VAL:CG1	2.94	0.55
38:LE:21:LEU:HD11	38:LE:39:LEU:HD22	1.89	0.55
64:LG:96:LEU:HB3	64:LG:139:VAL:HG22	1.87	0.55
33:L1:1320:G:OP1	82:LK:134:LEU:CD2	2.50	0.55
66:LN:60:ILE:HG22	66:LN:81:LYS:HD2	1.88	0.55
44:LR:150:ARG:HH22	44:LR:160:HIS:CD2	2.24	0.55
32:S1:1083:C:C4	32:S1:1084:U:C2	2.94	0.55
2:SA:113:THR:HG21	32:S1:1299:G:H5'	1.88	0.55
32:S1:187:C:N3	32:S1:188:U:C6	2.74	0.55
32:S1:632:G:C2'	32:S1:632:G:N9	2.63	0.55
27:SH:111:MET:SD	27:SH:116:ALA:HA	2.47	0.55
27:SH:78:ARG:O	27:SH:79:PHE:C	2.41	0.55
17:SV:23:GLN:O	17:SV:24:LYS:HG3	2.06	0.55
33:L1:19:C:C6	33:L1:19:C:O4'	2.60	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2274:A:P	33:L1:2300:G:H22	2.29	0.55
33:L1:3327:A:O4'	33:L1:3327:A:N9	2.38	0.55
33:L1:881:G:C1'	33:L1:883:G:H21	2.18	0.55
34:L3:119:C:N4	34:L3:120:C:C5	2.75	0.55
34:L3:35:C:C5	34:L3:36:C:C5	2.94	0.55
36:LA:79:MET:HG2	36:LA:83:TYR:HD2	1.68	0.55
43:LO:119:VAL:HG22	65:LL:160:UNK:CB	2.36	0.55
66:LN:109:LYS:HE2	82:LK:198:LEU:HD21	1.87	0.55
14:SP:94:PHE:CA	46:LT:151:ARG:CD	2.83	0.55
14:SP:124:VAL:CA	46:LT:165:LYS:HD2	2.37	0.55
32:S1:138:C:C6	32:S1:138:C:OP1	2.60	0.55
32:S1:1547:G:N9	32:S1:1547:G:O4'	2.35	0.55
32:S1:1205:G:C5	32:S1:1607:C:N3	2.75	0.55
32:S1:181:C:H2'	32:S1:182:C:H5'	1.87	0.55
32:S1:979:A:OP1	33:L1:851:A:O3'	2.23	0.55
27:SH:29:PRO:HA	27:SH:32:LYS:HB2	1.89	0.55
27:SH:33:VAL:CG2	27:SH:37:PHE:HE2	2.16	0.55
10:SL:93:ILE:HG12	10:SL:95:GLU:N	2.19	0.55
15:SS:8:THR:HB	15:SS:12:VAL:HG13	1.87	0.55
23:SU:12:LEU:HG	23:SU:30:LEU:HD13	1.87	0.55
23:SU:19:THR:CG2	23:SU:93:PRO:HB3	2.37	0.55
18:SW:76:UNK:CB	32:S1:1810:G:H5'	2.36	0.55
33:L1:1112:C:OP1	44:LR:150:ARG:HB2	2.06	0.55
33:L1:1432:G:N3	81:LD:108:PRO:HG3	2.21	0.55
33:L1:24:C:H2'	33:L1:25:U:C5	2.42	0.55
33:L1:637:C:C6	33:L1:638:G:H1'	2.41	0.55
33:L1:963:U:N1	33:L1:963:U:O4'	2.36	0.55
34:L3:41:G:H4'	34:L3:42:A:N7	2.22	0.55
34:L3:46:C:C2'	34:L3:47:C:H5'	2.34	0.55
80:LC:69:LYS:O	80:LC:70:LYS:HB2	2.05	0.55
33:L1:3301:G:O2'	48:LV:70:THR:HG23	2.05	0.55
68:LW:84:TYR:HA	68:LW:87:TYR:HB2	1.87	0.55
40:LH:69:VAL:HG21	49:LX:46:LYS:H	1.71	0.55
32:S1:1016:C:O3'	37:LB:248:GLY:O	2.23	0.55
32:S1:918:G:O6	33:L1:2201:G:H1'	2.05	0.55
2:SA:106:ARG:HD2	2:SA:106:ARG:H	1.72	0.55
33:L1:1292:U:H2'	33:L1:1293:C:H6	1.72	0.55
33:L1:2219:A:H2'	33:L1:2220:U:C6	2.42	0.55
33:L1:634:A:H5''	82:LK:99:ARG:HB2	1.89	0.55
34:L3:27:A:OP2	45:LQ:56:VAL:CA	2.55	0.55
34:L3:51:G:C2'	34:L3:52:U:H5'	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:LB:104:ILE:HD13	37:LB:146:SER:HB2	1.87	0.55
33:L1:2157:C:C2'	37:LB:11:GLY:HA2	2.37	0.55
80:LC:290:LYS:HG2	80:LC:293:GLN:H	1.71	0.55
64:LG:132:VAL:HG12	64:LG:133:ASP:H	1.71	0.55
33:L1:293:A:H4'	82:LK:58:LYS:HZ1	132.56	0.55
12:SO:93:LYS:HB3	39:LF:19:GLN:HG2	181.92	0.55
14:SP:89:ARG:HD2	46:LT:151:ARG:HD2	1.89	0.55
18:SW:101:UNK:O	18:SW:102:UNK:C	2.47	0.55
33:L1:1079:G:H2'	33:L1:1080:C:C6	2.41	0.55
33:L1:2530:G:H2'	33:L1:2531:G:C8	2.40	0.55
31:S2:75:A:C8	33:L1:2956:U:C5'	2.89	0.55
33:L1:3158:C:H3'	33:L1:3159:C:C6	2.42	0.55
33:L1:659:C:H2'	33:L1:660:A:C8	2.42	0.55
35:L2:41:A:C5'	35:L2:41:A:C8	2.89	0.55
64:LG:91:LYS:HD2	64:LG:152:LYS:HB3	1.89	0.55
48:LV:38:LYS:HA	48:LV:114:TYR:CD2	2.41	0.55
33:L1:3301:G:O2'	48:LV:70:THR:HG21	2.07	0.55
32:S1:1205:G:C2	32:S1:1607:C:C2	2.95	0.55
32:S1:633:U:O2	32:S1:634:A:C8	2.60	0.55
4:SD:71:LEU:HD22	4:SD:75:LYS:C	2.28	0.55
9:SK:99:THR:C	9:SK:124:LYS:HE2	2.27	0.55
23:SU:30:LEU:HD21	23:SU:78:PHE:HA	1.88	0.55
33:L1:1261:C:H5''	74:LJ:124:LYS:H	1.71	0.55
33:L1:1753:A:C4	33:L1:1754:C:C5	2.94	0.55
33:L1:2355:A:C4	33:L1:2355:A:C2'	2.89	0.55
33:L1:2380:G:H5''	82:LK:95:HIS:NE2	2.21	0.55
33:L1:2450:G:N2	33:L1:2499:U:C2	2.75	0.55
45:LQ:247:ILE:O	45:LQ:249:ALA:HA	2.07	0.55
48:LV:1:MET:H3	48:LV:16:LYS:HB3	1.71	0.55
32:S1:1290:U:O4'	32:S1:1290:U:N1	2.36	0.55
32:S1:1572:U:H6	32:S1:1572:U:O5'	1.90	0.55
31:S2:14:A:H2'	31:S2:15:A:H5'	1.88	0.55
31:S2:74:C:C1'	33:L1:2404:C:C4'	2.85	0.55
31:S2:75:A:H5''	33:L1:2956:U:C3'	2.37	0.55
4:SD:216:HIS:CG	4:SD:217:GLN:H	2.25	0.55
5:SE:258:LYS:HE3	27:SH:69:LEU:N	2.13	0.55
12:SO:120:SER:HA	12:SO:123:HIS:CE1	2.41	0.55
33:L1:2208:A:H2'	33:L1:2209:A:C8	2.42	0.55
33:L1:2385:A:H61	33:L1:2995:G:H1'	1.70	0.55
37:LB:211:HIS:CD2	37:LB:219:ILE:HB	2.42	0.55
81:LD:303:VAL:HG12	81:LD:304:GLN:CA	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:LD:94:GLY:HA2	81:LD:95:ALA:HB3	1.88	0.55
38:LE:14:ILE:CD1	38:LE:133:LEU:HD13	2.37	0.55
64:LG:49:LYS:O	64:LG:50:PHE:CB	2.54	0.55
44:LR:41:LYS:H	81:LD:325:LYS:NZ	2.05	0.55
32:S1:594:C:H2'	32:S1:595:A:C8	2.42	0.55
2:SA:81:GLN:HE22	2:SA:137:PRO:HB2	1.72	0.55
27:SH:94:LEU:HD13	27:SH:95:PRO:N	2.21	0.55
10:SL:95:GLU:O	10:SL:96:ASN:HB2	2.07	0.55
14:SP:92:LEU:HA	46:LT:151:ARG:NH1	2.13	0.55
23:SU:25:ARG:HD3	23:SU:26:LYS:CA	2.37	0.55
17:SV:48:TYR:OH	17:SV:81:ILE:HA	2.07	0.55
33:L1:2179:U:H5'	33:L1:2309:U:OP2	2.08	0.54
33:L1:3301:G:H4'	48:LV:70:THR:O	2.06	0.54
33:L1:3320:G:H2'	33:L1:3322:A:H8	1.72	0.54
33:L1:3338:U:H2'	33:L1:3339:G:C8	2.43	0.54
36:LA:92:MET:HE3	36:LA:117:LYS:HB2	1.88	0.54
65:LL:152:UNK:C	65:LL:152:UNK:HA	2.17	0.54
64:LG:188:LEU:HD13	66:LN:105:PHE:CD2	2.43	0.54
3:SB:28:GLU:C	3:SB:29:LEU:HD22	2.27	0.54
27:SH:38:LEU:HD13	27:SH:43:LYS:O	2.06	0.54
7:SI:55:PHE:H	15:SS:11:ASP:CB	2.20	0.54
9:SK:81:ALA:HB1	9:SK:115:LEU:CG	2.37	0.54
10:SL:65:ILE:HG23	10:SL:66:ARG:N	2.23	0.54
33:L1:2740:C:H2'	33:L1:2741:G:C8	2.42	0.54
34:L3:116:U:H2'	34:L3:117:U:C5'	2.36	0.54
40:LH:224:GLU:HA	40:LH:225:VAL:HG13	1.88	0.54
43:LO:63:ARG:HA	65:LL:153:UNK:HA	1.89	0.54
67:LS:109:TYR:O	67:LS:113:ALA:HB2	2.06	0.54
48:LV:112:THR:CA	48:LV:113:LEU:HD23	2.37	0.54
25:SC:169:GLY:H	25:SC:170:PRO:HD3	1.71	0.54
5:SE:134:ILE:HG23	5:SE:135:ARG:H	1.72	0.54
11:SM:18:THR:H	38:LE:109:GLN:HE22	1.54	0.54
17:SV:52:LEU:HA	17:SV:71:ARG:NH1	2.23	0.54
14:SP:88:ARG:CZ	33:L1:2083:U:P	2.96	0.54
32:S1:1685:U:H2'	33:L1:3334:A:C5'	2.37	0.54
33:L1:3356:C:H2'	33:L1:3357:C:C6	2.42	0.54
39:LF:187:THR:O	39:LF:188:GLU:CB	2.48	0.54
66:LN:63:LYS:NZ	66:LN:63:LYS:HB2	2.22	0.54
43:LO:109:LYS:O	43:LO:113:PRO:HD2	2.08	0.54
34:L3:86:G:H5'	67:LS:119:ARG:CB	2.37	0.54
32:S1:858:G:H3'	46:LT:176:ARG:CD	2.31	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:109:PRO:O	2:SA:110:GLY:C	2.43	0.54
4:SD:181:VAL:HG12	4:SD:182:MET:N	2.22	0.54
5:SE:31:ARG:NH2	27:SH:67:GLY:HA3	2.22	0.54
27:SH:78:ARG:O	27:SH:79:PHE:O	2.26	0.54
27:SH:7:LEU:HD23	27:SH:22:LYS:HZ1	1.71	0.54
12:SO:100:LYS:CB	39:LF:82:GLY:N	167.44	0.54
24:SX:48:VAL:HG21	24:SX:56:VAL:HG21	1.89	0.54
33:L1:1943:G:H5''	46:LT:135:LYS:H	1.71	0.54
33:L1:2700:A:H2'	33:L1:2701:G:O4'	2.08	0.54
33:L1:2708:A:O4'	33:L1:2708:A:N9	2.40	0.54
33:L1:384:A:C5	33:L1:385:A:C4	2.96	0.54
36:LA:129:LYS:HE3	36:LA:129:LYS:N	2.23	0.54
81:LD:368:PRO:HA	81:LD:371:ALA:HB3	1.89	0.54
64:LG:188:LEU:HD13	66:LN:105:PHE:HB2	1.90	0.54
84:LI:104:SER:H	84:LI:109:ASP:HB3	1.72	0.54
66:LN:7:VAL:HA	66:LN:30:VAL:HB	1.88	0.54
32:S1:348:A:O2'	46:LT:140:GLU:O	2.26	0.54
25:SC:32:LEU:HD23	25:SC:32:LEU:O	2.07	0.54
4:SD:175:PHE:HE1	4:SD:208:ILE:HG13	1.71	0.54
16:SR:116:ILE:HD13	16:SR:117:LYS:HG2	1.90	0.54
33:L1:1174:G:H5''	34:L3:84:U:H3	1.72	0.54
33:L1:309:C:C4	33:L1:310:C:C4	2.95	0.54
33:L1:384:A:C6	33:L1:385:A:C2	2.95	0.54
33:L1:638:G:H3'	33:L1:639:A:C4'	2.37	0.54
34:L3:38:U:H1'	34:L3:42:A:N6	2.23	0.54
36:LA:56:HIS:NE2	36:LA:149:GLU:HG2	2.22	0.54
36:LA:189:LEU:HD11	65:LL:194:UNK:CA	2.38	0.54
48:LV:58:ILE:O	48:LV:58:ILE:HG23	2.07	0.54
32:S1:215:A:OP2	32:S1:834:A:C4'	2.52	0.54
32:S1:977:G:C5	33:L1:850:A:C6	2.90	0.54
2:SA:109:PRO:C	2:SA:111:THR:N	2.61	0.54
2:SA:125:LEU:C	2:SA:125:LEU:HD12	2.28	0.54
5:SE:30:ARG:NH1	27:SH:66:ASN:CA	2.70	0.54
5:SE:30:ARG:CD	27:SH:67:GLY:O	2.52	0.54
33:L1:2021:G:H2'	33:L1:2022:U:C5	2.42	0.54
33:L1:1889:G:H1	33:L1:2341:U:H3	1.54	0.54
33:L1:2650:A:P	84:LI:119:PHE:CE1	3.01	0.54
33:L1:2699:A:H2'	33:L1:2700:A:C8	2.42	0.54
33:L1:2780:G:O2'	33:L1:2780:G:C1'	2.49	0.54
34:L3:29:C:N4	45:LQ:58:ASN:HD22	2.05	0.54
37:LB:221:HIS:CD2	37:LB:222:ALA:H	2.25	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2649:C:OP1	84:LI:119:PHE:CE2	2.61	0.54
34:L3:116:U:C2'	45:LQ:80:TYR:CE1	2.91	0.54
33:L1:786:U:H5'	44:LR:70:PHE:CE1	2.42	0.54
46:LT:176:ARG:CD	46:LT:179:GLU:HG3	2.38	0.54
32:S1:1191:U:H3	32:S1:1202:G:H1	1.55	0.54
32:S1:193:G:O6	32:S1:194:G:C2	2.61	0.54
32:S1:556:G:H1	32:S1:576:C:N4	1.96	0.54
31:S2:13:U:H1'	33:L1:2261:U:H2'	1.90	0.54
2:SA:43:TYR:HB3	2:SA:44:LYS:HD3	1.89	0.54
4:SD:124:CYS:HB2	4:SD:160:ILE:CG2	2.37	0.54
4:SD:239:PRO:O	4:SD:240:LYS:HG2	2.07	0.54
5:SE:31:ARG:HB2	27:SH:68:ARG:HA	1.90	0.54
6:SF:118:ARG:HD2	19:SY:56:GLU:HB2	1.89	0.54
27:SH:15:TYR:HD2	27:SH:65:LEU:HD23	1.59	0.54
9:SK:90:THR:CA	9:SK:93:HIS:CE1	2.85	0.54
13:SQ:61:ILE:H	13:SQ:61:ILE:HD12	1.71	0.54
33:L1:1509:G:H1	33:L1:1515:U:H3	1.55	0.54
33:L1:2650:A:OP2	84:LI:119:PHE:HE1	1.83	0.54
33:L1:2774:A:H2'	33:L1:2775:C:O4'	2.08	0.54
33:L1:3301:G:O3'	48:LV:70:THR:O	2.26	0.54
33:L1:3335:G:H2'	33:L1:3336:A:H5'	1.88	0.54
36:LA:54:LEU:HG	36:LA:153:THR:HA	1.90	0.54
33:L1:57:G:H5'	42:LP:155:VAL:HA	1.90	0.54
42:LP:31:ARG:HH21	42:LP:124:ASP:CG	2.10	0.54
33:L1:288:G:C5'	42:LP:98:LYS:CE	2.48	0.54
67:LS:115:ARG:NE	67:LS:115:ARG:HA	2.22	0.54
16:SR:142:ILE:CG2	32:S1:1188:A:N6	2.60	0.54
32:S1:1748:U:H1'	33:L1:1916:U:OP1	1.78	0.54
2:SA:136:GLN:HB3	2:SA:137:PRO:CD	2.38	0.54
5:SE:15:PHE:CD2	5:SE:182:PRO:HD2	2.42	0.54
9:SK:89:ILE:HA	9:SK:92:LEU:HD12	1.88	0.54
10:SL:39:PRO:HB3	10:SL:64:ALA:CA	2.28	0.54
10:SL:99:VAL:HG12	10:SL:99:VAL:O	2.08	0.54
23:SU:25:ARG:CD	23:SU:27:GLN:HG3	2.38	0.54
33:L1:1207:A:N6	33:L1:1304:G:H2'	2.23	0.54
32:S1:843:G:C2'	33:L1:2061:C:O2'	2.56	0.54
33:L1:2766:U:H3'	33:L1:2766:U:C6	2.42	0.54
31:S2:70:G:H5''	33:L1:2966:G:O5'	2.08	0.54
33:L1:3175:C:H2'	33:L1:3175:C:O2	2.07	0.54
32:S1:1685:U:O2	33:L1:3334:A:H4'	2.08	0.54
33:L1:3334:A:N9	33:L1:3334:A:O4'	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:LA:67:LEU:HG	36:LA:104:LYS:HG3	1.89	0.54
37:LB:102:LEU:HB2	37:LB:103:PRO:HD2	1.89	0.54
82:LK:121:LYS:H	82:LK:121:LYS:HD2	1.72	0.54
65:LL:20:UNK:CB	65:LL:21:UNK:CA	2.86	0.54
33:L1:854:C:P	41:LM:1:MET:H2	84.85	0.54
66:LN:32:ASP:HB3	67:LS:145:HIS:HB2	1.90	0.54
42:LP:9:GLU:HA	42:LP:12:ARG:HE	1.73	0.54
47:LU:156:VAL:HA	47:LU:159:ASP:OD2	2.07	0.54
32:S1:1168:A:H2'	32:S1:1169:G:C8	2.43	0.54
32:S1:1547:G:C8	32:S1:1547:G:C3'	2.90	0.54
31:S2:72:G:H2'	33:L1:2973:A:P	2.48	0.54
2:SA:80:VAL:O	2:SA:102:ALA:HA	2.07	0.54
26:SG:8:UNK:O	46:LT:189:CYS:SG	2.65	0.54
27:SH:65:LEU:HD22	27:SH:70:ASN:CB	2.37	0.54
10:SL:51:LEU:HD21	32:S1:1141:U:C4'	2.37	0.54
6:SF:118:ARG:CD	19:SY:56:GLU:HB3	2.37	0.54
33:L1:1174:G:C5'	34:L3:84:U:N3	2.70	0.54
33:L1:1248:A:O4'	33:L1:1249:A:C8	2.61	0.54
33:L1:1309:U:N1	33:L1:1309:U:O4'	2.38	0.54
14:SP:91:TYR:N	33:L1:2081:C:H5"	2.23	0.54
33:L1:3320:G:C2'	33:L1:3322:A:C8	2.90	0.54
33:L1:423:C:O4'	33:L1:423:C:N1	2.36	0.54
35:L2:44:A:C5	35:L2:108:A:C2	2.96	0.54
34:L3:16:A:H61	34:L3:62:U:H3	1.55	0.54
34:L3:4:U:H3	34:L3:115:A:N6	2.06	0.54
36:LA:74:ASP:O	36:LA:77:GLU:HB2	2.08	0.54
32:S1:928:A:H5'	37:LB:139:HIS:N	2.22	0.54
37:LB:147:ARG:HH21	37:LB:155:LYS:HD2	1.71	0.54
81:LD:310:LEU:O	81:LD:314:VAL:CG2	2.56	0.54
64:LG:91:LYS:CD	64:LG:152:LYS:HB3	2.37	0.54
84:LI:109:ASP:O	84:LI:110:ARG:C	2.46	0.54
67:LS:153:LEU:HA	67:LS:156:ARG:H	1.73	0.54
33:L1:883:G:N7	48:LV:133:ALA:HB1	2.22	0.54
31:S2:13:U:O2'	33:L1:2262:C:O5'	2.26	0.54
4:SD:160:ILE:HD11	4:SD:169:ILE:HG21	1.89	0.54
8:SJ:68:LYS:HE2	32:S1:1524:A:C5'	2.30	0.54
11:SM:38:ARG:HG2	15:SS:45:PHE:CZ	2.43	0.54
24:SX:68:PRO:O	24:SX:69:THR:HG22	2.08	0.54
33:L1:1174:G:OP1	34:L3:84:U:N3	2.41	0.54
33:L1:1206:A:C5'	34:L3:88:U:O4'	2.55	0.54
33:L1:127:G:H1	33:L1:139:U:H3	1.56	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1367:A:H2'	33:L1:1368:U:C6	2.42	0.54
33:L1:2865:G:H4'	84:LI:109:ASP:OD1	2.08	0.54
33:L1:3053:G:H21	33:L1:3093:C:N4	2.06	0.54
33:L1:3122:U:H1'	33:L1:3123:A:H5''	1.90	0.54
33:L1:716:A:C8	33:L1:716:A:H3'	2.43	0.54
33:L1:996:A:N7	33:L1:1062:G:C2	2.76	0.54
80:LC:63:PRO:HD2	80:LC:64:GLY:H	1.73	0.54
81:LD:309:PRO:CA	81:LD:313:GLU:HG2	2.36	0.54
32:S1:1748:U:C6	33:L1:1929:A:N1	2.76	0.54
2:SA:159:ARG:HA	5:SE:37:PRO:CB	2.38	0.54
20:SZ:10:ARG:HD2	32:S1:1255:U:O5'	2.08	0.54
33:L1:78:U:O4	33:L1:105:A:N1	2.42	0.53
33:L1:1753:A:N9	33:L1:1753:A:C2'	2.65	0.53
14:SP:88:ARG:NE	33:L1:2082:A:O3'	2.41	0.53
33:L1:2148:U:H4'	37:LB:240:ALA:HB2	1.86	0.53
31:S2:75:A:C4'	33:L1:2956:U:O4'	2.54	0.53
33:L1:929:A:H2'	33:L1:930:C:C6	2.43	0.53
35:L2:96:A:H2'	35:L2:97:U:C5'	2.38	0.53
36:LA:68:GLY:CA	36:LA:102:LEU:HD22	2.32	0.53
36:LA:113:GLU:O	36:LA:116:ILE:HG22	2.08	0.53
36:LA:140:GLN:HE21	36:LA:144:GLU:CG	2.21	0.53
38:LE:108:ILE:HG23	38:LE:108:ILE:O	2.08	0.53
48:LV:113:LEU:HD21	48:LV:153:GLU:HA	1.90	0.53
50:LZ:3:LEU:C	80:LC:304:ARG:NH2	2.61	0.53
32:S1:1759:A:C8	32:S1:1759:A:O4'	2.61	0.53
32:S1:30:G:H2'	32:S1:31:C:C5	2.43	0.53
32:S1:496:A:C2	32:S1:500:G:O6	2.61	0.53
32:S1:800:U:C3'	32:S1:801:U:H5''	2.39	0.53
4:SD:208:ILE:CG2	4:SD:225:VAL:HG21	2.23	0.53
23:SU:29:VAL:CA	23:SU:78:PHE:CD1	2.83	0.53
23:SU:62:PHE:HB2	23:SU:80:LEU:HD23	1.91	0.53
17:SV:42:LEU:HB3	17:SV:47:THR:CG2	2.34	0.53
33:L1:1975:G:C2	33:L1:2037:C:N4	2.76	0.53
33:L1:2152:A:C8	33:L1:2170:G:N2	2.76	0.53
31:S2:72:G:C4'	33:L1:2972:C:P	2.96	0.53
33:L1:722:C:O2'	33:L1:723:G:H5''	2.07	0.53
34:L3:116:U:C3'	34:L3:117:U:H5'	2.37	0.53
34:L3:2:G:N2	34:L3:3:A:C6	2.76	0.53
34:L3:43:A:OP1	38:LE:139:ARG:NE	2.42	0.53
36:LA:67:LEU:HD21	36:LA:104:LYS:HD3	1.90	0.53
33:L1:3319:G:H21	80:LC:313:GLY:CA	2.19	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:LD:338:GLY:HA3	81:LD:342:LYS:HE3	1.91	0.53
84:LI:104:SER:OG	84:LI:109:ASP:O	2.26	0.53
66:LN:4:LYS:HZ2	66:LN:11:ARG:HD2	1.73	0.53
66:LN:96:GLN:HA	66:LN:99:ARG:HG3	1.90	0.53
24:SX:70:GLY:CA	32:S1:877:G:H5'	2.35	0.53
25:SC:29:GLU:OE2	25:SC:29:GLU:OE1	2.25	0.53
9:SK:37:ASN:ND2	9:SK:52:LEU:CD1	2.71	0.53
33:L1:1015:A:H2'	33:L1:1016:G:C8	2.43	0.53
33:L1:2269:U:C2'	33:L1:2270:A:H5'	2.37	0.53
33:L1:638:G:H3'	33:L1:639:A:C5'	2.38	0.53
35:L2:93:A:C5	35:L2:95:C:C5	2.96	0.53
34:L3:45:U:O2	34:L3:46:C:C5	2.61	0.53
34:L3:6:C:O2'	45:LQ:47:LYS:HE2	2.08	0.53
36:LA:106:TYR:CD1	36:LA:143:LEU:HD12	2.43	0.53
36:LA:57:ILE:HG13	36:LA:182:ILE:HG21	1.90	0.53
48:LV:113:LEU:HD21	48:LV:153:GLU:CD	2.29	0.53
32:S1:438:G:H2'	32:S1:439:C:H5'	1.89	0.53
31:S2:26:G:H4'	33:L1:2259:U:C2	2.42	0.53
31:S2:75:A:C5	33:L1:2956:U:H5	2.23	0.53
2:SA:159:ARG:HA	5:SE:37:PRO:HG2	1.90	0.53
11:SM:34:LYS:HB3	11:SM:100:SER:HB3	1.91	0.53
14:SP:124:VAL:H	46:LT:165:LYS:CG	2.16	0.53
23:SU:25:ARG:CD	23:SU:26:LYS:N	2.70	0.53
18:SW:116:UNK:O	18:SW:117:UNK:C	2.47	0.53
33:L1:2166:U:C5'	37:LB:193:ARG:HD2	2.37	0.53
33:L1:2502:U:C3'	33:L1:2502:U:C6	2.92	0.53
33:L1:3049:A:C8	33:L1:3049:A:H5'	2.44	0.53
33:L1:381:G:O2'	33:L1:381:G:C1'	2.49	0.53
36:LA:171:LEU:HD22	36:LA:175:GLU:OE1	2.08	0.53
36:LA:189:LEU:HG	65:LL:193:UNK:N	2.24	0.53
38:LE:14:ILE:HD13	38:LE:133:LEU:HD13	1.90	0.53
43:LO:64:LEU:HD22	65:LL:155:UNK:CA	2.39	0.53
26:SG:8:UNK:C	46:LT:188:SER:HB3	2.38	0.53
46:LT:91:THR:O	46:LT:95:TRP:CE3	2.62	0.53
48:LV:106:LYS:HD3	48:LV:106:LYS:C	2.27	0.53
32:S1:621:U:H3	32:S1:1093:A:H61	1.57	0.53
32:S1:633:U:C6	33:L1:849:A:OP1	2.61	0.53
4:SD:66:MET:O	4:SD:68:ARG:HG3	2.09	0.53
6:SF:34:LEU:HD22	6:SF:64:LEU:HD11	1.89	0.53
27:SH:75:ILE:HG23	27:SH:75:ILE:O	2.07	0.53
3:SB:18:TYR:OH	8:SJ:120:GLU:OE1	2.27	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:SK:43:VAL:HG23	9:SK:106:THR:HG22	1.90	0.53
15:SS:59:ARG:HA	15:SS:62:SER:HB3	1.90	0.53
23:SU:20:ASN:CG	23:SU:23:LEU:CD1	2.77	0.53
33:L1:158:A:H1'	33:L1:262:A:H62	1.73	0.53
33:L1:2715:U:H2'	33:L1:2716:U:C6	2.44	0.53
36:LA:57:ILE:HG12	36:LA:58:PRO:HD2	1.91	0.53
81:LD:383:LYS:CA	81:LD:386:ILE:HD11	2.38	0.53
11:SM:14:ARG:H	38:LE:111:HIS:CE1	2.26	0.53
32:S1:1017:U:H2'	32:S1:1018:A:C8	2.44	0.53
16:SR:67:LYS:HD2	32:S1:1557:C:C5	2.43	0.53
10:SL:66:ARG:NH2	32:S1:438:G:H4'	2.17	0.53
2:SA:145:ASN:HD21	5:SE:78:VAL:HB	1.74	0.53
27:SH:27:ILE:HG23	27:SH:30:SER:H	1.74	0.53
8:SJ:73:THR:HB	8:SJ:91:MET:HB2	1.91	0.53
9:SK:109:PRO:HD2	9:SK:112:GLN:CB	2.23	0.53
10:SL:139:LYS:O	10:SL:142:SER:O	2.25	0.53
11:SM:130:ARG:HG3	11:SM:134:GLN:HE21	1.71	0.53
33:L1:1867:U:O5'	33:L1:1867:U:C6	2.62	0.53
31:S2:74:C:C1'	33:L1:2404:C:H5'	2.25	0.53
33:L1:1205:C:H42	33:L1:2859:C:H5''	1.73	0.53
33:L1:68:U:C2'	33:L1:69:U:H5'	2.38	0.53
33:L1:701:U:H2'	33:L1:702:G:C8	2.43	0.53
33:L1:883:G:C8	48:LV:133:ALA:HB2	2.41	0.53
35:L2:124:G:C8	35:L2:124:G:C2'	2.92	0.53
35:L2:96:A:C5	35:L2:97:U:H1'	2.43	0.53
33:L1:2157:C:O2	37:LB:11:GLY:CA	2.57	0.53
37:LB:219:ILE:HG23	37:LB:219:ILE:O	2.08	0.53
33:L1:2147:U:HO2'	37:LB:243:THR:HG22	1.74	0.53
64:LG:28:ILE:CD1	64:LG:29:LYS:H	2.21	0.53
48:LV:106:LYS:HD2	48:LV:108:LEU:HG	1.91	0.53
32:S1:859:U:H5''	46:LT:180:ARG:HB3	1.85	0.53
2:SA:103:ILE:O	2:SA:103:ILE:HG23	2.08	0.53
4:SD:43:PRO:HA	4:SD:84:ALA:H	1.73	0.53
6:SF:40:LYS:CE	7:SI:122:LEU:CD1	2.87	0.53
6:SF:56:ARG:HD3	19:SY:50:ASP:CG	2.12	0.53
12:SO:107:LYS:HD2	39:LF:78:ASN:CG	156.57	0.53
13:SQ:77:GLU:HG3	13:SQ:78:ARG:H	1.72	0.53
23:SU:18:MET:HA	23:SU:91:TYR:O	2.09	0.53
33:L1:1191:U:O2'	33:L1:1193:A:C2	2.57	0.53
33:L1:2380:G:OP2	82:LK:96:LYS:NZ	2.40	0.53
33:L1:2746:G:H2'	33:L1:2747:U:C6	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:S2:69:G:C3'	33:L1:2965:C:O3'	2.45	0.53
33:L1:415:G:H4'	33:L1:431:G:H21	1.73	0.53
36:LA:83:TYR:HE2	36:LA:86:VAL:CA	2.22	0.53
33:L1:3296:C:C2	80:LC:25:HIS:CE1	2.95	0.53
12:SO:97:ALA:N	39:LF:19:GLN:OE1	179.90	0.53
84:LI:34:TYR:CD2	84:LI:92:HIS:CE1	2.97	0.53
8:SJ:66:PRO:HG2	32:S1:1387:U:HO2'	1.74	0.53
8:SJ:95:LYS:CE	32:S1:1388:A:OP1	2.57	0.53
32:S1:210:A:H2'	32:S1:211:G:H5'	1.91	0.53
25:SC:163:THR:CB	25:SC:163:THR:N	2.70	0.53
6:SF:142:ARG:HH11	19:SY:55:LEU:CD2	2.21	0.53
27:SH:14:MET:HG3	27:SH:19:LYS:HB2	1.90	0.53
11:SM:35:GLY:CA	11:SM:99:VAL:HG23	2.34	0.53
28:SN:30:LEU:HD13	28:SN:37:MET:HB2	1.91	0.53
13:SQ:90:ALA:HA	13:SQ:120:GLN:OE1	2.08	0.53
23:SU:26:LYS:HD2	23:SU:84:ASN:H	1.74	0.53
33:L1:1060:U:C5	33:L1:1061:A:C2	2.97	0.53
33:L1:2256:G:H21	33:L1:2257:A:H62	1.51	0.53
33:L1:641:C:C2	33:L1:642:C:C5	2.96	0.53
33:L1:716:A:C8	33:L1:716:A:C3'	2.92	0.53
35:L2:155:G:H2'	35:L2:156:G:C8	2.43	0.53
35:L2:36:C:O2'	35:L2:37:A:H5'	2.08	0.53
37:LB:158:VAL:CG2	37:LB:159:PRO:HD2	2.38	0.53
84:LI:76:MET:HA	84:LI:147:HIS:CE1	2.44	0.53
33:L1:1450:G:OP1	48:LV:63:TYR:HA	2.08	0.53
31:S2:13:U:OP1	33:L1:2244:G:N3	2.41	0.53
2:SA:81:GLN:CB	2:SA:103:ILE:HG22	2.38	0.53
25:SC:150:VAL:HG12	25:SC:151:ARG:HB3	1.89	0.53
4:SD:168:LYS:HB2	4:SD:168:LYS:NZ	2.24	0.53
26:SG:12:UNK:C	26:SG:12:UNK:N	2.63	0.53
9:SK:37:ASN:C	9:SK:37:ASN:ND2	2.61	0.53
16:SR:116:ILE:HG23	16:SR:117:LYS:H	1.74	0.53
23:SU:34:HIS:O	23:SU:35:PRO:CB	2.53	0.53
24:SX:57:VAL:HG13	24:SX:62:GLN:CA	2.39	0.53
32:S1:1747:A:N9	33:L1:1930:G:N2	2.55	0.53
32:S1:1745:U:C2	33:L1:1932:A:O4'	2.62	0.53
33:L1:2610:G:C8	37:LB:230:PRO:HG2	2.44	0.53
33:L1:2372:A:C6	33:L1:2869:C:H1'	2.44	0.53
33:L1:2973:A:C2'	33:L1:2973:A:N9	2.61	0.53
33:L1:339:G:H4'	33:L1:340:A:H5'	1.90	0.53
37:LB:104:ILE:HD13	37:LB:146:SER:OG	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:LV:99:ALA:CB	48:LV:151:LEU:HD21	2.37	0.53
32:S1:1536:U:H2'	32:S1:1537:U:C6	2.44	0.53
32:S1:193:G:C6	32:S1:194:G:C2	2.97	0.53
4:SD:103:TYR:CE1	4:SD:109:PHE:CE1	2.97	0.53
2:SA:145:ASN:ND2	5:SE:78:VAL:CG1	2.60	0.53
27:SH:38:LEU:CD2	27:SH:46:TYR:HD1	2.22	0.53
27:SH:38:LEU:HD11	27:SH:45:GLY:HA2	1.89	0.53
27:SH:37:PHE:CB	27:SH:43:LYS:HE3	2.38	0.53
32:S1:1685:U:H1'	33:L1:3335:G:P	2.49	0.53
33:L1:384:A:N6	33:L1:385:A:C2	2.77	0.53
34:L3:5:G:OP2	45:LQ:26:ARG:NH2	2.42	0.53
36:LA:129:LYS:HE3	36:LA:129:LYS:H	1.73	0.53
38:LE:31:ARG:HG2	38:LE:32:LEU:N	2.24	0.53
12:SO:103:GLU:C	39:LF:78:ASN:ND2	157.02	0.53
66:LN:6:PHE:CG	66:LN:7:VAL:N	2.77	0.53
49:LX:77:LEU:O	49:LX:151:ILE:HD11	2.09	0.53
32:S1:187:C:C2	32:S1:188:U:C6	2.97	0.53
32:S1:483:C:O4'	32:S1:483:C:N1	2.38	0.53
3:SB:113:LEU:HD12	3:SB:114:ALA:H	1.74	0.53
3:SB:190:LEU:HD23	3:SB:191:ASP:H	1.74	0.53
3:SB:68:GLU:O	3:SB:72:VAL:HG23	2.09	0.53
25:SC:3:ARG:HD2	32:S1:482:A:C3'	2.38	0.53
5:SE:258:LYS:HE2	27:SH:69:LEU:C	2.28	0.53
33:L1:1320:G:H8	82:LK:134:LEU:CG	2.23	0.52
33:L1:1344:A:H2'	33:L1:1345:U:C6	2.44	0.52
33:L1:2157:C:H1'	37:LB:10:LYS:HB2	1.89	0.52
33:L1:2355:A:C4	33:L1:2355:A:H2'	2.44	0.52
33:L1:262:A:C4	33:L1:262:A:C2'	2.92	0.52
33:L1:2700:A:C6	33:L1:2701:G:C5	2.97	0.52
33:L1:2708:A:C2	47:LU:49:HIS:CE1	2.97	0.52
81:LD:338:GLY:CA	81:LD:342:LYS:HE3	2.39	0.52
81:LD:344:ALA:HB3	81:LD:351:ARG:CD	2.29	0.52
38:LE:31:ARG:HG2	38:LE:34:ARG:H	1.73	0.52
66:LN:30:VAL:HG21	67:LS:154:VAL:HG22	1.90	0.52
66:LN:64:ARG:NH1	67:LS:151:PHE:CD1	2.76	0.52
2:SA:229:TYR:C	2:SA:232:VAL:HG23	2.29	0.52
4:SD:67:GLN:CB	4:SD:69:HIS:CD2	2.90	0.52
6:SF:56:ARG:HD2	19:SY:50:ASP:CB	2.31	0.52
11:SM:14:ARG:CZ	38:LE:109:GLN:CB	2.43	0.52
14:SP:119:LYS:CG	14:SP:120:GLU:H	2.22	0.52
29:ST:56:GLY:C	32:S1:1063:U:OP1	2.47	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:SU:30:LEU:CD2	23:SU:78:PHE:HA	2.39	0.52
33:L1:1256:A:H2'	33:L1:1257:U:C6	2.44	0.52
33:L1:1320:G:C8	82:LK:134:LEU:CG	2.91	0.52
33:L1:274:U:C2	33:L1:288:G:N2	2.76	0.52
33:L1:2777:U:H3	33:L1:2787:A:N6	2.02	0.52
33:L1:298:G:H2'	33:L1:299:G:H8	1.74	0.52
33:L1:2996:A:N1	33:L1:3143:A:C6	2.76	0.52
34:L3:115:A:H4'	45:LQ:75:VAL:HG13	1.91	0.52
34:L3:7:G:H4'	45:LQ:37:ARG:NH2	2.22	0.52
36:LA:105:LYS:CB	36:LA:129:LYS:HE2	2.39	0.52
64:LG:20:TYR:CD1	64:LG:20:TYR:N	2.72	0.52
43:LO:64:LEU:CD2	65:LL:155:UNK:N	2.72	0.52
45:LQ:246:ALA:HB1	45:LQ:247:ILE:HD12	1.91	0.52
33:L1:680:G:H2'	44:LR:106:THR:HG21	1.90	0.52
44:LR:41:LYS:HB2	81:LD:325:LYS:CD	2.39	0.52
67:LS:22:GLU:CG	67:LS:23:HIS:H	2.22	0.52
66:LN:47:GLN:NE2	67:LS:99:THR:HG23	2.24	0.52
51:LY:74:ARG:HA	51:LY:77:TRP:CZ3	2.44	0.52
32:S1:395:A:H61	32:S1:410:U:H3	1.57	0.52
2:SA:109:PRO:HA	2:SA:110:GLY:N	2.09	0.52
6:SF:164:THR:O	6:SF:167:GLU:HB2	2.08	0.52
27:SH:102:ILE:HG23	27:SH:113:HIS:HB3	1.91	0.52
27:SH:40:VAL:O	27:SH:41:MET:HG2	2.10	0.52
11:SM:26:ILE:HG22	11:SM:54:LYS:O	2.09	0.52
14:SP:41:LEU:HB2	14:SP:103:LYS:HG2	1.91	0.52
14:SP:61:PHE:HB2	14:SP:86:ILE:HD11	1.91	0.52
33:L1:1263:A:C6	67:LS:33:ALA:HB3	69.81	0.52
33:L1:1364:C:C4'	81:LD:337:PHE:CE1	2.84	0.52
33:L1:1673:A:H61	33:L1:1689:G:C2'	2.23	0.52
33:L1:1709:U:H3	33:L1:1732:G:H1	1.56	0.52
33:L1:1835:A:H2	33:L1:1849:U:N3	2.05	0.52
33:L1:273:U:H3	33:L1:288:G:N2	2.07	0.52
33:L1:3337:G:H2'	33:L1:3338:U:C6	2.44	0.52
33:L1:3374:C:H4'	80:LC:319:GLY:HA2	1.92	0.52
33:L1:1626:U:C5'	84:LI:4:ARG:HH22	144.08	0.52
48:LV:59:PRO:HB3	48:LV:76:ARG:CD	2.39	0.52
32:S1:1674:C:H1'	33:L1:1931:G:H22	1.74	0.52
32:S1:860:A:H2'	32:S1:861:A:C5'	2.39	0.52
31:S2:75:A:P	33:L1:2957:U:H5'	2.49	0.52
4:SD:103:TYR:HE1	4:SD:109:PHE:CE1	2.28	0.52
9:SK:98:ALA:C	9:SK:124:LYS:HE3	2.30	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:SS:63:ILE:CD1	15:SS:106:ILE:HD12	2.39	0.52
33:L1:1983:U:H2'	33:L1:1984:C:C6	2.43	0.52
33:L1:698:A:H2'	33:L1:699:C:C6	2.45	0.52
34:L3:3:A:C6	34:L3:4:U:C4	2.98	0.52
36:LA:189:LEU:HG	65:LL:193:UNK:CA	2.39	0.52
36:LA:83:TYR:HE2	36:LA:86:VAL:HA	1.74	0.52
81:LD:305:SER:O	81:LD:306:VAL:CG2	2.57	0.52
81:LD:358:LYS:HE2	81:LD:362:LYS:NZ	2.24	0.52
38:LE:19:LEU:HD12	38:LE:82:LEU:HD22	1.89	0.52
66:LN:129:LYS:NZ	82:LK:182:LEU:HD21	2.25	0.52
44:LR:128:LEU:CD2	81:LD:313:GLU:OE1	2.57	0.52
67:LS:99:THR:CG2	67:LS:100:THR:HG22	2.37	0.52
32:S1:348:A:P	46:LT:137:VAL:N	2.83	0.52
33:L1:3301:G:H4'	48:LV:70:THR:CB	2.39	0.52
51:LY:81:VAL:HG12	51:LY:82:GLU:N	2.24	0.52
32:S1:1728:G:O6	32:S1:1729:A:N6	2.42	0.52
25:SC:160:PHE:CD2	32:S1:482:A:OP1	2.63	0.52
32:S1:622:U:H5''	32:S1:623:A:OP2	2.08	0.52
4:SD:85:GLY:CA	4:SD:101:LEU:HD13	2.40	0.52
14:SP:122:ASP:N	46:LT:162:LYS:HE2	2.19	0.52
13:SQ:96:ILE:HG22	13:SQ:106:LEU:HD13	1.91	0.52
33:L1:1567:G:C6	33:L1:1568:A:N3	2.78	0.52
36:LA:150:THR:HG23	36:LA:150:THR:O	2.10	0.52
38:LE:14:ILE:HG22	38:LE:164:TRP:CG	2.44	0.52
38:LE:34:ARG:HB2	38:LE:34:ARG:CA	2.18	0.52
40:LH:96:ARG:C	40:LH:98:GLU:H	2.13	0.52
84:LI:110:ARG:HG3	84:LI:116:ARG:CZ	2.40	0.52
82:LK:19:HIS:HA	82:LK:128:ALA:HA	1.92	0.52
66:LN:32:ASP:H	67:LS:145:HIS:CG	2.27	0.52
33:L1:1716:G:H3'	46:LT:121:HIS:CE1	2.44	0.52
68:LW:37:GLU:HG3	68:LW:40:SER:H	1.74	0.52
20:SZ:13:LYS:CE	32:S1:1254:U:OP1	2.57	0.52
8:SJ:68:LYS:CE	32:S1:1524:A:C3'	2.58	0.52
32:S1:1740:G:C2'	32:S1:1740:G:C4	2.93	0.52
4:SD:58:TYR:HB2	32:S1:451:U:P	2.50	0.52
32:S1:490:G:H1	32:S1:505:U:H3	1.57	0.52
32:S1:978:A:OP1	33:L1:852:C:N1	2.39	0.52
2:SA:62:LEU:HD22	2:SA:178:LEU:HD11	1.92	0.52
4:SD:67:GLN:CB	4:SD:69:HIS:HD2	2.22	0.52
9:SK:42:HIS:CE1	32:S1:922:U:H4'	2.43	0.52
11:SM:9:PHE:O	11:SM:10:GLN:HG3	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:SM:99:VAL:CG1	32:S1:1574:U:H4'	2.39	0.52
33:L1:1896:A:H61	33:L1:1904:A:H61	1.57	0.52
33:L1:3106:U:C5	33:L1:3129:G:C2	2.98	0.52
33:L1:3158:C:H2'	33:L1:3159:C:C6	2.45	0.52
33:L1:716:A:O4'	33:L1:716:A:N9	2.37	0.52
34:L3:55:A:C5	34:L3:56:G:C8	2.97	0.52
36:LA:122:LEU:CD1	36:LA:129:LYS:HZ1	2.21	0.52
37:LB:158:VAL:HG22	37:LB:162:CYS:SG	2.49	0.52
38:LE:41:GLN:NE2	38:LE:119:ASP:HB3	2.24	0.52
38:LE:31:ARG:HG3	38:LE:34:ARG:CB	2.40	0.52
38:LE:86:LEU:HA	38:LE:89:LYS:HZ1	1.75	0.52
66:LN:64:ARG:HH11	67:LS:154:VAL:HG21	1.74	0.52
67:LS:92:MET:CE	67:LS:116:HIS:CE1	2.92	0.52
50:LZ:3:LEU:C	80:LC:304:ARG:HH22	2.13	0.52
32:S1:1747:A:C1'	33:L1:1930:G:C2	2.93	0.52
32:S1:1747:A:C2'	33:L1:1915:G:H2'	2.39	0.52
32:S1:860:A:H1'	46:LT:173:LYS:HD2	0.52	0.52
32:S1:860:A:H2'	32:S1:861:A:C4'	2.38	0.52
32:S1:890:G:H2'	32:S1:891:U:C6	2.44	0.52
2:SA:143:LEU:HD23	2:SA:143:LEU:C	2.30	0.52
2:SA:65:ALA:HB2	2:SA:165:ILE:CD1	2.40	0.52
4:SD:114:VAL:HG12	4:SD:115:LYS:N	2.24	0.52
27:SH:65:LEU:CD2	27:SH:70:ASN:CB	2.88	0.52
11:SM:18:THR:HA	38:LE:109:GLN:HE22	1.74	0.52
33:L1:1667:C:O2	33:L1:1774:G:N2	2.43	0.52
32:S1:1747:A:H2'	33:L1:1915:G:O2'	2.09	0.52
33:L1:3005:C:N3	33:L1:3142:C:C5	2.78	0.52
33:L1:563:C:OP2	64:LG:2:ALA:CB	2.53	0.52
36:LA:65:CYS:SG	36:LA:67:LEU:HD11	2.49	0.52
36:LA:69:ASP:OD2	36:LA:144:GLU:HG3	2.09	0.52
64:LG:91:LYS:CB	64:LG:152:LYS:HG2	2.40	0.52
82:LK:135:GLN:CB	82:LK:135:GLN:N	2.67	0.52
66:LN:85:GLU:HA	66:LN:91:LYS:HD3	1.92	0.52
44:LR:131:PRO:HB3	81:LD:318:GLU:OE2	2.08	0.52
34:L3:85:G:C5'	67:LS:120:PHE:CE1	2.93	0.52
32:S1:1083:C:C2	32:S1:1084:U:H1'	2.44	0.52
31:S2:34:G:N2	32:S1:1645:C:C2	2.78	0.52
32:S1:354:G:H2'	32:S1:354:G:N3	2.24	0.52
2:SA:116:LEU:N	2:SA:116:LEU:HD12	2.24	0.52
4:SD:208:ILE:HG22	4:SD:220:THR:O	2.09	0.52
5:SE:142:LYS:NZ	32:S1:1304:A:OP1	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:SE:27:ARG:O	27:SH:69:LEU:HD21	2.08	0.52
6:SF:40:LYS:HE2	7:SI:122:LEU:CD1	2.38	0.52
14:SP:122:ASP:C	46:LT:162:LYS:HD3	2.21	0.52
14:SP:45:THR:HG21	14:SP:47:ARG:NE	2.18	0.52
17:SV:96:HIS:HB2	17:SV:101:ILE:CG1	2.40	0.52
33:L1:1034:U:C2	33:L1:1035:C:C2	2.98	0.52
33:L1:2218:A:C6	33:L1:2219:A:C2	2.98	0.52
33:L1:2458:A:H62	33:L1:2484:G:H22	1.58	0.52
33:L1:2493:C:H1'	36:LA:209:MET:O	2.09	0.52
33:L1:3227:U:O4'	33:L1:3227:U:N1	2.41	0.52
33:L1:507:C:H5'	64:LG:62:SER:O	2.10	0.52
33:L1:513:C:H42	33:L1:564:A:H61	1.57	0.52
33:L1:752:U:H2'	33:L1:753:G:C8	2.45	0.52
33:L1:82:C:N3	33:L1:83:U:C4	2.78	0.52
34:L3:8:A:H61	34:L3:111:U:H3	1.57	0.52
34:L3:35:C:H1'	45:LQ:200:TYR:CZ	2.44	0.52
34:L3:27:A:H61	34:L3:52:U:H3	1.57	0.52
36:LA:76:ALA:O	36:LA:79:MET:HB3	2.10	0.52
66:LN:3:PHE:CZ	66:LN:51:LYS:HA	2.45	0.52
48:LV:39:LEU:C	48:LV:114:TYR:HB2	2.30	0.52
32:S1:1462:C:C6	32:S1:1462:C:O4'	2.63	0.52
32:S1:1588:C:H2'	32:S1:1589:C:C5	2.45	0.52
32:S1:988:G:O3'	37:LB:176:GLU:N	2.42	0.52
2:SA:135:HIS:O	2:SA:138:ILE:HG12	2.10	0.52
26:SG:10:UNK:C	26:SG:11:UNK:CB	2.86	0.52
13:SQ:98:VAL:HG13	13:SQ:99:ASP:H	1.75	0.52
24:SX:40:GLN:HG2	24:SX:41:GLY:N	2.25	0.52
32:S1:1674:C:H4'	33:L1:1913:C:O2'	2.08	0.52
33:L1:3132:U:H2'	33:L1:3132:U:O2	2.10	0.52
33:L1:58:G:C2	35:L2:37:A:C2	2.98	0.52
33:L1:682:G:H2'	33:L1:683:U:C6	2.44	0.52
33:L1:711:A:N6	33:L1:720:G:O2'	2.43	0.52
34:L3:6:C:O2'	45:LQ:47:LYS:CE	2.58	0.52
44:LR:40:THR:HA	81:LD:325:LYS:HB2	1.91	0.52
67:LS:12:VAL:HG21	67:LS:61:LEU:HD13	1.92	0.52
33:L1:1719:U:O4	46:LT:128:LYS:CE	2.57	0.52
48:LV:142:SER:O	48:LV:144:PRO:HD3	2.09	0.52
32:S1:1747:A:C1'	33:L1:1915:G:C2'	2.87	0.52
32:S1:181:C:C2'	32:S1:182:C:H5'	2.39	0.52
32:S1:206:U:H2'	32:S1:207:A:C8	2.44	0.52
4:SD:195:ILE:CG1	4:SD:208:ILE:HD11	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:SP:86:ILE:O	14:SP:112:VAL:HG13	2.10	0.52
23:SU:33:LEU:HD12	23:SU:35:PRO:HD2	1.90	0.52
33:L1:1476:G:H2'	33:L1:1477:A:C8	2.45	0.52
32:S1:1747:A:N7	33:L1:1930:G:N2	2.57	0.52
33:L1:1948:G:H2'	33:L1:1949:G:H5'	1.91	0.52
14:SP:88:ARG:NH2	33:L1:2083:U:P	2.82	0.52
33:L1:2418:A:N9	33:L1:2418:A:O4'	2.40	0.52
33:L1:2707:A:H4'	45:LQ:35:ARG:CG	2.37	0.52
33:L1:3334:A:C8	33:L1:3334:A:O4'	2.62	0.52
33:L1:618:G:C3'	33:L1:619:C:H5'	2.38	0.52
33:L1:854:C:OP2	41:LM:1:MET:N	86.01	0.52
34:L3:7:G:H1	34:L3:112:U:H3	1.57	0.52
34:L3:19:A:H61	34:L3:59:U:H3	1.56	0.52
36:LA:49:SER:O	36:LA:195:LYS:HE3	2.10	0.52
81:LD:306:VAL:HG12	81:LD:308:LYS:N	2.24	0.52
34:L3:7:G:C5'	45:LQ:37:ARG:CD	2.81	0.52
33:L1:1368:U:C5'	44:LR:5:LEU:HD22	2.40	0.52
46:LT:56:LYS:HD3	46:LT:57:ILE:H	1.75	0.52
51:LY:53:ASP:OD2	51:LY:108:LEU:HD22	2.10	0.52
51:LY:56:GLN:O	51:LY:103:VAL:HG23	2.10	0.52
25:SC:104:GLU:HB3	32:S1:670:C:H4'	1.91	0.52
2:SA:74:ASN:OD1	5:SE:66:TYR:CD2	2.62	0.52
4:SD:102:LEU:HD22	4:SD:112:GLN:NE2	2.25	0.52
5:SE:247:SER:HB3	5:SE:248:PRO:HD3	1.91	0.52
5:SE:258:LYS:HZ1	27:SH:69:LEU:CG	2.04	0.52
26:SG:81:UNK:O	26:SG:82:UNK:O	2.27	0.52
27:SH:101:TYR:CE2	27:SH:129:PHE:HB3	2.45	0.52
9:SK:35:SER:HB2	9:SK:100:GLY:HA3	1.92	0.52
10:SL:43:SER:O	10:SL:61:PRO:HD2	2.10	0.52
10:SL:75:LYS:O	10:SL:76:ASN:HB2	2.10	0.52
15:SS:2:ALA:HB2	32:S1:1364:C:H5'	1.84	0.52
29:ST:49:PHE:CD1	29:ST:65:ASP:HB3	2.45	0.52
33:L1:1034:U:H3'	33:L1:1035:C:H6	1.75	0.51
33:L1:803:G:O2'	33:L1:804:A:C8	2.63	0.51
35:L2:99:G:C8	35:L2:99:G:H3'	2.44	0.51
37:LB:30:ARG:HE	37:LB:71:HIS:CE1	2.29	0.51
33:L1:3151:C:C5'	80:LC:134:ALA:HB2	2.40	0.51
32:S1:1759:A:N9	32:S1:1759:A:O4'	2.40	0.51
32:S1:1783:C:C6	32:S1:1783:C:O4'	2.63	0.51
31:S2:24:A:C2	33:L1:2260:C:O3'	2.63	0.51
27:SH:7:LEU:HA	27:SH:24:GLN:OE1	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:SH:44:HIS:CE1	27:SH:64:GLU:HA	2.45	0.51
27:SH:65:LEU:HB2	27:SH:70:ASN:HA	1.92	0.51
33:L1:1147:U:O2'	33:L1:1148:G:P	2.68	0.51
33:L1:3236:A:H3'	33:L1:3237:G:C8	2.45	0.51
33:L1:686:A:H3'	33:L1:687:C:C5	2.46	0.51
33:L1:841:G:H2'	33:L1:842:C:C6	2.45	0.51
35:L2:158:G:H3'	35:L2:158:G:C8	2.45	0.51
34:L3:83:A:N1	34:L3:93:U:O2	2.44	0.51
37:LB:209:HIS:HD2	37:LB:211:HIS:H	1.58	0.51
81:LD:309:PRO:O	81:LD:312:LYS:N	2.44	0.51
38:LE:14:ILE:HG21	38:LE:164:TRP:CB	2.39	0.51
41:LM:67:LYS:HA	41:LM:73:ARG:NH2	2.25	0.51
44:LR:128:LEU:HD22	81:LD:313:GLU:OE1	2.10	0.51
15:SS:2:ALA:CB	32:S1:1363:G:O3'	2.59	0.51
32:S1:977:G:C4'	33:L1:850:A:N6	2.73	0.51
4:SD:175:PHE:CE1	4:SD:208:ILE:HG13	2.46	0.51
4:SD:210:VAL:HG12	4:SD:211:GLU:N	2.25	0.51
6:SF:66:GLU:O	6:SF:70:ASN:HB2	2.09	0.51
27:SH:102:ILE:HD12	27:SH:128:PHE:HE1	1.75	0.51
14:SP:71:ILE:HD11	27:SH:84:LYS:HD2	1.93	0.51
23:SU:15:ARG:H	23:SU:29:VAL:HG12	1.75	0.51
23:SU:68:THR:CG2	23:SU:68:THR:O	2.59	0.51
17:SV:68:GLU:HA	17:SV:78:ARG:NH2	2.26	0.51
33:L1:2405:C:H2'	33:L1:2406:C:C6	2.45	0.51
33:L1:2724:A:O4'	33:L1:2724:A:N9	2.37	0.51
33:L1:3002:U:H2'	33:L1:3003:C:C6	2.45	0.51
33:L1:915:G:C6	33:L1:917:A:C2	2.98	0.51
36:LA:178:ILE:HG23	36:LA:179:GLN:N	2.24	0.51
36:LA:211:LYS:CD	36:LA:211:LYS:H	2.24	0.51
33:L1:899:A:H4'	37:LB:186:TYR:CD2	2.46	0.51
40:LH:127:VAL:HB	40:LH:198:THR:HG23	1.92	0.51
33:L1:2582:G:H3'	40:LH:60:ARG:HH11	1.75	0.51
48:LV:113:LEU:HD12	48:LV:155:GLU:N	2.25	0.51
51:LY:56:GLN:O	51:LY:103:VAL:HG22	2.10	0.51
32:S1:119:U:C2	32:S1:303:A:N1	2.78	0.51
2:SA:147:PRO:HD3	5:SE:76:GLN:CG	2.35	0.51
14:SP:64:THR:HG22	14:SP:100:ARG:CZ	2.41	0.51
23:SU:34:HIS:N	23:SU:35:PRO:HG2	2.24	0.51
17:SV:96:HIS:CD2	17:SV:101:ILE:CA	2.50	0.51
33:L1:1194:C:C4	33:L1:1318:C:C5	2.98	0.51
33:L1:884:C:O2	33:L1:1846:A:H2'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1748:U:H6	33:L1:1929:A:N1	2.08	0.51
33:L1:2059:C:C3'	33:L1:2060:C:H5'	2.39	0.51
33:L1:2157:C:H42	33:L1:2164:G:H1	1.58	0.51
33:L1:2584:U:H2'	33:L1:2585:C:C5	2.45	0.51
33:L1:2871:U:HO2'	33:L1:2875:U:H5	1.56	0.51
33:L1:3157:C:H2'	33:L1:3158:C:C6	2.45	0.51
33:L1:70:A:H4'	33:L1:71:C:C6	2.45	0.51
35:L2:96:A:H2'	35:L2:97:U:H5'	1.91	0.51
34:L3:113:G:O2'	45:LQ:71:ALA:CA	2.57	0.51
36:LA:67:LEU:HG	36:LA:104:LYS:CG	2.40	0.51
36:LA:106:TYR:CE2	36:LA:140:GLN:HG2	2.45	0.51
33:L1:2610:G:C8	37:LB:230:PRO:CG	2.94	0.51
64:LG:87:ARG:HB3	64:LG:89:MET:O	2.11	0.51
33:L1:2380:G:H5''	82:LK:96:LYS:NZ	2.25	0.51
41:LM:33:GLY:O	41:LM:68:GLY:C	2.49	0.51
66:LN:41:PRO:HG3	66:LN:75:MET:HG3	0.56	0.51
32:S1:1686:C:OP1	50:LZ:71:LYS:HB3	2.11	0.51
2:SA:116:LEU:CD1	2:SA:116:LEU:H	2.22	0.51
5:SE:197:LEU:HD22	32:S1:1092:A:P	2.49	0.51
5:SE:183:ARG:NH1	5:SE:251:GLU:OE2	2.44	0.51
27:SH:65:LEU:HD23	27:SH:70:ASN:HA	1.87	0.51
7:SI:93:LYS:O	7:SI:96:VAL:HG12	2.10	0.51
12:SO:64:LYS:HE3	12:SO:73:ARG:HA	1.92	0.51
15:SS:5:THR:HA	15:SS:139:GLY:HA2	1.91	0.51
33:L1:794:G:H2'	33:L1:795:C:C6	2.46	0.51
36:LA:79:MET:HA	36:LA:140:GLN:CD	2.30	0.51
37:LB:104:ILE:CD1	37:LB:148:ILE:HD11	2.34	0.51
11:SM:12:ILE:CD1	38:LE:120:PRO:CB	2.89	0.51
38:LE:156:VAL:HG12	38:LE:157:THR:N	2.23	0.51
44:LR:33:TYR:CD2	44:LR:36:LEU:HD21	2.45	0.51
67:LS:123:ILE:HD13	67:LS:123:ILE:H	1.74	0.51
32:S1:148:C:N3	32:S1:162:A:N1	2.58	0.51
32:S1:1747:A:C2'	33:L1:1915:G:C2'	2.89	0.51
27:SH:106:THR:HG22	27:SH:121:VAL:HG12	1.93	0.51
12:SO:58:HIS:CD2	12:SO:59:GLY:H	2.27	0.51
15:SS:4:SER:C	15:SS:8:THR:HG22	2.30	0.51
17:SV:72:ILE:CG2	17:SV:72:ILE:O	2.51	0.51
17:SV:68:GLU:HA	17:SV:78:ARG:CZ	2.39	0.51
33:L1:1025:G:H2'	33:L1:1026:A:C8	2.45	0.51
33:L1:1131:U:O4'	33:L1:1131:U:C6	2.64	0.51
33:L1:1528:G:H1'	33:L1:1825:G:C2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1880:A:C8	33:L1:1881:C:C5	2.98	0.51
33:L1:639:A:C2	33:L1:2374:G:O6	2.64	0.51
35:L2:119:C:H2'	35:L2:120:G:C8	2.46	0.51
34:L3:23:A:O2'	34:L3:24:G:H4'	2.11	0.51
34:L3:64:G:H2'	34:L3:65:G:C8	2.45	0.51
36:LA:112:SER:HA	36:LA:115:ILE:HG23	1.92	0.51
36:LA:192:LEU:H	36:LA:195:LYS:HD2	1.76	0.51
80:LC:267:VAL:HG22	80:LC:269:ARG:HH11	1.76	0.51
2:SA:116:LEU:HD12	2:SA:116:LEU:H	1.76	0.51
25:SC:148:PHE:CE2	32:S1:483:C:OP2	2.63	0.51
27:SH:65:LEU:HB3	27:SH:71:LYS:H	1.76	0.51
6:SF:94:GLU:O	17:SV:102:TYR:OH	2.27	0.51
17:SV:36:LYS:HD3	17:SV:42:LEU:HD11	1.93	0.51
6:SF:95:ILE:HG23	17:SV:63:PRO:HG3	1.92	0.51
17:SV:63:PRO:O	17:SV:63:PRO:CD	2.59	0.51
33:L1:1024:G:H2'	33:L1:1025:G:C8	2.46	0.51
33:L1:1042:C:H2'	33:L1:1043:U:C6	2.45	0.51
33:L1:1241:G:N2	33:L1:1255:A:C8	2.74	0.51
33:L1:1478:A:C4'	64:LG:65:LYS:NZ	133.45	0.51
33:L1:3301:G:H5''	48:LV:71:ALA:CA	2.40	0.51
34:L3:34:C:H2'	34:L3:35:C:H6	1.76	0.51
36:LA:115:ILE:O	36:LA:118:GLN:HB2	2.10	0.51
36:LA:43:GLN:HG2	36:LA:44:LYS:H	1.76	0.51
11:SM:18:THR:N	38:LE:109:GLN:HE22	2.09	0.51
33:L1:464:G:O3'	38:LE:1:MET:HE2	133.34	0.51
32:S1:887:U:H6	41:LM:85:ARG:NH2	98.77	0.51
32:S1:1422:G:H2'	32:S1:1423:A:C8	2.44	0.51
32:S1:1615:G:H3'	32:S1:1616:U:C5	2.46	0.51
2:SA:78:ILE:CG1	2:SA:125:LEU:HD11	2.41	0.51
4:SD:101:LEU:CD2	4:SD:109:PHE:HD2	2.22	0.51
4:SD:200:LYS:HE3	32:S1:741:C:OP1	2.11	0.51
5:SE:142:LYS:CD	32:S1:1304:A:OP1	2.59	0.51
27:SH:15:TYR:CE2	27:SH:65:LEU:HD23	2.44	0.51
27:SH:79:PHE:HZ	27:SH:83:VAL:HG11	1.75	0.51
9:SK:37:ASN:O	9:SK:101:GLY:HA2	2.11	0.51
9:SK:99:THR:HA	9:SK:124:LYS:HD2	1.92	0.51
17:SV:93:VAL:HG12	17:SV:94:SER:O	2.10	0.51
12:SO:69:SER:CA	24:SX:49:PHE:CE2	2.93	0.51
33:L1:1513:C:N1	33:L1:1513:C:O4'	2.41	0.51
33:L1:2197:C:H2'	33:L1:2198:U:C6	2.46	0.51
34:L3:108:G:H2'	34:L3:109:U:H5'	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L3:114:C:HO2'	45:LQ:75:VAL:N	2.08	0.51
66:LN:14:LEU:HD13	66:LN:15:VAL:N	2.26	0.51
51:LY:72:VAL:CG1	51:LY:79:ILE:HG22	2.40	0.51
6:SF:74:MET:HE1	32:S1:1619:A:H4'	1.93	0.51
30:S3:17:A:H3'	30:S3:18:C:C6	2.46	0.51
2:SA:126:LEU:HD23	2:SA:127:ILE:N	2.25	0.51
2:SA:189:MET:HE1	5:SE:62:ILE:HD11	1.92	0.51
3:SB:44:MET:HG3	3:SB:80:LEU:CD1	2.40	0.51
15:SS:5:THR:CB	15:SS:139:GLY:HA2	2.41	0.51
33:L1:2154:G:H2'	33:L1:2155:G:C8	2.46	0.51
33:L1:49:U:C6	33:L1:49:U:O4'	2.64	0.51
34:L3:54:A:H5''	38:LE:6:LYS:HZ2	1.74	0.51
34:L3:56:G:C5	34:L3:57:C:C5	2.99	0.51
32:S1:857:A:C4	46:LT:176:ARG:NH2	2.78	0.51
33:L1:1672:G:H3'	68:LW:83:ARG:HG3	1.93	0.51
15:SS:2:ALA:CA	32:S1:1364:C:H5'	2.41	0.51
2:SA:65:ALA:HB1	2:SA:165:ILE:HD11	1.93	0.51
27:SH:65:LEU:CD2	27:SH:70:ASN:HD22	2.23	0.51
10:SL:50:VAL:HG22	10:SL:51:LEU:H	1.76	0.51
13:SQ:38:VAL:HG12	13:SQ:39:SER:N	2.22	0.51
33:L1:2169:U:C2	33:L1:2170:G:N7	2.79	0.51
33:L1:881:G:N2	33:L1:2982:U:H5'	2.26	0.51
33:L1:692:U:H5'	81:LD:220:SER:HB3	1.92	0.51
33:L1:899:A:H5'	37:LB:183:GLY:CA	2.41	0.51
81:LD:309:PRO:C	81:LD:313:GLU:CG	2.79	0.51
32:S1:1675:G:H1'	33:L1:1932:A:N3	2.25	0.51
32:S1:843:G:O2'	33:L1:2061:C:C3'	2.59	0.51
12:SO:114:ARG:HD3	32:S1:945:A:H62	1.74	0.51
31:S2:41:G:C3'	31:S2:42:C:H5''	2.40	0.51
2:SA:109:PRO:HB3	32:S1:1325:A:C4	2.46	0.51
2:SA:127:ILE:CD1	2:SA:151:PHE:CZ	2.94	0.51
5:SE:15:PHE:HE2	5:SE:182:PRO:HG2	1.75	0.51
27:SH:14:MET:HG2	27:SH:19:LYS:HB2	1.93	0.51
10:SL:41:ALA:HB1	10:SL:62:ASN:HA	1.88	0.51
15:SS:10:LYS:H	15:SS:10:LYS:HD2	1.76	0.51
24:SX:76:THR:O	24:SX:76:THR:HG23	2.09	0.51
33:L1:1025:G:H2'	33:L1:1026:A:H8	1.77	0.50
33:L1:1261:C:N4	33:L1:1262:U:C5	2.79	0.50
33:L1:1317:G:H2'	33:L1:1318:C:C5	2.46	0.50
33:L1:2163:G:H2'	33:L1:2164:G:H8	1.76	0.50
33:L1:2252:C:C6	33:L1:2252:C:H2'	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:656:G:C6	33:L1:2360:A:C8	2.99	0.50
33:L1:2398:A:H2'	33:L1:2399:G:O4'	2.10	0.50
33:L1:677:U:H2'	33:L1:678:G:C8	2.46	0.50
33:L1:707:G:O4'	33:L1:707:G:N9	2.37	0.50
33:L1:963:U:O2	33:L1:963:U:H3'	2.11	0.50
34:L3:2:G:C2	34:L3:3:A:N6	2.79	0.50
34:L3:27:A:O2'	34:L3:55:A:N6	2.44	0.50
36:LA:109:PHE:CG	36:LA:136:LEU:HD21	2.46	0.50
33:L1:2176:A:OP1	37:LB:6:ARG:NH2	2.44	0.50
45:LQ:184:LYS:H	45:LQ:190:LEU:HG	1.76	0.50
34:L3:6:C:OP1	45:LQ:31:LYS:CD	2.59	0.50
51:LY:78:VAL:HG11	51:LY:97:GLY:HA3	1.93	0.50
32:S1:1643:A:C8	32:S1:1643:A:H3'	2.46	0.50
31:S2:24:A:C2	33:L1:2260:C:H2'	2.46	0.50
31:S2:26:G:H8	33:L1:2260:C:H5''	1.70	0.50
31:S2:71:A:OP2	33:L1:2965:C:H1'	2.10	0.50
2:SA:232:VAL:HG12	2:SA:233:ALA:N	2.26	0.50
2:SA:72:ILE:HD12	5:SE:66:TYR:HE1	1.52	0.50
2:SA:76:GLN:CG	2:SA:78:ILE:HD11	2.41	0.50
4:SD:153:ILE:HG23	4:SD:154:ILE:CG1	2.41	0.50
27:SH:11:LEU:O	27:SH:15:TYR:HD1	1.94	0.50
27:SH:36:LYS:HB3	27:SH:36:LYS:HZ2	1.75	0.50
11:SM:12:ILE:HD11	38:LE:120:PRO:HB2	1.93	0.50
29:ST:36:ILE:HG23	29:ST:49:PHE:HB2	1.92	0.50
17:SV:34:LYS:NZ	17:SV:76:LEU:HD22	2.27	0.50
6:SF:134:ALA:O	19:SY:41:ASN:HB2	2.10	0.50
33:L1:1258:C:O2'	33:L1:1258:C:C1'	2.53	0.50
33:L1:1826:G:H2'	33:L1:1826:G:C4	2.46	0.50
33:L1:2337:C:H5''	41:LM:51:ARG:HD2	1.92	0.50
33:L1:2700:A:C3'	33:L1:2701:G:P	2.96	0.50
33:L1:3050:A:H1'	80:LC:54:THR:O	2.11	0.50
36:LA:15:GLN:HG3	36:LA:177:GLN:HE22	1.76	0.50
80:LC:67:LEU:O	80:LC:68:HIS:CG	2.64	0.50
33:L1:1387:G:O2'	81:LD:144:ARG:NH2	2.45	0.50
45:LQ:84:LEU:HD11	45:LQ:101:CYS:HB3	1.93	0.50
33:L1:387:A:OP1	48:LV:2:VAL:HA	2.11	0.50
33:L1:1526:A:H4'	49:LX:123:LEU:HG	1.93	0.50
41:LM:96:MET:HE3	50:LZ:22:ARG:HB3	1.93	0.50
32:S1:258:U:H2'	32:S1:259:A:C8	2.46	0.50
32:S1:860:A:N7	32:S1:861:A:C2	2.80	0.50
4:SD:44:LEU:HB2	4:SD:82:TYR:CD1	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:SJ:75:ARG:CG	8:SJ:88:ARG:H	2.09	0.50
13:SQ:73:LEU:O	13:SQ:74:GLN:C	2.40	0.50
23:SU:22:LEU:H	23:SU:23:LEU:HG	1.75	0.50
17:SV:78:ARG:N	17:SV:78:ARG:HD2	2.26	0.50
33:L1:1879:A:C2'	33:L1:1880:A:H5'	2.39	0.50
14:SP:91:TYR:C	33:L1:2081:C:H5'	2.30	0.50
33:L1:299:G:O2'	33:L1:299:G:C1'	2.54	0.50
33:L1:372:A:H1'	33:L1:373:A:H5'	1.92	0.50
33:L1:72:A:C8	33:L1:72:A:C2'	2.94	0.50
36:LA:140:GLN:HE21	36:LA:144:GLU:HG3	1.76	0.50
32:S1:930:G:OP1	37:LB:135:ILE:CD1	2.58	0.50
33:L1:2676:A:OP1	38:LE:97:ASN:HA	2.12	0.50
65:LL:154:UNK:CB	65:LL:154:UNK:O	2.59	0.50
41:LM:33:GLY:O	41:LM:68:GLY:O	2.30	0.50
48:LV:127:ARG:CD	48:LV:141:MET:HE3	2.19	0.50
32:S1:1673:C:H4'	33:L1:1914:C:C4'	2.37	0.50
31:S2:70:G:H4'	33:L1:2966:G:C4'	2.40	0.50
31:S2:73:C:H4'	33:L1:2810:A:C5	2.46	0.50
2:SA:110:GLY:O	2:SA:114:ASN:HB2	2.11	0.50
27:SH:33:VAL:HG13	27:SH:34:ILE:N	2.27	0.50
9:SK:103:LYS:NZ	9:SK:103:LYS:HB3	2.27	0.50
14:SP:42:GLY:O	14:SP:103:LYS:CE	2.59	0.50
14:SP:89:ARG:HE	46:LT:151:ARG:HH12	1.49	0.50
11:SM:55:ARG:NH1	17:SV:34:LYS:HB3	2.26	0.50
17:SV:78:ARG:O	17:SV:82:LYS:HG3	2.11	0.50
33:L1:267:G:N7	42:LP:14:LYS:HB3	2.26	0.50
33:L1:3024:U:C5	33:L1:3032:G:N2	2.79	0.50
33:L1:3320:G:C4	33:L1:3322:A:C4	3.00	0.50
33:L1:641:C:N3	33:L1:642:C:C5	2.79	0.50
33:L1:720:G:H3'	43:LO:109:LYS:HB2	1.93	0.50
36:LA:182:ILE:HG23	36:LA:183:GLN:N	2.27	0.50
36:LA:57:ILE:CG2	36:LA:150:THR:HG21	2.41	0.50
36:LA:60:PRO:HB3	36:LA:150:THR:HB	1.94	0.50
42:LP:137:VAL:HG22	42:LP:152:CYS:HA	1.94	0.50
51:LY:50:ARG:HG3	51:LY:51:LYS:H	1.77	0.50
32:S1:1172:G:H1	32:S1:1586:U:H3	1.59	0.50
32:S1:1739:U:H6	32:S1:1739:U:O5'	1.94	0.50
3:SB:29:LEU:O	3:SB:99:ILE:HD11	2.11	0.50
4:SD:101:LEU:CD2	4:SD:109:PHE:CD2	2.95	0.50
4:SD:180:VAL:HG12	4:SD:181:VAL:N	2.25	0.50
17:SV:93:VAL:CG1	17:SV:94:SER:H	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:SX:36:ASP:O	24:SX:79:CYS:HB2	2.11	0.50
33:L1:1756:C:N3	33:L1:1764:G:N2	2.46	0.50
33:L1:422:G:N3	33:L1:2362:A:C2	2.80	0.50
33:L1:2427:C:H42	33:L1:2604:A:H61	1.59	0.50
35:L2:95:C:H2'	35:L2:96:A:C8	2.46	0.50
34:L3:32:A:C2	34:L3:34:C:N4	2.74	0.50
36:LA:79:MET:HG2	36:LA:86:VAL:HG22	1.94	0.50
81:LD:150:THR:HA	81:LD:151:VAL:HG13	1.92	0.50
38:LE:34:ARG:CA	38:LE:34:ARG:HB3	2.18	0.50
64:LG:109:PRO:CB	64:LG:144:ASP:HA	2.42	0.50
84:LI:41:LYS:HG2	84:LI:44:ASP:OD2	2.12	0.50
66:LN:27:ILE:HD11	66:LN:55:LEU:CD2	2.42	0.50
48:LV:35:ALA:CB	48:LV:58:ILE:HD12	2.42	0.50
32:S1:34:G:C6	32:S1:479:A:C2	3.00	0.50
32:S1:599:G:H2'	32:S1:600:C:C6	2.46	0.50
32:S1:928:A:H1'	37:LB:147:ARG:HH12	1.76	0.50
31:S2:20:C:H3'	31:S2:21:A:H5'	1.93	0.50
25:SC:44:LEU:HB3	25:SC:45:TRP:CD1	2.46	0.50
27:SH:35:ILE:HG23	27:SH:36:LYS:N	2.26	0.50
10:SL:111:VAL:HG22	10:SL:112:GLY:H	1.76	0.50
13:SQ:40:ILE:HG22	13:SQ:41:LEU:HG	1.93	0.50
23:SU:19:THR:O	23:SU:95:TYR:HB2	2.12	0.50
24:SX:57:VAL:HG12	24:SX:58:CYS:O	2.11	0.50
19:SY:47:ARG:N	19:SY:50:ASP:OD1	2.33	0.50
33:L1:1223:U:H6	33:L1:1223:U:H5'	1.76	0.50
33:L1:1241:G:H1'	33:L1:1255:A:H61	1.75	0.50
33:L1:1271:U:H2'	33:L1:1272:G:H5'	1.94	0.50
33:L1:2172:C:H2'	37:LB:132:ASP:OD2	2.12	0.50
33:L1:250:C:O4'	33:L1:250:C:C6	2.65	0.50
33:L1:565:C:H2'	33:L1:566:G:H8	1.75	0.50
36:LA:192:LEU:HB3	36:LA:195:LYS:HG3	1.93	0.50
36:LA:69:ASP:HB2	36:LA:83:TYR:CE2	2.47	0.50
33:L1:2170:G:C6	37:LB:125:VAL:CG1	2.95	0.50
11:SM:10:GLN:O	38:LE:118:TYR:HD2	1.83	0.50
40:LH:112:GLN:HE21	40:LH:128:VAL:HG11	1.76	0.50
43:LO:14:HIS:CG	43:LO:15:VAL:N	2.76	0.50
67:LS:12:VAL:HG23	67:LS:61:LEU:CB	2.38	0.50
67:LS:157:LYS:O	67:LS:161:PRO:HD2	2.12	0.50
31:S2:39:G:P	32:S1:1006:A:C5'	2.82	0.50
3:SB:140:GLY:HA3	3:SB:148:LYS:H	1.76	0.50
4:SD:189:THR:HG22	4:SD:190:GLY:N	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:SD:93:PRO:O	4:SD:94:LYS:C	2.43	0.50
27:SH:27:ILE:HG23	27:SH:30:SER:N	2.26	0.50
27:SH:35:ILE:O	27:SH:39:ILE:HG13	2.12	0.50
5:SE:31:ARG:NH2	27:SH:67:GLY:CA	2.74	0.50
9:SK:105:LYS:NZ	9:SK:131:VAL:HG22	2.27	0.50
9:SK:41:ILE:HG23	9:SK:115:LEU:HD13	1.93	0.50
10:SL:49:ILE:CG1	10:SL:50:VAL:H	2.24	0.50
33:L1:1722:G:C2	33:L1:1785:G:H5'	2.47	0.50
32:S1:918:G:N2	33:L1:2202:A:OP2	2.36	0.50
33:L1:328:G:N2	33:L1:329:G:O6	2.40	0.50
33:L1:355:C:C4'	81:LD:87:GLY:HA3	2.42	0.50
34:L3:2:G:H2'	34:L3:3:A:N7	2.27	0.50
34:L3:3:A:C6	34:L3:25:G:O6	2.64	0.50
36:LA:106:TYR:CE1	36:LA:143:LEU:CG	2.94	0.50
36:LA:149:GLU:OE1	36:LA:149:GLU:HA	2.12	0.50
36:LA:53:LYS:O	36:LA:54:LEU:HD12	2.11	0.50
11:SM:18:THR:CA	38:LE:109:GLN:HE22	2.25	0.50
39:LF:2:LYS:HZ2	66:LN:5:ARG:HE	1.59	0.50
67:LS:148:ASP:HA	67:LS:153:LEU:HB2	1.93	0.50
32:S1:184:C:N3	32:S1:196:G:N2	2.53	0.50
32:S1:922:U:C5	32:S1:923:U:C5	3.00	0.50
4:SD:166:THR:O	4:SD:167:ASN:HB2	2.12	0.50
27:SH:38:LEU:HD11	27:SH:45:GLY:N	2.27	0.50
14:SP:44:LYS:HA	14:SP:102:GLU:O	2.11	0.50
15:SS:5:THR:CG2	15:SS:139:GLY:HA2	2.41	0.50
17:SV:96:HIS:CB	17:SV:101:ILE:HG12	2.42	0.50
18:SW:114:UNK:O	18:SW:118:UNK:N	2.44	0.50
33:L1:2501:U:H2'	33:L1:2502:U:C6	2.47	0.50
33:L1:2504:A:H3'	33:L1:2505:C:C6	2.46	0.50
33:L1:250:C:H2'	33:L1:251:G:C1'	2.41	0.50
33:L1:250:C:C2	33:L1:251:G:C4	3.00	0.50
33:L1:3233:C:H3'	33:L1:3234:G:C5'	2.41	0.50
36:LA:106:TYR:HE2	36:LA:140:GLN:HA	1.73	0.50
32:S1:990:G:O3'	37:LB:133:TYR:CG	2.46	0.50
34:L3:55:A:C2	38:LE:140:VAL:CG2	2.92	0.50
38:LE:75:GLY:O	67:LS:26:ILE:HD13	87.33	0.50
39:LF:160:ILE:HG22	39:LF:178:ILE:HG21	1.94	0.50
33:L1:1192:A:O2'	82:LK:138:HIS:CD2	2.65	0.50
49:LX:125:ARG:HA	49:LX:125:ARG:NE	2.27	0.50
32:S1:188:U:H3	32:S1:192:G:H1	1.59	0.50
32:S1:222:G:N3	33:L1:2063:U:OP1	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:S2:13:U:C6	33:L1:2245:G:N2	2.80	0.50
31:S2:70:G:H5'	33:L1:2966:G:C5'	2.39	0.50
2:SA:238:PRO:O	2:SA:239:ALA:O	2.29	0.50
5:SE:197:LEU:CD2	32:S1:1092:A:P	2.98	0.50
26:SG:8:UNK:CA	46:LT:187:ARG:N	2.75	0.50
27:SH:38:LEU:CD2	27:SH:46:TYR:CD1	2.95	0.50
27:SH:52:PHE:O	27:SH:52:PHE:HD2	1.95	0.50
27:SH:81:VAL:HG13	27:SH:124:LYS:NZ	2.26	0.50
10:SL:111:VAL:HG22	10:SL:112:GLY:N	2.27	0.50
6:SF:162:ILE:CG2	17:SV:69:ARG:HH11	2.24	0.50
33:L1:1317:G:O3'	33:L1:1318:C:C6	2.65	0.50
33:L1:1867:U:O5'	33:L1:1867:U:H6	1.94	0.50
33:L1:2450:G:N3	33:L1:2450:G:H2'	2.27	0.50
33:L1:2751:A:N7	33:L1:2752:G:H1'	2.27	0.50
33:L1:304:A:H5''	82:LK:65:LYS:NZ	111.57	0.50
36:LA:101:LYS:HG3	36:LA:101:LYS:O	2.12	0.50
36:LA:182:ILE:C	36:LA:182:ILE:HD13	2.31	0.50
81:LD:383:LYS:O	81:LD:386:ILE:HD12	2.05	0.50
38:LE:86:LEU:HD23	38:LE:89:LYS:HZ1	1.77	0.50
40:LH:108:LEU:HD21	40:LH:195:CYS:SG	2.52	0.50
66:LN:64:ARG:HH11	67:LS:154:VAL:CG2	2.25	0.50
44:LR:60:PRO:HG2	44:LR:84:GLY:H	1.77	0.50
51:LY:70:VAL:HG12	51:LY:80:HIS:C	2.31	0.50
32:S1:1189:U:H4'	32:S1:1190:U:H5''	1.94	0.50
31:S2:24:A:N1	33:L1:2260:C:H2'	2.27	0.50
2:SA:107:HIS:CE1	2:SA:137:PRO:HB3	2.46	0.50
6:SF:94:GLU:HG3	17:SV:102:TYR:OH	2.11	0.50
14:SP:88:ARG:NH1	33:L1:2083:U:O5'	2.44	0.50
15:SS:9:VAL:HG22	15:SS:135:ASP:CA	2.36	0.50
33:L1:123:U:H2'	33:L1:124:C:H6	1.77	0.49
33:L1:1660:C:H42	33:L1:1782:G:H1	1.60	0.49
33:L1:2584:U:H2'	33:L1:2585:C:C6	2.47	0.49
33:L1:40:G:H21	33:L1:2615:U:H4'	1.77	0.49
33:L1:2634:U:H2'	33:L1:2635:G:C8	2.46	0.49
33:L1:3320:G:C6	33:L1:3322:A:C2	2.99	0.49
35:L2:155:G:H2'	35:L2:156:G:H8	1.76	0.49
35:L2:159:U:H2'	35:L2:160:C:C6	2.47	0.49
74:LJ:114:ALA:HB1	74:LJ:129:THR:HG23	1.94	0.49
45:LQ:111:LEU:O	45:LQ:112:THR:O	2.28	0.49
32:S1:148:C:H2'	32:S1:149:G:C8	2.46	0.49
31:S2:74:C:OP2	33:L1:2957:U:H5''	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:120:PHE:HZ	5:SE:101:ALA:CB	2.25	0.49
2:SA:130:ASP:HB3	2:SA:133:THR:HG22	1.94	0.49
3:SB:17:PHE:CZ	3:SB:21:LEU:HD22	2.46	0.49
25:SC:148:PHE:O	25:SC:157:HIS:HA	2.12	0.49
27:SH:11:LEU:CD1	27:SH:15:TYR:HE1	2.25	0.49
27:SH:65:LEU:HB3	27:SH:71:LYS:N	2.27	0.49
24:SX:66:CYS:HB3	24:SX:75:LEU:HD23	1.94	0.49
33:L1:1817:U:C4	33:L1:1818:C:C4	3.00	0.49
32:S1:348:A:C1'	33:L1:2085:A:H5'	2.30	0.49
33:L1:2899:A:C8	33:L1:2901:C:C5	3.00	0.49
33:L1:60:G:H3'	33:L1:61:A:C8	2.47	0.49
33:L1:8:C:H2'	33:L1:9:C:C6	2.47	0.49
35:L2:41:A:H8	35:L2:41:A:H5'	1.77	0.49
81:LD:342:LYS:C	81:LD:343:MET:HG2	2.33	0.49
38:LE:14:ILE:CG2	38:LE:164:TRP:CG	2.94	0.49
64:LG:187:GLU:O	64:LG:188:LEU:HD12	2.11	0.49
64:LG:66:PRO:HD2	64:LG:67:HIS:H	1.77	0.49
64:LG:83:LEU:HD22	64:LG:124:TYR:HB3	1.93	0.49
43:LO:12:ARG:HH21	65:LL:18:UNK:CB	2.25	0.49
64:LG:171:LYS:CD	66:LN:106:ASP:HA	2.42	0.49
33:L1:529:C:P	66:LN:69:THR:HG23	2.50	0.49
48:LV:35:ALA:HB2	48:LV:59:PRO:HG2	1.94	0.49
32:S1:879:C:H42	32:S1:958:G:H1	1.60	0.49
32:S1:977:G:C8	33:L1:849:A:N7	2.67	0.49
9:SK:90:THR:HA	9:SK:93:HIS:ND1	2.24	0.49
10:SL:82:ALA:N	10:SL:85:PRO:HD3	2.25	0.49
17:SV:96:HIS:HB2	17:SV:101:ILE:HG13	1.93	0.49
24:SX:51:HIS:HA	24:SX:73:ALA:HB3	1.94	0.49
33:L1:1258:C:C2'	33:L1:1258:C:N1	2.65	0.49
33:L1:1362:C:H2'	33:L1:1363:C:C6	2.47	0.49
33:L1:1587:G:O4'	33:L1:1587:G:C8	2.66	0.49
33:L1:1867:U:H5'	46:LT:58:HIS:HA	1.94	0.49
33:L1:277:U:H1'	33:L1:285:G:N2	2.27	0.49
33:L1:3238:U:H2'	33:L1:3239:G:O4'	2.12	0.49
33:L1:763:G:O4'	33:L1:763:G:C8	2.65	0.49
34:L3:49:A:N1	34:L3:51:G:O6	2.46	0.49
36:LA:167:ALA:HB2	36:LA:179:GLN:NE2	2.27	0.49
37:LB:229:ALA:HB1	37:LB:233:GLN:HG3	1.94	0.49
81:LD:377:ALA:C	81:LD:381:TRP:CD1	2.70	0.49
12:SO:93:LYS:CB	39:LF:19:GLN:HG2	181.37	0.49
33:L1:1184:U:C4	82:LK:23:ARG:CD	2.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:LA:189:LEU:HD12	65:LL:194:UNK:CB	2.42	0.49
66:LN:4:LYS:HG3	67:LS:164:LYS:CG	2.38	0.49
42:LP:48:ALA:HB1	42:LP:53:TYR:HB2	1.95	0.49
32:S1:1759:A:C1'	32:S1:1759:A:C4'	2.86	0.49
6:SF:12:VAL:HG21	6:SF:19:SER:HA	1.93	0.49
27:SH:15:TYR:CZ	27:SH:63:VAL:CG2	2.95	0.49
9:SK:85:LYS:HE2	9:SK:119:ALA:CA	2.43	0.49
11:SM:12:ILE:HG12	38:LE:117:LYS:CA	2.41	0.49
15:SS:2:ALA:CB	32:S1:1364:C:H4'	2.38	0.49
29:ST:56:GLY:CA	32:S1:1063:U:OP1	2.60	0.49
33:L1:1320:G:C6	66:LN:1:MET:N	2.56	0.49
32:S1:918:G:C6	33:L1:2201:G:C1'	2.95	0.49
33:L1:2482:A:H2'	33:L1:2483:A:H5'	1.92	0.49
33:L1:250:C:C4	33:L1:251:G:C6	3.00	0.49
33:L1:250:C:H2'	33:L1:251:G:C8	2.48	0.49
33:L1:3237:G:O6	33:L1:3238:U:O2	2.30	0.49
34:L3:86:G:O2'	67:LS:119:ARG:HD2	2.13	0.49
36:LA:54:LEU:HB2	36:LA:151:LYS:HE2	1.93	0.49
33:L1:344:C:OP1	81:LD:58:VAL:HG13	2.12	0.49
40:LH:64:LYS:CD	49:LX:42:PHE:CZ	2.95	0.49
66:LN:32:ASP:HB3	67:LS:97:ARG:HD3	1.94	0.49
33:L1:731:G:H4'	44:LR:44:PHE:CE1	2.47	0.49
48:LV:12:THR:HG23	48:LV:13:LYS:N	2.26	0.49
33:L1:3301:G:C5'	48:LV:71:ALA:N	2.75	0.49
2:SA:166:PRO:O	2:SA:167:ALA:HB2	2.12	0.49
25:SC:160:PHE:O	32:S1:482:A:C5'	2.60	0.49
4:SD:67:GLN:O	4:SD:69:HIS:NE2	2.46	0.49
27:SH:49:GLU:HG2	27:SH:58:SER:OG	2.13	0.49
9:SK:106:THR:HA	9:SK:133:PRO:HA	1.94	0.49
10:SL:49:ILE:HG12	10:SL:50:VAL:N	2.27	0.49
12:SO:100:LYS:HB3	39:LF:82:GLY:N	167.13	0.49
20:SZ:10:ARG:CD	32:S1:1255:U:O5'	2.60	0.49
33:L1:1687:C:H5''	46:LT:58:HIS:CG	2.48	0.49
33:L1:1740:U:H6	33:L1:1740:U:H3'	1.77	0.49
33:L1:2934:C:O2	33:L1:2936:A:C8	2.66	0.49
33:L1:3047:A:H4'	80:LC:333:VAL:HG12	1.94	0.49
33:L1:763:G:O4'	33:L1:763:G:N9	2.40	0.49
33:L1:967:G:C2	33:L1:968:A:H1'	2.47	0.49
33:L1:180:G:P	35:L2:98:C:N4	2.85	0.49
34:L3:55:A:H2	38:LE:140:VAL:CG2	2.20	0.49
36:LA:71:GLN:CB	36:LA:79:MET:HE3	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:990:G:H5''	37:LB:131:GLY:O	2.02	0.49
37:LB:97:SER:HB3	37:LB:100:ASN:HD21	1.77	0.49
64:LG:97:LYS:HB2	64:LG:139:VAL:CG2	2.43	0.49
64:LG:83:LEU:CD2	64:LG:124:TYR:O	2.60	0.49
33:L1:2649:C:OP1	84:LI:119:PHE:CD2	2.65	0.49
66:LN:31:VAL:HA	67:LS:145:HIS:CE1	2.47	0.49
46:LT:58:HIS:HE1	46:LT:61:SER:CB	2.24	0.49
47:LU:27:LEU:HD13	47:LU:27:LEU:H	1.78	0.49
48:LV:15:SER:HB3	48:LV:151:LEU:CG	2.41	0.49
33:L1:1679:U:O4	68:LW:94:LYS:C	2.50	0.49
7:SI:132:PRO:HG2	32:S1:1616:U:H5	1.77	0.49
2:SA:12:LEU:HG	2:SA:13:SER:H	1.77	0.49
4:SD:100:ARG:HB2	4:SD:114:VAL:CG2	2.34	0.49
6:SF:80:GLY:HA3	32:S1:1479:U:N1	2.27	0.49
27:SH:22:LYS:CG	27:SH:61:ILE:HD11	2.35	0.49
17:SV:50:LYS:HA	17:SV:54:GLU:CD	2.33	0.49
33:L1:1000:A:H1'	34:L3:102:G:OP1	2.13	0.49
33:L1:1218:U:C5'	67:LS:93:TYR:HB3	2.42	0.49
33:L1:1719:U:O4	46:LT:128:LYS:HD2	2.12	0.49
33:L1:1976:U:H3	33:L1:2035:G:H1	1.61	0.49
33:L1:2382:C:H4'	82:LK:74:GLY:HA3	1.94	0.49
33:L1:2458:A:N6	33:L1:2484:G:H22	2.10	0.49
31:S2:3:C:OP1	33:L1:2626:G:O5'	2.20	0.49
33:L1:2702:G:H21	47:LU:49:HIS:CE1	2.29	0.49
33:L1:2743:A:C6	33:L1:2744:C:C2	3.01	0.49
33:L1:650:A:H2'	33:L1:651:A:O4'	2.11	0.49
33:L1:640:C:H5	33:L1:650:A:HO2'	1.61	0.49
33:L1:665:G:N9	33:L1:665:G:O4'	2.38	0.49
33:L1:975:G:H2'	33:L1:976:A:C8	2.47	0.49
34:L3:41:G:N3	34:L3:44:C:N3	2.61	0.49
33:L1:464:G:O2'	38:LE:1:MET:CE	134.83	0.49
39:LF:160:ILE:HG22	39:LF:178:ILE:CG2	2.42	0.49
84:LI:109:ASP:O	84:LI:111:LEU:N	2.45	0.49
66:LN:109:LYS:CE	82:LK:198:LEU:HD21	2.42	0.49
33:L1:271:G:H5''	82:LK:65:LYS:HD3	113.17	0.49
66:LN:13:ALA:HA	66:LN:55:LEU:HA	1.95	0.49
33:L1:185:A:OP1	51:LY:125:ARG:NH1	2.46	0.49
32:S1:1677:U:C5	32:S1:1678:G:N7	2.81	0.49
32:S1:483:C:H2'	32:S1:484:A:C5'	2.43	0.49
32:S1:624:A:OP2	32:S1:624:A:H3'	2.13	0.49
5:SE:15:PHE:CE2	5:SE:182:PRO:HG2	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1042:C:H2'	33:L1:1043:U:H6	1.78	0.49
33:L1:1901:G:C2'	33:L1:1902:G:H5''	2.42	0.49
33:L1:237:C:O4'	33:L1:237:C:C6	2.64	0.49
34:L3:49:A:N3	34:L3:50:A:C6	2.81	0.49
34:L3:7:G:H5'	45:LQ:37:ARG:NE	2.27	0.49
44:LR:41:LYS:N	81:LD:325:LYS:HZ3	2.11	0.49
82:LK:132:LEU:H	82:LK:134:LEU:HD23	1.78	0.49
33:L1:3223:C:OP1	66:LN:130:LYS:HE3	2.12	0.49
32:S1:1473:C:H2'	32:S1:1474:U:H6	1.78	0.49
32:S1:1659:A:C2	32:S1:1759:A:N1	2.77	0.49
32:S1:187:C:C2'	32:S1:188:U:O5'	2.61	0.49
32:S1:680:C:H2'	32:S1:681:G:H5''	1.93	0.49
25:SC:106:PHE:CE1	32:S1:477:A:H1'	2.48	0.49
27:SH:65:LEU:O	27:SH:66:ASN:O	2.30	0.49
7:SI:130:CYS:CB	32:S1:1592:G:H5''	2.43	0.49
11:SM:14:ARG:CB	38:LE:109:GLN:OE1	2.60	0.49
12:SO:117:LEU:HD23	32:S1:944:A:N6	2.27	0.49
14:SP:94:PHE:N	46:LT:151:ARG:HE	2.10	0.49
33:L1:82:C:O2	33:L1:102:G:N2	2.46	0.49
33:L1:1127:U:H3	33:L1:1137:G:N2	2.06	0.49
33:L1:1221:A:C2	33:L1:1293:C:O2	2.66	0.49
33:L1:1374:G:H2'	33:L1:1375:G:C8	2.48	0.49
31:S2:13:U:OP1	33:L1:2245:G:C8	2.66	0.49
32:S1:1768:U:O2'	33:L1:2257:A:O2'	2.15	0.49
33:L1:2512:U:H2'	33:L1:2513:U:C6	2.48	0.49
33:L1:3086:G:O2'	33:L1:3087:A:H5'	2.12	0.49
33:L1:3169:C:H42	33:L1:3271:A:H61	1.60	0.49
33:L1:547:C:H2'	33:L1:548:G:H8	1.77	0.49
32:S1:354:G:H1	33:L1:847:G:C4'	2.12	0.49
35:L2:136:G:H2'	35:L2:137:C:C6	2.48	0.49
36:LA:59:ARG:CD	36:LA:175:GLU:HG2	2.43	0.49
37:LB:90:CYS:HA	37:LB:101:VAL:HG12	1.93	0.49
38:LE:152:ILE:H	38:LE:152:ILE:HD12	1.78	0.49
38:LE:75:GLY:O	67:LS:26:ILE:CD1	87.38	0.49
84:LI:112:GLN:C	84:LI:113:THR:HG23	2.33	0.49
33:L1:1238:G:H21	74:LJ:132:GLU:HB3	1.78	0.49
41:LM:52:LEU:H	41:LM:52:LEU:HD12	1.77	0.49
68:LW:105:ILE:O	68:LW:106:ALA:CB	2.61	0.49
32:S1:928:A:H1'	37:LB:147:ARG:HH11	1.76	0.49
31:S2:72:G:C6	33:L1:2972:C:H3'	1.92	0.49
2:SA:64:LEU:HD11	5:SE:44:TRP:CB	2.34	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:SD:87:MET:HA	4:SD:100:ARG:HD2	1.94	0.49
4:SD:45:ILE:HG23	4:SD:46:LEU:HG	1.95	0.49
27:SH:71:LYS:HB2	27:SH:71:LYS:NZ	2.25	0.49
17:SV:98:SER:C	17:SV:100:LEU:H	2.16	0.49
17:SV:95:VAL:C	17:SV:96:HIS:CG	2.82	0.49
33:L1:1179:C:O2'	82:LK:94:PRO:CG	2.60	0.49
33:L1:1391:A:H61	33:L1:1423:C:N4	2.04	0.49
33:L1:1752:C:H2'	33:L1:1753:A:O5'	2.13	0.49
33:L1:2496:U:H4'	33:L1:2497:A:OP1	2.12	0.49
36:LA:68:GLY:O	36:LA:105:LYS:HA	2.13	0.49
37:LB:95:THR:HG23	37:LB:100:ASN:ND2	2.28	0.49
33:L1:2240:C:H4'	37:LB:222:ALA:HA	1.95	0.49
38:LE:104:PHE:CZ	38:LE:131:VAL:HG21	2.47	0.49
46:LT:179:GLU:O	46:LT:183:PRO:HD2	2.13	0.49
48:LV:96:LEU:O	48:LV:100:GLU:HG3	2.12	0.49
41:LM:96:MET:HE3	50:LZ:22:ARG:CB	2.42	0.49
32:S1:1698:A:H2	32:S1:1721:A:C2	2.24	0.49
32:S1:1758:G:OP1	33:L1:2298:A:O5'	2.31	0.49
4:SD:219:ALA:O	32:S1:653:U:H4'	2.12	0.49
30:S3:14:A:OP2	30:S3:14:A:H8	1.96	0.49
27:SH:10:ALA:HB1	27:SH:22:LYS:CD	2.43	0.49
7:SI:143:ARG:NE	32:S1:1593:U:H5''	2.27	0.49
10:SL:94:GLU:C	10:SL:96:ASN:H	2.15	0.49
12:SO:97:ALA:H	39:LF:19:GLN:CD	179.27	0.49
13:SQ:29:HIS:CD2	13:SQ:32:LYS:HD2	2.47	0.49
17:SV:51:LEU:HD22	17:SV:71:ARG:HB3	1.95	0.49
33:L1:1915:G:HO2'	33:L1:1916:U:H5'	1.77	0.49
32:S1:1748:U:C6	33:L1:1916:U:H5'	1.92	0.49
33:L1:2094:A:H2'	33:L1:2095:C:C6	2.47	0.49
33:L1:2230:C:C3'	33:L1:2231:G:H5'	2.41	0.49
33:L1:3097:G:H2'	33:L1:3098:U:H6	1.77	0.49
33:L1:31:U:C4	33:L1:32:G:C5	3.01	0.49
64:LG:66:PRO:CD	64:LG:67:HIS:N	2.76	0.49
33:L1:1179:C:H5''	82:LK:33:LEU:HD11	1.93	0.49
32:S1:886:A:C5	41:LM:85:ARG:CZ	97.70	0.49
45:LQ:254:ALA:HA	45:LQ:257:THR:OG1	2.13	0.49
14:SP:98:TYR:CD1	46:LT:155:LEU:HG	2.48	0.49
31:S2:34:G:C4'	32:S1:1195:U:N1	2.62	0.49
32:S1:146:A:H3'	32:S1:147:C:C6	2.48	0.49
32:S1:1782:C:H2'	32:S1:1783:C:C6	2.48	0.49
32:S1:320:A:OP2	33:L1:854:C:C5'	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:S2:11:U:C2	33:L1:2260:C:H2'	2.47	0.49
25:SC:94:LYS:HZ2	32:S1:513:G:H5''	1.78	0.49
5:SE:194:LYS:CE	5:SE:248:PRO:HG2	2.43	0.49
2:SA:67:ARG:HH12	5:SE:61:LYS:HE2	1.77	0.49
11:SM:35:GLY:C	11:SM:36:VAL:HG12	2.33	0.49
12:SO:120:SER:HA	12:SO:123:HIS:NE2	2.28	0.49
33:L1:1060:U:C4	33:L1:1061:A:C2	3.01	0.48
33:L1:1240:G:C8	74:LJ:14:PHE:HB3	2.48	0.48
33:L1:1545:G:H5''	42:LP:34:PRO:HB3	1.95	0.48
33:L1:2518:A:H61	33:L1:2595:G:H1'	1.78	0.48
34:L3:22:A:OP1	34:L3:25:G:C8	2.66	0.48
81:LD:305:SER:C	81:LD:306:VAL:HG23	2.34	0.48
84:LI:110:ARG:NE	84:LI:116:ARG:CG	2.76	0.48
36:LA:189:LEU:HD23	65:LL:192:UNK:C	2.42	0.48
33:L1:967:G:OP1	43:LO:7:LYS:HA	2.13	0.48
34:L3:11:A:C4	45:LQ:17:PHE:HB3	2.48	0.48
32:S1:636:U:O4'	32:S1:636:U:C6	2.65	0.48
4:SD:201:HIS:CD2	32:S1:687:C:H5''	2.48	0.48
32:S1:981:G:H21	32:S1:1032:A:H61	1.61	0.48
4:SD:208:ILE:O	4:SD:208:ILE:HG23	2.12	0.48
27:SH:42:GLN:CD	27:SH:101:TYR:HE2	2.17	0.48
9:SK:52:LEU:HD11	9:SK:92:LEU:CD2	2.42	0.48
11:SM:113:ARG:O	11:SM:114:LEU:C	2.50	0.48
28:SN:11:PRO:HG2	28:SN:12:LYS:H	1.78	0.48
33:L1:1318:C:N1	33:L1:1318:C:O4'	2.39	0.48
33:L1:1368:U:C6	33:L1:1368:U:O4'	2.66	0.48
33:L1:1551:C:O4'	33:L1:1551:C:C6	2.66	0.48
33:L1:1822:C:H2'	33:L1:1823:C:C6	2.49	0.48
33:L1:2108:C:H3'	33:L1:2108:C:C6	2.47	0.48
33:L1:238:C:H2'	33:L1:239:C:C6	2.47	0.48
33:L1:250:C:H2'	33:L1:251:G:N9	2.27	0.48
33:L1:3131:A:H5''	33:L1:3132:U:H5	1.77	0.48
33:L1:1206:A:H5'	34:L3:88:U:O4'	2.13	0.48
36:LA:23:LYS:HZ1	36:LA:205:VAL:CG1	2.26	0.48
81:LD:309:PRO:O	81:LD:313:GLU:CG	2.61	0.48
66:LN:8:GLU:HB3	67:LS:158:VAL:HG13	1.95	0.48
34:L3:46:C:OP1	45:LQ:158:ARG:NH2	2.46	0.48
32:S1:1742:A:H2'	32:S1:1743:C:C6	2.48	0.48
32:S1:690:G:H2'	32:S1:691:A:C8	2.48	0.48
12:SO:97:ALA:CB	39:LF:19:GLN:CG	180.48	0.48
14:SP:44:LYS:HE3	14:SP:117:ARG:HD3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:SF:135:VAL:CA	19:SY:41:ASN:HD22	2.26	0.48
33:L1:1344:A:C8	33:L1:1344:A:O4'	2.67	0.48
33:L1:1513:C:C6	33:L1:1513:C:O4'	2.66	0.48
33:L1:30:C:H1'	33:L1:1549:A:C2	2.48	0.48
33:L1:1563:G:H2'	33:L1:1564:C:C6	2.48	0.48
32:S1:1676:G:H5'	33:L1:1933:U:C3'	2.43	0.48
33:L1:202:G:O2'	33:L1:203:C:H5'	2.14	0.48
33:L1:2116:G:C6	33:L1:2331:A:C2	3.01	0.48
32:S1:1757:G:C3'	33:L1:2297:G:O3'	2.60	0.48
33:L1:2640:A:C2'	33:L1:2640:A:C4	2.96	0.48
33:L1:2783:U:C2	33:L1:2784:U:C5	3.00	0.48
33:L1:3169:C:N3	33:L1:3271:A:N1	2.60	0.48
36:LA:97:LYS:O	36:LA:98:LEU:HB2	2.12	0.48
33:L1:806:C:OP1	81:LD:106:PHE:CD2	2.66	0.48
33:L1:1385:C:OP1	81:LD:203:ARG:HD2	2.14	0.48
11:SM:14:ARG:HG2	38:LE:109:GLN:CD	2.29	0.48
39:LF:40:HIS:CE1	39:LF:41:LEU:HD23	2.48	0.48
64:LG:96:LEU:CB	64:LG:139:VAL:HG22	2.44	0.48
33:L1:2380:G:P	82:LK:96:LYS:NZ	2.85	0.48
41:LM:96:MET:HE2	50:LZ:22:ARG:CG	2.43	0.48
66:LN:8:GLU:HG2	66:LN:9:ILE:H	1.78	0.48
34:L3:56:G:N2	45:LQ:54:ARG:HH22	1.89	0.48
44:LR:132:THR:CB	81:LD:325:LYS:HZ2	2.23	0.48
51:LY:58:VAL:O	51:LY:63:LYS:HD2	2.14	0.48
15:SS:75:VAL:HG13	32:S1:1507:G:OP2	2.13	0.48
32:S1:1595:A:H61	32:S1:1617:U:H3	1.62	0.48
32:S1:200:C:C3'	32:S1:201:G:H5''	2.43	0.48
32:S1:238:G:H2'	32:S1:238:G:N3	2.27	0.48
31:S2:8:U:C6	31:S2:13:U:O4	2.67	0.48
5:SE:153:TRP:CD2	5:SE:243:LYS:HD2	2.48	0.48
5:SE:31:ARG:CD	27:SH:67:GLY:HA2	2.38	0.48
12:SO:97:ALA:HB3	39:LF:19:GLN:CD	181.12	0.48
23:SU:17:PHE:CE2	23:SU:28:PHE:CD1	3.01	0.48
33:L1:1015:A:H2'	33:L1:1016:G:H8	1.78	0.48
33:L1:1087:G:H2'	33:L1:1088:A:C8	2.49	0.48
33:L1:1422:G:N2	33:L1:1423:C:H1'	2.29	0.48
33:L1:1507:A:N6	33:L1:1518:A:N3	2.50	0.48
33:L1:1550:A:H2'	33:L1:1551:C:C6	2.48	0.48
33:L1:1537:A:C2	33:L1:1584:A:C2	3.00	0.48
33:L1:2726:U:O2'	47:LU:54:HIS:CD2	2.66	0.48
33:L1:30:C:O4'	33:L1:30:C:C6	2.66	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:3299:A:O2'	33:L1:3299:A:C1'	2.54	0.48
33:L1:394:A:H2'	33:L1:395:A:H5''	1.95	0.48
33:L1:642:C:H4'	33:L1:1436:A:N6	2.29	0.48
46:LT:89:LEU:O	46:LT:89:LEU:HG	2.12	0.48
32:S1:633:U:O2	32:S1:634:A:C4	2.66	0.48
2:SA:198:LYS:CB	2:SA:218:GLU:HA	2.43	0.48
9:SK:37:ASN:O	9:SK:101:GLY:CA	2.61	0.48
14:SP:124:VAL:C	46:LT:165:LYS:CD	2.82	0.48
33:L1:985:C:N4	33:L1:1105:G:H21	2.09	0.48
33:L1:2059:C:C6	33:L1:2059:C:O4'	2.66	0.48
33:L1:641:C:H2'	33:L1:641:C:OP2	2.14	0.48
38:LE:40:GLU:OE1	38:LE:46:SER:HA	2.14	0.48
64:LG:97:LYS:HB2	64:LG:139:VAL:HG21	1.95	0.48
5:SE:130:VAL:CG2	32:S1:11:A:H5'	2.44	0.48
32:S1:1736:C:H5'	33:L1:2103:U:C5'	2.43	0.48
32:S1:196:G:O2'	32:S1:197:G:H5'	2.14	0.48
2:SA:71:ALA:HB2	5:SE:65:ILE:CB	2.42	0.48
4:SD:206:GLU:HG3	32:S1:686:A:HO2'	1.71	0.48
11:SM:75:ARG:HD2	11:SM:76:GLN:H	1.79	0.48
16:SR:116:ILE:HG23	16:SR:117:LYS:N	2.29	0.48
17:SV:56:PRO:CD	17:SV:57:LYS:N	2.76	0.48
24:SX:45:ILE:O	24:SX:45:ILE:HG23	2.14	0.48
33:L1:996:A:C8	33:L1:1062:G:N2	2.80	0.48
33:L1:124:C:O4'	33:L1:124:C:C6	2.65	0.48
33:L1:1387:G:C6	33:L1:1388:C:C4	3.02	0.48
31:S2:25:U:O2'	33:L1:2260:C:H3'	2.12	0.48
32:S1:1757:G:C4'	33:L1:2297:G:O3'	2.61	0.48
33:L1:3327:A:C8	33:L1:3327:A:O4'	2.66	0.48
33:L1:716:A:C8	33:L1:716:A:O4'	2.65	0.48
33:L1:835:G:H4'	46:LT:87:ALA:HB2	1.96	0.48
12:SO:124:ARG:CZ	33:L1:849:A:O2'	2.57	0.48
35:L2:62:G:OP1	35:L2:102:U:N3	2.46	0.48
35:L2:63:A:H5''	35:L2:65:A:C4	2.49	0.48
34:L3:111:U:H2'	34:L3:112:U:C6	2.48	0.48
37:LB:178:PRO:HG2	37:LB:180:LEU:HD11	1.96	0.48
38:LE:21:LEU:HD23	38:LE:129:PHE:CD2	2.48	0.48
64:LG:90:GLY:H	64:LG:159:GLU:CD	2.17	0.48
66:LN:95:VAL:HA	66:LN:98:ARG:HD2	1.96	0.48
45:LQ:200:TYR:CD1	45:LQ:203:HIS:HB3	2.49	0.48
34:L3:35:C:O4'	45:LQ:200:TYR:CE2	2.64	0.48
33:L1:3182:A:P	67:LS:164:LYS:HD3	2.53	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:SG:5:UNK:CA	46:LT:189:CYS:C	2.71	0.48
46:LT:91:THR:O	46:LT:95:TRP:CD2	2.67	0.48
47:LU:91:VAL:HG22	47:LU:92:ARG:O	2.13	0.48
48:LV:8:ALA:O	48:LV:9:ASN:HB2	2.12	0.48
32:S1:1747:A:O4'	33:L1:1915:G:C2	2.67	0.48
32:S1:634:A:C2	32:S1:975:A:C6	3.02	0.48
6:SF:165:ILE:HA	6:SF:168:CYS:H	1.78	0.48
27:SH:13:THR:HG23	27:SH:14:MET:N	2.28	0.48
11:SM:110:ASP:O	11:SM:113:ARG:HB2	2.14	0.48
33:L1:1081:U:C6	33:L1:1081:U:C3'	2.96	0.48
33:L1:1191:U:O2'	33:L1:1193:A:H2	1.97	0.48
31:S2:24:A:H2'	33:L1:2261:U:O5'	2.13	0.48
33:L1:415:G:O2'	33:L1:631:C:C1'	2.62	0.48
33:L1:858:U:C4	33:L1:859:G:C6	3.02	0.48
35:L2:124:G:C8	35:L2:124:G:H2'	2.49	0.48
35:L2:90:U:C2'	35:L2:90:U:N1	2.65	0.48
36:LA:17:VAL:HG13	36:LA:18:GLY:N	2.28	0.48
36:LA:49:SER:N	36:LA:192:LEU:HD22	2.29	0.48
38:LE:109:GLN:HG2	38:LE:111:HIS:H	1.78	0.48
64:LG:66:PRO:CD	64:LG:67:HIS:H	2.27	0.48
41:LM:65:VAL:HG21	41:LM:72:LEU:HB3	1.95	0.48
33:L1:3018:A:C4'	41:LM:9:SER:O	2.61	0.48
44:LR:105:PHE:HB2	44:LR:110:ARG:HG3	1.96	0.48
67:LS:14:ARG:HH11	67:LS:14:ARG:HA	1.79	0.48
48:LV:109:ASP:O	48:LV:112:THR:HG22	2.14	0.48
48:LV:1:MET:HG2	48:LV:2:VAL:N	2.29	0.48
50:LZ:22:ARG:HE	50:LZ:32:LEU:HD21	1.77	0.48
32:S1:1758:G:H2'	32:S1:1759:A:C8	2.48	0.48
32:S1:61:A:O2'	32:S1:61:A:C1'	2.53	0.48
32:S1:979:A:OP2	33:L1:851:A:C1'	2.62	0.48
31:S2:10:G:N2	33:L1:2260:C:O2	2.32	0.48
25:SC:1:MET:O	25:SC:5:PRO:HD3	2.14	0.48
27:SH:15:TYR:CE2	27:SH:63:VAL:CG2	2.97	0.48
10:SL:74:VAL:CG2	10:SL:104:PHE:CZ	2.97	0.48
11:SM:12:ILE:HD11	38:LE:120:PRO:HG2	1.96	0.48
15:SS:7:ARG:C	15:SS:9:VAL:N	2.67	0.48
33:L1:1505:G:C2	33:L1:1516:G:O6	2.65	0.48
33:L1:1740:U:C6	33:L1:1740:U:H3'	2.49	0.48
33:L1:2243:C:H2'	33:L1:2268:G:C8	2.48	0.48
33:L1:2289:U:H1'	33:L1:2292:U:H5	1.77	0.48
33:L1:2622:G:H2'	33:L1:2623:G:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2628:C:C6	33:L1:2628:C:O4'	2.66	0.48
33:L1:3301:G:H2'	33:L1:3302:A:H5'	1.95	0.48
32:S1:1685:U:H2'	33:L1:3334:A:H5''	1.84	0.48
36:LA:111:ALA:C	36:LA:115:ILE:HG23	2.34	0.48
33:L1:2141:A:H5'	37:LB:199:VAL:HG22	1.96	0.48
81:LD:312:LYS:C	81:LD:313:GLU:OE2	2.52	0.48
66:LN:4:LYS:HB2	67:LS:164:LYS:HE2	1.95	0.48
43:LO:14:HIS:CD2	43:LO:15:VAL:H	2.30	0.48
34:L3:116:U:C3'	45:LQ:80:TYR:HE1	2.23	0.48
14:SP:57:LYS:CA	46:LT:146:LYS:N	2.77	0.48
32:S1:1663:A:C6	32:S1:1664:U:O2	2.67	0.48
32:S1:1736:C:C6	32:S1:1736:C:O4'	2.64	0.48
32:S1:175:A:H2'	32:S1:177:C:OP2	2.13	0.48
31:S2:75:A:C8	33:L1:2955:U:H2'	2.49	0.48
5:SE:183:ARG:NH2	5:SE:251:GLU:OE1	2.47	0.48
2:SA:64:LEU:CA	5:SE:44:TRP:HE1	2.26	0.48
27:SH:75:ILE:HD12	27:SH:129:PHE:HD2	1.79	0.48
10:SL:51:LEU:HD21	32:S1:1141:U:C5'	2.44	0.48
12:SO:58:HIS:CE1	12:SO:87:ASP:H	2.31	0.48
14:SP:124:VAL:C	46:LT:165:LYS:HZ2	2.17	0.48
14:SP:95:VAL:CG2	46:LT:152:GLU:CA	2.92	0.48
23:SU:20:ASN:CA	23:SU:95:TYR:HB3	2.43	0.48
20:SZ:13:LYS:HE2	32:S1:1254:U:OP1	2.13	0.48
33:L1:2149:G:H4'	37:LB:227:ARG:CZ	2.44	0.48
33:L1:2426:C:C2	33:L1:2606:G:N2	2.82	0.48
33:L1:2707:A:C8	33:L1:2709:G:C6	3.02	0.48
36:LA:69:ASP:HB3	36:LA:79:MET:SD	2.53	0.48
32:S1:991:G:H5'	37:LB:133:TYR:HE1	0.49	0.48
37:LB:211:HIS:HD2	37:LB:219:ILE:HB	1.78	0.48
37:LB:90:CYS:HA	37:LB:101:VAL:HG13	1.95	0.48
33:L1:3297:A:H5'	80:LC:338:ARG:NH2	2.29	0.48
39:LF:59:TRP:HB3	67:LS:160:PRO:HB3	1.96	0.48
64:LG:175:ASP:HB3	64:LG:178:LYS:HB3	1.95	0.48
66:LN:6:PHE:CD1	66:LN:8:GLU:N	2.81	0.48
45:LQ:17:PHE:H	45:LQ:20:PHE:HE2	1.44	0.48
48:LV:112:THR:HG23	48:LV:113:LEU:N	2.29	0.48
48:LV:114:TYR:CE1	48:LV:155:GLU:C	2.87	0.48
68:LW:81:SER:O	68:LW:114:TYR:CD2	2.66	0.48
6:SF:80:GLY:N	32:S1:1479:U:C1'	2.77	0.48
25:SC:106:PHE:CD1	32:S1:477:A:H4'	2.49	0.48
32:S1:978:A:O2'	33:L1:851:A:H5'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:S2:11:U:H1'	33:L1:2260:C:N3	1.40	0.48
27:SH:37:PHE:HB3	27:SH:43:LYS:CE	2.44	0.48
29:ST:2:GLN:O	29:ST:5:GLU:HB3	2.14	0.48
24:SX:69:THR:HG23	24:SX:70:GLY:N	2.29	0.48
33:L1:1687:C:H2'	33:L1:1688:U:C6	2.49	0.48
33:L1:1691:U:C2	33:L1:1691:U:C2'	2.96	0.48
33:L1:1723:C:C6	33:L1:1723:C:O4'	2.67	0.48
33:L1:1854:A:C5'	33:L1:1855:A:H3'	2.44	0.48
33:L1:2230:C:C4	33:L1:2231:G:C8	3.02	0.48
33:L1:3058:U:H3'	33:L1:3059:C:C6	2.49	0.48
33:L1:907:A:H5'	33:L1:1540:G:OP1	2.14	0.48
34:L3:119:C:O2	45:LQ:250:ASP:CG	2.52	0.48
34:L3:6:C:OP2	45:LQ:31:LYS:CG	2.60	0.48
36:LA:15:GLN:HA	36:LA:21:ARG:HH12	9.12	0.48
33:L1:2688:G:C5'	38:LE:155:ARG:HE	2.26	0.48
66:LN:112:LEU:HA	66:LN:115:ILE:HD12	1.96	0.48
66:LN:113:ALA:CB	82:LK:198:LEU:HD21	2.44	0.48
14:SP:95:VAL:HG21	46:LT:152:GLU:CB	2.43	0.48
48:LV:113:LEU:CD2	48:LV:153:GLU:HA	2.44	0.48
48:LV:39:LEU:O	48:LV:115:VAL:HG23	2.13	0.48
48:LV:9:ASN:ND2	48:LV:14:SER:OG	2.47	0.48
32:S1:1685:U:O2	33:L1:3334:A:C4'	2.62	0.48
4:SD:230:LYS:HG2	4:SD:231:GLY:N	2.29	0.48
9:SK:65:ARG:HD2	9:SK:80:VAL:HG22	1.96	0.48
11:SM:90:TYR:HB2	11:SM:113:ARG:NH2	2.29	0.48
28:SN:21:CYS:HB2	28:SN:35:GLY:HA2	1.96	0.48
6:SF:94:GLU:CA	17:SV:102:TYR:OH	2.59	0.48
24:SX:72:LYS:HG3	32:S1:1054:G:P	2.54	0.48
33:L1:1034:U:H2'	33:L1:1035:C:N1	2.28	0.47
33:L1:1576:C:O4'	33:L1:1576:C:N1	2.42	0.47
33:L1:1750:A:H3'	33:L1:1750:A:C8	2.49	0.47
33:L1:19:C:H2'	33:L1:20:G:H8	1.78	0.47
33:L1:228:C:C3'	33:L1:229:G:H5'	2.44	0.47
33:L1:2300:G:C8	33:L1:2300:G:H3'	2.48	0.47
33:L1:2532:A:H61	33:L1:2584:U:H3	1.62	0.47
33:L1:3228:C:C5	33:L1:3229:C:C5	3.01	0.47
33:L1:3342:C:C2	33:L1:3348:G:C2	3.02	0.47
33:L1:711:A:C8	43:LO:92:LYS:NZ	2.82	0.47
34:L3:3:A:OP1	34:L3:59:U:H4'	2.13	0.47
34:L3:46:C:OP1	45:LQ:158:ARG:CZ	2.59	0.47
36:LA:72:HIS:CD2	36:LA:73:VAL:HG23	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:927:A:H5'	37:LB:140:ASN:ND2	2.27	0.47
37:LB:147:ARG:HH21	37:LB:155:LYS:HD3	1.79	0.47
81:LD:305:SER:O	81:LD:306:VAL:HG23	2.14	0.47
81:LD:328:ALA:CA	81:LD:329:ALA:HB3	2.37	0.47
38:LE:75:GLY:N	67:LS:12:VAL:HG12	90.72	0.47
39:LF:104:ILE:HD12	39:LF:133:ILE:HG22	1.95	0.47
64:LG:96:LEU:HD12	64:LG:139:VAL:HG13	1.96	0.47
64:LG:54:ASP:O	64:LG:58:PRO:HD2	2.13	0.47
41:LM:128:LEU:HD22	41:LM:129:TRP:CE2	2.49	0.47
41:LM:71:ASP:O	41:LM:75:LYS:CD	2.62	0.47
66:LN:6:PHE:CZ	66:LN:27:ILE:HD13	2.48	0.47
34:L3:35:C:C1'	45:LQ:200:TYR:HH	2.27	0.47
44:LR:33:TYR:HA	44:LR:36:LEU:HG	1.96	0.47
48:LV:151:LEU:HD23	48:LV:151:LEU:N	2.27	0.47
15:SS:2:ALA:CB	32:S1:1364:C:C5'	2.77	0.47
32:S1:1644:C:H4'	32:S1:1645:C:H5''	1.95	0.47
4:SD:121:PHE:HB3	4:SD:161:LYS:CE	2.43	0.47
11:SM:113:ARG:HD3	11:SM:114:LEU:HG	1.95	0.47
11:SM:26:ILE:O	11:SM:30:LEU:HG	2.14	0.47
17:SV:95:VAL:CG1	17:SV:96:HIS:N	2.44	0.47
17:SV:95:VAL:N	17:SV:101:ILE:CG2	2.77	0.47
33:L1:1368:U:O4'	33:L1:1368:U:N1	2.44	0.47
33:L1:1387:G:H4'	81:LD:247:PRO:HB2	1.97	0.47
33:L1:1623:C:O2'	33:L1:1624:G:C8	2.58	0.47
32:S1:1747:A:O2'	33:L1:1915:G:C2	2.54	0.47
33:L1:206:C:C2	33:L1:220:G:N2	2.82	0.47
33:L1:2192:C:N4	33:L1:2236:U:H2'	2.29	0.47
33:L1:2628:C:N1	33:L1:2628:C:O4'	2.45	0.47
33:L1:2701:G:N2	33:L1:2760:U:O2	2.47	0.47
33:L1:3320:G:C8	33:L1:3320:G:O4'	2.68	0.47
36:LA:110:LEU:HD23	36:LA:110:LEU:C	2.33	0.47
36:LA:54:LEU:CD1	36:LA:133:PHE:HA	2.44	0.47
37:LB:135:ILE:O	37:LB:135:ILE:HG23	2.14	0.47
37:LB:90:CYS:SG	37:LB:101:VAL:HG11	2.54	0.47
64:LG:91:LYS:HB3	64:LG:152:LYS:HG2	1.95	0.47
33:L1:1179:C:O3'	82:LK:94:PRO:HD3	2.13	0.47
43:LO:64:LEU:HA	65:LL:154:UNK:HA	1.95	0.47
66:LN:6:PHE:CZ	66:LN:27:ILE:CD1	2.97	0.47
32:S1:860:A:C5	46:LT:173:LYS:HB3	2.39	0.47
32:S1:1180:U:H2'	32:S1:1181:G:C8	2.49	0.47
32:S1:1758:G:H2'	32:S1:1759:A:H8	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:186:A:H61	32:S1:194:G:C1'	2.26	0.47
32:S1:887:U:O4'	41:LM:85:ARG:NH2	100.42	0.47
2:SA:55:LEU:CD1	2:SA:55:LEU:H	2.23	0.47
23:SU:16:LYS:O	23:SU:29:VAL:HB	2.13	0.47
33:L1:1394:C:O4'	33:L1:1394:C:C6	2.66	0.47
32:S1:1748:U:C6	33:L1:1916:U:C5'	2.69	0.47
31:S2:10:G:C3'	33:L1:2247:A:HO2'	2.16	0.47
33:L1:2561:A:H4'	33:L1:2562:A:OP1	2.14	0.47
33:L1:406:A:N6	35:L2:19:G:H1'	2.29	0.47
34:L3:111:U:C4	34:L3:112:U:C4	3.02	0.47
36:LA:109:PHE:CD2	36:LA:136:LEU:CD2	2.98	0.47
38:LE:74:ARG:HG2	38:LE:75:GLY:H	1.80	0.47
33:L1:1179:C:O3'	82:LK:94:PRO:CD	2.62	0.47
32:S1:348:A:H5''	46:LT:139:MET:HB2	1.96	0.47
33:L1:3301:G:O2'	48:LV:70:THR:OG1	2.25	0.47
2:SA:79:ILE:CD1	2:SA:101:HIS:HD2	2.27	0.47
2:SA:106:ARG:HG2	32:S1:1324:U:OP2	2.14	0.47
5:SE:30:ARG:CG	27:SH:67:GLY:HA2	2.44	0.47
10:SL:5:ARG:HA	14:SP:77:HIS:CB	2.43	0.47
23:SU:10:VAL:HB	23:SU:41:SER:HB3	1.96	0.47
33:L1:1105:G:H4'	33:L1:1107:G:N7	2.30	0.47
33:L1:899:A:H5'	37:LB:183:GLY:HA2	1.96	0.47
33:L1:404:G:N3	35:L2:20:G:C2	2.82	0.47
36:LA:119:ILE:HG23	36:LA:120:PRO:N	2.29	0.47
41:LM:72:LEU:CD2	41:LM:72:LEU:H	2.27	0.47
42:LP:160:GLU:H	42:LP:160:GLU:CD	2.16	0.47
33:L1:56:A:H1'	42:LP:162:ARG:CZ	2.44	0.47
34:L3:6:C:OP1	45:LQ:31:LYS:CG	2.62	0.47
45:LQ:31:LYS:HD3	45:LQ:55:PHE:CZ	2.49	0.47
33:L1:1190:C:H4'	67:LS:115:ARG:NH1	2.30	0.47
32:S1:1677:U:C6	32:S1:1678:G:C8	3.02	0.47
32:S1:989:G:OP1	37:LB:175:THR:CA	2.59	0.47
3:SB:68:GLU:OE1	13:SQ:21:TYR:O	2.32	0.47
25:SC:16:LYS:HB2	25:SC:17:PRO:HD2	1.95	0.47
4:SD:121:PHE:CG	4:SD:161:LYS:HE2	2.50	0.47
2:SA:120:PHE:HE1	5:SE:102:GLY:HA3	1.54	0.47
5:SE:42:GLU:O	5:SE:46:PRO:HD2	2.14	0.47
6:SF:56:ARG:NE	19:SY:52:LEU:HD21	2.29	0.47
5:SE:252:TYR:CB	27:SH:99:PHE:HB3	2.45	0.47
15:SS:118:VAL:CG2	15:SS:124:ARG:HH11	2.26	0.47
23:SU:22:LEU:HD22	23:SU:96:ARG:HG3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1081:U:C6	33:L1:1082:U:OP2	2.67	0.47
33:L1:1564:C:O4'	33:L1:1564:C:C6	2.67	0.47
33:L1:2147:U:H4'	37:LB:244:GLY:N	2.21	0.47
33:L1:2906:U:H2'	33:L1:2907:U:C6	2.49	0.47
33:L1:308:U:H2'	33:L1:309:C:H4'	1.97	0.47
33:L1:408:U:H3	35:L2:17:A:H61	1.61	0.47
34:L3:32:A:H2	34:L3:34:C:N4	2.10	0.47
34:L3:58:G:H2'	34:L3:59:U:C5	2.48	0.47
36:LA:106:TYR:HE2	36:LA:140:GLN:CA	2.28	0.47
36:LA:83:TYR:CE2	36:LA:86:VAL:N	2.81	0.47
80:LC:80:GLU:HG3	80:LC:321:VAL:HG22	1.97	0.47
44:LR:128:LEU:CD1	81:LD:313:GLU:HA	2.45	0.47
44:LR:40:THR:HA	81:LD:325:LYS:HB3	1.96	0.47
33:L1:355:C:O2'	81:LD:86:GLY:O	2.24	0.47
11:SM:18:THR:N	38:LE:109:GLN:NE2	2.60	0.47
38:LE:38:VAL:HG13	38:LE:110:GLU:HB2	1.96	0.47
64:LG:1:MET:O	64:LG:1:MET:SD	5.18	0.47
64:LG:22:ARG:HD3	64:LG:28:ILE:HG12	1.96	0.47
40:LH:126:ILE:CG2	40:LH:201:ASN:HD22	2.22	0.47
40:LH:96:ARG:C	40:LH:98:GLU:N	2.68	0.47
66:LN:14:LEU:HD22	66:LN:15:VAL:N	2.20	0.47
48:LV:1:MET:HA	48:LV:4:TYR:CZ	2.49	0.47
32:S1:1227:A:C4	32:S1:1268:G:N2	2.82	0.47
32:S1:1387:U:H2'	32:S1:1388:A:C8	2.49	0.47
32:S1:260:A:C2'	32:S1:261:C:H5'	2.44	0.47
32:S1:483:C:C2'	32:S1:484:A:H5'	2.45	0.47
3:SB:96:LEU:HA	3:SB:169:ASP:HB2	1.95	0.47
27:SH:72:CYS:SG	27:SH:129:PHE:CE2	3.07	0.47
29:ST:5:GLU:CB	29:ST:81:GLN:HA	2.44	0.47
17:SV:51:LEU:HB2	17:SV:52:LEU:HD23	1.97	0.47
33:L1:1228:C:O2'	33:L1:1229:A:H5'	2.14	0.47
33:L1:1241:G:O4'	33:L1:1241:G:C8	2.67	0.47
33:L1:2199:C:C6	33:L1:2199:C:O4'	2.67	0.47
33:L1:2602:U:H2'	33:L1:2603:C:C6	2.50	0.47
33:L1:412:C:C4'	48:LV:6:ARG:HH12	2.27	0.47
33:L1:700:C:O4'	33:L1:700:C:C6	2.67	0.47
33:L1:885:A:H2'	33:L1:886:A:H5''	1.96	0.47
36:LA:41:ASP:HA	36:LA:199:ASN:O	2.15	0.47
37:LB:104:ILE:HG21	37:LB:146:SER:OG	2.15	0.47
38:LE:41:GLN:OE1	38:LE:120:PRO:HD3	2.14	0.47
84:LI:110:ARG:HA	84:LI:116:ARG:HE	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:LQ:48:TYR:CE1	45:LQ:106:LEU:HD23	2.49	0.47
33:L1:1299:G:H5'	67:LS:116:HIS:O	2.14	0.47
68:LW:21:VAL:HB	68:LW:85:LEU:HD21	1.95	0.47
51:LY:90:ASN:CG	51:LY:92:SER:H	2.17	0.47
32:S1:1151:G:H21	32:S1:1643:A:H2	1.62	0.47
32:S1:1552:U:H2'	32:S1:1553:A:C8	2.49	0.47
32:S1:1675:G:C1'	33:L1:1932:A:N3	2.77	0.47
32:S1:62:A:H61	32:S1:89:U:H3	1.63	0.47
30:S3:16:G:H2'	30:S3:16:G:C4	2.50	0.47
4:SD:152:PRO:O	4:SD:153:ILE:HB	2.13	0.47
4:SD:162:ILE:HG22	4:SD:163:ASP:O	2.15	0.47
5:SE:258:LYS:HZ1	27:SH:69:LEU:HB3	1.63	0.47
6:SF:73:MET:HE1	32:S1:1618:G:H4'	1.96	0.47
26:SG:81:UNK:O	26:SG:84:UNK:HA	2.15	0.47
14:SP:93:HIS:HE1	33:L1:2080:G:C1'	2.20	0.47
15:SS:9:VAL:N	15:SS:138:ALA:CB	2.77	0.47
24:SX:66:CYS:HB3	24:SX:75:LEU:HD22	1.95	0.47
24:SX:74:ARG:C	24:SX:75:LEU:CD2	2.82	0.47
33:L1:1651:A:H2	33:L1:1797:U:H3	1.62	0.47
32:S1:1748:U:H1'	33:L1:1915:G:O3'	1.82	0.47
33:L1:2665:A:H2'	33:L1:2666:G:H8	1.79	0.47
33:L1:2684:U:C4	33:L1:2685:C:C4	3.03	0.47
33:L1:2843:G:H2'	33:L1:2846:C:H42	1.80	0.47
33:L1:639:A:H2'	33:L1:639:A:N3	2.30	0.47
33:L1:82:C:H2'	33:L1:83:U:H6	1.77	0.47
33:L1:847:G:C6	33:L1:848:G:C6	3.03	0.47
34:L3:48:G:H22	34:L3:50:A:N6	2.02	0.47
36:LA:56:HIS:CE1	36:LA:149:GLU:HG2	2.50	0.47
37:LB:112:VAL:CG1	37:LB:133:TYR:CB	2.93	0.47
32:S1:928:A:N3	37:LB:137:ILE:HD11	2.29	0.47
33:L1:1945:A:OP1	46:LT:104:ARG:CD	2.63	0.47
68:LW:32:GLU:HG3	68:LW:33:ASP:H	1.79	0.47
35:L2:141:G:P	49:LX:66:LYS:HE3	2.55	0.47
10:SL:66:ARG:NH1	32:S1:438:G:H5''	2.28	0.47
6:SF:191:GLU:HG3	6:SF:194:ARG:HH21	1.78	0.47
27:SH:98:GLN:HG2	27:SH:98:GLN:O	2.14	0.47
15:SS:9:VAL:CB	15:SS:135:ASP:HA	2.42	0.47
33:L1:1179:C:H4'	82:LK:94:PRO:HD2	1.94	0.47
33:L1:1824:C:C4	33:L1:1825:G:N7	2.83	0.47
33:L1:2077:C:OP1	46:LT:114:LYS:NZ	2.46	0.47
33:L1:2202:A:OP2	33:L1:2203:A:C8	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:S2:11:U:P	33:L1:2247:A:HO2'	2.29	0.47
31:S2:74:C:O2	33:L1:2405:C:OP2	2.31	0.47
33:L1:3301:G:C2'	33:L1:3302:A:H5'	2.44	0.47
37:LB:104:ILE:HG22	37:LB:160:SER:C	2.34	0.47
37:LB:139:HIS:HB3	37:LB:140:ASN:O	2.14	0.47
80:LC:311:PRO:HD3	80:LC:315:PHE:CZ	2.50	0.47
81:LD:385:MET:C	81:LD:386:ILE:HG13	2.35	0.47
39:LF:113:ILE:HG13	39:LF:163:LYS:HZ3	1.80	0.47
74:LJ:41:LYS:HA	74:LJ:41:LYS:CE	2.44	0.47
33:L1:3018:A:H4'	41:LM:9:SER:O	2.15	0.47
33:L1:2433:U:H3'	42:LP:20:ARG:HH21	1.79	0.47
44:LR:104:ARG:HH22	44:LR:106:THR:HG23	1.80	0.47
32:S1:1343:C:H42	32:S1:1391:G:H1	1.63	0.47
32:S1:67:G:C2	32:S1:147:C:H5'	2.50	0.47
4:SD:153:ILE:HD11	4:SD:174:LYS:CD	2.44	0.47
5:SE:152:TYR:HB2	5:SE:220:VAL:HG12	1.97	0.47
5:SE:153:TRP:CZ2	5:SE:243:LYS:HE3	2.50	0.47
15:SS:9:VAL:HG22	15:SS:135:ASP:O	2.14	0.47
24:SX:39:CYS:HA	24:SX:77:GLU:OE2	2.14	0.47
33:L1:1418:C:N4	33:L1:1419:G:C6	2.83	0.47
33:L1:2506:G:H2'	33:L1:2507:U:C6	2.50	0.47
33:L1:486:G:H2'	33:L1:487:C:C6	2.50	0.47
33:L1:664:A:C2	33:L1:1438:A:C2	3.02	0.47
33:L1:838:G:H1'	33:L1:861:A:N6	2.28	0.47
32:S1:977:G:N2	33:L1:850:A:O4'	2.48	0.47
34:L3:58:G:C2'	34:L3:59:U:H6	2.27	0.47
43:LO:64:LEU:HD13	65:LL:156:UNK:N	2.30	0.47
34:L3:35:C:C1'	45:LQ:200:TYR:OH	2.63	0.47
14:SP:56:ASP:C	46:LT:142:ILE:O	2.53	0.47
48:LV:1:MET:CB	48:LV:16:LYS:HZ2	2.28	0.47
48:LV:2:VAL:HG22	48:LV:3:LYS:N	2.28	0.47
68:LW:88:LEU:O	68:LW:92:TYR:CE2	2.67	0.47
41:LM:96:MET:CE	50:LZ:22:ARG:CB	2.93	0.47
32:S1:1154:G:H2'	32:S1:1156:A:C8	2.50	0.47
20:SZ:10:ARG:NH1	32:S1:1254:U:P	2.88	0.47
32:S1:1482:U:H3	32:S1:1539:A:H61	1.61	0.47
32:S1:1152:A:H61	32:S1:1638:U:H3	1.62	0.47
32:S1:1800:A:N6	32:S1:1801:A:N6	2.63	0.47
32:S1:349:U:H3'	46:LT:132:PHE:HD1	1.78	0.47
32:S1:450:A:N6	32:S1:465:G:H21	2.08	0.47
31:S2:73:C:H2'	31:S2:74:C:H5'	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:76:GLN:OE1	2:SA:78:ILE:HD11	2.15	0.47
4:SD:159:THR:OG1	4:SD:227:THR:HG23	2.15	0.47
6:SF:40:LYS:CE	7:SI:122:LEU:HD13	2.42	0.47
7:SI:58:ILE:CG2	15:SS:12:VAL:HA	2.37	0.47
23:SU:30:LEU:HG	23:SU:78:PHE:HB2	1.97	0.47
24:SX:34:PHE:CD1	24:SX:34:PHE:N	2.83	0.47
33:L1:1295:A:H2'	33:L1:1296:C:C6	2.50	0.47
33:L1:1506:A:H61	33:L1:1519:C:H1'	1.80	0.47
33:L1:1736:C:H2'	33:L1:1737:C:C6	2.50	0.47
14:SP:93:HIS:CG	33:L1:2080:G:H4'	2.35	0.47
33:L1:2696:C:HO2'	33:L1:2758:C:H6	1.61	0.47
33:L1:298:G:H2'	33:L1:299:G:C8	2.49	0.47
34:L3:4:U:C2	34:L3:115:A:N1	2.83	0.47
36:LA:107:HIS:CG	36:LA:129:LYS:HD3	2.48	0.47
36:LA:109:PHE:CD2	36:LA:136:LEU:HD21	2.49	0.47
37:LB:107:VAL:HG13	37:LB:139:HIS:HE1	1.78	0.47
80:LC:34:LYS:HZ2	80:LC:36:ASP:CG	2.18	0.47
11:SM:14:ARG:CB	38:LE:111:HIS:CE1	2.89	0.47
64:LG:83:LEU:HD22	64:LG:124:TYR:O	2.15	0.47
67:LS:112:MET:HA	67:LS:116:HIS:CD2	2.49	0.47
32:S1:1062:C:H2'	32:S1:1063:U:C1'	2.45	0.47
4:SD:131:PHE:HB3	32:S1:247:A:C4'	2.44	0.47
32:S1:858:G:H2'	46:LT:176:ARG:CD	2.43	0.47
25:SC:10:LYS:HD3	32:S1:505:U:H4'	1.97	0.47
11:SM:51:ASP:H	11:SM:54:LYS:HD2	1.78	0.47
13:SQ:17:ILE:HA	13:SQ:21:TYR:HA	1.96	0.47
33:L1:1217:G:O2'	67:LS:93:TYR:O	2.32	0.47
33:L1:1265:G:H4'	33:L1:1282:A:N1	2.29	0.47
33:L1:16:A:H4'	49:LX:58:ARG:CB	2.45	0.47
33:L1:1725:G:H2'	33:L1:1726:G:C8	2.50	0.47
32:S1:1673:C:C3'	33:L1:1914:C:H4'	2.45	0.47
33:L1:2169:U:H5''	37:LB:54:ARG:CG	2.45	0.47
33:L1:267:G:O4'	33:L1:267:G:N9	2.43	0.47
33:L1:2882:U:H2'	33:L1:2883:C:C6	2.49	0.47
33:L1:3373:C:H4'	80:LC:317:HIS:H	1.80	0.47
33:L1:375:G:N2	33:L1:389:A:N6	2.62	0.47
33:L1:876:C:H4'	80:LC:244:LYS:HZ2	1.80	0.47
34:L3:114:C:O2'	45:LQ:74:ILE:C	2.51	0.47
33:L1:2148:U:C5'	37:LB:240:ALA:HB1	2.45	0.47
41:LM:91:LYS:O	80:LC:72:THR:OG1	2.33	0.47
38:LE:164:TRP:O	38:LE:167:VAL:HB	2.16	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:LE:35:ALA:O	38:LE:38:VAL:HG12	2.15	0.47
64:LG:184:ILE:C	64:LG:185:ASP:CB	2.83	0.47
33:L1:1478:A:C5'	64:LG:65:LYS:HZ3	135.32	0.47
74:LJ:99:ILE:HG23	74:LJ:101:HIS:O	2.14	0.47
34:L3:20:C:C4'	45:LQ:252:THR:HG23	2.44	0.47
67:LS:74:ILE:HG12	67:LS:97:ARG:HH21	1.80	0.47
14:SP:92:LEU:C	46:LT:151:ARG:NE	2.68	0.47
51:LY:76:ARG:HA	51:LY:76:ARG:NE	2.28	0.47
32:S1:1351:U:H3	32:S1:1386:U:H1'	1.79	0.47
15:SS:6:ALA:CB	32:S1:1363:G:O4'	2.62	0.47
32:S1:1586:U:H2'	32:S1:1587:G:C8	2.50	0.47
32:S1:1615:G:H3'	32:S1:1616:U:H5	1.79	0.47
10:SL:67:LYS:NZ	32:S1:1753:U:C5'	2.78	0.47
32:S1:436:G:H2'	32:S1:437:C:C6	2.49	0.47
31:S2:24:A:C6	33:L1:2260:C:O2'	2.68	0.47
2:SA:182:LEU:HD23	2:SA:182:LEU:O	2.15	0.47
4:SD:194:VAL:HG23	4:SD:194:VAL:O	2.15	0.47
4:SD:238:LEU:HD23	4:SD:239:PRO:N	2.29	0.47
4:SD:45:ILE:HD12	4:SD:80:LYS:O	2.14	0.47
10:SL:39:PRO:CB	10:SL:64:ALA:HA	2.31	0.47
14:SP:41:LEU:HB2	14:SP:103:LYS:HE2	1.96	0.47
23:SU:19:THR:HG21	23:SU:93:PRO:HB3	1.97	0.47
33:L1:1220:G:C6	33:L1:1221:A:C6	3.04	0.46
33:L1:1524:G:OP1	49:LX:131:LYS:NZ	2.46	0.46
33:L1:1902:G:H4'	33:L1:1903:C:C6	2.49	0.46
33:L1:1945:A:OP1	46:LT:104:ARG:HD2	2.15	0.46
33:L1:2701:G:H2'	33:L1:2702:G:C8	2.49	0.46
33:L1:972:C:H3'	33:L1:972:C:C6	2.50	0.46
34:L3:4:U:H3	34:L3:115:A:H61	1.62	0.46
37:LB:103:PRO:HA	37:LB:163:ARG:HA	1.96	0.46
33:L1:1350:G:H4'	81:LD:329:ALA:HB1	1.96	0.46
64:LG:125:VAL:N	64:LG:183:VAL:HG21	2.24	0.46
33:L1:2919:G:OP1	41:LM:49:LEU:HA	2.14	0.46
45:LQ:127:THR:HG23	45:LQ:129:GLU:HB3	1.97	0.46
34:L3:115:A:O3'	45:LQ:75:VAL:HG22	2.15	0.46
66:LN:6:PHE:CD1	67:LS:161:PRO:HB2	2.50	0.46
33:L1:3068:U:H3'	46:LT:62:ARG:HH12	1.80	0.46
32:S1:1745:U:P	33:L1:1931:G:OP1	2.73	0.46
30:S3:16:G:O2'	30:S3:16:G:C1'	2.53	0.46
25:SC:16:LYS:CB	25:SC:17:PRO:HD2	2.45	0.46
4:SD:133:GLN:H	4:SD:136:ILE:HG13	1.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:SD:208:ILE:C	4:SD:208:ILE:HD13	2.34	0.46
4:SD:63:SER:O	4:SD:67:GLN:HG3	2.15	0.46
6:SF:164:THR:HG21	17:SV:100:LEU:CD1	2.45	0.46
27:SH:110:ILE:HG22	27:SH:110:ILE:H	1.47	0.46
11:SM:137:LYS:CD	11:SM:137:LYS:H	2.27	0.46
33:L1:1766:U:O3'	33:L1:1767:G:H4'	2.15	0.46
33:L1:1778:C:H2'	33:L1:1779:C:C6	2.50	0.46
33:L1:2148:U:H4'	37:LB:240:ALA:CA	2.44	0.46
33:L1:686:A:N1	33:L1:704:G:H1'	2.30	0.46
33:L1:923:A:H3'	33:L1:925:U:O4	2.14	0.46
33:L1:1826:G:N1	35:L2:120:G:OP1	2.46	0.46
35:L2:128:C:H2'	35:L2:129:C:C6	2.50	0.46
36:LA:52:VAL:HG22	36:LA:155:LYS:HD3	1.97	0.46
33:L1:213:G:OP2	81:LD:204:ARG:HD2	2.16	0.46
81:LD:309:PRO:CB	81:LD:313:GLU:CD	2.83	0.46
33:L1:3034:A:C2	39:LF:117:LEU:O	2.68	0.46
64:LG:100:GLN:NE2	64:LG:103:LEU:HD12	2.29	0.46
64:LG:1:MET:C	64:LG:1:MET:HE2	5.52	0.46
32:S1:860:A:P	46:LT:173:LYS:O	2.73	0.46
32:S1:1053:C:H2'	32:S1:1054:G:C8	2.50	0.46
16:SR:145:THR:O	32:S1:1186:U:H5'	2.15	0.46
32:S1:1674:C:H2'	32:S1:1675:G:C8	2.50	0.46
2:SA:129:THR:O	2:SA:131:PRO:HD3	2.15	0.46
4:SD:123:LEU:HD21	4:SD:161:LYS:HD3	1.96	0.46
5:SE:197:LEU:CD1	32:S1:1302:C:C2	2.97	0.46
5:SE:244:PHE:O	5:SE:248:PRO:HD2	2.15	0.46
2:SA:71:ALA:HB2	5:SE:65:ILE:CG2	2.44	0.46
8:SJ:80:GLY:N	8:SJ:83:THR:OG1	2.48	0.46
9:SK:85:LYS:HD3	9:SK:115:LEU:O	2.14	0.46
11:SM:135:HIS:CE1	11:SM:139:THR:OG1	2.69	0.46
17:SV:42:LEU:HA	17:SV:47:THR:HG23	1.96	0.46
24:SX:61:CYS:O	24:SX:62:GLN:HB2	2.16	0.46
33:L1:1194:C:H5''	82:LK:54:ARG:NE	2.31	0.46
33:L1:2097:C:H5'	46:LT:89:LEU:HD21	1.97	0.46
33:L1:2518:A:N6	33:L1:2595:G:H1'	2.31	0.46
33:L1:2634:U:H2'	33:L1:2635:G:H8	1.81	0.46
33:L1:3295:G:C2	33:L1:3304:U:O2	2.68	0.46
34:L3:44:C:C5	34:L3:45:U:C5	3.03	0.46
34:L3:34:C:N4	34:L3:46:C:C4	2.80	0.46
34:L3:6:C:O2'	45:LQ:47:LYS:NZ	2.47	0.46
36:LA:123:LEU:HD23	36:LA:123:LEU:C	2.35	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:807:C:H5'	81:LD:98:ASN:HB2	1.98	0.46
36:LA:189:LEU:HD12	65:LL:194:UNK:CA	2.46	0.46
66:LN:129:LYS:HE2	82:LK:182:LEU:HD22	1.88	0.46
34:L3:113:G:C3'	45:LQ:71:ALA:HB1	2.43	0.46
33:L1:1369:G:OP2	44:LR:1:MET:CG	2.62	0.46
46:LT:58:HIS:HE1	46:LT:61:SER:HB2	1.81	0.46
48:LV:114:TYR:CD1	48:LV:156:GLU:N	2.83	0.46
32:S1:1279:A:N1	32:S1:1443:U:O2	2.48	0.46
32:S1:200:C:C6	32:S1:201:G:H5''	2.50	0.46
32:S1:1:U:C6	32:S1:2:A:C2	3.04	0.46
32:S1:690:G:C3'	32:S1:690:G:C8	2.98	0.46
32:S1:876:A:H2'	32:S1:877:G:C8	2.50	0.46
2:SA:128:LEU:HD23	2:SA:128:LEU:C	2.35	0.46
26:SG:95:UNK:C	26:SG:97:UNK:HA	2.46	0.46
7:SI:91:ILE:HA	7:SI:91:ILE:HD12	1.93	0.46
9:SK:85:LYS:HG2	9:SK:115:LEU:O	2.15	0.46
23:SU:18:MET:SD	23:SU:94:LYS:CG	3.03	0.46
23:SU:29:VAL:HG22	23:SU:78:PHE:CE1	2.51	0.46
6:SF:162:ILE:HG23	17:SV:69:ARG:HE	1.81	0.46
17:SV:73:ASN:N	17:SV:78:ARG:HH21	2.09	0.46
24:SX:37:VAL:HB	24:SX:77:GLU:HG2	1.98	0.46
19:SY:46:VAL:CG2	19:SY:47:ARG:N	2.77	0.46
33:L1:1218:U:H2'	33:L1:1219:C:C6	2.49	0.46
33:L1:1391:A:N1	33:L1:1424:G:C5	2.83	0.46
33:L1:238:C:C4	33:L1:239:C:C4	3.04	0.46
33:L1:2418:A:C8	33:L1:2418:A:O4'	2.67	0.46
33:L1:2465:G:H2'	33:L1:2465:G:N3	2.29	0.46
33:L1:24:C:H2'	33:L1:25:U:C6	2.51	0.46
33:L1:262:A:H2'	33:L1:262:A:C4	2.50	0.46
33:L1:640:C:C6	33:L1:640:C:O5'	2.68	0.46
33:L1:641:C:H2'	33:L1:641:C:H5'	1.22	0.46
33:L1:645:C:H42	33:L1:649:A:H8	1.64	0.46
33:L1:745:G:C8	33:L1:745:G:H3'	2.50	0.46
33:L1:680:G:N2	33:L1:789:A:N7	2.63	0.46
33:L1:936:A:C8	33:L1:936:A:H3'	2.50	0.46
33:L1:2149:G:H4'	37:LB:227:ARG:HH12	1.81	0.46
34:L3:61:C:OP1	45:LQ:259:LYS:CA	2.64	0.46
34:L3:6:C:OP1	45:LQ:31:LYS:HG3	2.15	0.46
33:L1:1299:G:H4'	67:LS:117:ARG:N	2.29	0.46
48:LV:156:GLU:HB3	48:LV:157:PRO:CD	2.46	0.46
68:LW:84:TYR:CA	68:LW:87:TYR:HB2	2.44	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1108:U:O2'	32:S1:1108:U:C1'	2.56	0.46
25:SC:10:LYS:HD2	32:S1:505:U:H5'	1.97	0.46
32:S1:918:G:N3	33:L1:2202:A:O5'	2.49	0.46
31:S2:13:U:H5'	33:L1:2244:G:N2	2.28	0.46
2:SA:76:GLN:HG3	2:SA:78:ILE:CD1	2.46	0.46
4:SD:160:ILE:CD1	4:SD:169:ILE:HD13	2.40	0.46
27:SH:65:LEU:HD23	27:SH:71:LYS:N	2.31	0.46
10:SL:74:VAL:CB	10:SL:104:PHE:CZ	2.97	0.46
28:SN:47:ALA:C	28:SN:49:ASP:N	2.66	0.46
17:SV:36:LYS:HB3	17:SV:42:LEU:HD12	1.97	0.46
33:L1:1242:U:O2	33:L1:1255:A:C4	2.68	0.46
33:L1:1252:C:C6	33:L1:1252:C:O4'	2.68	0.46
33:L1:1447:G:C6	33:L1:1448:U:C2	3.04	0.46
33:L1:1666:C:H2'	33:L1:1667:C:C6	2.51	0.46
33:L1:1621:G:C2	33:L1:1819:A:C2	3.04	0.46
29:ST:2:GLN:NE2	33:L1:2544:C:O2'	2.49	0.46
33:L1:628:C:H2'	33:L1:629:U:C6	2.50	0.46
33:L1:77:U:O3'	42:LP:185:ARG:HD3	2.16	0.46
33:L1:79:C:H2'	33:L1:80:C:C6	2.51	0.46
36:LA:92:MET:HE1	36:LA:117:LYS:CB	2.45	0.46
36:LA:71:GLN:NE2	36:LA:140:GLN:HB2	2.30	0.46
81:LD:328:ALA:HA	81:LD:329:ALA:CB	2.42	0.46
38:LE:22:ASN:O	38:LE:127:MET:HB2	2.16	0.46
33:L1:99:A:H5''	42:LP:182:HIS:CG	2.39	0.46
46:LT:137:VAL:N	46:LT:140:GLU:OE2	2.49	0.46
14:SP:93:HIS:HA	46:LT:154:THR:HG22	1.97	0.46
51:LY:76:ARG:HE	51:LY:76:ARG:CA	2.27	0.46
5:SE:142:LYS:HE2	32:S1:1304:A:C5'	2.40	0.46
32:S1:1374:G:H2'	32:S1:1375:C:C6	2.51	0.46
32:S1:1571:G:H2'	32:S1:1572:U:H5	1.76	0.46
32:S1:588:C:H2'	32:S1:589:A:C8	2.51	0.46
4:SD:86:PHE:HE1	4:SD:102:LEU:CD1	2.11	0.46
8:SJ:54:ASP:HB3	8:SJ:61:GLY:H	1.80	0.46
17:SV:42:LEU:CA	17:SV:47:THR:HG23	2.45	0.46
33:L1:1900:C:O4'	33:L1:1900:C:C6	2.68	0.46
33:L1:3198:C:P	66:LN:89:TRP:HA	2.56	0.46
33:L1:3336:A:N6	33:L1:3353:G:H1'	2.31	0.46
33:L1:343:G:OP1	33:L1:1432:G:N2	2.49	0.46
33:L1:1174:G:H5''	34:L3:84:U:N3	2.28	0.46
38:LE:112:ILE:HD12	38:LE:112:ILE:O	2.15	0.46
11:SM:12:ILE:HG12	38:LE:117:LYS:HG2	1.95	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L3:42:A:C8	38:LE:74:ARG:NH1	2.84	0.46
40:LH:73:LEU:HD11	40:LH:76:PHE:HB3	1.96	0.46
43:LO:64:LEU:HD23	65:LL:154:UNK:C	2.46	0.46
26:SG:6:UNK:O	46:LT:188:SER:OG	2.33	0.46
32:S1:1445:C:H2'	32:S1:1446:C:C6	2.51	0.46
32:S1:1664:U:P	33:L1:1918:A:C4	3.09	0.46
32:S1:187:C:H2'	32:S1:188:U:O4'	2.16	0.46
32:S1:37:U:H1'	32:S1:672:G:H22	1.79	0.46
2:SA:81:GLN:HE21	2:SA:126:LEU:HD21	1.81	0.46
2:SA:78:ILE:HG22	2:SA:79:ILE:N	2.30	0.46
4:SD:104:ASP:OD2	4:SD:110:ARG:HD2	2.15	0.46
4:SD:153:ILE:CA	4:SD:154:ILE:HG13	2.46	0.46
4:SD:165:GLU:HA	4:SD:165:GLU:OE1	2.15	0.46
4:SD:87:MET:HE2	4:SD:123:LEU:N	2.26	0.46
9:SK:92:LEU:HD13	9:SK:93:HIS:HB3	1.97	0.46
10:SL:67:LYS:O	10:SL:67:LYS:HG2	2.16	0.46
12:SO:70:LYS:N	24:SX:49:PHE:HZ	2.14	0.46
14:SP:124:VAL:O	46:LT:165:LYS:NZ	2.49	0.46
14:SP:65:VAL:O	14:SP:65:VAL:HG13	2.16	0.46
13:SQ:93:VAL:HG11	13:SQ:119:ARG:HB3	1.98	0.46
11:SM:117:ILE:HD13	16:SR:127:GLU:HB2	1.97	0.46
23:SU:10:VAL:HA	23:SU:34:HIS:HB2	1.96	0.46
23:SU:33:LEU:HG	23:SU:35:PRO:HG3	1.97	0.46
24:SX:48:VAL:HG22	24:SX:49:PHE:N	2.31	0.46
33:L1:1184:U:OP1	33:L1:1185:G:H5''	2.14	0.46
33:L1:1646:U:H2'	33:L1:1647:C:H6	1.76	0.46
33:L1:377:C:N4	33:L1:388:G:H1	2.06	0.46
33:L1:638:G:H3'	33:L1:639:A:H4'	1.98	0.46
33:L1:997:G:O5'	33:L1:997:G:C8	2.69	0.46
36:LA:118:GLN:HB3	36:LA:122:LEU:CD1	2.46	0.46
36:LA:144:GLU:O	36:LA:147:VAL:HG22	2.15	0.46
36:LA:19:GLU:CD	36:LA:23:LYS:HZ2	2.19	0.46
38:LE:88:VAL:HB	38:LE:112:ILE:HD13	1.98	0.46
12:SO:57:GLN:HG3	39:LF:23:LYS:NZ	185.69	0.46
84:LI:110:ARG:CB	84:LI:114:GLY:O	2.64	0.46
45:LQ:187:GLU:O	45:LQ:223:PHE:CE1	2.69	0.46
34:L3:6:C:C5'	45:LQ:49:ASN:HD21	2.29	0.46
14:SP:121:GLY:HA2	46:LT:162:LYS:HZ3	1.64	0.46
32:S1:1180:U:H3	32:S1:1470:G:H1	1.64	0.46
32:S1:348:A:OP2	46:LT:137:VAL:N	2.49	0.46
31:S2:67:G:C3'	31:S2:68:C:H5''	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:SD:193:GLY:HA3	4:SD:210:VAL:HG11	1.97	0.46
6:SF:80:GLY:HA3	32:S1:1479:U:C6	2.41	0.46
9:SK:81:ALA:HB1	9:SK:115:LEU:HD23	1.94	0.46
11:SM:12:ILE:CD1	38:LE:120:PRO:HB2	2.45	0.46
11:SM:24:GLN:HB3	32:S1:1547:G:N2	2.31	0.46
14:SP:94:PHE:CE1	14:SP:116:PHE:CE1	3.03	0.46
23:SU:17:PHE:CE2	23:SU:86:ASP:O	2.69	0.46
33:L1:1181:A:H5'	33:L1:1181:A:C8	2.51	0.46
33:L1:954:A:C4	33:L1:1373:A:C2	3.03	0.46
33:L1:1491:G:H1	33:L1:1850:C:H42	1.63	0.46
33:L1:2899:A:N7	33:L1:2901:C:C6	2.84	0.46
33:L1:3351:A:H4'	68:LW:56:ALA:CB	2.46	0.46
34:L3:72:G:C2	34:L3:73:U:H1'	2.50	0.46
80:LC:39:LYS:HD3	80:LC:39:LYS:H	1.80	0.46
64:LG:50:PHE:HB2	64:LG:51:TYR:H	1.59	0.46
84:LI:109:ASP:HB2	84:LI:116:ARG:NH1	2.30	0.46
33:L1:1239:U:OP2	74:LJ:77:SER:HA	2.16	0.46
66:LN:56:THR:HG21	66:LN:91:LYS:HE2	1.98	0.46
67:LS:97:ARG:HG3	67:LS:142:LYS:HA	1.98	0.46
45:LQ:38:ILE:HD11	47:LU:30:TYR:CD1	2.51	0.46
2:SA:128:LEU:CB	32:S1:1392:G:OP1	56.64	0.46
32:S1:1747:A:H2'	33:L1:1915:G:C2'	2.46	0.46
32:S1:860:A:N7	46:LT:174:ILE:CB	2.77	0.46
31:S2:13:U:O5'	33:L1:2244:G:C2	2.68	0.46
31:S2:24:A:C1'	33:L1:2261:U:O5'	2.64	0.46
2:SA:120:PHE:HE1	5:SE:102:GLY:C	2.18	0.46
3:SB:135:GLU:OE1	3:SB:157:MET:HE1	2.15	0.46
25:SC:22:GLU:OE1	25:SC:26:LEU:HD13	2.16	0.46
5:SE:124:VAL:HG11	5:SE:239:TRP:CZ2	2.51	0.46
27:SH:11:LEU:CD1	27:SH:15:TYR:CE1	2.99	0.46
9:SK:103:LYS:HZ2	9:SK:103:LYS:HB3	1.80	0.46
13:SQ:77:GLU:CG	13:SQ:78:ARG:H	2.27	0.46
17:SV:36:LYS:CB	17:SV:42:LEU:HD12	2.46	0.46
17:SV:76:LEU:HD11	32:S1:1541:C:P	2.56	0.46
33:L1:1513:C:H2'	33:L1:1515:U:C4	2.50	0.46
33:L1:2148:U:H2'	33:L1:2149:G:H8	1.81	0.46
33:L1:2170:G:H5''	37:LB:129:ALA:HB2	1.98	0.46
33:L1:223:C:O2'	33:L1:224:C:H5'	2.16	0.46
33:L1:2297:G:O2'	33:L1:2298:A:H5'	2.16	0.46
33:L1:2450:G:C2'	33:L1:2450:G:C4	2.99	0.46
33:L1:2645:A:H2'	33:L1:2646:A:C8	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2737:A:H2'	33:L1:2738:U:C6	2.51	0.46
33:L1:2911:C:H2'	33:L1:2912:A:O4'	2.16	0.46
33:L1:3322:A:C6	33:L1:3323:U:C5	3.04	0.46
33:L1:637:C:H5''	33:L1:638:G:OP2	2.16	0.46
33:L1:678:G:H2'	33:L1:679:C:C6	2.51	0.46
33:L1:88:A:H61	33:L1:96:C:H42	1.64	0.46
33:L1:99:A:P	42:LP:182:HIS:HE1	2.38	0.46
34:L3:19:A:N1	34:L3:59:U:O2	2.49	0.46
36:LA:106:TYR:CE2	36:LA:140:GLN:CA	2.95	0.46
36:LA:54:LEU:CB	36:LA:151:LYS:HE2	2.46	0.46
36:LA:72:HIS:C	36:LA:73:VAL:HG23	2.36	0.46
37:LB:10:LYS:HA	37:LB:16:PHE:CG	2.51	0.46
33:L1:2607:U:C3'	37:LB:226:ARG:HH22	2.28	0.46
33:L1:1432:G:H1'	81:LD:108:PRO:HG3	1.97	0.46
81:LD:313:GLU:C	81:LD:318:GLU:HG3	2.36	0.46
33:L1:304:A:H5''	82:LK:65:LYS:HZ1	111.26	0.46
45:LQ:183:PHE:HB3	45:LQ:190:LEU:HG	1.96	0.46
14:SP:98:TYR:HE1	46:LT:155:LEU:CG	2.20	0.46
2:SA:113:THR:HG23	32:S1:1299:G:H5'	1.98	0.46
8:SJ:68:LYS:CE	32:S1:1524:A:H5''	2.46	0.46
32:S1:1561:G:N2	32:S1:1563:A:H3'	2.31	0.46
31:S2:34:G:N2	32:S1:1645:C:C5	2.83	0.46
32:S1:187:C:C4	32:S1:188:U:C6	2.99	0.46
32:S1:300:U:C2	32:S1:301:U:H5	2.34	0.46
32:S1:334:G:H1	32:S1:342:C:N4	2.10	0.46
32:S1:861:A:C2'	46:LT:170:ARG:CD	2.79	0.46
2:SA:117:GLN:HE22	32:S1:1327:C:H4'	1.81	0.46
2:SA:145:ASN:ND2	5:SE:76:GLN:O	2.49	0.46
3:SB:132:LYS:NZ	3:SB:190:LEU:O	2.49	0.46
27:SH:81:VAL:C	27:SH:83:VAL:HB	2.36	0.46
16:SR:127:GLU:H	16:SR:127:GLU:CD	2.19	0.46
23:SU:20:ASN:HB3	23:SU:23:LEU:CD1	2.37	0.46
17:SV:95:VAL:N	17:SV:101:ILE:HG23	2.31	0.46
17:SV:73:ASN:H	17:SV:78:ARG:NH2	2.13	0.46
33:L1:1147:U:O2'	33:L1:1148:G:C8	2.67	0.46
33:L1:1423:C:C5	81:LD:195:PRO:HD3	2.51	0.46
33:L1:1753:A:H1'	33:L1:1754:C:C6	2.51	0.46
31:S2:75:A:P	33:L1:2957:U:C5'	3.04	0.46
33:L1:418:G:C6	35:L2:7:A:C8	3.04	0.46
33:L1:678:G:O2'	81:LD:122:HIS:HB3	2.16	0.46
33:L1:936:A:H8	33:L1:936:A:H3'	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:992:U:H2'	33:L1:993:A:O4'	2.16	0.46
35:L2:67:C:H2'	35:L2:67:C:O2	2.16	0.46
34:L3:15:C:O4'	34:L3:15:C:C6	2.68	0.46
33:L1:1174:G:H5'	34:L3:84:U:N3	2.28	0.46
36:LA:106:TYR:OH	36:LA:140:GLN:HA	2.15	0.46
36:LA:182:ILE:CD1	36:LA:186:VAL:CG2	2.94	0.46
36:LA:69:ASP:OD1	36:LA:106:TYR:HB3	2.15	0.46
81:LD:378:GLY:C	81:LD:382:TYR:CD2	2.80	0.46
45:LQ:218:LYS:NZ	45:LQ:222:HIS:CE1	2.84	0.46
33:L1:2707:A:C4'	45:LQ:35:ARG:HG3	2.42	0.46
32:S1:349:U:C5'	46:LT:141:SER:HB2	2.29	0.46
32:S1:860:A:C2'	46:LT:173:LYS:CD	2.81	0.46
32:S1:1241:G:H21	32:S1:1246:A:H62	1.63	0.46
32:S1:299:A:C1'	32:S1:299:A:O2'	2.54	0.46
32:S1:418:C:O2	32:S1:424:A:C2	2.69	0.46
2:SA:229:TYR:HA	2:SA:232:VAL:HG23	1.97	0.46
26:SG:126:UNK:O	26:SG:127:UNK:C	2.51	0.46
27:SH:102:ILE:HG13	27:SH:127:GLY:O	2.15	0.46
27:SH:22:LYS:CG	27:SH:61:ILE:HG12	2.46	0.46
12:SO:119:GLU:O	12:SO:123:HIS:CD2	2.69	0.46
24:SX:44:ASN:HA	24:SX:44:ASN:HD22	1.50	0.46
33:L1:1822:C:H2'	33:L1:1823:C:O4'	2.16	0.45
33:L1:2215:A:C2'	33:L1:2216:G:H5'	2.45	0.45
33:L1:282:A:C2	33:L1:303:U:O2	2.70	0.45
33:L1:3356:C:H2'	33:L1:3357:C:H6	1.81	0.45
33:L1:344:C:P	81:LD:58:VAL:HG13	2.56	0.45
33:L1:641:C:HO2'	33:L1:642:C:H6	0.66	0.45
33:L1:838:G:H2'	33:L1:860:G:H22	1.80	0.45
36:LA:119:ILE:CG1	36:LA:123:LEU:HB2	2.46	0.45
43:LO:141:LEU:CD1	65:LL:144:UNK:O	2.48	0.45
67:LS:107:GLN:HA	67:LS:110:THR:HG22	1.98	0.45
48:LV:115:VAL:CG1	48:LV:118:ILE:HG13	2.46	0.45
48:LV:1:MET:HB3	48:LV:16:LYS:CB	2.45	0.45
48:LV:2:VAL:CG1	48:LV:18:MET:SD	3.04	0.45
48:LV:69:ARG:HG3	48:LV:70:THR:CG2	2.46	0.45
5:SE:198:GLN:HG2	32:S1:1091:A:OP1	2.16	0.45
32:S1:1351:U:H5	32:S1:1352:A:C5	2.34	0.45
5:SE:229:LYS:O	32:S1:4:C:OP1	2.33	0.45
31:S2:13:U:C2	33:L1:2261:U:O2'	2.69	0.45
2:SA:257:ALA:HB1	2:SA:258:ILE:C	2.37	0.45
4:SD:75:LYS:HD2	4:SD:77:ARG:HH21	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:SH:10:ALA:CB	27:SH:22:LYS:CD	2.94	0.45
27:SH:28:ARG:HB2	27:SH:29:PRO:HD3	1.98	0.45
27:SH:96:SER:HG	27:SH:99:PHE:HB2	1.81	0.45
8:SJ:75:ARG:NH2	8:SJ:89:PHE:CD1	2.84	0.45
9:SK:109:PRO:HG2	9:SK:112:GLN:HB2	1.98	0.45
14:SP:41:LEU:HB2	14:SP:103:LYS:CG	2.46	0.45
14:SP:47:ARG:HB2	14:SP:64:THR:HB	1.97	0.45
14:SP:64:THR:HG21	14:SP:87:VAL:HG21	1.97	0.45
18:SW:74:UNK:N	32:S1:1810:G:OP1	2.49	0.45
24:SX:39:CYS:HA	24:SX:77:GLU:OE1	2.16	0.45
33:L1:1242:U:C4	33:L1:1243:C:C5	3.04	0.45
33:L1:1272:G:H1'	33:L1:1277:A:N6	2.31	0.45
33:L1:1478:A:H4'	64:LG:65:LYS:CE	132.40	0.45
33:L1:1546:G:H2'	33:L1:1547:G:H8	1.81	0.45
33:L1:2231:G:C4	33:L1:2231:G:H2'	2.52	0.45
33:L1:227:C:C6	33:L1:227:C:O4'	2.68	0.45
33:L1:327:A:OP1	33:L1:328:G:C8	2.69	0.45
33:L1:3304:U:H3'	33:L1:3304:U:C6	2.51	0.45
33:L1:408:U:H2'	33:L1:409:U:C6	2.50	0.45
33:L1:410:G:H2'	33:L1:411:C:C6	2.51	0.45
33:L1:488:U:H2'	33:L1:489:C:C6	2.52	0.45
33:L1:711:A:H61	33:L1:720:G:H1'	1.81	0.45
34:L3:56:G:N1	34:L3:57:C:C2	2.84	0.45
80:LC:1:MET:HB2	80:LC:2:SER:O	2.16	0.45
74:LJ:66:GLN:HE21	74:LJ:66:GLN:N	2.14	0.45
33:L1:1179:C:O2'	82:LK:94:PRO:HB3	2.14	0.45
41:LM:33:GLY:HA3	41:LM:69:LYS:HB2	1.97	0.45
41:LM:72:LEU:HD21	41:LM:113:LYS:HZ3	1.81	0.45
45:LQ:130:ASP:N	45:LQ:131:TYR:HB3	2.31	0.45
32:S1:859:U:H4'	46:LT:180:ARG:NE	2.31	0.45
48:LV:113:LEU:HD11	48:LV:153:GLU:C	2.36	0.45
48:LV:1:MET:CB	48:LV:16:LYS:CD	2.92	0.45
32:S1:860:A:N7	46:LT:174:ILE:HB	2.30	0.45
31:S2:71:A:OP2	33:L1:2971:A:N3	2.49	0.45
11:SM:51:ASP:HB2	11:SM:54:LYS:HE3	1.98	0.45
23:SU:17:PHE:O	23:SU:91:TYR:CA	2.64	0.45
33:L1:1775:C:H2'	33:L1:1777:C:OP2	2.16	0.45
33:L1:2345:C:C4	33:L1:2346:U:C5	3.04	0.45
33:L1:2532:A:C2	33:L1:2585:C:C2	3.04	0.45
33:L1:3028:A:H2'	33:L1:3029:G:C8	2.50	0.45
33:L1:876:C:H3'	33:L1:877:U:H4'	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L3:46:C:P	45:LQ:158:ARG:NH1	2.81	0.45
34:L3:57:C:O3'	45:LQ:29:GLN:CG	2.54	0.45
36:LA:130:ALA:HB3	36:LA:133:PHE:HD1	1.81	0.45
33:L1:2167:G:H4'	37:LB:23:ARG:NH2	2.31	0.45
37:LB:99:GLY:O	37:LB:165:MET:HE1	2.16	0.45
81:LD:306:VAL:HG12	81:LD:307:VAL:N	2.31	0.45
38:LE:38:VAL:HG22	38:LE:110:GLU:HB3	1.98	0.45
46:LT:146:LYS:O	46:LT:150:ALA:HB3	2.16	0.45
49:LX:120:VAL:HG22	49:LX:134:VAL:HG13	1.98	0.45
32:S1:1114:G:H1	32:S1:1141:U:H3	1.65	0.45
32:S1:1351:U:C5	32:S1:1352:A:C5	3.05	0.45
7:SI:91:ILE:HG12	32:S1:1616:U:H5'	1.98	0.45
32:S1:1674:C:OP1	33:L1:1914:C:H4'	2.17	0.45
32:S1:346:C:H5''	33:L1:1941:G:H5''	1.97	0.45
32:S1:860:A:C5	32:S1:861:A:C5	3.04	0.45
25:SC:71:ARG:NH1	25:SC:104:GLU:HB2	2.32	0.45
5:SE:183:ARG:HH12	5:SE:251:GLU:CD	2.20	0.45
7:SI:135:PHE:CD2	7:SI:142:ALA:HA	2.52	0.45
7:SI:142:ALA:HB3	7:SI:143:ARG:NE	2.30	0.45
10:SL:74:VAL:O	10:SL:74:VAL:HG13	2.16	0.45
23:SU:18:MET:SD	23:SU:94:LYS:HG3	2.56	0.45
33:L1:1226:G:H1'	33:L1:1290:A:N6	2.31	0.45
33:L1:1148:G:N2	33:L1:1335:C:O2	2.44	0.45
33:L1:1344:A:O4'	33:L1:1344:A:N9	2.45	0.45
33:L1:1435:C:C4'	33:L1:1435:C:OP1	2.63	0.45
33:L1:1615:G:H2'	33:L1:1616:G:O4'	2.17	0.45
33:L1:16:A:H4'	49:LX:58:ARG:HB3	1.97	0.45
33:L1:2989:A:H2'	33:L1:2990:C:C6	2.51	0.45
33:L1:843:C:O4'	33:L1:843:C:C6	2.68	0.45
35:L2:98:C:OP2	35:L2:99:G:C8	2.70	0.45
34:L3:56:G:C6	34:L3:57:C:N3	2.84	0.45
33:L1:2149:G:H4'	37:LB:227:ARG:NH1	2.31	0.45
44:LR:128:LEU:HD22	81:LD:313:GLU:CG	2.45	0.45
11:SM:18:THR:CA	38:LE:109:GLN:NE2	2.77	0.45
39:LF:3:THR:HG23	39:LF:4:ILE:H	1.81	0.45
64:LG:171:LYS:CB	66:LN:109:LYS:HD2	2.46	0.45
66:LN:82:ASN:O	66:LN:86:ASN:N	2.47	0.45
33:L1:2433:U:H3'	42:LP:20:ARG:NH2	2.31	0.45
45:LQ:19:ARG:HG3	45:LQ:20:PHE:CE1	2.51	0.45
67:LS:101:LEU:HD22	67:LS:101:LEU:H	1.81	0.45
33:L1:1217:G:C4'	67:LS:94:LYS:HG2	2.40	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2740:C:OP1	47:LU:69:LYS:C	2.54	0.45
32:S1:1747:A:O4'	33:L1:1930:G:C4	2.69	0.45
32:S1:3:C:C6	32:S1:3:C:O5'	2.70	0.45
31:S2:41:G:H3'	31:S2:42:C:H5''	1.97	0.45
25:SC:44:LEU:O	25:SC:45:TRP:HB2	2.13	0.45
7:SI:53:LYS:HG2	32:S1:1373:C:OP1	2.16	0.45
10:SL:74:VAL:HG23	10:SL:104:PHE:CZ	2.51	0.45
11:SM:11:HIS:C	38:LE:117:LYS:HZ3	2.17	0.45
29:ST:5:GLU:HB2	29:ST:81:GLN:HA	1.98	0.45
23:SU:19:THR:CB	23:SU:93:PRO:HA	2.46	0.45
33:L1:62:A:P	42:LP:172:ARG:HH22	2.40	0.45
33:L1:692:U:H5'	81:LD:220:SER:CB	2.47	0.45
37:LB:19:HIS:CD2	37:LB:22:HIS:HB3	2.51	0.45
38:LE:88:VAL:O	38:LE:89:LYS:O	2.33	0.45
65:LL:93:UNK:O	65:LL:95:UNK:N	2.50	0.45
66:LN:110:VAL:O	66:LN:113:ALA:HB3	2.17	0.45
67:LS:115:ARG:CA	67:LS:115:ARG:CZ	2.92	0.45
67:LS:68:GLU:O	67:LS:71:PRO:HD3	2.16	0.45
33:L1:1598:U:OP2	46:LT:38:ARG:HD2	2.17	0.45
7:SI:133:LYS:CD	32:S1:1592:G:H5'	2.45	0.45
32:S1:1663:A:C6	32:S1:1664:U:C2	3.04	0.45
32:S1:1:U:C6	32:S1:2:A:N3	2.84	0.45
32:S1:257:A:H2'	32:S1:258:U:C6	2.52	0.45
32:S1:328:U:H3	32:S1:348:A:H61	1.63	0.45
2:SA:126:LEU:HD21	2:SA:128:LEU:HB2	1.99	0.45
2:SA:136:GLN:NE2	2:SA:136:GLN:HA	2.32	0.45
4:SD:195:ILE:HG12	4:SD:208:ILE:CD1	2.43	0.45
27:SH:65:LEU:HB3	27:SH:70:ASN:HA	1.98	0.45
10:SL:71:VAL:O	10:SL:100:LEU:HD12	2.17	0.45
11:SM:13:LEU:HG	38:LE:117:LYS:HD3	1.64	0.45
28:SN:29:GLY:HA2	28:SN:36:LEU:HB2	1.99	0.45
14:SP:118:VAL:HG12	14:SP:119:LYS:H	1.82	0.45
15:SS:118:VAL:HG22	15:SS:124:ARG:HD2	1.99	0.45
15:SS:9:VAL:CA	15:SS:138:ALA:HB2	2.32	0.45
23:SU:19:THR:HG23	23:SU:21:ARG:N	2.31	0.45
23:SU:92:GLU:HG3	23:SU:93:PRO:HD3	1.98	0.45
17:SV:95:VAL:O	17:SV:101:ILE:HG23	2.17	0.45
33:L1:2087:A:H2'	33:L1:2088:C:C5'	2.46	0.45
33:L1:2585:C:O4'	33:L1:2585:C:C6	2.70	0.45
33:L1:3103:G:O2'	33:L1:3104:A:H5'	2.15	0.45
33:L1:3147:G:C6	33:L1:3148:A:C6	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:517:G:C6	33:L1:561:G:C6	3.05	0.45
33:L1:900:C:H2'	33:L1:901:U:H6	1.82	0.45
34:L3:56:G:C2	34:L3:57:C:C2	3.05	0.45
33:L1:1387:G:C1'	81:LD:248:GLY:HA3	2.46	0.45
81:LD:369:GLU:O	81:LD:373:LYS:HG3	2.17	0.45
81:LD:40:VAL:HG12	81:LD:127:ALA:HB2	1.98	0.45
40:LH:131:GLY:O	40:LH:135:VAL:HG23	2.16	0.45
36:LA:189:LEU:HA	65:LL:192:UNK:O	2.16	0.45
64:LG:171:LYS:HD2	66:LN:106:ASP:HA	1.97	0.45
39:LF:2:LYS:NZ	66:LN:33:GLN:CB	2.80	0.45
43:LO:82:VAL:HG21	43:LO:143:THR:HG22	1.99	0.45
33:L1:968:A:P	43:LO:9:ARG:HG2	2.48	0.45
45:LQ:82:HIS:CE1	45:LQ:86:ARG:HH22	2.34	0.45
66:LN:4:LYS:HE2	67:LS:161:PRO:O	2.17	0.45
46:LT:181:LEU:O	46:LT:185:PRO:HD2	2.15	0.45
48:LV:129:ARG:NE	48:LV:137:ILE:HG12	2.32	0.45
32:S1:1184:C:H6	32:S1:1184:C:O5'	2.00	0.45
32:S1:1616:U:H2'	32:S1:1617:U:H6	1.78	0.45
32:S1:476:U:H2'	32:S1:477:A:C8	2.52	0.45
32:S1:569:C:C5	32:S1:580:G:H3'	2.52	0.45
32:S1:859:U:H4'	46:LT:180:ARG:HE	1.82	0.45
31:S2:13:U:O2'	33:L1:2262:C:H6	1.97	0.45
10:SL:74:VAL:HG23	10:SL:104:PHE:CE2	2.51	0.45
11:SM:138:THR:HB	11:SM:139:THR:HG23	1.97	0.45
11:SM:141:ARG:O	11:SM:145:THR:O	2.35	0.45
6:SF:95:ILE:HA	17:SV:102:TYR:HE1	1.81	0.45
17:SV:68:GLU:HG2	17:SV:75:SER:HA	1.99	0.45
12:SO:69:SER:CA	24:SX:49:PHE:HE2	2.29	0.45
24:SX:74:ARG:HD3	24:SX:75:LEU:H	1.81	0.45
33:L1:11:A:H2'	33:L1:12:G:C8	2.51	0.45
33:L1:1318:C:O4'	33:L1:1318:C:C6	2.70	0.45
33:L1:2121:U:O2'	33:L1:2122:C:H5'	2.16	0.45
33:L1:2149:G:H1	33:L1:2174:C:N4	2.09	0.45
33:L1:2899:A:N7	33:L1:2901:C:C2	2.85	0.45
33:L1:3137:G:H2'	33:L1:3138:C:C6	2.52	0.45
33:L1:518:G:C6	33:L1:519:C:C4	3.05	0.45
33:L1:557:C:C6	33:L1:557:C:O4'	2.69	0.45
33:L1:850:A:N1	33:L1:851:A:C2	2.85	0.45
33:L1:986:G:C2'	33:L1:986:G:C4	3.00	0.45
36:LA:116:ILE:HG23	36:LA:117:LYS:N	2.32	0.45
81:LD:9:VAL:HG11	81:LD:157:VAL:HG23	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:LD:383:LYS:C	81:LD:386:ILE:HD11	2.36	0.45
33:L1:507:C:OP1	64:LG:66:PRO:HD3	2.16	0.45
40:LH:138:LEU:HB2	40:LH:196:LEU:HD22	1.97	0.45
43:LO:127:LYS:HE3	43:LO:130:GLU:HB2	1.99	0.45
43:LO:39:HIS:CD2	43:LO:40:HIS:CD2	3.05	0.45
43:LO:64:LEU:CD2	65:LL:154:UNK:C	2.94	0.45
42:LP:106:ALA:HB3	42:LP:132:ILE:HD13	1.98	0.45
47:LU:56:PHE:CE2	47:LU:57:TYR:CE1	3.04	0.45
48:LV:156:GLU:HB3	48:LV:157:PRO:HD2	1.99	0.45
68:LW:29:LYS:CG	68:LW:29:LYS:CA	2.83	0.45
32:S1:28:A:C2	32:S1:29:U:C2	3.05	0.45
32:S1:348:A:OP1	46:LT:136:ARG:HA	2.16	0.45
32:S1:477:A:H2'	32:S1:478:A:C8	2.52	0.45
3:SB:71:SER:HA	3:SB:74:GLN:NE2	2.32	0.45
27:SH:94:LEU:CD1	27:SH:95:PRO:CG	2.84	0.45
9:SK:39:THR:HG23	9:SK:39:THR:O	2.17	0.45
13:SQ:122:GLU:CD	13:SQ:122:GLU:H	2.20	0.45
13:SQ:66:VAL:O	13:SQ:66:VAL:HG22	2.17	0.45
23:SU:16:LYS:O	23:SU:29:VAL:CB	2.64	0.45
33:L1:1158:C:H1'	33:L1:1199:A:H61	1.81	0.45
33:L1:1195:C:C4	33:L1:1196:U:H1'	2.52	0.45
33:L1:1478:A:H4'	64:LG:65:LYS:NZ	133.63	0.45
33:L1:1574:C:N1	33:L1:1574:C:O4'	2.42	0.45
33:L1:1640:A:OP2	33:L1:1817:U:O2	2.35	0.45
33:L1:1596:G:H5'	33:L1:1752:C:C4'	2.47	0.45
33:L1:2152:A:C5	33:L1:2170:G:C2	3.05	0.45
33:L1:2604:A:H2'	33:L1:2605:G:H8	1.79	0.45
33:L1:319:C:H2'	33:L1:320:U:C6	2.52	0.45
33:L1:344:C:H41	33:L1:347:A:H5'	1.82	0.45
35:L2:102:U:C5	35:L2:103:C:C2	3.05	0.45
34:L3:27:A:C5	34:L3:28:U:C4	3.05	0.45
36:LA:107:HIS:CD2	36:LA:115:ILE:CG2	2.99	0.45
37:LB:138:SER:HB2	37:LB:147:ARG:HB3	1.98	0.45
38:LE:168:LYS:O	38:LE:168:LYS:HG3	2.17	0.45
66:LN:3:PHE:CE1	66:LN:51:LYS:O	2.70	0.45
43:LO:141:LEU:HB3	65:LL:144:UNK:O	2.16	0.45
33:L1:665:G:H1	43:LO:4:ARG:HD3	1.80	0.45
34:L3:6:C:P	45:LQ:31:LYS:CG	3.05	0.45
67:LS:79:ILE:CG2	67:LS:94:LYS:HB2	2.46	0.45
32:S1:860:A:O2'	46:LT:173:LYS:HD2	2.16	0.45
51:LY:73:TYR:O	51:LY:77:TRP:HA	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1757:G:OP1	33:L1:2297:G:C1'	2.64	0.45
32:S1:299:A:C2'	32:S1:299:A:C4	3.00	0.45
32:S1:950:U:H2'	32:S1:951:U:C6	2.51	0.45
32:S1:977:G:O5'	33:L1:851:A:C2	2.67	0.45
30:S3:18:C:C4	32:S1:1645:C:H5'	2.52	0.45
2:SA:42:VAL:HA	2:SA:53:ILE:HA	1.99	0.45
3:SB:25:LEU:O	3:SB:29:LEU:HB2	2.17	0.45
4:SD:147:ILE:HD13	4:SD:169:ILE:HD11	1.94	0.45
5:SE:183:ARG:NH1	5:SE:251:GLU:OE1	2.50	0.45
6:SF:72:LEU:HD13	6:SF:88:ILE:HD11	1.98	0.45
27:SH:95:PRO:O	27:SH:97:ARG:N	2.50	0.45
10:SL:74:VAL:HB	10:SL:104:PHE:CE1	2.51	0.45
23:SU:10:VAL:HG13	23:SU:32:VAL:HG22	1.98	0.45
23:SU:15:ARG:HG2	23:SU:15:ARG:HH11	1.82	0.45
23:SU:18:MET:O	23:SU:27:GLN:HB2	2.17	0.45
33:L1:1034:U:C3'	33:L1:1035:C:C6	3.00	0.45
33:L1:1435:C:O4'	33:L1:1435:C:O2	2.28	0.45
33:L1:1644:A:C2	33:L1:1645:G:C4	3.05	0.45
33:L1:1756:C:N4	33:L1:1764:G:H1	2.13	0.45
32:S1:1736:C:C2'	33:L1:2101:A:HO2'	2.22	0.45
25:SC:195:GLU:CA	33:L1:2251:A:C3'	2.95	0.45
33:L1:2415:U:H2'	33:L1:2416:U:C6	2.52	0.45
33:L1:2669:C:N4	33:L1:2690:G:H2'	2.31	0.45
33:L1:3042:U:C5	33:L1:3043:U:C5	3.05	0.45
33:L1:3378:U:H5''	33:L1:3378:U:H6	1.82	0.45
33:L1:507:C:O2'	64:LG:62:SER:CB	2.63	0.45
33:L1:962:C:OP2	33:L1:963:U:C6	2.69	0.45
34:L3:3:A:O4'	34:L3:3:A:N9	2.39	0.45
34:L3:49:A:C2	34:L3:51:G:N7	2.85	0.45
36:LA:137:VAL:CG1	36:LA:138:SER:N	2.80	0.45
38:LE:42:LEU:HD12	38:LE:110:GLU:HG2	1.99	0.45
64:LG:96:LEU:HD12	64:LG:107:THR:HG21	1.99	0.45
84:LI:110:ARG:CG	84:LI:114:GLY:O	2.57	0.45
41:LM:42:VAL:HB	41:LM:45:ILE:HG22	1.99	0.45
33:L1:280:G:H1	42:LP:180:THR:HA	1.81	0.45
34:L3:115:A:H4'	45:LQ:75:VAL:CG1	2.47	0.45
33:L1:1450:G:C8	48:LV:27:LYS:HB2	2.52	0.45
32:S1:1647:C:C5	32:S1:1648:C:C5	3.05	0.45
4:SD:136:ILE:HD13	4:SD:148:ARG:HG3	1.98	0.45
2:SA:67:ARG:O	5:SE:65:ILE:HG21	2.17	0.45
27:SH:7:LEU:HG	27:SH:24:GLN:OE1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:SH:37:PHE:CB	27:SH:43:LYS:CE	2.95	0.45
11:SM:110:ASP:HA	11:SM:113:ARG:HG3	1.99	0.45
15:SS:124:ARG:CZ	32:S1:1507:G:H5'	2.47	0.45
29:ST:19:ALA:HA	29:ST:36:ILE:HD11	1.97	0.45
23:SU:12:LEU:CG	23:SU:30:LEU:HD13	2.46	0.45
33:L1:1112:C:H4'	44:LR:152:PHE:CE1	2.52	0.45
33:L1:343:G:H5''	33:L1:1432:G:H1	1.82	0.45
33:L1:2157:C:O2	37:LB:11:GLY:HA2	2.17	0.45
31:S2:74:C:C2'	33:L1:2404:C:H5'	2.46	0.45
33:L1:373:A:H3'	33:L1:374:G:H5''	1.97	0.45
33:L1:383:A:N7	33:L1:384:A:C6	2.85	0.45
33:L1:409:U:H2'	33:L1:410:G:C8	2.52	0.45
33:L1:423:C:N4	33:L1:640:C:OP2	2.49	0.45
36:LA:172:SER:OG	36:LA:175:GLU:HG3	2.17	0.45
36:LA:54:LEU:N	36:LA:54:LEU:HD12	2.31	0.45
36:LA:69:ASP:CB	36:LA:79:MET:SD	3.05	0.45
36:LA:67:LEU:O	36:LA:83:TYR:CE1	2.70	0.45
33:L1:2149:G:P	37:LB:241:ARG:HH11	2.39	0.45
37:LB:30:ARG:HH21	37:LB:71:HIS:CD2	2.35	0.45
80:LC:372:GLY:N	80:LC:377:THR:HG21	2.32	0.45
81:LD:144:ARG:HD3	81:LD:146:HIS:HE1	1.82	0.45
33:L1:548:G:H5''	81:LD:400:TRP:CD1	2.52	0.45
11:SM:12:ILE:N	38:LE:118:TYR:CG	2.85	0.45
11:SM:12:ILE:HD11	38:LE:120:PRO:CB	2.47	0.45
46:LT:171:GLU:HA	46:LT:174:ILE:HG22	1.99	0.45
48:LV:113:LEU:CD2	48:LV:157:PRO:HD2	2.35	0.45
32:S1:1686:C:OP1	50:LZ:71:LYS:CB	2.65	0.45
32:S1:207:A:H61	32:S1:258:U:H3	1.65	0.45
32:S1:208:U:H3	32:S1:257:A:H61	1.65	0.45
32:S1:308:U:H2'	32:S1:309:C:C5	2.51	0.45
32:S1:860:A:H5''	46:LT:174:ILE:HA	1.99	0.45
6:SF:162:ILE:CD1	32:S1:1542:G:H1'	2.47	0.45
8:SJ:72:ILE:HD13	28:SN:33:LYS:CE	2.44	0.45
11:SM:31:THR:HA	11:SM:36:VAL:CG2	2.47	0.45
15:SS:123:GLY:CA	32:S1:1507:G:OP1	2.64	0.45
15:SS:62:SER:O	15:SS:63:ILE:C	2.55	0.45
23:SU:19:THR:HG22	23:SU:93:PRO:HB3	1.99	0.45
6:SF:99:LEU:HD21	17:SV:63:PRO:HD3	1.98	0.45
17:SV:63:PRO:HG2	17:SV:66:LEU:CB	2.45	0.45
33:L1:1055:U:O2'	33:L1:1056:U:H5'	2.17	0.44
33:L1:1193:A:H8	33:L1:1193:A:H3'	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1299:G:H2'	33:L1:1300:C:C6	2.51	0.44
33:L1:1635:A:C2	33:L1:1736:C:C4'	3.00	0.44
32:S1:1747:A:C1'	33:L1:1930:G:N1	2.80	0.44
32:S1:1674:C:C2	33:L1:1932:A:H1'	2.52	0.44
33:L1:2125:A:C2'	33:L1:2125:A:C4	3.00	0.44
33:L1:657:A:H4'	33:L1:2360:A:H5"	1.99	0.44
33:L1:648:G:C6	33:L1:2371:A:C2	3.05	0.44
33:L1:2722:U:H1'	33:L1:2741:G:N2	2.32	0.44
33:L1:1310:G:OP2	33:L1:2886:C:H4'	2.17	0.44
33:L1:844:A:C2	33:L1:856:G:C2	3.05	0.44
35:L2:98:C:O4'	35:L2:98:C:C6	2.71	0.44
44:LR:41:LYS:CB	81:LD:325:LYS:HE2	2.30	0.44
64:LG:11:ILE:O	64:LG:12:LYS:HB2	2.17	0.44
43:LO:59:ARG:HB3	65:LL:148:UNK:C	2.47	0.44
43:LO:89:GLY:HA3	43:LO:103:TYR:CE1	2.51	0.44
48:LV:59:PRO:CA	48:LV:76:ARG:HE	2.22	0.44
32:S1:1016:C:H4'	37:LB:248:GLY:O	2.17	0.44
29:ST:52:PHE:C	32:S1:1069:G:H21	2.20	0.44
14:SP:104:ARG:HH21	32:S1:113:A:C1'	2.14	0.44
32:S1:1698:A:H61	32:S1:1721:A:H61	1.64	0.44
32:S1:215:A:OP2	32:S1:834:A:C5'	2.65	0.44
32:S1:991:G:P	37:LB:133:TYR:CD1	3.08	0.44
2:SA:93:LYS:HE3	2:SA:200:ASP:HA	1.98	0.44
6:SF:165:ILE:CG1	6:SF:165:ILE:O	2.65	0.44
10:SL:50:VAL:HG22	10:SL:51:LEU:N	2.32	0.44
13:SQ:29:HIS:HB2	28:SN:22:ARG:CG	2.48	0.44
13:SQ:16:VAL:HG21	13:SQ:38:VAL:HG13	1.99	0.44
23:SU:28:PHE:O	23:SU:78:PHE:CD1	2.70	0.44
33:L1:1501:A:C2	33:L1:1522:G:C2	3.05	0.44
32:S1:1748:U:O4'	33:L1:1915:G:H2'	2.17	0.44
32:S1:844:C:OP1	33:L1:2061:C:O4'	2.26	0.44
33:L1:2135:U:O4'	33:L1:2135:U:C6	2.70	0.44
33:L1:228:C:H3'	33:L1:229:G:C5'	2.46	0.44
33:L1:3271:A:H2'	33:L1:3272:A:C8	2.52	0.44
33:L1:423:C:C6	33:L1:423:C:O4'	2.70	0.44
33:L1:686:A:H3'	33:L1:687:C:C6	2.52	0.44
36:LA:60:PRO:CA	36:LA:150:THR:HB	2.47	0.44
81:LD:260:SER:HA	81:LD:263:LYS:HE2	1.99	0.44
81:LD:334:ASN:N	81:LD:335:PRO:CD	2.80	0.44
38:LE:74:ARG:HA	38:LE:78:ALA:HB2	1.98	0.44
66:LN:110:VAL:CB	82:LK:201:LEU:HD23	2.27	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2380:G:H5'	82:LK:95:HIS:NE2	2.31	0.44
66:LN:26:VAL:HG22	66:LN:27:ILE:N	2.32	0.44
66:LN:8:GLU:HG3	67:LS:154:VAL:O	2.17	0.44
33:L1:2665:A:H4'	45:LQ:153:THR:HG22	1.98	0.44
44:LR:107:GLU:CD	44:LR:110:ARG:HH11	2.21	0.44
47:LU:30:TYR:CD1	47:LU:92:ARG:NH2	2.85	0.44
68:LW:41:LEU:HD21	68:LW:67:ARG:NE	2.31	0.44
51:LY:49:ILE:CG2	51:LY:105:VAL:HG21	2.48	0.44
51:LY:70:VAL:HG12	51:LY:80:HIS:HB2	1.97	0.44
32:S1:1267:G:H2'	32:S1:1268:G:C8	2.52	0.44
32:S1:1308:G:H5'	32:S1:1326:A:OP2	2.16	0.44
31:S2:50:G:H2'	31:S2:51:G:C8	2.52	0.44
25:SC:106:PHE:HA	25:SC:106:PHE:HD2	1.24	0.44
2:SA:120:PHE:CZ	5:SE:101:ALA:HB1	2.48	0.44
9:SK:112:GLN:O	9:SK:115:LEU:HB2	2.17	0.44
9:SK:81:ALA:HA	9:SK:115:LEU:HD21	1.98	0.44
23:SU:17:PHE:O	23:SU:18:MET:HG2	2.17	0.44
17:SV:55:VAL:HG21	17:SV:71:ARG:HE	1.82	0.44
33:L1:1187:G:OP1	66:LN:52:ARG:HB3	2.17	0.44
33:L1:2138:A:H1'	33:L1:2276:A:H61	1.82	0.44
32:S1:1000:A:O2'	33:L1:2236:U:OP1	2.35	0.44
33:L1:2379:U:C2	33:L1:2380:G:C8	3.04	0.44
33:L1:2495:C:H5''	36:LA:212:ARG:CZ	2.48	0.44
33:L1:2760:U:C5	33:L1:2761:A:C2	3.05	0.44
33:L1:3360:U:H4'	33:L1:3361:G:H5'	1.99	0.44
33:L1:527:G:H4'	66:LN:68:LYS:NZ	2.33	0.44
34:L3:56:G:C4	34:L3:57:C:C6	3.06	0.44
34:L3:4:U:OP1	34:L3:57:C:O2	2.35	0.44
34:L3:3:A:OP1	34:L3:59:U:H5'	2.18	0.44
36:LA:69:ASP:CB	36:LA:79:MET:HG3	2.47	0.44
37:LB:96:LEU:HD12	37:LB:108:PRO:CD	2.47	0.44
37:LB:148:ILE:HG22	37:LB:149:LYS:N	2.32	0.44
80:LC:93:VAL:HG12	80:LC:100:ARG:O	2.16	0.44
38:LE:21:LEU:HD13	38:LE:21:LEU:C	2.38	0.44
64:LG:139:VAL:HG12	64:LG:140:GLN:O	2.17	0.44
33:L1:1192:A:H2	82:LK:137:GLY:C	2.21	0.44
67:LS:123:ILE:H	67:LS:123:ILE:CD1	2.31	0.44
34:L3:93:U:C4'	67:LS:84:GLN:HE22	2.31	0.44
31:S2:34:G:C5'	32:S1:1195:U:C5	2.87	0.44
32:S1:1517:C:H6	32:S1:1517:C:H3'	1.81	0.44
32:S1:928:A:OP1	37:LB:109:GLU:OE1	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:929:A:OP2	37:LB:109:GLU:HB3	2.16	0.44
32:S1:977:G:O4'	33:L1:850:A:N6	2.50	0.44
2:SA:67:ARG:NH1	5:SE:61:LYS:HE2	2.32	0.44
3:SB:135:GLU:OE1	3:SB:157:MET:CE	2.66	0.44
4:SD:101:LEU:HD23	4:SD:102:LEU:O	2.18	0.44
4:SD:71:LEU:HB2	4:SD:91:SER:HB3	1.99	0.44
27:SH:65:LEU:HD22	27:SH:70:ASN:CA	2.46	0.44
10:SL:43:SER:O	10:SL:60:GLN:HG3	2.16	0.44
3:SB:23:GLU:OE2	28:SN:22:ARG:HD3	2.18	0.44
23:SU:34:HIS:H	23:SU:35:PRO:HG2	1.82	0.44
23:SU:17:PHE:HB2	23:SU:91:TYR:H	1.82	0.44
25:SC:193:ASP:O	33:L1:2252:C:N3	2.50	0.44
33:L1:3227:U:C1'	33:L1:3227:U:O2'	2.56	0.44
33:L1:614:C:O2	64:LG:63:THR:HG21	2.17	0.44
32:S1:632:G:O2'	33:L1:849:A:O4'	2.33	0.44
33:L1:996:A:C4	33:L1:2640:A:OP2	2.70	0.44
35:L2:58:A:C6	35:L2:66:C:N4	2.86	0.44
37:LB:145:THR:HG22	37:LB:146:SER:N	2.30	0.44
37:LB:158:VAL:HG22	37:LB:159:PRO:HD2	1.98	0.44
33:L1:2240:C:H5''	37:LB:219:ILE:CG2	2.48	0.44
80:LC:296:HIS:CG	80:LC:297:GLU:H	2.35	0.44
81:LD:362:LYS:O	81:LD:366:LEU:CG	2.59	0.44
64:LG:96:LEU:HD22	64:LG:138:ASN:HB2	1.99	0.44
40:LH:95:TYR:CG	40:LH:217:ASN:HB2	2.53	0.44
45:LQ:184:LYS:HA	45:LQ:187:GLU:HA	1.99	0.44
44:LR:41:LYS:H	81:LD:325:LYS:CE	2.29	0.44
48:LV:32:THR:HA	48:LV:58:ILE:HG12	1.99	0.44
68:LW:41:LEU:CD2	68:LW:67:ARG:HE	2.31	0.44
33:L1:1673:A:OP1	68:LW:82:LYS:C	2.56	0.44
32:S1:1118:A:H61	32:S1:1136:A:H3'	1.82	0.44
32:S1:1177:G:O6	32:S1:1473:C:N4	2.41	0.44
32:S1:1564:A:C8	32:S1:1568:U:C5	3.06	0.44
32:S1:1586:U:H2'	32:S1:1587:G:H8	1.80	0.44
32:S1:1747:A:C4'	33:L1:1915:G:C2	2.99	0.44
32:S1:825:U:H3	32:S1:857:A:H61	1.65	0.44
32:S1:882:G:N1	32:S1:956:A:C2	2.85	0.44
30:S3:13:A:O2'	30:S3:14:A:OP1	2.35	0.44
2:SA:24:ALA:HA	2:SA:28:HIS:CG	2.52	0.44
2:SA:76:GLN:CD	2:SA:78:ILE:HD11	2.37	0.44
4:SD:153:ILE:HD12	4:SD:172:PHE:HB3	1.99	0.44
4:SD:160:ILE:CG1	4:SD:169:ILE:CG2	2.94	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:SD:181:VAL:CG1	4:SD:182:MET:N	2.80	0.44
6:SF:149:LEU:HB3	6:SF:185:ALA:HA	1.98	0.44
27:SH:1:MET:HB2	27:SH:2:VAL:H	1.50	0.44
27:SH:63:VAL:HG22	27:SH:64:GLU:N	2.31	0.44
8:SJ:95:LYS:HE3	32:S1:1388:A:OP1	2.17	0.44
13:SQ:88:LYS:HZ3	13:SQ:123:VAL:HG22	1.82	0.44
23:SU:49:LEU:HA	23:SU:52:LEU:HD23	1.99	0.44
17:SV:68:GLU:OE2	17:SV:78:ARG:HD3	2.16	0.44
18:SW:100:UNK:O	18:SW:104:UNK:N	2.50	0.44
33:L1:1241:G:H2'	33:L1:1242:U:C5	2.52	0.44
33:L1:204:G:O2'	33:L1:205:C:H5'	2.18	0.44
33:L1:225:G:C2	33:L1:226:U:H1'	2.53	0.44
33:L1:2481:C:C5	33:L1:2482:A:C4	3.05	0.44
33:L1:2724:A:H8	33:L1:2724:A:O5'	1.99	0.44
33:L1:2973:A:H4'	33:L1:2974:G:O5'	2.17	0.44
33:L1:3320:G:O4'	33:L1:3320:G:N9	2.46	0.44
33:L1:657:A:H61	33:L1:1445:U:H3	1.66	0.44
34:L3:27:A:C2'	34:L3:55:A:H62	2.29	0.44
36:LA:56:HIS:NE2	36:LA:149:GLU:HB3	2.32	0.44
36:LA:69:ASP:OD2	36:LA:79:MET:HG3	2.17	0.44
36:LA:67:LEU:O	36:LA:84:MET:HB2	2.16	0.44
36:LA:87:GLU:CB	36:LA:91:LYS:HD2	2.47	0.44
33:L1:3297:A:C5'	80:LC:338:ARG:NH2	2.81	0.44
81:LD:355:ARG:HG3	81:LD:356:LYS:CE	2.47	0.44
38:LE:42:LEU:HD21	38:LE:113:ASP:OD2	2.18	0.44
74:LJ:34:PRO:HG2	74:LJ:42:ILE:HG21	1.99	0.44
45:LQ:155:THR:CG2	45:LQ:195:HIS:CE1	2.93	0.44
66:LN:6:PHE:CE2	67:LS:161:PRO:HB2	2.52	0.44
32:S1:1163:C:C5	32:S1:1590:U:C6	3.06	0.44
13:SQ:56:HIS:CE1	32:S1:1224:C:O2'	2.71	0.44
32:S1:1319:U:C5	32:S1:1320:C:C5	3.06	0.44
32:S1:1518:C:H2'	32:S1:1519:G:O4'	2.18	0.44
32:S1:1663:A:C5	32:S1:1664:U:C2	3.06	0.44
32:S1:192:G:N1	32:S1:193:G:C5	2.86	0.44
5:SE:208:SER:O	32:S1:1:U:H5'	2.17	0.44
32:S1:390:G:H2'	32:S1:391:A:C8	2.52	0.44
5:SE:247:SER:CB	5:SE:248:PRO:HD3	2.48	0.44
27:SH:22:LYS:CG	27:SH:61:ILE:CG1	2.95	0.44
5:SE:31:ARG:HB2	27:SH:67:GLY:C	2.38	0.44
11:SM:35:GLY:C	11:SM:36:VAL:CG1	2.85	0.44
33:L1:1083:C:C6	33:L1:1083:C:C2'	3.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:163:U:C4	33:L1:164:C:C2	3.06	0.44
33:L1:2398:A:C2	33:L1:2399:G:C4	3.06	0.44
33:L1:3056:C:H1'	33:L1:3088:A:N6	2.33	0.44
34:L3:28:U:C2'	34:L3:29:C:H5'	2.45	0.44
36:LA:83:TYR:CE2	36:LA:85:ASP:C	2.90	0.44
40:LH:135:VAL:HA	40:LH:196:LEU:CD2	2.45	0.44
33:L1:2380:G:P	82:LK:96:LYS:HZ3	2.40	0.44
65:LL:151:UNK:CA	65:LL:151:UNK:O	2.48	0.44
41:LM:72:LEU:CD2	41:LM:113:LYS:NZ	2.81	0.44
14:SP:92:LEU:H	46:LT:151:ARG:NH2	2.15	0.44
48:LV:113:LEU:CD1	48:LV:152:SER:O	2.56	0.44
48:LV:1:MET:CB	48:LV:16:LYS:CG	2.95	0.44
15:SS:2:ALA:CB	32:S1:1364:C:H5'	2.46	0.44
32:S1:1535:U:C3'	32:S1:1536:U:C6	3.00	0.44
32:S1:873:G:H1	32:S1:965:U:H3	1.66	0.44
27:SH:106:THR:HA	27:SH:123:GLY:HA3	2.00	0.44
27:SH:89:TRP:CD1	27:SH:90:THR:HG23	2.53	0.44
9:SK:33:PHE:HB2	9:SK:35:SER:CB	2.43	0.44
11:SM:30:LEU:O	11:SM:33:ILE:HB	2.18	0.44
12:SO:58:HIS:CG	12:SO:59:GLY:N	2.80	0.44
14:SP:100:ARG:HG2	14:SP:101:TYR:N	2.32	0.44
14:SP:113:SER:HB3	14:SP:114:PRO:HD3	1.98	0.44
6:SF:167:GLU:HG2	17:SV:66:LEU:HG	1.99	0.44
17:SV:95:VAL:C	17:SV:101:ILE:CD1	2.86	0.44
33:L1:642:C:H4'	33:L1:1436:A:H61	1.83	0.44
33:L1:1512:A:N3	33:L1:1512:A:H2'	2.32	0.44
36:LA:32:GLU:HB2	36:LA:168:VAL:CG1	2.48	0.44
32:S1:930:G:OP1	37:LB:135:ILE:HD11	2.18	0.44
80:LC:176:GLN:HG3	80:LC:178:LYS:H	1.82	0.44
44:LR:128:LEU:HD13	81:LD:313:GLU:CB	2.48	0.44
38:LE:116:MET:O	38:LE:120:PRO:CD	2.66	0.44
66:LN:118:GLY:HA2	66:LN:121:ILE:HD12	1.99	0.44
43:LO:49:HIS:C	43:LO:49:HIS:CD2	2.90	0.44
67:LS:151:PHE:CD1	67:LS:151:PHE:CB	2.74	0.44
26:SG:6:UNK:C	46:LT:188:SER:O	2.66	0.44
31:S2:71:A:OP2	33:L1:2971:A:H2	1.92	0.44
25:SC:10:LYS:HZ1	32:S1:505:U:P	2.19	0.44
4:SD:100:ARG:CB	4:SD:114:VAL:CG2	2.95	0.44
4:SD:142:TYR:CD1	4:SD:143:ASP:N	2.86	0.44
27:SH:36:LYS:HA	27:SH:39:ILE:HD12	1.99	0.44
10:SL:4:THR:C	10:SL:5:ARG:HG3	2.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:SM:12:ILE:HG23	38:LE:118:TYR:C	2.37	0.44
28:SN:30:LEU:HD13	28:SN:37:MET:CB	2.48	0.44
28:SN:36:LEU:HD23	28:SN:39:CYS:H	1.83	0.44
12:SO:124:ARG:HD2	32:S1:632:G:C4'	2.47	0.44
29:ST:5:GLU:HG3	29:ST:81:GLN:HB3	2.00	0.44
33:L1:1238:G:H2'	33:L1:1239:U:C5	2.53	0.44
33:L1:1317:G:H2'	33:L1:1318:C:C4	2.53	0.44
31:S2:24:A:N1	33:L1:2260:C:C2'	2.80	0.44
33:L1:269:C:H2'	33:L1:270:G:O4'	2.18	0.44
33:L1:2725:U:H2'	33:L1:2726:U:C6	2.53	0.44
33:L1:395:A:H4'	33:L1:397:A:OP1	2.17	0.44
33:L1:461:A:H2'	33:L1:462:C:H5'	1.99	0.44
33:L1:900:C:H2'	33:L1:901:U:C6	2.53	0.44
35:L2:124:G:O2'	35:L2:124:G:C1'	2.55	0.44
34:L3:14:C:C2'	34:L3:15:C:C6	2.97	0.44
36:LA:66:MET:HA	36:LA:84:MET:HG3	2.00	0.44
36:LA:98:LEU:C	36:LA:98:LEU:HD23	2.37	0.44
32:S1:999:G:HO2'	37:LB:246:LEU:CD2	2.15	0.44
64:LG:175:ASP:HB2	66:LN:109:LYS:CB	2.48	0.44
64:LG:185:ASP:N	64:LG:185:ASP:CB	2.71	0.44
34:L3:91:C:H4'	84:LI:57:LYS:HZ1	1.82	0.44
45:LQ:184:LYS:HB2	45:LQ:190:LEU:HB2	1.99	0.44
34:L3:58:G:OP2	45:LQ:28:ARG:NH1	2.51	0.44
34:L3:116:U:H4'	45:LQ:80:TYR:OH	1.65	0.44
14:SP:94:PHE:CB	46:LT:151:ARG:HD3	2.48	0.44
46:LT:58:HIS:CG	46:LT:59:SER:N	2.85	0.44
51:LY:57:VAL:HG12	51:LY:63:LYS:HA	2.00	0.44
32:S1:1615:G:H2'	32:S1:1616:U:C5	2.51	0.44
2:SA:118:THR:CG2	2:SA:119:SER:N	2.81	0.44
25:SC:160:PHE:O	32:S1:482:A:H5"	2.17	0.44
11:SM:117:ILE:HD11	16:SR:128:PHE:HB2	1.99	0.44
17:SV:53:SER:HA	17:SV:56:PRO:HG3	1.99	0.44
33:L1:1000:A:H61	33:L1:1056:U:H3	1.66	0.44
33:L1:1574:C:O4'	33:L1:1574:C:C6	2.70	0.44
33:L1:1593:C:O4'	33:L1:1593:C:C6	2.71	0.44
33:L1:1611:G:H2'	33:L1:1612:C:O4'	2.18	0.44
33:L1:1867:U:P	46:LT:56:LYS:HZ1	2.34	0.44
33:L1:1870:G:OP1	46:LT:17:CYS:HA	2.18	0.44
33:L1:2119:A:O2'	33:L1:2120:A:H5'	2.18	0.44
33:L1:2398:A:C2	33:L1:2399:G:C1'	3.00	0.44
33:L1:3034:A:H2	39:LF:117:LEU:O	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:3320:G:C2	33:L1:3322:A:N3	2.86	0.44
33:L1:404:G:H1'	35:L2:20:G:N2	2.33	0.44
33:L1:49:U:C2	33:L1:50:A:C8	3.06	0.44
33:L1:68:U:C3'	33:L1:69:U:H5'	2.48	0.44
34:L3:35:C:N1	45:LQ:200:TYR:OH	2.51	0.44
34:L3:46:C:N3	34:L3:47:C:C6	2.86	0.44
34:L3:27:A:N6	34:L3:52:U:H3	2.16	0.44
33:L1:1206:A:C4'	34:L3:88:U:H1'	2.20	0.44
36:LA:106:TYR:CE1	36:LA:143:LEU:CB	3.00	0.44
36:LA:168:VAL:HG12	36:LA:170:ASN:H	1.83	0.44
37:LB:102:LEU:HD23	37:LB:102:LEU:N	2.32	0.44
81:LD:303:VAL:CG1	81:LD:304:GLN:N	2.58	0.44
81:LD:309:PRO:O	81:LD:310:LEU:C	2.55	0.44
81:LD:315:LYS:HB2	81:LD:315:LYS:NZ	2.33	0.44
39:LF:5:LEU:HD21	39:LF:69:ILE:HD13	1.99	0.44
39:LF:41:LEU:HD11	39:LF:65:THR:HG23	1.99	0.44
41:LM:70:PRO:CD	41:LM:71:ASP:H	2.25	0.44
33:L1:3222:G:C3'	66:LN:130:LYS:HZ2	2.30	0.44
66:LN:8:GLU:CG	66:LN:9:ILE:H	2.30	0.44
43:LO:52:TYR:CD1	44:LR:91:ARG:HG2	2.52	0.44
51:LY:79:ILE:HG13	51:LY:98:ILE:HG22	1.99	0.44
51:LY:82:GLU:HG2	51:LY:83:ARG:HG3	1.99	0.44
32:S1:1392:G:C3'	32:S1:1393:G:H4'	2.48	0.44
32:S1:1507:G:H1	32:S1:1516:C:H42	1.66	0.44
32:S1:273:C:H3'	32:S1:274:A:H5''	1.99	0.44
32:S1:37:U:H1'	32:S1:672:G:N2	2.33	0.44
31:S2:30:G:H1	31:S2:40:U:H3	1.66	0.44
25:SC:162:LEU:O	25:SC:163:THR:CB	2.66	0.44
5:SE:153:TRP:CE2	5:SE:243:LYS:CE	3.00	0.44
27:SH:79:PHE:CE2	27:SH:85:GLU:O	2.71	0.44
14:SP:41:LEU:HG	14:SP:103:LYS:HZ3	1.80	0.44
14:SP:89:ARG:HG3	14:SP:89:ARG:O	2.17	0.44
33:L1:1395:A:H1'	33:L1:1421:A:N6	2.33	0.43
33:L1:1525:U:H2'	49:LX:125:ARG:NH1	2.33	0.43
33:L1:1587:G:O5'	33:L1:1587:G:C8	2.71	0.43
33:L1:1613:C:N3	33:L1:1614:G:N7	2.65	0.43
33:L1:1945:A:C5	33:L1:1946:C:C5	3.06	0.43
33:L1:2265:A:H2'	33:L1:2266:A:C8	2.53	0.43
33:L1:227:C:O4'	33:L1:227:C:N1	2.43	0.43
33:L1:2703:G:H2'	33:L1:2704:U:C6	2.52	0.43
33:L1:3035:C:O4'	33:L1:3035:C:C6	2.70	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:696:A:C2	81:LD:52:LYS:NZ	2.77	0.43
33:L1:838:G:H2'	33:L1:860:G:N2	2.33	0.43
36:LA:57:ILE:CG1	36:LA:58:PRO:HD2	2.48	0.43
81:LD:187:ALA:C	81:LD:189:ASP:H	2.20	0.43
64:LG:155:ALA:HB1	64:LG:159:GLU:OE2	2.18	0.43
74:LJ:34:PRO:HB3	74:LJ:63:LEU:HD11	2.00	0.43
66:LN:1:MET:SD	82:LK:135:GLN:HB3	2.58	0.43
33:L1:854:C:OP2	41:LM:1:MET:CA	85.48	0.43
66:LN:124:GLU:OE2	82:LK:194:LEU:CD1	2.60	0.43
44:LR:122:THR:OG1	81:LD:303:VAL:HG21	2.18	0.43
48:LV:28:ASN:HD22	48:LV:85:PRO:HB3	1.83	0.43
32:S1:1034:G:N3	32:S1:1036:U:C6	2.86	0.43
32:S1:1053:C:H2'	32:S1:1054:G:H8	1.83	0.43
10:SL:51:LEU:HD21	32:S1:1141:U:H5''	2.00	0.43
32:S1:1698:A:C2	32:S1:1721:A:H2	2.25	0.43
32:S1:1728:G:C6	32:S1:1729:A:N6	2.85	0.43
32:S1:632:G:O2'	32:S1:632:G:C1'	2.56	0.43
31:S2:70:G:OP2	33:L1:2964:U:C2'	2.64	0.43
2:SA:145:ASN:HD21	5:SE:78:VAL:CB	2.29	0.43
14:SP:71:ILE:HD11	27:SH:84:LYS:CE	2.43	0.43
7:SI:133:LYS:CE	32:S1:1592:G:O3'	2.36	0.43
9:SK:43:VAL:H	9:SK:106:THR:HG21	1.82	0.43
9:SK:99:THR:CG2	9:SK:100:GLY:N	2.81	0.43
10:SL:83:PHE:CD2	10:SL:84:VAL:N	2.86	0.43
11:SM:18:THR:H	38:LE:109:GLN:CD	2.21	0.43
11:SM:71:VAL:HG13	11:SM:72:HIS:N	2.33	0.43
13:SQ:39:SER:O	13:SQ:40:ILE:HD12	2.18	0.43
7:SI:58:ILE:HG22	15:SS:11:ASP:O	2.15	0.43
24:SX:42:CYS:O	24:SX:43:PHE:HB2	2.17	0.43
33:L1:1111:U:H2'	33:L1:1112:C:C6	2.53	0.43
14:SP:92:LEU:N	33:L1:2081:C:H5''	2.34	0.43
32:S1:1735:C:C4'	33:L1:2103:U:H5''	2.35	0.43
33:L1:2157:C:C1'	37:LB:10:LYS:HB2	2.48	0.43
33:L1:2197:C:OP1	37:LB:226:ARG:HG3	2.17	0.43
33:L1:2350:C:OP1	48:LV:68:GLY:HA3	2.17	0.43
33:L1:2724:A:C8	33:L1:2724:A:O4'	2.71	0.43
33:L1:2770:U:H3	33:L1:2793:G:H1	1.66	0.43
33:L1:283:A:H2'	33:L1:283:A:C8	2.51	0.43
33:L1:2925:U:H2'	33:L1:2926:U:C6	2.52	0.43
33:L1:3036:C:C2	33:L1:3037:G:C8	3.06	0.43
33:L1:384:A:C3'	33:L1:385:A:C5'	2.96	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:491:G:C5	33:L1:492:G:N7	2.86	0.43
32:S1:633:U:N1	33:L1:849:A:OP1	2.50	0.43
34:L3:3:A:C5	34:L3:4:U:C5	3.05	0.43
36:LA:143:LEU:HD11	36:LA:147:VAL:HG11	2.00	0.43
36:LA:83:TYR:CE2	36:LA:86:VAL:HA	2.53	0.43
37:LB:158:VAL:HG22	37:LB:159:PRO:N	2.32	0.43
33:L1:2607:U:C4'	37:LB:226:ARG:HH22	2.28	0.43
33:L1:209:G:OP1	81:LD:227:ARG:NH1	2.51	0.43
67:LS:45:TYR:CZ	67:LS:123:ILE:HG13	2.53	0.43
46:LT:136:ARG:O	46:LT:137:VAL:HG13	2.18	0.43
48:LV:114:TYR:CE1	48:LV:155:GLU:CA	3.01	0.43
32:S1:1060:U:C4	32:S1:1061:G:N3	2.86	0.43
32:S1:1743:C:C4	32:S1:1744:C:C5	3.06	0.43
31:S2:13:U:O3'	33:L1:2263:U:C5	2.67	0.43
4:SD:134:LYS:C	32:S1:246:G:OP1	2.56	0.43
4:SD:199:GLU:HB3	4:SD:201:HIS:HE1	1.82	0.43
12:SO:114:ARG:HH11	32:S1:945:A:N6	2.16	0.43
14:SP:54:TYR:H	46:LT:144:LYS:NZ	2.15	0.43
23:SU:22:LEU:HD23	23:SU:23:LEU:HD21	2.01	0.43
23:SU:25:ARG:NE	23:SU:27:GLN:HG3	2.32	0.43
33:L1:1506:A:H61	33:L1:1519:C:C1'	2.31	0.43
33:L1:1663:G:H2'	33:L1:1664:G:C8	2.53	0.43
33:L1:1672:G:O3'	68:LW:82:LYS:HB3	2.17	0.43
33:L1:177:C:O4'	33:L1:177:C:C6	2.71	0.43
33:L1:2079:A:OP1	46:LT:150:ALA:HB2	2.19	0.43
33:L1:2163:G:H2'	33:L1:2164:G:C8	2.52	0.43
33:L1:2176:A:P	37:LB:6:ARG:NH2	2.92	0.43
33:L1:2502:U:H4'	33:L1:2503:A:OP1	2.18	0.43
33:L1:2567:C:H2'	33:L1:2568:G:H8	1.83	0.43
33:L1:2584:U:O2	33:L1:2585:C:C5	2.72	0.43
33:L1:3320:G:N1	33:L1:3322:A:C2	2.86	0.43
33:L1:638:G:N3	33:L1:638:G:C2'	2.81	0.43
35:L2:66:C:H4'	35:L2:67:C:O4'	2.17	0.43
34:L3:8:A:N6	34:L3:111:U:H3	2.15	0.43
37:LB:137:ILE:HG22	37:LB:147:ARG:O	2.17	0.43
80:LC:309:ILE:HG23	80:LC:363:ILE:HG21	1.99	0.43
64:LG:184:ILE:CG1	64:LG:185:ASP:HA	2.47	0.43
64:LG:91:LYS:HB3	64:LG:152:LYS:HB3	2.00	0.43
84:LI:109:ASP:HB2	84:LI:116:ARG:CZ	2.48	0.43
66:LN:101:SER:O	66:LN:102:LEU:HG	2.18	0.43
32:S1:633:U:O2	32:S1:634:A:N9	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:S2:34:G:C5'	32:S1:1195:U:H6	2.21	0.43
25:SC:169:GLY:N	25:SC:170:PRO:HD3	2.32	0.43
4:SD:156:ALA:O	4:SD:157:ASN:HB2	2.17	0.43
4:SD:159:THR:CG2	4:SD:227:THR:CG2	2.94	0.43
6:SF:131:ARG:HH22	6:SF:200:ARG:C	2.21	0.43
33:L1:16:A:C4'	49:LX:58:ARG:HB3	2.48	0.43
33:L1:1822:C:C6	33:L1:1822:C:O4'	2.72	0.43
33:L1:2221:U:O5'	33:L1:2221:U:H6	2.01	0.43
31:S2:24:A:C2'	33:L1:2261:U:OP1	2.61	0.43
33:L1:2702:G:O2'	33:L1:2703:G:H5'	2.17	0.43
33:L1:309:C:O2'	33:L1:310:C:H5'	2.17	0.43
33:L1:3292:U:C4	33:L1:3293:U:C5	3.07	0.43
33:L1:513:C:H3'	33:L1:514:G:H5'	2.01	0.43
33:L1:501:U:H3	33:L1:618:G:H1	1.65	0.43
33:L1:656:G:O4'	33:L1:656:G:N9	2.41	0.43
34:L3:104:C:H2'	34:L3:105:C:H6	1.84	0.43
34:L3:73:U:O5'	34:L3:73:U:C6	2.67	0.43
36:LA:206:LYS:HD2	36:LA:207:SER:O	2.19	0.43
81:LD:310:LEU:O	81:LD:314:VAL:HG23	2.18	0.43
81:LD:371:ALA:O	81:LD:375:LYS:HG3	2.19	0.43
12:SO:58:HIS:HB3	39:LF:23:LYS:HZ2	186.06	0.43
66:LN:9:ILE:HD13	66:LN:64:ARG:HA	1.96	0.43
49:LX:34:LYS:HA	49:LX:37:ARG:CG	2.49	0.43
20:SZ:10:ARG:HB3	32:S1:1255:U:OP2	2.18	0.43
32:S1:150:U:H3	32:S1:160:A:H61	1.66	0.43
16:SR:67:LYS:HD2	32:S1:1557:C:C4	2.54	0.43
2:SA:81:GLN:HB3	2:SA:103:ILE:HG22	1.99	0.43
2:SA:31:THR:HG21	2:SA:153:ASP:CG	2.38	0.43
2:SA:198:LYS:O	2:SA:199:TRP:HB2	2.18	0.43
3:SB:198:LEU:H	3:SB:198:LEU:HD22	1.84	0.43
27:SH:64:GLU:C	27:SH:65:LEU:CD1	2.86	0.43
5:SE:31:ARG:CD	27:SH:67:GLY:HA3	2.40	0.43
10:SL:47:LYS:HB3	10:SL:59:LYS:NZ	2.33	0.43
13:SQ:104:GLU:HG3	20:SZ:31:ARG:CD	2.48	0.43
13:SQ:29:HIS:CG	13:SQ:32:LYS:HD2	2.53	0.43
17:SV:71:ARG:CD	17:SV:78:ARG:HH12	2.20	0.43
24:SX:57:VAL:O	24:SX:59:PRO:HD3	2.19	0.43
33:L1:125:G:O2'	42:LP:139:HIS:HE1	2.01	0.43
33:L1:1582:C:N4	33:L1:1583:G:C6	2.87	0.43
33:L1:1804:G:O4'	33:L1:1804:G:C8	2.72	0.43
33:L1:1866:C:O2	33:L1:1866:C:H2'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1736:C:H2'	33:L1:2101:A:O3'	2.18	0.43
32:S1:1664:U:C5'	33:L1:2119:A:O3'	2.63	0.43
33:L1:2665:A:H2'	33:L1:2666:G:C8	2.53	0.43
33:L1:2104:G:H4'	33:L1:3356:C:H5'	2.00	0.43
33:L1:537:U:H4'	67:LS:134:LYS:CE	2.48	0.43
36:LA:60:PRO:CA	36:LA:150:THR:CB	2.95	0.43
36:LA:52:VAL:O	36:LA:53:LYS:HB2	2.18	0.43
81:LD:309:PRO:CB	81:LD:313:GLU:OE1	2.65	0.43
38:LE:27:GLU:HA	38:LE:31:ARG:O	2.18	0.43
12:SO:97:ALA:CA	39:LF:19:GLN:OE1	180.64	0.43
64:LG:54:ASP:OD1	64:LG:57:LYS:NZ	2.47	0.43
84:LI:110:ARG:NE	84:LI:116:ARG:CD	2.71	0.43
41:LM:69:LYS:HG2	41:LM:70:PRO:HD3	2.01	0.43
66:LN:4:LYS:HE3	67:LS:164:LYS:HD2	2.00	0.43
66:LN:79:ASP:CG	66:LN:80:VAL:H	2.20	0.43
33:L1:1218:U:P	67:LS:93:TYR:O	2.75	0.43
46:LT:176:ARG:HA	46:LT:179:GLU:HB3	1.99	0.43
51:LY:30:MET:HB2	51:LY:77:TRP:CE2	2.53	0.43
12:SO:109:LYS:HD2	32:S1:1024:A:OP1	2.19	0.43
32:S1:1332:G:O2'	32:S1:1332:G:C1'	2.53	0.43
3:SB:25:LEU:HG	3:SB:39:VAL:HG11	2.01	0.43
25:SC:106:PHE:CZ	32:S1:670:C:C2	3.07	0.43
4:SD:114:VAL:HG12	4:SD:115:LYS:O	2.18	0.43
26:SG:9:UNK:N	46:LT:188:SER:HB2	2.28	0.43
27:SH:27:ILE:HG21	27:SH:27:ILE:HD13	1.89	0.43
11:SM:31:THR:HA	11:SM:36:VAL:HG22	1.99	0.43
13:SQ:98:VAL:HG13	13:SQ:99:ASP:OD1	2.18	0.43
23:SU:19:THR:HA	23:SU:26:LYS:HA	2.01	0.43
23:SU:95:TYR:H	23:SU:98:ILE:HD13	1.82	0.43
17:SV:101:ILE:CG2	17:SV:102:TYR:N	2.47	0.43
17:SV:64:SER:O	17:SV:68:GLU:CD	2.57	0.43
17:SV:76:LEU:HD11	32:S1:1541:C:OP2	2.18	0.43
33:L1:1254:A:N3	33:L1:1254:A:H2'	2.33	0.43
33:L1:1595:G:C6	33:L1:1596:G:C5	3.07	0.43
33:L1:187:G:N2	33:L1:189:C:C2	2.86	0.43
33:L1:2004:U:H3'	33:L1:2005:C:H5''	2.00	0.43
33:L1:2398:A:C2	33:L1:2399:G:H1'	2.52	0.43
33:L1:285:G:OP1	42:LP:180:THR:HG21	2.19	0.43
31:S2:72:G:C6	33:L1:2972:C:C3'	2.45	0.43
33:L1:640:C:H2'	33:L1:641:C:H6	1.84	0.43
33:L1:996:A:N3	33:L1:2640:A:OP2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:L2:98:C:C5'	35:L2:98:C:C6	3.01	0.43
36:LA:109:PHE:CE1	36:LA:137:VAL:HA	2.54	0.43
81:LD:154:LEU:HD23	81:LD:154:LEU:HA	1.95	0.43
64:LG:84:LEU:HD13	64:LG:176:PHE:CD2	2.54	0.43
67:LS:12:VAL:CG2	67:LS:61:LEU:HD13	2.48	0.43
14:SP:95:VAL:CG2	46:LT:152:GLU:CG	2.94	0.43
32:S1:30:G:H2'	32:S1:31:C:C6	2.53	0.43
32:S1:316:A:C2	32:S1:319:A:C8	3.07	0.43
5:SE:210:ARG:HB2	32:S1:3:C:C2	2.53	0.43
2:SA:43:TYR:CB	2:SA:44:LYS:HD3	2.46	0.43
2:SA:64:LEU:HD23	2:SA:64:LEU:C	2.38	0.43
25:SC:44:LEU:O	25:SC:45:TRP:CD1	2.72	0.43
25:SC:5:PRO:HA	25:SC:8:TYR:HD2	1.84	0.43
27:SH:7:LEU:C	27:SH:7:LEU:HD23	2.39	0.43
12:SO:97:ALA:CB	39:LF:19:GLN:CD	181.01	0.43
16:SR:125:LEU:HB2	16:SR:128:PHE:H	1.84	0.43
23:SU:19:THR:CG2	23:SU:19:THR:O	2.65	0.43
33:L1:1193:A:C8	33:L1:1193:A:H3'	2.54	0.43
33:L1:1631:G:C6	33:L1:1632:G:C6	3.07	0.43
33:L1:1633:C:C5	33:L1:1634:G:N7	2.87	0.43
33:L1:20:G:C6	33:L1:21:G:C6	3.07	0.43
33:L1:2312:A:H2'	33:L1:2313:U:O4'	2.19	0.43
33:L1:232:C:C6	33:L1:232:C:O4'	2.71	0.43
33:L1:2465:G:H4'	36:LA:206:LYS:HZ3	1.84	0.43
33:L1:2875:U:C6	33:L1:2875:U:C5'	3.01	0.43
33:L1:3106:U:H5	33:L1:3129:G:C2	2.37	0.43
33:L1:3235:A:H1'	80:LC:93:VAL:HG21	2.01	0.43
33:L1:52:G:H4'	33:L1:815:G:H4'	2.00	0.43
33:L1:640:C:H6	33:L1:640:C:O5'	1.99	0.43
34:L3:34:C:C2	34:L3:35:C:C5	3.06	0.43
34:L3:43:A:H2'	34:L3:44:C:H5'	2.01	0.43
34:L3:54:A:H5''	38:LE:6:LYS:HZ1	1.81	0.43
34:L3:68:G:C6	34:L3:69:A:C5	3.06	0.43
36:LA:50:GLY:CA	36:LA:156:PHE:CE1	3.01	0.43
36:LA:190:VAL:HG12	36:LA:190:VAL:O	2.19	0.43
37:LB:187:HIS:O	37:LB:191:VAL:HG23	2.19	0.43
37:LB:196:TRP:CZ3	37:LB:197:PRO:HG3	2.54	0.43
11:SM:12:ILE:HG23	38:LE:118:TYR:O	2.19	0.43
33:L1:507:C:H4'	64:LG:62:SER:HB2	2.00	0.43
82:LK:152:TRP:HA	82:LK:154:TYR:N	2.33	0.43
45:LQ:19:ARG:HG3	45:LQ:20:PHE:CD1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2751:A:H2	45:LQ:40:LEU:HD12	1.83	0.43
20:SZ:10:ARG:CG	32:S1:1255:U:P	2.88	0.43
15:SS:104:ARG:HD3	32:S1:1509:C:H5	1.84	0.43
32:S1:1552:U:H3	32:S1:1575:U:H3	1.67	0.43
23:SU:78:PHE:HE2	32:S1:161:G:HO2'	1.61	0.43
32:S1:1642:C:N1	32:S1:1642:C:O4'	2.47	0.43
32:S1:1685:U:HO2'	33:L1:3334:A:P	2.41	0.43
32:S1:1698:A:N1	32:S1:1721:A:C6	2.84	0.43
32:S1:96:G:H1	32:S1:406:C:H41	1.67	0.43
32:S1:479:A:N6	32:S1:598:A:H5''	2.33	0.43
32:S1:960:A:C8	32:S1:961:U:C5	3.06	0.43
12:SO:32:ASP:OD2	27:SH:53:VAL:HG11	2.19	0.43
27:SH:12:LYS:HB3	27:SH:75:ILE:HG22	2.01	0.43
11:SM:91:LYS:HB3	11:SM:92:ASP:H	1.60	0.43
12:SO:64:LYS:HE2	12:SO:72:LEU:HB3	2.00	0.43
13:SQ:139:ASP:HB3	13:SQ:140:ARG:H	1.31	0.43
23:SU:19:THR:H	23:SU:94:LYS:H	1.66	0.43
33:L1:1148:G:H1'	33:L1:1163:A:C2	2.54	0.43
33:L1:1443:G:OP1	81:LD:90:ARG:NE	2.46	0.43
33:L1:1548:U:C5	42:LP:105:ARG:NH2	2.86	0.43
33:L1:2561:A:C5	33:L1:2562:A:N6	2.87	0.43
33:L1:2647:C:O2'	84:LI:115:MET:HE3	2.17	0.43
31:S2:74:C:C6	33:L1:2810:A:H2	2.32	0.43
33:L1:2832:G:H1	33:L1:2860:U:H3	1.67	0.43
31:S2:70:G:OP2	33:L1:2965:C:H6	2.02	0.43
33:L1:3348:G:OP2	50:LZ:73:ARG:HD3	2.19	0.43
33:L1:383:A:N6	33:L1:384:A:C2	2.87	0.43
33:L1:722:C:H5'	43:LO:94:PRO:HD3	2.01	0.43
33:L1:977:G:H5''	44:LR:54:MET:HG2	2.00	0.43
34:L3:34:C:H2'	34:L3:35:C:C6	2.53	0.43
34:L3:36:C:N3	34:L3:41:G:N2	2.66	0.43
36:LA:149:GLU:O	36:LA:150:THR:HB	2.19	0.43
36:LA:51:SER:O	36:LA:156:PHE:HD1	2.02	0.43
36:LA:94:LYS:O	36:LA:97:LYS:HB3	2.19	0.43
11:SM:12:ILE:C	38:LE:117:LYS:O	2.57	0.43
82:LK:58:LYS:HZ2	82:LK:58:LYS:HB3	5.83	0.43
66:LN:39:ASP:HB3	66:LN:71:LEU:HD11	2.00	0.43
66:LN:64:ARG:CG	66:LN:65:VAL:H	2.32	0.43
40:LH:157:GLU:OE1	42:LP:22:VAL:HG11	2.18	0.43
14:SP:124:VAL:N	46:LT:165:LYS:HG3	2.24	0.43
47:LU:11:THR:HG21	47:LU:55:LYS:HZ2	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:LW:22:SER:HA	68:LW:72:VAL:O	2.19	0.43
10:SL:67:LYS:HZ2	32:S1:1753:U:C5'	2.31	0.43
25:SC:148:PHE:HA	32:S1:482:A:OP2	2.19	0.43
25:SC:10:LYS:CE	32:S1:505:U:H5'	2.40	0.43
32:S1:508:U:H2'	32:S1:509:A:H8	1.84	0.43
32:S1:487:A:H61	32:S1:508:U:H3	1.65	0.43
32:S1:875:C:H42	32:S1:962:G:H1	1.66	0.43
2:SA:101:HIS:CG	2:SA:102:ALA:N	2.87	0.43
2:SA:229:TYR:CA	2:SA:232:VAL:HG23	2.49	0.43
5:SE:153:TRP:CG	5:SE:243:LYS:HD2	2.53	0.43
6:SF:149:LEU:HA	6:SF:152:THR:HG22	2.01	0.43
26:SG:64:UNK:CA	26:SG:65:UNK:N	2.68	0.43
27:SH:83:VAL:HG22	27:SH:84:LYS:N	2.34	0.43
14:SP:64:THR:O	14:SP:84:THR:HA	2.19	0.43
13:SQ:17:ILE:O	13:SQ:21:TYR:CD2	2.71	0.43
16:SR:86:ARG:CA	16:SR:87:THR:N	2.75	0.43
33:L1:1230:G:H2'	33:L1:1231:C:C6	2.53	0.43
33:L1:1407:G:C2	33:L1:1409:G:H3'	2.54	0.43
33:L1:1710:G:H2'	33:L1:1711:G:C8	2.54	0.43
33:L1:2439:A:H61	33:L1:2510:U:H3	1.65	0.43
33:L1:2441:G:N3	33:L1:2441:G:H2'	2.34	0.43
33:L1:2597:C:O4'	33:L1:2597:C:C6	2.72	0.43
33:L1:319:C:C4	33:L1:320:U:C4	3.07	0.43
33:L1:3210:G:HO2'	33:L1:3212:C:H5	1.65	0.43
33:L1:537:U:H4'	67:LS:134:LYS:HE3	2.01	0.43
33:L1:721:A:N3	33:L1:721:A:H5''	2.33	0.43
33:L1:745:G:H2'	33:L1:746:C:C6	2.53	0.43
36:LA:102:LEU:C	36:LA:102:LEU:HD12	2.39	0.43
36:LA:171:LEU:HD23	36:LA:171:LEU:HA	1.77	0.43
37:LB:112:VAL:HG13	37:LB:133:TYR:CB	2.43	0.43
37:LB:158:VAL:CG2	37:LB:162:CYS:SG	3.07	0.43
81:LD:333:LEU:O	81:LD:337:PHE:CE2	2.63	0.43
32:S1:887:U:C1'	41:LM:85:ARG:NH2	101.24	0.43
64:LG:175:ASP:HB2	66:LN:109:LYS:HA	2.00	0.43
66:LN:96:GLN:HG3	66:LN:97:LYS:N	2.33	0.43
51:LY:81:VAL:HB	51:LY:84:ILE:CG2	2.48	0.43
32:S1:302:C:H3'	32:S1:303:A:H8	1.83	0.43
32:S1:690:G:H3'	32:S1:690:G:H8	1.79	0.43
32:S1:889:C:H2'	32:S1:890:G:C8	2.53	0.43
2:SA:79:ILE:CD1	2:SA:101:HIS:CD2	3.01	0.43
4:SD:153:ILE:HD13	4:SD:154:ILE:HG12	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:64:LEU:HD11	5:SE:44:TRP:HD1	1.58	0.43
27:SH:33:VAL:CG1	27:SH:34:ILE:N	2.82	0.43
7:SI:138:ARG:HD2	8:SJ:85:THR:HB	2.00	0.43
9:SK:107:PRO:O	9:SK:109:PRO:HD3	2.18	0.43
14:SP:108:ILE:N	14:SP:109:PRO:CD	2.82	0.43
20:SZ:25:ASP:OD1	20:SZ:25:ASP:N	2.52	0.43
33:L1:1392:U:H3	33:L1:1422:G:H1	1.65	0.43
33:L1:1526:A:H2	49:LX:133:TYR:CE1	2.34	0.43
33:L1:2396:A:O4'	33:L1:2396:A:N9	2.42	0.43
33:L1:263:A:OP1	33:L1:264:C:C6	2.72	0.43
33:L1:282:A:H61	33:L1:2787:A:H1'	1.83	0.43
33:L1:3035:C:H2'	33:L1:3036:C:C6	2.54	0.43
33:L1:707:G:O4'	33:L1:707:G:C8	2.72	0.43
33:L1:713:G:H2'	33:L1:714:G:C8	2.54	0.43
35:L2:155:G:N9	35:L2:155:G:O4'	2.40	0.43
35:L2:45:A:H61	35:L2:107:G:H2'	1.83	0.43
34:L3:19:A:N1	34:L3:59:U:C2	2.87	0.43
36:LA:83:TYR:HE2	36:LA:85:ASP:C	2.22	0.43
37:LB:136:VAL:HG22	37:LB:148:ILE:HG12	2.01	0.43
81:LD:375:LYS:O	81:LD:379:LYS:CG	2.62	0.43
64:LG:103:LEU:HA	64:LG:120:VAL:O	2.19	0.43
43:LO:3:THR:O	43:LO:3:THR:HG22	2.19	0.43
68:LW:21:VAL:HB	68:LW:85:LEU:HD11	2.01	0.43
32:S1:633:U:C2	32:S1:634:A:C8	3.06	0.43
32:S1:633:U:H4'	32:S1:634:A:OP1	2.19	0.43
2:SA:112:PHE:CZ	2:SA:126:LEU:CD1	2.96	0.43
2:SA:135:HIS:NE2	2:SA:138:ILE:HD11	2.34	0.43
25:SC:18:ARG:O	25:SC:19:ARG:HG3	2.19	0.43
25:SC:94:LYS:NZ	32:S1:513:G:H5''	2.34	0.43
5:SE:178:MET:HB2	5:SE:247:SER:HB2	1.99	0.43
2:SA:159:ARG:CA	5:SE:37:PRO:CG	2.92	0.43
9:SK:35:SER:HB2	9:SK:100:GLY:CA	2.48	0.43
23:SU:20:ASN:HA	23:SU:95:TYR:HB3	2.00	0.43
24:SX:40:GLN:CG	24:SX:41:GLY:N	2.82	0.43
24:SX:64:VAL:HG12	24:SX:65:LEU:H	1.84	0.43
33:L1:1730:U:O5'	33:L1:1730:U:H6	2.02	0.42
33:L1:1904:A:H3'	33:L1:1905:A:C8	2.54	0.42
33:L1:2166:U:C5'	37:LB:193:ARG:CD	2.97	0.42
33:L1:2288:C:H6	33:L1:2288:C:O5'	2.02	0.42
33:L1:2643:A:H2'	33:L1:2644:U:H5'	2.01	0.42
33:L1:2668:U:H4'	33:L1:2669:C:H5'	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2706:A:H5''	33:L1:2707:A:H5'	2.00	0.42
33:L1:3059:C:H2'	33:L1:3060:G:C8	2.53	0.42
33:L1:413:G:C6	33:L1:414:G:C6	3.07	0.42
33:L1:596:C:O4'	33:L1:596:C:C6	2.72	0.42
33:L1:616:A:H4'	64:LG:138:ASN:HA	2.01	0.42
35:L2:102:U:H5''	35:L2:103:C:OP2	2.19	0.42
35:L2:108:A:C8	35:L2:109:A:C8	3.07	0.42
34:L3:46:C:C4	34:L3:47:C:C5	3.07	0.42
36:LA:89:LEU:CD2	36:LA:111:ALA:HB1	2.47	0.42
80:LC:62:LYS:HB2	80:LC:68:HIS:CE1	2.54	0.42
81:LD:369:GLU:HA	81:LD:372:ALA:HB3	1.99	0.42
40:LH:179:LYS:HG2	40:LH:191:ALA:HB1	2.01	0.42
41:LM:121:ILE:HD12	41:LM:136:ALA:HB2	2.01	0.42
32:S1:887:U:C5'	41:LM:85:ARG:HA	105.25	0.42
32:S1:886:A:C5	41:LM:85:ARG:NH2	97.14	0.42
41:LM:16:MET:HB2	41:LM:88:TRP:CE3	2.54	0.42
33:L1:786:U:H5'	44:LR:70:PHE:CZ	2.54	0.42
34:L3:86:G:C4'	67:LS:119:ARG:HG2	2.45	0.42
51:LY:51:LYS:HD3	51:LY:70:VAL:O	2.17	0.42
32:S1:188:U:N3	32:S1:193:G:C6	2.87	0.42
32:S1:207:A:N1	32:S1:258:U:O2	2.52	0.42
3:SB:68:GLU:OE2	13:SQ:23:ARG:NH1	2.52	0.42
4:SD:87:MET:CE	4:SD:123:LEU:H	2.26	0.42
4:SD:180:VAL:CG1	4:SD:181:VAL:N	2.82	0.42
7:SI:142:ALA:HB3	7:SI:143:ARG:CZ	2.49	0.42
15:SS:9:VAL:HG11	15:SS:135:ASP:HA	1.97	0.42
23:SU:19:THR:O	23:SU:19:THR:HG22	2.19	0.42
23:SU:10:VAL:CG2	23:SU:33:LEU:O	2.44	0.42
33:L1:1346:C:H5''	44:LR:13:ARG:HA	2.01	0.42
33:L1:1546:G:H2'	33:L1:1547:G:C8	2.54	0.42
33:L1:1814:C:H2'	33:L1:1815:G:C8	2.54	0.42
33:L1:1867:U:O5'	46:LT:56:LYS:NZ	2.24	0.42
33:L1:2096:U:H4'	46:LT:89:LEU:HD22	2.00	0.42
33:L1:2256:G:N2	33:L1:2257:A:H62	2.15	0.42
33:L1:2361:C:C2'	33:L1:2361:C:C6	3.00	0.42
33:L1:2771:U:H2'	33:L1:2772:A:C8	2.54	0.42
33:L1:2783:U:H2'	33:L1:2784:U:C6	2.54	0.42
33:L1:66:A:C4	33:L1:299:G:H1'	2.54	0.42
33:L1:975:G:O2'	33:L1:1376:A:H4'	2.19	0.42
33:L1:989:U:C5	33:L1:990:U:C4	3.07	0.42
34:L3:89:G:H2'	34:L3:90:A:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:LD:395:ASP:HA	81:LD:398:SER:OG	2.19	0.42
64:LG:132:VAL:HG11	64:LG:208:LEU:HD11	2.01	0.42
84:LI:110:ARG:HB3	84:LI:114:GLY:O	2.19	0.42
33:L1:56:A:H1'	42:LP:162:ARG:NE	2.34	0.42
45:LQ:131:TYR:O	45:LQ:183:PHE:CE2	2.72	0.42
67:LS:61:LEU:HD22	67:LS:62:ALA:HB3	2.01	0.42
28:SN:38:CYS:C	32:S1:1440:U:OP1	2.58	0.42
32:S1:1676:G:O5'	33:L1:1933:U:P	2.70	0.42
32:S1:215:A:OP2	32:S1:834:A:H5''	2.19	0.42
12:SO:114:ARG:NH1	32:S1:945:A:H62	2.16	0.42
2:SA:133:THR:CG2	2:SA:134:ASP:N	2.82	0.42
2:SA:80:VAL:HG12	2:SA:81:GLN:N	2.33	0.42
27:SH:2:VAL:HA	32:S1:639:G:OP1	2.20	0.42
9:SK:81:ALA:CB	9:SK:115:LEU:CD2	2.95	0.42
12:SO:69:SER:C	24:SX:49:PHE:HZ	2.21	0.42
14:SP:44:LYS:HD3	14:SP:101:TYR:CD2	2.54	0.42
13:SQ:38:VAL:CG1	13:SQ:39:SER:H	2.26	0.42
20:SZ:10:ARG:NH1	32:S1:1254:U:O5'	2.53	0.42
33:L1:1241:G:O4'	33:L1:1241:G:N9	2.45	0.42
33:L1:1246:G:O2'	33:L1:1246:G:C1'	2.60	0.42
33:L1:1299:G:OP1	67:LS:86:ARG:HB2	2.19	0.42
33:L1:1529:C:O2'	33:L1:1591:A:H2'	2.18	0.42
33:L1:1689:G:H2'	33:L1:1690:C:C6	2.54	0.42
33:L1:1691:U:N1	33:L1:1691:U:H2'	2.29	0.42
33:L1:3025:A:C2	33:L1:3033:A:C4	3.07	0.42
33:L1:311:G:OP2	43:LO:134:LYS:NZ	2.51	0.42
33:L1:372:A:N3	33:L1:374:G:H5''	2.34	0.42
33:L1:376:A:C8	33:L1:377:C:C5	3.08	0.42
33:L1:640:C:O2'	33:L1:641:C:H5''	2.19	0.42
33:L1:841:G:C6	33:L1:859:G:N2	2.87	0.42
33:L1:972:C:H5'	47:LU:159:ASP:HA	2.01	0.42
35:L2:42:U:O2	35:L2:42:U:H2'	2.19	0.42
34:L3:107:C:N4	34:L3:108:G:C6	2.87	0.42
34:L3:19:A:N3	34:L3:19:A:H2'	2.33	0.42
34:L3:46:C:O3'	45:LQ:96:TYR:CD1	2.73	0.42
36:LA:53:LYS:CG	36:LA:54:LEU:N	2.82	0.42
37:LB:142:ASP:CG	37:LB:145:THR:H	2.23	0.42
80:LC:118:PHE:CD2	80:LC:131:THR:HB	2.55	0.42
11:SM:10:GLN:C	38:LE:118:TYR:CD2	2.57	0.42
64:LG:81:LEU:HD13	64:LG:127:ALA:HA	2.01	0.42
41:LM:65:VAL:HB	41:LM:72:LEU:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2289:U:C6	41:LM:74:LYS:NZ	2.76	0.42
43:LO:111:MET:HG3	43:LO:112:LEU:N	2.34	0.42
26:SG:8:UNK:C	46:LT:189:CYS:HG	2.32	0.42
32:S1:1268:G:N7	32:S1:1269:G:C8	2.87	0.42
32:S1:1315:U:O2	32:S1:1319:U:C2	2.72	0.42
30:S3:22:A:C4	32:S1:1642:C:N4	2.88	0.42
32:S1:551:U:H3	32:S1:595:A:H61	1.67	0.42
32:S1:860:A:O2'	32:S1:861:A:H5'	2.19	0.42
32:S1:977:G:N7	33:L1:849:A:N7	2.26	0.42
31:S2:12:U:O2'	33:L1:2262:C:C4	2.70	0.42
31:S2:72:G:H2'	33:L1:2973:A:OP1	2.20	0.42
31:S2:74:C:O2'	33:L1:2404:C:H5'	2.19	0.42
4:SD:238:LEU:C	4:SD:238:LEU:HD23	2.40	0.42
5:SE:194:LYS:HG2	5:SE:244:PHE:HB3	2.00	0.42
27:SH:105:THR:HA	27:SH:110:ILE:HA	2.01	0.42
27:SH:52:PHE:HD2	27:SH:53:VAL:HG23	1.75	0.42
7:SI:135:PHE:CE2	7:SI:142:ALA:HA	2.54	0.42
9:SK:99:THR:O	9:SK:124:LYS:HG3	2.19	0.42
10:SL:78:LYS:O	10:SL:79:LYS:HB3	2.19	0.42
33:L1:1664:G:O4'	33:L1:1664:G:N9	2.43	0.42
33:L1:1679:U:O5'	33:L1:1679:U:H6	2.01	0.42
32:S1:1748:U:C6	33:L1:1916:U:C4'	3.03	0.42
33:L1:2178:G:C6	33:L1:2179:U:C4	3.07	0.42
33:L1:2300:G:C3'	33:L1:2300:G:C8	3.02	0.42
33:L1:2640:A:C2	33:L1:2642:G:H3'	2.55	0.42
33:L1:2692:G:C8	33:L1:2705:A:C6	3.07	0.42
33:L1:2709:G:C6	33:L1:2710:C:C4	3.07	0.42
33:L1:2899:A:N7	33:L1:2901:C:N1	2.67	0.42
33:L1:556:U:H2'	33:L1:557:C:C6	2.54	0.42
33:L1:692:U:O4'	33:L1:692:U:C6	2.73	0.42
33:L1:832:C:H4'	33:L1:868:A:H2	1.84	0.42
33:L1:915:G:H2'	33:L1:917:A:N7	2.34	0.42
37:LB:145:THR:CG2	37:LB:146:SER:N	2.83	0.42
33:L1:581:G:C6	64:LG:21:HIS:CD2	3.08	0.42
66:LN:109:LYS:O	66:LN:113:ALA:HB2	2.20	0.42
45:LQ:258:LYS:HG3	45:LQ:259:LYS:N	2.34	0.42
44:LR:41:LYS:HB3	81:LD:325:LYS:HZ1	1.78	0.42
67:LS:114:SER:CB	67:LS:115:ARG:HH12	2.33	0.42
14:SP:57:LYS:CA	46:LT:146:LYS:H	2.32	0.42
2:SA:229:TYR:O	2:SA:232:VAL:CB	2.66	0.42
2:SA:81:GLN:HB2	2:SA:103:ILE:CG2	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:SC:32:LEU:C	25:SC:32:LEU:HD23	2.40	0.42
5:SE:154:GLY:H	5:SE:243:LYS:HD3	1.84	0.42
7:SI:133:LYS:HB2	32:S1:1593:U:OP1	2.19	0.42
10:SL:65:ILE:CG2	10:SL:66:ARG:N	2.82	0.42
15:SS:116:ILE:CG2	15:SS:124:ARG:HB2	2.49	0.42
17:SV:42:LEU:O	17:SV:47:THR:HG21	2.14	0.42
6:SF:136:ASP:HB2	19:SY:42:VAL:HG12	2.00	0.42
33:L1:1219:C:N3	33:L1:1294:A:N1	2.67	0.42
33:L1:1311:G:N2	33:L1:1316:C:OP1	2.52	0.42
33:L1:1587:G:N9	33:L1:1587:G:O4'	2.41	0.42
33:L1:2151:G:H4'	33:L1:2152:A:O5'	2.19	0.42
33:L1:2259:U:C6	33:L1:2259:U:O5'	2.72	0.42
33:L1:2274:A:P	33:L1:2300:G:N2	2.92	0.42
33:L1:2326:U:O2'	33:L1:2327:U:H5'	2.19	0.42
33:L1:2766:U:C3'	33:L1:2766:U:C6	3.03	0.42
33:L1:310:C:C4	33:L1:311:G:N7	2.87	0.42
34:L3:104:C:H2'	34:L3:105:C:C6	2.55	0.42
34:L3:43:A:H4'	38:LE:142:ARG:HG3	2.02	0.42
36:LA:70:ALA:CB	36:LA:107:HIS:NE2	2.82	0.42
36:LA:198:GLN:HG3	36:LA:201:ARG:HH12	1.85	0.42
36:LA:57:ILE:HA	36:LA:58:PRO:HD3	1.78	0.42
36:LA:85:ASP:O	36:LA:87:GLU:HG3	2.20	0.42
37:LB:229:ALA:HB1	37:LB:233:GLN:HG2	2.00	0.42
81:LD:381:TRP:HA	81:LD:384:THR:HG21	1.98	0.42
38:LE:21:LEU:HD23	38:LE:129:PHE:CG	2.54	0.42
66:LN:32:ASP:CG	66:LN:33:GLN:H	2.19	0.42
66:LN:4:LYS:HZ2	66:LN:55:LEU:HB2	1.84	0.42
33:L1:940:G:H4'	43:LO:6:LYS:HB3	2.01	0.42
42:LP:137:VAL:CG2	42:LP:152:CYS:HA	2.50	0.42
32:S1:1685:U:O2'	33:L1:3334:A:O5'	2.36	0.42
32:S1:1800:A:C6	32:S1:1801:A:N6	2.88	0.42
25:SC:106:PHE:CE2	32:S1:670:C:O2	2.72	0.42
32:S1:877:G:C8	32:S1:877:G:C5'	3.02	0.42
31:S2:12:U:H2'	31:S2:13:U:O4'	2.19	0.42
2:SA:24:ALA:O	2:SA:28:HIS:HB2	2.20	0.42
3:SB:64:ARG:NE	13:SQ:21:TYR:CD2	2.88	0.42
4:SD:153:ILE:N	4:SD:153:ILE:CG2	2.82	0.42
27:SH:32:LYS:CB	27:SH:110:ILE:HG21	2.33	0.42
27:SH:13:THR:CG2	27:SH:14:MET:N	2.83	0.42
27:SH:51:GLU:O	27:SH:52:PHE:CB	2.63	0.42
14:SP:92:LEU:HD23	46:LT:151:ARG:NH2	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:SQ:94:GLU:HA	13:SQ:116:GLY:H	1.85	0.42
13:SQ:88:LYS:O	13:SQ:89:SER:HB2	2.19	0.42
15:SS:43:ALA:HB2	15:SS:97:LYS:HE2	2.00	0.42
29:ST:49:PHE:HB3	29:ST:61:GLN:HG3	2.00	0.42
33:L1:1086:U:H2'	33:L1:1087:G:C8	2.54	0.42
33:L1:1225:A:H4'	33:L1:1226:G:OP2	2.20	0.42
33:L1:1682:C:H2'	33:L1:1683:U:C6	2.55	0.42
33:L1:1862:C:H2'	33:L1:1863:A:O4'	2.19	0.42
33:L1:2160:C:OP2	42:LP:76:PRO:CG	2.63	0.42
33:L1:250:C:C2	33:L1:251:G:C5	3.08	0.42
33:L1:2869:C:C6	33:L1:2869:C:H5'	2.52	0.42
33:L1:384:A:N9	33:L1:384:A:O4'	2.46	0.42
33:L1:728:G:H3'	33:L1:729:G:C8	2.49	0.42
33:L1:847:G:C6	33:L1:848:G:C5	3.07	0.42
33:L1:850:A:N1	33:L1:851:A:N3	2.68	0.42
33:L1:907:A:C5'	33:L1:1540:G:OP1	2.67	0.42
33:L1:969:U:H2'	33:L1:970:A:C8	2.55	0.42
33:L1:976:A:H4'	44:LR:16:ARG:NH1	2.35	0.42
39:LF:123:ARG:O	39:LF:163:LYS:HD3	2.19	0.42
67:LS:10:GLN:CB	67:LS:64:ASN:O	2.68	0.42
47:LU:44:VAL:HA	47:LU:95:HIS:HB3	2.02	0.42
48:LV:112:THR:HA	48:LV:113:LEU:HD23	2.01	0.42
32:S1:1687:G:H2'	32:S1:1688:G:H1'	2.00	0.42
32:S1:1728:G:C6	32:S1:1729:A:C6	3.07	0.42
32:S1:349:U:H5	46:LT:137:VAL:HG12	1.84	0.42
4:SD:201:HIS:NE2	32:S1:687:C:H4'	2.32	0.42
32:S1:976:A:C6	33:L1:849:A:N7	2.86	0.42
2:SA:254:GLN:O	2:SA:257:ALA:HB2	2.20	0.42
4:SD:153:ILE:CD1	4:SD:174:LYS:HD3	2.49	0.42
4:SD:162:ILE:HG22	4:SD:163:ASP:N	2.33	0.42
13:SQ:29:HIS:HB2	28:SN:22:ARG:CD	2.49	0.42
14:SP:42:GLY:HA3	14:SP:103:LYS:HG2	2.00	0.42
23:SU:68:THR:HG23	23:SU:68:THR:O	2.18	0.42
24:SX:74:ARG:C	24:SX:75:LEU:HG	2.39	0.42
33:L1:1319:U:OP2	82:LK:20:MET:HE1	2.19	0.42
33:L1:1604:U:H3'	33:L1:1606:C:C5	2.51	0.42
33:L1:1867:U:OP2	46:LT:58:HIS:O	2.38	0.42
33:L1:2783:U:H2'	33:L1:2784:U:H6	1.84	0.42
33:L1:2880:G:H2'	33:L1:2881:C:H6	1.84	0.42
33:L1:3106:U:C5	33:L1:3129:G:N2	2.88	0.42
33:L1:639:A:H5''	33:L1:640:C:C4'	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:642:C:H42	33:L1:655:G:H1	1.67	0.42
33:L1:697:A:O2'	81:LD:48:LEU:HD11	2.20	0.42
33:L1:72:A:C6	33:L1:73:A:C2	3.07	0.42
33:L1:779:U:H2'	33:L1:780:U:C5	2.55	0.42
33:L1:998:G:H21	33:L1:1057:A:H62	1.68	0.42
34:L3:1:G:C2'	34:L3:2:G:OP2	2.63	0.42
34:L3:61:C:C2'	34:L3:62:U:H5'	2.49	0.42
34:L3:71:A:C2	34:L3:105:C:C2	3.08	0.42
34:L3:83:A:N1	34:L3:93:U:C2	2.87	0.42
36:LA:71:GLN:CG	36:LA:79:MET:HE3	2.50	0.42
37:LB:137:ILE:HG21	37:LB:147:ARG:HG2	2.01	0.42
37:LB:134:ALA:HB1	37:LB:148:ILE:HG21	2.00	0.42
82:LK:148:LYS:HA	82:LK:154:TYR:CD1	2.55	0.42
66:LN:88:SER:HA	66:LN:92:LYS:HD2	2.02	0.42
42:LP:106:ALA:CB	42:LP:132:ILE:HD13	2.50	0.42
33:L1:62:A:H5''	42:LP:174:LEU:HD13	2.02	0.42
67:LS:10:GLN:HB2	67:LS:64:ASN:O	2.19	0.42
48:LV:20:ARG:HA	48:LV:146:HIS:CD2	2.55	0.42
51:LY:21:ALA:HA	51:LY:22:PRO:HD2	1.86	0.42
51:LY:30:MET:SD	51:LY:77:TRP:CZ2	3.13	0.42
5:SE:198:GLN:HG2	32:S1:1091:A:OP2	2.19	0.42
32:S1:485:A:H61	32:S1:510:A:N6	2.18	0.42
32:S1:563:C:C6	32:S1:563:C:O4'	2.73	0.42
32:S1:843:G:H5''	33:L1:2061:C:C5'	2.50	0.42
31:S2:72:G:C1'	31:S2:72:G:O2'	2.61	0.42
4:SD:129:VAL:HG13	4:SD:137:PRO:HB3	2.01	0.42
4:SD:192:VAL:CG1	4:SD:193:GLY:N	2.82	0.42
5:SE:149:ARG:HH21	5:SE:174:VAL:HG21	1.84	0.42
14:SP:102:GLU:HG2	14:SP:114:PRO:HB2	2.01	0.42
33:L1:1634:G:N2	33:L1:1708:C:O2	2.53	0.42
33:L1:1663:G:H2'	33:L1:1664:G:H8	1.85	0.42
33:L1:2274:A:O5'	33:L1:2300:G:N2	2.52	0.42
33:L1:262:A:O2'	33:L1:262:A:C1'	2.57	0.42
33:L1:3320:G:H3'	33:L1:3322:A:C8	2.55	0.42
33:L1:3328:A:O4'	33:L1:3328:A:N9	2.43	0.42
33:L1:384:A:C6	33:L1:385:A:N3	2.88	0.42
33:L1:837:C:H2'	33:L1:838:G:O4'	2.19	0.42
37:LB:221:HIS:CG	37:LB:222:ALA:H	2.37	0.42
81:LD:383:LYS:C	81:LD:386:ILE:CD1	2.85	0.42
12:SO:97:ALA:HB3	39:LF:19:GLN:HB2	180.82	0.42
33:L1:1320:G:OP1	82:LK:134:LEU:HG	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2381:G:OP1	82:LK:87:ARG:NH1	2.53	0.42
66:LN:11:ARG:CZ	67:LS:162:THR:HG22	2.50	0.42
33:L1:34:G:OP2	42:LP:86:HIS:CD2	2.73	0.42
34:L3:60:G:C1'	45:LQ:256:SER:HA	2.50	0.42
67:LS:81:LEU:HD21	67:LS:112:MET:SD	2.59	0.42
33:L1:3301:G:H1'	48:LV:70:THR:HG23	2.01	0.42
49:LX:34:LYS:CA	49:LX:37:ARG:HD2	2.49	0.42
40:LH:64:LYS:HD2	49:LX:42:PHE:CZ	2.54	0.42
51:LY:26:ARG:HD3	51:LY:74:ARG:HG3	2.01	0.42
33:L1:3051:U:H5''	50:LZ:19:LYS:HD2	2.02	0.42
32:S1:1085:U:C5	32:S1:1096:A:C4	3.08	0.42
32:S1:1284:C:H2'	32:S1:1285:G:C8	2.55	0.42
32:S1:1506:G:C3'	32:S1:1507:G:C8	3.02	0.42
32:S1:1566:U:H3'	32:S1:1566:U:C6	2.55	0.42
32:S1:1695:G:H1	32:S1:1724:U:H3	1.67	0.42
32:S1:205:U:H3	32:S1:260:A:H61	1.67	0.42
32:S1:439:C:C4	32:S1:440:A:C6	3.08	0.42
32:S1:918:G:N3	33:L1:2202:A:P	2.79	0.42
32:S1:992:G:H5''	37:LB:149:LYS:HZ3	1.59	0.42
31:S2:8:U:C6	31:S2:8:U:C2'	3.03	0.42
2:SA:159:ARG:O	5:SE:37:PRO:CG	2.59	0.42
2:SA:29:LEU:H	2:SA:29:LEU:HD23	1.85	0.42
2:SA:6:GLY:O	2:SA:7:ALA:CB	2.67	0.42
3:SB:131:ALA:CA	3:SB:190:LEU:HD12	2.49	0.42
9:SK:41:ILE:HG23	9:SK:115:LEU:CD1	2.50	0.42
33:L1:1147:U:O2'	33:L1:1148:G:OP2	2.34	0.42
33:L1:1282:A:H3'	33:L1:1283:C:C6	2.54	0.42
33:L1:1509:G:O2'	33:L1:1875:A:C2	2.72	0.42
33:L1:2398:A:N6	33:L1:2399:G:C5	2.88	0.42
33:L1:2441:G:C4	33:L1:2509:A:C2	3.08	0.42
33:L1:3301:G:C4'	48:LV:70:THR:O	2.67	0.42
34:L3:107:C:H2'	34:L3:108:G:H5'	2.01	0.42
81:LD:314:VAL:HG12	81:LD:315:LYS:NZ	2.35	0.42
38:LE:38:VAL:HG13	38:LE:110:GLU:CB	2.50	0.42
66:LN:63:LYS:HB2	66:LN:63:LYS:HZ3	1.85	0.42
32:S1:349:U:H5''	46:LT:137:VAL:O	2.20	0.42
32:S1:1351:U:C5	32:S1:1352:A:C4	3.07	0.42
32:S1:1359:C:H2'	32:S1:1360:G:C8	2.55	0.42
14:SP:68:ARG:NE	32:S1:311:G:P	2.89	0.42
32:S1:691:A:H1'	32:S1:692:C:H5	1.83	0.42
32:S1:823:A:N7	46:LT:172:ARG:HG3	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:152:CYS:SG	2:SA:156:SER:HB2	2.59	0.42
3:SB:54:ARG:C	3:SB:56:GLN:H	2.23	0.42
4:SD:216:HIS:CG	4:SD:217:GLN:N	2.88	0.42
5:SE:183:ARG:NH1	5:SE:251:GLU:CD	2.73	0.42
5:SE:27:ARG:NH1	5:SE:249:PHE:O	2.53	0.42
27:SH:101:TYR:HE1	27:SH:103:VAL:HG13	1.85	0.42
6:SF:94:GLU:CG	17:SV:102:TYR:OH	2.68	0.42
17:SV:36:LYS:HA	17:SV:39:ASN:OD1	2.20	0.42
17:SV:64:SER:HB3	17:SV:82:LYS:HZ3	1.82	0.42
24:SX:51:HIS:CD2	24:SX:72:LYS:HE3	2.51	0.42
33:L1:1435:C:O2	33:L1:1435:C:C5'	2.68	0.42
33:L1:1778:C:H2'	33:L1:1779:C:C5	2.54	0.42
32:S1:1746:U:O2	33:L1:1930:G:N2	2.36	0.42
32:S1:1746:U:C1'	33:L1:1931:G:N3	2.37	0.42
33:L1:2199:C:N1	33:L1:2199:C:O4'	2.42	0.42
33:L1:2231:G:N3	33:L1:2231:G:C2'	2.83	0.42
33:L1:2657:C:OP2	44:LR:1:MET:HA	74.57	0.42
33:L1:2724:A:N3	33:L1:2739:A:C2	2.88	0.42
33:L1:2963:G:H2'	33:L1:2964:U:C6	2.54	0.42
33:L1:885:A:C4	33:L1:888:U:H1'	2.55	0.42
35:L2:30:C:C6	35:L2:30:C:O4'	2.72	0.42
36:LA:83:TYR:HH	36:LA:85:ASP:C	2.22	0.42
37:LB:102:LEU:HD12	37:LB:106:SER:OG	2.20	0.42
37:LB:234:LYS:HG2	37:LB:238:ILE:HD13	2.01	0.42
38:LE:14:ILE:HB	38:LE:164:TRP:CD1	2.55	0.42
64:LG:77:PRO:HG2	64:LG:127:ALA:HB1	2.02	0.42
65:LL:115:UNK:HA	65:LL:120:UNK:C	2.50	0.42
41:LM:60:MET:HB2	41:LM:129:TRP:CZ2	2.55	0.42
32:S1:886:A:H2'	41:LM:85:ARG:NH2	98.28	0.42
45:LQ:249:ALA:HB3	45:LQ:250:ASP:HA	2.02	0.42
67:LS:76:ASN:HD22	67:LS:97:ARG:HE	1.68	0.42
32:S1:860:A:O2'	46:LT:173:LYS:CD	2.67	0.42
48:LV:12:THR:HG23	48:LV:13:LYS:HG3	2.00	0.42
68:LW:83:ARG:O	68:LW:87:TYR:CD1	2.73	0.42
68:LW:44:PHE:CD1	68:LW:92:TYR:CD2	3.07	0.42
32:S1:1004:U:H2'	32:S1:1005:C:O4'	2.20	0.42
32:S1:1207:A:C5	32:S1:1564:A:C2	3.07	0.42
32:S1:483:C:O4'	32:S1:483:C:C6	2.72	0.42
9:SK:66:ASP:CB	32:S1:904:G:H5'	2.50	0.42
2:SA:34:CYS:HA	2:SA:154:THR:O	2.20	0.42
4:SD:208:ILE:HD13	4:SD:209:HIS:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:SH:11:LEU:HD11	27:SH:15:TYR:CE1	2.54	0.42
14:SP:47:ARG:HG2	14:SP:66:SER:CA	2.49	0.42
14:SP:54:TYR:O	46:LT:144:LYS:CE	2.59	0.42
14:SP:89:ARG:O	46:LT:151:ARG:NH2	2.50	0.42
29:ST:49:PHE:CE1	29:ST:62:GLY:HA2	2.55	0.42
17:SV:63:PRO:CD	17:SV:66:LEU:CD1	2.84	0.42
18:SW:113:UNK:O	18:SW:117:UNK:N	2.53	0.42
24:SX:39:CYS:CB	24:SX:42:CYS:HB3	2.43	0.42
33:L1:1664:G:O4'	33:L1:1664:G:C8	2.73	0.41
33:L1:1858:U:H1'	33:L1:3067:G:H5''	2.02	0.41
33:L1:2585:C:O4'	33:L1:2585:C:N1	2.46	0.41
33:L1:25:U:C4	33:L1:26:A:N7	2.88	0.41
33:L1:3093:C:N1	33:L1:3093:C:O4'	2.43	0.41
33:L1:617:C:H2'	33:L1:618:G:C8	2.55	0.41
33:L1:8:C:H2'	33:L1:9:C:C5	2.55	0.41
34:L3:115:A:O2'	45:LQ:75:VAL:HG21	2.20	0.41
34:L3:1:G:C4'	45:LQ:248:ARG:HB3	2.49	0.41
34:L3:19:A:C6	34:L3:60:G:C5	3.08	0.41
36:LA:58:PRO:HG2	36:LA:178:ILE:HG13	2.02	0.41
33:L1:2607:U:C2'	37:LB:226:ARG:NH2	2.82	0.41
33:L1:3097:G:C2	80:LC:331:CYS:SG	2.99	0.41
80:LC:78:ILE:HG21	80:LC:315:PHE:CZ	2.55	0.41
81:LD:356:LYS:CG	81:LD:359:LEU:HB2	2.50	0.41
38:LE:112:ILE:HD12	38:LE:112:ILE:C	2.40	0.41
38:LE:155:ARG:NH1	38:LE:156:VAL:H	2.18	0.41
39:LF:62:THR:H	39:LF:65:THR:HB	1.85	0.41
64:LG:58:PRO:O	64:LG:62:SER:HB3	2.20	0.41
40:LH:116:GLU:O	40:LH:125:PRO:HD2	2.19	0.41
66:LN:80:VAL:O	66:LN:83:LYS:HB2	2.19	0.41
43:LO:63:ARG:NH1	65:LL:152:UNK:N	2.67	0.41
33:L1:99:A:H4'	42:LP:182:HIS:CD2	2.52	0.41
33:L1:972:C:C5'	47:LU:159:ASP:HA	2.50	0.41
48:LV:9:ASN:HD21	48:LV:154:LYS:NZ	2.19	0.41
32:S1:1457:C:H2'	32:S1:1458:U:C6	2.54	0.41
32:S1:1674:C:H2'	32:S1:1675:G:H8	1.83	0.41
3:SB:40:ARG:NH2	3:SB:47:GLU:OE1	2.53	0.41
25:SC:169:GLY:H	25:SC:170:PRO:CD	2.31	0.41
25:SC:169:GLY:N	25:SC:170:PRO:CD	2.83	0.41
6:SF:158:ALA:CB	6:SF:165:ILE:CG2	2.98	0.41
6:SF:80:GLY:H	32:S1:1479:U:C1'	2.32	0.41
27:SH:34:ILE:O	27:SH:38:LEU:HD23	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:SL:43:SER:OG	10:SL:61:PRO:HG2	2.20	0.41
23:SU:14:THR:HB	23:SU:17:PHE:CE1	2.55	0.41
33:L1:1083:C:H6	33:L1:1083:C:HO2'	1.67	0.41
33:L1:1193:A:C8	82:LK:54:ARG:NH2	2.88	0.41
33:L1:1492:A:H5''	43:LO:1:MET:HG3	71.44	0.41
33:L1:1527:A:C6	33:L1:1530:C:C2	3.08	0.41
33:L1:1719:U:O4	46:LT:128:LYS:CD	2.68	0.41
33:L1:2647:C:C2	84:LI:115:MET:CE	2.93	0.41
33:L1:2875:U:C6	33:L1:2875:U:O4'	2.73	0.41
33:L1:2919:G:H4'	41:LM:51:ARG:O	2.21	0.41
33:L1:3376:C:H6	33:L1:3376:C:O5'	2.03	0.41
35:L2:43:G:H1'	35:L2:109:A:N1	2.35	0.41
34:L3:69:A:N6	34:L3:106:U:H3	2.17	0.41
34:L3:107:C:C2'	34:L3:108:G:H5'	2.51	0.41
34:L3:48:G:C2'	34:L3:48:G:C4	3.03	0.41
36:LA:12:ALA:HB3	36:LA:17:VAL:HG11	2.02	0.41
37:LB:216:HIS:O	37:LB:218:HIS:HD2	2.03	0.41
37:LB:216:HIS:NE2	37:LB:218:HIS:CD2	2.87	0.41
33:L1:228:C:OP1	81:LD:227:ARG:NH1	2.52	0.41
81:LD:95:ALA:HA	81:LD:97:GLY:HA3	2.02	0.41
38:LE:66:LYS:HG3	38:LE:66:LYS:H	1.59	0.41
33:L1:1478:A:C4'	64:LG:65:LYS:HZ2	133.23	0.41
64:LG:69:THR:H	64:LG:72:ARG:HG3	1.85	0.41
82:LK:159:ARG:NH2	82:LK:163:GLU:OE2	2.52	0.41
45:LQ:201:GLY:C	45:LQ:202:GLY:HA3	2.34	0.41
45:LQ:247:ILE:HG12	45:LQ:248:ARG:HD2	2.03	0.41
67:LS:44:TRP:CD1	67:LS:55:LYS:HA	2.54	0.41
48:LV:112:THR:OG1	48:LV:113:LEU:HD23	2.21	0.41
51:LY:58:VAL:HG12	51:LY:59:ARG:HH11	1.84	0.41
32:S1:1687:G:OP2	50:LZ:70:VAL:HG11	2.20	0.41
32:S1:182:C:H2'	32:S1:183:C:C6	2.55	0.41
2:SA:151:PHE:HD1	2:SA:165:ILE:HG21	1.85	0.41
2:SA:199:TRP:HE3	2:SA:199:TRP:HA	1.81	0.41
2:SA:211:PRO:O	2:SA:212:GLU:C	2.51	0.41
3:SB:158:ILE:N	3:SB:158:ILE:HD12	2.35	0.41
4:SD:153:ILE:CG1	4:SD:174:LYS:NZ	2.84	0.41
27:SH:14:MET:O	27:SH:17:ALA:HB3	2.20	0.41
7:SI:141:ARG:O	7:SI:142:ALA:HB2	2.19	0.41
12:SO:123:HIS:O	12:SO:126:ALA:HB3	2.20	0.41
12:SO:99:ARG:NH1	12:SO:123:HIS:CD2	2.85	0.41
14:SP:61:PHE:HB2	14:SP:86:ILE:CD1	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:SU:25:ARG:CZ	23:SU:26:LYS:H	2.33	0.41
23:SU:30:LEU:O	23:SU:78:PHE:HD2	1.99	0.41
17:SV:52:LEU:O	17:SV:56:PRO:HG3	2.20	0.41
33:L1:1222:U:H2'	33:L1:1223:U:H5''	2.02	0.41
33:L1:1824:C:H2'	33:L1:1825:G:H5'	2.02	0.41
33:L1:2450:G:C2	33:L1:2499:U:C2	3.08	0.41
33:L1:3231:G:H2'	33:L1:3232:C:C6	2.55	0.41
33:L1:3234:G:C4	33:L1:3234:G:C2'	3.00	0.41
35:L2:62:G:O2'	35:L2:104:U:C6	2.72	0.41
35:L2:96:A:C2	35:L2:97:U:H1'	2.55	0.41
34:L3:68:G:C6	34:L3:108:G:C2	3.09	0.41
34:L3:115:A:N3	34:L3:115:A:H2'	2.35	0.41
34:L3:28:U:C2'	34:L3:54:A:H61	2.31	0.41
36:LA:15:GLN:O	36:LA:20:ALA:HB1	2.21	0.41
36:LA:211:LYS:H	36:LA:211:LYS:HD2	1.85	0.41
36:LA:29:GLU:OE1	36:LA:209:MET:N	2.52	0.41
33:L1:2157:C:C4'	37:LB:7:ALA:O	2.64	0.41
64:LG:188:LEU:HD13	66:LN:105:PHE:HD2	1.82	0.41
33:L1:1478:A:C5'	64:LG:65:LYS:NZ	134.75	0.41
33:L1:1194:C:H5'	82:LK:54:ARG:HG3	2.02	0.41
41:LM:14:PHE:HB2	41:LM:88:TRP:CZ2	2.55	0.41
66:LN:96:GLN:O	66:LN:99:ARG:HG3	2.21	0.41
32:S1:859:U:H5''	46:LT:180:ARG:H	0.78	0.41
48:LV:113:LEU:CD1	48:LV:155:GLU:N	2.83	0.41
48:LV:99:ALA:HB2	48:LV:149:LEU:CD2	2.38	0.41
68:LW:30:PRO:C	68:LW:31:VAL:HG22	2.41	0.41
32:S1:235:C:H2'	32:S1:236:U:C6	2.54	0.41
32:S1:576:C:C6	32:S1:576:C:O4'	2.73	0.41
32:S1:834:A:C2	32:S1:847:U:O4	2.74	0.41
3:SB:162:GLN:HB3	3:SB:163:PRO:CD	2.50	0.41
4:SD:114:VAL:CG1	4:SD:115:LYS:N	2.83	0.41
4:SD:160:ILE:CD1	4:SD:169:ILE:CD1	2.95	0.41
5:SE:250:GLN:CA	5:SE:251:GLU:N	2.73	0.41
5:SE:4:ARG:HA	27:SH:97:ARG:HD3	2.02	0.41
7:SI:32:ARG:NH2	32:S1:1385:C:OP1	2.53	0.41
9:SK:92:LEU:HD13	9:SK:93:HIS:N	2.34	0.41
9:SK:93:HIS:CD2	9:SK:94:ILE:N	2.88	0.41
10:SL:43:SER:HB3	10:SL:61:PRO:CB	2.45	0.41
33:L1:1195:C:C6	33:L1:1195:C:H5''	2.55	0.41
33:L1:2154:G:OP2	33:L1:2167:G:O6	2.38	0.41
33:L1:2398:A:N1	33:L1:2399:G:N3	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2642:G:H5'	47:LU:56:PHE:HA	2.01	0.41
33:L1:1119:G:C5	33:L1:2819:A:C2	3.09	0.41
33:L1:3304:U:C2'	33:L1:3304:U:C2	3.02	0.41
33:L1:507:C:C6	33:L1:507:C:O4'	2.73	0.41
33:L1:719:U:OP2	43:LO:105:LYS:HE2	2.21	0.41
32:S1:976:A:C6	33:L1:848:G:O2'	2.73	0.41
32:S1:632:G:N3	33:L1:849:A:C8	2.89	0.41
33:L1:840:A:H61	33:L1:859:G:H1'	1.84	0.41
34:L3:15:C:N1	34:L3:15:C:O4'	2.46	0.41
34:L3:20:C:O2	34:L3:59:U:C2	2.74	0.41
36:LA:119:ILE:O	36:LA:123:LEU:HB2	2.21	0.41
36:LA:178:ILE:CG2	36:LA:179:GLN:N	2.83	0.41
36:LA:26:LYS:HZ1	36:LA:213:VAL:HG21	1.84	0.41
37:LB:96:LEU:CD1	37:LB:108:PRO:HD2	2.51	0.41
37:LB:137:ILE:CG2	37:LB:138:SER:N	2.82	0.41
38:LE:156:VAL:CG1	38:LE:157:THR:N	2.82	0.41
64:LG:184:ILE:HG13	64:LG:185:ASP:HA	2.02	0.41
64:LG:28:ILE:O	64:LG:30:ALA:N	2.53	0.41
41:LM:32:THR:O	41:LM:69:LYS:HD2	2.21	0.41
42:LP:126:THR:HG23	42:LP:127:TYR:CE1	2.55	0.41
45:LQ:53:TYR:O	45:LQ:55:PHE:HB2	2.21	0.41
33:L1:1368:U:H5'	44:LR:5:LEU:HD22	2.02	0.41
67:LS:26:ILE:HD12	67:LS:27:TYR:N	2.36	0.41
67:LS:97:ARG:CZ	67:LS:98:ASP:O	2.69	0.41
46:LT:110:ARG:C	46:LT:113:LYS:H	2.22	0.41
51:LY:70:VAL:CG1	51:LY:80:HIS:CB	2.93	0.41
32:S1:1801:A:C4	32:S1:1803:G:C8	3.07	0.41
32:S1:996:G:C2	32:S1:1017:U:C5	3.08	0.41
27:SH:36:LYS:HZ3	27:SH:36:LYS:HA	1.84	0.41
27:SH:35:ILE:CG2	27:SH:36:LYS:N	2.83	0.41
11:SM:126:TYR:CE2	11:SM:126:TYR:CD2	3.08	0.41
28:SN:20:VAL:HG12	28:SN:21:CYS:N	2.35	0.41
13:SQ:71:LEU:HB3	13:SQ:72:LYS:H	1.46	0.41
15:SS:104:ARG:HD3	32:S1:1509:C:C5	2.56	0.41
29:ST:82:GLN:N	33:L1:2540:C:H4'	2.34	0.41
33:L1:113:A:C8	33:L1:155:G:OP2	2.73	0.41
33:L1:1298:A:H4'	67:LS:83:TYR:CE2	2.55	0.41
33:L1:1304:G:C6	33:L1:1305:A:N6	2.89	0.41
33:L1:1461:U:H2'	33:L1:1462:C:C6	2.56	0.41
33:L1:1752:C:C2'	33:L1:1753:A:C5'	2.98	0.41
33:L1:2096:U:H2'	33:L1:2097:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2684:U:C5	33:L1:2685:C:C5	3.08	0.41
33:L1:2706:A:C5'	33:L1:2707:A:H5'	2.50	0.41
33:L1:288:G:H2'	33:L1:289:C:C6	2.56	0.41
33:L1:3011:U:H1'	80:LC:15:GLY:HA2	2.02	0.41
33:L1:793:C:H5'	81:LD:118:ARG:HD3	2.03	0.41
81:LD:171:ALA:HA	81:LD:174:ILE:HG12	2.01	0.41
64:LG:189:ILE:HD11	66:LN:105:PHE:CE1	2.56	0.41
82:LK:131:VAL:HA	82:LK:134:LEU:HA	2.02	0.41
66:LN:64:ARG:CZ	67:LS:151:PHE:CD1	3.01	0.41
44:LR:44:PHE:CZ	44:LR:136:THR:HG23	2.56	0.41
68:LW:88:LEU:O	68:LW:92:TYR:CD2	2.74	0.41
51:LY:98:ILE:HG12	51:LY:99:HIS:O	2.19	0.41
32:S1:1083:C:H2'	32:S1:1084:U:O4'	2.20	0.41
32:S1:1130:A:C5	32:S1:1131:G:H1'	2.55	0.41
32:S1:1517:C:C3'	32:S1:1517:C:C6	3.04	0.41
32:S1:1736:C:O3'	33:L1:2102:C:C1'	2.46	0.41
32:S1:1743:C:N4	32:S1:1744:C:N4	2.68	0.41
32:S1:1768:U:HO2'	33:L1:2257:A:HO2'	1.55	0.41
32:S1:294:G:H2'	32:S1:295:C:C6	2.55	0.41
31:S2:70:G:OP1	33:L1:2965:C:H6	1.89	0.41
3:SB:110:LEU:HA	3:SB:110:LEU:HD23	1.95	0.41
4:SD:136:ILE:CD1	4:SD:148:ARG:HG3	2.51	0.41
4:SD:230:LYS:CG	4:SD:231:GLY:H	2.32	0.41
10:SL:53:LYS:HE3	32:S1:579:C:OP2	2.20	0.41
23:SU:95:TYR:N	23:SU:98:ILE:HD13	2.36	0.41
33:L1:1261:C:H5'	74:LJ:124:LYS:N	2.34	0.41
33:L1:1286:G:C6	33:L1:1287:C:C4	3.08	0.41
33:L1:1865:C:H2'	33:L1:1866:C:O4'	2.20	0.41
32:S1:918:G:C2	33:L1:2203:A:C8	2.85	0.41
33:L1:2329:C:H2'	33:L1:2330:C:C6	2.55	0.41
33:L1:2411:G:H1	33:L1:2812:C:H42	1.69	0.41
33:L1:2427:C:N3	33:L1:2604:A:N1	2.68	0.41
33:L1:250:C:H2'	33:L1:251:G:O4'	2.19	0.41
33:L1:325:A:H2'	33:L1:326:C:O4'	2.21	0.41
33:L1:487:C:C6	33:L1:487:C:O4'	2.74	0.41
33:L1:637:C:C4	33:L1:638:G:H1'	2.55	0.41
33:L1:720:G:H2'	43:LO:107:LEU:HD13	2.02	0.41
35:L2:119:C:O4'	35:L2:119:C:C6	2.74	0.41
34:L3:113:G:H21	45:LQ:73:ASP:HB2	1.86	0.41
34:L3:31:G:H1	34:L3:46:C:H42	1.68	0.41
34:L3:63:U:H4'	34:L3:64:G:H5'	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:LA:72:HIS:CD2	36:LA:73:VAL:CG2	3.03	0.41
37:LB:131:GLY:HA3	37:LB:172:GLY:HA2	2.02	0.41
33:L1:1626:U:H5''	84:LI:4:ARG:HH22	144.47	0.41
43:LO:63:ARG:NH1	65:LL:153:UNK:H	2.19	0.41
66:LN:117:ARG:HB3	82:LK:199:GLU:OE2	2.20	0.41
33:L1:2691:U:H2'	45:LQ:19:ARG:HB2	2.03	0.41
45:LQ:91:VAL:HG12	45:LQ:92:GLY:H	1.86	0.41
67:LS:160:PRO:CB	67:LS:161:PRO:HD3	2.50	0.41
33:L1:3182:A:P	67:LS:164:LYS:HG2	2.60	0.41
33:L1:2081:C:OP1	46:LT:151:ARG:NH2	2.52	0.41
48:LV:103:ALA:HB1	48:LV:108:LEU:HB2	2.02	0.41
51:LY:49:ILE:HG22	51:LY:105:VAL:HG21	2.02	0.41
32:S1:1225:A:N6	32:S1:1269:G:O2'	2.53	0.41
32:S1:258:U:H2'	32:S1:259:A:H8	1.84	0.41
31:S2:74:C:H6	33:L1:2810:A:C2	2.32	0.41
2:SA:134:ASP:O	2:SA:137:PRO:HG2	2.19	0.41
25:SC:150:VAL:HG13	25:SC:160:PHE:CD2	2.55	0.41
25:SC:162:LEU:C	25:SC:163:THR:CB	2.89	0.41
25:SC:84:ARG:C	25:SC:86:GLY:H	2.24	0.41
9:SK:122:GLY:O	9:SK:123:MET:HB2	2.20	0.41
9:SK:39:THR:HG22	9:SK:102:ASN:O	2.20	0.41
10:SL:49:ILE:CG1	10:SL:50:VAL:N	2.83	0.41
11:SM:12:ILE:HG23	38:LE:118:TYR:CA	2.51	0.41
28:SN:22:ARG:HG2	28:SN:23:VAL:N	2.35	0.41
12:SO:124:ARG:NE	32:S1:631:C:O2'	2.53	0.41
14:SP:124:VAL:C	46:LT:165:LYS:NZ	2.74	0.41
14:SP:49:ALA:HB2	14:SP:100:ARG:NH2	2.24	0.41
33:L1:1075:G:C2	33:L1:1076:G:C5	3.09	0.41
33:L1:1630:C:C6	33:L1:1630:C:O4'	2.74	0.41
33:L1:1821:G:O6	33:L1:1822:C:C4	2.74	0.41
33:L1:2117:G:O2'	33:L1:2118:G:H5'	2.21	0.41
33:L1:2567:C:H2'	33:L1:2568:G:C8	2.55	0.41
33:L1:261:C:H4'	33:L1:262:A:OP1	2.20	0.41
33:L1:2639:A:OP1	47:LU:10:ARG:NH2	2.54	0.41
33:L1:2962:C:N4	33:L1:2974:G:H1	2.17	0.41
33:L1:3006:G:H5'	80:LC:98:GLY:HA3	2.02	0.41
33:L1:3232:C:H2'	33:L1:3233:C:C6	2.56	0.41
32:S1:1685:U:C1'	33:L1:3334:A:H5''	2.49	0.41
33:L1:561:G:H5'	81:LD:370:GLU:OE1	2.20	0.41
33:L1:73:A:O2'	33:L1:74:G:H5'	2.21	0.41
33:L1:872:G:H1'	33:L1:894:G:N2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:L2:42:U:C5'	35:L2:43:G:H5'	2.51	0.41
35:L2:44:A:C6	35:L2:45:A:C5	3.09	0.41
34:L3:8:A:C6	34:L3:9:U:C4	3.09	0.41
36:LA:182:ILE:CG2	36:LA:183:GLN:N	2.83	0.41
36:LA:56:HIS:NE2	36:LA:149:GLU:CG	2.83	0.41
36:LA:83:TYR:CZ	36:LA:85:ASP:N	2.80	0.41
37:LB:104:ILE:CG2	37:LB:160:SER:CA	2.97	0.41
45:LQ:217:GLU:OE1	45:LQ:222:HIS:CE1	2.74	0.41
34:L3:20:C:HO2'	45:LQ:252:THR:HG21	1.76	0.41
26:SG:5:UNK:CA	46:LT:189:CYS:CA	2.62	0.41
47:LU:155:ASP:OD1	47:LU:155:ASP:N	2.48	0.41
68:LW:82:LYS:O	68:LW:84:TYR:N	2.54	0.41
32:S1:1390:A:H2'	32:S1:1391:G:O4'	2.21	0.41
32:S1:198:G:H2'	32:S1:199:G:C8	2.56	0.41
32:S1:259:A:H2'	32:S1:260:A:O4'	2.21	0.41
32:S1:928:A:C5'	37:LB:139:HIS:N	2.81	0.41
12:SO:114:ARG:HD3	32:S1:945:A:N6	2.35	0.41
31:S2:40:U:C2	31:S2:41:G:C8	3.08	0.41
4:SD:166:THR:HG23	4:SD:167:ASN:N	2.35	0.41
26:SG:64:UNK:C	26:SG:65:UNK:HA	2.41	0.41
27:SH:7:LEU:HD13	27:SH:33:VAL:HG11	2.03	0.41
7:SI:129:ARG:HG2	7:SI:129:ARG:O	2.20	0.41
9:SK:120:ARG:C	9:SK:122:GLY:H	2.24	0.41
9:SK:37:ASN:N	9:SK:100:GLY:O	2.53	0.41
28:SN:12:LYS:HZ2	28:SN:12:LYS:HB3	1.86	0.41
23:SU:25:ARG:CZ	23:SU:26:LYS:O	2.68	0.41
17:SV:96:HIS:HE2	17:SV:102:TYR:HD2	1.68	0.41
33:L1:1034:U:C3'	33:L1:1035:C:H6	2.34	0.41
33:L1:1344:A:H2'	33:L1:1345:U:H6	1.82	0.41
33:L1:1745:G:C2	33:L1:1746:G:C5	3.09	0.41
33:L1:1667:C:O2	33:L1:1774:G:C2	2.74	0.41
33:L1:2157:C:C2'	37:LB:11:GLY:CA	2.99	0.41
33:L1:229:G:H2'	33:L1:230:G:H8	1.86	0.41
33:L1:2450:G:N3	33:L1:2450:G:C2'	2.83	0.41
33:L1:2532:A:N1	33:L1:2585:C:N3	2.68	0.41
33:L1:2610:G:C8	37:LB:230:PRO:HG3	2.55	0.41
33:L1:281:G:C6	33:L1:283:A:C2	3.09	0.41
33:L1:3336:A:H2'	33:L1:3337:G:C8	2.54	0.41
33:L1:3379:C:H5'	33:L1:3379:C:H6	1.86	0.41
33:L1:721:A:OP2	33:L1:721:A:C2	2.74	0.41
34:L3:76:U:H1'	34:L3:101:A:N1	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L3:25:G:N2	34:L3:116:U:C2	2.88	0.41
34:L3:3:A:N3	34:L3:3:A:H2'	2.35	0.41
36:LA:51:SER:N	36:LA:156:PHE:CD1	2.82	0.41
37:LB:118:HIS:HD1	37:LB:119:HIS:CD2	2.39	0.41
33:L1:3296:C:H41	80:LC:176:GLN:HE22	1.65	0.41
80:LC:349:GLN:H	80:LC:350:THR:CB	2.33	0.41
81:LD:385:MET:O	81:LD:386:ILE:HG13	2.20	0.41
38:LE:42:LEU:HD22	38:LE:81:LEU:CD1	2.49	0.41
12:SO:57:GLN:CD	39:LF:99:PRO:O	155.85	0.41
64:LG:199:LYS:HD2	64:LG:200:ASN:N	2.36	0.41
33:L1:1260:G:H21	74:LJ:122:MET:CG	2.33	0.41
74:LJ:90:GLU:OE1	74:LJ:93:ARG:NH1	2.54	0.41
41:LM:33:GLY:HA3	41:LM:69:LYS:HG3	2.02	0.41
45:LQ:253:MET:O	45:LQ:257:THR:N	2.53	0.41
33:L1:1190:C:C4'	67:LS:115:ARG:NH1	2.84	0.41
67:LS:11:VAL:O	67:LS:28:ARG:HA	2.21	0.41
48:LV:54:HIS:O	48:LV:54:HIS:CD2	2.73	0.41
48:LV:54:HIS:CD2	48:LV:84:TRP:CE2	3.09	0.41
51:LY:12:ARG:HH11	51:LY:12:ARG:CG	2.32	0.41
51:LY:81:VAL:CG1	51:LY:82:GLU:N	2.84	0.41
32:S1:1000:A:H61	32:S1:1014:U:H3	1.69	0.41
32:S1:1566:U:C3'	32:S1:1566:U:C6	3.04	0.41
32:S1:1588:C:H2'	32:S1:1589:C:H6	1.79	0.41
32:S1:308:U:H2'	32:S1:309:C:H5	1.86	0.41
31:S2:13:U:H1'	33:L1:2261:U:O2'	2.20	0.41
31:S2:2:C:H2'	33:L1:2625:C:H4'	1.25	0.41
2:SA:114:ASN:OD1	32:S1:1298:G:C4'	2.69	0.41
4:SD:153:ILE:HG23	4:SD:154:ILE:CD1	2.50	0.41
27:SH:65:LEU:HD23	27:SH:71:LYS:H	1.84	0.41
27:SH:65:LEU:N	27:SH:65:LEU:HD12	2.35	0.41
27:SH:94:LEU:CD1	27:SH:95:PRO:HG2	2.48	0.41
11:SM:117:ILE:O	11:SM:117:ILE:HD12	2.20	0.41
17:SV:85:GLU:OE1	17:SV:91:ARG:HG3	2.20	0.41
24:SX:70:GLY:HA2	32:S1:877:G:O5'	2.20	0.41
19:SY:46:VAL:HG22	19:SY:47:ARG:H	1.84	0.41
33:L1:1062:G:H2'	33:L1:1063:G:H4'	2.02	0.41
33:L1:1238:G:H5'	74:LJ:120:ARG:O	2.21	0.41
33:L1:1922:C:O4'	33:L1:1923:G:C2	2.74	0.41
33:L1:425:G:C4	33:L1:426:A:C8	3.09	0.41
33:L1:425:G:N2	33:L1:637:C:C2	2.89	0.41
33:L1:639:A:H5''	33:L1:640:C:H5'	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:L2:67:C:H3'	35:L2:68:U:O4'	2.20	0.41
38:LE:74:ARG:CA	38:LE:78:ALA:HB2	2.51	0.41
38:LE:89:LYS:HE2	38:LE:106:PHE:CE2	2.56	0.41
33:L1:1180:C:P	82:LK:94:PRO:HG3	2.60	0.41
45:LQ:250:ASP:HB2	45:LQ:253:MET:HG3	2.02	0.41
47:LU:27:LEU:H	47:LU:27:LEU:CD1	2.33	0.41
51:LY:53:ASP:OD2	51:LY:108:LEU:CD2	2.69	0.41
51:LY:75:ARG:HH11	51:LY:75:ARG:HD3	1.77	0.41
32:S1:1346:C:O4'	32:S1:1346:C:C6	2.74	0.41
11:SM:147:GLY:HA2	32:S1:1467:C:H5'	2.03	0.41
32:S1:1163:C:C5	32:S1:1590:U:C5	3.09	0.41
32:S1:1643:A:C8	32:S1:1643:A:C3'	3.04	0.41
12:SO:124:ARG:HD2	32:S1:632:G:H4'	2.03	0.41
2:SA:47:THR:O	2:SA:48:ASP:HB3	2.21	0.41
2:SA:65:ALA:CB	2:SA:165:ILE:CD1	2.95	0.41
4:SD:153:ILE:HD11	4:SD:174:LYS:HD3	2.01	0.41
4:SD:160:ILE:HG23	4:SD:160:ILE:O	2.19	0.41
5:SE:156:LYS:NZ	32:S1:1303:G:H4'	2.36	0.41
27:SH:26:LEU:CD1	27:SH:59:GLY:HA3	2.51	0.41
27:SH:96:SER:OG	27:SH:99:PHE:HB2	2.20	0.41
10:SL:93:ILE:O	10:SL:93:ILE:HG23	2.19	0.41
11:SM:71:VAL:HG13	11:SM:72:HIS:H	1.86	0.41
19:SY:16:ARG:HG2	19:SY:17:THR:H	1.86	0.41
33:L1:1050:A:C8	33:L1:1050:A:C2'	3.03	0.41
33:L1:112:C:C2	33:L1:317:G:C2	3.08	0.41
33:L1:1234:G:OP1	67:LS:115:ARG:CD	51.71	0.41
33:L1:1293:C:H2'	33:L1:1294:A:C8	2.55	0.41
33:L1:1525:U:H2'	49:LX:125:ARG:HH12	1.86	0.41
32:S1:1747:A:C8	33:L1:1929:A:C6	3.07	0.41
33:L1:250:C:N3	33:L1:251:G:N1	2.69	0.41
33:L1:2520:U:H2'	33:L1:2521:C:C6	2.55	0.41
33:L1:2562:A:H2'	33:L1:2563:G:C8	2.55	0.41
33:L1:3385:G:H2'	33:L1:3386:A:H8	1.86	0.41
33:L1:899:A:O2'	33:L1:900:C:OP1	2.27	0.41
33:L1:957:U:C2	33:L1:958:U:C5	3.08	0.41
33:L1:967:G:C6	33:L1:968:A:C5	3.09	0.41
35:L2:111:G:H2'	35:L2:112:C:C6	2.56	0.41
34:L3:36:C:H2'	34:L3:37:G:O4'	2.21	0.41
36:LA:52:VAL:CG2	36:LA:155:LYS:CD	2.95	0.41
36:LA:92:MET:CE	36:LA:117:LYS:CB	2.96	0.41
80:LC:60:VAL:CG2	80:LC:72:THR:HG22	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1428:G:H5''	81:LD:42:ARG:CZ	2.50	0.41
39:LF:129:GLU:HB2	39:LF:152:LEU:HD12	2.02	0.41
64:LG:82:ILE:HG21	64:LG:162:LEU:CD1	2.51	0.41
64:LG:171:LYS:HB3	66:LN:109:LYS:HD2	2.01	0.41
66:LN:113:ALA:HB1	82:LK:198:LEU:CD2	2.51	0.41
33:L1:634:A:P	82:LK:98:ALA:HB3	2.56	0.41
66:LN:4:LYS:HG2	67:LS:161:PRO:CB	2.48	0.41
51:LY:78:VAL:CG1	51:LY:79:ILE:N	2.82	0.41
32:S1:1740:G:C4	32:S1:1740:G:H2'	2.56	0.41
32:S1:175:A:O2'	32:S1:176:A:H5'	2.20	0.41
32:S1:348:A:P	46:LT:136:ARG:CA	3.09	0.41
32:S1:826:C:H2'	32:S1:827:C:C6	2.56	0.41
9:SK:66:ASP:O	32:S1:904:G:OP1	2.39	0.41
2:SA:43:TYR:C	2:SA:44:LYS:HD3	2.41	0.41
4:SD:153:ILE:HG12	4:SD:154:ILE:HA	2.02	0.41
4:SD:205:PHE:HB2	4:SD:222:LEU:CD1	2.51	0.41
4:SD:210:VAL:CG1	4:SD:211:GLU:N	2.83	0.41
6:SF:98:LEU:HB2	17:SV:102:TYR:CE1	2.56	0.41
27:SH:34:ILE:HG21	27:SH:46:TYR:CG	2.55	0.41
7:SI:130:CYS:O	32:S1:1592:G:C8	2.70	0.41
8:SJ:38:VAL:HG13	28:SN:51:GLY:HA2	2.02	0.41
9:SK:85:LYS:CE	9:SK:119:ALA:HB2	2.42	0.41
11:SM:136:THR:H	11:SM:137:LYS:HD3	1.86	0.41
12:SO:104:ARG:HB2	39:LF:78:ASN:HB2	161.68	0.41
14:SP:49:ALA:CB	14:SP:96:LYS:HA	2.50	0.41
23:SU:19:THR:CA	23:SU:26:LYS:HA	2.51	0.41
17:SV:50:LYS:HA	17:SV:54:GLU:HG3	2.03	0.41
6:SF:118:ARG:CD	19:SY:56:GLU:HB2	2.51	0.41
33:L1:1188:C:H5'	66:LN:49:ASN:HB2	2.03	0.41
33:L1:1422:G:O2'	33:L1:1423:C:H5'	2.21	0.41
33:L1:1622:G:C3'	33:L1:1623:C:C5'	2.98	0.41
32:S1:346:C:C5'	33:L1:1941:G:H5''	2.51	0.41
33:L1:2234:G:H2'	33:L1:2235:G:H8	1.85	0.41
33:L1:2603:C:H2'	33:L1:2604:A:C8	2.56	0.41
33:L1:2855:G:H1'	84:LI:158:LYS:HZ2	1.86	0.41
33:L1:3047:A:H4'	80:LC:333:VAL:CG1	2.50	0.41
33:L1:3347:U:H2'	33:L1:3348:G:O4'	2.21	0.41
33:L1:424:G:C5'	33:L1:425:G:C8	2.96	0.41
33:L1:535:G:H2'	33:L1:536:C:H6	1.85	0.41
33:L1:404:G:N2	35:L2:20:G:C4	2.89	0.41
35:L2:25:C:O4'	35:L2:25:C:C6	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L3:69:A:H61	34:L3:106:U:H3	1.68	0.41
34:L3:31:G:H1	34:L3:46:C:N4	2.19	0.41
34:L3:53:U:C4'	34:L3:54:A:H5'	2.34	0.41
32:S1:928:A:H5'	37:LB:138:SER:HB3	1.80	0.41
81:LD:356:LYS:HD3	81:LD:359:LEU:HB2	2.03	0.41
38:LE:31:ARG:CZ	38:LE:33:THR:HA	2.51	0.41
38:LE:82:LEU:HD12	38:LE:86:LEU:CD2	2.51	0.41
66:LN:79:ASP:O	66:LN:81:LYS:N	2.54	0.41
43:LO:103:TYR:CD2	43:LO:106:VAL:HG22	2.56	0.41
43:LO:104:THR:HG23	43:LO:125:ILE:HG23	2.02	0.41
33:L1:2433:U:OP2	42:LP:24:ARG:HD3	2.21	0.41
66:LN:30:VAL:HG23	67:LS:154:VAL:HG22	2.02	0.41
48:LV:108:LEU:HB3	48:LV:112:THR:HG21	2.02	0.41
48:LV:60:PHE:CZ	48:LV:83:ARG:HB2	2.56	0.41
48:LV:70:THR:CG2	48:LV:80:GLY:HA2	2.51	0.41
51:LY:55:VAL:O	51:LY:66:GLU:HA	2.21	0.41
32:S1:1189:U:C5	32:S1:1464:G:C8	3.09	0.41
32:S1:1480:G:N2	32:S1:1541:C:O2	2.51	0.41
32:S1:143:A:N6	32:S1:167:A:C8	2.89	0.41
32:S1:1793:C:H2'	32:S1:1794:C:C6	2.56	0.41
32:S1:483:C:C5	32:S1:484:A:C8	3.09	0.41
31:S2:13:U:H1'	33:L1:2261:U:C2'	2.50	0.41
31:S2:34:G:C4'	32:S1:1195:U:C5	2.99	0.41
3:SB:153:LYS:CG	3:SB:153:LYS:HZ2	2.19	0.41
6:SF:95:ILE:HA	17:SV:102:TYR:CE1	2.56	0.41
11:SM:135:HIS:O	11:SM:136:THR:HG23	2.20	0.41
16:SR:66:ILE:HG13	16:SR:67:LYS:H	1.86	0.41
24:SX:37:VAL:HA	24:SX:79:CYS:HB2	2.02	0.41
33:L1:1347:U:H3'	33:L1:1348:G:C5'	2.51	0.40
33:L1:1533:U:O4'	33:L1:1533:U:C6	2.74	0.40
33:L1:1636:C:H2'	33:L1:1637:G:C8	2.56	0.40
33:L1:1668:U:H5'	46:LT:60:ARG:NH2	2.36	0.40
33:L1:1679:U:O2'	33:L1:1679:U:C1'	2.60	0.40
33:L1:1714:A:C2	39:LF:89:TYR:CG	156.16	0.40
33:L1:2770:U:O2	33:L1:2793:G:N2	2.53	0.40
33:L1:2792:A:C2	33:L1:2793:G:C5	3.09	0.40
33:L1:288:G:C6	33:L1:289:C:N4	2.89	0.40
33:L1:3018:A:C2	33:L1:3019:C:C2	3.09	0.40
33:L1:548:G:H2'	33:L1:549:G:C8	2.56	0.40
33:L1:863:G:H4'	33:L1:898:G:H5'	2.02	0.40
33:L1:883:G:OP1	33:L1:2984:A:N6	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:918:A:N6	33:L1:920:A:C4	2.89	0.40
35:L2:158:G:C3'	35:L2:158:G:C8	3.04	0.40
35:L2:96:A:C6	35:L2:97:U:H1'	2.56	0.40
34:L3:27:A:C2'	34:L3:55:A:N6	2.84	0.40
34:L3:85:G:H1'	67:LS:121:PRO:HG3	2.04	0.40
36:LA:149:GLU:O	36:LA:150:THR:CB	2.69	0.40
33:L1:2170:G:N1	37:LB:125:VAL:CG1	2.84	0.40
37:LB:202:VAL:HG12	37:LB:217:GLN:CB	2.37	0.40
37:LB:43:GLY:HA2	37:LB:63:PHE:H	1.86	0.40
80:LC:306:GLU:H	80:LC:306:GLU:CD	2.23	0.40
80:LC:40:PRO:HD2	80:LC:194:LYS:HA	2.03	0.40
81:LD:313:GLU:N	81:LD:315:LYS:H	2.20	0.40
34:L3:17:G:OP1	38:LE:153:HIS:NE2	2.53	0.40
38:LE:20:VAL:HG13	38:LE:72:THR:HG22	2.03	0.40
38:LE:38:VAL:HG23	38:LE:120:PRO:HB2	2.01	0.40
33:L1:507:C:H4'	64:LG:62:SER:C	2.41	0.40
33:L1:1184:U:C5	82:LK:23:ARG:CD	3.04	0.40
45:LQ:7:PHE:HA	45:LQ:7:PHE:HD1	1.77	0.40
66:LN:35:ARG:HE	67:LS:97:ARG:NH1	2.19	0.40
32:S1:824:U:C4	46:LT:172:ARG:HB3	2.56	0.40
46:LT:176:ARG:HG2	46:LT:179:GLU:HB2	2.02	0.40
49:LX:46:LYS:O	49:LX:47:THR:HG23	2.21	0.40
32:S1:1060:U:C5	32:S1:1061:G:C2	3.09	0.40
32:S1:1072:U:C6	32:S1:1073:C:C5	3.09	0.40
8:SJ:68:LYS:HE3	32:S1:1524:A:H5''	2.03	0.40
32:S1:1673:C:O2'	33:L1:1914:C:C2'	2.69	0.40
25:SC:106:PHE:CD1	32:S1:477:A:C4'	3.05	0.40
32:S1:951:U:C5	32:S1:952:U:C5	3.08	0.40
2:SA:211:PRO:O	2:SA:212:GLU:O	2.39	0.40
4:SD:136:ILE:HG22	4:SD:149:TYR:HB3	2.01	0.40
5:SE:198:GLN:HG2	32:S1:1091:A:P	2.61	0.40
6:SF:82:LYS:HG2	6:SF:86:VAL:HG23	2.02	0.40
27:SH:112:ASP:CG	27:SH:114:GLU:HG3	2.41	0.40
5:SE:255:LEU:CD2	27:SH:71:LYS:O	2.56	0.40
17:SV:48:TYR:CE1	17:SV:81:ILE:C	2.77	0.40
17:SV:73:ASN:CA	17:SV:78:ARG:HH21	2.33	0.40
24:SX:34:PHE:O	24:SX:34:PHE:CD2	2.74	0.40
24:SX:62:GLN:HE21	24:SX:62:GLN:HB2	1.63	0.40
33:L1:1160:G:C6	33:L1:1161:G:C4	3.09	0.40
33:L1:1261:C:OP1	74:LJ:124:LYS:HD2	2.21	0.40
33:L1:1824:C:H2'	33:L1:1825:G:C5'	2.50	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2113:A:H3'	33:L1:2114:A:C8	2.55	0.40
33:L1:2138:A:C4	33:L1:2276:A:C6	3.09	0.40
33:L1:2436:G:O2'	33:L1:2437:A:C8	2.73	0.40
33:L1:3140:A:H4'	80:LC:20:LYS:HE3	2.03	0.40
33:L1:464:G:O2'	38:LE:1:MET:HE1	134.12	0.40
32:S1:632:G:O2'	33:L1:849:A:C4'	2.69	0.40
33:L1:966:G:C6	33:L1:967:G:C5	3.09	0.40
33:L1:98:A:H2'	42:LP:182:HIS:NE2	2.37	0.40
35:L2:124:G:H1'	35:L2:139:A:N6	2.36	0.40
36:LA:106:TYR:CD2	36:LA:140:GLN:HG2	2.57	0.40
38:LE:74:ARG:NH1	38:LE:74:ARG:HB3	2.36	0.40
64:LG:26:TRP:O	64:LG:27:ALA:CB	2.58	0.40
33:L1:2621:G:OP2	84:LI:115:MET:SD	2.78	0.40
74:LJ:13:VAL:O	74:LJ:13:VAL:HG13	2.73	0.40
66:LN:110:VAL:CG2	82:LK:201:LEU:HD21	2.44	0.40
33:L1:801:G:H4'	65:LL:17:UNK:CB	2.51	0.40
2:SA:45:ARG:HD2	32:S1:1074:C:H4'	2.03	0.40
32:S1:1167:C:C5	32:S1:1168:A:C5	3.09	0.40
32:S1:1348:A:H2'	32:S1:1349:A:C8	2.56	0.40
32:S1:1572:U:O4'	32:S1:1572:U:C6	2.74	0.40
32:S1:301:U:O4'	32:S1:301:U:C6	2.74	0.40
32:S1:860:A:C5	46:LT:170:ARG:HG2	2.52	0.40
2:SA:116:LEU:N	2:SA:116:LEU:CD1	2.83	0.40
2:SA:64:LEU:O	2:SA:68:VAL:HG23	2.21	0.40
4:SD:160:ILE:CD1	4:SD:169:ILE:CG2	2.99	0.40
27:SH:119:LYS:HA	27:SH:119:LYS:HD3	1.99	0.40
27:SH:33:VAL:O	27:SH:37:PHE:CD2	2.74	0.40
5:SE:31:ARG:HG3	27:SH:67:GLY:HA2	2.02	0.40
14:SP:102:GLU:HG2	14:SP:114:PRO:CB	2.51	0.40
13:SQ:60:ARG:HG2	32:S1:1226:U:OP2	2.22	0.40
15:SS:33:LEU:H	15:SS:33:LEU:HD23	1.85	0.40
15:SS:9:VAL:HG21	15:SS:135:ASP:OD1	2.21	0.40
33:L1:1123:A:C6	33:L1:1124:U:C4	3.10	0.40
33:L1:1150:G:C6	33:L1:1151:G:N7	2.90	0.40
33:L1:1163:A:C6	33:L1:1370:A:H1'	2.56	0.40
33:L1:1174:G:OP1	34:L3:84:U:C2	2.74	0.40
33:L1:1506:A:C2	33:L1:1507:A:C4	3.10	0.40
33:L1:1670:G:H2'	33:L1:1671:G:H8	1.86	0.40
33:L1:1687:C:C5'	46:LT:58:HIS:CG	3.03	0.40
33:L1:1806:C:O4'	33:L1:1806:C:C6	2.75	0.40
33:L1:2198:U:H2'	33:L1:2199:C:C6	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2362:A:H3'	33:L1:2363:G:H8	1.86	0.40
33:L1:2413:G:C6	33:L1:2414:C:C4	3.09	0.40
33:L1:3288:A:H2'	33:L1:3289:U:C6	2.56	0.40
33:L1:60:G:H3'	33:L1:61:A:H8	1.85	0.40
33:L1:716:A:C1'	33:L1:716:A:C3'	2.89	0.40
33:L1:21:G:O2'	35:L2:41:A:N6	2.55	0.40
34:L3:52:U:O2'	34:L3:53:U:H5'	2.21	0.40
34:L3:56:G:H2'	34:L3:57:C:C5'	2.48	0.40
36:LA:89:LEU:HD11	36:LA:111:ALA:HA	2.02	0.40
33:L1:2177:U:OP1	37:LB:209:HIS:HE1	2.05	0.40
80:LC:10:ARG:HG3	80:LC:10:ARG:O	2.21	0.40
80:LC:93:VAL:O	80:LC:99:LEU:HA	2.20	0.40
39:LF:160:ILE:CG2	39:LF:178:ILE:HG21	2.50	0.40
14:SP:124:VAL:N	46:LT:165:LYS:CG	2.58	0.40
48:LV:113:LEU:HD13	48:LV:157:PRO:HD2	2.03	0.40
32:S1:19:A:C2	32:S1:20:G:C4	3.09	0.40
4:SD:59:ARG:NH1	32:S1:449:A:OP2	2.55	0.40
32:S1:483:C:H42	32:S1:513:G:H1	1.69	0.40
27:SH:27:ILE:CG1	32:S1:641:C:OP2	2.69	0.40
2:SA:229:TYR:O	2:SA:232:VAL:HB	2.21	0.40
25:SC:21:TYR:HB3	25:SC:22:GLU:H	1.76	0.40
4:SD:239:PRO:O	4:SD:240:LYS:CA	2.59	0.40
5:SE:193:PRO:HG3	32:S1:1103:U:H5'	2.04	0.40
6:SF:135:VAL:HA	19:SY:41:ASN:HD22	1.85	0.40
10:SL:40:PHE:O	10:SL:40:PHE:CD2	2.74	0.40
12:SO:96:VAL:HG11	12:SO:151:ALA:H	1.86	0.40
15:SS:8:THR:HB	15:SS:12:VAL:CG1	2.51	0.40
23:SU:52:LEU:HA	23:SU:86:ASP:HB2	2.04	0.40
23:SU:89:LYS:O	23:SU:90:LYS:C	2.57	0.40
17:SV:96:HIS:N	17:SV:101:ILE:CD1	2.84	0.40
17:SV:26:LYS:HD3	32:S1:1544:G:OP2	2.22	0.40
17:SV:85:GLU:OE1	17:SV:91:ARG:NH1	2.51	0.40
33:L1:177:C:H2'	33:L1:178:C:H6	1.86	0.40
33:L1:2062:U:H2'	33:L1:2064:C:C5	2.57	0.40
33:L1:19:C:H2'	33:L1:20:G:C8	2.55	0.40
33:L1:213:G:C2	33:L1:224:C:C2	3.10	0.40
25:SC:195:GLU:CA	33:L1:2251:A:H3'	2.51	0.40
33:L1:2417:G:H2'	33:L1:2418:A:OP2	2.21	0.40
33:L1:2944:C:H5''	33:L1:2945:G:H5'	2.03	0.40
33:L1:307:C:C6	33:L1:307:C:O4'	2.75	0.40
33:L1:3150:G:H3'	33:L1:3150:G:C8	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:3209:U:O4	33:L1:3210:G:C6	2.74	0.40
33:L1:3212:C:O2	64:LG:116:PRO:HG2	2.20	0.40
33:L1:570:G:H2'	33:L1:571:G:H8	1.86	0.40
33:L1:664:A:H62	33:L1:1435:C:H5	1.69	0.40
33:L1:838:G:H2'	33:L1:839:A:OP2	2.21	0.40
34:L3:5:G:C2	34:L3:115:A:H1'	2.56	0.40
34:L3:21:U:H2'	34:L3:21:U:O2	2.21	0.40
34:L3:28:U:H3	34:L3:51:G:H1	1.69	0.40
37:LB:17:LYS:HG2	37:LB:18:SER:N	2.36	0.40
33:L1:1387:G:H1'	81:LD:248:GLY:HA3	2.04	0.40
38:LE:51:LYS:H	38:LE:51:LYS:HD3	1.87	0.40
33:L1:1188:C:OP1	66:LN:50:PHE:N	2.55	0.40
32:S1:350:G:OP1	46:LT:132:PHE:HE1	2.04	0.40
47:LU:126:ILE:HD12	47:LU:129:LYS:HB2	2.03	0.40
48:LV:9:ASN:ND2	48:LV:154:LYS:NZ	2.69	0.40
51:LY:44:VAL:HG12	51:LY:125:ARG:HH21	1.86	0.40
31:S2:38:C:H4'	32:S1:1006:A:C8	2.56	0.40
32:S1:1747:A:H2'	33:L1:1915:G:H2'	2.02	0.40
32:S1:290:C:H2'	32:S1:291:G:C8	2.57	0.40
32:S1:397:C:H2'	32:S1:398:C:C6	2.56	0.40
32:S1:562:U:H4'	32:S1:562:U:OP2	2.22	0.40
31:S2:47:U:C4	31:S2:58:U:H1'	2.57	0.40
3:SB:108:LYS:C	3:SB:110:LEU:H	2.25	0.40
4:SD:137:PRO:HD3	32:S1:247:A:P	2.62	0.40
4:SD:160:ILE:HD12	4:SD:172:PHE:CZ	2.56	0.40
5:SE:194:LYS:HE2	5:SE:248:PRO:HG2	2.02	0.40
5:SE:194:LYS:HG2	5:SE:244:PHE:CB	2.52	0.40
27:SH:111:MET:SD	27:SH:116:ALA:CA	3.10	0.40
27:SH:38:LEU:CD1	27:SH:45:GLY:CA	2.93	0.40
10:SL:51:LEU:HD23	10:SL:51:LEU:H	1.86	0.40
10:SL:41:ALA:HB2	10:SL:62:ASN:CG	2.41	0.40
12:SO:69:SER:C	24:SX:49:PHE:HE2	2.24	0.40
13:SQ:85:VAL:H	13:SQ:86:PRO:HD2	1.85	0.40
15:SS:9:VAL:CA	15:SS:138:ALA:HB3	2.44	0.40
23:SU:49:LEU:C	23:SU:49:LEU:HD12	2.41	0.40
23:SU:8:PRO:O	23:SU:9:ALA:CB	2.60	0.40
17:SV:61:ILE:HG23	17:SV:104:ARG:HG2	2.02	0.40
33:L1:2077:C:H5''	46:LT:112:ALA:O	2.22	0.40
33:L1:2244:G:N2	33:L1:2263:U:C2	2.90	0.40
33:L1:280:G:C5	33:L1:284:U:H1'	2.56	0.40
33:L1:3035:C:O2	39:LF:119:GLU:HA	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:3316:C:O4'	33:L1:3316:C:C6	2.74	0.40
33:L1:3334:A:H61	33:L1:3355:U:H3	1.69	0.40
33:L1:527:G:O4'	33:L1:527:G:C8	2.74	0.40
33:L1:66:A:C8	42:LP:175:ARG:NH2	2.89	0.40
33:L1:69:U:C6	33:L1:69:U:O4'	2.75	0.40
33:L1:681:A:N6	33:L1:788:G:C2	2.90	0.40
35:L2:36:C:H2'	35:L2:37:A:C8	2.57	0.40
34:L3:72:G:C2	34:L3:104:C:O2	2.75	0.40
33:L1:2493:C:O2	36:LA:209:MET:O	2.40	0.40
36:LA:71:GLN:CG	36:LA:79:MET:CE	2.99	0.40
36:LA:95:ASN:HA	36:LA:99:VAL:O	2.21	0.40
81:LD:338:GLY:C	81:LD:342:LYS:CE	2.88	0.40
81:LD:342:LYS:O	81:LD:343:MET:SD	2.79	0.40
11:SM:12:ILE:CD1	38:LE:120:PRO:HG2	2.52	0.40
67:LS:10:GLN:NE2	67:LS:64:ASN:HB2	2.37	0.40
46:LT:58:HIS:H	46:LT:58:HIS:CD2	2.38	0.40
48:LV:116:SER:HB2	48:LV:152:SER:HB2	2.03	0.40
48:LV:73:ALA:HB3	48:LV:77:HIS:O	2.21	0.40
51:LY:72:VAL:CB	51:LY:79:ILE:HG22	2.51	0.40
32:S1:123:U:C5	32:S1:124:G:C5	3.10	0.40
32:S1:1665:U:H2'	32:S1:1666:G:C8	2.57	0.40
32:S1:20:G:C6	32:S1:21:U:C2	3.10	0.40
32:S1:877:G:H5''	32:S1:877:G:C8	2.57	0.40
32:S1:988:G:HO2'	37:LB:173:GLY:C	2.25	0.40
31:S2:24:A:C2	33:L1:2260:C:C2'	3.04	0.40
3:SB:113:LEU:HD12	3:SB:114:ALA:N	2.35	0.40
5:SE:29:GLY:O	5:SE:30:ARG:NH2	2.54	0.40
27:SH:40:VAL:C	27:SH:41:MET:HG2	2.42	0.40
15:SS:2:ALA:HB1	32:S1:1363:G:C3'	2.46	0.40
29:ST:23:ILE:HB	29:ST:58:ILE:HD13	2.03	0.40
17:SV:68:GLU:CG	17:SV:75:SER:HA	2.52	0.40
19:SY:29:LYS:HD2	19:SY:35:ASN:H	1.86	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM

entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	Sa	376/380 (99%)	330 (88%)	24 (6%)	22 (6%)	2	27
2	SA	258/260 (99%)	194 (75%)	31 (12%)	33 (13%)	0	8
3	SB	206/208 (99%)	117 (57%)	35 (17%)	54 (26%)	0	1
4	SD	198/200 (99%)	164 (83%)	17 (9%)	17 (9%)	1	17
5	SE	261/263 (99%)	186 (71%)	45 (17%)	30 (12%)	0	9
6	SF	189/191 (99%)	157 (83%)	25 (13%)	7 (4%)	4	38
7	SI	124/126 (98%)	90 (73%)	17 (14%)	17 (14%)	0	6
8	SJ	126/128 (98%)	103 (82%)	14 (11%)	9 (7%)	1	22
9	SK	117/119 (98%)	85 (73%)	13 (11%)	19 (16%)	0	5
10	SL	140/142 (99%)	93 (66%)	18 (13%)	29 (21%)	0	3
11	SM	150/152 (99%)	101 (67%)	22 (15%)	27 (18%)	0	4
12	SO	119/121 (98%)	95 (80%)	11 (9%)	13 (11%)	0	11
13	SQ	139/141 (99%)	87 (63%)	27 (19%)	25 (18%)	0	4
14	SP	83/85 (98%)	64 (77%)	12 (14%)	7 (8%)	1	18
15	SS	144/146 (99%)	119 (83%)	13 (9%)	12 (8%)	1	18
16	SR	89/91 (98%)	65 (73%)	15 (17%)	9 (10%)	1	14
17	SV	98/100 (98%)	70 (71%)	12 (12%)	16 (16%)	0	5
19	SY	56/58 (97%)	38 (68%)	8 (14%)	10 (18%)	0	4
20	SZ	60/62 (97%)	43 (72%)	9 (15%)	8 (13%)	0	7
23	SU	96/98 (98%)	70 (73%)	12 (12%)	14 (15%)	0	6
24	SX	48/50 (96%)	36 (75%)	8 (17%)	4 (8%)	1	18
25	SC	193/195 (99%)	127 (66%)	34 (18%)	32 (17%)	0	5
27	SH	128/130 (98%)	100 (78%)	17 (13%)	11 (9%)	1	17
28	SN	46/48 (96%)	30 (65%)	4 (9%)	12 (26%)	0	1
29	ST	80/82 (98%)	67 (84%)	4 (5%)	9 (11%)	0	10
36	LA	214/216 (99%)	191 (89%)	14 (6%)	9 (4%)	3	34
37	LB	253/255 (99%)	224 (88%)	18 (7%)	11 (4%)	3	34
38	LE	168/170 (99%)	129 (77%)	16 (10%)	23 (14%)	0	6
39	LF	188/190 (99%)	165 (88%)	16 (8%)	7 (4%)	4	38

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
40	LH	199/201 (99%)	149 (75%)	26 (13%)	24 (12%)	0	8
41	LM	138/140 (99%)	123 (89%)	9 (6%)	6 (4%)	3	34
42	LP	192/194 (99%)	169 (88%)	18 (9%)	5 (3%)	7	45
43	LO	142/144 (99%)	106 (75%)	17 (12%)	19 (13%)	0	7
44	LR	161/163 (99%)	127 (79%)	18 (11%)	16 (10%)	1	14
45	LQ	302/304 (99%)	218 (72%)	39 (13%)	45 (15%)	0	5
46	LT	187/189 (99%)	167 (89%)	12 (6%)	8 (4%)	3	34
47	LU	162/164 (99%)	136 (84%)	18 (11%)	8 (5%)	3	31
48	LV	169/171 (99%)	131 (78%)	20 (12%)	18 (11%)	0	11
49	LX	120/122 (98%)	98 (82%)	12 (10%)	10 (8%)	1	18
50	LZ	73/75 (97%)	53 (73%)	13 (18%)	7 (10%)	1	15
51	LY	128/130 (98%)	113 (88%)	9 (7%)	6 (5%)	3	32
52	Lb	71/73 (97%)	48 (68%)	12 (17%)	11 (16%)	0	5
53	Ld	21/23 (91%)	18 (86%)	2 (10%)	1 (5%)	3	32
54	Lf	110/112 (98%)	95 (86%)	8 (7%)	7 (6%)	2	25
55	Lg	118/120 (98%)	96 (81%)	13 (11%)	9 (8%)	1	20
56	Lh	131/133 (98%)	113 (86%)	9 (7%)	9 (7%)	1	23
57	Li	92/94 (98%)	60 (65%)	18 (20%)	14 (15%)	0	5
58	Ln	67/69 (97%)	51 (76%)	11 (16%)	5 (8%)	1	21
59	Lo	49/51 (96%)	33 (67%)	6 (12%)	10 (20%)	0	3
60	Lr	103/105 (98%)	75 (73%)	16 (16%)	12 (12%)	0	9
61	Lq	23/25 (92%)	20 (87%)	3 (13%)	0	100	100
64	LG	217/219 (99%)	149 (69%)	24 (11%)	44 (20%)	0	3
66	LN	132/134 (98%)	96 (73%)	15 (11%)	21 (16%)	0	5
67	LS	165/167 (99%)	115 (70%)	24 (14%)	26 (16%)	0	5
68	LW	106/108 (98%)	73 (69%)	15 (14%)	18 (17%)	0	5
69	La	97/99 (98%)	68 (70%)	15 (16%)	14 (14%)	0	6
70	Li	117/119 (98%)	72 (62%)	13 (11%)	32 (27%)	0	0
71	Lj	102/104 (98%)	74 (72%)	17 (17%)	11 (11%)	0	11
72	Lk	75/77 (97%)	60 (80%)	5 (7%)	10 (13%)	0	7
73	Lp	39/41 (95%)	28 (72%)	8 (20%)	3 (8%)	1	20

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
74	LJ	126/128 (98%)	97 (77%)	15 (12%)	14 (11%)	0	11
75	Lt	56/58 (97%)	54 (96%)	1 (2%)	1 (2%)	11	53
75	Lu	56/58 (97%)	54 (96%)	1 (2%)	1 (2%)	11	53
76	Lv	57/59 (97%)	54 (95%)	2 (4%)	1 (2%)	11	53
76	Lw	57/59 (97%)	54 (95%)	2 (4%)	1 (2%)	11	53
77	Lc	122/124 (98%)	106 (87%)	7 (6%)	9 (7%)	1	21
78	Le	239/244 (98%)	212 (89%)	17 (7%)	10 (4%)	3	34
79	Ls	260/262 (99%)	233 (90%)	17 (6%)	10 (4%)	4	37
80	LC	387/389 (100%)	298 (77%)	43 (11%)	46 (12%)	0	9
81	LD	368/372 (99%)	306 (83%)	38 (10%)	24 (6%)	1	25
82	LK	204/206 (99%)	179 (88%)	15 (7%)	10 (5%)	3	31
83	Lm	90/92 (98%)	77 (86%)	9 (10%)	4 (4%)	3	33
84	LI	182/184 (99%)	140 (77%)	26 (14%)	16 (9%)	1	17
All	All	10359/10512 (98%)	8138 (79%)	1149 (11%)	1072 (10%)	1	12

All (1072) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	Sa	2	ALA
1	Sa	112	MET
1	Sa	129	ASP
1	Sa	149	VAL
1	Sa	150	SER
1	Sa	151	ARG
1	Sa	202	SER
1	Sa	203	GLY
1	Sa	216	LEU
1	Sa	271	GLY
1	Sa	342	SER
1	Sa	343	HIS
2	SA	3	ALA
2	SA	8	ALA
2	SA	10	ARG
2	SA	11	ALA
2	SA	21	MET
2	SA	172	LYS
2	SA	190	ARG

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Mol	Chain	Res	Type
2	SA	192	THR
2	SA	199	TRP
2	SA	200	ASP
2	SA	210	ASP
2	SA	211	PRO
2	SA	214	ALA
2	SA	215	LYS
2	SA	232	VAL
2	SA	233	ALA
2	SA	235	TYR
2	SA	239	ALA
2	SA	257	ALA
3	SB	31	GLU
3	SB	36	GLY
3	SB	48	ILE
3	SB	55	THR
3	SB	63	GLY
3	SB	71	SER
3	SB	78	ASN
3	SB	81	GLU
3	SB	90	LYS
3	SB	91	VAL
3	SB	93	ASN
3	SB	96	LEU
3	SB	99	ILE
3	SB	111	GLY
3	SB	113	LEU
3	SB	125	PHE
3	SB	126	VAL
3	SB	131	ALA
3	SB	156	TYR
3	SB	162	GLN
3	SB	172	VAL
3	SB	183	GLY
3	SB	184	ILE
3	SB	197	LYS
3	SB	200	PRO
3	SB	206	ASP
3	SB	211	HIS
3	SB	213	PRO
3	SB	215	GLU
3	SB	216	GLU

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Mol	Chain	Res	Type
3	SB	217	ASN
3	SB	218	GLU
4	SD	53	LYS
4	SD	58	TYR
4	SD	137	PRO
4	SD	150	PRO
4	SD	153	ILE
4	SD	154	ILE
5	SE	17	ARG
5	SE	30	ARG
5	SE	37	PRO
5	SE	46	PRO
5	SE	47	VAL
5	SE	50	LEU
5	SE	83	PRO
5	SE	95	VAL
5	SE	109	ALA
5	SE	128	LYS
5	SE	129	GLU
5	SE	134	ILE
5	SE	231	TYR
5	SE	247	SER
5	SE	260	THR
6	SF	41	HIS
6	SF	57	PHE
6	SF	63	PRO
6	SF	178	LYS
7	SI	36	LYS
7	SI	45	ILE
7	SI	76	ARG
7	SI	90	ALA
7	SI	91	ILE
7	SI	142	ALA
8	SJ	3	ALA
9	SK	66	ASP
9	SK	72	ALA
9	SK	73	ALA
9	SK	93	HIS
9	SK	94	ILE
9	SK	138	SER
9	SK	142	LYS
9	SK	144	GLY

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Mol	Chain	Res	Type
10	SL	5	ARG
10	SL	7	MET
10	SL	8	GLY
10	SL	9	ALA
10	SL	24	ASP
10	SL	26	ALA
10	SL	28	LYS
10	SL	30	SER
10	SL	78	LYS
10	SL	96	ASN
10	SL	119	PHE
10	SL	120	LYS
10	SL	123	LYS
10	SL	131	ALA
11	SM	5	ALA
11	SM	8	GLU
11	SM	9	PHE
11	SM	17	ASN
11	SM	74	PRO
11	SM	75	ARG
11	SM	80	PRO
11	SM	83	PHE
11	SM	87	LYS
11	SM	100	SER
11	SM	137	LYS
11	SM	149	SER
12	SO	69	SER
12	SO	109	LYS
12	SO	111	SER
12	SO	137	PRO
13	SQ	22	SER
13	SQ	27	ASP
13	SQ	40	ILE
13	SQ	63	ARG
13	SQ	71	LEU
13	SQ	72	LYS
13	SQ	74	GLN
13	SQ	78	ARG
13	SQ	86	PRO
13	SQ	97	ARG
13	SQ	98	VAL
13	SQ	123	VAL

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Mol	Chain	Res	Type
13	SQ	125	ALA
13	SQ	126	PRO
13	SQ	137	ARG
14	SP	109	PRO
14	SP	110	ALA
14	SP	120	GLU
14	SP	123	HIS
15	SS	10	LYS
15	SS	11	ASP
15	SS	14	PRO
15	SS	34	PRO
15	SS	40	VAL
15	SS	45	PHE
15	SS	46	LYS
15	SS	48	LEU
16	SR	66	ILE
16	SR	70	ARG
16	SR	71	LYS
16	SR	116	ILE
16	SR	139	ARG
17	SV	11	PRO
17	SV	13	SER
17	SV	18	SER
17	SV	24	LYS
17	SV	26	LYS
17	SV	28	TRP
17	SV	29	SER
17	SV	33	GLN
17	SV	101	ILE
19	SY	2	ASP
19	SY	7	LEU
19	SY	13	VAL
19	SY	16	ARG
19	SY	17	THR
19	SY	24	THR
20	SZ	22	ALA
20	SZ	46	THR
20	SZ	57	PRO
20	SZ	59	SER
23	SU	8	PRO
23	SU	34	HIS
23	SU	35	PRO

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Mol	Chain	Res	Type
23	SU	37	ARG
23	SU	40	VAL
23	SU	54	GLU
23	SU	95	TYR
24	SX	62	GLN
24	SX	69	THR
24	SX	79	CYS
25	SC	16	LYS
25	SC	17	PRO
25	SC	58	ALA
25	SC	66	GLU
25	SC	136	ILE
25	SC	137	ARG
25	SC	138	VAL
25	SC	141	GLN
25	SC	147	SER
25	SC	150	VAL
25	SC	154	SER
25	SC	158	ILE
25	SC	159	ASP
25	SC	161	SER
25	SC	164	SER
25	SC	171	PRO
25	SC	173	ARG
27	SH	4	VAL
27	SH	52	PHE
27	SH	53	VAL
27	SH	65	LEU
27	SH	66	ASN
27	SH	96	SER
27	SH	97	ARG
28	SN	11	PRO
28	SN	14	TYR
28	SN	19	ARG
28	SN	20	VAL
28	SN	53	ILE
29	ST	10	ASP
29	ST	11	LEU
29	ST	29	HIS
29	ST	54	LEU
36	LA	73	VAL
36	LA	134	PRO

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Mol	Chain	Res	Type
36	LA	150	THR
36	LA	167	ALA
36	LA	197	TRP
36	LA	198	GLN
37	LB	67	PHE
37	LB	68	ARG
38	LE	2	SER
38	LE	3	THR
38	LE	7	GLN
38	LE	9	ASN
38	LE	10	PRO
38	LE	27	GLU
38	LE	58	SER
38	LE	63	ARG
38	LE	88	VAL
38	LE	89	LYS
38	LE	113	ASP
39	LF	126	ASP
39	LF	140	LYS
39	LF	183	LYS
40	LH	61	ARG
40	LH	63	LEU
40	LH	86	THR
40	LH	90	LYS
40	LH	94	LYS
40	LH	98	GLU
40	LH	225	VAL
40	LH	233	VAL
40	LH	234	MET
41	LM	12	ASN
41	LM	13	LYS
41	LM	36	ASN
42	LP	122	ASN
43	LO	3	THR
43	LO	4	ARG
43	LO	15	VAL
43	LO	22	ILE
44	LR	13	ARG
44	LR	98	MET
44	LR	156	PRO
44	LR	158	VAL
44	LR	161	SER

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Mol	Chain	Res	Type
45	LQ	3	LEU
45	LQ	16	TYR
45	LQ	73	ASP
45	LQ	74	ILE
45	LQ	89	LEU
45	LQ	116	LEU
45	LQ	144	ALA
45	LQ	183	PHE
45	LQ	187	GLU
45	LQ	188	LYS
45	LQ	199	ILE
45	LQ	200	TYR
45	LQ	203	HIS
45	LQ	204	VAL
45	LQ	288	LEU
45	LQ	289	ASN
45	LQ	290	SER
46	LT	54	PRO
46	LT	55	GLN
46	LT	56	LYS
46	LT	57	ILE
46	LT	59	SER
46	LT	72	LYS
47	LU	5	HIS
47	LU	10	ARG
47	LU	70	ARG
47	LU	137	PRO
47	LU	139	PHE
48	LV	8	ALA
48	LV	9	ASN
48	LV	70	THR
48	LV	112	THR
48	LV	168	ALA
49	LX	34	LYS
49	LX	46	LYS
49	LX	50	LYS
49	LX	58	ARG
50	LZ	72	LYS
51	LY	8	THR
51	LY	10	SER
52	Lb	110	ASN
53	Ld	51	LYS

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Mol	Chain	Res	Type
54	Lf	89	TYR
54	Lf	102	SER
55	Lg	87	ARG
55	Lg	101	VAL
55	Lg	102	THR
55	Lg	119	VAL
56	Lh	13	LYS
56	Lh	66	HIS
56	Lh	121	THR
56	Lh	132	ASP
57	Ll	4	GLY
57	Ll	11	ARG
57	Ll	51	VAL
57	Ll	76	SER
57	Ll	84	ALA
57	Ll	87	ARG
57	Ll	90	ALA
57	Ll	93	ALA
58	Ln	19	ASP
58	Ln	31	ALA
58	Ln	44	THR
58	Ln	49	ASP
59	Lo	27	ILE
59	Lo	34	THR
59	Lo	38	ASN
59	Lo	47	THR
60	Lr	14	ASN
60	Lr	48	SER
64	LG	12	LYS
64	LG	26	TRP
64	LG	28	ILE
64	LG	29	LYS
64	LG	37	PRO
64	LG	39	ALA
64	LG	40	GLU
64	LG	44	ALA
64	LG	51	TYR
64	LG	52	PRO
64	LG	54	ASP
64	LG	75	ILE
64	LG	76	THR
64	LG	112	ILE

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Mol	Chain	Res	Type
64	LG	117	ILE
64	LG	122	GLN
64	LG	123	ALA
64	LG	139	VAL
64	LG	173	LEU
64	LG	182	LYS
64	LG	184	ILE
64	LG	188	LEU
64	LG	191	ALA
64	LG	196	PRO
64	LG	198	LEU
66	LN	6	PHE
66	LN	7	VAL
66	LN	17	TYR
66	LN	21	TYR
66	LN	23	ARG
66	LN	31	VAL
66	LN	32	ASP
66	LN	66	PRO
66	LN	80	VAL
66	LN	89	TRP
66	LN	90	GLY
66	LN	102	LEU
67	LS	4	PHE
67	LS	6	PHE
67	LS	17	PRO
67	LS	19	PRO
67	LS	22	GLU
67	LS	23	HIS
67	LS	35	ASN
67	LS	54	LYS
67	LS	70	ASN
67	LS	71	PRO
67	LS	73	THR
67	LS	86	ARG
67	LS	87	THR
67	LS	117	ARG
67	LS	138	ARG
67	LS	151	PHE
67	LS	152	PRO
67	LS	157	LYS
67	LS	161	PRO

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Mol	Chain	Res	Type
67	LS	162	THR
68	LW	29	LYS
68	LW	30	PRO
68	LW	31	VAL
68	LW	34	LYS
68	LW	37	GLU
68	LW	55	LYS
68	LW	58	ASN
68	LW	79	ALA
68	LW	83	ARG
68	LW	100	ASP
68	LW	101	TRP
68	LW	104	VAL
68	LW	105	ILE
68	LW	106	ALA
69	La	11	VAL
69	La	20	GLY
69	La	31	GLU
69	La	37	PRO
69	La	55	ARG
70	Li	11	HIS
70	Li	12	SER
70	Li	18	ASN
70	Li	19	GLN
70	Li	20	THR
70	Li	34	TYR
70	Li	37	LYS
70	Li	40	SER
70	Li	55	PRO
70	Li	57	LEU
70	Li	58	ARG
70	Li	65	PRO
70	Li	69	ARG
70	Li	70	ASN
70	Li	81	VAL
70	Li	101	LYS
70	Li	102	ILE
70	Li	105	LYS
70	Li	107	LEU
70	Li	108	LYS
71	Lj	13	VAL
71	Lj	25	SER

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Mol	Chain	Res	Type
71	Lj	39	VAL
71	Lj	42	LYS
71	Lj	61	THR
71	Lj	62	LYS
72	Lk	66	VAL
73	Lp	51	ILE
74	LJ	32	ILE
74	LJ	37	LEU
74	LJ	67	ASN
74	LJ	76	PRO
74	LJ	78	ALA
74	LJ	94	LYS
74	LJ	96	VAL
75	Lt	62	VAL
75	Lu	62	VAL
77	Lc	45	LEU
77	Lc	117	GLN
78	Le	109	ARG
78	Le	159	ASN
78	Le	205	TRP
79	Ls	12	VAL
79	Ls	63	ARG
79	Ls	236	THR
80	LC	6	PHE
80	LC	40	PRO
80	LC	60	VAL
80	LC	61	GLU
80	LC	63	PRO
80	LC	69	LYS
80	LC	70	LYS
80	LC	124	LYS
80	LC	129	ALA
80	LC	131	THR
80	LC	303	ASP
80	LC	335	PRO
80	LC	351	SER
80	LC	358	ILE
80	LC	369	PHE
80	LC	374	PHE
81	LD	90	ARG
81	LD	95	ALA
81	LD	110	LYS

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Mol	Chain	Res	Type
81	LD	111	THR
81	LD	202	ASN
81	LD	208	ARG
81	LD	330	VAL
81	LD	345	THR
81	LD	348	GLU
81	LD	349	ALA
82	LK	71	PRO
82	LK	126	PRO
82	LK	132	LEU
82	LK	135	GLN
82	LK	136	PRO
82	LK	193	LYS
83	Lm	6	LYS
84	LI	18	PRO
84	LI	39	LYS
84	LI	118	ALA
1	Sa	68	LYS
1	Sa	111	VAL
1	Sa	301	VAL
2	SA	7	ALA
2	SA	15	ARG
2	SA	16	GLU
2	SA	18	ASP
2	SA	26	ASP
2	SA	129	THR
2	SA	201	VAL
2	SA	203	VAL
2	SA	209	ARG
2	SA	212	GLU
2	SA	213	GLU
2	SA	236	ALA
3	SB	32	ASP
3	SB	61	GLU
3	SB	62	LYS
3	SB	80	LEU
3	SB	95	GLY
3	SB	98	ALA
3	SB	107	TYR
3	SB	109	LEU
3	SB	140	GLY
3	SB	149	SER

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Mol	Chain	Res	Type
3	SB	173	ARG
4	SD	56	LEU
4	SD	151	ASP
4	SD	213	ALA
5	SE	16	GLY
5	SE	92	ILE
5	SE	259	PRO
6	SF	136	ASP
7	SI	41	PRO
7	SI	92	ALA
7	SI	138	ARG
8	SJ	30	ARG
8	SJ	58	LYS
8	SJ	66	PRO
8	SJ	127	ASP
9	SK	75	LEU
9	SK	76	ALA
9	SK	88	GLY
9	SK	89	ILE
9	SK	97	ARG
9	SK	133	PRO
9	SK	143	GLY
10	SL	22	TRP
10	SL	27	TYR
10	SL	99	VAL
10	SL	117	VAL
10	SL	118	ARG
11	SM	7	GLU
11	SM	15	VAL
11	SM	79	VAL
11	SM	91	LYS
11	SM	94	ARG
11	SM	95	PHE
11	SM	99	VAL
12	SO	32	ASP
12	SO	41	ALA
12	SO	57	GLN
12	SO	149	LEU
13	SQ	5	ARG
13	SQ	7	LYS
13	SQ	26	LEU
13	SQ	85	VAL

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Mol	Chain	Res	Type
15	SS	99	SER
17	SV	34	LYS
17	SV	44	ASP
19	SY	4	GLN
19	SY	25	GLN
23	SU	39	ASN
23	SU	71	GLY
24	SX	68	PRO
25	SC	20	PRO
25	SC	44	LEU
25	SC	45	TRP
25	SC	142	ILE
25	SC	143	VAL
25	SC	146	PRO
25	SC	151	ARG
25	SC	156	LYS
25	SC	162	LEU
25	SC	167	GLY
27	SH	50	PHE
27	SH	92	ARG
27	SH	95	PRO
28	SN	16	ALA
28	SN	33	LYS
28	SN	48	LYS
29	ST	9	VAL
29	ST	52	PHE
36	LA	98	LEU
37	LB	11	GLY
37	LB	23	ARG
37	LB	38	ASN
37	LB	63	PHE
37	LB	253	THR
38	LE	8	LEU
38	LE	74	ARG
38	LE	108	ILE
38	LE	124	ILE
39	LF	186	ILE
40	LH	64	LYS
40	LH	73	LEU
40	LH	118	LYS
40	LH	126	ILE
40	LH	146	LEU

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Mol	Chain	Res	Type
40	LH	201	ASN
41	LM	9	SER
42	LP	56	LYS
43	LO	10	LYS
43	LO	11	LYS
43	LO	28	HIS
43	LO	99	THR
43	LO	127	LYS
44	LR	20	LYS
44	LR	94	GLU
44	LR	119	GLU
44	LR	160	HIS
45	LQ	14	HIS
45	LQ	52	LYS
45	LQ	55	PHE
45	LQ	59	LYS
45	LQ	119	GLU
45	LQ	141	PRO
45	LQ	207	TYR
45	LQ	218	LYS
45	LQ	284	ARG
46	LT	91	THR
46	LT	137	VAL
47	LU	80	VAL
47	LU	125	VAL
48	LV	31	GLU
48	LV	38	LYS
48	LV	68	GLY
48	LV	74	LYS
48	LV	79	ASN
48	LV	128	ARG
48	LV	166	ILE
48	LV	169	ARG
49	LX	47	THR
49	LX	49	LYS
51	LY	21	ALA
52	Lb	67	ASP
52	Lb	90	SER
52	Lb	91	VAL
52	Lb	93	ARG
54	Lf	23	LYS
55	Lg	2	SER

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Mol	Chain	Res	Type
55	Lg	11	ARG
55	Lg	16	VAL
56	Lh	59	GLY
56	Lh	65	ARG
57	Ll	26	SER
57	Ll	41	ALA
57	Ll	61	THR
57	Ll	77	ASN
59	Lo	4	HIS
59	Lo	25	TYR
59	Lo	35	ILE
59	Lo	39	ALA
60	Lr	34	SER
60	Lr	37	ALA
60	Lr	76	SER
60	Lr	80	TYR
64	LG	69	THR
64	LG	116	PRO
64	LG	129	SER
64	LG	138	ASN
64	LG	144	ASP
64	LG	186	ALA
64	LG	189	ILE
64	LG	194	ALA
66	LN	3	PHE
66	LN	88	SER
67	LS	3	ALA
67	LS	16	LEU
67	LS	52	LYS
67	LS	68	GLU
67	LS	130	THR
68	LW	107	ALA
68	LW	108	ASN
69	La	54	ILE
69	La	98	PRO
70	Li	30	LEU
70	Li	36	LYS
70	Li	43	LYS
70	Li	63	LYS
70	Li	103	VAL
70	Li	112	THR
71	Lj	100	LYS

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Mol	Chain	Res	Type
72	Lk	42	PHE
72	Lk	80	LEU
72	Lk	81	GLY
72	Lk	94	SER
74	LJ	55	LYS
74	LJ	77	SER
74	LJ	92	ASP
74	LJ	122	MET
78	Le	62	LYS
78	Le	206	PRO
79	Ls	52	SER
79	Ls	211	GLU
80	LC	62	LYS
80	LC	103	ASN
80	LC	123	CYS
80	LC	126	LYS
80	LC	137	TYR
80	LC	205	GLU
80	LC	350	THR
80	LC	353	LEU
80	LC	365	THR
81	LD	3	THR
81	LD	20	THR
81	LD	94	GLY
83	Lm	18	TYR
84	LI	99	ILE
84	LI	110	ARG
84	LI	115	MET
1	Sa	340	GLN
3	SB	70	THR
3	SB	157	MET
3	SB	194	PRO
3	SB	195	LYS
5	SE	117	ASN
5	SE	119	HIS
7	SI	30	PRO
7	SI	31	GLY
7	SI	32	ARG
7	SI	81	THR
7	SI	146	LYS
8	SJ	13	LYS
8	SJ	25	VAL

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Mol	Chain	Res	Type
9	SK	107	PRO
9	SK	109	PRO
10	SL	10	GLY
10	SL	107	LYS
11	SM	49	ASP
11	SM	98	VAL
11	SM	151	LYS
12	SO	78	HIS
12	SO	86	GLU
12	SO	87	ASP
14	SP	56	ASP
14	SP	82	ASN
16	SR	90	ARG
17	SV	89	ALA
17	SV	96	HIS
19	SY	8	ALA
20	SZ	19	PRO
20	SZ	47	ALA
23	SU	65	LYS
25	SC	18	ARG
25	SC	170	PRO
28	SN	47	ALA
29	ST	68	LEU
37	LB	34	PHE
37	LB	66	PRO
37	LB	140	ASN
38	LE	4	GLU
38	LE	31	ARG
39	LF	109	THR
40	LH	97	PRO
40	LH	200	LYS
41	LM	49	LEU
43	LO	66	ASN
43	LO	138	GLY
44	LR	11	ASN
44	LR	78	ASN
44	LR	140	ARG
44	LR	149	VAL
45	LQ	23	LYS
45	LQ	131	TYR
45	LQ	197	LYS
45	LQ	212	ALA

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Mol	Chain	Res	Type
45	LQ	248	ARG
47	LU	94	GLU
48	LV	63	TYR
48	LV	77	HIS
49	LX	67	LEU
50	LZ	63	LYS
52	Lb	108	SER
54	Lf	77	ASN
55	Lg	105	GLU
56	Lh	17	GLN
56	Lh	90	ASN
57	Li	75	LYS
57	Li	89	ARG
59	Lo	24	PRO
60	Lr	94	GLY
60	Lr	97	LYS
64	LG	41	LYS
64	LG	42	PRO
64	LG	77	PRO
64	LG	143	ASP
64	LG	185	ASP
66	LN	20	ASP
66	LN	65	VAL
66	LN	67	LYS
66	LN	78	ALA
66	LN	105	PHE
68	LW	97	ASN
69	La	14	LEU
69	La	19	ALA
69	La	51	LYS
69	La	97	GLY
70	Li	82	LEU
72	Lk	38	LYS
72	Lk	65	LYS
72	Lk	95	SER
74	LJ	124	LYS
76	Lv	19	SER
76	Lw	19	SER
77	Lc	90	ARG
77	Lc	113	VAL
77	Lc	116	PRO
78	Le	167	ASN

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Mol	Chain	Res	Type
79	Ls	73	THR
79	Ls	258	THR
80	LC	35	ASP
80	LC	215	ASP
80	LC	242	PRO
80	LC	262	ARG
80	LC	270	ALA
80	LC	296	HIS
80	LC	375	GLN
81	LD	62	ALA
81	LD	84	PRO
81	LD	87	GLY
81	LD	113	ARG
81	LD	160	ASP
84	LI	44	ASP
1	Sa	31	THR
1	Sa	237	ILE
1	Sa	241	ALA
2	SA	167	ALA
2	SA	259	PRO
3	SB	30	ALA
3	SB	64	ARG
4	SD	94	LYS
4	SD	149	TYR
4	SD	241	GLY
5	SE	55	LYS
5	SE	150	ARG
5	SE	221	LYS
5	SE	258	LYS
6	SF	79	ASN
7	SI	132	PRO
9	SK	52	LEU
9	SK	145	ARG
10	SL	23	ALA
10	SL	32	LEU
10	SL	129	LEU
11	SM	139	THR
11	SM	140	GLY
11	SM	150	LYS
13	SQ	42	PRO
16	SR	117	LYS
16	SR	118	PRO

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Mol	Chain	Res	Type
19	SY	19	SER
20	SZ	16	GLY
23	SU	59	ASN
25	SC	166	PHE
28	SN	38	CYS
38	LE	65	GLU
38	LE	145	ARG
39	LF	49	GLU
40	LH	60	ARG
40	LH	72	ALA
40	LH	91	MET
40	LH	199	VAL
40	LH	232	GLY
41	LM	6	ARG
42	LP	78	GLY
43	LO	5	PHE
43	LO	12	ARG
43	LO	117	PRO
44	LR	142	PRO
45	LQ	17	PHE
45	LQ	90	GLU
45	LQ	112	THR
45	LQ	117	ASP
45	LQ	118	GLN
45	LQ	123	ASN
45	LQ	132	TYR
45	LQ	293	GLY
49	LX	97	ASP
50	LZ	51	LEU
50	LZ	71	LYS
52	Lb	87	TYR
54	Lf	67	ALA
58	Ln	38	CYS
60	Lr	35	LEU
60	Lr	56	PRO
60	Lr	91	PHE
66	LN	79	ASP
69	La	59	ALA
70	Li	39	ALA
70	Li	104	LYS
70	Li	106	VAL
71	Lj	49	ALA

Continued on next page...

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Mol	Chain	Res	Type
71	Lj	50	GLY
71	Lj	81	ASN
72	Lk	43	VAL
74	LJ	75	VAL
77	Lc	80	ALA
77	Lc	98	PRO
78	Le	108	LEU
79	Ls	74	GLY
80	LC	4	ARG
80	LC	111	SER
80	LC	158	THR
80	LC	204	LYS
80	LC	359	LYS
80	LC	368	LYS
80	LC	386	ARG
81	LD	109	THR
81	LD	331	LEU
81	LD	343	MET
81	LD	389	SER
82	LK	42	ARG
83	Lm	2	THR
83	Lm	73	THR
84	LI	85	PHE
84	LI	113	THR
3	SB	65	ARG
3	SB	152	PHE
3	SB	185	LYS
3	SB	214	LYS
4	SD	92	ILE
4	SD	163	ASP
5	SE	93	THR
5	SE	108	LYS
5	SE	112	VAL
5	SE	248	PRO
7	SI	148	TYR
10	SL	83	PHE
11	SM	136	THR
12	SO	148	THR
13	SQ	21	TYR
13	SQ	140	ARG
15	SS	33	LEU
16	SR	63	MET

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Mol	Chain	Res	Type
17	SV	23	GLN
20	SZ	60	SER
23	SU	24	SER
29	ST	33	GLN
37	LB	71	HIS
38	LE	6	LYS
43	LO	7	LYS
43	LO	114	PRO
43	LO	134	LYS
44	LR	159	PRO
45	LQ	2	SER
45	LQ	249	ALA
45	LQ	292	ALA
48	LV	3	LYS
48	LV	37	ARG
50	LZ	60	GLN
50	LZ	66	HIS
51	LY	4	ASN
52	Lb	62	PRO
54	Lf	7	ALA
54	Lf	75	HIS
56	Lh	51	THR
60	Lr	46	LYS
64	LG	88	TYR
64	LG	217	MET
67	LS	139	ASP
68	LW	111	ARG
71	Lj	40	ASN
77	Lc	108	THR
78	Le	164	PRO
78	Le	175	LEU
79	Ls	136	SER
80	LC	121	ASN
80	LC	216	GLU
80	LC	260	PRO
80	LC	355	LEU
81	LD	182	ALA
82	LK	131	VAL
84	LI	40	LYS
84	LI	84	ALA
84	LI	98	ARG
4	SD	234	PRO

Continued on next page...

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Mol	Chain	Res	Type
5	SE	107	PHE
6	SF	138	SER
7	SI	123	LEU
8	SJ	77	SER
10	SL	56	ILE
10	SL	115	PRO
13	SQ	68	GLY
15	SS	13	ASN
17	SV	25	LYS
17	SV	30	LYS
23	SU	64	PHE
38	LE	33	THR
40	LH	69	VAL
43	LO	35	ALA
45	LQ	140	ARG
45	LQ	208	MET
48	LV	2	VAL
50	LZ	45	ARG
52	Lb	81	ASN
64	LG	137	VAL
66	LN	34	ASN
69	La	17	ARG
69	La	49	TYR
70	Li	64	ARG
73	Lp	29	PRO
74	LJ	118	ARG
78	Le	160	LYS
80	LC	297	GLU
80	LC	348	LYS
84	LI	93	PRO
84	LI	114	GLY
84	LI	116	ARG
1	Sa	255	VAL
3	SB	37	VAL
4	SD	152	PRO
5	SE	111	VAL
10	SL	54	ILE
15	SS	53	PRO
25	SC	69	PRO
28	SN	10	HIS
29	ST	43	GLY
36	LA	133	PHE

Continued on next page...

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Mol	Chain	Res	Type
42	LP	148	ILE
45	LQ	215	GLU
59	Lo	2	PRO
64	LG	45	ILE
70	Li	79	GLY
73	Lp	28	HIS
1	Sa	127	GLY
1	Sa	166	VAL
11	SM	6	GLY
14	SP	60	PRO
25	SC	165	PRO
27	SH	29	PRO
28	SN	15	GLY
36	LA	60	PRO
38	LE	25	VAL
38	LE	75	GLY
51	LY	22	PRO
13	SQ	66	VAL
23	SU	92	GLU
39	LF	122	VAL
40	LH	117	GLY
44	LR	157	GLY
49	LX	62	PRO
52	Lb	60	ILE
72	Lk	40	VAL
77	Lc	97	SER
79	Ls	113	PRO
80	LC	12	GLY
81	LD	386	ILE
82	LK	116	PRO
8	SJ	9	ALA
10	SL	85	PRO
12	SO	66	VAL
42	LP	34	PRO
43	LO	93	ALA
51	LY	49	ILE
52	Lb	83	PRO
55	Lg	15	VAL
82	LK	94	PRO
84	LI	160	PRO
4	SD	132	GLY
13	SQ	65	PRO

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Mol	Chain	Res	Type
49	LX	54	PRO
64	LG	68	PRO
64	LG	90	GLY

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	Sa	301/323 (93%)	275 (91%)	26 (9%)	13	47
2	SA	190/204 (93%)	161 (85%)	29 (15%)	3	22
3	SB	150/175 (86%)	126 (84%)	24 (16%)	3	21
4	SD	176/176 (100%)	152 (86%)	24 (14%)	5	27
5	SE	211/211 (100%)	190 (90%)	21 (10%)	9	38
6	SF	158/159 (99%)	144 (91%)	14 (9%)	12	44
7	SI	103/103 (100%)	91 (88%)	12 (12%)	7	32
8	SJ	91/113 (80%)	84 (92%)	7 (8%)	16	52
9	SK	78/94 (83%)	66 (85%)	12 (15%)	3	22
10	SL	79/113 (70%)	71 (90%)	8 (10%)	9	38
11	SM	116/133 (87%)	91 (78%)	25 (22%)	1	9
12	SO	106/106 (100%)	97 (92%)	9 (8%)	13	48
13	SQ	123/127 (97%)	100 (81%)	23 (19%)	2	14
14	SP	63/74 (85%)	53 (84%)	10 (16%)	3	21
15	SS	121/121 (100%)	96 (79%)	25 (21%)	1	10
16	SR	77/77 (100%)	64 (83%)	13 (17%)	2	18
17	SV	76/87 (87%)	70 (92%)	6 (8%)	15	51
19	SY	49/52 (94%)	41 (84%)	8 (16%)	3	20
20	SZ	44/49 (90%)	38 (86%)	6 (14%)	5	27
23	SU	70/84 (83%)	42 (60%)	28 (40%)	0	0
24	SX	44/44 (100%)	40 (91%)	4 (9%)	12	43

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
25	SC	154/167 (92%)	136 (88%)	18 (12%)	7	32
27	SH	113/113 (100%)	95 (84%)	18 (16%)	3	21
28	SN	27/40 (68%)	24 (89%)	3 (11%)	8	34
29	ST	68/68 (100%)	59 (87%)	9 (13%)	5	28
36	LA	192/192 (100%)	179 (93%)	13 (7%)	20	57
37	LB	193/195 (99%)	175 (91%)	18 (9%)	11	42
38	LE	148/149 (99%)	126 (85%)	22 (15%)	4	23
39	LF	164/164 (100%)	152 (93%)	12 (7%)	17	54
40	LH	164/173 (95%)	135 (82%)	29 (18%)	2	16
41	LM	103/109 (94%)	91 (88%)	12 (12%)	7	32
42	LP	167/167 (100%)	143 (86%)	24 (14%)	4	25
43	LO	104/110 (94%)	88 (85%)	16 (15%)	3	22
44	LR	138/138 (100%)	117 (85%)	21 (15%)	3	22
45	LQ	242/251 (96%)	196 (81%)	46 (19%)	2	13
46	LT	166/166 (100%)	144 (87%)	22 (13%)	5	28
47	LU	129/140 (92%)	110 (85%)	19 (15%)	4	24
48	LV	136/144 (94%)	112 (82%)	24 (18%)	2	16
49	LX	109/109 (100%)	95 (87%)	14 (13%)	5	29
50	LZ	54/66 (82%)	49 (91%)	5 (9%)	11	42
51	LY	115/115 (100%)	98 (85%)	17 (15%)	4	24
52	Lb	64/64 (100%)	57 (89%)	7 (11%)	8	35
53	Ld	21/21 (100%)	20 (95%)	1 (5%)	31	67
54	Lf	90/98 (92%)	72 (80%)	18 (20%)	1	11
55	Lg	99/103 (96%)	85 (86%)	14 (14%)	4	26
56	Lh	119/122 (98%)	111 (93%)	8 (7%)	20	57
57	Li	72/77 (94%)	61 (85%)	11 (15%)	3	22
58	Ln	59/63 (94%)	48 (81%)	11 (19%)	2	14
59	Lo	48/48 (100%)	37 (77%)	11 (23%)	1	7
60	Lr	91/94 (97%)	75 (82%)	16 (18%)	2	16
61	Lq	24/24 (100%)	22 (92%)	2 (8%)	14	49
64	LG	185/185 (100%)	152 (82%)	33 (18%)	2	16

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
66	LN	116/116 (100%)	88 (76%)	28 (24%)	1	6
67	LS	153/153 (100%)	123 (80%)	30 (20%)	1	12
68	LW	89/94 (95%)	75 (84%)	14 (16%)	3	21
69	La	73/83 (88%)	56 (77%)	17 (23%)	1	7
70	Li	105/107 (98%)	78 (74%)	27 (26%)	0	6
71	Lj	80/89 (90%)	63 (79%)	17 (21%)	1	9
72	Lk	62/62 (100%)	45 (73%)	17 (27%)	0	4
73	Lp	38/38 (100%)	26 (68%)	12 (32%)	0	2
74	LJ	104/105 (99%)	80 (77%)	24 (23%)	1	7
75	Lt	46/46 (100%)	45 (98%)	1 (2%)	60	83
75	Lu	46/46 (100%)	46 (100%)	0	100	100
76	Lv	48/48 (100%)	47 (98%)	1 (2%)	61	84
76	Lw	48/48 (100%)	46 (96%)	2 (4%)	36	70
77	Lc	107/109 (98%)	99 (92%)	8 (8%)	17	53
78	Le	206/206 (100%)	171 (83%)	35 (17%)	2	18
79	Ls	222/222 (100%)	199 (90%)	23 (10%)	9	36
80	LC	328/335 (98%)	276 (84%)	52 (16%)	3	21
81	LD	294/302 (97%)	257 (87%)	37 (13%)	5	29
82	LK	173/173 (100%)	141 (82%)	32 (18%)	2	14
83	Lm	73/73 (100%)	67 (92%)	6 (8%)	14	49
84	LI	152/156 (97%)	135 (89%)	17 (11%)	7	33
All	All	8547/8911 (96%)	7319 (86%)	1228 (14%)	8	25

All (1228) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	Sa	11	HIS
1	Sa	35	THR
1	Sa	70	TYR
1	Sa	72	LEU
1	Sa	85	SER
1	Sa	89	ARG
1	Sa	99	GLN
1	Sa	106	LEU
1	Sa	107	HIS

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Mol	Chain	Res	Type
1	Sa	112	MET
1	Sa	116	PHE
1	Sa	128	LEU
1	Sa	143	ARG
1	Sa	148	PRO
1	Sa	151	ARG
1	Sa	175	THR
1	Sa	199	GLU
1	Sa	200	PHE
1	Sa	207	ASP
1	Sa	220	MET
1	Sa	225	SER
1	Sa	227	ASP
1	Sa	230	VAL
1	Sa	242	VAL
1	Sa	258	PHE
1	Sa	350	LEU
2	SA	10	ARG
2	SA	16	GLU
2	SA	20	GLN
2	SA	33	ASN
2	SA	40	ARG
2	SA	43	TYR
2	SA	44	LYS
2	SA	53	ILE
2	SA	55	LEU
2	SA	61	LYS
2	SA	73	GLU
2	SA	76	GLN
2	SA	86	TYR
2	SA	91	VAL
2	SA	106	ARG
2	SA	137	PRO
2	SA	160	TYR
2	SA	162	ASP
2	SA	169	ASN
2	SA	170	LYS
2	SA	172	LYS
2	SA	179	PHE
2	SA	194	LEU
2	SA	199	TRP
2	SA	227	PRO

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Mol	Chain	Res	Type
2	SA	228	ASP
2	SA	255	PRO
2	SA	258	ILE
2	SA	259	PRO
3	SB	14	ASP
3	SB	40	ARG
3	SB	43	PRO
3	SB	59	LEU
3	SB	75	LYS
3	SB	78	ASN
3	SB	79	PHE
3	SB	84	VAL
3	SB	91	VAL
3	SB	92	VAL
3	SB	97	CYS
3	SB	99	ILE
3	SB	108	LYS
3	SB	123	LEU
3	SB	151	LYS
3	SB	153	LYS
3	SB	158	ILE
3	SB	159	SER
3	SB	166	GLU
3	SB	168	ILE
3	SB	184	ILE
3	SB	193	ASP
3	SB	194	PRO
3	SB	197	LYS
4	SD	44	LEU
4	SD	62	ILE
4	SD	80	LYS
4	SD	83	PRO
4	SD	94	LYS
4	SD	104	ASP
4	SD	106	LYS
4	SD	133	GLN
4	SD	134	LYS
4	SD	136	ILE
4	SD	137	PRO
4	SD	138	TYR
4	SD	149	TYR
4	SD	150	PRO

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Mol	Chain	Res	Type
4	SD	151	ASP
4	SD	153	ILE
4	SD	168	LYS
4	SD	172	PHE
4	SD	189	THR
4	SD	191	ARG
4	SD	208	ILE
4	SD	224	ASN
4	SD	240	LYS
4	SD	242	LYS
5	SE	30	ARG
5	SE	34	ARG
5	SE	35	ARG
5	SE	46	PRO
5	SE	52	ARG
5	SE	61	LYS
5	SE	90	MET
5	SE	91	LYS
5	SE	128	LYS
5	SE	135	ARG
5	SE	139	ILE
5	SE	146	VAL
5	SE	159	GLN
5	SE	165	CYS
5	SE	191	ARG
5	SE	202	ILE
5	SE	226	CYS
5	SE	231	TYR
5	SE	238	PHE
5	SE	241	ASP
5	SE	259	PRO
6	SF	30	LEU
6	SF	37	SER
6	SF	59	LYS
6	SF	75	HIS
6	SF	88	ILE
6	SF	113	ILE
6	SF	132	ARG
6	SF	144	ASN
6	SF	145	GLN
6	SF	155	ARG
6	SF	160	ARG

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Mol	Chain	Res	Type
6	SF	178	LYS
6	SF	183	SER
6	SF	197	LYS
7	SI	27	TYR
7	SI	88	ARG
7	SI	114	ILE
7	SI	121	THR
7	SI	124	VAL
7	SI	129	ARG
7	SI	130	CYS
7	SI	135	PHE
7	SI	141	ARG
7	SI	143	ARG
7	SI	144	PHE
7	SI	149	ARG
8	SJ	30	ARG
8	SJ	37	SER
8	SJ	43	LYS
8	SJ	76	LYS
8	SJ	89	PHE
8	SJ	92	ARG
8	SJ	109	GLN
9	SK	36	PHE
9	SK	49	ARG
9	SK	53	VAL
9	SK	64	ASP
9	SK	65	ARG
9	SK	67	GLU
9	SK	77	SER
9	SK	84	CYS
9	SK	92	LEU
9	SK	118	LEU
9	SK	123	MET
9	SK	134	VAL
10	SL	4	THR
10	SL	5	ARG
10	SL	22	TRP
10	SL	51	LEU
10	SL	78	LYS
10	SL	79	LYS
10	SL	84	VAL
10	SL	98	GLU

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Mol	Chain	Res	Type
11	SM	9	PHE
11	SM	11	HIS
11	SM	12	ILE
11	SM	21	ASP
11	SM	24	GLN
11	SM	25	LYS
11	SM	36	VAL
11	SM	38	ARG
11	SM	42	ASN
11	SM	58	GLU
11	SM	66	ARG
11	SM	78	LYS
11	SM	81	ASP
11	SM	87	LYS
11	SM	92	ASP
11	SM	95	PHE
11	SM	98	VAL
11	SM	100	SER
11	SM	101	ASN
11	SM	114	LEU
11	SM	116	LYS
11	SM	117	ILE
11	SM	135	HIS
11	SM	136	THR
11	SM	138	THR
12	SO	32	ASP
12	SO	42	LYS
12	SO	56	ASP
12	SO	64	LYS
12	SO	70	LYS
12	SO	72	LEU
12	SO	78	HIS
12	SO	124	ARG
12	SO	134	LYS
13	SQ	19	LYS
13	SQ	22	SER
13	SQ	23	ARG
13	SQ	28	PHE
13	SQ	49	LYS
13	SQ	61	ILE
13	SQ	66	VAL
13	SQ	71	LEU

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Mol	Chain	Res	Type
13	SQ	75	GLU
13	SQ	79	GLU
13	SQ	86	PRO
13	SQ	87	GLU
13	SQ	88	LYS
13	SQ	97	ARG
13	SQ	98	VAL
13	SQ	102	THR
13	SQ	113	ASP
13	SQ	114	LEU
13	SQ	119	ARG
13	SQ	122	GLU
13	SQ	123	VAL
13	SQ	137	ARG
13	SQ	139	ASP
14	SP	41	LEU
14	SP	78	SER
14	SP	86	ILE
14	SP	91	TYR
14	SP	96	LYS
14	SP	100	ARG
14	SP	102	GLU
14	SP	116	PHE
14	SP	118	VAL
14	SP	120	GLU
15	SS	3	ASP
15	SS	4	SER
15	SS	8	THR
15	SS	10	LYS
15	SS	16	GLU
15	SS	18	VAL
15	SS	21	TYR
15	SS	33	LEU
15	SS	34	PRO
15	SS	38	ASP
15	SS	42	THR
15	SS	46	LYS
15	SS	51	TYR
15	SS	55	TRP
15	SS	56	TYR
15	SS	68	TYR
15	SS	81	ILE

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Mol	Chain	Res	Type
15	SS	85	ARG
15	SS	91	ARG
15	SS	93	PRO
15	SS	106	ILE
15	SS	124	ARG
15	SS	128	SER
15	SS	133	ASP
15	SS	144	THR
16	SR	59	LYS
16	SR	60	ARG
16	SR	61	LYS
16	SR	98	MET
16	SR	99	ILE
16	SR	110	THR
16	SR	112	ASN
16	SR	115	GLU
16	SR	116	ILE
16	SR	124	TYR
16	SR	130	ILE
16	SR	139	ARG
16	SR	140	PRO
17	SV	52	LEU
17	SV	61	ILE
17	SV	68	GLU
17	SV	69	ARG
17	SV	78	ARG
17	SV	104	ARG
19	SY	1	MET
19	SY	5	VAL
19	SY	16	ARG
19	SY	31	LEU
19	SY	37	LEU
19	SY	39	MET
19	SY	41	ASN
19	SY	47	ARG
20	SZ	24	GLN
20	SZ	27	LYS
20	SZ	28	LYS
20	SZ	36	LYS
20	SZ	45	VAL
20	SZ	54	LYS
23	SU	10	VAL

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Mol	Chain	Res	Type
23	SU	15	ARG
23	SU	18	MET
23	SU	19	THR
23	SU	21	ARG
23	SU	22	LEU
23	SU	24	SER
23	SU	25	ARG
23	SU	26	LYS
23	SU	28	PHE
23	SU	30	LEU
23	SU	32	VAL
23	SU	33	LEU
23	SU	34	HIS
23	SU	37	ARG
23	SU	44	ASP
23	SU	49	LEU
23	SU	63	VAL
23	SU	64	PHE
23	SU	70	PHE
23	SU	75	SER
23	SU	76	THR
23	SU	78	PHE
23	SU	80	LEU
23	SU	86	ASP
23	SU	90	LYS
23	SU	91	TYR
23	SU	95	TYR
24	SX	40	GLN
24	SX	53	GLN
24	SX	66	CYS
24	SX	76	THR
25	SC	40	CYS
25	SC	48	GLN
25	SC	52	SER
25	SC	53	ARG
25	SC	59	ARG
25	SC	63	THR
25	SC	64	LEU
25	SC	67	LYS
25	SC	68	ASN
25	SC	76	GLU
25	SC	109	ARG

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Mol	Chain	Res	Type
25	SC	150	VAL
25	SC	160	PHE
25	SC	161	SER
25	SC	162	LEU
25	SC	176	ARG
25	SC	180	LYS
25	SC	181	LYS
27	SH	1	MET
27	SH	2	VAL
27	SH	18	GLU
27	SH	28	ARG
27	SH	29	PRO
27	SH	30	SER
27	SH	43	LYS
27	SH	55	ASP
27	SH	64	GLU
27	SH	65	LEU
27	SH	71	LYS
27	SH	93	LEU
27	SH	94	LEU
27	SH	103	VAL
27	SH	104	LEU
27	SH	107	SER
27	SH	113	HIS
27	SH	125	VAL
28	SN	11	PRO
28	SN	26	ASN
28	SN	36	LEU
29	ST	11	LEU
29	ST	22	ARG
29	ST	28	ASP
29	ST	36	ILE
29	ST	38	HIS
29	ST	49	PHE
29	ST	52	PHE
29	ST	71	LEU
29	ST	82	GLN
36	LA	10	LYS
36	LA	17	VAL
36	LA	33	LEU
36	LA	39	ASN
36	LA	46	LYS

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Mol	Chain	Res	Type
36	LA	96	LYS
36	LA	100	LYS
36	LA	129	LYS
36	LA	160	LYS
36	LA	164	MET
36	LA	182	ILE
36	LA	206	LYS
36	LA	211	LYS
37	LB	1	MET
37	LB	19	HIS
37	LB	21	HIS
37	LB	34	PHE
37	LB	37	ARG
37	LB	40	TYR
37	LB	52	PRO
37	LB	58	LEU
37	LB	68	ARG
37	LB	69	TYR
37	LB	70	LYS
37	LB	83	TYR
37	LB	84	THR
37	LB	102	LEU
37	LB	177	LYS
37	LB	193	ARG
37	LB	227	ARG
37	LB	247	ARG
38	LE	2	SER
38	LE	7	GLN
38	LE	8	LEU
38	LE	12	ARG
38	LE	31	ARG
38	LE	34	ARG
38	LE	38	VAL
38	LE	51	LYS
38	LE	57	ARG
38	LE	66	LYS
38	LE	69	CYS
38	LE	70	TYR
38	LE	89	LYS
38	LE	96	ARG
38	LE	106	PHE
38	LE	110	GLU

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Mol	Chain	Res	Type
38	LE	112	ILE
38	LE	127	MET
38	LE	145	ARG
38	LE	150	VAL
38	LE	155	ARG
38	LE	158	LYS
39	LF	1	MET
39	LF	5	LEU
39	LF	39	LYS
39	LF	40	HIS
39	LF	44	ASP
39	LF	70	ARG
39	LF	81	THR
39	LF	85	LYS
39	LF	108	ASN
39	LF	135	ARG
39	LF	173	LYS
39	LF	176	ASP
40	LH	58	ARG
40	LH	61	ARG
40	LH	63	LEU
40	LH	66	ARG
40	LH	68	LYS
40	LH	73	LEU
40	LH	82	LYS
40	LH	87	ASN
40	LH	96	ARG
40	LH	98	GLU
40	LH	104	LYS
40	LH	106	ARG
40	LH	126	ILE
40	LH	128	VAL
40	LH	132	LEU
40	LH	134	HIS
40	LH	143	LYS
40	LH	167	ARG
40	LH	187	HIS
40	LH	189	LYS
40	LH	190	THR
40	LH	207	PHE
40	LH	214	ILE
40	LH	215	LYS

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Mol	Chain	Res	Type
40	LH	217	ASN
40	LH	219	ASN
40	LH	221	LYS
40	LH	225	VAL
40	LH	245	ARG
41	LM	13	LYS
41	LM	16	MET
41	LM	39	ILE
41	LM	64	THR
41	LM	72	LEU
41	LM	75	LYS
41	LM	78	PRO
41	LM	91	LYS
41	LM	92	ASP
41	LM	96	MET
41	LM	123	LYS
41	LM	137	ASN
42	LP	21	PHE
42	LP	24	ARG
42	LP	36	ILE
42	LP	50	ARG
42	LP	64	VAL
42	LP	67	ARG
42	LP	77	LYS
42	LP	87	GLN
42	LP	89	ILE
42	LP	96	ARG
42	LP	97	ASN
42	LP	108	ARG
42	LP	113	LEU
42	LP	120	TRP
42	LP	126	THR
42	LP	147	ARG
42	LP	156	HIS
42	LP	172	ARG
42	LP	175	ARG
42	LP	180	THR
42	LP	182	HIS
42	LP	183	LYS
42	LP	192	TRP
42	LP	193	LYS
43	LO	6	LYS

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Mol	Chain	Res	Type
43	LO	9	ARG
43	LO	19	HIS
43	LO	21	ARG
43	LO	22	ILE
43	LO	26	ARG
43	LO	27	LYS
43	LO	47	LYS
43	LO	49	HIS
43	LO	76	GLU
43	LO	77	ARG
43	LO	85	GLU
43	LO	113	PRO
43	LO	117	PRO
43	LO	120	VAL
43	LO	130	GLU
44	LR	4	ASP
44	LR	6	VAL
44	LR	10	ARG
44	LR	14	THR
44	LR	35	PHE
44	LR	56	LYS
44	LR	67	LEU
44	LR	74	LYS
44	LR	76	GLU
44	LR	77	LYS
44	LR	87	THR
44	LR	91	ARG
44	LR	103	LEU
44	LR	106	THR
44	LR	107	GLU
44	LR	123	PHE
44	LR	124	ASP
44	LR	125	GLN
44	LR	143	LYS
44	LR	146	ARG
44	LR	161	SER
45	LQ	12	LYS
45	LQ	13	THR
45	LQ	19	ARG
45	LQ	23	LYS
45	LQ	26	ARG
45	LQ	28	ARG

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Mol	Chain	Res	Type
45	LQ	31	LYS
45	LQ	42	ASN
45	LQ	43	GLN
45	LQ	52	LYS
45	LQ	54	ARG
45	LQ	60	ASP
45	LQ	61	ILE
45	LQ	75	VAL
45	LQ	91	VAL
45	LQ	119	GLU
45	LQ	132	TYR
45	LQ	143	ARG
45	LQ	145	LEU
45	LQ	158	ARG
45	LQ	176	SER
45	LQ	180	PHE
45	LQ	183	PHE
45	LQ	184	LYS
45	LQ	193	ASP
45	LQ	198	TYR
45	LQ	199	ILE
45	LQ	200	TYR
45	LQ	208	MET
45	LQ	219	PHE
45	LQ	223	PHE
45	LQ	225	GLU
45	LQ	234	ASP
45	LQ	236	MET
45	LQ	241	LYS
45	LQ	242	LYS
45	LQ	244	HIS
45	LQ	247	ILE
45	LQ	248	ARG
45	LQ	250	ASP
45	LQ	252	THR
45	LQ	256	SER
45	LQ	259	LYS
45	LQ	281	LEU
45	LQ	301	GLU
45	LQ	302	ASP
46	LT	1	MET
46	LT	21	LYS

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Mol	Chain	Res	Type
46	LT	46	LYS
46	LT	55	GLN
46	LT	56	LYS
46	LT	58	HIS
46	LT	75	HIS
46	LT	89	LEU
46	LT	91	THR
46	LT	93	ILE
46	LT	95	TRP
46	LT	105	LEU
46	LT	107	ARG
46	LT	113	LYS
46	LT	114	LYS
46	LT	122	ASP
46	LT	131	MET
46	LT	132	PHE
46	LT	135	LYS
46	LT	153	LYS
46	LT	171	GLU
46	LT	176	ARG
47	LU	9	SER
47	LU	12	ARG
47	LU	13	ASP
47	LU	27	LEU
47	LU	49	HIS
47	LU	56	PHE
47	LU	60	ARG
47	LU	63	ARG
47	LU	70	ARG
47	LU	77	ASN
47	LU	88	ARG
47	LU	105	PHE
47	LU	112	ASN
47	LU	113	ASP
47	LU	125	VAL
47	LU	154	TYR
47	LU	158	ASN
47	LU	160	LEU
47	LU	161	LYS
48	LV	4	TYR
48	LV	6	ARG
48	LV	7	GLU

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Mol	Chain	Res	Type
48	LV	29	THR
48	LV	30	ARG
48	LV	37	ARG
48	LV	55	LYS
48	LV	61	ARG
48	LV	70	THR
48	LV	74	LYS
48	LV	75	SER
48	LV	76	ARG
48	LV	79	ASN
48	LV	81	GLN
48	LV	84	TRP
48	LV	93	LEU
48	LV	113	LEU
48	LV	114	TYR
48	LV	124	GLN
48	LV	128	ARG
48	LV	153	GLU
48	LV	154	LYS
48	LV	158	VAL
48	LV	159	LYS
49	LX	31	ARG
49	LX	43	HIS
49	LX	47	THR
49	LX	50	LYS
49	LX	55	LYS
49	LX	66	LYS
49	LX	80	GLU
49	LX	95	ILE
49	LX	98	LEU
49	LX	122	THR
49	LX	124	ILE
49	LX	133	TYR
49	LX	140	TYR
49	LX	149	ILE
50	LZ	19	LYS
50	LZ	35	ASN
50	LZ	40	ARG
50	LZ	59	LYS
50	LZ	66	HIS
51	LY	1	MET
51	LY	8	THR

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Mol	Chain	Res	Type
51	LY	9	SER
51	LY	11	ARG
51	LY	19	PHE
51	LY	23	SER
51	LY	31	SER
51	LY	47	ILE
51	LY	51	LYS
51	LY	59	ARG
51	LY	73	TYR
51	LY	74	ARG
51	LY	86	ARG
51	LY	95	ASN
51	LY	114	ARG
51	LY	120	ARG
51	LY	129	LYS
52	Lb	80	GLN
52	Lb	86	LEU
52	Lb	87	TYR
52	Lb	91	VAL
52	Lb	92	MET
52	Lb	113	ARG
52	Lb	116	LEU
53	Ld	51	LYS
54	Lf	14	ILE
54	Lf	17	LYS
54	Lf	20	LEU
54	Lf	21	VAL
54	Lf	26	LYS
54	Lf	27	TYR
54	Lf	32	LYS
54	Lf	54	PRO
54	Lf	57	LYS
54	Lf	60	ILE
54	Lf	68	LYS
54	Lf	75	HIS
54	Lf	77	ASN
54	Lf	85	CYS
54	Lf	90	ARG
54	Lf	91	VAL
54	Lf	95	SER
54	Lf	104	ILE
55	Lg	1	MET

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Mol	Chain	Res	Type
55	Lg	13	ASP
55	Lg	14	GLU
55	Lg	15	VAL
55	Lg	17	THR
55	Lg	25	HIS
55	Lg	32	THR
55	Lg	33	PHE
55	Lg	50	LYS
55	Lg	57	ILE
55	Lg	59	ILE
55	Lg	86	LYS
55	Lg	88	ASN
55	Lg	105	GLU
56	Lh	22	HIS
56	Lh	25	ARG
56	Lh	29	LEU
56	Lh	50	CYS
56	Lh	94	CYS
56	Lh	118	ILE
56	Lh	119	VAL
56	Lh	120	VAL
57	Ll	1	MET
57	Ll	14	LYS
57	Ll	30	GLN
57	Ll	33	THR
57	Ll	43	ARG
57	Ll	50	SER
57	Ll	52	LYS
57	Ll	63	ARG
57	Ll	72	ARG
57	Ll	79	ARG
57	Ll	80	GLU
58	Ln	6	HIS
58	Ln	16	ARG
58	Ln	18	LYS
58	Ln	22	SER
58	Ln	36	VAL
58	Ln	42	LEU
58	Ln	44	THR
58	Ln	48	PHE
58	Ln	52	LYS
58	Ln	55	LYS

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Mol	Chain	Res	Type
58	Ln	64	LEU
59	Lo	1	MET
59	Lo	7	PHE
59	Lo	11	GLN
59	Lo	21	ARG
59	Lo	23	ILE
59	Lo	27	ILE
59	Lo	31	THR
59	Lo	33	ASN
59	Lo	37	TYR
59	Lo	45	ARG
59	Lo	48	LYS
60	Lr	10	THR
60	Lr	14	ASN
60	Lr	33	ASP
60	Lr	44	ASP
60	Lr	46	LYS
60	Lr	47	GLN
60	Lr	50	TYR
60	Lr	53	GLN
60	Lr	60	LYS
60	Lr	61	LYS
60	Lr	71	LYS
60	Lr	75	GLN
60	Lr	78	LYS
60	Lr	80	TYR
60	Lr	82	GLN
60	Lr	93	ILE
61	Lq	11	ARG
61	Lq	25	LYS
64	LG	4	THR
64	LG	18	HIS
64	LG	19	THR
64	LG	22	ARG
64	LG	29	LYS
64	LG	38	LYS
64	LG	50	PHE
64	LG	52	PRO
64	LG	55	ASP
64	LG	69	THR
64	LG	77	PRO
64	LG	82	ILE

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Mol	Chain	Res	Type
64	LG	91	LYS
64	LG	93	VAL
64	LG	98	GLN
64	LG	105	LEU
64	LG	111	LYS
64	LG	115	VAL
64	LG	122	GLN
64	LG	125	VAL
64	LG	139	VAL
64	LG	143	ASP
64	LG	150	GLU
64	LG	152	LYS
64	LG	153	THR
64	LG	158	THR
64	LG	166	ASP
64	LG	183	VAL
64	LG	184	ILE
64	LG	188	LEU
64	LG	190	LYS
64	LG	199	LYS
64	LG	219	PHE
66	LN	3	PHE
66	LN	5	ARG
66	LN	6	PHE
66	LN	7	VAL
66	LN	8	GLU
66	LN	14	LEU
66	LN	17	TYR
66	LN	25	VAL
66	LN	31	VAL
66	LN	32	ASP
66	LN	49	ASN
66	LN	50	PHE
66	LN	53	LEU
66	LN	55	LEU
66	LN	62	ILE
66	LN	63	LYS
66	LN	64	ARG
66	LN	89	TRP
66	LN	94	ILE
66	LN	96	GLN
66	LN	98	ARG

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Mol	Chain	Res	Type
66	LN	99	ARG
66	LN	103	ASN
66	LN	105	PHE
66	LN	106	ASP
66	LN	109	LYS
66	LN	112	LEU
66	LN	117	ARG
67	LS	21	ASP
67	LS	23	HIS
67	LS	28	ARG
67	LS	29	MET
67	LS	31	LEU
67	LS	32	TRP
67	LS	40	LYS
67	LS	50	LEU
67	LS	52	LYS
67	LS	53	VAL
67	LS	55	LYS
67	LS	56	SER
67	LS	74	ILE
67	LS	76	ASN
67	LS	79	ILE
67	LS	86	ARG
67	LS	94	LYS
67	LS	97	ARG
67	LS	107	GLN
67	LS	115	ARG
67	LS	116	HIS
67	LS	119	ARG
67	LS	120	PHE
67	LS	123	ILE
67	LS	132	HIS
67	LS	138	ARG
67	LS	152	PRO
67	LS	158	VAL
67	LS	162	THR
67	LS	166	LYS
68	LW	29	LYS
68	LW	31	VAL
68	LW	48	ARG
68	LW	55	LYS
68	LW	67	ARG

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Mol	Chain	Res	Type
68	LW	76	SER
68	LW	81	SER
68	LW	83	ARG
68	LW	95	LYS
68	LW	99	ARG
68	LW	101	TRP
68	LW	103	ARG
68	LW	111	ARG
68	LW	117	ARG
69	La	9	LYS
69	La	11	VAL
69	La	13	LEU
69	La	14	LEU
69	La	24	VAL
69	La	26	VAL
69	La	27	ARG
69	La	30	GLU
69	La	34	ARG
69	La	42	LEU
69	La	54	ILE
69	La	55	ARG
69	La	56	LYS
69	La	68	VAL
69	La	72	LEU
69	La	73	LYS
69	La	81	MET
70	Li	3	GLN
70	Li	9	LYS
70	Li	10	ARG
70	Li	16	LYS
70	Li	18	ASN
70	Li	19	GLN
70	Li	20	THR
70	Li	23	VAL
70	Li	29	LYS
70	Li	45	PRO
70	Li	57	LEU
70	Li	58	ARG
70	Li	63	LYS
70	Li	66	ARG
70	Li	70	ASN
70	Li	72	ARG

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Mol	Chain	Res	Type
70	Li	73	THR
70	Li	82	LEU
70	Li	99	GLU
70	Li	100	GLN
70	Li	103	VAL
70	Li	108	LYS
70	Li	109	ILE
70	Li	111	LYS
70	Li	113	LYS
70	Li	115	LYS
70	Li	118	LYS
71	Lj	5	GLN
71	Lj	12	TYR
71	Lj	14	ARG
71	Lj	17	ILE
71	Lj	21	LYS
71	Lj	22	ARG
71	Lj	23	SER
71	Lj	30	ASN
71	Lj	39	VAL
71	Lj	40	ASN
71	Lj	41	THR
71	Lj	47	TRP
71	Lj	48	TYR
71	Lj	75	VAL
71	Lj	76	THR
71	Lj	77	ARG
71	Lj	104	VAL
72	Lk	37	THR
72	Lk	40	VAL
72	Lk	42	PHE
72	Lk	46	LEU
72	Lk	58	LYS
72	Lk	62	GLU
72	Lk	68	LYS
72	Lk	69	ASP
72	Lk	74	LYS
72	Lk	75	VAL
72	Lk	78	ARG
72	Lk	87	LYS
72	Lk	88	LYS
72	Lk	99	LYS

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Mol	Chain	Res	Type
72	Lk	100	MET
72	Lk	101	ARG
72	Lk	110	LYS
73	Lp	13	TYR
73	Lp	14	ASN
73	Lp	21	ARG
73	Lp	22	LYS
73	Lp	26	ARG
73	Lp	27	LEU
73	Lp	28	HIS
73	Lp	35	ARG
73	Lp	44	GLN
73	Lp	46	ARG
73	Lp	52	LYS
73	Lp	53	ASN
74	LJ	14	PHE
74	LJ	16	ARG
74	LJ	18	THR
74	LJ	32	ILE
74	LJ	35	LEU
74	LJ	41	LYS
74	LJ	42	ILE
74	LJ	49	GLU
74	LJ	50	THR
74	LJ	55	LYS
74	LJ	57	LEU
74	LJ	58	ARG
74	LJ	62	LYS
74	LJ	66	GLN
74	LJ	83	ILE
74	LJ	84	LYS
74	LJ	87	LYS
74	LJ	96	VAL
74	LJ	98	ASN
74	LJ	104	ASN
74	LJ	108	ASP
74	LJ	119	ASN
74	LJ	124	LYS
74	LJ	125	GLU
75	Lt	41	TYR
76	Lv	7	TYR
76	Lw	7	TYR

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Mol	Chain	Res	Type
76	Lw	41	LEU
77	Lc	16	LYS
77	Lc	35	ILE
77	Lc	37	LYS
77	Lc	44	LYS
77	Lc	70	LEU
77	Lc	75	LYS
77	Lc	90	ARG
77	Lc	107	LYS
78	Le	32	VAL
78	Le	51	GLU
78	Le	61	ASP
78	Le	62	LYS
78	Le	66	GLN
78	Le	67	LEU
78	Le	68	LYS
78	Le	69	ARG
78	Le	72	ARG
78	Le	74	LYS
78	Le	78	TYR
78	Le	80	SER
78	Le	82	GLU
78	Le	84	LYS
78	Le	98	HIS
78	Le	109	ARG
78	Le	115	ASN
78	Le	128	MET
78	Le	129	LEU
78	Le	143	LEU
78	Le	144	LYS
78	Le	165	LEU
78	Le	171	ILE
78	Le	178	HIS
78	Le	183	ILE
78	Le	185	ASP
78	Le	190	ILE
78	Le	192	THR
78	Le	201	ASN
78	Le	205	TRP
78	Le	212	PRO
78	Le	225	GLU
78	Le	228	ASP

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Mol	Chain	Res	Type
78	Le	232	ARG
78	Le	234	ASN
79	Ls	30	ILE
79	Ls	40	GLN
79	Ls	44	ILE
79	Ls	51	ASP
79	Ls	58	LYS
79	Ls	63	ARG
79	Ls	71	ASP
79	Ls	76	LYS
79	Ls	92	ILE
79	Ls	98	LEU
79	Ls	100	GLU
79	Ls	130	ASN
79	Ls	137	GLN
79	Ls	168	ASP
79	Ls	174	GLU
79	Ls	187	SER
79	Ls	205	GLU
79	Ls	214	LEU
79	Ls	217	LYS
79	Ls	229	SER
79	Ls	233	SER
79	Ls	243	MET
79	Ls	260	TYR
80	LC	4	ARG
80	LC	8	HIS
80	LC	26	ARG
80	LC	28	LYS
80	LC	29	VAL
80	LC	30	LYS
80	LC	39	LYS
80	LC	40	PRO
80	LC	60	VAL
80	LC	72	THR
80	LC	76	VAL
80	LC	94	LYS
80	LC	95	THR
80	LC	97	ARG
80	LC	101	THR
80	LC	113	ASP
80	LC	117	ARG

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Mol	Chain	Res	Type
80	LC	118	PHE
80	LC	124	LYS
80	LC	125	SER
80	LC	126	LYS
80	LC	131	THR
80	LC	132	LYS
80	LC	168	ILE
80	LC	176	GLN
80	LC	177	LYS
80	LC	178	LYS
80	LC	182	MET
80	LC	186	VAL
80	LC	194	LYS
80	LC	203	GLU
80	LC	204	LYS
80	LC	208	VAL
80	LC	246	HIS
80	LC	259	HIS
80	LC	267	VAL
80	LC	291	SER
80	LC	306	GLU
80	LC	316	PRO
80	LC	322	LYS
80	LC	324	ASP
80	LC	327	MET
80	LC	332	CYS
80	LC	333	VAL
80	LC	347	LEU
80	LC	348	LYS
80	LC	352	ARG
80	LC	357	GLU
80	LC	363	ILE
80	LC	364	ASP
80	LC	369	PHE
80	LC	378	ASP
81	LD	8	LEU
81	LD	23	SER
81	LD	36	LEU
81	LD	43	PHE
81	LD	60	ARG
81	LD	61	ARG
81	LD	66	THR

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Mol	Chain	Res	Type
81	LD	82	ARG
81	LD	90	ARG
81	LD	96	PHE
81	LD	99	MET
81	LD	109	THR
81	LD	114	LYS
81	LD	116	HIS
81	LD	117	ARG
81	LD	140	LEU
81	LD	151	VAL
81	LD	165	ILE
81	LD	176	LYS
81	LD	188	LYS
81	LD	190	SER
81	LD	200	MET
81	LD	224	LYS
81	LD	227	ARG
81	LD	228	ASN
81	LD	239	ARG
81	LD	241	ASN
81	LD	313	GLU
81	LD	315	LYS
81	LD	319	LYS
81	LD	320	ARG
81	LD	322	ASN
81	LD	352	ILE
81	LD	355	ARG
81	LD	359	LEU
81	LD	368	PRO
81	LD	403	VAL
82	LK	18	HIS
82	LK	19	HIS
82	LK	37	ARG
82	LK	52	LEU
82	LK	54	ARG
82	LK	57	MET
82	LK	62	PHE
82	LK	63	LEU
82	LK	65	LYS
82	LK	66	ARG
82	LK	76	ILE
82	LK	90	ARG

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Mol	Chain	Res	Type
82	LK	92	MET
82	LK	101	GLU
82	LK	119	ARG
82	LK	121	LYS
82	LK	123	MET
82	LK	125	ILE
82	LK	129	LEU
82	LK	135	GLN
82	LK	152	TRP
82	LK	153	ASN
82	LK	154	TYR
82	LK	157	THR
82	LK	158	ILE
82	LK	164	LYS
82	LK	174	ASP
82	LK	181	LYS
82	LK	185	LYS
82	LK	188	LYS
82	LK	193	LYS
82	LK	205	LYS
83	Lm	6	LYS
83	Lm	21	SER
83	Lm	29	MET
83	Lm	31	VAL
83	Lm	33	GLN
83	Lm	41	PHE
84	LI	7	ARG
84	LI	15	LYS
84	LI	28	ASP
84	LI	39	LYS
84	LI	41	LYS
84	LI	44	ASP
84	LI	57	LYS
84	LI	69	ARG
84	LI	79	ASN
84	LI	88	ARG
84	LI	90	ARG
84	LI	109	ASP
84	LI	141	LYS
84	LI	156	LYS
84	LI	159	PHE
84	LI	179	GLU

Continued on next page...

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Mol	Chain	Res	Type
84	LI	183	LYS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (143) such sidechains are listed below:

Mol	Chain	Res	Type
1	Sa	99	GLN
1	Sa	282	HIS
1	Sa	288	ASN
1	Sa	343	HIS
1	Sa	367	ASN
2	SA	63	GLN
2	SA	74	ASN
2	SA	76	GLN
2	SA	81	GLN
2	SA	96	GLN
2	SA	101	HIS
2	SA	107	HIS
2	SA	114	ASN
2	SA	117	GLN
2	SA	136	GLN
2	SA	197	HIS
3	SB	74	GLN
3	SB	82	ASN
4	SD	69	HIS
4	SD	112	GLN
4	SD	209	HIS
5	SE	96	GLN
5	SE	161	HIS
6	SF	10	GLN
6	SF	144	ASN
8	SJ	84	ASN
9	SK	37	ASN
9	SK	82	GLN
10	SL	45	HIS
11	SM	53	ASN
11	SM	134	GLN
11	SM	135	HIS
12	SO	123	HIS
13	SQ	62	GLN
14	SP	90	ASN
14	SP	93	HIS
17	SV	38	ASN

Continued on next page...

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Mol	Chain	Res	Type
17	SV	73	ASN
19	SY	22	GLN
19	SY	41	ASN
20	SZ	35	HIS
23	SU	27	GLN
24	SX	40	GLN
24	SX	44	ASN
24	SX	51	HIS
24	SX	62	GLN
25	SC	105	ASN
25	SC	178	ASN
27	SH	8	ASN
27	SH	42	GLN
27	SH	70	ASN
29	ST	29	HIS
29	ST	82	GLN
36	LA	15	GLN
36	LA	72	HIS
36	LA	95	ASN
36	LA	140	GLN
36	LA	148	ASN
36	LA	170	ASN
36	LA	177	GLN
36	LA	179	GLN
36	LA	196	ASN
36	LA	199	ASN
37	LB	50	HIS
37	LB	71	HIS
37	LB	119	HIS
37	LB	168	GLN
37	LB	209	HIS
37	LB	218	HIS
37	LB	221	HIS
38	LE	7	GLN
38	LE	153	HIS
39	LF	162	GLN
39	LF	165	HIS
40	LH	112	GLN
42	LP	97	ASN
42	LP	139	HIS
42	LP	144	ASN
42	LP	149	ASN

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Mol	Chain	Res	Type
42	LP	181	HIS
43	LO	39	HIS
43	LO	40	HIS
44	LR	160	HIS
45	LQ	46	ASN
45	LQ	49	ASN
45	LQ	58	ASN
45	LQ	82	HIS
45	LQ	195	HIS
45	LQ	222	HIS
45	LQ	244	HIS
46	LT	58	HIS
47	LU	54	HIS
47	LU	90	HIS
47	LU	111	ASN
47	LU	112	ASN
48	LV	9	ASN
48	LV	54	HIS
48	LV	98	ASN
48	LV	102	ASN
48	LV	134	HIS
49	LX	116	GLN
51	LY	99	HIS
52	Lb	88	HIS
54	Lf	72	HIS
54	Lf	78	ASN
55	Lg	70	ASN
55	Lg	88	ASN
56	Lh	22	HIS
56	Lh	55	ASN
56	Lh	70	ASN
56	Lh	79	ASN
56	Lh	100	ASN
57	Li	16	HIS
59	Lo	43	HIS
60	Lr	79	HIS
64	LG	18	HIS
64	LG	21	HIS
67	LS	57	ASN
67	LS	116	HIS
67	LS	145	HIS
69	La	40	HIS

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Mol	Chain	Res	Type
69	La	79	HIS
70	Li	56	HIS
71	Lj	40	ASN
73	Lp	41	HIS
77	Lc	32	GLN
78	Le	98	HIS
78	Le	115	ASN
78	Le	178	HIS
78	Le	222	HIS
79	Ls	35	ASN
79	Ls	130	ASN
79	Ls	137	GLN
80	LC	25	HIS
80	LC	165	HIS
80	LC	176	GLN
80	LC	180	HIS
81	LD	45	HIS
81	LD	64	HIS
82	LK	138	HIS
82	LK	145	GLN
83	Lm	25	GLN
83	Lm	34	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
30	S3	10/11 (90%)	3 (30%)	1 (10%)
31	S2	74/75 (98%)	22 (29%)	5 (6%)
32	S1	1492/1743 (85%)	439 (29%)	156 (10%)
33	L1	3192/3352 (95%)	903 (28%)	413 (12%)
34	L3	120/120 (100%)	49 (40%)	17 (14%)
35	L2	143/159 (89%)	55 (38%)	28 (19%)
All	All	5031/5460 (92%)	1471 (29%)	620 (12%)

All (1471) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
30	S3	13	A
30	S3	14	A
30	S3	18	C
31	S2	2	C

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Mol	Chain	Res	Type
31	S2	8	U
31	S2	17	G
31	S2	18	G
31	S2	19	U
31	S2	20	C
31	S2	21	A
31	S2	22	G
31	S2	32	U
31	S2	33	U
31	S2	37	G
31	S2	38	C
31	S2	42	C
31	S2	45	G
31	S2	47	U
31	S2	51	G
31	S2	56	A
31	S2	60	C
31	S2	68	C
31	S2	73	C
31	S2	74	C
31	S2	75	A
32	S1	2	A
32	S1	3	C
32	S1	4	C
32	S1	5	U
32	S1	26	A
32	S1	29	U
32	S1	30	G
32	S1	32	U
32	S1	34	G
32	S1	37	U
32	S1	42	G
32	S1	45	U
32	S1	47	A
32	S1	57	G
32	S1	58	U
32	S1	59	G
32	S1	60	C
32	S1	61	A
32	S1	64	U
32	S1	65	A
32	S1	68	A

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Mol	Chain	Res	Type
32	S1	85	A
32	S1	99	U
32	S1	105	A
32	S1	106	A
32	S1	115	A
32	S1	116	G
32	S1	117	U
32	S1	120	G
32	S1	138	C
32	S1	139	U
32	S1	140	C
32	S1	141	G
32	S1	144	U
32	S1	147	C
32	S1	149	G
32	S1	151	A
32	S1	152	G
32	S1	154	A
32	S1	156	U
32	S1	160	A
32	S1	161	G
32	S1	167	A
32	S1	168	U
32	S1	171	G
32	S1	172	U
32	S1	173	G
32	S1	174	C
32	S1	175	A
32	S1	176	A
32	S1	177	C
32	S1	178	A
32	S1	179	A
32	S1	180	A
32	S1	181	C
32	S1	182	C
32	S1	185	G
32	S1	186	A
32	S1	188	U
32	S1	192	G
32	S1	193	G
32	S1	194	G
32	S1	196	G

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Mol	Chain	Res	Type
32	S1	198	G
32	S1	200	C
32	S1	205	U
32	S1	220	C
32	S1	225	G
32	S1	232	C
32	S1	233	U
32	S1	234	G
32	S1	238	G
32	S1	255	U
32	S1	256	G
32	S1	258	U
32	S1	259	A
32	S1	270	U
32	S1	274	A
32	S1	279	C
32	S1	283	G
32	S1	292	A
32	S1	293	C
32	S1	298	C
32	S1	299	A
32	S1	302	C
32	S1	317	U
32	S1	320	A
32	S1	324	U
32	S1	328	U
32	S1	341	G
32	S1	342	C
32	S1	349	U
32	S1	354	G
32	S1	356	G
32	S1	358	C
32	S1	363	G
32	S1	365	C
32	S1	373	U
32	S1	377	G
32	S1	389	A
32	S1	390	G
32	S1	391	A
32	S1	404	A
32	S1	405	A
32	S1	408	G

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Mol	Chain	Res	Type
32	S1	417	U
32	S1	420	A
32	S1	425	A
32	S1	427	G
32	S1	428	C
32	S1	429	A
32	S1	430	G
32	S1	436	G
32	S1	439	C
32	S1	443	U
32	S1	448	C
32	S1	449	A
32	S1	453	C
32	S1	456	A
32	S1	457	C
32	S1	458	A
32	S1	459	C
32	S1	460	G
32	S1	463	G
32	S1	464	A
32	S1	471	G
32	S1	472	A
32	S1	473	C
32	S1	477	A
32	S1	478	A
32	S1	480	U
32	S1	483	C
32	S1	485	A
32	S1	486	U
32	S1	488	C
32	S1	489	C
32	S1	490	G
32	S1	491	G
32	S1	493	C
32	S1	494	G
32	S1	495	C
32	S1	496	A
32	S1	500	G
32	S1	501	U
32	S1	502	G
32	S1	503	U
32	S1	504	C

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Mol	Chain	Res	Type
32	S1	506	G
32	S1	508	U
32	S1	509	A
32	S1	510	A
32	S1	512	U
32	S1	552	G
32	S1	555	G
32	S1	558	C
32	S1	559	A
32	S1	560	A
32	S1	562	U
32	S1	563	C
32	S1	569	C
32	S1	582	U
32	S1	583	A
32	S1	584	A
32	S1	585	U
32	S1	586	U
32	S1	593	C
32	S1	595	A
32	S1	598	A
32	S1	601	G
32	S1	608	U
32	S1	610	A
32	S1	611	G
32	S1	612	U
32	S1	615	U
32	S1	617	G
32	S1	622	U
32	S1	623	A
32	S1	624	A
32	S1	627	A
32	S1	628	G
32	S1	631	C
32	S1	633	U
32	S1	634	A
32	S1	648	C
32	S1	649	C
32	S1	650	G
32	S1	653	U
32	S1	664	G
32	S1	666	C

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Mol	Chain	Res	Type
32	S1	681	G
32	S1	682	A
32	S1	683	C
32	S1	684	C
32	S1	687	C
32	S1	690	G
32	S1	692	C
32	S1	828	G
32	S1	835	U
32	S1	836	U
32	S1	838	U
32	S1	845	C
32	S1	854	C
32	S1	862	U
32	S1	881	G
32	S1	903	A
32	S1	904	G
32	S1	917	U
32	S1	918	G
32	S1	919	G
32	S1	935	A
32	S1	939	C
32	S1	940	U
32	S1	947	G
32	S1	949	A
32	S1	950	U
32	S1	965	U
32	S1	968	A
32	S1	969	U
32	S1	970	U
32	S1	971	A
32	S1	982	A
32	S1	1009	U
32	S1	1012	C
32	S1	1031	A
32	S1	1032	A
32	S1	1033	C
32	S1	1037	G
32	S1	1044	A
32	S1	1049	U
32	S1	1055	G
32	S1	1061	G

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Mol	Chain	Res	Type
32	S1	1062	C
32	S1	1063	U
32	S1	1064	U
32	S1	1065	A
32	S1	1066	U
32	S1	1068	G
32	S1	1069	G
32	S1	1071	C
32	S1	1072	U
32	S1	1073	C
32	S1	1081	A
32	S1	1085	U
32	S1	1092	A
32	S1	1096	A
32	S1	1097	A
32	S1	1098	A
32	S1	1100	U
32	S1	1101	C
32	S1	1106	G
32	S1	1113	G
32	S1	1114	G
32	S1	1123	G
32	S1	1143	A
32	S1	1156	A
32	S1	1163	C
32	S1	1165	A
32	S1	1184	C
32	S1	1189	U
32	S1	1191	U
32	S1	1194	C
32	S1	1195	U
32	S1	1198	A
32	S1	1200	A
32	S1	1201	C
32	S1	1202	G
32	S1	1203	G
32	S1	1204	G
32	S1	1206	A
32	S1	1207	A
32	S1	1213	C
32	S1	1219	C
32	S1	1224	C

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Mol	Chain	Res	Type
32	S1	1225	A
32	S1	1226	U
32	S1	1232	G
32	S1	1237	G
32	S1	1238	A
32	S1	1241	G
32	S1	1243	C
32	S1	1246	A
32	S1	1247	G
32	S1	1250	C
32	S1	1262	U
32	S1	1263	C
32	S1	1266	U
32	S1	1267	G
32	S1	1269	G
32	S1	1272	G
32	S1	1274	G
32	S1	1278	C
32	S1	1279	A
32	S1	1285	G
32	S1	1288	C
32	S1	1289	U
32	S1	1290	U
32	S1	1294	U
32	S1	1295	G
32	S1	1309	U
32	S1	1310	C
32	S1	1314	U
32	S1	1316	A
32	S1	1318	U
32	S1	1325	A
32	S1	1328	G
32	S1	1329	A
32	S1	1341	G
32	S1	1342	C
32	S1	1346	C
32	S1	1353	G
32	S1	1358	G
32	S1	1359	C
32	S1	1361	G
32	S1	1362	A
32	S1	1369	C

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Mol	Chain	Res	Type
32	S1	1370	C
32	S1	1371	U
32	S1	1372	C
32	S1	1383	U
32	S1	1392	G
32	S1	1393	G
32	S1	1394	A
32	S1	1395	C
32	S1	1396	U
32	S1	1402	C
32	S1	1403	G
32	S1	1404	U
32	S1	1407	A
32	S1	1408	G
32	S1	1411	C
32	S1	1415	G
32	S1	1416	A
32	S1	1422	G
32	S1	1423	A
32	S1	1424	G
32	S1	1426	C
32	S1	1431	A
32	S1	1433	A
32	S1	1434	G
32	S1	1438	U
32	S1	1439	G
32	S1	1440	U
32	S1	1442	A
32	S1	1444	G
32	S1	1446	C
32	S1	1447	C
32	S1	1448	U
32	S1	1450	A
32	S1	1454	G
32	S1	1457	C
32	S1	1458	U
32	S1	1459	G
32	S1	1466	A
32	S1	1474	U
32	S1	1475	A
32	S1	1477	A
32	S1	1478	C

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Mol	Chain	Res	Type
32	S1	1483	G
32	S1	1507	G
32	S1	1508	C
32	S1	1509	C
32	S1	1510	G
32	S1	1513	A
32	S1	1514	G
32	S1	1517	C
32	S1	1537	U
32	S1	1538	C
32	S1	1539	A
32	S1	1542	G
32	S1	1543	U
32	S1	1544	G
32	S1	1545	A
32	S1	1546	U
32	S1	1550	G
32	S1	1557	C
32	S1	1558	A
32	S1	1565	U
32	S1	1568	U
32	S1	1572	U
32	S1	1576	C
32	S1	1581	A
32	S1	1586	U
32	S1	1587	G
32	S1	1589	C
32	S1	1590	U
32	S1	1591	A
32	S1	1592	G
32	S1	1598	G
32	S1	1609	G
32	S1	1610	C
32	S1	1611	U
32	S1	1614	C
32	S1	1615	G
32	S1	1616	U
32	S1	1617	U
32	S1	1622	A
32	S1	1623	C
32	S1	1625	U
32	S1	1626	C

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Mol	Chain	Res	Type
32	S1	1640	C
32	S1	1641	A
32	S1	1644	C
32	S1	1653	G
32	S1	1658	U
32	S1	1662	G
32	S1	1664	U
32	S1	1667	A
32	S1	1673	C
32	S1	1674	C
32	S1	1678	G
32	S1	1686	C
32	S1	1688	G
32	S1	1695	G
32	S1	1730	G
32	S1	1731	A
32	S1	1733	G
32	S1	1734	U
32	S1	1742	A
32	S1	1745	U
32	S1	1746	U
32	S1	1755	G
32	S1	1760	A
32	S1	1761	G
32	S1	1764	G
32	S1	1766	A
32	S1	1767	G
32	S1	1771	U
32	S1	1772	A
32	S1	1774	C
32	S1	1775	A
32	S1	1776	A
32	S1	1777	G
32	S1	1778	G
32	S1	1779	U
32	S1	1781	U
32	S1	1793	C
32	S1	1796	G
32	S1	1802	G
32	S1	1803	G
33	L1	2	C
33	L1	3	G

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Mol	Chain	Res	Type
33	L1	8	C
33	L1	21	G
33	L1	26	A
33	L1	29	G
33	L1	39	A
33	L1	42	A
33	L1	43	U
33	L1	45	U
33	L1	59	A
33	L1	62	A
33	L1	63	G
33	L1	65	A
33	L1	69	U
33	L1	71	C
33	L1	72	A
33	L1	73	A
33	L1	76	A
33	L1	82	C
33	L1	91	G
33	L1	92	C
33	L1	108	A
33	L1	109	G
33	L1	128	C
33	L1	131	C
33	L1	133	G
33	L1	134	U
33	L1	135	G
33	L1	136	C
33	L1	138	G
33	L1	139	U
33	L1	159	G
33	L1	164	C
33	L1	168	A
33	L1	169	G
33	L1	177	C
33	L1	184	C
33	L1	188	U
33	L1	189	C
33	L1	208	G
33	L1	209	G
33	L1	210	G
33	L1	216	G

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Mol	Chain	Res	Type
33	L1	217	A
33	L1	228	C
33	L1	229	G
33	L1	247	C
33	L1	248	C
33	L1	259	G
33	L1	262	A
33	L1	263	A
33	L1	264	C
33	L1	267	G
33	L1	279	G
33	L1	281	G
33	L1	283	A
33	L1	284	U
33	L1	293	A
33	L1	296	C
33	L1	297	G
33	L1	302	G
33	L1	306	A
33	L1	309	C
33	L1	325	A
33	L1	327	A
33	L1	328	G
33	L1	340	A
33	L1	348	C
33	L1	349	A
33	L1	365	A
33	L1	368	U
33	L1	372	A
33	L1	373	A
33	L1	374	G
33	L1	376	A
33	L1	396	G
33	L1	397	A
33	L1	398	G
33	L1	400	G
33	L1	401	C
33	L1	407	A
33	L1	423	C
33	L1	424	G
33	L1	425	G
33	L1	432	G

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Mol	Chain	Res	Type
33	L1	435	G
33	L1	453	U
33	L1	464	G
33	L1	465	C
33	L1	466	U
33	L1	467	C
33	L1	469	U
33	L1	474	G
33	L1	479	C
33	L1	482	C
33	L1	483	U
33	L1	484	C
33	L1	485	G
33	L1	488	U
33	L1	489	C
33	L1	492	G
33	L1	493	G
33	L1	506	U
33	L1	507	C
33	L1	513	C
33	L1	514	G
33	L1	521	G
33	L1	522	C
33	L1	523	C
33	L1	524	A
33	L1	525	A
33	L1	527	G
33	L1	539	C
33	L1	543	C
33	L1	544	C
33	L1	549	G
33	L1	550	C
33	L1	552	G
33	L1	554	C
33	L1	555	G
33	L1	563	C
33	L1	564	A
33	L1	571	G
33	L1	577	G
33	L1	581	G
33	L1	585	A
33	L1	586	A

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Mol	Chain	Res	Type
33	L1	588	G
33	L1	590	C
33	L1	591	G
33	L1	598	U
33	L1	601	G
33	L1	607	U
33	L1	608	G
33	L1	638	G
33	L1	639	A
33	L1	640	C
33	L1	641	C
33	L1	642	C
33	L1	651	A
33	L1	652	C
33	L1	653	A
33	L1	667	C
33	L1	668	U
33	L1	669	G
33	L1	677	U
33	L1	678	G
33	L1	679	C
33	L1	680	G
33	L1	681	A
33	L1	682	G
33	L1	683	U
33	L1	684	C
33	L1	685	G
33	L1	686	A
33	L1	687	C
33	L1	692	U
33	L1	694	U
33	L1	695	G
33	L1	696	A
33	L1	704	G
33	L1	705	A
33	L1	706	U
33	L1	707	G
33	L1	708	C
33	L1	709	G
33	L1	711	A
33	L1	712	A
33	L1	715	A

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Mol	Chain	Res	Type
33	L1	716	A
33	L1	720	G
33	L1	721	A
33	L1	722	C
33	L1	723	G
33	L1	725	G
33	L1	726	C
33	L1	731	G
33	L1	734	C
33	L1	735	C
33	L1	736	U
33	L1	737	C
33	L1	739	C
33	L1	745	G
33	L1	746	C
33	L1	756	C
33	L1	766	C
33	L1	767	U
33	L1	768	U
33	L1	770	U
33	L1	772	U
33	L1	773	G
33	L1	785	U
33	L1	786	U
33	L1	787	G
33	L1	788	G
33	L1	789	A
33	L1	790	G
33	L1	796	C
33	L1	802	G
33	L1	803	G
33	L1	811	A
33	L1	820	A
33	L1	841	G
33	L1	842	C
33	L1	843	C
33	L1	852	C
33	L1	860	G
33	L1	861	A
33	L1	864	C
33	L1	867	G
33	L1	868	A

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Mol	Chain	Res	Type
33	L1	877	U
33	L1	882	U
33	L1	887	A
33	L1	897	U
33	L1	898	G
33	L1	899	A
33	L1	900	C
33	L1	910	G
33	L1	911	G
33	L1	917	A
33	L1	919	G
33	L1	920	A
33	L1	924	A
33	L1	927	G
33	L1	937	G
33	L1	940	G
33	L1	947	C
33	L1	962	C
33	L1	963	U
33	L1	964	C
33	L1	965	A
33	L1	969	U
33	L1	972	C
33	L1	978	C
33	L1	979	C
33	L1	980	C
33	L1	988	G
33	L1	990	U
33	L1	994	U
33	L1	996	A
33	L1	997	G
33	L1	998	G
33	L1	999	U
33	L1	1000	A
33	L1	1004	C
33	L1	1011	U
33	L1	1014	G
33	L1	1017	G
33	L1	1025	G
33	L1	1026	A
33	L1	1027	C
33	L1	1028	G

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Mol	Chain	Res	Type
33	L1	1045	U
33	L1	1046	U
33	L1	1050	A
33	L1	1051	A
33	L1	1053	C
33	L1	1057	A
33	L1	1058	A
33	L1	1059	A
33	L1	1061	A
33	L1	1063	G
33	L1	1064	U
33	L1	1067	G
33	L1	1070	G
33	L1	1079	G
33	L1	1082	U
33	L1	1083	C
33	L1	1097	A
33	L1	1103	U
33	L1	1104	C
33	L1	1108	U
33	L1	1117	U
33	L1	1118	G
33	L1	1119	G
33	L1	1120	G
33	L1	1133	A
33	L1	1134	G
33	L1	1135	C
33	L1	1140	C
33	L1	1146	A
33	L1	1147	U
33	L1	1148	G
33	L1	1156	A
33	L1	1164	G
33	L1	1181	A
33	L1	1182	A
33	L1	1183	C
33	L1	1184	U
33	L1	1185	G
33	L1	1194	C
33	L1	1196	U
33	L1	1197	A
33	L1	1198	G

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Mol	Chain	Res	Type
33	L1	1199	A
33	L1	1201	C
33	L1	1202	C
33	L1	1205	C
33	L1	1212	U
33	L1	1223	U
33	L1	1224	A
33	L1	1225	A
33	L1	1226	G
33	L1	1235	A
33	L1	1236	C
33	L1	1240	G
33	L1	1241	G
33	L1	1246	G
33	L1	1247	G
33	L1	1248	A
33	L1	1249	A
33	L1	1250	G
33	L1	1252	C
33	L1	1255	A
33	L1	1256	A
33	L1	1262	U
33	L1	1263	A
33	L1	1267	A
33	L1	1269	U
33	L1	1273	U
33	L1	1274	A
33	L1	1278	A
33	L1	1282	A
33	L1	1283	C
33	L1	1290	A
33	L1	1291	A
33	L1	1309	U
33	L1	1312	A
33	L1	1313	U
33	L1	1314	G
33	L1	1317	G
33	L1	1318	C
33	L1	1320	G
33	L1	1348	G
33	L1	1365	C
33	L1	1370	A

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Mol	Chain	Res	Type
33	L1	1388	C
33	L1	1389	C
33	L1	1395	A
33	L1	1410	A
33	L1	1411	G
33	L1	1421	A
33	L1	1422	G
33	L1	1433	U
33	L1	1435	C
33	L1	1436	A
33	L1	1437	G
33	L1	1440	C
33	L1	1449	A
33	L1	1450	G
33	L1	1457	A
33	L1	1458	U
33	L1	1459	A
33	L1	1468	A
33	L1	1483	G
33	L1	1484	A
33	L1	1485	A
33	L1	1486	G
33	L1	1487	A
33	L1	1488	G
33	L1	1496	G
33	L1	1509	G
33	L1	1517	C
33	L1	1527	A
33	L1	1528	G
33	L1	1530	C
33	L1	1533	U
33	L1	1534	C
33	L1	1539	G
33	L1	1540	G
33	L1	1541	G
33	L1	1543	A
33	L1	1544	G
33	L1	1545	G
33	L1	1546	G
33	L1	1550	A
33	L1	1553	C
33	L1	1554	C

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Mol	Chain	Res	Type
33	L1	1555	G
33	L1	1564	C
33	L1	1565	G
33	L1	1566	C
33	L1	1567	G
33	L1	1568	A
33	L1	1570	C
33	L1	1571	A
33	L1	1572	C
33	L1	1577	A
33	L1	1578	U
33	L1	1584	A
33	L1	1585	A
33	L1	1586	A
33	L1	1599	A
33	L1	1604	U
33	L1	1620	U
33	L1	1621	G
33	L1	1622	G
33	L1	1623	C
33	L1	1624	G
33	L1	1627	U
33	L1	1629	A
33	L1	1630	C
33	L1	1631	G
33	L1	1632	G
33	L1	1633	C
33	L1	1634	G
33	L1	1635	A
33	L1	1636	C
33	L1	1637	G
33	L1	1638	U
33	L1	1642	G
33	L1	1645	G
33	L1	1646	U
33	L1	1654	C
33	L1	1655	G
33	L1	1659	G
33	L1	1665	G
33	L1	1666	C
33	L1	1669	C
33	L1	1673	A

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Mol	Chain	Res	Type
33	L1	1676	A
33	L1	1680	A
33	L1	1681	U
33	L1	1683	U
33	L1	1684	U
33	L1	1685	U
33	L1	1686	U
33	L1	1689	G
33	L1	1690	C
33	L1	1691	U
33	L1	1698	C
33	L1	1699	C
33	L1	1700	U
33	L1	1701	G
33	L1	1706	C
33	L1	1707	C
33	L1	1708	C
33	L1	1710	G
33	L1	1715	C
33	L1	1716	G
33	L1	1726	G
33	L1	1727	A
33	L1	1728	G
33	L1	1729	G
33	L1	1731	A
33	L1	1732	G
33	L1	1735	U
33	L1	1736	C
33	L1	1740	U
33	L1	1742	G
33	L1	1743	C
33	L1	1744	C
33	L1	1746	G
33	L1	1749	G
33	L1	1750	A
33	L1	1752	C
33	L1	1753	A
33	L1	1754	C
33	L1	1756	C
33	L1	1757	G
33	L1	1758	U
33	L1	1762	G

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Mol	Chain	Res	Type
33	L1	1763	C
33	L1	1766	U
33	L1	1767	G
33	L1	1768	U
33	L1	1769	C
33	L1	1774	G
33	L1	1775	C
33	L1	1777	C
33	L1	1779	C
33	L1	1790	A
33	L1	1793	A
33	L1	1802	A
33	L1	1803	G
33	L1	1805	A
33	L1	1806	C
33	L1	1807	C
33	L1	1809	A
33	L1	1810	G
33	L1	1811	U
33	L1	1812	A
33	L1	1813	C
33	L1	1815	G
33	L1	1825	G
33	L1	1826	G
33	L1	1827	U
33	L1	1835	A
33	L1	1837	A
33	L1	1844	U
33	L1	1845	C
33	L1	1846	A
33	L1	1852	C
33	L1	1853	C
33	L1	1854	A
33	L1	1856	G
33	L1	1859	G
33	L1	1860	A
33	L1	1861	A
33	L1	1867	U
33	L1	1868	C
33	L1	1869	U
33	L1	1874	A
33	L1	1875	A

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Mol	Chain	Res	Type
33	L1	1876	U
33	L1	1880	A
33	L1	1881	C
33	L1	1882	A
33	L1	1900	C
33	L1	1902	G
33	L1	1903	C
33	L1	1904	A
33	L1	1924	G
33	L1	1928	A
33	L1	1938	U
33	L1	1945	A
33	L1	1949	G
33	L1	1950	G
33	L1	1958	G
33	L1	1959	U
33	L1	1970	A
33	L1	1990	A
33	L1	1991	U
33	L1	1996	C
33	L1	1997	G
33	L1	1999	G
33	L1	2003	C
33	L1	2004	U
33	L1	2005	C
33	L1	2006	A
33	L1	2007	C
33	L1	2008	G
33	L1	2012	C
33	L1	2013	G
33	L1	2015	G
33	L1	2021	G
33	L1	2042	G
33	L1	2057	G
33	L1	2060	C
33	L1	2073	U
33	L1	2087	A
33	L1	2095	C
33	L1	2097	C
33	L1	2101	A
33	L1	2109	G
33	L1	2110	G

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Mol	Chain	Res	Type
33	L1	2112	C
33	L1	2113	A
33	L1	2114	A
33	L1	2115	G
33	L1	2116	G
33	L1	2125	A
33	L1	2131	U
33	L1	2132	A
33	L1	2133	A
33	L1	2151	G
33	L1	2152	A
33	L1	2168	C
33	L1	2170	G
33	L1	2172	C
33	L1	2173	G
33	L1	2174	C
33	L1	2202	A
33	L1	2203	A
33	L1	2204	U
33	L1	2205	G
33	L1	2206	U
33	L1	2207	C
33	L1	2220	U
33	L1	2226	C
33	L1	2231	G
33	L1	2232	C
33	L1	2239	A
33	L1	2253	U
33	L1	2261	U
33	L1	2268	G
33	L1	2270	A
33	L1	2274	A
33	L1	2276	A
33	L1	2277	U
33	L1	2278	G
33	L1	2279	C
33	L1	2281	U
33	L1	2282	C
33	L1	2290	A
33	L1	2293	U
33	L1	2300	G
33	L1	2301	C

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Mol	Chain	Res	Type
33	L1	2302	G
33	L1	2305	U
33	L1	2308	A
33	L1	2309	U
33	L1	2310	G
33	L1	2334	G
33	L1	2335	U
33	L1	2361	C
33	L1	2362	A
33	L1	2363	G
33	L1	2364	C
33	L1	2372	A
33	L1	2373	C
33	L1	2374	G
33	L1	2375	G
33	L1	2376	G
33	L1	2377	C
33	L1	2383	G
33	L1	2384	G
33	L1	2386	A
33	L1	2391	C
33	L1	2396	A
33	L1	2400	A
33	L1	2401	A
33	L1	2402	G
33	L1	2408	G
33	L1	2410	U
33	L1	2434	G
33	L1	2437	A
33	L1	2438	A
33	L1	2439	A
33	L1	2443	C
33	L1	2444	U
33	L1	2445	U
33	L1	2450	G
33	L1	2451	G
33	L1	2452	U
33	L1	2453	G
33	L1	2454	U
33	L1	2457	G
33	L1	2458	A
33	L1	2460	A

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Mol	Chain	Res	Type
33	L1	2462	G
33	L1	2465	G
33	L1	2467	A
33	L1	2468	G
33	L1	2469	C
33	L1	2472	U
33	L1	2473	C
33	L1	2475	C
33	L1	2478	G
33	L1	2480	G
33	L1	2481	C
33	L1	2482	A
33	L1	2483	A
33	L1	2484	G
33	L1	2485	U
33	L1	2490	U
33	L1	2491	A
33	L1	2492	C
33	L1	2493	C
33	L1	2494	A
33	L1	2495	C
33	L1	2496	U
33	L1	2497	A
33	L1	2498	C
33	L1	2499	U
33	L1	2501	U
33	L1	2502	U
33	L1	2503	A
33	L1	2504	A
33	L1	2505	C
33	L1	2511	U
33	L1	2512	U
33	L1	2513	U
33	L1	2517	U
33	L1	2518	A
33	L1	2519	U
33	L1	2529	C
33	L1	2541	A
33	L1	2542	U
33	L1	2543	G
33	L1	2544	C
33	L1	2562	A

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Mol	Chain	Res	Type
33	L1	2563	G
33	L1	2570	U
33	L1	2571	C
33	L1	2572	U
33	L1	2573	U
33	L1	2574	A
33	L1	2582	G
33	L1	2590	C
33	L1	2595	G
33	L1	2596	A
33	L1	2597	C
33	L1	2599	U
33	L1	2609	G
33	L1	2610	G
33	L1	2617	G
33	L1	2621	G
33	L1	2622	G
33	L1	2623	G
33	L1	2624	G
33	L1	2625	C
33	L1	2629	C
33	L1	2630	A
33	L1	2631	A
33	L1	2635	G
33	L1	2638	A
33	L1	2639	A
33	L1	2640	A
33	L1	2643	A
33	L1	2654	G
33	L1	2655	U
33	L1	2658	U
33	L1	2659	A
33	L1	2660	A
33	L1	2670	A
33	L1	2677	A
33	L1	2678	C
33	L1	2679	A
33	L1	2680	G
33	L1	2681	A
33	L1	2683	A
33	L1	2684	U
33	L1	2691	U

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Mol	Chain	Res	Type
33	L1	2692	G
33	L1	2699	A
33	L1	2706	A
33	L1	2707	A
33	L1	2708	A
33	L1	2709	G
33	L1	2717	G
33	L1	2718	A
33	L1	2723	G
33	L1	2730	A
33	L1	2731	G
33	L1	2732	U
33	L1	2739	A
33	L1	2740	C
33	L1	2750	A
33	L1	2755	U
33	L1	2758	C
33	L1	2761	A
33	L1	2762	U
33	L1	2763	C
33	L1	2764	G
33	L1	2766	U
33	L1	2767	C
33	L1	2779	G
33	L1	2782	G
33	L1	2797	U
33	L1	2798	G
33	L1	2799	U
33	L1	2800	C
33	L1	2801	A
33	L1	2802	G
33	L1	2803	A
33	L1	2804	A
33	L1	2805	A
33	L1	2810	A
33	L1	2811	C
33	L1	2812	C
33	L1	2818	G
33	L1	2819	A
33	L1	2843	G
33	L1	2845	U
33	L1	2847	A

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Mol	Chain	Res	Type
33	L1	2863	U
33	L1	2869	C
33	L1	2870	U
33	L1	2873	G
33	L1	2874	A
33	L1	2875	U
33	L1	2877	U
33	L1	2889	A
33	L1	2900	G
33	L1	2915	U
33	L1	2918	U
33	L1	2925	U
33	L1	2937	U
33	L1	2938	A
33	L1	2943	A
33	L1	2944	C
33	L1	2945	G
33	L1	2949	G
33	L1	2953	G
33	L1	2956	U
33	L1	2970	G
33	L1	2972	C
33	L1	2973	A
33	L1	2974	G
33	L1	2985	C
33	L1	2995	G
33	L1	2996	A
33	L1	2998	A
33	L1	2999	G
33	L1	3000	U
33	L1	3012	A
33	L1	3013	A
33	L1	3036	C
33	L1	3045	A
33	L1	3046	C
33	L1	3057	A
33	L1	3058	U
33	L1	3072	A
33	L1	3073	A
33	L1	3080	U
33	L1	3082	G
33	L1	3088	A

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Mol	Chain	Res	Type
33	L1	3093	C
33	L1	3094	C
33	L1	3095	G
33	L1	3100	C
33	L1	3101	C
33	L1	3114	A
33	L1	3117	G
33	L1	3123	A
33	L1	3131	A
33	L1	3137	G
33	L1	3138	C
33	L1	3142	C
33	L1	3145	G
33	L1	3151	C
33	L1	3152	C
33	L1	3156	G
33	L1	3157	C
33	L1	3158	C
33	L1	3161	C
33	L1	3162	C
33	L1	3164	C
33	L1	3165	C
33	L1	3166	C
33	L1	3168	C
33	L1	3169	C
33	L1	3170	C
33	L1	3175	C
33	L1	3176	C
33	L1	3177	A
33	L1	3202	G
33	L1	3205	C
33	L1	3206	C
33	L1	3207	C
33	L1	3208	G
33	L1	3211	C
33	L1	3214	U
33	L1	3215	U
33	L1	3217	G
33	L1	3218	C
33	L1	3222	G
33	L1	3223	C
33	L1	3224	C

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Mol	Chain	Res	Type
33	L1	3225	G
33	L1	3226	G
33	L1	3229	C
33	L1	3230	G
33	L1	3231	G
33	L1	3232	C
33	L1	3234	G
33	L1	3235	A
33	L1	3236	A
33	L1	3238	U
33	L1	3240	C
33	L1	3241	C
33	L1	3242	G
33	L1	3244	G
33	L1	3245	G
33	L1	3246	U
33	L1	3247	C
33	L1	3248	G
33	L1	3249	G
33	L1	3250	C
33	L1	3273	C
33	L1	3274	G
33	L1	3275	G
33	L1	3277	C
33	L1	3278	G
33	L1	3280	U
33	L1	3281	G
33	L1	3296	C
33	L1	3305	U
33	L1	3308	A
33	L1	3309	U
33	L1	3310	A
33	L1	3311	C
33	L1	3317	G
33	L1	3318	G
33	L1	3326	U
33	L1	3328	A
33	L1	3329	G
33	L1	3334	A
33	L1	3335	G
33	L1	3336	A
33	L1	3337	G

Continued on next page...

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Mol	Chain	Res	Type
33	L1	3338	U
33	L1	3342	C
33	L1	3353	G
33	L1	3354	A
33	L1	3355	U
33	L1	3356	C
33	L1	3360	U
33	L1	3361	G
33	L1	3362	A
33	L1	3365	U
33	L1	3376	C
33	L1	3377	G
33	L1	3378	U
33	L1	3379	C
33	L1	3382	A
33	L1	3383	C
33	L1	3389	C
33	L1	3390	G
33	L1	3391	U
34	L3	3	A
34	L3	4	U
34	L3	10	C
34	L3	11	A
34	L3	12	U
34	L3	13	A
34	L3	18	C
34	L3	19	A
34	L3	20	C
34	L3	21	U
34	L3	22	A
34	L3	23	A
34	L3	24	G
34	L3	25	G
34	L3	26	C
34	L3	27	A
34	L3	28	U
34	L3	33	U
34	L3	34	C
34	L3	36	C
34	L3	40	A
34	L3	42	A
34	L3	46	C

Continued on next page...

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Mol	Chain	Res	Type
34	L3	49	A
34	L3	50	A
34	L3	52	U
34	L3	54	A
34	L3	55	A
34	L3	56	G
34	L3	57	C
34	L3	58	G
34	L3	62	U
34	L3	64	G
34	L3	69	A
34	L3	74	A
34	L3	75	G
34	L3	76	U
34	L3	85	G
34	L3	91	C
34	L3	100	A
34	L3	102	G
34	L3	103	U
34	L3	108	G
34	L3	109	U
34	L3	110	G
34	L3	114	C
34	L3	116	U
34	L3	118	C
34	L3	120	C
35	L2	7	A
35	L2	8	C
35	L2	27	C
35	L2	40	G
35	L2	41	A
35	L2	42	U
35	L2	43	G
35	L2	53	G
35	L2	56	A
35	L2	63	A
35	L2	64	U
35	L2	65	A
35	L2	66	C
35	L2	67	C
35	L2	68	U
35	L2	70	G

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Mol	Chain	Res	Type
35	L2	87	C
35	L2	88	C
35	L2	89	G
35	L2	90	U
35	L2	92	A
35	L2	93	A
35	L2	94	C
35	L2	95	C
35	L2	96	A
35	L2	98	C
35	L2	99	G
35	L2	100	A
35	L2	101	G
35	L2	102	U
35	L2	104	U
35	L2	109	A
35	L2	110	C
35	L2	111	G
35	L2	115	G
35	L2	116	U
35	L2	117	U
35	L2	124	G
35	L2	125	A
35	L2	126	G
35	L2	131	C
35	L2	132	U
35	L2	134	G
35	L2	136	G
35	L2	138	G
35	L2	139	A
35	L2	140	G
35	L2	144	A
35	L2	145	C
35	L2	151	C
35	L2	156	G
35	L2	157	C
35	L2	158	G
35	L2	163	G
35	L2	164	C

All (620) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
30	S3	16	G
31	S2	32	U
31	S2	37	G
31	S2	58	U
31	S2	72	G
31	S2	73	C
32	S1	2	A
32	S1	3	C
32	S1	4	C
32	S1	25	C
32	S1	32	U
32	S1	36	C
32	S1	44	U
32	S1	61	A
32	S1	98	C
32	S1	104	A
32	S1	119	U
32	S1	123	U
32	S1	137	A
32	S1	139	U
32	S1	140	C
32	S1	146	A
32	S1	148	C
32	S1	151	A
32	S1	159	U
32	S1	167	A
32	S1	169	A
32	S1	174	C
32	S1	180	A
32	S1	184	C
32	S1	192	G
32	S1	193	G
32	S1	195	A
32	S1	278	C
32	S1	293	C
32	S1	297	U
32	S1	299	A
32	S1	316	A
32	S1	341	G
32	S1	372	U
32	S1	373	U
32	S1	381	G
32	S1	389	A

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Mol	Chain	Res	Type
32	S1	404	A
32	S1	442	A
32	S1	452	C
32	S1	476	U
32	S1	477	A
32	S1	489	C
32	S1	492	G
32	S1	505	U
32	S1	508	U
32	S1	512	U
32	S1	559	A
32	S1	562	U
32	S1	574	A
32	S1	581	G
32	S1	584	A
32	S1	592	U
32	S1	594	C
32	S1	610	A
32	S1	611	G
32	S1	617	G
32	S1	624	A
32	S1	626	A
32	S1	630	U
32	S1	632	G
32	S1	633	U
32	S1	635	G
32	S1	636	U
32	S1	648	C
32	S1	652	G
32	S1	663	C
32	S1	683	C
32	S1	689	C
32	S1	860	A
32	S1	877	G
32	S1	880	G
32	S1	903	A
32	S1	964	U
32	S1	968	A
32	S1	1011	C
32	S1	1030	A
32	S1	1068	G
32	S1	1070	A

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Mol	Chain	Res	Type
32	S1	1071	C
32	S1	1072	U
32	S1	1083	C
32	S1	1099	G
32	S1	1142	A
32	S1	1200	A
32	S1	1201	C
32	S1	1205	G
32	S1	1224	C
32	S1	1225	A
32	S1	1226	U
32	S1	1237	G
32	S1	1289	U
32	S1	1316	A
32	S1	1328	G
32	S1	1332	G
32	S1	1341	G
32	S1	1364	C
32	S1	1369	C
32	S1	1378	C
32	S1	1394	A
32	S1	1395	C
32	S1	1396	U
32	S1	1402	C
32	S1	1407	A
32	S1	1410	C
32	S1	1414	G
32	S1	1421	U
32	S1	1422	G
32	S1	1438	U
32	S1	1440	U
32	S1	1443	U
32	S1	1445	C
32	S1	1446	C
32	S1	1456	U
32	S1	1460	G
32	S1	1473	C
32	S1	1474	U
32	S1	1479	U
32	S1	1482	U
32	S1	1506	G
32	S1	1507	G

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Mol	Chain	Res	Type
32	S1	1508	C
32	S1	1509	C
32	S1	1513	A
32	S1	1516	C
32	S1	1536	U
32	S1	1538	C
32	S1	1545	A
32	S1	1547	G
32	S1	1556	U
32	S1	1566	U
32	S1	1571	G
32	S1	1586	U
32	S1	1588	C
32	S1	1589	C
32	S1	1614	C
32	S1	1615	G
32	S1	1625	U
32	S1	1639	A
32	S1	1640	C
32	S1	1658	U
32	S1	1673	C
32	S1	1685	U
32	S1	1730	G
32	S1	1741	A
32	S1	1744	C
32	S1	1745	U
32	S1	1754	A
32	S1	1759	A
32	S1	1760	A
32	S1	1763	A
32	S1	1765	A
32	S1	1771	U
32	S1	1775	A
32	S1	1777	G
32	S1	1795	U
33	L1	2	C
33	L1	20	G
33	L1	25	U
33	L1	28	C
33	L1	42	A
33	L1	61	A
33	L1	62	A

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Mol	Chain	Res	Type
33	L1	64	A
33	L1	70	A
33	L1	71	C
33	L1	72	A
33	L1	102	G
33	L1	105	A
33	L1	112	C
33	L1	123	U
33	L1	131	C
33	L1	135	G
33	L1	138	G
33	L1	167	C
33	L1	176	A
33	L1	183	C
33	L1	208	G
33	L1	209	G
33	L1	228	C
33	L1	246	C
33	L1	261	C
33	L1	262	A
33	L1	264	C
33	L1	280	G
33	L1	283	A
33	L1	294	A
33	L1	296	C
33	L1	324	U
33	L1	327	A
33	L1	339	G
33	L1	367	A
33	L1	372	A
33	L1	400	G
33	L1	406	A
33	L1	423	C
33	L1	431	G
33	L1	434	C
33	L1	444	C
33	L1	481	G
33	L1	483	U
33	L1	484	C
33	L1	492	G
33	L1	506	U
33	L1	513	C

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Mol	Chain	Res	Type
33	L1	522	C
33	L1	534	G
33	L1	543	C
33	L1	553	C
33	L1	554	C
33	L1	563	C
33	L1	570	G
33	L1	571	G
33	L1	580	C
33	L1	590	C
33	L1	606	C
33	L1	638	G
33	L1	641	C
33	L1	642	C
33	L1	651	A
33	L1	667	C
33	L1	676	G
33	L1	680	G
33	L1	682	G
33	L1	683	U
33	L1	684	C
33	L1	686	A
33	L1	704	G
33	L1	705	A
33	L1	708	C
33	L1	711	A
33	L1	714	G
33	L1	715	A
33	L1	716	A
33	L1	730	A
33	L1	744	C
33	L1	745	G
33	L1	747	A
33	L1	755	C
33	L1	771	G
33	L1	772	U
33	L1	785	U
33	L1	786	U
33	L1	788	G
33	L1	803	G
33	L1	810	A
33	L1	841	G

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Mol	Chain	Res	Type
33	L1	846	A
33	L1	860	G
33	L1	883	G
33	L1	897	U
33	L1	899	A
33	L1	911	G
33	L1	919	G
33	L1	936	A
33	L1	946	U
33	L1	962	C
33	L1	971	G
33	L1	978	C
33	L1	979	C
33	L1	987	A
33	L1	989	U
33	L1	995	C
33	L1	997	G
33	L1	998	G
33	L1	999	U
33	L1	1004	C
33	L1	1010	A
33	L1	1013	A
33	L1	1024	G
33	L1	1025	G
33	L1	1027	C
33	L1	1050	A
33	L1	1052	A
33	L1	1057	A
33	L1	1058	A
33	L1	1060	U
33	L1	1067	G
33	L1	1082	U
33	L1	1083	C
33	L1	1086	U
33	L1	1119	G
33	L1	1126	U
33	L1	1134	G
33	L1	1147	U
33	L1	1155	G
33	L1	1163	A
33	L1	1181	A
33	L1	1183	C

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Mol	Chain	Res	Type
33	L1	1196	U
33	L1	1197	A
33	L1	1201	C
33	L1	1211	G
33	L1	1212	U
33	L1	1222	U
33	L1	1224	A
33	L1	1225	A
33	L1	1240	G
33	L1	1245	U
33	L1	1247	G
33	L1	1248	A
33	L1	1249	A
33	L1	1258	C
33	L1	1265	G
33	L1	1272	G
33	L1	1281	C
33	L1	1289	G
33	L1	1307	A
33	L1	1312	A
33	L1	1317	G
33	L1	1321	A
33	L1	1348	G
33	L1	1361	G
33	L1	1370	A
33	L1	1388	C
33	L1	1394	C
33	L1	1395	A
33	L1	1409	G
33	L1	1432	G
33	L1	1458	U
33	L1	1484	A
33	L1	1485	A
33	L1	1486	G
33	L1	1487	A
33	L1	1496	G
33	L1	1516	G
33	L1	1527	A
33	L1	1529	C
33	L1	1532	A
33	L1	1533	U
33	L1	1540	G

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Mol	Chain	Res	Type
33	L1	1543	A
33	L1	1545	G
33	L1	1546	G
33	L1	1563	G
33	L1	1568	A
33	L1	1569	U
33	L1	1576	C
33	L1	1577	A
33	L1	1583	G
33	L1	1585	A
33	L1	1598	U
33	L1	1602	A
33	L1	1619	G
33	L1	1620	U
33	L1	1621	G
33	L1	1623	C
33	L1	1630	C
33	L1	1631	G
33	L1	1632	G
33	L1	1634	G
33	L1	1646	U
33	L1	1654	C
33	L1	1658	G
33	L1	1663	G
33	L1	1665	G
33	L1	1675	G
33	L1	1679	U
33	L1	1682	C
33	L1	1683	U
33	L1	1688	U
33	L1	1694	A
33	L1	1696	G
33	L1	1698	C
33	L1	1699	C
33	L1	1706	C
33	L1	1707	C
33	L1	1709	U
33	L1	1714	A
33	L1	1728	G
33	L1	1735	U
33	L1	1739	G
33	L1	1742	G

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Mol	Chain	Res	Type
33	L1	1745	G
33	L1	1748	A
33	L1	1751	G
33	L1	1752	C
33	L1	1753	A
33	L1	1754	C
33	L1	1755	A
33	L1	1765	G
33	L1	1766	U
33	L1	1767	G
33	L1	1773	U
33	L1	1774	G
33	L1	1775	C
33	L1	1777	C
33	L1	1806	C
33	L1	1810	G
33	L1	1812	A
33	L1	1826	G
33	L1	1836	U
33	L1	1843	A
33	L1	1852	C
33	L1	1854	A
33	L1	1858	U
33	L1	1860	A
33	L1	1863	A
33	L1	1866	C
33	L1	1868	C
33	L1	1873	C
33	L1	1874	A
33	L1	1880	A
33	L1	1887	A
33	L1	1944	G
33	L1	1958	G
33	L1	2004	U
33	L1	2006	A
33	L1	2012	C
33	L1	2013	G
33	L1	2020	G
33	L1	2053	A
33	L1	2096	U
33	L1	2100	A
33	L1	2108	C

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Mol	Chain	Res	Type
33	L1	2112	C
33	L1	2125	A
33	L1	2131	U
33	L1	2151	G
33	L1	2167	G
33	L1	2171	A
33	L1	2172	C
33	L1	2203	A
33	L1	2204	U
33	L1	2206	U
33	L1	2219	A
33	L1	2229	G
33	L1	2247	A
33	L1	2250	A
33	L1	2275	A
33	L1	2276	A
33	L1	2278	G
33	L1	2281	U
33	L1	2292	U
33	L1	2299	C
33	L1	2308	A
33	L1	2318	U
33	L1	2331	A
33	L1	2355	A
33	L1	2361	C
33	L1	2362	A
33	L1	2363	G
33	L1	2374	G
33	L1	2375	G
33	L1	2376	G
33	L1	2383	G
33	L1	2390	G
33	L1	2399	G
33	L1	2407	U
33	L1	2433	U
33	L1	2436	G
33	L1	2438	A
33	L1	2450	G
33	L1	2459	U
33	L1	2461	A
33	L1	2466	G
33	L1	2467	A

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Mol	Chain	Res	Type
33	L1	2468	G
33	L1	2473	C
33	L1	2474	A
33	L1	2477	G
33	L1	2482	A
33	L1	2485	U
33	L1	2486	G
33	L1	2490	U
33	L1	2496	U
33	L1	2497	A
33	L1	2501	U
33	L1	2502	U
33	L1	2503	A
33	L1	2504	A
33	L1	2511	U
33	L1	2512	U
33	L1	2516	U
33	L1	2518	A
33	L1	2541	A
33	L1	2561	A
33	L1	2562	A
33	L1	2574	A
33	L1	2581	C
33	L1	2594	A
33	L1	2596	A
33	L1	2614	U
33	L1	2620	U
33	L1	2621	G
33	L1	2622	G
33	L1	2623	G
33	L1	2624	G
33	L1	2628	C
33	L1	2634	U
33	L1	2643	A
33	L1	2654	G
33	L1	2657	C
33	L1	2658	U
33	L1	2659	A
33	L1	2669	C
33	L1	2679	A
33	L1	2706	A
33	L1	2708	A

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Mol	Chain	Res	Type
33	L1	2722	U
33	L1	2739	A
33	L1	2757	G
33	L1	2763	C
33	L1	2765	A
33	L1	2766	U
33	L1	2781	A
33	L1	2796	G
33	L1	2799	U
33	L1	2801	A
33	L1	2802	G
33	L1	2803	A
33	L1	2804	A
33	L1	2810	A
33	L1	2818	G
33	L1	2842	C
33	L1	2862	U
33	L1	2875	U
33	L1	2896	C
33	L1	2918	U
33	L1	2943	A
33	L1	2944	C
33	L1	2952	G
33	L1	2972	C
33	L1	2973	A
33	L1	2995	G
33	L1	3023	G
33	L1	3042	U
33	L1	3045	A
33	L1	3049	A
33	L1	3079	G
33	L1	3081	G
33	L1	3087	A
33	L1	3093	C
33	L1	3094	C
33	L1	3122	U
33	L1	3124	A
33	L1	3137	G
33	L1	3152	C
33	L1	3175	C
33	L1	3177	A
33	L1	3183	G

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Mol	Chain	Res	Type
33	L1	3205	C
33	L1	3206	C
33	L1	3211	C
33	L1	3217	G
33	L1	3227	U
33	L1	3228	C
33	L1	3234	G
33	L1	3237	G
33	L1	3240	C
33	L1	3250	C
33	L1	3277	C
33	L1	3280	U
33	L1	3295	G
33	L1	3308	A
33	L1	3317	G
33	L1	3324	U
33	L1	3333	C
33	L1	3337	G
33	L1	3352	C
33	L1	3353	G
33	L1	3354	A
33	L1	3360	U
33	L1	3375	G
33	L1	3376	C
33	L1	3377	G
33	L1	3378	U
33	L1	3389	C
33	L1	3390	G
34	L3	1	G
34	L3	3	A
34	L3	10	C
34	L3	19	A
34	L3	23	A
34	L3	25	G
34	L3	26	C
34	L3	48	G
34	L3	53	U
34	L3	54	A
34	L3	55	A
34	L3	63	U
34	L3	73	U
34	L3	75	G

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Mol	Chain	Res	Type
34	L3	101	A
34	L3	102	G
34	L3	117	U
35	L2	27	C
35	L2	42	U
35	L2	43	G
35	L2	67	C
35	L2	69	G
35	L2	89	G
35	L2	91	G
35	L2	92	A
35	L2	93	A
35	L2	94	C
35	L2	97	U
35	L2	98	C
35	L2	99	G
35	L2	100	A
35	L2	101	G
35	L2	110	C
35	L2	116	U
35	L2	123	C
35	L2	124	G
35	L2	125	A
35	L2	135	G
35	L2	137	C
35	L2	138	G
35	L2	143	C
35	L2	144	A
35	L2	155	G
35	L2	157	C
35	L2	162	C

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
32	S1	23
33	L1	20
26	SG	3
9	SK	2
78	Le	2
2	SA	2
19	SY	2
25	SC	2
14	SP	1
4	SD	1
16	SR	1
5	SE	1
81	LD	1
15	SS	1
28	SN	1
1	Sa	1
3	SB	1
10	SL	1
24	SX	1
18	SW	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	S1	694:C	O3'	701:C	P	33.58
1	S1	803:G	O3'	823:A	P	30.95
1	L1	2547:C	O3'	2561:A	P	30.63
1	S1	744:G	O3'	764:U	P	27.26
1	S1	862:U	O3'	871:G	P	24.78
1	LD	269:TYR	C	303:VAL	N	23.06

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	L1	3285:U	O3'	3287:A	P	10.99
1	SW	31:UNK	C	73:UNK	N	10.13
1	S1	1419:U	O3'	1421:U	P	9.36
1	S1	42:G	O3'	44:U	P	7.57
1	L1	113:A	O3'	119:A	P	7.47
1	L1	3320:G	O3'	3322:A	P	6.65
1	S1	1086:A	O3'	1088:G	P	6.14
1	S1	128:G	O3'	137:A	P	5.98
1	L1	1616:G	O3'	1618:U	P	5.77
1	S1	1450:A	O3'	1452:A	P	5.62
1	S1	324:U	O3'	327:A	P	5.53
1	L1	3063:C	O3'	3065:U	P	4.59
1	L1	3365:U	O3'	3372:C	P	4.55
1	L1	2313:U	O3'	2318:U	P	3.87
1	S1	1462:C	O3'	1464:G	P	3.67
1	L1	1401:C	O3'	1403:G	P	3.50
1	L1	1732:G	O3'	1734:G	P	3.35
1	L1	1389:C	O3'	1391:A	P	3.22
1	L1	1604:U	O3'	1606:C	P	2.91
1	Le	36:LYS	C	37:ILE	N	2.57
1	SG	127:UNK	C	128:UNK	N	2.51
1	Sa	97:THR	C	98:SER	N	2.30
1	Le	35:GLU	C	36:LYS	N	2.03
1	L1	2700:A	O3'	2701:G	P	1.98
1	S1	303:A	O3'	304:A	P	1.92
1	L1	618:G	O3'	619:C	P	1.92
1	SC	43:GLU	C	44:LEU	N	1.86
1	L1	521:G	O3'	522:C	P	1.86
1	SD	167:ASN	C	168:LYS	N	1.85
1	SK	93:HIS	C	94:ILE	N	1.85
1	SR	86:ARG	C	87:THR	N	1.80
1	SB	154:ASP	C	155:GLY	N	1.79
1	S1	1298:G	O3'	1299:G	P	1.79
1	S1	1592:G	O3'	1593:U	P	1.79
1	L1	1523:G	O3'	1524:G	P	1.78
1	SG	64:UNK	C	65:UNK	N	1.72
1	SN	51:GLY	C	52:PHE	N	1.72
1	SE	250:GLN	C	251:GLU	N	1.68
1	SY	47:ARG	C	48:GLU	N	1.67
1	SK	126:GLY	C	127:ARG	N	1.66
1	SC	143:VAL	C	144:ASN	N	1.64
1	SY	46:VAL	C	47:ARG	N	1.62

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	S1	623:A	O3'	624:A	P	1.40
1	S1	1647:C	O3'	1648:C	P	1.34
1	L1	18:G	O3'	19:C	P	1.33
1	L1	1034:U	O3'	1035:C	P	1.30
1	S1	187:C	O3'	188:U	P	1.29
1	S1	535:C	O3'	536:U	P	1.27
1	L1	522:C	O3'	523:C	P	1.23
1	S1	1004:U	O3'	1005:C	P	1.21
1	SA	108:THR	C	109:PRO	N	1.20
1	SX	71:GLY	C	72:LYS	N	1.19
1	S1	1156:A	O3'	1157:A	P	1.18
1	SS	5:THR	C	6:ALA	N	1.13
1	S1	1083:C	O3'	1084:U	P	1.10
1	SL	54:ILE	C	55:GLY	N	1.04
1	SG	126:UNK	C	127:UNK	N	1.04
1	SP	50:ILE	C	51:GLU	N	1.02
1	L1	2398:A	O3'	2399:G	P	0.92
1	S1	860:A	O3'	861:A	P	0.84
1	SA	109:PRO	C	110:GLY	N	0.75
1	S1	1315:U	O3'	1316:A	P	0.74