wwPDB EM Map/Model Validation Report (i)

Apr 10, 2016 – 03:11 PM BST

PDB ID	:	3J7P
EMDB ID:	:	EMD-2646
Title	:	Structure of the 80S mammalian ribosome bound to eEF2
Authors	:	Voorhees, R.M.; Fernandez, I.S.; Scheres, S.H.W.; Hegde, R.S.
Deposited on	:	2014-08-01
Resolution	:	3.50 Å(reported)
Based on PDB ID	:	3J3B, 3J3A, 3J3F, 3J3D

This is a wwPDB EM Map/Model Validation Report for a publicly released PDB/EMDB entry.
For rigid body fitted models, validation errors reported here could
stem from errors in the original structure(s) used in the fitting.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
http://wwpdb.org/validation/2016/EMValidationReportHelp

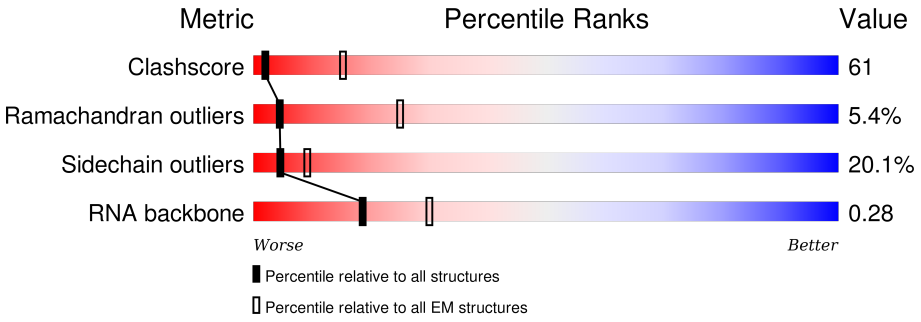
MolProbity	:	4.02b-467
Mogul	:	unknown
Percentile statistics	:	20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP)	:	trunk27241

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.50 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 <=5%

Mol	Chain	Length	Quality of chain
1	5	3664	9% 44% 35% 12%
2	7	120	18% 56% 21% 5%
3	8	156	7% 53% 26% 13%
4	A	257	49% 28% 12% 6% 5%
5	B	394	48% 34% 14% 5%
6	C	367	55% 31% 11% •
7	D	297	45% 35% 13% 5% •
8	E	236	47% 27% 19% 6%

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Mol	Chain	Length	Quality of chain
9	F	225	49% 31% 15% 5%
10	G	266	53% 24% 11% • 9%
11	H	192	56% 28% 10% 5% •
12	I	213	58% 27% 11% •
13	J	178	60% 26% 8% • •
14	K	163	11% 44% 24% 14% 7%
15	L	211	54% 33% 8% 5%
16	M	213	39% 17% 8% • 35%
17	N	204	48% 32% 14% 6%
18	O	204	60% 27% 8% • •
19	P	153	68% 24% 5% •
20	Q	188	57% 26% 10% 6% •
21	R	196	51% 26% 10% 5% 8%
22	S	224	37% 29% 8% • 22%
23	T	160	55% 36% 6% • •
24	U	128	45% 23% 6% • 23%
25	V	140	56% 26% 9% • 6%
26	W	157	24% 10% • • 60%
27	X	156	48% 20% 6% • 24%
28	Y	145	52% 25% 10% 5% 8%
29	Z	136	55% 32% 10% • •
30	a	148	77% 17% • ••
31	b	160	33% 11% •• 53%
32	c	115	63% 15% • • 18%
33	d	125	56% 22% 8% 14%

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Mol	Chain	Length	Quality of chain
34	e	135	68% 23% 5%
35	f	110	78% 15% 5%
36	g	117	77% 19%
37	h	123	80% 12% 6%
38	i	105	76% 17%
39	j	86	73% 21% 6%
40	k	70	71% 27%
41	l	51	76% 18%
42	m	128	30% 10% 59%
43	n	25	72% 20% 8%
44	o	106	69% 23% 6%
45	p	91	82% 15%
46	q	202	59% 28% 11%
47	r	125	74% 22%
48	4	856	24% 54% 16% 6%
49	S2	1742	8% 44% 38% 11%
50	SA	295	37% 23% 9% 29%
51	SB	264	44% 25% 9% 19%
52	SC	218	58% 33% 6%
53	SD	243	51% 29% 11% 7%
54	SE	263	60% 27% 9%
55	SF	204	40% 39% 14% 6%
56	SG	249	48% 36% 8% 5%
57	SH	194	53% 35% 8%
58	SI	208	46% 39% 11%

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Mol	Chain	Length	Quality of chain
59	SJ	194	45% 33% 10% 7% 5%
60	SK	165	24% 25% 8% 41%
61	SL	158	53% 30% 11%
62	SM	124	35% 43% 14% 8%
63	SN	151	66% 22% 9%
64	SO	151	48% 28% 10% 10%
65	SP	145	36% 21% 6% 34%
66	SQ	146	58% 30% 5%
67	SR	135	53% 33% 10%
68	SS	152	48% 28% 11% 10%
69	ST	145	55% 30% 10%
70	SU	119	55% 27% 6% 13%
71	SV	83	59% 27% 13%
72	SW	130	58% 30% 9%
73	SX	143	59% 27% 8%
74	SY	132	53% 31% 9% 5%
75	SZ	125	36% 18% 6% 40%
76	Sa	115	70% 13% 15%
77	Sb	84	80% 18%
78	Sc	69	72% 17% 7%
79	Sd	56	71% 18% 7%
80	Se	133	32% 9% 57%
81	Sf	156	27% 12% 6% 54%
82	Sg	317	82% 15%

2 Entry composition

There are 84 unique types of molecules in this entry. The entry contains 221686 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 RNA chain called 28S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
1	5	3662	78486	34947	14363	25515	3661	0	0

- Molecule 2 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
2	7	120	2558	1141	456	842	119	0	0

- Molecule 3 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
3	8	156	3314	1480	585	1094	155	0	0

- Molecule 4 is a protein called Ribosomal protein uL2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	A	244	1868	1171	382	309	6	0	0

- Molecule 5 is a protein called Ribosomal protein uL3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	B	394	3147	2005	591	538	13	0	0

- Molecule 6 is a protein called Ribosomal protein uL4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	C	367	2919	1836	582	486	15	0	0

- Molecule 7 is a protein called Ribosomal protein uL18.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	D	292	Total	C	N	O	S	0	0
			2380	1508	434	426	12		

- Molecule 8 is a protein called Ribosomal protein eL6.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	E	236	Total	C	N	O	S	0	0
			1904	1219	364	316	5		

- Molecule 9 is a protein called Ribosomal protein uL30.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	F	225	Total	C	N	O	S	0	0
			1870	1202	358	301	9		

- Molecule 10 is a protein called Ribosomal protein eL8.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	G	241	Total	C	N	O	S	0	0
			1934	1232	372	326	4		

- Molecule 11 is a protein called Ribosomal protein uL6.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	H	190	Total	C	N	O	S	0	0
			1518	956	284	272	6		

- Molecule 12 is a protein called Ribosomal protein uL16.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	I	213	Total	C	N	O	S	0	0
			1713	1083	331	284	15		

- Molecule 13 is a protein called Ribosomal protein uL5.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	J	170	Total	C	N	O	S	0	0
			1359	856	256	241	6		

- Molecule 14 is a protein called Ribosomal protein uL11.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	K	151	Total	C	N	O	S	0	0
			1140	708	215	213	4		

- Molecule 15 is a protein called Ribosomal protein eL13.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	L	210	Total	C	N	O	S	0	0
			1703	1064	354	280	5		

- Molecule 16 is a protein called Ribosomal protein eL14.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	M	138	Total	C	N	O	S	0	0
			1131	727	216	181	7		

- Molecule 17 is a protein called Ribosomal protein eL15.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	N	203	Total	C	N	O	S	0	0
			1701	1072	359	266	4		

- Molecule 18 is a protein called Ribosomal protein uL13.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	O	201	Total	C	N	O	S	0	0
			1651	1063	323	260	5		

- Molecule 19 is a protein called Ribosomal protein uL22.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	P	153	Total	C	N	O	S	0	0
			1242	776	241	216	9		

- Molecule 20 is a protein called Ribosomal protein eL18.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	Q	187	Total	C	N	O	S	0	0
			1506	941	311	249	5		

- Molecule 21 is a protein called Ribosomal protein eL19.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	R	180	Total	C	N	O	S	0	0
			1508	933	328	238	9		

- Molecule 22 is a protein called Ribosomal protein eL20.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	S	175	Total	C	N	O	S	0	0
			1454	925	284	235	10		

- Molecule 23 is a protein called Ribosomal protein eL21.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	T	159	Total	C	N	O	S	0	0
			1298	823	252	217	6		

- Molecule 24 is a protein called Ribosomal protein eL22.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	U	99	Total	C	N	O	S	0	0
			808	518	141	147	2		

- Molecule 25 is a protein called Ribosomal protein uL14.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	V	131	Total	C	N	O	S	0	0
			979	618	184	172	5		

- Molecule 26 is a protein called Ribosomal protein eL24.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	W	63	Total	C	N	O	S	0	0
			528	337	103	85	3		

- Molecule 27 is a protein called Ribosomal protein uL23.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	X	119	Total	C	N	O	S	0	0
			976	624	183	168	1		

- Molecule 28 is a protein called Ribosomal protein uL24.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	Y	134	Total	C	N	O	S	0	0
			1115	700	226	186	3		

- Molecule 29 is a protein called Ribosomal protein eL27.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	Z	135	Total	C	N	O	S	0	0
			1107	714	208	182	3		

- Molecule 30 is a protein called Ribosomal protein uL15.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	a	147	Total	C	N	O	S	0	0
			1163	735	239	185	4		

- Molecule 31 is a protein called Ribosomal protein eL29.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	b	75	Total	C	N	O	S	0	0
			610	378	130	99	3		

- Molecule 32 is a protein called Ribosomal protein eL30.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	c	94	Total	C	N	O	S	0	0
			732	465	130	131	6		

- Molecule 33 is a protein called Ribosomal protein eL31.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	d	107	Total	C	N	O	S	0	0
			888	560	171	155	2		

- Molecule 34 is a protein called Ribosomal protein eL32.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	e	128	Total	C	N	O	S	0	0
			1053	667	216	165	5		

- Molecule 35 is a protein called Ribosomal protein eL33.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	f	109	Total	C	N	O	S	0	0
			876	555	174	144	3		

- Molecule 36 is a protein called Ribosomal protein eL34.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	g	114	Total	C	N	O	S	0	0
			906	566	187	147	6		

- Molecule 37 is a protein called Ribosomal protein uL29.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	h	122	Total	C	N	O	S	0	0
			1015	642	205	167	1		

- Molecule 38 is a protein called Ribosomal protein eL36.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	i	102	Total	C	N	O	S	0	0
			832	521	177	129	5		

- Molecule 39 is a protein called Ribosomal protein eL37.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	j	86	Total	C	N	O	S	0	0
			706	436	155	110	5		

- Molecule 40 is a protein called Ribosomal protein eL38.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	k	69	Total	C	N	O	S	0	0
			569	366	103	99	1		

- Molecule 41 is a protein called Ribosomal protein eL39.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	l	50	Total	C	N	O	S	0	0
			444	281	98	64	1		

- Molecule 42 is a protein called Ribosomal protein eL40.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	m	52	Total	C	N	O	S	0	0
			429	266	90	67	6		

- Molecule 43 is a protein called Ribosomal protein eL41.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	n	23	Total	C	N	O	S	0	0
			222	134	61	25	2		

- Molecule 44 is a protein called Ribosomal protein eL42.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	o	104	Total	C	N	O	S	0	0
			851	533	174	138	6		

- Molecule 45 is a protein called Ribosomal protein eL43.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	p	91	Total	C	N	O	S	0	0
			708	445	136	120	7		

- Molecule 46 is a protein called Ribosomal protein uL10.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	q	202	Total	C	N	O	S	0	0
			1556	989	272	286	9		

- Molecule 47 is a protein called Ribosomal protein eL28.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	r	125	Total	C	N	O	S	0	0
			1001	622	206	168	5		

- Molecule 48 is a protein called Eukaryotic elongation factor 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	4	856	Total	C	N	O	S	0	0
			6673	4234	1148	1247	44		

- Molecule 49 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	S2	1742	Total	C	N	O	P	0	0
			36900	16458	6595	12106	1741		

- Molecule 50 is a protein called Ribosomal protein uS2.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	SA	208	Total	C	N	O	S	0	0
			1642	1045	289	300	8		

- Molecule 51 is a protein called Ribosomal protein eS1.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	SB	213	Total	C	N	O	S	0	0
			1725	1093	311	308	13		

- Molecule 52 is a protein called Ribosomal protein uS5.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	SC	218	Total	C	N	O	S	0	0
			1690	1094	289	297	10		

- Molecule 53 is a protein called Ribosomal protein uS3.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	SD	227	Total	C	N	O	S	0	0
			1765	1125	317	315	8		

- Molecule 54 is a protein called Ribosomal protein eS4.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	SE	262	Total	C	N	O	S	0	0
			2076	1324	386	358	8		

- Molecule 55 is a protein called Ribosomal protein uS7.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	SF	191	Total	C	N	O	S	0	0
			1509	943	286	273	7		

- Molecule 56 is a protein called Ribosomal protein eS6.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	SG	237	Total	C	N	O	S	0	0
			1923	1200	387	329	7		

- Molecule 57 is a protein called Ribosomal protein eS7.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	SH	189	Total	C	N	O	S	0	0
			1521	969	280	271	1		

- Molecule 58 is a protein called Ribosomal protein eS8.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	SI	206	Total	C	N	O	S	0	0
			1686	1058	332	291	5		

- Molecule 59 is a protein called Ribosomal protein uS4.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	SJ	185	Total	C	N	O	S	0	0
			1525	969	306	248	2		

- Molecule 60 is a protein called Ribosomal protein eS10.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	SK	98	Total	C	N	O	S	0	0
			827	539	148	134	6		

- Molecule 61 is a protein called Ribosomal protein uS17.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	SL	152	Total	C	N	O	S	0	0
			1238	788	232	212	6		

- Molecule 62 is a protein called Ribosomal protein eS12.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	SM	124	Total	C	N	O	S	0	0
			960	600	171	181	8		

- Molecule 63 is a protein called Ribosomal protein uS15.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	SN	150	Total	C	N	O	S	0	0
			1208	773	229	205	1		

- Molecule 64 is a protein called Ribosomal protein uS11.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	SO	136	Total	C	N	O	S	0	0
			1016	621	199	190	6		

- Molecule 65 is a protein called Ribosomal protein uS19.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	SP	96	Total	C	N	O	S	0	0
			805	506	158	135	6		

- Molecule 66 is a protein called Ribosomal protein uS9.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	SQ	141	Total	C	N	O	S	0	0
			1124	715	212	194	3		

- Molecule 67 is a protein called Ribosomal protein eS17.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	SR	129	Total	C	N	O	S	0	0
			1047	658	193	191	5		

- Molecule 68 is a protein called Ribosomal protein uS13.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	SS	137	Total	C	N	O	S	0	0
			1139	714	231	193	1		

- Molecule 69 is a protein called Ribosomal protein eS19.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	ST	141	Total	C	N	O	S	0	0
			1101	690	212	196	3		

- Molecule 70 is a protein called Ribosomal protein uS10.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	SU	104	Total	C	N	O	S	0	0
			818	513	153	148	4		

- Molecule 71 is a protein called Ribosomal protein eS21.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	SV	82	Total	C	N	O	S	0	0
			625	384	116	120	5		

- Molecule 72 is a protein called Ribosomal protein uS8.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	SW	129	Total	C	N	O	S	0	0
			1034	659	193	176	6		

- Molecule 73 is a protein called Ribosomal protein uS12.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	SX	141	Total	C	N	O	S	0	0
			1099	694	220	182	3		

- Molecule 74 is a protein called Ribosomal protein eS24.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	SY	126	Total	C	N	O	S	0	0
			1023	646	200	172	5		

- Molecule 75 is a protein called Ribosomal protein es25.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	SZ	75	Total	C	N	O	S	0	0
			598	382	111	104	1		

- Molecule 76 is a protein called Ribosomal protein eS26.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	Sa	98	Total	C	N	O	S	0	0
			781	486	161	129	5		

- Molecule 77 is a protein called Ribosomal protein eS27.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	Sb	83	Total	C	N	O	S	0	0
			651	408	121	115	7		

- Molecule 78 is a protein called Ribosomal protein eS28.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	Sc	64	Total	C	N	O	S	0	0
			506	308	102	94	2		

- Molecule 79 is a protein called Ribosomal protein uS14.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	Sd	52	Total	C	N	O	S	0	0
			434	273	87	69	5		

- Molecule 80 is a protein called Ribosomal protein eS30.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	Se	57	Total	C	N	O	S	0	0
			452	279	99	73	1		

- Molecule 81 is a protein called Ribosomal protein eS31.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	Sf	71	Total	C	N	O	S	0	0
			581	367	109	98	7		

- Molecule 82 is a protein called Ribosomal protein RACK1.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	Sg	313	Total	C	N	O	S	0	0
			2436	1535	424	465	12		

- Molecule 83 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
83	o	1	Total	Zn	0
			1	1	
83	j	1	Total	Zn	0
			1	1	
83	Sa	1	Total	Zn	0
			1	1	

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms	AltConf
83	m	1	Total Zn 1 1	0

- Molecule 84 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

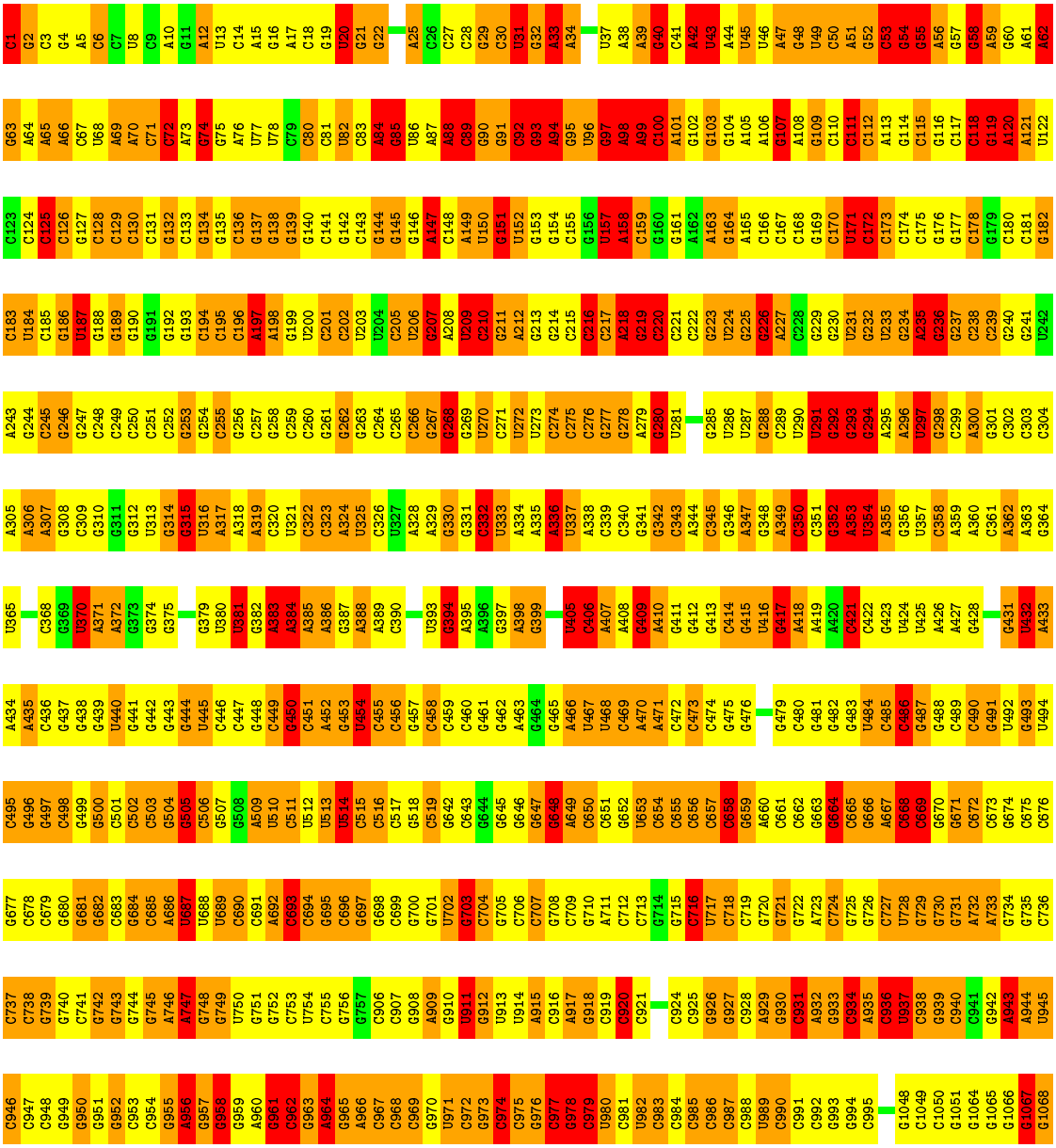
Mol	Chain	Residues	Atoms	AltConf
84	P	1	Total Mg 1 1	0
84	S2	36	Total Mg 36 36	0
84	V	1	Total Mg 1 1	0
84	7	5	Total Mg 5 5	0
84	4	1	Total Mg 1 1	0
84	5	118	Total Mg 118 118	0
84	8	4	Total Mg 4 4	0

3 Residue-property plots (i)

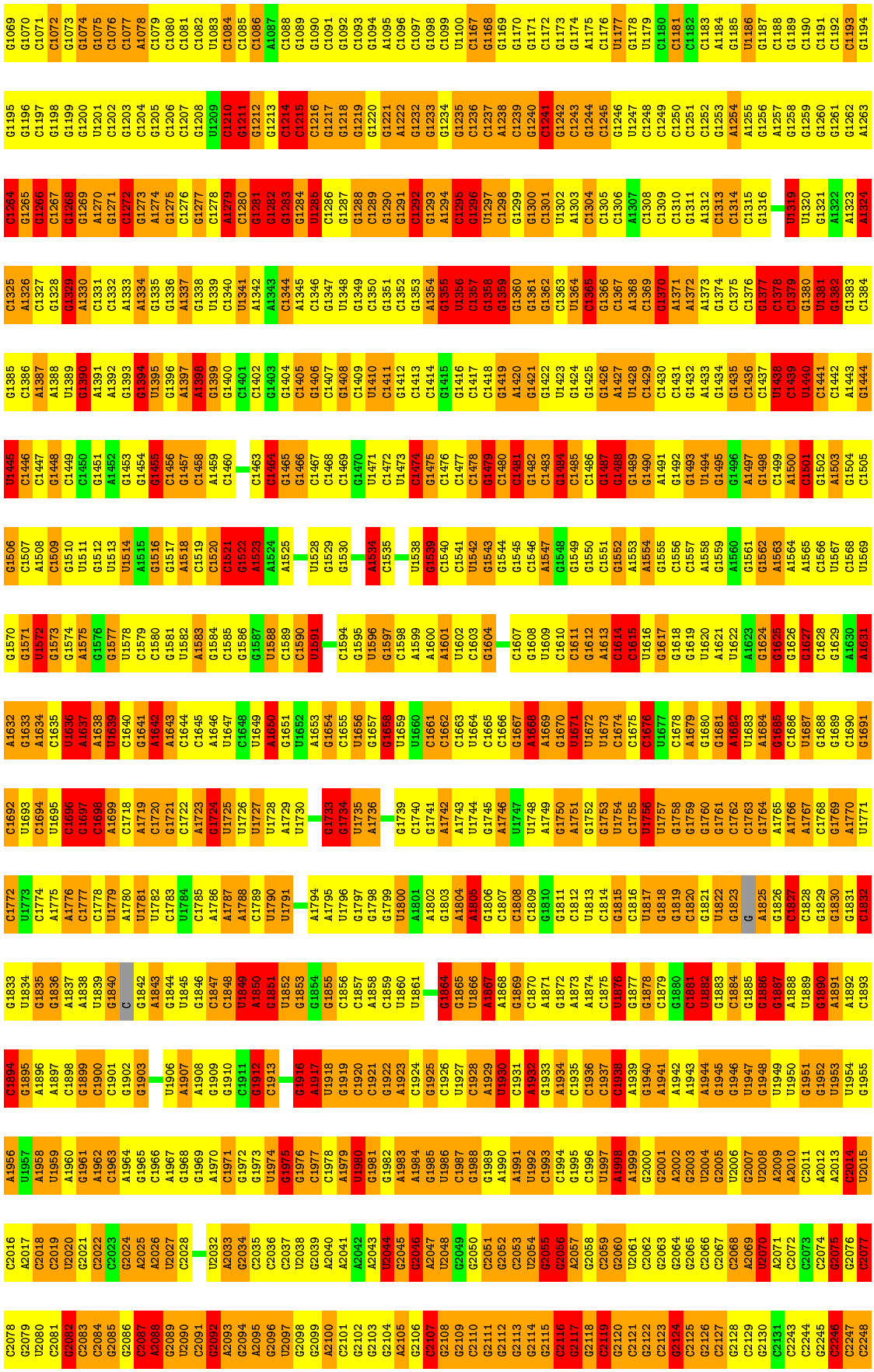
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded according to the number of geometric 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: 28S ribosomal RNA

Chain 5: 9% 44% 35% 12%

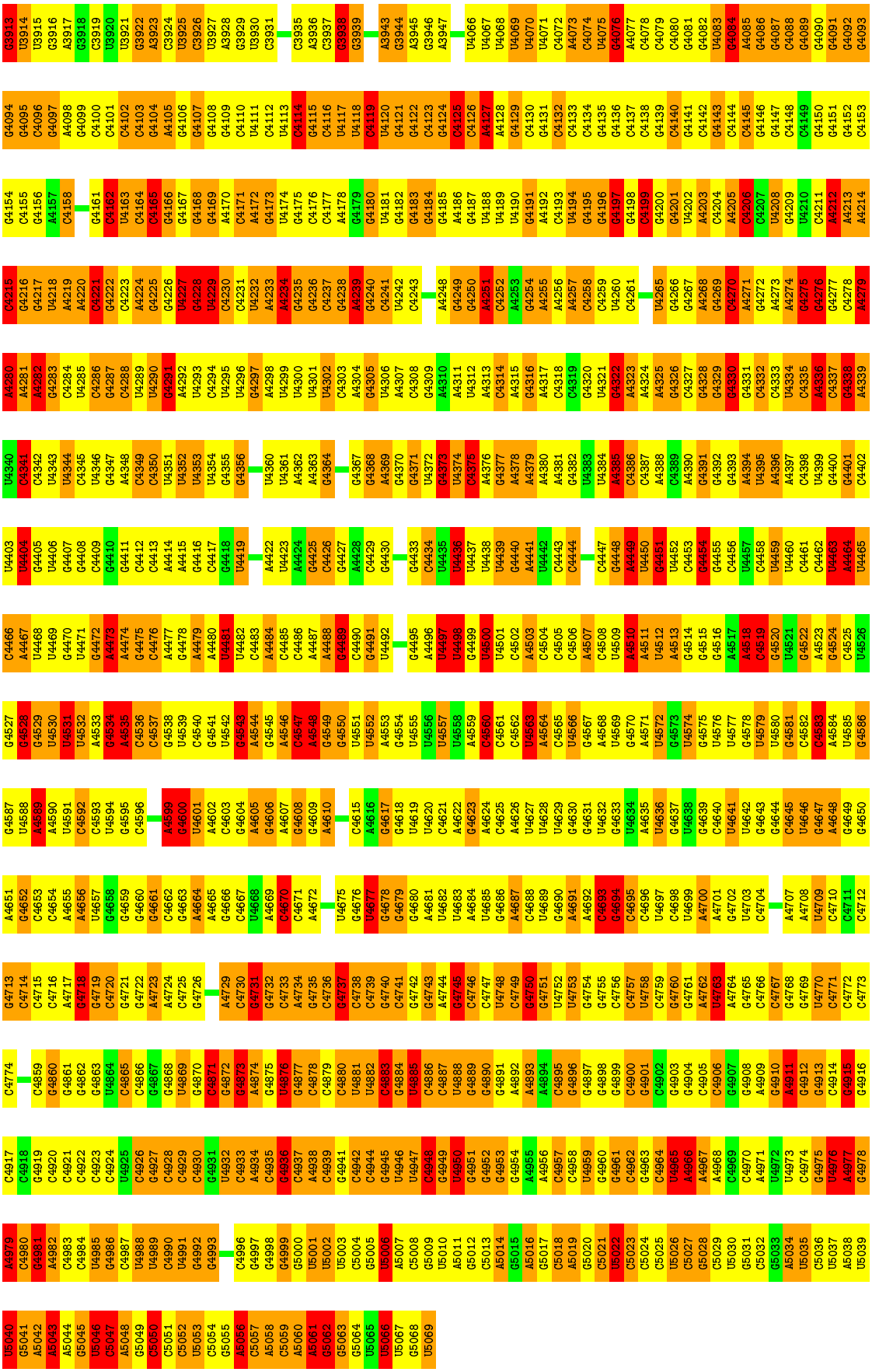


WORLDWIDE PDB PROTEIN DATA BANK
EMDataBank Unified Data Resource for 3DEM



WORLDWIDE PDB PROTEIN DATA BANK
EMDataBank Unified Data Resource for 3DEM

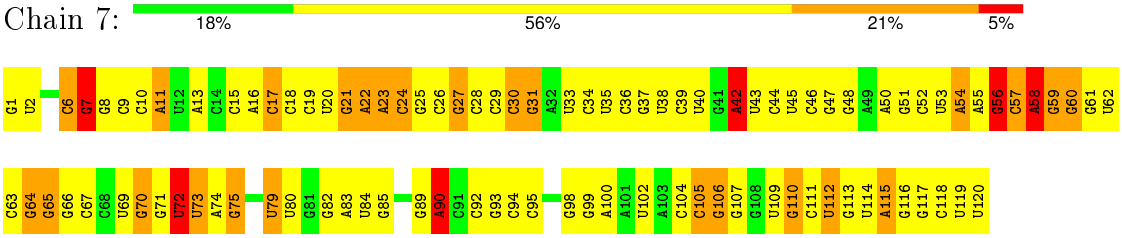
WORLDWIDE PDB PROTEIN DATA BANK
EMDataBank Unified Data Resource for 3DEM



WORLDWIDE PDB PROTEIN DATA BANK
EMDataBank Unified Data Resource for 3DEM

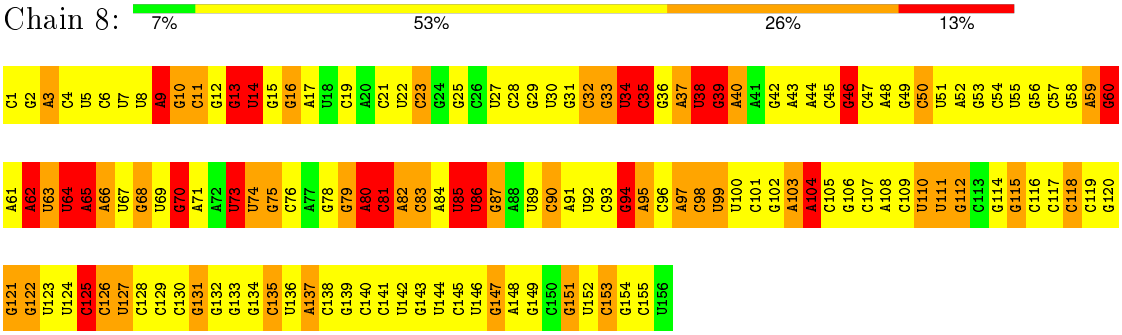
- Molecule 2: 5S ribosomal RNA

Chain 7:



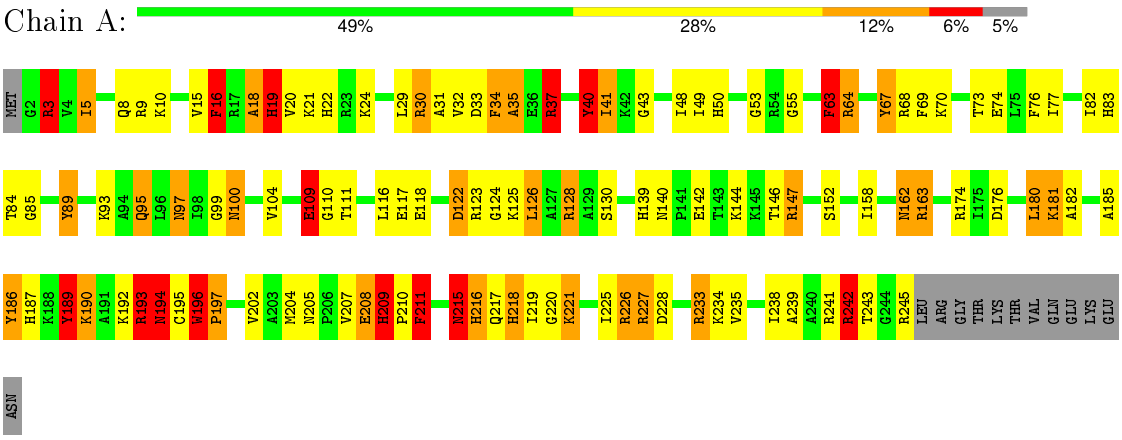
- Molecule 3: 5.8S ribosomal RNA

Chain 8:



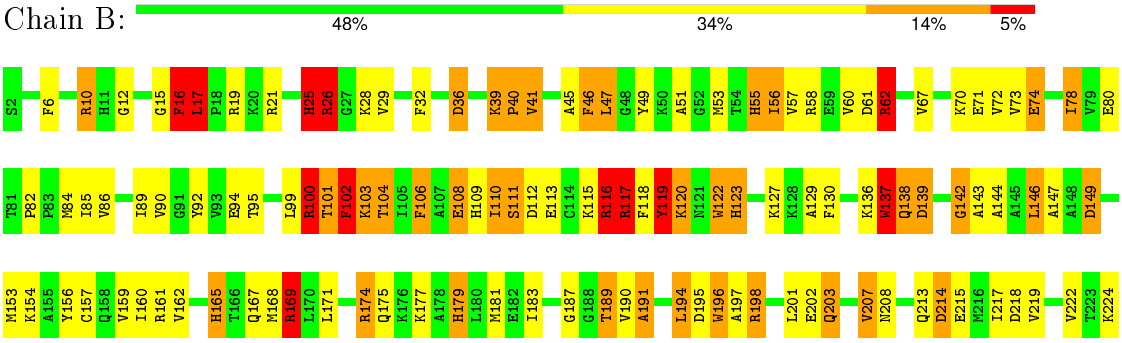
- Molecule 4: Ribosomal protein uL2

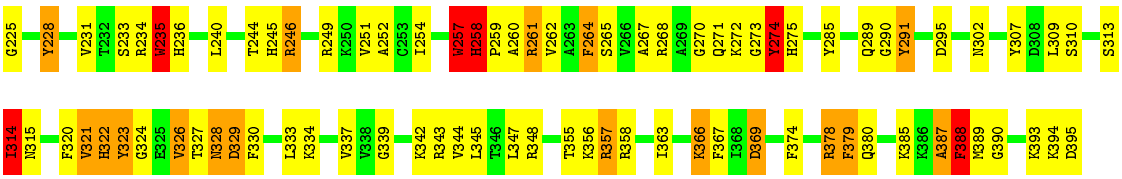
Chain A:



- Molecule 5: Ribosomal protein uL3

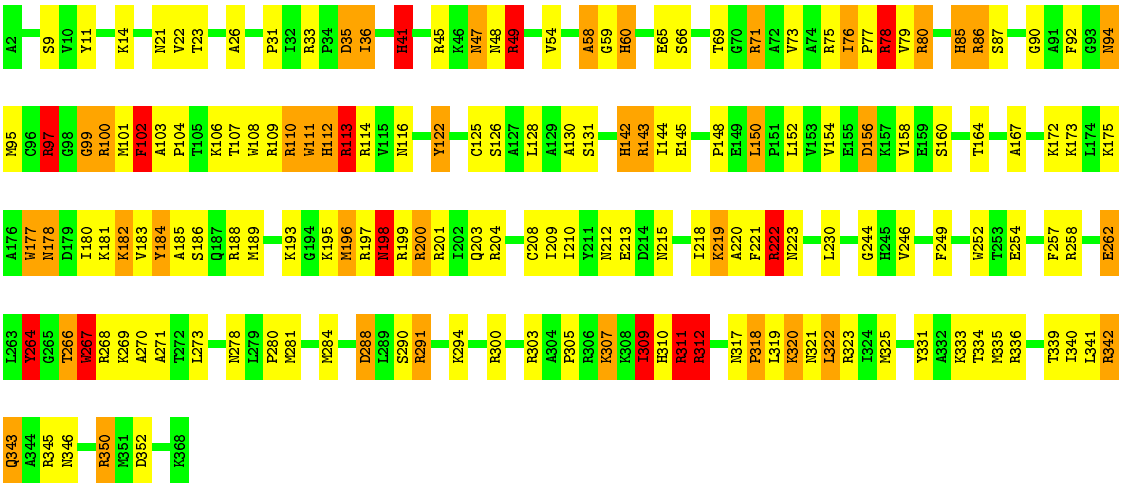
Chain B:





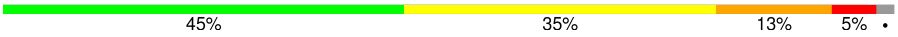
- Molecule 6: Ribosomal protein uL4

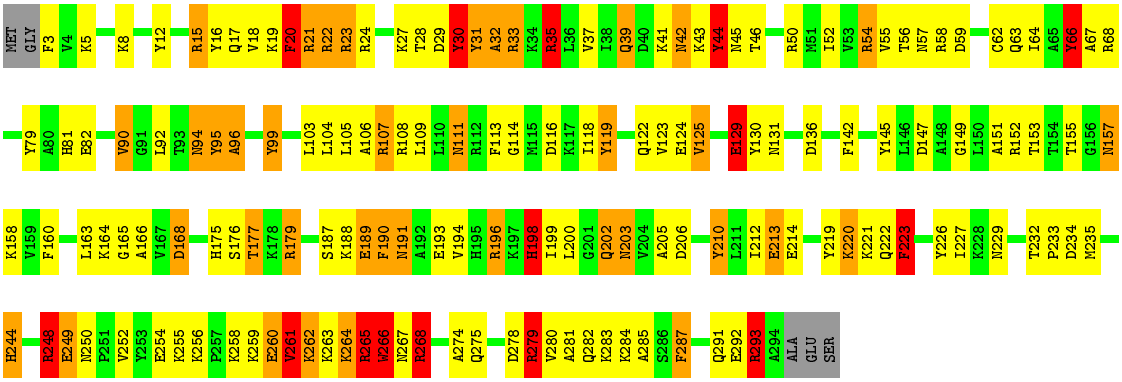
Chain C:



- Molecule 7: Ribosomal protein uL18

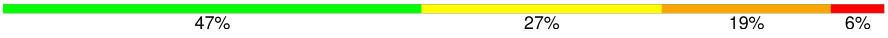
Chain D:

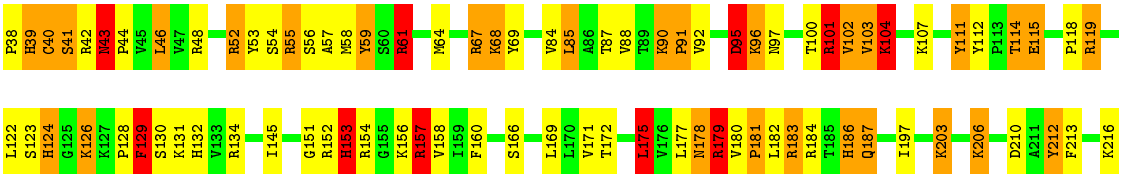


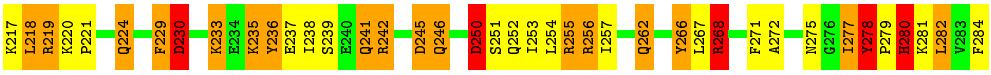


- Molecule 8: Ribosomal protein eL6

Chain E:

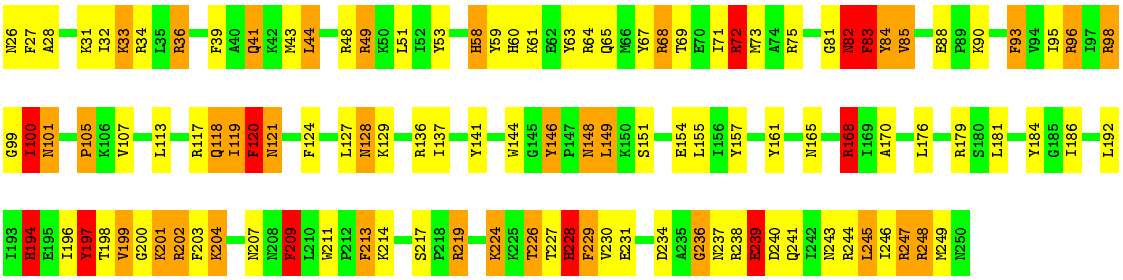






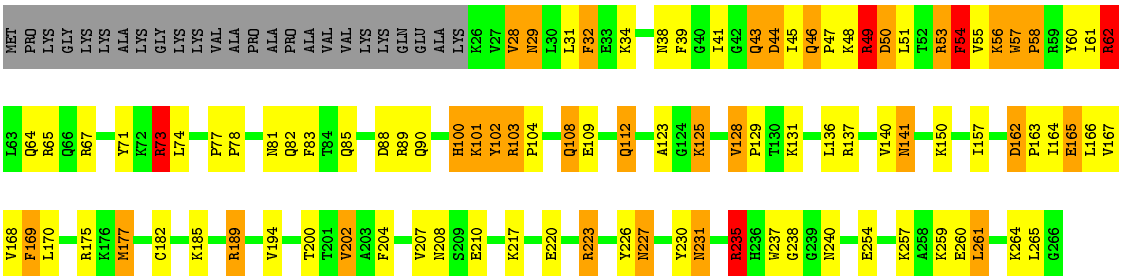
• Molecule 9: Ribosomal protein uL30

Chain F:



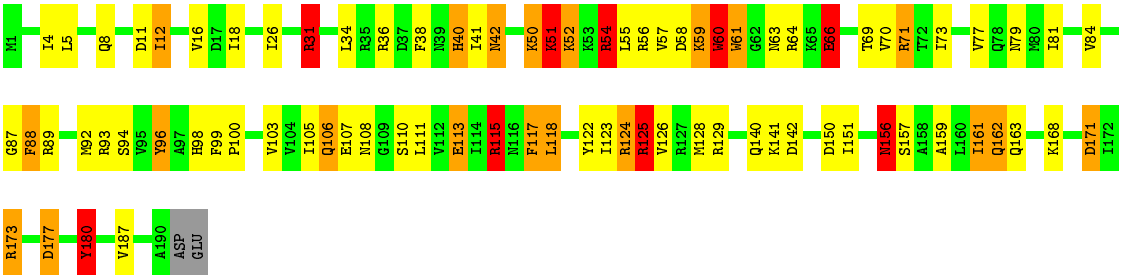
• Molecule 10: Ribosomal protein eL8

Chain G:



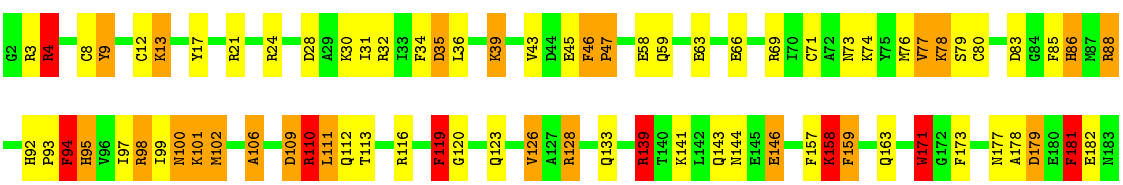
• Molecule 11: Ribosomal protein uL6

Chain H:



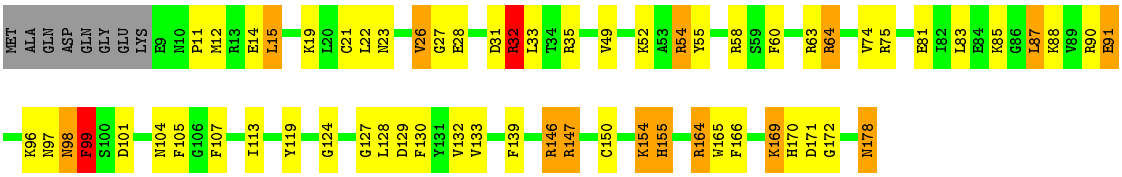
• Molecule 12: Ribosomal protein uL16

Chain I:



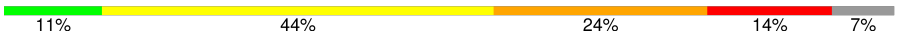
- Molecule 13: Ribosomal protein uL5

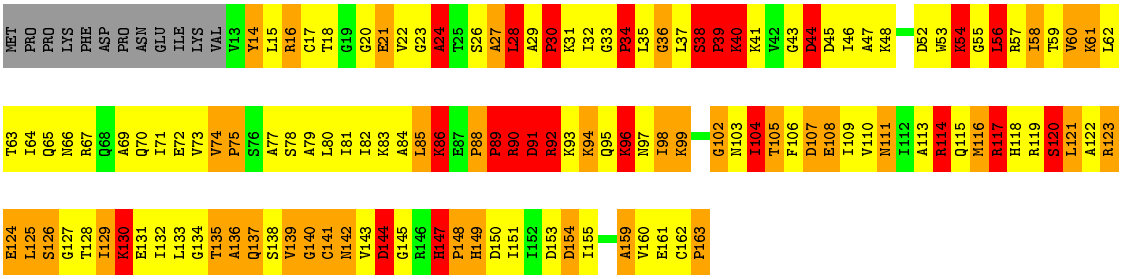
Chain J:



- Molecule 14: Ribosomal protein uL11

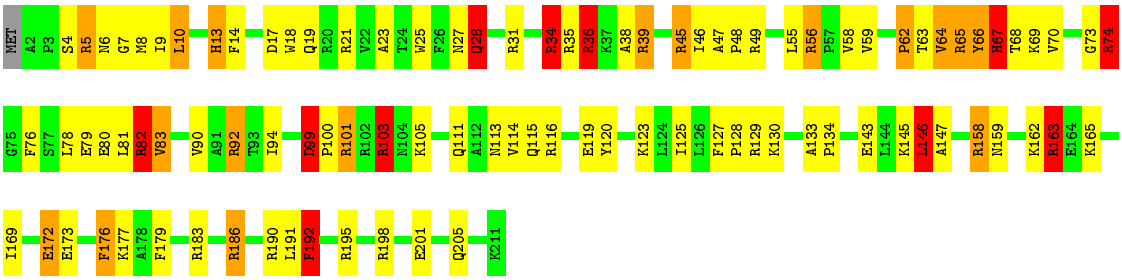
Chain K:





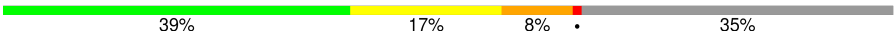
- Molecule 15: Ribosomal protein eL13

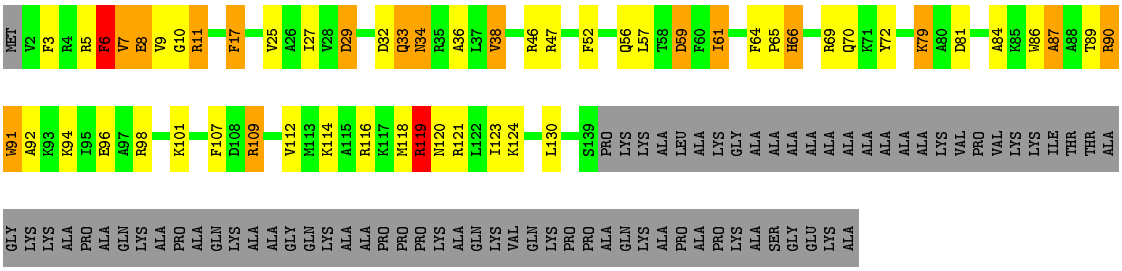
Chain L:



- Molecule 16: Ribosomal protein eL14

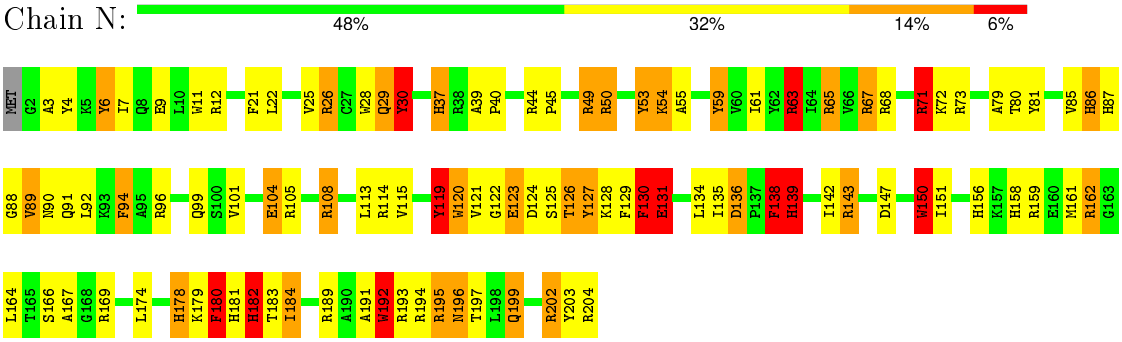
Chain M:





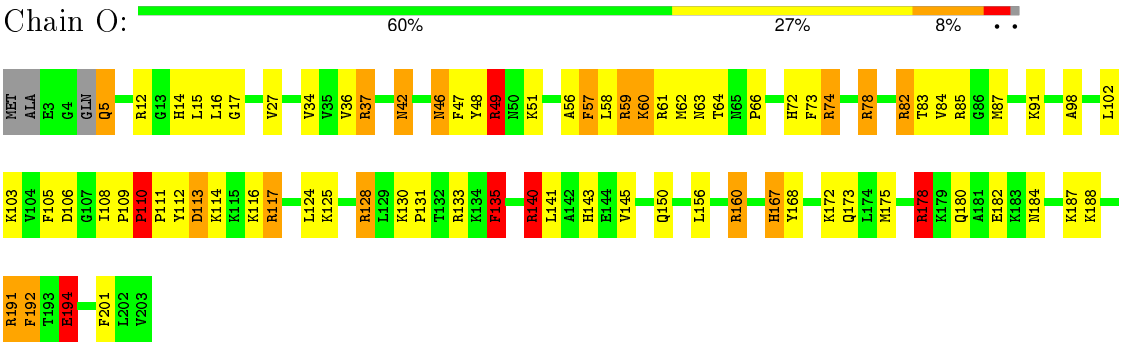
- Molecule 17: Ribosomal protein eL15

Chain N:



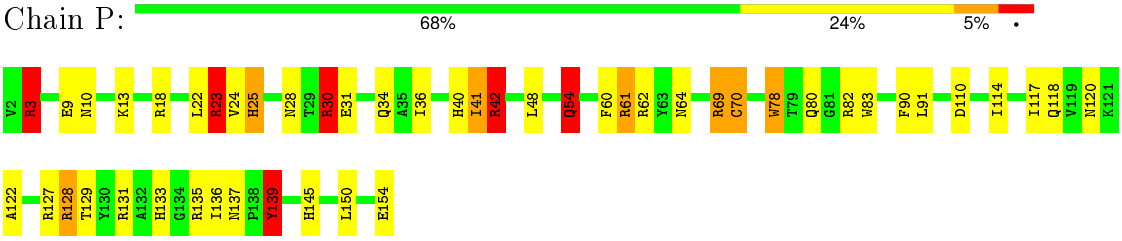
- Molecule 18: Ribosomal protein uL13

Chain O:



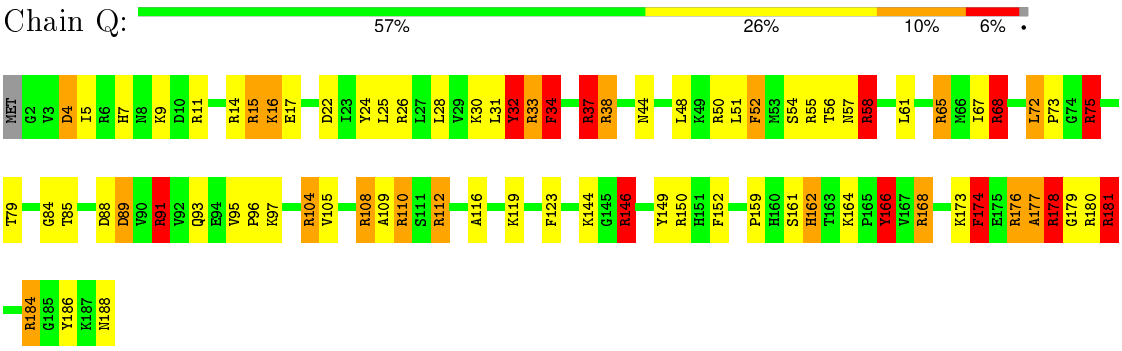
- Molecule 19: Ribosomal protein uL22

Chain P:



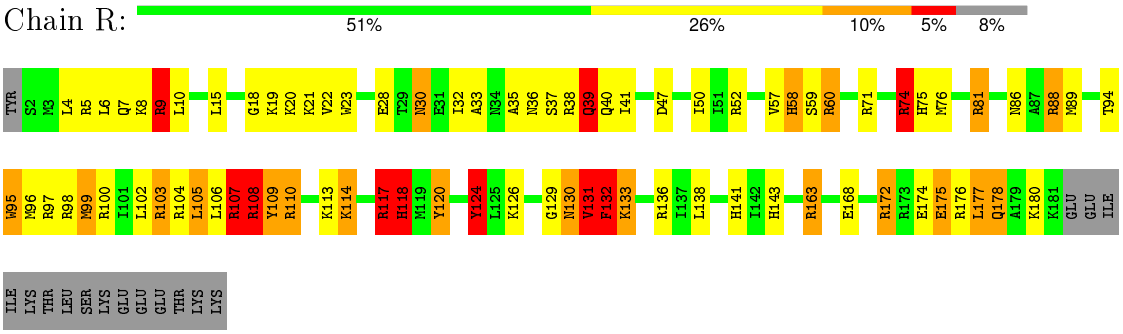
- Molecule 20: Ribosomal protein eL18

Chain Q:



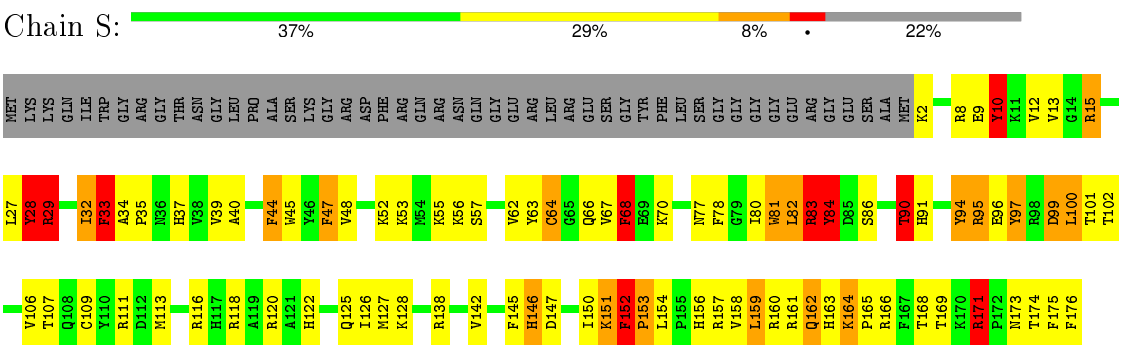
- Molecule 21: Ribosomal protein eL19

Chain R:



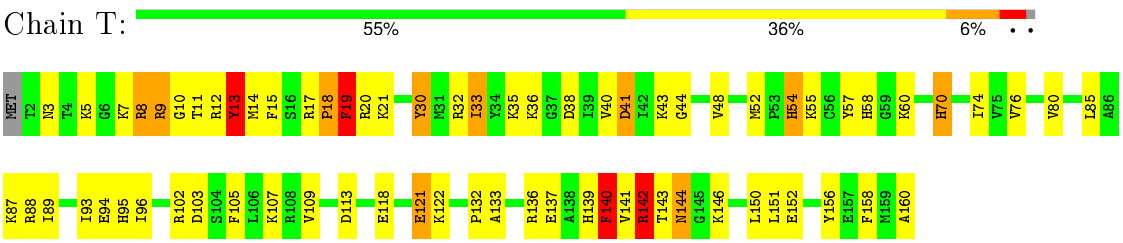
- Molecule 22: Ribosomal protein eL20

Chain S:



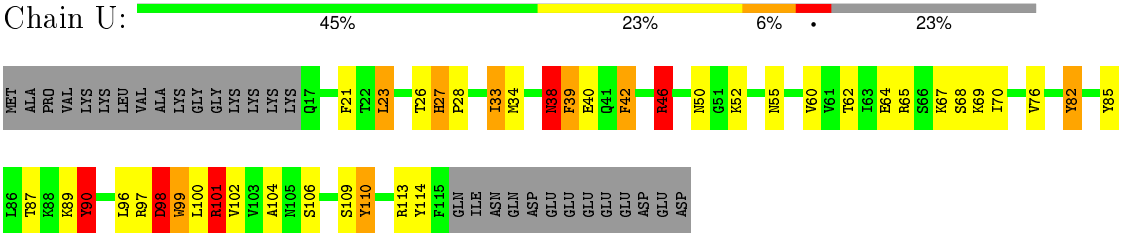
- Molecule 23: Ribosomal protein eL21

Chain T:



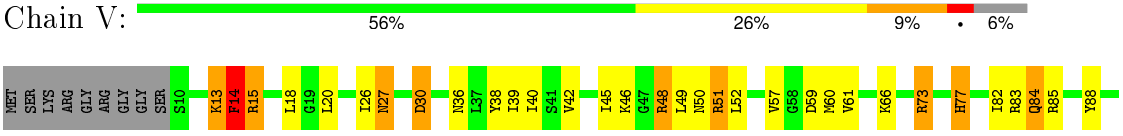
- Molecule 24: Ribosomal protein eL22

Chain U:



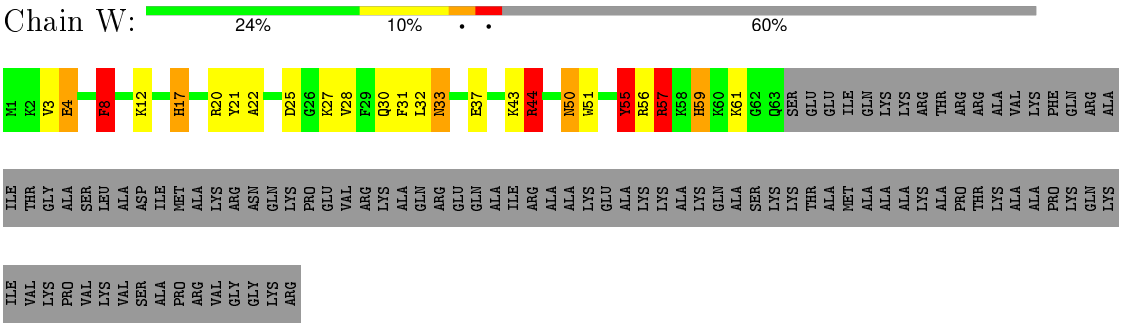
- Molecule 25: Ribosomal protein uL14

Chain V:



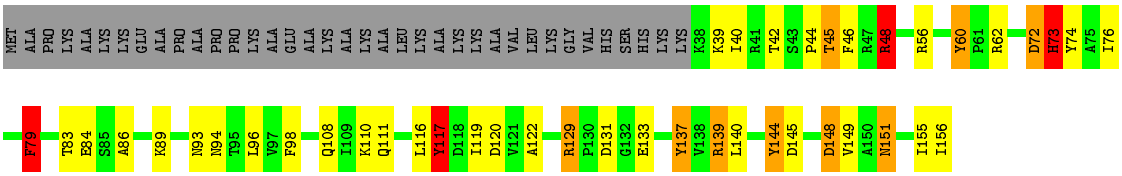
• Molecule 26: Ribosomal protein eL24

Chain W:



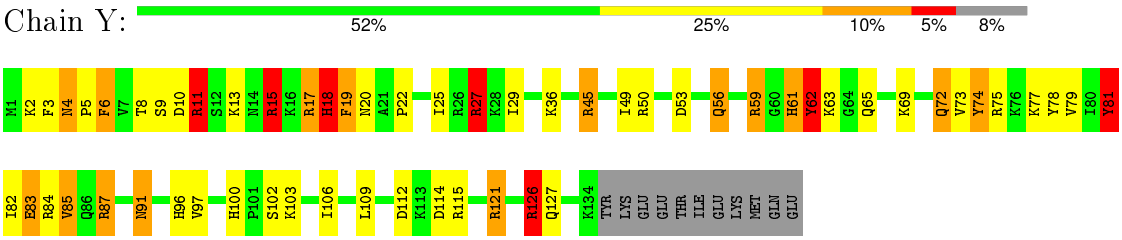
• Molecule 27: Ribosomal protein uL23

Chain X:



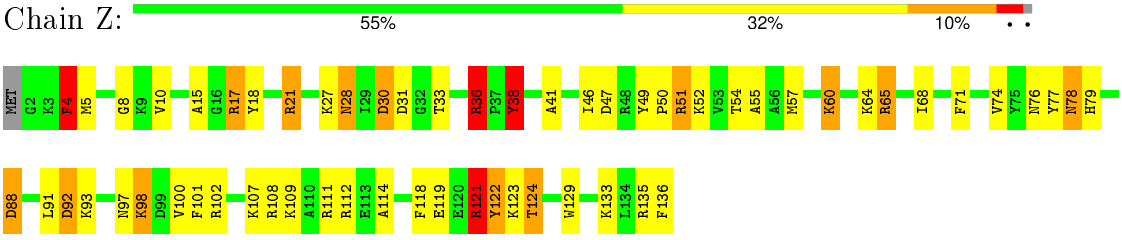
• Molecule 28: Ribosomal protein uL24

Chain Y:



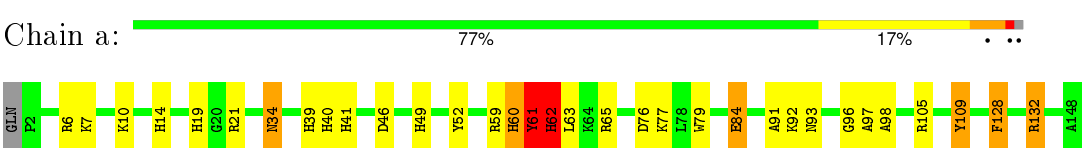
• Molecule 29: Ribosomal protein eL27

Chain Z:



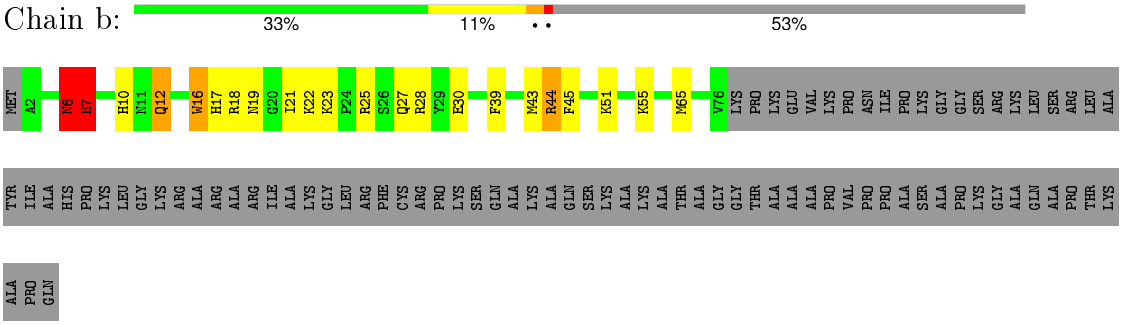
• Molecule 30: Ribosomal protein uL15

Chain a:



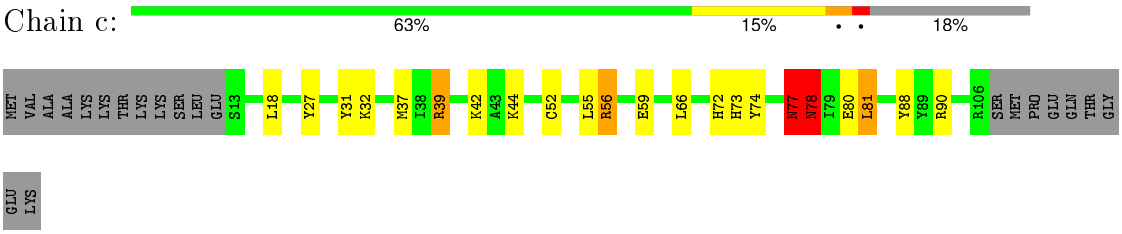
- Molecule 31: Ribosomal protein eL29

Chain b:



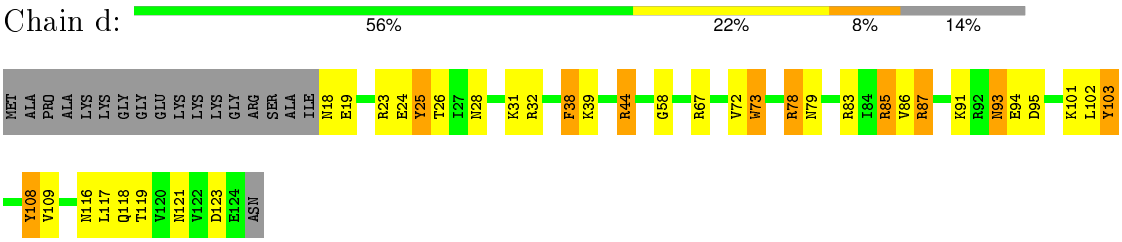
- Molecule 32: Ribosomal protein eL30

Chain c:



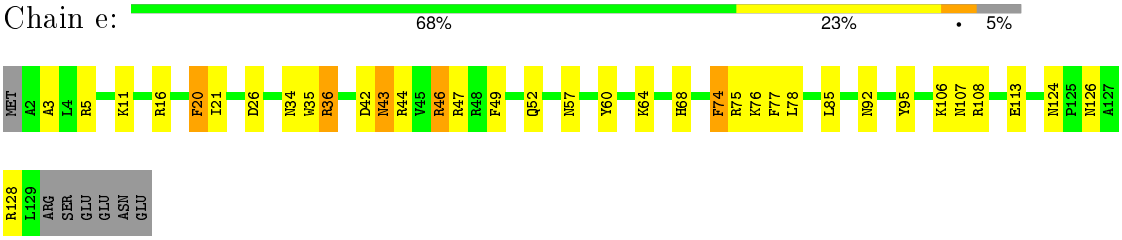
- Molecule 33: Ribosomal protein eL31

Chain d:



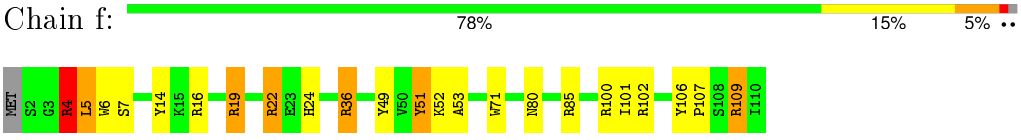
- Molecule 34: Ribosomal protein eL32

Chain e:



- Molecule 35: Ribosomal protein eL33

Chain f:

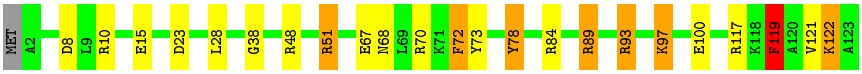


- Molecule 36: Ribosomal protein eL34

Chain g:

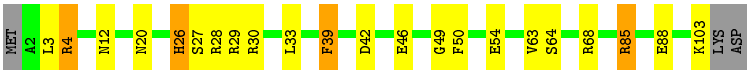
• Molecule 37: Ribosomal protein uL29

Chain h:



• Molecule 38: Ribosomal protein eL36

Chain i:

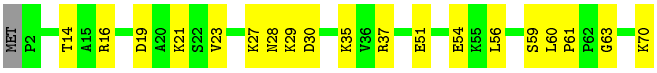


• Molecule 39: Ribosomal protein eL37

Chain j:

• Molecule 40: Ribosomal protein eL38

Chain k:

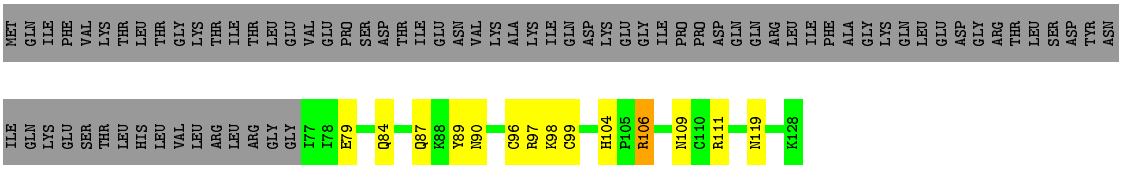


• Molecule 41: Ribosomal protein eL39

Chain l:

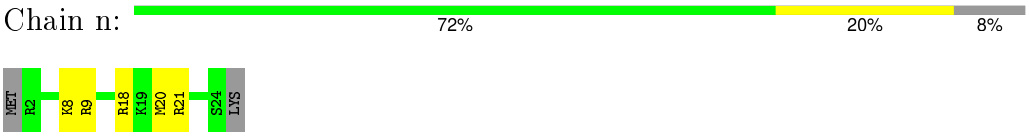
• Molecule 42: Ribosomal protein eL40

Chain m:



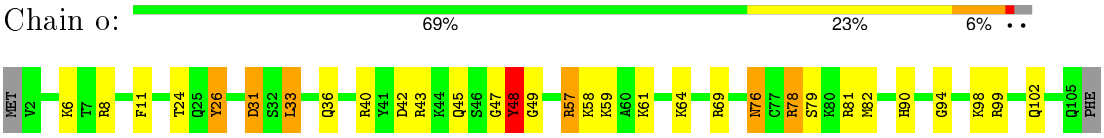
• Molecule 43: Ribosomal protein eL41

Chain n:



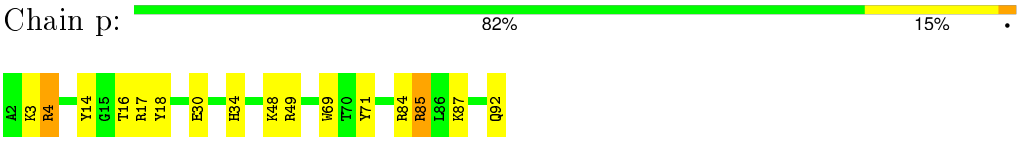
• Molecule 44: Ribosomal protein eL42

Chain o:



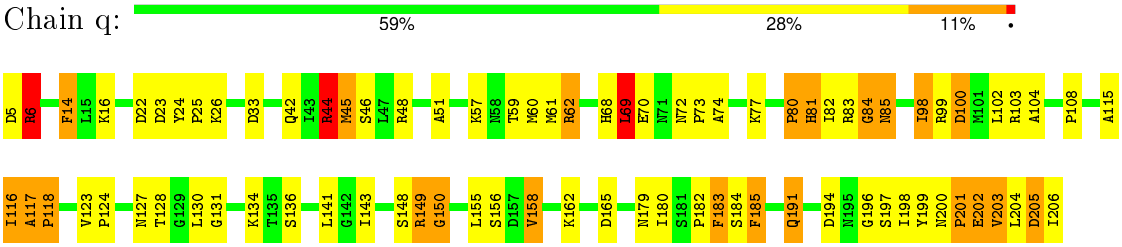
• Molecule 45: Ribosomal protein eL43

Chain p:



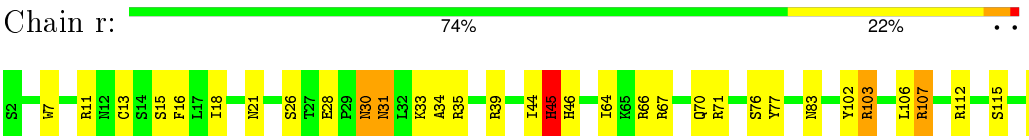
• Molecule 46: Ribosomal protein uL10

Chain q:



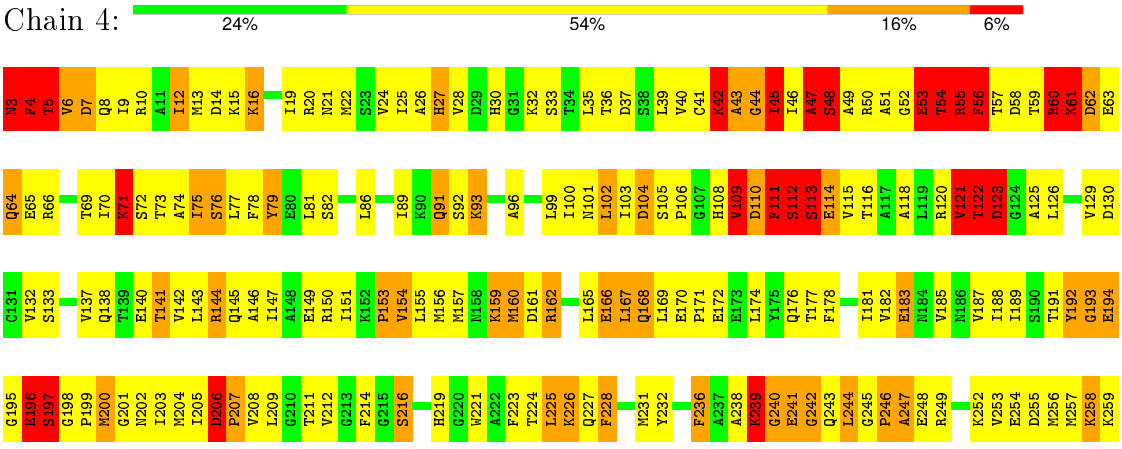
• Molecule 47: Ribosomal protein eL28

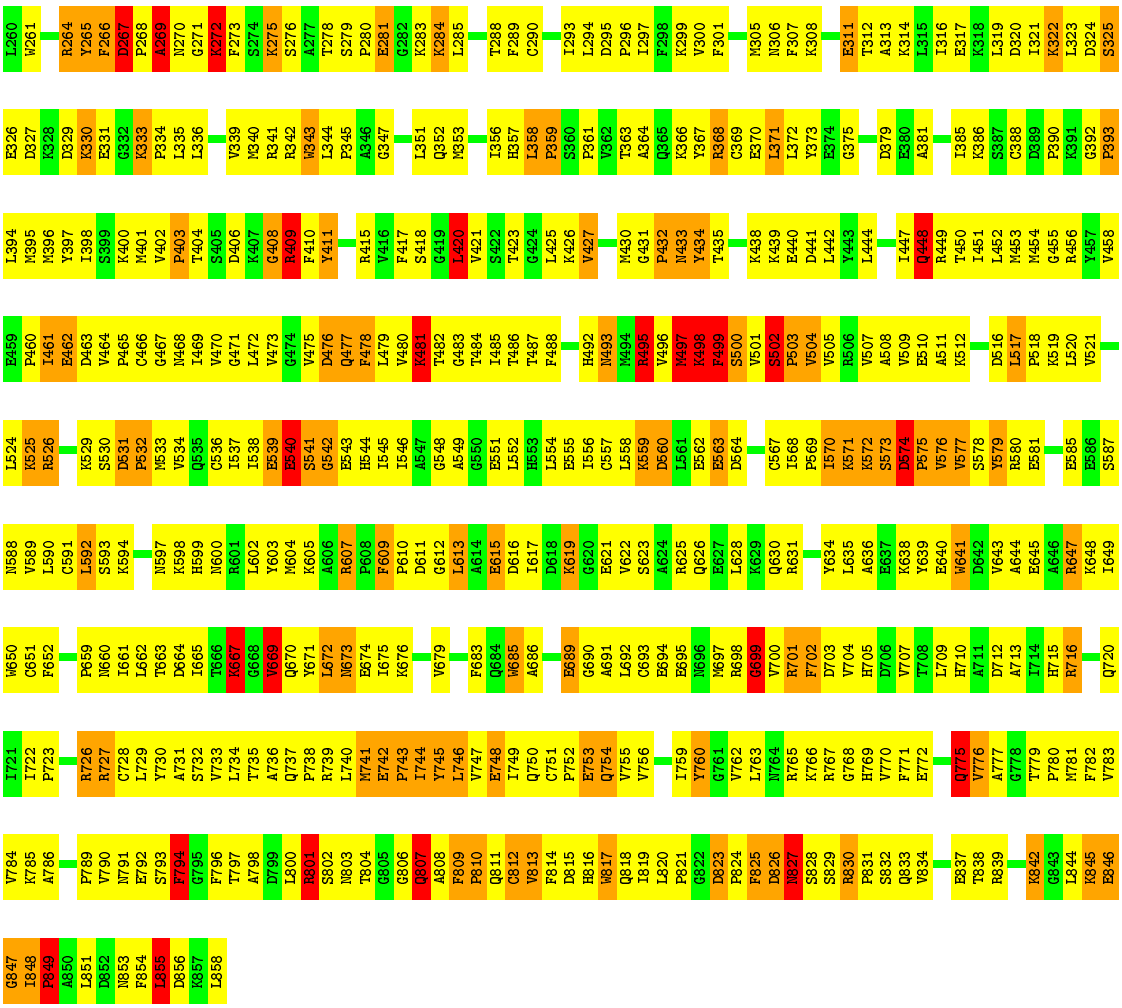
Chain r:



• Molecule 48: Eukaryotic elongation factor 2

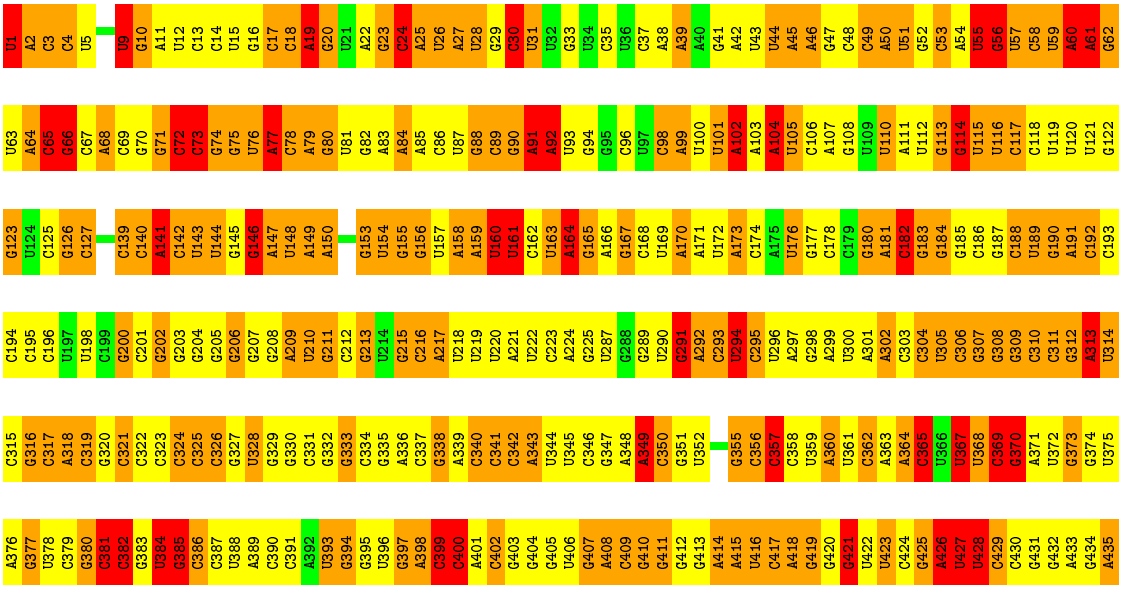
Chain 4:



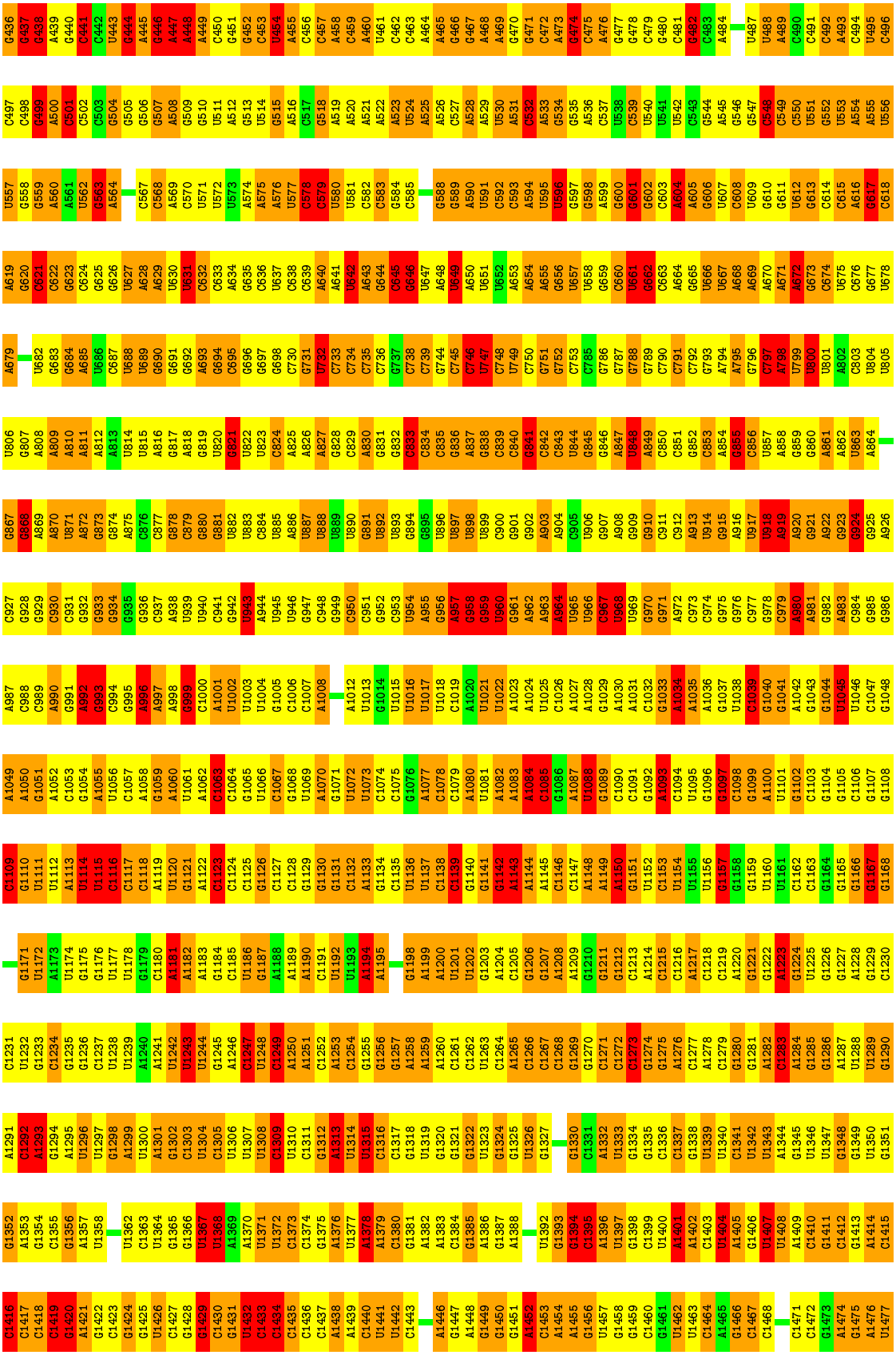


• Molecule 49: 18S ribosomal RNA

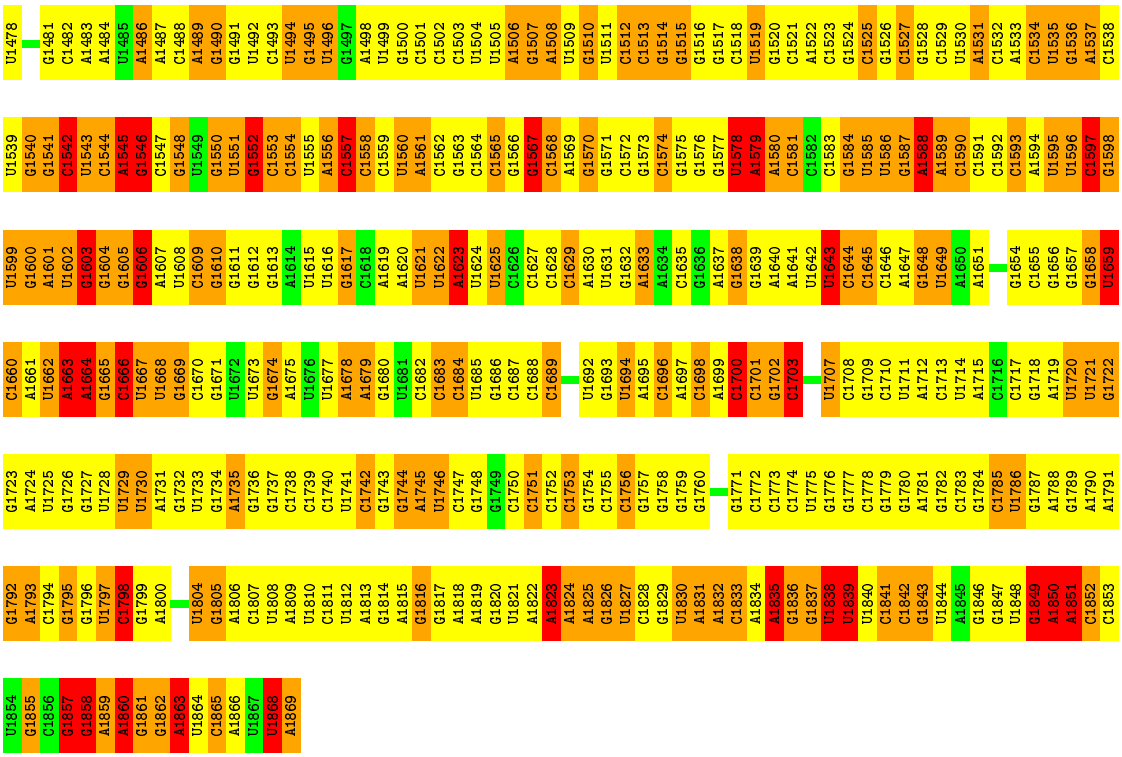
Chain S2:



WORLDWIDE PDB PROTEIN DATA BANK
EMDataBank Unified Data Resource for 3DEM

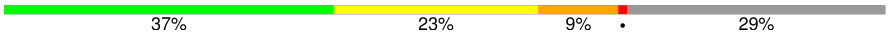


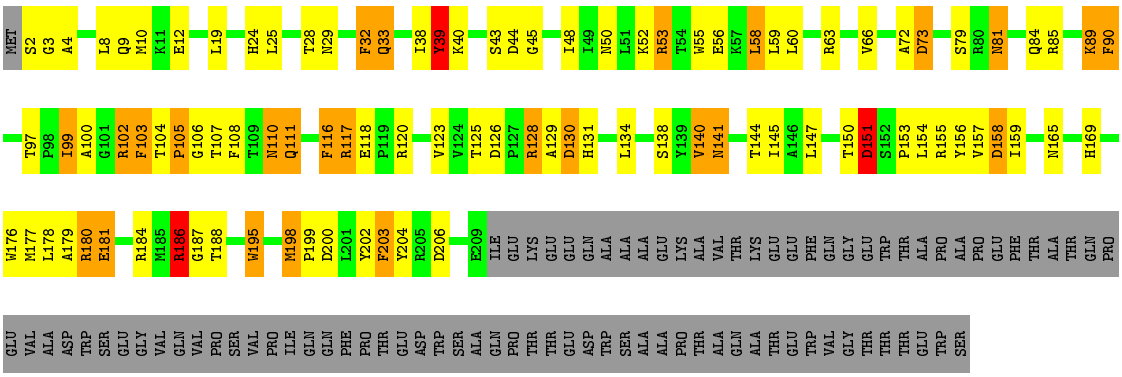
WORLDWIDE PDB PROTEIN DATA BANK
EMDataBank Unified Data Resource for 3DEM



- Molecule 50: Ribosomal protein uS2

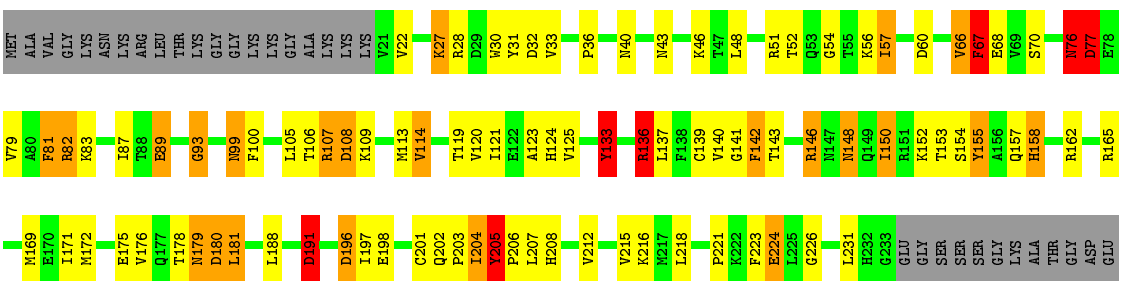
Chain SA:





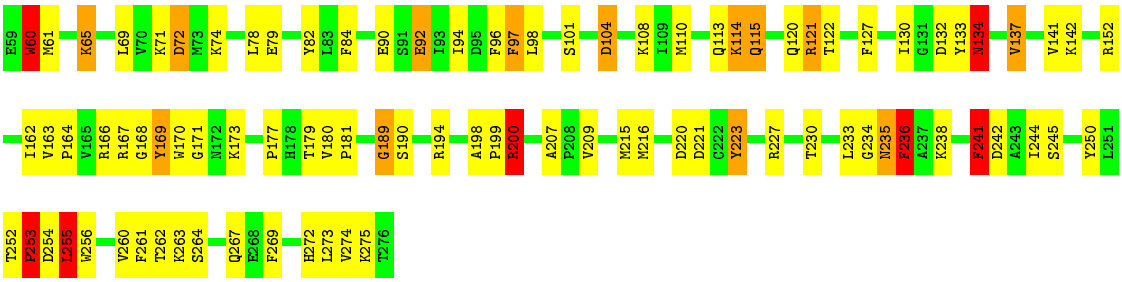
- Molecule 51: Ribosomal protein eS1

Chain SB:



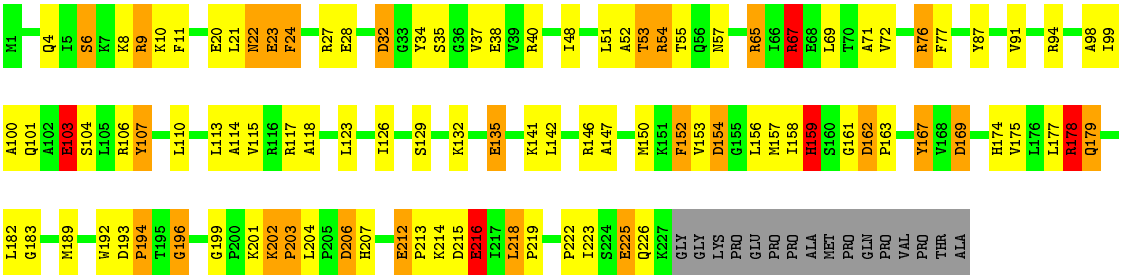
- Molecule 52: Ribosomal protein uS5

Chain SC:



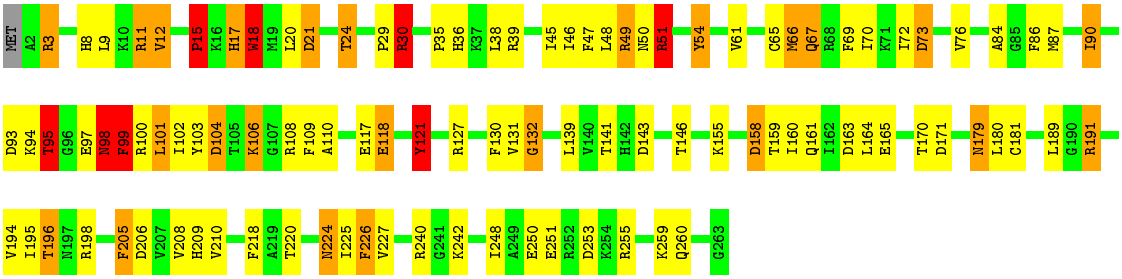
- Molecule 53: Ribosomal protein uS3

Chain SD:



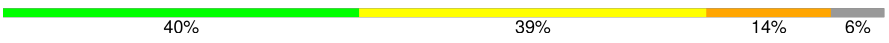
- Molecule 54: Ribosomal protein eS4

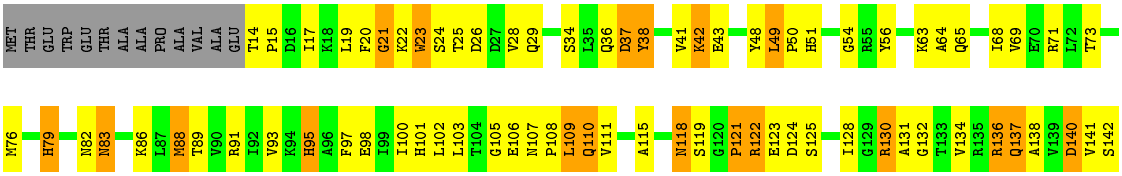
Chain SE:



- Molecule 55: Ribosomal protein uS7

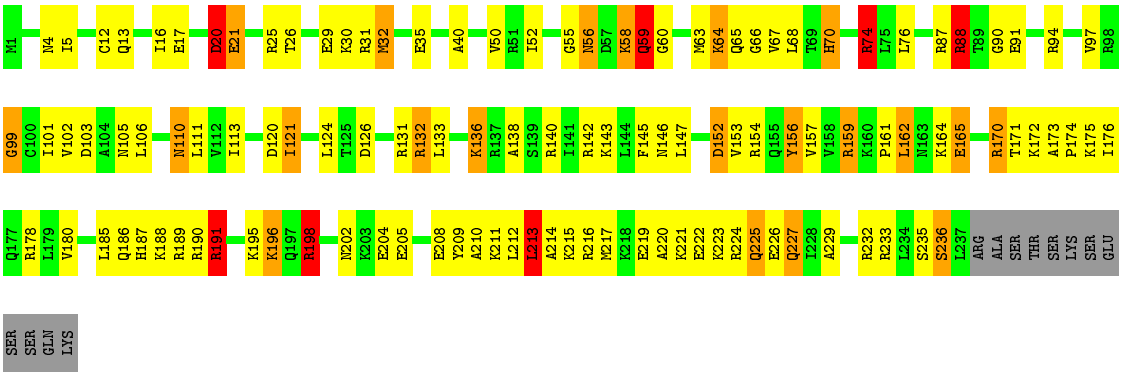
Chain SF:





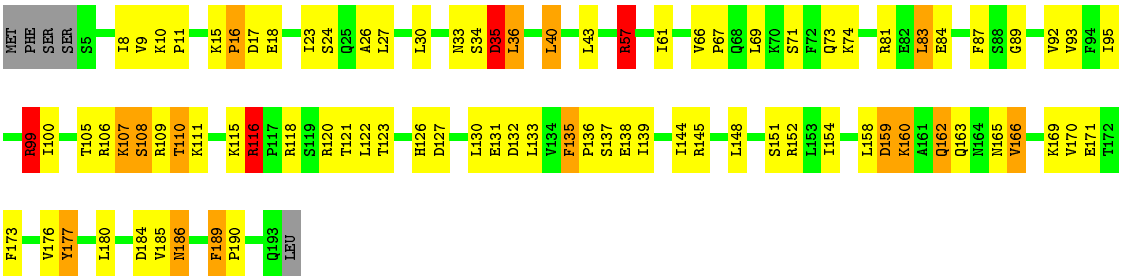
• Molecule 56: Ribosomal protein eS6

Chain SG:



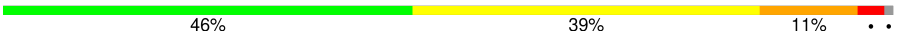
• Molecule 57: Ribosomal protein eS7

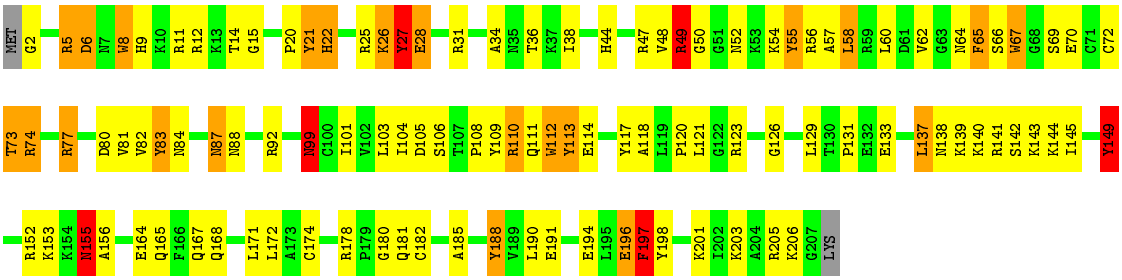
Chain SH:



• Molecule 58: Ribosomal protein eS8

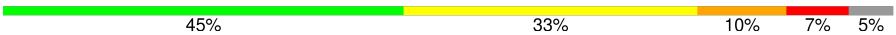
Chain SI:

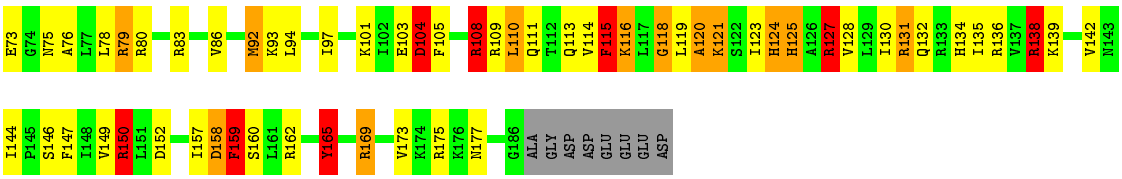




• Molecule 59: Ribosomal protein uS4

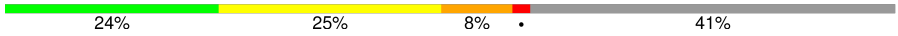
Chain SJ:

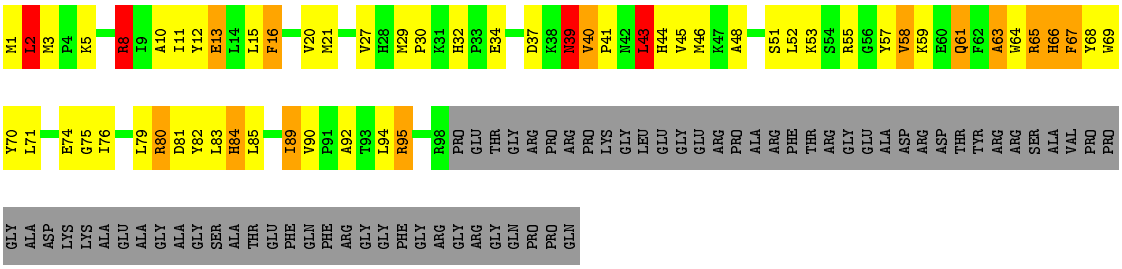




• Molecule 60: Ribosomal protein eS10

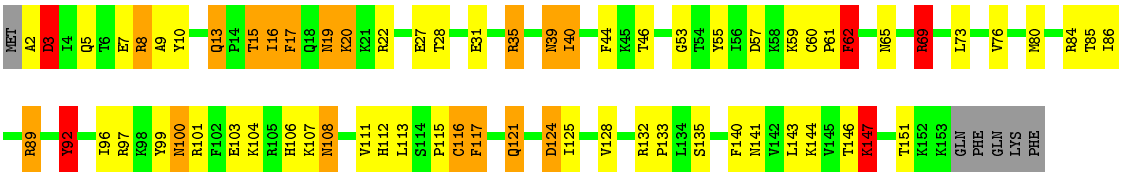
Chain SK:





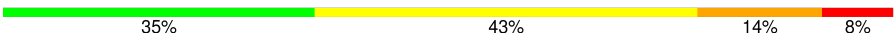
• Molecule 61: Ribosomal protein uS17

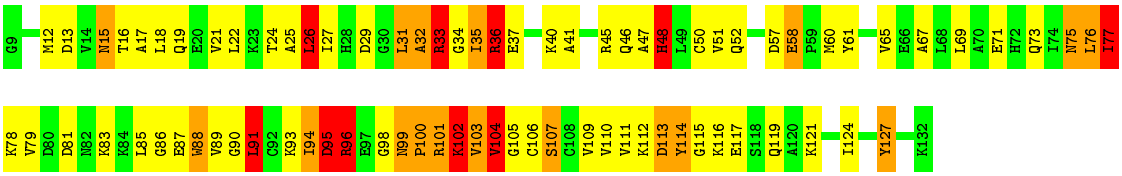
Chain SL:



• Molecule 62: Ribosomal protein eS12

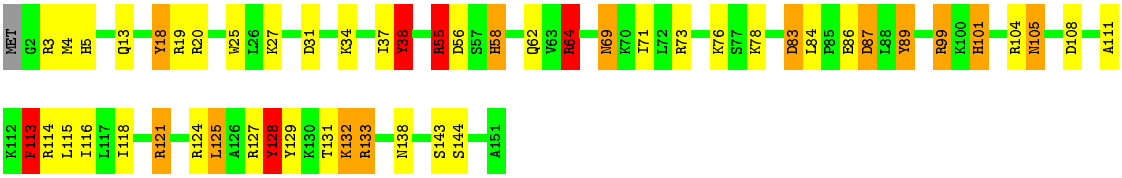
Chain SM:





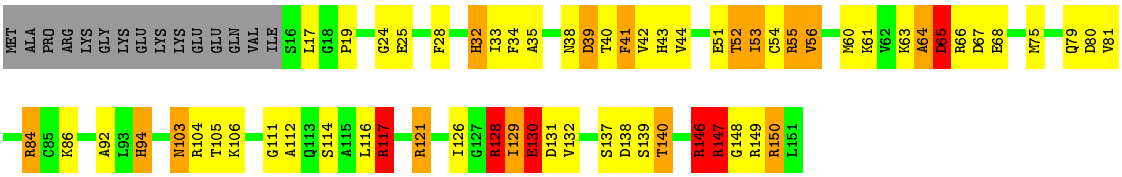
• Molecule 63: Ribosomal protein uS15

Chain SN:



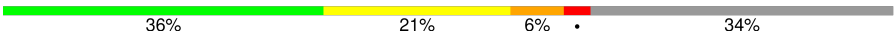
• Molecule 64: Ribosomal protein uS11

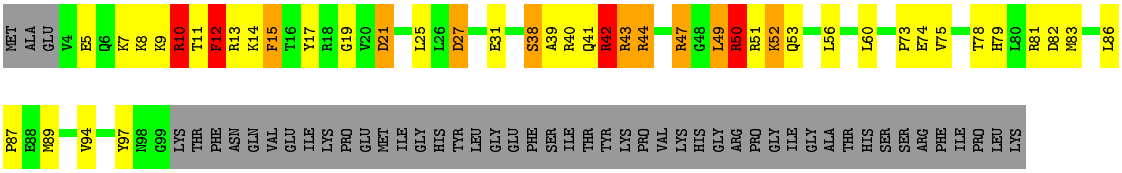
Chain SO:



• Molecule 65: Ribosomal protein uS19

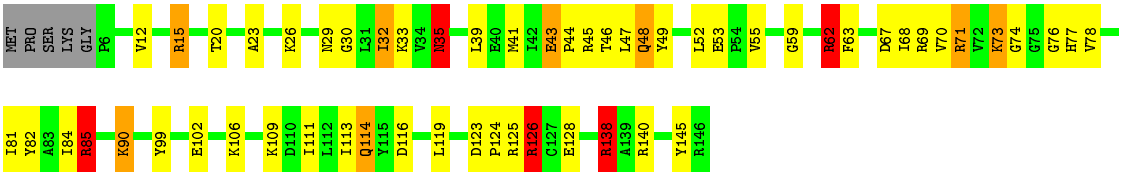
Chain SP:





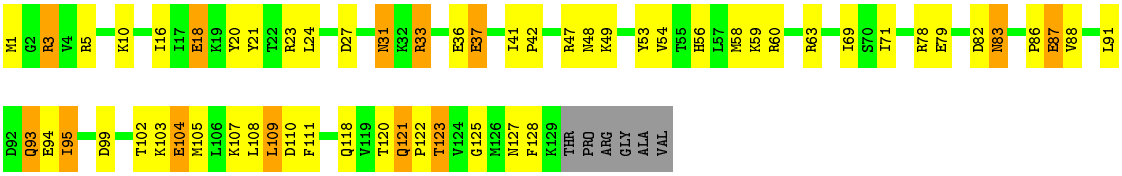
• Molecule 66: Ribosomal protein uS9

Chain SQ:



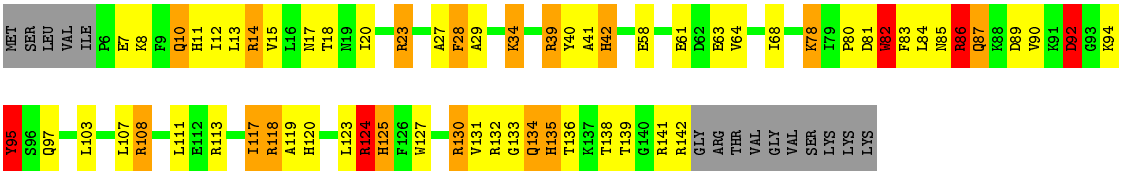
• Molecule 67: Ribosomal protein eS17

Chain SR:



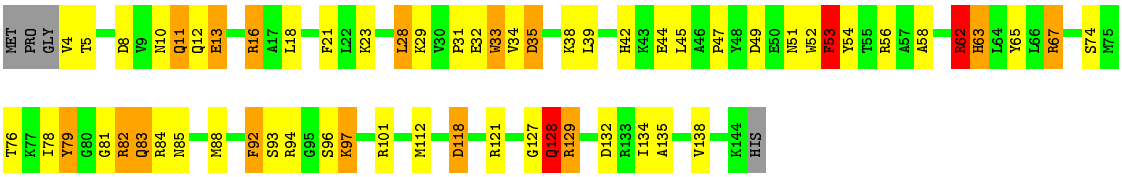
• Molecule 68: Ribosomal protein uS13

Chain SS:



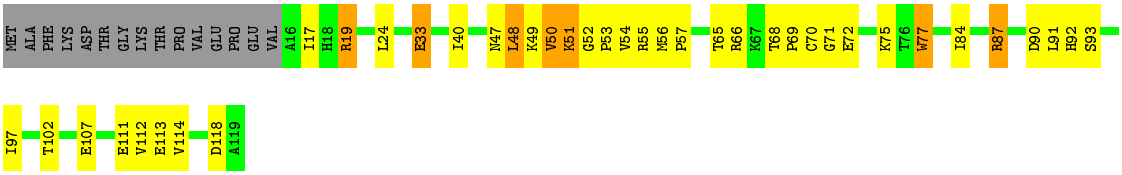
• Molecule 69: Ribosomal protein eS19

Chain ST:



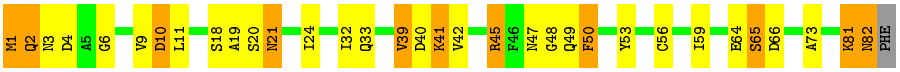
• Molecule 70: Ribosomal protein uS10

Chain SU:



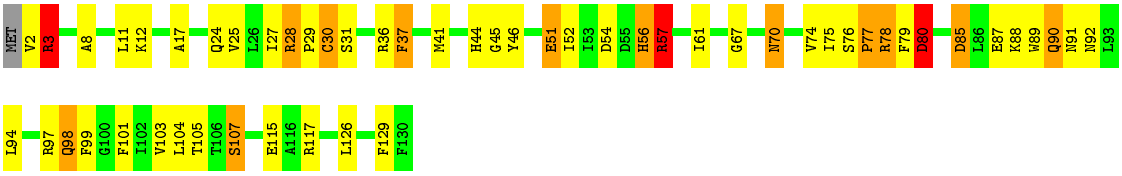
• Molecule 71: Ribosomal protein eS21

Chain SV:



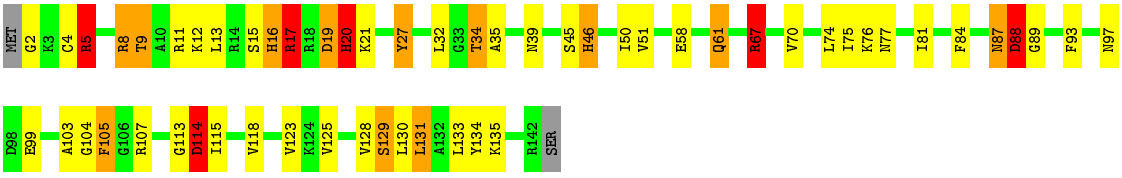
• Molecule 72: Ribosomal protein uS8

Chain SW:



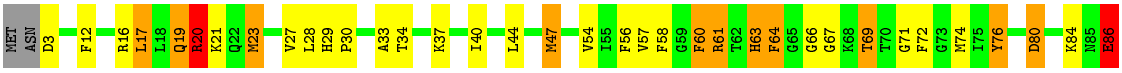
• Molecule 73: Ribosomal protein uS12

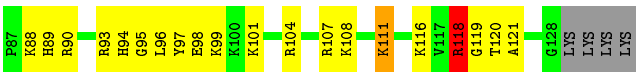
Chain SX:



• Molecule 74: Ribosomal protein eS24

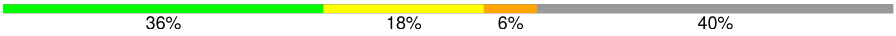
Chain SY:

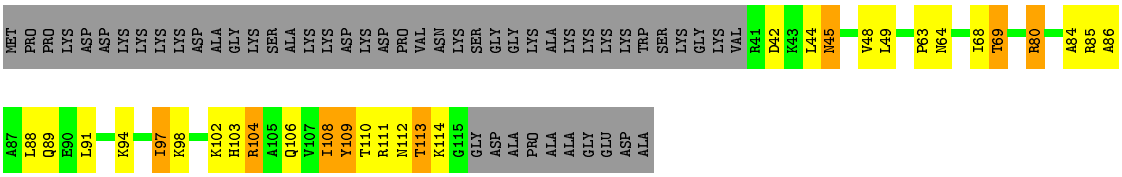




- Molecule 75: Ribosomal protein es25

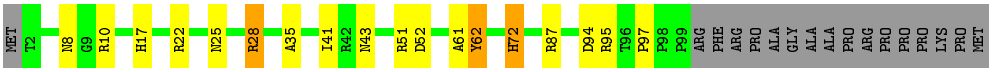
Chain SZ:





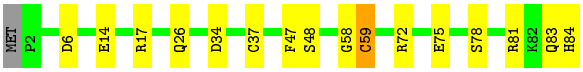
- Molecule 76: Ribosomal protein eS26

Chain Sa:



- Molecule 77: Ribosomal protein eS27

Chain Sb:



- Molecule 78: Ribosomal protein eS28

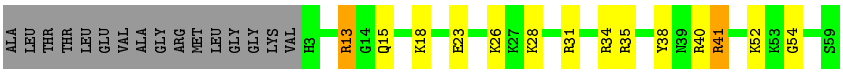
Chain Sc:

- Molecule 79: Ribosomal protein uS14

Chain Sd:

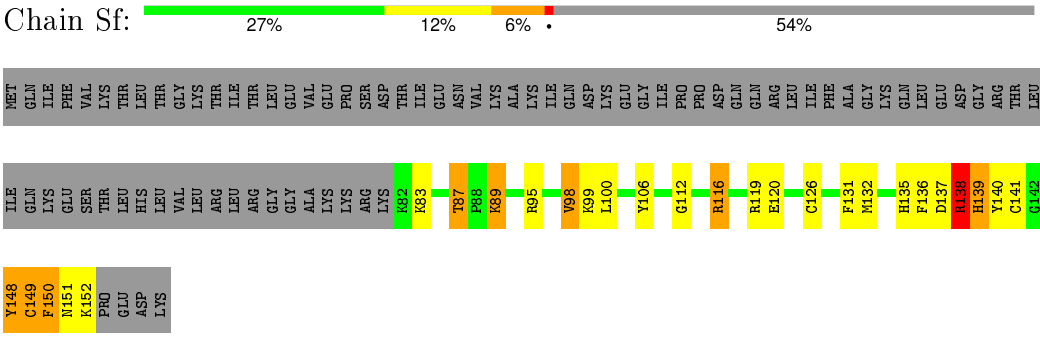
- Molecule 80: Ribosomal protein eS30

Chain Se:



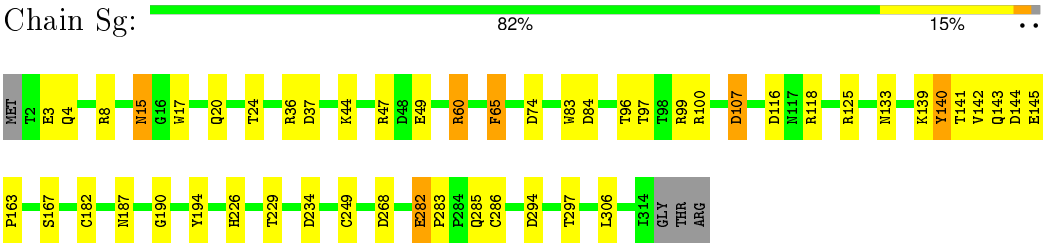
- Molecule 81: Ribosomal protein eS31

Chain Sf:



- Molecule 82: Ribosomal protein RACK1

Chain Sg:



4 Experimental information (i)

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of images	36667	Depositor
Resolution determination method	FSC 0.143	Depositor
CTF correction method	Each particle	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	27	Depositor
Minimum defocus (nm)	2500	Depositor
Maximum defocus (nm)	3500	Depositor
Magnification	59000	Depositor
Image detector	FEI FALCON II (4k x 4k)	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, MG

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	5	0.64	75/87792 (0.1%)	1.12	729/136945 (0.5%)
10	G	0.76	4/1966 (0.2%)	1.09	14/2645 (0.5%)
11	H	0.77	3/1537 (0.2%)	1.17	10/2066 (0.5%)
12	I	0.66	1/1753 (0.1%)	1.11	12/2343 (0.5%)
13	J	0.63	1/1382 (0.1%)	1.04	12/1849 (0.6%)
14	K	1.04	11/1154 (1.0%)	1.78	54/1555 (3.5%)
15	L	0.70	2/1734 (0.1%)	1.12	15/2318 (0.6%)
16	M	0.76	2/1152 (0.2%)	1.11	5/1539 (0.3%)
17	N	0.84	4/1746 (0.2%)	1.33	23/2338 (1.0%)
18	O	0.72	3/1684 (0.2%)	1.10	12/2251 (0.5%)
19	P	0.74	2/1268 (0.2%)	1.10	9/1701 (0.5%)
2	7	0.54	1/2858 (0.0%)	0.96	9/4455 (0.2%)
20	Q	0.69	0/1530	1.35	31/2041 (1.5%)
21	R	0.79	3/1524 (0.2%)	1.27	20/2013 (1.0%)
22	S	0.95	8/1493 (0.5%)	1.30	19/2002 (0.9%)
23	T	0.67	1/1326 (0.1%)	1.04	7/1770 (0.4%)
24	U	0.63	1/822 (0.1%)	1.03	3/1103 (0.3%)
25	V	0.89	4/993 (0.4%)	1.11	7/1332 (0.5%)
26	W	0.71	0/541	1.23	5/720 (0.7%)
27	X	0.64	0/993	1.09	10/1334 (0.7%)
28	Y	0.72	0/1132	1.24	19/1504 (1.3%)
29	Z	0.63	0/1130	1.11	10/1507 (0.7%)
3	8	0.68	3/3701 (0.1%)	1.19	42/5766 (0.7%)
30	a	0.93	6/1192 (0.5%)	1.37	17/1591 (1.1%)
31	b	0.88	2/620 (0.3%)	1.17	5/819 (0.6%)
32	c	0.70	0/742	1.14	5/996 (0.5%)
33	d	0.84	3/903 (0.3%)	1.37	16/1216 (1.3%)
34	e	0.90	3/1071 (0.3%)	1.23	15/1429 (1.0%)
35	f	1.01	2/895 (0.2%)	1.34	17/1198 (1.4%)
36	g	0.65	0/916	1.08	5/1220 (0.4%)
37	h	0.63	0/1023	1.21	14/1350 (1.0%)
38	i	0.63	0/843	1.20	8/1115 (0.7%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >2	RMSZ	#|Z| >2
39	j	0.97	1/721 (0.1%)	1.43	11/953 (1.2%)
4	A	0.80	3/1906 (0.2%)	1.26	21/2556 (0.8%)
40	k	0.59	0/575	0.97	1/761 (0.1%)
41	l	0.70	0/454	1.14	4/599 (0.7%)
42	m	0.55	0/435	0.95	1/575 (0.2%)
43	n	0.49	0/223	1.01	0/284
44	o	0.64	0/864	1.27	8/1140 (0.7%)
45	p	0.64	1/718 (0.1%)	1.01	3/953 (0.3%)
46	q	0.81	7/1580 (0.4%)	1.35	37/2133 (1.7%)
47	r	0.68	0/1017	1.12	8/1365 (0.6%)
48	4	0.99	20/6804 (0.3%)	1.41	93/9189 (1.0%)
49	S2	0.65	37/41243 (0.1%)	1.14	330/64257 (0.5%)
5	B	0.81	8/3214 (0.2%)	1.16	25/4308 (0.6%)
50	SA	0.94	4/1679 (0.2%)	1.06	6/2283 (0.3%)
51	SB	0.89	6/1753 (0.3%)	1.15	14/2350 (0.6%)
52	SC	0.99	8/1726 (0.5%)	1.11	9/2332 (0.4%)
53	SD	1.39	12/1793 (0.7%)	1.10	9/2414 (0.4%)
54	SE	0.83	8/2118 (0.4%)	0.98	7/2849 (0.2%)
55	SF	0.74	1/1531 (0.1%)	1.08	9/2059 (0.4%)
56	SG	0.97	9/1946 (0.5%)	1.03	9/2590 (0.3%)
57	SH	0.73	2/1544 (0.1%)	1.02	8/2068 (0.4%)
58	SI	0.97	8/1715 (0.5%)	1.12	12/2287 (0.5%)
59	SJ	1.07	12/1550 (0.8%)	1.28	16/2069 (0.8%)
6	C	0.73	3/2973 (0.1%)	1.12	18/3990 (0.5%)
60	SK	0.75	1/851 (0.1%)	1.00	3/1147 (0.3%)
61	SL	0.85	5/1259 (0.4%)	1.09	7/1684 (0.4%)
62	SM	2.22	2/970 (0.2%)	1.21	8/1300 (0.6%)
63	SN	0.82	4/1232 (0.3%)	1.15	10/1656 (0.6%)
64	SO	1.18	7/1029 (0.7%)	1.38	12/1380 (0.9%)
65	SP	1.52	6/816 (0.7%)	1.29	8/1084 (0.7%)
66	SQ	0.72	2/1142 (0.2%)	1.01	8/1528 (0.5%)
67	SR	0.81	5/1060 (0.5%)	1.02	2/1421 (0.1%)
68	SS	0.66	1/1157 (0.1%)	1.18	13/1548 (0.8%)
69	ST	0.67	2/1119 (0.2%)	1.08	7/1499 (0.5%)
7	D	0.73	2/2426 (0.1%)	1.23	26/3252 (0.8%)
70	SU	0.94	4/828 (0.5%)	0.96	1/1112 (0.1%)
71	SV	0.73	0/631	0.97	0/844
72	SW	1.06	6/1051 (0.6%)	1.22	5/1406 (0.4%)
73	SX	0.99	6/1118 (0.5%)	1.12	12/1493 (0.8%)
74	SY	1.63	5/1040 (0.5%)	1.11	9/1382 (0.7%)
75	SZ	0.56	0/604	0.87	0/810
76	Sa	0.81	1/794 (0.1%)	1.25	5/1065 (0.5%)
77	Sb	0.59	0/665	0.90	0/891

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >2	RMSZ	#|Z| >2
78	Sc	0.68	0/508	1.13	4/680 (0.6%)
79	Sd	0.79	0/445	1.12	1/589 (0.2%)
8	E	0.73	5/1941 (0.3%)	1.21	20/2601 (0.8%)
80	Se	0.72	1/458 (0.2%)	1.16	5/602 (0.8%)
81	Sf	1.08	6/593 (1.0%)	1.57	12/786 (1.5%)
82	Sg	0.80	11/2493 (0.4%)	0.89	8/3394 (0.2%)
9	F	0.80	2/1905 (0.1%)	1.27	27/2539 (1.1%)
All	All	0.75	379/237633 (0.2%)	1.15	2051/348088 (0.6%)

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	5	0	154
10	G	0	3
11	H	0	3
12	I	0	4
13	J	0	2
14	K	0	5
15	L	0	5
16	M	0	4
17	N	0	11
18	O	0	3
19	P	0	1
2	7	0	2
20	Q	0	5
21	R	0	6
22	S	0	11
23	T	0	2
24	U	0	2
25	V	0	3
26	W	0	1
27	X	0	1
28	Y	0	4
3	8	0	11
30	a	0	9
31	b	0	1
32	c	0	2
33	d	0	4
34	e	0	4

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Mol	Chain	#Chirality outliers	#Planarity outliers
35	f	0	2
36	g	0	1
37	h	0	3
38	i	0	3
39	j	0	4
4	A	0	6
40	k	0	1
44	o	0	6
45	p	0	1
46	q	0	7
47	r	0	5
48	4	0	40
49	S2	1	66
5	B	0	13
50	SA	0	2
51	SB	0	4
52	SC	0	4
53	SD	0	3
54	SE	0	2
55	SF	0	1
57	SH	0	1
58	SI	0	6
59	SJ	0	2
6	C	0	5
60	SK	0	1
61	SL	0	4
62	SM	0	3
63	SN	0	1
64	SO	0	1
65	SP	0	1
66	SQ	0	1
67	SR	0	2
7	D	0	8
70	SU	0	1
71	SV	0	2
72	SW	0	2
73	SX	0	2
74	SY	0	1
75	SZ	0	1
76	Sa	0	1
77	Sb	0	1
79	Sd	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
8	E	0	12
81	Sf	0	4
9	F	0	5
All	All	1	507

All (379) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	SM	58	GLU	CD-OE1	64.43	1.96	1.25
53	SD	216	GLU	CD-OE1	43.67	1.73	1.25
1	5	1823	G	O3'-P	41.55	2.11	1.61
74	SY	86	GLU	CD-OE2	39.60	1.69	1.25
65	SP	21	ASP	CG-OD1	30.90	1.96	1.25
74	SY	86	GLU	CG-CD	22.60	1.85	1.51
56	SG	205	GLU	CD-OE1	21.22	1.49	1.25
64	SO	130	GLU	CD-OE1	17.40	1.44	1.25
72	SW	117	ARG	NE-CZ	16.50	1.54	1.33
10	G	109	GLU	CD-OE2	16.17	1.43	1.25
11	H	66	GLU	CD-OE1	15.81	1.43	1.25
59	SJ	59	GLU	CG-CD	15.74	1.75	1.51
35	f	6	TRP	CB-CG	-15.69	1.22	1.50
48	4	267	ASP	N-CA	15.35	1.77	1.46
54	SE	251	GLU	CD-OE1	14.43	1.41	1.25
50	SA	118	GLU	CG-CD	13.75	1.72	1.51
48	4	267	ASP	CA-C	13.58	1.88	1.52
31	b	16	TRP	CB-CG	-13.52	1.25	1.50
56	SG	205	GLU	CD-OE2	13.45	1.40	1.25
59	SJ	34	GLU	CG-CD	13.17	1.71	1.51
64	SO	130	GLU	CD-OE2	12.85	1.39	1.25
65	SP	31	GLU	CD-OE2	12.79	1.39	1.25
50	SA	151	ASP	CB-CG	12.77	1.78	1.51
65	SP	31	GLU	CD-OE1	12.46	1.39	1.25
50	SA	118	GLU	CD-OE2	12.23	1.39	1.25
64	SO	104	ARG	CZ-NH1	12.19	1.48	1.33
70	SU	33	GLU	CD-OE1	12.13	1.39	1.25
21	R	95	TRP	CB-CG	-12.07	1.28	1.50
25	V	97	TYR	CB-CG	-11.86	1.33	1.51
57	SH	132	ASP	CG-OD2	11.76	1.52	1.25
48	4	269	ALA	C-N	11.65	1.60	1.34
58	SI	111	GLN	CD-NE2	11.63	1.61	1.32
58	SI	188	TYR	CE1-CZ	11.54	1.53	1.38
14	K	163	PRO	C-O	-11.44	1.00	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
52	SC	90	GLU	CD-OE1	11.28	1.38	1.25
73	SX	58	GLU	CD-OE1	11.16	1.38	1.25
51	SB	198	GLU	CG-CD	11.03	1.68	1.51
54	SE	250	GLU	CD-OE2	10.89	1.37	1.25
74	SY	118	ARG	CZ-NH1	10.62	1.46	1.33
49	S2	1433	C	O3'-P	10.60	1.73	1.61
82	Sg	107	ASP	CB-CG	10.42	1.73	1.51
58	SI	188	TYR	CG-CD1	10.38	1.52	1.39
82	Sg	60	ARG	CZ-NH1	10.31	1.46	1.33
34	e	35	TRP	CB-CG	-10.24	1.31	1.50
73	SX	39	ASN	CG-ND2	10.24	1.58	1.32
64	SO	130	GLU	CG-CD	10.01	1.67	1.51
74	SY	80	ASP	CB-CG	9.94	1.72	1.51
10	G	54	PHE	CB-CG	-9.92	1.34	1.51
70	SU	90	ASP	CB-CG	9.83	1.72	1.51
58	SI	188	TYR	CG-CD2	9.80	1.51	1.39
53	SD	38	GLU	CD-OE2	9.79	1.36	1.25
73	SX	88	ASP	CG-OD2	9.60	1.47	1.25
49	S2	619	A	O3'-P	-9.53	1.49	1.61
53	SD	162	ASP	CG-OD1	9.48	1.47	1.25
58	SI	99	ASN	CG-OD1	9.45	1.44	1.24
52	SC	220	ASP	CG-OD2	9.39	1.47	1.25
52	SC	90	GLU	CG-CD	9.38	1.66	1.51
61	SL	100	ASN	CB-CG	9.36	1.72	1.51
70	SU	113	GLU	CD-OE2	9.35	1.35	1.25
17	N	192	TRP	CB-CG	-9.29	1.33	1.50
65	SP	21	ASP	CB-CG	9.25	1.71	1.51
14	K	114	ARG	CD-NE	9.14	1.61	1.46
52	SC	121	ARG	CZ-NH1	9.08	1.44	1.33
67	SR	87	GLU	CD-OE1	9.02	1.35	1.25
55	SF	130	ARG	CZ-NH1	8.96	1.44	1.33
16	M	6	PHE	CB-CG	-8.92	1.36	1.51
5	B	215	GLU	CD-OE1	8.83	1.35	1.25
59	SJ	64	ASP	CG-OD2	8.81	1.45	1.25
49	S2	1291	A	O3'-P	8.81	1.71	1.61
25	V	97	TYR	CA-CB	8.62	1.73	1.53
54	SE	250	GLU	CD-OE1	8.62	1.35	1.25
48	4	267	ASP	C-N	8.62	1.50	1.34
53	SD	216	GLU	CD-OE2	8.57	1.35	1.25
56	SG	208	GLU	CG-CD	8.48	1.64	1.51
8	E	278	TYR	CA-CB	8.48	1.72	1.53
30	a	109	TYR	CA-CB	8.40	1.72	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	SI	188	TYR	CE2-CZ	8.35	1.49	1.38
1	5	4547	C	O3'-P	8.29	1.71	1.61
61	SL	31	GLU	CD-OE1	8.28	1.34	1.25
81	Sf	120	GLU	CG-CD	8.28	1.64	1.51
59	SJ	158	ASP	CG-OD2	8.26	1.44	1.25
49	S2	1292	C	O3'-P	8.23	1.71	1.61
14	K	130	LYS	CA-CB	8.23	1.72	1.53
22	S	81	TRP	CA-CB	8.09	1.71	1.53
22	S	10	TYR	CB-CG	-8.07	1.39	1.51
53	SD	38	GLU	CG-CD	8.06	1.64	1.51
1	5	45	U	O3'-P	-8.04	1.51	1.61
1	5	3652	A	O3'-P	7.92	1.70	1.61
8	E	278	TYR	CB-CG	-7.87	1.39	1.51
21	R	132	PHE	CB-CG	-7.87	1.38	1.51
53	SD	135	GLU	CD-OE1	7.87	1.34	1.25
53	SD	23	GLU	CD-OE2	7.85	1.34	1.25
66	SQ	85	ARG	CZ-NH1	7.82	1.43	1.33
30	a	84	GLU	CD-OE1	7.82	1.34	1.25
59	SJ	38	ARG	CZ-NH1	7.77	1.43	1.33
49	S2	1309	C	O3'-P	7.73	1.70	1.61
56	SG	204	GLU	CD-OE1	7.71	1.34	1.25
53	SD	216	GLU	CG-CD	7.70	1.63	1.51
30	a	109	TYR	CB-CG	-7.62	1.40	1.51
48	4	76	SER	C-N	7.55	1.51	1.34
53	SD	162	ASP	CG-OD2	7.51	1.42	1.25
59	SJ	104	ASP	CG-OD2	7.47	1.42	1.25
49	S2	1142	G	O3'-P	7.45	1.70	1.61
56	SG	35	GLU	CD-OE1	7.38	1.33	1.25
1	5	4566	U	O3'-P	-7.35	1.52	1.61
35	f	6	TRP	CA-CB	7.35	1.70	1.53
54	SE	104	ASP	CG-OD2	7.30	1.42	1.25
49	S2	1378	A	O3'-P	7.24	1.69	1.61
1	5	2510	G	O3'-P	-7.22	1.52	1.61
76	Sa	22	ARG	CZ-NH1	7.20	1.42	1.33
67	SR	87	GLU	CD-OE2	7.18	1.33	1.25
59	SJ	158	ASP	CG-OD1	7.16	1.41	1.25
1	5	2361	G	O3'-P	7.15	1.69	1.61
50	SA	33	GLN	CD-NE2	7.06	1.50	1.32
56	SG	20	ASP	CG-OD2	7.04	1.41	1.25
6	C	267	TRP	CB-CG	-7.03	1.37	1.50
53	SD	135	GLU	CG-CD	7.00	1.62	1.51
22	S	81	TRP	CB-CG	-6.99	1.37	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
65	SP	27	ASP	CG-OD1	6.99	1.41	1.25
1	5	1851	G	O3'-P	-6.97	1.52	1.61
14	K	137	GLN	N-CA	6.97	1.60	1.46
1	5	1849	U	O3'-P	-6.92	1.52	1.61
5	B	119	TYR	CB-CG	-6.91	1.41	1.51
13	J	14	GLU	CD-OE1	6.88	1.33	1.25
49	S2	1839	U	O3'-P	6.83	1.69	1.61
72	SW	87	GLU	CD-OE1	6.83	1.33	1.25
30	a	128	PHE	CB-CG	-6.82	1.39	1.51
23	T	13	TYR	CB-CG	-6.82	1.41	1.51
1	5	4693	C	O3'-P	6.81	1.69	1.61
49	S2	1290	G	O3'-P	6.78	1.69	1.61
1	5	1364	U	O3'-P	6.76	1.69	1.61
39	j	49	TRP	CB-CG	-6.74	1.38	1.50
73	SX	88	ASP	CG-OD1	6.73	1.40	1.25
59	SJ	103	GLU	CD-OE2	6.73	1.33	1.25
82	Sg	83	TRP	CB-CG	-6.72	1.38	1.50
1	5	2692	U	O3'-P	-6.71	1.53	1.61
48	4	154	VAL	C-N	6.70	1.49	1.34
54	SE	104	ASP	CG-OD1	6.70	1.40	1.25
49	S2	1079	C	O3'-P	-6.69	1.53	1.61
1	5	514	U	O3'-P	6.69	1.69	1.61
5	B	274	TYR	CA-CB	6.68	1.68	1.53
61	SL	13	GLN	CD-NE2	6.68	1.49	1.32
1	5	2053	C	O3'-P	-6.67	1.53	1.61
14	K	130	LYS	CA-C	-6.65	1.35	1.52
72	SW	51	GLU	CD-OE1	6.64	1.32	1.25
1	5	964	A	O3'-P	6.63	1.69	1.61
33	d	25	TYR	CB-CG	-6.63	1.41	1.51
49	S2	1835	A	O3'-P	6.63	1.69	1.61
52	SC	220	ASP	CG-OD1	6.62	1.40	1.25
70	SU	33	GLU	CG-CD	6.61	1.61	1.51
67	SR	37	GLU	CG-CD	6.61	1.61	1.51
1	5	3692	A	O3'-P	6.59	1.69	1.61
12	I	171	TRP	CB-CG	-6.58	1.38	1.50
48	4	768	GLY	C-N	6.55	1.49	1.34
22	S	33	PHE	CB-CG	-6.52	1.40	1.51
1	5	1912	G	O3'-P	-6.51	1.53	1.61
82	Sg	187	ASN	CG-OD1	6.50	1.38	1.24
1	5	1522	G	O3'-P	6.49	1.69	1.61
48	4	56	PHE	CB-CG	6.49	1.62	1.51
1	5	4375	C	O3'-P	-6.48	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	ST	32	GLU	CD-OE2	6.48	1.32	1.25
6	C	111	TRP	CB-CG	-6.47	1.38	1.50
2	7	90	A	O3'-P	-6.47	1.53	1.61
1	5	2442	G	O3'-P	-6.45	1.53	1.61
18	O	194	GLU	CD-OE1	6.44	1.32	1.25
49	S2	646	G	O3'-P	6.43	1.68	1.61
73	SX	39	ASN	CG-OD1	6.43	1.38	1.24
49	S2	1833	C	O3'-P	-6.41	1.53	1.61
81	Sf	146	LEU	CA-CB	6.41	1.68	1.53
15	L	17	ASP	CG-OD2	6.40	1.40	1.25
61	SL	89	ARG	CZ-NH1	6.40	1.41	1.33
49	S2	1858	G	O3'-P	6.38	1.68	1.61
69	ST	32	GLU	CD-OE1	6.37	1.32	1.25
10	G	54	PHE	CA-CB	6.36	1.68	1.53
48	4	669	VAL	CA-CB	6.35	1.68	1.54
1	5	207	G	O3'-P	-6.30	1.53	1.61
8	E	101	ARG	CZ-NH2	6.29	1.41	1.33
7	D	213	GLU	CG-CD	6.26	1.61	1.51
1	5	1669	A	O3'-P	-6.26	1.53	1.61
63	SN	13	GLN	CD-NE2	6.25	1.48	1.32
22	S	10	TYR	CA-CB	6.22	1.67	1.53
18	O	106	ASP	CG-OD2	6.21	1.39	1.25
57	SH	177	TYR	CB-CG	-6.21	1.42	1.51
82	Sg	36	ARG	CZ-NH1	6.19	1.41	1.33
11	H	61	TRP	CB-CG	-6.17	1.39	1.50
1	5	1756	U	C4-O4	-6.17	1.18	1.23
48	4	825	PHE	CB-CG	-6.16	1.40	1.51
1	5	171	U	O3'-P	-6.16	1.53	1.61
49	S2	9	U	O3'-P	6.14	1.68	1.61
48	4	109	VAL	CA-CB	-6.13	1.41	1.54
9	F	120	PHE	CB-CG	-6.12	1.41	1.51
82	Sg	4	GLN	CD-OE1	6.12	1.37	1.24
46	q	205	ASP	C-N	6.09	1.48	1.34
59	SJ	48	PHE	CB-CG	-6.08	1.41	1.51
58	SI	99	ASN	CG-ND2	6.08	1.48	1.32
72	SW	115	GLU	CD-OE2	6.07	1.32	1.25
49	S2	1139	C	O3'-P	-6.06	1.53	1.61
48	4	111	PHE	CA-CB	6.05	1.67	1.53
1	5	1591	U	O3'-P	-6.05	1.53	1.61
7	D	44	TYR	CA-CB	6.05	1.67	1.53
1	5	1636	U	O3'-P	-6.04	1.53	1.61
1	5	2589	C	O3'-P	6.02	1.68	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	5	3901	A	O3'-P	-6.02	1.53	1.61
64	SO	104	ARG	NE-CZ	6.01	1.40	1.33
1	5	4464	A	O3'-P	5.99	1.68	1.61
49	S2	922	A	O3'-P	-5.97	1.53	1.61
49	S2	1055	A	O3'-P	-5.95	1.54	1.61
60	SK	34	GLU	CD-OE1	5.95	1.32	1.25
24	U	99	TRP	CB-CG	-5.94	1.39	1.50
54	SE	251	GLU	CD-OE2	5.94	1.32	1.25
63	SN	128	TYR	CG-CD2	-5.94	1.31	1.39
22	S	152	PHE	CB-CG	-5.93	1.41	1.51
49	S2	1838	U	O3'-P	5.92	1.68	1.61
81	Sf	150	PHE	CB-CG	5.92	1.61	1.51
51	SB	157	GLN	CG-CD	5.92	1.64	1.51
1	5	2520	C	O3'-P	-5.91	1.54	1.61
19	P	139	TYR	CB-CG	-5.88	1.42	1.51
54	SE	121	TYR	CB-CG	-5.88	1.42	1.51
33	d	73	TRP	CB-CG	-5.88	1.39	1.50
52	SC	236	PHE	CA-CB	5.87	1.66	1.53
31	b	16	TRP	CA-CB	5.86	1.66	1.53
14	K	137	GLN	CA-C	5.86	1.68	1.52
5	B	119	TYR	CA-CB	5.86	1.66	1.53
1	5	1395	U	O3'-P	-5.84	1.54	1.61
81	Sf	120	GLU	CD-OE1	-5.84	1.19	1.25
64	SO	147	ARG	CG-CD	5.84	1.66	1.51
51	SB	89	GLU	CD-OE2	5.83	1.32	1.25
82	Sg	145	GLU	CG-CD	5.83	1.60	1.51
53	SD	103	GLU	CD-OE1	5.82	1.32	1.25
19	P	139	TYR	CA-CB	5.82	1.66	1.53
14	K	114	ARG	C-N	-5.81	1.20	1.34
1	5	2811	G	O3'-P	5.81	1.68	1.61
59	SJ	48	PHE	CA-CB	5.81	1.66	1.53
5	B	274	TYR	CB-CG	-5.80	1.43	1.51
49	S2	1190	A	O3'-P	-5.80	1.54	1.61
52	SC	236	PHE	CB-CG	-5.79	1.41	1.51
49	S2	1798	C	O3'-P	-5.78	1.54	1.61
53	SD	38	GLU	CD-OE1	5.78	1.32	1.25
1	5	1357	C	O3'-P	5.77	1.68	1.61
49	S2	397	G	O3'-P	-5.76	1.54	1.61
67	SR	82	ASP	CG-OD1	5.75	1.38	1.25
48	4	794	PHE	CD1-CE1	-5.72	1.27	1.39
64	SO	25	GLU	CG-CD	5.72	1.60	1.51
45	p	18	TYR	CB-CG	-5.70	1.43	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
49	S2	798	A	O3'-P	5.70	1.68	1.61
25	V	97	TYR	CD2-CE2	-5.70	1.30	1.39
48	4	478	PHE	CD1-CE1	-5.70	1.27	1.39
14	K	114	ARG	CA-C	-5.68	1.38	1.52
15	L	173	GLU	CD-OE2	5.68	1.31	1.25
66	SQ	29	ASN	CG-ND2	5.67	1.47	1.32
1	5	2394	G	O3'-P	-5.66	1.54	1.61
1	5	90	G	O3'-P	-5.66	1.54	1.61
1	5	2325	C	O3'-P	5.66	1.68	1.61
56	SG	142	ARG	CZ-NH1	5.66	1.40	1.33
1	5	2055	G	O3'-P	5.66	1.68	1.61
1	5	32	G	O3'-P	-5.65	1.54	1.61
1	5	3635	A	O3'-P	5.64	1.68	1.61
33	d	25	TYR	CA-CB	5.63	1.66	1.53
63	SN	83	ASP	CB-CG	5.63	1.63	1.51
1	5	147	A	O3'-P	-5.63	1.54	1.61
5	B	235	TRP	CG-CD1	-5.63	1.28	1.36
51	SB	198	GLU	CD-OE2	5.63	1.31	1.25
1	5	2649	G	O3'-P	-5.63	1.54	1.61
49	S2	92	A	O3'-P	5.61	1.67	1.61
49	S2	1851	A	O3'-P	-5.61	1.54	1.61
46	q	62	ARG	N-CA	-5.61	1.35	1.46
1	5	1627	G	O3'-P	5.59	1.67	1.61
1	5	2051	C	O3'-P	5.58	1.67	1.61
17	N	119	TYR	CB-CG	-5.57	1.43	1.51
1	5	2535	G	O3'-P	-5.57	1.54	1.61
1	5	1282	G	O3'-P	-5.56	1.54	1.61
1	5	4239	A	O3'-P	5.56	1.67	1.61
72	SW	80	ASP	CB-CG	5.56	1.63	1.51
72	SW	115	GLU	CD-OE1	5.54	1.31	1.25
49	S2	657	U	O3'-P	-5.53	1.54	1.61
73	SX	58	GLU	CD-OE2	5.53	1.31	1.25
1	5	5001	U	O3'-P	-5.52	1.54	1.61
48	4	196	GLU	CG-CD	5.52	1.60	1.51
52	SC	241	PHE	CB-CG	-5.52	1.42	1.51
49	S2	640	A	O3'-P	-5.50	1.54	1.61
1	5	53	C	O3'-P	5.50	1.67	1.61
1	5	332	C	O3'-P	-5.50	1.54	1.61
30	a	79	TRP	CB-CG	-5.50	1.40	1.50
1	5	3875	G	O3'-P	5.49	1.67	1.61
1	5	4276	G	O3'-P	5.49	1.67	1.61
56	SG	204	GLU	CG-CD	5.49	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	G	109	GLU	CG-CD	5.48	1.60	1.51
49	S2	848	U	N3-C4	5.47	1.43	1.38
22	S	29	ARG	CG-CD	5.46	1.65	1.51
65	SP	27	ASP	CG-OD2	5.45	1.37	1.25
16	M	6	PHE	CA-CB	5.44	1.66	1.53
1	5	4326	G	O3'-P	-5.43	1.54	1.61
49	S2	1843	G	O3'-P	-5.42	1.54	1.61
63	SN	83	ASP	CG-OD1	5.41	1.37	1.25
1	5	1381	U	O3'-P	-5.40	1.54	1.61
48	4	801	ARG	NE-CZ	5.39	1.40	1.33
51	SB	224	GLU	CD-OE2	5.38	1.31	1.25
61	SL	3	ASP	CB-CG	5.38	1.63	1.51
3	8	64	U	O3'-P	5.38	1.67	1.61
81	Sf	151	ASN	CA-C	5.38	1.67	1.52
51	SB	205	TYR	CE2-CZ	5.38	1.45	1.38
56	SG	17	GLU	CD-OE2	5.37	1.31	1.25
46	q	25	PRO	N-CD	5.37	1.55	1.47
46	q	201	PRO	N-CD	5.36	1.55	1.47
1	5	372	A	O3'-P	-5.35	1.54	1.61
49	S2	357	C	O3'-P	5.35	1.67	1.61
80	Se	23	GLU	CG-CD	5.35	1.59	1.51
18	O	106	ASP	CG-OD1	5.33	1.37	1.25
1	5	89	C	O3'-P	-5.32	1.54	1.61
34	e	74	PHE	CB-CG	-5.32	1.42	1.51
48	4	266	PHE	C-N	5.32	1.46	1.34
67	SR	104	GLU	CD-OE2	5.30	1.31	1.25
1	5	937	U	O3'-P	-5.29	1.54	1.61
1	5	2297	G	O3'-P	-5.29	1.54	1.61
1	5	4548	A	O5'-C5'	5.28	1.52	1.44
8	E	250	ASP	CG-OD2	5.28	1.37	1.25
48	4	4	PHE	CD2-CE2	-5.28	1.28	1.39
1	5	4237	C	O3'-P	-5.27	1.54	1.61
59	SJ	104	ASP	CG-OD1	5.27	1.37	1.25
82	Sg	3	GLU	CD-OE2	5.27	1.31	1.25
1	5	943	A	O3'-P	-5.27	1.54	1.61
4	A	211	PHE	CA-CB	5.26	1.65	1.53
1	5	2043	A	O3'-P	-5.26	1.54	1.61
58	SI	27	TYR	CB-CG	-5.24	1.43	1.51
4	A	40	TYR	CA-CB	5.24	1.65	1.53
14	K	34	PRO	N-CD	5.24	1.55	1.47
1	5	2368	A	O3'-P	-5.22	1.54	1.61
1	5	1917	A	O3'-P	-5.21	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	E	97	ASN	CG-ND2	5.21	1.45	1.32
49	S2	1293	A	O3'-P	5.20	1.67	1.61
46	q	124	PRO	N-CD	5.20	1.55	1.47
1	5	4977	A	O3'-P	-5.20	1.54	1.61
5	B	137	TRP	CB-CG	-5.20	1.40	1.50
82	Sg	285	GLN	CD-NE2	5.19	1.45	1.32
21	R	132	PHE	CA-CB	5.19	1.65	1.53
25	V	98	PHE	CB-CG	-5.19	1.42	1.51
17	N	120	TRP	CE3-CZ3	-5.18	1.29	1.38
17	N	130	PHE	CB-CG	-5.17	1.42	1.51
46	q	68	HIS	C-N	5.17	1.46	1.34
48	4	478	PHE	CD2-CE2	-5.17	1.28	1.39
14	K	148	PRO	N-CD	5.16	1.55	1.47
4	A	209	HIS	CA-CB	5.16	1.65	1.53
74	SY	80	ASP	CG-OD2	5.15	1.37	1.25
82	Sg	116	ASP	CG-OD1	5.15	1.37	1.25
1	5	4275	G	O3'-P	5.15	1.67	1.61
11	H	66	GLU	CD-OE2	5.14	1.31	1.25
1	5	381	U	O3'-P	-5.14	1.54	1.61
68	SS	130	ARG	CZ-NH1	5.14	1.39	1.33
49	S2	999	G	O3'-P	5.13	1.67	1.61
1	5	4489	G	O3'-P	5.12	1.67	1.61
54	SE	251	GLU	CG-CD	5.12	1.59	1.51
1	5	1457	G	O3'-P	-5.11	1.55	1.61
82	Sg	60	ARG	NE-CZ	5.11	1.39	1.33
3	8	80	A	O3'-P	5.11	1.67	1.61
5	B	257	TRP	CE3-CZ3	-5.11	1.29	1.38
46	q	118	PRO	N-CD	5.10	1.54	1.47
34	e	35	TRP	CG-CD1	-5.09	1.29	1.36
1	5	1283	G	O3'-P	-5.09	1.55	1.61
9	F	228	HIS	CA-CB	5.09	1.65	1.53
48	4	794	PHE	CD2-CE2	-5.09	1.29	1.39
1	5	2406	G	O3'-P	5.09	1.67	1.61
49	S2	1039	C	O3'-P	5.08	1.67	1.61
1	5	97	G	O3'-P	5.08	1.67	1.61
62	SM	58	GLU	CD-OE2	5.08	1.31	1.25
1	5	1682	A	C6-N6	-5.07	1.29	1.33
1	5	2054	U	O3'-P	-5.07	1.55	1.61
49	S2	1552	G	O3'-P	5.07	1.67	1.61
14	K	30	PRO	CA-C	-5.06	1.42	1.52
49	S2	672	A	O3'-P	-5.05	1.55	1.61
1	5	4206	C	O3'-P	-5.05	1.55	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	C	102	PHE	CG-CD2	-5.05	1.31	1.38
22	S	152	PHE	CG-CD2	-5.04	1.31	1.38
49	S2	1168	G	O3'-P	-5.04	1.55	1.61
49	S2	957	A	O3'-P	-5.03	1.55	1.61
1	5	2324	C	O3'-P	5.03	1.67	1.61
30	a	79	TRP	CA-CB	5.03	1.65	1.53
59	SJ	108	ARG	CZ-NH1	5.03	1.39	1.33
81	Sf	149	CYS	N-CA	5.03	1.56	1.46
3	8	73	U	O3'-P	5.00	1.67	1.61

All (2051) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	4	699	GLY	CA-C-N	-32.10	46.58	117.20
48	4	699	GLY	C-N-CA	-28.33	50.88	121.70
48	4	768	GLY	O-C-N	21.39	156.93	122.70
72	SW	117	ARG	NE-CZ-NH2	-20.64	109.98	120.30
46	q	205	ASP	CA-C-N	-20.22	72.71	117.20
65	SP	21	ASP	CB-CG-OD1	-19.19	101.03	118.30
46	q	205	ASP	O-C-N	18.05	151.59	122.70
14	K	114	ARG	NE-CZ-NH1	17.38	128.99	120.30
81	Sf	146	LEU	CA-CB-CG	16.59	153.47	115.30
48	4	768	GLY	CA-C-N	-16.39	81.15	117.20
3	8	60	G	N9-C1'-C2'	16.18	135.04	114.00
48	4	154	VAL	CB-CA-C	16.12	142.02	111.40
14	K	114	ARG	CD-NE-CZ	16.11	146.16	123.60
64	SO	146	ARG	NE-CZ-NH1	15.24	127.92	120.30
76	Sa	28	ARG	NE-CZ-NH1	14.82	127.71	120.30
49	S2	1109	C	O4'-C1'-N1	14.31	119.65	108.20
48	4	266	PHE	O-C-N	-13.93	100.41	122.70
48	4	121	VAL	O-C-N	-13.86	100.52	122.70
49	S2	1823	A	N9-C1'-C2'	13.82	131.97	114.00
39	j	11	ARG	NE-CZ-NH2	-13.79	113.40	120.30
48	4	269	ALA	O-C-N	-13.70	100.78	122.70
64	SO	104	ARG	NE-CZ-NH2	-13.40	113.60	120.30
49	S2	1434	C	O5'-P-OP1	-12.95	94.05	105.70
14	K	111	ASN	N-CA-CB	12.81	133.66	110.60
20	Q	37	ARG	NE-CZ-NH2	12.80	126.70	120.30
14	K	130	LYS	CB-CA-C	-12.73	84.94	110.40
1	5	92	C	N1-C1'-C2'	-12.63	97.59	114.00
49	S2	1433	C	O5'-P-OP2	-12.40	94.54	105.70
49	S2	1838	U	O4'-C1'-N1	-12.39	98.28	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	S2	1109	C	N1-C1'-C2'	12.34	130.04	114.00
64	SO	146	ARG	NE-CZ-NH2	-12.34	114.13	120.30
12	I	139	ARG	CG-CD-NE	12.32	137.68	111.80
49	S2	1838	U	N1-C1'-C2'	12.03	129.64	114.00
1	5	1214	C	N1-C1'-C2'	11.94	129.52	114.00
48	4	278	THR	O-C-N	-11.86	103.72	122.70
4	A	3	ARG	NE-CZ-NH1	11.84	126.22	120.30
1	5	1	C	N1-C1'-C2'	11.83	129.38	114.00
14	K	24	ALA	O-C-N	-11.77	103.88	122.70
48	4	768	GLY	C-N-CA	-11.51	92.93	121.70
65	SP	21	ASP	CB-CG-OD2	11.41	128.57	118.30
33	d	44	ARG	NE-CZ-NH1	11.38	125.99	120.30
58	SI	49	ARG	NE-CZ-NH1	11.28	125.94	120.30
74	SY	80	ASP	CB-CG-OD2	-11.22	108.20	118.30
37	h	93	ARG	NE-CZ-NH1	11.18	125.89	120.30
1	5	4693	C	O4'-C1'-N1	-11.13	99.29	108.20
21	R	132	PHE	CB-CA-C	11.13	132.67	110.40
48	4	4	PHE	N-CA-C	11.12	141.03	111.00
7	D	265	ARG	NE-CZ-NH1	11.12	125.86	120.30
1	5	4373	G	N9-C1'-C2'	11.11	128.44	114.00
1	5	4275	G	N9-C1'-C2'	-11.10	99.57	114.00
61	SL	89	ARG	NE-CZ-NH2	-11.04	114.78	120.30
1	5	2361	G	N9-C1'-C2'	-10.98	99.73	114.00
30	a	61	TYR	CA-CB-CG	10.96	134.22	113.40
48	4	742	GLU	C-N-CD	-10.89	96.65	120.60
49	S2	1293	A	N9-C1'-C2'	10.87	128.13	114.00
21	R	108	ARG	NE-CZ-NH1	10.87	125.73	120.30
1	5	4871	C	N1-C1'-C2'	10.85	128.11	114.00
1	5	1938	C	N1-C1'-C2'	10.83	128.08	114.00
46	q	14	PHE	CB-CG-CD2	-10.81	113.23	120.80
16	M	6	PHE	CB-CG-CD2	-10.77	113.26	120.80
1	5	151	G	N9-C1'-C2'	-10.77	100.00	114.00
17	N	192	TRP	CA-CB-CG	10.62	133.87	113.70
28	Y	87	ARG	NE-CZ-NH2	10.61	125.61	120.30
30	a	132	ARG	NE-CZ-NH1	10.59	125.59	120.30
48	4	539	GLU	C-N-CA	-10.57	95.26	121.70
49	S2	848	U	N1-C1'-C2'	10.56	127.72	114.00
76	Sa	28	ARG	NE-CZ-NH2	-10.55	115.03	120.30
17	N	131	GLU	CA-CB-CG	10.55	136.60	113.40
48	4	111	PHE	CA-CB-CG	10.54	139.21	113.90
53	SD	216	GLU	CG-CD-OE1	-10.54	97.22	118.30
49	S2	642	U	C4'-C3'-O3'	10.53	134.07	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5	4528	G	C2'-C3'-O3'	10.52	132.65	109.50
55	SF	130	ARG	NE-CZ-NH2	-10.51	115.04	120.30
1	5	2513	A	N9-C1'-C2'	10.51	127.66	114.00
49	S2	1378	A	N9-C1'-C2'	10.50	127.64	114.00
1	5	4163	U	C4'-C3'-O3'	10.48	133.95	113.00
48	4	154	VAL	CA-CB-CG1	10.46	126.58	110.90
49	S2	642	U	N1-C1'-C2'	-10.44	100.42	114.00
38	i	85	ARG	NE-CZ-NH1	10.39	125.49	120.30
49	S2	1114	U	N1-C1'-C2'	10.38	127.49	114.00
74	SY	118	ARG	NE-CZ-NH2	-10.36	115.12	120.30
3	8	34	U	C4'-C3'-O3'	-10.35	87.66	109.40
48	4	123	ASP	O-C-N	-10.34	105.62	123.20
1	5	1211	G	C2'-C3'-O3'	10.33	132.23	109.50
49	S2	1835	A	O4'-C1'-N9	-10.32	99.94	108.20
59	SJ	38	ARG	NE-CZ-NH2	-10.27	115.17	120.30
49	S2	24	C	C2'-C3'-O3'	10.27	132.09	109.50
62	SM	58	GLU	OE1-CD-OE2	10.24	135.59	123.30
30	a	109	TYR	CA-CB-CG	-10.22	93.98	113.40
1	5	62	A	N9-C1'-C2'	10.22	127.28	114.00
1	5	1329	G	C2'-C3'-O3'	10.21	131.97	109.50
44	o	78	ARG	NE-CZ-NH2	10.19	125.40	120.30
66	SQ	85	ARG	NE-CZ-NH2	-10.19	115.20	120.30
1	5	2436	U	N1-C1'-C2'	10.12	127.16	114.00
74	SY	86	GLU	CG-CD-OE2	-10.11	98.07	118.30
14	K	34	PRO	CA-N-CD	-10.10	97.36	111.50
1	5	2586	G	N9-C1'-C2'	10.09	127.12	114.00
1	5	664	G	O4'-C1'-N9	10.09	116.27	108.20
14	K	38	SER	C-N-CD	-10.08	98.42	120.60
1	5	1358	G	C4'-C3'-O3'	10.06	133.12	113.00
49	S2	645	C	N1-C1'-C2'	-10.05	100.93	114.00
11	H	54	ARG	NE-CZ-NH1	10.04	125.32	120.30
49	S2	92	A	N9-C1'-C2'	10.03	127.04	114.00
1	5	1890	G	N9-C1'-C2'	-10.02	100.97	114.00
1	5	4518	A	O5'-P-OP2	-10.02	96.68	105.70
1	5	2389	A	C2'-C3'-O3'	10.02	131.54	109.50
1	5	1887	G	N9-C1'-C2'	-10.00	101.00	112.00
33	d	25	TYR	CA-CB-CG	-9.99	94.41	113.40
50	SA	117	ARG	CG-CD-NE	9.98	132.76	111.80
10	G	54	PHE	CB-CG-CD1	-9.96	113.83	120.80
48	4	807	GLN	N-CA-C	-9.95	84.12	111.00
8	E	278	TYR	CA-CB-CG	-9.95	94.50	113.40
1	5	1974	U	N1-C1'-C2'	9.93	126.91	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5	1379	C	O4'-C1'-N1	9.92	116.14	108.20
76	Sa	22	ARG	NE-CZ-NH2	-9.84	115.38	120.30
49	S2	428	U	N1-C1'-C2'	9.83	126.78	114.00
1	5	2666	U	N1-C1'-C2'	-9.82	101.19	112.00
21	R	132	PHE	CB-CG-CD1	-9.80	113.94	120.80
14	K	30	PRO	CA-N-CD	-9.78	97.81	111.50
1	5	4693	C	N1-C1'-C2'	9.76	126.69	114.00
30	a	128	PHE	CB-CG-CD1	-9.73	113.99	120.80
1	5	2046	G	O4'-C1'-N9	9.72	115.98	108.20
26	W	44	ARG	NE-CZ-NH1	9.71	125.16	120.30
1	5	1398	A	N9-C1'-C2'	9.70	126.61	114.00
8	E	278	TYR	CB-CA-C	9.70	129.80	110.40
3	8	14	U	N1-C1'-C2'	9.68	126.58	114.00
49	S2	367	U	N1-C1'-C2'	-9.68	101.36	112.00
49	S2	291	G	C4'-C3'-O3'	-9.67	89.09	109.40
30	a	61	TYR	CB-CG-CD2	-9.67	115.20	121.00
49	S2	1063	C	N1-C1'-C2'	-9.66	101.38	112.00
1	5	4464	A	O4'-C1'-N9	-9.65	100.48	108.20
1	5	2394	G	N9-C1'-C2'	-9.64	101.40	112.00
52	SC	121	ARG	NE-CZ-NH2	-9.63	115.48	120.30
35	f	36	ARG	NE-CZ-NH1	9.63	125.12	120.30
64	SO	104	ARG	NE-CZ-NH1	9.62	125.11	120.30
1	5	4750	G	N9-C1'-C2'	-9.62	101.42	112.00
68	SS	124	ARG	NE-CZ-NH1	9.60	125.10	120.30
49	S2	28	U	O5'-P-OP1	-9.60	97.06	105.70
59	SJ	131	ARG	NE-CZ-NH2	-9.59	115.50	120.30
1	5	4677	U	N1-C1'-C2'	-9.57	101.47	112.00
46	q	68	HIS	CA-C-O	-9.57	100.00	120.10
1	5	4162	C	N1-C1'-C2'	9.56	126.44	114.00
1	5	514	U	N1-C1'-C2'	-9.56	101.48	112.00
49	S2	1835	A	C2'-C3'-O3'	9.55	130.52	109.50
80	Se	13	ARG	NE-CZ-NH1	9.52	125.06	120.30
15	L	34	ARG	NE-CZ-NH1	9.52	125.06	120.30
1	5	5040	U	N1-C1'-C2'	9.51	126.36	114.00
29	Z	36	ARG	NE-CZ-NH1	9.51	125.05	120.30
57	SH	177	TYR	CB-CG-CD2	-9.50	115.30	121.00
11	H	31	ARG	NE-CZ-NH1	9.50	125.05	120.30
49	S2	747	U	C2'-C3'-O3'	9.49	130.39	109.50
1	5	1501	C	O4'-C1'-N1	9.49	115.79	108.20
1	5	172	C	O4'-C1'-N1	9.49	115.79	108.20
39	j	66	HIS	N-CA-CB	9.46	127.62	110.60
1	5	2438	A	N9-C1'-C2'	-9.45	101.60	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
46	q	85	ASN	N-CA-CB	9.45	127.61	110.60
1	5	1501	C	N1-C1'-C2'	9.45	126.28	114.00
21	R	95	TRP	N-CA-CB	9.43	127.57	110.60
1	5	315	G	O4'-C1'-N9	9.42	115.74	108.20
7	D	54	ARG	CG-CD-NE	-9.41	92.04	111.80
1	5	42	A	O4'-C1'-N9	9.40	115.72	108.20
55	SF	130	ARG	NE-CZ-NH1	9.40	125.00	120.30
1	5	294	G	O4'-C1'-N9	9.40	115.72	108.20
49	S2	447	A	O4'-C1'-N9	9.38	115.71	108.20
13	J	32	ARG	NE-CZ-NH2	-9.36	115.62	120.30
53	SD	67	ARG	NE-CZ-NH1	9.36	124.98	120.30
60	SK	2	LEU	CA-CB-CG	9.34	136.79	115.30
64	SO	147	ARG	CA-CB-CG	9.34	133.96	113.40
12	I	171	TRP	CA-CB-CG	-9.34	95.96	113.70
52	SC	200	ARG	NE-CZ-NH2	9.33	124.97	120.30
49	S2	1433	C	C4'-C3'-O3'	9.33	131.65	113.00
62	SM	33	ARG	NE-CZ-NH1	9.31	124.95	120.30
18	O	178	ARG	NE-CZ-NH1	9.29	124.94	120.30
17	N	49	ARG	NE-CZ-NH1	9.27	124.94	120.30
48	4	825	PHE	C-N-CA	-9.27	98.53	121.70
48	4	267	ASP	N-CA-C	9.26	136.01	111.00
1	5	5059	C	C2'-C3'-O3'	9.25	129.84	109.50
1	5	4280	A	N9-C1'-C2'	-9.25	101.83	112.00
14	K	75	PRO	CA-N-CD	-9.24	98.56	111.50
78	Sc	31	ARG	NE-CZ-NH1	9.23	124.92	120.30
46	q	68	HIS	O-C-N	9.22	137.45	122.70
48	4	206	ASP	C-N-CD	-9.22	100.32	120.60
28	Y	27	ARG	NE-CZ-NH2	9.22	124.91	120.30
1	5	1534	A	N9-C1'-C2'	9.18	125.93	114.00
46	q	204	LEU	O-C-N	9.18	137.39	122.70
20	Q	91	ARG	NE-CZ-NH2	9.17	124.89	120.30
49	S2	631	U	N1-C1'-C2'	9.17	125.92	114.00
1	5	280	G	O4'-C1'-N9	9.14	115.51	108.20
46	q	80	PRO	CA-N-CD	-9.14	98.70	111.50
1	5	4228	G	N9-C1'-C2'	-9.12	101.97	112.00
1	5	2406	G	N9-C1'-C2'	-9.11	101.97	112.00
49	S2	1552	G	C2'-C3'-O3'	9.11	129.53	109.50
1	5	1685	G	N9-C1'-C2'	9.10	125.83	114.00
69	ST	53	PHE	CB-CG-CD2	-9.09	114.44	120.80
1	5	2553	A	N9-C1'-C2'	9.09	125.81	114.00
5	B	100	ARG	NE-CZ-NH2	-9.08	115.76	120.30
1	5	1474	C	C2'-C3'-O3'	9.07	129.45	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	S2	1578	U	N1-C1'-C2'	9.07	125.79	114.00
46	q	14	PHE	CB-CG-CD1	9.06	127.14	120.80
5	B	119	TYR	CB-CG-CD1	-9.04	115.58	121.00
1	5	2658	G	N9-C1'-C2'	-9.03	102.07	112.00
33	d	85	ARG	NE-CZ-NH1	9.03	124.81	120.30
30	a	79	TRP	CA-CB-CG	-9.02	96.57	113.70
14	K	88	PRO	CA-N-CD	-9.00	98.90	111.50
28	Y	126	ARG	NE-CZ-NH1	9.00	124.80	120.30
1	5	1882	U	O5'-P-OP1	-8.99	97.61	105.70
46	q	69	LEU	O-C-N	-8.97	108.35	122.70
69	ST	62	ARG	NE-CZ-NH2	8.97	124.78	120.30
25	V	97	TYR	CB-CG-CD2	-8.97	115.62	121.00
6	C	78	ARG	NE-CZ-NH1	8.96	124.78	120.30
34	e	46	ARG	NE-CZ-NH1	8.96	124.78	120.30
6	C	267	TRP	CA-CB-CG	8.96	130.72	113.70
38	i	4	ARG	NE-CZ-NH1	8.95	124.78	120.30
81	Sf	146	LEU	CB-CG-CD1	8.95	126.21	111.00
48	4	197	SER	C-N-CA	8.92	141.02	122.30
3	8	94	G	O4'-C1'-N9	-8.91	101.07	108.20
1	5	4911	A	O4'-C1'-N9	8.91	115.32	108.20
1	5	4385	A	N9-C1'-C2'	-8.90	102.21	112.00
1	5	4965	U	N1-C1'-C2'	-8.90	102.21	112.00
45	p	85	ARG	NE-CZ-NH1	8.89	124.75	120.30
49	S2	833	C	C2'-C3'-O3'	8.89	129.07	109.50
14	K	136	ALA	O-C-N	-8.88	108.50	122.70
1	5	125	C	C2'-C3'-O3'	8.87	129.02	109.50
33	d	25	TYR	CB-CA-C	8.86	128.13	110.40
49	S2	437	G	N9-C1'-C2'	8.85	125.50	114.00
1	5	1815	G	N9-C1'-C2'	8.82	125.46	114.00
49	S2	1088	U	N1-C1'-C2'	8.81	125.45	114.00
1	5	977	C	C2'-C3'-O3'	8.80	128.86	109.50
1	5	1998	A	N9-C1'-C2'	8.80	125.44	114.00
82	Sg	60	ARG	NE-CZ-NH2	-8.79	115.90	120.30
8	E	119	ARG	NE-CZ-NH1	8.79	124.69	120.30
65	SP	10	ARG	NE-CZ-NH1	8.79	124.69	120.30
1	5	2268	A	N9-C1'-C2'	8.77	125.41	114.00
1	5	1356	U	C2'-C3'-O3'	8.77	128.78	109.50
49	S2	313	A	O4'-C1'-N9	8.77	115.21	108.20
1	5	1668	A	N9-C1'-C2'	8.76	125.39	114.00
18	O	135	PHE	N-CA-C	8.76	134.65	111.00
23	T	13	TYR	CB-CG-CD2	-8.75	115.75	121.00
72	SW	57	ARG	NE-CZ-NH1	8.75	124.67	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5	1534	A	O4'-C1'-N9	-8.74	101.20	108.20
1	5	978	G	C2'-C3'-O3'	8.73	128.71	109.50
14	K	163	PRO	CA-N-CD	-8.73	99.28	111.50
1	5	1359	G	C2'-C3'-O3'	8.73	128.71	109.50
1	5	31	U	N1-C1'-C2'	8.72	125.34	114.00
1	5	4976	U	O4'-C1'-N1	-8.72	101.22	108.20
22	S	81	TRP	CB-CA-C	8.72	127.84	110.40
49	S2	1859	A	C8-N9-C1'	-8.72	112.00	127.70
6	C	311	ARG	NE-CZ-NH2	-8.71	115.94	120.30
49	S2	3	C	N1-C1'-C2'	8.70	125.31	114.00
49	S2	1429	G	C2'-C3'-O3'	8.70	128.63	109.50
20	Q	58	ARG	NE-CZ-NH1	8.69	124.64	120.30
1	5	4234	A	N9-C1'-C2'	8.68	125.28	114.00
19	P	54	GLN	CA-CB-CG	8.68	132.49	113.40
14	K	104	ILE	CG1-CB-CG2	8.67	130.47	111.40
29	Z	121	ARG	NE-CZ-NH1	8.66	124.63	120.30
1	5	2305	U	O4'-C1'-N1	-8.65	101.28	108.20
1	5	2517	A	N9-C1'-C2'	8.65	125.25	114.00
1	5	2446	C	N1-C1'-C2'	8.65	125.24	114.00
22	S	81	TRP	CA-CB-CG	-8.65	97.27	113.70
10	G	62	ARG	NE-CZ-NH2	-8.64	115.98	120.30
82	Sg	60	ARG	NE-CZ-NH1	8.64	124.62	120.30
37	h	117	ARG	CG-CD-NE	-8.62	93.70	111.80
4	A	193	ARG	CG-CD-NE	-8.62	93.71	111.80
1	5	4221	C	N1-C1'-C2'	-8.60	102.54	112.00
1	5	4404	U	N1-C1'-C2'	-8.60	102.54	112.00
1	5	1637	A	N9-C1'-C2'	-8.59	102.55	112.00
44	o	31	ASP	CB-CA-C	8.59	127.57	110.40
81	Sf	138	ARG	NE-CZ-NH1	8.58	124.59	120.30
18	O	140	ARG	NE-CZ-NH2	8.58	124.59	120.30
2	7	56	G	N9-C1'-C2'	8.57	125.14	114.00
49	S2	110	U	C2'-C3'-O3'	8.56	128.34	109.50
1	5	1980	U	O4'-C1'-N1	8.56	115.05	108.20
48	4	794	PHE	CB-CA-C	8.56	127.52	110.40
51	SB	165	ARG	NE-CZ-NH2	8.56	124.58	120.30
1	5	2851	G	N9-C1'-C2'	-8.55	102.60	112.00
68	SS	95	TYR	CA-CB-CG	8.54	129.62	113.40
14	K	111	ASN	CB-CA-C	-8.54	93.33	110.40
1	5	352	G	N9-C1'-C2'	-8.52	102.62	112.00
49	S2	1859	A	C4-N9-C1'	8.52	141.63	126.30
1	5	1733	G	N9-C1'-C2'	-8.49	102.66	112.00
1	5	1439	C	C4'-C3'-O3'	-8.49	91.58	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5	3790	U	N1-C1'-C2'	8.49	125.03	114.00
1	5	1296	G	O4'-C1'-N9	8.48	114.98	108.20
15	L	74	ARG	NE-CZ-NH1	8.47	124.54	120.30
48	4	392	GLY	C-N-CD	-8.46	101.98	120.60
27	X	73	HIS	CB-CA-C	8.46	127.32	110.40
1	5	4563	U	N1-C1'-C2'	8.45	124.99	114.00
34	e	35	TRP	CA-CB-CG	-8.44	97.66	113.70
49	S2	798	A	C2'-C3'-O3'	8.44	128.07	109.50
4	A	67	TYR	CA-CB-CG	8.43	129.42	113.40
58	SI	197	PHE	CB-CA-C	-8.42	93.55	110.40
73	SX	67	ARG	NE-CZ-NH2	8.41	124.50	120.30
49	S2	622	C	N1-C1'-C2'	-8.41	102.75	112.00
1	5	1937	C	N1-C1'-C2'	8.40	124.92	114.00
9	F	120	PHE	CB-CA-C	8.40	127.21	110.40
3	8	85	U	C2'-C3'-O3'	8.40	127.98	109.50
1	5	4119	C	C2'-C3'-O3'	8.39	127.97	109.50
14	K	89	PRO	CA-N-CD	-8.39	99.75	111.50
22	S	29	ARG	CA-CB-CG	8.39	131.85	113.40
59	SJ	127	ARG	NE-CZ-NH1	8.39	124.49	120.30
49	S2	421	G	N9-C1'-C2'	8.37	124.88	114.00
37	h	78	TYR	CA-CB-CG	-8.37	97.50	113.40
21	R	74	ARG	NE-CZ-NH1	-8.36	116.12	120.30
57	SH	177	TYR	CB-CA-C	-8.36	93.69	110.40
44	o	48	TYR	CB-CA-C	8.35	127.10	110.40
14	K	102	GLY	N-CA-C	8.33	133.93	113.10
57	SH	177	TYR	CA-CB-CG	8.32	129.22	113.40
8	E	268	ARG	NE-CZ-NH1	8.32	124.46	120.30
49	S2	294	U	N1-C1'-C2'	8.30	124.79	114.00
49	S2	1835	A	C4-N9-C1'	-8.29	111.38	126.30
80	Se	41	ARG	NE-CZ-NH1	8.28	124.44	120.30
1	5	292	G	N9-C1'-C2'	8.28	124.76	114.00
49	S2	1407	U	N1-C1'-C2'	8.28	124.76	114.00
68	SS	86	ARG	NE-CZ-NH1	-8.28	116.16	120.30
1	5	958	G	C2'-C3'-O3'	8.26	127.67	109.50
37	h	78	TYR	CB-CA-C	8.26	126.92	110.40
3	8	70	G	N9-C1'-C2'	-8.25	102.92	112.00
10	G	53	ARG	NE-CZ-NH2	-8.23	116.18	120.30
22	S	29	ARG	CG-CD-NE	-8.23	94.52	111.80
22	S	10	TYR	CA-CB-CG	-8.22	97.78	113.40
1	5	2087	C	N1-C1'-C2'	-8.21	102.97	112.00
1	5	3938	G	N9-C1'-C2'	8.21	124.67	114.00
1	5	3879	G	N9-C1'-C2'	-8.20	102.98	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	R	132	PHE	N-CA-C	-8.20	88.86	111.00
1	5	3653	A	N9-C1'-C2'	-8.19	102.99	112.00
50	SA	151	ASP	CB-CG-OD2	8.19	125.67	118.30
1	5	93	G	N9-C1'-C2'	8.18	124.64	114.00
49	S2	594	A	N9-C1'-C2'	-8.18	103.00	112.00
1	5	2553	A	O4'-C1'-N9	8.18	114.74	108.20
49	S2	1623	A	C2'-C3'-O3'	8.17	127.48	109.50
35	f	85	ARG	NE-CZ-NH2	-8.16	116.22	120.30
1	5	4498	U	N1-C1'-C2'	-8.16	103.02	112.00
1	5	2797	C	N1-C1'-C2'	-8.15	103.03	112.00
49	S2	1408	U	N1-C1'-C2'	8.15	124.60	114.00
31	b	44	ARG	NE-CZ-NH1	8.15	124.37	120.30
7	D	268	ARG	NE-CZ-NH1	8.14	124.37	120.30
18	O	37	ARG	NE-CZ-NH2	-8.13	116.23	120.30
49	S2	381	C	N1-C1'-C2'	8.13	124.57	114.00
35	f	4	ARG	CA-CB-CG	8.12	131.28	113.40
1	5	2465	C	N1-C1'-C2'	8.12	124.56	114.00
1	5	2246	C	C2'-C3'-O3'	8.11	127.34	109.50
1	5	4723	A	C4-N9-C1'	8.11	140.89	126.30
1	5	2806	A	N9-C1'-C2'	-8.10	103.08	112.00
3	8	34	U	C2'-C3'-O3'	8.10	127.33	109.50
44	o	57	ARG	NE-CZ-NH1	8.10	124.35	120.30
1	5	3635	A	N9-C1'-C2'	-8.10	103.09	112.00
1	5	1867	A	N9-C1'-C2'	8.09	124.52	114.00
9	F	58	HIS	CB-CA-C	-8.09	94.23	110.40
1	5	3735	G	C2'-C3'-O3'	8.07	127.26	109.50
66	SQ	126	ARG	NE-CZ-NH2	8.07	124.34	120.30
14	K	24	ALA	CA-C-N	8.06	134.94	117.20
1	5	3773	U	C4'-C3'-O3'	8.06	129.12	113.00
25	V	98	PHE	CB-CG-CD1	-8.05	115.16	120.80
1	5	235	A	O4'-C1'-N9	8.05	114.64	108.20
3	8	94	G	C2'-C3'-O3'	8.04	127.19	109.50
7	D	44	TYR	CB-CA-C	8.04	126.49	110.40
1	5	2683	C	C2'-C3'-O3'	8.04	127.19	109.50
1	5	3908	A	N9-C1'-C2'	8.03	124.44	114.00
35	f	22	ARG	NE-CZ-NH1	8.03	124.31	120.30
7	D	248	ARG	NE-CZ-NH2	-8.03	116.29	120.30
1	5	3905	A	C2'-C3'-O3'	8.02	127.15	109.50
17	N	139	HIS	N-CA-CB	8.01	125.02	110.60
1	5	4600	G	N9-C1'-C2'	-8.01	103.19	112.00
3	8	34	U	C5'-C4'-O4'	8.01	118.71	109.10
64	SO	147	ARG	CG-CD-NE	-8.00	95.00	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	B	62	ARG	NE-CZ-NH1	8.00	124.30	120.30
1	5	4497	U	N1-C1'-C2'	-8.00	103.20	112.00
55	SF	136	ARG	NE-CZ-NH1	7.99	124.29	120.30
17	N	143	ARG	CG-CD-NE	-7.98	95.04	111.80
48	4	285	LEU	C-N-CD	-7.98	103.05	120.60
48	4	278	THR	CA-C-N	7.97	134.73	117.20
1	5	4885	U	C2'-C3'-O3'	7.97	127.03	109.50
5	B	169	ARG	NE-CZ-NH1	7.96	124.28	120.30
1	5	2394	G	O4'-C1'-N9	7.95	114.56	108.20
1	5	3692	A	C2'-C3'-O3'	7.95	126.99	109.50
48	4	267	ASP	CA-C-N	7.95	139.34	117.10
20	Q	174	PHE	CB-CA-C	7.93	126.27	110.40
18	O	110	PRO	C-N-CD	-7.93	103.15	120.60
49	S2	964	A	N9-C1'-C2'	7.93	124.31	114.00
1	5	4163	U	N1-C1'-C2'	-7.93	103.28	112.00
12	I	119	PHE	CB-CG-CD1	7.92	126.35	120.80
19	P	3	ARG	NE-CZ-NH1	7.92	124.26	120.30
1	5	315	G	C1'-O4'-C4'	-7.92	103.57	109.90
49	S2	1292	C	C4'-C3'-O3'	7.92	128.83	113.00
49	S2	399	C	N1-C1'-C2'	-7.91	103.30	112.00
1	5	4723	A	C8-N9-C1'	-7.90	113.48	127.70
4	A	193	ARG	NE-CZ-NH2	-7.90	116.35	120.30
1	5	4371	G	O4'-C1'-N9	7.90	114.52	108.20
49	S2	968	U	N1-C1'-C2'	-7.89	103.31	112.00
51	SB	146	ARG	NE-CZ-NH2	-7.88	116.36	120.30
68	SS	42	HIS	CB-CA-C	-7.88	94.65	110.40
1	5	2263	A	O4'-C1'-N9	-7.87	101.91	108.20
14	K	39	PRO	CA-N-CD	-7.86	100.49	111.50
67	SR	82	ASP	CB-CG-OD2	-7.86	111.22	118.30
1	5	668	C	C2'-C3'-O3'	7.86	126.78	109.50
1	5	2263	A	C5'-C4'-O4'	7.86	118.53	109.10
78	Sc	44	ARG	NE-CZ-NH2	7.85	124.22	120.30
49	S2	1703	C	N1-C1'-C2'	-7.84	103.37	112.00
49	S2	1835	A	C5'-C4'-O4'	7.84	118.51	109.10
66	SQ	126	ARG	NE-CZ-NH1	-7.84	116.38	120.30
4	A	37	ARG	NE-CZ-NH2	-7.84	116.38	120.30
48	4	76	SER	O-C-N	7.84	135.24	122.70
1	5	716	C	C2'-C3'-O3'	7.83	126.72	109.50
1	5	353	A	N9-C1'-C2'	-7.82	103.39	112.00
16	M	119	ARG	NE-CZ-NH2	7.82	124.21	120.30
1	5	1805	A	N9-C1'-C2'	7.82	124.17	114.00
1	5	962	C	N1-C1'-C2'	7.81	124.15	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	Y	11	ARG	NE-CZ-NH2	-7.80	116.40	120.30
3	8	64	U	N1-C1'-C2'	7.80	124.14	114.00
49	S2	164	A	N9-C1'-C2'	-7.80	103.42	112.00
1	5	964	A	C4'-C3'-O3'	7.78	128.56	113.00
23	T	13	TYR	N-CA-CB	-7.78	96.60	110.60
73	SX	67	ARG	NE-CZ-NH1	-7.76	116.42	120.30
1	5	4463	U	N1-C1'-C2'	-7.75	103.47	112.00
1	5	43	U	N1-C1'-C2'	-7.75	103.47	112.00
1	5	157	U	O4'-C1'-N1	7.74	114.40	108.20
7	D	198	HIS	CB-CA-C	7.74	125.89	110.40
1	5	4282	A	N9-C1'-C2'	7.73	124.05	114.00
48	4	495	ARG	O-C-N	-7.72	110.35	122.70
1	5	5066	U	N1-C1'-C2'	7.72	124.03	114.00
9	F	168	ARG	CG-CD-NE	-7.71	95.61	111.80
52	SC	241	PHE	N-CA-CB	7.70	124.46	110.60
1	5	4194	U	N1-C1'-C2'	-7.69	103.54	112.00
30	a	128	PHE	CB-CA-C	7.67	125.75	110.40
1	5	4238	G	N9-C1'-C2'	-7.67	103.57	112.00
1	5	294	G	C1'-O4'-C4'	-7.66	103.77	109.90
59	SJ	48	PHE	N-CA-CB	7.66	124.38	110.60
1	5	292	G	O4'-C1'-N9	-7.65	102.08	108.20
1	5	1522	G	N9-C1'-C2'	-7.65	103.59	112.00
35	f	4	ARG	CG-CD-NE	-7.64	95.75	111.80
49	S2	1701	C	N1-C1'-C2'	7.64	123.94	114.00
4	A	211	PHE	CB-CA-C	7.63	125.66	110.40
14	K	30	PRO	CB-CA-C	7.63	131.08	112.00
5	B	116	ARG	CG-CD-NE	7.63	127.82	111.80
63	SN	83	ASP	CB-CG-OD2	-7.62	111.44	118.30
1	5	53	C	C2'-C3'-O3'	7.62	126.25	109.50
1	5	2790	U	N1-C1'-C2'	7.62	123.90	114.00
49	S2	1395	C	C2'-C3'-O3'	7.62	126.26	109.50
3	8	94	G	C5'-C4'-O4'	7.61	118.23	109.10
7	D	210	TYR	CA-CB-CG	-7.60	98.96	113.40
72	SW	117	ARG	NH1-CZ-NH2	7.60	127.76	119.40
9	F	36	ARG	NE-CZ-NH2	7.60	124.10	120.30
49	S2	349	A	C2'-C3'-O3'	7.59	126.21	109.50
1	5	1916	G	N9-C1'-C2'	7.59	123.87	114.00
73	SX	8	ARG	NE-CZ-NH1	-7.59	116.50	120.30
37	h	119	PHE	CB-CA-C	-7.59	95.22	110.40
52	SC	236	PHE	N-CA-CB	7.58	124.25	110.60
63	SN	113	PHE	CB-CA-C	-7.58	95.23	110.40
1	5	4464	A	C5'-C4'-O4'	7.58	118.19	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5	1575	A	N9-C1'-C2'	7.57	123.84	114.00
48	4	104	ASP	CB-CA-C	7.57	125.54	110.40
70	SU	90	ASP	CB-CG-OD1	7.56	125.11	118.30
12	I	4	ARG	CG-CD-NE	-7.56	95.93	111.80
1	5	4583	C	N1-C1'-C2'	-7.55	103.69	112.00
1	5	1377	G	C2'-C3'-O3'	7.55	126.11	109.50
1	5	4548	A	O4'-C1'-N9	-7.55	102.16	108.20
1	5	4911	A	C1'-O4'-C4'	-7.55	103.86	109.90
49	S2	1114	U	O4'-C1'-N1	7.54	114.24	108.20
1	5	158	A	N9-C1'-C2'	-7.54	103.70	112.00
49	S2	1664	A	C2'-C3'-O3'	7.54	126.09	109.50
3	8	38	U	O4'-C1'-N1	7.53	114.22	108.20
14	K	104	ILE	CA-CB-CG2	-7.53	95.84	110.90
1	5	2588	C	C4'-C3'-O3'	7.52	128.04	113.00
1	5	5046	U	C2'-C3'-O3'	7.52	126.05	109.50
7	D	35	ARG	NE-CZ-NH1	7.52	124.06	120.30
46	q	44	ARG	NE-CZ-NH1	7.52	124.06	120.30
3	8	104	A	O4'-C1'-N9	-7.52	102.19	108.20
1	5	354	U	N1-C1'-C2'	-7.51	103.73	112.00
14	K	130	LYS	CA-CB-CG	7.51	129.93	113.40
9	F	228	HIS	N-CA-CB	7.51	124.12	110.60
30	a	79	TRP	CB-CA-C	7.51	125.42	110.40
49	S2	1835	A	C4'-C3'-O3'	-7.51	93.63	109.40
1	5	4737	G	N9-C1'-C2'	7.51	123.76	114.00
49	S2	1863	A	N9-C1'-C2'	7.51	123.76	114.00
1	5	1881	C	N1-C1'-C2'	7.50	123.75	114.00
12	I	171	TRP	N-CA-CB	7.50	124.09	110.60
82	Sg	125	ARG	NE-CZ-NH2	-7.49	116.55	120.30
1	5	1724	G	O4'-C4'-C3'	-7.49	96.51	104.00
38	i	28	ARG	CG-CD-NE	-7.49	96.08	111.80
46	q	80	PRO	C-N-CA	-7.49	102.99	121.70
6	C	222	ARG	NE-CZ-NH1	7.48	124.04	120.30
49	S2	1142	G	N9-C1'-C2'	-7.48	103.77	112.00
49	S2	732	U	C2'-C3'-O3'	7.48	125.95	109.50
1	5	1382	G	N9-C1'-C2'	7.47	123.72	114.00
49	S2	9	U	N1-C1'-C2'	-7.47	103.78	112.00
1	5	3868	G	N9-C1'-C2'	-7.47	103.78	112.00
8	E	179	ARG	NE-CZ-NH1	7.47	124.03	120.30
14	K	137	GLN	N-CA-C	7.47	131.16	111.00
1	5	4693	C	C5'-C4'-O4'	7.46	118.05	109.10
58	SI	113	TYR	CA-CB-CG	7.46	127.57	113.40
17	N	131	GLU	CB-CG-CD	-7.46	94.06	114.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5	157	U	N1-C1'-C2'	-7.46	103.80	112.00
1	5	1378	C	N1-C1'-C2'	7.45	123.69	114.00
49	S2	1542	C	N1-C1'-C2'	7.45	123.69	114.00
1	5	4535	A	C2'-C3'-O3'	7.44	125.87	109.50
48	4	123	ASP	CA-C-N	7.44	131.09	116.20
73	SX	88	ASP	CB-CG-OD2	-7.44	111.60	118.30
49	S2	1113	A	N9-C1'-C2'	7.44	123.67	114.00
1	5	4212	A	N9-C1'-C2'	7.44	123.67	114.00
1	5	2092	G	N9-C1'-C2'	7.44	123.67	114.00
20	Q	34	PHE	N-CA-CB	7.43	123.97	110.60
49	S2	384	U	N1-C1'-C2'	-7.43	103.83	112.00
5	B	117	ARG	NE-CZ-NH2	-7.43	116.59	120.30
49	S2	1	U	C5'-C4'-O4'	7.43	118.01	109.10
1	5	1266	G	C2'-C3'-O3'	7.42	125.83	109.50
1	5	1445	U	C2'-C3'-O3'	7.42	125.82	109.50
1	5	4120	U	N1-C1'-C2'	-7.42	103.84	112.00
49	S2	427	U	N1-C1'-C2'	7.41	123.64	114.00
1	5	2046	G	C1'-O4'-C4'	-7.41	103.97	109.90
1	5	1521	C	N1-C1'-C2'	-7.41	103.85	112.00
1	5	4322	G	N9-C1'-C2'	-7.41	103.86	112.00
81	Sf	143	LYS	CD-CE-NZ	7.41	128.73	111.70
81	Sf	116	ARG	NE-CZ-NH1	7.40	124.00	120.30
17	N	180	PHE	CB-CA-C	7.39	125.19	110.40
49	S2	1606	G	N9-C1'-C2'	-7.39	103.86	112.00
7	D	223	PHE	CB-CG-CD2	-7.39	115.62	120.80
30	a	34	ASN	CB-CA-C	7.39	125.19	110.40
1	5	4464	A	N9-C1'-C2'	7.39	123.60	114.00
1	5	394	G	N9-C1'-C2'	-7.38	103.88	112.00
1	5	3938	G	O4'-C1'-N9	-7.38	102.30	108.20
4	A	242	ARG	NE-CZ-NH1	7.38	123.99	120.30
1	5	4981	G	N9-C1'-C2'	-7.38	103.89	112.00
1	5	2124	G	C2'-C3'-O3'	7.37	125.72	109.50
1	5	3871	A	N9-C1'-C2'	7.37	123.58	114.00
1	5	55	G	N9-C1'-C2'	-7.37	103.89	112.00
1	5	450	G	N9-C1'-C2'	-7.37	103.89	112.00
3	8	73	U	N1-C1'-C2'	-7.37	103.89	112.00
7	D	210	TYR	N-CA-CB	7.37	123.86	110.60
1	5	4251	A	N9-C1'-C2'	7.36	123.57	114.00
68	SS	86	ARG	CG-CD-NE	-7.36	96.33	111.80
1	5	5061	A	C2'-C3'-O3'	7.36	125.69	109.50
1	5	1370	G	N9-C1'-C2'	7.36	123.57	114.00
1	5	3843	C	N1-C1'-C2'	7.36	123.57	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	S2	1249	C	N1-C1'-C2'	-7.36	103.91	112.00
51	SB	136	ARG	NE-CZ-NH2	7.36	123.98	120.30
1	5	1440	U	C2'-C3'-O3'	7.36	125.69	109.50
59	SJ	69	ARG	NE-CZ-NH2	7.36	123.98	120.30
4	A	189	TYR	CA-CB-CG	7.35	127.36	113.40
1	5	974	C	C2'-C3'-O3'	7.34	125.66	109.50
1	5	4531	U	N1-C1'-C2'	7.34	123.54	114.00
49	S2	1623	A	N9-C1'-C2'	-7.34	103.93	112.00
49	S2	1659	U	N1-C1'-C2'	-7.34	103.93	112.00
1	5	979	C	C2'-C3'-O3'	7.33	125.63	109.50
1	5	2769	U	N1-C1'-C2'	-7.33	103.94	112.00
49	S2	1115	U	N1-C1'-C2'	7.33	123.52	114.00
49	S2	1486	A	N9-C1'-C2'	-7.32	103.95	112.00
57	SH	99	ARG	NE-CZ-NH2	7.30	123.95	120.30
53	SD	159	HIS	CB-CA-C	7.30	124.99	110.40
1	5	147	A	N9-C1'-C2'	7.29	123.48	114.00
1	5	406	C	C2'-C3'-O3'	7.29	125.55	109.50
1	5	1601	A	N9-C1'-C2'	-7.29	103.98	112.00
1	5	2848	G	N9-C1'-C2'	-7.29	103.98	112.00
1	5	1379	C	C1'-O4'-C4'	-7.29	104.07	109.90
1	5	97	G	N9-C1'-C2'	-7.29	103.98	112.00
1	5	486	C	C2'-C3'-O3'	7.29	125.54	109.50
14	K	74	VAL	C-N-CD	-7.29	104.57	120.60
13	J	64	ARG	NE-CZ-NH2	7.29	123.94	120.30
14	K	130	LYS	CB-CG-CD	7.28	130.53	111.60
1	5	4084	G	C2'-C3'-O3'	7.28	125.50	109.50
1	5	4519	C	N1-C1'-C2'	-7.27	104.00	112.00
1	5	2280	G	N9-C1'-C2'	7.27	123.45	114.00
10	G	235	ARG	NE-CZ-NH1	7.26	123.93	120.30
51	SB	82	ARG	CG-CD-NE	-7.26	96.55	111.80
1	5	2796	G	N9-C1'-C2'	7.25	123.43	114.00
1	5	4750	G	O4'-C1'-N9	7.25	114.00	108.20
1	5	1481	C	C2'-C3'-O3'	7.25	125.45	109.50
27	X	48	ARG	NE-CZ-NH1	7.24	123.92	120.30
1	5	4966	A	N9-C1'-C2'	7.24	123.41	114.00
1	5	2812	A	N9-C1'-C2'	7.23	123.40	114.00
1	5	664	G	C1'-O4'-C4'	-7.22	104.13	109.90
49	S2	1419	C	N1-C1'-C2'	-7.21	104.07	112.00
46	q	84	GLY	N-CA-C	7.20	131.10	113.10
39	j	11	ARG	NE-CZ-NH1	7.20	123.90	120.30
49	S2	24	C	N1-C1'-C2'	-7.20	104.08	112.00
1	5	100	C	N1-C1'-C2'	-7.20	104.08	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	4	269	ALA	C-N-CA	-7.20	103.71	121.70
49	S2	1339	U	N1-C1'-C2'	-7.19	104.09	112.00
59	SJ	115	PHE	CB-CG-CD2	-7.19	115.77	120.80
37	h	89	ARG	NE-CZ-NH1	7.19	123.89	120.30
39	j	71	TYR	CA-CB-CG	7.18	127.05	113.40
30	a	109	TYR	CB-CA-C	7.18	124.76	110.40
1	5	1534	A	C5'-C4'-O4'	7.18	117.71	109.10
1	5	2511	A	C4'-C3'-O3'	-7.17	94.34	109.40
53	SD	216	GLU	CG-CD-OE2	7.17	132.63	118.30
4	A	3	ARG	NE-CZ-NH2	-7.16	116.72	120.30
33	d	73	TRP	N-CA-CB	-7.16	97.71	110.60
14	K	28	LEU	CB-CG-CD1	7.16	123.17	111.00
49	S2	1404	U	C4'-C3'-O3'	-7.16	94.36	109.40
1	5	1359	G	C4'-C3'-O3'	-7.16	94.36	109.40
1	5	4279	A	N9-C1'-C2'	-7.16	104.13	112.00
49	S2	798	A	N9-C1'-C2'	-7.16	104.13	112.00
49	S2	402	C	N1-C1'-C2'	-7.16	104.13	112.00
6	C	41	HIS	N-CA-CB	7.14	123.46	110.60
38	i	39	PHE	N-CA-CB	7.14	123.44	110.60
59	SJ	115	PHE	CB-CG-CD1	7.13	125.79	120.80
1	5	157	U	C1'-O4'-C4'	-7.13	104.20	109.90
1	5	350	C	N1-C1'-C2'	7.13	123.26	114.00
14	K	114	ARG	CG-CD-NE	7.12	126.76	111.80
73	SX	20	HIS	CB-CA-C	7.12	124.65	110.40
1	5	383	A	C1'-C2'-O2'	-7.12	89.23	110.60
22	S	28	TYR	CB-CG-CD1	7.12	125.27	121.00
15	L	82	ARG	NE-CZ-NH2	-7.11	116.74	120.30
30	a	62	HIS	N-CA-CB	7.11	123.40	110.60
55	SF	122	ARG	NE-CZ-NH1	7.11	123.86	120.30
54	SE	104	ASP	CB-CG-OD2	-7.11	111.90	118.30
1	5	29	G	N9-C1'-C2'	7.11	123.24	114.00
49	S2	1645	C	N1-C1'-C2'	7.11	123.24	114.00
1	5	1500	A	C4'-C3'-O3'	7.10	127.20	113.00
37	h	51	ARG	NE-CZ-NH1	7.10	123.85	120.30
1	5	2324	C	C2'-C3'-O3'	7.10	125.12	109.50
3	8	38	U	C1'-O4'-C4'	-7.10	104.22	109.90
1	5	669	C	O4'-C1'-N1	7.09	113.87	108.20
1	5	4500	U	O5'-P-OP1	-7.09	99.32	105.70
39	j	27	TYR	CA-CB-CG	-7.09	99.92	113.40
3	8	94	G	N9-C1'-C2'	7.09	123.21	114.00
9	F	194	HIS	CB-CA-C	-7.09	96.23	110.40
1	5	4750	G	C1'-O4'-C4'	-7.08	104.23	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	X	48	ARG	NE-CZ-NH2	-7.08	116.76	120.30
1	5	4341	C	N1-C1'-C2'	-7.08	104.22	112.00
1	5	4464	A	C2'-C3'-O3'	7.07	125.06	109.50
1	5	30	C	N1-C1'-C2'	7.07	123.19	114.00
1	5	4519	C	O4'-C1'-N1	7.06	113.85	108.20
1	5	1355	G	N9-C1'-C2'	7.06	123.18	114.00
26	W	8	PHE	CB-CG-CD1	7.05	125.74	120.80
48	4	495	ARG	C-N-CA	-7.05	104.08	121.70
1	5	291	U	N1-C1'-C2'	7.05	123.16	114.00
11	H	156	ASN	N-CA-CB	7.04	123.27	110.60
48	4	113	SER	N-CA-C	-7.04	91.99	111.00
49	S2	384	U	C2'-C3'-O3'	7.04	124.98	109.50
1	5	2046	G	C2'-C3'-O3'	7.03	124.97	109.50
49	S2	863	U	N1-C1'-C2'	7.03	123.14	114.00
1	5	1479	G	N9-C1'-C2'	7.03	123.14	114.00
1	5	1552	G	N9-C1'-C2'	-7.03	104.27	112.00
8	E	219	ARG	NE-CZ-NH1	7.03	123.81	120.30
18	O	49	ARG	NE-CZ-NH1	7.03	123.81	120.30
33	d	25	TYR	CB-CG-CD1	-7.03	116.78	121.00
49	S2	821	G	O4'-C1'-N9	-7.03	102.58	108.20
51	SB	205	TYR	CA-CB-CG	-7.03	100.05	113.40
1	5	1455	G	C2'-C3'-O3'	7.02	124.95	109.50
1	5	514	U	C2'-C3'-O3'	7.02	124.94	109.50
53	SD	67	ARG	NE-CZ-NH2	-7.02	116.79	120.30
49	S2	1378	A	O4'-C1'-N9	-7.01	102.59	108.20
66	SQ	85	ARG	CG-CD-NE	-7.01	97.07	111.80
3	8	34	U	O4'-C1'-N1	-7.01	102.59	108.20
1	5	2695	A	C2'-C3'-O3'	7.00	124.91	109.50
1	5	3817	A	N9-C1'-C2'	7.00	123.10	114.00
49	S2	1157	G	N9-C1'-C2'	-7.00	104.30	112.00
1	5	235	A	N9-C1'-C2'	-7.00	104.30	112.00
1	5	4531	U	O4'-C1'-N1	-7.00	102.60	108.20
1	5	4510	A	O4'-C1'-N9	-7.00	102.60	108.20
48	4	741	MET	CA-CB-CG	7.00	125.19	113.30
49	S2	427	U	O4'-C1'-N1	-7.00	102.60	108.20
1	5	42	A	C1'-O4'-C4'	-6.99	104.31	109.90
48	4	801	ARG	N-CA-CB	6.99	123.19	110.60
1	5	4589	A	O4'-C1'-N9	-6.99	102.61	108.20
6	C	35	ASP	CB-CG-OD1	6.99	124.59	118.30
1	5	1676	C	C1'-C2'-O2'	-6.99	89.64	110.60
9	F	197	TYR	CB-CA-C	-6.99	96.42	110.40
49	S2	1839	U	C2-N1-C1'	6.98	126.08	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	o	48	TYR	CA-CB-CG	-6.98	100.14	113.40
48	4	701	ARG	NE-CZ-NH1	6.98	123.79	120.30
1	5	2851	G	C2'-C3'-O3'	6.97	124.85	113.70
1	5	4265	U	N1-C1'-C2'	6.97	123.06	114.00
48	4	54	THR	N-CA-C	6.97	129.81	111.00
1	5	332	C	N1-C1'-C2'	6.97	123.06	114.00
1	5	4270	C	N1-C1'-C2'	-6.96	104.34	112.00
80	Se	13	ARG	NE-CZ-NH2	-6.96	116.82	120.30
49	S2	448	A	N9-C1'-C2'	-6.96	104.34	112.00
1	5	1625	G	N9-C1'-C2'	6.96	123.05	114.00
1	5	2589	C	C2'-C3'-O3'	6.96	124.83	113.70
49	S2	104	A	C2'-C3'-O3'	6.96	124.83	113.70
34	e	74	PHE	CB-CG-CD1	-6.95	115.93	120.80
59	SJ	138	ARG	NE-CZ-NH1	6.95	123.78	120.30
49	S2	1022	U	O4'-C1'-N1	6.95	113.76	108.20
37	h	93	ARG	NE-CZ-NH2	-6.95	116.83	120.30
49	S2	617	G	N9-C1'-C2'	-6.95	104.36	112.00
1	5	209	U	O4'-C1'-N1	6.95	113.76	108.20
13	J	32	ARG	NE-CZ-NH1	6.95	123.77	120.30
13	J	146	ARG	CG-CD-NE	-6.95	97.21	111.80
25	V	97	TYR	N-CA-C	-6.94	92.25	111.00
48	4	121	VAL	C-N-CA	6.94	139.06	121.70
1	5	4589	A	N9-C1'-C2'	6.94	123.02	114.00
21	R	74	ARG	NE-CZ-NH2	6.93	123.77	120.30
49	S2	1143	A	O5'-P-OP1	-6.92	99.47	105.70
5	B	100	ARG	NE-CZ-NH1	6.90	123.75	120.30
9	F	219	ARG	NE-CZ-NH1	6.90	123.75	120.30
21	R	88	ARG	NE-CZ-NH1	6.90	123.75	120.30
1	5	54	G	N9-C1'-C2'	-6.89	104.42	112.00
10	G	49	ARG	NE-CZ-NH2	-6.89	116.85	120.30
49	S2	104	A	N9-C1'-C2'	-6.88	104.43	112.00
11	H	156	ASN	N-CA-C	-6.88	92.42	111.00
35	f	4	ARG	N-CA-CB	6.88	122.99	110.60
49	S2	923	G	C2'-C3'-O3'	6.88	124.71	113.70
1	5	454	U	C2'-C3'-O3'	6.87	124.70	113.70
49	S2	55	U	N1-C1'-C2'	6.87	122.94	114.00
1	5	1832	C	C2'-C3'-O3'	6.87	124.69	113.70
48	4	427	VAL	CB-CA-C	-6.87	98.34	111.40
20	Q	75	ARG	NE-CZ-NH1	6.87	123.73	120.30
49	S2	77	A	N9-C1'-C2'	-6.87	104.44	112.00
1	5	226	G	N9-C1'-C2'	-6.86	104.45	112.00
49	S2	674	C	O5'-P-OP2	-6.86	99.52	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5	943	A	N9-C1'-C2'	-6.86	104.45	112.00
1	5	1631	A	O4'-C1'-N9	-6.86	102.71	108.20
8	E	179	ARG	NE-CZ-NH2	-6.86	116.87	120.30
1	5	5001	U	N1-C1'-C2'	6.86	122.91	114.00
5	B	274	TYR	CA-CB-CG	-6.85	100.39	113.40
1	5	1319	U	N1-C1'-C2'	-6.84	104.47	112.00
58	SI	197	PHE	CB-CG-CD2	-6.84	116.01	120.80
35	f	85	ARG	NE-CZ-NH1	6.83	123.72	120.30
49	S2	182	C	C2'-C3'-O3'	6.83	124.63	113.70
1	5	1815	G	O4'-C1'-N9	6.83	113.66	108.20
49	S2	73	C	O4'-C1'-N1	6.83	113.66	108.20
1	5	2271	C	N1-C1'-C2'	6.83	122.87	114.00
49	S2	1039	C	C2'-C3'-O3'	6.83	124.62	113.70
49	S2	1247	C	N1-C1'-C2'	6.83	122.87	114.00
1	5	3625	G	C2'-C3'-O3'	6.82	124.61	113.70
48	4	285	LEU	O-C-N	-6.82	108.14	121.10
20	Q	37	ARG	NE-CZ-NH1	-6.82	116.89	120.30
3	8	64	U	C2'-C3'-O3'	6.82	124.61	113.70
1	5	964	A	O4'-C1'-C2'	-6.81	98.99	105.80
1	5	5047	C	O5'-P-OP2	-6.81	99.57	105.70
46	q	6	ARG	N-CA-C	6.81	129.38	111.00
49	S2	992	A	N9-C1'-C2'	-6.80	104.52	112.00
63	SN	18	TYR	N-CA-CB	6.80	122.85	110.60
17	N	49	ARG	NE-CZ-NH2	-6.80	116.90	120.30
1	5	4518	A	O5'-P-OP1	6.80	118.86	110.70
1	5	1	C	O4'-C1'-N1	6.79	113.64	108.20
1	5	2319	C	N1-C1'-C2'	6.79	122.83	114.00
62	SM	127	TYR	CA-CB-CG	6.79	126.30	113.40
19	P	42	ARG	NE-CZ-NH1	6.78	123.69	120.30
1	5	3611	A	N9-C1'-C2'	6.78	122.81	114.00
2	7	72	U	C2'-C3'-O3'	6.78	124.55	113.70
29	Z	65	ARG	CG-CD-NE	-6.78	97.57	111.80
10	G	73	ARG	NE-CZ-NH1	6.78	123.69	120.30
25	V	97	TYR	CA-CB-CG	-6.78	100.53	113.40
1	5	1292	C	C2'-C3'-O3'	6.77	124.53	113.70
13	J	99	PHE	CB-CA-C	6.77	123.94	110.40
48	4	825	PHE	N-CA-C	6.76	129.24	111.00
48	4	42	LYS	CA-C-N	-6.75	102.35	117.20
49	S2	61	A	C4'-C3'-O3'	-6.75	95.22	109.40
49	S2	1198	G	C2'-C3'-O3'	6.75	124.50	113.70
20	Q	33	ARG	CG-CD-NE	-6.74	97.64	111.80
49	S2	1114	U	C1'-O4'-C4'	-6.74	104.51	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5	2395	A	N9-C1'-C2'	-6.74	104.59	112.00
49	S2	1838	U	O4'-C4'-C3'	-6.74	97.26	104.00
20	Q	15	ARG	NE-CZ-NH2	-6.74	116.93	120.30
10	G	54	PHE	CB-CG-CD2	-6.73	116.09	120.80
49	S2	596	U	N1-C1'-C2'	6.73	122.75	114.00
48	4	76	SER	CA-C-N	-6.72	102.41	117.20
8	E	101	ARG	NE-CZ-NH1	-6.72	116.94	120.30
1	5	1364	U	C2'-C3'-O3'	6.72	124.45	113.70
1	5	3875	G	N9-C1'-C2'	-6.72	104.61	112.00
1	5	4936	G	N9-C1'-C2'	-6.72	104.61	112.00
8	E	278	TYR	N-CA-C	-6.72	92.87	111.00
1	5	4230	C	O5'-P-OP1	-6.71	99.66	105.70
1	5	4197	G	N9-C1'-C2'	-6.71	104.62	112.00
49	S2	313	A	C1'-O4'-C4'	-6.71	104.53	109.90
49	S2	1433	C	C5'-C4'-C3'	6.71	126.73	116.00
1	5	84	A	O4'-C1'-N9	-6.71	102.83	108.20
1	5	58	G	N9-C1'-C2'	6.70	122.71	114.00
48	4	197	SER	CA-C-N	-6.70	102.80	116.20
14	K	111	ASN	CA-CB-CG	6.70	128.14	113.40
52	SC	200	ARG	NE-CZ-NH1	-6.70	116.95	120.30
49	S2	983	A	C8-N9-C1'	-6.70	115.64	127.70
1	5	2305	U	N1-C1'-C2'	6.70	122.70	114.00
14	K	26	SER	C-N-CA	6.70	138.44	121.70
59	SJ	108	ARG	NE-CZ-NH2	-6.69	116.96	120.30
49	S2	983	A	C4-N9-C1'	6.69	138.33	126.30
49	S2	824	C	N1-C1'-C2'	6.68	122.69	114.00
62	SM	33	ARG	CG-CD-NE	6.68	125.83	111.80
1	5	2675	G	N9-C1'-C2'	-6.68	104.66	112.00
29	Z	38	TYR	CB-CA-C	6.67	123.75	110.40
9	F	168	ARG	NE-CZ-NH2	-6.67	116.97	120.30
1	5	4280	A	C2'-C3'-O3'	6.67	124.37	113.70
49	S2	1201	U	N1-C1'-C2'	-6.67	104.67	112.00
33	d	87	ARG	N-CA-C	-6.67	93.00	111.00
46	q	204	LEU	CA-C-N	-6.67	102.54	117.20
48	4	122	THR	N-CA-CB	-6.66	97.64	110.30
49	S2	1838	U	C5'-C4'-O4'	6.66	117.10	109.10
1	5	3901	A	O4'-C1'-N9	-6.66	102.87	108.20
48	4	801	ARG	NE-CZ-NH2	-6.66	116.97	120.30
49	S2	918	U	N1-C1'-C2'	6.66	122.65	114.00
1	5	3882	C	N1-C1'-C2'	6.65	122.65	114.00
49	S2	415	A	C4-N9-C1'	-6.65	114.33	126.30
31	b	7	HIS	CB-CA-C	-6.65	97.10	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	d	73	TRP	CA-CB-CG	6.65	126.34	113.70
11	H	125	ARG	NE-CZ-NH1	6.65	123.62	120.30
57	SH	116	ARG	NE-CZ-NH2	-6.65	116.98	120.30
62	SM	33	ARG	NE-CZ-NH2	-6.64	116.98	120.30
49	S2	532	C	C2'-C3'-O3'	6.64	124.33	113.70
49	S2	1663	A	O4'-C1'-N9	6.64	113.51	108.20
1	5	1631	A	N9-C1'-C2'	6.64	122.63	114.00
1	5	4693	C	C2'-C3'-O3'	6.64	124.32	113.70
49	S2	620	G	O5'-P-OP1	6.63	118.66	110.70
49	S2	1667	U	N1-C1'-C2'	6.63	122.62	114.00
1	5	5022	U	C2'-C3'-O3'	6.63	124.31	113.70
1	5	336	A	O4'-C1'-N9	6.63	113.50	108.20
74	SY	76	TYR	CA-CB-CG	-6.63	100.81	113.40
1	5	3790	U	O4'-C1'-N1	-6.62	102.90	108.20
1	5	2827	G	O4'-C1'-N9	-6.61	102.91	108.20
1	5	4325	A	N9-C1'-C2'	6.61	122.60	114.00
1	5	4518	A	C2'-C3'-O3'	-6.61	94.96	109.50
49	S2	1452	A	N9-C1'-C2'	6.61	122.59	114.00
49	S2	1401	A	C2'-C3'-O3'	6.60	124.26	113.70
3	8	1	C	C5'-C4'-O4'	6.60	117.02	109.10
3	8	81	C	C1'-O4'-C4'	-6.59	104.62	109.90
1	5	514	U	C5'-C4'-O4'	6.59	117.01	109.10
1	5	964	A	N9-C1'-C2'	-6.59	104.75	112.00
1	5	3883	U	N1-C1'-C2'	6.59	122.57	114.00
5	B	26	ARG	CG-CD-NE	-6.59	97.96	111.80
69	ST	62	ARG	NE-CZ-NH1	-6.59	117.01	120.30
49	S2	631	U	O4'-C1'-N1	-6.59	102.93	108.20
1	5	927	G	C2'-C3'-O3'	6.58	124.23	113.70
28	Y	81	TYR	CA-CB-CG	-6.58	100.89	113.40
1	5	314	G	N9-C1'-C2'	-6.57	104.77	112.00
49	S2	1434	C	N1-C1'-C2'	6.57	122.55	114.00
49	S2	1835	A	O4'-C4'-C3'	-6.57	97.43	104.00
1	5	505	G	C2'-C3'-O3'	6.56	124.20	113.70
49	S2	415	A	C8-N9-C1'	6.56	139.51	127.70
1	5	2782	U	C4'-C3'-O3'	6.56	126.12	113.00
49	S2	1394	G	C2'-C3'-O3'	6.56	124.20	113.70
1	5	1930	U	N1-C1'-C2'	6.56	122.52	114.00
35	f	109	ARG	NE-CZ-NH1	6.56	123.58	120.30
1	5	4336	A	N9-C1'-C2'	-6.55	104.79	112.00
1	5	187	U	C2'-C3'-O3'	6.55	124.18	113.70
49	S2	160	U	C2'-C3'-O3'	6.55	124.18	113.70
62	SM	26	LEU	CB-CG-CD2	6.55	122.14	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	j	27	TYR	CB-CG-CD1	-6.55	117.07	121.00
48	4	122	THR	CB-CA-C	6.55	129.28	111.60
17	N	150	TRP	CA-CB-CG	6.54	126.14	113.70
50	SA	9	GLN	CA-CB-CG	6.54	127.80	113.40
53	SD	162	ASP	CB-CG-OD2	-6.54	112.41	118.30
1	5	1671	U	O4'-C1'-C2'	-6.54	99.26	105.80
49	S2	1830	U	N1-C1'-C2'	-6.54	104.81	112.00
19	P	23	ARG	NE-CZ-NH1	6.54	123.57	120.30
36	g	14	ASN	N-CA-CB	6.54	122.36	110.60
1	5	3827	G	N9-C1'-C2'	-6.53	104.81	112.00
33	d	85	ARG	NE-CZ-NH2	-6.53	117.03	120.30
1	5	1215	C	O5'-P-OP2	-6.53	99.83	105.70
1	5	1650	A	O4'-C1'-N9	-6.53	102.98	108.20
1	5	384	A	N9-C1'-C2'	6.52	122.48	114.00
1	5	119	G	O4'-C4'-C3'	-6.52	97.48	104.00
48	4	154	VAL	N-CA-C	-6.52	93.40	111.00
58	SI	55	TYR	CA-CB-CG	-6.52	101.02	113.40
16	M	109	ARG	NE-CZ-NH2	6.51	123.56	120.30
1	5	2075	G	C2'-C3'-O3'	6.51	124.11	113.70
1	5	5043	A	N9-C1'-C2'	6.50	122.45	114.00
1	5	432	U	N1-C1'-C2'	-6.50	104.85	112.00
49	S2	499	G	C2'-C3'-O3'	6.50	124.10	113.70
49	S2	1272	C	O5'-P-OP1	-6.50	99.85	105.70
1	5	946	C	O4'-C1'-N1	6.50	113.40	108.20
1	5	98	A	N9-C1'-C2'	-6.49	104.86	112.00
1	5	1887	G	C2'-C3'-O3'	6.49	124.09	113.70
73	SX	27	TYR	CA-CB-CG	6.49	125.73	113.40
1	5	4227	U	C2'-C3'-O3'	6.49	124.08	113.70
10	G	223	ARG	NE-CZ-NH1	6.49	123.54	120.30
19	P	25	HIS	CB-CA-C	6.48	123.37	110.40
56	SG	88	ARG	NE-CZ-NH1	6.48	123.54	120.30
49	S2	149	A	N9-C1'-C2'	6.48	122.43	114.00
1	5	209	U	C4'-C3'-O3'	6.48	125.95	113.00
49	S2	1838	U	C2-N1-C1'	-6.47	109.93	117.70
49	S2	427	U	C5'-C4'-O4'	6.47	116.87	109.10
50	SA	186	ARG	NE-CZ-NH1	6.47	123.53	120.30
1	5	1379	C	N1-C1'-C2'	6.47	122.41	114.00
48	4	269	ALA	CA-C-N	6.47	131.43	117.20
1	5	2118	G	C4'-C3'-O3'	6.46	125.93	113.00
9	F	209	PHE	N-CA-CB	6.46	122.23	110.60
1	5	307	A	N9-C1'-C2'	6.46	122.40	114.00
3	8	86	U	O4'-C1'-C2'	-6.46	99.34	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
63	SN	18	TYR	CA-CB-CG	-6.46	101.13	113.40
1	5	136	C	N1-C1'-C2'	-6.46	104.90	112.00
64	SO	147	ARG	NE-CZ-NH2	-6.46	117.07	120.30
1	5	1853	G	N9-C1'-C2'	-6.46	104.90	112.00
68	SS	14	ARG	NE-CZ-NH1	6.46	123.53	120.30
3	8	64	U	C5'-C4'-O4'	6.45	116.84	109.10
49	S2	1291	A	P-O3'-C3'	6.45	127.44	119.70
1	5	4076	G	N9-C1'-C2'	-6.45	104.90	112.00
1	5	4199	C	C4'-C3'-O3'	6.45	125.89	113.00
1	5	1573	G	N9-C1'-C2'	6.44	122.37	114.00
20	Q	181	ARG	CA-CB-CG	6.44	127.57	113.40
49	S2	1850	A	N9-C1'-C2'	6.44	122.37	114.00
30	a	109	TYR	CB-CG-CD2	-6.44	117.14	121.00
49	S2	1116	C	O5'-P-OP1	-6.44	99.91	105.70
1	5	1572	U	N1-C1'-C2'	6.44	122.37	114.00
14	K	129	ILE	O-C-N	-6.43	112.41	122.70
23	T	13	TYR	CA-CB-CG	6.43	125.62	113.40
49	S2	1059	G	N9-C1'-C2'	6.43	122.36	114.00
63	SN	64	ARG	NE-CZ-NH2	-6.43	117.09	120.30
49	S2	848	U	C2-N1-C1'	6.43	125.41	117.70
47	r	31	ASN	N-CA-CB	6.42	122.16	110.60
49	S2	427	U	P-O5'-C5'	6.42	131.18	120.90
49	S2	1860	A	N9-C1'-C2'	-6.42	104.94	112.00
78	Sc	44	ARG	CG-CD-NE	6.42	125.28	111.80
1	5	4338	G	N9-C1'-C2'	-6.42	104.94	112.00
64	SO	147	ARG	NE-CZ-NH1	6.42	123.51	120.30
1	5	2665	U	C2'-C3'-O3'	6.41	123.95	113.70
46	q	45	MET	CA-CB-CG	-6.41	102.41	113.30
1	5	4976	U	N1-C1'-C2'	6.41	122.33	114.00
1	5	4534	G	N9-C1'-C2'	-6.40	104.96	112.00
7	D	293	ARG	NE-CZ-NH1	6.40	123.50	120.30
1	5	4127	A	O4'-C1'-N9	6.40	113.32	108.20
1	5	2546	G	C4'-C3'-O3'	6.40	125.80	113.00
1	5	2649	G	N9-C1'-C2'	6.40	122.32	114.00
48	4	278	THR	C-N-CA	6.40	137.69	121.70
1	5	2088	A	C2'-C3'-O3'	6.39	123.93	113.70
3	8	35	C	N1-C1'-C2'	6.39	122.31	114.00
49	S2	654	A	N9-C1'-C2'	-6.39	104.97	112.00
18	O	37	ARG	NE-CZ-NH1	6.39	123.50	120.30
9	F	168	ARG	CB-CG-CD	6.39	128.21	111.60
1	5	1980	U	C1'-O4'-C4'	-6.39	104.79	109.90
26	W	8	PHE	CB-CG-CD2	-6.39	116.33	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	Y	81	TYR	CB-CA-C	6.38	123.17	110.40
7	D	223	PHE	CB-CG-CD1	6.38	125.27	120.80
4	A	37	ARG	NE-CZ-NH1	6.38	123.49	120.30
1	5	1724	G	C4'-C3'-O3'	-6.38	96.00	109.40
49	S2	1082	A	N9-C1'-C2'	6.38	122.29	114.00
49	S2	1249	C	C2'-C3'-O3'	6.38	123.91	113.70
1	5	1241	C	C2'-C3'-O3'	6.37	123.90	113.70
48	4	404	THR	N-CA-CB	6.37	122.41	110.30
49	S2	1851	A	N9-C1'-C2'	6.37	122.28	114.00
1	5	336	A	C1'-O4'-C4'	-6.36	104.81	109.90
48	4	497	MET	C-N-CA	6.36	137.61	121.70
1	5	1642	A	C4'-C3'-O3'	-6.36	96.05	109.40
6	C	143	ARG	NE-CZ-NH2	-6.36	117.12	120.30
1	5	1272	C	O4'-C1'-N1	6.36	113.28	108.20
4	A	63	PHE	CB-CG-CD1	6.36	125.25	120.80
49	S2	1109	C	C1'-O4'-C4'	-6.36	104.81	109.90
1	5	417	G	O4'-C1'-N9	6.35	113.28	108.20
1	5	2554	U	C2'-C3'-O3'	6.34	123.85	113.70
49	S2	1584	G	N9-C1'-C2'	6.34	122.24	114.00
49	S2	91	A	N9-C1'-C2'	-6.34	105.03	112.00
1	5	1615	C	C2'-C3'-O3'	6.34	123.84	113.70
1	5	4519	C	C2'-C3'-O3'	6.34	123.84	113.70
1	5	2511	A	O4'-C1'-N9	-6.33	103.13	108.20
1	5	3901	A	C5'-C4'-O4'	6.33	116.70	109.10
9	F	36	ARG	NE-CZ-NH1	-6.33	117.13	120.30
1	5	294	G	N9-C1'-C2'	6.33	122.23	114.00
1	5	2581	A	N9-C1'-C2'	6.33	122.23	114.00
1	5	84	A	N9-C1'-C2'	6.33	122.23	114.00
28	Y	78	TYR	CB-CA-C	6.33	123.05	110.40
46	q	44	ARG	CD-NE-CZ	6.33	132.46	123.60
1	5	4911	A	O5'-P-OP2	-6.32	100.01	105.70
49	S2	1292	C	P-O5'-C5'	6.32	131.01	120.90
1	5	4519	C	O4'-C4'-C3'	-6.32	97.69	104.00
49	S2	960	U	C2'-C3'-O3'	6.32	123.80	113.70
19	P	139	TYR	CA-CB-CG	-6.31	101.41	113.40
9	F	136	ARG	NE-CZ-NH2	-6.31	117.14	120.30
10	G	235	ARG	CG-CD-NE	6.30	125.04	111.80
12	I	34	PHE	CB-CG-CD1	-6.30	116.39	120.80
49	S2	1597	C	N1-C1'-C2'	6.30	122.19	114.00
1	5	3671	G	N9-C1'-C2'	6.29	122.18	114.00
49	S2	1194	A	N9-C1'-C2'	-6.29	105.08	112.00
1	5	1282	G	O5'-P-OP1	-6.29	100.04	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5	1724	G	N9-C1'-C2'	6.29	122.17	114.00
7	D	35	ARG	CG-CD-NE	6.29	125.00	111.80
1	5	1672	U	C2-N1-C1'	6.28	125.24	117.70
3	8	104	A	N9-C1'-C2'	6.28	122.17	114.00
66	SQ	138	ARG	NE-CZ-NH1	6.28	123.44	120.30
14	K	129	ILE	C-N-CA	6.28	137.40	121.70
49	S2	1519	U	N1-C1'-C2'	6.28	122.16	114.00
7	D	145	TYR	CB-CA-C	6.28	122.95	110.40
1	5	3653	A	O5'-P-OP1	-6.27	100.05	105.70
11	H	31	ARG	NE-CZ-NH2	-6.27	117.16	120.30
1	5	219	G	O5'-P-OP2	-6.27	100.06	105.70
22	S	83	ARG	CG-CD-NE	6.27	124.97	111.80
1	5	2827	G	N9-C1'-C2'	6.27	122.15	114.00
1	5	2511	A	C2'-C3'-O3'	6.27	123.73	113.70
1	5	4519	C	C4'-C3'-C2'	-6.27	96.33	102.60
49	S2	475	C	O5'-P-OP1	-6.26	100.06	105.70
7	D	30	TYR	CB-CA-C	6.26	122.92	110.40
1	5	3648	A	O4'-C1'-N9	6.25	113.20	108.20
49	S2	1669	G	N9-C1'-C2'	6.25	122.13	114.00
34	e	5	ARG	NE-CZ-NH1	6.25	123.42	120.30
3	8	62	A	C8-N9-C1'	6.25	138.95	127.70
1	5	3880	G	N9-C1'-C2'	6.25	122.12	114.00
20	Q	33	ARG	NE-CZ-NH2	-6.25	117.18	120.30
49	S2	1855	G	O5'-P-OP2	-6.25	100.08	105.70
1	5	1279	A	C2'-C3'-O3'	6.25	123.69	113.70
49	S2	841	G	O4'-C1'-C2'	-6.25	99.56	105.80
1	5	2874	U	O4'-C1'-N1	-6.24	103.21	108.20
1	5	2673	G	O4'-C1'-C2'	-6.24	99.56	105.80
49	S2	41	G	N9-C1'-C2'	-6.24	105.14	112.00
49	S2	66	G	N9-C1'-C2'	-6.24	105.14	112.00
1	5	4548	A	P-O5'-C5'	6.24	130.88	120.90
1	5	4718	G	N9-C1'-C2'	-6.24	105.14	112.00
55	SF	165	ASN	N-CA-CB	6.24	121.83	110.60
1	5	2403	A	N9-C1'-C2'	6.24	122.11	114.00
81	Sf	148	TYR	CA-CB-CG	6.23	125.24	113.40
82	Sg	140	TYR	CA-CB-CG	-6.23	101.56	113.40
1	5	5056	A	N9-C1'-C2'	6.23	122.10	114.00
49	S2	1022	U	C1'-O4'-C4'	-6.23	104.92	109.90
65	SP	44	ARG	NE-CZ-NH1	6.23	123.42	120.30
26	W	55	TYR	CB-CG-CD1	6.23	124.74	121.00
76	Sa	10	ARG	CG-CD-NE	-6.23	98.72	111.80
1	5	4677	U	C3'-C2'-C1'	6.22	106.48	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
15	L	192	PHE	N-CA-CB	6.22	121.80	110.60
62	SM	127	TYR	CB-CG-CD1	6.22	124.73	121.00
1	5	220	C	C2'-C3'-O3'	6.22	123.66	113.70
1	5	3791	C	O4'-C1'-N1	-6.22	103.22	108.20
49	S2	1	U	C5'-C4'-C3'	6.22	125.95	116.00
6	C	80	ARG	NE-CZ-NH1	6.22	123.41	120.30
1	5	409	G	N9-C1'-C2'	-6.22	105.16	112.00
1	5	2082	G	N9-C1'-C2'	6.22	122.08	114.00
51	SB	165	ARG	NE-CZ-NH1	-6.22	117.19	120.30
1	5	1934	A	N9-C1'-C2'	-6.21	105.16	112.00
7	D	44	TYR	CA-CB-CG	-6.21	101.60	113.40
10	G	54	PHE	CB-CA-C	6.21	122.82	110.40
55	SF	146	ARG	NE-CZ-NH1	6.21	123.41	120.30
49	S2	1420	G	O5'-P-OP2	-6.21	100.11	105.70
49	S2	980	A	C2'-C3'-O3'	6.21	123.63	113.70
5	B	137	TRP	CA-CB-CG	-6.20	101.92	113.70
6	C	311	ARG	NE-CZ-NH1	6.20	123.40	120.30
39	j	11	ARG	CG-CD-NE	-6.20	98.79	111.80
49	S2	1453	C	O4'-C1'-N1	6.20	113.16	108.20
49	S2	1857	G	N9-C1'-C2'	-6.20	105.19	112.00
49	S2	1617	G	N9-C1'-C2'	-6.19	105.19	112.00
61	SL	89	ARG	NE-CZ-NH1	6.19	123.40	120.30
1	5	4560	C	O4'-C1'-N1	-6.19	103.25	108.20
20	Q	4	ASP	CB-CA-C	6.19	122.78	110.40
26	W	57	ARG	NE-CZ-NH1	6.19	123.39	120.30
1	5	747	A	C2'-C3'-O3'	6.19	123.60	113.70
37	h	89	ARG	CG-CD-NE	6.19	124.79	111.80
15	L	82	ARG	NE-CZ-NH1	6.19	123.39	120.30
32	c	90	ARG	CA-CB-CG	6.19	127.01	113.40
46	q	150	GLY	C-N-CA	-6.18	106.24	121.70
48	4	806	GLY	C-N-CA	-6.18	106.24	121.70
1	5	3727	A	N9-C1'-C2'	6.18	122.04	114.00
49	S2	963	A	N9-C1'-C2'	6.18	122.04	114.00
14	K	136	ALA	CA-C-N	6.18	130.80	117.20
36	g	90	ARG	CG-CD-NE	-6.18	98.82	111.80
35	f	19	ARG	NE-CZ-NH2	-6.18	117.21	120.30
1	5	2666	U	C4'-C3'-C2'	-6.18	96.42	102.60
81	Sf	146	LEU	N-CA-CB	6.18	122.75	110.40
1	5	99	A	N9-C1'-C2'	-6.17	105.21	112.00
1	5	219	G	O4'-C1'-C2'	-6.17	99.62	105.80
1	5	962	C	C4'-C3'-O3'	-6.17	96.43	109.40
28	Y	126	ARG	NE-CZ-NH2	-6.17	117.21	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	o	78	ARG	NE-CZ-NH1	-6.17	117.21	120.30
49	S2	1668	U	N1-C1'-C2'	6.17	122.02	114.00
9	F	98	ARG	NE-CZ-NH2	-6.17	117.22	120.30
30	a	61	TYR	CB-CG-CD1	6.17	124.70	121.00
48	4	432	PRO	C-N-CA	-6.17	106.28	121.70
9	F	239	GLU	CA-CB-CG	6.16	126.96	113.40
18	O	117	ARG	NE-CZ-NH1	6.16	123.38	120.30
49	S2	1839	U	C6-N1-C1'	-6.16	112.58	121.20
1	5	5006	U	N1-C1'-C2'	-6.16	105.23	112.00
46	q	6	ARG	C-N-CA	6.16	137.10	121.70
1	5	2470	C	O4'-C1'-C2'	-6.16	99.64	105.80
1	5	4579	U	C2-N1-C1'	6.16	125.09	117.70
9	F	168	ARG	NE-CZ-NH1	6.15	123.38	120.30
1	5	2107	C	C2'-C3'-O3'	6.15	123.54	113.70
1	5	4976	U	C5'-C4'-O4'	6.15	116.48	109.10
1	5	2854	G	N9-C1'-C2'	-6.15	105.24	112.00
32	c	39	ARG	CG-CD-NE	-6.15	98.89	111.80
1	5	1379	C	C5'-C4'-O4'	6.14	116.47	109.10
1	5	1379	C	P-O5'-C5'	6.14	130.73	120.90
3	8	62	A	C4-N9-C1'	-6.14	115.24	126.30
6	C	35	ASP	CB-CG-OD2	-6.14	112.77	118.30
48	4	793	SER	C-N-CA	-6.14	106.34	121.70
49	S2	1603	G	O4'-C1'-N9	-6.14	103.29	108.20
1	5	4239	A	C2'-C3'-O3'	6.14	123.52	113.70
47	r	45	HIS	CB-CA-C	-6.14	98.12	110.40
33	d	87	ARG	CA-CB-CG	6.13	126.89	113.40
28	Y	15	ARG	NE-CZ-NH1	-6.13	117.23	120.30
49	S2	1123	C	O5'-P-OP1	-6.13	100.18	105.70
1	5	4451	G	N9-C1'-C2'	6.13	121.97	114.00
49	S2	1021	U	N1-C1'-C2'	6.13	121.97	114.00
73	SX	8	ARG	NE-CZ-NH2	6.13	123.36	120.30
49	S2	1735	A	N9-C1'-C2'	6.12	121.96	114.00
46	q	69	LEU	CA-C-N	6.12	130.67	117.20
21	R	9	ARG	NE-CZ-NH1	6.12	123.36	120.30
49	S2	1223	A	N9-C1'-C2'	-6.12	105.27	112.00
55	SF	164	ARG	CG-CD-NE	-6.12	98.95	111.80
1	5	2854	G	C2'-C3'-O3'	6.12	123.48	113.70
49	S2	19	A	C2'-C3'-O3'	6.12	123.48	113.70
1	5	4880	C	N1-C1'-C2'	6.11	121.95	114.00
49	S2	1545	A	N9-C1'-C2'	6.11	121.95	114.00
17	N	96	ARG	NE-CZ-NH1	-6.11	117.24	120.30
60	SK	8	ARG	NE-CZ-NH1	6.11	123.36	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5	1614	C	C2'-C3'-O3'	6.11	123.47	113.70
3	8	66	A	N9-C1'-C2'	6.11	121.94	114.00
3	8	81	C	O4'-C1'-N1	6.11	113.08	108.20
48	4	153	PRO	O-C-N	6.10	132.46	122.70
5	B	102	PHE	CB-CA-C	-6.10	98.20	110.40
8	E	59	TYR	N-CA-C	-6.10	94.53	111.00
21	R	107	ARG	NE-CZ-NH1	6.10	123.35	120.30
1	5	514	U	C4'-C3'-C2'	-6.10	96.50	102.60
7	D	145	TYR	CA-CB-CG	-6.10	101.81	113.40
63	SN	128	TYR	CB-CG-CD1	6.09	124.66	121.00
80	Se	41	ARG	CG-CD-NE	6.09	124.60	111.80
49	S2	531	A	C2'-C3'-O3'	6.09	123.45	113.70
14	K	85	LEU	C-N-CA	6.09	136.93	121.70
1	5	4876	U	N1-C1'-C2'	6.09	121.92	114.00
33	d	87	ARG	CG-CD-NE	-6.09	99.01	111.80
49	S2	313	A	N9-C1'-C2'	6.09	121.92	114.00
1	5	1488	G	C2'-C3'-O3'	6.09	123.44	113.70
21	R	108	ARG	NE-CZ-NH2	-6.08	117.26	120.30
15	L	36	ARG	NE-CZ-NH1	6.08	123.34	120.30
1	5	1214	C	O4'-C1'-N1	-6.08	103.34	108.20
1	5	5040	U	C4'-C3'-O3'	-6.08	96.64	109.40
1	5	2119	C	O4'-C1'-N1	6.07	113.06	108.20
1	5	1649	U	N1-C1'-C2'	6.07	121.89	114.00
1	5	3738	G	N9-C1'-C2'	-6.07	105.33	112.00
59	SJ	20	PHE	CB-CG-CD1	6.07	125.05	120.80
1	5	4948	C	C2'-C3'-O3'	6.06	123.40	113.70
48	4	531	ASP	C-N-CD	6.06	141.13	128.40
48	4	760	TYR	CB-CG-CD2	-6.06	117.36	121.00
49	S2	1552	G	N9-C1'-C2'	-6.06	105.33	112.00
14	K	130	LYS	CD-CE-NZ	6.06	125.63	111.70
4	A	83	HIS	N-CA-C	-6.05	94.65	111.00
39	j	39	TYR	CB-CA-C	-6.05	98.30	110.40
49	S2	9	U	C2'-C3'-O3'	6.05	123.38	113.70
49	S2	943	U	C2-N1-C1'	6.05	124.96	117.70
17	N	71	ARG	NE-CZ-NH1	6.04	123.32	120.30
1	5	4270	C	C2'-C3'-O3'	6.04	123.37	113.70
1	5	4519	C	C1'-O4'-C4'	-6.04	105.07	109.90
20	Q	181	ARG	CG-CD-NE	-6.04	99.11	111.80
20	Q	58	ARG	NE-CZ-NH2	-6.04	117.28	120.30
49	S2	959	G	C2'-C3'-O3'	6.04	123.36	113.70
1	5	235	A	C1'-O4'-C4'	-6.04	105.07	109.90
69	ST	53	PHE	CB-CG-CD1	6.04	125.03	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	f	36	ARG	NE-CZ-NH2	-6.03	117.28	120.30
49	S2	1433	C	C4'-C3'-C2'	-6.03	96.57	102.60
49	S2	1419	C	C2'-C3'-O3'	6.03	123.35	113.70
49	S2	1588	A	N9-C1'-C2'	6.03	121.84	114.00
1	5	4986	G	N9-C1'-C2'	6.03	121.84	114.00
14	K	30	PRO	CA-C-O	-6.03	105.73	120.20
6	C	78	ARG	NE-CZ-NH2	-6.03	117.29	120.30
49	S2	398	A	N9-C1'-C2'	-6.03	105.37	112.00
1	5	3843	C	O4'-C1'-N1	-6.02	103.38	108.20
46	q	81	HIS	CB-CA-C	6.02	122.44	110.40
8	E	157	ARG	NE-CZ-NH1	-6.01	117.29	120.30
49	S2	1433	C	O4'-C4'-C3'	-6.01	97.99	104.00
1	5	1210	C	N1-C1'-C2'	6.01	121.81	114.00
1	5	4599	A	N9-C1'-C2'	6.01	121.81	114.00
32	c	56	ARG	NE-CZ-NH1	6.01	123.31	120.30
49	S2	1858	G	C2'-C3'-O3'	6.01	123.31	113.70
51	SB	107	ARG	NE-CZ-NH1	6.00	123.30	120.30
1	5	4731	G	O4'-C1'-N9	6.00	113.00	108.20
14	K	28	LEU	N-CA-CB	6.00	122.41	110.40
44	o	40	ARG	NE-CZ-NH1	6.00	123.30	120.30
6	C	312	ARG	CG-CD-NE	-6.00	99.20	111.80
19	P	127	ARG	NE-CZ-NH2	-6.00	117.30	120.30
1	5	67	C	N1-C1'-C2'	-6.00	105.40	112.00
66	SQ	62	ARG	NE-CZ-NH1	6.00	123.30	120.30
3	8	13	G	N9-C1'-C2'	6.00	121.80	114.00
2	7	58	A	N9-C1'-C2'	-6.00	105.41	112.00
38	i	85	ARG	NE-CZ-NH2	-5.99	117.30	120.30
1	5	4694	G	O5'-P-OP1	-5.99	100.31	105.70
49	S2	918	U	C1'-O4'-C4'	-5.99	105.11	109.90
49	S2	400	C	N1-C1'-C2'	-5.99	105.41	112.00
1	5	1658	G	N9-C1'-C2'	5.99	121.78	114.00
1	5	3739	C	O4'-C1'-C2'	-5.99	99.81	105.80
1	5	3913	G	C2'-C3'-O3'	5.99	123.28	113.70
1	5	2744	A	N9-C1'-C2'	5.98	121.78	114.00
3	8	64	U	C2-N1-C1'	5.98	124.88	117.70
1	5	1697	G	O5'-P-OP2	5.98	117.88	110.70
49	S2	1084	A	N9-C1'-C2'	-5.98	105.42	112.00
49	S2	855	G	N9-C1'-C2'	-5.98	105.42	112.00
37	h	84	ARG	CG-CD-NE	-5.98	99.25	111.80
1	5	52	G	C2'-C3'-O3'	5.97	123.26	113.70
1	5	1523	A	O5'-P-OP1	-5.97	100.32	105.70
1	5	4979	A	N9-C1'-C2'	5.97	121.77	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	7	58	A	C2'-C3'-O3'	5.97	123.25	113.70
1	5	1495	G	N9-C1'-C2'	5.97	121.76	114.00
1	5	4871	C	O4'-C1'-N1	-5.97	103.42	108.20
14	K	124	GLU	N-CA-C	-5.97	94.89	111.00
51	SB	82	ARG	NE-CZ-NH1	-5.96	117.32	120.30
7	D	54	ARG	CB-CG-CD	5.96	127.10	111.60
47	r	103	ARG	NE-CZ-NH1	5.96	123.28	120.30
65	SP	42	ARG	NE-CZ-NH1	5.96	123.28	120.30
56	SG	191	ARG	NE-CZ-NH1	5.96	123.28	120.30
48	4	267	ASP	C-N-CD	5.96	140.92	128.40
20	Q	166	TYR	CB-CG-CD1	5.96	124.58	121.00
30	a	65	ARG	CG-CD-NE	-5.96	99.28	111.80
1	5	4473	A	C4-N9-C1'	5.96	137.02	126.30
34	e	46	ARG	NE-CZ-NH2	-5.96	117.32	120.30
49	S2	73	C	N1-C1'-C2'	5.96	121.74	114.00
49	S2	1420	G	C2'-C3'-O3'	5.95	123.22	113.70
16	M	90	ARG	CG-CD-NE	-5.95	99.31	111.80
1	5	2307	A	N9-C1'-C2'	5.95	121.73	114.00
63	SN	55	ARG	CG-CD-NE	5.95	124.28	111.80
49	S2	1114	U	C2'-C3'-O3'	5.94	123.21	113.70
1	5	2323	C	N1-C1'-C2'	-5.94	105.46	112.00
14	K	85	LEU	CD1-CG-CD2	5.94	128.33	110.50
1	5	231	U	C4'-C3'-O3'	-5.94	96.92	109.40
30	a	132	ARG	NE-CZ-NH2	-5.94	117.33	120.30
5	B	258	HIS	N-CA-C	5.94	127.03	111.00
48	4	71	LYS	C-N-CA	-5.94	106.85	121.70
1	5	2070	U	N1-C1'-C2'	5.94	121.72	114.00
1	5	669	C	C1'-O4'-C4'	-5.93	105.16	109.90
23	T	57	TYR	CA-CB-CG	5.93	124.67	113.40
1	5	3774	A	N9-C1'-C2'	5.93	121.71	114.00
6	C	102	PHE	N-CA-CB	5.93	121.27	110.60
49	S2	482	G	N9-C1'-C2'	-5.92	105.48	112.00
1	5	936	C	C4'-C3'-O3'	5.92	124.84	113.00
15	L	82	ARG	CG-CD-NE	-5.92	99.37	111.80
49	S2	1416	C	C2'-C3'-O3'	5.92	123.17	113.70
14	K	86	LYS	CB-CA-C	-5.92	98.56	110.40
1	5	2515	G	N9-C1'-C2'	-5.92	105.49	112.00
1	5	4291	G	N9-C1'-C2'	5.92	121.69	114.00
1	5	4479	A	N9-C1'-C2'	-5.92	105.49	112.00
49	S2	417	C	C2'-C3'-O3'	5.92	123.17	113.70
49	S2	1823	A	C2'-C3'-O3'	5.92	123.17	113.70
49	S2	1857	G	C2'-C3'-O3'	5.92	123.17	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	S2	795	A	N9-C1'-C2'	5.92	121.69	114.00
61	SL	92	TYR	CA-CB-CG	5.92	124.64	113.40
1	5	1894	C	N1-C1'-C2'	5.91	121.69	114.00
34	e	20	PHE	CB-CG-CD1	-5.91	116.66	120.80
1	5	4449	A	N9-C1'-C2'	-5.91	105.50	112.00
16	M	6	PHE	CB-CA-C	5.91	122.22	110.40
49	S2	848	U	C2-N3-C4	-5.91	123.45	127.00
49	S2	65	C	O4'-C1'-N1	5.91	112.93	108.20
49	S2	1309	C	C4'-C3'-O3'	5.90	124.81	113.00
1	5	1930	U	O4'-C1'-N1	-5.90	103.48	108.20
32	c	56	ARG	CD-NE-CZ	5.90	131.86	123.60
49	S2	446	G	C2'-C3'-O3'	5.90	123.14	113.70
1	5	1398	A	O5'-P-OP2	-5.90	100.39	105.70
1	5	2305	U	O4'-C4'-C3'	-5.90	98.10	104.00
1	5	2373	C	N1-C1'-C2'	5.90	121.67	114.00
1	5	33	A	N9-C1'-C2'	5.90	121.66	114.00
66	SQ	71	ARG	NE-CZ-NH1	5.90	123.25	120.30
33	d	78	ARG	NE-CZ-NH1	5.89	123.25	120.30
49	S2	474	G	C2'-C3'-O3'	5.89	123.13	113.70
48	4	196	GLU	N-CA-C	-5.89	95.10	111.00
1	5	4510	A	N9-C1'-C2'	5.89	121.65	114.00
1	5	2305	U	C5'-C4'-O4'	5.89	116.16	109.10
1	5	2322	G	C2'-C3'-O3'	5.89	123.12	113.70
1	5	4201	G	N9-C1'-C2'	5.89	121.65	114.00
1	5	1324	A	N9-C1'-C2'	5.88	121.65	114.00
49	S2	365	C	N1-C1'-C2'	-5.88	105.53	112.00
73	SX	17	ARG	CG-CD-NE	-5.88	99.44	111.80
49	S2	993	G	C5'-C4'-O4'	5.88	116.16	109.10
1	5	4670	C	O4'-C1'-N1	-5.88	103.50	108.20
8	E	275	ASN	N-CA-CB	5.88	121.19	110.60
49	S2	1273	C	N1-C1'-C2'	-5.88	105.53	112.00
1	5	53	C	N1-C1'-C2'	-5.88	105.53	112.00
1	5	4763	U	O4'-C1'-N1	5.88	112.90	108.20
61	SL	62	PHE	CB-CA-C	5.88	122.15	110.40
49	S2	1477	U	C2'-C3'-O3'	5.88	123.10	113.70
72	SW	3	ARG	CG-CD-NE	-5.87	99.47	111.80
1	5	1487	G	C2'-C3'-O3'	5.87	123.09	113.70
49	S2	1313	A	N9-C1'-C2'	5.87	121.63	114.00
1	5	2642	A	N9-C1'-C2'	-5.87	105.55	112.00
49	S2	26	U	C2'-C3'-O3'	5.87	123.08	113.70
56	SG	213	LEU	CA-CB-CG	5.86	128.79	115.30
1	5	4074	C	N1-C1'-C2'	5.86	121.62	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	S2	1367	U	C2'-C3'-O3'	5.86	123.08	113.70
1	5	1815	G	C1'-O4'-C4'	-5.86	105.21	109.90
53	SD	67	ARG	CG-CD-NE	5.86	124.11	111.80
48	4	247	ALA	N-CA-CB	5.86	118.30	110.10
1	5	4199	C	O4'-C1'-C2'	-5.86	99.94	105.80
51	SB	67	PHE	N-CA-CB	-5.85	100.06	110.60
48	4	432	PRO	O-C-N	-5.85	113.34	122.70
49	S2	1868	U	N1-C1'-C2'	5.85	121.61	114.00
11	H	54	ARG	NE-CZ-NH2	-5.85	117.38	120.30
48	4	60	ARG	NE-CZ-NH1	-5.85	117.38	120.30
49	S2	1356	G	N9-C1'-C2'	5.85	121.60	114.00
59	SJ	45	ARG	NE-CZ-NH2	-5.85	117.38	120.30
15	L	34	ARG	NE-CZ-NH2	-5.84	117.38	120.30
1	5	920	C	C5'-C4'-O4'	5.84	116.11	109.10
74	SY	76	TYR	CB-CG-CD1	-5.84	117.50	121.00
1	5	657	C	C2'-C3'-O3'	5.84	123.04	113.70
49	S2	30	C	N1-C1'-C2'	5.84	121.59	114.00
1	5	40	G	N9-C1'-C2'	5.83	121.58	114.00
1	5	2448	G	N9-C1'-C2'	5.83	121.58	114.00
1	5	72	C	C1'-O4'-C4'	-5.83	105.23	109.90
1	5	2586	G	O4'-C1'-N9	5.83	112.86	108.20
1	5	4481	U	C5'-C4'-O4'	5.83	116.10	109.10
12	I	119	PHE	CB-CG-CD2	-5.83	116.72	120.80
1	5	4215	C	O4'-C1'-C2'	-5.82	99.98	105.80
46	q	68	HIS	N-CA-CB	5.82	121.08	110.60
49	S2	441	C	C4'-C3'-O3'	-5.82	97.17	109.40
1	5	934	C	O4'-C1'-N1	-5.82	103.55	108.20
7	D	265	ARG	NE-CZ-NH2	-5.82	117.39	120.30
49	S2	92	A	O4'-C1'-N9	-5.82	103.55	108.20
59	SJ	108	ARG	NE-CZ-NH1	5.82	123.21	120.30
49	S2	1835	A	N9-C1'-C2'	5.81	121.56	114.00
1	5	85	G	N9-C1'-C2'	-5.81	105.61	112.00
49	S2	1658	G	N9-C1'-C2'	-5.81	105.61	112.00
49	S2	548	C	C2'-C3'-O3'	5.81	123.00	113.70
1	5	2268	A	O4'-C1'-N9	-5.81	103.55	108.20
1	5	4463	U	O4'-C1'-N1	5.81	112.85	108.20
49	S2	454	U	N1-C1'-C2'	5.80	121.55	114.00
54	SE	121	TYR	CA-CB-CG	-5.80	102.37	113.40
59	SJ	48	PHE	CB-CG-CD1	-5.80	116.74	120.80
12	I	94	PHE	CB-CG-CD2	-5.80	116.74	120.80
34	e	60	TYR	CB-CA-C	5.80	122.00	110.40
4	A	63	PHE	CB-CG-CD2	-5.80	116.74	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	S2	918	U	O4'-C1'-N1	5.80	112.84	108.20
1	5	1341	U	N1-C1'-C2'	5.79	121.53	114.00
1	5	4548	A	C5'-C4'-O4'	5.79	116.05	109.10
22	S	84	TYR	CB-CG-CD1	5.79	124.48	121.00
49	S2	649	U	O5'-P-OP1	-5.79	100.49	105.70
1	5	1506	G	N9-C1'-C2'	-5.79	105.63	112.00
1	5	1650	A	C4-N9-C1'	-5.79	115.88	126.30
1	5	4473	A	C8-N9-C1'	-5.79	117.28	127.70
49	S2	563	G	N9-C1'-C2'	-5.79	105.63	112.00
3	8	34	U	C3'-C2'-C1'	5.79	106.13	101.50
52	SC	241	PHE	CB-CG-CD2	-5.79	116.75	120.80
58	SI	112	TRP	CA-CB-CG	5.79	124.69	113.70
49	S2	621	C	N1-C1'-C2'	-5.78	105.64	112.00
1	5	4481	U	N1-C1'-C2'	5.78	121.51	114.00
4	A	147	ARG	NE-CZ-NH1	5.78	123.19	120.30
1	5	197	A	N9-C1'-C2'	5.78	121.51	114.00
3	8	81	C	C5'-C4'-C3'	5.78	125.24	116.00
5	B	117	ARG	CG-CD-NE	-5.77	99.67	111.80
48	4	5	THR	C-N-CA	-5.77	107.27	121.70
1	5	2807	A	C2'-C3'-O3'	5.77	122.94	113.70
28	Y	121	ARG	NE-CZ-NH1	5.77	123.19	120.30
45	p	14	TYR	CB-CA-C	5.77	121.94	110.40
51	SB	205	TYR	CB-CG-CD1	-5.77	117.54	121.00
3	8	115	G	C2'-C3'-O3'	5.77	122.93	113.70
17	N	30	TYR	N-CA-CB	-5.77	100.22	110.60
1	5	292	G	C4-N9-C1'	-5.77	119.00	126.50
51	SB	133	TYR	CA-CB-CG	5.76	124.35	113.40
35	f	6	TRP	N-CA-C	-5.76	95.45	111.00
1	5	2769	U	O4'-C1'-N1	5.76	112.81	108.20
1	5	3691	G	N9-C1'-C2'	5.76	121.48	114.00
22	S	97	TYR	CA-CB-CG	-5.75	102.47	113.40
7	D	35	ARG	NE-CZ-NH2	-5.75	117.42	120.30
49	S2	662	G	O4'-C1'-N9	-5.75	103.60	108.20
49	S2	848	U	C6-N1-C1'	-5.75	113.14	121.20
57	SH	189	PHE	CB-CA-C	5.75	121.91	110.40
48	4	685	TRP	CB-CG-CD2	-5.75	119.12	126.60
79	Sd	40	ARG	NE-CZ-NH1	5.75	123.17	120.30
68	SS	86	ARG	NE-CZ-NH2	5.75	123.17	120.30
49	S2	495	U	C1'-C2'-O2'	-5.75	93.36	110.60
54	SE	99	PHE	CB-CG-CD1	5.75	124.82	120.80
20	Q	32	TYR	CA-CB-CG	5.74	124.31	113.40
49	S2	855	G	C2'-C3'-O3'	5.74	122.89	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	S2	1832	A	O5'-P-OP2	-5.74	100.53	105.70
1	5	1398	A	O5'-P-OP1	5.74	117.58	110.70
48	4	3	ASN	N-CA-C	-5.74	95.51	111.00
76	Sa	87	ARG	NE-CZ-NH2	5.74	123.17	120.30
1	5	2405	G	N9-C1'-C2'	-5.74	105.69	112.00
1	5	111	C	N1-C1'-C2'	-5.73	105.70	112.00
49	S2	662	G	N9-C1'-C2'	5.73	121.45	114.00
49	S2	594	A	C8-N9-C1'	-5.73	117.39	127.70
1	5	2360	A	N9-C1'-C2'	5.72	121.44	114.00
28	Y	18	HIS	N-CA-CB	5.72	120.90	110.60
54	SE	18	TRP	CB-CA-C	5.72	121.85	110.40
1	5	88	A	N9-C1'-C2'	5.72	121.44	114.00
68	SS	82	TRP	CA-CB-CG	5.72	124.57	113.70
1	5	4385	A	C2'-C3'-O3'	-5.72	96.92	109.50
8	E	278	TYR	CB-CG-CD1	-5.72	117.57	121.00
1	5	703	G	C1'-O4'-C4'	-5.72	105.33	109.90
1	5	1438	U	C2'-C3'-O3'	5.72	122.85	113.70
3	8	79	G	N9-C1'-C2'	5.71	121.43	114.00
1	5	1285	U	O4'-C1'-N1	5.71	112.77	108.20
37	h	119	PHE	CB-CG-CD2	-5.71	116.80	120.80
1	5	236	G	N9-C1'-C2'	5.71	121.42	114.00
48	4	669	VAL	CB-CA-C	5.71	122.25	111.40
1	5	1696	C	C2'-C3'-O3'	5.71	122.83	113.70
1	5	2119	C	C1'-O4'-C4'	-5.71	105.33	109.90
1	5	2643	G	C2'-C3'-O3'	5.71	122.83	113.70
1	5	4125	C	C4'-C3'-O3'	-5.71	97.41	109.40
9	F	136	ARG	CG-CD-NE	-5.71	99.81	111.80
68	SS	130	ARG	NE-CZ-NH2	-5.71	117.45	120.30
74	SY	63	HIS	N-CA-CB	5.71	120.87	110.60
49	S2	146	G	N9-C1'-C2'	-5.70	105.73	112.00
1	5	2553	A	C1'-O4'-C4'	-5.70	105.34	109.90
3	8	135	C	N1-C1'-C2'	5.70	121.41	114.00
9	F	100	ILE	CG1-CB-CG2	5.70	123.94	111.40
4	A	34	PHE	N-CA-CB	5.70	120.85	110.60
22	S	10	TYR	CB-CG-CD1	-5.70	117.58	121.00
1	5	3686	G	N9-C1'-C2'	-5.69	105.74	112.00
1	5	84	A	C4-N9-C1'	-5.69	116.06	126.30
1	5	1281	G	C5'-C4'-O4'	5.69	115.93	109.10
28	Y	61	HIS	N-CA-CB	5.69	120.84	110.60
1	5	2118	G	O4'-C4'-C3'	-5.69	98.31	104.00
82	Sg	83	TRP	CA-CB-CG	-5.68	102.90	113.70
49	S2	1842	C	N1-C1'-C2'	5.68	121.39	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5	1642	A	P-O3'-C3'	5.68	126.52	119.70
1	5	1849	U	O5'-P-OP1	5.68	117.52	110.70
1	5	1494	U	N1-C1'-C2'	5.68	121.38	114.00
48	4	420	LEU	CB-CG-CD2	-5.68	101.34	111.00
21	R	110	ARG	NE-CZ-NH1	5.68	123.14	120.30
31	b	17	HIS	CB-CA-C	-5.68	99.05	110.40
2	7	7	G	C5'-C4'-O4'	5.67	115.91	109.10
4	A	37	ARG	CG-CD-NE	-5.67	99.89	111.80
8	E	268	ARG	NE-CZ-NH2	-5.67	117.46	120.30
49	S2	504	G	N9-C1'-C2'	5.67	121.38	114.00
56	SG	156	TYR	CA-CB-CG	-5.67	102.62	113.40
1	5	2282	A	N9-C1'-C2'	5.67	121.37	114.00
54	SE	99	PHE	CB-CG-CD2	-5.67	116.83	120.80
49	S2	369	C	N1-C1'-C2'	5.67	121.36	114.00
49	S2	1546	G	N9-C1'-C2'	5.67	121.36	114.00
1	5	85	G	O4'-C1'-C2'	-5.66	100.14	105.80
1	5	1264	C	C2'-C3'-O3'	5.66	122.76	113.70
41	l	12	PHE	CB-CG-CD2	-5.66	116.84	120.80
48	4	358	LEU	C-N-CD	-5.66	108.14	120.60
1	5	100	C	C5'-C4'-O4'	5.66	115.89	109.10
20	Q	32	TYR	CB-CG-CD2	-5.66	117.60	121.00
49	S2	1243	U	C2'-C3'-O3'	5.66	122.76	113.70
8	E	101	ARG	NE-CZ-NH2	5.66	123.13	120.30
48	4	112	SER	CA-C-N	-5.66	104.75	117.20
21	R	97	ARG	CG-CD-NE	-5.66	99.92	111.80
49	S2	1291	A	C3'-C2'-C1'	5.66	106.03	101.50
1	5	1398	A	O4'-C1'-N9	5.66	112.72	108.20
1	5	3776	G	N9-C1'-C2'	-5.66	105.78	112.00
1	5	2088	A	N9-C1'-C2'	-5.65	105.78	112.00
1	5	2383	C	N1-C1'-C2'	5.65	121.34	114.00
61	SL	89	ARG	CG-CD-NE	-5.65	99.93	111.80
1	5	4693	C	O4'-C4'-C3'	-5.65	98.35	104.00
6	C	200	ARG	NE-CZ-NH2	-5.65	117.48	120.30
34	e	75	ARG	CG-CD-NE	-5.65	99.94	111.80
1	5	4966	A	C8-N9-C1'	-5.64	117.54	127.70
49	S2	1395	C	O4'-C1'-C2'	-5.64	100.16	105.80
11	H	180	TYR	CA-CB-CG	5.64	124.12	113.40
74	SY	61	ARG	CG-CD-NE	-5.64	99.95	111.80
5	B	246	ARG	NE-CZ-NH1	5.64	123.12	120.30
27	X	137	TYR	CB-CG-CD1	5.64	124.38	121.00
49	S2	382	C	N1-C1'-C2'	5.64	121.33	114.00
20	Q	104	ARG	NE-CZ-NH1	5.64	123.12	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5	1639	U	N1-C1'-C2'	5.63	121.32	114.00
48	4	56	PHE	N-CA-CB	5.63	120.74	110.60
49	S2	746	C	C2'-C3'-O3'	5.63	122.72	113.70
1	5	1876	U	C2'-C3'-O3'	5.63	122.71	113.70
73	SX	17	ARG	NE-CZ-NH1	-5.63	117.48	120.30
20	Q	176	ARG	CG-CD-NE	-5.63	99.97	111.80
39	j	27	TYR	N-CA-CB	5.63	120.74	110.60
1	5	514	U	C4'-C3'-O3'	5.63	124.26	113.00
1	5	370	U	N1-C1'-C2'	5.63	121.32	114.00
1	5	118	C	C2'-C3'-O3'	5.63	122.70	113.70
1	5	5062	G	P-O5'-C5'	5.63	129.90	120.90
5	B	169	ARG	CG-CD-NE	5.62	123.61	111.80
46	q	24	TYR	C-N-CD	5.62	140.21	128.40
49	S2	1085	C	N1-C1'-C2'	5.62	121.31	114.00
1	5	3773	U	N1-C1'-C2'	-5.62	105.81	112.00
6	C	311	ARG	CG-CD-NE	-5.62	99.99	111.80
49	S2	649	U	N1-C1'-C2'	5.62	121.31	114.00
49	S2	943	U	C5'-C4'-O4'	5.62	115.84	109.10
1	5	2686	G	N9-C1'-C2'	-5.62	105.82	112.00
49	S2	60	A	C1'-C2'-O2'	-5.62	93.74	110.60
68	SS	124	ARG	NE-CZ-NH2	-5.62	117.49	120.30
1	5	2077	C	N1-C1'-C2'	-5.61	105.83	112.00
6	C	350	ARG	NE-CZ-NH2	-5.61	117.49	120.30
48	4	478	PHE	CB-CA-C	5.61	121.63	110.40
1	5	4753	U	C2'-C3'-O3'	5.61	122.68	113.70
15	L	7	GLY	N-CA-C	-5.61	99.07	113.10
1	5	1539	G	C2'-C3'-O3'	5.61	122.67	113.70
14	K	147	HIS	C-N-CD	5.61	140.18	128.40
22	S	94	TYR	CA-CB-CG	-5.61	102.74	113.40
39	j	66	HIS	CA-CB-CG	-5.61	104.07	113.60
10	G	57	TRP	CA-CB-CG	-5.61	103.05	113.70
1	5	1932	A	N9-C1'-C2'	5.60	121.28	114.00
20	Q	68	ARG	NE-CZ-NH2	-5.60	117.50	120.30
1	5	2857	A	C1'-C2'-O2'	-5.60	93.80	110.60
49	S2	821	G	O4'-C4'-C3'	-5.60	98.40	104.00
1	5	2450	G	N9-C1'-C2'	-5.60	105.84	112.00
47	r	21	ASN	CB-CA-C	5.60	121.59	110.40
64	SO	121	ARG	NE-CZ-NH1	5.60	123.10	120.30
65	SP	81	ARG	NE-CZ-NH1	5.60	123.10	120.30
1	5	2665	U	N1-C1'-C2'	-5.59	105.85	112.00
1	5	2474	G	C2'-C3'-O3'	5.59	122.64	113.70
1	5	2487	G	C2'-C3'-O3'	5.59	122.64	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	8	39	G	N9-C1'-C2'	-5.59	105.85	112.00
1	5	85	G	O4'-C1'-N9	5.59	112.67	108.20
1	5	977	C	C4'-C3'-C2'	-5.59	97.01	102.60
1	5	1295	C	N1-C1'-C2'	5.59	121.26	114.00
36	g	9	ARG	CG-CD-NE	-5.58	100.07	111.80
1	5	4114	C	N1-C1'-C2'	5.58	121.26	114.00
46	q	200	ASN	C-N-CD	5.58	140.13	128.40
1	5	1501	C	C1'-O4'-C4'	-5.58	105.43	109.90
29	Z	121	ARG	NE-CZ-NH2	-5.58	117.51	120.30
5	B	169	ARG	NE-CZ-NH2	-5.58	117.51	120.30
1	5	490	C	N1-C1'-C2'	5.58	121.25	114.00
15	L	6	ASN	N-CA-CB	5.58	120.64	110.60
49	S2	26	U	O4'-C1'-C2'	-5.58	100.22	105.80
57	SH	116	ARG	NE-CZ-NH1	5.58	123.09	120.30
80	Se	38	TYR	CA-CB-CG	5.58	124.00	113.40
1	5	1632	A	O4'-C1'-N9	5.57	112.66	108.20
49	S2	1376	A	C2'-C3'-O3'	5.57	122.62	113.70
1	5	3773	U	C4'-C3'-C2'	-5.57	97.03	102.60
20	Q	178	ARG	CG-CD-NE	-5.57	100.10	111.80
15	L	163	ARG	NE-CZ-NH1	5.57	123.08	120.30
51	SB	196	ASP	CB-CG-OD1	5.57	123.31	118.30
1	5	4950	U	N1-C1'-C2'	5.57	121.24	114.00
12	I	213	HIS	CB-CA-C	5.57	121.53	110.40
9	F	72	ARG	NE-CZ-NH2	-5.56	117.52	120.30
46	q	123	VAL	C-N-CD	5.56	140.07	128.40
1	5	1521	C	C2'-C3'-O3'	5.56	122.59	113.70
1	5	4076	G	C1'-O4'-C4'	-5.56	105.45	109.90
1	5	4767	C	C2'-C3'-O3'	5.56	122.59	113.70
54	SE	51	ARG	NE-CZ-NH1	-5.56	117.52	120.30
59	SJ	150	ARG	NE-CZ-NH1	5.56	123.08	120.30
49	S2	642	U	O5'-P-OP2	-5.55	100.70	105.70
11	H	115	ARG	CG-CD-NE	-5.55	100.14	111.80
1	5	1614	C	N1-C1'-C2'	-5.55	105.90	112.00
17	N	182	HIS	N-CA-CB	5.55	120.59	110.60
1	5	1631	A	C5'-C4'-O4'	5.55	115.76	109.10
7	D	210	TYR	CB-CG-CD1	-5.55	117.67	121.00
29	Z	28	ASN	N-CA-C	-5.55	96.03	111.00
48	4	855	LEU	C-N-CA	5.54	135.56	121.70
49	S2	661	U	N1-C1'-C2'	-5.54	105.90	112.00
1	5	2396	A	N9-C1'-C2'	5.54	121.20	114.00
1	5	4723	A	C5'-C4'-O4'	5.54	115.75	109.10
1	5	1672	U	C6-N1-C1'	-5.54	113.45	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	p	18	TYR	CA-CB-CG	5.54	123.92	113.40
9	F	98	ARG	NE-CZ-NH1	5.54	123.07	120.30
49	S2	457	C	N1-C1'-C2'	-5.54	105.91	112.00
1	5	956	A	N9-C1'-C2'	-5.53	105.91	112.00
1	5	1398	A	C2'-C3'-O3'	5.53	122.56	113.70
48	4	52	GLY	C-N-CA	5.53	135.53	121.70
1	5	687	U	N1-C1'-C2'	-5.53	105.92	112.00
1	5	2468	U	C4'-C3'-O3'	5.53	124.06	113.00
1	5	4975	G	O4'-C1'-N9	5.53	112.62	108.20
2	7	75	G	O4'-C1'-N9	5.53	112.62	108.20
34	e	35	TRP	CB-CG-CD1	-5.53	119.81	127.00
1	5	3735	G	C4'-C3'-O3'	-5.53	97.79	109.40
49	S2	844	U	C1'-O4'-C4'	-5.53	105.48	109.90
49	S2	393	U	O4'-C1'-N1	5.53	112.62	108.20
1	5	4944	C	N1-C1'-C2'	5.52	121.18	114.00
1	5	1359	G	N9-C1'-C2'	5.52	121.18	114.00
24	U	90	TYR	CB-CA-C	-5.52	99.36	110.40
56	SG	191	ARG	NE-CZ-NH2	-5.52	117.54	120.30
20	Q	184	ARG	CB-CG-CD	5.52	125.95	111.60
30	a	61	TYR	N-CA-C	-5.52	96.10	111.00
49	S2	924	G	N9-C1'-C2'	-5.52	105.93	112.00
1	5	2385	U	N1-C1'-C2'	5.52	121.17	114.00
34	e	47	ARG	NE-CZ-NH2	-5.52	117.54	120.30
1	5	2398	U	C2'-C3'-O3'	5.52	122.53	113.70
14	K	44	ASP	CB-CG-OD2	-5.51	113.34	118.30
1	5	4326	G	N9-C1'-C2'	5.51	121.17	114.00
51	SB	198	GLU	OE1-CD-OE2	-5.51	116.69	123.30
1	5	1282	G	O5'-P-OP2	5.51	117.31	110.70
55	SF	204	ARG	NE-CZ-NH1	5.51	123.06	120.30
1	5	3663	A	O4'-C1'-N9	-5.51	103.79	108.20
8	E	278	TYR	CB-CG-CD2	-5.51	117.69	121.00
1	5	421	C	C2'-C3'-O3'	5.51	122.51	113.70
49	S2	839	C	N1-C1'-C2'	5.51	121.16	114.00
65	SP	47	ARG	NE-CZ-NH1	5.51	123.05	120.30
1	5	1534	A	P-O5'-C5'	5.50	129.70	120.90
1	5	3667	C	C2'-C3'-O3'	5.50	122.51	113.70
14	K	85	LEU	N-CA-CB	5.50	121.41	110.40
47	r	45	HIS	N-CA-CB	-5.50	100.70	110.60
1	5	2583	C	C2'-C3'-O3'	5.50	122.50	113.70
1	5	2754	G	N9-C1'-C2'	-5.50	105.95	112.00
1	5	1827	C	N1-C1'-C2'	5.50	121.15	114.00
24	U	101	ARG	NE-CZ-NH1	5.50	123.05	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5	3905	A	N9-C1'-C2'	-5.49	105.96	112.00
1	5	4909	A	C1'-O4'-C4'	-5.49	105.50	109.90
1	5	4978	G	N9-C1'-C2'	5.49	121.14	114.00
20	Q	26	ARG	NE-CZ-NH1	5.49	123.05	120.30
8	E	153	HIS	N-CA-CB	-5.49	100.72	110.60
1	5	2852	U	O4'-C1'-C2'	-5.49	100.31	105.80
48	4	267	ASP	CA-C-O	-5.49	108.57	120.10
49	S2	447	A	C1'-O4'-C4'	-5.49	105.51	109.90
1	5	3634	G	C2'-C3'-O3'	5.49	122.48	113.70
10	G	235	ARG	NE-CZ-NH2	-5.48	117.56	120.30
32	c	78	ASN	N-CA-CB	5.48	120.47	110.60
49	S2	1292	C	O4'-C4'-C3'	-5.48	98.52	104.00
1	5	1734	G	N9-C1'-C2'	-5.48	105.97	112.00
20	Q	75	ARG	NE-CZ-NH2	-5.48	117.56	120.30
49	S2	1432	U	N1-C1'-C2'	5.48	121.12	114.00
1	5	210	C	N1-C1'-C2'	5.48	121.12	114.00
1	5	3912	U	C1'-C2'-O2'	-5.48	94.17	110.60
1	5	4731	G	N9-C1'-C2'	5.48	121.12	114.00
35	f	6	TRP	CB-CA-C	5.48	121.36	110.40
68	SS	11	HIS	CB-CA-C	5.48	121.35	110.40
1	5	2268	A	C2'-C3'-O3'	5.47	122.46	113.70
1	5	2858	A	N9-C1'-C2'	5.47	121.12	114.00
1	5	1211	G	N9-C1'-C2'	-5.47	105.98	112.00
1	5	2360	A	O4'-C1'-N9	-5.47	103.82	108.20
1	5	4713	G	C2'-C3'-O3'	5.47	122.46	113.70
14	K	114	ARG	NE-CZ-NH2	-5.47	117.56	120.30
49	S2	868	G	N9-C1'-C2'	-5.47	105.98	112.00
52	SC	97	PHE	CB-CG-CD2	-5.47	116.97	120.80
1	5	2056	G	N9-C1'-C2'	-5.47	105.98	112.00
21	R	60	ARG	NE-CZ-NH1	5.47	123.04	120.30
4	A	211	PHE	CB-CG-CD2	-5.47	116.97	120.80
49	S2	1419	C	O5'-P-OP2	-5.47	100.78	105.70
1	5	3886	G	N9-C1'-C2'	-5.47	105.98	112.00
1	5	4873	G	N9-C1'-C2'	5.46	121.10	114.00
49	S2	381	C	C3'-C2'-C1'	5.46	105.87	101.50
1	5	2117	G	O4'-C4'-C3'	-5.46	98.54	104.00
1	5	3906	A	N9-C1'-C2'	-5.46	105.99	112.00
63	SN	64	ARG	NE-CZ-NH1	5.46	123.03	120.30
64	SO	128	ARG	NE-CZ-NH2	-5.46	117.57	120.30
41	l	45	ARG	CB-CG-CD	5.46	125.79	111.60
1	5	1626	G	N9-C1'-C2'	-5.46	106.00	112.00
1	5	4909	A	O4'-C1'-N9	5.46	112.56	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	SD	65	ARG	NE-CZ-NH1	5.46	123.03	120.30
22	S	152	PHE	CB-CG-CD2	-5.45	116.98	120.80
49	S2	31	U	N1-C1'-C2'	5.45	121.09	114.00
49	S2	1698	C	N1-C1'-C2'	5.45	121.08	114.00
1	5	977	C	C5'-C4'-O4'	5.45	115.64	109.10
49	S2	604	A	C2'-C3'-O3'	5.45	122.42	113.70
27	X	129	ARG	NE-CZ-NH2	5.45	123.02	120.30
34	e	43	ASN	CB-CA-C	5.44	121.29	110.40
1	5	1464	C	N1-C1'-C2'	-5.44	106.01	112.00
1	5	4076	G	O4'-C1'-N9	5.44	112.56	108.20
38	i	26	HIS	N-CA-CB	5.44	120.39	110.60
49	S2	1315	U	C2'-C3'-O3'	5.44	122.40	113.70
22	S	171	ARG	CG-CD-NE	5.44	123.22	111.80
1	5	2054	U	C1'-O4'-C4'	-5.44	105.55	109.90
34	e	36	ARG	NE-CZ-NH1	-5.44	117.58	120.30
49	S2	619	A	C3'-C2'-C1'	-5.44	97.15	101.50
5	B	117	ARG	NE-CZ-NH1	5.44	123.02	120.30
1	5	1852	U	N1-C1'-C2'	-5.43	106.02	112.00
1	5	2673	G	C1'-O4'-C4'	-5.43	105.55	109.90
14	K	28	LEU	N-CA-C	-5.43	96.33	111.00
1	5	372	A	N9-C1'-C2'	5.43	121.06	114.00
1	5	398	A	N9-C1'-C2'	5.43	121.06	114.00
4	A	16	PHE	CB-CA-C	5.43	121.26	110.40
14	K	114	ARG	NH1-CZ-NH2	-5.43	113.42	119.40
27	X	117	TYR	CB-CA-C	5.43	121.27	110.40
34	e	36	ARG	NE-CZ-NH2	5.43	123.02	120.30
1	5	1365	C	C4'-C3'-O3'	5.43	123.86	113.00
1	5	3875	G	C2'-C3'-O3'	5.43	122.39	113.70
61	SL	100	ASN	N-CA-C	5.43	125.66	111.00
38	i	29	ARG	NE-CZ-NH1	5.43	123.01	120.30
47	r	103	ARG	NE-CZ-NH2	-5.43	117.59	120.30
49	S2	1557	C	N1-C1'-C2'	-5.43	106.03	112.00
1	5	2325	C	O4'-C1'-C2'	-5.42	100.38	105.80
1	5	4579	U	C6-N1-C1'	-5.42	113.61	121.20
1	5	4745	G	N9-C1'-C2'	5.42	121.05	114.00
5	B	119	TYR	CB-CA-C	5.42	121.25	110.40
1	5	1724	G	C8-N9-C1'	-5.42	119.95	127.00
37	h	70	ARG	NE-CZ-NH2	5.42	123.01	120.30
8	E	129	PHE	CB-CG-CD1	5.42	124.60	120.80
46	q	69	LEU	C-N-CA	5.42	135.25	121.70
1	5	280	G	C1'-O4'-C4'	-5.42	105.56	109.90
1	5	4915	G	C2'-C3'-O3'	5.42	122.37	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	S2	579	C	N1-C1'-C2'	-5.42	106.04	112.00
22	S	28	TYR	CA-CB-CG	5.41	123.69	113.40
1	5	1667	G	C2'-C3'-O3'	5.41	122.36	113.70
1	5	3898	G	C2'-C3'-O3'	5.41	122.36	113.70
18	O	128	ARG	NE-CZ-NH2	5.41	123.01	120.30
25	V	14	PHE	CB-CG-CD2	-5.41	117.01	120.80
64	SO	117	ARG	NE-CZ-NH1	-5.41	117.59	120.30
1	5	4481	U	C2-N1-C1'	5.41	124.19	117.70
31	b	6	ASN	CB-CA-C	5.41	121.22	110.40
1	5	1272	C	O4'-C1'-C2'	-5.41	100.39	105.80
1	5	2014	C	C2'-C3'-O3'	5.41	122.35	113.70
10	G	49	ARG	CG-CD-NE	-5.40	100.45	111.80
48	4	760	TYR	CB-CA-C	-5.40	99.59	110.40
1	5	3648	A	C1'-O4'-C4'	-5.40	105.58	109.90
44	o	26	TYR	CB-CG-CD1	5.40	124.24	121.00
1	5	693	C	C2'-C3'-O3'	5.39	122.33	113.70
1	5	4280	A	C4'-C3'-C2'	-5.39	97.21	102.60
21	R	108	ARG	CD-NE-CZ	5.39	131.15	123.60
49	S2	1643	U	C1'-C2'-O2'	-5.39	94.43	110.60
1	5	293	G	C2'-C3'-O3'	5.39	122.32	113.70
49	S2	578	C	C2'-C3'-O3'	5.39	122.32	113.70
19	P	42	ARG	CG-CD-NE	5.38	123.11	111.80
49	S2	444	G	O4'-C1'-C2'	-5.38	100.42	105.80
49	S2	1662	U	N1-C1'-C2'	-5.38	106.08	112.00
1	5	2348	G	O4'-C1'-N9	-5.38	103.89	108.20
42	m	106	ARG	NE-CZ-NH1	5.38	122.99	120.30
17	N	192	TRP	N-CA-CB	-5.38	100.92	110.60
20	Q	174	PHE	CB-CG-CD1	-5.38	117.04	120.80
49	S2	1415	C	N1-C1'-C2'	5.38	120.99	114.00
1	5	2272	C	C1'-C2'-O2'	-5.37	94.48	110.60
69	ST	67	ARG	NE-CZ-NH1	5.37	122.99	120.30
1	5	1588	U	N1-C1'-C2'	5.37	120.98	114.00
1	5	4975	G	N9-C1'-C2'	-5.37	106.09	112.00
3	8	68	G	N9-C1'-C2'	5.37	120.97	114.00
13	J	32	ARG	CG-CD-NE	-5.37	100.53	111.80
22	S	81	TRP	N-CA-C	-5.37	96.51	111.00
2	7	59	G	N9-C1'-C2'	-5.36	106.10	112.00
8	E	236	TYR	CA-CB-CG	-5.36	103.21	113.40
38	i	39	PHE	CB-CG-CD1	-5.36	117.05	120.80
49	S2	426	A	C4'-C3'-O3'	5.36	123.72	113.00
1	5	1975	G	O4'-C1'-N9	-5.36	103.91	108.20
1	5	3625	G	C4'-C3'-O3'	-5.36	98.15	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
59	SJ	64	ASP	CB-CG-OD1	-5.36	113.48	118.30
4	A	19	HIS	N-CA-CB	-5.35	100.96	110.60
49	S2	1567	G	C1'-O4'-C4'	-5.35	105.62	109.90
49	S2	1292	C	C5'-C4'-C3'	5.35	124.56	116.00
1	5	3590	G	C2'-C3'-O3'	5.35	122.26	113.70
1	5	4228	G	O4'-C1'-N9	5.35	112.48	108.20
49	S2	1136	U	N1-C1'-C2'	5.35	120.95	114.00
1	5	703	G	N9-C1'-C2'	-5.34	106.12	112.00
1	5	82	U	N1-C1'-C2'	-5.34	106.12	112.00
3	8	34	U	C2-N1-C1'	-5.34	111.29	117.70
49	S2	56	G	N9-C1'-C2'	5.34	120.94	114.00
1	5	1390	G	N9-C1'-C2'	-5.34	106.13	112.00
1	5	3626	G	N9-C1'-C2'	-5.34	106.13	112.00
1	5	4302	U	N1-C1'-C2'	-5.34	106.13	112.00
11	H	115	ARG	CA-CB-CG	5.34	125.15	113.40
1	5	911	U	C2'-C3'-O3'	5.34	122.24	113.70
1	5	4883	C	O4'-C1'-N1	5.33	112.47	108.20
7	D	20	PHE	CB-CA-C	5.33	121.06	110.40
12	I	139	ARG	CB-CG-CD	-5.33	97.73	111.60
63	SN	55	ARG	NE-CZ-NH1	5.33	122.97	120.30
1	5	416	U	N1-C1'-C2'	5.33	120.93	114.00
5	B	62	ARG	NE-CZ-NH2	-5.33	117.63	120.30
40	k	16	ARG	NE-CZ-NH1	5.33	122.97	120.30
49	S2	438	G	N9-C1'-C2'	5.33	120.93	114.00
49	S2	1666	C	N1-C1'-C2'	5.33	120.93	114.00
1	5	215	C	C4'-C3'-O3'	-5.33	98.22	109.40
1	5	3726	A	N9-C1'-C2'	5.33	120.92	114.00
23	T	140	PHE	CB-CA-C	-5.33	99.75	110.40
81	Sf	148	TYR	C-N-CA	5.33	135.02	121.70
9	F	136	ARG	CA-CB-CG	5.32	125.11	113.40
74	SY	20	ARG	NE-CZ-NH2	5.32	122.96	120.30
73	SX	17	ARG	NE-CZ-NH2	5.32	122.96	120.30
37	h	72	PHE	CB-CG-CD2	-5.32	117.08	120.80
49	S2	553	U	N1-C1'-C2'	5.32	120.92	114.00
78	Sc	44	ARG	CD-NE-CZ	5.32	131.05	123.60
27	X	79	PHE	CB-CG-CD1	5.32	124.52	120.80
67	SR	33	ARG	CG-CD-NE	-5.32	100.64	111.80
7	D	66	TYR	CB-CG-CD1	5.32	124.19	121.00
46	q	165	ASP	CB-CG-OD2	5.31	123.08	118.30
49	S2	1034	A	N9-C1'-C2'	5.31	120.91	114.00
17	N	192	TRP	CB-CG-CD1	-5.31	120.10	127.00
49	S2	646	G	N9-C1'-C2'	-5.31	106.16	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	E	212	TYR	CA-CB-CG	5.31	123.49	113.40
12	I	98	ARG	NE-CZ-NH2	5.31	122.95	120.30
25	V	97	TYR	CB-CA-C	5.31	121.02	110.40
13	J	147	ARG	NE-CZ-NH2	-5.30	117.65	120.30
1	5	1632	A	N9-C1'-C2'	-5.30	106.17	112.00
14	K	44	ASP	CB-CG-OD1	5.30	123.07	118.30
17	N	143	ARG	NE-CZ-NH2	-5.30	117.65	120.30
47	r	77	TYR	CB-CG-CD2	-5.30	117.82	121.00
48	4	55	ARG	C-N-CA	5.30	134.95	121.70
62	SM	26	LEU	CA-CB-CG	5.30	127.49	115.30
1	5	2056	G	P-O5'-C5'	-5.30	112.42	120.90
1	5	4528	G	O4'-C1'-C2'	-5.30	100.50	105.80
15	L	198	ARG	NE-CZ-NH2	-5.30	117.65	120.30
1	5	3753	G	C2'-C3'-O3'	5.29	122.17	113.70
50	SA	39	TYR	CA-CB-CG	5.29	123.46	113.40
1	5	212	A	N9-C1'-C2'	5.29	120.88	114.00
48	4	826	ASP	N-CA-C	-5.29	96.70	111.00
49	S2	1202	U	C2'-C3'-O3'	5.29	122.17	113.70
41	l	45	ARG	CG-CD-NE	-5.29	100.69	111.80
69	ST	83	GLN	CA-CB-CG	5.29	125.04	113.40
52	SC	236	PHE	CB-CG-CD1	-5.29	117.10	120.80
58	SI	49	ARG	NE-CZ-NH2	-5.29	117.66	120.30
1	5	2817	C	C2'-C3'-O3'	5.29	122.16	113.70
6	C	110	ARG	NE-CZ-NH1	5.29	122.94	120.30
49	S2	114	G	N9-C1'-C2'	-5.29	106.19	112.00
20	Q	75	ARG	CG-CD-NE	5.28	122.89	111.80
61	SL	17	PHE	N-CA-CB	5.28	120.11	110.60
1	5	3692	A	N9-C1'-C2'	-5.28	106.19	112.00
49	S2	983	A	C5'-C4'-O4'	5.28	115.44	109.10
1	5	3739	C	C2'-C3'-O3'	5.28	122.15	113.70
49	S2	800	U	O4'-C4'-C3'	-5.28	98.72	104.00
1	5	2263	A	C2'-C3'-O3'	5.28	122.14	113.70
9	F	228	HIS	CA-CB-CG	-5.28	104.63	113.60
5	B	246	ARG	NE-CZ-NH2	-5.28	117.66	120.30
82	Sg	15	ASN	CB-CA-C	5.28	120.95	110.40
5	B	274	TYR	CB-CG-CD1	-5.27	117.84	121.00
27	X	137	TYR	CA-CB-CG	5.27	123.42	113.40
33	d	44	ARG	NE-CZ-NH2	-5.27	117.66	120.30
48	4	409	ARG	CB-CA-C	5.27	120.94	110.40
60	SK	43	LEU	CA-CB-CG	5.27	127.42	115.30
63	SN	55	ARG	NE-CZ-NH2	-5.27	117.66	120.30
1	5	1211	G	C4'-C3'-C2'	-5.27	97.33	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5	1390	G	C2'-C3'-O3'	5.27	122.13	113.70
1	5	4497	U	C2'-C3'-O3'	5.27	122.13	113.70
13	J	54	ARG	NE-CZ-NH1	5.26	122.93	120.30
35	f	102	ARG	NE-CZ-NH1	5.26	122.93	120.30
49	S2	1243	U	O5'-P-OP2	-5.26	100.96	105.70
74	SY	86	GLU	CB-CG-CD	-5.26	99.99	114.20
35	f	19	ARG	CG-CD-NE	-5.26	100.75	111.80
46	q	204	LEU	C-N-CA	-5.26	108.55	121.70
1	5	4736	C	N1-C1'-C2'	5.26	120.84	114.00
13	J	147	ARG	NE-CZ-NH1	5.26	122.93	120.30
49	S2	1097	G	C2'-C3'-O3'	5.26	122.11	113.70
9	F	136	ARG	NE-CZ-NH1	5.25	122.93	120.30
46	q	22	ASP	CB-CG-OD2	5.25	123.03	118.30
1	5	216	C	C2'-C3'-O3'	5.25	122.10	113.70
48	4	542	GLY	N-CA-C	-5.25	99.98	113.10
51	SB	67	PHE	CB-CG-CD2	-5.25	117.13	120.80
1	5	4463	U	O4'-C1'-C2'	-5.25	100.55	105.80
25	V	128	LEU	CA-CB-CG	5.25	127.37	115.30
58	SI	188	TYR	CB-CG-CD1	-5.24	117.86	121.00
48	4	102	LEU	N-CA-C	-5.24	96.85	111.00
5	B	119	TYR	CA-CB-CG	-5.24	103.45	113.40
49	S2	943	U	C6-N1-C1'	-5.24	113.86	121.20
17	N	114	ARG	NE-CZ-NH2	-5.24	117.68	120.30
49	S2	501	C	O4'-C1'-C2'	-5.24	100.56	105.80
56	SG	198	ARG	NE-CZ-NH1	5.24	122.92	120.30
36	g	14	ASN	N-CA-C	-5.24	96.86	111.00
19	P	30	ARG	NE-CZ-NH2	-5.23	117.68	120.30
1	5	2753	G	C2'-C3'-O3'	5.23	122.07	113.70
1	5	3666	C	N1-C1'-C2'	-5.23	106.24	112.00
46	q	117	ALA	C-N-CD	5.23	139.39	128.40
48	4	47	ALA	O-C-N	5.23	131.07	122.70
69	ST	53	PHE	N-CA-CB	-5.23	101.18	110.60
28	Y	87	ARG	CD-NE-CZ	5.23	130.92	123.60
49	S2	368	U	C2'-C3'-O3'	5.23	122.07	113.70
56	SG	74	ARG	NE-CZ-NH1	5.23	122.92	120.30
35	f	19	ARG	CA-CB-CG	5.23	124.90	113.40
48	4	123	ASP	C-N-CA	5.22	133.27	122.30
49	S2	1578	U	O4'-C1'-N1	-5.22	104.02	108.20
49	S2	1663	A	C1'-O4'-C4'	-5.22	105.72	109.90
1	5	4328	G	N9-C1'-C2'	-5.22	106.26	112.00
5	B	25	HIS	CB-CA-C	5.22	120.84	110.40
1	5	1886	G	N9-C1'-C2'	-5.22	106.26	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5	4966	A	C4-N9-C1'	5.22	135.69	126.30
4	A	89	TYR	CB-CA-C	5.22	120.84	110.40
9	F	58	HIS	N-CA-CB	5.22	120.00	110.60
49	S2	1093	A	C5'-C4'-O4'	5.22	115.36	109.10
1	5	2325	C	C2'-C3'-O3'	5.22	122.05	113.70
1	5	1	C	C3'-C2'-C1'	-5.22	97.33	101.50
14	K	144	ASP	CB-CG-OD2	5.22	123.00	118.30
20	Q	38	ARG	NE-CZ-NH2	-5.21	117.69	120.30
49	S2	1542	C	C1'-C2'-O2'	-5.21	94.96	110.60
28	Y	45	ARG	NE-CZ-NH1	5.21	122.91	120.30
49	S2	65	C	C2'-C3'-O3'	5.21	122.04	113.70
1	5	1484	G	O4'-C4'-C3'	-5.21	98.79	104.00
49	S2	1167	G	N9-C1'-C2'	5.21	120.78	114.00
1	5	223	G	N9-C1'-C2'	-5.21	106.27	112.00
1	5	2262	G	N9-C1'-C2'	5.21	120.77	114.00
1	5	1642	A	C5'-C4'-O4'	5.21	115.35	109.10
33	d	24	GLU	CA-CB-CG	5.21	124.86	113.40
1	5	2467	U	N1-C1'-C2'	-5.20	106.28	112.00
21	R	108	ARG	CG-CD-NE	5.20	122.73	111.80
56	SG	156	TYR	CB-CA-C	5.20	120.81	110.40
1	5	931	C	N1-C1'-C2'	5.20	120.76	114.00
20	Q	168	ARG	NE-CZ-NH1	5.20	122.90	120.30
1	5	1698	C	O5'-P-OP1	-5.20	101.02	105.70
46	q	72	ASN	C-N-CD	-5.20	109.16	120.60
1	5	267	G	C2'-C3'-O3'	5.20	122.02	113.70
28	Y	87	ARG	NE-CZ-NH1	-5.20	117.70	120.30
1	5	2310	C	C2'-C3'-O3'	5.20	122.01	113.70
18	O	178	ARG	NE-CZ-NH2	-5.20	117.70	120.30
49	S2	1579	A	C2'-C3'-O3'	5.20	122.01	113.70
54	SE	30	ARG	NE-CZ-NH1	5.20	122.90	120.30
68	SS	124	ARG	CG-CD-NE	5.20	122.71	111.80
21	R	124	TYR	CA-CB-CG	5.19	123.27	113.40
1	5	63	G	N9-C1'-C2'	5.19	120.75	114.00
1	5	1394	G	N9-C1'-C2'	5.19	120.75	114.00
14	K	154	ASP	CB-CG-OD2	5.19	122.97	118.30
49	S2	672	A	C3'-C2'-C1'	-5.19	97.35	101.50
1	5	272	U	N1-C1'-C2'	5.18	120.74	114.00
17	N	63	ARG	NE-CZ-NH2	-5.18	117.71	120.30
48	4	196	GLU	N-CA-CB	5.18	119.93	110.60
49	S2	594	A	C4'-C3'-O3'	5.18	123.37	113.00
14	K	44	ASP	CA-C-O	-5.18	109.22	120.10
35	f	51	TYR	CA-CB-CG	5.18	123.25	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
46	q	118	PRO	CA-N-CD	-5.18	104.24	111.50
68	SS	95	TYR	CB-CG-CD2	-5.18	117.89	121.00
1	5	194	C	N1-C1'-C2'	-5.18	106.30	112.00
48	4	794	PHE	N-CA-C	-5.18	97.02	111.00
49	S2	1292	C	C5'-C4'-O4'	5.18	115.31	109.10
1	5	172	C	O4'-C1'-C2'	-5.18	100.62	105.80
17	N	65	ARG	NE-CZ-NH2	5.18	122.89	120.30
53	SD	159	HIS	CA-CB-CG	-5.18	104.80	113.60
39	j	76	HIS	CB-CA-C	5.17	120.75	110.40
41	l	21	ARG	NE-CZ-NH1	5.17	122.89	120.30
49	S2	919	A	C2'-C3'-O3'	-5.17	98.12	109.50
1	5	268	G	C2'-C3'-O3'	5.17	121.97	113.70
1	5	2443	G	N9-C1'-C2'	5.17	120.72	114.00
15	L	99	ASP	CB-CG-OD1	-5.17	113.65	118.30
55	SF	188	TYR	CA-CB-CG	-5.17	103.58	113.40
1	5	4165	C	C2'-C3'-O3'	5.17	121.97	113.70
1	5	4543	G	N9-C1'-C2'	5.17	120.72	114.00
10	G	53	ARG	NE-CZ-NH1	5.17	122.88	120.30
22	S	29	ARG	CB-CA-C	5.17	120.74	110.40
49	S2	1150	A	N9-C1'-C2'	5.17	120.72	114.00
1	5	2597	G	N9-C1'-C2'	5.16	120.71	114.00
21	R	103	ARG	NE-CZ-NH1	5.16	122.88	120.30
1	5	2256	C	N1-C1'-C2'	5.16	120.71	114.00
17	N	59	TYR	CA-CB-CG	5.16	123.21	113.40
1	5	961	G	C4'-C3'-O3'	5.16	123.32	113.00
2	7	6	C	C2'-C3'-O3'	5.16	121.96	113.70
2	7	65	G	C2'-C3'-O3'	5.16	121.95	113.70
7	D	268	ARG	CG-CD-NE	5.16	122.64	111.80
1	5	664	G	C4'-C3'-O3'	5.16	123.32	113.00
3	8	1	C	C5'-C4'-C3'	5.16	124.25	116.00
35	f	6	TRP	CA-CB-CG	-5.16	103.90	113.70
48	4	448	GLN	CB-CA-C	-5.16	100.08	110.40
23	T	8	ARG	NE-CZ-NH1	5.16	122.88	120.30
1	5	2323	C	C2'-C3'-O3'	5.16	121.95	113.70
7	D	130	TYR	CA-CB-CG	-5.16	103.60	113.40
46	q	131	GLY	C-N-CD	5.16	139.23	128.40
81	Sf	138	ARG	CD-NE-CZ	5.15	130.81	123.60
30	a	6	ARG	NE-CZ-NH1	5.15	122.88	120.30
58	SI	188	TYR	CD1-CG-CD2	5.15	123.56	117.90
22	S	77	ASN	CB-CA-C	5.15	120.70	110.40
1	5	2879	A	N9-C1'-C2'	5.14	120.69	114.00
9	F	197	TYR	N-CA-CB	5.14	119.86	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	S2	1394	G	O4'-C1'-C2'	-5.14	100.66	105.80
1	5	4436	U	N1-C1'-C2'	-5.14	106.34	112.00
1	5	1850	A	N9-C1'-C2'	5.14	120.68	114.00
49	S2	1603	G	N9-C1'-C2'	5.14	120.68	114.00
20	Q	68	ARG	CG-CD-NE	-5.14	101.01	111.80
1	5	107	G	N9-C1'-C2'	-5.14	106.35	112.00
1	5	2044	U	C3'-C2'-C1'	5.14	105.61	101.50
1	5	4163	U	C4'-C3'-C2'	-5.14	97.46	102.60
1	5	2785	C	N1-C1'-C2'	5.13	120.67	114.00
1	5	2787	A	N9-C1'-C2'	-5.13	106.35	112.00
1	5	405	U	C2'-C3'-O3'	5.13	121.91	113.70
34	e	47	ARG	N-CA-C	-5.13	97.14	111.00
48	4	272	LYS	C-N-CA	5.13	134.53	121.70
1	5	703	G	O4'-C1'-N9	5.13	112.30	108.20
1	5	1577	G	N9-C1'-C2'	-5.13	106.36	112.00
18	O	140	ARG	NE-CZ-NH1	-5.13	117.73	120.30
5	B	161	ARG	NE-CZ-NH1	5.13	122.86	120.30
31	b	45	PHE	CB-CG-CD1	-5.13	117.21	120.80
49	S2	996	A	C4-N9-C1'	-5.13	117.07	126.30
3	8	46	G	N9-C1'-C2'	5.12	120.66	114.00
17	N	130	PHE	CB-CA-C	5.12	120.65	110.40
48	4	699	GLY	O-C-N	5.12	130.90	122.70
1	5	2529	A	O4'-C1'-N9	5.12	112.30	108.20
7	D	248	ARG	NE-CZ-NH1	5.12	122.86	120.30
81	Sf	138	ARG	CG-CD-NE	5.12	122.56	111.80
1	5	1615	C	N1-C1'-C2'	-5.12	106.37	112.00
15	L	99	ASP	N-CA-C	-5.12	97.18	111.00
36	g	4	ARG	NE-CZ-NH2	-5.12	117.74	120.30
46	q	205	ASP	CB-CG-OD2	5.12	122.91	118.30
49	S2	1567	G	N9-C1'-C2'	5.12	120.65	114.00
29	Z	51	ARG	NE-CZ-NH1	5.12	122.86	120.30
47	r	77	TYR	N-CA-CB	-5.12	101.39	110.60
1	5	648	G	C2'-C3'-O3'	5.11	121.88	113.70
1	5	658	C	C2'-C3'-O3'	5.11	121.88	113.70
1	5	2075	G	N9-C1'-C2'	-5.11	106.37	112.00
49	S2	102	A	C2'-C3'-O3'	5.11	121.88	113.70
22	S	10	TYR	CB-CA-C	5.11	120.62	110.40
29	Z	36	ARG	NE-CZ-NH2	-5.11	117.74	120.30
49	S2	797	C	O4'-C1'-C2'	-5.11	100.69	105.80
21	R	9	ARG	CG-CD-NE	5.11	122.53	111.80
49	S2	141	A	C2'-C3'-O3'	5.11	121.88	113.70
29	Z	51	ARG	NE-CZ-NH2	-5.11	117.75	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	S2	72	C	O4'-C1'-N1	5.11	112.29	108.20
1	5	297	U	N1-C1'-C2'	-5.11	106.38	112.00
1	5	3880	G	C1'-C2'-O2'	-5.11	95.28	110.60
1	5	2538	U	O5'-P-OP1	-5.11	101.11	105.70
1	5	4276	G	N9-C1'-C2'	-5.11	106.38	112.00
65	SP	10	ARG	NE-CZ-NH2	-5.11	117.75	120.30
14	K	91	ASP	N-CA-C	5.10	124.78	111.00
46	q	45	MET	CB-CA-C	5.10	120.61	110.40
6	C	143	ARG	NE-CZ-NH1	5.10	122.85	120.30
46	q	68	HIS	C-N-CA	5.10	134.45	121.70
48	4	539	GLU	O-C-N	-5.10	114.54	122.70
33	d	85	ARG	CG-CD-NE	5.10	122.50	111.80
48	4	239	LYS	CD-CE-NZ	-5.10	99.98	111.70
50	SA	9	GLN	CB-CG-CD	-5.10	98.35	111.60
82	Sg	36	ARG	NE-CZ-NH2	-5.10	117.75	120.30
21	R	117	ARG	CB-CA-C	5.10	120.59	110.40
48	4	433	ASN	CB-CA-C	5.09	120.59	110.40
56	SG	205	GLU	OE1-CD-OE2	5.09	129.41	123.30
1	5	3666	C	C2'-C3'-O3'	5.09	121.84	113.70
3	8	125	C	O4'-C1'-N1	-5.09	104.13	108.20
14	K	153	ASP	CB-CG-OD2	5.09	122.88	118.30
9	F	72	ARG	NE-CZ-NH1	5.09	122.84	120.30
33	d	87	ARG	N-CA-CB	5.09	119.76	110.60
1	5	2117	G	C1'-O4'-C4'	-5.08	105.83	109.90
1	5	218	A	N9-C1'-C2'	-5.08	106.41	112.00
1	5	3870	C	N1-C1'-C2'	5.08	120.61	114.00
3	8	104	A	P-O5'-C5'	5.08	129.03	120.90
24	U	46	ARG	NE-CZ-NH1	5.08	122.84	120.30
49	S2	73	C	O4'-C1'-C2'	-5.08	100.72	105.80
49	S2	853	C	C2'-C3'-O3'	5.08	121.83	113.70
1	5	1361	G	C2'-C3'-O3'	5.08	121.83	113.70
1	5	3667	C	N1-C1'-C2'	-5.08	106.41	112.00
14	K	45	ASP	CB-CG-OD2	5.08	122.87	118.30
28	Y	126	ARG	CD-NE-CZ	5.08	130.71	123.60
28	Y	126	ARG	CG-CD-NE	5.08	122.46	111.80
49	S2	1700	C	N1-C1'-C2'	-5.08	106.42	112.00
27	X	137	TYR	CB-CG-CD2	-5.07	117.96	121.00
28	Y	87	ARG	CG-CD-NE	5.07	122.45	111.80
1	5	1359	G	O4'-C4'-C3'	-5.07	98.93	104.00
1	5	4975	G	C1'-O4'-C4'	-5.07	105.84	109.90
1	5	2614	C	N1-C1'-C2'	-5.07	106.42	112.00
15	L	103	ARG	CA-CB-CG	5.07	124.56	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	S2	524	U	C2'-C3'-O3'	5.07	121.81	113.70
1	5	3627	G	C2'-C3'-O3'	5.07	121.81	113.70
49	S2	410	G	O5'-P-OP1	-5.07	101.14	105.70
1	5	336	A	N9-C1'-C2'	-5.07	106.43	112.00
29	Z	36	ARG	CG-CD-NE	5.07	122.44	111.80
49	S2	1080	A	O4'-C1'-N9	5.07	112.25	108.20
1	5	3804	G	N9-C1'-C2'	-5.06	106.43	112.00
1	5	3863	C	N1-C1'-C2'	5.06	120.58	114.00
1	5	4936	G	C4'-C3'-O3'	5.06	123.12	113.00
1	5	1887	G	C4'-C3'-C2'	-5.06	97.54	102.60
1	5	4563	U	C2-N1-C1'	5.06	123.77	117.70
46	q	23	ASP	CB-CG-OD2	5.06	122.85	118.30
13	J	170	HIS	CB-CA-C	5.06	120.52	110.40
14	K	150	ASP	CB-CG-OD2	5.06	122.85	118.30
49	S2	798	A	C4'-C3'-C2'	-5.06	97.54	102.60
1	5	1672	U	N1-C1'-C2'	5.06	120.57	114.00
1	5	4404	U	C3'-C2'-C1'	5.06	105.54	101.50
17	N	143	ARG	CB-CG-CD	5.06	124.75	111.60
28	Y	74	TYR	N-CA-CB	5.06	119.70	110.60
1	5	2459	G	N9-C1'-C2'	-5.05	106.44	112.00
14	K	27	ALA	N-CA-C	5.05	124.65	111.00
59	SJ	175	ARG	NE-CZ-NH1	5.05	122.83	120.30
1	5	4670	C	P-O5'-C5'	5.05	128.99	120.90
20	Q	33	ARG	CB-CG-CD	5.05	124.74	111.60
1	5	1268	G	N9-C1'-C2'	5.05	120.57	114.00
1	5	1895	G	N9-C1'-C2'	5.05	120.57	114.00
1	5	2054	U	N1-C1'-C2'	5.05	120.57	114.00
1	5	54	G	C2'-C3'-O3'	5.05	121.78	113.70
1	5	4498	U	C1'-C2'-O2'	5.05	125.75	110.60
4	A	209	HIS	CA-CB-CG	-5.05	105.02	113.60
49	S2	1368	U	N1-C1'-C2'	-5.05	106.45	112.00
48	4	242	GLY	C-N-CA	5.05	134.32	121.70
82	Sg	125	ARG	CG-CD-NE	-5.04	101.21	111.80
1	5	20	U	N1-C1'-C2'	-5.04	106.45	112.00
1	5	3773	U	O4'-C4'-C3'	-5.04	98.96	104.00
5	B	257	TRP	N-CA-CB	5.04	119.68	110.60
12	I	181	PHE	CB-CG-CD1	5.04	124.33	120.80
72	SW	57	ARG	CG-CD-NE	5.04	122.39	111.80
1	5	4398	C	C2'-C3'-O3'	5.04	121.76	113.70
13	J	99	PHE	CB-CG-CD2	-5.04	117.27	120.80
58	SI	28	GLU	N-CA-C	-5.04	97.39	111.00
1	5	1067	G	C2'-C3'-O3'	5.04	121.76	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5	88	A	C1'-C2'-O2'	-5.04	95.49	110.60
23	T	19	PHE	CB-CA-C	-5.04	100.33	110.40
1	5	74	G	N9-C1'-C2'	5.03	120.54	114.00
1	5	2361	G	P-O3'-C3'	5.03	125.74	119.70
81	Sf	146	LEU	N-CA-C	-5.03	97.41	111.00
14	K	44	ASP	CA-CB-CG	5.03	124.47	113.40
57	SH	99	ARG	CG-CD-NE	5.03	122.37	111.80
1	5	1398	A	C3'-C2'-C1'	-5.03	97.48	101.50
1	5	2116	C	C2'-C3'-O3'	5.03	121.75	113.70
49	S2	385	G	N9-C1'-C2'	5.03	120.54	114.00
58	SI	5	ARG	NE-CZ-NH1	5.03	122.81	120.30
73	SX	20	HIS	CA-CB-CG	-5.03	105.05	113.60
1	5	4373	G	C3'-C2'-C1'	-5.03	97.48	101.50
27	X	56	ARG	CG-CD-NE	-5.03	101.24	111.80
1	5	2275	G	C2'-C3'-O3'	5.03	121.74	113.70
64	SO	55	ARG	NE-CZ-NH2	-5.03	117.79	120.30
34	e	44	ARG	NE-CZ-NH1	5.03	122.81	120.30
81	Sf	150	PHE	CB-CG-CD1	5.03	124.32	120.80
1	5	514	U	O4'-C4'-C3'	-5.02	98.98	104.00
1	5	1216	C	C2'-C3'-O3'	5.02	121.73	113.70
13	J	146	ARG	NE-CZ-NH1	-5.02	117.79	120.30
22	S	28	TYR	CB-CG-CD2	-5.02	117.99	121.00
73	SX	5	ARG	NE-CZ-NH2	5.02	122.81	120.30
1	5	352	G	C3'-C2'-C1'	5.02	105.51	101.50
1	5	1953	U	N1-C1'-C2'	5.02	120.52	114.00
1	5	2533	C	N1-C1'-C2'	5.01	120.52	114.00
17	N	6	TYR	CA-CB-CG	-5.01	103.87	113.40
49	S2	370	G	O5'-P-OP1	-5.01	101.19	105.70
1	5	2827	G	O4'-C4'-C3'	-5.01	98.99	104.00
20	Q	33	ARG	N-CA-CB	5.01	119.62	110.60
1	5	1281	G	C3'-C2'-C1'	5.01	105.51	101.50
1	5	1591	U	N1-C1'-C2'	5.01	120.52	114.00
1	5	4224	A	N9-C1'-C2'	-5.01	106.49	112.00
52	SC	223	TYR	CB-CG-CD1	-5.01	117.99	121.00
1	5	1272	C	C5'-C4'-O4'	5.01	115.11	109.10
1	5	1864	G	C2'-C3'-O3'	5.01	121.71	113.70
49	S2	161	U	N1-C1'-C2'	5.01	120.51	114.00
58	SI	77	ARG	NE-CZ-NH1	5.01	122.80	120.30
1	5	1440	U	C4'-C3'-C2'	-5.01	97.59	102.60
18	O	117	ARG	NE-CZ-NH2	-5.01	117.80	120.30
66	SQ	138	ARG	CG-CD-NE	5.01	122.31	111.80
9	F	83	PHE	N-CA-CB	-5.00	101.59	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5	1479	G	C1'-C2'-O2'	-5.00	95.59	110.60
1	5	1398	A	P-O3'-C3'	5.00	125.70	119.70
1	5	4454	G	C2'-C3'-O3'	5.00	121.70	113.70
37	h	72	PHE	CB-CG-CD1	5.00	124.30	120.80
49	S2	28	U	C4'-C3'-O3'	5.00	123.00	113.00
49	S2	967	C	N1-C1'-C2'	-5.00	106.50	112.00

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
49	S2	1109	C	C1'

All (507) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
48	4	102	LEU	Mainchain
48	4	108	HIS	Peptide
48	4	111	PHE	Sidechain
48	4	112	SER	Mainchain,Peptide
48	4	121	VAL	Mainchain
48	4	123	ASP	Mainchain
48	4	193	GLY	Mainchain
48	4	196	GLU	Peptide
48	4	197	SER	Peptide
48	4	199	PRO	Peptide
48	4	242	GLY	Mainchain,Peptide
48	4	245	GLY	Peptide
48	4	246	PRO	Peptide
48	4	247	ALA	Peptide
48	4	266	PHE	Mainchain,Peptide
48	4	269	ALA	Mainchain
48	4	272	LYS	Peptide
48	4	325	SER	Peptide
48	4	4	PHE	Peptide
48	4	403	PRO	Peptide
48	4	406	ASP	Peptide
48	4	408	GLY	Peptide
48	4	42	LYS	Mainchain
48	4	495	ARG	Mainchain,Peptide
48	4	540	GLU	Peptide
48	4	55	ARG	Peptide
48	4	573	SER	Peptide

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Mol	Chain	Res	Type	Group
48	4	574	ASP	Peptide
48	4	575	PRO	Mainchain
48	4	667	LYS	Peptide
48	4	669	VAL	Peptide
48	4	699	GLY	Mainchain
48	4	702	PHE	Sidechain
48	4	775	GLN	Peptide
48	4	827	ASN	Peptide
48	4	847	GLY	Peptide
1	5	100	C	Sidechain
1	5	103	G	Sidechain
1	5	1167	C	Sidechain
1	5	120	A	Sidechain
1	5	1214	C	Sidechain
1	5	1281	G	Sidechain
1	5	1319	U	Sidechain
1	5	1324	A	Sidechain
1	5	1355	G	Sidechain
1	5	1398	A	Sidechain
1	5	147	A	Sidechain
1	5	1501	C	Sidechain
1	5	151	G	Sidechain
1	5	1522	G	Sidechain
1	5	1534	A	Sidechain
1	5	157	U	Sidechain
1	5	1625	G	Sidechain
1	5	1627	G	Sidechain
1	5	1631	A	Sidechain
1	5	1658	G	Sidechain
1	5	1668	A	Sidechain
1	5	1671	U	Sidechain
1	5	1676	C	Sidechain
1	5	172	C	Sidechain
1	5	1733	G	Sidechain
1	5	1887	G	Sidechain
1	5	1894	C	Sidechain
1	5	1938	C	Sidechain
1	5	2046	G	Sidechain
1	5	2056	G	Sidechain
1	5	2077	C	Sidechain
1	5	2082	G	Sidechain
1	5	2087	C	Sidechain

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Mol	Chain	Res	Type	Group
1	5	22	G	Sidechain
1	5	2263	A	Sidechain
1	5	2268	A	Sidechain
1	5	2271	C	Sidechain
1	5	2305	U	Sidechain
1	5	2325	C	Sidechain
1	5	235	A	Sidechain
1	5	2360	A	Sidechain
1	5	2361	G	Sidechain
1	5	2394	G	Sidechain
1	5	2403	A	Sidechain
1	5	2406	G	Sidechain
1	5	2436	U	Sidechain
1	5	2438	A	Sidechain
1	5	2446	C	Sidechain
1	5	2450	G	Sidechain
1	5	2465	C	Sidechain
1	5	2513	A	Sidechain
1	5	2515	G	Sidechain
1	5	2517	A	Sidechain
1	5	2553	A	Sidechain
1	5	2581	A	Sidechain
1	5	2649	G	Sidechain
1	5	2666	U	Sidechain
1	5	2675	G	Sidechain
1	5	2769	U	Sidechain
1	5	2796	G	Sidechain
1	5	280	G	Sidechain
1	5	2812	A	Sidechain
1	5	2827	G	Sidechain
1	5	2851	G	Sidechain
1	5	2858	A	Sidechain
1	5	291	U	Sidechain
1	5	292	G	Sidechain
1	5	293	G	Sidechain
1	5	294	G	Sidechain
1	5	31	U	Sidechain
1	5	315	G	Sidechain
1	5	332	C	Sidechain
1	5	336	A	Sidechain
1	5	352	G	Sidechain
1	5	354	U	Sidechain

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Mol	Chain	Res	Type	Group
1	5	3621	A	Sidechain
1	5	3635	A	Sidechain
1	5	3648	A	Sidechain
1	5	3653	A	Sidechain
1	5	3692	A	Sidechain
1	5	3726	A	Sidechain
1	5	3774	A	Sidechain
1	5	3790	U	Sidechain
1	5	3791	C	Sidechain
1	5	383	A	Sidechain
1	5	384	A	Sidechain
1	5	3843	C	Sidechain
1	5	3844	U	Sidechain
1	5	3871	A	Sidechain
1	5	3880	G	Sidechain
1	5	3881	G	Sidechain
1	5	3901	A	Sidechain
1	5	3938	G	Sidechain
1	5	405	U	Sidechain
1	5	4076	G	Sidechain
1	5	4162	C	Sidechain
1	5	417	G	Sidechain
1	5	42	A	Sidechain
1	5	4228	G	Sidechain
1	5	4229	U	Sidechain
1	5	4234	A	Sidechain
1	5	4270	C	Sidechain
1	5	4275	G	Sidechain
1	5	4280	A	Sidechain
1	5	4282	A	Sidechain
1	5	43	U	Sidechain
1	5	4330	G	Sidechain
1	5	4341	C	Sidechain
1	5	4371	G	Sidechain
1	5	4373	G	Sidechain
1	5	4385	A	Sidechain
1	5	4404	U	Sidechain
1	5	4463	U	Sidechain
1	5	4464	A	Sidechain
1	5	4497	U	Sidechain
1	5	4498	U	Sidechain
1	5	4510	A	Sidechain

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Mol	Chain	Res	Type	Group
1	5	4519	C	Sidechain
1	5	4528	G	Sidechain
1	5	4531	U	Sidechain
1	5	4548	A	Sidechain
1	5	4563	U	Sidechain
1	5	4564	A	Sidechain
1	5	4589	A	Sidechain
1	5	4600	G	Sidechain
1	5	4670	C	Sidechain
1	5	4677	U	Sidechain
1	5	4693	C	Sidechain
1	5	4763	U	Sidechain
1	5	4871	C	Sidechain
1	5	4911	A	Sidechain
1	5	4965	U	Sidechain
1	5	4966	A	Sidechain
1	5	4976	U	Sidechain
1	5	4981	G	Sidechain
1	5	5006	U	Sidechain
1	5	5040	U	Sidechain
1	5	5043	A	Sidechain
1	5	5050	C	Sidechain
1	5	5066	U	Sidechain
1	5	514	U	Sidechain
1	5	53	C	Sidechain
1	5	54	G	Sidechain
1	5	62	A	Sidechain
1	5	664	G	Sidechain
1	5	84	A	Sidechain
1	5	85	G	Sidechain
1	5	89	C	Sidechain
1	5	92	C	Sidechain
1	5	93	G	Sidechain
1	5	94	A	Sidechain
1	5	964	A	Sidechain
1	5	97	G	Sidechain
1	5	99	A	Sidechain
2	7	42	A	Sidechain
2	7	56	G	Sidechain
3	8	104	A	Sidechain
3	8	14	U	Sidechain
3	8	34	U	Sidechain

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Mol	Chain	Res	Type	Group
3	8	35	C	Sidechain
3	8	38	U	Sidechain
3	8	39	G	Sidechain
3	8	60	G	Sidechain
3	8	65	A	Sidechain
3	8	73	U	Sidechain
3	8	9	A	Sidechain
3	8	94	G	Sidechain
4	A	18	ALA	Peptide
4	A	194	ASN	Peptide
4	A	196	TRP	Peptide
4	A	209	HIS	Sidechain
4	A	211	PHE	Sidechain
4	A	215	ASN	Peptide
5	B	100	ARG	Sidechain
5	B	102	PHE	Peptide
5	B	117	ARG	Sidechain
5	B	119	TYR	Sidechain
5	B	142	GLY	Peptide
5	B	15	GLY	Peptide
5	B	16	PHE	Peptide
5	B	179	HIS	Sidechain
5	B	274	TYR	Sidechain
5	B	322	HIS	Peptide
5	B	379	PHE	Peptide
5	B	387	ALA	Peptide
5	B	388	PHE	Peptide
6	C	102	PHE	Sidechain
6	C	113	ARG	Peptide
6	C	264	TYR	Peptide
6	C	309	ILE	Peptide
6	C	41	HIS	Sidechain
7	D	129	GLU	Peptide
7	D	190	PHE	Peptide
7	D	198	HIS	Sidechain
7	D	20	PHE	Peptide
7	D	261	VAL	Peptide
7	D	266	TRP	Peptide
7	D	30	TYR	Peptide
7	D	44	TYR	Sidechain
8	E	102	VAL	Peptide
8	E	103	VAL	Peptide

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Mol	Chain	Res	Type	Group
8	E	111	TYR	Peptide
8	E	123	SER	Peptide
8	E	152	ARG	Peptide
8	E	177	LEU	Peptide
8	E	216	LYS	Peptide
8	E	224	GLN	Peptide
8	E	230	ASP	Peptide
8	E	235	LYS	Peptide
8	E	278	TYR	Sidechain
8	E	41	SER	Peptide
9	F	127	LEU	Peptide
9	F	197	TYR	Peptide
9	F	228	HIS	Sidechain
9	F	81	GLY	Peptide
9	F	82	ASN	Peptide
10	G	101	LYS	Peptide
10	G	261	LEU	Peptide
10	G	54	PHE	Sidechain
11	H	156	ASN	Sidechain,Peptide
11	H	50	LYS	Peptide
12	I	113	THR	Peptide
12	I	139	ARG	Sidechain
12	I	77	VAL	Peptide
12	I	93	PRO	Peptide
13	J	87	LEU	Peptide
13	J	99	PHE	Sidechain
14	K	114	ARG	Mainchain
14	K	130	LYS	Mainchain
14	K	27	ALA	Peptide
14	K	44	ASP	Mainchain
14	K	86	LYS	Peptide
15	L	146	LEU	Peptide
15	L	147	ALA	Peptide
15	L	192	PHE	Sidechain
15	L	62	PRO	Peptide
15	L	66	TYR	Peptide
16	M	6	PHE	Sidechain
16	M	65	PRO	Peptide
16	M	79	LYS	Peptide
16	M	94	LYS	Peptide
17	N	119	TYR	Sidechain
17	N	130	PHE	Sidechain

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Mol	Chain	Res	Type	Group
17	N	131	GLU	Sidechain
17	N	138	PHE	Peptide
17	N	139	HIS	Sidechain
17	N	180	PHE	Sidechain
17	N	184	ILE	Peptide
17	N	202	ARG	Peptide
17	N	37	HIS	Sidechain
17	N	90	ASN	Peptide
17	N	94	PHE	Sidechain
18	O	110	PRO	Peptide
18	O	117	ARG	Peptide
18	O	135	PHE	Sidechain
19	P	139	TYR	Sidechain
20	Q	161	SER	Peptide
20	Q	162	HIS	Peptide
20	Q	174	PHE	Sidechain
20	Q	32	TYR	Peptide
20	Q	34	PHE	Sidechain
21	R	118	HIS	Sidechain
21	R	132	PHE	Sidechain
21	R	174	GLU	Peptide
21	R	19	LYS	Peptide
21	R	57	VAL	Peptide
21	R	94	THR	Peptide
22	S	10	TYR	Sidechain
22	S	145	PHE	Sidechain,Peptide
22	S	152	PHE	Peptide
22	S	154	LEU	Peptide
22	S	159	LEU	Peptide
22	S	164	LYS	Peptide
22	S	32	ILE	Peptide
22	S	33	PHE	Peptide
22	S	68	PHE	Peptide
22	S	90	THR	Peptide
49	S2	1034	A	Sidechain
49	S2	104	A	Sidechain
49	S2	1045	U	Sidechain
49	S2	1063	C	Sidechain
49	S2	1085	C	Sidechain
49	S2	1088	U	Sidechain
49	S2	1109	C	Sidechain
49	S2	114	G	Sidechain

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Mol	Chain	Res	Type	Group
49	S2	1142	G	Sidechain
49	S2	1150	A	Sidechain
49	S2	1167	G	Sidechain
49	S2	1181	A	Sidechain
49	S2	1249	C	Sidechain
49	S2	1283	C	Sidechain
49	S2	1315	U	Sidechain
49	S2	1378	A	Sidechain
49	S2	1565	C	Sidechain
49	S2	1578	U	Sidechain
49	S2	1603	G	Sidechain
49	S2	1606	G	Sidechain
49	S2	1623	A	Sidechain
49	S2	1659	U	Sidechain
49	S2	1663	A	Sidechain
49	S2	1703	C	Sidechain
49	S2	1823	A	Sidechain
49	S2	1835	A	Sidechain
49	S2	1838	U	Sidechain
49	S2	1849	G	Sidechain
49	S2	1850	A	Sidechain
49	S2	1851	A	Sidechain
49	S2	1860	A	Sidechain
49	S2	294	U	Sidechain
49	S2	30	C	Sidechain
49	S2	313	A	Sidechain
49	S2	367	U	Sidechain
49	S2	381	C	Sidechain
49	S2	384	U	Sidechain
49	S2	399	C	Sidechain
49	S2	421	G	Sidechain
49	S2	423	U	Sidechain
49	S2	426	A	Sidechain
49	S2	427	U	Sidechain
49	S2	428	U	Sidechain
49	S2	437	G	Sidechain
49	S2	444	G	Sidechain
49	S2	447	A	Sidechain
49	S2	482	G	Sidechain
49	S2	601	G	Sidechain
49	S2	617	G	Sidechain
49	S2	631	U	Sidechain

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Mol	Chain	Res	Type	Group
49	S2	642	U	Sidechain
49	S2	645	C	Sidechain
49	S2	646	G	Sidechain
49	S2	661	U	Sidechain
49	S2	662	G	Sidechain
49	S2	685	A	Sidechain
49	S2	821	G	Sidechain
49	S2	848	U	Sidechain
49	S2	849	A	Sidechain
49	S2	9	U	Sidechain
49	S2	918	U	Sidechain
49	S2	92	A	Sidechain
49	S2	957	A	Sidechain
49	S2	958	G	Sidechain
49	S2	964	A	Sidechain
49	S2	999	G	Sidechain
50	SA	103	PHE	Sidechain
50	SA	131	HIS	Peptide
51	SB	141	GLY	Peptide
51	SB	40	ASN	Peptide
51	SB	66	VAL	Peptide
51	SB	76	ASN	Peptide
52	SC	168	GLY	Peptide
52	SC	236	PHE	Sidechain
52	SC	241	PHE	Sidechain
52	SC	60	TRP	Peptide
53	SD	159	HIS	Sidechain
53	SD	196	GLY	Peptide
53	SD	203	PRO	Peptide
54	SE	17	HIS	Peptide
54	SE	205	PHE	Peptide
55	SF	43	GLU	Peptide
57	SH	108	SER	Peptide
58	SI	149	TYR	Peptide
58	SI	153	LYS	Peptide
58	SI	155	ASN	Peptide
58	SI	26	LYS	Peptide
58	SI	65	PHE	Peptide
58	SI	99	ASN	Sidechain
59	SJ	165	TYR	Peptide
59	SJ	48	PHE	Sidechain
60	SK	29	MET	Peptide

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Mol	Chain	Res	Type	Group
61	SL	147	LYS	Peptide
61	SL	15	THR	Peptide
61	SL	151	THR	Peptide
61	SL	62	PHE	Sidechain
62	SM	100	PRO	Peptide
62	SM	107	SER	Peptide
62	SM	32	ALA	Peptide
63	SN	113	PHE	Peptide
64	SO	147	ARG	Sidechain
65	SP	11	THR	Peptide
66	SQ	43	GLU	Peptide
67	SR	108	LEU	Peptide
67	SR	125	GLY	Peptide
70	SU	71	GLY	Peptide
71	SV	32	ILE	Peptide
71	SV	48	GLY	Peptide
72	SW	54	ASP	Peptide
72	SW	76	SER	Peptide
73	SX	16	HIS	Sidechain
73	SX	20	HIS	Sidechain
74	SY	86	GLU	Sidechain
75	SZ	108	ILE	Peptide
76	Sa	17	HIS	Sidechain
77	Sb	81	ARG	Peptide
79	Sd	10	HIS	Peptide
79	Sd	8	TRP	Peptide
81	Sf	132	MET	Peptide
81	Sf	135	HIS	Peptide
81	Sf	138	ARG	Peptide
81	Sf	139	HIS	Peptide
23	T	140	PHE	Sidechain
23	T	142	ARG	Peptide
24	U	110	TYR	Peptide
24	U	55	ASN	Peptide
25	V	108	ASN	Peptide
25	V	97	TYR	Sidechain
25	V	98	PHE	Sidechain
26	W	27	LYS	Peptide
27	X	73	HIS	Sidechain
28	Y	18	HIS	Sidechain
28	Y	61	HIS	Sidechain
28	Y	62	TYR	Peptide

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Mol	Chain	Res	Type	Group
28	Y	81	TYR	Sidechain
30	a	109	TYR	Sidechain
30	a	128	PHE	Sidechain
30	a	34	ASN	Sidechain
30	a	39	HIS	Peptide
30	a	60	HIS	Sidechain
30	a	61	TYR	Sidechain,Peptide
30	a	62	HIS	Sidechain
30	a	91	ALA	Peptide
31	b	6	ASN	Sidechain
32	c	77	ASN	Peptide
32	c	78	ASN	Sidechain
33	d	103	TYR	Peptide
33	d	108	TYR	Peptide
33	d	25	TYR	Sidechain
33	d	72	VAL	Peptide
34	e	20	PHE	Sidechain
34	e	3	ALA	Peptide
34	e	74	PHE	Sidechain
34	e	76	LYS	Peptide
35	f	100	ARG	Peptide
35	f	53	ALA	Peptide
36	g	6	THR	Peptide
37	h	121	VAL	Peptide
37	h	78	TYR	Sidechain
37	h	97	LYS	Peptide
38	i	26	HIS	Sidechain
38	i	39	PHE	Sidechain
38	i	49	GLY	Peptide
39	j	46	LYS	Peptide
39	j	48	ASN	Peptide
39	j	66	HIS	Sidechain
39	j	8	PHE	Sidechain
40	k	28	ASN	Peptide
44	o	31	ASP	Sidechain,Peptide
44	o	43	ARG	Peptide
44	o	47	GLY	Peptide
44	o	48	TYR	Sidechain
44	o	76	ASN	Peptide
45	p	17	ARG	Peptide
46	q	108	PRO	Peptide
46	q	148	SER	Peptide

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Mol	Chain	Res	Type	Group
46	q	205	ASP	Mainchain,Peptide
46	q	44	ARG	Sidechain
46	q	6	ARG	Peptide
46	q	99	ARG	Sidechain
47	r	30	ASN	Peptide
47	r	31	ASN	Sidechain
47	r	45	HIS	Sidechain
47	r	70	GLN	Peptide
47	r	76	SER	Peptide

5.2 Too-close contacts (i)

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	5	78486	0	39660	10326	0
2	7	2558	0	1296	309	0
3	8	3314	0	1683	481	0
4	A	1868	0	1959	159	0
5	B	3147	0	3280	216	0
6	C	2919	0	3100	160	0
7	D	2380	0	2412	174	0
8	E	1904	0	2055	132	0
9	F	1870	0	1996	174	0
10	G	1934	0	2086	132	0
11	H	1518	0	1601	87	0
12	I	1713	0	1752	106	0
13	J	1359	0	1389	73	0
14	K	1140	0	1189	583	0
15	L	1703	0	1818	75	0
16	M	1131	0	1209	68	0
17	N	1701	0	1749	118	0
18	O	1651	0	1786	87	0
19	P	1242	0	1269	54	0
20	Q	1506	0	1623	80	0
21	R	1508	0	1664	104	0
22	S	1454	0	1496	121	0
23	T	1298	0	1366	75	0
24	U	808	0	831	25	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
25	V	979	0	1039	53	0
26	W	528	0	541	52	0
27	X	976	0	1053	37	0
28	Y	1115	0	1205	62	0
29	Z	1107	0	1182	49	0
30	a	1163	0	1211	0	0
31	b	610	0	650	0	0
32	c	732	0	769	0	0
33	d	888	0	930	0	0
34	e	1053	0	1147	0	0
35	f	876	0	912	0	0
36	g	906	0	1002	0	0
37	h	1015	0	1149	0	0
38	i	832	0	917	0	0
39	j	706	0	743	0	0
40	k	569	0	637	0	0
41	l	444	0	483	0	0
42	m	429	0	466	0	0
43	n	222	0	261	0	0
44	o	851	0	922	0	0
45	p	708	0	760	0	0
46	q	1556	0	1604	0	0
47	r	1001	0	1062	0	0
48	4	6673	0	6737	2045	0
49	S2	36900	0	18598	5189	0
50	SA	1642	0	1646	99	0
51	SB	1725	0	1797	76	0
52	SC	1690	0	1777	66	0
53	SD	1765	0	1865	95	0
54	SE	2076	0	2177	74	0
55	SF	1509	0	1563	61	0
56	SG	1923	0	2089	97	0
57	SH	1521	0	1616	90	0
58	SI	1686	0	1772	102	0
59	SJ	1525	0	1640	95	0
60	SK	827	0	854	50	0
61	SL	1238	0	1315	57	0
62	SM	960	0	989	108	0
63	SN	1208	0	1294	55	0
64	SO	1016	0	1039	58	0
65	SP	805	0	861	25	0
66	SQ	1124	0	1193	47	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
67	SR	1047	0	1103	43	0
68	SS	1139	0	1191	76	0
69	ST	1101	0	1135	69	0
70	SU	818	0	883	25	0
71	SV	625	0	628	19	0
72	SW	1034	0	1080	48	0
73	SX	1099	0	1166	64	0
74	SY	1023	0	1090	54	0
75	SZ	598	0	656	16	0
76	Sa	781	0	830	0	0
77	Sb	651	0	672	0	0
78	Sc	506	0	536	0	0
79	Sd	434	0	427	0	0
80	Se	452	0	494	0	0
81	Sf	581	0	599	0	0
82	Sg	2436	0	2393	0	0
83	Sa	1	0	0	0	0
83	j	1	0	0	0	0
83	m	1	0	0	0	0
83	o	1	0	0	0	0
84	4	1	0	0	0	0
84	5	118	0	0	0	0
84	7	5	0	0	0	0
84	8	4	0	0	0	0
84	P	1	0	0	0	0
84	S2	36	0	0	0	0
84	V	1	0	0	0	0
All	All	221686	0	166619	21521	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 61.

All (21521) 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)
48:4:753:GLU:HA	48:4:782:PHE:CE1	1.25	1.71
48:4:236:PHE:CE2	48:4:273:PHE:CZ	1.79	1.71
10:G:261:LEU:CD2	10:G:264:LYS:HE2	1.21	1.66
1:5:4413:C:H4'	12:I:157:PHE:CE2	1.13	1.65
48:4:751:CYS:CB	48:4:755:VAL:HB	1.23	1.64
49:S2:460:A:C2	49:S2:461:U:C5	1.85	1.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:61:LYS:CE	14:K:72:GLU:HB3	1.28	1.63
14:K:97:ASN:CA	14:K:98:ILE:HG13	1.29	1.63
48:4:613:LEU:HD22	48:4:639:TYR:CD1	1.30	1.63
48:4:236:PHE:CE2	48:4:273:PHE:HZ	0.94	1.61
14:K:106:PHE:CD2	14:K:110:VAL:CG2	1.75	1.60
14:K:123:ARG:CA	14:K:129:ILE:HD11	1.19	1.60
14:K:61:LYS:HE3	14:K:72:GLU:CB	1.18	1.60
48:4:507:VAL:CG2	48:4:554:LEU:HD21	1.17	1.60
48:4:825:PHE:CE2	48:4:849:PRO:HD2	1.30	1.59
14:K:94:LYS:CB	14:K:96:LYS:HD2	1.28	1.58
48:4:692:LEU:HD11	48:4:734:LEU:CD1	1.28	1.58
14:K:47:ALA:CB	14:K:72:GLU:HG2	1.24	1.58
48:4:672:LEU:CA	48:4:675:ILE:HG12	1.21	1.57
48:4:753:GLU:CA	48:4:782:PHE:CE1	1.81	1.57
14:K:106:PHE:CD2	14:K:110:VAL:HG21	1.09	1.57
48:4:56:PHE:CZ	48:4:455:GLY:HA3	1.38	1.57
48:4:236:PHE:HE2	48:4:273:PHE:CZ	1.10	1.56
48:4:751:CYS:HB2	48:4:755:VAL:CB	1.22	1.56
48:4:628:LEU:CD2	48:4:631:ARG:HH22	1.13	1.56
48:4:759:ILE:HD13	48:4:784:VAL:CG2	1.34	1.55
14:K:97:ASN:HA	14:K:98:ILE:CG1	1.15	1.55
48:4:58:ASP:HB3	48:4:63:GLU:CG	1.37	1.54
48:4:686:ALA:CB	48:4:729:LEU:HD12	1.35	1.53
49:S2:1453:C:C4	49:S2:1455:A:H1'	1.43	1.53
50:SA:151:ASP:CG	50:SA:151:ASP:CB	1.78	1.52
14:K:123:ARG:CG	14:K:129:ILE:CD1	1.82	1.52
48:4:691:ALA:N	48:4:730:TYR:CD1	1.75	1.52
48:4:744:ILE:CD1	48:4:816:HIS:N	1.70	1.51
1:5:1994:C:C2'	14:K:132:ILE:HG12	1.40	1.51
1:5:4605:A:N6	48:4:801:ARG:CG	1.67	1.51
48:4:206:ASP:HB3	48:4:207:PRO:CD	1.19	1.51
59:SJ:59:GLU:CG	59:SJ:59:GLU:CD	1.75	1.51
48:4:759:ILE:CD1	48:4:784:VAL:HB	1.35	1.50
48:4:686:ALA:HB3	48:4:729:LEU:CD1	1.38	1.50
14:K:123:ARG:CG	14:K:129:ILE:HD12	1.33	1.49
1:5:100:C:C5	1:5:101:A:C8	2.00	1.49
48:4:628:LEU:CD2	48:4:631:ARG:NH2	1.73	1.49
14:K:121:LEU:CD1	14:K:129:ILE:HD13	1.43	1.49
48:4:73:THR:N	48:4:104:ASP:HB3	1.24	1.48
14:K:123:ARG:HB2	14:K:129:ILE:CG1	1.42	1.47
48:4:693:CYS:HA	48:4:839:ARG:NE	1.22	1.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:58:ASP:CB	48:4:63:GLU:HG2	1.44	1.47
48:4:692:LEU:CD1	48:4:734:LEU:HD11	1.03	1.47
14:K:102:GLY:HA2	14:K:139:VAL:C	1.33	1.47
48:4:56:PHE:CZ	48:4:455:GLY:CA	1.94	1.47
48:4:73:THR:H	48:4:104:ASP:CB	1.28	1.46
48:4:675:ILE:HG21	48:4:709:LEU:CD1	1.41	1.46
48:4:543:GLU:CD	48:4:576:VAL:CG2	1.81	1.46
13:J:119:TYR:CD1	68:SS:108:ARG:NH2	1.84	1.46
48:4:672:LEU:HA	48:4:675:ILE:CG1	1.01	1.46
13:J:119:TYR:CG	68:SS:108:ARG:NH2	1.82	1.46
48:4:267:ASP:N	48:4:267:ASP:CA	1.77	1.46
14:K:123:ARG:CB	14:K:129:ILE:CG1	1.92	1.45
14:K:125:LEU:CD1	14:K:163:PRO:HB3	1.45	1.45
48:4:113:SER:HB3	48:4:533:MET:CB	1.43	1.45
48:4:150:ARG:CZ	48:4:194:GLU:OE1	1.65	1.45
14:K:121:LEU:CD1	14:K:129:ILE:HG21	1.47	1.45
1:5:4413:C:H4'	12:I:157:PHE:CD2	1.50	1.45
48:4:543:GLU:CD	48:4:576:VAL:HG23	1.26	1.45
14:K:102:GLY:N	14:K:139:VAL:HG13	1.12	1.45
1:5:4605:A:N6	48:4:801:ARG:CD	1.79	1.44
14:K:121:LEU:HD13	14:K:129:ILE:CG2	1.47	1.44
48:4:56:PHE:CE1	48:4:455:GLY:CA	2.01	1.44
14:K:160:VAL:O	14:K:163:PRO:CD	1.64	1.44
14:K:56:LEU:CD1	14:K:91:ASP:OD2	1.66	1.43
48:4:741:MET:HG3	48:4:817:TRP:CZ3	1.50	1.43
48:4:744:ILE:HD13	48:4:816:HIS:N	1.15	1.43
48:4:753:GLU:OE2	48:4:779:THR:CG2	1.66	1.43
48:4:691:ALA:HB2	48:4:730:TYR:CG	1.54	1.42
49:S2:460:A:C2	49:S2:461:U:C6	2.03	1.42
48:4:27:HIS:HD2	48:4:28:VAL:N	1.08	1.42
48:4:686:ALA:CB	48:4:729:LEU:CD1	1.91	1.42
48:4:267:ASP:C	48:4:267:ASP:CA	1.88	1.42
74:SY:86:GLU:CD	74:SY:86:GLU:CG	1.85	1.42
49:S2:42:A:C6	49:S2:43:U:H5	1.37	1.41
1:5:4413:C:C4'	12:I:157:PHE:CE2	2.01	1.41
48:4:56:PHE:HZ	48:4:456:ARG:N	1.17	1.41
48:4:113:SER:CB	48:4:533:MET:HB3	1.51	1.41
1:5:1174:G:N2	1:5:1175:A:N7	1.67	1.41
48:4:697:MET:SD	48:4:702:PHE:HZ	1.40	1.41
1:5:3709:U:C4	49:S2:970:G:N2	1.87	1.41
49:S2:460:A:N1	49:S2:461:U:C5	1.88	1.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:825:PHE:CE2	48:4:849:PRO:CD	2.01	1.40
49:S2:1416:C:H2'	49:S2:1417:C:C6	1.55	1.40
48:4:691:ALA:CB	48:4:730:TYR:HB3	0.94	1.40
1:5:1266:G:N2	1:5:2111:G:N3	1.67	1.39
48:4:613:LEU:CD2	48:4:639:TYR:CD1	2.04	1.39
14:K:102:GLY:CA	14:K:139:VAL:C	1.90	1.39
48:4:543:GLU:OE2	48:4:576:VAL:CG2	1.69	1.39
1:5:1958:A:N1	1:5:2026:A:N6	1.68	1.39
48:4:206:ASP:CB	48:4:207:PRO:HD3	1.28	1.39
1:5:2361:G:O6	19:P:25:HIS:CD2	1.74	1.38
48:4:73:THR:N	48:4:104:ASP:CB	1.77	1.37
49:S2:1538:C:N3	49:S2:1539:U:H5	1.18	1.38
48:4:753:GLU:CD	48:4:779:THR:HG23	1.43	1.37
14:K:94:LYS:HD3	14:K:96:LYS:CE	1.51	1.37
48:4:690:GLY:C	48:4:730:TYR:CE1	1.96	1.37
48:4:56:PHE:CZ	48:4:456:ARG:N	1.93	1.37
1:5:4283:G:C2	1:5:4284:C:C6	2.13	1.37
48:4:507:VAL:HG22	48:4:554:LEU:CD2	1.53	1.37
48:4:690:GLY:CA	48:4:730:TYR:CE1	2.06	1.36
48:4:855:LEU:HD23	48:4:856:ASP:N	1.34	1.36
48:4:845:LYS:NZ	48:4:846:GLU:HG2	1.34	1.36
1:5:1563:A:N6	49:S2:1028:A:H61	1.22	1.36
48:4:27:HIS:CD2	48:4:28:VAL:N	1.93	1.36
1:5:3767:C:H5'	49:S2:1849:G:C6	1.60	1.36
3:8:11:C:N3	3:8:12:G:N7	1.70	1.36
48:4:541:SER:O	48:4:543:GLU:CG	1.72	1.36
1:5:1994:C:O2'	14:K:132:ILE:CG1	1.72	1.36
48:4:693:CYS:CA	48:4:839:ARG:HE	1.36	1.35
48:4:4:PHE:O	48:4:46:ILE:CD1	1.72	1.35
48:4:759:ILE:HD13	48:4:784:VAL:CB	1.57	1.35
48:4:543:GLU:CG	48:4:576:VAL:HG21	1.56	1.35
1:5:977:C:C2	1:5:978:G:C8	2.14	1.35
1:5:2078:C:N3	1:5:2079:G:N7	1.76	1.34
48:4:56:PHE:CE1	48:4:455:GLY:HA2	1.62	1.34
48:4:541:SER:O	48:4:543:GLU:HG3	1.17	1.34
1:5:3709:U:C2	49:S2:970:G:C2	2.14	1.34
48:4:45:ILE:CG2	48:4:78:PHE:N	1.85	1.34
1:5:4283:G:C2	1:5:4284:C:C5	2.15	1.34
1:5:2367:A:N1	1:5:2788:U:O4	1.56	1.34
14:K:102:GLY:CA	14:K:139:VAL:O	1.77	1.33
48:4:236:PHE:CZ	48:4:273:PHE:HZ	1.44	1.33

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:7:54:A:C2	2:7:55:A:N7	1.96	1.33
13:J:119:TYR:CD2	68:SS:108:ARG:NH2	1.84	1.33
2:7:18:C:N3	2:7:19:C:C5	1.96	1.33
25:V:97:TYR:OH	26:W:21:TYR:HA	1.29	1.33
1:5:4213:A:N1	1:5:4218:U:O4	1.60	1.32
48:4:72:SER:OG	48:4:104:ASP:C	1.63	1.32
14:K:160:VAL:HA	14:K:163:PRO:CG	1.58	1.32
1:5:3709:U:C5	49:S2:970:G:N2	1.90	1.32
1:5:983:C:O2	1:5:984:C:C6	1.81	1.32
14:K:31:LYS:O	14:K:34:PRO:CD	1.76	1.32
48:4:769:HIS:O	48:4:786:ALA:CB	1.75	1.32
1:5:1973:G:H1	1:5:1993:C:N4	1.28	1.32
14:K:61:LYS:CE	14:K:72:GLU:CB	1.89	1.31
48:4:825:PHE:CZ	48:4:849:PRO:HD3	1.63	1.31
1:5:1388:A:C6	1:5:1396:G:N2	1.96	1.31
49:S2:1539:U:N3	49:S2:1540:G:N7	1.74	1.31
48:4:543:GLU:CG	48:4:576:VAL:CG2	2.08	1.31
1:5:4892:A:N1	1:5:4927:G:O6	1.62	1.31
48:4:198:GLY:CA	48:4:201:GLY:HA2	1.52	1.31
49:S2:647:U:O2	49:S2:648:A:C8	1.83	1.31
48:4:72:SER:OG	48:4:104:ASP:CA	1.78	1.31
49:S2:1231:C:O4'	49:S2:1665:G:N2	1.61	1.31
1:5:1983:A:N7	1:5:1987:C:OP2	1.64	1.30
48:4:541:SER:CB	48:4:576:VAL:HG11	1.59	1.30
48:4:613:LEU:CD1	48:4:639:TYR:HB3	1.60	1.30
1:5:4233:A:N1	1:5:4290:U:O4	1.64	1.30
49:S2:42:A:N3	49:S2:426:A:N7	1.77	1.30
48:4:697:MET:SD	48:4:702:PHE:CZ	2.22	1.30
1:5:1958:A:N1	1:5:2026:A:C6	2.00	1.30
14:K:137:GLN:OE1	14:K:148:PRO:HB3	1.19	1.30
14:K:79:ALA:O	14:K:83:LYS:HG3	1.17	1.30
49:S2:1133:A:C2	49:S2:1134:G:C8	2.19	1.30
48:4:496:VAL:HG22	48:4:497:MET:SD	1.71	1.30
48:4:691:ALA:HB1	48:4:854:PHE:CZ	1.65	1.30
49:S2:1284:A:O2'	62:SM:106:CYS:HA	1.17	1.30
49:S2:524:U:N3	49:S2:594:A:N6	1.77	1.30
74:SY:86:GLU:CD	74:SY:86:GLU:OE2	1.69	1.29
48:4:113:SER:HA	48:4:499:PHE:CB	1.61	1.29
48:4:541:SER:HB3	48:4:576:VAL:CG1	1.61	1.29
48:4:10:ARG:NH2	48:4:465:PRO:HD3	1.46	1.29
48:4:502:SER:HB2	48:4:504:VAL:CG1	1.63	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:753:GLU:CB	48:4:782:PHE:CE1	2.14	1.29
1:5:977:C:N3	1:5:978:G:N7	1.81	1.29
1:5:1245:C:O2	1:5:1246:G:C8	1.85	1.29
49:S2:1114:U:O4	49:S2:1119:A:N1	1.65	1.29
14:K:94:LYS:HG2	14:K:96:LYS:CG	1.62	1.28
49:S2:830:A:N6	49:S2:844:U:H3	1.30	1.28
48:4:771:PHE:HB3	48:4:785:LYS:CB	1.60	1.28
48:4:771:PHE:N	48:4:785:LYS:O	1.67	1.28
48:4:507:VAL:CG2	48:4:554:LEU:CD2	2.07	1.28
14:K:102:GLY:H	14:K:139:VAL:CG1	1.44	1.28
1:5:1998:A:C2	1:5:2019:C:O2'	1.84	1.28
48:4:581:GLU:OE2	48:4:695:GLU:HB2	1.33	1.28
14:K:160:VAL:CA	14:K:163:PRO:CG	2.11	1.28
48:4:756:VAL:O	48:4:759:ILE:HG22	1.34	1.28
14:K:94:LYS:HB3	14:K:96:LYS:CD	1.63	1.28
48:4:691:ALA:HB2	48:4:730:TYR:CB	0.81	1.28
14:K:160:VAL:C	14:K:163:PRO:CD	2.01	1.28
48:4:571:LYS:HE2	48:4:572:LYS:N	1.49	1.27
1:5:5005:G:O6	26:W:51:TRP:HB3	1.32	1.27
48:4:331:GLU:OE2	48:4:335:LEU:HD22	1.30	1.27
48:4:43:ALA:O	48:4:45:ILE:N	1.66	1.27
48:4:42:LYS:HG3	48:4:79:TYR:OH	1.24	1.27
1:5:1478:C:O2	1:5:1479:G:N7	1.62	1.27
49:S2:1408:U:O4	49:S2:1439:A:N1	1.67	1.27
49:S2:56:G:C6	49:S2:90:G:N2	2.02	1.27
14:K:47:ALA:CB	14:K:72:GLU:CG	2.13	1.27
1:5:1958:A:C2	1:5:2026:A:C6	2.21	1.27
48:4:692:LEU:CD1	48:4:734:LEU:CD1	1.91	1.27
14:K:106:PHE:HD2	14:K:110:VAL:CG2	1.24	1.26
1:5:1994:C:C2'	14:K:132:ILE:CG1	2.12	1.26
1:5:1994:C:O2'	14:K:132:ILE:HG13	1.21	1.26
48:4:739:ARG:NH1	48:4:823:ASP:HB2	1.49	1.26
49:S2:469:A:N1	49:S2:470:G:C8	2.04	1.26
14:K:14:TYR:CD2	14:K:63:THR:OG1	1.82	1.26
48:4:4:PHE:CD1	48:4:5:THR:HG22	1.70	1.26
48:4:693:CYS:HA	48:4:839:ARG:CZ	1.64	1.26
49:S2:1539:U:O2	49:S2:1540:G:C8	1.88	1.26
48:4:502:SER:CB	48:4:504:VAL:HG13	1.65	1.26
48:4:740:LEU:CB	48:4:831:PRO:HB3	1.64	1.26
48:4:3:ASN:HA	48:4:45:ILE:O	1.36	1.25
14:K:125:LEU:HD12	14:K:163:PRO:CB	1.66	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1936:C:C5	2:7:84:U:C5	2.22	1.25
1:5:2743:A:C2	1:5:2744:A:C5	2.24	1.25
14:K:63:THR:HA	14:K:71:ILE:O	1.35	1.25
14:K:94:LYS:CG	14:K:96:LYS:HD2	1.64	1.25
10:G:261:LEU:CD2	10:G:264:LYS:CE	2.14	1.25
49:S2:460:A:N1	49:S2:461:U:C4	2.03	1.25
49:S2:1433:C:H2'	49:S2:1434:C:C1'	1.65	1.25
48:4:79:TYR:CD2	48:4:351:LEU:HD13	1.71	1.25
1:5:1672:U:C2	1:5:1673:U:C5	2.23	1.25
48:4:45:ILE:CG2	48:4:78:PHE:H	1.47	1.25
49:S2:551:U:O2	49:S2:552:G:C8	1.89	1.25
49:S2:50:A:N6	49:S2:488:U:H3	1.36	1.25
48:4:13:MET:CE	48:4:464:VAL:HG13	1.65	1.24
1:5:3702:A:C2	1:5:3703:G:C8	2.24	1.24
53:SD:216:GLU:OE1	53:SD:216:GLU:CD	1.73	1.24
14:K:94:LYS:CB	14:K:96:LYS:CD	2.11	1.24
49:S2:165:G:C8	49:S2:166:A:N7	2.05	1.24
14:K:56:LEU:HB3	14:K:91:ASP:OD1	1.30	1.24
48:4:753:GLU:CA	48:4:782:PHE:HE1	1.28	1.24
14:K:94:LYS:CG	14:K:96:LYS:CD	2.15	1.24
49:S2:50:A:N1	49:S2:488:U:O4	1.69	1.24
48:4:402:VAL:CG2	48:4:403:PRO:HD2	1.65	1.24
14:K:142:ASN:HB2	14:K:148:PRO:N	1.53	1.24
48:4:759:ILE:CD1	48:4:784:VAL:CB	2.10	1.24
48:4:690:GLY:CA	48:4:730:TYR:HE1	1.42	1.24
49:S2:1417:C:N3	49:S2:1419:C:H5	1.36	1.23
49:S2:1433:C:H3'	49:S2:1433:C:OP2	1.38	1.23
48:4:113:SER:CA	48:4:499:PHE:HB2	1.67	1.23
48:4:753:GLU:HB3	48:4:782:PHE:CZ	1.72	1.23
1:5:1899:G:C2	1:5:1900:C:C5	2.27	1.23
14:K:102:GLY:N	14:K:139:VAL:CG1	1.99	1.23
48:4:762:VAL:HG13	48:4:766:LYS:NZ	1.51	1.23
14:K:61:LYS:HE3	14:K:72:GLU:CA	1.67	1.23
14:K:14:TYR:CE2	14:K:63:THR:OG1	1.90	1.23
48:4:698:ARG:O	48:4:700:VAL:CG2	1.84	1.23
48:4:165:LEU:HD12	48:4:305:MET:CE	1.65	1.23
48:4:58:ASP:OD1	48:4:69:THR:HG23	1.27	1.23
48:4:73:THR:H	48:4:104:ASP:CG	1.40	1.23
14:K:125:LEU:CD1	14:K:163:PRO:CB	2.16	1.23
21:R:131:VAL:HB	21:R:132:PHE:CZ	1.74	1.23
14:K:92:ARG:HA	14:K:95:GLN:OE1	1.37	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1268:G:C2	1:5:1270:A:C8	2.28	1.22
48:4:13:MET:CE	48:4:465:PRO:HD2	1.69	1.22
1:5:1958:A:C6	1:5:2026:A:N6	2.06	1.22
49:S2:1538:C:N3	49:S2:1539:U:C5	2.06	1.22
1:5:4605:A:N6	48:4:801:ARG:CB	2.01	1.22
1:5:3709:U:N3	49:S2:970:G:N2	1.87	1.22
1:5:3709:U:C2	49:S2:970:G:N2	2.07	1.22
48:4:331:GLU:OE2	48:4:335:LEU:CD2	1.86	1.22
48:4:481:LYS:HG3	48:4:482:THR:N	1.37	1.22
1:5:1956:A:N1	1:5:2027:U:N3	1.87	1.22
14:K:137:GLN:OE1	14:K:148:PRO:CB	1.86	1.21
14:K:102:GLY:HA2	14:K:139:VAL:CA	1.70	1.21
48:4:710:HIS:CD2	48:4:715:HIS:HB2	1.75	1.21
48:4:855:LEU:C	48:4:855:LEU:HD23	1.50	1.21
48:4:330:LYS:O	48:4:331:GLU:HG2	1.33	1.21
14:K:102:GLY:CA	14:K:139:VAL:CG1	2.18	1.21
1:5:2314:G:C2	1:5:2315:G:N7	2.09	1.21
1:5:964:A:N6	1:5:966:A:N7	1.87	1.21
48:4:713:ALA:HB2	48:4:716:ARG:NH2	1.53	1.21
48:4:628:LEU:HD23	48:4:631:ARG:NH2	1.39	1.21
14:K:160:VAL:CA	14:K:163:PRO:HG2	1.69	1.21
3:8:12:G:C2	3:8:13:G:C8	2.28	1.21
1:5:2497:C:N3	1:5:2498:C:C5	2.08	1.21
48:4:103:ILE:CG1	48:4:122:THR:HG21	1.70	1.21
1:5:2784:C:C2	1:5:2785:C:C5	2.28	1.21
1:5:3709:U:C6	49:S2:970:G:N2	1.99	1.21
48:4:503:PRO:O	48:4:505:VAL:N	1.73	1.20
14:K:102:GLY:HA2	14:K:139:VAL:CG1	1.67	1.20
49:S2:1273:C:O2	49:S2:1506:A:H2	1.22	1.20
49:S2:821:G:O6	59:SJ:150:ARG:HD2	1.40	1.20
49:S2:42:A:C6	49:S2:43:U:C5	2.29	1.20
48:4:672:LEU:CA	48:4:675:ILE:CG1	1.89	1.20
25:V:97:TYR:OH	26:W:21:TYR:CA	1.89	1.20
49:S2:795:A:C2	49:S2:796:G:C5	2.28	1.20
48:4:753:GLU:HA	48:4:782:PHE:CD1	1.76	1.20
14:K:31:LYS:HG3	48:4:775:GLN:OE1	1.35	1.20
1:5:469:C:O2	1:5:688:U:H1'	1.36	1.20
14:K:106:PHE:CB	14:K:110:VAL:HG23	1.71	1.20
1:5:4413:C:C4'	12:I:157:PHE:CD2	2.16	1.20
1:5:1279:A:H2'	1:5:1280:C:C5	1.76	1.20
49:S2:1539:U:C2	49:S2:1540:G:C8	2.28	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3629:A:C1'	49:S2:1721:U:H3	1.53	1.20
48:4:325:SER:O	48:4:327:ASP:N	1.75	1.20
14:K:48:LYS:HG2	14:K:52:ASP:OD1	1.41	1.19
14:K:94:LYS:HG2	14:K:96:LYS:CB	1.70	1.19
1:5:4283:G:N1	1:5:4284:C:C5	2.09	1.19
48:4:496:VAL:CG2	48:4:497:MET:SD	2.29	1.19
1:5:208:A:O4'	1:5:232:G:N2	1.73	1.19
48:4:481:LYS:CG	48:4:482:THR:H	1.44	1.19
48:4:651:CYS:SG	48:4:662:LEU:HD12	1.83	1.19
48:4:825:PHE:CZ	48:4:849:PRO:CD	2.18	1.19
48:4:275:LYS:HE3	48:4:275:LYS:O	1.40	1.19
14:K:113:ALA:O	14:K:116:MET:HG2	1.43	1.19
1:5:106:A:H1'	1:5:336:A:C8	1.76	1.19
1:5:2362:U:C4	1:5:3859:G:N2	2.12	1.18
1:5:2361:G:O6	19:P:25:HIS:HD2	1.04	1.18
48:4:13:MET:SD	48:4:465:PRO:HD2	1.82	1.18
48:4:562:GLU:HA	48:4:570:ILE:HD11	1.25	1.18
14:K:160:VAL:O	14:K:163:PRO:HD2	1.15	1.18
48:4:742:GLU:OE2	48:4:791:ASN:OD1	1.61	1.18
48:4:45:ILE:HG21	48:4:78:PHE:N	1.19	1.18
48:4:111:PHE:CE1	48:4:809:PHE:CZ	2.30	1.18
3:8:119:C:N3	3:8:120:G:N7	1.92	1.18
48:4:804:THR:CB	48:4:808:ALA:HB2	1.73	1.18
3:8:64:U:C2	3:8:65:A:N7	2.12	1.18
48:4:75:ILE:CG2	48:4:77:LEU:CD1	2.21	1.18
48:4:762:VAL:CG2	48:4:800:LEU:HD12	1.71	1.18
48:4:609:PHE:CZ	48:4:661:ILE:HD12	1.76	1.18
1:5:207:G:N2	1:5:383:A:N7	1.90	1.18
48:4:113:SER:CB	48:4:499:PHE:HB2	1.74	1.17
48:4:150:ARG:NH1	48:4:194:GLU:OE1	1.77	1.17
1:5:1213:G:C4	1:5:1215:C:H1'	1.77	1.17
14:K:94:LYS:HD3	14:K:96:LYS:HE2	1.24	1.17
1:5:4276:G:C6	1:5:4277:G:C8	2.32	1.17
49:S2:26:U:N3	49:S2:27:A:C8	2.12	1.17
48:4:739:ARG:HA	48:4:824:PRO:HD3	1.26	1.17
49:S2:1273:C:O2	49:S2:1506:A:C2	1.96	1.17
48:4:40:VAL:O	48:4:43:ALA:CB	1.92	1.17
2:7:54:A:C2	2:7:55:A:C8	2.33	1.17
1:5:2856:C:C2	1:5:2857:A:N7	2.13	1.17
1:5:2724:G:C2	1:5:2726:G:N7	2.13	1.17
1:5:1245:C:C5	1:5:1269:G:C6	2.33	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3767:C:C5'	49:S2:1849:G:C6	2.26	1.17
48:4:165:LEU:CD1	48:4:305:MET:HE2	1.74	1.17
1:5:2856:C:O2	1:5:2857:A:C8	1.98	1.17
1:5:484:U:C4	1:5:486:C:C5	2.32	1.17
1:5:1969:G:O6	1:5:2018:C:N4	1.75	1.17
10:G:264:LYS:NZ	10:G:265:LEU:HD22	1.57	1.17
3:8:96:C:C2	3:8:97:A:C8	2.33	1.17
1:5:166:C:O2	1:5:167:C:C5	1.98	1.17
48:4:72:SER:OG	48:4:104:ASP:O	1.61	1.16
14:K:131:GLU:O	14:K:135:THR:HG23	1.45	1.16
48:4:675:ILE:CG2	48:4:709:LEU:CD1	2.23	1.16
49:S2:1316:C:N3	49:S2:1317:C:C5	2.13	1.16
1:5:4767:C:O2'	1:5:4874:A:N6	1.79	1.16
48:4:740:LEU:HB3	48:4:831:PRO:CB	1.73	1.16
1:5:1936:C:C5	2:7:84:U:C6	2.33	1.16
48:4:103:ILE:HG12	48:4:122:THR:CG2	1.74	1.16
48:4:808:ALA:O	48:4:810:PRO:HD3	1.02	1.16
1:5:1358:G:H2'	1:5:1359:G:O4'	1.45	1.16
49:S2:994:C:N3	49:S2:995:G:N7	1.93	1.16
1:5:100:C:C4	1:5:101:A:N7	2.14	1.16
49:S2:1308:U:H2'	49:S2:1309:C:C6	1.79	1.16
14:K:56:LEU:HD12	14:K:91:ASP:OD2	1.00	1.16
14:K:62:LEU:O	14:K:62:LEU:HD12	1.40	1.16
48:4:198:GLY:HA2	48:4:201:GLY:HA2	1.22	1.16
48:4:498:LYS:HG3	48:4:498:LYS:O	1.45	1.16
48:4:749:ILE:O	48:4:782:PHE:O	1.63	1.16
49:S2:426:A:C2	49:S2:427:U:C5	2.33	1.16
48:4:672:LEU:N	48:4:675:ILE:HG12	1.58	1.16
48:4:206:ASP:CB	48:4:207:PRO:CD	1.94	1.16
49:S2:1552:G:O6	49:S2:1578:U:C2	1.96	1.16
48:4:518:PRO:HA	73:SX:50:ILE:CD1	1.76	1.15
14:K:38:SER:CB	14:K:39:PRO:HD3	1.66	1.15
48:4:690:GLY:HA2	48:4:730:TYR:CE1	1.74	1.15
49:S2:339:A:H2'	49:S2:340:C:C6	1.81	1.15
49:S2:349:A:H4'	58:SI:27:TYR:OH	1.43	1.15
2:7:18:C:O2	2:7:19:C:C6	1.98	1.15
48:4:770:VAL:HG13	48:4:784:VAL:HG13	1.16	1.15
1:5:2080:U:C2	1:5:2081:C:C5	2.34	1.15
1:5:1378:C:H3'	1:5:1379:C:C5'	1.73	1.15
48:4:13:MET:HE1	48:4:464:VAL:CG1	1.76	1.15
1:5:161:G:N2	1:5:275:C:O2	1.80	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1249:C:C4	49:S2:1250:A:N7	2.14	1.15
1:5:4606:G:OP1	48:4:27:HIS:NE2	1.78	1.15
48:4:75:ILE:CG2	48:4:77:LEU:HD12	1.76	1.15
48:4:72:SER:C	48:4:104:ASP:HB3	1.64	1.15
49:S2:830:A:N6	49:S2:844:U:N3	1.88	1.15
49:S2:649:U:O2	49:S2:650:A:C8	1.98	1.15
49:S2:1283:C:O2'	62:SM:91:LEU:HD22	1.46	1.15
48:4:240:GLY:CA	48:4:241:GLU:HB2	1.75	1.15
48:4:448:GLN:CA	48:4:448:GLN:HE21	1.57	1.15
48:4:79:TYR:CD2	48:4:351:LEU:CD1	2.29	1.15
1:5:1358:G:C2'	1:5:1359:G:O4'	1.95	1.15
48:4:165:LEU:CD1	48:4:305:MET:CE	2.24	1.15
48:4:191:THR:HG21	48:4:192:TYR:CZ	1.81	1.15
48:4:45:ILE:HG21	48:4:77:LEU:C	1.66	1.14
1:5:2508:U:O2	1:5:2509:C:C6	1.99	1.14
48:4:804:THR:OG1	48:4:808:ALA:HB2	1.47	1.14
1:5:2532:C:C2	1:5:2533:C:C5	2.35	1.14
48:4:762:VAL:HG21	48:4:800:LEU:CD1	1.77	1.14
1:5:1683:U:O2	1:5:1684:A:C8	1.99	1.14
49:S2:444:G:N2	49:S2:446:G:C8	2.15	1.14
1:5:3767:C:C5'	49:S2:1849:G:O6	1.94	1.14
14:K:125:LEU:HD13	14:K:163:PRO:HA	1.24	1.14
1:5:1628:C:N3	1:5:1629:G:N7	1.94	1.14
1:5:2326:G:C2	1:5:2327:G:C8	2.34	1.14
1:5:2293:U:O2	1:5:2294:G:C8	2.00	1.14
1:5:4606:G:H5"	48:4:28:VAL:HG21	1.15	1.14
48:4:613:LEU:HD11	48:4:639:TYR:HB3	1.21	1.14
1:5:1598:C:C5	1:5:2798:A:N7	2.16	1.14
48:4:667:LYS:HZ3	48:4:667:LYS:HB2	1.12	1.14
9:F:161:TYR:CE2	9:F:168:ARG:NH2	2.15	1.14
1:5:4280:A:H61	7:D:29:ASP:CA	1.58	1.14
1:5:4757:C:O2	18:O:114:LYS:HA	1.42	1.14
48:4:502:SER:O	48:4:504:VAL:HG22	1.48	1.14
48:4:672:LEU:HA	48:4:675:ILE:CD1	1.78	1.14
48:4:49:ALA:HA	48:4:55:ARG:HH21	1.13	1.14
49:S2:1402:A:N6	49:S2:1441:U:N3	1.96	1.13
14:K:102:GLY:O	14:K:139:VAL:O	1.67	1.13
48:4:40:VAL:O	48:4:43:ALA:HB3	1.49	1.13
48:4:698:ARG:O	48:4:700:VAL:HG23	0.98	1.13
48:4:479:LEU:HD21	48:4:483:GLY:HA3	1.15	1.13
48:4:4:PHE:C	48:4:46:ILE:HD11	1.69	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:45:ILE:HD12	48:4:78:PHE:CD1	1.82	1.13
48:4:106:PRO:HD2	48:4:115:VAL:HG22	1.18	1.13
1:5:2468:U:O4	1:5:2473:A:N1	1.80	1.13
1:5:4413:C:C4'	12:I:157:PHE:HE2	1.49	1.13
1:5:2277:C:O2	1:5:2278:G:C8	2.02	1.13
48:4:613:LEU:H	48:4:613:LEU:HD23	1.08	1.13
1:5:3702:A:N1	1:5:3703:G:C8	2.17	1.13
48:4:58:ASP:OD1	48:4:69:THR:CG2	1.97	1.13
1:5:1214:C:O2'	1:5:2114:G:N1	1.82	1.13
14:K:121:LEU:HD12	14:K:129:ILE:CD1	1.79	1.13
14:K:117:ARG:HG3	14:K:133:LEU:HD11	1.15	1.12
14:K:95:GLN:O	14:K:96:LYS:HD3	1.49	1.12
1:5:2314:G:N2	1:5:2315:G:C8	2.17	1.12
48:4:829:SER:O	48:4:833:GLN:HG2	1.45	1.12
49:S2:383:G:H2'	49:S2:384:U:O4'	1.45	1.12
1:5:208:A:C1'	1:5:232:G:N2	2.12	1.12
1:5:4518:A:C8	5:B:257:TRP:CH2	2.37	1.12
14:K:121:LEU:HD12	14:K:123:ARG:HD2	1.14	1.12
1:5:4606:G:OP1	48:4:27:HIS:CE1	2.02	1.12
49:S2:925:G:C2	49:S2:926:A:C8	2.36	1.12
48:4:236:PHE:HE2	48:4:273:PHE:CE2	1.65	1.12
48:4:610:PRO:HB2	48:4:613:LEU:HG	1.22	1.12
1:5:84:A:N6	1:5:98:A:C8	2.17	1.12
14:K:102:GLY:C	14:K:139:VAL:O	1.88	1.12
1:5:1598:C:C6	1:5:2798:A:N7	2.18	1.12
1:5:3629:A:H4'	49:S2:1721:U:O2	1.49	1.12
48:4:804:THR:CG2	48:4:808:ALA:HB2	1.80	1.11
1:5:1269:G:H3'	1:5:2111:G:O6	1.51	1.11
14:K:47:ALA:HB2	14:K:72:GLU:HG2	1.28	1.11
10:G:261:LEU:HD21	10:G:264:LYS:HE2	1.26	1.11
48:4:297:ILE:O	48:4:300:VAL:HG22	1.50	1.11
3:8:74:U:O4	28:Y:74:TYR:CD1	2.02	1.11
49:S2:1123:C:N3	49:S2:1124:C:C5	2.18	1.11
48:4:75:ILE:HG21	48:4:77:LEU:HD11	1.19	1.11
14:K:94:LYS:HG2	14:K:96:LYS:CD	1.74	1.11
48:4:745:TYR:HA	48:4:815:ASP:HB2	1.28	1.11
1:5:1358:G:N2	1:5:1359:G:O6	1.83	1.11
49:S2:1407:U:H2'	49:S2:1408:U:C6	1.84	1.11
2:7:18:C:C2	2:7:19:C:C6	2.38	1.11
48:4:295:ASP:O	48:4:299:LYS:HG3	1.49	1.11
48:4:430:MET:HE1	48:4:486:THR:CG2	1.79	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:58:ASP:O	48:4:63:GLU:HB3	1.47	1.11
14:K:142:ASN:HD21	14:K:151:ILE:HG13	1.10	1.11
1:5:1325:C:H4'	1:5:3901:A:N1	1.66	1.11
48:4:448:GLN:HA	48:4:448:GLN:HE21	0.95	1.11
1:5:28:C:N3	1:5:29:G:N7	1.97	1.11
48:4:745:TYR:CD2	48:4:814:PHE:HA	1.85	1.11
48:4:686:ALA:HB3	48:4:729:LEU:HD13	1.15	1.11
1:5:1379:C:H4'	1:5:1380:G:C8	1.85	1.11
1:5:4276:G:C6	1:5:4277:G:N7	2.18	1.11
1:5:4280:A:H61	7:D:29:ASP:HA	1.10	1.11
1:5:3909:C:N3	1:5:3910:C:C5	2.19	1.11
48:4:24:VAL:HG23	48:4:32:LYS:HE3	1.32	1.11
49:S2:426:A:N1	49:S2:427:U:C5	2.18	1.11
1:5:1899:G:C8	1:5:2278:G:N1	2.19	1.11
48:4:427:VAL:HG21	48:4:447:ILE:HD11	1.19	1.11
48:4:240:GLY:HA3	48:4:241:GLU:HB2	1.20	1.11
48:4:4:PHE:O	48:4:46:ILE:HD11	0.93	1.10
1:5:1248:C:N3	1:5:1249:C:C5	2.19	1.10
48:4:753:GLU:HB3	48:4:782:PHE:CE1	1.77	1.10
48:4:808:ALA:O	48:4:810:PRO:CD	1.98	1.10
49:S2:837:A:C2	49:S2:838:G:N7	2.18	1.10
48:4:357:HIS:O	48:4:359:PRO:HD3	1.51	1.10
48:4:79:TYR:CE2	48:4:351:LEU:CD1	2.33	1.10
48:4:543:GLU:HG2	48:4:576:VAL:HG21	1.30	1.10
48:4:73:THR:HG23	48:4:74:ALA:N	1.62	1.10
1:5:491:G:N2	1:5:663:G:N1	1.98	1.10
1:5:4094:G:H2'	1:5:4095:G:O4'	1.50	1.10
48:4:776:VAL:HG22	48:4:777:ALA:N	1.54	1.10
48:4:37:ASP:OD2	48:4:54:THR:HB	1.52	1.10
48:4:752:PRO:HD2	48:4:755:VAL:CG2	1.81	1.10
48:4:42:LYS:CG	48:4:79:TYR:OH	1.98	1.10
1:5:1973:G:N1	1:5:1993:C:N4	1.89	1.10
48:4:60:ARG:HD2	48:4:60:ARG:C	1.72	1.10
48:4:75:ILE:HG21	48:4:77:LEU:CD1	1.78	1.10
14:K:62:LEU:CD1	14:K:73:VAL:HB	1.79	1.10
48:4:236:PHE:CZ	48:4:273:PHE:CZ	2.27	1.10
48:4:613:LEU:HD13	48:4:639:TYR:CB	1.81	1.10
1:5:1475:G:C2	1:5:1476:C:C5	2.39	1.10
3:8:96:C:N3	3:8:97:A:N7	2.00	1.10
48:4:751:CYS:O	48:4:781:MET:HA	1.42	1.10
48:4:753:GLU:CB	48:4:782:PHE:CZ	2.32	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:102:GLY:HA3	14:K:139:VAL:O	1.37	1.10
14:K:106:PHE:CG	14:K:110:VAL:CG2	2.35	1.10
1:5:1624:G:N2	1:5:1642:A:O2'	1.85	1.10
14:K:94:LYS:CD	14:K:96:LYS:CE	2.28	1.10
48:4:829:SER:HB2	48:4:832:SER:H	1.15	1.10
49:S2:386:C:N3	49:S2:387:C:C5	2.20	1.10
1:5:3709:U:H1'	49:S2:970:G:N1	1.67	1.10
49:S2:795:A:N3	49:S2:796:G:C8	2.20	1.10
1:5:161:G:N2	1:5:275:C:C2	2.19	1.10
48:4:800:LEU:HG	48:4:808:ALA:HB1	1.32	1.09
1:5:2078:C:C2	1:5:2079:G:C8	2.40	1.09
48:4:24:VAL:CG2	48:4:32:LYS:HE3	1.81	1.09
1:5:3767:C:H5"	49:S2:1849:G:N7	1.64	1.09
48:4:845:LYS:NZ	48:4:846:GLU:H	1.48	1.09
48:4:845:LYS:HE3	48:4:846:GLU:N	1.67	1.09
3:8:64:U:O2	3:8:65:A:C8	2.05	1.09
1:5:1995:G:O4'	14:K:132:ILE:HD11	1.52	1.09
1:5:2079:G:C2	1:5:2080:U:C5	2.40	1.09
48:4:78:PHE:O	48:4:79:TYR:HD1	1.34	1.09
49:S2:436:G:C8	49:S2:471:G:N2	2.20	1.09
49:S2:1453:C:C4	49:S2:1455:A:C1'	2.34	1.09
1:5:2367:A:N6	1:5:2788:U:H3	1.50	1.09
49:S2:795:A:C2	49:S2:796:G:N7	2.19	1.09
48:4:93:LYS:O	48:4:93:LYS:HD2	1.49	1.09
48:4:74:ALA:O	48:4:75:ILE:HD12	1.52	1.09
1:5:2105:A:C2	1:5:2106:G:C8	2.40	1.09
48:4:692:LEU:HD11	48:4:734:LEU:HD13	1.26	1.09
48:4:507:VAL:HG21	48:4:554:LEU:HD21	1.20	1.09
49:S2:449:A:C6	49:S2:452:G:C5	2.40	1.09
48:4:694:GLU:HG3	48:4:844:LEU:CD1	1.82	1.09
14:K:160:VAL:C	14:K:163:PRO:CG	2.19	1.09
1:5:1628:C:O2	1:5:1629:G:C8	2.06	1.09
1:5:166:C:O2	1:5:167:C:C6	2.05	1.09
49:S2:1100:A:C2	49:S2:1101:U:C6	2.39	1.09
49:S2:599:A:O4'	49:S2:605:A:C2	2.05	1.09
48:4:752:PRO:O	48:4:754:GLN:N	1.83	1.09
1:5:4605:A:N6	48:4:801:ARG:HD3	1.53	1.09
1:5:1994:C:C1'	14:K:132:ILE:HG12	1.81	1.09
49:S2:458:A:C6	49:S2:459:C:C6	2.41	1.09
1:5:84:A:N6	1:5:98:A:N7	1.99	1.09
14:K:160:VAL:C	14:K:163:PRO:HD3	1.73	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:SM:85:LEU:HA	62:SM:88:TRP:CH2	1.87	1.09
48:4:21:ASN:ND2	48:4:469:ILE:HD11	1.66	1.09
14:K:106:PHE:HB2	14:K:110:VAL:HG23	1.13	1.09
48:4:672:LEU:HA	48:4:675:ILE:HG13	1.16	1.09
48:4:56:PHE:CZ	48:4:455:GLY:C	2.24	1.09
49:S2:60:A:O2'	49:S2:61:A:H5"	1.52	1.09
1:5:88:A:N6	1:5:97:G:N3	2.01	1.09
1:5:4096:C:C4	1:5:4097:G:C8	2.41	1.09
1:5:1823:G:O3'	1:5:1825:A:P	2.11	1.09
49:S2:858:A:C2	49:S2:859:G:N7	2.19	1.09
49:S2:958:G:O2'	49:S2:959:G:O4'	1.69	1.09
48:4:197:SER:OG	48:4:201:GLY:O	1.69	1.08
14:K:31:LYS:O	14:K:34:PRO:HD3	1.34	1.08
48:4:791:ASN:O	48:4:794:PHE:CE1	2.06	1.08
14:K:94:LYS:HG2	14:K:96:LYS:HB3	1.35	1.08
49:S2:469:A:C2	49:S2:470:G:C8	2.40	1.08
1:5:1566:C:H2'	1:5:1567:U:C6	1.88	1.08
1:5:3629:A:H1'	49:S2:1721:U:O4	1.53	1.08
48:4:555:GLU:O	48:4:559:LYS:HG3	1.53	1.08
48:4:744:ILE:HD12	48:4:816:HIS:C	1.73	1.08
1:5:291:U:H2'	1:5:292:G:H2'	1.28	1.08
1:5:1561:G:H2'	1:5:1562:G:H5'	1.36	1.08
49:S2:841:G:C2	49:S2:842:C:C5	2.42	1.08
3:8:43:A:C2	3:8:44:A:C8	2.42	1.08
1:5:4725:C:O2	1:5:4726:G:C8	2.07	1.08
48:4:771:PHE:CB	48:4:785:LYS:HB2	1.83	1.08
14:K:121:LEU:CD1	14:K:129:ILE:CD1	2.31	1.08
14:K:105:THR:O	14:K:106:PHE:CG	2.06	1.08
10:G:264:LYS:NZ	10:G:265:LEU:CD2	2.15	1.08
48:4:689:GLU:HB3	48:4:730:TYR:OH	1.51	1.08
49:S2:1101:U:O2	49:S2:1102:G:C8	2.07	1.08
14:K:131:GLU:OE2	14:K:155:ILE:HD12	1.52	1.08
48:4:543:GLU:CD	48:4:576:VAL:CB	2.22	1.08
1:5:4605:A:N6	48:4:801:ARG:HB2	1.68	1.08
1:5:983:C:N3	1:5:984:C:C5	2.22	1.08
48:4:829:SER:OG	48:4:833:GLN:N	1.86	1.08
48:4:675:ILE:HG21	48:4:709:LEU:HD12	1.30	1.08
48:4:675:ILE:HG21	48:4:709:LEU:HD11	1.27	1.08
1:5:100:C:N4	1:5:101:A:N7	2.01	1.08
1:5:424:U:O2	1:5:425:U:C5	2.05	1.08
49:S2:1316:C:O2	49:S2:1317:C:C6	2.05	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1556:C:O2	1:5:1557:C:C6	2.06	1.08
49:S2:469:A:C2	49:S2:470:G:H8	1.71	1.08
48:4:689:GLU:O	48:4:730:TYR:CE1	2.06	1.08
1:5:3767:C:H4'	49:S2:1849:G:O6	1.53	1.08
49:S2:1513:C:H2'	49:S2:1514:G:H5'	1.35	1.08
1:5:424:U:O2	1:5:425:U:C6	2.07	1.08
1:5:3785:A:C2	1:5:4536:C:H1'	1.88	1.08
1:5:4537:C:N3	1:5:4538:G:N7	2.01	1.08
1:5:2055:G:O6	22:S:158:VAL:HB	1.53	1.08
49:S2:494:C:C2	49:S2:495:U:C5	2.42	1.08
1:5:2347:A:O2'	1:5:2348:G:N7	1.84	1.08
1:5:2508:U:O2	1:5:2509:C:C5	2.07	1.07
14:K:97:ASN:OD1	14:K:98:ILE:HD11	1.51	1.07
48:4:518:PRO:HA	73:SX:50:ILE:HD11	1.30	1.07
48:4:45:ILE:CG1	48:4:46:ILE:H	1.57	1.07
48:4:744:ILE:HD11	48:4:816:HIS:CG	1.90	1.07
49:S2:1314:U:N3	49:S2:1315:U:H1'	1.68	1.07
1:5:48:G:H5'	17:N:192:TRP:HE1	1.16	1.07
1:5:917:A:C2	1:5:919:C:C5	2.42	1.07
1:5:77:U:H3	1:5:335:A:N6	1.51	1.07
1:5:2604:C:O2	1:5:2605:G:C8	2.07	1.07
48:4:60:ARG:HH11	48:4:60:ARG:CG	1.66	1.07
1:5:2314:G:N2	1:5:2315:G:N7	2.01	1.07
1:5:982:U:H2'	1:5:983:C:C6	1.89	1.07
48:4:562:GLU:CA	48:4:570:ILE:HD11	1.84	1.07
1:5:88:A:N6	1:5:97:G:C2	2.23	1.07
48:4:316:ILE:HG23	48:4:321:ILE:HB	1.34	1.07
2:7:43:U:N3	2:7:44:C:C5	2.22	1.07
48:4:113:SER:HA	48:4:499:PHE:HB2	1.08	1.07
14:K:106:PHE:CE2	14:K:110:VAL:HG21	1.90	1.07
14:K:106:PHE:CG	14:K:110:VAL:HG23	1.90	1.07
14:K:56:LEU:CG	14:K:91:ASP:OD2	2.02	1.07
1:5:2021:G:O3'	20:Q:84:GLY:HA2	138.38	1.07
48:4:56:PHE:HZ	48:4:455:GLY:C	1.57	1.07
2:7:18:C:C2	2:7:19:C:C5	2.42	1.07
1:5:2468:U:N3	1:5:2473:A:N6	2.03	1.07
14:K:94:LYS:HB3	14:K:96:LYS:CE	1.83	1.07
1:5:4413:C:C5'	12:I:157:PHE:HE2	1.66	1.07
48:4:509:VAL:HG21	48:4:546:ILE:HD12	1.30	1.07
1:5:4283:G:N1	1:5:4284:C:C4	2.21	1.07
1:5:4280:A:N6	7:D:29:ASP:HA	1.67	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:28:C:O2	1:5:29:G:C8	2.06	1.07
48:4:72:SER:OG	48:4:104:ASP:CB	2.01	1.07
48:4:480:VAL:O	48:4:481:LYS:HB3	1.49	1.07
14:K:38:SER:HB2	14:K:39:PRO:HD3	1.07	1.07
3:8:10:G:C6	3:8:11:C:C5	2.43	1.07
49:S2:994:C:C2	49:S2:995:G:C8	2.42	1.07
13:J:91:GLU:OE2	65:SP:12:PHE:HB2	1.54	1.07
1:5:2095:A:C6	9:F:41:GLN:OE1	2.06	1.07
14:K:94:LYS:HA	14:K:95:GLN:C	1.68	1.06
14:K:94:LYS:HB3	14:K:96:LYS:HD2	1.18	1.06
1:5:173:C:N3	1:5:174:C:C5	2.23	1.06
14:K:131:GLU:HG2	14:K:155:ILE:HD11	1.33	1.06
14:K:117:ARG:HG3	14:K:133:LEU:CD1	1.84	1.06
1:5:4606:G:C5'	48:4:28:VAL:HG21	1.83	1.06
48:4:752:PRO:O	48:4:754:GLN:HG3	1.54	1.06
49:S2:339:A:C2	49:S2:340:C:N4	2.24	1.06
49:S2:1111:U:N3	49:S2:1112:U:C5	2.23	1.06
3:8:96:C:O2	3:8:97:A:C8	2.07	1.06
49:S2:339:A:C2	49:S2:340:C:C4	2.43	1.06
14:K:125:LEU:HD13	14:K:163:PRO:CA	1.85	1.06
14:K:117:ARG:HE	14:K:117:ARG:N	1.53	1.06
49:S2:121:U:C2	49:S2:122:G:C8	2.42	1.06
48:4:690:GLY:HA2	48:4:730:TYR:HE1	1.03	1.06
1:5:1188:C:N3	1:5:1189:G:N7	2.02	1.06
49:S2:1594:A:C6	49:S2:1595:U:C5	2.44	1.06
1:5:271:C:N3	1:5:272:U:C5	2.24	1.06
49:S2:1074:C:C2	49:S2:1075:C:C5	2.42	1.06
49:S2:1063:C:C4'	49:S2:1838:U:O4	2.02	1.06
48:4:82:SER:O	48:4:86:LEU:HD13	1.56	1.06
14:K:117:ARG:HE	14:K:117:ARG:CA	1.67	1.06
14:K:48:LYS:HG2	14:K:52:ASP:CG	1.75	1.06
48:4:691:ALA:CA	48:4:730:TYR:CG	2.39	1.06
48:4:113:SER:HB2	48:4:499:PHE:HB2	1.36	1.05
48:4:45:ILE:HG12	48:4:46:ILE:H	1.18	1.05
1:5:1556:C:N3	1:5:1557:C:C5	2.23	1.05
48:4:686:ALA:HB2	48:4:726:ARG:HA	1.32	1.05
48:4:691:ALA:HB1	48:4:730:TYR:HB3	1.37	1.05
1:5:4213:A:N6	1:5:4218:U:H3	1.54	1.05
49:S2:1316:C:C2	49:S2:1317:C:C5	2.44	1.05
1:5:4229:U:C4	1:5:4230:C:C5	2.44	1.05
10:G:261:LEU:HD22	10:G:264:LYS:HE2	1.13	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:689:GLU:O	48:4:730:TYR:CZ	2.09	1.05
48:4:206:ASP:O	48:4:212:VAL:HG23	1.56	1.05
49:S2:1594:A:C2	49:S2:1595:U:C6	2.43	1.05
2:7:59:G:C6	2:7:60:G:N7	2.24	1.05
48:4:427:VAL:HG12	48:4:427:VAL:O	1.54	1.05
1:5:4767:C:HO2'	1:5:4874:A:N6	1.48	1.05
1:5:2659:A:N6	1:5:2675:G:O2'	1.89	1.05
1:5:4653:C:C2	1:5:4654:C:C5	2.45	1.05
48:4:592:LEU:C	48:4:592:LEU:HD12	1.76	1.05
48:4:427:VAL:HG21	48:4:447:ILE:CD1	1.86	1.05
1:5:1929:A:N6	1:5:2054:U:H3	1.52	1.05
1:5:3611:A:O2'	58:SI:92:ARG:NH1	1.89	1.05
14:K:94:LYS:HD3	14:K:96:LYS:HE3	1.23	1.05
1:5:1998:A:H2	1:5:2019:C:O2'	1.25	1.05
1:5:2260:C:H2'	1:5:2261:G:N7	1.71	1.05
14:K:94:LYS:CD	14:K:96:LYS:HE3	1.85	1.05
48:4:613:LEU:HD23	48:4:613:LEU:N	1.65	1.05
1:5:3739:C:N3	1:5:3740:G:C8	2.24	1.05
48:4:693:CYS:CA	48:4:839:ARG:NE	2.06	1.05
48:4:581:GLU:CD	48:4:695:GLU:HB2	1.75	1.05
48:4:93:LYS:C	48:4:93:LYS:HD2	1.76	1.05
48:4:4:PHE:CD1	48:4:5:THR:CG2	2.39	1.05
14:K:56:LEU:CB	14:K:91:ASP:OD1	2.05	1.05
14:K:94:LYS:CA	14:K:96:LYS:HD2	1.87	1.05
48:4:510:GLU:O	48:4:570:ILE:HG22	1.57	1.05
48:4:571:LYS:CE	48:4:572:LYS:H	1.69	1.05
48:4:628:LEU:HD22	48:4:631:ARG:NH2	1.51	1.05
49:S2:1419:C:OP2	69:ST:129:ARG:HA	1.57	1.05
48:4:845:LYS:CE	48:4:846:GLU:H	1.69	1.05
1:5:1929:A:N1	1:5:2054:U:O4	1.90	1.05
48:4:670:GLN:O	48:4:673:ASN:OD1	1.73	1.05
48:4:767:ARG:HH21	48:4:792:GLU:CG	1.70	1.04
1:5:1444:G:H2'	1:5:1445:U:C6	1.90	1.04
48:4:206:ASP:O	48:4:212:VAL:CG2	2.04	1.04
48:4:275:LYS:HE2	48:4:276:SER:HA	1.36	1.04
3:8:119:C:C2	3:8:120:G:C8	2.45	1.04
14:K:47:ALA:HB2	14:K:72:GLU:CG	1.80	1.04
48:4:741:MET:CG	48:4:817:TRP:CZ3	2.40	1.04
49:S2:1840:U:N3	49:S2:1841:C:C5	2.25	1.04
49:S2:26:U:N3	49:S2:27:A:N7	2.05	1.04
49:S2:797:C:O4'	57:SH:109:ARG:NH1	1.89	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2691:U:O2	1:5:2692:U:C5	2.10	1.04
49:S2:1249:C:C5	49:S2:1250:A:N7	2.24	1.04
1:5:3912:U:O2'	1:5:3913:G:C5'	2.05	1.04
49:S2:1063:C:H4'	49:S2:1838:U:O4	1.56	1.04
1:5:4392:G:O2'	1:5:4395:U:O4	1.76	1.04
1:5:2417:A:C2	1:5:2418:A:C8	2.45	1.04
1:5:2105:A:C2	1:5:2106:G:N7	2.25	1.04
48:4:3:ASN:O	48:4:46:ILE:HG13	1.53	1.04
48:4:744:ILE:CD1	48:4:816:HIS:CA	2.35	1.04
14:K:23:GLY:O	14:K:24:ALA:CB	2.05	1.04
48:4:607:ARG:HG2	48:4:701:ARG:HD3	1.36	1.04
1:5:4284:C:C2	1:5:4285:U:C5	2.45	1.04
48:4:756:VAL:HG21	48:4:782:PHE:CG	1.93	1.04
49:S2:384:U:C5	49:S2:386:C:C5	2.46	1.04
49:S2:1433:C:H2'	49:S2:1434:C:H1'	1.34	1.04
1:5:4113:U:H2'	1:5:4114:C:O4'	1.56	1.04
48:4:776:VAL:CG2	48:4:777:ALA:H	1.70	1.04
1:5:77:U:N3	1:5:335:A:N6	2.06	1.04
14:K:154:ASP:O	14:K:155:ILE:HB	1.57	1.04
48:4:60:ARG:NH1	48:4:60:ARG:HG2	1.49	1.04
1:5:2078:C:N3	1:5:2079:G:C8	2.25	1.04
49:S2:1534:C:N4	49:S2:1600:G:O6	1.89	1.04
1:5:1939:A:N1	1:5:3874:G:H5'	1.71	1.04
3:8:94:G:H5'	3:8:94:G:C8	1.92	1.04
1:5:2856:C:N3	1:5:2857:A:N7	2.06	1.04
1:5:3910:C:O2	1:5:3911:C:C5	2.11	1.04
65:SP:21:ASP:OD1	65:SP:21:ASP:CG	1.96	1.04
48:4:255:ASP:OD1	48:4:259:LYS:HE3	1.58	1.04
62:SM:58:GLU:OE1	62:SM:58:GLU:CD	1.96	1.04
48:4:73:THR:CG2	48:4:74:ALA:H	1.71	1.03
14:K:105:THR:O	14:K:106:PHE:CD1	2.11	1.03
1:5:957:G:O5'	1:5:1284:G:C2	2.11	1.03
25:V:134:SER:OG	49:S2:465:A:H2	1.41	1.03
1:5:3767:C:C5'	49:S2:1849:G:C5	2.41	1.03
1:5:4276:G:O6	1:5:4277:G:C5	2.11	1.03
48:4:275:LYS:HE3	48:4:275:LYS:C	1.78	1.03
1:5:2854:G:O6	1:5:2856:C:H6	1.40	1.03
48:4:616:ASP:CG	48:4:621:GLU:HB2	1.78	1.03
48:4:759:ILE:CD1	48:4:784:VAL:CG2	2.30	1.03
1:5:1683:U:O2	1:5:1684:A:H8	1.34	1.03
1:5:1556:C:C2	1:5:1557:C:C5	2.47	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:691:ALA:CB	48:4:730:TYR:CG	2.25	1.03
49:S2:1552:G:N7	49:S2:1578:U:O4	1.89	1.03
11:H:156:ASN:C	11:H:156:ASN:OD1	1.96	1.03
48:4:284:LYS:N	48:4:284:LYS:HD3	1.70	1.03
1:5:4257:A:H2'	1:5:4258:C:C6	1.91	1.03
1:5:1899:G:C2	1:5:1900:C:C6	2.47	1.03
48:4:686:ALA:HB1	48:4:729:LEU:CD1	1.88	1.03
48:4:827:ASN:C	48:4:827:ASN:HD22	1.62	1.03
1:5:4983:C:C2	1:5:4984:C:C5	2.47	1.03
48:4:10:ARG:NH2	48:4:465:PRO:CD	2.21	1.03
48:4:240:GLY:O	48:4:243:GLN:HG3	1.54	1.03
13:J:105:PHE:CE1	13:J:132:VAL:HB	1.93	1.03
1:5:2027:U:O2'	1:5:2028:C:H5'	1.59	1.03
48:4:713:ALA:HA	48:4:716:ARG:HB3	1.39	1.03
48:4:693:CYS:CA	48:4:839:ARG:HH21	1.71	1.03
1:5:3709:U:C1'	49:S2:970:G:H1	1.72	1.03
49:S2:524:U:N3	49:S2:594:A:C6	2.26	1.03
1:5:2858:A:O2'	1:5:2859:G:O5'	1.77	1.03
1:5:1632:A:C6	1:5:1634:A:C8	2.47	1.03
1:5:1973:G:C6	1:5:1993:C:N4	2.23	1.03
1:5:2109:G:O6	1:5:2122:G:O6	1.74	1.03
1:5:471:A:C6	1:5:472:C:C6	2.46	1.03
14:K:123:ARG:HG3	14:K:129:ILE:HD12	1.37	1.03
48:4:769:HIS:O	48:4:786:ALA:CA	2.06	1.03
48:4:825:PHE:HE2	48:4:849:PRO:CD	1.50	1.03
49:S2:1539:U:C2	49:S2:1540:G:N7	2.24	1.03
48:4:165:LEU:HD12	48:4:305:MET:HE1	1.35	1.03
49:S2:998:A:N7	49:S2:999:G:C1'	2.22	1.03
48:4:160:MET:CE	48:4:178:PHE:CE2	2.42	1.03
1:5:2109:G:C6	1:5:2122:G:O6	2.11	1.02
48:4:4:PHE:HD1	48:4:5:THR:CB	1.72	1.02
48:4:756:VAL:HG22	48:4:782:PHE:HB2	1.37	1.02
14:K:97:ASN:CA	14:K:98:ILE:CG1	2.07	1.02
48:4:739:ARG:CA	48:4:824:PRO:HD3	1.87	1.02
1:5:1563:A:N6	49:S2:1028:A:N6	2.07	1.02
1:5:28:C:O2	1:5:29:G:H8	1.36	1.02
1:5:3597:G:OP1	21:R:109:TYR:OH	1.77	1.02
48:4:752:PRO:HD2	48:4:755:VAL:HG21	1.38	1.02
1:5:2000:G:O2'	1:5:2017:A:N1	1.92	1.02
1:5:1994:C:H2'	14:K:132:ILE:HG12	1.40	1.02
10:G:264:LYS:CE	10:G:265:LEU:HD22	1.88	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:686:ALA:HB1	48:4:729:LEU:HD12	1.41	1.02
48:4:103:ILE:HG12	48:4:122:THR:HG21	1.06	1.02
3:8:133:G:C2	3:8:134:G:C8	2.47	1.02
48:4:551:GLU:OE1	48:4:551:GLU:N	1.90	1.02
1:5:1245:C:C2	1:5:1246:G:N7	2.26	1.02
1:5:2646:C:O2	1:5:2647:A:H8	1.42	1.02
48:4:689:GLU:O	48:4:730:TYR:OH	1.78	1.02
1:5:1190:C:N3	1:5:1191:C:C5	2.28	1.02
1:5:1566:C:H2'	1:5:1567:U:H6	1.17	1.02
1:5:2497:C:C2	1:5:2498:C:C6	2.48	1.02
50:SA:176:TRP:CZ3	50:SA:199:PRO:HG3	1.95	1.02
14:K:22:VAL:HG21	14:K:48:LYS:HB2	1.42	1.02
48:4:686:ALA:HB2	48:4:729:LEU:HD12	1.42	1.02
49:S2:998:A:N7	49:S2:999:G:O4'	1.93	1.02
49:S2:996:A:C6	63:SN:113:PHE:CZ	2.46	1.02
1:5:3611:A:H4'	58:SI:92:ARG:HH22	1.25	1.02
1:5:2327:G:C2	1:5:2328:G:C8	2.48	1.02
48:4:58:ASP:CG	48:4:69:THR:HA	1.75	1.02
1:5:4080:C:N3	1:5:4081:G:N7	2.06	1.02
14:K:62:LEU:HD11	14:K:73:VAL:CG2	1.90	1.02
49:S2:458:A:N6	49:S2:459:C:C5	2.28	1.02
49:S2:75:G:O2'	49:S2:76:U:H6	1.41	1.02
1:5:1392:A:C2	1:5:1393:G:C5	2.48	1.02
1:5:3859:G:O4'	19:P:139:TYR:OH	1.78	1.02
1:5:4284:C:N3	1:5:4285:U:C5	2.28	1.02
1:5:3910:C:C2	1:5:3911:C:C5	2.48	1.02
14:K:121:LEU:HD11	14:K:129:ILE:HG21	1.38	1.01
14:K:79:ALA:O	14:K:83:LYS:CG	2.07	1.01
48:4:613:LEU:CD1	48:4:639:TYR:CB	2.36	1.01
48:4:691:ALA:CB	48:4:854:PHE:CZ	2.43	1.01
48:4:609:PHE:HZ	48:4:661:ILE:HD12	0.89	1.01
1:5:1378:C:C3'	1:5:1379:C:H5'	1.90	1.01
13:J:119:TYR:CD2	68:SS:108:ARG:HH21	1.04	1.01
13:J:119:TYR:CE1	68:SS:108:ARG:NH2	1.99	1.01
1:5:2367:A:H61	1:5:2788:U:H3	1.03	1.01
49:S2:1315:U:N3	49:S2:1316:C:C5	2.27	1.01
49:S2:1294:G:C2	49:S2:1295:A:C8	2.48	1.01
3:8:118:C:N3	3:8:119:C:C5	2.28	1.01
1:5:48:G:O2'	1:5:49:U:OP2	1.78	1.01
1:5:173:C:O2	1:5:174:C:C6	2.13	1.01
1:5:173:C:C2	1:5:174:C:C5	2.46	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4605:A:H62	48:4:801:ARG:CD	1.50	1.01
1:5:1899:G:N3	1:5:1900:C:C6	2.29	1.01
48:4:767:ARG:HH21	48:4:792:GLU:HG3	1.21	1.01
49:S2:337:C:C2	49:S2:338:G:C8	2.48	1.01
49:S2:1417:C:N3	49:S2:1419:C:C5	2.28	1.01
1:5:1598:C:O2	1:5:1599:A:H8	1.39	1.01
1:5:1936:C:N3	1:5:1937:C:C5	2.27	1.01
49:S2:551:U:C2	49:S2:552:G:N7	2.28	1.01
48:4:759:ILE:HD13	48:4:784:VAL:HG23	1.41	1.01
1:5:1618:G:C2	1:5:1619:G:C8	2.48	1.01
1:5:2314:G:N2	1:5:2315:G:C5	2.28	1.01
1:5:470:A:C5	1:5:471:A:C8	2.47	1.01
1:5:983:C:C2	1:5:984:C:C6	2.48	1.01
49:S2:378:U:C2	49:S2:379:C:C6	2.48	1.01
49:S2:387:C:N3	49:S2:388:U:C5	2.28	1.01
1:5:2409:U:C4	1:5:2783:A:N1	2.28	1.01
3:8:119:C:N3	3:8:120:G:C8	2.28	1.01
1:5:1556:C:C2	1:5:1557:C:C6	2.48	1.01
48:4:27:HIS:CD2	48:4:28:VAL:H	1.65	1.01
48:4:823:ASP:OD1	48:4:825:PHE:N	1.93	1.01
48:4:125:ALA:O	48:4:154:VAL:HG12	1.60	1.01
49:S2:1538:C:O2	49:S2:1539:U:H6	1.42	1.01
49:S2:1644:C:O2'	49:S2:1645:C:O4'	1.78	1.01
48:4:402:VAL:HG23	48:4:403:PRO:HD2	1.03	1.01
48:4:448:GLN:HA	48:4:448:GLN:NE2	1.73	1.01
3:8:130:C:N3	3:8:131:G:C8	2.28	1.01
1:5:5025:C:OP1	58:SI:164:GLU:OE2	1.78	1.01
1:5:2078:C:O2	1:5:2079:G:C8	2.12	1.01
1:5:1267:C:H5"	1:5:2110:C:O2	1.61	1.01
1:5:4080:C:C2	1:5:4081:G:C8	2.49	1.01
48:4:592:LEU:HD22	48:4:603:TYR:CE2	1.96	1.01
48:4:691:ALA:HB1	48:4:854:PHE:HZ	0.86	1.01
48:4:206:ASP:HB3	48:4:207:PRO:HD2	1.39	1.01
14:K:162:CYS:N	14:K:163:PRO:HD3	1.76	1.01
1:5:3709:U:N1	49:S2:970:G:N2	2.08	1.01
49:S2:1416:C:C2'	49:S2:1417:C:C6	2.44	1.01
49:S2:1433:C:OP2	49:S2:1434:C:P	2.18	1.01
49:S2:1402:A:C5	49:S2:1441:U:O4	2.14	1.01
49:S2:1643:U:O2'	49:S2:1644:C:O5'	1.77	1.01
1:5:4745:G:O2'	1:5:4746:C:C6	2.13	1.01
14:K:22:VAL:CG2	14:K:48:LYS:HB2	1.90	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:61:LYS:HE2	14:K:72:GLU:CG	1.90	1.00
48:4:575:PRO:O	48:4:577:VAL:HG23	1.61	1.00
1:5:1993:C:H1'	14:K:135:THR:HB	1.03	1.00
1:5:2079:G:C2	1:5:2080:U:C6	2.49	1.00
14:K:154:ASP:O	14:K:155:ILE:N	1.83	1.00
48:4:613:LEU:CD2	48:4:639:TYR:HD1	1.56	1.00
1:5:1378:C:H3'	1:5:1379:C:H5'	1.05	1.00
1:5:3723:A:C2	1:5:3724:A:N7	2.29	1.00
49:S2:1512:C:O2	49:S2:1513:C:C5	2.14	1.00
49:S2:1540:G:C2	49:S2:1541:G:C8	2.48	1.00
1:5:4233:A:N6	1:5:4290:U:H3	1.58	1.00
1:5:4283:G:N3	1:5:4284:C:C6	2.28	1.00
1:5:1563:A:H61	49:S2:1028:A:H61	1.02	1.00
49:S2:1273:C:C2	49:S2:1506:A:H2	1.78	1.00
49:S2:1111:U:O2	49:S2:1112:U:C6	2.13	1.00
1:5:4095:G:N2	1:5:4096:C:C4	2.29	1.00
2:7:42:A:C2	2:7:43:U:C6	2.48	1.00
14:K:56:LEU:HD12	14:K:91:ASP:CG	1.81	1.00
48:4:753:GLU:OE2	48:4:779:THR:HG23	0.83	1.00
1:5:4165:C:N3	1:5:4166:G:C8	2.29	1.00
1:5:3709:U:C1'	49:S2:970:G:N1	2.25	1.00
1:5:1566:C:O2'	1:5:1567:U:O4'	1.78	1.00
49:S2:1109:C:C2	49:S2:1110:G:O4'	2.13	1.00
49:S2:848:U:C2	49:S2:849:A:N7	2.29	1.00
48:4:73:THR:HG23	48:4:74:ALA:H	0.86	1.00
48:4:771:PHE:CB	48:4:785:LYS:CB	2.39	1.00
1:5:2127:C:H2'	1:5:2128:G:C8	1.97	1.00
49:S2:1453:C:C5	49:S2:1455:A:H1'	1.96	1.00
14:K:160:VAL:HA	14:K:163:PRO:HG2	1.04	1.00
2:7:17:C:N3	2:7:18:C:C5	2.30	1.00
2:7:18:C:N3	2:7:19:C:H5	1.59	1.00
48:4:402:VAL:CG2	48:4:403:PRO:CD	2.40	1.00
1:5:1628:C:C2	1:5:1629:G:C8	2.49	1.00
1:5:27:C:O2	1:5:27:C:H2'	1.62	1.00
49:S2:493:A:C8	49:S2:574:A:C8	2.50	1.00
48:4:753:GLU:CD	48:4:779:THR:CG2	2.18	1.00
1:5:4283:G:N2	1:5:4284:C:C2	2.29	1.00
2:7:54:A:N3	2:7:55:A:C8	2.30	1.00
1:5:5005:G:N7	26:W:51:TRP:CD1	2.29	1.00
1:5:166:C:C2	1:5:167:C:H5	1.78	1.00
1:5:1266:G:H5"	1:5:2112:G:N3	1.75	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:160:VAL:CA	14:K:163:PRO:HG3	1.88	1.00
49:S2:1552:G:O6	49:S2:1578:U:N3	1.95	1.00
1:5:1672:U:O2	1:5:1673:U:C5	2.15	1.00
1:5:2508:U:C2	1:5:2509:C:C5	2.50	1.00
1:5:209:U:C2	1:5:233:U:C4	2.49	1.00
14:K:102:GLY:HA2	14:K:139:VAL:HG12	1.38	1.00
1:5:1358:G:N2	1:5:1359:G:C6	2.29	1.00
1:5:1601:A:C8	1:5:3643:A:C8	2.50	1.00
48:4:430:MET:CE	48:4:486:THR:HG23	1.90	0.99
48:4:753:GLU:N	48:4:782:PHE:HE1	1.60	0.99
14:K:80:LEU:HA	14:K:83:LYS:CD	1.92	0.99
1:5:4983:C:O2	1:5:4984:C:C6	2.15	0.99
49:S2:506:G:OP1	74:SY:108:LYS:NZ	1.95	0.99
1:5:4730:C:O5'	1:5:4731:G:N2	1.94	0.99
1:5:4165:C:N3	1:5:4166:G:N7	2.10	0.99
49:S2:42:A:C5	49:S2:426:A:N6	2.30	0.99
48:4:671:TYR:CD1	48:4:674:GLU:OE1	2.15	0.99
49:S2:1513:C:C2'	49:S2:1514:G:H5'	1.91	0.99
49:S2:1540:G:N1	49:S2:1541:G:C5	2.30	0.99
1:5:2428:A:C5	1:5:2789:A:C2	2.50	0.99
1:5:4100:C:N3	1:5:4101:C:C5	2.31	0.99
49:S2:848:U:N3	49:S2:849:A:C6	2.30	0.99
1:5:1076:C:O3'	1:5:2114:G:O6	1.81	0.99
1:5:4166:G:C2	1:5:4167:G:C8	2.51	0.99
14:K:77:ALA:HB3	14:K:80:LEU:HD12	1.40	0.99
1:5:1324:A:O2'	1:5:1326:A:OP1	1.79	0.99
1:5:3912:U:O2'	1:5:3913:G:H5'	1.59	0.99
71:SV:1:MET:N	71:SV:1:MET:SD	2.30	0.99
1:5:1899:G:N2	1:5:1900:C:C2	2.31	0.99
14:K:142:ASN:HB2	14:K:147:HIS:C	1.81	0.99
1:5:2590:G:C2	1:5:2754:G:C2	2.51	0.99
48:4:762:VAL:HG13	48:4:766:LYS:HZ3	1.22	0.99
14:K:47:ALA:HB1	14:K:72:GLU:HG2	1.02	0.99
1:5:4414:A:C2	1:5:4427:G:N2	2.30	0.99
48:4:659:PRO:CG	48:4:698:ARG:NH2	2.25	0.99
48:4:855:LEU:C	48:4:855:LEU:CD2	2.30	0.99
1:5:3675:G:C2	1:5:3676:G:N7	2.31	0.99
1:5:4606:G:H5"	48:4:28:VAL:CG2	1.91	0.99
14:K:38:SER:CB	14:K:39:PRO:CD	2.39	0.99
1:5:3767:C:C4'	49:S2:1849:G:O6	2.09	0.99
1:5:1390:G:N2	1:5:1394:G:C5	2.31	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:330:G:C2	1:5:331:G:C8	2.50	0.99
1:5:3709:U:H1'	49:S2:970:G:C6	1.98	0.99
3:8:64:U:N3	3:8:65:A:C6	2.31	0.99
14:K:22:VAL:HG21	14:K:48:LYS:HE3	1.42	0.99
49:S2:146:G:O2'	49:S2:147:A:H5'	1.62	0.99
1:5:3879:G:C6	1:5:3882:C:C5	2.49	0.99
1:5:4117:U:N3	4:A:40:TYR:CE1	2.31	0.99
1:5:1485:C:O2	1:5:4349:C:C5	2.15	0.99
1:5:85:G:O2'	1:5:97:G:O6	1.80	0.99
49:S2:1133:A:N1	49:S2:1134:G:N7	2.10	0.99
1:5:2784:C:O2	1:5:2785:C:C6	2.16	0.99
1:5:484:U:N3	1:5:486:C:C6	2.30	0.99
49:S2:923:G:N2	49:S2:1022:U:O4	1.96	0.99
7:D:42:ASN:HA	7:D:44:TYR:OH	1.61	0.99
2:7:42:A:C6	2:7:43:U:C5	2.51	0.99
1:5:2668:G:H2'	1:5:2669:C:H5'	1.45	0.99
48:4:60:ARG:HH11	48:4:60:ARG:HG2	0.86	0.99
1:5:3629:A:H1'	49:S2:1721:U:C4	1.97	0.99
48:4:45:ILE:HG22	48:4:78:PHE:H	1.26	0.98
1:5:4605:A:N6	48:4:801:ARG:HG2	1.74	0.98
1:5:1248:C:C2	1:5:1249:C:C5	2.51	0.98
1:5:1899:G:N1	1:5:1900:C:C4	2.30	0.98
48:4:824:PRO:O	48:4:832:SER:HB2	1.61	0.98
1:5:291:U:C2'	1:5:292:G:H2'	1.92	0.98
1:5:1629:G:C2	1:5:1631:A:C6	2.51	0.98
1:5:2673:G:O4'	1:5:2675:G:H1'	1.63	0.98
1:5:4174:U:N3	1:5:4175:G:N7	2.10	0.98
49:S2:378:U:N3	49:S2:379:C:C5	2.31	0.98
1:5:4283:G:N2	1:5:4284:C:N1	2.10	0.98
1:5:4280:A:N6	7:D:29:ASP:CA	2.25	0.98
1:5:1217:G:H2'	1:5:1218:G:H8	1.28	0.98
1:5:1269:G:C8	1:5:2111:G:C6	2.52	0.98
48:4:691:ALA:HB3	48:4:730:TYR:HB3	1.40	0.98
49:S2:993:G:C6	49:S2:994:C:C5	2.50	0.98
1:5:1840:G:O3'	1:5:1842:G:P	2.21	0.98
48:4:42:LYS:CE	48:4:79:TYR:OH	2.12	0.98
1:5:293:G:H2'	1:5:297:U:C6	1.97	0.98
3:8:11:C:N3	3:8:12:G:C8	2.30	0.98
49:S2:998:A:C8	49:S2:999:G:O4'	2.16	0.98
48:4:397:TYR:HE1	48:4:496:VAL:HG12	1.25	0.98
1:5:1248:C:C2	1:5:1249:C:C6	2.51	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2325:C:N3	1:5:2326:G:N7	2.12	0.98
1:5:470:A:C6	1:5:471:A:C8	2.52	0.98
48:4:659:PRO:HG3	48:4:698:ARG:CZ	1.92	0.98
49:S2:1415:C:H2'	49:S2:1416:C:O4'	1.63	0.98
49:S2:923:G:N2	49:S2:1022:U:C4	2.31	0.98
48:4:430:MET:CE	48:4:486:THR:CG2	2.41	0.98
14:K:61:LYS:CE	14:K:72:GLU:CA	2.33	0.98
14:K:56:LEU:HB3	14:K:91:ASP:CG	1.83	0.98
48:4:613:LEU:HD21	48:4:639:TYR:HD1	1.29	0.98
3:8:64:U:C2	3:8:65:A:C5	2.50	0.98
48:4:794:PHE:N	48:4:794:PHE:CD1	2.26	0.98
48:4:226:LYS:NZ	48:4:356:ILE:HD12	1.78	0.98
14:K:111:ASN:HA	14:K:114:ARG:HE	1.23	0.98
1:5:2058:G:C2	1:5:2059:C:C6	2.52	0.98
48:4:198:GLY:CA	48:4:201:GLY:CA	2.40	0.98
48:4:762:VAL:HG13	48:4:766:LYS:HZ2	1.24	0.98
1:5:1899:G:C2	1:5:1900:C:C4	2.51	0.98
1:5:3717:A:O2'	1:5:3718:A:O5'	1.81	0.98
49:S2:1095:U:N3	49:S2:1149:A:N6	2.12	0.98
49:S2:524:U:C4	49:S2:594:A:N6	2.32	0.98
49:S2:1249:C:C5	49:S2:1250:A:C8	2.52	0.98
48:4:667:LYS:NZ	48:4:667:LYS:HB2	1.74	0.98
1:5:4099:G:O2'	51:SB:224:GLU:CB	2.12	0.98
48:4:79:TYR:CE2	48:4:351:LEU:HD12	1.98	0.98
1:5:4174:U:O2	1:5:4175:G:C8	2.17	0.98
14:K:61:LYS:HE2	14:K:72:GLU:CB	1.94	0.98
1:5:4982:A:C6	1:5:4983:C:C5	2.52	0.98
48:4:13:MET:HE1	48:4:464:VAL:HG13	1.00	0.98
1:5:1340:C:N3	1:5:1341:U:C5	2.32	0.98
1:5:2743:A:N3	1:5:2744:A:N7	2.11	0.97
14:K:111:ASN:HA	14:K:114:ARG:NE	1.78	0.97
49:S2:1315:U:C4	49:S2:1316:C:C6	2.53	0.97
16:M:33:GLN:NE2	16:M:33:GLN:HA	1.77	0.97
48:4:759:ILE:HD13	48:4:784:VAL:HG21	1.40	0.97
48:4:78:PHE:O	48:4:79:TYR:CD1	2.16	0.97
48:4:693:CYS:HA	48:4:839:ARG:NH2	1.78	0.97
26:W:50:ASN:HB3	26:W:55:TYR:CE2	1.98	0.97
1:5:1074:G:C2	1:5:1238:A:C2	2.52	0.97
1:5:4167:G:C2	1:5:4168:G:C8	2.51	0.97
1:5:4223:C:H4'	12:I:119:PHE:HE2	1.29	0.97
1:5:2087:C:C5	20:Q:37:ARG:NH1	2.31	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:776:VAL:HG22	48:4:777:ALA:H	0.83	0.97
14:K:116:MET:O	14:K:118:HIS:N	1.98	0.97
14:K:102:GLY:CA	14:K:139:VAL:CA	2.37	0.97
1:5:3709:U:N1	49:S2:970:G:N1	2.12	0.97
1:5:2437:C:H5"	1:5:2782:U:O4	1.63	0.97
3:8:64:U:O2	3:8:65:A:N7	1.96	0.97
49:S2:620:G:OP1	49:S2:620:G:N2	1.97	0.97
1:5:1979:A:OP1	14:K:99:LYS:CG	2.11	0.97
14:K:154:ASP:O	14:K:155:ILE:CB	2.12	0.97
14:K:23:GLY:O	14:K:24:ALA:HB3	1.62	0.97
48:4:253:VAL:HG12	48:4:257:MET:CE	1.95	0.97
49:S2:1232:U:O2	49:S2:1233:G:C8	2.18	0.97
1:5:4283:G:N2	1:5:4284:C:C6	2.31	0.97
49:S2:636:C:N3	49:S2:637:U:C5	2.31	0.97
48:4:667:LYS:HZ3	48:4:667:LYS:CB	1.78	0.97
48:4:769:HIS:O	48:4:786:ALA:HB2	1.62	0.97
48:4:770:VAL:CG1	48:4:784:VAL:HG13	1.94	0.97
1:5:3731:C:N3	1:5:3732:A:N7	2.13	0.97
1:5:3702:A:N1	1:5:3703:G:N7	2.10	0.97
3:8:74:U:C4	28:Y:74:TYR:CE1	2.53	0.97
48:4:45:ILE:CG1	48:4:46:ILE:N	2.20	0.97
1:5:1973:G:N2	1:5:1993:C:N3	2.12	0.97
48:4:686:ALA:CB	48:4:726:ARG:HA	1.94	0.97
49:S2:1857:G:N7	64:SO:146:ARG:NH2	2.12	0.97
1:5:3721:U:O2	1:5:3722:G:C8	2.18	0.97
1:5:3740:G:C6	1:5:3741:C:C6	2.52	0.97
1:5:3709:U:N1	49:S2:970:G:C2	2.30	0.97
49:S2:797:C:C2	57:SH:109:ARG:NH2	2.33	0.97
1:5:375:G:OP2	13:J:52:LYS:NZ	105.59	0.97
48:4:189:ILE:CG2	48:4:203:ILE:HG13	1.95	0.97
1:5:1993:C:H1'	14:K:135:THR:CB	1.94	0.97
1:5:4608:G:OP1	48:4:66:ARG:NH2	1.98	0.97
48:4:121:VAL:HG23	48:4:122:THR:HG23	1.46	0.97
16:M:7:VAL:HB	22:S:152:PHE:HB2	1.44	0.97
48:4:72:SER:OG	48:4:104:ASP:HB3	1.64	0.97
48:4:804:THR:HG21	48:4:808:ALA:HB2	1.45	0.97
49:S2:120:U:C4	49:S2:121:U:C5	2.53	0.97
48:4:855:LEU:CD2	48:4:856:ASP:N	2.27	0.97
49:S2:99:A:C2	49:S2:100:U:C6	2.53	0.97
1:5:4481:U:C2	1:5:4482:U:C5	2.52	0.97
48:4:751:CYS:O	48:4:781:MET:CA	2.12	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2743:A:C2	1:5:2744:A:C6	2.53	0.96
14:K:131:GLU:CG	14:K:155:ILE:CD1	2.42	0.96
49:S2:1545:A:C5	49:S2:1588:A:C6	2.52	0.96
1:5:2658:G:C2	1:5:2675:G:C2	2.53	0.96
48:4:751:CYS:HB2	48:4:755:VAL:CG2	1.95	0.96
1:5:1269:G:C6	1:5:2111:G:C2	2.53	0.96
1:5:977:C:N3	1:5:978:G:C8	2.26	0.96
48:4:56:PHE:HE1	48:4:455:GLY:HA2	1.23	0.96
49:S2:1409:A:C2	49:S2:1410:C:C6	2.53	0.96
1:5:3694:U:N3	1:5:3695:U:C5	2.33	0.96
1:5:483:G:C2	1:5:484:U:C5	2.53	0.96
1:5:1269:G:C5	1:5:2111:G:C2	2.52	0.96
1:5:1899:G:C8	1:5:2278:G:C2	2.52	0.96
9:F:149:LEU:HB2	9:F:197:TYR:OH	1.64	0.96
49:S2:830:A:N1	49:S2:844:U:O4	1.96	0.96
3:8:74:U:O4	28:Y:74:TYR:CE1	2.17	0.96
1:5:27:C:O2	1:5:28:C:H6	1.48	0.96
48:4:756:VAL:CG2	48:4:782:PHE:CG	2.48	0.96
1:5:1078:A:H2	1:5:1079:C:H41	1.01	0.96
1:5:2099:G:C2	1:5:2100:A:C8	2.53	0.96
10:G:264:LYS:HZ1	10:G:265:LEU:CD2	1.77	0.96
49:S2:1284:A:O2'	62:SM:106:CYS:CA	2.13	0.96
49:S2:1308:U:H2'	49:S2:1309:C:H6	1.25	0.96
49:S2:56:G:C6	49:S2:90:G:C2	2.52	0.96
1:5:3702:A:C6	1:5:3703:G:N7	2.33	0.96
3:8:85:U:H2'	3:8:87:G:C8	2.00	0.96
1:5:4518:A:C8	5:B:257:TRP:CZ2	2.53	0.96
1:5:4099:G:O2'	51:SB:224:GLU:HB3	1.65	0.96
1:5:957:G:O5'	1:5:1284:G:N2	1.98	0.96
1:5:1672:U:O2	1:5:1673:U:C6	2.19	0.96
1:5:2021:G:O3'	20:Q:84:GLY:CA	138.68	0.96
14:K:116:MET:HB2	14:K:117:ARG:HH21	1.28	0.96
49:S2:1051:G:C2	49:S2:1052:A:C8	2.52	0.96
1:5:2726:G:C2	1:5:2727:C:C4	2.54	0.96
1:5:2832:A:H2'	1:5:2833:A:H5"	1.44	0.96
1:5:4966:A:H2'	1:5:4967:A:O4'	1.65	0.96
48:4:804:THR:OG1	48:4:808:ALA:CB	2.12	0.96
1:5:1240:G:OP1	1:5:1271:G:O2'	1.84	0.96
1:5:2279:A:C2	1:5:2280:G:C5	2.54	0.96
1:5:289:C:N3	1:5:290:U:C5	2.34	0.96
1:5:2532:C:O2	1:5:2533:C:C6	2.18	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:162:ARG:O	48:4:166:GLU:HG3	1.66	0.96
1:5:1983:A:C8	1:5:1987:C:OP2	2.19	0.96
14:K:131:GLU:HG2	14:K:155:ILE:CD1	1.94	0.96
1:5:3767:C:H5"	49:S2:1849:G:C5	2.01	0.96
1:5:102:G:HO2'	1:5:1381:U:HO2'	1.12	0.96
49:S2:1541:G:C2	49:S2:1542:C:C5	2.54	0.96
49:S2:1132:C:C4	49:S2:1133:A:C8	2.54	0.96
1:5:2453:A:C6	1:5:2454:U:C5	2.53	0.96
1:5:970:G:O6	1:5:2256:C:N4	1.97	0.96
49:S2:349:A:C4'	58:SI:27:TYR:OH	2.13	0.96
49:S2:77:A:O2'	56:SG:175:LYS:HA	1.65	0.96
49:S2:1314:U:H3	49:S2:1315:U:H1'	1.25	0.96
48:4:226:LYS:HZ2	48:4:356:ILE:HD12	1.31	0.96
3:8:132:G:C2	3:8:133:G:C8	2.52	0.96
49:S2:94:G:HO2'	49:S2:508:A:HO2'	1.10	0.96
1:5:1280:C:C2	1:5:1282:G:N7	2.34	0.96
14:K:121:LEU:HD13	14:K:129:ILE:HG21	1.05	0.96
14:K:117:ARG:CG	14:K:133:LEU:CD1	2.43	0.96
49:S2:648:A:C2	49:S2:649:U:C6	2.54	0.96
49:S2:974:C:C2	49:S2:975:G:C8	2.53	0.96
49:S2:862:A:C2	49:S2:863:U:C6	2.54	0.96
1:5:1217:G:H2'	1:5:1218:G:C8	2.01	0.96
49:S2:339:A:H2'	49:S2:340:C:C5	2.00	0.96
49:S2:26:U:C4	49:S2:27:A:N7	2.34	0.96
49:S2:793:G:C5	49:S2:794:A:C8	2.54	0.96
49:S2:119:U:N3	49:S2:120:U:C5	2.34	0.95
49:S2:217:A:N3	49:S2:309:G:C6	2.34	0.95
49:S2:75:G:H21	49:S2:77:A:P	1.89	0.95
1:5:3629:A:O2'	49:S2:1721:U:N3	1.98	0.95
1:5:2857:A:O2'	1:5:2858:A:O5'	1.82	0.95
1:5:486:C:C2	1:5:487:G:C8	2.53	0.95
1:5:3905:A:C2	1:5:4449:A:N6	2.34	0.95
17:N:30:TYR:CE1	17:N:63:ARG:HD2	2.01	0.95
1:5:472:C:C2	1:5:473:C:C6	2.53	0.95
49:S2:42:A:N1	49:S2:43:U:H5	1.63	0.95
1:5:4414:A:N1	1:5:4427:G:C2	2.34	0.95
1:5:92:C:OP2	1:5:4341:C:O2'	1.84	0.95
1:5:1561:G:C2'	1:5:1562:G:H5'	1.93	0.95
1:5:4215:C:C2	1:5:4216:G:C8	2.53	0.95
14:K:102:GLY:HA2	14:K:139:VAL:CB	1.95	0.95
49:S2:1408:U:N3	49:S2:1439:A:H2	1.64	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1609:C:O2	49:S2:1610:G:C8	2.19	0.95
3:8:11:C:C2	3:8:12:G:C8	2.54	0.95
49:S2:1111:U:N3	49:S2:1112:U:H5	1.62	0.95
49:S2:588:G:N3	49:S2:589:G:N2	2.14	0.95
1:5:3807:A:HO2'	49:S2:1816:G:HO2'	0.98	0.95
49:S2:909:G:C2	49:S2:910:G:C8	2.54	0.95
49:S2:908:A:C2	49:S2:909:G:N7	2.35	0.95
48:4:745:TYR:CG	48:4:813:VAL:O	2.20	0.95
1:5:4080:C:O2	1:5:4081:G:C8	2.20	0.95
1:5:977:C:O2	1:5:978:G:C8	2.17	0.95
48:4:693:CYS:CA	48:4:839:ARG:NH2	2.29	0.95
1:5:4258:C:C2	1:5:4259:C:C5	2.53	0.95
48:4:588:ASN:OD1	48:4:589:VAL:N	1.98	0.95
48:4:540:GLU:OE1	48:4:540:GLU:HA	1.62	0.95
1:5:2743:A:C2	1:5:2744:A:N7	2.34	0.95
1:5:1979:A:OP1	14:K:99:LYS:HG3	1.63	0.95
10:G:261:LEU:HD22	10:G:264:LYS:CE	1.86	0.95
1:5:4285:U:C2	1:5:4286:C:C5	2.54	0.95
1:5:4999:G:C2	1:5:5000:G:C8	2.55	0.95
48:4:427:VAL:HG13	48:4:485:ILE:HG23	1.46	0.95
1:5:1340:C:C2	1:5:1341:U:C6	2.55	0.95
1:5:1994:C:H2'	14:K:132:ILE:CG1	1.91	0.95
48:4:225:LEU:HD21	48:4:257:MET:O	1.63	0.95
1:5:3726:A:O2'	1:5:3727:A:C8	2.19	0.95
49:S2:1398:G:C2	49:S2:1399:C:C5	2.54	0.95
49:S2:1430:C:N3	49:S2:1431:G:C8	2.35	0.95
49:S2:1540:G:C6	49:S2:1541:G:N7	2.35	0.95
1:5:4563:U:C2	1:5:4564:A:N7	2.35	0.95
48:4:21:ASN:ND2	48:4:469:ILE:CD1	2.29	0.95
1:5:4369:A:C2	1:5:4370:G:C8	2.55	0.95
48:4:691:ALA:N	48:4:730:TYR:CE1	2.28	0.95
48:4:692:LEU:HD22	48:4:734:LEU:HD21	1.48	0.95
48:4:420:LEU:N	48:4:420:LEU:CD2	2.29	0.95
3:8:119:C:O2	3:8:120:G:C8	2.19	0.95
1:5:4518:A:N7	5:B:257:TRP:CZ2	2.33	0.95
22:S:45:TRP:CZ3	22:S:56:LYS:HA	2.01	0.95
48:4:75:ILE:HG22	48:4:77:LEU:HD12	1.47	0.95
48:4:753:GLU:CB	48:4:782:PHE:HE1	1.63	0.95
1:5:2089:G:C4	1:5:2262:G:H2'	2.02	0.95
1:5:969:C:O2'	1:5:970:G:N3	1.98	0.95
49:S2:121:U:N3	49:S2:122:G:N7	2.13	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1591:C:C4	49:S2:1592:C:C5	2.54	0.95
1:5:1936:C:C6	2:7:84:U:C6	2.54	0.95
1:5:3629:A:C1'	49:S2:1721:U:N3	2.29	0.95
1:5:2854:G:O6	1:5:2856:C:C6	2.19	0.95
1:5:2127:C:H2'	1:5:2128:G:N7	1.82	0.95
14:K:62:LEU:HD11	14:K:73:VAL:CB	1.96	0.95
14:K:97:ASN:HA	14:K:98:ILE:HG12	1.47	0.95
49:S2:1101:U:O2	49:S2:1102:G:N7	1.99	0.95
5:B:118:PHE:HB2	5:B:119:TYR:CE1	2.02	0.95
8:E:184:ARG:NH2	8:E:210:ASP:OD1	2.00	0.95
48:4:144:ARG:NH1	48:4:781:MET:HE2	1.79	0.95
48:4:4:PHE:HD1	48:4:5:THR:CG2	1.79	0.95
48:4:60:ARG:O	48:4:60:ARG:HD2	1.66	0.95
48:4:759:ILE:HG21	48:4:784:VAL:HG21	1.49	0.95
1:5:1427:A:H3'	1:5:1428:U:H6	1.30	0.95
14:K:95:GLN:O	14:K:96:LYS:CD	2.13	0.95
1:5:2497:C:C2	1:5:2498:C:C5	2.55	0.95
1:5:1198:G:H2'	1:5:1199:G:C8	2.02	0.95
48:4:754:GLN:OE1	48:4:755:VAL:HG23	1.64	0.94
1:5:983:C:C2	1:5:984:C:C5	2.55	0.94
14:K:102:GLY:CA	14:K:139:VAL:HG12	1.89	0.94
48:4:692:LEU:HD13	48:4:734:LEU:HD11	0.97	0.94
48:4:672:LEU:O	48:4:676:LYS:N	1.99	0.94
49:S2:340:C:C2	49:S2:341:C:C5	2.54	0.94
49:S2:1412:C:H2'	49:S2:1413:G:C8	2.02	0.94
49:S2:1593:C:O2'	69:ST:12:GLN:OE1	1.84	0.94
48:4:845:LYS:CE	48:4:846:GLU:HG2	1.97	0.94
1:5:208:A:C1'	1:5:232:G:H21	1.78	0.94
49:S2:1250:A:C2	49:S2:1339:U:O2'	2.19	0.94
1:5:1217:G:C2'	1:5:1218:G:H8	1.80	0.94
1:5:2646:C:O2	1:5:2647:A:C8	2.19	0.94
1:5:4414:A:C2	1:5:4427:G:C2	2.55	0.94
48:4:613:LEU:CD2	48:4:613:LEU:N	2.30	0.94
48:4:659:PRO:CG	48:4:698:ARG:CZ	2.44	0.94
49:S2:1793:A:C2	49:S2:1794:C:C5	2.55	0.94
1:5:1476:C:N3	1:5:1477:C:C5	2.35	0.94
1:5:3741:C:C2	1:5:3742:G:C8	2.55	0.94
49:S2:1545:A:C6	49:S2:1588:A:C6	2.54	0.94
3:8:11:C:O2	3:8:12:G:H8	1.49	0.94
49:S2:1109:C:N3	49:S2:1110:G:O4'	2.00	0.94
1:5:2851:G:C5	1:5:2852:U:C6	2.54	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:160:MET:HE1	48:4:178:PHE:CE2	2.03	0.94
1:5:4729:A:H4'	1:5:4965:U:O2'	1.67	0.94
1:5:514:U:H5	1:5:515:C:O4'	1.48	0.94
1:5:909:A:C2	1:5:910:G:C8	2.55	0.94
1:5:1984:A:N6	1:5:2011:C:O2'	1.99	0.94
49:S2:42:A:N1	49:S2:43:U:C5	2.35	0.94
1:5:1390:G:C2	1:5:1394:G:C6	2.55	0.94
1:5:3737:A:H2'	1:5:3738:G:O4'	1.68	0.94
1:5:484:U:C2	1:5:486:C:C6	2.54	0.94
48:4:430:MET:HE1	48:4:486:THR:HG21	1.46	0.94
1:5:917:A:C6	1:5:919:C:C4	2.55	0.94
1:5:3790:U:N3	1:5:3792:G:O4'	2.00	0.94
48:4:689:GLU:C	48:4:730:TYR:OH	2.04	0.94
48:4:571:LYS:HE2	48:4:572:LYS:H	1.13	0.94
49:S2:378:U:C4	49:S2:379:C:C5	2.56	0.94
49:S2:1053:C:N3	49:S2:1054:G:N7	2.14	0.94
49:S2:1095:U:O4	49:S2:1149:A:N1	2.00	0.94
1:5:4194:U:O2'	1:5:4221:C:N4	2.00	0.94
1:5:42:A:N6	1:5:4379:A:C2	2.36	0.94
28:Y:15:ARG:HH12	28:Y:19:PHE:HE2	1.09	0.94
1:5:1238:A:O2'	1:5:1239:C:O5'	1.83	0.94
1:5:2080:U:O2	1:5:2081:C:C6	2.21	0.94
1:5:471:A:C5	1:5:472:C:C6	2.55	0.94
14:K:56:LEU:CB	14:K:91:ASP:OD2	2.16	0.94
49:S2:795:A:N3	49:S2:796:G:N7	2.15	0.94
48:4:240:GLY:O	48:4:243:GLN:CG	2.15	0.94
1:5:4098:A:C2	1:5:4099:G:C8	2.55	0.94
1:5:2504:C:O2	1:5:2505:C:C5	2.21	0.94
14:K:22:VAL:HG23	14:K:48:LYS:HE2	1.46	0.94
49:S2:444:G:N2	49:S2:446:G:H8	1.64	0.94
1:5:1358:G:O2'	1:5:1359:G:O4'	1.84	0.94
49:S2:1266:C:O2	49:S2:1267:C:C5	2.20	0.94
49:S2:641:A:H2'	49:S2:642:U:O4'	1.68	0.94
1:5:4724:A:HO2'	5:B:104:THR:HG1	1.09	0.94
1:5:246:G:C2	1:5:247:G:C8	2.56	0.94
48:4:271:GLY:O	48:4:272:LYS:HD3	1.68	0.94
49:S2:458:A:C6	49:S2:459:C:C5	2.55	0.94
1:5:4985:U:H4'	5:B:175:GLN:OE1	1.67	0.94
48:4:694:GLU:HG3	48:4:844:LEU:HD11	1.47	0.94
49:S2:1552:G:C6	49:S2:1578:U:N3	2.35	0.94
1:5:2604:C:O2	1:5:2605:G:H8	1.51	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2304:U:O2	1:5:2332:A:N6	2.00	0.94
49:S2:428:U:H5	59:SJ:7:TRP:CZ2	1.86	0.94
48:4:745:TYR:HA	48:4:815:ASP:CB	1.97	0.94
1:5:1245:C:C6	1:5:1269:G:C6	2.55	0.94
1:5:2326:G:N1	1:5:2327:G:N7	2.16	0.94
48:4:743:PRO:CB	48:4:744:ILE:HB	1.97	0.94
1:5:983:C:O2	1:5:984:C:H6	1.48	0.94
14:K:137:GLN:OE1	14:K:148:PRO:CG	2.16	0.94
14:K:102:GLY:CA	14:K:139:VAL:HG13	1.89	0.94
10:G:261:LEU:HD23	10:G:264:LYS:HE2	1.44	0.94
1:5:100:C:C4	1:5:101:A:C8	2.52	0.94
1:5:4983:C:N3	1:5:4984:C:C5	2.36	0.94
49:S2:1402:A:C6	49:S2:1441:U:C4	2.55	0.94
1:5:2859:G:N2	1:5:3837:C:O2	2.01	0.94
1:5:2843:U:C2	1:5:2844:A:C8	2.56	0.94
1:5:43:U:C5	1:5:44:A:C8	2.55	0.94
1:5:3907:G:N9	1:5:4449:A:H1'	1.82	0.94
1:5:4725:C:O2	1:5:4726:G:H8	1.45	0.94
1:5:4744:A:C2	1:5:4745:G:C5	2.55	0.94
1:5:120:A:H1'	1:5:121:A:C2	2.02	0.94
1:5:1965:G:H2'	1:5:1966:C:C6	2.02	0.94
48:4:759:ILE:HD11	48:4:784:VAL:HB	0.94	0.94
48:4:42:LYS:CG	48:4:79:TYR:HH	1.73	0.94
1:5:975:C:OP1	9:F:49:ARG:NH1	2.01	0.94
14:K:21:GLU:HA	14:K:21:GLU:OE2	1.67	0.94
49:S2:43:U:C2	49:S2:484:A:H2	1.85	0.94
49:S2:551:U:C2	49:S2:552:G:C8	2.56	0.94
48:4:745:TYR:H	48:4:815:ASP:HB3	1.32	0.94
48:4:659:PRO:HG3	48:4:698:ARG:NH2	1.83	0.94
48:4:845:LYS:NZ	48:4:846:GLU:CG	2.30	0.94
49:S2:848:U:C2	49:S2:849:A:C5	2.55	0.94
1:5:4988:U:H4'	1:5:4989:U:O2	1.67	0.94
1:5:2736:G:C2	1:5:2737:C:C5	2.56	0.94
1:5:4165:C:C2	1:5:4166:G:C8	2.55	0.93
49:S2:1402:A:C6	49:S2:1441:U:N3	2.35	0.93
49:S2:1420:G:HO2'	69:ST:4:VAL:N	1.65	0.93
3:8:80:A:H8	3:8:81:C:HO2'	1.13	0.93
1:5:1635:C:H2'	1:5:1636:U:H5'	1.46	0.93
1:5:2735:G:C2	1:5:2736:G:C8	2.57	0.93
1:5:1438:U:O2	1:5:2099:G:O6	1.86	0.93
1:5:1667:G:N2	1:5:2283:G:O6	2.01	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4601:U:C4	1:5:4609:G:N2	2.36	0.93
14:K:121:LEU:CD1	14:K:129:ILE:CG2	2.24	0.93
49:S2:384:U:C5	49:S2:386:C:C6	2.57	0.93
14:K:159:ALA:O	14:K:163:PRO:HG3	1.68	0.93
1:5:4324:A:C2	1:5:4325:A:C5	2.57	0.93
1:5:208:A:H1'	1:5:232:G:N2	1.83	0.93
48:4:543:GLU:OE2	48:4:576:VAL:HG23	0.76	0.93
49:S2:1592:C:C4	49:S2:1593:C:C5	2.56	0.93
1:5:5044:A:C2'	1:5:5045:G:H5'	1.98	0.93
48:4:113:SER:CB	48:4:533:MET:CB	2.22	0.93
48:4:769:HIS:O	48:4:786:ALA:HB1	1.67	0.93
1:5:1247:U:C2	1:5:1248:C:C6	2.55	0.93
1:5:2509:C:O2'	1:5:2510:G:O5'	1.85	0.93
48:4:825:PHE:O	48:4:826:ASP:C	1.94	0.93
48:4:693:CYS:C	48:4:839:ARG:NH2	2.21	0.93
14:K:160:VAL:O	14:K:163:PRO:CG	2.12	0.93
49:S2:792:C:N3	49:S2:793:G:C8	2.36	0.93
1:5:4563:U:N3	1:5:4564:A:C6	2.35	0.93
49:S2:1017:U:N3	49:S2:1018:U:C5	2.37	0.93
1:5:1217:G:N2	1:5:1218:G:O6	2.01	0.93
1:5:5005:G:O6	26:W:51:TRP:CB	2.17	0.93
49:S2:989:C:N3	49:S2:1001:A:N1	2.16	0.93
49:S2:1248:U:H2'	49:S2:1249:C:O4'	1.66	0.93
1:5:4097:G:C2	1:5:4098:A:C8	2.57	0.93
48:4:4:PHE:CD1	48:4:5:THR:CB	2.52	0.93
1:5:4080:C:N3	1:5:4081:G:C8	2.35	0.93
14:K:31:LYS:O	14:K:34:PRO:CG	2.16	0.93
14:K:20:GLY:HA3	14:K:92:ARG:HH22	1.31	0.93
49:S2:333:G:N7	56:SG:190:ARG:NH1	2.15	0.93
49:S2:993:G:C2	49:S2:994:C:C6	2.56	0.93
1:5:747:A:H2'	1:5:749:G:C8	2.04	0.93
1:5:2604:C:N3	1:5:2605:G:N7	2.16	0.93
1:5:4257:A:H2'	1:5:4258:C:H6	1.32	0.93
1:5:4745:G:HO2'	1:5:4746:C:H6	1.16	0.93
48:4:40:VAL:O	48:4:43:ALA:HB2	1.66	0.93
1:5:1671:U:N3	1:5:1672:U:H5	1.66	0.93
49:S2:1050:A:N7	49:S2:1051:G:C8	2.37	0.93
49:S2:1433:C:H2'	49:S2:1434:C:O4'	1.67	0.93
1:5:2851:G:H1'	1:5:3840:U:O2	1.67	0.93
1:5:1408:G:O2'	1:5:1411:C:N4	2.02	0.93
49:S2:963:A:H2'	49:S2:964:A:C8	2.03	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:27:HIS:CD2	48:4:28:VAL:HG22	2.04	0.93
48:4:579:TYR:HA	48:4:817:TRP:HH2	1.30	0.93
1:5:173:C:C2	1:5:174:C:C6	2.57	0.93
1:5:3617:G:O2'	1:5:3620:G:N7	2.00	0.93
1:5:1981:G:O2'	1:5:1982:G:O4'	1.85	0.93
1:5:3731:C:C2	1:5:3732:A:C8	2.57	0.93
1:5:4883:C:O2'	1:5:4884:G:OP2	1.87	0.93
1:5:1264:C:C2	1:5:1265:G:C8	2.56	0.93
1:5:969:C:O2'	1:5:970:G:O4'	1.86	0.93
14:K:121:LEU:HD12	14:K:123:ARG:CD	1.96	0.93
49:S2:381:C:N4	58:SI:49:ARG:HD3	1.83	0.93
1:5:4981:G:C6	1:5:4982:A:C8	2.57	0.93
1:5:2784:C:O2	1:5:2785:C:C5	2.22	0.93
1:5:1371:A:N6	3:8:28:C:O2'	2.02	0.93
10:G:53:ARG:NH2	10:G:54:PHE:HZ	1.67	0.92
14:K:142:ASN:CB	14:K:147:HIS:C	2.37	0.92
49:S2:341:C:C4	49:S2:342:C:C5	2.57	0.92
49:S2:75:G:N2	49:S2:77:A:OP1	2.02	0.92
1:5:2613:C:N3	1:5:2614:C:C5	2.37	0.92
49:S2:994:C:N3	49:S2:995:G:C8	2.37	0.92
1:5:4095:G:C2	1:5:4096:C:C5	2.56	0.92
1:5:2561:C:N3	1:5:2562:G:C8	2.36	0.92
14:K:159:ALA:C	14:K:163:PRO:HG3	1.90	0.92
48:4:845:LYS:HZ1	48:4:846:GLU:H	1.02	0.92
1:5:424:U:C2	1:5:425:U:H5	1.87	0.92
3:8:73:U:C5	3:8:74:U:C6	2.56	0.92
1:5:27:C:N3	1:5:28:C:C5	2.37	0.92
1:5:1739:G:H2'	1:5:1740:C:O4'	1.69	0.92
1:5:4911:A:C5'	5:B:100:ARG:HD3	1.99	0.92
48:4:60:ARG:CD	48:4:60:ARG:C	2.29	0.92
1:5:2251:G:H1'	1:5:2252:G:C2	2.04	0.92
1:5:2446:C:H2'	1:5:2447:U:C6	2.04	0.92
1:5:3939:G:N3	1:5:4076:G:O6	2.02	0.92
48:4:651:CYS:SG	48:4:683:PHE:HD2	1.92	0.92
49:S2:1398:G:C2	49:S2:1399:C:C6	2.57	0.92
48:4:82:SER:O	48:4:86:LEU:CD1	2.16	0.92
48:4:42:LYS:HE2	48:4:79:TYR:OH	1.68	0.92
1:5:1995:G:O4'	14:K:132:ILE:CD1	2.17	0.92
14:K:47:ALA:CA	14:K:72:GLU:HG2	1.98	0.92
49:S2:1455:A:C2	49:S2:1456:G:C8	2.58	0.92
1:5:4275:G:O6	1:5:4276:G:C5	2.22	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1973:G:O6	1:5:1993:C:N4	2.00	0.92
1:5:1280:C:O4'	6:C:323:ARG:NH2	2.02	0.92
1:5:1993:C:C1'	14:K:135:THR:HB	1.96	0.92
21:R:109:TYR:CE1	21:R:114:LYS:HD2	2.04	0.92
10:G:55:VAL:HB	10:G:57:TRP:HE1	1.34	0.92
49:S2:43:U:N3	49:S2:484:A:H2	1.67	0.92
1:5:4413:C:C4'	12:I:157:PHE:HD2	1.80	0.92
49:S2:1406:G:H2'	49:S2:1407:U:C1'	1.98	0.92
49:S2:165:G:C8	49:S2:166:A:C8	2.56	0.92
3:8:94:G:HO2'	3:8:95:A:H8	0.98	0.92
48:4:226:LYS:NZ	48:4:356:ILE:CD1	2.33	0.92
49:S2:469:A:N1	49:S2:470:G:H8	1.57	0.92
49:S2:310:C:H2'	49:S2:311:C:C6	2.03	0.92
49:S2:1538:C:O2	49:S2:1539:U:C6	2.22	0.92
49:S2:974:C:N3	49:S2:975:G:C8	2.38	0.92
48:4:160:MET:CE	48:4:178:PHE:CZ	2.53	0.92
1:5:1310:C:N3	1:5:1311:G:C8	2.37	0.92
48:4:114:GLU:OE2	48:4:400:LYS:HD3	1.69	0.92
1:5:469:C:O2	1:5:688:U:C1'	2.17	0.92
49:S2:120:U:N3	49:S2:121:U:C5	2.38	0.92
48:4:562:GLU:CB	48:4:570:ILE:HD11	2.00	0.92
49:S2:1111:U:C2	49:S2:1112:U:C5	2.57	0.92
49:S2:56:G:C5	49:S2:90:G:N2	2.38	0.92
64:SO:147:ARG:HB2	64:SO:147:ARG:CZ	2.00	0.92
48:4:160:MET:HE3	48:4:178:PHE:CZ	2.05	0.92
1:5:210:C:N4	1:5:231:U:C2	2.38	0.92
48:4:751:CYS:HB3	48:4:755:VAL:CG1	2.00	0.92
1:5:1248:C:O2	1:5:1249:C:C6	2.23	0.92
1:5:1967:A:N6	1:5:2020:U:O4	2.03	0.92
49:S2:377:G:C2	49:S2:378:U:C6	2.58	0.92
1:5:3767:C:H5'	49:S2:1849:G:C5	2.00	0.92
49:S2:1594:A:N1	49:S2:1595:U:C5	2.38	0.92
1:5:272:U:C2	1:5:273:U:C5	2.58	0.92
49:S2:933:G:C2	49:S2:1000:C:N3	2.38	0.92
3:8:40:A:N7	3:8:102:G:N2	2.17	0.92
48:4:160:MET:HE3	48:4:178:PHE:CE2	2.04	0.92
49:S2:880:G:C8	49:S2:881:G:C8	2.58	0.92
8:E:181:PRO:HA	8:E:246:GLN:HE22	1.34	0.92
8:E:157:ARG:HD2	8:E:266:TYR:CD1	2.04	0.92
1:5:1750:G:C2	1:5:1751:A:C8	2.58	0.92
1:5:144:G:C2	1:5:145:G:C8	2.57	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:7:94:C:C2	2:7:95:C:C5	2.57	0.92
1:5:2326:G:C6	1:5:2327:G:N7	2.38	0.92
14:K:117:ARG:CG	14:K:133:LEU:HD11	1.99	0.92
49:S2:1224:G:N2	49:S2:1643:U:C2	2.38	0.92
48:4:137:VAL:HG11	48:4:807:GLN:HE22	1.32	0.92
1:5:1245:C:N3	1:5:1246:G:N7	2.18	0.91
1:5:1695:U:H2'	1:5:1696:C:H5'	1.52	0.91
1:5:2081:C:H2'	1:5:2082:G:O5'	1.70	0.91
49:S2:118:C:C4	49:S2:119:U:C6	2.57	0.91
1:5:3740:G:C6	1:5:3741:C:C5	2.59	0.91
3:8:10:G:C6	3:8:11:C:C6	2.57	0.91
49:S2:618:C:N3	49:S2:619:A:C8	2.37	0.91
1:5:2856:C:N4	1:5:2857:A:N6	2.18	0.91
1:5:3905:A:C6	1:5:4449:A:C6	2.58	0.91
64:SO:147:ARG:CB	64:SO:147:ARG:CZ	2.46	0.91
48:4:58:ASP:C	48:4:63:GLU:OE1	2.08	0.91
1:5:1247:U:N3	1:5:1248:C:C5	2.38	0.91
49:S2:460:A:N3	49:S2:461:U:C6	2.37	0.91
49:S2:60:A:O2'	49:S2:61:A:C5'	2.18	0.91
1:5:3739:C:C4	1:5:3740:G:N7	2.39	0.91
1:5:86:U:O2	1:5:87:A:C8	2.22	0.91
48:4:845:LYS:CE	48:4:846:GLU:N	2.30	0.91
49:S2:27:A:C6	49:S2:28:U:C5	2.58	0.91
49:S2:1133:A:N1	49:S2:1134:G:C8	2.38	0.91
1:5:2851:G:C6	1:5:2852:U:C6	2.58	0.91
1:5:2533:C:OP1	27:X:139:ARG:NH2	2.01	0.91
1:5:3591:C:N4	1:5:3592:G:N7	2.17	0.91
49:S2:623:G:C2	49:S2:624:C:C6	2.59	0.91
1:5:451:C:N4	1:5:1295:C:H2'	1.86	0.91
1:5:1671:U:H3	1:5:1672:U:H5	1.09	0.91
49:S2:1149:A:C2	49:S2:1151:G:C5	2.58	0.91
1:5:4998:G:C2	1:5:4999:G:C8	2.57	0.91
5:B:203:GLN:HA	5:B:203:GLN:HE21	1.33	0.91
48:4:769:HIS:O	48:4:786:ALA:HA	1.66	0.91
1:5:2108:G:N2	1:5:2125:C:N3	2.18	0.91
14:K:56:LEU:CB	14:K:91:ASP:CG	2.38	0.91
48:4:694:GLU:HG3	48:4:844:LEU:HD13	1.52	0.91
48:4:556:ILE:HA	48:4:559:LYS:HE2	1.52	0.91
1:5:2095:A:N1	9:F:41:GLN:OE1	2.02	0.91
1:5:1632:A:N6	1:5:1634:A:C8	2.38	0.91
49:S2:804:U:N3	49:S2:805:U:C5	2.38	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:701:G:C6	1:5:702:U:C6	2.58	0.91
1:5:2294:G:C2	1:5:2295:C:C5	2.57	0.91
1:5:466:A:C2	1:5:467:U:C5	2.58	0.91
49:S2:337:C:N3	49:S2:338:G:N7	2.18	0.91
1:5:3739:C:N4	1:5:3740:G:N7	2.19	0.91
49:S2:1408:U:H3	49:S2:1439:A:H2	0.96	0.91
1:5:106:A:H1'	1:5:336:A:H8	1.15	0.91
1:5:658:C:C2	1:5:659:G:C8	2.58	0.91
48:4:191:THR:HB	48:4:192:TYR:CD1	2.05	0.91
1:5:27:C:O2	1:5:28:C:C6	2.23	0.91
49:S2:744:G:H2'	49:S2:745:C:C6	2.06	0.91
1:5:2382:A:N6	1:5:2830:G:O4'	2.04	0.91
48:4:585:GLU:CD	48:4:737:GLN:HE22	1.71	0.91
48:4:541:SER:CB	48:4:576:VAL:CG1	2.33	0.91
48:4:753:GLU:N	48:4:782:PHE:CE1	2.36	0.91
1:5:962:C:OP2	1:5:2264:C:N3	2.03	0.91
14:K:121:LEU:HD12	14:K:123:ARG:HB3	1.49	0.91
49:S2:1595:U:N3	49:S2:1596:U:C6	2.38	0.91
1:5:2604:C:C2	1:5:2605:G:C8	2.58	0.91
48:4:111:PHE:HE1	48:4:809:PHE:CZ	1.83	0.91
48:4:791:ASN:C	48:4:794:PHE:HE1	1.74	0.91
1:5:1669:A:H4'	1:5:1685:G:N2	1.85	0.91
10:G:264:LYS:HZ2	10:G:265:LEU:HD22	1.36	0.91
48:4:48:SER:OG	48:4:49:ALA:N	2.02	0.91
3:8:12:G:N2	3:8:13:G:H1'	1.84	0.91
48:4:479:LEU:CD2	48:4:483:GLY:HA3	2.00	0.91
3:8:119:C:C2	3:8:120:G:H8	1.89	0.91
49:S2:974:C:N3	49:S2:975:G:N7	2.19	0.91
1:5:1673:U:C2	1:5:1674:C:C5	2.59	0.91
1:5:1695:U:C2'	1:5:1696:C:H5'	2.01	0.91
1:5:1818:G:C8	1:5:1821:G:O6	2.24	0.91
1:5:4878:C:C2	1:5:4879:C:C5	2.58	0.91
1:5:1778:C:O2	1:5:1779:U:C5	2.24	0.91
48:4:75:ILE:HG22	48:4:77:LEU:CD1	1.96	0.91
1:5:1987:C:N3	1:5:1988:G:C8	2.39	0.91
1:5:2126:G:H1'	1:5:2127:C:C6	2.05	0.91
1:5:272:U:O2	1:5:273:U:C5	2.23	0.91
49:S2:599:A:H1'	49:S2:605:A:N3	1.84	0.91
49:S2:428:U:C5	59:SJ:7:TRP:CZ2	2.59	0.91
1:5:730:G:N2	1:5:939:G:N2	2.18	0.91
48:4:4:PHE:HD1	48:4:5:THR:HG22	1.32	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:742:GLU:OE2	48:4:791:ASN:CG	2.08	0.91
1:5:1696:C:H1'	1:5:1697:G:H5'	1.53	0.91
49:S2:551:U:H2'	49:S2:552:G:H8	1.36	0.91
1:5:489:C:N4	1:5:664:G:O6	2.04	0.91
48:4:191:THR:CG2	48:4:192:TYR:CZ	2.53	0.91
3:8:131:G:C6	3:8:132:G:N7	2.38	0.91
1:5:4172:A:C2	1:5:4173:G:C8	2.60	0.90
48:4:613:LEU:HD22	48:4:639:TYR:CG	2.06	0.90
1:5:1176:C:O2	7:D:282:GLN:NE2	2.03	0.90
3:8:12:G:N1	3:8:13:G:N7	2.19	0.90
49:S2:27:A:C2	49:S2:28:U:C6	2.59	0.90
1:5:2724:G:C2	1:5:2726:G:C5	2.59	0.90
1:5:753:C:N3	1:5:754:U:C5	2.39	0.90
1:5:4888:U:HO2'	1:5:4889:G:H8	0.98	0.90
1:5:4627:U:N3	1:5:4628:U:C5	2.38	0.90
48:4:113:SER:HA	48:4:499:PHE:HB3	1.53	0.90
48:4:744:ILE:HD12	48:4:816:HIS:CA	2.00	0.90
1:5:1268:G:N1	1:5:1270:A:N7	2.18	0.90
1:5:4123:C:N3	1:5:4124:G:C8	2.39	0.90
14:K:123:ARG:HB2	14:K:129:ILE:HG13	1.52	0.90
14:K:121:LEU:CD1	14:K:123:ARG:HB3	2.01	0.90
49:S2:387:C:C2	49:S2:388:U:C5	2.59	0.90
49:S2:1433:C:C3'	49:S2:1433:C:OP2	2.19	0.90
1:5:2613:C:C4	1:5:2614:C:C5	2.58	0.90
49:S2:999:G:C6	49:S2:1000:C:C5	2.58	0.90
49:S2:1755:C:N3	49:S2:1756:C:C5	2.39	0.90
48:4:752:PRO:HG3	48:4:780:PRO:HB3	1.53	0.90
1:5:4242:U:O2	1:5:4279:A:H2	1.54	0.90
49:S2:633:C:N3	49:S2:634:A:C8	2.39	0.90
49:S2:647:U:O2	49:S2:648:A:H8	1.45	0.90
49:S2:1220:A:N6	49:S2:1221:G:O6	2.04	0.90
49:S2:1317:C:C2	49:S2:1318:G:C8	2.59	0.90
1:5:54:G:C6	1:5:55:G:C8	2.58	0.90
14:K:80:LEU:HA	14:K:83:LYS:HD3	1.52	0.90
49:S2:1109:C:N3	49:S2:1110:G:C1'	2.34	0.90
48:4:121:VAL:O	48:4:415:ARG:NH1	2.04	0.90
1:5:2724:G:N2	1:5:2726:G:C5	2.39	0.90
1:5:2614:C:O2'	1:5:2808:G:OP1	1.88	0.90
1:5:3791:C:N3	1:5:3802:U:C6	2.40	0.90
48:4:106:PRO:CD	48:4:115:VAL:HG22	2.00	0.90
48:4:743:PRO:O	48:4:790:VAL:N	1.99	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:6:VAL:O	48:4:7:ASP:C	2.04	0.90
1:5:2007:G:O2'	1:5:2008:U:O4'	1.88	0.90
1:5:1542:U:OP1	1:5:2743:A:C8	2.24	0.90
49:S2:337:C:N3	49:S2:338:G:C8	2.39	0.90
1:5:100:C:C5	1:5:101:A:N7	2.37	0.90
1:5:4213:A:H61	1:5:4218:U:H3	0.95	0.90
60:SK:8:ARG:HD3	60:SK:12:TYR:CE1	2.06	0.90
1:5:1807:C:N3	1:5:1808:C:C6	2.40	0.90
1:5:1266:G:N2	1:5:1268:G:C5	2.40	0.90
1:5:2293:U:O2	1:5:2294:G:H8	1.45	0.90
64:SO:146:ARG:HH11	64:SO:146:ARG:HG3	1.35	0.90
1:5:3723:A:C2	1:5:3724:A:C5	2.59	0.90
1:5:1174:G:N2	1:5:1175:A:C8	2.40	0.90
49:S2:1273:C:C2	49:S2:1506:A:C2	2.56	0.90
1:5:2034:G:C6	1:5:2035:C:N3	2.39	0.90
49:S2:415:A:H2'	49:S2:416:U:O4'	1.70	0.90
48:4:751:CYS:CB	48:4:755:VAL:CG1	2.49	0.90
1:5:2017:A:N7	1:5:2018:C:C5	2.39	0.90
1:5:977:C:C4	1:5:978:G:N7	2.38	0.90
49:S2:388:U:C2	49:S2:389:A:C8	2.59	0.90
49:S2:1310:U:H3	49:S2:1311:C:H5	1.18	0.90
67:SR:27:ASP:O	67:SR:31:ASN:ND2	2.05	0.90
48:4:804:THR:HG21	48:4:808:ALA:CB	2.00	0.90
1:5:1999:A:O2'	1:5:2000:G:O4'	1.88	0.90
1:5:3899:G:P	5:B:257:TRP:HB2	2.12	0.90
49:S2:414:A:C2	49:S2:424:C:O2	2.24	0.90
49:S2:579:C:C4	49:S2:580:U:C5	2.60	0.90
48:4:543:GLU:HG3	48:4:576:VAL:HG21	1.53	0.90
1:5:2106:G:N2	1:5:2107:C:C5	2.39	0.90
48:4:739:ARG:HH11	48:4:823:ASP:HB2	1.25	0.90
1:5:4355:G:C2	1:5:4356:G:N7	2.40	0.90
49:S2:597:G:C2	49:S2:640:A:C2	2.59	0.90
49:S2:51:U:N3	49:S2:52:G:N7	2.19	0.90
1:5:106:A:C1'	1:5:336:A:H8	1.85	0.90
1:5:2529:A:C5	1:5:2532:C:C5	2.59	0.90
1:5:754:U:N3	1:5:755:C:C5	2.40	0.90
1:5:2565:A:N7	1:5:2566:G:H1'	1.86	0.90
1:5:2568:C:C2	1:5:2569:G:C8	2.59	0.90
48:4:498:LYS:C	48:4:500:SER:H	1.68	0.90
1:5:1475:G:N2	1:5:1476:C:C5	2.40	0.90
1:5:4281:A:C2	1:5:4283:G:C5	2.60	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2089:G:O6	1:5:2263:A:C5'	2.20	0.89
14:K:117:ARG:NE	14:K:117:ARG:HA	1.86	0.89
49:S2:1512:C:C2	49:S2:1513:C:C5	2.60	0.89
49:S2:1030:A:C2	49:S2:1031:A:N7	2.39	0.89
1:5:4518:A:HO2'	5:B:257:TRP:HZ3	0.94	0.89
2:7:94:C:N3	2:7:95:C:C5	2.40	0.89
1:5:3680:U:O2	1:5:3680:U:H2'	1.71	0.89
1:5:3783:A:H2	1:5:3789:C:H42	1.17	0.89
1:5:2328:G:HO2'	1:5:2329:U:C5'	1.84	0.89
14:K:97:ASN:OD1	14:K:98:ILE:CD1	2.19	0.89
48:4:613:LEU:HD22	48:4:639:TYR:CE1	2.05	0.89
48:4:691:ALA:N	48:4:730:TYR:CG	2.39	0.89
48:4:713:ALA:HB2	48:4:716:ARG:HH21	1.36	0.89
1:5:3743:G:H2'	1:5:3744:G:H5'	1.54	0.89
1:5:4273:A:H2'	1:5:4274:A:O4'	1.71	0.89
49:S2:1095:U:C4	49:S2:1149:A:N1	2.40	0.89
49:S2:524:U:C2	49:S2:594:A:N6	2.39	0.89
49:S2:1114:U:H3	49:S2:1119:A:N6	1.71	0.89
1:5:211:G:C2	1:5:212:A:C8	2.60	0.89
48:4:45:ILE:HG13	48:4:46:ILE:N	1.84	0.89
1:5:1235:G:C2	1:5:1236:C:C5	2.61	0.89
49:S2:1840:U:C2	49:S2:1841:C:C6	2.61	0.89
49:S2:1151:G:C2	49:S2:1152:U:C6	2.60	0.89
49:S2:1317:C:O2	49:S2:1318:G:C8	2.25	0.89
49:S2:1782:G:C2	49:S2:1784:G:N7	2.41	0.89
48:4:543:GLU:CD	48:4:576:VAL:HB	1.91	0.89
14:K:140:GLY:O	14:K:141:CYS:SG	2.30	0.89
49:S2:1434:C:H3'	49:S2:1435:C:O4'	1.71	0.89
1:5:2724:G:C2	1:5:2726:G:C8	2.61	0.89
1:5:4580:U:N3	1:5:4581:G:C8	2.40	0.89
1:5:1632:A:N6	1:5:1634:A:N9	2.19	0.89
49:S2:291:G:O5'	49:S2:291:G:C8	2.25	0.89
1:5:1245:C:C2	1:5:1246:G:C8	2.60	0.89
1:5:1992:U:O2'	1:5:2002:A:OP1	1.91	0.89
14:K:91:ASP:O	14:K:92:ARG:HB2	1.73	0.89
49:S2:309:G:N2	49:S2:310:C:C2	2.40	0.89
49:S2:1414:A:C2	49:S2:1415:C:C5	2.61	0.89
48:4:845:LYS:HZ1	48:4:846:GLU:N	1.69	0.89
1:5:172:C:C2	1:5:173:C:C6	2.61	0.89
1:5:4228:G:H5"	1:5:4229:U:O4'	1.73	0.89
1:5:2026:A:C2'	1:5:2027:U:H5'	2.01	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2463:G:C2	1:5:2464:C:C4	2.60	0.89
3:8:11:C:O2	3:8:12:G:C8	2.26	0.89
48:4:322:LYS:HB2	48:4:322:LYS:HZ3	1.38	0.89
49:S2:56:G:N1	49:S2:90:G:C2	2.39	0.89
13:J:91:GLU:OE2	65:SP:12:PHE:CB	2.19	0.89
8:E:157:ARG:HD3	8:E:266:TYR:CE1	2.07	0.89
1:5:1284:G:O6	6:C:312:ARG:NH2	2.06	0.89
1:5:2018:C:N3	1:5:2019:C:C5	2.41	0.89
1:5:445:U:H1'	1:5:2313:A:C2	2.07	0.89
14:K:22:VAL:CG2	14:K:48:LYS:CE	2.50	0.89
49:S2:186:C:O2	49:S2:187:G:C8	2.25	0.89
1:5:1245:C:C5	1:5:1269:G:O6	2.25	0.89
14:K:124:GLU:CA	14:K:128:THR:OG1	2.08	0.89
14:K:61:LYS:CE	14:K:72:GLU:CG	2.48	0.89
1:5:3767:C:C5'	49:S2:1849:G:N7	2.34	0.89
1:5:5003:U:C2	1:5:5045:G:N2	2.41	0.89
48:4:103:ILE:CD1	48:4:122:THR:HG21	2.02	0.89
1:5:4098:A:N1	1:5:4099:G:C5	2.41	0.89
1:5:4229:U:N3	1:5:4230:C:C6	2.40	0.89
1:5:352:G:O2'	3:8:22:U:O4	1.89	0.89
7:D:210:TYR:OH	7:D:214:GLU:HG3	1.72	0.89
48:4:744:ILE:HD11	48:4:816:HIS:N	1.87	0.89
1:5:2325:C:N3	1:5:2326:G:C8	2.41	0.89
1:5:983:C:N3	1:5:984:C:H5	1.65	0.89
1:5:4241:C:N3	1:5:4242:U:C5	2.41	0.89
1:5:28:C:C2	1:5:29:G:C8	2.60	0.89
1:5:4579:U:C2	1:5:4580:U:C6	2.61	0.89
48:4:659:PRO:HG2	48:4:698:ARG:NH2	1.87	0.89
1:5:3767:C:H5'	49:S2:1849:G:O6	1.63	0.89
49:S2:618:C:C4	49:S2:619:A:C8	2.60	0.89
49:S2:555:A:C2	49:S2:557:U:C5	2.61	0.89
49:S2:51:U:C2	49:S2:52:G:C8	2.60	0.89
49:S2:821:G:O6	59:SJ:150:ARG:CD	2.19	0.89
49:S2:792:C:C2	49:S2:793:G:C8	2.61	0.89
1:5:2851:G:C5	1:5:2852:U:H6	1.90	0.89
1:5:504:G:N1	1:5:654:C:C2	2.41	0.89
1:5:3878:C:O2	5:B:258:HIS:HE1	1.54	0.89
49:S2:1124:C:N3	49:S2:1125:C:C5	2.41	0.89
49:S2:419:G:N2	49:S2:661:U:O2	2.06	0.89
1:5:2328:G:O2'	1:5:2329:U:O5'	1.88	0.88
1:5:445:U:C1'	1:5:2313:A:C2	2.56	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:62:LEU:HD11	14:K:73:VAL:HB	1.52	0.88
14:K:94:LYS:CG	14:K:96:LYS:HB3	2.03	0.88
49:S2:449:A:C6	49:S2:452:G:C6	2.60	0.88
48:4:581:GLU:OE2	48:4:695:GLU:CB	2.21	0.88
1:5:2497:C:O2	1:5:2498:C:C6	2.26	0.88
1:5:751:G:N2	1:5:752:G:C5	2.41	0.88
1:5:733:A:C8	1:5:734:G:C8	2.61	0.88
48:4:751:CYS:CB	48:4:755:VAL:CB	2.05	0.88
1:5:1049:C:N3	1:5:1050:C:C5	2.41	0.88
1:5:1269:G:C3'	1:5:2111:G:O6	2.20	0.88
1:5:2449:A:C8	1:5:2450:G:H1'	2.08	0.88
14:K:141:CYS:C	14:K:148:PRO:HD3	1.93	0.88
14:K:31:LYS:C	14:K:34:PRO:HD3	1.94	0.88
49:S2:43:U:O2	49:S2:484:A:C2	2.25	0.88
49:S2:341:C:N4	49:S2:342:C:C5	2.41	0.88
49:S2:1540:G:N3	49:S2:1541:G:C8	2.41	0.88
1:5:271:C:C2	1:5:272:U:C6	2.60	0.88
48:4:539:GLU:O	48:4:540:GLU:C	1.95	0.88
1:5:4934:A:C6	1:5:4935:C:C5	2.61	0.88
48:4:585:GLU:CG	48:4:737:GLN:HE22	1.86	0.88
1:5:1213:G:C5	1:5:1215:C:C6	2.62	0.88
1:5:2017:A:C8	1:5:2018:C:C5	2.62	0.88
48:4:609:PHE:HZ	48:4:661:ILE:CD1	1.83	0.88
49:S2:386:C:C2	49:S2:387:C:C6	2.61	0.88
1:5:1175:A:C2	1:5:1176:C:C6	2.61	0.88
49:S2:1562:C:O2	49:S2:1563:G:C8	2.26	0.88
1:5:1950:U:C2	1:5:1951:G:C8	2.62	0.88
1:5:4884:G:C2	1:5:4885:U:C6	2.61	0.88
1:5:4548:A:C5'	1:5:4548:A:C8	2.55	0.88
1:5:1271:G:H3'	1:5:1272:C:H5'	1.54	0.88
1:5:2089:G:C5	1:5:2262:G:H2'	2.08	0.88
1:5:3693:U:C4	1:5:3694:U:C5	2.61	0.88
1:5:1929:A:H61	1:5:2054:U:H3	0.89	0.88
1:5:4093:G:H2'	1:5:4094:G:H5"	1.55	0.88
1:5:751:G:C2	1:5:752:G:N7	2.42	0.88
48:4:762:VAL:CG1	48:4:766:LYS:NZ	2.37	0.88
48:4:771:PHE:HB3	48:4:785:LYS:HB2	0.89	0.88
1:5:689:U:N3	1:5:690:C:C5	2.42	0.88
14:K:142:ASN:ND2	14:K:151:ILE:HG13	1.88	0.88
14:K:77:ALA:CB	14:K:80:LEU:HD12	2.04	0.88
48:4:691:ALA:CB	48:4:730:TYR:CB	1.75	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:J:119:TYR:CE2	68:SS:108:ARG:NH2	1.98	0.88
49:S2:1532:C:H5"	49:S2:1533:A:O4'	1.73	0.88
49:S2:553:U:C2	49:S2:554:A:C8	2.61	0.88
1:5:2844:A:C6	1:5:3839:G:C8	2.61	0.88
1:5:1340:C:C2	1:5:1341:U:C5	2.61	0.88
1:5:2447:U:O2'	1:5:2448:G:O5'	1.89	0.88
1:5:189:G:C2	1:5:190:G:N7	2.42	0.88
1:5:1687:U:O2	1:5:1850:A:C6	2.26	0.88
1:5:2078:C:O2	1:5:2079:G:H8	1.56	0.88
1:5:2294:G:C2	1:5:2295:C:C6	2.62	0.88
49:S2:1551:U:O4'	49:S2:1558:C:O2	1.90	0.88
49:S2:618:C:C4	49:S2:619:A:N7	2.42	0.88
48:4:191:THR:HB	48:4:192:TYR:CE1	2.07	0.88
1:5:197:A:H8	1:5:197:A:H5'	1.38	0.88
1:5:1411:C:O2	1:5:1412:G:C8	2.27	0.88
48:4:228:PHE:CD1	48:4:232:TYR:CE2	2.61	0.88
48:4:741:MET:HG3	48:4:817:TRP:HZ3	1.09	0.88
1:5:1074:G:N2	1:5:1238:A:C2	2.41	0.88
1:5:2327:G:C2	1:5:2328:G:N7	2.42	0.88
1:5:2468:U:H3	1:5:2473:A:N6	1.67	0.88
1:5:1563:A:H62	49:S2:1028:A:H61	1.14	0.88
49:S2:1149:A:C2	49:S2:1151:G:N7	2.41	0.88
1:5:1936:C:H5	2:7:84:U:C5	1.86	0.88
1:5:1757:U:C2	1:5:1758:G:C8	2.62	0.88
1:5:5062:G:N2	1:5:5063:G:C8	2.41	0.88
1:5:1958:A:N6	1:5:2026:A:H61	1.70	0.88
14:K:94:LYS:HB3	14:K:96:LYS:HE3	1.56	0.88
48:4:628:LEU:HD21	48:4:631:ARG:HH22	1.36	0.88
1:5:1478:C:O2	1:5:1479:G:C8	2.26	0.88
1:5:3721:U:O2	1:5:3722:G:H8	1.55	0.88
49:S2:1545:A:HO2'	49:S2:1546:G:H8	1.15	0.88
1:5:4269:G:H1	1:5:4277:G:H1	1.17	0.88
49:S2:1310:U:N3	49:S2:1311:C:H5	1.71	0.88
48:4:420:LEU:CB	48:4:465:PRO:HA	2.03	0.88
49:S2:1122:A:C6	49:S2:1123:C:C5	2.62	0.88
13:J:99:PHE:CE2	13:J:105:PHE:HB3	2.09	0.88
48:4:585:GLU:CG	48:4:737:GLN:NE2	2.36	0.88
49:S2:340:C:N3	49:S2:341:C:C4	2.41	0.88
1:5:1188:C:O2	1:5:1189:G:C8	2.27	0.88
1:5:1324:A:C2	1:5:3876:A:H2'	2.09	0.88
7:D:22:ARG:HG3	7:D:22:ARG:HH11	1.38	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3662:A:N6	1:5:3680:U:H3	1.71	0.88
48:4:72:SER:CB	48:4:104:ASP:O	2.22	0.87
1:5:1866:U:O2'	1:5:1867:A:O5'	1.92	0.87
1:5:2465:C:H2'	1:5:2466:G:C8	2.08	0.87
1:5:4123:C:C2	1:5:4124:G:C8	2.63	0.87
14:K:61:LYS:NZ	14:K:72:GLU:HB3	1.88	0.87
48:4:49:ALA:HA	48:4:55:ARG:NH2	1.88	0.87
1:5:1475:G:N2	1:5:1476:C:C4	2.41	0.87
48:4:693:CYS:C	48:4:839:ARG:HH21	1.77	0.87
49:S2:1310:U:O2	49:S2:1311:C:H6	1.57	0.87
49:S2:475:C:N3	49:S2:476:A:C8	2.42	0.87
49:S2:751:G:C6	49:S2:791:C:N3	2.42	0.87
1:5:270:U:N3	1:5:271:C:C5	2.42	0.87
48:4:743:PRO:HB3	48:4:744:ILE:HB	1.55	0.87
14:K:121:LEU:CD1	14:K:123:ARG:HD2	2.01	0.87
1:5:1994:C:HO2'	14:K:132:ILE:HG13	1.04	0.87
22:S:29:ARG:CZ	22:S:29:ARG:HB3	2.03	0.87
48:4:604:MET:HG2	48:4:728:CYS:SG	2.14	0.87
49:S2:452:G:N2	49:S2:453:C:C2	2.42	0.87
49:S2:71:G:H2'	49:S2:72:C:C6	2.09	0.87
1:5:4269:G:H22	1:5:4277:G:H22	1.18	0.87
49:S2:649:U:O2	49:S2:650:A:H8	1.49	0.87
1:5:2613:C:C2	1:5:2614:C:C6	2.62	0.87
1:5:662:C:H2'	1:5:663:G:H8	1.39	0.87
49:S2:1101:U:C2	49:S2:1102:G:N7	2.42	0.87
1:5:77:U:O4	1:5:335:A:N1	2.06	0.87
7:D:250:ASN:HD21	7:D:252:VAL:HG12	1.39	0.87
1:5:2018:C:C2	1:5:2019:C:C6	2.62	0.87
1:5:2021:G:H2'	1:5:2022:C:H6	1.39	0.87
48:4:738:PRO:C	48:4:824:PRO:HD2	1.95	0.87
48:4:829:SER:O	48:4:833:GLN:CG	2.22	0.87
48:4:671:TYR:C	48:4:675:ILE:HG12	1.86	0.87
49:S2:384:U:H5	49:S2:386:C:C5	1.91	0.87
1:5:1359:G:H2'	1:5:1360:G:C8	2.09	0.87
48:4:693:CYS:CB	48:4:839:ARG:HE	1.88	0.87
1:5:4561:C:H2'	1:5:4561:C:O2	1.73	0.87
54:SE:191:ARG:HD2	54:SE:218:PHE:CE1	2.09	0.87
48:4:111:PHE:HB2	48:4:501:VAL:HG21	1.53	0.87
48:4:24:VAL:HG23	48:4:32:LYS:CE	2.03	0.87
1:5:1699:A:O5'	9:F:179:ARG:NH2	2.07	0.87
14:K:92:ARG:O	14:K:93:LYS:HB2	1.72	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:731:ALA:HB2	48:4:854:PHE:HB3	1.56	0.87
49:S2:309:G:C2	49:S2:310:C:C4	2.62	0.87
1:5:1174:G:C2	1:5:1175:A:N7	2.42	0.87
49:S2:634:A:C2	49:S2:635:G:C8	2.63	0.87
49:S2:1284:A:N6	62:SM:33:ARG:HD3	1.89	0.87
1:5:4563:U:C2	1:5:4564:A:C5	2.61	0.87
49:S2:1017:U:O2	49:S2:1017:U:H2'	1.74	0.87
1:5:5047:C:C2	1:5:5048:A:C6	2.62	0.87
49:S2:1074:C:O2	49:S2:1075:C:C6	2.27	0.87
1:5:1991:A:H3'	1:5:1992:U:H5"	1.56	0.87
1:5:2110:C:OP1	1:5:2110:C:C6	2.28	0.87
49:S2:1592:C:N3	49:S2:1593:C:C6	2.42	0.87
1:5:425:U:N3	1:5:426:A:N7	2.22	0.87
1:5:4096:C:O2'	10:G:112:GLN:NE2	81.96	0.87
1:5:4481:U:H2'	1:5:4482:U:H6	1.37	0.87
1:5:4885:U:C2	1:5:4886:C:C6	2.63	0.87
49:S2:806:U:C2	49:S2:807:G:C8	2.62	0.87
1:5:4315:A:C2	1:5:4316:G:C8	2.62	0.87
1:5:4332:C:N3	1:5:4333:C:H5	1.73	0.87
48:4:6:VAL:O	48:4:9:ILE:N	2.07	0.87
48:4:72:SER:HA	48:4:104:ASP:CG	1.94	0.87
48:4:753:GLU:HB3	48:4:782:PHE:HZ	1.36	0.87
48:4:744:ILE:CD1	48:4:816:HIS:CG	2.58	0.87
1:5:2361:G:C6	19:P:25:HIS:HD2	1.93	0.87
1:5:2784:C:N3	1:5:2785:C:C5	2.42	0.87
1:5:126:C:N3	1:5:127:G:N7	2.22	0.87
48:4:143:LEU:HD21	48:4:189:ILE:HD11	1.56	0.87
1:5:964:A:C5'	1:5:964:A:H8	1.86	0.87
14:K:106:PHE:CZ	14:K:137:GLN:NE2	2.42	0.87
49:S2:1666:C:C2	49:S2:1667:U:C5	2.63	0.87
1:5:2568:C:O2	1:5:2569:G:C8	2.26	0.87
49:S2:600:G:C8	49:S2:631:U:C5	2.61	0.87
1:5:1279:A:H2'	1:5:1280:C:C4	2.09	0.87
14:K:121:LEU:HD13	14:K:129:ILE:CG1	2.04	0.87
49:S2:1073:U:N3	49:S2:1074:C:C5	2.42	0.87
1:5:4230:C:N3	1:5:4231:C:H5	1.71	0.87
48:4:231:MET:SD	48:4:343:TRP:HH2	1.98	0.87
1:5:4333:C:C2	1:5:4334:U:C5	2.63	0.87
1:5:723:A:C2	1:5:943:A:N1	2.43	0.87
48:4:112:SER:O	48:4:115:VAL:N	2.07	0.87
48:4:243:GLN:O	48:4:249:ARG:NE	2.07	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3907:G:C8	1:5:4449:A:H1'	2.09	0.87
49:S2:459:C:C4	49:S2:460:A:N7	2.43	0.86
1:5:1598:C:C2	1:5:1599:A:H8	1.93	0.86
48:4:13:MET:HE2	48:4:465:PRO:HD2	1.55	0.86
49:S2:499:G:N2	49:S2:504:G:C2	2.44	0.86
2:7:23:A:O2'	2:7:24:C:O5'	1.93	0.86
54:SE:100:ARG:NH1	54:SE:121:TYR:OH	2.08	0.86
48:4:503:PRO:O	48:4:548:GLY:O	1.93	0.86
1:5:1958:A:C2	1:5:2026:A:C5	2.63	0.86
1:5:2279:A:C2	1:5:2280:G:N7	2.43	0.86
14:K:102:GLY:O	14:K:140:GLY:O	1.93	0.86
14:K:57:ARG:NH2	14:K:89:PRO:HA	1.90	0.86
48:4:825:PHE:HZ	48:4:849:PRO:HD3	1.04	0.86
49:S2:339:A:N3	49:S2:340:C:C5	2.44	0.86
1:5:1477:C:N3	1:5:1478:C:C6	2.43	0.86
1:5:1485:C:O2	1:5:4349:C:C4	2.29	0.86
14:K:125:LEU:O	14:K:127:GLY:N	2.08	0.86
2:7:59:G:C6	2:7:60:G:C8	2.63	0.86
1:5:4215:C:N3	1:5:4216:G:N7	2.24	0.86
3:8:39:G:O2'	3:8:103:A:N6	2.08	0.86
1:5:4314:C:N3	1:5:4315:A:C8	2.44	0.86
48:4:685:TRP:HZ3	48:4:723:PRO:HD3	1.38	0.86
49:S2:823:U:C4	74:SY:64:PHE:CE2	2.63	0.86
48:4:144:ARG:NH1	48:4:781:MET:CE	2.39	0.86
1:5:1215:C:N3	1:5:1216:C:C6	2.43	0.86
3:8:81:C:O2	3:8:81:C:H2'	1.75	0.86
1:5:488:G:C2	1:5:489:C:C6	2.63	0.86
1:5:4934:A:C2	1:5:4935:C:C6	2.63	0.86
49:S2:1755:C:C2	49:S2:1756:C:C6	2.63	0.86
1:5:1214:C:O2'	1:5:2114:G:C2	2.25	0.86
1:5:1899:G:N3	1:5:1900:C:C5	2.40	0.86
1:5:2011:C:H2'	1:5:2012:A:O4'	1.76	0.86
1:5:1970:A:O2'	1:5:2017:A:N6	2.08	0.86
14:K:61:LYS:HE2	14:K:72:GLU:HG3	1.57	0.86
10:G:261:LEU:HD21	10:G:264:LYS:CE	1.91	0.86
1:5:1476:C:C2	1:5:1477:C:C6	2.63	0.86
49:S2:1603:G:N7	68:SS:28:PHE:CE2	2.44	0.86
48:4:330:LYS:C	48:4:331:GLU:HG2	1.92	0.86
49:S2:1828:C:H2'	49:S2:1829:G:O4'	1.75	0.86
1:5:2689:C:N3	1:5:2690:C:H5	1.73	0.86
49:S2:995:G:H22	49:S2:997:A:H3'	1.38	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1994:C:H2'	14:K:132:ILE:CD1	2.06	0.86
1:5:1447:C:N3	1:5:2097:U:O4	2.08	0.86
1:5:2509:C:O2'	1:5:2510:G:C5'	2.23	0.86
49:S2:1434:C:H2'	49:S2:1435:C:C1'	2.06	0.86
48:4:845:LYS:HZ3	48:4:846:GLU:HG2	1.04	0.86
49:S2:1224:G:N2	49:S2:1643:U:N3	2.23	0.86
1:5:3912:U:O2'	1:5:3913:G:H5"	1.76	0.86
1:5:1625:G:C5	1:5:1642:A:N1	2.42	0.86
1:5:4481:U:H2'	1:5:4482:U:C6	2.10	0.86
1:5:2568:C:N3	1:5:2569:G:N7	2.22	0.86
1:5:4550:G:C6	1:5:4551:U:C5	2.62	0.86
1:5:738:C:N3	1:5:739:G:N7	2.24	0.86
1:5:1726:U:N3	1:5:1727:U:C5	2.43	0.86
48:4:113:SER:HB3	48:4:533:MET:HB2	1.55	0.86
48:4:27:HIS:HD2	48:4:28:VAL:CA	1.87	0.86
48:4:541:SER:O	48:4:543:GLU:HG2	1.73	0.86
1:5:1240:G:N7	1:5:1271:G:H4'	1.91	0.86
1:5:4174:U:C2	1:5:4175:G:C8	2.63	0.86
14:K:106:PHE:CD2	14:K:110:VAL:HG23	1.80	0.86
14:K:94:LYS:CG	14:K:96:LYS:CE	2.52	0.86
49:S2:314:U:OP1	56:SG:191:ARG:NH2	2.09	0.86
49:S2:381:C:H41	58:SI:49:ARG:HD3	1.40	0.86
49:S2:1430:C:C4	49:S2:1431:G:N7	2.43	0.86
49:S2:1511:U:N3	49:S2:1512:C:C6	2.44	0.86
1:5:4233:A:H61	1:5:4290:U:H3	1.07	0.86
49:S2:551:U:N3	49:S2:552:G:N7	2.23	0.86
1:5:2843:U:N3	1:5:2844:A:N7	2.24	0.86
49:S2:499:G:N2	49:S2:504:G:N1	2.23	0.86
1:5:1667:G:C2	1:5:2283:G:O6	2.29	0.86
1:5:2508:U:C2	1:5:2509:C:H5	1.92	0.86
49:S2:1860:A:C2	49:S2:1862:G:C8	2.63	0.86
49:S2:536:A:C6	49:S2:537:C:C6	2.63	0.86
13:J:99:PHE:CE2	13:J:105:PHE:CB	2.59	0.86
17:N:138:PHE:HB3	17:N:143:ARG:HH22	1.39	0.86
1:5:470:A:N6	1:5:471:A:C5	2.44	0.86
4:A:89:TYR:HB2	4:A:100:ASN:HD21	1.41	0.86
1:5:1724:G:H21	9:F:105:PRO:HB3	1.39	0.86
1:5:3717:A:C6	1:5:3736:A:C6	2.63	0.86
49:S2:1398:G:N2	49:S2:1399:C:C6	2.43	0.86
49:S2:1528:G:C2	49:S2:1529:C:C4	2.64	0.86
1:5:1598:C:O2	1:5:1598:C:H2'	1.74	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:13:MET:CE	48:4:465:PRO:CD	2.54	0.86
1:5:196:C:N3	1:5:243:A:N6	2.24	0.86
1:5:4510:A:N6	1:5:4592:C:H4'	1.90	0.86
1:5:1983:A:C2	1:5:2010:A:H5"	2.10	0.86
1:5:4339:A:O2'	20:Q:178:ARG:NH1	2.09	0.86
1:5:3718:A:H2'	1:5:3719:A:O4'	1.76	0.86
1:5:4983:C:O2	1:5:4984:C:C5	2.28	0.86
49:S2:1402:A:C2	49:S2:1405:A:C6	2.63	0.86
3:8:65:A:N3	3:8:66:A:C8	2.43	0.86
1:5:1583:A:H1'	1:5:2396:A:N6	1.91	0.86
1:5:2576:G:C6	1:5:2577:C:C5	2.63	0.86
48:4:579:TYR:OH	48:4:791:ASN:HB3	1.76	0.86
49:S2:459:C:N3	49:S2:460:A:C8	2.44	0.86
49:S2:1402:A:N6	49:S2:1441:U:C4	2.44	0.86
1:5:1538:U:O2'	1:5:1629:G:OP1	1.94	0.86
11:H:61:TRP:HZ2	22:S:152:PHE:HE2	1.22	0.86
49:S2:880:G:N7	49:S2:881:G:N7	2.24	0.86
29:Z:28:ASN:O	29:Z:28:ASN:ND2	2.07	0.86
48:4:72:SER:CB	48:4:104:ASP:C	2.44	0.85
1:5:1249:C:N3	1:5:1250:C:C5	2.44	0.85
1:5:4165:C:C4	1:5:4166:G:N7	2.44	0.85
1:5:4414:A:C6	1:5:4427:G:N1	2.44	0.85
48:4:689:GLU:CB	48:4:730:TYR:OH	2.24	0.85
48:4:691:ALA:CB	48:4:854:PHE:HZ	1.78	0.85
1:5:4276:G:N1	1:5:4277:G:C8	2.44	0.85
49:S2:1310:U:O2	49:S2:1311:C:C6	2.29	0.85
1:5:3622:C:O2	1:5:3623:C:C2	2.29	0.85
48:4:110:ASP:OD2	48:4:112:SER:HB3	1.76	0.85
48:4:58:ASP:CA	48:4:63:GLU:CD	2.45	0.85
1:5:1213:G:C4	1:5:1215:C:C1'	2.58	0.85
1:5:1552:G:O2'	1:5:1575:A:N6	2.09	0.85
1:5:3675:G:N2	1:5:3676:G:C5	2.44	0.85
14:K:106:PHE:HB2	14:K:110:VAL:CG2	2.03	0.85
14:K:142:ASN:HB2	14:K:148:PRO:CA	2.05	0.85
14:K:33:GLY:O	14:K:38:SER:OG	1.93	0.85
49:S2:447:A:C6	49:S2:449:A:C4	2.64	0.85
49:S2:1402:A:N6	49:S2:1441:U:C2	2.43	0.85
1:5:4240:G:C6	1:5:4241:C:C5	2.63	0.85
49:S2:1642:U:O2	49:S2:1643:U:C5	2.29	0.85
48:4:165:LEU:CD1	48:4:305:MET:HE1	1.98	0.85
49:S2:841:G:C2	49:S2:842:C:C4	2.65	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4092:G:C6	1:5:4093:G:C2	2.63	0.85
48:4:590:LEU:CD2	48:4:605:LYS:HE3	2.06	0.85
1:5:237:G:O2'	1:5:238:C:OP2	1.94	0.85
48:4:150:ARG:NH2	48:4:194:GLU:OE1	2.08	0.85
1:5:291:U:H2'	1:5:292:G:C2'	2.05	0.85
1:5:86:U:O2	1:5:86:U:H2'	1.76	0.85
49:S2:26:U:C2	49:S2:27:A:C8	2.63	0.85
1:5:5005:G:N7	26:W:51:TRP:HD1	1.71	0.85
1:5:2495:U:N3	1:5:2496:G:N7	2.24	0.85
1:5:2529:A:C6	1:5:2532:C:C6	2.63	0.85
1:5:4100:C:C2	1:5:4101:C:C6	2.65	0.85
48:4:160:MET:CE	48:4:178:PHE:HE2	1.84	0.85
1:5:2736:G:N2	1:5:2737:C:C2	2.44	0.85
1:5:2452:G:N1	1:5:2467:U:C4	2.44	0.85
14:K:57:ARG:HH22	14:K:89:PRO:HA	1.41	0.85
48:4:634:TYR:CE1	48:4:638:LYS:HG2	2.12	0.85
49:S2:1316:C:N3	49:S2:1317:C:H5	1.69	0.85
3:8:125:C:H4'	3:8:126:C:H3'	1.58	0.85
1:5:2726:G:C6	1:5:2727:C:N4	2.45	0.85
12:I:80:CYS:SG	12:I:144:ASN:ND2	2.50	0.85
1:5:244:G:C6	1:5:246:G:N7	2.45	0.85
1:5:1439:C:C5'	9:F:36:ARG:HH12	1.88	0.85
48:4:526:ARG:HG2	48:4:526:ARG:HH11	1.41	0.85
1:5:2021:G:H2'	1:5:2022:C:C6	2.10	0.85
48:4:691:ALA:CA	48:4:730:TYR:CD1	2.58	0.85
49:S2:1611:G:O2'	68:SS:86:ARG:NH1	2.09	0.85
1:5:4335:C:H2'	1:5:4336:A:O4'	1.77	0.85
1:5:5044:A:H2'	1:5:5045:G:H5'	1.58	0.85
1:5:2639:U:H2'	1:5:2694:G:H1	1.40	0.85
49:S2:925:G:N1	49:S2:926:A:N7	2.23	0.85
1:5:1949:U:O2	1:5:1950:U:C6	2.30	0.85
49:S2:841:G:N3	49:S2:842:C:C5	2.43	0.85
1:5:1339:U:O2	1:5:1340:C:C6	2.30	0.85
1:5:4935:C:N4	8:E:179:ARG:HG2	1.90	0.85
8:E:157:ARG:CD	8:E:266:TYR:CE1	2.59	0.85
1:5:703:G:O6	1:5:706:C:N4	2.09	0.85
2:7:112:U:O2	2:7:113:G:C8	2.28	0.85
48:4:541:SER:HB3	48:4:576:VAL:HG11	0.87	0.85
1:5:1967:A:C2	1:5:1968:G:C8	2.63	0.85
1:5:4223:C:H4'	12:I:119:PHE:CE2	2.10	0.85
48:4:571:LYS:HE2	48:4:571:LYS:C	1.95	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:208:VAL:HA	48:4:225:LEU:HD22	1.58	0.85
1:5:3731:C:N3	1:5:3732:A:C8	2.44	0.85
3:8:12:G:H21	3:8:13:G:H1'	1.37	0.85
1:5:1886:G:N2	1:5:1894:C:C2	2.45	0.85
49:S2:999:G:C2	49:S2:1000:C:C6	2.63	0.85
1:5:4548:A:H5'	1:5:4548:A:C8	2.12	0.85
1:5:1650:A:C2	6:C:100:ARG:NH2	2.44	0.85
48:4:432:PRO:O	48:4:433:ASN:OD1	1.94	0.85
48:4:578:SER:C	48:4:579:TYR:CD1	2.50	0.85
14:K:121:LEU:HD13	14:K:129:ILE:CB	2.06	0.85
14:K:62:LEU:CG	14:K:73:VAL:HB	2.06	0.85
1:5:3726:A:O2'	1:5:3727:A:N7	2.09	0.85
1:5:4344:U:C2	1:5:4345:C:C5	2.65	0.85
49:S2:1591:C:N4	49:S2:1592:C:C4	2.45	0.85
48:4:331:GLU:CD	48:4:335:LEU:HD22	1.97	0.85
1:5:2848:G:O2'	1:5:3838:U:O4	1.94	0.85
9:F:161:TYR:CD2	9:F:168:ARG:NH2	2.44	0.85
1:5:4757:C:O2	18:O:114:LYS:CA	2.25	0.85
3:8:134:G:C2	3:8:135:C:C6	2.64	0.85
1:5:2568:C:C2	1:5:2569:G:N7	2.44	0.85
1:5:1266:G:H5"	1:5:2112:G:C2	2.11	0.85
14:K:56:LEU:CD1	14:K:91:ASP:CG	2.40	0.85
48:4:610:PRO:CB	48:4:613:LEU:HG	2.05	0.85
1:5:4239:A:N6	1:5:4240:G:C5	2.43	0.85
1:5:1598:C:N3	1:5:1599:A:C8	2.45	0.85
49:S2:1303:C:C4	49:S2:1304:U:C5	2.65	0.85
49:S2:1303:C:C5	49:S2:1304:U:C6	2.63	0.85
48:4:420:LEU:HD23	48:4:420:LEU:C	1.91	0.85
1:5:3653:A:N1	1:5:3692:A:H4'	1.92	0.85
49:S2:499:G:C2	49:S2:504:G:N1	2.44	0.85
1:5:1634:A:C2	1:5:1635:C:C6	2.65	0.85
53:SD:106:ARG:HG3	53:SD:174:HIS:O	1.77	0.85
1:5:1764:G:C6	1:5:1766:A:OP2	2.29	0.85
48:4:647:ARG:HG2	48:4:647:ARG:HH21	1.39	0.85
1:5:957:G:P	1:5:1284:G:N2	2.50	0.85
1:5:2027:U:O2'	1:5:2028:C:C5'	2.24	0.85
1:5:4601:U:O4	1:5:4609:G:N2	2.10	0.85
1:5:982:U:H2'	1:5:983:C:H6	1.40	0.85
14:K:62:LEU:HD11	14:K:73:VAL:HG21	1.56	0.85
49:S2:341:C:C4	49:S2:342:C:C6	2.65	0.85
1:5:1188:C:C2	1:5:1189:G:C8	2.64	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2370:A:HO2'	1:5:2826:U:H3	1.22	0.85
49:S2:1316:C:C2	49:S2:1317:C:C6	2.64	0.85
49:S2:164:A:H2'	49:S2:165:G:H21	1.41	0.85
1:5:106:A:C1'	1:5:336:A:C8	2.57	0.85
1:5:27:C:N3	1:5:28:C:H5	1.75	0.85
1:5:4230:C:O2	1:5:4231:C:C6	2.30	0.85
2:7:22:A:C2	2:7:23:A:C5	2.65	0.85
72:SW:77:PRO:HD2	72:SW:79:PHE:CZ	2.12	0.85
1:5:1847:C:H4'	20:Q:152:PHE:CE2	2.12	0.85
49:S2:42:A:C2	49:S2:426:A:N7	2.44	0.85
49:S2:387:C:O2	49:S2:388:U:C6	2.29	0.85
1:5:4982:A:C6	1:5:4983:C:C6	2.64	0.85
1:5:4983:C:C2	1:5:4984:C:H5	1.92	0.85
1:5:94:A:H2'	1:5:95:G:O4'	1.77	0.85
1:5:1177:U:C2	1:5:1178:G:C8	2.64	0.85
49:S2:1592:C:C2	49:S2:1593:C:C6	2.65	0.85
49:S2:1666:C:C2	49:S2:1667:U:C6	2.65	0.85
49:S2:25:A:H61	49:S2:648:A:H61	1.22	0.85
49:S2:933:G:N2	49:S2:1000:C:C4	2.45	0.85
49:S2:1123:C:C4	49:S2:1124:C:C5	2.64	0.85
2:7:114:U:H2'	2:7:115:A:H5"	1.59	0.85
1:5:1916:G:N2	1:5:2067:C:O2	2.10	0.85
48:4:189:ILE:HG22	48:4:203:ILE:HG13	1.59	0.84
48:4:759:ILE:HD11	48:4:784:VAL:CB	1.91	0.84
1:5:2080:U:O2	1:5:2081:C:C5	2.28	0.84
1:5:2294:G:N2	1:5:2295:C:C2	2.44	0.84
14:K:117:ARG:NE	14:K:117:ARG:CA	2.33	0.84
48:4:690:GLY:C	48:4:730:TYR:CD1	2.32	0.84
1:5:3717:A:O2'	1:5:3718:A:C5'	2.25	0.84
49:S2:1540:G:C4	49:S2:1541:G:C8	2.64	0.84
48:4:420:LEU:O	48:4:420:LEU:HD23	1.75	0.84
48:4:813:VAL:HG13	48:4:814:PHE:N	1.92	0.84
1:5:1218:G:N1	1:5:1219:G:H1'	1.92	0.84
49:S2:1508:A:C5	49:S2:1510:G:C8	2.64	0.84
1:5:4241:C:O2	1:5:4241:C:H2'	1.77	0.84
48:4:479:LEU:HD21	48:4:483:GLY:CA	2.03	0.84
49:S2:575:A:H2'	49:S2:576:A:O4'	1.75	0.84
49:S2:1049:A:C4	49:S2:1070:A:C2	2.66	0.84
48:4:59:THR:N	48:4:63:GLU:OE1	2.10	0.84
1:5:1427:A:H3'	1:5:1428:U:C6	2.11	0.84
48:4:672:LEU:HB2	48:4:675:ILE:HD11	1.59	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1857:G:C8	64:SO:146:ARG:NH2	2.46	0.84
1:5:1887:G:O6	1:5:1890:G:N7	2.09	0.84
49:S2:794:A:C2	49:S2:795:A:C4	2.65	0.84
1:5:1625:G:C4	1:5:1642:A:N1	2.45	0.84
1:5:172:C:P	1:5:172:C:O4'	2.35	0.84
1:5:1753:G:O6	1:5:1776:A:N6	2.09	0.84
1:5:970:G:H2'	1:5:971:U:O4'	1.77	0.84
1:5:1388:A:C5	1:5:1396:G:N2	2.33	0.84
49:S2:1416:C:H2'	49:S2:1417:C:C5	2.11	0.84
49:S2:992:A:C6	49:S2:993:G:C8	2.65	0.84
1:5:2532:C:N3	1:5:2533:C:C5	2.46	0.84
1:5:4498:U:O2	1:5:4498:U:H2'	1.76	0.84
1:5:753:C:C2	1:5:754:U:C6	2.65	0.84
48:4:343:TRP:O	48:4:343:TRP:CE3	2.30	0.84
1:5:153:G:C2	1:5:154:G:C8	2.65	0.84
1:5:1245:C:O2	1:5:1246:G:N7	2.09	0.84
1:5:2457:G:N2	1:5:2465:C:C2	2.44	0.84
1:5:457:G:C2	1:5:458:C:C6	2.66	0.84
14:K:20:GLY:HA3	14:K:92:ARG:NH2	1.91	0.84
49:S2:1839:U:C2	49:S2:1840:U:C6	2.66	0.84
49:S2:1545:A:O2'	49:S2:1546:G:C8	2.30	0.84
49:S2:28:U:O2	49:S2:29:G:C8	2.30	0.84
49:S2:618:C:N4	49:S2:619:A:C5	2.45	0.84
49:S2:1133:A:C6	49:S2:1134:G:N7	2.45	0.84
49:S2:474:G:C2	49:S2:475:C:C6	2.64	0.84
1:5:2495:U:O2	1:5:2496:G:C8	2.31	0.84
48:4:275:LYS:CE	48:4:275:LYS:C	2.45	0.84
49:S2:1018:U:C2	49:S2:1019:C:C5	2.64	0.84
49:S2:105:U:C4	49:S2:106:C:C5	2.65	0.84
1:5:4653:C:O2	1:5:4654:C:C5	2.30	0.84
1:5:3662:A:H61	1:5:3680:U:H3	1.23	0.84
22:S:83:ARG:NH2	23:T:156:TYR:HB2	1.93	0.84
48:4:75:ILE:CG2	48:4:77:LEU:HD11	1.96	0.84
1:5:1214:C:HO2'	1:5:2114:G:H1	1.21	0.84
1:5:1683:U:N3	1:5:1684:A:N7	2.25	0.84
1:5:2107:C:C5	1:5:2126:G:C2	2.64	0.84
14:K:94:LYS:CB	14:K:96:LYS:HE3	2.07	0.84
49:S2:1455:A:C6	49:S2:1456:G:N7	2.46	0.84
49:S2:1431:G:C6	49:S2:1432:U:C5	2.66	0.84
48:4:10:ARG:HD2	48:4:13:MET:SD	2.18	0.84
1:5:166:C:C2	1:5:167:C:C5	2.59	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2055:G:O6	22:S:158:VAL:CB	2.25	0.84
1:5:2586:G:N7	1:5:2587:A:C2	2.46	0.84
1:5:146:G:C2	1:5:147:A:C8	2.65	0.84
48:4:27:HIS:HD2	48:4:28:VAL:H	0.89	0.84
1:5:4413:C:C5'	12:I:157:PHE:CE2	2.49	0.84
1:5:100:C:C5	1:5:101:A:H8	1.96	0.84
2:7:54:A:C2	2:7:55:A:C5	2.64	0.84
49:S2:1100:A:C6	49:S2:1101:U:C5	2.66	0.84
1:5:4230:C:O2	1:5:4231:C:H6	1.60	0.84
1:5:3944:G:C2	1:5:3945:A:C8	2.66	0.84
48:4:120:ARG:NH1	48:4:495:ARG:HB3	1.93	0.84
48:4:42:LYS:HG3	48:4:79:TYR:HH	0.99	0.84
48:4:73:THR:N	48:4:104:ASP:OD2	2.11	0.84
1:5:2078:C:C2	1:5:2079:G:H8	1.94	0.84
1:5:2294:G:N1	1:5:2295:C:C4	2.46	0.84
1:5:2329:U:O2'	1:5:2330:G:C5'	2.25	0.84
49:S2:1205:C:O2	49:S2:1206:G:C8	2.31	0.84
49:S2:1667:U:C2	49:S2:1668:U:C5	2.64	0.84
48:4:845:LYS:HZ1	48:4:846:GLU:HG2	1.38	0.84
49:S2:1317:C:N3	49:S2:1318:G:N7	2.25	0.84
1:5:3692:A:C5	1:5:3693:U:C6	2.66	0.84
48:4:284:LYS:CD	48:4:284:LYS:H	1.87	0.84
3:8:134:G:C6	3:8:135:C:C5	2.66	0.84
1:5:4490:C:N3	1:5:4491:G:C8	2.46	0.84
7:D:17:GLN:HG3	23:T:20:ARG:HA	1.59	0.84
1:5:1994:C:C2	1:5:1995:G:C8	2.65	0.84
1:5:2282:A:H2'	1:5:2283:G:O5'	1.76	0.84
1:5:4117:U:C6	10:G:41:ILE:O	2.31	0.84
2:7:43:U:C2	2:7:44:C:C5	2.65	0.84
2:7:43:U:C2	2:7:44:C:C6	2.65	0.84
48:4:284:LYS:CD	48:4:284:LYS:N	2.34	0.84
1:5:736:C:H2'	1:5:737:C:O4'	1.77	0.84
48:4:61:LYS:O	48:4:62:ASP:HB2	1.76	0.84
1:5:1268:G:N2	1:5:1270:A:C8	2.46	0.84
1:5:2108:G:N1	1:5:2125:C:N4	2.25	0.84
48:4:157:MET:CE	48:4:214:PHE:HE2	1.91	0.84
1:5:278:G:C2	1:5:330:G:C8	2.66	0.84
49:S2:1552:G:N7	49:S2:1578:U:C4	2.46	0.84
1:5:4095:G:N3	1:5:4096:C:C5	2.44	0.84
1:5:514:U:C5	1:5:515:C:O4'	2.30	0.84
1:5:2113:G:C8	1:5:2115:G:H1'	2.12	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:94:LYS:CG	14:K:96:LYS:CG	2.50	0.83
1:5:3709:U:H1'	49:S2:970:G:H1	1.33	0.83
49:S2:1564:C:N3	49:S2:1565:C:C5	2.46	0.83
49:S2:1226:G:O6	49:S2:1638:G:H8	1.61	0.83
1:5:1909:G:OP1	2:7:84:U:O2	1.95	0.83
1:5:747:A:O2'	1:5:748:G:H5'	1.78	0.83
17:N:138:PHE:N	17:N:138:PHE:CD1	2.42	0.83
1:5:4145:C:C2	1:5:4146:G:C8	2.66	0.83
48:4:741:MET:HA	48:4:820:LEU:H	1.43	0.83
1:5:1995:G:O6	1:5:2000:G:N2	2.11	0.83
14:K:47:ALA:HB1	14:K:72:GLU:CG	1.96	0.83
49:S2:158:A:N6	49:S2:466:G:O6	2.11	0.83
49:S2:70:G:C2	49:S2:80:G:C2	2.65	0.83
49:S2:1840:U:C2	49:S2:1841:C:C5	2.66	0.83
1:5:89:C:O2'	1:5:90:G:H5'	1.78	0.83
1:5:4275:G:C6	1:5:4276:G:C5	2.65	0.83
49:S2:1114:U:C4	49:S2:1119:A:N1	2.46	0.83
48:4:297:ILE:O	48:4:300:VAL:CG2	2.27	0.83
49:S2:994:C:O2	49:S2:994:C:H2'	1.78	0.83
1:5:244:G:C6	1:5:246:G:C8	2.66	0.83
1:5:246:G:C2	1:5:247:G:N7	2.47	0.83
1:5:4879:C:C2	1:5:4880:C:C5	2.66	0.83
1:5:1439:C:H5'	9:F:36:ARG:HH12	1.40	0.83
69:ST:56:ARG:HD3	69:ST:79:TYR:CE2	2.12	0.83
1:5:216:C:P	1:5:216:C:O4'	2.35	0.83
48:4:4:PHE:O	48:4:46:ILE:CG1	2.25	0.83
1:5:1280:C:N3	1:5:1282:G:C6	2.45	0.83
1:5:2325:C:O2	1:5:2325:C:H2'	1.79	0.83
1:5:2326:G:N1	1:5:2327:G:C5	2.46	0.83
1:5:300:A:C2	1:5:301:G:N7	2.45	0.83
49:S2:1410:C:C2	49:S2:1411:G:C8	2.65	0.83
48:4:296:PRO:HA	48:4:299:LYS:CE	2.08	0.83
1:5:2301:G:C2	1:5:2302:C:C6	2.66	0.83
55:SF:51:HIS:ND1	66:SQ:82:TYR:OH	2.11	0.83
48:4:813:VAL:HG22	48:4:814:PHE:H	1.43	0.83
1:5:2089:G:O6	1:5:2263:A:H5"	1.75	0.83
1:5:2099:G:N2	1:5:2100:A:C8	2.46	0.83
1:5:2468:U:H2'	1:5:2506:G:C6	2.13	0.83
14:K:22:VAL:HG23	14:K:48:LYS:CE	2.09	0.83
14:K:21:GLU:OE1	14:K:48:LYS:HD3	1.78	0.83
60:SK:8:ARG:HD3	60:SK:12:TYR:HE1	1.39	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:53:C:N3	49:S2:54:A:N7	2.25	0.83
1:5:3693:U:N3	1:5:3694:U:C5	2.47	0.83
48:4:448:GLN:NE2	48:4:448:GLN:CA	2.29	0.83
1:5:2736:G:N1	1:5:2737:C:C4	2.46	0.83
1:5:4549:G:C2	1:5:4550:G:C8	2.66	0.83
1:5:5062:G:C2	1:5:5063:G:C8	2.65	0.83
1:5:1676:C:O2'	1:5:3914:U:N3	2.02	0.83
1:5:3847:C:N3	1:5:3848:U:C5	2.47	0.83
69:ST:23:LYS:HE2	69:ST:51:ASN:HD22	1.42	0.83
1:5:1213:G:C6	1:5:1215:C:C2	2.65	0.83
1:5:1673:U:N3	1:5:1674:C:C5	2.47	0.83
1:5:2451:A:C5	1:5:2452:G:C8	2.67	0.83
1:5:2743:A:N1	1:5:2744:A:C6	2.47	0.83
10:G:53:ARG:HB3	10:G:54:PHE:CZ	2.14	0.83
14:K:62:LEU:CD1	14:K:73:VAL:CB	2.56	0.83
49:S2:426:A:C2	49:S2:427:U:C4	2.66	0.83
48:4:829:SER:HB2	48:4:832:SER:N	1.93	0.83
3:8:102:G:P	3:8:104:A:O2'	2.35	0.83
49:S2:305:U:O3'	49:S2:306:C:O4'	1.96	0.83
1:5:348:G:C2	1:5:350:C:C4	2.67	0.83
1:5:1215:C:N3	1:5:1216:C:C5	2.46	0.83
1:5:1983:A:C2	1:5:2010:A:C5'	2.62	0.83
49:S2:1402:A:C5	49:S2:1441:U:C4	2.66	0.83
1:5:2498:C:N3	1:5:2499:C:C5	2.46	0.83
49:S2:994:C:C4	49:S2:995:G:N7	2.47	0.83
1:5:4933:C:N3	1:5:4934:A:C8	2.46	0.83
19:P:41:ILE:HD11	19:P:150:LEU:HD13	1.59	0.83
1:5:2633:U:N3	1:5:2634:C:C5	2.46	0.83
48:4:531:ASP:HB3	48:4:534:VAL:HG12	1.59	0.83
48:4:770:VAL:HG13	48:4:784:VAL:CG1	2.06	0.83
1:5:1876:U:C2	1:5:1877:G:C8	2.67	0.83
1:5:1979:A:H3'	1:5:1980:U:H5'	1.61	0.83
1:5:2268:A:H4'	1:5:2269:C:C5'	2.09	0.83
1:5:1895:G:H2'	1:5:1896:A:O4'	1.79	0.83
1:5:383:A:O2'	1:5:384:A:C8	2.31	0.83
1:5:497:G:N2	1:5:657:C:C2	2.47	0.83
49:S2:1123:C:N3	49:S2:1124:C:C6	2.46	0.83
49:S2:858:A:C2	49:S2:859:G:C8	2.66	0.83
48:4:623:SER:HB3	48:4:626:GLN:HG2	1.60	0.83
1:5:2743:A:N1	1:5:2744:A:N6	2.26	0.83
48:4:829:SER:CB	48:4:832:SER:H	1.91	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4325:A:H2'	1:5:4326:G:O4'	1.79	0.83
49:S2:1286:G:N2	62:SM:33:ARG:HG3	1.92	0.83
1:5:4280:A:H61	7:D:29:ASP:N	1.75	0.83
11:H:156:ASN:OD1	11:H:157:SER:HA	1.77	0.83
1:5:755:C:C2	1:5:756:G:C8	2.67	0.83
49:S2:623:G:N1	49:S2:624:C:C5	2.46	0.83
49:S2:805:U:N3	49:S2:806:U:C5	2.45	0.83
1:5:2397:G:C8	1:5:2399:G:C8	2.67	0.83
1:5:1683:U:C2	1:5:1684:A:C8	2.66	0.83
1:5:2107:C:C4	1:5:2126:G:C2	2.66	0.83
1:5:4601:U:O4	1:5:4609:G:C2	2.31	0.83
49:S2:42:A:C5	49:S2:43:U:H5	1.96	0.83
1:5:1379:C:C4'	1:5:1380:G:C8	2.62	0.83
1:5:83:C:OP2	1:5:84:A:O2'	1.96	0.83
1:5:1598:C:N3	1:5:1599:A:N7	2.27	0.83
49:S2:1095:U:H3	49:S2:1149:A:N6	1.75	0.83
3:8:83:C:H4'	3:8:85:U:C2	2.13	0.83
49:S2:1249:C:N4	49:S2:1250:A:C6	2.47	0.83
49:S2:1018:U:N3	49:S2:1019:C:C5	2.47	0.83
1:5:43:U:C4	1:5:44:A:C8	2.66	0.83
48:4:160:MET:HE1	48:4:178:PHE:HE2	1.39	0.83
49:S2:851:C:O2'	49:S2:852:G:N2	2.11	0.83
1:5:42:A:C6	1:5:4379:A:C2	2.67	0.83
48:4:27:HIS:CD2	48:4:28:VAL:O	2.31	0.83
48:4:762:VAL:HG11	48:4:800:LEU:HD13	1.59	0.83
9:F:149:LEU:CB	9:F:197:TYR:OH	2.26	0.83
49:S2:449:A:C2	49:S2:452:G:N7	2.46	0.83
49:S2:1850:A:O2'	49:S2:1851:A:O4'	1.96	0.83
1:5:1387:A:C4	1:5:1397:A:N6	2.45	0.83
1:5:4416:G:N2	1:5:4417:C:C2	2.46	0.83
1:5:4413:C:C1'	12:I:157:PHE:HD2	1.91	0.82
48:4:628:LEU:HD22	48:4:631:ARG:HH21	1.40	0.82
48:4:225:LEU:CD2	48:4:257:MET:O	2.26	0.82
1:5:3732:A:C2	1:5:3733:A:C8	2.66	0.82
49:S2:1537:A:H4'	49:S2:1604:G:H4'	1.61	0.82
1:5:504:G:N2	1:5:654:C:H1'	1.94	0.82
1:5:3910:C:O2	1:5:3911:C:C6	2.32	0.82
49:S2:494:C:O2	49:S2:495:U:C6	2.32	0.82
1:5:3591:C:C4	1:5:3592:G:C8	2.66	0.82
49:S2:600:G:C5	49:S2:631:U:C4	2.66	0.82
49:S2:669:A:H2'	49:S2:670:A:C8	2.13	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1280:C:C2	1:5:1282:G:C5	2.67	0.82
1:5:1442:C:C2	1:5:1443:A:C8	2.67	0.82
1:5:1273:G:N7	8:E:69:TYR:N	2.25	0.82
1:5:1994:C:H1'	14:K:132:ILE:HG12	1.59	0.82
14:K:142:ASN:ND2	14:K:151:ILE:CG1	2.41	0.82
1:5:1572:U:H4'	21:R:95:TRP:HE1	1.43	0.82
48:4:518:PRO:CA	73:SX:50:ILE:CD1	2.57	0.82
48:4:692:LEU:HD22	48:4:734:LEU:CD2	2.08	0.82
49:S2:1407:U:H2'	49:S2:1408:U:C5	2.13	0.82
49:S2:1575:G:C2	49:S2:1576:G:N7	2.47	0.82
48:4:776:VAL:CG2	48:4:777:ALA:N	2.32	0.82
1:5:4884:G:C2	1:5:4885:U:C5	2.67	0.82
48:4:751:CYS:HB3	48:4:755:VAL:HG11	1.62	0.82
1:5:1671:U:H2'	1:5:1671:U:O2	1.79	0.82
1:5:1671:U:N3	1:5:1672:U:C5	2.44	0.82
49:S2:1051:G:N1	49:S2:1052:A:N7	2.27	0.82
49:S2:1254:C:O2	49:S2:1255:G:C8	2.32	0.82
48:4:420:LEU:N	48:4:420:LEU:HD23	1.94	0.82
4:A:202:VAL:HG12	4:A:217:GLN:HG2	1.60	0.82
11:H:156:ASN:OD1	11:H:157:SER:N	2.12	0.82
1:5:4772:C:N3	1:5:4773:C:C5	2.47	0.82
48:4:3:ASN:O	48:4:46:ILE:HA	1.78	0.82
1:5:1265:G:H5"	1:5:2115:G:N2	1.94	0.82
1:5:2327:G:N1	1:5:2328:G:C5	2.47	0.82
1:5:957:G:P	1:5:1284:G:H21	2.02	0.82
49:S2:452:G:N3	49:S2:453:C:C6	2.48	0.82
1:5:287:U:N3	1:5:288:G:N7	2.28	0.82
1:5:321:U:N3	1:5:322:C:C5	2.48	0.82
49:S2:1434:C:C3'	49:S2:1435:C:O4'	2.27	0.82
49:S2:1601:A:H1'	49:S2:1604:G:O6	1.80	0.82
3:8:10:G:C5	3:8:11:C:C6	2.67	0.82
49:S2:996:A:N6	63:SN:113:PHE:CZ	2.47	0.82
49:S2:1249:C:N4	49:S2:1250:A:C5	2.46	0.82
49:S2:1018:U:O2	49:S2:1019:C:C6	2.32	0.82
5:B:321:VAL:HG12	5:B:322:HIS:HB2	1.62	0.82
48:4:101:ASN:CG	48:4:469:ILE:HD13	1.99	0.82
1:5:1632:A:N1	1:5:1634:A:C8	2.47	0.82
48:4:740:LEU:HD12	48:4:820:LEU:HD12	1.59	0.82
1:5:2107:C:C4	1:5:2126:G:N2	2.48	0.82
1:5:2293:U:N3	1:5:2294:G:N7	2.26	0.82
1:5:4623:G:H4'	5:B:16:PHE:HE2	1.43	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:116:MET:HB2	14:K:117:ARG:NH2	1.95	0.82
14:K:121:LEU:HD13	14:K:129:ILE:HD13	1.52	0.82
48:4:829:SER:OG	48:4:832:SER:C	2.17	0.82
49:S2:1414:A:C2	49:S2:1415:C:C6	2.67	0.82
3:8:10:G:C2	3:8:11:C:H1'	2.15	0.82
49:S2:1315:U:N3	49:S2:1316:C:C6	2.47	0.82
49:S2:476:A:C2	49:S2:488:U:O2	2.33	0.82
1:5:2034:G:C6	1:5:2035:C:C4	2.68	0.82
5:B:119:TYR:N	5:B:119:TYR:CD1	2.46	0.82
49:S2:1781:A:C2	49:S2:1782:G:C5	2.67	0.82
1:5:2026:A:H2'	1:5:2027:U:H5'	1.62	0.82
1:5:2251:G:C1'	1:5:2252:G:N2	2.43	0.82
1:5:2744:A:C2	1:5:2745:A:C6	2.67	0.82
49:S2:339:A:C2'	49:S2:340:C:C6	2.61	0.82
1:5:1478:C:C2	1:5:1479:G:N7	2.47	0.82
1:5:2366:A:C2	1:5:3851:U:H1'	2.14	0.82
1:5:2632:U:C2	1:5:2633:U:C5	2.68	0.82
1:5:4076:G:H21	10:G:74:LEU:HG	1.43	0.82
48:4:638:LYS:N	48:4:638:LYS:HD2	1.95	0.82
3:8:12:G:N1	3:8:13:G:C8	2.48	0.82
1:5:166:C:N3	1:5:167:C:H5	1.78	0.82
1:5:3911:C:C2	1:5:3912:U:C5	2.68	0.82
1:5:4581:G:C2	1:5:4582:C:C5	2.67	0.82
1:5:2566:G:C2	1:5:2567:G:C8	2.67	0.82
1:5:723:A:H2	1:5:943:A:N1	1.78	0.82
1:5:2395:A:O2'	1:5:2806:A:N3	2.11	0.82
1:5:2507:A:C5	1:5:2508:U:C6	2.67	0.82
1:5:470:A:C5	1:5:471:A:N7	2.48	0.82
1:5:690:C:N3	1:5:691:C:C5	2.48	0.82
49:S2:452:G:C2	49:S2:453:C:C5	2.68	0.82
1:5:1465:G:C2	1:5:1466:G:H1'	2.14	0.82
48:4:331:GLU:OE2	48:4:335:LEU:HD23	1.80	0.82
1:5:3873:G:H2'	1:5:3874:G:O4'	1.79	0.82
3:8:95:A:C2	3:8:96:C:C6	2.68	0.82
49:S2:862:A:C6	49:S2:863:U:C5	2.66	0.82
48:4:592:LEU:HD12	48:4:592:LEU:O	1.80	0.82
48:4:730:TYR:HB3	48:4:854:PHE:CZ	2.15	0.82
49:S2:439:A:C2	49:S2:455:A:C2	2.67	0.82
14:K:125:LEU:CD1	14:K:163:PRO:CA	2.51	0.82
3:8:119:C:O2	3:8:120:G:H8	1.58	0.82
48:4:27:HIS:CD2	48:4:28:VAL:CG2	2.63	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:58:ASP:HA	48:4:63:GLU:CD	2.00	0.82
1:5:2272:C:O2'	1:5:2273:G:H5'	1.80	0.82
1:5:2329:U:O2'	1:5:2330:G:O5'	1.97	0.82
1:5:961:G:N3	1:5:961:G:H2'	1.94	0.82
49:S2:1453:C:N4	49:S2:1455:A:H1'	1.94	0.82
48:4:155:LEU:HD23	48:4:156:MET:N	1.94	0.82
48:4:205:ILE:HG13	48:4:211:THR:HB	1.60	0.82
49:S2:1528:G:N2	49:S2:1529:C:C2	2.48	0.82
49:S2:1595:U:N3	49:S2:1596:U:C5	2.47	0.82
1:5:2826:U:H1'	1:5:2827:G:N1	1.95	0.82
49:S2:1114:U:O4	49:S2:1119:A:C2	2.32	0.82
48:4:275:LYS:HE2	48:4:276:SER:CA	2.09	0.82
1:5:484:U:N3	1:5:486:C:C5	2.47	0.82
48:4:240:GLY:CA	48:4:241:GLU:CB	2.55	0.82
11:H:61:TRP:CZ2	22:S:152:PHE:HE2	1.98	0.82
49:S2:806:U:N3	49:S2:807:G:N7	2.27	0.82
49:S2:581:U:C4	49:S2:582:C:C5	2.68	0.82
48:4:611:ASP:OD1	48:4:612:GLY:N	2.13	0.82
48:4:771:PHE:CD2	48:4:785:LYS:HD2	2.15	0.81
1:5:1213:G:N1	1:5:1215:C:C2	2.48	0.81
1:5:1967:A:C2	1:5:1968:G:N7	2.48	0.81
1:5:987:C:H2'	1:5:988:C:O4'	1.78	0.81
14:K:123:ARG:CD	14:K:129:ILE:CD1	2.58	0.81
49:S2:1422:G:N2	49:S2:1424:G:C8	2.48	0.81
1:5:370:U:C5	1:5:1637:A:C6	2.68	0.81
49:S2:792:C:N3	49:S2:793:G:N7	2.28	0.81
49:S2:604:A:C8	59:SJ:20:PHE:CD2	2.68	0.81
1:5:2734:U:C2	1:5:2735:G:C8	2.68	0.81
1:5:1771:U:H2'	1:5:1772:C:O4'	1.79	0.81
49:S2:868:G:N2	57:SH:115:LYS:HA	1.95	0.81
49:S2:1824:A:C2	49:S2:1825:A:N7	2.48	0.81
1:5:1076:C:C4	1:5:1077:C:C5	2.69	0.81
1:5:3674:G:C2	1:5:3675:G:C8	2.68	0.81
14:K:17:CYS:O	14:K:18:THR:OG1	1.97	0.81
49:S2:349:A:O3'	58:SI:27:TYR:OH	1.98	0.81
49:S2:105:U:C4	49:S2:106:C:C6	2.67	0.81
1:5:4745:G:O2'	1:5:4746:C:H6	1.55	0.81
1:5:2769:U:O2'	1:5:2770:C:O5'	1.98	0.81
1:5:1751:A:C6	1:5:1752:G:C8	2.67	0.81
48:4:722:ILE:HB	48:4:723:PRO:HD3	1.60	0.81
14:K:77:ALA:HB3	14:K:80:LEU:CD1	2.10	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2457:G:OP1	17:N:65:ARG:NH1	2.12	0.81
48:4:543:GLU:OE1	48:4:576:VAL:HB	1.80	0.81
1:5:2018:C:C2'	1:5:2019:C:H5'	2.11	0.81
14:K:22:VAL:CG2	14:K:48:LYS:HE3	2.10	0.81
48:4:824:PRO:O	48:4:832:SER:CB	2.27	0.81
49:S2:380:G:N2	49:S2:382:C:H3'	1.94	0.81
1:5:94:A:H2'	1:5:95:G:C4'	2.09	0.81
49:S2:1418:C:C2	49:S2:1420:G:N7	2.48	0.81
1:5:5045:G:H2'	1:5:5046:U:O4'	1.80	0.81
3:8:125:C:C4'	3:8:126:C:H3'	2.09	0.81
1:5:662:C:O2	1:5:663:G:C8	2.33	0.81
54:SE:18:TRP:HB3	54:SE:46:ILE:HD13	1.61	0.81
1:5:2590:G:C2	1:5:2754:G:N2	2.48	0.81
1:5:1340:C:O2	1:5:1341:U:C6	2.33	0.81
1:5:907:C:C2	1:5:908:G:C8	2.69	0.81
49:S2:1782:G:N2	49:S2:1784:G:C5	2.49	0.81
49:S2:1496:U:N3	49:S2:1498:A:C8	2.48	0.81
1:5:3846:C:N3	1:5:3847:C:C5	2.48	0.81
1:5:728:U:OP1	1:5:728:U:H3'	1.80	0.81
1:5:690:C:C2	1:5:691:C:C6	2.69	0.81
14:K:123:ARG:HB3	14:K:129:ILE:CG1	1.78	0.81
14:K:93:LYS:O	14:K:94:LYS:HB2	1.79	0.81
48:4:848:ILE:CG2	48:4:849:PRO:N	2.41	0.81
49:S2:173:A:C6	49:S2:174:C:C5	2.69	0.81
1:5:2784:C:C2	1:5:2785:C:H5	1.97	0.81
3:8:94:G:C5'	3:8:94:G:C8	2.62	0.81
1:5:5047:C:O4'	1:5:5048:A:C2	2.33	0.81
1:5:1625:G:C8	1:5:1642:A:H2	1.99	0.81
68:SS:10:GLN:HG2	68:SS:13:LEU:HD21	1.63	0.81
48:4:58:ASP:O	48:4:63:GLU:CB	2.28	0.81
1:5:2504:C:O2	1:5:2505:C:C6	2.34	0.81
14:K:131:GLU:CG	14:K:155:ILE:HD12	2.10	0.81
14:K:96:LYS:O	14:K:98:ILE:HG12	1.80	0.81
49:S2:120:U:C2	49:S2:121:U:C6	2.68	0.81
49:S2:120:U:N3	49:S2:121:U:C6	2.49	0.81
49:S2:1605:G:H2'	49:S2:1606:G:H1'	1.63	0.81
49:S2:1314:U:C2	49:S2:1315:U:H1'	2.15	0.81
48:4:402:VAL:HG23	48:4:403:PRO:CD	1.97	0.81
48:4:396:MET:HE1	48:4:472:LEU:HD11	1.61	0.81
1:5:4731:G:O4'	1:5:4732:G:N2	2.13	0.81
1:5:2736:G:C2	1:5:2737:C:C6	2.67	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1517:G:N2	1:5:1650:A:N1	2.28	0.81
19:P:54:GLN:HB3	19:P:83:TRP:HD1	1.45	0.81
48:4:741:MET:SD	48:4:817:TRP:CE3	2.74	0.81
1:5:1238:A:H2'	1:5:1239:C:C6	2.14	0.81
1:5:1438:U:C2	1:5:2099:G:O6	2.33	0.81
1:5:967:C:H5	1:5:968:C:O2	1.63	0.81
49:S2:43:U:H3	49:S2:484:A:H2	1.22	0.81
49:S2:459:C:C2	49:S2:460:A:C8	2.69	0.81
1:5:1392:A:C2	1:5:1393:G:C6	2.68	0.81
1:5:4283:G:C6	1:5:4284:C:C5	2.69	0.81
1:5:422:C:O2	1:5:423:G:H8	1.64	0.81
49:S2:1132:C:N4	49:S2:1133:A:N7	2.29	0.81
1:5:1857:C:O2	1:5:1858:A:C8	2.34	0.81
1:5:2753:G:H3'	1:5:2754:G:H8	1.46	0.81
1:5:120:A:C1'	1:5:121:A:N1	2.43	0.81
55:SF:79:HIS:O	55:SF:83:ASN:ND2	2.14	0.81
48:4:45:ILE:HD12	48:4:78:PHE:HD1	1.38	0.81
48:4:794:PHE:N	48:4:794:PHE:HD1	1.76	0.81
48:4:746:LEU:O	48:4:812:CYS:HB2	1.81	0.81
1:5:1280:C:O2'	1:5:1281:G:H3'	1.80	0.81
1:5:2438:A:C6	1:5:2441:C:C5	2.69	0.81
1:5:3668:C:H2'	1:5:3668:C:O2	1.81	0.81
1:5:4079:C:N3	1:5:4080:C:C5	2.49	0.81
48:4:253:VAL:HG12	48:4:257:MET:HE2	1.61	0.81
1:5:4276:G:C5	1:5:4277:G:C8	2.69	0.81
49:S2:636:C:C2	49:S2:637:U:C6	2.69	0.81
1:5:2409:U:C5	1:5:2783:A:C2	2.69	0.81
2:7:42:A:C1'	13:J:75:ARG:NH1	2.43	0.81
21:R:117:ARG:HB2	21:R:117:ARG:NH2	1.96	0.81
48:4:574:ASP:HB3	48:4:575:PRO:C	2.01	0.81
1:5:1269:G:C6	1:5:2111:G:N2	2.49	0.81
1:5:2294:G:N3	1:5:2295:C:C6	2.48	0.81
1:5:2515:G:N7	1:5:2516:G:N7	2.28	0.81
1:5:463:A:N1	1:5:692:A:C2	2.49	0.81
14:K:81:ILE:HD13	14:K:117:ARG:NH1	1.95	0.81
49:S2:460:A:C2	49:S2:461:U:C4	2.57	0.81
48:4:710:HIS:HD2	48:4:715:HIS:HB2	1.42	0.81
49:S2:75:G:HO2'	49:S2:76:U:H6	1.28	0.81
14:K:162:CYS:N	14:K:163:PRO:CD	2.44	0.81
49:S2:1430:C:C2	49:S2:1431:G:C8	2.69	0.81
49:S2:1231:C:C1'	49:S2:1665:G:N2	2.43	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:617:G:N7	73:SX:67:ARG:NH1	2.28	0.81
1:5:504:G:C2	1:5:654:C:O2	2.34	0.81
1:5:54:G:C6	1:5:55:G:N7	2.49	0.81
1:5:4653:C:O2	1:5:4654:C:C6	2.34	0.81
1:5:3621:A:H8	1:5:4642:U:H1'	1.45	0.81
48:4:649:ILE:HD13	48:4:652:PHE:CE1	2.15	0.81
17:N:199:GLN:HA	17:N:199:GLN:OE1	1.79	0.81
1:5:1049:C:C2	1:5:1050:C:C6	2.69	0.81
1:5:1245:C:C6	1:5:1269:G:C5	2.69	0.81
14:K:104:ILE:O	14:K:106:PHE:CD1	2.34	0.81
49:S2:1394:G:C6	49:S2:1395:C:H5	1.99	0.81
49:S2:1035:A:H2'	49:S2:1036:A:O4'	1.80	0.81
48:4:10:ARG:CD	48:4:13:MET:SD	2.69	0.81
1:5:4999:G:C6	1:5:5000:G:N7	2.48	0.81
3:8:64:U:H2'	3:8:65:A:C8	2.15	0.81
1:5:4580:U:C4	1:5:4581:G:N7	2.48	0.81
1:5:2658:G:H22	1:5:2675:G:H2'	1.45	0.81
1:5:4416:G:N1	1:5:4417:C:C4	2.49	0.81
49:S2:1034:A:H2'	49:S2:1035:A:O5'	1.81	0.81
1:5:3686:G:P	4:A:193:ARG:HH22	2.04	0.81
1:5:4344:U:O2	1:5:4345:C:C6	2.34	0.81
1:5:2495:U:C2	1:5:2496:G:C8	2.69	0.81
49:S2:795:A:H2'	49:S2:796:G:H8	1.45	0.81
1:5:1628:C:O2	1:5:1629:G:H8	1.62	0.81
1:5:2691:U:C2	1:5:2692:U:C5	2.68	0.81
1:5:504:G:H22	1:5:654:C:H1'	1.44	0.81
49:S2:1248:U:H2'	49:S2:1249:C:C1'	2.11	0.81
49:S2:1099:G:C6	49:S2:1100:A:N7	2.48	0.81
1:5:2277:C:O2	1:5:2278:G:H8	1.60	0.80
14:K:123:ARG:N	14:K:129:ILE:HD11	1.96	0.80
14:K:60:VAL:HG12	14:K:75:PRO:HG2	1.63	0.80
1:5:4426:C:C2	1:5:4427:G:C8	2.69	0.80
49:S2:445:A:H2'	49:S2:446:G:O4'	1.80	0.80
1:5:3731:C:O2	1:5:3732:A:C8	2.34	0.80
1:5:93:G:C2	1:5:94:A:C2	2.69	0.80
1:5:1174:G:N2	1:5:1175:A:C5	2.49	0.80
49:S2:1597:C:O2'	49:S2:1598:G:O4'	1.99	0.80
1:5:4233:A:O2'	1:5:4234:A:H3'	1.82	0.80
25:V:97:TYR:CZ	26:W:21:TYR:HA	2.15	0.80
1:5:3695:U:C4	1:5:3696:C:C5	2.69	0.80
1:5:4280:A:N6	7:D:29:ASP:OD1	2.14	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:107:A:H2'	49:S2:108:G:C8	2.17	0.80
1:5:2553:A:N1	1:5:2763:U:C5	2.49	0.80
1:5:1310:C:C2	1:5:1311:G:C8	2.69	0.80
1:5:4332:C:O2	1:5:4333:C:C6	2.34	0.80
50:SA:111:GLN:HA	50:SA:116:PHE:CE2	2.15	0.80
14:K:61:LYS:CE	14:K:72:GLU:HA	2.11	0.80
48:4:686:ALA:HB2	48:4:726:ARG:CA	2.12	0.80
48:4:671:TYR:O	48:4:675:ILE:N	2.01	0.80
49:S2:452:G:N1	49:S2:453:C:C4	2.50	0.80
49:S2:1835:A:H5'	49:S2:1863:A:C8	2.17	0.80
1:5:100:C:H5	1:5:101:A:C8	1.90	0.80
13:J:119:TYR:CG	68:SS:108:ARG:HH21	1.34	0.80
1:5:1190:C:C2	1:5:1191:C:C6	2.69	0.80
68:SS:86:ARG:HD3	68:SS:89:ASP:HB2	1.61	0.80
49:S2:1648:G:C8	66:SQ:125:ARG:HB3	2.17	0.80
48:4:13:MET:HE2	48:4:465:PRO:CD	2.12	0.80
49:S2:751:G:O6	49:S2:791:C:N3	2.13	0.80
1:5:4257:A:H2'	1:5:4258:C:C5	2.16	0.80
1:5:1406:G:O6	1:5:1408:G:O2'	1.97	0.80
8:E:153:HIS:CE1	8:E:180:VAL:HG22	2.16	0.80
49:S2:1258:A:N7	49:S2:1659:U:O2	2.14	0.80
1:5:1441:C:OP1	1:5:2109:G:O3'	2.00	0.80
49:S2:1051:G:C6	49:S2:1052:A:N7	2.48	0.80
49:S2:1594:A:N1	49:S2:1595:U:C6	2.48	0.80
1:5:4277:G:C2	1:5:4278:C:C6	2.69	0.80
1:5:424:U:O2	1:5:425:U:H6	1.64	0.80
3:8:96:C:C2	3:8:97:A:H8	1.99	0.80
1:5:2532:C:O2	1:5:2533:C:C5	2.32	0.80
11:H:113:GLU:HA	11:H:113:GLU:OE2	1.81	0.80
49:S2:1156:U:O4	52:SC:194:ARG:NH1	2.15	0.80
1:5:1967:A:C2	1:5:1968:G:C5	2.69	0.80
10:G:264:LYS:HE3	10:G:265:LEU:HD22	1.61	0.80
1:5:3741:C:N3	1:5:3742:G:N7	2.29	0.80
49:S2:1409:A:C2	49:S2:1410:C:C5	2.70	0.80
49:S2:1310:U:N3	49:S2:1311:C:C5	2.48	0.80
49:S2:165:G:C2'	49:S2:166:A:H8	1.94	0.80
1:5:2690:C:C2	1:5:2691:U:C6	2.69	0.80
1:5:1926:C:N3	1:5:1927:U:C5	2.49	0.80
49:S2:1074:C:N3	49:S2:1075:C:C5	2.48	0.80
1:5:4256:A:N7	13:J:60:PHE:CE1	2.50	0.80
1:5:1756:U:C4	1:5:1776:A:C2	2.70	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:146:G:C2	1:5:147:A:N7	2.50	0.80
1:5:1279:A:H3'	1:5:1280:C:C5	2.16	0.80
1:5:1687:U:C2	1:5:1850:A:N6	2.49	0.80
48:4:562:GLU:HA	48:4:570:ILE:CD1	2.08	0.80
49:S2:220:U:C2	49:S2:221:A:C8	2.70	0.80
49:S2:1834:A:C2	49:S2:1837:G:N2	2.48	0.80
1:5:3739:C:C4	1:5:3740:G:C8	2.69	0.80
49:S2:648:A:C6	49:S2:649:U:C5	2.69	0.80
49:S2:1134:G:N1	49:S2:1135:C:C4	2.49	0.80
1:5:4098:A:N3	1:5:4099:G:C8	2.49	0.80
1:5:4579:U:N3	1:5:4580:U:C5	2.49	0.80
48:4:540:GLU:OE1	48:4:540:GLU:CA	2.29	0.80
1:5:753:C:N3	1:5:754:U:C6	2.48	0.80
48:4:113:SER:HB3	48:4:533:MET:HB3	0.80	0.80
1:5:1279:A:C2'	1:5:1280:C:C5	2.62	0.80
1:5:2079:G:N1	1:5:2080:U:C4	2.50	0.80
1:5:4080:C:C2	1:5:4081:G:H8	1.96	0.80
14:K:114:ARG:HD2	14:K:130:LYS:HE3	1.62	0.80
14:K:121:LEU:HD12	14:K:129:ILE:HD13	0.83	0.80
1:5:1572:U:H4'	21:R:95:TRP:NE1	1.97	0.80
48:4:271:GLY:O	48:4:272:LYS:CD	2.30	0.80
48:4:271:GLY:O	48:4:272:LYS:CG	2.30	0.80
49:S2:750:C:O2	49:S2:751:G:C8	2.35	0.80
1:5:3648:A:C4	1:5:3785:A:N6	2.50	0.80
3:8:64:U:O2	3:8:65:A:C5	2.35	0.80
49:S2:599:A:C1'	49:S2:605:A:N3	2.45	0.80
49:S2:580:U:O4	49:S2:581:U:C5	2.35	0.80
6:C:143:ARG:NH2	6:C:145:GLU:HG3	1.96	0.80
1:5:1070:G:C6	1:5:1071:C:C5	2.69	0.80
1:5:2279:A:N3	1:5:2280:G:C8	2.49	0.80
1:5:473:C:N3	1:5:474:C:C5	2.49	0.80
48:4:849:PRO:O	48:4:849:PRO:CD	2.30	0.80
48:4:849:PRO:O	48:4:849:PRO:CG	2.29	0.80
48:4:155:LEU:CD1	48:4:185:VAL:HG21	2.12	0.80
48:4:206:ASP:CB	48:4:207:PRO:HD2	2.02	0.80
49:S2:1408:U:N3	49:S2:1439:A:C2	2.42	0.80
49:S2:165:G:O2'	49:S2:166:A:O4'	2.00	0.80
1:5:1948:G:O6	1:5:2034:G:O6	2.00	0.80
49:S2:1039:C:N3	49:S2:1040:G:C8	2.50	0.80
1:5:4258:C:O2	1:5:4259:C:C6	2.34	0.80
49:S2:863:U:O2	49:S2:864:A:C8	2.35	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:964:A:O2'	49:S2:965:U:O5'	1.97	0.80
49:S2:182:C:H2'	49:S2:184:G:H1'	1.61	0.80
1:5:4510:A:N6	1:5:4592:C:C4'	2.44	0.80
51:SB:133:TYR:CE2	51:SB:181:LEU:HD12	2.16	0.80
48:4:752:PRO:HD2	48:4:755:VAL:HG23	1.61	0.80
1:5:1268:G:C2	1:5:2111:G:C2	2.70	0.80
14:K:48:LYS:CG	14:K:52:ASP:OD1	2.26	0.80
48:4:660:ASN:ND2	48:4:697:MET:O	2.14	0.80
48:4:829:SER:CB	48:4:832:SER:HB3	2.12	0.80
48:4:49:ALA:CA	48:4:55:ARG:HH21	1.92	0.80
49:S2:1539:U:O2	49:S2:1540:G:H8	1.62	0.80
1:5:424:U:N3	1:5:425:U:H5	1.79	0.80
60:SK:2:LEU:HB3	60:SK:8:ARG:NH2	1.96	0.80
48:4:420:LEU:N	48:4:420:LEU:HD22	1.96	0.80
1:5:486:C:N3	1:5:487:G:N7	2.30	0.80
1:5:33:A:H2'	1:5:34:A:C8	2.16	0.80
49:S2:599:A:O4'	49:S2:605:A:H2	1.65	0.80
1:5:738:C:C4	1:5:739:G:N7	2.50	0.80
1:5:4772:C:C2	1:5:4773:C:C6	2.70	0.80
2:7:50:A:C2	2:7:51:G:C8	2.69	0.80
1:5:2812:A:H2'	1:5:2813:A:C8	2.16	0.80
48:4:60:ARG:O	48:4:60:ARG:CG	2.30	0.80
1:5:4078:C:O2'	1:5:4172:A:N6	2.14	0.80
49:S2:71:G:H3'	49:S2:72:C:H5"	1.64	0.80
49:S2:1835:A:C2	49:S2:1863:A:N6	2.50	0.80
1:5:2428:A:C5	1:5:2789:A:H2	2.00	0.80
48:4:420:LEU:O	48:4:420:LEU:CD2	2.30	0.80
3:8:65:A:C2	3:8:66:A:C5	2.69	0.80
48:4:101:ASN:CB	48:4:469:ILE:HD13	2.12	0.80
49:S2:1063:C:C1'	49:S2:1838:U:O4	2.30	0.80
1:5:5012:G:N2	1:5:5014:A:C8	2.50	0.80
49:S2:38:A:C2	49:S2:515:G:N2	2.50	0.80
1:5:1080:C:N3	1:5:1081:C:C5	2.50	0.80
49:S2:1595:U:C4	49:S2:1596:U:C5	2.70	0.80
49:S2:618:C:O2	49:S2:618:C:H2'	1.79	0.80
49:S2:1134:G:N2	49:S2:1135:C:C2	2.49	0.80
49:S2:1708:C:N3	49:S2:1709:G:N7	2.30	0.80
48:4:402:VAL:HG22	48:4:403:PRO:CD	2.10	0.80
1:5:504:G:C2	1:5:505:G:C5	2.70	0.80
1:5:194:C:O2'	28:Y:121:ARG:NH2	2.15	0.80
49:S2:1755:C:C4	49:S2:1756:C:C5	2.70	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1146:C:C2	49:S2:1147:C:C5	2.70	0.80
1:5:4301:U:H4'	23:T:54:HIS:CD2	2.17	0.80
1:5:2505:C:H1'	1:5:2506:G:C5	2.17	0.79
49:S2:339:A:N3	49:S2:340:C:C4	2.49	0.79
49:S2:1053:C:O2	49:S2:1054:G:C8	2.36	0.79
49:S2:1831:A:H1'	49:S2:1851:A:H2'	1.63	0.79
49:S2:1540:G:C2	49:S2:1541:G:N9	2.50	0.79
1:5:4239:A:C6	1:5:4240:G:C8	2.70	0.79
3:8:11:C:H2'	3:8:11:C:O2	1.82	0.79
49:S2:1094:C:N3	49:S2:1095:U:C5	2.51	0.79
1:5:1886:G:C2	1:5:1894:C:N3	2.50	0.79
49:S2:795:A:C4	49:S2:796:G:N7	2.50	0.79
3:8:120:G:C2	3:8:121:G:C8	2.69	0.79
49:S2:998:A:N7	49:S2:999:G:H1'	1.97	0.79
49:S2:495:U:O2'	49:S2:496:C:O4'	1.99	0.79
49:S2:1786:U:C2	49:S2:1787:G:C8	2.69	0.79
8:E:197:ILE:HD12	8:E:257:ILE:HG23	1.63	0.79
49:S2:608:C:N3	49:S2:609:U:C5	2.50	0.79
1:5:440:U:C2	1:5:441:G:C8	2.70	0.79
1:5:982:U:H5'	8:E:69:TYR:OH	1.83	0.79
14:K:104:ILE:O	14:K:106:PHE:HD1	1.66	0.79
14:K:62:LEU:HG	14:K:73:VAL:HB	1.65	0.79
49:S2:1202:U:N3	49:S2:1203:G:C8	2.50	0.79
1:5:70:A:C2	1:5:4355:G:O4'	2.35	0.79
3:8:12:G:N2	3:8:13:G:N9	2.30	0.79
1:5:3695:U:N3	1:5:3696:C:C5	2.51	0.79
3:8:81:C:O2	3:8:83:C:OP1	1.99	0.79
1:5:235:A:C6	1:5:238:C:C4	2.70	0.79
49:S2:1008:A:H1'	63:SN:101:HIS:CE1	2.16	0.79
1:5:4976:U:O4	5:B:342:LYS:HD2	1.81	0.79
48:4:744:ILE:HD13	48:4:815:ASP:C	2.02	0.79
1:5:1247:U:C4	1:5:1248:C:C5	2.70	0.79
1:5:2089:G:C6	1:5:2263:A:C5	2.70	0.79
1:5:2328:G:O2'	1:5:2329:U:C5'	2.30	0.79
14:K:140:GLY:O	14:K:141:CYS:CB	2.30	0.79
49:S2:119:U:C2	49:S2:120:U:C6	2.69	0.79
49:S2:114:G:HO2'	49:S2:382:C:HO2'	1.18	0.79
49:S2:221:A:C6	49:S2:222:U:C5	2.69	0.79
14:K:159:ALA:O	14:K:163:PRO:CG	2.31	0.79
49:S2:1592:C:N3	49:S2:1593:C:C5	2.51	0.79
49:S2:164:A:H2'	49:S2:165:G:N2	1.96	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:212:A:H2'	1:5:213:G:H8	1.47	0.79
1:5:662:C:H2'	1:5:663:G:C8	2.16	0.79
49:S2:1100:A:C2	49:S2:1101:U:C5	2.70	0.79
49:S2:494:C:N3	49:S2:495:U:C5	2.51	0.79
48:4:751:CYS:SG	48:4:755:VAL:HB	2.22	0.79
48:4:756:VAL:HG22	48:4:782:PHE:CB	2.13	0.79
14:K:124:GLU:O	14:K:128:THR:OG1	2.01	0.79
1:5:1388:A:N6	1:5:1396:G:N2	2.30	0.79
1:5:66:A:C2	1:5:312:G:O4'	2.36	0.79
1:5:83:C:O2	1:5:99:A:N6	2.12	0.79
1:5:4269:G:C6	1:5:4270:C:C5	2.71	0.79
49:S2:1222:G:H2'	49:S2:1223:A:O4'	1.81	0.79
3:8:65:A:C2	3:8:66:A:N7	2.50	0.79
48:4:191:THR:CG2	48:4:192:TYR:CE1	2.65	0.79
1:5:4098:A:C2	1:5:4099:G:C5	2.70	0.79
3:8:37:A:O4'	3:8:39:G:H1'	1.82	0.79
49:S2:848:U:H2'	49:S2:849:A:C8	2.16	0.79
1:5:4627:U:C2	1:5:4628:U:C5	2.70	0.79
1:5:1806:G:N2	1:5:1807:C:C2	2.51	0.79
49:S2:1785:C:C2	49:S2:1786:U:C5	2.70	0.79
60:SK:27:VAL:HG13	60:SK:43:LEU:HD23	1.65	0.79
48:4:502:SER:HB2	48:4:504:VAL:HG13	0.81	0.79
20:Q:37:ARG:HG3	20:Q:38:ARG:N	1.96	0.79
49:S2:1433:C:C2'	49:S2:1434:C:C1'	2.56	0.79
49:S2:1545:A:C6	49:S2:1588:A:N1	2.51	0.79
49:S2:1271:C:C4	49:S2:1272:C:C5	2.71	0.79
49:S2:475:C:C2	49:S2:476:A:C8	2.71	0.79
1:5:4537:C:O2	1:5:4538:G:C8	2.35	0.79
49:S2:996:A:C6	63:SN:113:PHE:CE2	2.70	0.79
2:7:42:A:C6	2:7:43:U:C4	2.69	0.79
48:4:259:LYS:O	48:4:288:THR:HG21	1.83	0.79
1:5:153:G:C2	1:5:154:G:N7	2.51	0.79
49:S2:1246:A:N6	49:S2:1247:C:H41	1.81	0.79
1:5:4737:G:C6	1:5:4963:G:C2	2.70	0.79
1:5:1662:C:C2	1:5:1663:C:C5	2.71	0.79
1:5:2277:C:N3	1:5:2278:G:N7	2.30	0.79
1:5:2452:G:C2	1:5:2467:U:C4	2.70	0.79
48:4:592:LEU:HD22	48:4:603:TYR:CZ	2.17	0.79
48:4:846:GLU:HA	48:4:846:GLU:OE2	1.82	0.79
48:4:846:GLU:CA	48:4:846:GLU:OE2	2.30	0.79
48:4:420:LEU:HB2	48:4:465:PRO:HA	1.63	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4114:C:H3'	1:5:4115:G:O4'	1.83	0.79
49:S2:1772:C:N3	49:S2:1773:C:C5	2.51	0.79
1:5:2632:U:H2'	1:5:2632:U:O2	1.83	0.79
49:S2:691:G:C2	49:S2:692:G:C8	2.71	0.79
49:S2:332:G:O6	56:SG:186:GLN:NE2	2.15	0.79
1:5:1516:G:HO2'	15:L:18:TRP:HE1	1.29	0.79
1:5:1348:U:O2	1:5:1349:G:C8	2.36	0.79
48:4:4:PHE:CD1	48:4:5:THR:HB	2.15	0.79
1:5:982:U:C5'	8:E:69:TYR:OH	2.31	0.79
49:S2:43:U:C2	49:S2:484:A:C2	2.69	0.79
48:4:610:PRO:HB2	48:4:613:LEU:CG	2.10	0.79
14:K:160:VAL:N	14:K:163:PRO:HG3	1.97	0.79
49:S2:1408:U:C4	49:S2:1439:A:N1	2.50	0.79
1:5:422:C:O2	1:5:423:G:C8	2.35	0.79
1:5:3593:C:H4'	1:5:3594:C:OP2	1.79	0.79
11:H:96:TYR:CE2	11:H:100:PRO:HA	2.17	0.79
1:5:1965:G:H2'	1:5:1966:C:H6	1.46	0.79
1:5:4888:U:O2'	1:5:4889:G:H8	1.65	0.79
48:4:647:ARG:NH2	48:4:647:ARG:HG2	1.95	0.79
49:S2:22:A:C2	49:S2:653:A:C2	2.70	0.79
1:5:4990:C:O3'	1:5:4991:U:H4'	1.82	0.79
1:5:1270:A:H2'	1:5:1271:G:O5'	1.83	0.79
1:5:2463:G:N2	1:5:2464:C:C2	2.51	0.79
14:K:59:THR:O	14:K:60:VAL:HG23	1.83	0.79
49:S2:449:A:N1	49:S2:452:G:N7	2.31	0.79
1:5:425:U:O2	1:5:426:A:C8	2.35	0.79
48:4:449:ARG:HB3	48:4:473:VAL:CG1	2.13	0.79
1:5:4744:A:C2	1:5:4745:G:C4	2.71	0.79
1:5:1836:G:C2	1:5:1837:A:C8	2.71	0.79
48:4:27:HIS:HE2	48:4:28:VAL:HG23	1.48	0.79
48:4:577:VAL:HG12	48:4:579:TYR:CE1	2.18	0.79
1:5:1899:G:N7	1:5:2278:G:C6	2.51	0.79
1:5:2090:U:O2'	1:5:2091:C:O5'	2.00	0.79
14:K:142:ASN:OD1	14:K:143:VAL:N	2.15	0.79
48:4:607:ARG:CG	48:4:701:ARG:HD3	2.12	0.79
48:4:634:TYR:O	48:4:638:LYS:HB2	1.83	0.79
48:4:591:CYS:SG	48:4:732:SER:HB3	2.21	0.79
49:S2:1365:G:O6	49:S2:1375:G:N2	2.16	0.79
49:S2:1266:C:C2	49:S2:1267:C:C5	2.70	0.79
49:S2:1552:G:O6	49:S2:1578:U:O2	2.01	0.79
49:S2:751:G:C2	49:S2:792:C:C2	2.71	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3629:A:C2'	49:S2:1721:U:H3	1.95	0.79
49:S2:933:G:N2	49:S2:1000:C:N3	2.30	0.79
1:5:4096:C:N4	1:5:4097:G:C5	2.50	0.79
3:8:102:G:OP2	3:8:104:A:O2'	2.00	0.79
1:5:152:U:N3	1:5:153:G:N7	2.30	0.79
51:SB:79:VAL:HB	51:SB:81:PHE:CZ	2.18	0.79
48:4:113:SER:CA	48:4:499:PHE:CB	2.42	0.79
1:5:1684:A:C6	1:5:1685:G:C8	2.71	0.79
1:5:1866:U:O2'	1:5:1867:A:C8	2.36	0.79
1:5:4605:A:H62	48:4:801:ARG:HD2	1.47	0.79
49:S2:381:C:O5'	49:S2:381:C:C6	2.36	0.79
1:5:70:A:N1	1:5:4355:G:O4'	2.16	0.79
1:5:1177:U:H1'	7:D:282:GLN:NE2	1.98	0.79
1:5:1177:U:O2	1:5:1178:G:C8	2.36	0.79
49:S2:1551:U:H2'	49:S2:1552:G:C1'	2.13	0.79
1:5:4276:G:O6	1:5:4277:G:N7	2.12	0.79
2:7:30:C:C2	2:7:48:G:N2	2.51	0.79
49:S2:649:U:O2	49:S2:650:A:N7	2.16	0.79
49:S2:1135:C:C2	49:S2:1136:U:C5	2.71	0.79
48:4:10:ARG:HH22	48:4:465:PRO:HD3	1.47	0.79
49:S2:1109:C:H41	67:SR:122:PRO:C	1.85	0.79
3:8:96:C:N3	3:8:97:A:C8	2.47	0.79
1:5:2533:C:C2	1:5:2534:C:C5	2.71	0.79
49:S2:1100:A:N1	49:S2:1101:U:C5	2.51	0.79
1:5:3595:U:O2'	21:R:114:LYS:HG3	1.82	0.79
49:S2:848:U:N3	49:S2:849:A:C5	2.51	0.79
1:5:4332:C:O2	1:5:4333:C:C5	2.35	0.79
5:B:51:ALA:HA	5:B:323:TYR:CE2	2.18	0.79
12:I:9:TYR:HD2	12:I:97:ILE:HG12	1.48	0.79
48:4:27:HIS:HE2	48:4:28:VAL:CG2	1.96	0.78
1:5:1898:C:C5	1:5:2279:A:H1'	2.17	0.78
14:K:142:ASN:HD21	14:K:151:ILE:CG1	1.79	0.78
14:K:22:VAL:HG21	14:K:48:LYS:CE	2.13	0.78
49:S2:341:C:N3	49:S2:342:C:C6	2.52	0.78
1:5:1358:G:C3'	6:C:114:ARG:HH12	1.96	0.78
1:5:269:G:C6	1:5:270:U:C5	2.71	0.78
1:5:3905:A:C5	1:5:4449:A:N1	2.51	0.78
3:8:131:G:C6	3:8:132:G:C8	2.71	0.78
1:5:1339:U:C2	1:5:1340:C:C5	2.71	0.78
10:G:169:PHE:CD2	17:N:6:TYR:HB3	2.18	0.78
9:F:120:PHE:CZ	9:F:217:SER:HA	2.18	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:61:LYS:HD3	14:K:73:VAL:O	1.83	0.78
49:S2:460:A:C6	49:S2:461:U:C5	2.70	0.78
49:S2:222:U:N3	49:S2:223:C:C5	2.52	0.78
1:5:3739:C:H6	1:5:3739:C:H5"	1.47	0.78
49:S2:1569:A:C8	49:S2:1570:G:H1'	2.19	0.78
49:S2:1093:A:N6	49:S2:1151:G:O6	2.16	0.78
49:S2:554:A:C2	49:S2:555:A:C5	2.71	0.78
49:S2:794:A:C6	49:S2:795:A:C5	2.70	0.78
1:5:2691:U:C2	1:5:2692:U:H5	2.01	0.78
1:5:4563:U:C4	1:5:4564:A:N6	2.52	0.78
49:S2:928:G:H2'	49:S2:929:G:C8	2.18	0.78
54:SE:18:TRP:CB	54:SE:46:ILE:HD13	2.12	0.78
1:5:917:A:C2	1:5:919:C:C6	2.71	0.78
1:5:1791:U:H4'	23:T:19:PHE:CZ	2.19	0.78
6:C:210:ILE:HD13	6:C:252:TRP:CH2	2.18	0.78
25:V:20:LEU:HD21	25:V:101:ASN:HD22	1.47	0.78
1:5:3655:C:N3	1:5:3656:A:C8	2.52	0.78
48:4:433:ASN:O	48:4:434:TYR:C	2.20	0.78
1:5:2509:C:O2'	1:5:2510:G:H5'	1.84	0.78
10:G:53:ARG:CZ	10:G:54:PHE:HZ	1.95	0.78
48:4:518:PRO:CA	73:SX:50:ILE:HD11	2.10	0.78
49:S2:1419:C:O2'	69:ST:132:ASP:HB3	1.83	0.78
48:4:394:LEU:H	48:4:487:THR:HG22	1.49	0.78
1:5:3629:A:H1'	49:S2:1721:U:N3	1.95	0.78
3:8:117:C:N3	3:8:118:C:C5	2.52	0.78
1:5:2690:C:C4	1:5:2691:U:C5	2.72	0.78
1:5:5047:C:O2	1:5:5048:A:C5	2.37	0.78
49:S2:986:G:C8	64:SO:137:SER:HA	2.18	0.78
49:S2:1495:G:C2	49:S2:1496:U:H1'	2.19	0.78
1:5:1398:A:H2'	1:5:1398:A:OP1	1.84	0.78
48:4:544:HIS:NE2	73:SX:97:ASN:ND2	2.30	0.78
1:5:2079:G:N3	1:5:2080:U:C6	2.52	0.78
1:5:964:A:C2	1:5:2252:G:O6	2.36	0.78
1:5:688:U:N3	1:5:689:U:C6	2.50	0.78
14:K:141:CYS:O	14:K:142:ASN:CB	2.32	0.78
1:5:4352:U:OP1	15:L:190:ARG:NH2	2.17	0.78
48:4:267:ASP:HA	48:4:267:ASP:N	1.98	0.78
49:S2:1413:G:C2	49:S2:1414:A:H1'	2.17	0.78
49:S2:1540:G:N1	49:S2:1541:G:N7	2.31	0.78
1:5:424:U:C2	1:5:425:U:C5	2.67	0.78
49:S2:53:C:O2	49:S2:54:A:H8	1.67	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:411:TYR:HD1	48:4:411:TYR:N	1.80	0.78
1:5:917:A:N1	1:5:919:C:C4	2.52	0.78
1:5:2567:G:C2	1:5:2568:C:C6	2.71	0.78
1:5:1811:G:N1	1:5:1812:C:C4	2.52	0.78
48:4:442:LEU:HD21	48:4:444:LEU:HD11	1.64	0.78
1:5:4719:G:O2'	1:5:4720:C:H4'	1.83	0.78
48:4:6:VAL:O	48:4:8:GLN:N	2.16	0.78
49:S2:42:A:C2	49:S2:43:U:C6	2.71	0.78
49:S2:340:C:C2	49:S2:341:C:C6	2.71	0.78
1:5:100:C:C6	1:5:101:A:C8	2.70	0.78
1:5:3717:A:O2'	1:5:3718:A:O4'	2.00	0.78
1:5:2361:G:O6	19:P:25:HIS:CG	2.37	0.78
1:5:1858:A:C2	1:5:1859:C:C5	2.71	0.78
48:4:396:MET:CE	48:4:472:LEU:HD11	2.13	0.78
1:5:125:C:N3	1:5:126:C:C5	2.52	0.78
49:S2:563:G:C2	49:S2:564:A:C8	2.71	0.78
1:5:1735:U:O2	1:5:1735:U:H2'	1.84	0.78
17:N:179:LYS:HB2	17:N:180:PHE:CE2	2.18	0.78
1:5:1213:G:C5	1:5:1215:C:N1	2.51	0.78
1:5:966:A:H61	1:5:2252:G:H8	1.29	0.78
1:5:4117:U:N3	4:A:40:TYR:HE1	1.81	0.78
49:S2:383:G:H2'	49:S2:384:U:C1'	2.13	0.78
49:S2:10:G:N7	49:S2:1697:A:C2	2.52	0.78
1:5:3739:C:C6	1:5:3739:C:C5'	2.66	0.78
1:5:1896:A:C5	9:F:101:ASN:ND2	2.51	0.78
49:S2:52:G:C6	49:S2:53:C:C5	2.72	0.78
1:5:2724:G:N3	1:5:2726:G:C8	2.52	0.78
49:S2:1121:G:C6	49:S2:1122:A:C5	2.72	0.78
1:5:2665:U:OP2	21:R:120:TYR:OH	2.02	0.78
1:5:4886:C:N3	1:5:4887:C:H5	1.82	0.78
51:SB:82:ARG:NH1	51:SB:188:LEU:O	2.15	0.78
1:5:4761:G:H2'	1:5:4762:A:O4'	1.83	0.78
1:5:1958:A:C2	1:5:2026:A:N1	2.52	0.78
1:5:2077:C:O2	1:5:2077:C:H2'	1.81	0.78
14:K:47:ALA:HB2	14:K:72:GLU:CD	2.04	0.78
48:4:510:GLU:HB3	48:4:571:LYS:O	1.83	0.78
49:S2:70:G:C6	49:S2:71:G:C5	2.72	0.78
1:5:101:A:C2	1:5:102:G:C8	2.72	0.78
49:S2:1533:A:N1	49:S2:1537:A:H1'	1.99	0.78
49:S2:1538:C:O2	49:S2:1538:C:H2'	1.84	0.78
1:5:4284:C:O2	1:5:4285:U:C6	2.36	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2367:A:C2	1:5:2788:U:O4	2.37	0.78
49:S2:553:U:C2	49:S2:554:A:N7	2.51	0.78
49:S2:977:C:C2	49:S2:978:G:C8	2.71	0.78
49:S2:623:G:N1	49:S2:624:C:C4	2.51	0.78
4:A:163:ARG:HB2	4:A:163:ARG:CZ	2.14	0.78
1:5:5066:U:H2'	1:5:5067:U:C6	2.17	0.78
10:G:81:ASN:HD21	10:G:238:GLY:HA3	1.49	0.78
1:5:2713:C:O2	1:5:2714:G:C8	2.36	0.78
59:SJ:136:ARG:HD3	59:SJ:160:SER:HA	1.65	0.78
1:5:1214:C:C2'	1:5:2114:G:C2	2.66	0.78
1:5:1438:U:O2	1:5:2099:G:C6	2.36	0.78
1:5:2108:G:C2	1:5:2125:C:N3	2.52	0.78
14:K:86:LYS:O	14:K:104:ILE:HG21	1.82	0.78
14:K:22:VAL:CG2	14:K:48:LYS:CB	2.62	0.78
1:5:4426:C:C4	1:5:4427:G:N7	2.52	0.78
49:S2:148:U:C2	49:S2:170:A:N6	2.52	0.78
1:5:3738:G:C5	1:5:3739:C:C6	2.72	0.78
1:5:1382:G:OP1	15:L:65:ARG:NH1	2.16	0.78
49:S2:1411:G:C5	49:S2:1412:C:H1'	2.18	0.78
49:S2:1547:C:H2'	49:S2:1548:G:O4'	1.83	0.78
1:5:425:U:C2	1:5:426:A:C8	2.71	0.78
1:5:2724:G:N2	1:5:2726:G:C4	2.52	0.78
1:5:2726:G:N3	1:5:2727:C:C5	2.52	0.78
1:5:4099:G:O2'	51:SB:224:GLU:CG	2.31	0.78
9:F:41:GLN:HE21	9:F:41:GLN:HA	1.48	0.78
1:5:4880:C:C2'	1:5:4881:U:H5'	2.14	0.78
1:5:3621:A:C8	1:5:4642:U:H1'	2.19	0.78
1:5:1734:G:H3'	23:T:13:TYR:CE2	2.18	0.78
48:4:27:HIS:NE2	48:4:28:VAL:CG2	2.47	0.78
48:4:767:ARG:NH2	48:4:792:GLU:HG3	1.98	0.78
1:5:2327:G:N1	1:5:2328:G:N7	2.32	0.78
1:5:4302:U:H5	1:5:4303:C:C5	2.01	0.78
49:S2:460:A:H2	49:S2:461:U:C6	1.94	0.78
48:4:507:VAL:HG22	48:4:554:LEU:HD21	0.79	0.78
1:5:86:U:C4	1:5:97:G:C2	2.72	0.78
1:5:425:U:C2	1:5:426:A:N7	2.52	0.78
1:5:4213:A:C2	1:5:4218:U:O4	2.37	0.78
49:S2:1134:G:N3	49:S2:1135:C:C6	2.51	0.78
1:5:483:G:C2	1:5:484:U:C4	2.72	0.78
1:5:1806:G:N1	1:5:1807:C:C4	2.52	0.78
1:5:1811:G:N2	1:5:1812:C:C2	2.50	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3607:U:C2	1:5:3608:A:C8	2.72	0.78
1:5:3799:A:H2'	1:5:3800:A:C8	2.19	0.78
14:K:123:ARG:CA	14:K:129:ILE:CD1	2.05	0.78
48:4:739:ARG:NH1	48:4:823:ASP:CB	2.41	0.78
49:S2:1406:G:H2'	49:S2:1407:U:O4'	1.84	0.78
1:5:1598:C:C2	1:5:1599:A:C8	2.72	0.78
2:7:21:G:C6	2:7:58:A:C2	2.72	0.78
3:8:64:U:N3	3:8:65:A:C5	2.52	0.78
1:5:4093:G:C6	1:5:4115:G:O6	2.37	0.78
1:5:1807:C:N3	1:5:1808:C:C5	2.52	0.78
19:P:54:GLN:HB3	19:P:83:TRP:CD1	2.18	0.78
6:C:111:TRP:HB2	6:C:112:HIS:HD2	1.48	0.78
48:4:114:GLU:HA	48:4:114:GLU:OE1	1.82	0.77
1:5:2438:A:C6	1:5:2441:C:C4	2.72	0.77
1:5:4606:G:C5'	48:4:28:VAL:CG2	2.56	0.77
49:S2:388:U:O2	49:S2:389:A:C8	2.37	0.77
49:S2:1575:G:C2	49:S2:1576:G:C5	2.72	0.77
49:S2:1030:A:C2	49:S2:1031:A:C8	2.72	0.77
1:5:4216:G:C2	1:5:4217:G:C8	2.72	0.77
48:4:420:LEU:O	48:4:420:LEU:CG	2.30	0.77
49:S2:992:A:N1	49:S2:993:G:C8	2.51	0.77
49:S2:923:G:C2	49:S2:1022:U:O4	2.37	0.77
49:S2:491:C:H1'	49:S2:574:A:N6	1.99	0.77
49:S2:414:A:C2	49:S2:424:C:C2	2.72	0.77
48:4:575:PRO:O	48:4:576:VAL:C	2.20	0.77
1:5:2277:C:C2	1:5:2278:G:N7	2.53	0.77
1:5:4076:G:N2	10:G:74:LEU:HG	1.98	0.77
49:S2:337:C:O2	49:S2:338:G:C8	2.37	0.77
1:5:4982:A:N1	1:5:4983:C:C6	2.53	0.77
1:5:300:A:O2'	17:N:94:PHE:O	2.02	0.77
49:S2:1527:C:C4	49:S2:1528:G:N7	2.53	0.77
1:5:4276:G:C6	1:5:4277:G:C5	2.70	0.77
49:S2:1109:C:N3	49:S2:1110:G:H1'	1.99	0.77
1:5:4535:A:C6	1:5:4536:C:C5	2.72	0.77
1:5:4723:A:C2	1:5:4724:A:C5	2.72	0.77
1:5:4481:U:C2	1:5:4482:U:C6	2.73	0.77
1:5:3794:C:C2	1:5:3795:A:C8	2.71	0.77
1:5:197:A:C8	1:5:197:A:H5'	2.19	0.77
1:5:120:A:H1'	1:5:121:A:N1	1.98	0.77
1:5:124:C:N3	1:5:125:C:C5	2.52	0.77
22:S:94:TYR:OH	22:S:96:GLU:HG2	1.84	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1672:U:N3	1:5:1673:U:C5	2.51	0.77
1:5:1899:G:C4	1:5:1900:C:C5	2.71	0.77
1:5:2264:C:O2'	1:5:2265:G:O5'	2.02	0.77
1:5:458:C:C2	1:5:459:C:C6	2.73	0.77
14:K:123:ARG:HD2	14:K:129:ILE:HD13	1.64	0.77
48:4:689:GLU:C	48:4:730:TYR:CE1	2.58	0.77
48:4:650:TRP:HZ3	48:4:679:VAL:CG1	1.97	0.77
49:S2:338:G:C4	49:S2:339:A:C8	2.71	0.77
49:S2:1405:A:N6	49:S2:1441:U:O4	2.18	0.77
3:8:15:G:H2'	3:8:16:G:C1'	2.14	0.77
49:S2:636:C:C2	49:S2:637:U:C5	2.72	0.77
49:S2:821:G:C8	49:S2:821:G:H5'	2.18	0.77
48:4:240:GLY:O	48:4:243:GLN:CD	2.22	0.77
1:5:54:G:O6	1:5:55:G:N7	2.17	0.77
49:S2:494:C:O2	49:S2:495:U:C5	2.36	0.77
1:5:223:G:H4'	1:5:225:G:N7	1.99	0.77
21:R:163:ARG:NE	49:S2:871:U:O2	2.16	0.77
48:4:498:LYS:O	48:4:500:SER:N	2.18	0.77
48:4:114:GLU:CB	48:4:532:PRO:CG	2.48	0.77
1:5:2291:G:C2	1:5:2292:C:C6	2.73	0.77
14:K:154:ASP:O	14:K:155:ILE:CA	2.31	0.77
48:4:829:SER:OG	48:4:832:SER:CA	2.32	0.77
1:5:4343:U:N3	1:5:4344:U:C5	2.53	0.77
48:4:402:VAL:O	48:4:403:PRO:O	2.02	0.77
1:5:208:A:H1'	1:5:232:G:C2	2.19	0.77
3:8:81:C:H3'	3:8:82:A:H4'	1.65	0.77
1:5:2689:C:H2'	1:5:2689:C:O2	1.84	0.77
1:5:1950:U:N3	1:5:1951:G:N7	2.32	0.77
1:5:2054:U:H4'	1:5:2056:G:C1'	2.13	0.77
1:5:4735:G:N3	1:5:4736:C:C6	2.52	0.77
1:5:195:C:N3	1:5:196:C:C5	2.52	0.77
1:5:1781:U:C2	1:5:1782:U:C6	2.72	0.77
2:7:111:C:C4	2:7:112:U:C5	2.73	0.77
1:5:4416:G:C2	1:5:4417:C:C6	2.73	0.77
11:H:41:ILE:HD11	11:H:69:THR:CB	2.12	0.77
52:SC:199:PRO:HD2	52:SC:223:TYR:OH	1.84	0.77
1:5:1238:A:HO2'	1:5:1239:C:C5'	1.96	0.77
1:5:1277:G:C2	1:5:1278:C:C6	2.72	0.77
1:5:2018:C:C4	1:5:2019:C:C5	2.72	0.77
1:5:2127:C:C2'	1:5:2128:G:C8	2.68	0.77
48:4:634:TYR:CD1	48:4:638:LYS:HG2	2.19	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:691:ALA:H	48:4:730:TYR:HD1	1.23	0.77
48:4:648:LYS:HD3	48:4:664:ASP:O	1.83	0.77
49:S2:1400:U:H2'	49:S2:1401:A:O4'	1.85	0.77
49:S2:1243:U:C2	49:S2:1265:A:N1	2.53	0.77
49:S2:1114:U:H3	49:S2:1119:A:H61	1.31	0.77
49:S2:476:A:H2	49:S2:488:U:O2	1.66	0.77
3:8:127:U:H2'	3:8:128:C:O4'	1.84	0.77
49:S2:1124:C:C2	49:S2:1125:C:C6	2.72	0.77
48:4:296:PRO:HA	48:4:299:LYS:HE3	1.66	0.77
48:4:93:LYS:O	48:4:93:LYS:CD	2.30	0.77
1:5:4560:C:O2	1:5:4560:C:H2'	1.84	0.77
1:5:3796:U:O2'	49:S2:1720:U:O2'	2.02	0.77
49:S2:908:A:N3	49:S2:909:G:C8	2.53	0.77
1:5:1791:U:H4'	23:T:19:PHE:CE2	2.17	0.77
50:SA:110:ASN:O	50:SA:116:PHE:HD2	1.66	0.77
1:5:4739:C:H2'	1:5:4740:G:O4'	1.85	0.77
5:B:378:ARG:HD3	26:W:32:LEU:HD21	1.65	0.77
48:4:425:LEU:HD23	48:4:426:LYS:N	1.98	0.77
75:SZ:97:ILE:HD12	75:SZ:109:TYR:CE2	2.20	0.77
48:4:541:SER:O	48:4:576:VAL:HG21	1.82	0.77
1:5:1674:C:N3	1:5:1675:C:C5	2.53	0.77
48:4:602:LEU:HD23	48:4:603:TYR:N	2.00	0.77
1:5:1421:G:C2	1:5:1422:G:C8	2.72	0.77
1:5:287:U:C2	1:5:288:G:C8	2.73	0.77
1:5:321:U:C2	1:5:322:C:C6	2.73	0.77
49:S2:1510:G:C5	49:S2:1511:U:C5	2.73	0.77
49:S2:1603:G:N7	68:SS:28:PHE:CZ	2.52	0.77
1:5:4892:A:C2	1:5:4927:G:O6	2.36	0.77
49:S2:637:U:C2	49:S2:638:C:C5	2.72	0.77
3:8:117:C:N3	3:8:118:C:C6	2.51	0.77
3:8:86:U:OP1	3:8:87:G:OP1	2.00	0.77
1:5:1949:U:N3	1:5:1950:U:C5	2.53	0.77
1:5:4098:A:C2	1:5:4099:G:N7	2.53	0.77
3:8:103:A:C8	3:8:104:A:N7	2.53	0.77
1:5:1367:C:C2	1:5:1370:G:H2'	2.20	0.77
1:5:145:G:C2	1:5:146:G:C8	2.73	0.77
1:5:702:U:O2	1:5:703:G:O2'	2.00	0.77
49:S2:185:G:N2	49:S2:186:C:C2	2.53	0.77
1:5:4551:U:C2	1:5:4552:U:C5	2.72	0.77
1:5:4332:C:C2	1:5:4333:C:H5	2.03	0.77
49:S2:609:U:C2	49:S2:610:G:C8	2.72	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:665:ILE:HB	48:4:704:VAL:O	1.85	0.77
1:5:1502:G:OP1	20:Q:65:ARG:NH1	2.17	0.77
14:K:124:GLU:C	14:K:128:THR:OG1	2.23	0.77
49:S2:1696:C:O2	49:S2:1696:C:H2'	1.84	0.77
49:S2:1839:U:C2	49:S2:1840:U:C5	2.73	0.77
49:S2:672:A:C2	49:S2:1162:C:O2'	2.37	0.77
49:S2:1433:C:C2'	49:S2:1434:C:O4'	2.32	0.77
49:S2:1540:G:C2	49:S2:1541:G:C4	2.71	0.77
1:5:4275:G:O6	1:5:4276:G:C6	2.38	0.77
49:S2:474:G:N2	49:S2:475:C:C2	2.52	0.77
48:4:411:TYR:N	48:4:411:TYR:CD1	2.52	0.77
1:5:274:C:O2'	1:5:275:C:O5'	2.02	0.77
49:S2:494:C:N3	49:S2:495:U:C4	2.53	0.77
1:5:1634:A:N3	1:5:1635:C:C6	2.53	0.77
1:5:244:G:N1	1:5:246:G:C8	2.53	0.77
1:5:2305:U:C6	1:5:2305:U:H5'	2.20	0.77
1:5:1781:U:N3	1:5:1782:U:C5	2.53	0.77
1:5:701:G:O6	1:5:702:U:C5	2.38	0.77
1:5:2663:G:H4'	21:R:117:ARG:HH12	1.49	0.77
61:SL:61:PRO:HG2	61:SL:62:PHE:CE2	2.19	0.77
1:5:4908:G:H1	1:5:4913:G:H21	1.31	0.77
1:5:1289:C:C2	1:5:1290:G:C8	2.73	0.77
48:4:526:ARG:NH1	48:4:526:ARG:HG2	1.97	0.77
1:5:1973:G:C2	1:5:1993:C:N3	2.53	0.77
9:F:120:PHE:HZ	9:F:217:SER:HA	1.48	0.77
14:K:38:SER:HB2	14:K:39:PRO:CD	2.00	0.77
48:4:713:ALA:HA	48:4:716:ARG:CB	2.13	0.77
49:S2:1433:C:C2'	49:S2:1434:C:H1'	2.12	0.77
3:8:10:G:N2	3:8:11:C:H1'	2.00	0.77
49:S2:29:G:C2	49:S2:30:C:C4	2.73	0.77
7:D:41:LYS:HG3	23:T:93:ILE:HD11	1.67	0.77
2:7:42:A:C5	2:7:43:U:C5	2.72	0.77
49:S2:15:U:H2'	49:S2:16:G:O4'	1.84	0.77
7:D:284:LYS:HB3	12:I:209:TRP:CZ3	2.20	0.77
48:4:3:ASN:O	48:4:46:ILE:CG1	2.32	0.77
1:5:1213:G:N3	1:5:1215:C:H1'	2.00	0.77
1:5:2019:C:C2	1:5:2020:U:C6	2.73	0.77
1:5:1956:A:C2	1:5:2027:U:N3	2.44	0.77
1:5:2293:U:C2	1:5:2294:G:C8	2.73	0.77
48:4:509:VAL:HG21	48:4:546:ILE:CD1	2.14	0.77
1:5:1175:A:H1'	7:D:275:GLN:NE2	1.99	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1405:A:H2'	49:S2:1406:G:O4'	1.85	0.77
49:S2:1229:G:H2'	49:S2:1230:C:O4'	1.84	0.77
1:5:1563:A:O2'	1:5:1564:A:O4'	2.02	0.77
1:5:5005:G:O2'	1:5:5042:A:N6	2.18	0.77
1:5:667:A:H2'	1:5:668:C:O4'	1.85	0.77
48:4:226:LYS:HZ2	48:4:356:ILE:CD1	1.93	0.77
3:8:130:C:C2	3:8:131:G:C8	2.72	0.77
1:5:4750:G:O6	1:5:4949:G:O6	2.02	0.77
49:S2:493:A:C8	49:S2:574:A:N7	2.52	0.77
1:5:1370:G:H4'	1:5:1371:A:H4'	1.67	0.77
1:5:4332:C:O2	1:5:4332:C:H2'	1.82	0.77
2:7:111:C:N3	2:7:112:U:C6	2.53	0.77
1:5:709:C:C2	1:5:710:G:C8	2.72	0.77
1:5:2041:A:C2	1:5:4464:A:C6	2.73	0.77
1:5:1262:G:C2	1:5:1263:A:C8	2.72	0.77
1:5:2277:C:O2	1:5:2278:G:N7	2.17	0.77
1:5:1866:U:O4	1:5:4405:G:C8	2.38	0.77
49:S2:42:A:C4	49:S2:426:A:N6	2.53	0.77
48:4:713:ALA:CB	48:4:716:ARG:NH2	2.44	0.77
49:S2:386:C:C4	49:S2:387:C:C5	2.73	0.77
1:5:1363:C:OP2	15:L:36:ARG:NH2	2.18	0.77
1:5:4269:G:C5	1:5:4270:C:C6	2.73	0.77
49:S2:598:G:N2	49:S2:639:C:C2	2.53	0.77
1:5:1268:G:C2	1:5:1270:A:N7	2.52	0.76
1:5:1696:C:O2'	1:5:2084:C:N4	2.18	0.76
1:5:2124:G:N2	9:F:32:ILE:HG13	2.01	0.76
1:5:2468:U:C4	1:5:2473:A:N1	2.51	0.76
1:5:4123:C:C4	1:5:4124:G:N7	2.53	0.76
14:K:96:LYS:C	14:K:98:ILE:HG12	2.05	0.76
49:S2:148:U:N3	49:S2:170:A:N6	2.33	0.76
1:5:4998:G:C6	1:5:4999:G:N7	2.53	0.76
1:5:664:G:N2	1:5:667:A:C6	2.53	0.76
1:5:3899:G:OP1	5:B:257:TRP:HB2	1.84	0.76
49:S2:980:A:H2'	49:S2:981:A:C8	2.19	0.76
1:5:2753:G:H3'	1:5:2754:G:C8	2.19	0.76
1:5:1202:C:C2	1:5:1203:G:C8	2.74	0.76
1:5:182:G:H22	1:5:254:G:H22	1.33	0.76
1:5:1650:A:N1	6:C:100:ARG:NH2	2.33	0.76
2:7:33:U:N3	2:7:34:C:C5	2.53	0.76
1:5:2107:C:C5	1:5:2126:G:N1	2.53	0.76
1:5:2327:G:N3	1:5:2328:G:C8	2.53	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:F:93:PHE:HB2	9:F:124:PHE:CD1	2.21	0.76
49:S2:45:A:C2	49:S2:481:C:H1'	2.21	0.76
49:S2:378:U:N3	49:S2:379:C:C6	2.52	0.76
49:S2:75:G:O2'	49:S2:76:U:C6	2.34	0.76
1:5:4341:C:C4	1:5:4342:C:C5	2.73	0.76
1:5:1563:A:C2	1:5:1564:A:C4	2.73	0.76
1:5:1796:U:C4	1:5:1797:G:C8	2.73	0.76
1:5:271:C:C4	1:5:272:U:C5	2.74	0.76
1:5:62:A:H2	1:5:77:U:O2	1.67	0.76
49:S2:961:G:C2	49:S2:962:A:C8	2.73	0.76
1:5:4510:A:H61	1:5:4592:C:H4'	1.50	0.76
1:5:5012:G:C2	1:5:5014:A:N7	2.53	0.76
1:5:1302:U:C2	1:5:1303:A:C8	2.73	0.76
1:5:4920:C:H2'	1:5:4921:C:H6	1.50	0.76
49:S2:694:G:C2	49:S2:695:C:C5	2.73	0.76
1:5:1985:G:O2'	1:5:2003:G:OP2	2.01	0.76
1:5:2079:G:N1	1:5:2080:U:C5	2.53	0.76
1:5:2261:G:H2'	1:5:2262:G:C8	2.20	0.76
1:5:964:A:C8	1:5:964:A:H3'	2.19	0.76
14:K:92:ARG:HA	14:K:95:GLN:CD	2.04	0.76
48:4:56:PHE:CE1	48:4:455:GLY:C	2.52	0.76
49:S2:1735:A:N6	49:S2:1799:G:O2'	2.17	0.76
49:S2:217:A:C2	49:S2:309:G:O6	2.38	0.76
49:S2:449:A:N1	49:S2:452:G:C8	2.54	0.76
49:S2:1564:C:C2	49:S2:1565:C:C5	2.73	0.76
1:5:665:C:H2'	1:5:665:C:O2	1.85	0.76
49:S2:993:G:C2	49:S2:994:C:N1	2.54	0.76
48:4:194:GLU:OE2	48:4:195:GLY:N	2.18	0.76
1:5:1870:C:N3	1:5:1871:A:N7	2.34	0.76
1:5:2743:A:H2	1:5:2744:A:C5	2.01	0.76
14:K:102:GLY:C	14:K:139:VAL:C	2.37	0.76
14:K:131:GLU:CD	14:K:155:ILE:HD12	2.04	0.76
48:4:49:ALA:CA	48:4:55:ARG:NH2	2.46	0.76
49:S2:1412:C:O2	49:S2:1413:G:N7	2.18	0.76
1:5:3863:C:C2	1:5:3864:C:C5	2.73	0.76
49:S2:1527:C:N3	49:S2:1528:G:C8	2.54	0.76
1:5:4215:C:N3	1:5:4216:G:C8	2.54	0.76
49:S2:1284:A:H61	62:SM:33:ARG:HB2	1.51	0.76
1:5:495:C:N3	1:5:496:G:C8	2.54	0.76
1:5:497:G:C2	1:5:657:C:N3	2.53	0.76
1:5:4562:C:N3	1:5:4563:U:C6	2.53	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4563:U:O2	1:5:4564:A:C8	2.38	0.76
48:4:168:GLN:O	48:4:168:GLN:CG	2.33	0.76
48:4:385:ILE:HD12	48:4:417:PHE:HB3	1.66	0.76
67:SR:69:ILE:HD11	67:SR:71:ILE:HD11	1.66	0.76
25:V:98:PHE:CZ	26:W:22:ALA:HB3	2.20	0.76
48:4:73:THR:N	48:4:104:ASP:HB2	1.97	0.76
1:5:1969:G:C6	1:5:2018:C:N4	2.41	0.76
1:5:2078:C:H2'	1:5:2078:C:O2	1.85	0.76
1:5:957:G:C5'	1:5:1284:G:N2	2.48	0.76
48:4:739:ARG:CA	48:4:824:PRO:CD	2.63	0.76
48:4:827:ASN:ND2	48:4:827:ASN:C	2.29	0.76
48:4:829:SER:HB3	48:4:832:SER:HB3	1.67	0.76
49:S2:1835:A:H5'	49:S2:1863:A:N7	1.99	0.76
1:5:1190:C:C2	1:5:1191:C:C5	2.73	0.76
1:5:3692:A:N7	1:5:3693:U:C5	2.53	0.76
2:7:6:C:N4	2:7:7:G:C8	2.53	0.76
1:5:1625:G:C8	1:5:1642:A:C2	2.74	0.76
1:5:919:C:C4	1:5:920:C:C5	2.74	0.76
1:5:1720:C:H2'	1:5:1721:G:O4'	1.86	0.76
1:5:210:C:N4	1:5:231:U:N3	2.33	0.76
1:5:642:G:N2	1:5:643:C:C2	2.53	0.76
1:5:4532:U:H5	1:5:4554:G:H21	1.32	0.76
49:S2:1348:G:N3	49:S2:1348:G:H2'	1.99	0.76
48:4:113:SER:CB	48:4:499:PHE:CB	2.61	0.76
48:4:46:ILE:O	48:4:46:ILE:HG22	1.85	0.76
48:4:543:GLU:HG2	48:4:576:VAL:CG2	1.94	0.76
1:5:1217:G:HO2'	1:5:1218:G:H8	1.23	0.76
1:5:1967:A:N3	1:5:1968:G:C8	2.53	0.76
49:S2:298:G:C2	49:S2:299:A:C8	2.73	0.76
1:5:88:A:H62	1:5:97:G:N2	1.82	0.76
49:S2:1432:U:N3	49:S2:1433:C:C5	2.54	0.76
48:4:10:ARG:CZ	48:4:465:PRO:CD	2.64	0.76
1:5:2479:G:C6	1:5:2480:G:N7	2.53	0.76
1:5:1629:G:N1	4:A:208:GLU:OE1	2.18	0.76
1:5:209:U:C4	1:5:211:G:C8	2.74	0.76
49:S2:1100:A:N3	49:S2:1101:U:C6	2.54	0.76
49:S2:827:A:C5	49:S2:828:G:C8	2.74	0.76
1:5:2087:C:H5	20:Q:37:ARG:NH1	1.80	0.76
22:S:29:ARG:CB	22:S:29:ARG:CZ	2.63	0.76
1:5:3717:A:C5	1:5:3736:A:N6	2.54	0.76
1:5:4343:U:C2	1:5:4344:U:C6	2.73	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4345:C:N3	1:5:4346:U:C5	2.54	0.76
49:S2:1569:A:N7	49:S2:1570:G:H1'	2.01	0.76
1:5:4271:A:H3'	1:5:4272:G:H21	1.51	0.76
3:8:79:G:C4	3:8:80:A:C2	2.74	0.76
49:S2:996:A:O2'	49:S2:997:A:O5'	2.04	0.76
49:S2:1017:U:O2	49:S2:1018:U:C6	2.38	0.76
1:5:914:U:H2'	1:5:915:A:O4'	1.86	0.76
1:5:125:C:N3	1:5:126:C:C6	2.54	0.76
49:S2:1486:A:O2'	49:S2:1487:A:O4'	2.03	0.76
63:SN:18:TYR:CE1	72:SW:56:HIS:HB2	2.19	0.76
1:5:1596:U:O2	19:P:131:ARG:NH2	2.19	0.76
55:SF:50:PRO:HB2	55:SF:73:THR:HG21	1.67	0.76
1:5:21:G:C5	3:8:36:G:N2	2.54	0.76
48:4:756:VAL:CG2	48:4:782:PHE:CD1	2.67	0.76
1:5:986:C:C2	1:5:1068:G:N2	2.54	0.76
1:5:1216:C:C2	1:5:1217:G:C8	2.73	0.76
1:5:1878:G:N2	1:5:1879:C:C2	2.54	0.76
1:5:1984:A:N7	1:5:2011:C:H4'	2.01	0.76
1:5:2105:A:N3	1:5:2106:G:C8	2.53	0.76
1:5:1899:G:N7	1:5:2278:G:N1	2.33	0.76
1:5:2279:A:C2	1:5:2280:G:C8	2.73	0.76
1:5:2453:A:C2	1:5:2454:U:C6	2.74	0.76
1:5:4117:U:C2	4:A:40:TYR:CE1	2.74	0.76
14:K:123:ARG:HB3	14:K:129:ILE:HD13	0.76	0.76
48:4:739:ARG:HA	48:4:824:PRO:CD	2.12	0.76
1:5:3732:A:C2	1:5:3733:A:N7	2.54	0.76
49:S2:1540:G:N2	49:S2:1541:G:C4	2.54	0.76
48:4:10:ARG:O	48:4:13:MET:HG2	1.85	0.76
49:S2:474:G:N1	49:S2:475:C:C4	2.54	0.76
1:5:3693:U:C2	1:5:3694:U:C6	2.74	0.76
12:I:47:PRO:CA	12:I:171:TRP:HE1	1.98	0.76
1:5:3909:C:C4	1:5:3910:C:C5	2.74	0.76
1:5:1316:G:O4'	1:5:2348:G:N2	2.17	0.76
1:5:752:G:C6	1:5:753:C:C5	2.74	0.76
1:5:1078:A:H2	1:5:1079:C:N4	1.82	0.76
1:5:2251:G:O4'	1:5:2252:G:N2	2.18	0.76
1:5:466:A:C2	1:5:467:U:C6	2.73	0.76
21:R:107:ARG:C	21:R:107:ARG:HD2	3.94	0.76
48:4:271:GLY:C	48:4:272:LYS:HG2	2.06	0.76
12:I:157:PHE:O	12:I:159:PHE:N	2.17	0.76
49:S2:158:A:N6	49:S2:466:G:C6	2.54	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:217:A:C2	49:S2:309:G:C6	2.73	0.76
1:5:3727:A:O2'	1:5:3728:A:O5'	2.04	0.76
1:5:4355:G:C2	1:5:4356:G:C8	2.73	0.76
49:S2:1545:A:C4	49:S2:1588:A:N6	2.54	0.76
49:S2:595:U:O2'	49:S2:596:U:C6	2.38	0.76
49:S2:1289:U:H5'	49:S2:1315:U:O2'	1.86	0.76
49:S2:1289:U:H3'	49:S2:1290:G:H8	1.51	0.76
49:S2:1315:U:C2	49:S2:1316:C:C5	2.74	0.76
1:5:2479:G:C6	1:5:2480:G:C5	2.73	0.76
1:5:2851:G:N7	1:5:2852:U:C5	2.54	0.76
1:5:4563:U:N3	1:5:4564:A:C5	2.53	0.76
1:5:4092:G:C5	1:5:4093:G:N2	2.54	0.76
1:5:752:G:C6	1:5:753:C:C6	2.73	0.76
1:5:237:G:O2'	1:5:238:C:P	2.43	0.76
59:SJ:18:ARG:HG2	59:SJ:21:GLU:HG2	1.67	0.76
3:8:106:G:C2	3:8:107:C:C4	2.74	0.76
49:S2:367:U:O2'	49:S2:371:A:N7	2.18	0.76
48:4:60:ARG:O	48:4:60:ARG:CD	2.29	0.76
1:5:1213:G:O6	1:5:1215:C:C4	2.39	0.76
1:5:2101:C:C2	1:5:2102:G:C8	2.73	0.76
1:5:967:C:C5	1:5:968:C:O2	2.38	0.76
10:G:53:ARG:NH2	10:G:54:PHE:CZ	2.53	0.76
48:4:675:ILE:CG2	48:4:709:LEU:HD13	2.15	0.76
1:5:3721:U:C2	1:5:3722:G:C8	2.74	0.76
49:S2:1243:U:O2	49:S2:1265:A:C2	2.39	0.76
1:5:1598:C:O2	1:5:1599:A:C8	2.32	0.76
49:S2:1111:U:O2	49:S2:1112:U:H6	1.64	0.76
21:R:131:VAL:CB	21:R:132:PHE:CZ	2.64	0.76
49:S2:925:G:N2	49:S2:926:A:C8	2.54	0.76
49:S2:1122:A:O3'	51:SB:205:TYR:OH	2.04	0.76
1:5:4199:C:N3	1:5:4200:G:C8	2.54	0.76
1:5:4095:G:N2	1:5:4096:C:N4	2.32	0.76
1:5:1625:G:H2'	17:N:81:TYR:OH	1.85	0.76
48:4:616:ASP:OD2	48:4:621:GLU:HB2	1.86	0.76
49:S2:98:C:N3	49:S2:409:C:C5	2.54	0.76
49:S2:804:U:C2	49:S2:805:U:C6	2.73	0.76
1:5:1458:C:H2'	1:5:1458:C:O2	1.84	0.76
49:S2:1489:A:N1	53:SD:146:ARG:NH2	2.34	0.76
48:4:762:VAL:CG1	48:4:766:LYS:HZ2	1.94	0.75
1:5:1279:A:H3'	1:5:1280:C:H5	1.51	0.75
1:5:2316:G:C2	1:5:2317:C:C4	2.74	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:123:ARG:CD	14:K:129:ILE:HD13	2.16	0.75
49:S2:426:A:N1	49:S2:427:U:H5	1.80	0.75
1:5:1490:G:C2	1:5:1491:A:C8	2.74	0.75
1:5:2362:U:C5	1:5:3859:G:N2	2.54	0.75
49:S2:1545:A:N6	49:S2:1588:A:C2	2.53	0.75
1:5:4283:G:C2	1:5:4284:C:C4	2.70	0.75
48:4:845:LYS:HZ3	48:4:846:GLU:CG	1.92	0.75
49:S2:637:U:N3	49:S2:638:C:C5	2.54	0.75
49:S2:1224:G:C5	49:S2:1225:U:C6	2.73	0.75
3:8:133:G:N1	3:8:134:G:C5	2.54	0.75
1:5:752:G:C5	1:5:753:C:C6	2.74	0.75
1:5:1410:U:C5	1:5:1815:G:C2	2.74	0.75
49:S2:1658:G:H1	49:S2:1664:A:N6	1.83	0.75
48:4:649:ILE:CD1	48:4:652:PHE:CE1	2.69	0.75
49:S2:625:G:C4'	49:S2:629:A:C2	2.70	0.75
14:K:32:ILE:C	14:K:34:PRO:HD3	2.06	0.75
48:4:507:VAL:HG21	48:4:554:LEU:CD2	1.93	0.75
49:S2:1835:A:H4'	49:S2:1836:G:OP2	1.84	0.75
1:5:1491:A:C2	1:5:1492:G:C4	2.75	0.75
1:5:3709:U:C2	49:S2:970:G:N1	2.53	0.75
49:S2:1134:G:C2	49:S2:1135:C:C6	2.74	0.75
1:5:1885:G:C2	1:5:1895:G:C2	2.74	0.75
1:5:2479:G:N1	1:5:2480:G:C5	2.54	0.75
1:5:2613:C:N3	1:5:2614:C:C6	2.54	0.75
49:S2:857:U:C2	49:S2:858:A:C8	2.74	0.75
49:S2:957:A:C2	49:S2:967:C:O2	2.40	0.75
1:5:4735:G:N2	1:5:4736:C:C2	2.54	0.75
1:5:4416:G:C2	1:5:4417:C:C5	2.73	0.75
1:5:1440:U:H2'	1:5:1440:U:O2	1.86	0.75
1:5:1445:U:N3	1:5:1446:C:C5	2.54	0.75
1:5:2081:C:C2'	1:5:2082:G:O5'	2.35	0.75
1:5:2097:U:O2	1:5:2097:U:H5'	1.87	0.75
20:Q:89:ASP:OD1	20:Q:91:ARG:NH2	2.19	0.75
48:4:592:LEU:CD2	48:4:603:TYR:CE2	2.67	0.75
49:S2:378:U:C4	49:S2:379:C:C4	2.74	0.75
49:S2:452:G:C2	49:S2:453:C:C4	2.74	0.75
1:5:90:G:C8	1:5:92:C:C6	2.74	0.75
1:5:2362:U:O2	1:5:2362:U:H2'	1.86	0.75
1:5:422:C:H2'	1:5:422:C:O2	1.85	0.75
49:S2:1134:G:C2	49:S2:1135:C:C5	2.74	0.75
49:S2:474:G:C2	49:S2:475:C:C5	2.74	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:166:C:O2	1:5:167:C:H6	1.69	0.75
49:S2:1855:G:OP2	64:SO:147:ARG:NH2	2.18	0.75
49:S2:579:C:C4	49:S2:580:U:C6	2.73	0.75
49:S2:1256:G:C8	53:SD:40:ARG:HD2	36.57	0.75
48:4:42:LYS:HG3	48:4:79:TYR:CZ	2.20	0.75
48:4:4:PHE:CE1	48:4:5:THR:HB	2.21	0.75
1:5:470:A:N6	1:5:471:A:C4	2.55	0.75
49:S2:381:C:H2'	49:S2:382:C:C5	2.22	0.75
48:4:207:PRO:HG2	48:4:261:TRP:CE2	2.20	0.75
1:5:4362:A:C2	1:5:4363:A:C8	2.75	0.75
1:5:4240:G:C5	1:5:4241:C:C5	2.74	0.75
49:S2:1283:C:N4	62:SM:104:VAL:O	2.17	0.75
1:5:1628:C:H2'	1:5:1628:C:O2	1.84	0.75
49:S2:848:U:O2	49:S2:849:A:C8	2.39	0.75
1:5:3794:C:N3	1:5:3795:A:N7	2.34	0.75
48:4:590:LEU:HD23	48:4:605:LYS:HG3	1.69	0.75
1:5:4886:C:O2	1:5:4887:C:C6	2.39	0.75
1:5:144:G:C2	1:5:145:G:N7	2.54	0.75
48:4:665:ILE:HG13	48:4:703:ASP:HB3	1.69	0.75
48:4:498:LYS:C	48:4:500:SER:N	2.39	0.75
1:5:1217:G:C2'	1:5:1218:G:C8	2.65	0.75
1:5:1271:G:C3'	1:5:1272:C:H5'	2.16	0.75
49:S2:436:G:H8	49:S2:471:G:N2	1.85	0.75
48:4:567:CYS:C	48:4:568:ILE:HD12	2.06	0.75
1:5:3717:A:OP2	1:5:3735:G:N2	2.19	0.75
14:K:159:ALA:O	14:K:163:PRO:CD	2.34	0.75
49:S2:1408:U:H2'	49:S2:1409:A:C8	2.22	0.75
49:S2:1434:C:H2'	49:S2:1435:C:O4'	1.87	0.75
49:S2:1709:G:N1	49:S2:1710:C:C4	2.53	0.75
49:S2:1000:C:H2'	49:S2:1000:C:O2	1.86	0.75
1:5:2034:G:N1	1:5:2035:C:N3	2.35	0.75
1:5:4368:G:C6	1:5:4369:A:N7	2.55	0.75
49:S2:1066:U:N3	49:S2:1067:C:C6	2.55	0.75
49:S2:653:A:H2'	49:S2:654:A:O4'	1.86	0.75
48:4:364:ALA:HA	48:4:367:TYR:CE2	2.22	0.75
49:S2:402:C:C4	49:S2:403:G:N7	2.55	0.75
48:4:27:HIS:CD2	48:4:27:HIS:C	2.60	0.75
48:4:4:PHE:HD1	48:4:5:THR:CA	1.98	0.75
48:4:762:VAL:HG22	48:4:803:ASN:HB2	1.68	0.75
48:4:830:ARG:CB	48:4:831:PRO:HD3	2.16	0.75
1:5:1987:C:C4	1:5:1988:G:C8	2.75	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2314:G:C2	1:5:2315:G:C8	2.67	0.75
1:5:2507:A:C6	1:5:2508:U:C6	2.74	0.75
1:5:3739:C:C6	1:5:3739:C:H5"	2.22	0.75
49:S2:551:U:O2	49:S2:552:G:N7	2.18	0.75
48:4:398:ILE:CD1	48:4:479:LEU:HD23	2.17	0.75
1:5:3629:A:H4'	49:S2:1721:U:C2	2.21	0.75
1:5:211:G:C2	1:5:212:A:N7	2.55	0.75
3:8:70:G:N2	3:8:87:G:O2'	2.18	0.75
1:5:5047:C:H5"	1:5:5050:C:H5	1.52	0.75
1:5:2058:G:N2	1:5:2059:C:C2	2.55	0.75
1:5:4097:G:N1	1:5:4098:A:C5	2.55	0.75
49:S2:745:C:H1'	57:SH:108:SER:HA	1.67	0.75
1:5:2347:A:C2	1:5:2348:G:N1	2.54	0.75
1:5:1757:U:N3	1:5:1758:G:C8	2.55	0.75
1:5:4627:U:O2	1:5:4628:U:C6	2.39	0.75
52:SC:199:PRO:CD	52:SC:223:TYR:OH	2.34	0.75
1:5:1079:C:C4	1:5:1080:C:C5	2.74	0.75
1:5:1261:G:C2	1:5:1262:G:C8	2.75	0.75
1:5:2101:C:O2	1:5:2102:G:C8	2.40	0.75
1:5:4164:C:N3	1:5:4165:C:C5	2.54	0.75
1:5:688:U:C4	1:5:689:U:C5	2.75	0.75
14:K:31:LYS:NZ	48:4:753:GLU:OE1	2.19	0.75
49:S2:444:G:H22	49:S2:446:G:H3'	1.51	0.75
49:S2:1253:A:C2	49:S2:1666:C:O4'	2.39	0.75
1:5:1598:C:C6	1:5:2798:A:C8	2.74	0.75
2:7:56:G:H2'	2:7:57:C:O5'	1.87	0.75
49:S2:56:G:C2'	49:S2:57:U:O5'	2.33	0.75
1:5:1893:C:H2'	1:5:1893:C:O2	1.85	0.75
49:S2:549:C:C4	49:S2:550:C:C6	2.74	0.75
49:S2:1709:G:C2	49:S2:1710:C:C6	2.75	0.75
1:5:490:C:H2'	1:5:491:G:C8	2.22	0.75
1:5:661:C:C4	1:5:662:C:C5	2.74	0.75
1:5:1929:A:N1	1:5:2054:U:C4	2.55	0.75
1:5:909:A:C6	1:5:910:G:N7	2.54	0.75
1:5:1811:G:C2	1:5:1812:C:C5	2.75	0.75
1:5:3657:U:N3	1:5:3658:C:C5	2.55	0.75
48:4:597:ASN:O	48:4:598:LYS:HB2	1.84	0.75
48:4:749:ILE:HD12	48:4:759:ILE:CD1	2.17	0.75
1:5:1271:G:H3'	1:5:1272:C:C5'	2.16	0.75
1:5:4425:G:C6	1:5:4426:C:C6	2.75	0.75
49:S2:1862:G:N3	49:S2:1863:A:O2'	2.18	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1545:A:C5	49:S2:1588:A:N6	2.54	0.75
49:S2:1595:U:C4	49:S2:1596:U:H5	2.05	0.75
1:5:2366:A:H2	1:5:3851:U:H1'	1.50	0.75
49:S2:1149:A:N1	49:S2:1151:G:C5	2.55	0.75
49:S2:51:U:N3	49:S2:52:G:C8	2.55	0.75
1:5:2857:A:C2	1:5:2858:A:C6	2.74	0.75
49:S2:858:A:C2	49:S2:859:G:C5	2.74	0.75
3:8:132:G:N1	3:8:133:G:C5	2.55	0.75
16:M:3:PHE:HB2	16:M:6:PHE:CZ	2.20	0.75
49:S2:623:G:N2	49:S2:624:C:C2	2.55	0.75
1:5:1287:G:C2	1:5:1289:C:C6	2.74	0.75
22:S:33:PHE:HE2	22:S:106:VAL:HG11	1.50	0.75
48:4:770:VAL:HG22	48:4:784:VAL:HG11	1.69	0.75
48:4:111:PHE:CD1	48:4:809:PHE:CZ	2.75	0.75
1:5:1265:G:C2'	1:5:1266:G:H5'	2.16	0.75
1:5:1280:C:N4	1:5:1282:G:O6	2.19	0.75
1:5:1877:G:C6	1:5:1878:G:N7	2.55	0.75
1:5:1979:A:P	14:K:99:LYS:HG3	2.26	0.75
49:S2:340:C:C4	49:S2:341:C:N4	2.55	0.75
49:S2:452:G:C2	49:S2:453:C:C6	2.75	0.75
49:S2:1356:G:H2'	49:S2:1357:A:C8	2.21	0.75
1:5:3721:U:N3	1:5:3722:G:N7	2.35	0.75
49:S2:1405:A:C2	49:S2:1406:G:C4	2.74	0.75
1:5:5005:G:C6	26:W:51:TRP:HB3	2.20	0.75
3:8:85:U:H2'	3:8:87:G:H8	1.48	0.75
48:4:191:THR:HG22	48:4:192:TYR:CD2	2.22	0.75
1:5:1946:G:C2	1:5:1948:G:N7	2.54	0.75
49:S2:835:C:N3	49:S2:837:A:H4'	2.02	0.75
1:5:4229:U:C5	1:5:4230:C:C5	2.75	0.75
1:5:4933:C:C4	1:5:4934:A:C8	2.74	0.75
1:5:1758:G:C2	1:5:1759:G:C5	2.74	0.75
1:5:142:G:C2	1:5:144:G:C8	2.74	0.75
1:5:730:G:N2	1:5:939:G:H22	1.82	0.75
48:4:531:ASP:CB	48:4:534:VAL:CG1	2.64	0.75
49:S2:1454:A:C8	49:S2:1476:A:H1'	2.22	0.75
1:5:2524:U:H5"	1:5:2711:G:N2	2.02	0.75
14:K:31:LYS:CG	48:4:775:GLN:OE1	2.29	0.74
1:5:1900:C:N3	1:5:1901:C:C5	2.55	0.74
1:5:1447:C:H1'	1:5:2098:G:N2	2.01	0.74
1:5:3676:G:O2'	1:5:3677:U:C5'	2.35	0.74
1:5:450:G:O2'	1:5:452:A:H4'	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:Q:34:PHE:CE2	20:Q:38:ARG:HG3	2.22	0.74
49:S2:1366:G:H2'	49:S2:1367:U:O4'	1.87	0.74
49:S2:65:C:O2'	56:SG:172:LYS:NZ	2.15	0.74
1:5:331:G:C2	1:5:332:C:C5	2.75	0.74
49:S2:647:U:C2	49:S2:648:A:N7	2.55	0.74
48:4:165:LEU:HD11	48:4:305:MET:CE	2.15	0.74
48:4:427:VAL:CG1	48:4:427:VAL:O	2.29	0.74
48:4:588:ASN:OD1	48:4:589:VAL:HG23	1.87	0.74
48:4:710:HIS:CD2	48:4:715:HIS:CB	2.64	0.74
49:S2:316:G:N2	49:S2:317:C:C2	2.56	0.74
49:S2:1053:C:C2	49:S2:1054:G:C8	2.75	0.74
48:4:157:MET:CE	48:4:214:PHE:CE2	2.69	0.74
48:4:845:LYS:HA	48:4:845:LYS:HZ1	1.51	0.74
1:5:1564:A:H61	49:S2:1029:G:HO2'	1.35	0.74
1:5:4217:G:C2'	1:5:4218:U:O5'	2.35	0.74
1:5:489:C:C4	1:5:490:C:C5	2.75	0.74
1:5:5047:C:O4'	1:5:5048:A:N1	2.20	0.74
1:5:1823:G:H4'	7:D:44:TYR:HD2	1.50	0.74
2:7:42:A:N9	13:J:75:ARG:NH1	2.36	0.74
1:5:4257:A:C2'	1:5:4258:C:H6	2.00	0.74
1:5:4744:A:N1	1:5:4745:G:C6	2.55	0.74
1:5:754:U:C2	1:5:755:C:C6	2.75	0.74
1:5:1811:G:C2	1:5:1812:C:C6	2.74	0.74
1:5:348:G:C6	1:5:350:C:N4	2.55	0.74
29:Z:49:TYR:CE2	29:Z:133:LYS:HA	2.22	0.74
1:5:114:G:H2'	1:5:115:C:H5'	1.69	0.74
49:S2:1623:A:N6	49:S2:1625:U:OP2	2.20	0.74
1:5:1216:C:H2'	1:5:1217:G:O4'	1.86	0.74
1:5:989:U:H2'	1:5:990:C:H5	1.52	0.74
9:F:82:ASN:HD21	23:T:142:ARG:CB	2.00	0.74
48:4:157:MET:HE1	48:4:214:PHE:HE2	1.51	0.74
1:5:1359:G:H2'	1:5:1360:G:O4'	1.86	0.74
14:K:161:GLU:N	14:K:163:PRO:HD3	2.01	0.74
1:5:3858:C:N4	1:5:3859:G:C5	2.55	0.74
1:5:2689:C:N3	1:5:2690:C:C5	2.55	0.74
49:S2:1045:U:N3	49:S2:1046:U:C5	2.55	0.74
1:5:4258:C:N3	1:5:4259:C:C5	2.55	0.74
49:S2:908:A:C2	49:S2:909:G:C8	2.75	0.74
1:5:4490:C:H2'	1:5:4490:C:O2	1.87	0.74
21:R:163:ARG:NE	49:S2:871:U:C2	2.55	0.74
1:5:1353:G:N7	20:Q:104:ARG:NH2	2.35	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1074:G:H2'	1:5:1075:G:O4'	1.87	0.74
1:5:1280:C:N3	1:5:1282:G:C5	2.55	0.74
1:5:1977:C:O2	1:5:1990:A:N1	2.20	0.74
1:5:977:C:N3	1:5:978:G:C5	2.55	0.74
14:K:62:LEU:HD23	14:K:75:PRO:HB3	1.70	0.74
48:4:849:PRO:HG2	48:4:849:PRO:O	1.86	0.74
48:4:671:TYR:CE1	48:4:674:GLU:OE1	2.39	0.74
49:S2:69:C:C2	49:S2:70:G:C8	2.76	0.74
1:5:4213:A:N1	1:5:4218:U:C4	2.51	0.74
21:R:131:VAL:HB	21:R:132:PHE:CE2	2.23	0.74
1:5:4093:G:H2'	1:5:4094:G:C5'	2.17	0.74
1:5:916:C:C4	1:5:917:A:C8	2.75	0.74
1:5:516:C:C2	1:5:646:G:C2	2.76	0.74
49:S2:182:C:C2'	49:S2:184:G:H1'	2.16	0.74
48:4:531:ASP:CB	48:4:534:VAL:HG12	2.17	0.74
2:7:51:G:N2	2:7:52:C:C2	2.55	0.74
1:5:4920:C:H2'	1:5:4921:C:C6	2.21	0.74
22:S:10:TYR:OH	22:S:66:GLN:HG3	1.85	0.74
57:SH:145:ARG:HD2	72:SW:51:GLU:HG2	1.69	0.74
58:SI:101:ILE:HG13	58:SI:198:TYR:CD2	2.23	0.74
19:P:30:ARG:HD3	19:P:30:ARG:C	2.06	0.74
48:4:521:VAL:O	48:4:525:LYS:HD2	1.87	0.74
1:5:1269:G:C5	1:5:2111:G:N1	2.56	0.74
1:5:1214:C:N3	1:5:2116:C:N4	2.35	0.74
1:5:473:C:C2	1:5:474:C:C5	2.74	0.74
48:4:571:LYS:CA	48:4:571:LYS:HE2	2.16	0.74
1:5:1485:C:O2	1:5:4349:C:C6	2.40	0.74
1:5:89:C:O2'	1:5:90:G:C5'	2.35	0.74
49:S2:1514:G:H2'	49:S2:1515:G:O4'	1.87	0.74
49:S2:647:U:C2	49:S2:648:A:C8	2.73	0.74
15:L:35:ARG:C	15:L:39:ARG:HH12	1.91	0.74
3:8:64:U:C4	3:8:65:A:N6	2.55	0.74
1:5:1823:G:H4'	7:D:44:TYR:CD2	2.22	0.74
49:S2:106:C:O2	49:S2:107:A:C8	2.38	0.74
1:5:2830:G:C2	1:5:2831:G:C8	2.76	0.74
48:4:622:VAL:HG11	48:4:635:LEU:HD21	1.70	0.74
1:5:4368:G:C2	1:5:4369:A:C8	2.76	0.74
1:5:4885:U:N3	1:5:4886:C:C5	2.55	0.74
1:5:348:G:N2	1:5:350:C:C2	2.56	0.74
53:SD:192:TRP:CD1	53:SD:196:GLY:HA2	2.23	0.74
1:5:431:G:O4'	1:5:3889:G:N2	2.20	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:SC:115:GLN:HE21	52:SC:115:GLN:HA	1.52	0.74
48:4:150:ARG:CZ	48:4:194:GLU:CD	2.56	0.74
48:4:40:VAL:C	48:4:43:ALA:HB2	2.07	0.74
1:5:1663:C:C2	1:5:1664:U:C5	2.76	0.74
1:5:1988:G:C2	1:5:1989:G:C8	2.75	0.74
1:5:2270:G:C2	1:5:2271:C:C4	2.75	0.74
1:5:2290:C:C2	1:5:2291:G:C8	2.76	0.74
1:5:450:G:N2	1:5:1294:A:H2'	2.02	0.74
1:5:4606:G:H2'	1:5:4607:A:C8	2.22	0.74
1:5:472:C:N3	1:5:473:C:C5	2.56	0.74
14:K:141:CYS:O	14:K:142:ASN:HB3	1.87	0.74
1:5:4426:C:N3	1:5:4427:G:C8	2.56	0.74
49:S2:386:C:N3	49:S2:387:C:C6	2.55	0.74
1:5:319:A:H2'	1:5:320:C:O4'	1.86	0.74
1:5:4341:C:C4	1:5:4342:C:C6	2.75	0.74
1:5:655:C:C2	1:5:656:C:C5	2.75	0.74
1:5:660:A:C2	1:5:661:C:C6	2.75	0.74
1:5:4200:G:N2	1:5:4201:G:H1'	2.03	0.74
49:S2:604:A:C5	59:SJ:20:PHE:CE2	2.75	0.74
1:5:3783:A:H2	1:5:3789:C:N4	1.86	0.74
1:5:4549:G:C6	1:5:4550:G:N7	2.56	0.74
1:5:2301:G:N1	1:5:2302:C:C4	2.55	0.74
1:5:2401:A:C2	1:5:2402:G:C8	2.75	0.74
49:S2:665:G:O4'	49:S2:670:A:C2	2.40	0.74
1:5:4406:U:C2	1:5:4407:G:C8	2.76	0.74
1:5:964:A:C5'	1:5:964:A:C8	2.69	0.74
49:S2:458:A:N1	49:S2:459:C:C6	2.54	0.74
48:4:157:MET:HE1	48:4:214:PHE:CE2	2.22	0.74
1:5:1358:G:N3	1:5:1359:G:N7	2.34	0.74
49:S2:29:G:N2	49:S2:30:C:C2	2.56	0.74
48:4:321:ILE:HG23	48:4:342:ARG:HD2	1.70	0.74
3:8:133:G:C6	3:8:134:G:N7	2.56	0.74
1:5:516:C:C2	1:5:646:G:N2	2.56	0.74
1:5:3591:C:N4	1:5:3592:G:C8	2.55	0.74
1:5:701:G:C6	1:5:702:U:C5	2.76	0.74
1:5:60:G:C5	1:5:61:A:N7	2.56	0.74
48:4:14:ASP:O	48:4:16:LYS:CE	2.36	0.74
1:5:2021:G:C5	1:5:2022:C:C4	2.75	0.74
1:5:2263:A:O3'	1:5:2264:C:C6	2.41	0.74
1:5:4223:C:H5'	12:I:119:PHE:HD2	1.53	0.74
14:K:119:ARG:H	14:K:123:ARG:HH12	1.35	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:137:GLN:CD	14:K:148:PRO:HB3	2.08	0.74
49:S2:436:G:N7	49:S2:471:G:N2	2.30	0.74
48:4:686:ALA:CB	48:4:729:LEU:HD13	1.80	0.74
49:S2:377:G:C2	49:S2:378:U:C5	2.75	0.74
49:S2:388:U:N3	49:S2:389:A:N7	2.36	0.74
14:K:125:LEU:HD23	14:K:125:LEU:H	1.52	0.74
49:S2:1431:G:C2	49:S2:1432:U:H1'	2.22	0.74
49:S2:1507:G:O2'	49:S2:1508:A:H5'	1.87	0.74
49:S2:1538:C:C2	49:S2:1539:U:C5	2.76	0.74
1:5:4242:U:O2	1:5:4279:A:C2	2.41	0.74
1:5:1884:C:H42	1:5:1896:A:H2	1.34	0.74
49:S2:1074:C:O2	49:S2:1075:C:C5	2.39	0.74
49:S2:185:G:N1	49:S2:186:C:C4	2.55	0.74
49:S2:809:A:H2'	49:S2:810:A:O4'	1.87	0.74
1:5:1438:U:O2	1:5:2099:G:N7	2.21	0.74
1:5:1696:C:H1'	1:5:1697:G:C5'	2.17	0.74
1:5:2108:G:N2	1:5:2125:C:C2	2.56	0.74
1:5:4166:G:N1	1:5:4167:G:C5	2.55	0.74
1:5:467:U:N3	1:5:468:U:C5	2.56	0.74
14:K:121:LEU:HD13	14:K:129:ILE:HG23	1.63	0.74
14:K:55:GLY:O	14:K:56:LEU:HD23	1.88	0.74
49:S2:1455:A:N1	49:S2:1456:G:C8	2.55	0.74
49:S2:10:G:C5	49:S2:1697:A:C2	2.76	0.74
49:S2:1322:G:H2'	49:S2:1323:U:C6	2.23	0.74
3:8:10:G:C2	3:8:11:C:N1	2.55	0.74
49:S2:54:A:C2	49:S2:451:G:C2	2.75	0.74
1:5:2856:C:H2'	1:5:2856:C:O2	1.87	0.74
1:5:657:C:H2'	1:5:658:C:O4'	1.87	0.74
49:S2:933:G:N2	49:S2:1000:C:C2	2.56	0.74
1:5:2532:C:N3	1:5:2533:C:C4	2.56	0.74
5:B:258:HIS:O	5:B:260:ALA:N	2.21	0.74
49:S2:968:U:O2'	49:S2:972:A:H1'	1.87	0.74
1:5:1201:U:C2	1:5:1202:C:C6	2.76	0.74
1:5:4687:A:C2	1:5:4688:C:C5	2.75	0.74
49:S2:1781:A:C2	49:S2:1782:G:C6	2.75	0.74
1:5:4502:C:C4	1:5:4503:A:C8	2.75	0.74
22:S:10:TYR:CZ	22:S:66:GLN:HG3	2.22	0.74
49:S2:1332:A:O2'	53:SD:141:LYS:NZ	2.15	0.74
50:SA:2:SER:O	50:SA:4:ALA:N	2.20	0.74
48:4:743:PRO:CA	48:4:744:ILE:HB	2.16	0.74
1:5:2282:A:C2'	1:5:2283:G:O5'	2.36	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:113:ALA:HA	14:K:116:MET:SD	2.28	0.74
49:S2:449:A:C5	49:S2:452:G:C6	2.75	0.74
1:5:3736:A:O2'	1:5:3737:A:O5'	2.05	0.74
1:5:4981:G:N1	1:5:4982:A:N7	2.36	0.74
49:S2:1316:C:O2	49:S2:1317:C:H6	1.70	0.74
49:S2:794:A:N1	49:S2:795:A:C4	2.56	0.74
1:5:5030:U:C2	1:5:5031:G:C8	2.76	0.74
1:5:4910:G:H8	1:5:4910:G:O5'	1.71	0.74
17:N:99:GLN:HG3	17:N:130:PHE:CD2	2.22	0.74
3:8:55:U:H3	3:8:62:A:H2	1.34	0.74
48:4:791:ASN:O	48:4:794:PHE:CZ	2.41	0.73
1:5:1266:G:O2'	1:5:1267:C:H5'	1.87	0.73
1:5:2327:G:C2	1:5:2328:G:C5	2.76	0.73
49:S2:123:G:N3	49:S2:123:G:H2'	2.02	0.73
48:4:208:VAL:HG22	48:4:261:TRP:HB3	1.70	0.73
1:5:1390:G:N7	1:5:1392:A:OP2	2.20	0.73
49:S2:1666:C:N3	49:S2:1667:U:C5	2.56	0.73
1:5:370:U:C4	1:5:1637:A:C6	2.76	0.73
62:SM:16:THR:HA	62:SM:19:GLN:HG3	1.70	0.73
1:5:2485:U:O2	1:5:2486:G:C8	2.41	0.73
3:8:117:C:C4	3:8:118:C:C5	2.76	0.73
1:5:495:C:C2	1:5:496:G:C8	2.76	0.73
49:S2:975:G:H4'	64:SO:32:HIS:CD2	2.23	0.73
1:5:4580:U:C2	1:5:4581:G:C8	2.76	0.73
48:4:86:LEU:O	48:4:89:ILE:HG22	1.88	0.73
1:5:4733:C:N4	1:5:4734:A:O2'	2.21	0.73
1:5:2561:C:C2	1:5:2562:G:C8	2.76	0.73
48:4:585:GLU:HB2	48:4:737:GLN:NE2	2.03	0.73
4:A:163:ARG:HB2	4:A:163:ARG:NH1	2.02	0.73
48:4:113:SER:HB2	48:4:499:PHE:CB	2.16	0.73
48:4:752:PRO:CD	48:4:755:VAL:HG21	2.17	0.73
1:5:1265:G:O2'	1:5:2112:G:H3'	1.87	0.73
1:5:1542:U:C2	1:5:1543:G:C8	2.75	0.73
1:5:1555:G:C5	1:5:1556:C:C5	2.77	0.73
1:5:1982:G:O2'	1:5:2010:A:H5'	1.89	0.73
1:5:690:C:C4	1:5:691:C:C5	2.77	0.73
14:K:103:ASN:C	14:K:104:ILE:HG13	2.08	0.73
49:S2:458:A:N6	49:S2:459:C:C4	2.56	0.73
1:5:93:G:O2'	1:5:94:A:N7	2.19	0.73
14:K:125:LEU:HD23	14:K:125:LEU:N	2.03	0.73
49:S2:1324:G:HO2'	49:S2:1510:G:HO2'	0.76	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1562:C:O2	49:S2:1563:G:H8	1.70	0.73
1:5:2367:A:N1	1:5:2788:U:C4	2.51	0.73
1:5:491:G:N2	1:5:663:G:C2	2.56	0.73
1:5:1818:G:C8	1:5:1821:G:C6	2.75	0.73
1:5:2605:G:C2	1:5:2606:G:C8	2.75	0.73
49:S2:1330:G:N2	49:S2:1333:U:C4	2.56	0.73
48:4:804:THR:CG2	48:4:808:ALA:CB	2.61	0.73
1:5:1076:C:N3	1:5:1077:C:C6	2.56	0.73
1:5:1442:C:N3	1:5:1443:A:C8	2.56	0.73
1:5:1661:C:O2	1:5:1662:C:C6	2.41	0.73
1:5:1958:A:N6	1:5:2026:A:N6	2.31	0.73
1:5:2452:G:C2	1:5:2467:U:O4	2.41	0.73
14:K:22:VAL:HG22	14:K:48:LYS:HB2	1.69	0.73
5:B:235:TRP:CD1	5:B:267:ALA:HA	2.23	0.73
49:S2:1408:U:H3'	49:S2:1409:A:C8	2.23	0.73
3:8:12:G:N2	3:8:13:G:C1'	2.50	0.73
1:5:2368:A:N1	1:5:2788:U:C4	2.57	0.73
1:5:2793:G:C6	1:5:2797:C:C4	2.76	0.73
49:S2:647:U:O2	49:S2:647:U:H2'	1.88	0.73
49:S2:550:C:H2'	49:S2:551:U:H6	1.52	0.73
1:5:4563:U:H2'	1:5:4564:A:C8	2.24	0.73
1:5:2036:C:H2'	1:5:2037:C:H6	1.54	0.73
1:5:2058:G:N2	1:5:2059:C:N1	2.37	0.73
48:4:539:GLU:O	48:4:540:GLU:O	2.06	0.73
1:5:3590:G:C6	1:5:3591:C:C5	2.75	0.73
48:4:228:PHE:CE2	48:4:293:ILE:HG23	2.22	0.73
1:5:2714:G:C2	1:5:2715:G:C8	2.76	0.73
48:4:149:GLU:O	48:4:368:ARG:HD2	1.89	0.73
1:5:1872:G:C2	1:5:1873:A:C8	2.76	0.73
1:5:447:C:N3	1:5:448:G:N7	2.36	0.73
21:R:95:TRP:O	21:R:98:ARG:N	2.20	0.73
48:4:628:LEU:HD23	48:4:631:ARG:CZ	2.18	0.73
49:S2:64:A:C6	49:S2:82:G:C2	2.75	0.73
1:5:75:G:O6	15:L:103:ARG:NH2	2.20	0.73
49:S2:1431:G:C5	49:S2:1432:U:C5	2.75	0.73
48:4:191:THR:CB	48:4:192:TYR:CE1	2.70	0.73
1:5:3868:G:C6	1:5:4562:C:H1'	2.24	0.73
1:5:1951:G:O2'	22:S:95:ARG:NH2	2.22	0.73
1:5:4199:C:H2'	1:5:4199:C:O2	1.88	0.73
1:5:187:U:C6	1:5:245:C:N3	2.56	0.73
1:5:4878:C:O2	1:5:4879:C:C5	2.40	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1726:U:C2	1:5:1727:U:C6	2.76	0.73
49:S2:1146:C:O2	49:S2:1147:C:C6	2.41	0.73
1:5:3606:U:N3	1:5:3607:U:C5	2.56	0.73
1:5:218:A:N6	6:C:185:ALA:HB2	2.03	0.73
1:5:1070:G:C2	1:5:1071:C:C6	2.76	0.73
1:5:2105:A:N1	1:5:2106:G:N7	2.37	0.73
1:5:2270:G:N2	1:5:2271:C:C2	2.56	0.73
1:5:4124:G:O6	4:A:64:ARG:HD3	1.88	0.73
48:4:634:TYR:HA	48:4:638:LYS:HD3	1.70	0.73
49:S2:309:G:C2	49:S2:310:C:C5	2.76	0.73
49:S2:1398:G:N1	49:S2:1399:C:C5	2.56	0.73
1:5:4275:G:C5	1:5:4276:G:C8	2.76	0.73
49:S2:1151:G:C2	49:S2:1152:U:C5	2.77	0.73
49:S2:1224:G:C2	49:S2:1643:U:C4	2.76	0.73
1:5:4537:C:H2'	1:5:4537:C:O2	1.87	0.73
1:5:2842:G:C6	1:5:2843:U:C5	2.75	0.73
3:8:34:U:O2	3:8:34:U:O4'	1.97	0.73
49:S2:1776:G:C2	49:S2:1777:G:C8	2.75	0.73
8:E:278:TYR:N	8:E:278:TYR:CD2	2.57	0.73
17:N:12:ARG:NH1	49:S2:1848:U:O4	100.22	0.73
1:5:1268:G:N2	1:5:1270:A:N9	2.36	0.73
1:5:2017:A:C8	1:5:2018:C:H5	2.05	0.73
1:5:1268:G:H1'	1:5:2111:G:C5	2.23	0.73
1:5:2463:G:C6	1:5:2464:C:N4	2.57	0.73
49:S2:121:U:O2	49:S2:122:G:C8	2.40	0.73
49:S2:316:G:C2	49:S2:317:C:C4	2.77	0.73
1:5:1390:G:C2	1:5:1394:G:C5	2.74	0.73
1:5:4344:U:N3	1:5:4345:C:C5	2.56	0.73
1:5:1185:G:C6	1:5:1186:U:C6	2.76	0.73
49:S2:1430:C:C4	49:S2:1431:G:C8	2.76	0.73
49:S2:1578:U:H6	53:SD:6:SER:CA	2.02	0.73
49:S2:1294:G:N1	49:S2:1295:A:N7	2.37	0.73
1:5:5006:U:H1'	1:5:5042:A:C5	2.23	0.73
1:5:3873:G:N2	1:5:3883:U:C2	2.56	0.73
48:4:402:VAL:HG12	48:4:411:TYR:O	1.89	0.73
49:S2:1017:U:C2	49:S2:1018:U:C5	2.76	0.73
2:7:42:A:H1'	13:J:75:ARG:NH1	2.04	0.73
8:E:175:LEU:HB2	8:E:246:GLN:HE21	1.52	0.73
48:4:585:GLU:CD	48:4:737:GLN:NE2	2.41	0.73
48:4:113:SER:HB2	48:4:499:PHE:CD2	2.24	0.73
48:4:58:ASP:OD1	48:4:69:THR:CB	2.35	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:744:ILE:HG23	48:4:745:TYR:N	2.03	0.73
1:5:1080:C:C2	1:5:1081:C:C6	2.76	0.73
1:5:1545:G:C6	1:5:1546:C:N4	2.56	0.73
1:5:2264:C:O2'	1:5:2265:G:H2'	1.88	0.73
1:5:4166:G:C6	1:5:4167:G:N7	2.57	0.73
14:K:47:ALA:CA	14:K:72:GLU:CG	2.61	0.73
49:S2:1408:U:O4	49:S2:1439:A:C2	2.42	0.73
49:S2:1526:G:C6	49:S2:1527:C:C5	2.77	0.73
1:5:4537:C:C2	1:5:4538:G:C8	2.77	0.73
1:5:269:G:N1	1:5:270:U:C6	2.57	0.73
49:S2:1249:C:C4	49:S2:1250:A:C5	2.76	0.73
7:D:29:ASP:O	7:D:33:ARG:HB2	1.89	0.73
1:5:4093:G:C3'	1:5:4094:G:C5'	2.66	0.73
1:5:4093:G:O6	1:5:4115:G:C6	2.42	0.73
49:S2:973:C:C4	49:S2:974:C:C6	2.76	0.73
48:4:556:ILE:O	48:4:560:ASP:CG	2.27	0.73
1:5:2364:G:C2	1:5:2365:C:C5	2.76	0.73
1:5:1634:A:C6	1:5:1635:C:C4	2.77	0.73
50:SA:198:MET:HG3	50:SA:199:PRO:HD2	1.69	0.73
8:E:184:ARG:HD3	8:E:213:PHE:CB	2.18	0.73
1:5:1091:C:C2	1:5:1092:G:C8	2.76	0.73
1:5:4686:G:C6	1:5:4687:A:C8	2.76	0.73
1:5:4707:A:C2'	1:5:4708:A:O5'	2.36	0.73
1:5:1759:G:C2	1:5:1760:G:C8	2.77	0.73
1:5:5063:G:C2	1:5:5064:G:C8	2.77	0.73
2:7:112:U:O2	2:7:113:G:H8	1.69	0.73
49:S2:37:C:C4	49:S2:38:A:C8	2.77	0.73
8:E:38:PRO:HB2	8:E:43:ASN:OD1	17.55	0.73
48:4:651:CYS:SG	48:4:662:LEU:CD1	2.73	0.73
49:S2:1394:G:C6	49:S2:1395:C:C5	2.76	0.73
49:S2:1696:C:O2	49:S2:1697:A:C8	2.41	0.73
1:5:3736:A:O2'	1:5:3737:A:C5'	2.37	0.73
49:S2:1408:U:C4	49:S2:1439:A:C2	2.76	0.73
49:S2:832:G:H2'	49:S2:833:C:O4'	1.88	0.73
49:S2:105:U:C5	49:S2:106:C:C5	2.76	0.73
3:8:102:G:O5'	3:8:104:A:O2'	2.06	0.73
1:5:950:G:C2	1:5:951:G:C8	2.77	0.73
53:SD:11:PHE:CE2	70:SU:84:ILE:HD13	2.24	0.73
1:5:2251:G:C1'	1:5:2252:G:C2	2.71	0.73
49:S2:42:A:C2	49:S2:43:U:H6	2.07	0.73
48:4:562:GLU:HB3	48:4:570:ILE:HG13	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1936:C:O2	1:5:1936:C:H2'	1.88	0.73
49:S2:752:G:N1	49:S2:790:C:C4	2.56	0.73
1:5:3688:U:C2	1:5:3689:G:C8	2.77	0.73
1:5:659:G:C2	1:5:660:A:C8	2.77	0.73
1:5:270:U:C2	1:5:271:C:C5	2.76	0.73
49:S2:989:C:O2	49:S2:1001:A:N6	2.22	0.73
1:5:5047:C:C2	1:5:5048:A:N6	2.57	0.73
48:4:21:ASN:HD22	48:4:469:ILE:HD11	1.53	0.73
48:4:616:ASP:CG	48:4:621:GLU:CB	2.56	0.73
1:5:753:C:C4	1:5:754:U:C5	2.77	0.73
1:5:126:C:O2	1:5:127:G:C8	2.41	0.73
1:5:4510:A:H61	1:5:4592:C:C4'	2.02	0.73
1:5:2632:U:N3	1:5:2633:U:C5	2.57	0.73
48:4:27:HIS:NE2	48:4:28:VAL:HG22	2.04	0.73
48:4:769:HIS:H	48:4:786:ALA:HB1	1.53	0.73
14:K:117:ARG:HG2	14:K:133:LEU:CD1	2.19	0.73
14:K:117:ARG:CG	14:K:133:LEU:HD13	2.17	0.73
20:Q:56:THR:HB	20:Q:146:ARG:HH21	1.53	0.73
48:4:271:GLY:O	48:4:272:LYS:HG2	1.87	0.73
48:4:567:CYS:O	48:4:568:ILE:HD12	1.87	0.73
1:5:1358:G:O3'	6:C:114:ARG:NH1	2.21	0.73
1:5:1474:C:C2	1:5:1475:G:C8	2.77	0.73
49:S2:1528:G:N1	49:S2:1529:C:C4	2.57	0.73
1:5:3879:G:C6	1:5:3882:C:C4	2.76	0.73
1:5:2843:U:O2	1:5:2844:A:C8	2.42	0.73
49:S2:604:A:H2'	49:S2:605:A:C8	2.24	0.73
49:S2:848:U:H2'	49:S2:849:A:H8	1.54	0.73
1:5:1404:G:C2	1:5:1414:C:C2	2.76	0.73
7:D:94:ASN:HD22	7:D:94:ASN:C	1.91	0.73
1:5:1085:C:C4	1:5:1086:C:C5	2.77	0.72
1:5:1212:G:C2	1:5:1213:G:C8	2.76	0.72
1:5:976:G:C6	1:5:977:C:C5	2.77	0.72
14:K:47:ALA:HA	14:K:72:GLU:CG	2.18	0.72
49:S2:42:A:C5	49:S2:43:U:C5	2.73	0.72
49:S2:379:C:C2	49:S2:380:G:C8	2.77	0.72
48:4:206:ASP:HA	48:4:212:VAL:CG2	2.19	0.72
1:5:3732:A:N3	1:5:3733:A:C8	2.56	0.72
1:5:4981:G:C6	1:5:4982:A:N9	2.57	0.72
1:5:85:G:N2	1:5:97:G:C5	2.57	0.72
49:S2:1574:C:N3	49:S2:1575:G:N7	2.37	0.72
49:S2:618:C:C2	49:S2:619:A:C8	2.77	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1887:G:N1	1:5:1890:G:C6	2.57	0.72
1:5:660:A:C6	1:5:661:C:C5	2.77	0.72
1:5:4561:C:O2	1:5:4562:C:C5	2.42	0.72
1:5:1339:U:H2'	1:5:1339:U:O2	1.89	0.72
1:5:181:C:C2	1:5:256:G:N2	2.57	0.72
1:5:440:U:O2	1:5:441:G:C8	2.42	0.72
1:5:4419:U:C5	48:4:765:ARG:NH2	2.57	0.72
16:M:11:ARG:HH22	16:M:61:ILE:HG23	1.53	0.72
1:5:2322:G:H2'	1:5:2323:C:O4'	1.89	0.72
1:5:4982:A:C2	1:5:4983:C:C6	2.77	0.72
1:5:90:G:N2	1:5:95:G:C6	2.57	0.72
1:5:90:G:C2	1:5:95:G:C6	2.78	0.72
14:K:160:VAL:C	14:K:163:PRO:HG2	1.96	0.72
49:S2:524:U:O2	49:S2:594:A:N7	2.21	0.72
49:S2:50:A:N6	49:S2:488:U:N3	2.10	0.72
49:S2:53:C:O2	49:S2:54:A:C8	2.41	0.72
1:5:2857:A:C2	1:5:2858:A:C5	2.77	0.72
49:S2:996:A:C5	63:SN:113:PHE:CE2	2.77	0.72
48:4:191:THR:CG2	48:4:192:TYR:CE2	2.72	0.72
1:5:2606:G:N2	1:5:2607:C:C2	2.57	0.72
1:5:1092:G:C6	1:5:1093:C:C5	2.77	0.72
1:5:2570:U:C2	1:5:2571:C:C5	2.77	0.72
1:5:2631:U:O4'	24:U:82:TYR:CE1	2.41	0.72
1:5:4455:G:C2	1:5:4456:C:C6	2.77	0.72
61:SL:99:TYR:O	61:SL:101:ARG:N	2.20	0.72
48:4:79:TYR:CG	48:4:351:LEU:HD13	2.23	0.72
48:4:63:GLU:HG3	48:4:70:ILE:H	1.53	0.72
1:5:1542:U:H5"	1:5:2743:A:N7	2.04	0.72
1:5:2645:G:C2	1:5:2646:C:C6	2.77	0.72
14:K:137:GLN:OE1	14:K:148:PRO:HG3	1.89	0.72
14:K:74:VAL:O	14:K:74:VAL:HG12	1.88	0.72
1:5:88:A:N6	1:5:97:G:N2	2.36	0.72
1:5:3694:U:C2	1:5:3695:U:C5	2.78	0.72
1:5:1625:G:N7	1:5:1642:A:C2	2.58	0.72
1:5:2590:G:N1	1:5:2754:G:C2	2.57	0.72
49:S2:620:G:C2	49:S2:620:G:OP1	2.43	0.72
1:5:3793:U:N3	1:5:3794:C:C5	2.57	0.72
1:5:1755:C:H3'	1:5:1756:U:H5"	1.68	0.72
48:4:369:CYS:SG	48:4:385:ILE:HB	2.29	0.72
1:5:12:A:C2	1:5:14:C:C5	2.77	0.72
48:4:753:GLU:HG2	48:4:779:THR:HG22	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1899:G:N1	1:5:1900:C:C5	2.54	0.72
1:5:2108:G:C6	1:5:2125:C:N4	2.57	0.72
14:K:105:THR:HG22	14:K:144:ASP:H	1.55	0.72
48:4:155:LEU:HD22	48:4:157:MET:SD	2.30	0.72
48:4:693:CYS:CA	48:4:839:ARG:CZ	2.50	0.72
49:S2:597:G:N2	49:S2:640:A:C2	2.57	0.72
49:S2:647:U:O2	49:S2:648:A:N7	2.20	0.72
1:5:3653:A:N1	1:5:3692:A:C4'	2.53	0.72
1:5:212:A:H2'	1:5:213:G:C8	2.24	0.72
48:4:275:LYS:CE	48:4:275:LYS:O	2.31	0.72
3:8:80:A:H3'	3:8:81:C:H4'	1.71	0.72
17:N:30:TYR:CE1	17:N:63:ARG:CD	2.72	0.72
1:5:4498:U:O2	1:5:4500:U:H5'	1.89	0.72
1:5:2736:G:C2	1:5:2737:C:C4	2.77	0.72
1:5:2735:G:N3	1:5:2736:G:C8	2.57	0.72
1:5:4880:C:H2'	1:5:4881:U:H5'	1.69	0.72
1:5:255:C:H2'	1:5:255:C:O2	1.88	0.72
2:7:51:G:C2	2:7:52:C:C4	2.77	0.72
29:Z:38:TYR:CE2	29:Z:76:ASN:OD1	2.43	0.72
48:4:224:THR:OG1	48:4:227:GLN:HG3	1.88	0.72
25:V:57:VAL:HG23	25:V:84:GLN:HG2	1.71	0.72
14:K:105:THR:HG22	14:K:144:ASP:CA	2.19	0.72
14:K:22:VAL:CG2	14:K:48:LYS:CG	2.67	0.72
49:S2:436:G:C2	49:S2:437:G:C5	2.78	0.72
49:S2:337:C:C2	49:S2:338:G:H8	2.03	0.72
1:5:4981:G:N1	1:5:4982:A:C8	2.58	0.72
1:5:85:G:N2	1:5:97:G:N7	2.38	0.72
49:S2:633:C:C2	49:S2:634:A:C8	2.77	0.72
1:5:2858:A:O2'	1:5:2859:G:C8	2.39	0.72
1:5:504:G:C6	1:5:654:C:C2	2.77	0.72
1:5:3907:G:H1'	1:5:4449:A:C8	2.24	0.72
49:S2:842:C:C2	49:S2:843:C:C5	2.78	0.72
49:S2:1102:G:H22	49:S2:1130:G:N2	1.88	0.72
3:8:43:A:N1	3:8:44:A:N7	2.38	0.72
49:S2:499:G:N2	49:S2:504:G:C6	2.57	0.72
1:5:916:C:N3	1:5:917:A:C8	2.57	0.72
3:8:133:G:N1	3:8:134:G:N7	2.37	0.72
1:5:5062:G:C2	1:5:5063:G:N7	2.57	0.72
6:C:106:LYS:HG2	6:C:108:TRP:CZ2	2.24	0.72
49:S2:434:G:H2'	49:S2:435:A:C8	2.24	0.72
48:4:397:TYR:HE1	48:4:496:VAL:CG1	2.03	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1213:G:C6	1:5:1215:C:C6	2.78	0.72
1:5:1956:A:N1	1:5:2027:U:C4	2.57	0.72
1:5:2281:U:H2'	1:5:2281:U:O2	1.88	0.72
14:K:80:LEU:HA	14:K:83:LYS:HD2	1.70	0.72
1:5:4413:C:O4'	12:I:157:PHE:CD2	2.42	0.72
49:S2:70:G:C6	49:S2:71:G:C6	2.78	0.72
48:4:207:PRO:HG2	48:4:261:TRP:NE1	2.04	0.72
1:5:423:G:H1'	19:P:120:ASN:OD1	1.90	0.72
49:S2:796:G:C6	57:SH:109:ARG:NH2	2.58	0.72
1:5:4730:C:O2	1:5:4734:A:N7	2.23	0.72
1:5:751:G:C2	1:5:752:G:C5	2.77	0.72
48:4:585:GLU:HG3	48:4:737:GLN:NE2	2.05	0.72
2:7:110:G:N2	2:7:111:C:C2	2.56	0.72
1:5:4939:C:O2'	8:E:242:ARG:NH2	2.22	0.72
4:A:140:ASN:OD1	4:A:142:GLU:O	2.06	0.72
49:S2:518:G:C2	49:S2:519:A:C8	2.78	0.72
48:4:741:MET:HG3	48:4:817:TRP:CE3	2.22	0.72
1:5:1249:C:C2	1:5:1250:C:C6	2.78	0.72
1:5:1451:G:OP1	1:5:1718:C:N4	2.22	0.72
1:5:1618:G:N1	1:5:1619:G:N7	2.37	0.72
1:5:1998:A:N3	1:5:2019:C:O2'	2.22	0.72
1:5:2452:G:C6	1:5:2467:U:C5	2.76	0.72
1:5:4166:G:N1	1:5:4167:G:N7	2.37	0.72
1:5:447:C:C2	1:5:448:G:C8	2.78	0.72
48:4:715:HIS:O	48:4:716:ARG:HB2	1.90	0.72
49:S2:383:G:C2'	49:S2:384:U:O4'	2.33	0.72
49:S2:1607:A:N6	49:S2:1632:G:H1'	2.04	0.72
69:ST:82:ARG:HB2	69:ST:82:ARG:CZ	2.20	0.72
1:5:1631:A:H2	4:A:204:MET:SD	2.12	0.72
1:5:1412:G:N2	1:5:1413:C:C2	2.58	0.72
2:7:94:C:O2	2:7:95:C:C6	2.42	0.72
9:F:144:TRP:CH2	9:F:237:ASN:HB2	2.25	0.72
1:5:2080:U:N3	1:5:2081:C:C5	2.58	0.72
49:S2:42:A:C4	49:S2:426:A:N7	2.57	0.72
48:4:225:LEU:HD23	48:4:257:MET:HB2	1.70	0.72
49:S2:551:U:H2'	49:S2:552:G:C8	2.22	0.72
1:5:2691:U:O2	1:5:2692:U:C6	2.41	0.72
1:5:4562:C:N3	1:5:4563:U:C5	2.58	0.72
1:5:2058:G:C2	1:5:2059:C:C5	2.78	0.72
49:S2:599:A:C1'	49:S2:605:A:C2	2.72	0.72
1:5:4726:G:H4'	5:B:130:PHE:CE1	2.24	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:917:A:C6	1:5:919:C:N4	2.57	0.72
1:5:3607:U:O2	1:5:3608:A:C8	2.43	0.72
48:4:73:THR:N	48:4:104:ASP:CG	2.20	0.72
48:4:759:ILE:CG2	48:4:784:VAL:HG21	2.19	0.72
14:K:106:PHE:CE2	14:K:137:GLN:NE2	2.57	0.72
48:4:153:PRO:O	48:4:205:ILE:HD12	1.90	0.72
48:4:206:ASP:O	48:4:212:VAL:CB	2.37	0.72
1:5:300:A:C2	1:5:301:G:C8	2.78	0.72
1:5:1177:U:C2	1:5:1178:G:N7	2.58	0.72
1:5:4284:C:C2	1:5:4285:U:C6	2.77	0.72
49:S2:597:G:C2	49:S2:640:A:N1	2.58	0.72
73:SX:67:ARG:HG2	73:SX:115:ILE:HD13	1.70	0.72
49:S2:56:G:N1	49:S2:90:G:N2	2.37	0.72
1:5:658:C:O2	1:5:659:G:C8	2.43	0.72
1:5:4579:U:H2'	1:5:4580:U:O4'	1.88	0.72
13:J:105:PHE:HE1	13:J:132:VAL:HB	1.54	0.72
1:5:4742:G:C6	1:5:4743:G:N7	2.58	0.72
52:SC:230:THR:HG23	52:SC:236:PHE:CD2	2.24	0.72
49:S2:1376:A:C6	49:S2:1377:U:H1'	2.25	0.72
48:4:495:ARG:O	48:4:496:VAL:HG12	1.90	0.72
1:5:2743:A:H2'	1:5:2744:A:C8	2.24	0.72
14:K:106:PHE:HZ	14:K:137:GLN:NE2	1.84	0.72
48:4:675:ILE:CG2	48:4:709:LEU:HD11	2.06	0.72
49:S2:1405:A:C6	49:S2:1406:G:C5	2.78	0.72
49:S2:1527:C:C4	49:S2:1528:G:C8	2.78	0.72
49:S2:52:G:C2	49:S2:53:C:H1'	2.25	0.72
1:5:2856:C:N3	1:5:2857:A:C5	2.57	0.72
49:S2:1122:A:C2	49:S2:1123:C:C6	2.78	0.72
1:5:1926:C:C2	1:5:1927:U:C5	2.77	0.72
49:S2:832:G:N1	49:S2:833:C:C2	2.58	0.72
49:S2:842:C:H2'	49:S2:843:C:O5'	1.88	0.72
1:5:4100:C:C2	1:5:4101:C:C5	2.76	0.72
49:S2:525:A:N6	49:S2:588:G:H22	1.87	0.72
1:5:2250:C:OP2	1:5:2250:C:H4'	1.88	0.72
48:4:541:SER:HB3	48:4:576:VAL:CB	2.20	0.71
48:4:58:ASP:C	48:4:63:GLU:HB3	2.10	0.71
48:4:819:ILE:O	48:4:819:ILE:HD12	1.90	0.71
48:4:831:PRO:O	48:4:834:VAL:HG22	1.89	0.71
1:5:1264:C:N3	1:5:1265:G:C8	2.58	0.71
1:5:1442:C:N3	1:5:1443:A:N7	2.38	0.71
1:5:1958:A:O2'	1:5:1959:U:H5"	1.90	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1269:G:C8	1:5:2111:G:C5	2.76	0.71
1:5:4942:C:O2	1:5:4942:C:O5'	2.07	0.71
48:4:659:PRO:HG3	48:4:698:ARG:NH1	2.05	0.71
48:4:690:GLY:N	48:4:730:TYR:HE1	1.88	0.71
49:S2:1849:G:H2'	49:S2:1850:A:N7	2.05	0.71
48:4:154:VAL:HG11	48:4:358:LEU:HD11	1.70	0.71
1:5:1390:G:N2	1:5:1394:G:C4	2.57	0.71
1:5:1392:A:N3	1:5:1393:G:N7	2.38	0.71
14:K:125:LEU:HD12	14:K:163:PRO:HB3	0.74	0.71
49:S2:1406:G:N3	49:S2:1407:U:H1'	2.04	0.71
1:5:2362:U:O4	1:5:3859:G:N2	2.22	0.71
3:8:10:G:N1	3:8:11:C:C6	2.58	0.71
49:S2:793:G:C6	49:S2:794:A:C8	2.78	0.71
1:5:489:C:N3	1:5:490:C:C5	2.58	0.71
1:5:44:A:C6	1:5:45:U:C4	2.78	0.71
1:5:183:C:O2'	1:5:189:G:N7	2.23	0.71
1:5:4314:C:C2	1:5:4315:A:C8	2.78	0.71
1:5:4759:C:H2'	1:5:4760:G:O4'	1.89	0.71
1:5:4455:G:C6	1:5:4456:C:C5	2.78	0.71
9:F:248:ARG:CZ	9:F:248:ARG:HB3	2.20	0.71
1:5:2459:G:N7	17:N:105:ARG:NH2	2.37	0.71
1:5:4871:C:H5"	1:5:4871:C:O2	1.90	0.71
14:K:47:ALA:HB2	14:K:72:GLU:OE2	1.91	0.71
14:K:86:LYS:CA	14:K:104:ILE:HG12	2.19	0.71
48:4:651:CYS:SG	48:4:683:PHE:CD2	2.80	0.71
49:S2:1665:G:N7	69:ST:88:MET:CG	2.52	0.71
1:5:4239:A:C5	1:5:4240:G:C8	2.78	0.71
49:S2:1308:U:H2'	49:S2:1309:C:C5	2.24	0.71
3:8:65:A:C2	3:8:66:A:C8	2.78	0.71
1:5:493:G:C6	1:5:494:U:C5	2.78	0.71
1:5:4767:C:H4'	1:5:4874:A:N1	2.04	0.71
1:5:2533:C:O2	1:5:2534:C:C5	2.42	0.71
49:S2:497:C:C2	49:S2:506:G:N2	2.58	0.71
48:4:590:LEU:HD23	48:4:605:LYS:HE3	1.70	0.71
1:5:1203:G:C6	1:5:1204:C:C5	2.78	0.71
1:5:126:C:C2	1:5:127:G:C8	2.78	0.71
1:5:4871:C:H4'	1:5:4872:G:O5'	1.90	0.71
48:4:43:ALA:O	48:4:45:ILE:HG22	1.89	0.71
48:4:813:VAL:HG22	48:4:814:PHE:N	2.04	0.71
1:5:3676:G:O2'	1:5:3677:U:H5'	1.89	0.71
6:C:197:ARG:C	6:C:198:ASN:ND2	2.43	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:53:TRP:O	14:K:54:LYS:HB2	1.90	0.71
1:5:4413:C:C2'	12:I:157:PHE:HD2	2.03	0.71
1:5:1563:A:H61	49:S2:1028:A:N6	1.80	0.71
49:S2:996:A:N6	63:SN:113:PHE:CE2	2.59	0.71
48:4:240:GLY:N	48:4:241:GLU:HB2	2.05	0.71
1:5:4093:G:H3'	1:5:4094:G:H5'	1.72	0.71
48:4:617:ILE:HG12	48:4:622:VAL:HG23	1.71	0.71
1:5:1839:U:H3'	1:5:1840:G:H21	1.54	0.71
1:5:3833:C:N3	1:5:3834:C:C5	2.59	0.71
2:7:25:G:H2'	2:7:26:C:O4'	1.90	0.71
1:5:1727:U:C2	1:5:1728:U:C5	2.78	0.71
1:5:4771:C:C6	1:5:4772:C:C6	2.78	0.71
1:5:4906:C:C2	1:5:4916:G:C2	2.78	0.71
49:S2:1622:U:C4	68:SS:120:HIS:CE1	2.78	0.71
64:SO:94:HIS:HB3	64:SO:128:ARG:HB2	1.72	0.71
54:SE:36:HIS:HE1	54:SE:143:ASP:HB2	1.53	0.71
1:5:4463:U:C4	1:5:4488:A:C5	2.79	0.71
1:5:1217:G:O2'	1:5:1218:G:H8	1.72	0.71
1:5:1280:C:C6	1:5:1280:C:C5'	2.73	0.71
1:5:1843:A:C2	1:5:1844:G:C8	2.78	0.71
1:5:1994:C:H2'	14:K:132:ILE:HD11	1.72	0.71
1:5:2326:G:N1	1:5:2327:G:C8	2.57	0.71
1:5:4123:C:N3	1:5:4124:G:N7	2.38	0.71
14:K:62:LEU:O	14:K:62:LEU:CD1	2.29	0.71
1:5:100:C:N4	1:5:101:A:C5	2.56	0.71
1:5:300:A:C2	1:5:301:G:C5	2.79	0.71
1:5:1183:C:C2	1:5:1184:A:C8	2.78	0.71
49:S2:1510:G:C6	49:S2:1511:U:C5	2.77	0.71
49:S2:1597:C:H2'	49:S2:1598:G:C8	2.24	0.71
1:5:1564:A:O2'	1:5:1565:A:H5'	1.90	0.71
1:5:497:G:H3'	1:5:498:C:H5"	1.71	0.71
1:5:4280:A:N6	7:D:29:ASP:N	2.37	0.71
1:5:2058:G:N1	1:5:2059:C:C5	2.58	0.71
1:5:4196:G:H2'	1:5:4197:G:O4'	1.90	0.71
49:S2:620:G:P	49:S2:620:G:N2	2.63	0.71
1:5:4508:C:N3	1:5:4512:U:H5	1.86	0.71
8:E:280:HIS:CE1	8:E:281:LYS:HB2	2.25	0.71
65:SP:39:ALA:HA	65:SP:42:ARG:NH2	2.05	0.71
1:5:4195:G:N3	1:5:4195:G:H5"	2.05	0.71
49:S2:1804:U:C2	49:S2:1805:G:C8	2.78	0.71
48:4:752:PRO:CD	48:4:755:VAL:CG2	2.67	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:111:PHE:CE1	48:4:809:PHE:CE2	2.77	0.71
48:4:808:ALA:C	48:4:810:PRO:HD3	2.06	0.71
1:5:1993:C:N4	1:5:2002:A:C5	2.58	0.71
14:K:86:LYS:HA	14:K:104:ILE:HG12	1.72	0.71
14:K:113:ALA:O	14:K:116:MET:CG	2.32	0.71
49:S2:66:G:C5	49:S2:68:A:C8	2.78	0.71
1:5:93:G:O2'	1:5:94:A:C8	2.44	0.71
49:S2:1596:U:C4	49:S2:1597:C:C5	2.79	0.71
1:5:1936:C:N3	1:5:1937:C:H5	1.89	0.71
1:5:1628:C:C2	1:5:1629:G:N7	2.55	0.71
1:5:2534:C:O2'	1:5:2535:G:H5'	1.90	0.71
1:5:1945:G:H2'	1:5:1946:G:H5'	1.71	0.71
11:H:156:ASN:OD1	11:H:157:SER:CA	2.38	0.71
1:5:4687:A:C2	1:5:4688:C:C6	2.79	0.71
1:5:936:C:H2'	16:M:46:ARG:NH1	2.03	0.71
1:5:153:G:N3	1:5:154:G:C8	2.58	0.71
49:S2:38:A:N1	49:S2:515:G:C2	2.59	0.71
61:SL:112:HIS:HB3	61:SL:141:ASN:OD1	1.90	0.71
57:SH:154:ILE:HB	57:SH:185:VAL:HG22	1.72	0.71
1:5:4151:G:C2	1:5:4152:G:C8	2.79	0.71
48:4:517:LEU:HB3	48:4:518:PRO:HD3	1.73	0.71
48:4:749:ILE:HD12	48:4:759:ILE:HG13	1.73	0.71
1:5:1246:G:C5	1:5:1247:U:C5	2.78	0.71
1:5:2515:G:O6	1:5:2516:G:C4	2.43	0.71
1:5:989:U:H2'	1:5:990:C:C5	2.26	0.71
48:4:826:ASP:OD1	48:4:827:ASN:C	2.29	0.71
49:S2:1407:U:C2'	49:S2:1408:U:C6	2.69	0.71
1:5:4240:G:C5	1:5:4241:C:C6	2.77	0.71
1:5:4285:U:O2	1:5:4286:C:C6	2.43	0.71
1:5:2366:A:C2	1:5:3851:U:C1'	2.73	0.71
2:7:18:C:O2	2:7:19:C:H6	1.71	0.71
49:S2:50:A:N1	49:S2:488:U:C4	2.57	0.71
1:5:3702:A:N3	1:5:3702:A:H2'	2.04	0.71
49:S2:1708:C:C2	49:S2:1709:G:C8	2.78	0.71
1:5:2842:G:C2	1:5:2843:U:C6	2.78	0.71
1:5:2690:C:N3	1:5:2691:U:C5	2.59	0.71
1:5:161:G:N2	1:5:275:C:N3	2.35	0.71
1:5:167:C:C2	1:5:269:G:C2	2.79	0.71
49:S2:1123:C:O2'	51:SB:148:ASN:ND2	2.24	0.71
49:S2:842:C:N3	49:S2:843:C:C5	2.59	0.71
49:S2:106:C:C2	49:S2:107:A:N7	2.58	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4743:G:C2	1:5:4744:A:C8	2.79	0.71
1:5:1601:A:N7	1:5:3643:A:C8	2.59	0.71
49:S2:600:G:N7	49:S2:631:U:C5	2.59	0.71
2:7:33:U:C2	2:7:34:C:C6	2.79	0.71
48:4:12:ILE:CG2	48:4:99:LEU:HD22	2.19	0.71
48:4:3:ASN:CA	48:4:45:ILE:O	2.28	0.71
1:5:1672:U:N3	1:5:1673:U:C4	2.59	0.71
1:5:4117:U:C2	4:A:40:TYR:HE1	2.08	0.71
14:K:116:MET:CB	14:K:117:ARG:HH21	2.02	0.71
14:K:123:ARG:CB	14:K:129:ILE:HD13	1.45	0.71
49:S2:426:A:C2	49:S2:427:U:C6	2.78	0.71
48:4:571:LYS:HA	48:4:571:LYS:CE	2.20	0.71
49:S2:112:U:H1'	49:S2:114:G:O6	1.91	0.71
49:S2:114:G:O4'	61:SL:132:ARG:HD2	1.90	0.71
48:4:208:VAL:CG1	48:4:258:LYS:HA	2.20	0.71
1:5:86:U:O2	1:5:86:U:C2'	2.38	0.71
49:S2:1396:A:H2'	49:S2:1398:G:N7	2.05	0.71
1:5:423:G:H1	3:8:10:G:H1	1.39	0.71
1:5:5001:U:C2'	1:5:5002:U:O5'	2.38	0.71
48:4:191:THR:HG21	48:4:192:TYR:CE1	2.25	0.71
1:5:4652:G:N2	1:5:4653:C:C2	2.58	0.71
1:5:2734:U:O2	1:5:2735:G:C8	2.43	0.71
48:4:543:GLU:CG	48:4:576:VAL:HG23	1.98	0.71
48:4:762:VAL:HG21	48:4:800:LEU:HD12	0.84	0.71
1:5:986:C:C2	1:5:1068:G:C2	2.79	0.71
1:5:2457:G:C2	1:5:2465:C:N3	2.59	0.71
1:5:977:C:C2	1:5:978:G:N7	2.42	0.71
14:K:38:SER:OG	14:K:39:PRO:CD	2.38	0.71
49:S2:381:C:N4	58:SI:49:ARG:CD	2.54	0.71
48:4:205:ILE:O	48:4:206:ASP:CG	2.29	0.71
1:5:1358:G:N3	1:5:1359:G:C5	2.58	0.71
1:5:1465:G:N2	1:5:1466:G:H1'	2.06	0.71
1:5:158:A:C6	1:5:277:G:C6	2.78	0.71
2:7:19:C:H2'	2:7:19:C:O2	1.91	0.71
49:S2:1709:G:N2	49:S2:1710:C:C2	2.58	0.71
1:5:2497:C:C4	1:5:2498:C:C5	2.78	0.71
3:8:81:C:O2	3:8:83:C:P	2.49	0.71
3:8:95:A:C6	3:8:96:C:C5	2.79	0.71
2:7:43:U:C4	2:7:44:C:C5	2.78	0.71
3:8:132:G:C6	3:8:133:G:N7	2.58	0.71
11:H:61:TRP:HZ2	22:S:152:PHE:CE2	2.08	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4315:A:H2'	1:5:4316:G:H5'	1.72	0.71
1:5:4765:G:H22	1:5:4869:U:H3	1.38	0.71
48:4:574:ASP:HB3	48:4:576:VAL:N	2.06	0.71
1:5:2449:A:C8	1:5:2450:G:C1'	2.73	0.71
1:5:2508:U:N3	1:5:2509:C:C5	2.59	0.71
49:S2:379:C:C2	49:S2:380:G:N7	2.59	0.71
1:5:330:G:N3	1:5:331:G:C8	2.59	0.71
1:5:424:U:H3	1:5:425:U:H5	1.36	0.71
2:7:59:G:N1	2:7:60:G:C5	2.59	0.71
1:5:3762:U:H2'	1:5:3763:A:O4'	1.91	0.71
3:8:74:U:O2	3:8:74:U:H2'	1.90	0.71
3:8:86:U:H3'	3:8:86:U:C6	2.26	0.71
1:5:1948:G:H1	1:5:2034:G:H1	1.36	0.71
1:5:2058:G:N1	1:5:2059:C:C4	2.59	0.71
1:5:27:C:C2	1:5:28:C:C6	2.78	0.71
1:5:4096:C:C5	1:5:4097:G:C8	2.79	0.71
49:S2:974:C:C4	49:S2:975:G:N7	2.59	0.71
2:7:42:A:H1'	13:J:75:ARG:HH12	1.56	0.71
49:S2:1073:U:C2	49:S2:1074:C:C6	2.79	0.71
1:5:4744:A:C6	1:5:4745:G:C6	2.79	0.71
1:5:2590:G:C6	1:5:2754:G:N1	2.59	0.71
16:M:3:PHE:HB2	16:M:6:PHE:HZ	1.53	0.71
1:5:4884:G:N1	1:5:4885:U:C5	2.59	0.71
1:5:4932:U:H2'	1:5:4933:C:O4'	1.90	0.71
49:S2:600:G:N7	49:S2:631:U:C4	2.59	0.71
1:5:738:C:C2	1:5:739:G:C8	2.79	0.71
1:5:348:G:C2	1:5:350:C:C5	2.79	0.71
49:S2:654:A:C5	49:S2:655:A:C2	2.79	0.71
48:4:544:HIS:CE1	73:SX:97:ASN:HD22	2.09	0.71
1:5:171:U:O2	1:5:266:C:N4	2.23	0.71
48:4:27:HIS:HB3	48:4:30:HIS:CE1	2.25	0.71
1:5:1692:C:N3	1:5:1693:U:C5	2.58	0.71
1:5:1866:U:C4	1:5:4405:G:O4'	2.43	0.71
1:5:1991:A:C3'	1:5:1992:U:H5"	2.20	0.71
14:K:124:GLU:N	14:K:128:THR:OG1	2.23	0.71
49:S2:118:C:H1'	49:S2:445:A:C2	2.26	0.71
49:S2:470:G:H2'	49:S2:471:G:C8	2.26	0.71
49:S2:1452:A:H4'	49:S2:1453:C:O4'	1.90	0.71
1:5:289:C:C2	1:5:290:U:C5	2.79	0.71
2:7:58:A:C6	2:7:59:G:C5	2.79	0.71
1:5:2784:C:C2	1:5:2785:C:C6	2.78	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:795:A:C4	49:S2:796:G:C8	2.79	0.71
1:5:1628:C:N3	1:5:1629:G:C8	2.58	0.71
1:5:491:G:N2	1:5:663:G:H1	1.89	0.71
1:5:662:C:C2	1:5:663:G:N7	2.58	0.71
2:7:43:U:O2	2:7:44:C:C6	2.43	0.71
64:SO:147:ARG:HB2	64:SO:147:ARG:NH1	2.05	0.71
1:5:5025:C:H2'	1:5:5028:G:O4'	1.89	0.71
7:D:17:GLN:HG3	23:T:20:ARG:CA	2.20	0.71
48:4:58:ASP:CA	48:4:63:GLU:OE1	2.40	0.70
48:4:762:VAL:O	48:4:766:LYS:HD3	1.91	0.70
48:4:767:ARG:NH2	48:4:792:GLU:CG	2.52	0.70
48:4:801:ARG:HD2	48:4:802:SER:N	2.06	0.70
1:5:1066:G:H2'	1:5:1067:G:O4'	1.91	0.70
1:5:1238:A:H2'	1:5:1239:C:C5	2.25	0.70
1:5:2290:C:N3	1:5:2291:G:C8	2.58	0.70
14:K:86:LYS:HA	14:K:104:ILE:CG1	2.21	0.70
1:5:4414:A:N6	1:5:4427:G:C6	2.59	0.70
49:S2:466:G:O2'	56:SG:59:GLN:NE2	2.23	0.70
49:S2:86:C:C4	49:S2:87:U:C5	2.79	0.70
49:S2:1573:G:C6	49:S2:1574:C:C5	2.79	0.70
49:S2:1606:G:C2	49:S2:1632:G:N2	2.58	0.70
1:5:4277:G:C6	1:5:4278:C:C5	2.79	0.70
48:4:845:LYS:NZ	48:4:845:LYS:HA	2.06	0.70
48:4:330:LYS:HB2	48:4:330:LYS:NZ	2.06	0.70
1:5:3693:U:N3	1:5:3694:U:C6	2.59	0.70
1:5:489:C:C2	1:5:490:C:C6	2.79	0.70
1:5:4561:C:C2	1:5:4562:C:C5	2.79	0.70
49:S2:924:G:C5	49:S2:925:G:C8	2.79	0.70
49:S2:1772:C:C2	49:S2:1773:C:C5	2.79	0.70
1:5:259:C:C4	1:5:260:C:C5	2.79	0.70
48:4:72:SER:CA	48:4:104:ASP:HB3	2.20	0.70
48:4:144:ARG:CZ	48:4:781:MET:HE1	2.21	0.70
48:4:771:PHE:CB	48:4:785:LYS:HB3	2.21	0.70
1:5:1265:G:H2'	1:5:1266:G:H5'	1.73	0.70
1:5:1971:C:C2	1:5:1972:G:C8	2.78	0.70
49:S2:1842:C:H2'	49:S2:1843:G:O5'	1.91	0.70
1:5:1358:G:H2'	1:5:1359:G:C8	2.26	0.70
1:5:330:G:N2	1:5:331:G:C4	2.58	0.70
1:5:3729:U:C4	1:5:3730:U:C5	2.79	0.70
49:S2:1418:C:N4	49:S2:1421:A:H62	1.88	0.70
49:S2:1434:C:C2'	49:S2:1435:C:O4'	2.39	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3858:C:O2	1:5:3858:C:H2'	1.91	0.70
25:V:97:TYR:OH	26:W:21:TYR:N	2.24	0.70
49:S2:636:C:C4	49:S2:637:U:C5	2.79	0.70
48:4:13:MET:SD	48:4:465:PRO:CD	2.71	0.70
49:S2:530:U:C2	49:S2:531:A:C8	2.79	0.70
3:8:82:A:C6	3:8:83:C:H5"	2.26	0.70
1:5:2851:G:H2'	1:5:2851:G:N3	2.06	0.70
1:5:2726:G:C4	1:5:2727:C:C5	2.79	0.70
49:S2:993:G:C5	49:S2:994:C:C5	2.79	0.70
1:5:1950:U:O2	1:5:1951:G:C8	2.44	0.70
1:5:4229:U:C4	1:5:4230:C:C6	2.78	0.70
1:5:4230:C:N3	1:5:4231:C:C5	2.57	0.70
49:S2:493:A:N7	49:S2:574:A:N7	2.39	0.70
1:5:3591:C:H2'	1:5:3591:C:O2	1.91	0.70
48:4:685:TRP:CZ3	48:4:723:PRO:HD3	2.23	0.70
1:5:737:C:H2'	1:5:738:C:O4'	1.91	0.70
3:8:106:G:C6	3:8:107:C:N4	2.59	0.70
49:S2:1061:U:H3	49:S2:1848:U:HO2'	1.38	0.70
55:SF:91:ARG:O	55:SF:95:HIS:HB2	1.91	0.70
1:5:1993:C:O2	14:K:135:THR:OG1	2.04	0.70
1:5:2113:G:H8	1:5:2115:G:H1'	1.53	0.70
1:5:2453:A:N1	1:5:2454:U:C6	2.58	0.70
49:S2:460:A:N3	49:S2:461:U:C5	2.55	0.70
49:S2:449:A:N1	49:S2:452:G:C5	2.60	0.70
48:4:206:ASP:HA	48:4:212:VAL:HG21	1.73	0.70
1:5:69:A:H3'	1:5:70:A:H8	1.54	0.70
3:8:15:G:H2'	3:8:16:G:H1'	1.74	0.70
49:S2:1224:G:C2	49:S2:1643:U:N3	2.58	0.70
1:5:5003:U:H2'	1:5:5004:C:O4'	1.92	0.70
49:S2:56:G:H2'	49:S2:57:U:O5'	1.89	0.70
49:S2:53:C:C2	49:S2:54:A:C8	2.79	0.70
1:5:488:G:N2	1:5:489:C:C2	2.59	0.70
1:5:2055:G:C5'	1:5:2056:G:H5'	2.21	0.70
1:5:920:C:H2'	1:5:921:C:O4'	1.90	0.70
1:5:1635:C:C2	1:5:1636:U:C5	2.78	0.70
1:5:4729:A:C4'	1:5:4965:U:O2'	2.38	0.70
1:5:18:C:H4'	17:N:138:PHE:CE2	2.25	0.70
48:4:162:ARG:HG3	48:4:166:GLU:HG2	1.72	0.70
1:5:235:A:C6	1:5:238:C:C5	2.79	0.70
68:SS:81:ASP:O	68:SS:87:GLN:NE2	2.24	0.70
49:S2:898:U:C4	49:S2:899:U:C5	2.79	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:60:ARG:NH1	48:4:60:ARG:CG	2.30	0.70
1:5:1074:G:H2'	1:5:1075:G:C1'	2.22	0.70
1:5:1266:G:N2	1:5:1268:G:C6	2.59	0.70
1:5:2105:A:C2	1:5:2106:G:C5	2.79	0.70
14:K:97:ASN:C	14:K:98:ILE:HG13	2.11	0.70
48:4:848:ILE:HG23	48:4:849:PRO:N	2.06	0.70
49:S2:1739:C:N3	49:S2:1740:C:C5	2.60	0.70
49:S2:64:A:H2	49:S2:83:A:H62	1.38	0.70
49:S2:1417:C:O2	49:S2:1419:C:C6	2.44	0.70
1:5:5029:C:C2	1:5:5030:U:C6	2.79	0.70
1:5:1310:C:N3	1:5:1311:G:N7	2.39	0.70
1:5:5010:U:C2	1:5:5011:A:C8	2.80	0.70
1:5:1213:G:C6	1:5:1215:C:N1	2.59	0.70
1:5:2089:G:C6	1:5:2263:A:N7	2.60	0.70
1:5:2507:A:N1	1:5:2508:U:H1'	2.06	0.70
1:5:977:C:C2	1:5:978:G:H8	1.96	0.70
1:5:1724:G:N2	9:F:105:PRO:HB3	2.06	0.70
14:K:48:LYS:HG2	14:K:52:ASP:OD2	1.92	0.70
10:G:264:LYS:CE	10:G:265:LEU:CD2	2.66	0.70
48:4:692:LEU:CD2	48:4:734:LEU:CD2	2.69	0.70
48:4:56:PHE:CE1	48:4:455:GLY:HA3	1.89	0.70
49:S2:1793:A:C2	49:S2:1794:C:C6	2.78	0.70
1:5:1358:G:C2	1:5:1359:G:C6	2.79	0.70
1:5:4355:G:C2	1:5:4356:G:C5	2.79	0.70
14:K:160:VAL:O	14:K:163:PRO:HG2	1.86	0.70
49:S2:1562:C:N3	49:S2:1563:G:N7	2.39	0.70
49:S2:1593:C:O2	49:S2:1593:C:H2'	1.91	0.70
1:5:4240:G:C4	1:5:4241:C:C6	2.79	0.70
2:7:59:G:N1	2:7:60:G:C8	2.59	0.70
48:4:10:ARG:CZ	48:4:465:PRO:HD3	2.21	0.70
48:4:410:PHE:CE2	48:4:530:SER:HB2	2.27	0.70
1:5:2658:G:C6	1:5:2675:G:C6	2.78	0.70
1:5:4735:G:N1	1:5:4736:C:C4	2.59	0.70
1:5:1167:C:C2	1:5:1195:G:C2	2.80	0.70
1:5:189:G:N2	1:5:190:G:C5	2.59	0.70
6:C:210:ILE:HD13	6:C:252:TRP:CZ3	2.26	0.70
48:4:16:LYS:HD3	48:4:466:CYS:O	1.92	0.70
49:S2:1501:C:C2	49:S2:1502:C:C6	2.80	0.70
1:5:942:G:OP2	9:F:244:ARG:NH1	2.22	0.70
48:4:340:MET:CE	48:4:340:MET:HA	2.21	0.70
18:O:73:PHE:HB2	18:O:78:ARG:HB3	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:512:U:H2'	1:5:513:U:H5"	1.73	0.70
69:ST:52:TRP:CZ3	69:ST:53:PHE:HB2	2.27	0.70
1:5:1876:U:N3	1:5:1877:G:C8	2.59	0.70
1:5:2289:C:O2	1:5:2289:C:H2'	1.90	0.70
1:5:472:C:C2	1:5:473:C:C5	2.80	0.70
14:K:121:LEU:HD13	14:K:129:ILE:CD1	2.08	0.70
49:S2:119:U:N3	49:S2:120:U:C6	2.58	0.70
48:4:692:LEU:HD13	48:4:734:LEU:CD1	1.87	0.70
1:5:1475:G:N2	1:5:1489:G:H1	1.89	0.70
1:5:4285:U:H2'	1:5:4286:C:H6	1.55	0.70
2:7:17:C:C2	2:7:18:C:C6	2.79	0.70
49:S2:1109:C:H41	67:SR:123:THR:N	1.90	0.70
1:5:1629:G:C4	1:5:1631:A:N6	2.60	0.70
1:5:3695:U:N3	1:5:3696:C:C6	2.59	0.70
1:5:208:A:H3'	1:5:209:U:H5"	1.73	0.70
7:D:21:ARG:HH12	7:D:22:ARG:HG2	1.55	0.70
1:5:433:A:C2	1:5:3867:A:H4'	2.26	0.70
1:5:2054:U:H4'	1:5:2056:G:H1'	1.71	0.70
1:5:1780:A:C2	1:5:1781:U:H1'	2.27	0.70
1:5:1828:C:C2	1:5:1829:G:C8	2.79	0.70
1:5:189:G:C2	1:5:190:G:C5	2.79	0.70
49:S2:2:A:C8	52:SC:223:TYR:HB3	2.27	0.70
26:W:44:ARG:HG3	26:W:44:ARG:HH11	1.55	0.70
27:X:119:ILE:HD12	27:X:149:VAL:HG21	1.73	0.70
48:4:397:TYR:CE1	48:4:496:VAL:HG12	2.17	0.70
48:4:502:SER:O	48:4:504:VAL:CG2	2.36	0.70
48:4:64:GLN:CD	48:4:64:GLN:O	2.30	0.70
48:4:745:TYR:N	48:4:815:ASP:HB3	2.06	0.70
1:5:692:A:C2	1:5:693:C:C5	2.79	0.70
1:5:964:A:C8	1:5:964:A:C3'	2.74	0.70
14:K:117:ARG:HG2	14:K:133:LEU:HD13	1.74	0.70
1:5:1476:C:C2	1:5:1477:C:C5	2.79	0.70
1:5:2367:A:C2	1:5:2368:A:C5	2.79	0.70
49:S2:167:G:N1	49:S2:168:C:C4	2.60	0.70
1:5:2481:G:C2	1:5:2498:C:C2	2.80	0.70
1:5:3695:U:C2	1:5:3696:C:C6	2.79	0.70
1:5:3880:G:O2'	1:5:3881:G:C8	2.42	0.70
1:5:4093:G:C2'	1:5:4094:G:H5"	2.21	0.70
4:A:109:GLU:OE2	49:S2:980:A:OP1	2.10	0.70
1:5:5031:G:N2	1:5:5032:C:C2	2.59	0.70
1:5:4483:C:C2	1:5:4484:A:C8	2.80	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4484:A:C2	1:5:4485:C:C5	2.79	0.70
49:S2:908:A:C2	49:S2:909:G:C5	2.79	0.70
49:S2:428:U:H5	59:SJ:7:TRP:CH2	2.10	0.70
1:5:1410:U:H5	1:5:1815:G:C2	2.08	0.70
1:5:2770:C:C2	1:5:2771:G:C8	2.80	0.70
1:5:1755:C:O2'	1:5:1756:U:OP1	2.10	0.70
1:5:3591:C:N3	1:5:3592:G:C8	2.60	0.70
15:L:64:VAL:HA	15:L:67:HIS:HD2	1.55	0.70
53:SD:67:ARG:HH11	53:SD:67:ARG:HG3	1.57	0.70
72:SW:88:LYS:O	72:SW:92:ASN:OD1	2.10	0.70
53:SD:157:MET:HG3	53:SD:159:HIS:HE1	1.55	0.70
1:5:1280:C:C4	1:5:1282:G:O6	2.44	0.70
1:5:1673:U:N3	1:5:1682:A:C2	2.59	0.70
1:5:2266:C:O2'	1:5:2267:U:OP2	2.09	0.70
1:5:2314:G:H2'	1:5:2314:G:N3	2.05	0.70
1:5:990:C:N3	1:5:991:C:C5	2.59	0.70
14:K:22:VAL:CG2	14:K:48:LYS:HG3	2.21	0.70
3:8:11:C:C2	3:8:12:G:H8	2.01	0.70
49:S2:632:C:C2	49:S2:633:C:C5	2.80	0.70
49:S2:1137:U:H3	49:S2:1148:A:N6	1.89	0.70
1:5:208:A:H1'	1:5:232:G:H21	1.48	0.70
1:5:2529:A:C5	1:5:2532:C:C6	2.79	0.70
49:S2:493:A:H8	49:S2:574:A:C8	2.05	0.70
49:S2:863:U:C2	49:S2:864:A:N7	2.60	0.70
1:5:244:G:N2	1:5:246:G:H1'	2.07	0.70
49:S2:184:G:C2	49:S2:185:G:C8	2.79	0.70
1:5:738:C:C2	1:5:739:G:N7	2.60	0.70
10:G:81:ASN:HD21	10:G:238:GLY:CA	2.04	0.70
49:S2:666:U:C2	49:S2:667:U:C5	2.79	0.70
19:P:64:ASN:HB2	19:P:80:GLN:OE1	1.91	0.70
48:4:744:ILE:HG12	48:4:745:TYR:H	1.55	0.70
48:4:752:PRO:O	48:4:754:GLN:CG	2.34	0.70
1:5:1049:C:C2	1:5:1050:C:C5	2.79	0.70
1:5:1444:G:H2'	1:5:1445:U:C5	2.25	0.70
1:5:2080:U:N3	1:5:2081:C:C4	2.59	0.70
1:5:2277:C:H2'	1:5:2277:C:O2	1.89	0.70
1:5:2124:G:H22	9:F:32:ILE:HG13	1.56	0.70
14:K:40:LYS:O	14:K:44:ASP:HB2	1.90	0.70
48:4:697:MET:SD	48:4:702:PHE:CE2	2.85	0.70
49:S2:1453:C:N4	49:S2:1455:A:C1'	2.53	0.70
49:S2:148:U:N3	49:S2:149:A:N7	2.39	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1740:C:N3	49:S2:1741:U:C5	2.60	0.70
49:S2:70:G:C4	49:S2:71:G:C8	2.80	0.70
49:S2:1265:A:N3	49:S2:1266:C:H6	1.89	0.70
49:S2:1526:G:C2	49:S2:1527:C:C6	2.79	0.70
1:5:4236:G:O2'	1:5:4237:C:O4'	2.08	0.70
3:8:13:G:C2	3:8:14:U:C2	2.80	0.70
49:S2:792:C:C4	49:S2:793:G:N7	2.60	0.70
12:I:47:PRO:HA	12:I:171:TRP:HE1	1.56	0.70
48:4:37:ASP:OD2	48:4:54:THR:CB	2.35	0.70
49:S2:862:A:C8	72:SW:107:SER:HA	2.27	0.70
1:5:231:U:H4'	28:Y:100:HIS:CD2	2.26	0.70
48:4:228:PHE:HE1	48:4:232:TYR:OH	1.73	0.70
49:S2:1146:C:N3	49:S2:1147:C:C5	2.60	0.70
1:5:1516:G:C5	1:5:1518:A:C8	2.79	0.70
1:5:60:G:C4	1:5:61:A:C8	2.80	0.70
1:5:4121:G:H22	4:A:84:THR:HB	1.55	0.70
27:X:73:HIS:O	27:X:116:LEU:HD11	1.92	0.70
1:5:2623:A:C2	1:5:2624:G:C8	2.80	0.70
48:4:143:LEU:HD21	48:4:189:ILE:CD1	2.22	0.70
48:4:501:VAL:O	48:4:502:SER:C	2.30	0.70
1:5:2021:G:C5	1:5:2022:C:C5	2.80	0.70
1:5:2086:G:H2'	1:5:2087:C:O4'	1.92	0.70
1:5:473:C:O2	1:5:474:C:C6	2.44	0.70
21:R:108:ARG:HH11	21:R:108:ARG:HG2	1.57	0.70
49:S2:122:G:C5	49:S2:123:G:C8	2.80	0.70
48:4:829:SER:CB	48:4:832:SER:N	2.53	0.70
48:4:126:LEU:HD21	48:4:156:MET:SD	2.32	0.70
1:5:1188:C:O2	1:5:1189:G:H8	1.73	0.70
49:S2:1095:U:C4	49:S2:1149:A:C6	2.79	0.70
49:S2:1112:U:C4	49:S2:1113:A:C5	2.79	0.70
49:S2:477:G:C2	49:S2:478:G:C8	2.80	0.70
1:5:3702:A:C2	1:5:3703:G:H8	2.02	0.70
1:5:3759:A:N1	49:S2:1709:G:H5'	2.06	0.70
48:4:394:LEU:H	48:4:487:THR:CG2	2.04	0.70
1:5:4536:C:N3	1:5:4537:C:C5	2.59	0.70
1:5:488:G:N2	1:5:489:C:N1	2.40	0.70
49:S2:993:G:H1	49:S2:999:G:H1	1.38	0.70
1:5:2529:A:N7	1:5:2532:C:C5	2.60	0.70
1:5:4093:G:O6	1:5:4115:G:O6	2.09	0.70
49:S2:859:G:C2	49:S2:860:G:C8	2.80	0.70
48:4:616:ASP:HA	48:4:621:GLU:OE1	1.92	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2589:C:C4	1:5:2590:G:C5	2.80	0.70
1:5:1339:U:O2	1:5:1340:C:C5	2.45	0.70
49:S2:18:C:O4'	49:S2:1194:A:N6	2.25	0.70
1:5:3794:C:N3	1:5:3795:A:C8	2.60	0.70
1:5:752:G:C5	1:5:753:C:C5	2.80	0.70
1:5:2552:G:OP2	1:5:2553:A:H2'	1.91	0.70
1:5:4509:U:H2'	1:5:4510:A:H2'	1.74	0.70
1:5:3621:A:C5	1:5:3622:C:C5	2.79	0.70
1:5:2301:G:N2	1:5:2302:C:C2	2.60	0.70
49:S2:1258:A:H62	49:S2:1659:U:H3	1.38	0.70
49:S2:1805:G:C2	49:S2:1806:A:C8	2.80	0.70
49:S2:1747:C:H2'	49:S2:1748:G:O4'	1.91	0.70
7:D:123:VAL:HG13	7:D:248:ARG:HH22	1.57	0.70
48:4:120:ARG:O	48:4:368:ARG:NH2	2.20	0.69
48:4:116:THR:HB	48:4:499:PHE:HB3	1.74	0.69
1:5:1070:G:C2	1:5:1071:C:N1	2.60	0.69
1:5:2018:C:N3	1:5:2019:C:C6	2.60	0.69
1:5:2314:G:N2	1:5:2315:G:C4	2.60	0.69
48:4:690:GLY:HA2	48:4:730:TYR:CD1	2.27	0.69
48:4:511:ALA:HB2	48:4:520:LEU:HD22	1.74	0.69
49:S2:309:G:N1	49:S2:310:C:C4	2.59	0.69
1:5:330:G:C2	1:5:331:G:N7	2.59	0.69
1:5:3732:A:C2	1:5:3733:A:C5	2.80	0.69
1:5:4342:C:C4	1:5:4343:U:C5	2.80	0.69
1:5:4983:C:N3	1:5:4984:C:H5	1.82	0.69
1:5:1506:G:O2'	6:C:116:ASN:OD1	2.06	0.69
49:S2:1417:C:O2	49:S2:1419:C:H6	1.75	0.69
49:S2:1308:U:C2'	49:S2:1309:C:H6	2.02	0.69
49:S2:1643:U:C2	49:S2:1644:C:C4	2.80	0.69
1:5:3629:A:O2'	49:S2:1721:U:C2	2.44	0.69
49:S2:996:A:O2'	49:S2:997:A:C5'	2.40	0.69
1:5:4229:U:C2	1:5:4230:C:C6	2.80	0.69
1:5:3611:A:H4'	58:SI:92:ARG:NH2	2.05	0.69
11:H:156:ASN:CG	11:H:157:SER:N	2.45	0.69
48:4:178:PHE:O	48:4:182:VAL:HG23	1.91	0.69
19:P:54:GLN:CB	19:P:83:TRP:CD1	2.75	0.69
11:H:41:ILE:HD11	11:H:69:THR:OG1	1.92	0.69
49:S2:404:G:C2	49:S2:405:G:C8	2.80	0.69
22:S:99:ASP:OD1	22:S:100:LEU:N	2.25	0.69
48:4:640:GLU:CD	48:4:640:GLU:O	2.31	0.69
56:SG:209:TYR:CE2	56:SG:213:LEU:HD23	2.26	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1378:A:H4'	49:S2:1379:A:O5'	1.91	0.69
48:4:497:MET:HA	48:4:499:PHE:CE1	2.27	0.69
48:4:502:SER:C	48:4:504:VAL:N	2.41	0.69
48:4:756:VAL:CG2	48:4:782:PHE:HB2	2.17	0.69
1:5:1264:C:N3	1:5:1265:G:N7	2.40	0.69
1:5:2018:C:O2'	1:5:2019:C:H5'	1.91	0.69
1:5:2318:G:N2	1:5:2320:G:O2'	2.25	0.69
49:S2:1446:A:HO2'	49:S2:1447:G:H8	1.39	0.69
49:S2:219:U:N3	49:S2:220:U:C5	2.60	0.69
49:S2:309:G:N3	49:S2:310:C:C5	2.60	0.69
49:S2:1839:U:N3	49:S2:1840:U:C5	2.60	0.69
2:7:56:G:H2'	2:7:57:C:O4'	1.92	0.69
49:S2:640:A:O2'	49:S2:641:A:O4'	2.09	0.69
1:5:1313:C:N3	1:5:1323:A:C8	2.60	0.69
48:4:394:LEU:HD23	48:4:485:ILE:HG22	1.73	0.69
1:5:2726:G:N2	1:5:2727:C:C2	2.60	0.69
1:5:4561:C:O2	1:5:4561:C:C2'	2.39	0.69
49:S2:926:A:C2	49:S2:927:C:C6	2.80	0.69
1:5:2347:A:N3	1:5:2348:G:C6	2.60	0.69
1:5:5021:C:N3	1:5:5022:U:C5	2.59	0.69
49:S2:863:U:C2	49:S2:864:A:C8	2.80	0.69
1:5:1780:A:C6	1:5:1781:U:C6	2.80	0.69
1:5:4629:U:C2	1:5:4630:G:C8	2.80	0.69
1:5:2713:C:N3	1:5:2714:G:N7	2.39	0.69
10:G:231:ASN:HD22	10:G:231:ASN:N	1.88	0.69
49:S2:399:C:O4'	73:SX:11:ARG:NH1	2.24	0.69
48:4:60:ARG:O	48:4:61:LYS:C	2.31	0.69
1:5:1688:G:N2	1:5:1849:U:O2	2.25	0.69
1:5:2019:C:H2'	1:5:2020:U:H5"	1.74	0.69
1:5:445:U:H2'	1:5:446:C:O4'	1.92	0.69
1:5:472:C:C4	1:5:473:C:C5	2.80	0.69
48:4:613:LEU:HD13	48:4:639:TYR:HB2	1.70	0.69
49:S2:68:A:H2'	49:S2:69:C:O4'	1.92	0.69
49:S2:1746:U:H4'	56:SG:65:GLN:HE22	1.56	0.69
49:S2:1569:A:C8	49:S2:1570:G:C1'	2.75	0.69
49:S2:1303:C:C5	49:S2:1304:U:C5	2.80	0.69
1:5:1629:G:H2'	1:5:1631:A:N7	2.07	0.69
49:S2:925:G:N3	49:S2:925:G:H2'	2.07	0.69
1:5:48:G:H5'	17:N:192:TRP:NE1	2.01	0.69
1:5:3909:C:H2'	1:5:3909:C:O2	1.92	0.69
49:S2:841:G:N2	49:S2:842:C:C4	2.61	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4579:U:C2	1:5:4580:U:C5	2.79	0.69
49:S2:495:U:O2'	49:S2:496:C:C5'	2.40	0.69
49:S2:1063:C:O4'	49:S2:1838:U:O4	2.08	0.69
1:5:1634:A:N1	1:5:1635:C:C4	2.60	0.69
1:5:2713:C:C2	1:5:2714:G:C8	2.79	0.69
1:5:2823:G:C6	1:5:2824:C:C5	2.80	0.69
17:N:124:ASP:OD1	17:N:125:SER:N	2.25	0.69
16:M:36:ALA:HB2	16:M:52:PHE:CE1	2.28	0.69
48:4:3:ASN:N	48:4:3:ASN:ND2	2.39	0.69
48:4:740:LEU:HB3	48:4:831:PRO:HB3	0.78	0.69
1:5:1543:G:C2	1:5:1544:G:C8	2.80	0.69
1:5:1667:G:N2	1:5:2283:G:C6	2.60	0.69
1:5:459:C:C2	1:5:460:C:C6	2.79	0.69
1:5:469:C:H2'	1:5:470:A:O4'	1.93	0.69
49:S2:42:A:C2	49:S2:43:U:C5	2.80	0.69
48:4:49:ALA:N	48:4:55:ARG:NH2	2.40	0.69
49:S2:1794:C:C2	49:S2:1795:G:C8	2.79	0.69
49:S2:1642:U:O2	49:S2:1643:U:H5	1.74	0.69
1:5:3909:C:N3	1:5:3910:C:C6	2.61	0.69
1:5:1625:G:C5	1:5:1642:A:C2	2.81	0.69
49:S2:1755:C:N3	49:S2:1756:C:C6	2.61	0.69
2:7:114:U:C2'	2:7:115:A:H5"	2.21	0.69
1:5:2632:U:O2	1:5:2633:U:C6	2.45	0.69
48:4:393:PRO:O	48:4:393:PRO:CG	2.40	0.69
10:G:102:TYR:OH	10:G:207:VAL:HA	1.91	0.69
25:V:82:ILE:HG22	25:V:83:ARG:HG3	1.72	0.69
48:4:813:VAL:HG13	48:4:814:PHE:H	1.56	0.69
48:4:830:ARG:HB2	48:4:831:PRO:HD3	1.72	0.69
1:5:1216:C:C4	1:5:1217:G:N7	2.61	0.69
1:5:1219:G:C2	1:5:1220:G:C8	2.81	0.69
1:5:1876:U:N3	1:5:1877:G:N7	2.41	0.69
1:5:1899:G:C1'	1:5:2278:G:N2	2.55	0.69
14:K:141:CYS:CA	14:K:148:PRO:HD3	2.22	0.69
49:S2:436:G:C2	49:S2:437:G:C8	2.79	0.69
49:S2:444:G:C6	49:S2:446:G:OP2	2.45	0.69
49:S2:1453:C:N3	49:S2:1455:A:H1'	2.05	0.69
49:S2:349:A:H4'	58:SI:27:TYR:CZ	2.28	0.69
1:5:70:A:C2	1:5:4355:G:C1'	2.75	0.69
49:S2:1401:A:H2'	49:S2:1402:A:C8	2.28	0.69
49:S2:1427:C:O2	49:S2:1428:G:C8	2.45	0.69
49:S2:1603:G:N7	68:SS:28:PHE:HE2	1.90	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4240:G:C6	1:5:4241:C:C4	2.80	0.69
49:S2:1224:G:N7	49:S2:1225:U:C5	2.61	0.69
49:S2:1295:A:C5	49:S2:1296:U:H1'	2.27	0.69
49:S2:1307:U:H2'	49:S2:1308:U:H4'	1.72	0.69
1:5:2058:G:C6	1:5:2059:C:C5	2.80	0.69
1:5:4199:C:O5'	1:5:4199:C:C6	2.45	0.69
49:S2:977:C:N3	49:S2:978:G:C8	2.60	0.69
1:5:917:A:N1	1:5:919:C:C5	2.60	0.69
1:5:4878:C:O2	1:5:4879:C:C6	2.45	0.69
7:D:210:TYR:OH	7:D:214:GLU:CG	2.41	0.69
1:5:125:C:C2	1:5:126:C:C6	2.81	0.69
49:S2:1126:G:N2	49:S2:1127:C:C2	2.61	0.69
58:SI:34:ALA:HB2	58:SI:56:ARG:HD3	1.74	0.69
1:5:2721:G:H2'	1:5:2722:G:H5'	1.75	0.69
1:5:4605:A:C6	48:4:801:ARG:HB2	2.28	0.69
1:5:1447:C:C2	1:5:2098:G:C2	2.80	0.69
1:5:1724:G:H21	9:F:105:PRO:CB	2.04	0.69
1:5:2685:C:H2'	1:5:2686:G:O4'	1.91	0.69
1:5:1188:C:N3	1:5:1189:G:C8	2.60	0.69
49:S2:1537:A:O2'	49:S2:1604:G:H5'	1.92	0.69
49:S2:1283:C:H2'	49:S2:1283:C:O2	1.92	0.69
48:4:420:LEU:HB3	48:4:465:PRO:HA	1.72	0.69
1:5:3653:A:C2	1:5:3692:A:H4'	2.27	0.69
1:5:272:U:C2	1:5:273:U:H5	2.10	0.69
49:S2:994:C:O2	49:S2:995:G:C8	2.45	0.69
3:8:100:U:N3	3:8:101:C:C5	2.61	0.69
11:H:89:ARG:HH11	11:H:89:ARG:HG2	5.56	0.69
64:SO:150:ARG:HH21	64:SO:150:ARG:HG2	1.58	0.69
1:5:1204:C:C2	1:5:1205:G:C8	2.81	0.69
1:5:1751:A:H2'	1:5:1752:G:H5'	1.73	0.69
1:5:1771:U:C2	1:5:1772:C:C6	2.81	0.69
49:S2:600:G:C2	49:S2:601:G:C5	2.80	0.69
1:5:1346:C:C2	1:5:1347:G:C8	2.80	0.69
49:S2:140:C:N4	49:S2:176:U:O2	2.18	0.69
48:4:120:ARG:HH11	48:4:496:VAL:HA	1.57	0.69
48:4:45:ILE:HG21	48:4:77:LEU:CA	2.21	0.69
1:5:1218:G:C6	1:5:1219:G:C1'	2.75	0.69
1:5:2024:G:O2'	1:5:2025:A:OP2	2.11	0.69
1:5:2743:A:N3	1:5:2744:A:C8	2.60	0.69
14:K:34:PRO:HD2	14:K:35:LEU:H	1.57	0.69
1:5:90:G:N7	1:5:92:C:N1	2.41	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:SU:65:THR:O	70:SU:77:TRP:HB3	1.92	0.69
49:S2:1030:A:C2	49:S2:1031:A:C5	2.81	0.69
1:5:1598:C:C2'	1:5:1598:C:O2	2.39	0.69
48:4:420:LEU:HD23	48:4:420:LEU:H	1.58	0.69
48:4:408:GLY:HA2	49:S2:479:C:C5'	2.23	0.69
1:5:2494:U:C2	1:5:2495:U:C6	2.81	0.69
49:S2:752:G:C6	49:S2:790:C:N4	2.60	0.69
1:5:4743:G:N1	1:5:4744:A:C5	2.61	0.69
1:5:2735:G:C2	1:5:2736:G:N7	2.61	0.69
10:G:169:PHE:CE2	17:N:6:TYR:CB	2.75	0.69
7:D:223:PHE:HB2	7:D:226:TYR:HB2	1.73	0.69
1:5:924:C:H2'	1:5:925:C:O4'	1.92	0.69
48:4:744:ILE:HD11	48:4:816:HIS:ND1	2.08	0.69
1:5:1545:G:C2	1:5:1546:C:C4	2.81	0.69
1:5:1867:A:OP1	12:I:13:LYS:NZ	2.24	0.69
1:5:992:C:C2	1:5:993:G:C8	2.81	0.69
1:5:1084:C:N3	1:5:1085:C:C5	2.61	0.69
1:5:1267:C:C5'	1:5:2110:C:O2	2.39	0.69
1:5:1878:G:C2	1:5:1879:C:C4	2.80	0.69
1:5:1899:G:N2	1:5:1900:C:N1	2.40	0.69
1:5:1994:C:N3	1:5:1995:G:N7	2.41	0.69
1:5:2445:C:H2'	1:5:2445:C:O2	1.93	0.69
1:5:961:G:N3	1:5:961:G:C2'	2.55	0.69
49:S2:443:U:C4	49:S2:444:G:C8	2.80	0.69
49:S2:1083:A:N3	49:S2:1859:A:O2'	2.22	0.69
1:5:3730:U:N3	1:5:3731:C:C5	2.61	0.69
1:5:86:U:O4	1:5:97:G:C2	2.44	0.69
5:B:175:GLN:HE21	5:B:179:HIS:HE1	1.41	0.69
49:S2:950:C:N3	49:S2:951:C:C5	2.61	0.69
49:S2:1406:G:H2'	49:S2:1407:U:C4'	2.23	0.69
1:5:4277:G:N3	1:5:4278:C:C6	2.61	0.69
1:5:4281:A:H2'	1:5:4282:A:H2'	1.74	0.69
1:5:1563:A:H62	49:S2:1028:A:N6	1.81	0.69
1:5:422:C:C2	1:5:423:G:C8	2.81	0.69
49:S2:598:G:C2	49:S2:639:C:N3	2.61	0.69
49:S2:1093:A:H4'	72:SW:3:ARG:HH22	1.58	0.69
49:S2:557:U:H2'	49:S2:558:G:O4'	1.93	0.69
1:5:3773:U:H3	1:5:3774:A:H2'	1.58	0.69
49:S2:797:C:H4'	49:S2:798:A:OP1	1.91	0.69
1:5:3635:A:N7	1:5:3636:C:C6	2.61	0.69
1:5:491:G:C2	1:5:492:U:C5	2.80	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:658:C:N3	1:5:659:G:N7	2.41	0.69
1:5:3878:C:O2	5:B:258:HIS:CE1	2.43	0.69
1:5:4561:C:O2	1:5:4562:C:C6	2.45	0.69
49:S2:1022:U:H6	63:SN:128:TYR:HE2	1.39	0.69
1:5:4099:G:C6	1:5:4100:C:C4	2.81	0.69
1:5:2424:G:H2'	1:5:2426:U:C5	2.27	0.69
49:S2:882:U:H2'	49:S2:883:U:O4'	1.91	0.69
49:S2:804:U:C2	49:S2:805:U:C5	2.80	0.69
49:S2:608:C:C2	49:S2:609:U:C6	2.80	0.69
1:5:3656:A:C4'	1:5:3747:A:C2	2.76	0.69
49:S2:625:G:O4'	49:S2:629:A:C2	2.46	0.69
24:U:38:ASN:O	24:U:90:TYR:OH	2.10	0.69
10:G:260:GLU:OE1	51:SB:57:ILE:HD13	1.93	0.69
1:5:930:G:N3	1:5:931:C:C6	2.61	0.69
11:H:117:PHE:CD1	11:H:118:LEU:HB2	2.28	0.69
1:5:1282:G:N7	8:E:124:HIS:CE1	2.61	0.69
1:5:2316:G:N2	1:5:2317:C:C2	2.61	0.69
1:5:4167:G:N1	1:5:4168:G:N7	2.41	0.69
1:5:4302:U:C5	1:5:4303:C:C6	2.80	0.69
1:5:957:G:OP2	1:5:1284:G:N2	2.23	0.69
49:S2:118:C:C5	49:S2:119:U:C5	2.80	0.69
48:4:592:LEU:HB2	48:4:603:TYR:CD2	2.28	0.69
48:4:683:PHE:CD1	48:4:729:LEU:HD21	2.28	0.69
49:S2:220:U:N3	49:S2:221:A:C8	2.61	0.69
49:S2:449:A:C2	49:S2:452:G:C8	2.81	0.69
1:5:290:U:C2	1:5:291:U:C5	2.81	0.69
3:8:9:A:C2	3:8:10:G:C8	2.80	0.69
3:8:14:U:H2'	3:8:15:G:C8	2.28	0.69
49:S2:830:A:N6	49:S2:844:U:C2	2.60	0.69
1:5:1629:G:C2	1:5:1631:A:N1	2.61	0.69
49:S2:926:A:C6	49:S2:927:C:C4	2.80	0.69
49:S2:927:C:O2	49:S2:928:G:C8	2.46	0.69
1:5:2033:A:C2	1:5:2034:G:C8	2.80	0.69
1:5:1632:A:N6	1:5:1634:A:C4	2.61	0.69
1:5:1840:G:C2'	1:5:1842:G:O5'	2.41	0.69
1:5:146:G:N3	1:5:147:A:C8	2.60	0.69
49:S2:1786:U:N3	49:S2:1787:G:N7	2.40	0.69
1:5:4550:G:C2	1:5:4551:U:C6	2.80	0.69
1:5:4549:G:N1	1:5:4550:G:N7	2.40	0.69
49:S2:403:G:C6	49:S2:404:G:N7	2.60	0.69
49:S2:321:C:C2	49:S2:322:C:C5	2.80	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1272:C:O2'	1:5:1273:G:C4	2.46	0.69
1:5:2077:C:N3	1:5:2078:C:C5	2.61	0.69
1:5:2282:A:H2'	1:5:2283:G:C5'	2.22	0.69
1:5:2744:A:H2'	1:5:2745:A:C8	2.28	0.69
49:S2:339:A:N1	49:S2:340:C:N4	2.41	0.69
49:S2:83:A:C2	49:S2:84:A:H1'	2.27	0.69
49:S2:1397:U:C5	49:S2:1442:U:H4'	2.28	0.69
49:S2:1540:G:C2	49:S2:1541:G:C5	2.81	0.69
49:S2:638:C:C2	49:S2:639:C:C5	2.81	0.69
49:S2:1093:A:C6	49:S2:1094:C:C5	2.81	0.69
49:S2:475:C:C4	49:S2:476:A:N7	2.61	0.69
1:5:483:G:N1	1:5:484:U:C4	2.61	0.69
49:S2:994:C:C2	49:S2:995:G:H8	2.09	0.69
49:S2:999:G:C2	49:S2:1000:C:N1	2.61	0.69
7:D:29:ASP:HB3	7:D:31:TYR:O	1.92	0.69
48:4:296:PRO:HA	48:4:299:LYS:HE2	1.74	0.69
49:S2:848:U:O2	49:S2:849:A:C5	2.45	0.69
49:S2:1775:U:C2	49:S2:1776:G:C8	2.81	0.69
48:4:649:ILE:HD11	48:4:652:PHE:HE1	1.57	0.69
1:5:3656:A:O4'	1:5:3747:A:C2	2.45	0.69
1:5:2248:C:O2	1:5:2248:C:H2'	1.92	0.69
48:4:475:VAL:HG12	48:4:475:VAL:O	1.92	0.69
1:5:2627:C:C5	1:5:2628:U:C5	2.81	0.69
1:5:4070:U:N3	1:5:4071:U:C5	2.60	0.69
1:5:2076:G:C6	1:5:2077:C:C5	2.81	0.68
1:5:2270:G:C4	1:5:2271:C:C5	2.82	0.68
1:5:3670:C:O2'	1:5:3671:G:C8	2.46	0.68
9:F:149:LEU:CA	9:F:197:TYR:OH	2.41	0.68
49:S2:340:C:H2'	49:S2:341:C:C6	2.28	0.68
49:S2:951:C:C2	49:S2:952:G:C8	2.80	0.68
49:S2:1413:G:C6	49:S2:1414:A:C8	2.80	0.68
1:5:424:U:H2'	1:5:424:U:O2	1.93	0.68
49:S2:594:A:O5'	49:S2:594:A:H8	1.75	0.68
1:5:5005:G:C5	26:W:51:TRP:HD1	2.11	0.68
49:S2:53:C:H2'	49:S2:53:C:O2	1.93	0.68
1:5:3635:A:C6	1:5:3636:C:H1'	2.28	0.68
1:5:3692:A:N7	1:5:3693:U:C6	2.60	0.68
1:5:494:U:N3	1:5:495:C:C5	2.61	0.68
1:5:4229:U:C4	1:5:4230:C:C4	2.81	0.68
1:5:909:A:N1	1:5:910:G:C8	2.62	0.68
1:5:195:C:O2	1:5:195:C:H2'	1.92	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:187:U:C5	1:5:245:C:N3	2.61	0.68
1:5:4152:G:N2	1:5:4153:C:C2	2.61	0.68
48:4:144:ARG:O	48:4:147:ILE:HG22	1.93	0.68
48:4:74:ALA:O	48:4:75:ILE:CD1	2.37	0.68
1:5:2089:G:O2'	1:5:2090:U:O2	2.11	0.68
1:5:1269:G:C4	1:5:2111:G:N1	2.61	0.68
1:5:2294:G:C2	1:5:2295:C:C4	2.80	0.68
1:5:468:U:O2	1:5:469:C:O4'	2.10	0.68
14:K:131:GLU:CG	14:K:155:ILE:HD11	2.11	0.68
14:K:22:VAL:HG22	14:K:48:LYS:HG3	1.76	0.68
49:S2:81:U:C4	49:S2:82:G:C8	2.81	0.68
1:5:4345:C:C2	1:5:4346:U:C5	2.81	0.68
1:5:2371:U:H2'	1:5:2372:U:H5'	1.73	0.68
1:5:3759:A:H61	49:S2:1709:G:C5'	2.07	0.68
1:5:3629:A:C2'	49:S2:1721:U:N3	2.53	0.68
1:5:2688:G:N1	1:5:2689:C:C4	2.61	0.68
1:5:488:G:N1	1:5:489:C:C4	2.61	0.68
1:5:491:G:N2	1:5:663:G:C6	2.60	0.68
1:5:4093:G:H3'	1:5:4094:G:C5'	2.23	0.68
1:5:1093:C:C2	1:5:1094:G:C8	2.81	0.68
1:5:2741:U:O2'	4:A:50:HIS:HB3	1.93	0.68
49:S2:1760:G:C2	49:S2:1773:C:C2	2.81	0.68
5:B:323:TYR:HB3	5:B:342:LYS:HG2	1.74	0.68
1:5:4871:C:C4	22:S:176:PHE:CD2	2.81	0.68
1:5:4871:C:C5	22:S:176:PHE:CE2	2.81	0.68
63:SN:38:TYR:OH	63:SN:78:LYS:HG3	1.92	0.68
61:SL:44:PHE:CE2	61:SL:143:LEU:HD23	2.27	0.68
50:SA:39:TYR:OH	67:SR:104:GLU:HB2	1.94	0.68
1:5:2279:A:N3	1:5:2279:A:H2'	2.07	0.68
14:K:93:LYS:O	14:K:94:LYS:CB	2.40	0.68
14:K:94:LYS:HA	14:K:96:LYS:HD2	1.75	0.68
49:S2:43:U:O2	49:S2:484:A:N1	2.26	0.68
1:5:287:U:O2	1:5:288:G:C8	2.47	0.68
1:5:278:G:N1	1:5:330:G:C8	2.61	0.68
49:S2:1280:G:C6	49:S2:1281:G:C8	2.81	0.68
49:S2:1111:U:C2	49:S2:1112:U:H5	2.05	0.68
1:5:2498:C:C2	1:5:2499:C:C6	2.82	0.68
4:A:209:HIS:NE2	4:A:235:VAL:HG11	2.08	0.68
1:5:2529:A:N7	1:5:2532:C:C4	2.61	0.68
49:S2:104:A:C5	49:S2:105:U:C6	2.82	0.68
1:5:1759:G:C6	1:5:1760:G:N7	2.61	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:938:C:H2'	1:5:939:G:C8	2.27	0.68
49:S2:579:C:N3	49:S2:580:U:C6	2.62	0.68
1:5:2041:A:C2	1:5:4464:A:C5	2.82	0.68
17:N:162:ARG:HH21	17:N:164:LEU:HD11	1.58	0.68
57:SH:177:TYR:CE2	57:SH:185:VAL:HG21	2.27	0.68
48:4:756:VAL:HG21	48:4:782:PHE:CD2	2.29	0.68
48:4:745:TYR:CD1	48:4:813:VAL:O	2.46	0.68
48:4:745:TYR:HD2	48:4:814:PHE:HA	1.53	0.68
1:5:1269:G:N7	1:5:2111:G:C5	2.61	0.68
1:5:2316:G:N1	1:5:2317:C:C4	2.61	0.68
48:4:691:ALA:HB2	48:4:730:TYR:CA	2.10	0.68
49:S2:1394:G:O2'	66:SQ:124:PRO:O	2.11	0.68
1:5:1358:G:C4	1:5:1359:G:N7	2.62	0.68
1:5:66:A:C2	1:5:312:G:C1'	2.76	0.68
1:5:3736:A:O2'	1:5:3737:A:O4'	2.11	0.68
49:S2:1565:C:C2	49:S2:1571:G:C2	2.81	0.68
1:5:4287:G:O2'	1:5:4288:C:O5'	2.10	0.68
1:5:481:G:C2	1:5:482:G:C8	2.82	0.68
49:S2:993:G:C4	49:S2:994:C:C6	2.81	0.68
22:S:95:ARG:NH1	22:S:97:TYR:OH	2.21	0.68
1:5:4258:C:C2	1:5:4259:C:C6	2.82	0.68
1:5:5021:C:C2	1:5:5022:U:C6	2.82	0.68
1:5:4763:U:O2	16:M:3:PHE:CE2	2.46	0.68
49:S2:1049:A:C5	49:S2:1070:A:C2	2.81	0.68
1:5:4879:C:O2	1:5:4880:C:C6	2.45	0.68
1:5:1744:U:C2	1:5:1745:G:C8	2.81	0.68
48:4:137:VAL:CG1	48:4:807:GLN:HE22	2.05	0.68
1:5:2633:U:C2	1:5:2634:C:C6	2.81	0.68
1:5:642:G:N1	1:5:643:C:C4	2.61	0.68
1:5:2891:U:C5	21:R:74:ARG:NH1	2.61	0.68
1:5:4189:U:H1'	1:5:4380:A:C2	2.28	0.68
7:D:125:VAL:O	7:D:196:ARG:NH2	2.27	0.68
1:5:73:A:C2	1:5:74:G:C8	2.81	0.68
1:5:1243:C:O2	1:5:1269:G:N3	2.26	0.68
1:5:1848:C:H6	1:5:1848:C:H5"	1.58	0.68
1:5:2108:G:H2'	1:5:2109:G:H4'	1.76	0.68
14:K:105:THR:O	14:K:106:PHE:CD2	2.46	0.68
14:K:34:PRO:HD2	14:K:35:LEU:N	2.08	0.68
56:SG:215:LYS:O	56:SG:219:GLU:N	2.27	0.68
49:S2:1545:A:O2'	49:S2:1546:G:H8	1.72	0.68
49:S2:1606:G:N1	49:S2:1632:G:C2	2.61	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:649:U:H2'	49:S2:649:U:O2	1.91	0.68
49:S2:1137:U:H3	49:S2:1148:A:H61	1.41	0.68
49:S2:52:G:C5	49:S2:53:C:C6	2.81	0.68
1:5:2485:U:C2	1:5:2486:G:C8	2.82	0.68
1:5:209:U:C5	1:5:211:G:C8	2.82	0.68
1:5:917:A:C5	1:5:919:C:N4	2.62	0.68
1:5:2095:A:N6	9:F:41:GLN:OE1	2.26	0.68
1:5:4735:G:C2	1:5:4736:C:C6	2.81	0.68
17:N:138:PHE:HB3	17:N:143:ARG:NH2	2.08	0.68
5:B:118:PHE:CB	5:B:119:TYR:CE1	2.75	0.68
1:5:909:A:C2	1:5:910:G:N9	2.61	0.68
1:5:2305:U:H4'	1:5:2306:G:OP2	1.93	0.68
1:5:1811:G:N3	1:5:1812:C:C6	2.62	0.68
48:4:228:PHE:CD2	48:4:293:ILE:HG12	2.28	0.68
49:S2:1658:G:N1	49:S2:1664:A:N6	2.42	0.68
1:5:442:G:H2'	1:5:443:G:O5'	1.92	0.68
15:L:69:LYS:HA	15:L:159:ASN:HD21	1.59	0.68
48:4:756:VAL:CG2	48:4:782:PHE:CB	2.69	0.68
48:4:42:LYS:HE2	48:4:79:TYR:HH	1.52	0.68
1:5:1080:C:C4	1:5:1081:C:C5	2.82	0.68
1:5:1249:C:C2	1:5:1262:G:C2	2.81	0.68
1:5:4623:G:H4'	5:B:16:PHE:CE2	2.28	0.68
48:4:709:LEU:HD13	48:4:716:ARG:HD2	1.76	0.68
48:4:33:SER:CB	48:4:57:THR:HG21	2.24	0.68
49:S2:377:G:N1	49:S2:378:U:C5	2.62	0.68
49:S2:378:U:C2	49:S2:379:C:C5	2.77	0.68
1:5:99:A:C2	1:5:100:C:C2	2.82	0.68
1:5:3857:G:C6	1:5:3858:C:C4	2.81	0.68
49:S2:1575:G:N2	49:S2:1576:G:C5	2.62	0.68
1:5:4284:C:C2	1:5:4285:U:H5	2.07	0.68
1:5:4286:C:O2	1:5:4287:G:N7	2.27	0.68
2:7:60:G:C6	2:7:61:G:N7	2.61	0.68
49:S2:1133:A:N1	49:S2:1134:G:C5	2.62	0.68
49:S2:1643:U:HO2'	49:S2:1644:C:P	2.17	0.68
55:SF:71:ARG:NH1	55:SF:148:ASN:OD1	2.25	0.68
1:5:5035:U:C4	1:5:5036:C:C5	2.81	0.68
49:S2:164:A:O2'	49:S2:165:G:H5'	1.93	0.68
49:S2:752:G:N1	49:S2:791:C:C2	2.62	0.68
1:5:3811:G:H4'	1:5:3812:C:OP2	1.93	0.68
1:5:669:C:C2	1:5:670:G:C8	2.81	0.68
49:S2:993:G:N1	49:S2:994:C:C5	2.62	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1934:A:O2'	1:5:2059:C:OP1	2.11	0.68
1:5:916:C:C4	1:5:917:A:N7	2.62	0.68
1:5:247:G:N2	1:5:248:C:C2	2.62	0.68
1:5:4707:A:H2'	1:5:4708:A:O5'	1.93	0.68
1:5:1412:G:C2	1:5:1413:C:C6	2.81	0.68
49:S2:1049:A:C6	49:S2:1070:A:N3	2.62	0.68
1:5:2567:G:N2	1:5:2568:C:C2	2.62	0.68
1:5:1744:U:N3	1:5:1745:G:C8	2.62	0.68
10:G:136:LEU:HD21	10:G:204:PHE:CE1	2.28	0.68
48:4:113:SER:OG	48:4:533:MET:HB3	1.93	0.68
1:5:1694:C:N3	1:5:1695:U:C5	2.62	0.68
1:5:1995:G:C4'	14:K:132:ILE:HD11	2.24	0.68
1:5:2093:A:N3	1:5:2093:A:H5"	2.09	0.68
14:K:117:ARG:HE	14:K:117:ARG:HA	1.45	0.68
14:K:22:VAL:HG22	14:K:48:LYS:CB	2.22	0.68
14:K:94:LYS:CA	14:K:95:GLN:C	2.54	0.68
49:S2:436:G:C6	49:S2:458:A:C2	2.82	0.68
49:S2:440:G:OP1	49:S2:1798:C:O2'	2.11	0.68
49:S2:71:G:H3'	49:S2:72:C:C5'	2.24	0.68
49:S2:1051:G:N1	49:S2:1052:A:C5	2.62	0.68
1:5:1358:G:C2	1:5:1359:G:O6	2.47	0.68
14:K:161:GLU:C	14:K:163:PRO:HD3	2.14	0.68
49:S2:1512:C:O2	49:S2:1513:C:C6	2.46	0.68
49:S2:1666:C:O2	49:S2:1667:U:C6	2.47	0.68
49:S2:648:A:N1	49:S2:649:U:C5	2.62	0.68
49:S2:1295:A:C4	49:S2:1296:U:H1'	2.29	0.68
48:4:420:LEU:H	48:4:420:LEU:CD2	2.06	0.68
49:S2:794:A:C2	49:S2:795:A:N9	2.60	0.68
3:8:125:C:C2	3:8:125:C:C5'	2.76	0.68
1:5:659:G:C6	1:5:660:A:N7	2.62	0.68
1:5:28:C:N3	1:5:29:G:C8	2.62	0.68
1:5:4256:A:N7	13:J:60:PHE:CZ	2.61	0.68
1:5:750:U:C2	1:5:751:G:C8	2.82	0.68
8:E:145:ILE:HD11	8:E:267:LEU:HD21	1.76	0.68
1:5:1807:C:C2	1:5:1808:C:C6	2.81	0.68
49:S2:580:U:O2	49:S2:580:U:H2'	1.92	0.68
1:5:1387:A:N3	1:5:1397:A:N6	2.41	0.68
49:S2:695:C:C2	49:S2:696:G:C8	2.81	0.68
1:5:4069:U:H2'	1:5:4070:U:C5	2.29	0.68
1:5:1297:U:O4'	1:5:1297:U:OP2	2.11	0.68
1:5:1595:G:C2	1:5:4557:U:H4'	2.28	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:719:C:C2	1:5:720:G:C8	2.81	0.68
48:4:505:VAL:HB	48:4:548:GLY:O	1.94	0.68
1:5:1553:A:C2	1:5:1575:A:H1'	2.28	0.68
1:5:2463:G:N3	1:5:2464:C:C5	2.62	0.68
48:4:41:CYS:SG	48:4:49:ALA:CB	2.82	0.68
49:S2:1406:G:H2'	49:S2:1407:U:H1'	1.76	0.68
49:S2:1273:C:N3	49:S2:1506:A:N3	2.41	0.68
49:S2:1308:U:C2	49:S2:1309:C:C5	2.82	0.68
49:S2:831:G:C2	49:S2:844:U:C4	2.82	0.68
1:5:656:C:N3	1:5:657:C:C5	2.61	0.68
1:5:33:A:N6	1:5:50:C:C2	2.62	0.68
1:5:43:U:OP1	17:N:85:VAL:HG23	1.94	0.68
1:5:4095:G:H2'	1:5:4096:C:H6	1.58	0.68
49:S2:956:G:C2	49:S2:957:A:C5	2.82	0.68
48:4:264:ARG:O	48:4:288:THR:HG22	1.94	0.68
49:S2:588:G:C1'	49:S2:589:G:H21	2.05	0.68
1:5:2904:U:O2	1:5:2905:C:C6	2.46	0.68
1:5:4627:U:C2	1:5:4628:U:C6	2.82	0.68
2:7:110:G:C2	2:7:111:C:C6	2.81	0.68
2:7:112:U:H2'	2:7:112:U:O2	1.94	0.68
3:8:35:C:O5'	3:8:35:C:H6	1.77	0.68
3:8:106:G:N2	3:8:107:C:C2	2.62	0.68
6:C:9:SER:HA	6:C:21:ASN:OD1	1.92	0.68
10:G:227:ASN:N	10:G:227:ASN:HD22	1.91	0.68
48:4:432:PRO:HB3	48:4:497:MET:CE	2.24	0.68
48:4:541:SER:C	48:4:543:GLU:HG3	2.08	0.68
1:5:1266:G:H4'	1:5:2112:G:C4	2.28	0.68
1:5:4174:U:O2	1:5:4175:G:H8	1.76	0.68
1:5:465:G:C2	1:5:466:A:C8	2.82	0.68
1:5:4460:U:OP1	5:B:10:ARG:NH1	2.27	0.68
48:4:849:PRO:O	48:4:849:PRO:HD2	1.92	0.68
1:5:316:U:H2'	1:5:316:U:O2	1.94	0.68
1:5:1170:G:C2	1:5:1192:C:C2	2.82	0.68
49:S2:951:C:N3	49:S2:952:G:N7	2.42	0.68
49:S2:1568:C:H2'	49:S2:1569:A:C8	2.29	0.68
2:7:17:C:C2	2:7:18:C:C5	2.81	0.68
2:7:56:G:C2'	2:7:57:C:O5'	2.42	0.68
1:5:3688:U:N3	1:5:3689:G:N7	2.41	0.68
1:5:2726:G:C2	1:5:2727:C:C5	2.82	0.68
1:5:4094:G:C2'	1:5:4095:G:O4'	2.38	0.68
1:5:4096:C:N4	1:5:4097:G:C8	2.61	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:5028:G:C4	1:5:5029:C:C5	2.82	0.68
8:E:184:ARG:HD3	8:E:213:PHE:HB3	1.76	0.68
1:5:1201:U:N3	1:5:1202:C:C5	2.62	0.68
49:S2:965:U:O2	49:S2:1066:U:H1'	1.94	0.68
49:S2:806:U:O2	49:S2:807:G:C8	2.45	0.68
49:S2:1348:G:C2	49:S2:1349:G:C8	2.82	0.68
49:S2:828:G:C6	49:S2:829:C:C5	2.81	0.68
1:5:21:G:C6	3:8:36:G:N2	2.62	0.68
1:5:4121:G:N2	4:A:85:GLY:N	2.42	0.68
49:S2:1501:C:N3	49:S2:1502:C:C5	2.62	0.68
49:S2:1342:U:C4	49:S2:1483:A:C5	2.82	0.68
1:5:4069:U:H2'	1:5:4070:U:C6	2.29	0.68
1:5:2874:U:H5'	1:5:2874:U:C6	2.29	0.68
69:ST:13:GLU:HA	69:ST:16:ARG:HG3	1.75	0.68
1:5:1877:G:C2	1:5:1878:G:C8	2.82	0.68
1:5:1967:A:N1	1:5:1968:G:C5	2.62	0.68
1:5:1973:G:O6	1:5:2002:A:C8	2.46	0.68
1:5:2263:A:O3'	1:5:2264:C:H6	1.74	0.68
49:S2:436:G:N3	49:S2:437:G:C8	2.62	0.68
49:S2:436:G:C2	49:S2:437:G:N7	2.61	0.68
49:S2:1366:G:N2	49:S2:1374:C:N3	2.42	0.68
1:5:1175:A:C6	1:5:1176:C:C5	2.81	0.68
49:S2:1422:G:H22	49:S2:1424:G:H3'	1.58	0.68
1:5:1939:A:C2	1:5:3874:G:OP1	2.47	0.68
3:8:68:G:H2'	3:8:69:U:O4'	1.93	0.68
3:8:94:G:H4'	3:8:95:A:OP1	1.93	0.68
1:5:2857:A:N3	1:5:2858:A:C5	2.62	0.68
49:S2:1017:U:C2	49:S2:1018:U:C6	2.82	0.68
49:S2:925:G:N1	49:S2:926:A:C8	2.59	0.68
1:5:4091:G:C6	1:5:4092:G:N7	2.62	0.68
3:8:43:A:C2	3:8:44:A:N7	2.62	0.68
1:5:1413:C:C2	1:5:1414:C:C5	2.82	0.68
5:B:100:ARG:HH21	5:B:101:THR:C	1.98	0.68
49:S2:580:U:C4	49:S2:581:U:C5	2.82	0.68
1:5:122:U:H1'	1:5:152:U:O2	1.93	0.68
1:5:4490:C:N3	1:5:4491:G:N7	2.42	0.68
1:5:2524:U:H5"	1:5:2711:G:C2	2.28	0.68
68:SS:124:ARG:HH11	68:SS:124:ARG:HG2	1.57	0.68
48:4:767:ARG:NH2	48:4:789:PRO:HG2	2.10	0.67
1:5:2458:C:H5'	17:N:67:ARG:HD3	1.76	0.67
1:5:445:U:O4'	1:5:2313:A:C2	2.47	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:976:G:C4	1:5:977:C:C6	2.82	0.67
49:S2:1204:A:C4	49:S2:1205:C:C5	2.81	0.67
1:5:1421:G:N2	1:5:1422:G:C4	2.62	0.67
1:5:289:C:C2	1:5:290:U:C6	2.81	0.67
1:5:3740:G:O6	1:5:3741:C:C5	2.45	0.67
1:5:65:A:C2	1:5:76:A:H4'	2.29	0.67
1:5:86:U:O2	1:5:87:A:N7	2.27	0.67
5:B:235:TRP:HD1	5:B:267:ALA:HA	1.59	0.67
49:S2:1630:A:C2	49:S2:1631:U:C6	2.82	0.67
1:5:1936:C:C4	2:7:84:U:C5	2.81	0.67
49:S2:552:G:C4	49:S2:553:U:C5	2.82	0.67
49:S2:154:U:H1'	56:SG:13:GLN:HG2	1.76	0.67
1:5:1631:A:C2	4:A:204:MET:SD	2.87	0.67
1:5:2612:G:H2'	1:5:2613:C:O4'	1.95	0.67
49:S2:1248:U:C2'	49:S2:1249:C:O4'	2.42	0.67
1:5:2522:G:N2	1:5:2534:C:C2	2.63	0.67
3:8:134:G:N2	3:8:135:C:H1'	2.09	0.67
49:S2:1256:G:N7	53:SD:40:ARG:HD2	35.41	0.67
2:7:110:G:N1	2:7:111:C:C4	2.62	0.67
1:5:2811:G:N2	1:5:2813:A:C8	2.63	0.67
1:5:440:U:N3	1:5:441:G:N7	2.42	0.67
49:S2:870:A:H4'	49:S2:871:U:O5'	1.94	0.67
1:5:711:A:C2	1:5:712:C:C5	2.82	0.67
1:5:2745:A:O2'	1:5:2746:A:O5'	2.12	0.67
4:A:89:TYR:CB	4:A:100:ASN:HD21	2.06	0.67
48:4:691:ALA:HA	48:4:730:TYR:CG	2.28	0.67
49:S2:1794:C:N3	49:S2:1795:G:C8	2.62	0.67
49:S2:316:G:N1	49:S2:317:C:C4	2.62	0.67
49:S2:1840:U:C4	49:S2:1841:C:C5	2.83	0.67
1:5:3730:U:C2	1:5:3731:C:C6	2.82	0.67
1:5:4985:U:O2	5:B:174:ARG:NH1	2.28	0.67
1:5:1172:C:C2	1:5:1173:G:C8	2.82	0.67
49:S2:637:U:C2	49:S2:638:C:C6	2.82	0.67
49:S2:155:G:C2	49:S2:156:G:H1'	2.29	0.67
1:5:3878:C:C4	1:5:4518:A:C2	2.82	0.67
1:5:3905:A:C6	1:5:4449:A:N1	2.62	0.67
1:5:3912:U:C2'	1:5:3913:G:H5'	2.24	0.67
49:S2:604:A:N7	59:SJ:20:PHE:CE2	2.62	0.67
2:7:22:A:C2	2:7:23:A:N7	2.61	0.67
1:5:2714:G:C2	1:5:2715:G:N7	2.62	0.67
1:5:1287:G:C2	1:5:1289:C:C5	2.82	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:393:PRO:O	48:4:393:PRO:CD	2.42	0.67
11:H:117:PHE:HD1	11:H:117:PHE:C	1.97	0.67
1:5:4072:C:C2	1:5:4073:A:C8	2.82	0.67
48:4:751:CYS:SG	48:4:756:VAL:CG2	2.83	0.67
48:4:791:ASN:C	48:4:794:PHE:CE1	2.55	0.67
1:5:1217:G:O2'	1:5:1218:G:C8	2.47	0.67
1:5:1267:C:O2'	1:5:1271:G:O6	2.13	0.67
1:5:2453:A:C6	1:5:2454:U:C6	2.83	0.67
1:5:2745:A:O2'	1:5:2746:A:C5'	2.43	0.67
1:5:4123:C:H2'	1:5:4123:C:O2	1.92	0.67
14:K:62:LEU:HD13	14:K:64:ILE:HD11	1.76	0.67
49:S2:386:C:O2	49:S2:387:C:C6	2.47	0.67
48:4:154:VAL:CA	48:4:205:ILE:CD1	2.73	0.67
1:5:1171:G:C2	1:5:1191:C:C2	2.82	0.67
49:S2:1308:U:C2'	49:S2:1309:C:C6	2.68	0.67
49:S2:794:A:C4	49:S2:795:A:C8	2.82	0.67
3:8:115:G:C6	3:8:116:C:C5	2.83	0.67
3:8:125:C:C2	3:8:125:C:H5"	2.28	0.67
3:8:80:A:H2'	3:8:81:C:O2'	1.94	0.67
3:8:81:C:O2	3:8:82:A:O3'	2.13	0.67
3:8:83:C:H4'	3:8:85:U:O2	1.95	0.67
1:5:207:G:N2	1:5:383:A:C8	2.61	0.67
1:5:4369:A:N1	1:5:4370:G:C5	2.62	0.67
49:S2:1067:C:C4	49:S2:1068:G:C5	2.82	0.67
1:5:4911:A:H5"	5:B:100:ARG:HD3	1.77	0.67
49:S2:623:G:C6	49:S2:624:C:C5	2.81	0.67
57:SH:145:ARG:CD	72:SW:51:GLU:HG2	2.24	0.67
49:S2:1126:G:N1	49:S2:1127:C:C4	2.63	0.67
60:SK:95:ARG:NE	60:SK:95:ARG:HA	2.10	0.67
6:C:128:LEU:HD12	6:C:264:TYR:OH	1.95	0.67
1:5:2021:G:C6	1:5:2022:C:C4	2.82	0.67
1:5:2258:C:H2'	1:5:2258:C:O2	1.95	0.67
1:5:451:C:C4	1:5:1295:C:H2'	2.29	0.67
14:K:141:CYS:HA	14:K:148:PRO:HD3	1.77	0.67
14:K:15:LEU:HD11	14:K:60:VAL:CG1	2.25	0.67
14:K:64:ILE:HB	14:K:71:ILE:HD12	1.76	0.67
49:S2:81:U:C4	49:S2:82:G:C5	2.81	0.67
1:5:1489:G:C6	1:5:1490:G:C8	2.83	0.67
1:5:99:A:H4'	17:N:181:HIS:ND1	2.09	0.67
49:S2:1427:C:C2	49:S2:1428:G:N7	2.62	0.67
49:S2:1435:C:C4	49:S2:1436:C:C5	2.83	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1542:C:O2'	49:S2:1543:U:O5'	2.12	0.67
1:5:4233:A:N1	1:5:4290:U:C4	2.56	0.67
1:5:4112:C:C4	1:5:4113:U:C5	2.82	0.67
1:5:4745:G:C2'	1:5:4746:C:C6	2.77	0.67
49:S2:98:C:C2	49:S2:409:C:C5	2.82	0.67
1:5:1758:G:N2	1:5:1759:G:C4	2.63	0.67
1:5:1764:G:O6	1:5:1766:A:H5"	1.94	0.67
48:4:340:MET:HE2	48:4:340:MET:HA	1.75	0.67
66:SQ:53:GLU:OE1	66:SQ:85:ARG:NH2	2.27	0.67
48:4:79:TYR:CD2	48:4:351:LEU:HD12	2.19	0.67
1:5:1218:G:C6	1:5:1219:G:H1'	2.30	0.67
1:5:2325:C:O2	1:5:2326:G:H8	1.77	0.67
1:5:4075:U:O2	1:5:4076:G:N7	2.27	0.67
49:S2:119:U:C4	49:S2:120:U:C5	2.82	0.67
48:4:730:TYR:CB	48:4:854:PHE:CZ	2.77	0.67
49:S2:439:A:C2	49:S2:455:A:N1	2.63	0.67
49:S2:452:G:C4	49:S2:453:C:C5	2.82	0.67
49:S2:1052:A:C5	49:S2:1053:C:C5	2.82	0.67
49:S2:1840:U:O2	49:S2:1841:C:C6	2.47	0.67
1:5:1491:A:C4	1:5:1492:G:C8	2.82	0.67
1:5:1186:U:C4	1:5:1187:G:C5	2.83	0.67
1:5:4285:U:N3	1:5:4286:C:C5	2.62	0.67
2:7:19:C:N3	2:7:20:U:C5	2.62	0.67
2:7:59:G:C2	2:7:60:G:N9	2.62	0.67
48:4:10:ARG:HH22	48:4:465:PRO:HG3	1.60	0.67
49:S2:1112:U:H2'	49:S2:1113:A:O4'	1.95	0.67
1:5:2480:G:C2	1:5:2481:G:C8	2.83	0.67
7:D:29:ASP:HB3	7:D:32:ALA:HB3	1.76	0.67
1:5:2736:G:N3	1:5:2737:C:C6	2.62	0.67
1:5:1411:C:C2	1:5:1412:G:C8	2.82	0.67
8:E:157:ARG:HD2	8:E:266:TYR:CE1	2.28	0.67
1:5:4627:U:O2	1:5:4627:U:H2'	1.94	0.67
49:S2:663:C:N3	49:S2:664:A:C8	2.62	0.67
48:4:531:ASP:HB3	48:4:534:VAL:CG1	2.25	0.67
1:5:38:A:C6	1:5:41:C:C5	2.83	0.67
55:SF:91:ARG:HD2	66:SQ:46:THR:HG22	1.76	0.67
48:4:40:VAL:CA	48:4:43:ALA:HB2	2.24	0.67
1:5:1271:G:H3'	1:5:1272:C:O4'	1.94	0.67
1:5:1277:G:C6	1:5:1278:C:C5	2.83	0.67
1:5:2457:G:N2	1:5:2465:C:N3	2.43	0.67
1:5:449:C:N3	1:5:450:G:C8	2.62	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:444:G:N2	49:S2:446:G:H3'	2.10	0.67
49:S2:381:C:H6	49:S2:381:C:O5'	1.76	0.67
49:S2:439:A:H4'	49:S2:1799:G:H4'	1.75	0.67
1:5:4355:G:N2	1:5:4356:G:C5	2.62	0.67
1:5:68:U:C4	1:5:69:A:C8	2.83	0.67
74:SY:86:GLU:CB	74:SY:86:GLU:CD	2.63	0.67
49:S2:1231:C:O4'	49:S2:1665:G:C2	2.45	0.67
49:S2:1589:A:H2'	49:S2:1590:C:C6	2.29	0.67
49:S2:1287:A:C6	49:S2:1314:U:C4	2.83	0.67
55:SF:121:PRO:C	55:SF:146:ARG:HD2	2.15	0.67
48:4:322:LYS:NZ	48:4:322:LYS:HB2	2.08	0.67
49:S2:550:C:C2	49:S2:551:U:C5	2.83	0.67
1:5:1629:G:N2	1:5:1631:A:C2	2.63	0.67
3:8:118:C:N3	3:8:119:C:H5	1.90	0.67
1:5:3907:G:C4	1:5:4449:A:H1'	2.28	0.67
1:5:4097:G:N3	1:5:4098:A:C8	2.63	0.67
49:S2:854:A:H2'	49:S2:855:G:O4'	1.94	0.67
1:5:4729:A:C5'	1:5:4965:U:O2'	2.43	0.67
1:5:1408:G:H2'	1:5:1408:G:N3	2.10	0.67
1:5:1412:G:N3	1:5:1413:C:C6	2.62	0.67
48:4:228:PHE:HD1	48:4:232:TYR:CE2	2.12	0.67
25:V:20:LEU:HD21	25:V:101:ASN:ND2	2.09	0.67
1:5:2343:G:C2	6:C:101:MET:HE2	2.30	0.67
1:5:4956:A:C6	1:5:4957:C:C5	2.83	0.67
48:4:744:ILE:HD12	48:4:816:HIS:O	1.93	0.67
1:5:1263:A:C5	1:5:1264:C:C5	2.83	0.67
1:5:1245:C:C4	1:5:1269:G:O6	2.47	0.67
1:5:957:G:P	1:5:1284:G:C2	2.88	0.67
49:S2:300:U:C2	49:S2:301:A:C8	2.83	0.67
1:5:4984:C:N3	1:5:4985:U:C5	2.63	0.67
1:5:91:G:N7	1:5:93:G:C6	2.63	0.67
49:S2:1432:U:C2	49:S2:1433:C:C5	2.83	0.67
49:S2:1510:G:C6	49:S2:1511:U:C6	2.83	0.67
49:S2:1606:G:C2	49:S2:1632:G:C2	2.81	0.67
49:S2:1665:G:N7	69:ST:88:MET:HG3	2.09	0.67
1:5:4276:G:C5	1:5:4277:G:N7	2.63	0.67
3:8:11:C:C4	3:8:12:G:N7	2.59	0.67
1:5:2366:A:H2'	1:5:2367:A:C5'	2.24	0.67
1:5:2367:A:HO2'	1:5:2368:A:C5'	2.08	0.67
2:7:18:C:C4	2:7:19:C:H5	2.12	0.67
1:5:1887:G:N1	1:5:1890:G:O6	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3759:A:N6	49:S2:1709:G:C5'	2.58	0.67
1:5:3629:A:C4'	49:S2:1721:U:H3	2.08	0.67
4:A:211:PHE:CE1	4:A:219:ILE:HG23	2.29	0.67
3:8:91:A:H2'	3:8:92:U:O4'	1.94	0.67
1:5:4562:C:C2	1:5:4563:U:C6	2.83	0.67
49:S2:926:A:C5	49:S2:927:C:C5	2.82	0.67
1:5:4228:G:C5'	1:5:4229:U:O4'	2.43	0.67
1:5:4653:C:N3	1:5:4654:C:C5	2.63	0.67
1:5:699:C:N3	1:5:700:G:C8	2.62	0.67
48:4:585:GLU:CB	48:4:737:GLN:NE2	2.58	0.67
1:5:951:G:C2	1:5:952:G:N7	2.63	0.67
51:SB:66:VAL:HG22	51:SB:87:ILE:HG22	1.77	0.67
66:SQ:70:VAL:HG11	66:SQ:84:ILE:HG22	1.75	0.67
48:4:770:VAL:HG22	48:4:784:VAL:CG1	2.24	0.67
48:4:741:MET:HB2	48:4:818:GLN:O	1.95	0.67
1:5:1069:G:C2	1:5:1070:G:H1'	2.30	0.67
1:5:1241:C:N4	1:5:1270:A:O2'	2.27	0.67
1:5:4124:G:N2	10:G:43:GLN:O	2.28	0.67
1:5:2274:C:H5'	6:C:312:ARG:HB3	1.77	0.67
14:K:105:THR:HG22	14:K:144:ASP:N	2.09	0.67
1:5:4413:C:H3'	1:5:4414:A:H8	1.60	0.67
49:S2:114:G:H2'	49:S2:114:G:N3	2.09	0.67
49:S2:1841:C:C2	49:S2:1842:C:C5	2.82	0.67
49:S2:1849:G:H2'	49:S2:1850:A:C8	2.30	0.67
2:7:62:U:C2	2:7:64:G:C8	2.83	0.67
49:S2:1412:C:H2'	49:S2:1413:G:H8	1.58	0.67
49:S2:1538:C:C2	49:S2:1539:U:C6	2.83	0.67
49:S2:27:A:C2	49:S2:28:U:N1	2.63	0.67
49:S2:1149:A:C5	49:S2:1151:G:C8	2.83	0.67
3:8:64:U:N3	3:8:65:A:N6	2.43	0.67
1:5:2688:G:N2	1:5:2689:C:C2	2.63	0.67
7:D:29:ASP:CB	7:D:32:ALA:HB3	2.25	0.67
1:5:3899:G:H5"	5:B:257:TRP:CD1	2.30	0.67
1:5:2056:G:N1	1:5:2058:G:C5	2.62	0.67
1:5:3910:C:C2	1:5:3911:C:H5	2.07	0.67
49:S2:1039:C:C2	49:S2:1040:G:C8	2.83	0.67
1:5:1839:U:H3'	1:5:1840:G:N2	2.09	0.67
49:S2:525:A:H62	49:S2:588:G:H22	1.42	0.67
1:5:3796:U:HO2'	49:S2:1720:U:HO2'	1.42	0.67
1:5:4314:C:N3	1:5:4315:A:N7	2.43	0.67
1:5:1725:U:N3	1:5:1726:U:C5	2.63	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:609:U:N3	49:S2:610:G:N7	2.43	0.67
1:5:4939:C:O2	1:5:4939:C:H2'	1.94	0.67
49:S2:1687:C:N3	49:S2:1688:C:C5	2.62	0.67
49:S2:1599:U:C5	55:SF:164:ARG:HA	2.30	0.67
48:4:111:PHE:HB3	48:4:145:GLN:NE2	2.10	0.67
48:4:60:ARG:O	48:4:61:LYS:O	2.13	0.67
1:5:1268:G:C2	1:5:2111:G:N2	2.63	0.67
1:5:3674:G:C6	1:5:3675:G:N7	2.63	0.67
10:G:55:VAL:HB	10:G:57:TRP:NE1	2.09	0.67
14:K:20:GLY:CA	14:K:92:ARG:NH2	2.58	0.67
48:4:272:LYS:HD2	48:4:273:PHE:CE1	2.30	0.67
49:S2:118:C:C5	49:S2:119:U:C6	2.82	0.67
49:S2:440:G:H2'	49:S2:441:C:O4'	1.95	0.67
48:4:206:ASP:C	48:4:212:VAL:HG23	2.15	0.67
48:4:206:ASP:O	48:4:212:VAL:HB	1.94	0.67
1:5:1380:G:H2'	1:5:1382:G:N7	2.09	0.67
49:S2:1442:U:O2	49:S2:1442:U:H2'	1.95	0.67
49:S2:1591:C:N3	49:S2:1592:C:C6	2.62	0.67
1:5:2826:U:O2	1:5:2826:U:H2'	1.95	0.67
3:8:73:U:P	28:Y:75:ARG:HD2	2.35	0.67
1:5:2689:C:C2'	1:5:2689:C:O2	2.43	0.67
1:5:661:C:C2	1:5:662:C:C6	2.82	0.67
1:5:673:C:H2'	1:5:674:G:C8	2.30	0.67
1:5:270:U:O2	1:5:271:C:C6	2.47	0.67
48:4:449:ARG:HB3	48:4:473:VAL:HG11	1.74	0.67
9:F:168:ARG:HD2	9:F:211:TRP:CD1	2.30	0.67
1:5:4745:G:H21	1:5:4746:C:N4	1.93	0.67
1:5:2567:G:N3	1:5:2568:C:C6	2.63	0.67
1:5:1742:A:C2	1:5:1743:A:N7	2.63	0.67
1:5:1916:G:H21	1:5:2067:C:H1'	1.59	0.67
1:5:4136:G:C6	1:5:4137:C:C4	2.83	0.67
49:S2:358:C:O2	49:S2:358:C:H2'	1.94	0.67
1:5:218:A:H1'	1:5:219:G:H5"	1.76	0.67
64:SO:56:VAL:HA	64:SO:60:MET:HE2	1.76	0.67
49:S2:628:A:C2	53:SD:178:ARG:HD2	2.29	0.67
24:U:33:ILE:HD11	24:U:96:LEU:HD22	1.76	0.67
1:5:1079:C:N3	1:5:1080:C:C5	2.63	0.67
1:5:1260:G:N1	1:5:1261:G:C5	2.63	0.67
1:5:1355:G:C6	1:5:1385:G:C2	2.83	0.67
1:5:1542:U:N3	1:5:1543:G:C8	2.63	0.67
1:5:1672:U:H2'	1:5:1673:U:H6	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2279:A:N3	1:5:2280:G:N7	2.43	0.67
1:5:2293:U:H2'	1:5:2293:U:O2	1.95	0.67
1:5:2314:G:C2	1:5:2315:G:C5	2.80	0.67
1:5:4223:C:H5'	12:I:119:PHE:CD2	2.30	0.67
48:4:41:CYS:HA	48:4:49:ALA:HB2	1.77	0.67
48:4:55:ARG:HD2	48:4:56:PHE:HB2	1.77	0.67
48:4:155:LEU:HD12	48:4:185:VAL:HG21	1.77	0.67
1:5:332:C:H4'	17:N:150:TRP:CD1	2.30	0.67
49:S2:1405:A:O4'	49:S2:1580:A:C5	2.48	0.67
49:S2:1029:G:C2	49:S2:1030:A:C8	2.83	0.67
1:5:2428:A:C4	1:5:2789:A:H2	2.12	0.67
49:S2:632:C:O2	49:S2:632:C:H2'	1.95	0.67
48:4:10:ARG:HH22	48:4:465:PRO:CG	2.08	0.67
1:5:3879:G:N7	1:5:3882:C:N4	2.43	0.67
1:5:3772:U:N3	1:5:3773:U:C5	2.62	0.67
3:8:73:U:C4	3:8:74:U:N1	2.62	0.67
3:8:73:U:C4	3:8:74:U:C6	2.82	0.67
1:5:504:G:C6	1:5:654:C:N3	2.63	0.67
49:S2:995:G:N2	49:S2:996:A:O2'	2.28	0.67
2:7:8:G:OP1	7:D:33:ARG:NH2	2.28	0.67
1:5:50:C:H2'	1:5:51:A:O5'	1.94	0.67
1:5:4745:G:N2	1:5:4746:C:N4	2.43	0.67
1:5:4071:U:N3	1:5:4072:C:C5	2.63	0.67
49:S2:355:G:OP2	61:SL:107:LYS:NZ	2.28	0.67
1:5:1438:U:O2	1:5:2099:G:C5	2.49	0.66
1:5:4174:U:C2	1:5:4175:G:N7	2.62	0.66
9:F:73:MET:HB3	9:F:84:TYR:HE2	1.60	0.66
48:4:154:VAL:CG1	48:4:358:LEU:HD21	2.24	0.66
1:5:1191:C:N3	1:5:1192:C:C5	2.63	0.66
1:5:2362:U:O4	1:5:3859:G:C2	2.48	0.66
49:S2:1508:A:N7	49:S2:1510:G:N7	2.43	0.66
1:5:4266:G:C2	1:5:4279:A:C6	2.83	0.66
49:S2:633:C:N3	49:S2:634:A:N7	2.42	0.66
49:S2:1215:C:N4	49:S2:1646:C:N4	2.43	0.66
49:S2:1111:U:H2'	49:S2:1111:U:O2	1.95	0.66
1:5:1325:C:C4'	1:5:3901:A:N1	2.52	0.66
48:4:183:GLU:O	48:4:187:VAL:HG23	1.95	0.66
1:5:4757:C:C2	18:O:114:LYS:HA	2.29	0.66
1:5:28:C:C2	1:5:29:G:N7	2.63	0.66
49:S2:982:G:N3	49:S2:1045:U:H1'	2.10	0.66
1:5:2605:G:N3	1:5:2606:G:C8	2.63	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1091:C:N3	1:5:1092:G:N7	2.43	0.66
1:5:196:C:O2	1:5:196:C:H2'	1.95	0.66
1:5:1830:G:C2	1:5:1831:G:C8	2.84	0.66
1:5:152:U:O2	1:5:152:U:H2'	1.94	0.66
1:5:650:C:H2'	1:5:651:C:C6	2.30	0.66
25:V:77:HIS:O	25:V:77:HIS:ND1	2.28	0.66
1:5:973:G:O6	1:5:1282:G:C2	2.48	0.66
1:5:2077:C:C4	1:5:2078:C:C5	2.83	0.66
1:5:2279:A:N1	1:5:2280:G:C5	2.63	0.66
1:5:2744:A:C2	1:5:2745:A:C5	2.83	0.66
49:S2:461:U:C2	49:S2:462:C:C5	2.83	0.66
49:S2:149:A:H2'	49:S2:150:A:O4'	1.94	0.66
49:S2:1034:A:C2'	49:S2:1035:A:O5'	2.42	0.66
1:5:1395:U:O2	1:5:1469:C:H4'	1.94	0.66
1:5:3731:C:C2	1:5:3732:A:H8	2.14	0.66
49:S2:1409:A:C2	49:S2:1438:A:N1	2.64	0.66
2:7:59:G:H4'	7:D:267:ASN:HD21	1.60	0.66
48:4:322:LYS:NZ	48:4:322:LYS:CB	2.57	0.66
49:S2:795:A:C2	49:S2:796:G:C6	2.83	0.66
49:S2:796:G:C5	57:SH:109:ARG:NH2	2.63	0.66
3:8:95:A:C5	3:8:96:C:C5	2.83	0.66
48:4:238:ALA:HB1	48:4:239:LYS:HB2	1.77	0.66
49:S2:1099:G:C2	49:S2:1100:A:C8	2.83	0.66
3:8:42:G:C2	3:8:43:A:C8	2.84	0.66
1:5:2422:C:C2	1:5:2423:A:C8	2.84	0.66
49:S2:18:C:C2	49:S2:19:A:C8	2.84	0.66
49:S2:588:G:O4'	49:S2:589:G:N2	2.24	0.66
1:5:1774:C:C2	1:5:1775:A:C8	2.83	0.66
1:5:2905:C:C2	1:5:3590:G:C2	2.84	0.66
1:5:1517:G:N2	1:5:1650:A:C6	2.63	0.66
1:5:4490:C:C2	1:5:4491:G:H8	2.13	0.66
1:5:2811:G:H22	1:5:2813:A:H3'	1.59	0.66
49:S2:394:G:C2	49:S2:395:G:C8	2.84	0.66
25:V:100:ASP:N	25:V:100:ASP:OD1	2.26	0.66
10:G:257:LYS:NZ	51:SB:54:GLY:O	2.24	0.66
49:S2:1821:U:H2'	49:S2:1822:A:O4'	1.95	0.66
48:4:189:ILE:CG2	48:4:203:ILE:CG1	2.71	0.66
1:5:1268:G:OP2	1:5:2109:G:H3'	1.95	0.66
1:5:2078:C:C4	1:5:2079:G:N7	2.60	0.66
1:5:471:A:C6	1:5:472:C:C5	2.83	0.66
5:B:10:ARG:HD2	5:B:12:GLY:O	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:22:VAL:HG21	14:K:48:LYS:CB	2.22	0.66
49:S2:1839:U:H2'	49:S2:1840:U:O4'	1.95	0.66
1:5:287:U:C2	1:5:288:G:N7	2.63	0.66
1:5:3857:G:C6	1:5:3858:C:C5	2.82	0.66
1:5:2367:A:C5	1:5:2798:A:N3	2.63	0.66
49:S2:26:U:O4	49:S2:27:A:N7	2.27	0.66
1:5:1321:G:N2	1:5:3876:A:C4	2.63	0.66
48:4:240:GLY:HA3	48:4:241:GLU:CB	2.06	0.66
1:5:4561:C:C2	1:5:4562:C:H5	2.13	0.66
1:5:4199:C:C2'	1:5:4199:C:O2	2.42	0.66
3:8:101:C:H2'	3:8:101:C:O2	1.95	0.66
1:5:4735:G:C4	1:5:4736:C:C6	2.82	0.66
49:S2:591:U:H5"	49:S2:593:C:C5	2.30	0.66
5:B:116:ARG:HG3	5:B:177:LYS:HG3	1.78	0.66
1:5:2307:A:C8	1:5:2332:A:C2	2.83	0.66
1:5:4466:C:C2	1:5:4467:A:C8	2.82	0.66
8:E:157:ARG:CD	8:E:266:TYR:CD1	2.78	0.66
1:5:2561:C:N3	1:5:2562:G:N7	2.44	0.66
1:5:2904:U:O2	1:5:2905:C:H6	1.77	0.66
49:S2:623:G:C2	49:S2:624:C:C5	2.82	0.66
49:S2:581:U:N3	49:S2:582:C:C6	2.64	0.66
1:5:125:C:C2	1:5:126:C:H6	2.12	0.66
1:5:4134:C:O2	1:5:4135:G:C8	2.47	0.66
49:S2:404:G:C6	49:S2:405:G:N7	2.63	0.66
2:7:11:A:C8	7:D:18:VAL:HG13	2.30	0.66
4:A:3:ARG:HG3	4:A:3:ARG:HH11	1.58	0.66
48:4:58:ASP:HB3	48:4:63:GLU:CD	2.15	0.66
48:4:61:LYS:O	48:4:62:ASP:CB	2.40	0.66
1:5:2076:G:C5	1:5:2077:C:C6	2.83	0.66
1:5:2293:U:C2	1:5:2294:G:N7	2.64	0.66
1:5:976:G:C5	1:5:977:C:C5	2.84	0.66
1:5:3728:A:N7	1:5:3729:U:H1'	2.11	0.66
49:S2:1412:C:C2'	49:S2:1413:G:C8	2.78	0.66
49:S2:1232:U:O2'	49:S2:1253:A:C8	2.48	0.66
3:8:12:G:N2	3:8:13:G:C8	2.62	0.66
1:5:2368:A:C6	1:5:2788:U:C4	2.84	0.66
1:5:4896:G:N1	1:5:4897:G:C5	2.63	0.66
49:S2:1292:C:N4	49:S2:1293:A:N7	2.43	0.66
1:5:5001:U:O2'	1:5:5002:U:O5'	2.11	0.66
21:R:130:ASN:O	21:R:131:VAL:HG22	1.96	0.66
1:5:656:C:C2	1:5:657:C:C5	2.84	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2035:C:H6	1:5:2035:C:O5'	1.79	0.66
49:S2:842:C:C2'	49:S2:843:C:O5'	2.43	0.66
48:4:86:LEU:HD21	48:4:96:ALA:HA	1.76	0.66
3:8:131:G:N2	3:8:132:G:H1'	2.09	0.66
1:5:4498:U:H3	1:5:4500:U:P	2.19	0.66
1:5:4693:C:C6	1:5:4693:C:H5'	2.30	0.66
49:S2:806:U:N3	49:S2:807:G:C8	2.64	0.66
48:4:585:GLU:O	48:4:736:ALA:HB1	1.96	0.66
59:SJ:111:GLN:HE21	59:SJ:127:ARG:HB2	1.59	0.66
53:SD:192:TRP:CG	53:SD:196:GLY:HA2	2.30	0.66
27:X:119:ILE:HA	27:X:144:TYR:HE2	1.60	0.66
48:4:470:VAL:HG22	48:4:471:GLY:H	1.58	0.66
49:S2:396:U:H2'	49:S2:397:G:O5'	1.95	0.66
49:S2:892:U:N3	49:S2:893:U:C5	2.63	0.66
1:5:1245:C:O2	1:5:1246:G:H8	1.73	0.66
1:5:1280:C:H5"	1:5:1280:C:C6	2.31	0.66
1:5:2021:G:O2'	1:5:2022:C:H5'	1.95	0.66
1:5:2108:G:C4	1:5:2109:G:H1'	2.29	0.66
1:5:2441:C:O2	1:5:2442:G:C8	2.48	0.66
1:5:456:C:C2	1:5:457:G:C8	2.83	0.66
9:F:73:MET:HB3	9:F:84:TYR:CE2	2.30	0.66
14:K:61:LYS:HE3	14:K:72:GLU:C	2.15	0.66
49:S2:302:A:O2'	58:SI:64:ASN:ND2	2.27	0.66
49:S2:1050:A:C6	49:S2:1051:G:H1'	2.30	0.66
1:5:3730:U:C4	1:5:3731:C:C5	2.83	0.66
1:5:4981:G:O6	1:5:4982:A:C4	2.49	0.66
49:S2:1432:U:N3	49:S2:1433:C:H5	1.93	0.66
1:5:3857:G:C5	1:5:3858:C:C6	2.84	0.66
49:S2:1540:G:C5	49:S2:1541:G:N7	2.63	0.66
1:5:422:C:C2	1:5:423:G:H8	2.12	0.66
1:5:4999:G:N1	1:5:5000:G:N7	2.44	0.66
49:S2:795:A:N1	49:S2:796:G:C6	2.63	0.66
48:4:191:THR:HG21	48:4:192:TYR:CE2	2.28	0.66
1:5:44:A:C5	1:5:45:U:C5	2.83	0.66
1:5:4095:G:C2	1:5:4096:C:C4	2.80	0.66
49:S2:604:A:N7	59:SJ:20:PHE:CD2	2.64	0.66
3:8:134:G:C2	3:8:135:C:N1	2.64	0.66
1:5:1840:G:C3'	1:5:1842:G:P	2.83	0.66
49:S2:16:G:H2'	49:S2:17:C:O4'	1.95	0.66
49:S2:580:U:N3	49:S2:581:U:C6	2.63	0.66
1:5:4504:C:H2'	1:5:4505:C:H6	1.61	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4904:G:N2	1:5:4905:C:C2	2.64	0.66
23:T:158:PHE:CZ	23:T:160:ALA:HB2	2.31	0.66
48:4:112:SER:C	48:4:114:GLU:N	2.35	0.66
48:4:40:VAL:HG22	48:4:75:ILE:HG12	1.77	0.66
48:4:752:PRO:CG	48:4:780:PRO:HB3	2.26	0.66
1:5:1987:C:N4	1:5:1988:G:N7	2.43	0.66
1:5:1268:G:O4'	1:5:2111:G:C8	2.49	0.66
49:S2:436:G:N2	49:S2:437:G:C4	2.63	0.66
48:4:672:LEU:CA	48:4:675:ILE:CD1	2.54	0.66
49:S2:311:C:H2'	49:S2:312:G:H1'	1.78	0.66
49:S2:1394:G:H4'	66:SQ:126:ARG:NH1	2.10	0.66
1:5:3740:G:N1	1:5:3741:C:C6	2.64	0.66
1:5:4981:G:C5	1:5:4982:A:C8	2.84	0.66
1:5:1172:C:N3	1:5:1173:G:C8	2.64	0.66
49:S2:1234:C:O2	49:S2:1234:C:H2'	1.95	0.66
49:S2:1537:A:C6	49:S2:1538:C:C5	2.83	0.66
1:5:4285:U:C2	1:5:4286:C:C6	2.83	0.66
1:5:2480:G:C6	1:5:2481:G:N7	2.64	0.66
1:5:4536:C:C2	1:5:4537:C:C6	2.84	0.66
3:8:117:C:C2	3:8:118:C:C6	2.83	0.66
49:S2:1017:U:O2	49:S2:1017:U:C2'	2.43	0.66
48:4:616:ASP:OD2	48:4:621:GLU:CB	2.43	0.66
1:5:4255:A:C6	1:5:4256:A:C2	2.83	0.66
1:5:193:G:H2'	1:5:194:C:O4'	1.95	0.66
1:5:1827:C:C2	1:5:1828:C:C5	2.84	0.66
49:S2:1495:G:C5	49:S2:1496:U:C6	2.83	0.66
2:7:110:G:N3	2:7:111:C:C6	2.64	0.66
1:5:727:C:O2'	1:5:728:U:OP1	2.10	0.66
1:5:3800:A:C2	1:5:4496:A:O4'	2.48	0.66
49:S2:1059:G:C2'	49:S2:1060:A:H5'	2.26	0.66
9:F:248:ARG:NH1	9:F:248:ARG:HB3	2.11	0.66
60:SK:76:ILE:O	60:SK:80:ARG:HB3	1.96	0.66
1:5:1733:G:O2'	1:5:4214:A:O2'	2.10	0.66
48:4:39:LEU:HB3	48:4:77:LEU:HD21	1.76	0.66
1:5:1214:C:N3	1:5:2116:C:N3	2.42	0.66
1:5:1876:U:C4	1:5:1877:G:N7	2.64	0.66
1:5:2021:G:C4	1:5:2022:C:C5	2.84	0.66
1:5:2115:G:C8	1:5:2116:C:O4'	2.49	0.66
1:5:2253:A:C8	1:5:2254:G:H1'	2.30	0.66
1:5:2253:A:H2	1:5:2260:C:H42	1.43	0.66
9:F:148:ASN:HB3	9:F:243:ASN:ND2	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:459:C:C4	49:S2:460:A:C8	2.84	0.66
1:5:101:A:C6	1:5:102:G:N7	2.63	0.66
1:5:1479:G:C6	1:5:1487:G:C2	2.83	0.66
1:5:288:G:C4	1:5:289:C:C5	2.84	0.66
1:5:280:G:C8	17:N:120:TRP:HZ3	2.13	0.66
49:S2:1528:G:C2	49:S2:1529:C:C5	2.83	0.66
1:5:1798:G:O4'	1:5:4215:C:C6	2.49	0.66
1:5:4998:G:N1	1:5:4999:G:N7	2.44	0.66
49:S2:535:G:N2	49:S2:536:A:N7	2.43	0.66
1:5:2410:C:C2	1:5:2411:C:C5	2.84	0.66
15:L:39:ARG:HB2	15:L:39:ARG:NH1	2.10	0.66
49:S2:832:G:C5	49:S2:833:C:C6	2.83	0.66
1:5:3802:U:O2	1:5:3802:U:H2'	1.95	0.66
1:5:4698:C:O2	1:5:4698:C:H2'	1.93	0.66
2:7:94:C:C2	2:7:95:C:C6	2.83	0.66
49:S2:185:G:C2	49:S2:186:C:C5	2.83	0.66
1:5:4511:A:H2'	1:5:4512:U:O4'	1.95	0.66
1:5:1298:C:C2	1:5:1299:G:C8	2.83	0.66
48:4:563:GLU:CD	48:4:563:GLU:O	2.34	0.66
1:5:1912:G:N2	1:5:1913:C:C2	2.64	0.66
50:SA:38:ILE:HD11	50:SA:150:THR:HG22	1.78	0.66
9:F:230:VAL:HA	22:S:39:VAL:HG12	1.77	0.66
48:4:541:SER:OG	48:4:576:VAL:HG11	1.96	0.66
48:4:58:ASP:CB	48:4:63:GLU:CG	2.27	0.66
48:4:818:GLN:HG2	48:4:819:ILE:N	2.11	0.66
1:5:4081:G:C2	1:5:4082:G:N7	2.64	0.66
8:E:43:ASN:C	8:E:43:ASN:ND2	2.48	0.66
48:4:672:LEU:CB	48:4:675:ILE:HD11	2.26	0.66
49:S2:386:C:C2	49:S2:387:C:C5	2.83	0.66
49:S2:64:A:C6	49:S2:82:G:N1	2.64	0.66
48:4:126:LEU:HD11	48:4:156:MET:HG3	1.77	0.66
49:S2:1527:C:N4	49:S2:1528:G:N7	2.44	0.66
1:5:4269:G:C6	1:5:4270:C:C6	2.83	0.66
1:5:2428:A:N7	1:5:2789:A:C2	2.64	0.66
56:SG:5:ILE:HD12	56:SG:16:ILE:HD13	1.76	0.66
49:S2:795:A:C2	49:S2:796:G:C8	2.76	0.66
1:5:3919:C:C5'	4:A:207:VAL:HG12	2.25	0.66
49:S2:856:C:C4	49:S2:857:U:C5	2.84	0.66
64:SO:147:ARG:CZ	64:SO:147:ARG:HB3	2.26	0.66
1:5:3611:A:N3	1:5:5016:A:H8	1.94	0.66
1:5:197:A:H2'	1:5:198:A:C8	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:120:A:C1'	1:5:121:A:C2	2.77	0.66
1:5:2773:G:N1	1:5:2774:C:C4	2.64	0.66
1:5:348:G:N3	1:5:350:C:C5	2.64	0.66
1:5:2634:C:C2	1:5:2635:U:C5	2.84	0.66
49:S2:696:G:C2	49:S2:735:C:C2	2.84	0.66
22:S:9:GLU:OE1	22:S:33:PHE:CD1	2.49	0.66
50:SA:89:LYS:HB3	50:SA:202:TYR:CZ	2.31	0.66
1:5:2071:A:C2	1:5:2072:C:C4	2.84	0.66
53:SD:34:TYR:CE1	53:SD:37:VAL:HG13	2.31	0.66
48:4:543:GLU:OE2	48:4:576:VAL:N	2.28	0.66
1:5:1672:U:C2	1:5:1673:U:H5	2.10	0.66
1:5:1692:C:O2	1:5:1692:C:H2'	1.95	0.66
1:5:1878:G:C4	1:5:1879:C:C5	2.84	0.66
1:5:2327:G:N2	1:5:2328:G:C4	2.64	0.66
14:K:105:THR:HB	14:K:107:ASP:OD1	1.95	0.66
14:K:57:ARG:NH2	14:K:89:PRO:CA	2.59	0.66
20:Q:181:ARG:HB3	20:Q:181:ARG:NH2	2.11	0.66
48:4:826:ASP:OD1	48:4:827:ASN:N	2.29	0.66
49:S2:1050:A:C8	49:S2:1051:G:C8	2.83	0.66
1:5:288:G:N2	1:5:289:C:C2	2.64	0.66
1:5:98:A:H1'	1:5:292:G:N7	2.11	0.66
1:5:66:A:N3	1:5:312:G:H1'	2.11	0.66
1:5:3743:G:C2'	1:5:3744:G:H5'	2.25	0.66
49:S2:1409:A:N1	49:S2:1410:C:C5	2.64	0.66
49:S2:1410:C:H2'	49:S2:1410:C:O2	1.95	0.66
1:5:4208:U:O2'	1:5:4275:G:H1'	1.95	0.66
1:5:4217:G:O2'	1:5:4218:U:O5'	2.14	0.66
49:S2:29:G:C6	49:S2:30:C:N4	2.64	0.66
49:S2:616:A:C5	49:S2:617:G:H1'	2.30	0.66
49:S2:1319:U:H2'	49:S2:1320:G:C8	2.30	0.66
49:S2:532:C:C2	49:S2:533:A:C8	2.83	0.66
1:5:499:G:C2	1:5:656:C:C2	2.84	0.66
1:5:500:G:H5"	1:5:501:C:C6	2.30	0.66
1:5:165:A:H3'	1:5:166:C:H6	1.61	0.66
49:S2:999:G:N1	49:S2:1000:C:C5	2.64	0.66
49:S2:1123:C:C2	49:S2:1124:C:C6	2.83	0.66
49:S2:836:G:H2'	49:S2:837:A:H5"	1.77	0.66
49:S2:858:A:N3	49:S2:859:G:C8	2.63	0.66
49:S2:981:A:H2'	49:S2:982:G:C8	2.31	0.66
49:S2:1074:C:H2'	49:S2:1075:C:H6	1.61	0.66
49:S2:18:C:C4'	49:S2:1194:A:N6	2.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2736:G:H2'	1:5:2737:C:H5'	1.78	0.66
1:5:4934:A:N1	1:5:4935:C:C6	2.64	0.66
49:S2:868:G:C2	57:SH:115:LYS:HA	2.31	0.66
48:4:649:ILE:CD1	48:4:652:PHE:HE1	2.09	0.66
49:S2:826:A:N7	49:S2:827:A:H1'	2.11	0.66
48:4:393:PRO:HD2	48:4:418:SER:OG	1.96	0.66
1:5:3890:A:N7	1:5:4571:A:H1'	2.10	0.66
1:5:1787:A:O2'	1:5:1788:A:C8	2.49	0.66
48:4:347:GLY:O	48:4:351:LEU:HG	1.96	0.66
48:4:577:VAL:HG12	48:4:579:TYR:HE1	1.60	0.66
48:4:748:GLU:HG2	48:4:748:GLU:O	1.96	0.66
48:4:759:ILE:HG21	48:4:784:VAL:CG2	2.25	0.66
1:5:1260:G:C2	1:5:1261:G:C8	2.84	0.66
1:5:1697:G:O2'	9:F:165:ASN:ND2	2.28	0.66
1:5:1868:A:C8	1:5:1870:C:C6	2.83	0.66
1:5:4079:C:O2	1:5:4079:C:H2'	1.96	0.66
1:5:956:A:H3'	1:5:957:G:C5	2.31	0.66
49:S2:43:U:N3	49:S2:484:A:C2	2.50	0.66
48:4:236:PHE:CZ	48:4:273:PHE:CE1	2.84	0.66
48:4:634:TYR:CE2	48:4:639:TYR:HE2	2.14	0.66
49:S2:388:U:C2	49:S2:389:A:N7	2.64	0.66
49:S2:1860:A:N3	49:S2:1862:G:C8	2.64	0.66
1:5:3727:A:O2'	1:5:3728:A:C5'	2.44	0.66
1:5:86:U:O2	1:5:87:A:H8	1.76	0.66
49:S2:1410:C:C2	49:S2:1411:G:N7	2.64	0.66
49:S2:1254:C:O2	49:S2:1254:C:H2'	1.96	0.66
3:8:10:G:C2	3:8:11:C:C1'	2.79	0.66
49:S2:646:G:H2'	49:S2:646:G:N3	2.11	0.66
49:S2:1134:G:C2	49:S2:1135:C:C4	2.84	0.66
49:S2:1309:C:H2'	49:S2:1309:C:O2	1.96	0.66
49:S2:1109:C:O2	49:S2:1110:G:H8	1.78	0.66
1:5:5003:U:C2'	1:5:5004:C:O4'	2.44	0.66
49:S2:50:A:C6	49:S2:51:U:H1'	2.30	0.66
1:5:3759:A:C6	49:S2:1709:G:C4'	2.79	0.66
3:8:127:U:C2'	3:8:128:C:O4'	2.44	0.66
49:S2:793:G:O6	49:S2:794:A:C5	2.49	0.66
15:L:55:LEU:C	15:L:56:ARG:HG2	2.16	0.66
48:4:448:GLN:O	48:4:448:GLN:NE2	2.29	0.66
1:5:4280:A:C2	7:D:23:ARG:NE	2.64	0.66
1:5:3907:G:H1'	1:5:4449:A:N9	2.10	0.66
7:D:42:ASN:HA	7:D:44:TYR:HH	1.61	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:283:LYS:HA	48:4:284:LYS:NZ	2.10	0.66
49:S2:862:A:C5	49:S2:863:U:C5	2.84	0.66
1:5:4754:G:N2	1:5:4880:C:C2	2.64	0.66
1:5:1583:A:C5	1:5:1584:G:C8	2.84	0.66
1:5:1439:C:C5'	9:F:36:ARG:NH1	2.58	0.66
1:5:2301:G:N1	1:5:2302:C:C5	2.63	0.66
52:SC:170:TRP:CD1	52:SC:198:ALA:C	2.70	0.66
1:5:711:A:C2	1:5:712:C:C6	2.84	0.66
49:S2:404:G:N1	49:S2:405:G:C5	2.64	0.66
1:5:1272:C:O2'	1:5:1273:G:N9	2.30	0.65
1:5:1998:A:H2	1:5:2019:C:C2'	2.09	0.65
1:5:2108:G:N1	1:5:2125:C:C4	2.65	0.65
1:5:2463:G:C4	1:5:2464:C:C5	2.83	0.65
49:S2:42:A:C4	49:S2:426:A:C5	2.84	0.65
49:S2:77:A:O2'	56:SG:175:LYS:CA	2.44	0.65
1:5:1478:C:H2'	1:5:1479:G:C8	2.31	0.65
1:5:4982:A:C5	1:5:4983:C:C5	2.83	0.65
49:S2:1431:G:C5	49:S2:1432:U:C6	2.84	0.65
49:S2:1419:C:O2'	69:ST:132:ASP:CB	2.44	0.65
49:S2:1552:G:H4'	49:S2:1557:C:H41	1.61	0.65
49:S2:675:U:N3	49:S2:676:C:C5	2.63	0.65
49:S2:793:G:C6	49:S2:794:A:C4	2.84	0.65
1:5:2851:G:N7	1:5:2852:U:C6	2.64	0.65
1:5:2856:C:H42	1:5:2857:A:N6	1.92	0.65
1:5:484:U:C4	1:5:486:C:C4	2.83	0.65
1:5:671:G:N2	1:5:672:C:C2	2.64	0.65
49:S2:1250:A:C2	49:S2:1339:U:C2'	2.79	0.65
1:5:5051:C:H2'	1:5:5051:C:O2	1.96	0.65
49:S2:909:G:N1	49:S2:910:G:N7	2.44	0.65
1:5:42:A:N7	1:5:4379:A:C6	2.64	0.65
49:S2:964:A:HO2'	49:S2:965:U:C5'	2.09	0.65
1:5:1750:G:N1	1:5:1751:A:N7	2.44	0.65
49:S2:623:G:N2	49:S2:624:C:N1	2.44	0.65
49:S2:1786:U:O2	49:S2:1787:G:C8	2.49	0.65
1:5:3845:A:C6	1:5:3846:C:C5	2.83	0.65
49:S2:402:C:C4	49:S2:403:G:C8	2.84	0.65
49:S2:1502:C:N3	49:S2:1503:C:C5	2.65	0.65
29:Z:15:ALA:HB3	29:Z:79:HIS:HB3	1.78	0.65
1:5:2299:G:N7	6:C:204:ARG:NH1	2.44	0.65
67:SR:83:ASN:HD22	67:SR:83:ASN:C	2.00	0.65
48:4:113:SER:HB2	48:4:499:PHE:HD2	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:579:TYR:HA	48:4:817:TRP:CH2	2.22	0.65
48:4:740:LEU:O	48:4:820:LEU:HB2	1.96	0.65
8:E:43:ASN:C	8:E:43:ASN:HD22	2.27	0.65
14:K:117:ARG:NE	14:K:117:ARG:N	2.37	0.65
48:4:562:GLU:CB	48:4:570:ILE:CD1	2.73	0.65
49:S2:70:G:C2	49:S2:71:G:C4	2.84	0.65
49:S2:70:G:N2	49:S2:71:G:H1'	2.10	0.65
1:5:4355:G:N2	1:5:4356:G:C4	2.64	0.65
1:5:4361:U:C2	1:5:4362:A:C8	2.84	0.65
14:K:160:VAL:HA	14:K:163:PRO:HG3	1.50	0.65
49:S2:970:G:O3'	49:S2:971:G:O4'	2.14	0.65
1:5:2826:U:O2	1:5:2826:U:C2'	2.43	0.65
2:7:30:C:N3	2:7:48:G:C2	2.64	0.65
49:S2:1134:G:C4	49:S2:1135:C:C5	2.85	0.65
49:S2:1709:G:C2	49:S2:1710:C:C5	2.83	0.65
48:4:396:MET:HE3	48:4:472:LEU:CD1	2.26	0.65
3:8:95:A:C6	3:8:96:C:C4	2.84	0.65
1:5:168:C:C2	1:5:268:G:N2	2.65	0.65
1:5:4518:A:O2'	5:B:257:TRP:HZ3	1.73	0.65
1:5:4091:G:C5	1:5:4092:G:C8	2.85	0.65
49:S2:1100:A:N1	49:S2:1101:U:C4	2.65	0.65
1:5:1336:G:H2'	1:5:1337:A:N7	2.11	0.65
1:5:2673:G:C4'	1:5:2675:G:H1'	2.25	0.65
3:8:130:C:C4	3:8:131:G:N7	2.65	0.65
3:8:132:G:N1	3:8:133:G:N7	2.42	0.65
1:5:908:G:C6	1:5:909:A:N7	2.65	0.65
1:5:4884:G:N2	1:5:4885:U:C6	2.64	0.65
1:5:1778:C:C2	1:5:1779:U:C5	2.85	0.65
1:5:145:G:N1	1:5:146:G:C5	2.64	0.65
1:5:4628:U:H4'	26:W:17:HIS:HB3	1.77	0.65
1:5:5012:G:C2	1:5:5014:A:C8	2.85	0.65
49:S2:609:U:N3	49:S2:610:G:C8	2.64	0.65
22:S:94:TYR:OH	22:S:96:GLU:CG	2.44	0.65
49:S2:1177:U:C2	49:S2:1178:U:C5	2.84	0.65
11:H:88:PHE:CE2	11:H:151:ILE:HB	2.31	0.65
1:5:1684:A:C6	1:5:1685:G:N7	2.64	0.65
1:5:2325:C:C2	1:5:2326:G:C8	2.84	0.65
1:5:2650:G:H2'	1:5:2651:C:O4'	1.96	0.65
1:5:4081:G:C2	1:5:4082:G:C8	2.84	0.65
49:S2:1742:C:C2	49:S2:1743:G:C8	2.83	0.65
49:S2:217:A:C6	49:S2:218:U:C5	2.84	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1052:A:C6	49:S2:1053:C:C5	2.85	0.65
49:S2:1418:C:C2	49:S2:1420:G:C8	2.84	0.65
49:S2:1511:U:C4	49:S2:1512:C:C5	2.84	0.65
48:4:594:LYS:HE3	48:4:856:ASP:HB2	1.77	0.65
3:8:13:G:C5	3:8:14:U:C4	2.84	0.65
49:S2:1280:G:C6	49:S2:1281:G:N7	2.64	0.65
48:4:420:LEU:HG	48:4:420:LEU:O	1.96	0.65
1:5:4998:G:N1	1:5:4999:G:C5	2.64	0.65
49:S2:750:C:O2	49:S2:750:C:H2'	1.96	0.65
49:S2:793:G:C6	49:S2:794:A:C5	2.84	0.65
49:S2:837:A:N3	49:S2:837:A:H2'	2.10	0.65
1:5:4093:G:C2'	1:5:4094:G:C5'	2.75	0.65
1:5:2307:A:H2'	1:5:2308:A:O5'	1.96	0.65
1:5:4693:C:C5'	1:5:4693:C:C6	2.79	0.65
1:5:1309:C:N3	1:5:1310:C:C5	2.64	0.65
1:5:237:G:HO2'	1:5:238:C:P	2.19	0.65
1:5:2041:A:N3	1:5:4464:A:C6	2.65	0.65
72:SW:30:CYS:SG	72:SW:31:SER:N	2.69	0.65
1:5:2384:U:C2	1:5:2385:U:C5	2.83	0.65
48:4:43:ALA:O	48:4:44:GLY:C	2.34	0.65
48:4:532:PRO:HD2	48:4:533:MET:H	1.61	0.65
1:5:1666:C:O2'	1:5:1688:G:OP1	2.14	0.65
1:5:1998:A:O2'	1:5:1999:A:O4'	2.14	0.65
1:5:445:U:O4'	1:5:2313:A:N1	2.30	0.65
1:5:2455:G:H2'	1:5:2456:G:O5'	1.97	0.65
1:5:2746:A:H2'	1:5:2747:U:O4'	1.97	0.65
49:S2:309:G:C6	49:S2:310:C:N4	2.65	0.65
49:S2:310:C:H2'	49:S2:311:C:H6	1.61	0.65
49:S2:379:C:N3	49:S2:380:G:C5	2.64	0.65
49:S2:449:A:N6	49:S2:452:G:C5	2.64	0.65
49:S2:1528:G:C6	49:S2:1529:C:N4	2.64	0.65
1:5:4215:C:O2	1:5:4216:G:C8	2.49	0.65
1:5:4896:G:N2	1:5:4897:G:C4	2.65	0.65
1:5:4896:G:C2	1:5:4897:G:C4	2.84	0.65
1:5:2478:C:C2	1:5:2479:G:C8	2.84	0.65
48:4:226:LYS:HZ1	48:4:356:ILE:HD12	1.61	0.65
1:5:1635:C:N3	1:5:1636:U:C5	2.64	0.65
49:S2:962:A:C2	49:S2:963:A:C8	2.84	0.65
1:5:2567:G:C6	1:5:2568:C:C5	2.84	0.65
49:S2:1759:G:C2	49:S2:1774:C:C2	2.85	0.65
22:S:83:ARG:HH22	23:T:156:TYR:HB2	1.58	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2390:G:N2	1:5:2391:G:H1'	2.10	0.65
1:5:2712:G:C2	1:5:2713:C:C6	2.84	0.65
3:8:55:U:O4	3:8:62:A:N1	2.29	0.65
7:D:94:ASN:ND2	7:D:94:ASN:C	2.48	0.65
49:S2:892:U:C2	49:S2:893:U:C5	2.84	0.65
17:N:196:ASN:N	17:N:196:ASN:HD22	1.94	0.65
1:5:1513:U:H2'	1:5:1514:U:O4'	1.96	0.65
55:SF:160:GLU:HA	55:SF:163:PHE:CE1	2.30	0.65
48:4:3:ASN:HB3	48:4:47:ALA:O	1.97	0.65
1:5:1542:U:O2	1:5:1543:G:C8	2.49	0.65
14:K:23:GLY:O	14:K:24:ALA:HB2	1.96	0.65
1:5:101:A:C6	1:5:102:G:C5	2.85	0.65
1:5:3717:A:N6	1:5:3736:A:C6	2.64	0.65
49:S2:948:C:C2	49:S2:949:G:C8	2.85	0.65
49:S2:1441:U:H1'	49:S2:1442:U:O4	1.95	0.65
49:S2:618:C:C4	49:S2:619:A:C5	2.84	0.65
49:S2:649:U:C2	49:S2:650:A:N7	2.64	0.65
49:S2:1317:C:N3	49:S2:1318:G:C8	2.63	0.65
1:5:3636:C:H2'	1:5:3636:C:O2	1.96	0.65
3:8:118:C:C2	3:8:119:C:C6	2.85	0.65
1:5:31:U:H2'	1:5:32:G:C8	2.31	0.65
48:4:226:LYS:HZ1	48:4:356:ILE:CD1	2.10	0.65
49:S2:957:A:O2'	49:S2:958:G:O5'	2.15	0.65
1:5:4480:A:C6	1:5:4481:U:C6	2.85	0.65
1:5:4937:C:H5'	8:E:179:ARG:HD2	1.79	0.65
1:5:1760:G:C2	1:5:1761:G:H1'	2.31	0.65
1:5:3680:U:O2	1:5:3680:U:C2'	2.44	0.65
49:S2:1263:U:O4	49:S2:1517:G:O6	2.13	0.65
1:5:3621:A:C4	1:5:3622:C:C6	2.84	0.65
1:5:4920:C:C2	1:5:4921:C:C5	2.85	0.65
49:S2:1454:A:O4'	49:S2:1476:A:H1'	1.97	0.65
49:S2:1454:A:C8	49:S2:1476:A:C1'	2.79	0.65
49:S2:1492:U:HO2'	70:SU:70:CYS:HG	1.43	0.65
1:5:134:G:H5'	1:5:134:G:C8	2.32	0.65
1:5:3821:A:C6	1:5:3822:U:C5	2.85	0.65
1:5:1602:U:H2'	1:5:1602:U:O2	1.96	0.65
49:S2:62:G:H1'	49:S2:172:U:O2	1.97	0.65
6:C:318:PRO:O	6:C:320:LYS:N	2.29	0.65
48:4:120:ARG:NH1	48:4:496:VAL:HA	2.11	0.65
48:4:747:VAL:O	48:4:784:VAL:O	2.15	0.65
48:4:751:CYS:SG	48:4:756:VAL:N	2.70	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1264:C:C2'	1:5:1265:G:H5'	2.27	0.65
1:5:1845:U:O2	1:5:1846:G:C8	2.49	0.65
1:5:1865:G:H22	1:5:1867:A:H3'	1.61	0.65
1:5:470:A:C6	1:5:471:A:N9	2.65	0.65
1:5:980:U:H2'	1:5:981:C:C6	2.31	0.65
48:4:510:GLU:CG	48:4:511:ALA:H	2.10	0.65
1:5:320:C:H2'	1:5:321:U:O4'	1.97	0.65
1:5:91:G:C8	1:5:93:G:C5	2.85	0.65
49:S2:1508:A:N7	49:S2:1510:G:C8	2.65	0.65
49:S2:1277:C:H5'	60:SK:51:SER:HA	1.79	0.65
49:S2:1708:C:N3	49:S2:1709:G:C8	2.65	0.65
48:4:398:ILE:HG13	48:4:398:ILE:O	1.95	0.65
1:5:662:C:O2	1:5:663:G:N7	2.28	0.65
1:5:274:C:HO2'	1:5:275:C:C5'	2.09	0.65
1:5:913:U:C2	1:5:914:U:C5	2.85	0.65
1:5:4373:G:OP2	1:5:4374:U:O2'	2.13	0.65
1:5:911:U:C2	1:5:912:G:C8	2.85	0.65
1:5:2562:G:H22	1:5:2564:G:H3'	1.61	0.65
1:5:938:C:H5	16:M:46:ARG:HE	1.45	0.65
1:5:4628:U:C2	1:5:4629:U:C5	2.85	0.65
1:5:1290:G:N2	1:5:1291:G:C5	2.65	0.65
49:S2:357:C:N3	49:S2:358:C:C5	2.65	0.65
1:5:2243:C:C2	1:5:2244:C:C5	2.84	0.65
1:5:307:A:H3'	1:5:308:G:N2	2.11	0.65
48:4:110:ASP:OD2	48:4:112:SER:CB	2.45	0.65
48:4:113:SER:CB	48:4:499:PHE:CD2	2.79	0.65
48:4:742:GLU:HB3	48:4:820:LEU:HD21	1.78	0.65
1:5:1216:C:N3	1:5:1217:G:C8	2.64	0.65
1:5:1848:C:H5'	1:5:1849:U:OP2	1.97	0.65
1:5:2106:G:C2	1:5:2107:C:C5	2.84	0.65
1:5:466:A:N1	1:5:467:U:C4	2.65	0.65
1:5:691:C:C2	1:5:692:A:C8	2.84	0.65
6:C:325:MET:HE3	6:C:325:MET:HA	1.78	0.65
14:K:102:GLY:CA	14:K:139:VAL:HA	2.24	0.65
48:4:690:GLY:C	48:4:730:TYR:CZ	2.67	0.65
49:S2:92:A:C6	49:S2:447:A:C2	2.85	0.65
49:S2:1835:A:C5'	49:S2:1863:A:N7	2.60	0.65
1:5:1380:G:C2	1:5:1382:G:C2	2.84	0.65
17:N:120:TRP:CD1	17:N:121:VAL:N	2.64	0.65
49:S2:1253:A:C2	49:S2:1666:C:C1'	2.80	0.65
49:S2:1135:C:N3	49:S2:1136:U:C4	2.64	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1149:A:C4	49:S2:1151:G:C8	2.85	0.65
49:S2:1283:C:H1'	62:SM:86:GLY:HA3	1.79	0.65
3:8:122:G:H2'	3:8:123:U:O4'	1.96	0.65
1:5:2724:G:N3	1:5:2726:G:N7	2.44	0.65
1:5:494:U:C2	1:5:495:C:C6	2.85	0.65
49:S2:993:G:H22	49:S2:999:G:H22	1.42	0.65
1:5:1949:U:C2	1:5:1950:U:C5	2.85	0.65
1:5:2606:G:N3	1:5:2607:C:C6	2.65	0.65
1:5:2658:G:C2	1:5:2675:G:N2	2.65	0.65
1:5:182:G:N2	1:5:254:G:H22	1.94	0.65
1:5:3847:C:C2	1:5:3848:U:C6	2.84	0.65
1:5:3606:U:O2	1:5:3607:U:C6	2.50	0.65
52:SC:170:TRP:HD1	52:SC:198:ALA:C	2.00	0.65
1:5:954:C:H2'	1:5:955:G:O4'	1.96	0.65
1:5:1920:C:H4'	1:5:1921:C:OP2	1.97	0.65
1:5:1608:G:O4'	1:5:3828:A:C2	2.50	0.65
1:5:1617:G:C6	1:5:1618:G:C5	2.84	0.65
1:5:1686:C:H2'	1:5:1687:U:H5'	1.78	0.65
1:5:1899:G:N1	1:5:1900:C:N4	2.45	0.65
1:5:471:A:C2	1:5:472:C:C1'	2.80	0.65
14:K:105:THR:C	14:K:106:PHE:CD1	2.69	0.65
14:K:94:LYS:CD	14:K:96:LYS:HE2	2.10	0.65
21:R:7:GLN:OE1	21:R:7:GLN:N	2.30	0.65
49:S2:384:U:C4	49:S2:386:C:C6	2.84	0.65
49:S2:70:G:N1	49:S2:80:G:C2	2.65	0.65
48:4:207:PRO:HB3	48:4:261:TRP:CD2	2.32	0.65
1:5:1175:A:N1	1:5:1176:C:C5	2.65	0.65
49:S2:1402:A:C2	49:S2:1405:A:N1	2.65	0.65
49:S2:1431:G:C4	49:S2:1432:U:C6	2.84	0.65
49:S2:1594:A:C2	49:S2:1595:U:N1	2.64	0.65
1:5:1564:A:N6	49:S2:1029:G:HO2'	1.94	0.65
49:S2:1294:G:C2	49:S2:1295:A:N7	2.65	0.65
1:5:1885:G:C4	1:5:1895:G:N2	2.64	0.65
49:S2:530:U:N3	49:S2:531:A:C8	2.65	0.65
49:S2:793:G:C5	49:S2:794:A:N7	2.63	0.65
1:5:2857:A:O2'	1:5:2858:A:C8	2.49	0.65
1:5:2050:G:H2'	1:5:2051:C:O4'	1.97	0.65
1:5:4396:A:C2	1:5:4397:A:C8	2.84	0.65
1:5:4482:U:N3	1:5:4483:C:C5	2.64	0.65
1:5:246:G:N2	1:5:247:G:C4	2.65	0.65
49:S2:964:A:C2	49:S2:965:U:C4	2.85	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4879:C:N3	1:5:4880:C:C5	2.65	0.65
1:5:1767:A:C2	1:5:1769:G:H1'	2.32	0.65
49:S2:578:C:C4	49:S2:579:C:C6	2.85	0.65
49:S2:656:G:H21	49:S2:663:C:H5"	1.60	0.65
1:5:4548:A:P	1:5:4548:A:C8	2.90	0.65
50:SA:39:TYR:HB2	50:SA:50:ASN:OD1	1.97	0.65
1:5:1298:C:N3	1:5:1299:G:N7	2.45	0.65
48:4:470:VAL:HG22	48:4:471:GLY:N	2.12	0.65
48:4:432:PRO:HB3	48:4:497:MET:HE3	1.78	0.65
1:5:1211:G:C2	1:5:1212:G:C5	2.85	0.65
1:5:1445:U:C2	1:5:1446:C:C6	2.85	0.65
1:5:1683:U:H2'	1:5:1683:U:O2	1.96	0.65
1:5:3717:A:N6	1:5:3736:A:C5	2.65	0.65
62:SM:33:ARG:HG2	62:SM:33:ARG:HH11	1.62	0.65
1:5:1323:A:C2	1:5:1324:A:C4	2.84	0.65
1:5:3873:G:N2	1:5:3883:U:N3	2.45	0.65
1:5:3759:A:N1	49:S2:1709:G:O4'	2.29	0.65
1:5:492:U:C2	1:5:493:G:C8	2.85	0.65
1:5:275:C:O2'	1:5:276:C:O4'	2.11	0.65
12:I:47:PRO:CB	12:I:171:TRP:HE1	2.10	0.65
49:S2:933:G:C2	49:S2:1000:C:C2	2.84	0.65
1:5:2058:G:N3	1:5:2059:C:C6	2.64	0.65
49:S2:832:G:N2	49:S2:843:C:C2	2.65	0.65
1:5:2603:C:N3	1:5:2604:C:C5	2.65	0.65
3:8:133:G:N3	3:8:134:G:C8	2.65	0.65
1:5:5029:C:C4	1:5:5030:U:C5	2.85	0.65
49:S2:98:C:C2	49:S2:409:C:C6	2.85	0.65
1:5:3805:U:C2	1:5:3806:G:C8	2.85	0.65
1:5:755:C:N3	1:5:756:G:N7	2.44	0.65
1:5:4885:U:C2	1:5:4886:C:C5	2.85	0.65
1:5:1366:G:C8	1:5:1367:C:O3'	2.50	0.65
1:5:2562:G:N2	1:5:2564:G:C8	2.65	0.65
1:5:2567:G:N1	1:5:2568:C:C4	2.65	0.65
1:5:4547:C:O3'	1:5:4548:A:C8	2.50	0.65
1:5:4510:A:O2'	1:5:4511:A:C8	2.46	0.65
1:5:4901:G:N2	1:5:4921:C:C2	2.65	0.65
1:5:951:G:H2'	1:5:952:G:H5"	1.79	0.65
49:S2:1127:C:C2	49:S2:1128:C:C5	2.85	0.65
8:E:236:TYR:HE2	8:E:238:ILE:HA	1.62	0.65
48:4:150:ARG:HA	48:4:200:MET:HE1	1.79	0.65
48:4:24:VAL:CG2	48:4:32:LYS:CE	2.67	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:740:LEU:HD13	48:4:741:MET:N	2.12	0.65
1:5:1246:G:C6	1:5:1247:U:C4	2.85	0.65
1:5:1261:G:C6	1:5:1262:G:N7	2.65	0.65
1:5:1268:G:N1	1:5:1270:A:C5	2.65	0.65
1:5:1618:G:C6	1:5:1619:G:N7	2.65	0.65
1:5:2445:C:N3	1:5:2446:C:C5	2.64	0.65
1:5:2509:C:C2'	1:5:2510:G:O5'	2.44	0.65
14:K:71:ILE:HG22	14:K:73:VAL:HG23	1.78	0.65
48:4:690:GLY:CA	48:4:730:TYR:CD1	2.74	0.65
48:4:692:LEU:CD2	48:4:734:LEU:HD21	2.25	0.65
49:S2:1791:A:C6	49:S2:1792:G:H1'	2.31	0.65
49:S2:1792:G:C2	49:S2:1793:A:C8	2.85	0.65
49:S2:387:C:C2	49:S2:388:U:C6	2.82	0.65
48:4:126:LEU:HD11	48:4:156:MET:SD	2.36	0.65
1:5:1177:U:H2'	1:5:1178:G:H8	1.61	0.65
49:S2:1415:C:H2'	49:S2:1416:C:C4'	2.26	0.65
1:5:3857:G:C5	1:5:3858:C:C5	2.85	0.65
49:S2:632:C:N3	49:S2:633:C:C5	2.65	0.65
1:5:2858:A:O2'	1:5:2859:G:C5'	2.44	0.65
1:5:2859:G:O2'	1:5:2860:C:O5'	2.15	0.65
1:5:2665:U:C4	21:R:124:TYR:CZ	2.85	0.65
1:5:1840:G:H2'	1:5:1842:G:O5'	1.96	0.65
1:5:515:C:C2	1:5:647:G:C2	2.85	0.65
1:5:1404:G:N2	1:5:1414:C:C2	2.65	0.65
1:5:3846:C:O2	1:5:3846:C:H2'	1.97	0.65
1:5:2392:C:N3	1:5:2393:C:C5	2.65	0.65
1:5:4772:C:C2	1:5:4773:C:C5	2.85	0.65
6:C:112:HIS:CE1	17:N:202:ARG:HE	2.14	0.65
48:4:168:GLN:HG2	48:4:168:GLN:O	1.96	0.65
49:S2:625:G:H4'	49:S2:629:A:C2	2.32	0.65
1:5:259:C:H2'	1:5:260:C:O4'	1.97	0.65
52:SC:267:GLN:NE2	71:SV:50:PHE:HE2	1.94	0.65
49:S2:960:U:O4	64:SO:66:ARG:HA	1.97	0.65
17:N:158:HIS:HB3	17:N:161:MET:HG2	1.79	0.65
48:4:150:ARG:O	48:4:200:MET:HE3	1.97	0.64
48:4:40:VAL:HA	48:4:43:ALA:HB2	1.78	0.64
1:5:1973:G:C6	1:5:2002:A:N7	2.64	0.64
1:5:2279:A:N1	1:5:2280:G:C6	2.65	0.64
1:5:3938:G:C6	1:5:4077:A:H2	2.14	0.64
1:5:457:G:N1	1:5:458:C:C5	2.64	0.64
1:5:695:G:H3'	1:5:696:C:H5'	1.77	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:86:LYS:C	14:K:104:ILE:HG21	2.16	0.64
20:Q:17:GLU:HA	20:Q:52:PHE:CE1	2.31	0.64
48:4:730:TYR:HB2	48:4:854:PHE:CE2	2.31	0.64
49:S2:1466:G:N2	49:S2:1467:C:C2	2.65	0.64
49:S2:173:A:C2	49:S2:174:C:C6	2.84	0.64
1:5:1357:C:O2'	1:5:1358:G:H5'	1.96	0.64
1:5:288:G:H2'	1:5:289:C:C6	2.32	0.64
49:S2:1595:U:O4	49:S2:1596:U:C5	2.49	0.64
49:S2:1578:U:C6	53:SD:6:SER:N	2.65	0.64
68:SS:86:ARG:CZ	68:SS:86:ARG:HA	2.27	0.64
1:5:4241:C:O2	1:5:4241:C:C2'	2.40	0.64
1:5:4275:G:C6	1:5:4276:G:N7	2.65	0.64
49:S2:554:A:C2	49:S2:555:A:N7	2.65	0.64
21:R:131:VAL:HB	21:R:132:PHE:CE1	2.31	0.64
49:S2:796:G:H3'	49:S2:797:C:H5"	1.78	0.64
1:5:3652:A:C8	1:5:3691:G:N2	2.65	0.64
3:8:121:G:H2'	3:8:122:G:O5'	1.96	0.64
1:5:489:C:N3	1:5:490:C:C6	2.65	0.64
63:SN:128:TYR:CD1	63:SN:129:TYR:N	2.65	0.64
1:5:1934:A:C6	1:5:2048:U:C2	2.85	0.64
49:S2:833:C:C2	49:S2:834:C:C6	2.85	0.64
3:8:103:A:N7	3:8:104:A:N7	2.45	0.64
49:S2:963:A:C2	49:S2:964:A:C5	2.84	0.64
1:5:2768:C:O4'	1:5:2768:C:O2	2.14	0.64
15:L:28:GLN:HG2	17:N:202:ARG:HH11	1.61	0.64
49:S2:1352:G:H1'	49:S2:1378:A:N3	2.12	0.64
25:V:48:ARG:HH21	25:V:48:ARG:HG3	1.61	0.64
61:SL:17:PHE:CZ	61:SL:19:ASN:HB2	2.31	0.64
1:5:1684:A:C2	1:5:1685:G:H1'	2.32	0.64
1:5:1900:C:C2	1:5:1901:C:C6	2.85	0.64
1:5:1994:C:HO2'	14:K:132:ILE:CG1	1.78	0.64
1:5:2463:G:H2'	1:5:2464:C:C6	2.32	0.64
1:5:2468:U:N3	1:5:2473:A:C6	2.64	0.64
1:5:2644:G:C6	1:5:2645:G:C5	2.85	0.64
1:5:4404:U:C5	1:5:4436:U:O4	2.50	0.64
1:5:459:C:N3	1:5:460:C:C5	2.65	0.64
9:F:197:TYR:C	9:F:199:VAL:H	2.00	0.64
14:K:66:ASN:HB2	14:K:69:ALA:HB3	1.79	0.64
48:4:609:PHE:CZ	48:4:661:ILE:CD1	2.68	0.64
48:4:827:ASN:ND2	48:4:827:ASN:O	2.30	0.64
49:S2:1366:G:N2	49:S2:1374:C:C2	2.64	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:340:C:C4	49:S2:341:C:C4	2.85	0.64
48:4:267:ASP:OD1	48:4:268:PRO:N	2.30	0.64
49:S2:1405:A:C4	49:S2:1406:G:C8	2.85	0.64
49:S2:1551:U:O4'	49:S2:1558:C:C2	2.50	0.64
1:5:422:C:N3	1:5:423:G:C8	2.66	0.64
1:5:2367:A:O2'	1:5:2368:A:O5'	2.14	0.64
49:S2:1215:C:H42	49:S2:1221:G:H1	1.44	0.64
1:5:3694:U:C4	1:5:3695:U:C5	2.85	0.64
48:4:191:THR:HG22	48:4:192:TYR:CE2	2.32	0.64
49:S2:842:C:C2	49:S2:843:C:C6	2.85	0.64
1:5:4099:G:C5	1:5:4100:C:C5	2.85	0.64
49:S2:494:C:C2	49:S2:495:U:H5	2.14	0.64
49:S2:500:A:H3'	49:S2:501:C:C5	2.33	0.64
3:8:131:G:N1	3:8:132:G:C8	2.64	0.64
1:5:5029:C:N3	1:5:5030:U:C5	2.66	0.64
49:S2:848:U:C2	49:S2:849:A:C8	2.86	0.64
1:5:4482:U:O2	1:5:4483:C:C6	2.49	0.64
49:S2:863:U:N3	49:S2:864:A:N7	2.45	0.64
1:5:1609:U:C4	1:5:1610:C:C5	2.84	0.64
1:5:2394:G:O6	1:5:2819:U:P	2.55	0.64
49:S2:1144:A:OP1	49:S2:1355:C:C5	2.50	0.64
49:S2:609:U:O2	49:S2:610:G:C8	2.50	0.64
1:5:4463:U:C5	1:5:4488:A:N7	2.66	0.64
52:SC:104:ASP:OD2	52:SC:130:ILE:HB	1.96	0.64
1:5:1261:G:N1	1:5:1262:G:C5	2.65	0.64
1:5:1554:A:C5	1:5:1555:G:C8	2.86	0.64
1:5:1673:U:N3	1:5:1674:C:C4	2.66	0.64
1:5:966:A:N6	1:5:2252:G:C8	2.56	0.64
1:5:2272:C:O2'	1:5:2273:G:C5'	2.45	0.64
1:5:2645:G:C6	1:5:2646:C:C5	2.86	0.64
48:4:690:GLY:N	48:4:730:TYR:CE1	2.61	0.64
49:S2:673:G:H1'	49:S2:1084:A:C2	2.32	0.64
1:5:88:A:C2	1:5:89:C:C4	2.85	0.64
49:S2:1030:A:N3	49:S2:1031:A:C8	2.66	0.64
49:S2:676:C:C2	49:S2:677:G:C8	2.85	0.64
1:5:2367:A:N6	1:5:2788:U:N3	2.27	0.64
2:7:17:C:O2	2:7:17:C:H2'	1.97	0.64
49:S2:1220:A:N6	49:S2:1221:G:C6	2.65	0.64
3:8:70:G:C2	3:8:87:G:C2	2.86	0.64
1:5:661:C:N3	1:5:662:C:C5	2.66	0.64
1:5:4723:A:N3	1:5:4724:A:C8	2.65	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:247:G:N1	1:5:248:C:C4	2.65	0.64
1:5:2736:G:N2	1:5:2737:C:N1	2.45	0.64
49:S2:1126:G:C2	49:S2:1127:C:C6	2.86	0.64
49:S2:139:C:O2'	49:S2:140:C:O3'	2.15	0.64
3:8:21:C:OP1	6:C:195:LYS:NZ	2.31	0.64
48:4:70:ILE:O	48:4:71:LYS:CB	2.44	0.64
1:5:2079:G:N2	1:5:2080:U:C2	2.65	0.64
1:5:2325:C:O2	1:5:2325:C:C2'	2.45	0.64
49:S2:81:U:C4	49:S2:82:G:N7	2.65	0.64
1:5:3723:A:C2	1:5:3724:A:C8	2.85	0.64
1:5:1177:U:N3	1:5:1178:G:N7	2.46	0.64
49:S2:1409:A:H2'	49:S2:1410:C:O4'	1.97	0.64
68:SS:86:ARG:HA	68:SS:86:ARG:NH1	2.12	0.64
49:S2:1032:C:C2	49:S2:1033:G:C8	2.86	0.64
49:S2:530:U:C4	49:S2:531:A:N7	2.64	0.64
1:5:3779:A:H2'	1:5:3780:G:O4'	1.98	0.64
1:5:4096:C:N4	1:5:4097:G:C4	2.64	0.64
1:5:5031:G:N1	1:5:5032:C:C4	2.65	0.64
6:C:200:ARG:NH2	28:Y:11:ARG:HD2	2.11	0.64
1:5:2305:U:C6	1:5:2305:U:C5'	2.80	0.64
10:G:169:PHE:CE2	17:N:6:TYR:HB2	2.31	0.64
1:5:4532:U:OP2	1:5:4554:G:N2	2.30	0.64
1:5:704:C:H5"	1:5:704:C:C6	2.31	0.64
1:5:984:C:C2	1:5:1070:G:C2	2.86	0.64
1:5:1085:C:N3	1:5:1086:C:C6	2.65	0.64
1:5:453:G:H22	1:5:1294:A:H62	1.46	0.64
1:5:2292:C:C2	1:5:2293:U:C6	2.85	0.64
1:5:3938:G:H4'	1:5:3939:G:O5'	1.97	0.64
14:K:81:ILE:CD1	14:K:117:ARG:NH1	2.60	0.64
22:S:15:ARG:HH21	23:T:141:VAL:HG22	1.61	0.64
49:S2:1201:U:H1'	49:S2:1357:A:C2	2.33	0.64
1:5:1388:A:C6	1:5:1396:G:C2	2.81	0.64
1:5:75:G:O6	15:L:103:ARG:NH1	2.30	0.64
49:S2:1254:C:O2	49:S2:1255:G:H8	1.80	0.64
73:SX:88:ASP:OD1	73:SX:88:ASP:C	2.35	0.64
1:5:1936:C:O2	1:5:1936:C:C2'	2.46	0.64
49:S2:52:G:N2	49:S2:53:C:H1'	2.12	0.64
49:S2:1710:C:N3	49:S2:1711:U:C5	2.66	0.64
1:5:211:G:N3	1:5:212:A:C8	2.66	0.64
1:5:271:C:N3	1:5:272:U:C6	2.60	0.64
49:S2:925:G:N2	49:S2:926:A:N9	2.46	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:927:C:C2	49:S2:928:G:C8	2.85	0.64
49:S2:1123:C:C4	49:S2:1124:C:H5	2.13	0.64
49:S2:841:G:N3	49:S2:842:C:C6	2.65	0.64
49:S2:958:G:HO2'	49:S2:959:G:C4'	2.05	0.64
49:S2:977:C:N3	49:S2:978:G:N7	2.45	0.64
1:5:1412:G:N1	1:5:1413:C:C4	2.65	0.64
1:5:2570:U:N3	1:5:2571:C:C5	2.66	0.64
49:S2:600:G:C2	49:S2:601:G:N7	2.65	0.64
49:S2:1496:U:C4	49:S2:1498:A:N7	2.66	0.64
1:5:235:A:C5	1:5:238:C:N4	2.66	0.64
1:5:1507:C:C2	1:5:1508:A:C8	2.86	0.64
57:SH:57:ARG:NE	57:SH:57:ARG:HA	2.13	0.64
48:4:495:ARG:O	48:4:496:VAL:CG1	2.45	0.64
1:5:1673:U:O4	1:5:1682:A:N1	2.30	0.64
1:5:1878:G:C2	1:5:1879:C:C5	2.86	0.64
1:5:1877:G:N2	1:5:1878:G:H1'	2.11	0.64
1:5:1997:U:H2'	1:5:1998:A:H3'	1.80	0.64
21:R:95:TRP:HZ3	21:R:98:ARG:HH21	1.44	0.64
49:S2:469:A:N1	49:S2:470:G:N7	2.44	0.64
49:S2:69:C:H2'	49:S2:70:G:C8	2.32	0.64
56:SG:162:LEU:HG	56:SG:170:ARG:HB2	1.78	0.64
1:5:3742:G:C2	1:5:3743:G:C8	2.85	0.64
1:5:4343:U:C2	1:5:4344:U:C5	2.86	0.64
1:5:76:A:C8	15:L:74:ARG:NH2	2.66	0.64
49:S2:1265:A:N3	49:S2:1266:C:C6	2.65	0.64
49:S2:1654:G:H2'	49:S2:1655:C:O4'	1.97	0.64
49:S2:1276:A:C2	49:S2:1277:C:H1'	2.33	0.64
1:5:1325:C:H4'	1:5:3901:A:C2	2.32	0.64
49:S2:751:G:O6	49:S2:791:C:C4	2.51	0.64
1:5:3629:A:C6	1:5:3630:A:C8	2.85	0.64
1:5:2612:G:C6	1:5:2613:C:C4	2.86	0.64
1:5:484:U:O4	1:5:486:C:C4	2.51	0.64
1:5:4766:C:H2'	1:5:4767:C:O4'	1.97	0.64
49:S2:926:A:C6	49:S2:927:C:C5	2.86	0.64
1:5:1928:C:H1'	1:5:1929:A:C6	2.33	0.64
1:5:4652:G:C4	1:5:4653:C:C5	2.86	0.64
1:5:1632:A:O2'	1:5:3641:U:O2	2.14	0.64
3:8:134:G:H21	3:8:135:C:H1'	1.62	0.64
1:5:364:G:O6	13:J:52:LYS:HE3	108.46	0.64
49:S2:906:U:O2	49:S2:907:G:C8	2.51	0.64
49:S2:910:G:C6	49:S2:911:C:C4	2.85	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1204:C:N3	1:5:1205:G:N7	2.46	0.64
1:5:4547:C:O2	1:5:4549:G:C8	2.51	0.64
1:5:4510:A:H62	1:5:4592:C:C2'	2.11	0.64
1:5:3622:C:N3	1:5:3623:C:N3	2.45	0.64
1:5:238:C:C2	1:5:239:C:C5	2.86	0.64
1:5:4301:U:H4'	23:T:54:HIS:HD2	1.61	0.64
12:I:9:TYR:HD2	12:I:97:ILE:CG1	2.11	0.64
49:S2:694:G:C2	49:S2:695:C:C6	2.85	0.64
1:5:1921:C:C6	22:S:161:ARG:HG2	2.33	0.64
1:5:2703:G:C6	1:5:2704:C:C5	2.86	0.64
56:SG:180:VAL:HG13	56:SG:185:LEU:HD21	1.80	0.64
26:W:4:GLU:CD	26:W:30:GLN:HE21	2.00	0.64
48:4:308:LYS:HB3	48:4:311:GLU:HG3	1.78	0.64
48:4:113:SER:CB	48:4:533:MET:HB2	2.17	0.64
48:4:541:SER:O	48:4:543:GLU:N	2.31	0.64
48:4:58:ASP:CB	48:4:63:GLU:CD	2.65	0.64
48:4:742:GLU:HB2	48:4:820:LEU:HD11	1.79	0.64
14:K:31:LYS:NZ	48:4:753:GLU:CD	2.50	0.64
1:5:2089:G:C5	1:5:2262:G:C2'	2.79	0.64
14:K:31:LYS:O	14:K:34:PRO:HD2	1.93	0.64
14:K:61:LYS:HE3	14:K:72:GLU:HB3	0.67	0.64
49:S2:1561:A:H2'	49:S2:1561:A:N3	2.13	0.64
49:S2:1573:G:C5	49:S2:1574:C:C6	2.85	0.64
49:S2:635:G:C6	49:S2:636:C:C4	2.86	0.64
49:S2:553:U:N3	49:S2:554:A:C5	2.65	0.64
48:4:408:GLY:HA2	49:S2:479:C:H5'	1.79	0.64
1:5:206:U:O2	1:5:208:A:C8	2.51	0.64
3:8:118:C:O2	3:8:119:C:C6	2.51	0.64
48:4:191:THR:CB	48:4:192:TYR:CD1	2.80	0.64
1:5:1926:C:C2	1:5:1927:U:C6	2.85	0.64
49:S2:837:A:C2	49:S2:838:G:C8	2.86	0.64
1:5:4097:G:C2	1:5:4098:A:N7	2.65	0.64
48:4:284:LYS:CE	48:4:284:LYS:H	2.11	0.64
1:5:4369:A:C2	1:5:4370:G:N7	2.65	0.64
1:5:1167:C:H1'	1:5:1195:G:N2	2.13	0.64
1:5:246:G:N3	1:5:247:G:C8	2.66	0.64
2:7:93:G:C2	2:7:94:C:C6	2.85	0.64
1:5:1517:G:C2	1:5:1650:A:C6	2.86	0.64
1:5:4490:C:C2	1:5:4491:G:C8	2.86	0.64
1:5:2399:G:C2	1:5:2400:G:C8	2.85	0.64
1:5:1516:G:C5	1:5:1518:A:N7	2.66	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:8:63:U:C2'	3:8:63:U:O2	2.45	0.64
1:5:2546:G:O2'	1:5:2547:G:H5"	1.96	0.64
49:S2:360:A:C2	49:S2:363:A:C8	2.86	0.64
48:4:516:ASP:O	48:4:518:PRO:N	2.30	0.64
48:4:60:ARG:O	48:4:60:ARG:HG3	1.97	0.64
48:4:749:ILE:HD12	48:4:759:ILE:CG1	2.28	0.64
48:4:800:LEU:CG	48:4:808:ALA:HB1	2.21	0.64
1:5:1079:C:N3	1:5:1080:C:C6	2.66	0.64
1:5:1696:C:O2	1:5:1697:G:H5'	1.97	0.64
1:5:2079:G:C2	1:5:2080:U:C4	2.85	0.64
1:5:2326:G:N2	1:5:2327:G:N9	2.45	0.64
1:5:2451:A:C5	1:5:2452:G:N7	2.66	0.64
1:5:690:C:N3	1:5:691:C:C6	2.66	0.64
14:K:123:ARG:CB	14:K:129:ILE:CD1	0.64	0.64
49:S2:1741:U:C2	49:S2:1742:C:C6	2.86	0.64
49:S2:1793:A:N1	49:S2:1794:C:C4	2.66	0.64
49:S2:1797:U:O2'	49:S2:1798:C:O5'	2.13	0.64
49:S2:1204:A:N3	49:S2:1205:C:C6	2.66	0.64
1:5:1391:A:C5	1:5:1392:A:N7	2.66	0.64
1:5:98:A:C1'	1:5:292:G:O6	2.45	0.64
1:5:3722:G:N1	1:5:3723:A:C5	2.65	0.64
1:5:4342:C:N3	1:5:4343:U:C6	2.66	0.64
1:5:4275:G:C6	1:5:4276:G:C8	2.85	0.64
1:5:2371:U:O4	1:5:2825:A:H2	1.79	0.64
62:SM:87:GLU:HA	62:SM:91:LEU:HD11	1.80	0.64
1:5:2409:U:O4	1:5:2783:A:C6	2.51	0.64
4:A:211:PHE:CD1	4:A:219:ILE:HG23	2.33	0.64
1:5:50:C:C2'	1:5:51:A:O5'	2.46	0.64
49:S2:856:C:O2	49:S2:856:C:H2'	1.98	0.64
1:5:176:G:H5"	11:H:98:HIS:CE1	177.37	0.64
48:4:616:ASP:OD1	48:4:621:GLU:CB	2.46	0.64
1:5:4255:A:C2	1:5:4256:A:N3	2.66	0.64
1:5:1198:G:H2'	1:5:1199:G:H8	1.59	0.64
1:5:4881:U:O2'	1:5:4882:U:C6	2.50	0.64
1:5:1807:C:C4	1:5:1808:C:C5	2.85	0.64
1:5:3621:A:C2	1:5:3622:C:C6	2.86	0.64
1:5:4145:C:N3	1:5:4146:G:N7	2.46	0.64
1:5:1314:C:C2	1:5:1315:C:C5	2.85	0.64
59:SJ:86:VAL:HG21	59:SJ:105:PHE:CE1	2.32	0.64
48:4:481:LYS:CG	48:4:482:THR:N	2.16	0.64
48:4:502:SER:O	48:4:504:VAL:N	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1292:C:H3'	1:5:1293:G:H5"	1.80	0.64
1:5:1447:C:C1'	1:5:2098:G:N2	2.61	0.64
1:5:1542:U:N3	1:5:1543:G:N7	2.46	0.64
1:5:1878:G:N1	1:5:1879:C:C4	2.66	0.64
1:5:2449:A:N7	1:5:2450:G:H1'	2.12	0.64
1:5:471:A:C5	1:5:472:C:C5	2.85	0.64
1:5:978:G:H5"	8:E:41:SER:O	1.97	0.64
14:K:102:GLY:HA2	14:K:140:GLY:N	2.07	0.64
14:K:121:LEU:HB2	14:K:123:ARG:HB3	1.80	0.64
14:K:61:LYS:HA	14:K:75:PRO:HD3	1.79	0.64
48:4:738:PRO:HB2	48:4:824:PRO:HG2	1.80	0.64
49:S2:1162:C:H2'	49:S2:1162:C:O2	1.97	0.64
1:5:298:G:C6	1:5:299:C:C5	2.85	0.64
1:5:83:C:P	1:5:84:A:O2'	2.55	0.64
49:S2:1253:A:OP2	49:S2:1526:G:N2	2.30	0.64
25:V:97:TYR:OH	26:W:21:TYR:CB	2.45	0.64
49:S2:1095:U:O4	49:S2:1149:A:C6	2.51	0.64
49:S2:1271:C:N3	49:S2:1272:C:C6	2.66	0.64
49:S2:1283:C:C2'	49:S2:1283:C:O2	2.46	0.64
1:5:1891:A:H2'	1:5:1892:A:C8	2.33	0.64
1:5:2496:G:C6	1:5:2497:C:C4	2.86	0.64
1:5:2407:G:O2'	1:5:2409:U:N3	2.30	0.64
1:5:107:G:C6	15:L:56:ARG:NH1	2.66	0.64
1:5:106:A:H2'	1:5:107:G:O4'	1.98	0.64
3:8:64:U:H2'	3:8:65:A:H8	1.59	0.64
1:5:491:G:N2	1:5:492:U:C5	2.66	0.64
1:5:4480:A:C2	1:5:4481:U:C1'	2.81	0.64
49:S2:909:G:C6	49:S2:910:G:N7	2.65	0.64
1:5:911:U:N3	1:5:912:G:N7	2.46	0.64
1:5:4935:C:H3'	8:E:179:ARG:NH2	2.13	0.64
1:5:2301:G:C6	1:5:2302:C:C5	2.85	0.64
1:5:347:A:C2	1:5:348:G:C5	2.86	0.64
16:M:11:ARG:NH2	16:M:61:ILE:HG23	2.13	0.64
1:5:4528:G:C2	1:5:4529:G:C8	2.85	0.64
48:4:73:THR:CA	48:4:104:ASP:CB	2.74	0.64
48:4:27:HIS:NE2	48:4:28:VAL:HG23	2.10	0.64
48:4:70:ILE:O	48:4:71:LYS:CG	2.46	0.64
1:5:1987:C:C4	1:5:1988:G:N7	2.65	0.64
1:5:2326:G:C2	1:5:2327:G:N9	2.65	0.64
1:5:964:A:H8	1:5:964:A:O5'	1.80	0.64
48:4:592:LEU:C	48:4:592:LEU:CD1	2.52	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:638:LYS:HD2	48:4:638:LYS:H	1.62	0.64
48:4:571:LYS:CA	48:4:571:LYS:CE	2.75	0.64
49:S2:218:U:H2'	49:S2:219:U:O4'	1.98	0.64
48:4:207:PRO:CG	48:4:261:TRP:CE2	2.81	0.64
1:5:289:C:C4	1:5:290:U:C5	2.86	0.64
1:5:292:G:O2'	1:5:293:G:O5'	2.15	0.64
1:5:3741:C:O2	1:5:3742:G:C8	2.49	0.64
49:S2:1412:C:H2'	49:S2:1413:G:N7	2.12	0.64
49:S2:27:A:C5	49:S2:28:U:C5	2.85	0.64
49:S2:1311:C:H2'	49:S2:1312:G:O4'	1.98	0.64
49:S2:475:C:N3	49:S2:476:A:N7	2.46	0.64
3:8:82:A:N3	3:8:82:A:H2'	2.12	0.64
1:5:2861:C:O2	1:5:3626:G:H4'	1.98	0.64
1:5:2690:C:N3	1:5:2691:U:C6	2.66	0.64
1:5:4482:U:N3	1:5:4483:C:H5	1.94	0.64
1:5:4966:A:H2'	1:5:4967:A:C1'	2.27	0.64
1:5:42:A:N6	1:5:4379:A:N3	2.46	0.64
1:5:699:C:C2	1:5:700:G:C8	2.85	0.64
1:5:730:G:H22	1:5:939:G:N2	1.94	0.64
1:5:189:G:C2	1:5:190:G:C8	2.85	0.64
7:D:223:PHE:CB	7:D:226:TYR:HB2	2.28	0.64
48:4:216:SER:OG	48:4:219:HIS:HB2	1.98	0.64
9:F:209:PHE:CD1	9:F:209:PHE:C	2.70	0.64
1:5:1245:C:C6	1:5:1269:G:O6	2.49	0.63
1:5:1867:A:N3	1:5:4403:U:O2'	2.27	0.63
1:5:1979:A:OP1	14:K:99:LYS:HG2	1.97	0.63
1:5:1958:A:C6	1:5:2026:A:C6	2.70	0.63
1:5:1267:C:H2'	1:5:2121:C:H41	1.62	0.63
1:5:2316:G:C4	1:5:2317:C:C5	2.86	0.63
1:5:3674:G:N1	1:5:3675:G:C5	2.67	0.63
1:5:4117:U:H2'	1:5:4117:U:O2	1.97	0.63
1:5:4426:C:N4	1:5:4427:G:C6	2.66	0.63
49:S2:121:U:C4	49:S2:122:G:N7	2.66	0.63
49:S2:113:G:N3	49:S2:293:C:C5	2.66	0.63
49:S2:377:G:C6	49:S2:378:U:C5	2.86	0.63
49:S2:387:C:N3	49:S2:388:U:H5	1.92	0.63
49:S2:85:A:N1	49:S2:86:C:C4	2.65	0.63
48:4:207:PRO:HB2	48:4:261:TRP:CG	2.33	0.63
1:5:1475:G:N3	1:5:1476:C:C5	2.64	0.63
1:5:1476:C:O2	1:5:1477:C:C6	2.51	0.63
1:5:3665:G:H2'	1:5:3666:C:O4'	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1591:C:N4	49:S2:1592:C:C5	2.66	0.63
48:4:335:LEU:O	48:4:339:VAL:HG23	1.98	0.63
1:5:1936:C:C6	2:7:84:U:H6	2.13	0.63
49:S2:52:G:C5	49:S2:53:C:C5	2.85	0.63
48:4:396:MET:CE	48:4:472:LEU:CD1	2.76	0.63
1:5:3689:G:C6	1:5:3690:U:C4	2.87	0.63
1:5:3689:G:C5	1:5:3690:U:C5	2.87	0.63
63:SN:128:TYR:HD1	63:SN:129:TYR:N	1.96	0.63
1:5:1933:G:H2'	1:5:1934:A:O4'	1.98	0.63
1:5:4114:C:H2'	1:5:4115:G:H1'	1.80	0.63
2:7:42:A:N1	2:7:43:U:C5	2.66	0.63
1:5:2829:U:C2	1:5:2830:G:C8	2.86	0.63
1:5:4746:C:C4	1:5:4747:C:C5	2.86	0.63
1:5:2589:C:H3'	1:5:2590:G:H8	1.63	0.63
1:5:246:G:N1	1:5:247:G:N7	2.45	0.63
1:5:1964:A:C2	1:5:4694:G:C6	2.86	0.63
48:4:223:PHE:HB3	48:4:344:LEU:HD13	1.79	0.63
1:5:2399:G:N1	1:5:2400:G:C5	2.67	0.63
49:S2:892:U:C2	49:S2:893:U:C6	2.86	0.63
1:5:3927:U:C4	1:5:4182:G:C2	2.87	0.63
1:5:4139:G:C6	1:5:4140:C:C5	2.85	0.63
1:5:1258:G:C2	1:5:1259:G:C8	2.87	0.63
1:5:4251:A:H2'	1:5:4252:C:C6	2.31	0.63
72:SW:27:ILE:HD11	72:SW:61:ILE:HD12	1.79	0.63
48:4:496:VAL:HG23	48:4:497:MET:N	2.13	0.63
1:5:1993:C:C4	1:5:2002:A:C6	2.86	0.63
1:5:2270:G:N1	1:5:2271:C:C4	2.66	0.63
1:5:2453:A:N6	1:5:2454:U:C4	2.67	0.63
1:5:4406:U:N3	1:5:4407:G:N7	2.46	0.63
14:K:14:TYR:CD1	14:K:14:TYR:C	2.72	0.63
48:4:823:ASP:C	48:4:823:ASP:OD1	2.37	0.63
1:5:293:G:H4'	1:5:294:G:C8	2.33	0.63
1:5:295:A:N7	1:5:316:U:O2'	2.29	0.63
1:5:3723:A:N3	1:5:3724:A:C8	2.66	0.63
1:5:3728:A:C8	1:5:3729:U:H1'	2.32	0.63
1:5:280:G:H8	17:N:120:TRP:CZ3	2.16	0.63
48:4:267:ASP:C	48:4:267:ASP:HA	2.10	0.63
49:S2:1266:C:C2	49:S2:1267:C:H5	2.15	0.63
49:S2:1546:G:O2'	49:S2:1547:C:C5'	2.46	0.63
49:S2:1574:C:C2	49:S2:1575:G:C8	2.87	0.63
2:7:59:G:C5	2:7:60:G:C8	2.87	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4215:C:C4	1:5:4216:G:N7	2.66	0.63
49:S2:26:U:C2	49:S2:27:A:H8	2.13	0.63
49:S2:634:A:N3	49:S2:635:G:C8	2.66	0.63
1:5:3753:G:C6	1:5:3754:G:N7	2.66	0.63
49:S2:752:G:C2	49:S2:791:C:O2	2.51	0.63
3:8:81:C:O2	3:8:81:C:C2'	2.45	0.63
1:5:2056:G:C6	1:5:2058:G:C5	2.86	0.63
5:B:106:PHE:CE2	5:B:130:PHE:CZ	2.86	0.63
2:7:42:A:C8	13:J:75:ARG:NH1	2.67	0.63
1:5:4472:G:C6	1:5:4473:A:C8	2.86	0.63
1:5:1411:C:N3	1:5:1412:G:N7	2.45	0.63
1:5:144:G:N3	1:5:145:G:C8	2.65	0.63
49:S2:1781:A:H2'	49:S2:1782:G:H8	1.62	0.63
1:5:181:C:C2	1:5:256:G:C2	2.86	0.63
1:5:1439:C:C2	9:F:36:ARG:NH1	2.67	0.63
1:5:4453:C:C2	1:5:4529:G:C2	2.87	0.63
49:S2:1729:U:O2	49:S2:1730:U:C5	2.51	0.63
48:4:27:HIS:CD2	48:4:28:VAL:CA	2.70	0.63
48:4:502:SER:C	48:4:504:VAL:H	2.00	0.63
48:4:752:PRO:HB2	48:4:754:GLN:CD	2.17	0.63
48:4:753:GLU:OE2	48:4:779:THR:CB	2.45	0.63
1:5:1066:G:C4	1:5:1067:G:C8	2.87	0.63
1:5:1250:C:C2	1:5:1261:G:C2	2.86	0.63
1:5:1661:C:O2	1:5:1662:C:C5	2.52	0.63
14:K:114:ARG:NE	14:K:130:LYS:HE2	2.13	0.63
14:K:105:THR:HG22	14:K:144:ASP:HA	1.79	0.63
14:K:94:LYS:CG	14:K:96:LYS:HE3	2.24	0.63
20:Q:178:ARG:NH2	20:Q:186:TYR:CE1	2.66	0.63
49:S2:1455:A:C6	49:S2:1456:G:C8	2.86	0.63
1:5:1476:C:C4	1:5:1477:C:C5	2.86	0.63
1:5:293:G:H5"	1:5:294:G:H8	1.61	0.63
1:5:1176:C:O2'	7:D:279:ARG:HG2	1.98	0.63
1:5:209:U:C5	1:5:211:G:N7	2.66	0.63
1:5:44:A:C2	1:5:45:U:C6	2.86	0.63
1:5:54:G:N1	1:5:55:G:C8	2.66	0.63
49:S2:104:A:N6	49:S2:105:U:C4	2.66	0.63
1:5:2422:C:H2'	1:5:2422:C:O2	1.96	0.63
49:S2:100:U:O4	49:S2:409:C:H1'	1.99	0.63
1:5:4479:A:C2	1:5:4480:A:H1'	2.32	0.63
49:S2:906:U:O2	49:S2:907:G:N7	2.31	0.63
1:5:1091:C:N3	1:5:1092:G:C8	2.66	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:579:C:N4	49:S2:580:U:C4	2.66	0.63
1:5:3606:U:C2	1:5:3607:U:C5	2.85	0.63
49:S2:402:C:N3	49:S2:403:G:C8	2.67	0.63
4:A:186:TYR:N	4:A:196:TRP:CZ3	2.66	0.63
57:SH:158:LEU:HB2	57:SH:189:PHE:CZ	2.33	0.63
49:S2:942:G:H2'	49:S2:943:U:C6	2.34	0.63
62:SM:35:ILE:HB	62:SM:61:TYR:CE1	2.34	0.63
1:5:4583:C:N4	1:5:4718:G:C6	2.67	0.63
1:5:1441:C:C2	1:5:1442:C:C6	2.86	0.63
1:5:2441:C:H2'	1:5:2442:G:C8	2.34	0.63
14:K:78:SER:HA	14:K:117:ARG:HH11	1.62	0.63
48:4:507:VAL:HG22	48:4:554:LEU:HD22	1.71	0.63
48:4:739:ARG:HH12	48:4:823:ASP:HB2	1.59	0.63
49:S2:114:G:H1'	49:S2:383:G:O4'	1.98	0.63
49:S2:61:A:C2	49:S2:335:G:H1'	2.33	0.63
49:S2:383:G:O2'	61:SL:133:PRO:O	2.16	0.63
49:S2:10:G:C2	49:S2:11:A:C8	2.86	0.63
48:4:157:MET:HE2	48:4:214:PHE:CE2	2.33	0.63
1:5:65:A:H2	1:5:76:A:H4'	1.63	0.63
1:5:3709:U:N3	49:S2:970:G:C2	2.52	0.63
49:S2:1229:G:C5	49:S2:1230:C:C5	2.86	0.63
49:S2:1528:G:C4	49:S2:1529:C:C5	2.87	0.63
49:S2:1590:C:C4	49:S2:1591:C:H1'	2.34	0.63
49:S2:1603:G:C8	68:SS:28:PHE:HE2	2.16	0.63
3:8:11:C:O2	3:8:11:C:C2'	2.47	0.63
73:SX:67:ARG:CG	73:SX:115:ILE:HD13	2.27	0.63
49:S2:1273:C:N3	49:S2:1506:A:C2	2.67	0.63
1:5:3763:A:H2'	1:5:3764:U:O4'	1.98	0.63
49:S2:166:A:C2	49:S2:167:G:C8	2.87	0.63
1:5:30:C:C2'	1:5:31:U:O5'	2.47	0.63
49:S2:835:C:H5'	49:S2:836:G:OP2	1.98	0.63
48:4:557:CYS:HA	48:4:560:ASP:OD2	1.98	0.63
1:5:916:C:N4	1:5:917:A:N7	2.46	0.63
1:5:1202:C:N3	1:5:1203:G:N7	2.47	0.63
1:5:3590:G:C5	1:5:3591:C:C5	2.87	0.63
49:S2:185:G:N3	49:S2:186:C:C6	2.66	0.63
48:4:228:PHE:CE1	48:4:232:TYR:OH	2.49	0.63
1:5:3622:C:C2	1:5:3623:C:C2	2.87	0.63
49:S2:1160:U:OP2	73:SX:4:CYS:O	2.16	0.63
1:5:1509:C:N3	1:5:1510:G:N7	2.47	0.63
1:5:1251:C:N3	1:5:1252:C:C5	2.67	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4583:C:C4	1:5:4718:G:N1	2.66	0.63
61:SL:57:ASP:OD2	61:SL:60:CYS:N	2.30	0.63
59:SJ:48:PHE:CZ	59:SJ:52:LYS:HG3	2.33	0.63
1:5:1248:C:C4	1:5:1249:C:C5	2.86	0.63
1:5:2026:A:O2'	1:5:2027:U:H5'	1.98	0.63
1:5:2126:G:C1'	1:5:2127:C:C6	2.80	0.63
1:5:2090:U:N3	6:C:307:LYS:HE3	2.13	0.63
1:5:1273:G:N7	8:E:68:LYS:C	2.52	0.63
1:5:4426:C:C4	1:5:4427:G:C5	2.86	0.63
49:S2:1448:A:C6	49:S2:1449:G:C8	2.86	0.63
49:S2:299:A:C6	49:S2:300:U:C5	2.87	0.63
49:S2:338:G:C6	49:S2:339:A:C5	2.87	0.63
49:S2:380:G:H22	49:S2:382:C:H3'	1.63	0.63
49:S2:81:U:O4	49:S2:82:G:C5	2.52	0.63
49:S2:1205:C:C2	49:S2:1206:G:C8	2.86	0.63
49:S2:1036:A:N3	49:S2:1844:U:O2'	2.30	0.63
49:S2:1408:U:C2'	49:S2:1409:A:C8	2.81	0.63
49:S2:1417:C:C2	49:S2:1419:C:C5	2.86	0.63
49:S2:1526:G:C4	49:S2:1527:C:C6	2.86	0.63
49:S2:1568:C:O2'	49:S2:1569:A:O4'	2.16	0.63
2:7:59:G:C2	2:7:60:G:C8	2.86	0.63
62:SM:51:VAL:HG12	62:SM:109:VAL:HG22	1.81	0.63
26:W:50:ASN:HB3	26:W:55:TYR:HE2	1.60	0.63
49:S2:90:G:H2'	49:S2:91:A:O4'	1.99	0.63
1:5:3879:G:OP1	1:5:3879:G:O4'	2.16	0.63
1:5:27:C:C2	1:5:28:C:H6	2.16	0.63
1:5:4091:G:C4	1:5:4092:G:C8	2.86	0.63
1:5:2096:G:N3	1:5:2096:G:H3'	2.13	0.63
1:5:2657:G:C6	1:5:2658:G:C6	2.86	0.63
1:5:4730:C:H5"	1:5:4965:U:O2	1.98	0.63
1:5:4886:C:O2	1:5:4887:C:H6	1.80	0.63
29:Z:78:ASN:OD1	29:Z:78:ASN:N	2.32	0.63
58:SI:139:LYS:HD2	58:SI:145:ILE:HD12	1.81	0.63
1:5:4929:C:H6	1:5:4929:C:H5"	1.63	0.63
52:SC:200:ARG:HG3	52:SC:200:ARG:HH21	1.64	0.63
67:SR:5:ARG:HG3	67:SR:49:LYS:HE3	1.79	0.63
1:5:1246:G:C4	1:5:1247:U:C6	2.87	0.63
1:5:2327:G:C6	1:5:2328:G:N7	2.67	0.63
1:5:2644:G:C6	1:5:2645:G:N7	2.66	0.63
1:5:4080:C:O2	1:5:4081:G:H8	1.69	0.63
49:S2:221:A:C5	49:S2:222:U:C5	2.87	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1382:G:O2'	1:5:1383:G:H5'	1.98	0.63
49:S2:1433:C:O3'	49:S2:1434:C:O4'	2.17	0.63
1:5:4286:C:C2	1:5:4287:G:N7	2.67	0.63
48:4:845:LYS:HE3	48:4:846:GLU:CA	2.28	0.63
1:5:2688:G:C2	1:5:2689:C:C6	2.86	0.63
2:7:8:G:C6	2:7:9:C:C4	2.87	0.63
1:5:3911:C:O2'	1:5:3912:U:O5'	2.13	0.63
1:5:4194:U:O4	1:5:4197:G:H5"	1.98	0.63
1:5:4158:C:O2	1:5:4158:C:H2'	1.97	0.63
7:D:42:ASN:CA	7:D:44:TYR:OH	2.44	0.63
49:S2:499:G:C2	49:S2:504:G:C6	2.87	0.63
1:5:748:G:C6	1:5:918:G:H1'	2.34	0.63
1:5:2606:G:C4	1:5:2607:C:C5	2.87	0.63
1:5:4735:G:C4	1:5:4736:C:C5	2.87	0.63
49:S2:99:A:C6	49:S2:100:U:C5	2.87	0.63
1:5:4368:G:N1	1:5:4369:A:C8	2.66	0.63
49:S2:419:G:N2	49:S2:661:U:C2	2.67	0.63
1:5:4591:U:H2'	1:5:4592:C:C6	2.34	0.63
50:SA:110:ASN:O	50:SA:116:PHE:CD2	2.50	0.63
49:S2:1804:U:N3	49:S2:1805:G:N7	2.47	0.63
1:5:4189:U:C1'	1:5:4380:A:C2	2.81	0.63
65:SP:17:TYR:HB3	65:SP:25:LEU:HD11	1.81	0.63
54:SE:11:ARG:HD2	54:SE:20:LEU:HB3	1.80	0.63
5:B:337:VAL:HG21	5:B:345:LEU:HD21	1.81	0.63
48:4:120:ARG:CZ	48:4:496:VAL:O	2.47	0.63
1:5:1556:C:H2'	1:5:1557:C:H6	1.64	0.63
1:5:1661:C:C2	1:5:1662:C:C5	2.86	0.63
1:5:1671:U:C2'	1:5:1671:U:O2	2.45	0.63
1:5:1843:A:C6	1:5:1844:G:N7	2.66	0.63
1:5:2275:G:H5"	1:5:2275:G:H8	1.63	0.63
1:5:2540:C:C2	1:5:2541:G:C8	2.87	0.63
14:K:78:SER:HA	14:K:117:ARG:NH1	2.14	0.63
48:4:700:VAL:CG1	48:4:702:PHE:CE2	2.82	0.63
49:S2:113:G:C2	49:S2:293:C:C4	2.86	0.63
49:S2:1741:U:N3	49:S2:1742:C:C5	2.67	0.63
49:S2:449:A:N6	49:S2:452:G:C6	2.66	0.63
49:S2:80:G:C6	49:S2:81:U:C4	2.87	0.63
1:5:1379:C:O3'	1:5:1380:G:H8	1.81	0.63
1:5:312:G:H2'	1:5:313:U:O4'	1.99	0.63
1:5:3858:C:C4	1:5:3859:G:C8	2.86	0.63
1:5:3858:C:C4	1:5:3859:G:N7	2.67	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4277:G:N2	1:5:4278:C:C2	2.67	0.63
73:SX:115:ILE:HG22	73:SX:118:VAL:HB	1.80	0.63
49:S2:1095:U:N3	49:S2:1149:A:C6	2.67	0.63
49:S2:1304:U:O2	49:S2:1305:C:C5	2.52	0.63
1:5:1321:G:O4'	1:5:1891:A:N6	2.32	0.63
48:4:300:VAL:HG23	48:4:301:PHE:N	2.12	0.63
1:5:2496:G:C5	1:5:2497:C:C5	2.87	0.63
1:5:2856:C:N4	1:5:2857:A:H62	1.94	0.63
1:5:4119:C:O2	1:5:4119:C:O5'	2.17	0.63
1:5:52:G:H8	1:5:52:G:O5'	1.82	0.63
1:5:4097:G:N1	1:5:4098:A:N7	2.47	0.63
49:S2:493:A:N3	49:S2:493:A:H2'	2.14	0.63
1:5:4478:G:O2'	1:5:4602:A:N1	2.26	0.63
17:N:138:PHE:N	17:N:138:PHE:HD1	1.96	0.63
1:5:1771:U:N3	1:5:1772:C:C5	2.66	0.63
1:5:1439:C:H5"	9:F:36:ARG:NH1	2.12	0.63
49:S2:693:A:H2'	49:S2:694:G:O4'	1.99	0.63
9:F:219:ARG:HH11	9:F:219:ARG:HB3	1.63	0.63
16:M:36:ALA:HB2	16:M:52:PHE:CZ	2.34	0.63
1:5:1089:G:H5'	23:T:140:PHE:CE1	2.33	0.63
48:4:771:PHE:HD2	48:4:785:LYS:HD2	1.63	0.63
1:5:1243:C:H2'	1:5:1244:G:N7	2.14	0.63
1:5:2294:G:C4	1:5:2295:C:C5	2.87	0.63
1:5:2340:C:N3	1:5:2341:A:C8	2.66	0.63
1:5:2506:G:H4'	1:5:2507:A:OP1	1.97	0.63
1:5:470:A:N6	8:E:101:ARG:NH2	2.46	0.63
1:5:979:C:H2'	1:5:980:U:O4'	1.97	0.63
14:K:62:LEU:CD1	14:K:73:VAL:CG2	2.72	0.63
14:K:97:ASN:CA	14:K:98:ILE:HG12	2.16	0.63
49:S2:42:A:C4	49:S2:426:A:C6	2.86	0.63
49:S2:1831:A:C1'	49:S2:1851:A:H2'	2.27	0.63
1:5:4345:C:C2	1:5:4346:U:C6	2.87	0.63
1:5:3859:G:OP2	19:P:25:HIS:NE2	2.31	0.63
49:S2:1591:C:C4	49:S2:1592:C:C6	2.86	0.63
3:8:10:G:O6	3:8:11:C:C5	2.51	0.63
3:8:12:G:C6	3:8:13:G:N7	2.67	0.63
1:5:5001:U:H2'	1:5:5002:U:O4'	1.99	0.63
1:5:2483:G:C2	1:5:2484:A:C8	2.85	0.63
1:5:2485:U:C2	1:5:2486:G:N7	2.67	0.63
49:S2:821:G:C5'	49:S2:821:G:C8	2.82	0.63
4:A:5:ILE:HG13	4:A:209:HIS:HD2	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4100:C:C4	1:5:4101:C:C5	2.87	0.63
49:S2:1004:U:C2	49:S2:1005:G:C8	2.87	0.63
49:S2:1046:U:C4	49:S2:1047:C:N4	2.67	0.63
1:5:1334:A:C6	1:5:1335:G:N7	2.67	0.63
49:S2:1063:C:O2	49:S2:1063:C:H2'	1.90	0.63
1:5:1634:A:C2	1:5:1635:C:N1	2.67	0.63
28:Y:15:ARG:NH1	28:Y:19:PHE:HE2	1.89	0.63
1:5:2549:G:N2	1:5:2770:C:N3	2.46	0.63
1:5:1758:G:N3	1:5:1759:G:C8	2.67	0.63
1:5:698:G:C2	1:5:699:C:C6	2.86	0.63
49:S2:1061:U:H2'	49:S2:1061:U:O2	1.97	0.63
1:5:2545:U:H5	1:5:2546:G:HO2'	1.46	0.63
54:SE:67:GLN:HB3	54:SE:69:PHE:CE2	2.34	0.63
73:SX:15:SER:O	73:SX:19:ASP:OD1	2.16	0.63
48:4:751:CYS:SG	48:4:756:VAL:HG22	2.39	0.63
48:4:816:HIS:HD2	48:4:818:GLN:N	1.96	0.63
1:5:1213:G:N7	1:5:1215:C:C6	2.66	0.63
1:5:1870:C:C2	1:5:1871:A:C8	2.87	0.63
1:5:962:C:OP1	1:5:2264:C:N4	2.31	0.63
1:5:465:G:C6	1:5:466:A:N7	2.67	0.63
1:5:986:C:N3	1:5:1068:G:C2	2.67	0.63
49:S2:43:U:O2	49:S2:43:U:C2'	2.47	0.63
49:S2:1394:G:N1	49:S2:1395:C:C5	2.67	0.63
49:S2:1431:G:C6	49:S2:1432:U:C4	2.87	0.63
2:7:60:G:C2	2:7:61:G:C8	2.86	0.63
49:S2:1132:C:N3	49:S2:1133:A:C8	2.66	0.63
1:5:1885:G:N1	1:5:1895:G:C2	2.67	0.63
1:5:4874:A:H2'	1:5:4874:A:N3	2.14	0.63
48:4:239:LYS:HD2	48:4:241:GLU:HB3	1.80	0.63
1:5:3899:G:H5"	5:B:257:TRP:HD1	1.63	0.63
1:5:4562:C:C4	1:5:4563:U:C5	2.86	0.63
1:5:2056:G:C5	1:5:2058:G:C8	2.87	0.63
1:5:28:C:H2'	1:5:28:C:O2	1.97	0.63
1:5:31:U:O2'	1:5:32:G:H5'	1.98	0.63
1:5:4101:C:C2	1:5:4109:G:C2	2.86	0.63
49:S2:1045:U:H2'	49:S2:1045:U:O2	1.97	0.63
49:S2:496:C:H5'	54:SE:29:PRO:HA	1.81	0.63
3:8:101:C:C2	3:8:102:G:C8	2.86	0.63
3:8:132:G:N3	3:8:133:G:C8	2.66	0.63
3:8:135:C:C2	3:8:136:U:C5	2.86	0.63
49:S2:582:C:H4'	74:SY:33:ALA:HB2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2577:C:H2'	1:5:2577:C:O2	1.96	0.63
1:5:4132:C:C4	1:5:4133:C:C5	2.87	0.63
48:4:649:ILE:HG22	48:4:663:THR:OG1	1.99	0.63
11:H:113:GLU:HB3	11:H:115:ARG:HH22	1.63	0.63
49:S2:37:C:C4	49:S2:38:A:N7	2.66	0.63
1:5:4504:C:H2'	1:5:4505:C:C6	2.34	0.63
1:5:112:C:H2'	1:5:112:C:O2	1.99	0.63
1:5:199:G:C4	1:5:201:C:C5	2.87	0.63
48:4:801:ARG:HD2	48:4:802:SER:CA	2.29	0.62
1:5:1211:G:C2	1:5:1212:G:N7	2.66	0.62
1:5:1268:G:C6	1:5:1270:A:N7	2.67	0.62
1:5:1264:C:O2'	1:5:2114:G:P	2.56	0.62
1:5:2253:A:H2	1:5:2260:C:N4	1.97	0.62
1:5:2463:G:C2	1:5:2464:C:N3	2.67	0.62
1:5:4169:G:H4'	1:5:4171:C:O2	1.98	0.62
1:5:468:U:O4	1:5:687:U:O4	2.17	0.62
14:K:113:ALA:C	14:K:116:MET:HG2	2.17	0.62
49:S2:309:G:C4	49:S2:310:C:C5	2.87	0.62
49:S2:384:U:C5	49:S2:386:C:H5	2.15	0.62
49:S2:1841:C:O2	49:S2:1842:C:C5	2.52	0.62
49:S2:1588:A:H4'	69:ST:92:PHE:CE2	2.34	0.62
1:5:4233:A:C2	1:5:4290:U:O4	2.48	0.62
49:S2:1220:A:C6	49:S2:1221:G:C6	2.87	0.62
49:S2:1223:A:C2	49:S2:1644:C:N3	2.67	0.62
60:SK:2:LEU:CB	60:SK:8:ARG:NH2	2.61	0.62
1:5:1886:G:N2	1:5:1894:C:N3	2.47	0.62
1:5:1896:A:N7	9:F:101:ASN:ND2	2.47	0.62
1:5:3901:A:O2'	1:5:4450:U:O3'	2.17	0.62
49:S2:164:A:O2'	49:S2:165:G:O4'	2.17	0.62
1:5:3689:G:C6	1:5:3690:U:C5	2.87	0.62
1:5:3625:G:N2	1:5:3627:G:H5'	2.13	0.62
1:5:672:C:C4	1:5:673:C:C5	2.86	0.62
49:S2:995:G:N2	49:S2:997:A:H3'	2.12	0.62
1:5:4518:A:N9	5:B:257:TRP:CH2	2.65	0.62
49:S2:1018:U:O2	49:S2:1019:C:C5	2.52	0.62
59:SJ:20:PHE:N	59:SJ:20:PHE:CD1	2.67	0.62
3:8:34:U:C5'	3:8:34:U:C2	2.82	0.62
48:4:160:MET:CE	48:4:178:PHE:HZ	2.08	0.62
48:4:160:MET:SD	48:4:178:PHE:HZ	2.21	0.62
49:S2:851:C:C2'	49:S2:852:G:H21	2.10	0.62
49:S2:1066:U:C4	49:S2:1067:C:C5	2.87	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1757:G:C2	49:S2:1758:G:C8	2.87	0.62
7:D:249:GLU:OE1	7:D:250:ASN:N	2.32	0.62
2:7:22:A:H2'	2:7:22:A:N3	2.13	0.62
53:SD:24:PHE:HB2	60:SK:63:ALA:HB1	1.79	0.62
49:S2:690:G:C5	49:S2:691:G:H1'	2.34	0.62
25:V:26:ILE:HG22	25:V:101:ASN:HB3	1.81	0.62
1:5:3937:C:H2'	1:5:3937:C:O2	1.99	0.62
7:D:27:LYS:HE3	13:J:147:ARG:NH2	2.14	0.62
28:Y:59:ARG:HG3	28:Y:103:LYS:HD2	1.80	0.62
1:5:10:A:H1'	1:5:2472:A:N1	2.14	0.62
48:4:498:LYS:O	48:4:498:LYS:CG	2.34	0.62
1:5:1070:G:C5	1:5:1071:C:C5	2.87	0.62
1:5:1263:A:C6	1:5:1264:C:C4	2.87	0.62
1:5:450:G:O6	1:5:1295:C:C4	2.52	0.62
1:5:1987:C:H2'	1:5:1987:C:O2	1.99	0.62
1:5:2000:G:H3'	1:5:2000:G:N3	2.15	0.62
1:5:2253:A:H8	1:5:2254:G:HO2'	1.46	0.62
1:5:2441:C:C2	1:5:2442:G:N7	2.68	0.62
1:5:2453:A:C5	1:5:2454:U:C5	2.86	0.62
1:5:2508:U:N3	1:5:2509:C:H5	1.97	0.62
8:E:55:ARG:O	8:E:58:MET:O	2.17	0.62
1:5:4413:C:O4'	12:I:157:PHE:HD2	1.81	0.62
48:4:691:ALA:HA	48:4:730:TYR:CD2	2.34	0.62
49:S2:149:A:H2'	49:S2:150:A:C8	2.34	0.62
49:S2:341:C:H3'	49:S2:342:C:H5"	1.81	0.62
49:S2:68:A:C2	49:S2:69:C:C2	2.88	0.62
49:S2:1746:U:H4'	56:SG:65:GLN:NE2	2.13	0.62
49:S2:1696:C:N3	49:S2:1697:A:N7	2.47	0.62
1:5:4987:C:H2'	5:B:123:HIS:CD2	2.34	0.62
1:5:1174:G:C2	1:5:1175:A:C8	2.87	0.62
1:5:1190:C:O2	1:5:1191:C:C6	2.52	0.62
1:5:4243:C:O2	1:5:4243:C:H2'	1.99	0.62
1:5:4324:A:N1	1:5:4325:A:C6	2.67	0.62
49:S2:619:A:C2	73:SX:113:GLY:HA3	2.35	0.62
49:S2:52:G:C2	49:S2:53:C:N1	2.66	0.62
1:5:2724:G:N2	1:5:2726:G:C8	2.66	0.62
1:5:2726:G:N1	1:5:2727:C:C4	2.67	0.62
1:5:166:C:N3	1:5:167:C:C5	2.64	0.62
48:4:448:GLN:C	48:4:448:GLN:HE21	2.03	0.62
48:4:449:ARG:NE	48:4:460:PRO:HB3	2.14	0.62
63:SN:128:TYR:C	63:SN:128:TYR:HD1	2.01	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2034:G:O6	1:5:2035:C:N4	2.32	0.62
1:5:4724:A:C5	1:5:4725:C:C5	2.86	0.62
48:4:615:GLU:O	48:4:619:LYS:HB2	1.99	0.62
16:M:6:PHE:CD2	16:M:6:PHE:N	2.67	0.62
1:5:4481:U:N3	1:5:4482:U:C4	2.67	0.62
1:5:149:A:H4'	1:5:151:G:C8	2.34	0.62
5:B:100:ARG:HB3	5:B:100:ARG:CZ	2.29	0.62
49:S2:1142:G:H2'	49:S2:1142:G:N3	2.13	0.62
25:V:98:PHE:CE1	26:W:22:ALA:HB3	2.34	0.62
1:5:112:C:N3	1:5:113:A:C8	2.68	0.62
10:G:260:GLU:CD	51:SB:57:ILE:HD13	2.19	0.62
1:5:930:G:C4	1:5:931:C:C5	2.86	0.62
63:SN:38:TYR:OH	63:SN:78:LYS:HE3	2.00	0.62
1:5:4384:U:O2'	1:5:4386:C:OP1	2.11	0.62
1:5:1266:G:H21	1:5:2111:G:H1'	1.65	0.62
1:5:2329:U:O2'	1:5:2330:G:O4'	2.16	0.62
1:5:4302:U:H5	1:5:4303:C:C6	2.17	0.62
10:G:57:TRP:HE3	10:G:61:ILE:HG21	1.62	0.62
48:4:692:LEU:HD21	48:4:733:VAL:HG12	1.81	0.62
49:S2:376:A:C6	49:S2:377:G:C8	2.87	0.62
49:S2:85:A:C2	49:S2:86:C:C5	2.87	0.62
49:S2:1406:G:C4	49:S2:1407:U:H1'	2.34	0.62
49:S2:1402:A:N7	49:S2:1441:U:O4	2.32	0.62
49:S2:1397:U:O4	66:SQ:12:VAL:HA	1.99	0.62
49:S2:1574:C:O2	49:S2:1574:C:H2'	1.97	0.62
1:5:2368:A:N6	1:5:2827:G:H1'	2.14	0.62
1:5:2370:A:O2'	1:5:2826:U:N3	2.22	0.62
25:V:97:TYR:HE2	26:W:21:TYR:CD1	2.18	0.62
1:5:5047:C:C1'	1:5:5048:A:C2	2.83	0.62
49:S2:837:A:H2	49:S2:838:G:N7	1.89	0.62
1:5:4091:G:C6	1:5:4092:G:C5	2.86	0.62
1:5:1642:A:N3	1:5:1642:A:H2'	2.14	0.62
1:5:172:C:C4	1:5:173:C:C4	2.87	0.62
49:S2:1063:C:C2'	49:S2:1838:U:O4	2.47	0.62
49:S2:94:G:O2'	49:S2:508:A:O2'	1.98	0.62
1:5:1093:C:N3	1:5:1094:G:C8	2.66	0.62
1:5:911:U:N3	1:5:912:G:C8	2.67	0.62
28:Y:11:ARG:HH22	28:Y:15:ARG:HG3	1.63	0.62
49:S2:1781:A:H2'	49:S2:1782:G:C8	2.34	0.62
10:G:169:PHE:CD2	17:N:6:TYR:CB	2.82	0.62
1:5:2714:G:N3	1:5:2715:G:C8	2.66	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:14:ASP:O	48:4:16:LYS:HE3	1.98	0.62
13:J:15:LEU:HB3	13:J:165:TRP:CD1	2.34	0.62
1:5:3712:A:H3'	1:5:3713:U:H5"	1.80	0.62
18:O:116:LYS:HE3	22:S:169:THR:HG21	1.81	0.62
10:G:50:ASP:HB2	27:X:40:ILE:HB	1.81	0.62
48:4:741:MET:HB2	48:4:819:ILE:HA	1.81	0.62
48:4:744:ILE:HG23	48:4:745:TYR:CD2	2.34	0.62
1:5:2099:G:H2'	1:5:2100:A:O4'	1.98	0.62
1:5:2123:C:O2'	1:5:2124:G:OP2	2.15	0.62
1:5:2645:G:N2	1:5:2646:C:C2	2.68	0.62
5:B:264:PHE:N	18:O:64:THR:O	2.32	0.62
1:5:1994:C:O2'	14:K:132:ILE:HG12	1.56	0.62
49:S2:460:A:N1	49:S2:461:U:O4	2.33	0.62
48:4:739:ARG:N	48:4:824:PRO:CD	2.62	0.62
49:S2:148:U:O4	49:S2:170:A:N7	2.33	0.62
49:S2:220:U:N3	49:S2:221:A:N7	2.48	0.62
1:5:99:A:C6	1:5:100:C:N3	2.68	0.62
14:K:159:ALA:O	14:K:163:PRO:HD3	1.98	0.62
1:5:2826:U:H1'	1:5:2827:G:H1	1.64	0.62
1:5:4997:G:C6	1:5:4998:G:N7	2.66	0.62
1:5:3631:U:N3	1:5:3632:C:C5	2.68	0.62
1:5:499:G:N2	1:5:656:C:C2	2.67	0.62
7:D:35:ARG:HH11	7:D:35:ARG:HG2	1.63	0.62
49:S2:1102:G:H22	49:S2:1130:G:H22	1.46	0.62
49:S2:957:A:H4'	49:S2:973:C:O2'	1.99	0.62
49:S2:1073:U:O2	49:S2:1073:U:H2'	1.98	0.62
1:5:2423:A:C2	1:5:2424:G:C4	2.86	0.62
1:5:1634:A:C4	1:5:1635:C:C5	2.87	0.62
3:8:134:G:N2	3:8:135:C:C2	2.67	0.62
49:S2:848:U:N3	49:S2:849:A:N6	2.46	0.62
1:5:2590:G:N1	1:5:2754:G:N1	2.46	0.62
49:S2:1058:A:C2	49:S2:1059:G:C5	2.87	0.62
1:5:1298:C:N3	1:5:1299:G:C8	2.67	0.62
1:5:1550:G:N2	1:5:1579:C:H1'	2.15	0.62
1:5:4702:G:C6	1:5:4703:U:C5	2.87	0.62
1:5:1266:G:H8	1:5:1266:G:H5'	1.64	0.62
1:5:973:G:N2	1:5:1282:G:O2'	2.32	0.62
1:5:1867:A:O2'	1:5:1868:A:O4'	2.15	0.62
1:5:2450:G:C6	1:5:2451:A:C8	2.87	0.62
1:5:4081:G:C2	1:5:4082:G:C5	2.88	0.62
1:5:688:U:C4	1:5:689:U:C6	2.87	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:77:ALA:HB3	14:K:80:LEU:CG	2.29	0.62
14:K:92:ARG:CA	14:K:95:GLN:OE1	2.32	0.62
49:S2:1741:U:C4	49:S2:1742:C:C5	2.87	0.62
49:S2:1859:A:N1	49:S2:1860:A:C6	2.68	0.62
1:5:1479:G:O2'	1:5:1480:C:C5'	2.47	0.62
1:5:99:A:N3	1:5:99:A:H2'	2.13	0.62
49:S2:950:C:C4	49:S2:951:C:C5	2.88	0.62
49:S2:1537:A:C5	49:S2:1538:C:C5	2.87	0.62
62:SM:16:THR:HA	62:SM:19:GLN:CG	2.30	0.62
49:S2:550:C:H2'	49:S2:551:U:C6	2.32	0.62
49:S2:751:G:C6	49:S2:792:C:C4	2.87	0.62
1:5:2856:C:C4	1:5:2857:A:N6	2.67	0.62
1:5:168:C:C2	1:5:268:G:C2	2.87	0.62
2:7:9:C:C5	2:7:10:C:C5	2.87	0.62
1:5:4518:A:C8	5:B:257:TRP:CZ3	2.88	0.62
2:7:42:A:N1	2:7:43:U:C6	2.67	0.62
48:4:616:ASP:OD1	48:4:621:GLU:HB2	1.98	0.62
1:5:2560:C:N3	1:5:2561:C:C5	2.67	0.62
1:5:2769:U:O2'	1:5:2770:C:H6	1.82	0.62
48:4:531:ASP:HB2	48:4:534:VAL:CG1	2.29	0.62
1:5:4737:G:C5	1:5:4963:G:N2	2.67	0.62
1:5:60:G:C6	1:5:61:A:N7	2.68	0.62
7:D:177:THR:HB	7:D:190:PHE:CE2	2.35	0.62
48:4:753:GLU:CG	48:4:779:THR:CG2	2.76	0.62
48:4:42:LYS:CD	48:4:79:TYR:OH	2.46	0.62
1:5:1986:U:O2	1:5:2007:G:O6	2.18	0.62
1:5:964:A:C8	1:5:964:A:C4'	2.82	0.62
14:K:58:ILE:HG22	14:K:59:THR:N	2.15	0.62
14:K:61:LYS:CD	14:K:72:GLU:HA	2.30	0.62
49:S2:1746:U:O4	49:S2:1789:G:N2	2.33	0.62
49:S2:311:C:C4	49:S2:312:G:C8	2.87	0.62
49:S2:377:G:N1	49:S2:378:U:C4	2.68	0.62
49:S2:70:G:N1	49:S2:71:G:C4	2.68	0.62
49:S2:75:G:C6	56:SG:171:THR:HB	2.35	0.62
1:5:1480:C:O2	1:5:1484:G:O6	2.16	0.62
1:5:3741:C:C2	1:5:3742:G:N7	2.68	0.62
74:SY:20:ARG:HB3	74:SY:76:TYR:HD1	1.63	0.62
49:S2:1552:G:C5	49:S2:1578:U:N3	2.68	0.62
49:S2:1562:C:C2	49:S2:1563:G:C8	2.86	0.62
49:S2:1608:U:C2	49:S2:1609:C:C6	2.87	0.62
1:5:4234:A:C2	1:5:4271:A:C8	2.88	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1599:A:H2'	1:5:1600:A:H5"	1.82	0.62
49:S2:1133:A:H2'	49:S2:1133:A:N3	2.15	0.62
49:S2:54:A:C4	49:S2:451:G:N2	2.67	0.62
49:S2:1709:G:N3	49:S2:1710:C:C6	2.67	0.62
49:S2:165:G:N7	49:S2:166:A:N7	2.46	0.62
1:5:479:G:C2	1:5:480:C:C6	2.87	0.62
49:S2:1250:A:C2	49:S2:1339:U:H1'	2.33	0.62
1:5:2639:U:H2'	1:5:2694:G:N1	2.12	0.62
1:5:5050:C:N3	1:5:5051:C:C5	2.68	0.62
1:5:1929:A:N6	1:5:2054:U:N3	2.33	0.62
49:S2:836:G:H2'	49:S2:837:A:C5'	2.30	0.62
49:S2:104:A:N7	49:S2:105:U:C5	2.68	0.62
2:7:42:A:C1'	13:J:75:ARG:HH12	2.12	0.62
1:5:4481:U:C2'	1:5:4482:U:H6	2.11	0.62
5:B:116:ARG:HB3	5:B:177:LYS:HA	1.82	0.62
1:5:4687:A:N7	1:5:4698:C:C6	2.67	0.62
49:S2:804:U:O2	49:S2:805:U:C6	2.52	0.62
6:C:111:TRP:HB2	6:C:112:HIS:CD2	2.31	0.62
48:4:762:VAL:CB	48:4:800:LEU:CD1	2.78	0.62
48:4:762:VAL:HG11	48:4:800:LEU:CD1	2.27	0.62
48:4:801:ARG:HD2	48:4:802:SER:HA	1.81	0.62
1:5:1066:G:C2	1:5:1067:G:C4	2.87	0.62
1:5:1672:U:C2	1:5:1673:U:C4	2.87	0.62
1:5:1685:G:C4	1:5:1686:C:C5	2.87	0.62
1:5:2292:C:N3	1:5:2293:U:C5	2.68	0.62
1:5:2444:U:C5	1:5:2445:C:H5	2.17	0.62
1:5:2451:A:C6	1:5:2452:G:C4	2.87	0.62
1:5:2452:G:N1	1:5:2467:U:C5	2.67	0.62
9:F:73:MET:CB	9:F:84:TYR:HE2	2.13	0.62
14:K:102:GLY:C	14:K:140:GLY:HA2	2.19	0.62
20:Q:32:TYR:OH	20:Q:123:PHE:HD2	1.82	0.62
48:4:698:ARG:C	48:4:700:VAL:HG23	2.06	0.62
1:5:3728:A:C8	1:5:3729:U:C1'	2.83	0.62
49:S2:1420:G:HO2'	69:ST:4:VAL:CA	2.12	0.62
49:S2:1229:G:C4	49:S2:1230:C:C6	2.88	0.62
49:S2:1527:C:N4	49:S2:1528:G:C5	2.68	0.62
49:S2:1552:G:H5'	49:S2:1557:C:H5	1.65	0.62
48:4:855:LEU:HD23	48:4:856:ASP:CA	2.27	0.62
49:S2:1284:A:C6	62:SM:33:ARG:HD3	2.34	0.62
49:S2:529:A:C6	49:S2:530:U:C5	2.87	0.62
49:S2:751:G:N1	49:S2:791:C:O2	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:275:LYS:HG3	48:4:276:SER:N	2.14	0.62
1:5:2857:A:C6	1:5:2858:A:N6	2.68	0.62
49:S2:993:G:N3	49:S2:994:C:C6	2.67	0.62
49:S2:994:C:C2'	49:S2:994:C:O2	2.47	0.62
1:5:1928:C:C4	18:O:133:ARG:NH1	2.68	0.62
1:5:62:A:H2'	1:5:63:G:C8	2.34	0.62
1:5:2833:A:O2'	1:5:2834:C:O4'	2.16	0.62
1:5:3793:U:C2	1:5:3794:C:C6	2.88	0.62
1:5:2734:U:N3	1:5:2735:G:C8	2.68	0.62
1:5:1760:G:C5	1:5:1761:G:C8	2.88	0.62
49:S2:1325:G:C2	49:S2:1327:G:C5	2.87	0.62
11:H:117:PHE:C	11:H:117:PHE:CD1	2.73	0.62
1:5:1299:G:C6	1:5:1300:G:N7	2.68	0.62
49:S2:1728:U:C4	49:S2:1729:U:C6	2.87	0.62
10:G:77:PRO:HA	10:G:237:TRP:CZ3	2.34	0.62
53:SD:150:MET:HB3	53:SD:152:PHE:HE1	1.64	0.62
49:S2:1371:U:O2	49:S2:1371:U:H2'	1.98	0.62
1:5:1218:G:C6	1:5:1219:G:N9	2.68	0.62
1:5:1845:U:O2	1:5:1846:G:N7	2.32	0.62
1:5:1899:G:N2	1:5:1900:C:C6	2.68	0.62
1:5:1267:C:H5"	1:5:2110:C:O2'	2.00	0.62
1:5:2340:C:H2'	1:5:2340:C:O2	2.00	0.62
49:S2:426:A:N3	49:S2:426:A:H2'	2.15	0.62
48:4:636:ALA:HA	48:4:641:TRP:O	2.00	0.62
48:4:672:LEU:C	48:4:675:ILE:HG12	2.15	0.62
49:S2:447:A:C5	49:S2:449:A:C8	2.88	0.62
49:S2:1205:C:C2	49:S2:1206:G:N7	2.68	0.62
48:4:157:MET:HE2	48:4:214:PHE:HE2	1.65	0.62
1:5:3709:U:H1'	49:S2:970:G:O6	2.00	0.62
1:5:4896:G:C2	1:5:4897:G:C5	2.87	0.62
1:5:1894:C:H2'	1:5:1895:G:O5'	1.99	0.62
1:5:3703:G:C6	1:5:3704:U:C4	2.88	0.62
1:5:2480:G:N1	1:5:2481:G:C5	2.68	0.62
49:S2:794:A:N1	49:S2:795:A:C5	2.68	0.62
49:S2:497:C:N3	49:S2:506:G:C2	2.68	0.62
1:5:4651:A:C6	1:5:4652:G:C8	2.88	0.62
1:5:4652:G:N3	1:5:4653:C:C6	2.68	0.62
3:8:133:G:C2	3:8:134:G:N7	2.67	0.62
1:5:4744:A:N1	1:5:4745:G:C5	2.67	0.62
1:5:1752:G:C4	1:5:1753:G:C8	2.87	0.62
1:5:3590:G:C6	1:5:3591:C:C4	2.88	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:185:G:C2	49:S2:186:C:C4	2.87	0.62
9:F:36:ARG:HH11	9:F:36:ARG:HG2	4.12	0.62
49:S2:37:C:N4	49:S2:38:A:C5	2.68	0.62
10:G:81:ASN:HD21	10:G:238:GLY:N	1.98	0.62
1:5:3606:U:C2	1:5:3607:U:C6	2.87	0.62
50:SA:10:MET:HA	50:SA:55:TRP:CZ3	2.35	0.62
1:5:323:C:N3	1:5:324:A:N7	2.47	0.62
48:4:72:SER:CA	48:4:104:ASP:CB	2.77	0.62
48:4:480:VAL:O	48:4:481:LYS:CB	2.35	0.62
1:5:1265:G:C6	1:5:1266:G:C6	2.87	0.62
1:5:1878:G:N3	1:5:1879:C:C6	2.68	0.62
1:5:1973:G:N2	1:5:1993:C:C2	2.61	0.62
1:5:2506:G:H2'	1:5:2506:G:N3	2.15	0.62
1:5:2744:A:N3	1:5:2745:A:C5	2.68	0.62
1:5:692:A:C2	1:5:693:C:C4	2.87	0.62
9:F:85:VAL:HG13	22:S:62:VAL:HA	1.82	0.62
49:S2:426:A:C6	49:S2:427:U:C5	2.88	0.62
49:S2:118:C:C1'	49:S2:445:A:C2	2.83	0.62
48:4:562:GLU:HB3	48:4:570:ILE:CG1	2.29	0.62
49:S2:376:A:C6	49:S2:377:G:N7	2.67	0.62
49:S2:74:G:H5'	49:S2:75:G:OP2	1.99	0.62
56:SG:198:ARG:NH1	56:SG:202:ASN:OD1	2.32	0.62
1:5:68:U:C5	1:5:69:A:C8	2.88	0.62
74:SY:76:TYR:HE2	74:SY:86:GLU:OE2	1.82	0.62
1:5:3859:G:H4'	19:P:139:TYR:CZ	2.35	0.62
1:5:4233:A:C8	1:5:4235:G:C8	2.87	0.62
1:5:4273:A:H2'	1:5:4274:A:C1'	2.29	0.62
49:S2:533:A:C5	49:S2:534:G:C8	2.88	0.62
1:5:2409:U:C4	1:5:2783:A:C2	2.88	0.62
1:5:2856:C:C2'	1:5:2856:C:O2	2.47	0.62
1:5:2533:C:N3	1:5:2534:C:N4	2.48	0.62
2:7:8:G:C5	2:7:9:C:C5	2.88	0.62
63:SN:128:TYR:C	63:SN:128:TYR:CD1	2.73	0.62
1:5:2036:C:H2'	1:5:2037:C:C6	2.35	0.62
1:5:4093:G:C3'	1:5:4094:G:H5'	2.30	0.62
1:5:2606:G:N1	1:5:2607:C:C4	2.67	0.62
1:5:4498:U:N3	1:5:4500:U:P	2.73	0.62
1:5:4468:U:O2	1:5:4708:A:C8	2.53	0.62
1:5:3590:G:C4	1:5:3591:C:C6	2.88	0.62
1:5:1676:C:C2'	1:5:3914:U:O4	2.48	0.62
1:5:4737:G:C6	1:5:4738:C:N4	2.68	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2712:G:N2	1:5:2713:C:C2	2.67	0.62
1:5:1302:U:N3	1:5:1303:A:C8	2.68	0.62
1:5:1550:G:C2	1:5:1579:C:C2	2.88	0.62
3:8:138:C:C2	3:8:139:G:C8	2.88	0.62
72:SW:101:PHE:HB2	72:SW:129:PHE:CE1	2.34	0.62
1:5:202:C:C2	1:5:214:G:C2	2.87	0.62
48:4:744:ILE:HG23	48:4:815:ASP:H	1.64	0.62
1:5:1214:C:N4	9:F:58:HIS:CE1	2.68	0.62
1:5:1672:U:C2	1:5:1673:U:C6	2.77	0.62
1:5:2441:C:H2'	1:5:2442:G:H8	1.64	0.62
1:5:3672:G:N7	1:5:3674:G:C1'	2.63	0.62
5:B:10:ARG:NH2	5:B:10:ARG:HB2	2.15	0.62
48:4:236:PHE:HZ	48:4:273:PHE:CZ	2.11	0.62
48:4:825:PHE:HE2	48:4:849:PRO:HD2	0.65	0.62
48:4:205:ILE:HG13	48:4:211:THR:CB	2.30	0.62
1:5:330:G:N1	1:5:331:G:N7	2.48	0.62
49:S2:1433:C:O3'	49:S2:1433:C:OP2	2.18	0.62
49:S2:1552:G:H5'	49:S2:1557:C:C5	2.35	0.62
49:S2:1573:G:C2	49:S2:1574:C:H1'	2.34	0.62
3:8:13:G:C4	3:8:14:U:C5	2.88	0.62
1:5:2367:A:N7	1:5:2798:A:C4	2.68	0.62
1:5:1937:C:H3'	1:5:1938:C:H2'	1.80	0.62
1:5:3772:U:C2	1:5:3773:U:C6	2.88	0.62
48:4:325:SER:O	48:4:326:GLU:C	2.37	0.62
3:8:64:U:C2'	3:8:65:A:C8	2.83	0.62
1:5:270:U:C2	1:5:271:C:C6	2.88	0.62
1:5:272:U:O2	1:5:273:U:C6	2.52	0.62
1:5:5051:C:N3	1:5:5052:C:C5	2.68	0.62
1:5:33:A:C6	1:5:50:C:C2	2.88	0.62
1:5:55:G:C2	1:5:56:A:C8	2.88	0.62
1:5:55:G:N1	1:5:56:A:N7	2.47	0.62
48:4:552:LEU:HA	48:4:555:GLU:OE1	1.99	0.62
1:5:4653:C:C2	1:5:4654:C:H5	2.13	0.62
1:5:1635:C:H2'	1:5:1636:U:C5'	2.26	0.62
1:5:4747:C:H2'	1:5:4748:U:C6	2.35	0.62
1:5:3805:U:N3	1:5:3806:G:N7	2.47	0.62
1:5:751:G:N3	1:5:752:G:C8	2.67	0.62
1:5:4935:C:N4	8:E:179:ARG:CG	2.62	0.62
1:5:1371:A:H61	3:8:28:C:C2'	2.13	0.62
1:5:1781:U:C2	1:5:1782:U:C5	2.88	0.62
1:5:4771:C:H6	1:5:4772:C:C6	2.17	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1258:A:N6	49:S2:1659:U:H3	1.98	0.62
6:C:22:VAL:HG11	6:C:257:PHE:HD2	1.64	0.62
1:5:3656:A:O4'	1:5:3747:A:H2	1.83	0.62
1:5:4464:A:H5'	1:5:4464:A:N3	2.15	0.62
49:S2:1730:U:C4	49:S2:1731:A:N7	2.67	0.62
74:SY:88:LYS:HE3	74:SY:97:TYR:OH	2.00	0.62
1:5:1785:C:H1'	12:I:94:PHE:CE2	2.34	0.62
48:4:200:MET:HG2	48:4:203:ILE:HG21	1.81	0.61
1:5:1247:U:C2	1:5:1248:C:C5	2.87	0.61
1:5:1673:U:C4	1:5:1674:C:N4	2.68	0.61
1:5:1881:C:O4'	1:5:2281:U:C6	2.53	0.61
1:5:2342:G:C2	1:5:2344:U:C6	2.88	0.61
1:5:4085:A:N6	10:G:62:ARG:HH22	1.98	0.61
1:5:4426:C:N4	1:5:4427:G:C5	2.68	0.61
49:S2:457:C:C4	49:S2:458:A:C8	2.88	0.61
48:4:56:PHE:HE1	48:4:455:GLY:CA	1.83	0.61
1:5:288:G:H2'	1:5:289:C:H6	1.64	0.61
1:5:4341:C:N4	1:5:4342:C:C5	2.68	0.61
1:5:4269:G:N2	1:5:4277:G:H22	1.95	0.61
1:5:2368:A:C6	1:5:2788:U:O4	2.53	0.61
1:5:3633:C:C2	1:5:3634:G:C8	2.88	0.61
49:S2:1249:C:H42	49:S2:1250:A:N6	1.97	0.61
49:S2:832:G:C6	49:S2:833:C:C5	2.88	0.61
1:5:2363:A:C2	1:5:2364:G:H1'	2.34	0.61
1:5:4734:A:C6	1:5:4735:G:C5	2.88	0.61
1:5:4481:U:O2	1:5:4482:U:C6	2.52	0.61
49:S2:909:G:N1	49:S2:910:G:C5	2.67	0.61
1:5:4369:A:N3	1:5:4370:G:C8	2.67	0.61
1:5:197:A:N3	1:5:222:C:O2'	2.26	0.61
49:S2:961:G:H2'	49:S2:961:G:N3	2.15	0.61
1:5:4881:U:O2'	1:5:4882:U:O4'	2.18	0.61
1:5:1366:G:N7	1:5:1367:C:O3'	2.33	0.61
1:5:2773:G:N2	1:5:2774:C:C2	2.68	0.61
49:S2:413:G:H2'	49:S2:414:A:O5'	2.00	0.61
49:S2:608:C:N3	49:S2:609:U:C6	2.68	0.61
1:5:3656:A:H4'	1:5:3747:A:C2	2.35	0.61
49:S2:695:C:C4	49:S2:696:G:N7	2.68	0.61
1:5:2874:U:O2'	1:5:2876:G:N7	2.33	0.61
7:D:155:THR:OG1	7:D:179:ARG:NH1	2.33	0.61
3:8:3:A:O3'	19:P:61:ARG:HD3	2.00	0.61
59:SJ:115:PHE:C	59:SJ:115:PHE:HD1	2.03	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:60:ARG:HD2	48:4:61:LYS:N	2.15	0.61
48:4:756:VAL:HG23	48:4:782:PHE:CD1	2.35	0.61
1:5:1267:C:C5'	1:5:2110:C:O2'	2.48	0.61
1:5:1669:A:H4'	1:5:1685:G:H21	1.66	0.61
1:5:2319:C:O2	1:5:2319:C:H2'	1.99	0.61
1:5:449:C:C2	1:5:450:G:C8	2.88	0.61
14:K:123:ARG:CB	14:K:129:ILE:HD11	0.62	0.61
48:4:710:HIS:CD2	48:4:712:ASP:H	2.17	0.61
49:S2:1451:G:O2'	49:S2:1474:A:N6	2.32	0.61
49:S2:221:A:C2	49:S2:222:U:C6	2.89	0.61
1:5:4342:C:N3	1:5:4343:U:C5	2.68	0.61
17:N:150:TRP:HE3	17:N:151:ILE:N	1.99	0.61
1:5:4281:A:C6	1:5:4283:G:C8	2.87	0.61
48:4:845:LYS:CE	48:4:846:GLU:CG	2.74	0.61
3:8:10:G:N1	3:8:11:C:N1	2.48	0.61
1:5:1797:G:C2	1:5:1798:G:N7	2.67	0.61
49:S2:1303:C:O4'	49:S2:1303:C:O2	2.18	0.61
49:S2:1109:C:O2	49:S2:1110:G:C8	2.52	0.61
49:S2:533:A:C6	49:S2:534:G:N7	2.68	0.61
49:S2:52:G:C4	49:S2:53:C:C6	2.88	0.61
1:5:3648:A:C5	1:5:3785:A:N6	2.67	0.61
1:5:3694:U:C2	1:5:3695:U:C6	2.88	0.61
1:5:4196:G:N3	1:5:4396:A:H1'	2.15	0.61
54:SE:29:PRO:HG2	54:SE:46:ILE:HD11	1.81	0.61
1:5:4229:U:O4	1:5:4230:C:C4	2.53	0.61
3:8:131:G:C6	3:8:132:G:C5	2.89	0.61
1:5:4934:A:N1	1:5:4935:C:C5	2.68	0.61
1:5:1752:G:C6	1:5:1753:G:C5	2.88	0.61
49:S2:185:G:C2	49:S2:186:C:C6	2.88	0.61
1:5:3847:C:N3	1:5:3848:U:C6	2.68	0.61
49:S2:1824:A:H2	49:S2:1825:A:N7	1.96	0.61
1:5:114:G:C2'	1:5:115:C:H5'	2.29	0.61
1:5:1296:G:O2'	1:5:1297:U:OP1	2.14	0.61
52:SC:253:PRO:O	52:SC:255:LEU:N	2.33	0.61
48:4:526:ARG:O	48:4:529:LYS:HG3	2.01	0.61
48:4:766:LYS:O	48:4:767:ARG:HB2	1.99	0.61
1:5:1074:G:N2	1:5:1238:A:N3	2.49	0.61
1:5:1264:C:C4	1:5:1265:G:N7	2.69	0.61
1:5:1668:A:C8	1:5:1881:C:N4	2.68	0.61
1:5:1969:G:N1	1:5:2018:C:N4	2.48	0.61
1:5:2091:C:C2	1:5:2257:C:O2'	2.41	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1268:G:C4	1:5:2111:G:C2	2.88	0.61
1:5:1899:G:C8	1:5:2278:G:C6	2.87	0.61
1:5:2743:A:H2'	1:5:2744:A:H8	1.62	0.61
1:5:472:C:H2'	1:5:473:C:O4'	2.00	0.61
48:4:526:ARG:NH2	49:S2:480:G:OP1	2.33	0.61
48:4:650:TRP:CZ3	48:4:679:VAL:HB	2.34	0.61
49:S2:301:A:N3	58:SI:73:THR:HG21	2.15	0.61
49:S2:452:G:C2'	49:S2:453:C:O5'	2.48	0.61
1:5:1358:G:O5'	6:C:114:ARG:NH2	2.33	0.61
1:5:4978:G:O2'	1:5:4979:A:H3'	2.00	0.61
1:5:86:U:N3	1:5:97:G:N2	2.48	0.61
1:5:1189:G:C6	1:5:1190:C:C4	2.88	0.61
49:S2:1409:A:H2	49:S2:1438:A:N1	1.98	0.61
1:5:4277:G:N1	1:5:4278:C:C4	2.69	0.61
1:5:370:U:C6	1:5:1637:A:N1	2.69	0.61
49:S2:1278:A:C2	49:S2:1320:G:C2	2.89	0.61
49:S2:1284:A:H2	62:SM:34:GLY:HA2	1.66	0.61
1:5:5003:U:O2'	1:5:5004:C:O4'	2.18	0.61
1:5:1885:G:C2	1:5:1895:G:N3	2.68	0.61
49:S2:474:G:N1	49:S2:475:C:C5	2.68	0.61
1:5:2479:G:C5	1:5:2480:G:N7	2.68	0.61
1:5:2784:C:H2'	1:5:2785:C:H6	1.65	0.61
57:SH:110:THR:O	57:SH:110:THR:HG23	2.00	0.61
1:5:383:A:O2'	1:5:384:A:O5'	2.18	0.61
1:5:3840:U:O2	1:5:3840:U:H2'	1.99	0.61
1:5:130:C:C2	1:5:139:G:C2	2.88	0.61
1:5:4479:A:N7	1:5:4480:A:C8	2.68	0.61
3:8:63:U:O2	3:8:63:U:H2'	1.99	0.61
1:5:1251:C:C2	1:5:1252:C:C6	2.89	0.61
53:SD:201:LYS:O	53:SD:203:PRO:HD2	1.99	0.61
18:O:128:ARG:HE	22:S:162:GLN:HE22	1.48	0.61
48:4:762:VAL:CG1	48:4:800:LEU:HD13	2.30	0.61
1:5:1430:C:N3	1:5:1431:C:C5	2.68	0.61
1:5:1665:C:H2'	1:5:1666:C:O5'	2.00	0.61
1:5:1983:A:N3	1:5:2010:A:O3'	2.34	0.61
1:5:2261:G:O2'	1:5:2262:G:O5'	2.18	0.61
1:5:2325:C:C2	1:5:2326:G:H8	2.19	0.61
1:5:2647:A:H2'	1:5:2648:G:H5'	1.82	0.61
1:5:3674:G:N1	1:5:3675:G:N7	2.49	0.61
1:5:4166:G:C2	1:5:4167:G:N7	2.69	0.61
1:5:4219:A:O2'	1:5:4220:A:O5'	2.19	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3717:A:C6	1:5:3736:A:N1	2.68	0.61
49:S2:1542:C:H2'	49:S2:1543:U:C6	2.35	0.61
49:S2:1611:G:C1'	68:SS:86:ARG:HH12	2.13	0.61
1:5:422:C:N3	1:5:423:G:N7	2.48	0.61
2:7:55:A:H2'	2:7:56:G:O5'	1.99	0.61
49:S2:1316:C:C2	49:S2:1317:C:H5	2.06	0.61
49:S2:1310:U:OP2	62:SM:36:ARG:NH1	2.29	0.61
1:5:2478:C:N3	1:5:2479:G:C5	2.69	0.61
1:5:209:U:C5	1:5:211:G:C5	2.89	0.61
1:5:164:G:C6	1:5:165:A:C5	2.89	0.61
49:S2:1250:A:H2	49:S2:1339:U:O2'	1.76	0.61
48:4:449:ARG:HB3	48:4:473:VAL:HG12	1.81	0.61
1:5:3905:A:N1	1:5:4449:A:C6	2.67	0.61
1:5:4221:C:N3	12:I:116:ARG:HD3	2.15	0.61
1:5:4113:U:C2'	1:5:4114:C:O4'	2.42	0.61
48:4:617:ILE:CG1	48:4:622:VAL:HG23	2.29	0.61
1:5:1634:A:C5	1:5:1635:C:C5	2.88	0.61
49:S2:590:A:O2'	49:S2:591:U:O5'	2.18	0.61
3:8:30:U:C2	3:8:31:G:C8	2.89	0.61
6:C:94:ASN:HA	6:C:100:ARG:O	2.00	0.61
1:5:2394:G:N2	1:5:2820:C:C5	2.69	0.61
2:7:51:G:C6	2:7:52:C:N4	2.68	0.61
1:5:950:G:C2	1:5:951:G:N7	2.68	0.61
1:5:4462:C:C2	1:5:4515:G:N2	2.68	0.61
1:5:931:C:O2'	1:5:932:A:O4'	2.12	0.61
48:4:333:LYS:HB2	48:4:334:PRO:HD3	1.82	0.61
1:5:2602:G:H1'	1:5:2742:G:C4	2.34	0.61
1:5:4618:G:C2	1:5:4619:U:C5	2.88	0.61
48:4:58:ASP:HA	48:4:63:GLU:OE1	2.00	0.61
1:5:1279:A:C3'	1:5:1280:C:C5	2.83	0.61
1:5:1899:G:N2	1:5:1900:C:N3	2.48	0.61
1:5:2295:C:O2	1:5:2296:G:C8	2.53	0.61
49:S2:480:G:H2'	49:S2:481:C:O4'	2.00	0.61
49:S2:340:C:N4	49:S2:341:C:N4	2.48	0.61
1:5:1394:G:H5"	15:L:186:ARG:HH12	1.65	0.61
1:5:288:G:N1	1:5:289:C:C4	2.68	0.61
49:S2:1612:G:C2	49:S2:1628:C:C2	2.87	0.61
1:5:4240:G:C2	1:5:4241:C:N1	2.68	0.61
1:5:4277:G:C4	1:5:4278:C:C6	2.89	0.61
49:S2:1094:C:C2	49:S2:1095:U:C6	2.88	0.61
1:5:1936:C:C4	1:5:1937:C:C5	2.88	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:F:100:ILE:O	9:F:100:ILE:HG23	2.00	0.61
49:S2:477:G:C2	49:S2:478:G:N7	2.69	0.61
48:4:667:LYS:NZ	48:4:667:LYS:CB	2.30	0.61
2:7:6:C:C4	2:7:7:G:C8	2.89	0.61
49:S2:1022:U:H1'	63:SN:128:TYR:CD2	2.35	0.61
1:5:3907:G:C1'	1:5:4449:A:N9	2.64	0.61
1:5:2382:A:H62	1:5:2830:G:C1'	2.12	0.61
1:5:1634:A:C2	1:5:1635:C:C5	2.89	0.61
1:5:1340:C:C4	1:5:1341:U:C5	2.89	0.61
1:5:4933:C:N4	1:5:4934:A:N7	2.48	0.61
2:7:93:G:C5	2:7:94:C:C5	2.88	0.61
1:5:183:C:O2	1:5:253:G:O6	2.17	0.61
1:5:181:C:N3	1:5:256:G:C2	2.68	0.61
1:5:1725:U:OP1	1:5:1725:U:H4'	1.99	0.61
1:5:4138:C:C2	1:5:4147:G:C2	2.89	0.61
1:5:348:G:N1	1:5:350:C:C4	2.68	0.61
48:4:531:ASP:HB2	48:4:534:VAL:HG11	1.83	0.61
48:4:369:CYS:CB	48:4:386:LYS:HG3	2.29	0.61
49:S2:1476:A:N3	49:S2:1476:A:H5'	2.16	0.61
29:Z:36:ARG:HH11	29:Z:36:ARG:HG3	1.65	0.61
53:SD:150:MET:HB3	53:SD:152:PHE:CE1	2.36	0.61
1:5:1304:C:HO2'	3:8:8:U:HO2'	1.47	0.61
27:X:145:ASP:HB3	27:X:148:ASP:OD1	1.99	0.61
48:4:753:GLU:CG	48:4:779:THR:HG22	2.30	0.61
1:5:1280:C:C2	1:5:1282:G:C8	2.89	0.61
1:5:1689:G:H2'	1:5:1690:C:O4'	1.99	0.61
1:5:2106:G:N2	1:5:2107:C:H5	1.98	0.61
1:5:280:G:C5'	17:N:120:TRP:HE3	2.13	0.61
49:S2:1596:U:N3	49:S2:1597:C:C5	2.69	0.61
25:V:97:TYR:CE2	26:W:21:TYR:CD1	2.89	0.61
49:S2:1132:C:N4	49:S2:1133:A:C8	2.67	0.61
49:S2:1095:U:O4	49:S2:1149:A:C2	2.53	0.61
49:S2:536:A:N6	49:S2:537:C:C5	2.69	0.61
11:H:59:LYS:O	11:H:60:TRP:HB2	2.00	0.61
1:5:2723:U:H2'	1:5:2724:G:C8	2.36	0.61
49:S2:992:A:N3	49:S2:992:A:H2'	2.16	0.61
49:S2:992:A:C6	49:S2:993:G:N7	2.69	0.61
1:5:3909:C:C4	1:5:3910:C:H5	2.19	0.61
1:5:4093:G:C5	1:5:4094:G:C8	2.88	0.61
49:S2:1102:G:N2	49:S2:1130:G:H22	1.99	0.61
1:5:62:A:C2	1:5:77:U:O2	2.52	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2046:G:O2'	1:5:2047:A:OP2	2.11	0.61
3:8:130:C:C4	3:8:131:G:C8	2.89	0.61
1:5:5020:G:C6	1:5:5021:C:C4	2.88	0.61
1:5:2301:G:N3	1:5:2302:C:C6	2.69	0.61
1:5:2400:G:C2	1:5:2401:A:C8	2.88	0.61
49:S2:431:G:C6	49:S2:432:G:N7	2.68	0.61
49:S2:396:U:C2'	49:S2:397:G:O5'	2.49	0.61
48:4:308:LYS:HB3	48:4:311:GLU:CG	2.30	0.61
49:S2:1730:U:N3	49:S2:1731:A:C8	2.68	0.61
66:SQ:55:VAL:HA	66:SQ:63:PHE:CE1	2.35	0.61
6:C:76:ILE:HG22	6:C:77:PRO:HD2	1.83	0.61
6:C:222:ARG:HH21	28:Y:3:PHE:HE2	1.46	0.61
1:5:4477:A:C2	1:5:4604:G:O4'	2.54	0.61
59:SJ:69:ARG:O	59:SJ:71:LEU:N	2.33	0.61
1:5:1266:G:H22	1:5:2111:G:N2	1.98	0.61
1:5:2110:C:N3	1:5:2121:C:N4	2.48	0.61
1:5:2326:G:N3	1:5:2327:G:C8	2.67	0.61
1:5:2451:A:N6	1:5:2452:G:C5	2.69	0.61
1:5:4085:A:N7	10:G:56:LYS:HA	2.14	0.61
49:S2:1739:C:C2	49:S2:1740:C:C6	2.89	0.61
1:5:1361:G:C6	1:5:1362:G:N7	2.69	0.61
1:5:3739:C:C2	1:5:3740:G:C8	2.89	0.61
1:5:90:G:N2	1:5:95:G:C5	2.69	0.61
1:5:99:A:H4'	17:N:181:HIS:CE1	2.36	0.61
1:5:1185:G:C2	1:5:1186:U:H1'	2.35	0.61
49:S2:1526:G:N3	49:S2:1527:C:C6	2.69	0.61
49:S2:1568:C:C2'	49:S2:1569:A:C8	2.84	0.61
2:7:58:A:N6	2:7:59:G:C6	2.69	0.61
49:S2:1317:C:C2	49:S2:1318:G:H8	2.15	0.61
49:S2:1111:U:C2	49:S2:1112:U:C6	2.82	0.61
1:5:3636:C:C4	1:5:3637:U:C5	2.89	0.61
1:5:668:C:H2'	1:5:669:C:O4'	2.01	0.61
1:5:57:G:N2	1:5:58:G:C2	2.69	0.61
1:5:4724:A:C6	1:5:4725:C:C4	2.88	0.61
1:5:4745:G:C2'	1:5:4746:C:C5	2.83	0.61
21:R:120:TYR:C	21:R:120:TYR:CD1	2.74	0.61
49:S2:99:A:N1	49:S2:100:U:C5	2.69	0.61
1:5:2584:G:C6	1:5:2585:C:C5	2.89	0.61
1:5:145:G:C6	1:5:146:G:N7	2.69	0.61
1:5:4510:A:N6	1:5:4592:C:C2'	2.64	0.61
1:5:4737:G:C4	1:5:4738:C:C5	2.88	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:112:C:C5	1:5:157:U:C4	2.88	0.61
49:S2:429:C:H2'	49:S2:429:C:O2	2.00	0.61
49:S2:891:G:C6	49:S2:892:U:C5	2.89	0.61
1:5:1252:C:C2	1:5:1259:G:C2	2.89	0.61
1:5:325:U:H2'	1:5:326:C:C6	2.36	0.61
49:S2:570:C:C2	49:S2:571:U:C6	2.89	0.61
1:5:4187:G:H2'	1:5:4188:U:O4'	2.00	0.61
1:5:1277:G:N2	1:5:1278:C:C2	2.69	0.61
1:5:1277:G:N3	1:5:1278:C:C6	2.69	0.61
1:5:1437:C:C2	1:5:2098:G:N7	2.68	0.61
1:5:1693:U:C4	1:5:1694:C:C5	2.89	0.61
14:K:111:ASN:O	14:K:115:GLN:HG3	2.01	0.61
48:4:587:SER:CB	48:4:735:THR:HG23	2.30	0.61
49:S2:217:A:N3	49:S2:309:G:O6	2.34	0.61
49:S2:381:C:C2'	49:S2:382:C:C5	2.84	0.61
49:S2:70:G:C5	49:S2:71:G:C5	2.88	0.61
49:S2:1207:G:O2'	49:S2:1835:A:O2'	1.97	0.61
1:5:1394:G:H2'	1:5:1395:U:C6	2.36	0.61
49:S2:1539:U:C4	49:S2:1540:G:N7	2.66	0.61
1:5:4243:C:H1'	1:5:4268:A:C2	2.36	0.61
48:4:845:LYS:CA	48:4:845:LYS:HZ1	2.13	0.61
3:8:10:G:C5	3:8:11:C:C5	2.87	0.61
1:5:2371:U:C2'	1:5:2372:U:H5'	2.30	0.61
1:5:2428:A:C8	1:5:2789:A:H2	2.17	0.61
2:7:56:G:H2'	2:7:57:C:C6	2.36	0.61
49:S2:28:U:O2	49:S2:28:U:H2'	2.01	0.61
49:S2:1314:U:C2	49:S2:1315:U:C1'	2.84	0.61
49:S2:1315:U:C4	49:S2:1316:C:N1	2.67	0.61
49:S2:1317:C:O2	49:S2:1318:G:H8	1.83	0.61
49:S2:558:G:H2'	49:S2:559:G:C8	2.36	0.61
48:4:394:LEU:N	48:4:487:THR:HG22	2.14	0.61
1:5:208:A:C1'	1:5:232:G:C2	2.82	0.61
1:5:209:U:C4	1:5:211:G:N9	2.68	0.61
1:5:2532:C:C2	1:5:2533:C:H5	2.13	0.61
49:S2:839:C:C6	49:S2:841:G:C5	2.89	0.61
49:S2:957:A:N1	49:S2:967:C:C2	2.69	0.61
2:7:42:A:N6	2:7:43:U:C4	2.69	0.61
1:5:4744:A:N3	1:5:4745:G:C8	2.68	0.61
16:M:3:PHE:CB	16:M:6:PHE:HZ	2.13	0.61
13:J:107:PHE:CE1	13:J:130:PHE:CB	2.82	0.61
1:5:4887:C:O2'	1:5:4888:U:H5'	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4937:C:OP1	8:E:179:ARG:NE	2.31	0.61
1:5:2566:G:C2	1:5:2567:G:N7	2.69	0.61
9:F:219:ARG:O	9:F:248:ARG:NH2	2.34	0.61
1:5:1613:A:H4'	4:A:186:TYR:CD2	2.36	0.61
59:SJ:115:PHE:C	59:SJ:115:PHE:CD1	2.73	0.61
49:S2:1217:A:H2'	49:S2:1218:C:C6	2.36	0.61
1:5:1354:A:C5	1:5:1503:A:C2	2.88	0.61
48:4:24:VAL:HG23	48:4:32:LYS:CD	2.29	0.61
48:4:769:HIS:N	48:4:786:ALA:HB1	2.14	0.61
48:4:752:PRO:HB3	48:4:780:PRO:HA	1.83	0.61
1:5:1067:G:H2'	1:5:1068:G:O4'	2.01	0.61
1:5:1552:G:H2'	1:5:1574:G:H22	1.64	0.61
1:5:2079:G:N2	1:5:2080:U:C6	2.67	0.61
1:5:2104:G:C6	1:5:2105:A:N7	2.69	0.61
1:5:1268:G:N1	1:5:2111:G:N2	2.49	0.61
1:5:4176:C:C2	1:5:4177:C:C5	2.88	0.61
1:5:957:G:P	1:5:1284:G:N3	2.74	0.61
14:K:105:THR:C	14:K:106:PHE:CG	2.73	0.61
14:K:114:ARG:HE	14:K:130:LYS:HE2	1.65	0.61
17:N:65:ARG:HG2	17:N:129:PHE:CE2	2.36	0.61
48:4:650:TRP:HZ2	48:4:672:LEU:HD11	1.66	0.61
49:S2:1365:G:C6	49:S2:1375:G:N2	2.68	0.61
49:S2:315:C:O2	49:S2:316:G:C8	2.54	0.61
49:S2:339:A:C2'	49:S2:340:C:H6	2.10	0.61
1:5:1380:G:C4	1:5:1382:G:C6	2.89	0.61
1:5:291:U:O2	1:5:293:G:H3'	2.01	0.61
1:5:4977:A:O2'	1:5:4978:G:H5'	2.01	0.61
49:S2:1228:A:H2'	49:S2:1229:G:C8	2.36	0.61
49:S2:1526:G:N2	49:S2:1527:C:C2	2.69	0.61
1:5:4287:G:O2'	1:5:4288:C:C5'	2.48	0.61
49:S2:1215:C:C5	49:S2:1645:C:H2'	2.36	0.61
26:W:50:ASN:CB	26:W:55:TYR:CE2	2.81	0.61
49:S2:474:G:N3	49:S2:475:C:C6	2.69	0.61
1:5:3648:A:C8	1:5:3785:A:N6	2.69	0.61
1:5:3698:G:N2	1:5:3699:C:C2	2.69	0.61
1:5:4539:U:C2	1:5:4540:C:C5	2.89	0.61
1:5:495:C:N3	1:5:496:G:N7	2.48	0.61
49:S2:1249:C:N4	49:S2:1250:A:N6	2.48	0.61
48:4:449:ARG:CZ	48:4:460:PRO:HB3	2.31	0.61
49:S2:961:G:C6	49:S2:962:A:C5	2.88	0.61
1:5:1367:C:N4	1:5:1369:C:OP2	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1771:G:C2	49:S2:1772:C:C6	2.88	0.61
2:7:110:G:C2	2:7:111:C:C5	2.89	0.61
1:5:152:U:C2	1:5:153:G:C8	2.88	0.61
1:5:21:G:C6	3:8:36:G:C2	2.88	0.61
1:5:719:C:N3	1:5:720:G:N7	2.49	0.61
1:5:1089:G:H5'	23:T:140:PHE:HE1	1.66	0.61
3:8:111:U:H3'	3:8:111:U:O2	2.00	0.61
48:4:526:ARG:HA	48:4:529:LYS:HD2	1.82	0.61
48:4:144:ARG:HH12	48:4:781:MET:HE2	1.63	0.61
1:5:1217:G:N3	1:5:1218:G:N7	2.48	0.61
1:5:1268:G:OP2	1:5:2110:C:H2'	2.00	0.61
1:5:1277:G:N1	1:5:1278:C:C4	2.69	0.61
1:5:2106:G:C2	1:5:2107:C:H5	2.19	0.61
1:5:2256:C:H2'	1:5:2256:C:O2	2.01	0.61
1:5:2517:A:H2'	1:5:2518:G:C8	2.36	0.61
1:5:3676:G:O2'	1:5:3677:U:O5'	2.18	0.61
14:K:140:GLY:O	14:K:141:CYS:HB2	2.00	0.61
48:4:669:VAL:HG11	48:4:707:VAL:O	2.01	0.61
49:S2:1374:C:H2'	49:S2:1375:G:O5'	2.01	0.61
49:S2:377:G:N3	49:S2:378:U:C6	2.69	0.61
48:4:208:VAL:HG11	48:4:258:LYS:HA	1.82	0.61
1:5:1487:G:N2	1:5:1488:G:H1'	2.16	0.61
1:5:69:A:O5'	1:5:100:C:O2'	2.19	0.61
49:S2:1526:G:N1	49:S2:1527:C:C4	2.69	0.61
49:S2:1607:A:H61	49:S2:1632:G:H1'	1.64	0.61
1:5:1566:C:O2'	1:5:1567:U:C5'	2.49	0.61
19:P:3:ARG:HG3	19:P:3:ARG:HH11	1.66	0.61
49:S2:1272:C:OP1	49:S2:1303:C:O4'	2.19	0.61
49:S2:1643:U:C2	49:S2:1644:C:C5	2.89	0.61
49:S2:535:G:N2	49:S2:536:A:C8	2.69	0.61
3:8:116:C:C4	3:8:117:C:C5	2.88	0.61
1:5:269:G:H2'	1:5:269:G:N3	2.16	0.61
12:I:171:TRP:CB	12:I:181:PHE:CE2	2.83	0.61
1:5:1816:C:H2'	1:5:1816:C:O2	2.00	0.61
49:S2:924:G:C6	49:S2:925:G:C8	2.89	0.61
1:5:2059:C:N3	1:5:2060:G:N7	2.48	0.61
50:SA:32:PHE:CD1	50:SA:32:PHE:C	2.74	0.61
49:S2:107:A:H2'	49:S2:108:G:H8	1.66	0.61
3:8:134:G:N3	3:8:135:C:C6	2.69	0.61
1:5:1965:G:C5	1:5:1966:C:C4	2.89	0.61
1:5:1439:C:O2	9:F:36:ARG:NH1	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4143:G:C5	1:5:4145:C:C6	2.89	0.61
63:SN:20:ARG:HD3	72:SW:56:HIS:NE2	2.15	0.61
49:S2:1500:G:H3'	49:S2:1501:C:H6	1.65	0.61
49:S2:1059:G:H2'	49:S2:1060:A:H5'	1.83	0.61
57:SH:177:TYR:HE2	57:SH:185:VAL:HG21	1.66	0.61
9:F:244:ARG:HG2	9:F:244:ARG:NH1	2.16	0.61
49:S2:360:A:N1	49:S2:363:A:N7	2.49	0.61
4:A:186:TYR:HE1	4:A:190:LYS:HG3	1.65	0.61
1:5:4441:A:H5"	1:5:4441:A:H8	1.65	0.61
51:SB:106:THR:OG1	51:SB:108:ASP:OD1	2.16	0.61
1:5:1447:C:H2'	1:5:1448:G:C8	2.35	0.60
1:5:2263:A:O2'	1:5:2265:G:H2'	2.00	0.60
1:5:2272:C:C2'	1:5:2273:G:O5'	2.49	0.60
1:5:2454:U:N3	1:5:2455:G:N7	2.49	0.60
14:K:109:ILE:O	14:K:113:ALA:N	2.34	0.60
14:K:123:ARG:HB3	14:K:129:ILE:CD1	0.64	0.60
14:K:132:ILE:O	14:K:135:THR:OG1	2.19	0.60
49:S2:300:U:N3	49:S2:301:A:N7	2.49	0.60
64:SO:146:ARG:C	64:SO:148:GLY:N	2.54	0.60
1:5:1392:A:N1	1:5:1393:G:C6	2.69	0.60
1:5:301:G:C6	1:5:302:C:C4	2.88	0.60
1:5:3894:A:H2'	1:5:3895:G:O4'	2.01	0.60
1:5:88:A:C2'	1:5:89:C:O5'	2.49	0.60
1:5:91:G:C8	1:5:93:G:C6	2.89	0.60
49:S2:1266:C:O2	49:S2:1266:C:H2'	2.01	0.60
1:5:1565:A:C2'	1:5:1566:C:H5'	2.31	0.60
49:S2:639:C:O2'	49:S2:640:A:H5'	2.01	0.60
49:S2:1093:A:C5	49:S2:1094:C:C5	2.89	0.60
48:4:330:LYS:O	48:4:331:GLU:CG	2.29	0.60
48:4:183:GLU:HA	48:4:183:GLU:OE1	2.01	0.60
21:R:132:PHE:N	21:R:132:PHE:CD2	2.69	0.60
1:5:2498:C:C4	1:5:2499:C:C5	2.88	0.60
49:S2:751:G:N1	49:S2:791:C:C2	2.69	0.60
3:8:96:C:O2	3:8:97:A:H8	1.73	0.60
1:5:486:C:C4	1:5:487:G:N7	2.69	0.60
1:5:488:G:N3	1:5:489:C:C6	2.67	0.60
1:5:5047:C:C1'	1:5:5048:A:N1	2.64	0.60
1:5:56:A:N1	1:5:57:G:C6	2.69	0.60
49:S2:975:G:C6	49:S2:976:G:N7	2.69	0.60
1:5:4750:G:O6	1:5:4949:G:C6	2.54	0.60
49:S2:850:C:O2'	49:S2:851:C:H5'	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2664:G:N2	1:5:2671:C:C2	2.69	0.60
49:S2:879:C:C4	49:S2:880:G:C2	2.89	0.60
49:S2:880:G:C8	49:S2:881:G:N7	2.66	0.60
1:5:4547:C:C2	1:5:4549:G:N7	2.69	0.60
1:5:189:G:N2	1:5:190:G:C4	2.69	0.60
7:D:249:GLU:OE1	7:D:249:GLU:C	2.39	0.60
69:ST:78:ILE:HG23	69:ST:79:TYR:CE1	2.36	0.60
1:5:1290:G:C2	1:5:1291:G:N7	2.69	0.60
48:4:171:PRO:HB2	48:4:290:CYS:SG	2.41	0.60
48:4:72:SER:CA	48:4:104:ASP:CG	2.69	0.60
1:5:1615:C:C4	1:5:1616:U:C5	2.89	0.60
6:C:33:ARG:HH11	6:C:122:TYR:HH	1.48	0.60
14:K:81:ILE:HD12	14:K:113:ALA:HB1	1.82	0.60
10:G:261:LEU:HD22	10:G:265:LEU:HD23	1.82	0.60
48:4:738:PRO:O	48:4:739:ARG:NH1	2.33	0.60
49:S2:1605:G:C3'	49:S2:1606:G:O4'	2.48	0.60
1:5:2367:A:N6	1:5:2798:A:O4'	2.30	0.60
2:7:59:G:C6	2:7:60:G:C5	2.89	0.60
1:5:3759:A:C6	49:S2:1709:G:H4'	2.36	0.60
1:5:1628:C:C2	1:5:1629:G:H8	2.13	0.60
49:S2:1124:C:C4	49:S2:1125:C:C5	2.88	0.60
1:5:1949:U:C2	1:5:1950:U:C6	2.89	0.60
1:5:4742:G:C2	1:5:4743:G:C8	2.89	0.60
49:S2:849:A:C6	49:S2:850:C:N4	2.69	0.60
1:5:2309:G:H2'	1:5:2310:C:O4'	2.02	0.60
49:S2:579:C:O2	49:S2:579:C:H2'	1.99	0.60
1:5:4332:C:C2	1:5:4333:C:C5	2.85	0.60
1:5:127:G:N2	1:5:128:C:C2	2.69	0.60
1:5:2301:G:C2	1:5:2302:C:C5	2.89	0.60
49:S2:903:A:N7	49:S2:904:A:C8	2.69	0.60
1:5:930:G:N3	1:5:931:C:H6	1.99	0.60
57:SH:57:ARG:HA	57:SH:57:ARG:CZ	2.32	0.60
1:5:3711:A:N6	1:5:3712:A:H1'	2.16	0.60
1:5:323:C:O2	1:5:324:A:C8	2.54	0.60
1:5:2335:C:O2	1:5:2335:C:H2'	2.00	0.60
57:SH:8:ILE:HG23	57:SH:9:VAL:HG13	1.83	0.60
1:5:1969:G:H1	1:5:2018:C:N4	1.98	0.60
1:5:2451:A:C4	1:5:2452:G:C8	2.89	0.60
1:5:2468:U:C2	1:5:2473:A:N6	2.70	0.60
1:5:3935:C:N3	1:5:3936:A:C8	2.69	0.60
1:5:460:C:H2'	1:5:461:G:H8	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4117:U:C5	10:G:41:ILE:O	2.55	0.60
14:K:95:GLN:C	14:K:97:ASN:H	2.05	0.60
48:4:683:PHE:HD1	48:4:729:LEU:HD21	1.66	0.60
48:4:738:PRO:O	48:4:824:PRO:HD2	2.01	0.60
1:5:1392:A:H2'	1:5:1393:G:C8	2.37	0.60
1:5:4979:A:C2'	1:5:4980:C:O5'	2.49	0.60
1:5:3858:C:N3	1:5:3859:G:C8	2.68	0.60
49:S2:1571:G:C6	49:S2:1572:C:C4	2.89	0.60
49:S2:1593:C:N3	49:S2:1594:A:N7	2.49	0.60
2:7:18:C:C2	2:7:19:C:H6	2.10	0.60
49:S2:1310:U:O2	49:S2:1310:U:H2'	2.01	0.60
62:SM:85:LEU:O	62:SM:85:LEU:HD23	2.01	0.60
3:8:42:G:C6	3:8:43:A:N7	2.69	0.60
3:8:45:C:C2	3:8:46:G:C8	2.88	0.60
1:5:2830:G:C2	1:5:2831:G:N7	2.69	0.60
1:5:42:A:C5	1:5:4379:A:N1	2.69	0.60
1:5:2766:A:H5"	1:5:2766:A:N3	2.16	0.60
1:5:1769:G:C2	1:5:1770:A:C5	2.88	0.60
49:S2:1754:G:C6	49:S2:1755:C:C4	2.89	0.60
49:S2:1772:C:C2	49:S2:1773:C:C6	2.88	0.60
1:5:182:G:H22	1:5:254:G:N2	1.98	0.60
1:5:2577:C:C4	29:Z:17:ARG:NH2	2.69	0.60
49:S2:608:C:C4	49:S2:609:U:C5	2.89	0.60
49:S2:816:A:C5	49:S2:817:G:C8	2.90	0.60
1:5:4455:G:C5	1:5:4456:C:C5	2.89	0.60
69:ST:52:TRP:CE3	69:ST:53:PHE:HB2	2.37	0.60
49:S2:323:C:H3'	49:S2:324:C:H5"	1.83	0.60
49:S2:570:C:N3	49:S2:571:U:C5	2.69	0.60
1:5:388:A:C6	1:5:411:G:C6	2.90	0.60
2:7:119:U:O4	7:D:258:LYS:NZ	2.32	0.60
1:5:1983:A:N1	1:5:2010:A:OP2	2.35	0.60
1:5:2290:C:N3	1:5:2291:G:N7	2.50	0.60
1:5:2448:G:C6	1:5:2511:A:C6	2.89	0.60
1:5:446:C:N3	1:5:447:C:C5	2.68	0.60
14:K:120:SER:OG	14:K:121:LEU:N	2.34	0.60
22:S:27:LEU:C	22:S:28:TYR:HD1	2.04	0.60
49:S2:457:C:C4	49:S2:458:A:N7	2.69	0.60
49:S2:222:U:C2	49:S2:223:C:C6	2.90	0.60
49:S2:338:G:C5	49:S2:339:A:N7	2.69	0.60
49:S2:376:A:C5	49:S2:377:G:C8	2.90	0.60
49:S2:452:G:H2'	49:S2:453:C:O5'	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:293:G:C4'	1:5:294:G:C8	2.84	0.60
74:SY:76:TYR:CE2	74:SY:86:GLU:OE2	2.54	0.60
1:5:2361:G:O2'	1:5:2362:U:OP2	2.19	0.60
49:S2:1611:G:H1'	68:SS:86:ARG:HH12	1.66	0.60
1:5:4239:A:C6	1:5:4240:G:N7	2.69	0.60
49:S2:1287:A:C2	49:S2:1313:A:C4	2.89	0.60
1:5:4999:G:N1	1:5:5000:G:C5	2.69	0.60
1:5:3871:A:C6	1:5:3885:G:C2	2.90	0.60
1:5:1324:A:C2	1:5:3876:A:C2'	2.84	0.60
49:S2:51:U:C4	49:S2:52:G:N7	2.68	0.60
49:S2:53:C:N3	49:S2:54:A:C8	2.69	0.60
49:S2:167:G:N2	49:S2:168:C:C2	2.69	0.60
49:S2:751:G:C6	49:S2:791:C:C2	2.90	0.60
49:S2:798:A:N6	57:SH:106:ARG:HB2	2.17	0.60
1:5:4191:G:N2	1:5:4374:U:O4'	2.34	0.60
1:5:2423:A:C6	1:5:2424:G:C6	2.90	0.60
3:8:134:G:N1	3:8:135:C:C5	2.69	0.60
1:5:4746:C:C2	1:5:4747:C:C6	2.90	0.60
12:I:35:ASP:HB2	12:I:86:HIS:HE1	1.66	0.60
2:7:93:G:N3	2:7:94:C:C6	2.69	0.60
1:5:4332:C:O2	1:5:4333:C:H6	1.81	0.60
1:5:1582:U:C4	1:5:1583:A:C8	2.89	0.60
1:5:152:U:O2	1:5:153:G:C8	2.55	0.60
8:E:197:ILE:HD11	8:E:256:ARG:HB2	1.83	0.60
1:5:3711:A:N1	1:5:3712:A:N3	2.49	0.60
1:5:325:U:H2'	1:5:326:C:H6	1.67	0.60
3:8:142:U:C2	3:8:143:G:C8	2.89	0.60
1:5:4647:G:H4'	21:R:59:SER:HB3	1.82	0.60
49:S2:1056:U:H2'	49:S2:1057:C:O4'	2.00	0.60
48:4:77:LEU:HB2	48:4:100:ILE:HB	1.82	0.60
48:4:113:SER:OG	48:4:499:PHE:CD2	2.52	0.60
48:4:42:LYS:CD	48:4:79:TYR:HH	2.13	0.60
48:4:42:LYS:CE	48:4:79:TYR:HH	2.05	0.60
1:5:1437:C:O2	1:5:2097:U:C2	2.54	0.60
1:5:2468:U:O4	1:5:2473:A:C2	2.53	0.60
1:5:2645:G:N1	1:5:2646:C:C4	2.70	0.60
49:S2:461:U:O2	49:S2:462:C:C5	2.54	0.60
49:S2:1455:A:C6	49:S2:1456:G:C5	2.88	0.60
49:S2:64:A:C5	49:S2:82:G:N1	2.69	0.60
49:S2:1082:A:C5	49:S2:1084:A:H1'	2.37	0.60
1:5:1179:U:C4	1:5:1181:C:OP2	2.54	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:950:C:C2	49:S2:951:C:C6	2.89	0.60
49:S2:1575:G:N2	49:S2:1576:G:C4	2.69	0.60
49:S2:1609:C:O2	49:S2:1610:G:H8	1.82	0.60
2:7:58:A:C5	2:7:59:G:N7	2.69	0.60
48:4:10:ARG:HH22	48:4:465:PRO:CD	2.01	0.60
49:S2:54:A:N3	49:S2:451:G:C2	2.69	0.60
49:S2:474:G:N2	49:S2:475:C:N1	2.48	0.60
49:S2:795:A:N1	49:S2:796:G:C5	2.70	0.60
49:S2:797:C:C2	49:S2:798:A:O2'	2.40	0.60
1:5:488:G:C6	1:5:489:C:C4	2.90	0.60
48:4:238:ALA:HB1	48:4:239:LYS:CB	2.31	0.60
63:SN:125:LEU:HD22	63:SN:129:TYR:CE2	2.37	0.60
1:5:1928:C:C4	18:O:133:ARG:CZ	2.85	0.60
1:5:2055:G:H5'	1:5:2056:G:H5'	1.82	0.60
1:5:30:C:H2'	1:5:31:U:O5'	2.02	0.60
1:5:4198:G:C5	1:5:4199:C:C5	2.89	0.60
7:D:44:TYR:CD1	7:D:44:TYR:N	2.69	0.60
1:5:745:G:H2'	1:5:746:A:O4'	2.00	0.60
13:J:99:PHE:CZ	13:J:105:PHE:HB2	2.37	0.60
21:R:105:LEU:O	21:R:109:TYR:HB2	2.01	0.60
16:M:6:PHE:HB3	22:S:151:LYS:CG	2.31	0.60
1:5:225:G:C2	1:5:243:A:C2	2.90	0.60
1:5:1410:U:H5	1:5:1815:G:N1	1.99	0.60
1:5:1806:G:C2	1:5:1807:C:C5	2.90	0.60
49:S2:1784:G:H2'	49:S2:1785:C:H5'	1.83	0.60
1:5:3944:G:C2	1:5:3945:A:N7	2.69	0.60
1:5:642:G:C2	1:5:643:C:C4	2.89	0.60
49:S2:431:G:C2	49:S2:432:G:C8	2.89	0.60
1:5:259:C:C2	1:5:260:C:C6	2.89	0.60
49:S2:886:A:H2'	49:S2:887:U:O4'	2.02	0.60
1:5:371:A:O2'	1:5:372:A:C5'	2.49	0.60
1:5:4544:A:C8	1:5:4545:G:H1'	2.37	0.60
55:SF:119:SER:OG	55:SF:180:ALA:HB1	2.01	0.60
7:D:103:LEU:CD2	7:D:244:HIS:HB3	2.31	0.60
59:SJ:110:LEU:HD12	59:SJ:142:VAL:HG11	1.83	0.60
52:SC:133:TYR:HD1	52:SC:216:MET:HA	1.66	0.60
48:4:462:GLU:O	48:4:463:ASP:HB3	2.02	0.60
48:4:801:ARG:CD	48:4:802:SER:N	2.64	0.60
1:5:1264:C:H2'	1:5:1265:G:O4'	2.02	0.60
1:5:976:G:H22	1:5:1277:G:H22	1.49	0.60
1:5:2089:G:O6	1:5:2263:A:C8	2.54	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2294:G:N3	1:5:2295:C:C5	2.69	0.60
1:5:470:A:N7	1:5:471:A:N7	2.48	0.60
48:4:825:PHE:C	48:4:826:ASP:O	2.32	0.60
49:S2:149:A:H2'	49:S2:150:A:H8	1.66	0.60
49:S2:1795:G:C2	49:S2:1796:G:C8	2.89	0.60
49:S2:309:G:N3	49:S2:310:C:C6	2.70	0.60
49:S2:333:G:H2'	49:S2:334:C:O4'	2.02	0.60
49:S2:69:C:C2	49:S2:70:G:N7	2.70	0.60
1:5:1379:C:H4'	1:5:1380:G:N9	2.15	0.60
1:5:3738:G:C6	1:5:3739:C:C6	2.90	0.60
1:5:4977:A:C4	1:5:4978:G:C2	2.90	0.60
17:N:150:TRP:CZ3	17:N:151:ILE:HG12	2.36	0.60
49:S2:1542:C:C2'	49:S2:1543:U:O5'	2.49	0.60
1:5:4269:G:H22	1:5:4277:G:N2	1.94	0.60
2:7:29:C:C2	2:7:30:C:C5	2.89	0.60
49:S2:27:A:C2	49:S2:28:U:H1'	2.37	0.60
49:S2:1272:C:N3	49:S2:1273:C:C5	2.69	0.60
62:SM:51:VAL:HG13	62:SM:85:LEU:HD21	1.83	0.60
48:4:13:MET:HE1	48:4:464:VAL:CA	2.31	0.60
1:5:3754:G:C6	1:5:3755:G:C8	2.90	0.60
1:5:919:C:C2	1:5:920:C:C6	2.90	0.60
49:S2:1040:G:C6	49:S2:1041:G:N7	2.70	0.60
1:5:2363:A:H1'	1:5:4560:C:H5	1.66	0.60
1:5:3806:G:O2'	49:S2:1719:A:H1'	2.00	0.60
49:S2:881:G:C2	49:S2:882:U:C6	2.90	0.60
1:5:2559:G:C6	1:5:2560:C:C5	2.90	0.60
1:5:3590:G:C5	1:5:3591:C:C6	2.90	0.60
1:5:4313:A:C6	1:5:4314:C:C5	2.88	0.60
1:5:4489:G:C6	1:5:4490:C:C4	2.90	0.60
1:5:3846:C:C2	1:5:3847:C:C6	2.89	0.60
22:S:94:TYR:CE2	22:S:96:GLU:HG3	2.37	0.60
4:A:186:TYR:CA	4:A:196:TRP:HZ3	2.13	0.60
18:O:58:LEU:HD11	18:O:145:VAL:HG13	1.83	0.60
48:4:111:PHE:HB2	48:4:501:VAL:CG2	2.29	0.60
1:5:1065:G:C2	1:5:1066:G:C4	2.89	0.60
1:5:1682:A:H3'	1:5:1683:U:H6	1.66	0.60
1:5:1972:G:C2	1:5:1973:G:C5	2.89	0.60
1:5:1961:G:O2'	1:5:2025:A:N6	2.34	0.60
1:5:2076:G:N1	1:5:2077:C:C2	2.70	0.60
1:5:2105:A:N1	1:5:2106:G:C5	2.70	0.60
1:5:4077:A:O5'	1:5:4077:A:H8	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4078:C:N3	1:5:4079:C:C6	2.69	0.60
1:5:4080:C:O2	1:5:4080:C:H2'	2.01	0.60
14:K:91:ASP:O	14:K:92:ARG:CB	2.46	0.60
48:4:698:ARG:O	48:4:700:VAL:CB	2.49	0.60
49:S2:349:A:C3'	58:SI:27:TYR:OH	2.49	0.60
49:S2:350:C:O2'	49:S2:383:G:N1	2.34	0.60
1:5:299:C:H2'	1:5:299:C:O2	2.01	0.60
49:S2:1232:U:O2'	49:S2:1253:A:N7	2.24	0.60
49:S2:1665:G:N7	69:ST:88:MET:HG2	2.17	0.60
49:S2:26:U:O2	49:S2:26:U:H2'	2.02	0.60
48:4:13:MET:HE1	48:4:464:VAL:CB	2.32	0.60
49:S2:166:A:N3	49:S2:167:G:C8	2.69	0.60
48:4:427:VAL:CG1	48:4:485:ILE:HG23	2.27	0.60
3:8:79:G:N3	3:8:80:A:C2	2.70	0.60
1:5:2841:G:C6	1:5:2842:G:N7	2.69	0.60
1:5:2612:G:C5	1:5:2613:C:C5	2.89	0.60
1:5:4109:G:C6	1:5:4110:C:C4	2.90	0.60
48:4:556:ILE:O	48:4:560:ASP:OD1	2.19	0.60
1:5:747:A:H2'	1:5:749:G:N7	2.16	0.60
49:S2:1040:G:C6	49:S2:1041:G:C8	2.90	0.60
3:8:134:G:C4	3:8:135:C:C6	2.90	0.60
1:5:1341:U:C2	1:5:1342:A:N7	2.69	0.60
49:S2:591:U:H5"	49:S2:593:C:H5	1.64	0.60
49:S2:910:G:C5	49:S2:911:C:C5	2.90	0.60
48:4:590:LEU:HD23	48:4:605:LYS:CG	2.31	0.60
1:5:4315:A:C2'	1:5:4316:G:H5'	2.31	0.60
4:A:186:TYR:CA	4:A:196:TRP:CZ3	2.85	0.60
49:S2:570:C:C2	49:S2:571:U:C5	2.89	0.60
9:F:128:ASN:HD21	23:T:132:PRO:HG2	1.67	0.60
55:SF:20:PHE:CZ	55:SF:69:VAL:HG11	2.37	0.60
5:B:198:ARG:HB2	5:B:198:ARG:NH1	2.16	0.60
48:4:189:ILE:HG21	48:4:203:ILE:HG13	1.83	0.60
48:4:541:SER:O	48:4:543:GLU:CB	2.49	0.60
1:5:1619:G:C5	1:5:1620:U:C5	2.90	0.60
1:5:1692:C:H4'	20:Q:57:ASN:HD21	1.67	0.60
1:5:2006:U:H2'	1:5:2007:G:O4'	2.01	0.60
1:5:2279:A:C2	1:5:2280:G:C4	2.90	0.60
1:5:2294:G:N2	1:5:2295:C:N1	2.49	0.60
1:5:986:C:H2'	1:5:987:C:O4'	2.02	0.60
14:K:92:ARG:O	14:K:93:LYS:CB	2.42	0.60
49:S2:1202:U:C4	49:S2:1203:G:C8	2.90	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1835:A:C5'	49:S2:1863:A:C8	2.84	0.60
48:4:207:PRO:CB	48:4:261:TRP:CD2	2.85	0.60
1:5:4984:C:C2	1:5:4985:U:C6	2.89	0.60
48:4:693:CYS:O	48:4:694:GLU:HB2	2.00	0.60
49:S2:1540:G:C2	49:S2:1541:G:N7	2.70	0.60
49:S2:1596:U:C2	49:S2:1597:C:C6	2.90	0.60
49:S2:1131:G:N1	49:S2:1132:C:C4	2.69	0.60
49:S2:1270:G:H1'	49:S2:1298:G:O6	2.02	0.60
49:S2:1283:C:C5	62:SM:103:VAL:HA	2.37	0.60
49:S2:553:U:O2	49:S2:554:A:C8	2.55	0.60
1:5:2496:G:C4	1:5:2497:C:C6	2.89	0.60
49:S2:796:G:H3'	49:S2:797:C:C5'	2.32	0.60
1:5:1629:G:N3	1:5:1631:A:C6	2.70	0.60
1:5:3693:U:C4	1:5:3694:U:C4	2.88	0.60
3:8:70:G:C6	3:8:87:G:N1	2.70	0.60
1:5:483:G:C2	1:5:484:U:C6	2.90	0.60
1:5:667:A:C2	1:5:668:C:C5	2.89	0.60
49:S2:744:G:H1'	57:SH:107:LYS:HB3	1.82	0.60
49:S2:973:C:C4	49:S2:974:C:C5	2.90	0.60
1:5:20:U:C4	3:8:37:A:C6	2.90	0.60
3:8:134:G:C5	3:8:135:C:C5	2.90	0.60
1:5:4747:C:O2'	1:5:4748:U:H5'	2.01	0.60
1:5:245:C:O2	1:5:245:C:O4'	2.17	0.60
1:5:2736:G:C2'	1:5:2737:C:H5'	2.31	0.60
49:S2:581:U:C2	49:S2:582:C:C6	2.90	0.60
1:5:4416:G:N2	1:5:4417:C:N1	2.50	0.60
1:5:2712:G:N1	1:5:2713:C:C4	2.70	0.60
49:S2:433:A:H2'	49:S2:434:G:C8	2.37	0.60
50:SA:55:TRP:C	50:SA:55:TRP:CD1	2.74	0.60
1:5:4647:G:C2	1:5:4648:A:C8	2.90	0.60
5:B:217:ILE:HD11	5:B:333:LEU:HD11	1.84	0.60
54:SE:99:PHE:HD1	54:SE:99:PHE:N	1.98	0.60
58:SI:99:ASN:HA	58:SI:174:CYS:SG	2.42	0.60
48:4:481:LYS:HG3	48:4:482:THR:H	0.54	0.60
1:5:1685:G:C6	1:5:1686:C:N4	2.70	0.60
1:5:1271:G:N2	1:5:2122:G:OP2	2.35	0.60
1:5:2277:C:C2'	1:5:2277:C:O2	2.49	0.60
1:5:1898:C:N4	1:5:2279:A:O2'	2.35	0.60
1:5:982:U:C2'	1:5:983:C:C6	2.77	0.60
48:4:686:ALA:HB1	48:4:729:LEU:HB2	1.83	0.60
49:S2:218:U:C2	49:S2:219:U:C5	2.90	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1038:U:H1'	49:S2:1181:A:N1	2.17	0.60
49:S2:1405:A:H1'	49:S2:1580:A:N1	2.15	0.60
69:ST:85:ASN:HB2	69:ST:88:MET:HB2	1.83	0.60
1:5:4234:A:C6	1:5:4271:A:H1'	2.37	0.60
1:5:3900:G:C6	1:5:3902:A:H1'	2.37	0.60
1:5:2852:U:C2'	1:5:2852:U:O2	2.50	0.60
1:5:479:G:C6	1:5:480:C:C5	2.89	0.60
1:5:4230:C:O2	1:5:4230:C:H2'	2.01	0.60
1:5:5030:U:N3	1:5:5031:G:N7	2.50	0.60
1:5:4733:C:H41	1:5:4734:A:H1'	1.66	0.60
1:5:1339:U:N3	1:5:1340:C:C5	2.70	0.60
1:5:1404:G:C6	1:5:1405:C:C5	2.90	0.60
1:5:2633:U:C2	1:5:2634:C:C5	2.89	0.60
1:5:4913:G:O2'	1:5:4914:C:O4'	2.19	0.60
29:Z:38:TYR:CZ	29:Z:76:ASN:OD1	2.55	0.60
1:5:2823:G:C2	1:5:2824:C:C6	2.90	0.60
67:SR:83:ASN:ND2	67:SR:83:ASN:C	2.55	0.60
11:H:8:GLN:HE22	11:H:71:ARG:HD2	1.67	0.60
5:B:314:ILE:HD12	5:B:314:ILE:N	2.16	0.60
6:C:48:ASN:CG	6:C:48:ASN:O	2.39	0.60
57:SH:135:PHE:C	57:SH:135:PHE:CD1	2.74	0.60
57:SH:138:GLU:HG2	63:SN:19:ARG:HD3	1.84	0.60
48:4:73:THR:C	48:4:104:ASP:HB2	2.22	0.60
1:5:4608:G:OP1	48:4:66:ARG:CZ	2.50	0.60
1:5:1268:G:N3	1:5:2111:G:C2	2.70	0.60
1:5:1266:G:C5'	1:5:2112:G:N3	2.60	0.60
1:5:2108:G:C2	1:5:2125:C:C4	2.90	0.60
1:5:2438:A:C5	1:5:2441:C:N4	2.70	0.60
48:4:731:ALA:HB2	48:4:854:PHE:CB	2.30	0.60
49:S2:1368:U:H1'	49:S2:1372:U:N3	2.17	0.60
49:S2:379:C:N4	49:S2:380:G:O6	2.34	0.60
49:S2:440:G:N2	49:S2:454:U:C2	2.70	0.60
49:S2:453:C:O2'	49:S2:454:U:H5'	2.02	0.60
1:5:1378:C:H5"	1:5:1379:C:H3'	1.83	0.60
1:5:332:C:H4'	17:N:150:TRP:NE1	2.17	0.60
49:S2:1422:G:C6	49:S2:1424:G:OP2	2.55	0.60
49:S2:1229:G:C6	49:S2:1230:C:C4	2.89	0.60
49:S2:1542:C:O2'	49:S2:1543:U:C5'	2.49	0.60
49:S2:1561:A:C5	49:S2:1562:C:C6	2.90	0.60
1:5:4236:G:H4'	1:5:4328:G:O2'	2.01	0.60
1:5:2428:A:C4	1:5:2789:A:C2	2.88	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:7:54:A:N1	2:7:55:A:N7	2.46	0.60
49:S2:50:A:C2	49:S2:488:U:O4	2.53	0.60
1:5:655:C:O2	1:5:656:C:C6	2.55	0.60
1:5:166:C:H2'	1:5:166:C:O2	2.02	0.60
1:5:30:C:H2'	1:5:31:U:C6	2.37	0.60
1:5:2055:G:O6	22:S:158:VAL:CG1	2.50	0.60
1:5:1634:A:C6	1:5:1635:C:C5	2.90	0.60
1:5:2304:U:OP1	1:5:2305:U:O2'	2.12	0.60
49:S2:582:C:O2	49:S2:583:C:C5	2.54	0.60
49:S2:190:G:O2'	49:S2:209:A:N6	2.35	0.60
49:S2:371:A:C2	49:S2:372:U:C4	2.89	0.60
48:4:423:THR:HG22	48:4:450:THR:H	1.66	0.60
49:S2:1730:U:C2	49:S2:1731:A:C8	2.90	0.60
61:SL:116:CYS:SG	61:SL:117:PHE:N	2.74	0.60
49:S2:732:U:C2	49:S2:733:C:C6	2.89	0.60
48:4:58:ASP:CA	48:4:63:GLU:CG	2.80	0.59
1:5:4172:A:C2	1:5:4173:G:N7	2.70	0.59
10:G:264:LYS:HZ2	10:G:265:LEU:CD2	2.01	0.59
48:4:671:TYR:CB	48:4:675:ILE:HG23	2.32	0.59
49:S2:1368:U:C2	49:S2:1372:U:O4	2.55	0.59
49:S2:1448:A:C2	49:S2:1449:G:H1'	2.37	0.59
49:S2:453:C:O2'	49:S2:454:U:C5'	2.50	0.59
49:S2:1839:U:O2	49:S2:1840:U:C6	2.54	0.59
1:5:1465:G:C6	1:5:1466:G:C8	2.89	0.59
49:S2:1406:G:C2	49:S2:1407:U:C2	2.89	0.59
49:S2:1418:C:O2	49:S2:1420:G:C8	2.55	0.59
49:S2:1551:U:H3'	49:S2:1552:G:C8	2.37	0.59
49:S2:1552:G:C8	49:S2:1578:U:O4	2.54	0.59
49:S2:1573:G:N3	49:S2:1574:C:H1'	2.16	0.59
49:S2:615:C:H2'	49:S2:616:A:O4'	2.01	0.59
49:S2:165:G:HO2'	49:S2:166:A:H8	1.50	0.59
4:A:209:HIS:HE1	4:A:211:PHE:HD2	1.47	0.59
3:8:68:G:C2	3:8:91:A:C2	2.89	0.59
1:5:2848:G:C2	1:5:3838:U:C5	2.90	0.59
1:5:2059:C:C2	1:5:2060:G:C8	2.90	0.59
3:8:33:G:H4'	3:8:34:U:C4	2.38	0.59
1:5:2422:C:C6	1:5:2829:U:H1'	2.37	0.59
49:S2:848:U:C4	49:S2:849:A:N6	2.70	0.59
1:5:2589:C:N4	1:5:2590:G:C6	2.69	0.59
49:S2:862:A:H2'	49:S2:862:A:N3	2.17	0.59
1:5:4878:C:N3	1:5:4879:C:C5	2.70	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2559:G:H1	1:5:2567:G:H1	1.50	0.59
1:5:726:G:H2'	1:5:727:C:O4'	2.02	0.59
51:SB:77:ASP:O	51:SB:77:ASP:OD1	2.19	0.59
72:SW:90:GLN:HB2	72:SW:94:LEU:HD12	1.83	0.59
1:5:1247:U:N3	1:5:1248:C:C6	2.67	0.59
1:5:1280:C:H5'	1:5:1280:C:H6	1.65	0.59
1:5:1280:C:O2'	1:5:1281:G:C3'	2.49	0.59
1:5:2316:G:C6	1:5:2317:C:N4	2.70	0.59
1:5:2594:C:N3	1:5:2595:C:C5	2.69	0.59
1:5:2746:A:C2'	1:5:2747:U:O5'	2.50	0.59
1:5:3677:U:H2'	1:5:3678:G:C8	2.37	0.59
1:5:4078:C:C4	1:5:4079:C:C5	2.89	0.59
1:5:459:C:C4	1:5:460:C:C5	2.91	0.59
1:5:460:C:O2	1:5:461:G:C8	2.55	0.59
14:K:17:CYS:C	14:K:18:THR:HG1	2.03	0.59
14:K:22:VAL:HG22	14:K:48:LYS:CG	2.31	0.59
10:G:264:LYS:HZ1	10:G:265:LEU:HD21	1.64	0.59
1:5:75:G:O6	15:L:103:ARG:CZ	2.51	0.59
17:N:181:HIS:C	17:N:182:HIS:O	2.38	0.59
49:S2:1408:U:H3'	49:S2:1409:A:H8	1.63	0.59
19:P:129:THR:HB	19:P:139:TYR:HB2	1.82	0.59
49:S2:1231:C:OP2	68:SS:139:THR:HG21	2.01	0.59
49:S2:1532:C:OP1	49:S2:1604:G:O2'	2.20	0.59
49:S2:1608:U:C4	49:S2:1609:C:C5	2.89	0.59
49:S2:1031:A:C5	49:S2:1032:C:C5	2.91	0.59
1:5:2367:A:C2	1:5:2368:A:N7	2.69	0.59
1:5:2367:A:C8	1:5:2798:A:C2	2.89	0.59
49:S2:1149:A:C6	49:S2:1151:G:C4	2.90	0.59
1:5:1857:C:O4'	1:5:1892:A:C2	2.55	0.59
49:S2:537:C:H42	49:S2:546:G:H1	1.48	0.59
49:S2:1022:U:H1'	63:SN:128:TYR:CE2	2.36	0.59
63:SN:128:TYR:O	63:SN:131:THR:N	2.35	0.59
1:5:3911:C:H5"	1:5:4197:G:O2'	2.01	0.59
1:5:2603:C:C2	1:5:2604:C:C6	2.90	0.59
3:8:132:G:C2	3:8:133:G:N9	2.69	0.59
49:S2:851:C:H5"	49:S2:852:G:H5'	1.84	0.59
1:5:1342:A:OP1	17:N:204:ARG:NH1	2.35	0.59
1:5:3833:C:C2	1:5:3834:C:C5	2.90	0.59
1:5:1201:U:C2	1:5:1202:C:C5	2.90	0.59
1:5:2307:A:C2'	1:5:2308:A:O5'	2.50	0.59
1:5:4470:G:N2	1:5:4486:C:C2	2.70	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1751:A:C2	1:5:1752:G:O4'	2.55	0.59
49:S2:622:C:N4	49:S2:623:G:H1'	2.18	0.59
49:S2:805:U:C2	49:S2:806:U:C5	2.89	0.59
4:A:34:PHE:O	4:A:35:ALA:C	2.41	0.59
1:5:4549:G:N1	1:5:4550:G:C8	2.69	0.59
1:5:2633:U:O2	1:5:2634:C:C6	2.55	0.59
49:S2:1157:G:H1'	73:SX:5:ARG:HE	1.67	0.59
1:5:1921:C:O2	22:S:160:ARG:HB2	2.01	0.59
3:8:141:C:H2'	3:8:142:U:H6	1.67	0.59
22:S:44:PHE:C	22:S:44:PHE:CD1	2.74	0.59
48:4:64:GLN:CD	48:4:64:GLN:C	2.58	0.59
48:4:804:THR:HG1	48:4:808:ALA:CB	2.15	0.59
1:5:1075:G:C6	1:5:1076:C:C4	2.90	0.59
1:5:1278:C:C2	1:5:1279:A:H1'	2.37	0.59
1:5:1281:G:O4'	1:5:1281:G:N3	2.34	0.59
1:5:1444:G:C2	1:5:1445:U:C4	2.89	0.59
1:5:1673:U:C4	1:5:1682:A:N1	2.70	0.59
1:5:1898:C:H1'	1:5:2070:U:O2	2.02	0.59
1:5:1900:C:C4	1:5:1901:C:C5	2.91	0.59
1:5:2447:U:O2'	1:5:2448:G:C5'	2.50	0.59
1:5:2457:G:N2	1:5:3672:G:N2	2.50	0.59
1:5:3675:G:N2	1:5:3676:G:C8	2.70	0.59
1:5:466:A:N3	1:5:467:U:C6	2.71	0.59
6:C:122:TYR:HB2	6:C:280:PRO:HG3	1.85	0.59
10:G:54:PHE:N	10:G:54:PHE:CD2	2.70	0.59
1:5:4413:C:H4'	12:I:157:PHE:HE2	0.86	0.59
1:5:1489:G:N2	1:5:1490:G:H1'	2.16	0.59
49:S2:1528:G:N3	49:S2:1529:C:C5	2.70	0.59
49:S2:29:G:C4	49:S2:30:C:C5	2.89	0.59
48:4:410:PHE:CE2	48:4:530:SER:CB	2.85	0.59
49:S2:752:G:C6	49:S2:791:C:N3	2.70	0.59
1:5:2061:U:O2	22:S:111:ARG:HD3	2.02	0.59
49:S2:837:A:H62	74:SY:47:MET:HB3	1.67	0.59
1:5:1723:A:N1	1:5:1838:A:C2	2.70	0.59
1:5:2561:C:C4	1:5:2562:G:N7	2.70	0.59
49:S2:582:C:C4'	74:SY:33:ALA:HB2	2.32	0.59
54:SE:161:GLN:HB3	54:SE:170:THR:O	2.01	0.59
1:5:1516:G:C6	1:5:1518:A:C5	2.90	0.59
18:O:36:VAL:HG11	18:O:108:ILE:HD12	1.84	0.59
1:5:4532:U:H5	1:5:4554:G:N2	2.00	0.59
1:5:509:A:O2'	15:L:163:ARG:HB2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1794:A:C8	1:5:4214:A:N6	2.70	0.59
1:5:371:A:O2'	1:5:372:A:O5'	2.20	0.59
1:5:4543:G:O2'	1:5:4544:A:C5'	2.50	0.59
60:SK:82:TYR:O	62:SM:27:ILE:HD11	2.00	0.59
50:SA:123:VAL:HG13	50:SA:145:ILE:HB	1.83	0.59
1:5:1684:A:C5	1:5:1685:G:C8	2.90	0.59
1:5:2746:A:H2'	1:5:2747:U:O5'	2.02	0.59
9:F:96:ARG:O	9:F:120:PHE:HA	2.02	0.59
14:K:94:LYS:HA	14:K:95:GLN:O	2.03	0.59
49:S2:42:A:N3	49:S2:426:A:C5	2.68	0.59
49:S2:672:A:N1	49:S2:1162:C:C1'	2.65	0.59
49:S2:11:A:C2	49:S2:12:U:C6	2.90	0.59
1:5:296:A:P	1:5:296:A:C8	2.95	0.59
1:5:296:A:H8	1:5:296:A:O5'	1.85	0.59
1:5:3739:C:N4	1:5:3740:G:C5	2.70	0.59
1:5:86:U:C4	1:5:97:G:N2	2.70	0.59
49:S2:1428:G:O2'	66:SQ:33:LYS:NZ	2.35	0.59
49:S2:1533:A:C2	49:S2:1537:A:O4'	2.56	0.59
49:S2:1540:G:C6	49:S2:1541:G:C5	2.87	0.59
1:5:4269:G:C2	1:5:4270:C:N1	2.70	0.59
1:5:4277:G:C5	1:5:4278:C:C5	2.90	0.59
1:5:4281:A:C2	1:5:4283:G:C6	2.90	0.59
1:5:423:G:O6	3:8:10:G:O6	2.21	0.59
1:5:2791:C:C2	1:5:2792:C:C5	2.90	0.59
1:5:2406:G:N2	1:5:2785:C:C2	2.71	0.59
1:5:3630:A:C2	1:5:3631:U:C6	2.90	0.59
1:5:1929:A:C2	1:5:2054:U:O4	2.55	0.59
1:5:49:U:H2'	1:5:50:C:O5'	2.01	0.59
49:S2:837:A:C2	49:S2:838:G:C5	2.91	0.59
1:5:4098:A:C2	1:5:4099:G:C4	2.91	0.59
9:F:41:GLN:HA	9:F:41:GLN:NE2	2.18	0.59
1:5:2657:G:H3'	1:5:2658:G:H8	1.66	0.59
1:5:2417:A:C2	1:5:2418:A:N7	2.69	0.59
1:5:4763:U:O2	16:M:3:PHE:HE2	1.85	0.59
17:N:63:ARG:HB2	17:N:63:ARG:CZ	2.32	0.59
1:5:1964:A:N1	1:5:4694:G:O6	2.35	0.59
1:5:4878:C:C2	1:5:4879:C:H5	2.18	0.59
49:S2:1142:G:H22	49:S2:1144:A:H3'	1.67	0.59
1:5:1347:G:C5	1:5:1348:U:C5	2.90	0.59
1:5:4501:U:C4	1:5:4502:C:H1'	2.37	0.59
1:5:4463:U:C4	1:5:4488:A:C6	2.90	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:900:C:O2	49:S2:901:G:C8	2.55	0.59
61:SL:55:TYR:OH	61:SL:116:CYS:HB3	2.02	0.59
6:C:336:ARG:O	6:C:340:ILE:HG12	2.02	0.59
70:SU:102:THR:HG21	70:SU:114:VAL:HG21	1.83	0.59
1:5:4952:G:H5"	1:5:4952:G:C8	2.37	0.59
49:S2:1337:C:H2'	49:S2:1337:C:O2	2.01	0.59
48:4:111:PHE:CD1	48:4:809:PHE:HZ	2.17	0.59
48:4:578:SER:O	48:4:579:TYR:CD1	2.56	0.59
1:5:2294:G:N1	1:5:2295:C:C5	2.69	0.59
1:5:2508:U:O2	1:5:2509:C:H6	1.75	0.59
1:5:466:A:C2	1:5:467:U:C4	2.90	0.59
1:5:463:A:N1	1:5:692:A:H2	2.00	0.59
48:4:671:TYR:HD1	48:4:674:GLU:OE1	1.76	0.59
49:S2:1052:A:C4	49:S2:1053:C:C6	2.91	0.59
1:5:111:C:O2	1:5:111:C:H2'	2.01	0.59
1:5:94:A:H2'	1:5:95:G:C5'	2.32	0.59
49:S2:1589:A:O2'	49:S2:1590:C:O4'	2.19	0.59
49:S2:1643:U:N3	49:S2:1644:C:N4	2.49	0.59
62:SM:22:LEU:HD22	62:SM:89:VAL:HG22	1.83	0.59
1:5:3764:U:H2'	1:5:3765:G:O4'	2.01	0.59
1:5:2479:G:C4	1:5:2480:G:C8	2.90	0.59
49:S2:993:G:N1	49:S2:994:C:C6	2.70	0.59
9:F:168:ARG:HD2	9:F:211:TRP:NE1	2.17	0.59
1:5:1925:G:C5	1:5:1926:C:C5	2.91	0.59
1:5:54:G:H2'	1:5:54:G:N3	2.17	0.59
1:5:4096:C:N4	1:5:4097:G:N7	2.51	0.59
49:S2:104:A:C5	49:S2:105:U:C5	2.90	0.59
4:A:109:GLU:OE2	49:S2:980:A:H5"	2.02	0.59
2:7:44:C:C2	2:7:45:U:C5	2.90	0.59
3:8:102:G:H3'	3:8:104:A:H2'	1.83	0.59
1:5:2658:G:C6	1:5:2675:G:N1	2.70	0.59
1:5:4653:C:H2'	1:5:4654:C:H6	1.66	0.59
1:5:1634:A:C2	1:5:1635:C:C2	2.90	0.59
1:5:3802:U:H3	1:5:4498:U:C1'	2.14	0.59
21:R:172:ARG:HG2	49:S2:909:G:OP1	2.03	0.59
1:5:4467:A:C2	1:5:4468:U:C6	2.91	0.59
1:5:4466:C:N3	1:5:4467:A:C8	2.70	0.59
1:5:4988:U:H2'	1:5:4988:U:O2	2.01	0.59
1:5:2734:U:N3	1:5:2735:G:N7	2.51	0.59
1:5:4911:A:C5'	5:B:100:ARG:CD	2.77	0.59
1:5:1778:C:O2	1:5:1779:U:C6	2.55	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:180:C:C2	1:5:181:C:C5	2.90	0.59
49:S2:1139:C:H2'	49:S2:1140:G:O4'	2.02	0.59
1:5:4759:C:OP1	18:O:160:ARG:NH2	2.33	0.59
66:SQ:44:PRO:HG2	66:SQ:81:ILE:HD11	1.84	0.59
48:4:597:ASN:OD1	48:4:720:GLN:HG3	2.02	0.59
1:5:219:G:C4	1:5:219:G:H5'	2.37	0.59
49:S2:1363:C:N3	49:S2:1376:A:N1	2.50	0.59
49:S2:891:G:C2	49:S2:892:U:C6	2.89	0.59
1:5:323:C:C2	1:5:324:A:C8	2.90	0.59
52:SC:252:THR:O	52:SC:253:PRO:C	2.40	0.59
29:Z:88:ASP:N	29:Z:88:ASP:OD1	2.36	0.59
52:SC:137:VAL:HG21	52:SC:244:ILE:HD12	1.84	0.59
49:S2:1616:U:H2'	49:S2:1617:G:O4'	2.03	0.59
1:5:1265:G:C5'	1:5:2115:G:N2	2.64	0.59
48:4:829:SER:OG	48:4:832:SER:N	2.36	0.59
49:S2:1201:U:C1'	49:S2:1357:A:C2	2.86	0.59
49:S2:12:U:H2'	49:S2:13:C:C6	2.37	0.59
1:5:3723:A:N3	1:5:3724:A:N7	2.51	0.59
1:5:3724:A:C6	1:5:3725:G:C5	2.90	0.59
1:5:98:A:C5	1:5:99:A:C8	2.90	0.59
1:5:4984:C:H4'	5:B:25:HIS:CD2	2.38	0.59
1:5:1172:C:N3	1:5:1173:G:N7	2.50	0.59
49:S2:1415:C:C4	49:S2:1416:C:C2	2.90	0.59
49:S2:1133:A:C2	49:S2:1134:G:N9	2.67	0.59
49:S2:1278:A:C5	49:S2:1279:C:C5	2.91	0.59
49:S2:1304:U:C2	49:S2:1305:C:C5	2.91	0.59
49:S2:752:G:C6	49:S2:790:C:C4	2.91	0.59
9:F:161:TYR:CD1	9:F:170:ALA:HA	2.37	0.59
1:5:3913:G:C2	1:5:4390:A:C2	2.90	0.59
1:5:4229:U:O2	1:5:4229:U:H2'	2.02	0.59
3:8:134:G:N1	3:8:135:C:C4	2.70	0.59
49:S2:848:U:O2	49:S2:849:A:C4	2.56	0.59
1:5:2308:A:H2'	1:5:2309:G:O4'	2.02	0.59
1:5:2769:U:O2'	1:5:2770:C:C6	2.54	0.59
49:S2:624:C:H1'	49:S2:631:U:O2	2.01	0.59
1:5:4548:A:P	1:5:4548:A:N7	2.76	0.59
1:5:238:C:C2'	1:5:239:C:H5'	2.33	0.59
1:5:4136:G:C5	1:5:4137:C:C5	2.90	0.59
1:5:1398:A:H61	1:5:1419:G:C2'	2.15	0.59
1:5:4772:C:O2	1:5:4773:C:C6	2.55	0.59
1:5:3607:U:N3	1:5:3608:A:N7	2.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:372:LEU:HD13	48:4:417:PHE:CE1	2.38	0.59
1:5:4152:G:N1	1:5:4153:C:C4	2.70	0.59
1:5:1296:G:H1'	1:5:1297:U:OP2	2.03	0.59
1:5:1509:C:O2	1:5:1510:G:C8	2.56	0.59
48:4:496:VAL:HG23	48:4:497:MET:SD	2.37	0.59
48:4:769:HIS:C	48:4:786:ALA:CB	2.66	0.59
48:4:742:GLU:CB	48:4:820:LEU:HD21	2.32	0.59
1:5:1672:U:H2'	1:5:1673:U:C6	2.36	0.59
1:5:2079:G:N3	1:5:2080:U:C5	2.70	0.59
1:5:2593:C:N3	1:5:2594:C:C5	2.71	0.59
1:5:976:G:C6	1:5:977:C:C4	2.91	0.59
14:K:124:GLU:C	14:K:128:THR:HG1	2.02	0.59
14:K:81:ILE:CD1	14:K:113:ALA:HB1	2.33	0.59
1:5:4425:G:C2	1:5:4426:C:H1'	2.37	0.59
49:S2:1741:U:N3	49:S2:1742:C:C6	2.71	0.59
1:5:1378:C:O2	1:5:1378:C:H2'	2.03	0.59
1:5:303:C:N3	1:5:304:C:C5	2.71	0.59
1:5:3720:G:C5	1:5:3721:U:C5	2.90	0.59
1:5:3732:A:N1	1:5:3733:A:C5	2.71	0.59
1:5:4342:C:C2	1:5:4343:U:C6	2.90	0.59
1:5:90:G:C5	1:5:92:C:H1'	2.38	0.59
49:S2:1415:C:C2	49:S2:1416:C:H1'	2.37	0.59
49:S2:1266:C:O2	49:S2:1267:C:C6	2.55	0.59
49:S2:1538:C:O2	49:S2:1538:C:C2'	2.51	0.59
1:5:4286:C:O2	1:5:4287:G:C8	2.55	0.59
49:S2:617:G:C6	49:S2:618:C:C6	2.90	0.59
49:S2:1270:G:C2	49:S2:1271:C:C6	2.91	0.59
49:S2:1644:C:O2'	49:S2:1645:C:C5'	2.50	0.59
48:4:13:MET:HE1	48:4:464:VAL:HA	1.85	0.59
26:W:50:ASN:HB3	26:W:55:TYR:CZ	2.37	0.59
48:4:330:LYS:HB2	48:4:330:LYS:HZ3	1.66	0.59
1:5:1327:C:H4'	1:5:4448:G:H2'	1.84	0.59
49:S2:529:A:N1	49:S2:555:A:N1	2.51	0.59
1:5:2477:A:C2	1:5:2478:C:C4	2.91	0.59
1:5:2478:C:H2'	1:5:2479:G:C8	2.38	0.59
1:5:2485:U:N3	1:5:2486:G:N7	2.50	0.59
1:5:504:G:H2'	1:5:505:G:H8	1.67	0.59
1:5:4561:C:N3	1:5:4562:C:C5	2.70	0.59
1:5:3909:C:C2'	1:5:3909:C:O2	2.50	0.59
49:S2:1098:C:C2	49:S2:1099:G:C8	2.91	0.59
49:S2:1101:U:H2'	49:S2:1102:G:H8	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:975:G:C2	49:S2:976:G:C8	2.91	0.59
49:S2:1055:A:H2	49:S2:1063:C:H41	1.49	0.59
1:5:4476:C:O2'	1:5:4478:G:OP2	2.17	0.59
49:S2:862:A:C2	49:S2:863:U:N1	2.70	0.59
1:5:3802:U:H3	1:5:4498:U:C2'	2.15	0.59
1:5:1100:U:C2	1:5:1167:C:C5	2.91	0.59
1:5:1413:C:N3	1:5:1414:C:C5	2.71	0.59
1:5:4879:C:C2	1:5:4880:C:C6	2.89	0.59
3:8:28:C:C2	3:8:29:G:C8	2.90	0.59
1:5:2773:G:C2	1:5:2774:C:C6	2.91	0.59
5:B:203:GLN:NE2	5:B:203:GLN:HA	2.12	0.59
1:5:4628:U:O2	1:5:4629:U:C6	2.55	0.59
49:S2:610:G:C2	49:S2:611:G:C8	2.90	0.59
1:5:4946:U:O2	1:5:4946:U:H2'	2.01	0.59
6:C:142:HIS:O	6:C:144:ILE:HG13	2.02	0.59
48:4:120:ARG:HA	48:4:149:GLU:OE1	2.03	0.59
48:4:526:ARG:CG	48:4:526:ARG:HH11	2.12	0.59
1:5:1263:A:C4	1:5:1264:C:C6	2.90	0.59
1:5:1617:G:C4	1:5:1618:G:C8	2.91	0.59
1:5:1667:G:C5	1:5:2280:G:C2	2.91	0.59
1:5:2320:G:O2'	1:5:2321:G:P	2.61	0.59
1:5:458:C:C4	1:5:459:C:C5	2.91	0.59
1:5:978:G:C6	1:5:979:C:C4	2.91	0.59
14:K:131:GLU:HG3	14:K:155:ILE:CD1	2.31	0.59
21:R:4:LEU:HD21	21:R:33:ALA:HB2	1.82	0.59
1:5:4413:C:C1'	12:I:157:PHE:CD2	2.81	0.59
49:S2:1792:G:C6	49:S2:1793:A:N7	2.70	0.59
48:4:208:VAL:HG13	48:4:258:LYS:HA	1.83	0.59
1:5:280:G:C8	17:N:120:TRP:CZ3	2.91	0.59
1:5:3722:G:C2	1:5:3723:A:C8	2.91	0.59
48:4:693:CYS:N	48:4:839:ARG:HH21	2.01	0.59
49:S2:1590:C:H5'	69:ST:82:ARG:HD3	1.84	0.59
1:5:4276:G:N1	1:5:4277:G:N9	2.51	0.59
1:5:4331:G:N3	1:5:4331:G:H2'	2.16	0.59
1:5:1566:C:HO2'	1:5:1567:U:C4'	2.09	0.59
3:8:9:A:C6	3:8:10:G:N7	2.71	0.59
1:5:2404:A:H2'	1:5:2405:G:O4'	2.03	0.59
49:S2:617:G:H4'	73:SX:88:ASP:HB2	1.83	0.59
49:S2:1095:U:H2'	49:S2:1095:U:O2	2.03	0.59
9:F:100:ILE:HG21	20:Q:4:ASP:OD1	2.03	0.59
1:5:3704:U:C2	1:5:3705:G:C8	2.90	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:165:G:H2'	49:S2:166:A:H8	1.68	0.59
1:5:1631:A:O2'	1:5:3650:C:H4'	2.02	0.59
1:5:3785:A:N1	1:5:4536:C:H1'	2.14	0.59
1:5:4537:C:C2	1:5:4538:G:N7	2.68	0.59
3:8:79:G:C2	3:8:80:A:N1	2.71	0.59
1:5:665:C:O2	1:5:665:C:C2'	2.49	0.59
49:S2:1123:C:H2'	49:S2:1123:C:O2	2.00	0.59
49:S2:1123:C:P	51:SB:205:TYR:OH	2.61	0.59
1:5:54:G:O6	1:5:55:G:C5	2.56	0.59
49:S2:979:C:N3	49:S2:980:A:N7	2.50	0.59
1:5:174:C:C2	1:5:263:G:C2	2.91	0.59
1:5:4735:G:C5	1:5:4736:C:C5	2.90	0.59
1:5:4482:U:C2	1:5:4483:C:C5	2.90	0.59
1:5:2736:G:N3	1:5:2737:C:C5	2.71	0.59
8:E:157:ARG:HB3	8:E:267:LEU:HD23	1.85	0.59
1:5:1367:C:N1	1:5:1370:G:H2'	2.18	0.59
1:5:4333:C:O2	1:5:4334:U:C5	2.56	0.59
8:E:197:ILE:CD1	8:E:257:ILE:HG23	2.32	0.59
49:S2:696:G:N2	49:S2:735:C:H1'	2.17	0.59
49:S2:899:U:C4	49:S2:900:C:C5	2.91	0.59
1:5:942:G:P	9:F:244:ARG:HH12	2.25	0.59
7:D:265:ARG:HH11	7:D:265:ARG:HG2	1.68	0.59
72:SW:57:ARG:HH11	72:SW:57:ARG:HG3	1.68	0.59
48:4:140:GLU:HG3	48:4:188:ILE:HD13	1.84	0.59
1:5:2794:C:C2	19:P:136:ILE:HD12	2.37	0.59
1:5:1430:C:C2	1:5:1431:C:C6	2.91	0.59
1:5:1972:G:C2	1:5:1973:G:N7	2.70	0.59
1:5:1437:C:N3	1:5:2098:G:N7	2.51	0.59
1:5:964:A:H1'	21:R:98:ARG:NH1	175.30	0.59
9:F:83:PHE:CE2	22:S:13:VAL:HG21	2.38	0.59
14:K:81:ILE:O	14:K:85:LEU:HG	2.03	0.59
49:S2:444:G:H2'	49:S2:444:G:N3	2.17	0.59
48:4:591:CYS:O	48:4:728:CYS:SG	2.61	0.59
49:S2:439:A:N1	49:S2:455:A:C6	2.71	0.59
49:S2:74:G:C6	56:SG:171:THR:OG1	2.55	0.59
1:5:279:A:H5'	1:5:329:A:N3	2.18	0.59
48:4:694:GLU:CG	48:4:844:LEU:CD1	2.71	0.59
1:5:1188:C:H2'	1:5:1188:C:O2	2.01	0.59
49:S2:1414:A:N1	49:S2:1415:C:C5	2.70	0.59
49:S2:1414:A:N1	49:S2:1415:C:C4	2.71	0.59
1:5:3863:C:O2	1:5:3864:C:C6	2.56	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:421:C:C4	1:5:422:C:C5	2.91	0.59
2:7:55:A:C2	2:7:56:G:C5	2.91	0.59
1:5:4895:C:O2	1:5:4896:G:C5	2.56	0.59
49:S2:644:G:H2'	49:S2:645:C:O4'	2.03	0.59
49:S2:530:U:N3	49:S2:531:A:N7	2.50	0.59
49:S2:536:A:C6	49:S2:537:C:C5	2.91	0.59
1:5:3759:A:H2	49:S2:1708:C:O2	1.84	0.59
1:5:1629:G:N1	1:5:1631:A:N1	2.51	0.59
1:5:4536:C:C4	1:5:4537:C:C5	2.91	0.59
49:S2:1018:U:H2'	49:S2:1018:U:O2	2.01	0.59
1:5:5047:C:C5	1:5:5050:C:H6	2.20	0.59
1:5:3919:C:H5"	4:A:207:VAL:HG12	1.85	0.59
49:S2:1039:C:H3'	49:S2:1040:G:H5"	1.85	0.59
1:5:2657:G:H3'	1:5:2658:G:C8	2.38	0.59
49:S2:910:G:C4	49:S2:911:C:C5	2.91	0.59
1:5:4628:U:N3	1:5:4629:U:C5	2.71	0.59
49:S2:663:C:C2	49:S2:664:A:C8	2.91	0.59
1:5:183:C:O2	1:5:189:G:O6	2.21	0.59
1:5:722:G:H21	6:C:343:GLN:NE2	2.00	0.59
1:5:4416:G:C2	1:5:4417:C:C4	2.91	0.59
1:5:2714:G:C2	1:5:2715:G:C5	2.91	0.59
49:S2:816:A:C2	49:S2:817:G:H1'	2.38	0.59
48:4:393:PRO:O	48:4:393:PRO:HG2	2.03	0.59
1:5:4070:U:C2	1:5:4071:U:C6	2.90	0.59
29:Z:30:ASP:OD1	29:Z:31:ASP:HB2	2.02	0.59
7:D:20:PHE:HB3	7:D:30:TYR:OH	2.02	0.59
63:SN:114:ARG:O	63:SN:118:ILE:HD12	2.03	0.59
1:5:1556:C:N3	1:5:1557:C:H5	1.98	0.59
1:5:1674:C:C2	1:5:1675:C:C6	2.91	0.59
1:5:456:C:O2	1:5:457:G:C8	2.55	0.59
9:F:58:HIS:O	9:F:61:LYS:N	2.36	0.59
9:F:83:PHE:HE2	22:S:13:VAL:HG21	1.67	0.59
49:S2:122:G:C6	49:S2:123:G:N7	2.71	0.59
1:5:1479:G:O2'	1:5:1480:C:H5'	2.03	0.59
1:5:90:G:C2	1:5:95:G:N1	2.71	0.59
48:4:694:GLU:CG	48:4:844:LEU:HD13	2.29	0.59
49:S2:1408:U:C3'	49:S2:1409:A:C8	2.85	0.59
49:S2:1436:C:N3	49:S2:1438:A:C8	2.71	0.59
49:S2:1221:G:O2'	49:S2:1222:G:H5'	2.03	0.59
49:S2:1272:C:C2	49:S2:1273:C:C6	2.91	0.59
49:S2:1286:G:C2	49:S2:1312:G:C6	2.91	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:5038:A:OP1	26:W:61:LYS:NZ	2.34	0.59
48:4:402:VAL:HG22	48:4:403:PRO:N	2.16	0.59
49:S2:750:C:C2	49:S2:751:G:C8	2.91	0.59
1:5:4539:U:N3	1:5:4540:C:C5	2.71	0.59
3:8:70:G:N1	3:8:87:G:C2	2.71	0.59
1:5:167:C:N3	1:5:168:C:C5	2.71	0.59
1:5:4874:A:H1'	18:O:175:MET:SD	2.42	0.59
49:S2:1123:C:OP1	51:SB:205:TYR:OH	2.20	0.59
1:5:3611:A:C2	1:5:5016:A:C8	2.91	0.59
1:5:3791:C:N3	1:5:3802:U:H6	1.99	0.59
5:B:55:HIS:CE1	5:B:369:ASP:OD2	2.56	0.59
49:S2:1141:G:H5'	49:S2:1142:G:OP2	2.03	0.59
52:SC:170:TRP:CZ3	72:SW:97:ARG:HD3	2.38	0.59
9:F:244:ARG:HH11	9:F:244:ARG:HG2	1.66	0.59
50:SA:12:GLU:OE1	67:SR:111:PHE:HD1	1.85	0.59
72:SW:37:PHE:CD1	72:SW:103:VAL:HG11	2.37	0.59
1:5:3663:A:H2'	1:5:3663:A:N3	2.18	0.59
29:Z:97:ASN:OD1	29:Z:98:LYS:N	2.36	0.59
5:B:302:ASN:HD22	5:B:330:PHE:HE2	1.51	0.59
1:5:4531:U:H5'	1:5:4531:U:C6	2.38	0.59
1:5:1233:G:C2	1:5:1234:G:C8	2.90	0.58
1:5:2125:C:H6	1:5:2125:C:O5'	1.86	0.58
1:5:2282:A:O2'	1:5:2283:G:H5'	2.01	0.58
1:5:2313:A:O2'	1:5:2314:G:OP1	2.17	0.58
22:S:13:VAL:HG22	22:S:63:TYR:HB3	1.84	0.58
48:4:700:VAL:HG12	48:4:702:PHE:CE2	2.38	0.58
49:S2:447:A:N3	49:S2:449:A:H1'	2.17	0.58
48:4:154:VAL:CA	48:4:205:ILE:HD11	2.33	0.58
5:B:222:VAL:HG11	5:B:274:TYR:CZ	2.38	0.58
1:5:1170:G:C2	1:5:1171:G:C8	2.91	0.58
1:5:4236:G:H2'	1:5:4237:C:C6	2.38	0.58
49:S2:1223:A:O2'	49:S2:1651:A:C5'	2.50	0.58
1:5:5044:A:O2'	1:5:5045:G:H5'	2.03	0.58
1:5:2481:G:C6	1:5:2482:C:C4	2.91	0.58
49:S2:841:G:C2	49:S2:842:C:C6	2.90	0.58
1:5:4099:G:C4	1:5:4100:C:C6	2.91	0.58
1:5:2604:C:C2	1:5:2605:G:H8	2.10	0.58
49:S2:1039:C:N3	49:S2:1040:G:N7	2.50	0.58
1:5:4734:A:C4	1:5:4735:G:C8	2.91	0.58
1:5:2751:G:C2	1:5:2752:G:C8	2.90	0.58
48:4:590:LEU:HD21	48:4:605:LYS:HE3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2560:C:C4	1:5:2561:C:C5	2.91	0.58
1:5:1751:A:C5	1:5:1752:G:C8	2.91	0.58
48:4:585:GLU:HG3	48:4:737:GLN:HE22	1.60	0.58
48:4:647:ARG:CG	48:4:647:ARG:HH21	2.10	0.58
27:X:117:TYR:CD1	27:X:117:TYR:N	2.69	0.58
49:S2:142:C:N3	56:SG:185:LEU:HD22	2.17	0.58
1:5:405:U:O4	1:5:407:A:OP2	2.21	0.58
61:SL:13:GLN:HB2	61:SL:16:ILE:HD12	1.85	0.58
48:4:132:VAL:HG23	48:4:133:SER:N	2.17	0.58
25:V:115:SER:HA	25:V:135:ASN:HD21	1.68	0.58
1:5:1213:G:O6	1:5:1215:C:C5	2.55	0.58
1:5:1266:G:C5'	1:5:2112:G:C2	2.84	0.58
1:5:1984:A:N6	1:5:2011:C:C2'	2.65	0.58
1:5:1265:G:N2	1:5:2111:G:O3'	2.37	0.58
1:5:2265:G:H1'	1:5:2266:C:OP1	2.03	0.58
1:5:4076:G:H21	10:G:74:LEU:CG	2.13	0.58
1:5:4166:G:N3	1:5:4167:G:C8	2.69	0.58
14:K:94:LYS:HA	14:K:96:LYS:N	2.18	0.58
1:5:4414:A:N3	1:5:4427:G:N2	2.51	0.58
49:S2:1453:C:N4	49:S2:1455:A:N9	2.51	0.58
49:S2:1793:A:C2	49:S2:1794:C:C4	2.90	0.58
49:S2:143:U:N3	49:S2:315:C:OP1	2.33	0.58
49:S2:340:C:C2	49:S2:341:C:C4	2.90	0.58
49:S2:449:A:C5	49:S2:452:G:O6	2.56	0.58
49:S2:70:G:N2	49:S2:80:G:N3	2.51	0.58
49:S2:71:G:O2'	49:S2:79:A:N6	2.36	0.58
67:SR:33:ARG:HG2	67:SR:36:GLU:HG2	1.85	0.58
48:4:177:THR:O	48:4:181:ILE:HG13	2.03	0.58
49:S2:1431:G:N3	49:S2:1432:U:H1'	2.18	0.58
49:S2:1605:G:H3'	49:S2:1606:G:O4'	2.04	0.58
49:S2:676:C:C4	49:S2:677:G:C5	2.91	0.58
3:8:10:G:N1	3:8:11:C:C2	2.71	0.58
1:5:661:C:C4	1:5:662:C:C4	2.91	0.58
49:S2:1123:C:C2'	51:SB:148:ASN:HD21	2.17	0.58
1:5:5047:C:C6	1:5:5050:C:H6	2.20	0.58
1:5:3909:C:N3	1:5:3910:C:H5	1.92	0.58
49:S2:832:G:C2	49:S2:843:C:N3	2.71	0.58
49:S2:1097:G:H4'	50:SA:32:PHE:CD2	2.38	0.58
49:S2:105:U:H2'	49:S2:105:U:O2	2.03	0.58
49:S2:958:G:O2'	49:S2:959:G:C4'	2.51	0.58
5:B:103:LYS:HD3	5:B:149:ASP:OD1	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:5021:C:C2	1:5:5022:U:C5	2.91	0.58
1:5:1203:G:C2	1:5:1204:C:C6	2.90	0.58
1:5:247:G:N3	1:5:248:C:C6	2.71	0.58
1:5:1368:A:O2'	1:5:1369:C:OP1	2.19	0.58
1:5:235:A:N6	1:5:238:C:C4	2.71	0.58
1:5:153:G:N1	1:5:154:G:C5	2.72	0.58
1:5:4416:G:N3	1:5:4417:C:C6	2.70	0.58
1:5:1299:G:C2	1:5:1300:G:C8	2.91	0.58
48:4:477:GLN:NE2	48:4:477:GLN:H	2.01	0.58
54:SE:181:CYS:SG	54:SE:195:ILE:HG13	2.43	0.58
51:SB:191:ASP:OD1	51:SB:191:ASP:N	2.36	0.58
12:I:146:GLU:N	12:I:146:GLU:OE2	2.36	0.58
5:B:307:TYR:CD2	5:B:366:LYS:HD2	2.38	0.58
1:5:4660:G:C2	1:5:4661:G:N7	2.71	0.58
48:4:195:GLY:O	48:4:196:GLU:C	2.36	0.58
48:4:503:PRO:HA	48:4:549:ALA:HA	1.85	0.58
1:5:2078:C:C2'	1:5:2078:C:O2	2.51	0.58
1:5:962:C:P	1:5:2264:C:N3	2.76	0.58
14:K:94:LYS:HG2	14:K:96:LYS:HG3	1.76	0.58
20:Q:146:ARG:CB	20:Q:146:ARG:HH11	2.16	0.58
1:5:1572:U:C5'	21:R:95:TRP:HZ2	2.16	0.58
25:V:134:SER:HG	49:S2:465:A:H2	0.66	0.58
48:4:672:LEU:HA	48:4:675:ILE:HD11	1.81	0.58
49:S2:378:U:O4	49:S2:379:C:N4	2.37	0.58
49:S2:1181:A:O2'	49:S2:1182:A:C8	2.43	0.58
49:S2:1412:C:C2'	49:S2:1413:G:H8	2.16	0.58
49:S2:1545:A:C5	49:S2:1588:A:C5	2.90	0.58
49:S2:1609:C:O2	49:S2:1610:G:N7	2.34	0.58
1:5:4268:A:H2'	1:5:4269:G:O4'	2.03	0.58
1:5:423:G:C5	1:5:424:U:C5	2.91	0.58
49:S2:1225:U:C4	49:S2:1226:G:N7	2.72	0.58
1:5:212:A:C2	1:5:213:G:C5	2.91	0.58
3:8:70:G:C5'	28:Y:27:ARG:HH11	2.16	0.58
49:S2:926:A:C2	49:S2:927:C:N1	2.72	0.58
1:5:5047:C:O2	1:5:5048:A:C6	2.53	0.58
49:S2:1046:U:C4	49:S2:1047:C:C4	2.90	0.58
1:5:4724:A:C4	1:5:4725:C:C6	2.92	0.58
1:5:1309:C:C2	1:5:1310:C:C6	2.90	0.58
1:5:936:C:O2'	16:M:46:ARG:CZ	2.50	0.58
1:5:4087:G:C5	4:A:34:PHE:CE2	2.91	0.58
1:5:1583:A:H1'	1:5:2396:A:C6	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1246:A:O2'	70:SU:72:GLU:OE1	2.21	0.58
61:SL:61:PRO:HD3	61:SL:141:ASN:HD21	1.67	0.58
1:5:218:A:N7	6:C:181:LYS:HG2	2.19	0.58
49:S2:1126:G:C2	49:S2:1127:C:C5	2.91	0.58
1:5:1733:G:HO2'	1:5:4214:A:HO2'	1.48	0.58
1:5:1507:C:N3	1:5:1508:A:C8	2.70	0.58
8:E:218:LEU:HD21	8:E:230:ASP:OD2	2.03	0.58
49:S2:210:U:C2	49:S2:211:G:C8	2.91	0.58
1:5:1301:C:O4'	1:5:1301:C:O2	2.20	0.58
22:S:80:ILE:HD11	22:S:126:ILE:HD12	1.85	0.58
1:5:1070:G:C4	1:5:1071:C:C6	2.90	0.58
1:5:1215:C:C4	1:5:1216:C:C5	2.91	0.58
1:5:1441:C:C4	1:5:1442:C:C5	2.90	0.58
1:5:1440:U:C2	1:5:1441:C:C5	2.91	0.58
1:5:1984:A:H62	1:5:2011:C:C1'	2.15	0.58
1:5:1956:A:H2	1:5:2027:U:O2	1.87	0.58
1:5:1245:C:H1'	1:5:2111:G:H2'	1.86	0.58
1:5:2128:G:H2'	1:5:2129:C:O4'	2.04	0.58
1:5:2261:G:C2'	1:5:2262:G:C8	2.86	0.58
1:5:2268:A:H4'	1:5:2269:C:H5'	1.85	0.58
1:5:2270:G:C6	1:5:2271:C:N4	2.72	0.58
1:5:2468:U:OP2	1:5:2506:G:N2	2.36	0.58
1:5:2515:G:O6	1:5:2516:G:C5	2.57	0.58
1:5:2595:C:C2	1:5:2596:G:C8	2.90	0.58
1:5:976:G:C2	1:5:977:C:N1	2.71	0.58
14:K:110:VAL:O	14:K:110:VAL:HG12	2.04	0.58
14:K:88:PRO:HB2	14:K:89:PRO:HB3	1.85	0.58
10:G:261:LEU:HD23	10:G:264:LYS:HB3	1.86	0.58
48:4:713:ALA:O	48:4:716:ARG:N	2.37	0.58
49:S2:171:A:N7	49:S2:173:A:C5	2.71	0.58
49:S2:316:G:C6	49:S2:317:C:N4	2.71	0.58
49:S2:83:A:N1	49:S2:84:A:H1'	2.18	0.58
49:S2:1833:C:OP2	49:S2:1836:G:O2'	2.13	0.58
48:4:155:LEU:N	48:4:205:ILE:HD11	2.17	0.58
1:5:1421:G:N3	1:5:1422:G:C8	2.71	0.58
1:5:1489:G:N3	1:5:1489:G:H2'	2.18	0.58
1:5:1492:G:N1	1:5:1493:G:C5	2.71	0.58
1:5:3665:G:N2	1:5:3685:C:O2'	2.36	0.58
1:5:4977:A:C2	1:5:4978:G:C4	2.92	0.58
1:5:4982:A:N6	1:5:4983:C:C5	2.70	0.58
1:5:1177:U:H4'	7:D:282:GLN:HB3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:7:21:G:H8	2:7:21:G:H5"	1.68	0.58
49:S2:1151:G:N1	49:S2:1152:U:C5	2.71	0.58
49:S2:1281:G:N2	49:S2:1315:U:O4	2.32	0.58
1:5:1326:A:P	1:5:3901:A:H61	2.25	0.58
1:5:1894:C:O2'	1:5:1895:G:H5'	2.03	0.58
1:5:3759:A:C2	49:S2:1709:G:O4'	2.56	0.58
49:S2:166:A:H2'	49:S2:167:G:H5"	1.85	0.58
1:5:2783:A:C4	1:5:2784:C:C5	2.91	0.58
1:5:2851:G:O2'	1:5:3841:C:C4'	2.51	0.58
1:5:490:C:H3'	1:5:491:G:H8	1.68	0.58
1:5:494:U:C4	1:5:495:C:C5	2.91	0.58
1:5:2056:G:N1	1:5:2058:G:C6	2.71	0.58
1:5:4098:A:N1	1:5:4099:G:N7	2.51	0.58
48:4:101:ASN:OD1	48:4:469:ILE:CD1	2.51	0.58
49:S2:105:U:N3	49:S2:106:C:C6	2.71	0.58
1:5:916:C:N4	1:5:917:A:C5	2.70	0.58
1:5:919:C:C4	1:5:920:C:C4	2.92	0.58
1:5:2417:A:N1	1:5:2418:A:N7	2.51	0.58
13:J:105:PHE:CE1	13:J:132:VAL:CB	2.81	0.58
1:5:4480:A:C2	1:5:4481:U:O4'	2.57	0.58
8:E:184:ARG:HD3	8:E:213:PHE:HB2	1.83	0.58
1:5:1965:G:C5	1:5:1966:C:N4	2.70	0.58
1:5:1755:C:C2	7:D:3:PHE:HB2	2.38	0.58
1:5:3590:G:C2	1:5:3591:C:N1	2.71	0.58
49:S2:1782:G:N2	49:S2:1784:G:N7	2.49	0.58
1:5:1725:U:H5"	1:5:1725:U:C6	2.39	0.58
6:C:210:ILE:HG21	6:C:252:TRP:HZ3	1.67	0.58
1:5:3800:A:C2	1:5:4496:A:C1'	2.87	0.58
1:5:2459:G:O6	17:N:105:ARG:NE	2.36	0.58
59:SJ:32:ILE:HD11	59:SJ:40:LYS:HD3	1.85	0.58
61:SL:117:PHE:CZ	61:SL:144:LYS:HA	2.38	0.58
13:J:154:LYS:O	13:J:155:HIS:HB2	2.04	0.58
49:S2:1750:C:C4	49:S2:1751:C:C6	2.91	0.58
1:5:2369:U:C5	1:5:4656:A:C2	2.92	0.58
48:4:110:ASP:N	48:4:110:ASP:OD1	2.35	0.58
48:4:58:ASP:CB	48:4:69:THR:HA	2.33	0.58
48:4:744:ILE:CG2	48:4:745:TYR:CD2	2.86	0.58
48:4:744:ILE:HD13	48:4:815:ASP:CB	2.34	0.58
1:5:2128:G:C6	1:5:2129:C:C4	2.91	0.58
1:5:2261:G:O2'	1:5:2262:G:O4'	2.20	0.58
49:S2:343:A:C6	49:S2:344:U:C5	2.92	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:66:G:C6	49:S2:68:A:C8	2.91	0.58
49:S2:1203:G:C6	49:S2:1204:A:C6	2.92	0.58
48:4:154:VAL:HG13	48:4:353:MET:CE	2.34	0.58
1:5:70:A:C2	1:5:4355:G:H1'	2.37	0.58
49:S2:1526:G:C5	49:S2:1527:C:C5	2.91	0.58
1:5:4287:G:C6	1:5:4288:C:N4	2.71	0.58
1:5:2405:G:HO2'	1:5:2791:C:HO2'	1.51	0.58
2:7:28:C:C4	2:7:29:C:C6	2.92	0.58
2:7:58:A:C6	2:7:59:G:N7	2.72	0.58
1:5:4896:G:N3	1:5:4897:G:C8	2.71	0.58
49:S2:1092:G:C2	49:S2:1093:A:C8	2.92	0.58
62:SM:32:ALA:HB2	62:SM:112:LYS:HD3	1.86	0.58
1:5:1936:C:C4	2:7:84:U:H5	2.20	0.58
1:5:2497:C:N3	1:5:2498:C:C4	2.70	0.58
1:5:3812:C:OP1	1:5:3813:A:O2'	2.21	0.58
3:8:97:A:C4	3:8:98:C:C5	2.91	0.58
49:S2:993:G:N2	49:S2:994:C:H1'	2.18	0.58
49:S2:980:A:H2'	49:S2:981:A:H8	1.67	0.58
49:S2:495:U:OP1	54:SE:49:ARG:NH1	2.31	0.58
1:5:174:C:C2	1:5:263:G:N2	2.71	0.58
13:J:99:PHE:CE2	13:J:105:PHE:HB2	2.36	0.58
49:S2:620:G:N3	49:S2:620:G:O5'	2.36	0.58
49:S2:525:A:H62	49:S2:588:G:N2	2.01	0.58
1:5:3796:U:C2	1:5:3797:C:C5	2.91	0.58
1:5:1206:C:C2	1:5:1207:C:C5	2.92	0.58
1:5:910:G:C6	1:5:911:U:C5	2.91	0.58
49:S2:1756:C:H2'	49:S2:1756:C:O2	2.01	0.58
1:5:1520:C:H4'	6:C:94:ASN:HD21	1.68	0.58
1:5:4957:C:N3	1:5:4958:C:H5	2.00	0.58
1:5:1918:U:C2	1:5:1920:C:C5	2.92	0.58
25:V:14:PHE:CE2	25:V:91:LYS:HG3	2.38	0.58
74:SY:27:VAL:HG12	74:SY:28:LEU:O	2.03	0.58
1:5:944:A:H2'	6:C:335:MET:HE1	1.84	0.58
1:5:2376:A:H2'	1:5:2377:C:O4'	2.03	0.58
1:5:1617:G:N3	1:5:2513:A:C2	2.72	0.58
1:5:1618:G:C2	1:5:1619:G:N7	2.71	0.58
1:5:1979:A:H3'	1:5:1980:U:C5'	2.33	0.58
1:5:2438:A:N6	1:5:2441:C:C4	2.71	0.58
1:5:4608:G:C6	1:5:4609:G:C4	2.92	0.58
6:C:325:MET:CE	9:F:157:TYR:CE2	2.86	0.58
10:G:264:LYS:NZ	10:G:265:LEU:HD21	2.15	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:444:G:N1	49:S2:446:G:OP2	2.36	0.58
49:S2:1036:A:C5	49:S2:1037:G:C8	2.91	0.58
49:S2:1849:G:O2'	49:S2:1850:A:H5'	2.03	0.58
50:SA:151:ASP:CG	50:SA:151:ASP:CA	2.69	0.58
49:S2:1399:C:C2	49:S2:1400:U:C5	2.92	0.58
49:S2:1228:A:C2	49:S2:1531:A:C2	2.91	0.58
49:S2:1527:C:O2	49:S2:1527:C:H2'	2.01	0.58
1:5:1566:C:O2'	1:5:1567:U:C4'	2.52	0.58
49:S2:648:A:N3	49:S2:649:U:C6	2.71	0.58
49:S2:647:U:N3	49:S2:648:A:N7	2.52	0.58
55:SF:141:VAL:HG21	55:SF:146:ARG:HG3	1.84	0.58
66:SQ:138:ARG:HH11	66:SQ:138:ARG:HG3	1.68	0.58
26:W:55:TYR:CD1	26:W:55:TYR:C	2.76	0.58
48:4:165:LEU:HD11	48:4:305:MET:HE2	1.72	0.58
1:5:3654:G:O2'	1:5:3693:U:OP1	2.20	0.58
1:5:4539:U:C2	1:5:4540:C:C6	2.92	0.58
3:8:73:U:C5	3:8:74:U:C5	2.91	0.58
1:5:488:G:C2	1:5:489:C:C5	2.91	0.58
1:5:488:G:C2	1:5:489:C:N1	2.72	0.58
1:5:167:C:C2	1:5:269:G:N2	2.72	0.58
49:S2:921:G:C6	72:SW:28:ARG:HG3	2.38	0.58
1:5:5052:C:C4	1:5:5053:U:C5	2.91	0.58
49:S2:1099:G:C6	49:S2:1100:A:C8	2.92	0.58
48:4:552:LEU:HD12	48:4:555:GLU:OE1	2.04	0.58
1:5:151:G:C6	10:G:141:ASN:ND2	2.72	0.58
13:J:107:PHE:CE1	13:J:130:PHE:HB2	2.38	0.58
1:5:1758:G:N1	1:5:1759:G:C5	2.72	0.58
1:5:1806:G:C2	1:5:1807:C:C6	2.92	0.58
1:5:4976:U:C4	5:B:342:LYS:HD2	2.39	0.58
59:SJ:111:GLN:NE2	59:SJ:127:ARG:HB2	2.19	0.58
3:8:5:U:OP2	19:P:62:ARG:NH1	2.36	0.58
49:S2:1500:G:H3'	49:S2:1501:C:C6	2.39	0.58
1:5:3892:U:O2'	19:P:80:GLN:NE2	2.36	0.58
3:8:144:U:C2	3:8:145:C:C5	2.90	0.58
64:SO:139:SER:O	64:SO:140:THR:O	2.21	0.58
1:5:1270:A:C5	1:5:1271:G:H1'	2.38	0.58
1:5:1351:G:OP1	6:C:33:ARG:NH1	2.36	0.58
1:5:1441:C:N3	1:5:1442:C:C5	2.72	0.58
1:5:1543:G:C6	1:5:1544:G:N7	2.72	0.58
1:5:1616:U:O2	1:5:1617:G:C8	2.56	0.58
1:5:1618:G:N1	1:5:1619:G:C5	2.72	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1686:C:H2'	1:5:1687:U:C5'	2.34	0.58
1:5:2098:G:H2'	1:5:2099:G:O4'	2.04	0.58
1:5:4086:G:H4'	10:G:54:PHE:HB3	1.86	0.58
1:5:4404:U:O4	1:5:4436:U:C4	2.56	0.58
1:5:981:C:C4	8:E:69:TYR:CE1	2.92	0.58
5:B:264:PHE:HD2	18:O:66:PRO:CD	2.16	0.58
48:4:691:ALA:CB	48:4:730:TYR:CA	2.76	0.58
48:4:689:GLU:C	48:4:730:TYR:HE1	1.99	0.58
48:4:826:ASP:OD1	48:4:828:SER:N	2.37	0.58
48:4:671:TYR:HB3	48:4:675:ILE:HG23	1.86	0.58
49:S2:951:C:O2	49:S2:952:G:C8	2.57	0.58
49:S2:1402:A:N3	49:S2:1405:A:C6	2.71	0.58
49:S2:1409:A:N3	49:S2:1410:C:C6	2.71	0.58
49:S2:1571:G:C5	49:S2:1572:C:C5	2.92	0.58
53:SD:6:SER:O	53:SD:10:LYS:N	2.34	0.58
49:S2:635:G:C5	49:S2:636:C:C5	2.91	0.58
49:S2:1136:U:O2'	49:S2:1137:U:H5'	2.03	0.58
1:5:4999:G:N3	1:5:5000:G:C8	2.72	0.58
1:5:1326:A:H2'	1:5:1327:C:C6	2.38	0.58
1:5:4537:C:C2'	1:5:4537:C:O2	2.51	0.58
49:S2:1100:A:C2	49:S2:1101:U:N1	2.70	0.58
49:S2:499:G:C6	49:S2:501:C:H1'	2.39	0.58
49:S2:501:C:O2	49:S2:501:C:C2'	2.52	0.58
1:5:4454:G:O2'	1:5:4500:U:O2'	2.18	0.58
1:5:909:A:N1	1:5:910:G:N7	2.51	0.58
1:5:1770:A:C6	1:5:1771:U:C4	2.92	0.58
1:5:1755:C:H41	1:5:1778:C:C4'	2.16	0.58
49:S2:186:C:C2	49:S2:187:G:C8	2.92	0.58
1:5:4315:A:N1	1:5:4316:G:N7	2.52	0.58
48:4:685:TRP:HZ3	48:4:723:PRO:CD	2.13	0.58
1:5:1582:U:H5	1:5:1610:C:O2	1.87	0.58
1:5:4137:C:H2'	1:5:4138:C:H6	1.67	0.58
21:R:117:ARG:CZ	21:R:117:ARG:HB2	2.33	0.58
12:I:209:TRP:HE1	12:I:213:HIS:CD2	2.22	0.58
22:S:8:ARG:HB2	22:S:10:TYR:HE2	1.66	0.58
3:8:53:G:C6	3:8:54:C:C4	2.91	0.58
53:SD:157:MET:CG	53:SD:159:HIS:HE1	2.16	0.58
49:S2:321:C:H2'	49:S2:322:C:H6	1.68	0.58
49:S2:1728:U:N3	49:S2:1729:U:C6	2.72	0.58
49:S2:943:U:H2'	49:S2:944:A:O4'	2.02	0.58
54:SE:11:ARG:O	54:SE:12:VAL:HB	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:SS:123:LEU:O	68:SS:127:TRP:CD1	2.57	0.58
55:SF:110:GLN:HA	55:SF:110:GLN:NE2	2.19	0.58
22:S:12:VAL:HG13	22:S:64:CYS:HB2	1.86	0.58
49:S2:916:A:C2	63:SN:73:ARG:HD3	2.38	0.58
1:5:2076:G:C6	1:5:2077:C:C6	2.92	0.58
1:5:2081:C:O2'	1:5:2082:G:H5'	2.03	0.58
1:5:2085:G:C2	1:5:2273:G:C6	2.92	0.58
1:5:2126:G:H1'	1:5:2127:C:C5	2.38	0.58
1:5:2089:G:C6	1:5:2262:G:O2'	2.57	0.58
8:E:43:ASN:ND2	8:E:44:PRO:O	2.37	0.58
49:S2:1366:G:C2	49:S2:1374:C:N3	2.71	0.58
49:S2:144:U:C2	49:S2:145:G:C8	2.92	0.58
49:S2:1053:C:H2'	49:S2:1053:C:O2	2.03	0.58
49:S2:10:G:C6	49:S2:11:A:N7	2.72	0.58
49:S2:1842:C:C2'	49:S2:1843:G:O5'	2.52	0.58
1:5:1491:A:C2	1:5:1492:G:C5	2.92	0.58
1:5:83:C:O5'	1:5:84:A:H2'	2.04	0.58
49:S2:1402:A:C4	49:S2:1405:A:N6	2.72	0.58
1:5:3859:G:N3	1:5:3859:G:H2'	2.18	0.58
49:S2:1232:U:C2	49:S2:1233:G:C8	2.91	0.58
49:S2:1596:U:H2'	49:S2:1596:U:O2	2.03	0.58
49:S2:1605:G:H2'	49:S2:1606:G:C1'	2.34	0.58
25:V:97:TYR:CE2	26:W:21:TYR:HD1	2.22	0.58
49:S2:1280:G:H5'	62:SM:96:ARG:HG2	1.86	0.58
9:F:101:ASN:OD1	9:F:101:ASN:N	2.35	0.58
1:5:3760:A:H2'	49:S2:1826:G:O2'	2.03	0.58
49:S2:794:A:C6	49:S2:795:A:C6	2.91	0.58
12:I:171:TRP:HB3	12:I:181:PHE:CE2	2.38	0.58
48:4:448:GLN:C	48:4:448:GLN:NE2	2.57	0.58
1:5:3868:G:H22	1:5:3899:G:N2	2.01	0.58
1:5:3909:C:C2	1:5:3910:C:C6	2.91	0.58
49:S2:1045:U:O4	49:S2:1046:U:C4	2.57	0.58
1:5:4369:A:N1	1:5:4370:G:N7	2.51	0.58
1:5:1963:C:N4	1:5:1964:A:N6	2.52	0.58
2:7:93:G:C4	2:7:94:C:C6	2.92	0.58
49:S2:413:G:C6	49:S2:425:G:C2	2.91	0.58
49:S2:665:G:C2	49:S2:671:A:N7	2.72	0.58
1:5:218:A:C1'	1:5:219:G:H5"	2.33	0.58
52:SC:230:THR:HG23	52:SC:236:PHE:CE2	2.38	0.58
25:V:14:PHE:CZ	25:V:91:LYS:HD2	2.38	0.58
29:Z:74:VAL:HG23	29:Z:101:PHE:CE2	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:SE:54:TYR:CD1	74:SY:17:LEU:HD11	2.39	0.58
51:SB:150:ILE:HD11	67:SR:128:PHE:HA	1.86	0.58
48:4:111:PHE:HE1	48:4:809:PHE:CE1	2.22	0.58
48:4:150:ARG:C	48:4:200:MET:HE3	2.23	0.58
48:4:24:VAL:HG21	48:4:32:LYS:HG3	1.84	0.58
1:5:1570:G:C6	1:5:1571:G:N7	2.71	0.58
1:5:2089:G:C2	1:5:2263:A:C6	2.92	0.58
1:5:1866:U:C4	1:5:4405:G:C1'	2.87	0.58
1:5:964:A:H8	1:5:964:A:H5"	1.66	0.58
1:5:985:C:N3	1:5:986:C:C5	2.72	0.58
14:K:105:THR:O	14:K:106:PHE:CE1	2.55	0.58
14:K:65:GLN:O	14:K:66:ASN:OD1	2.22	0.58
49:S2:458:A:C2	49:S2:459:C:C1'	2.87	0.58
48:4:602:LEU:HD22	48:4:728:CYS:SG	2.44	0.58
49:S2:81:U:C5	49:S2:82:G:N7	2.72	0.58
49:S2:1203:G:C6	49:S2:1204:A:C5	2.92	0.58
48:4:155:LEU:HD23	48:4:156:MET:C	2.24	0.58
1:5:301:G:C5	1:5:302:C:C5	2.92	0.58
49:S2:949:G:C5	49:S2:950:C:C5	2.91	0.58
49:S2:1565:C:C2	49:S2:1571:G:N2	2.71	0.58
1:5:2796:G:H4'	1:5:2797:C:OP2	2.04	0.58
2:7:30:C:C2	2:7:48:G:C2	2.91	0.58
49:S2:1287:A:N1	49:S2:1314:U:C2	2.72	0.58
26:W:50:ASN:HA	26:W:55:TYR:CD2	2.39	0.58
49:S2:477:G:N3	49:S2:478:G:C8	2.72	0.58
49:S2:1709:G:N1	49:S2:1710:C:C5	2.71	0.58
1:5:2480:G:C4	1:5:2481:G:C8	2.92	0.58
1:5:3698:G:N1	1:5:3699:C:C4	2.72	0.58
1:5:490:C:C2'	1:5:491:G:C8	2.87	0.58
49:S2:926:A:N3	49:S2:927:C:C6	2.72	0.58
1:5:1948:G:C5	1:5:1949:U:C5	2.92	0.58
49:S2:1045:U:C4	49:S2:1046:U:C5	2.92	0.58
1:5:2347:A:C4	1:5:2348:G:C6	2.91	0.58
1:5:1755:C:H5	1:5:1778:C:H1'	1.69	0.58
49:S2:663:C:C4	49:S2:664:A:N7	2.72	0.58
1:5:731:G:C5	1:5:732:A:C8	2.91	0.58
1:5:2578:G:C2	1:5:2579:G:C8	2.92	0.58
49:S2:1352:G:O4'	49:S2:1378:A:C2	2.57	0.58
49:S2:1382:A:C2	49:S2:1383:A:C8	2.91	0.58
4:A:186:TYR:N	4:A:196:TRP:HZ3	2.01	0.58
53:SD:22:ASN:C	53:SD:22:ASN:HD22	2.07	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:SP:43:ARG:HD3	65:SP:47:ARG:HG3	1.86	0.58
1:5:5007:A:N7	1:5:5040:U:O4	2.36	0.58
1:5:1254:A:H2'	1:5:1256:G:N7	2.19	0.58
48:4:759:ILE:HG23	48:4:760:TYR:N	2.19	0.58
1:5:1212:G:N3	1:5:1213:G:C8	2.72	0.58
49:S2:340:C:H2'	49:S2:341:C:O4'	2.04	0.58
49:S2:1453:C:H1'	67:SR:48:ASN:ND2	2.19	0.58
49:S2:1202:U:C4	49:S2:1203:G:N7	2.72	0.58
1:5:88:A:C6	1:5:97:G:N3	2.71	0.58
49:S2:1578:U:H6	53:SD:6:SER:N	2.02	0.58
49:S2:1537:A:O2'	49:S2:1604:G:C5'	2.52	0.58
1:5:4269:G:C4	1:5:4270:C:C6	2.91	0.58
1:5:4283:G:C4	1:5:4284:C:C5	2.91	0.58
2:7:17:C:C4	2:7:18:C:C5	2.92	0.58
2:7:17:C:O2	2:7:18:C:C6	2.56	0.58
1:5:1887:G:C2	1:5:1890:G:O6	2.57	0.58
1:5:2844:A:O2'	1:5:4631:G:H4'	2.04	0.58
1:5:1926:C:O2	1:5:1927:U:C6	2.57	0.58
1:5:3907:G:C2	1:5:3909:C:C5	2.92	0.58
1:5:2365:C:O2	1:5:2829:U:C5	2.57	0.58
3:8:131:G:C2	3:8:132:G:C8	2.92	0.58
3:8:130:C:N3	3:8:131:G:N7	2.51	0.58
1:5:4735:G:C2	1:5:4736:C:C5	2.92	0.58
49:S2:20:G:P	49:S2:620:G:H8	2.27	0.58
1:5:4497:U:C5	1:5:4498:U:C6	2.92	0.58
1:5:910:G:C5	1:5:911:U:C5	2.92	0.58
1:5:1777:C:C2	1:5:1778:C:C6	2.92	0.58
1:5:1811:G:C2	1:5:1812:C:C4	2.92	0.58
49:S2:579:C:N4	49:S2:580:U:C5	2.72	0.58
1:5:4314:C:C4	1:5:4315:A:N7	2.72	0.58
1:5:4332:C:O2	1:5:4332:C:C2'	2.47	0.58
48:4:727:ARG:HH11	48:4:727:ARG:HG3	1.69	0.58
48:4:727:ARG:NH2	48:4:853:ASN:O	2.37	0.58
1:5:1676:C:O2'	1:5:3914:U:C4	2.50	0.58
52:SC:170:TRP:CD1	52:SC:199:PRO:N	2.71	0.58
49:S2:1325:G:N2	49:S2:1327:G:C4	2.72	0.58
57:SH:123:THR:O	57:SH:127:ASP:OD1	2.22	0.58
4:A:186:TYR:HA	4:A:196:TRP:CE3	2.39	0.58
13:J:15:LEU:HB3	13:J:165:TRP:HD1	1.69	0.58
49:S2:1189:A:C2	49:S2:1190:A:C5	2.92	0.58
1:5:4605:A:H62	48:4:801:ARG:CB	2.11	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1243:C:N3	1:5:1269:G:N2	2.48	0.57
1:5:1261:G:C2	1:5:1262:G:N9	2.72	0.57
1:5:1970:A:C2'	1:5:2017:A:N6	2.66	0.57
1:5:2113:G:OP1	1:5:2113:G:O4'	2.21	0.57
1:5:2328:G:O2'	1:5:2329:U:H5'	2.01	0.57
1:5:2440:U:O2'	1:5:2441:C:P	2.62	0.57
1:5:4081:G:N1	1:5:4082:G:C5	2.72	0.57
1:5:4124:G:H21	10:G:44:ASP:HA	1.69	0.57
4:A:40:TYR:O	4:A:40:TYR:CG	2.56	0.57
10:G:51:LEU:O	10:G:55:VAL:HG23	2.03	0.57
14:K:62:LEU:CD1	14:K:64:ILE:HD11	2.34	0.57
49:S2:144:U:H2'	49:S2:145:G:H8	1.69	0.57
49:S2:223:C:H2'	49:S2:224:A:H8	1.69	0.57
1:5:1392:A:C2	1:5:1393:G:N7	2.71	0.57
15:L:78:LEU:O	15:L:82:ARG:NH2	2.37	0.57
1:5:1175:A:C2	1:5:1176:C:C5	2.91	0.57
1:5:2362:U:C4	1:5:3859:G:C2	2.90	0.57
49:S2:1224:G:N2	49:S2:1643:U:C4	2.72	0.57
48:4:323:LEU:HD11	48:4:335:LEU:HD11	1.86	0.57
1:5:2857:A:O2'	1:5:2858:A:P	2.61	0.57
49:S2:989:C:H5'	49:S2:990:A:C8	2.39	0.57
1:5:29:G:C6	1:5:30:C:C4	2.92	0.57
18:O:49:ARG:HH11	18:O:49:ARG:HG2	1.69	0.57
1:5:4100:C:O2	1:5:4101:C:C6	2.57	0.57
1:5:919:C:N4	1:5:920:C:N4	2.52	0.57
49:S2:1073:U:C4	49:S2:1074:C:C5	2.92	0.57
1:5:3596:A:O3'	21:R:143:HIS:CE1	2.56	0.57
1:5:3793:U:O2	1:5:3794:C:C6	2.57	0.57
1:5:4683:U:C4	1:5:4707:A:C6	2.92	0.57
1:5:1757:U:N3	1:5:1758:G:N7	2.51	0.57
1:5:125:C:O2	1:5:126:C:C6	2.57	0.57
1:5:3621:A:C8	1:5:4642:U:O2	2.56	0.57
53:SD:35:SER:CB	53:SD:91:VAL:HG21	2.34	0.57
48:4:531:ASP:CB	48:4:534:VAL:HG11	2.33	0.57
1:5:4737:G:C2	1:5:4738:C:N3	2.72	0.57
49:S2:816:A:N1	49:S2:817:G:H1'	2.18	0.57
1:5:307:A:H2'	1:5:308:G:N3	2.19	0.57
54:SE:11:ARG:NH1	54:SE:24:THR:OG1	2.37	0.57
49:S2:211:G:C6	49:S2:212:C:C4	2.91	0.57
58:SI:197:PHE:CZ	61:SL:5:GLN:HG3	2.39	0.57
50:SA:73:ASP:OD1	50:SA:73:ASP:N	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:189:ILE:HG22	48:4:203:ILE:CG1	2.32	0.57
48:4:496:VAL:CG2	48:4:497:MET:N	2.67	0.57
48:4:5:THR:OG1	48:4:6:VAL:N	2.37	0.57
48:4:579:TYR:CD2	48:4:740:LEU:HD11	2.39	0.57
48:4:818:GLN:CG	48:4:819:ILE:N	2.67	0.57
1:5:1048:G:C6	1:5:1049:C:C4	2.91	0.57
1:5:1545:G:N2	1:5:1546:C:C2	2.71	0.57
1:5:2004:U:H2'	1:5:2005:G:O4'	2.03	0.57
1:5:2013:A:H2'	1:5:2014:C:O4'	2.04	0.57
1:5:2316:G:C2	1:5:2317:C:C5	2.92	0.57
1:5:2515:G:C6	1:5:2516:G:C4	2.92	0.57
1:5:4079:C:C2	1:5:4080:C:C6	2.92	0.57
1:5:991:C:C2	1:5:992:C:C6	2.93	0.57
20:Q:34:PHE:CZ	20:Q:38:ARG:HG3	2.39	0.57
1:5:1572:U:H4'	21:R:95:TRP:CE2	2.38	0.57
49:S2:1034:A:C6	49:S2:1082:A:C5	2.91	0.57
1:5:1379:C:O3'	1:5:1380:G:O4'	2.22	0.57
1:5:1491:A:N1	1:5:1492:G:C5	2.72	0.57
4:A:192:LYS:HB3	4:A:193:ARG:HD3	1.86	0.57
49:S2:1667:U:O2	49:S2:1668:U:C6	2.57	0.57
49:S2:1224:G:N1	49:S2:1643:U:C4	2.72	0.57
1:5:2481:G:C5	1:5:2482:C:C5	2.92	0.57
1:5:486:C:O2	1:5:487:G:C8	2.56	0.57
1:5:488:G:C6	1:5:489:C:C5	2.92	0.57
12:I:36:LEU:HD22	12:I:73:ASN:ND2	2.19	0.57
1:5:28:C:C2	1:5:29:G:H8	2.09	0.57
1:5:4199:C:N3	1:5:4200:G:H8	2.02	0.57
49:S2:1063:C:O2'	49:S2:1838:U:C4	2.55	0.57
1:5:2363:A:O2'	1:5:4560:C:N4	2.37	0.57
21:R:110:ARG:HH11	21:R:120:TYR:HE2	1.52	0.57
49:S2:907:G:H3'	49:S2:908:A:H8	1.68	0.57
48:4:605:LYS:HD2	48:4:705:HIS:CE1	2.38	0.57
48:4:605:LYS:HB2	48:4:705:HIS:HE1	1.68	0.57
1:5:4989:U:O4'	1:5:4989:U:O2	2.23	0.57
1:5:124:C:C2	1:5:125:C:C6	2.92	0.57
1:5:3945:A:C2	1:5:3946:G:C5	2.92	0.57
1:5:2663:G:OP1	21:R:118:HIS:HA	2.03	0.57
1:5:4915:G:C2	1:5:4916:G:C8	2.93	0.57
1:5:60:G:C2	1:5:61:A:C8	2.91	0.57
49:S2:431:G:N1	49:S2:432:G:C5	2.72	0.57
1:5:4455:G:N3	1:5:4456:C:C6	2.72	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1921:C:H1'	22:S:160:ARG:HB2	1.86	0.57
48:4:290:CYS:HA	48:4:294:LEU:HD12	1.86	0.57
55:SF:28:VAL:HA	55:SF:110:GLN:OE1	2.04	0.57
3:8:152:U:H2'	3:8:153:C:O4'	2.03	0.57
1:5:3782:C:C4	1:5:3809:G:C6	2.92	0.57
54:SE:86:PHE:CE2	54:SE:87:MET:HG2	2.39	0.57
65:SP:56:LEU:HD22	65:SP:78:THR:HG22	1.85	0.57
2:7:116:G:C2	2:7:117:G:C8	2.92	0.57
69:ST:31:PRO:HB3	69:ST:33:TRP:CH2	2.39	0.57
48:4:536:CYS:O	48:4:537:ILE:HG23	2.05	0.57
1:5:1572:U:H5'	21:R:95:TRP:CZ2	2.38	0.57
1:5:1878:G:C6	1:5:1879:C:N4	2.73	0.57
1:5:1437:C:N4	1:5:2098:G:O6	2.35	0.57
1:5:4607:A:C5	1:5:4608:G:H1'	2.39	0.57
14:K:80:LEU:HD23	14:K:83:LYS:CD	2.34	0.57
14:K:97:ASN:N	14:K:98:ILE:CG1	2.65	0.57
49:S2:121:U:C2	49:S2:122:G:N7	2.58	0.57
48:4:829:SER:CB	48:4:832:SER:CB	2.82	0.57
48:4:824:PRO:C	48:4:832:SER:HB2	2.24	0.57
48:4:671:TYR:C	48:4:675:ILE:CG1	2.64	0.57
49:S2:311:C:C3'	49:S2:312:G:H4'	2.34	0.57
49:S2:68:A:C6	49:S2:69:C:C4	2.92	0.57
1:5:291:U:O2	1:5:292:G:O2'	2.21	0.57
1:5:98:A:N6	1:5:99:A:C5	2.72	0.57
66:SQ:12:VAL:HG11	66:SQ:90:LYS:HB3	1.84	0.57
49:S2:1564:C:C2	49:S2:1565:C:C6	2.93	0.57
68:SS:80:PRO:HG2	68:SS:82:TRP:CD1	2.38	0.57
1:5:4323:A:C2	1:5:4324:A:C4	2.92	0.57
1:5:2793:G:C5	1:5:2797:C:N4	2.72	0.57
49:S2:646:G:C6	49:S2:647:U:C6	2.92	0.57
62:SM:33:ARG:NH2	62:SM:90:GLY:O	2.37	0.57
49:S2:793:G:C4	49:S2:794:A:C8	2.91	0.57
1:5:2612:G:C4	1:5:2613:C:C6	2.91	0.57
1:5:2688:G:N3	1:5:2689:C:C6	2.72	0.57
1:5:3898:G:C2'	1:5:3899:G:H5'	2.34	0.57
49:S2:1121:G:C4	49:S2:1122:A:C8	2.92	0.57
1:5:1948:G:C6	1:5:1949:U:C4	2.93	0.57
3:8:40:A:C8	3:8:102:G:N2	2.72	0.57
49:S2:493:A:C1'	49:S2:574:A:H5'	2.35	0.57
1:5:4734:A:C2	1:5:4735:G:C4	2.92	0.57
49:S2:16:G:H2'	49:S2:17:C:C1'	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:752:G:O6	1:5:753:C:C4	2.57	0.57
3:8:29:G:C2	3:8:30:U:C6	2.93	0.57
1:5:2770:C:C4	1:5:2771:G:N7	2.72	0.57
18:O:113:ASP:OD1	18:O:113:ASP:N	2.38	0.57
2:7:93:G:C6	2:7:94:C:C4	2.92	0.57
49:S2:187:G:C6	49:S2:188:C:C4	2.93	0.57
1:5:4700:A:H2	11:H:69:THR:HG22	1.69	0.57
1:5:951:G:C2	1:5:952:G:C8	2.92	0.57
2:7:11:A:H4'	2:7:13:A:C8	2.39	0.57
1:5:2385:U:H2'	1:5:2386:U:C6	2.39	0.57
49:S2:1728:U:C4	49:S2:1729:U:C5	2.91	0.57
54:SE:99:PHE:CD1	54:SE:99:PHE:N	2.69	0.57
27:X:155:ILE:O	27:X:156:ILE:HB	2.04	0.57
9:F:184:TYR:HB3	9:F:202:ARG:HG2	1.85	0.57
50:SA:134:LEU:HD22	50:SA:144:THR:HG21	1.85	0.57
1:5:150:U:O2	10:G:166:LEU:HD11	2.03	0.57
48:4:113:SER:OG	48:4:481:LYS:NZ	2.37	0.57
48:4:521:VAL:O	48:4:525:LYS:CD	2.52	0.57
48:4:741:MET:CG	48:4:817:TRP:CE3	2.83	0.57
1:5:1079:C:C2	1:5:1080:C:C6	2.93	0.57
1:5:1270:A:C2'	1:5:1271:G:O5'	2.52	0.57
1:5:1444:G:C2	1:5:1445:U:O4	2.58	0.57
1:5:1446:C:C4	1:5:1447:C:C5	2.93	0.57
1:5:1618:G:N3	1:5:1619:G:C8	2.73	0.57
1:5:2439:G:C2	1:5:2440:U:C6	2.92	0.57
1:5:2458:C:H1'	1:5:3672:G:H21	1.69	0.57
1:5:436:C:O2	1:5:436:C:H2'	2.03	0.57
1:5:691:C:C2	1:5:692:A:N7	2.72	0.57
1:5:977:C:O2	1:5:977:C:H2'	2.04	0.57
49:S2:121:U:N3	49:S2:122:G:C5	2.71	0.57
48:4:692:LEU:CD2	48:4:734:LEU:HD22	2.33	0.57
48:4:712:ASP:O	48:4:715:HIS:N	2.38	0.57
49:S2:1053:C:N3	49:S2:1054:G:C8	2.73	0.57
49:S2:1860:A:C6	49:S2:1862:G:C5	2.92	0.57
48:4:154:VAL:CG1	48:4:358:LEU:HD11	2.35	0.57
49:S2:1533:A:N1	49:S2:1537:A:C1'	2.67	0.57
49:S2:1667:U:N3	49:S2:1668:U:C4	2.72	0.57
1:5:4235:G:H2'	1:5:4236:G:O5'	2.04	0.57
49:S2:676:C:N4	49:S2:677:G:C6	2.72	0.57
1:5:4898:G:C2	1:5:4923:C:C2	2.93	0.57
49:S2:619:A:N1	73:SX:113:GLY:HA3	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1857:C:C2	1:5:1858:A:C8	2.91	0.57
49:S2:532:C:N3	49:S2:533:A:N7	2.51	0.57
49:S2:533:A:C6	49:S2:534:G:C5	2.92	0.57
1:5:2783:A:C4	1:5:2784:C:C6	2.92	0.57
1:5:3688:U:N3	1:5:3689:G:C8	2.72	0.57
3:8:118:C:O2	3:8:118:C:H2'	2.03	0.57
3:8:66:A:H2'	3:8:67:U:C6	2.38	0.57
1:5:486:C:N3	1:5:487:G:C8	2.71	0.57
1:5:499:G:C2	1:5:500:G:C8	2.92	0.57
1:5:504:G:N1	1:5:505:G:C6	2.73	0.57
1:5:670:G:H2'	1:5:671:G:H8	1.68	0.57
1:5:4092:G:C2	1:5:4158:C:C2	2.92	0.57
1:5:2419:C:H2'	1:5:2420:A:O5'	2.05	0.57
1:5:754:U:C4	1:5:755:C:C5	2.93	0.57
1:5:907:C:N3	1:5:908:G:N7	2.52	0.57
1:5:225:G:O4'	1:5:243:A:H1'	2.04	0.57
1:5:144:G:N2	1:5:145:G:C4	2.73	0.57
49:S2:1259:A:N3	49:S2:1259:A:H3'	2.19	0.57
1:5:3945:A:C2	1:5:3946:G:C8	2.92	0.57
1:5:3945:A:N3	1:5:3946:G:C8	2.73	0.57
4:A:82:ILE:HD11	4:A:99:GLY:HA3	1.85	0.57
21:R:163:ARG:NH2	49:S2:871:U:H3	2.02	0.57
1:5:1456:C:O2'	20:Q:73:PRO:O	2.21	0.57
7:D:107:ARG:HD3	7:D:248:ARG:HG3	1.85	0.57
1:5:4070:U:C4	1:5:4071:U:C5	2.92	0.57
50:SA:59:LEU:HD23	50:SA:181:GLU:HG2	1.86	0.57
1:5:4958:C:H2'	1:5:4958:C:O2	2.04	0.57
49:S2:1488:C:O2	49:S2:1490:G:C8	2.58	0.57
1:5:1257:A:C2	1:5:1258:G:H1'	2.39	0.57
72:SW:98:GLN:HE21	72:SW:98:GLN:HA	1.67	0.57
1:5:1882:U:H1'	1:5:1883:G:C8	2.40	0.57
25:V:39:ILE:HG23	25:V:61:VAL:HG13	1.85	0.57
4:A:242:ARG:HH11	4:A:242:ARG:HB2	1.69	0.57
1:5:1539:G:H4'	4:A:194:ASN:HD22	1.69	0.57
48:4:541:SER:C	48:4:543:GLU:N	2.55	0.57
48:4:62:ASP:HA	48:4:65:GLU:HB3	1.85	0.57
48:4:762:VAL:CG1	48:4:766:LYS:HZ3	2.07	0.57
1:5:1444:G:H2'	1:5:1445:U:H6	1.57	0.57
1:5:1846:G:H2'	1:5:1847:C:C6	2.39	0.57
1:5:2463:G:N2	1:5:2464:C:N3	2.52	0.57
1:5:2581:A:H2'	1:5:2582:A:C8	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:448:G:C6	1:5:449:C:C6	2.92	0.57
1:5:978:G:H2'	1:5:979:C:O4'	2.04	0.57
14:K:119:ARG:N	14:K:123:ARG:HH12	2.03	0.57
49:S2:316:G:C2	49:S2:317:C:C5	2.92	0.57
49:S2:85:A:C2	49:S2:86:C:C4	2.93	0.57
1:5:1491:A:H2'	1:5:1492:G:O4'	2.05	0.57
1:5:158:A:C5	1:5:277:G:C6	2.92	0.57
1:5:4355:G:N3	1:5:4356:G:C8	2.73	0.57
1:5:1190:C:C4	1:5:1191:C:C5	2.92	0.57
49:S2:1511:U:C2	49:S2:1512:C:C6	2.92	0.57
49:S2:1564:C:O2	49:S2:1565:C:C6	2.58	0.57
1:5:1797:G:C2	1:5:1798:G:C5	2.93	0.57
62:SM:26:LEU:HG	62:SM:90:GLY:HA3	1.86	0.57
48:4:13:MET:CE	48:4:464:VAL:CG1	2.55	0.57
48:4:13:MET:HE3	48:4:464:VAL:HG13	1.79	0.57
49:S2:1114:U:N3	49:S2:1119:A:N6	2.40	0.57
1:5:3777:G:N2	1:5:3815:G:H2'	2.19	0.57
1:5:2478:C:H2'	1:5:2479:G:O4'	2.04	0.57
1:5:3785:A:H2	1:5:4536:C:H1'	1.63	0.57
48:4:275:LYS:CE	48:4:276:SER:HA	2.23	0.57
48:4:239:LYS:HD3	48:4:241:GLU:HG2	1.85	0.57
48:4:449:ARG:NH2	48:4:460:PRO:HB2	2.18	0.57
49:S2:857:U:N3	49:S2:858:A:N7	2.52	0.57
3:8:43:A:N1	3:8:44:A:C5	2.72	0.57
1:5:2656:U:H2'	1:5:2657:G:O4'	2.04	0.57
1:5:4644:G:N2	1:5:4654:C:C2	2.73	0.57
1:5:5030:U:O2	1:5:5031:G:C8	2.58	0.57
1:5:4476:C:O4'	1:5:4476:C:O2	2.22	0.57
1:5:4480:A:C6	1:5:4481:U:C5	2.92	0.57
1:5:1204:C:O2	1:5:1205:G:C8	2.58	0.57
1:5:4911:A:H5"	5:B:100:ARG:CD	2.35	0.57
1:5:2394:G:O2'	1:5:2819:U:O4	2.23	0.57
5:B:51:ALA:HA	5:B:323:TYR:HE2	1.66	0.57
49:S2:403:G:C6	49:S2:404:G:C5	2.93	0.57
29:Z:46:ILE:HD12	29:Z:49:TYR:CD1	2.40	0.57
1:5:950:G:N3	1:5:951:G:C8	2.73	0.57
7:D:94:ASN:HD21	7:D:96:ALA:HB3	1.69	0.57
1:5:12:A:C2	1:5:14:C:C6	2.92	0.57
5:B:367:PHE:HZ	5:B:380:GLN:HE22	1.49	0.57
55:SF:179:ASN:HD22	55:SF:186:ASN:HB3	1.70	0.57
24:U:99:TRP:N	24:U:99:TRP:CD1	2.73	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:J:164:ARG:NH2	13:J:164:ARG:O	2.37	0.57
50:SA:19:LEU:HD23	50:SA:24:HIS:HE1	1.68	0.57
1:5:2461:G:C2	1:5:2462:C:C5	2.92	0.57
48:4:58:ASP:OD2	48:4:69:THR:N	2.27	0.57
1:5:1081:C:C2	1:5:1220:G:C2	2.92	0.57
1:5:1268:G:C1'	1:5:2111:G:C5	2.87	0.57
1:5:2089:G:N1	1:5:2263:A:C6	2.73	0.57
1:5:456:C:N3	1:5:457:G:N7	2.52	0.57
1:5:470:A:C6	1:5:471:A:N7	2.70	0.57
1:5:687:U:C4	1:5:688:U:C5	2.93	0.57
49:S2:443:U:C5	49:S2:444:G:C8	2.93	0.57
48:4:587:SER:HB3	48:4:735:THR:CG2	2.35	0.57
48:4:672:LEU:CA	48:4:675:ILE:HD11	2.33	0.57
1:5:99:A:N1	1:5:100:C:C2	2.72	0.57
1:5:1465:G:C5	1:5:1466:G:C8	2.93	0.57
1:5:296:A:C8	1:5:296:A:C5'	2.88	0.57
1:5:300:A:N3	1:5:301:G:C8	2.73	0.57
1:5:4341:C:N4	1:5:4342:C:C4	2.73	0.57
1:5:1186:U:C2	1:5:1187:G:C8	2.93	0.57
49:S2:1411:G:H3'	49:S2:1412:C:H4'	1.85	0.57
49:S2:1428:G:H2'	49:S2:1429:G:O4'	2.04	0.57
49:S2:1433:C:P	49:S2:1434:C:OP1	2.62	0.57
49:S2:1590:C:C6	49:S2:1591:C:C6	2.92	0.57
49:S2:648:A:C2	49:S2:649:U:N1	2.72	0.57
49:S2:649:U:N3	49:S2:650:A:N7	2.53	0.57
60:SK:8:ARG:NH1	60:SK:12:TYR:OH	2.37	0.57
1:5:1888:A:N6	1:5:3873:G:O2'	2.36	0.57
49:S2:1826:G:C2	49:S2:1827:U:C5	2.93	0.57
53:SD:216:GLU:OE1	53:SD:216:GLU:CG	2.52	0.57
1:5:3652:A:N7	1:5:3691:G:N2	2.53	0.57
1:5:4537:C:O2	1:5:4538:G:H8	1.85	0.57
1:5:2857:A:O2'	1:5:2858:A:H8	1.87	0.57
49:S2:989:C:N3	49:S2:1001:A:C2	2.72	0.57
49:S2:993:G:C6	49:S2:994:C:C4	2.92	0.57
49:S2:832:G:C2	49:S2:833:C:H1'	2.38	0.57
49:S2:1045:U:N3	49:S2:1046:U:C6	2.72	0.57
3:8:101:C:C4	3:8:102:G:C5	2.92	0.57
1:5:1632:A:C6	1:5:1634:A:N9	2.69	0.57
1:5:4730:C:H2'	1:5:4965:U:H3	1.69	0.57
1:5:755:C:N3	1:5:756:G:C8	2.72	0.57
1:5:4886:C:O2	1:5:4887:C:C5	2.57	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1771:G:N2	49:S2:1772:C:C2	2.72	0.57
1:5:732:A:C6	1:5:733:A:C4	2.92	0.57
1:5:4548:A:N7	1:5:4548:A:OP1	2.37	0.57
49:S2:1274:G:N7	60:SK:43:LEU:HD22	2.19	0.57
25:V:98:PHE:CZ	26:W:22:ALA:CB	2.86	0.57
49:S2:1502:C:C2	49:S2:1503:C:C6	2.92	0.57
48:4:12:ILE:HG21	48:4:99:LEU:HD22	1.85	0.57
1:5:258:G:N1	1:5:259:C:C4	2.73	0.57
49:S2:898:U:N3	49:S2:899:U:C5	2.72	0.57
1:5:2244:C:O2	1:5:2245:G:C8	2.57	0.57
1:5:965:G:N2	8:E:85:LEU:O	2.38	0.57
1:5:4951:G:O2'	1:5:4952:G:P	2.62	0.57
28:Y:5:PRO:O	28:Y:6:PHE:HB2	2.05	0.57
1:5:1943:A:C8	1:5:1944:A:C8	2.92	0.57
48:4:113:SER:OG	48:4:533:MET:CB	2.52	0.57
1:5:1071:C:O2	1:5:1071:C:C2'	2.52	0.57
1:5:1248:C:N3	1:5:1249:C:C4	2.72	0.57
1:5:1269:G:N1	1:5:2111:G:N2	2.53	0.57
1:5:1269:G:N7	1:5:2111:G:C4	2.72	0.57
1:5:1281:G:C4	1:5:1281:G:O5'	2.58	0.57
1:5:1846:G:N2	1:5:1847:C:C2	2.72	0.57
1:5:1991:A:H3'	1:5:1992:U:C5'	2.31	0.57
1:5:1976:G:N1	1:5:1992:U:O4	2.37	0.57
14:K:75:PRO:O	14:K:75:PRO:HD2	2.03	0.57
14:K:97:ASN:N	14:K:98:ILE:HG12	2.20	0.57
49:S2:299:A:C2	49:S2:300:U:C6	2.92	0.57
49:S2:68:A:C4	49:S2:69:C:C6	2.93	0.57
49:S2:75:G:H1	56:SG:159:ARG:HE	1.53	0.57
1:5:3894:A:O4'	1:5:4979:A:N1	2.37	0.57
49:S2:1526:G:C2	49:S2:1527:C:N1	2.72	0.57
49:S2:1545:A:N7	49:S2:1588:A:C5	2.73	0.57
49:S2:1225:U:N3	49:S2:1226:G:C8	2.73	0.57
49:S2:1223:A:H2	49:S2:1644:C:N3	2.02	0.57
49:S2:164:A:O2'	49:S2:165:G:N3	2.37	0.57
1:5:482:G:H2'	1:5:483:G:O4'	2.04	0.57
1:5:490:C:C3'	1:5:491:G:H8	2.17	0.57
1:5:43:U:C4	1:5:44:A:N9	2.72	0.57
18:O:130:LYS:HG3	18:O:131:PRO:HD2	1.87	0.57
3:8:44:A:C2	3:8:45:C:C2	2.93	0.57
1:5:1804:A:H4'	1:5:1805:A:O5'	2.05	0.57
5:B:106:PHE:CD2	5:B:130:PHE:CE2	2.93	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2675:G:N3	1:5:2675:G:H2'	2.18	0.57
1:5:4742:G:N1	1:5:4743:G:C8	2.73	0.57
1:5:4730:C:C2	1:5:4734:A:N7	2.73	0.57
1:5:243:A:H2'	1:5:244:G:O4'	2.05	0.57
3:8:31:G:H2'	3:8:32:C:O4'	2.05	0.57
1:5:701:G:N1	1:5:702:U:C6	2.72	0.57
49:S2:1757:G:N1	49:S2:1758:G:C5	2.73	0.57
9:F:33:LYS:HA	9:F:36:ARG:HE	1.69	0.57
1:5:3846:C:C4	1:5:3847:C:C5	2.93	0.57
1:5:4301:U:C5'	23:T:54:HIS:CD2	2.88	0.57
53:SD:157:MET:HG3	53:SD:159:HIS:CE1	2.39	0.57
1:5:4583:C:N3	1:5:4718:G:C2	2.73	0.57
1:5:1940:G:H2'	1:5:1941:A:H5"	1.87	0.57
49:S2:659:G:N3	49:S2:659:G:H2'	2.19	0.57
48:4:814:PHE:CD2	48:4:815:ASP:N	2.73	0.57
1:5:1447:C:O2	1:5:2098:G:C2	2.57	0.57
1:5:1268:G:N3	1:5:2111:G:N1	2.52	0.57
1:5:2124:G:H22	9:F:32:ILE:CG1	2.17	0.57
48:4:258:LYS:O	48:4:258:LYS:HD2	2.05	0.57
15:L:63:THR:O	15:L:65:ARG:N	2.37	0.57
17:N:68:ARG:HH12	17:N:123:GLU:HG3	1.68	0.57
49:S2:1232:U:O2	49:S2:1232:U:H2'	2.05	0.57
49:S2:1094:C:N3	49:S2:1095:U:H5	2.02	0.57
49:S2:1294:G:N3	49:S2:1295:A:C8	2.73	0.57
1:5:3635:A:C5	1:5:3636:C:C6	2.93	0.57
1:5:209:U:N3	1:5:233:U:C4	2.73	0.57
3:8:70:G:H5"	28:Y:27:ARG:HH11	1.69	0.57
1:5:479:G:N2	1:5:480:C:C2	2.73	0.57
1:5:271:C:O2	1:5:272:U:C6	2.57	0.57
1:5:5050:C:C4	1:5:5051:C:C5	2.93	0.57
1:5:1946:G:N2	1:5:1948:G:C8	2.73	0.57
49:S2:834:C:H5'	49:S2:835:C:O5'	2.05	0.57
1:5:4228:G:O2'	1:5:4373:G:O6	2.21	0.57
1:5:2673:G:C1'	1:5:2675:G:H1'	2.35	0.57
2:7:111:C:N4	2:7:112:U:C5	2.73	0.57
1:5:3848:U:C2	1:5:3849:A:C8	2.93	0.57
69:ST:23:LYS:CE	69:ST:51:ASN:HD22	2.14	0.57
1:5:2391:G:N2	1:5:2392:C:C2	2.72	0.57
1:5:3605:C:C2	1:5:3606:U:C6	2.93	0.57
1:5:4455:G:C2	1:5:4456:C:N1	2.73	0.57
72:SW:17:ALA:HB2	72:SW:25:VAL:HG11	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:8:75:G:N2	3:8:76:C:C2	2.73	0.57
1:5:358:C:C2	1:5:359:A:C8	2.92	0.57
48:4:112:SER:C	48:4:114:GLU:H	1.93	0.57
48:4:4:PHE:CD1	48:4:5:THR:CA	2.86	0.57
48:4:58:ASP:CG	48:4:69:THR:CG2	2.72	0.57
1:5:1273:G:H5'	1:5:2123:C:H4'	1.86	0.57
1:5:1440:U:C2'	1:5:1440:U:O2	2.52	0.57
1:5:1619:G:H2'	1:5:1620:U:O5'	2.05	0.57
1:5:1843:A:N1	1:5:1844:G:C5	2.72	0.57
1:5:2466:G:H2'	1:5:2467:U:C1'	2.34	0.57
49:S2:1735:A:H2'	49:S2:1736:G:O4'	2.04	0.57
49:S2:380:G:H21	49:S2:382:C:H6	1.52	0.57
1:5:1477:C:O2	1:5:1478:C:H1'	2.04	0.57
1:5:299:C:C2	1:5:300:A:C8	2.92	0.57
1:5:3724:A:N6	1:5:3725:G:C6	2.72	0.57
1:5:80:C:C2	1:5:104:G:N2	2.73	0.57
49:S2:1405:A:C1'	49:S2:1580:A:C6	2.87	0.57
49:S2:1563:G:N2	49:S2:1564:C:C2	2.73	0.57
49:S2:27:A:C6	49:S2:28:U:C4	2.92	0.57
49:S2:1111:U:O2	49:S2:1112:U:C5	2.48	0.57
1:5:1893:C:C2	1:5:1894:C:C5	2.93	0.57
49:S2:529:A:N1	49:S2:555:A:C2	2.73	0.57
56:SG:4:ASN:HB3	56:SG:110:ASN:HB3	1.85	0.57
1:5:2854:G:C8	1:5:2854:G:H3'	2.40	0.57
1:5:486:C:N3	1:5:487:G:C5	2.73	0.57
1:5:663:G:H3'	1:5:664:G:C5'	2.35	0.57
1:5:4194:U:C2'	1:5:4221:C:H41	2.18	0.57
49:S2:832:G:C6	49:S2:833:C:C4	2.92	0.57
49:S2:1099:G:N1	49:S2:1100:A:C8	2.73	0.57
48:4:159:LYS:HE2	48:4:162:ARG:HH11	1.70	0.57
1:5:4695:C:O2'	1:5:4696:C:H5'	2.05	0.57
54:SE:118:GLU:HG2	54:SE:121:TYR:CE1	2.40	0.57
22:S:81:TRP:CZ2	22:S:94:TYR:CD1	2.92	0.57
1:5:642:G:C2	1:5:643:C:C5	2.93	0.57
48:4:597:ASN:HB3	48:4:599:HIS:ND1	2.20	0.57
6:C:79:VAL:HG21	6:C:86:ARG:HE	1.70	0.57
1:5:4455:G:C4	1:5:4456:C:C6	2.93	0.57
1:5:1785:C:OP1	12:I:133:GLN:NE2	2.37	0.57
1:5:685:C:O2	1:5:685:C:C2'	2.52	0.57
1:5:133:C:O2	1:5:133:C:H2'	2.05	0.57
3:8:108:A:C2	3:8:112:G:C6	2.93	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:46:ILE:O	48:4:46:ILE:CG2	2.51	0.57
48:4:744:ILE:HG12	48:4:745:TYR:N	2.20	0.57
1:5:1846:G:C2	1:5:1847:C:C4	2.93	0.57
1:5:1846:G:H2'	1:5:1847:C:H6	1.70	0.57
1:5:2018:C:H2'	1:5:2019:C:H5'	1.86	0.57
1:5:2020:U:H2'	1:5:2020:U:O2	2.04	0.57
1:5:2081:C:C2	1:5:2082:G:C8	2.93	0.57
1:5:2465:C:O2'	1:5:2466:G:O4'	2.23	0.57
1:5:956:A:H3'	1:5:957:G:C4	2.40	0.57
1:5:4942:C:H5'	8:E:151:GLY:HA2	1.87	0.57
14:K:15:LEU:HD11	14:K:60:VAL:HG12	1.86	0.57
48:4:683:PHE:CE1	48:4:729:LEU:CD2	2.87	0.57
49:S2:1459:G:C6	49:S2:1460:C:C4	2.93	0.57
50:SA:29:ASN:HB3	50:SA:151:ASP:OD2	2.04	0.57
48:4:206:ASP:CA	48:4:212:VAL:HG23	2.35	0.57
59:SJ:59:GLU:CB	59:SJ:59:GLU:CD	2.68	0.57
49:S2:1433:C:P	49:S2:1434:C:P	3.02	0.57
1:5:3858:C:C4	1:5:3859:G:C5	2.92	0.57
49:S2:1609:C:O2	49:S2:1609:C:H2'	2.04	0.57
49:S2:1284:A:C2	62:SM:34:GLY:HA2	2.40	0.57
49:S2:794:A:N6	49:S2:795:A:C6	2.72	0.57
1:5:3694:U:O4	1:5:3695:U:O4	2.23	0.57
3:8:120:G:C6	3:8:121:G:N7	2.73	0.57
1:5:2844:A:C5	1:5:3839:G:C8	2.93	0.57
1:5:504:G:C2	1:5:654:C:C2	2.92	0.57
48:4:241:GLU:N	48:4:243:GLN:OE1	2.31	0.57
1:5:4566:U:O2'	5:B:234:ARG:NH2	2.38	0.57
48:4:296:PRO:CA	48:4:299:LYS:HE2	2.35	0.57
1:5:2058:G:C2	1:5:2059:C:N1	2.73	0.57
1:5:4105:A:H1'	1:5:4106:G:N2	2.20	0.57
49:S2:504:G:C2'	49:S2:505:G:O5'	2.52	0.57
1:5:77:U:C2	1:5:335:A:N6	2.71	0.57
1:5:4258:C:H2'	1:5:4259:C:H6	1.70	0.57
1:5:5020:G:C2	1:5:5021:C:C2	2.93	0.57
1:5:4910:G:C8	1:5:4910:G:O5'	2.56	0.57
1:5:1781:U:C4	1:5:1782:U:C5	2.92	0.57
1:5:933:G:C2	1:5:939:G:N1	2.73	0.57
49:S2:414:A:O2'	49:S2:415:A:O5'	2.23	0.57
1:5:2577:C:N4	29:Z:17:ARG:NH2	2.53	0.57
49:S2:429:C:N3	49:S2:430:C:C5	2.72	0.57
27:X:73:HIS:N	27:X:73:HIS:CD2	2.72	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:940:U:H2'	49:S2:941:C:H6	1.70	0.57
69:ST:31:PRO:HB2	69:ST:33:TRP:CZ2	2.39	0.57
1:5:2044:U:O2'	18:O:63:ASN:HB3	2.04	0.57
49:S2:1722:G:N2	49:S2:1723:G:H1'	2.20	0.57
1:5:1070:G:N2	1:5:1071:C:H1'	2.20	0.56
1:5:1724:G:N3	9:F:105:PRO:HB3	2.20	0.56
1:5:1847:C:C4'	20:Q:152:PHE:CE2	2.86	0.56
1:5:1991:A:H8	1:5:1991:A:H3'	1.70	0.56
1:5:2342:G:C6	1:5:2344:U:C4	2.92	0.56
1:5:470:A:C6	1:5:471:A:C5	2.92	0.56
14:K:119:ARG:H	14:K:123:ARG:NH1	2.00	0.56
14:K:28:LEU:HD13	14:K:29:ALA:H	1.70	0.56
14:K:78:SER:O	14:K:81:ILE:HG12	2.05	0.56
14:K:94:LYS:H	14:K:95:GLN:HB2	1.69	0.56
49:S2:1794:C:C4	49:S2:1795:G:N7	2.73	0.56
49:S2:127:C:OP1	49:S2:180:G:N2	2.38	0.56
49:S2:351:G:N1	49:S2:352:U:C5	2.73	0.56
67:SR:53:TYR:O	67:SR:54:VAL:C	2.43	0.56
49:S2:1052:A:C2	49:S2:1053:C:C6	2.92	0.56
1:5:4349:C:H3'	1:5:4350:C:C5'	2.35	0.56
49:S2:1432:U:O2	49:S2:1433:C:C6	2.58	0.56
49:S2:1397:U:C5	49:S2:1442:U:C4'	2.87	0.56
1:5:4236:G:H22	1:5:4289:U:H1'	1.69	0.56
1:5:1598:C:C4	1:5:2798:A:N7	2.71	0.56
1:5:4216:G:N1	1:5:4217:G:C5	2.73	0.56
49:S2:1303:C:C6	49:S2:1304:U:C6	2.93	0.56
1:5:3755:G:C6	1:5:3756:A:N7	2.73	0.56
1:5:3765:G:O2'	1:5:3766:A:C8	2.52	0.56
48:4:485:ILE:N	48:4:485:ILE:HD12	2.20	0.56
1:5:1629:G:C2	1:5:1631:A:C5	2.93	0.56
1:5:3693:U:O4	1:5:3694:U:C4	2.58	0.56
1:5:3867:A:C2	1:5:3880:G:O6	2.57	0.56
49:S2:924:G:H2'	49:S2:924:G:N3	2.20	0.56
1:5:30:C:O2'	1:5:31:U:H5'	2.05	0.56
1:5:919:C:H2'	1:5:920:C:O5'	2.05	0.56
2:7:43:U:O4	2:7:44:C:N4	2.37	0.56
11:H:31:ARG:NH2	11:H:187:VAL:HG21	2.20	0.56
48:4:588:ASN:OD1	48:4:588:ASN:C	2.44	0.56
1:5:1090:G:C6	1:5:1091:C:C4	2.93	0.56
28:Y:11:ARG:NH2	28:Y:15:ARG:HD3	2.20	0.56
49:S2:963:A:C2	49:S2:964:A:C6	2.92	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2557:G:C6	1:5:2558:C:C4	2.93	0.56
1:5:1752:G:H2'	1:5:1753:G:O4'	2.04	0.56
1:5:1760:G:N2	1:5:1761:G:H1'	2.19	0.56
2:7:82:G:C2	2:7:95:C:C2	2.93	0.56
49:S2:1775:U:N3	49:S2:1776:G:N7	2.52	0.56
49:S2:1782:G:C2	49:S2:1784:G:C8	2.93	0.56
48:4:228:PHE:CE1	48:4:231:MET:CE	2.88	0.56
51:SB:133:TYR:CD1	51:SB:221:PRO:HD3	2.39	0.56
2:7:33:U:C2	2:7:34:C:C5	2.93	0.56
49:S2:1126:G:N3	49:S2:1127:C:C6	2.73	0.56
1:5:931:C:C6	1:5:932:A:N7	2.72	0.56
1:5:1507:C:N3	1:5:1508:A:N7	2.53	0.56
1:5:4583:C:C2	1:5:4718:G:N2	2.73	0.56
1:5:199:G:C6	1:5:201:C:N4	2.73	0.56
58:SI:197:PHE:O	58:SI:201:LYS:N	2.36	0.56
1:5:2312:U:H2'	1:5:2312:U:O2	2.04	0.56
49:S2:1:U:O4'	49:S2:1:U:O2	2.22	0.56
2:7:69:U:C2	2:7:70:G:C8	2.92	0.56
5:B:137:TRP:CZ2	5:B:146:LEU:HG	2.40	0.56
10:G:162:ASP:HB3	10:G:163:PRO:CD	2.35	0.56
1:5:1070:G:C6	1:5:1071:C:C4	2.92	0.56
1:5:2079:G:N2	1:5:2080:U:N1	2.53	0.56
1:5:2086:G:N2	1:5:2272:C:C2	2.73	0.56
1:5:2090:U:O2'	1:5:2091:C:C5'	2.53	0.56
1:5:2260:C:C2'	1:5:2261:G:N7	2.57	0.56
1:5:3676:G:C2'	1:5:3677:U:O5'	2.53	0.56
1:5:463:A:N1	1:5:692:A:N1	2.52	0.56
49:S2:458:A:N1	49:S2:459:C:N1	2.52	0.56
49:S2:127:C:OP2	49:S2:312:G:N3	2.38	0.56
49:S2:221:A:C6	49:S2:222:U:C4	2.93	0.56
48:4:207:PRO:HB2	48:4:261:TRP:CD1	2.41	0.56
1:5:1379:C:H1'	1:5:1380:G:C8	2.40	0.56
49:S2:1538:C:H1'	49:S2:1603:G:H21	1.69	0.56
1:5:4321:U:H2'	1:5:4322:G:O4'	2.05	0.56
1:5:4217:G:H2'	1:5:4218:U:O5'	2.05	0.56
49:S2:618:C:N3	49:S2:619:A:N9	2.53	0.56
49:S2:634:A:C6	49:S2:635:G:N7	2.73	0.56
49:S2:1148:A:O4'	49:S2:1149:A:C8	2.59	0.56
49:S2:1639:G:C2	49:S2:1640:A:C8	2.93	0.56
62:SM:101:ARG:NH1	62:SM:101:ARG:HA	2.20	0.56
49:S2:1109:C:O2'	49:S2:1109:C:O2	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:52:G:C6	49:S2:53:C:C4	2.93	0.56
3:8:86:U:C6	3:8:86:U:C3'	2.87	0.56
1:5:275:C:O2'	1:5:276:C:OP1	2.23	0.56
48:4:449:ARG:CB	48:4:473:VAL:CG1	2.83	0.56
1:5:4563:U:H2'	1:5:4564:A:H8	1.67	0.56
1:5:45:U:H2'	1:5:46:U:O5'	2.06	0.56
1:5:4652:G:N1	1:5:4653:C:C4	2.73	0.56
1:5:2830:G:N3	1:5:2831:G:C8	2.73	0.56
50:SA:203:PHE:N	50:SA:203:PHE:CD1	2.73	0.56
1:5:5020:G:H2'	1:5:5021:C:O4'	2.06	0.56
1:5:516:C:N3	1:5:646:G:C2	2.73	0.56
49:S2:1773:C:C2	49:S2:1774:C:C5	2.93	0.56
1:5:3829:G:C2	1:5:3830:A:C8	2.93	0.56
50:SA:111:GLN:N	50:SA:111:GLN:OE1	2.38	0.56
1:5:3656:A:N1	1:5:3657:U:C4	2.73	0.56
49:S2:1622:U:C5	68:SS:120:HIS:CE1	2.93	0.56
55:SF:179:ASN:ND2	55:SF:186:ASN:HB3	2.19	0.56
1:5:517:C:C2	1:5:645:G:C2	2.92	0.56
9:F:203:PHE:CE1	9:F:207:ASN:HB2	2.41	0.56
63:SN:4:MET:HE2	63:SN:124:ARG:HD3	1.87	0.56
52:SC:163:VAL:HG22	52:SC:241:PHE:HZ	1.70	0.56
48:4:269:ALA:O	48:4:270:ASN:C	2.35	0.56
48:4:42:LYS:NZ	48:4:79:TYR:OH	2.38	0.56
48:4:762:VAL:CG2	48:4:800:LEU:CD1	2.55	0.56
1:5:1218:G:C6	1:5:1219:G:C8	2.93	0.56
1:5:2292:C:C2	1:5:2293:U:C5	2.92	0.56
1:5:1661:C:H1'	1:5:2345:G:N2	2.20	0.56
1:5:696:C:H5"	1:5:697:G:H5'	1.86	0.56
14:K:18:THR:HA	14:K:58:ILE:HG23	1.88	0.56
29:Z:41:ALA:HB2	29:Z:77:TYR:CE1	2.40	0.56
48:4:791:ASN:CA	48:4:794:PHE:HE1	2.19	0.56
1:5:1544:G:C2	1:5:1545:G:C8	2.94	0.56
1:5:1558:A:C2	1:5:1559:G:C4	2.93	0.56
1:5:1995:G:C2	1:5:1996:C:C2	2.94	0.56
1:5:2110:C:P	1:5:2110:C:C6	2.97	0.56
1:5:2315:G:C2	1:5:2316:G:C8	2.94	0.56
1:5:2090:U:H1'	6:C:305:PRO:HG2	1.88	0.56
20:Q:32:TYR:HH	20:Q:123:PHE:HD2	1.51	0.56
1:5:4413:C:H2'	1:5:4414:A:O4'	2.05	0.56
49:S2:120:U:C4	49:S2:121:U:C4	2.93	0.56
49:S2:122:G:H2'	49:S2:123:G:C1'	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:592:LEU:HD12	48:4:593:SER:N	2.19	0.56
48:4:739:ARG:HD2	48:4:821:PRO:O	2.05	0.56
49:S2:309:G:H2'	49:S2:310:C:C6	2.39	0.56
49:S2:310:C:H2'	49:S2:311:C:O4'	2.04	0.56
49:S2:75:G:N2	49:S2:77:A:P	2.68	0.56
49:S2:77:A:OP1	56:SG:157:VAL:HG11	2.05	0.56
49:S2:379:C:O2	49:S2:380:G:C8	2.58	0.56
49:S2:12:U:C2	49:S2:13:C:C5	2.92	0.56
48:4:155:LEU:HD11	48:4:185:VAL:HG21	1.84	0.56
1:5:158:A:C6	1:5:277:G:C5	2.93	0.56
1:5:322:C:H2'	1:5:322:C:O2	2.04	0.56
1:5:85:G:C6	15:L:13:HIS:CE1	2.93	0.56
1:5:1380:G:H2'	1:5:1382:G:C5	2.41	0.56
1:5:1390:G:N3	1:5:1394:G:C6	2.73	0.56
1:5:1465:G:C2	1:5:1466:G:C1'	2.88	0.56
5:B:175:GLN:HE21	5:B:179:HIS:CE1	2.22	0.56
7:D:278:ASP:O	7:D:282:GLN:HG2	2.04	0.56
49:S2:1408:U:H2'	49:S2:1409:A:N9	2.20	0.56
49:S2:1429:G:H2'	49:S2:1430:C:C6	2.41	0.56
49:S2:1508:A:O4'	49:S2:1508:A:OP2	2.23	0.56
49:S2:1563:G:C4	49:S2:1564:C:C5	2.93	0.56
49:S2:1550:G:H3'	49:S2:1579:A:H61	1.71	0.56
49:S2:1233:G:C6	49:S2:1234:C:C5	2.94	0.56
1:5:4276:G:N3	1:5:4276:G:H2'	2.20	0.56
2:7:59:G:N1	2:7:60:G:N7	2.52	0.56
1:5:370:U:C5	1:5:1637:A:N1	2.74	0.56
49:S2:636:C:N3	49:S2:637:U:C4	2.72	0.56
49:S2:1137:U:O2'	49:S2:1138:C:OP1	2.15	0.56
49:S2:1118:C:O2	49:S2:1118:C:O4'	2.22	0.56
1:5:5035:U:N3	1:5:5036:C:C5	2.73	0.56
26:W:50:ASN:HA	26:W:55:TYR:CE2	2.40	0.56
48:4:331:GLU:HA	48:4:335:LEU:HB2	1.87	0.56
1:5:1324:A:H2'	1:5:1326:A:N7	2.20	0.56
1:5:1887:G:C6	1:5:1890:G:O6	2.59	0.56
49:S2:550:C:O2	49:S2:551:U:C6	2.59	0.56
1:5:3703:G:C5	1:5:3704:U:C5	2.93	0.56
49:S2:1709:G:C6	49:S2:1710:C:C5	2.93	0.56
1:5:3652:A:N7	1:5:3691:G:C2	2.74	0.56
1:5:209:U:O4	1:5:211:G:H1'	2.05	0.56
1:5:2726:G:N1	1:5:2727:C:N4	2.53	0.56
1:5:505:G:N2	1:5:506:C:C2	2.74	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:269:G:C2	1:5:270:U:C6	2.93	0.56
27:X:122:ALA:HB3	27:X:139:ARG:HG3	1.87	0.56
1:5:4563:U:O2	1:5:4564:A:N7	2.35	0.56
49:S2:1021:U:H4'	49:S2:1022:U:O4'	2.04	0.56
49:S2:923:G:C2	49:S2:924:G:N9	2.73	0.56
7:D:42:ASN:N	7:D:42:ASN:OD1	2.37	0.56
49:S2:856:C:N3	49:S2:857:U:C5	2.74	0.56
49:S2:958:G:O2'	49:S2:959:G:C5'	2.54	0.56
5:B:90:VAL:HB	5:B:104:THR:HG23	1.86	0.56
1:5:1334:A:C6	1:5:1335:G:C5	2.93	0.56
1:5:916:C:N3	1:5:918:G:O6	2.38	0.56
49:S2:1073:U:C2	49:S2:1074:C:C5	2.93	0.56
3:8:131:G:C2	3:8:132:G:N9	2.73	0.56
1:5:5019:A:C2	1:5:5020:G:C5	2.94	0.56
1:5:4735:G:C2	1:5:4736:C:C2	2.94	0.56
1:5:2668:G:C2'	1:5:2669:C:H5'	2.28	0.56
1:5:1341:U:O2	1:5:1342:A:C8	2.58	0.56
16:M:3:PHE:CB	16:M:6:PHE:CZ	2.89	0.56
1:5:3834:C:C2	1:5:3835:C:C5	2.94	0.56
1:5:1410:U:C5	1:5:1815:G:N1	2.73	0.56
1:5:2569:G:C6	1:5:2570:U:C4	2.94	0.56
1:5:1750:G:C6	1:5:1751:A:N7	2.73	0.56
49:S2:1753:C:C2	49:S2:1754:G:C8	2.94	0.56
49:S2:1777:G:C6	49:S2:1778:C:C4	2.92	0.56
49:S2:1776:G:C2	49:S2:1777:G:N7	2.74	0.56
1:5:183:C:H1'	1:5:184:U:N3	2.21	0.56
5:B:41:VAL:HG12	5:B:187:GLY:HA3	1.87	0.56
48:4:727:ARG:CG	48:4:727:ARG:HH11	2.17	0.56
1:5:2577:C:N3	1:5:2578:G:N7	2.54	0.56
1:5:1582:U:O4	1:5:1583:A:C5	2.59	0.56
1:5:3621:A:H1'	1:5:4655:A:H2	1.70	0.56
1:5:153:G:C2	1:5:154:G:C5	2.93	0.56
1:5:2634:C:C2	1:5:2635:U:C6	2.93	0.56
5:B:323:TYR:CB	5:B:342:LYS:HG2	2.35	0.56
1:5:3655:C:C2	1:5:3656:A:C8	2.94	0.56
1:5:2712:G:C6	1:5:2713:C:C5	2.92	0.56
49:S2:402:C:N4	49:S2:403:G:N7	2.54	0.56
1:5:4455:G:C6	1:5:4456:C:C4	2.94	0.56
61:SL:99:TYR:CE2	73:SX:13:LEU:HB3	2.40	0.56
1:5:932:A:H2'	1:5:932:A:N3	2.20	0.56
1:5:4189:U:H1'	1:5:4380:A:N3	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1298:C:C4	1:5:1299:G:N7	2.73	0.56
49:S2:360:A:H4'	49:S2:361:U:H3'	1.87	0.56
5:B:314:ILE:HD13	5:B:326:VAL:HG12	1.88	0.56
1:5:4660:G:C2	1:5:4661:G:C8	2.93	0.56
69:ST:76:THR:HG21	69:ST:97:LYS:HG3	1.87	0.56
66:SQ:62:ARG:HA	66:SQ:62:ARG:HH11	1.70	0.56
54:SE:51:ARG:HE	54:SE:51:ARG:HA	1.69	0.56
49:S2:325:C:O2	49:S2:326:C:C6	2.58	0.56
1:5:3923:A:C2	1:5:3924:C:C4	2.93	0.56
1:5:4666:G:C6	1:5:4667:C:C4	2.93	0.56
3:8:89:U:H2'	3:8:90:C:C6	2.40	0.56
8:E:102:VAL:HB	8:E:103:VAL:HG13	1.87	0.56
58:SI:62:VAL:HG12	58:SI:77:ARG:HA	1.88	0.56
49:S2:1184:G:C5	49:S2:1185:C:C5	2.93	0.56
48:4:744:ILE:CG1	48:4:745:TYR:H	2.17	0.56
1:5:1270:A:C6	1:5:1271:G:H1'	2.40	0.56
1:5:2324:C:O2	1:5:2324:C:H2'	2.04	0.56
1:5:2454:U:O2	1:5:2454:U:H2'	2.04	0.56
1:5:2505:C:H1'	1:5:2506:G:C4	2.40	0.56
9:F:71:ILE:HG22	9:F:75:ARG:HD2	1.86	0.56
49:S2:118:C:N1	49:S2:445:A:C2	2.73	0.56
49:S2:1794:C:N3	49:S2:1795:G:N7	2.53	0.56
49:S2:1085:C:C4	49:S2:1087:A:H1'	2.40	0.56
1:5:100:C:O4'	1:5:100:C:O2	2.22	0.56
1:5:3893:C:N3	1:5:4568:A:C2	2.73	0.56
1:5:4981:G:C6	1:5:4982:A:C4	2.93	0.56
1:5:4982:A:C5	1:5:4983:C:C6	2.93	0.56
49:S2:1592:C:N4	49:S2:1593:C:C5	2.73	0.56
49:S2:1593:C:O2	49:S2:1593:C:C2'	2.54	0.56
70:SU:66:ARG:HD2	70:SU:77:TRP:CD1	2.41	0.56
1:5:4239:A:N6	1:5:4240:G:N7	2.54	0.56
1:5:4324:A:C2	1:5:4325:A:N7	2.73	0.56
1:5:4896:G:C2	1:5:4897:G:C8	2.93	0.56
1:5:4897:G:C4	1:5:4898:G:C8	2.94	0.56
49:S2:1644:C:HO2'	49:S2:1645:C:C1'	2.17	0.56
62:SM:101:ARG:C	62:SM:102:LYS:HG2	2.25	0.56
62:SM:85:LEU:HA	62:SM:88:TRP:CZ2	2.38	0.56
1:5:1857:C:H2'	1:5:1858:A:H8	1.70	0.56
49:S2:532:C:O2	49:S2:533:A:C8	2.58	0.56
48:4:408:GLY:HA2	49:S2:479:C:H5"	1.86	0.56
1:5:3688:U:H2'	1:5:3688:U:O2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2880:U:N3	1:5:3625:G:C8	2.73	0.56
1:5:2692:U:H2'	1:5:2693:G:H5'	1.87	0.56
1:5:483:G:N3	1:5:484:U:C5	2.72	0.56
1:5:499:G:N3	1:5:499:G:H2'	2.20	0.56
49:S2:999:G:C5	49:S2:1000:C:C5	2.93	0.56
63:SN:113:PHE:O	63:SN:116:ILE:N	2.38	0.56
2:7:7:G:C2	2:7:8:G:C8	2.93	0.56
49:S2:920:A:O2'	49:S2:922:A:O5'	2.23	0.56
49:S2:927:C:C2	49:S2:928:G:N7	2.74	0.56
1:5:1945:G:H4'	1:5:1945:G:OP1	2.06	0.56
49:S2:105:U:H4'	58:SI:21:TYR:OH	2.04	0.56
1:5:1093:C:N3	1:5:1094:G:N7	2.54	0.56
1:5:246:G:C2	1:5:247:G:C5	2.93	0.56
2:7:93:G:C6	2:7:94:C:C5	2.94	0.56
1:5:936:C:C2'	16:M:46:ARG:NH1	2.68	0.56
49:S2:1776:G:N2	49:S2:1777:G:C4	2.73	0.56
49:S2:581:U:O2	74:SY:33:ALA:HB1	2.04	0.56
1:5:5061:A:C4'	1:5:5062:G:H5"	2.35	0.56
2:7:22:A:N3	2:7:23:A:N7	2.53	0.56
22:S:90:THR:HG23	23:T:156:TYR:CD2	2.40	0.56
49:S2:625:G:O4'	49:S2:629:A:H2	1.87	0.56
49:S2:357:C:C2	49:S2:358:C:C6	2.94	0.56
49:S2:1501:C:C2	49:S2:1502:C:C5	2.93	0.56
3:8:53:G:C5	3:8:54:C:C5	2.94	0.56
48:4:563:GLU:CD	48:4:563:GLU:C	2.63	0.56
26:W:4:GLU:OE1	26:W:30:GLN:NE2	2.29	0.56
54:SE:98:ASN:C	54:SE:99:PHE:HD1	2.09	0.56
49:S2:211:G:C2	49:S2:212:C:C2	2.94	0.56
1:5:1539:G:H1'	4:A:15:VAL:HG13	1.87	0.56
1:5:4633:G:O2'	1:5:4635:A:OP2	2.11	0.56
4:A:37:ARG:CZ	4:A:37:ARG:HB2	2.32	0.56
56:SG:26:THR:HG21	56:SG:40:ALA:HB3	1.87	0.56
68:SS:34:LYS:HB3	68:SS:103:LEU:HD21	1.88	0.56
59:SJ:120:ALA:O	59:SJ:121:LYS:CB	2.54	0.56
15:L:58:VAL:HG13	15:L:70:VAL:CG1	2.36	0.56
1:5:1850:A:H2'	1:5:1851:G:O5'	2.05	0.56
1:5:2084:C:H3'	1:5:2085:G:C5'	2.36	0.56
1:5:2463:G:N1	1:5:2464:C:C4	2.73	0.56
1:5:2744:A:O2'	1:5:2745:A:O5'	2.24	0.56
1:5:4088:C:C4	10:G:53:ARG:NH2	2.74	0.56
9:F:148:ASN:HB3	9:F:243:ASN:HD22	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1739:C:C2	49:S2:1740:C:C5	2.94	0.56
49:S2:340:C:N3	49:S2:341:C:C5	2.67	0.56
49:S2:447:A:N6	49:S2:449:A:C5	2.73	0.56
49:S2:672:A:N1	49:S2:1162:C:H1'	2.20	0.56
48:4:206:ASP:HB2	48:4:207:PRO:CD	2.22	0.56
1:5:1388:A:N1	1:5:1396:G:N2	2.48	0.56
1:5:1464:C:H2'	1:5:1464:C:O2	2.04	0.56
1:5:3731:C:O2	1:5:3732:A:H8	1.88	0.56
1:5:1189:G:C5	1:5:1190:C:C5	2.93	0.56
49:S2:1410:C:N3	49:S2:1411:G:C5	2.74	0.56
1:5:3858:C:C2	1:5:3859:G:C8	2.93	0.56
49:S2:1278:A:C6	49:S2:1279:C:C4	2.93	0.56
49:S2:1119:A:C5	49:S2:1120:U:H1'	2.41	0.56
1:5:1860:U:N3	1:5:1861:U:C5	2.73	0.56
1:5:1895:G:H2'	1:5:1896:A:O5'	2.04	0.56
49:S2:51:U:O2	49:S2:52:G:C8	2.58	0.56
1:5:497:G:C2	1:5:657:C:C2	2.94	0.56
1:5:655:C:N3	1:5:656:C:C5	2.73	0.56
1:5:671:G:N1	1:5:672:C:C4	2.74	0.56
1:5:4518:A:C2'	5:B:257:TRP:CZ3	2.89	0.56
49:S2:106:C:O2	49:S2:107:A:N7	2.38	0.56
3:8:37:A:OP2	11:H:89:ARG:HD3	164.73	0.56
1:5:173:C:N3	1:5:174:C:H5	1.99	0.56
49:S2:1074:C:C2	49:S2:1075:C:C6	2.87	0.56
49:S2:99:A:N1	49:S2:100:U:C6	2.72	0.56
1:5:4878:C:O2	1:5:4878:C:H2'	2.04	0.56
49:S2:805:U:O2	49:S2:806:U:C6	2.58	0.56
49:S2:1753:C:O2	49:S2:1754:G:C8	2.59	0.56
1:5:1831:G:C6	1:5:1832:C:C5	2.93	0.56
1:5:1547:A:C6	1:5:1582:U:H1'	2.40	0.56
2:7:111:C:O2	2:7:111:C:H2'	2.04	0.56
1:5:153:G:N1	1:5:154:G:N7	2.53	0.56
1:5:1348:U:C2	1:5:1349:G:C8	2.94	0.56
49:S2:562:U:H2'	49:S2:563:G:C8	2.40	0.56
1:5:2714:G:N2	1:5:2715:G:C4	2.73	0.56
48:4:369:CYS:HB3	48:4:386:LYS:HG3	1.86	0.56
49:S2:1502:C:C2	49:S2:1503:C:C5	2.94	0.56
49:S2:1811:C:C2	49:S2:1812:U:C6	2.93	0.56
1:5:4152:G:N3	1:5:4153:C:C6	2.74	0.56
1:5:258:G:N2	1:5:259:C:C2	2.72	0.56
1:5:1918:U:O2	1:5:1920:C:C5	2.58	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:943:U:C2	49:S2:944:A:C8	2.94	0.56
1:5:388:A:C6	1:5:411:G:C5	2.93	0.56
50:SA:158:ASP:OD2	50:SA:159:ILE:HB	2.05	0.56
59:SJ:132:GLN:HB2	59:SJ:134:HIS:HD2	1.69	0.56
49:S2:194:C:C2	49:S2:206:G:C2	2.94	0.56
49:S2:1115:U:O2	49:S2:1115:U:O4'	2.24	0.56
7:D:163:LEU:HD21	7:D:175:HIS:HB3	1.87	0.56
48:4:503:PRO:HB3	48:4:533:MET:SD	2.45	0.56
48:4:804:THR:HG1	48:4:808:ALA:HB2	1.63	0.56
1:5:1213:G:C5	1:5:1215:C:C1'	2.89	0.56
1:5:1219:G:N1	1:5:1220:G:C5	2.72	0.56
1:5:2339:G:C6	1:5:2340:C:C4	2.93	0.56
1:5:2451:A:C6	1:5:2452:G:C8	2.93	0.56
1:5:471:A:N6	1:5:472:C:C5	2.73	0.56
1:5:969:C:C2'	1:5:970:G:N3	2.69	0.56
48:4:675:ILE:HG22	48:4:709:LEU:HD13	1.86	0.56
49:S2:447:A:C5	49:S2:449:A:N9	2.74	0.56
1:5:1380:G:N1	1:5:1382:G:C2	2.74	0.56
1:5:1478:C:H2'	1:5:1479:G:H8	1.70	0.56
1:5:291:U:O2	1:5:293:G:H8	1.88	0.56
1:5:4343:U:C4	1:5:4344:U:C5	2.93	0.56
1:5:1177:U:C1'	7:D:282:GLN:NE2	2.67	0.56
49:S2:1406:G:C5	49:S2:1407:U:C6	2.94	0.56
49:S2:1419:C:OP2	69:ST:129:ARG:CA	2.43	0.56
49:S2:1568:C:OP1	69:ST:96:SER:OG	2.18	0.56
1:5:4269:G:C5	1:5:4270:C:C5	2.93	0.56
49:S2:675:U:C2	49:S2:676:C:C6	2.93	0.56
3:8:10:G:C4	3:8:11:C:C6	2.92	0.56
49:S2:647:U:O2	49:S2:647:U:C2'	2.51	0.56
1:5:5036:C:N3	1:5:5037:U:C5	2.74	0.56
1:5:1937:C:OP2	1:5:1938:C:O2'	2.22	0.56
1:5:4767:C:O3'	1:5:4874:A:N1	2.38	0.56
1:5:2034:G:C6	1:5:2035:C:N4	2.73	0.56
1:5:4095:G:N2	1:5:4096:C:C5	2.69	0.56
1:5:4723:A:C4	1:5:4724:A:C8	2.94	0.56
1:5:3594:C:H2'	1:5:3597:G:H1'	1.86	0.56
1:5:4479:A:N6	1:5:4480:A:C4	2.74	0.56
49:S2:862:A:C6	49:S2:863:U:C4	2.94	0.56
1:5:4684:A:H2'	1:5:4685:U:O4'	2.06	0.56
1:5:4698:C:C2'	1:5:4698:C:O2	2.53	0.56
1:5:1310:C:C4	1:5:1311:G:N7	2.73	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1776:A:C5	1:5:1777:C:C5	2.94	0.56
1:5:1812:C:C2	1:5:1813:U:C5	2.94	0.56
49:S2:291:G:C8	49:S2:291:G:C5'	2.88	0.56
1:5:4737:G:O2'	1:5:4738:C:O5'	2.23	0.56
1:5:1596:U:O2'	1:5:1597:G:P	2.64	0.56
49:S2:903:A:C5	49:S2:904:A:C8	2.94	0.56
27:X:116:LEU:HB2	27:X:117:TYR:CE1	2.41	0.56
48:4:393:PRO:O	48:4:393:PRO:HD2	2.06	0.56
49:S2:323:C:H3'	49:S2:324:C:C5'	2.35	0.56
1:5:4714:C:O2	1:5:4714:C:H2'	2.05	0.56
1:5:1882:U:O2	1:5:1883:G:N7	2.38	0.56
5:B:138:GLN:O	5:B:139:ASP:HB3	2.05	0.56
5:B:169:ARG:HG2	5:B:169:ARG:HH11	1.69	0.56
48:4:120:ARG:NH1	48:4:496:VAL:CA	2.69	0.56
48:4:501:VAL:O	48:4:501:VAL:HG12	2.06	0.56
48:4:744:ILE:HD11	48:4:816:HIS:CB	2.36	0.56
1:5:2097:U:O2	1:5:2097:U:C5'	2.52	0.56
1:5:2650:G:N2	1:5:2684:C:C2	2.74	0.56
1:5:4222:G:C6	1:5:4223:C:C4	2.94	0.56
1:5:4605:A:H2'	1:5:4606:G:C8	2.40	0.56
1:5:471:A:C2	1:5:472:C:H1'	2.40	0.56
14:K:59:THR:HA	14:K:80:LEU:HD13	1.87	0.56
14:K:97:ASN:N	14:K:98:ILE:HA	2.19	0.56
21:R:95:TRP:O	21:R:96:MET:C	2.44	0.56
49:S2:120:U:O4	49:S2:121:U:C4	2.59	0.56
49:S2:144:U:H2'	49:S2:145:G:C8	2.40	0.56
49:S2:348:A:C2'	49:S2:349:A:H5'	2.36	0.56
1:5:76:A:N7	15:L:74:ARG:NH2	2.54	0.56
49:S2:1533:A:H2	49:S2:1536:G:N3	2.03	0.56
1:5:4324:A:C2	1:5:4325:A:C6	2.94	0.56
49:S2:639:C:O2'	49:S2:640:A:C5'	2.53	0.56
1:5:3759:A:H61	49:S2:1709:G:H5'	1.70	0.56
1:5:2852:U:C2	1:5:2852:U:H3'	2.41	0.56
1:5:2857:A:N1	1:5:2858:A:C6	2.74	0.56
1:5:495:C:C4	1:5:496:G:N7	2.74	0.56
49:S2:1121:G:C5	49:S2:1122:A:N7	2.74	0.56
57:SH:105:THR:OG1	57:SH:108:SER:N	2.36	0.56
48:4:82:SER:O	48:4:86:LEU:HD12	2.05	0.56
49:S2:862:A:N7	72:SW:107:SER:HA	2.21	0.56
48:4:589:VAL:HG12	48:4:590:LEU:N	2.21	0.56
1:5:42:A:C6	1:5:4379:A:N1	2.73	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4628:U:O2	1:5:4628:U:H2'	2.06	0.56
49:S2:414:A:O2'	49:S2:415:A:C5'	2.54	0.56
1:5:4549:G:N1	1:5:4550:G:C5	2.74	0.56
49:S2:823:U:C4	74:SY:64:PHE:HE2	2.22	0.56
1:5:2400:G:C6	1:5:2401:A:N7	2.73	0.56
1:5:1398:A:C2	1:5:1399:G:H1'	2.41	0.56
6:C:78:ARG:HG2	6:C:78:ARG:HH11	1.70	0.56
49:S2:892:U:O2	49:S2:893:U:C6	2.59	0.56
49:S2:1115:U:H4'	49:S2:1116:C:OP1	2.06	0.56
71:SV:64:GLU:O	71:SV:66:ASP:N	2.37	0.56
1:5:4297:G:C2	1:5:4298:A:C8	2.93	0.56
29:Z:21:ARG:HG3	29:Z:21:ARG:HH11	1.70	0.56
1:5:2909:C:C2	1:5:3586:G:C2	2.93	0.56
57:SH:83:LEU:HD13	57:SH:92:VAL:HG21	1.87	0.56
1:5:4433:G:H2'	1:5:4434:C:C6	2.40	0.56
1:5:177:G:C6	1:5:178:C:C4	2.94	0.56
48:4:373:TYR:CE2	48:4:375:GLY:HA3	2.40	0.56
1:5:1049:C:O2	1:5:1050:C:C6	2.59	0.56
1:5:1279:A:O2'	1:5:1280:C:H5"	2.05	0.56
1:5:1868:A:C5	1:5:1870:C:H1'	2.41	0.56
1:5:2092:G:H1'	1:5:2093:A:C2	2.41	0.56
1:5:465:G:N2	1:5:466:A:H1'	2.21	0.56
8:E:95:ASP:OD1	8:E:96:LYS:N	2.38	0.56
9:F:82:ASN:HD21	23:T:142:ARG:HB3	1.70	0.56
14:K:147:HIS:N	14:K:147:HIS:CD2	2.73	0.56
48:4:49:ALA:N	48:4:55:ARG:HH22	2.03	0.56
49:S2:449:A:N6	49:S2:452:G:C4	2.74	0.56
1:5:1479:G:C2'	1:5:1480:C:O5'	2.54	0.56
1:5:3721:U:O2	1:5:3721:U:H2'	2.05	0.56
15:L:36:ARG:HH11	15:L:36:ARG:HB2	1.70	0.56
1:5:1173:G:C6	1:5:1174:G:C5	2.94	0.56
1:5:1177:U:H1'	7:D:282:GLN:CD	2.26	0.56
49:S2:949:G:C6	49:S2:950:C:C4	2.93	0.56
49:S2:1149:A:C2	49:S2:1151:G:C6	2.94	0.56
49:S2:1315:U:O4	49:S2:1316:C:C2	2.59	0.56
49:S2:830:A:N1	49:S2:844:U:C4	2.73	0.56
1:5:2490:U:H2'	1:5:2491:C:C6	2.40	0.56
1:5:2494:U:N3	1:5:2495:U:C5	2.74	0.56
1:5:78:U:C2	1:5:336:A:N6	2.73	0.56
1:5:2723:U:C2	1:5:2724:G:N7	2.74	0.56
1:5:2725:A:N6	21:R:88:ARG:O	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2521:G:C2	1:5:2535:G:C2	2.94	0.56
1:5:29:G:N2	1:5:30:C:C2	2.74	0.56
1:5:4192:A:C2	1:5:4204:C:N3	2.73	0.56
1:5:4109:G:C5	1:5:4110:C:C5	2.93	0.56
3:8:37:A:C4'	3:8:39:G:H1'	2.34	0.56
1:5:2422:C:N3	1:5:2423:A:N7	2.54	0.56
1:5:1634:A:C4	1:5:1635:C:C6	2.94	0.56
1:5:1340:C:N3	1:5:1341:U:C4	2.73	0.56
1:5:4482:U:O2	1:5:4482:U:H2'	2.04	0.56
13:J:107:PHE:CZ	13:J:130:PHE:CB	2.89	0.56
1:5:2735:G:N1	1:5:2736:G:C5	2.73	0.56
49:S2:1776:G:C2	49:S2:1777:G:C5	2.94	0.56
1:5:1806:G:C2	1:5:1807:C:C4	2.93	0.56
5:B:168:MET:HE3	5:B:171:LEU:HD12	1.88	0.56
1:5:190:G:C2	1:5:252:C:O2	2.57	0.56
49:S2:1241:A:H2'	49:S2:1242:U:O4'	2.05	0.56
1:5:1582:U:C4	1:5:1583:A:N7	2.74	0.56
1:5:2395:A:C2'	1:5:2806:A:HO2'	2.16	0.56
1:5:711:A:N1	1:5:712:C:C4	2.73	0.56
2:7:34:C:C2	2:7:35:U:C5	2.93	0.56
1:5:12:A:N1	1:5:14:C:C4	2.74	0.56
1:5:4152:G:C2	1:5:4153:C:C5	2.94	0.56
49:S2:1687:C:C2	49:S2:1688:C:C6	2.94	0.56
61:SL:39:ASN:C	61:SL:39:ASN:OD1	2.44	0.56
5:B:86:VAL:HG13	5:B:162:VAL:HG13	1.88	0.56
55:SF:86:LYS:HA	55:SF:89:THR:HG22	1.88	0.56
48:4:24:VAL:HG23	48:4:24:VAL:O	2.06	0.56
1:5:1279:A:H2'	1:5:1280:C:C6	2.35	0.56
1:5:1555:G:C6	1:5:1556:C:C5	2.93	0.56
1:5:1570:G:C5	1:5:1571:G:C8	2.94	0.56
1:5:1661:C:H2'	1:5:1662:C:H6	1.71	0.56
1:5:1691:G:C6	1:5:1692:C:C5	2.93	0.56
1:5:1697:G:C4'	1:5:1698:C:OP1	2.54	0.56
1:5:2451:A:C6	1:5:2452:G:C5	2.94	0.56
1:5:2645:G:C2	1:5:2646:C:N1	2.74	0.56
1:5:4174:U:O2	1:5:4174:U:H2'	2.05	0.56
1:5:693:C:C2	1:5:694:C:C5	2.94	0.56
1:5:994:G:C6	1:5:995:C:C4	2.94	0.56
9:F:93:PHE:CD1	9:F:93:PHE:C	2.79	0.56
49:S2:45:A:C2	49:S2:481:C:C1'	2.89	0.56
1:5:4413:C:O4'	1:5:4413:C:O2	2.23	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:122:G:H2'	49:S2:123:G:H1'	1.88	0.56
48:4:510:GLU:CB	48:4:571:LYS:O	2.54	0.56
49:S2:1368:U:C2	49:S2:1372:U:C4	2.93	0.56
49:S2:219:U:C2	49:S2:220:U:C6	2.94	0.56
49:S2:85:A:C2	49:S2:86:C:C6	2.94	0.56
49:S2:77:A:O3'	56:SG:173:ALA:HB3	2.06	0.56
1:5:1359:G:C2'	1:5:1360:G:C8	2.87	0.56
1:5:1377:G:C8	1:5:1378:C:H4'	2.40	0.56
1:5:288:G:C2	1:5:289:C:C4	2.93	0.56
1:5:314:G:C2	1:5:4355:G:N7	2.73	0.56
49:S2:1426:U:C2	49:S2:1427:C:C6	2.94	0.56
1:5:3857:G:N1	1:5:3858:C:C2	2.74	0.56
1:5:3756:A:C2	1:5:3757:G:C4	2.94	0.56
4:A:226:ARG:NH1	4:A:226:ARG:HB2	2.21	0.56
49:S2:749:U:C5	49:S2:750:C:C6	2.94	0.56
3:8:116:C:N3	3:8:117:C:C6	2.74	0.56
1:5:1589:C:C2'	1:5:1590:C:O5'	2.54	0.56
1:5:494:U:N3	1:5:495:C:C6	2.73	0.56
1:5:165:A:H3'	1:5:166:C:C6	2.40	0.56
49:S2:1250:A:C2	49:S2:1339:U:C1'	2.89	0.56
1:5:3880:G:O2'	1:5:3881:G:O5'	2.24	0.56
1:5:4091:G:C2	1:5:4092:G:N9	2.74	0.56
1:5:4098:A:C6	1:5:4099:G:N7	2.74	0.56
1:5:4099:G:C2	1:5:4100:C:C2	2.93	0.56
10:G:108:GLN:HE21	10:G:108:GLN:CA	2.19	0.56
1:5:2606:G:C2	1:5:2607:C:C5	2.94	0.56
1:5:5028:G:N2	1:5:5029:C:C2	2.73	0.56
1:5:4483:C:N3	1:5:4484:A:N7	2.54	0.56
1:5:751:G:C2	1:5:752:G:C8	2.93	0.56
1:5:4988:U:OP2	1:5:4988:U:H3'	2.05	0.56
1:5:1368:A:HO2'	1:5:1369:C:P	2.28	0.56
1:5:1743:A:O4'	7:D:15:ARG:HD3	2.04	0.56
1:5:1755:C:C3'	1:5:1756:U:H5"	2.36	0.56
48:4:723:PRO:O	48:4:727:ARG:HB2	2.06	0.56
1:5:4301:U:OP2	23:T:87:LYS:NZ	2.39	0.56
1:5:443:G:P	9:F:68:ARG:HH22	74.08	0.56
1:5:4504:C:C2	1:5:4505:C:C5	2.94	0.56
1:5:4152:G:C2	1:5:4153:C:C6	2.93	0.56
49:S2:898:U:N3	49:S2:899:U:C6	2.73	0.56
6:C:331:TYR:O	6:C:331:TYR:CG	2.59	0.56
2:7:69:U:N3	2:7:70:G:N7	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:62:ARG:HG3	5:B:62:ARG:HH11	1.70	0.56
52:SC:74:LYS:HG3	52:SC:269:PHE:CD2	2.41	0.56
4:A:118:GLU:HB3	4:A:126:LEU:HD21	1.88	0.56
18:O:84:VAL:HG11	18:O:102:LEU:HD22	1.88	0.56
49:S2:1261:C:C5	49:S2:1262:C:C5	2.93	0.56
58:SI:83:TYR:C	58:SI:83:TYR:CD1	2.79	0.56
1:5:1214:C:N4	9:F:58:HIS:ND1	2.54	0.56
1:5:1260:G:C2	1:5:1261:G:C4	2.94	0.56
1:5:1269:G:N7	1:5:2111:G:C6	2.74	0.56
1:5:1984:A:H62	1:5:2011:C:C2'	2.19	0.56
1:5:4164:C:C4	1:5:4165:C:C5	2.94	0.56
1:5:450:G:C6	1:5:1295:C:N3	2.74	0.56
14:K:61:LYS:HD3	14:K:72:GLU:C	2.25	0.56
1:5:4413:C:H5'	12:I:157:PHE:CE2	2.39	0.56
49:S2:376:A:C2	49:S2:377:G:N9	2.74	0.56
49:S2:68:A:C5	49:S2:69:C:C5	2.94	0.56
49:S2:1852:C:C2	49:S2:1853:C:C5	2.93	0.56
48:4:154:VAL:HA	48:4:205:ILE:HD11	1.86	0.56
1:5:1358:G:C2	1:5:1359:G:C5	2.94	0.56
1:5:1473:U:C4	1:5:1474:C:C5	2.94	0.56
1:5:290:U:H2'	1:5:291:U:O5'	2.06	0.56
1:5:331:G:C2	1:5:332:C:C4	2.93	0.56
1:5:3720:G:C6	1:5:3721:U:C5	2.94	0.56
1:5:98:A:C6	1:5:99:A:C4	2.94	0.56
49:S2:1398:G:H2'	49:S2:1398:G:N3	2.21	0.56
49:S2:1432:U:H2'	49:S2:1432:U:O2	2.04	0.56
49:S2:1588:A:O2'	49:S2:1589:A:C5'	2.54	0.56
1:5:4235:G:O5'	1:5:4331:G:O2'	2.24	0.56
1:5:5037:U:C2	1:5:5038:A:C8	2.94	0.56
1:5:2494:U:C4	1:5:2495:U:C5	2.94	0.56
1:5:4535:A:H2'	1:5:4535:A:N3	2.21	0.56
49:S2:1250:A:N3	49:S2:1339:U:H4'	2.21	0.56
49:S2:1338:G:C5	49:S2:1339:U:C5	2.94	0.56
49:S2:927:C:N3	49:S2:928:G:N7	2.54	0.56
49:S2:1124:C:C2	49:S2:1125:C:C5	2.93	0.56
49:S2:978:G:N2	49:S2:979:C:C2	2.73	0.56
1:5:4749:C:O2	1:5:4749:C:O4'	2.23	0.56
1:5:2589:C:H5"	1:5:2590:G:OP2	2.06	0.56
1:5:4473:A:C2	1:5:4474:A:C4	2.93	0.56
1:5:1774:C:N3	1:5:1775:A:N7	2.53	0.56
2:7:82:G:N2	2:7:95:C:C2	2.74	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2904:U:P	1:5:2905:C:H41	2.29	0.56
49:S2:580:U:C4	49:S2:581:U:C6	2.94	0.56
49:S2:1259:A:O2'	49:S2:1263:U:O2	2.22	0.56
1:5:2394:G:N2	1:5:2820:C:H5	2.04	0.56
51:SB:33:VAL:HG21	51:SB:67:PHE:HZ	1.71	0.56
1:5:2715:G:C4	1:5:2716:C:C5	2.93	0.56
1:5:1286:C:C2	1:5:1287:G:C8	2.93	0.56
48:4:12:ILE:HG22	48:4:99:LEU:HD22	1.87	0.56
49:S2:1484:A:C5'	53:SD:159:HIS:HB3	2.36	0.56
1:5:4957:C:O2	1:5:4958:C:C6	2.59	0.56
68:SS:111:LEU:HD22	68:SS:125:HIS:HD2	1.70	0.56
1:5:4205:A:C2	1:5:4206:C:C6	2.93	0.56
6:C:213:GLU:N	6:C:213:GLU:OE1	2.39	0.56
49:S2:1554:C:O2	49:S2:1554:C:O4'	2.23	0.56
51:SB:89:GLU:N	51:SB:89:GLU:OE2	2.39	0.56
28:Y:62:TYR:OH	28:Y:97:VAL:HB	2.06	0.56
15:L:9:ILE:O	15:L:10:LEU:HB2	2.05	0.56
49:S2:824:C:H2'	49:S2:825:A:C8	2.41	0.56
1:5:2463:G:H2'	1:5:2464:C:H6	1.71	0.55
1:5:3675:G:C2	1:5:3676:G:C8	2.94	0.55
1:5:4173:G:C2	1:5:4174:U:C6	2.94	0.55
1:5:469:C:C4	1:5:470:A:C5	2.93	0.55
1:5:677:G:N2	1:5:678:C:C2	2.74	0.55
1:5:964:A:H2	1:5:2252:G:C6	2.24	0.55
49:S2:149:A:C2'	49:S2:150:A:O4'	2.54	0.55
49:S2:297:A:C6	49:S2:298:G:C8	2.93	0.55
49:S2:351:G:C2	49:S2:352:U:C6	2.94	0.55
48:4:125:ALA:C	48:4:154:VAL:HG12	2.27	0.55
1:5:302:C:C2	1:5:303:C:C5	2.94	0.55
49:S2:1435:C:H2'	49:S2:1436:C:O4'	2.06	0.55
3:8:10:G:C6	3:8:11:C:C4	2.93	0.55
49:S2:27:A:N1	49:S2:28:U:C5	2.74	0.55
49:S2:27:A:N3	49:S2:28:U:C6	2.74	0.55
49:S2:637:U:O2	49:S2:638:C:C6	2.59	0.55
49:S2:1294:G:C6	49:S2:1295:A:N7	2.75	0.55
1:5:5043:A:O2'	1:5:5044:A:C5'	2.54	0.55
1:5:3871:A:H2'	1:5:3872:A:O5'	2.06	0.55
1:5:3873:G:H2'	1:5:3874:G:C1'	2.35	0.55
1:5:3754:G:N1	1:5:3755:G:C8	2.74	0.55
1:5:2783:A:C5	1:5:2784:C:C5	2.94	0.55
1:5:2726:G:C2	1:5:2727:C:N3	2.74	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:165:A:C5	1:5:166:C:C5	2.94	0.55
49:S2:926:A:C4	49:S2:927:C:C6	2.94	0.55
49:S2:945:U:O2	49:S2:1045:U:O2'	2.23	0.55
1:5:5020:G:C5	1:5:5021:C:C5	2.94	0.55
49:S2:574:A:O2'	49:S2:575:A:O5'	2.24	0.55
1:5:247:G:C2	1:5:248:C:C6	2.93	0.55
1:5:2772:C:C2	1:5:2773:G:C8	2.94	0.55
1:5:1749:A:H4'	12:I:35:ASP:OD2	2.05	0.55
49:S2:1776:G:N1	49:S2:1777:G:C5	2.74	0.55
49:S2:1779:G:C2	49:S2:1780:G:C8	2.94	0.55
1:5:183:C:H4'	1:5:184:U:C5	2.41	0.55
1:5:4133:C:O2	1:5:4134:C:C6	2.59	0.55
55:SF:83:ASN:HD22	55:SF:83:ASN:N	2.04	0.55
1:5:1287:G:N1	1:5:1289:C:C5	2.74	0.55
49:S2:695:C:N3	49:S2:696:G:C8	2.75	0.55
49:S2:1454:A:N7	49:S2:1476:A:C4	2.74	0.55
49:S2:1622:U:O4	68:SS:120:HIS:CE1	2.59	0.55
49:S2:1804:U:N3	49:S2:1805:G:C8	2.74	0.55
49:S2:172:U:O2	49:S2:172:U:C2'	2.52	0.55
3:8:139:G:C6	3:8:140:C:C4	2.94	0.55
49:S2:1387:G:N1	53:SD:206:ASP:OD2	2.33	0.55
50:SA:90:PHE:HB2	50:SA:179:ALA:HB2	1.87	0.55
58:SI:6:ASP:N	58:SI:6:ASP:OD1	2.38	0.55
48:4:816:HIS:CD2	48:4:818:GLN:N	2.73	0.55
1:5:1215:C:C4	1:5:1216:C:H5	2.24	0.55
1:5:1552:G:C2	1:5:1574:G:C2	2.94	0.55
1:5:1873:A:C2	1:5:1874:A:C8	2.94	0.55
1:5:2089:G:N1	1:5:2263:A:C5	2.74	0.55
1:5:2106:G:O2'	1:5:2107:C:O4'	2.11	0.55
1:5:2439:G:C6	1:5:2440:U:C4	2.94	0.55
1:5:2453:A:H1'	1:5:2507:A:C6	2.41	0.55
1:5:2686:G:H5'	1:5:2687:U:OP1	2.07	0.55
1:5:3935:C:C2	1:5:3936:A:C8	2.94	0.55
1:5:4083:U:H5'	4:A:31:ALA:HB2	1.87	0.55
1:5:471:A:C6	1:5:472:C:N1	2.74	0.55
1:5:688:U:O4	1:5:689:U:C5	2.60	0.55
1:5:964:A:C2	1:5:2252:G:N7	2.75	0.55
1:5:973:G:O6	1:5:1282:G:N2	2.38	0.55
14:K:47:ALA:CA	14:K:72:GLU:CD	2.74	0.55
20:Q:181:ARG:HB3	20:Q:181:ARG:HH21	1.71	0.55
49:S2:458:A:C5	49:S2:459:C:C6	2.92	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:449:A:H2'	49:S2:449:A:N3	2.20	0.55
49:S2:10:G:C8	49:S2:1697:A:N3	2.75	0.55
1:5:1479:G:C5	1:5:1487:G:N2	2.74	0.55
1:5:4344:U:O2	1:5:4345:C:C5	2.54	0.55
49:S2:1563:G:C6	49:S2:1564:C:C4	2.94	0.55
49:S2:1573:G:C6	49:S2:1574:C:C4	2.94	0.55
49:S2:633:C:C4	49:S2:634:A:N7	2.74	0.55
49:S2:830:A:OP2	49:S2:846:G:N2	2.36	0.55
1:5:4999:G:N1	1:5:5000:G:C8	2.73	0.55
48:4:330:LYS:NZ	48:4:330:LYS:CB	2.69	0.55
1:5:3759:A:O2'	49:S2:1826:G:H2'	2.06	0.55
1:5:2480:G:C2	1:5:2499:C:C2	2.94	0.55
1:5:497:G:C2	1:5:657:C:C4	2.94	0.55
1:5:497:G:N1	1:5:657:C:C4	2.75	0.55
1:5:659:G:N1	1:5:660:A:C5	2.74	0.55
1:5:1819:G:H2'	1:5:1819:G:N3	2.21	0.55
2:7:8:G:C4	2:7:9:C:C6	2.94	0.55
49:S2:834:C:C2	49:S2:841:G:C2	2.95	0.55
1:5:4092:G:N1	1:5:4093:G:N3	2.54	0.55
1:5:2658:G:N1	1:5:2675:G:C2	2.74	0.55
1:5:909:A:C6	1:5:910:G:C8	2.95	0.55
49:S2:623:G:N2	49:S2:624:C:H1'	2.22	0.55
49:S2:1776:G:N3	49:S2:1777:G:C8	2.74	0.55
1:5:737:C:C4	1:5:738:C:C5	2.94	0.55
1:5:4490:C:O2	1:5:4491:G:H8	1.89	0.55
1:5:4572:U:C2	1:5:4720:C:C5	2.94	0.55
1:5:3607:U:C2	1:5:3608:A:N7	2.74	0.55
49:S2:816:A:C6	49:S2:817:G:C4	2.95	0.55
49:S2:828:G:C5	49:S2:829:C:C5	2.94	0.55
1:5:949:G:C2	1:5:950:G:C8	2.94	0.55
1:5:15:A:H2'	1:5:16:G:O4'	2.06	0.55
49:S2:518:G:C2	49:S2:519:A:N7	2.74	0.55
49:S2:35:C:O2	49:S2:520:A:N1	2.39	0.55
1:5:4071:U:C2	1:5:4072:C:C6	2.94	0.55
49:S2:193:C:C2	49:S2:207:G:C2	2.94	0.55
1:5:2677:G:C5	1:5:2678:A:C8	2.94	0.55
49:S2:1585:U:C6	49:S2:1585:U:H5'	2.40	0.55
61:SL:15:THR:HG22	61:SL:15:THR:O	2.07	0.55
74:SY:60:PHE:HD1	74:SY:71:GLY:HA3	1.72	0.55
48:4:312:THR:HG23	48:4:313:ALA:N	2.21	0.55
49:S2:1077:A:C6	49:S2:1078:C:C5	2.95	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1171:G:O2'	49:S2:1172:U:OP2	2.25	0.55
6:C:334:THR:HG21	9:F:53:TYR:OH	2.06	0.55
48:4:144:ARG:HH12	48:4:781:MET:CE	2.18	0.55
48:4:189:ILE:CG2	48:4:203:ILE:CD1	2.84	0.55
48:4:575:PRO:HG2	48:4:577:VAL:CG2	2.36	0.55
48:4:749:ILE:HB	48:4:759:ILE:HD12	1.88	0.55
1:5:1048:G:C2	1:5:1049:C:C2	2.94	0.55
1:5:1215:C:H2'	1:5:1216:C:H5'	1.88	0.55
1:5:1437:C:O2	1:5:2098:G:N7	2.40	0.55
1:5:1447:C:C2	1:5:2098:G:N1	2.74	0.55
1:5:1691:G:C6	1:5:1692:C:C4	2.94	0.55
1:5:1899:G:H1'	1:5:2278:G:N2	2.19	0.55
1:5:1995:G:C4	1:5:1996:C:C5	2.93	0.55
1:5:2104:G:N1	1:5:2105:A:C5	2.75	0.55
1:5:1269:G:N9	1:5:2111:G:C6	2.75	0.55
1:5:2444:U:C5	1:5:2445:C:C5	2.94	0.55
1:5:471:A:C2	1:5:472:C:O4'	2.59	0.55
1:5:990:C:C4	1:5:1064:G:C2	2.94	0.55
1:5:1281:G:H1'	6:C:322:LEU:N	2.21	0.55
48:4:650:TRP:CE2	48:4:664:ASP:HB2	2.40	0.55
48:4:41:CYS:HA	48:4:48:SER:O	2.06	0.55
49:S2:92:A:C5	49:S2:447:A:N3	2.74	0.55
1:5:1475:G:H22	1:5:1489:G:H1	1.54	0.55
1:5:3734:U:C2'	1:5:3735:G:O5'	2.55	0.55
49:S2:1574:C:N3	49:S2:1575:G:C8	2.74	0.55
49:S2:1630:A:C6	49:S2:1631:U:C5	2.95	0.55
68:SS:86:ARG:HA	68:SS:86:ARG:NE	2.22	0.55
1:5:4215:C:N3	1:5:4216:G:C5	2.74	0.55
49:S2:1301:A:H2'	49:S2:1303:C:O2	2.06	0.55
62:SM:25:ALA:CB	62:SM:111:VAL:HG13	2.36	0.55
26:W:50:ASN:N	26:W:50:ASN:OD1	2.40	0.55
49:S2:52:G:C6	49:S2:53:C:C6	2.95	0.55
1:5:3753:G:C2	1:5:3754:G:C8	2.95	0.55
1:5:2479:G:C2	1:5:2480:G:C4	2.93	0.55
48:4:398:ILE:HD13	48:4:479:LEU:HD23	1.88	0.55
1:5:3694:U:N3	1:5:3695:U:C4	2.73	0.55
1:5:2855:G:N2	1:5:2859:G:H22	2.04	0.55
1:5:2034:G:N1	1:5:2035:C:C2	2.74	0.55
1:5:4102:C:C2	1:5:4108:G:C2	2.94	0.55
49:S2:1097:G:H4'	50:SA:32:PHE:CE2	2.41	0.55
49:S2:860:G:OP1	57:SH:107:LYS:NZ	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:8:43:A:N3	3:8:44:A:C8	2.73	0.55
54:SE:18:TRP:HB3	54:SE:46:ILE:HG21	1.87	0.55
6:C:102:PHE:O	6:C:103:ALA:C	2.43	0.55
48:4:316:ILE:CG2	48:4:321:ILE:O	2.54	0.55
49:S2:19:A:O3'	49:S2:620:G:H8	1.89	0.55
49:S2:96:C:O2	49:S2:473:A:O2'	2.24	0.55
1:5:42:A:N7	1:5:4379:A:N6	2.54	0.55
49:S2:413:G:C2'	49:S2:414:A:O5'	2.54	0.55
54:SE:47:PHE:CE1	54:SE:101:LEU:HD21	2.41	0.55
53:SD:99:ILE:O	53:SD:103:GLU:HB2	2.07	0.55
4:A:163:ARG:NH1	4:A:163:ARG:CB	2.69	0.55
1:5:712:C:N3	1:5:713:C:C5	2.75	0.55
1:5:4530:U:N3	1:5:4531:U:O2'	2.38	0.55
28:Y:62:TYR:N	28:Y:62:TYR:CD1	2.74	0.55
1:5:3778:U:O2	1:5:3778:U:H2'	2.06	0.55
48:4:43:ALA:O	48:4:45:ILE:CG2	2.55	0.55
48:4:500:SER:O	48:4:501:VAL:HB	2.07	0.55
48:4:73:THR:H	48:4:104:ASP:HB2	1.53	0.55
48:4:753:GLU:HB2	48:4:782:PHE:CZ	2.38	0.55
1:5:1249:C:C2	1:5:1250:C:C5	2.94	0.55
1:5:1266:G:C2	1:5:1268:G:C6	2.95	0.55
1:5:1554:A:C2	1:5:1555:G:H1'	2.41	0.55
1:5:2128:G:C2	1:5:2129:C:C2	2.94	0.55
1:5:2468:U:C4	1:5:2473:A:C6	2.95	0.55
1:5:2519:U:C2	1:5:2520:C:C4	2.95	0.55
1:5:470:A:C6	1:5:471:A:C4	2.95	0.55
14:K:123:ARG:CG	14:K:129:ILE:HD11	1.91	0.55
14:K:43:GLY:O	14:K:72:GLU:OE2	2.25	0.55
49:S2:171:A:C5	49:S2:173:A:C5	2.94	0.55
49:S2:378:U:O2	49:S2:379:C:C6	2.60	0.55
49:S2:452:G:N3	49:S2:453:C:C5	2.71	0.55
49:S2:455:A:O2'	49:S2:1735:A:O2'	2.24	0.55
48:4:126:LEU:HD11	48:4:156:MET:CG	2.36	0.55
1:5:293:G:H2'	1:5:297:U:N1	2.21	0.55
1:5:3741:C:N3	1:5:3742:G:C5	2.74	0.55
49:S2:1405:A:N1	49:S2:1406:G:C4	2.75	0.55
49:S2:1408:U:H2'	49:S2:1409:A:C1'	2.36	0.55
49:S2:1233:G:C6	49:S2:1234:C:C4	2.94	0.55
49:S2:1588:A:H4'	69:ST:92:PHE:HE2	1.72	0.55
49:S2:1589:A:C2'	49:S2:1590:C:O4'	2.55	0.55
1:5:1534:A:C2'	1:5:1637:A:C2	2.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2404:A:H61	1:5:2787:A:N6	2.04	0.55
2:7:19:C:C2	2:7:20:U:C5	2.94	0.55
49:S2:1283:C:C4	62:SM:103:VAL:HA	2.41	0.55
1:5:3879:G:C6	1:5:3882:C:C6	2.94	0.55
49:S2:752:G:N2	49:S2:790:C:C2	2.75	0.55
1:5:2522:G:HO2'	1:5:2697:A:HO2'	1.52	0.55
1:5:3870:C:C2	1:5:3886:G:C2	2.94	0.55
1:5:4563:U:C4	1:5:4564:A:C6	2.94	0.55
1:5:1950:U:C2	1:5:1951:G:N7	2.74	0.55
1:5:4481:U:N3	1:5:4482:U:C5	2.74	0.55
1:5:4911:A:N6	18:O:105:PHE:CD1	2.73	0.55
49:S2:600:G:C5	49:S2:631:U:O4	2.59	0.55
49:S2:1773:C:N3	49:S2:1774:C:C5	2.73	0.55
1:5:125:C:O2	1:5:125:C:H2'	2.05	0.55
1:5:126:C:C2	1:5:127:G:N7	2.72	0.55
49:S2:1518:C:O2	49:S2:1518:C:O4'	2.24	0.55
1:5:4976:U:O4	5:B:342:LYS:CD	2.52	0.55
2:7:33:U:O2	2:7:34:C:C6	2.60	0.55
48:4:16:LYS:H	48:4:16:LYS:HE3	1.71	0.55
1:5:258:G:C6	1:5:259:C:C4	2.94	0.55
7:D:107:ARG:HD3	7:D:248:ARG:CG	2.36	0.55
48:4:475:VAL:O	48:4:475:VAL:CG1	2.54	0.55
50:SA:56:GLU:OE1	71:SV:82:ASN:ND2	2.38	0.55
6:C:317:ASN:HD21	6:C:320:LYS:HG3	1.72	0.55
1:5:1089:G:C5'	23:T:140:PHE:CE1	2.89	0.55
53:SD:152:PHE:N	53:SD:152:PHE:CD1	2.71	0.55
1:5:4620:U:C4	1:5:4621:C:C5	2.94	0.55
3:8:141:C:H2'	3:8:142:U:C6	2.41	0.55
1:5:5039:U:H5"	1:5:5040:U:H2'	1.88	0.55
52:SC:134:ASN:C	52:SC:134:ASN:HD22	2.08	0.55
1:5:4670:C:O2	25:V:15:ARG:NH2	2.39	0.55
4:A:234:LYS:HG2	4:A:238:ILE:HD12	1.89	0.55
70:SU:93:SER:HB2	70:SU:97:ILE:HB	1.89	0.55
48:4:150:ARG:HB2	48:4:368:ARG:HG3	1.88	0.55
48:4:3:ASN:CB	48:4:47:ALA:O	2.54	0.55
1:5:1864:G:C6	1:5:1865:G:C4	2.94	0.55
1:5:1877:G:C6	1:5:1878:G:C5	2.94	0.55
1:5:2291:G:N1	1:5:2292:C:C5	2.75	0.55
1:5:4081:G:N3	1:5:4082:G:C8	2.74	0.55
1:5:4405:G:C5	1:5:4406:U:C6	2.94	0.55
1:5:961:G:O6	1:5:969:C:C5	2.59	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:113:ALA:HA	14:K:116:MET:CG	2.37	0.55
49:S2:1453:C:C4	49:S2:1455:A:N9	2.75	0.55
49:S2:1467:C:C2	49:S2:1468:C:C6	2.95	0.55
49:S2:170:A:H4'	56:SG:136:LYS:HD2	1.89	0.55
49:S2:180:G:H3'	49:S2:181:A:H3'	1.89	0.55
1:5:288:G:N3	1:5:289:C:C6	2.75	0.55
49:S2:1426:U:N3	49:S2:1427:C:C5	2.75	0.55
68:SS:82:TRP:C	68:SS:84:LEU:H	2.10	0.55
1:5:4277:G:C2	1:5:4278:C:N1	2.75	0.55
49:S2:1029:G:N2	49:S2:1030:A:H1'	2.22	0.55
2:7:19:C:C2	2:7:60:G:C2	2.94	0.55
62:SM:15:ASN:O	62:SM:19:GLN:HG3	2.06	0.55
26:W:55:TYR:HD1	26:W:55:TYR:C	2.09	0.55
1:5:2482:C:C2	1:5:2483:G:C8	2.95	0.55
1:5:2496:G:C2	1:5:2497:C:C2	2.94	0.55
1:5:211:G:N2	1:5:212:A:C8	2.74	0.55
1:5:2857:A:O2'	1:5:2858:A:C5'	2.54	0.55
1:5:656:C:C2	1:5:657:C:C6	2.95	0.55
48:4:191:THR:HG22	48:4:192:TYR:CG	2.41	0.55
2:7:7:G:OP1	7:D:33:ARG:HD2	2.06	0.55
49:S2:921:G:O6	72:SW:28:ARG:HG3	2.05	0.55
1:5:1946:G:C2	1:5:1948:G:C8	2.95	0.55
1:5:1945:G:C2'	1:5:1946:G:H5'	2.34	0.55
1:5:2034:G:C2	1:5:2035:C:C2	2.95	0.55
1:5:3910:C:H2'	1:5:3911:C:H6	1.70	0.55
1:5:4092:G:N2	1:5:4158:C:C2	2.75	0.55
3:8:42:G:N1	3:8:43:A:C5	2.75	0.55
1:5:4652:G:C2	1:5:4653:C:C5	2.94	0.55
1:5:5031:G:C2	1:5:5032:C:C5	2.95	0.55
1:5:4747:C:H2'	1:5:4748:U:C5	2.42	0.55
49:S2:20:G:P	49:S2:620:G:C8	2.99	0.55
49:S2:862:A:N1	49:S2:863:U:C6	2.74	0.55
1:5:515:C:H2'	1:5:515:C:O2	2.04	0.55
1:5:1413:C:O2	1:5:1414:C:C6	2.60	0.55
1:5:144:G:N1	1:5:145:G:N7	2.54	0.55
1:5:145:G:C2	1:5:146:G:N9	2.75	0.55
1:5:1725:U:C4	1:5:1726:U:C5	2.95	0.55
53:SD:107:TYR:HA	53:SD:110:LEU:HB3	1.88	0.55
1:5:4145:C:O2	1:5:4146:G:C8	2.59	0.55
49:S2:1659:U:H2'	49:S2:1659:U:O2	2.07	0.55
51:SB:133:TYR:CE2	51:SB:181:LEU:CD1	2.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1142:G:N2	49:S2:1144:A:H3'	2.22	0.55
49:S2:1325:G:N1	49:S2:1327:G:C5	2.75	0.55
1:5:2721:G:C2'	1:5:2722:G:H5'	2.36	0.55
1:5:1912:G:C4	1:5:1913:C:C5	2.94	0.55
22:S:35:PRO:HD2	22:S:39:VAL:HG21	1.87	0.55
1:5:405:U:O2	1:5:405:U:H2'	2.07	0.55
29:Z:21:ARG:NH1	29:Z:21:ARG:HG3	2.22	0.55
1:5:2866:C:C4	1:5:2867:C:C5	2.95	0.55
48:4:842:LYS:N	48:4:842:LYS:HD3	2.21	0.55
18:O:16:LEU:HD11	18:O:83:THR:HG21	1.89	0.55
48:4:532:PRO:CD	48:4:533:MET:H	2.20	0.55
48:4:752:PRO:CD	48:4:755:VAL:HG23	2.35	0.55
1:5:1688:G:C2	1:5:1849:U:O2	2.59	0.55
1:5:1878:G:N3	1:5:1879:C:C5	2.75	0.55
1:5:1970:A:C2	1:5:2016:C:C5	2.95	0.55
1:5:2104:G:H2'	1:5:2105:A:O4'	2.07	0.55
1:5:2328:G:C5	1:5:2329:U:C4	2.94	0.55
1:5:4164:C:C2	1:5:4165:C:C6	2.95	0.55
1:5:460:C:C2	1:5:461:G:N7	2.74	0.55
14:K:40:LYS:HD2	14:K:41:LYS:N	2.21	0.55
49:S2:1466:G:N1	49:S2:1467:C:C4	2.74	0.55
49:S2:447:A:N6	49:S2:449:A:C6	2.74	0.55
67:SR:54:VAL:O	67:SR:58:MET:HG2	2.07	0.55
49:S2:11:A:C6	49:S2:12:U:C5	2.95	0.55
48:4:206:ASP:HB3	48:4:207:PRO:HD3	0.56	0.55
1:5:332:C:C2'	1:5:333:U:O5'	2.55	0.55
1:5:3717:A:O2'	1:5:3718:A:C4'	2.54	0.55
49:S2:1550:G:OP2	53:SD:8:LYS:NZ	2.35	0.55
1:5:4270:C:H2'	1:5:4270:C:O2	1.98	0.55
1:5:2367:A:N3	1:5:2368:A:C8	2.75	0.55
1:5:2791:C:O2	1:5:2791:C:H2'	2.05	0.55
49:S2:1224:G:C6	49:S2:1225:U:C2	2.95	0.55
60:SK:52:LEU:HD11	60:SK:79:LEU:HD21	1.88	0.55
62:SM:85:LEU:HA	62:SM:88:TRP:HH2	1.64	0.55
1:5:4998:G:N1	1:5:4999:G:C8	2.74	0.55
1:5:3816:A:OP1	1:5:3818:U:H5	1.89	0.55
49:S2:167:G:H2'	49:S2:168:C:O4'	2.07	0.55
48:4:402:VAL:C	48:4:403:PRO:O	2.40	0.55
1:5:1627:G:H3'	1:5:1628:C:H6	1.71	0.55
1:5:105:A:H2'	1:5:106:A:O4'	2.07	0.55
1:5:2840:A:C6	1:5:2841:G:N7	2.74	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2688:G:C2	1:5:2689:C:C5	2.95	0.55
7:D:119:TYR:CD1	7:D:119:TYR:N	2.72	0.55
1:5:4194:U:O4'	1:5:4194:U:O2	2.23	0.55
3:8:39:G:C2	3:8:104:A:C2	2.95	0.55
3:8:38:U:H2'	3:8:38:U:O2	2.05	0.55
1:5:2382:A:N3	1:5:2382:A:H2'	2.21	0.55
1:5:2417:A:N3	1:5:2418:A:C8	2.75	0.55
1:5:3593:C:C4'	1:5:3594:C:OP2	2.54	0.55
1:5:4484:A:C2	1:5:4485:C:C4	2.95	0.55
49:S2:622:C:C4	49:S2:623:G:H1'	2.42	0.55
1:5:733:A:N7	1:5:734:G:C8	2.74	0.55
1:5:4333:C:N3	1:5:4334:U:C4	2.75	0.55
49:S2:1263:U:H5"	53:SD:27:ARG:HH12	23.05	0.55
2:7:111:C:C2	2:7:112:U:C6	2.93	0.55
1:5:2392:C:H2'	1:5:2392:C:O2	2.05	0.55
51:SB:81:PHE:HB3	51:SB:109:LYS:HB2	1.89	0.55
1:5:3888:G:O2'	1:5:3889:G:OP1	2.11	0.55
8:E:277:ILE:N	8:E:278:TYR:CE2	2.74	0.55
49:S2:898:U:C2	49:S2:899:U:C6	2.94	0.55
49:S2:140:C:O2'	49:S2:141:A:O4'	2.23	0.55
1:5:1509:C:C2	1:5:1510:G:C8	2.95	0.55
59:SJ:69:ARG:HD2	59:SJ:73:GLU:HG3	1.88	0.55
1:5:388:A:N6	1:5:411:G:C4	2.75	0.55
5:B:46:PHE:CE2	5:B:207:VAL:HG13	2.42	0.55
6:C:270:ALA:HA	6:C:278:ASN:HD21	1.71	0.55
1:5:4768:G:H3'	1:5:4769:G:H8	1.72	0.55
63:SN:99:ARG:HH21	63:SN:115:LEU:HD11	1.71	0.55
2:7:89:G:H2'	2:7:90:A:C8	2.41	0.55
48:4:46:ILE:CG2	48:4:454:MET:SD	2.95	0.55
1:5:1080:C:N3	1:5:1081:C:C6	2.74	0.55
1:5:1898:C:N4	1:5:2279:A:HO2'	2.05	0.55
1:5:2080:U:N3	1:5:2081:C:N4	2.55	0.55
1:5:2100:A:C8	1:5:2101:C:C5	2.95	0.55
1:5:2129:C:C2	1:5:2130:G:C8	2.95	0.55
1:5:447:C:N3	1:5:448:G:C8	2.74	0.55
1:5:448:G:N1	1:5:449:C:C6	2.74	0.55
1:5:1282:G:C8	8:E:124:HIS:CE1	2.94	0.55
12:I:100:ASN:O	12:I:102:MET:N	2.37	0.55
14:K:47:ALA:HA	14:K:72:GLU:CD	2.25	0.55
1:5:4413:C:H3'	1:5:4414:A:C8	2.39	0.55
49:S2:1034:A:C5	49:S2:1082:A:C6	2.95	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:10:G:H8	49:S2:1697:A:O2'	1.90	0.55
48:4:206:ASP:C	48:4:212:VAL:CG2	2.73	0.55
1:5:299:C:C4	1:5:300:A:N7	2.74	0.55
1:5:66:A:C2	1:5:312:G:H1'	2.40	0.55
1:5:4979:A:H2'	1:5:4980:C:O5'	2.06	0.55
1:5:83:C:H2'	1:5:83:C:O2	2.07	0.55
1:5:90:G:N7	1:5:92:C:C1'	2.70	0.55
49:S2:1442:U:C2'	49:S2:1442:U:O2	2.54	0.55
1:5:4241:C:N3	1:5:4242:U:H5	2.03	0.55
1:5:4271:A:C3'	1:5:4272:G:H21	2.19	0.55
49:S2:29:G:H2'	49:S2:30:C:C6	2.42	0.55
1:5:4998:G:C2	1:5:4999:G:N9	2.74	0.55
48:4:297:ILE:C	48:4:300:VAL:HG22	2.25	0.55
49:S2:798:A:O3'	49:S2:798:A:OP1	2.24	0.55
1:5:208:A:C4'	1:5:232:G:N2	2.68	0.55
1:5:1932:A:H2'	1:5:1933:G:C8	2.42	0.55
1:5:29:G:N1	1:5:30:C:C4	2.75	0.55
1:5:44:A:C6	1:5:45:U:C5	2.95	0.55
49:S2:956:G:O6	49:S2:968:U:C2	2.59	0.55
1:5:919:C:H2'	1:5:920:C:O4'	2.07	0.55
1:5:172:C:O4'	1:5:172:C:OP1	2.24	0.55
1:5:4560:C:C2	1:5:4560:C:H5'	2.42	0.55
1:5:3797:C:O2	1:5:3801:U:O4	2.25	0.55
49:S2:1781:A:N3	49:S2:1782:G:N7	2.54	0.55
49:S2:185:G:C4	49:S2:186:C:C5	2.94	0.55
1:5:4550:G:N1	1:5:4551:U:C6	2.75	0.55
1:5:711:A:N3	1:5:712:C:C6	2.75	0.55
48:4:140:GLU:HG3	48:4:188:ILE:CD1	2.36	0.55
5:B:307:TYR:HD2	5:B:366:LYS:HD2	1.71	0.55
1:5:4293:U:O4	1:5:4329:G:H8	1.89	0.55
49:S2:1153:C:O4'	49:S2:1153:C:O2	2.20	0.55
56:SG:70:HIS:CD2	56:SG:103:ASP:OD2	2.59	0.55
49:S2:328:U:H2'	49:S2:329:G:C8	2.42	0.55
1:5:1210:C:H2'	1:5:1210:C:O2	2.06	0.55
48:4:518:PRO:HB3	73:SX:75:ILE:HD12	1.89	0.55
48:4:576:VAL:O	48:4:577:VAL:HB	2.07	0.55
14:K:30:PRO:HB3	48:4:775:GLN:O	2.07	0.55
1:5:1076:C:C2	1:5:1077:C:C6	2.94	0.55
1:5:1555:G:C5	1:5:1556:C:C6	2.95	0.55
1:5:1684:A:C2	1:5:1685:G:C1'	2.90	0.55
1:5:2081:C:C2	1:5:2082:G:N7	2.75	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2253:A:H8	1:5:2254:G:H1'	1.72	0.55
1:5:4601:U:H2'	1:5:4601:U:O2	2.07	0.55
1:5:675:C:N3	1:5:676:C:C5	2.75	0.55
1:5:977:C:C2'	1:5:978:G:H5'	2.36	0.55
21:R:106:LEU:O	21:R:107:ARG:C	3.32	0.55
12:I:159:PHE:HB3	12:I:163:GLN:HE22	1.71	0.55
48:4:591:CYS:SG	48:4:591:CYS:O	2.64	0.55
48:4:591:CYS:SG	48:4:732:SER:CB	2.94	0.55
49:S2:223:C:H2'	49:S2:224:A:C8	2.42	0.55
49:S2:294:U:H4'	49:S2:295:C:OP2	2.06	0.55
49:S2:85:A:N3	49:S2:86:C:C6	2.75	0.55
1:5:1393:G:H2'	1:5:1394:G:C5'	2.37	0.55
1:5:299:C:N3	1:5:300:A:C8	2.74	0.55
49:S2:1430:C:N4	49:S2:1431:G:N7	2.54	0.55
49:S2:1606:G:O2'	49:S2:1633:A:N6	2.35	0.55
1:5:4275:G:C6	1:5:4276:G:C4	2.95	0.55
49:S2:678:U:N3	49:S2:679:A:C8	2.75	0.55
49:S2:1133:A:N3	49:S2:1134:G:C8	2.73	0.55
49:S2:1271:C:N4	49:S2:1272:C:C4	2.75	0.55
49:S2:53:C:C2	49:S2:54:A:H8	2.20	0.55
1:5:3773:U:O2	1:5:3775:A:N1	2.40	0.55
48:4:398:ILE:HD11	48:4:479:LEU:HD23	1.88	0.55
1:5:1629:G:N2	1:5:1631:A:C4	2.75	0.55
3:8:74:U:N3	28:Y:74:TYR:CE1	2.75	0.55
1:5:483:G:N3	1:5:484:U:C6	2.75	0.55
1:5:5057:C:O3'	7:D:23:ARG:NH2	166.48	0.55
1:5:2034:G:H5'	1:5:2035:C:OP2	2.06	0.55
1:5:49:U:C2'	1:5:50:C:O5'	2.55	0.55
1:5:4097:G:C2	1:5:4098:A:C5	2.95	0.55
1:5:4104:G:O2'	1:5:4105:A:H8	1.89	0.55
1:5:2606:G:C2	1:5:2607:C:C4	2.95	0.55
48:4:81:LEU:HB3	48:4:86:LEU:HD12	1.89	0.55
48:4:622:VAL:HG11	48:4:635:LEU:CD2	2.35	0.55
3:8:134:G:C6	3:8:135:C:C4	2.94	0.55
49:S2:576:A:H2'	49:S2:577:U:O4'	2.07	0.55
1:5:4735:G:C6	1:5:4736:C:C5	2.94	0.55
49:S2:46:A:C5	49:S2:473:A:C2	2.95	0.55
1:5:1203:G:C2	1:5:1204:C:N1	2.75	0.55
1:5:514:U:H3'	1:5:514:U:C6	2.42	0.55
1:5:4885:U:O2	1:5:4886:C:C6	2.59	0.55
1:5:2567:G:C4	1:5:2568:C:C6	2.94	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:623:G:H21	49:S2:624:C:H1'	1.71	0.55
1:5:184:U:C2	1:5:254:G:N2	2.75	0.55
1:5:1726:U:O2	1:5:1727:U:C6	2.60	0.55
1:5:2390:G:C6	1:5:2391:G:C8	2.94	0.55
15:L:23:ALA:HB3	17:N:199:GLN:OE1	2.07	0.55
49:S2:526:A:O2'	59:SJ:125:HIS:ND1	2.22	0.55
1:5:60:G:N3	1:5:61:A:C8	2.74	0.55
1:5:219:G:C8	1:5:220:C:H5	2.25	0.55
1:5:4872:G:O2'	1:5:4873:G:OP1	2.20	0.55
7:D:123:VAL:HG22	7:D:248:ARG:NH2	2.22	0.55
26:W:28:VAL:HG12	26:W:30:GLN:OE1	2.05	0.55
7:D:27:LYS:CE	13:J:147:ARG:NH2	2.69	0.55
3:8:139:G:C5	3:8:140:C:C5	2.95	0.55
52:SC:253:PRO:O	52:SC:256:TRP:HB2	2.07	0.55
49:S2:212:C:N3	49:S2:213:G:C8	2.75	0.55
71:SV:64:GLU:O	71:SV:65:SER:C	2.44	0.55
9:F:107:VAL:HG11	9:F:141:TYR:CE1	2.42	0.55
60:SK:61:GLN:OE1	60:SK:61:GLN:HA	2.05	0.55
1:5:365:U:O2	1:5:365:U:H2'	2.06	0.55
49:S2:1535:U:H1'	55:SF:88:MET:SD	2.47	0.55
58:SI:110:ARG:NH1	58:SI:121:LEU:HB2	2.21	0.55
48:4:798:ALA:O	48:4:801:ARG:HG3	2.06	0.55
1:5:1211:G:N2	1:5:1212:G:C4	2.75	0.55
1:5:1899:G:C6	1:5:1900:C:N4	2.75	0.55
1:5:2082:G:C2'	1:5:2083:C:O5'	2.55	0.55
1:5:4403:U:H2'	1:5:4404:U:O4'	2.07	0.55
1:5:460:C:H2'	1:5:461:G:C8	2.42	0.55
14:K:32:ILE:C	14:K:34:PRO:CD	2.74	0.55
48:4:659:PRO:HG2	48:4:698:ARG:CZ	2.25	0.55
48:4:689:GLU:C	48:4:730:TYR:CZ	2.65	0.55
49:S2:1738:C:C4	49:S2:1739:C:C5	2.95	0.55
49:S2:298:G:C6	49:S2:299:A:N7	2.74	0.55
49:S2:70:G:C5	49:S2:71:G:N7	2.75	0.55
49:S2:92:A:C5	49:S2:447:A:C2	2.95	0.55
49:S2:1860:A:N1	49:S2:1862:G:C5	2.75	0.55
1:5:293:G:C5'	1:5:294:G:H8	2.20	0.55
49:S2:1233:G:C5	49:S2:1234:C:C5	2.95	0.55
1:5:2368:A:N1	1:5:2788:U:C5	2.75	0.55
1:5:2792:C:C2	1:5:2793:G:C8	2.95	0.55
1:5:3771:C:H2'	1:5:3772:U:C6	2.42	0.55
49:S2:164:A:H2'	49:S2:165:G:C2	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:165:G:H5"	56:SG:110:ASN:HB2	1.88	0.55
48:4:183:GLU:CA	48:4:183:GLU:OE1	2.55	0.55
49:S2:794:A:N3	49:S2:795:A:C8	2.75	0.55
3:8:78:G:H2'	3:8:79:G:O4'	2.07	0.55
3:8:95:A:N3	3:8:96:C:C6	2.75	0.55
1:5:4097:G:N2	1:5:4098:A:C4	2.75	0.55
1:5:2607:C:C2	1:5:2608:G:N7	2.75	0.55
48:4:316:ILE:HG22	48:4:321:ILE:O	2.06	0.55
1:5:172:C:C2	1:5:173:C:C5	2.95	0.55
1:5:1723:A:N1	1:5:1838:A:N1	2.55	0.55
17:N:37:HIS:C	17:N:37:HIS:CD2	2.80	0.55
1:5:3832:U:N3	1:5:3833:C:C5	2.75	0.55
49:S2:910:G:C4	49:S2:911:C:C6	2.95	0.55
1:5:515:C:C2	1:5:516:C:C5	2.95	0.55
1:5:754:U:C2	1:5:755:C:C5	2.95	0.55
1:5:1761:G:C6	1:5:1762:C:C4	2.95	0.55
1:5:184:U:C2	1:5:254:G:C2	2.95	0.55
1:5:5061:A:H4'	1:5:5062:G:H5"	1.87	0.55
1:5:1726:U:N3	1:5:1727:U:C6	2.75	0.55
1:5:1583:A:N7	1:5:1584:G:C8	2.74	0.55
1:5:2576:G:C2	1:5:2577:C:N1	2.75	0.55
1:5:3656:A:N3	1:5:3657:U:C6	2.75	0.55
29:Z:36:ARG:HD2	29:Z:38:TYR:CE1	2.41	0.55
49:S2:1822:A:C8	49:S2:1823:A:H2'	2.42	0.55
49:S2:893:U:C2	49:S2:894:G:C8	2.95	0.55
12:I:66:GLU:OE1	12:I:69:ARG:NH1	2.40	0.55
1:5:4251:A:N6	13:J:127:GLY:O	2.39	0.55
49:S2:194:C:C2	49:S2:206:G:N2	2.75	0.55
48:4:265:TYR:CD1	48:4:265:TYR:N	2.74	0.55
1:5:1786:A:H2'	1:5:1789:C:C5	2.42	0.55
48:4:189:ILE:HG23	48:4:203:ILE:CD1	2.37	0.55
48:4:752:PRO:C	48:4:754:GLN:N	2.59	0.55
1:5:1086:C:H2'	1:5:1086:C:O2	2.05	0.55
1:5:1268:G:H4'	1:5:1269:G:OP1	2.06	0.55
1:5:1272:C:H3'	1:5:2122:G:O2'	2.07	0.55
1:5:1444:G:C2'	1:5:1445:U:C6	2.78	0.55
1:5:1846:G:C6	1:5:1847:C:N4	2.74	0.55
1:5:2014:C:C4	1:5:2015:U:C5	2.95	0.55
1:5:2103:G:C6	1:5:2104:G:C5	2.95	0.55
1:5:2319:C:H2'	1:5:2320:G:H5'	1.89	0.55
1:5:2450:G:C5	1:5:2451:A:C8	2.95	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4222:G:C6	1:5:4223:C:C5	2.94	0.55
9:F:197:TYR:O	9:F:199:VAL:N	2.40	0.55
20:Q:159:PRO:HA	20:Q:188:ASN:HD22	1.71	0.55
48:4:518:PRO:HG3	73:SX:50:ILE:HD12	1.88	0.55
48:4:609:PHE:HD1	48:4:610:PRO:HD2	1.72	0.55
48:4:41:CYS:SG	48:4:49:ALA:HB2	2.47	0.55
49:S2:1735:A:C4	49:S2:1800:A:C2	2.95	0.55
49:S2:381:C:O2'	49:S2:382:C:C5'	2.55	0.55
1:5:1378:C:H5"	1:5:1379:C:C3'	2.37	0.55
49:S2:1433:C:C3'	49:S2:1434:C:O4'	2.55	0.55
49:S2:1528:G:N3	49:S2:1529:C:C6	2.75	0.55
3:8:12:G:N2	3:8:13:G:C4	2.75	0.55
1:5:1937:C:C3'	1:5:1938:C:H2'	2.37	0.55
49:S2:155:G:N2	49:S2:156:G:H1'	2.22	0.55
1:5:2436:U:H4'	1:5:2437:C:OP2	2.06	0.55
1:5:2436:U:O4	1:5:2783:A:C8	2.60	0.55
1:5:2690:C:C4	1:5:2691:U:C4	2.95	0.55
1:5:661:C:N4	1:5:662:C:N4	2.55	0.55
1:5:5050:C:O2'	5:B:321:VAL:HA	2.07	0.55
1:5:48:G:HO2'	1:5:49:U:P	2.21	0.55
1:5:4090:G:C6	1:5:4091:G:C5	2.95	0.55
1:5:4108:G:C2	1:5:4109:G:C8	2.95	0.55
59:SJ:20:PHE:N	59:SJ:20:PHE:HD1	2.05	0.55
1:5:4652:G:C2	1:5:4653:C:C6	2.95	0.55
1:5:4949:G:N2	1:5:4950:U:H2'	2.22	0.55
49:S2:491:C:C1'	49:S2:574:A:N6	2.70	0.55
1:5:1411:C:O2	1:5:1412:G:H8	1.88	0.55
49:S2:963:A:H2'	49:S2:964:A:H8	1.63	0.55
1:5:4881:U:H2'	1:5:4881:U:O2	2.05	0.55
1:5:2567:G:C2	1:5:2568:C:C5	2.95	0.55
1:5:4910:G:N2	18:O:109:PRO:CA	2.70	0.55
1:5:1309:C:C4	1:5:1310:C:C5	2.94	0.55
49:S2:1758:G:N1	49:S2:1759:G:C5	2.75	0.55
1:5:4548:A:C4'	1:5:4548:A:C8	2.89	0.55
49:S2:1274:G:N3	49:S2:1274:G:H2'	2.22	0.55
1:5:3657:U:H2'	1:5:3657:U:O2	2.07	0.55
49:S2:1622:U:C4	68:SS:120:HIS:HE1	2.22	0.55
49:S2:1380:C:H2'	49:S2:1381:G:O4'	2.07	0.55
1:5:74:G:C5'	15:L:59:VAL:HG13	2.37	0.55
1:5:4956:A:C6	1:5:4957:C:C6	2.95	0.55
1:5:2546:G:O2'	1:5:2547:G:C5'	2.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:SB:150:ILE:CD1	67:SR:128:PHE:HA	2.37	0.55
1:5:2878:G:OP2	1:5:2879:A:O2'	2.18	0.55
1:5:4433:G:N2	1:5:4434:C:C2	2.75	0.55
68:SS:111:LEU:HD22	68:SS:125:HIS:CD2	2.42	0.55
65:SP:9:LYS:O	65:SP:10:ARG:HG3	2.07	0.55
65:SP:19:GLY:CA	68:SS:92:ASP:HA	2.37	0.55
51:SB:120:VAL:HG13	51:SB:142:PHE:HE1	1.72	0.55
57:SH:10:LYS:NZ	57:SH:15:LYS:O	2.37	0.55
58:SI:11:ARG:HD3	58:SI:15:GLY:O	2.06	0.55
54:SE:48:LEU:HD21	54:SE:70:ILE:HD11	1.89	0.55
49:S2:527:C:H2'	49:S2:528:A:C8	2.42	0.55
49:S2:872:A:H61	49:S2:914:U:H6	1.47	0.55
1:5:1906:U:H2'	1:5:1907:A:H5'	1.89	0.55
1:5:1558:A:H2'	1:5:1559:G:C8	2.42	0.54
1:5:2088:A:N6	20:Q:30:LYS:HB3	2.21	0.54
1:5:1699:A:N6	1:5:2094:G:O2'	2.40	0.54
1:5:2126:G:C1'	1:5:2127:C:C5	2.90	0.54
1:5:409:G:N2	1:5:2329:U:H4'	2.22	0.54
1:5:2438:A:N1	1:5:2441:C:C5	2.75	0.54
1:5:460:C:C2	1:5:461:G:C8	2.95	0.54
1:5:470:A:C4	1:5:471:A:C8	2.95	0.54
1:5:972:C:C6	1:5:1283:G:O6	2.59	0.54
1:5:1214:C:H42	9:F:58:HIS:CE1	2.24	0.54
49:S2:466:G:N3	49:S2:466:G:H3'	2.21	0.54
49:S2:1831:A:C2	49:S2:1832:A:C8	2.95	0.54
48:4:154:VAL:HG13	48:4:353:MET:HE1	1.88	0.54
1:5:286:U:C2	1:5:287:U:C6	2.95	0.54
1:5:3727:A:O2'	1:5:3728:A:O4'	2.23	0.54
1:5:93:G:N2	1:5:94:A:C2	2.75	0.54
49:S2:949:G:C6	49:S2:950:C:C5	2.95	0.54
49:S2:1427:C:H2'	49:S2:1428:G:H8	1.72	0.54
49:S2:1512:C:C2	49:S2:1513:C:H5	2.23	0.54
49:S2:1540:G:N2	49:S2:1541:G:N9	2.55	0.54
49:S2:1551:U:C6	49:S2:1577:G:C2	2.95	0.54
68:SS:82:TRP:O	68:SS:84:LEU:N	2.39	0.54
49:S2:1294:G:N1	49:S2:1295:A:C5	2.74	0.54
49:S2:1310:U:C2	49:S2:1311:C:C5	2.95	0.54
49:S2:1315:U:C2	49:S2:1316:C:C6	2.94	0.54
49:S2:56:G:N1	49:S2:90:G:N3	2.54	0.54
1:5:1885:G:H2'	1:5:1886:G:O4'	2.07	0.54
1:5:2853:C:H2'	1:5:2854:G:O4'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2852:U:N3	1:5:2854:G:OP2	2.37	0.54
1:5:2856:C:O2	1:5:2857:A:H8	1.75	0.54
1:5:2611:A:H5'	1:5:2688:G:H4'	1.88	0.54
1:5:164:G:C6	1:5:165:A:N7	2.75	0.54
1:5:3898:G:H2'	1:5:3899:G:H5'	1.88	0.54
49:S2:837:A:N6	74:SY:47:MET:HB3	2.22	0.54
49:S2:1100:A:C5	49:S2:1101:U:C5	2.95	0.54
49:S2:98:C:O2	49:S2:409:C:C6	2.61	0.54
1:5:1202:C:N3	1:5:1203:G:C8	2.75	0.54
1:5:194:C:N4	1:5:195:C:C5	2.75	0.54
1:5:4687:A:N1	1:5:4688:C:C5	2.75	0.54
1:5:2559:G:C6	1:5:2560:C:C4	2.95	0.54
1:5:2565:A:N7	1:5:2566:G:C1'	2.65	0.54
1:5:1756:U:H3	1:5:1775:A:H2	1.53	0.54
49:S2:1775:U:O2	49:S2:1776:G:C8	2.59	0.54
15:L:4:SER:C	15:L:5:ARG:HG3	2.27	0.54
1:5:4700:A:H2'	1:5:4700:A:N3	2.21	0.54
50:SA:12:GLU:OE1	67:SR:111:PHE:CD1	2.60	0.54
49:S2:395:G:N2	58:SI:14:THR:O	2.40	0.54
17:N:196:ASN:ND2	17:N:196:ASN:N	2.54	0.54
59:SJ:63:LEU:HD11	59:SJ:69:ARG:HH22	1.72	0.54
1:5:5039:U:C5'	1:5:5040:U:H2'	2.37	0.54
49:S2:407:G:N3	49:S2:407:G:H2'	2.22	0.54
48:4:51:ALA:O	48:4:53:GLU:N	2.40	0.54
51:SB:137:LEU:HD23	51:SB:215:VAL:HG22	1.88	0.54
22:S:120:ARG:HB2	22:S:122:HIS:CD2	2.41	0.54
49:S2:1464:C:O3'	67:SR:60:ARG:NH1	2.41	0.54
48:4:111:PHE:HB3	48:4:145:GLN:HE22	1.72	0.54
48:4:508:ALA:HB3	48:4:573:SER:O	2.06	0.54
48:4:816:HIS:CD2	48:4:817:TRP:N	2.75	0.54
1:5:1249:C:C4	1:5:1250:C:C5	2.95	0.54
1:5:1569:U:C2	1:5:1570:G:C8	2.95	0.54
1:5:1871:A:N1	1:5:1872:G:C5	2.76	0.54
1:5:2017:A:C8	1:5:2018:C:C6	2.96	0.54
1:5:1214:C:N3	1:5:2116:C:C4	2.75	0.54
1:5:2128:G:C5	1:5:2129:C:C5	2.96	0.54
1:5:2258:C:C2'	1:5:2258:C:O2	2.56	0.54
1:5:448:G:C2	1:5:449:C:H1'	2.43	0.54
48:4:634:TYR:CE2	48:4:639:TYR:CE2	2.94	0.54
49:S2:1367:U:HO2'	49:S2:1466:G:HO2'	1.52	0.54
49:S2:70:G:C2	49:S2:71:G:N9	2.75	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:70:G:C2	49:S2:80:G:N3	2.76	0.54
49:S2:84:A:O2'	74:SY:119:GLY:O	2.21	0.54
1:5:290:U:C2'	1:5:291:U:O5'	2.55	0.54
4:A:69:PHE:CD2	15:L:65:ARG:HB2	106.39	0.54
49:S2:1265:A:H2'	49:S2:1266:C:C6	2.42	0.54
49:S2:678:U:C2	49:S2:679:A:C8	2.95	0.54
2:7:59:G:N1	2:7:60:G:C4	2.76	0.54
1:5:4997:G:C2	1:5:4998:G:N9	2.75	0.54
1:5:1323:A:N3	1:5:1324:A:C8	2.75	0.54
1:5:1893:C:C2'	1:5:1893:C:O2	2.55	0.54
1:5:3879:G:O6	1:5:3882:C:C4	2.60	0.54
49:S2:477:G:N2	49:S2:478:G:C4	2.75	0.54
1:5:2784:C:N3	1:5:2785:C:C4	2.75	0.54
1:5:1577:G:N3	1:5:1577:G:H3'	2.22	0.54
1:5:211:G:C2	1:5:212:A:C5	2.95	0.54
1:5:1590:C:H5"	1:5:1591:U:O5'	2.07	0.54
1:5:504:G:C2	1:5:505:G:C6	2.95	0.54
1:5:672:C:N3	1:5:673:C:C6	2.75	0.54
49:S2:1121:G:C5	49:S2:1122:A:C8	2.95	0.54
49:S2:1123:C:P	51:SB:205:TYR:HH	2.31	0.54
1:5:4093:G:C6	1:5:4094:G:N7	2.75	0.54
1:5:4098:A:N1	1:5:4099:G:C6	2.75	0.54
1:5:4579:U:N3	1:5:4580:U:C4	2.75	0.54
1:5:4560:C:C2'	1:5:4560:C:O2	2.55	0.54
1:5:908:G:C2	1:5:909:A:C8	2.96	0.54
1:5:1404:G:C6	1:5:1405:C:C4	2.95	0.54
1:5:210:C:H6	1:5:210:C:O5'	1.91	0.54
1:5:1759:G:C2	1:5:1760:G:N9	2.75	0.54
49:S2:583:C:C4	49:S2:584:G:C8	2.95	0.54
49:S2:305:U:OP2	49:S2:306:C:C2	2.60	0.54
1:5:4495:G:N2	1:5:4506:C:C2	2.75	0.54
1:5:1288:G:HO2'	1:5:1289:C:P	2.31	0.54
19:P:30:ARG:HH22	19:P:62:ARG:NH2	2.06	0.54
1:5:4211:C:H6	1:5:4211:C:O5'	1.90	0.54
51:SB:153:THR:O	51:SB:154:SER:OG	2.25	0.54
48:4:577:VAL:HG12	48:4:578:SER:N	2.23	0.54
48:4:58:ASP:O	48:4:64:GLN:N	2.41	0.54
48:4:830:ARG:CB	48:4:831:PRO:CD	2.84	0.54
1:5:1075:G:C4	1:5:1076:C:C5	2.95	0.54
1:5:1260:G:C6	1:5:1261:G:N7	2.75	0.54
1:5:1695:U:O2'	1:5:1696:C:H5'	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1999:A:C2'	1:5:2000:G:O4'	2.56	0.54
1:5:2539:C:C2	1:5:2540:C:C5	2.95	0.54
1:5:4085:A:H3'	1:5:4086:G:C5'	2.38	0.54
49:S2:297:A:C5	49:S2:298:G:C8	2.95	0.54
49:S2:338:G:C2	49:S2:339:A:C4	2.95	0.54
49:S2:341:C:H3'	49:S2:342:C:C5'	2.37	0.54
49:S2:1200:A:H2'	49:S2:1200:A:N3	2.22	0.54
49:S2:1834:A:H2	49:S2:1837:G:N2	2.03	0.54
1:5:69:A:H3'	1:5:70:A:C8	2.40	0.54
1:5:3859:G:C4'	19:P:139:TYR:OH	2.55	0.54
49:S2:1231:C:H2'	49:S2:1232:U:O4'	2.07	0.54
49:S2:1231:C:C4'	49:S2:1665:G:N2	2.69	0.54
2:7:28:C:C5	2:7:29:C:C5	2.95	0.54
49:S2:27:A:C4	49:S2:28:U:C6	2.95	0.54
49:S2:635:G:C4	49:S2:636:C:C6	2.96	0.54
49:S2:1151:G:C6	49:S2:1152:U:C5	2.94	0.54
49:S2:1226:G:N2	49:S2:1639:G:C5	2.75	0.54
49:S2:1286:G:N2	62:SM:33:ARG:HD2	2.23	0.54
1:5:5043:A:H2'	1:5:5044:A:C8	2.42	0.54
1:5:1855:G:C6	1:5:1856:C:C4	2.96	0.54
49:S2:164:A:C2	49:S2:165:G:C4	2.95	0.54
1:5:2409:U:O4	1:5:2783:A:N1	2.39	0.54
1:5:2852:U:O2	1:5:2852:U:H2'	2.06	0.54
12:I:73:ASN:O	12:I:76:MET:O	2.26	0.54
49:S2:841:G:N2	49:S2:842:C:C5	2.73	0.54
49:S2:956:G:C2	49:S2:957:A:N7	2.75	0.54
64:SO:137:SER:C	64:SO:138:ASP:OD1	2.46	0.54
49:S2:1041:G:C6	49:S2:1042:A:N7	2.75	0.54
1:5:4651:A:C2	1:5:4652:G:H1'	2.43	0.54
48:4:160:MET:SD	48:4:178:PHE:CZ	2.98	0.54
49:S2:574:A:C2'	49:S2:575:A:C8	2.90	0.54
1:5:3804:G:H1'	1:5:3832:U:O2'	2.07	0.54
1:5:4988:U:N3	1:5:5060:A:O3'	2.38	0.54
1:5:2543:A:C2	1:5:2773:G:N1	2.74	0.54
49:S2:601:G:N1	49:S2:622:C:C2	2.75	0.54
49:S2:623:G:N3	49:S2:624:C:C6	2.74	0.54
49:S2:1754:G:C2	49:S2:1755:C:C2	2.96	0.54
1:5:1726:U:C4	1:5:1727:U:C5	2.94	0.54
1:5:4133:C:C2	1:5:4134:C:C5	2.96	0.54
1:5:4771:C:C5	1:5:4772:C:C6	2.96	0.54
50:SA:99:ILE:HG12	50:SA:117:ARG:NH2	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:7:51:G:N1	2:7:52:C:C4	2.75	0.54
1:5:3656:A:C2	1:5:3657:U:C6	2.96	0.54
1:5:2712:G:N3	1:5:2713:C:C6	2.76	0.54
1:5:1289:C:N3	1:5:1290:G:N7	2.56	0.54
49:S2:828:G:C2	49:S2:829:C:N1	2.76	0.54
49:S2:1483:A:H4'	53:SD:159:HIS:O	2.07	0.54
10:G:260:GLU:OE1	51:SB:57:ILE:CD1	2.50	0.54
10:G:137:ARG:O	10:G:202:VAL:HA	2.07	0.54
1:5:4140:C:C5	1:5:4141:G:C8	2.94	0.54
57:SH:135:PHE:HD1	57:SH:136:PRO:N	2.05	0.54
1:5:4626:A:OP2	5:B:224:LYS:NZ	2.32	0.54
48:4:114:GLU:CA	48:4:532:PRO:CG	2.85	0.54
48:4:502:SER:CB	48:4:504:VAL:CG1	2.48	0.54
48:4:579:TYR:N	48:4:579:TYR:CD1	2.75	0.54
48:4:504:VAL:HG11	48:4:811:GLN:HA	1.89	0.54
1:5:1277:G:N1	1:5:1278:C:C5	2.75	0.54
1:5:2743:A:C6	1:5:2744:A:N6	2.75	0.54
6:C:35:ASP:OD1	6:C:36:ILE:N	2.41	0.54
8:E:119:ARG:HH11	8:E:119:ARG:HG3	1.72	0.54
14:K:81:ILE:HD13	14:K:117:ARG:HH12	1.71	0.54
14:K:15:LEU:HD11	14:K:60:VAL:HG13	1.88	0.54
49:S2:122:G:C6	49:S2:123:G:C5	2.95	0.54
49:S2:118:C:H1'	49:S2:445:A:C6	2.43	0.54
48:4:562:GLU:HB3	48:4:570:ILE:CD1	2.36	0.54
49:S2:69:C:N3	49:S2:70:G:C5	2.75	0.54
48:4:126:LEU:HD13	48:4:353:MET:CE	2.37	0.54
1:5:100:C:C6	1:5:101:A:H8	2.19	0.54
1:5:1380:G:C2	1:5:1382:G:C4	2.95	0.54
1:5:3738:G:N7	1:5:3739:C:C6	2.75	0.54
1:5:4363:A:C2	1:5:4364:G:C8	2.95	0.54
1:5:1358:G:OP2	6:C:114:ARG:NH2	2.40	0.54
1:5:4269:G:H2'	1:5:4270:C:O4'	2.07	0.54
49:S2:1134:G:C5	49:S2:1135:C:C5	2.95	0.54
49:S2:1286:G:C2	49:S2:1312:G:N1	2.76	0.54
49:S2:1311:C:N3	49:S2:1314:U:H5	2.06	0.54
49:S2:1643:U:C4	49:S2:1644:C:N4	2.76	0.54
55:SF:137:GLN:HE21	55:SF:137:GLN:HA	1.73	0.54
49:S2:555:A:C2	49:S2:557:U:C6	2.95	0.54
1:5:3687:A:C6	1:5:3688:U:C5	2.95	0.54
1:5:211:G:N1	1:5:212:A:C5	2.76	0.54
3:8:83:C:H4'	3:8:85:U:N3	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:59:LYS:O	11:H:60:TRP:CB	2.55	0.54
1:5:1816:C:H2'	1:5:1817:U:H5'	1.88	0.54
7:D:109:LEU:HD21	7:D:142:PHE:CZ	2.43	0.54
1:5:32:G:N1	1:5:48:G:O2'	2.40	0.54
49:S2:106:C:H2'	49:S2:107:A:H8	1.72	0.54
1:5:2605:G:N1	1:5:2606:G:C5	2.75	0.54
20:Q:16:LYS:H	20:Q:16:LYS:HD2	3.28	0.54
1:5:3595:U:OP1	1:5:3596:A:C8	2.60	0.54
1:5:5019:A:C2	1:5:5020:G:C8	2.95	0.54
49:S2:18:C:H4'	49:S2:1194:A:N6	2.23	0.54
28:Y:18:HIS:HB3	28:Y:19:PHE:CE1	2.43	0.54
1:5:2733:C:C4	1:5:2734:U:C5	2.95	0.54
1:5:231:U:H4'	28:Y:100:HIS:NE2	2.22	0.54
1:5:1759:G:N1	1:5:1760:G:C8	2.74	0.54
48:4:137:VAL:HG11	48:4:807:GLN:NE2	2.14	0.54
1:5:127:G:C6	1:5:128:C:C4	2.95	0.54
1:5:723:A:N1	1:5:943:A:N1	2.54	0.54
54:SE:47:PHE:HE1	54:SE:101:LEU:HD21	1.73	0.54
1:5:2576:G:C6	1:5:2577:C:C4	2.95	0.54
1:5:1763:C:N4	1:5:1764:G:C4	2.76	0.54
1:5:4146:G:H2'	1:5:4147:G:H8	1.72	0.54
1:5:2632:U:O2	1:5:2633:U:C5	2.61	0.54
4:A:29:LEU:HD13	4:A:163:ARG:HH12	1.73	0.54
1:5:2702:C:O2	1:5:2715:G:C2	2.61	0.54
49:S2:887:U:C5	49:S2:888:U:C5	2.96	0.54
1:5:4068:U:C4	1:5:4069:U:C6	2.95	0.54
49:S2:567:C:H2'	49:S2:568:C:H5"	1.89	0.54
48:4:170:GLU:HG2	48:4:171:PRO:N	2.23	0.54
1:5:4260:U:H2'	1:5:4261:C:C6	2.41	0.54
10:G:235:ARG:HG3	10:G:235:ARG:HH11	1.73	0.54
1:5:1271:G:C3'	1:5:1272:C:C5'	2.81	0.54
1:5:1280:C:H6	1:5:1280:C:C5'	2.15	0.54
1:5:1572:U:H3'	1:5:1573:G:H8	1.73	0.54
1:5:1870:C:N3	1:5:1871:A:C8	2.75	0.54
1:5:2106:G:HO2'	1:5:2107:C:C1'	2.19	0.54
1:5:1273:G:N2	1:5:2123:C:OP1	2.31	0.54
1:5:2282:A:C2'	1:5:2283:G:C5'	2.86	0.54
1:5:992:C:O2	1:5:993:G:C8	2.60	0.54
49:S2:1792:G:C2	49:S2:1793:A:N9	2.75	0.54
49:S2:447:A:N7	49:S2:449:A:C8	2.76	0.54
1:5:1390:G:H3'	1:5:1390:G:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1479:G:C6	1:5:1487:G:N2	2.76	0.54
1:5:3741:C:C4	1:5:3742:G:N7	2.75	0.54
1:5:4984:C:C4	1:5:4985:U:C5	2.95	0.54
1:5:82:U:C4	1:5:83:C:C5	2.96	0.54
1:5:3685:C:H5"	4:A:193:ARG:NH2	2.22	0.54
1:5:1563:A:C2	1:5:1564:A:N3	2.75	0.54
2:7:54:A:H2	2:7:55:A:C5	2.19	0.54
26:W:31:PHE:CD2	26:W:37:GLU:HA	2.42	0.54
1:5:5043:A:O2'	1:5:5044:A:H5'	2.07	0.54
7:D:111:ASN:ND2	7:D:111:ASN:C	2.60	0.54
1:5:1857:C:C2	1:5:1858:A:N7	2.75	0.54
1:5:3877:A:N1	1:5:4444:C:H1'	2.22	0.54
1:5:3753:G:N1	1:5:3754:G:C5	2.75	0.54
1:5:3756:A:H2'	1:5:3757:G:O4'	2.07	0.54
1:5:3759:A:N6	49:S2:1709:G:H4'	2.22	0.54
1:5:3773:U:N3	1:5:3774:A:H2'	2.21	0.54
3:8:95:A:C2	3:8:96:C:N1	2.75	0.54
1:5:4562:C:C2	1:5:4563:U:H6	2.23	0.54
49:S2:925:G:O2'	63:SN:87:ASP:HA	2.06	0.54
48:4:556:ILE:HA	48:4:559:LYS:CE	2.32	0.54
1:5:917:A:C2	1:5:918:G:N1	2.76	0.54
1:5:3594:C:O2	1:5:3594:C:H2'	2.08	0.54
1:5:5028:G:C6	1:5:5029:C:N4	2.75	0.54
16:M:6:PHE:O	16:M:8:GLU:N	2.41	0.54
49:S2:882:U:C2	49:S2:883:U:C6	2.96	0.54
49:S2:910:G:C2	49:S2:911:C:C2	2.95	0.54
1:5:908:G:N2	1:5:909:A:H1'	2.23	0.54
1:5:4467:A:C6	1:5:4468:U:C5	2.96	0.54
8:E:266:TYR:CD2	16:M:107:PHE:CD1	2.95	0.54
1:5:933:G:C5	1:5:940:C:C4	2.96	0.54
1:5:1828:C:N3	1:5:1829:G:N7	2.55	0.54
1:5:3662:A:N6	1:5:3680:U:N3	2.40	0.54
1:5:4550:G:N2	1:5:4551:U:H1'	2.22	0.54
49:S2:823:U:C5	74:SY:64:PHE:HE2	2.26	0.54
1:5:112:C:C2	1:5:113:A:C8	2.96	0.54
49:S2:1805:G:C6	49:S2:1806:A:N7	2.75	0.54
15:L:59:VAL:HG21	15:L:73:GLY:HA3	1.89	0.54
50:SA:158:ASP:CG	50:SA:159:ILE:N	2.61	0.54
49:S2:325:C:O2	49:S2:326:C:C5	2.61	0.54
53:SD:115:VAL:CG2	53:SD:142:LEU:HD11	2.37	0.54
21:R:175:GLU:OE1	21:R:176:ARG:HA	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:SK:11:ILE:HD12	60:SK:45:VAL:HG22	1.88	0.54
62:SM:21:VAL:HG22	62:SM:121:LYS:HG3	1.89	0.54
1:5:1070:G:O6	8:E:42:ARG:NH1	2.40	0.54
1:5:1267:C:O5'	1:5:1267:C:H6	1.91	0.54
1:5:1682:A:C5	1:5:1683:U:C5	2.96	0.54
1:5:1871:A:C6	1:5:1872:G:N7	2.76	0.54
1:5:450:G:HO2'	1:5:452:A:H4'	1.73	0.54
1:5:4942:C:O4'	1:5:4942:C:O2	2.23	0.54
1:5:2092:G:N1	6:C:305:PRO:O	2.37	0.54
14:K:58:ILE:CG2	14:K:59:THR:N	2.70	0.54
48:4:738:PRO:C	48:4:824:PRO:CD	2.72	0.54
49:S2:1395:C:C6	49:S2:1395:C:C5'	2.91	0.54
49:S2:81:U:N3	49:S2:82:G:C8	2.76	0.54
1:5:288:G:C6	1:5:289:C:N4	2.76	0.54
1:5:291:U:O2'	1:5:292:G:H2'	2.06	0.54
48:4:267:ASP:C	48:4:267:ASP:OD1	2.45	0.54
14:K:161:GLU:C	14:K:163:PRO:CD	2.76	0.54
49:S2:1405:A:C6	49:S2:1406:G:C6	2.94	0.54
49:S2:1510:G:C5	49:S2:1511:U:C6	2.96	0.54
49:S2:1537:A:N6	49:S2:1538:C:C4	2.76	0.54
1:5:1563:A:N7	49:S2:678:U:O4'	2.40	0.54
1:5:5035:U:H2'	1:5:5035:U:O2	2.08	0.54
49:S2:545:A:C2	49:S2:546:G:C5	2.95	0.54
1:5:3753:G:C5	1:5:3776:G:C6	2.95	0.54
1:5:3635:A:C8	1:5:3692:A:H1'	2.42	0.54
1:5:1591:U:N3	1:5:4555:U:OP1	2.40	0.54
49:S2:999:G:N1	49:S2:1000:C:C6	2.75	0.54
48:4:356:ILE:HG23	48:4:357:HIS:ND1	2.22	0.54
1:5:4101:C:C4	1:5:4102:C:C5	2.96	0.54
1:5:919:C:H2'	1:5:920:C:C5'	2.38	0.54
1:5:2426:U:O2'	1:5:2427:G:H5'	2.08	0.54
1:5:4745:G:C2'	1:5:4746:C:H6	2.17	0.54
1:5:4886:C:C2	1:5:4887:C:H5	2.26	0.54
1:5:2769:U:O2'	1:5:2770:C:C5'	2.56	0.54
1:5:1758:G:C2	1:5:1759:G:C4	2.96	0.54
49:S2:1756:C:C2	49:S2:1777:G:C2	2.96	0.54
49:S2:414:A:C2'	49:S2:415:A:O5'	2.56	0.54
49:S2:579:C:C5	49:S2:580:U:C5	2.95	0.54
49:S2:583:C:C4	49:S2:584:G:N7	2.75	0.54
22:S:83:ARG:HG3	22:S:83:ARG:HH21	1.72	0.54
1:5:2632:U:C5	24:U:85:TYR:CD1	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:P:82:ARG:HA	19:P:83:TRP:HE3	1.72	0.54
1:5:3656:A:C2	1:5:3657:U:C5	2.96	0.54
1:5:4916:G:C6	1:5:4917:C:C4	2.96	0.54
49:S2:1348:G:C2	49:S2:1349:G:N7	2.76	0.54
49:S2:519:A:C2	49:S2:520:A:C8	2.95	0.54
1:5:4154:G:N2	1:5:4155:C:C2	2.76	0.54
54:SE:67:GLN:HG2	54:SE:69:PHE:CZ	2.42	0.54
2:7:69:U:O4	2:7:106:G:O6	2.26	0.54
1:5:3586:G:C6	1:5:3587:C:C4	2.96	0.54
70:SU:48:LEU:CD2	70:SU:97:ILE:HD13	2.38	0.54
1:5:4183:G:C4	1:5:4183:G:H5"	2.42	0.54
23:T:105:PHE:HE1	23:T:109:VAL:CG2	2.21	0.54
48:4:189:ILE:HG23	48:4:203:ILE:HD12	1.88	0.54
48:4:482:THR:OG1	48:4:496:VAL:HG21	2.08	0.54
1:5:1065:G:C2	1:5:1066:G:C5	2.96	0.54
1:5:1237:C:O4'	1:5:1237:C:O2	2.25	0.54
1:5:1352:C:O2'	1:5:1356:U:OP1	2.25	0.54
1:5:1666:C:H2'	1:5:1667:G:O4'	2.08	0.54
1:5:1699:A:H4'	1:5:1718:C:P	2.48	0.54
1:5:2328:G:C2	1:5:2329:U:C2	2.96	0.54
1:5:2594:C:C2	1:5:2595:C:C6	2.96	0.54
1:5:4175:G:C6	1:5:4176:C:C4	2.95	0.54
1:5:471:A:N6	1:5:472:C:C4	2.75	0.54
1:5:686:A:C3'	1:5:687:U:H5'	2.38	0.54
48:4:829:SER:CB	48:4:832:SER:CA	2.86	0.54
49:S2:222:U:O2	49:S2:223:C:C6	2.61	0.54
49:S2:316:G:C4	49:S2:317:C:C5	2.96	0.54
49:S2:69:C:H2'	49:S2:70:G:O4'	2.08	0.54
49:S2:375:U:O4'	61:SL:7:GLU:OE1	2.26	0.54
49:S2:1053:C:O2	49:S2:1054:G:H8	1.87	0.54
49:S2:1839:U:N3	49:S2:1840:U:C4	2.76	0.54
1:5:1359:G:C2'	1:5:1360:G:O4'	2.55	0.54
1:5:1482:G:N2	1:5:1484:G:H22	2.06	0.54
1:5:3738:G:H8	1:5:3738:G:O5'	1.89	0.54
49:S2:949:G:C4	49:S2:950:C:C6	2.95	0.54
49:S2:1410:C:N4	49:S2:1411:G:C6	2.75	0.54
49:S2:1508:A:C6	49:S2:1510:G:N9	2.76	0.54
49:S2:1551:U:H2'	49:S2:1552:G:N9	2.22	0.54
49:S2:1609:C:C2	49:S2:1610:G:N7	2.75	0.54
1:5:425:U:O4	1:5:426:A:N6	2.41	0.54
3:8:10:G:C2	3:8:11:C:C6	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:635:G:C2	49:S2:636:C:C2	2.95	0.54
49:S2:635:G:C4	49:S2:636:C:C5	2.95	0.54
50:SA:155:ARG:HB3	50:SA:156:TYR:HD2	1.72	0.54
49:S2:1315:U:C5	49:S2:1316:C:C6	2.95	0.54
1:5:1938:C:H4'	1:5:1939:A:O5'	2.08	0.54
49:S2:155:G:C2	49:S2:164:A:C8	2.96	0.54
1:5:2493:G:O2'	3:8:127:U:OP2	2.20	0.54
48:4:398:ILE:HG23	48:4:485:ILE:HD13	1.90	0.54
3:8:118:C:C2	3:8:119:C:C5	2.95	0.54
21:R:88:ARG:HG2	21:R:88:ARG:HH11	1.72	0.54
1:5:488:G:N1	1:5:489:C:C5	2.76	0.54
1:5:668:C:C2	1:5:669:C:C6	2.96	0.54
1:5:3910:C:H2'	1:5:3911:C:C6	2.43	0.54
54:SE:45:ILE:O	54:SE:49:ARG:HG3	2.08	0.54
1:5:4750:G:H2'	1:5:4751:G:O5'	2.07	0.54
1:5:4763:U:C6	11:H:42:ASN:ND2	2.76	0.54
1:5:3832:U:C2	1:5:3833:C:C6	2.96	0.54
1:5:1198:G:C2'	1:5:1199:G:C8	2.86	0.54
1:5:909:A:N1	1:5:910:G:C5	2.75	0.54
1:5:244:G:O6	1:5:246:G:N7	2.41	0.54
1:5:2567:G:C5	1:5:2568:C:C5	2.95	0.54
1:5:1744:U:C4	1:5:1745:G:N7	2.75	0.54
1:5:1813:U:H2'	1:5:1814:C:C6	2.42	0.54
1:5:1725:U:H2'	1:5:1725:U:O2	2.07	0.54
1:5:4510:A:H62	1:5:4592:C:HO2'	1.54	0.54
1:5:4142:C:C4	1:5:4143:G:N1	2.76	0.54
22:S:81:TRP:CZ2	22:S:94:TYR:CE1	2.96	0.54
52:SC:170:TRP:CH2	72:SW:97:ARG:HD2	2.43	0.54
69:ST:47:PRO:HG2	69:ST:52:TRP:CD1	2.42	0.54
49:S2:1342:U:C5	49:S2:1483:A:C6	2.96	0.54
48:4:393:PRO:CD	48:4:418:SER:OG	2.55	0.54
48:4:130:ASP:OD2	48:4:132:VAL:HG22	2.08	0.54
1:5:4183:G:H2'	1:5:4183:G:N3	2.23	0.54
71:SV:2:GLN:HB3	71:SV:6:GLY:HA2	1.88	0.54
12:I:99:ILE:HG22	12:I:123:GLN:HB2	1.88	0.54
1:5:1273:G:H21	1:5:2123:C:P	2.30	0.54
1:5:1445:U:N3	1:5:1446:C:C6	2.76	0.54
1:5:2122:G:O2'	1:5:2123:C:OP1	2.26	0.54
1:5:2291:G:C2	1:5:2292:C:C5	2.96	0.54
1:5:2326:G:N2	1:5:2327:G:H1'	2.23	0.54
1:5:2341:A:N1	1:5:2342:G:C5	2.75	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1724:G:H21	9:F:105:PRO:CG	2.21	0.54
10:G:57:TRP:N	10:G:57:TRP:CD1	2.75	0.54
48:4:571:LYS:HE3	48:4:572:LYS:H	1.65	0.54
1:5:1377:G:H3'	1:5:1377:G:C8	2.43	0.54
1:5:1394:G:O2'	1:5:1395:U:H5'	2.08	0.54
1:5:3667:C:H2'	1:5:3667:C:O2	2.08	0.54
17:N:178:HIS:HA	17:N:181:HIS:NE2	2.22	0.54
49:S2:1243:U:C2	49:S2:1265:A:C2	2.94	0.54
1:5:4285:U:H2'	1:5:4286:C:C6	2.40	0.54
2:7:27:G:H1'	2:7:56:G:H1	1.73	0.54
2:7:59:G:O6	2:7:60:G:N7	2.37	0.54
49:S2:618:C:C5	49:S2:619:A:N7	2.76	0.54
49:S2:1287:A:C6	49:S2:1314:U:N3	2.75	0.54
1:5:4997:G:C6	1:5:4998:G:C5	2.96	0.54
1:5:1936:C:C5	2:7:84:U:H5	2.13	0.54
1:5:1939:A:N1	1:5:3874:G:C5'	2.59	0.54
1:5:3875:G:O6	1:5:3877:A:H4'	2.08	0.54
49:S2:1721:U:H5'	49:S2:1721:U:C6	2.43	0.54
1:5:479:G:N1	1:5:480:C:C4	2.76	0.54
49:S2:999:G:C6	49:S2:1000:C:C4	2.95	0.54
9:F:168:ARG:HD2	9:F:211:TRP:HE1	1.73	0.54
1:5:3870:C:C2	1:5:3886:G:N2	2.76	0.54
1:5:2605:G:N2	1:5:2606:G:C4	2.76	0.54
49:S2:1040:G:C5	49:S2:1041:G:C8	2.95	0.54
3:8:132:G:N2	3:8:133:G:C4	2.75	0.54
1:5:3790:U:H3	1:5:3792:G:C1'	2.20	0.54
1:5:4368:G:N2	1:5:4369:A:H1'	2.23	0.54
22:S:45:TRP:CZ3	22:S:56:LYS:CA	2.84	0.54
13:J:107:PHE:CE1	13:J:130:PHE:HB3	2.42	0.54
1:5:4880:C:O2'	1:5:4881:U:H5'	2.08	0.54
1:5:4884:G:H2'	1:5:4884:G:N3	2.23	0.54
1:5:1583:A:N1	1:5:1584:G:H1'	2.23	0.54
1:5:728:U:C2'	1:5:729:G:OP1	2.56	0.54
51:SB:79:VAL:CB	51:SB:81:PHE:CZ	2.90	0.54
49:S2:1868:U:H4'	49:S2:1869:A:OP2	2.08	0.54
1:5:3605:C:N3	1:5:3606:U:C5	2.75	0.54
1:5:259:C:N3	1:5:260:C:C5	2.76	0.54
25:V:30:ASP:OD1	25:V:104:VAL:HG12	2.08	0.54
49:S2:172:U:O2	49:S2:172:U:O2'	2.23	0.54
49:S2:142:C:O4'	49:S2:142:C:O2	2.24	0.54
1:5:4618:G:C2	1:5:4619:U:C6	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1539:G:C1'	4:A:15:VAL:HG13	2.38	0.54
49:S2:511:U:C2	49:S2:512:A:C8	2.95	0.54
56:SG:210:ALA:O	56:SG:214:ALA:HB3	2.08	0.54
57:SH:35:ASP:OD1	57:SH:36:LEU:N	2.41	0.54
48:4:73:THR:CA	48:4:104:ASP:HB2	2.37	0.54
48:4:111:PHE:CD1	48:4:141:THR:HG23	2.43	0.54
1:5:1234:G:C2	1:5:1235:G:C4	2.96	0.54
1:5:1355:G:H2'	1:5:1356:U:O5'	2.08	0.54
1:5:1956:A:C2	1:5:2027:U:C2	2.96	0.54
1:5:2079:G:H1	1:5:2276:A:H61	1.54	0.54
1:5:2260:C:H2'	1:5:2261:G:C8	2.41	0.54
1:5:2743:A:H1'	4:A:21:LYS:HE3	1.90	0.54
1:5:4173:G:C6	1:5:4174:U:C4	2.96	0.54
1:5:981:C:C2	8:E:69:TYR:CE2	2.96	0.54
14:K:102:GLY:O	14:K:140:GLY:CA	2.56	0.54
14:K:61:LYS:CD	14:K:72:GLU:CA	2.84	0.54
1:5:4085:A:OP1	27:X:45:THR:HG23	2.08	0.54
49:S2:157:U:H4'	56:SG:59:GLN:C	2.28	0.54
48:4:510:GLU:HG2	48:4:511:ALA:H	1.73	0.54
48:4:571:LYS:CE	48:4:572:LYS:N	2.33	0.54
49:S2:1448:A:C2	49:S2:1449:G:C1'	2.91	0.54
49:S2:385:G:H2'	49:S2:385:G:N3	2.23	0.54
58:SI:67:TRP:HB2	58:SI:72:CYS:SG	2.48	0.54
49:S2:673:G:C8	49:S2:1084:A:C6	2.96	0.54
1:5:1473:U:C2	1:5:1474:C:C6	2.96	0.54
1:5:330:G:N2	1:5:331:G:N9	2.56	0.54
1:5:3714:G:C2	1:5:3715:U:C2	2.96	0.54
5:B:222:VAL:HG11	5:B:274:TYR:CE2	2.43	0.54
49:S2:1602:U:H2'	49:S2:1603:G:H3'	1.90	0.54
49:S2:1566:G:N7	69:ST:101:ARG:NH2	2.56	0.54
1:5:1565:A:H2'	1:5:1566:C:H5'	1.90	0.54
1:5:4896:G:C4	1:5:4897:G:C8	2.95	0.54
1:5:3754:G:C6	1:5:3755:G:N7	2.76	0.54
59:SJ:83:ARG:HD3	59:SJ:150:ARG:NH2	2.23	0.54
1:5:3692:A:C6	1:5:3693:U:N1	2.76	0.54
12:I:171:TRP:CB	12:I:181:PHE:CD2	2.91	0.54
2:7:9:C:O2	2:7:9:C:H2'	2.08	0.54
49:S2:1022:U:C6	63:SN:128:TYR:HE2	2.23	0.54
1:5:4096:C:C4	1:5:4097:G:N9	2.75	0.54
1:5:2656:U:H3'	1:5:2657:G:H8	1.72	0.54
1:5:4735:G:C6	1:5:4736:C:C4	2.95	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2669:C:O2'	1:5:2670:C:OP2	2.25	0.54
16:M:6:PHE:HA	22:S:152:PHE:O	2.08	0.54
28:Y:15:ARG:CG	28:Y:15:ARG:NH1	2.70	0.54
1:5:246:G:N2	1:5:247:G:C8	2.74	0.54
1:5:120:A:O4'	1:5:121:A:C6	2.61	0.54
1:5:1753:G:N3	1:5:1755:C:H5"	2.22	0.54
49:S2:656:G:H21	49:S2:663:C:C5'	2.21	0.54
1:5:736:C:C2'	1:5:737:C:O4'	2.53	0.54
53:SD:35:SER:O	53:SD:99:ILE:HD11	2.07	0.54
1:5:4146:G:N3	1:5:4147:G:C8	2.76	0.54
1:5:1398:A:O2'	1:5:1399:G:OP2	2.13	0.54
1:5:3657:U:C4	1:5:3658:C:C5	2.96	0.54
69:ST:52:TRP:CE3	69:ST:53:PHE:N	2.76	0.54
1:5:1912:G:N2	18:O:87:MET:SD	2.81	0.54
49:S2:1587:G:O6	69:ST:67:ARG:HG2	2.08	0.54
74:SY:57:VAL:HG11	74:SY:60:PHE:CZ	2.43	0.54
49:S2:872:A:N1	49:S2:914:U:H5	2.06	0.54
49:S2:200:G:C6	49:S2:201:C:C4	2.95	0.54
68:SS:23:ARG:CZ	68:SS:23:ARG:HB2	2.38	0.54
21:R:8:LYS:HG3	21:R:22:VAL:HG11	1.90	0.54
48:4:24:VAL:HG22	48:4:32:LYS:HE3	1.85	0.54
1:5:1872:G:C2	1:5:1873:A:N7	2.76	0.54
1:5:2104:G:C6	1:5:2105:A:C5	2.96	0.54
1:5:2107:C:N4	1:5:2126:G:C2	2.75	0.54
1:5:4172:A:N3	1:5:4173:G:C8	2.75	0.54
1:5:473:C:C2	1:5:474:C:C6	2.95	0.54
1:5:976:G:H3'	1:5:977:C:H6	1.72	0.54
48:4:546:ILE:CG2	48:4:554:LEU:CD1	2.86	0.54
48:4:738:PRO:HB2	48:4:824:PRO:CG	2.39	0.54
49:S2:1457:U:C2	49:S2:1458:G:C8	2.95	0.54
49:S2:73:C:H1'	49:S2:74:G:O4'	2.07	0.54
49:S2:1407:U:O2	49:S2:1408:U:C5	2.60	0.54
49:S2:1408:U:H2'	49:S2:1409:A:O4'	2.08	0.54
49:S2:1575:G:C2	49:S2:1576:G:C8	2.96	0.54
49:S2:1576:G:C4	49:S2:1577:G:C8	2.96	0.54
49:S2:1588:A:C2	49:S2:1589:A:C6	2.96	0.54
49:S2:1578:U:H2'	53:SD:4:GLN:HG2	1.90	0.54
1:5:4239:A:C6	1:5:4240:G:C5	2.95	0.54
1:5:4275:G:H3'	1:5:4275:G:C8	2.43	0.54
1:5:4277:G:C2	1:5:4278:C:C5	2.96	0.54
1:5:4308:C:O2'	1:5:4338:G:H4'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4216:G:H2'	1:5:4217:G:H5'	1.90	0.54
49:S2:1280:G:N1	49:S2:1281:G:C8	2.76	0.54
49:S2:1292:C:H2'	49:S2:1292:C:O2	2.07	0.54
49:S2:1286:G:H21	62:SM:33:ARG:HD2	1.73	0.54
1:5:5042:A:C2	1:5:5043:A:C5	2.96	0.54
1:5:1856:C:O2	1:5:1892:A:H2	1.89	0.54
9:F:100:ILE:C	9:F:101:ASN:OD1	2.46	0.54
49:S2:548:C:H41	49:S2:549:C:H1'	1.73	0.54
49:S2:52:G:C2	49:S2:53:C:C1'	2.91	0.54
1:5:3690:U:C2	1:5:3691:G:C8	2.96	0.54
1:5:206:U:O2	1:5:208:A:H8	1.90	0.54
1:5:2614:C:H2'	1:5:2614:C:O2	2.08	0.54
1:5:4767:C:H4'	1:5:4874:A:C2	2.42	0.54
49:S2:989:C:C2	49:S2:1001:A:N1	2.76	0.54
49:S2:992:A:N6	49:S2:993:G:N7	2.56	0.54
49:S2:996:A:C2	49:S2:997:A:C2	2.95	0.54
49:S2:999:G:N2	49:S2:1000:C:H1'	2.23	0.54
9:F:161:TYR:CD2	9:F:168:ARG:CZ	2.91	0.54
1:5:4093:G:N7	1:5:4094:G:C8	2.76	0.54
49:S2:1039:C:C4	49:S2:1040:G:N7	2.76	0.54
49:S2:1074:C:H2'	49:S2:1075:C:C6	2.42	0.54
49:S2:847:A:N1	49:S2:848:U:H1'	2.22	0.54
49:S2:574:A:H2'	49:S2:575:A:C8	2.43	0.54
49:S2:620:G:C2	49:S2:620:G:P	3.01	0.54
49:S2:862:A:N3	49:S2:863:U:C6	2.76	0.54
49:S2:909:G:N3	49:S2:910:G:C8	2.76	0.54
49:S2:909:G:C2	49:S2:910:G:N7	2.76	0.54
49:S2:1754:G:C5	49:S2:1755:C:C5	2.96	0.54
49:S2:1759:G:N2	49:S2:1774:C:C2	2.76	0.54
49:S2:1256:G:N2	49:S2:1658:G:O2'	2.37	0.54
1:5:4592:C:H2'	1:5:4593:C:H6	1.72	0.54
1:5:1397:A:O2'	1:5:1398:A:C5'	2.56	0.54
49:S2:2:A:C8	52:SC:223:TYR:CB	2.91	0.54
49:S2:1348:G:N3	49:S2:1348:G:C2'	2.71	0.54
22:S:8:ARG:HB2	22:S:10:TYR:CE2	2.42	0.54
10:G:102:TYR:OH	10:G:207:VAL:CA	2.56	0.54
1:5:73:A:C2	1:5:74:G:N7	2.76	0.54
49:S2:1729:U:H2'	49:S2:1729:U:O2	2.07	0.54
49:S2:1732:G:C6	49:S2:1733:U:C5	2.96	0.54
1:5:4297:G:C6	1:5:4298:A:N7	2.76	0.54
1:5:4205:A:O4'	1:5:4375:C:H2'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1802:A:H5'	23:T:105:PHE:CD2	2.43	0.54
55:SF:36:GLN:O	55:SF:37:ASP:HB2	2.08	0.54
1:5:1947:U:H2'	1:5:1947:U:O2	2.08	0.54
6:C:178:ASN:N	6:C:178:ASN:ND2	2.55	0.54
17:N:88:GLY:CA	18:O:48:TYR:HD2	102.54	0.54
10:G:165:GLU:OE1	17:N:22:LEU:HD13	2.07	0.54
49:S2:613:G:H2'	49:S2:627:U:C5	2.43	0.54
48:4:480:VAL:HG13	48:4:529:LYS:HA	1.90	0.53
1:5:1066:G:N1	1:5:1067:G:C5	2.76	0.53
1:5:1844:G:C6	1:5:1845:U:C4	2.95	0.53
1:5:1867:A:H2'	1:5:1868:A:C8	2.42	0.53
1:5:2090:U:HO2'	1:5:2091:C:P	2.31	0.53
1:5:2090:U:N3	6:C:307:LYS:CE	2.71	0.53
1:5:2116:C:H4'	1:5:2117:G:O4'	2.08	0.53
1:5:2593:C:C2	1:5:2594:C:C6	2.95	0.53
1:5:3668:C:C4	1:5:3669:G:N7	2.75	0.53
1:5:967:C:H2'	1:5:969:C:OP1	2.08	0.53
4:A:97:ASN:O	4:A:100:ASN:HB2	2.08	0.53
9:F:243:ASN:OD1	9:F:243:ASN:N	2.37	0.53
49:S2:380:G:N2	49:S2:382:C:H2'	2.23	0.53
49:S2:384:U:C4	49:S2:386:C:H6	2.24	0.53
49:S2:449:A:H4'	54:SE:3:ARG:HE	1.73	0.53
49:S2:219:U:H4'	58:SI:182:CYS:SG	2.48	0.53
48:4:154:VAL:HG11	48:4:358:LEU:HD21	1.89	0.53
1:5:4975:G:C5	1:5:4977:A:C6	2.96	0.53
1:5:4981:G:C2	1:5:4982:A:C8	2.96	0.53
1:5:1329:G:C2	1:5:3865:A:H1'	2.43	0.53
49:S2:1231:C:H3'	49:S2:1232:U:H6	1.73	0.53
49:S2:1526:G:C6	49:S2:1527:C:C4	2.96	0.53
49:S2:1529:C:H2'	49:S2:1530:U:C6	2.43	0.53
49:S2:1594:A:N1	49:S2:1595:U:C4	2.76	0.53
2:7:58:A:C5	2:7:59:G:C8	2.95	0.53
49:S2:1134:G:C4	49:S2:1135:C:C6	2.96	0.53
1:5:4400:G:N3	1:5:4400:G:H2'	2.23	0.53
48:4:121:VAL:HG23	48:4:122:THR:N	2.23	0.53
1:5:3638:G:C6	1:5:3651:A:C2	2.96	0.53
1:5:670:G:H2'	1:5:671:G:C8	2.43	0.53
49:S2:997:A:H2'	49:S2:998:A:O4'	2.07	0.53
1:5:27:C:C2	1:5:28:C:C5	2.96	0.53
1:5:3909:C:C2	1:5:3910:C:C5	2.96	0.53
49:S2:104:A:C6	49:S2:105:U:C6	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:974:C:H4'	64:SO:41:PHE:CE2	2.43	0.53
1:5:2417:A:N1	1:5:2418:A:C5	2.76	0.53
1:5:5022:U:C4	1:5:5024:C:C4	2.96	0.53
1:5:3791:C:N4	1:5:3802:U:C5	2.76	0.53
1:5:1167:C:O2	1:5:1195:G:C2	2.61	0.53
1:5:750:U:C4	1:5:751:G:N7	2.77	0.53
1:5:751:G:N2	1:5:752:G:C4	2.76	0.53
28:Y:10:ASP:O	28:Y:11:ARG:C	2.45	0.53
1:5:1750:G:N1	1:5:1751:A:C5	2.76	0.53
49:S2:1754:G:H2'	49:S2:1755:C:O4'	2.08	0.53
49:S2:584:G:C6	49:S2:585:C:C4	2.96	0.53
49:S2:1496:U:O2	49:S2:1496:U:H2'	2.08	0.53
50:SA:33:GLN:HB3	50:SA:154:LEU:HD12	1.88	0.53
1:5:4991:U:H2'	1:5:4992:G:H8	1.73	0.53
7:D:99:TYR:CE1	7:D:165:GLY:HA2	2.42	0.53
52:SC:267:GLN:HE22	71:SV:50:PHE:HE2	1.55	0.53
59:SJ:69:ARG:O	59:SJ:72:PHE:N	2.41	0.53
1:5:4543:G:O2'	1:5:4544:A:O5'	2.26	0.53
57:SH:92:VAL:O	57:SH:169:LYS:NZ	2.41	0.53
49:S2:1387:G:C2	49:S2:1388:A:H1'	2.43	0.53
7:D:95:TYR:HA	7:D:158:LYS:HG2	1.89	0.53
72:SW:8:ALA:HA	72:SW:74:VAL:HG11	1.89	0.53
61:SL:80:MET:HG2	61:SL:86:ILE:CG2	2.38	0.53
49:S2:734:C:H5"	49:S2:734:C:C6	2.44	0.53
54:SE:224:ASN:N	54:SE:224:ASN:OD1	2.41	0.53
52:SC:274:VAL:O	52:SC:274:VAL:HG13	2.08	0.53
50:SA:53:ARG:CZ	50:SA:53:ARG:HB2	2.39	0.53
48:4:6:VAL:C	48:4:8:GLN:N	2.61	0.53
1:5:994:G:C2	1:5:1050:C:C2	2.95	0.53
1:5:1898:C:H5	1:5:2279:A:H1'	1.66	0.53
1:5:1899:G:H1'	1:5:2278:G:H22	1.73	0.53
1:5:1978:C:N3	1:5:1988:G:O6	2.41	0.53
1:5:2439:G:C8	1:5:2777:G:C6	2.96	0.53
1:5:2439:G:H2'	1:5:2439:G:N3	2.23	0.53
1:5:471:A:N1	1:5:472:C:H1'	2.24	0.53
1:5:970:G:C2'	1:5:971:U:O4'	2.55	0.53
6:C:341:LEU:HD21	8:E:52:ARG:HD2	1.90	0.53
14:K:56:LEU:HB2	14:K:91:ASP:OD2	2.04	0.53
48:4:848:ILE:HG22	48:4:849:PRO:N	2.15	0.53
49:S2:386:C:H2'	49:S2:386:C:O2	2.08	0.53
56:SG:229:ALA:HB1	56:SG:233:ARG:NH2	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:10:G:O2'	52:SC:113:GLN:NE2	2.41	0.53
1:5:1492:G:C4	1:5:1493:G:C8	2.97	0.53
1:5:3731:C:O2	1:5:3731:C:H2'	2.06	0.53
1:5:2835:A:N3	5:B:228:TYR:HD2	2.07	0.53
49:S2:1545:A:H4'	66:SQ:74:GLY:HA2	1.90	0.53
49:S2:1272:C:OP1	49:S2:1303:C:C1'	2.56	0.53
49:S2:1308:U:N3	49:S2:1309:C:C4	2.76	0.53
49:S2:1648:G:O2'	49:S2:1674:G:O6	2.15	0.53
1:5:5006:U:C1'	1:5:5042:A:C5	2.91	0.53
49:S2:553:U:N3	49:S2:554:A:N7	2.56	0.53
1:5:2492:C:H2'	1:5:2493:G:O4'	2.08	0.53
1:5:3694:U:C4	1:5:3695:U:C4	2.95	0.53
1:5:209:U:N3	1:5:233:U:C5	2.76	0.53
3:8:125:C:O2	3:8:125:C:O4'	2.21	0.53
7:D:52:ILE:HG23	7:D:54:ARG:NH2	2.23	0.53
1:5:4579:U:C4	1:5:4580:U:C5	2.96	0.53
48:4:617:ILE:CG1	48:4:622:VAL:CG2	2.87	0.53
21:R:109:TYR:CE1	21:R:114:LYS:CD	2.87	0.53
1:5:1719:A:O2'	1:5:1720:C:C6	2.58	0.53
1:5:1092:G:C2	1:5:1093:C:N1	2.76	0.53
1:5:648:G:C2	1:5:649:A:C8	2.96	0.53
49:S2:961:G:N1	49:S2:962:A:C5	2.76	0.53
1:5:2549:G:N1	1:5:2770:C:N4	2.56	0.53
18:O:109:PRO:O	18:O:113:ASP:OD1	2.26	0.53
1:5:1758:G:C2	1:5:1759:G:C8	2.97	0.53
1:5:190:G:N1	1:5:252:C:C2	2.76	0.53
49:S2:823:U:C5	59:SJ:144:ILE:HD13	2.43	0.53
1:5:3944:G:N2	1:5:3945:A:C4	2.76	0.53
1:5:4131:G:C6	1:5:4132:C:C4	2.96	0.53
15:L:28:GLN:HG2	17:N:202:ARG:NH1	2.23	0.53
49:S2:367:U:H4'	49:S2:371:A:C8	2.43	0.53
49:S2:643:A:OP2	59:SJ:38:ARG:NH2	2.41	0.53
49:S2:404:G:C4	49:S2:405:G:C8	2.96	0.53
1:5:2243:C:O2	1:5:2244:C:C6	2.61	0.53
1:5:2245:G:C6	1:5:2246:C:C4	2.96	0.53
1:5:1297:U:O2	1:5:1298:C:C6	2.61	0.53
1:5:1595:G:N1	1:5:4557:U:H5'	2.23	0.53
1:5:2335:C:O2	1:5:2336:G:C8	2.62	0.53
72:SW:11:LEU:HD11	72:SW:37:PHE:HE2	1.71	0.53
1:5:2677:G:C6	1:5:2678:A:C8	2.96	0.53
51:SB:120:VAL:HG13	51:SB:142:PHE:CE1	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1209:A:O2'	50:SA:85:ARG:NH2	51.33	0.53
1:5:2682:G:H2'	1:5:2683:C:C6	2.43	0.53
1:5:5026:U:OP1	58:SI:168:GLN:HG3	2.09	0.53
1:5:2352:U:C2	1:5:2353:U:C5	2.96	0.53
1:5:1549:G:N2	1:5:1580:C:C2	2.76	0.53
1:5:976:G:H1	1:5:1277:G:H1	1.57	0.53
1:5:1442:C:C4	1:5:1443:A:N7	2.76	0.53
1:5:1665:C:O2'	1:5:1666:C:H5'	2.08	0.53
1:5:1667:G:C2	1:5:2283:G:C6	2.94	0.53
1:5:1670:G:O5'	1:5:1671:U:H6	1.91	0.53
1:5:1875:C:H2'	1:5:1876:U:O4'	2.08	0.53
1:5:1961:G:O2'	1:5:2024:G:N2	2.40	0.53
1:5:1994:C:O2	1:5:1995:G:C8	2.60	0.53
1:5:2009:A:O2'	1:5:2010:A:OP1	2.20	0.53
1:5:2113:G:C8	1:5:2115:G:N3	2.76	0.53
1:5:2457:G:H21	1:5:3672:G:N2	2.06	0.53
1:5:4078:C:C2	1:5:4079:C:C6	2.96	0.53
1:5:976:G:H2'	1:5:977:C:O4'	2.09	0.53
9:F:63:TYR:HD2	9:F:149:LEU:HD21	1.73	0.53
14:K:59:THR:O	14:K:60:VAL:CG2	2.54	0.53
48:4:593:SER:OG	48:4:728:CYS:HA	2.09	0.53
49:S2:311:C:C2	49:S2:312:G:H1'	2.43	0.53
49:S2:312:G:O2'	49:S2:313:A:OP2	2.26	0.53
49:S2:73:C:C6	49:S2:74:G:C8	2.96	0.53
49:S2:1162:C:C4	49:S2:1163:C:C5	2.96	0.53
48:4:206:ASP:CA	48:4:212:VAL:CG2	2.86	0.53
1:5:328:A:C2	1:5:329:A:C5	2.96	0.53
1:5:70:A:N1	1:5:4355:G:C1'	2.72	0.53
15:L:82:ARG:HB3	15:L:82:ARG:CZ	2.36	0.53
1:5:1183:C:N3	1:5:1184:A:C8	2.76	0.53
49:S2:1410:C:N3	49:S2:1411:G:N7	2.57	0.53
49:S2:1432:U:C2	49:S2:1433:C:H5	2.22	0.53
1:5:3857:G:C4	1:5:3858:C:C6	2.96	0.53
49:S2:1253:A:H4'	49:S2:1254:C:H5"	1.89	0.53
49:S2:1537:A:C6	49:S2:1538:C:C4	2.96	0.53
1:5:2366:A:H2	1:5:3851:U:C1'	2.14	0.53
49:S2:29:G:C2	49:S2:30:C:N3	2.75	0.53
49:S2:634:A:N1	49:S2:635:G:C5	2.76	0.53
73:SX:88:ASP:OD1	73:SX:89:GLY:N	2.41	0.53
49:S2:1112:U:C4	49:S2:1113:A:C4	2.96	0.53
1:5:1894:C:C2'	1:5:1895:G:O5'	2.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2484:A:H2'	1:5:2485:U:O4'	2.08	0.53
49:S2:793:G:C2	49:S2:794:A:H1'	2.43	0.53
3:8:64:U:C2	3:8:95:A:N1	2.76	0.53
1:5:491:G:N2	1:5:492:U:C4	2.76	0.53
1:5:2698:G:C6	1:5:2699:C:C4	2.97	0.53
1:5:4202:U:O2	1:5:4204:C:C4	2.61	0.53
1:5:5031:G:C2	1:5:5032:C:C4	2.96	0.53
1:5:4948:C:O2'	1:5:4949:G:H5'	2.07	0.53
1:5:1092:G:C2	1:5:1093:C:C6	2.97	0.53
49:S2:964:A:N3	49:S2:965:U:C4	2.76	0.53
1:5:4881:U:O2'	1:5:4882:U:O5'	2.27	0.53
1:5:4886:C:O2	1:5:4886:C:H2'	2.08	0.53
49:S2:1771:G:N3	49:S2:1772:C:C6	2.77	0.53
1:5:4132:C:C2	1:5:4133:C:C6	2.97	0.53
5:B:323:TYR:CD1	5:B:324:GLY:N	2.76	0.53
21:R:163:ARG:HD2	49:S2:871:U:O2'	2.08	0.53
1:5:713:C:H42	1:5:955:G:H1	1.55	0.53
57:SH:133:LEU:HD21	57:SH:176:VAL:HG11	1.90	0.53
1:5:4214:A:O5'	1:5:4214:A:H8	1.91	0.53
49:S2:360:A:C2	49:S2:363:A:N7	2.76	0.53
54:SE:248:ILE:HD12	59:SJ:72:PHE:CD2	2.43	0.53
48:4:743:PRO:HG3	48:4:817:TRP:CE3	2.44	0.53
1:5:1280:C:N3	1:5:1282:G:O6	2.42	0.53
1:5:1662:C:O2	1:5:1663:C:C6	2.62	0.53
1:5:1272:C:H5"	1:5:2122:G:C8	2.43	0.53
1:5:2284:G:H2'	1:5:2285:A:O4'	2.08	0.53
1:5:4167:G:N1	1:5:4168:G:C8	2.76	0.53
14:K:62:LEU:HD12	14:K:73:VAL:HB	1.85	0.53
49:S2:436:G:C6	49:S2:458:A:N3	2.76	0.53
49:S2:1393:G:C6	49:S2:1394:G:N7	2.77	0.53
49:S2:1181:A:C2	49:S2:1182:A:C2	2.97	0.53
49:S2:1859:A:C2	49:S2:1860:A:C5	2.97	0.53
1:5:102:G:C2'	1:5:103:G:O5'	2.56	0.53
1:5:313:U:C2	1:5:314:G:C8	2.96	0.53
1:5:319:A:H1'	1:5:3726:A:C2	2.44	0.53
1:5:3742:G:C2	1:5:3743:G:N7	2.77	0.53
1:5:4345:C:O2	1:5:4346:U:C6	2.60	0.53
1:5:4983:C:O2	1:5:4984:C:H6	1.86	0.53
49:S2:1431:G:N2	49:S2:1432:U:H1'	2.22	0.53
49:S2:1561:A:C6	49:S2:1562:C:C6	2.97	0.53
49:S2:650:A:H2'	49:S2:651:U:O5'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:SM:101:ARG:CZ	62:SM:101:ARG:HA	2.39	0.53
1:5:3612:C:H2'	1:5:3613:U:O4'	2.09	0.53
1:5:4999:G:C4	1:5:5000:G:C8	2.97	0.53
1:5:5000:G:C6	1:5:5001:U:C4	2.96	0.53
1:5:5000:G:C5	1:5:5001:U:C5	2.96	0.53
1:5:2851:G:O2'	1:5:3841:C:O4'	2.23	0.53
49:S2:993:G:N2	49:S2:994:C:N1	2.56	0.53
49:S2:1250:A:H2	49:S2:1339:U:H1'	1.73	0.53
22:S:95:ARG:HH11	22:S:97:TYR:HH	1.53	0.53
1:5:4198:G:O6	12:I:112:GLN:NE2	2.42	0.53
49:S2:979:C:O2	49:S2:979:C:H2'	2.08	0.53
1:5:1337:A:H2	1:5:1658:G:N3	2.06	0.53
1:5:4965:U:H2'	1:5:4965:U:O2	2.04	0.53
1:5:907:C:N3	1:5:908:G:C8	2.77	0.53
1:5:2737:C:C2	1:5:2738:C:C5	2.97	0.53
49:S2:1067:C:O2	49:S2:1067:C:H2'	2.08	0.53
1:5:1776:A:C6	1:5:1777:C:C4	2.96	0.53
1:5:1778:C:C2	1:5:1779:U:H5	2.26	0.53
1:5:127:G:C4	1:5:128:C:C5	2.96	0.53
1:5:1609:U:C2	1:5:1610:C:C6	2.97	0.53
1:5:4416:G:N1	1:5:4417:C:C5	2.77	0.53
49:S2:1355:C:O3'	52:SC:238:LYS:NZ	2.41	0.53
1:5:1348:U:N3	1:5:1349:G:N7	2.56	0.53
49:S2:816:A:N6	49:S2:817:G:C4	2.76	0.53
1:5:60:G:C6	1:5:61:A:C5	2.96	0.53
49:S2:810:A:H5'	49:S2:811:A:OP2	2.08	0.53
1:5:942:G:P	9:F:244:ARG:NH1	2.82	0.53
49:S2:1729:U:O2	49:S2:1730:U:H5	1.91	0.53
1:5:3925:U:H2'	1:5:3926:C:O4'	2.08	0.53
49:S2:1184:G:C6	49:S2:1185:C:C4	2.96	0.53
51:SB:113:MET:O	51:SB:142:PHE:HE2	1.92	0.53
49:S2:697:G:C2	49:S2:734:C:C2	2.97	0.53
48:4:401:MET:HE1	48:4:476:ASP:HA	1.90	0.53
68:SS:15:VAL:HG13	68:SS:68:ILE:HD11	1.90	0.53
68:SS:130:ARG:HG3	68:SS:136:THR:CG2	2.39	0.53
64:SO:35:ALA:CB	64:SO:112:ALA:HB2	2.38	0.53
1:5:4430:G:O2'	12:I:158:LYS:HB2	2.09	0.53
1:5:1260:G:C4	1:5:1261:G:C8	2.97	0.53
1:5:1278:C:C3'	1:5:1279:A:H4'	2.38	0.53
1:5:1667:G:C6	1:5:2280:G:C4	2.96	0.53
1:5:1214:C:H2'	1:5:2114:G:C2	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2270:G:N3	1:5:2271:C:C6	2.76	0.53
1:5:2451:A:N6	1:5:2452:G:C4	2.77	0.53
1:5:3668:C:N4	1:5:3669:G:C5	2.76	0.53
1:5:4404:U:C4	1:5:4436:U:C4	2.96	0.53
1:5:1866:U:C5	1:5:4405:G:O4'	2.61	0.53
14:K:47:ALA:CB	14:K:72:GLU:CD	2.68	0.53
14:K:83:LYS:O	14:K:86:LYS:HB2	2.08	0.53
49:S2:459:C:N3	49:S2:460:A:N7	2.55	0.53
48:4:48:SER:O	48:4:49:ALA:HB2	2.08	0.53
49:S2:112:U:H1'	49:S2:114:G:C6	2.43	0.53
49:S2:1467:C:OP1	67:SR:1:MET:N	2.30	0.53
49:S2:218:U:C2	49:S2:219:U:C6	2.97	0.53
49:S2:1050:A:C5	49:S2:1051:G:C8	2.97	0.53
49:S2:1201:U:HO2'	49:S2:1358:U:HO2'	1.56	0.53
1:5:1394:G:O2'	1:5:1395:U:C5'	2.57	0.53
1:5:69:A:C2	1:5:70:A:C4	2.97	0.53
1:5:99:A:H4'	17:N:181:HIS:HD1	1.71	0.53
49:S2:1405:A:C2'	49:S2:1406:G:H5'	2.39	0.53
49:S2:1407:U:O2	49:S2:1408:U:C4	2.62	0.53
49:S2:1410:C:C4	49:S2:1411:G:C5	2.96	0.53
49:S2:1511:U:N3	49:S2:1512:C:C5	2.76	0.53
49:S2:1595:U:C2	49:S2:1596:U:H6	2.26	0.53
1:5:426:A:O2'	1:5:427:A:H5'	2.09	0.53
49:S2:617:G:C6	49:S2:618:C:C5	2.97	0.53
49:S2:1094:C:N3	49:S2:1095:U:C6	2.76	0.53
49:S2:1222:G:C2'	49:S2:1223:A:O4'	2.54	0.53
1:5:4997:G:N2	1:5:4998:G:H1'	2.23	0.53
1:5:4401:G:C6	1:5:4402:C:C4	2.97	0.53
1:5:2481:G:C4	1:5:2482:C:C6	2.96	0.53
4:A:209:HIS:HE1	4:A:211:PHE:CD2	2.26	0.53
1:5:209:U:C6	1:5:211:G:N7	2.77	0.53
1:5:271:C:C2	1:5:272:U:C5	2.86	0.53
7:D:21:ARG:HA	7:D:24:ARG:HE	1.73	0.53
49:S2:833:C:N3	49:S2:834:C:C5	2.77	0.53
1:5:1335:G:C6	1:5:1336:G:C5	2.96	0.53
3:8:132:G:N2	3:8:133:G:N9	2.55	0.53
1:5:5019:A:C2	1:5:5020:G:N7	2.77	0.53
1:5:5028:G:C2	1:5:5029:C:C2	2.97	0.53
1:5:4763:U:O2	16:M:3:PHE:CZ	2.62	0.53
11:H:93:ARG:HH11	11:H:93:ARG:CG	3.01	0.53
1:5:1806:G:N3	1:5:1807:C:C6	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1256:G:H2'	49:S2:1256:G:N3	2.23	0.53
1:5:3622:C:O2	1:5:3623:C:O2	2.26	0.53
19:P:82:ARG:HA	19:P:83:TRP:CE3	2.44	0.53
16:M:11:ARG:CZ	16:M:11:ARG:HB2	2.38	0.53
50:SA:10:MET:O	50:SA:55:TRP:CZ3	2.62	0.53
6:C:54:VAL:HG21	6:C:101:MET:CE	2.39	0.53
1:5:965:G:N3	1:5:965:G:H2'	2.23	0.53
69:ST:33:TRP:O	69:ST:35:ASP:N	2.41	0.53
1:5:1789:C:C2'	1:5:1790:U:O5'	2.55	0.53
18:O:14:HIS:CD2	18:O:124:LEU:HD12	2.44	0.53
1:5:5055:G:C2	1:5:5056:A:C5	2.96	0.53
52:SC:72:ASP:N	52:SC:72:ASP:OD1	2.42	0.53
49:S2:410:G:C6	49:S2:411:G:C5	2.96	0.53
15:L:47:ALA:HB3	15:L:48:PRO:HD3	1.90	0.53
48:4:58:ASP:C	48:4:63:GLU:CD	2.66	0.53
1:5:1235:G:N2	1:5:1236:C:C5	2.77	0.53
1:5:1260:G:C2	1:5:1261:G:N9	2.77	0.53
1:5:2019:C:C2	1:5:2020:U:H6	2.24	0.53
1:5:2314:G:N2	1:5:2315:G:N9	2.56	0.53
1:5:687:U:O2'	8:E:101:ARG:HG2	2.09	0.53
1:5:983:C:C2	1:5:984:C:H6	2.10	0.53
4:A:40:TYR:O	4:A:40:TYR:CD1	2.62	0.53
49:S2:437:G:C2	49:S2:457:C:O2	2.61	0.53
48:4:604:MET:HE1	48:4:729:LEU:HA	1.90	0.53
49:S2:1791:A:C5	49:S2:1792:G:H1'	2.44	0.53
1:5:1359:G:H2'	1:5:1360:G:N9	2.23	0.53
1:5:330:G:C2	1:5:331:G:C5	2.97	0.53
49:S2:948:C:N3	49:S2:949:G:N7	2.57	0.53
49:S2:1408:U:H4'	66:SQ:71:ARG:HH21	1.73	0.53
1:5:4276:G:O6	1:5:4277:G:C6	2.61	0.53
1:5:4277:G:N1	1:5:4278:C:C5	2.77	0.53
1:5:4279:A:O4'	1:5:4281:A:C8	2.62	0.53
48:4:845:LYS:NZ	48:4:845:LYS:CA	2.69	0.53
1:5:424:U:C2'	1:5:424:U:O2	2.57	0.53
1:5:2368:A:N6	1:5:2827:G:O2'	2.41	0.53
49:S2:597:G:N2	49:S2:640:A:N3	2.57	0.53
1:5:3879:G:C5	1:5:3882:C:C4	2.96	0.53
1:5:3703:G:C2	1:5:3704:U:C6	2.96	0.53
1:5:2494:U:H2'	1:5:2495:U:O4'	2.08	0.53
1:5:3635:A:C6	1:5:3636:C:C1'	2.91	0.53
1:5:3837:C:H2'	1:5:3838:U:C1'	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:G:100:HIS:HA	10:G:103:ARG:HD2	1.89	0.53
49:S2:999:G:N1	49:S2:1000:C:C4	2.77	0.53
1:5:2034:G:C5	1:5:2035:C:C4	2.96	0.53
1:5:4091:G:N1	1:5:4092:G:C5	2.77	0.53
10:G:108:GLN:HA	10:G:108:GLN:HE21	1.74	0.53
1:5:1337:A:C5'	6:C:102:PHE:HD2	2.21	0.53
1:5:2605:G:C2	1:5:2606:G:C5	2.96	0.53
3:8:99:U:N3	3:8:100:U:C5	2.76	0.53
49:S2:1040:G:C6	49:S2:1041:G:C5	2.97	0.53
1:5:2658:G:N3	1:5:2675:G:N2	2.56	0.53
1:5:4750:G:C2'	1:5:4751:G:O5'	2.56	0.53
49:S2:851:C:C2'	49:S2:852:G:N2	2.70	0.53
17:N:39:ALA:HB2	17:N:63:ARG:HH21	1.74	0.53
1:5:1090:G:H2'	1:5:1091:C:O4'	2.09	0.53
1:5:1092:G:C6	1:5:1093:C:C4	2.96	0.53
1:5:1367:C:N3	1:5:1369:C:P	2.82	0.53
5:B:92:TYR:CE2	5:B:101:THR:HB	2.43	0.53
1:5:1752:G:C2	1:5:1753:G:C4	2.97	0.53
1:5:936:C:O2	1:5:936:C:O4'	2.27	0.53
1:5:124:C:O2	1:5:124:C:H2'	2.07	0.53
1:5:1609:U:N3	1:5:1610:C:C5	2.77	0.53
1:5:235:A:N1	1:5:238:C:C5	2.77	0.53
1:5:4136:G:C2	1:5:4137:C:C2	2.97	0.53
49:S2:1660:C:O4'	49:S2:1660:C:O2	2.23	0.53
49:S2:608:C:O2	49:S2:608:C:H2'	2.08	0.53
1:5:4960:G:C2'	1:5:4961:G:H5'	2.38	0.53
1:5:4904:G:N1	1:5:4905:C:C4	2.76	0.53
49:S2:403:G:C2	49:S2:404:G:C8	2.97	0.53
8:E:277:ILE:HD11	8:E:282:LEU:HD13	1.90	0.53
1:5:258:G:C2	1:5:259:C:C6	2.97	0.53
1:5:924:C:C2	1:5:925:C:C6	2.96	0.53
1:5:2244:C:C2	1:5:2245:G:C8	2.96	0.53
1:5:2246:C:H2'	1:5:2247:C:O4'	2.09	0.53
1:5:4957:C:O2	1:5:4957:C:H2'	2.09	0.53
53:SD:34:TYR:HE1	53:SD:37:VAL:HG13	1.72	0.53
11:H:88:PHE:CZ	11:H:151:ILE:HB	2.43	0.53
1:5:3820:G:C6	1:5:3821:A:C5	2.97	0.53
1:5:4928:C:H2'	1:5:4929:C:H5"	1.90	0.53
1:5:4703:U:N3	1:5:4704:C:C5	2.77	0.53
57:SH:135:PHE:HD1	57:SH:136:PRO:CA	2.22	0.53
54:SE:48:LEU:HD22	54:SE:61:VAL:HG13	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:987:A:C2	51:SB:114:VAL:HG21	2.43	0.53
58:SI:149:TYR:HA	58:SI:152:ARG:HB2	1.91	0.53
1:5:345:C:O2	1:5:346:G:C8	2.62	0.53
1:5:1541:C:C4	1:5:1542:U:C5	2.97	0.53
1:5:1555:G:N2	1:5:1556:C:H1'	2.24	0.53
1:5:1572:U:C5'	21:R:95:TRP:CZ2	2.92	0.53
1:5:1691:G:C5	1:5:1692:C:C5	2.97	0.53
1:5:1991:A:C8	1:5:1991:A:H3'	2.44	0.53
1:5:2089:G:C6	1:5:2263:A:C8	2.96	0.53
1:5:2468:U:H2'	1:5:2506:G:O6	2.09	0.53
1:5:992:C:N3	1:5:993:G:N7	2.57	0.53
9:F:149:LEU:HB2	9:F:197:TYR:HH	1.72	0.53
14:K:102:GLY:C	14:K:140:GLY:CA	2.76	0.53
14:K:147:HIS:H	14:K:147:HIS:CD2	2.26	0.53
22:S:27:LEU:C	22:S:28:TYR:CD1	2.81	0.53
49:S2:70:G:C4	49:S2:71:G:N7	2.76	0.53
1:5:1388:A:N1	1:5:1396:G:C2	2.77	0.53
1:5:3741:C:N3	1:5:3742:G:C8	2.76	0.53
1:5:84:A:C8	1:5:84:A:H5'	2.44	0.53
1:5:84:A:H4'	1:5:85:G:OP1	2.08	0.53
1:5:1185:G:N2	7:D:282:GLN:NE2	2.56	0.53
1:5:1191:C:C2	1:5:1192:C:C6	2.97	0.53
49:S2:1431:G:C2	49:S2:1432:U:N1	2.77	0.53
49:S2:1580:A:OP1	49:S2:1580:A:H2'	2.08	0.53
49:S2:1551:U:C1'	49:S2:1558:C:C2	2.92	0.53
49:S2:1629:C:O2'	68:SS:82:TRP:O	2.26	0.53
1:5:4337:C:O2'	1:5:4338:G:O5'	2.26	0.53
1:5:4215:C:O2	1:5:4215:C:H2'	2.07	0.53
49:S2:1110:G:C4	49:S2:1111:U:C6	2.96	0.53
49:S2:1113:A:H2'	49:S2:1114:U:C3'	2.39	0.53
1:5:5005:G:C5	26:W:51:TRP:CD1	2.91	0.53
1:5:4399:U:C4	1:5:4400:G:N7	2.76	0.53
49:S2:477:G:C2	49:S2:478:G:C5	2.97	0.53
1:5:2480:G:C2	1:5:2481:G:N9	2.77	0.53
1:5:2497:C:N4	1:5:2498:C:H41	2.07	0.53
1:5:208:A:H1'	1:5:232:G:N3	2.23	0.53
3:8:79:G:C2	3:8:80:A:C6	2.97	0.53
3:8:80:A:C5	3:8:81:C:C6	2.96	0.53
1:5:2614:C:O2	1:5:2726:G:C2	2.61	0.53
49:S2:933:G:C4	49:S2:1001:A:C8	2.97	0.53
49:S2:996:A:N6	63:SN:113:PHE:CE1	2.76	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1949:U:O2	1:5:1949:U:H2'	2.09	0.53
49:S2:835:C:C2	49:S2:837:A:H4'	2.43	0.53
49:S2:859:G:N1	49:S2:860:G:C5	2.76	0.53
1:5:2604:C:H2'	1:5:2604:C:O2	2.09	0.53
50:SA:199:PRO:HB2	50:SA:203:PHE:HZ	1.74	0.53
1:5:5031:G:N3	1:5:5032:C:C6	2.77	0.53
1:5:4479:A:N1	1:5:4480:A:H1'	2.23	0.53
1:5:4967:A:H2'	1:5:4968:A:C8	2.44	0.53
1:5:4498:U:O2	1:5:4500:U:C5'	2.57	0.53
1:5:1090:G:C2	1:5:1091:C:C2	2.97	0.53
1:5:908:G:C2	1:5:909:A:N9	2.77	0.53
49:S2:1048:G:H2'	49:S2:1068:G:N2	2.24	0.53
1:5:145:G:N3	1:5:146:G:C8	2.76	0.53
49:S2:1760:G:N2	49:S2:1773:C:C2	2.76	0.53
49:S2:1777:G:C5	49:S2:1778:C:C5	2.97	0.53
1:5:732:A:C5	1:5:733:A:C2	2.96	0.53
1:5:127:G:N1	1:5:128:C:C4	2.77	0.53
54:SE:121:TYR:HB2	54:SE:161:GLN:HE21	1.74	0.53
1:5:3657:U:C2	1:5:3658:C:C6	2.96	0.53
49:S2:828:G:C6	49:S2:829:C:C4	2.97	0.53
1:5:219:G:C8	1:5:220:C:C5	2.97	0.53
1:5:4441:A:H5"	1:5:4441:A:C8	2.43	0.53
1:5:4640:C:C4	1:5:4641:U:C5	2.97	0.53
9:F:239:GLU:C	9:F:241:GLN:H	2.12	0.53
24:U:97:ARG:O	24:U:98:ASP:HB2	2.08	0.53
49:S2:23:G:H2'	49:S2:24:C:O4'	2.07	0.53
48:4:3:ASN:HB3	48:4:47:ALA:H	1.74	0.53
48:4:64:GLN:O	48:4:64:GLN:NE2	2.42	0.53
14:K:31:LYS:HE2	48:4:753:GLU:OE2	2.08	0.53
1:5:1215:C:C2	1:5:1216:C:H6	2.27	0.53
1:5:1543:G:N1	1:5:1544:G:C5	2.76	0.53
1:5:1663:C:H2'	1:5:1664:U:H6	1.74	0.53
1:5:1696:C:O2'	1:5:1697:G:OP2	2.21	0.53
1:5:964:A:N3	1:5:2252:G:O6	2.42	0.53
1:5:2316:G:N3	1:5:2317:C:C6	2.76	0.53
1:5:4083:U:H2'	1:5:4084:G:H3'	1.90	0.53
1:5:4117:U:C2'	1:5:4117:U:O2	2.55	0.53
1:5:4223:C:O2	1:5:4223:C:H2'	2.08	0.53
1:5:990:C:C2	1:5:991:C:C6	2.97	0.53
21:R:103:ARG:CZ	21:R:106:LEU:HD21	9.22	0.53
49:S2:118:C:H1'	49:S2:445:A:C4	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1744:G:C2	49:S2:1789:G:C2	2.96	0.53
49:S2:58:C:H1'	49:S2:59:U:C5	2.43	0.53
49:S2:64:A:N6	49:S2:82:G:C4	2.77	0.53
49:S2:1842:C:O2'	49:S2:1843:G:H5'	2.08	0.53
1:5:3742:G:N3	1:5:3743:G:C8	2.77	0.53
1:5:3858:C:N4	1:5:3859:G:C6	2.76	0.53
49:S2:1572:C:N3	49:S2:1573:G:C8	2.77	0.53
1:5:4283:G:N3	1:5:4284:C:C5	2.63	0.53
1:5:4284:C:N3	1:5:4285:U:C4	2.76	0.53
3:8:9:A:N1	3:8:10:G:C5	2.77	0.53
49:S2:632:C:O2	49:S2:633:C:C6	2.62	0.53
49:S2:636:C:C4	49:S2:637:U:C4	2.97	0.53
49:S2:646:G:C5	49:S2:647:U:C6	2.97	0.53
49:S2:1283:C:C1'	62:SM:91:LEU:HD13	2.37	0.53
1:5:3653:A:C2	1:5:3692:A:C4'	2.91	0.53
3:8:80:A:C3'	3:8:81:C:H4'	2.38	0.53
3:8:80:A:C8	3:8:81:C:H1'	2.44	0.53
1:5:505:G:C6	1:5:506:C:C4	2.97	0.53
49:S2:992:A:C2	49:S2:993:G:C8	2.97	0.53
49:S2:976:G:C6	49:S2:977:C:C4	2.97	0.53
49:S2:976:G:C5	49:S2:977:C:C5	2.97	0.53
49:S2:494:C:H2'	49:S2:494:C:O2	2.09	0.53
50:SA:176:TRP:HE1	50:SA:195:TRP:HE3	1.55	0.53
1:5:4731:G:C8	1:5:4732:G:C6	2.97	0.53
1:5:1098:G:C2	1:5:1099:C:C2	2.97	0.53
1:5:1098:G:C6	1:5:1099:C:C4	2.96	0.53
49:S2:583:C:N3	49:S2:584:G:C8	2.77	0.53
49:S2:291:G:C5'	49:S2:291:G:H8	2.22	0.53
1:5:180:C:O2	1:5:181:C:C6	2.61	0.53
1:5:4737:G:C5	1:5:4738:C:C4	2.97	0.53
1:5:1836:G:N1	1:5:1837:A:N7	2.56	0.53
12:I:95:HIS:CE1	12:I:97:ILE:HD12	2.44	0.53
49:S2:1325:G:C2	49:S2:1327:G:C8	2.97	0.53
49:S2:1341:C:H4'	49:S2:1342:U:OP1	2.09	0.53
1:5:1297:U:O2	1:5:1298:C:H6	1.91	0.53
48:4:450:THR:CG2	48:4:470:VAL:HG21	2.38	0.53
7:D:265:ARG:CG	7:D:265:ARG:HH11	2.22	0.53
4:A:16:PHE:CE1	4:A:194:ASN:HB3	2.44	0.53
7:D:43:LYS:HB3	7:D:46:THR:CG2	2.38	0.53
16:M:118:MET:HG3	18:O:192:PHE:HE2	1.73	0.53
61:SL:89:ARG:HE	61:SL:106:HIS:CD2	2.27	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:SL:124:ASP:OD1	61:SL:147:LYS:HB3	2.08	0.53
29:Z:50:PRO:CG	29:Z:122:TYR:CE2	2.91	0.53
1:5:666:G:C2	1:5:666:G:OP2	2.62	0.53
1:5:1260:G:N3	1:5:1261:G:C8	2.77	0.53
1:5:1698:C:OP2	1:5:1698:C:C6	2.61	0.53
1:5:1955:G:C5	1:5:1956:A:C8	2.97	0.53
1:5:2076:G:C6	1:5:2077:C:C4	2.97	0.53
1:5:2085:G:C2	1:5:2273:G:N1	2.76	0.53
1:5:2645:G:C6	1:5:2646:C:C4	2.97	0.53
5:B:17:LEU:C	5:B:17:LEU:HD13	2.28	0.53
9:F:124:PHE:CD2	9:F:196:ILE:CG2	2.92	0.53
14:K:88:PRO:O	14:K:88:PRO:HD2	2.07	0.53
49:S2:122:G:C2	49:S2:123:G:C4	2.97	0.53
49:S2:350:C:C2	49:S2:351:G:C8	2.97	0.53
49:S2:383:G:H4'	61:SL:132:ARG:HD2	1.90	0.53
1:5:101:A:N6	1:5:102:G:C6	2.77	0.53
1:5:1373:A:C2	1:5:1374:G:C8	2.97	0.53
1:5:322:C:O2	1:5:4356:G:C2	2.61	0.53
1:5:4981:G:C2	1:5:4982:A:N7	2.77	0.53
1:5:91:G:N7	1:5:93:G:C5	2.77	0.53
5:B:45:ALA:HB3	5:B:183:ILE:HG23	1.90	0.53
1:5:3709:U:C6	49:S2:970:G:C2	2.82	0.53
49:S2:1410:C:O2	49:S2:1411:G:C8	2.62	0.53
1:5:426:A:C2	1:5:427:A:C5	2.96	0.53
49:S2:1271:C:C4	49:S2:1272:C:C6	2.97	0.53
48:4:403:PRO:HA	48:4:410:PHE:CD2	2.44	0.53
49:S2:751:G:N1	49:S2:792:C:C2	2.77	0.53
49:S2:752:G:C2	49:S2:790:C:N3	2.77	0.53
1:5:2851:G:C6	1:5:2852:U:H1'	2.44	0.53
1:5:486:C:C2	1:5:487:G:N7	2.72	0.53
49:S2:989:C:C4	49:S2:1001:A:C2	2.97	0.53
49:S2:997:A:C2'	49:S2:998:A:O5'	2.56	0.53
1:5:2529:A:N6	1:5:2532:C:H1'	2.23	0.53
1:5:2061:U:O2	22:S:111:ARG:CD	2.57	0.53
49:S2:1838:U:C5'	49:S2:1838:U:C6	2.92	0.53
1:5:4750:G:O2'	1:5:4751:G:P	2.67	0.53
48:4:162:ARG:O	48:4:166:GLU:CG	2.49	0.53
1:5:1092:G:H2'	1:5:1093:C:O4'	2.09	0.53
1:5:4687:A:C8	1:5:4698:C:C6	2.97	0.53
1:5:2735:G:N1	1:5:2736:G:N7	2.57	0.53
1:5:2301:G:N2	1:5:2302:C:N1	2.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:113:GLU:OE2	11:H:124:ARG:O	2.27	0.53
49:S2:38:A:N1	49:S2:515:G:N2	2.57	0.53
49:S2:402:C:N4	49:S2:403:G:C5	2.77	0.53
7:D:99:TYR:HD2	7:D:199:ILE:HG23	1.74	0.53
49:S2:1683:C:N3	49:S2:1684:C:C5	2.77	0.53
49:S2:1687:C:C2	49:S2:1688:C:C5	2.96	0.53
3:8:142:U:N3	3:8:143:G:C8	2.77	0.53
55:SF:20:PHE:HB3	55:SF:23:TRP:HB2	1.89	0.53
1:5:4297:G:H2'	1:5:4297:G:N3	2.23	0.53
1:5:1549:G:C2	1:5:1580:C:C2	2.97	0.53
1:5:4640:C:N3	1:5:4641:U:C5	2.77	0.53
17:N:115:VAL:HA	17:N:134:LEU:HD23	1.91	0.53
50:SA:84:GLN:HE21	50:SA:100:ALA:HB1	1.73	0.53
15:L:81:LEU:O	15:L:83:VAL:N	2.42	0.53
1:5:397:G:N2	19:P:22:LEU:HD22	2.24	0.53
49:S2:1117:C:O4'	49:S2:1117:C:O2	2.27	0.53
48:4:518:PRO:CG	73:SX:50:ILE:HD12	2.39	0.53
1:5:1048:G:C5	1:5:1049:C:C5	2.97	0.53
1:5:1075:G:C2	1:5:1076:C:C2	2.97	0.53
1:5:1272:C:O3'	1:5:1273:G:O4'	2.25	0.53
1:5:450:G:H21	1:5:1294:A:H2'	1.74	0.53
1:5:1555:G:C4	1:5:1556:C:C6	2.97	0.53
1:5:1673:U:O2	1:5:1674:C:C6	2.62	0.53
1:5:1682:A:C4	1:5:1683:U:C6	2.97	0.53
1:5:1878:G:C2	1:5:1879:C:C6	2.97	0.53
1:5:1265:G:H5"	1:5:2115:G:C2	2.43	0.53
1:5:2463:G:C2	1:5:2464:C:C5	2.97	0.53
1:5:2503:G:H3'	1:5:2504:C:C5'	2.39	0.53
1:5:2538:U:H2'	1:5:2539:C:C6	2.44	0.53
1:5:2594:C:C2	1:5:2595:C:C5	2.97	0.53
10:G:57:TRP:CE3	10:G:61:ILE:HG21	2.44	0.53
49:S2:158:A:H2'	49:S2:159:A:C8	2.43	0.53
49:S2:436:G:N1	49:S2:437:G:C5	2.76	0.53
48:4:591:CYS:SG	48:4:732:SER:CA	2.97	0.53
49:S2:171:A:N7	49:S2:173:A:C6	2.77	0.53
49:S2:376:A:C6	49:S2:377:G:C5	2.96	0.53
1:5:286:U:N3	1:5:287:U:C5	2.77	0.53
1:5:3893:C:C4	1:5:4568:A:C2	2.97	0.53
1:5:65:A:O2'	1:5:66:A:H4'	2.08	0.53
49:S2:1510:G:C6	49:S2:1511:U:C4	2.97	0.53
49:S2:1552:G:H5"	49:S2:1553:C:H5"	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4236:G:N2	1:5:4289:U:H1'	2.23	0.53
49:S2:1029:G:C6	49:S2:1030:A:N7	2.77	0.53
1:5:3753:G:C6	1:5:3776:G:N1	2.77	0.53
49:S2:166:A:C2	49:S2:167:G:C5	2.97	0.53
49:S2:752:G:C2	49:S2:791:C:C2	2.97	0.53
49:S2:1248:U:C5	49:S2:1249:C:C2	2.96	0.53
1:5:31:U:O2'	1:5:32:G:C5'	2.57	0.53
49:S2:956:G:N2	49:S2:957:A:C5	2.76	0.53
2:7:43:U:N3	2:7:44:C:C4	2.75	0.53
1:5:3597:G:P	21:R:109:TYR:OH	2.67	0.53
49:S2:18:C:N3	49:S2:19:A:N7	2.57	0.53
49:S2:409:C:O2	49:S2:409:C:H2'	2.06	0.53
1:5:754:U:O2	1:5:755:C:C6	2.61	0.53
1:5:2567:G:C2	1:5:2568:C:N1	2.76	0.53
1:5:1770:A:C5	1:5:1771:U:C5	2.97	0.53
5:B:39:LYS:O	5:B:40:PRO:O	2.27	0.53
1:5:1651:G:O5'	1:5:1651:G:H8	1.92	0.53
1:5:1516:G:N7	1:5:1518:A:C8	2.77	0.53
1:5:1348:U:O2	1:5:1348:U:H2'	2.09	0.53
63:SN:18:TYR:C	63:SN:18:TYR:CD2	2.83	0.53
49:S2:1489:A:N1	53:SD:146:ARG:CZ	2.72	0.53
3:8:53:G:C4	3:8:54:C:C6	2.97	0.53
1:5:258:G:N3	1:5:259:C:C6	2.77	0.53
15:L:94:ILE:O	15:L:94:ILE:HG22	2.09	0.53
1:5:1912:G:N1	1:5:1913:C:C4	2.77	0.53
1:5:4617:G:C2	1:5:4618:G:C8	2.97	0.53
9:F:202:ARG:HD2	9:F:202:ARG:N	2.23	0.53
1:5:2044:U:O2'	18:O:63:ASN:CB	2.57	0.53
49:S2:205:G:H2'	49:S2:206:G:O4'	2.09	0.53
51:SB:120:VAL:HG22	51:SB:142:PHE:CE1	2.43	0.53
2:7:104:C:N3	2:7:105:C:C5	2.77	0.53
23:T:8:ARG:HH11	23:T:52:MET:HE1	1.74	0.53
15:L:176:PHE:CD1	15:L:176:PHE:C	2.81	0.53
5:B:160:ILE:HD13	5:B:194:LEU:HD13	1.90	0.53
48:4:543:GLU:HG3	48:4:576:VAL:CG2	2.22	0.52
48:4:763:LEU:HD12	48:4:770:VAL:HG22	1.89	0.52
48:4:749:ILE:O	48:4:783:VAL:HA	2.09	0.52
48:4:772:GLU:O	48:4:783:VAL:O	2.27	0.52
48:4:797:THR:HG23	48:4:798:ALA:N	2.23	0.52
48:4:79:TYR:CE2	48:4:351:LEU:HD11	2.38	0.52
48:4:762:VAL:CB	48:4:800:LEU:HD12	2.34	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:801:ARG:NE	48:4:802:SER:HB3	2.24	0.52
1:5:1557:C:O2	1:5:1557:C:H2'	2.07	0.52
1:5:2104:G:C4	1:5:2105:A:C8	2.96	0.52
1:5:2316:G:N3	1:5:2317:C:C5	2.77	0.52
1:5:4173:G:C5	1:5:4174:U:C5	2.98	0.52
1:5:964:A:C8	1:5:964:A:O5'	2.61	0.52
9:F:59:TYR:O	9:F:63:TYR:HB2	2.08	0.52
14:K:113:ALA:CA	14:K:116:MET:SD	2.94	0.52
20:Q:58:ARG:HH11	20:Q:58:ARG:HB2	1.72	0.52
49:S2:1451:G:H2'	49:S2:1452:A:H2'	1.90	0.52
49:S2:1467:C:N3	49:S2:1468:C:C5	2.77	0.52
49:S2:340:C:C2'	49:S2:341:C:C6	2.91	0.52
1:5:1490:G:N1	1:5:1491:A:C5	2.77	0.52
1:5:1168:G:C2	1:5:1169:G:N7	2.77	0.52
1:5:1189:G:C2	1:5:1190:C:N1	2.77	0.52
49:S2:1435:C:C2	49:S2:1436:C:C6	2.97	0.52
3:8:13:G:C4	3:8:14:U:C4	2.97	0.52
49:S2:29:G:N3	49:S2:30:C:C5	2.77	0.52
49:S2:646:G:H5'	49:S2:647:U:OP2	2.09	0.52
49:S2:1284:A:N6	62:SM:33:ARG:HB2	2.20	0.52
49:S2:1289:U:C4	49:S2:1290:G:C5	2.98	0.52
49:S2:1315:U:O4'	49:S2:1315:U:O2	2.27	0.52
60:SK:57:TYR:HB3	60:SK:75:GLY:HA2	1.89	0.52
1:5:3759:A:N6	49:S2:1709:G:H5'	2.25	0.52
1:5:209:U:C2	1:5:233:U:C5	2.96	0.52
12:I:184:MET:CB	12:I:190:LEU:HD12	2.38	0.52
49:S2:998:A:C8	49:S2:998:A:H3'	2.43	0.52
1:5:4518:A:O2'	5:B:257:TRP:CZ3	2.54	0.52
1:5:1928:C:N3	18:O:133:ARG:HD2	2.23	0.52
49:S2:1097:G:C6	49:S2:1098:C:C5	2.96	0.52
49:S2:605:A:O5'	49:S2:605:A:H8	1.91	0.52
49:S2:983:A:H2'	49:S2:984:C:O4'	2.09	0.52
1:5:4580:U:C4	1:5:4581:G:C8	2.96	0.52
1:5:2605:G:C2	1:5:2606:G:N7	2.77	0.52
1:5:2606:G:C2	1:5:2607:C:C6	2.97	0.52
13:J:19:LYS:HD2	13:J:21:CYS:SG	2.49	0.52
1:5:4730:C:H2'	1:5:4965:U:N3	2.23	0.52
1:5:4932:U:H2'	1:5:4933:C:C1'	2.39	0.52
1:5:146:G:C2	1:5:147:A:C5	2.97	0.52
49:S2:291:G:O5'	49:S2:291:G:H8	1.89	0.52
49:S2:823:U:O4'	49:S2:823:U:O2	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1498:A:C2	49:S2:1499:U:H1'	2.44	0.52
49:S2:666:U:H2'	49:S2:667:U:H6	1.73	0.52
49:S2:568:C:C5	49:S2:569:A:C8	2.98	0.52
2:7:73:U:O2	2:7:102:U:O4	2.26	0.52
49:S2:1185:C:O2	49:S2:1185:C:H2'	2.09	0.52
1:5:1907:A:H2'	1:5:1908:A:C8	2.44	0.52
55:SF:19:LEU:HD22	55:SF:24:SER:HA	1.90	0.52
28:Y:81:TYR:CD2	28:Y:96:HIS:HB2	2.44	0.52
60:SK:40:VAL:HG13	60:SK:40:VAL:O	2.10	0.52
1:5:1655:C:H4'	1:5:1679:A:C2	2.44	0.52
1:5:1902:G:C6	1:5:2075:G:C2	2.97	0.52
48:4:120:ARG:NH1	48:4:496:VAL:O	2.42	0.52
48:4:749:ILE:HD12	48:4:759:ILE:HD12	1.88	0.52
1:5:1066:G:C6	1:5:1067:G:C5	2.98	0.52
1:5:984:C:N3	1:5:1070:G:C2	2.78	0.52
1:5:1074:G:H2'	1:5:1075:G:H1'	1.91	0.52
1:5:1211:G:N2	1:5:1212:G:C5	2.78	0.52
1:5:1219:G:N3	1:5:1220:G:C8	2.77	0.52
1:5:1429:C:C2	1:5:1430:C:C6	2.98	0.52
1:5:1545:G:C2	1:5:1546:C:N3	2.77	0.52
1:5:1871:A:C6	1:5:1872:G:C5	2.96	0.52
1:5:1987:C:C2'	1:5:1987:C:O2	2.55	0.52
1:5:2080:U:C4	1:5:2081:C:N4	2.77	0.52
1:5:2288:G:C2	1:5:2290:C:C5	2.98	0.52
1:5:2505:C:H4'	1:5:2506:G:H5'	1.90	0.52
1:5:981:C:C4	8:E:69:TYR:CZ	2.97	0.52
22:S:29:ARG:HH12	23:T:150:LEU:HA	1.74	0.52
48:4:613:LEU:HD13	48:4:639:TYR:CG	2.42	0.52
49:S2:217:A:C2	49:S2:218:U:C6	2.97	0.52
49:S2:447:A:C6	49:S2:449:A:C5	2.97	0.52
49:S2:1052:A:C6	49:S2:1053:C:C4	2.98	0.52
1:5:1362:G:C2	1:5:1363:C:C6	2.97	0.52
1:5:1379:C:O2	1:5:1380:G:N7	2.42	0.52
1:5:1474:C:N3	1:5:1475:G:C5	2.77	0.52
1:5:303:C:C2	1:5:304:C:C6	2.97	0.52
1:5:98:A:C6	1:5:99:A:N9	2.77	0.52
5:B:251:VAL:HG21	5:B:267:ALA:HB3	1.91	0.52
49:S2:955:A:N6	49:S2:971:G:O2'	2.42	0.52
49:S2:1267:C:C2	49:S2:1268:C:C5	2.97	0.52
1:5:427:A:O2'	1:5:428:G:H5'	2.08	0.52
1:5:1797:G:C2	1:5:1798:G:C8	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:SK:52:LEU:HD12	60:SK:57:TYR:HB2	1.91	0.52
1:5:1889:U:H3'	1:5:1890:G:C8	2.43	0.52
1:5:4399:U:C4	1:5:4400:G:C8	2.97	0.52
49:S2:533:A:C4	49:S2:534:G:C8	2.98	0.52
49:S2:54:A:C2	49:S2:451:G:N3	2.77	0.52
49:S2:1708:C:C4	49:S2:1709:G:N7	2.77	0.52
48:4:398:ILE:HD11	48:4:479:LEU:CD2	2.37	0.52
1:5:2725:A:H2'	1:5:2726:G:C5'	2.38	0.52
1:5:46:U:OP2	1:5:47:A:O2'	2.19	0.52
1:5:1624:G:C5	1:5:1643:A:C8	2.98	0.52
1:5:4228:G:H5"	1:5:4229:U:C4'	2.39	0.52
48:4:160:MET:HE3	48:4:174:LEU:HD21	1.91	0.52
1:5:2753:G:H3'	1:5:2754:G:O4'	2.09	0.52
49:S2:99:A:C2	49:S2:100:U:N1	2.77	0.52
49:S2:100:U:H2'	49:S2:101:U:O5'	2.09	0.52
48:4:166:GLU:HG3	48:4:167:LEU:H	1.73	0.52
5:B:118:PHE:CB	5:B:119:TYR:HE1	2.21	0.52
6:C:200:ARG:NH2	28:Y:11:ARG:CD	2.72	0.52
1:5:4690:G:N2	1:5:4691:A:N7	2.57	0.52
1:5:2736:G:C4	1:5:2737:C:C5	2.98	0.52
1:5:4885:U:C4	1:5:4886:C:C5	2.96	0.52
1:5:2569:G:C4	1:5:2570:U:C5	2.97	0.52
1:5:1782:U:O2	1:5:1783:C:C6	2.62	0.52
1:5:1831:G:C5	1:5:1832:C:C5	2.97	0.52
1:5:127:G:N3	1:5:128:C:C6	2.77	0.52
48:4:685:TRP:CZ3	48:4:723:PRO:CD	2.90	0.52
1:5:2577:C:C5	29:Z:17:ARG:NH2	2.77	0.52
2:7:110:G:C4	2:7:111:C:C5	2.97	0.52
6:C:22:VAL:HG13	6:C:258:ARG:HE	1.74	0.52
1:5:1287:G:N2	1:5:1289:C:C6	2.77	0.52
1:5:21:G:N1	3:8:36:G:C2	2.77	0.52
49:S2:1061:U:O2	49:S2:1848:U:H4'	2.09	0.52
57:SH:177:TYR:O	57:SH:180:LEU:N	2.41	0.52
24:U:42:PHE:CD2	24:U:90:TYR:CE1	2.98	0.52
2:7:11:A:C2	2:7:67:C:O4'	2.62	0.52
10:G:50:ASP:OD1	10:G:50:ASP:C	2.48	0.52
61:SL:84:ARG:NH1	61:SL:115:PRO:HG3	2.24	0.52
49:S2:1025:U:H2'	49:S2:1026:C:O4'	2.09	0.52
73:SX:61:GLN:O	73:SX:61:GLN:NE2	2.42	0.52
7:D:287:PHE:CD1	7:D:287:PHE:C	2.82	0.52
27:X:79:PHE:CD1	27:X:79:PHE:N	2.77	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:196:C:C2	49:S2:204:G:C2	2.98	0.52
1:5:1271:G:H5"	1:5:1272:C:O4'	2.10	0.52
1:5:1619:G:C6	1:5:1620:U:C4	2.97	0.52
1:5:1685:G:C2	1:5:1686:C:C2	2.97	0.52
1:5:1846:G:C4	1:5:1847:C:C5	2.98	0.52
1:5:2103:G:C6	1:5:2104:G:N7	2.77	0.52
1:5:2128:G:C4	1:5:2129:C:C6	2.97	0.52
1:5:3668:C:N3	1:5:3669:G:C8	2.77	0.52
4:A:89:TYR:O	4:A:100:ASN:ND2	2.43	0.52
4:A:89:TYR:HB2	4:A:100:ASN:ND2	2.17	0.52
14:K:121:LEU:HD12	14:K:123:ARG:CG	2.39	0.52
6:C:33:ARG:HH21	20:Q:22:ASP:HB3	1.75	0.52
48:4:847:GLY:HA3	48:4:848:ILE:CG1	2.39	0.52
49:S2:1743:G:H2'	49:S2:1744:G:C8	2.44	0.52
49:S2:449:A:C6	49:S2:452:G:N7	2.72	0.52
56:SG:64:LYS:HG2	56:SG:97:VAL:HG11	1.91	0.52
49:S2:1843:G:H2'	49:S2:1844:U:O4'	2.09	0.52
1:5:3722:G:C2	1:5:3723:A:C4	2.98	0.52
1:5:3738:G:C6	1:5:3739:C:N1	2.77	0.52
1:5:4344:U:O2	1:5:4344:U:H2'	2.09	0.52
49:S2:1411:G:N7	49:S2:1412:C:H1'	2.23	0.52
49:S2:1236:G:C2	49:S2:1237:C:C2	2.98	0.52
49:S2:1541:G:N2	49:S2:1542:C:C5	2.78	0.52
49:S2:1589:A:H4'	69:ST:82:ARG:HG2	1.92	0.52
49:S2:675:U:O2	49:S2:675:U:H2'	2.09	0.52
1:5:2786:C:H4'	1:5:2787:A:C8	2.44	0.52
49:S2:1223:A:O2'	49:S2:1651:A:H4'	2.09	0.52
49:S2:553:U:H2'	49:S2:554:A:C8	2.44	0.52
3:8:79:G:H2'	3:8:80:A:N3	2.25	0.52
1:5:2859:G:O2'	1:5:2860:C:C5'	2.57	0.52
1:5:667:A:C2'	1:5:668:C:O4'	2.55	0.52
1:5:4114:C:H3'	1:5:4115:G:C4'	2.39	0.52
49:S2:497:C:N3	49:S2:506:G:N2	2.57	0.52
48:4:264:ARG:HB3	48:4:288:THR:HG21	1.92	0.52
48:4:619:LYS:HB3	48:4:621:GLU:OE1	2.08	0.52
3:8:131:G:C5	3:8:132:G:C8	2.97	0.52
1:5:1601:A:N7	1:5:3643:A:N9	2.57	0.52
1:5:2573:A:H2'	1:5:2574:G:O4'	2.09	0.52
1:5:2586:G:N7	1:5:2587:A:N1	2.57	0.52
5:B:57:VAL:HG22	5:B:73:VAL:HG12	1.91	0.52
49:S2:413:G:C5	49:S2:425:G:N2	2.78	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:582:C:H2'	49:S2:582:C:O2	2.09	0.52
1:5:3623:C:H5	1:5:3624:A:C5	2.28	0.52
50:SA:103:PHE:HZ	50:SA:107:THR:HG1	1.56	0.52
49:S2:902:G:C2	49:S2:903:A:C4	2.97	0.52
1:5:512:U:C2'	1:5:513:U:H5"	2.39	0.52
49:S2:321:C:H2'	49:S2:322:C:C6	2.43	0.52
1:5:4951:G:O2'	1:5:4952:G:OP1	2.23	0.52
48:4:477:GLN:CD	48:4:477:GLN:H	2.12	0.52
48:4:536:CYS:C	48:4:537:ILE:HG23	2.30	0.52
1:5:2908:U:N3	1:5:2909:C:C5	2.78	0.52
1:5:2678:A:N1	1:5:2679:G:C5	2.77	0.52
13:J:32:ARG:HB3	13:J:32:ARG:CZ	2.39	0.52
17:N:191:ALA:O	17:N:194:ARG:HB3	2.09	0.52
5:B:388:PHE:O	5:B:390:GLY:N	2.42	0.52
52:SC:169:TYR:CE2	52:SC:173:LYS:HA	2.45	0.52
6:C:209:ILE:HD13	6:C:221:PHE:CD2	2.45	0.52
58:SI:87:ASN:C	58:SI:87:ASN:OD1	2.47	0.52
48:4:452:LEU:HD11	48:4:461:ILE:CD1	2.39	0.52
48:4:144:ARG:CZ	48:4:781:MET:CE	2.83	0.52
1:5:1293:G:H8	1:5:1293:G:H5"	1.74	0.52
1:5:1682:A:C5	1:5:1683:U:C6	2.98	0.52
1:5:2079:G:C4	1:5:2080:U:C5	2.98	0.52
1:5:2448:G:C6	1:5:2511:A:C5	2.98	0.52
1:5:2453:A:C4	1:5:2507:A:C8	2.97	0.52
1:5:1866:U:O4	1:5:4405:G:N9	2.41	0.52
1:5:691:C:H2'	1:5:692:A:C8	2.45	0.52
48:4:689:GLU:CB	48:4:730:TYR:HH	2.18	0.52
48:4:713:ALA:CA	48:4:716:ARG:HB3	2.27	0.52
49:S2:376:A:N1	49:S2:377:G:C4	2.78	0.52
48:4:693:CYS:CB	48:4:839:ARG:NE	2.63	0.52
1:5:3858:C:O2	1:5:3858:C:C2'	2.55	0.52
49:S2:1563:G:C2	49:S2:1564:C:C2	2.98	0.52
49:S2:1571:G:C4	49:S2:1572:C:C6	2.98	0.52
49:S2:1630:A:N1	49:S2:1631:U:C4	2.77	0.52
1:5:4240:G:C6	1:5:4241:C:C6	2.97	0.52
49:S2:1094:C:C2	49:S2:1095:U:H6	2.27	0.52
49:S2:1132:C:N4	49:S2:1133:A:C5	2.78	0.52
49:S2:1278:A:C4	49:S2:1279:C:C6	2.97	0.52
49:S2:56:G:H2'	49:S2:57:U:C6	2.44	0.52
48:4:297:ILE:O	48:4:301:PHE:HD1	1.93	0.52
1:5:3650:C:H2'	1:5:3651:A:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:I:171:TRP:HB2	12:I:181:PHE:CD2	2.44	0.52
49:S2:999:G:C4	49:S2:1000:C:C6	2.97	0.52
49:S2:989:C:N4	49:S2:1001:A:C2	2.77	0.52
1:5:4518:A:C4'	1:5:4519:C:H5'	2.39	0.52
51:SB:205:TYR:CD1	51:SB:206:PRO:HD2	2.43	0.52
1:5:56:A:C2	1:5:57:G:C5	2.97	0.52
1:5:48:G:C5'	17:N:192:TRP:HE1	2.05	0.52
49:S2:959:G:C8	49:S2:959:G:H3'	2.45	0.52
1:5:4750:G:HO2'	1:5:4751:G:P	2.32	0.52
1:5:4733:C:C5	1:5:4734:A:O4'	2.63	0.52
1:5:4966:A:C2'	1:5:4967:A:O4'	2.47	0.52
5:B:119:TYR:OH	5:B:129:ALA:HB3	2.10	0.52
1:5:2570:U:C2	1:5:2571:C:C6	2.97	0.52
1:5:2557:G:C2	1:5:2571:C:C2	2.97	0.52
49:S2:425:G:H8	49:S2:425:G:H5"	1.74	0.52
48:4:228:PHE:HE2	48:4:293:ILE:HG23	1.71	0.52
1:5:154:G:N2	1:5:155:C:C2	2.77	0.52
23:T:19:PHE:O	23:T:20:ARG:C	2.46	0.52
1:5:4773:C:C2	1:5:4863:G:C2	2.98	0.52
21:R:117:ARG:HD3	21:R:118:HIS:CE1	2.43	0.52
1:5:4963:G:H3'	1:5:4964:C:H5"	1.90	0.52
1:5:3800:A:N3	1:5:4496:A:H1'	2.24	0.52
1:5:712:C:C4	1:5:713:C:C5	2.98	0.52
1:5:4872:G:O2'	1:5:4873:G:P	2.67	0.52
67:SR:104:GLU:HA	67:SR:104:GLU:OE1	2.09	0.52
52:SC:74:LYS:HG3	52:SC:269:PHE:CE2	2.45	0.52
49:S2:840:C:H2'	74:SY:12:PHE:CD2	2.44	0.52
1:5:2300:A:C2	6:C:182:LYS:HA	2.45	0.52
18:O:34:VAL:HG11	18:O:112:TYR:CE2	2.44	0.52
66:SQ:109:LYS:HG2	66:SQ:113:ILE:HD12	1.91	0.52
48:4:461:ILE:HG23	48:4:463:ASP:H	1.74	0.52
1:5:986:C:C4	1:5:1068:G:N1	2.78	0.52
1:5:1275:G:C6	1:5:1276:C:C4	2.98	0.52
1:5:1554:A:C6	1:5:1555:G:C4	2.97	0.52
1:5:1672:U:N3	1:5:1673:U:O4	2.42	0.52
1:5:1899:G:N2	1:5:1900:C:C4	2.78	0.52
1:5:2592:U:C5	1:5:2593:C:C6	2.98	0.52
1:5:993:G:C2	1:5:994:G:C8	2.97	0.52
1:5:4124:G:N1	4:A:64:ARG:NH1	2.57	0.52
9:F:93:PHE:CE1	9:F:95:ILE:HG13	2.44	0.52
49:S2:118:C:C4	49:S2:119:U:C5	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:72:C:O2	49:S2:73:C:N1	2.43	0.52
64:SO:146:ARG:HG3	64:SO:146:ARG:NH1	2.08	0.52
1:5:1388:A:H2'	1:5:1389:U:O4'	2.09	0.52
1:5:1487:G:C6	1:5:1488:G:C8	2.97	0.52
1:5:70:A:N6	1:5:314:G:O2'	2.42	0.52
1:5:3728:A:C8	1:5:3729:U:O4'	2.63	0.52
49:S2:1405:A:H1'	49:S2:1580:A:C6	2.44	0.52
49:S2:1510:G:H2'	49:S2:1510:G:N3	2.23	0.52
49:S2:1541:G:C2	49:S2:1542:C:C4	2.97	0.52
49:S2:1669:G:C4	49:S2:1670:C:C5	2.98	0.52
49:S2:1287:A:C4	49:S2:1313:A:C6	2.97	0.52
49:S2:1678:A:OP1	55:SF:145:ARG:NH2	2.43	0.52
1:5:1629:G:C5	1:5:1631:A:N6	2.78	0.52
1:5:5057:C:H2'	1:5:5058:A:C8	2.45	0.52
1:5:54:G:N1	1:5:55:G:N9	2.58	0.52
1:5:4198:G:O6	12:I:112:GLN:CD	2.48	0.52
1:5:4097:G:C6	1:5:4098:A:N7	2.78	0.52
1:5:4109:G:C4	1:5:4110:C:C6	2.98	0.52
3:8:43:A:C6	3:8:44:A:N7	2.77	0.52
54:SE:17:HIS:O	54:SE:18:TRP:CD1	2.62	0.52
1:5:138:G:C3'	1:5:139:G:H5'	2.40	0.52
49:S2:589:G:O2'	49:S2:590:A:H2'	2.09	0.52
1:5:1412:G:C2	1:5:1413:C:C5	2.97	0.52
1:5:2555:G:H2'	1:5:2556:G:O4'	2.09	0.52
1:5:2560:C:C2	1:5:2561:C:C6	2.98	0.52
1:5:2553:A:C6	1:5:2763:U:C5	2.98	0.52
1:5:1776:A:C4	1:5:1777:C:C6	2.98	0.52
2:7:92:C:C2	2:7:93:G:C8	2.98	0.52
1:5:939:G:H5'	1:5:940:C:OP2	2.10	0.52
1:5:230:G:N2	1:5:239:C:C2	2.78	0.52
1:5:4136:G:C4	1:5:4137:C:C6	2.97	0.52
1:5:2805:C:N4	1:5:2806:A:C6	2.78	0.52
1:5:1347:G:C6	1:5:1348:U:C5	2.97	0.52
1:5:2715:G:C6	1:5:2716:C:C4	2.98	0.52
49:S2:430:C:C2	49:S2:431:G:C8	2.97	0.52
1:5:4455:G:N1	1:5:4456:C:C4	2.78	0.52
65:SP:17:TYR:OH	65:SP:38:SER:HB3	2.10	0.52
3:8:139:G:C4	3:8:140:C:C6	2.98	0.52
49:S2:1191:C:H2'	49:S2:1192:U:O4'	2.08	0.52
53:SD:193:ASP:HB3	53:SD:194:PRO:CD	2.39	0.52
13:J:98:ASN:OD1	13:J:98:ASN:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:394:G:H2'	1:5:394:G:N3	2.25	0.52
21:R:35:ALA:O	21:R:37:SER:N	2.42	0.52
52:SC:166:ARG:NH2	71:SV:10:ASP:OD2	2.41	0.52
13:J:104:ASN:OD1	13:J:133:VAL:HA	2.10	0.52
58:SI:38:ILE:HD11	58:SI:81:VAL:HG23	1.90	0.52
48:4:3:ASN:C	48:4:46:ILE:HA	2.29	0.52
48:4:525:LYS:O	48:4:529:LYS:HG2	2.09	0.52
1:5:2090:U:P	1:5:2090:U:O4'	2.66	0.52
1:5:2643:G:C6	1:5:2644:G:N7	2.77	0.52
1:5:961:G:H5'	8:E:119:ARG:HH11	1.75	0.52
9:F:59:TYR:CD2	9:F:194:HIS:CD2	2.98	0.52
14:K:22:VAL:HG12	14:K:44:ASP:OD1	2.09	0.52
21:R:103:ARG:NH2	21:R:106:LEU:HD21	10.39	0.52
49:S2:426:A:C5	49:S2:427:U:O4	2.63	0.52
49:S2:460:A:H2'	49:S2:460:A:N3	2.25	0.52
49:S2:1792:G:N1	49:S2:1793:A:C5	2.78	0.52
49:S2:293:C:H2'	49:S2:293:C:O2	2.09	0.52
49:S2:313:A:O5'	56:SG:195:LYS:NZ	2.42	0.52
49:S2:375:U:H2'	49:S2:376:A:O4'	2.10	0.52
49:S2:378:U:O4	49:S2:379:C:C4	2.61	0.52
49:S2:83:A:C5	49:S2:84:A:C8	2.97	0.52
1:5:3767:C:H5"	49:S2:1849:G:C6	2.18	0.52
1:5:1393:G:H2'	1:5:1394:G:H5'	1.92	0.52
1:5:1490:G:N3	1:5:1491:A:C8	2.77	0.52
1:5:321:U:H2'	1:5:322:C:O4'	2.08	0.52
14:K:162:CYS:H	14:K:163:PRO:HD3	1.68	0.52
49:S2:1233:G:C4	49:S2:1234:C:C6	2.97	0.52
1:5:4236:G:C2	1:5:4289:U:O2	2.62	0.52
3:8:10:G:O6	3:8:11:C:C4	2.63	0.52
1:5:370:U:C4	1:5:1637:A:N6	2.78	0.52
49:S2:648:A:C2	49:S2:649:U:C5	2.97	0.52
49:S2:56:G:O6	49:S2:90:G:C2	2.61	0.52
9:F:117:ARG:O	20:Q:4:ASP:OD2	2.27	0.52
1:5:3755:G:O6	1:5:3769:C:N4	2.42	0.52
1:5:3775:A:H3'	1:5:3776:G:O4'	2.09	0.52
1:5:2534:C:H2'	1:5:2535:G:O5'	2.09	0.52
1:5:4201:G:C2	1:5:4202:U:C4	2.97	0.52
49:S2:494:C:H2'	49:S2:495:U:O5'	2.09	0.52
1:5:914:U:H2'	1:5:915:A:C1'	2.40	0.52
1:5:2424:G:N2	1:5:2426:U:O2	2.43	0.52
11:H:156:ASN:HD21	11:H:157:SER:HB3	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:8:130:C:N4	3:8:131:G:N7	2.57	0.52
3:8:135:C:C2	3:8:136:U:C6	2.98	0.52
1:5:4745:G:H2'	1:5:4746:C:C5	2.44	0.52
1:5:4479:A:C5	1:5:4480:A:C8	2.98	0.52
1:5:2567:G:N1	1:5:2568:C:C5	2.77	0.52
1:5:1308:C:C2	1:5:1309:C:C5	2.97	0.52
49:S2:414:A:N1	49:S2:424:C:C2	2.78	0.52
49:S2:187:G:C2	49:S2:188:C:C2	2.97	0.52
1:5:127:G:C2	1:5:128:C:C6	2.97	0.52
53:SD:20:GLU:HG2	60:SK:64:TRP:CD2	2.45	0.52
1:5:4147:G:C6	1:5:4148:C:C4	2.97	0.52
1:5:3846:C:N3	1:5:3847:C:C6	2.77	0.52
49:S2:318:A:C2	49:S2:332:G:N2	2.77	0.52
1:5:219:G:H8	1:5:220:C:C5	2.28	0.52
4:A:196:TRP:CG	4:A:197:PRO:N	2.78	0.52
48:4:170:GLU:CG	48:4:171:PRO:HD2	2.40	0.52
69:ST:31:PRO:CB	69:ST:33:TRP:CZ2	2.93	0.52
9:F:146:TYR:CE2	9:F:239:GLU:HB3	2.45	0.52
1:5:2898:G:C6	1:5:2899:C:C4	2.98	0.52
23:T:3:ASN:HB3	23:T:9:ARG:NH1	2.25	0.52
49:S2:1364:U:O2	49:S2:1364:U:O4'	2.27	0.52
11:H:177:ASP:N	11:H:177:ASP:OD1	2.42	0.52
54:SE:139:LEU:HD13	54:SE:160:ILE:CD1	2.40	0.52
70:SU:17:ILE:HG22	70:SU:92:HIS:HB3	1.92	0.52
48:4:800:LEU:HD23	48:4:810:PRO:HG3	1.91	0.52
1:5:1262:G:N1	1:5:1263:A:C5	2.78	0.52
14:K:104:ILE:HD12	14:K:140:GLY:HA3	1.92	0.52
14:K:111:ASN:HA	14:K:114:ARG:CD	2.40	0.52
14:K:141:CYS:C	14:K:148:PRO:CD	2.75	0.52
14:K:81:ILE:HG13	14:K:82:ILE:N	2.24	0.52
49:S2:43:U:O2	49:S2:43:U:H2'	2.09	0.52
48:4:692:LEU:N	48:4:692:LEU:HD22	2.24	0.52
49:S2:113:G:C2	49:S2:293:C:C5	2.97	0.52
49:S2:1207:G:H4'	49:S2:1208:A:OP2	2.08	0.52
49:S2:1850:A:H2'	49:S2:1851:A:C8	2.45	0.52
1:5:1395:U:H2'	1:5:1396:G:O5'	2.09	0.52
1:5:1467:C:N3	1:5:1468:C:C5	2.78	0.52
1:5:4341:C:N3	1:5:4342:C:C6	2.78	0.52
1:5:1189:G:C4	1:5:1190:C:C6	2.97	0.52
49:S2:1407:U:C2'	49:S2:1408:U:C5	2.91	0.52
49:S2:1419:C:O4'	69:ST:128:GLN:OE1	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:ST:5:THR:HA	69:ST:132:ASP:OD2	2.09	0.52
1:5:3856:A:C6	1:5:3857:G:C5	2.97	0.52
49:S2:1236:G:C4	49:S2:1237:C:C5	2.98	0.52
49:S2:1533:A:C2	49:S2:1536:G:N3	2.78	0.52
49:S2:1668:U:H5'	70:SU:77:TRP:CH2	2.44	0.52
1:5:4283:G:N1	1:5:4284:C:N4	2.57	0.52
1:5:2428:A:C8	1:5:2789:A:C2	2.98	0.52
49:S2:1149:A:N3	49:S2:1151:G:N7	2.57	0.52
49:S2:1286:G:N2	62:SM:33:ARG:CG	2.70	0.52
49:S2:1307:U:C4	49:S2:1308:U:C6	2.97	0.52
48:4:322:LYS:HG3	48:4:323:LEU:N	2.25	0.52
1:5:1855:G:C5	1:5:1856:C:C5	2.98	0.52
1:5:2723:U:O2	1:5:2724:G:C8	2.62	0.52
7:D:164:LYS:O	7:D:168:ASP:HB2	2.09	0.52
49:S2:1121:G:N1	49:S2:1122:A:C4	2.77	0.52
1:5:4194:U:O4	1:5:4197:G:C5'	2.57	0.52
1:5:4092:G:C6	1:5:4093:G:N2	2.77	0.52
49:S2:604:A:C2	49:S2:605:A:C5	2.98	0.52
55:SF:97:PHE:HB3	55:SF:108:PRO:HG2	1.91	0.52
3:8:135:C:C4	3:8:136:U:C4	2.98	0.52
1:5:2590:G:C6	1:5:2754:G:C6	2.98	0.52
5:B:118:PHE:HB2	5:B:119:TYR:HE1	1.69	0.52
8:E:175:LEU:HD11	8:E:179:ARG:HH11	1.75	0.52
1:5:2567:G:C6	1:5:2568:C:C4	2.97	0.52
1:5:1774:C:N3	1:5:1775:A:C8	2.77	0.52
1:5:5063:G:C2	1:5:5064:G:N7	2.78	0.52
1:5:4313:A:C2	1:5:4314:C:C6	2.98	0.52
1:5:4510:A:N6	1:5:4592:C:O2'	2.39	0.52
1:5:2819:U:HO2'	21:R:58:HIS:CD2	2.25	0.52
49:S2:1140:G:H2'	49:S2:1141:G:O4'	2.10	0.52
49:S2:610:G:C6	49:S2:611:G:N7	2.77	0.52
1:5:709:C:H4'	8:E:186:HIS:HE1	1.73	0.52
22:S:10:TYR:HB2	22:S:40:ALA:CB	2.39	0.52
1:5:219:G:C4	1:5:219:G:C5'	2.93	0.52
1:5:4462:C:C2	1:5:4515:G:C2	2.98	0.52
49:S2:1126:G:C6	49:S2:1127:C:C4	2.97	0.52
49:S2:1346:U:OP2	49:S2:1371:U:O4	2.28	0.52
1:5:4619:U:C2	1:5:4620:U:C6	2.98	0.52
54:SE:86:PHE:CD2	54:SE:87:MET:HG2	2.44	0.52
1:5:1902:G:H2'	1:5:1903:G:O5'	2.09	0.52
61:SL:73:LEU:HD12	61:SL:140:PHE:CE2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:U:26:THR:HA	24:U:68:SER:HB3	1.91	0.52
1:5:2804:C:H2'	1:5:2804:C:O2	2.08	0.52
4:A:158:ILE:CG2	4:A:162:ASN:OD1	2.57	0.52
49:S2:421:G:C2	49:S2:422:U:N3	2.78	0.52
57:SH:61:ILE:HD12	57:SH:93:VAL:HG13	1.92	0.52
75:SZ:68:ILE:O	75:SZ:69:THR:HG23	2.09	0.52
10:G:48:LYS:HB3	27:X:42:THR:HG23	1.90	0.52
18:O:143:HIS:ND1	18:O:150:GLN:OE1	2.37	0.52
48:4:432:PRO:O	48:4:433:ASN:CG	2.48	0.52
1:5:1266:G:C5'	1:5:1266:G:H8	2.22	0.52
1:5:1443:A:H2'	1:5:1444:G:O4'	2.09	0.52
1:5:1552:G:O2'	1:5:1574:G:N2	2.43	0.52
1:5:1617:G:C5	1:5:1618:G:N7	2.77	0.52
1:5:1689:G:C6	1:5:1690:C:C4	2.98	0.52
1:5:2089:G:O6	1:5:2263:A:O5'	2.27	0.52
1:5:2648:G:O2'	1:5:2649:G:P	2.68	0.52
1:5:4123:C:O2'	29:Z:135:ARG:HB3	2.10	0.52
1:5:4175:G:C6	1:5:4176:C:C5	2.98	0.52
1:5:689:U:C2	1:5:690:C:C6	2.98	0.52
14:K:28:LEU:CD1	14:K:29:ALA:H	2.23	0.52
14:K:61:LYS:CD	14:K:73:VAL:O	2.57	0.52
14:K:97:ASN:OD1	14:K:98:ILE:CG1	2.55	0.52
48:4:609:PHE:HB2	48:4:699:GLY:HA2	1.91	0.52
49:S2:1739:C:H2'	49:S2:1739:C:O2	2.09	0.52
49:S2:70:G:C6	49:S2:80:G:N1	2.77	0.52
1:5:1475:G:C2	1:5:1476:C:C4	2.92	0.52
1:5:3719:A:C5	1:5:3720:G:C8	2.97	0.52
1:5:3730:U:N3	1:5:3731:C:C6	2.78	0.52
1:5:4980:C:C5	1:5:4981:G:C4	2.98	0.52
1:5:98:A:H1'	1:5:292:G:O6	2.09	0.52
1:5:1360:G:H5"	15:L:25:TRP:CZ3	2.45	0.52
1:5:1170:G:N1	1:5:1171:G:C5	2.77	0.52
69:ST:132:ASP:O	69:ST:135:ALA:HB3	2.10	0.52
49:S2:1232:U:O2	49:S2:1233:G:H8	1.86	0.52
69:ST:92:PHE:HD1	69:ST:93:SER:N	2.07	0.52
49:S2:1318:G:C6	49:S2:1319:U:C4	2.97	0.52
1:5:5042:A:C2	1:5:5043:A:C4	2.97	0.52
49:S2:166:A:C2	49:S2:167:G:N7	2.77	0.52
48:4:301:PHE:CE2	48:4:336:LEU:HD21	2.44	0.52
21:R:126:LYS:HB3	21:R:132:PHE:CE2	2.44	0.52
1:5:2495:U:C2	1:5:2496:G:N7	2.76	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:118:ALA:O	48:4:122:THR:OG1	2.26	0.52
1:5:2409:U:C4	1:5:2783:A:C6	2.98	0.52
1:5:661:C:N4	1:5:662:C:C4	2.78	0.52
49:S2:925:G:C6	49:S2:926:A:N7	2.77	0.52
1:5:4093:G:C3'	1:5:4094:G:H5"	2.40	0.52
49:S2:1100:A:C6	49:S2:1101:U:C4	2.98	0.52
49:S2:958:G:C6	49:S2:959:G:N2	2.78	0.52
1:5:2607:C:O2	1:5:2608:G:C8	2.63	0.52
1:5:3611:A:C2	1:5:5016:A:H8	2.27	0.52
1:5:4255:A:C2	1:5:4256:A:C4	2.98	0.52
1:5:4483:C:N3	1:5:4484:A:C8	2.77	0.52
1:5:4498:U:C4	1:5:4500:U:OP2	2.62	0.52
59:SJ:5:ARG:HB2	59:SJ:7:TRP:CH2	2.45	0.52
1:5:2736:G:N2	1:5:2737:C:C6	2.78	0.52
1:5:1404:G:C2	1:5:1414:C:N3	2.76	0.52
1:5:4910:G:C2	18:O:109:PRO:HA	2.44	0.52
49:S2:582:C:H2'	49:S2:583:C:H6	1.75	0.52
48:4:228:PHE:CE1	48:4:232:TYR:CZ	2.98	0.52
29:Z:28:ASN:CG	29:Z:28:ASN:O	2.48	0.52
1:5:3621:A:N3	1:5:3622:C:C6	2.78	0.52
2:7:114:U:C2	2:7:115:A:C8	2.97	0.52
49:S2:868:G:N2	57:SH:115:LYS:CA	2.71	0.52
49:S2:1156:U:H2'	49:S2:1157:G:H21	1.74	0.52
61:SL:62:PHE:CD2	61:SL:62:PHE:N	2.78	0.52
1:5:12:A:C2	1:5:14:C:C4	2.98	0.52
57:SH:130:LEU:HD11	57:SH:177:TYR:OH	2.10	0.52
49:S2:902:G:C5	49:S2:903:A:C2	2.98	0.52
50:SA:181:GLU:HA	50:SA:181:GLU:OE1	2.10	0.52
1:5:307:A:H3'	1:5:308:G:H21	1.74	0.52
1:5:2065:G:C6	1:5:2066:C:C4	2.97	0.52
22:S:161:ARG:HD2	22:S:164:LYS:HB2	1.91	0.52
1:5:4139:G:C6	1:5:4140:C:C4	2.97	0.52
5:B:67:VAL:HG13	5:B:70:LYS:HB2	1.91	0.52
1:5:2311:C:C4	1:5:2312:U:C5	2.98	0.52
23:T:105:PHE:CE1	23:T:109:VAL:CG2	2.92	0.52
1:5:4675:U:OP1	5:B:358:ARG:NH2	2.43	0.52
27:X:48:ARG:HG3	27:X:48:ARG:HH11	1.75	0.52
53:SD:72:VAL:HG22	60:SK:20:VAL:HG21	1.91	0.52
48:4:753:GLU:CB	48:4:782:PHE:HZ	1.99	0.52
48:4:813:VAL:CG1	48:4:814:PHE:N	2.61	0.52
1:5:1073:G:N2	1:5:1239:C:N3	2.58	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1268:G:C4	1:5:2111:G:C4	2.98	0.52
1:5:1270:A:C8	1:5:1271:G:C8	2.97	0.52
1:5:1277:G:C5	1:5:1278:C:C5	2.98	0.52
1:5:1432:G:C2	1:5:1451:G:C2	2.97	0.52
1:5:1441:C:H2'	1:5:1442:C:O4'	2.09	0.52
1:5:1570:G:C6	1:5:1571:G:C8	2.98	0.52
1:5:1687:U:O2	1:5:1850:A:N1	2.42	0.52
1:5:1993:C:H2'	1:5:1994:C:H6	1.75	0.52
1:5:2328:G:C4	1:5:2329:U:C5	2.98	0.52
1:5:991:C:C4	1:5:992:C:C4	2.98	0.52
1:5:1540:C:H5"	4:A:19:HIS:CD2	2.44	0.52
9:F:82:ASN:HD21	23:T:142:ARG:CA	2.23	0.52
14:K:16:ARG:HH12	14:K:28:LEU:C	2.13	0.52
14:K:64:ILE:O	14:K:70:GLN:HA	2.10	0.52
49:S2:113:G:C2	49:S2:292:A:H1'	2.45	0.52
49:S2:143:U:O4	49:S2:315:C:P	2.68	0.52
49:S2:1466:G:C4	49:S2:1467:C:C5	2.97	0.52
49:S2:1180:C:O2	49:S2:1180:C:H2'	2.10	0.52
49:S2:672:A:N3	49:S2:672:A:O4'	2.40	0.52
1:5:1479:G:H2'	1:5:1480:C:C6	2.45	0.52
1:5:1183:C:N3	1:5:1184:A:N7	2.58	0.52
1:5:2367:A:C2	1:5:2368:A:C8	2.98	0.52
49:S2:1272:C:C4	49:S2:1273:C:C5	2.98	0.52
49:S2:1308:U:C2	49:S2:1309:C:C6	2.98	0.52
49:S2:1112:U:C5	49:S2:1113:A:C5	2.98	0.52
49:S2:532:C:C2	49:S2:533:A:N7	2.78	0.52
1:5:3772:U:C4	1:5:3773:U:C5	2.98	0.52
1:5:3652:A:N6	1:5:3691:G:O2'	2.43	0.52
1:5:3648:A:N9	1:5:3785:A:N6	2.58	0.52
15:L:56:ARG:O	15:L:116:ARG:NH2	2.40	0.52
1:5:3899:G:C5'	5:B:257:TRP:HD1	2.22	0.52
49:S2:1121:G:O6	49:S2:1122:A:C6	2.63	0.52
1:5:2055:G:C1'	18:O:130:LYS:HD3	2.40	0.52
49:S2:1102:G:N2	49:S2:1103:C:C2	2.78	0.52
49:S2:858:A:N1	49:S2:859:G:N7	2.56	0.52
49:S2:956:G:C6	49:S2:968:U:O2	2.63	0.52
1:5:3597:G:C2	1:5:3598:C:C2	2.98	0.52
1:5:5031:G:C2	1:5:5032:C:C6	2.98	0.52
1:5:4744:A:C6	1:5:4745:G:O6	2.63	0.52
1:5:3804:G:C6	1:5:3805:U:C5	2.98	0.52
1:5:1197:C:C2	1:5:1198:G:C8	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2556:G:N2	1:5:2572:C:C2	2.78	0.52
12:I:39:LYS:HB3	12:I:86:HIS:CE1	2.44	0.52
1:5:4087:G:H3'	1:5:4087:G:H8	1.74	0.52
1:5:4332:C:N3	1:5:4333:C:C5	2.65	0.52
1:5:3944:G:N3	1:5:3945:A:C8	2.78	0.52
1:5:3848:U:N3	1:5:3849:A:N7	2.57	0.52
1:5:4859:C:C2	1:5:4860:G:C8	2.97	0.52
49:S2:563:G:N2	49:S2:564:A:C8	2.78	0.52
1:5:4502:C:N3	1:5:4503:A:C8	2.78	0.52
1:5:4071:U:C2	1:5:4072:C:C5	2.98	0.52
1:5:4139:G:C2	1:5:4140:C:N1	2.78	0.52
49:S2:191:A:H3'	49:S2:192:C:H5"	1.92	0.52
62:SM:17:ALA:HB1	62:SM:124:ILE:HG23	1.92	0.52
1:5:4066:U:H2'	1:5:4067:U:O4'	2.10	0.52
53:SD:212:GLU:C	67:SR:20:TYR:OH	2.47	0.52
67:SR:16:ILE:HG22	67:SR:24:LEU:HD11	1.91	0.52
48:4:744:ILE:CD1	48:4:816:HIS:CB	2.87	0.52
1:5:1218:G:N1	1:5:1219:G:C1'	2.71	0.52
1:5:1221:G:HO2'	1:5:1222:A:P	2.32	0.52
1:5:1877:G:C4	1:5:1878:G:C8	2.97	0.52
1:5:2082:G:H2'	1:5:2083:C:C6	2.45	0.52
1:5:687:U:C5	1:5:688:U:C5	2.97	0.52
1:5:976:G:C5	1:5:977:C:C6	2.99	0.52
1:5:966:A:C2	8:E:84:VAL:HB	2.45	0.52
49:S2:469:A:H2'	49:S2:469:A:N3	2.25	0.52
49:S2:1453:C:N4	49:S2:1455:A:C4	2.78	0.52
48:4:126:LEU:HD13	48:4:353:MET:HE2	1.93	0.52
1:5:102:G:H2'	1:5:103:G:O5'	2.10	0.52
1:5:288:G:C6	1:5:289:C:C4	2.98	0.52
1:5:1177:U:H2'	1:5:1178:G:C8	2.44	0.52
1:5:1189:G:C2	1:5:1190:C:C2	2.98	0.52
49:S2:1575:G:N3	49:S2:1576:G:C8	2.78	0.52
1:5:4238:G:C2	1:5:4287:G:C6	2.97	0.52
1:5:4266:G:C6	1:5:4279:A:N7	2.78	0.52
2:7:56:G:H2'	2:7:57:C:H6	1.75	0.52
1:5:4927:G:H1'	16:M:121:ARG:CD	2.40	0.52
49:S2:1309:C:H5"	62:SM:36:ARG:CZ	2.39	0.52
49:S2:1112:U:C2	49:S2:1113:A:C8	2.98	0.52
1:5:3703:G:C4	1:5:3704:U:C5	2.98	0.52
1:5:3630:A:N1	1:5:3631:U:C4	2.78	0.52
1:5:4536:C:C2	1:5:4537:C:C5	2.99	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:8:115:G:C2	3:8:116:C:C6	2.98	0.52
3:8:73:U:O4	3:8:74:U:C2	2.63	0.52
1:5:2612:G:C2	1:5:2613:C:C2	2.98	0.52
49:S2:833:C:H2'	49:S2:834:C:O4'	2.10	0.52
1:5:4097:G:N2	1:5:4098:A:N9	2.58	0.52
49:S2:977:C:C4	49:S2:978:G:N7	2.78	0.52
49:S2:88:G:C2	49:S2:500:A:C2	2.99	0.52
3:8:100:U:C2	3:8:101:C:C6	2.98	0.52
3:8:132:G:C2	3:8:133:G:N7	2.77	0.52
1:5:4730:C:N3	1:5:4734:A:N7	2.58	0.52
1:5:3833:C:O2	1:5:3834:C:C6	2.63	0.52
1:5:1196:G:C6	1:5:1197:C:C4	2.98	0.52
1:5:1203:G:C6	1:5:1204:C:C4	2.98	0.52
1:5:247:G:C4	1:5:248:C:C5	2.98	0.52
1:5:118:C:O2	1:5:118:C:H2'	2.09	0.52
13:J:107:PHE:CZ	13:J:130:PHE:HB2	2.45	0.52
1:5:1779:U:C2	1:5:1780:A:C8	2.98	0.52
1:5:1831:G:C6	1:5:1832:C:C4	2.97	0.52
49:S2:415:A:H2	49:S2:423:U:O2	1.93	0.52
49:S2:661:U:H3'	49:S2:662:G:H8	1.75	0.52
1:5:3829:G:H2'	1:5:3829:G:N3	2.24	0.52
54:SE:210:VAL:HB	54:SE:218:PHE:CE2	2.45	0.52
69:ST:56:ARG:HD3	69:ST:79:TYR:HE2	1.69	0.52
1:5:2632:U:C2'	1:5:2632:U:O2	2.52	0.52
49:S2:1139:C:O2	49:S2:1139:C:O4'	2.28	0.52
1:5:442:G:O2'	1:5:443:G:H5'	2.10	0.52
10:G:81:ASN:ND2	10:G:238:GLY:HA3	2.21	0.52
1:5:61:A:OP1	17:N:162:ARG:NH2	2.42	0.52
48:4:16:LYS:HA	48:4:19:ILE:HD12	1.92	0.52
49:S2:1484:A:H5'	53:SD:159:HIS:HB3	1.91	0.52
1:5:2245:G:H2'	1:5:2246:C:O4'	2.10	0.52
1:5:2874:U:H4'	1:5:2875:C:OP2	2.10	0.52
64:SO:64:ALA:O	64:SO:66:ARG:N	2.40	0.52
9:F:118:GLN:HB3	9:F:121:ASN:OD1	2.10	0.52
5:B:379:PHE:HE2	5:B:385:LYS:CG	2.23	0.52
51:SB:158:HIS:CD2	51:SB:158:HIS:C	2.82	0.52
50:SA:141:ASN:ND2	50:SA:141:ASN:N	2.58	0.52
16:M:25:VAL:CG1	16:M:38:VAL:HG22	2.40	0.52
1:5:4248:A:H2'	1:5:4249:G:O4'	2.10	0.52
1:5:1571:G:C5	1:5:1572:U:C5	2.98	0.51
1:5:2004:U:C2	1:5:2005:G:C8	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2448:G:H2'	1:5:2449:A:C8	2.45	0.51
20:Q:67:ILE:HD12	20:Q:96:PRO:HD2	1.91	0.51
49:S2:119:U:O2	49:S2:120:U:C6	2.63	0.51
49:S2:443:U:O4	49:S2:444:G:C5	2.63	0.51
48:4:609:PHE:CD2	48:4:699:GLY:HA2	2.44	0.51
49:S2:344:U:C2	49:S2:345:U:C5	2.99	0.51
49:S2:292:A:H4'	61:SL:40:ILE:O	2.10	0.51
1:5:3740:G:C5	1:5:3741:C:C6	2.97	0.51
49:S2:1573:G:N1	49:S2:1574:C:C2	2.78	0.51
49:S2:1573:G:H5'	49:S2:1574:C:OP2	2.10	0.51
49:S2:1606:G:C2'	49:S2:1633:A:H62	2.22	0.51
49:S2:1670:C:H2'	49:S2:1671:G:C8	2.45	0.51
1:5:4277:G:C6	1:5:4278:C:C4	2.98	0.51
1:5:4324:A:N3	1:5:4325:A:N7	2.58	0.51
2:7:21:G:N1	2:7:58:A:C2	2.78	0.51
49:S2:1123:C:O2	49:S2:1123:C:C2'	2.58	0.51
1:5:5051:C:N3	1:5:5052:C:C6	2.78	0.51
1:5:3911:C:N3	1:5:3912:U:C5	2.77	0.51
1:5:4104:G:O2'	1:5:4106:G:C6	2.63	0.51
3:8:103:A:C8	3:8:104:A:C8	2.98	0.51
1:5:261:G:H2'	1:5:262:G:O4'	2.10	0.51
64:SO:147:ARG:NH2	64:SO:150:ARG:HH11	2.08	0.51
50:SA:176:TRP:CH2	50:SA:199:PRO:HG3	2.45	0.51
49:S2:493:A:C2'	49:S2:493:A:N3	2.73	0.51
1:5:4369:A:C2	1:5:4370:G:C5	2.98	0.51
5:B:116:ARG:CG	5:B:177:LYS:HG3	2.39	0.51
1:5:1091:C:C4	1:5:1092:G:N7	2.78	0.51
1:5:1203:G:C5	1:5:1204:C:C5	2.98	0.51
1:5:1203:G:C4	1:5:1204:C:C6	2.97	0.51
1:5:244:G:C2	1:5:246:G:C8	2.98	0.51
28:Y:121:ARG:CZ	28:Y:121:ARG:HB3	2.40	0.51
49:S2:1771:G:C6	49:S2:1772:C:C4	2.98	0.51
1:5:4314:C:H2'	1:5:4314:C:O2	2.09	0.51
29:Z:18:TYR:CD2	29:Z:47:ASP:OD1	2.63	0.51
1:5:4143:G:C5	1:5:4145:C:C5	2.99	0.51
8:E:153:HIS:HD2	8:E:183:ARG:NH1	2.08	0.51
1:5:3656:A:H2'	1:5:3657:U:H6	1.75	0.51
1:5:4719:G:H8	1:5:4719:G:O5'	1.92	0.51
49:S2:403:G:H2'	49:S2:403:G:N3	2.26	0.51
49:S2:903:A:C8	49:S2:904:A:C8	2.98	0.51
1:5:3710:G:H2'	1:5:3710:G:N3	2.23	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:S:44:PHE:HD1	22:S:44:PHE:C	2.13	0.51
1:5:385:A:C2	1:5:386:A:C5	2.98	0.51
5:B:62:ARG:CG	5:B:62:ARG:HH11	2.23	0.51
49:S2:931:C:H2'	49:S2:932:G:C8	2.45	0.51
53:SD:113:LEU:HD21	53:SD:117:ARG:HB3	1.92	0.51
1:5:2249:C:H2'	1:5:2249:C:O2	2.09	0.51
5:B:201:LEU:O	5:B:202:GLU:HB2	2.09	0.51
1:5:2434:G:O3'	27:X:83:THR:HG21	2.10	0.51
12:I:59:GLN:NE2	12:I:126:VAL:HG11	2.25	0.51
48:4:45:ILE:HD13	48:4:78:PHE:CA	2.40	0.51
48:4:505:VAL:HG23	48:4:549:ALA:O	2.10	0.51
48:4:4:PHE:CG	48:4:5:THR:HG22	2.34	0.51
48:4:754:GLN:OE1	48:4:755:VAL:CG2	2.50	0.51
1:5:1968:G:C2	1:5:1969:G:C4	2.98	0.51
1:5:2089:G:C2	1:5:2263:A:N6	2.78	0.51
1:5:964:A:C2	1:5:2252:G:C6	2.98	0.51
1:5:2323:C:H2'	1:5:2324:C:O4'	2.10	0.51
1:5:2645:G:N3	1:5:2646:C:C6	2.76	0.51
1:5:4167:G:C6	1:5:4168:G:N7	2.78	0.51
1:5:975:C:H2'	1:5:976:G:C1'	2.40	0.51
14:K:14:TYR:HE1	14:K:16:ARG:HB3	1.76	0.51
21:R:28:GLU:O	21:R:32:ILE:HD12	2.10	0.51
48:4:604:MET:HE3	48:4:702:PHE:HB3	1.93	0.51
48:4:732:SER:O	48:4:735:THR:HG22	2.10	0.51
49:S2:1459:G:C2	49:S2:1468:C:C2	2.99	0.51
49:S2:348:A:C6	49:S2:349:A:C5	2.98	0.51
49:S2:381:C:O2'	49:S2:382:C:H5'	2.09	0.51
49:S2:68:A:C4	49:S2:69:C:C5	2.98	0.51
48:4:154:VAL:CB	48:4:358:LEU:HD21	2.40	0.51
49:S2:1610:G:N1	49:S2:1611:G:C5	2.78	0.51
1:5:4336:A:C8	1:5:4336:A:H3'	2.45	0.51
49:S2:27:A:N1	49:S2:28:U:C6	2.77	0.51
49:S2:619:A:N3	49:S2:619:A:H2'	2.24	0.51
49:S2:1311:C:OP2	62:SM:37:GLU:OE2	2.28	0.51
49:S2:1319:U:H2'	49:S2:1320:G:H8	1.71	0.51
49:S2:488:U:H3'	49:S2:489:A:C5'	2.40	0.51
49:S2:52:G:N1	49:S2:53:C:C2	2.78	0.51
1:5:3702:A:N1	1:5:3703:G:C5	2.77	0.51
1:5:3754:G:C2	1:5:3755:G:N9	2.78	0.51
49:S2:750:C:N3	49:S2:751:G:N7	2.58	0.51
1:5:382:G:H2'	1:5:383:A:H2'	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2844:A:N6	1:5:3839:G:C8	2.78	0.51
1:5:2611:A:H2'	1:5:2612:G:C8	2.44	0.51
1:5:672:C:H2'	1:5:673:C:O4'	2.10	0.51
48:4:451:ILE:HD12	48:4:458:VAL:CG1	2.40	0.51
1:5:2054:U:C4'	1:5:2056:G:H1'	2.38	0.51
1:5:2056:G:C6	1:5:2058:G:C4	2.98	0.51
1:5:49:U:H5'	17:N:192:TRP:CZ2	2.45	0.51
1:5:3907:G:N9	1:5:4449:A:C1'	2.65	0.51
49:S2:832:G:C6	49:S2:833:C:C6	2.98	0.51
1:5:918:G:H2'	1:5:918:G:N3	2.25	0.51
1:5:2046:G:C4	18:O:60:LYS:HD3	2.45	0.51
1:5:2658:G:N1	1:5:2675:G:N1	2.59	0.51
1:5:4652:G:C2	1:5:4653:C:C4	2.98	0.51
1:5:3802:U:H3	1:5:4498:U:HO2'	1.58	0.51
28:Y:15:ARG:CZ	28:Y:15:ARG:HB3	2.40	0.51
1:5:223:G:H21	6:C:223:ASN:HB3	1.75	0.51
1:5:146:G:N2	1:5:147:A:C4	2.79	0.51
49:S2:805:U:O2	49:S2:805:U:H2'	2.09	0.51
1:5:4593:C:O2	1:5:4594:U:C6	2.63	0.51
1:5:238:C:N3	1:5:239:C:C5	2.78	0.51
1:5:4142:C:C2	1:5:4143:G:C2	2.99	0.51
1:5:4737:G:C2	1:5:4738:C:C2	2.98	0.51
1:5:59:A:C4	1:5:60:G:C8	2.98	0.51
49:S2:431:G:C4	49:S2:432:G:C8	2.99	0.51
49:S2:1330:G:N2	49:S2:1333:U:C5	2.78	0.51
49:S2:1808:U:C2	49:S2:1809:A:C8	2.98	0.51
49:S2:1807:C:C2	49:S2:1808:U:C6	2.98	0.51
1:5:2823:G:N2	1:5:2824:C:H1'	2.24	0.51
49:S2:1127:C:N3	49:S2:1128:C:C5	2.79	0.51
63:SN:34:LYS:O	63:SN:38:TYR:HB2	2.10	0.51
1:5:718:C:N3	1:5:719:C:C5	2.79	0.51
51:SB:32:ASP:OD1	51:SB:46:LYS:CD	2.58	0.51
59:SJ:13:TYR:HA	59:SJ:48:PHE:HB3	1.92	0.51
9:F:128:ASN:ND2	23:T:132:PRO:HG2	2.25	0.51
5:B:67:VAL:O	5:B:67:VAL:HG12	2.10	0.51
1:5:2740:U:O2	1:5:2740:U:O4'	2.24	0.51
68:SS:20:ILE:CG2	68:SS:29:ALA:HB1	2.41	0.51
5:B:78:ILE:HD11	5:B:320:PHE:CE1	2.45	0.51
52:SC:82:TYR:CE1	52:SC:164:PRO:HD3	2.46	0.51
1:5:518:G:C6	1:5:519:C:C4	2.98	0.51
1:5:4606:G:H5'	48:4:28:VAL:CG2	2.36	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:580:ARG:HG3	48:4:817:TRP:CZ2	2.46	0.51
48:4:58:ASP:CG	48:4:69:THR:HG23	2.20	0.51
48:4:744:ILE:HD13	48:4:815:ASP:HB3	1.92	0.51
48:4:744:ILE:HG12	48:4:815:ASP:HB3	1.92	0.51
1:5:1069:G:C6	1:5:1070:G:C8	2.98	0.51
1:5:1663:C:O2	1:5:1664:U:C5	2.63	0.51
1:5:1991:A:H2'	1:5:1992:U:C6	2.44	0.51
1:5:1995:G:C6	1:5:1996:C:C4	2.98	0.51
1:5:2104:G:C2	1:5:2105:A:C4	2.99	0.51
1:5:4168:G:H2'	1:5:4169:G:O5'	2.10	0.51
1:5:4608:G:H3'	1:5:4609:G:H8	1.75	0.51
1:5:466:A:N1	1:5:467:U:C5	2.79	0.51
1:5:957:G:H1'	1:5:958:G:OP2	2.10	0.51
1:5:976:G:C2	1:5:977:C:C2	2.98	0.51
1:5:1699:A:C2	9:F:179:ARG:O	2.63	0.51
1:5:1497:A:H1'	20:Q:164:LYS:HG2	1.91	0.51
22:S:13:VAL:HG12	22:S:29:ARG:HA	1.92	0.51
48:4:546:ILE:HG22	48:4:554:LEU:CD1	2.40	0.51
49:S2:1740:C:C2	49:S2:1741:U:C6	2.99	0.51
66:SQ:126:ARG:HG3	66:SQ:126:ARG:HH21	1.75	0.51
1:5:1424:G:H2'	1:5:1425:G:O4'	2.10	0.51
49:S2:1595:U:C2	49:S2:1596:U:C6	2.99	0.51
1:5:4271:A:N6	1:5:4336:A:H61	2.09	0.51
1:5:4323:A:N3	1:5:4324:A:C8	2.79	0.51
49:S2:678:U:C4	49:S2:679:A:N7	2.78	0.51
2:7:55:A:H2'	2:7:56:G:C5'	2.41	0.51
62:SM:22:LEU:HD23	62:SM:111:VAL:HG22	1.93	0.51
1:5:5004:C:H2'	1:5:5005:G:O4'	2.11	0.51
1:5:1936:C:C2	1:5:1937:C:C5	2.97	0.51
49:S2:549:C:N4	49:S2:550:C:C5	2.78	0.51
49:S2:993:G:N1	49:S2:994:C:C4	2.79	0.51
1:5:4563:U:O2	1:5:4564:A:C5	2.64	0.51
5:B:321:VAL:O	5:B:322:HIS:CB	2.59	0.51
1:5:2032:U:O2'	22:S:91:HIS:CE1	2.63	0.51
1:5:45:U:C2'	1:5:46:U:O5'	2.58	0.51
1:5:44:A:C4	1:5:45:U:C5	2.98	0.51
1:5:4091:G:C2	1:5:4092:G:C4	2.99	0.51
1:5:4579:U:O2	1:5:4580:U:C6	2.63	0.51
1:5:747:A:N7	1:5:915:A:C2	2.78	0.51
2:7:42:A:H2'	2:7:42:A:N3	2.26	0.51
1:5:137:G:H4'	11:H:98:HIS:HD2	175.65	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:81:LEU:HB2	48:4:86:LEU:CD1	2.39	0.51
1:5:4744:A:C4	1:5:4745:G:N7	2.78	0.51
1:5:4730:C:O4'	1:5:4730:C:O2	2.27	0.51
1:5:2669:C:C6	1:5:2669:C:O5'	2.64	0.51
28:Y:15:ARG:HH11	28:Y:15:ARG:HG2	1.75	0.51
1:5:247:G:C6	1:5:248:C:C4	2.99	0.51
1:5:248:C:C2	1:5:249:C:C5	2.98	0.51
1:5:4884:G:N1	1:5:4885:U:C4	2.78	0.51
1:5:2757:A:O2'	1:5:2758:G:C5'	2.58	0.51
49:S2:186:C:C2	49:S2:187:G:N7	2.78	0.51
48:4:343:TRP:HA	48:4:343:TRP:CE3	2.46	0.51
1:5:5062:G:N2	1:5:5063:G:N7	2.58	0.51
1:5:739:G:N1	1:5:740:G:C5	2.78	0.51
1:5:4142:C:H2'	1:5:4143:G:C1'	2.41	0.51
1:5:216:C:OP2	1:5:216:C:O4'	2.29	0.51
49:S2:665:G:H1'	49:S2:670:A:N3	2.25	0.51
22:S:81:TRP:CE2	22:S:94:TYR:HD1	2.27	0.51
3:8:54:C:C4	3:8:55:U:C5	2.99	0.51
1:5:2245:G:C2	1:5:2246:C:C2	2.98	0.51
1:5:2248:C:O2	1:5:2248:C:C2'	2.56	0.51
49:S2:1686:G:C6	49:S2:1687:C:C4	2.97	0.51
1:5:4453:C:H1'	1:5:4529:G:N2	2.26	0.51
1:5:371:A:HO2'	1:5:372:A:C5'	2.23	0.51
1:5:386:A:H2	1:5:405:U:O4'	1.93	0.51
1:5:4574:U:O2	1:5:4574:U:H2'	2.11	0.51
13:J:26:VAL:HG22	13:J:28:GLU:HG3	1.91	0.51
1:5:1416:G:C6	1:5:1417:C:C4	2.98	0.51
73:SX:84:PHE:HD2	73:SX:105:PHE:HZ	1.58	0.51
48:4:24:VAL:CG2	48:4:32:LYS:HG3	2.39	0.51
48:4:526:ARG:O	48:4:529:LYS:CG	2.58	0.51
48:4:813:VAL:CG2	48:4:814:PHE:H	2.10	0.51
1:5:1048:G:C4	1:5:1049:C:C6	2.98	0.51
1:5:1662:C:N3	1:5:1663:C:C5	2.78	0.51
1:5:1268:G:C2	1:5:2111:G:N1	2.78	0.51
1:5:4167:G:N2	1:5:4168:G:N9	2.59	0.51
1:5:4405:G:C5	1:5:4406:U:C5	2.98	0.51
1:5:474:C:C2	1:5:475:G:C8	2.98	0.51
1:5:675:C:C2	1:5:676:C:C6	2.98	0.51
6:C:122:TYR:CD1	6:C:122:TYR:O	2.63	0.51
1:5:1236:C:H2'	8:E:56:SER:OG	2.11	0.51
9:F:243:ASN:O	9:F:247:ARG:HG2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:121:LEU:O	14:K:122:ALA:HB3	2.10	0.51
14:K:21:GLU:OE1	14:K:48:LYS:CD	2.56	0.51
14:K:62:LEU:H	14:K:75:PRO:HG3	1.76	0.51
17:N:126:THR:C	17:N:127:TYR:HD1	2.14	0.51
1:5:4414:A:C6	1:5:4427:G:C6	2.97	0.51
48:4:700:VAL:HG12	48:4:702:PHE:CD2	2.45	0.51
49:S2:127:C:C5	49:S2:181:A:C6	2.98	0.51
49:S2:148:U:C2	49:S2:149:A:C8	2.98	0.51
49:S2:70:G:N3	49:S2:71:G:C8	2.77	0.51
49:S2:84:A:C6	49:S2:85:A:C5	2.98	0.51
1:5:91:G:OP2	1:5:92:C:H5"	2.11	0.51
49:S2:1402:A:N7	49:S2:1441:U:C4	2.77	0.51
1:5:3862:A:N3	1:5:3862:A:H2'	2.25	0.51
49:S2:1534:C:O4'	49:S2:1536:G:H1'	2.10	0.51
49:S2:1563:G:N3	49:S2:1564:C:C6	2.79	0.51
49:S2:1568:C:O2'	49:S2:1569:A:C8	2.60	0.51
49:S2:1576:G:N1	49:S2:1577:G:C5	2.79	0.51
1:5:4287:G:C2	1:5:4288:C:N3	2.79	0.51
49:S2:1224:G:C5	49:S2:1225:U:C5	2.98	0.51
49:S2:1307:U:H2'	49:S2:1308:U:C4'	2.39	0.51
1:5:2852:U:O2	1:5:2853:C:H3'	2.11	0.51
1:5:483:G:N2	1:5:484:U:C2	2.78	0.51
1:5:484:U:O5'	1:5:485:C:O5'	2.29	0.51
1:5:269:G:N1	1:5:270:U:C5	2.78	0.51
1:5:3909:C:N4	1:5:3910:C:N4	2.59	0.51
49:S2:836:G:H3'	49:S2:837:A:H5'	1.92	0.51
49:S2:599:A:C4'	49:S2:605:A:C2	2.94	0.51
1:5:4581:G:C2	1:5:4582:C:C6	2.98	0.51
21:R:109:TYR:CD1	21:R:114:LYS:HD2	2.45	0.51
11:H:96:TYR:CZ	11:H:100:PRO:HA	2.45	0.51
28:Y:18:HIS:NE2	28:Y:29:ILE:HD13	2.26	0.51
1:5:142:G:N2	1:5:144:G:C8	2.78	0.51
1:5:181:C:H42	1:5:255:C:H42	1.59	0.51
48:4:231:MET:SD	48:4:343:TRP:CH2	2.90	0.51
1:5:1517:G:N2	1:5:1650:A:C2	2.79	0.51
1:5:4489:G:C5	1:5:4490:C:C5	2.98	0.51
1:5:4142:C:C5	1:5:4143:G:C6	2.98	0.51
49:S2:1157:G:H1'	73:SX:5:ARG:NE	2.25	0.51
1:5:1289:C:O2	1:5:1290:G:C8	2.64	0.51
2:7:33:U:O2	2:7:33:U:H2'	2.09	0.51
55:SF:49:LEU:HD13	55:SF:50:PRO:HD2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:8:35:C:O2'	3:8:36:G:H5'	2.10	0.51
22:S:9:GLU:HB3	22:S:67:VAL:HG12	1.91	0.51
49:S2:1061:U:C2'	49:S2:1061:U:O2	2.59	0.51
69:ST:47:PRO:CG	69:ST:52:TRP:CD1	2.94	0.51
1:5:930:G:C4	1:5:931:C:H5	2.29	0.51
1:5:720:G:C6	1:5:721:G:N7	2.78	0.51
1:5:2071:A:C2	1:5:2072:C:C5	2.99	0.51
4:A:186:TYR:C	4:A:186:TYR:CD1	2.84	0.51
3:8:110:U:O3'	3:8:111:U:H4'	2.10	0.51
10:G:162:ASP:HB3	10:G:163:PRO:HD3	1.92	0.51
58:SI:113:TYR:CD2	58:SI:121:LEU:HD21	2.45	0.51
58:SI:54:LYS:HD3	58:SI:181:GLN:NE2	2.25	0.51
6:C:290:SER:O	6:C:294:LYS:HG2	2.10	0.51
54:SE:208:VAL:HB	54:SE:225:ILE:HD12	1.93	0.51
1:5:1444:G:C2'	1:5:1445:U:H6	2.22	0.51
1:5:1669:A:H2'	1:5:1670:G:O4'	2.10	0.51
1:5:1898:C:C5	1:5:2279:A:C1'	2.91	0.51
1:5:2447:U:HO2'	1:5:2448:G:P	2.34	0.51
1:5:1543:G:N3	1:5:2513:A:C2	2.79	0.51
1:5:4124:G:N3	1:5:4124:G:H2'	2.25	0.51
1:5:458:C:N3	1:5:459:C:C5	2.79	0.51
1:5:691:C:H2'	1:5:692:A:H8	1.75	0.51
49:S2:1367:U:O2'	49:S2:1466:G:O2'	2.26	0.51
49:S2:114:G:O2'	49:S2:382:C:O2'	2.00	0.51
49:S2:1052:A:N3	49:S2:1053:C:C6	2.79	0.51
50:SA:28:THR:HA	50:SA:45:GLY:O	2.10	0.51
48:4:207:PRO:CB	48:4:261:TRP:CG	2.94	0.51
1:5:1382:G:H2'	1:5:1383:G:O5'	2.10	0.51
1:5:1421:G:C2	1:5:1422:G:C5	2.99	0.51
1:5:331:G:N3	1:5:332:C:C5	2.78	0.51
1:5:4977:A:C2'	1:5:4978:G:H5'	2.41	0.51
48:4:693:CYS:O	48:4:694:GLU:CB	2.59	0.51
49:S2:1590:C:C5	49:S2:1591:C:N1	2.79	0.51
1:5:5006:U:C5	26:W:50:ASN:ND2	2.78	0.51
1:5:1886:G:C5	1:5:1887:G:C8	2.98	0.51
1:5:2482:C:N3	1:5:2483:G:C8	2.78	0.51
1:5:2497:C:H42	1:5:2498:C:N4	2.08	0.51
1:5:3634:G:N2	1:5:3636:C:H5'	2.24	0.51
3:8:117:C:H2'	3:8:117:C:O2	2.09	0.51
1:5:3625:G:N3	1:5:3625:G:H2'	2.25	0.51
49:S2:832:G:C2	49:S2:843:C:C2	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1045:U:C4	49:S2:1046:U:C4	2.98	0.51
1:5:4724:A:C2	1:5:4725:C:C2	2.98	0.51
49:S2:501:C:O2	49:S2:501:C:H2'	2.10	0.51
2:7:43:U:C4	2:7:44:C:C4	2.99	0.51
49:S2:1042:A:C6	49:S2:1043:G:C5	2.98	0.51
48:4:81:LEU:CB	48:4:86:LEU:HD12	2.41	0.51
1:5:4229:U:H3'	1:5:4230:C:H6	1.74	0.51
16:M:7:VAL:N	22:S:152:PHE:O	2.44	0.51
1:5:4499:G:H3'	1:5:4500:U:H5"	1.92	0.51
1:5:1090:G:C5	1:5:1091:C:C5	2.98	0.51
1:5:4886:C:C2	1:5:4887:C:C5	2.99	0.51
2:7:94:C:N3	2:7:95:C:H5	2.06	0.51
48:4:137:VAL:HG23	48:4:138:GLN:N	2.25	0.51
1:5:4137:C:N3	1:5:4138:C:C5	2.79	0.51
1:5:4737:G:C4	1:5:4738:C:C4	2.99	0.51
1:5:715:G:H2'	1:5:716:C:O4'	2.10	0.51
49:S2:828:G:C2	49:S2:829:C:C6	2.98	0.51
48:4:364:ALA:HA	48:4:367:TYR:CZ	2.45	0.51
50:SA:181:GLU:OE1	50:SA:184:ARG:HB2	2.10	0.51
61:SL:55:TYR:CD2	61:SL:115:PRO:HG2	2.46	0.51
48:4:536:CYS:O	48:4:537:ILE:CG2	2.58	0.51
49:S2:1386:A:C2	49:S2:1387:G:H1'	2.45	0.51
1:5:518:G:H2'	1:5:519:C:O4'	2.09	0.51
9:F:229:PHE:CD2	9:F:238:ARG:HB3	2.46	0.51
29:Z:68:ILE:HG22	29:Z:119:GLU:HG3	1.92	0.51
57:SH:186:ASN:N	57:SH:186:ASN:OD1	2.44	0.51
6:C:58:ALA:O	6:C:60:HIS:HB2	2.10	0.51
73:SX:74:LEU:HG	73:SX:81:ILE:HD12	1.93	0.51
54:SE:159:THR:HG23	54:SE:227:VAL:HG22	1.92	0.51
28:Y:22:PRO:HD2	28:Y:25:ILE:HD12	1.91	0.51
59:SJ:54:ARG:HB3	59:SJ:54:ARG:NH2	2.25	0.51
48:4:816:HIS:NE2	48:4:818:GLN:HB2	2.25	0.51
1:5:1049:C:C4	1:5:1050:C:C5	2.99	0.51
1:5:1072:C:C2'	1:5:1072:C:O2	2.57	0.51
1:5:1234:G:H2'	1:5:1235:G:C8	2.46	0.51
1:5:1961:G:H2'	1:5:2024:G:N1	2.26	0.51
1:5:1973:G:O6	1:5:2002:A:N7	2.44	0.51
1:5:1993:C:O2'	14:K:135:THR:CG2	2.59	0.51
1:5:2442:G:H2'	1:5:2443:G:H5"	1.92	0.51
1:5:4122:G:C5	1:5:4123:C:C6	2.98	0.51
5:B:17:LEU:HD21	5:B:264:PHE:CE1	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:197:ARG:O	6:C:199:ARG:N	2.43	0.51
1:5:1273:G:C8	8:E:69:TYR:C	2.84	0.51
1:5:1724:G:C2	9:F:105:PRO:HB3	2.44	0.51
20:Q:88:ASP:OD2	20:Q:108:ARG:HD3	2.10	0.51
21:R:103:ARG:NH2	21:R:106:LEU:HD11	11.88	0.51
49:S2:1392:U:C2	49:S2:1393:G:C8	2.99	0.51
49:S2:1449:G:C2	49:S2:1450:G:C4	2.99	0.51
49:S2:311:C:H2'	49:S2:312:G:C1'	2.41	0.51
49:S2:340:C:C2'	49:S2:341:C:H6	2.24	0.51
56:SG:188:LYS:HA	56:SG:191:ARG:HD3	1.93	0.51
1:5:1374:G:C6	1:5:1375:C:C4	2.98	0.51
1:5:1421:G:C2	1:5:1422:G:N7	2.79	0.51
1:5:1475:G:N3	1:5:1476:C:C6	2.79	0.51
1:5:158:A:H5"	1:5:159:C:C6	2.45	0.51
1:5:292:G:N2	1:5:293:G:C2	2.79	0.51
1:5:302:C:N3	1:5:303:C:C5	2.78	0.51
1:5:3744:G:C2'	1:5:3745:U:O5'	2.59	0.51
1:5:70:A:H1'	1:5:71:C:N4	2.26	0.51
4:A:69:PHE:CG	15:L:65:ARG:HB2	106.20	0.51
49:S2:1567:G:H1'	68:SS:82:TRP:CH2	2.46	0.51
2:7:59:G:H4'	7:D:267:ASN:ND2	2.25	0.51
49:S2:1131:G:N2	49:S2:1132:C:C2	2.78	0.51
49:S2:1135:C:C4	49:S2:1136:U:C4	2.98	0.51
49:S2:1136:U:O2'	49:S2:1137:U:C5'	2.58	0.51
49:S2:1643:U:O2'	49:S2:1644:C:C6	2.63	0.51
1:5:3879:G:C5	1:5:3882:C:N4	2.79	0.51
1:5:2477:A:H2'	1:5:2478:C:H6	1.74	0.51
11:H:5:LEU:HD13	11:H:60:TRP:CE3	2.45	0.51
48:4:449:ARG:CB	48:4:473:VAL:HG11	2.41	0.51
1:5:2532:C:O2'	27:X:93:ASN:ND2	2.44	0.51
49:S2:1122:A:C5	49:S2:1123:C:C5	2.99	0.51
49:S2:1122:A:N1	49:S2:1123:C:C6	2.78	0.51
1:5:2055:G:H1'	18:O:130:LYS:HD3	1.91	0.51
49:S2:1004:U:O2	49:S2:1005:G:C8	2.63	0.51
49:S2:978:G:C6	49:S2:979:C:C4	2.98	0.51
49:S2:985:G:O4'	64:SO:138:ASP:OD2	2.28	0.51
1:5:1337:A:C2	1:5:1659:U:O4'	2.64	0.51
1:5:139:G:H2'	1:5:140:G:O4'	2.11	0.51
3:8:129:C:N3	3:8:130:C:C5	2.79	0.51
1:5:5020:G:C4	1:5:5021:C:C6	2.99	0.51
49:S2:46:A:C2	49:S2:99:A:N9	2.78	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:S:45:TRP:CE3	22:S:56:LYS:HA	2.43	0.51
1:5:1205:G:C6	1:5:1206:C:C4	2.98	0.51
1:5:186:G:H1'	1:5:187:U:H1'	1.93	0.51
49:S2:962:A:C6	49:S2:963:A:N7	2.78	0.51
1:5:1758:G:C2	1:5:1759:G:N7	2.79	0.51
5:B:168:MET:CE	5:B:171:LEU:HD12	2.40	0.51
5:B:49:TYR:CE1	5:B:171:LEU:HD11	2.45	0.51
1:5:255:C:C2'	1:5:255:C:O2	2.55	0.51
2:7:23:A:O2'	2:7:24:C:C6	2.62	0.51
1:5:4490:C:O2	1:5:4491:G:C8	2.63	0.51
1:5:2040:A:H4'	1:5:2041:A:O5'	2.11	0.51
1:5:4456:C:O2	1:5:4456:C:H2'	2.10	0.51
49:S2:1808:U:O2	49:S2:1809:A:C8	2.64	0.51
49:S2:1812:U:O2	49:S2:1812:U:H2'	2.11	0.51
1:5:930:G:H4'	1:5:931:C:O5'	2.09	0.51
50:SA:39:TYR:OH	67:SR:104:GLU:CB	2.59	0.51
50:SA:10:MET:HA	50:SA:55:TRP:CE3	2.45	0.51
49:S2:1683:C:O2	49:S2:1684:C:C6	2.63	0.51
1:5:2703:G:C2	1:5:2704:C:N1	2.79	0.51
1:5:2704:C:H2'	1:5:2704:C:O2	2.10	0.51
62:SM:113:ASP:O	62:SM:115:GLY:N	2.43	0.51
49:S2:747:U:H3'	49:S2:748:C:C6	2.46	0.51
24:U:27:HIS:O	24:U:114:TYR:OH	2.23	0.51
57:SH:43:LEU:HD21	57:SH:71:SER:HB3	1.92	0.51
5:B:122:TRP:NE1	5:B:127:LYS:HE3	2.26	0.51
1:5:3930:U:C2	1:5:3931:C:C5	2.99	0.51
48:4:27:HIS:CD2	48:4:28:VAL:C	2.84	0.51
1:5:1213:G:C2	1:5:1215:C:O2	2.64	0.51
1:5:1280:C:H2'	1:5:1282:G:OP2	2.11	0.51
1:5:1683:U:C2	1:5:1684:A:N7	2.77	0.51
1:5:2268:A:O4'	1:5:2270:G:N7	2.44	0.51
1:5:2440:U:N3	1:5:2519:U:C5	2.78	0.51
1:5:4082:G:C4	1:5:4083:U:C5	2.98	0.51
1:5:4459:U:H5"	5:B:10:ARG:HH22	1.75	0.51
1:5:449:C:C4	1:5:450:G:N7	2.79	0.51
1:5:463:A:C2	1:5:692:A:H2	2.29	0.51
4:A:63:PHE:CD1	4:A:63:PHE:N	2.77	0.51
1:5:4124:G:C2	4:A:64:ARG:NH1	2.79	0.51
14:K:102:GLY:HA3	14:K:139:VAL:HA	1.91	0.51
14:K:81:ILE:HD13	14:K:117:ARG:CZ	2.40	0.51
21:R:4:LEU:HD22	21:R:32:ILE:HG22	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:300:U:N3	49:S2:301:A:C8	2.79	0.51
49:S2:71:G:C2'	49:S2:72:C:O4'	2.59	0.51
74:SY:119:GLY:O	74:SY:121:ALA:N	2.44	0.51
49:S2:1831:A:OP2	49:S2:1837:G:OP2	2.28	0.51
1:5:1374:G:C5	1:5:1375:C:C5	2.99	0.51
1:5:111:C:C2	1:5:331:G:C2	2.99	0.51
1:5:85:G:C5	15:L:13:HIS:CE1	2.99	0.51
1:5:91:G:C5	1:5:93:G:C6	2.98	0.51
49:S2:1422:G:C2	49:S2:1424:G:C8	2.98	0.51
49:S2:1540:G:C5	49:S2:1541:G:C8	2.98	0.51
49:S2:1561:A:N6	49:S2:1574:C:N3	2.58	0.51
49:S2:1612:G:N2	49:S2:1628:C:C2	2.79	0.51
2:7:18:C:H2'	2:7:18:C:O2	2.11	0.51
49:S2:1149:A:C6	49:S2:1151:G:C8	2.99	0.51
62:SM:90:GLY:C	62:SM:91:LEU:HG	2.30	0.51
48:4:420:LEU:HB2	48:4:465:PRO:CA	2.38	0.51
49:S2:49:C:O2	49:S2:49:C:H2'	2.11	0.51
49:S2:1707:U:C5	49:S2:1708:C:C5	2.98	0.51
1:5:4535:A:C6	1:5:4536:C:C6	2.98	0.51
1:5:4537:C:N3	1:5:4538:G:C8	2.71	0.51
1:5:106:A:OP1	15:L:39:ARG:NH2	2.43	0.51
3:8:79:G:H3'	3:8:80:A:N3	2.25	0.51
1:5:660:A:N1	1:5:661:C:C5	2.79	0.51
12:I:46:PHE:N	12:I:47:PRO:HD3	2.26	0.51
12:I:76:MET:CE	12:I:80:CYS:SG	2.99	0.51
49:S2:997:A:C2'	49:S2:998:A:O4'	2.59	0.51
49:S2:1130:G:O5'	49:S2:1130:G:H8	1.94	0.51
48:4:284:LYS:HE2	48:4:284:LYS:H	1.76	0.51
1:5:4750:G:C6	1:5:4949:G:O6	2.61	0.51
1:5:4735:G:C2	1:5:4736:C:C4	2.98	0.51
49:S2:17:C:C2	49:S2:18:C:C5	2.99	0.51
1:5:1193:C:N3	1:5:1194:G:C8	2.78	0.51
1:5:908:G:C6	1:5:909:A:C8	2.98	0.51
1:5:1965:G:C6	1:5:1966:C:N4	2.78	0.51
49:S2:1048:G:H2'	49:S2:1068:G:H22	1.76	0.51
1:5:4754:G:C2	1:5:4880:C:N3	2.78	0.51
1:5:1365:C:H4'	1:5:1366:G:OP1	2.11	0.51
49:S2:601:G:C2	49:S2:622:C:O2	2.63	0.51
1:5:1727:U:N3	1:5:1728:U:C5	2.79	0.51
1:5:4137:C:C2	1:5:4138:C:C5	2.98	0.51
1:5:1516:G:C6	1:5:1518:A:C4	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:210:ILE:HG21	6:C:252:TRP:CZ3	2.45	0.51
19:P:42:ARG:HH11	19:P:42:ARG:HG3	1.76	0.51
49:S2:1811:C:N3	49:S2:1812:U:C5	2.79	0.51
68:SS:87:GLN:HA	68:SS:95:TYR:HB3	1.92	0.51
49:S2:320:G:N2	49:S2:321:C:H1'	2.26	0.51
1:5:3710:G:C2	1:5:3711:A:C2	2.99	0.51
1:5:4702:G:N2	1:5:4703:U:H1'	2.25	0.51
21:R:10:LEU:HD23	21:R:41:ILE:HD12	1.92	0.51
1:5:2682:G:C6	1:5:2683:C:N4	2.79	0.51
15:L:83:VAL:HG11	15:L:114:VAL:HG21	1.92	0.51
1:5:4440:G:H5"	1:5:4440:G:H8	1.76	0.51
48:4:752:PRO:CB	48:4:780:PRO:HA	2.08	0.51
1:5:1975:G:C6	1:5:1984:A:C4	2.98	0.51
1:5:2088:A:H61	20:Q:30:LYS:HB3	1.75	0.51
1:5:2089:G:C6	1:5:2262:G:H2'	2.44	0.51
1:5:2328:G:C2'	1:5:2329:U:O5'	2.58	0.51
1:5:2468:U:C4	1:5:2473:A:N6	2.77	0.51
14:K:131:GLU:O	14:K:135:THR:CG2	2.38	0.51
48:4:739:ARG:HD3	48:4:823:ASP:HA	1.92	0.51
49:S2:1455:A:H2'	49:S2:1455:A:N3	2.26	0.51
49:S2:87:U:H4'	49:S2:173:A:O4'	2.10	0.51
1:5:1380:G:C2	1:5:1382:G:N3	2.79	0.51
48:4:693:CYS:HA	48:4:839:ARG:HE	0.76	0.51
74:SY:20:ARG:NH1	74:SY:74:MET:HE2	2.25	0.51
1:5:1169:G:C2	1:5:1170:G:C8	2.98	0.51
1:5:3859:G:C1'	19:P:139:TYR:OH	2.58	0.51
49:S2:1232:U:N3	49:S2:1233:G:N7	2.57	0.51
49:S2:1243:U:C4	49:S2:1244:U:H1'	2.46	0.51
49:S2:1546:G:O2'	49:S2:1547:C:O5'	2.29	0.51
49:S2:1613:G:C2	49:S2:1627:C:C2	2.99	0.51
73:SX:67:ARG:NH2	73:SX:114:ASP:OD2	2.38	0.51
49:S2:1134:G:C6	49:S2:1135:C:C4	2.99	0.51
49:S2:1134:G:N1	49:S2:1135:C:C5	2.78	0.51
49:S2:1280:G:C2	49:S2:1318:G:C5	2.99	0.51
62:SM:77:ILE:HG23	62:SM:78:LYS:H	1.76	0.51
1:5:1320:U:H2'	1:5:1891:A:H61	1.76	0.51
1:5:3874:G:C6	1:5:3875:G:C4	2.99	0.51
56:SG:66:GLY:O	56:SG:68:LEU:HD22	2.11	0.51
1:5:2435:G:N2	1:5:2783:A:H1'	2.26	0.51
3:8:80:A:C6	3:8:81:C:C5	2.98	0.51
48:4:430:MET:CE	48:4:486:THR:OG1	2.57	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4198:G:C5	1:5:4199:C:C6	2.99	0.51
7:D:42:ASN:HA	7:D:44:TYR:CZ	2.44	0.51
5:B:102:PHE:HB3	5:B:103:LYS:HB2	1.92	0.51
3:8:103:A:H3'	3:8:104:A:C5'	2.41	0.51
49:S2:847:A:N3	49:S2:847:A:H2'	2.26	0.51
1:5:3791:C:O4'	1:5:3791:C:O2	2.25	0.51
1:5:1092:G:C5	1:5:1093:C:C5	2.98	0.51
1:5:1194:G:C2	1:5:1195:G:C8	2.99	0.51
1:5:222:C:H2'	1:5:223:G:O4'	2.11	0.51
1:5:2307:A:O2'	1:5:2308:A:H5'	2.11	0.51
1:5:1743:A:C6	1:5:1744:U:C5	2.99	0.51
2:7:22:A:C4	7:D:266:TRP:CH2	2.99	0.51
49:S2:1495:G:N1	49:S2:1496:U:H1'	2.26	0.51
53:SD:35:SER:HB2	53:SD:91:VAL:HG21	1.92	0.51
1:5:2391:G:N1	1:5:2392:C:C4	2.78	0.51
1:5:1387:A:H1'	1:5:1397:A:N6	2.26	0.51
1:5:4737:G:H5"	1:5:5069:U:C4	2.46	0.51
1:5:4901:G:C2	1:5:4921:C:N3	2.78	0.51
49:S2:371:A:N3	49:S2:372:U:C5	2.79	0.51
1:5:4525:C:OP1	5:B:246:ARG:NH2	2.44	0.51
57:SH:130:LEU:HD21	57:SH:177:TYR:CZ	2.46	0.51
1:5:3937:C:H1'	17:N:125:SER:HB3	1.93	0.51
1:5:2721:G:C2	1:5:2722:G:C8	2.99	0.51
1:5:2627:C:O2	1:5:2627:C:O4'	2.28	0.51
24:U:96:LEU:O	24:U:100:LEU:HB2	2.11	0.51
1:5:1912:G:N3	1:5:1913:C:C6	2.79	0.51
65:SP:17:TYR:HH	65:SP:38:SER:HB3	1.75	0.51
57:SH:135:PHE:CD1	57:SH:136:PRO:N	2.78	0.51
59:SJ:114:VAL:HG12	59:SJ:120:ALA:HB2	1.91	0.51
49:S2:873:G:H2'	49:S2:874:G:C8	2.46	0.51
53:SD:113:LEU:HD22	53:SD:118:ALA:HB2	1.93	0.51
1:5:3707:U:O2'	4:A:241:ARG:HG2	2.10	0.51
58:SI:69:SER:HA	61:SL:20:LYS:HE2	1.93	0.51
48:4:110:ASP:O	48:4:501:VAL:HG21	2.11	0.51
1:5:1247:U:O2	1:5:1248:C:C6	2.64	0.51
1:5:1989:G:C2	1:5:1990:A:C5	2.99	0.51
1:5:2080:U:C2	1:5:2081:C:H5	2.17	0.51
1:5:971:U:H2'	1:5:972:C:H5'	1.93	0.51
1:5:978:G:C2	1:5:979:C:C2	2.98	0.51
49:S2:460:A:C6	49:S2:461:U:H5	2.24	0.51
49:S2:338:G:H3'	49:S2:339:A:H8	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:19:ARG:NE	5:B:235:TRP:CZ3	2.78	0.51
49:S2:1434:C:H3'	49:S2:1435:C:C4'	2.41	0.51
49:S2:1221:G:O2'	49:S2:1222:G:C5'	2.59	0.51
49:S2:1109:C:C2'	49:S2:1109:C:O2	2.57	0.51
48:4:330:LYS:O	48:4:335:LEU:HB2	2.11	0.51
49:S2:56:G:O2'	49:S2:57:U:O5'	2.28	0.51
1:5:1936:C:C4	1:5:1937:C:H5	2.26	0.51
49:S2:552:G:C2	49:S2:553:U:C4	2.99	0.51
1:5:3771:C:O5'	1:5:3771:C:O2	2.28	0.51
1:5:205:C:N3	1:5:209:U:C5	2.79	0.51
3:8:64:U:O2	3:8:65:A:C4	2.63	0.51
1:5:165:A:C4	1:5:166:C:C6	2.99	0.51
1:5:4100:C:N3	1:5:4101:C:C4	2.79	0.51
49:S2:1045:U:C2	49:S2:1046:U:C6	2.97	0.51
49:S2:956:G:O6	49:S2:968:U:O2	2.28	0.51
49:S2:973:C:N3	64:SO:55:ARG:NH1	2.59	0.51
3:8:42:G:C2	3:8:43:A:N9	2.78	0.51
49:S2:1074:C:C2	49:S2:1075:C:H5	2.15	0.51
1:5:4743:G:C2	1:5:4744:A:C5	2.99	0.51
48:4:590:LEU:HD23	48:4:605:LYS:CE	2.40	0.51
1:5:1203:G:N2	1:5:1204:C:C2	2.79	0.51
1:5:1412:G:C4	1:5:1413:C:C6	2.99	0.51
1:5:1748:U:C2	1:5:1749:A:C8	2.98	0.51
1:5:1750:G:N3	1:5:1750:G:H2'	2.26	0.51
1:5:1751:A:C2'	1:5:1752:G:H5'	2.38	0.51
49:S2:415:A:C2'	49:S2:416:U:O4'	2.52	0.51
1:5:1651:G:O5'	1:5:1651:G:C8	2.64	0.51
1:5:2391:G:N3	1:5:2392:C:C6	2.79	0.51
1:5:4501:U:C5	1:5:4502:C:C6	2.99	0.51
7:D:284:LYS:HB3	12:I:209:TRP:HZ3	1.72	0.51
1:5:4455:G:N2	1:5:4456:C:C2	2.79	0.51
49:S2:1807:C:C2	49:S2:1808:U:C5	2.98	0.51
1:5:930:G:N3	1:5:931:C:C5	2.79	0.51
1:5:4189:U:O4'	1:5:4380:A:C2	2.63	0.51
72:SW:27:ILE:HG12	72:SW:61:ILE:HB	1.92	0.51
1:5:1550:G:C2	1:5:1579:C:O2	2.63	0.51
1:5:388:A:C5	1:5:411:G:N1	2.79	0.51
48:4:477:GLN:HG2	48:4:478:PHE:CG	2.45	0.51
23:T:70:HIS:N	23:T:70:HIS:CD2	2.79	0.51
64:SO:65:ASP:N	64:SO:65:ASP:OD1	2.44	0.51
52:SC:94:ILE:HD11	52:SC:98:LEU:HD12	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:580:ARG:HB2	48:4:741:MET:SD	2.51	0.51
48:4:752:PRO:HB2	48:4:754:GLN:OE1	2.11	0.51
48:4:45:ILE:HD12	48:4:78:PHE:CG	2.04	0.51
1:5:1620:U:C2	1:5:1621:A:N7	2.79	0.51
1:5:455:C:N3	1:5:456:C:C6	2.79	0.51
20:Q:177:ALA:O	20:Q:179:GLY:N	2.43	0.51
48:4:568:ILE:O	48:4:570:ILE:HD13	2.11	0.51
49:S2:86:C:N4	49:S2:87:U:C4	2.79	0.51
49:S2:1841:C:O2	49:S2:1842:C:C6	2.63	0.51
1:5:3720:G:C6	1:5:3721:U:C4	2.99	0.51
1:5:4362:A:N1	1:5:4363:A:C5	2.79	0.51
1:5:68:U:N3	1:5:69:A:H1'	2.26	0.51
48:4:693:CYS:C	48:4:839:ARG:CZ	2.73	0.51
49:S2:1236:G:C6	49:S2:1237:C:C4	2.99	0.51
3:8:12:G:OP1	19:P:3:ARG:NH1	2.43	0.51
49:S2:524:U:C2	49:S2:594:A:C6	2.94	0.51
1:5:2408:U:H1'	1:5:2409:U:C5	2.45	0.51
1:5:3697:U:O2'	1:5:3698:G:OP2	2.20	0.51
1:5:3842:C:H3'	1:5:3843:C:H2'	1.93	0.51
1:5:2532:C:O2	1:5:2532:C:H2'	2.10	0.51
49:S2:1018:U:C2	49:S2:1019:C:H5	2.24	0.51
48:4:430:MET:HE1	48:4:486:THR:CB	2.39	0.51
1:5:2034:G:O3'	22:S:118:ARG:HD3	2.11	0.51
1:5:4093:G:C2'	1:5:4094:G:H5'	2.41	0.51
49:S2:1005:G:H2'	49:S2:1006:C:C6	2.45	0.51
1:5:354:U:O4	1:5:1334:A:H1'	2.10	0.51
1:5:913:U:O2	1:5:914:U:C5	2.64	0.51
1:5:4230:C:C2	1:5:4231:C:C5	2.99	0.51
1:5:4734:A:N1	1:5:4735:G:C4	2.79	0.51
16:M:5:ARG:N	16:M:6:PHE:CE2	2.79	0.51
1:5:3791:C:C4	1:5:3802:U:C6	2.99	0.51
49:S2:880:G:N7	49:S2:881:G:C5	2.79	0.51
3:8:23:C:OP1	28:Y:15:ARG:NH2	2.29	0.51
8:E:145:ILE:HD11	8:E:267:LEU:CD2	2.40	0.51
1:5:4911:A:H5'	5:B:100:ARG:HD3	1.89	0.51
1:5:1748:U:H2'	1:5:1749:A:O4'	2.10	0.51
1:5:3589:G:H2'	1:5:3590:G:O4'	2.11	0.51
1:5:3591:C:C2'	1:5:3591:C:O2	2.56	0.51
1:5:189:G:N3	1:5:190:G:C8	2.79	0.51
1:5:152:U:N3	1:5:153:G:C8	2.78	0.51
1:5:4136:G:N2	1:5:4137:C:H1'	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4147:G:N1	1:5:4148:C:C4	2.79	0.51
49:S2:522:A:N1	49:S2:643:A:H5'	2.26	0.51
49:S2:903:A:C5	49:S2:904:A:N7	2.79	0.51
1:5:3819:G:C2	1:5:3820:G:C8	2.99	0.51
1:5:3711:A:C6	1:5:3712:A:N3	2.79	0.51
1:5:4545:G:N7	4:A:215:ASN:ND2	2.59	0.51
58:SI:174:CYS:HB3	58:SI:188:TYR:CE1	2.46	0.51
54:SE:195:ILE:O	54:SE:196:THR:CB	2.59	0.51
49:S2:1387:G:C5	49:S2:1388:A:C8	2.99	0.51
1:5:3921:U:OP2	1:5:4183:G:O2'	2.20	0.51
1:5:1344:C:C2	1:5:1345:A:C8	2.98	0.51
57:SH:118:ARG:O	57:SH:121:THR:HG22	2.11	0.51
49:S2:374:G:OP1	61:SL:59:LYS:NZ	2.41	0.51
48:4:193:GLY:HA3	48:4:203:ILE:CD1	2.40	0.50
48:4:541:SER:O	48:4:542:GLY:C	2.50	0.50
1:5:1277:G:C2	1:5:1278:C:C5	2.98	0.50
1:5:973:G:O6	1:5:1282:G:N3	2.45	0.50
1:5:1877:G:C2	1:5:1878:G:N9	2.79	0.50
1:5:2007:G:C3'	1:5:2008:U:H5"	2.41	0.50
1:5:2089:G:C5	1:5:2263:A:N7	2.79	0.50
1:5:2601:A:C8	1:5:2743:A:OP1	2.63	0.50
1:5:4164:C:N3	1:5:4165:C:C6	2.78	0.50
1:5:471:A:N1	1:5:472:C:C1'	2.74	0.50
1:5:676:C:C2	1:5:677:G:C8	2.99	0.50
1:5:978:G:C5	1:5:979:C:C5	2.99	0.50
1:5:2295:C:H5'	6:C:199:ARG:HH21	1.76	0.50
14:K:103:ASN:CA	14:K:140:GLY:HA2	2.40	0.50
48:4:518:PRO:HB3	73:SX:75:ILE:CD1	2.41	0.50
1:5:4413:C:H5"	12:I:157:PHE:HE2	1.68	0.50
48:4:558:LEU:O	48:4:562:GLU:HG2	2.11	0.50
48:4:650:TRP:HZ3	48:4:679:VAL:CB	2.24	0.50
49:S2:341:C:C2	49:S2:342:C:C6	2.99	0.50
49:S2:453:C:O2'	49:S2:454:U:O5'	2.29	0.50
49:S2:1083:A:N3	49:S2:1859:A:C2'	2.74	0.50
49:S2:1201:U:O4'	49:S2:1357:A:C2	2.64	0.50
49:S2:1841:C:N3	49:S2:1842:C:C5	2.79	0.50
1:5:4126:C:H3'	1:5:4127:A:C5'	2.41	0.50
48:4:693:CYS:SG	48:4:695:GLU:HG2	2.51	0.50
49:S2:1417:C:H42	49:S2:1419:C:H41	1.59	0.50
49:S2:1593:C:O2'	69:ST:12:GLN:CD	2.49	0.50
49:S2:1594:A:C6	49:S2:1595:U:C6	2.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2366:A:C2'	1:5:2367:A:C5'	2.89	0.50
49:S2:29:G:N1	49:S2:30:C:C4	2.79	0.50
49:S2:1226:G:O6	49:S2:1638:G:C8	2.53	0.50
49:S2:1283:C:N4	62:SM:103:VAL:HA	2.26	0.50
1:5:5034:A:C2	1:5:5035:U:C6	2.99	0.50
49:S2:1828:C:H2'	49:S2:1829:G:C1'	2.41	0.50
1:5:505:G:C2	1:5:506:C:C2	2.99	0.50
49:S2:999:G:N2	49:S2:1000:C:N1	2.59	0.50
7:D:22:ARG:NH1	7:D:22:ARG:HG3	2.14	0.50
1:5:1924:C:N3	1:5:1925:G:C8	2.79	0.50
1:5:55:G:C6	1:5:56:A:N7	2.79	0.50
1:5:56:A:C2	1:5:57:G:C4	2.99	0.50
49:S2:841:G:N2	49:S2:842:C:C2	2.79	0.50
49:S2:105:U:H5"	49:S2:106:C:OP2	2.11	0.50
2:7:42:A:N3	2:7:43:U:C6	2.79	0.50
1:5:2363:A:C1'	1:5:4560:C:C5	2.94	0.50
1:5:4258:C:O2	1:5:4259:C:C5	2.59	0.50
49:S2:850:C:H2'	49:S2:851:C:C6	2.46	0.50
1:5:2666:U:C5	1:5:2669:C:N4	2.80	0.50
59:SJ:5:ARG:HB2	59:SJ:7:TRP:CZ2	2.46	0.50
1:5:2555:G:O6	1:5:2572:C:N4	2.43	0.50
1:5:145:G:C4	1:5:146:G:C8	3.00	0.50
1:5:4594:U:O2	1:5:4595:G:C8	2.64	0.50
1:5:2662:G:H2'	1:5:2663:G:O4'	2.11	0.50
49:S2:1146:C:O2	49:S2:1147:C:C5	2.60	0.50
49:S2:1812:U:O2	49:S2:1813:A:C8	2.64	0.50
1:5:4152:G:C4	1:5:4153:C:C5	2.99	0.50
1:5:2247:C:H5"	1:5:2248:C:O5'	2.11	0.50
50:SA:59:LEU:CD2	50:SA:181:GLU:HG2	2.40	0.50
3:8:63:U:H3'	3:8:63:U:C2	2.46	0.50
49:S2:732:U:N3	49:S2:733:C:C5	2.80	0.50
58:SI:196:GLU:OE2	58:SI:197:PHE:N	2.44	0.50
50:SA:141:ASN:HD22	50:SA:141:ASN:N	2.07	0.50
1:5:3660:C:OP2	4:A:241:ARG:NH2	2.44	0.50
49:S2:356:C:O4'	49:S2:356:C:O2	2.29	0.50
49:S2:853:C:O2	49:S2:853:C:O4'	2.29	0.50
74:SY:58:PHE:CE1	74:SY:72:PHE:HB3	2.46	0.50
48:4:26:ALA:HB3	48:4:32:LYS:HB2	1.93	0.50
48:4:541:SER:OG	48:4:576:VAL:CG1	2.54	0.50
48:4:751:CYS:SG	48:4:756:VAL:HG23	2.50	0.50
48:4:752:PRO:CB	48:4:780:PRO:CA	2.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1250:C:C2	1:5:1261:G:N2	2.79	0.50
1:5:1663:C:O2	1:5:1664:U:C6	2.65	0.50
1:5:2027:U:H2'	1:5:2028:C:H6	1.76	0.50
1:5:2100:A:C8	1:5:2101:C:C6	2.99	0.50
1:5:2320:G:O2'	1:5:2321:G:C8	2.57	0.50
1:5:2466:G:H2'	1:5:2467:U:O4'	2.11	0.50
1:5:4175:G:C5	1:5:4176:C:C5	2.99	0.50
1:5:446:C:C2	1:5:447:C:C6	2.99	0.50
14:K:116:MET:CB	14:K:117:ARG:NH2	2.68	0.50
14:K:117:ARG:O	14:K:123:ARG:NH1	2.44	0.50
14:K:14:TYR:CE1	14:K:16:ARG:HB3	2.47	0.50
20:Q:176:ARG:O	20:Q:177:ALA:HB2	2.10	0.50
49:S2:309:G:C2	49:S2:310:C:C6	2.98	0.50
49:S2:79:A:O5'	49:S2:79:A:H8	1.95	0.50
56:SG:217:MET:O	56:SG:221:LYS:N	2.43	0.50
48:4:154:VAL:HG22	48:4:353:MET:SD	2.52	0.50
1:5:313:U:H2'	1:5:314:G:O4'	2.11	0.50
1:5:3738:G:N7	1:5:3739:C:C5	2.79	0.50
1:5:4355:G:N1	1:5:4356:G:N7	2.59	0.50
22:S:171:ARG:HH11	22:S:171:ARG:HG3	1.76	0.50
49:S2:950:C:O2	49:S2:950:C:H2'	2.11	0.50
49:S2:1513:C:O2'	49:S2:1514:G:H5'	2.11	0.50
49:S2:1565:C:N3	49:S2:1571:G:C2	2.80	0.50
49:S2:1667:U:O2	49:S2:1668:U:C5	2.64	0.50
1:5:4233:A:N6	1:5:4290:U:N3	2.27	0.50
48:4:845:LYS:HE3	48:4:846:GLU:CB	2.42	0.50
49:S2:1031:A:C4	49:S2:1032:C:C6	2.99	0.50
2:7:60:G:H2'	2:7:60:G:N3	2.25	0.50
49:S2:1135:C:C4	49:S2:1136:U:O4	2.65	0.50
62:SM:22:LEU:HD21	62:SM:109:VAL:HG21	1.93	0.50
1:5:1890:G:H22	1:5:1938:C:N4	2.09	0.50
1:5:3759:A:C6	49:S2:1709:G:H5'	2.47	0.50
1:5:2496:G:C2	1:5:2497:C:N1	2.80	0.50
1:5:2408:U:C1'	1:5:2409:U:C4	2.95	0.50
1:5:29:G:C4	1:5:30:C:C5	2.99	0.50
1:5:56:A:N1	1:5:57:G:C5	2.79	0.50
1:5:4095:G:H2'	1:5:4096:C:C6	2.44	0.50
1:5:130:C:C2	1:5:139:G:N2	2.80	0.50
1:5:1632:A:N3	1:5:1632:A:H3'	2.27	0.50
1:5:4730:C:P	1:5:4731:G:N2	2.85	0.50
1:5:1721:G:C6	1:5:1840:G:N7	2.78	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4479:A:C6	1:5:4480:A:H1'	2.46	0.50
49:S2:1070:A:C8	49:S2:1071:G:C8	3.00	0.50
3:8:30:U:O2	3:8:31:G:C8	2.65	0.50
1:5:2557:G:H2'	1:5:2558:C:O4'	2.11	0.50
1:5:1751:A:N6	1:5:1752:G:C8	2.79	0.50
1:5:3590:G:C2	1:5:3591:C:H1'	2.46	0.50
49:S2:805:U:C2	49:S2:806:U:C6	2.99	0.50
2:7:26:C:H5"	7:D:56:THR:HG21	1.93	0.50
1:5:739:G:H2'	1:5:740:G:O4'	2.10	0.50
1:5:1584:G:C6	1:5:1585:C:C4	2.99	0.50
1:5:3847:C:C4	1:5:3848:U:C5	2.99	0.50
1:5:2634:C:N3	1:5:2635:U:C5	2.79	0.50
1:5:4301:U:P	23:T:87:LYS:NZ	2.84	0.50
1:5:441:G:C2	1:5:442:G:C5	2.99	0.50
9:F:248:ARG:CB	9:F:248:ARG:CZ	2.87	0.50
1:5:2823:G:C2	1:5:2824:C:N1	2.79	0.50
1:5:2794:C:N3	19:P:136:ILE:HD12	2.26	0.50
49:S2:1184:G:H2'	49:S2:1185:C:O4'	2.11	0.50
71:SV:59:ILE:HG23	71:SV:64:GLU:HB2	1.93	0.50
13:J:31:ASP:O	13:J:32:ARG:HB2	2.10	0.50
1:5:40:G:C6	1:5:4378:A:C4	2.98	0.50
72:SW:44:HIS:O	72:SW:46:TYR:N	2.45	0.50
1:5:217:C:O2	6:C:172:LYS:HE2	2.11	0.50
4:A:216:HIS:N	4:A:216:HIS:CD2	2.78	0.50
62:SM:99:ASN:HD22	62:SM:99:ASN:N	2.09	0.50
1:5:4118:U:O4	4:A:95:GLN:HB3	2.11	0.50
12:I:191:ILE:HD12	12:I:200:VAL:HG11	1.94	0.50
5:B:85:ILE:HB	5:B:165:HIS:CD2	2.46	0.50
48:4:72:SER:CB	48:4:104:ASP:HB3	2.42	0.50
48:4:577:VAL:CG1	48:4:579:TYR:CE1	2.91	0.50
48:4:579:TYR:HB2	48:4:740:LEU:HD21	1.94	0.50
1:5:1616:U:H2'	1:5:1616:U:O2	2.11	0.50
1:5:1267:C:O2'	1:5:2109:G:N7	2.42	0.50
1:5:2440:U:O2'	1:5:2441:C:OP1	2.26	0.50
12:I:100:ASN:C	12:I:102:MET:H	2.14	0.50
5:B:264:PHE:HD2	18:O:66:PRO:HD2	1.76	0.50
1:5:4413:C:O2'	12:I:157:PHE:CD2	2.59	0.50
48:4:562:GLU:CB	48:4:570:ILE:CG1	2.90	0.50
49:S2:1795:G:N3	49:S2:1796:G:C8	2.79	0.50
49:S2:340:C:H2'	49:S2:341:C:H6	1.74	0.50
49:S2:59:U:H2'	49:S2:60:A:H2'	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1037:G:C6	49:S2:1038:U:C5	2.99	0.50
49:S2:1205:C:N3	49:S2:1206:G:N7	2.60	0.50
1:5:104:G:O2'	1:5:1361:G:O2'	2.06	0.50
1:5:69:A:C2	1:5:70:A:C5	2.99	0.50
49:S2:1405:A:N6	49:S2:1406:G:C6	2.79	0.50
49:S2:1630:A:C6	49:S2:1631:U:C4	2.99	0.50
1:5:4323:A:H3'	1:5:4324:A:H8	1.77	0.50
1:5:2366:A:H2'	1:5:2367:A:H5'	1.91	0.50
49:S2:1094:C:O2	49:S2:1095:U:C6	2.64	0.50
49:S2:1132:C:C4	49:S2:1133:A:N7	2.75	0.50
1:5:4997:G:C4	1:5:4998:G:C8	2.99	0.50
1:5:5003:U:N3	1:5:5045:G:C2	2.80	0.50
1:5:2889:G:H21	1:5:5034:A:H8	1.58	0.50
1:5:1885:G:H2'	1:5:1886:G:O5'	2.10	0.50
1:5:1325:C:O3'	1:5:3901:A:N6	2.44	0.50
49:S2:552:G:N1	49:S2:553:U:C4	2.79	0.50
1:5:2436:U:C4	1:5:2783:A:C8	3.00	0.50
1:5:2435:G:H21	1:5:2783:A:H1'	1.76	0.50
49:S2:750:C:O2	49:S2:750:C:C2'	2.59	0.50
49:S2:793:G:N7	49:S2:794:A:N7	2.59	0.50
3:8:82:A:C2'	3:8:82:A:N3	2.74	0.50
21:R:81:ARG:HG3	21:R:88:ARG:NE	2.26	0.50
1:5:660:A:N1	1:5:661:C:C4	2.79	0.50
49:S2:999:G:N3	49:S2:1000:C:C6	2.79	0.50
49:S2:1248:U:H2'	49:S2:1249:C:H1'	1.92	0.50
1:5:1818:G:H2'	1:5:1819:G:H5'	1.93	0.50
1:5:4280:A:H61	7:D:28:THR:C	2.13	0.50
1:5:3870:C:H4'	5:B:261:ARG:HE	1.76	0.50
49:S2:923:G:N1	49:S2:924:G:C5	2.79	0.50
1:5:1929:A:C6	1:5:2054:U:O4	2.62	0.50
1:5:4723:A:H2'	1:5:4724:A:H8	1.75	0.50
1:5:4724:A:C4	1:5:4725:C:C5	2.99	0.50
3:8:99:U:C2	3:8:100:U:C6	3.00	0.50
48:4:288:THR:HG23	48:4:289:PHE:N	2.27	0.50
1:5:4255:A:C5	1:5:4256:A:C2	2.99	0.50
1:5:5023:C:O2	1:5:5023:C:O4'	2.28	0.50
1:5:3795:A:C5	1:5:3796:U:C5	3.00	0.50
1:5:1196:G:C2	1:5:1197:C:C2	2.99	0.50
1:5:247:G:C5	1:5:248:C:C5	3.00	0.50
49:S2:428:U:H5	59:SJ:7:TRP:CE2	2.28	0.50
1:5:1758:G:N1	1:5:1759:G:C6	2.80	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2905:C:C2	1:5:3590:G:N2	2.80	0.50
49:S2:188:C:N3	49:S2:189:U:C6	2.80	0.50
2:7:22:A:N1	2:7:23:A:C6	2.79	0.50
2:7:112:U:C2'	2:7:112:U:O2	2.58	0.50
1:5:4905:C:N3	1:5:4906:C:C6	2.80	0.50
1:5:709:C:N3	1:5:710:G:C8	2.80	0.50
49:S2:1811:C:C4	49:S2:1812:U:C5	2.99	0.50
1:5:1912:G:C2	1:5:1913:C:C4	2.99	0.50
1:5:2547:G:H2'	1:5:2547:G:N3	2.26	0.50
52:SC:133:TYR:CD1	52:SC:216:MET:HA	2.45	0.50
1:5:132:G:C2	1:5:133:C:H1'	2.47	0.50
1:5:4433:G:C6	1:5:4434:C:N4	2.80	0.50
52:SC:177:PRO:HD3	71:SV:9:VAL:HG11	1.93	0.50
6:C:59:GLY:HA3	6:C:99:GLY:O	2.10	0.50
1:5:416:U:H2'	1:5:417:G:O4'	2.12	0.50
48:4:503:PRO:HB3	48:4:533:MET:CE	2.41	0.50
48:4:60:ARG:HG3	48:4:70:ILE:HD12	1.93	0.50
48:4:756:VAL:O	48:4:759:ILE:CG2	2.29	0.50
1:5:1235:G:C2	1:5:1236:C:C4	2.99	0.50
1:5:1267:C:C4'	1:5:2110:C:O2'	2.59	0.50
1:5:1899:G:H1	1:5:2076:G:H1	1.60	0.50
1:5:2270:G:C2	1:5:2271:C:N3	2.79	0.50
1:5:2540:C:N3	1:5:2541:G:N7	2.59	0.50
1:5:2644:G:N1	1:5:2645:G:C5	2.80	0.50
1:5:470:A:H61	8:E:101:ARG:NH2	2.09	0.50
5:B:264:PHE:CD1	5:B:264:PHE:C	2.85	0.50
48:4:650:TRP:NE1	48:4:664:ASP:HB2	2.26	0.50
49:S2:1795:G:N1	49:S2:1796:G:C5	2.80	0.50
56:SG:173:ALA:HB1	56:SG:174:PRO:CD	2.41	0.50
1:5:1358:G:H2'	1:5:1359:G:H8	1.72	0.50
1:5:1357:C:HO2'	1:5:1358:G:H5'	1.74	0.50
1:5:3666:C:C4	1:5:3667:C:C6	3.00	0.50
49:S2:1234:C:C2'	49:S2:1234:C:O2	2.59	0.50
49:S2:1573:G:C5	49:S2:1574:C:C5	2.99	0.50
1:5:4284:C:N3	1:5:4285:U:H5	1.99	0.50
1:5:1566:C:O2'	1:5:1567:U:H5'	2.11	0.50
1:5:4898:G:C2	1:5:4899:G:C5	2.99	0.50
1:5:1856:C:N3	1:5:1857:C:C5	2.79	0.50
1:5:1893:C:O2	1:5:1894:C:C5	2.64	0.50
49:S2:1710:C:C4	49:S2:1711:U:C5	3.00	0.50
1:5:2496:G:C6	1:5:2497:C:C5	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:394:LEU:CD2	48:4:485:ILE:HG22	2.39	0.50
1:5:2851:G:C6	1:5:2852:U:H6	2.17	0.50
1:5:2724:G:N1	1:5:2726:G:C5	2.79	0.50
1:5:165:A:C6	1:5:166:C:C4	2.98	0.50
12:I:184:MET:HB3	12:I:190:LEU:HD12	1.94	0.50
49:S2:976:G:C4	49:S2:977:C:C6	2.99	0.50
49:S2:978:G:C2	49:S2:979:C:C2	2.99	0.50
3:8:99:U:C2	3:8:100:U:C5	3.00	0.50
49:S2:1063:C:H5"	49:S2:1064:C:OP2	2.12	0.50
48:4:81:LEU:HB2	48:4:86:LEU:HD11	1.93	0.50
55:SF:97:PHE:HB3	55:SF:108:PRO:CG	2.41	0.50
3:8:133:G:N2	3:8:134:G:N9	2.59	0.50
1:5:5028:G:C6	1:5:5029:C:C4	2.99	0.50
1:5:4731:G:N7	1:5:4732:G:C6	2.79	0.50
49:S2:20:G:H4'	49:S2:620:G:N7	2.27	0.50
1:5:3832:U:H2'	1:5:3833:C:H6	1.75	0.50
49:S2:880:G:N7	49:S2:881:G:C8	2.72	0.50
48:4:540:GLU:OE1	48:4:540:GLU:O	2.29	0.50
1:5:2762:G:H1'	1:5:2763:U:O4'	2.11	0.50
1:5:4511:A:H2'	1:5:4512:U:C1'	2.42	0.50
1:5:3943:A:C2	1:5:3944:G:H1'	2.46	0.50
1:5:4145:C:C2	1:5:4146:G:N7	2.79	0.50
49:S2:1824:A:N1	49:S2:1825:A:N6	2.53	0.50
2:7:51:G:C2	2:7:52:C:C5	3.00	0.50
49:S2:609:U:C2	49:S2:610:G:H8	2.27	0.50
1:5:4960:G:H2'	1:5:4961:G:H5'	1.93	0.50
1:5:1302:U:C2	1:5:1303:A:H8	2.24	0.50
22:S:33:PHE:CZ	22:S:106:VAL:HB	2.46	0.50
3:8:4:C:C2	3:8:5:U:C6	3.00	0.50
3:8:5:U:H2'	3:8:6:C:C6	2.46	0.50
1:5:1508:A:C6	1:5:1509:C:C5	3.00	0.50
49:S2:191:A:P	58:SI:141:ARG:HD2	2.51	0.50
3:8:144:U:C2	3:8:145:C:C6	3.00	0.50
55:SF:110:GLN:HA	55:SF:110:GLN:HE21	1.77	0.50
61:SL:80:MET:HG2	61:SL:86:ILE:HG22	1.92	0.50
1:5:345:C:C2	1:5:346:G:C8	2.99	0.50
1:5:1522:G:C6	1:5:1653:A:C6	2.99	0.50
72:SW:78:ARG:HD3	72:SW:126:LEU:HD23	1.94	0.50
50:SA:81:ASN:HB2	50:SA:204:TYR:CE2	2.46	0.50
48:4:196:GLU:HA	48:4:196:GLU:OE1	2.05	0.50
1:5:1271:G:H3'	1:5:1272:C:C4'	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1440:U:C4'	1:5:2109:G:O2'	2.60	0.50
1:5:1570:G:C6	1:5:1571:G:C5	3.00	0.50
1:5:1666:C:C2	1:5:2284:G:N2	2.80	0.50
1:5:1671:U:O4	1:5:1853:G:H1'	2.10	0.50
1:5:1961:G:H2'	1:5:2024:G:H1	1.75	0.50
1:5:2261:G:H2'	1:5:2262:G:N7	2.26	0.50
1:5:2270:G:N3	1:5:2271:C:C5	2.80	0.50
1:5:2745:A:C2	1:5:2746:A:C6	2.99	0.50
1:5:469:C:C2	1:5:688:U:H1'	2.35	0.50
14:K:86:LYS:C	14:K:104:ILE:HG12	2.31	0.50
20:Q:75:ARG:HG3	20:Q:75:ARG:HH11	1.76	0.50
48:4:592:LEU:HA	48:4:602:LEU:O	2.11	0.50
48:4:686:ALA:O	48:4:689:GLU:O	2.30	0.50
48:4:591:CYS:SG	48:4:732:SER:N	2.85	0.50
49:S2:1455:A:N6	49:S2:1456:G:C5	2.79	0.50
49:S2:1459:G:C5	49:S2:1460:C:C5	2.99	0.50
49:S2:1204:A:H2'	49:S2:1205:C:H6	1.76	0.50
1:5:2836:A:C2	1:5:3895:G:H4'	2.46	0.50
18:O:12:ARG:NH1	22:S:171:ARG:NH2	2.60	0.50
1:5:1178:G:C5	1:5:1179:U:C6	3.00	0.50
49:S2:1434:C:H3'	49:S2:1435:C:C5'	2.42	0.50
49:S2:1589:A:H2'	49:S2:1590:C:O4'	2.11	0.50
49:S2:1596:U:N3	49:S2:1597:C:C6	2.80	0.50
62:SM:19:GLN:CB	62:SM:88:TRP:HB3	2.42	0.50
1:5:3879:G:O6	1:5:3882:C:C5	2.63	0.50
1:5:3753:G:C4	1:5:3776:G:C6	3.00	0.50
49:S2:794:A:C5	49:S2:795:A:N7	2.80	0.50
3:8:115:G:C6	3:8:116:C:C4	2.99	0.50
3:8:65:A:OP1	11:H:56:ARG:HG3	164.58	0.50
1:5:2690:C:N4	1:5:2691:U:C4	2.79	0.50
1:5:654:C:O2	1:5:654:C:H2'	2.12	0.50
1:5:658:C:H2'	1:5:659:G:O4'	2.11	0.50
12:I:47:PRO:HA	12:I:171:TRP:NE1	2.25	0.50
48:4:451:ILE:HD12	48:4:458:VAL:HB	1.94	0.50
49:S2:1018:U:H5'	63:SN:71:ILE:HD12	1.94	0.50
49:S2:1018:U:N3	49:S2:1019:C:H5	2.04	0.50
1:5:4107:G:C2	1:5:4108:G:C8	3.00	0.50
49:S2:1005:G:H2'	49:S2:1006:C:H6	1.77	0.50
49:S2:862:A:C2	49:S2:863:U:C1'	2.95	0.50
1:5:751:G:H2'	1:5:752:G:H8	1.77	0.50
49:S2:623:G:C2	49:S2:624:C:N1	2.80	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4087:G:C8	4:A:34:PHE:CE1	2.99	0.50
49:S2:1785:C:C2	49:S2:1786:U:C4	2.99	0.50
1:5:4136:G:C2	1:5:4137:C:N1	2.79	0.50
1:5:4137:C:H2'	1:5:4138:C:C6	2.47	0.50
49:S2:1159:G:H2'	49:S2:1160:U:O4'	2.12	0.50
1:5:4913:G:C2'	1:5:4914:C:O4'	2.59	0.50
49:S2:828:G:C4	49:S2:829:C:C6	3.00	0.50
53:SD:141:LYS:HA	53:SD:147:ALA:HA	1.93	0.50
11:H:117:PHE:HD1	11:H:118:LEU:HB2	1.74	0.50
1:5:1594:C:N4	1:5:1595:G:C5	2.80	0.50
4:A:3:ARG:HG3	4:A:3:ARG:NH1	2.26	0.50
48:4:536:CYS:HA	48:4:545:ILE:O	2.12	0.50
1:5:2907:G:H2'	1:5:2908:U:O4'	2.12	0.50
57:SH:169:LYS:O	57:SH:171:GLU:N	2.45	0.50
6:C:178:ASN:HD22	6:C:178:ASN:N	2.08	0.50
58:SI:65:PHE:O	58:SI:109:TYR:OH	2.30	0.50
58:SI:165:GLN:HE21	58:SI:171:LEU:HD23	1.77	0.50
65:SP:53:GLN:HG2	65:SP:83:MET:SD	2.52	0.50
2:7:85:G:OP1	9:F:224:LYS:NZ	2.43	0.50
55:SF:25:THR:HG23	55:SF:109:LEU:HD13	1.94	0.50
48:4:200:MET:HG2	48:4:203:ILE:CG2	2.40	0.50
48:4:4:PHE:HD1	48:4:5:THR:N	2.10	0.50
48:4:804:THR:OG1	48:4:808:ALA:HB3	2.05	0.50
1:5:1279:A:C2	1:5:1280:C:N3	2.80	0.50
1:5:1540:C:O2	1:5:1540:C:H2'	2.11	0.50
1:5:1673:U:C2	1:5:1674:C:C6	3.00	0.50
1:5:1983:A:H2	1:5:2008:U:C5	2.28	0.50
1:5:2104:G:C5	1:5:2105:A:C8	3.00	0.50
1:5:2339:G:C6	1:5:2340:C:C5	2.99	0.50
1:5:1872:G:N3	1:5:4219:A:H2	2.10	0.50
1:5:457:G:C2	1:5:458:C:C5	3.00	0.50
1:5:990:C:C4	1:5:991:C:C5	2.99	0.50
1:5:994:G:C2	1:5:995:C:C2	2.99	0.50
4:A:40:TYR:HB3	4:A:93:LYS:HB2	1.93	0.50
8:E:54:SER:O	8:E:56:SER:N	2.44	0.50
12:I:98:ARG:CD	12:I:119:PHE:HE1	2.25	0.50
14:K:126:SER:HB2	14:K:130:LYS:CE	2.42	0.50
14:K:34:PRO:CD	14:K:35:LEU:N	2.74	0.50
17:N:126:THR:C	17:N:127:TYR:CD1	2.85	0.50
20:Q:22:ASP:OD1	20:Q:25:LEU:HB3	2.12	0.50
1:5:4413:C:C2'	12:I:157:PHE:CD2	2.90	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1792:G:C4	49:S2:1793:A:C8	3.00	0.50
49:S2:452:G:O2'	49:S2:453:C:H5'	2.12	0.50
49:S2:72:C:H4'	49:S2:73:C:OP1	2.10	0.50
49:S2:70:G:C2	49:S2:80:G:N2	2.78	0.50
56:SG:224:ARG:HA	56:SG:227:GLN:HB2	1.92	0.50
49:S2:10:G:H2'	49:S2:10:G:N3	2.26	0.50
49:S2:1849:G:O2'	49:S2:1850:A:C5'	2.59	0.50
1:5:1484:G:H5"	1:5:1484:G:C8	2.47	0.50
1:5:2460:A:O4'	17:N:94:PHE:CE1	2.64	0.50
1:5:1188:C:C2	1:5:1189:G:H8	2.23	0.50
1:5:1565:A:H2'	1:5:1566:C:C5'	2.42	0.50
1:5:1564:A:N6	49:S2:1029:G:O2'	2.28	0.50
1:5:1598:C:C5	1:5:2798:A:C5	2.99	0.50
62:SM:93:LYS:O	62:SM:94:ILE:HG22	2.12	0.50
1:5:5043:A:C2'	1:5:5044:A:O5'	2.60	0.50
1:5:1326:A:H2'	1:5:1327:C:H6	1.76	0.50
1:5:1890:G:N2	1:5:1938:C:N4	2.59	0.50
1:5:1895:G:C6	1:5:1896:A:C2	3.00	0.50
1:5:4536:C:O2	1:5:4536:C:H2'	2.11	0.50
3:8:74:U:O2	3:8:74:U:C2'	2.55	0.50
3:8:81:C:H3'	3:8:82:A:C4'	2.38	0.50
49:S2:1339:U:C2	49:S2:1340:U:C5	3.00	0.50
49:S2:928:G:H2'	49:S2:929:G:H8	1.75	0.50
1:5:2056:G:N2	1:5:2058:G:O6	2.45	0.50
48:4:101:ASN:CG	48:4:469:ILE:CD1	2.77	0.50
49:S2:974:C:O2	49:S2:975:G:C8	2.65	0.50
49:S2:959:G:O6	64:SO:68:GLU:OE1	2.30	0.50
49:S2:1074:C:N3	49:S2:1075:C:C4	2.80	0.50
1:5:4651:A:C5	1:5:4652:G:C8	3.00	0.50
1:5:5020:G:O6	1:5:5028:G:O6	2.28	0.50
1:5:2669:C:O2'	1:5:2670:C:P	2.70	0.50
1:5:4967:A:H2'	1:5:4968:A:H8	1.76	0.50
1:5:1203:G:H2'	1:5:1204:C:O4'	2.11	0.50
3:8:31:G:C6	3:8:32:C:C4	3.00	0.50
1:5:2559:G:H22	1:5:2567:G:H22	1.59	0.50
1:5:1751:A:N6	1:5:1752:G:C5	2.80	0.50
49:S2:581:U:O3'	74:SY:66:GLY:HA3	2.12	0.50
1:5:4552:U:H2'	1:5:4553:A:O5'	2.11	0.50
1:5:190:G:C2	1:5:252:C:C2	3.00	0.50
1:5:4133:C:N3	1:5:4134:C:C5	2.80	0.50
50:SA:116:PHE:C	50:SA:117:ARG:HG3	2.32	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:103:VAL:HA	11:H:113:GLU:O	2.12	0.50
1:5:4961:G:H2'	1:5:4962:C:O4'	2.11	0.50
1:5:4758:U:H2'	1:5:4759:C:O5'	2.12	0.50
5:B:378:ARG:CD	26:W:32:LEU:HD21	2.39	0.50
1:5:642:G:N3	1:5:643:C:C6	2.80	0.50
57:SH:145:ARG:NE	72:SW:51:GLU:HG2	2.26	0.50
1:5:951:G:C2'	1:5:952:G:H5"	2.41	0.50
1:5:4419:U:H5	48:4:765:ARG:NH2	2.08	0.50
49:S2:1805:G:N1	49:S2:1806:A:C8	2.80	0.50
1:5:929:A:N1	1:5:930:G:H3'	2.26	0.50
1:5:4956:A:N1	1:5:4957:C:C6	2.80	0.50
49:S2:393:U:O2	49:S2:394:G:C8	2.64	0.50
53:SD:115:VAL:HG21	53:SD:142:LEU:HD21	1.94	0.50
27:X:79:PHE:HD1	27:X:79:PHE:N	2.08	0.50
49:S2:936:G:C6	49:S2:937:C:C4	3.00	0.50
1:5:226:G:O2'	1:5:227:A:OP2	2.21	0.50
49:S2:800:U:H2'	49:S2:801:U:O4'	2.12	0.50
1:5:4930:C:OP1	8:E:262:GLN:N	2.44	0.50
1:5:2837:U:C4	1:5:2838:G:C8	2.98	0.50
48:4:147:ILE:HD11	48:4:203:ILE:CD1	2.41	0.50
48:4:32:LYS:O	48:4:36:THR:HG23	2.12	0.50
48:4:72:SER:HB2	48:4:105:SER:HA	1.94	0.50
1:5:1213:G:C6	1:5:1215:C:C5	3.00	0.50
1:5:1215:C:O2	1:5:1215:C:H2'	2.10	0.50
1:5:1277:G:C2	1:5:1278:C:N1	2.80	0.50
1:5:1968:G:C4	1:5:1969:G:C8	3.00	0.50
1:5:1972:G:N2	1:5:1973:G:C4	2.80	0.50
1:5:1994:C:N3	1:5:1995:G:C8	2.78	0.50
1:5:2315:G:C6	1:5:2316:G:N7	2.80	0.50
1:5:2463:G:N1	1:5:2464:C:N4	2.60	0.50
1:5:2645:G:N1	1:5:2646:C:C5	2.80	0.50
1:5:677:G:C6	1:5:678:C:N4	2.80	0.50
14:K:111:ASN:O	14:K:114:ARG:HG2	2.12	0.50
14:K:142:ASN:CG	14:K:143:VAL:H	2.13	0.50
1:5:4426:C:C4	1:5:4427:G:C8	2.99	0.50
48:4:833:GLN:O	48:4:837:GLU:HG2	2.12	0.50
49:S2:1394:G:N3	49:S2:1394:G:H2'	2.26	0.50
48:4:253:VAL:HG12	48:4:257:MET:HE1	1.87	0.50
1:5:101:A:N1	1:5:102:G:C5	2.79	0.50
1:5:316:U:C2'	1:5:316:U:O2	2.57	0.50
1:5:3721:U:C2	1:5:3722:G:H8	2.18	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4362:A:N3	1:5:4363:A:C8	2.80	0.50
1:5:1187:G:H4'	7:D:274:ALA:CB	2.41	0.50
1:5:1329:G:N2	1:5:3865:A:H1'	2.27	0.50
49:S2:1590:C:H3'	49:S2:1591:C:H6	1.77	0.50
49:S2:1610:G:C2	49:S2:1611:G:C4	3.00	0.50
49:S2:1666:C:N3	49:S2:1667:U:C4	2.80	0.50
1:5:4240:G:C2	1:5:4241:C:H1'	2.46	0.50
2:7:58:A:C4	2:7:59:G:C8	2.99	0.50
49:S2:25:A:H61	49:S2:648:A:N6	2.02	0.50
49:S2:28:U:O2	49:S2:29:G:N7	2.44	0.50
49:S2:597:G:N1	49:S2:640:A:N1	2.60	0.50
49:S2:1286:G:N2	49:S2:1312:G:C4	2.79	0.50
1:5:1939:A:H2	1:5:3874:G:OP1	1.95	0.50
1:5:1627:G:C5	1:5:1628:C:C6	3.00	0.50
1:5:4538:G:C5	1:5:4539:U:C5	2.99	0.50
1:5:105:A:O2'	15:L:35:ARG:NH1	2.44	0.50
1:5:2841:G:C6	1:5:2842:G:C8	3.00	0.50
1:5:2612:G:N1	1:5:2613:C:C2	2.79	0.50
12:I:171:TRP:HE3	12:I:181:PHE:HB2	1.75	0.50
1:5:3878:C:C5	1:5:4518:A:C2	2.99	0.50
48:4:430:MET:HE3	48:4:486:THR:HG23	1.85	0.50
22:S:84:TYR:HD2	22:S:113:MET:CE	2.24	0.50
1:5:1633:G:N2	1:5:1642:A:C8	2.79	0.50
49:S2:505:G:O2'	49:S2:506:G:H5'	2.12	0.50
1:5:4257:A:C5	13:J:60:PHE:CE2	2.99	0.50
1:5:3599:A:H2'	1:5:3600:G:C8	2.47	0.50
3:8:132:G:C4	3:8:133:G:C8	3.00	0.50
1:5:4743:G:N3	1:5:4744:A:C8	2.80	0.50
1:5:193:G:C6	1:5:194:C:C4	3.00	0.50
1:5:4910:G:N2	18:O:109:PRO:N	2.59	0.50
49:S2:600:G:N2	49:S2:601:G:C5	2.80	0.50
49:S2:1754:G:C4	49:S2:1755:C:C6	3.00	0.50
1:5:1808:C:C2	1:5:1831:G:C2	3.00	0.50
1:5:1725:U:C2	1:5:1726:U:C6	2.99	0.50
1:5:3621:A:H1'	1:5:4655:A:C2	2.46	0.50
60:SK:43:LEU:HD12	60:SK:44:HIS:CD2	2.46	0.50
3:8:35:C:H2'	3:8:36:G:O5'	2.11	0.50
3:8:106:G:N1	3:8:107:C:C4	2.80	0.50
57:SH:127:ASP:O	57:SH:130:LEU:HB2	2.10	0.50
48:4:563:GLU:OE1	48:4:563:GLU:O	2.30	0.50
1:5:4702:G:C6	1:5:4703:U:C6	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:SP:43:ARG:HB3	65:SP:47:ARG:HD3	1.93	0.50
68:SS:92:ASP:O	68:SS:94:LYS:N	2.37	0.50
58:SI:87:ASN:OD1	58:SI:88:ASN:N	2.45	0.50
53:SD:72:VAL:CG2	60:SK:20:VAL:HG21	2.42	0.50
1:5:353:A:C2	1:5:379:G:C8	3.00	0.50
54:SE:106:LYS:HB3	54:SE:108:ARG:HD3	1.94	0.50
48:4:281:GLU:CD	48:4:281:GLU:H	2.15	0.50
18:O:167:HIS:CD2	18:O:167:HIS:C	2.84	0.50
48:4:759:ILE:CD1	48:4:784:VAL:HG21	2.23	0.50
1:5:1266:G:H5"	1:5:2112:G:N2	2.26	0.50
1:5:2015:U:N3	1:5:2016:C:C5	2.80	0.50
1:5:2089:G:C6	1:5:2262:G:C2'	2.95	0.50
1:5:2089:G:C8	1:5:2262:G:H3'	2.47	0.50
1:5:2326:G:N2	1:5:2327:G:C4	2.80	0.50
1:5:2645:G:C5	1:5:2646:C:C5	3.00	0.50
14:K:121:LEU:HB2	14:K:129:ILE:CD1	2.41	0.50
14:K:40:LYS:O	14:K:44:ASP:CB	2.59	0.50
48:4:518:PRO:CA	73:SX:50:ILE:HD12	2.42	0.50
48:4:517:LEU:HD23	73:SX:50:ILE:HD13	1.94	0.50
49:S2:461:U:O2	49:S2:462:C:C6	2.65	0.50
49:S2:1373:C:H2'	49:S2:1374:C:C6	2.47	0.50
49:S2:1466:G:N3	49:S2:1467:C:C6	2.80	0.50
49:S2:171:A:C5	49:S2:173:A:N7	2.79	0.50
1:5:1362:G:C6	1:5:1363:C:C4	3.00	0.50
1:5:321:U:O2	1:5:322:C:C6	2.64	0.50
49:S2:1032:C:C4	49:S2:1033:G:N7	2.80	0.50
3:8:12:G:N1	3:8:13:G:C5	2.78	0.50
1:5:2827:G:N3	1:5:2827:G:H2'	2.26	0.50
49:S2:1094:C:O2	49:S2:1094:C:H2'	2.12	0.50
1:5:1320:U:H2'	1:5:1320:U:O2	2.11	0.50
49:S2:49:C:O2	49:S2:478:G:C2	2.65	0.50
1:5:3754:G:C2	1:5:3755:G:C8	2.99	0.50
48:4:103:ILE:HD11	48:4:122:THR:HG21	1.88	0.50
1:5:3636:C:C2'	1:5:3636:C:O2	2.59	0.50
4:A:202:VAL:CG1	4:A:217:GLN:HG2	2.39	0.50
1:5:3629:A:C4'	49:S2:1721:U:C2	2.94	0.50
1:5:33:A:H5"	1:5:33:A:H8	1.77	0.50
1:5:77:U:C4	1:5:335:A:N1	2.79	0.50
3:8:39:G:H2'	3:8:39:G:N3	2.26	0.50
1:5:4763:U:H6	11:H:42:ASN:ND2	2.09	0.50
1:5:3802:U:N3	1:5:4498:U:O2'	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1755:C:H41	1:5:1778:C:H4'	1.75	0.50
2:7:92:C:O2	2:7:93:G:C8	2.65	0.50
49:S2:1772:C:O2	49:S2:1773:C:C6	2.65	0.50
1:5:1811:G:N1	1:5:1812:C:C5	2.78	0.50
1:5:1829:G:C2	1:5:1830:G:C4	2.99	0.50
1:5:739:G:C2	1:5:740:G:C4	3.00	0.50
21:R:117:ARG:HH21	21:R:118:HIS:CE1	2.30	0.50
49:S2:689:U:H2'	49:S2:690:G:C1'	2.42	0.50
1:5:1735:U:O2	1:5:1736:A:C8	2.65	0.50
1:5:1456:C:H4'	1:5:1456:C:OP1	2.11	0.50
49:S2:1325:G:C2	49:S2:1327:G:N7	2.80	0.50
1:5:931:C:C6	1:5:932:A:C8	3.00	0.50
1:5:4957:C:O2	1:5:4958:C:H6	1.94	0.50
1:5:2065:G:C5	1:5:2066:C:C5	2.99	0.50
67:SR:3:ARG:NH1	67:SR:49:LYS:HD3	2.27	0.50
1:5:4543:G:H2'	1:5:4544:A:C8	2.46	0.50
23:T:74:ILE:HG23	23:T:89:ILE:HG13	1.93	0.50
6:C:209:ILE:HD13	6:C:221:PHE:CE2	2.47	0.50
49:S2:1471:C:H2'	49:S2:1472:C:C6	2.47	0.50
10:G:58:PRO:CD	27:X:46:PHE:HD2	2.25	0.50
7:D:39:GLN:HA	7:D:39:GLN:OE1	2.11	0.50
1:5:1962:A:H8	1:5:1962:A:H5"	1.76	0.50
26:W:57:ARG:HG2	26:W:57:ARG:HH11	1.76	0.50
1:5:4755:G:N1	1:5:4876:U:C4	2.80	0.50
7:D:200:LEU:HB2	7:D:202:GLN:HE22	1.75	0.50
1:5:1213:G:N9	1:5:1215:C:H1'	2.25	0.50
1:5:1261:G:N1	1:5:1262:G:N7	2.60	0.50
1:5:1263:A:H2'	1:5:1264:C:O4'	2.12	0.50
1:5:2257:C:O2'	1:5:2258:C:O5'	2.30	0.50
1:5:446:C:O2'	1:5:2314:G:H4'	2.11	0.50
1:5:695:G:C3'	1:5:696:C:H5'	2.42	0.50
14:K:123:ARG:HB2	14:K:129:ILE:CD1	0.95	0.50
14:K:143:VAL:O	14:K:145:GLY:N	2.45	0.50
49:S2:218:U:N3	49:S2:219:U:C4	2.80	0.50
49:S2:441:C:C6	49:S2:448:A:H2	2.29	0.50
1:5:2460:A:H1'	17:N:94:PHE:CZ	2.47	0.50
1:5:1168:G:C2	1:5:1169:G:C5	2.99	0.50
1:5:1185:G:C5	1:5:1186:U:C6	3.00	0.50
49:S2:1512:C:H2'	49:S2:1513:C:C6	2.47	0.50
1:5:4269:G:O6	1:5:4277:G:O6	2.29	0.50
1:5:4922:C:C2	1:5:4923:C:C6	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1304:U:C2	49:S2:1305:C:H5	2.29	0.50
49:S2:1643:U:N3	49:S2:1644:C:C4	2.80	0.50
49:S2:554:A:N1	49:S2:555:A:C6	2.80	0.50
1:5:3693:U:H2'	1:5:3693:U:O2	2.12	0.50
1:5:3653:A:O2'	4:A:180:LEU:O	2.22	0.50
3:8:118:C:O2	3:8:119:C:H6	1.95	0.50
3:8:92:U:H2'	3:8:93:C:O4'	2.12	0.50
21:R:76:MET:O	21:R:81:ARG:NH1	2.45	0.50
1:5:493:G:C6	1:5:494:U:C6	3.00	0.50
1:5:4565:C:O2'	1:5:4566:U:H5'	2.12	0.50
51:SB:205:TYR:O	51:SB:207:LEU:HG	2.10	0.50
49:S2:839:C:C5	49:S2:841:G:C5	3.00	0.50
1:5:920:C:C4	1:5:921:C:C5	3.00	0.50
2:7:38:U:N3	2:7:40:U:OP2	2.45	0.50
1:5:2658:G:N2	1:5:2675:G:C2	2.78	0.50
1:5:4743:G:O6	1:5:4744:A:N6	2.45	0.50
1:5:4744:A:N3	1:5:4745:G:N7	2.60	0.50
49:S2:574:A:O2'	49:S2:575:A:C8	2.61	0.50
1:5:3794:C:O2	1:5:3795:A:C8	2.65	0.50
21:R:172:ARG:HD2	49:S2:909:G:OP2	2.12	0.50
1:5:246:G:N1	1:5:247:G:C5	2.80	0.50
1:5:4707:A:O2'	1:5:4708:A:O5'	2.26	0.50
1:5:1412:G:C4	1:5:1413:C:C5	3.00	0.50
1:5:699:C:C4	1:5:700:G:N7	2.80	0.50
1:5:936:C:C5	16:M:46:ARG:HA	2.47	0.50
1:5:1832:C:O2	1:5:1832:C:H2'	2.11	0.50
1:5:2700:G:H2'	1:5:2701:U:O4'	2.12	0.50
1:5:712:C:C2	1:5:713:C:C6	3.00	0.50
1:5:258:G:C5	1:5:259:C:C5	2.99	0.50
1:5:2248:C:OP1	9:F:26:ASN:N	2.45	0.50
1:5:4068:U:C2	1:5:4069:U:H1'	2.47	0.50
7:D:99:TYR:CD2	7:D:199:ILE:HG23	2.47	0.50
49:S2:1685:U:H2'	49:S2:1686:G:O4'	2.11	0.50
6:C:218:ILE:HD12	6:C:222:ARG:HD2	1.93	0.50
24:U:28:PRO:HA	24:U:114:TYR:OH	2.12	0.50
68:SS:132:ARG:O	68:SS:134:GLN:N	2.44	0.50
49:S2:788:G:H2'	49:S2:789:G:C8	2.47	0.50
58:SI:55:TYR:CD2	58:SI:55:TYR:N	2.79	0.50
48:4:91:GLN:OE1	48:4:363:THR:HG21	2.12	0.50
48:4:75:ILE:CG2	48:4:76:SER:N	2.75	0.49
1:5:1263:A:C6	1:5:1264:C:C5	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1265:G:C6	1:5:1266:G:C5	3.00	0.49
1:5:1870:C:O2	1:5:1870:C:H2'	2.10	0.49
1:5:2079:G:C6	1:5:2080:U:C5	3.00	0.49
1:5:2113:G:H8	1:5:2115:G:N3	2.10	0.49
1:5:2314:G:C6	1:5:2326:G:C5	2.99	0.49
1:5:2457:G:H2'	1:5:2458:C:O4'	2.11	0.49
1:5:2503:G:H3'	1:5:2504:C:C4'	2.41	0.49
1:5:4302:U:C5	1:5:4303:C:C5	2.90	0.49
1:5:467:U:C2	1:5:468:U:C6	3.00	0.49
4:A:30:ARG:NE	4:A:63:PHE:CE2	2.80	0.49
10:G:55:VAL:HG22	27:X:44:PRO:HA	1.94	0.49
49:S2:340:C:O2	49:S2:341:C:C6	2.64	0.49
49:S2:74:G:O6	56:SG:171:THR:OG1	2.25	0.49
49:S2:1050:A:C5	49:S2:1051:G:N9	2.80	0.49
1:5:278:G:N2	1:5:330:G:C8	2.79	0.49
49:S2:1433:C:O3'	49:S2:1434:C:C4'	2.59	0.49
69:ST:4:VAL:HA	69:ST:8:ASP:HB3	1.93	0.49
2:7:54:A:H2	2:7:55:A:C8	2.15	0.49
48:4:241:GLU:H	48:4:243:GLN:CD	2.13	0.49
9:F:168:ARG:HB2	9:F:211:TRP:NE1	2.27	0.49
1:5:3911:C:C2'	1:5:3912:U:O5'	2.59	0.49
48:4:21:ASN:HD21	48:4:469:ILE:CD1	2.22	0.49
49:S2:978:G:N1	49:S2:979:C:C4	2.80	0.49
49:S2:986:G:N3	49:S2:986:G:H2'	2.27	0.49
1:5:3594:C:O2	1:5:3594:C:C2'	2.60	0.49
1:5:910:G:C6	1:5:911:U:C4	3.00	0.49
28:Y:15:ARG:HH11	28:Y:15:ARG:CG	2.25	0.49
1:5:2735:G:C2	1:5:2736:G:C5	3.00	0.49
1:5:1404:G:C2	1:5:1405:C:N1	2.80	0.49
1:5:1412:G:C6	1:5:1413:C:C4	3.00	0.49
49:S2:656:G:H5'	49:S2:662:G:N2	2.27	0.49
1:5:731:G:N7	1:5:732:A:C8	2.80	0.49
1:5:4548:A:O5'	1:5:4548:A:C8	2.64	0.49
48:4:722:ILE:CB	48:4:723:PRO:HD3	2.36	0.49
49:S2:823:U:H5	59:SJ:144:ILE:HD13	1.77	0.49
1:5:2393:C:OP2	1:5:2394:G:N7	2.45	0.49
1:5:4916:G:C5	1:5:4917:C:C5	3.00	0.49
49:S2:1454:A:C8	49:S2:1476:A:N9	2.80	0.49
48:4:12:ILE:CG2	48:4:99:LEU:HB2	2.41	0.49
49:S2:1688:C:N3	49:S2:1689:C:C5	2.80	0.49
49:S2:1488:C:C2	49:S2:1490:G:N7	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4713:G:C6	1:5:4714:C:C4	3.00	0.49
1:5:3711:A:N3	1:5:3711:A:H5"	2.27	0.49
52:SC:60:TRP:CZ2	52:SC:92:GLU:HB3	2.47	0.49
1:5:2909:C:O2	1:5:3586:G:C2	2.65	0.49
58:SI:83:TYR:HD1	58:SI:84:ASN:N	2.09	0.49
1:5:2052:G:OP1	18:O:83:THR:HG22	2.12	0.49
61:SL:121:GLN:N	61:SL:124:ASP:OD2	2.44	0.49
28:Y:91:ASN:OD1	28:Y:91:ASN:N	2.44	0.49
5:B:291:TYR:CZ	5:B:327:THR:HA	2.47	0.49
48:4:744:ILE:HG23	48:4:745:TYR:H	1.77	0.49
1:5:1215:C:C2	1:5:1216:C:C6	3.00	0.49
1:5:1235:G:N2	1:5:1236:C:C6	2.80	0.49
1:5:1877:G:N1	1:5:1878:G:C5	2.80	0.49
1:5:2322:G:N1	1:5:2323:C:C2	2.80	0.49
1:5:2519:U:H1'	1:5:2520:C:C6	2.47	0.49
6:C:33:ARG:HH21	20:Q:22:ASP:CB	2.25	0.49
8:E:43:ASN:HB3	8:E:58:MET:HE1	1.94	0.49
6:C:341:LEU:HD11	8:E:52:ARG:HD2	1.94	0.49
9:F:58:HIS:HB2	9:F:59:TYR:HD1	1.77	0.49
14:K:107:ASP:HA	14:K:143:VAL:HG22	1.93	0.49
20:Q:88:ASP:OD1	20:Q:109:ALA:HA	2.12	0.49
48:4:546:ILE:HG22	48:4:554:LEU:HD13	1.94	0.49
49:S2:1793:A:N3	49:S2:1794:C:C5	2.79	0.49
49:S2:1200:A:H2	49:S2:1357:A:H2	1.59	0.49
49:S2:1831:A:H1'	49:S2:1852:C:OP1	2.11	0.49
1:5:1472:C:C4	1:5:1473:U:C5	2.99	0.49
1:5:292:G:C2	1:5:293:G:N1	2.79	0.49
1:5:298:G:C6	1:5:299:C:C4	3.00	0.49
7:D:278:ASP:O	7:D:280:VAL:N	2.44	0.49
1:5:2361:G:O2'	1:5:2362:U:P	2.70	0.49
1:5:3862:A:C5	1:5:3863:C:C6	3.01	0.49
49:S2:1528:G:C2	49:S2:1529:C:N3	2.80	0.49
1:5:4285:U:N3	1:5:4286:C:C4	2.80	0.49
1:5:1565:A:H2'	1:5:1566:C:O4'	2.12	0.49
1:5:2371:U:O4	1:5:2825:A:C2	2.61	0.49
49:S2:595:U:O2'	49:S2:596:U:P	2.69	0.49
49:S2:1134:G:C6	49:S2:1135:C:C5	3.00	0.49
49:S2:1294:G:N2	49:S2:1295:A:N9	2.60	0.49
49:S2:1113:A:O2'	49:S2:1114:U:H5'	2.12	0.49
1:5:4997:G:C2	1:5:4998:G:C8	3.00	0.49
1:5:1936:C:C2	1:5:1937:C:C6	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:488:U:H3'	49:S2:489:A:H5'	1.94	0.49
49:S2:164:A:OP2	49:S2:165:G:N2	2.45	0.49
1:5:2496:G:N3	1:5:2497:C:C6	2.80	0.49
1:5:209:U:O2	1:5:233:U:C4	2.64	0.49
12:I:47:PRO:HD2	12:I:141:LYS:HA	1.94	0.49
12:I:76:MET:HB3	12:I:85:PHE:CE2	2.47	0.49
1:5:3880:G:C2	1:5:3881:G:C6	3.01	0.49
1:5:3907:G:N7	1:5:4447:C:H1'	2.27	0.49
49:S2:499:G:N1	49:S2:504:G:C6	2.79	0.49
1:5:2363:A:O4'	1:5:4560:C:C5	2.65	0.49
1:5:4481:U:C2	1:5:4482:U:C4	2.99	0.49
1:5:1202:C:O2	1:5:1203:G:C8	2.65	0.49
49:S2:963:A:N1	49:S2:964:A:C6	2.80	0.49
49:S2:182:C:H2'	49:S2:184:G:C1'	2.36	0.49
2:7:111:C:N3	2:7:112:U:C5	2.80	0.49
49:S2:306:C:H5	49:S2:308:G:N7	2.10	0.49
48:4:442:LEU:CD2	48:4:444:LEU:HD11	2.36	0.49
1:5:4758:U:O4'	1:5:4758:U:O2	2.29	0.49
49:S2:1327:G:N2	49:S2:1503:C:H1'	2.27	0.49
3:8:53:G:C2	3:8:54:C:C2	3.00	0.49
10:G:231:ASN:ND2	10:G:231:ASN:N	2.59	0.49
1:5:74:G:H5'	15:L:59:VAL:HG13	1.95	0.49
66:SQ:23:ALA:HA	66:SQ:70:VAL:HA	1.93	0.49
49:S2:1683:C:O2	49:S2:1683:C:H2'	2.11	0.49
1:5:1251:C:C2	1:5:1252:C:C5	2.99	0.49
1:5:4647:G:H5'	1:5:4647:G:C8	2.47	0.49
59:SJ:120:ALA:O	59:SJ:121:LYS:HB3	2.12	0.49
49:S2:1116:C:O4'	49:S2:1116:C:O2	2.30	0.49
1:5:4305:G:N3	1:5:4305:G:C2'	2.75	0.49
65:SP:49:LEU:O	65:SP:50:ARG:C	2.51	0.49
73:SX:128:VAL:O	73:SX:129:SER:CB	2.60	0.49
68:SS:42:HIS:CE1	69:ST:45:LEU:HD11	2.47	0.49
3:8:151:G:OP2	10:G:65:ARG:NE	2.43	0.49
49:S2:738:C:N3	49:S2:739:C:C5	2.80	0.49
48:4:70:ILE:O	48:4:71:LYS:HG3	2.11	0.49
48:4:766:LYS:HG2	48:4:796:PHE:CE1	2.47	0.49
1:5:1277:G:C4	1:5:1278:C:C6	3.01	0.49
1:5:1440:U:H4'	1:5:2109:G:O2'	2.11	0.49
1:5:1959:U:C2	1:5:1961:G:C2	3.00	0.49
1:5:2080:U:O2'	1:5:2081:C:H5'	2.12	0.49
1:5:2084:C:H3'	1:5:2085:G:H5"	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2292:C:C4	1:5:2293:U:C5	3.00	0.49
1:5:2438:A:N7	1:5:2441:C:N4	2.60	0.49
49:S2:458:A:C2	49:S2:459:C:H1'	2.47	0.49
48:4:700:VAL:HG11	48:4:702:PHE:CE2	2.47	0.49
48:4:683:PHE:CE1	48:4:729:LEU:HD22	2.47	0.49
49:S2:1840:U:N3	49:S2:1859:A:C2	2.80	0.49
52:SC:113:GLN:HB3	52:SC:122:THR:HA	1.95	0.49
1:5:99:A:C6	1:5:100:C:C2	3.00	0.49
1:5:1358:G:O6	1:5:1379:C:N3	2.45	0.49
1:5:1491:A:C6	1:5:1492:G:C5	3.01	0.49
1:5:66:A:C5	1:5:328:A:C8	3.01	0.49
1:5:302:C:H5"	17:N:68:ARG:HE	1.77	0.49
49:S2:1415:C:C2'	49:S2:1416:C:O4'	2.47	0.49
49:S2:1436:C:N3	49:S2:1438:A:N7	2.60	0.49
49:S2:1668:U:C2	49:S2:1669:G:C8	3.00	0.49
1:5:4899:G:C2	1:5:4922:C:C2	3.00	0.49
49:S2:636:C:N4	49:S2:637:U:O4	2.45	0.49
49:S2:529:A:C6	49:S2:530:U:C4	3.00	0.49
49:S2:548:C:N4	49:S2:549:C:H1'	2.28	0.49
49:S2:154:U:H2'	49:S2:154:U:O2	2.12	0.49
1:5:3692:A:N6	1:5:3693:U:C2	2.80	0.49
4:A:209:HIS:CE1	4:A:235:VAL:HG11	2.46	0.49
3:8:64:U:H3'	3:8:65:A:C8	2.48	0.49
1:5:2851:G:O6	1:5:2852:U:C6	2.63	0.49
1:5:2032:U:H2'	1:5:2033:A:O4'	2.13	0.49
49:S2:1102:G:N1	49:S2:1103:C:C4	2.80	0.49
49:S2:979:C:C2	49:S2:980:A:C8	3.00	0.49
1:5:2046:G:OP1	18:O:60:LYS:HE2	2.12	0.49
1:5:4653:C:H2'	1:5:4654:C:C6	2.48	0.49
1:5:4749:C:H3'	1:5:4750:G:H5"	1.95	0.49
1:5:4369:A:C6	1:5:4370:G:N7	2.81	0.49
1:5:1207:C:C2	1:5:1208:G:C8	2.99	0.49
1:5:4886:C:N3	1:5:4887:C:C5	2.71	0.49
1:5:2551:A:H2'	1:5:2552:G:H5'	1.94	0.49
1:5:2556:G:H2'	1:5:2557:G:O4'	2.12	0.49
1:5:1310:C:O2	1:5:1310:C:H2'	2.11	0.49
49:S2:804:U:C4	49:S2:805:U:C5	2.99	0.49
1:5:1831:G:C4	1:5:1832:C:C6	2.99	0.49
49:S2:418:A:C6	49:S2:419:G:C5	3.00	0.49
48:4:685:TRP:HH2	48:4:723:PRO:HG3	1.76	0.49
1:5:230:G:C2	1:5:239:C:C2	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:643:VAL:HG13	48:4:644:ALA:N	2.27	0.49
1:5:4920:C:O2	1:5:4921:C:C5	2.66	0.49
49:S2:1348:G:N2	49:S2:1349:G:C8	2.80	0.49
49:S2:433:A:H5"	58:SI:22:HIS:HB3	1.94	0.49
49:S2:192:C:C2	49:S2:193:C:C5	2.99	0.49
66:SQ:32:ILE:HG23	66:SQ:68:ILE:HB	1.92	0.49
49:S2:570:C:O2	49:S2:571:U:C6	2.65	0.49
58:SI:172:LEU:HB3	58:SI:190:LEU:HD12	1.93	0.49
1:5:2866:C:N3	1:5:2867:C:C5	2.80	0.49
28:Y:81:TYR:HD2	28:Y:96:HIS:HB2	1.78	0.49
1:5:2895:A:C6	1:5:2896:G:N7	2.80	0.49
56:SG:74:ARG:HH11	56:SG:74:ARG:HB3	1.77	0.49
11:H:54:ARG:CG	11:H:54:ARG:HH11	2.25	0.49
1:5:1070:G:N3	1:5:1071:C:C6	2.81	0.49
1:5:1211:G:C2	1:5:1212:G:C8	3.01	0.49
1:5:1277:G:C6	1:5:1278:C:C4	3.00	0.49
1:5:1434:G:H2'	1:5:1435:G:O4'	2.12	0.49
1:5:1444:G:N3	1:5:1445:U:C5	2.81	0.49
1:5:1685:G:N2	1:5:1686:C:C2	2.81	0.49
1:5:1993:C:C4	1:5:2002:A:C5	3.00	0.49
1:5:2279:A:C4	1:5:2280:G:N7	2.80	0.49
1:5:2325:C:O2	1:5:2326:G:C8	2.61	0.49
1:5:2445:C:C2'	1:5:2445:C:O2	2.60	0.49
1:5:2456:G:O2'	1:5:2457:G:H5'	2.13	0.49
1:5:2515:G:O6	1:5:2516:G:C2	2.66	0.49
14:K:103:ASN:HA	14:K:140:GLY:HA2	1.95	0.49
20:Q:178:ARG:NH2	20:Q:186:TYR:HE1	2.10	0.49
20:Q:184:ARG:HG2	20:Q:184:ARG:NH1	2.27	0.49
10:G:264:LYS:HE3	10:G:265:LEU:N	2.27	0.49
49:S2:436:G:N7	49:S2:471:G:C2	2.79	0.49
49:S2:443:U:H4'	56:SG:90:GLY:HA3	1.93	0.49
48:4:650:TRP:CZ2	48:4:672:LEU:HD11	2.47	0.49
48:4:671:TYR:C	48:4:675:ILE:H	2.15	0.49
49:S2:311:C:H3'	49:S2:312:G:C4'	2.42	0.49
49:S2:380:G:OP1	58:SI:31:ARG:HB2	2.11	0.49
49:S2:1083:A:N3	49:S2:1859:A:H1'	2.28	0.49
48:4:154:VAL:HG11	48:4:358:LEU:CD1	2.39	0.49
1:5:1468:C:H2'	1:5:1469:C:C6	2.47	0.49
1:5:294:G:O4'	1:5:294:G:OP2	2.31	0.49
1:5:322:C:H1'	1:5:4356:G:N2	2.28	0.49
1:5:3722:G:C6	1:5:3723:A:N7	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4350:C:N3	1:5:4351:U:C5	2.80	0.49
1:5:4978:G:O2'	1:5:4979:A:O5'	2.22	0.49
48:4:267:ASP:N	48:4:267:ASP:CB	2.67	0.49
49:S2:1510:G:O6	49:S2:1511:U:C4	2.65	0.49
1:5:4271:A:H2'	1:5:4271:A:N3	2.26	0.49
1:5:2795:A:O2'	1:5:2796:G:H3'	2.12	0.49
62:SM:89:VAL:HB	62:SM:91:LEU:HD21	1.93	0.49
49:S2:533:A:C6	49:S2:534:G:C8	3.01	0.49
1:5:3705:G:C6	1:5:3706:C:C4	2.99	0.49
1:5:2499:C:O2	1:5:2499:C:H2'	2.11	0.49
1:5:2408:U:N1	1:5:2409:U:O4	2.45	0.49
49:S2:793:G:C6	49:S2:794:A:N9	2.81	0.49
1:5:211:G:N2	1:5:212:A:N9	2.60	0.49
3:8:80:A:H3'	3:8:81:C:C4'	2.40	0.49
28:Y:27:ARG:HG2	28:Y:27:ARG:HH21	1.77	0.49
1:5:4631:G:H2'	1:5:4632:U:O4'	2.12	0.49
1:5:2035:C:C4	1:5:2036:C:C4	3.00	0.49
1:5:2056:G:O2'	1:5:2057:A:H2'	2.13	0.49
1:5:4098:A:C4	1:5:4099:G:C8	3.00	0.49
1:5:917:A:C2	1:5:918:G:C2	3.00	0.49
2:7:44:C:N3	2:7:45:U:C5	2.81	0.49
1:5:176:G:C5'	11:H:98:HIS:CE1	178.31	0.49
49:S2:574:A:H4'	74:SY:89:HIS:HB3	1.93	0.49
11:H:100:PRO:HG3	48:4:167:LEU:O	2.12	0.49
1:5:223:G:O2'	6:C:223:ASN:ND2	2.45	0.49
1:5:1965:G:C4	1:5:1966:C:C5	3.00	0.49
1:5:1412:G:C2	1:5:1413:C:C2	3.00	0.49
1:5:4932:U:C2'	1:5:4933:C:O4'	2.60	0.49
1:5:2566:G:N3	1:5:2567:G:C8	2.80	0.49
1:5:2760:G:H4'	1:5:2762:G:H22	1.76	0.49
1:5:1761:G:C2	1:5:1772:C:C2	3.00	0.49
2:7:93:G:C2	2:7:94:C:N1	2.80	0.49
2:7:93:G:C4	2:7:94:C:C5	3.00	0.49
1:5:4627:U:O2'	5:B:55:HIS:CE1	2.66	0.49
1:5:5062:G:N3	1:5:5062:G:H2'	2.27	0.49
1:5:4592:C:C2	1:5:4593:C:C5	3.00	0.49
1:5:154:G:N1	1:5:155:C:C4	2.80	0.49
22:S:90:THR:HG23	23:T:156:TYR:CE2	2.47	0.49
69:ST:62:ARG:HG3	69:ST:63:HIS:N	2.26	0.49
11:H:111:LEU:HD12	11:H:113:GLU:OE1	2.12	0.49
50:SA:72:ALA:O	50:SA:97:THR:OG1	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:665:ILE:HG22	48:4:665:ILE:O	2.11	0.49
3:8:106:G:C2	3:8:107:C:N3	2.80	0.49
1:5:4524:G:N2	1:5:4525:C:C2	2.81	0.49
49:S2:1378:A:N6	50:SA:106:GLY:CA	2.75	0.49
6:C:54:VAL:HG21	6:C:101:MET:HE3	1.94	0.49
49:S2:940:U:H2'	49:S2:941:C:C6	2.48	0.49
59:SJ:110:LEU:CD1	59:SJ:142:VAL:HG11	2.42	0.49
54:SE:94:LYS:O	54:SE:95:THR:HG23	2.13	0.49
25:V:13:LYS:HG2	25:V:128:LEU:HD22	1.95	0.49
50:SA:128:ARG:HD2	50:SA:153:PRO:HD3	1.94	0.49
63:SN:89:TYR:CD1	63:SN:89:TYR:C	2.85	0.49
18:O:140:ARG:HG3	18:O:140:ARG:HH21	1.77	0.49
48:4:72:SER:HB2	48:4:104:ASP:C	2.32	0.49
1:5:1217:G:N2	1:5:1218:G:C6	2.67	0.49
1:5:1283:G:C8	1:5:1283:G:H3'	2.48	0.49
1:5:1433:A:N6	1:5:1451:G:O2'	2.44	0.49
1:5:1665:C:C2'	1:5:1666:C:O5'	2.60	0.49
1:5:1970:A:H1'	1:5:2017:A:N6	2.28	0.49
1:5:2314:G:C8	1:5:2326:G:C2	3.00	0.49
1:5:2448:G:O2'	1:5:2449:A:O4'	2.29	0.49
1:5:4168:G:H2'	1:5:4169:G:C5'	2.43	0.49
1:5:4222:G:C5	1:5:4223:C:C5	3.01	0.49
9:F:148:ASN:CB	9:F:243:ASN:ND2	2.75	0.49
49:S2:1452:A:C4	49:S2:1475:G:C2	3.00	0.49
49:S2:333:G:C6	49:S2:334:C:C4	3.00	0.49
49:S2:375:U:C2	49:S2:376:A:C8	3.01	0.49
48:4:154:VAL:C	48:4:205:ILE:HD11	2.32	0.49
5:B:21:ARG:HG3	5:B:274:TYR:HB3	1.94	0.49
74:SY:20:ARG:CB	74:SY:76:TYR:HD1	2.26	0.49
49:S2:1425:G:C5	49:S2:1426:U:H1'	2.47	0.49
1:5:1330:A:C8	1:5:3864:C:C4	3.00	0.49
49:S2:1526:G:C2	49:S2:1527:C:C2	3.01	0.49
49:S2:1541:G:C2	49:S2:1542:C:C6	2.98	0.49
49:S2:1546:G:O2'	49:S2:1547:C:O4'	2.29	0.49
49:S2:1552:G:C5'	49:S2:1557:C:H5	2.24	0.49
49:S2:1589:A:OP1	69:ST:81:GLY:N	2.45	0.49
1:5:4269:G:N1	1:5:4270:C:C2	2.80	0.49
1:5:1598:C:N1	1:5:2798:A:C8	2.80	0.49
2:7:60:G:N1	2:7:61:G:C8	2.80	0.49
49:S2:638:C:O2	49:S2:639:C:C5	2.65	0.49
49:S2:1135:C:N3	49:S2:1136:U:C5	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3902:A:C2	1:5:3903:A:C8	3.00	0.49
49:S2:532:C:H4'	49:S2:532:C:OP1	2.13	0.49
49:S2:549:C:C4	49:S2:550:C:C5	3.01	0.49
49:S2:552:G:H3'	49:S2:553:U:H6	1.78	0.49
1:5:3766:A:H2	49:S2:1828:C:O4'	1.95	0.49
1:5:2498:C:C2	1:5:2499:C:C5	3.00	0.49
1:5:3629:A:O4'	49:S2:1721:U:N3	2.38	0.49
48:4:275:LYS:HE2	48:4:276:SER:N	2.27	0.49
3:8:66:A:C2	3:8:67:U:C4	3.00	0.49
1:5:2613:C:N4	1:5:2614:C:N4	2.61	0.49
49:S2:990:A:N3	49:S2:990:A:H2'	2.28	0.49
48:4:192:TYR:CD1	48:4:192:TYR:N	2.81	0.49
1:5:4562:C:O2	1:5:4562:C:H2'	2.11	0.49
49:S2:1124:C:O2	49:S2:1125:C:C6	2.65	0.49
12:I:112:GLN:HB2	12:I:116:ARG:HH11	1.76	0.49
1:5:4092:G:N2	1:5:4093:G:O4'	2.46	0.49
49:S2:959:G:H8	49:S2:959:G:H3'	1.76	0.49
3:8:42:G:C4	3:8:43:A:C8	3.00	0.49
49:S2:495:U:O2'	49:S2:496:C:O5'	2.30	0.49
49:S2:1838:U:H5'	49:S2:1838:U:C6	2.47	0.49
1:5:4651:A:C6	1:5:4652:G:N7	2.81	0.49
1:5:4652:G:H2'	1:5:4653:C:H6	1.77	0.49
17:N:26:ARG:O	17:N:30:TYR:HB2	2.12	0.49
1:5:1092:G:C4	1:5:1093:C:C6	3.00	0.49
1:5:2585:C:N3	1:5:2588:C:N4	2.60	0.49
1:5:4910:G:H4'	1:5:4911:A:OP2	2.10	0.49
49:S2:1777:G:C2	49:S2:1778:C:C2	3.00	0.49
4:A:35:ALA:HB1	4:A:41:ILE:HB	1.94	0.49
1:5:4547:C:N3	1:5:4549:G:N7	2.60	0.49
49:S2:306:C:H3'	49:S2:307:G:H5'	1.95	0.49
1:5:347:A:C2	1:5:348:G:N7	2.81	0.49
49:S2:1143:A:H2'	49:S2:1144:A:C1'	2.42	0.49
1:5:4976:U:H5'	1:5:4976:U:C6	2.48	0.49
1:5:4505:C:C2	1:5:4506:C:C5	3.01	0.49
27:X:119:ILE:HA	27:X:144:TYR:CE2	2.42	0.49
49:S2:1126:G:C4	49:S2:1127:C:C5	3.00	0.49
24:U:42:PHE:CE1	24:U:46:ARG:HD3	2.48	0.49
10:G:227:ASN:N	10:G:227:ASN:ND2	2.60	0.49
49:S2:1686:G:C5	49:S2:1687:C:C5	3.00	0.49
49:S2:1174:U:C2	49:S2:1175:G:C8	3.01	0.49
61:SL:17:PHE:CE2	61:SL:19:ASN:HB2	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4181:U:C4	1:5:4182:G:C5	3.00	0.49
1:5:4768:G:H3'	1:5:4769:G:C8	2.47	0.49
49:S2:328:U:H2'	49:S2:329:G:O4'	2.11	0.49
1:5:1344:C:H5"	1:5:1344:C:C6	2.47	0.49
8:E:253:ILE:O	8:E:255:ARG:N	2.44	0.49
54:SE:73:ASP:N	54:SE:73:ASP:OD1	2.45	0.49
12:I:109:ASP:OD2	12:I:111:LEU:O	2.30	0.49
58:SI:44:HIS:CD2	58:SI:58:LEU:HD11	2.47	0.49
4:A:18:ALA:O	4:A:20:VAL:HG13	2.12	0.49
48:4:58:ASP:CG	48:4:69:THR:CA	2.38	0.49
1:5:1218:G:O6	1:5:1219:G:N9	2.46	0.49
1:5:1570:G:C2	1:5:1571:G:N9	2.81	0.49
1:5:1973:G:N1	1:5:1993:C:C4	2.41	0.49
1:5:2326:G:N2	1:5:2327:G:C1'	2.76	0.49
1:5:2464:C:O2'	1:5:2465:C:O5'	2.25	0.49
1:5:2644:G:N2	1:5:2645:G:H1'	2.28	0.49
1:5:3669:G:C2	1:5:3671:G:OP2	2.66	0.49
1:5:3672:G:C8	1:5:3674:G:O4'	2.65	0.49
1:5:4085:A:H3'	1:5:4086:G:H5"	1.94	0.49
1:5:979:C:C4	1:5:980:U:C5	3.00	0.49
4:A:97:ASN:OD1	4:A:97:ASN:N	2.46	0.49
9:F:82:ASN:HD21	23:T:142:ARG:HA	1.77	0.49
48:4:825:PHE:HD1	48:4:825:PHE:N	2.11	0.49
48:4:672:LEU:C	48:4:675:ILE:CG1	2.77	0.49
49:S2:376:A:C2	49:S2:377:G:H1'	2.47	0.49
49:S2:1200:A:C2	49:S2:1357:A:H2	2.29	0.49
48:4:154:VAL:HG22	48:4:353:MET:CG	2.42	0.49
1:5:322:C:C2	1:5:4356:G:C2	3.00	0.49
1:5:4982:A:C2	1:5:4983:C:C1'	2.95	0.49
1:5:89:C:C2'	1:5:90:G:O5'	2.61	0.49
1:5:85:G:C2	1:5:97:G:N7	2.81	0.49
4:A:55:GLY:HA2	4:A:174:ARG:HD3	1.95	0.49
74:SY:20:ARG:HB2	74:SY:76:TYR:CE1	2.48	0.49
74:SY:20:ARG:CB	74:SY:76:TYR:CD1	2.96	0.49
49:S2:1573:G:C6	49:S2:1574:C:C6	3.00	0.49
49:S2:1593:C:N3	49:S2:1594:A:C8	2.80	0.49
49:S2:1630:A:C2	49:S2:1631:U:C5	3.00	0.49
49:S2:632:C:O2	49:S2:632:C:C2'	2.61	0.49
49:S2:636:C:O2	49:S2:637:U:C6	2.64	0.49
1:5:3879:G:C5	1:5:3882:C:C5	3.00	0.49
49:S2:529:A:C5	49:S2:530:U:C5	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:553:U:C2	49:S2:554:A:C5	3.01	0.49
3:8:74:U:C4	28:Y:74:TYR:HE1	2.27	0.49
1:5:2860:C:H2'	1:5:2861:C:O4'	2.13	0.49
48:4:191:THR:CG2	48:4:192:TYR:CD1	2.95	0.49
1:5:3867:A:C2	1:5:3868:G:C4	3.01	0.49
1:5:2058:G:C6	1:5:2059:C:C4	2.99	0.49
1:5:3910:C:N3	1:5:3911:C:C5	2.80	0.49
1:5:4725:C:C2	1:5:4726:G:C8	2.94	0.49
49:S2:1073:U:N3	49:S2:1074:C:C6	2.81	0.49
1:5:3596:A:O3'	1:5:3597:G:C4'	2.61	0.49
1:5:4949:G:H3'	1:5:4950:U:H5"	1.94	0.49
1:5:4731:G:N7	1:5:4733:C:C5	2.81	0.49
49:S2:589:G:OP1	49:S2:589:G:H4'	2.12	0.49
1:5:3802:U:O2	1:5:3802:U:C2'	2.57	0.49
1:5:754:U:N3	1:5:755:C:C6	2.78	0.49
1:5:187:U:H3'	1:5:245:C:C2	2.47	0.49
49:S2:428:U:C5	59:SJ:7:TRP:CE2	2.99	0.49
1:5:2557:G:C5	1:5:2558:C:C5	3.01	0.49
1:5:4628:U:O2	1:5:4629:U:C5	2.64	0.49
1:5:1811:G:C4	1:5:1812:C:C5	3.00	0.49
1:5:733:A:N7	1:5:734:G:N7	2.59	0.49
48:4:343:TRP:HE3	48:4:343:TRP:O	1.90	0.49
29:Z:18:TYR:CE2	29:Z:47:ASP:OD1	2.65	0.49
1:5:2862:G:N3	1:5:3624:A:H2'	2.27	0.49
1:5:4143:G:C8	1:5:4145:C:C5	3.00	0.49
1:5:4301:U:C5'	23:T:54:HIS:HD2	2.25	0.49
49:S2:404:G:N3	49:S2:405:G:C8	2.80	0.49
64:SO:56:VAL:HG21	64:SO:61:LYS:HE2	1.95	0.49
1:5:2385:U:C2	1:5:2386:U:C5	3.00	0.49
73:SX:19:ASP:OD1	73:SX:19:ASP:N	2.44	0.49
49:S2:1335:G:C6	49:S2:1336:C:C4	2.99	0.49
1:5:4635:A:C2	1:5:4664:A:C5	3.00	0.49
58:SI:113:TYR:CE2	58:SI:121:LEU:HD11	2.48	0.49
2:7:104:C:C2	2:7:105:C:C6	3.00	0.49
2:7:105:C:H2'	2:7:105:C:O2	2.12	0.49
57:SH:160:LYS:O	57:SH:163:GLN:HG2	2.11	0.49
49:S2:116:U:C2	49:S2:117:C:C6	3.01	0.49
1:5:2707:U:H2'	1:5:2707:U:O2	2.11	0.49
24:U:106:SER:OG	24:U:109:SER:OG	2.27	0.49
59:SJ:44:TRP:HA	59:SJ:47:LYS:HB3	1.94	0.49
59:SJ:67:ASP:C	59:SJ:67:ASP:OD1	2.50	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:818:GLN:CG	48:4:819:ILE:H	2.26	0.49
1:5:2260:C:C2'	1:5:2261:G:C8	2.96	0.49
1:5:2327:G:N2	1:5:2328:G:N9	2.60	0.49
1:5:964:A:C8	1:5:964:A:H5"	2.43	0.49
1:5:980:U:H2'	1:5:981:C:H6	1.78	0.49
14:K:86:LYS:HA	14:K:104:ILE:CD1	2.43	0.49
20:Q:28:LEU:CD1	20:Q:51:LEU:HD22	2.43	0.49
49:S2:301:A:C2	58:SI:73:THR:HG21	2.47	0.49
49:S2:386:C:C4	49:S2:387:C:H5	2.29	0.49
48:4:205:ILE:O	48:4:206:ASP:OD2	2.30	0.49
49:S2:1431:G:C6	49:S2:1432:U:C6	3.01	0.49
49:S2:1551:U:H2'	49:S2:1552:G:O4'	2.12	0.49
1:5:4240:G:C2	1:5:4241:C:C2	3.01	0.49
3:8:14:U:O2'	3:8:15:G:C5'	2.61	0.49
49:S2:1149:A:C6	49:S2:1151:G:N9	2.81	0.49
49:S2:1316:C:O2	49:S2:1316:C:H2'	2.13	0.49
49:S2:830:A:C6	49:S2:844:U:N3	2.70	0.49
49:S2:167:G:C4	49:S2:168:C:C6	3.01	0.49
3:8:116:C:N3	3:8:117:C:C5	2.81	0.49
11:H:4:ILE:O	11:H:56:ARG:HD2	10.80	0.49
1:5:2614:C:C2	1:5:2726:G:C2	3.01	0.49
1:5:482:G:H2'	1:5:483:G:C1'	2.41	0.49
1:5:500:G:C2	1:5:504:G:N7	2.80	0.49
9:F:161:TYR:CE2	9:F:168:ARG:CZ	2.91	0.49
2:7:8:G:C6	2:7:9:C:C5	3.01	0.49
1:5:4580:U:N3	1:5:4581:G:N7	2.54	0.49
1:5:2363:A:H1'	1:5:4560:C:C5	2.47	0.49
1:5:1635:C:N3	1:5:1636:U:C4	2.80	0.49
1:5:5023:C:H42	1:5:5028:G:H21	1.61	0.49
1:5:18:C:C4'	17:N:138:PHE:CE2	2.94	0.49
1:5:1097:C:H42	1:5:1198:G:H1	1.61	0.49
1:5:1200:G:C6	1:5:1201:U:C4	3.00	0.49
1:5:196:C:C2'	1:5:196:C:O2	2.59	0.49
28:Y:121:ARG:NH1	28:Y:121:ARG:HB3	2.28	0.49
1:5:4467:A:C6	1:5:4468:U:C4	3.00	0.49
1:5:1309:C:O2	1:5:1309:C:H2'	2.12	0.49
1:5:1759:G:N1	1:5:1760:G:N7	2.60	0.49
1:5:1726:U:C2	1:5:1727:U:C5	3.00	0.49
1:5:3621:A:C2	1:5:3622:C:C1'	2.95	0.49
49:S2:1008:A:H1'	63:SN:101:HIS:ND1	2.27	0.49
49:S2:330:G:N1	49:S2:331:C:C6	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4913:G:H2'	1:5:4914:C:O4'	2.11	0.49
49:S2:1624:U:O4'	49:S2:1624:U:O2	2.31	0.49
57:SH:145:ARG:HD2	72:SW:51:GLU:CG	2.41	0.49
49:S2:887:U:O4'	49:S2:887:U:O2	2.26	0.49
49:S2:666:U:O4'	49:S2:1088:U:C4	2.65	0.49
28:Y:62:TYR:CE2	28:Y:85:VAL:HG13	2.48	0.49
9:F:239:GLU:O	9:F:240:ASP:HB3	2.12	0.49
54:SE:159:THR:HG23	54:SE:227:VAL:CG2	2.43	0.49
49:S2:746:C:H2'	49:S2:747:U:O4'	2.11	0.49
16:M:120:ASN:HA	16:M:123:ILE:HG22	1.93	0.49
23:T:11:THR:HB	23:T:15:PHE:CD1	2.48	0.49
10:G:29:ASN:HB3	10:G:32:PHE:CE1	2.48	0.49
48:4:741:MET:CB	48:4:819:ILE:HA	2.43	0.49
1:5:1261:G:C4	1:5:1262:G:C8	3.01	0.49
1:5:1444:G:N2	1:5:1445:U:C4	2.81	0.49
1:5:2076:G:O6	1:5:2077:C:C4	2.66	0.49
1:5:1899:G:H8	1:5:2278:G:C2	2.25	0.49
1:5:2454:U:N3	1:5:2455:G:C8	2.81	0.49
1:5:2509:C:C2	1:5:2510:G:N7	2.81	0.49
1:5:2595:C:N3	1:5:2596:G:N7	2.61	0.49
1:5:3669:G:N2	1:5:3671:G:OP2	2.45	0.49
1:5:3672:G:N7	1:5:3674:G:O4'	2.46	0.49
1:5:4077:A:N7	1:5:4078:C:C6	2.81	0.49
1:5:455:C:C4	1:5:456:C:C5	3.01	0.49
1:5:465:G:N1	1:5:466:A:C8	2.81	0.49
1:5:991:C:C4	1:5:992:C:C5	3.00	0.49
22:S:13:VAL:HG12	22:S:29:ARG:CA	2.42	0.49
48:4:689:GLU:CA	48:4:730:TYR:OH	2.60	0.49
48:4:650:TRP:HZ3	48:4:679:VAL:HB	1.78	0.49
49:S2:148:U:H2'	49:S2:149:A:O5'	2.13	0.49
49:S2:1739:C:C4	49:S2:1740:C:C5	3.01	0.49
49:S2:1201:U:C4	49:S2:1202:U:C5	3.01	0.49
49:S2:1859:A:C2	49:S2:1860:A:C4	3.00	0.49
49:S2:673:G:C1'	49:S2:1084:A:C2	2.96	0.49
1:5:1392:A:N3	1:5:1393:G:C8	2.81	0.49
1:5:1467:C:C2	1:5:1468:C:C5	3.00	0.49
1:5:1479:G:O2'	1:5:1480:C:O5'	2.30	0.49
1:5:66:A:N7	1:5:328:A:H1'	2.27	0.49
1:5:94:A:C2'	1:5:95:G:O5'	2.60	0.49
5:B:235:TRP:HD1	5:B:267:ALA:CA	2.25	0.49
13:J:119:TYR:CE2	68:SS:108:ARG:HH21	1.39	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:SY:20:ARG:HB3	74:SY:76:TYR:CD1	2.46	0.49
1:5:1173:G:C6	1:5:1174:G:C4	3.00	0.49
1:5:1189:G:C6	1:5:1190:C:C5	3.00	0.49
49:S2:1526:G:N1	49:S2:1527:C:C5	2.80	0.49
49:S2:1567:G:H2'	49:S2:1568:C:O5'	2.11	0.49
1:5:4287:G:C2	1:5:4288:C:C2	3.01	0.49
1:5:1565:A:H2'	1:5:1566:C:C4'	2.43	0.49
49:S2:635:G:N3	49:S2:636:C:C6	2.80	0.49
60:SK:53:LYS:N	60:SK:58:VAL:HG12	2.27	0.49
49:S2:153:G:C6	49:S2:154:U:C5	3.00	0.49
48:4:183:GLU:O	48:4:183:GLU:OE1	2.30	0.49
1:5:3629:A:C4'	49:S2:1721:U:N3	2.75	0.49
1:5:3652:A:H3'	1:5:3653:A:C8	2.47	0.49
3:8:78:G:H2'	3:8:79:G:C1'	2.43	0.49
1:5:272:U:N3	1:5:273:U:C5	2.80	0.49
12:I:76:MET:HB3	12:I:85:PHE:CD2	2.47	0.49
2:7:8:G:C2	2:7:9:C:N1	2.81	0.49
51:SB:121:ILE:HD12	51:SB:207:LEU:HD21	1.93	0.49
1:5:4201:G:C4	1:5:4202:U:C5	3.01	0.49
1:5:3913:G:N1	1:5:4390:A:C2	2.81	0.49
49:S2:836:G:H3'	49:S2:837:A:C5'	2.43	0.49
49:S2:978:G:C4	49:S2:979:C:C5	3.00	0.49
49:S2:498:C:C2	49:S2:505:G:N2	2.81	0.49
49:S2:88:G:H2'	49:S2:89:C:O4'	2.12	0.49
1:5:4643:G:H2'	1:5:4644:G:O4'	2.13	0.49
1:5:4743:G:C2	1:5:4744:A:N7	2.80	0.49
21:R:110:ARG:HD3	21:R:120:TYR:HE2	1.77	0.49
1:5:4478:G:H2'	1:5:4479:A:O4'	2.11	0.49
48:4:159:LYS:CE	48:4:162:ARG:HH11	2.25	0.49
1:5:1206:C:N3	1:5:1207:C:C5	2.80	0.49
1:5:4467:A:C5	1:5:4468:U:C5	3.01	0.49
1:5:4690:G:C6	1:5:4697:U:C5	3.01	0.49
1:5:2738:C:N3	1:5:2741:U:C4	2.81	0.49
1:5:1780:A:N1	1:5:1781:U:H1'	2.27	0.49
1:5:183:C:H1'	1:5:184:U:C4	2.46	0.49
1:5:125:C:O2	1:5:126:C:H6	1.92	0.49
1:5:4509:U:C2'	1:5:4510:A:H2'	2.43	0.49
1:5:4592:C:H2'	1:5:4593:C:C6	2.47	0.49
1:5:442:G:C2'	1:5:443:G:O5'	2.58	0.49
49:S2:827:A:C5	49:S2:828:G:N7	2.81	0.49
49:S2:404:G:C2	49:S2:405:G:C4	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:666:U:H2'	49:S2:667:U:C6	2.47	0.49
7:D:125:VAL:HG11	7:D:199:ILE:HG21	1.94	0.49
1:5:3820:G:C5	1:5:3821:A:C8	3.00	0.49
1:5:1528:U:H2'	1:5:1529:G:O4'	2.13	0.49
59:SJ:48:PHE:CE2	59:SJ:52:LYS:HE3	2.48	0.49
1:5:2336:G:C6	1:5:2337:C:C4	3.00	0.49
1:5:2334:C:O2	1:5:2334:C:H2'	2.12	0.49
55:SF:128:ILE:O	55:SF:134:VAL:HG13	2.13	0.49
64:SO:130:GLU:OE2	64:SO:132:VAL:CG1	2.61	0.49
1:5:1076:C:N4	1:5:1077:C:C5	2.81	0.49
1:5:1280:C:C2'	1:5:1281:G:H3'	2.43	0.49
1:5:2288:G:C2	1:5:2290:C:C6	3.01	0.49
1:5:2802:C:H6	1:5:2802:C:O5'	1.96	0.49
1:5:449:C:N3	1:5:450:G:N7	2.61	0.49
1:5:462:G:C2	1:5:694:C:C2	3.01	0.49
1:5:982:U:C6	8:E:67:ARG:NE	2.81	0.49
14:K:114:ARG:HD2	14:K:130:LYS:CE	2.37	0.49
20:Q:168:ARG:HD3	20:Q:174:PHE:HE2	1.78	0.49
48:4:683:PHE:CE1	48:4:729:LEU:HD21	2.48	0.49
48:4:672:LEU:CA	48:4:675:ILE:HG13	2.01	0.49
49:S2:310:C:HO2'	49:S2:311:C:H5'	1.76	0.49
49:S2:378:U:N3	49:S2:379:C:C4	2.78	0.49
48:4:126:LEU:CD1	48:4:353:MET:CE	2.90	0.49
1:5:1358:G:C2'	1:5:1359:G:C8	2.94	0.49
1:5:1492:G:C6	1:5:1493:G:N7	2.81	0.49
1:5:293:G:C5'	1:5:294:G:C8	2.95	0.49
1:5:3732:A:N1	1:5:3733:A:N7	2.61	0.49
1:5:98:A:C2	1:5:99:A:H1'	2.48	0.49
17:N:150:TRP:HZ3	17:N:151:ILE:HG12	1.78	0.49
1:5:3861:A:C2	1:5:3862:A:N9	2.81	0.49
49:S2:1233:G:C2	49:S2:1234:C:N1	2.81	0.49
49:S2:1545:A:N7	49:S2:1588:A:N7	2.61	0.49
49:S2:615:C:C2'	49:S2:616:A:O4'	2.60	0.49
62:SM:104:VAL:HG13	62:SM:105:GLY:N	2.28	0.49
1:5:5006:U:H1'	1:5:5042:A:N7	2.27	0.49
1:5:3753:G:C6	1:5:3776:G:C2	3.01	0.49
1:5:2483:G:C6	1:5:2484:A:N7	2.81	0.49
1:5:2491:C:H2'	1:5:2492:C:O4'	2.12	0.49
49:S2:751:G:N2	49:S2:792:C:H1'	2.28	0.49
1:5:1627:G:H3'	1:5:1628:C:C6	2.47	0.49
4:A:209:HIS:CE1	4:A:211:PHE:HD2	2.29	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:668:C:C4	1:5:669:C:C5	3.01	0.49
49:S2:1122:A:H4'	51:SB:205:TYR:CZ	2.48	0.49
1:5:3611:A:H2	1:5:5016:A:C8	2.30	0.49
48:4:255:ASP:OD1	48:4:259:LYS:CE	2.46	0.49
1:5:5028:G:N3	1:5:5029:C:C6	2.80	0.49
49:S2:20:G:C5'	49:S2:620:G:N7	2.76	0.49
1:5:1197:C:H2'	1:5:1198:G:O4'	2.12	0.49
1:5:1205:G:N2	1:5:1206:C:C2	2.81	0.49
49:S2:428:U:C5	59:SJ:7:TRP:CH2	2.93	0.49
49:S2:961:G:C6	49:S2:962:A:N7	2.81	0.49
1:5:3590:G:N1	1:5:3591:C:C2	2.81	0.49
1:5:4087:G:C8	1:5:4087:G:H3'	2.47	0.49
48:4:343:TRP:HA	48:4:343:TRP:HE3	1.77	0.49
1:5:723:A:H2	1:5:943:A:C2	2.29	0.49
1:5:4510:A:N6	1:5:4592:C:HO2'	2.09	0.49
1:5:4146:G:C2	1:5:4147:G:C8	3.01	0.49
49:S2:1659:U:C5	49:S2:1660:C:N3	2.81	0.49
20:Q:68:ARG:HB3	20:Q:68:ARG:CZ	2.40	0.49
1:5:1290:G:C2'	1:5:1291:G:H5'	2.42	0.49
1:5:710:G:H2'	1:5:711:A:C8	2.48	0.49
22:S:32:ILE:HG22	22:S:33:PHE:H	1.78	0.49
1:5:3891:A:H2'	1:5:3892:U:O4'	2.13	0.49
49:S2:1615:U:H2'	49:S2:1616:U:C6	2.48	0.49
1:5:4769:G:N2	1:5:4865:C:N3	2.61	0.49
1:5:2682:G:H2'	1:5:2683:C:H6	1.76	0.49
54:SE:159:THR:HG21	54:SE:227:VAL:O	2.12	0.49
49:S2:936:G:H2'	49:S2:937:C:O4'	2.13	0.49
73:SX:16:HIS:NE2	73:SX:20:HIS:CD2	2.81	0.49
65:SP:60:LEU:HD21	65:SP:94:VAL:HG22	1.95	0.49
49:S2:1524:G:C6	49:S2:1525:C:C4	3.01	0.49
48:4:747:VAL:HA	48:4:812:CYS:HB3	1.95	0.49
1:5:1542:U:H2'	1:5:1542:U:O2	2.13	0.49
1:5:1871:A:C2	1:5:1872:G:C8	3.01	0.49
1:5:2021:G:C6	1:5:2022:C:N4	2.81	0.49
1:5:2450:G:C6	1:5:2451:A:N7	2.80	0.49
1:5:2684:C:H2'	1:5:2685:C:O4'	2.13	0.49
1:5:435:A:H2'	1:5:435:A:N3	2.27	0.49
1:5:994:G:C5	1:5:995:C:C5	3.01	0.49
4:A:30:ARG:NE	4:A:63:PHE:HE2	2.11	0.49
8:E:52:ARG:NH2	8:E:53:TYR:CE1	2.80	0.49
21:R:95:TRP:HA	21:R:95:TRP:CE3	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1572:U:C4'	21:R:95:TRP:HE1	2.19	0.49
48:4:613:LEU:HD12	48:4:641:TRP:CD1	2.48	0.49
49:S2:1793:A:N3	49:S2:1794:C:C6	2.80	0.49
49:S2:61:A:C2	49:S2:334:C:H2'	2.48	0.49
49:S2:339:A:C4	49:S2:340:C:C5	3.00	0.49
49:S2:344:U:O2'	49:S2:345:U:H5'	2.13	0.49
49:S2:348:A:H2'	49:S2:349:A:H5'	1.93	0.49
49:S2:441:C:C6	49:S2:448:A:C2	3.01	0.49
58:SI:66:SER:CB	58:SI:73:THR:HB	2.42	0.49
49:S2:1182:A:C8	49:S2:1183:A:H1'	2.48	0.49
48:4:181:ILE:O	48:4:185:VAL:HG23	2.13	0.49
1:5:4350:C:O2	1:5:4350:C:H2'	2.12	0.49
49:S2:1433:C:OP2	49:S2:1434:C:OP2	2.31	0.49
1:5:3856:A:N6	1:5:3857:G:C5	2.80	0.49
1:5:3861:A:C4	1:5:3862:A:C8	3.01	0.49
49:S2:1561:A:O4'	49:S2:1583:C:H4'	2.12	0.49
2:7:30:C:C4	2:7:48:G:N1	2.81	0.49
49:S2:634:A:C4	49:S2:635:G:C8	3.01	0.49
55:SF:38:TYR:HA	55:SF:64:ALA:HB1	1.95	0.49
49:S2:1111:U:C2'	49:S2:1111:U:O2	2.61	0.49
49:S2:1112:U:N3	49:S2:1113:A:C4	2.81	0.49
1:5:5006:U:O2	1:5:5042:A:C8	2.66	0.49
49:S2:552:G:C6	49:S2:553:U:C4	3.01	0.49
1:5:3702:A:C6	1:5:3703:G:C8	2.88	0.49
49:S2:164:A:O2'	49:S2:165:G:C5'	2.60	0.49
1:5:2479:G:C2	1:5:2480:G:C8	3.01	0.49
1:5:504:G:C4	1:5:505:G:N7	2.81	0.49
1:5:652:G:C2	1:5:653:U:H1'	2.48	0.49
1:5:2521:G:N1	1:5:2535:G:C2	2.81	0.49
1:5:1925:G:C6	1:5:1926:C:C5	3.01	0.49
1:5:1336:G:H2'	1:5:1337:A:C8	2.48	0.49
1:5:2419:C:C2'	1:5:2420:A:O5'	2.60	0.49
1:5:4750:G:O2'	1:5:4751:G:OP1	2.30	0.49
1:5:4479:A:C5	1:5:4480:A:N9	2.81	0.49
1:5:3807:A:O4'	49:S2:1815:A:H2	1.96	0.49
1:5:1205:G:C2	1:5:1206:C:C2	3.01	0.49
1:5:247:G:C2	1:5:248:C:C5	3.01	0.49
1:5:4466:C:N3	1:5:4467:A:N7	2.61	0.49
1:5:4486:C:H2'	1:5:4487:A:O4'	2.13	0.49
1:5:4884:G:N2	1:5:4885:U:N1	2.61	0.49
8:E:157:ARG:O	8:E:178:ASN:OD1	2.31	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4935:C:H3'	8:E:179:ARG:HH21	1.78	0.49
1:5:1439:C:H5"	9:F:36:ARG:HH12	1.68	0.49
1:5:4136:G:C4	1:5:4137:C:C5	3.01	0.49
1:5:2395:A:O3'	1:5:2806:A:C2	2.66	0.49
49:S2:37:C:N3	49:S2:38:A:C8	2.81	0.49
49:S2:38:A:C6	49:S2:515:G:N1	2.81	0.49
1:5:1347:G:C4	1:5:1348:U:C6	3.00	0.49
21:R:15:LEU:O	21:R:52:ARG:NH2	2.46	0.49
1:5:2384:U:O2	1:5:2385:U:C6	2.66	0.49
1:5:2703:G:C6	1:5:2704:C:C4	3.01	0.49
1:5:323:C:O2	1:5:323:C:H2'	2.12	0.49
1:5:965:G:C8	8:E:88:VAL:CG1	2.96	0.49
1:5:4951:G:HO2'	1:5:4952:G:P	2.36	0.49
5:B:71:GLU:OE1	5:B:366:LYS:CE	2.61	0.49
59:SJ:118:GLY:O	59:SJ:120:ALA:N	2.46	0.49
22:S:120:ARG:HB2	22:S:122:HIS:HD2	1.77	0.49
49:S2:198:U:H2'	49:S2:200:G:N7	2.28	0.49
9:F:228:HIS:O	9:F:229:PHE:C	2.51	0.49
49:S2:1560:U:O2	49:S2:1560:U:H2'	2.11	0.49
48:4:146:ALA:HA	48:4:151:ILE:HD12	1.93	0.49
23:T:80:VAL:HG21	23:T:85:LEU:HD12	1.94	0.49
49:S2:1404:U:C4'	49:S2:1581:C:O2	2.61	0.49
48:4:433:ASN:O	48:4:434:TYR:O	2.30	0.48
48:4:763:LEU:CD1	48:4:786:ALA:HB2	2.43	0.48
1:5:1268:G:C4	1:5:2111:G:N3	2.81	0.48
1:5:2254:G:O2'	1:5:2255:C:H4'	2.13	0.48
1:5:2270:G:C2	1:5:2271:C:C5	3.01	0.48
1:5:2314:G:C2'	1:5:2314:G:N3	2.76	0.48
1:5:2314:G:C5	1:5:2326:G:C4	3.01	0.48
1:5:3938:G:H5'	1:5:3938:G:N3	2.27	0.48
14:K:103:ASN:N	14:K:140:GLY:HA2	2.28	0.48
14:K:108:GLU:O	14:K:111:ASN:HB2	2.13	0.48
1:5:1993:C:O2'	14:K:135:THR:HG21	2.13	0.48
14:K:33:GLY:N	14:K:34:PRO:HD3	2.26	0.48
48:4:692:LEU:HD21	48:4:734:LEU:HD22	1.93	0.48
49:S2:1452:A:C5	49:S2:1475:G:C2	3.01	0.48
49:S2:339:A:C3'	49:S2:340:C:H6	2.26	0.48
49:S2:1832:A:C2	49:S2:1833:C:C4	3.00	0.48
1:5:1488:G:C6	1:5:1489:G:N7	2.81	0.48
49:S2:1545:A:C4	49:S2:1546:G:C5	3.00	0.48
49:S2:1669:G:C6	49:S2:1670:C:N4	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4276:G:C2	1:5:4277:G:C8	3.00	0.48
48:4:845:LYS:CE	48:4:846:GLU:CB	2.90	0.48
25:V:97:TYR:C	25:V:97:TYR:CD2	2.85	0.48
49:S2:597:G:OP1	73:SX:131:LEU:HD11	2.12	0.48
49:S2:1093:A:H4'	72:SW:3:ARG:NH2	2.27	0.48
1:5:3773:U:O2	1:5:3775:A:C2	2.66	0.48
1:5:2481:G:C2	1:5:2482:C:C2	3.00	0.48
49:S2:799:U:OP2	57:SH:106:ARG:O	2.31	0.48
4:A:219:ILE:HG22	4:A:220:GLY:N	2.28	0.48
1:5:505:G:C4	1:5:506:C:C5	3.01	0.48
1:5:4518:A:C5	5:B:257:TRP:CZ2	3.00	0.48
49:S2:923:G:C2	49:S2:924:G:C8	3.01	0.48
49:S2:1121:G:C6	49:S2:1122:A:N7	2.80	0.48
1:5:4104:G:H3'	1:5:4105:A:C8	2.48	0.48
49:S2:504:G:O2'	49:S2:505:G:H5'	2.13	0.48
1:5:4746:C:H2'	1:5:4747:C:O4'	2.13	0.48
1:5:4750:G:O6	1:5:4949:G:N7	2.45	0.48
1:5:4950:U:O4'	1:5:4950:U:O2	2.29	0.48
1:5:2591:A:N6	1:5:2753:G:N2	2.60	0.48
1:5:3833:C:C2	1:5:3834:C:C6	3.01	0.48
1:5:2566:G:N1	1:5:2567:G:C5	2.81	0.48
1:5:1740:C:H1'	1:5:1742:A:N6	2.28	0.48
1:5:1771:U:N3	1:5:1772:C:C6	2.80	0.48
12:I:35:ASP:N	12:I:35:ASP:OD1	2.45	0.48
1:5:352:G:O6	6:C:196:MET:HG3	2.12	0.48
1:5:4547:C:C2	1:5:4549:G:C8	3.01	0.48
1:5:4551:U:O2	1:5:4552:U:C5	2.66	0.48
1:5:1727:U:O2	1:5:1728:U:C6	2.66	0.48
21:R:163:ARG:NH2	49:S2:871:U:N3	2.60	0.48
1:5:1289:C:C2	1:5:1290:G:N7	2.81	0.48
1:5:708:G:C2	1:5:709:C:C6	3.00	0.48
49:S2:696:G:C2	49:S2:735:C:O2	2.65	0.48
66:SQ:48:GLN:HE21	66:SQ:52:LEU:HD11	1.78	0.48
1:5:2247:C:O2'	9:F:28:ALA:HB3	2.12	0.48
50:SA:39:TYR:C	50:SA:39:TYR:HD1	2.16	0.48
49:S2:1189:A:H2'	49:S2:1190:A:C8	2.48	0.48
1:5:2311:C:N4	1:5:2312:U:C5	2.81	0.48
1:5:4300:U:H4'	23:T:89:ILE:HG22	1.95	0.48
1:5:3586:G:C4	1:5:3587:C:C5	3.01	0.48
49:S2:527:C:H2'	49:S2:528:A:H8	1.78	0.48
1:5:4423:U:H3'	1:5:4423:U:O2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:342:G:C6	1:5:343:C:C4	3.02	0.48
23:T:3:ASN:CB	23:T:9:ARG:HH12	2.26	0.48
23:T:41:ASP:N	23:T:41:ASP:OD1	2.46	0.48
1:5:1511:U:C2	1:5:1512:G:C8	3.01	0.48
1:5:2421:G:OP2	1:5:2828:U:H1'	2.13	0.48
48:4:432:PRO:HB3	48:4:497:MET:HE1	1.95	0.48
48:4:801:ARG:C	48:4:801:ARG:HD2	2.32	0.48
1:5:1213:G:C2	1:5:1215:C:C2	3.02	0.48
1:5:1429:C:N3	1:5:1430:C:C5	2.81	0.48
1:5:1999:A:H2'	1:5:2000:G:N3	2.28	0.48
1:5:2122:G:H1'	1:5:2123:C:OP2	2.13	0.48
1:5:2314:G:N1	1:5:2315:G:N7	2.58	0.48
1:5:694:C:H2'	1:5:695:G:O4'	2.14	0.48
49:S2:44:U:C4	49:S2:484:A:C6	3.01	0.48
49:S2:1366:G:N1	49:S2:1374:C:N4	2.61	0.48
49:S2:1449:G:H2'	49:S2:1450:G:O4'	2.12	0.48
49:S2:349:A:H2'	49:S2:350:C:C6	2.49	0.48
49:S2:387:C:C2	49:S2:388:U:H5	2.20	0.48
49:S2:1204:A:C5	49:S2:1205:C:C5	3.01	0.48
1:5:330:G:N1	1:5:331:G:C5	2.81	0.48
16:M:101:LYS:HD2	18:O:201:PHE:HE1	1.78	0.48
1:5:1184:A:C2	1:5:1185:G:C8	3.01	0.48
49:S2:1537:A:C2	49:S2:1538:C:H1'	2.49	0.48
1:5:4241:C:N3	1:5:4242:U:C6	2.80	0.48
1:5:4283:G:C5	1:5:4284:C:C5	3.00	0.48
1:5:4323:A:C4	1:5:4324:A:C8	3.01	0.48
2:7:18:C:C4	2:7:19:C:C5	2.85	0.48
49:S2:1287:A:N6	49:S2:1314:U:C4	2.82	0.48
49:S2:1286:G:C2	62:SM:33:ARG:O	2.66	0.48
26:W:8:PHE:CD1	26:W:8:PHE:C	2.87	0.48
1:5:1936:C:N3	1:5:1937:C:C6	2.76	0.48
49:S2:167:G:C5	49:S2:168:C:C5	3.01	0.48
1:5:2479:G:C2	1:5:2480:G:N9	2.81	0.48
48:4:396:MET:HG3	48:4:415:ARG:O	2.13	0.48
49:S2:797:C:C4'	49:S2:798:A:OP1	2.60	0.48
48:4:325:SER:C	48:4:327:ASP:H	2.05	0.48
48:4:275:LYS:CE	48:4:276:SER:N	2.76	0.48
1:5:2854:G:C6	1:5:2856:C:H6	2.22	0.48
1:5:2724:G:N1	1:5:2726:G:N7	2.57	0.48
1:5:2533:C:C2	1:5:2534:C:C4	3.00	0.48
1:5:2534:C:O2'	1:5:2535:G:C5'	2.60	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2534:C:C2'	1:5:2535:G:O5'	2.61	0.48
7:D:31:TYR:C	7:D:31:TYR:CD1	2.87	0.48
49:S2:928:G:H1	49:S2:1013:U:H3	1.61	0.48
49:S2:923:G:C6	49:S2:924:G:N7	2.80	0.48
49:S2:1122:A:C6	49:S2:1123:C:C6	3.01	0.48
1:5:3911:C:H2'	1:5:3912:U:H6	1.77	0.48
3:8:100:U:O2	3:8:101:C:C6	2.66	0.48
3:8:131:G:N1	3:8:132:G:C4	2.81	0.48
1:5:4746:C:N3	1:5:4747:C:C5	2.81	0.48
49:S2:493:A:H1'	49:S2:574:A:H5'	1.95	0.48
1:5:4577:U:O2'	1:5:4967:A:O2'	2.31	0.48
1:5:1193:C:O2	1:5:1193:C:H2'	2.12	0.48
1:5:1193:C:C2	1:5:1194:G:C8	3.00	0.48
1:5:2569:G:H2'	1:5:2570:U:H6	1.78	0.48
1:5:1745:G:N2	1:5:1746:A:H1'	2.28	0.48
5:B:100:ARG:NH2	5:B:101:THR:C	2.65	0.48
1:5:144:G:N2	1:5:145:G:C5	2.81	0.48
10:G:47:PRO:HG2	10:G:49:ARG:HH22	1.78	0.48
1:5:1826:G:N2	1:5:1827:C:H1'	2.28	0.48
49:S2:187:G:C4	49:S2:188:C:C5	3.01	0.48
1:5:126:C:O2	1:5:126:C:H2'	2.13	0.48
1:5:1398:A:C4	1:5:1399:G:C8	3.01	0.48
1:5:1516:G:N3	1:5:1516:G:H2'	2.28	0.48
4:A:29:LEU:HD12	4:A:124:GLY:HA3	1.95	0.48
49:S2:1363:C:O5'	49:S2:1363:C:H6	1.95	0.48
49:S2:1380:C:H2'	49:S2:1381:G:C8	2.48	0.48
50:SA:55:TRP:O	50:SA:56:GLU:C	2.51	0.48
1:5:2385:U:H2'	1:5:2386:U:H6	1.77	0.48
49:S2:361:U:H4'	49:S2:362:C:C5'	2.43	0.48
49:S2:1727:G:C6	49:S2:1728:U:C5	3.01	0.48
71:SV:19:ALA:HB3	71:SV:59:ILE:HD13	1.95	0.48
49:S2:200:G:C2	49:S2:201:C:C2	3.01	0.48
64:SO:35:ALA:HB1	64:SO:112:ALA:HB2	1.93	0.48
27:X:111:GLN:HA	27:X:111:GLN:OE1	2.13	0.48
49:S2:1703:C:H2'	49:S2:1703:C:O2	2.13	0.48
56:SG:222:GLU:HA	56:SG:225:GLN:OE1	2.14	0.48
52:SC:69:LEU:HG	52:SC:273:LEU:HD21	1.94	0.48
56:SG:138:ALA:HB1	56:SG:153:VAL:HG21	1.95	0.48
48:4:70:ILE:O	48:4:71:LYS:HB2	2.14	0.48
48:4:72:SER:HA	48:4:104:ASP:OD2	2.11	0.48
1:5:1068:G:H2'	1:5:1069:G:H8	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1233:G:N2	1:5:1234:G:C4	2.82	0.48
1:5:1267:C:H4'	1:5:2110:C:O2'	2.13	0.48
1:5:2091:C:H1'	1:5:2092:G:H2'	1.94	0.48
1:5:2116:C:C6	1:5:2116:C:O5'	2.66	0.48
1:5:2085:G:N2	1:5:2273:G:C4	2.82	0.48
1:5:39:A:C5	1:5:1654:G:C6	3.01	0.48
8:E:54:SER:O	8:E:55:ARG:C	2.51	0.48
12:I:100:ASN:HA	12:I:120:GLY:HA2	1.95	0.48
49:S2:436:G:C5	49:S2:458:A:C2	3.01	0.48
49:S2:457:C:N4	49:S2:458:A:C5	2.81	0.48
48:4:683:PHE:HE1	48:4:729:LEU:CD2	2.26	0.48
48:4:669:VAL:O	48:4:671:TYR:N	2.46	0.48
48:4:710:HIS:NE2	48:4:715:HIS:CD2	2.81	0.48
49:S2:1735:A:C6	49:S2:1800:A:C4	3.01	0.48
49:S2:449:A:C6	49:S2:452:G:C4	2.99	0.48
49:S2:1034:A:C6	49:S2:1082:A:C4	3.01	0.48
1:5:1463:C:C2	1:5:1464:C:C6	3.01	0.48
1:5:1491:A:N3	1:5:1492:G:C8	2.81	0.48
1:5:3714:G:O6	1:5:3739:C:N3	2.47	0.48
49:S2:1415:C:C6	49:S2:1416:C:C6	3.01	0.48
49:S2:1434:C:C2	49:S2:1435:C:C5	3.02	0.48
1:5:3859:G:C4'	19:P:139:TYR:CZ	2.95	0.48
49:S2:1606:G:H22	49:S2:1632:G:H2'	1.78	0.48
1:5:1563:A:H2'	1:5:1564:A:C8	2.48	0.48
3:8:10:G:N3	3:8:11:C:H1'	2.27	0.48
1:5:2482:C:N3	1:5:2483:G:N7	2.61	0.48
48:4:326:GLU:O	48:4:327:ASP:C	2.51	0.48
3:8:65:A:C4	3:8:66:A:C8	3.01	0.48
1:5:503:C:OP2	1:5:505:G:OP2	2.31	0.48
49:S2:933:G:C8	49:S2:1001:A:C4	3.01	0.48
1:5:2521:G:H2'	1:5:2522:G:O4'	2.13	0.48
49:S2:926:A:C4	49:S2:927:C:C5	3.01	0.48
1:5:4091:G:N1	1:5:4092:G:C4	2.82	0.48
54:SE:46:ILE:O	54:SE:50:ASN:HB2	2.12	0.48
49:S2:1055:A:H2	49:S2:1063:C:N4	2.12	0.48
1:5:2417:A:C6	1:5:2418:A:N7	2.82	0.48
1:5:4480:A:N1	1:5:4481:U:C6	2.81	0.48
1:5:4482:U:C2	1:5:4483:C:H5	2.30	0.48
1:5:1406:G:N2	1:5:1409:C:N4	2.60	0.48
1:5:1412:G:C5	1:5:1413:C:C5	3.02	0.48
1:5:1760:G:C6	1:5:1761:G:C8	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:936:C:O2'	16:M:46:ARG:NH1	2.46	0.48
1:5:1807:C:N4	1:5:1808:C:C5	2.81	0.48
1:5:1727:U:C2	1:5:1728:U:C6	3.02	0.48
69:ST:79:TYR:CD1	69:ST:79:TYR:N	2.81	0.48
1:5:725:G:H2'	1:5:726:G:O4'	2.12	0.48
1:5:440:U:C2	1:5:441:G:N7	2.82	0.48
49:S2:22:A:C2	49:S2:653:A:N3	2.81	0.48
18:O:108:ILE:HG23	18:O:160:ARG:CD	2.43	0.48
4:A:29:LEU:HD23	4:A:76:PHE:CE1	2.47	0.48
7:D:284:LYS:CB	12:I:209:TRP:CH2	2.96	0.48
49:S2:1454:A:N7	49:S2:1476:A:N3	2.61	0.48
7:D:90:VAL:HG23	7:D:226:TYR:CZ	2.48	0.48
49:S2:1712:A:H2'	49:S2:1713:C:C6	2.49	0.48
5:B:136:LYS:HB3	5:B:146:LEU:HD11	1.95	0.48
52:SC:65:LYS:HD3	52:SC:273:LEU:HD13	1.94	0.48
70:SU:40:ILE:HD11	70:SU:53:PRO:CG	2.43	0.48
8:E:160:PHE:HE2	8:E:169:LEU:HD22	1.78	0.48
3:8:146:U:H2'	3:8:147:G:O4'	2.13	0.48
18:O:56:ALA:HA	18:O:59:ARG:HE	1.78	0.48
29:Z:10:VAL:HG11	29:Z:129:TRP:HZ3	1.78	0.48
48:4:144:ARG:NH2	48:4:781:MET:HE1	2.28	0.48
1:5:1072:C:N4	1:5:1239:C:C4	2.81	0.48
1:5:1212:G:N1	1:5:1213:G:C5	2.81	0.48
1:5:1683:U:C2'	1:5:1683:U:O2	2.61	0.48
1:5:1690:C:OP2	20:Q:11:ARG:NH2	2.46	0.48
1:5:1865:G:N2	1:5:1867:A:H3'	2.28	0.48
1:5:1995:G:C5	1:5:1996:C:C4	3.01	0.48
1:5:677:G:C4	1:5:678:C:C5	3.01	0.48
1:5:1280:C:C1'	6:C:323:ARG:NH2	2.76	0.48
9:F:59:TYR:CE2	9:F:194:HIS:CD2	3.01	0.48
9:F:71:ILE:HG22	9:F:75:ARG:CD	2.44	0.48
10:G:53:ARG:CZ	10:G:54:PHE:CZ	2.85	0.48
14:K:121:LEU:HD13	14:K:123:ARG:HB3	1.94	0.48
14:K:64:ILE:HB	14:K:71:ILE:HB	1.95	0.48
20:Q:17:GLU:HA	20:Q:52:PHE:HE1	1.78	0.48
20:Q:33:ARG:NH2	20:Q:48:LEU:HD11	2.28	0.48
49:S2:173:A:N1	49:S2:174:C:C6	2.81	0.48
49:S2:60:A:HO2'	49:S2:61:A:H5"	1.70	0.48
1:5:85:G:N2	1:5:97:G:C8	2.82	0.48
49:S2:952:G:C2	49:S2:953:C:C2	3.00	0.48
49:S2:1413:G:C5	49:S2:1414:A:C8	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1442:U:O2	49:S2:1443:C:C6	2.67	0.48
49:S2:1573:G:C4	49:S2:1574:C:C6	3.01	0.48
1:5:4281:A:C5	1:5:4283:G:C8	3.02	0.48
49:S2:618:C:N4	49:S2:619:A:C6	2.79	0.48
49:S2:1131:G:C6	49:S2:1132:C:C5	3.01	0.48
1:5:3613:U:O2'	1:5:5035:U:O2'	2.28	0.48
1:5:4998:G:N3	1:5:4999:G:C8	2.80	0.48
1:5:3703:G:N3	1:5:3704:U:C6	2.81	0.48
1:5:3630:A:C2	1:5:3631:U:C5	3.00	0.48
11:H:59:LYS:HB2	11:H:70:VAL:HG22	1.95	0.48
1:5:655:C:OP2	6:C:268:ARG:NH1	2.47	0.48
1:5:660:A:C6	1:5:661:C:C4	3.01	0.48
1:5:669:C:HO2'	1:5:670:G:C5'	2.25	0.48
1:5:669:C:N3	1:5:670:G:N7	2.60	0.48
12:I:36:LEU:HD22	12:I:73:ASN:HD21	1.77	0.48
1:5:4563:U:N3	1:5:4564:A:N6	2.58	0.48
49:S2:923:G:C2	49:S2:1022:U:C4	2.98	0.48
1:5:1933:G:H2'	1:5:1934:A:C1'	2.44	0.48
1:5:4104:G:C3'	1:5:4105:A:C8	2.97	0.48
64:SO:41:PHE:CD1	64:SO:41:PHE:N	2.80	0.48
49:S2:501:C:O2	49:S2:501:C:H3'	2.12	0.48
1:5:747:A:C2	1:5:918:G:O6	2.67	0.48
49:S2:46:A:C6	49:S2:99:A:N7	2.82	0.48
1:5:3791:C:O2	1:5:3802:U:O4'	2.31	0.48
1:5:4368:G:C6	1:5:4369:A:C8	3.01	0.48
1:5:750:U:N3	1:5:751:G:N7	2.61	0.48
1:5:246:G:N2	1:5:247:G:C5	2.82	0.48
49:S2:601:G:O2'	49:S2:602:G:C5'	2.62	0.48
1:5:1807:C:C2	1:5:1808:C:H6	2.31	0.48
1:5:2301:G:C2	1:5:2302:C:N1	2.80	0.48
73:SX:4:CYS:SG	73:SX:5:ARG:N	2.86	0.48
6:C:112:HIS:N	6:C:112:HIS:CD2	2.82	0.48
48:4:381:ALA:O	48:4:385:ILE:HG12	2.13	0.48
49:S2:918:U:H2'	49:S2:919:A:C4	2.48	0.48
49:S2:371:A:C2	49:S2:372:U:C5	3.02	0.48
19:P:30:ARG:NE	19:P:34:GLN:OE1	2.47	0.48
1:5:219:G:H4'	1:5:219:G:OP1	2.14	0.48
54:SE:141:THR:OG1	54:SE:143:ASP:OD1	2.13	0.48
49:S2:177:G:N2	49:S2:178:C:H41	2.10	0.48
49:S2:1176:G:C6	49:S2:1177:U:C4	3.01	0.48
60:SK:84:HIS:HB3	62:SM:27:ILE:HD13	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1184:G:C6	49:S2:1185:C:C5	3.01	0.48
49:S2:1186:U:H2'	49:S2:1186:U:O2	2.12	0.48
68:SS:107:LEU:O	68:SS:111:LEU:HG	2.12	0.48
1:5:2052:G:N2	1:5:2053:C:C2	2.82	0.48
1:5:5026:U:OP1	58:SI:168:GLN:CD	2.50	0.48
48:4:281:GLU:CD	48:4:281:GLU:N	2.67	0.48
48:4:341:ARG:O	48:4:345:PRO:HG3	2.13	0.48
1:5:17:A:OP2	27:X:60:TYR:OH	2.18	0.48
48:4:753:GLU:OE2	48:4:779:THR:CA	2.61	0.48
48:4:769:HIS:C	48:4:786:ALA:HB1	2.32	0.48
1:5:1213:G:C6	1:5:1215:C:C4	3.02	0.48
1:5:450:G:N2	1:5:1294:A:C2'	2.75	0.48
1:5:1967:A:C2	1:5:1968:G:C4	3.01	0.48
1:5:1983:A:C5	1:5:1987:C:OP2	2.57	0.48
1:5:1958:A:H2	1:5:2026:A:C5	2.29	0.48
1:5:2102:G:N1	1:5:2103:G:C5	2.82	0.48
1:5:2263:A:O2'	1:5:2265:G:C2'	2.61	0.48
1:5:2438:A:C5	1:5:2441:C:C4	3.01	0.48
1:5:4303:C:H3'	1:5:4303:C:O2	2.13	0.48
1:5:973:G:C6	1:5:974:C:C4	3.01	0.48
1:5:985:C:C2	1:5:986:C:C6	3.01	0.48
14:K:31:LYS:O	14:K:34:PRO:HG2	2.10	0.48
20:Q:95:VAL:HG23	20:Q:116:ALA:HB2	1.95	0.48
49:S2:145:G:C2	49:S2:146:G:C5	3.01	0.48
49:S2:379:C:N3	49:S2:380:G:N7	2.61	0.48
49:S2:376:A:H4'	61:SL:9:ALA:CB	2.43	0.48
49:S2:1162:C:C4	49:S2:1163:C:C4	3.01	0.48
1:5:1390:G:C3'	1:5:1390:G:C8	2.97	0.48
1:5:1471:U:C4	1:5:1472:C:C5	3.02	0.48
1:5:3725:G:N2	1:5:3727:A:H2'	2.29	0.48
1:5:3736:A:H3'	1:5:3736:A:P	2.53	0.48
1:5:3894:A:C2	1:5:4567:G:C2	3.01	0.48
1:5:4984:C:N3	1:5:4985:U:C6	2.81	0.48
5:B:25:HIS:HB2	5:B:274:TYR:OH	2.14	0.48
18:O:12:ARG:NH1	22:S:171:ARG:HH21	2.11	0.48
49:S2:1323:U:H2'	49:S2:1324:G:O4'	2.14	0.48
49:S2:1545:A:C6	49:S2:1546:G:C6	3.02	0.48
49:S2:1545:A:C2	49:S2:1546:G:C2	3.01	0.48
49:S2:1551:U:C2'	49:S2:1552:G:O4'	2.61	0.48
49:S2:1567:G:C2'	49:S2:1568:C:O5'	2.61	0.48
49:S2:1596:U:C4	49:S2:1597:C:C4	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1282:A:N6	62:SM:93:LYS:HG3	2.28	0.48
49:S2:531:A:C5	49:S2:532:C:C6	3.02	0.48
1:5:3759:A:H61	49:S2:1709:G:H5"	1.79	0.48
49:S2:167:G:C6	49:S2:168:C:C5	3.02	0.48
1:5:2477:A:H2'	1:5:2478:C:C6	2.48	0.48
1:5:2436:U:C5	1:5:2783:A:H1'	2.49	0.48
3:8:119:C:C4	3:8:120:G:N7	2.76	0.48
1:5:163:A:C6	1:5:164:G:N7	2.81	0.48
49:S2:933:G:C2	49:S2:1000:C:C4	2.96	0.48
49:S2:994:C:C2	49:S2:995:G:N7	2.62	0.48
1:5:4564:A:O2'	1:5:4565:C:H5'	2.13	0.48
49:S2:923:G:C2	49:S2:924:G:C4	3.01	0.48
49:S2:604:A:C2	49:S2:605:A:C6	3.02	0.48
49:S2:856:C:N3	49:S2:857:U:C6	2.81	0.48
49:S2:1005:G:C2	49:S2:1006:C:C2	3.01	0.48
50:SA:198:MET:CG	50:SA:199:PRO:HD2	2.43	0.48
1:5:4482:U:O2	1:5:4483:C:C5	2.67	0.48
1:5:1090:G:C4	1:5:1091:C:C6	3.01	0.48
1:5:195:C:N3	1:5:196:C:C6	2.82	0.48
49:S2:1758:G:C2	49:S2:1759:G:C8	3.02	0.48
49:S2:583:C:H2'	49:S2:583:C:O2	2.13	0.48
48:4:228:PHE:CE1	48:4:232:TYR:CE2	3.02	0.48
1:5:739:G:C6	1:5:740:G:N7	2.81	0.48
49:S2:669:A:C2	49:S2:670:A:C6	3.01	0.48
50:SA:107:THR:O	50:SA:116:PHE:HA	2.13	0.48
1:5:1455:G:C2	1:5:1456:C:C6	3.01	0.48
1:5:642:G:C2	1:5:643:C:C6	3.01	0.48
49:S2:827:A:C6	49:S2:828:G:C8	3.01	0.48
1:5:112:C:C4	1:5:157:U:C4	3.02	0.48
1:5:4152:G:C2	1:5:4153:C:C4	3.02	0.48
1:5:4153:C:C2	1:5:4154:G:C8	3.01	0.48
1:5:512:U:C3'	1:5:513:U:C5'	2.90	0.48
11:H:117:PHE:CE1	11:H:118:LEU:HB2	2.48	0.48
1:5:947:C:H2'	1:5:948:C:C6	2.47	0.48
49:S2:1599:U:OP2	75:SZ:80:ARG:O	2.31	0.48
1:5:2065:G:C4	1:5:2066:C:C6	3.02	0.48
1:5:1509:C:C2	1:5:1510:G:N7	2.82	0.48
1:5:1550:G:N1	1:5:1579:C:C2	2.82	0.48
49:S2:1617:G:N7	65:SP:47:ARG:NH2	2.59	0.48
1:5:2866:C:C2	1:5:2867:C:C6	3.01	0.48
73:SX:84:PHE:HD2	73:SX:105:PHE:CZ	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:SH:116:ARG:NH2	57:SH:121:THR:OG1	2.46	0.48
50:SA:81:ASN:HB2	50:SA:204:TYR:HE2	1.78	0.48
57:SH:166:VAL:HG22	57:SH:173:PHE:HE2	1.79	0.48
1:5:2818:C:O2	1:5:2818:C:H2'	2.14	0.48
1:5:1822:U:O2	1:5:1822:U:O4'	2.32	0.48
48:4:198:GLY:N	48:4:201:GLY:HA2	2.21	0.48
48:4:4:PHE:CD1	48:4:5:THR:N	2.81	0.48
48:4:750:GLN:HA	48:4:782:PHE:O	2.14	0.48
48:4:814:PHE:CD2	48:4:814:PHE:C	2.86	0.48
1:5:1215:C:N4	1:5:1216:C:C5	2.80	0.48
1:5:1268:G:N3	1:5:1270:A:C8	2.77	0.48
1:5:1983:A:C2	1:5:2010:A:C3'	2.96	0.48
1:5:2099:G:N2	1:5:2100:A:N9	2.62	0.48
1:5:2319:C:O2	1:5:2319:C:C2'	2.60	0.48
1:5:2454:U:C2	1:5:2455:G:C8	3.01	0.48
1:5:2515:G:N7	1:5:2516:G:C5	2.81	0.48
1:5:2648:G:O2'	1:5:2649:G:OP2	2.29	0.48
8:E:56:SER:OG	8:E:57:ALA:N	2.45	0.48
17:N:65:ARG:HH21	17:N:127:TYR:HE2	1.59	0.48
20:Q:146:ARG:HH11	20:Q:146:ARG:HB3	1.78	0.48
49:S2:468:A:C4	49:S2:469:A:C8	3.01	0.48
49:S2:310:C:O2'	49:S2:339:A:O2'	2.19	0.48
49:S2:61:A:C2	49:S2:335:G:C1'	2.95	0.48
49:S2:70:G:O6	49:S2:71:G:C6	2.66	0.48
67:SR:10:LYS:HD3	67:SR:53:TYR:CE2	2.49	0.48
1:5:1481:C:O4'	1:5:1481:C:O2	2.30	0.48
5:B:225:GLY:HA2	5:B:274:TYR:H	1.78	0.48
2:7:62:U:N3	2:7:64:G:N7	2.62	0.48
49:S2:1567:G:C5	49:S2:1568:C:C4	3.01	0.48
68:SS:86:ARG:CA	68:SS:86:ARG:NE	2.77	0.48
1:5:4269:G:C6	1:5:4270:C:C4	3.01	0.48
1:5:4271:A:C4	1:5:4272:G:C2	3.01	0.48
1:5:423:G:C4	1:5:424:U:C6	3.01	0.48
1:5:2789:A:H1'	1:5:2796:G:C8	2.48	0.48
2:7:60:G:O2'	7:D:268:ARG:NH1	2.46	0.48
49:S2:1281:G:C2	49:S2:1282:A:H1'	2.49	0.48
49:S2:1311:C:C5	49:S2:1312:G:C5	3.02	0.48
49:S2:550:C:N3	49:S2:551:U:C5	2.82	0.48
49:S2:478:G:N1	49:S2:479:C:C4	2.82	0.48
49:S2:1826:G:N1	49:S2:1827:U:C4	2.82	0.48
1:5:3629:A:C5	1:5:3630:A:C8	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3696:C:C2	1:5:3697:U:C5	3.00	0.48
1:5:661:C:N3	1:5:662:C:C6	2.82	0.48
49:S2:1012:A:H2'	49:S2:1013:U:O4'	2.13	0.48
49:S2:1121:G:O2'	51:SB:204:ILE:HA	2.13	0.48
48:4:430:MET:HE1	48:4:486:THR:OG1	2.13	0.48
1:5:2035:C:C5	1:5:2036:C:C5	3.02	0.48
1:5:52:G:H3'	1:5:52:G:C8	2.48	0.48
1:5:3907:G:C1'	1:5:4449:A:C1'	2.92	0.48
1:5:4098:A:C2	1:5:4099:G:N9	2.81	0.48
3:8:101:C:C2'	3:8:101:C:O2	2.61	0.48
49:S2:1041:G:N3	49:S2:1041:G:H2'	2.27	0.48
49:S2:1073:U:O2	49:S2:1074:C:C6	2.66	0.48
1:5:4250:G:N2	1:5:4259:C:C2	2.82	0.48
1:5:1341:U:H2'	1:5:1342:A:H8	1.78	0.48
49:S2:14:C:O2	49:S2:668:A:H2	1.97	0.48
28:Y:11:ARG:HH22	28:Y:15:ARG:CG	2.24	0.48
49:S2:961:G:N2	49:S2:962:A:H1'	2.28	0.48
49:S2:963:A:C6	49:S2:964:A:N6	2.82	0.48
1:5:1777:C:N3	1:5:1778:C:C5	2.81	0.48
1:5:701:G:N3	1:5:701:G:H2'	2.29	0.48
53:SD:52:ALA:O	53:SD:91:VAL:HG23	2.12	0.48
1:5:3944:G:N1	1:5:3945:A:N7	2.61	0.48
1:5:4142:C:C4	1:5:4143:G:C6	3.01	0.48
1:5:4860:G:C2	1:5:4861:G:C8	3.02	0.48
57:SH:177:TYR:CE2	57:SH:185:VAL:CG2	2.96	0.48
1:5:2622:G:N2	1:5:2623:A:H1'	2.29	0.48
1:5:4069:U:O2	1:5:4070:U:C5	2.67	0.48
49:S2:1683:C:C2	49:S2:1684:C:C5	3.01	0.48
48:4:308:LYS:CB	48:4:311:GLU:HG3	2.44	0.48
1:5:3711:A:C6	1:5:3712:A:H1'	2.48	0.48
3:8:141:C:C2	3:8:142:U:C5	3.01	0.48
1:5:4635:A:H3'	1:5:4636:U:H4'	1.95	0.48
1:5:4298:A:C6	1:5:4299:U:C5	3.01	0.48
1:5:4299:U:C2	1:5:4300:U:C5	3.00	0.48
1:5:2678:A:C2	1:5:2679:G:C4	3.02	0.48
49:S2:410:G:C6	49:S2:411:G:N7	2.80	0.48
1:5:1902:G:C2'	1:5:1903:G:O5'	2.62	0.48
1:5:1:C:C6	1:5:2:G:C8	3.02	0.48
49:S2:1702:G:C6	49:S2:1703:C:C4	3.02	0.48
1:5:2871:A:H2'	1:5:2872:C:O4'	2.14	0.48
25:V:73:ARG:HH11	25:V:73:ARG:HB3	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2432:U:H2'	1:5:2433:G:O4'	2.14	0.48
73:SX:125:VAL:HG21	73:SX:130:LEU:HD21	1.96	0.48
7:D:219:TYR:O	7:D:220:LYS:CB	2.61	0.48
1:5:1426:G:C2'	1:5:1459:A:N6	2.76	0.48
48:4:495:ARG:C	48:4:496:VAL:CG1	2.81	0.48
48:4:744:ILE:CD1	48:4:815:ASP:HB3	2.42	0.48
1:5:1069:G:C5	1:5:1070:G:C8	3.01	0.48
1:5:1215:C:H5"	1:5:1215:C:C6	2.49	0.48
1:5:1292:C:H6	1:5:1292:C:H5"	1.78	0.48
1:5:1874:A:H2'	1:5:1875:C:O4'	2.14	0.48
1:5:1878:G:C6	1:5:1879:C:C4	3.02	0.48
1:5:1983:A:N3	1:5:2010:A:H5"	2.28	0.48
1:5:2647:A:H2'	1:5:2648:G:C5'	2.44	0.48
1:5:4942:C:O3'	1:5:4944:C:P	2.72	0.48
1:5:961:G:H5'	8:E:119:ARG:NH1	2.28	0.48
1:5:982:U:H5"	8:E:69:TYR:OH	2.09	0.48
14:K:123:ARG:CB	14:K:129:ILE:HD12	0.97	0.48
22:S:29:ARG:NH2	22:S:29:ARG:HB3	2.28	0.48
49:S2:457:C:N3	49:S2:458:A:C8	2.82	0.48
48:4:593:SER:OG	48:4:728:CYS:CA	2.62	0.48
48:4:710:HIS:HB3	48:4:715:HIS:O	2.13	0.48
49:S2:1736:G:O6	49:S2:1798:C:N4	2.44	0.48
49:S2:72:C:OP1	49:S2:79:A:N1	2.47	0.48
56:SG:232:ARG:O	56:SG:236:SER:N	2.46	0.48
49:S2:1051:G:N3	49:S2:1052:A:C8	2.80	0.48
49:S2:1083:A:C8	49:S2:1861:G:C6	3.02	0.48
49:S2:1860:A:C4	49:S2:1862:G:N7	2.82	0.48
1:5:1477:C:O2	1:5:1478:C:C1'	2.61	0.48
1:5:3686:G:OP2	4:A:193:ARG:NH2	2.46	0.48
1:5:4125:C:H2'	1:5:4126:C:C6	2.49	0.48
1:5:314:G:N2	1:5:4355:G:C5	2.82	0.48
1:5:69:A:C3'	1:5:70:A:H8	2.24	0.48
49:S2:1253:A:N3	49:S2:1666:C:C1'	2.77	0.48
49:S2:1514:G:C2'	49:S2:1515:G:O4'	2.61	0.48
3:8:14:U:O2'	3:8:15:G:O4'	2.28	0.48
2:7:27:G:H1'	2:7:56:G:N1	2.28	0.48
1:5:4922:C:N3	1:5:4923:C:C5	2.82	0.48
49:S2:635:G:N2	49:S2:636:C:C2	2.81	0.48
48:4:420:LEU:HB2	48:4:464:VAL:O	2.14	0.48
49:S2:845:G:H2'	49:S2:846:G:C8	2.49	0.48
1:5:1857:C:N3	1:5:1858:A:N7	2.62	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:533:A:H2'	49:S2:534:G:O4'	2.14	0.48
1:5:3689:G:C2	1:5:3690:U:C6	3.01	0.48
1:5:2842:G:N1	1:5:2843:U:C5	2.82	0.48
1:5:5052:C:N3	1:5:5053:U:C6	2.82	0.48
48:4:556:ILE:O	48:4:560:ASP:OD2	2.31	0.48
3:8:101:C:N4	3:8:102:G:C6	2.81	0.48
1:5:2096:G:H22	9:F:41:GLN:HE22	1.62	0.48
1:5:5019:A:N3	1:5:5020:G:C8	2.81	0.48
49:S2:509:G:N2	49:S2:510:G:C4	2.81	0.48
1:5:4729:A:H5'	1:5:4965:U:O2'	2.13	0.48
1:5:3795:A:C6	1:5:3796:U:C4	3.01	0.48
1:5:4692:A:H3'	1:5:4693:C:H2'	1.96	0.48
1:5:1753:G:H2'	1:5:1755:C:H5"	1.95	0.48
49:S2:1496:U:N3	49:S2:1498:A:N7	2.62	0.48
49:S2:307:G:O3'	49:S2:307:G:OP2	2.30	0.48
1:5:1387:A:H1'	1:5:1397:A:H61	1.78	0.48
1:5:1349:G:C6	1:5:1350:C:C4	3.02	0.48
1:5:2702:C:C2	1:5:2715:G:C2	3.01	0.48
59:SJ:45:ARG:HH22	59:SJ:146:SER:CB	2.26	0.48
59:SJ:36:GLY:O	59:SJ:111:GLN:OE1	2.30	0.48
22:S:9:GLU:HB3	22:S:67:VAL:CG1	2.43	0.48
19:P:30:ARG:HH12	19:P:62:ARG:HH21	1.62	0.48
1:5:218:A:H1'	1:5:219:G:C2	2.47	0.48
1:5:218:A:N7	6:C:181:LYS:CG	2.77	0.48
17:N:101:VAL:HG12	17:N:105:ARG:HD2	1.94	0.48
3:8:142:U:C4	3:8:143:G:N7	2.81	0.48
1:5:3585:G:C2	1:5:3586:G:C8	3.02	0.48
1:5:345:C:C2	1:5:346:G:N7	2.81	0.48
1:5:3930:U:H3	1:5:4180:G:H1	1.60	0.48
56:SG:50:VAL:HG11	56:SG:111:LEU:HD13	1.95	0.48
64:SO:75:MET:O	64:SO:79:GLN:HG3	2.13	0.48
54:SE:72:ILE:HG12	54:SE:90:ILE:HG12	1.96	0.48
1:5:4712:C:H2'	1:5:4712:C:O2	2.13	0.48
58:SI:8:TRP:CD1	58:SI:9:HIS:N	2.82	0.48
52:SC:260:VAL:O	52:SC:261:PHE:HB2	2.13	0.48
1:5:1919:G:H5'	22:S:163:HIS:CE1	2.49	0.48
53:SD:76:ARG:HD2	53:SD:77:PHE:CE1	2.49	0.48
48:4:24:VAL:HG21	48:4:32:LYS:CG	2.44	0.48
1:5:1265:G:O2'	1:5:2113:G:OP1	2.31	0.48
1:5:2076:G:C5	1:5:2077:C:C5	3.02	0.48
1:5:2119:C:O2'	1:5:2120:G:OP2	2.16	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2256:C:O2'	1:5:2257:C:OP2	2.24	0.48
1:5:3935:C:C4	1:5:3936:A:N7	2.81	0.48
1:5:4169:G:H4'	1:5:4171:C:C2	2.48	0.48
1:5:4303:C:O2'	1:5:4304:A:H2'	2.14	0.48
1:5:474:C:O2	1:5:475:G:C8	2.67	0.48
1:5:1994:C:O2	14:K:132:ILE:HD13	2.14	0.48
20:Q:33:ARG:HH21	20:Q:48:LEU:HD11	1.78	0.48
49:S2:437:G:H2'	49:S2:438:G:N3	2.28	0.48
49:S2:224:A:H2'	49:S2:225:G:C8	2.48	0.48
48:4:206:ASP:N	48:4:211:THR:OG1	2.42	0.48
1:5:1492:G:C2	1:5:1493:G:C8	3.02	0.48
1:5:3686:G:P	4:A:193:ARG:NH2	2.82	0.48
1:5:3717:A:O2'	1:5:3718:A:P	2.71	0.48
49:S2:1429:G:C2	49:S2:1430:C:C4	3.02	0.48
49:S2:1440:C:H2'	49:S2:1441:U:O4'	2.13	0.48
49:S2:1528:G:N1	49:S2:1529:C:N4	2.62	0.48
49:S2:1573:G:C2	49:S2:1574:C:N1	2.81	0.48
49:S2:1591:C:C5	49:S2:1592:C:C5	3.02	0.48
49:S2:1514:G:H21	65:SP:97:TYR:HE2	1.61	0.48
68:SS:28:PHE:N	68:SS:28:PHE:CD1	2.81	0.48
49:S2:1095:U:C2	49:S2:1149:A:N6	2.79	0.48
49:S2:1310:U:C2	49:S2:1311:C:C6	2.99	0.48
1:5:1886:G:C2	1:5:1894:C:C4	3.02	0.48
49:S2:821:G:O6	59:SJ:150:ARG:NH1	2.46	0.48
1:5:3651:A:H2'	1:5:3652:A:O4'	2.14	0.48
1:5:2690:C:O2	1:5:2690:C:H2'	2.13	0.48
7:D:67:ALA:O	7:D:68:ARG:NH1	2.46	0.48
1:5:57:G:C2	1:5:58:G:C6	3.02	0.48
1:5:3911:C:C2	1:5:3912:U:C6	3.01	0.48
1:5:4109:G:N3	1:5:4110:C:C6	2.82	0.48
49:S2:976:G:C6	49:S2:977:C:C5	3.02	0.48
1:5:354:U:H1'	6:C:97:ARG:CG	2.44	0.48
1:5:744:G:H2'	1:5:745:G:H8	1.79	0.48
1:5:172:C:C4	1:5:173:C:C5	3.02	0.48
1:5:4258:C:H2'	1:5:4259:C:C6	2.47	0.48
1:5:5029:C:N3	1:5:5030:U:C6	2.80	0.48
1:5:3793:U:C2	1:5:3794:C:C5	3.02	0.48
1:5:750:U:N3	1:5:751:G:C8	2.82	0.48
49:S2:962:A:N1	49:S2:963:A:C5	2.82	0.48
1:5:1367:C:C6	1:5:1370:G:H2'	2.48	0.48
1:5:2758:G:H2'	1:5:2759:G:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:738:C:H2'	1:5:739:G:H8	1.79	0.48
1:5:4594:U:C2	1:5:4595:G:C8	3.02	0.48
1:5:3621:A:C2	1:5:3622:C:N1	2.82	0.48
1:5:235:A:C5	1:5:238:C:C4	3.02	0.48
1:5:3945:A:C2	1:5:3946:G:C4	3.01	0.48
1:5:2391:G:C2	1:5:2392:C:C6	3.02	0.48
1:5:37:U:C4	1:5:38:A:C5	3.02	0.48
1:5:2712:G:C6	1:5:2713:C:C4	3.02	0.48
1:5:3608:A:N3	1:5:3609:G:C8	2.81	0.48
1:5:1455:G:H3'	1:5:1456:C:H5"	1.94	0.48
9:F:144:TRP:CZ3	9:F:237:ASN:HB2	2.48	0.48
49:S2:177:G:H21	49:S2:178:C:N4	2.12	0.48
67:SR:83:ASN:ND2	67:SR:83:ASN:O	2.47	0.48
6:C:317:ASN:OD1	6:C:317:ASN:C	2.52	0.48
52:SC:263:LYS:HB3	52:SC:267:GLN:OE1	2.14	0.48
59:SJ:48:PHE:CZ	59:SJ:52:LYS:CG	2.97	0.48
1:5:325:U:C2	1:5:326:C:C5	3.01	0.48
54:SE:181:CYS:SG	54:SE:195:ILE:CG1	3.02	0.48
1:5:3586:G:C2	1:5:3587:C:C2	3.02	0.48
1:5:3587:C:H2'	1:5:3588:C:C6	2.49	0.48
49:S2:913:A:C2	57:SH:120:ARG:NH2	2.82	0.48
18:O:192:PHE:N	18:O:192:PHE:CD1	2.81	0.48
49:S2:201:C:C4	49:S2:202:G:H1'	2.49	0.48
58:SI:181:GLN:NE2	58:SI:181:GLN:HA	2.29	0.48
6:C:180:ILE:O	6:C:184:TYR:HB2	2.14	0.48
64:SO:130:GLU:OE1	64:SO:131:ASP:N	2.46	0.48
1:5:945:U:C5	9:F:67:TYR:CE2	3.02	0.48
55:SF:41:VAL:HG13	55:SF:42:LYS:HD3	1.96	0.48
54:SE:21:ASP:C	54:SE:21:ASP:OD1	2.52	0.48
9:F:98:ARG:HH22	9:F:226:THR:HG23	1.79	0.48
6:C:186:SER:O	6:C:203:GLN:HA	2.13	0.48
1:5:1212:G:C2	1:5:1213:G:N7	2.81	0.48
1:5:1263:A:C2	1:5:1264:C:N1	2.82	0.48
1:5:1265:G:C3'	1:5:1266:G:H5'	2.44	0.48
1:5:1268:G:H1'	1:5:2111:G:C6	2.49	0.48
1:5:1619:G:C4	1:5:1620:U:C5	3.02	0.48
1:5:1955:G:C6	1:5:1956:A:N7	2.81	0.48
1:5:2019:C:N3	1:5:2020:U:C6	2.82	0.48
1:5:2263:A:O3'	1:5:2264:C:H2'	2.13	0.48
1:5:2339:G:C5	1:5:2340:C:C5	3.01	0.48
1:5:2503:G:H2'	1:5:2503:G:N3	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2503:G:H5'	1:5:2504:C:O5'	2.14	0.48
1:5:2745:A:O2'	1:5:2746:A:H5'	2.12	0.48
1:5:4122:G:C5	1:5:4123:C:C5	3.02	0.48
1:5:4173:G:N3	1:5:4174:U:C6	2.82	0.48
1:5:4461:C:O2	1:5:4516:G:C2	2.67	0.48
1:5:457:G:C6	1:5:458:C:C5	3.02	0.48
1:5:467:U:N3	1:5:468:U:C6	2.81	0.48
1:5:2278:G:H5'	20:Q:7:HIS:CE1	2.49	0.48
49:S2:161:U:H6	74:SY:116:LYS:HA	1.78	0.48
49:S2:170:A:H2'	49:S2:171:A:O4'	2.14	0.48
49:S2:1746:U:C4	49:S2:1789:G:N2	2.81	0.48
49:S2:216:C:O4'	49:S2:216:C:O2	2.32	0.48
49:S2:387:C:H2'	49:S2:387:C:O2	2.13	0.48
49:S2:786:G:C8	56:SG:236:SER:O	2.67	0.48
49:S2:84:A:C4	49:S2:85:A:C8	3.01	0.48
49:S2:386:C:O2'	58:SI:5:ARG:HA	2.14	0.48
1:5:1395:U:C2'	1:5:1396:G:O5'	2.61	0.48
1:5:298:G:C5	1:5:299:C:C5	3.02	0.48
1:5:3740:G:O6	1:5:3741:C:C4	2.67	0.48
4:A:68:ARG:C	10:G:45:ILE:HD11	2.34	0.48
1:5:1175:A:H1'	7:D:275:GLN:HE22	1.76	0.48
49:S2:952:G:H2'	49:S2:953:C:O4'	2.14	0.48
49:S2:1552:G:OP2	53:SD:9:ARG:NH2	2.47	0.48
1:5:4281:A:N1	1:5:4283:G:C4	2.82	0.48
1:5:4283:G:N2	1:5:4284:C:N3	2.62	0.48
2:7:28:C:H2'	2:7:28:C:O2	2.12	0.48
49:S2:637:U:N3	49:S2:638:C:C4	2.82	0.48
1:5:5004:C:O2	1:5:5044:A:C2	2.67	0.48
1:5:3877:A:O2'	1:5:4400:G:N2	2.45	0.48
49:S2:533:A:C2	49:S2:534:G:N9	2.81	0.48
1:5:3759:A:N1	49:S2:1709:G:C4'	2.76	0.48
48:4:300:VAL:CG2	48:4:301:PHE:N	2.77	0.48
49:S2:794:A:C2	49:S2:795:A:C8	3.02	0.48
1:5:3629:A:C2	1:5:3630:A:H1'	2.48	0.48
3:8:66:A:C4	3:8:67:U:C5	3.02	0.48
3:8:95:A:C4	3:8:96:C:C6	3.02	0.48
1:5:2688:G:C6	1:5:2689:C:C4	3.02	0.48
1:5:2807:A:C2	1:5:2808:G:C8	3.02	0.48
1:5:480:C:C2	1:5:481:G:C8	3.02	0.48
49:S2:995:G:H21	49:S2:997:A:H8	1.62	0.48
48:4:241:GLU:N	48:4:243:GLN:HB2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3868:G:N2	1:5:3899:G:N2	2.62	0.48
1:5:3898:G:C3'	1:5:3899:G:H5'	2.44	0.48
1:5:4201:G:C6	1:5:4202:U:O4	2.67	0.48
1:5:4161:G:H2'	1:5:4162:C:H3'	1.94	0.48
49:S2:857:U:O2	49:S2:858:A:C8	2.66	0.48
3:8:46:G:N2	3:8:47:C:C2	2.81	0.48
1:5:2347:A:C2	1:5:2348:G:C2	3.02	0.48
1:5:747:A:C2'	1:5:749:G:C8	2.87	0.48
1:5:2420:A:C2	1:5:2427:G:C2	3.02	0.48
1:5:2833:A:O2'	1:5:2834:C:C5'	2.62	0.48
1:5:5031:G:C4	1:5:5032:C:C5	3.02	0.48
1:5:3806:G:C6	1:5:3807:A:C5	3.02	0.48
1:5:2332:A:N3	1:5:2333:G:H1'	2.29	0.48
1:5:4691:A:C6	1:5:4692:A:C5	3.01	0.48
1:5:2566:G:N2	1:5:2567:G:N9	2.62	0.48
1:5:1749:A:C2	1:5:1750:G:C4	3.02	0.48
1:5:1749:A:H2'	1:5:1750:G:C1'	2.44	0.48
1:5:1775:A:H3'	1:5:1776:A:H8	1.79	0.48
1:5:4301:U:H5"	23:T:54:HIS:CD2	2.49	0.48
1:5:3655:C:N3	1:5:3656:A:N7	2.62	0.48
22:S:10:TYR:OH	22:S:66:GLN:CG	2.60	0.48
22:S:8:ARG:NH1	22:S:10:TYR:OH	2.47	0.48
6:C:78:ARG:CG	6:C:78:ARG:HH11	2.26	0.48
1:5:931:C:N1	1:5:932:A:C8	2.82	0.48
2:7:11:A:N7	7:D:18:VAL:HG13	2.28	0.48
1:5:4713:G:C5	1:5:4714:C:C5	3.02	0.48
16:M:17:PHE:CD1	16:M:17:PHE:C	2.86	0.48
53:SD:76:ARG:NE	60:SK:66:HIS:CE1	2.82	0.48
1:5:741:C:C2	1:5:742:G:C8	3.01	0.48
60:SK:90:VAL:HG21	60:SK:94:LEU:HD12	1.96	0.48
1:5:2413:U:C2	1:5:2414:G:C8	3.02	0.48
1:5:2615:C:O2	1:5:2615:C:H2'	2.13	0.48
1:5:1607:C:O2	1:5:1607:C:H2'	2.12	0.48
61:SL:46:THR:HG23	61:SL:46:THR:O	2.13	0.48
50:SA:130:ASP:OD1	50:SA:130:ASP:N	2.46	0.48
1:5:2706:G:O2'	1:5:2709:C:N4	2.47	0.48
48:4:172:GLU:O	48:4:176:GLN:HG2	2.13	0.48
23:T:17:ARG:HG3	23:T:18:PRO:CD	2.44	0.48
48:4:791:ASN:HA	48:4:794:PHE:CE1	2.49	0.48
1:5:1239:C:H4'	1:5:1240:G:O5'	2.14	0.48
1:5:1972:G:C2	1:5:1973:G:C8	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2101:C:H2'	1:5:2102:G:O4'	2.13	0.48
1:5:2270:G:C2	1:5:2271:C:C2	3.02	0.48
1:5:2507:A:H2'	1:5:2507:A:N3	2.28	0.48
1:5:2581:A:H1'	1:5:2654:C:O2'	2.14	0.48
1:5:4128:A:N3	10:G:34:LYS:O	2.47	0.48
6:C:325:MET:HE2	9:F:157:TYR:CE2	2.49	0.48
14:K:102:GLY:O	14:K:140:GLY:C	2.53	0.48
14:K:56:LEU:HB2	14:K:91:ASP:CG	2.31	0.48
49:S2:121:U:N3	49:S2:122:G:C8	2.67	0.48
49:S2:217:A:H1'	49:S2:309:G:H1	1.79	0.48
1:5:1475:G:C2	1:5:1476:C:C6	3.00	0.48
1:5:1488:G:C2	1:5:1489:G:N9	2.82	0.48
1:5:288:G:C2	1:5:289:C:C5	3.02	0.48
1:5:3722:G:C4	1:5:3723:A:C8	3.02	0.48
1:5:87:A:H2'	1:5:87:A:N3	2.29	0.48
1:5:85:G:N3	1:5:97:G:C6	2.82	0.48
1:5:1168:G:N2	1:5:1169:G:C4	2.82	0.48
49:S2:950:C:N3	49:S2:951:C:C6	2.82	0.48
1:5:3863:C:H2'	1:5:3864:C:H6	1.79	0.48
49:S2:1538:C:H5"	69:ST:44:GLU:HG3	1.95	0.48
49:S2:1551:U:C4'	49:S2:1558:C:H1'	2.44	0.48
49:S2:27:A:C2	49:S2:28:U:C1'	2.97	0.48
1:5:1887:G:C6	1:5:1890:G:C6	3.02	0.48
49:S2:554:A:N3	49:S2:555:A:C8	2.82	0.48
49:S2:472:C:O4'	49:S2:472:C:OP1	2.32	0.48
48:4:402:VAL:HG22	48:4:403:PRO:CG	2.43	0.48
1:5:2410:C:O2	1:5:2411:C:C6	2.66	0.48
1:5:2858:A:O2'	1:5:2859:G:P	2.71	0.48
49:S2:995:G:N2	49:S2:997:A:H8	2.11	0.48
1:5:2532:C:N3	1:5:2533:C:N4	2.62	0.48
48:4:395:MET:SD	48:4:486:THR:HG22	2.54	0.48
1:5:5050:C:C2	1:5:5051:C:C6	3.02	0.48
1:5:4095:G:H22	1:5:4096:C:N4	2.11	0.48
1:5:62:A:C2'	1:5:63:G:O5'	2.61	0.48
48:4:590:LEU:CD2	48:4:605:LYS:HG3	2.43	0.48
1:5:1094:G:C2	1:5:1095:A:C8	3.02	0.48
1:5:2737:C:N3	1:5:2738:C:C5	2.82	0.48
49:S2:1782:G:N3	49:S2:1784:G:C8	2.81	0.48
1:5:180:C:N3	1:5:181:C:C5	2.82	0.48
1:5:182:G:H1	1:5:254:G:H1	1.62	0.48
49:S2:1241:A:H2	49:S2:1516:G:O2'	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:238:C:H2'	1:5:239:C:H5'	1.96	0.48
1:5:3945:A:N1	1:5:3946:G:C5	2.81	0.48
1:5:2302:C:N4	1:5:2303:C:N4	2.61	0.48
1:5:3799:A:N7	25:V:40:ILE:HG21	2.29	0.48
49:S2:871:U:H5'	49:S2:871:U:H6	1.77	0.48
11:H:94:SER:OG	11:H:142:ASP:HB3	2.14	0.48
49:S2:322:C:H2'	49:S2:323:C:H6	1.78	0.48
1:5:2243:C:O2	1:5:2244:C:C5	2.67	0.48
1:5:73:A:N3	1:5:74:G:C8	2.81	0.48
49:S2:1175:G:C6	49:S2:1176:G:C5	3.01	0.48
59:SJ:69:ARG:O	59:SJ:70:ARG:C	2.52	0.48
1:5:4531:U:C5'	1:5:4531:U:C6	2.97	0.48
69:ST:31:PRO:CB	69:ST:33:TRP:CH2	2.97	0.48
1:5:1786:A:H2'	1:5:1789:C:H5	1.79	0.48
51:SB:153:THR:HB	51:SB:155:TYR:CZ	2.49	0.48
1:5:4876:U:O4'	1:5:4876:U:O2	2.31	0.48
51:SB:125:VAL:HG22	51:SB:169:MET:HG3	1.96	0.48
3:8:154:G:C6	3:8:155:C:C4	3.02	0.48
1:5:1953:U:H2'	1:5:1954:U:O4'	2.14	0.48
51:SB:36:PRO:HB3	51:SB:231:LEU:HD21	1.96	0.48
27:X:151:ASN:N	27:X:151:ASN:OD1	2.46	0.48
57:SH:99:ARG:HH21	57:SH:99:ARG:HG2	1.79	0.48
12:I:88:ARG:HB2	12:I:173:PHE:HE2	1.79	0.48
48:4:579:TYR:CE2	48:4:742:GLU:HG3	2.49	0.47
48:4:742:GLU:HA	48:4:743:PRO:HD3	1.55	0.47
48:4:812:CYS:SG	48:4:813:VAL:N	2.87	0.47
48:4:744:ILE:CG2	48:4:815:ASP:H	2.27	0.47
48:4:744:ILE:HD12	48:4:816:HIS:CG	2.47	0.47
1:5:1260:G:N2	1:5:1261:G:C4	2.82	0.47
1:5:1448:G:N2	1:5:1449:C:C2	2.82	0.47
1:5:1968:G:N2	1:5:1969:G:C4	2.82	0.47
1:5:1268:G:OP2	1:5:2110:C:C2'	2.62	0.47
1:5:456:C:C2	1:5:457:G:N7	2.81	0.47
49:S2:119:U:C2	49:S2:120:U:H6	2.30	0.47
49:S2:380:G:N2	49:S2:382:C:C3'	2.73	0.47
49:S2:452:G:C2	49:S2:453:C:C2	3.02	0.47
1:5:1380:G:N3	1:5:1382:G:C5	2.82	0.47
1:5:1421:G:N1	1:5:1422:G:C5	2.82	0.47
1:5:3733:A:C6	1:5:3734:U:C4	3.02	0.47
1:5:3734:U:O2'	1:5:3735:G:H5'	2.14	0.47
1:5:2835:A:C1'	1:5:4979:A:H5'	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:332:C:C4'	17:N:150:TRP:NE1	2.76	0.47
1:5:1168:G:C2	1:5:1169:G:C8	3.02	0.47
1:5:1176:C:C2	1:5:1177:U:C6	3.01	0.47
1:5:1170:G:N2	1:5:1192:C:C2	2.82	0.47
49:S2:1236:G:N2	49:S2:1237:C:C2	2.82	0.47
49:S2:1575:G:N3	49:S2:1576:G:N7	2.62	0.47
49:S2:1589:A:H2'	49:S2:1590:C:O5'	2.14	0.47
1:5:2367:A:N9	1:5:2798:A:C2	2.81	0.47
1:5:4895:C:H1'	1:5:4896:G:C8	2.49	0.47
50:SA:138:SER:HB2	50:SA:156:TYR:CE1	2.48	0.47
49:S2:1225:U:C4	49:S2:1226:G:C8	3.02	0.47
49:S2:1269:G:H2'	49:S2:1270:G:O4'	2.14	0.47
49:S2:1283:C:H4'	62:SM:102:LYS:HE3	1.95	0.47
1:5:1321:G:C2	1:5:3876:A:C4	3.02	0.47
49:S2:534:G:C2	49:S2:535:G:C8	3.02	0.47
49:S2:163:U:O2	49:S2:164:A:N7	2.47	0.47
1:5:2480:G:N3	1:5:2481:G:C8	2.82	0.47
48:4:427:VAL:CG2	48:4:447:ILE:CD1	2.75	0.47
1:5:209:U:C2	1:5:233:U:O4	2.66	0.47
1:5:2689:C:O2	1:5:2690:C:H6	1.97	0.47
1:5:479:G:C6	1:5:480:C:C4	3.01	0.47
1:5:272:U:N3	1:5:273:U:C4	2.82	0.47
1:5:2522:G:C2	1:5:2534:C:N3	2.82	0.47
1:5:4094:G:C6	1:5:4095:G:C6	3.02	0.47
1:5:2417:A:H2'	1:5:2417:A:N3	2.27	0.47
49:S2:620:G:P	49:S2:620:G:H21	2.33	0.47
1:5:4683:U:C4	1:5:4707:A:C5	3.02	0.47
1:5:1412:G:C6	1:5:1413:C:C5	3.02	0.47
1:5:1367:C:H2'	1:5:1368:A:O5'	2.14	0.47
1:5:1759:G:C6	1:5:1760:G:C8	3.02	0.47
1:5:4312:U:C2	1:5:4313:A:C8	3.01	0.47
49:S2:823:U:C5	74:SY:64:PHE:CE2	3.00	0.47
1:5:4595:G:C6	1:5:4596:C:C4	3.01	0.47
1:5:2632:U:C6	24:U:85:TYR:CE1	3.02	0.47
48:4:444:LEU:N	48:4:444:LEU:HD12	2.29	0.47
48:4:168:GLN:O	48:4:168:GLN:HG3	2.12	0.47
17:N:99:GLN:HG3	17:N:130:PHE:CE2	2.48	0.47
1:5:4455:G:H22	1:5:4524:G:H22	1.62	0.47
49:S2:177:G:O2'	49:S2:178:C:H6	1.96	0.47
49:S2:1822:A:H5"	49:S2:1823:A:H5"	1.94	0.47
1:5:4185:G:C2	1:5:4186:A:C8	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SD:202:LYS:O	53:SD:203:PRO:C	2.50	0.47
49:S2:916:A:C6	63:SN:73:ARG:HD3	2.49	0.47
54:SE:54:TYR:OH	54:SE:97:GLU:OE1	2.30	0.47
1:5:4635:A:H2	1:5:4663:G:H21	1.62	0.47
1:5:2878:G:H4'	1:5:3825:A:H5"	1.96	0.47
63:SN:99:ARG:NH2	63:SN:115:LEU:HD21	2.29	0.47
68:SS:23:ARG:HD3	75:SZ:48:VAL:HG21	1.96	0.47
49:S2:932:G:C2	49:S2:934:G:C8	3.02	0.47
48:4:146:ALA:CA	48:4:151:ILE:HD12	2.45	0.47
49:S2:1404:U:H4'	49:S2:1581:C:O2	2.14	0.47
49:S2:47:G:C6	49:S2:48:C:C4	3.02	0.47
50:SA:147:LEU:O	50:SA:165:ASN:ND2	2.46	0.47
62:SM:67:ALA:O	62:SM:71:GLU:HG2	2.14	0.47
20:Q:31:LEU:O	20:Q:31:LEU:HD23	2.14	0.47
52:SC:132:ASP:N	52:SC:132:ASP:OD1	2.45	0.47
1:5:4129:G:H2'	1:5:4130:C:O4'	2.14	0.47
48:4:438:LYS:HB3	48:4:440:GLU:HG2	1.95	0.47
48:4:516:ASP:O	48:4:517:LEU:C	2.53	0.47
1:5:1283:G:H8	1:5:1283:G:H3'	1.79	0.47
1:5:2120:G:H2'	1:5:2121:C:C2	2.48	0.47
1:5:2643:G:C6	1:5:2644:G:C8	3.02	0.47
1:5:4082:G:H2'	1:5:4083:U:C6	2.49	0.47
1:5:437:G:C2	1:5:438:G:C8	3.02	0.47
1:5:438:G:C4	1:5:439:G:C8	3.01	0.47
1:5:963:G:H2'	1:5:963:G:N3	2.29	0.47
14:K:110:VAL:HG12	14:K:114:ARG:NH1	2.29	0.47
14:K:71:ILE:CG2	14:K:73:VAL:HG23	2.44	0.47
21:R:32:ILE:O	21:R:33:ALA:HB3	2.13	0.47
49:S2:482:G:O2'	49:S2:484:A:N6	2.41	0.47
48:4:739:ARG:C	48:4:824:PRO:HD3	2.34	0.47
49:S2:338:G:C5	49:S2:339:A:C8	3.02	0.47
49:S2:64:A:N6	49:S2:82:G:C5	2.82	0.47
49:S2:1859:A:N1	49:S2:1860:A:C5	2.82	0.47
49:S2:1860:A:C5	49:S2:1862:G:N7	2.82	0.47
49:S2:673:G:C6	49:S2:674:C:C4	3.02	0.47
1:5:296:A:P	1:5:296:A:H8	2.35	0.47
1:5:3722:G:C6	1:5:3723:A:C5	3.02	0.47
1:5:3739:C:C6	1:5:3739:C:C4'	2.97	0.47
1:5:4981:G:N1	1:5:4982:A:C5	2.81	0.47
1:5:88:A:H2'	1:5:89:C:O5'	2.13	0.47
1:5:94:A:H2'	1:5:95:G:O5'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:228:TYR:CE1	5:B:270:GLY:HA2	2.50	0.47
49:S2:1232:U:C2	49:S2:1233:G:N7	2.81	0.47
49:S2:1551:U:H1'	49:S2:1558:C:C2	2.49	0.47
49:S2:1571:G:C2	49:S2:1572:C:C2	3.02	0.47
49:S2:1603:G:N7	68:SS:28:PHE:HZ	2.09	0.47
49:S2:1654:G:C2	49:S2:1655:C:C2	3.01	0.47
68:SS:80:PRO:HG2	68:SS:82:TRP:NE1	2.29	0.47
1:5:4241:C:C4	1:5:4242:U:C5	3.02	0.47
1:5:4266:G:N1	1:5:4279:A:C5	2.82	0.47
49:S2:598:G:N2	49:S2:639:C:N3	2.61	0.47
49:S2:1287:A:N6	49:S2:1314:U:C5	2.83	0.47
62:SM:106:CYS:SG	62:SM:107:SER:N	2.88	0.47
62:SM:89:VAL:HG12	62:SM:90:GLY:H	1.79	0.47
1:5:3883:U:C2'	1:5:3884:U:O5'	2.62	0.47
1:5:3759:A:C6	49:S2:1709:G:C5'	2.97	0.47
49:S2:165:G:O2'	49:S2:166:A:C5'	2.63	0.47
3:8:69:U:H2'	3:8:70:G:O4'	2.14	0.47
1:5:3841:C:H2'	1:5:3841:C:O2	2.14	0.47
1:5:4565:C:H1'	5:B:262:VAL:CG2	2.44	0.47
1:5:29:G:C5	1:5:30:C:C5	3.01	0.47
1:5:3911:C:O2	1:5:3912:U:C6	2.67	0.47
1:5:4096:C:C4	1:5:4097:G:N7	2.78	0.47
49:S2:1099:G:C6	49:S2:1100:A:C5	3.02	0.47
49:S2:857:U:C2	49:S2:858:A:N7	2.82	0.47
1:5:743:G:N2	1:5:744:G:C5	2.82	0.47
48:4:617:ILE:HG13	48:4:622:VAL:CG2	2.44	0.47
1:5:1838:A:C2	1:5:1839:U:C5	3.02	0.47
16:M:5:ARG:NH2	16:M:59:ASP:OD1	2.45	0.47
1:5:4481:U:C2'	1:5:4482:U:C6	2.88	0.47
1:5:118:C:H42	1:5:121:A:H62	1.61	0.47
1:5:4687:A:N1	1:5:4688:C:C4	2.82	0.47
1:5:1404:G:C5	1:5:1405:C:C5	3.02	0.47
1:5:2557:G:C2	1:5:2558:C:C2	3.03	0.47
1:5:2770:C:N3	1:5:2771:G:C8	2.82	0.47
1:5:1769:G:N2	1:5:1770:A:C4	2.82	0.47
1:5:141:C:C2	1:5:142:G:C8	3.02	0.47
1:5:4510:A:C6	1:5:4592:C:H4'	2.48	0.47
1:5:3621:A:C4	1:5:3622:C:C5	3.01	0.47
2:7:110:G:C6	2:7:111:C:C4	3.02	0.47
1:5:4415:A:N1	1:5:4416:G:H1'	2.29	0.47
4:A:32:VAL:CG1	4:A:163:ARG:HD2	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:709:C:N3	1:5:710:G:N7	2.62	0.47
1:5:22:G:C2	3:8:35:C:N3	2.82	0.47
17:N:99:GLN:OE1	17:N:167:ALA:HB2	2.14	0.47
1:5:4463:U:C5	1:5:4488:A:C5	3.02	0.47
69:ST:52:TRP:CE3	69:ST:53:PHE:CA	2.97	0.47
49:S2:140:C:O2'	49:S2:141:A:O5'	2.29	0.47
1:5:2874:U:C6	1:5:2874:U:C5'	2.97	0.47
1:5:1613:A:H4'	4:A:186:TYR:HD2	1.77	0.47
49:S2:212:C:C2	49:S2:213:G:C8	3.01	0.47
1:5:944:A:C2'	6:C:335:MET:HE1	2.43	0.47
3:8:108:A:C2	3:8:112:G:N1	2.82	0.47
1:5:4433:G:H2'	1:5:4434:C:H6	1.78	0.47
1:5:2676:A:C2	1:5:2677:G:H1'	2.50	0.47
1:5:5026:U:OP1	58:SI:168:GLN:CG	2.62	0.47
1:5:1655:C:O2	1:5:1655:C:H2'	2.14	0.47
1:5:1655:C:O3'	1:5:1679:A:H2	1.98	0.47
1:5:1962:A:C8	1:5:1962:A:H5"	2.49	0.47
7:D:200:LEU:CB	7:D:202:GLN:HE22	2.27	0.47
49:S2:787:G:H2'	49:S2:788:G:O4'	2.14	0.47
3:8:146:U:N3	3:8:147:G:C8	2.82	0.47
5:B:273:GLY:O	5:B:275:HIS:CD2	2.68	0.47
28:Y:69:LYS:HB3	28:Y:83:GLU:OE2	2.14	0.47
55:SF:14:THR:HG1	55:SF:48:TYR:HE1	1.61	0.47
1:5:398:A:C2	1:5:399:G:C8	3.02	0.47
72:SW:80:ASP:OD1	72:SW:80:ASP:N	2.47	0.47
13:J:64:ARG:HH21	13:J:64:ARG:HG2	1.77	0.47
73:SX:51:VAL:HG13	73:SX:70:VAL:CG1	2.44	0.47
48:4:744:ILE:C	48:4:745:TYR:CG	2.88	0.47
1:5:4605:A:C6	48:4:801:ARG:HD3	2.42	0.47
1:5:1850:A:C2'	1:5:1851:G:O5'	2.62	0.47
1:5:1967:A:N1	1:5:1968:G:N7	2.62	0.47
1:5:1995:G:H2'	1:5:1996:C:C6	2.50	0.47
1:5:2125:C:C6	1:5:2125:C:O5'	2.65	0.47
1:5:1881:C:O4'	1:5:2281:U:C5	2.67	0.47
1:5:2508:U:H2'	1:5:2508:U:O2	2.14	0.47
1:5:985:C:O2	1:5:986:C:C6	2.67	0.47
6:C:122:TYR:HB2	6:C:280:PRO:CG	2.44	0.47
48:4:847:GLY:HA3	48:4:848:ILE:HG13	1.94	0.47
49:S2:112:U:H5"	49:S2:113:G:H2'	1.96	0.47
49:S2:114:G:C2	49:S2:383:G:N2	2.82	0.47
49:S2:61:A:N3	49:S2:335:G:H1'	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:340:C:N1	49:S2:341:C:C5	2.82	0.47
49:S2:1035:A:H1'	49:S2:1857:G:H1'	1.96	0.47
1:5:1473:U:H2'	1:5:1474:C:O4'	2.14	0.47
1:5:1474:C:C4	1:5:1475:G:N7	2.81	0.47
1:5:299:C:C2'	1:5:299:C:O2	2.62	0.47
1:5:3742:G:C2	1:5:3743:G:C5	3.03	0.47
1:5:4982:A:H2'	1:5:4982:A:N3	2.28	0.47
1:5:90:G:C5	1:5:92:C:C1'	2.97	0.47
1:5:98:A:N6	1:5:99:A:C4	2.82	0.47
17:N:135:ILE:HG21	17:N:151:ILE:CD1	2.44	0.47
1:5:1175:A:N1	1:5:1176:C:C4	2.82	0.47
1:5:1185:G:N2	1:5:1186:U:H1'	2.29	0.47
49:S2:1410:C:C2'	49:S2:1410:C:O2	2.62	0.47
1:5:3857:G:O6	1:5:3858:C:C4	2.67	0.47
49:S2:1573:G:C2	49:S2:1574:C:C2	3.02	0.47
49:S2:1595:U:O4	49:S2:1596:U:H5	1.88	0.47
49:S2:1629:C:N3	49:S2:1630:A:C8	2.82	0.47
1:5:4324:A:N3	1:5:4325:A:C8	2.83	0.47
48:4:594:LYS:HA	48:4:600:ASN:O	2.14	0.47
1:5:423:G:H2'	19:P:118:GLN:NE2	2.28	0.47
1:5:2367:A:N6	1:5:2798:A:C1'	2.77	0.47
49:S2:648:A:C4	49:S2:649:U:C6	3.02	0.47
60:SK:12:TYR:CE2	60:SK:79:LEU:HD23	2.49	0.47
48:4:402:VAL:CG2	48:4:403:PRO:N	2.74	0.47
3:8:115:G:C2	3:8:116:C:N1	2.81	0.47
1:5:483:G:H2'	1:5:484:U:H6	1.79	0.47
1:5:504:G:O6	1:5:654:C:N3	2.47	0.47
1:5:3867:A:C2	1:5:3880:G:C6	3.02	0.47
1:5:4092:G:H2'	1:5:4092:G:N3	2.29	0.47
1:5:4100:C:O3'	51:SB:226:GLY:HA2	2.14	0.47
1:5:4109:G:C2	1:5:4110:C:C2	3.01	0.47
1:5:1633:G:C6	4:A:207:VAL:HG11	2.49	0.47
49:S2:978:G:N3	49:S2:979:C:C6	2.82	0.47
1:5:173:C:N3	1:5:174:C:C4	2.80	0.47
1:5:1838:A:C2	1:5:1839:U:C6	3.02	0.47
49:S2:46:A:C6	49:S2:473:A:C2	3.02	0.47
1:5:4576:U:H2'	1:5:4577:U:O4'	2.15	0.47
49:S2:862:A:C4	49:S2:863:U:C6	3.03	0.47
49:S2:525:A:N6	49:S2:588:G:N2	2.60	0.47
49:S2:1067:C:C2	49:S2:1068:G:C8	3.02	0.47
1:5:1759:G:N1	1:5:1760:G:C5	2.81	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:142:G:C6	1:5:144:G:N7	2.82	0.47
2:7:93:G:N2	2:7:94:C:C2	2.82	0.47
1:5:698:G:C6	1:5:699:C:C5	3.01	0.47
1:5:722:G:N2	6:C:343:GLN:HE22	2.13	0.47
1:5:2577:C:N3	1:5:2578:G:C8	2.82	0.47
19:P:41:ILE:HD11	19:P:150:LEU:CD1	2.39	0.47
1:5:1516:G:C2	1:5:1518:A:C6	3.02	0.47
1:5:3747:A:C1'	1:5:3817:A:H2'	2.44	0.47
49:S2:1624:U:H2'	49:S2:1625:U:O5'	2.14	0.47
1:5:60:G:C4	1:5:61:A:N7	2.82	0.47
1:5:950:G:C2	1:5:951:G:C5	3.02	0.47
1:5:4868:G:H3'	1:5:4869:U:H5"	1.96	0.47
49:S2:900:C:C2	49:S2:901:G:N7	2.82	0.47
56:SG:209:TYR:O	56:SG:213:LEU:N	2.47	0.47
6:C:125:CYS:HG	6:C:264:TYR:HE2	1.58	0.47
50:SA:38:ILE:HD11	50:SA:150:THR:CG2	2.44	0.47
72:SW:41:MET:HG2	72:SW:129:PHE:CD2	2.49	0.47
74:SY:27:VAL:HB	74:SY:69:THR:HG23	1.96	0.47
1:5:4433:G:C4	1:5:4434:C:C5	3.02	0.47
49:S2:987:A:H2	51:SB:114:VAL:HG21	1.79	0.47
49:S2:23:G:C6	49:S2:24:C:C4	3.02	0.47
1:5:2:G:N2	1:5:3:C:C2	2.83	0.47
53:SD:76:ARG:HB3	53:SD:77:PHE:CD2	2.49	0.47
5:B:240:LEU:HB3	5:B:244:THR:HG21	1.97	0.47
55:SF:161:ALA:HB3	55:SF:172:CYS:SG	2.53	0.47
48:4:114:GLU:CB	48:4:532:PRO:HG2	2.39	0.47
48:4:39:LEU:O	48:4:43:ALA:N	2.47	0.47
48:4:73:THR:CG2	48:4:74:ALA:N	2.39	0.47
48:4:769:HIS:C	48:4:786:ALA:HB2	2.31	0.47
48:4:744:ILE:CD1	48:4:816:HIS:CD2	2.97	0.47
1:5:1428:U:H5'	1:5:1429:C:OP2	2.14	0.47
1:5:1866:U:C5	1:5:4405:G:C1'	2.98	0.47
1:5:1877:G:C5	1:5:1878:G:N7	2.82	0.47
1:5:2455:G:H2'	1:5:2456:G:C5'	2.44	0.47
1:5:2507:A:N7	1:5:2508:U:C5	2.82	0.47
1:5:450:G:C6	1:5:1295:C:C4	3.03	0.47
9:F:124:PHE:HD2	9:F:196:ILE:CG2	2.27	0.47
49:S2:118:C:C4	49:S2:119:U:N1	2.82	0.47
48:4:568:ILE:CG2	48:4:569:PRO:N	2.77	0.47
49:S2:1456:G:C6	49:S2:1457:U:C4	3.02	0.47
49:S2:1459:G:C4	49:S2:1460:C:C6	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1797:U:H2'	49:S2:1798:C:C6	2.49	0.47
1:5:1380:G:N2	1:5:1382:G:C4	2.83	0.47
1:5:1477:C:C2	1:5:1478:C:C6	3.02	0.47
1:5:1489:G:N1	1:5:1490:G:C8	2.82	0.47
1:5:3853:U:O2'	1:5:4979:A:H1'	2.14	0.47
49:S2:952:G:H2'	49:S2:953:C:C6	2.50	0.47
49:S2:1576:G:C2	49:S2:1577:G:C4	3.02	0.47
49:S2:1578:U:H6	53:SD:6:SER:CB	2.27	0.47
49:S2:1253:A:C2	49:S2:1666:C:H1'	2.49	0.47
1:5:4238:G:C6	1:5:4239:A:C5	3.03	0.47
49:S2:1136:U:C2	49:S2:1137:U:C5	3.01	0.47
60:SK:52:LEU:HB3	60:SK:58:VAL:HG12	1.95	0.47
49:S2:552:G:N3	49:S2:553:U:C6	2.83	0.47
49:S2:474:G:C6	49:S2:475:C:C5	3.02	0.47
1:5:3755:G:C2	1:5:3756:A:C8	3.02	0.47
49:S2:167:G:C6	49:S2:168:C:C4	3.03	0.47
48:4:410:PHE:CZ	48:4:530:SER:HB3	2.50	0.47
3:8:127:U:O2'	3:8:128:C:O4'	2.33	0.47
1:5:3636:C:N3	1:5:3637:U:C5	2.82	0.47
4:A:209:HIS:CE1	4:A:211:PHE:H	2.33	0.47
1:5:3839:G:N1	1:5:3842:C:N4	2.63	0.47
1:5:268:G:C2	1:5:269:G:N9	2.82	0.47
49:S2:999:G:N2	49:S2:1000:C:C2	2.81	0.47
49:S2:933:G:C5	49:S2:1001:A:C5	3.03	0.47
48:4:449:ARG:CZ	48:4:460:PRO:CB	2.93	0.47
1:5:4565:C:H1'	5:B:262:VAL:HG21	1.95	0.47
1:5:5050:C:O2	1:5:5050:C:H2'	2.14	0.47
1:5:743:G:C2	1:5:744:G:C5	3.03	0.47
49:S2:1072:U:H3'	49:S2:1073:U:H5'	1.96	0.47
49:S2:1041:G:C2	49:S2:1075:C:C2	3.02	0.47
1:5:1770:A:C2	1:5:1771:U:C2	3.03	0.47
49:S2:807:G:N1	49:S2:808:A:C5	2.82	0.47
1:5:4627:U:O2	1:5:4627:U:C2'	2.60	0.47
1:5:2399:G:N3	1:5:2400:G:C8	2.81	0.47
49:S2:868:G:N1	57:SH:115:LYS:HD2	2.29	0.47
49:S2:1157:G:O6	72:SW:89:TRP:HZ3	1.96	0.47
49:S2:1868:U:P	49:S2:1869:A:H8	2.37	0.47
11:H:41:ILE:CD1	11:H:69:THR:HG21	2.44	0.47
1:5:21:G:C8	1:5:21:G:H3'	2.49	0.47
49:S2:429:C:C2	49:S2:430:C:C5	3.03	0.47
49:S2:1332:A:C2	49:S2:1500:G:H1'	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4871:C:H3'	16:M:91:TRP:HE1	1.79	0.47
1:5:511:C:H2'	1:5:512:U:C6	2.49	0.47
49:S2:1352:G:C1'	49:S2:1378:A:C2	2.97	0.47
15:L:90:VAL:HG12	15:L:94:ILE:HD12	1.96	0.47
24:U:33:ILE:CD1	24:U:96:LEU:HD22	2.45	0.47
4:A:3:ARG:CG	4:A:3:ARG:HH11	2.25	0.47
56:SG:180:VAL:CG1	56:SG:185:LEU:HD21	2.44	0.47
1:5:1257:A:C6	1:5:1258:G:C4	3.03	0.47
48:4:477:GLN:HG3	48:4:478:PHE:CZ	2.50	0.47
1:5:1940:G:H2'	1:5:1941:A:C5'	2.45	0.47
57:SH:83:LEU:CD1	57:SH:92:VAL:HG21	2.45	0.47
58:SI:110:ARG:HG2	58:SI:114:GLU:HG3	1.95	0.47
18:O:57:PHE:HZ	18:O:82:ARG:HH21	1.62	0.47
59:SJ:76:ALA:O	59:SJ:80:ARG:HG3	2.13	0.47
68:SS:40:TYR:CE2	68:SS:97:GLN:CD	2.87	0.47
9:F:213:PHE:N	9:F:213:PHE:CD1	2.83	0.47
22:S:78:PHE:CE1	22:S:102:THR:HG22	2.50	0.47
49:S2:1145:A:N6	49:S2:1150:A:C2	2.83	0.47
1:5:4224:A:C6	1:5:4225:G:C8	3.02	0.47
1:5:2816:G:C5	1:5:2817:C:C5	3.03	0.47
1:5:1664:U:C2	1:5:1665:C:C5	3.03	0.47
1:5:1983:A:H2	1:5:2010:A:H3'	1.80	0.47
1:5:2080:U:H2'	1:5:2081:C:H6	1.79	0.47
1:5:2083:C:H3'	1:5:2084:C:H5"	1.96	0.47
1:5:2281:U:C2'	1:5:2281:U:O2	2.59	0.47
1:5:2340:C:C2	1:5:2341:A:C8	3.03	0.47
1:5:2445:C:C2	1:5:2446:C:C5	3.02	0.47
1:5:2597:G:H2'	1:5:2598:A:O5'	2.14	0.47
1:5:4173:G:C4	1:5:4174:U:C5	3.03	0.47
1:5:449:C:H2'	1:5:449:C:O2	2.13	0.47
1:5:993:G:N1	1:5:994:G:C5	2.82	0.47
4:A:40:TYR:HE2	4:A:89:TYR:CD2	2.32	0.47
14:K:104:ILE:HD12	14:K:140:GLY:CA	2.44	0.47
14:K:80:LEU:HD23	14:K:83:LYS:NZ	2.29	0.47
48:4:272:LYS:HD2	48:4:273:PHE:HE1	1.75	0.47
49:S2:159:A:O2'	49:S2:160:U:H5'	2.15	0.47
49:S2:1453:C:H1'	67:SR:48:ASN:HD21	1.77	0.47
49:S2:1459:G:C2	49:S2:1460:C:C2	3.03	0.47
49:S2:1201:U:H1'	49:S2:1357:A:N3	2.29	0.47
1:5:1362:G:C5	1:5:1363:C:C5	3.02	0.47
1:5:3718:A:H2'	1:5:3719:A:C1'	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:88:A:O2'	1:5:89:C:O5'	2.33	0.47
1:5:1185:G:C2	1:5:1186:U:C1'	2.97	0.47
1:5:1187:G:N2	1:5:1188:C:H41	2.12	0.47
49:S2:1541:G:N2	49:S2:1542:C:C6	2.83	0.47
1:5:4275:G:C8	1:5:4275:G:C3'	2.97	0.47
49:S2:597:G:N2	49:S2:640:A:C4	2.82	0.47
49:S2:1314:U:H4'	60:SK:2:LEU:HA	1.97	0.47
1:5:5004:C:C5	1:5:5005:G:C4	3.01	0.47
1:5:1321:G:H1'	1:5:1891:A:H62	1.80	0.47
1:5:3773:U:H2'	1:5:3774:A:C8	2.49	0.47
49:S2:167:G:C2	49:S2:168:C:C2	3.02	0.47
48:4:165:LEU:N	48:4:165:LEU:HD22	2.29	0.47
1:5:2688:G:C4	1:5:2689:C:C5	3.03	0.47
1:5:659:G:C2	1:5:660:A:N9	2.81	0.47
49:S2:998:A:C8	49:S2:998:A:C3'	2.98	0.47
5:B:321:VAL:O	5:B:322:HIS:HB3	2.14	0.47
1:5:27:C:OP1	17:N:193:ARG:HD3	2.14	0.47
1:5:4198:G:C6	1:5:4199:C:C6	3.02	0.47
49:S2:855:G:C5	49:S2:856:C:C6	3.03	0.47
1:5:4723:A:C4	1:5:4724:A:N7	2.83	0.47
3:8:34:U:C4'	3:8:34:U:C2	2.97	0.47
48:4:81:LEU:CB	48:4:86:LEU:CD1	2.93	0.47
48:4:264:ARG:O	48:4:288:THR:CG2	2.61	0.47
49:S2:493:A:H61	49:S2:509:G:N2	2.13	0.47
1:5:4733:C:C5	1:5:4734:A:C1'	2.96	0.47
1:5:4734:A:C2	1:5:4735:G:N9	2.82	0.47
49:S2:878:G:C6	49:S2:879:C:C5	3.03	0.47
1:5:1203:G:C2	1:5:1204:C:C2	3.03	0.47
1:5:1410:U:C5	1:5:1815:G:N2	2.83	0.47
49:S2:1066:U:O4	49:S2:1067:C:C5	2.68	0.47
1:5:2548:C:C2	1:5:2549:G:C8	3.02	0.47
49:S2:631:U:H5'	49:S2:631:U:H6	1.79	0.47
49:S2:1771:G:C2	49:S2:1772:C:N1	2.83	0.47
49:S2:1781:A:C2	49:S2:1782:G:N7	2.82	0.47
1:5:4510:A:N6	1:5:4592:C:C1'	2.77	0.47
1:5:4862:G:C6	1:5:4863:G:N7	2.83	0.47
8:E:158:VAL:HG22	8:E:180:VAL:HG21	1.96	0.47
1:5:3605:C:OP2	21:R:71:ARG:NH1	2.45	0.47
8:E:129:PHE:CD1	8:E:129:PHE:C	2.87	0.47
1:5:258:G:C4	1:5:259:C:C6	3.02	0.47
1:5:258:G:C6	1:5:259:C:C5	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1688:C:C2	49:S2:1689:C:C6	3.02	0.47
1:5:10:A:H1'	1:5:2472:A:C6	2.49	0.47
48:4:170:GLU:HG3	48:4:171:PRO:HD2	1.96	0.47
49:S2:1616:U:H3	49:S2:1620:A:H2	1.62	0.47
48:4:477:GLN:HG2	48:4:478:PHE:CD2	2.50	0.47
1:5:2044:U:O2	1:5:2044:U:H2'	2.15	0.47
58:SI:83:TYR:CD1	58:SI:84:ASN:N	2.82	0.47
28:Y:62:TYR:HD1	28:Y:62:TYR:N	2.12	0.47
1:5:4769:G:H2'	1:5:4770:U:O4'	2.15	0.47
49:S2:410:G:N1	49:S2:411:G:C5	2.83	0.47
15:L:176:PHE:HD1	15:L:176:PHE:C	2.17	0.47
15:L:176:PHE:HD1	15:L:177:LYS:N	2.12	0.47
58:SI:54:LYS:HD3	58:SI:181:GLN:HE22	1.80	0.47
10:G:58:PRO:CG	27:X:46:PHE:HD2	2.26	0.47
1:5:2895:A:C2	1:5:2896:G:C8	3.02	0.47
49:S2:115:U:H2'	49:S2:116:U:C6	2.50	0.47
1:5:368:C:C2	1:5:374:G:N2	2.83	0.47
66:SQ:15:ARG:HG2	66:SQ:20:THR:HG22	1.95	0.47
10:G:182:CYS:HA	10:G:226:TYR:CE2	2.50	0.47
1:5:3803:A:H2'	1:5:3803:A:N3	2.30	0.47
1:5:2618:G:C2	1:5:2619:G:C8	3.02	0.47
1:5:169:G:C6	1:5:170:C:C4	3.02	0.47
58:SI:120:PRO:HG3	58:SI:133:GLU:HG3	1.97	0.47
48:4:193:GLY:HA3	48:4:203:ILE:HD11	1.97	0.47
48:4:744:ILE:CG1	48:4:815:ASP:HB3	2.44	0.47
48:4:756:VAL:HG21	48:4:782:PHE:CD1	2.42	0.47
1:5:1846:G:N1	1:5:1847:C:C4	2.82	0.47
1:5:1975:G:O4'	1:5:1976:G:OP2	2.33	0.47
1:5:2019:C:N3	1:5:2020:U:C5	2.83	0.47
1:5:2089:G:O2'	1:5:2090:U:P	2.72	0.47
1:5:2322:G:C6	1:5:2323:C:C4	3.03	0.47
1:5:2592:U:C5	1:5:2593:C:C5	3.02	0.47
1:5:4165:C:O2	1:5:4165:C:H2'	2.15	0.47
1:5:983:C:O2	1:5:984:C:C5	2.44	0.47
1:5:985:C:C2	1:5:986:C:C5	3.02	0.47
14:K:116:MET:HG3	14:K:117:ARG:NH2	2.29	0.47
14:K:36:GLY:O	14:K:37:LEU:HB2	2.15	0.47
10:G:261:LEU:HD21	10:G:264:LYS:CD	2.43	0.47
49:S2:120:U:O2	49:S2:120:U:H2'	2.13	0.47
48:4:609:PHE:HD2	48:4:699:GLY:HA2	1.79	0.47
48:4:730:TYR:CB	48:4:854:PHE:CE2	2.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:650:TRP:CZ3	48:4:679:VAL:CG1	2.87	0.47
49:S2:310:C:N3	49:S2:311:C:C4	2.82	0.47
49:S2:311:C:H3'	49:S2:312:G:H4'	1.96	0.47
49:S2:339:A:C2'	49:S2:340:C:C5	2.87	0.47
49:S2:75:G:N3	49:S2:77:A:OP2	2.46	0.47
49:S2:1835:A:C4'	49:S2:1836:G:OP2	2.58	0.47
1:5:3717:A:C5	1:5:3736:A:C6	2.97	0.47
1:5:84:A:H5'	1:5:86:U:C1'	2.44	0.47
1:5:85:G:N3	1:5:97:G:O6	2.47	0.47
17:N:120:TRP:HE1	17:N:122:GLY:C	2.17	0.47
49:S2:1229:G:C2	49:S2:1230:C:C2	3.02	0.47
49:S2:1235:G:C2	49:S2:1236:G:H1'	2.49	0.47
49:S2:1629:C:H2'	49:S2:1629:C:O2	2.15	0.47
1:5:4233:A:C5	1:5:4235:G:N7	2.82	0.47
1:5:4287:G:O2'	1:5:4288:C:O4'	2.32	0.47
49:S2:618:C:H3'	49:S2:619:A:H8	1.80	0.47
49:S2:1284:A:N6	62:SM:33:ARG:CD	2.72	0.47
26:W:8:PHE:HD1	26:W:8:PHE:C	2.17	0.47
1:5:3884:U:H2'	1:5:3885:G:O4'	2.15	0.47
49:S2:50:A:N7	49:S2:51:U:C6	2.82	0.47
1:5:3759:A:C8	1:5:3765:G:C2	3.02	0.47
1:5:4538:G:C6	1:5:4539:U:C4	3.03	0.47
3:8:73:U:N3	3:8:74:U:H1'	2.29	0.47
1:5:2843:U:C4	1:5:2844:A:N7	2.83	0.47
1:5:3867:A:N3	1:5:3880:G:C6	2.83	0.47
1:5:4518:A:H4'	1:5:4519:C:H5'	1.96	0.47
49:S2:929:G:N2	49:S2:1104:G:H4'	2.28	0.47
49:S2:832:G:C5	49:S2:833:C:C5	3.02	0.47
49:S2:1063:C:H1'	49:S2:1838:U:C5	2.48	0.47
1:5:4652:G:C6	1:5:4653:C:C4	3.03	0.47
1:5:2365:C:C2	1:5:2829:U:C5	3.02	0.47
1:5:2422:C:N3	1:5:2423:A:C8	2.82	0.47
1:5:2829:U:N3	1:5:2830:G:N7	2.62	0.47
1:5:2363:A:C1'	1:5:4560:C:H5	2.27	0.47
48:4:616:ASP:OD2	48:4:622:VAL:HG13	2.15	0.47
48:4:160:MET:HE3	48:4:178:PHE:HZ	1.65	0.47
1:5:4730:C:C5'	1:5:4731:G:H21	2.24	0.47
49:S2:1067:C:N4	49:S2:1068:G:C6	2.83	0.47
5:B:203:GLN:CA	5:B:203:GLN:HE21	2.14	0.47
49:S2:414:A:O2'	49:S2:415:A:H5'	2.15	0.47
1:5:4315:A:N1	1:5:4316:G:C8	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:727:ARG:CG	48:4:727:ARG:NH1	2.76	0.47
1:5:2577:C:C2	1:5:2578:G:C8	3.02	0.47
1:5:2302:C:C4	1:5:2303:C:C4	3.03	0.47
1:5:1836:G:H2'	1:5:1836:G:N3	2.30	0.47
3:8:35:C:C2'	3:8:36:G:O5'	2.62	0.47
19:P:30:ARG:NH2	19:P:34:GLN:OE1	2.48	0.47
49:S2:429:C:O2'	49:S2:811:A:N1	2.42	0.47
59:SJ:13:TYR:CE2	59:SJ:41:ARG:HG3	2.50	0.47
49:S2:191:A:N6	49:S2:208:G:O2'	2.48	0.47
10:G:77:PRO:HA	10:G:237:TRP:CE3	2.49	0.47
7:D:64:ILE:HD12	7:D:105:LEU:HD21	1.96	0.47
2:7:73:U:H1'	2:7:102:U:O4	2.14	0.47
51:SB:120:VAL:HG22	51:SB:142:PHE:HE1	1.79	0.47
49:S2:202:G:C2	49:S2:203:G:C8	3.02	0.47
3:8:149:G:H21	10:G:64:GLN:HE22	1.61	0.47
8:E:250:ASP:OD1	8:E:251:SER:N	2.48	0.47
7:D:233:PRO:O	7:D:235:MET:N	2.48	0.47
48:4:244:LEU:H	48:4:244:LEU:CD2	2.27	0.47
1:5:1754:U:O4'	1:5:1754:U:O2	2.31	0.47
2:7:36:C:H2'	2:7:37:G:C8	2.49	0.47
48:4:745:TYR:CA	48:4:815:ASP:CB	2.81	0.47
1:5:1068:G:H2'	1:5:1069:G:C8	2.50	0.47
1:5:1074:G:C2	1:5:1238:A:N1	2.80	0.47
1:5:1570:G:N1	1:5:1571:G:C4	2.82	0.47
1:5:2082:G:C2	1:5:2275:G:C2	3.03	0.47
1:5:2104:G:C2	1:5:2105:A:N9	2.82	0.47
1:5:2256:C:O2	1:5:2256:C:C2'	2.63	0.47
1:5:2515:G:C6	1:5:2516:G:C5	3.03	0.47
1:5:3668:C:N4	1:5:3669:G:C6	2.83	0.47
1:5:974:C:H3'	1:5:974:C:C6	2.50	0.47
49:S2:44:U:O2'	49:S2:45:A:H2'	2.14	0.47
48:4:575:PRO:HG2	48:4:577:VAL:HG23	1.97	0.47
48:4:744:ILE:HG23	48:4:745:TYR:HD2	1.79	0.47
48:4:762:VAL:CG1	48:4:800:LEU:CD1	2.92	0.47
1:5:1072:C:H1'	1:5:1073:G:C8	2.50	0.47
1:5:1076:C:N3	1:5:1077:C:C5	2.81	0.47
1:5:1445:U:O2	1:5:1446:C:C6	2.68	0.47
1:5:1674:C:C2	1:5:1675:C:C5	3.02	0.47
1:5:1866:U:O2'	1:5:1867:A:H8	1.95	0.47
1:5:1900:C:C2	1:5:1901:C:C5	3.03	0.47
1:5:1971:C:H2'	1:5:1971:C:O2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1991:A:C3'	1:5:1991:A:C8	2.98	0.47
1:5:2276:A:C5	1:5:2277:C:C6	3.03	0.47
1:5:692:A:N1	1:5:693:C:C4	2.83	0.47
1:5:987:C:C2	1:5:988:C:C6	3.03	0.47
9:F:69:THR:O	9:F:73:MET:HG3	2.15	0.47
49:S2:119:U:C4	49:S2:120:U:H5	2.29	0.47
49:S2:467:G:C6	49:S2:468:A:C8	3.03	0.47
49:S2:118:C:H1'	49:S2:445:A:C5	2.50	0.47
49:S2:122:G:C4	49:S2:123:G:C8	3.02	0.47
48:4:592:LEU:CB	48:4:603:TYR:CD2	2.98	0.47
48:4:851:LEU:HA	48:4:854:PHE:HD1	1.79	0.47
48:4:202:ASN:OD1	48:4:204:MET:HG3	2.15	0.47
49:S2:1453:C:N3	49:S2:1455:A:C1'	2.73	0.47
49:S2:1456:G:C4	49:S2:1457:U:C5	3.03	0.47
49:S2:1467:C:C4	49:S2:1468:C:C5	3.02	0.47
49:S2:1793:A:N1	49:S2:1794:C:C5	2.83	0.47
49:S2:69:C:N3	49:S2:70:G:N7	2.62	0.47
49:S2:75:G:O2'	49:S2:76:U:H3'	2.15	0.47
49:S2:217:A:C5	49:S2:218:U:C5	3.03	0.47
49:S2:316:G:N3	49:S2:317:C:C6	2.83	0.47
49:S2:310:C:HO2'	49:S2:339:A:HO2'	1.42	0.47
49:S2:377:G:C6	49:S2:378:U:C4	3.03	0.47
49:S2:66:G:N7	49:S2:68:A:N7	2.62	0.47
56:SG:226:GLU:HA	56:SG:229:ALA:HB3	1.96	0.47
49:S2:1692:U:H2'	49:S2:1693:G:C8	2.50	0.47
49:S2:1697:A:H4'	49:S2:1698:C:H5"	1.96	0.47
49:S2:1204:A:N1	49:S2:1205:C:C4	2.82	0.47
1:5:3740:G:C5	1:5:3741:C:C5	3.01	0.47
5:B:235:TRP:CE3	5:B:235:TRP:HA	2.50	0.47
1:5:1381:U:O2	1:5:1381:U:O4'	2.32	0.47
1:5:290:U:N3	1:5:291:U:C4	2.83	0.47
1:5:66:A:C6	1:5:328:A:C5	3.02	0.47
1:5:4567:G:OP1	5:B:19:ARG:N	2.43	0.47
17:N:135:ILE:HG23	17:N:142:ILE:HD13	1.97	0.47
49:S2:947:G:C6	49:S2:948:C:C5	3.02	0.47
49:S2:1399:C:H2'	49:S2:1400:U:H6	1.80	0.47
49:S2:1438:A:H2'	49:S2:1439:A:O4'	2.15	0.47
1:5:3861:A:H4'	19:P:137:ASN:ND2	2.30	0.47
49:S2:1528:G:N2	49:S2:1529:C:N3	2.62	0.47
49:S2:1537:A:C5	49:S2:1538:C:C6	3.02	0.47
49:S2:1540:G:N2	49:S2:1541:G:H1'	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1609:C:N3	49:S2:1610:G:N7	2.62	0.47
1:5:4239:A:N6	1:5:4240:G:C6	2.83	0.47
1:5:4281:A:C2	1:5:4283:G:N7	2.83	0.47
1:5:4286:C:H2'	1:5:4287:G:H8	1.80	0.47
1:5:370:U:C4	1:5:1637:A:C5	3.02	0.47
25:V:99:GLU:HG3	26:W:21:TYR:OH	2.14	0.47
1:5:4895:C:C2	1:5:4896:G:N7	2.82	0.47
49:S2:615:C:H2'	49:S2:616:A:C8	2.49	0.47
49:S2:1132:C:O2	49:S2:1132:C:H2'	2.15	0.47
49:S2:1299:A:O2'	49:S2:1301:A:H5'	2.15	0.47
62:SM:19:GLN:HB3	62:SM:88:TRP:HB3	1.97	0.47
49:S2:1304:U:O2	49:S2:1305:C:C6	2.68	0.47
49:S2:1109:C:N4	67:SR:123:THR:OG1	2.48	0.47
49:S2:1113:A:C2'	49:S2:1114:U:H5'	2.44	0.47
1:5:5000:G:H2'	1:5:5001:U:O5'	2.14	0.47
48:4:330:LYS:HB2	48:4:330:LYS:HZ2	1.78	0.47
1:5:3754:G:N2	1:5:3755:G:H1'	2.30	0.47
1:5:3757:G:C5	1:5:3758:U:C5	3.03	0.47
56:SG:13:GLN:N	56:SG:13:GLN:OE1	2.47	0.47
49:S2:167:G:C2	49:S2:168:C:C4	3.03	0.47
1:5:2436:U:C5	1:5:2783:A:C1'	2.98	0.47
49:S2:797:C:N3	57:SH:109:ARG:NH2	2.62	0.47
49:S2:752:G:C6	49:S2:791:C:C2	3.03	0.47
1:5:3654:G:N3	1:5:3654:G:H2'	2.30	0.47
1:5:3689:G:N2	1:5:3690:U:H1'	2.30	0.47
1:5:1627:G:N7	1:5:1628:C:C5	2.82	0.47
28:Y:27:ARG:CG	28:Y:27:ARG:HH21	2.26	0.47
28:Y:74:TYR:CD2	28:Y:77:LYS:HD2	2.49	0.47
3:8:70:G:C6	3:8:87:G:C2	3.03	0.47
1:5:504:G:N1	1:5:654:C:O2	2.42	0.47
49:S2:1249:C:C6	49:S2:1250:A:C8	3.00	0.47
5:B:254:ILE:HG21	5:B:262:VAL:CG1	2.45	0.47
1:5:56:A:C6	1:5:57:G:C6	3.03	0.47
1:5:4099:G:C2	1:5:4100:C:N1	2.82	0.47
1:5:4112:C:N4	1:5:4113:U:C4	2.83	0.47
49:S2:859:G:C6	49:S2:860:G:N7	2.82	0.47
49:S2:956:G:N3	49:S2:957:A:N7	2.63	0.47
64:SO:42:VAL:O	64:SO:55:ARG:O	2.32	0.47
1:5:746:A:N1	1:5:916:C:OP2	2.47	0.47
2:7:43:U:O2	2:7:43:U:H2'	2.15	0.47
11:H:31:ARG:CG	11:H:31:ARG:HH11	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3600:G:C6	1:5:3601:C:C4	3.03	0.47
1:5:5030:U:C2	1:5:5031:G:N7	2.83	0.47
1:5:4744:A:C2	1:5:4745:G:N7	2.83	0.47
1:5:2666:U:C4	1:5:2668:G:OP2	2.68	0.47
49:S2:46:A:C6	49:S2:99:A:C8	3.03	0.47
1:5:3792:G:C4	1:5:3793:U:C5	3.02	0.47
1:5:1200:G:C5	1:5:1201:U:C5	3.02	0.47
1:5:515:C:C2	1:5:647:G:N2	2.82	0.47
1:5:751:G:N2	1:5:752:G:C6	2.83	0.47
1:5:752:G:C2	1:5:753:C:C1'	2.98	0.47
1:5:247:G:C4	1:5:248:C:C6	3.03	0.47
1:5:2307:A:N3	1:5:2333:G:O2'	2.46	0.47
1:5:4686:G:C6	1:5:4687:A:N7	2.82	0.47
1:5:4683:U:C5	1:5:4707:A:C6	3.03	0.47
1:5:2737:C:C2	1:5:2738:C:C6	3.03	0.47
1:5:4933:C:C4	1:5:4934:A:N7	2.83	0.47
1:5:2567:G:C2	1:5:2568:C:C2	3.02	0.47
1:5:2756:G:C2	1:5:2757:A:C5	3.03	0.47
1:5:1308:C:N3	1:5:1309:C:C5	2.83	0.47
1:5:1761:G:C5	1:5:1762:C:C5	3.03	0.47
1:5:938:C:H2'	1:5:939:G:H8	1.76	0.47
49:S2:188:C:N3	49:S2:189:U:C5	2.83	0.47
1:5:4549:G:N3	1:5:4549:G:H2'	2.30	0.47
1:5:181:C:C4	1:5:256:G:N1	2.83	0.47
1:5:124:C:C4	1:5:125:C:C5	3.03	0.47
1:5:4510:A:C2	1:5:4511:A:C2	3.03	0.47
1:5:4593:C:C2	1:5:4594:U:C5	3.03	0.47
1:5:2576:G:C2	1:5:2577:C:C6	3.03	0.47
1:5:1609:U:N3	1:5:1610:C:C6	2.83	0.47
53:SD:103:GLU:HA	53:SD:103:GLU:OE1	2.15	0.47
1:5:4147:G:N2	1:5:4148:C:C2	2.82	0.47
1:5:2391:G:C6	1:5:2392:C:C4	3.01	0.47
50:SA:116:PHE:C	50:SA:117:ARG:CG	2.82	0.47
49:S2:1351:G:H1'	50:SA:110:ASN:HD21	1.79	0.47
8:E:158:VAL:CG2	8:E:180:VAL:HG21	2.45	0.47
49:S2:330:G:N2	49:S2:331:C:H1'	2.29	0.47
1:5:716:C:H6	1:5:716:C:H5"	1.79	0.47
1:5:708:G:C6	1:5:709:C:C5	3.03	0.47
22:S:33:PHE:HE2	22:S:106:VAL:CG1	2.25	0.47
1:5:952:G:N2	1:5:953:C:C2	2.83	0.47
1:5:259:C:N3	1:5:260:C:C6	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:897:U:H2'	49:S2:898:U:O4'	2.14	0.47
27:X:116:LEU:CB	27:X:117:TYR:CE1	2.98	0.47
27:X:73:HIS:O	27:X:116:LEU:CD1	2.63	0.47
1:5:1921:C:N1	22:S:161:ARG:HG2	2.30	0.47
1:5:1644:C:C2	1:5:1645:C:C5	3.03	0.47
1:5:199:G:N2	1:5:201:C:C2	2.83	0.47
1:5:4699:U:O4	1:5:4702:G:C6	2.68	0.47
3:8:138:C:O2	3:8:139:G:C8	2.68	0.47
57:SH:9:VAL:CG2	57:SH:24:SER:HB2	2.45	0.47
3:8:144:U:H2'	3:8:145:C:H6	1.80	0.47
49:S2:211:G:C5	49:S2:212:C:C5	3.03	0.47
1:5:517:C:C2	1:5:645:G:N2	2.83	0.47
1:5:1789:C:H2'	1:5:1790:U:O5'	2.14	0.47
16:M:118:MET:HG3	18:O:192:PHE:CE2	2.48	0.47
1:5:2351:C:C2	1:5:2352:U:C5	3.02	0.47
48:4:401:MET:CE	48:4:476:ASP:HA	2.44	0.47
1:5:25:A:C4	1:5:341:G:C8	3.02	0.47
1:5:415:G:N2	1:5:416:U:H1'	2.30	0.47
73:SX:21:LYS:HD3	73:SX:27:TYR:CE1	2.49	0.47
60:SK:83:LEU:HB2	60:SK:85:LEU:HD12	1.97	0.47
49:S2:1154:U:O4'	49:S2:1154:U:O2	2.32	0.47
48:4:538:ILE:O	48:4:538:ILE:HG23	2.13	0.47
6:C:208:CYS:SG	6:C:230:LEU:HD12	2.55	0.47
59:SJ:130:ILE:HG12	59:SJ:135:ILE:HD11	1.97	0.47
65:SP:52:LYS:HA	65:SP:52:LYS:HE2	1.97	0.47
1:5:3761:C:O4'	1:5:3761:C:O2	2.30	0.47
1:5:389:A:H2'	1:5:389:A:N3	2.29	0.47
1:5:1219:G:C6	1:5:1220:G:N7	2.83	0.47
1:5:1264:C:H2'	1:5:1265:G:H5'	1.95	0.47
1:5:1663:C:H2'	1:5:1664:U:C6	2.50	0.47
1:5:1986:U:O4	1:5:2011:C:H5'	2.15	0.47
1:5:2017:A:C5	1:5:2018:C:C6	3.03	0.47
1:5:2440:U:HO2'	1:5:2441:C:P	2.38	0.47
1:5:2504:C:OP1	1:5:2504:C:H4'	2.15	0.47
1:5:977:C:H2'	1:5:978:G:O4'	2.14	0.47
6:C:341:LEU:HD11	8:E:52:ARG:CD	2.45	0.47
8:E:53:TYR:CE2	8:E:61:ARG:NH2	2.82	0.47
14:K:56:LEU:HB2	14:K:91:ASP:OD1	2.06	0.47
20:Q:75:ARG:CG	20:Q:75:ARG:HH11	2.28	0.47
1:5:1572:U:H4'	21:R:95:TRP:CZ2	2.50	0.47
49:S2:460:A:N3	49:S2:461:U:H6	2.08	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:683:PHE:CD1	48:4:729:LEU:CD2	2.96	0.47
49:S2:1455:A:C5	49:S2:1456:G:N7	2.83	0.47
49:S2:1791:A:N7	49:S2:1792:G:C8	2.83	0.47
49:S2:289:G:N2	49:S2:295:C:C2	2.83	0.47
49:S2:383:G:C8	49:S2:384:U:C2	3.03	0.47
56:SG:162:LEU:HD11	56:SG:165:GLU:CD	2.35	0.47
48:4:125:ALA:O	48:4:154:VAL:HB	2.15	0.47
1:5:1474:C:N3	1:5:1475:G:N7	2.63	0.47
1:5:1486:C:H2'	1:5:1487:G:O4'	2.15	0.47
1:5:3719:A:N7	1:5:3720:G:C8	2.83	0.47
1:5:70:A:H4'	1:5:71:C:H5'	1.96	0.47
48:4:267:ASP:C	48:4:267:ASP:CG	2.74	0.47
1:5:1189:G:C2	1:5:1190:C:C6	3.02	0.47
49:S2:1411:G:C8	49:S2:1412:C:H1'	2.49	0.47
1:5:1330:A:N3	1:5:1331:C:C6	2.83	0.47
49:S2:1265:A:C2	49:S2:1266:C:C6	3.02	0.47
49:S2:1543:U:O2'	49:S2:1544:C:H6	1.97	0.47
49:S2:1590:C:H5'	69:ST:82:ARG:CD	2.44	0.47
1:5:4240:G:N3	1:5:4241:C:H1'	2.30	0.47
1:5:2368:A:C2	1:5:2788:U:C5	3.03	0.47
49:S2:29:G:C2	49:S2:30:C:C2	3.02	0.47
49:S2:1279:C:N3	49:S2:1280:G:C8	2.83	0.47
49:S2:1304:U:H2'	49:S2:1304:U:O2	2.12	0.47
1:5:5003:U:C2	1:5:5045:G:C2	3.03	0.47
49:S2:533:A:N1	49:S2:534:G:C4	2.83	0.47
3:8:115:G:N1	3:8:116:C:C4	2.83	0.47
3:8:120:G:H2'	3:8:121:G:H5'	1.96	0.47
1:5:504:G:C2	1:5:505:G:C4	3.03	0.47
5:B:260:ALA:C	5:B:261:ARG:HD3	2.35	0.47
49:S2:1102:G:H1	49:S2:1130:G:H22	1.63	0.47
1:5:2424:G:H2'	1:5:2426:U:C4	2.50	0.47
1:5:4729:A:H4'	1:5:4965:U:HO2'	1.78	0.47
1:5:2590:G:N2	1:5:2754:G:O2'	2.48	0.47
1:5:2590:G:N2	1:5:2754:G:C2	2.79	0.47
1:5:4498:U:N3	1:5:4500:U:OP2	2.47	0.47
1:5:246:G:N2	1:5:247:G:N9	2.63	0.47
1:5:4887:C:H2'	1:5:4888:U:C6	2.49	0.47
1:5:2773:G:C2	1:5:2774:C:C5	3.02	0.47
1:5:4333:C:N3	1:5:4334:U:C5	2.82	0.47
1:5:154:G:C6	1:5:155:C:C4	3.03	0.47
1:5:2301:G:C6	1:5:2302:C:C4	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:5014:A:OP1	1:5:5014:A:H3'	2.15	0.47
1:5:4737:G:H8	1:5:4737:G:H5'	1.79	0.47
1:5:4506:C:H2'	1:5:4507:A:O4'	2.15	0.47
22:S:94:TYR:HE2	22:S:96:GLU:HG3	1.77	0.47
49:S2:1501:C:C4	49:S2:1502:C:C5	3.02	0.47
57:SH:131:GLU:OE2	57:SH:139:ILE:HD12	2.14	0.47
2:7:66:G:C2	2:7:67:C:C2	3.03	0.47
1:5:1305:C:H2'	1:5:1306:C:O4'	2.15	0.47
57:SH:135:PHE:CD1	57:SH:136:PRO:CA	2.98	0.47
15:L:8:MET:HB2	15:L:10:LEU:HD13	1.97	0.47
55:SF:24:SER:O	55:SF:107:ASN:ND2	2.48	0.47
7:D:220:LYS:HA	7:D:227:ILE:HD12	1.96	0.47
24:U:87:THR:HG23	24:U:102:VAL:HG21	1.97	0.47
55:SF:177:LEU:O	55:SF:181:ALA:HB2	2.15	0.47
48:4:745:TYR:CZ	48:4:790:VAL:HG22	2.50	0.47
1:5:1265:G:C2	1:5:1266:G:C4	3.02	0.47
1:5:1443:A:C4	1:5:1444:G:C8	3.03	0.47
1:5:1664:U:H2'	1:5:1665:C:C6	2.49	0.47
1:5:1988:G:N1	1:5:1989:G:C5	2.83	0.47
1:5:2285:A:H2'	1:5:2286:G:O4'	2.14	0.47
1:5:4079:C:O2	1:5:4079:C:C2'	2.63	0.47
4:A:43:GLY:HA3	4:A:63:PHE:CD1	2.50	0.47
1:5:1284:G:C6	6:C:312:ARG:NH2	2.83	0.47
1:5:2117:G:H1'	9:F:51:LEU:HD13	1.97	0.47
14:K:111:ASN:CA	14:K:114:ARG:HG2	2.45	0.47
14:K:34:PRO:CD	14:K:35:LEU:H	2.26	0.47
14:K:58:ILE:C	14:K:59:THR:HG23	2.36	0.47
20:Q:105:VAL:HB	20:Q:110:ARG:HH12	1.80	0.47
20:Q:25:LEU:HD12	20:Q:28:LEU:HD11	1.96	0.47
49:S2:426:A:N3	49:S2:427:U:C4	2.82	0.47
49:S2:118:C:H1'	49:S2:445:A:N1	2.30	0.47
48:4:510:GLU:CG	48:4:511:ALA:N	2.78	0.47
49:S2:333:G:C2	49:S2:334:C:C2	3.03	0.47
49:S2:61:A:H5'	49:S2:61:A:H8	1.80	0.47
49:S2:1446:A:H5'	70:SU:57:PRO:HA	1.97	0.47
1:5:290:U:H2'	1:5:291:U:C6	2.50	0.47
1:5:328:A:C6	1:5:329:A:N6	2.83	0.47
1:5:4362:A:C2	1:5:4363:A:N9	2.82	0.47
1:5:90:G:N3	1:5:95:G:N1	2.63	0.47
49:S2:952:G:C6	49:S2:953:C:C4	3.03	0.47
49:S2:1408:U:H5"	66:SQ:71:ARG:HE	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1541:G:C2	49:S2:1593:C:C2	3.02	0.47
49:S2:1590:C:C5	49:S2:1591:C:H1'	2.50	0.47
1:5:1797:G:N3	1:5:1798:G:C8	2.83	0.47
49:S2:1219:C:C5	49:S2:1220:A:C6	3.03	0.47
62:SM:101:ARG:C	62:SM:102:LYS:CG	2.83	0.47
49:S2:52:G:N3	49:S2:53:C:H1'	2.29	0.47
1:5:3706:C:OP1	4:A:226:ARG:HG3	2.15	0.47
49:S2:1709:G:C6	49:S2:1710:C:C4	3.03	0.47
49:S2:797:C:C2	57:SH:109:ARG:CZ	2.96	0.47
1:5:3813:A:C2	1:5:4539:U:O4'	2.68	0.47
1:5:2726:G:N3	1:5:2727:C:C6	2.83	0.47
1:5:166:C:O2	1:5:166:C:C2'	2.62	0.47
1:5:4119:C:O2	1:5:4119:C:O4'	2.31	0.47
49:S2:993:G:N2	49:S2:994:C:C2	2.83	0.47
49:S2:993:G:C5	49:S2:994:C:C6	3.02	0.47
9:F:168:ARG:CD	9:F:211:TRP:CD1	2.98	0.47
2:7:8:G:P	7:D:33:ARG:HH22	2.37	0.47
1:5:4518:A:H3'	1:5:4519:C:C5'	2.44	0.47
49:S2:1108:G:C2	49:S2:1125:C:C2	3.03	0.47
1:5:1949:U:O2	1:5:1950:U:H6	1.94	0.47
1:5:46:U:OP2	1:5:47:A:C2'	2.62	0.47
1:5:4199:C:H3'	1:5:4199:C:C2	2.50	0.47
1:5:4116:C:O2'	1:5:4116:C:O2	2.29	0.47
49:S2:1005:G:C4	49:S2:1006:C:C5	3.03	0.47
1:5:4726:G:C4'	5:B:130:PHE:CE1	2.96	0.47
48:4:616:ASP:OD1	48:4:621:GLU:CG	2.63	0.47
1:5:4257:A:N7	13:J:60:PHE:HE2	2.13	0.47
3:8:134:G:N2	3:8:135:C:N1	2.62	0.47
1:5:4733:C:C5	1:5:4734:A:H1'	2.49	0.47
49:S2:880:G:C5	49:S2:881:G:N7	2.82	0.47
1:5:1092:G:C2	1:5:1093:C:C2	3.03	0.47
1:5:1092:G:N2	1:5:1093:C:C2	2.83	0.47
49:S2:1066:U:N3	49:S2:1067:C:C5	2.83	0.47
1:5:210:C:C4	1:5:231:U:N3	2.83	0.47
1:5:1770:A:H2'	1:5:1771:U:O4'	2.15	0.47
1:5:698:G:N1	1:5:699:C:C5	2.83	0.47
5:B:82:PRO:HG3	5:B:171:LEU:HD21	1.97	0.47
1:5:4547:C:O2	1:5:4547:C:H2'	2.15	0.47
48:4:685:TRP:CH2	48:4:723:PRO:HG3	2.50	0.47
49:S2:823:U:C2	74:SY:64:PHE:CD2	3.02	0.47
1:5:1585:C:N3	1:5:1586:G:C8	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3622:C:C2	1:5:3623:C:N3	2.82	0.47
48:4:643:VAL:HG22	48:4:647:ARG:HD2	1.95	0.47
1:5:4147:G:C2	1:5:4148:C:C6	3.03	0.47
1:5:4992:G:H2'	1:5:4993:G:C8	2.49	0.47
11:H:41:ILE:HD12	11:H:41:ILE:O	2.15	0.47
1:5:4916:G:C4	1:5:4917:C:C6	3.03	0.47
7:D:284:LYS:HB3	12:I:209:TRP:CH2	2.49	0.47
49:S2:693:A:C2	49:S2:694:G:C4	3.03	0.47
49:S2:693:A:C2	49:S2:694:G:C5	3.03	0.47
49:S2:431:G:N3	49:S2:432:G:C8	2.83	0.47
3:8:54:C:C5	3:8:55:U:C5	3.03	0.47
1:5:951:G:C2	1:5:952:G:C5	3.02	0.47
49:S2:1810:U:C2	49:S2:1811:C:C6	3.03	0.47
49:S2:897:U:N3	49:S2:898:U:C6	2.83	0.47
49:S2:902:G:C6	49:S2:903:A:C2	3.03	0.47
1:5:2065:G:H2'	1:5:2066:C:O4'	2.13	0.47
59:SJ:48:PHE:HE2	59:SJ:52:LYS:HE3	1.79	0.47
54:SE:11:ARG:O	54:SE:12:VAL:CB	2.62	0.47
13:J:166:PHE:CE2	13:J:172:GLY:HA3	2.50	0.47
5:B:67:VAL:HG11	5:B:72:VAL:HG11	1.97	0.47
1:5:3584:C:O2	1:5:3585:G:C8	2.67	0.47
16:M:119:ARG:HH21	16:M:119:ARG:CG	2.28	0.47
27:X:110:LYS:CD	27:X:111:GLN:HE22	2.28	0.47
58:SI:118:ALA:HB1	58:SI:137:LEU:HD21	1.96	0.47
53:SD:132:LYS:HB3	53:SD:189:MET:CG	2.45	0.47
1:5:1693:U:H2'	1:5:1694:C:O4'	2.14	0.47
1:5:2108:G:C5	1:5:2109:G:H1'	2.49	0.47
1:5:2126:G:O3'	1:5:2127:C:O4'	2.33	0.47
1:5:2265:G:C1'	1:5:2266:C:OP1	2.63	0.47
1:5:2267:U:O2	1:5:2267:U:O4'	2.31	0.47
1:5:2270:G:H2'	1:5:2271:C:C6	2.50	0.47
1:5:2327:G:C4	1:5:2328:G:C8	3.03	0.47
1:5:2453:A:N3	1:5:2453:A:H2'	2.29	0.47
1:5:4077:A:C8	1:5:4078:C:C6	3.03	0.47
1:5:4942:C:O2'	1:5:4944:C:P	2.73	0.47
9:F:59:TYR:CZ	9:F:194:HIS:CE1	3.03	0.47
48:4:41:CYS:SG	48:4:49:ALA:HB1	2.54	0.47
49:S2:218:U:N3	49:S2:219:U:C5	2.83	0.47
49:S2:221:A:C4	49:S2:222:U:C6	3.03	0.47
49:S2:64:A:C5	49:S2:82:G:C6	3.03	0.47
1:5:1375:C:N3	1:5:1376:C:C5	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1380:G:H2'	1:5:1382:G:C6	2.50	0.47
1:5:1467:C:H2'	1:5:1467:C:O2	2.15	0.47
1:5:295:A:O3'	1:5:296:A:N7	2.48	0.47
1:5:3744:G:H2'	1:5:3745:U:O5'	2.15	0.47
1:5:316:U:O4	1:5:4353:U:C1'	2.63	0.47
1:5:322:C:C2	1:5:4356:G:N1	2.82	0.47
1:5:85:G:C2	1:5:97:G:C5	3.03	0.47
14:K:163:PRO:O	14:K:163:PRO:HD2	2.13	0.47
49:S2:1414:A:N3	49:S2:1415:C:C6	2.83	0.47
49:S2:1423:C:H2'	49:S2:1424:G:C8	2.50	0.47
49:S2:1667:U:C2	49:S2:1668:U:C4	3.03	0.47
1:5:4283:G:C4	1:5:4284:C:C6	3.02	0.47
3:8:15:G:H2'	3:8:16:G:O4'	2.15	0.47
49:S2:638:C:O2'	49:S2:639:C:O5'	2.33	0.47
49:S2:1284:A:H61	62:SM:33:ARG:CB	2.26	0.47
49:S2:1287:A:H2'	49:S2:1315:U:C5	2.50	0.47
1:5:3700:C:O2'	1:5:3774:A:N3	2.39	0.47
1:5:4535:A:N1	1:5:4536:C:C6	2.83	0.47
1:5:669:C:O2'	1:5:670:G:O5'	2.33	0.47
1:5:2532:C:C4	1:5:2533:C:N4	2.83	0.47
5:B:234:ARG:HA	5:B:272:LYS:HD2	1.97	0.47
51:SB:143:THR:HG22	51:SB:205:TYR:HB3	1.97	0.47
1:5:4095:G:C2	1:5:4096:C:N4	2.82	0.47
1:5:4114:C:H2'	1:5:4115:G:C1'	2.44	0.47
49:S2:105:U:C2'	49:S2:105:U:O2	2.63	0.47
49:S2:501:C:H3'	49:S2:501:C:C2	2.49	0.47
3:8:133:G:C2	3:8:134:G:N9	2.80	0.47
3:8:134:G:C2	3:8:135:C:C2	3.03	0.47
1:5:752:G:C6	1:5:753:C:C4	3.03	0.47
13:J:22:LEU:HD22	13:J:130:PHE:CE1	2.49	0.47
3:8:30:U:N3	3:8:31:G:N7	2.62	0.47
1:5:2773:G:C6	1:5:2774:C:C4	3.03	0.47
1:5:1770:A:C4	1:5:1771:U:C6	3.03	0.47
1:5:1780:A:C2	1:5:1781:U:C1'	2.98	0.47
1:5:1778:C:H5"	7:D:5:LYS:HD2	1.97	0.47
49:S2:1771:G:N2	49:S2:1772:C:N1	2.63	0.47
1:5:4087:G:C3'	1:5:4087:G:C8	2.98	0.47
1:5:3830:A:C6	1:5:3831:U:C5	3.03	0.47
1:5:4551:U:N3	1:5:4552:U:C4	2.83	0.47
48:4:228:PHE:CD1	48:4:232:TYR:HE2	2.28	0.47
1:5:4509:U:H2'	1:5:4510:A:C2'	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:24:LYS:HG3	4:A:49:ILE:HG21	1.97	0.47
15:L:14:PHE:HD1	15:L:18:TRP:CD1	2.33	0.47
1:5:1348:U:C2	1:5:1349:G:N7	2.83	0.47
49:S2:563:G:C2	49:S2:564:A:N7	2.83	0.47
1:5:3608:A:C2	1:5:3609:G:C5	3.02	0.47
1:5:4916:G:C2	1:5:4917:C:C2	3.02	0.47
1:5:716:C:H6	1:5:716:C:C5'	2.28	0.47
7:D:284:LYS:HB2	12:I:209:TRP:HH2	1.79	0.47
55:SF:49:LEU:HD23	66:SQ:49:TYR:HB2	1.96	0.47
1:5:362:A:C2	3:8:53:G:H1'	2.50	0.47
1:5:219:G:N9	1:5:219:G:H5'	2.30	0.47
51:SB:70:SER:OG	64:SO:128:ARG:NH1	2.48	0.47
57:SH:176:VAL:O	57:SH:177:TYR:C	2.52	0.47
1:5:2247:C:H5"	1:5:2248:C:H6	1.80	0.47
49:S2:1685:U:C2	49:S2:1686:G:C8	3.03	0.47
22:S:35:PRO:HD2	22:S:39:VAL:CG2	2.45	0.47
1:5:3927:U:H3	1:5:4184:G:H1	1.63	0.47
3:8:7:U:H2'	3:8:8:U:O4'	2.15	0.47
50:SA:134:LEU:CD2	50:SA:144:THR:HG21	2.44	0.47
72:SW:17:ALA:CB	72:SW:25:VAL:HG11	2.45	0.47
62:SM:98:GLY:C	62:SM:99:ASN:HD22	2.19	0.47
50:SA:126:ASP:HB2	50:SA:129:ALA:HB3	1.97	0.47
6:C:262:GLU:O	6:C:271:ALA:O	2.33	0.47
29:Z:123:LYS:O	29:Z:124:THR:OG1	2.24	0.47
1:5:1262:G:N1	1:5:1263:A:N7	2.63	0.46
1:5:1572:U:O2	1:5:1572:U:H2'	2.15	0.46
1:5:1617:G:N1	1:5:1618:G:C5	2.83	0.46
1:5:1619:G:C4	1:5:1620:U:C6	3.02	0.46
1:5:1663:C:O2'	1:5:1664:U:H5'	2.15	0.46
1:5:1682:A:C2	1:5:1683:U:H1'	2.50	0.46
1:5:1975:G:H2'	14:K:17:CYS:SG	2.55	0.46
1:5:1978:C:C2	1:5:1979:A:H1'	2.51	0.46
1:5:2092:G:H8	1:5:2093:A:N1	2.12	0.46
1:5:1440:U:H5"	1:5:2110:C:OP2	2.15	0.46
1:5:964:A:H2	1:5:2252:G:C5	2.33	0.46
1:5:2598:A:O2'	1:5:2599:G:H5'	2.15	0.46
1:5:2644:G:N1	1:5:2645:G:C4	2.83	0.46
1:5:2646:C:H2'	1:5:2646:C:O2	2.14	0.46
1:5:4082:G:H2'	1:5:4083:U:H6	1.80	0.46
1:5:458:C:C4	1:5:459:C:C4	3.03	0.46
1:5:472:C:N3	1:5:473:C:C4	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:689:U:C4	1:5:690:C:C5	3.02	0.46
12:I:119:PHE:HD1	12:I:120:GLY:N	2.13	0.46
20:Q:146:ARG:HH12	20:Q:149:TYR:HE1	1.63	0.46
49:S2:446:G:OP1	58:SI:50:GLY:N	2.36	0.46
48:4:587:SER:HB3	48:4:735:THR:HG23	1.95	0.46
49:S2:1373:C:O2'	49:S2:1374:C:O4'	2.21	0.46
49:S2:148:U:N3	49:S2:170:A:C6	2.82	0.46
49:S2:348:A:C4	49:S2:349:A:C8	3.03	0.46
49:S2:452:G:C6	49:S2:453:C:N4	2.83	0.46
49:S2:452:G:C6	49:S2:453:C:C4	3.03	0.46
49:S2:71:G:O2'	49:S2:72:C:O4'	2.33	0.46
49:S2:78:C:H2'	49:S2:79:A:H4'	1.97	0.46
1:5:1374:G:C4	1:5:1375:C:C6	3.02	0.46
1:5:1492:G:C6	1:5:1493:G:C5	3.03	0.46
1:5:303:C:C2	1:5:304:C:C5	3.02	0.46
1:5:1191:C:C4	1:5:1192:C:C5	3.03	0.46
49:S2:1398:G:N2	49:S2:1399:C:N1	2.63	0.46
49:S2:1553:C:O2	49:S2:1553:C:O4'	2.32	0.46
1:5:1796:U:N3	1:5:1797:G:C8	2.83	0.46
49:S2:1318:G:C5	49:S2:1319:U:C5	3.03	0.46
49:S2:1648:G:N3	49:S2:1674:G:C6	2.83	0.46
60:SK:12:TYR:CD2	60:SK:79:LEU:HD22	2.50	0.46
62:SM:22:LEU:HD23	62:SM:111:VAL:CG2	2.45	0.46
1:5:1885:G:N2	1:5:1895:G:N3	2.62	0.46
49:S2:53:C:O2	49:S2:53:C:C2'	2.58	0.46
1:5:2484:A:C6	1:5:2485:U:C4	3.03	0.46
1:5:3652:A:O2'	4:A:182:ALA:HB2	2.15	0.46
3:8:64:U:C2'	3:8:65:A:H8	2.24	0.46
49:S2:927:C:H2'	49:S2:928:G:O5'	2.15	0.46
49:S2:1097:G:C6	49:S2:1098:C:C4	3.03	0.46
49:S2:1101:U:C2	49:S2:1102:G:C8	2.92	0.46
49:S2:102:A:H5"	49:S2:104:A:H1'	1.97	0.46
49:S2:977:C:H2'	49:S2:977:C:O2	2.13	0.46
64:SO:41:PHE:HD1	64:SO:41:PHE:N	2.13	0.46
3:8:46:G:C4	3:8:47:C:C5	3.03	0.46
1:5:4724:A:N3	1:5:4725:C:C6	2.83	0.46
49:S2:504:G:H2'	49:S2:505:G:O5'	2.15	0.46
1:5:2347:A:C4	1:5:2348:G:O6	2.68	0.46
3:8:132:G:C2	3:8:133:G:C4	3.02	0.46
21:R:110:ARG:HD3	21:R:120:TYR:CE2	2.50	0.46
1:5:4478:G:C6	1:5:4479:A:C4	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4602:A:H4'	11:H:99:PHE:CE2	2.50	0.46
49:S2:963:A:N3	49:S2:964:A:C5	2.84	0.46
1:5:4754:G:C2	1:5:4880:C:C2	3.03	0.46
1:5:2756:G:H2'	1:5:2757:A:C8	2.50	0.46
1:5:1761:G:C4	1:5:1762:C:C5	3.03	0.46
1:5:1756:U:O4	1:5:1776:A:C2	2.66	0.46
49:S2:578:C:N4	49:S2:579:C:C5	2.84	0.46
49:S2:187:G:C5	49:S2:188:C:C5	3.02	0.46
29:Z:17:ARG:HG2	29:Z:18:TYR:CD1	2.50	0.46
2:7:110:G:C2	2:7:111:C:C4	3.03	0.46
69:ST:78:ILE:HG23	69:ST:79:TYR:CD1	2.50	0.46
50:SA:103:PHE:C	50:SA:103:PHE:CD2	2.87	0.46
12:I:9:TYR:CD2	12:I:97:ILE:HG12	2.39	0.46
1:5:1735:U:N3	1:5:1736:A:N7	2.63	0.46
1:5:2712:G:C2	1:5:2713:C:N1	2.83	0.46
1:5:1288:G:O2'	8:E:128:PRO:HB2	2.14	0.46
49:S2:819:G:H1	49:S2:828:G:H1	1.63	0.46
49:S2:357:C:C2	49:S2:358:C:C5	3.03	0.46
49:S2:1330:G:C2	49:S2:1333:U:C4	3.02	0.46
49:S2:1804:U:C4	49:S2:1805:G:N7	2.83	0.46
1:5:4154:G:N1	1:5:4155:C:C4	2.83	0.46
49:S2:1342:U:C6	49:S2:1483:A:C6	3.03	0.46
49:S2:394:G:N3	49:S2:394:G:H2'	2.30	0.46
8:E:236:TYR:C	8:E:236:TYR:CD2	2.89	0.46
48:4:219:HIS:HB3	48:4:221:TRP:HD1	1.79	0.46
49:S2:193:C:C2	49:S2:207:G:N2	2.83	0.46
3:8:143:G:C2	3:8:144:U:C6	3.03	0.46
49:S2:1166:G:C2	49:S2:1167:G:C8	3.03	0.46
1:5:2052:G:C6	1:5:2053:C:C4	3.03	0.46
9:F:88:GLU:HG3	23:T:136:ARG:HG2	1.97	0.46
68:SS:23:ARG:CD	75:SZ:48:VAL:HG21	2.45	0.46
1:5:1345:A:H4'	20:Q:166:TYR:CE2	2.49	0.46
67:SR:94:GLU:O	67:SR:95:ILE:HB	2.15	0.46
5:B:285:TYR:CD1	5:B:363:ILE:HD13	2.50	0.46
1:5:934:C:H4'	1:5:935:A:OP2	2.14	0.46
23:T:30:TYR:N	23:T:30:TYR:CD1	2.83	0.46
59:SJ:138:ARG:HB2	59:SJ:138:ARG:HH11	1.79	0.46
74:SY:56:PHE:CE1	74:SY:94:HIS:HE1	2.33	0.46
1:5:4587:G:C2	1:5:4716:C:C2	3.03	0.46
51:SB:178:THR:O	51:SB:179:ASN:O	2.33	0.46
48:4:120:ARG:HH12	48:4:495:ARG:HB3	1.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:113:SER:CB	48:4:499:PHE:HD2	2.22	0.46
48:4:60:ARG:H	48:4:63:GLU:CB	2.28	0.46
1:5:2447:U:O2'	1:5:2448:G:P	2.73	0.46
1:5:2440:U:C2	1:5:2519:U:C6	3.04	0.46
1:5:2538:U:H2'	1:5:2539:C:H6	1.80	0.46
1:5:4622:A:H5'	5:B:12:GLY:HA2	1.98	0.46
14:K:120:SER:OG	14:K:121:LEU:HD23	2.15	0.46
14:K:48:LYS:CG	14:K:52:ASP:OD2	2.54	0.46
14:K:80:LEU:CA	14:K:83:LYS:HD2	2.42	0.46
49:S2:114:G:O4'	61:SL:132:ARG:CD	2.62	0.46
49:S2:1790:A:H2'	49:S2:1791:A:O4'	2.14	0.46
49:S2:375:U:C1'	61:SL:7:GLU:OE1	2.63	0.46
1:5:101:A:C5	1:5:102:G:N7	2.83	0.46
1:5:1358:G:C1'	1:5:1359:G:C8	2.98	0.46
1:5:1391:A:N1	1:5:4351:U:H1'	2.31	0.46
1:5:330:G:OP2	17:N:166:SER:HB2	2.15	0.46
1:5:1187:G:HO2'	1:5:1188:C:H6	1.61	0.46
49:S2:1434:C:C2	49:S2:1435:C:C6	3.04	0.46
49:S2:1589:A:H2'	49:S2:1590:C:H6	1.79	0.46
49:S2:1654:G:C2	49:S2:1671:G:N1	2.83	0.46
1:5:1561:G:C3'	1:5:1562:G:H5'	2.45	0.46
49:S2:1031:A:C6	49:S2:1032:C:C4	3.03	0.46
3:8:10:G:N2	3:8:11:C:C1'	2.74	0.46
3:8:12:G:N3	3:8:13:G:C8	2.80	0.46
1:5:2367:A:N3	1:5:2368:A:N7	2.62	0.46
2:7:27:G:C6	2:7:28:C:C4	3.03	0.46
49:S2:595:U:HO2'	49:S2:596:U:H6	1.45	0.46
49:S2:1149:A:N1	49:S2:1151:G:C4	2.84	0.46
62:SM:51:VAL:HA	62:SM:77:ILE:HG22	1.98	0.46
49:S2:1283:C:C1'	62:SM:86:GLY:HA3	2.44	0.46
48:4:10:ARG:NH2	48:4:465:PRO:CG	2.72	0.46
1:5:5001:U:H2'	1:5:5002:U:O5'	2.13	0.46
1:5:5042:A:N3	1:5:5043:A:C8	2.83	0.46
48:4:396:MET:HE3	48:4:472:LEU:HD12	1.96	0.46
1:5:211:G:N2	1:5:212:A:C4	2.83	0.46
28:Y:27:ARG:CB	28:Y:75:ARG:HH12	2.27	0.46
49:S2:993:G:H21	49:S2:994:C:H1'	1.79	0.46
49:S2:1250:A:N3	49:S2:1339:U:C4'	2.78	0.46
1:5:2055:G:O4'	18:O:130:LYS:HE2	2.13	0.46
49:S2:841:G:N2	49:S2:842:C:C6	2.83	0.46
49:S2:976:G:C2	49:S2:977:C:C2	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:921:C:OP1	16:M:69:ARG:NH1	2.47	0.46
49:S2:1064:C:P	64:SO:150:ARG:HH22	2.37	0.46
1:5:2673:G:C4'	1:5:2675:G:C1'	2.92	0.46
1:5:2589:C:N4	1:5:2590:G:C5	2.83	0.46
49:S2:17:C:H2'	49:S2:18:C:C6	2.50	0.46
49:S2:910:G:N3	49:S2:911:C:C6	2.83	0.46
1:5:1367:C:H1'	1:5:1370:G:C8	2.51	0.46
1:5:2559:G:C2	1:5:2560:C:N1	2.83	0.46
1:5:2569:G:H2'	1:5:2570:U:C6	2.51	0.46
1:5:1745:G:C6	1:5:1746:A:N7	2.83	0.46
49:S2:1771:G:N1	49:S2:1772:C:C4	2.83	0.46
49:S2:1777:G:C4	49:S2:1778:C:C6	3.03	0.46
1:5:352:G:H1'	1:5:355:A:H2	1.81	0.46
1:5:739:G:C4	1:5:740:G:C8	3.04	0.46
1:5:2391:G:C4	1:5:2392:C:C5	3.03	0.46
49:S2:1258:A:N1	49:S2:1663:A:C4	2.83	0.46
1:5:4738:C:H2'	1:5:4739:C:O4'	2.14	0.46
49:S2:331:C:C2	49:S2:332:G:C8	3.04	0.46
1:5:1516:G:C4	1:5:1518:A:N7	2.84	0.46
12:I:95:HIS:ND1	12:I:95:HIS:C	2.69	0.46
1:5:4904:G:C6	1:5:4905:C:C4	3.02	0.46
1:5:1285:U:C4	1:5:1286:C:C4	3.03	0.46
49:S2:404:G:N2	49:S2:405:G:C4	2.84	0.46
49:S2:404:G:N1	49:S2:405:G:N7	2.62	0.46
1:5:4462:C:N3	1:5:4515:G:C2	2.83	0.46
27:X:119:ILE:HD11	27:X:140:LEU:HD13	1.96	0.46
1:5:4714:C:C2'	1:5:4714:C:O2	2.62	0.46
1:5:1508:A:C2	1:5:1509:C:C6	3.04	0.46
13:J:165:TRP:HE3	13:J:166:PHE:HA	1.80	0.46
49:S2:569:A:C6	49:S2:570:C:C4	3.02	0.46
1:5:388:A:C5	1:5:411:G:C6	3.03	0.46
5:B:302:ASN:HB2	5:B:313:SER:HA	1.96	0.46
49:S2:1184:G:C4	49:S2:1185:C:C6	3.03	0.46
59:SJ:128:VAL:HG12	59:SJ:132:GLN:HG3	1.97	0.46
49:S2:697:G:C2	49:S2:734:C:O2	2.69	0.46
57:SH:43:LEU:HD21	57:SH:71:SER:CB	2.45	0.46
1:5:4129:G:C6	1:5:4130:C:C4	3.02	0.46
1:5:1922:G:H2'	1:5:1923:A:H5"	1.96	0.46
53:SD:101:GLN:HG3	53:SD:126:ILE:HG22	1.96	0.46
5:B:89:ILE:HG21	5:B:197:ALA:HB1	1.97	0.46
22:S:47:PHE:HE1	22:S:125:GLN:HG2	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:208:ASN:OD1	5:B:208:ASN:N	2.44	0.46
22:S:175:PHE:CD1	22:S:175:PHE:C	2.89	0.46
10:G:177:MET:SD	10:G:177:MET:N	2.87	0.46
19:P:36:ILE:CD1	19:P:48:LEU:HD11	2.46	0.46
49:S2:1717:C:C2	49:S2:1817:G:C2	3.03	0.46
49:S2:1089:G:C6	49:S2:1090:C:C4	3.03	0.46
1:5:351:C:C2	3:8:25:G:C2	3.03	0.46
48:4:748:GLU:OE2	48:4:811:GLN:NE2	2.48	0.46
1:5:1355:G:C5	1:5:1385:G:N2	2.83	0.46
1:5:1674:C:C4	1:5:1675:C:C5	3.04	0.46
1:5:1696:C:HO2'	1:5:1697:G:P	2.37	0.46
1:5:1956:A:H2	1:5:2027:U:C2	2.33	0.46
1:5:1968:G:N1	1:5:1969:G:C5	2.84	0.46
1:5:2318:G:C2	1:5:2322:G:C2	3.03	0.46
1:5:2329:U:O2'	1:5:2330:G:H5'	2.11	0.46
1:5:3938:G:C6	1:5:4077:A:C2	3.01	0.46
1:5:4117:U:N3	4:A:40:TYR:CD1	2.72	0.46
1:5:465:G:C2	1:5:466:A:N9	2.83	0.46
1:5:4117:U:O2	4:A:40:TYR:CE1	2.68	0.46
20:Q:34:PHE:C	20:Q:34:PHE:CD2	2.88	0.46
48:4:851:LEU:HD23	48:4:851:LEU:H	1.80	0.46
49:S2:1393:G:N1	49:S2:1394:G:C5	2.84	0.46
49:S2:145:G:N7	56:SG:178:ARG:NH1	2.64	0.46
1:5:3722:G:N3	1:5:3723:A:C8	2.83	0.46
1:5:3729:U:H2'	1:5:3730:U:O4'	2.15	0.46
17:N:178:HIS:CD2	17:N:178:HIS:C	2.88	0.46
49:S2:947:G:C6	49:S2:948:C:C4	3.03	0.46
49:S2:1407:U:C2	49:S2:1408:U:C5	3.03	0.46
49:S2:1029:G:N1	49:S2:1030:A:C8	2.83	0.46
3:8:9:A:N3	3:8:9:A:H2'	2.30	0.46
1:5:370:U:C5	1:5:1637:A:C5	3.03	0.46
49:S2:1297:U:O2	49:S2:1299:A:H8	1.99	0.46
49:S2:1305:C:H2'	49:S2:1305:C:O2	2.15	0.46
55:SF:142:SER:O	55:SF:144:LEU:N	2.49	0.46
49:S2:1114:U:O4	49:S2:1119:A:C6	2.58	0.46
49:S2:549:C:O2	49:S2:549:C:H2'	2.15	0.46
1:5:3635:A:H3'	1:5:3635:A:C8	2.51	0.46
1:5:488:G:H21	1:5:489:C:H1'	1.80	0.46
49:S2:929:G:H2'	49:S2:930:C:O4'	2.15	0.46
1:5:1925:G:N2	1:5:1926:C:H1'	2.31	0.46
1:5:29:G:N3	1:5:30:C:C6	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:836:G:C3'	49:S2:837:A:C5'	2.94	0.46
49:S2:842:C:O2	49:S2:843:C:C6	2.68	0.46
49:S2:978:G:C5	49:S2:979:C:C5	3.03	0.46
13:J:74:VAL:C	13:J:75:ARG:HG2	2.35	0.46
1:5:4257:A:C5	13:J:60:PHE:HE2	2.33	0.46
1:5:1632:A:C6	1:5:1634:A:C1'	2.99	0.46
16:M:7:VAL:HG13	16:M:27:ILE:HD13	1.97	0.46
1:5:1203:G:N1	1:5:1204:C:C4	2.83	0.46
1:5:1367:C:H6	1:5:1367:C:H5"	1.80	0.46
1:5:700:G:C6	1:5:701:G:N7	2.83	0.46
49:S2:1786:U:C2	49:S2:1787:G:N7	2.83	0.46
1:5:4133:C:O2	1:5:4133:C:H2'	2.14	0.46
1:5:2820:C:H2'	1:5:2821:U:H5'	1.96	0.46
19:P:54:GLN:HB2	19:P:83:TRP:CD1	2.48	0.46
49:S2:1350:U:N3	49:S2:1351:G:C8	2.83	0.46
1:5:4572:U:O2	1:5:4720:C:C5	2.68	0.46
1:5:37:U:O4	1:5:38:A:C6	2.68	0.46
22:S:96:GLU:HB3	22:S:142:VAL:HG21	1.97	0.46
1:5:710:G:C2	1:5:711:A:C5	3.03	0.46
49:S2:403:G:N2	49:S2:404:G:H1'	2.30	0.46
1:5:4524:G:C2	1:5:4525:C:C6	3.03	0.46
1:5:12:A:N3	1:5:14:C:C6	2.84	0.46
1:5:258:G:C2	1:5:259:C:C2	3.03	0.46
49:S2:1126:G:C2	49:S2:1127:C:C4	3.04	0.46
2:7:66:G:C6	2:7:67:C:C4	3.03	0.46
1:5:1603:C:H2'	1:5:1604:G:C8	2.50	0.46
49:S2:363:A:N6	49:S2:400:C:O2'	2.48	0.46
7:D:30:TYR:N	7:D:30:TYR:CD1	2.83	0.46
5:B:46:PHE:CD1	5:B:84:MET:CE	2.98	0.46
49:S2:200:G:H2'	49:S2:201:C:O4'	2.15	0.46
1:5:1344:C:H6	1:5:1344:C:H5"	1.80	0.46
1:5:3930:U:H1'	4:A:228:ASP:OD1	2.15	0.46
16:M:130:LEU:HD21	18:O:180:GLN:OE1	2.15	0.46
1:5:1400:G:C2	1:5:1418:C:C2	3.03	0.46
75:SZ:63:PRO:O	75:SZ:111:ARG:NH1	2.48	0.46
52:SC:179:THR:OG1	52:SC:180:VAL:N	2.48	0.46
59:SJ:108:ARG:NH2	59:SJ:113:GLN:OE1	2.49	0.46
48:4:504:VAL:CG1	48:4:811:GLN:HA	2.45	0.46
1:5:1075:G:H2'	1:5:1076:C:C6	2.50	0.46
1:5:1263:A:C2	1:5:1264:C:C2	3.04	0.46
1:5:1264:C:HO2'	1:5:2114:G:P	2.34	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1268:G:N2	1:5:1270:A:C1'	2.78	0.46
1:5:1983:A:C2	1:5:2008:U:C5	2.94	0.46
1:5:1983:A:C2	1:5:2010:A:O5'	2.67	0.46
1:5:2276:A:C5	1:5:2277:C:C5	3.04	0.46
1:5:2645:G:N2	1:5:2646:C:N1	2.63	0.46
1:5:4085:A:C3'	1:5:4086:G:C5'	2.93	0.46
1:5:973:G:C6	1:5:974:C:C5	3.03	0.46
49:S2:459:C:N4	49:S2:460:A:N7	2.61	0.46
48:4:683:PHE:HA	48:4:729:LEU:HD11	1.98	0.46
49:S2:297:A:H5'	54:SE:132:GLY:O	2.15	0.46
49:S2:349:A:C5'	58:SI:27:TYR:OH	2.62	0.46
49:S2:452:G:C4	49:S2:453:C:C6	3.03	0.46
49:S2:69:C:H2'	49:S2:70:G:H8	1.79	0.46
1:5:1464:C:C2'	1:5:1464:C:O2	2.64	0.46
1:5:4981:G:N3	1:5:4981:G:O4'	2.47	0.46
16:M:116:ARG:NH2	18:O:201:PHE:CE2	2.84	0.46
49:S2:1405:A:O4'	49:S2:1580:A:C6	2.69	0.46
49:S2:1233:G:C2	49:S2:1234:C:C2	3.04	0.46
1:5:4923:C:C2	1:5:4924:C:C6	3.04	0.46
48:4:330:LYS:CB	48:4:330:LYS:HZ3	2.26	0.46
1:5:1855:G:C4	1:5:1856:C:C6	3.03	0.46
11:H:60:TRP:NE1	22:S:153:PRO:CG	2.79	0.46
1:5:2857:A:C2'	1:5:2858:A:C8	2.98	0.46
1:5:479:G:C2	1:5:480:C:N1	2.83	0.46
1:5:504:G:O6	1:5:654:C:C4	2.68	0.46
1:5:658:C:C2	1:5:659:G:N7	2.81	0.46
1:5:167:C:C2	1:5:168:C:C6	3.04	0.46
49:S2:990:A:C2	49:S2:992:A:C5	3.04	0.46
63:SN:5:HIS:HD2	63:SN:121:ARG:CD	2.28	0.46
1:5:5047:C:H5"	1:5:5050:C:C5	2.42	0.46
1:5:48:G:O2'	1:5:49:U:P	2.71	0.46
1:5:4109:G:C2	1:5:4110:C:N1	2.83	0.46
1:5:4111:U:N3	1:5:4112:C:C5	2.84	0.46
1:5:4158:C:O2	1:5:4158:C:C2'	2.62	0.46
49:S2:979:C:O2	49:S2:980:A:C8	2.68	0.46
1:5:4581:G:N2	1:5:4582:C:C5	2.84	0.46
1:5:1337:A:H5'	6:C:102:PHE:HD2	1.80	0.46
1:5:749:G:O6	1:5:913:U:O4	2.33	0.46
1:5:920:C:H5"	16:M:72:TYR:CD2	2.50	0.46
1:5:2658:G:O2'	1:5:2675:G:N2	2.45	0.46
1:5:2833:A:HO2'	1:5:2834:C:C4'	2.27	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:5023:C:H5	1:5:5028:G:H1'	1.80	0.46
49:S2:493:A:H1'	49:S2:574:A:OP1	2.15	0.46
49:S2:961:G:N3	49:S2:962:A:C8	2.84	0.46
1:5:2557:G:C4	1:5:2558:C:C6	3.04	0.46
1:5:2586:G:C8	1:5:2587:A:C4	3.04	0.46
1:5:2773:G:N3	1:5:2774:C:C6	2.84	0.46
1:5:3591:C:N4	1:5:3592:G:C5	2.82	0.46
1:5:1811:G:N2	1:5:1812:C:N1	2.63	0.46
49:S2:184:G:N3	49:S2:185:G:C8	2.84	0.46
1:5:4551:U:H2'	1:5:4552:U:C6	2.51	0.46
1:5:3621:A:H2'	1:5:3621:A:N3	2.31	0.46
1:5:4861:G:N1	1:5:4862:G:C5	2.83	0.46
49:S2:1251:A:N3	49:S2:1251:A:H2'	2.31	0.46
49:S2:691:G:C6	49:S2:692:G:N7	2.84	0.46
67:SR:21:TYR:CD1	67:SR:71:ILE:HD13	2.50	0.46
49:S2:367:U:H1'	49:S2:371:A:C4	2.50	0.46
48:4:19:ILE:HD13	48:4:468:ASN:OD1	2.15	0.46
49:S2:322:C:H2'	49:S2:323:C:C6	2.51	0.46
49:S2:1688:C:C2	49:S2:1689:C:C5	3.04	0.46
1:5:1608:G:C1'	1:5:3828:A:C2	2.98	0.46
3:8:139:G:C2	3:8:140:C:C2	3.02	0.46
49:S2:211:G:H2'	49:S2:212:C:O4'	2.15	0.46
8:E:102:VAL:HG23	8:E:103:VAL:HG22	1.97	0.46
49:S2:914:U:O4'	49:S2:914:U:O2	2.32	0.46
49:S2:738:C:C2	49:S2:739:C:C6	3.04	0.46
9:F:98:ARG:NH2	9:F:226:THR:HG23	2.30	0.46
15:L:99:ASP:OD1	15:L:101:ARG:N	2.45	0.46
29:Z:100:VAL:CG1	29:Z:107:LYS:HA	2.46	0.46
1:5:337:U:H2'	1:5:337:U:O2	2.14	0.46
58:SI:60:LEU:CD2	58:SI:185:ALA:HB2	2.46	0.46
1:5:4709:U:C2	1:5:4710:C:C6	3.04	0.46
75:SZ:98:LYS:HB2	75:SZ:113:THR:HG23	1.96	0.46
73:SX:9:THR:HG22	73:SX:12:LYS:HB3	1.97	0.46
48:4:751:CYS:SG	48:4:756:VAL:CA	3.04	0.46
48:4:830:ARG:HB2	48:4:831:PRO:CD	2.43	0.46
1:5:1238:A:C2'	1:5:1239:C:O5'	2.62	0.46
1:5:1278:C:H3'	1:5:1279:A:H4'	1.97	0.46
1:5:1987:C:C2	1:5:1988:G:C8	3.03	0.46
1:5:2463:G:N3	1:5:2464:C:C6	2.83	0.46
1:5:4406:U:N3	1:5:4407:G:C8	2.83	0.46
1:5:4458:C:C2'	1:5:4459:U:O5'	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:G:261:LEU:HD22	10:G:265:LEU:CD2	2.46	0.46
49:S2:122:G:C6	49:S2:123:G:C8	3.04	0.46
49:S2:1374:C:C2'	49:S2:1375:G:O5'	2.64	0.46
49:S2:171:A:C4	49:S2:173:A:C8	3.03	0.46
49:S2:171:A:C8	49:S2:173:A:N7	2.83	0.46
49:S2:309:G:C2	49:S2:310:C:C2	3.04	0.46
49:S2:312:G:OP1	49:S2:314:U:OP2	2.33	0.46
49:S2:340:C:C3'	49:S2:341:C:H6	2.28	0.46
49:S2:1034:A:H2'	49:S2:1035:A:O4'	2.16	0.46
49:S2:1204:A:C4	49:S2:1205:C:C6	3.03	0.46
1:5:1358:G:H3'	6:C:114:ARG:HH22	1.80	0.46
1:5:1373:A:N3	1:5:1374:G:C8	2.83	0.46
1:5:302:C:OP1	17:N:68:ARG:HG2	2.16	0.46
49:S2:1427:C:C2	49:S2:1428:G:C8	3.04	0.46
1:5:1330:A:C2	1:5:1331:C:C5	3.03	0.46
49:S2:1590:C:C5	49:S2:1591:C:C1'	2.98	0.46
49:S2:1668:U:H5'	70:SU:77:TRP:CZ2	2.51	0.46
1:5:2793:G:O6	1:5:2797:C:C5	2.68	0.46
1:5:1797:G:N2	1:5:1798:G:C4	2.83	0.46
49:S2:30:C:C2'	49:S2:31:U:O5'	2.63	0.46
49:S2:646:G:C5	49:S2:647:U:C5	3.03	0.46
49:S2:1134:G:C2	49:S2:1135:C:C2	3.03	0.46
49:S2:1644:C:O2'	49:S2:1645:C:C4'	2.64	0.46
62:SM:31:LEU:HB3	62:SM:33:ARG:HB3	1.98	0.46
1:5:5000:G:C4	1:5:5001:U:C5	3.03	0.46
1:5:1858:A:C2	1:5:1859:C:C4	3.03	0.46
1:5:3759:A:N1	49:S2:1708:C:H2'	2.31	0.46
1:5:2497:C:N4	1:5:2498:C:N4	2.63	0.46
1:5:3629:A:C6	1:5:3630:A:N7	2.84	0.46
3:8:95:A:C4	3:8:96:C:C5	3.03	0.46
1:5:3625:G:H21	1:5:3627:G:P	2.37	0.46
1:5:655:C:C2'	1:5:656:C:O5'	2.63	0.46
1:5:4767:C:C4'	1:5:4874:A:N1	2.77	0.46
2:7:8:G:C2	2:7:9:C:C2	3.03	0.46
49:S2:975:G:N3	49:S2:975:G:H2'	2.31	0.46
1:5:919:C:N3	1:5:920:C:C5	2.84	0.46
49:S2:100:U:H2'	49:S2:100:U:O2	2.15	0.46
49:S2:862:A:N1	49:S2:863:U:C5	2.83	0.46
1:5:3805:U:N3	1:5:3806:G:C8	2.84	0.46
1:5:3805:U:H2'	1:5:3805:U:O2	2.14	0.46
49:S2:882:U:C4	49:S2:883:U:C5	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:753:C:C2	1:5:754:U:H6	2.26	0.46
1:5:223:G:H4'	1:5:225:G:C8	2.50	0.46
1:5:2570:U:O2	1:5:2571:C:C6	2.68	0.46
5:B:100:ARG:NH1	5:B:100:ARG:HB3	2.30	0.46
1:5:1757:U:H2'	1:5:1758:G:O4'	2.16	0.46
1:5:3590:G:C2	1:5:3591:C:C2	3.03	0.46
49:S2:1780:G:C2	49:S2:1781:A:C4	3.04	0.46
49:S2:420:G:O2'	49:S2:660:C:N3	2.46	0.46
1:5:3829:G:C6	1:5:3830:A:N7	2.84	0.46
48:4:343:TRP:CA	48:4:343:TRP:CE3	2.98	0.46
1:5:2578:G:N1	1:5:2579:G:C5	2.82	0.46
1:5:3847:C:H2'	1:5:3847:C:O2	2.14	0.46
5:B:323:TYR:CD1	5:B:323:TYR:C	2.89	0.46
4:A:29:LEU:HD22	4:A:163:ARG:HH22	1.80	0.46
48:4:385:ILE:CD1	48:4:417:PHE:HB3	2.42	0.46
1:5:4871:C:H5"	16:M:91:TRP:CZ2	2.51	0.46
68:SS:124:ARG:HD3	68:SS:131:VAL:HA	1.98	0.46
49:S2:1806:A:C2	49:S2:1807:C:C6	3.03	0.46
57:SH:130:LEU:HB3	57:SH:139:ILE:HD11	1.97	0.46
22:S:99:ASP:CG	22:S:100:LEU:N	2.69	0.46
1:5:2720:C:N3	1:5:2721:G:C8	2.83	0.46
1:5:947:C:H2'	1:5:948:C:H6	1.80	0.46
3:8:63:U:C2	3:8:63:U:C3'	2.98	0.46
1:5:4528:G:N3	1:5:4529:G:C8	2.84	0.46
59:SJ:48:PHE:HZ	59:SJ:52:LYS:CG	2.28	0.46
7:D:27:LYS:HE2	13:J:147:ARG:HH22	1.81	0.46
50:SA:158:ASP:OD1	50:SA:159:ILE:HG22	2.16	0.46
5:B:108:GLU:HB2	5:B:137:TRP:HB3	1.97	0.46
49:S2:1385:G:H5"	49:S2:1386:A:OP2	2.15	0.46
1:5:4293:U:O4	1:5:4329:G:C8	2.68	0.46
60:SK:66:HIS:O	60:SK:67:PHE:HB2	2.16	0.46
1:5:169:G:C2	1:5:170:C:C2	3.04	0.46
6:C:164:THR:HG22	6:C:220:ALA:O	2.15	0.46
49:S2:4:C:H4'	52:SC:207:ALA:HB2	1.97	0.46
49:S2:373:G:H4'	61:SL:85:THR:HG21	1.98	0.46
1:5:1611:C:O4'	1:5:1612:G:N7	2.48	0.46
48:4:27:HIS:NE2	48:4:28:VAL:O	2.48	0.46
48:4:435:THR:OG1	48:4:438:LYS:HB2	2.15	0.46
48:4:543:GLU:OE1	48:4:576:VAL:CB	2.50	0.46
48:4:4:PHE:HE1	48:4:5:THR:HB	1.76	0.46
1:5:1077:C:O2	1:5:1077:C:H2'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1216:C:C4	1:5:1217:G:C8	3.04	0.46
1:5:1280:C:O2	1:5:1282:G:C8	2.68	0.46
1:5:1555:G:C6	1:5:1556:C:C4	3.03	0.46
1:5:1570:G:H2'	1:5:1571:G:O4'	2.15	0.46
1:5:1724:G:N2	9:F:105:PRO:CG	2.78	0.46
1:5:1975:G:C5	1:5:1984:A:N3	2.84	0.46
1:5:2018:C:H2'	1:5:2018:C:O2	2.15	0.46
1:5:2455:G:C2'	1:5:2456:G:O5'	2.60	0.46
1:5:2645:G:C4	1:5:2646:C:C6	3.04	0.46
1:5:2599:G:N2	1:5:2747:U:C4	2.83	0.46
1:5:3674:G:N3	1:5:3675:G:C8	2.84	0.46
1:5:450:G:HO2'	1:5:453:G:P	2.38	0.46
1:5:453:G:H22	1:5:1294:A:N6	2.10	0.46
1:5:677:G:C2	1:5:678:C:C2	3.04	0.46
1:5:969:C:H2'	1:5:970:G:C2	2.50	0.46
1:5:4086:G:C5	4:A:67:TYR:CD1	3.03	0.46
21:R:96:MET:O	21:R:100:ARG:HD2	2.16	0.46
48:4:592:LEU:HB2	48:4:603:TYR:CE2	2.50	0.46
48:4:689:GLU:O	48:4:730:TYR:HE1	1.72	0.46
49:S2:447:A:C2	49:S2:449:A:H1'	2.51	0.46
49:S2:1835:A:C2	49:S2:1863:A:C6	3.04	0.46
1:5:1392:A:H2'	1:5:1393:G:H8	1.78	0.46
1:5:1466:G:C2	1:5:1467:C:C6	3.03	0.46
1:5:1477:C:N4	1:5:1478:C:C5	2.84	0.46
1:5:1481:C:H1'	1:5:1482:G:O4'	2.16	0.46
1:5:278:G:C6	1:5:330:G:N7	2.84	0.46
49:S2:946:U:C2	49:S2:947:G:C8	3.03	0.46
49:S2:1533:A:C2	49:S2:1537:A:C1'	2.99	0.46
49:S2:1568:C:H2'	49:S2:1569:A:N7	2.31	0.46
2:7:21:G:C2	2:7:58:A:N3	2.83	0.46
49:S2:616:A:N7	49:S2:617:G:N9	2.64	0.46
49:S2:1095:U:C4	49:S2:1149:A:N6	2.81	0.46
49:S2:1307:U:C2	49:S2:1308:U:H1'	2.51	0.46
62:SM:37:GLU:O	62:SM:41:ALA:N	2.49	0.46
62:SM:32:ALA:CB	62:SM:41:ALA:HB2	2.45	0.46
1:5:4997:G:C5	1:5:4998:G:C8	3.04	0.46
1:5:4998:G:N2	1:5:4999:G:N9	2.64	0.46
49:S2:545:A:C2	49:S2:546:G:N7	2.84	0.46
49:S2:554:A:N3	49:S2:555:A:N7	2.63	0.46
49:S2:474:G:C2	49:S2:475:C:C4	3.02	0.46
1:5:2479:G:N1	1:5:2480:G:C4	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3632:C:C4	1:5:3633:C:C5	3.04	0.46
4:A:202:VAL:HG12	4:A:217:GLN:CG	2.38	0.46
1:5:2854:G:C8	1:5:2854:G:C3'	2.97	0.46
1:5:487:G:C4	1:5:488:G:C8	3.04	0.46
1:5:4561:C:N3	1:5:4562:C:H5	2.09	0.46
49:S2:1123:C:N4	49:S2:1124:C:N4	2.63	0.46
1:5:1929:A:H2'	18:O:49:ARG:HH22	1.81	0.46
49:S2:832:G:O6	49:S2:833:C:C4	2.69	0.46
49:S2:839:C:O2'	49:S2:841:G:H1'	2.16	0.46
1:5:4089:G:H2'	1:5:4090:G:O4'	2.15	0.46
1:5:4094:G:O6	1:5:4114:C:N3	2.49	0.46
49:S2:956:G:N2	49:S2:957:A:C4	2.84	0.46
49:S2:957:A:N1	49:S2:967:C:O2	2.48	0.46
49:S2:956:G:C2'	49:S2:957:A:O5'	2.64	0.46
11:H:31:ARG:HG3	11:H:31:ARG:HH11	1.80	0.46
1:5:174:C:C2	1:5:175:C:C5	3.04	0.46
1:5:4652:G:C6	1:5:4653:C:N4	2.84	0.46
1:5:4734:A:N3	1:5:4734:A:H2'	2.30	0.46
1:5:2753:G:C3'	1:5:2754:G:O4'	2.64	0.46
49:S2:14:C:OP1	52:SC:190:SER:OG	2.31	0.46
16:M:6:PHE:HB3	22:S:151:LYS:HG2	1.97	0.46
1:5:647:G:C5	1:5:648:G:C8	3.04	0.46
1:5:1404:G:H2'	1:5:1405:C:O4'	2.16	0.46
1:5:2768:C:H4'	1:5:2769:U:OP2	2.16	0.46
1:5:1760:G:C6	1:5:1761:G:C5	3.04	0.46
26:W:17:HIS:N	26:W:17:HIS:CD2	2.83	0.46
1:5:4314:C:C2	1:5:4315:A:H8	2.33	0.46
1:5:3946:G:C2	1:5:3947:A:C8	3.03	0.46
1:5:4135:G:C4	1:5:4136:G:C8	3.04	0.46
1:5:2392:C:C2	1:5:2393:C:C5	3.04	0.46
49:S2:1141:G:N2	49:S2:1147:C:C2	2.83	0.46
11:H:41:ILE:HD11	11:H:69:THR:HB	1.97	0.46
1:5:4913:G:HO2'	1:5:4914:C:C4'	2.28	0.46
1:5:112:C:N3	1:5:113:A:N7	2.64	0.46
49:S2:1622:U:O4	68:SS:120:HIS:HE1	1.98	0.46
49:S2:900:C:C2	49:S2:901:G:C8	3.04	0.46
61:SL:44:PHE:HE2	61:SL:143:LEU:HD23	1.76	0.46
1:5:947:C:C2	1:5:948:C:C5	3.04	0.46
1:5:2703:G:C5	1:5:2704:C:C5	3.04	0.46
3:8:144:U:O2	3:8:145:C:C6	2.69	0.46
1:5:2311:C:C4	1:5:2312:U:C6	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2351:C:H2'	1:5:2351:C:O2	2.16	0.46
7:D:202:GLN:N	7:D:202:GLN:HE21	2.13	0.46
49:S2:658:U:N3	73:SX:20:HIS:O	2.47	0.46
4:A:227:ARG:HB3	4:A:239:ALA:HB2	1.96	0.46
22:S:82:LEU:HD21	22:S:109:CYS:SG	2.55	0.46
1:5:1085:C:C2	1:5:1086:C:C6	3.04	0.46
1:5:1446:C:N3	1:5:1447:C:C6	2.84	0.46
1:5:1687:U:H2'	1:5:1688:G:O5'	2.15	0.46
1:5:1698:C:H6	1:5:1698:C:H5'	1.81	0.46
1:5:2086:G:C6	1:5:2087:C:C4	3.03	0.46
1:5:2515:G:C5	1:5:2516:G:C8	3.03	0.46
1:5:2744:A:N1	1:5:2745:A:C6	2.83	0.46
1:5:4085:A:C3'	1:5:4086:G:H5"	2.46	0.46
14:K:123:ARG:CA	14:K:129:ILE:CG1	2.72	0.46
14:K:81:ILE:HD12	14:K:113:ALA:CB	2.45	0.46
49:S2:1202:U:O4	49:S2:1203:G:N7	2.49	0.46
1:5:1377:G:N2	15:L:158:ARG:HG2	2.30	0.46
1:5:3715:U:O4'	1:5:3715:U:O2	2.33	0.46
1:5:69:A:C6	1:5:70:A:C6	3.04	0.46
49:S2:1405:A:C2	49:S2:1406:G:N9	2.83	0.46
49:S2:1414:A:C6	49:S2:1415:C:C5	3.03	0.46
1:5:4322:G:C2	1:5:4326:G:C6	3.04	0.46
1:5:4326:G:H2'	1:5:4327:C:O4'	2.16	0.46
1:5:4330:G:C6	1:5:4331:G:C8	3.04	0.46
49:S2:1031:A:H2'	49:S2:1032:C:O4'	2.15	0.46
1:5:423:G:H2'	1:5:424:U:H6	1.80	0.46
1:5:425:U:N3	1:5:426:A:C5	2.81	0.46
1:5:2428:A:C6	1:5:2789:A:C2	3.03	0.46
2:7:17:C:O2	2:7:17:C:C2'	2.62	0.46
49:S2:1137:U:O2'	50:SA:155:ARG:NH2	2.49	0.46
49:S2:1295:A:C6	49:S2:1296:U:H1'	2.51	0.46
49:S2:1289:U:C5'	49:S2:1315:U:O2'	2.61	0.46
62:SM:19:GLN:HG2	62:SM:88:TRP:CG	2.51	0.46
49:S2:1110:G:C5	49:S2:1111:U:C5	3.04	0.46
1:5:3871:A:C2'	1:5:3872:A:O5'	2.64	0.46
1:5:1325:C:C4'	1:5:3901:A:C2	2.98	0.46
49:S2:478:G:C4	49:S2:479:C:C5	3.04	0.46
1:5:2478:C:C2	1:5:2479:G:N7	2.84	0.46
1:5:2481:G:N3	1:5:2482:C:C6	2.83	0.46
1:5:3696:C:N3	1:5:3697:U:C5	2.84	0.46
3:8:118:C:C2'	3:8:118:C:O2	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:33:ARG:HE	7:D:37:VAL:HG21	1.80	0.46
49:S2:1018:U:C2'	49:S2:1018:U:O2	2.64	0.46
1:5:2050:G:C2	1:5:2051:C:C2	3.04	0.46
1:5:2059:C:O2	22:S:118:ARG:NH1	2.46	0.46
1:5:31:U:O2	1:5:52:G:C2	2.68	0.46
1:5:4202:U:C2	1:5:4204:C:C4	3.03	0.46
48:4:352:GLN:O	48:4:356:ILE:HG22	2.16	0.46
49:S2:1099:G:C5	49:S2:1100:A:C8	3.03	0.46
49:S2:1045:U:O4	49:S2:1046:U:O4	2.34	0.46
1:5:748:G:O6	1:5:918:G:H1'	2.16	0.46
1:5:4652:G:C2	1:5:4653:C:C2	3.04	0.46
1:5:2589:C:C5	1:5:2590:G:N7	2.84	0.46
1:5:2666:U:C5	1:5:2668:G:OP2	2.68	0.46
1:5:4473:A:C4	1:5:4474:A:C8	3.03	0.46
17:N:37:HIS:NE2	17:N:63:ARG:HB3	2.31	0.46
1:5:3806:G:C6	1:5:3807:A:N7	2.84	0.46
1:5:1205:G:C4	1:5:1206:C:C5	3.04	0.46
1:5:194:C:C4	1:5:195:C:C5	3.03	0.46
1:5:247:G:C2	1:5:248:C:C2	3.03	0.46
1:5:118:C:N3	1:5:121:A:N7	2.63	0.46
1:5:4468:U:O2	1:5:4708:A:N7	2.48	0.46
1:5:2736:G:C6	1:5:2737:C:N4	2.83	0.46
1:5:4883:C:H42	8:E:272:ALA:HB3	1.81	0.46
1:5:1370:G:O4'	1:5:1370:G:N3	2.49	0.46
1:5:2569:G:C2	1:5:2570:U:C2	3.04	0.46
1:5:1780:A:N6	1:5:1781:U:C5	2.83	0.46
1:5:152:U:O2	1:5:152:U:C2'	2.59	0.46
1:5:3943:A:C5	1:5:3944:G:C8	3.04	0.46
1:5:2398:U:O2'	1:5:2399:G:OP1	2.34	0.46
1:5:5012:G:N2	1:5:5014:A:N7	2.62	0.46
49:S2:611:G:C5	49:S2:612:U:C5	3.04	0.46
67:SR:18:GLU:OE2	67:SR:69:ILE:HA	2.16	0.46
25:V:57:VAL:CG2	25:V:84:GLN:HG2	2.44	0.46
25:V:82:ILE:CD1	25:V:104:VAL:HG13	2.46	0.46
49:S2:177:G:HO2'	49:S2:178:C:H6	1.63	0.46
1:5:2891:U:H5	21:R:74:ARG:NH1	2.11	0.46
1:5:1785:C:H1'	12:I:94:PHE:CZ	2.51	0.46
3:8:75:G:C2	3:8:76:C:C4	3.04	0.46
56:SG:26:THR:HG21	56:SG:40:ALA:CB	2.46	0.46
68:SS:15:VAL:HG13	68:SS:68:ILE:CD1	2.46	0.46
6:C:177:TRP:O	6:C:180:ILE:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4118:U:O4	4:A:95:GLN:CB	2.64	0.46
1:5:353:A:C5	1:5:379:G:C5	3.04	0.46
1:5:741:C:H2'	1:5:742:G:O4'	2.15	0.46
18:O:51:LYS:HA	18:O:141:LEU:HD11	1.97	0.46
29:Z:4:PHE:CD1	29:Z:4:PHE:N	2.84	0.46
3:8:56:G:C6	3:8:57:C:C4	3.04	0.46
75:SZ:86:ALA:HA	75:SZ:89:GLN:OE1	2.16	0.46
48:4:111:PHE:CG	48:4:141:THR:HG23	2.51	0.46
1:5:1048:G:H2'	1:5:1049:C:O4'	2.15	0.46
1:5:1245:C:C5	1:5:1269:G:N1	2.82	0.46
1:5:1541:C:H5"	4:A:21:LYS:HD2	1.98	0.46
1:5:2090:U:H2'	1:5:2259:G:OP1	2.16	0.46
1:5:2451:A:H2'	1:5:2451:A:N3	2.30	0.46
1:5:2745:A:C2'	1:5:2746:A:O5'	2.64	0.46
1:5:986:C:C2	1:5:987:C:C6	3.03	0.46
4:A:40:TYR:CE2	4:A:89:TYR:HD2	2.33	0.46
9:F:149:LEU:N	9:F:197:TYR:OH	2.48	0.46
1:5:2094:G:N7	9:F:48:ARG:HD3	2.31	0.46
14:K:95:GLN:O	14:K:97:ASN:N	2.48	0.46
67:SR:10:LYS:HD3	67:SR:53:TYR:HE2	1.79	0.46
49:S2:10:G:C6	49:S2:11:A:C5	3.03	0.46
49:S2:1203:G:C4	49:S2:1204:A:C8	3.04	0.46
1:5:316:U:O4	1:5:4353:U:O4'	2.34	0.46
74:SY:86:GLU:CD	74:SY:90:ARG:HD2	2.36	0.46
1:5:3860:A:C2	1:5:3861:A:H1'	2.51	0.46
49:S2:1607:A:C5	49:S2:1608:U:C5	3.03	0.46
21:R:131:VAL:CG2	21:R:132:PHE:CZ	2.99	0.46
1:5:2494:U:N3	1:5:2495:U:C6	2.84	0.46
1:5:3631:U:O2	1:5:3631:U:H2'	2.16	0.46
1:5:3648:A:C5	1:5:3785:A:C6	3.04	0.46
3:8:70:G:C4	3:8:87:G:N2	2.84	0.46
1:5:492:U:N3	1:5:493:G:N7	2.64	0.46
1:5:671:G:C2	1:5:672:C:C6	3.03	0.46
49:S2:993:G:N2	49:S2:994:C:C1'	2.79	0.46
49:S2:1250:A:H2	49:S2:1339:U:C1'	2.29	0.46
49:S2:1123:C:N4	49:S2:1124:C:C5	2.83	0.46
1:5:4200:G:C2	1:5:4201:G:C8	3.03	0.46
1:5:4109:G:C4	1:5:4110:C:C5	3.04	0.46
48:4:21:ASN:HD21	48:4:469:ILE:HD12	1.79	0.46
1:5:1632:A:N6	1:5:1634:A:C1'	2.78	0.46
50:SA:200:ASP:HA	50:SA:203:PHE:CE2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:93:ARG:HH11	11:H:93:ARG:HG2	3.78	0.46
3:8:31:G:C5	3:8:32:C:C5	3.04	0.46
1:5:2561:C:O2	1:5:2561:C:H2'	2.16	0.46
1:5:2569:G:C5	1:5:2570:U:C5	3.03	0.46
1:5:1743:A:C5	1:5:1744:U:C5	3.04	0.46
1:5:1749:A:C2	1:5:1750:G:C5	3.03	0.46
1:5:145:G:N2	1:5:146:G:H1'	2.31	0.46
49:S2:582:C:O2	49:S2:583:C:C6	2.68	0.46
1:5:731:G:H5"	1:5:732:A:OP2	2.16	0.46
1:5:184:U:O2	1:5:254:G:C2	2.69	0.46
49:S2:1518:C:P	49:S2:1519:U:H2'	2.55	0.46
1:5:4772:C:H2'	1:5:4773:C:O4'	2.16	0.46
2:7:50:A:N1	2:7:51:G:C8	2.83	0.46
49:S2:404:G:C2	49:S2:405:G:N9	2.83	0.46
1:5:4121:G:N2	4:A:85:GLY:CA	2.79	0.46
1:5:5010:U:N3	1:5:5011:A:N7	2.63	0.46
1:5:650:C:H2'	1:5:651:C:H6	1.75	0.46
1:5:1602:U:C2	1:5:1603:C:C5	3.04	0.46
1:5:4139:G:C2	1:5:4140:C:C6	3.04	0.46
49:S2:916:A:C4	63:SN:73:ARG:HD3	2.50	0.46
49:S2:1189:A:H2'	49:S2:1190:A:H8	1.80	0.46
49:S2:1185:C:C4	49:S2:1186:U:C5	3.04	0.46
7:D:287:PHE:C	7:D:287:PHE:HD1	2.19	0.46
49:S2:688:U:O2	57:SH:122:LEU:HG	2.15	0.46
58:SI:8:TRP:NE1	58:SI:9:HIS:HB3	2.31	0.46
9:F:213:PHE:HD1	9:F:213:PHE:N	2.14	0.46
23:T:40:VAL:HG13	23:T:96:ILE:HG23	1.98	0.46
7:D:106:ALA:HB2	7:D:166:ALA:HA	1.97	0.46
17:N:104:GLU:O	17:N:108:ARG:HB2	2.16	0.46
16:M:10:GLY:HA2	16:M:64:PHE:CZ	2.51	0.46
1:5:432:U:O4	18:O:91:LYS:HD3	2.16	0.46
48:4:114:GLU:HA	48:4:532:PRO:HB2	1.96	0.46
48:4:533:MET:C	48:4:533:MET:SD	2.94	0.46
48:4:762:VAL:HG22	48:4:803:ASN:CB	2.42	0.46
1:5:1234:G:C6	1:5:1235:G:C6	3.04	0.46
1:5:1427:A:H2'	1:5:1428:U:O5'	2.16	0.46
1:5:1554:A:N6	1:5:1555:G:C4	2.84	0.46
1:5:1698:C:C6	1:5:1698:C:H5'	2.51	0.46
1:5:2272:C:H2'	1:5:2273:G:O5'	2.16	0.46
1:5:2277:C:C2	1:5:2278:G:C8	2.91	0.46
1:5:2282:A:C2'	1:5:2283:G:H5'	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2505:C:H1'	1:5:2506:G:C6	2.51	0.46
1:5:2596:G:N3	1:5:2597:G:C8	2.84	0.46
1:5:4600:G:O2'	1:5:4601:U:OP2	2.32	0.46
1:5:975:C:H2'	1:5:976:G:H1'	1.98	0.46
6:C:122:TYR:CB	6:C:280:PRO:HG3	2.46	0.46
1:5:979:C:H4'	8:E:39:HIS:HB3	1.98	0.46
49:S2:1736:G:H2'	49:S2:1737:G:O4'	2.15	0.46
49:S2:1796:G:H2'	49:S2:1797:U:C6	2.50	0.46
49:S2:222:U:O2	49:S2:222:U:H2'	2.15	0.46
49:S2:309:G:H2'	49:S2:310:C:H6	1.80	0.46
49:S2:380:G:H21	49:S2:382:C:H2'	1.81	0.46
1:5:1396:G:C8	1:5:1396:G:H3'	2.51	0.46
1:5:3723:A:N1	1:5:3724:A:C6	2.84	0.46
1:5:3723:A:N1	1:5:3724:A:N6	2.64	0.46
1:5:4343:U:O2	1:5:4343:U:H2'	2.15	0.46
1:5:4973:U:H1'	1:5:4986:G:C2	2.51	0.46
4:A:77:ILE:HD13	4:A:128:ARG:HB2	1.97	0.46
5:B:228:TYR:HE1	5:B:270:GLY:HA2	1.80	0.46
1:5:3862:A:N1	1:5:3863:C:H1'	2.31	0.46
49:S2:1540:G:H21	49:S2:1541:G:H1'	1.80	0.46
1:5:4273:A:C2'	1:5:4274:A:O4'	2.54	0.46
1:5:4277:G:C2	1:5:4278:C:C2	3.04	0.46
2:7:27:G:O6	7:D:58:ARG:NH1	2.46	0.46
49:S2:1095:U:C2'	49:S2:1095:U:O2	2.60	0.46
49:S2:1314:U:O2	49:S2:1315:U:O4'	2.34	0.46
49:S2:1644:C:O2'	49:S2:1645:C:O5'	2.34	0.46
1:5:4999:G:C5	1:5:5000:G:N7	2.84	0.46
1:5:1938:C:H6	1:5:1938:C:H5'	1.81	0.46
49:S2:1709:G:C2	49:S2:1710:C:C4	3.04	0.46
1:5:2496:G:C2	1:5:2497:C:C6	3.03	0.46
1:5:2409:U:C5	1:5:2410:C:C5	3.04	0.46
49:S2:793:G:O6	49:S2:794:A:C4	2.69	0.46
49:S2:795:A:H2'	49:S2:796:G:C8	2.36	0.46
1:5:3652:A:C3'	1:5:3653:A:C8	2.98	0.46
3:8:96:C:C4	3:8:97:A:N7	2.78	0.46
1:5:3837:C:H2'	1:5:3838:U:O4'	2.16	0.46
1:5:660:A:C5	1:5:661:C:C5	3.03	0.46
1:5:271:C:C4	1:5:272:U:H5	2.28	0.46
48:4:240:GLY:C	48:4:243:GLN:CD	2.75	0.46
49:S2:1099:G:N2	49:S2:1100:A:H1'	2.30	0.46
1:5:1823:G:C4'	7:D:44:TYR:HD2	2.22	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:262:G:C6	1:5:263:G:N7	2.83	0.46
62:SM:58:GLU:O	62:SM:60:MET:N	2.48	0.46
49:S2:849:A:C4	49:S2:850:C:C5	3.04	0.46
16:M:7:VAL:O	16:M:7:VAL:HG12	2.15	0.46
1:5:4367:G:C6	1:5:4368:G:N7	2.84	0.46
1:5:120:A:N7	1:5:149:A:C6	2.84	0.46
49:S2:1049:A:C4	49:S2:1070:A:H2	2.30	0.46
1:5:3616:U:H1'	1:5:3617:G:C6	2.50	0.46
1:5:1758:G:H2'	1:5:1758:G:N3	2.31	0.46
1:5:703:G:C6	1:5:706:C:N4	2.75	0.46
4:A:33:ASP:OD1	4:A:33:ASP:N	2.48	0.46
49:S2:1782:G:C2	49:S2:1784:G:C5	3.00	0.46
1:5:731:G:C6	1:5:732:A:N9	2.84	0.46
1:5:4550:G:C6	1:5:4551:U:C6	3.04	0.46
2:7:24:C:C2'	2:7:25:G:O5'	2.64	0.46
1:5:4146:G:C2	1:5:4147:G:C5	3.03	0.46
1:5:2662:G:H2'	1:5:2663:G:O5'	2.16	0.46
1:5:2712:G:C4	1:5:2713:C:C6	3.04	0.46
11:H:41:ILE:CD1	11:H:69:THR:CB	2.90	0.46
1:5:4904:G:N3	1:5:4905:C:C6	2.84	0.46
1:5:4532:U:C5	1:5:4554:G:N2	2.79	0.46
1:5:114:G:O6	1:5:157:U:C2	2.69	0.46
29:Z:76:ASN:HB2	29:Z:79:HIS:CD2	2.50	0.46
4:A:186:TYR:HA	4:A:196:TRP:CZ3	2.51	0.46
1:5:2602:G:C4	1:5:2742:G:C6	3.04	0.46
1:5:371:A:O2'	1:5:372:A:H5'	2.15	0.46
58:SI:174:CYS:HB2	58:SI:190:LEU:HD21	1.98	0.46
3:8:75:G:C6	3:8:76:C:N4	2.84	0.46
63:SN:4:MET:CE	63:SN:124:ARG:HD3	2.46	0.46
52:SC:163:VAL:HG22	52:SC:241:PHE:CZ	2.51	0.46
59:SJ:132:GLN:HB2	59:SJ:134:HIS:CD2	2.51	0.46
49:S2:1585:U:H4'	49:S2:1586:U:OP2	2.16	0.46
58:SI:167:GLN:HG3	58:SI:168:GLN:N	2.31	0.46
10:G:29:ASN:HB2	10:G:32:PHE:CZ	2.50	0.46
61:SL:96:ILE:N	61:SL:96:ILE:HD12	2.31	0.46
5:B:290:GLY:HA3	5:B:328:ASN:HA	1.97	0.46
49:S2:539:C:C4	49:S2:540:U:C5	3.03	0.46
48:4:58:ASP:C	48:4:63:GLU:CG	2.85	0.46
1:5:1218:G:C5	1:5:1219:G:C8	3.04	0.46
1:5:1267:C:H2'	1:5:2121:C:N4	2.31	0.46
1:5:1443:A:C6	1:5:1444:G:C5	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1620:U:O2	1:5:1621:A:N7	2.49	0.46
1:5:1899:G:C6	1:5:1900:C:C5	3.03	0.46
1:5:2458:C:O2'	1:5:3671:G:H1'	2.16	0.46
1:5:4088:C:N3	10:G:53:ARG:NH2	2.63	0.46
1:5:4166:G:N2	1:5:4167:G:N9	2.63	0.46
1:5:1866:U:O4	1:5:4405:G:C1'	2.64	0.46
1:5:458:C:C2	1:5:459:C:C5	3.03	0.46
1:5:472:C:O2	1:5:473:C:C6	2.66	0.46
1:5:2273:G:H5"	6:C:311:ARG:HH22	1.79	0.46
14:K:114:ARG:CD	14:K:130:LYS:HE3	2.39	0.46
48:4:659:PRO:HG2	48:4:698:ARG:HG3	1.98	0.46
48:4:669:VAL:O	48:4:672:LEU:N	2.46	0.46
49:S2:173:A:C5	49:S2:174:C:C5	3.04	0.46
49:S2:287:U:O4	49:S2:297:A:N3	2.48	0.46
49:S2:316:G:N3	49:S2:317:C:C5	2.84	0.46
49:S2:378:U:H2'	49:S2:378:U:O2	2.16	0.46
49:S2:80:G:C2	49:S2:81:U:C2	3.04	0.46
49:S2:1199:A:C6	49:S2:1200:A:C5	3.04	0.46
49:S2:1204:A:C2	49:S2:1205:C:C5	3.04	0.46
1:5:1379:C:O3'	1:5:1380:G:C8	2.67	0.46
1:5:1463:C:N3	1:5:1464:C:C5	2.85	0.46
1:5:3740:G:N3	1:5:3740:G:H2'	2.31	0.46
1:5:4343:U:O2	1:5:4344:U:C6	2.69	0.46
1:5:88:A:O2'	1:5:89:C:H5'	2.15	0.46
4:A:53:GLY:HA2	4:A:192:LYS:HD3	1.98	0.46
49:S2:1232:U:O4	68:SS:138:THR:HG21	2.16	0.46
49:S2:1593:C:C2	49:S2:1594:A:C8	3.04	0.46
70:SU:66:ARG:NH1	70:SU:75:LYS:HG2	2.30	0.46
49:S2:1151:G:N3	49:S2:1152:U:C6	2.82	0.46
62:SM:94:ILE:O	62:SM:95:ASP:C	2.54	0.46
1:5:5006:U:C6	26:W:50:ASN:ND2	2.84	0.46
1:5:3755:G:H3'	1:5:3756:A:H5"	1.97	0.46
1:5:2851:G:N7	1:5:2852:U:H5	2.09	0.46
1:5:662:C:C2'	1:5:663:G:H8	2.20	0.46
2:7:9:C:C4	2:7:10:C:C6	3.04	0.46
1:5:4518:A:C3'	1:5:4519:C:C5'	2.93	0.46
1:5:4518:A:H2'	5:B:257:TRP:CZ3	2.51	0.46
1:5:3899:G:C5'	5:B:257:TRP:CD1	2.96	0.46
1:5:2033:A:C2	1:5:2034:G:N7	2.84	0.46
1:5:4103:C:C4	1:5:4105:A:N6	2.84	0.46
1:5:4111:U:C4	1:5:4112:C:C5	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1100:A:C4	49:S2:1101:U:C6	3.03	0.46
49:S2:957:A:C2	49:S2:958:G:N7	2.84	0.46
3:8:46:G:C6	3:8:47:C:N4	2.84	0.46
1:5:1658:G:H4'	1:5:2348:G:O2'	2.15	0.46
49:S2:1041:G:N2	49:S2:1075:C:C2	2.84	0.46
1:5:3610:A:H2'	1:5:3611:A:H8	1.81	0.46
1:5:4559:A:O3'	1:5:4560:C:O2	2.34	0.46
3:8:131:G:N1	3:8:132:G:C5	2.84	0.46
1:5:4731:G:C8	1:5:4732:G:C5	3.04	0.46
49:S2:99:A:OP2	49:S2:409:C:OP2	2.34	0.46
1:5:3801:U:O2'	1:5:3802:U:H5'	2.16	0.46
1:5:516:C:C4	1:5:646:G:N1	2.84	0.46
1:5:752:G:N2	1:5:753:C:H1'	2.31	0.46
1:5:4687:A:H62	1:5:4698:C:H1'	1.80	0.46
1:5:1412:G:C2	1:5:1413:C:N1	2.84	0.46
49:S2:962:A:C6	49:S2:963:A:C5	3.04	0.46
49:S2:965:U:H2'	49:S2:966:U:O4'	2.16	0.46
1:5:4882:U:O2'	1:5:4883:C:H2'	2.16	0.46
49:S2:621:C:H2'	49:S2:622:C:O4'	2.15	0.46
49:S2:806:U:C2	49:S2:807:G:H8	2.25	0.46
1:5:1826:G:C6	1:5:1827:C:C5	3.03	0.46
1:5:1829:G:C4	1:5:1830:G:C8	3.03	0.46
1:5:4547:C:H2'	1:5:4549:G:H8	1.81	0.46
1:5:4333:C:H2'	1:5:4334:U:O5'	2.16	0.46
2:7:23:A:O2'	2:7:24:C:P	2.74	0.46
1:5:1584:G:C4	1:5:1585:C:C5	3.04	0.46
53:SD:103:GLU:OE1	53:SD:106:ARG:NH1	2.49	0.46
1:5:154:G:C6	1:5:155:C:N4	2.84	0.46
1:5:4134:C:C2	1:5:4135:G:C8	3.04	0.46
1:5:2397:G:N7	1:5:2399:G:C8	2.83	0.46
4:A:29:LEU:HD23	4:A:76:PHE:HE1	1.80	0.46
49:S2:694:G:N1	49:S2:695:C:C5	2.83	0.46
49:S2:522:A:OP2	59:SJ:45:ARG:NH1	2.47	0.46
1:5:4524:G:N3	5:B:252:ALA:HB1	2.31	0.46
1:5:4939:C:O3'	1:5:4941:G:P	2.74	0.46
49:S2:176:U:H3'	49:S2:177:G:C8	2.51	0.46
1:5:4958:C:C2'	1:5:4958:C:O2	2.63	0.46
1:5:1733:G:C6	1:5:4214:A:C2	3.04	0.46
1:5:1645:C:H2'	1:5:1646:A:C8	2.51	0.46
49:S2:1732:G:C6	49:S2:1733:U:C4	3.04	0.46
49:S2:571:U:C2	49:S2:572:U:C6	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:SW:90:GLN:HB2	72:SW:94:LEU:CD1	2.46	0.46
49:S2:913:A:H2'	49:S2:913:A:N3	2.30	0.46
1:5:2:G:C6	1:5:3:C:C4	3.04	0.46
56:SG:58:LYS:C	56:SG:60:GLY:H	2.19	0.46
73:SX:51:VAL:HG13	73:SX:70:VAL:HG13	1.98	0.46
1:5:1612:G:H5"	1:5:1612:G:C8	2.51	0.46
51:SB:202:GLN:N	51:SB:203:PRO:HD2	2.31	0.46
5:B:29:VAL:HB	5:B:32:PHE:CE1	2.51	0.46
52:SC:209:VAL:HG21	52:SC:233:LEU:HD13	1.97	0.46
15:L:21:ARG:HB3	17:N:197:THR:HG22	1.97	0.46
51:SB:180:ASP:C	51:SB:180:ASP:OD1	2.55	0.46
51:SB:27:LYS:O	51:SB:28:ARG:HD2	2.16	0.46
1:5:3749:C:C5	1:5:3750:G:C8	3.04	0.46
59:SJ:58:ARG:HA	59:SJ:61:LEU:HD23	1.97	0.46
69:ST:18:LEU:HB2	69:ST:134:ILE:HD11	1.97	0.46
48:4:434:TYR:HB3	48:4:493:ASN:ND2	2.30	0.45
48:4:64:GLN:CA	48:4:64:GLN:NE2	2.78	0.45
48:4:752:PRO:CB	48:4:780:PRO:HB3	2.46	0.45
1:5:1067:G:N2	1:5:1068:G:H1'	2.30	0.45
1:5:1072:C:H4'	1:5:1073:G:OP1	2.16	0.45
1:5:2085:G:N2	1:5:2273:G:C5	2.84	0.45
1:5:2507:A:C6	1:5:2508:U:N1	2.83	0.45
1:5:4079:C:C4	1:5:4080:C:C5	3.04	0.45
1:5:4405:G:C4	1:5:4406:U:C6	3.03	0.45
8:E:151:GLY:O	8:E:154:ARG:NH2	2.49	0.45
8:E:90:LYS:N	8:E:91:PRO:CD	2.80	0.45
9:F:73:MET:CB	9:F:84:TYR:CE2	2.96	0.45
14:K:116:MET:CG	14:K:117:ARG:NH2	2.79	0.45
14:K:22:VAL:CG2	14:K:48:LYS:HE2	2.20	0.45
14:K:61:LYS:HG2	14:K:73:VAL:O	2.16	0.45
20:Q:58:ARG:CB	20:Q:58:ARG:HH11	2.29	0.45
1:5:964:A:H1'	21:R:98:ARG:CZ	174.55	0.45
48:4:604:MET:CE	48:4:729:LEU:HD23	2.47	0.45
48:4:823:ASP:OD2	48:4:826:ASP:N	2.46	0.45
49:S2:1453:C:N3	49:S2:1455:A:C8	2.84	0.45
49:S2:1455:A:C2	49:S2:1456:G:N9	2.83	0.45
49:S2:219:U:C2	49:S2:220:U:C5	3.04	0.45
49:S2:74:G:O6	56:SG:171:THR:N	2.49	0.45
49:S2:1050:A:N6	49:S2:1051:G:C4	2.84	0.45
49:S2:1204:A:C6	49:S2:1205:C:C4	3.04	0.45
1:5:1394:G:C2'	1:5:1395:U:O5'	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:163:PRO:O	14:K:163:PRO:CD	2.64	0.45
1:5:1173:G:C2	1:5:1174:G:H1'	2.51	0.45
1:5:1171:G:N2	1:5:1191:C:C2	2.84	0.45
7:D:280:VAL:O	7:D:280:VAL:HG23	2.16	0.45
49:S2:1401:A:H2'	49:S2:1402:A:H8	1.77	0.45
49:S2:1542:C:H42	49:S2:1591:C:H42	1.62	0.45
1:5:4287:G:C4	1:5:4288:C:C5	3.04	0.45
1:5:4323:A:H4'	7:D:176:SER:HB3	1.98	0.45
2:7:16:A:C5	2:7:17:C:C5	3.04	0.45
1:5:4216:G:N3	1:5:4217:G:C8	2.84	0.45
49:S2:1277:C:H2'	49:S2:1278:A:C8	2.51	0.45
49:S2:1280:G:N2	49:S2:1281:G:H1'	2.31	0.45
1:5:1858:A:C2	1:5:1859:C:C6	3.05	0.45
1:5:2482:C:H2'	1:5:2482:C:O2	2.16	0.45
49:S2:752:G:C5	49:S2:790:C:N4	2.84	0.45
1:5:3696:C:C2	1:5:3697:U:C6	3.04	0.45
1:5:3629:A:C1'	49:S2:1721:U:C4	2.77	0.45
48:4:241:GLU:N	48:4:243:GLN:CD	2.68	0.45
1:5:3898:G:O3'	5:B:257:TRP:HB2	2.16	0.45
49:S2:1122:A:C2	49:S2:1123:C:N1	2.83	0.45
1:5:3919:C:H5'	4:A:207:VAL:HG12	1.95	0.45
49:S2:975:G:C5'	64:SO:32:HIS:HD2	2.29	0.45
3:8:45:C:C2'	3:8:46:G:O5'	2.64	0.45
49:S2:499:G:N1	49:S2:504:G:O6	2.48	0.45
2:7:45:U:H2'	2:7:46:C:O4'	2.16	0.45
49:S2:1043:G:C2	49:S2:1044:G:C4	3.05	0.45
1:5:1634:A:C6	1:5:1635:C:N4	2.84	0.45
1:5:3597:G:C6	1:5:3598:C:C4	3.03	0.45
1:5:5022:U:O2	1:5:5022:U:H2'	2.16	0.45
1:5:4480:A:N3	1:5:4480:A:H2'	2.30	0.45
59:SJ:7:TRP:O	59:SJ:8:VAL:C	2.54	0.45
1:5:2566:G:N2	1:5:2567:G:C4	2.84	0.45
1:5:2552:G:N2	1:5:2764:A:N7	2.64	0.45
1:5:936:C:H5	16:M:46:ARG:HA	1.81	0.45
1:5:4087:G:H1	10:G:46:GLN:HG2	1.80	0.45
1:5:1811:G:H2'	1:5:1812:C:H6	1.81	0.45
54:SE:191:ARG:CD	54:SE:218:PHE:CE1	2.91	0.45
1:5:4758:U:C2'	1:5:4759:C:O5'	2.63	0.45
1:5:2712:G:C5	1:5:2713:C:C5	3.04	0.45
49:S2:521:A:H2'	49:S2:522:A:O4'	2.16	0.45
7:D:123:VAL:CG1	7:D:248:ARG:HH22	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:SK:95:ARG:CA	60:SK:95:ARG:NE	2.79	0.45
25:V:96:LEU:HD12	26:W:20:ARG:O	2.15	0.45
5:B:80:GLU:HG3	5:B:326:VAL:HG22	1.98	0.45
49:S2:1617:G:H1'	49:S2:1661:A:H2	1.81	0.45
1:5:150:U:OP2	10:G:140:VAL:HG23	2.16	0.45
1:5:2311:C:O2	1:5:2311:C:H2'	2.16	0.45
49:S2:1462:U:O2	49:S2:1464:C:N4	2.49	0.45
1:5:1930:U:H6	1:5:1930:U:O5'	1.99	0.45
17:N:88:GLY:HA2	18:O:48:TYR:HD2	102.60	0.45
9:F:228:HIS:NE2	9:F:236:GLY:HA3	2.30	0.45
49:S2:1089:G:C2	49:S2:1090:C:C2	3.05	0.45
52:SC:127:PHE:CD1	52:SC:141:VAL:HG22	2.52	0.45
28:Y:106:ILE:HG21	28:Y:109:LEU:HD23	1.98	0.45
62:SM:50:CYS:HB3	62:SM:75:ASN:HD21	1.79	0.45
1:5:3928:A:H5'	17:N:89:VAL:CG1	2.46	0.45
1:5:1077:C:C4	1:5:1078:A:C5	3.04	0.45
1:5:1246:G:C6	1:5:1247:U:C5	3.04	0.45
1:5:1666:C:H2'	1:5:1667:G:O5'	2.16	0.45
1:5:1682:A:H3'	1:5:1683:U:C6	2.50	0.45
1:5:1993:C:N4	1:5:2002:A:N7	2.63	0.45
1:5:2001:G:N2	1:5:2004:U:C6	2.85	0.45
1:5:1271:G:O6	1:5:2109:G:O6	2.33	0.45
1:5:2115:G:C8	1:5:2116:C:C1'	2.99	0.45
1:5:2326:G:C4	1:5:2327:G:C8	3.04	0.45
1:5:2329:U:O2'	1:5:2330:G:C4'	2.64	0.45
1:5:2451:A:N7	1:5:2452:G:N7	2.65	0.45
1:5:467:U:C4	1:5:468:U:C5	3.05	0.45
8:E:43:ASN:HB3	8:E:58:MET:CE	2.47	0.45
14:K:14:TYR:CE2	14:K:63:THR:CB	2.93	0.45
20:Q:24:TYR:N	20:Q:24:TYR:CD1	3.54	0.45
49:S2:122:G:H2'	49:S2:123:G:O4'	2.16	0.45
48:4:702:PHE:CE1	48:4:733:VAL:HG23	2.51	0.45
48:4:33:SER:HA	48:4:57:THR:HG21	1.98	0.45
49:S2:343:A:C5	49:S2:344:U:C5	3.04	0.45
49:S2:83:A:N6	49:S2:84:A:C4	2.84	0.45
56:SG:221:LYS:HG3	56:SG:224:ARG:NH1	2.31	0.45
49:S2:381:C:C4	58:SI:49:ARG:HG2	2.52	0.45
49:S2:1204:A:C2	49:S2:1205:C:C4	3.04	0.45
1:5:1388:A:N1	1:5:1396:G:N3	2.64	0.45
1:5:294:G:N3	1:5:294:G:C2'	2.79	0.45
1:5:4977:A:C5	1:5:4978:G:C2	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:84:A:H5'	1:5:86:U:H1'	1.98	0.45
1:5:1169:G:N1	1:5:1170:G:C5	2.84	0.45
1:5:2359:U:OP2	1:5:2360:A:O2'	2.25	0.45
1:5:3856:A:N6	1:5:3857:G:C6	2.84	0.45
49:S2:1545:A:O2'	49:S2:1546:G:O5'	2.33	0.45
49:S2:1570:G:C6	49:S2:1571:G:N7	2.85	0.45
49:S2:1610:G:C2	49:S2:1611:G:C5	3.04	0.45
49:S2:1654:G:C6	49:S2:1655:C:C4	3.04	0.45
1:5:4322:G:N2	1:5:4326:G:C5	2.84	0.45
49:S2:1031:A:C6	49:S2:1032:C:C5	3.04	0.45
1:5:1534:A:H2'	1:5:1637:A:C2	2.51	0.45
1:5:2786:C:C4'	1:5:2787:A:C8	2.99	0.45
49:S2:1223:A:O2'	49:S2:1651:A:H5'	2.16	0.45
1:5:5041:G:OP2	26:W:61:LYS:HE3	2.17	0.45
26:W:8:PHE:CE1	26:W:51:TRP:CH2	3.04	0.45
1:5:3773:U:H2'	1:5:3774:A:H8	1.82	0.45
1:5:5047:C:H1'	1:5:5048:A:C2	2.52	0.45
1:5:3911:C:N3	1:5:3912:U:C4	2.84	0.45
1:5:4091:G:C6	1:5:4092:G:C8	3.04	0.45
49:S2:973:C:H2'	49:S2:973:C:O2	2.15	0.45
49:S2:1040:G:N1	49:S2:1041:G:C4	2.85	0.45
11:H:171:ASP:OD1	11:H:173:ARG:NH1	2.48	0.45
5:B:110:ILE:HG21	5:B:115:LYS:HD3	1.96	0.45
6:C:200:ARG:CZ	28:Y:11:ARG:HD2	2.46	0.45
1:5:197:A:C5'	1:5:197:A:C8	2.96	0.45
1:5:116:G:C6	1:5:117:C:C4	3.05	0.45
1:5:1964:A:O2'	1:5:1965:G:H5'	2.15	0.45
1:5:4988:U:C4'	1:5:4989:U:O2	2.50	0.45
49:S2:1067:C:N4	49:S2:1068:G:C5	2.83	0.45
49:S2:962:A:C4	49:S2:963:A:C8	3.04	0.45
1:5:142:G:N1	1:5:144:G:C8	2.84	0.45
49:S2:602:G:N2	49:S2:621:C:C2	2.85	0.45
1:5:182:G:H2'	1:5:182:G:N3	2.32	0.45
1:5:735:G:H2'	1:5:736:C:C6	2.51	0.45
1:5:348:G:C4	1:5:350:C:C5	3.04	0.45
51:SB:81:PHE:CB	51:SB:109:LYS:HB2	2.46	0.45
49:S2:401:A:C8	49:S2:402:C:C6	3.05	0.45
1:5:952:G:C6	1:5:953:C:C4	3.04	0.45
49:S2:1806:A:C5	49:S2:1807:C:C5	3.04	0.45
1:5:2823:G:N1	1:5:2824:C:C5	2.85	0.45
58:SI:56:ARG:HA	58:SI:180:GLY:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2246:C:O2'	1:5:2247:C:H5'	2.17	0.45
1:5:4072:C:N3	1:5:4073:A:N7	2.64	0.45
1:5:721:G:C2	1:5:948:C:C2	3.04	0.45
2:7:11:A:O2'	2:7:13:A:OP2	2.33	0.45
1:5:2071:A:N3	1:5:2072:C:C5	2.84	0.45
1:5:4661:G:C6	1:5:4662:C:C4	3.03	0.45
1:5:4661:G:H2'	1:5:4662:C:O4'	2.16	0.45
4:A:37:ARG:CZ	4:A:37:ARG:CB	2.93	0.45
49:S2:872:A:HO2'	49:S2:873:G:H8	1.63	0.45
60:SK:66:HIS:HB3	60:SK:68:TYR:CE1	2.52	0.45
49:S2:1647:A:N6	49:S2:1675:A:C2	2.85	0.45
9:F:245:LEU:HD22	9:F:249:MET:SD	2.56	0.45
1:5:4588:U:O2'	1:5:4589:A:H2'	2.14	0.45
75:SZ:103:HIS:O	75:SZ:104:ARG:C	2.54	0.45
1:5:4970:C:C2	1:5:4971:A:C8	3.04	0.45
1:5:1283:G:C8	1:5:1283:G:C3'	3.00	0.45
1:5:1292:C:C3'	1:5:1293:G:H5"	2.46	0.45
1:5:1437:C:O2	1:5:2098:G:C8	2.70	0.45
1:5:1448:G:C6	1:5:1449:C:C4	3.04	0.45
1:5:1558:A:C2	1:5:1559:G:C5	3.04	0.45
1:5:1618:G:N2	1:5:1619:G:N9	2.64	0.45
1:5:1673:U:O4	1:5:1674:C:N4	2.48	0.45
1:5:1694:C:H2'	1:5:1694:C:O2	2.16	0.45
1:5:1698:C:H4'	1:5:1699:A:OP2	2.17	0.45
1:5:2267:U:O2'	1:5:2268:A:P	2.74	0.45
1:5:2316:G:C2	1:5:2324:C:C2	3.04	0.45
1:5:2645:G:N2	1:5:2646:C:H1'	2.31	0.45
1:5:4175:G:N1	1:5:4176:C:C4	2.84	0.45
1:5:447:C:C4	1:5:448:G:N7	2.84	0.45
1:5:474:C:N3	1:5:475:G:N7	2.65	0.45
6:C:31:PRO:HB3	20:Q:24:TYR:HE2	1.80	0.45
49:S2:122:G:N1	49:S2:123:G:C5	2.84	0.45
49:S2:123:G:O2'	54:SE:146:THR:HG23	2.15	0.45
48:4:592:LEU:O	48:4:592:LEU:CD1	2.57	0.45
49:S2:379:C:H2'	49:S2:380:G:H8	1.82	0.45
49:S2:452:G:N2	49:S2:453:C:N1	2.64	0.45
49:S2:454:U:C2'	49:S2:455:A:O5'	2.64	0.45
56:SG:212:LEU:HD12	56:SG:216:ARG:HG2	1.97	0.45
58:SI:66:SER:HB3	58:SI:73:THR:HB	1.98	0.45
1:5:1475:G:N2	1:5:1476:C:C6	2.84	0.45
48:4:694:GLU:N	48:4:839:ARG:HH21	2.14	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1184:A:C4	1:5:1185:G:C8	3.05	0.45
49:S2:1237:C:C4	49:S2:1238:U:C4	3.04	0.45
49:S2:1510:G:N1	49:S2:1511:U:C6	2.84	0.45
1:5:4926:C:H2'	1:5:4927:G:H21	1.82	0.45
49:S2:638:C:HO2'	49:S2:639:C:C5'	2.29	0.45
49:S2:597:G:N3	49:S2:640:A:C2	2.85	0.45
62:SM:85:LEU:HB3	62:SM:106:CYS:HB3	1.99	0.45
49:S2:55:U:H3	49:S2:91:A:HO2'	1.62	0.45
1:5:3776:G:N3	1:5:3776:G:O4'	2.50	0.45
1:5:209:U:C2	1:5:233:U:N3	2.84	0.45
1:5:2857:A:C2	1:5:2858:A:C4	3.03	0.45
1:5:484:U:C5	1:5:486:C:C5	3.01	0.45
12:I:47:PRO:HB3	12:I:171:TRP:HE1	1.79	0.45
49:S2:989:C:C2	49:S2:1001:A:C6	3.05	0.45
49:S2:1338:G:C6	49:S2:1339:U:C4	3.04	0.45
1:5:5050:C:H1'	5:B:374:PHE:CE2	2.51	0.45
1:5:1925:G:C6	1:5:1926:C:C4	3.04	0.45
1:5:2032:U:O2'	22:S:91:HIS:HE1	1.99	0.45
1:5:2058:G:C5	1:5:2059:C:C5	3.04	0.45
1:5:31:U:H5"	17:N:71:ARG:HH21	1.81	0.45
1:5:4203:A:N6	1:5:4221:C:C2	2.85	0.45
49:S2:1004:U:N3	49:S2:1005:G:N7	2.64	0.45
1:5:917:A:C4	1:5:918:G:C6	3.04	0.45
1:5:3600:G:N2	1:5:3601:C:C2	2.85	0.45
49:S2:493:A:C8	49:S2:574:A:H8	2.26	0.45
1:5:2752:G:C8	1:5:2752:G:C5'	2.99	0.45
1:5:2590:G:C2'	1:5:2755:A:H61	2.30	0.45
1:5:4483:C:H2'	1:5:4484:A:O5'	2.17	0.45
5:B:116:ARG:C	5:B:118:PHE:H	2.20	0.45
1:5:755:C:C4	1:5:756:G:N7	2.85	0.45
1:5:194:C:C4	1:5:195:C:C6	3.05	0.45
1:5:4686:G:N2	1:5:4687:A:H1'	2.32	0.45
1:5:2557:G:N1	1:5:2558:C:C2	2.84	0.45
1:5:1751:A:N6	1:5:1752:G:N7	2.65	0.45
1:5:3591:C:C4	1:5:3592:G:N7	2.76	0.45
49:S2:602:G:H2'	49:S2:603:C:C5	2.51	0.45
49:S2:804:U:O2	49:S2:804:U:H2'	2.16	0.45
48:4:585:GLU:OE1	48:4:737:GLN:NE2	2.49	0.45
1:5:4333:C:C2'	1:5:4334:U:O5'	2.63	0.45
50:SA:116:PHE:CD1	50:SA:116:PHE:C	2.88	0.45
1:5:1349:G:N2	1:5:1350:C:C2	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:252:TRP:CB	6:C:257:PHE:HD1	2.29	0.45
49:S2:1059:G:O2'	49:S2:1060:A:H5'	2.17	0.45
49:S2:1810:U:H2'	49:S2:1811:C:O4'	2.17	0.45
1:5:512:U:H3'	1:5:513:U:H5'	1.98	0.45
27:X:74:TYR:CE1	27:X:116:LEU:HD22	2.51	0.45
49:S2:1379:A:H2'	49:S2:1380:C:C6	2.51	0.45
49:S2:141:A:N6	49:S2:177:G:N2	2.64	0.45
49:S2:1176:G:C5	49:S2:1177:U:C5	3.05	0.45
1:5:3819:G:N3	1:5:3819:G:H2'	2.31	0.45
1:5:1507:C:C4	1:5:1508:A:N7	2.85	0.45
25:V:88:TYR:CE1	25:V:96:LEU:HB3	2.51	0.45
50:SA:19:LEU:HD23	50:SA:24:HIS:CE1	2.51	0.45
1:5:2908:U:C2	1:5:2909:C:C6	3.04	0.45
1:5:4205:A:H3'	1:5:4206:C:H5"	1.97	0.45
6:C:269:LYS:O	6:C:278:ASN:ND2	2.49	0.45
1:5:4293:U:N3	1:5:4294:C:C5	2.84	0.45
49:S2:1462:U:C2	49:S2:1464:C:N4	2.84	0.45
58:SI:65:PHE:CE2	58:SI:104:ILE:HG21	2.50	0.45
49:S2:1525:C:O2	49:S2:1525:C:H2'	2.15	0.45
57:SH:162:GLN:OE1	57:SH:162:GLN:HA	2.16	0.45
71:SV:21:ASN:HB3	72:SW:67:GLY:HA3	1.98	0.45
1:5:72:C:H41	15:L:68:THR:HA	1.80	0.45
48:4:113:SER:HB2	48:4:499:PHE:CG	2.50	0.45
48:4:505:VAL:CG2	48:4:549:ALA:O	2.64	0.45
1:5:1443:A:C5	1:5:1444:G:C5	3.05	0.45
1:5:1542:U:C2	1:5:1543:G:H8	2.31	0.45
1:5:1668:A:C8	1:5:1881:C:C4	3.05	0.45
1:5:1899:G:C5	1:5:1900:C:C5	3.04	0.45
1:5:2292:C:H2'	1:5:2293:U:H6	1.82	0.45
1:5:2339:G:C2	1:5:2340:C:N1	2.85	0.45
1:5:2453:A:C6	1:5:2454:U:C4	3.01	0.45
1:5:2744:A:H2'	1:5:2745:A:N7	2.32	0.45
1:5:678:C:C2	1:5:679:C:C5	3.04	0.45
6:C:322:LEU:O	6:C:325:MET:HB3	2.16	0.45
8:E:46:LEU:HG	8:E:52:ARG:HG2	1.98	0.45
10:G:261:LEU:HD22	10:G:264:LYS:NZ	2.29	0.45
48:4:33:SER:HB3	48:4:57:THR:HG21	1.95	0.45
49:S2:1466:G:C6	49:S2:1467:C:C4	3.04	0.45
49:S2:147:A:O2'	49:S2:148:U:O5'	2.33	0.45
49:S2:1791:A:O2'	56:SG:67:VAL:HA	2.16	0.45
49:S2:448:A:H4'	49:S2:449:A:H5'	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:452:G:C5	49:S2:453:C:C5	3.05	0.45
49:S2:1050:A:C6	49:S2:1051:G:C1'	2.98	0.45
1:5:1475:G:H2'	1:5:1476:C:H6	1.81	0.45
1:5:299:C:N3	1:5:300:A:N7	2.64	0.45
1:5:3717:A:N7	1:5:3736:A:N6	2.65	0.45
1:5:96:U:OP1	15:L:13:HIS:HB3	2.16	0.45
1:5:1175:A:N3	1:5:1176:C:C6	2.85	0.45
2:7:62:U:O2	2:7:64:G:C8	2.70	0.45
49:S2:1418:C:N3	49:S2:1420:G:C5	2.84	0.45
49:S2:1508:A:N6	49:S2:1510:G:C4	2.84	0.45
49:S2:1552:G:OP1	49:S2:1553:C:O2	2.34	0.45
49:S2:1612:G:C2	49:S2:1613:G:C8	3.04	0.45
1:5:4292:A:O4'	1:5:4330:G:C1'	2.65	0.45
1:5:2367:A:N7	1:5:2798:A:N3	2.65	0.45
1:5:4899:G:C2	1:5:4922:C:O2	2.70	0.45
62:SM:32:ALA:HB3	62:SM:110:VAL:HB	1.99	0.45
1:5:4999:G:C2	1:5:5000:G:N9	2.85	0.45
1:5:3757:G:C6	1:5:3758:U:C4	3.05	0.45
1:5:2496:G:C4	1:5:2497:C:C5	3.04	0.45
1:5:2497:C:C4	1:5:2498:C:H5	2.29	0.45
1:5:3632:C:N3	1:5:3633:C:C5	2.84	0.45
1:5:2857:A:C4	1:5:2858:A:N7	2.85	0.45
1:5:2529:A:C8	1:5:2532:C:C5	3.04	0.45
49:S2:1106:C:C2	49:S2:1107:G:C8	3.04	0.45
1:5:5047:C:O2'	1:5:5050:C:OP2	2.15	0.45
1:5:44:A:N3	1:5:44:A:H2'	2.32	0.45
1:5:47:A:H4'	1:5:48:G:OP1	2.16	0.45
18:O:49:ARG:NH1	18:O:49:ARG:HG2	2.32	0.45
1:5:4099:G:O2'	51:SB:224:GLU:CA	2.64	0.45
1:5:4109:G:C2	1:5:4110:C:C6	3.04	0.45
1:5:4112:C:C2	1:5:4113:U:C6	3.05	0.45
49:S2:1005:G:C6	49:S2:1006:C:C4	3.04	0.45
49:S2:1045:U:N3	49:S2:1046:U:C4	2.84	0.45
49:S2:982:G:O2'	49:S2:983:A:H5'	2.17	0.45
1:5:4723:A:H2'	1:5:4724:A:C8	2.51	0.45
49:S2:498:C:N3	49:S2:505:G:N2	2.65	0.45
1:5:4257:A:C2'	1:5:4258:C:C6	2.77	0.45
13:J:60:PHE:N	13:J:60:PHE:CD1	2.84	0.45
1:5:2543:A:C2	1:5:2773:G:C6	3.04	0.45
1:5:2575:U:O4	29:Z:51:ARG:NH2	2.50	0.45
1:5:1752:G:C5	1:5:1753:G:C8	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2904:U:OP2	1:5:2905:C:N4	2.49	0.45
54:SE:100:ARG:HG2	54:SE:102:ILE:HG13	1.98	0.45
2:7:115:A:H5'	2:7:115:A:H8	1.81	0.45
1:5:728:U:H2'	1:5:729:G:OP1	2.16	0.45
50:SA:104:THR:O	50:SA:107:THR:HG23	2.16	0.45
49:S2:330:G:C6	49:S2:331:C:C5	3.05	0.45
1:5:3603:G:H2'	1:5:3604:A:N3	2.31	0.45
1:5:4905:C:N3	1:5:4906:C:C5	2.85	0.45
1:5:709:C:C4	1:5:710:G:N7	2.85	0.45
55:SF:73:THR:HG22	55:SF:93:VAL:HG21	1.98	0.45
59:SJ:124:HIS:O	59:SJ:127:ARG:N	2.49	0.45
3:8:55:U:N3	3:8:62:A:C2	2.74	0.45
49:S2:1621:U:HO2'	49:S2:1622:U:H6	1.63	0.45
49:S2:1806:A:C4	49:S2:1807:C:C6	3.05	0.45
49:S2:899:U:N3	49:S2:900:C:C6	2.85	0.45
1:5:512:U:H3'	1:5:513:U:C5'	2.46	0.45
49:S2:1686:G:C2	49:S2:1687:C:C2	3.04	0.45
49:S2:569:A:C6	49:S2:570:C:C5	3.04	0.45
49:S2:1335:G:C5	49:S2:1336:C:C5	3.05	0.45
10:G:166:LEU:HD21	17:N:45:PRO:HG2	1.98	0.45
2:7:69:U:C4	2:7:106:G:O6	2.70	0.45
1:5:4299:U:O2	1:5:4300:U:C6	2.70	0.45
52:SC:74:LYS:CG	52:SC:269:PHE:CD2	2.99	0.45
49:S2:1387:G:C6	49:S2:1388:A:C4	3.05	0.45
1:5:2351:C:N3	1:5:2352:U:C5	2.85	0.45
5:B:379:PHE:N	5:B:379:PHE:CD1	2.83	0.45
1:5:379:G:C2	1:5:380:U:C5	3.04	0.45
1:5:1426:G:O2'	1:5:1459:A:N6	2.50	0.45
1:5:5027:C:O2	1:5:5027:C:H2'	2.15	0.45
22:S:68:PHE:CD1	22:S:68:PHE:N	2.85	0.45
64:SO:40:THR:HG21	64:SO:111:GLY:HA3	1.99	0.45
1:5:4408:G:C6	1:5:4409:C:C4	3.04	0.45
55:SF:100:ILE:CG2	55:SF:111:VAL:HG21	2.46	0.45
1:5:192:G:N2	1:5:250:C:C2	2.84	0.45
11:H:162:GLN:HG3	11:H:180:TYR:HA	1.99	0.45
48:4:114:GLU:CA	48:4:114:GLU:OE1	2.61	0.45
48:4:27:HIS:HB3	48:4:30:HIS:CD2	2.52	0.45
48:4:517:LEU:HD23	48:4:517:LEU:O	2.16	0.45
48:4:745:TYR:CG	48:4:814:PHE:HA	2.46	0.45
1:5:1543:G:N1	1:5:1544:G:N7	2.63	0.45
1:5:1617:G:C2	1:5:2513:A:C2	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1683:U:C2	1:5:1684:A:H8	2.13	0.45
1:5:1691:G:C4	1:5:1692:C:C6	3.05	0.45
1:5:1694:C:C2	1:5:1695:U:C5	3.05	0.45
1:5:1983:A:H2	1:5:2010:A:C3'	2.28	0.45
1:5:2008:U:H5	1:5:2010:A:H3'	1.81	0.45
1:5:2598:A:O2'	1:5:2599:G:C5'	2.64	0.45
1:5:2745:A:HO2'	1:5:2746:A:C5'	2.28	0.45
1:5:4167:G:C2	1:5:4168:G:N7	2.83	0.45
1:5:446:C:O2	1:5:446:C:H2'	2.16	0.45
1:5:451:C:N4	1:5:1295:C:C2'	2.68	0.45
1:5:691:C:O2	1:5:692:A:C8	2.69	0.45
1:5:695:G:H3'	1:5:696:C:C5'	2.45	0.45
48:4:236:PHE:HZ	48:4:273:PHE:CE1	2.33	0.45
49:S2:1446:A:O2'	49:S2:1447:G:H8	1.98	0.45
49:S2:173:A:C6	49:S2:174:C:C6	3.03	0.45
49:S2:64:A:N1	49:S2:82:G:C2	2.84	0.45
49:S2:92:A:H5"	49:S2:92:A:N3	2.31	0.45
49:S2:1832:A:C6	49:S2:1833:C:N4	2.85	0.45
1:5:1362:G:C2	1:5:1363:C:N1	2.85	0.45
1:5:1394:G:C2	1:5:1395:U:C2	3.05	0.45
1:5:1491:A:C5	1:5:1492:G:N7	2.84	0.45
1:5:320:C:C4	1:5:321:U:C5	3.04	0.45
1:5:3738:G:H3'	1:5:3738:G:C8	2.52	0.45
1:5:4363:A:C6	1:5:4364:G:N7	2.84	0.45
74:SY:74:MET:HG3	74:SY:76:TYR:OH	2.16	0.45
1:5:1176:C:N3	1:5:1177:U:C5	2.85	0.45
49:S2:1421:A:C6	49:S2:1422:G:C4	3.05	0.45
49:S2:1427:C:O2	49:S2:1428:G:N7	2.49	0.45
49:S2:1326:U:O4'	49:S2:1494:U:C6	2.70	0.45
49:S2:1553:C:H5'	49:S2:1556:A:H61	1.82	0.45
49:S2:1562:C:O2	49:S2:1562:C:H2'	2.16	0.45
49:S2:1605:G:N2	49:S2:1635:C:N4	2.64	0.45
1:5:4233:A:N7	1:5:4235:G:C8	2.84	0.45
1:5:1563:A:O2'	1:5:1564:A:C8	2.70	0.45
49:S2:1279:C:H2'	49:S2:1280:G:O4'	2.16	0.45
49:S2:1677:U:C2	49:S2:1678:A:C2	3.05	0.45
60:SK:57:TYR:O	60:SK:58:VAL:HB	2.16	0.45
1:5:5006:U:C1'	1:5:5042:A:N7	2.80	0.45
49:S2:533:A:C2	49:S2:534:G:H1'	2.51	0.45
49:S2:556:U:H1'	49:S2:557:U:C5	2.51	0.45
49:S2:478:G:C6	49:S2:479:C:C4	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3759:A:C2	49:S2:1708:C:H2'	2.50	0.45
49:S2:165:G:H8	49:S2:166:A:C8	2.23	0.45
1:5:3635:A:N1	1:5:3636:C:H1'	2.31	0.45
1:5:656:C:O2	1:5:657:C:C6	2.69	0.45
5:B:234:ARG:HD2	5:B:271:GLN:O	2.17	0.45
1:5:743:G:H1	1:5:921:C:H42	1.63	0.45
2:7:42:A:C2	2:7:43:U:N1	2.83	0.45
49:S2:46:A:C2	49:S2:99:A:C4	3.04	0.45
17:N:30:TYR:CZ	17:N:63:ARG:CD	2.99	0.45
1:5:1096:C:C2	1:5:1097:C:C6	3.05	0.45
1:5:4470:G:C2	1:5:4486:C:N3	2.85	0.45
8:E:175:LEU:HB2	8:E:246:GLN:NE2	2.27	0.45
1:5:1744:U:N3	1:5:1745:G:N7	2.65	0.45
1:5:1781:U:O2	1:5:1782:U:C6	2.69	0.45
1:5:4315:A:C3'	1:5:4316:G:H5'	2.47	0.45
1:5:2576:G:N1	1:5:2577:C:C5	2.84	0.45
1:5:4489:G:C2	1:5:4490:C:C2	3.04	0.45
1:5:2391:G:C2	1:5:2392:C:C2	3.05	0.45
49:S2:1662:U:H5"	49:S2:1663:A:OP2	2.16	0.45
1:5:4905:C:C2	1:5:4906:C:C6	3.04	0.45
8:E:129:PHE:C	8:E:129:PHE:HD1	2.20	0.45
8:E:129:PHE:O	8:E:130:SER:C	2.52	0.45
49:S2:816:A:C2	49:S2:817:G:C1'	2.99	0.45
48:4:19:ILE:HG22	48:4:20:ARG:N	2.31	0.45
1:5:14:C:O2	1:5:15:A:C8	2.70	0.45
7:D:196:ARG:HA	7:D:196:ARG:NH1	2.31	0.45
49:S2:192:C:H4'	49:S2:192:C:OP1	2.16	0.45
10:G:78:PRO:HD3	10:G:237:TRP:CE3	2.52	0.45
49:S2:569:A:C5	49:S2:570:C:C5	3.04	0.45
1:5:2867:C:C2	1:5:2884:G:C2	3.04	0.45
65:SP:53:GLN:OE1	65:SP:53:GLN:N	2.49	0.45
7:D:189:GLU:N	7:D:189:GLU:OE2	2.50	0.45
7:D:66:TYR:CD1	7:D:66:TYR:C	2.90	0.45
1:5:937:U:H2'	1:5:937:U:O2	2.16	0.45
1:5:4291:G:H5"	1:5:4291:G:N3	2.32	0.45
19:P:114:ILE:HD11	19:P:117:ILE:HD12	1.98	0.45
50:SA:52:LYS:HD3	67:SR:109:LEU:HD12	1.98	0.45
56:SG:147:LEU:HD21	56:SG:156:TYR:CB	2.47	0.45
48:4:770:VAL:HA	48:4:785:LYS:O	2.17	0.45
48:4:767:ARG:HH22	48:4:789:PRO:HG2	1.82	0.45
1:5:1067:G:C2	1:5:1068:G:H1'	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1084:C:C2	1:5:1085:C:C6	3.05	0.45
1:5:1212:G:C2	1:5:1213:G:C5	3.05	0.45
1:5:1241:C:C2'	1:5:1242:G:OP1	2.65	0.45
1:5:1280:C:H5'	1:5:1280:C:C6	2.45	0.45
1:5:1427:A:OP2	1:5:1428:U:C4	2.70	0.45
1:5:1446:C:H2'	1:5:1447:C:H5'	1.98	0.45
1:5:1662:C:C2	1:5:1663:C:C6	3.04	0.45
1:5:1663:C:O2'	1:5:2319:C:N4	2.48	0.45
1:5:1972:G:N3	1:5:1973:G:C8	2.85	0.45
1:5:1985:G:H2'	1:5:1986:U:C6	2.52	0.45
1:5:2076:G:C2	1:5:2077:C:N1	2.84	0.45
1:5:2126:G:C8	1:5:2127:C:C5	3.05	0.45
1:5:2441:C:O2	1:5:2442:G:N7	2.50	0.45
1:5:2744:A:C6	1:5:2745:A:N6	2.85	0.45
1:5:3673:C:O2'	1:5:3674:G:OP1	2.32	0.45
1:5:4175:G:N2	1:5:4176:C:C2	2.85	0.45
1:5:476:G:C2	1:5:679:C:C2	3.05	0.45
14:K:86:LYS:HA	14:K:104:ILE:HD13	1.98	0.45
22:S:28:TYR:HD2	23:T:151:LEU:HD11	1.81	0.45
48:4:739:ARG:HH11	48:4:823:ASP:CB	2.13	0.45
49:S2:1466:G:C2	49:S2:1467:C:C4	3.04	0.45
49:S2:148:U:C4	49:S2:170:A:N7	2.85	0.45
49:S2:302:A:C6	49:S2:303:C:C4	3.04	0.45
49:S2:65:C:C5	56:SG:133:LEU:HD22	2.52	0.45
49:S2:65:C:C4	56:SG:133:LEU:HB3	2.52	0.45
56:SG:211:LYS:O	56:SG:215:LYS:N	2.37	0.45
49:S2:672:A:C2	49:S2:1162:C:H1'	2.52	0.45
1:5:292:G:C2	1:5:293:G:C2	3.05	0.45
1:5:294:G:N3	1:5:294:G:H2'	2.32	0.45
1:5:296:A:C8	1:5:296:A:O5'	2.69	0.45
1:5:3721:U:N3	1:5:3722:G:C8	2.80	0.45
1:5:3722:G:C2	1:5:3723:A:N9	2.85	0.45
1:5:4978:G:C2'	1:5:4979:A:O5'	2.65	0.45
1:5:85:G:H1'	1:5:86:U:H5	1.81	0.45
49:S2:947:G:C5	49:S2:948:C:C5	3.04	0.45
49:S2:1407:U:C2'	49:S2:1408:U:H6	2.24	0.45
49:S2:1411:G:C4	49:S2:1412:C:H1'	2.51	0.45
49:S2:1428:G:OP1	66:SQ:69:ARG:NH2	2.50	0.45
49:S2:1531:A:H2'	49:S2:1532:C:C1'	2.46	0.45
49:S2:1537:A:C4	49:S2:1538:C:C6	3.04	0.45
1:5:4275:G:N1	1:5:4276:G:C4	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4276:G:H4'	23:T:12:ARG:O	2.17	0.45
2:7:21:G:C8	2:7:21:G:H5"	2.51	0.45
49:S2:25:A:C6	49:S2:26:U:C5	3.05	0.45
49:S2:641:A:O2'	49:S2:645:C:OP1	2.34	0.45
73:SX:115:ILE:HG22	73:SX:118:VAL:CG2	2.47	0.45
49:S2:1646:C:OP1	66:SQ:138:ARG:NH1	2.50	0.45
48:4:330:LYS:C	48:4:331:GLU:CG	2.74	0.45
49:S2:547:G:H2'	49:S2:548:C:H5"	1.97	0.45
1:5:4539:U:O2	1:5:4540:C:C6	2.69	0.45
3:8:121:G:C2'	3:8:122:G:O5'	2.63	0.45
3:8:59:A:O5'	3:8:60:G:H2'	2.17	0.45
49:S2:837:A:H2	49:S2:838:G:C5	2.33	0.45
49:S2:839:C:C6	49:S2:841:G:C4	3.05	0.45
1:5:4092:G:N1	1:5:4093:G:C2	2.84	0.45
1:5:4108:G:N1	1:5:4109:G:C5	2.85	0.45
49:S2:1102:G:C6	49:S2:1103:C:C4	3.05	0.45
6:C:103:ALA:O	6:C:104:PRO:C	2.55	0.45
1:5:2603:C:C4	1:5:2604:C:C5	3.05	0.45
1:5:2603:C:N3	1:5:2604:C:C6	2.85	0.45
1:5:2658:G:N2	1:5:2675:G:N3	2.65	0.45
1:5:3597:G:O4'	1:5:3597:G:P	2.75	0.45
3:8:132:G:C2	3:8:133:G:C5	3.04	0.45
1:5:5028:G:C2	1:5:5029:C:C4	3.04	0.45
1:5:1092:G:N1	1:5:1093:C:C4	2.84	0.45
1:5:906:C:C2	1:5:907:C:C6	3.05	0.45
1:5:2759:G:H2'	1:5:2760:G:H1'	1.97	0.45
1:5:4910:G:N2	18:O:109:PRO:HA	2.31	0.45
1:5:1310:C:C2	1:5:1311:G:H8	2.32	0.45
49:S2:600:G:C4	49:S2:631:U:O4	2.70	0.45
49:S2:1777:G:C4	49:S2:1778:C:C5	3.05	0.45
49:S2:187:G:C5	49:S2:188:C:C4	3.05	0.45
49:S2:186:C:N3	49:S2:187:G:N7	2.64	0.45
1:5:235:A:O2'	1:5:237:G:OP2	2.35	0.45
8:E:279:PRO:C	8:E:281:LYS:N	2.69	0.45
49:S2:306:C:C5	49:S2:308:G:N7	2.85	0.45
1:5:4904:G:C2	1:5:4905:C:C2	3.04	0.45
49:S2:365:C:H4'	49:S2:402:C:O2'	2.16	0.45
49:S2:1332:A:C6	49:S2:1333:U:C6	3.05	0.45
49:S2:1502:C:H2'	49:S2:1502:C:O2	2.16	0.45
1:5:218:A:H62	6:C:185:ALA:HB2	1.76	0.45
1:5:2622:G:C2	1:5:2623:A:H1'	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4069:U:O2	1:5:4069:U:H2'	2.16	0.45
50:SA:39:TYR:CD1	50:SA:39:TYR:C	2.89	0.45
1:5:74:G:H5"	15:L:59:VAL:HG13	1.98	0.45
49:S2:1820:G:H2'	49:S2:1821:U:O4'	2.16	0.45
61:SL:117:PHE:HZ	61:SL:144:LYS:HA	1.80	0.45
7:D:62:CYS:HB3	7:D:105:LEU:HD22	1.98	0.45
54:SE:51:ARG:CA	54:SE:51:ARG:HE	2.29	0.45
1:5:4640:C:C2	1:5:4641:U:C6	3.04	0.45
58:SI:80:ASP:OD1	58:SI:81:VAL:N	2.50	0.45
57:SH:61:ILE:HD11	57:SH:95:ILE:HD12	1.98	0.45
55:SF:118:ASN:ND2	55:SF:181:ALA:O	2.49	0.45
5:B:26:ARG:HB2	5:B:344:VAL:HG11	1.99	0.45
18:O:168:TYR:OH	18:O:172:LYS:HD3	2.17	0.45
5:B:190:VAL:O	5:B:191:ALA:CB	2.65	0.45
55:SF:199:VAL:O	55:SF:203:ASN:ND2	2.49	0.45
74:SY:19:GLN:N	74:SY:19:GLN:OE1	2.50	0.45
64:SO:126:ILE:CG2	64:SO:129:ILE:HD11	2.47	0.45
75:SZ:84:ALA:O	75:SZ:88:LEU:HG	2.17	0.45
6:C:41:HIS:HB3	6:C:244:GLY:HA2	1.97	0.45
48:4:518:PRO:CB	73:SX:50:ILE:HD11	2.46	0.45
1:5:1076:C:N4	1:5:1077:C:C4	2.84	0.45
1:5:1247:U:H2'	1:5:1248:C:O4'	2.17	0.45
1:5:1293:G:H2'	1:5:1294:A:C4	2.51	0.45
1:5:1878:G:C2	1:5:1879:C:C2	3.05	0.45
1:5:2644:G:C2	1:5:2645:G:C8	3.05	0.45
1:5:4405:G:H4'	12:I:4:ARG:HD3	1.98	0.45
1:5:4460:U:H2'	1:5:4461:C:C6	2.52	0.45
1:5:462:G:N2	1:5:694:C:C2	2.85	0.45
14:K:94:LYS:HE2	14:K:96:LYS:HG3	1.97	0.45
49:S2:1457:U:H2'	49:S2:1458:G:H8	1.79	0.45
49:S2:1180:C:O2	49:S2:1180:C:C2'	2.64	0.45
1:5:2360:A:N6	1:5:3860:A:C8	2.84	0.45
1:5:4238:G:O2'	1:5:4322:G:H4'	2.17	0.45
1:5:1564:A:H2'	1:5:1565:A:C8	2.51	0.45
1:5:2367:A:C4	1:5:2798:A:C2	3.05	0.45
49:S2:1135:C:C2	49:S2:1136:U:C6	3.04	0.45
49:S2:1295:A:C8	49:S2:1296:U:C6	3.04	0.45
62:SM:46:GLN:OE1	62:SM:112:LYS:HD2	2.16	0.45
1:5:2484:A:C5	1:5:2485:U:C5	3.04	0.45
49:S2:752:G:C2	49:S2:790:C:C4	3.05	0.45
1:5:2725:A:H2'	1:5:2726:G:H5"	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:989:C:C4	49:S2:1001:A:N1	2.83	0.45
1:5:3869:C:C2	1:5:3870:C:C5	3.05	0.45
48:4:430:MET:HE2	48:4:486:THR:HG23	1.92	0.45
1:5:2058:G:H21	1:5:2059:C:H1'	1.82	0.45
49:S2:1102:G:N2	49:S2:1130:G:N2	2.58	0.45
48:4:21:ASN:ND2	48:4:469:ILE:HD12	2.22	0.45
49:S2:975:G:N1	49:S2:976:G:C5	2.85	0.45
1:5:2422:C:O2	1:5:2422:C:C2'	2.63	0.45
1:5:4742:G:C6	1:5:4743:G:C5	3.05	0.45
1:5:4735:G:C2	1:5:4736:C:N1	2.85	0.45
1:5:4474:A:N7	1:5:4476:C:C2	2.85	0.45
11:H:93:ARG:NH1	11:H:93:ARG:HB3	2.32	0.45
1:5:4686:G:C5	1:5:4687:A:C8	3.05	0.45
1:5:4696:C:H2'	1:5:4697:U:O4'	2.16	0.45
1:5:145:G:C2	1:5:146:G:C4	3.04	0.45
49:S2:807:G:C2	49:S2:808:A:C5	3.05	0.45
49:S2:415:A:H2'	49:S2:416:U:O5'	2.17	0.45
1:5:235:A:N6	1:5:238:C:C2	2.85	0.45
1:5:154:G:C4	1:5:155:C:C5	3.04	0.45
1:5:4491:G:C6	1:5:4492:U:C4	3.05	0.45
19:P:70:CYS:SG	19:P:83:TRP:HH2	2.39	0.45
1:5:3657:U:C2	1:5:3658:C:C5	3.04	0.45
22:S:33:PHE:HZ	22:S:106:VAL:HB	1.81	0.45
1:5:4152:G:C6	1:5:4153:C:C4	3.05	0.45
1:5:2823:G:N2	1:5:2824:C:C2	2.85	0.45
7:D:223:PHE:N	7:D:223:PHE:CD1	2.84	0.45
7:D:99:TYR:CD1	7:D:165:GLY:HA2	2.51	0.45
1:5:719:C:N3	1:5:720:G:C8	2.85	0.45
56:SG:113:ILE:HD12	56:SG:124:LEU:HD21	1.99	0.45
49:S2:1730:U:C4	49:S2:1731:A:C8	3.05	0.45
1:5:3923:A:H2'	1:5:3924:C:C6	2.51	0.45
49:S2:1865:C:H3'	49:S2:1866:A:H5'	1.98	0.45
21:R:9:ARG:HH11	21:R:9:ARG:HG2	1.82	0.45
57:SH:36:LEU:CD1	57:SH:40:LEU:HD12	2.47	0.45
2:7:83:A:N1	2:7:85:G:C8	2.85	0.45
1:5:4755:G:C6	1:5:4876:U:C4	3.05	0.45
58:SI:118:ALA:HB1	58:SI:137:LEU:CD2	2.47	0.45
71:SV:21:ASN:O	71:SV:21:ASN:ND2	2.48	0.45
7:D:147:ASP:OD1	7:D:149:GLY:N	2.50	0.45
1:5:1656:U:N3	1:5:1657:G:N7	2.65	0.45
28:Y:56:GLN:HB3	28:Y:56:GLN:HE21	1.63	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:5:THR:O	48:4:9:ILE:HG13	2.16	0.45
48:4:744:ILE:HG22	48:4:745:TYR:CD2	2.52	0.45
1:5:1261:G:N3	1:5:1262:G:C8	2.84	0.45
1:5:1541:C:C2	1:5:1542:U:C6	3.05	0.45
1:5:1269:G:C2'	1:5:2111:G:O6	2.65	0.45
1:5:2115:G:H8	1:5:2116:C:C6	2.35	0.45
1:5:2442:G:C3'	1:5:2443:G:H5"	2.47	0.45
1:5:2518:G:H4'	1:5:2538:U:O2'	2.16	0.45
1:5:4079:C:C2	1:5:4080:C:C5	3.05	0.45
1:5:435:A:C6	1:5:436:C:C6	3.04	0.45
1:5:453:G:N3	1:5:453:G:H2'	2.32	0.45
1:5:467:U:H2'	1:5:467:U:O2	2.17	0.45
1:5:677:G:C6	1:5:678:C:C4	3.05	0.45
9:F:84:TYR:HD1	9:F:85:VAL:H	1.65	0.45
10:G:61:ILE:O	10:G:62:ARG:C	2.55	0.45
14:K:134:GLY:O	14:K:137:GLN:HG3	2.17	0.45
48:4:518:PRO:CB	73:SX:50:ILE:CD1	2.94	0.45
48:4:604:MET:CE	48:4:702:PHE:CD1	3.00	0.45
48:4:562:GLU:CA	48:4:570:ILE:CD1	2.74	0.45
49:S2:220:U:C4	49:S2:221:A:N7	2.85	0.45
64:SO:146:ARG:O	64:SO:148:GLY:N	2.50	0.45
1:5:1377:G:N7	1:5:1378:C:H4'	2.32	0.45
1:5:1473:U:C4	1:5:1474:C:C4	3.05	0.45
1:5:332:C:H2'	1:5:333:U:C6	2.52	0.45
1:5:4975:G:C2	1:5:4977:A:C8	3.04	0.45
1:5:4977:A:C6	1:5:4978:G:N1	2.85	0.45
1:5:90:G:C8	1:5:92:C:N1	2.85	0.45
1:5:93:G:C4	1:5:94:A:C6	3.04	0.45
49:S2:1669:G:C2	49:S2:1670:C:C2	3.04	0.45
3:8:14:U:C2'	3:8:15:G:O5'	2.65	0.45
1:5:4923:C:N3	1:5:4924:C:C5	2.85	0.45
49:S2:1296:U:H2'	49:S2:1297:U:C6	2.51	0.45
49:S2:1215:C:H5	49:S2:1645:C:H2'	1.81	0.45
48:4:323:LEU:CD1	48:4:335:LEU:HD11	2.47	0.45
1:5:1321:G:N2	1:5:3876:A:O4'	2.49	0.45
49:S2:793:G:C6	49:S2:794:A:N7	2.84	0.45
1:5:3692:A:N1	1:5:3693:U:H1'	2.32	0.45
1:5:3813:A:H2	1:5:4538:G:N3	2.14	0.45
1:5:2612:G:C5	1:5:2613:C:C6	3.04	0.45
1:5:488:G:N2	1:5:489:C:C1'	2.80	0.45
1:5:489:C:H42	1:5:664:G:H1	1.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:239:LYS:CD	48:4:241:GLU:HG2	2.46	0.45
7:D:122:GLN:HB3	7:D:168:ASP:OD1	2.17	0.45
49:S2:922:A:OP1	72:SW:28:ARG:NH2	2.49	0.45
74:SY:44:LEU:HA	74:SY:47:MET:HG2	1.98	0.45
49:S2:102:A:H5'	49:S2:104:A:N3	2.31	0.45
49:S2:968:U:O2'	49:S2:972:A:C1'	2.60	0.45
1:5:3598:C:C2	1:5:3599:A:C8	3.05	0.45
49:S2:849:A:O2'	49:S2:850:C:H5'	2.17	0.45
49:S2:962:A:C2	49:S2:963:A:N9	2.85	0.45
12:I:86:HIS:HD2	12:I:139:ARG:HH12	1.65	0.45
1:5:145:G:C6	1:5:146:G:C5	3.04	0.45
1:5:146:G:N1	1:5:147:A:N7	2.65	0.45
49:S2:803:C:C2	49:S2:804:U:C6	3.05	0.45
1:5:939:G:N3	1:5:939:G:H2'	2.32	0.45
4:A:33:ASP:O	4:A:34:PHE:C	2.53	0.45
1:5:124:C:C2	1:5:125:C:C5	3.05	0.45
1:5:722:G:H21	6:C:343:GLN:HE22	1.64	0.45
1:5:4595:G:C2	1:5:4596:C:C2	3.04	0.45
1:5:1583:A:N6	1:5:1584:G:C4	2.85	0.45
21:R:117:ARG:NH2	21:R:118:HIS:CE1	2.84	0.45
1:5:1285:U:O2	8:E:126:LYS:HG3	2.16	0.45
49:S2:693:A:C4	49:S2:694:G:C8	3.04	0.45
1:5:306:A:C2	1:5:307:A:C5	3.04	0.45
3:8:143:G:C6	3:8:144:U:C5	3.04	0.45
62:SM:24:THR:HB	62:SM:115:GLY:HA3	1.99	0.45
5:B:367:PHE:HZ	5:B:380:GLN:NE2	2.14	0.45
1:5:2052:G:O3'	18:O:17:GLY:HA3	2.17	0.45
50:SA:53:ARG:NH1	50:SA:53:ARG:HB2	2.32	0.45
1:5:2:G:C4	1:5:3:C:C5	3.05	0.45
8:E:169:LEU:HD21	8:E:187:GLN:HB2	1.97	0.45
51:SB:123:ALA:O	51:SB:124:HIS:HB3	2.17	0.45
64:SO:44:VAL:HG23	64:SO:81:VAL:HG11	1.98	0.45
54:SE:65:CYS:SG	54:SE:66:MET:N	2.90	0.45
58:SI:36:THR:HB	58:SI:57:ALA:O	2.17	0.45
1:5:224:U:O2	1:5:224:U:O4'	2.33	0.45
1:5:2641:A:H2'	1:5:2642:A:O4'	2.17	0.45
48:4:577:VAL:CG1	48:4:578:SER:N	2.80	0.45
48:4:749:ILE:CD1	48:4:759:ILE:HG13	2.42	0.45
1:5:1684:A:N6	1:5:1685:G:C5	2.85	0.45
1:5:1868:A:C6	1:5:1870:C:H1'	2.52	0.45
1:5:1997:U:H3'	1:5:1998:A:H5"	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2104:G:N1	1:5:2105:A:C4	2.85	0.45
1:5:2644:G:C2	1:5:2645:G:N9	2.85	0.45
1:5:4083:U:O2	1:5:4085:A:O4'	2.34	0.45
1:5:4165:C:N4	1:5:4166:G:N7	2.63	0.45
1:5:449:C:C2'	1:5:449:C:O2	2.64	0.45
1:5:707:C:H1'	1:5:4944:C:N4	2.32	0.45
21:R:99:MET:HG3	21:R:103:ARG:NH1	2.31	0.45
49:S2:458:A:H2'	49:S2:458:A:N3	2.31	0.45
49:S2:217:A:C2	49:S2:218:U:O4'	2.70	0.45
49:S2:1203:G:H3'	49:S2:1204:A:C8	2.52	0.45
49:S2:12:U:H2'	49:S2:13:C:H6	1.82	0.45
49:S2:1840:U:N3	49:S2:1841:C:C4	2.84	0.45
49:S2:1841:C:C2	49:S2:1842:C:H5	2.31	0.45
48:4:154:VAL:HG11	48:4:358:LEU:CG	2.47	0.45
1:5:1362:G:C6	1:5:1363:C:C5	3.05	0.45
1:5:1374:G:N2	1:5:1375:C:H1'	2.31	0.45
1:5:277:G:O2'	1:5:278:G:P	2.75	0.45
1:5:316:U:O2'	1:5:317:A:C8	2.70	0.45
1:5:3736:A:O2'	1:5:3737:A:C4'	2.64	0.45
49:S2:1551:U:C1'	49:S2:1558:C:O2	2.65	0.45
49:S2:1594:A:N6	49:S2:1595:U:C5	2.81	0.45
1:5:4216:G:C6	1:5:4217:G:N7	2.85	0.45
49:S2:1303:C:N4	49:S2:1304:U:C4	2.85	0.45
62:SM:77:ILE:HG23	62:SM:78:LYS:N	2.31	0.45
49:S2:1110:G:C6	49:S2:1111:U:C5	3.05	0.45
1:5:5003:U:H2'	1:5:5004:C:C6	2.52	0.45
1:5:5004:C:C3'	1:5:5005:G:O4'	2.65	0.45
48:4:322:LYS:CG	48:4:323:LEU:N	2.80	0.45
1:5:1321:G:C1'	1:5:1891:A:H62	2.29	0.45
1:5:1885:G:C6	1:5:1895:G:N1	2.85	0.45
49:S2:552:G:C5	49:S2:553:U:C5	3.05	0.45
1:5:2480:G:C6	1:5:2481:G:C5	3.04	0.45
1:5:2481:G:N2	1:5:2498:C:C2	2.85	0.45
1:5:2480:G:N2	1:5:2499:C:C2	2.85	0.45
1:5:3694:U:O2	1:5:3695:U:C6	2.70	0.45
3:8:115:G:N2	3:8:116:C:C2	2.85	0.45
3:8:116:C:O2	3:8:116:C:H2'	2.17	0.45
1:5:2852:U:C2	1:5:2852:U:C3'	2.97	0.45
1:5:2725:A:H2'	1:5:2726:G:H5'	1.99	0.45
1:5:1817:U:O2	1:5:1821:G:O6	2.35	0.45
1:5:1927:U:O2	1:5:1928:C:C6	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4106:G:C5	1:5:4107:G:H1'	2.51	0.45
2:7:42:A:C4	2:7:43:U:C5	3.05	0.45
2:7:44:C:H2'	2:7:45:U:O5'	2.16	0.45
1:5:3600:G:C2	1:5:3601:C:C2	3.05	0.45
49:S2:14:C:OP1	52:SC:189:GLY:O	2.35	0.45
1:5:4479:A:C6	1:5:4480:A:C4	3.05	0.45
1:5:3794:C:C4	1:5:3795:A:N7	2.84	0.45
5:B:110:ILE:O	5:B:111:SER:CB	2.64	0.45
5:B:115:LYS:HE2	5:B:119:TYR:OH	2.16	0.45
1:5:229:G:OP1	28:Y:11:ARG:NH1	2.48	0.45
2:7:93:G:N1	2:7:94:C:C4	2.85	0.45
2:7:24:C:H2'	2:7:25:G:O5'	2.16	0.45
1:5:1725:U:N3	1:5:1726:U:C6	2.85	0.45
49:S2:1259:A:HO2'	49:S2:1263:U:H3	1.65	0.45
2:7:51:G:N3	2:7:52:C:C5	2.84	0.45
1:5:4737:G:N1	1:5:4963:G:N3	2.64	0.45
22:S:81:TRP:NE1	22:S:94:TYR:HD1	2.15	0.45
49:S2:828:G:H2'	49:S2:829:C:O4'	2.17	0.45
59:SJ:124:HIS:O	59:SJ:125:HIS:C	2.55	0.45
49:S2:896:U:H2'	49:S2:897:U:O4'	2.16	0.45
49:S2:901:G:C4	49:S2:902:G:C8	3.05	0.45
7:D:90:VAL:HB	7:D:226:TYR:CE1	2.51	0.45
1:5:2703:G:C4	1:5:2704:C:C6	3.05	0.45
49:S2:1190:A:H2'	49:S2:1191:C:C5'	2.47	0.45
49:S2:1535:U:OP2	75:SZ:106:GLN:NE2	2.47	0.45
49:S2:201:C:N3	49:S2:202:G:H1'	2.32	0.45
49:S2:1024:A:H2'	49:S2:1025:U:O4'	2.16	0.45
69:ST:134:ILE:O	69:ST:138:VAL:N	2.50	0.45
70:SU:50:VAL:HG13	70:SU:51:LYS:H	1.80	0.45
49:S2:1481:G:H2'	49:S2:1482:C:O4'	2.16	0.45
63:SN:133:ARG:CZ	63:SN:133:ARG:CB	2.94	0.45
19:P:78:TRP:CE3	19:P:78:TRP:HA	2.52	0.45
49:S2:1016:U:O2	49:S2:1016:U:O4'	2.34	0.45
56:SG:102:VAL:HG13	56:SG:106:LEU:HD11	1.99	0.45
1:5:4411:G:C6	1:5:4412:C:C4	3.05	0.45
48:4:502:SER:O	48:4:503:PRO:C	2.55	0.45
48:4:740:LEU:CB	48:4:831:PRO:CB	2.56	0.45
48:4:814:PHE:CE2	48:4:815:ASP:O	2.70	0.45
1:5:1551:C:H2'	1:5:1552:G:O4'	2.17	0.45
1:5:1667:G:C6	1:5:2280:G:N3	2.85	0.45
1:5:1848:C:H5"	1:5:1848:C:C6	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2021:G:C4	1:5:2022:C:C6	3.05	0.45
1:5:2082:G:O2'	1:5:2083:C:O5'	2.34	0.45
1:5:2315:G:N1	1:5:2316:G:C5	2.85	0.45
1:5:4165:C:O2	1:5:4166:G:C8	2.70	0.45
14:K:141:CYS:O	14:K:147:HIS:HA	2.17	0.45
20:Q:37:ARG:HG3	20:Q:38:ARG:HG2	1.99	0.45
49:S2:443:U:C2	49:S2:444:G:H1'	2.51	0.45
49:S2:437:G:N1	49:S2:457:C:C2	2.85	0.45
48:4:602:LEU:C	48:4:602:LEU:HD23	2.36	0.45
49:S2:296:U:H2'	49:S2:297:A:O4'	2.17	0.45
49:S2:309:G:C2	49:S2:310:C:N3	2.85	0.45
49:S2:447:A:C5	49:S2:449:A:C4	3.05	0.45
49:S2:381:C:OP1	58:SI:48:VAL:HB	2.16	0.45
49:S2:1050:A:H4'	49:S2:1846:G:O2'	2.16	0.45
1:5:1362:G:N2	1:5:1363:C:H1'	2.32	0.45
1:5:300:A:N1	1:5:301:G:C5	2.85	0.45
1:5:66:A:C8	1:5:328:A:H1'	2.53	0.45
1:5:3684:G:H2'	1:5:3685:C:O5'	2.17	0.45
1:5:4343:U:C4	1:5:4344:U:C4	3.05	0.45
1:5:314:G:C2	1:5:4355:G:C5	3.05	0.45
1:5:4363:A:C2	1:5:4364:G:N9	2.85	0.45
48:4:267:ASP:C	48:4:267:ASP:CB	2.75	0.45
49:S2:1405:A:C5	49:S2:1406:G:N7	2.85	0.45
49:S2:1411:G:N7	49:S2:1412:C:C1'	2.80	0.45
49:S2:1429:G:H21	69:ST:65:TYR:HH	1.63	0.45
49:S2:1431:G:C2	49:S2:1432:U:C1'	2.98	0.45
49:S2:1232:U:H1'	49:S2:1253:A:N7	2.32	0.45
49:S2:1253:A:H4'	49:S2:1254:C:C5'	2.47	0.45
49:S2:1513:C:C2	49:S2:1514:G:C8	3.04	0.45
1:5:4283:G:N2	1:5:4284:C:C4	2.85	0.45
1:5:423:G:C4	1:5:424:U:C5	3.04	0.45
1:5:2366:A:O2'	1:5:2367:A:H5"	2.17	0.45
49:S2:1282:A:H3'	62:SM:102:LYS:HB3	1.99	0.45
49:S2:1673:U:C5	49:S2:1674:G:C8	3.05	0.45
1:5:4998:G:N2	1:5:4999:G:H1'	2.32	0.45
49:S2:552:G:N2	49:S2:553:U:C2	2.85	0.45
1:5:3759:A:N1	49:S2:1709:G:C5'	2.77	0.45
1:5:3780:G:O6	1:5:3815:G:C2	2.70	0.45
1:5:3632:C:C2	1:5:3633:C:C6	3.05	0.45
4:A:211:PHE:CZ	4:A:221:LYS:HD3	2.52	0.45
15:L:39:ARG:HB2	15:L:39:ARG:HH11	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2727:C:H2'	1:5:2728:U:C6	2.52	0.45
1:5:488:G:C5	1:5:489:C:C5	3.05	0.45
1:5:504:G:O2'	1:5:505:G:O4'	2.26	0.45
1:5:664:G:C2	1:5:667:A:N1	2.84	0.45
1:5:268:G:C6	1:5:269:G:N7	2.85	0.45
1:5:273:U:N3	1:5:274:C:C4	2.85	0.45
1:5:3878:C:C2	1:5:4518:A:C6	3.05	0.45
1:5:3880:G:O2'	1:5:3881:G:C5'	2.65	0.45
49:S2:1015:U:O2	49:S2:1017:U:C5	2.70	0.45
49:S2:1121:G:C2	49:S2:1122:A:N9	2.85	0.45
1:5:54:G:C6	1:5:55:G:C5	3.04	0.45
1:5:4202:U:O2	1:5:4204:C:C5	2.70	0.45
49:S2:841:G:N2	49:S2:842:C:N3	2.65	0.45
1:5:4091:G:C5	1:5:4092:G:N7	2.85	0.45
49:S2:504:G:O2'	49:S2:505:G:C5'	2.65	0.45
6:C:102:PHE:CD1	6:C:103:ALA:N	2.85	0.45
11:H:12:ILE:HD11	11:H:16:VAL:HB	1.99	0.45
1:5:176:G:C6	1:5:261:G:C6	3.05	0.45
1:5:2415:U:H2'	1:5:2416:G:C8	2.52	0.45
1:5:514:U:C3'	1:5:514:U:C6	3.00	0.45
1:5:4465:U:C4	1:5:4487:A:C6	3.04	0.45
1:5:1411:C:C2	1:5:1412:G:N7	2.84	0.45
1:5:1404:G:N1	1:5:1414:C:C4	2.85	0.45
1:5:2575:U:O2	1:5:2758:G:N2	2.50	0.45
1:5:144:G:C2	1:5:145:G:C5	3.05	0.45
48:4:109:VAL:CG2	48:4:138:GLN:HE21	2.29	0.45
49:S2:1782:G:N2	49:S2:1784:G:C8	2.85	0.45
1:5:1725:U:H1'	9:F:113:LEU:CD1	2.47	0.45
1:5:1916:G:H2'	1:5:1917:A:C8	2.52	0.45
23:T:19:PHE:CG	23:T:20:ARG:HG3	2.52	0.45
69:ST:11:GLN:NE2	69:ST:62:ARG:NH1	2.65	0.45
1:5:4772:C:C4	1:5:4773:C:C5	3.05	0.45
49:S2:1245:G:C5	49:S2:1246:A:C8	3.05	0.45
7:D:284:LYS:CB	12:I:209:TRP:CZ3	2.95	0.45
48:4:379:ASP:OD2	48:4:381:ALA:HB3	2.17	0.45
1:5:4455:G:N1	1:5:4456:C:C5	2.84	0.45
61:SL:99:TYR:HE2	73:SX:13:LEU:HB3	1.81	0.45
1:5:4463:U:C5	1:5:4488:A:C8	3.05	0.45
49:S2:319:C:O2	49:S2:320:G:N7	2.50	0.45
1:5:4070:U:N3	1:5:4071:U:C6	2.85	0.45
50:SA:39:TYR:CD1	50:SA:40:LYS:HG2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:SU:68:THR:HG22	70:SU:69:PRO:O	2.17	0.45
1:5:2703:G:C2	1:5:2704:C:C6	3.05	0.45
74:SY:88:LYS:CE	74:SY:97:TYR:OH	2.65	0.45
66:SQ:32:ILE:HG21	66:SQ:39:LEU:HD11	1.98	0.45
1:5:405:U:H2'	1:5:407:A:N7	2.32	0.45
2:7:117:G:C6	2:7:118:C:C4	3.05	0.45
4:A:242:ARG:HH11	4:A:242:ARG:CB	2.29	0.45
1:5:4433:G:C2	1:5:4434:C:C4	3.04	0.45
49:S2:406:U:O2'	49:S2:407:G:H3'	2.17	0.45
48:4:51:ALA:C	48:4:53:GLU:H	2.19	0.45
2:7:71:G:C2	2:7:105:C:C2	3.05	0.45
57:SH:61:ILE:HD12	57:SH:93:VAL:O	2.16	0.45
52:SC:94:ILE:CD1	52:SC:162:ILE:HD11	2.46	0.45
1:5:1522:G:H5"	1:5:1523:A:OP1	2.16	0.45
59:SJ:64:ASP:O	59:SJ:67:ASP:HB3	2.17	0.45
7:D:151:ALA:O	7:D:153:THR:N	2.50	0.45
59:SJ:165:TYR:CD1	59:SJ:165:TYR:N	2.85	0.45
1:5:4936:G:C2	1:5:4938:A:C8	3.04	0.45
68:SS:117:ILE:HG22	68:SS:117:ILE:O	2.17	0.45
8:E:114:THR:O	8:E:115:GLU:HB2	2.16	0.45
48:4:573:SER:HB2	48:4:574:ASP:CG	2.38	0.44
48:4:816:HIS:HD2	48:4:817:TRP:N	2.14	0.44
1:5:1497:A:OP2	20:Q:162:HIS:HB2	2.18	0.44
1:5:1864:G:C5	1:5:1865:G:C8	3.05	0.44
1:5:2448:G:C2'	1:5:2449:A:C8	3.00	0.44
1:5:2448:G:O6	1:5:2510:G:O2'	2.30	0.44
1:5:475:G:H2'	1:5:476:G:O4'	2.17	0.44
1:5:961:G:O6	1:5:969:C:C6	2.70	0.44
1:5:976:G:H4'	1:5:976:G:OP1	2.17	0.44
1:5:984:C:C2	1:5:1070:G:N2	2.85	0.44
1:5:994:G:C4	1:5:995:C:C6	3.05	0.44
1:5:1273:G:H2'	8:E:69:TYR:O	2.17	0.44
14:K:116:MET:C	14:K:118:HIS:N	2.70	0.44
14:K:148:PRO:HA	14:K:151:ILE:HD12	1.98	0.44
49:S2:1455:A:H5'	49:S2:1456:G:OP2	2.18	0.44
49:S2:222:U:C2	49:S2:223:C:C5	3.04	0.44
1:5:1359:G:H2'	1:5:1360:G:C1'	2.47	0.44
1:5:1374:G:C2	1:5:1375:C:N1	2.85	0.44
1:5:84:A:C6	1:5:86:U:C4	3.04	0.44
49:S2:1405:A:N1	49:S2:1406:G:C5	2.85	0.44
49:S2:1254:C:O2	49:S2:1254:C:C2'	2.61	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1613:G:C2	49:S2:1627:C:O2	2.70	0.44
1:5:4283:G:H1	1:5:4284:C:N4	2.10	0.44
49:S2:648:A:N1	49:S2:649:U:C4	2.86	0.44
49:S2:1294:G:N2	49:S2:1295:A:C8	2.82	0.44
49:S2:1308:U:C4	49:S2:1309:C:N4	2.85	0.44
49:S2:1311:C:C4	49:S2:1312:G:C4	3.05	0.44
49:S2:1287:A:C6	49:S2:1313:A:N7	2.85	0.44
49:S2:1109:C:O2	49:S2:1110:G:O4'	2.33	0.44
1:5:1313:C:C2	1:5:1323:A:C8	3.06	0.44
49:S2:536:A:N6	49:S2:537:C:C4	2.85	0.44
1:5:2484:A:C2	1:5:2485:U:C2	3.06	0.44
1:5:3687:A:C6	1:5:3688:U:C6	3.05	0.44
15:L:38:ALA:O	15:L:39:ARG:C	2.55	0.44
1:5:2726:G:C5	1:5:2727:C:N4	2.85	0.44
1:5:488:G:N2	1:5:489:C:H1'	2.32	0.44
49:S2:1022:U:H6	63:SN:128:TYR:CE2	2.27	0.44
49:S2:1123:C:H42	49:S2:1124:C:N4	2.15	0.44
49:S2:832:G:C2	49:S2:833:C:N1	2.85	0.44
54:SE:15:PRO:HD2	54:SE:18:TRP:CH2	2.52	0.44
1:5:1334:A:N6	1:5:1335:G:C6	2.85	0.44
1:5:2607:C:C2	1:5:2608:G:C8	3.05	0.44
3:8:99:U:O2	3:8:99:U:H2'	2.16	0.44
1:5:4652:G:N3	1:5:4653:C:C5	2.85	0.44
1:5:4394:A:HO2'	1:5:4395:U:H5	1.62	0.44
1:5:4730:C:H2'	1:5:4965:U:C4	2.52	0.44
1:5:2754:G:HO2'	1:5:2755:A:H8	1.65	0.44
49:S2:18:C:H4'	49:S2:1194:A:H62	1.82	0.44
1:5:4968:A:OP1	5:B:120:LYS:HB2	2.17	0.44
1:5:3804:G:C5	1:5:3805:U:C5	3.05	0.44
1:5:2308:A:H1'	3:8:19:C:O2'	2.18	0.44
49:S2:814:U:H5"	59:SJ:8:VAL:HG11	1.99	0.44
1:5:1367:C:N3	1:5:1369:C:OP2	2.50	0.44
1:5:1751:A:C3'	1:5:1752:G:H5'	2.47	0.44
1:5:1761:G:C2	1:5:1762:C:C2	3.05	0.44
49:S2:1775:U:N3	49:S2:1776:G:C8	2.85	0.44
49:S2:415:A:C2	49:S2:423:U:O2	2.69	0.44
49:S2:656:G:N2	49:S2:663:C:H5"	2.31	0.44
1:5:125:C:C2'	1:5:125:C:O2	2.65	0.44
2:7:25:G:C6	2:7:26:C:C4	3.05	0.44
49:S2:1496:U:O4	49:S2:1498:A:N7	2.50	0.44
1:5:2822:G:H5"	21:R:18:GLY:HA3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:332:G:C6	56:SG:186:GLN:NE2	2.84	0.44
1:5:3658:C:H2'	1:5:3659:G:H8	1.82	0.44
1:5:3606:U:H2'	1:5:3606:U:O2	2.16	0.44
11:H:41:ILE:HG21	11:H:73:ILE:HD11	1.99	0.44
1:5:4462:C:H2'	1:5:4463:U:O4'	2.17	0.44
58:SI:34:ALA:HB2	58:SI:56:ARG:CD	2.46	0.44
50:SA:55:TRP:O	50:SA:58:LEU:N	2.50	0.44
60:SK:95:ARG:HE	60:SK:95:ARG:HA	1.81	0.44
1:5:1912:G:C6	1:5:1913:C:N4	2.85	0.44
17:N:21:PHE:CZ	17:N:25:VAL:HG21	2.52	0.44
49:S2:1177:U:N3	49:S2:1178:U:C5	2.85	0.44
1:5:2384:U:C2	1:5:2385:U:C6	3.04	0.44
4:A:186:TYR:CB	4:A:196:TRP:HZ3	2.30	0.44
1:5:199:G:C2	1:5:201:C:C2	3.05	0.44
1:5:1210:C:C2'	1:5:1210:C:O2	2.64	0.44
57:SH:34:SER:O	57:SH:36:LEU:N	2.47	0.44
1:5:344:A:C2	1:5:345:C:H1'	2.52	0.44
1:5:344:A:C6	1:5:345:C:C5	3.05	0.44
49:S2:932:G:N2	49:S2:934:G:C8	2.85	0.44
56:SG:52:ILE:HG23	56:SG:52:ILE:O	2.17	0.44
1:5:2895:A:C2	1:5:2896:G:N9	2.85	0.44
29:Z:92:ASP:OD1	29:Z:92:ASP:C	2.56	0.44
6:C:288:ASP:OD2	6:C:291:ARG:CB	2.64	0.44
7:D:191:ASN:HB3	7:D:194:VAL:HG23	1.98	0.44
1:5:381:U:H4'	1:5:414:C:H2'	1.99	0.44
48:4:114:GLU:HG2	48:4:532:PRO:HD3	1.96	0.44
48:4:743:PRO:HA	48:4:744:ILE:HB	1.97	0.44
48:4:744:ILE:O	48:4:745:TYR:CD1	2.70	0.44
48:4:763:LEU:HD13	48:4:786:ALA:CB	2.47	0.44
1:5:1070:G:N1	1:5:1071:C:C5	2.84	0.44
1:5:1077:C:C2	1:5:1078:A:C8	3.05	0.44
1:5:1085:C:C2	1:5:1213:G:N1	2.85	0.44
1:5:1272:C:HO2'	1:5:1273:G:C1'	2.30	0.44
1:5:2081:C:H2'	1:5:2082:G:H8	1.82	0.44
1:5:2273:G:H2'	1:5:2274:C:C6	2.52	0.44
1:5:2327:G:C2	1:5:2328:G:C4	3.05	0.44
1:5:2505:C:O4'	1:5:2505:C:O2	2.33	0.44
1:5:4164:C:H2'	1:5:4164:C:O2	2.18	0.44
1:5:4167:G:N2	1:5:4168:G:C4	2.86	0.44
14:K:108:GLU:O	14:K:111:ASN:CB	2.65	0.44
14:K:89:PRO:C	14:K:90:ARG:O	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:236:PHE:CE2	48:4:273:PHE:CE2	2.58	0.44
48:4:570:ILE:HG12	48:4:570:ILE:H	1.74	0.44
49:S2:143:U:O4	49:S2:315:C:OP2	2.35	0.44
49:S2:1738:C:N3	49:S2:1739:C:C5	2.84	0.44
49:S2:173:A:C2	49:S2:174:C:N1	2.85	0.44
49:S2:302:A:C5	49:S2:303:C:C5	3.05	0.44
49:S2:335:G:C2	49:S2:336:A:C8	3.05	0.44
49:S2:349:A:H2'	49:S2:350:C:H6	1.83	0.44
49:S2:74:G:C5'	49:S2:75:G:OP2	2.65	0.44
56:SG:229:ALA:HA	56:SG:232:ARG:HB2	1.98	0.44
49:S2:1207:G:H3'	49:S2:1207:G:P	2.57	0.44
49:S2:1832:A:OP2	49:S2:1837:G:OP2	2.33	0.44
1:5:3767:C:H5"	49:S2:1849:G:O6	2.02	0.44
49:S2:1860:A:C2	49:S2:1862:G:N7	2.84	0.44
49:S2:672:A:H3'	49:S2:673:G:H5"	1.99	0.44
48:4:154:VAL:HG21	48:4:358:LEU:CD2	2.48	0.44
48:4:207:PRO:CB	48:4:261:TRP:CE2	3.00	0.44
1:5:1376:C:H2'	1:5:1378:C:H6	1.82	0.44
1:5:1383:G:H2'	1:5:1384:C:O4'	2.16	0.44
1:5:313:U:N3	1:5:314:G:C8	2.85	0.44
1:5:99:A:C4	1:5:100:C:O2	2.70	0.44
1:5:1188:C:C2'	1:5:1188:C:O2	2.63	0.44
49:S2:1402:A:N1	49:S2:1405:A:N1	2.66	0.44
49:S2:1568:C:HO2'	49:S2:1569:A:C1'	2.30	0.44
49:S2:1570:G:H2'	49:S2:1571:G:O4'	2.17	0.44
1:5:4323:A:C2	1:5:4324:A:C5	3.05	0.44
3:8:13:G:C6	3:8:14:U:C4	3.05	0.44
1:5:4923:C:H2'	1:5:4924:C:O4'	2.17	0.44
49:S2:1131:G:C6	49:S2:1132:C:C4	3.06	0.44
1:5:3871:A:H2'	1:5:3872:A:C8	2.52	0.44
1:5:3873:G:C2'	1:5:3874:G:O4'	2.58	0.44
49:S2:551:U:O2	49:S2:551:U:H2'	2.17	0.44
1:5:3751:G:H21	1:5:3775:A:H8	1.59	0.44
48:4:301:PHE:O	48:4:305:MET:HG2	2.16	0.44
1:5:2486:G:H2'	1:5:2487:G:C1'	2.47	0.44
1:5:2496:G:N2	1:5:2497:C:C2	2.85	0.44
49:S2:752:G:C2	49:S2:790:C:C2	3.05	0.44
1:5:3633:C:H1'	1:5:3648:A:N3	2.32	0.44
15:L:55:LEU:HD22	15:L:120:TYR:CD2	2.52	0.44
11:H:66:GLU:N	11:H:66:GLU:OE1	2.50	0.44
1:5:2843:U:N3	1:5:2844:A:C8	2.75	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1590:C:H5'	1:5:2856:C:O2'	2.17	0.44
1:5:483:G:N1	1:5:484:U:C5	2.83	0.44
1:5:497:G:C6	1:5:657:C:N4	2.85	0.44
1:5:659:G:N1	1:5:660:A:N7	2.65	0.44
1:5:270:U:O2	1:5:270:U:H2'	2.17	0.44
49:S2:1338:G:C4	49:S2:1339:U:C6	3.06	0.44
1:5:5047:C:C6	1:5:5050:C:C6	3.02	0.44
1:5:27:C:O2	1:5:27:C:C2'	2.42	0.44
49:S2:495:U:C4	49:S2:496:C:C4	3.04	0.44
1:5:920:C:C2	1:5:921:C:C6	3.06	0.44
49:S2:1040:G:H8	49:S2:1040:G:H5"	1.83	0.44
49:S2:1855:G:OP2	64:SO:147:ARG:CZ	2.64	0.44
1:5:4230:C:O2	1:5:4230:C:C2'	2.64	0.44
1:5:3596:A:O3'	1:5:3597:G:O4'	2.35	0.44
1:5:195:C:C2	1:5:196:C:C6	3.05	0.44
49:S2:1049:A:C5	49:S2:1070:A:N3	2.85	0.44
1:5:1759:G:N2	1:5:1760:G:H1'	2.32	0.44
49:S2:600:G:N3	49:S2:601:G:N7	2.65	0.44
1:5:126:C:N3	1:5:127:G:C8	2.85	0.44
1:5:4142:C:C2	1:5:4143:G:N2	2.86	0.44
4:A:48:ILE:HD11	4:A:82:ILE:HG22	1.98	0.44
1:5:2811:G:H22	1:5:2813:A:C3'	2.28	0.44
1:5:2713:C:O2	1:5:2714:G:H8	1.96	0.44
11:H:41:ILE:HD11	11:H:69:THR:CG2	2.47	0.44
20:Q:68:ARG:O	20:Q:72:LEU:HD13	2.17	0.44
49:S2:826:A:C8	49:S2:827:A:C1'	3.01	0.44
49:S2:1500:G:H2'	49:S2:1501:C:C6	2.52	0.44
1:5:2245:G:C5	1:5:2246:C:C5	3.06	0.44
50:SA:39:TYR:HD1	50:SA:40:LYS:HG2	1.83	0.44
49:S2:1686:G:N2	49:S2:1687:C:C2	2.85	0.44
51:SB:32:ASP:OD1	51:SB:46:LYS:HD3	2.16	0.44
2:7:11:A:N1	2:7:66:G:O2'	2.37	0.44
49:S2:893:U:N3	49:S2:894:G:N7	2.64	0.44
48:4:563:GLU:C	48:4:563:GLU:OE1	2.54	0.44
4:A:185:ALA:HB3	4:A:196:TRP:CH2	2.53	0.44
55:SF:20:PHE:O	55:SF:22:LYS:N	2.50	0.44
49:S2:1620:A:N3	49:S2:1620:A:H2'	2.33	0.44
1:5:4661:G:H8	1:5:4661:G:C5'	2.30	0.44
49:S2:211:G:C4	49:S2:212:C:C6	3.05	0.44
1:5:2779:C:O2'	3:8:112:G:OP1	2.28	0.44
49:S2:195:C:C2	49:S2:205:G:C2	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:SA:90:PHE:CD1	50:SA:90:PHE:C	2.91	0.44
74:SY:60:PHE:CD1	74:SY:71:GLY:HA3	2.52	0.44
61:SL:111:VAL:HG21	61:SL:128:VAL:HG11	1.98	0.44
1:5:368:C:C2	1:5:374:G:C2	3.05	0.44
56:SG:105:ASN:O	56:SG:106:LEU:HD23	2.17	0.44
10:G:104:PRO:HG3	10:G:194:VAL:HG12	1.98	0.44
49:S2:502:C:O2	49:S2:502:C:C2'	2.64	0.44
1:5:4681:A:H2'	1:5:4682:U:O4'	2.17	0.44
1:5:1064:G:C2	1:5:1065:G:C4	3.05	0.44
1:5:1086:C:H42	1:5:1211:G:H1	1.64	0.44
1:5:1232:G:C4'	1:5:1233:G:OP2	2.66	0.44
1:5:1233:G:C2	1:5:1234:G:C5	3.06	0.44
1:5:1234:G:H3'	1:5:1235:G:H8	1.82	0.44
1:5:1435:G:C3'	1:5:1436:C:H5'	2.48	0.44
1:5:1968:G:H2'	1:5:1969:G:O4'	2.17	0.44
1:5:1973:G:O2'	14:K:133:LEU:HD21	2.17	0.44
1:5:1970:A:C2'	1:5:2017:A:H61	2.23	0.44
1:5:2019:C:O2	1:5:2020:U:C6	2.70	0.44
1:5:2090:U:C2	6:C:307:LYS:HE2	2.51	0.44
1:5:2330:G:H2'	1:5:2331:G:O4'	2.17	0.44
1:5:2645:G:H21	1:5:2646:C:H1'	1.83	0.44
1:5:455:C:C2	1:5:456:C:C6	3.06	0.44
1:5:458:C:H2'	1:5:459:C:O4'	2.18	0.44
14:K:114:ARG:O	14:K:117:ARG:HB2	2.17	0.44
48:4:587:SER:HB3	48:4:735:THR:HG21	1.98	0.44
48:4:659:PRO:HG3	48:4:698:ARG:HH22	1.75	0.44
48:4:824:PRO:O	48:4:832:SER:OG	2.35	0.44
49:S2:1450:G:C6	49:S2:1451:G:C5	3.05	0.44
49:S2:1846:G:C6	49:S2:1847:G:N7	2.85	0.44
1:5:1362:G:N2	1:5:1363:C:C2	2.86	0.44
1:5:1487:G:O5'	1:5:1487:G:H8	2.01	0.44
1:5:111:C:C2	1:5:331:G:N1	2.85	0.44
4:A:69:PHE:CD1	15:L:65:ARG:HD3	106.42	0.44
1:5:1176:C:C4	1:5:1177:U:C5	3.05	0.44
49:S2:1415:C:H2'	49:S2:1416:C:C5'	2.47	0.44
49:S2:1419:C:OP2	49:S2:1420:G:P	2.76	0.44
49:S2:1439:A:O2'	49:S2:1440:C:O4'	2.34	0.44
49:S2:1588:A:O2'	49:S2:1589:A:H5'	2.18	0.44
49:S2:1605:G:O3'	49:S2:1606:G:O4'	2.36	0.44
49:S2:1609:C:C2'	49:S2:1609:C:O2	2.65	0.44
49:S2:616:A:N6	49:S2:617:G:N3	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3692:A:H5"	1:5:3693:U:OP2	2.17	0.44
1:5:2692:U:C2'	1:5:2693:G:H5'	2.47	0.44
1:5:481:G:C2	1:5:482:G:N7	2.85	0.44
1:5:487:G:C6	1:5:488:G:C5	3.06	0.44
1:5:660:A:N3	1:5:661:C:C6	2.85	0.44
2:7:7:G:H5"	7:D:22:ARG:HH12	1.83	0.44
1:5:3867:A:H3'	1:5:3868:G:H8	1.82	0.44
5:B:258:HIS:HD2	5:B:258:HIS:O	2.00	0.44
1:5:2035:C:N4	1:5:2036:C:N4	2.65	0.44
1:5:29:G:C2	1:5:30:C:C2	3.05	0.44
1:5:4104:G:C2'	1:5:4105:A:C8	3.00	0.44
1:5:4107:G:N3	1:5:4108:G:C8	2.86	0.44
49:S2:1098:C:H2'	49:S2:1098:C:O2	2.16	0.44
1:5:2418:A:C2	1:5:2419:C:C6	3.05	0.44
1:5:364:G:O6	13:J:52:LYS:CE	108.39	0.44
1:5:4479:A:C6	1:5:4480:A:N9	2.86	0.44
1:5:4454:G:N3	1:5:4454:G:H2'	2.33	0.44
1:5:1099:C:H2'	1:5:1100:U:O4'	2.17	0.44
1:5:1201:U:O2	1:5:1202:C:C6	2.70	0.44
1:5:4884:G:C8	1:5:4884:G:H5"	2.52	0.44
1:5:2566:G:N3	1:5:2566:G:H2'	2.33	0.44
1:5:2567:G:C4	1:5:2568:C:C5	3.06	0.44
1:5:1761:G:N3	1:5:1762:C:C6	2.84	0.44
1:5:144:G:N2	1:5:145:G:C8	2.83	0.44
49:S2:803:C:C4	49:S2:804:U:C5	3.04	0.44
49:S2:583:C:N4	49:S2:584:G:C5	2.84	0.44
1:5:3830:A:H4'	1:5:4552:U:H4'	1.98	0.44
1:5:4550:G:N1	1:5:4551:U:C5	2.86	0.44
1:5:1727:U:N3	1:5:1728:U:C4	2.85	0.44
9:F:36:ARG:HH11	9:F:36:ARG:CG	3.78	0.44
53:SD:175:VAL:CG1	53:SD:182:LEU:HB2	2.47	0.44
1:5:1420:A:OP1	1:5:1420:A:H4'	2.17	0.44
49:S2:610:G:C6	49:S2:611:G:C5	3.06	0.44
49:S2:611:G:C6	49:S2:612:U:C4	3.06	0.44
1:5:4739:C:C2'	1:5:4740:G:O4'	2.62	0.44
12:I:209:TRP:O	12:I:212:LEU:N	2.49	0.44
49:S2:402:C:H2'	49:S2:402:C:O2	2.15	0.44
1:5:4153:C:O2	1:5:4154:G:C8	2.70	0.44
1:5:4154:G:C6	1:5:4155:C:C4	3.05	0.44
1:5:2628:U:C2	1:5:2629:C:C6	3.05	0.44
70:SU:69:PRO:C	70:SU:70:CYS:SG	2.96	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:8:63:U:H3'	3:8:63:U:O2	2.18	0.44
59:SJ:13:TYR:HA	59:SJ:48:PHE:CB	2.47	0.44
63:SN:114:ARG:O	63:SN:118:ILE:CD1	2.66	0.44
27:X:155:ILE:O	27:X:156:ILE:CB	2.66	0.44
3:8:75:G:N1	3:8:76:C:C4	2.85	0.44
1:5:2:G:C2	1:5:3:C:C2	3.06	0.44
1:5:4411:G:N2	1:5:4412:C:C2	2.85	0.44
24:U:70:ILE:N	24:U:70:ILE:HD12	2.32	0.44
28:Y:4:ASN:OD1	28:Y:4:ASN:C	2.56	0.44
55:SF:76:MET:O	55:SF:159:ARG:NH2	2.50	0.44
49:S2:682:U:OP2	73:SX:8:ARG:HD3	2.17	0.44
17:N:28:TRP:CE3	17:N:29:GLN:HA	2.53	0.44
48:4:754:GLN:HG3	48:4:754:GLN:H	1.45	0.44
1:5:1215:C:N4	1:5:1216:C:H5	2.16	0.44
1:5:1246:G:C5	1:5:1247:U:C6	3.04	0.44
1:5:1451:G:OP1	1:5:1718:C:C4	2.70	0.44
1:5:2316:G:C2	1:5:2324:C:O2	2.71	0.44
1:5:2438:A:N6	1:5:2441:C:N3	2.65	0.44
14:K:106:PHE:HA	14:K:109:ILE:HB	2.00	0.44
14:K:52:ASP:O	14:K:53:TRP:CD1	2.70	0.44
10:G:261:LEU:CD2	10:G:264:LYS:NZ	2.79	0.44
49:S2:381:C:N4	58:SI:49:ARG:CG	2.80	0.44
49:S2:447:A:C4	49:S2:449:A:H1'	2.52	0.44
56:SG:220:ALA:HA	56:SG:223:LYS:HB2	2.00	0.44
49:S2:447:A:P	58:SI:49:ARG:HE	2.40	0.44
1:5:1473:U:N3	1:5:1474:C:C5	2.85	0.44
1:5:1492:G:C2	1:5:1493:G:C4	3.06	0.44
1:5:1358:G:OP1	1:5:1506:G:O2'	2.34	0.44
1:5:3717:A:C2'	1:5:3718:A:O5'	2.64	0.44
1:5:4355:G:N1	1:5:4356:G:C5	2.85	0.44
1:5:83:C:O5'	1:5:84:A:C2'	2.64	0.44
1:5:2460:A:C1'	17:N:94:PHE:CE1	3.01	0.44
1:5:1185:G:C6	1:5:1186:U:C5	3.05	0.44
1:5:1189:G:N3	1:5:1190:C:C6	2.86	0.44
1:5:3857:G:C6	1:5:3858:C:C6	3.05	0.44
1:5:3861:A:C2	1:5:3862:A:C4	3.06	0.44
49:S2:1597:C:C2'	49:S2:1598:G:O4'	2.65	0.44
1:5:4236:G:C2'	1:5:4237:C:O4'	2.66	0.44
1:5:4281:A:C2	1:5:4283:G:C4	3.03	0.44
1:5:4283:G:C6	1:5:4284:C:C4	3.03	0.44
1:5:4292:A:O4'	1:5:4330:G:O4'	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1137:U:N3	49:S2:1148:A:N6	2.59	0.44
49:S2:1299:A:O2'	49:S2:1300:U:H3'	2.17	0.44
49:S2:56:G:O6	49:S2:90:G:N1	2.50	0.44
49:S2:56:G:O6	49:S2:90:G:N2	2.43	0.44
1:5:3771:C:N4	1:5:3776:G:H22	2.15	0.44
49:S2:1709:G:C5	49:S2:1710:C:C5	3.05	0.44
48:4:402:VAL:HG11	48:4:453:MET:CE	2.48	0.44
49:S2:794:A:C2	49:S2:795:A:H1'	2.53	0.44
1:5:1577:G:C3'	1:5:1577:G:N3	2.81	0.44
1:5:3633:C:N3	1:5:3634:G:N7	2.66	0.44
1:5:671:G:C6	1:5:672:C:C4	3.05	0.44
1:5:273:U:C2'	1:5:274:C:O5'	2.66	0.44
49:S2:989:C:N3	49:S2:1001:A:C6	2.83	0.44
49:S2:1129:G:H3'	49:S2:1130:G:C8	2.52	0.44
74:SY:108:LYS:O	74:SY:111:LYS:HG3	2.18	0.44
1:5:4750:G:O6	1:5:4949:G:C5	2.70	0.44
49:S2:100:U:C2'	49:S2:101:U:O5'	2.65	0.44
1:5:2732:G:C6	1:5:2733:C:C4	3.05	0.44
1:5:1411:C:O2	1:5:1411:C:H2'	2.16	0.44
1:5:1370:G:H5"	1:5:1371:A:OP1	2.17	0.44
1:5:3845:A:N3	1:5:3845:A:H2'	2.33	0.44
49:S2:1662:U:C5'	49:S2:1663:A:OP2	2.66	0.44
1:5:2715:G:C5	1:5:2716:C:C5	3.05	0.44
3:8:62:A:OP1	11:H:52:LYS:NZ	158.86	0.44
48:4:12:ILE:HG21	48:4:99:LEU:HB2	1.99	0.44
49:S2:1341:C:H5'	49:S2:1343:U:H1'	2.00	0.44
49:S2:1684:C:C2	49:S2:1685:U:C6	3.06	0.44
59:SJ:32:ILE:HG23	59:SJ:37:LEU:HB3	2.00	0.44
1:5:1088:C:C2	1:5:1089:G:C8	3.06	0.44
5:B:315:ASN:OD1	5:B:326:VAL:HG12	2.18	0.44
49:S2:915:G:O2'	49:S2:916:A:H5'	2.17	0.44
21:R:9:ARG:HH12	21:R:10:LEU:CD1	2.31	0.44
1:5:2074:C:H2'	1:5:2075:G:O4'	2.17	0.44
49:S2:421:G:C4	49:S2:422:U:C4	3.06	0.44
49:S2:936:G:C2	49:S2:1007:C:C2	3.05	0.44
10:G:182:CYS:HA	10:G:226:TYR:CD2	2.52	0.44
1:5:432:U:O4	18:O:91:LYS:HA	2.17	0.44
8:E:224:GLN:HA	8:E:229:PHE:HB2	1.99	0.44
74:SY:23:MET:SD	74:SY:23:MET:N	2.91	0.44
24:U:34:MET:O	24:U:34:MET:HE3	2.18	0.44
1:5:4953:G:H2'	1:5:4954:G:O4'	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:8:49:G:C2	3:8:50:C:C2	3.06	0.44
67:SR:99:ASP:O	67:SR:103:LYS:N	2.49	0.44
49:S2:1334:G:O3'	53:SD:183:GLY:HA3	2.18	0.44
48:4:27:HIS:HB3	48:4:30:HIS:NE2	2.32	0.44
48:4:800:LEU:HD23	48:4:808:ALA:O	2.17	0.44
1:5:973:G:H1	1:5:1282:G:H1'	1.83	0.44
1:5:1551:C:C3'	1:5:1552:G:O4'	2.65	0.44
1:5:1691:G:C5	1:5:1692:C:C6	3.06	0.44
1:5:1692:C:C4	1:5:1693:U:C5	3.06	0.44
1:5:1988:G:N3	1:5:1988:G:H2'	2.33	0.44
1:5:1984:A:H62	1:5:2011:C:C4'	2.31	0.44
1:5:1970:A:N6	1:5:2016:C:OP2	2.44	0.44
1:5:4177:C:C2	1:5:4178:A:C8	3.05	0.44
5:B:264:PHE:HD2	18:O:66:PRO:HD3	1.82	0.44
9:F:95:ILE:HG22	9:F:96:ARG:O	2.17	0.44
1:5:1865:G:OP1	12:I:119:PHE:HA	2.17	0.44
20:Q:88:ASP:OD1	20:Q:109:ALA:CA	2.66	0.44
21:R:98:ARG:NH1	21:R:133:LYS:HB2	2.31	0.44
22:S:29:ARG:NH1	22:S:29:ARG:CG	2.80	0.44
49:S2:1458:G:C2	49:S2:1459:G:C8	3.06	0.44
49:S2:309:G:H2'	49:S2:309:G:N3	2.32	0.44
56:SG:29:GLU:HA	56:SG:101:ILE:HG23	1.99	0.44
1:5:102:G:C2	1:5:103:G:C5	3.06	0.44
1:5:1391:A:C4	1:5:1392:A:C8	3.06	0.44
1:5:278:G:H4'	1:5:279:A:OP2	2.17	0.44
1:5:111:C:O2	1:5:331:G:C2	2.70	0.44
1:5:4568:A:N3	19:P:69:ARG:NH2	2.65	0.44
49:S2:951:C:N3	49:S2:952:G:C8	2.85	0.44
1:5:2360:A:O4'	1:5:2362:U:C6	2.71	0.44
49:S2:1234:C:C2	49:S2:1235:G:C8	3.06	0.44
1:5:4209:G:H5"	1:5:4275:G:O2'	2.17	0.44
2:7:55:A:H2'	2:7:56:G:H5'	2.00	0.44
49:S2:28:U:C2	49:S2:29:G:N7	2.86	0.44
49:S2:1639:G:N3	49:S2:1639:G:H2'	2.33	0.44
49:S2:1220:A:C2	49:S2:1678:A:H1'	2.52	0.44
1:5:2783:A:N3	1:5:2784:C:C6	2.86	0.44
1:5:4535:A:C2	1:5:4536:C:C6	3.05	0.44
1:5:2614:C:C2	1:5:2726:G:N1	2.85	0.44
1:5:479:G:N3	1:5:480:C:C6	2.86	0.44
1:5:483:G:N2	1:5:484:U:N3	2.66	0.44
49:S2:988:C:C4	49:S2:989:C:C4	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3878:C:N4	1:5:4518:A:N3	2.64	0.44
48:4:430:MET:HE3	48:4:484:THR:HG22	1.99	0.44
1:5:1928:C:N4	18:O:133:ARG:CZ	2.81	0.44
1:5:32:G:H2'	1:5:33:A:O5'	2.18	0.44
49:S2:839:C:O2	49:S2:839:C:H2'	2.17	0.44
1:5:4099:G:C6	1:5:4100:C:C5	3.05	0.44
49:S2:978:G:C4	49:S2:979:C:C6	3.05	0.44
1:5:176:G:C4	1:5:261:G:C2	3.06	0.44
1:5:3807:A:C2	1:5:3808:C:C6	3.05	0.44
1:5:1413:C:C2	1:5:1414:C:C6	3.05	0.44
49:S2:963:A:C2	49:S2:964:A:C4	3.05	0.44
1:5:4877:G:O2'	1:5:4878:C:O5'	2.32	0.44
1:5:2769:U:H3	1:5:2770:C:N4	2.16	0.44
1:5:2543:A:H2	1:5:2773:G:N1	2.14	0.44
49:S2:185:G:C6	49:S2:186:C:C4	3.05	0.44
49:S2:418:A:N3	49:S2:418:A:H2'	2.33	0.44
1:5:3830:A:C2	1:5:3831:U:C6	3.06	0.44
1:5:4547:C:O3'	1:5:4548:A:H8	2.00	0.44
49:S2:823:U:N3	74:SY:64:PHE:CE2	2.85	0.44
49:S2:1495:G:C6	49:S2:1496:U:C2	3.06	0.44
29:Z:17:ARG:HG2	29:Z:18:TYR:CE1	2.53	0.44
1:5:4646:U:OP1	21:R:58:HIS:HA	2.18	0.44
1:5:726:G:O2'	1:5:727:C:H5'	2.18	0.44
1:5:37:U:C4	1:5:38:A:N7	2.85	0.44
1:5:2701:U:N3	1:5:2702:C:C5	2.85	0.44
21:R:163:ARG:CZ	49:S2:871:U:N3	2.81	0.44
1:5:709:C:H2'	1:5:710:G:O4'	2.18	0.44
48:4:388:CYS:O	48:4:390:PRO:HD3	2.18	0.44
1:5:2823:G:N7	21:R:20:LYS:HD3	2.33	0.44
49:S2:140:C:H2'	49:S2:178:C:H1'	1.98	0.44
49:S2:1686:G:C4	49:S2:1687:C:C6	3.05	0.44
2:7:39:C:C5	13:J:49:VAL:HG21	2.52	0.44
49:S2:1732:G:C5	49:S2:1733:U:C5	3.05	0.44
49:S2:1617:G:C5	49:S2:1619:A:OP2	2.71	0.44
1:5:4659:G:N1	1:5:4660:G:C5	2.85	0.44
1:5:4297:G:N1	1:5:4298:A:C8	2.86	0.44
1:5:4599:A:N6	1:5:4610:A:C8	2.86	0.44
49:S2:1171:G:O2'	49:S2:1187:G:C6	2.70	0.44
49:S2:200:G:C5	49:S2:201:C:C5	3.05	0.44
1:5:341:G:N3	1:5:341:G:H2'	2.32	0.44
1:5:341:G:C2	1:5:342:G:C8	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:SL:111:VAL:HG23	61:SL:140:PHE:HB3	1.99	0.44
49:S2:1524:G:C6	49:S2:1525:C:C5	3.05	0.44
49:S2:1524:G:C5	49:S2:1525:C:C5	3.06	0.44
24:U:101:ARG:HG3	24:U:101:ARG:HH11	1.81	0.44
51:SB:172:MET:CE	51:SB:212:VAL:HG12	2.47	0.44
10:G:157:ILE:HG23	10:G:167:VAL:HG11	1.99	0.44
1:5:4513:A:O2'	1:5:4514:G:H5'	2.18	0.44
48:4:744:ILE:HD13	48:4:815:ASP:CA	2.47	0.44
1:5:1266:G:C2	1:5:1268:G:O6	2.71	0.44
1:5:1430:C:C4	1:5:1431:C:C5	3.06	0.44
1:5:1843:A:C2	1:5:1844:G:N9	2.85	0.44
1:5:1851:G:H8	1:5:1851:G:O5'	2.00	0.44
1:5:2018:C:O2	1:5:2019:C:C6	2.70	0.44
1:5:2107:C:O2	1:5:2107:C:O2'	2.31	0.44
1:5:2446:C:H2'	1:5:2447:U:H6	1.74	0.44
1:5:2451:A:C6	1:5:2452:G:N9	2.86	0.44
1:5:2599:G:C8	1:5:2600:A:C8	3.05	0.44
1:5:2744:A:C2'	1:5:2745:A:C8	2.99	0.44
1:5:4167:G:C2	1:5:4168:G:N9	2.85	0.44
14:K:114:ARG:CD	14:K:130:LYS:CE	2.96	0.44
14:K:14:TYR:CD1	14:K:15:LEU:N	2.85	0.44
14:K:81:ILE:HG13	14:K:82:ILE:HG13	2.00	0.44
48:4:587:SER:CB	48:4:735:THR:CG2	2.95	0.44
48:4:825:PHE:O	48:4:827:ASN:N	2.47	0.44
49:S2:1452:A:N1	49:S2:1475:G:H5"	2.33	0.44
49:S2:1466:G:C6	49:S2:1467:C:N4	2.86	0.44
49:S2:1394:G:N2	49:S2:1474:A:C8	2.86	0.44
49:S2:301:A:O2'	58:SI:72:CYS:HA	2.16	0.44
49:S2:1694:U:H2'	49:S2:1696:C:C5	2.53	0.44
49:S2:1696:C:C2	49:S2:1697:A:C8	3.06	0.44
49:S2:1860:A:C6	49:S2:1862:G:N7	2.86	0.44
1:5:1491:A:N1	1:5:1492:G:C6	2.86	0.44
1:5:289:C:N4	1:5:290:U:O4	2.51	0.44
1:5:1169:G:C6	1:5:1170:G:N7	2.85	0.44
1:5:1184:A:C6	1:5:1185:G:N7	2.86	0.44
49:S2:1406:G:C2'	49:S2:1407:U:H4'	2.47	0.44
49:S2:1418:C:H41	49:S2:1421:A:H62	1.61	0.44
49:S2:1539:U:H2'	49:S2:1539:U:O2	2.17	0.44
49:S2:1570:G:C4	49:S2:1571:G:C8	3.05	0.44
49:S2:1600:G:C3'	49:S2:1601:A:C5'	2.96	0.44
68:SS:78:LYS:O	68:SS:80:PRO:HD3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4277:G:C4	1:5:4278:C:C5	3.05	0.44
1:5:1563:A:C5	49:S2:677:G:O2'	2.71	0.44
1:5:1638:A:H4'	1:5:1639:U:OP2	2.18	0.44
1:5:2405:G:H8	1:5:2405:G:O5'	2.01	0.44
2:7:28:C:H1'	2:7:55:A:N6	2.33	0.44
49:S2:618:C:OP1	73:SX:87:ASN:HA	2.18	0.44
49:S2:1093:A:C6	49:S2:1094:C:C4	3.06	0.44
49:S2:1278:A:H5'	60:SK:55:ARG:HB3	2.00	0.44
1:5:1937:C:C2'	1:5:1938:C:H2'	2.48	0.44
1:5:3751:G:C6	1:5:3752:C:C4	3.05	0.44
1:5:3777:G:O2'	1:5:3815:G:O6	2.24	0.44
49:S2:165:G:O2'	49:S2:166:A:H8	1.98	0.44
21:R:130:ASN:O	21:R:130:ASN:CG	2.55	0.44
49:S2:795:A:N1	49:S2:796:G:O6	2.50	0.44
1:5:1577:G:O4'	4:A:181:LYS:HE3	2.18	0.44
1:5:2857:A:C4	1:5:2858:A:C5	3.06	0.44
1:5:483:G:N2	1:5:484:U:C4	2.85	0.44
1:5:672:C:C2	1:5:673:C:C6	3.05	0.44
49:S2:1250:A:H2	49:S2:1339:U:C2'	2.27	0.44
1:5:2697:A:C2	1:5:2698:G:C8	3.05	0.44
1:5:2638:G:N2	1:5:2697:A:H61	2.15	0.44
1:5:5050:C:N3	1:5:5051:C:C6	2.86	0.44
1:5:4192:A:H2'	1:5:4193:C:O4'	2.17	0.44
49:S2:842:C:N3	49:S2:843:C:C4	2.85	0.44
5:B:106:PHE:CD1	5:B:106:PHE:N	2.86	0.44
1:5:744:G:H2'	1:5:745:G:C8	2.52	0.44
1:5:2657:G:H2'	1:5:2658:G:C8	2.53	0.44
13:J:99:PHE:CD2	13:J:105:PHE:HB3	2.49	0.44
3:8:129:C:C4	3:8:130:C:C5	3.06	0.44
1:5:4749:C:C5	1:5:4750:G:C2	3.05	0.44
49:S2:508:A:C6	49:S2:509:G:H1'	2.53	0.44
1:5:4483:C:C4	1:5:4484:A:N7	2.85	0.44
1:5:1201:U:C4	1:5:1202:C:C5	3.06	0.44
1:5:2588:C:C3'	1:5:2588:C:C6	3.01	0.44
5:B:92:TYR:HB2	5:B:159:VAL:HB	1.98	0.44
49:S2:414:A:HO2'	49:S2:415:A:C5'	2.29	0.44
49:S2:187:G:H3'	49:S2:188:C:H6	1.82	0.44
1:5:732:A:C2	1:5:733:A:C1'	3.00	0.44
2:7:22:A:C2	2:7:23:A:C6	3.06	0.44
7:D:264:LYS:HD2	7:D:266:TRP:CD2	2.53	0.44
1:5:738:C:H2'	1:5:739:G:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1657:G:C6	49:S2:1658:G:C5	3.04	0.44
1:5:1581:G:C5	1:5:1610:C:C4	3.06	0.44
1:5:234:G:O2'	1:5:235:A:H5'	2.18	0.44
2:7:50:A:C6	2:7:51:G:N7	2.85	0.44
49:S2:654:A:C6	49:S2:655:A:C2	3.05	0.44
1:5:3655:C:O2	1:5:3655:C:H2'	2.16	0.44
1:5:3658:C:H2'	1:5:3659:G:C8	2.52	0.44
1:5:4464:A:H5'	1:5:4464:A:C4	2.52	0.44
49:S2:1806:A:C6	49:S2:1807:C:C4	3.05	0.44
66:SQ:85:ARG:HD3	66:SQ:119:LEU:HD23	1.98	0.44
1:5:1602:U:C2'	1:5:1602:U:O2	2.64	0.44
52:SC:104:ASP:OD1	52:SC:130:ILE:HG13	2.18	0.44
49:S2:191:A:H3'	49:S2:192:C:C5'	2.48	0.44
49:S2:1335:G:C4	49:S2:1336:C:C6	3.05	0.44
5:B:67:VAL:HG23	25:V:14:PHE:HE2	1.81	0.44
1:5:3922:G:C2	1:5:4542:U:C5	3.06	0.44
1:5:341:G:C6	1:5:342:G:N7	2.85	0.44
16:M:81:ASP:OD1	16:M:84:ALA:HB3	2.17	0.44
49:S2:421:G:N2	49:S2:422:U:C2	2.85	0.44
1:5:1416:G:C2	1:5:1417:C:C2	3.05	0.44
58:SI:104:ILE:HD11	58:SI:171:LEU:HB2	1.99	0.44
3:8:149:G:C2	3:8:151:G:C5	3.05	0.44
5:B:74:GLU:HG2	5:B:334:LYS:HE3	2.00	0.44
71:SV:40:ASP:O	71:SV:41:LYS:CB	2.65	0.44
2:7:99:G:N7	22:S:55:LYS:HE3	2.33	0.44
66:SQ:35:ASN:N	66:SQ:35:ASN:OD1	2.50	0.44
49:S2:1227:G:N3	49:S2:1227:G:H2'	2.33	0.44
61:SL:108:ASN:OD1	61:SL:108:ASN:N	2.45	0.44
9:F:201:LYS:HA	9:F:201:LYS:HE3	1.99	0.44
68:SS:135:HIS:CD2	68:SS:135:HIS:N	2.86	0.44
11:H:40:HIS:N	11:H:40:HIS:CD2	2.85	0.44
70:SU:24:LEU:HD23	70:SU:112:VAL:HG13	1.98	0.44
1:5:3854:C:C4	1:5:3855:C:C5	3.05	0.44
1:5:349:A:C6	6:C:45:ARG:NH2	2.86	0.44
48:4:751:CYS:SG	48:4:756:VAL:HA	2.58	0.44
1:5:1266:G:H4'	1:5:2112:G:N3	2.33	0.44
1:5:1615:C:N3	1:5:1616:U:C6	2.86	0.44
1:5:2021:G:C8	1:5:2022:C:C5	3.06	0.44
1:5:2027:U:O2'	1:5:2028:C:C4'	2.66	0.44
1:5:2278:G:H5'	20:Q:7:HIS:HE1	1.83	0.44
1:5:2339:G:C4	1:5:2340:C:C6	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2464:C:HO2'	1:5:2465:C:C5'	2.31	0.44
1:5:4167:G:N3	1:5:4168:G:C8	2.81	0.44
1:5:4406:U:C4	1:5:4407:G:N7	2.85	0.44
1:5:992:C:C2	1:5:993:G:N7	2.85	0.44
14:K:110:VAL:O	14:K:114:ARG:CD	2.66	0.44
1:5:4414:A:C6	1:5:4427:G:C2	2.97	0.44
49:S2:457:C:N4	49:S2:458:A:N7	2.65	0.44
49:S2:217:A:N3	49:S2:217:A:H2'	2.32	0.44
49:S2:673:G:C8	49:S2:1084:A:N1	2.86	0.44
49:S2:1203:G:C4	49:S2:1204:A:N7	2.86	0.44
1:5:1374:G:C2	1:5:1375:C:C2	3.06	0.44
1:5:328:A:N1	1:5:329:A:C6	2.86	0.44
1:5:93:G:N2	1:5:94:A:N3	2.65	0.44
1:5:1358:G:P	6:C:114:ARG:NH2	2.91	0.44
1:5:1174:G:N3	1:5:1175:A:C8	2.86	0.44
1:5:1177:U:C4'	7:D:282:GLN:HB3	2.47	0.44
49:S2:1407:U:C3'	49:S2:1408:U:H6	2.31	0.44
49:S2:1415:C:C2	49:S2:1416:C:C1'	3.01	0.44
1:5:4243:C:O2	1:5:4243:C:C2'	2.65	0.44
49:S2:640:A:C2'	49:S2:641:A:O4'	2.66	0.44
49:S2:648:A:N3	49:S2:648:A:H2'	2.32	0.44
50:SA:155:ARG:HB3	50:SA:156:TYR:CD2	2.51	0.44
1:5:1886:G:N1	1:5:1894:C:N4	2.66	0.44
1:5:2479:G:C6	1:5:2480:G:C6	3.05	0.44
1:5:2484:A:C4	1:5:2485:U:C6	3.06	0.44
1:5:1627:G:C4	1:5:1628:C:C6	3.05	0.44
1:5:497:G:N1	1:5:499:G:C5	2.86	0.44
1:5:273:U:C4	1:5:274:C:N4	2.85	0.44
49:S2:995:G:N2	49:S2:997:A:C8	2.81	0.44
1:5:2698:G:C5	1:5:2699:C:C5	3.06	0.44
2:7:6:C:H5"	7:D:54:ARG:HH21	1.82	0.44
7:D:29:ASP:HB2	7:D:32:ALA:HB3	2.00	0.44
1:5:4098:A:C6	1:5:4099:G:C5	3.06	0.44
1:5:4107:G:C4	1:5:4108:G:C8	3.06	0.44
49:S2:492:C:N4	49:S2:506:G:C8	2.86	0.44
1:5:2606:G:C2	1:5:2607:C:C2	3.05	0.44
3:8:103:A:H3'	3:8:104:A:H5"	2.00	0.44
49:S2:1063:C:C2'	49:S2:1063:C:O2	2.60	0.44
49:S2:46:A:C5	49:S2:99:A:C8	3.06	0.44
1:5:2735:G:N2	1:5:2736:G:C4	2.86	0.44
1:5:2559:G:C2	1:5:2560:C:C2	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:807:GLN:OE1	48:4:807:GLN:HA	2.18	0.44
1:5:4551:U:N3	1:5:4552:U:C5	2.86	0.44
54:SE:121:TYR:C	54:SE:121:TYR:CD1	2.90	0.44
1:5:1650:A:N6	6:C:100:ARG:HE	2.16	0.44
69:ST:23:LYS:HD3	69:ST:54:TYR:CD1	2.52	0.44
1:5:2394:G:O6	1:5:2819:U:OP2	2.36	0.44
8:E:129:PHE:O	8:E:132:HIS:HB2	2.17	0.44
1:5:952:G:N1	1:5:953:C:C4	2.86	0.44
68:SS:120:HIS:CD2	68:SS:124:ARG:HD2	2.53	0.44
1:5:4150:G:C6	1:5:4151:G:C5	3.06	0.44
49:S2:321:C:O2	49:S2:322:C:C6	2.71	0.44
50:SA:180:ARG:HD2	50:SA:184:ARG:HD2	2.00	0.44
1:5:1354:A:C4	1:5:1503:A:C2	3.05	0.44
1:5:4659:G:C6	1:5:4660:G:C5	3.06	0.44
49:S2:1713:C:O2'	49:S2:1714:U:O5'	2.29	0.44
49:S2:872:A:N6	49:S2:914:U:C5	2.78	0.44
18:O:192:PHE:N	18:O:192:PHE:HD1	2.15	0.44
17:N:88:GLY:HA2	18:O:48:TYR:CD2	102.87	0.44
1:5:5055:G:N2	1:5:5056:A:C4	2.85	0.44
1:5:345:C:N3	1:5:346:G:N7	2.65	0.44
1:5:2413:U:N3	1:5:2414:G:N7	2.66	0.44
69:ST:18:LEU:HB3	69:ST:58:ALA:HB1	2.00	0.44
59:SJ:78:LEU:HD22	59:SJ:92:MET:HA	1.99	0.44
54:SE:104:ASP:OD1	54:SE:110:ALA:HB2	2.18	0.44
51:SB:99:ASN:O	51:SB:100:PHE:C	2.56	0.44
1:5:3770:U:O2	1:5:3770:U:H2'	2.17	0.44
1:5:4678:G:HO2'	1:5:4679:G:P	2.41	0.44
53:SD:153:VAL:HG12	53:SD:154:ASP:N	2.33	0.44
68:SS:39:ARG:NH2	69:ST:38:LYS:HD3	2.33	0.44
48:4:36:THR:O	48:4:40:VAL:HG23	2.17	0.44
48:4:452:LEU:HD11	48:4:461:ILE:HD13	1.98	0.44
48:4:517:LEU:C	48:4:517:LEU:HD23	2.38	0.44
48:4:759:ILE:CD1	48:4:784:VAL:HG23	2.27	0.44
1:5:1219:G:C4	1:5:1220:G:C8	3.06	0.44
1:5:1221:G:N2	1:5:1233:G:C8	2.86	0.44
1:5:1293:G:C5'	1:5:1293:G:H8	2.31	0.44
1:5:1621:A:O2'	1:5:1622:U:H5'	2.18	0.44
1:5:1684:A:N6	1:5:1685:G:N7	2.65	0.44
1:5:1989:G:C2	1:5:1990:A:N7	2.85	0.44
1:5:2328:G:C6	1:5:2329:U:C4	3.06	0.44
1:5:445:U:C5	1:5:446:C:C5	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:978:G:C4	1:5:979:C:C6	3.05	0.44
9:F:32:ILE:N	9:F:32:ILE:CD1	2.81	0.44
14:K:104:ILE:O	14:K:105:THR:C	2.55	0.44
14:K:28:LEU:HD13	14:K:29:ALA:N	2.32	0.44
14:K:84:ALA:C	14:K:86:LYS:H	2.19	0.44
1:5:4413:C:H2'	1:5:4414:A:C1'	2.47	0.44
49:S2:118:C:N3	49:S2:119:U:C6	2.85	0.44
49:S2:384:U:O2'	61:SL:135:SER:O	2.35	0.44
49:S2:10:G:N7	49:S2:1697:A:N3	2.65	0.44
49:S2:1203:G:H3'	49:S2:1204:A:H8	1.82	0.44
49:S2:1696:C:O2	49:S2:1696:C:C2'	2.53	0.44
1:5:279:A:OP1	1:5:279:A:H3'	2.18	0.44
17:N:68:ARG:NH1	17:N:123:GLU:HG3	2.33	0.44
16:M:112:VAL:HG11	18:O:201:PHE:CE2	2.53	0.44
49:S2:1406:G:C2'	49:S2:1407:U:C4'	2.93	0.44
49:S2:1432:U:O2	49:S2:1433:C:C5	2.70	0.44
49:S2:1504:U:H2'	49:S2:1505:U:O4'	2.18	0.44
49:S2:1508:A:C6	49:S2:1510:G:C8	3.05	0.44
49:S2:1224:G:C6	49:S2:1225:U:N1	2.86	0.44
60:SK:2:LEU:HB3	60:SK:8:ARG:HH21	1.77	0.44
62:SM:19:GLN:HG2	62:SM:88:TRP:CB	2.48	0.44
49:S2:1112:U:O2	49:S2:1113:A:O4'	2.36	0.44
49:S2:1113:A:H2'	49:S2:1114:U:H3'	1.98	0.44
1:5:1324:A:C2'	1:5:1326:A:OP1	2.65	0.44
1:5:1858:A:N3	1:5:1859:C:C6	2.86	0.44
1:5:1886:G:C2	1:5:1894:C:C2	3.02	0.44
1:5:3759:A:N6	49:S2:1709:G:C4'	2.81	0.44
48:4:161:ASP:O	48:4:165:LEU:HD23	2.18	0.44
4:A:202:VAL:HA	4:A:211:PHE:O	2.18	0.44
4:A:233:ARG:O	4:A:235:VAL:N	2.51	0.44
3:8:118:C:N3	3:8:119:C:C6	2.76	0.44
3:8:118:C:C4	3:8:119:C:H5	2.35	0.44
1:5:382:G:N2	1:5:384:A:H2'	2.32	0.44
1:5:482:G:H2'	1:5:483:G:C8	2.53	0.44
1:5:33:A:H5'	17:N:86:HIS:CD2	2.53	0.44
49:S2:839:C:C2'	49:S2:839:C:O2	2.66	0.44
49:S2:1130:G:H2'	49:S2:1130:G:N3	2.33	0.44
49:S2:495:U:O2'	49:S2:496:C:C4'	2.65	0.44
49:S2:506:G:OP1	74:SY:108:LYS:CE	2.64	0.44
2:7:44:C:N3	2:7:45:U:C4	2.86	0.44
1:5:2832:A:C2'	1:5:2833:A:H5"	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:156:ASN:ND2	11:H:157:SER:N	2.65	0.44
48:4:588:ASN:OD1	48:4:589:VAL:CG2	2.63	0.44
5:B:116:ARG:CB	5:B:177:LYS:HA	2.47	0.44
1:5:2556:G:C2	1:5:2572:C:N3	2.86	0.44
1:5:2559:G:C5	1:5:2560:C:C5	3.06	0.44
1:5:1752:G:C5	1:5:1753:G:N7	2.86	0.44
5:B:40:PRO:O	5:B:187:GLY:HA2	2.18	0.44
1:5:127:G:C6	1:5:128:C:N4	2.86	0.44
1:5:4489:G:C4	1:5:4490:C:C6	3.06	0.44
1:5:4760:G:O2'	1:5:4761:G:H5'	2.17	0.44
49:S2:1058:A:H2'	49:S2:1058:A:N3	2.33	0.44
29:Z:36:ARG:C	29:Z:38:TYR:H	2.21	0.44
8:E:241:GLN:OE1	8:E:242:ARG:N	2.50	0.44
1:5:1613:A:H3'	1:5:1614:C:H5'	2.00	0.44
13:J:166:PHE:CZ	13:J:172:GLY:HA3	2.52	0.44
3:8:137:A:C2	3:8:138:C:C5	3.05	0.44
1:5:4543:G:O2'	1:5:4544:A:H5'	2.18	0.44
49:S2:1167:G:H2'	49:S2:1168:G:O5'	2.17	0.44
49:S2:421:G:C2	49:S2:422:U:C2	3.05	0.44
57:SH:61:ILE:CD1	57:SH:93:VAL:HG13	2.46	0.44
3:8:56:G:C2	3:8:57:C:C2	3.06	0.44
61:SL:2:ALA:O	61:SL:3:ASP:HB3	2.18	0.44
55:SF:54:GLY:HA2	55:SF:56:TYR:CE2	2.53	0.44
50:SA:48:ILE:HG22	67:SR:105:MET:HE3	1.98	0.44
55:SF:17:ILE:HD11	55:SF:26:ASP:HB2	2.00	0.44
48:4:113:SER:CB	48:4:499:PHE:CG	3.01	0.44
48:4:114:GLU:HA	48:4:532:PRO:CB	2.35	0.44
48:4:6:VAL:HG22	48:4:6:VAL:H	1.34	0.44
48:4:744:ILE:O	48:4:745:TYR:CG	2.70	0.44
48:4:744:ILE:CG2	48:4:745:TYR:N	2.73	0.44
1:5:1065:G:H2'	1:5:1066:G:C8	2.53	0.44
1:5:1086:C:C2	1:5:1212:G:C2	3.06	0.44
1:5:1236:C:O2'	1:5:1237:C:O5'	2.32	0.44
1:5:1239:C:C4'	1:5:1240:G:O5'	2.65	0.44
1:5:1266:G:C5'	1:5:1266:G:C8	3.01	0.44
1:5:1268:G:N9	1:5:2111:G:C4	2.86	0.44
1:5:1545:G:N1	1:5:1546:C:C4	2.86	0.44
1:5:1554:A:H2'	1:5:1554:A:N3	2.33	0.44
1:5:1865:G:C6	1:5:1867:A:OP2	2.71	0.44
1:5:2091:C:OP2	1:5:2259:G:C8	2.71	0.44
1:5:2279:A:H2'	1:5:2280:G:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2315:G:C2	1:5:2316:G:N9	2.86	0.44
1:5:2508:U:H2'	1:5:2509:C:H6	1.83	0.44
1:5:4405:G:N7	1:5:4406:U:C5	2.86	0.44
1:5:450:G:O2'	1:5:453:G:P	2.76	0.44
1:5:457:G:N2	1:5:458:C:C6	2.86	0.44
1:5:469:C:C4	1:5:470:A:N7	2.86	0.44
5:B:17:LEU:O	5:B:17:LEU:HD22	2.17	0.44
14:K:38:SER:OG	14:K:39:PRO:N	2.50	0.44
14:K:95:GLN:C	14:K:97:ASN:N	2.68	0.44
5:B:264:PHE:CD2	18:O:66:PRO:HD2	2.52	0.44
49:S2:1449:G:C4	49:S2:1450:G:C8	3.05	0.44
49:S2:217:A:C4	49:S2:309:G:O6	2.71	0.44
49:S2:217:A:N1	49:S2:218:U:C6	2.86	0.44
49:S2:441:C:H6	49:S2:448:A:C2	2.36	0.44
49:S2:448:A:C8	58:SI:26:LYS:N	2.86	0.44
49:S2:1373:C:H4'	67:SR:10:LYS:HE3	2.00	0.44
49:S2:1087:A:C5	49:S2:1861:G:C6	3.06	0.44
49:S2:1839:U:H2'	49:S2:1840:U:C6	2.52	0.44
1:5:111:C:H1'	1:5:331:G:N2	2.33	0.44
1:5:1374:G:C6	1:5:1375:C:C5	3.05	0.44
1:5:1492:G:N3	1:5:1493:G:C8	2.86	0.44
1:5:159:C:H1'	15:L:78:LEU:HD11	1.99	0.44
1:5:3742:G:N2	1:5:3743:G:C4	2.86	0.44
1:5:4981:G:H1'	19:P:69:ARG:NH1	2.32	0.44
49:S2:1253:A:N3	49:S2:1666:C:O4'	2.49	0.44
1:5:4235:G:C2'	1:5:4236:G:O5'	2.62	0.44
1:5:4335:C:H2'	1:5:4336:A:C1'	2.47	0.44
1:5:4336:A:H5'	1:5:4337:C:O5'	2.18	0.44
1:5:4215:C:N4	1:5:4216:G:C6	2.86	0.44
49:S2:1271:C:C2	49:S2:1272:C:C6	3.06	0.44
49:S2:1277:C:H3'	49:S2:1278:A:H8	1.83	0.44
1:5:5002:U:O2'	1:5:5003:U:H5'	2.18	0.44
49:S2:478:G:N2	49:S2:479:C:C2	2.86	0.44
1:5:3758:U:C4	1:5:3765:G:C5	3.05	0.44
21:R:131:VAL:HG23	21:R:132:PHE:CE2	2.52	0.44
1:5:3688:U:O2	1:5:3689:G:C8	2.70	0.44
1:5:4535:A:N6	1:5:4536:C:C5	2.85	0.44
3:8:120:G:N1	3:8:121:G:C5	2.86	0.44
1:5:2855:G:N2	1:5:2859:G:N2	2.66	0.44
1:5:3842:C:OP2	1:5:3843:C:O2'	2.27	0.44
49:S2:1250:A:N3	49:S2:1339:U:C1'	2.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4518:A:H3'	1:5:4519:C:H5'	1.99	0.44
1:5:2050:G:C6	1:5:2051:C:C4	3.06	0.44
1:5:2056:G:C6	1:5:2058:G:C8	3.06	0.44
1:5:43:U:C5	1:5:44:A:N7	2.85	0.44
1:5:4197:G:C6	1:5:4198:G:C4	3.06	0.44
1:5:4092:G:C2	1:5:4093:G:N3	2.85	0.44
1:5:4114:C:C3'	1:5:4115:G:O4'	2.61	0.44
49:S2:496:C:C5'	54:SE:29:PRO:HA	2.47	0.44
49:S2:1063:C:C1'	49:S2:1838:U:C4	3.00	0.44
1:5:4653:C:N3	1:5:4654:C:C4	2.86	0.44
1:5:2382:A:N3	1:5:2382:A:C2'	2.81	0.44
1:5:4257:A:HO2'	1:5:4258:C:H6	1.66	0.44
1:5:3595:U:O2'	21:R:114:LYS:HA	2.17	0.44
3:8:131:G:O6	3:8:132:G:N7	2.50	0.44
1:5:5031:G:C6	1:5:5032:C:C4	3.06	0.44
1:5:1341:U:C2	1:5:1342:A:C8	3.05	0.44
49:S2:46:A:H2'	49:S2:99:A:O4'	2.18	0.44
8:E:181:PRO:HA	8:E:246:GLN:NE2	2.17	0.44
49:S2:807:G:N3	49:S2:808:A:C8	2.85	0.44
1:5:4087:G:H21	10:G:49:ARG:HD2	1.83	0.44
49:S2:584:G:C5	49:S2:585:C:C5	3.06	0.44
54:SE:100:ARG:O	54:SE:101:LEU:HB2	2.18	0.44
49:S2:1259:A:H5"	49:S2:1260:A:OP2	2.18	0.44
53:SD:24:PHE:CD1	53:SD:24:PHE:C	2.90	0.44
1:5:4131:G:C5	1:5:4132:C:C5	3.06	0.44
1:5:3844:U:N3	1:5:3845:A:C8	2.86	0.44
1:5:4862:G:H2'	1:5:4863:G:O4'	2.18	0.44
18:O:108:ILE:HG23	18:O:160:ARG:HD2	1.99	0.44
1:5:2712:G:C2	1:5:2713:C:C2	3.06	0.44
48:4:425:LEU:HD23	48:4:426:LYS:H	1.78	0.44
1:5:1290:G:H2'	1:5:1291:G:H5'	2.00	0.44
1:5:21:G:C4	3:8:36:G:N2	2.85	0.44
49:S2:1491:G:H2'	49:S2:1492:U:O4'	2.18	0.44
1:5:2545:U:C5	1:5:2546:G:H4'	2.53	0.44
56:SG:121:ILE:HG22	56:SG:124:LEU:HB3	1.99	0.44
49:S2:1714:U:H2'	49:S2:1715:A:C8	2.52	0.44
71:SV:20:SER:HB3	71:SV:59:ILE:HD11	1.99	0.44
65:SP:10:ARG:HG3	65:SP:10:ARG:HH11	1.83	0.44
49:S2:873:G:O6	49:S2:912:C:N3	2.51	0.44
24:U:26:THR:HA	24:U:68:SER:CB	2.48	0.44
1:5:3:C:C2	1:5:4:G:C8	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:4:C:O2	49:S2:4:C:H2'	2.17	0.44
49:S2:4:C:C2	49:S2:5:U:C5	3.06	0.44
49:S2:5:U:H2'	49:S2:5:U:O2	2.18	0.44
1:5:1656:U:C2	1:5:1657:G:C8	3.06	0.44
52:SC:96:PHE:CD1	52:SC:96:PHE:C	2.92	0.44
1:5:3823:G:H8	1:5:3823:G:O5'	2.00	0.44
1:5:1800:U:H5"	1:5:1800:U:H6	1.83	0.44
49:S2:1347:U:C4	49:S2:1362:U:O4	2.71	0.44
3:8:58:G:O6	13:J:63:ARG:NH1	126.91	0.44
49:S2:1725:U:C2	49:S2:1726:G:C8	3.06	0.44
1:5:1247:U:N3	1:5:1248:C:C4	2.85	0.43
1:5:1264:C:O2'	1:5:2114:G:OP2	2.36	0.43
1:5:1277:G:N2	1:5:1278:C:N1	2.66	0.43
1:5:1617:G:H3'	1:5:1618:G:H8	1.82	0.43
1:5:1436:C:O2'	1:5:2097:U:OP2	2.36	0.43
1:5:2100:A:C6	1:5:2101:C:H1'	2.53	0.43
1:5:2108:G:C6	1:5:2109:G:C4	3.05	0.43
1:5:2287:G:C2	1:5:2288:G:H1'	2.53	0.43
1:5:2344:U:H2'	1:5:2345:G:OP2	2.18	0.43
1:5:2503:G:H1'	1:5:4084:G:C2	2.53	0.43
1:5:446:C:C4	1:5:447:C:C5	3.05	0.43
49:S2:426:A:C4	49:S2:427:U:C4	3.06	0.43
49:S2:1466:G:C2	49:S2:1467:C:C5	3.06	0.43
49:S2:1792:G:C6	49:S2:1793:A:C5	3.05	0.43
49:S2:77:A:H1'	56:SG:176:ILE:HD12	2.00	0.43
1:5:1360:G:H2'	1:5:1361:G:O4'	2.18	0.43
1:5:1362:G:N3	1:5:1363:C:C6	2.86	0.43
1:5:318:A:H2'	1:5:319:A:C8	2.53	0.43
1:5:88:A:O2'	1:5:89:C:C5'	2.65	0.43
1:5:90:G:N3	1:5:95:G:C2	2.86	0.43
4:A:77:ILE:CD1	4:A:128:ARG:HB2	2.48	0.43
16:M:96:GLU:O	16:M:96:GLU:OE1	2.36	0.43
17:N:182:HIS:CD2	17:N:182:HIS:H	2.36	0.43
49:S2:1431:G:H5"	49:S2:1432:U:OP2	2.17	0.43
49:S2:1566:G:H3'	49:S2:1567:G:H5"	2.00	0.43
49:S2:1595:U:H2'	49:S2:1595:U:O2	2.18	0.43
1:5:4275:G:O6	1:5:4276:G:N7	2.48	0.43
1:5:2372:U:H2'	1:5:2373:C:H6	1.83	0.43
49:S2:28:U:O2	49:S2:28:U:C2'	2.61	0.43
49:S2:634:A:C2	49:S2:635:G:N9	2.85	0.43
49:S2:1219:C:C5	49:S2:1220:A:N6	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1298:G:H2'	49:S2:1299:A:C8	2.53	0.43
1:5:3876:A:O2'	1:5:3877:A:P	2.76	0.43
1:5:3883:U:H2'	1:5:3884:U:O5'	2.18	0.43
49:S2:154:U:O2	56:SG:4:ASN:ND2	2.48	0.43
49:S2:167:G:N3	49:S2:168:C:C6	2.86	0.43
49:S2:796:G:C4	57:SH:109:ARG:CZ	3.01	0.43
3:8:93:C:O3'	3:8:94:G:C8	2.71	0.43
1:5:2851:G:C6	1:5:2852:U:C1'	3.00	0.43
1:5:2851:G:O2'	1:5:3841:C:H4'	2.18	0.43
49:S2:933:G:N3	49:S2:1000:C:C2	2.86	0.43
1:5:2698:G:C2	1:5:2699:C:C2	3.06	0.43
1:5:4199:C:C2	1:5:4199:C:C3'	2.96	0.43
49:S2:834:C:H3'	49:S2:835:C:O4'	2.18	0.43
1:5:4115:G:H5'	1:5:4116:C:OP1	2.18	0.43
1:5:4581:G:N2	1:5:4582:C:C4	2.85	0.43
49:S2:496:C:O2'	49:S2:497:C:H5'	2.18	0.43
49:S2:1042:A:C5	49:S2:1043:G:C8	3.06	0.43
1:5:4730:C:H1'	1:5:4731:G:H3'	1.99	0.43
49:S2:20:G:H5'	49:S2:620:G:N7	2.32	0.43
17:N:63:ARG:HG3	17:N:131:GLU:HB3	2.00	0.43
8:E:271:PHE:O	8:E:272:ALA:HB2	2.18	0.43
28:Y:100:HIS:HB3	28:Y:102:SER:N	2.33	0.43
1:5:732:A:C2	1:5:733:A:H1'	2.53	0.43
1:5:4333:C:O2	1:5:4334:U:C6	2.71	0.43
1:5:127:G:C2	1:5:128:C:C5	3.05	0.43
1:5:4508:C:N3	1:5:4512:U:C5	2.76	0.43
1:5:1547:A:C5	1:5:1582:U:H1'	2.53	0.43
1:5:1584:G:C5	1:5:1585:C:C5	3.06	0.43
1:5:2302:C:C4	1:5:2303:C:N4	2.86	0.43
1:5:1397:A:HO2'	1:5:1398:A:C5'	2.31	0.43
1:5:4904:G:C4	1:5:4905:C:C5	3.06	0.43
48:4:12:ILE:HA	48:4:12:ILE:HD12	1.66	0.43
1:5:4869:U:H5'	1:5:4870:G:N2	2.32	0.43
2:7:66:G:H2'	2:7:67:C:H6	1.83	0.43
49:S2:960:U:H3'	49:S2:960:U:C6	2.53	0.43
27:X:148:ASP:OD1	27:X:148:ASP:N	2.50	0.43
54:SE:195:ILE:O	54:SE:209:HIS:O	2.36	0.43
49:S2:210:U:O2	49:S2:211:G:C8	2.71	0.43
13:J:154:LYS:O	13:J:155:HIS:CB	2.66	0.43
68:SS:127:TRP:CD1	68:SS:127:TRP:N	2.86	0.43
70:SU:48:LEU:CD1	70:SU:91:LEU:HD22	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:SI:167:GLN:CG	58:SI:168:GLN:N	2.81	0.43
1:5:343:C:C2	1:5:344:A:C8	3.06	0.43
1:5:397:G:H22	19:P:22:LEU:HD22	1.83	0.43
1:5:2898:G:C2	1:5:2899:C:C2	3.06	0.43
1:5:1:C:O2	1:5:1:C:O2'	2.26	0.43
1:5:4712:C:OP1	18:O:74:ARG:NH2	2.51	0.43
51:SB:36:PRO:HB3	51:SB:231:LEU:CD2	2.48	0.43
5:B:47:LEU:HD13	5:B:181:MET:SD	2.58	0.43
58:SI:117:TYR:HB3	58:SI:156:ALA:HB1	2.00	0.43
49:S2:1212:G:C6	49:S2:1213:C:C4	3.05	0.43
13:J:178:ASN:OD1	13:J:178:ASN:C	2.56	0.43
72:SW:85:ASP:OD1	72:SW:85:ASP:N	2.51	0.43
10:G:73:ARG:HH11	10:G:73:ARG:HB2	1.83	0.43
48:4:120:ARG:NH1	48:4:496:VAL:C	2.71	0.43
48:4:60:ARG:N	48:4:63:GLU:CB	2.82	0.43
1:5:1075:G:C6	1:5:1076:C:N4	2.87	0.43
1:5:1218:G:O6	1:5:1219:G:C4	2.71	0.43
1:5:1245:C:C6	1:5:1269:G:N7	2.86	0.43
1:5:1280:C:O2	1:5:1282:G:C5	2.71	0.43
1:5:1672:U:O2'	1:5:4304:A:OP1	2.31	0.43
1:5:2017:A:H5"	1:5:2017:A:H8	1.84	0.43
1:5:2253:A:H8	1:5:2254:G:O2'	1.99	0.43
1:5:2327:G:N1	1:5:2328:G:C6	2.86	0.43
1:5:2519:U:C2	1:5:2520:C:C5	3.06	0.43
1:5:2439:G:H1'	1:5:2777:G:N3	2.33	0.43
1:5:4168:G:C2'	1:5:4169:G:O5'	2.66	0.43
1:5:4173:G:C6	1:5:4174:U:C5	3.06	0.43
1:5:469:C:N4	1:5:470:A:C6	2.86	0.43
1:5:677:G:H2'	1:5:678:C:C6	2.54	0.43
1:5:689:U:C2	1:5:690:C:C5	3.05	0.43
1:5:976:G:C2	1:5:977:C:C6	3.05	0.43
8:E:43:ASN:HB3	8:E:58:MET:SD	2.58	0.43
1:5:1281:G:C6	8:E:48:ARG:NH1	2.86	0.43
49:S2:465:A:H4'	49:S2:466:G:O5'	2.19	0.43
48:4:731:ALA:CB	48:4:854:PHE:HB3	2.39	0.43
49:S2:217:A:C6	49:S2:218:U:C6	3.05	0.43
49:S2:302:A:N3	49:S2:303:C:C6	2.86	0.43
49:S2:302:A:N1	49:S2:303:C:C4	2.86	0.43
49:S2:217:A:H61	49:S2:303:C:H42	1.66	0.43
56:SG:67:VAL:HG23	56:SG:99:GLY:HA2	2.00	0.43
49:S2:10:G:N1	49:S2:11:A:C5	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1204:A:C2	49:S2:1205:C:C6	3.06	0.43
49:S2:1694:U:H2'	49:S2:1696:C:H5	1.83	0.43
49:S2:1841:C:H2'	49:S2:1841:C:O2	2.18	0.43
49:S2:9:U:C5	49:S2:11:A:OP2	2.71	0.43
1:5:1492:G:C5	1:5:1493:G:N7	2.86	0.43
1:5:295:A:O3'	1:5:296:A:C8	2.71	0.43
49:S2:1413:G:N1	49:S2:1414:A:H1'	2.33	0.43
49:S2:1415:C:C5	49:S2:1416:C:C2	3.06	0.43
49:S2:1237:C:C2	49:S2:1238:U:C6	3.05	0.43
49:S2:1512:C:H2'	49:S2:1513:C:H6	1.83	0.43
49:S2:1528:G:O2'	49:S2:1666:C:OP1	2.36	0.43
49:S2:1574:C:O2	49:S2:1575:G:C8	2.72	0.43
2:7:15:C:C2	2:7:16:A:C8	3.06	0.43
1:5:4927:G:H1'	16:M:121:ARG:HD3	1.99	0.43
49:S2:529:A:H2'	49:S2:530:U:O4'	2.17	0.43
49:S2:536:A:C5	49:S2:537:C:C6	3.06	0.43
1:5:3702:A:C5	1:5:3774:A:C6	3.06	0.43
1:5:3766:A:C2	49:S2:1828:C:O4'	2.71	0.43
1:5:2409:U:C5	1:5:2783:A:N1	2.74	0.43
49:S2:797:C:O2	57:SH:109:ARG:NH2	2.50	0.43
1:5:1631:A:O5'	1:5:1631:A:H8	2.00	0.43
11:H:60:TRP:CZ2	22:S:153:PRO:HD3	2.53	0.43
1:5:659:G:N1	1:5:660:A:C8	2.86	0.43
12:I:46:PHE:CZ	12:I:85:PHE:HA	2.53	0.43
1:5:1818:G:H8	1:5:1821:G:C6	2.33	0.43
1:5:1929:A:N3	1:5:1929:A:H3'	2.33	0.43
1:5:4106:G:C2	1:5:4107:G:C8	3.06	0.43
49:S2:1101:U:N3	49:S2:1102:G:N7	2.64	0.43
49:S2:1005:G:N2	49:S2:1006:C:C2	2.86	0.43
1:5:4723:A:C2	1:5:4724:A:C4	3.06	0.43
1:5:5031:G:C6	1:5:5032:C:N4	2.86	0.43
1:5:245:C:H4'	1:5:246:G:O5'	2.18	0.43
1:5:1964:A:C2	1:5:4694:G:O6	2.70	0.43
1:5:2568:C:H2'	1:5:2569:G:H8	1.83	0.43
1:5:146:G:N2	1:5:147:A:C5	2.86	0.43
1:5:1828:C:N3	1:5:1829:G:C8	2.85	0.43
49:S2:182:C:H5'	49:S2:183:G:P	2.58	0.43
1:5:181:C:H2'	1:5:182:G:C8	2.52	0.43
1:5:723:A:H4'	6:C:346:ASN:HB2	1.99	0.43
1:5:3945:A:C4	1:5:3946:G:C8	3.06	0.43
1:5:4131:G:C2	1:5:4132:C:C2	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4147:G:N3	1:5:4148:C:C6	2.86	0.43
25:V:27:ASN:N	25:V:27:ASN:OD1	2.51	0.43
1:5:3656:A:C1'	1:5:3747:A:C2	3.01	0.43
1:5:713:C:N4	1:5:955:G:H1	2.15	0.43
1:5:711:A:H1'	8:E:132:HIS:CE1	2.53	0.43
63:SN:64:ARG:HA	63:SN:69:ASN:O	2.18	0.43
55:SF:21:GLY:HA2	66:SQ:49:TYR:CZ	2.53	0.43
3:8:54:C:O2	3:8:54:C:H2'	2.17	0.43
1:5:2628:U:N3	1:5:2629:C:C5	2.86	0.43
50:SA:55:TRP:C	50:SA:55:TRP:HD1	2.21	0.43
1:5:1602:U:N3	1:5:1603:C:C5	2.86	0.43
1:5:2065:G:C2	1:5:2066:C:C2	3.06	0.43
1:5:4703:U:O2	1:5:4704:C:C6	2.72	0.43
1:5:2742:G:H4'	4:A:22:HIS:CD2	2.53	0.43
2:7:117:G:C2	2:7:118:C:C2	3.06	0.43
1:5:3923:A:C8	1:5:4381:A:C4	3.06	0.43
49:S2:1524:G:C2	49:S2:1525:C:C2	3.06	0.43
19:P:36:ILE:HD12	19:P:48:LEU:HD11	1.99	0.43
68:SS:17:ASN:O	68:SS:18:THR:HG23	2.18	0.43
48:4:319:LEU:O	48:4:320:ASP:HB2	2.18	0.43
15:L:191:LEU:O	15:L:192:PHE:C	2.55	0.43
48:4:577:VAL:HG11	48:4:579:TYR:OH	2.18	0.43
48:4:771:PHE:HB2	48:4:785:LYS:C	2.38	0.43
48:4:800:LEU:O	48:4:804:THR:HG23	2.17	0.43
1:5:1081:C:H1'	1:5:1220:G:N2	2.34	0.43
1:5:1278:C:H3'	1:5:1279:A:C4'	2.47	0.43
1:5:1665:C:N3	1:5:2285:A:C2	2.87	0.43
1:5:1968:G:C2	1:5:1969:G:C5	3.06	0.43
1:5:1971:C:H5	1:5:2000:G:H2'	1.83	0.43
1:5:1975:G:C2	1:5:1984:A:N9	2.86	0.43
1:5:1988:G:N3	1:5:1989:G:C8	2.86	0.43
1:5:2077:C:N3	1:5:2078:C:C6	2.86	0.43
1:5:2290:C:H1'	1:5:2321:G:N3	2.33	0.43
1:5:2439:G:C8	1:5:2777:G:C5	3.07	0.43
1:5:3675:G:C2	1:5:3676:G:C5	2.97	0.43
1:5:4122:G:H2'	1:5:4122:G:N3	2.33	0.43
1:5:4404:U:O2'	1:5:4405:G:N7	2.42	0.43
1:5:4460:U:H2'	1:5:4461:C:H6	1.82	0.43
1:5:4461:C:C2	1:5:4516:G:C2	3.06	0.43
8:E:53:TYR:CE2	8:E:61:ARG:CZ	3.02	0.43
9:F:119:ILE:HG12	9:F:120:PHE:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:106:PHE:O	14:K:110:VAL:HG23	2.19	0.43
14:K:119:ARG:N	14:K:123:ARG:NH1	2.63	0.43
9:F:85:VAL:CG1	22:S:62:VAL:HA	2.46	0.43
48:4:613:LEU:CD2	48:4:639:TYR:CG	2.81	0.43
48:4:661:ILE:CG2	48:4:662:LEU:N	2.81	0.43
48:4:713:ALA:CA	48:4:716:ARG:CZ	2.96	0.43
49:S2:302:A:C4	49:S2:303:C:C6	3.06	0.43
49:S2:448:A:C8	58:SI:26:LYS:CA	3.01	0.43
49:S2:1202:U:O2	49:S2:1202:U:H2'	2.17	0.43
49:S2:1858:G:C6	49:S2:1859:A:N7	2.86	0.43
48:4:154:VAL:CG2	48:4:358:LEU:HD21	2.48	0.43
1:5:285:G:H2'	1:5:286:U:O4'	2.18	0.43
1:5:98:A:H1'	1:5:292:G:C5	2.53	0.43
1:5:3727:A:C2'	1:5:3728:A:O5'	2.66	0.43
1:5:4985:U:C2	1:5:4986:G:C8	3.06	0.43
18:O:12:ARG:HD3	18:O:37:ARG:NH2	2.32	0.43
49:S2:1545:A:C5	49:S2:1546:G:C6	3.07	0.43
49:S2:1545:A:N6	49:S2:1588:A:C4	2.86	0.43
49:S2:1563:G:C5	49:S2:1564:C:C5	3.06	0.43
49:S2:1666:C:O2	49:S2:1666:C:H2'	2.19	0.43
1:5:4324:A:C2	1:5:4325:A:C4	3.04	0.43
1:5:4338:G:H1	1:5:4372:U:H3'	1.83	0.43
1:5:4897:G:N1	1:5:4898:G:C5	2.87	0.43
49:S2:596:U:O2'	49:S2:597:G:O5'	2.36	0.43
49:S2:1131:G:C2	49:S2:1132:C:C6	3.06	0.43
49:S2:1641:A:C4	49:S2:1642:U:C5	3.06	0.43
48:4:10:ARG:HA	48:4:10:ARG:HD2	1.78	0.43
49:S2:1118:C:H3'	49:S2:1119:A:C2	2.54	0.43
1:5:4401:G:C5	1:5:4402:C:C5	3.06	0.43
49:S2:1709:G:C4	49:S2:1710:C:C5	3.06	0.43
1:5:4538:G:C4	1:5:4539:U:C6	3.06	0.43
1:5:506:C:C2	1:5:507:G:C8	3.06	0.43
1:5:664:G:H21	1:5:665:C:H5	1.67	0.43
12:I:85:PHE:C	12:I:85:PHE:CD1	2.92	0.43
49:S2:929:G:C6	49:S2:930:C:C4	3.07	0.43
48:4:226:LYS:CE	48:4:356:ILE:CD1	2.97	0.43
1:5:4111:U:C2	1:5:4112:C:C6	3.06	0.43
49:S2:973:C:N4	49:S2:974:C:C5	2.87	0.43
49:S2:976:G:N2	49:S2:977:C:C2	2.86	0.43
1:5:2589:C:C4	1:5:2590:G:C4	3.05	0.43
1:5:1339:U:C2'	1:5:1339:U:O2	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4473:A:C2	1:5:4474:A:C5	3.06	0.43
1:5:3794:C:H2'	1:5:3794:C:O2	2.17	0.43
1:5:1195:G:H2'	1:5:1196:G:C8	2.53	0.43
1:5:1404:G:C4	1:5:1405:C:C6	3.06	0.43
1:5:4880:C:O2'	1:5:4881:U:C5'	2.67	0.43
5:B:369:ASP:OD1	5:B:369:ASP:C	2.55	0.43
49:S2:1776:G:N1	49:S2:1777:G:N7	2.67	0.43
1:5:1729:A:H5"	1:5:1729:A:H8	1.82	0.43
49:S2:1517:G:H2'	49:S2:1518:C:O4'	2.17	0.43
1:5:4136:G:N3	1:5:4137:C:C6	2.86	0.43
1:5:2632:U:C2	1:5:2633:U:H5	2.30	0.43
1:5:1387:A:N9	1:5:1397:A:N6	2.64	0.43
1:5:4861:G:C2	1:5:4862:G:C8	3.07	0.43
1:5:2811:G:H2'	1:5:2811:G:N3	2.33	0.43
1:5:2715:G:C2	1:5:2716:C:C2	3.06	0.43
1:5:711:A:C2	1:5:712:C:C4	3.06	0.43
49:S2:695:C:N3	49:S2:696:G:N7	2.65	0.43
48:4:390:PRO:N	48:4:466:CYS:SG	2.92	0.43
1:5:4871:C:C6	22:S:176:PHE:CE2	3.05	0.43
49:S2:1806:A:N3	49:S2:1807:C:C6	2.86	0.43
49:S2:319:C:H2'	49:S2:320:G:H8	1.82	0.43
1:5:1296:G:H1'	1:5:1297:U:P	2.58	0.43
1:5:3927:U:O4	1:5:4182:G:C2	2.71	0.43
1:5:3713:U:O4'	1:5:3713:U:O2	2.36	0.43
1:5:4433:G:N1	1:5:4434:C:C4	2.87	0.43
49:S2:1261:C:N4	49:S2:1262:C:N3	2.65	0.43
1:5:5055:G:H2'	1:5:5056:A:H8	1.82	0.43
49:S2:196:C:C2	49:S2:204:G:N2	2.87	0.43
67:SR:20:TYR:HB3	67:SR:23:ARG:HB2	1.99	0.43
49:S2:787:G:H2'	49:S2:788:G:C4'	2.47	0.43
70:SU:40:ILE:HD11	70:SU:53:PRO:HG3	2.00	0.43
53:SD:123:LEU:HD21	53:SD:154:ASP:HB3	2.00	0.43
60:SK:10:ALA:O	60:SK:13:GLU:HG3	2.18	0.43
73:SX:76:LYS:HG3	73:SX:77:ASN:OD1	2.19	0.43
57:SH:69:LEU:HD11	57:SH:73:GLN:HE21	1.83	0.43
48:4:25:ILE:CG2	48:4:142:VAL:HB	2.48	0.43
5:B:153:MET:O	5:B:157:CYS:HB3	2.18	0.43
6:C:150:LEU:O	6:C:152:LEU:N	2.52	0.43
48:4:60:ARG:N	48:4:63:GLU:HB3	2.33	0.43
48:4:61:LYS:HD3	48:4:61:LYS:HA	1.76	0.43
1:5:1262:G:C6	1:5:1263:A:N7	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:957:G:H5'	1:5:1284:G:N2	2.32	0.43
1:5:1543:G:H1'	1:5:2513:A:N3	2.33	0.43
1:5:1620:U:O2	1:5:1621:A:C8	2.71	0.43
1:5:1972:G:N2	1:5:1973:G:C5	2.86	0.43
1:5:2080:U:H2'	1:5:2081:C:O5'	2.18	0.43
1:5:2600:A:C1'	1:5:2601:A:C6	3.01	0.43
1:5:2643:G:C6	1:5:2644:G:C5	3.06	0.43
1:5:973:G:C6	1:5:1282:G:N3	2.86	0.43
48:4:847:GLY:HA3	48:4:848:ILE:CB	2.48	0.43
49:S2:342:C:C2	49:S2:343:A:C8	3.07	0.43
49:S2:81:U:C2	49:S2:82:G:C8	3.06	0.43
49:S2:1034:A:N6	49:S2:1082:A:C4	2.86	0.43
1:5:1362:G:C4	1:5:1363:C:C6	3.07	0.43
1:5:1482:G:N2	1:5:1484:G:N2	2.66	0.43
1:5:4127:A:N7	1:5:4156:G:N2	2.66	0.43
1:5:1190:C:N3	1:5:1191:C:C4	2.83	0.43
1:5:3709:U:C6	49:S2:970:G:N1	2.86	0.43
49:S2:1402:A:C6	49:S2:1441:U:O4	2.53	0.43
49:S2:1266:C:O2	49:S2:1266:C:C2'	2.65	0.43
1:5:4284:C:O2	1:5:4284:C:H2'	2.18	0.43
48:4:845:LYS:HZ1	48:4:846:GLU:CG	2.14	0.43
1:5:5003:U:N3	1:5:5045:G:N2	2.65	0.43
49:S2:153:G:C2	49:S2:154:U:C6	3.06	0.43
49:S2:168:C:OP1	56:SG:131:ARG:NH2	2.52	0.43
1:5:2481:G:C4	1:5:2482:C:C5	3.05	0.43
3:8:121:G:C6	3:8:122:G:C4	3.06	0.43
1:5:4564:A:C4	1:5:4565:C:C5	3.06	0.43
1:5:5048:A:N3	1:5:5048:A:O4'	2.51	0.43
1:5:29:G:C2	1:5:30:C:C6	3.07	0.43
1:5:4089:G:C2	1:5:4161:G:C2	3.06	0.43
1:5:1334:A:N3	1:5:1334:A:H2'	2.32	0.43
13:J:99:PHE:CZ	13:J:105:PHE:CB	2.97	0.43
1:5:1632:A:H8	1:5:3640:U:HO2'	1.66	0.43
1:5:3600:G:C4	1:5:3601:C:C5	3.06	0.43
3:8:133:G:C4	3:8:134:G:C8	3.06	0.43
3:8:135:C:N3	3:8:136:U:C4	2.86	0.43
1:5:4746:C:N4	1:5:4747:C:N4	2.66	0.43
1:5:4749:C:C3'	1:5:4750:G:H5"	2.49	0.43
49:S2:878:G:C6	49:S2:879:C:C6	3.07	0.43
1:5:1206:C:C2	1:5:1207:C:C6	3.06	0.43
49:S2:962:A:N3	49:S2:963:A:C8	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1367:C:C2	1:5:1368:A:H3'	2.54	0.43
1:5:2550:G:C2	1:5:2551:A:C8	3.06	0.43
1:5:1775:A:C4	1:5:1776:A:C8	3.07	0.43
12:I:35:ASP:HB2	12:I:86:HIS:CE1	2.50	0.43
1:5:4629:U:H2'	1:5:4630:G:O4'	2.18	0.43
48:4:343:TRP:O	48:4:344:LEU:HD23	2.17	0.43
2:7:112:U:O2	2:7:113:G:N7	2.50	0.43
1:5:4145:C:N3	1:5:4146:G:C5	2.87	0.43
49:S2:654:A:C6	49:S2:655:A:N1	2.86	0.43
1:5:642:G:C4	1:5:643:C:C5	3.06	0.43
66:SQ:47:LEU:O	66:SQ:49:TYR:N	2.51	0.43
59:SJ:45:ARG:O	59:SJ:49:THR:HG23	2.18	0.43
1:5:1912:G:C2	1:5:1913:C:C2	3.07	0.43
12:I:31:ILE:HG13	12:I:66:GLU:OE1	2.17	0.43
1:5:1921:C:C5	16:M:17:PHE:HD2	2.36	0.43
25:V:48:ARG:HD2	25:V:51:ARG:NH2	2.32	0.43
49:S2:142:C:C2	56:SG:185:LEU:CD2	3.02	0.43
59:SJ:13:TYR:C	59:SJ:13:TYR:CD1	2.90	0.43
1:5:4928:C:H5"	16:M:114:LYS:HD3	2.01	0.43
49:S2:1337:C:C2'	49:S2:1337:C:O2	2.66	0.43
49:S2:1751:C:O2	49:S2:1751:C:H2'	2.18	0.43
1:5:2676:A:C5	1:5:2677:G:C8	3.07	0.43
49:S2:1077:A:C2	49:S2:1078:C:C6	3.05	0.43
49:S2:513:G:C5	49:S2:514:U:C5	3.07	0.43
57:SH:27:LEU:HD12	57:SH:40:LEU:HD21	1.99	0.43
49:S2:746:C:H2'	49:S2:747:U:C5'	2.48	0.43
63:SN:89:TYR:HD1	63:SN:89:TYR:C	2.22	0.43
58:SI:60:LEU:HD23	58:SI:185:ALA:HB2	2.00	0.43
1:5:3928:A:H3'	1:5:3929:G:H8	1.84	0.43
17:N:53:TYR:HD1	17:N:54:LYS:N	2.16	0.43
11:H:50:LYS:O	11:H:51:LYS:HG3	2.18	0.43
1:5:2470:C:H5"	1:5:2470:C:C2	2.54	0.43
51:SB:30:TRP:HD1	64:SO:19:PRO:HD3	1.83	0.43
48:4:9:ILE:HG21	48:4:452:LEU:HD13	1.99	0.43
1:5:1085:C:N3	1:5:1086:C:C5	2.84	0.43
1:5:1244:G:O4'	1:5:1269:G:H1'	2.18	0.43
1:5:1248:C:C4	1:5:1249:C:H5	2.36	0.43
1:5:1667:G:H8	1:5:1667:G:O5'	2.01	0.43
1:5:1685:G:C6	1:5:1686:C:C4	3.07	0.43
1:5:1846:G:C2	1:5:1847:C:N3	2.86	0.43
1:5:1984:A:N6	1:5:2011:C:C1'	2.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2103:G:C4	1:5:2104:G:C8	3.06	0.43
1:5:2439:G:C2	1:5:2440:U:C5	3.07	0.43
1:5:2504:C:O2'	1:5:2505:C:N3	2.34	0.43
1:5:4219:A:O2'	1:5:4220:A:C5'	2.66	0.43
1:5:4307:A:H4'	20:Q:186:TYR:CD2	2.53	0.43
1:5:452:A:O3'	1:5:454:U:OP2	2.37	0.43
20:Q:32:TYR:OH	20:Q:123:PHE:CD2	2.69	0.43
1:5:1427:A:H2	20:Q:50:ARG:HH22	1.65	0.43
48:4:33:SER:CA	48:4:57:THR:HG21	2.47	0.43
49:S2:1740:C:C2	49:S2:1741:U:C5	3.07	0.43
49:S2:302:A:C2	49:S2:303:C:C2	3.06	0.43
49:S2:215:G:N2	49:S2:312:G:H1	2.16	0.43
49:S2:315:C:H2'	49:S2:316:G:H8	1.83	0.43
49:S2:340:C:H3'	49:S2:341:C:H6	1.82	0.43
49:S2:341:C:N4	49:S2:342:C:C4	2.85	0.43
49:S2:341:C:O2	49:S2:342:C:H1'	2.18	0.43
49:S2:60:A:N3	49:S2:60:A:O4'	2.51	0.43
49:S2:92:A:H4'	49:S2:93:U:OP2	2.19	0.43
56:SG:235:SER:OG	56:SG:236:SER:N	2.52	0.43
49:S2:1356:G:C2	49:S2:1357:A:C6	3.07	0.43
1:5:101:A:C2	1:5:102:G:N9	2.85	0.43
1:5:1373:A:C4	1:5:1374:G:C8	3.06	0.43
1:5:1358:G:N1	1:5:1379:C:O2	2.52	0.43
1:5:1423:U:C2	1:5:1424:G:C8	3.07	0.43
1:5:1421:G:C5	1:5:1465:G:C2	3.07	0.43
1:5:288:G:C5	1:5:289:C:C5	3.06	0.43
1:5:301:G:C4	1:5:302:C:C6	3.06	0.43
1:5:95:G:H3'	1:5:95:G:C8	2.53	0.43
1:5:99:A:O2'	17:N:181:HIS:CE1	2.72	0.43
49:S2:1528:G:C6	49:S2:1529:C:C4	3.07	0.43
1:5:4269:G:C2	1:5:4270:C:H1'	2.53	0.43
1:5:4895:C:O2	1:5:4896:G:N7	2.51	0.43
49:S2:1275:G:H4'	49:S2:1276:A:H5'	2.00	0.43
49:S2:1279:C:C2	49:S2:1280:G:C8	3.07	0.43
49:S2:50:A:N1	49:S2:51:U:H1'	2.34	0.43
1:5:3752:C:H2'	1:5:3777:G:C8	2.53	0.43
49:S2:795:A:C2	49:S2:796:G:C4	2.98	0.43
1:5:2690:C:C2	1:5:2691:U:C5	3.05	0.43
1:5:490:C:H3'	1:5:491:G:C8	2.51	0.43
1:5:655:C:C2	1:5:656:C:C6	3.06	0.43
1:5:673:C:C2	1:5:674:G:N7	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1339:U:O2	49:S2:1340:U:C6	2.72	0.43
1:5:4518:A:H5"	1:5:4520:G:H4'	2.01	0.43
1:5:1951:G:N2	1:5:1952:G:H1'	2.34	0.43
1:5:4093:G:C8	1:5:4094:G:O4'	2.71	0.43
1:5:4094:G:C2	1:5:4095:G:C4	3.07	0.43
1:5:4113:U:H3'	1:5:4114:C:H5"	2.00	0.43
3:8:38:U:C2'	3:8:38:U:O2	2.67	0.43
2:7:40:U:O2	13:J:75:ARG:HD2	2.18	0.43
1:5:5018:C:C2	1:5:5019:A:C8	3.06	0.43
1:5:4742:G:N2	1:5:4743:G:H1'	2.34	0.43
1:5:4734:A:C6	1:5:4735:G:C6	3.06	0.43
1:5:4482:U:C2'	1:5:4482:U:O2	2.66	0.43
49:S2:907:G:H3'	49:S2:908:A:C8	2.52	0.43
1:5:516:C:N1	1:5:646:G:N2	2.66	0.43
1:5:908:G:N1	1:5:909:A:C8	2.87	0.43
1:5:4688:C:C2	1:5:4689:U:C6	3.07	0.43
1:5:2735:G:N2	1:5:2736:G:N9	2.67	0.43
1:5:2736:G:N1	1:5:2737:C:C5	2.77	0.43
49:S2:1068:G:HO2'	49:S2:1069:U:H6	1.67	0.43
18:O:103:LYS:HG2	18:O:105:PHE:CZ	2.53	0.43
2:7:94:C:C2	2:7:95:C:H5	2.28	0.43
49:S2:418:A:H3'	49:S2:419:G:H8	1.82	0.43
1:5:1728:U:H2'	1:5:1729:A:H5"	2.00	0.43
8:E:279:PRO:C	8:E:281:LYS:H	2.22	0.43
1:5:3848:U:H2'	1:5:3848:U:O2	2.18	0.43
1:5:2712:G:N1	1:5:2713:C:C5	2.86	0.43
1:5:4505:C:H2'	1:5:4506:C:H6	1.83	0.43
21:R:163:ARG:CZ	49:S2:871:U:C2	3.01	0.43
1:5:1289:C:N3	1:5:1290:G:C5	2.87	0.43
1:5:114:G:O6	1:5:157:U:O2	2.36	0.43
25:V:82:ILE:HG23	25:V:121:VAL:HA	2.01	0.43
49:S2:139:C:O2'	49:S2:140:C:O5'	2.19	0.43
24:U:39:PHE:CD1	24:U:90:TYR:CE2	3.06	0.43
2:7:13:A:P	2:7:109:U:HO2'	2.42	0.43
49:S2:364:A:C2	49:S2:397:G:N3	2.87	0.43
1:5:2069:A:C5	1:5:2071:A:C8	3.07	0.43
49:S2:1731:A:C4	49:S2:1732:G:C8	3.06	0.43
1:5:4298:A:C5	1:5:4299:U:C5	3.06	0.43
58:SI:6:ASP:HB3	58:SI:28:GLU:HG2	2.00	0.43
57:SH:10:LYS:N	57:SH:11:PRO:HD3	2.34	0.43
7:D:55:VAL:HG21	7:D:158:LYS:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:410:G:N1	49:S2:411:G:C4	2.85	0.43
9:F:239:GLU:O	9:F:241:GLN:N	2.50	0.43
1:5:1345:A:H4'	20:Q:166:TYR:HE2	1.84	0.43
53:SD:167:TYR:OH	53:SD:193:ASP:OD2	2.36	0.43
1:5:518:G:C2	1:5:519:C:C2	3.07	0.43
59:SJ:50:LEU:CD2	59:SJ:54:ARG:HG3	2.49	0.43
1:5:4890:G:C2	1:5:4930:C:C2	3.06	0.43
67:SR:99:ASP:N	67:SR:102:THR:OG1	2.40	0.43
64:SO:28:PHE:HD1	64:SO:92:ALA:HB3	1.83	0.43
6:C:26:ALA:HB3	6:C:266:THR:HA	2.00	0.43
75:SZ:45:ASN:OD1	75:SZ:45:ASN:N	2.49	0.43
60:SK:15:LEU:HD13	60:SK:21:MET:HE3	2.00	0.43
66:SQ:102:GLU:O	66:SQ:106:LYS:HG2	2.19	0.43
11:H:126:VAL:HG11	11:H:161:ILE:HG22	2.00	0.43
1:5:1066:G:C5	1:5:1067:G:N7	2.86	0.43
1:5:1992:U:C6	1:5:2002:A:H2	2.36	0.43
1:5:2315:G:C4	1:5:2316:G:C8	3.06	0.43
1:5:2509:C:N3	1:5:2510:G:C5	2.87	0.43
1:5:4081:G:N1	1:5:4082:G:N7	2.66	0.43
1:5:450:G:O2'	1:5:453:G:OP1	2.29	0.43
1:5:468:U:O2	1:5:468:U:H2'	2.18	0.43
1:5:472:C:C4	1:5:473:C:C4	3.06	0.43
1:5:691:C:N3	1:5:692:A:C5	2.87	0.43
1:5:957:G:OP1	1:5:1284:G:O2'	2.30	0.43
14:K:102:GLY:O	14:K:140:GLY:HA2	2.17	0.43
14:K:77:ALA:HB2	14:K:80:LEU:HD12	1.97	0.43
14:K:88:PRO:HB2	14:K:89:PRO:CB	2.48	0.43
1:5:2014:C:OP1	20:Q:112:ARG:CZ	156.39	0.43
49:S2:426:A:C4	49:S2:427:U:O4	2.71	0.43
49:S2:436:G:N2	49:S2:437:G:C5	2.85	0.43
49:S2:1374:C:O2'	49:S2:1375:G:H5'	2.18	0.43
49:S2:336:A:C5	49:S2:337:C:C5	3.07	0.43
49:S2:379:C:O2	58:SI:5:ARG:NH1	2.51	0.43
49:S2:71:G:H2'	49:S2:72:C:N1	2.34	0.43
49:S2:1356:G:O5'	49:S2:1356:G:H8	2.01	0.43
59:SJ:59:GLU:OE2	59:SJ:59:GLU:CG	2.53	0.43
1:5:298:G:C2	1:5:299:C:N1	2.86	0.43
49:S2:1401:A:C6	49:S2:1402:A:C6	3.06	0.43
49:S2:1417:C:O2	49:S2:1419:C:C5	2.72	0.43
49:S2:1268:C:C2	49:S2:1515:G:N2	2.86	0.43
49:S2:1230:C:H2'	49:S2:1665:G:H22	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4235:G:H2'	1:5:4236:G:C5'	2.49	0.43
49:S2:1292:C:N4	49:S2:1293:A:C8	2.86	0.43
55:SF:101:HIS:O	55:SF:105:GLY:HA2	2.18	0.43
1:5:5004:C:N4	1:5:5005:G:C2	2.87	0.43
1:5:5006:U:O4'	1:5:5042:A:N6	2.51	0.43
1:5:4401:G:C8	1:5:4401:G:H5"	2.54	0.43
49:S2:529:A:C4	49:S2:530:U:C6	3.06	0.43
49:S2:49:C:C2	49:S2:478:G:C2	3.06	0.43
1:5:3755:G:C6	1:5:3756:A:C8	3.06	0.43
3:8:115:G:C5	3:8:116:C:C5	3.07	0.43
1:5:2857:A:C6	1:5:2858:A:C6	3.07	0.43
1:5:2723:U:C2	1:5:2724:G:C8	3.07	0.43
1:5:505:G:N3	1:5:506:C:C6	2.86	0.43
1:5:164:G:N2	1:5:165:A:H1'	2.33	0.43
1:5:30:C:O2'	1:5:31:U:C5'	2.67	0.43
1:5:44:A:N3	1:5:45:U:C6	2.87	0.43
1:5:3910:C:N3	1:5:3911:C:N4	2.66	0.43
49:S2:832:G:C2	49:S2:833:C:C1'	3.01	0.43
1:5:4724:A:H4'	5:B:102:PHE:O	2.18	0.43
1:5:2606:G:C6	1:5:2607:C:C4	3.07	0.43
1:5:4653:C:N3	1:5:4654:C:N4	2.67	0.43
3:8:131:G:N1	3:8:132:G:N9	2.66	0.43
1:5:4731:G:N7	1:5:4733:C:C6	2.86	0.43
1:5:4967:A:C2	1:5:4968:A:C5	3.07	0.43
49:S2:862:A:C2	49:S2:863:U:H1'	2.54	0.43
1:5:3832:U:C2	1:5:3833:C:C5	3.06	0.43
49:S2:883:U:C2	49:S2:884:C:C6	3.07	0.43
1:5:1098:G:C5	1:5:1099:C:C5	3.07	0.43
1:5:1100:U:O2	1:5:1167:C:C6	2.71	0.43
1:5:120:A:C8	1:5:121:A:N6	2.87	0.43
8:E:157:ARG:HH22	8:E:271:PHE:HB2	1.83	0.43
3:8:27:U:C2	3:8:28:C:C6	3.06	0.43
49:S2:805:U:N3	49:S2:806:U:H5	2.10	0.43
1:5:933:G:C2	1:5:940:C:C5	3.06	0.43
49:S2:185:G:C6	49:S2:186:C:N4	2.86	0.43
49:S2:1241:A:C2'	49:S2:1242:U:O4'	2.66	0.43
2:7:111:C:O2	2:7:111:C:C2'	2.67	0.43
11:H:106:GLN:NE2	11:H:113:GLU:HG2	2.34	0.43
49:S2:1246:A:H2	49:S2:1251:A:N3	2.16	0.43
49:S2:1246:A:N6	49:S2:1247:C:N4	2.59	0.43
51:SB:79:VAL:HB	51:SB:81:PHE:CE2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:36:ARG:HD3	11:H:38:PHE:CE1	2.53	0.43
7:D:284:LYS:HB2	12:I:209:TRP:CH2	2.53	0.43
1:5:1458:C:C2'	1:5:1458:C:O2	2.54	0.43
1:5:113:A:H2'	1:5:113:A:N3	2.32	0.43
1:5:266:C:OP1	1:5:266:C:C2	2.71	0.43
1:5:4713:G:C4	1:5:4714:C:C6	3.07	0.43
66:SQ:32:ILE:HD11	66:SQ:63:PHE:CD2	2.53	0.43
3:8:144:U:N3	3:8:145:C:C5	2.87	0.43
54:SE:98:ASN:N	54:SE:98:ASN:OD1	2.52	0.43
6:C:336:ARG:O	6:C:340:ILE:CG1	2.66	0.43
8:E:104:LYS:HA	8:E:104:LYS:HE2	2.01	0.43
72:SW:37:PHE:CE1	72:SW:103:VAL:HG11	2.53	0.43
2:7:73:U:O2	2:7:102:U:C4	2.72	0.43
5:B:60:VAL:HG12	5:B:62:ARG:HG2	1.99	0.43
49:S2:1261:C:C5	49:S2:1262:C:C4	3.06	0.43
49:S2:512:A:C2	49:S2:513:G:C8	3.07	0.43
1:5:2353:U:C2	1:5:2354:G:C8	3.06	0.43
1:5:5055:G:C2	1:5:5056:A:N7	2.86	0.43
49:S2:116:U:N3	49:S2:117:C:C5	2.86	0.43
51:SB:139:CYS:HB2	51:SB:172:MET:CE	2.49	0.43
12:I:110:ARG:CZ	12:I:110:ARG:HA	2.49	0.43
27:X:72:ASP:OD1	27:X:72:ASP:N	2.50	0.43
16:M:109:ARG:HH21	16:M:109:ARG:CB	2.32	0.43
66:SQ:111:ILE:HA	66:SQ:114:GLN:NE2	2.33	0.43
29:Z:71:PHE:HA	29:Z:111:ARG:HG2	1.99	0.43
48:4:58:ASP:C	48:4:63:GLU:CB	2.83	0.43
48:4:763:LEU:HD13	48:4:786:ALA:HB2	2.01	0.43
1:5:1065:G:N1	1:5:1066:G:C6	2.87	0.43
1:5:1236:C:H2'	8:E:56:SER:CB	2.49	0.43
1:5:1448:G:C2	1:5:1449:C:C2	3.06	0.43
1:5:1693:U:N3	1:5:1694:C:C6	2.85	0.43
1:5:1969:G:O6	1:5:2019:C:N4	2.51	0.43
1:5:2100:A:C5	1:5:2101:C:C6	3.06	0.43
1:5:2281:U:O2	1:5:2282:A:C8	2.72	0.43
1:5:2294:G:N2	1:5:2295:C:C6	2.86	0.43
1:5:2594:C:O2	1:5:2595:C:C6	2.72	0.43
1:5:4175:G:C2	1:5:4176:C:C6	3.07	0.43
1:5:476:G:N2	1:5:679:C:C2	2.87	0.43
1:5:686:A:C2'	1:5:687:U:H5'	2.49	0.43
1:5:988:C:C2	1:5:989:U:C6	3.07	0.43
9:F:93:PHE:HE2	9:F:246:ILE:HG12	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:42:A:N3	49:S2:42:A:H2'	2.32	0.43
1:5:4413:C:H5	1:5:4429:C:H42	1.65	0.43
48:4:634:TYR:CZ	48:4:639:TYR:HE2	2.37	0.43
48:4:731:ALA:HA	48:4:854:PHE:CD1	2.54	0.43
48:4:675:ILE:CG2	48:4:709:LEU:HD12	2.15	0.43
49:S2:145:G:H2'	49:S2:146:G:O4'	2.18	0.43
49:S2:221:A:C2	49:S2:222:U:N1	2.87	0.43
49:S2:449:A:N7	49:S2:452:G:O6	2.51	0.43
49:S2:61:A:C2	49:S2:334:C:O2	2.72	0.43
49:S2:1036:A:N7	49:S2:1037:G:C8	2.87	0.43
49:S2:1696:C:C2	49:S2:1697:A:N7	2.87	0.43
1:5:328:A:C6	1:5:329:A:C6	3.06	0.43
1:5:3734:U:O2'	1:5:3735:G:C5'	2.67	0.43
1:5:4974:C:H2'	1:5:4975:G:O4'	2.19	0.43
5:B:231:VAL:HG11	5:B:251:VAL:HG23	2.01	0.43
1:5:4125:C:H4'	10:G:45:ILE:HG21	2.00	0.43
1:5:1189:G:N2	1:5:1190:C:H1'	2.33	0.43
1:5:1176:C:H4'	7:D:279:ARG:HG3	2.01	0.43
49:S2:1433:C:P	49:S2:1433:C:C3'	3.06	0.43
1:5:2359:U:O5'	1:5:2360:A:H2'	2.19	0.43
49:S2:1238:U:H2'	49:S2:1239:U:O4'	2.18	0.43
49:S2:1512:C:N3	49:S2:1513:C:N4	2.66	0.43
49:S2:1588:A:O2'	49:S2:1589:A:O5'	2.37	0.43
49:S2:1591:C:C2	49:S2:1592:C:C6	3.06	0.43
49:S2:1032:C:C4	49:S2:1033:G:C5	3.06	0.43
49:S2:676:C:O2	49:S2:676:C:H2'	2.17	0.43
1:5:426:A:O2'	1:5:427:A:C5'	2.66	0.43
1:5:4898:G:C2	1:5:4899:G:C8	3.07	0.43
49:S2:1310:U:O2	49:S2:1310:U:C2'	2.63	0.43
1:5:5034:A:C5	1:5:5035:U:H1'	2.54	0.43
49:S2:1826:G:N3	49:S2:1826:G:H2'	2.34	0.43
1:5:2784:C:N3	1:5:2785:C:N4	2.66	0.43
49:S2:792:C:N3	49:S2:793:G:C5	2.87	0.43
57:SH:110:THR:O	57:SH:110:THR:CG2	2.66	0.43
1:5:3628:G:C2	1:5:3629:A:C8	3.07	0.43
1:5:3698:G:C6	1:5:3699:C:C4	3.07	0.43
1:5:2612:G:C6	1:5:2613:C:N3	2.87	0.43
12:I:76:MET:HE2	12:I:80:CYS:SG	2.59	0.43
2:7:7:G:H2'	2:7:7:G:N3	2.34	0.43
1:5:1948:G:C4	1:5:1949:U:C5	3.06	0.43
1:5:53:C:O2	1:5:53:C:H2'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3904:G:H3'	1:5:3905:A:O4'	2.18	0.43
1:5:4090:G:C5	1:5:4091:G:C8	3.07	0.43
49:S2:1099:G:C4	49:S2:1100:A:C8	3.06	0.43
49:S2:599:A:H2'	49:S2:606:G:N2	2.33	0.43
49:S2:495:U:O2'	49:S2:496:C:H5"	2.16	0.43
9:F:41:GLN:CA	9:F:41:GLN:NE2	2.77	0.43
1:5:175:C:H2'	1:5:176:G:C8	2.54	0.43
1:5:2418:A:C6	1:5:2419:C:C4	3.06	0.43
1:5:3807:A:O4'	49:S2:1815:A:C2	2.71	0.43
49:S2:878:G:N2	49:S2:879:C:H1'	2.33	0.43
1:5:2566:G:N2	1:5:2567:G:C8	2.86	0.43
1:5:1755:C:N4	1:5:1778:C:H4'	2.33	0.43
1:5:1767:A:C4	1:5:1769:G:C8	3.06	0.43
1:5:1777:C:O2	1:5:1777:C:H2'	2.19	0.43
1:5:141:C:H2'	1:5:142:G:O4'	2.19	0.43
49:S2:623:G:N2	49:S2:624:C:C1'	2.82	0.43
48:4:228:PHE:CG	48:4:293:ILE:HG12	2.53	0.43
1:5:5063:G:N3	1:5:5064:G:C8	2.86	0.43
1:5:4314:C:O2'	5:B:36:ASP:HB3	133.32	0.43
1:5:1581:G:N7	1:5:1610:C:N4	2.67	0.43
2:7:111:C:C4	2:7:112:U:C6	3.03	0.43
1:5:216:C:OP1	1:5:216:C:O4'	2.36	0.43
1:5:2401:A:N1	1:5:2402:G:C5	2.87	0.43
11:H:113:GLU:OE2	11:H:125:ARG:HB3	2.19	0.43
1:5:2812:A:H2'	1:5:2813:A:H8	1.78	0.43
1:5:3656:A:C6	1:5:3657:U:C5	3.06	0.43
1:5:4906:C:H1'	1:5:4916:G:N2	2.34	0.43
1:5:4914:C:H2'	1:5:4915:G:C8	2.54	0.43
2:7:34:C:N3	2:7:35:U:C5	2.87	0.43
1:5:3644:U:O2	1:5:4554:G:O2'	2.29	0.43
49:S2:919:A:C2	63:SN:64:ARG:NH2	2.87	0.43
3:8:106:G:N3	3:8:107:C:C5	2.87	0.43
49:S2:358:C:C4	49:S2:359:U:C5	3.07	0.43
9:F:219:ARG:HH11	9:F:219:ARG:CB	2.31	0.43
49:S2:899:U:C5	49:S2:900:C:C5	3.07	0.43
1:5:1299:G:N1	1:5:1300:G:C5	2.87	0.43
1:5:1251:C:O2	1:5:1252:C:C6	2.71	0.43
53:SD:32:ASP:OD2	53:SD:54:ARG:O	2.37	0.43
54:SE:86:PHE:CE2	54:SE:226:PHE:HE2	2.37	0.43
1:5:1539:G:H5'	4:A:194:ASN:ND2	2.33	0.43
49:S2:1584:G:N1	49:S2:1586:U:C6	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:158:ILE:HG21	4:A:162:ASN:OD1	2.19	0.43
62:SM:17:ALA:HB1	62:SM:124:ILE:CG2	2.49	0.43
9:F:228:HIS:O	9:F:231:GLU:N	2.52	0.43
68:SS:83:PHE:O	68:SS:97:GLN:OE1	2.36	0.43
9:F:129:LYS:HB2	23:T:133:ALA:HB3	2.00	0.43
53:SD:204:LEU:O	53:SD:207:HIS:HB3	2.19	0.43
14:K:46:ILE:O	14:K:46:ILE:HG22	2.17	0.43
1:5:4254:G:N3	1:5:4254:G:H2'	2.34	0.43
57:SH:26:ALA:O	57:SH:30:LEU:HG	2.19	0.43
48:4:147:ILE:CD1	48:4:193:GLY:N	2.81	0.43
48:4:541:SER:CB	48:4:576:VAL:HG12	2.42	0.43
48:4:71:LYS:HB3	48:4:72:SER:H	1.80	0.43
1:5:1235:G:H2'	1:5:1236:C:H5'	2.01	0.43
1:5:1274:A:O2'	1:5:1275:G:O5'	2.31	0.43
1:5:1689:G:H4'	1:5:2285:A:H4'	2.01	0.43
1:5:1844:G:C5	1:5:1845:U:C5	3.07	0.43
1:5:1865:G:N2	1:5:1867:A:H2'	2.34	0.43
1:5:1997:U:C3'	1:5:1998:A:H5"	2.47	0.43
1:5:4166:G:C2	1:5:4167:G:N9	2.86	0.43
1:5:689:U:C3'	1:5:690:C:H5"	2.49	0.43
9:F:44:LEU:CD2	9:F:48:ARG:NE	2.81	0.43
56:SG:88:ARG:HB3	56:SG:91:GLU:HB2	2.00	0.43
49:S2:1793:A:N3	49:S2:1793:A:H2'	2.34	0.43
49:S2:1082:A:C8	49:S2:1084:A:N9	2.86	0.43
49:S2:1202:U:O2'	52:SC:114:LYS:HD3	2.19	0.43
49:S2:1202:U:C2	49:S2:1203:G:C8	3.07	0.43
1:5:1477:C:C4	1:5:1478:C:C6	3.06	0.43
1:5:4360:U:C5	1:5:4361:U:C5	3.07	0.43
49:S2:1420:G:O2'	69:ST:4:VAL:C	2.57	0.43
49:S2:1513:C:O2'	49:S2:1514:G:C5'	2.67	0.43
49:S2:1545:A:C2	49:S2:1546:G:C6	3.06	0.43
49:S2:1546:G:O2'	49:S2:1547:C:H5'	2.19	0.43
49:S2:1630:A:N1	49:S2:1631:U:C5	2.87	0.43
2:7:54:A:N7	13:J:12:MET:CG	2.82	0.43
49:S2:1215:C:N4	49:S2:1221:G:H1	2.13	0.43
49:S2:1283:C:O2	62:SM:106:CYS:HB2	2.18	0.43
49:S2:1286:G:N1	49:S2:1312:G:C6	2.86	0.43
49:S2:1284:A:N1	62:SM:33:ARG:C	2.72	0.43
48:4:325:SER:O	48:4:327:ASP:CA	2.61	0.43
28:Y:27:ARG:HB2	28:Y:75:ARG:HH12	1.83	0.43
1:5:490:C:C2'	1:5:491:G:H8	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:997:A:H2'	49:S2:998:A:O5'	2.19	0.43
1:5:1819:G:C8	7:D:142:PHE:HD2	2.37	0.43
1:5:2058:G:N2	1:5:2059:C:C1'	2.80	0.43
1:5:4112:C:N3	1:5:4113:U:C6	2.87	0.43
1:5:3806:G:C4	1:5:3807:A:C8	3.07	0.43
1:5:1100:U:O2	1:5:1167:C:C5	2.72	0.43
1:5:1203:G:N3	1:5:1204:C:C6	2.87	0.43
1:5:247:G:C2	1:5:248:C:C4	3.07	0.43
1:5:2307:A:N9	1:5:2332:A:C2	2.87	0.43
1:5:119:G:H3'	1:5:120:A:H5'	2.00	0.43
1:5:2738:C:C2	1:5:2741:U:C4	3.07	0.43
1:5:2757:A:O2'	1:5:2758:G:O5'	2.36	0.43
1:5:4911:A:H62	18:O:109:PRO:HG3	1.84	0.43
1:5:1752:G:N1	1:5:1753:G:C4	2.86	0.43
1:5:2576:G:N1	1:5:2577:C:C4	2.87	0.43
2:7:110:G:N2	2:7:111:C:N1	2.66	0.43
1:5:2635:U:H2'	1:5:2636:U:C6	2.54	0.43
1:5:4415:A:C2	1:5:4416:G:H1'	2.54	0.43
1:5:4991:U:C2	1:5:4992:G:C8	3.07	0.43
1:5:2701:U:C2	1:5:2702:C:C6	3.07	0.43
48:4:645:GLU:OE1	48:4:665:ILE:CD1	2.67	0.43
1:5:2041:A:C2	1:5:4464:A:N6	2.87	0.43
49:S2:885:U:O2	49:S2:886:A:C8	2.72	0.43
1:5:512:U:C3'	1:5:513:U:H5"	2.48	0.43
49:S2:1105:G:N2	49:S2:1128:C:C2	2.87	0.43
8:E:238:ILE:O	8:E:239:SER:HB3	2.18	0.43
50:SA:120:ARG:HH12	52:SC:267:GLN:CG	2.32	0.43
6:C:189:MET:HB3	6:C:195:LYS:HD3	2.01	0.43
1:5:1258:G:C2	1:5:1259:G:N9	2.87	0.43
1:5:202:C:C2	1:5:214:G:N2	2.87	0.43
1:5:4660:G:H2'	1:5:4661:G:H5"	1.99	0.43
6:C:331:TYR:O	6:C:335:MET:HG3	2.18	0.43
1:5:1942:A:H2'	1:5:1943:A:C8	2.53	0.43
57:SH:61:ILE:HD11	57:SH:95:ILE:CD1	2.49	0.43
1:5:4439:U:C2	1:5:4440:G:C8	3.06	0.43
1:5:1:C:C5	1:5:2:G:C8	3.07	0.43
23:T:11:THR:HB	23:T:15:PHE:HD1	1.82	0.43
55:SF:115:ALA:HA	55:SF:181:ALA:HA	2.00	0.43
1:5:680:G:N2	1:5:681:G:H1'	2.34	0.43
17:N:195:ARG:H	17:N:195:ARG:HG3	1.72	0.43
1:5:4475:G:O5'	1:5:4475:G:H8	2.02	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SD:98:ALA:HB2	53:SD:169:ASP:HB3	2.01	0.43
51:SB:171:ILE:HD13	51:SB:197:ILE:HA	2.00	0.43
49:S2:1080:A:N3	49:S2:1081:U:H5	2.17	0.43
9:F:198:THR:O	9:F:200:GLY:N	2.52	0.43
5:B:339:GLY:HA3	5:B:343:ARG:HD2	2.01	0.43
48:4:753:GLU:N	48:4:782:PHE:CD1	2.81	0.43
1:5:1248:C:N4	1:5:1249:C:H41	2.17	0.43
1:5:1684:A:N1	1:5:1685:G:C8	2.86	0.43
1:5:1697:G:H4'	1:5:1698:C:OP1	2.19	0.43
1:5:1872:G:N2	1:5:1873:A:C4	2.87	0.43
1:5:2015:U:C2	1:5:2016:C:C6	3.06	0.43
1:5:2027:U:HO2'	1:5:2028:C:C4'	2.31	0.43
1:5:2090:U:OP2	1:5:2090:U:O2	2.37	0.43
1:5:2443:G:OP2	1:5:2516:G:N2	2.48	0.43
1:5:4222:G:H2'	1:5:4223:C:O4'	2.18	0.43
20:Q:24:TYR:HD1	20:Q:24:TYR:N	3.28	0.43
1:5:4425:G:O6	1:5:4426:C:C5	2.72	0.43
49:S2:160:U:O2'	49:S2:161:U:H3'	2.18	0.43
49:S2:310:C:C4	49:S2:311:C:N4	2.87	0.43
49:S2:384:U:H3'	49:S2:384:U:C6	2.53	0.43
49:S2:452:G:N1	49:S2:453:C:C5	2.85	0.43
49:S2:1353:A:C6	49:S2:1354:G:C5	3.06	0.43
48:4:154:VAL:C	48:4:205:ILE:CD1	2.87	0.43
1:5:1380:G:N2	1:5:1382:G:N3	2.67	0.43
1:5:332:C:H2'	1:5:333:U:O5'	2.19	0.43
1:5:89:C:HO2'	1:5:90:G:C5'	2.32	0.43
12:I:30:LYS:HG2	12:I:63:GLU:HG2	2.01	0.43
7:D:275:GLN:HA	7:D:278:ASP:OD1	2.19	0.43
49:S2:1539:U:N3	49:S2:1540:G:C5	2.61	0.43
49:S2:1610:G:C4	49:S2:1611:G:C8	3.07	0.43
49:S2:1669:G:C6	49:S2:1670:C:C4	3.06	0.43
1:5:4241:C:C4	1:5:4242:U:H5	2.37	0.43
1:5:2825:A:H4'	1:5:2826:U:O5'	2.17	0.43
1:5:4216:G:C6	1:5:4217:G:C5	3.07	0.43
49:S2:30:C:H2'	49:S2:31:U:O5'	2.19	0.43
49:S2:615:C:O2'	49:S2:616:A:O4'	2.32	0.43
49:S2:616:A:N1	49:S2:632:C:H1'	2.34	0.43
1:5:3871:A:N1	1:5:3885:G:C2	2.87	0.43
1:5:3879:G:O6	1:5:3882:C:C6	2.72	0.43
49:S2:552:G:H2'	49:S2:553:U:C6	2.54	0.43
49:S2:474:G:H5'	49:S2:475:C:OP2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3754:G:C2	1:5:3755:G:H1'	2.53	0.43
1:5:3757:G:C6	1:5:3758:U:C5	3.06	0.43
49:S2:751:G:C2	49:S2:792:C:O2	2.71	0.43
11:H:60:TRP:NE1	22:S:153:PRO:HG3	2.34	0.43
1:5:2613:C:H42	1:5:2614:C:N4	2.17	0.43
1:5:652:G:C5	1:5:653:U:C6	3.07	0.43
1:5:660:A:C2	1:5:661:C:C5	3.07	0.43
1:5:661:C:C2	1:5:662:C:C5	3.07	0.43
12:I:171:TRP:CE3	12:I:181:PHE:HB2	2.51	0.43
12:I:184:MET:HB2	12:I:190:LEU:HD12	2.00	0.43
7:D:37:VAL:HG13	7:D:67:ALA:CB	2.48	0.43
49:S2:926:A:C2	49:S2:927:C:C2	3.07	0.43
49:S2:921:G:C5	72:SW:28:ARG:HD2	2.53	0.43
1:5:29:G:C5	1:5:54:G:C2	3.06	0.43
49:S2:833:C:C4	49:S2:834:C:C5	3.07	0.43
10:G:108:GLN:NE2	10:G:108:GLN:N	2.66	0.43
49:S2:106:C:C2	49:S2:107:A:C8	3.04	0.43
1:5:4724:A:C2	1:5:4725:C:N1	2.87	0.43
1:5:2658:G:H22	1:5:2675:G:C2'	2.25	0.43
1:5:2364:G:N3	1:5:2365:C:C5	2.86	0.43
1:5:4250:G:C2	1:5:4259:C:C2	3.07	0.43
1:5:3640:U:H2'	1:5:3646:A:H62	1.83	0.43
48:4:589:VAL:CG1	48:4:590:LEU:N	2.82	0.43
1:5:1098:G:H2'	1:5:1099:C:O4'	2.19	0.43
13:J:107:PHE:CZ	13:J:130:PHE:CG	3.06	0.43
49:S2:1066:U:C2	49:S2:1067:C:C6	3.06	0.43
1:5:1743:A:C6	1:5:1744:U:C6	3.07	0.43
1:5:1775:A:C2	1:5:1776:A:C4	3.07	0.43
1:5:1776:A:C4	1:5:1777:C:C5	3.07	0.43
49:S2:656:G:C5'	49:S2:662:G:N2	2.82	0.43
1:5:3943:A:C6	1:5:3944:G:C5	3.07	0.43
69:ST:62:ARG:CG	69:ST:62:ARG:HH21	2.31	0.43
1:5:4737:G:H2'	1:5:4738:C:H6	1.83	0.43
49:S2:331:C:H41	56:SG:189:ARG:HH21	1.66	0.43
66:SQ:49:TYR:HA	66:SQ:52:LEU:HD12	2.00	0.43
17:N:128:LYS:HB3	17:N:130:PHE:HE1	1.83	0.43
1:5:12:A:N3	1:5:14:C:C5	2.86	0.43
1:5:2823:G:N1	1:5:2824:C:C4	2.86	0.43
25:V:48:ARG:HG2	25:V:51:ARG:HB2	2.00	0.43
57:SH:57:ARG:NH2	57:SH:89:GLY:O	2.51	0.43
26:W:20:ARG:HE	26:W:30:GLN:HG3	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1305:C:OP1	3:8:7:U:O2'	2.37	0.43
49:S2:916:A:H3'	49:S2:917:U:H5'	2.01	0.43
5:B:146:LEU:HD13	5:B:146:LEU:N	2.34	0.43
1:5:2052:G:C2	1:5:2053:C:C2	3.06	0.43
1:5:3921:U:H2'	1:5:3922:G:H3'	2.00	0.43
53:SD:193:ASP:HB3	53:SD:194:PRO:HD3	2.01	0.43
1:5:1919:G:N2	22:S:166:ARG:HB2	2.33	0.43
1:5:224:U:O2	6:C:219:LYS:HG2	2.19	0.43
52:SC:235:ASN:OD1	52:SC:235:ASN:N	2.52	0.43
56:SG:56:ASN:HA	56:SG:56:ASN:HD22	1.60	0.43
58:SI:194:GLU:HA	61:SL:10:TYR:CE2	2.54	0.43
23:T:143:THR:OG1	23:T:146:LYS:O	2.18	0.43
9:F:181:LEU:HB3	9:F:186:ILE:HB	2.00	0.43
48:4:770:VAL:C	48:4:785:LYS:O	2.48	0.43
1:5:1079:C:N4	1:5:1080:C:C5	2.87	0.43
1:5:1279:A:N3	1:5:1280:C:N3	2.67	0.43
1:5:1617:G:C2	1:5:1618:G:C4	3.07	0.43
1:5:1899:G:C6	1:5:1900:C:C4	3.05	0.43
1:5:2012:A:H2'	1:5:2013:A:O4'	2.19	0.43
1:5:1956:A:C6	1:5:2027:U:O4	2.72	0.43
1:5:2261:G:O2'	1:5:2262:G:C8	2.72	0.43
1:5:2276:A:C4	1:5:2277:C:C6	3.07	0.43
1:5:2464:C:O2'	1:5:2465:C:C5'	2.67	0.43
1:5:2452:G:C6	1:5:2467:U:C4	3.02	0.43
1:5:2650:G:C6	1:5:2651:C:C4	3.07	0.43
1:5:4165:C:C2	1:5:4166:G:H8	2.30	0.43
1:5:687:U:C4	1:5:688:U:C4	3.07	0.43
22:S:13:VAL:HG23	22:S:62:VAL:HB	2.00	0.43
22:S:13:VAL:HA	22:S:28:TYR:O	2.19	0.43
49:S2:463:C:H2'	49:S2:465:A:N7	2.34	0.43
48:4:713:ALA:HA	48:4:716:ARG:CZ	2.49	0.43
49:S2:1447:G:P	70:SU:87:ARG:HH12	2.42	0.43
49:S2:1466:G:C2	49:S2:1467:C:C6	3.06	0.43
49:S2:217:A:H1'	49:S2:309:G:H22	1.84	0.43
49:S2:312:G:O2'	49:S2:313:A:P	2.76	0.43
49:S2:377:G:C5	49:S2:378:U:C5	3.06	0.43
49:S2:377:G:N2	49:S2:378:U:N1	2.67	0.43
49:S2:350:C:O2'	49:S2:383:G:C2	2.72	0.43
49:S2:440:G:C2	49:S2:454:U:N3	2.87	0.43
49:S2:1850:A:H2'	49:S2:1851:A:H5"	2.00	0.43
1:5:3717:A:N1	1:5:3736:A:N1	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4352:U:H2'	1:5:4353:U:H5'	2.00	0.43
1:5:86:U:C2	1:5:87:A:N7	2.86	0.43
1:5:1176:C:O2'	7:D:279:ARG:CG	2.66	0.43
1:5:3861:A:C6	1:5:3862:A:C5	3.06	0.43
49:S2:1608:U:N3	49:S2:1609:C:C5	2.86	0.43
1:5:4238:G:H2'	1:5:4239:A:O4'	2.19	0.43
2:7:27:G:C2	2:7:28:C:C2	3.07	0.43
2:7:54:A:N3	2:7:55:A:H8	2.06	0.43
49:S2:638:C:C2'	49:S2:639:C:O5'	2.67	0.43
49:S2:31:U:O2	49:S2:644:G:C2	2.72	0.43
49:S2:1110:G:N3	49:S2:1111:U:C6	2.86	0.43
1:5:2889:G:N2	1:5:5034:A:H8	2.17	0.43
1:5:1320:U:C2	1:5:1321:G:C8	3.06	0.43
49:S2:474:G:C2	49:S2:475:C:N1	2.87	0.43
1:5:3702:A:C6	1:5:3774:A:C6	3.07	0.43
48:4:530:SER:OG	48:4:530:SER:O	2.31	0.43
21:R:131:VAL:CB	21:R:132:PHE:CE2	2.99	0.43
1:5:2437:C:H5"	1:5:2782:U:C4	2.48	0.43
1:5:3694:U:H2'	1:5:3694:U:O2	2.17	0.43
3:8:116:C:C2	3:8:117:C:C6	3.07	0.43
3:8:117:C:N4	3:8:118:C:C5	2.86	0.43
3:8:94:G:C4'	3:8:95:A:OP1	2.63	0.43
3:8:97:A:C6	3:8:98:C:N4	2.87	0.43
1:5:32:G:OP1	17:N:73:ARG:NH1	2.52	0.43
1:5:55:G:N1	1:5:56:A:C5	2.87	0.43
49:S2:836:G:C2'	49:S2:837:A:C5'	2.96	0.43
49:S2:837:A:H62	74:SY:47:MET:CB	2.31	0.43
1:5:4099:G:C4	1:5:4100:C:C5	3.07	0.43
49:S2:985:G:C2	49:S2:1002:U:C6	3.07	0.43
3:8:101:C:N3	3:8:102:G:C8	2.87	0.43
48:4:283:LYS:HA	48:4:284:LYS:HZ1	1.83	0.43
13:J:105:PHE:HE1	13:J:132:VAL:CB	2.25	0.43
3:8:131:G:O6	3:8:132:G:C5	2.72	0.43
3:8:133:G:C2	3:8:134:G:C5	3.07	0.43
1:5:4734:A:N3	1:5:4735:G:C8	2.87	0.43
1:5:2666:U:C4	1:5:2669:C:C5	3.07	0.43
1:5:2666:U:C4	1:5:2669:C:C4	3.07	0.43
1:5:4692:A:OP2	1:5:4693:C:O2'	2.36	0.43
3:8:28:C:N3	3:8:29:G:C8	2.87	0.43
1:5:2587:A:H8	1:5:2588:C:N3	2.17	0.43
1:5:1806:G:N1	1:5:1807:C:C5	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1811:G:C6	1:5:1812:C:C4	3.07	0.43
1:5:352:G:C6	6:C:196:MET:SD	3.12	0.43
2:7:22:A:C6	7:D:266:TRP:CE2	3.07	0.43
1:5:1581:G:C6	1:5:1610:C:C4	3.07	0.43
1:5:2576:G:C6	1:5:2577:C:C6	3.06	0.43
2:7:113:G:N2	2:7:114:U:C2	2.87	0.43
1:5:1398:A:H2'	1:5:1398:A:P	2.59	0.43
49:S2:1146:C:C2	49:S2:1147:C:C6	3.04	0.43
1:5:4991:U:O2	1:5:4992:G:C8	2.72	0.43
1:5:1285:U:C4	1:5:1286:C:C5	3.07	0.43
55:SF:49:LEU:CD2	66:SQ:49:TYR:HB2	2.49	0.43
48:4:16:LYS:HG2	48:4:467:GLY:HA3	2.00	0.43
1:5:2580:U:H1'	29:Z:38:TYR:OH	2.19	0.43
53:SD:156:LEU:HD13	53:SD:157:MET:N	2.33	0.43
1:5:3927:U:C4	1:5:4182:G:N2	2.87	0.43
1:5:4140:C:O2	1:5:4140:C:H2'	2.18	0.43
13:J:147:ARG:HG2	13:J:147:ARG:O	2.18	0.43
3:8:138:C:N3	3:8:139:G:N7	2.67	0.43
72:SW:41:MET:HG2	72:SW:129:PHE:CG	2.54	0.43
1:5:371:A:H2'	1:5:372:A:C8	2.54	0.43
49:S2:916:A:C5	63:SN:73:ARG:HD3	2.54	0.43
7:D:43:LYS:HB3	7:D:46:THR:HG22	2.01	0.43
23:T:3:ASN:CB	23:T:9:ARG:NH1	2.81	0.43
49:S2:1524:G:C4	49:S2:1525:C:C6	3.07	0.43
56:SG:145:PHE:CB	56:SG:147:LEU:HD13	2.48	0.43
5:B:190:VAL:O	5:B:191:ALA:HB3	2.18	0.43
6:C:266:THR:OG1	6:C:267:TRP:N	2.52	0.43
15:L:128:PRO:HB2	15:L:133:ALA:HB3	1.99	0.43
6:C:47:ASN:N	6:C:47:ASN:OD1	2.52	0.43
1:5:6:C:O2	1:5:6:C:H2'	2.18	0.43
29:Z:60:LYS:CE	29:Z:60:LYS:HA	2.49	0.43
25:V:42:VAL:HB	25:V:45:ILE:HD12	2.01	0.43
21:R:177:LEU:HB3	21:R:178:GLN:OE1	2.18	0.43
1:5:4625:C:O2'	5:B:53:MET:HE3	2.19	0.43
48:4:521:VAL:HG21	73:SX:50:ILE:HD13	1.99	0.42
48:4:742:GLU:OE2	48:4:789:PRO:CB	2.67	0.42
48:4:45:ILE:CD1	48:4:78:PHE:HD1	2.22	0.42
1:5:1086:C:C2'	1:5:1086:C:O2	2.67	0.42
1:5:1247:U:C4	1:5:1248:C:C4	3.07	0.42
1:5:1355:G:C2'	1:5:1356:U:O5'	2.67	0.42
1:5:1355:G:N1	1:5:1385:G:N3	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1438:U:O4	1:5:1444:G:O6	2.35	0.42
1:5:1554:A:N6	1:5:1573:G:H1'	2.34	0.42
1:5:1617:G:C6	1:5:1618:G:C6	3.07	0.42
1:5:2124:G:N3	1:5:2124:G:H2'	2.34	0.42
1:5:1667:G:N3	1:5:2283:G:C6	2.87	0.42
1:5:2315:G:C2	1:5:2316:G:C4	3.07	0.42
1:5:2505:C:H4'	1:5:2506:G:C5'	2.48	0.42
1:5:2538:U:C2	1:5:2539:C:C5	3.07	0.42
1:5:2645:G:C2	1:5:2646:C:C2	3.07	0.42
1:5:4085:A:N6	10:G:62:ARG:NH2	2.67	0.42
1:5:4404:U:C4	1:5:4436:U:N3	2.87	0.42
1:5:993:G:C4	1:5:994:G:C8	3.07	0.42
14:K:40:LYS:HD2	14:K:41:LYS:HB2	2.01	0.42
23:T:141:VAL:HG12	23:T:142:ARG:N	2.34	0.42
49:S2:122:G:N1	49:S2:123:G:C4	2.87	0.42
49:S2:309:G:C6	49:S2:310:C:C4	3.07	0.42
49:S2:1693:G:N2	49:S2:1834:A:H8	2.16	0.42
48:4:126:LEU:HD12	48:4:353:MET:HE1	2.01	0.42
1:5:1421:G:C6	1:5:1465:G:C4	3.07	0.42
1:5:1422:G:C4	1:5:1423:U:C5	3.06	0.42
1:5:1384:C:O2'	1:5:1505:C:OP1	2.33	0.42
1:5:301:G:C4	1:5:302:C:C5	3.08	0.42
1:5:3737:A:H2'	1:5:3738:G:C1'	2.48	0.42
17:N:120:TRP:CZ2	17:N:123:GLU:HB3	2.54	0.42
7:D:82:GLU:OE2	7:D:108:ARG:NH1	2.48	0.42
1:5:2405:G:H3'	1:5:2405:G:C8	2.54	0.42
1:5:4892:A:C2	1:5:4893:A:H1'	2.54	0.42
1:5:3873:G:C2	1:5:3883:U:N3	2.87	0.42
1:5:3775:A:H2'	1:5:3776:G:O4'	2.19	0.42
49:S2:166:A:N1	49:S2:167:G:C5	2.86	0.42
49:S2:154:U:H2'	56:SG:4:ASN:HD21	1.84	0.42
48:4:402:VAL:HG22	48:4:403:PRO:HG2	2.00	0.42
48:4:447:ILE:HG21	48:4:472:LEU:HD22	2.00	0.42
1:5:3630:A:N3	1:5:3631:U:C6	2.87	0.42
1:5:4538:G:C4	1:5:4539:U:C5	3.07	0.42
3:8:119:C:O2	3:8:119:C:H2'	2.19	0.42
3:8:121:G:H2'	3:8:122:G:C5'	2.49	0.42
3:8:73:U:OP1	28:Y:75:ARG:HD2	2.19	0.42
1:5:489:C:N4	1:5:490:C:C4	2.87	0.42
1:5:268:G:C2	1:5:269:G:C8	3.07	0.42
48:4:448:GLN:HG3	48:4:449:ARG:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:109:LEU:HD21	7:D:142:PHE:CE1	2.54	0.42
1:5:1945:G:H2'	1:5:1946:G:C5'	2.45	0.42
1:5:4193:C:H3'	1:5:4194:U:O2	2.19	0.42
1:5:4101:C:N3	1:5:4102:C:C6	2.87	0.42
1:5:4580:U:N3	1:5:4723:A:C2	2.87	0.42
49:S2:494:C:C2'	49:S2:495:U:O5'	2.66	0.42
1:5:917:A:N3	1:5:918:G:C6	2.86	0.42
1:5:5025:C:P	58:SI:164:GLU:OE2	2.73	0.42
1:5:4746:C:C4	1:5:4747:C:C4	3.07	0.42
1:5:1840:G:O2'	1:5:1842:G:O5'	2.37	0.42
1:5:3795:A:C4	1:5:3796:U:C6	3.07	0.42
1:5:3806:G:C2	1:5:3807:A:C8	3.07	0.42
1:5:3834:C:N3	1:5:3835:C:C5	2.87	0.42
49:S2:881:G:C6	49:S2:882:U:C5	3.07	0.42
1:5:1205:G:C5	1:5:1206:C:C5	3.07	0.42
49:S2:428:U:C4	59:SJ:7:TRP:CZ2	3.05	0.42
1:5:4910:G:N7	18:O:156:LEU:HD22	2.34	0.42
1:5:1750:G:N3	1:5:1751:A:C8	2.87	0.42
49:S2:1777:G:H2'	49:S2:1778:C:O4'	2.19	0.42
1:5:1829:G:C2	1:5:1830:G:C5	3.07	0.42
49:S2:185:G:N3	49:S2:186:C:C5	2.87	0.42
7:D:250:ASN:ND2	7:D:252:VAL:HG12	2.20	0.42
1:5:4316:G:C6	1:5:4317:A:N7	2.86	0.42
1:5:3621:A:C6	1:5:3622:C:C5	3.07	0.42
1:5:2301:G:C5	1:5:2302:C:C5	3.06	0.42
1:5:2820:C:C2'	1:5:2821:U:H5'	2.49	0.42
1:5:727:C:C2'	1:5:728:U:OP1	2.67	0.42
51:SB:133:TYR:CZ	51:SB:181:LEU:HD12	2.51	0.42
2:7:50:A:H2'	2:7:50:A:N3	2.34	0.42
1:5:1349:G:C5	1:5:1350:C:C5	3.06	0.42
1:5:1303:A:N3	1:5:1303:A:H2'	2.33	0.42
49:S2:371:A:C4	49:S2:372:U:C5	3.07	0.42
1:5:950:G:N2	1:5:951:G:C4	2.87	0.42
1:5:951:G:N3	1:5:952:G:C8	2.87	0.42
1:5:719:C:O2	1:5:720:G:C8	2.72	0.42
48:4:311:GLU:H	48:4:311:GLU:HG2	1.49	0.42
1:5:3663:A:C4	1:5:3663:A:H5'	2.54	0.42
2:7:73:U:O2	2:7:102:U:C5	2.72	0.42
1:5:2044:U:C2'	1:5:2044:U:O2	2.62	0.42
1:5:1930:U:C4	18:O:48:TYR:CD2	3.07	0.42
16:M:81:ASP:OD1	16:M:81:ASP:C	2.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:688:U:O4'	49:S2:688:U:O2	2.36	0.42
3:8:149:G:C2	3:8:151:G:N7	2.87	0.42
49:S2:115:U:H2'	49:S2:116:U:H6	1.84	0.42
1:5:681:G:C2	1:5:682:G:H1'	2.54	0.42
2:7:31:G:C2	2:7:47:G:C2	3.07	0.42
51:SB:68:GLU:OE2	51:SB:68:GLU:HA	2.19	0.42
1:5:1483:C:H2'	1:5:1483:C:OP2	2.18	0.42
63:SN:105:ASN:OD1	63:SN:105:ASN:N	2.52	0.42
49:S2:1718:G:C6	49:S2:1814:G:C6	3.07	0.42
48:4:505:VAL:HG22	48:4:797:THR:HG21	2.01	0.42
48:4:751:CYS:HB2	48:4:755:VAL:HB	0.47	0.42
48:4:76:SER:C	48:4:77:LEU:HD12	2.40	0.42
48:4:791:ASN:HA	48:4:794:PHE:HE1	1.84	0.42
48:4:834:VAL:O	48:4:838:THR:HG23	2.18	0.42
1:5:1067:G:C5	1:5:1068:G:C8	3.07	0.42
1:5:1556:C:H2'	1:5:1557:C:C6	2.51	0.42
1:5:1558:A:H1'	21:R:129:GLY:HA3	2.01	0.42
1:5:1268:G:O5'	1:5:2109:G:H8	2.01	0.42
1:5:2316:G:H2'	1:5:2317:C:H6	1.83	0.42
1:5:2316:G:C2	1:5:2317:C:N3	2.87	0.42
1:5:2290:C:H1'	1:5:2321:G:H1'	2.01	0.42
1:5:2322:G:C2	1:5:2323:C:C2	3.07	0.42
1:5:1543:G:H1'	1:5:2513:A:C2	2.55	0.42
1:5:2646:C:N4	1:5:2686:G:C6	2.87	0.42
1:5:3673:C:HO2'	1:5:3674:G:P	2.43	0.42
14:K:142:ASN:HB2	14:K:148:PRO:HA	1.92	0.42
14:K:52:ASP:C	14:K:53:TRP:CD1	2.92	0.42
22:S:28:TYR:CD2	23:T:151:LEU:HD11	2.53	0.42
48:4:713:ALA:O	48:4:716:ARG:CA	2.67	0.42
49:S2:113:G:N2	49:S2:292:A:H1'	2.33	0.42
49:S2:1798:C:H2'	49:S2:1799:G:O4'	2.18	0.42
49:S2:315:C:C2	49:S2:316:G:C8	3.07	0.42
56:SG:191:ARG:HB3	56:SG:191:ARG:HH11	1.84	0.42
1:5:298:G:C4	1:5:299:C:C6	3.07	0.42
1:5:301:G:C2	1:5:302:C:C2	3.07	0.42
1:5:4355:G:N2	1:5:4356:G:C8	2.87	0.42
1:5:4982:A:N6	1:5:4983:C:C4	2.87	0.42
1:5:1184:A:N1	1:5:1185:G:C5	2.87	0.42
49:S2:1434:C:O4'	49:S2:1434:C:P	2.77	0.42
49:S2:1231:C:C4'	49:S2:1665:G:C2	3.02	0.42
49:S2:1528:G:C2	49:S2:1529:C:C2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4283:G:N3	1:5:4284:C:H6	2.04	0.42
49:S2:1320:G:H2'	49:S2:1321:G:O4'	2.19	0.42
48:4:22:MET:O	48:4:103:ILE:HG13	2.18	0.42
1:5:3698:G:C4	1:5:3699:C:C5	3.08	0.42
3:8:82:A:H3'	3:8:82:A:C4	2.54	0.42
1:5:3841:C:C2	1:5:3842:C:C5	3.08	0.42
1:5:497:G:N1	1:5:657:C:N4	2.67	0.42
1:5:500:G:H5"	1:5:501:C:C5	2.53	0.42
1:5:502:C:HO2'	1:5:503:C:H6	1.64	0.42
1:5:165:A:C4	1:5:166:C:C5	3.07	0.42
1:5:269:G:C2'	1:5:269:G:N3	2.82	0.42
49:S2:1107:G:C2	49:S2:1108:G:C8	3.07	0.42
49:S2:1123:C:C2	49:S2:1124:C:H6	2.37	0.42
1:5:52:G:C8	1:5:52:G:C3'	3.02	0.42
1:5:4723:A:C2	1:5:4724:A:N7	2.88	0.42
1:5:919:C:O2'	1:5:920:C:H5'	2.18	0.42
1:5:919:C:C5	1:5:920:C:C5	3.07	0.42
1:5:2606:G:N3	1:5:2607:C:C5	2.87	0.42
1:5:3593:C:H2'	1:5:3595:U:C5	2.54	0.42
1:5:4744:A:C2	1:5:4745:G:C8	3.07	0.42
49:S2:862:A:C8	72:SW:107:SER:CA	3.00	0.42
1:5:3804:G:O2'	1:5:3832:U:H1'	2.19	0.42
1:5:4487:A:O2'	1:5:4708:A:N1	2.49	0.42
1:5:2560:C:N3	1:5:2561:C:C6	2.87	0.42
1:5:2588:C:H6	1:5:2588:C:H3'	1.83	0.42
1:5:1751:A:C2	1:5:1752:G:C1'	3.02	0.42
1:5:4629:U:H2'	1:5:4630:G:O5'	2.19	0.42
49:S2:1785:C:O2	49:S2:1786:U:C5	2.71	0.42
1:5:2576:G:N1	1:5:2577:C:C6	2.88	0.42
53:SD:35:SER:HB3	53:SD:91:VAL:HG21	1.99	0.42
1:5:1398:A:H61	1:5:1419:G:H2'	1.83	0.42
1:5:4862:G:C2	1:5:4863:G:N9	2.87	0.42
1:5:4719:G:H4'	1:5:4720:C:OP1	2.18	0.42
1:5:38:A:C2	1:5:41:C:C4	3.07	0.42
59:SJ:136:ARG:CD	59:SJ:160:SER:HA	2.43	0.42
1:5:3605:C:C4	1:5:3606:U:C5	3.07	0.42
1:5:4502:C:C4	1:5:4503:A:N7	2.87	0.42
11:H:41:ILE:CD1	11:H:69:THR:HB	2.48	0.42
1:5:4904:G:C2	1:5:4905:C:C6	3.06	0.42
48:4:19:ILE:CG2	48:4:20:ARG:N	2.81	0.42
49:S2:1502:C:C4	49:S2:1503:C:C5	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:218:A:C8	6:C:181:LYS:HG3	2.54	0.42
8:E:277:ILE:CD1	8:E:282:LEU:HD13	2.48	0.42
1:5:2622:G:C6	1:5:2623:A:C8	3.07	0.42
67:SR:104:GLU:OE1	67:SR:107:LYS:HD2	2.19	0.42
1:5:74:G:H5'	15:L:59:VAL:CG1	2.49	0.42
1:5:717:U:C4	1:5:718:C:C5	3.07	0.42
1:5:4956:A:N6	1:5:4957:C:C5	2.87	0.42
1:5:2546:G:H4'	1:5:2547:G:OP1	2.18	0.42
1:5:1258:G:N3	1:5:1259:G:C8	2.87	0.42
1:5:1641:G:C6	1:5:4386:C:O4'	2.72	0.42
7:D:160:PHE:CE2	7:D:179:ARG:HB2	2.54	0.42
1:5:685:C:H2'	1:5:685:C:O2	2.19	0.42
7:D:95:TYR:HE2	7:D:198:HIS:C	2.21	0.42
55:SF:103:LEU:HD23	55:SF:178:ILE:HD13	2.01	0.42
64:SO:103:ASN:N	64:SO:103:ASN:OD1	2.52	0.42
69:ST:118:ASP:N	69:ST:118:ASP:OD1	2.53	0.42
28:Y:126:ARG:HG2	28:Y:126:ARG:HH11	1.84	0.42
24:U:23:LEU:HA	24:U:110:TYR:O	2.18	0.42
22:S:173:ASN:OD1	22:S:174:THR:N	2.53	0.42
17:N:156:HIS:O	17:N:159:ARG:HG3	2.19	0.42
61:SL:92:TYR:O	61:SL:104:LYS:HA	2.20	0.42
1:5:1540:C:N3	1:5:1541:C:C5	2.87	0.42
1:5:1971:C:N3	1:5:1972:G:C5	2.87	0.42
1:5:1274:A:H5'	1:5:2123:C:C6	2.54	0.42
1:5:2288:G:H5'	1:5:2289:C:OP1	2.19	0.42
1:5:2743:A:C4	1:5:2744:A:N7	2.85	0.42
1:5:459:C:C2	1:5:460:C:C5	3.08	0.42
1:5:469:C:N4	1:5:470:A:C5	2.87	0.42
1:5:686:A:H3'	1:5:687:U:H5'	2.00	0.42
1:5:957:G:C5'	1:5:1284:G:C2	2.96	0.42
21:R:107:ARG:HH11	21:R:107:ARG:HB3	1.84	0.42
49:S2:1450:G:C2	49:S2:1451:G:H1'	2.54	0.42
49:S2:149:A:O2'	49:S2:150:A:O4'	2.36	0.42
49:S2:441:C:H6	49:S2:448:A:H2	1.65	0.42
49:S2:1850:A:O2'	49:S2:1851:A:C4'	2.67	0.42
1:5:1421:G:C2	1:5:1422:G:C4	3.07	0.42
1:5:3723:A:N1	1:5:3724:A:C5	2.87	0.42
1:5:4343:U:N3	1:5:4344:U:C4	2.87	0.42
15:L:103:ARG:CZ	15:L:103:ARG:HB3	2.49	0.42
1:5:1186:U:C5	1:5:1187:G:N7	2.87	0.42
1:5:1189:G:N2	1:5:1190:C:C2	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1323:U:H2'	49:S2:1324:G:C8	2.54	0.42
49:S2:1545:A:C6	49:S2:1588:A:C2	3.00	0.42
49:S2:1606:G:C6	49:S2:1632:G:N1	2.87	0.42
49:S2:1610:G:N2	49:S2:1611:G:C4	2.88	0.42
49:S2:1668:U:O2	49:S2:1669:G:C8	2.72	0.42
68:SS:138:THR:HA	68:SS:141:ARG:HH21	1.84	0.42
2:7:60:G:C6	2:7:61:G:C8	3.07	0.42
25:V:85:ARG:NE	25:V:99:GLU:O	2.50	0.42
49:S2:30:C:O2'	49:S2:31:U:H5'	2.19	0.42
49:S2:1315:U:C4	49:S2:1316:C:C5	2.90	0.42
48:4:10:ARG:CZ	48:4:465:PRO:HD2	2.40	0.42
49:S2:1110:G:N3	49:S2:1110:G:H2'	2.34	0.42
1:5:1886:G:N1	1:5:1894:C:C4	2.87	0.42
1:5:3871:A:C5	1:5:3885:G:N2	2.88	0.42
1:5:4400:G:C6	1:5:4401:G:N7	2.87	0.42
49:S2:536:A:N6	49:S2:537:C:C6	2.87	0.42
1:5:3759:A:C8	1:5:3765:G:N2	2.87	0.42
48:4:451:ILE:HG22	48:4:460:PRO:HA	2.00	0.42
1:5:3899:G:H5"	5:B:257:TRP:O	2.19	0.42
49:S2:832:G:C4	49:S2:833:C:C6	3.07	0.42
49:S2:604:A:C6	49:S2:605:A:N6	2.87	0.42
1:5:4578:G:C2	1:5:4579:U:C6	3.07	0.42
1:5:2347:A:O2'	1:5:2348:G:C8	2.59	0.42
1:5:744:G:N1	1:5:921:C:C2	2.87	0.42
49:S2:1042:A:N6	49:S2:1043:G:C5	2.87	0.42
1:5:2657:G:C3'	1:5:2658:G:H8	2.31	0.42
1:5:2674:A:H4'	1:5:2675:G:OP2	2.18	0.42
1:5:4742:G:N1	1:5:4743:G:C5	2.88	0.42
1:5:1721:G:N1	1:5:1840:G:C8	2.82	0.42
16:M:3:PHE:HB2	16:M:6:PHE:CE1	2.54	0.42
1:5:3832:U:H2'	1:5:3833:C:C6	2.53	0.42
1:5:229:G:C2	1:5:240:G:C2	3.07	0.42
1:5:247:G:C6	1:5:248:C:C5	3.06	0.42
1:5:1404:G:C2	1:5:1405:C:C2	3.07	0.42
1:5:1750:G:N2	1:5:1751:A:N9	2.67	0.42
1:5:1808:C:C4	1:5:1809:C:C5	3.07	0.42
1:5:1829:G:N1	1:5:1830:G:C5	2.88	0.42
1:5:731:G:O6	1:5:732:A:C4	2.72	0.42
1:5:736:C:O5'	1:5:737:C:OP2	2.37	0.42
53:SD:106:ARG:HG2	53:SD:175:VAL:HG23	2.00	0.42
1:5:4301:U:C4'	23:T:54:HIS:HD2	2.27	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:318:A:N6	56:SG:186:GLN:OE1	2.52	0.42
12:I:9:TYR:CD1	12:I:9:TYR:N	2.88	0.42
1:5:2713:C:C2	1:5:2714:G:N7	2.87	0.42
49:S2:429:C:C2'	49:S2:429:C:O2	2.64	0.42
49:S2:431:G:C5	49:S2:432:G:N7	2.86	0.42
49:S2:1363:C:C2	49:S2:1376:A:C2	3.07	0.42
1:5:4154:G:C2	1:5:4155:C:C2	3.07	0.42
48:4:340:MET:CA	48:4:340:MET:CE	2.95	0.42
1:5:3615:G:H1'	26:W:44:ARG:HD3	2.00	0.42
49:S2:178:C:O2	49:S2:178:C:H2'	2.19	0.42
1:5:1918:U:O2	1:5:1920:C:C4	2.73	0.42
1:5:1646:A:C6	1:5:1647:U:C4	3.07	0.42
1:5:2703:G:C2	1:5:2704:C:C2	3.07	0.42
49:S2:1728:U:H5'	49:S2:1729:U:OP2	2.20	0.42
1:5:199:G:C2	1:5:201:C:C4	3.07	0.42
52:SC:252:THR:HB	72:SW:99:PHE:CE2	2.54	0.42
2:7:119:U:O4	7:D:258:LYS:CE	2.68	0.42
49:S2:1335:G:C2	49:S2:1336:C:C2	3.06	0.42
58:SI:197:PHE:HZ	61:SL:5:GLN:HG3	1.84	0.42
1:5:2678:A:C2	1:5:2679:G:C8	3.07	0.42
49:S2:513:G:C6	49:S2:514:U:C4	3.08	0.42
1:5:2682:G:C4	1:5:2683:C:C5	3.07	0.42
12:I:12:CYS:SG	12:I:59:GLN:HG2	2.59	0.42
1:5:227:A:N6	1:5:241:G:H2'	2.34	0.42
11:H:54:ARG:HG3	11:H:54:ARG:HH11	1.84	0.42
5:B:89:ILE:CG2	5:B:197:ALA:HB1	2.50	0.42
1:5:680:G:C6	1:5:681:G:N7	2.88	0.42
18:O:15:LEU:HA	18:O:42:ASN:O	2.19	0.42
65:SP:13:ARG:O	65:SP:15:PHE:N	2.52	0.42
48:4:306:ASN:O	48:4:307:PHE:HB2	2.19	0.42
23:T:121:GLU:OE2	23:T:122:LYS:HG3	2.19	0.42
17:N:113:LEU:CD2	17:N:136:ASP:OD1	2.66	0.42
73:SX:93:PHE:CE1	73:SX:133:LEU:HD22	2.54	0.42
48:4:147:ILE:HD11	48:4:193:GLY:CA	2.49	0.42
48:4:433:ASN:O	48:4:435:THR:HG23	2.20	0.42
48:4:4:PHE:CA	48:4:46:ILE:HD11	2.49	0.42
48:4:517:LEU:O	48:4:521:VAL:HG23	2.19	0.42
48:4:740:LEU:CD1	48:4:820:LEU:HD12	2.41	0.42
48:4:742:GLU:N	48:4:820:LEU:HG	2.33	0.42
1:5:1260:G:C6	1:5:1261:G:C5	3.08	0.42
1:5:1272:C:O2'	1:5:1273:G:C1'	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1557:C:C2	1:5:1558:A:C8	3.08	0.42
1:5:1570:G:C2	1:5:1571:G:H1'	2.54	0.42
1:5:1967:A:N1	1:5:1968:G:C6	2.87	0.42
1:5:2081:C:O2'	1:5:2082:G:C5'	2.67	0.42
1:5:2442:G:C2'	1:5:2443:G:H5"	2.49	0.42
1:5:2448:G:O2'	1:5:2449:A:C8	2.63	0.42
1:5:4172:A:C2	1:5:4173:G:C5	3.08	0.42
1:5:4176:C:H2'	1:5:4177:C:H6	1.84	0.42
1:5:1866:U:C5	1:5:4405:G:H1'	2.54	0.42
1:5:446:C:N3	1:5:447:C:C6	2.87	0.42
1:5:975:C:C3'	1:5:976:G:O4'	2.67	0.42
14:K:54:LYS:HB2	14:K:54:LYS:HE3	1.86	0.42
14:K:73:VAL:HG12	14:K:74:VAL:N	2.35	0.42
49:S2:443:U:N3	49:S2:444:G:N9	2.67	0.42
48:4:641:TRP:CH2	48:4:701:ARG:NH1	2.87	0.42
48:4:568:ILE:HG22	48:4:569:PRO:N	2.34	0.42
49:S2:298:G:N1	49:S2:299:A:N7	2.67	0.42
49:S2:1204:A:C2	49:S2:1205:C:C2	3.07	0.42
48:4:154:VAL:HG13	48:4:353:MET:HE3	2.02	0.42
1:5:1358:G:H2'	1:5:1359:G:C1'	2.44	0.42
1:5:1396:G:C3'	1:5:1396:G:C8	3.02	0.42
1:5:1421:G:N1	1:5:1422:G:N7	2.68	0.42
1:5:289:C:N3	1:5:290:U:C4	2.85	0.42
1:5:98:A:H1'	1:5:292:G:C6	2.54	0.42
1:5:4342:C:O2	1:5:4342:C:H2'	2.18	0.42
1:5:4986:G:C2'	1:5:4987:C:O5'	2.67	0.42
1:5:83:C:P	1:5:84:A:HO2'	2.38	0.42
1:5:1460:C:H5"	20:Q:144:LYS:HB2	2.02	0.42
49:S2:1410:C:C4	49:S2:1411:G:C6	3.07	0.42
1:5:1330:A:C2	1:5:1331:C:C6	3.07	0.42
49:S2:1545:A:N3	49:S2:1546:G:C5	2.86	0.42
49:S2:1576:G:C6	49:S2:1577:G:N7	2.87	0.42
1:5:4322:G:N2	1:5:4326:G:C6	2.88	0.42
1:5:418:A:N6	3:8:16:G:O2'	2.53	0.42
1:5:2791:C:N3	1:5:2792:C:C5	2.87	0.42
2:7:27:G:C5	2:7:28:C:C5	3.08	0.42
1:5:4898:G:N2	1:5:4899:G:C4	2.87	0.42
1:5:4898:G:N3	1:5:4899:G:C8	2.87	0.42
1:5:4898:G:C2	1:5:4899:G:N7	2.87	0.42
49:S2:27:A:H2	49:S2:28:U:H1'	1.81	0.42
49:S2:1093:A:C4	49:S2:1094:C:C6	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1295:A:N7	49:S2:1296:U:C6	2.88	0.42
49:S2:1110:G:N2	49:S2:1111:U:C2	2.88	0.42
1:5:5035:U:N3	1:5:5036:C:C6	2.87	0.42
1:5:3877:A:C2	1:5:4444:C:H1'	2.54	0.42
1:5:3755:G:N1	1:5:3756:A:C8	2.87	0.42
1:5:2480:G:C5	1:5:2481:G:N7	2.87	0.42
1:5:2487:G:O6	1:5:2489:C:H1'	2.19	0.42
49:S2:752:G:N2	49:S2:791:C:H1'	2.34	0.42
1:5:3812:C:P	1:5:3813:A:HO2'	2.39	0.42
1:5:212:A:C2	1:5:213:G:C6	3.08	0.42
1:5:506:C:C2	1:5:507:G:N7	2.87	0.42
1:5:274:C:C2'	1:5:275:C:O5'	2.67	0.42
1:5:2529:A:H61	1:5:2532:C:H1'	1.84	0.42
1:5:2533:C:O2	1:5:2534:C:C4	2.72	0.42
49:S2:924:G:C2	49:S2:1019:C:C2	3.07	0.42
22:S:84:TYR:HD2	22:S:113:MET:HE3	1.85	0.42
1:5:4200:G:C6	1:5:4201:G:C5	3.07	0.42
7:D:44:TYR:HA	23:T:33:ILE:HB	2.00	0.42
49:S2:104:A:H5'	49:S2:105:U:OP2	2.18	0.42
2:7:44:C:C2	2:7:45:U:C6	3.08	0.42
49:S2:507:G:H4'	49:S2:509:G:N7	2.33	0.42
1:5:4730:C:H1'	1:5:4731:G:C3'	2.50	0.42
1:5:2752:G:H3'	1:5:2753:G:H8	1.85	0.42
1:5:2752:G:H8	1:5:2752:G:C5'	2.32	0.42
49:S2:589:G:C5	49:S2:591:U:C6	3.08	0.42
49:S2:910:G:C2	49:S2:911:C:N1	2.88	0.42
1:5:910:G:C2	1:5:911:U:C6	3.07	0.42
1:5:4693:C:H4'	1:5:4694:G:OP1	2.16	0.42
1:5:2549:G:N2	1:5:2550:G:H1'	2.34	0.42
1:5:2574:G:O6	1:5:2762:G:O6	2.37	0.42
49:S2:1495:G:N7	49:S2:1496:U:C5	2.87	0.42
1:5:4593:C:C2	1:5:4594:U:C6	3.07	0.42
53:SD:106:ARG:HH21	53:SD:110:LEU:HD13	1.84	0.42
1:5:3946:G:N1	1:5:3947:A:C5	2.87	0.42
69:ST:63:HIS:CE1	69:ST:78:ILE:HG12	2.54	0.42
1:5:3845:A:C6	1:5:3846:C:C4	3.07	0.42
1:5:2393:C:H1'	1:5:2398:U:C2	2.55	0.42
1:5:4301:U:P	23:T:87:LYS:HZ3	2.43	0.42
75:SZ:91:LEU:HB2	75:SZ:97:ILE:HD11	2.01	0.42
49:S2:358:C:C2	49:S2:405:G:C2	3.08	0.42
49:S2:1327:G:C2	49:S2:1503:C:C2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:8:53:G:C4	3:8:54:C:C5	3.08	0.42
49:S2:885:U:H2'	49:S2:886:A:H8	1.83	0.42
66:SQ:85:ARG:HD3	66:SQ:119:LEU:CD2	2.49	0.42
2:7:66:G:H2'	2:7:67:C:C6	2.54	0.42
22:S:34:ALA:HB1	22:S:35:PRO:CD	2.49	0.42
49:S2:62:G:O2'	49:S2:172:U:O2	2.25	0.42
1:5:1921:C:H2'	16:M:17:PHE:CE2	2.55	0.42
49:S2:941:C:H2'	49:S2:942:G:H8	1.84	0.42
1:5:4583:C:C4	1:5:4718:G:C2	3.07	0.42
52:SC:60:TRP:CZ2	52:SC:92:GLU:CB	3.02	0.42
1:5:2336:G:C4	1:5:2337:C:C5	3.07	0.42
6:C:48:ASN:O	6:C:49:ARG:CB	2.66	0.42
28:Y:5:PRO:O	28:Y:6:PHE:CB	2.67	0.42
1:5:177:G:C2	1:5:178:C:C2	3.08	0.42
9:F:88:GLU:CG	23:T:136:ARG:HG2	2.49	0.42
29:Z:50:PRO:HB2	29:Z:122:TYR:HE2	1.85	0.42
73:SX:61:GLN:NE2	73:SX:61:GLN:C	2.73	0.42
15:L:125:ILE:HD12	15:L:125:ILE:N	2.35	0.42
49:S2:1817:G:H2'	49:S2:1818:A:C8	2.54	0.42
3:8:49:G:H2'	3:8:50:C:O4'	2.20	0.42
23:T:48:VAL:HG21	23:T:94:GLU:HG2	2.00	0.42
26:W:59:HIS:CD2	26:W:59:HIS:N	2.87	0.42
64:SO:52:THR:OG1	64:SO:53:ILE:N	2.52	0.42
55:SF:15:PRO:HB3	66:SQ:59:GLY:HA2	2.02	0.42
48:4:24:VAL:CG2	48:4:32:LYS:CG	2.97	0.42
48:4:580:ARG:H	48:4:741:MET:HG2	1.84	0.42
48:4:766:LYS:HD2	48:4:766:LYS:N	2.34	0.42
1:5:1211:G:N3	1:5:1212:G:C8	2.88	0.42
1:5:1545:G:C4	1:5:1546:C:C5	3.07	0.42
1:5:1672:U:O2	1:5:1673:U:C4	2.71	0.42
1:5:1968:G:N3	1:5:1969:G:C8	2.87	0.42
1:5:2325:C:C4	1:5:2326:G:N7	2.84	0.42
1:5:982:U:H2'	1:5:983:C:C5	2.46	0.42
1:5:2667:C:O4'	21:R:96:MET:HG2	2.20	0.42
49:S2:158:A:N6	49:S2:466:G:C5	2.88	0.42
49:S2:113:G:O2'	49:S2:114:G:OP1	2.29	0.42
49:S2:1457:U:H2'	49:S2:1458:G:C8	2.55	0.42
49:S2:219:U:C4	49:S2:220:U:C5	3.08	0.42
49:S2:387:C:O2	49:S2:388:U:H6	1.94	0.42
49:S2:449:A:N6	49:S2:452:G:C2	2.87	0.42
1:5:1376:C:H2'	1:5:1378:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3744:G:H2'	1:5:3745:U:C6	2.54	0.42
1:5:4352:U:C2'	1:5:4353:U:H5'	2.49	0.42
66:SQ:71:ARG:HG3	66:SQ:73:LYS:HE2	2.00	0.42
49:S2:1551:U:H5'	49:S2:1558:C:H1'	2.01	0.42
1:5:423:G:C2'	19:P:118:GLN:HE21	2.32	0.42
2:7:19:C:C2	2:7:60:G:N2	2.87	0.42
1:5:4898:G:N2	1:5:4923:C:C2	2.87	0.42
49:S2:25:A:N6	49:S2:648:A:H61	2.04	0.42
55:SF:38:TYR:CD2	55:SF:143:PRO:HB2	2.54	0.42
49:S2:1110:G:C2	49:S2:1111:U:C6	3.07	0.42
1:5:4998:G:C4	1:5:4999:G:C8	3.07	0.42
1:5:1321:G:C1'	1:5:1891:A:N6	2.83	0.42
1:5:3753:G:C2	1:5:3754:G:N9	2.88	0.42
48:4:300:VAL:HG23	48:4:301:PHE:CD1	2.55	0.42
1:5:2486:G:C4	1:5:2487:G:C8	3.07	0.42
1:5:2782:U:H2'	1:5:2782:U:O2	2.17	0.42
1:5:212:A:C4	1:5:213:G:N7	2.86	0.42
1:5:273:U:H2'	1:5:274:C:O4'	2.20	0.42
49:S2:925:G:OP1	63:SN:121:ARG:NH1	2.53	0.42
1:5:28:C:C2'	1:5:28:C:O2	2.60	0.42
49:S2:841:G:N1	49:S2:842:C:C4	2.88	0.42
1:5:1633:G:N1	4:A:207:VAL:HG11	2.35	0.42
49:S2:860:G:H2'	49:S2:861:A:O4'	2.20	0.42
64:SO:137:SER:C	64:SO:138:ASP:CG	2.78	0.42
1:5:4725:C:H2'	1:5:4725:C:O2	2.19	0.42
1:5:62:A:O2'	1:5:63:G:H5'	2.19	0.42
1:5:3610:A:C2	1:5:3611:A:C5	3.08	0.42
1:5:1194:G:N1	1:5:1195:G:C5	2.87	0.42
1:5:2566:G:C2	1:5:2567:G:C5	3.07	0.42
49:S2:1753:C:N3	49:S2:1754:G:N7	2.68	0.42
49:S2:189:U:C5	49:S2:190:G:C8	3.08	0.42
1:5:4489:G:C4	1:5:4490:C:C5	3.08	0.42
1:5:2630:U:O2	1:5:2632:U:H1'	2.19	0.42
49:S2:1160:U:P	73:SX:4:CYS:O	2.78	0.42
49:S2:610:G:N2	49:S2:611:G:H1'	2.35	0.42
1:5:1346:C:N3	1:5:1347:G:N7	2.67	0.42
1:5:4761:G:C2'	1:5:4762:A:O4'	2.60	0.42
1:5:38:A:N1	1:5:41:C:C5	2.88	0.42
1:5:4503:A:C4	1:5:4504:C:C5	3.07	0.42
49:S2:694:G:N1	49:S2:695:C:C4	2.88	0.42
48:4:597:ASN:O	48:4:598:LYS:CB	2.59	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:435:A:H8	49:S2:435:A:OP2	2.02	0.42
1:5:4871:C:H3'	16:M:91:TRP:NE1	2.34	0.42
49:S2:1352:G:H1'	49:S2:1378:A:C2	2.54	0.42
1:5:4189:U:C2	1:5:4190:U:C6	3.07	0.42
48:4:563:GLU:OE1	48:4:564:ASP:OD1	2.38	0.42
1:5:4453:C:O2	1:5:4529:G:C2	2.73	0.42
1:5:4139:G:C2	1:5:4140:C:C2	3.06	0.42
1:5:4139:G:N2	1:5:4140:C:C2	2.88	0.42
49:S2:1371:U:O2	49:S2:1371:U:C2'	2.65	0.42
1:5:405:U:H5'	1:5:406:C:OP2	2.18	0.42
54:SE:95:THR:HB	54:SE:97:GLU:HG3	2.01	0.42
49:S2:912:C:H3'	49:S2:913:A:H5"	2.02	0.42
49:S2:511:U:H2'	49:S2:512:A:H8	1.84	0.42
5:B:6:PHE:HB3	25:V:49:LEU:HD11	2.01	0.42
5:B:285:TYR:CE2	5:B:334:LYS:HB2	2.54	0.42
4:A:227:ARG:CZ	4:A:227:ARG:HB2	2.50	0.42
29:Z:4:PHE:N	29:Z:4:PHE:HD1	2.18	0.42
52:SC:108:LYS:HB3	52:SC:233:LEU:HD23	2.01	0.42
3:8:49:G:C6	3:8:50:C:C4	3.08	0.42
53:SD:53:THR:O	53:SD:55:THR:N	2.53	0.42
73:SX:34:THR:OG1	73:SX:35:ALA:N	2.51	0.42
16:M:29:ASP:C	16:M:29:ASP:OD1	2.58	0.42
18:O:178:ARG:HG3	18:O:178:ARG:HH11	1.83	0.42
50:SA:108:PHE:HB3	50:SA:140:VAL:HG21	2.01	0.42
48:4:744:ILE:CD1	48:4:815:ASP:CB	2.96	0.42
1:5:1075:G:N2	1:5:1076:C:C2	2.88	0.42
1:5:1084:C:N3	1:5:1085:C:C6	2.87	0.42
1:5:1085:C:N4	1:5:1086:C:C5	2.88	0.42
1:5:1355:G:H2'	1:5:1356:U:C6	2.55	0.42
1:5:1667:G:N1	1:5:2280:G:H2'	2.34	0.42
1:5:1968:G:C2	1:5:1969:G:C8	3.07	0.42
1:5:1982:G:O2'	1:5:2010:A:C5'	2.65	0.42
1:5:2076:G:C2	1:5:2077:C:H1'	2.53	0.42
1:5:2102:G:C2	1:5:2103:G:C5	3.07	0.42
1:5:2453:A:N6	1:5:2454:U:C5	2.83	0.42
1:5:2598:A:C2	1:5:2748:C:O2	2.72	0.42
1:5:473:C:O2	1:5:473:C:H2'	2.19	0.42
4:A:40:TYR:CE2	4:A:89:TYR:CD2	3.07	0.42
1:5:2123:C:H3'	9:F:39:PHE:CE1	2.54	0.42
14:K:65:GLN:HA	14:K:69:ALA:O	2.19	0.42
20:Q:32:TYR:N	20:Q:32:TYR:HD1	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:554:LEU:O	48:4:558:LEU:HG	2.19	0.42
49:S2:170:A:C6	49:S2:171:A:C6	3.08	0.42
49:S2:1738:C:H2'	49:S2:1738:C:O2	2.18	0.42
49:S2:340:C:C4	49:S2:341:C:C5	3.07	0.42
56:SG:132:ARG:HB3	56:SG:133:LEU:HD12	2.02	0.42
49:S2:1085:C:C4	49:S2:1087:A:C1'	3.03	0.42
49:S2:1832:A:N1	49:S2:1833:C:C4	2.88	0.42
49:S2:1835:A:C5	49:S2:1863:A:N7	2.87	0.42
48:4:35:LEU:HD13	48:4:156:MET:CE	2.50	0.42
1:5:101:A:H2'	1:5:101:A:N3	2.33	0.42
1:5:1358:G:O2'	1:5:1359:G:C4'	2.67	0.42
1:5:1487:G:C2	1:5:1488:G:C1'	3.02	0.42
1:5:298:G:C5	1:5:299:C:C6	3.07	0.42
1:5:3701:C:N4	1:5:3745:U:H2'	2.35	0.42
1:5:4977:A:C4	1:5:4978:G:N2	2.88	0.42
4:A:174:ARG:HB3	4:A:174:ARG:CZ	2.49	0.42
49:S2:1529:C:C2	49:S2:1530:U:C5	3.07	0.42
1:5:4336:A:C3'	1:5:4336:A:C8	3.02	0.42
2:7:19:C:C2'	2:7:19:C:O2	2.58	0.42
2:7:29:C:C2'	2:7:30:C:H5'	2.50	0.42
2:7:56:G:H2'	2:7:57:C:C5'	2.49	0.42
49:S2:27:A:N3	49:S2:27:A:H2'	2.35	0.42
49:S2:616:A:C4	49:S2:617:G:H1'	2.54	0.42
73:SX:114:ASP:O	73:SX:115:ILE:C	2.58	0.42
49:S2:1645:C:O2'	49:S2:1646:C:O5'	2.35	0.42
60:SK:48:ALA:O	60:SK:51:SER:OG	2.28	0.42
62:SM:96:ARG:HB3	62:SM:100:PRO:CD	2.50	0.42
49:S2:1283:C:O4'	62:SM:91:LEU:HD13	2.19	0.42
49:S2:830:A:H2'	49:S2:831:G:O4'	2.20	0.42
1:5:5042:A:H2'	1:5:5042:A:N3	2.33	0.42
1:5:3879:G:P	1:5:3879:G:O4'	2.78	0.42
49:S2:549:C:N3	49:S2:550:C:C6	2.88	0.42
49:S2:49:C:C2	49:S2:478:G:N1	2.87	0.42
1:5:2481:G:C6	1:5:2482:C:C5	3.07	0.42
49:S2:795:A:H2	49:S2:796:G:C5	2.23	0.42
1:5:1588:U:H2'	1:5:1589:C:C6	2.55	0.42
1:5:2533:C:O2'	1:5:2534:C:O5'	2.37	0.42
1:5:4280:A:C6	7:D:29:ASP:OD1	2.72	0.42
1:5:4092:G:C5	1:5:4093:G:C2	3.05	0.42
49:S2:1099:G:C5	49:S2:1100:A:N7	2.88	0.42
49:S2:104:A:C6	49:S2:105:U:C5	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2830:G:N1	1:5:2831:G:N7	2.68	0.42
3:8:131:G:N3	3:8:131:G:H2'	2.34	0.42
1:5:4745:G:N2	1:5:4746:C:H41	2.09	0.42
1:5:2670:C:O2'	1:5:2671:C:C5'	2.68	0.42
1:5:3801:U:O2'	1:5:3802:U:C5'	2.68	0.42
49:S2:908:A:H2'	49:S2:909:G:C8	2.55	0.42
1:5:1195:G:H2'	1:5:1196:G:H8	1.84	0.42
1:5:194:C:C2'	28:Y:121:ARG:NH2	2.82	0.42
49:S2:961:G:C5	49:S2:962:A:N7	2.87	0.42
1:5:1760:G:C2	1:5:1761:G:C1'	3.01	0.42
1:5:1761:G:N2	1:5:1762:C:C2	2.88	0.42
1:5:146:G:N2	1:5:147:A:C8	2.87	0.42
49:S2:807:G:C2	49:S2:808:A:C8	3.07	0.42
49:S2:1752:C:N3	49:S2:1753:C:C5	2.87	0.42
1:5:1806:G:C6	1:5:1807:C:C4	3.08	0.42
1:5:4550:G:N2	1:5:4551:U:C1'	2.82	0.42
1:5:1520:C:H2'	1:5:1521:C:O4'	2.19	0.42
1:5:4301:U:C4'	23:T:54:HIS:CD2	2.95	0.42
60:SK:27:VAL:CG1	60:SK:43:LEU:HD23	2.43	0.42
49:S2:1809:A:H2'	49:S2:1810:U:O4'	2.19	0.42
7:D:107:ARG:HD3	7:D:248:ARG:HD2	2.01	0.42
10:G:102:TYR:OH	10:G:208:ASN:N	2.50	0.42
1:5:1603:C:H2'	1:5:1604:G:H8	1.85	0.42
1:5:1644:C:N3	1:5:1645:C:C5	2.88	0.42
4:A:186:TYR:HA	4:A:196:TRP:HE3	1.84	0.42
56:SG:21:GLU:O	56:SG:25:ARG:N	2.53	0.42
1:5:2471:G:H3'	1:5:2472:A:H5"	2.01	0.42
1:5:444:G:N2	1:5:1304:C:C2	2.87	0.42
72:SW:11:LEU:HD21	72:SW:37:PHE:CE2	2.54	0.42
4:A:242:ARG:CG	4:A:243:THR:N	2.83	0.42
7:D:163:LEU:HD21	7:D:175:HIS:CB	2.50	0.42
1:5:2867:C:H2'	1:5:2867:C:O2	2.20	0.42
65:SP:82:ASP:OD1	65:SP:83:MET:N	2.53	0.42
49:S2:936:G:C2	49:S2:937:C:C2	3.08	0.42
25:V:128:LEU:HG	25:V:129:TRP:CD1	2.54	0.42
25:V:13:LYS:HG2	25:V:128:LEU:HD13	2.02	0.42
3:8:154:G:C2	3:8:155:C:C2	3.08	0.42
1:5:4682:U:H2'	1:5:4682:U:O2	2.19	0.42
16:M:86:TRP:O	16:M:87:ALA:CB	2.68	0.42
1:5:681:G:C6	1:5:682:G:C5	3.07	0.42
27:X:76:ILE:CD1	27:X:108:GLN:HB3	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:233:LYS:O	8:E:235:LYS:N	2.51	0.42
28:Y:72:GLN:HE21	28:Y:73:VAL:N	2.16	0.42
74:SY:37:LYS:HA	74:SY:40:ILE:HG22	2.01	0.42
26:W:33:ASN:OD1	26:W:33:ASN:N	2.53	0.42
59:SJ:75:ASN:O	59:SJ:79:ARG:HD2	2.20	0.42
48:4:114:GLU:HG2	48:4:532:PRO:CD	2.18	0.42
48:4:745:TYR:OH	48:4:790:VAL:HG13	2.20	0.42
1:5:1555:G:H2'	1:5:1555:G:N3	2.34	0.42
1:5:1617:G:C6	1:5:1618:G:N7	2.88	0.42
1:5:2008:U:N3	1:5:2010:A:OP2	2.53	0.42
1:5:2102:G:C2	1:5:2103:G:C8	3.08	0.42
1:5:4077:A:N7	1:5:4078:C:C5	2.88	0.42
1:5:4081:G:N2	1:5:4082:G:C4	2.87	0.42
1:5:675:C:C2	1:5:676:C:C5	3.08	0.42
1:5:982:U:C2	1:5:983:C:C5	3.08	0.42
14:K:47:ALA:HA	14:K:72:GLU:CB	2.50	0.42
14:K:58:ILE:O	14:K:59:THR:CG2	2.68	0.42
49:S2:118:C:C1'	49:S2:445:A:N3	2.82	0.42
48:4:650:TRP:HZ3	48:4:679:VAL:HG12	1.81	0.42
49:S2:1457:U:O2	49:S2:1458:G:C8	2.73	0.42
49:S2:351:G:N3	49:S2:351:G:H2'	2.34	0.42
49:S2:85:A:H2'	49:S2:86:C:H6	1.84	0.42
1:5:109:G:N2	1:5:333:U:C2	2.87	0.42
1:5:1424:G:C4	1:5:1425:G:C8	3.07	0.42
1:5:288:G:N3	1:5:289:C:C5	2.88	0.42
1:5:302:C:C2	1:5:303:C:C6	3.08	0.42
1:5:3725:G:H2'	1:5:3726:A:H2'	2.01	0.42
1:5:3894:A:O4'	1:5:4979:A:C6	2.73	0.42
15:L:103:ARG:HD2	15:L:105:LYS:HD2	2.02	0.42
1:5:3857:G:C2	1:5:3858:C:N1	2.88	0.42
49:S2:1541:G:N1	49:S2:1593:C:C2	2.88	0.42
49:S2:1551:U:O4	49:S2:1577:G:H2'	2.20	0.42
49:S2:1561:A:C5	49:S2:1562:C:C5	3.07	0.42
49:S2:1576:G:C2	49:S2:1577:G:C8	3.07	0.42
49:S2:1567:G:C8	68:SS:82:TRP:CZ3	3.07	0.42
1:5:4238:G:N2	1:5:4287:G:C5	2.87	0.42
1:5:4240:G:N1	1:5:4241:C:C2	2.87	0.42
3:8:13:G:H2'	3:8:14:U:O5'	2.20	0.42
49:S2:595:U:O2'	49:S2:596:U:O5'	2.37	0.42
73:SX:46:HIS:CD2	73:SX:46:HIS:N	2.87	0.42
49:S2:1137:U:H2'	49:S2:1138:C:H5"	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1271:C:O2	49:S2:1271:C:H2'	2.20	0.42
49:S2:1276:A:H3'	49:S2:1277:C:H6	1.82	0.42
49:S2:1311:C:N3	49:S2:1314:U:C5	2.86	0.42
55:SF:140:ASP:N	55:SF:140:ASP:OD1	2.52	0.42
62:SM:46:GLN:OE1	62:SM:112:LYS:CD	2.68	0.42
62:SM:95:ASP:O	62:SM:96:ARG:HB2	2.19	0.42
1:5:3756:A:C4	1:5:3757:G:C8	3.08	0.42
1:5:3751:G:N2	1:5:3775:A:C8	2.83	0.42
1:5:2481:G:N1	1:5:2482:C:C4	2.88	0.42
1:5:2408:U:C6	1:5:2409:U:O4	2.73	0.42
49:S2:794:A:C2	49:S2:795:A:C1'	3.02	0.42
1:5:3690:U:C4	1:5:3691:G:C5	3.08	0.42
1:5:106:A:P	15:L:39:ARG:HH21	2.42	0.42
1:5:479:G:C5	1:5:480:C:C5	3.07	0.42
1:5:660:A:C2	1:5:661:C:N1	2.87	0.42
1:5:275:C:H2'	1:5:276:C:H5"	2.00	0.42
1:5:2528:G:C6	1:5:2529:A:C5	3.08	0.42
18:O:49:ARG:NH1	18:O:49:ARG:CG	2.83	0.42
1:5:3909:C:H42	1:5:3910:C:N4	2.18	0.42
1:5:4107:G:N1	1:5:4108:G:C5	2.88	0.42
1:5:2347:A:C2	1:5:2348:G:C6	3.07	0.42
1:5:2347:A:N3	1:5:2348:G:N1	2.66	0.42
1:5:4652:G:H2'	1:5:4653:C:C6	2.54	0.42
11:H:129:ARG:HG2	11:H:156:ASN:ND2	2.34	0.42
1:5:1634:A:N6	1:5:1635:C:N4	2.67	0.42
49:S2:862:A:H2	49:S2:863:U:H1'	1.84	0.42
1:5:1096:C:N3	1:5:1097:C:C5	2.87	0.42
1:5:1167:C:C2	1:5:1195:G:N1	2.87	0.42
1:5:910:G:C4	1:5:911:U:C6	3.08	0.42
49:S2:1065:G:C6	49:S2:1066:U:C5	3.08	0.42
1:5:1769:G:C2	1:5:1770:A:N7	2.87	0.42
2:7:93:G:C2	2:7:94:C:C2	3.07	0.42
1:5:702:U:H2'	1:5:703:G:H4'	2.02	0.42
49:S2:1771:G:C2	49:S2:1772:C:C2	3.08	0.42
1:5:1827:C:N3	1:5:1828:C:C5	2.87	0.42
49:S2:660:C:H2'	49:S2:661:U:O4'	2.19	0.42
49:S2:1495:G:C6	49:S2:1496:U:N1	2.87	0.42
1:5:4595:G:C4	1:5:4596:C:C5	3.07	0.42
1:5:4147:G:C2	1:5:4148:C:C2	3.08	0.42
1:5:3846:C:C4	1:5:3847:C:H5	2.37	0.42
1:5:347:A:N3	1:5:348:G:C8	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1398:A:N1	1:5:1420:A:C8	2.87	0.42
1:5:4416:G:C6	1:5:4417:C:C4	3.07	0.42
68:SS:10:GLN:NE2	68:SS:58:GLU:O	2.51	0.42
56:SG:186:GLN:HG2	56:SG:187:HIS:N	2.33	0.42
1:5:4495:G:C2	1:5:4506:C:C2	3.07	0.42
6:C:109:ARG:HD2	6:C:111:TRP:CZ3	2.55	0.42
6:C:112:HIS:HE1	17:N:202:ARG:HE	1.65	0.42
1:5:642:G:C6	1:5:643:C:N4	2.87	0.42
49:S2:1454:A:N9	49:S2:1476:A:H1'	2.34	0.42
1:5:113:A:C2	1:5:114:G:H1'	2.55	0.42
49:S2:412:G:N2	49:S2:429:C:C2	2.88	0.42
1:5:74:G:C5'	15:L:59:VAL:CG1	2.98	0.42
1:5:718:C:C2	1:5:719:C:C6	3.07	0.42
57:SH:137:SER:OG	57:SH:158:LEU:HB3	2.20	0.42
67:SR:5:ARG:HG3	67:SR:49:LYS:CE	2.45	0.42
53:SD:32:ASP:OD1	53:SD:57:ASN:HB2	2.20	0.42
1:5:5007:A:C5	1:5:5040:U:O4	2.73	0.42
1:5:4666:G:C5	1:5:4667:C:C5	3.07	0.42
49:S2:1388:A:H61	53:SD:161:GLY:HA3	1.84	0.42
1:5:1210:C:H5'	9:F:72:ARG:HH22	1.85	0.42
1:5:342:G:C2	1:5:343:C:C2	3.08	0.42
1:5:4639:G:C5	1:5:4640:C:C5	3.07	0.42
61:SL:124:ASP:OD1	61:SL:147:LYS:HA	2.20	0.42
23:T:52:MET:HG2	23:T:95:HIS:CE1	2.54	0.42
53:SD:113:LEU:HD23	53:SD:114:ALA:N	2.35	0.42
16:M:123:ILE:HD11	18:O:182:GLU:CG	2.49	0.42
1:5:4129:G:C2	1:5:4130:C:C2	3.07	0.42
9:F:155:LEU:HB3	9:F:213:PHE:CE2	2.54	0.42
1:5:3896:C:H5"	1:5:3897:G:OP2	2.19	0.42
55:SF:195:GLU:HA	55:SF:198:ARG:HB3	2.01	0.42
15:L:34:ARG:HH11	15:L:34:ARG:CB	2.33	0.42
1:5:2039:G:H8	1:5:2039:G:O5'	2.02	0.42
19:P:23:ARG:HH11	19:P:23:ARG:HG2	1.84	0.42
63:SN:108:ASP:HB3	63:SN:111:ALA:HB3	2.01	0.42
1:5:1260:G:C2	1:5:1261:G:C5	3.07	0.42
1:5:972:C:C5	1:5:1282:G:N2	2.87	0.42
1:5:1545:G:O2'	1:5:1546:C:O5'	2.37	0.42
1:5:1844:G:C4	1:5:1845:U:C5	3.08	0.42
1:5:2276:A:C2	1:5:2277:C:H1'	2.54	0.42
1:5:2502:G:H4'	1:5:2503:G:OP1	2.20	0.42
1:5:3668:C:C4	1:5:3669:G:C5	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:445:U:H1'	1:5:2313:A:N3	2.33	0.42
1:5:962:C:H4'	1:5:968:C:N4	2.35	0.42
1:5:987:C:C2	1:5:1067:G:N2	2.88	0.42
8:E:95:ASP:HB3	8:E:101:ARG:HB2	2.02	0.42
49:S2:443:U:O2	49:S2:443:U:H2'	2.19	0.42
49:S2:379:C:H2'	49:S2:380:G:C8	2.55	0.42
49:S2:80:G:C5	49:S2:81:U:C5	3.08	0.42
49:S2:1850:A:O2'	49:S2:1851:A:C5'	2.68	0.42
48:4:154:VAL:HA	48:4:205:ILE:CD1	2.44	0.42
1:5:1358:G:C4	1:5:1359:G:C8	3.08	0.42
1:5:4344:U:N3	1:5:4345:C:H5	2.15	0.42
1:5:316:U:O4	1:5:4353:U:H1'	2.19	0.42
1:5:69:A:N1	1:5:70:A:C6	2.88	0.42
1:5:96:U:C5	1:5:97:G:C8	3.08	0.42
49:S2:1601:A:H61	49:S2:1635:C:H3'	1.85	0.42
49:S2:1668:U:C2	49:S2:1669:G:N7	2.88	0.42
1:5:4283:G:H21	1:5:4284:C:H1'	1.85	0.42
1:5:1566:C:C2'	1:5:1567:U:C6	2.81	0.42
1:5:1599:A:C2'	1:5:1600:A:H5"	2.47	0.42
1:5:2370:A:H3'	1:5:2826:U:O2	2.20	0.42
2:7:30:C:C4	2:7:48:G:C2	3.07	0.42
49:S2:1134:G:N3	49:S2:1135:C:C5	2.82	0.42
49:S2:1276:A:C2	49:S2:1277:C:C1'	3.03	0.42
49:S2:1648:G:H1'	49:S2:1649:U:H5	1.83	0.42
49:S2:1678:A:C2	49:S2:1679:A:N7	2.88	0.42
49:S2:1110:G:C2	49:S2:1111:U:C2	3.08	0.42
1:5:5000:G:H2'	1:5:5001:U:C5'	2.49	0.42
49:S2:474:G:C6	49:S2:475:C:C4	3.08	0.42
1:5:3775:A:H2'	1:5:3776:G:C1'	2.49	0.42
48:4:485:ILE:N	48:4:485:ILE:CD1	2.83	0.42
1:5:2783:A:C5	1:5:2784:C:C4	3.08	0.42
1:5:3811:G:O2'	1:5:3814:U:OP2	2.27	0.42
1:5:107:G:H2'	1:5:107:G:N3	2.35	0.42
2:7:9:C:O2	2:7:9:C:C2'	2.66	0.42
72:SW:28:ARG:N	72:SW:29:PRO:CD	2.82	0.42
1:5:2036:C:C2	1:5:2037:C:C5	3.07	0.42
1:5:4390:A:H2'	1:5:4391:G:O4'	2.20	0.42
1:5:4107:G:C2	1:5:4108:G:C4	3.08	0.42
1:5:1823:G:C3'	1:5:1825:A:P	3.04	0.42
4:A:109:GLU:O	4:A:111:THR:N	2.53	0.42
49:S2:977:C:C2'	49:S2:977:C:O2	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:SE:15:PRO:HD2	54:SE:18:TRP:HH2	1.83	0.42
1:5:2606:G:C6	1:5:2607:C:N4	2.87	0.42
2:7:43:U:C4	2:7:44:C:N4	2.88	0.42
1:5:138:G:C3'	1:5:139:G:C5'	2.97	0.42
49:S2:1040:G:C2	49:S2:1041:G:H1'	2.55	0.42
49:S2:1040:G:H5'	49:S2:1041:G:OP2	2.20	0.42
1:5:4651:A:C2	1:5:4652:G:C1'	3.02	0.42
1:5:4743:G:C6	1:5:4744:A:C6	3.08	0.42
1:5:2751:G:N1	1:5:2752:G:C5	2.88	0.42
1:5:2666:U:H3'	1:5:2666:U:C6	2.55	0.42
49:S2:1194:A:O3'	49:S2:1195:A:H4'	2.19	0.42
1:5:753:C:O2	1:5:754:U:C6	2.71	0.42
1:5:2308:A:C2'	1:5:2309:G:O5'	2.67	0.42
1:5:4693:C:O5'	1:5:4693:C:C6	2.73	0.42
1:5:2566:G:N1	1:5:2567:G:N7	2.67	0.42
1:5:2555:G:C6	1:5:2573:A:C6	3.08	0.42
1:5:2771:G:C5	1:5:2772:C:C6	3.08	0.42
1:5:1780:A:N3	12:I:198:LYS:NZ	2.68	0.42
49:S2:1758:G:C6	49:S2:1759:G:N7	2.88	0.42
49:S2:1516:G:H2'	49:S2:1517:G:O4'	2.18	0.42
29:Z:5:MET:O	29:Z:28:ASN:HB3	2.20	0.42
1:5:153:G:N2	1:5:154:G:C4	2.87	0.42
1:5:2395:A:OP1	1:5:2395:A:H4'	2.20	0.42
49:S2:1160:U:O4	73:SX:2:GLY:N	2.52	0.42
1:5:4990:C:H2'	1:5:4992:G:OP1	2.19	0.42
1:5:3656:A:H2'	1:5:3657:U:C6	2.54	0.42
1:5:3608:A:C2	1:5:3609:G:C4	3.08	0.42
49:S2:918:U:H5'	63:SN:20:ARG:HH11	1.85	0.42
22:S:33:PHE:CE2	22:S:106:VAL:HG21	2.55	0.42
1:5:12:A:H5"	1:5:12:A:H8	1.84	0.42
1:5:4956:A:C2	1:5:4957:C:C6	3.07	0.42
1:5:1258:G:N1	1:5:1259:G:C5	2.88	0.42
50:SA:145:ILE:HD13	50:SA:159:ILE:HG22	2.01	0.42
1:5:2794:C:C2	19:P:136:ILE:CD1	3.02	0.42
6:C:270:ALA:HA	6:C:278:ASN:ND2	2.34	0.42
49:S2:913:A:O2'	57:SH:67:PRO:HD3	2.19	0.42
49:S2:201:C:C5	49:S2:202:G:C8	3.08	0.42
17:N:184:ILE:HG23	17:N:194:ARG:HH12	1.84	0.42
58:SI:88:ASN:OD1	58:SI:205:ARG:NH2	2.53	0.42
1:5:1522:G:N3	1:5:1522:G:H2'	2.34	0.42
16:M:120:ASN:O	16:M:124:LYS:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1524:G:C2	49:S2:1525:C:N1	2.88	0.42
1:5:4411:G:N1	1:5:4412:C:C4	2.88	0.42
16:M:109:ARG:HB2	16:M:109:ARG:NH2	2.35	0.42
1:5:3896:C:O2'	5:B:268:ARG:NH2	2.53	0.42
7:D:203:ASN:OD1	7:D:203:ASN:N	2.49	0.42
18:O:125:LYS:HD2	18:O:135:PHE:HZ	1.84	0.42
48:4:123:ASP:OD2	48:4:361:PRO:HA	2.20	0.42
54:SE:179:ASN:O	54:SE:194:VAL:HA	2.20	0.42
48:4:46:ILE:HG23	48:4:454:MET:SD	2.60	0.42
48:4:499:PHE:O	48:4:500:SER:O	2.38	0.42
48:4:60:ARG:HB3	48:4:63:GLU:HB2	2.02	0.42
48:4:755:VAL:HG12	48:4:755:VAL:O	2.20	0.42
1:5:1234:G:C2	1:5:1235:G:C5	3.07	0.42
1:5:1233:G:N3	1:5:1234:G:C8	2.88	0.42
1:5:1267:C:C2	1:5:1271:G:N1	2.88	0.42
1:5:1617:G:C2	1:5:1618:G:N9	2.88	0.42
1:5:1667:G:N3	1:5:2283:G:N1	2.67	0.42
1:5:1685:G:C2	1:5:1686:C:N3	2.88	0.42
1:5:1687:U:N3	1:5:1850:A:N6	2.68	0.42
1:5:2106:G:N2	1:5:2107:C:C4	2.87	0.42
1:5:2465:C:C2'	1:5:2466:G:O4'	2.68	0.42
1:5:2453:A:H1'	1:5:2507:A:C5	2.55	0.42
14:K:110:VAL:O	14:K:110:VAL:CG1	2.67	0.42
14:K:21:GLU:HG3	14:K:48:LYS:HE2	2.01	0.42
14:K:77:ALA:CB	14:K:80:LEU:CD1	2.83	0.42
49:S2:443:U:C4	49:S2:444:G:C5	3.08	0.42
49:S2:1450:G:C5	49:S2:1451:G:C8	3.08	0.42
49:S2:1458:G:N1	49:S2:1459:G:C5	2.87	0.42
49:S2:293:C:O2'	49:S2:294:U:H3'	2.20	0.42
49:S2:295:C:H2'	49:S2:296:U:O4'	2.20	0.42
49:S2:454:U:H2'	49:S2:455:A:O5'	2.19	0.42
48:4:126:LEU:CD1	48:4:353:MET:HE2	2.49	0.42
1:5:1377:G:C3'	1:5:1377:G:C8	3.03	0.42
1:5:1466:G:C2	1:5:1467:C:C5	3.08	0.42
1:5:287:U:H2'	1:5:287:U:O2	2.20	0.42
1:5:288:G:C2	1:5:289:C:C2	3.07	0.42
1:5:3733:A:C5	1:5:3734:U:C5	3.08	0.42
1:5:3714:G:N1	1:5:3739:C:O2	2.53	0.42
1:5:4978:G:HO2'	1:5:4979:A:P	2.40	0.42
1:5:4985:U:H2'	1:5:4986:G:O5'	2.20	0.42
48:4:267:ASP:O	48:4:267:ASP:CA	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:282:GLN:C	7:D:283:LYS:O	2.54	0.42
49:S2:953:C:C2	49:S2:954:U:C6	3.08	0.42
1:5:3857:G:C2	1:5:3858:C:H1'	2.54	0.42
49:S2:1510:G:N1	49:S2:1511:U:N1	2.68	0.42
49:S2:1511:U:O4	49:S2:1512:C:C5	2.72	0.42
49:S2:1589:A:C2'	49:S2:1590:C:O5'	2.67	0.42
69:ST:92:PHE:CD1	69:ST:92:PHE:C	2.93	0.42
1:5:4237:C:H4'	1:5:4327:C:O2	2.19	0.42
1:5:4277:G:N3	1:5:4282:A:H2	2.18	0.42
1:5:4330:G:C5	1:5:4331:G:C8	3.07	0.42
49:S2:678:U:N3	49:S2:679:A:N7	2.68	0.42
1:5:3851:U:C4	1:5:3852:A:C5	3.08	0.42
2:7:56:G:HO2'	2:7:57:C:P	2.43	0.42
1:5:4215:C:O2	1:5:4215:C:C2'	2.68	0.42
49:S2:1278:A:C2	49:S2:1279:C:N1	2.88	0.42
49:S2:1313:A:O2'	62:SM:91:LEU:N	2.52	0.42
49:S2:1314:U:O2	49:S2:1315:U:C1'	2.67	0.42
1:5:4997:G:N1	1:5:4998:G:C5	2.88	0.42
1:5:2890:C:O4'	1:5:5034:A:H1'	2.20	0.42
1:5:1860:U:C2	1:5:1861:U:C6	3.08	0.42
1:5:1859:C:C4	1:5:1860:U:C4	3.08	0.42
49:S2:547:G:C2'	49:S2:548:C:H5"	2.50	0.42
49:S2:550:C:C2	49:S2:551:U:C6	3.08	0.42
1:5:3758:U:C4	1:5:3765:G:C6	3.08	0.42
1:5:2481:G:C2	1:5:2482:C:N1	2.88	0.42
57:SH:109:ARG:HG3	57:SH:110:THR:C	2.40	0.42
1:5:209:U:C6	1:5:211:G:C8	3.08	0.42
1:5:2840:A:C6	1:5:2841:G:C8	3.08	0.42
1:5:480:C:H2'	1:5:481:G:C8	2.54	0.42
1:5:671:G:N3	1:5:672:C:C6	2.88	0.42
1:5:1819:G:C8	7:D:142:PHE:CD2	3.07	0.42
1:5:5051:C:C4	1:5:5052:C:C5	3.08	0.42
1:5:2054:U:H4'	1:5:2056:G:O4'	2.19	0.42
12:I:112:GLN:HB2	12:I:116:ARG:NH1	2.34	0.42
49:S2:982:G:H1'	49:S2:1045:U:C6	2.55	0.42
49:S2:968:U:H2'	49:S2:968:U:O2	2.16	0.42
1:5:2606:G:C5	1:5:2607:C:C5	3.07	0.42
13:J:19:LYS:HB3	13:J:75:ARG:HE	1.85	0.42
1:5:2674:A:C3'	1:5:2675:G:H5'	2.49	0.42
1:5:2831:G:C2	1:5:2832:A:C5	3.08	0.42
1:5:4481:U:H2'	1:5:4482:U:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:647:G:N3	1:5:647:G:H2'	2.34	0.42
1:5:4690:G:O2'	1:5:4691:A:O4'	2.30	0.42
1:5:3617:G:H2'	1:5:3618:C:O4'	2.20	0.42
1:5:145:G:N1	1:5:146:G:N7	2.68	0.42
49:S2:600:G:N3	49:S2:601:G:C8	2.88	0.42
5:B:55:HIS:O	5:B:56:ILE:HD12	2.19	0.42
49:S2:1758:G:C2	49:S2:1759:G:C4	3.07	0.42
49:S2:1759:G:C6	49:S2:1760:G:N7	2.88	0.42
1:5:127:G:C2	1:5:128:C:C2	3.08	0.42
1:5:2401:A:N1	1:5:2402:G:N7	2.68	0.42
49:S2:867:G:C6	49:S2:868:G:C6	3.08	0.42
1:5:1349:G:N1	1:5:1350:C:C4	2.88	0.42
11:H:41:ILE:HD11	11:H:69:THR:HG21	2.01	0.42
1:5:113:A:O2'	17:N:50:ARG:HA	2.20	0.42
48:4:390:PRO:HD3	48:4:466:CYS:SG	2.59	0.42
1:5:4524:G:N1	1:5:4525:C:C4	2.88	0.42
49:S2:1381:G:N2	49:S2:1382:A:H1'	2.34	0.42
1:5:2823:G:C6	1:5:2824:C:C4	3.08	0.42
55:SF:20:PHE:O	55:SF:23:TRP:HB2	2.20	0.42
54:SE:98:ASN:C	54:SE:99:PHE:CD1	2.92	0.42
2:7:72:U:H2'	2:7:73:U:C6	2.54	0.42
1:5:684:G:HO2'	1:5:685:C:P	2.43	0.42
2:7:106:G:C6	2:7:107:G:C5	3.08	0.42
1:5:177:G:C5	1:5:178:C:C5	3.08	0.42
24:U:27:HIS:N	24:U:28:PRO:HD2	2.34	0.42
1:5:353:A:C4	1:5:379:G:N7	2.87	0.42
1:5:682:G:H2'	1:5:682:G:N3	2.35	0.42
6:C:154:VAL:HG11	6:C:158:VAL:HG21	2.02	0.42
62:SM:47:ALA:O	62:SM:48:HIS:CD2	2.73	0.42
2:7:1:G:H2'	2:7:2:U:O4'	2.20	0.42
48:4:106:PRO:HD2	48:4:115:VAL:CG2	2.13	0.42
1:5:986:C:N1	1:5:1068:G:N2	2.68	0.42
1:5:1215:C:C2'	1:5:1216:C:H5'	2.49	0.42
1:5:1241:C:C4	1:5:1242:G:C2	3.08	0.42
1:5:1866:U:O2'	1:5:1867:A:P	2.78	0.42
1:5:2295:C:O2	1:5:2296:G:N7	2.52	0.42
1:5:2450:G:O6	1:5:2451:A:C5	2.73	0.42
1:5:2743:A:H2	1:5:2744:A:C4	2.38	0.42
1:5:4086:G:N3	10:G:51:LEU:HD11	2.35	0.42
1:5:455:C:N3	1:5:456:C:C5	2.87	0.42
49:S2:460:A:C4	49:S2:461:U:C5	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:829:SER:HG	48:4:833:GLN:N	2.08	0.42
48:4:650:TRP:CZ3	48:4:679:VAL:CB	3.00	0.42
49:S2:1792:G:N3	49:S2:1793:A:C8	2.88	0.42
49:S2:316:G:C6	49:S2:317:C:C4	3.08	0.42
49:S2:439:A:N1	49:S2:455:A:N1	2.67	0.42
49:S2:452:G:H2'	49:S2:453:C:H6	1.85	0.42
1:5:1374:G:C2	1:5:1375:C:C6	3.07	0.42
1:5:1380:G:H4'	1:5:1381:U:OP1	2.20	0.42
1:5:1484:G:O4'	1:5:1485:C:P	2.78	0.42
1:5:4344:U:C2	1:5:4345:C:C6	2.97	0.42
1:5:4567:G:H2'	1:5:4568:A:C5'	2.50	0.42
1:5:4973:U:H1'	1:5:4986:G:N1	2.34	0.42
49:S2:947:G:C4	49:S2:948:C:C6	3.07	0.42
49:S2:1418:C:O2	49:S2:1420:G:H3'	2.20	0.42
49:S2:1430:C:N4	49:S2:1431:G:C5	2.88	0.42
49:S2:1431:G:N3	49:S2:1431:G:H2'	2.35	0.42
1:5:1330:A:C4	1:5:1331:C:C5	3.08	0.42
49:S2:1575:G:N1	49:S2:1576:G:C6	2.88	0.42
48:4:845:LYS:NZ	48:4:846:GLU:N	2.29	0.42
1:5:1561:G:N2	1:5:1567:U:H1'	2.34	0.42
2:7:59:G:C2	2:7:60:G:C4	3.08	0.42
7:D:268:ARG:HH11	7:D:268:ARG:HG3	1.85	0.42
1:5:4215:C:C2	1:5:4216:G:N7	2.76	0.42
49:S2:1299:A:C2'	49:S2:1301:A:H5'	2.50	0.42
49:S2:1110:G:H5"	49:S2:1111:U:P	2.60	0.42
1:5:1938:C:O4'	1:5:1939:A:O4'	2.38	0.42
49:S2:550:C:C2'	49:S2:550:C:O2	2.67	0.42
49:S2:1826:G:C2	49:S2:1827:U:C6	3.07	0.42
1:5:2481:G:C2	1:5:2482:C:C6	3.07	0.42
59:SJ:149:VAL:HG12	59:SJ:150:ARG:O	2.20	0.42
1:5:3695:U:C4	1:5:3696:C:H5	2.32	0.42
3:8:118:C:C4	3:8:119:C:C5	3.04	0.42
1:5:3625:G:N2	1:5:3626:G:O3'	2.43	0.42
12:I:171:TRP:CG	12:I:181:PHE:CD2	3.08	0.42
48:4:243:GLN:O	48:4:249:ARG:CZ	2.66	0.42
1:5:3867:A:H3'	1:5:3868:G:C8	2.55	0.42
1:5:4565:C:C1'	5:B:262:VAL:CG2	2.97	0.42
49:S2:922:A:C2	49:S2:1021:U:C2	3.08	0.42
1:5:5047:C:H6	1:5:5050:C:C6	2.38	0.42
1:5:31:U:C2'	1:5:32:G:O5'	2.67	0.42
1:5:3907:G:C1'	1:5:4449:A:H1'	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:41:LYS:C	7:D:44:TYR:HE1	2.23	0.42
49:S2:956:G:O2'	49:S2:957:A:H5'	2.20	0.42
48:4:559:LYS:HE3	48:4:559:LYS:HB2	1.46	0.42
1:5:744:G:C2	1:5:921:C:O2	2.73	0.42
1:5:2658:G:N1	1:5:2675:G:C6	2.88	0.42
50:SA:176:TRP:CE3	50:SA:199:PRO:HG3	2.49	0.42
49:S2:14:C:H2'	49:S2:15:U:C6	2.55	0.42
17:N:30:TYR:CZ	17:N:63:ARG:HD3	2.54	0.42
1:5:117:C:H5'	1:5:118:C:P	2.60	0.42
1:5:1406:G:C2	1:5:1409:C:N4	2.88	0.42
8:E:156:LYS:HB3	8:E:178:ASN:HD21	1.85	0.42
1:5:2567:G:N2	1:5:2568:C:N1	2.68	0.42
1:5:2568:C:N3	1:5:2569:G:C5	2.87	0.42
1:5:1308:C:O2	1:5:1308:C:H2'	2.20	0.42
49:S2:1781:A:N1	49:S2:1782:G:O6	2.52	0.42
1:5:128:C:C2	1:5:129:C:C6	3.08	0.42
2:7:23:A:O2'	2:7:24:C:C5'	2.67	0.42
49:S2:1495:G:N7	49:S2:1496:U:C6	2.87	0.42
1:5:3623:C:C5	1:5:3624:A:C5	3.07	0.42
1:5:2401:A:N3	1:5:2402:G:C8	2.87	0.42
1:5:2702:C:H2'	1:5:2702:C:O2	2.19	0.42
1:5:3604:A:C5	1:5:3605:C:C6	3.08	0.42
49:S2:523:A:OP2	59:SJ:38:ARG:HD3	2.20	0.42
1:5:258:G:C4	1:5:259:C:C5	3.07	0.42
10:G:136:LEU:HD22	10:G:202:VAL:HG13	2.01	0.42
2:7:66:G:C4	2:7:67:C:C5	3.08	0.42
49:S2:1490:G:C2	49:S2:1491:G:C5	3.08	0.42
1:5:3820:G:C5	1:5:3821:A:N7	2.87	0.42
58:SI:141:ARG:HH12	58:SI:145:ILE:HG23	1.85	0.42
8:E:104:LYS:HG3	8:E:107:LYS:HB3	2.01	0.42
25:V:14:PHE:CE1	25:V:91:LYS:HD2	2.55	0.42
50:SA:24:HIS:CD2	50:SA:25:LEU:HD12	2.55	0.42
3:8:75:G:C4	3:8:76:C:C5	3.08	0.42
49:S2:1586:U:H3'	49:S2:1587:G:H5'	2.00	0.42
12:I:158:LYS:H	12:I:158:LYS:HD2	1.85	0.42
1:5:343:C:C4	1:5:344:A:N7	2.88	0.42
49:S2:23:G:N1	49:S2:24:C:C2	2.88	0.42
4:A:117:GLU:HB2	4:A:162:ASN:HB2	2.02	0.42
49:S2:688:U:OP1	57:SH:116:ARG:NH2	2.46	0.42
27:X:110:LYS:HD2	27:X:111:GLN:HE22	1.85	0.42
1:5:945:U:C5	9:F:67:TYR:CZ	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:G:185:LYS:O	10:G:189:ARG:HD2	2.20	0.42
58:SI:117:TYR:HB3	58:SI:156:ALA:CB	2.50	0.42
1:5:2470:C:C2	1:5:2470:C:C5'	3.02	0.42
57:SH:152:ARG:NH1	57:SH:152:ARG:HB3	2.35	0.42
60:SK:16:PHE:CE1	60:SK:89:ILE:HD12	2.55	0.42
29:Z:52:LYS:O	29:Z:65:ARG:NH2	2.50	0.42
55:SF:190:ILE:HA	55:SF:193:LYS:HB3	2.02	0.42
48:4:421:VAL:O	48:4:421:VAL:HG13	2.20	0.42
68:SS:113:ARG:HB3	68:SS:113:ARG:CZ	2.50	0.42
8:E:172:THR:OG1	8:E:182:LEU:HD23	2.19	0.42
19:P:122:ALA:HA	19:P:145:HIS:HE1	1.84	0.42
48:4:72:SER:CB	48:4:104:ASP:CB	2.95	0.41
48:4:543:GLU:OE2	48:4:576:VAL:CB	2.45	0.41
48:4:830:ARG:N	48:4:830:ARG:HE	2.18	0.41
1:5:1075:G:H2'	1:5:1076:C:H6	1.84	0.41
1:5:1233:G:C2	1:5:1234:G:N7	2.88	0.41
1:5:1268:G:C5	1:5:2111:G:N3	2.88	0.41
1:5:1552:G:N2	1:5:1574:G:C2	2.88	0.41
1:5:1979:A:H2	1:5:1982:G:N7	2.18	0.41
1:5:2271:C:C2	1:5:2272:C:C5	3.07	0.41
1:5:1667:G:H1	1:5:2280:G:H2'	1.84	0.41
1:5:2294:G:H2'	1:5:2295:C:H6	1.85	0.41
1:5:4175:G:C4	1:5:4176:C:C6	3.08	0.41
1:5:4944:C:H4'	1:5:4945:G:OP2	2.19	0.41
1:5:980:U:C2	1:5:981:C:C5	3.08	0.41
8:E:84:VAL:HG13	8:E:87:THR:O	2.19	0.41
9:F:58:HIS:C	9:F:60:HIS:N	2.72	0.41
9:F:82:ASN:HD22	9:F:82:ASN:HA	1.49	0.41
10:G:82:GLN:HG3	10:G:83:PHE:CE1	2.55	0.41
20:Q:32:TYR:N	20:Q:32:TYR:CD1	2.88	0.41
20:Q:91:ARG:HH21	20:Q:91:ARG:CG	2.32	0.41
49:S2:42:A:C6	49:S2:426:A:N6	2.70	0.41
29:Z:41:ALA:HB2	29:Z:77:TYR:HE1	1.84	0.41
49:S2:457:C:H2'	49:S2:457:C:O2	2.19	0.41
48:4:686:ALA:HB1	48:4:726:ARG:HA	1.94	0.41
48:4:129:VAL:HG11	48:4:181:ILE:HG23	2.00	0.41
1:5:1390:G:N2	1:5:1394:G:N7	2.64	0.41
1:5:1488:G:C4	1:5:1489:G:C8	3.08	0.41
49:S2:1406:G:C6	49:S2:1407:U:C4	3.08	0.41
49:S2:1408:U:O4	49:S2:1439:A:C6	2.61	0.41
49:S2:1435:C:N4	49:S2:1436:C:C4	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1265:A:H2'	49:S2:1266:C:H6	1.82	0.41
49:S2:1323:U:C2'	49:S2:1324:G:O4'	2.68	0.41
49:S2:1539:U:N3	49:S2:1540:G:C8	2.52	0.41
49:S2:648:A:H1'	73:SX:46:HIS:NE2	2.35	0.41
49:S2:1284:A:C2	62:SM:34:GLY:CA	3.03	0.41
49:S2:1299:A:O2'	49:S2:1301:A:C5'	2.68	0.41
49:S2:1641:A:C6	49:S2:1642:U:C4	3.08	0.41
49:S2:559:G:C2	49:S2:560:A:C8	3.07	0.41
49:S2:52:G:C2	49:S2:53:C:C2	3.08	0.41
1:5:3753:G:C8	1:5:3776:G:C5	3.08	0.41
49:S2:1710:C:H2'	49:S2:1710:C:O2	2.20	0.41
1:5:2485:U:H2'	1:5:2486:G:H8	1.85	0.41
49:S2:750:C:O2	49:S2:751:G:H8	1.96	0.41
1:5:3698:G:C2	1:5:3699:C:C4	3.07	0.41
1:5:206:U:O2	1:5:206:U:H2'	2.20	0.41
1:5:479:G:N1	1:5:480:C:C5	2.88	0.41
1:5:483:G:C4	1:5:484:U:C5	3.08	0.41
1:5:2522:G:C2	1:5:2534:C:C2	3.08	0.41
1:5:1818:G:N7	1:5:1821:G:O6	2.51	0.41
49:S2:923:G:N2	49:S2:924:G:C4	2.88	0.41
49:S2:959:G:C8	49:S2:959:G:C3'	3.03	0.41
49:S2:1064:C:P	64:SO:150:ARG:NH2	2.93	0.41
1:5:2673:G:H4'	1:5:2675:G:C1'	2.50	0.41
1:5:3611:A:H2	1:5:5016:A:N7	2.17	0.41
1:5:4752:U:O2	1:5:4948:C:N3	2.52	0.41
1:5:2665:U:C4	21:R:124:TYR:OH	2.69	0.41
1:5:1199:G:C4	1:5:1200:G:C8	3.08	0.41
1:5:3616:U:C1'	1:5:3617:G:C6	3.03	0.41
1:5:4884:G:C6	1:5:4885:U:C5	3.07	0.41
1:5:1367:C:H3'	1:5:1368:A:H5"	2.01	0.41
3:8:27:U:N3	3:8:28:C:C5	2.88	0.41
1:5:142:G:N1	1:5:144:G:C5	2.88	0.41
1:5:3590:G:C6	1:5:3591:C:C6	3.08	0.41
49:S2:601:G:O2'	49:S2:602:G:C8	2.59	0.41
49:S2:185:G:C2	49:S2:186:C:C2	3.08	0.41
1:5:4551:U:H2'	1:5:4552:U:H6	1.86	0.41
2:7:25:G:C2	2:7:26:C:C2	3.08	0.41
4:A:82:ILE:HD11	4:A:99:GLY:CA	2.49	0.41
49:S2:1146:C:O2	49:S2:1146:C:H2'	2.20	0.41
1:5:3605:C:N3	1:5:3606:U:C6	2.88	0.41
48:4:645:GLU:OE1	48:4:665:ILE:HD13	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:709:C:H4'	8:E:186:HIS:CE1	2.53	0.41
1:5:711:A:C4	1:5:712:C:C5	3.08	0.41
49:S2:1325:G:N3	49:S2:1327:G:C8	2.88	0.41
49:S2:1500:G:H4'	53:SD:179:GLN:O	2.20	0.41
1:5:218:A:C8	6:C:181:LYS:CG	3.02	0.41
1:5:4419:U:O5'	1:5:4419:U:H6	2.03	0.41
1:5:4455:G:H1	1:5:4524:G:H1	1.67	0.41
1:5:12:A:C4	1:5:14:C:C5	3.07	0.41
1:5:720:G:C2	1:5:721:G:C8	3.08	0.41
1:5:1920:C:C4'	1:5:1921:C:OP2	2.66	0.41
1:5:4929:C:H6	1:5:4929:C:C5'	2.28	0.41
7:D:177:THR:HB	7:D:190:PHE:CZ	2.55	0.41
1:5:2336:G:C2	1:5:2337:C:C2	3.08	0.41
56:SG:55:GLY:N	56:SG:63:MET:SD	2.93	0.41
1:5:2311:C:N3	1:5:2312:U:C6	2.88	0.41
1:5:4205:A:N3	1:5:4206:C:C6	2.88	0.41
49:S2:1211:G:H5'	49:S2:1212:G:OP2	2.19	0.41
1:5:4649:G:H2'	1:5:4650:G:O4'	2.20	0.41
61:SL:76:VAL:HG12	61:SL:125:ILE:CD1	2.50	0.41
53:SD:65:ARG:O	53:SD:69:LEU:HG	2.20	0.41
29:Z:121:ARG:CG	29:Z:121:ARG:HH11	2.33	0.41
49:S2:684:G:H2'	49:S2:685:A:O4'	2.20	0.41
1:5:419:A:N3	1:5:1332:C:O2'	2.49	0.41
1:5:1065:G:H2'	1:5:1066:G:H8	1.84	0.41
1:5:1246:G:H2'	1:5:1247:U:O4'	2.20	0.41
1:5:1261:G:N1	1:5:1262:G:C8	2.88	0.41
1:5:1262:G:N3	1:5:1263:A:C8	2.87	0.41
1:5:1554:A:C6	1:5:1555:G:N9	2.88	0.41
1:5:1664:U:H2'	1:5:1665:C:H6	1.85	0.41
1:5:1846:G:C2	1:5:1847:C:C2	3.08	0.41
1:5:1877:G:C5	1:5:1878:G:C8	3.08	0.41
1:5:1996:C:C4	1:5:1997:U:H1'	2.55	0.41
1:5:2008:U:C5	1:5:2010:A:H3'	2.55	0.41
1:5:2001:G:C5	1:5:2017:A:C2	3.08	0.41
1:5:2083:C:H2'	1:5:2085:G:O4'	2.19	0.41
1:5:2107:C:O2'	1:5:2108:G:OP2	2.37	0.41
1:5:2316:G:N1	1:5:2317:C:N4	2.68	0.41
1:5:2448:G:O6	1:5:2511:A:C5	2.73	0.41
1:5:4167:G:N1	1:5:4168:G:C5	2.88	0.41
1:5:693:C:H2'	1:5:694:C:H6	1.86	0.41
1:5:961:G:C6	1:5:969:C:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:962:C:O2	1:5:2264:C:O5'	2.38	0.41
1:5:963:G:C2'	1:5:963:G:N3	2.82	0.41
48:4:592:LEU:CD2	48:4:603:TYR:HE2	2.24	0.41
48:4:662:LEU:N	48:4:683:PHE:CE2	2.87	0.41
48:4:55:ARG:O	48:4:57:THR:N	2.52	0.41
49:S2:126:G:H22	49:S2:181:A:P	2.43	0.41
1:5:292:G:C4	1:5:293:G:C6	3.08	0.41
1:5:3718:A:C2'	1:5:3719:A:O4'	2.59	0.41
1:5:98:A:H3'	1:5:98:A:C8	2.55	0.41
14:K:161:GLU:CA	14:K:163:PRO:HD3	2.49	0.41
1:5:1169:G:C2	1:5:1170:G:N9	2.88	0.41
49:S2:1508:A:C6	49:S2:1510:G:H1'	2.54	0.41
49:S2:1551:U:C5'	49:S2:1558:C:H1'	2.50	0.41
1:5:2800:G:C5	1:5:2801:U:C5	3.08	0.41
49:S2:1280:G:C2	49:S2:1281:G:C8	3.08	0.41
49:S2:1283:C:C4'	62:SM:102:LYS:HE3	2.51	0.41
49:S2:552:G:C3'	49:S2:553:U:H6	2.33	0.41
1:5:1629:G:N2	1:5:1631:A:N3	2.68	0.41
1:5:3630:A:C6	1:5:3631:U:C5	3.08	0.41
3:8:66:A:H2'	3:8:67:U:H6	1.82	0.41
1:5:3836:A:H2'	1:5:3837:C:O4'	2.20	0.41
1:5:2726:G:N2	1:5:2727:C:N3	2.68	0.41
48:4:667:LYS:HZ2	48:4:667:LYS:HB2	1.78	0.41
1:5:3907:G:C8	1:5:4449:A:C1'	2.94	0.41
49:S2:982:G:C2	49:S2:1045:U:H1'	2.55	0.41
3:8:42:G:N3	3:8:43:A:C8	2.88	0.41
1:5:744:G:C2	1:5:745:G:C5	3.08	0.41
1:5:138:G:H2'	1:5:139:G:H5'	2.00	0.41
49:S2:1041:G:C6	49:S2:1042:A:C8	3.08	0.41
49:S2:1042:A:C2	49:S2:1043:G:C1'	3.03	0.41
1:5:4229:U:H3'	1:5:4230:C:C6	2.52	0.41
21:R:110:ARG:CD	21:R:120:TYR:HE2	2.33	0.41
1:5:4966:A:C2	1:5:4967:A:C2	3.08	0.41
1:5:4879:C:H2'	1:5:4880:C:H6	1.85	0.41
1:5:4886:C:H41	8:E:268:ARG:HH22	1.68	0.41
1:5:1756:U:H2'	1:5:1757:U:O4'	2.21	0.41
1:5:1761:G:C4	1:5:1762:C:C6	3.08	0.41
49:S2:1757:G:N2	49:S2:1758:G:C4	2.88	0.41
49:S2:1785:C:HO2'	49:S2:1786:U:H6	1.63	0.41
49:S2:187:G:C4	49:S2:188:C:C6	3.08	0.41
1:5:738:C:N3	1:5:739:G:C5	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1727:U:H2'	1:5:1727:U:O2	2.20	0.41
1:5:4510:A:C4	1:5:4511:A:C6	3.08	0.41
1:5:2576:G:N3	1:5:2576:G:H2'	2.35	0.41
1:5:2577:C:N4	29:Z:17:ARG:CZ	2.83	0.41
1:5:2399:G:C6	1:5:2400:G:N7	2.88	0.41
1:5:4737:G:C6	1:5:4963:G:N2	2.88	0.41
1:5:4912:G:OP1	1:5:4913:G:OP2	2.37	0.41
49:S2:1377:U:C4	50:SA:102:ARG:CZ	3.02	0.41
49:S2:1126:G:C6	49:S2:1127:C:N4	2.88	0.41
1:5:2243:C:O2	1:5:2243:C:H2'	2.20	0.41
49:S2:1175:G:C4	49:S2:1176:G:C8	3.08	0.41
59:SJ:115:PHE:HD1	59:SJ:116:LYS:N	2.17	0.41
1:5:4544:A:C8	1:5:4545:G:C1'	3.03	0.41
49:S2:1168:G:C2	49:S2:1192:U:O2	2.72	0.41
49:S2:1715:A:C2	49:S2:1819:A:C2	3.08	0.41
56:SG:32:MET:CE	56:SG:63:MET:SD	3.08	0.41
1:5:3924:C:H2'	1:5:3925:U:O5'	2.20	0.41
1:5:3585:G:N3	1:5:3586:G:C8	2.88	0.41
1:5:3587:C:H2'	1:5:3588:C:H6	1.84	0.41
1:5:2678:A:C4	1:5:2679:G:C8	3.09	0.41
23:T:136:ARG:O	23:T:137:GLU:HB2	2.19	0.41
1:5:1947:U:C6	1:5:1947:U:H5'	2.55	0.41
1:5:5055:G:H2'	1:5:5056:A:C8	2.55	0.41
49:S2:23:G:C2	49:S2:24:C:C2	3.07	0.41
12:I:12:CYS:HB3	12:I:128:ARG:HE	1.86	0.41
3:8:154:G:H4'	10:G:189:ARG:NH1	2.35	0.41
18:O:125:LYS:HD2	18:O:135:PHE:CZ	2.55	0.41
53:SD:100:ALA:O	53:SD:104:SER:N	2.50	0.41
70:SU:19:ARG:N	70:SU:19:ARG:HD2	2.35	0.41
54:SE:158:ASP:OD1	54:SE:158:ASP:N	2.52	0.41
53:SD:28:GLU:HA	53:SD:28:GLU:OE1	2.20	0.41
1:5:2526:C:O2'	1:5:2527:A:O5'	2.37	0.41
7:D:8:LYS:HA	7:D:12:TYR:CB	2.50	0.41
48:4:543:GLU:CD	48:4:576:VAL:H	2.22	0.41
1:5:1070:G:N1	1:5:1071:C:C4	2.88	0.41
1:5:1078:A:H2'	1:5:1079:C:H5	1.85	0.41
1:5:1212:G:N1	1:5:1213:G:N7	2.67	0.41
1:5:1218:G:O6	1:5:1219:G:C8	2.74	0.41
1:5:1872:G:N1	1:5:1873:A:N7	2.68	0.41
1:5:2090:U:C2'	1:5:2091:C:O5'	2.68	0.41
1:5:2283:G:O2'	1:5:2284:G:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2339:G:C2	1:5:2340:C:C2	3.09	0.41
1:5:2340:C:C4	1:5:2341:A:N7	2.88	0.41
1:5:2454:U:C2'	1:5:2454:U:O2	2.67	0.41
1:5:4075:U:H4'	1:5:4076:G:OP1	2.21	0.41
1:5:4075:U:O2	1:5:4076:G:C8	2.73	0.41
1:5:689:U:H2'	1:5:689:U:O2	2.20	0.41
1:5:977:C:C3'	1:5:978:G:H5'	2.50	0.41
9:F:165:ASN:O	9:F:165:ASN:CG	2.58	0.41
14:K:29:ALA:N	14:K:30:PRO:HD2	2.35	0.41
10:G:264:LYS:HG3	51:SB:93:GLY:H	1.85	0.41
1:5:4425:G:C2	1:5:4426:C:C1'	3.04	0.41
49:S2:436:G:O2'	49:S2:437:G:H5'	2.21	0.41
49:S2:445:A:N6	49:S2:446:G:C2	2.89	0.41
49:S2:462:C:N3	49:S2:463:C:C5	2.88	0.41
48:4:56:PHE:CE1	48:4:456:ARG:N	2.69	0.41
49:S2:171:A:C5	49:S2:173:A:C8	3.08	0.41
49:S2:1744:G:C2	49:S2:1789:G:N1	2.88	0.41
49:S2:289:G:N2	49:S2:295:C:O2	2.53	0.41
49:S2:440:G:N2	49:S2:454:U:N3	2.69	0.41
49:S2:75:G:H1	56:SG:159:ARG:NE	2.16	0.41
49:S2:1181:A:O2'	49:S2:1182:A:C5'	2.68	0.41
1:5:1380:G:O2'	1:5:1381:U:O5'	2.32	0.41
1:5:3739:C:C6	1:5:3739:C:H5'	2.50	0.41
17:N:44:ARG:HD2	17:N:120:TRP:O	2.21	0.41
1:5:1178:G:C5	1:5:1179:U:C5	3.08	0.41
66:SQ:71:ARG:HG2	66:SQ:71:ARG:HH11	1.85	0.41
1:5:1329:G:C2'	1:5:1330:A:OP1	2.69	0.41
49:S2:1541:G:C2	49:S2:1593:C:O2	2.74	0.41
49:S2:1563:G:C6	49:S2:1564:C:N4	2.88	0.41
69:ST:92:PHE:C	69:ST:92:PHE:HD1	2.24	0.41
1:5:370:U:C5	1:5:1637:A:C2	3.08	0.41
1:5:4897:G:C2	1:5:4898:G:C4	3.08	0.41
49:S2:1223:A:H3'	49:S2:1223:A:C8	2.55	0.41
49:S2:1303:C:N4	49:S2:1304:U:C5	2.88	0.41
49:S2:1311:C:C6	49:S2:1312:G:C8	3.09	0.41
1:5:1891:A:C2'	1:5:1892:A:C8	3.03	0.41
4:A:226:ARG:CZ	4:A:226:ARG:HB2	2.50	0.41
49:S2:1709:G:N2	49:S2:1710:C:N1	2.67	0.41
49:S2:163:U:HO2'	49:S2:164:A:C5'	2.32	0.41
49:S2:165:G:C2'	49:S2:166:A:C8	2.86	0.41
1:5:2479:G:C5	1:5:2480:G:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2493:G:C5	1:5:2494:U:C5	3.09	0.41
1:5:3631:U:C2	1:5:3632:C:C6	3.08	0.41
48:4:326:GLU:O	48:4:329:ASP:N	2.46	0.41
48:4:275:LYS:CE	48:4:276:SER:CA	2.89	0.41
1:5:483:G:N1	1:5:484:U:O4	2.54	0.41
1:5:496:G:N2	1:5:658:C:C2	2.87	0.41
12:I:181:PHE:CD1	12:I:190:LEU:HD13	2.55	0.41
49:S2:997:A:O2'	49:S2:998:A:O5'	2.27	0.41
48:4:448:GLN:O	48:4:448:GLN:CD	2.59	0.41
1:5:1820:C:O2'	1:5:1821:G:O5'	2.26	0.41
1:5:2055:G:C8	1:5:2055:G:H3'	2.55	0.41
1:5:2060:G:C5	1:5:2061:U:C5	3.08	0.41
1:5:29:G:O6	1:5:53:C:N3	2.53	0.41
1:5:3904:G:H5"	1:5:3905:A:OP2	2.20	0.41
1:5:4108:G:N3	1:5:4109:G:C8	2.88	0.41
49:S2:501:C:C3'	49:S2:501:C:C2	3.04	0.41
11:H:31:ARG:HE	11:H:87:GLY:HA3	1.86	0.41
64:SO:147:ARG:HH21	64:SO:150:ARG:HE	1.67	0.41
64:SO:147:ARG:HH21	64:SO:150:ARG:HH11	1.66	0.41
48:4:616:ASP:O	48:4:621:GLU:OE1	2.38	0.41
3:8:134:G:N2	3:8:135:C:C1'	2.82	0.41
1:5:909:A:N3	1:5:910:G:C8	2.88	0.41
1:5:2562:G:C6	1:5:2564:G:OP2	2.73	0.41
1:5:1753:G:H2'	1:5:1755:C:C5'	2.50	0.41
1:5:1781:U:C4	1:5:1782:U:C4	3.09	0.41
1:5:698:G:N1	1:5:699:C:C6	2.88	0.41
49:S2:1774:C:C2	49:S2:1775:U:C6	3.08	0.41
1:5:1831:G:C2	1:5:1832:C:N1	2.88	0.41
49:S2:578:C:C4	49:S2:579:C:C5	3.08	0.41
1:5:4315:A:C6	1:5:4316:G:N7	2.88	0.41
1:5:128:C:H2'	1:5:129:C:C6	2.55	0.41
1:5:738:C:N4	1:5:739:G:O6	2.53	0.41
1:5:238:C:O2	1:5:239:C:C6	2.73	0.41
1:5:4489:G:C2	1:5:4490:C:N1	2.89	0.41
1:5:4137:C:C2	1:5:4138:C:C6	3.07	0.41
49:S2:1157:G:C6	72:SW:75:ILE:HD12	2.55	0.41
49:S2:609:U:O2	49:S2:609:U:H2'	2.20	0.41
1:5:711:A:H1'	8:E:132:HIS:NE2	2.35	0.41
49:S2:827:A:N6	49:S2:828:G:C5	2.88	0.41
49:S2:370:G:H4'	49:S2:371:A:O5'	2.19	0.41
49:S2:359:U:H2'	49:S2:359:U:O2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:403:G:C5	49:S2:404:G:N7	2.88	0.41
49:S2:1500:G:C3'	49:S2:1501:C:H6	2.31	0.41
1:5:2247:C:H5"	1:5:2248:C:C6	2.55	0.41
1:5:1912:G:C2	1:5:1913:C:C5	3.09	0.41
7:D:27:LYS:HE3	13:J:147:ARG:HH21	1.83	0.41
1:5:324:A:C2	1:5:325:U:C2	3.08	0.41
3:8:111:U:O2	3:8:111:U:C3'	2.68	0.41
1:5:150:U:OP2	10:G:200:THR:OG1	2.39	0.41
1:5:684:G:O2'	1:5:685:C:O5'	2.37	0.41
23:T:105:PHE:CE1	23:T:109:VAL:HG23	2.56	0.41
49:S2:931:C:H2'	49:S2:932:G:O4'	2.21	0.41
49:S2:688:U:P	57:SH:121:THR:HG1	2.43	0.41
26:W:57:ARG:NH1	26:W:57:ARG:HG2	2.35	0.41
7:D:202:GLN:HA	7:D:205:ALA:HB3	2.02	0.41
10:G:29:ASN:HD22	10:G:29:ASN:HA	1.68	0.41
2:7:36:C:H2'	2:7:37:G:H8	1.85	0.41
1:5:1922:G:C2	1:5:1923:A:C8	3.08	0.41
52:SC:209:VAL:HG11	52:SC:233:LEU:CD1	2.50	0.41
15:L:21:ARG:CZ	15:L:21:ARG:HB2	3.56	0.41
51:SB:139:CYS:SG	51:SB:140:VAL:N	2.93	0.41
24:U:104:ALA:HA	24:U:110:TYR:HD1	1.86	0.41
1:5:4451:G:H3'	1:5:4522:G:H22	1.85	0.41
28:Y:13:LYS:HB3	28:Y:17:ARG:HH21	1.86	0.41
52:SC:84:PHE:HE1	71:SV:33:GLN:HE22	1.62	0.41
48:4:79:TYR:HE2	48:4:351:LEU:HD12	1.75	0.41
48:4:532:PRO:CD	48:4:533:MET:N	2.82	0.41
48:4:745:TYR:OH	48:4:790:VAL:HG22	2.20	0.41
48:4:759:ILE:CG2	48:4:760:TYR:N	2.83	0.41
1:5:986:C:C4	1:5:1068:G:C2	3.08	0.41
1:5:1545:G:HO2'	1:5:1546:C:C5'	2.33	0.41
1:5:1899:G:C8	1:5:2278:G:N2	2.87	0.41
1:5:2342:G:N2	1:5:2344:U:O4'	2.53	0.41
9:F:148:ASN:HD22	9:F:149:LEU:H	1.69	0.41
14:K:148:PRO:HG2	14:K:149:HIS:H	1.85	0.41
14:K:41:LYS:O	14:K:44:ASP:HB3	2.20	0.41
49:S2:443:U:C4'	56:SG:90:GLY:HA3	2.51	0.41
48:4:650:TRP:HZ3	48:4:679:VAL:HG11	1.84	0.41
49:S2:1368:U:O2	49:S2:1372:U:C4	2.73	0.41
49:S2:1457:U:C2	49:S2:1458:G:N7	2.89	0.41
49:S2:217:A:C4	49:S2:309:G:C6	3.05	0.41
49:S2:310:C:C2	49:S2:311:C:C4	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:376:A:C4	49:S2:377:G:C8	3.08	0.41
49:S2:448:A:H8	58:SI:25:ARG:C	2.24	0.41
49:S2:83:A:C6	49:S2:84:A:H1'	2.56	0.41
56:SG:223:LYS:O	56:SG:227:GLN:N	2.53	0.41
49:S2:302:A:O4'	58:SI:73:THR:HG23	2.19	0.41
1:5:88:A:N1	1:5:97:G:H1'	2.35	0.41
17:N:182:HIS:O	17:N:183:THR:C	2.59	0.41
48:4:581:GLU:OE2	48:4:695:GLU:CG	2.68	0.41
49:S2:1402:A:O2'	70:SU:54:VAL:HG13	2.20	0.41
49:S2:1252:C:H5"	49:S2:1254:C:C6	2.55	0.41
49:S2:1573:G:C2	49:S2:1574:C:C1'	3.03	0.41
49:S2:1604:G:H2'	49:S2:1605:G:O4'	2.21	0.41
49:S2:1606:G:N3	49:S2:1632:G:N2	2.68	0.41
1:5:4274:A:H2'	1:5:4275:G:O4'	2.20	0.41
1:5:4320:G:H2'	1:5:4321:U:O4'	2.20	0.41
49:S2:1029:G:C2	49:S2:1030:A:N9	2.88	0.41
49:S2:1028:A:C6	49:S2:1029:G:H1'	2.56	0.41
1:5:2788:U:O2	1:5:2798:A:H4'	2.21	0.41
49:S2:642:U:C6	49:S2:642:U:C3'	3.04	0.41
49:S2:1136:U:C2'	49:S2:1137:U:O5'	2.68	0.41
55:SF:138:ALA:HB2	55:SF:200:ALA:O	2.21	0.41
49:S2:1284:A:N1	62:SM:33:ARG:O	2.53	0.41
62:SM:34:GLY:O	62:SM:36:ARG:N	2.53	0.41
1:5:5004:C:C2'	1:5:5005:G:O4'	2.67	0.41
1:5:5006:U:O4'	1:5:5042:A:C6	2.74	0.41
1:5:5005:G:H22	1:5:5041:G:H1'	1.85	0.41
1:5:1895:G:C2'	1:5:1896:A:O5'	2.68	0.41
1:5:3901:A:OP1	1:5:3902:A:H5'	2.20	0.41
1:5:2410:C:O2	1:5:2411:C:C5	2.73	0.41
15:L:45:ARG:HG2	15:L:46:ILE:HG23	2.03	0.41
11:H:60:TRP:HE1	22:S:153:PRO:HG3	1.85	0.41
1:5:2854:G:O6	1:5:2856:C:C1'	2.68	0.41
1:5:168:C:N3	1:5:268:G:C2	2.89	0.41
1:5:268:G:C4	1:5:269:G:C8	3.08	0.41
49:S2:996:A:N7	63:SN:113:PHE:CE2	2.88	0.41
1:5:5047:C:N3	1:5:5048:A:N6	2.68	0.41
1:5:1945:G:C3'	1:5:1946:G:H5'	2.50	0.41
22:S:84:TYR:CE1	22:S:91:HIS:HB2	2.55	0.41
1:5:4111:U:N3	1:5:4112:C:C6	2.88	0.41
1:5:4580:U:C4	1:5:4581:G:C5	3.08	0.41
1:5:1334:A:C5	1:5:1335:G:N7	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:86:LEU:HD21	48:4:96:ALA:CA	2.49	0.41
48:4:259:LYS:HG3	48:4:264:ARG:HD3	2.03	0.41
1:5:4745:G:H2'	1:5:4746:C:H5	1.86	0.41
18:O:27:VAL:HG12	18:O:98:ALA:HB1	2.01	0.41
28:Y:11:ARG:HH22	28:Y:15:ARG:HD3	1.85	0.41
1:5:4688:C:C4	1:5:4689:U:C4	3.08	0.41
1:5:1371:A:C2	3:8:29:G:H1'	2.55	0.41
1:5:2554:U:O4	1:5:2762:G:C2'	2.69	0.41
1:5:1751:A:C6	1:5:1752:G:N9	2.89	0.41
1:5:1779:U:N3	1:5:1780:A:N7	2.68	0.41
49:S2:601:G:O2'	49:S2:602:G:O5'	2.39	0.41
49:S2:1773:C:C2	49:S2:1774:C:C6	3.08	0.41
49:S2:189:U:C4	49:S2:190:G:C4	3.08	0.41
1:5:732:A:C8	1:5:732:A:H5"	2.55	0.41
1:5:732:A:C5	1:5:733:A:N3	2.88	0.41
49:S2:1256:G:C8	53:SD:40:ARG:CD	36.77	0.41
2:7:113:G:C2	2:7:114:U:C5	3.08	0.41
1:5:1676:C:O2'	1:5:3914:U:O4	2.34	0.41
2:7:51:G:C4	2:7:52:C:C5	3.08	0.41
1:5:442:G:H2'	1:5:443:G:C5'	2.50	0.41
1:5:1835:G:O2'	1:5:1836:G:OP2	2.22	0.41
25:V:27:ASN:OD1	25:V:101:ASN:O	2.38	0.41
49:S2:563:G:C2'	49:S2:564:A:H5'	2.50	0.41
1:5:2712:G:C2	1:5:2713:C:C5	3.08	0.41
1:5:2702:C:C2	1:5:2715:G:N1	2.88	0.41
11:H:38:PHE:HB3	11:H:41:ILE:CG2	2.51	0.41
1:5:1288:G:O2'	1:5:1289:C:OP1	2.37	0.41
66:SQ:78:VAL:HA	66:SQ:81:ILE:HD12	2.02	0.41
49:S2:432:G:H2'	49:S2:432:G:N3	2.36	0.41
1:5:4152:G:C6	1:5:4153:C:N4	2.88	0.41
8:E:236:TYR:CE2	8:E:238:ILE:HA	2.47	0.41
4:A:10:LYS:HE2	4:A:16:PHE:CE2	2.55	0.41
5:B:142:GLY:HA2	5:B:146:LEU:HD21	2.03	0.41
74:SY:57:VAL:HG11	74:SY:60:PHE:CE2	2.55	0.41
60:SK:11:ILE:CD1	60:SK:45:VAL:HG22	2.49	0.41
68:SS:23:ARG:HD3	75:SZ:48:VAL:HB	2.02	0.41
68:SS:23:ARG:HD3	75:SZ:48:VAL:CB	2.50	0.41
58:SI:149:TYR:CD1	58:SI:149:TYR:N	2.89	0.41
6:C:167:ALA:CB	6:C:221:PHE:CE1	3.04	0.41
1:5:742:G:H2'	1:5:742:G:N3	2.35	0.41
29:Z:123:LYS:O	29:Z:124:THR:CB	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:356:G:O2'	3:8:25:G:N3	2.51	0.41
16:M:86:TRP:CD1	16:M:92:ALA:HB2	2.55	0.41
2:7:98:G:C2	2:7:99:G:H1'	2.55	0.41
10:G:73:ARG:HH11	10:G:73:ARG:CB	2.32	0.41
58:SI:142:SER:O	58:SI:144:LYS:N	2.54	0.41
59:SJ:104:ASP:OD1	59:SJ:104:ASP:N	2.53	0.41
29:Z:114:ALA:HB1	29:Z:118:PHE:HE2	1.85	0.41
61:SL:35:ARG:NH1	61:SL:53:GLY:O	2.53	0.41
11:H:159:ALA:O	11:H:163:GLN:HB2	2.20	0.41
50:SA:63:ARG:NH2	71:SV:39:VAL:HG13	2.34	0.41
48:4:819:ILE:C	48:4:819:ILE:HD12	2.41	0.41
1:5:1233:G:N1	1:5:1234:G:C5	2.88	0.41
1:5:1265:G:C5	1:5:1266:G:C5	3.09	0.41
1:5:1281:G:O6	8:E:48:ARG:NH1	2.52	0.41
1:5:1696:C:H1'	1:5:1697:G:O5'	2.20	0.41
1:5:1669:A:C2	1:5:1852:U:H4'	2.55	0.41
1:5:2270:G:C6	1:5:2271:C:C4	3.09	0.41
1:5:2597:G:C2'	1:5:2598:A:O5'	2.68	0.41
1:5:4404:U:C4	1:5:4436:U:O4	2.74	0.41
1:5:465:G:N1	1:5:466:A:C5	2.88	0.41
6:C:284:MET:CE	20:Q:28:LEU:HB3	2.50	0.41
6:C:33:ARG:HD3	6:C:122:TYR:OH	2.20	0.41
9:F:124:PHE:HD2	9:F:196:ILE:HG23	1.86	0.41
9:F:120:PHE:CE2	9:F:217:SER:HA	2.54	0.41
21:R:107:ARG:HH11	21:R:107:ARG:CG	2.98	0.41
48:4:660:ASN:CG	48:4:697:MET:O	2.58	0.41
48:4:700:VAL:HG11	48:4:702:PHE:CZ	2.55	0.41
49:S2:127:C:C6	49:S2:181:A:N6	2.88	0.41
49:S2:1788:A:H2'	49:S2:1789:G:O4'	2.20	0.41
49:S2:344:U:N3	49:S2:345:U:C5	2.88	0.41
49:S2:85:A:C4	49:S2:86:C:C5	3.08	0.41
1:5:1422:G:C2	1:5:1464:C:C2	3.09	0.41
1:5:291:U:C2'	1:5:292:G:C2'	2.78	0.41
1:5:3727:A:C2'	1:5:3728:A:C8	3.03	0.41
1:5:4346:U:H2'	1:5:4347:G:O5'	2.20	0.41
49:S2:1412:C:O2'	49:S2:1413:G:C8	2.73	0.41
49:S2:1425:G:C6	49:S2:1426:U:H1'	2.56	0.41
69:ST:127:GLY:O	69:ST:128:GLN:C	2.57	0.41
49:S2:1528:G:C2	49:S2:1529:C:C6	3.09	0.41
49:S2:1537:A:C2	49:S2:1538:C:N1	2.89	0.41
49:S2:1562:C:C2	49:S2:1563:G:N7	2.87	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1669:G:N2	49:S2:1670:C:C2	2.88	0.41
1:5:4266:G:C6	1:5:4279:A:C5	3.08	0.41
1:5:426:A:C2'	1:5:427:A:O5'	2.68	0.41
1:5:2793:G:C6	1:5:2797:C:N4	2.88	0.41
2:7:59:G:C4	2:7:60:G:C8	3.08	0.41
49:S2:27:A:C6	49:S2:28:U:C6	3.07	0.41
55:SF:152:TRP:O	55:SF:156:THR:N	2.34	0.41
1:5:5006:U:C2	1:5:5042:A:C8	3.08	0.41
49:S2:553:U:O4	49:S2:554:A:N6	2.53	0.41
1:5:2477:A:C2	1:5:2478:C:C5	3.09	0.41
4:A:5:ILE:HB	4:A:208:GLU:O	2.19	0.41
1:5:2843:U:C2	1:5:2844:A:N7	2.72	0.41
1:5:505:G:N1	1:5:506:C:C4	2.89	0.41
1:5:671:G:C2	1:5:672:C:C5	3.09	0.41
12:I:47:PRO:CB	12:I:171:TRP:NE1	2.82	0.41
27:X:89:LYS:HE3	27:X:93:ASN:HD22	1.84	0.41
49:S2:1107:G:C6	49:S2:1108:G:N7	2.88	0.41
49:S2:833:C:N3	49:S2:834:C:C6	2.89	0.41
1:5:4100:C:H42	1:5:4101:C:N4	2.18	0.41
49:S2:604:A:N1	49:S2:605:A:C6	2.88	0.41
7:D:41:LYS:CG	23:T:93:ILE:HD11	2.45	0.41
49:S2:108:G:N3	49:S2:854:A:H2	2.18	0.41
1:5:919:C:N3	1:5:920:C:C4	2.88	0.41
1:5:2605:G:C2	1:5:2606:G:C4	3.09	0.41
1:5:175:C:H2'	1:5:176:G:H8	1.86	0.41
49:S2:1040:G:C8	49:S2:1040:G:C5'	3.03	0.41
1:5:5022:U:C4	1:5:5024:C:C5	3.08	0.41
1:5:1341:U:H2'	1:5:1342:A:C8	2.56	0.41
49:S2:20:G:OP1	49:S2:620:G:C8	2.73	0.41
21:R:172:ARG:CG	49:S2:909:G:OP1	2.68	0.41
1:5:911:U:O2	1:5:911:U:H2'	2.21	0.41
1:5:4988:U:C2'	1:5:4988:U:O2	2.66	0.41
1:5:1777:C:C2	1:5:1778:C:C5	3.09	0.41
1:5:4147:G:C5	1:5:4148:C:C5	3.09	0.41
1:5:348:G:N2	1:5:350:C:N1	2.69	0.41
49:S2:563:G:N2	49:S2:564:A:N9	2.68	0.41
1:5:708:G:N2	1:5:709:C:H1'	2.34	0.41
1:5:113:A:C5	1:5:114:G:C8	3.08	0.41
49:S2:1060:A:H4'	49:S2:1061:U:O5'	2.20	0.41
49:S2:435:A:OP2	49:S2:435:A:O4'	2.39	0.41
49:S2:1806:A:C6	49:S2:1807:C:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4868:G:C3'	1:5:4869:U:H5"	2.50	0.41
6:C:77:PRO:O	6:C:90:GLY:HA2	2.21	0.41
49:S2:1190:A:N3	49:S2:1714:U:O2'	2.40	0.41
53:SD:71:ALA:HB1	60:SK:20:VAL:HG12	2.02	0.41
1:5:417:G:H1'	3:8:17:A:N6	2.35	0.41
62:SM:69:LEU:HD22	62:SM:75:ASN:OD1	2.21	0.41
55:SF:125:SER:CB	55:SF:199:VAL:HG12	2.50	0.41
60:SK:15:LEU:HD21	60:SK:71:LEU:HD13	2.02	0.41
1:5:2850:A:O2'	25:V:52:LEU:HD21	2.20	0.41
54:SE:103:TYR:CE1	54:SE:189:LEU:HD11	2.54	0.41
27:X:96:LEU:HB3	27:X:98:PHE:HE1	1.86	0.41
4:A:122:ASP:OD1	4:A:122:ASP:C	2.59	0.41
49:S2:369:C:O2	49:S2:369:C:C5'	2.69	0.41
59:SJ:173:VAL:O	59:SJ:177:ASN:ND2	2.53	0.41
10:G:128:VAL:N	10:G:129:PRO:CD	2.83	0.41
49:S2:730:C:H2'	49:S2:731:G:O4'	2.20	0.41
1:5:1076:C:C4	1:5:1077:C:C6	3.04	0.41
1:5:1212:G:C4	1:5:1213:G:C8	3.08	0.41
1:5:1447:C:H2'	1:5:1448:G:H8	1.79	0.41
1:5:1556:C:H2'	1:5:1556:C:O2	2.19	0.41
1:5:1694:C:C2	1:5:1695:U:C6	3.09	0.41
1:5:1971:C:C5	1:5:2000:G:C4	3.09	0.41
1:5:2021:G:C5	1:5:2022:C:N4	2.88	0.41
1:5:2027:U:O2'	1:5:2028:C:O4'	2.38	0.41
1:5:2108:G:N2	1:5:2125:C:C4	2.87	0.41
1:5:4942:C:H4'	1:5:4944:C:P	2.61	0.41
6:C:197:ARG:O	6:C:198:ASN:ND2	2.54	0.41
14:K:123:ARG:CB	14:K:129:ILE:HG13	2.20	0.41
14:K:141:CYS:O	14:K:148:PRO:CD	2.68	0.41
14:K:142:ASN:HB3	14:K:147:HIS:C	2.36	0.41
14:K:21:GLU:HB3	14:K:22:VAL:H	1.64	0.41
49:S2:118:C:C1'	49:S2:445:A:C4	3.04	0.41
49:S2:1449:G:N1	49:S2:1450:G:C5	2.88	0.41
49:S2:1452:A:C5	49:S2:1475:G:N1	2.89	0.41
49:S2:449:A:O2'	54:SE:3:ARG:NH2	2.54	0.41
49:S2:84:A:C2	49:S2:85:A:C8	3.09	0.41
49:S2:1052:A:C4	49:S2:1053:C:C5	3.09	0.41
1:5:3733:A:C4	1:5:3734:U:C5	3.09	0.41
1:5:4349:C:H3'	1:5:4350:C:H5"	2.03	0.41
1:5:4351:U:C2	1:5:4352:U:C6	3.08	0.41
48:4:267:ASP:OD1	48:4:268:PRO:CD	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1187:G:N3	1:5:1188:C:H5	2.17	0.41
49:S2:947:G:C2	49:S2:948:C:C6	3.09	0.41
49:S2:1421:A:C2	49:S2:1422:G:H1'	2.56	0.41
69:ST:112:MET:HA	69:ST:127:GLY:CA	2.49	0.41
49:S2:1552:G:C5	49:S2:1578:U:C4	3.07	0.41
49:S2:1631:U:C4	49:S2:1632:G:C5	3.08	0.41
1:5:4232:U:H1'	1:5:4233:A:OP2	2.21	0.41
49:S2:1027:A:C6	49:S2:1028:A:H1'	2.56	0.41
2:7:29:C:O2'	2:7:30:C:H5'	2.21	0.41
1:5:4896:G:N3	1:5:4926:C:N4	2.66	0.41
49:S2:632:C:C2	49:S2:633:C:C6	3.09	0.41
73:SX:87:ASN:ND2	73:SX:134:TYR:CE2	2.89	0.41
49:S2:1283:C:H4'	62:SM:102:LYS:CE	2.49	0.41
49:S2:55:U:N3	49:S2:91:A:O2'	2.49	0.41
1:5:3756:A:N1	1:5:3757:G:C5	2.88	0.41
49:S2:1826:G:C2	49:S2:1827:U:C4	3.09	0.41
48:4:410:PHE:CE2	48:4:530:SER:HB3	2.55	0.41
1:5:2782:U:H4'	1:5:2783:A:OP2	2.21	0.41
1:5:3692:A:C6	1:5:3693:U:C6	3.08	0.41
3:8:80:A:C8	3:8:81:C:C1'	3.03	0.41
3:8:82:A:N1	3:8:83:C:H5"	2.35	0.41
1:5:1589:C:O2'	1:5:1590:C:O5'	2.27	0.41
1:5:2851:G:N2	1:5:2856:C:N4	2.68	0.41
1:5:2688:G:N2	1:5:2689:C:N1	2.69	0.41
1:5:167:C:C4	1:5:269:G:N1	2.89	0.41
1:5:275:C:C2'	1:5:276:C:H5"	2.50	0.41
1:5:3869:C:N3	1:5:3870:C:C5	2.88	0.41
1:5:3898:G:O3'	5:B:257:TRP:HA	2.21	0.41
1:5:4518:A:C3'	1:5:4519:C:H5'	2.50	0.41
63:SN:125:LEU:HD22	63:SN:129:TYR:HE2	1.83	0.41
49:S2:1129:G:H2'	49:S2:1130:G:C1'	2.51	0.41
49:S2:1130:G:C8	49:S2:1130:G:O5'	2.73	0.41
49:S2:1003:U:C2	49:S2:1004:U:C6	3.08	0.41
1:5:137:G:H2'	1:5:138:G:H8	1.86	0.41
1:5:2658:G:N2	1:5:2675:G:H2'	2.25	0.41
1:5:4257:A:C8	13:J:60:PHE:HE2	2.39	0.41
1:5:5019:A:N1	1:5:5020:G:C5	2.88	0.41
16:M:3:PHE:C	16:M:6:PHE:HZ	2.24	0.41
1:5:18:C:O2	1:5:19:G:C8	2.74	0.41
1:5:4484:A:N1	1:5:4485:C:C4	2.89	0.41
1:5:4497:U:C4	1:5:4498:U:C6	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:752:G:C2	1:5:753:C:H1'	2.55	0.41
1:5:187:U:H3'	1:5:245:C:O2	2.20	0.41
1:5:4685:U:H2'	1:5:4686:G:O4'	2.20	0.41
3:8:30:U:C2	3:8:31:G:N7	2.89	0.41
1:5:3590:G:N3	1:5:3591:C:H1'	2.35	0.41
10:G:46:GLN:HG3	10:G:47:PRO:HD2	2.01	0.41
1:5:4552:U:C2'	1:5:4553:A:O5'	2.68	0.41
1:5:1650:A:C3'	1:5:1651:G:H5"	2.50	0.41
6:C:100:ARG:HD3	6:C:100:ARG:C	2.41	0.41
49:S2:304:C:O3'	49:S2:306:C:H1'	2.20	0.41
1:5:2392:C:O2	1:5:2392:C:C2'	2.68	0.41
49:S2:871:U:C5'	49:S2:871:U:H6	2.33	0.41
48:4:224:THR:HG1	48:4:227:GLN:HG3	1.83	0.41
1:5:258:G:C2	1:5:259:C:N1	2.89	0.41
49:S2:900:C:H2'	49:S2:901:G:H8	1.84	0.41
1:5:3615:G:N3	1:5:3615:G:C2'	2.84	0.41
1:5:4068:U:N3	1:5:4069:U:H1'	2.36	0.41
1:5:718:C:H2'	1:5:718:C:O2	2.21	0.41
69:ST:10:ASN:HB2	69:ST:13:GLU:OE2	2.21	0.41
1:5:2068:C:C2'	1:5:2069:A:H5"	2.50	0.41
6:C:183:VAL:HA	6:C:204:ARG:HB2	2.03	0.41
53:SD:203:PRO:HG2	67:SR:42:PRO:HB3	2.01	0.41
5:B:219:VAL:HG21	5:B:333:LEU:HD21	2.02	0.41
1:5:2682:G:C2	1:5:2683:C:C2	3.09	0.41
57:SH:43:LEU:HD21	57:SH:71:SER:OG	2.20	0.41
23:T:14:MET:HE2	23:T:15:PHE:CE1	2.56	0.41
1:5:1511:U:H2'	1:5:1512:G:O4'	2.20	0.41
71:SV:53:TYR:OH	71:SV:73:ALA:HA	2.21	0.41
23:T:43:LYS:HA	23:T:58:HIS:CE1	2.56	0.41
15:L:76:PHE:HD2	15:L:80:GLU:OE1	2.04	0.41
15:L:92:ARG:HB3	15:L:92:ARG:CZ	2.49	0.41
24:U:60:VAL:HG11	24:U:76:VAL:HG22	2.02	0.41
6:C:110:ARG:O	6:C:113:ARG:NH1	2.53	0.41
60:SK:59:LYS:HB3	60:SK:70:TYR:HD2	1.85	0.41
1:5:5008:C:H2'	1:5:5009:G:O4'	2.20	0.41
48:4:45:ILE:HG21	48:4:77:LEU:HA	2.00	0.41
48:4:503:PRO:HA	48:4:549:ALA:CA	2.48	0.41
48:4:543:GLU:CD	48:4:576:VAL:N	2.74	0.41
48:4:771:PHE:CB	48:4:785:LYS:O	2.69	0.41
48:4:797:THR:CG2	48:4:798:ALA:N	2.82	0.41
1:5:1085:C:N3	1:5:1213:G:C6	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1086:C:C2	1:5:1212:G:N1	2.89	0.41
1:5:1249:C:H1'	1:5:1262:G:N2	2.36	0.41
1:5:1269:G:C5	1:5:2111:G:C6	3.09	0.41
1:5:1274:A:O2'	1:5:1275:G:P	2.78	0.41
1:5:1437:C:H1'	1:5:2097:U:H5'	2.03	0.41
1:5:2000:G:C3'	1:5:2000:G:N3	2.84	0.41
1:5:2092:G:C8	1:5:2093:A:N1	2.89	0.41
1:5:2259:G:OP2	1:5:2262:G:O6	2.38	0.41
1:5:2263:A:O2'	1:5:2264:C:H2'	2.21	0.41
1:5:2439:G:H1'	1:5:2777:G:C2	2.54	0.41
1:5:3672:G:N7	1:5:3674:G:H1'	2.35	0.41
1:5:1281:G:H2'	6:C:323:ARG:HG2	2.03	0.41
1:5:979:C:H4'	8:E:39:HIS:CB	2.50	0.41
14:K:134:GLY:O	14:K:136:ALA:N	2.53	0.41
14:K:56:LEU:C	14:K:57:ARG:HG3	2.41	0.41
49:S2:426:A:N3	49:S2:426:A:C2'	2.82	0.41
48:4:730:TYR:HB2	48:4:854:PHE:CZ	2.52	0.41
49:S2:1393:G:C2	49:S2:1394:G:N9	2.89	0.41
49:S2:344:U:C2	49:S2:345:U:C6	3.08	0.41
49:S2:447:A:N6	49:S2:449:A:C4	2.89	0.41
49:S2:60:A:C2'	49:S2:61:A:C5'	2.99	0.41
49:S2:84:A:C5	49:S2:85:A:N7	2.89	0.41
49:S2:126:G:O6	56:SG:196:LYS:HA	2.20	0.41
49:S2:1203:G:C5	49:S2:1204:A:N7	2.88	0.41
49:S2:1841:C:O2	49:S2:1841:C:C2'	2.67	0.41
1:5:4361:U:N3	1:5:4362:A:C8	2.88	0.41
1:5:4981:G:O2'	19:P:69:ARG:HB3	2.20	0.41
1:5:68:U:O4	1:5:69:A:C4	2.74	0.41
1:5:1173:G:C4	1:5:1174:G:C8	3.08	0.41
1:5:4275:G:C5	1:5:4276:G:N7	2.88	0.41
2:7:55:A:C2	2:7:56:G:N7	2.89	0.41
49:S2:29:G:C2	49:S2:30:C:C5	3.09	0.41
49:S2:1270:G:O2'	49:S2:1299:A:N6	2.54	0.41
1:5:4996:C:C4	1:5:4997:G:N7	2.88	0.41
49:S2:529:A:C2	49:S2:530:U:C6	3.09	0.41
49:S2:475:C:N4	49:S2:476:A:N7	2.69	0.41
1:5:3702:A:C8	1:5:3774:A:C4	3.09	0.41
1:5:3779:A:C2	1:5:3816:A:C6	3.08	0.41
49:S2:165:G:H2'	49:S2:166:A:C8	2.50	0.41
21:R:102:LEU:HD13	21:R:132:PHE:O	2.21	0.41
1:5:2409:U:H5	1:5:2410:C:C5	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1629:G:N3	1:5:1631:A:C5	2.88	0.41
1:5:3698:G:C6	1:5:3699:C:N4	2.89	0.41
1:5:163:A:C6	1:5:164:G:C8	3.08	0.41
1:5:2529:A:C4	1:5:2532:C:C5	3.09	0.41
2:7:8:G:N2	2:7:9:C:H1'	2.35	0.41
49:S2:1122:A:C6	49:S2:1123:C:C4	3.06	0.41
1:5:4113:U:C4	1:5:4114:C:C4	3.09	0.41
1:5:4162:C:O4'	1:5:4162:C:O2	2.38	0.41
49:S2:499:G:C6	49:S2:501:C:C1'	3.04	0.41
49:S2:1855:G:P	64:SO:147:ARG:HH22	2.43	0.41
1:5:4227:U:H2'	1:5:4228:G:O4'	2.21	0.41
49:S2:574:A:H4'	74:SY:89:HIS:CB	2.51	0.41
49:S2:408:A:C2'	49:S2:409:C:O5'	2.68	0.41
1:5:4483:C:C2'	1:5:4484:A:O5'	2.68	0.41
1:5:1199:G:C6	1:5:1200:G:C5	3.08	0.41
1:5:244:G:N1	1:5:246:G:N9	2.69	0.41
1:5:4683:U:H2'	1:5:4684:A:O5'	2.21	0.41
3:8:31:G:C4	3:8:32:C:C6	3.09	0.41
1:5:1757:U:O2	1:5:1758:G:C8	2.71	0.41
1:5:1760:G:C6	1:5:1761:G:N7	2.89	0.41
49:S2:1771:G:N2	49:S2:1772:C:H1'	2.36	0.41
1:5:723:A:C2'	1:5:724:C:O5'	2.68	0.41
49:S2:1350:U:C2	49:S2:1351:G:C8	3.09	0.41
49:S2:1257:G:H4'	49:S2:1258:A:C5'	2.51	0.41
49:S2:37:C:H2'	49:S2:37:C:O2	2.21	0.41
49:S2:563:G:N1	49:S2:564:A:N7	2.69	0.41
1:5:2715:G:C6	1:5:2716:C:N4	2.88	0.41
1:5:3800:A:C2	1:5:4496:A:H1'	2.55	0.41
1:5:4502:C:N4	1:5:4503:A:N7	2.68	0.41
1:5:4914:C:C2	1:5:4915:G:C8	3.08	0.41
49:S2:818:A:N6	49:S2:819:G:C5	2.89	0.41
49:S2:412:G:C2	49:S2:429:C:C2	3.09	0.41
54:SE:36:HIS:HD2	54:SE:84:ALA:C	2.24	0.41
1:5:924:C:N3	1:5:925:C:C5	2.89	0.41
1:5:2245:G:C4	1:5:2246:C:C6	3.08	0.41
1:5:1912:G:C6	1:5:1913:C:C4	3.09	0.41
49:S2:1175:G:C6	49:S2:1176:G:N7	2.89	0.41
1:5:4586:G:OP1	18:O:72:HIS:CD2	2.74	0.41
1:5:1258:G:C4	1:5:1259:G:C8	3.09	0.41
60:SK:82:TYR:C	60:SK:82:TYR:CD2	2.94	0.41
49:S2:1336:C:C2	49:S2:1337:C:C6	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4946:U:C2'	1:5:4946:U:O2	2.69	0.41
1:5:4656:A:N3	1:5:4656:A:O4'	2.53	0.41
1:5:1943:A:H2'	1:5:1944:A:O4'	2.21	0.41
49:S2:1587:G:N3	49:S2:1587:G:C2'	2.83	0.41
49:S2:1078:C:H2'	49:S2:1078:C:O2	2.20	0.41
49:S2:511:U:H2'	49:S2:512:A:C8	2.56	0.41
49:S2:697:G:N1	49:S2:734:C:C2	2.89	0.41
68:SS:42:HIS:HE1	69:ST:45:LEU:HD11	1.84	0.41
8:E:250:ASP:C	8:E:250:ASP:OD1	2.58	0.41
1:5:3928:A:H5'	17:N:89:VAL:HG11	2.03	0.41
49:S2:1523:C:O2	49:S2:1523:C:H2'	2.21	0.41
50:SA:66:VAL:HG22	50:SA:186:ARG:NH2	2.36	0.41
67:SR:41:ILE:HG21	67:SR:47:ARG:N	2.36	0.41
64:SO:54:CYS:SG	64:SO:84:ARG:HB3	2.61	0.41
58:SI:82:VAL:CG2	58:SI:103:LEU:HG	2.51	0.41
48:4:371:LEU:O	48:4:495:ARG:HD3	2.21	0.41
48:4:766:LYS:HG2	48:4:796:PHE:CD1	2.56	0.41
48:4:815:ASP:CG	48:4:816:HIS:N	2.74	0.41
1:5:1219:G:N2	1:5:1220:G:C4	2.88	0.41
1:5:1221:G:O2'	1:5:1222:A:P	2.78	0.41
1:5:1261:G:C2	1:5:1262:G:C4	3.09	0.41
1:5:1558:A:H2'	1:5:1559:G:H8	1.85	0.41
1:5:1697:G:C8	9:F:165:ASN:HA	2.55	0.41
1:5:2005:G:C2	1:5:2006:U:C6	3.08	0.41
1:5:2294:G:C6	1:5:2295:C:C4	3.09	0.41
1:5:4608:G:C5	1:5:4609:G:C5	3.09	0.41
1:5:961:G:C4'	1:5:962:C:OP1	2.69	0.41
14:K:118:HIS:O	14:K:120:SER:N	2.53	0.41
14:K:83:LYS:H	14:K:83:LYS:HG3	1.74	0.41
1:5:4413:C:H5	1:5:4429:C:N4	2.18	0.41
49:S2:468:A:C6	49:S2:469:A:C5	3.08	0.41
48:4:660:ASN:CG	48:4:697:MET:C	2.74	0.41
49:S2:301:A:C6	49:S2:302:A:N7	2.89	0.41
49:S2:379:C:N4	49:S2:380:G:C6	2.88	0.41
49:S2:454:U:OP1	56:SG:94:ARG:N	2.49	0.41
1:5:1372:A:C5	1:5:1373:A:C8	3.08	0.41
1:5:1390:G:N3	1:5:1394:G:N1	2.69	0.41
1:5:4981:G:C6	1:5:4982:A:C5	3.08	0.41
1:5:96:U:C4	1:5:97:G:C4	3.09	0.41
49:S2:1231:C:H2'	49:S2:1232:U:C6	2.56	0.41
49:S2:1539:U:O4	49:S2:1540:G:O6	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4286:C:H2'	1:5:4287:G:C8	2.56	0.41
1:5:423:G:H2'	1:5:424:U:C6	2.55	0.41
2:7:54:A:N7	13:J:12:MET:HG2	2.36	0.41
2:7:57:C:H2'	2:7:58:A:O4'	2.21	0.41
49:S2:1281:G:N7	62:SM:95:ASP:OD2	2.54	0.41
49:S2:1307:U:H3'	49:S2:1308:U:H5"	2.03	0.41
62:SM:31:LEU:HD12	62:SM:33:ARG:CB	2.51	0.41
1:5:1895:G:C6	1:5:1896:A:N3	2.88	0.41
49:S2:558:G:H2'	49:S2:559:G:N9	2.36	0.41
1:5:2479:G:O6	1:5:2480:G:O6	2.39	0.41
48:4:398:ILE:HG23	48:4:485:ILE:CD1	2.51	0.41
4:A:211:PHE:HE1	4:A:219:ILE:HG23	1.81	0.41
3:8:120:G:C2	3:8:121:G:N9	2.87	0.41
1:5:2855:G:H22	1:5:2859:G:N2	2.18	0.41
49:S2:996:A:O2'	49:S2:997:A:H5'	2.21	0.41
1:5:1925:G:C2	1:5:1926:C:C6	3.09	0.41
1:5:2056:G:C2	1:5:2058:G:C6	3.09	0.41
1:5:4095:G:N3	1:5:4096:C:C6	2.87	0.41
1:5:4097:G:C2	1:5:4098:A:C4	3.09	0.41
1:5:4101:C:N3	1:5:4102:C:C5	2.88	0.41
48:4:93:LYS:O	48:4:93:LYS:CE	2.69	0.41
49:S2:496:C:O2'	49:S2:497:C:C5'	2.69	0.41
48:4:283:LYS:HA	48:4:284:LYS:HZ3	1.85	0.41
49:S2:493:A:O4'	49:S2:574:A:H5'	2.20	0.41
1:5:1095:A:C6	1:5:1096:C:C4	3.08	0.41
1:5:1095:A:C5	1:5:1096:C:C5	3.09	0.41
1:5:186:G:H1'	1:5:187:U:C1'	2.51	0.41
1:5:2304:U:C4	1:5:2332:A:N7	2.88	0.41
1:5:1367:C:C6	1:5:1367:C:H5"	2.55	0.41
1:5:2765:A:H5"	1:5:2766:A:H2	1.84	0.41
1:5:2767:U:H3'	1:5:2769:U:H6	1.86	0.41
49:S2:584:G:C2	49:S2:585:C:C2	3.09	0.41
1:5:2394:G:H1'	1:5:2397:G:N2	2.36	0.41
1:5:2821:U:OP1	21:R:21:LYS:NZ	2.44	0.41
51:SB:33:VAL:HG21	51:SB:67:PHE:CZ	2.53	0.41
1:5:4906:C:O2	1:5:4916:G:C2	2.73	0.41
49:S2:403:G:C6	49:S2:404:G:C8	3.08	0.41
22:S:106:VAL:O	22:S:107:THR:C	2.59	0.41
49:S2:1454:A:C5	49:S2:1476:A:N3	2.89	0.41
1:5:2623:A:N1	1:5:2624:G:C5	2.89	0.41
1:5:2891:U:H2'	1:5:2892:C:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:7:13:A:P	2:7:109:U:O2'	2.78	0.41
49:S2:1727:G:N2	49:S2:1728:U:H1'	2.36	0.41
62:SM:24:THR:HA	62:SM:27:ILE:HG22	2.02	0.41
49:S2:1185:C:C2'	49:S2:1185:C:O2	2.69	0.41
49:S2:1344:A:N6	49:S2:1386:A:C4'	2.84	0.41
49:S2:658:U:O2	73:SX:17:ARG:NH2	2.54	0.41
50:SA:125:THR:O	50:SA:147:LEU:HB2	2.21	0.41
61:SL:125:ILE:HB	61:SL:146:THR:CG2	2.51	0.41
72:SW:70:ASN:N	72:SW:70:ASN:OD1	2.54	0.41
3:8:52:A:H2'	3:8:52:A:N3	2.36	0.41
66:SQ:30:GLY:HA2	66:SQ:67:ASP:HA	2.02	0.41
48:4:533:MET:O	48:4:533:MET:SD	2.79	0.41
48:4:762:VAL:CB	48:4:800:LEU:HD13	2.50	0.41
1:5:1070:G:N1	1:5:1071:C:C6	2.89	0.41
1:5:1218:G:O5'	1:5:1219:G:OP2	2.39	0.41
1:5:1685:G:C2	1:5:1686:C:C4	3.09	0.41
1:5:1669:A:C4'	1:5:1685:G:N2	2.69	0.41
1:5:1989:G:N2	1:5:1990:A:C5	2.89	0.41
1:5:957:G:H3'	1:5:2077:C:OP1	2.21	0.41
1:5:2081:C:N3	1:5:2082:G:C5	2.89	0.41
1:5:2086:G:C2	1:5:2087:C:C2	3.08	0.41
1:5:1667:G:H2'	1:5:2280:G:H22	1.86	0.41
1:5:2320:G:O2'	1:5:2321:G:OP2	2.39	0.41
1:5:2463:G:C2	1:5:2464:C:C2	3.09	0.41
1:5:2509:C:HO2'	1:5:2510:G:H5'	1.83	0.41
1:5:4171:C:H2'	1:5:4172:A:O4'	2.21	0.41
1:5:435:A:H61	1:5:1312:A:H2	1.66	0.41
1:5:4608:G:C2	1:5:4609:G:H1'	2.55	0.41
10:G:53:ARG:HB3	10:G:54:PHE:CE2	2.55	0.41
14:K:142:ASN:CB	14:K:148:PRO:HA	2.51	0.41
14:K:62:LEU:HD21	14:K:73:VAL:HG11	2.02	0.41
14:K:80:LEU:HD23	14:K:83:LYS:HD2	2.02	0.41
14:K:88:PRO:CB	14:K:89:PRO:HB3	2.49	0.41
21:R:38:ARG:O	21:R:39:GLN:HB3	2.21	0.41
22:S:29:ARG:HH12	23:T:150:LEU:CA	2.34	0.41
48:4:194:GLU:CD	48:4:195:GLY:N	2.75	0.41
48:4:434:TYR:CD1	48:4:434:TYR:C	2.95	0.41
48:4:748:GLU:CD	48:4:811:GLN:HE21	2.24	0.41
1:5:1234:G:C4	1:5:1235:G:N7	2.89	0.41
1:5:1351:G:C6	1:5:1352:C:C4	3.09	0.41
1:5:1446:C:N3	1:5:1447:C:C5	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1571:G:H2'	1:5:1571:G:N3	2.36	0.41
1:5:1620:U:H2'	1:5:1621:A:H8	1.85	0.41
1:5:1992:U:O2	1:5:1992:U:C2'	2.68	0.41
1:5:2084:C:H6	1:5:2084:C:OP1	2.03	0.41
1:5:2115:G:N7	1:5:2116:C:H1'	2.36	0.41
1:5:2745:A:H2'	1:5:2746:A:C8	2.56	0.41
1:5:4459:U:H4'	5:B:265:SER:O	2.21	0.41
1:5:450:G:H22	1:5:1294:A:C2'	2.34	0.41
1:5:466:A:N3	1:5:467:U:C5	2.86	0.41
8:E:42:ARG:O	8:E:43:ASN:C	2.59	0.41
9:F:58:HIS:O	9:F:60:HIS:N	2.53	0.41
14:K:111:ASN:C	14:K:114:ARG:HG2	2.40	0.41
14:K:39:PRO:HB2	14:K:40:LYS:H	1.44	0.41
14:K:59:THR:O	14:K:80:LEU:HD11	2.21	0.41
14:K:82:ILE:HA	14:K:85:LEU:HD12	2.03	0.41
1:5:4425:G:C5	1:5:4426:C:C6	3.08	0.41
49:S2:456:C:H2'	49:S2:457:C:O4'	2.21	0.41
48:4:634:TYR:HH	48:4:639:TYR:HE2	1.68	0.41
48:4:825:PHE:CZ	48:4:849:PRO:CG	2.96	0.41
49:S2:1395:C:C6	49:S2:1395:C:H5'	2.55	0.41
49:S2:343:A:C6	49:S2:344:U:C6	3.09	0.41
49:S2:386:C:N4	49:S2:387:C:N4	2.69	0.41
49:S2:441:C:OP2	58:SI:2:GLY:HA3	2.20	0.41
49:S2:61:A:H5'	49:S2:61:A:C8	2.56	0.41
49:S2:1474:A:C2'	49:S2:1475:G:O5'	2.69	0.41
49:S2:292:A:C2	61:SL:69:ARG:HB3	2.56	0.41
49:S2:381:C:N1	49:S2:382:C:N4	2.69	0.41
49:S2:1447:G:O2'	70:SU:33:GLU:OE2	2.30	0.41
49:S2:1840:U:H2'	49:S2:1840:U:O2	2.21	0.41
49:S2:1846:G:C6	49:S2:1847:G:C5	3.09	0.41
1:5:101:A:N1	1:5:102:G:C4	2.88	0.41
1:5:330:G:N2	1:5:331:G:C8	2.86	0.41
1:5:3736:A:O2'	1:5:3737:A:P	2.79	0.41
1:5:70:A:C6	1:5:4355:G:O4'	2.72	0.41
5:B:235:TRP:HE3	5:B:235:TRP:HA	1.85	0.41
17:N:150:TRP:C	17:N:150:TRP:HE3	2.23	0.41
1:5:1379:C:H4'	1:5:1380:G:C1'	2.51	0.41
1:5:1478:C:H2'	1:5:1478:C:O2	2.20	0.41
1:5:82:U:H2'	1:5:82:U:O2	2.19	0.41
1:5:86:U:C4	1:5:97:G:N1	2.89	0.41
1:5:1173:G:C5	1:5:1174:G:C8	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1231:C:C4	49:S2:1232:U:C4	3.09	0.41
49:S2:1265:A:O4'	49:S2:1326:U:O2'	2.38	0.41
49:S2:1531:A:H2'	49:S2:1532:C:O4'	2.20	0.41
49:S2:1551:U:O5'	49:S2:1552:G:OP2	2.38	0.41
49:S2:1541:G:N2	49:S2:1593:C:H1'	2.35	0.41
2:7:16:A:C4	2:7:17:C:C6	3.09	0.41
1:5:4896:G:C2	1:5:4897:G:N9	2.88	0.41
49:S2:597:G:N1	49:S2:640:A:C6	2.89	0.41
49:S2:1092:G:N1	49:S2:1093:A:N7	2.69	0.41
49:S2:1278:A:C2'	49:S2:1279:C:H5'	2.51	0.41
49:S2:1649:U:H4'	66:SQ:138:ARG:CG	2.51	0.41
49:S2:1278:A:C4	49:S2:1279:C:C5	3.09	0.41
49:S2:1281:G:C5	49:S2:1282:A:C8	3.08	0.41
49:S2:1302:G:N1	49:S2:1305:C:N4	2.69	0.41
49:S2:1109:C:C2	49:S2:1110:G:C1'	2.98	0.41
1:5:5036:C:C2	1:5:5037:U:C5	3.09	0.41
1:5:5006:U:N1	1:5:5042:A:N7	2.69	0.41
1:5:1855:G:C2	1:5:1856:C:C2	3.08	0.41
1:5:1887:G:C6	1:5:1890:G:N7	2.87	0.41
1:5:3882:C:C2	1:5:3883:U:C5	3.08	0.41
1:5:4399:U:N3	1:5:4400:G:C8	2.89	0.41
1:5:1869:G:C8	1:5:3877:A:C6	3.09	0.41
49:S2:531:A:C2	49:S2:532:C:H1'	2.56	0.41
49:S2:534:G:C2	49:S2:535:G:C5	3.09	0.41
49:S2:478:G:H2'	49:S2:479:C:H6	1.86	0.41
1:5:3705:G:C5	1:5:3706:C:C4	3.08	0.41
56:SG:5:ILE:O	56:SG:13:GLN:HA	2.21	0.41
49:S2:164:A:H2'	49:S2:165:G:N3	2.36	0.41
59:SJ:149:VAL:HG11	59:SJ:157:ILE:HD11	2.03	0.41
1:5:3653:A:H8	1:5:3653:A:P	2.43	0.41
3:8:120:G:N1	3:8:121:G:N7	2.69	0.41
3:8:117:C:C4	3:8:118:C:H5	2.36	0.41
3:8:66:A:C2	3:8:67:U:N3	2.89	0.41
3:8:70:G:C2	3:8:87:G:N3	2.89	0.41
1:5:3841:C:C2'	1:5:3841:C:O2	2.69	0.41
1:5:2727:C:C2	1:5:2728:U:C5	3.09	0.41
49:S2:989:C:C2	49:S2:1001:A:N6	2.88	0.41
2:7:8:G:P	7:D:33:ARG:NH2	2.94	0.41
49:S2:1124:C:N3	49:S2:1125:C:C6	2.81	0.41
1:5:5047:C:N1	1:5:5048:A:C6	2.89	0.41
1:5:2059:C:O2	1:5:2060:G:C8	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4100:C:N4	1:5:4101:C:H41	2.19	0.41
10:G:108:GLN:NE2	10:G:108:GLN:CA	2.83	0.41
10:G:108:GLN:O	10:G:112:GLN:NE2	2.54	0.41
1:5:1642:A:N3	1:5:1642:A:C2'	2.82	0.41
4:A:104:VAL:HG12	4:A:146:THR:HG21	2.03	0.41
49:S2:975:G:C5'	64:SO:32:HIS:CD2	3.04	0.41
49:S2:959:G:C8	64:SO:38:ASN:ND2	2.89	0.41
1:5:916:C:H2'	1:5:916:C:O2	2.20	0.41
1:5:2605:G:C4	1:5:2606:G:C8	3.09	0.41
1:5:2606:G:C4	1:5:2607:C:C6	3.08	0.41
49:S2:1838:U:H6	49:S2:1838:U:O5'	2.04	0.41
49:S2:1040:G:C8	49:S2:1040:G:H5"	2.55	0.41
1:5:4258:C:N3	1:5:4259:C:C4	2.88	0.41
1:5:3641:U:C5	1:5:3646:A:N7	2.89	0.41
1:5:4745:G:C2'	1:5:4746:C:H5	2.32	0.41
1:5:4748:U:H2'	1:5:4749:C:O4'	2.21	0.41
1:5:4735:G:N1	1:5:4736:C:C5	2.88	0.41
1:5:2591:A:H62	1:5:2753:G:N2	2.19	0.41
1:5:2752:G:H8	1:5:2752:G:H5"	1.85	0.41
1:5:2664:G:C2	1:5:2671:C:N3	2.89	0.41
1:5:1719:A:H5"	1:5:1719:A:N3	2.36	0.41
49:S2:18:C:O2	49:S2:18:C:H2'	2.19	0.41
49:S2:99:A:N3	49:S2:100:U:C6	2.89	0.41
1:5:3806:G:N1	1:5:3807:A:C5	2.89	0.41
1:5:3804:G:N2	1:5:3805:U:H1'	2.35	0.41
1:5:4369:A:C2	1:5:4370:G:N9	2.87	0.41
1:5:1195:G:C2	1:5:1196:G:C5	3.09	0.41
1:5:911:U:C4	1:5:912:G:N7	2.89	0.41
1:5:120:A:O4'	1:5:121:A:N1	2.54	0.41
1:5:2732:G:C2	1:5:2733:C:C2	3.09	0.41
1:5:1410:U:O2'	1:5:1411:C:OP2	2.33	0.41
1:5:4754:G:N1	1:5:4880:C:C4	2.89	0.41
3:8:31:G:C2	3:8:32:C:C2	3.09	0.41
1:5:1760:G:O6	1:5:1772:C:N3	2.52	0.41
1:5:1776:A:C2	1:5:1777:C:C2	3.08	0.41
1:5:1780:A:N6	1:5:1781:U:C6	2.88	0.41
49:S2:184:G:N1	49:S2:185:G:C5	2.89	0.41
1:5:4547:C:H2'	1:5:4549:G:C8	2.55	0.41
1:5:4550:G:C5	1:5:4551:U:C5	3.07	0.41
1:5:183:C:C2	1:5:189:G:O6	2.74	0.41
1:5:5061:A:O4'	1:5:5062:G:H5"	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SD:106:ARG:HG2	53:SD:175:VAL:HB	2.02	0.41
53:SD:51:LEU:HG	53:SD:91:VAL:HG22	2.03	0.41
69:ST:56:ARG:HD3	69:ST:79:TYR:CD2	2.54	0.41
1:5:2301:G:C4	1:5:2302:C:C6	3.08	0.41
1:5:2633:U:C4	1:5:2634:C:C5	3.08	0.41
1:5:2399:G:C2	1:5:2400:G:C5	3.09	0.41
49:S2:665:G:C1'	49:S2:670:A:N3	2.84	0.41
50:SA:111:GLN:HA	50:SA:116:PHE:CD2	2.55	0.41
8:E:153:HIS:CD2	8:E:183:ARG:NH1	2.88	0.41
49:S2:610:G:N1	49:S2:611:G:C5	2.89	0.41
1:5:4737:G:C6	1:5:4738:C:C4	3.08	0.41
53:SD:225:GLU:OE2	53:SD:226:GLN:N	2.53	0.41
1:5:4990:C:N3	5:B:113:GLU:OE2	2.54	0.41
1:5:1734:G:H2'	23:T:13:TYR:CZ	2.56	0.41
52:SC:170:TRP:CH2	72:SW:97:ARG:CD	3.03	0.41
1:5:4913:G:HO2'	1:5:4914:C:C1'	2.34	0.41
1:5:4914:C:H2'	1:5:4915:G:O4'	2.21	0.41
1:5:1302:U:C4	1:5:1303:A:N7	2.89	0.41
66:SQ:47:LEU:HD22	66:SQ:81:ILE:HD13	2.02	0.41
19:P:31:GLU:OE2	19:P:60:PHE:HA	2.21	0.41
49:S2:1332:A:C2	49:S2:1333:U:H1'	2.56	0.41
1:5:4455:G:N2	1:5:4456:C:N1	2.69	0.41
1:5:4871:C:C5	22:S:176:PHE:CD2	3.08	0.41
49:S2:901:G:C2	49:S2:902:G:C4	3.09	0.41
49:S2:1352:G:O4'	49:S2:1378:A:H2	2.04	0.41
1:5:2823:G:H2'	1:5:2824:C:O4'	2.20	0.41
10:G:102:TYR:HH	10:G:208:ASN:H	1.69	0.41
49:S2:1686:G:C4	49:S2:1687:C:C5	3.09	0.41
49:S2:942:G:OP1	51:SB:216:LYS:NZ	2.44	0.41
59:SJ:63:LEU:O	59:SJ:70:ARG:NH1	2.53	0.41
59:SJ:63:LEU:HD11	59:SJ:69:ARG:NH2	2.35	0.41
2:7:119:U:C4	7:D:261:VAL:HG21	2.56	0.41
61:SL:117:PHE:CE2	61:SL:144:LYS:HA	2.56	0.41
63:SN:114:ARG:O	63:SN:118:ILE:CG1	2.68	0.41
1:5:4661:G:C2	1:5:4662:C:C2	3.09	0.41
49:S2:1723:G:C2	49:S2:1724:A:C8	3.08	0.41
1:5:4433:G:C2	1:5:4434:C:C2	3.09	0.41
1:5:4865:C:C2	1:5:4866:C:C6	3.09	0.41
48:4:265:TYR:HD1	48:4:265:TYR:N	2.17	0.41
49:S2:200:G:C4	49:S2:201:C:C6	3.09	0.41
23:T:9:ARG:HG3	23:T:10:GLY:N	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:746:C:C4	49:S2:747:U:C5	3.08	0.41
6:C:172:LYS:CE	6:C:177:TRP:HE1	2.34	0.41
21:R:30:ASN:N	21:R:30:ASN:OD1	3.07	0.41
1:5:250:C:H2'	1:5:251:C:O4'	2.20	0.41
1:5:381:U:C4'	1:5:414:C:H2'	2.51	0.41
16:M:86:TRP:NE1	16:M:92:ALA:HB2	2.35	0.41
66:SQ:102:GLU:N	66:SQ:102:GLU:OE2	2.53	0.41
51:SB:171:ILE:O	51:SB:175:GLU:OE2	2.38	0.41
57:SH:144:ILE:CG2	57:SH:152:ARG:HH12	2.34	0.41
57:SH:144:ILE:HG21	57:SH:152:ARG:HH12	1.85	0.41
59:SJ:94:LEU:HD12	59:SJ:97:ILE:HD12	2.03	0.41
18:O:191:ARG:HA	18:O:194:GLU:HB3	2.03	0.41
18:O:47:PHE:C	18:O:47:PHE:CD2	2.94	0.41
67:SR:59:LYS:O	67:SR:63:ARG:HB2	2.21	0.41
71:SV:24:ILE:HD11	71:SV:56:CYS:HA	2.02	0.41
68:SS:61:GLU:HA	68:SS:64:VAL:HG22	2.02	0.41
6:C:156:ASP:OD1	6:C:254:GLU:HB3	2.20	0.41
16:M:9:VAL:HG11	16:M:66:HIS:HA	2.02	0.41
4:A:218:HIS:ND1	4:A:218:HIS:C	2.74	0.41
48:4:324:ASP:N	48:4:324:ASP:OD1	2.54	0.41
63:SN:132:LYS:HE2	63:SN:132:LYS:HA	2.03	0.41
1:5:3786:U:C5'	1:5:3786:U:H6	2.33	0.41
1:5:1795:A:N3	2:7:79:U:O2'	2.50	0.41
48:4:105:SER:HA	48:4:106:PRO:HD3	1.83	0.41
48:4:150:ARG:CA	48:4:200:MET:CE	2.99	0.41
48:4:73:THR:HG22	48:4:104:ASP:OD2	2.20	0.41
1:5:1275:G:C5	1:5:1276:C:C5	3.09	0.41
1:5:1570:G:C4	1:5:1571:G:C8	3.09	0.41
1:5:1675:C:C2	1:5:1681:G:N2	2.89	0.41
1:5:1979:A:C2	1:5:1982:G:N7	2.89	0.41
1:5:2314:G:N1	1:5:2326:G:C8	2.89	0.41
1:5:2330:G:C2'	1:5:2331:G:O4'	2.69	0.41
1:5:4123:C:H3'	1:5:4124:G:H8	1.84	0.41
1:5:454:U:H4'	1:5:455:C:C5'	2.51	0.41
1:5:689:U:O2	1:5:690:C:C6	2.74	0.41
1:5:692:A:N3	1:5:693:C:C5	2.88	0.41
1:5:993:G:N3	1:5:994:G:C8	2.89	0.41
9:F:194:HIS:C	9:F:196:ILE:N	2.74	0.41
14:K:97:ASN:OD1	14:K:98:ILE:HG13	2.21	0.41
22:S:28:TYR:CE2	22:S:52:LYS:HG3	2.56	0.41
48:4:507:VAL:CG1	48:4:554:LEU:CD2	2.99	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1449:G:C2	49:S2:1450:G:N9	2.89	0.41
49:S2:1466:G:C2	49:S2:1467:C:C2	3.09	0.41
49:S2:217:A:H1'	49:S2:309:G:N2	2.36	0.41
49:S2:316:G:C2	49:S2:317:C:N3	2.89	0.41
49:S2:338:G:N1	49:S2:339:A:C5	2.89	0.41
49:S2:448:A:C8	58:SI:26:LYS:HA	2.56	0.41
49:S2:85:A:O2'	49:S2:149:A:H1'	2.21	0.41
49:S2:1053:C:H2'	49:S2:1054:G:H5'	2.03	0.41
49:S2:9:U:C6	49:S2:9:U:H3'	2.56	0.41
1:5:1384:C:O2	1:5:1505:C:H4'	2.21	0.41
1:5:289:C:O2	1:5:290:U:C6	2.73	0.41
1:5:3683:C:H4'	1:5:3684:G:OP2	2.21	0.41
1:5:3724:A:C6	1:5:3725:G:C6	3.09	0.41
1:5:4984:C:H2'	1:5:4985:U:C5'	2.51	0.41
17:N:135:ILE:CG2	17:N:142:ILE:HD13	2.50	0.41
49:S2:1545:A:C6	49:S2:1588:A:C5	3.08	0.41
49:S2:1571:G:H2'	49:S2:1572:C:O4'	2.21	0.41
49:S2:1578:U:H6	53:SD:6:SER:HA	1.79	0.41
49:S2:1628:C:H2'	49:S2:1629:C:O4'	2.21	0.41
1:5:4372:U:O2	1:5:4377:G:H1'	2.20	0.41
2:7:56:G:C2'	2:7:57:C:O4'	2.64	0.41
26:W:21:TYR:HB2	26:W:31:PHE:CE2	2.56	0.41
49:S2:1313:A:H2	62:SM:102:LYS:HZ1	1.69	0.41
1:5:3874:G:C5	1:5:3875:G:C8	3.09	0.41
9:F:100:ILE:N	9:F:101:ASN:OD1	2.53	0.41
49:S2:533:A:N1	49:S2:534:G:C5	2.89	0.41
49:S2:476:A:C5	49:S2:477:G:C8	3.08	0.41
1:5:3703:G:C4	1:5:3704:U:C6	3.09	0.41
1:5:3774:A:O2'	1:5:3775:A:N3	2.44	0.41
49:S2:1709:G:C4	49:S2:1710:C:C6	3.09	0.41
49:S2:155:G:C6	49:S2:156:G:C8	3.09	0.41
1:5:2477:A:N1	1:5:2478:C:C4	2.88	0.41
1:5:209:U:O2	1:5:233:U:N3	2.54	0.41
11:H:59:LYS:O	11:H:59:LYS:HE3	2.21	0.41
1:5:2614:C:H1'	1:5:2726:G:N2	2.36	0.41
1:5:2724:G:N1	1:5:2726:G:C6	2.89	0.41
1:5:272:U:O2	1:5:272:U:H2'	2.21	0.41
1:5:3867:A:H2'	1:5:3868:G:C8	2.56	0.41
1:5:1949:U:N3	1:5:1950:U:H5	2.15	0.41
49:S2:834:C:H3'	49:S2:835:C:C4'	2.51	0.41
1:5:4097:G:C2	1:5:4098:A:N9	2.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4100:C:N4	1:5:4101:C:N4	2.69	0.41
15:L:179:PHE:CE1	15:L:183:ARG:HD3	2.56	0.41
2:7:45:U:O3'	7:D:157:ASN:HB2	2.20	0.41
64:SO:150:ARG:CG	64:SO:150:ARG:HH21	2.30	0.41
65:SP:21:ASP:OD1	65:SP:21:ASP:N	2.54	0.41
11:H:96:TYR:CE2	11:H:100:PRO:CA	2.99	0.41
17:N:61:ILE:HD12	17:N:131:GLU:OE2	2.20	0.41
28:Y:18:HIS:C	28:Y:20:ASN:H	2.24	0.41
1:5:2560:C:H2'	1:5:2560:C:O2	2.20	0.41
1:5:1308:C:C2	1:5:1309:C:C6	3.10	0.41
1:5:1782:U:C2	1:5:1783:C:C5	3.09	0.41
2:7:82:G:C2	2:7:95:C:N3	2.89	0.41
1:5:4313:A:C2	1:5:4314:C:N1	2.89	0.41
1:5:3656:A:C2	1:5:3657:U:C4	3.08	0.41
1:5:3747:A:O4'	1:5:3817:A:H2'	2.21	0.41
1:5:2714:G:N2	1:5:2715:G:C5	2.89	0.41
2:7:34:C:H2'	2:7:34:C:O2	2.21	0.41
1:5:431:G:C1'	1:5:3889:G:C2	3.03	0.41
49:S2:431:G:C6	49:S2:432:G:C5	3.09	0.41
1:5:4524:G:N3	1:5:4525:C:C6	2.89	0.41
11:H:55:LEU:HD22	11:H:77:VAL:HG11	2.03	0.41
1:5:511:C:H2'	1:5:512:U:H6	1.86	0.41
53:SD:157:MET:CG	53:SD:159:HIS:CE1	3.01	0.41
10:G:136:LEU:HD21	10:G:204:PHE:HE1	1.82	0.41
64:SO:64:ALA:HB3	64:SO:67:ASP:OD1	2.21	0.41
3:8:63:U:O2	3:8:63:U:C3'	2.69	0.41
1:5:4184:G:N2	1:5:4185:G:H1'	2.36	0.41
1:5:1257:A:C5	1:5:1258:G:C8	3.09	0.41
1:5:324:A:C2'	1:5:325:U:H5'	2.51	0.41
49:S2:569:A:C2	49:S2:570:C:C6	3.09	0.41
50:SA:157:VAL:O	50:SA:158:ASP:C	2.59	0.41
1:5:4946:U:C4	1:5:4947:U:C5	3.09	0.41
6:C:142:HIS:HD2	6:C:249:PHE:HB3	1.85	0.41
1:5:1253:G:N2	1:5:1256:G:C8	2.89	0.41
57:SH:83:LEU:HD12	57:SH:84:GLU:N	2.36	0.41
73:SX:61:GLN:C	73:SX:61:GLN:CD	2.80	0.41
15:L:145:LYS:HG3	15:L:146:LEU:N	2.36	0.41
49:S2:1524:G:N2	49:S2:1525:C:C2	2.89	0.41
3:8:147:G:C2	3:8:148:A:C8	3.09	0.41
11:H:34:LEU:HD21	11:H:150:ASP:OD1	2.21	0.41
49:S2:592:C:O4'	49:S2:592:C:O2	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:71:ARG:CZ	6:C:71:ARG:HB3	2.51	0.41
1:5:4741:C:H2'	1:5:4741:C:O2	2.19	0.41
68:SS:27:ALA:HA	68:SS:41:ALA:HB1	2.02	0.41
73:SX:103:ALA:HB2	73:SX:123:VAL:HG21	2.02	0.41
53:SD:162:ASP:O	53:SD:163:PRO:C	2.60	0.41
1:5:4615:C:H5"	5:B:357:ARG:HD2	2.03	0.41
48:4:578:SER:O	48:4:579:TYR:CG	2.74	0.40
48:4:745:TYR:CB	48:4:813:VAL:O	2.66	0.40
1:5:1212:G:N2	1:5:1213:G:C4	2.89	0.40
1:5:1697:G:H8	9:F:165:ASN:HA	1.86	0.40
1:5:2027:U:H2'	1:5:2028:C:O4'	2.20	0.40
1:5:2264:C:HO2'	1:5:2265:G:H2'	1.82	0.40
1:5:1995:G:H4'	14:K:128:THR:HB	2.02	0.40
14:K:56:LEU:O	14:K:91:ASP:OD1	2.39	0.40
14:K:92:ARG:CG	14:K:95:GLN:OE1	2.68	0.40
9:F:83:PHE:CD2	22:S:62:VAL:HG11	2.56	0.40
49:S2:113:G:N2	49:S2:293:C:C2	2.89	0.40
49:S2:381:C:O2'	49:S2:382:C:C6	2.67	0.40
49:S2:92:A:C2	49:S2:447:A:C2	3.09	0.40
49:S2:1373:C:H4'	67:SR:10:LYS:CE	2.51	0.40
49:S2:1085:C:N4	49:S2:1087:A:H1'	2.34	0.40
49:S2:1700:C:C2	49:S2:1834:A:N6	2.89	0.40
49:S2:1839:U:H2'	49:S2:1840:U:H6	1.85	0.40
49:S2:673:G:C2	49:S2:674:C:C2	3.08	0.40
1:5:1388:A:C6	1:5:1389:U:C2	3.09	0.40
1:5:3740:G:C2	1:5:3741:C:O4'	2.74	0.40
1:5:4125:C:C5	4:A:69:PHE:CD2	3.09	0.40
1:5:4361:U:N3	1:5:4362:A:N7	2.68	0.40
49:S2:949:G:H2'	49:S2:950:C:O4'	2.20	0.40
49:S2:1544:C:O2	66:SQ:76:GLY:HA2	2.21	0.40
49:S2:1545:A:C2	49:S2:1546:G:N1	2.89	0.40
49:S2:1563:G:C2	49:S2:1564:C:C6	3.10	0.40
49:S2:1668:U:H4'	70:SU:77:TRP:CZ3	2.56	0.40
1:5:4269:G:C2	1:5:4270:C:C1'	3.04	0.40
1:5:2791:C:O2	1:5:2792:C:C6	2.74	0.40
1:5:4897:G:C2	1:5:4924:C:C2	3.09	0.40
49:S2:598:G:N1	49:S2:639:C:C4	2.89	0.40
1:5:4997:G:N1	1:5:4998:G:C4	2.89	0.40
1:5:3883:U:O2'	1:5:3884:U:C5'	2.70	0.40
49:S2:536:A:N6	49:S2:547:G:H21	2.19	0.40
48:4:402:VAL:O	48:4:403:PRO:C	2.60	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2498:C:N3	1:5:2499:C:C6	2.83	0.40
4:A:225:ILE:HD12	4:A:233:ARG:CZ	2.50	0.40
3:8:70:G:C2	3:8:87:G:N2	2.89	0.40
3:8:94:G:C4'	3:8:94:G:C8	3.03	0.40
3:8:97:A:C6	3:8:98:C:C4	3.09	0.40
1:5:2688:G:C2	1:5:2689:C:C4	3.08	0.40
1:5:496:G:N1	1:5:658:C:N3	2.69	0.40
1:5:1817:U:C2'	1:5:1818:G:O5'	2.69	0.40
63:SN:87:ASP:OD2	63:SN:125:LEU:HD11	2.22	0.40
49:S2:832:G:C2	49:S2:833:C:C2	3.08	0.40
49:S2:855:G:C5	49:S2:856:C:C5	3.09	0.40
49:S2:975:G:C6	49:S2:976:G:C5	3.09	0.40
3:8:42:G:N2	3:8:43:A:H1'	2.36	0.40
1:5:2046:G:N9	18:O:60:LYS:HD3	2.36	0.40
1:5:2830:G:C2	1:5:2831:G:C5	3.09	0.40
1:5:1634:A:N1	1:5:1635:C:C5	2.88	0.40
1:5:5021:C:C4	1:5:5022:U:C5	3.09	0.40
1:5:4742:G:H2'	1:5:4742:G:N3	2.35	0.40
1:5:4747:C:HO2'	1:5:4748:U:H5'	1.84	0.40
1:5:2664:G:C6	1:5:2665:U:C2	3.09	0.40
49:S2:14:C:C2	49:S2:1198:G:C2	3.09	0.40
48:4:605:LYS:HD2	48:4:705:HIS:NE2	2.36	0.40
1:5:225:G:N3	1:5:243:A:C2	2.89	0.40
1:5:2549:G:C6	1:5:2550:G:C5	3.09	0.40
1:5:231:U:O2'	28:Y:100:HIS:HD2	2.04	0.40
1:5:147:A:H2'	1:5:148:C:C5'	2.51	0.40
49:S2:1757:G:N3	49:S2:1757:G:H2'	2.37	0.40
1:5:4552:U:O2	1:5:4553:A:C8	2.74	0.40
1:5:189:G:N2	1:5:190:G:C8	2.90	0.40
1:5:190:G:N2	1:5:252:C:H1'	2.36	0.40
49:S2:689:U:H2'	49:S2:690:G:O4'	2.21	0.40
15:L:27:ASN:O	15:L:28:GLN:C	2.59	0.40
1:5:4905:C:C4	1:5:4906:C:C5	3.09	0.40
1:5:715:G:N2	1:5:954:C:C2	2.89	0.40
49:S2:1333:U:O2	49:S2:1333:U:H2'	2.20	0.40
49:S2:1621:U:O2'	49:S2:1622:U:H2'	2.21	0.40
49:S2:1378:A:N6	50:SA:106:GLY:N	2.69	0.40
21:R:74:ARG:O	21:R:75:HIS:HB2	2.21	0.40
48:4:470:VAL:CG2	48:4:471:GLY:N	2.82	0.40
59:SJ:39:ASN:CG	59:SJ:40:LYS:N	2.74	0.40
49:S2:62:G:C1'	49:S2:172:U:O2	2.66	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4546:A:N7	4:A:215:ASN:ND2	2.69	0.40
19:P:128:ARG:NH1	19:P:136:ILE:HG21	2.36	0.40
3:8:75:G:C2	3:8:76:C:C2	3.09	0.40
2:7:69:U:O2	2:7:70:G:C8	2.74	0.40
5:B:136:LYS:C	5:B:138:GLN:H	2.24	0.40
1:5:4665:A:C6	1:5:4666:G:C5	3.09	0.40
1:5:2907:G:C2	1:5:3588:C:C2	3.10	0.40
51:SB:137:LEU:HD11	51:SB:176:VAL:HG21	2.02	0.40
21:R:8:LYS:HG3	21:R:22:VAL:CG1	2.50	0.40
57:SH:122:LEU:HD13	57:SH:126:HIS:CD2	2.56	0.40
65:SP:53:GLN:N	65:SP:53:GLN:CD	2.74	0.40
1:5:2838:G:C8	1:5:2838:G:H5"	2.56	0.40
10:G:32:PHE:CD1	10:G:32:PHE:N	2.89	0.40
10:G:32:PHE:CD2	29:Z:55:ALA:HB2	2.56	0.40
65:SP:60:LEU:HD13	65:SP:89:MET:HG2	2.04	0.40
52:SC:65:LYS:HB2	52:SC:273:LEU:HD22	2.02	0.40
1:5:2618:G:C6	1:5:2619:G:N7	2.88	0.40
75:SZ:63:PRO:HA	75:SZ:112:ASN:OD1	2.21	0.40
56:SG:156:TYR:CD1	56:SG:156:TYR:N	2.89	0.40
68:SS:117:ILE:O	68:SS:119:ALA:N	2.55	0.40
6:C:288:ASP:OD2	6:C:291:ARG:HB3	2.21	0.40
1:5:349:A:H2'	1:5:349:A:O5'	2.21	0.40
1:5:2470:C:C6	1:5:2470:C:C3'	3.04	0.40
28:Y:8:THR:O	28:Y:9:SER:CB	2.69	0.40
49:S2:390:C:C2	49:S2:391:C:C6	3.09	0.40
5:B:195:ASP:O	5:B:196:TRP:HB2	2.21	0.40
57:SH:148:LEU:HD23	57:SH:148:LEU:O	2.21	0.40
6:C:339:THR:HA	6:C:342:ARG:HB3	2.03	0.40
48:4:112:SER:C	48:4:115:VAL:H	2.20	0.40
1:5:1072:C:H2'	1:5:1072:C:O2	2.21	0.40
1:5:1074:G:C2'	1:5:1075:G:O4'	2.64	0.40
1:5:1219:G:C2	1:5:1220:G:C4	3.09	0.40
1:5:1619:G:C2'	1:5:1620:U:O5'	2.69	0.40
1:5:1899:G:C4	1:5:1900:C:H5	2.34	0.40
1:5:1995:G:C6	1:5:1996:C:N4	2.89	0.40
1:5:2008:U:H1'	1:5:2011:C:H5	1.86	0.40
1:5:2088:A:N1	1:5:2268:A:O2'	2.40	0.40
1:5:2290:C:C4	1:5:2291:G:N7	2.90	0.40
1:5:2326:G:C2	1:5:2327:G:C4	3.10	0.40
1:5:2327:G:N2	1:5:2328:G:C8	2.88	0.40
1:5:468:U:O2'	1:5:469:C:H4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:471:A:N1	1:5:472:C:N1	2.69	0.40
1:5:4164:C:H4'	10:G:53:ARG:O	2.21	0.40
1:5:963:G:O3'	21:R:107:ARG:NH2	174.06	0.40
49:S2:161:U:C6	74:SY:116:LYS:HA	2.56	0.40
48:4:692:LEU:N	48:4:692:LEU:CD2	2.84	0.40
48:4:568:ILE:HG23	48:4:569:PRO:HD2	2.04	0.40
48:4:650:TRP:CZ3	48:4:679:VAL:HG11	2.57	0.40
49:S2:143:U:H1'	49:S2:144:U:C5	2.56	0.40
49:S2:143:U:H1'	49:S2:144:U:H5	1.86	0.40
49:S2:1745:A:C4	49:S2:1790:A:C2	3.10	0.40
49:S2:309:G:N2	49:S2:310:C:N1	2.69	0.40
49:S2:1840:U:C4	49:S2:1841:C:H5	2.36	0.40
1:5:1377:G:C8	1:5:1378:C:C5'	3.04	0.40
1:5:1380:G:H1'	1:5:1381:U:H3	1.87	0.40
1:5:1475:G:N2	1:5:1489:G:N1	2.59	0.40
1:5:3738:G:C8	1:5:3738:G:C3'	3.04	0.40
1:5:3894:A:C4'	1:5:4979:A:N1	2.84	0.40
1:5:98:A:N7	1:5:99:A:C8	2.90	0.40
1:5:4981:G:H1'	19:P:69:ARG:HH11	1.85	0.40
49:S2:954:U:N3	49:S2:971:G:N2	2.69	0.40
1:5:3858:C:N3	1:5:3859:G:N9	2.69	0.40
49:S2:1324:G:C2'	49:S2:1510:G:HO2'	2.20	0.40
49:S2:1285:G:H3'	49:S2:1286:G:H5'	2.03	0.40
49:S2:1304:U:C2'	49:S2:1304:U:O2	2.69	0.40
1:5:4997:G:C6	1:5:4998:G:C8	3.10	0.40
1:5:5043:A:H2'	1:5:5044:A:O5'	2.21	0.40
1:5:1886:G:C6	1:5:1887:G:C8	3.09	0.40
1:5:3772:U:C2	1:5:3773:U:C5	3.10	0.40
1:5:3636:C:N4	1:5:3637:U:C5	2.88	0.40
1:5:4534:G:C2	1:5:4535:A:H1'	2.57	0.40
4:A:209:HIS:CD2	4:A:210:PRO:HD2	2.57	0.40
3:8:123:U:O2	3:8:125:C:O2	2.38	0.40
1:5:2843:U:N3	1:5:2844:A:C5	2.89	0.40
49:S2:999:G:N2	49:S2:1000:C:C1'	2.85	0.40
1:5:4518:A:OP2	5:B:258:HIS:HB2	2.21	0.40
1:5:2034:G:H1'	22:S:116:ARG:O	2.21	0.40
1:5:4096:C:N4	1:5:4097:G:N9	2.70	0.40
1:5:4101:C:C2	1:5:4102:C:C6	3.09	0.40
49:S2:855:G:C6	49:S2:856:C:C5	3.10	0.40
49:S2:957:A:C2	49:S2:967:C:C2	3.08	0.40
11:H:31:ARG:NE	11:H:87:GLY:HA3	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:138:G:H3'	1:5:139:G:H5'	2.02	0.40
49:S2:1063:C:C2'	49:S2:1838:U:C4	3.04	0.40
1:5:4752:U:C2	1:5:4948:C:N3	2.90	0.40
49:S2:849:A:C2'	49:S2:850:C:O5'	2.69	0.40
1:5:1601:A:C5	1:5:3643:A:O4'	2.74	0.40
49:S2:878:G:O6	49:S2:908:A:N1	2.54	0.40
1:5:1098:G:C4	1:5:1099:C:C6	3.09	0.40
1:5:4683:U:C2'	1:5:4684:A:O5'	2.70	0.40
1:5:4933:C:OP1	1:5:4933:C:H4'	2.21	0.40
1:5:2559:G:C4	1:5:2560:C:C6	3.09	0.40
1:5:938:C:C2	1:5:939:G:C8	3.10	0.40
1:5:4628:U:C2	1:5:4629:U:H5	2.36	0.40
49:S2:1757:G:C2	49:S2:1758:G:N7	2.89	0.40
49:S2:188:C:C4	49:S2:189:U:C5	3.09	0.40
1:5:4333:C:N3	1:5:4334:U:O4	2.54	0.40
2:7:110:G:C5	2:7:111:C:C5	3.09	0.40
23:T:19:PHE:O	23:T:21:LYS:HG3	2.20	0.40
1:5:3848:U:O2	1:5:3849:A:C8	2.74	0.40
1:5:4737:G:C8	1:5:4737:G:H5'	2.55	0.40
49:S2:1383:A:N1	49:S2:1384:C:C4	2.89	0.40
25:V:48:ARG:HD2	25:V:51:ARG:HH22	1.86	0.40
54:SE:67:GLN:HG2	54:SE:69:PHE:CE2	2.56	0.40
13:J:165:TRP:CH2	13:J:169:LYS:HG2	2.56	0.40
53:SD:22:ASN:C	53:SD:22:ASN:ND2	2.74	0.40
1:5:4381:A:C6	1:5:4382:G:N7	2.89	0.40
49:S2:936:G:C5	49:S2:937:C:C5	3.10	0.40
12:I:106:ALA:HB1	12:I:109:ASP:HA	2.03	0.40
74:SY:56:PHE:HE1	74:SY:94:HIS:CE1	2.39	0.40
59:SJ:108:ARG:HE	59:SJ:108:ARG:HA	1.85	0.40
52:SC:233:LEU:O	52:SC:234:GLY:C	2.60	0.40
23:T:43:LYS:CG	23:T:58:HIS:HE1	2.35	0.40
51:SB:136:ARG:NH2	51:SB:218:LEU:HD11	2.35	0.40
49:S2:39:A:N3	49:S2:39:A:H2'	2.36	0.40
4:A:9:ARG:NE	4:A:9:ARG:HA	5.12	0.40
1:5:1494:U:O2	1:5:1495:G:C8	2.73	0.40
55:SF:98:GLU:O	55:SF:102:LEU:HG	2.22	0.40
6:C:130:ALA:HB3	6:C:246:VAL:CG1	2.51	0.40
53:SD:213:PRO:O	53:SD:215:ASP:N	2.54	0.40
5:B:393:LYS:O	5:B:395:ASP:N	2.53	0.40
48:4:42:LYS:HA	48:4:42:LYS:HD2	1.79	0.40
48:4:752:PRO:HB3	48:4:780:PRO:CA	2.48	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:4:745:TYR:CD2	48:4:813:VAL:O	2.70	0.40
1:5:1617:G:N3	1:5:1618:G:C8	2.90	0.40
1:5:1843:A:N1	1:5:1844:G:N7	2.70	0.40
1:5:1994:C:C4	1:5:1995:G:N7	2.89	0.40
1:5:2076:G:C4	1:5:2077:C:C6	3.10	0.40
1:5:2101:C:N3	1:5:2102:G:N7	2.70	0.40
1:5:2515:G:C5	1:5:2516:G:N7	2.89	0.40
1:5:4074:C:O2'	1:5:4075:U:C5'	2.69	0.40
1:5:4079:C:O2	1:5:4080:C:C6	2.75	0.40
1:5:4166:G:C6	1:5:4167:G:C5	3.09	0.40
1:5:4608:G:C4	1:5:4609:G:C8	3.09	0.40
1:5:979:C:C6	1:5:979:C:OP2	2.74	0.40
1:5:988:C:C4	1:5:989:U:C4	3.09	0.40
49:S2:427:U:H2'	49:S2:427:U:O2	2.21	0.40
22:S:62:VAL:HG13	23:T:141:VAL:HG21	2.03	0.40
49:S2:461:U:H2'	49:S2:462:C:H6	1.87	0.40
49:S2:1447:G:C6	49:S2:1448:A:C5	3.09	0.40
49:S2:217:A:H1'	49:S2:309:G:N1	2.36	0.40
49:S2:223:C:C2	49:S2:224:A:N7	2.89	0.40
49:S2:299:A:C5	49:S2:300:U:C5	3.09	0.40
49:S2:377:G:C4	49:S2:378:U:C5	3.09	0.40
49:S2:81:U:C5	49:S2:82:G:C8	3.08	0.40
17:N:3:ALA:HB3	49:S2:1842:C:OP1	117.51	0.40
5:B:175:GLN:NE2	5:B:179:HIS:HE1	2.14	0.40
48:4:267:ASP:OD1	48:4:268:PRO:HD2	2.22	0.40
74:SY:86:GLU:OE2	74:SY:86:GLU:CG	2.68	0.40
7:D:278:ASP:O	7:D:280:VAL:C	2.60	0.40
49:S2:1431:G:C2	49:S2:1432:U:C6	3.09	0.40
49:S2:1435:C:C4	49:S2:1436:C:C4	3.10	0.40
49:S2:1231:C:C3'	49:S2:1232:U:H6	2.35	0.40
49:S2:1234:C:N3	49:S2:1235:G:C8	2.89	0.40
49:S2:1323:U:O2'	49:S2:1324:G:O4'	2.25	0.40
49:S2:1526:G:H2'	49:S2:1527:C:O4'	2.21	0.40
49:S2:1553:C:H5'	49:S2:1556:A:N6	2.37	0.40
49:S2:1588:A:C2	49:S2:1589:A:N1	2.90	0.40
1:5:4278:C:H2'	1:5:4278:C:O2	2.21	0.40
49:S2:1032:C:N4	49:S2:1033:G:C6	2.89	0.40
2:7:18:C:H42	2:7:19:C:H41	1.69	0.40
49:S2:29:G:N3	49:S2:30:C:C6	2.90	0.40
49:S2:598:G:C2	49:S2:639:C:C2	3.07	0.40
49:S2:1310:U:OP1	62:SM:40:LYS:HG2	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:534:G:N3	49:S2:535:G:C8	2.89	0.40
49:S2:555:A:C2	49:S2:557:U:C4	3.10	0.40
1:5:3751:G:N2	1:5:3775:A:H8	2.17	0.40
56:SG:110:ASN:N	56:SG:110:ASN:HD22	2.19	0.40
48:4:409:ARG:C	48:4:410:PHE:CD1	2.94	0.40
1:5:2408:U:O4'	1:5:2409:U:C4	2.74	0.40
49:S2:793:G:C2	49:S2:794:A:C1'	3.05	0.40
1:5:1627:G:C2	1:5:1628:C:H1'	2.56	0.40
1:5:209:U:N3	1:5:211:G:C8	2.88	0.40
3:8:70:G:C6	3:8:87:G:C6	3.09	0.40
1:5:167:C:N1	1:5:269:G:N2	2.69	0.40
49:S2:1123:C:C2'	51:SB:148:ASN:ND2	2.81	0.40
1:5:1949:U:O2	1:5:1949:U:C2'	2.69	0.40
49:S2:1004:U:C2	49:S2:1005:G:N7	2.90	0.40
1:5:1337:A:C2	1:5:1658:G:N3	2.87	0.40
1:5:2833:A:C2'	1:5:2834:C:O5'	2.69	0.40
1:5:2590:G:H2'	1:5:2755:A:N6	2.36	0.40
1:5:248:C:N3	1:5:249:C:C5	2.89	0.40
1:5:1408:G:C2'	1:5:1411:C:H41	2.35	0.40
1:5:1742:A:H2	1:5:1743:A:N7	2.18	0.40
1:5:1811:G:C6	1:5:1812:C:C5	3.09	0.40
1:5:731:G:N1	1:5:732:A:H1'	2.36	0.40
1:5:3621:A:H3'	1:5:3622:C:C6	2.57	0.40
1:5:1764:G:C5	1:5:1766:A:OP2	2.73	0.40
1:5:4489:G:N3	1:5:4490:C:C6	2.89	0.40
1:5:4901:G:N1	1:5:4921:C:C4	2.90	0.40
49:S2:827:A:C4	49:S2:828:G:C8	3.10	0.40
3:8:106:G:C4	3:8:107:C:C5	3.09	0.40
49:S2:429:C:C2	49:S2:430:C:C6	3.09	0.40
1:5:12:A:C6	1:5:14:C:N4	2.89	0.40
1:5:925:C:C4	1:5:926:G:N7	2.89	0.40
1:5:931:C:C5	1:5:932:A:N7	2.89	0.40
2:7:11:A:N6	7:D:16:TYR:O	2.49	0.40
1:5:2384:U:H2'	1:5:2385:U:C6	2.57	0.40
1:5:4586:G:H5"	1:5:4586:G:H8	1.87	0.40
49:S2:1584:G:C4	49:S2:1586:U:O4'	2.74	0.40
66:SQ:109:LYS:CG	66:SQ:113:ILE:HD12	2.52	0.40
49:S2:421:G:H2'	49:S2:422:U:C6	2.57	0.40
1:5:3930:U:N3	1:5:3931:C:C5	2.90	0.40
1:5:226:G:C4	1:5:236:G:C8	3.09	0.40
61:SL:2:ALA:O	61:SL:3:ASP:CB	2.70	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:4959:U:O2	1:5:4959:U:H2'	2.21	0.40
1:5:410:A:N3	1:5:410:A:H2'	2.36	0.40
60:SK:39:ASN:N	60:SK:39:ASN:HD22	2.19	0.40
6:C:85:HIS:N	6:C:85:HIS:CD2	2.89	0.40
48:4:431:GLY:H	48:4:441:ASP:HB3	1.86	0.40
25:V:38:TYR:CB	25:V:66:LYS:HD3	2.51	0.40
58:SI:74:ARG:HB3	58:SI:108:PRO:HB2	2.02	0.40
10:G:164:ILE:O	10:G:168:VAL:HG23	2.21	0.40
48:4:279:SER:OG	48:4:280:PRO:HD2	2.22	0.40
48:4:150:ARG:HA	48:4:200:MET:CE	2.47	0.40
1:5:1243:C:O2'	1:5:1244:G:C8	2.66	0.40
1:5:1867:A:O2'	1:5:1868:A:C5'	2.69	0.40
1:5:1870:C:C4	1:5:1871:A:N7	2.89	0.40
1:5:1983:A:H62	1:5:1987:C:H5'	1.86	0.40
1:5:2108:G:H2'	1:5:2109:G:C4'	2.49	0.40
1:5:2453:A:C5	1:5:2507:A:C8	3.09	0.40
1:5:986:C:N3	1:5:987:C:C5	2.90	0.40
48:4:672:LEU:O	48:4:676:LYS:HB2	2.22	0.40
49:S2:1795:G:C2	49:S2:1796:G:C5	3.10	0.40
49:S2:61:A:H2	49:S2:334:C:H2'	1.87	0.40
49:S2:1034:A:C2	49:S2:1082:A:C2	3.09	0.40
49:S2:1835:A:C8	49:S2:1835:A:H5'	2.57	0.40
49:S2:1839:U:O2	49:S2:1840:U:N1	2.54	0.40
49:S2:1860:A:C6	49:S2:1862:G:C6	3.10	0.40
48:4:254:GLU:HA	48:4:257:MET:HE3	2.04	0.40
48:4:126:LEU:CD1	48:4:353:MET:HE1	2.52	0.40
1:5:101:A:N1	1:5:102:G:C8	2.90	0.40
1:5:1358:G:C8	1:5:1358:G:H3'	2.57	0.40
1:5:297:U:H2'	1:5:298:G:O4'	2.21	0.40
1:5:3683:C:O3'	4:A:174:ARG:NH2	2.55	0.40
1:5:4344:U:C2	1:5:4345:C:H5	2.30	0.40
1:5:4975:G:C6	1:5:4977:A:C6	3.08	0.40
1:5:4978:G:HO2'	1:5:4979:A:H3'	1.86	0.40
2:7:62:U:C5'	7:D:279:ARG:HH12	2.35	0.40
49:S2:1407:U:C3'	49:S2:1408:U:C6	3.04	0.40
49:S2:1410:C:C4	49:S2:1411:G:N7	2.90	0.40
49:S2:1228:A:C6	49:S2:1531:A:N1	2.89	0.40
49:S2:1508:A:C6	49:S2:1510:G:C1'	3.04	0.40
49:S2:1545:A:N6	49:S2:1588:A:N3	2.70	0.40
49:S2:1559:C:C2	49:S2:1577:G:C2	3.09	0.40
49:S2:1654:G:N2	49:S2:1671:G:C2	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:1603:G:C8	68:SS:28:PHE:CE2	3.00	0.40
1:5:4237:C:O2'	1:5:4326:G:N2	2.53	0.40
1:5:4308:C:C2	1:5:4309:G:C8	3.09	0.40
49:S2:675:U:O2	49:S2:676:C:C6	2.75	0.40
2:7:48:G:O2'	7:D:222:GLN:O	2.36	0.40
1:5:4212:A:N6	1:5:4218:U:H2'	2.36	0.40
73:SX:115:ILE:HG22	73:SX:118:VAL:CB	2.47	0.40
49:S2:1280:G:H5'	62:SM:96:ARG:CG	2.51	0.40
1:5:5042:A:C6	1:5:5043:A:C6	3.10	0.40
1:5:1327:C:H2'	1:5:1328:G:C8	2.56	0.40
1:5:1320:U:H1'	1:5:1856:C:O4'	2.22	0.40
1:5:3879:G:N1	1:5:3882:C:C5	2.86	0.40
9:F:100:ILE:HG21	20:Q:4:ASP:CG	2.41	0.40
49:S2:554:A:C2	49:S2:555:A:C8	3.09	0.40
49:S2:54:A:C2	49:S2:451:G:C4	3.09	0.40
48:4:297:ILE:HG23	48:4:301:PHE:HE1	1.85	0.40
1:5:2483:G:N1	1:5:2484:A:C5	2.89	0.40
1:5:3699:C:H2'	1:5:3699:C:O2	2.20	0.40
1:5:4540:C:C2	1:5:4541:G:C8	3.10	0.40
3:8:82:A:C5	3:8:83:C:H5"	2.57	0.40
1:5:487:G:C2	1:5:488:G:C4	3.09	0.40
1:5:504:G:N3	1:5:505:G:C8	2.90	0.40
1:5:2045:G:O6	1:5:3870:C:O2'	2.39	0.40
1:5:4562:C:O2	1:5:4562:C:C2'	2.69	0.40
49:S2:1018:U:C2	49:S2:1019:C:C6	2.98	0.40
49:S2:1121:G:N2	49:S2:1122:A:H1'	2.37	0.40
51:SB:201:CYS:HB2	51:SB:207:LEU:HD12	2.03	0.40
1:5:4198:G:N3	1:5:4198:G:H2'	2.37	0.40
49:S2:834:C:C2	49:S2:841:G:N2	2.89	0.40
1:5:4099:G:N3	1:5:4100:C:C6	2.89	0.40
3:8:99:U:O2	3:8:100:U:C6	2.74	0.40
1:5:2830:G:N1	1:5:2831:G:C5	2.89	0.40
1:5:3639:U:H2'	1:5:3640:U:O4'	2.22	0.40
1:5:5028:G:N1	1:5:5029:C:C4	2.90	0.40
49:S2:848:U:C2'	49:S2:849:A:C8	2.98	0.40
1:5:4476:C:C6	11:H:171:ASP:OD2	2.75	0.40
1:5:4966:A:H2'	1:5:4967:A:C8	2.56	0.40
1:5:3801:U:O2'	1:5:3802:U:O5'	2.38	0.40
1:5:1205:G:N3	1:5:1206:C:C6	2.89	0.40
1:5:753:C:C4	1:5:754:U:H5	2.33	0.40
1:5:4697:U:C5'	1:5:4698:C:OP2	2.70	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1310:C:C2'	1:5:1310:C:O2	2.69	0.40
1:5:1811:G:N3	1:5:1812:C:C5	2.89	0.40
1:5:5063:G:N2	1:5:5064:G:C4	2.89	0.40
49:S2:1259:A:N1	49:S2:1519:U:C5	2.90	0.40
53:SD:21:LEU:HD13	53:SD:48:ILE:HD12	2.03	0.40
1:5:2396:A:O4'	1:5:2396:A:N3	2.54	0.40
1:5:3945:A:C2	1:5:3946:G:N7	2.90	0.40
1:5:2634:C:O2	1:5:2635:U:C6	2.74	0.40
1:5:1397:A:H2	1:5:1498:G:N3	2.18	0.40
49:S2:1246:A:C2	49:S2:1251:A:N3	2.89	0.40
1:5:4739:C:C2	1:5:4961:G:C2	3.09	0.40
49:S2:690:G:C2	49:S2:691:G:C8	3.10	0.40
1:5:1349:G:N3	1:5:1350:C:C6	2.90	0.40
49:S2:563:G:O2'	49:S2:564:A:C5'	2.69	0.40
17:N:180:PHE:CD2	17:N:180:PHE:N	2.89	0.40
18:O:36:VAL:CG1	18:O:108:ILE:HB	2.52	0.40
1:5:4501:U:C4	1:5:4502:C:C1'	3.04	0.40
52:SC:170:TRP:HZ3	72:SW:97:ARG:HH11	1.69	0.40
1:5:4900:C:H4'	1:5:4901:G:OP2	2.22	0.40
1:5:642:G:C2	1:5:643:C:C2	3.09	0.40
1:5:3644:U:H2'	1:5:3645:U:H5'	2.03	0.40
49:S2:827:A:N7	49:S2:828:G:N7	2.69	0.40
49:S2:522:A:N1	49:S2:643:A:C5'	2.84	0.40
49:S2:403:G:N1	49:S2:404:G:C5	2.89	0.40
8:E:277:ILE:HD11	8:E:282:LEU:HD22	2.04	0.40
29:Z:76:ASN:HB3	29:Z:78:ASN:H	1.86	0.40
10:G:231:ASN:HD22	10:G:231:ASN:H	1.64	0.40
1:5:2244:C:N3	1:5:2245:G:N7	2.70	0.40
1:5:1645:C:H2'	1:5:1646:A:H8	1.85	0.40
1:5:4139:G:C5	1:5:4140:C:C5	3.09	0.40
1:5:1258:G:N2	1:5:1259:G:C4	2.90	0.40
49:S2:939:U:C2	49:S2:940:U:C5	3.09	0.40
59:SJ:48:PHE:C	59:SJ:48:PHE:CD2	2.94	0.40
9:F:202:ARG:N	9:F:202:ARG:CD	2.85	0.40
1:5:1941:A:C2'	1:5:1942:A:O5'	2.70	0.40
1:5:133:C:C2'	1:5:133:C:O2	2.69	0.40
9:F:203:PHE:O	9:F:204:LYS:C	2.59	0.40
1:5:2677:G:N3	1:5:2677:G:H2'	2.36	0.40
49:S2:410:G:C2	49:S2:411:G:C4	3.09	0.40
56:SG:153:VAL:O	56:SG:154:ARG:C	2.60	0.40
1:5:1400:G:C2	1:5:1418:C:O2	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:SJ:158:ASP:OD1	59:SJ:159:PHE:N	2.55	0.40
23:T:144:ASN:N	23:T:144:ASN:OD1	2.54	0.40
16:M:34:ASN:N	16:M:34:ASN:ND2	2.69	0.40
1:5:4645:C:H2'	1:5:4645:C:O2	2.21	0.40
5:B:213:GLN:C	5:B:214:ASP:OD1	2.60	0.40
1:5:3682:A:C2	4:A:152:SER:HB3	2.57	0.40
1:5:1453:G:N1	1:5:1454:G:C5	2.89	0.40
1:5:1065:G:N1	1:5:1066:G:C5	2.90	0.40
1:5:1234:G:C3'	1:5:1235:G:H8	2.33	0.40
1:5:1280:C:C4	1:5:1282:G:C6	3.05	0.40
1:5:1571:G:C4	1:5:1572:U:C6	3.10	0.40
1:5:1970:A:C2	1:5:2016:C:C4	3.10	0.40
1:5:2089:G:HO2'	1:5:2090:U:P	2.45	0.40
1:5:1447:C:N3	1:5:2098:G:C6	2.89	0.40
1:5:2107:C:O2	1:5:2107:C:C2'	2.66	0.40
1:5:2263:A:H5"	1:5:2263:A:C8	2.56	0.40
1:5:2294:G:C5	1:5:2295:C:C5	3.10	0.40
1:5:2326:G:H2'	1:5:2326:G:N3	2.36	0.40
1:5:2467:U:H5"	1:5:2468:U:OP1	2.22	0.40
1:5:447:C:O2	1:5:448:G:C8	2.74	0.40
1:5:993:G:C6	1:5:994:G:N7	2.89	0.40
1:5:2090:U:C1'	6:C:305:PRO:HG2	2.51	0.40
1:5:1724:G:N2	9:F:105:PRO:CB	2.76	0.40
9:F:32:ILE:HD12	9:F:32:ILE:N	2.36	0.40
9:F:71:ILE:O	9:F:73:MET:N	2.54	0.40
14:K:147:HIS:HB2	14:K:149:HIS:HB2	1.39	0.40
20:Q:33:ARG:O	20:Q:34:PHE:C	2.59	0.40
49:S2:1459:G:C2	49:S2:1460:C:N1	2.90	0.40
49:S2:289:G:C2	49:S2:295:C:O2	2.75	0.40
49:S2:376:A:C2	49:S2:377:G:C1'	3.05	0.40
49:S2:380:G:N2	49:S2:382:C:C2'	2.85	0.40
49:S2:384:U:C3'	49:S2:384:U:C6	3.05	0.40
49:S2:1847:G:N2	49:S2:1853:C:C2	2.89	0.40
4:A:189:TYR:HA	4:A:192:LYS:HG3	2.03	0.40
1:5:1169:G:C4	1:5:1170:G:C8	3.10	0.40
49:S2:947:G:C2	49:S2:948:C:N1	2.89	0.40
49:S2:1406:G:C4	49:S2:1407:U:C6	3.09	0.40
49:S2:1427:C:H2'	49:S2:1428:G:C8	2.55	0.40
49:S2:1541:G:N3	49:S2:1542:C:C5	2.89	0.40
49:S2:1588:A:C6	49:S2:1589:A:N6	2.90	0.40
1:5:4287:G:C5	1:5:4288:C:C4	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:8:13:G:N2	3:8:14:U:C2	2.90	0.40
2:7:27:G:C4	2:7:28:C:C6	3.10	0.40
49:S2:1134:G:C6	49:S2:1135:C:N4	2.90	0.40
49:S2:1648:G:C2	49:S2:1674:G:N7	2.90	0.40
49:S2:1277:C:H5"	60:SK:51:SER:HB2	2.03	0.40
62:SM:51:VAL:CG1	62:SM:85:LEU:HD21	2.51	0.40
7:D:111:ASN:HD22	7:D:111:ASN:C	2.24	0.40
49:S2:552:G:C2	49:S2:553:U:N3	2.90	0.40
1:5:3759:A:O2'	49:S2:1826:G:C2'	2.68	0.40
1:5:2480:G:C2	1:5:2481:G:C4	3.09	0.40
4:A:5:ILE:HG23	4:A:8:GLN:HG2	2.02	0.40
1:5:497:G:N2	1:5:657:C:N3	2.65	0.40
49:S2:999:G:H21	49:S2:1000:C:H1'	1.85	0.40
7:D:31:TYR:CD1	7:D:35:ARG:NH2	2.90	0.40
49:S2:1015:U:O2'	63:SN:55:ARG:NH2	2.55	0.40
49:S2:926:A:N1	49:S2:927:C:C4	2.89	0.40
1:5:1927:U:H5'	1:5:2034:G:N2	2.36	0.40
1:5:44:A:C4	1:5:45:U:C6	3.10	0.40
49:S2:1100:A:C4	49:S2:1101:U:C5	3.10	0.40
49:S2:1002:U:N3	49:S2:1003:U:C5	2.90	0.40
49:S2:979:C:C2'	49:S2:979:C:O2	2.69	0.40
49:S2:984:C:O2	64:SO:138:ASP:OD2	2.40	0.40
1:5:4582:C:OP2	5:B:28:LYS:NZ	2.36	0.40
1:5:1334:A:C2	1:5:1335:G:C8	3.09	0.40
1:5:1337:A:H4'	6:C:102:PHE:CE2	2.56	0.40
6:C:102:PHE:HD1	6:C:103:ALA:N	2.19	0.40
11:H:16:VAL:HG21	11:H:81:ILE:HG23	2.04	0.40
1:5:1634:A:N1	1:5:1635:C:N3	2.69	0.40
1:5:5022:U:C5	1:5:5024:C:C4	3.10	0.40
1:5:4498:U:N3	1:5:4500:U:O5'	2.51	0.40
49:S2:878:G:O6	49:S2:908:A:C2	2.75	0.40
1:5:1098:G:H2'	1:5:1099:C:H6	1.86	0.40
1:5:907:C:C4	1:5:908:G:N7	2.90	0.40
1:5:229:G:H5"	28:Y:11:ARG:NH1	2.37	0.40
1:5:151:G:O6	10:G:141:ASN:ND2	2.54	0.40
1:5:1965:G:C5	1:5:1966:C:C5	3.10	0.40
49:S2:1757:G:C2	49:S2:1758:G:C5	3.09	0.40
49:S2:582:C:O2	49:S2:582:C:C2'	2.69	0.40
49:S2:656:G:H5'	49:S2:662:G:H22	1.85	0.40
1:5:183:C:O2	1:5:189:G:C6	2.74	0.40
48:4:228:PHE:CD1	48:4:232:TYR:CZ	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:722:G:H2'	1:5:723:A:C8	2.57	0.40
1:5:238:C:O2'	1:5:239:C:H5'	2.22	0.40
1:5:4143:G:N7	1:5:4145:C:C4	2.89	0.40
69:ST:51:ASN:N	69:ST:51:ASN:OD1	2.55	0.40
1:5:2821:U:H2'	1:5:2822:G:O4'	2.22	0.40
1:5:440:U:H2'	1:5:440:U:O2	2.22	0.40
22:S:94:TYR:CZ	22:S:96:GLU:HG3	2.56	0.40
48:4:597:ASN:HD22	48:4:597:ASN:HA	1.66	0.40
1:5:509:A:H3'	1:5:510:U:C5'	2.52	0.40
49:S2:1330:G:C2	49:S2:1333:U:O4	2.75	0.40
49:S2:1501:C:O2	49:S2:1502:C:C6	2.75	0.40
1:5:4456:C:O2	1:5:4456:C:C2'	2.69	0.40
25:V:57:VAL:HG23	25:V:84:GLN:CG	2.45	0.40
9:F:219:ARG:NH1	9:F:219:ARG:HB3	2.34	0.40
1:5:932:A:N3	1:5:932:A:C2'	2.85	0.40
50:SA:55:TRP:HE1	50:SA:59:LEU:HG	1.86	0.40
25:V:77:HIS:ND1	25:V:77:HIS:C	2.75	0.40
2:7:11:A:C8	7:D:18:VAL:CG1	3.03	0.40
57:SH:158:LEU:HB2	57:SH:189:PHE:CE1	2.56	0.40
49:S2:1335:G:H2'	49:S2:1336:C:O4'	2.22	0.40
2:7:117:G:C4	2:7:118:C:C5	3.09	0.40
10:G:166:LEU:HD23	17:N:7:ILE:HD13	2.02	0.40
1:5:2312:U:O2	1:5:2312:U:C2'	2.65	0.40
74:SY:12:PHE:CZ	74:SY:21:LYS:HB3	2.56	0.40
5:B:379:PHE:HE2	5:B:385:LYS:HG3	1.87	0.40
58:SI:129:LEU:O	58:SI:133:GLU:HB2	2.22	0.40
59:SJ:159:PHE:CZ	59:SJ:165:TYR:CD2	3.10	0.40
1:5:4680:G:C2	1:5:4681:A:C5	3.09	0.40
18:O:46:ASN:O	18:O:47:PHE:C	2.58	0.40
6:C:11:TYR:HE2	6:C:148:PRO:HG2	1.86	0.40
64:SO:114:SER:HA	64:SO:117:ARG:HB3	2.04	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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
4	A	242/257 (94%)	203 (84%)	30 (12%)	9 (4%)	4 36
5	B	392/394 (100%)	319 (81%)	40 (10%)	33 (8%)	1 13
6	C	365/367 (100%)	304 (83%)	46 (13%)	15 (4%)	3 33
7	D	290/297 (98%)	235 (81%)	33 (11%)	22 (8%)	1 15
8	E	232/236 (98%)	150 (65%)	51 (22%)	31 (13%)	0 5
9	F	223/225 (99%)	190 (85%)	23 (10%)	10 (4%)	3 30
10	G	239/266 (90%)	200 (84%)	32 (13%)	7 (3%)	6 42
11	H	188/192 (98%)	164 (87%)	20 (11%)	4 (2%)	9 50
12	I	211/213 (99%)	166 (79%)	31 (15%)	14 (7%)	1 19
13	J	168/178 (94%)	137 (82%)	23 (14%)	8 (5%)	3 28
14	K	147/163 (90%)	83 (56%)	31 (21%)	33 (22%)	0 1
15	L	208/211 (99%)	172 (83%)	25 (12%)	11 (5%)	2 25
16	M	136/213 (64%)	118 (87%)	16 (12%)	2 (2%)	13 56
17	N	201/204 (98%)	172 (86%)	23 (11%)	6 (3%)	5 42
18	O	199/204 (98%)	182 (92%)	14 (7%)	3 (2%)	13 56
19	P	151/153 (99%)	140 (93%)	9 (6%)	2 (1%)	15 60
20	Q	185/188 (98%)	160 (86%)	20 (11%)	5 (3%)	6 44
21	R	178/196 (91%)	153 (86%)	21 (12%)	4 (2%)	8 49
22	S	173/224 (77%)	146 (84%)	24 (14%)	3 (2%)	11 54
23	T	157/160 (98%)	128 (82%)	26 (17%)	3 (2%)	10 51
24	U	97/128 (76%)	74 (76%)	21 (22%)	2 (2%)	9 50
25	V	129/140 (92%)	112 (87%)	14 (11%)	3 (2%)	8 48
26	W	61/157 (39%)	57 (93%)	3 (5%)	1 (2%)	12 55
27	X	117/156 (75%)	108 (92%)	7 (6%)	2 (2%)	11 54
28	Y	132/145 (91%)	112 (85%)	14 (11%)	6 (4%)	3 30
29	Z	133/136 (98%)	113 (85%)	15 (11%)	5 (4%)	4 35
30	a	145/148 (98%)	111 (77%)	26 (18%)	8 (6%)	2 24
31	b	73/160 (46%)	58 (80%)	11 (15%)	4 (6%)	2 24
32	c	92/115 (80%)	78 (85%)	10 (11%)	4 (4%)	3 31
33	d	105/125 (84%)	85 (81%)	16 (15%)	4 (4%)	4 35

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
34	e	126/135 (93%)	110 (87%)	15 (12%)	1 (1%)	24 70
35	f	107/110 (97%)	95 (89%)	7 (6%)	5 (5%)	3 29
36	g	112/117 (96%)	103 (92%)	7 (6%)	2 (2%)	11 53
37	h	120/123 (98%)	102 (85%)	15 (12%)	3 (2%)	7 46
38	i	100/105 (95%)	91 (91%)	7 (7%)	2 (2%)	9 51
39	j	84/86 (98%)	67 (80%)	13 (16%)	4 (5%)	3 28
40	k	67/70 (96%)	55 (82%)	7 (10%)	5 (8%)	1 15
41	l	48/51 (94%)	42 (88%)	4 (8%)	2 (4%)	3 32
42	m	50/128 (39%)	44 (88%)	6 (12%)	0	100 100
43	n	21/25 (84%)	21 (100%)	0	0	100 100
44	o	102/106 (96%)	85 (83%)	11 (11%)	6 (6%)	2 22
45	p	89/91 (98%)	79 (89%)	9 (10%)	1 (1%)	17 63
46	q	200/202 (99%)	133 (66%)	27 (14%)	40 (20%)	0 1
47	r	123/125 (98%)	97 (79%)	20 (16%)	6 (5%)	3 27
48	4	854/856 (100%)	754 (88%)	58 (7%)	42 (5%)	3 27
50	SA	206/295 (70%)	176 (85%)	24 (12%)	6 (3%)	6 42
51	SB	211/264 (80%)	170 (81%)	27 (13%)	14 (7%)	1 19
52	SC	216/218 (99%)	189 (88%)	19 (9%)	8 (4%)	4 36
53	SD	225/243 (93%)	170 (76%)	44 (20%)	11 (5%)	3 27
54	SE	260/263 (99%)	202 (78%)	41 (16%)	17 (6%)	1 20
55	SF	189/204 (93%)	160 (85%)	19 (10%)	10 (5%)	2 25
56	SG	235/249 (94%)	194 (83%)	35 (15%)	6 (3%)	7 45
57	SH	187/194 (96%)	143 (76%)	29 (16%)	15 (8%)	1 13
58	SI	204/208 (98%)	176 (86%)	21 (10%)	7 (3%)	5 39
59	SJ	183/194 (94%)	145 (79%)	24 (13%)	14 (8%)	1 14
60	SK	96/165 (58%)	60 (62%)	26 (27%)	10 (10%)	1 8
61	SL	150/158 (95%)	122 (81%)	21 (14%)	7 (5%)	3 29
62	SM	122/124 (98%)	77 (63%)	25 (20%)	20 (16%)	0 3
63	SN	148/151 (98%)	115 (78%)	28 (19%)	5 (3%)	5 39
64	SO	134/151 (89%)	102 (76%)	18 (13%)	14 (10%)	1 8
65	SP	94/145 (65%)	65 (69%)	18 (19%)	11 (12%)	0 7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
66	SQ	139/146 (95%)	112 (81%)	21 (15%)	6 (4%)	3 31
67	SR	127/135 (94%)	95 (75%)	24 (19%)	8 (6%)	2 21
68	SS	135/152 (89%)	104 (77%)	23 (17%)	8 (6%)	2 22
69	ST	139/145 (96%)	116 (84%)	17 (12%)	6 (4%)	3 31
70	SU	102/119 (86%)	80 (78%)	18 (18%)	4 (4%)	4 34
71	SV	80/83 (96%)	63 (79%)	10 (12%)	7 (9%)	1 12
72	SW	127/130 (98%)	112 (88%)	11 (9%)	4 (3%)	5 41
73	SX	139/143 (97%)	116 (84%)	18 (13%)	5 (4%)	4 37
74	SY	124/132 (94%)	92 (74%)	23 (18%)	9 (7%)	1 16
75	SZ	73/125 (58%)	54 (74%)	13 (18%)	6 (8%)	1 13
76	Sa	96/115 (84%)	74 (77%)	15 (16%)	7 (7%)	1 16
77	Sb	81/84 (96%)	61 (75%)	15 (18%)	5 (6%)	2 21
78	Sc	62/69 (90%)	46 (74%)	16 (26%)	0	100 100
79	Sd	50/56 (89%)	38 (76%)	9 (18%)	3 (6%)	2 21
80	Se	55/133 (41%)	40 (73%)	14 (26%)	1 (2%)	11 53
81	Sf	69/156 (44%)	39 (56%)	21 (30%)	9 (13%)	0 5
82	Sg	311/317 (98%)	250 (80%)	45 (14%)	16 (5%)	2 26
All	All	12341/13747 (90%)	10066 (82%)	1613 (13%)	662 (5%)	4 25

All (662) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	A	19	HIS
4	A	197	PRO
5	B	16	PHE
5	B	40	PRO
5	B	108	GLU
5	B	109	HIS
5	B	111	SER
5	B	120	LYS
5	B	138	GLN
5	B	143	ALA
5	B	169	ARG
5	B	191	ALA
5	B	196	TRP
5	B	388	PHE

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Mol	Chain	Res	Type
5	B	389	MET
6	C	69	THR
6	C	99	GLY
6	C	309	ILE
6	C	318	PRO
6	C	319	LEU
7	D	19	LYS
7	D	212	ILE
7	D	262	LYS
7	D	285	ALA
8	E	55	ARG
8	E	59	TYR
8	E	96	LYS
8	E	131	LYS
8	E	175	LEU
8	E	221	PRO
8	E	230	ASP
8	E	280	HIS
9	F	72	ARG
9	F	128	ASN
9	F	236	GLY
10	G	128	VAL
11	H	60	TRP
12	I	78	LYS
12	I	79	SER
12	I	178	ALA
12	I	179	ASP
12	I	187	LYS
13	J	91	GLU
14	K	28	LEU
14	K	30	PRO
14	K	38	SER
14	K	39	PRO
14	K	58	ILE
14	K	86	LYS
14	K	89	PRO
14	K	92	ARG
14	K	98	ILE
14	K	105	THR
14	K	117	ARG
14	K	120	SER
14	K	126	SER

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Mol	Chain	Res	Type
14	K	135	THR
14	K	141	CYS
14	K	142	ASN
14	K	144	ASP
14	K	149	HIS
14	K	159	ALA
15	L	62	PRO
15	L	64	VAL
15	L	67	HIS
15	L	82	ARG
15	L	83	VAL
15	L	134	PRO
16	M	7	VAL
17	N	30	TYR
17	N	89	VAL
18	O	5	GLN
18	O	111	PRO
19	P	41	ILE
20	Q	177	ALA
21	R	36	ASN
22	S	146	HIS
22	S	165	PRO
25	V	14	PHE
25	V	99	GLU
27	X	131	ASP
30	a	76	ASP
30	a	92	LYS
30	a	96	GLY
31	b	7	HIS
31	b	12	GLN
35	f	4	ARG
36	g	7	TYR
37	h	119	PHE
38	i	64	SER
40	k	23	VAL
40	k	59	SER
41	l	22	PRO
44	o	90	HIS
44	o	94	GLY
46	q	51	ALA
46	q	60	MET
46	q	69	LEU

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Mol	Chain	Res	Type
46	q	70	GLU
46	q	73	PRO
46	q	74	ALA
46	q	98	ILE
46	q	100	ASP
46	q	104	ALA
46	q	118	PRO
46	q	136	SER
46	q	149	ARG
46	q	150	GLY
46	q	182	PRO
46	q	183	PHE
46	q	184	SER
46	q	185	PHE
47	r	34	ALA
47	r	45	HIS
47	r	107	ARG
48	4	4	PHE
48	4	43	ALA
48	4	44	GLY
48	4	45	ILE
48	4	47	ALA
48	4	61	LYS
48	4	71	LYS
48	4	206	ASP
48	4	207	PRO
48	4	240	GLY
48	4	241	GLU
48	4	481	LYS
48	4	498	LYS
48	4	499	PHE
48	4	500	SER
48	4	504	VAL
48	4	576	VAL
48	4	577	VAL
48	4	716	ARG
48	4	743	PRO
48	4	744	ILE
48	4	753	GLU
48	4	776	VAL
48	4	812	CYS
48	4	813	VAL

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Mol	Chain	Res	Type
48	4	849	PRO
50	SA	3	GLY
51	SB	57	ILE
51	SB	179	ASN
51	SB	191	ASP
51	SB	223	PHE
52	SC	253	PRO
52	SC	254	ASP
53	SD	54	ARG
53	SD	202	LYS
53	SD	223	ILE
54	SE	12	VAL
54	SE	95	THR
54	SE	101	LEU
54	SE	196	THR
55	SF	34	SER
55	SF	37	ASP
57	SH	16	PRO
57	SH	17	ASP
57	SH	18	GLU
57	SH	66	VAL
57	SH	116	ARG
57	SH	170	VAL
57	SH	190	PRO
58	SI	155	ASN
59	SJ	3	VAL
59	SJ	69	ARG
59	SJ	70	ARG
59	SJ	119	LEU
59	SJ	121	LYS
59	SJ	159	PHE
60	SK	30	PRO
60	SK	58	VAL
61	SL	19	ASN
61	SL	100	ASN
62	SM	15	ASN
62	SM	77	ILE
62	SM	91	LEU
62	SM	96	ARG
62	SM	102	LYS
62	SM	114	TYR
63	SN	143	SER

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Mol	Chain	Res	Type
64	SO	56	VAL
64	SO	65	ASP
64	SO	140	THR
65	SP	14	LYS
65	SP	38	SER
66	SQ	48	GLN
66	SQ	77	HIS
67	SR	88	VAL
68	SS	12	ILE
68	SS	90	VAL
68	SS	118	ARG
69	ST	29	LYS
70	SU	50	VAL
70	SU	107	GLU
71	SV	41	LYS
71	SV	65	SER
72	SW	77	PRO
72	SW	107	SER
73	SX	34	THR
73	SX	129	SER
75	SZ	113	THR
81	Sf	89	LYS
81	Sf	98	VAL
81	Sf	137	ASP
82	Sg	96	THR
82	Sg	142	VAL
82	Sg	161	SER
82	Sg	182	CYS
82	Sg	282	GLU
4	A	110	GLY
5	B	47	LEU
5	B	147	ALA
5	B	274	TYR
5	B	314	ILE
5	B	394	LYS
6	C	58	ALA
6	C	66	SER
6	C	320	LYS
7	D	21	ARG
7	D	57	ASN
7	D	96	ALA
7	D	220	LYS

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Mol	Chain	Res	Type
7	D	260	GLU
7	D	279	ARG
7	D	281	ALA
7	D	293	ARG
8	E	43	ASN
8	E	91	PRO
8	E	181	PRO
8	E	220	LYS
9	F	31	LYS
9	F	168	ARG
9	F	229	PHE
10	G	28	VAL
11	H	64	ARG
12	I	101	LYS
12	I	158	LYS
12	I	210	ARG
13	J	26	VAL
13	J	88	LYS
13	J	169	LYS
14	K	24	ALA
14	K	34	PRO
14	K	60	VAL
14	K	94	LYS
14	K	140	GLY
15	L	143	GLU
16	M	87	ALA
17	N	79	ALA
20	Q	178	ARG
21	R	39	GLN
23	T	18	PRO
23	T	44	GLY
23	T	55	LYS
27	X	86	ALA
28	Y	6	PHE
29	Z	91	LEU
30	a	60	HIS
30	a	62	HIS
30	a	97	ALA
32	c	32	LYS
32	c	80	GLU
32	c	81	LEU
33	d	93	ASN

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Mol	Chain	Res	Type
34	e	34	ASN
37	h	122	LYS
40	k	61	PRO
44	o	33	LEU
44	o	98	LYS
46	q	46	SER
46	q	84	GLY
46	q	128	THR
46	q	158	VAL
46	q	179	ASN
46	q	180	ILE
46	q	202	GLU
46	q	203	VAL
47	r	123	PRO
48	4	48	SER
48	4	53	GLU
48	4	54	THR
48	4	62	ASP
48	4	532	PRO
50	SA	110	ASN
50	SA	187	GLY
51	SB	83	LYS
51	SB	108	ASP
51	SB	152	LYS
51	SB	204	ILE
52	SC	134	ASN
52	SC	255	LEU
53	SD	219	PRO
54	SE	76	VAL
54	SE	98	ASN
54	SE	109	PHE
55	SF	21	GLY
55	SF	121	PRO
56	SG	99	GLY
57	SH	160	LYS
58	SI	126	GLY
58	SI	137	LEU
58	SI	138	ASN
59	SJ	5	ARG
59	SJ	118	GLY
61	SL	3	ASP
62	SM	35	ILE

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Mol	Chain	Res	Type
62	SM	48	HIS
62	SM	79	VAL
63	SN	38	TYR
64	SO	32	HIS
64	SO	33	ILE
64	SO	64	ALA
64	SO	105	THR
64	SO	129	ILE
64	SO	146	ARG
65	SP	12	PHE
66	SQ	32	ILE
66	SQ	35	ASN
67	SR	93	GLN
67	SR	95	ILE
67	SR	110	ASP
67	SR	123	THR
68	SS	7	GLU
68	SS	133	GLY
69	ST	28	LEU
69	ST	34	VAL
69	ST	39	LEU
69	ST	49	ASP
72	SW	45	GLY
73	SX	99	GLU
74	SY	60	PHE
74	SY	84	LYS
74	SY	118	ARG
74	SY	120	THR
75	SZ	42	ASP
75	SZ	102	LYS
75	SZ	104	ARG
75	SZ	108	ILE
76	Sa	8	ASN
76	Sa	25	ASN
77	Sb	6	ASP
77	Sb	59	CYS
81	Sf	112	GLY
82	Sg	97	THR
82	Sg	139	LYS
82	Sg	141	THR
4	A	180	LEU
4	A	196	TRP

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Mol	Chain	Res	Type
5	B	295	ASP
6	C	73	VAL
6	C	97	ARG
6	C	266	THR
6	C	273	LEU
7	D	129	GLU
7	D	152	ARG
7	D	187	SER
7	D	188	LYS
8	E	61	ARG
8	E	92	VAL
8	E	95	ASP
8	E	104	LYS
8	E	153	HIS
8	E	206	LYS
8	E	218	LEU
8	E	255	ARG
9	F	105	PRO
12	I	94	PHE
12	I	106	ALA
13	J	124	GLY
14	K	56	LEU
14	K	67	ARG
14	K	90	ARG
14	K	139	VAL
15	L	172	GLU
19	P	54	GLN
20	Q	52	PHE
20	Q	146	ARG
21	R	130	ASN
22	S	153	PRO
24	U	38	ASN
28	Y	11	ARG
28	Y	18	HIS
29	Z	8	GLY
29	Z	33	THR
30	a	93	ASN
33	d	38	PHE
35	f	80	ASN
35	f	107	PRO
41	l	47	THR
44	o	49	GLY

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Mol	Chain	Res	Type
46	q	115	ALA
48	4	269	ALA
48	4	434	TYR
48	4	810	PRO
50	SA	105	PRO
51	SB	43	ASN
52	SC	264	SER
53	SD	178	ARG
53	SD	179	GLN
54	SE	24	THR
54	SE	163	ASP
54	SE	171	ASP
55	SF	163	PHE
57	SH	107	LYS
57	SH	110	THR
58	SI	143	LYS
60	SK	63	ALA
60	SK	92	ALA
61	SL	28	THR
62	SM	36	ARG
62	SM	65	VAL
62	SM	95	ASP
62	SM	103	VAL
62	SM	116	LYS
62	SM	117	GLU
64	SO	128	ARG
65	SP	50	ARG
65	SP	73	PRO
65	SP	74	GLU
65	SP	87	PRO
67	SR	127	ASN
68	SS	92	ASP
69	ST	128	GLN
71	SV	3	ASN
72	SW	30	CYS
73	SX	114	ASP
74	SY	104	ARG
75	SZ	80	ARG
76	Sa	61	ALA
76	Sa	62	TYR
76	Sa	97	PRO
79	Sd	7	TYR

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Mol	Chain	Res	Type
81	Sf	83	LYS
81	Sf	99	LYS
81	Sf	100	LEU
82	Sg	65	PHE
82	Sg	144	ASP
82	Sg	283	PRO
4	A	35	ALA
4	A	109	GLU
4	A	193	ARG
5	B	117	ARG
5	B	189	THR
5	B	310	SER
5	B	329	ASP
6	C	23	THR
6	C	49	ARG
7	D	20	PHE
7	D	32	ALA
8	E	85	LEU
8	E	118	PRO
8	E	122	LEU
8	E	183	ARG
8	E	203	LYS
8	E	254	LEU
10	G	43	GLN
10	G	165	GLU
11	H	51	LYS
12	I	77	VAL
12	I	109	ASP
14	K	40	LYS
14	K	54	LYS
17	N	182	HIS
20	Q	55	ARG
21	R	131	VAL
24	U	98	ASP
25	V	110	GLY
26	W	43	LYS
30	a	98	ALA
31	b	10	HIS
32	c	77	ASN
33	d	58	GLY
33	d	102	LEU
35	f	5	LEU

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Mol	Chain	Res	Type
40	k	29	LYS
44	o	8	ARG
46	q	61	MET
46	q	130	LEU
46	q	134	LYS
46	q	156	SER
46	q	191	GLN
46	q	199	TYR
46	q	201	PRO
48	4	502	SER
50	SA	188	THR
51	SB	77	ASP
53	SD	218	LEU
54	SE	132	GLY
55	SF	131	ALA
55	SF	132	GLY
55	SF	143	PRO
56	SG	146	ASN
56	SG	152	ASP
57	SH	35	ASP
57	SH	57	ARG
57	SH	111	LYS
59	SJ	39	ASN
59	SJ	92	MET
59	SJ	120	ALA
59	SJ	125	HIS
60	SK	3	MET
60	SK	65	ARG
61	SL	8	ARG
62	SM	76	LEU
62	SM	119	GLN
65	SP	8	LYS
65	SP	75	VAL
66	SQ	116	ASP
71	SV	10	ASP
74	SY	30	PRO
74	SY	34	THR
76	Sa	35	ALA
77	Sb	75	GLU
79	Sd	8	TRP
81	Sf	87	THR
82	Sg	37	ASP

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Mol	Chain	Res	Type
82	Sg	160	SER
82	Sg	286	CYS
4	A	130	SER
5	B	137	TRP
5	B	139	ASP
5	B	194	LEU
5	B	387	ALA
7	D	125	VAL
7	D	263	LYS
8	E	229	PHE
8	E	245	ASP
9	F	99	GLY
10	G	123	ALA
10	G	125	LYS
11	H	110	SER
13	J	11	PRO
13	J	32	ARG
14	K	36	GLY
14	K	96	LYS
17	N	40	PRO
17	N	55	ALA
28	Y	85	VAL
29	Z	124	THR
31	b	21	ILE
35	f	106	TYR
36	g	84	ALA
39	j	5	THR
39	j	38	GLY
45	p	4	ARG
46	q	82	ILE
48	4	246	PRO
48	4	574	ASP
51	SB	76	ASN
51	SB	93	GLY
52	SC	181	PRO
52	SC	189	GLY
53	SD	199	GLY
53	SD	214	LYS
54	SE	38	LEU
55	SF	68	ILE
56	SG	20	ASP
57	SH	100	ILE

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Mol	Chain	Res	Type
57	SH	159	ASP
60	SK	39	ASN
60	SK	67	PHE
60	SK	69	TRP
61	SL	147	LYS
62	SM	81	ASP
63	SN	58	HIS
63	SN	138	ASN
64	SO	39	ASP
64	SO	149	ARG
66	SQ	43	GLU
68	SS	82	TRP
70	SU	118	ASP
71	SV	42	VAL
71	SV	45	ARG
76	Sa	72	HIS
79	Sd	10	HIS
81	Sf	138	ARG
5	B	17	LEU
5	B	112	ASP
5	B	144	ALA
6	C	198	ASN
8	E	40	CYS
8	E	100	THR
12	I	110	ARG
13	J	27	GLY
14	K	138	SER
15	L	169	ILE
18	O	110	PRO
28	Y	63	LYS
28	Y	79	VAL
29	Z	4	PHE
39	j	9	GLY
39	j	75	ARG
46	q	85	ASN
46	q	198	ILE
47	r	103	ARG
48	4	7	ASP
48	4	503	PRO
50	SA	43	SER
51	SB	22	VAL
53	SD	222	PRO

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Mol	Chain	Res	Type
54	SE	30	ARG
54	SE	35	PRO
56	SG	59	GLN
58	SI	131	PRO
60	SK	41	PRO
61	SL	69	ARG
65	SP	27	ASP
65	SP	49	LEU
67	SR	121	GLN
68	SS	117	ILE
71	SV	81	LYS
73	SX	104	GLY
77	Sb	48	SER
5	B	110	ILE
5	B	259	PRO
7	D	114	GLY
40	k	63	GLY
46	q	196	GLY
48	4	517	LEU
48	4	699	GLY
52	SC	171	GLY
55	SF	166	ILE
74	SY	95	GLY
82	Sg	190	GLY
15	L	100	PRO
46	q	80	PRO
46	q	116	ILE
48	4	109	VAL
54	SE	15	PRO
56	SG	161	PRO
63	SN	37	ILE
80	Se	54	GLY
7	D	261	VAL
12	I	47	PRO
37	h	38	GLY
53	SD	194	PRO
54	SE	131	VAL
59	SJ	8	VAL
59	SJ	169	ARG
62	SM	94	ILE
67	SR	86	PRO
70	SU	52	GLY

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Mol	Chain	Res	Type
74	SY	67	GLY
77	Sb	58	GLY
82	Sg	163	PRO
5	B	321	VAL
8	E	90	LYS
9	F	100	ILE
10	G	58	PRO
15	L	28	GLN
38	i	63	VAL
47	r	44	ILE
51	SB	114	VAL
54	SE	90	ILE
62	SM	104	VAL
64	SO	24	GLY
64	SO	53	ILE
9	F	199	VAL
46	q	117	ALA
58	SI	20	PRO

5.3.2 Protein sidechains (i)

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
4	A	187/199 (94%)	139 (74%)	48 (26%)	0 4
5	B	335/335 (100%)	265 (79%)	70 (21%)	1 8
6	C	305/305 (100%)	239 (78%)	66 (22%)	1 7
7	D	246/250 (98%)	178 (72%)	68 (28%)	0 3
8	E	209/209 (100%)	158 (76%)	51 (24%)	1 5
9	F	194/194 (100%)	145 (75%)	49 (25%)	1 4
10	G	206/226 (91%)	158 (77%)	48 (23%)	1 5
11	H	169/171 (99%)	125 (74%)	44 (26%)	0 4
12	I	180/180 (100%)	135 (75%)	45 (25%)	1 4
13	J	143/149 (96%)	115 (80%)	28 (20%)	1 9

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
14	K	124/136 (91%)	98 (79%)	26 (21%)	1 8
15	L	176/177 (99%)	135 (77%)	41 (23%)	1 5
16	M	116/160 (72%)	95 (82%)	21 (18%)	2 12
17	N	171/172 (99%)	129 (75%)	42 (25%)	1 5
18	O	172/174 (99%)	146 (85%)	26 (15%)	3 21
19	P	134/134 (100%)	112 (84%)	22 (16%)	3 17
20	Q	163/164 (99%)	132 (81%)	31 (19%)	2 10
21	R	159/175 (91%)	120 (76%)	39 (24%)	1 5
22	S	156/192 (81%)	121 (78%)	35 (22%)	1 6
23	T	139/140 (99%)	112 (81%)	27 (19%)	2 10
24	U	89/114 (78%)	67 (75%)	22 (25%)	1 5
25	V	101/107 (94%)	77 (76%)	24 (24%)	1 5
26	W	55/126 (44%)	42 (76%)	13 (24%)	1 5
27	X	107/133 (80%)	89 (83%)	18 (17%)	2 15
28	Y	124/135 (92%)	96 (77%)	28 (23%)	1 6
29	Z	117/118 (99%)	94 (80%)	23 (20%)	1 9
30	a	119/120 (99%)	102 (86%)	17 (14%)	4 24
31	b	63/123 (51%)	45 (71%)	18 (29%)	0 3
32	c	79/97 (81%)	60 (76%)	19 (24%)	1 5
33	d	98/110 (89%)	66 (67%)	32 (33%)	0 2
34	e	114/121 (94%)	89 (78%)	25 (22%)	1 7
35	f	88/89 (99%)	73 (83%)	15 (17%)	2 15
36	g	98/100 (98%)	79 (81%)	19 (19%)	2 10
37	h	109/110 (99%)	92 (84%)	17 (16%)	3 20
38	i	86/89 (97%)	71 (83%)	15 (17%)	2 14
39	j	73/73 (100%)	60 (82%)	13 (18%)	2 13
40	k	64/65 (98%)	52 (81%)	12 (19%)	2 11
41	l	47/48 (98%)	39 (83%)	8 (17%)	2 15
42	m	48/116 (41%)	34 (71%)	14 (29%)	0 3
43	n	22/24 (92%)	17 (77%)	5 (23%)	1 6
44	o	92/94 (98%)	70 (76%)	22 (24%)	1 5

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
45	p	74/74 (100%)	61 (82%)	13 (18%)	2 13
46	q	170/170 (100%)	133 (78%)	37 (22%)	1 7
47	r	109/109 (100%)	86 (79%)	23 (21%)	1 8
48	4	728/728 (100%)	586 (80%)	142 (20%)	2 10
50	SA	174/245 (71%)	141 (81%)	33 (19%)	2 10
51	SB	194/231 (84%)	164 (84%)	30 (16%)	3 20
52	SC	184/184 (100%)	148 (80%)	36 (20%)	1 9
53	SD	190/202 (94%)	163 (86%)	27 (14%)	4 24
54	SE	224/225 (100%)	180 (80%)	44 (20%)	1 9
55	SF	161/170 (95%)	128 (80%)	33 (20%)	1 8
56	SG	207/218 (95%)	171 (83%)	36 (17%)	2 14
57	SH	169/174 (97%)	149 (88%)	20 (12%)	6 31
58	SI	178/180 (99%)	148 (83%)	30 (17%)	2 15
59	SJ	161/168 (96%)	128 (80%)	33 (20%)	1 8
60	SK	89/136 (65%)	68 (76%)	21 (24%)	1 5
61	SL	136/142 (96%)	116 (85%)	20 (15%)	4 22
62	SM	104/104 (100%)	76 (73%)	28 (27%)	0 4
63	SN	130/131 (99%)	101 (78%)	29 (22%)	1 6
64	SO	106/119 (89%)	83 (78%)	23 (22%)	1 7
65	SP	88/130 (68%)	73 (83%)	15 (17%)	2 15
66	SQ	117/121 (97%)	100 (86%)	17 (14%)	4 23
67	SR	117/121 (97%)	102 (87%)	15 (13%)	5 28
68	SS	119/132 (90%)	97 (82%)	22 (18%)	2 11
69	ST	112/115 (97%)	89 (80%)	23 (20%)	1 8
70	SU	94/107 (88%)	84 (89%)	10 (11%)	8 38
71	SV	66/67 (98%)	53 (80%)	13 (20%)	1 9
72	SW	112/113 (99%)	93 (83%)	19 (17%)	2 15
73	SX	113/115 (98%)	97 (86%)	16 (14%)	4 24
74	SY	108/114 (95%)	86 (80%)	22 (20%)	1 8
75	SZ	66/103 (64%)	55 (83%)	11 (17%)	3 16
76	Sa	85/98 (87%)	76 (89%)	9 (11%)	8 38

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
77	Sb	75/76 (99%)	64 (85%)	11 (15%)	4 22
78	Sc	57/62 (92%)	43 (75%)	14 (25%)	1 5
79	Sd	45/48 (94%)	35 (78%)	10 (22%)	1 6
80	Se	46/105 (44%)	35 (76%)	11 (24%)	1 5
81	Sf	64/140 (46%)	45 (70%)	19 (30%)	0 3
82	Sg	272/275 (99%)	242 (89%)	30 (11%)	8 36
All	All	10721/11706 (92%)	8570 (80%)	2151 (20%)	4 9

All (2151) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	A	3	ARG
4	A	5	ILE
4	A	16	PHE
4	A	30	ARG
4	A	37	ARG
4	A	40	TYR
4	A	41	ILE
4	A	63	PHE
4	A	64	ARG
4	A	70	LYS
4	A	73	THR
4	A	74	GLU
4	A	95	GLN
4	A	97	ASN
4	A	100	ASN
4	A	109	GLU
4	A	116	LEU
4	A	122	ASP
4	A	123	ARG
4	A	125	LYS
4	A	126	LEU
4	A	128	ARG
4	A	139	HIS
4	A	144	LYS
4	A	147	ARG
4	A	162	ASN
4	A	163	ARG
4	A	176	ASP
4	A	181	LYS

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Mol	Chain	Res	Type
4	A	186	TYR
4	A	187	HIS
4	A	189	TYR
4	A	190	LYS
4	A	193	ARG
4	A	194	ASN
4	A	195	CYS
4	A	196	TRP
4	A	205	ASN
4	A	208	GLU
4	A	215	ASN
4	A	216	HIS
4	A	218	HIS
4	A	221	LYS
4	A	226	ARG
4	A	227	ARG
4	A	233	ARG
4	A	242	ARG
4	A	245	ARG
5	B	10	ARG
5	B	16	PHE
5	B	17	LEU
5	B	25	HIS
5	B	26	ARG
5	B	36	ASP
5	B	39	LYS
5	B	41	VAL
5	B	46	PHE
5	B	55	HIS
5	B	56	ILE
5	B	58	ARG
5	B	61	ASP
5	B	62	ARG
5	B	74	GLU
5	B	78	ILE
5	B	94	GLU
5	B	95	THR
5	B	99	LEU
5	B	100	ARG
5	B	101	THR
5	B	103	LYS
5	B	104	THR

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Mol	Chain	Res	Type
5	B	106	PHE
5	B	116	ARG
5	B	117	ARG
5	B	119	TYR
5	B	122	TRP
5	B	123	HIS
5	B	146	LEU
5	B	149	ASP
5	B	154	LYS
5	B	156	TYR
5	B	165	HIS
5	B	167	GLN
5	B	169	ARG
5	B	174	ARG
5	B	189	THR
5	B	198	ARG
5	B	203	GLN
5	B	207	VAL
5	B	214	ASP
5	B	218	ASP
5	B	228	TYR
5	B	233	SER
5	B	235	TRP
5	B	236	HIS
5	B	245	HIS
5	B	249	ARG
5	B	257	TRP
5	B	258	HIS
5	B	261	ARG
5	B	264	PHE
5	B	289	GLN
5	B	291	TYR
5	B	309	LEU
5	B	314	ILE
5	B	323	TYR
5	B	326	VAL
5	B	328	ASN
5	B	329	ASP
5	B	347	LEU
5	B	348	ARG
5	B	355	THR
5	B	356	LYS

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Mol	Chain	Res	Type
5	B	357	ARG
5	B	366	LYS
5	B	369	ASP
5	B	378	ARG
5	B	388	PHE
6	C	14	LYS
6	C	36	ILE
6	C	47	ASN
6	C	49	ARG
6	C	60	HIS
6	C	65	GLU
6	C	71	ARG
6	C	75	ARG
6	C	76	ILE
6	C	78	ARG
6	C	80	ARG
6	C	85	HIS
6	C	86	ARG
6	C	87	SER
6	C	92	PHE
6	C	94	ASN
6	C	95	MET
6	C	97	ARG
6	C	100	ARG
6	C	102	PHE
6	C	107	THR
6	C	112	HIS
6	C	113	ARG
6	C	122	TYR
6	C	126	SER
6	C	131	SER
6	C	142	HIS
6	C	150	LEU
6	C	156	ASP
6	C	160	SER
6	C	173	LYS
6	C	175	LYS
6	C	177	TRP
6	C	178	ASN
6	C	182	LYS
6	C	184	TYR
6	C	188	ARG

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Mol	Chain	Res	Type
6	C	193	LYS
6	C	196	MET
6	C	198	ASN
6	C	201	ARG
6	C	212	ASN
6	C	215	ASN
6	C	219	LYS
6	C	222	ARG
6	C	262	GLU
6	C	264	TYR
6	C	267	TRP
6	C	281	MET
6	C	288	ASP
6	C	291	ARG
6	C	300	ARG
6	C	303	ARG
6	C	307	LYS
6	C	309	ILE
6	C	310	HIS
6	C	311	ARG
6	C	312	ARG
6	C	321	ASN
6	C	322	LEU
6	C	333	LYS
6	C	342	ARG
6	C	343	GLN
6	C	345	ARG
6	C	350	ARG
6	C	352	ASP
7	D	15	ARG
7	D	22	ARG
7	D	23	ARG
7	D	30	TYR
7	D	31	TYR
7	D	33	ARG
7	D	35	ARG
7	D	39	GLN
7	D	42	ASN
7	D	44	TYR
7	D	45	ASN
7	D	50	ARG
7	D	59	ASP

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Mol	Chain	Res	Type
7	D	63	GLN
7	D	66	TYR
7	D	79	TYR
7	D	81	HIS
7	D	90	VAL
7	D	92	LEU
7	D	94	ASN
7	D	95	TYR
7	D	99	TYR
7	D	104	LEU
7	D	107	ARG
7	D	111	ASN
7	D	113	PHE
7	D	116	ASP
7	D	118	ILE
7	D	119	TYR
7	D	124	GLU
7	D	129	GLU
7	D	131	ASN
7	D	136	ASP
7	D	157	ASN
7	D	168	ASP
7	D	177	THR
7	D	179	ARG
7	D	189	GLU
7	D	191	ASN
7	D	193	GLU
7	D	196	ARG
7	D	202	GLN
7	D	203	ASN
7	D	206	ASP
7	D	213	GLU
7	D	221	LYS
7	D	223	PHE
7	D	229	ASN
7	D	232	THR
7	D	234	ASP
7	D	244	HIS
7	D	248	ARG
7	D	249	GLU
7	D	254	GLU
7	D	255	LYS

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Mol	Chain	Res	Type
7	D	256	LYS
7	D	259	LYS
7	D	260	GLU
7	D	262	LYS
7	D	264	LYS
7	D	265	ARG
7	D	266	TRP
7	D	268	ARG
7	D	279	ARG
7	D	287	PHE
7	D	291	GLN
7	D	292	GLU
7	D	293	ARG
8	E	39	HIS
8	E	40	CYS
8	E	43	ASN
8	E	46	LEU
8	E	52	ARG
8	E	61	ARG
8	E	64	MET
8	E	67	ARG
8	E	68	LYS
8	E	95	ASP
8	E	101	ARG
8	E	104	LYS
8	E	111	TYR
8	E	112	TYR
8	E	114	THR
8	E	115	GLU
8	E	124	HIS
8	E	126	LYS
8	E	129	PHE
8	E	134	ARG
8	E	153	HIS
8	E	157	ARG
8	E	166	SER
8	E	171	VAL
8	E	175	LEU
8	E	178	ASN
8	E	179	ARG
8	E	186	HIS
8	E	187	GLN

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Mol	Chain	Res	Type
8	E	203	LYS
8	E	206	LYS
8	E	212	TYR
8	E	217	LYS
8	E	219	ARG
8	E	230	ASP
8	E	233	LYS
8	E	237	GLU
8	E	241	GLN
8	E	242	ARG
8	E	245	ASP
8	E	246	GLN
8	E	250	ASP
8	E	252	GLN
8	E	256	ARG
8	E	262	GLN
8	E	266	TYR
8	E	268	ARG
8	E	277	ILE
8	E	280	HIS
8	E	282	LEU
8	E	284	PHE
9	F	27	PHE
9	F	33	LYS
9	F	34	ARG
9	F	41	GLN
9	F	43	MET
9	F	44	LEU
9	F	49	ARG
9	F	64	ARG
9	F	65	GLN
9	F	68	ARG
9	F	72	ARG
9	F	82	ASN
9	F	83	PHE
9	F	84	TYR
9	F	85	VAL
9	F	90	LYS
9	F	93	PHE
9	F	96	ARG
9	F	100	ILE
9	F	101	ASN

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Mol	Chain	Res	Type
9	F	118	GLN
9	F	119	ILE
9	F	120	PHE
9	F	121	ASN
9	F	137	ILE
9	F	146	TYR
9	F	148	ASN
9	F	149	LEU
9	F	151	SER
9	F	154	GLU
9	F	176	LEU
9	F	192	LEU
9	F	194	HIS
9	F	197	TYR
9	F	201	LYS
9	F	202	ARG
9	F	204	LYS
9	F	209	PHE
9	F	213	PHE
9	F	214	LYS
9	F	224	LYS
9	F	226	THR
9	F	227	THR
9	F	228	HIS
9	F	234	ASP
9	F	239	GLU
9	F	245	LEU
9	F	247	ARG
9	F	248	ARG
10	G	28	VAL
10	G	29	ASN
10	G	31	LEU
10	G	32	PHE
10	G	38	ASN
10	G	39	PHE
10	G	44	ASP
10	G	46	GLN
10	G	49	ARG
10	G	50	ASP
10	G	56	LYS
10	G	60	TYR
10	G	62	ARG

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Mol	Chain	Res	Type
10	G	67	ARG
10	G	71	TYR
10	G	73	ARG
10	G	85	GLN
10	G	88	ASP
10	G	89	ARG
10	G	90	GLN
10	G	100	HIS
10	G	101	LYS
10	G	102	TYR
10	G	103	ARG
10	G	108	GLN
10	G	112	GLN
10	G	125	LYS
10	G	131	LYS
10	G	141	ASN
10	G	150	LYS
10	G	162	ASP
10	G	169	PHE
10	G	170	LEU
10	G	175	ARG
10	G	177	MET
10	G	189	ARG
10	G	202	VAL
10	G	210	GLU
10	G	217	LYS
10	G	220	GLU
10	G	223	ARG
10	G	227	ASN
10	G	230	TYR
10	G	231	ASN
10	G	235	ARG
10	G	240	ASN
10	G	254	GLU
10	G	259	LYS
11	H	11	ASP
11	H	12	ILE
11	H	18	ILE
11	H	26	ILE
11	H	31	ARG
11	H	40	HIS
11	H	42	ASN

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Mol	Chain	Res	Type
11	H	51	LYS
11	H	52	LYS
11	H	54	ARG
11	H	57	VAL
11	H	58	ASP
11	H	59	LYS
11	H	60	TRP
11	H	63	ASN
11	H	66	GLU
11	H	71	ARG
11	H	79	ASN
11	H	84	VAL
11	H	88	PHE
11	H	92	MET
11	H	96	TYR
11	H	105	ILE
11	H	106	GLN
11	H	107	GLU
11	H	108	ASN
11	H	113	GLU
11	H	115	ARG
11	H	117	PHE
11	H	118	LEU
11	H	122	TYR
11	H	123	ILE
11	H	124	ARG
11	H	125	ARG
11	H	128	MET
11	H	140	GLN
11	H	141	LYS
11	H	161	ILE
11	H	162	GLN
11	H	168	LYS
11	H	171	ASP
11	H	173	ARG
11	H	177	ASP
11	H	180	TYR
12	I	3	ARG
12	I	4	ARG
12	I	8	CYS
12	I	9	TYR
12	I	13	LYS

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Mol	Chain	Res	Type
12	I	17	TYR
12	I	21	ARG
12	I	24	ARG
12	I	28	ASP
12	I	32	ARG
12	I	35	ASP
12	I	39	LYS
12	I	43	VAL
12	I	45	GLU
12	I	46	PHE
12	I	58	GLU
12	I	71	CYS
12	I	74	LYS
12	I	78	LYS
12	I	83	ASP
12	I	86	HIS
12	I	88	ARG
12	I	92	HIS
12	I	94	PHE
12	I	95	HIS
12	I	100	ASN
12	I	101	LYS
12	I	102	MET
12	I	110	ARG
12	I	111	LEU
12	I	119	PHE
12	I	126	VAL
12	I	128	ARG
12	I	143	GLN
12	I	146	GLU
12	I	158	LYS
12	I	159	PHE
12	I	171	TRP
12	I	177	ASN
12	I	179	ASP
12	I	181	PHE
12	I	182	GLU
12	I	203	HIS
12	I	207	ASP
12	I	208	LYS
13	J	15	LEU
13	J	23	ASN

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Mol	Chain	Res	Type
13	J	32	ARG
13	J	33	LEU
13	J	35	ARG
13	J	54	ARG
13	J	55	TYR
13	J	58	ARG
13	J	81	GLU
13	J	83	LEU
13	J	85	LYS
13	J	87	LEU
13	J	90	ARG
13	J	96	LYS
13	J	97	ASN
13	J	98	ASN
13	J	101	ASP
13	J	113	ILE
13	J	128	LEU
13	J	129	ASP
13	J	139	PHE
13	J	146	ARG
13	J	150	CYS
13	J	154	LYS
13	J	155	HIS
13	J	164	ARG
13	J	171	ASP
13	J	178	ASN
14	K	14	TYR
14	K	16	ARG
14	K	21	GLU
14	K	30	PRO
14	K	40	LYS
14	K	44	ASP
14	K	54	LYS
14	K	56	LEU
14	K	61	LYS
14	K	90	ARG
14	K	91	ASP
14	K	92	ARG
14	K	96	LYS
14	K	99	LYS
14	K	104	ILE
14	K	107	ASP

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Mol	Chain	Res	Type
14	K	108	GLU
14	K	114	ARG
14	K	116	MET
14	K	117	ARG
14	K	120	SER
14	K	121	LEU
14	K	123	ARG
14	K	125	LEU
14	K	130	LYS
14	K	147	HIS
15	L	5	ARG
15	L	10	LEU
15	L	13	HIS
15	L	19	GLN
15	L	28	GLN
15	L	31	ARG
15	L	34	ARG
15	L	36	ARG
15	L	39	ARG
15	L	45	ARG
15	L	49	ARG
15	L	56	ARG
15	L	65	ARG
15	L	66	TYR
15	L	67	HIS
15	L	74	ARG
15	L	79	GLU
15	L	82	ARG
15	L	92	ARG
15	L	99	ASP
15	L	101	ARG
15	L	103	ARG
15	L	111	GLN
15	L	113	ASN
15	L	115	GLN
15	L	119	GLU
15	L	123	LYS
15	L	127	PHE
15	L	129	ARG
15	L	130	LYS
15	L	146	LEU
15	L	158	ARG

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Mol	Chain	Res	Type
15	L	162	LYS
15	L	163	ARG
15	L	165	LYS
15	L	172	GLU
15	L	176	PHE
15	L	186	ARG
15	L	195	ARG
15	L	201	GLU
15	L	205	GLN
16	M	8	GLU
16	M	11	ARG
16	M	17	PHE
16	M	29	ASP
16	M	32	ASP
16	M	33	GLN
16	M	34	ASN
16	M	38	VAL
16	M	47	ARG
16	M	56	GLN
16	M	57	LEU
16	M	59	ASP
16	M	61	ILE
16	M	66	HIS
16	M	70	GLN
16	M	79	LYS
16	M	89	THR
16	M	90	ARG
16	M	91	TRP
16	M	98	ARG
16	M	119	ARG
17	N	4	TYR
17	N	9	GLU
17	N	11	TRP
17	N	26	ARG
17	N	29	GLN
17	N	49	ARG
17	N	50	ARG
17	N	53	TYR
17	N	54	LYS
17	N	59	TYR
17	N	63	ARG
17	N	67	ARG

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Mol	Chain	Res	Type
17	N	71	ARG
17	N	72	LYS
17	N	80	THR
17	N	86	HIS
17	N	87	HIS
17	N	91	GLN
17	N	92	LEU
17	N	104	GLU
17	N	108	ARG
17	N	119	TYR
17	N	123	GLU
17	N	126	THR
17	N	127	TYR
17	N	131	GLU
17	N	136	ASP
17	N	138	PHE
17	N	139	HIS
17	N	147	ASP
17	N	150	TRP
17	N	162	ARG
17	N	169	ARG
17	N	174	LEU
17	N	178	HIS
17	N	182	HIS
17	N	189	ARG
17	N	192	TRP
17	N	195	ARG
17	N	196	ASN
17	N	199	GLN
17	N	203	TYR
18	O	5	GLN
18	O	42	ASN
18	O	46	ASN
18	O	49	ARG
18	O	57	PHE
18	O	59	ARG
18	O	60	LYS
18	O	61	ARG
18	O	62	MET
18	O	74	ARG
18	O	78	ARG
18	O	82	ARG

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Mol	Chain	Res	Type
18	O	85	ARG
18	O	110	PRO
18	O	113	ASP
18	O	140	ARG
18	O	160	ARG
18	O	167	HIS
18	O	173	GLN
18	O	178	ARG
18	O	184	ASN
18	O	187	LYS
18	O	188	LYS
18	O	191	ARG
18	O	192	PHE
18	O	194	GLU
19	P	3	ARG
19	P	9	GLU
19	P	10	ASN
19	P	13	LYS
19	P	18	ARG
19	P	23	ARG
19	P	24	VAL
19	P	28	ASN
19	P	30	ARG
19	P	40	HIS
19	P	42	ARG
19	P	61	ARG
19	P	69	ARG
19	P	70	CYS
19	P	78	TRP
19	P	90	PHE
19	P	91	LEU
19	P	110	ASP
19	P	128	ARG
19	P	133	HIS
19	P	135	ARG
19	P	154	GLU
20	Q	5	ILE
20	Q	9	LYS
20	Q	14	ARG
20	Q	15	ARG
20	Q	16	LYS
20	Q	32	TYR

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Mol	Chain	Res	Type
20	Q	37	ARG
20	Q	44	ASN
20	Q	54	SER
20	Q	58	ARG
20	Q	61	LEU
20	Q	65	ARG
20	Q	68	ARG
20	Q	72	LEU
20	Q	75	ARG
20	Q	79	THR
20	Q	85	THR
20	Q	89	ASP
20	Q	91	ARG
20	Q	93	GLN
20	Q	97	LYS
20	Q	108	ARG
20	Q	110	ARG
20	Q	112	ARG
20	Q	119	LYS
20	Q	146	ARG
20	Q	150	ARG
20	Q	166	TYR
20	Q	173	LYS
20	Q	180	ARG
20	Q	181	ARG
21	R	5	ARG
21	R	6	LEU
21	R	9	ARG
21	R	23	TRP
21	R	30	ASN
21	R	39	GLN
21	R	40	GLN
21	R	47	ASP
21	R	50	ILE
21	R	58	HIS
21	R	60	ARG
21	R	74	ARG
21	R	81	ARG
21	R	86	ASN
21	R	89	MET
21	R	99	MET
21	R	104	ARG

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Mol	Chain	Res	Type
21	R	105	LEU
21	R	107	ARG
21	R	108	ARG
21	R	109	TYR
21	R	113	LYS
21	R	114	LYS
21	R	117	ARG
21	R	118	HIS
21	R	120	TYR
21	R	124	TYR
21	R	131	VAL
21	R	133	LYS
21	R	136	ARG
21	R	138	LEU
21	R	141	HIS
21	R	163	ARG
21	R	168	GLU
21	R	172	ARG
21	R	175	GLU
21	R	177	LEU
21	R	178	GLN
21	R	180	LYS
22	S	2	LYS
22	S	15	ARG
22	S	28	TYR
22	S	29	ARG
22	S	37	HIS
22	S	44	PHE
22	S	47	PHE
22	S	48	VAL
22	S	53	LYS
22	S	57	SER
22	S	64	CYS
22	S	68	PHE
22	S	70	LYS
22	S	82	LEU
22	S	83	ARG
22	S	84	TYR
22	S	86	SER
22	S	90	THR
22	S	95	ARG
22	S	99	ASP

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Mol	Chain	Res	Type
22	S	100	LEU
22	S	101	THR
22	S	127	MET
22	S	128	LYS
22	S	138	ARG
22	S	146	HIS
22	S	147	ASP
22	S	150	ILE
22	S	151	LYS
22	S	156	HIS
22	S	157	ARG
22	S	159	LEU
22	S	162	GLN
22	S	168	THR
22	S	171	ARG
23	T	5	LYS
23	T	7	LYS
23	T	9	ARG
23	T	13	TYR
23	T	19	PHE
23	T	30	TYR
23	T	32	ARG
23	T	33	ILE
23	T	35	LYS
23	T	36	LYS
23	T	38	ASP
23	T	41	ASP
23	T	54	HIS
23	T	60	LYS
23	T	70	HIS
23	T	76	VAL
23	T	88	ARG
23	T	102	ARG
23	T	103	ASP
23	T	107	LYS
23	T	113	ASP
23	T	118	GLU
23	T	121	GLU
23	T	139	HIS
23	T	142	ARG
23	T	144	ASN
23	T	152	GLU

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Mol	Chain	Res	Type
24	U	21	PHE
24	U	23	LEU
24	U	27	HIS
24	U	33	ILE
24	U	38	ASN
24	U	39	PHE
24	U	40	GLU
24	U	42	PHE
24	U	46	ARG
24	U	50	ASN
24	U	52	LYS
24	U	62	THR
24	U	64	GLU
24	U	65	ARG
24	U	67	LYS
24	U	69	LYS
24	U	82	TYR
24	U	89	LYS
24	U	90	TYR
24	U	98	ASP
24	U	101	ARG
24	U	113	ARG
25	V	13	LYS
25	V	14	PHE
25	V	15	ARG
25	V	18	LEU
25	V	27	ASN
25	V	30	ASP
25	V	36	ASN
25	V	46	LYS
25	V	48	ARG
25	V	50	ASN
25	V	51	ARG
25	V	59	ASP
25	V	60	MET
25	V	73	ARG
25	V	77	HIS
25	V	84	GLN
25	V	91	LYS
25	V	98	PHE
25	V	100	ASP
25	V	107	ASN

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Mol	Chain	Res	Type
25	V	109	LYS
25	V	111	GLU
25	V	123	LYS
25	V	128	LEU
26	W	3	VAL
26	W	4	GLU
26	W	8	PHE
26	W	12	LYS
26	W	17	HIS
26	W	25	ASP
26	W	33	ASN
26	W	44	ARG
26	W	50	ASN
26	W	55	TYR
26	W	56	ARG
26	W	57	ARG
26	W	59	HIS
27	X	39	LYS
27	X	45	THR
27	X	48	ARG
27	X	60	TYR
27	X	62	ARG
27	X	72	ASP
27	X	79	PHE
27	X	84	GLU
27	X	94	ASN
27	X	117	TYR
27	X	120	ASP
27	X	129	ARG
27	X	133	GLU
27	X	137	TYR
27	X	139	ARG
27	X	144	TYR
27	X	148	ASP
27	X	151	ASN
28	Y	2	LYS
28	Y	4	ASN
28	Y	11	ARG
28	Y	15	ARG
28	Y	17	ARG
28	Y	18	HIS
28	Y	19	PHE

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Mol	Chain	Res	Type
28	Y	27	ARG
28	Y	36	LYS
28	Y	45	ARG
28	Y	49	ILE
28	Y	50	ARG
28	Y	53	ASP
28	Y	56	GLN
28	Y	59	ARG
28	Y	62	TYR
28	Y	65	GLN
28	Y	72	GLN
28	Y	82	ILE
28	Y	83	GLU
28	Y	84	ARG
28	Y	87	ARG
28	Y	91	ASN
28	Y	112	ASP
28	Y	114	ASP
28	Y	115	ARG
28	Y	126	ARG
28	Y	127	GLN
29	Z	4	PHE
29	Z	17	ARG
29	Z	21	ARG
29	Z	27	LYS
29	Z	30	ASP
29	Z	36	ARG
29	Z	38	TYR
29	Z	54	THR
29	Z	57	MET
29	Z	60	LYS
29	Z	64	LYS
29	Z	78	ASN
29	Z	88	ASP
29	Z	92	ASP
29	Z	93	LYS
29	Z	98	LYS
29	Z	102	ARG
29	Z	108	ARG
29	Z	109	LYS
29	Z	112	ARG
29	Z	121	ARG

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Mol	Chain	Res	Type
29	Z	122	TYR
29	Z	136	PHE
30	a	7	LYS
30	a	10	LYS
30	a	14	HIS
30	a	19	HIS
30	a	21	ARG
30	a	40	HIS
30	a	41	HIS
30	a	46	ASP
30	a	49	HIS
30	a	52	TYR
30	a	59	ARG
30	a	61	TYR
30	a	63	LEU
30	a	77	LYS
30	a	84	GLU
30	a	105	ARG
30	a	132	ARG
31	b	6	ASN
31	b	7	HIS
31	b	12	GLN
31	b	16	TRP
31	b	18	ARG
31	b	19	ASN
31	b	22	LYS
31	b	23	LYS
31	b	25	ARG
31	b	27	GLN
31	b	28	ARG
31	b	30	GLU
31	b	39	PHE
31	b	43	MET
31	b	44	ARG
31	b	51	LYS
31	b	55	LYS
31	b	65	MET
32	c	18	LEU
32	c	27	TYR
32	c	31	TYR
32	c	37	MET
32	c	39	ARG

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Mol	Chain	Res	Type
32	c	42	LYS
32	c	44	LYS
32	c	52	CYS
32	c	55	LEU
32	c	56	ARG
32	c	59	GLU
32	c	66	LEU
32	c	72	HIS
32	c	73	HIS
32	c	74	TYR
32	c	77	ASN
32	c	78	ASN
32	c	81	LEU
32	c	88	TYR
33	d	18	ASN
33	d	19	GLU
33	d	23	ARG
33	d	26	THR
33	d	28	ASN
33	d	31	LYS
33	d	32	ARG
33	d	38	PHE
33	d	39	LYS
33	d	44	ARG
33	d	67	ARG
33	d	73	TRP
33	d	78	ARG
33	d	79	ASN
33	d	83	ARG
33	d	85	ARG
33	d	86	VAL
33	d	87	ARG
33	d	91	LYS
33	d	93	ASN
33	d	94	GLU
33	d	95	ASP
33	d	101	LYS
33	d	103	TYR
33	d	108	TYR
33	d	109	VAL
33	d	116	ASN
33	d	117	LEU

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Mol	Chain	Res	Type
33	d	118	GLN
33	d	119	THR
33	d	121	ASN
33	d	123	ASP
34	e	11	LYS
34	e	16	ARG
34	e	21	ILE
34	e	26	ASP
34	e	36	ARG
34	e	42	ASP
34	e	43	ASN
34	e	46	ARG
34	e	49	PHE
34	e	52	GLN
34	e	57	ASN
34	e	64	LYS
34	e	68	HIS
34	e	77	PHE
34	e	78	LEU
34	e	85	LEU
34	e	92	ASN
34	e	95	TYR
34	e	106	LYS
34	e	107	ASN
34	e	108	ARG
34	e	113	GLU
34	e	124	ASN
34	e	126	ASN
34	e	128	ARG
35	f	4	ARG
35	f	5	LEU
35	f	7	SER
35	f	14	TYR
35	f	16	ARG
35	f	19	ARG
35	f	22	ARG
35	f	24	HIS
35	f	36	ARG
35	f	49	TYR
35	f	51	TYR
35	f	52	LYS
35	f	71	TRP

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Mol	Chain	Res	Type
35	f	101	ILE
35	f	109	ARG
36	g	3	GLN
36	g	4	ARG
36	g	5	LEU
36	g	12	SER
36	g	14	ASN
36	g	29	ARG
36	g	32	TYR
36	g	52	ARG
36	g	54	ARG
36	g	57	ARG
36	g	60	ARG
36	g	66	ARG
36	g	75	SER
36	g	81	SER
36	g	88	ARG
36	g	93	ARG
36	g	95	PHE
36	g	114	GLN
36	g	115	LYS
37	h	8	ASP
37	h	10	ARG
37	h	15	GLU
37	h	23	ASP
37	h	28	LEU
37	h	48	ARG
37	h	51	ARG
37	h	67	GLU
37	h	68	ASN
37	h	72	PHE
37	h	73	TYR
37	h	89	ARG
37	h	93	ARG
37	h	97	LYS
37	h	100	GLU
37	h	119	PHE
37	h	122	LYS
38	i	3	LEU
38	i	4	ARG
38	i	12	ASN
38	i	20	ASN

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Mol	Chain	Res	Type
38	i	27	SER
38	i	30	ARG
38	i	33	LEU
38	i	42	ASP
38	i	46	GLU
38	i	50	PHE
38	i	54	GLU
38	i	68	ARG
38	i	85	ARG
38	i	88	GLU
38	i	103	LYS
39	j	10	LYS
39	j	25	LYS
39	j	27	TYR
39	j	39	TYR
39	j	45	ARG
39	j	47	TYR
39	j	48	ASN
39	j	55	ARG
39	j	56	ARG
39	j	57	ASN
39	j	71	TYR
39	j	79	ARG
39	j	80	GLU
40	k	14	THR
40	k	19	ASP
40	k	21	LYS
40	k	27	LYS
40	k	30	ASP
40	k	35	LYS
40	k	37	ARG
40	k	51	GLU
40	k	54	GLU
40	k	56	LEU
40	k	60	LEU
40	k	70	LYS
41	l	11	ARG
41	l	12	PHE
41	l	16	LYS
41	l	17	GLN
41	l	21	ARG
41	l	36	ARG

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Mol	Chain	Res	Type
41	l	46	ARG
41	l	49	LEU
42	m	79	GLU
42	m	84	GLN
42	m	87	GLN
42	m	89	TYR
42	m	90	ASN
42	m	96	CYS
42	m	97	ARG
42	m	98	LYS
42	m	99	CYS
42	m	104	HIS
42	m	106	ARG
42	m	109	ASN
42	m	111	ARG
42	m	119	ASN
43	n	8	LYS
43	n	9	ARG
43	n	18	ARG
43	n	20	MET
43	n	21	ARG
44	o	6	LYS
44	o	11	PHE
44	o	24	THR
44	o	26	TYR
44	o	33	LEU
44	o	36	GLN
44	o	42	ASP
44	o	45	GLN
44	o	48	TYR
44	o	57	ARG
44	o	58	LYS
44	o	59	LYS
44	o	61	LYS
44	o	64	LYS
44	o	69	ARG
44	o	76	ASN
44	o	78	ARG
44	o	79	SER
44	o	81	ARG
44	o	82	MET
44	o	99	ARG

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Mol	Chain	Res	Type
44	o	102	GLN
45	p	3	LYS
45	p	4	ARG
45	p	16	THR
45	p	30	GLU
45	p	34	HIS
45	p	48	LYS
45	p	49	ARG
45	p	69	TRP
45	p	71	TYR
45	p	84	ARG
45	p	85	ARG
45	p	87	LYS
45	p	92	GLN
46	q	5	ASP
46	q	6	ARG
46	q	14	PHE
46	q	16	LYS
46	q	26	LYS
46	q	33	ASP
46	q	42	GLN
46	q	44	ARG
46	q	45	MET
46	q	48	ARG
46	q	57	LYS
46	q	59	THR
46	q	62	ARG
46	q	69	LEU
46	q	77	LYS
46	q	81	HIS
46	q	83	ARG
46	q	98	ILE
46	q	100	ASP
46	q	102	LEU
46	q	103	ARG
46	q	116	ILE
46	q	127	ASN
46	q	141	LEU
46	q	143	ILE
46	q	149	ARG
46	q	155	LEU
46	q	158	VAL

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Mol	Chain	Res	Type
46	q	162	LYS
46	q	183	PHE
46	q	185	PHE
46	q	191	GLN
46	q	194	ASP
46	q	197	SER
46	q	202	GLU
46	q	203	VAL
46	q	206	ILE
47	r	7	TRP
47	r	11	ARG
47	r	13	CYS
47	r	15	SER
47	r	16	PHE
47	r	18	ILE
47	r	26	SER
47	r	28	GLU
47	r	30	ASN
47	r	33	LYS
47	r	35	ARG
47	r	39	ARG
47	r	46	HIS
47	r	64	ILE
47	r	66	ARG
47	r	67	ARG
47	r	71	ARG
47	r	83	ASN
47	r	102	TYR
47	r	106	LEU
47	r	107	ARG
47	r	112	ARG
47	r	115	SER
48	4	3	ASN
48	4	4	PHE
48	4	5	THR
48	4	6	VAL
48	4	12	ILE
48	4	15	LYS
48	4	16	LYS
48	4	27	HIS
48	4	45	ILE
48	4	48	SER

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Mol	Chain	Res	Type
48	4	50	ARG
48	4	53	GLU
48	4	55	ARG
48	4	56	PHE
48	4	60	ARG
48	4	61	LYS
48	4	64	GLN
48	4	71	LYS
48	4	75	ILE
48	4	79	TYR
48	4	91	GLN
48	4	92	SER
48	4	93	LYS
48	4	109	VAL
48	4	110	ASP
48	4	113	SER
48	4	114	GLU
48	4	122	THR
48	4	141	THR
48	4	144	ARG
48	4	159	LYS
48	4	160	MET
48	4	162	ARG
48	4	166	GLU
48	4	167	LEU
48	4	168	GLN
48	4	169	LEU
48	4	183	GLU
48	4	192	TYR
48	4	194	GLU
48	4	196	GLU
48	4	200	MET
48	4	209	LEU
48	4	216	SER
48	4	225	LEU
48	4	226	LYS
48	4	228	PHE
48	4	236	PHE
48	4	239	LYS
48	4	244	LEU
48	4	248	GLU
48	4	252	LYS

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Mol	Chain	Res	Type
48	4	256	MET
48	4	258	LYS
48	4	264	ARG
48	4	265	TYR
48	4	267	ASP
48	4	275	LYS
48	4	281	GLU
48	4	284	LYS
48	4	311	GLU
48	4	314	LYS
48	4	317	GLU
48	4	322	LYS
48	4	330	LYS
48	4	333	LYS
48	4	343	TRP
48	4	359	PRO
48	4	366	LYS
48	4	368	ARG
48	4	370	GLU
48	4	371	LEU
48	4	393	PRO
48	4	409	ARG
48	4	411	TYR
48	4	420	LEU
48	4	439	LYS
48	4	448	GLN
48	4	461	ILE
48	4	462	GLU
48	4	476	ASP
48	4	477	GLN
48	4	481	LYS
48	4	488	PHE
48	4	492	HIS
48	4	493	ASN
48	4	495	ARG
48	4	497	MET
48	4	498	LYS
48	4	499	PHE
48	4	502	SER
48	4	512	LYS
48	4	519	LYS
48	4	524	LEU

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Mol	Chain	Res	Type
48	4	525	LYS
48	4	526	ARG
48	4	540	GLU
48	4	541	SER
48	4	559	LYS
48	4	560	ASP
48	4	563	GLU
48	4	570	ILE
48	4	571	LYS
48	4	572	LYS
48	4	579	TYR
48	4	592	LEU
48	4	607	ARG
48	4	609	PHE
48	4	613	LEU
48	4	615	GLU
48	4	619	LYS
48	4	625	ARG
48	4	630	GLN
48	4	641	TRP
48	4	647	ARG
48	4	667	LYS
48	4	669	VAL
48	4	672	LEU
48	4	673	ASN
48	4	689	GLU
48	4	726	ARG
48	4	727	ARG
48	4	745	TYR
48	4	746	LEU
48	4	748	GLU
48	4	754	GLN
48	4	775	GLN
48	4	794	PHE
48	4	801	ARG
48	4	807	GLN
48	4	809	PHE
48	4	817	TRP
48	4	823	ASP
48	4	827	ASN
48	4	830	ARG
48	4	842	LYS

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Mol	Chain	Res	Type
48	4	845	LYS
48	4	846	GLU
48	4	848	ILE
48	4	849	PRO
48	4	855	LEU
48	4	858	LEU
50	SA	8	LEU
50	SA	32	PHE
50	SA	39	TYR
50	SA	44	ASP
50	SA	53	ARG
50	SA	58	LEU
50	SA	60	LEU
50	SA	73	ASP
50	SA	79	SER
50	SA	81	ASN
50	SA	89	LYS
50	SA	90	PHE
50	SA	99	ILE
50	SA	102	ARG
50	SA	105	PRO
50	SA	111	GLN
50	SA	116	PHE
50	SA	128	ARG
50	SA	130	ASP
50	SA	140	VAL
50	SA	141	ASN
50	SA	151	ASP
50	SA	158	ASP
50	SA	169	HIS
50	SA	177	MET
50	SA	178	LEU
50	SA	180	ARG
50	SA	181	GLU
50	SA	186	ARG
50	SA	195	TRP
50	SA	198	MET
50	SA	203	PHE
50	SA	206	ASP
51	SB	27	LYS
51	SB	31	TYR
51	SB	48	LEU

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Mol	Chain	Res	Type
51	SB	51	ARG
51	SB	52	THR
51	SB	56	LYS
51	SB	60	ASP
51	SB	67	PHE
51	SB	76	ASN
51	SB	77	ASP
51	SB	81	PHE
51	SB	99	ASN
51	SB	105	LEU
51	SB	107	ARG
51	SB	119	THR
51	SB	133	TYR
51	SB	136	ARG
51	SB	142	PHE
51	SB	146	ARG
51	SB	148	ASN
51	SB	150	ILE
51	SB	155	TYR
51	SB	158	HIS
51	SB	162	ARG
51	SB	180	ASP
51	SB	181	LEU
51	SB	191	ASP
51	SB	196	ASP
51	SB	205	TYR
51	SB	208	HIS
52	SC	60	TRP
52	SC	61	MET
52	SC	65	LYS
52	SC	71	LYS
52	SC	72	ASP
52	SC	78	LEU
52	SC	79	GLU
52	SC	92	GLU
52	SC	97	PHE
52	SC	101	SER
52	SC	104	ASP
52	SC	110	MET
52	SC	114	LYS
52	SC	115	GLN
52	SC	120	GLN

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Mol	Chain	Res	Type
52	SC	121	ARG
52	SC	134	ASN
52	SC	137	VAL
52	SC	142	LYS
52	SC	152	ARG
52	SC	167	ARG
52	SC	169	TYR
52	SC	200	ARG
52	SC	215	MET
52	SC	221	ASP
52	SC	227	ARG
52	SC	235	ASN
52	SC	236	PHE
52	SC	242	ASP
52	SC	245	SER
52	SC	250	TYR
52	SC	253	PRO
52	SC	255	LEU
52	SC	262	THR
52	SC	272	HIS
52	SC	275	LYS
53	SD	6	SER
53	SD	9	ARG
53	SD	22	ASN
53	SD	23	GLU
53	SD	24	PHE
53	SD	32	ASP
53	SD	53	THR
53	SD	67	ARG
53	SD	76	ARG
53	SD	87	TYR
53	SD	94	ARG
53	SD	103	GLU
53	SD	107	TYR
53	SD	129	SER
53	SD	135	GLU
53	SD	152	PHE
53	SD	154	ASP
53	SD	158	ILE
53	SD	167	TYR
53	SD	169	ASP
53	SD	177	LEU

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Mol	Chain	Res	Type
53	SD	178	ARG
53	SD	206	ASP
53	SD	212	GLU
53	SD	216	GLU
53	SD	218	LEU
53	SD	225	GLU
54	SE	3	ARG
54	SE	8	HIS
54	SE	9	LEU
54	SE	11	ARG
54	SE	15	PRO
54	SE	18	TRP
54	SE	21	ASP
54	SE	30	ARG
54	SE	39	ARG
54	SE	49	ARG
54	SE	51	ARG
54	SE	54	TYR
54	SE	66	MET
54	SE	67	GLN
54	SE	73	ASP
54	SE	93	ASP
54	SE	95	THR
54	SE	98	ASN
54	SE	99	PHE
54	SE	106	LYS
54	SE	117	GLU
54	SE	118	GLU
54	SE	121	TYR
54	SE	127	ARG
54	SE	130	PHE
54	SE	155	LYS
54	SE	158	ASP
54	SE	164	LEU
54	SE	165	GLU
54	SE	179	ASN
54	SE	180	LEU
54	SE	191	ARG
54	SE	198	ARG
54	SE	205	PHE
54	SE	206	ASP
54	SE	220	THR

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Mol	Chain	Res	Type
54	SE	224	ASN
54	SE	226	PHE
54	SE	240	ARG
54	SE	242	LYS
54	SE	253	ASP
54	SE	255	ARG
54	SE	259	LYS
54	SE	260	GLN
55	SF	23	TRP
55	SF	29	GLN
55	SF	38	TYR
55	SF	42	LYS
55	SF	49	LEU
55	SF	63	LYS
55	SF	65	GLN
55	SF	79	HIS
55	SF	82	ASN
55	SF	83	ASN
55	SF	88	MET
55	SF	95	HIS
55	SF	106	GLU
55	SF	109	LEU
55	SF	110	GLN
55	SF	118	ASN
55	SF	122	ARG
55	SF	123	GLU
55	SF	124	ASP
55	SF	130	ARG
55	SF	136	ARG
55	SF	137	GLN
55	SF	140	ASP
55	SF	145	ARG
55	SF	168	THR
55	SF	171	GLU
55	SF	172	CYS
55	SF	176	GLU
55	SF	186	ASN
55	SF	190	ILE
55	SF	194	ASP
55	SF	195	GLU
55	SF	198	ARG
56	SG	12	CYS

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Mol	Chain	Res	Type
56	SG	20	ASP
56	SG	21	GLU
56	SG	30	LYS
56	SG	31	ARG
56	SG	32	MET
56	SG	56	ASN
56	SG	58	LYS
56	SG	59	GLN
56	SG	64	LYS
56	SG	70	HIS
56	SG	74	ARG
56	SG	76	LEU
56	SG	87	ARG
56	SG	88	ARG
56	SG	110	ASN
56	SG	120	ASP
56	SG	121	ILE
56	SG	126	ASP
56	SG	132	ARG
56	SG	136	LYS
56	SG	140	ARG
56	SG	143	LYS
56	SG	152	ASP
56	SG	159	ARG
56	SG	162	LEU
56	SG	164	LYS
56	SG	165	GLU
56	SG	170	ARG
56	SG	191	ARG
56	SG	196	LYS
56	SG	198	ARG
56	SG	213	LEU
56	SG	225	GLN
56	SG	227	GLN
56	SG	236	SER
57	SH	16	PRO
57	SH	23	ILE
57	SH	33	ASN
57	SH	35	ASP
57	SH	36	LEU
57	SH	40	LEU
57	SH	57	ARG

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Mol	Chain	Res	Type
57	SH	74	LYS
57	SH	81	ARG
57	SH	83	LEU
57	SH	87	PHE
57	SH	99	ARG
57	SH	135	PHE
57	SH	151	SER
57	SH	159	ASP
57	SH	162	GLN
57	SH	165	ASN
57	SH	166	VAL
57	SH	184	ASP
57	SH	186	ASN
58	SI	6	ASP
58	SI	8	TRP
58	SI	12	ARG
58	SI	21	TYR
58	SI	22	HIS
58	SI	27	TYR
58	SI	47	ARG
58	SI	49	ARG
58	SI	52	ASN
58	SI	58	LEU
58	SI	67	TRP
58	SI	70	GLU
58	SI	73	THR
58	SI	74	ARG
58	SI	83	TYR
58	SI	87	ASN
58	SI	105	ASP
58	SI	106	SER
58	SI	110	ARG
58	SI	112	TRP
58	SI	123	ARG
58	SI	140	LYS
58	SI	149	TYR
58	SI	155	ASN
58	SI	178	ARG
58	SI	191	GLU
58	SI	196	GLU
58	SI	197	PHE
58	SI	203	LYS

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Mol	Chain	Res	Type
58	SI	206	LYS
59	SJ	5	ARG
59	SJ	9	CYS
59	SJ	10	ARG
59	SJ	17	ARG
59	SJ	18	ARG
59	SJ	20	PHE
59	SJ	26	ASP
59	SJ	29	LEU
59	SJ	39	ASN
59	SJ	67	ASP
59	SJ	69	ARG
59	SJ	79	ARG
59	SJ	93	LYS
59	SJ	101	LYS
59	SJ	104	ASP
59	SJ	108	ARG
59	SJ	109	ARG
59	SJ	110	LEU
59	SJ	115	PHE
59	SJ	116	LYS
59	SJ	123	ILE
59	SJ	124	HIS
59	SJ	127	ARG
59	SJ	131	ARG
59	SJ	138	ARG
59	SJ	139	LYS
59	SJ	147	PHE
59	SJ	150	ARG
59	SJ	152	ASP
59	SJ	159	PHE
59	SJ	162	ARG
59	SJ	165	TYR
59	SJ	169	ARG
60	SK	1	MET
60	SK	2	LEU
60	SK	5	LYS
60	SK	8	ARG
60	SK	13	GLU
60	SK	16	PHE
60	SK	32	HIS
60	SK	37	ASP

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Mol	Chain	Res	Type
60	SK	39	ASN
60	SK	40	VAL
60	SK	43	LEU
60	SK	46	MET
60	SK	61	GLN
60	SK	65	ARG
60	SK	66	HIS
60	SK	74	GLU
60	SK	80	ARG
60	SK	81	ASP
60	SK	84	HIS
60	SK	89	ILE
60	SK	95	ARG
61	SL	8	ARG
61	SL	16	ILE
61	SL	20	LYS
61	SL	22	ARG
61	SL	27	GLU
61	SL	35	ARG
61	SL	39	ASN
61	SL	40	ILE
61	SL	65	ASN
61	SL	69	ARG
61	SL	92	TYR
61	SL	97	ARG
61	SL	103	GLU
61	SL	108	ASN
61	SL	113	LEU
61	SL	116	CYS
61	SL	117	PHE
61	SL	121	GLN
61	SL	124	ASP
61	SL	147	LYS
62	SM	12	MET
62	SM	13	ASP
62	SM	18	LEU
62	SM	26	LEU
62	SM	29	ASP
62	SM	31	LEU
62	SM	33	ARG
62	SM	36	ARG
62	SM	45	ARG

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Mol	Chain	Res	Type
62	SM	48	HIS
62	SM	52	GLN
62	SM	57	ASP
62	SM	73	GLN
62	SM	75	ASN
62	SM	76	LEU
62	SM	77	ILE
62	SM	83	LYS
62	SM	88	TRP
62	SM	91	LEU
62	SM	95	ASP
62	SM	96	ARG
62	SM	99	ASN
62	SM	101	ARG
62	SM	102	LYS
62	SM	104	VAL
62	SM	113	ASP
62	SM	114	TYR
62	SM	127	TYR
63	SN	3	ARG
63	SN	25	TRP
63	SN	27	LYS
63	SN	31	ASP
63	SN	38	TYR
63	SN	55	ARG
63	SN	56	ASP
63	SN	58	HIS
63	SN	62	GLN
63	SN	64	ARG
63	SN	69	ASN
63	SN	76	LYS
63	SN	83	ASP
63	SN	84	LEU
63	SN	86	GLU
63	SN	87	ASP
63	SN	89	TYR
63	SN	99	ARG
63	SN	101	HIS
63	SN	104	ARG
63	SN	105	ASN
63	SN	113	PHE
63	SN	121	ARG

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Mol	Chain	Res	Type
63	SN	125	LEU
63	SN	127	ARG
63	SN	128	TYR
63	SN	132	LYS
63	SN	133	ARG
63	SN	144	SER
64	SO	17	LEU
64	SO	34	PHE
64	SO	39	ASP
64	SO	41	PHE
64	SO	43	HIS
64	SO	51	GLU
64	SO	52	THR
64	SO	63	LYS
64	SO	65	ASP
64	SO	80	ASP
64	SO	84	ARG
64	SO	86	LYS
64	SO	94	HIS
64	SO	103	ASN
64	SO	106	LYS
64	SO	116	LEU
64	SO	117	ARG
64	SO	121	ARG
64	SO	128	ARG
64	SO	130	GLU
64	SO	146	ARG
64	SO	147	ARG
64	SO	150	ARG
65	SP	5	GLU
65	SP	7	LYS
65	SP	10	ARG
65	SP	12	PHE
65	SP	15	PHE
65	SP	40	ARG
65	SP	41	GLN
65	SP	42	ARG
65	SP	43	ARG
65	SP	44	ARG
65	SP	50	ARG
65	SP	51	ARG
65	SP	52	LYS

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Mol	Chain	Res	Type
65	SP	79	HIS
65	SP	86	LEU
66	SQ	15	ARG
66	SQ	26	LYS
66	SQ	35	ASN
66	SQ	41	MET
66	SQ	45	ARG
66	SQ	62	ARG
66	SQ	73	LYS
66	SQ	85	ARG
66	SQ	90	LYS
66	SQ	99	TYR
66	SQ	114	GLN
66	SQ	123	ASP
66	SQ	126	ARG
66	SQ	128	GLU
66	SQ	138	ARG
66	SQ	140	ARG
66	SQ	145	TYR
67	SR	3	ARG
67	SR	18	GLU
67	SR	31	ASN
67	SR	37	GLU
67	SR	56	HIS
67	SR	78	ARG
67	SR	79	GLU
67	SR	83	ASN
67	SR	87	GLU
67	SR	91	LEU
67	SR	93	GLN
67	SR	109	LEU
67	SR	118	GLN
67	SR	120	THR
67	SR	121	GLN
68	SS	8	LYS
68	SS	10	GLN
68	SS	14	ARG
68	SS	23	ARG
68	SS	28	PHE
68	SS	34	LYS
68	SS	39	ARG
68	SS	63	GLU

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Mol	Chain	Res	Type
68	SS	78	LYS
68	SS	82	TRP
68	SS	85	ASN
68	SS	86	ARG
68	SS	87	GLN
68	SS	92	ASP
68	SS	95	TYR
68	SS	108	ARG
68	SS	118	ARG
68	SS	124	ARG
68	SS	125	HIS
68	SS	134	GLN
68	SS	135	HIS
68	SS	142	ARG
69	ST	11	GLN
69	ST	13	GLU
69	ST	16	ARG
69	ST	21	PHE
69	ST	28	LEU
69	ST	33	TRP
69	ST	35	ASP
69	ST	42	HIS
69	ST	53	PHE
69	ST	62	ARG
69	ST	63	HIS
69	ST	74	SER
69	ST	79	TYR
69	ST	82	ARG
69	ST	83	GLN
69	ST	84	ARG
69	ST	92	PHE
69	ST	94	ARG
69	ST	97	LYS
69	ST	118	ASP
69	ST	121	ARG
69	ST	128	GLN
69	ST	129	ARG
70	SU	19	ARG
70	SU	47	ASN
70	SU	48	LEU
70	SU	49	LYS
70	SU	51	LYS

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Mol	Chain	Res	Type
70	SU	55	ARG
70	SU	56	MET
70	SU	77	TRP
70	SU	87	ARG
70	SU	111	GLU
71	SV	1	MET
71	SV	2	GLN
71	SV	4	ASP
71	SV	11	LEU
71	SV	18	SER
71	SV	21	ASN
71	SV	39	VAL
71	SV	45	ARG
71	SV	47	ASN
71	SV	49	GLN
71	SV	50	PHE
71	SV	81	LYS
71	SV	82	ASN
72	SW	2	VAL
72	SW	3	ARG
72	SW	12	LYS
72	SW	24	GLN
72	SW	28	ARG
72	SW	36	ARG
72	SW	37	PHE
72	SW	52	ILE
72	SW	56	HIS
72	SW	57	ARG
72	SW	70	ASN
72	SW	78	ARG
72	SW	80	ASP
72	SW	85	ASP
72	SW	90	GLN
72	SW	91	ASN
72	SW	98	GLN
72	SW	104	LEU
72	SW	105	THR
73	SX	5	ARG
73	SX	9	THR
73	SX	17	ARG
73	SX	19	ASP
73	SX	32	LEU

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Mol	Chain	Res	Type
73	SX	45	SER
73	SX	46	HIS
73	SX	61	GLN
73	SX	67	ARG
73	SX	87	ASN
73	SX	88	ASP
73	SX	105	PHE
73	SX	107	ARG
73	SX	114	ASP
73	SX	131	LEU
73	SX	135	LYS
74	SY	3	ASP
74	SY	16	ARG
74	SY	17	LEU
74	SY	19	GLN
74	SY	20	ARG
74	SY	23	MET
74	SY	29	HIS
74	SY	47	MET
74	SY	54	VAL
74	SY	61	ARG
74	SY	63	HIS
74	SY	64	PHE
74	SY	69	THR
74	SY	80	ASP
74	SY	93	ARG
74	SY	96	LEU
74	SY	98	GLU
74	SY	99	LYS
74	SY	101	LYS
74	SY	107	ARG
74	SY	111	LYS
74	SY	118	ARG
75	SZ	44	LEU
75	SZ	45	ASN
75	SZ	49	LEU
75	SZ	64	ASN
75	SZ	69	THR
75	SZ	85	ARG
75	SZ	94	LYS
75	SZ	97	ILE
75	SZ	109	TYR

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Mol	Chain	Res	Type
75	SZ	110	THR
75	SZ	114	LYS
76	Sa	28	ARG
76	Sa	41	ILE
76	Sa	43	ASN
76	Sa	51	ARG
76	Sa	52	ASP
76	Sa	62	TYR
76	Sa	72	HIS
76	Sa	94	ASP
76	Sa	95	ARG
77	Sb	14	GLU
77	Sb	17	ARG
77	Sb	26	GLN
77	Sb	34	ASP
77	Sb	37	CYS
77	Sb	47	PHE
77	Sb	59	CYS
77	Sb	72	ARG
77	Sb	78	SER
77	Sb	83	GLN
77	Sb	84	HIS
78	Sc	5	ARG
78	Sc	7	GLN
78	Sc	13	ARG
78	Sc	21	THR
78	Sc	26	GLN
78	Sc	31	ARG
78	Sc	33	GLU
78	Sc	34	PHE
78	Sc	40	ARG
78	Sc	44	ARG
78	Sc	51	ARG
78	Sc	54	ASP
78	Sc	60	GLU
78	Sc	67	ARG
79	Sd	6	PHE
79	Sd	8	TRP
79	Sd	10	HIS
79	Sd	12	ARG
79	Sd	19	ARG
79	Sd	26	ASN

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Mol	Chain	Res	Type
79	Sd	30	LEU
79	Sd	32	ARG
79	Sd	43	PHE
79	Sd	56	ASP
80	Se	13	ARG
80	Se	15	GLN
80	Se	18	LYS
80	Se	26	LYS
80	Se	28	LYS
80	Se	31	ARG
80	Se	34	ARG
80	Se	35	ARG
80	Se	40	ARG
80	Se	41	ARG
80	Se	52	LYS
81	Sf	87	THR
81	Sf	89	LYS
81	Sf	95	ARG
81	Sf	98	VAL
81	Sf	106	TYR
81	Sf	116	ARG
81	Sf	119	ARG
81	Sf	126	CYS
81	Sf	131	PHE
81	Sf	136	PHE
81	Sf	138	ARG
81	Sf	139	HIS
81	Sf	140	TYR
81	Sf	141	CYS
81	Sf	146	LEU
81	Sf	148	TYR
81	Sf	149	CYS
81	Sf	150	PHE
81	Sf	152	LYS
82	Sg	8	ARG
82	Sg	15	ASN
82	Sg	17	TRP
82	Sg	20	GLN
82	Sg	24	THR
82	Sg	44	LYS
82	Sg	47	ARG
82	Sg	49	GLU

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Mol	Chain	Res	Type
82	Sg	60	ARG
82	Sg	65	PHE
82	Sg	74	ASP
82	Sg	84	ASP
82	Sg	99	ARG
82	Sg	100	ARG
82	Sg	107	ASP
82	Sg	118	ARG
82	Sg	133	ASN
82	Sg	140	TYR
82	Sg	143	GLN
82	Sg	167	SER
82	Sg	194	TYR
82	Sg	226	HIS
82	Sg	229	THR
82	Sg	234	ASP
82	Sg	249	CYS
82	Sg	268	ASP
82	Sg	282	GLU
82	Sg	294	ASP
82	Sg	297	THR
82	Sg	306	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (296) such sidechains are listed below:

Mol	Chain	Res	Type
4	A	19	HIS
4	A	100	ASN
4	A	132	ASN
4	A	194	ASN
4	A	209	HIS
4	A	215	ASN
5	B	123	HIS
5	B	167	GLN
5	B	179	HIS
5	B	203	GLN
5	B	258	HIS
5	B	275	HIS
5	B	276	HIS
5	B	301	ASN
5	B	302	ASN
5	B	322	HIS

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Mol	Chain	Res	Type
5	B	380	GLN
6	C	50	GLN
6	C	85	HIS
6	C	94	ASN
6	C	112	HIS
6	C	142	HIS
6	C	178	ASN
6	C	198	ASN
6	C	203	GLN
6	C	223	ASN
6	C	286	ASN
6	C	338	ASN
6	C	343	GLN
7	D	45	ASN
7	D	94	ASN
7	D	111	ASN
7	D	122	GLN
7	D	131	ASN
7	D	157	ASN
7	D	191	ASN
7	D	195	HIS
7	D	198	HIS
7	D	202	GLN
7	D	244	HIS
7	D	250	ASN
7	D	282	GLN
8	E	124	HIS
8	E	153	HIS
8	E	178	ASN
8	E	186	HIS
8	E	224	GLN
8	E	246	GLN
9	F	58	HIS
9	F	82	ASN
9	F	153	ASN
9	F	165	ASN
9	F	174	ASN
9	F	194	HIS
9	F	237	ASN
9	F	250	ASN
10	G	29	ASN
10	G	64	GLN

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Mol	Chain	Res	Type
10	G	81	ASN
10	G	108	GLN
10	G	112	GLN
10	G	153	GLN
10	G	227	ASN
10	G	231	ASN
11	H	40	HIS
11	H	63	ASN
11	H	106	GLN
12	I	59	GLN
12	I	100	ASN
12	I	144	ASN
12	I	163	GLN
12	I	213	HIS
13	J	155	HIS
14	K	149	HIS
15	L	6	ASN
15	L	28	GLN
15	L	104	ASN
15	L	113	ASN
15	L	159	ASN
16	M	33	GLN
16	M	34	ASN
16	M	48	GLN
16	M	66	HIS
17	N	8	GLN
17	N	90	ASN
17	N	178	HIS
17	N	181	HIS
17	N	182	HIS
17	N	196	ASN
17	N	201	HIS
18	O	65	ASN
18	O	96	GLN
18	O	173	GLN
19	P	25	HIS
19	P	28	ASN
19	P	54	GLN
19	P	64	ASN
19	P	72	GLN
19	P	80	GLN
19	P	97	ASN

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Mol	Chain	Res	Type
19	P	133	HIS
19	P	145	HIS
20	Q	7	HIS
20	Q	40	ASN
20	Q	57	ASN
21	R	66	ASN
21	R	75	HIS
21	R	118	HIS
21	R	143	HIS
22	S	37	HIS
22	S	91	HIS
22	S	92	ASN
22	S	122	HIS
22	S	125	GLN
22	S	163	HIS
23	T	58	HIS
23	T	70	HIS
23	T	139	HIS
24	U	55	ASN
25	V	36	ASN
26	W	17	HIS
26	W	59	HIS
27	X	93	ASN
27	X	111	GLN
28	Y	24	HIS
28	Y	56	GLN
28	Y	72	GLN
28	Y	86	GLN
28	Y	100	HIS
28	Y	127	GLN
29	Z	79	HIS
30	a	41	HIS
30	a	62	HIS
30	a	66	ASN
30	a	67	GLN
31	b	6	ASN
31	b	7	HIS
31	b	12	GLN
31	b	19	ASN
31	b	27	GLN
31	b	42	ASN
32	c	19	GLN

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Mol	Chain	Res	Type
32	c	40	GLN
32	c	73	HIS
32	c	77	ASN
33	d	30	HIS
33	d	93	ASN
33	d	100	ASN
34	e	24	GLN
34	e	43	ASN
34	e	126	ASN
35	f	21	GLN
35	f	24	HIS
35	f	55	ASN
35	f	80	ASN
36	g	18	ASN
36	g	110	GLN
36	g	112	GLN
37	h	68	ASN
37	h	98	HIS
39	j	16	HIS
39	j	48	ASN
41	l	19	GLN
42	m	84	GLN
42	m	87	GLN
42	m	109	ASN
44	o	21	HIS
44	o	25	GLN
44	o	45	GLN
44	o	76	ASN
44	o	90	HIS
46	q	41	GLN
46	q	58	ASN
46	q	68	HIS
46	q	126	GLN
46	q	139	GLN
46	q	191	GLN
46	q	200	ASN
47	r	6	GLN
47	r	12	ASN
47	r	21	ASN
47	r	31	ASN
47	r	36	ASN
47	r	41	ASN

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Mol	Chain	Res	Type
47	r	70	GLN
47	r	83	ASN
48	4	3	ASN
48	4	21	ASN
48	4	27	HIS
48	4	64	GLN
48	4	158	ASN
48	4	168	GLN
48	4	179	GLN
48	4	448	GLN
48	4	477	GLN
48	4	493	ASN
48	4	684	GLN
48	4	705	HIS
48	4	710	HIS
48	4	715	HIS
48	4	737	GLN
48	4	803	ASN
48	4	807	GLN
48	4	811	GLN
48	4	816	HIS
48	4	827	ASN
50	SA	24	HIS
50	SA	33	GLN
50	SA	84	GLN
50	SA	141	ASN
50	SA	169	HIS
51	SB	40	ASN
51	SB	99	ASN
51	SB	118	GLN
51	SB	124	HIS
51	SB	148	ASN
52	SC	113	GLN
52	SC	115	GLN
52	SC	120	GLN
52	SC	134	ASN
52	SC	272	HIS
53	SD	4	GLN
53	SD	22	ASN
53	SD	159	HIS
54	SE	36	HIS
54	SE	138	HIS

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Mol	Chain	Res	Type
54	SE	161	GLN
55	SF	29	GLN
55	SF	65	GLN
55	SF	82	ASN
55	SF	95	HIS
55	SF	137	GLN
55	SF	186	ASN
55	SF	203	ASN
56	SG	59	GLN
56	SG	65	GLN
56	SG	110	ASN
58	SI	9	HIS
58	SI	44	HIS
58	SI	155	ASN
58	SI	165	GLN
59	SJ	111	GLN
59	SJ	177	ASN
60	SK	28	HIS
60	SK	39	ASN
61	SL	19	ASN
61	SL	106	HIS
61	SL	141	ASN
62	SM	19	GLN
62	SM	48	HIS
62	SM	99	ASN
63	SN	5	HIS
63	SN	69	ASN
65	SP	41	GLN
65	SP	46	ASN
65	SP	79	HIS
66	SQ	48	GLN
66	SQ	114	GLN
66	SQ	142	GLN
67	SR	83	ASN
68	SS	10	GLN
68	SS	17	ASN
68	SS	42	HIS
68	SS	120	HIS
68	SS	125	HIS
68	SS	135	HIS
69	ST	51	ASN
69	ST	63	HIS

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Mol	Chain	Res	Type
70	SU	47	ASN
71	SV	29	HIS
71	SV	47	ASN
71	SV	49	GLN
72	SW	64	ASN
72	SW	82	GLN
72	SW	98	GLN
73	SX	20	HIS
73	SX	23	HIS
73	SX	61	GLN
73	SX	87	ASN
73	SX	97	ASN
74	SY	85	ASN
74	SY	94	HIS
75	SZ	103	HIS
76	Sa	17	HIS
76	Sa	72	HIS
77	Sb	19	HIS
78	Sc	7	GLN
78	Sc	24	GLN
78	Sc	26	GLN
79	Sd	10	HIS
79	Sd	26	ASN
79	Sd	28	HIS
81	Sf	111	ASN
82	Sg	119	GLN
82	Sg	181	ASN
82	Sg	215	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	5	3647/3664 (99%)	1616 (44%)	621 (17%)
2	7	119/120 (99%)	31 (26%)	9 (7%)
3	8	155/156 (99%)	61 (39%)	22 (14%)
49	S2	1717/1742 (98%)	745 (43%)	269 (15%)
All	All	5638/5682 (99%)	2453 (43%)	921 (16%)

All (2453) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	5	2	G
1	5	5	A
1	5	6	C
1	5	8	U
1	5	12	A
1	5	13	U
1	5	20	U
1	5	21	G
1	5	25	A
1	5	33	A
1	5	34	A
1	5	39	A
1	5	40	G
1	5	42	A
1	5	43	U
1	5	47	A
1	5	48	G
1	5	49	U
1	5	50	C
1	5	51	A
1	5	54	G
1	5	55	G
1	5	56	A
1	5	58	G
1	5	59	A
1	5	64	A
1	5	65	A
1	5	66	A
1	5	69	A
1	5	70	A
1	5	71	C
1	5	72	C
1	5	74	G
1	5	80	C
1	5	81	C
1	5	84	A
1	5	85	G
1	5	88	A
1	5	89	C
1	5	91	G
1	5	92	C
1	5	93	G
1	5	94	A

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Mol	Chain	Res	Type
1	5	95	G
1	5	96	U
1	5	98	A
1	5	99	A
1	5	101	A
1	5	107	G
1	5	108	A
1	5	109	G
1	5	110	C
1	5	111	C
1	5	112	C
1	5	115	C
1	5	118	C
1	5	119	G
1	5	120	A
1	5	121	A
1	5	126	C
1	5	128	C
1	5	129	C
1	5	130	C
1	5	131	C
1	5	132	G
1	5	134	G
1	5	135	G
1	5	136	C
1	5	137	G
1	5	138	G
1	5	139	G
1	5	143	C
1	5	144	G
1	5	145	G
1	5	150	U
1	5	152	U
1	5	157	U
1	5	158	A
1	5	159	C
1	5	164	G
1	5	170	C
1	5	171	U
1	5	172	C
1	5	173	C
1	5	178	C

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Mol	Chain	Res	Type
1	5	182	G
1	5	183	C
1	5	184	U
1	5	185	C
1	5	186	G
1	5	187	U
1	5	188	G
1	5	189	G
1	5	195	C
1	5	196	C
1	5	197	A
1	5	198	A
1	5	200	U
1	5	201	C
1	5	202	C
1	5	203	U
1	5	205	C
1	5	206	U
1	5	210	C
1	5	211	G
1	5	216	C
1	5	217	C
1	5	218	A
1	5	219	G
1	5	220	C
1	5	221	C
1	5	224	U
1	5	225	G
1	5	226	G
1	5	227	A
1	5	232	G
1	5	233	U
1	5	234	G
1	5	235	A
1	5	236	G
1	5	238	C
1	5	239	C
1	5	245	C
1	5	246	G
1	5	255	C
1	5	257	C
1	5	262	G

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Mol	Chain	Res	Type
1	5	264	C
1	5	265	C
1	5	266	C
1	5	267	G
1	5	270	U
1	5	274	C
1	5	275	C
1	5	276	C
1	5	277	G
1	5	278	G
1	5	280	G
1	5	281	U
1	5	288	G
1	5	292	G
1	5	293	G
1	5	294	G
1	5	296	A
1	5	297	U
1	5	300	A
1	5	305	A
1	5	306	A
1	5	309	C
1	5	310	G
1	5	315	G
1	5	316	U
1	5	317	A
1	5	319	A
1	5	322	C
1	5	323	C
1	5	324	A
1	5	325	U
1	5	330	G
1	5	334	A
1	5	337	U
1	5	338	A
1	5	339	C
1	5	340	C
1	5	342	G
1	5	343	C
1	5	345	C
1	5	347	A
1	5	349	A

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Mol	Chain	Res	Type
1	5	350	C
1	5	352	G
1	5	353	A
1	5	354	U
1	5	355	A
1	5	357	U
1	5	358	C
1	5	360	A
1	5	361	C
1	5	362	A
1	5	363	A
1	5	370	U
1	5	381	U
1	5	383	A
1	5	384	A
1	5	385	A
1	5	386	A
1	5	387	G
1	5	388	A
1	5	390	C
1	5	395	A
1	5	399	G
1	5	406	C
1	5	407	A
1	5	408	A
1	5	409	G
1	5	410	A
1	5	412	G
1	5	413	G
1	5	414	C
1	5	415	G
1	5	417	G
1	5	418	A
1	5	431	G
1	5	432	U
1	5	433	A
1	5	434	A
1	5	440	U
1	5	444	G
1	5	445	U
1	5	449	C
1	5	450	G

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Mol	Chain	Res	Type
1	5	451	C
1	5	452	A
1	5	453	G
1	5	454	U
1	5	455	C
1	5	456	C
1	5	458	C
1	5	466	A
1	5	467	U
1	5	468	U
1	5	469	C
1	5	470	A
1	5	471	A
1	5	473	C
1	5	484	U
1	5	485	C
1	5	486	C
1	5	487	G
1	5	491	G
1	5	496	G
1	5	498	C
1	5	500	G
1	5	502	C
1	5	503	C
1	5	504	G
1	5	506	C
1	5	509	A
1	5	510	U
1	5	511	C
1	5	513	U
1	5	514	U
1	5	515	C
1	5	516	C
1	5	519	C
1	5	647	G
1	5	648	G
1	5	649	A
1	5	650	C
1	5	653	U
1	5	654	C
1	5	656	C
1	5	658	C

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Mol	Chain	Res	Type
1	5	664	G
1	5	665	C
1	5	666	G
1	5	667	A
1	5	668	C
1	5	669	C
1	5	671	G
1	5	672	C
1	5	681	G
1	5	682	G
1	5	683	C
1	5	684	G
1	5	685	C
1	5	686	A
1	5	687	U
1	5	689	U
1	5	690	C
1	5	692	A
1	5	694	C
1	5	695	G
1	5	696	C
1	5	697	G
1	5	702	U
1	5	703	G
1	5	704	C
1	5	705	G
1	5	707	C
1	5	716	C
1	5	717	U
1	5	718	C
1	5	721	G
1	5	724	C
1	5	727	C
1	5	728	U
1	5	729	G
1	5	730	G
1	5	731	G
1	5	732	A
1	5	737	C
1	5	739	G
1	5	742	G
1	5	743	G

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Mol	Chain	Res	Type
1	5	745	G
1	5	746	A
1	5	747	A
1	5	748	G
1	5	749	G
1	5	912	G
1	5	915	A
1	5	917	A
1	5	918	G
1	5	926	G
1	5	927	G
1	5	928	C
1	5	929	A
1	5	930	G
1	5	931	C
1	5	932	A
1	5	933	G
1	5	934	C
1	5	935	A
1	5	936	C
1	5	937	U
1	5	938	C
1	5	939	G
1	5	940	C
1	5	944	A
1	5	945	U
1	5	946	C
1	5	950	G
1	5	952	G
1	5	955	G
1	5	956	A
1	5	957	G
1	5	958	G
1	5	959	G
1	5	960	A
1	5	961	G
1	5	962	C
1	5	963	G
1	5	964	A
1	5	965	G
1	5	966	A
1	5	967	C

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Mol	Chain	Res	Type
1	5	968	C
1	5	969	C
1	5	971	U
1	5	972	C
1	5	973	G
1	5	974	C
1	5	975	C
1	5	976	G
1	5	977	C
1	5	978	G
1	5	979	C
1	5	980	U
1	5	982	U
1	5	983	C
1	5	985	C
1	5	990	C
1	5	1051	G
1	5	1072	C
1	5	1075	G
1	5	1076	C
1	5	1077	C
1	5	1078	A
1	5	1082	C
1	5	1083	U
1	5	1084	C
1	5	1086	C
1	5	1168	G
1	5	1177	U
1	5	1181	C
1	5	1193	C
1	5	1210	C
1	5	1211	G
1	5	1212	G
1	5	1214	C
1	5	1215	C
1	5	1218	G
1	5	1219	G
1	5	1221	G
1	5	1222	A
1	5	1233	G
1	5	1235	G
1	5	1236	C

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Mol	Chain	Res	Type
1	5	1237	C
1	5	1238	A
1	5	1239	C
1	5	1240	G
1	5	1242	G
1	5	1243	C
1	5	1244	G
1	5	1245	C
1	5	1255	A
1	5	1264	C
1	5	1265	G
1	5	1266	G
1	5	1267	C
1	5	1268	G
1	5	1269	G
1	5	1270	A
1	5	1271	G
1	5	1272	C
1	5	1273	G
1	5	1274	A
1	5	1275	G
1	5	1277	G
1	5	1279	A
1	5	1280	C
1	5	1282	G
1	5	1283	G
1	5	1284	G
1	5	1285	U
1	5	1288	G
1	5	1289	C
1	5	1290	G
1	5	1291	G
1	5	1292	C
1	5	1293	G
1	5	1294	A
1	5	1295	C
1	5	1296	G
1	5	1297	U
1	5	1298	C
1	5	1300	G
1	5	1301	C
1	5	1304	C

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Mol	Chain	Res	Type
1	5	1313	C
1	5	1314	C
1	5	1319	U
1	5	1325	C
1	5	1326	A
1	5	1330	A
1	5	1333	A
1	5	1337	A
1	5	1338	G
1	5	1344	C
1	5	1354	A
1	5	1357	C
1	5	1358	G
1	5	1359	G
1	5	1360	G
1	5	1362	G
1	5	1364	U
1	5	1365	C
1	5	1366	G
1	5	1367	C
1	5	1368	A
1	5	1369	C
1	5	1370	G
1	5	1371	A
1	5	1372	A
1	5	1377	G
1	5	1378	C
1	5	1379	C
1	5	1380	G
1	5	1381	U
1	5	1382	G
1	5	1387	A
1	5	1390	G
1	5	1394	G
1	5	1397	A
1	5	1398	A
1	5	1399	G
1	5	1402	C
1	5	1407	C
1	5	1408	G
1	5	1410	U
1	5	1411	C

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Mol	Chain	Res	Type
1	5	1420	A
1	5	1421	G
1	5	1426	G
1	5	1427	A
1	5	1428	U
1	5	1429	C
1	5	1435	G
1	5	1436	C
1	5	1439	C
1	5	1440	U
1	5	1441	C
1	5	1444	G
1	5	1445	U
1	5	1446	C
1	5	1448	G
1	5	1455	G
1	5	1456	C
1	5	1457	G
1	5	1458	C
1	5	1465	G
1	5	1466	G
1	5	1474	C
1	5	1475	G
1	5	1478	C
1	5	1479	G
1	5	1480	C
1	5	1481	C
1	5	1482	G
1	5	1483	C
1	5	1484	G
1	5	1485	C
1	5	1487	G
1	5	1488	G
1	5	1489	G
1	5	1490	G
1	5	1493	G
1	5	1497	A
1	5	1498	G
1	5	1499	C
1	5	1500	A
1	5	1501	C
1	5	1503	A

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Mol	Chain	Res	Type
1	5	1504	G
1	5	1514	U
1	5	1516	G
1	5	1518	A
1	5	1519	C
1	5	1520	C
1	5	1522	G
1	5	1523	A
1	5	1525	A
1	5	1530	G
1	5	1534	A
1	5	1535	C
1	5	1542	U
1	5	1543	G
1	5	1547	A
1	5	1562	G
1	5	1563	A
1	5	1568	C
1	5	1571	G
1	5	1572	U
1	5	1578	U
1	5	1583	A
1	5	1590	C
1	5	1591	U
1	5	1596	U
1	5	1597	G
1	5	1604	G
1	5	1611	C
1	5	1612	G
1	5	1613	A
1	5	1614	C
1	5	1624	G
1	5	1625	G
1	5	1631	A
1	5	1633	G
1	5	1634	A
1	5	1636	U
1	5	1637	A
1	5	1638	A
1	5	1639	U
1	5	1640	C
1	5	1641	G

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Mol	Chain	Res	Type
1	5	1642	A
1	5	1643	A
1	5	1650	A
1	5	1654	G
1	5	1656	U
1	5	1661	C
1	5	1662	C
1	5	1670	G
1	5	1671	U
1	5	1673	U
1	5	1674	C
1	5	1676	C
1	5	1678	C
1	5	1679	A
1	5	1680	G
1	5	1681	G
1	5	1684	A
1	5	1685	G
1	5	1687	U
1	5	1691	G
1	5	1692	C
1	5	1694	C
1	5	1696	C
1	5	1697	G
1	5	1698	C
1	5	1699	A
1	5	1719	A
1	5	1720	C
1	5	1721	G
1	5	1722	C
1	5	1723	A
1	5	1724	G
1	5	1725	U
1	5	1727	U
1	5	1730	U
1	5	1733	G
1	5	1734	G
1	5	1735	U
1	5	1736	A
1	5	1741	G
1	5	1742	A
1	5	1746	A

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Mol	Chain	Res	Type
1	5	1750	G
1	5	1751	A
1	5	1753	G
1	5	1754	U
1	5	1755	C
1	5	1756	U
1	5	1757	U
1	5	1758	G
1	5	1759	G
1	5	1760	G
1	5	1761	G
1	5	1762	C
1	5	1764	G
1	5	1765	A
1	5	1766	A
1	5	1767	A
1	5	1768	C
1	5	1769	G
1	5	1770	A
1	5	1772	C
1	5	1776	A
1	5	1777	C
1	5	1779	U
1	5	1781	U
1	5	1787	A
1	5	1788	A
1	5	1790	U
1	5	1791	U
1	5	1799	G
1	5	1800	U
1	5	1803	G
1	5	1804	A
1	5	1805	A
1	5	1817	U
1	5	1818	G
1	5	1819	G
1	5	1820	C
1	5	1822	U
1	5	1825	A
1	5	1827	C
1	5	1830	G
1	5	1832	C

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Mol	Chain	Res	Type
1	5	1833	G
1	5	1834	U
1	5	1835	G
1	5	1836	G
1	5	1840	G
1	5	1843	A
1	5	1847	C
1	5	1848	C
1	5	1849	U
1	5	1850	A
1	5	1851	G
1	5	1855	G
1	5	1864	G
1	5	1866	U
1	5	1867	A
1	5	1869	G
1	5	1878	G
1	5	1881	C
1	5	1882	U
1	5	1886	G
1	5	1890	G
1	5	1891	A
1	5	1897	A
1	5	1899	G
1	5	1900	C
1	5	1903	G
1	5	1907	A
1	5	1910	G
1	5	1912	G
1	5	1913	C
1	5	1916	G
1	5	1917	A
1	5	1918	U
1	5	1919	G
1	5	1920	C
1	5	1921	C
1	5	1922	G
1	5	1923	A
1	5	1925	G
1	5	1929	A
1	5	1930	U
1	5	1931	C

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Mol	Chain	Res	Type
1	5	1932	A
1	5	1935	C
1	5	1936	C
1	5	1938	C
1	5	1940	G
1	5	1941	A
1	5	1944	A
1	5	1945	G
1	5	1946	G
1	5	1947	U
1	5	1948	G
1	5	1951	G
1	5	1952	G
1	5	1956	A
1	5	1958	A
1	5	1959	U
1	5	1960	A
1	5	1961	G
1	5	1962	A
1	5	1963	C
1	5	1971	C
1	5	1974	U
1	5	1975	G
1	5	1976	G
1	5	1977	C
1	5	1979	A
1	5	1980	U
1	5	1981	G
1	5	1983	A
1	5	1984	A
1	5	1985	G
1	5	1986	U
1	5	1987	C
1	5	1988	G
1	5	1991	A
1	5	1992	U
1	5	1993	C
1	5	1997	U
1	5	1998	A
1	5	1999	A
1	5	2001	G
1	5	2002	A

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Mol	Chain	Res	Type
1	5	2003	G
1	5	2004	U
1	5	2005	G
1	5	2007	G
1	5	2008	U
1	5	2009	A
1	5	2010	A
1	5	2015	U
1	5	2018	C
1	5	2019	C
1	5	2020	U
1	5	2022	C
1	5	2024	G
1	5	2025	A
1	5	2026	A
1	5	2027	U
1	5	2033	A
1	5	2034	G
1	5	2038	U
1	5	2044	U
1	5	2045	G
1	5	2046	G
1	5	2047	A
1	5	2048	U
1	5	2052	G
1	5	2055	G
1	5	2056	G
1	5	2057	A
1	5	2059	C
1	5	2060	G
1	5	2062	C
1	5	2063	G
1	5	2064	G
1	5	2069	A
1	5	2070	U
1	5	2077	C
1	5	2083	C
1	5	2084	C
1	5	2085	G
1	5	2088	A
1	5	2089	G
1	5	2090	U

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Mol	Chain	Res	Type
1	5	2091	C
1	5	2092	G
1	5	2093	A
1	5	2094	G
1	5	2095	A
1	5	2096	G
1	5	2097	U
1	5	2100	A
1	5	2105	A
1	5	2107	C
1	5	2108	G
1	5	2109	G
1	5	2110	C
1	5	2111	G
1	5	2112	G
1	5	2113	G
1	5	2114	G
1	5	2115	G
1	5	2116	C
1	5	2117	G
1	5	2118	G
1	5	2119	C
1	5	2120	G
1	5	2121	C
1	5	2122	G
1	5	2123	C
1	5	2124	G
1	5	2125	C
1	5	2126	G
1	5	2127	C
1	5	2247	C
1	5	2248	C
1	5	2250	C
1	5	2251	G
1	5	2252	G
1	5	2253	A
1	5	2254	G
1	5	2255	C
1	5	2256	C
1	5	2257	C
1	5	2258	C
1	5	2259	G

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Mol	Chain	Res	Type
1	5	2260	C
1	5	2261	G
1	5	2262	G
1	5	2263	A
1	5	2264	C
1	5	2265	G
1	5	2266	C
1	5	2267	U
1	5	2268	A
1	5	2269	C
1	5	2270	G
1	5	2273	G
1	5	2275	G
1	5	2277	C
1	5	2279	A
1	5	2282	A
1	5	2283	G
1	5	2288	G
1	5	2289	C
1	5	2299	G
1	5	2300	A
1	5	2301	G
1	5	2305	U
1	5	2309	G
1	5	2312	U
1	5	2313	A
1	5	2314	G
1	5	2316	G
1	5	2319	C
1	5	2321	G
1	5	2322	G
1	5	2324	C
1	5	2325	C
1	5	2328	G
1	5	2329	U
1	5	2330	G
1	5	2331	G
1	5	2332	A
1	5	2333	G
1	5	2334	C
1	5	2337	C
1	5	2339	G

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Mol	Chain	Res	Type
1	5	2342	G
1	5	2343	G
1	5	2347	A
1	5	2348	G
1	5	2349	A
1	5	2350	U
1	5	2351	C
1	5	2357	G
1	5	2360	A
1	5	2361	G
1	5	2362	U
1	5	2366	A
1	5	2367	A
1	5	2368	A
1	5	2369	U
1	5	2370	A
1	5	2372	U
1	5	2378	G
1	5	2382	A
1	5	2384	U
1	5	2389	A
1	5	2390	G
1	5	2391	G
1	5	2395	A
1	5	2396	A
1	5	2397	G
1	5	2398	U
1	5	2399	G
1	5	2407	G
1	5	2409	U
1	5	2417	A
1	5	2422	C
1	5	2425	U
1	5	2426	U
1	5	2428	A
1	5	2429	A
1	5	2432	U
1	5	2433	G
1	5	2434	G
1	5	2437	C
1	5	2438	A
1	5	2439	G

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Mol	Chain	Res	Type
1	5	2440	U
1	5	2441	C
1	5	2443	G
1	5	2447	U
1	5	2448	G
1	5	2450	G
1	5	2454	U
1	5	2464	C
1	5	2465	C
1	5	2468	U
1	5	2469	C
1	5	2470	C
1	5	2471	G
1	5	2472	A
1	5	2474	G
1	5	2475	G
1	5	2476	G
1	5	2487	G
1	5	2488	C
1	5	2489	C
1	5	2490	U
1	5	2491	C
1	5	2502	G
1	5	2503	G
1	5	2504	C
1	5	2505	C
1	5	2506	G
1	5	2507	A
1	5	2508	U
1	5	2509	C
1	5	2510	G
1	5	2511	A
1	5	2512	A
1	5	2513	A
1	5	2514	G
1	5	2526	C
1	5	2527	A
1	5	2529	A
1	5	2530	U
1	5	2532	C
1	5	2537	A
1	5	2544	G

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Mol	Chain	Res	Type
1	5	2545	U
1	5	2546	G
1	5	2547	G
1	5	2549	G
1	5	2551	A
1	5	2552	G
1	5	2553	A
1	5	2554	U
1	5	2555	G
1	5	2560	C
1	5	2566	G
1	5	2571	C
1	5	2572	C
1	5	2577	C
1	5	2581	A
1	5	2583	C
1	5	2586	G
1	5	2587	A
1	5	2588	C
1	5	2589	C
1	5	2600	A
1	5	2601	A
1	5	2602	G
1	5	2615	C
1	5	2616	C
1	5	2620	G
1	5	2623	A
1	5	2627	C
1	5	2630	U
1	5	2631	U
1	5	2638	G
1	5	2639	U
1	5	2640	G
1	5	2643	G
1	5	2645	G
1	5	2648	G
1	5	2649	G
1	5	2653	C
1	5	2658	G
1	5	2659	A
1	5	2660	A
1	5	2661	U

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Mol	Chain	Res	Type
1	5	2662	G
1	5	2664	G
1	5	2666	U
1	5	2667	C
1	5	2670	C
1	5	2673	G
1	5	2674	A
1	5	2675	G
1	5	2678	A
1	5	2684	C
1	5	2687	U
1	5	2688	G
1	5	2689	C
1	5	2692	U
1	5	2694	G
1	5	2696	A
1	5	2704	C
1	5	2710	C
1	5	2711	G
1	5	2712	G
1	5	2713	C
1	5	2714	G
1	5	2716	C
1	5	2722	G
1	5	2725	A
1	5	2726	G
1	5	2735	G
1	5	2737	C
1	5	2740	U
1	5	2743	A
1	5	2744	A
1	5	2745	A
1	5	2747	U
1	5	2751	G
1	5	2752	G
1	5	2754	G
1	5	2756	G
1	5	2760	G
1	5	2762	G
1	5	2764	A
1	5	2765	A
1	5	2766	A

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Mol	Chain	Res	Type
1	5	2767	U
1	5	2768	C
1	5	2769	U
1	5	2770	C
1	5	2783	A
1	5	2786	C
1	5	2787	A
1	5	2788	U
1	5	2790	U
1	5	2794	C
1	5	2796	G
1	5	2797	C
1	5	2798	A
1	5	2799	G
1	5	2806	A
1	5	2807	A
1	5	2808	G
1	5	2812	A
1	5	2813	A
1	5	2814	C
1	5	2815	A
1	5	2818	C
1	5	2820	C
1	5	2821	U
1	5	2824	C
1	5	2826	U
1	5	2827	G
1	5	2828	U
1	5	2829	U
1	5	2832	A
1	5	2833	A
1	5	2834	C
1	5	2835	A
1	5	2838	G
1	5	2841	G
1	5	2842	G
1	5	2848	G
1	5	2849	A
1	5	2850	A
1	5	2852	U
1	5	2854	G
1	5	2855	G

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Mol	Chain	Res	Type
1	5	2858	A
1	5	2859	G
1	5	2860	C
1	5	2866	C
1	5	2867	C
1	5	2873	U
1	5	2874	U
1	5	2875	C
1	5	2876	G
1	5	2879	A
1	5	2880	U
1	5	2888	G
1	5	2892	C
1	5	2897	G
1	5	2898	G
1	5	2900	U
1	5	2904	U
1	5	2905	C
1	5	2910	G
1	5	3591	C
1	5	3592	G
1	5	3594	C
1	5	3595	U
1	5	3596	A
1	5	3597	G
1	5	3605	C
1	5	3606	U
1	5	3615	G
1	5	3616	U
1	5	3617	G
1	5	3620	G
1	5	3621	A
1	5	3623	C
1	5	3625	G
1	5	3626	G
1	5	3627	G
1	5	3635	A
1	5	3636	C
1	5	3643	A
1	5	3644	U
1	5	3649	A
1	5	3650	C

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Mol	Chain	Res	Type
1	5	3658	C
1	5	3660	C
1	5	3662	A
1	5	3663	A
1	5	3664	G
1	5	3667	C
1	5	3668	C
1	5	3670	C
1	5	3671	G
1	5	3672	G
1	5	3673	C
1	5	3674	G
1	5	3675	G
1	5	3677	U
1	5	3678	G
1	5	3679	U
1	5	3680	U
1	5	3681	G
1	5	3682	A
1	5	3688	U
1	5	3692	A
1	5	3698	G
1	5	3699	C
1	5	3709	U
1	5	3710	G
1	5	3711	A
1	5	3712	A
1	5	3713	U
1	5	3715	U
1	5	3716	C
1	5	3717	A
1	5	3718	A
1	5	3727	A
1	5	3728	A
1	5	3729	U
1	5	3733	A
1	5	3735	G
1	5	3736	A
1	5	3737	A
1	5	3738	G
1	5	3739	C
1	5	3743	G

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Mol	Chain	Res	Type
1	5	3744	G
1	5	3745	U
1	5	3748	A
1	5	3756	A
1	5	3759	A
1	5	3760	A
1	5	3770	U
1	5	3772	U
1	5	3773	U
1	5	3774	A
1	5	3775	A
1	5	3776	G
1	5	3777	G
1	5	3784	A
1	5	3785	A
1	5	3786	U
1	5	3791	C
1	5	3799	A
1	5	3800	A
1	5	3802	U
1	5	3803	A
1	5	3807	A
1	5	3809	G
1	5	3810	C
1	5	3811	G
1	5	3813	A
1	5	3814	U
1	5	3817	A
1	5	3819	G
1	5	3822	U
1	5	3831	U
1	5	3838	U
1	5	3839	G
1	5	3840	U
1	5	3843	C
1	5	3849	A
1	5	3851	U
1	5	3859	G
1	5	3861	A
1	5	3865	A
1	5	3867	A
1	5	3876	A

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Mol	Chain	Res	Type
1	5	3877	A
1	5	3878	C
1	5	3879	G
1	5	3880	G
1	5	3881	G
1	5	3882	C
1	5	3887	C
1	5	3889	G
1	5	3895	G
1	5	3897	G
1	5	3898	G
1	5	3899	G
1	5	3900	G
1	5	3901	A
1	5	3902	A
1	5	3905	A
1	5	3906	A
1	5	3907	G
1	5	3908	A
1	5	3912	U
1	5	3913	G
1	5	3914	U
1	5	3915	U
1	5	3916	G
1	5	3917	A
1	5	3923	A
1	5	3925	U
1	5	3926	C
1	5	3938	G
1	5	3939	G
1	5	3943	A
1	5	4069	U
1	5	4070	U
1	5	4073	A
1	5	4075	U
1	5	4076	G
1	5	4083	U
1	5	4084	G
1	5	4085	A
1	5	4086	G
1	5	4087	G
1	5	4088	C

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Mol	Chain	Res	Type
1	5	4089	G
1	5	4091	G
1	5	4092	G
1	5	4093	G
1	5	4094	G
1	5	4095	G
1	5	4097	G
1	5	4104	G
1	5	4105	A
1	5	4107	G
1	5	4114	C
1	5	4115	G
1	5	4116	C
1	5	4117	U
1	5	4118	U
1	5	4119	C
1	5	4120	U
1	5	4121	G
1	5	4122	G
1	5	4125	C
1	5	4126	C
1	5	4127	A
1	5	4129	G
1	5	4132	C
1	5	4140	C
1	5	4143	G
1	5	4145	C
1	5	4158	C
1	5	4162	C
1	5	4164	C
1	5	4166	G
1	5	4168	G
1	5	4169	G
1	5	4171	C
1	5	4172	A
1	5	4173	G
1	5	4180	G
1	5	4183	G
1	5	4184	G
1	5	4191	G
1	5	4195	G
1	5	4196	G

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Mol	Chain	Res	Type
1	5	4197	G
1	5	4199	C
1	5	4203	A
1	5	4205	A
1	5	4206	C
1	5	4208	U
1	5	4212	A
1	5	4213	A
1	5	4214	A
1	5	4215	C
1	5	4216	G
1	5	4217	G
1	5	4218	U
1	5	4219	A
1	5	4220	A
1	5	4221	C
1	5	4222	G
1	5	4225	G
1	5	4226	G
1	5	4228	G
1	5	4229	U
1	5	4232	U
1	5	4233	A
1	5	4234	A
1	5	4235	G
1	5	4236	G
1	5	4239	A
1	5	4241	C
1	5	4249	G
1	5	4251	A
1	5	4252	C
1	5	4254	G
1	5	4255	A
1	5	4257	A
1	5	4258	C
1	5	4265	U
1	5	4267	G
1	5	4268	A
1	5	4271	A
1	5	4274	A
1	5	4276	G
1	5	4279	A

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Mol	Chain	Res	Type
1	5	4280	A
1	5	4281	A
1	5	4282	A
1	5	4283	G
1	5	4286	C
1	5	4287	G
1	5	4288	C
1	5	4290	U
1	5	4291	G
1	5	4296	U
1	5	4297	G
1	5	4305	G
1	5	4306	U
1	5	4311	A
1	5	4314	C
1	5	4316	G
1	5	4318	C
1	5	4323	A
1	5	4329	G
1	5	4330	G
1	5	4332	C
1	5	4335	C
1	5	4336	A
1	5	4337	C
1	5	4339	A
1	5	4344	U
1	5	4348	A
1	5	4349	C
1	5	4350	C
1	5	4352	U
1	5	4353	U
1	5	4354	U
1	5	4356	G
1	5	4364	G
1	5	4368	G
1	5	4369	A
1	5	4373	G
1	5	4374	U
1	5	4375	C
1	5	4376	A
1	5	4377	G
1	5	4378	A

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Mol	Chain	Res	Type
1	5	4379	A
1	5	4385	A
1	5	4386	C
1	5	4387	C
1	5	4388	A
1	5	4391	G
1	5	4393	G
1	5	4394	A
1	5	4395	U
1	5	4396	A
1	5	4401	G
1	5	4419	U
1	5	4422	A
1	5	4425	G
1	5	4426	C
1	5	4434	C
1	5	4436	U
1	5	4437	U
1	5	4438	U
1	5	4439	U
1	5	4440	G
1	5	4441	A
1	5	4443	C
1	5	4444	C
1	5	4448	G
1	5	4449	A
1	5	4450	U
1	5	4451	G
1	5	4452	U
1	5	4454	G
1	5	4459	U
1	5	4463	U
1	5	4464	A
1	5	4465	U
1	5	4466	C
1	5	4467	A
1	5	4469	U
1	5	4471	U
1	5	4472	G
1	5	4473	A
1	5	4475	G
1	5	4476	C

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Mol	Chain	Res	Type
1	5	4484	A
1	5	4488	A
1	5	4489	G
1	5	4491	G
1	5	4498	U
1	5	4500	U
1	5	4503	A
1	5	4510	A
1	5	4511	A
1	5	4512	U
1	5	4513	A
1	5	4518	A
1	5	4519	C
1	5	4520	G
1	5	4522	G
1	5	4523	A
1	5	4524	G
1	5	4528	G
1	5	4529	G
1	5	4530	U
1	5	4531	U
1	5	4532	U
1	5	4534	G
1	5	4536	C
1	5	4537	C
1	5	4543	G
1	5	4544	A
1	5	4546	A
1	5	4548	A
1	5	4549	G
1	5	4550	G
1	5	4552	U
1	5	4557	U
1	5	4560	C
1	5	4569	U
1	5	4570	G
1	5	4572	U
1	5	4574	U
1	5	4575	G
1	5	4581	G
1	5	4583	C
1	5	4584	A

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Mol	Chain	Res	Type
1	5	4585	U
1	5	4586	G
1	5	4589	A
1	5	4590	A
1	5	4592	C
1	5	4599	A
1	5	4600	G
1	5	4601	U
1	5	4603	C
1	5	4605	A
1	5	4606	G
1	5	4608	G
1	5	4617	G
1	5	4623	G
1	5	4624	A
1	5	4636	U
1	5	4637	G
1	5	4641	U
1	5	4646	U
1	5	4647	G
1	5	4648	A
1	5	4652	G
1	5	4656	A
1	5	4657	U
1	5	4661	G
1	5	4664	A
1	5	4669	A
1	5	4670	C
1	5	4671	C
1	5	4672	A
1	5	4676	G
1	5	4677	U
1	5	4678	G
1	5	4679	G
1	5	4687	A
1	5	4693	C
1	5	4694	G
1	5	4695	C
1	5	4700	A
1	5	4701	A
1	5	4709	U
1	5	4714	C

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Mol	Chain	Res	Type
1	5	4715	C
1	5	4717	A
1	5	4718	G
1	5	4719	G
1	5	4720	C
1	5	4721	G
1	5	4722	G
1	5	4729	A
1	5	4730	C
1	5	4731	G
1	5	4732	G
1	5	4733	C
1	5	4734	A
1	5	4735	G
1	5	4737	G
1	5	4738	C
1	5	4741	C
1	5	4743	G
1	5	4745	G
1	5	4746	C
1	5	4748	U
1	5	4749	C
1	5	4750	G
1	5	4751	G
1	5	4753	U
1	5	4756	C
1	5	4757	C
1	5	4758	U
1	5	4760	G
1	5	4763	U
1	5	4764	A
1	5	4770	U
1	5	4771	C
1	5	4774	C
1	5	4860	G
1	5	4865	C
1	5	4869	U
1	5	4871	C
1	5	4872	G
1	5	4873	G
1	5	4874	A
1	5	4875	G

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Mol	Chain	Res	Type
1	5	4876	U
1	5	4877	G
1	5	4878	C
1	5	4881	U
1	5	4882	U
1	5	4883	C
1	5	4884	G
1	5	4885	U
1	5	4886	C
1	5	4888	U
1	5	4889	G
1	5	4890	G
1	5	4891	G
1	5	4893	A
1	5	4895	C
1	5	4896	G
1	5	4900	C
1	5	4901	G
1	5	4903	G
1	5	4906	C
1	5	4910	G
1	5	4911	A
1	5	4912	G
1	5	4913	G
1	5	4915	G
1	5	4919	G
1	5	4926	C
1	5	4927	G
1	5	4928	C
1	5	4929	C
1	5	4930	C
1	5	4932	U
1	5	4933	C
1	5	4934	A
1	5	4936	G
1	5	4937	C
1	5	4938	A
1	5	4939	C
1	5	4942	C
1	5	4945	G
1	5	4946	U
1	5	4947	U

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Mol	Chain	Res	Type
1	5	4948	C
1	5	4949	G
1	5	4950	U
1	5	4951	G
1	5	4952	G
1	5	4953	G
1	5	4957	C
1	5	4959	U
1	5	4961	G
1	5	4962	C
1	5	4964	C
1	5	4965	U
1	5	4966	A
1	5	4967	A
1	5	4977	A
1	5	4979	A
1	5	4980	C
1	5	4981	G
1	5	4982	A
1	5	4985	U
1	5	4988	U
1	5	4989	U
1	5	4990	C
1	5	4991	U
1	5	4992	G
1	5	4993	G
1	5	4999	G
1	5	5002	U
1	5	5006	U
1	5	5013	C
1	5	5014	A
1	5	5016	A
1	5	5017	G
1	5	5018	C
1	5	5019	A
1	5	5021	C
1	5	5023	C
1	5	5026	U
1	5	5027	C
1	5	5028	G
1	5	5034	A
1	5	5035	U

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Mol	Chain	Res	Type
1	5	5040	U
1	5	5041	G
1	5	5042	A
1	5	5045	G
1	5	5047	C
1	5	5048	A
1	5	5049	G
1	5	5050	C
1	5	5052	C
1	5	5053	U
1	5	5054	C
1	5	5056	A
1	5	5057	C
1	5	5058	A
1	5	5060	A
1	5	5061	A
1	5	5062	G
1	5	5063	G
1	5	5069	U
2	7	7	G
2	7	11	A
2	7	17	C
2	7	21	G
2	7	22	A
2	7	23	A
2	7	24	C
2	7	27	G
2	7	30	C
2	7	31	G
2	7	42	A
2	7	53	U
2	7	54	A
2	7	57	C
2	7	60	G
2	7	63	C
2	7	64	G
2	7	65	G
2	7	70	G
2	7	73	U
2	7	74	A
2	7	79	U
2	7	80	U

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Mol	Chain	Res	Type
2	7	90	A
2	7	100	A
2	7	105	C
2	7	106	G
2	7	110	G
2	7	112	U
2	7	115	A
2	7	120	U
3	8	2	G
3	8	3	A
3	8	9	A
3	8	11	C
3	8	13	G
3	8	16	G
3	8	23	C
3	8	32	C
3	8	33	G
3	8	34	U
3	8	35	C
3	8	37	A
3	8	38	U
3	8	39	G
3	8	40	A
3	8	46	G
3	8	48	A
3	8	50	C
3	8	51	U
3	8	59	A
3	8	61	A
3	8	62	A
3	8	63	U
3	8	64	U
3	8	65	A
3	8	70	G
3	8	71	A
3	8	74	U
3	8	75	G
3	8	80	A
3	8	81	C
3	8	82	A
3	8	83	C
3	8	84	A

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Mol	Chain	Res	Type
3	8	85	U
3	8	86	U
3	8	87	G
3	8	90	C
3	8	94	G
3	8	95	A
3	8	97	A
3	8	98	C
3	8	99	U
3	8	103	A
3	8	104	A
3	8	105	C
3	8	109	C
3	8	110	U
3	8	111	U
3	8	112	G
3	8	114	G
3	8	118	C
3	8	121	G
3	8	122	G
3	8	125	C
3	8	126	C
3	8	127	U
3	8	137	A
3	8	147	G
3	8	151	G
3	8	153	C
49	S2	3	C
49	S2	4	C
49	S2	9	U
49	S2	10	G
49	S2	17	C
49	S2	18	C
49	S2	20	G
49	S2	23	G
49	S2	24	C
49	S2	25	A
49	S2	27	A
49	S2	33	G
49	S2	39	A
49	S2	44	U
49	S2	45	A

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Mol	Chain	Res	Type
49	S2	46	A
49	S2	49	C
49	S2	51	U
49	S2	53	C
49	S2	56	G
49	S2	57	U
49	S2	58	C
49	S2	59	U
49	S2	60	A
49	S2	61	A
49	S2	62	G
49	S2	63	U
49	S2	64	A
49	S2	65	C
49	S2	66	G
49	S2	67	C
49	S2	68	A
49	S2	71	G
49	S2	72	C
49	S2	73	C
49	S2	74	G
49	S2	75	G
49	S2	76	U
49	S2	77	A
49	S2	78	C
49	S2	79	A
49	S2	80	G
49	S2	84	A
49	S2	88	G
49	S2	89	C
49	S2	92	A
49	S2	98	C
49	S2	99	A
49	S2	101	U
49	S2	103	A
49	S2	105	U
49	S2	111	A
49	S2	113	G
49	S2	114	G
49	S2	115	U
49	S2	116	U
49	S2	117	C

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Mol	Chain	Res	Type
49	S2	123	G
49	S2	125	C
49	S2	127	C
49	S2	139	C
49	S2	140	C
49	S2	141	A
49	S2	142	C
49	S2	143	U
49	S2	144	U
49	S2	146	G
49	S2	147	A
49	S2	148	U
49	S2	150	A
49	S2	153	G
49	S2	154	U
49	S2	155	G
49	S2	156	G
49	S2	159	A
49	S2	160	U
49	S2	161	U
49	S2	162	C
49	S2	163	U
49	S2	164	A
49	S2	165	G
49	S2	167	G
49	S2	169	U
49	S2	170	A
49	S2	173	A
49	S2	176	U
49	S2	180	G
49	S2	181	A
49	S2	182	C
49	S2	183	G
49	S2	184	G
49	S2	188	C
49	S2	189	U
49	S2	191	A
49	S2	192	C
49	S2	200	G
49	S2	202	G
49	S2	206	G
49	S2	209	A

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Mol	Chain	Res	Type
49	S2	210	U
49	S2	211	G
49	S2	213	G
49	S2	215	G
49	S2	216	C
49	S2	217	A
49	S2	290	U
49	S2	291	G
49	S2	292	A
49	S2	293	C
49	S2	295	C
49	S2	302	A
49	S2	305	U
49	S2	306	C
49	S2	307	G
49	S2	308	G
49	S2	309	G
49	S2	310	C
49	S2	311	C
49	S2	312	G
49	S2	313	A
49	S2	314	U
49	S2	316	G
49	S2	317	C
49	S2	318	A
49	S2	319	C
49	S2	321	C
49	S2	324	C
49	S2	325	C
49	S2	326	C
49	S2	328	U
49	S2	338	G
49	S2	340	C
49	S2	341	C
49	S2	342	C
49	S2	343	A
49	S2	346	C
49	S2	347	G
49	S2	350	C
49	S2	355	G
49	S2	356	C
49	S2	357	C

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Mol	Chain	Res	Type
49	S2	360	A
49	S2	362	C
49	S2	364	A
49	S2	365	C
49	S2	367	U
49	S2	368	U
49	S2	369	C
49	S2	370	G
49	S2	373	G
49	S2	377	G
49	S2	380	G
49	S2	381	C
49	S2	382	C
49	S2	384	U
49	S2	385	G
49	S2	386	C
49	S2	394	G
49	S2	398	A
49	S2	400	C
49	S2	407	G
49	S2	408	A
49	S2	409	C
49	S2	411	G
49	S2	414	A
49	S2	416	U
49	S2	417	C
49	S2	418	A
49	S2	419	G
49	S2	425	G
49	S2	426	A
49	S2	427	U
49	S2	428	U
49	S2	429	C
49	S2	435	A
49	S2	436	G
49	S2	438	G
49	S2	441	C
49	S2	444	G
49	S2	445	A
49	S2	447	A
49	S2	448	A
49	S2	449	A

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Mol	Chain	Res	Type
49	S2	450	C
49	S2	453	C
49	S2	454	U
49	S2	455	A
49	S2	459	C
49	S2	460	A
49	S2	464	A
49	S2	465	A
49	S2	466	G
49	S2	467	G
49	S2	468	A
49	S2	469	A
49	S2	471	G
49	S2	472	C
49	S2	473	A
49	S2	474	G
49	S2	476	A
49	S2	482	G
49	S2	487	U
49	S2	488	U
49	S2	489	A
49	S2	492	C
49	S2	493	A
49	S2	496	C
49	S2	500	A
49	S2	501	C
49	S2	507	G
49	S2	508	A
49	S2	516	A
49	S2	518	G
49	S2	523	A
49	S2	525	A
49	S2	528	A
49	S2	530	U
49	S2	532	C
49	S2	533	A
49	S2	534	G
49	S2	542	U
49	S2	544	G
49	S2	548	C
49	S2	549	C
49	S2	550	C

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Mol	Chain	Res	Type
49	S2	551	U
49	S2	552	G
49	S2	554	A
49	S2	555	A
49	S2	556	U
49	S2	557	U
49	S2	559	G
49	S2	560	A
49	S2	562	U
49	S2	563	G
49	S2	564	A
49	S2	568	C
49	S2	575	A
49	S2	576	A
49	S2	579	C
49	S2	580	U
49	S2	583	C
49	S2	588	G
49	S2	589	G
49	S2	590	A
49	S2	591	U
49	S2	592	C
49	S2	593	C
49	S2	595	U
49	S2	596	U
49	S2	598	G
49	S2	600	G
49	S2	601	G
49	S2	602	G
49	S2	604	A
49	S2	605	A
49	S2	607	U
49	S2	608	C
49	S2	612	U
49	S2	614	C
49	S2	616	A
49	S2	617	G
49	S2	621	C
49	S2	623	G
49	S2	626	G
49	S2	627	U
49	S2	628	A

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Mol	Chain	Res	Type
49	S2	629	A
49	S2	630	U
49	S2	631	U
49	S2	632	C
49	S2	643	A
49	S2	644	G
49	S2	646	G
49	S2	649	U
49	S2	655	A
49	S2	657	U
49	S2	660	C
49	S2	662	G
49	S2	666	U
49	S2	667	U
49	S2	668	A
49	S2	669	A
49	S2	671	A
49	S2	672	A
49	S2	673	G
49	S2	679	A
49	S2	683	G
49	S2	684	G
49	S2	687	C
49	S2	688	U
49	S2	689	U
49	S2	690	G
49	S2	693	A
49	S2	694	G
49	S2	695	C
49	S2	698	G
49	S2	731	G
49	S2	733	C
49	S2	734	C
49	S2	735	C
49	S2	736	C
49	S2	738	C
49	S2	739	C
49	S2	745	C
49	S2	747	U
49	S2	748	C
49	S2	749	U
49	S2	751	G

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Mol	Chain	Res	Type
49	S2	752	G
49	S2	753	C
49	S2	788	G
49	S2	791	C
49	S2	797	C
49	S2	798	A
49	S2	799	U
49	S2	800	U
49	S2	809	A
49	S2	810	A
49	S2	811	A
49	S2	812	A
49	S2	820	U
49	S2	821	G
49	S2	822	U
49	S2	827	A
49	S2	830	A
49	S2	833	C
49	S2	834	C
49	S2	835	C
49	S2	836	G
49	S2	837	A
49	S2	838	G
49	S2	840	C
49	S2	841	G
49	S2	842	C
49	S2	843	C
49	S2	845	G
49	S2	847	A
49	S2	848	U
49	S2	856	C
49	S2	861	A
49	S2	867	G
49	S2	868	G
49	S2	869	A
49	S2	870	A
49	S2	871	U
49	S2	872	A
49	S2	873	G
49	S2	875	A
49	S2	877	C
49	S2	878	G

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Mol	Chain	Res	Type
49	S2	879	C
49	S2	880	G
49	S2	881	G
49	S2	887	U
49	S2	888	U
49	S2	890	U
49	S2	891	G
49	S2	892	U
49	S2	897	U
49	S2	898	U
49	S2	903	A
49	S2	910	G
49	S2	913	A
49	S2	914	U
49	S2	915	G
49	S2	917	U
49	S2	918	U
49	S2	919	A
49	S2	920	A
49	S2	921	G
49	S2	930	C
49	S2	933	G
49	S2	934	G
49	S2	938	A
49	S2	943	U
49	S2	954	U
49	S2	955	A
49	S2	956	G
49	S2	957	A
49	S2	958	G
49	S2	959	G
49	S2	960	U
49	S2	961	G
49	S2	962	A
49	S2	964	A
49	S2	965	U
49	S2	966	U
49	S2	968	U
49	S2	969	U
49	S2	970	G
49	S2	971	G
49	S2	979	C

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Mol	Chain	Res	Type
49	S2	980	A
49	S2	981	A
49	S2	990	A
49	S2	991	G
49	S2	992	A
49	S2	996	A
49	S2	997	A
49	S2	999	G
49	S2	1001	A
49	S2	1002	U
49	S2	1008	A
49	S2	1017	U
49	S2	1023	A
49	S2	1033	G
49	S2	1034	A
49	S2	1035	A
49	S2	1040	G
49	S2	1041	G
49	S2	1044	G
49	S2	1045	U
49	S2	1049	A
49	S2	1050	A
49	S2	1060	A
49	S2	1062	A
49	S2	1067	C
49	S2	1070	A
49	S2	1072	U
49	S2	1073	U
49	S2	1077	A
49	S2	1078	C
49	S2	1083	A
49	S2	1084	A
49	S2	1085	C
49	S2	1087	A
49	S2	1088	U
49	S2	1089	G
49	S2	1091	C
49	S2	1096	G
49	S2	1099	G
49	S2	1100	A
49	S2	1102	G
49	S2	1109	C

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Mol	Chain	Res	Type
49	S2	1110	G
49	S2	1111	U
49	S2	1114	U
49	S2	1115	U
49	S2	1116	C
49	S2	1117	C
49	S2	1118	C
49	S2	1120	U
49	S2	1123	C
49	S2	1126	G
49	S2	1130	G
49	S2	1131	G
49	S2	1133	A
49	S2	1138	C
49	S2	1139	C
49	S2	1143	A
49	S2	1144	A
49	S2	1146	C
49	S2	1148	A
49	S2	1149	A
49	S2	1150	A
49	S2	1151	G
49	S2	1153	C
49	S2	1154	U
49	S2	1157	G
49	S2	1165	G
49	S2	1166	G
49	S2	1171	G
49	S2	1172	U
49	S2	1181	A
49	S2	1182	A
49	S2	1186	U
49	S2	1187	G
49	S2	1192	U
49	S2	1194	A
49	S2	1195	A
49	S2	1199	A
49	S2	1200	A
49	S2	1207	G
49	S2	1208	A
49	S2	1211	G
49	S2	1212	G

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Mol	Chain	Res	Type
49	S2	1214	A
49	S2	1215	C
49	S2	1216	C
49	S2	1217	A
49	S2	1221	G
49	S2	1224	G
49	S2	1234	C
49	S2	1242	U
49	S2	1243	U
49	S2	1244	U
49	S2	1247	C
49	S2	1248	U
49	S2	1250	A
49	S2	1251	A
49	S2	1253	A
49	S2	1254	C
49	S2	1256	G
49	S2	1257	G
49	S2	1258	A
49	S2	1259	A
49	S2	1264	C
49	S2	1265	A
49	S2	1266	C
49	S2	1267	C
49	S2	1268	C
49	S2	1269	G
49	S2	1271	C
49	S2	1273	C
49	S2	1274	G
49	S2	1275	G
49	S2	1276	A
49	S2	1280	G
49	S2	1282	A
49	S2	1283	C
49	S2	1284	A
49	S2	1285	G
49	S2	1286	G
49	S2	1288	U
49	S2	1289	U
49	S2	1292	C
49	S2	1293	A
49	S2	1296	U

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Mol	Chain	Res	Type
49	S2	1298	G
49	S2	1299	A
49	S2	1301	A
49	S2	1302	G
49	S2	1303	C
49	S2	1304	U
49	S2	1305	C
49	S2	1306	U
49	S2	1308	U
49	S2	1309	C
49	S2	1312	G
49	S2	1313	A
49	S2	1314	U
49	S2	1315	U
49	S2	1316	C
49	S2	1322	G
49	S2	1324	G
49	S2	1326	U
49	S2	1330	G
49	S2	1332	A
49	S2	1333	U
49	S2	1337	C
49	S2	1342	U
49	S2	1343	U
49	S2	1345	G
49	S2	1348	G
49	S2	1352	G
49	S2	1367	U
49	S2	1370	A
49	S2	1371	U
49	S2	1372	U
49	S2	1373	C
49	S2	1378	A
49	S2	1379	A
49	S2	1380	C
49	S2	1385	G
49	S2	1394	G
49	S2	1395	C
49	S2	1396	A
49	S2	1397	U
49	S2	1401	A
49	S2	1402	A

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Mol	Chain	Res	Type
49	S2	1403	C
49	S2	1404	U
49	S2	1405	A
49	S2	1407	U
49	S2	1410	C
49	S2	1411	G
49	S2	1412	C
49	S2	1414	A
49	S2	1417	C
49	S2	1418	C
49	S2	1419	C
49	S2	1420	G
49	S2	1424	G
49	S2	1426	U
49	S2	1430	C
49	S2	1431	G
49	S2	1432	U
49	S2	1433	C
49	S2	1434	C
49	S2	1435	C
49	S2	1437	C
49	S2	1438	A
49	S2	1441	U
49	S2	1442	U
49	S2	1449	G
49	S2	1450	G
49	S2	1452	A
49	S2	1454	A
49	S2	1455	A
49	S2	1456	G
49	S2	1462	U
49	S2	1463	U
49	S2	1464	C
49	S2	1466	G
49	S2	1467	C
49	S2	1474	A
49	S2	1475	G
49	S2	1476	A
49	S2	1477	U
49	S2	1478	U
49	S2	1489	A
49	S2	1490	G

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Mol	Chain	Res	Type
49	S2	1493	C
49	S2	1494	U
49	S2	1495	G
49	S2	1496	U
49	S2	1506	A
49	S2	1507	G
49	S2	1508	A
49	S2	1509	U
49	S2	1510	G
49	S2	1512	C
49	S2	1513	C
49	S2	1514	G
49	S2	1515	G
49	S2	1520	G
49	S2	1521	C
49	S2	1522	A
49	S2	1525	C
49	S2	1527	C
49	S2	1531	A
49	S2	1534	C
49	S2	1535	U
49	S2	1536	G
49	S2	1537	A
49	S2	1541	G
49	S2	1542	C
49	S2	1543	U
49	S2	1544	C
49	S2	1545	A
49	S2	1546	G
49	S2	1548	G
49	S2	1550	G
49	S2	1551	U
49	S2	1552	G
49	S2	1553	C
49	S2	1554	C
49	S2	1555	U
49	S2	1556	A
49	S2	1557	C
49	S2	1558	C
49	S2	1560	U
49	S2	1567	G
49	S2	1568	C

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Mol	Chain	Res	Type
49	S2	1570	G
49	S2	1574	C
49	S2	1578	U
49	S2	1579	A
49	S2	1580	A
49	S2	1581	C
49	S2	1585	U
49	S2	1586	U
49	S2	1587	G
49	S2	1588	A
49	S2	1589	A
49	S2	1590	C
49	S2	1593	C
49	S2	1595	U
49	S2	1596	U
49	S2	1598	G
49	S2	1599	U
49	S2	1600	G
49	S2	1601	A
49	S2	1602	U
49	S2	1604	G
49	S2	1606	G
49	S2	1609	C
49	S2	1610	G
49	S2	1621	U
49	S2	1622	U
49	S2	1623	A
49	S2	1625	U
49	S2	1633	A
49	S2	1637	A
49	S2	1638	G
49	S2	1644	C
49	S2	1648	G
49	S2	1649	U
49	S2	1656	G
49	S2	1660	C
49	S2	1663	A
49	S2	1664	A
49	S2	1665	G
49	S2	1666	C
49	S2	1674	G
49	S2	1679	A

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Mol	Chain	Res	Type
49	S2	1680	G
49	S2	1682	C
49	S2	1683	C
49	S2	1684	C
49	S2	1689	C
49	S2	1695	A
49	S2	1696	C
49	S2	1699	A
49	S2	1700	C
49	S2	1701	C
49	S2	1702	G
49	S2	1707	U
49	S2	1720	U
49	S2	1721	U
49	S2	1722	G
49	S2	1729	U
49	S2	1730	U
49	S2	1734	G
49	S2	1742	C
49	S2	1745	A
49	S2	1746	U
49	S2	1751	C
49	S2	1753	C
49	S2	1783	C
49	S2	1785	C
49	S2	1786	U
49	S2	1792	G
49	S2	1793	A
49	S2	1795	G
49	S2	1797	U
49	S2	1798	C
49	S2	1804	U
49	S2	1805	G
49	S2	1816	G
49	S2	1823	A
49	S2	1824	A
49	S2	1825	A
49	S2	1826	G
49	S2	1827	U
49	S2	1831	A
49	S2	1835	A
49	S2	1836	G

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Mol	Chain	Res	Type
49	S2	1837	G
49	S2	1838	U
49	S2	1839	U
49	S2	1841	C
49	S2	1849	G
49	S2	1850	A
49	S2	1851	A
49	S2	1852	C
49	S2	1860	A
49	S2	1861	G
49	S2	1862	G
49	S2	1863	A
49	S2	1864	U
49	S2	1865	C
49	S2	1868	U
49	S2	1869	A

All (921) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	5	1	C
1	5	20	U
1	5	33	A
1	5	39	A
1	5	42	A
1	5	47	A
1	5	48	G
1	5	51	A
1	5	53	C
1	5	54	G
1	5	55	G
1	5	62	A
1	5	64	A
1	5	65	A
1	5	66	A
1	5	84	A
1	5	85	G
1	5	88	A
1	5	94	A
1	5	97	G
1	5	98	A
1	5	99	A

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Mol	Chain	Res	Type
1	5	100	C
1	5	107	G
1	5	111	C
1	5	112	C
1	5	119	G
1	5	120	A
1	5	125	C
1	5	134	G
1	5	136	C
1	5	143	C
1	5	149	A
1	5	151	G
1	5	158	A
1	5	159	C
1	5	163	A
1	5	170	C
1	5	172	C
1	5	183	C
1	5	186	G
1	5	187	U
1	5	197	A
1	5	207	G
1	5	209	U
1	5	216	C
1	5	218	A
1	5	219	G
1	5	226	G
1	5	235	A
1	5	237	G
1	5	245	C
1	5	253	G
1	5	265	C
1	5	266	C
1	5	268	G
1	5	275	C
1	5	276	C
1	5	280	G
1	5	292	G
1	5	293	G
1	5	296	A
1	5	298	G
1	5	315	G

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Mol	Chain	Res	Type
1	5	333	U
1	5	337	U
1	5	340	C
1	5	349	A
1	5	353	A
1	5	354	U
1	5	360	A
1	5	361	C
1	5	362	A
1	5	371	A
1	5	385	A
1	5	387	G
1	5	388	A
1	5	393	U
1	5	394	G
1	5	405	U
1	5	406	C
1	5	407	A
1	5	410	A
1	5	414	C
1	5	417	G
1	5	421	C
1	5	432	U
1	5	435	A
1	5	451	C
1	5	454	U
1	5	485	C
1	5	486	C
1	5	493	G
1	5	495	C
1	5	496	G
1	5	497	G
1	5	502	C
1	5	505	G
1	5	514	U
1	5	647	G
1	5	648	G
1	5	655	C
1	5	658	C
1	5	659	G
1	5	664	G
1	5	666	G

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Mol	Chain	Res	Type
1	5	668	C
1	5	684	G
1	5	686	A
1	5	693	C
1	5	704	C
1	5	727	C
1	5	728	U
1	5	732	A
1	5	733	A
1	5	738	C
1	5	746	A
1	5	747	A
1	5	909	A
1	5	911	U
1	5	917	A
1	5	920	C
1	5	927	G
1	5	930	G
1	5	931	C
1	5	932	A
1	5	936	C
1	5	943	A
1	5	946	C
1	5	956	A
1	5	957	G
1	5	958	G
1	5	961	G
1	5	962	C
1	5	965	G
1	5	968	C
1	5	974	C
1	5	977	C
1	5	978	G
1	5	979	C
1	5	986	C
1	5	987	C
1	5	989	U
1	5	1067	G
1	5	1068	G
1	5	1074	G
1	5	1076	C
1	5	1186	U

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Mol	Chain	Res	Type
1	5	1210	C
1	5	1211	G
1	5	1214	C
1	5	1217	G
1	5	1221	G
1	5	1232	G
1	5	1235	G
1	5	1236	C
1	5	1237	C
1	5	1238	A
1	5	1239	C
1	5	1241	C
1	5	1243	C
1	5	1244	G
1	5	1254	A
1	5	1264	C
1	5	1266	G
1	5	1268	G
1	5	1272	C
1	5	1274	A
1	5	1279	A
1	5	1280	C
1	5	1281	G
1	5	1293	G
1	5	1296	G
1	5	1319	U
1	5	1324	A
1	5	1325	C
1	5	1329	G
1	5	1334	A
1	5	1356	U
1	5	1357	C
1	5	1359	G
1	5	1364	U
1	5	1365	C
1	5	1368	A
1	5	1370	G
1	5	1371	A
1	5	1377	G
1	5	1378	C
1	5	1379	C
1	5	1380	G

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Mol	Chain	Res	Type
1	5	1386	C
1	5	1398	A
1	5	1405	C
1	5	1406	G
1	5	1407	C
1	5	1410	U
1	5	1419	G
1	5	1420	A
1	5	1426	G
1	5	1428	U
1	5	1438	U
1	5	1439	C
1	5	1440	U
1	5	1445	U
1	5	1464	C
1	5	1474	C
1	5	1479	G
1	5	1480	C
1	5	1481	C
1	5	1484	G
1	5	1488	G
1	5	1489	G
1	5	1500	A
1	5	1509	C
1	5	1521	C
1	5	1522	G
1	5	1539	G
1	5	1554	A
1	5	1596	U
1	5	1613	A
1	5	1614	C
1	5	1615	C
1	5	1617	G
1	5	1627	G
1	5	1633	G
1	5	1636	U
1	5	1640	C
1	5	1650	A
1	5	1654	G
1	5	1671	U
1	5	1676	C
1	5	1681	G

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Mol	Chain	Res	Type
1	5	1682	A
1	5	1696	C
1	5	1697	G
1	5	1698	C
1	5	1724	G
1	5	1725	U
1	5	1742	A
1	5	1763	C
1	5	1764	G
1	5	1804	A
1	5	1808	C
1	5	1819	G
1	5	1835	G
1	5	1864	G
1	5	1865	G
1	5	1869	G
1	5	1876	U
1	5	1881	C
1	5	1884	C
1	5	1887	G
1	5	1890	G
1	5	1891	A
1	5	1912	G
1	5	1919	G
1	5	1920	C
1	5	1921	C
1	5	1925	G
1	5	1928	C
1	5	1930	U
1	5	1935	C
1	5	1938	C
1	5	1959	U
1	5	1960	A
1	5	1974	U
1	5	1975	G
1	5	1980	U
1	5	1983	A
1	5	1998	A
1	5	2007	G
1	5	2008	U
1	5	2009	A
1	5	2014	C

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Mol	Chain	Res	Type
1	5	2044	U
1	5	2046	G
1	5	2057	A
1	5	2068	C
1	5	2075	G
1	5	2077	C
1	5	2083	C
1	5	2088	A
1	5	2089	G
1	5	2090	U
1	5	2093	A
1	5	2094	G
1	5	2096	G
1	5	2107	C
1	5	2111	G
1	5	2114	G
1	5	2116	C
1	5	2118	G
1	5	2119	C
1	5	2122	G
1	5	2123	C
1	5	2124	G
1	5	2126	G
1	5	2246	C
1	5	2248	C
1	5	2250	C
1	5	2251	G
1	5	2256	C
1	5	2257	C
1	5	2258	C
1	5	2260	C
1	5	2261	G
1	5	2262	G
1	5	2264	C
1	5	2265	G
1	5	2266	C
1	5	2267	U
1	5	2268	A
1	5	2269	C
1	5	2272	C
1	5	2276	A
1	5	2278	G

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Mol	Chain	Res	Type
1	5	2289	C
1	5	2313	A
1	5	2321	G
1	5	2323	C
1	5	2324	C
1	5	2325	C
1	5	2328	G
1	5	2329	U
1	5	2331	G
1	5	2332	A
1	5	2347	A
1	5	2361	G
1	5	2362	U
1	5	2370	A
1	5	2389	A
1	5	2394	G
1	5	2396	A
1	5	2398	U
1	5	2417	A
1	5	2436	U
1	5	2438	A
1	5	2447	U
1	5	2448	G
1	5	2459	G
1	5	2464	C
1	5	2468	U
1	5	2470	C
1	5	2474	G
1	5	2479	G
1	5	2487	G
1	5	2490	U
1	5	2502	G
1	5	2507	A
1	5	2509	C
1	5	2512	A
1	5	2513	A
1	5	2514	G
1	5	2515	G
1	5	2529	A
1	5	2533	C
1	5	2544	G
1	5	2545	U

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Mol	Chain	Res	Type
1	5	2546	G
1	5	2553	A
1	5	2554	U
1	5	2576	G
1	5	2581	A
1	5	2583	C
1	5	2587	A
1	5	2588	C
1	5	2589	C
1	5	2591	A
1	5	2600	A
1	5	2614	C
1	5	2618	G
1	5	2622	G
1	5	2631	U
1	5	2652	G
1	5	2658	G
1	5	2661	U
1	5	2665	U
1	5	2666	U
1	5	2673	G
1	5	2674	A
1	5	2677	G
1	5	2683	C
1	5	2686	G
1	5	2688	G
1	5	2695	A
1	5	2703	G
1	5	2711	G
1	5	2732	G
1	5	2744	A
1	5	2761	U
1	5	2768	C
1	5	2769	U
1	5	2782	U
1	5	2786	C
1	5	2787	A
1	5	2796	G
1	5	2803	U
1	5	2806	A
1	5	2811	G
1	5	2812	A

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Mol	Chain	Res	Type
1	5	2817	C
1	5	2825	A
1	5	2827	G
1	5	2828	U
1	5	2833	A
1	5	2834	C
1	5	2837	U
1	5	2843	U
1	5	2848	G
1	5	2851	G
1	5	2858	A
1	5	2859	G
1	5	2879	A
1	5	2895	A
1	5	2896	G
1	5	3590	G
1	5	3593	C
1	5	3615	G
1	5	3620	G
1	5	3622	C
1	5	3625	G
1	5	3626	G
1	5	3636	C
1	5	3648	A
1	5	3653	A
1	5	3654	G
1	5	3663	A
1	5	3666	C
1	5	3667	C
1	5	3671	G
1	5	3676	G
1	5	3679	U
1	5	3681	G
1	5	3683	C
1	5	3692	A
1	5	3697	U
1	5	3712	A
1	5	3717	A
1	5	3727	A
1	5	3730	U
1	5	3735	G
1	5	3736	A

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Mol	Chain	Res	Type
1	5	3773	U
1	5	3774	A
1	5	3776	G
1	5	3784	A
1	5	3799	A
1	5	3802	U
1	5	3803	A
1	5	3809	G
1	5	3813	A
1	5	3817	A
1	5	3839	G
1	5	3845	A
1	5	3856	A
1	5	3860	A
1	5	3862	A
1	5	3875	G
1	5	3876	A
1	5	3877	A
1	5	3879	G
1	5	3888	G
1	5	3905	A
1	5	3922	G
1	5	3938	G
1	5	3944	G
1	5	4069	U
1	5	4075	U
1	5	4084	G
1	5	4085	A
1	5	4086	G
1	5	4095	G
1	5	4096	C
1	5	4097	G
1	5	4102	C
1	5	4103	C
1	5	4115	G
1	5	4118	U
1	5	4119	C
1	5	4120	U
1	5	4121	G
1	5	4123	C
1	5	4124	G
1	5	4127	A

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Mol	Chain	Res	Type
1	5	4144	C
1	5	4163	U
1	5	4165	C
1	5	4170	A
1	5	4173	G
1	5	4183	G
1	5	4195	G
1	5	4197	G
1	5	4219	A
1	5	4221	C
1	5	4227	U
1	5	4228	G
1	5	4229	U
1	5	4232	U
1	5	4233	A
1	5	4239	A
1	5	4240	G
1	5	4250	G
1	5	4251	A
1	5	4254	G
1	5	4257	A
1	5	4269	G
1	5	4270	C
1	5	4275	G
1	5	4276	G
1	5	4280	A
1	5	4282	A
1	5	4283	G
1	5	4287	G
1	5	4291	G
1	5	4295	U
1	5	4297	G
1	5	4322	G
1	5	4330	G
1	5	4334	U
1	5	4338	G
1	5	4348	A
1	5	4349	C
1	5	4368	G
1	5	4374	U
1	5	4375	C
1	5	4378	A

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Mol	Chain	Res	Type
1	5	4385	A
1	5	4395	U
1	5	4419	U
1	5	4425	G
1	5	4436	U
1	5	4440	G
1	5	4448	G
1	5	4449	A
1	5	4451	G
1	5	4454	G
1	5	4463	U
1	5	4464	A
1	5	4472	G
1	5	4474	A
1	5	4475	G
1	5	4481	U
1	5	4488	A
1	5	4489	G
1	5	4497	U
1	5	4498	U
1	5	4507	A
1	5	4518	A
1	5	4519	C
1	5	4522	G
1	5	4527	G
1	5	4528	G
1	5	4531	U
1	5	4533	A
1	5	4535	A
1	5	4536	C
1	5	4543	G
1	5	4547	C
1	5	4548	A
1	5	4560	C
1	5	4574	U
1	5	4583	C
1	5	4600	G
1	5	4605	A
1	5	4610	A
1	5	4645	C
1	5	4647	G
1	5	4656	A

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Mol	Chain	Res	Type
1	5	4670	C
1	5	4677	U
1	5	4678	G
1	5	4691	A
1	5	4693	C
1	5	4700	A
1	5	4718	G
1	5	4719	G
1	5	4720	C
1	5	4730	C
1	5	4731	G
1	5	4737	G
1	5	4739	C
1	5	4740	G
1	5	4745	G
1	5	4756	C
1	5	4762	A
1	5	4763	U
1	5	4871	C
1	5	4872	G
1	5	4873	G
1	5	4874	A
1	5	4884	G
1	5	4885	U
1	5	4887	C
1	5	4888	U
1	5	4889	G
1	5	4900	C
1	5	4911	A
1	5	4926	C
1	5	4929	C
1	5	4935	C
1	5	4936	G
1	5	4938	A
1	5	4948	C
1	5	4949	G
1	5	4950	U
1	5	4951	G
1	5	4981	G
1	5	4990	C
1	5	4991	U
1	5	5022	U

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Mol	Chain	Res	Type
1	5	5026	U
1	5	5027	C
1	5	5041	G
1	5	5046	U
1	5	5049	G
1	5	5056	A
1	5	5059	C
1	5	5060	A
1	5	5061	A
1	5	5062	G
1	5	5068	G
2	7	7	G
2	7	21	G
2	7	42	A
2	7	56	G
2	7	58	A
2	7	60	G
2	7	63	C
2	7	72	U
2	7	75	G
3	8	2	G
3	8	9	A
3	8	10	G
3	8	14	U
3	8	33	G
3	8	34	U
3	8	37	A
3	8	64	U
3	8	70	G
3	8	73	U
3	8	81	C
3	8	83	C
3	8	85	U
3	8	94	G
3	8	95	A
3	8	98	C
3	8	110	U
3	8	111	U
3	8	124	U
3	8	125	C
3	8	126	C
3	8	131	G

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Mol	Chain	Res	Type
49	S2	1	U
49	S2	2	A
49	S2	9	U
49	S2	19	A
49	S2	24	C
49	S2	50	A
49	S2	55	U
49	S2	60	A
49	S2	61	A
49	S2	65	C
49	S2	66	G
49	S2	67	C
49	S2	72	C
49	S2	73	C
49	S2	74	G
49	S2	90	G
49	S2	91	A
49	S2	98	C
49	S2	102	A
49	S2	104	A
49	S2	110	U
49	S2	113	G
49	S2	126	G
49	S2	127	C
49	S2	139	C
49	S2	140	C
49	S2	141	A
49	S2	142	C
49	S2	158	A
49	S2	160	U
49	S2	163	U
49	S2	164	A
49	S2	180	G
49	S2	181	A
49	S2	182	C
49	S2	183	G
49	S2	190	G
49	S2	215	G
49	S2	291	G
49	S2	294	U
49	S2	304	C
49	S2	305	U

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Mol	Chain	Res	Type
49	S2	312	G
49	S2	313	A
49	S2	327	G
49	S2	333	G
49	S2	340	C
49	S2	349	A
49	S2	355	G
49	S2	357	C
49	S2	360	A
49	S2	368	U
49	S2	369	C
49	S2	377	G
49	S2	381	C
49	S2	384	U
49	S2	385	G
49	S2	409	C
49	S2	421	G
49	S2	427	U
49	S2	435	A
49	S2	443	U
49	S2	444	G
49	S2	446	G
49	S2	448	A
49	S2	452	G
49	S2	453	C
49	S2	458	A
49	S2	465	A
49	S2	468	A
49	S2	471	G
49	S2	473	A
49	S2	482	G
49	S2	492	C
49	S2	499	G
49	S2	515	G
49	S2	532	C
49	S2	539	C
49	S2	548	C
49	S2	550	C
49	S2	577	U
49	S2	578	C
49	S2	579	C
49	S2	601	G

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Mol	Chain	Res	Type
49	S2	604	A
49	S2	606	G
49	S2	607	U
49	S2	613	G
49	S2	615	C
49	S2	618	C
49	S2	642	U
49	S2	646	G
49	S2	649	U
49	S2	656	G
49	S2	671	A
49	S2	687	C
49	S2	688	U
49	S2	732	U
49	S2	733	C
49	S2	746	C
49	S2	747	U
49	S2	751	G
49	S2	752	G
49	S2	797	C
49	S2	798	A
49	S2	799	U
49	S2	800	U
49	S2	810	A
49	S2	815	U
49	S2	821	G
49	S2	827	A
49	S2	833	C
49	S2	841	G
49	S2	855	G
49	S2	867	G
49	S2	868	G
49	S2	869	A
49	S2	870	A
49	S2	871	U
49	S2	872	A
49	S2	918	U
49	S2	919	A
49	S2	924	G
49	S2	950	C
49	S2	956	G
49	S2	957	A

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Mol	Chain	Res	Type
49	S2	958	G
49	S2	959	G
49	S2	960	U
49	S2	964	A
49	S2	967	C
49	S2	970	G
49	S2	980	A
49	S2	991	G
49	S2	992	A
49	S2	993	G
49	S2	999	G
49	S2	1001	A
49	S2	1016	U
49	S2	1039	C
49	S2	1050	A
49	S2	1051	G
49	S2	1083	A
49	S2	1085	C
49	S2	1087	A
49	S2	1088	U
49	S2	1093	A
49	S2	1097	G
49	S2	1098	C
49	S2	1109	C
49	S2	1110	G
49	S2	1114	U
49	S2	1115	U
49	S2	1121	G
49	S2	1132	C
49	S2	1133	A
49	S2	1137	U
49	S2	1138	C
49	S2	1141	G
49	S2	1142	G
49	S2	1150	A
49	S2	1153	C
49	S2	1165	G
49	S2	1171	G
49	S2	1181	A
49	S2	1194	A
49	S2	1199	A
49	S2	1206	G

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Mol	Chain	Res	Type
49	S2	1207	G
49	S2	1223	A
49	S2	1244	U
49	S2	1247	C
49	S2	1249	C
49	S2	1250	A
49	S2	1253	A
49	S2	1265	A
49	S2	1273	C
49	S2	1275	G
49	S2	1283	C
49	S2	1292	C
49	S2	1298	G
49	S2	1302	G
49	S2	1312	G
49	S2	1313	A
49	S2	1315	U
49	S2	1341	C
49	S2	1367	U
49	S2	1368	U
49	S2	1372	U
49	S2	1393	G
49	S2	1395	C
49	S2	1396	A
49	S2	1401	A
49	S2	1404	U
49	S2	1416	C
49	S2	1417	C
49	S2	1418	C
49	S2	1419	C
49	S2	1421	A
49	S2	1429	G
49	S2	1433	C
49	S2	1434	C
49	S2	1440	C
49	S2	1441	U
49	S2	1442	U
49	S2	1446	A
49	S2	1454	A
49	S2	1462	U
49	S2	1463	U
49	S2	1474	A

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Mol	Chain	Res	Type
49	S2	1475	G
49	S2	1477	U
49	S2	1489	A
49	S2	1493	C
49	S2	1494	U
49	S2	1506	A
49	S2	1512	C
49	S2	1521	C
49	S2	1522	A
49	S2	1534	C
49	S2	1537	A
49	S2	1540	G
49	S2	1542	C
49	S2	1543	U
49	S2	1552	G
49	S2	1555	U
49	S2	1556	A
49	S2	1557	C
49	S2	1561	A
49	S2	1568	C
49	S2	1579	A
49	S2	1585	U
49	S2	1588	A
49	S2	1593	C
49	S2	1597	C
49	S2	1598	G
49	S2	1599	U
49	S2	1603	G
49	S2	1605	G
49	S2	1623	A
49	S2	1629	C
49	S2	1637	A
49	S2	1643	U
49	S2	1648	G
49	S2	1659	U
49	S2	1664	A
49	S2	1678	A
49	S2	1679	A
49	S2	1682	C
49	S2	1694	U
49	S2	1695	A
49	S2	1700	C

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Mol	Chain	Res	Type
49	S2	1703	C
49	S2	1720	U
49	S2	1744	G
49	S2	1756	C
49	S2	1823	A
49	S2	1825	A
49	S2	1826	G
49	S2	1830	U
49	S2	1835	A
49	S2	1836	G
49	S2	1838	U
49	S2	1849	G
49	S2	1857	G
49	S2	1858	G
49	S2	1860	A
49	S2	1863	A
49	S2	1868	U

5.4 Non-standard residues in protein, DNA, RNA chains

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates

There are no carbohydrates in this entry.

5.6 Ligand geometry

Of 170 ligands modelled in this entry, 170 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.