Full wwPDB X-ray Structure Validation Report (i)

Feb 1, 2016 – 10:04 PM GMT

PDB ID	:	4V9D
Title	:	Structures of the bacterial ribosome in classical and hybrid states of tRNA binding
Authors	:	Dunkle, J.A.; Wang, L.; Feldman, M.B.; Pulk, A.; Chen, V.B.; Kapral, G.J.; Noeske, J.; Richardson, J.S.; Blanchard, S.C.; Cate, J.H.D.
Deposited on	:	2012-07-31
Resolution	:	3.00 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
http://wwpdb.org/validation/2016/XrayValidationReportHelp
with specific help available everywhere you see the (i) symbol.

The following versions of software and data (see references (1)) were used in the production of this report:

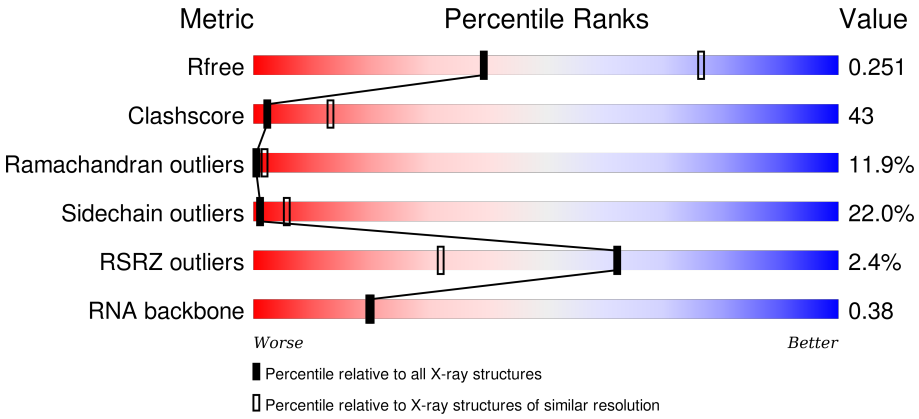
MolProbity	:	4.02b-467
Mogul	:	1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix)	:	1.9-1692
EDS	:	rb-20026688
Percentile statistics	:	20151230.v01 (using entries in the PDB archive December 30th 2015)
Refmac	:	5.8.0135
CCP4	:	6.5.0
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	trunk26865

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.00 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	91344	1578 (3.00-3.00)
Clashscore	102246	1912 (3.00-3.00)
Ramachandran outliers	100387	1853 (3.00-3.00)
Sidechain outliers	100360	1856 (3.00-3.00)
RSRZ outliers	91569	1592 (3.00-3.00)
RNA backbone	2183	1036 (3.40-2.60)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower 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% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	AA	1539	% 14% 54% 28% ·
1	BA	1539	% 13% 55% 28% ·
2	AB	218	7% 10% 45% 36% 9%
2	BB	218	6% 15% 51% 26% 8%

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Mol	Chain	Length	Quality of chain
3	AC	206	23% 51% 21% 5%
3	BC	206	2% 20% 49% 29%
4	AD	205	2% 21% 46% 31%
4	BD	205	20% 48% 29%
5	AE	150	2% 17% 54% 24% 5%
5	BE	150	23% 45% 31%
6	AF	100	18% 52% 25% 5%
6	BF	100	9% 56% 28% 7%
7	AG	151	9% 26% 49% 25%
7	BG	151	4% 16% 55% 25%
8	AH	129	21% 58% 19%
8	BH	129	32% 43% 22%
9	AI	127	3% 13% 57% 28%
9	BI	127	9% 14% 55% 27%
10	AJ	98	5% 17% 45% 32% 6%
10	BJ	98	6% 19% 46% 29% 6%
11	AK	117	29% 43% 26%
11	BK	117	24% 51% 21%
12	AL	123	2% 36% 54% 8%
12	BL	123	2% 30% 46% 20%
13	AM	114	4% 18% 61% 16%
13	BM	114	8% 16% 52% 29%
14	AN	100	13% 52% 26% 5%
14	BN	100	4% 12% 50% 30%
15	AO	88	31% 53% 15%

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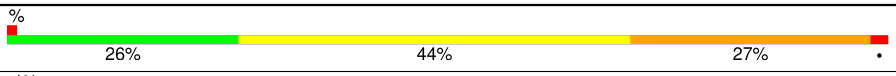
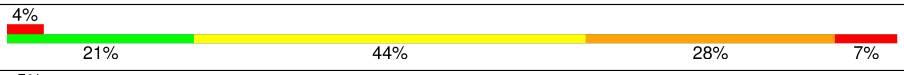
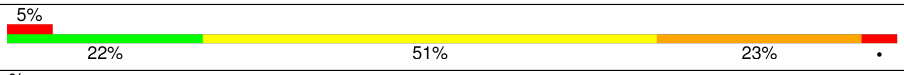
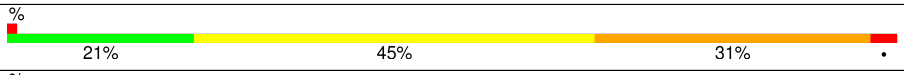
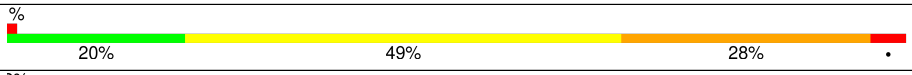
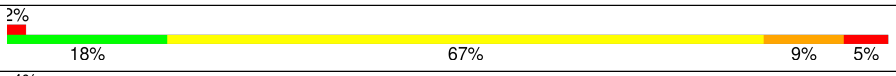
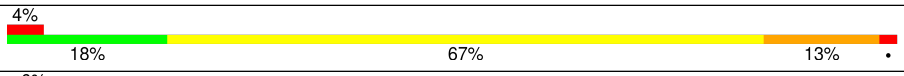
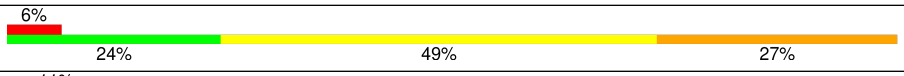
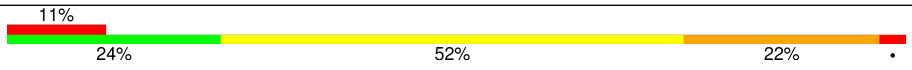
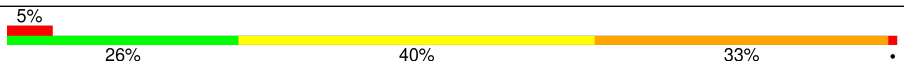
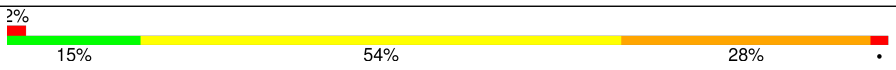
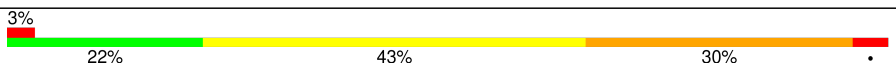
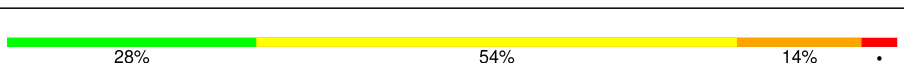
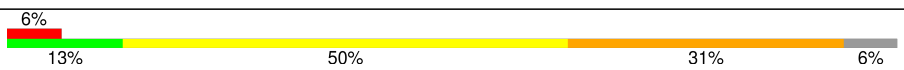
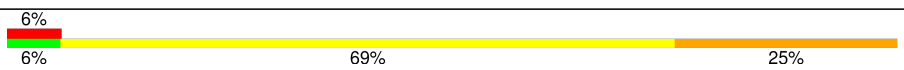
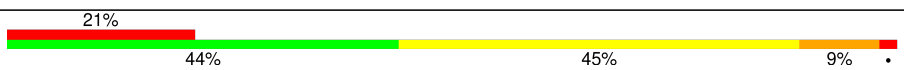
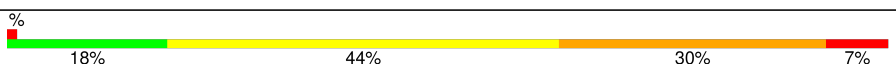
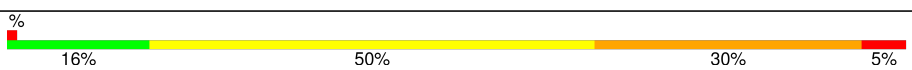
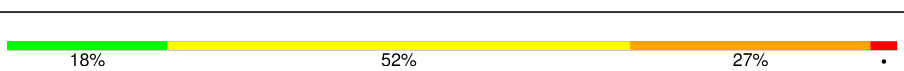
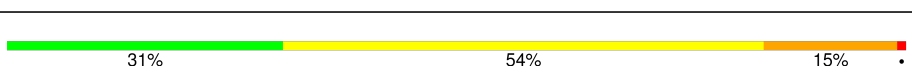
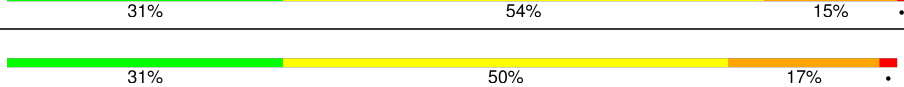
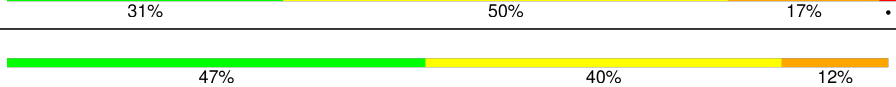
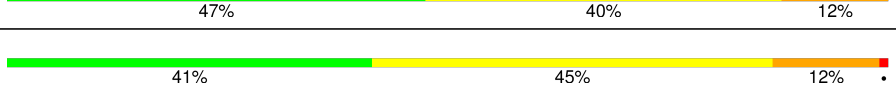
Mol	Chain	Length	Quality of chain
15	BO	88	
16	AP	82	
16	BP	82	
17	AQ	80	
17	BQ	80	
18	AR	55	
18	BR	55	
19	AS	79	
19	BS	79	
20	AT	85	
20	BT	85	
21	AU	51	
21	BU	51	
22	AV	76	
22	BV	76	
23	AX	16	
23	BX	16	
24	AY	183	
25	CA	2903	
25	DA	2903	
26	CB	119	
27	CC	271	
27	DC	271	
28	CD	209	
28	DD	209	

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Mol	Chain	Length	Quality of chain
29	CE	201	36% 54% 9%
29	DE	201	32% 47% 19%
30	CF	177	2% 23% 53% 21%
30	DF	177	5% 21% 51% 26%
31	CG	176	31% 53% 15%
31	DG	176	% 26% 55% 19%
32	CH	149	5% 22% 51% 26%
32	DH	149	6% 20% 56% 20%
33	CI	141	52% 17% 52% 26% 5%
33	DI	141	53% 16% 57% 26%
34	CJ	142	56% 33% 10%
34	DJ	142	37% 51% 11%
35	CK	122	43% 40% 16%
35	DK	122	40% 43% 17%
36	CL	143	34% 46% 17%
36	DL	143	2% 27% 55% 14%
37	CM	136	42% 40% 16%
37	DM	136	% 29% 53% 16%
38	CN	120	33% 55% 12%
38	DN	120	26% 57% 18%
39	CO	116	31% 50% 16%
39	DO	116	7% 22% 56% 22%
40	CP	114	32% 56% 10%
40	DP	114	26% 55% 15%
41	CQ	117	46% 47% 6%

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Mol	Chain	Length	Quality of chain
41	DQ	117	38% 51% 11%
42	CR	103	45% 37% 17%
42	DR	103	% 29% 51% 18%
43	CS	110	% 55% 35% 8%
43	DS	110	35% 43% 20%
44	CT	93	2% 33% 53% 13%
44	DT	93	% 17% 49% 30%
45	CU	102	2% 33% 47% 17%
45	DU	102	10% 24% 55% 20%
46	CV	94	46% 44% 11%
46	DV	94	% 39% 46% 14%
47	CW	76	54% 39% 7%
48	CX	77	38% 52% 10%
48	DX	77	32% 51% 17%
49	CY	63	5% 25% 44% 27%
49	DY	63	13% 51% 32% 5%
50	CZ	58	45% 52%
50	DZ	58	2% 40% 45% 14%
51	C0	56	48% 38% 14%
51	D0	56	36% 50% 14%
52	C1	50	2% 30% 54% 14%
52	D1	50	8% 32% 52% 16%
53	C2	46	2% 43% 46% 9%
53	D2	46	57% 35% 7%
54	C3	64	47% 50%

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Mol	Chain	Length	Quality of chain
54	D3	64	33% 63% 5%
55	C4	38	39% 50% 8%
55	D4	38	21% 66% 13%
56	DB	118	14% 56% 29%
57	DW	75	% 48% 41% 9%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
58	MG	AA	1604	-	-	-	X
58	MG	AA	1622	-	-	-	X
58	MG	CA	3066	-	-	-	X
58	MG	CA	3121	-	-	-	X
58	MG	CA	3132	-	-	-	X
58	MG	CA	3147	-	-	-	X
58	MG	CA	3153	-	-	-	X
58	MG	CA	3155	-	-	-	X
58	MG	CA	3159	-	-	-	X
58	MG	CA	3163	-	-	-	X
58	MG	CA	3165	-	-	-	X
58	MG	CA	3175	-	-	-	X
58	MG	CA	3186	-	-	-	X
58	MG	CA	3188	-	-	-	X
58	MG	DA	3108	-	-	-	X
58	MG	DA	3116	-	-	-	X
58	MG	DA	3131	-	-	-	X
58	MG	DA	3139	-	-	-	X
58	MG	DA	3142	-	-	-	X
58	MG	DA	3152	-	-	-	X
58	MG	DA	3154	-	-	-	X
58	MG	DA	3157	-	-	-	X

2 Entry composition

There are 60 unique types of molecules in this entry. The entry contains 292354 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1538	Total	C	N	O	P	0	0	0
			32995	14716	6050	10691	1538			
1	BA	1539	Total	C	N	O	P	0	0	0
			33015	14725	6052	10699	1539			

- Molecule 2 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	218	Total	C	N	O	S	0	0	0
			1705	1081	305	312	7			
2	BB	218	Total	C	N	O	S	0	0	0
			1705	1081	305	312	7			

- Molecule 3 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	206	Total	C	N	O	S	0	0	0
			1625	1028	305	289	3			
3	BC	206	Total	C	N	O	S	0	0	0
			1625	1028	305	289	3			

- Molecule 4 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			
4	BD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			

- Molecule 5 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	150	Total	C	N	O	S	0	0	0
			1106	687	211	202	6			
5	BE	150	Total	C	N	O	S	0	0	0
			1106	687	211	202	6			

- Molecule 6 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	100	Total	C	N	O	S	0	0	0
			818	515	148	149	6			
6	BF	100	Total	C	N	O	S	0	0	0
			818	515	148	149	6			

- Molecule 7 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	151	Total	C	N	O	S	0	0	0
			1182	735	227	216	4			
7	BG	151	Total	C	N	O	S	0	0	0
			1182	735	227	216	4			

- Molecule 8 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			
8	BH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			

- Molecule 9 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			
9	BI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			

- Molecule 10 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AJ	98	Total	C	N	O	S	0	0	0
			787	493	150	143	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	BJ	98	Total	C	N	O	S	0	0	0
			787	493	150	143	1			

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			
11	BK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			

- Molecule 12 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			
12	BL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	114	Total	C	N	O	S	0	0	0
			884	546	178	157	3			
13	BM	114	Total	C	N	O	S	0	0	0
			884	546	178	157	3			

- Molecule 14 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			
14	BN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			

- Molecule 15 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			
15	BO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			

- Molecule 16 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			
16	BP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	80	Total	C	N	O	S	0	0	0
			649	411	121	114	3			
17	BQ	80	Total	C	N	O	S	0	0	0
			649	411	121	114	3			

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	55	Total	C	N	O	0	0	0
			456	288	86	82			
18	BR	55	Total	C	N	O	0	0	0
			456	288	86	82			

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	79	Total	C	N	O	S	0	0	0
			638	408	120	108	2			
19	BS	79	Total	C	N	O	S	0	0	0
			638	408	120	108	2			

- Molecule 20 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			
20	BT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			

- Molecule 21 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	AU	51	Total	C	N	O	S	0	0	0
			426	265	86	74	1			
21	BU	51	Total	C	N	O	S	0	0	0
			426	265	86	74	1			

- Molecule 22 is a RNA chain called phenylalanine specific transfer RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	76	Total	C	N	O	P	0	0	0
			1623	723	290	534	76			
22	BV	76	Total	C	N	O	P	0	0	0
			1623	723	290	534	76			

- Molecule 23 is a RNA chain called messenger RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AX	15	Total	C	N	O	P	0	0	0
			324	145	61	103	15			
23	BX	16	Total	C	N	O	P	0	0	0
			346	155	66	109	16			

- Molecule 24 is a protein called ribosome recycling factor.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AY	183	Total	C	N	O	S	0	0	0
			1419	871	260	283	5			

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AY	2	GLY	-	EXPRESSION TAG	UNP P0A805

- Molecule 25 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	CA	2897	Total	C	N	O	P	0	0	0
			62195	27745	11446	20107	2897			
25	DA	2896	Total	C	N	O	P	0	0	0
			62173	27735	11441	20101	2896			

- Molecule 26 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	CB	119	Total	C	N	O	P	0	0	0
			2548	1135	466	829	118			

- Molecule 27 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	CC	271	Total	C	N	O	S	0	0	0
			2083	1288	423	365	7			
27	DC	271	Total	C	N	O	S	0	0	0
			2083	1288	423	365	7			

- Molecule 28 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	CD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			
28	DD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			

- Molecule 29 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	CE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			
29	DE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			

- Molecule 30 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	CF	177	Total	C	N	O	S	0	0	0
			1411	899	249	257	6			
30	DF	177	Total	C	N	O	S	0	0	0
			1411	899	249	257	6			

- Molecule 31 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	CG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			
31	DG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			

- Molecule 32 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	CH	149	Total	C	N	O	S	0	0	0
			1110	699	197	213	1			
32	DH	149	Total	C	N	O	S	0	0	0
			1110	699	197	213	1			

- Molecule 33 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	CI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			
33	DI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			

- Molecule 34 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	CJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			
34	DJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			

- Molecule 35 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	CK	122	Total	C	N	O	S	0	0	0
			939	587	180	166	6			
35	DK	122	Total	C	N	O	S	0	0	0
			939	587	180	166	6			

- Molecule 36 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	CL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			
36	DL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			

- Molecule 37 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	CM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			
37	DM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			

- Molecule 38 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	CN	120	Total	C	N	O	S	0	0	0
			961	593	196	167	5			
38	DN	120	Total	C	N	O	S	0	0	0
			961	593	196	167	5			

- Molecule 39 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
39	CO	116	Total	C	N	O	0	0	0
			892	552	178	162			
39	DO	116	Total	C	N	O	0	0	0
			892	552	178	162			

- Molecule 40 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	CP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			
40	DP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			

- Molecule 41 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
41	CQ	117	Total	C	N	O	0	0	0
			947	604	192	151			
41	DQ	117	Total	C	N	O	0	0	0
			947	604	192	151			

- Molecule 42 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	CR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	DR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			

- Molecule 43 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	CS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
43	DS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			

- Molecule 44 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	CT	93	Total	C	N	O	S	0	0	0
			739	466	139	132	2			
44	DT	93	Total	C	N	O	S	0	0	0
			739	466	139	132	2			

- Molecule 45 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
45	CU	102	Total	C	N	O	0	0	0
			780	492	146	142			
45	DU	102	Total	C	N	O	0	0	0
			780	492	146	142			

- Molecule 46 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	CV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			
46	DV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			

- Molecule 47 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	CW	76	Total	C	N	O	S	0	0	0
			575	356	117	101	1			

- Molecule 48 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	CX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			
48	DX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			

- Molecule 49 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	CY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			
49	DY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			

- Molecule 50 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	CZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			
50	DZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			

- Molecule 51 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	C0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
51	D0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			

- Molecule 52 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
52	C1	50	Total	C	N	O	0	0	0
			410	263	75	72			
52	D1	50	Total	C	N	O	0	0	0
			410	263	75	72			

- Molecule 53 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	C2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	D2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			

- Molecule 54 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	C3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			
54	D3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			

- Molecule 55 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	C4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			
55	D4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			

- Molecule 56 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	DB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			

- Molecule 57 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
57	DW	75	Total	C	N	O	S	0	0	0
			564	350	113	100	1			

- Molecule 58 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	BA	56	Total	Mg	0	0
			56	56		
58	CA	194	Total	Mg	0	0
			194	194		
58	DQ	1	Total	Mg	0	0
			1	1		
58	CB	4	Total	Mg	0	0
			4	4		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	DL	1	Total Mg 1 1	0	0
58	AA	72	Total Mg 72 72	0	0
58	CQ	1	Total Mg 1 1	0	0
58	DA	166	Total Mg 166 166	0	0
58	DB	3	Total Mg 3 3	0	0

- Molecule 59 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	D4	1	Total Zn 1 1	0	0
59	C4	1	Total Zn 1 1	0	0

- Molecule 60 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	AA	197	Total O 197 197	0	0
60	AN	4	Total O 4 4	0	0
60	AT	1	Total O 1 1	0	0
60	AU	1	Total O 1 1	0	0
60	BA	190	Total O 190 190	0	0
60	BL	1	Total O 1 1	0	0
60	BN	5	Total O 5 5	0	0
60	BT	1	Total O 1 1	0	0
60	BU	1	Total O 1 1	0	0
60	CA	625	Total O 625 625	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	CB	13	Total O 13 13	0	0
60	CC	8	Total O 8 8	0	0
60	CD	2	Total O 2 2	0	0
60	CE	2	Total O 2 2	0	0
60	CF	1	Total O 1 1	0	0
60	CJ	1	Total O 1 1	0	0
60	CL	6	Total O 6 6	0	0
60	CN	4	Total O 4 4	0	0
60	CS	1	Total O 1 1	0	0
60	CV	1	Total O 1 1	0	0
60	C2	1	Total O 1 1	0	0
60	C3	1	Total O 1 1	0	0
60	C4	2	Total O 2 2	0	0
60	DA	622	Total O 622 622	0	0
60	DB	14	Total O 14 14	0	0
60	DC	4	Total O 4 4	0	0
60	DD	5	Total O 5 5	0	0
60	DE	2	Total O 2 2	0	0
60	DJ	1	Total O 1 1	0	0
60	DL	4	Total O 4 4	0	0
60	DN	1	Total O 1 1	0	0

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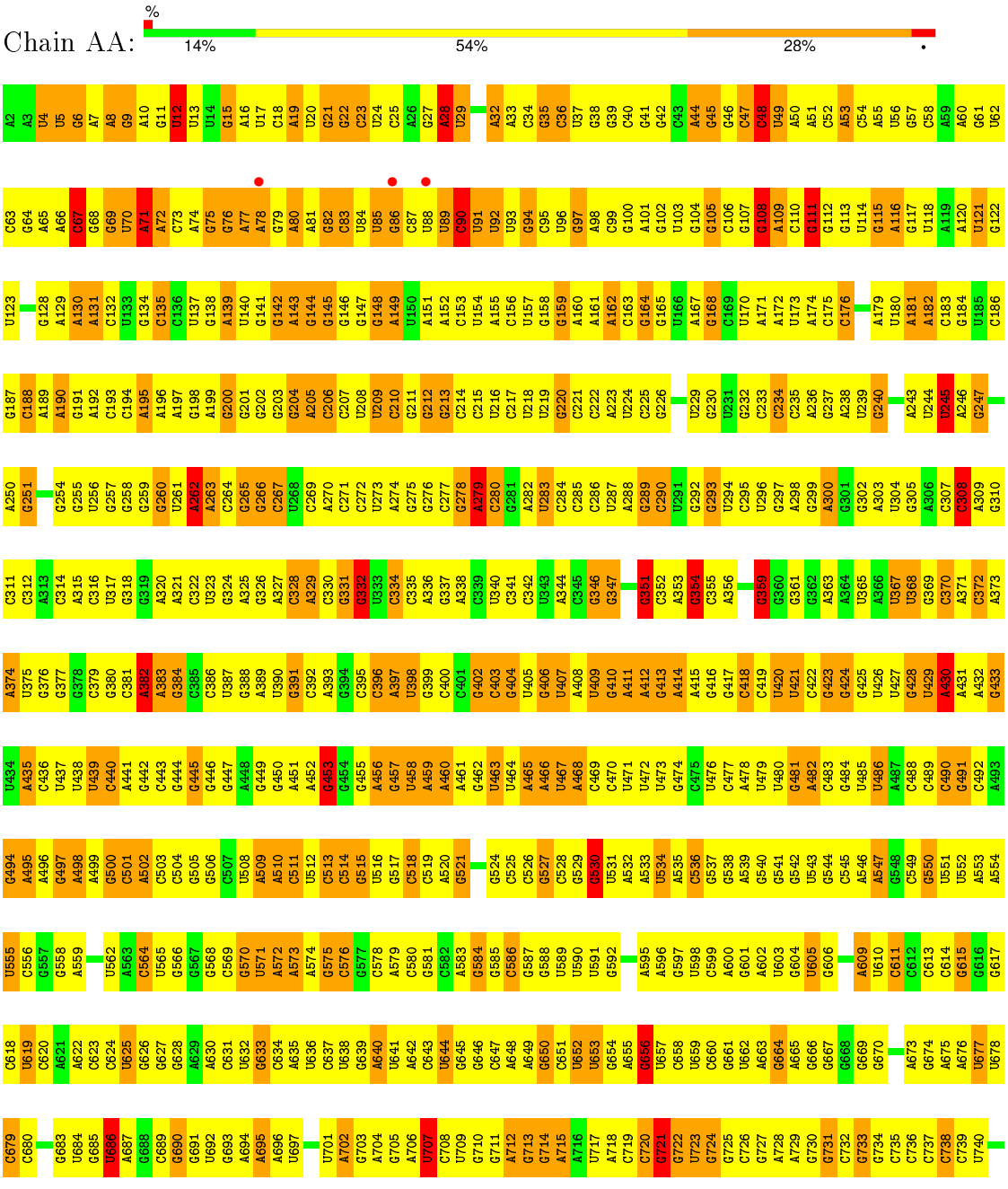
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	DR	1	Total O 1 1	0	0
60	D2	1	Total O 1 1	0	0
60	D3	2	Total O 2 2	0	0
60	D4	1	Total O 1 1	0	0

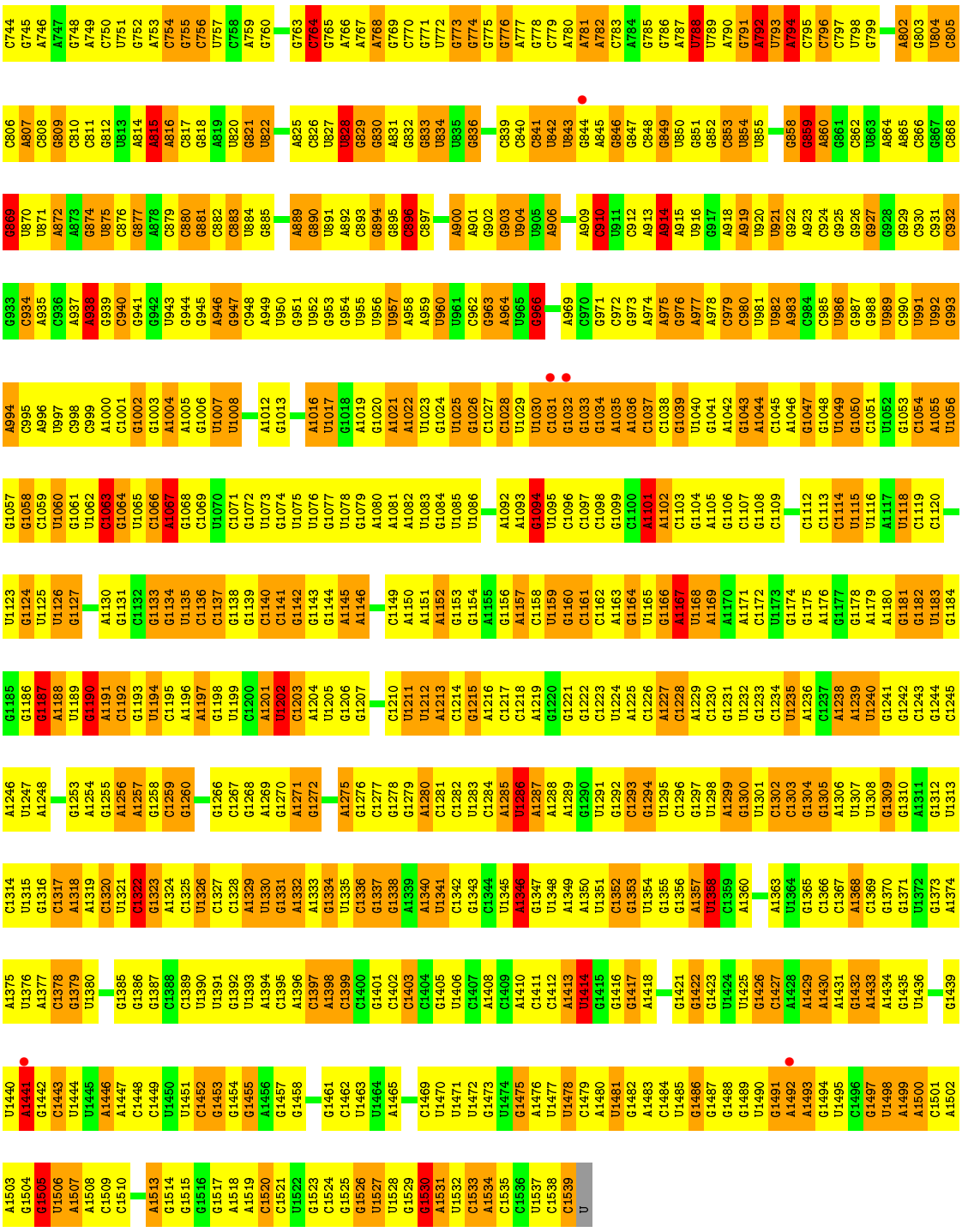
3 Residue-property plots (i)

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 and electron density. 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. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). 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: 16S rRNA

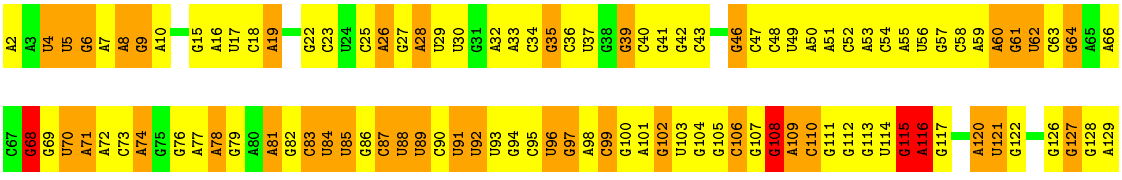
Chain AA:

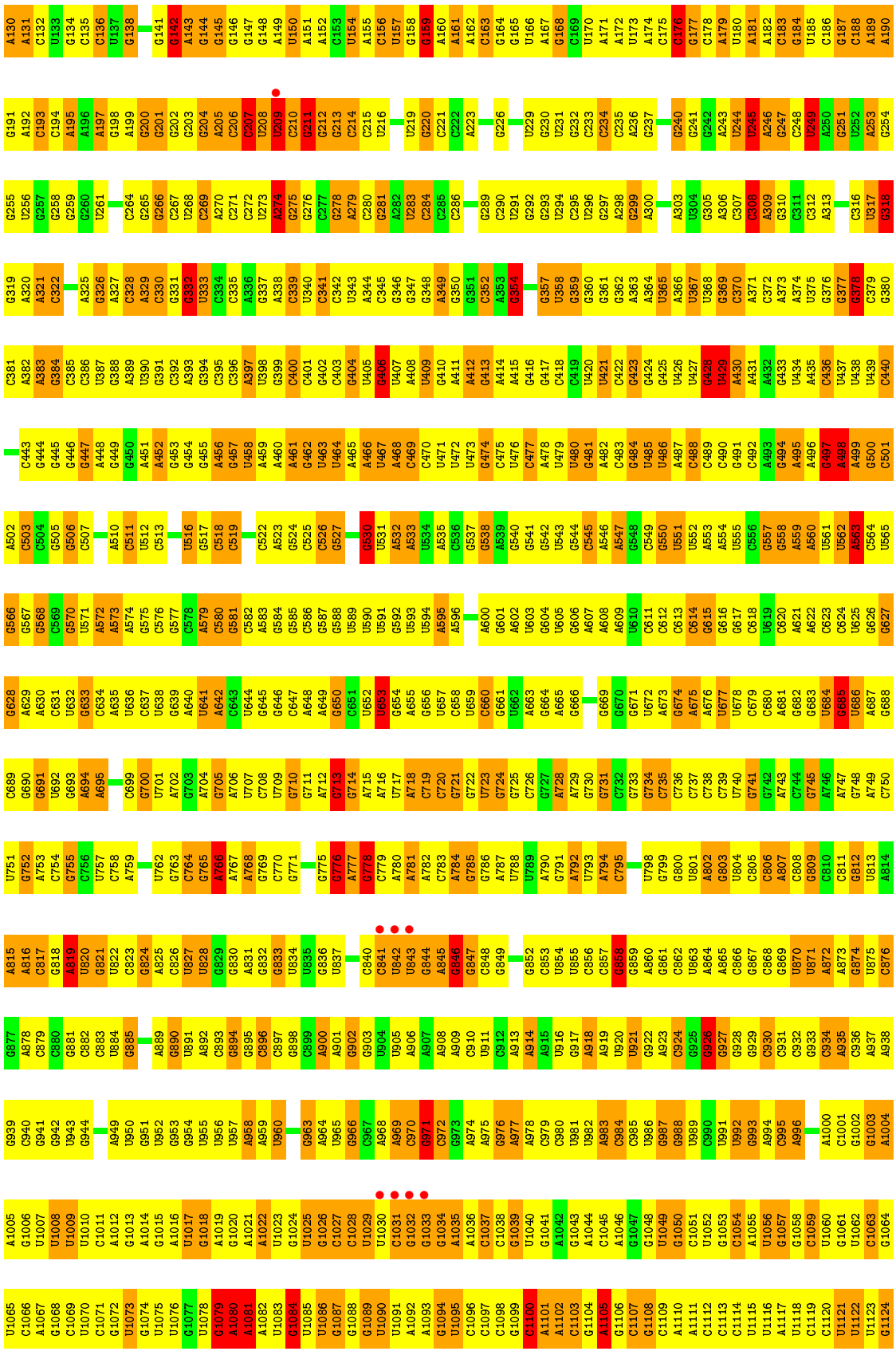


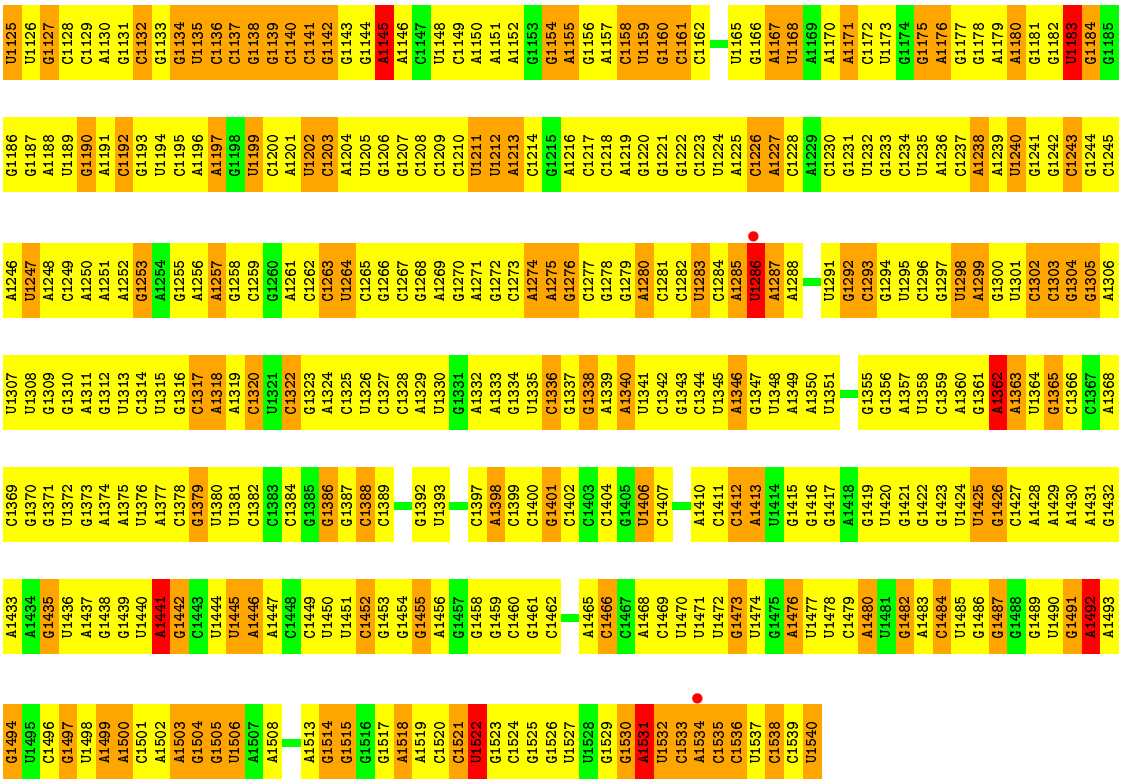


• Molecule 1: 16S rRNA

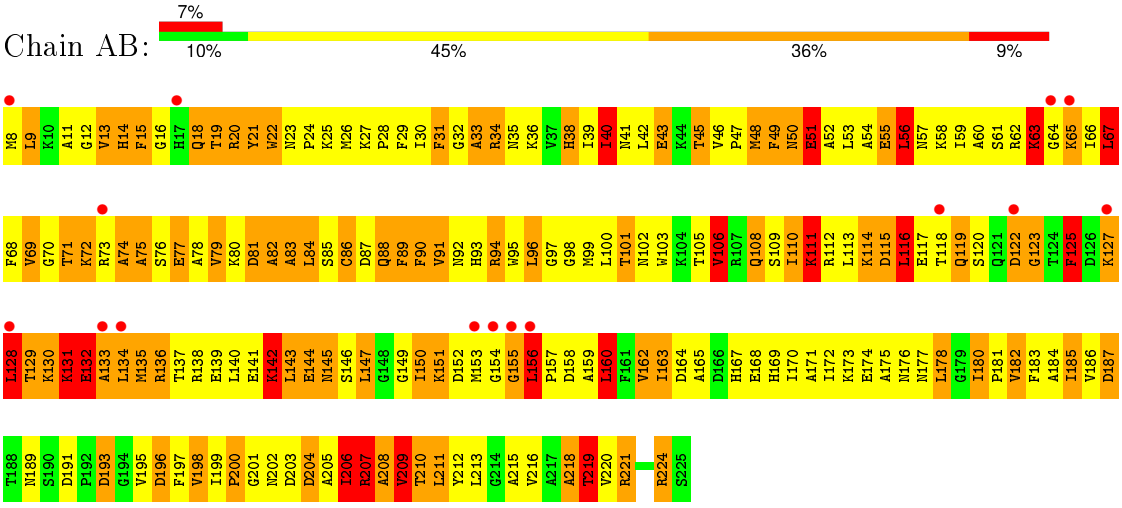
Chain BA:



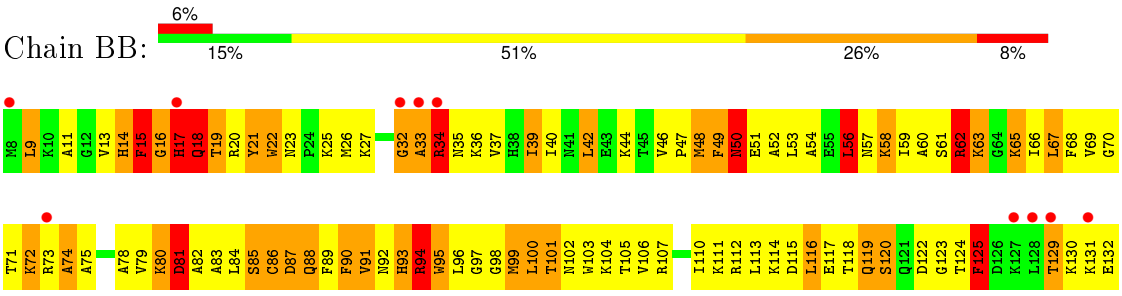


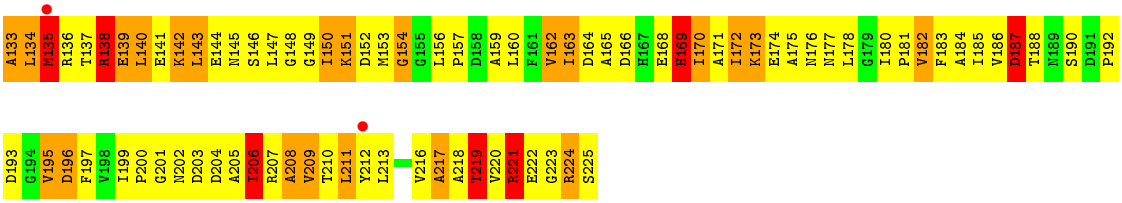


• Molecule 2: 30S ribosomal protein S2



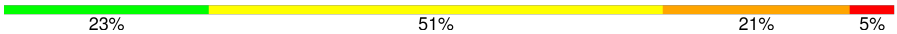
• Molecule 2: 30S ribosomal protein S2

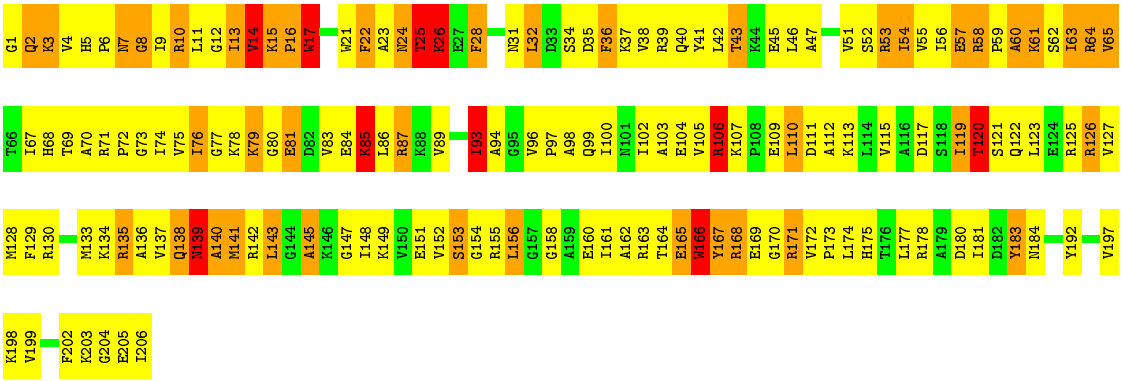




• Molecule 3: 30S ribosomal protein S3

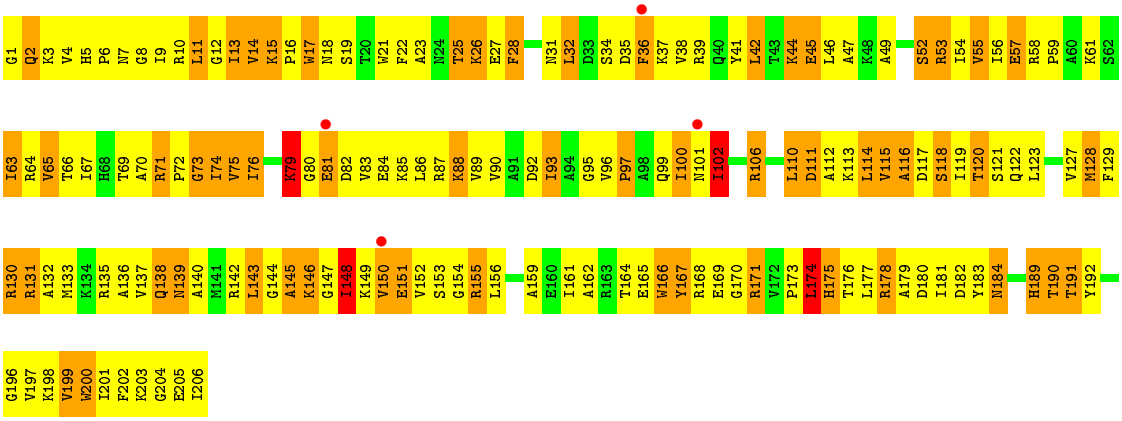
Chain AC:





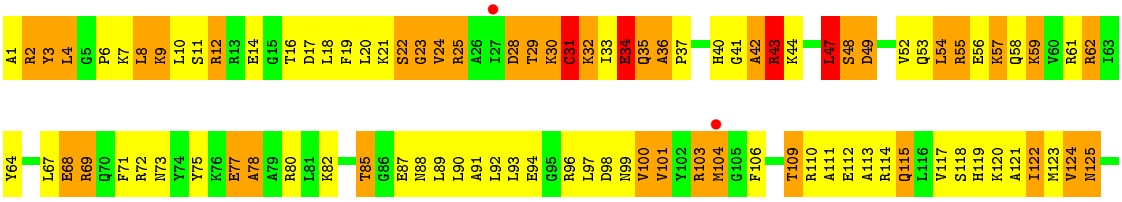
• Molecule 3: 30S ribosomal protein S3

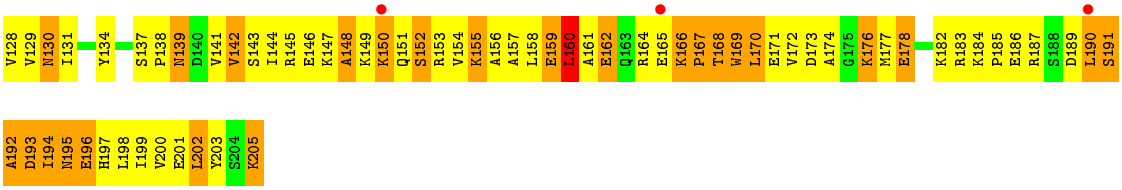
Chain BC:



• Molecule 4: 30S ribosomal protein S4

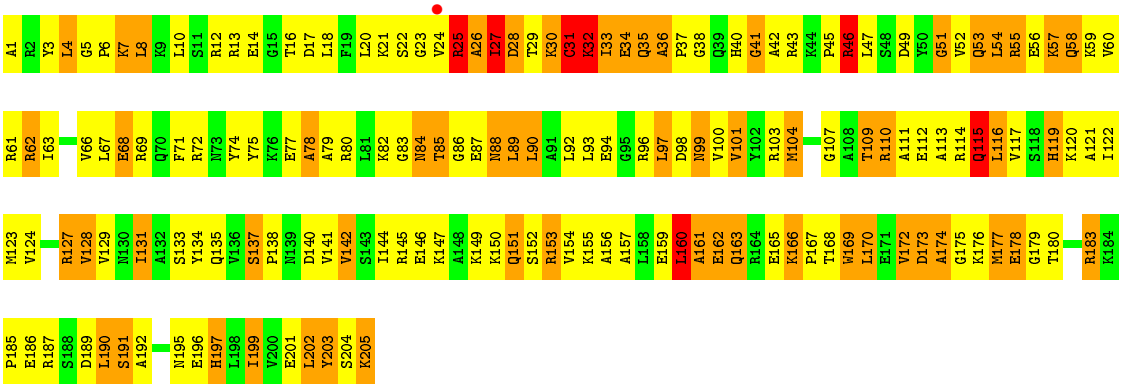
Chain AD:





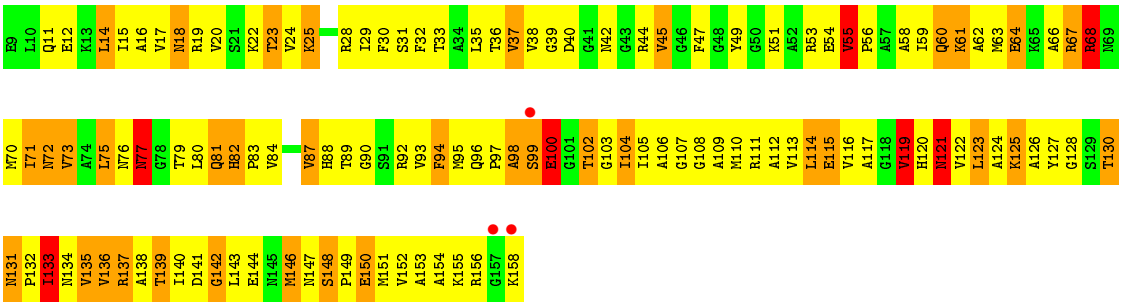
• Molecule 4: 30S ribosomal protein S4

Chain BD:



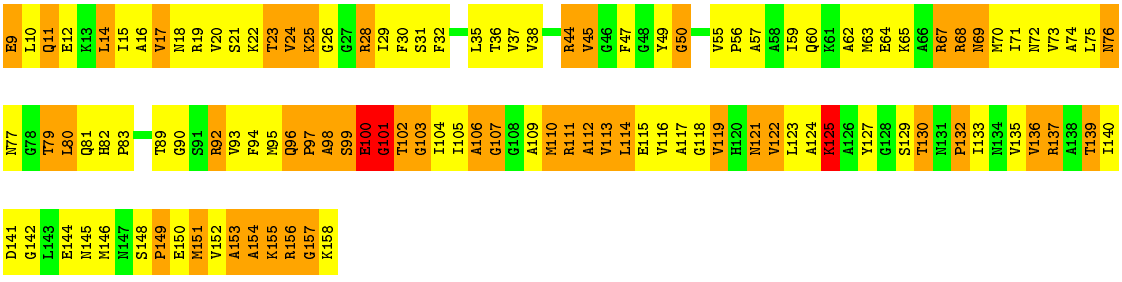
• Molecule 5: 30S ribosomal protein S5

Chain AE:



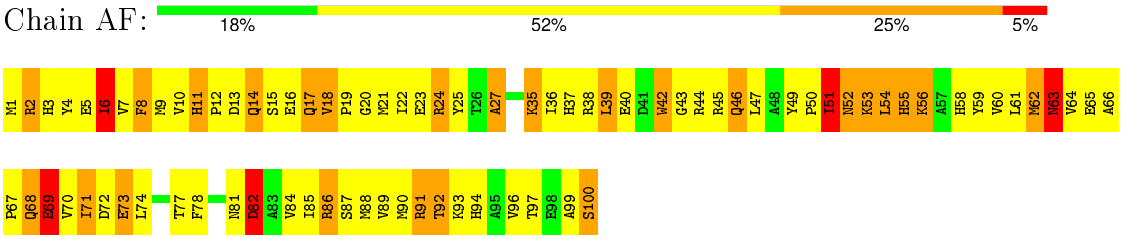
• Molecule 5: 30S ribosomal protein S5

Chain BE:



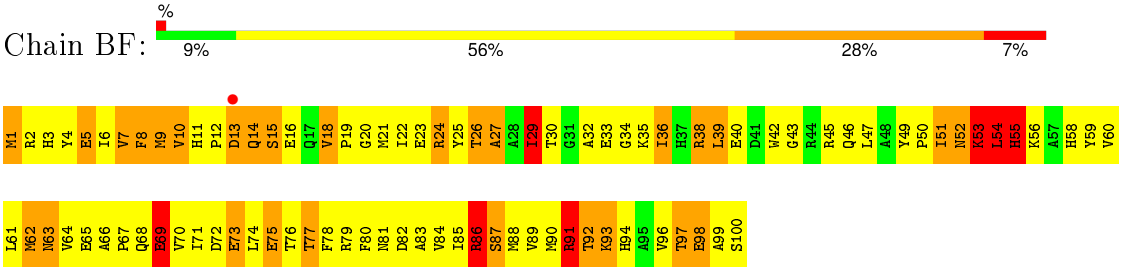
• Molecule 6: 30S ribosomal protein S6

Chain AF:



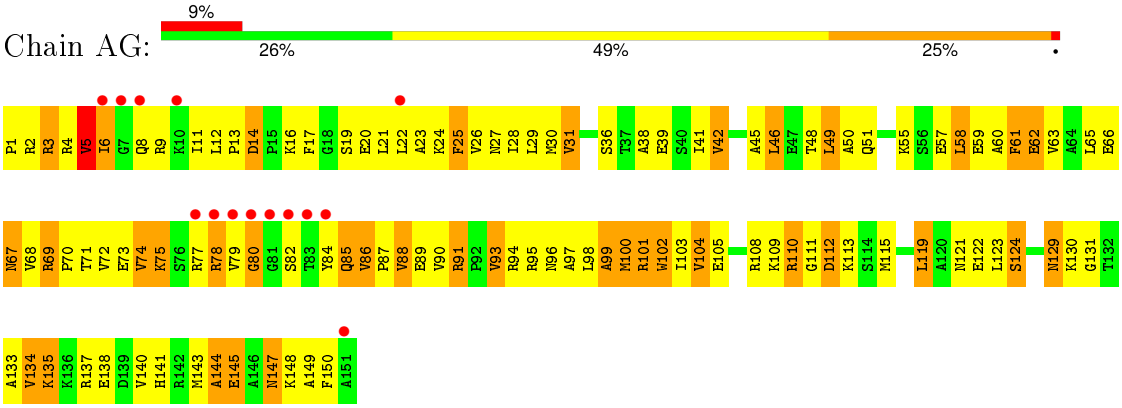
• Molecule 6: 30S ribosomal protein S6

Chain BF:



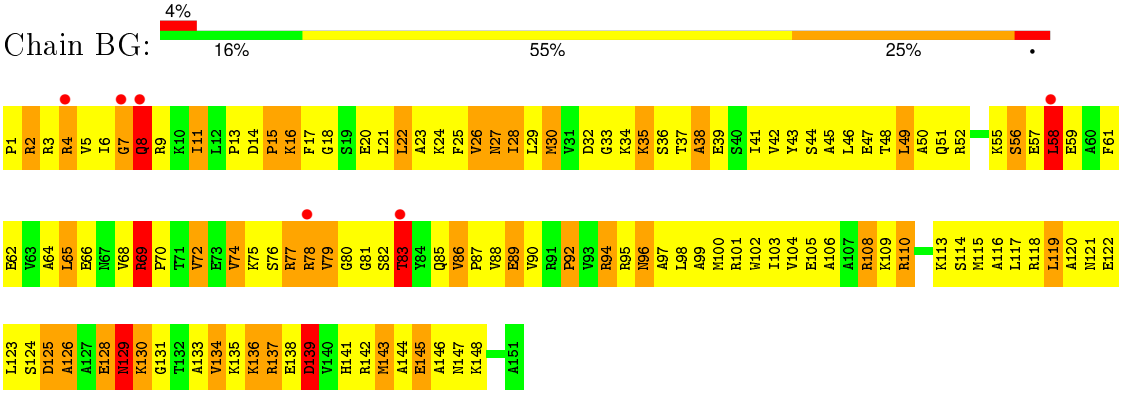
• Molecule 7: 30S ribosomal protein S7

Chain AG:



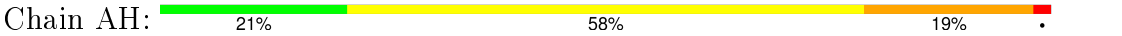
• Molecule 7: 30S ribosomal protein S7

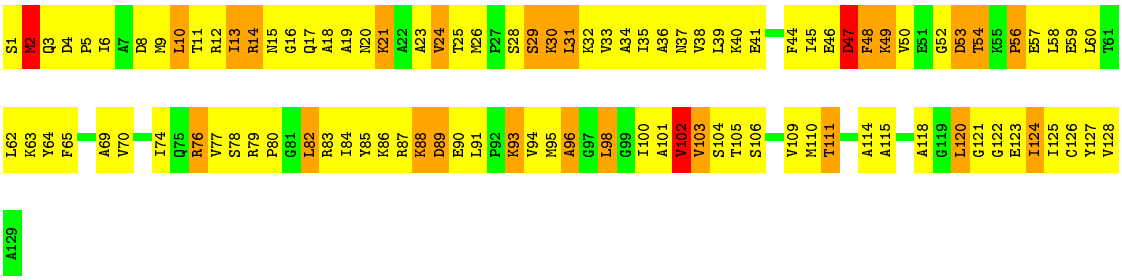
Chain BG:



• Molecule 8: 30S ribosomal protein S8

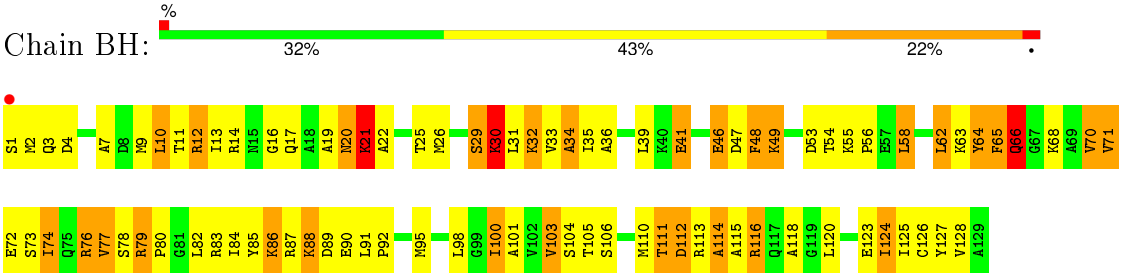
Chain AH:





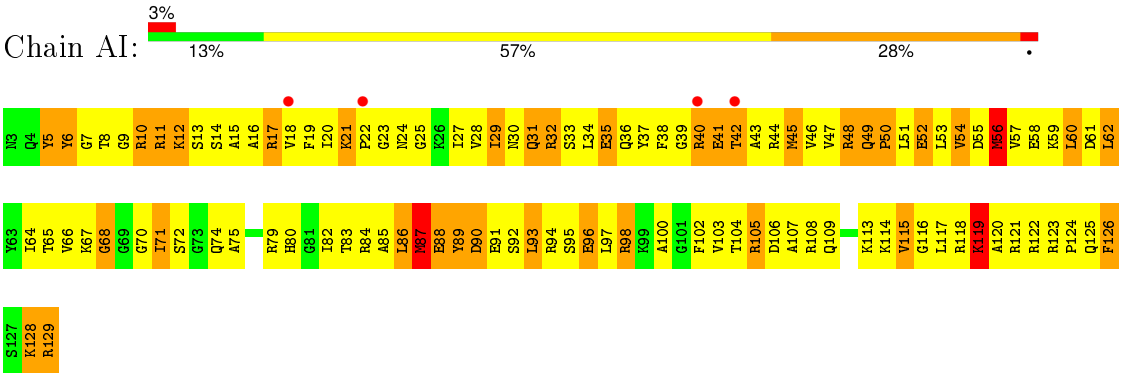
- Molecule 8: 30S ribosomal protein S8

Chain BH:



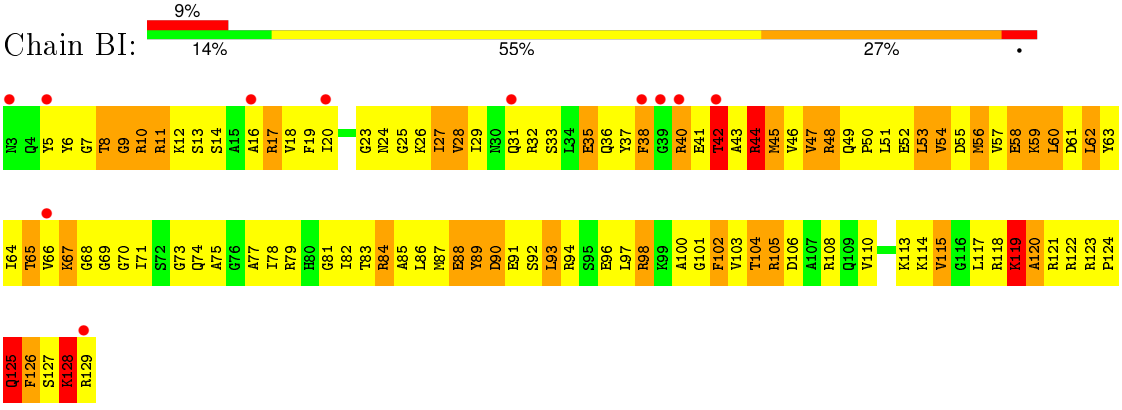
- Molecule 9: 30S ribosomal protein S9

Chain AI:



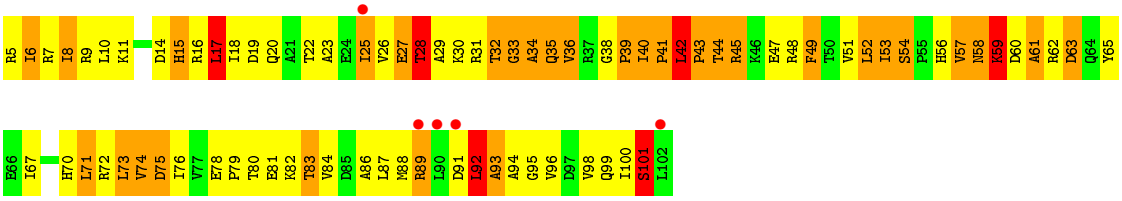
- Molecule 9: 30S ribosomal protein S9

Chain BI:



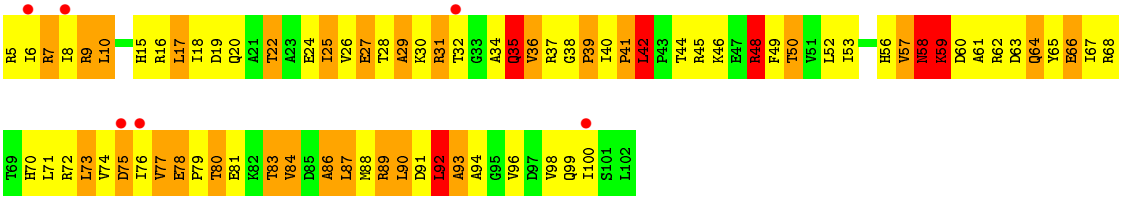
- Molecule 10: 30S ribosomal protein S10

Chain AJ:



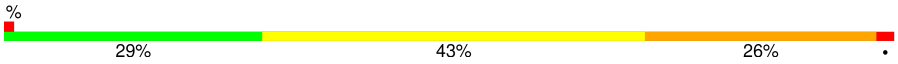
• Molecule 10: 30S ribosomal protein S10

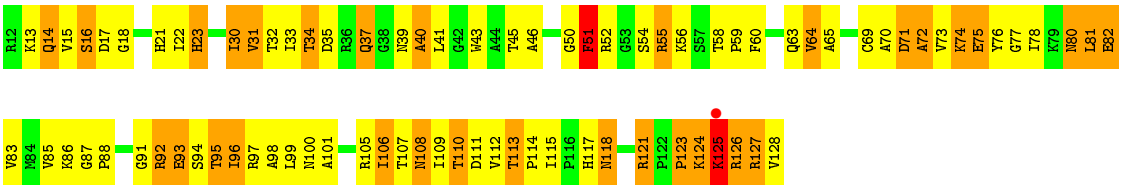
Chain BJ:



• Molecule 11: 30S ribosomal protein S11

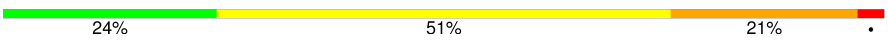
Chain AK:

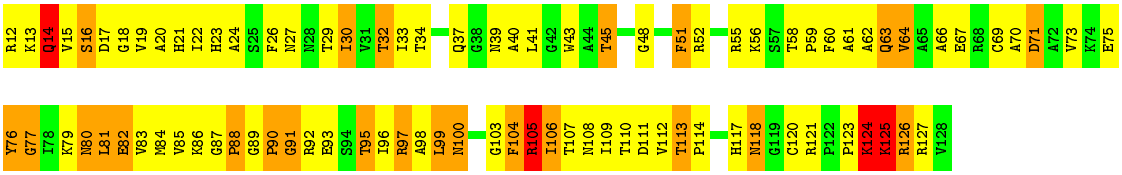




• Molecule 11: 30S ribosomal protein S11

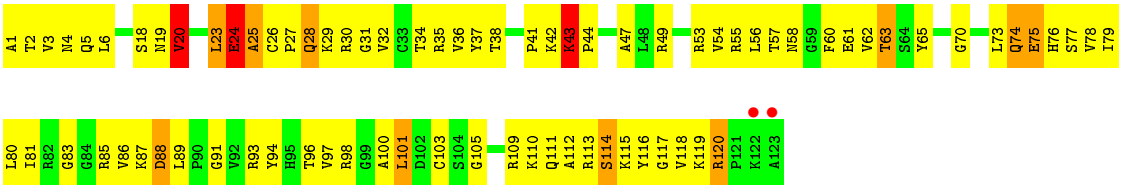
Chain BK:





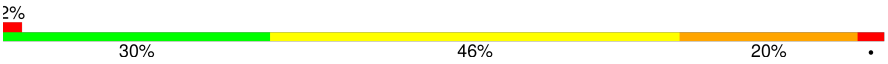
• Molecule 12: 30S ribosomal protein S12

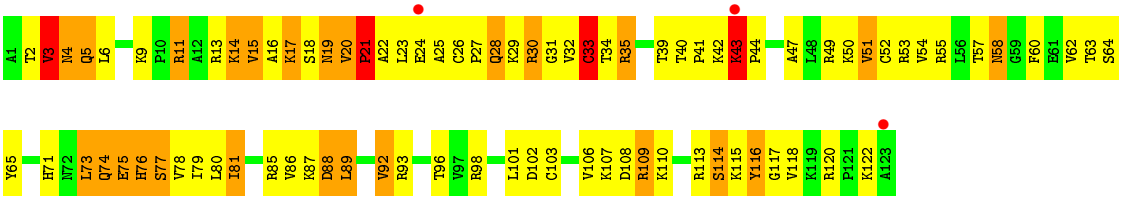
Chain AL:



• Molecule 12: 30S ribosomal protein S12

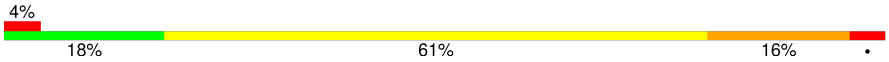
Chain BL:

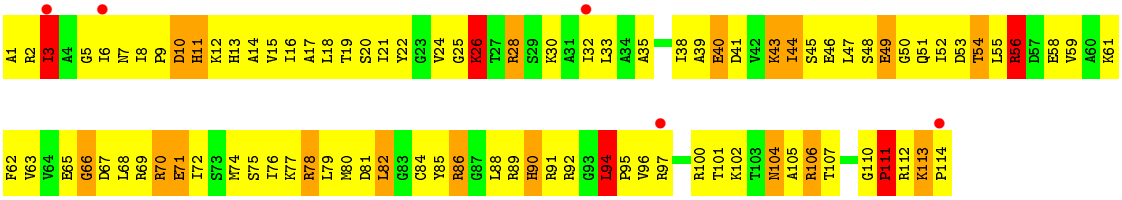




• Molecule 13: 30S ribosomal protein S13

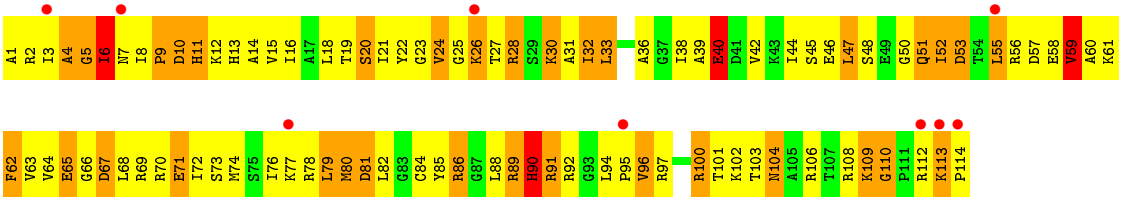
Chain AM:





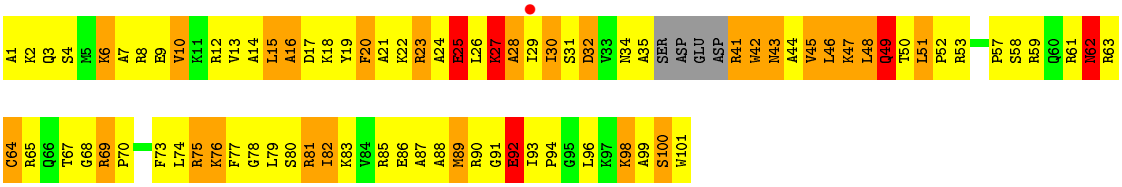
• Molecule 13: 30S ribosomal protein S13

Chain BM:



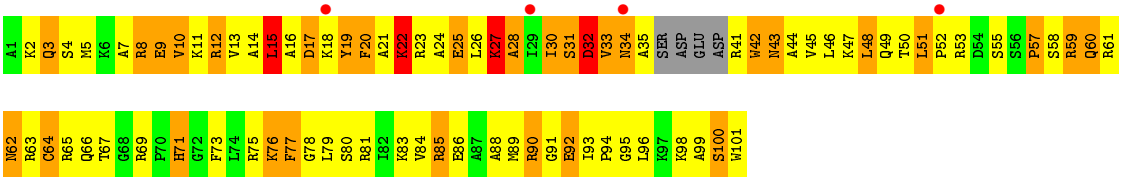
• Molecule 14: 30S ribosomal protein S14

Chain AN:



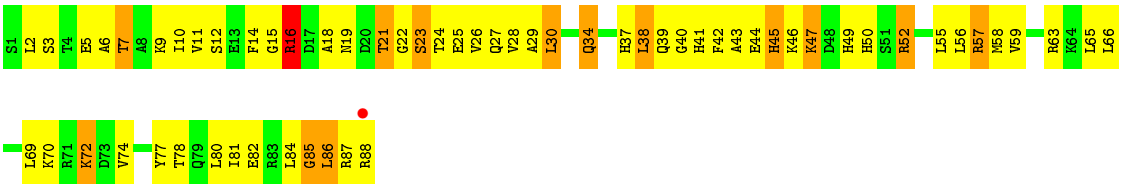
• Molecule 14: 30S ribosomal protein S14

Chain BN:

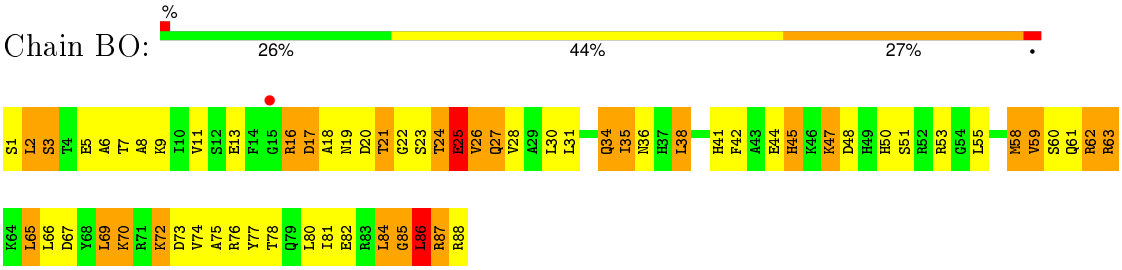


• Molecule 15: 30S ribosomal protein S15

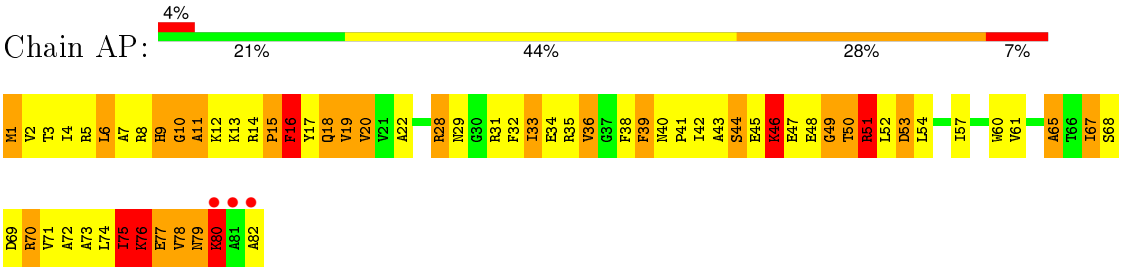
Chain AO:



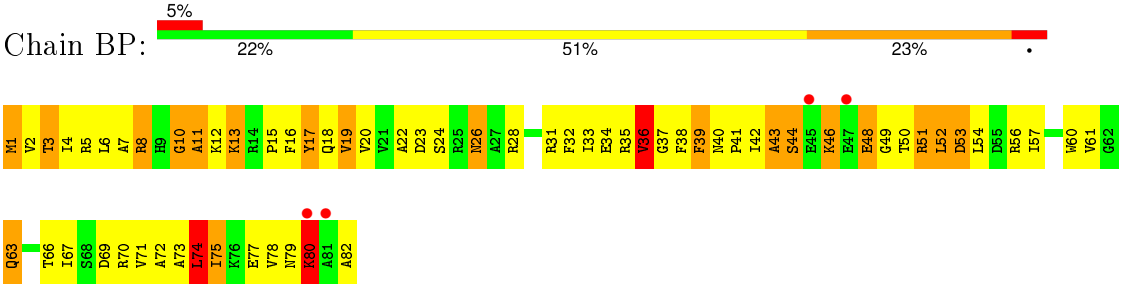
• Molecule 15: 30S ribosomal protein S15



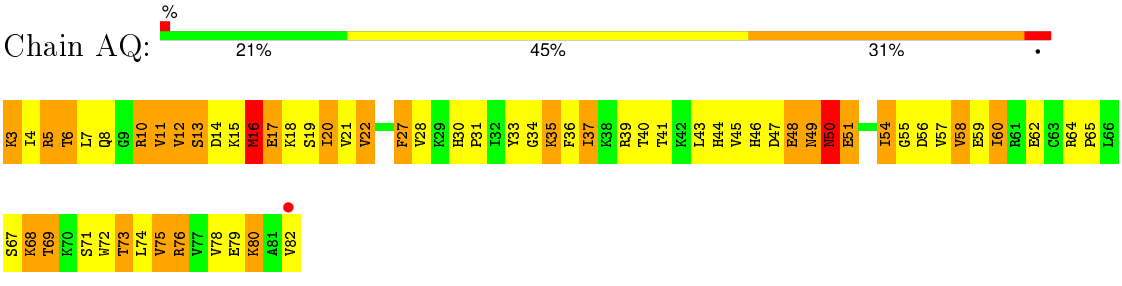
• Molecule 16: 30S ribosomal protein S16



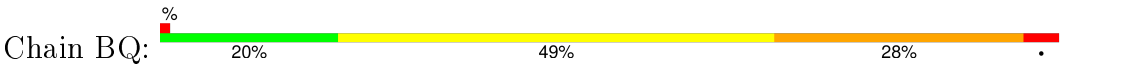
• Molecule 16: 30S ribosomal protein S16

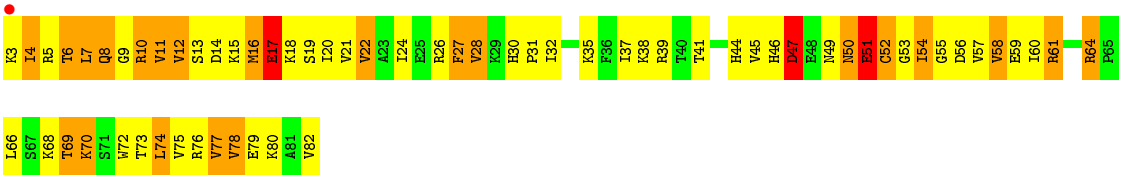


• Molecule 17: 30S ribosomal protein S17

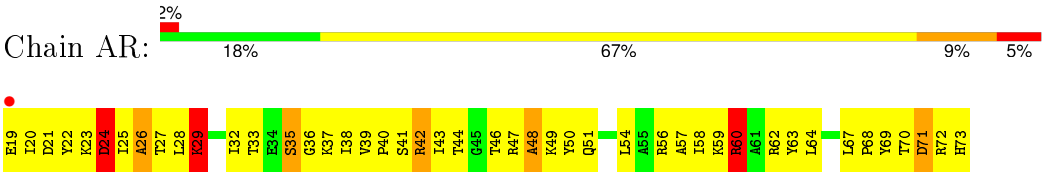


• Molecule 17: 30S ribosomal protein S17

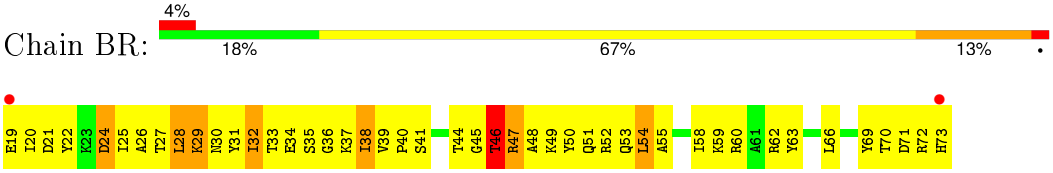




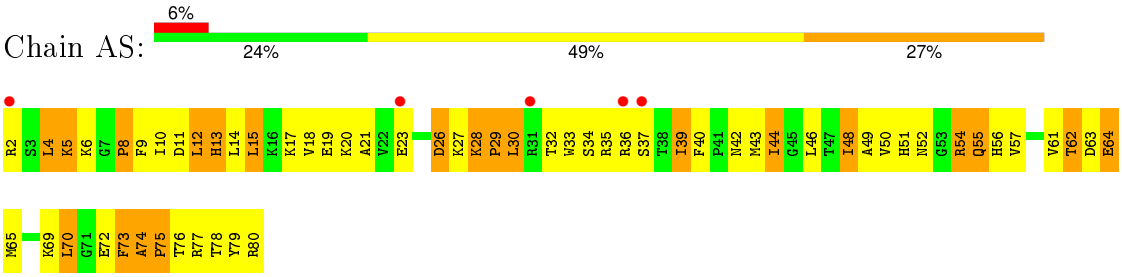
• Molecule 18: 30S ribosomal protein S18



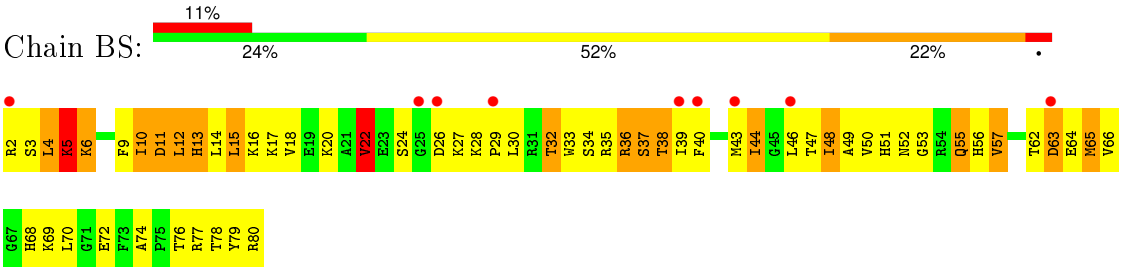
• Molecule 18: 30S ribosomal protein S18



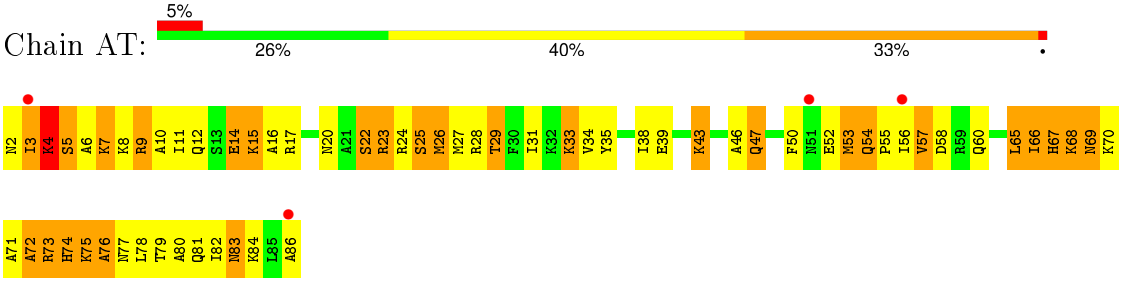
• Molecule 19: 30S ribosomal protein S19



• Molecule 19: 30S ribosomal protein S19

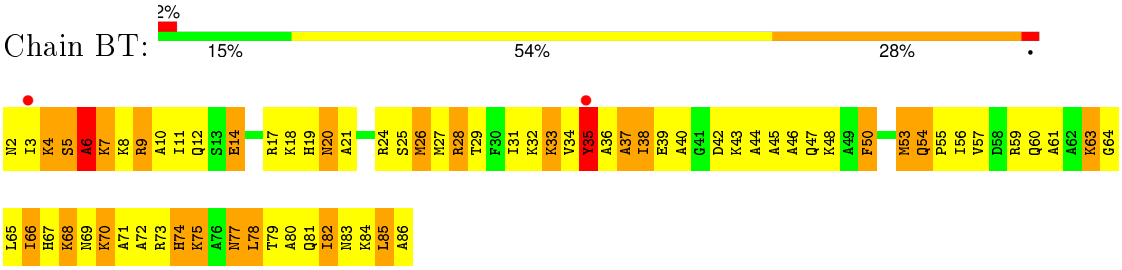


• Molecule 20: 30S ribosomal protein S20



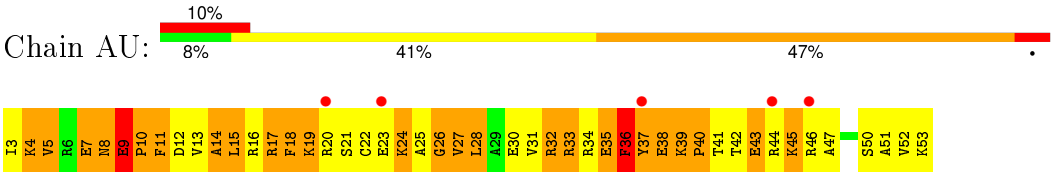
• Molecule 20: 30S ribosomal protein S20

Chain BT:



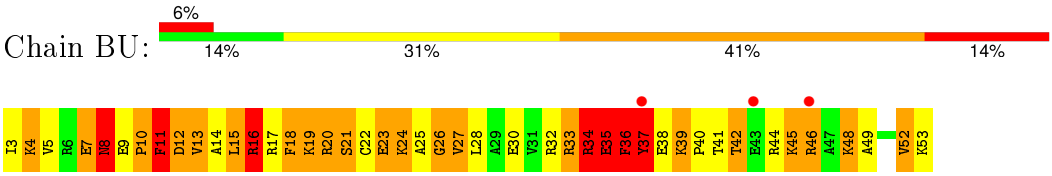
• Molecule 21: 30S ribosomal protein S21

Chain AU:



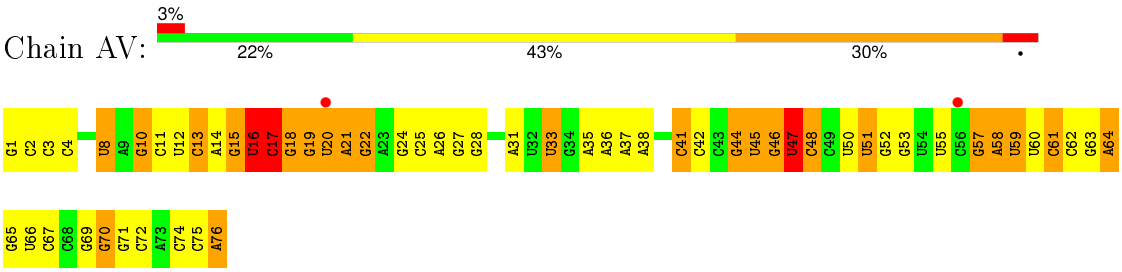
• Molecule 21: 30S ribosomal protein S21

Chain BU:



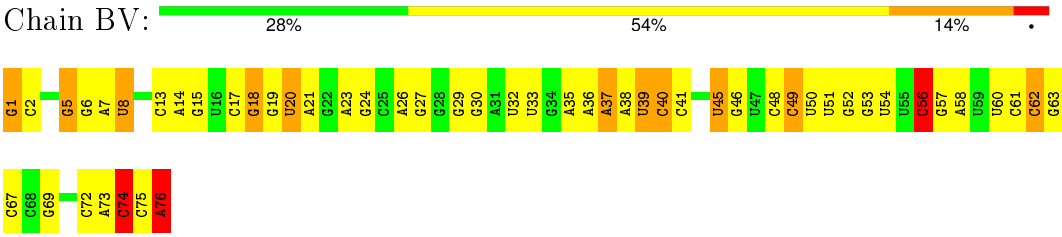
• Molecule 22: phenylalanine specific transfer RNA

Chain AV:



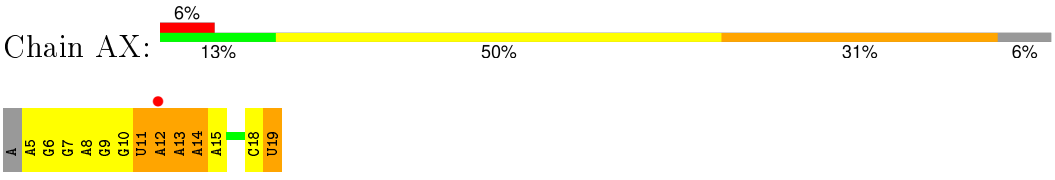
• Molecule 22: phenylalanine specific transfer RNA

Chain BV:



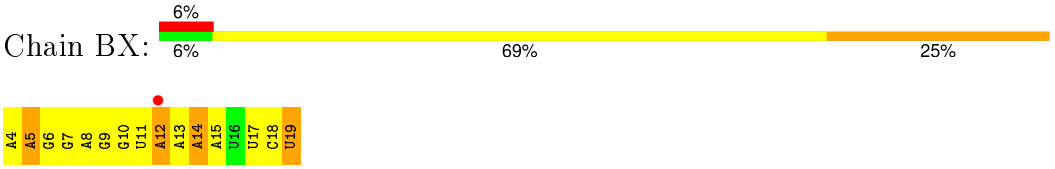
• Molecule 23: messenger RNA

Chain AX:



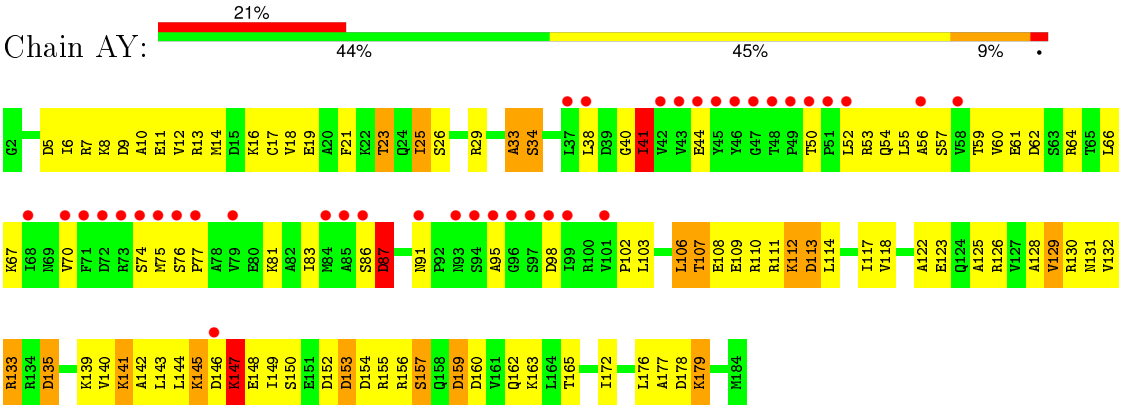
- Molecule 23: messenger RNA

Chain BX:



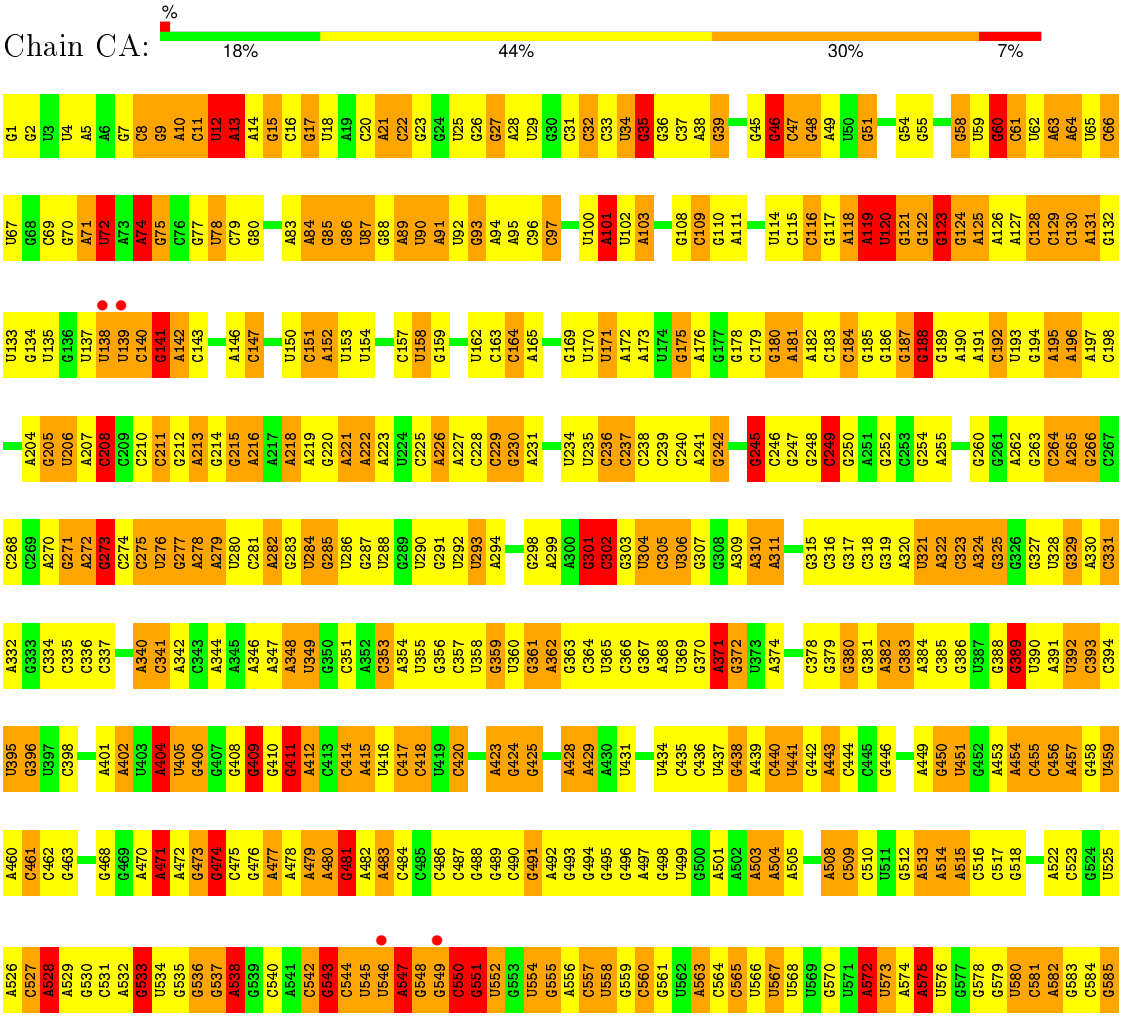
- Molecule 24: ribosome recycling factor

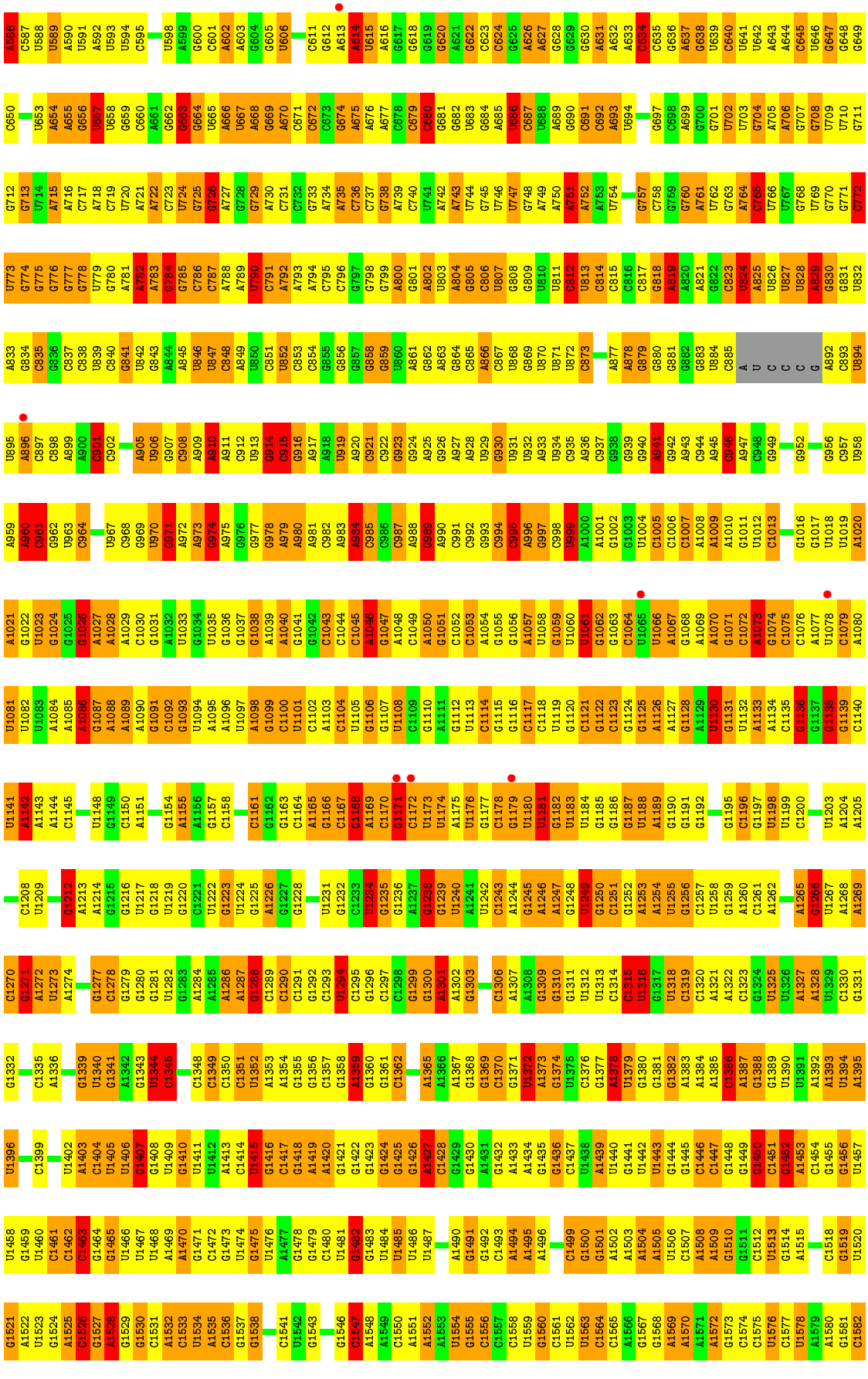
Chain AY:

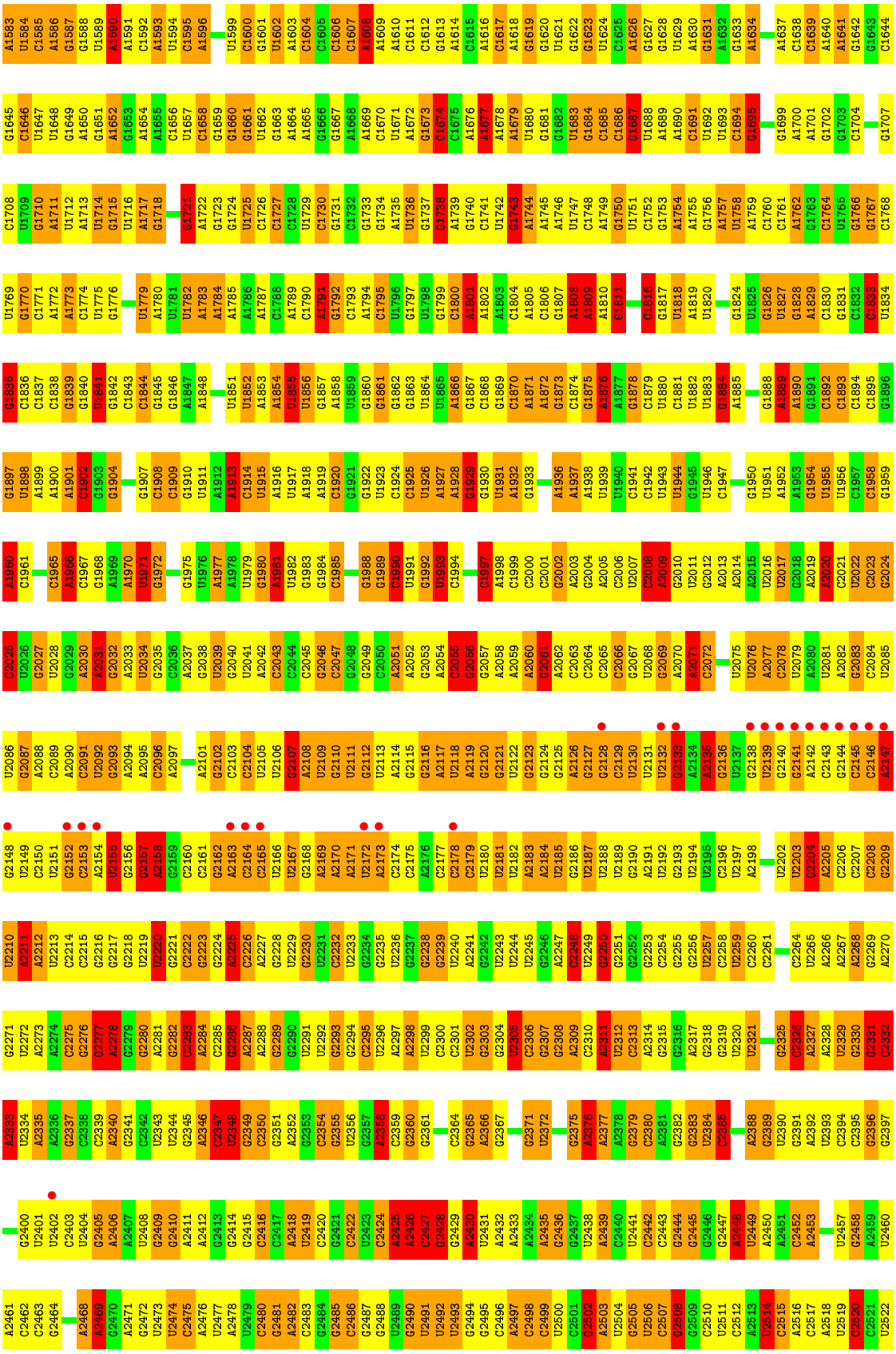


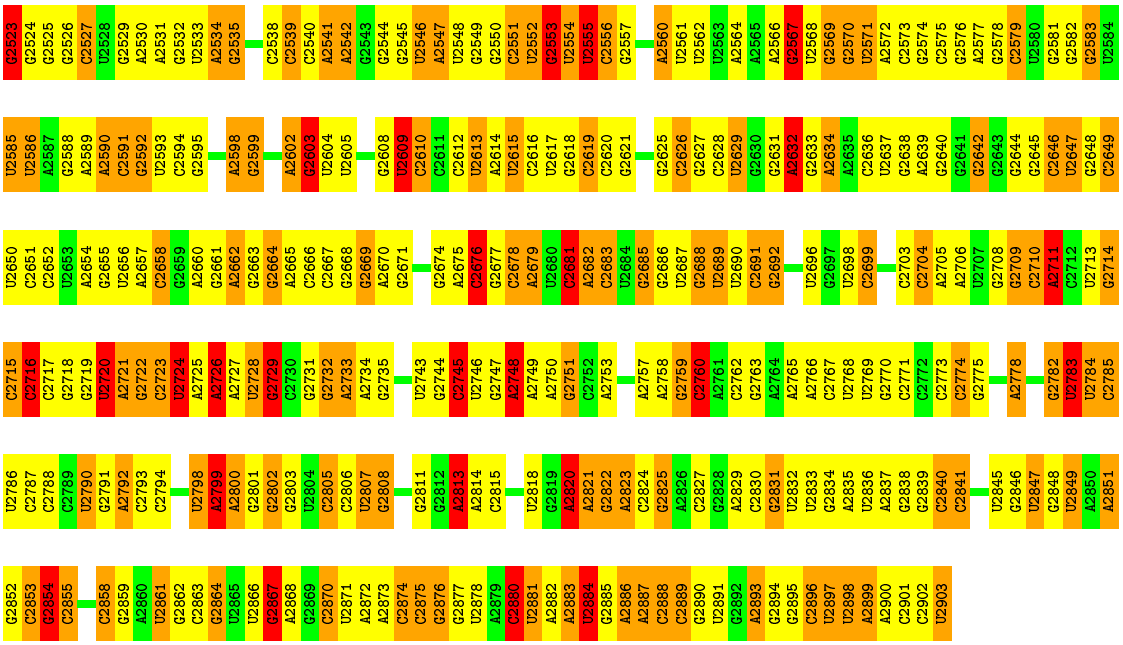
- Molecule 25: 23S rRNA

Chain CA:



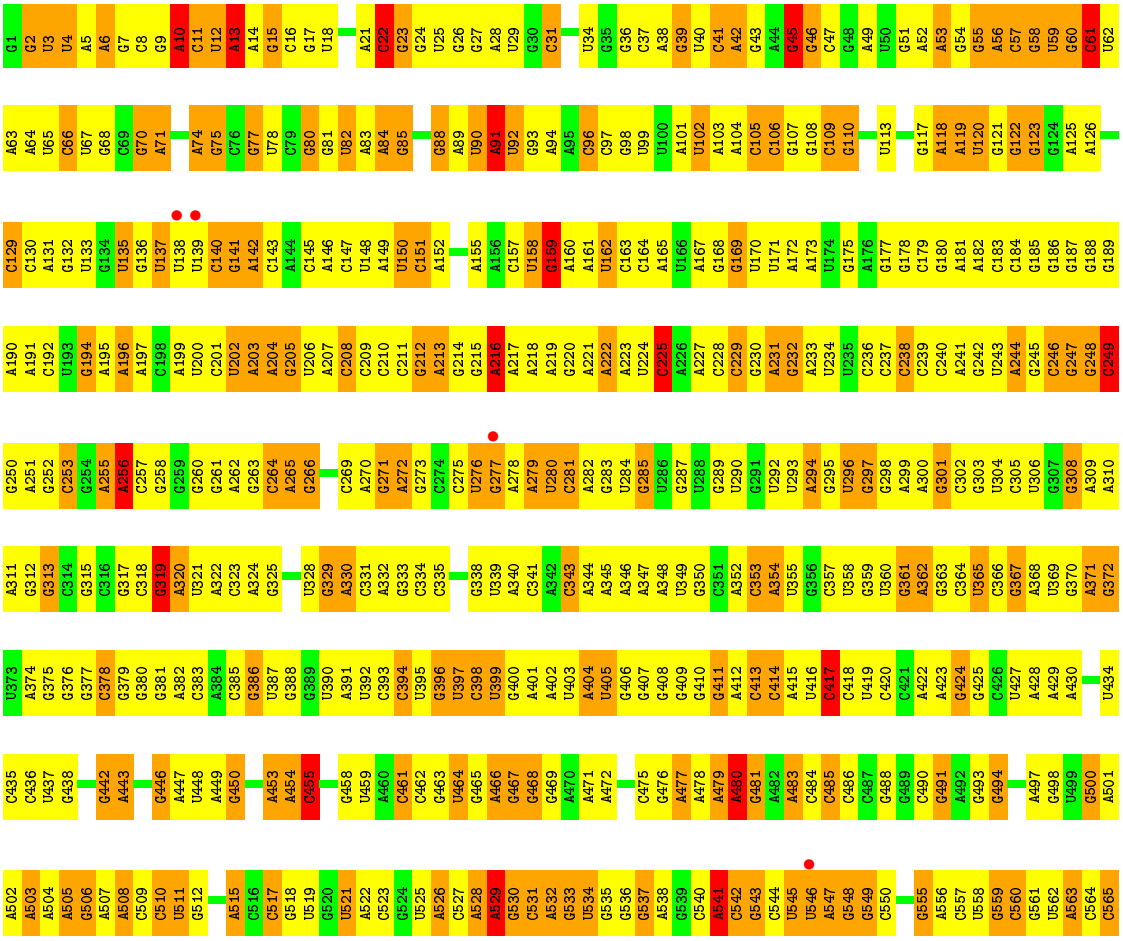


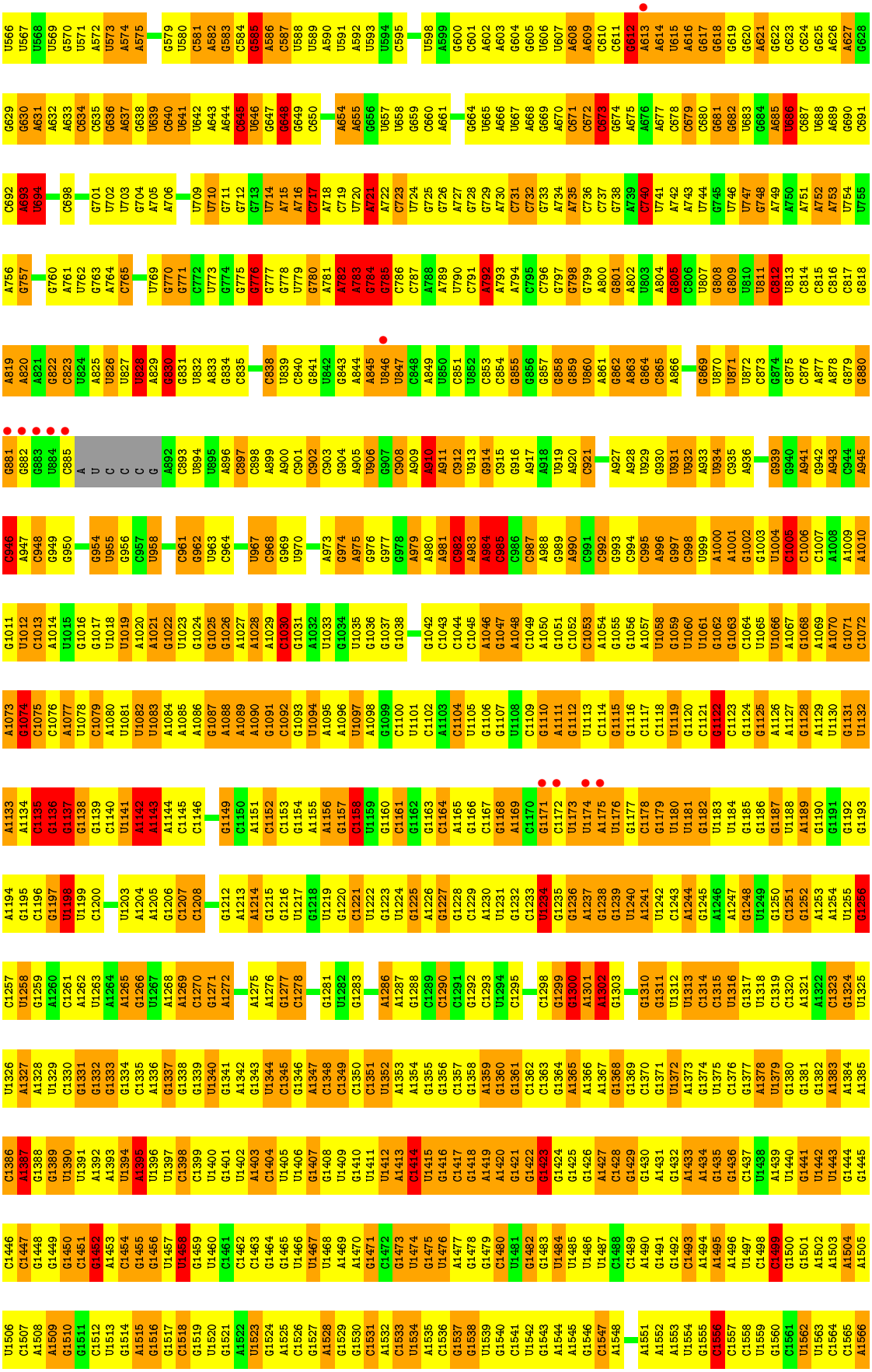


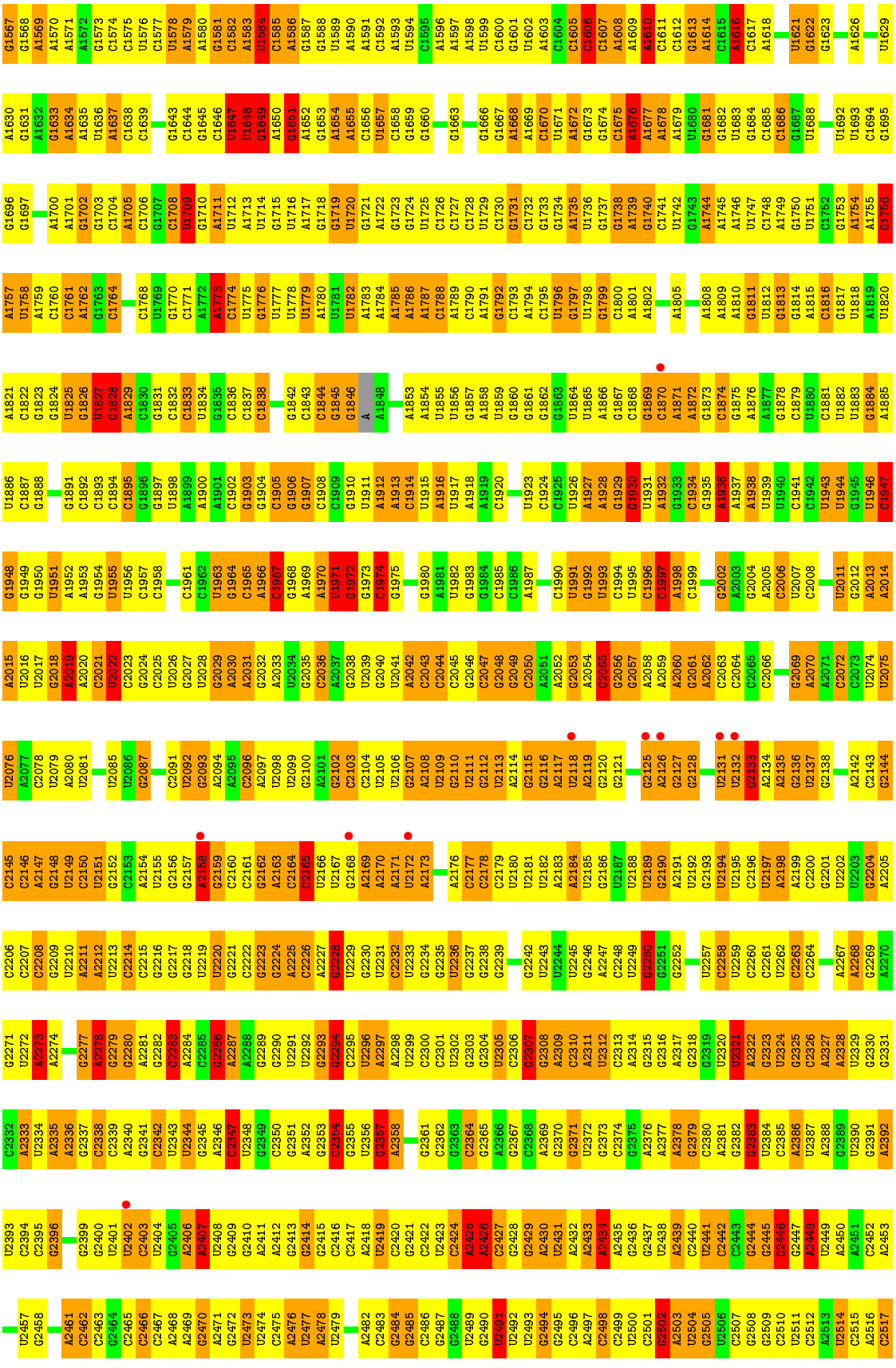


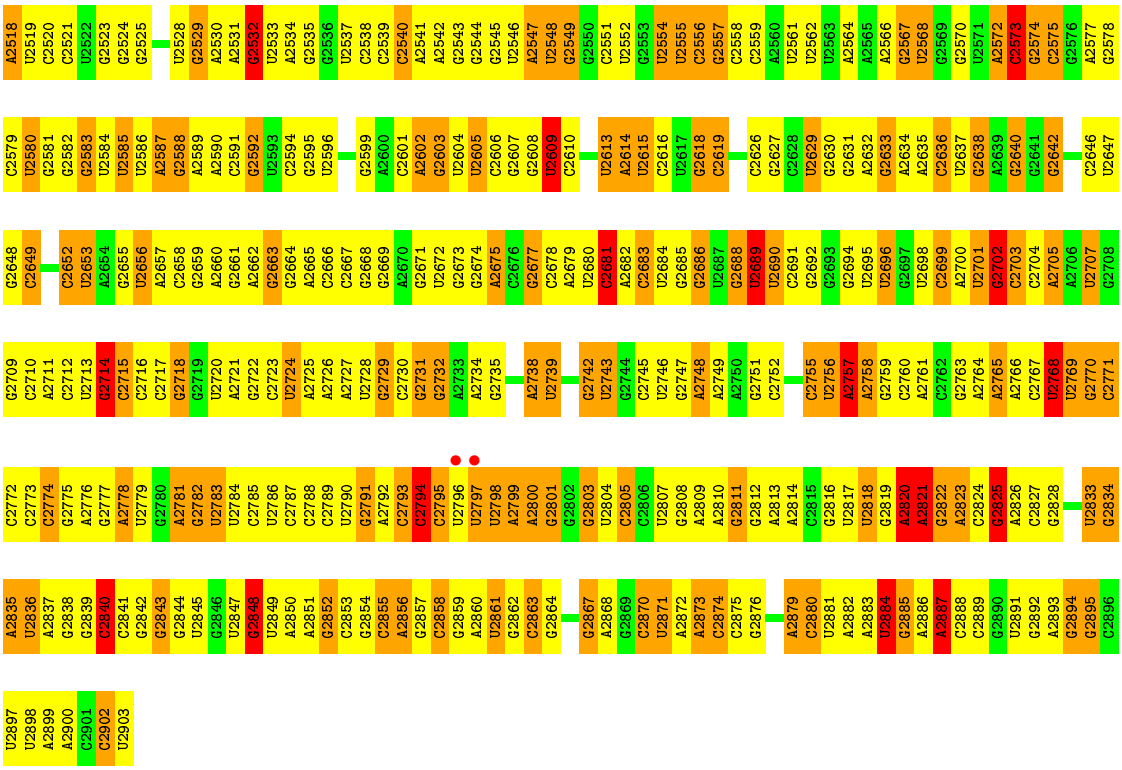
• Molecule 25: 23S rRNA

Chain DA:



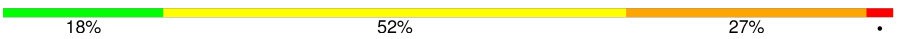


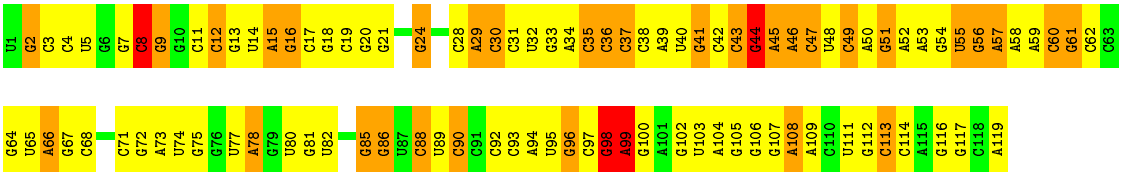




• Molecule 26: 5S rRNA

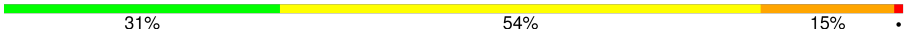
Chain CB:

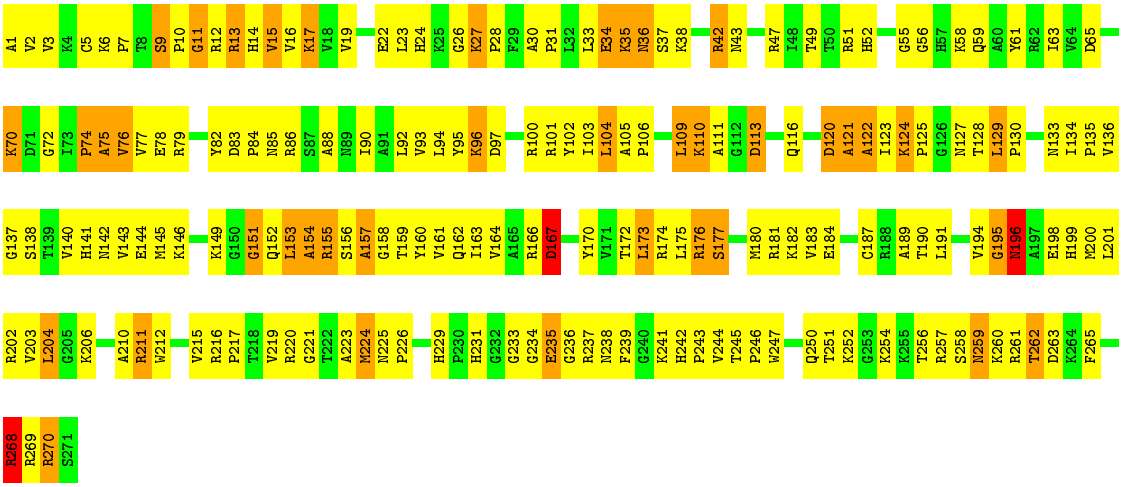




• Molecule 27: 50S ribosomal protein L2

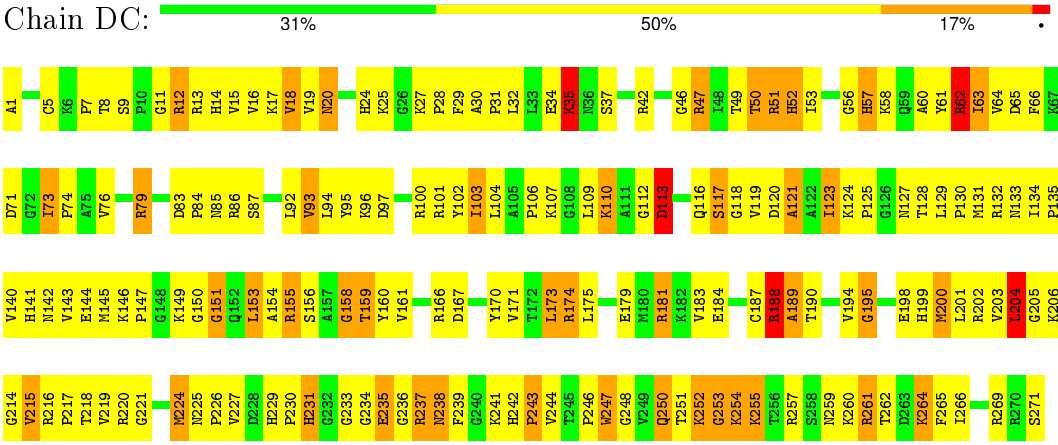
Chain CC:





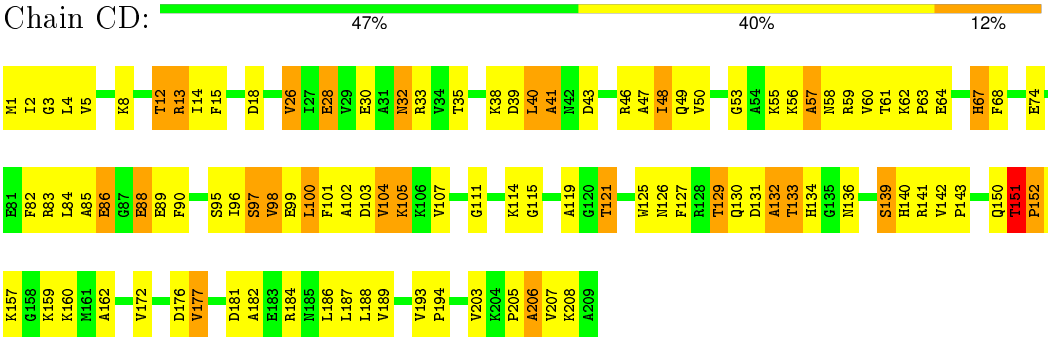
• Molecule 27: 50S ribosomal protein L2

Chain DC:



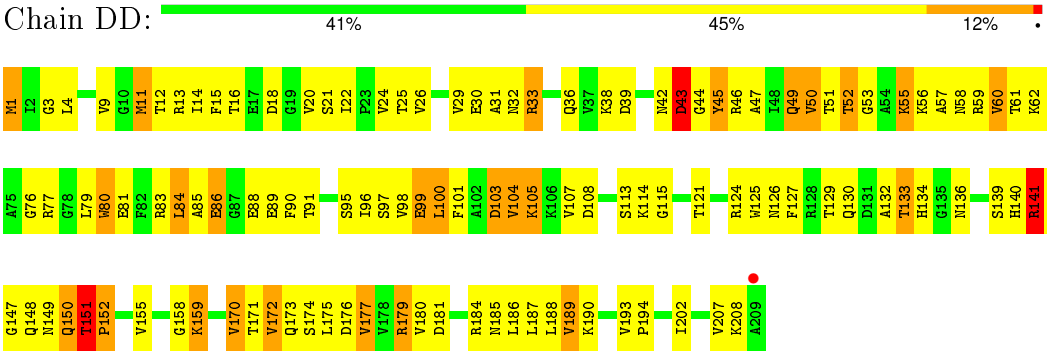
• Molecule 28: 50S ribosomal protein L3

Chain CD:



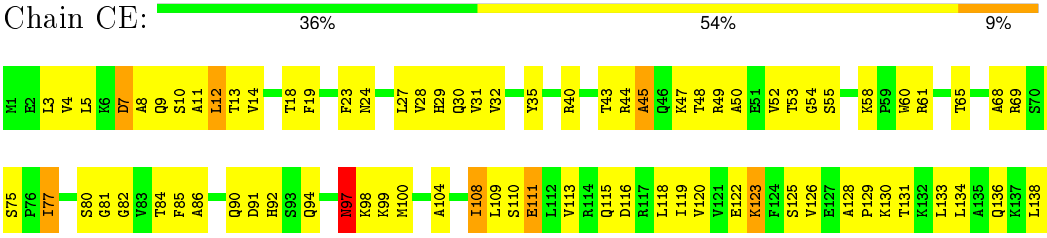
• Molecule 28: 50S ribosomal protein L3

Chain DD:



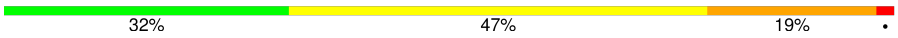
• Molecule 29: 50S ribosomal protein L4

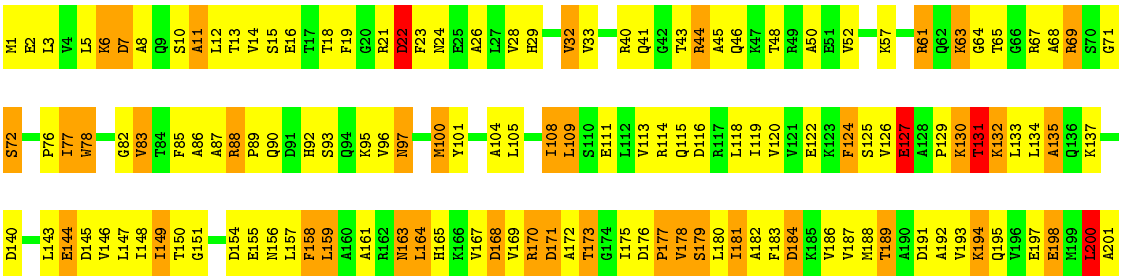
Chain CE:



• Molecule 29: 50S ribosomal protein L4

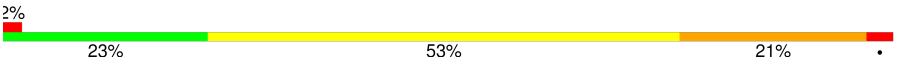
Chain DE:

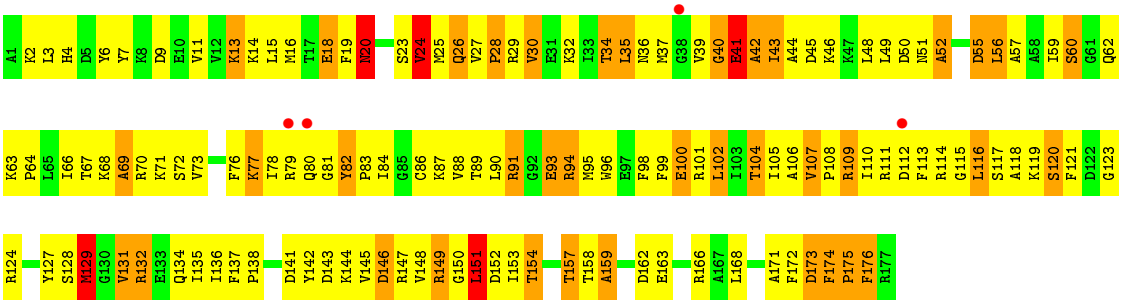




• Molecule 30: 50S ribosomal protein L5

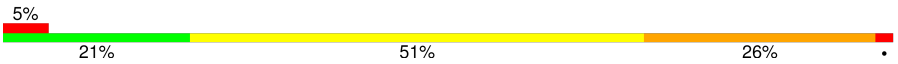
Chain CF:

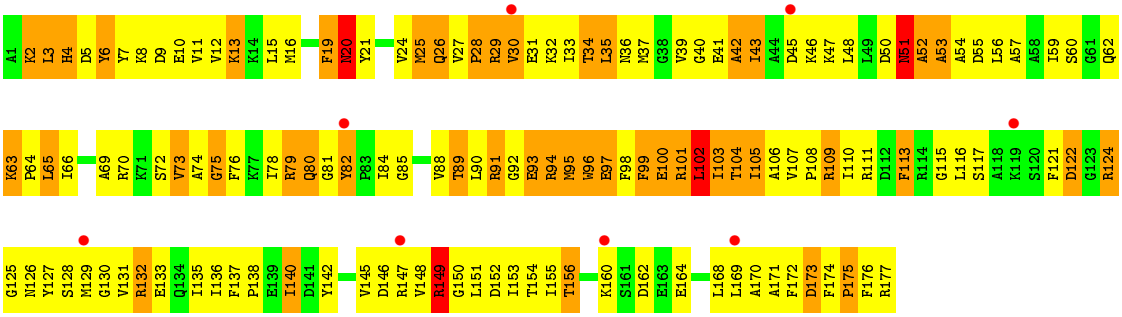




• Molecule 30: 50S ribosomal protein L5

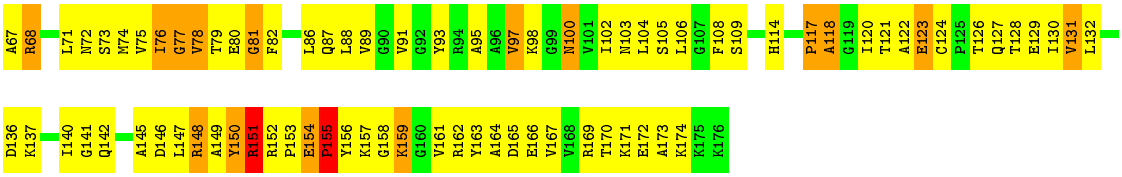
Chain DF:





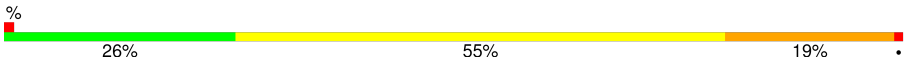
• Molecule 31: 50S ribosomal protein L6

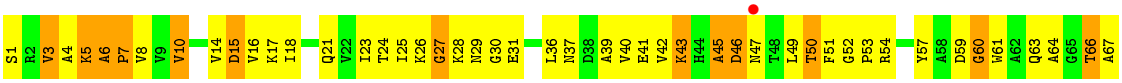
Chain CG:

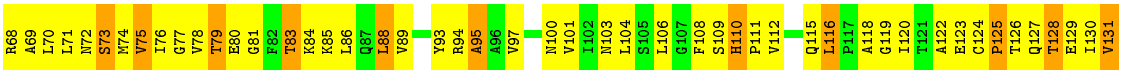


• Molecule 31: 50S ribosomal protein L6

Chain DG:

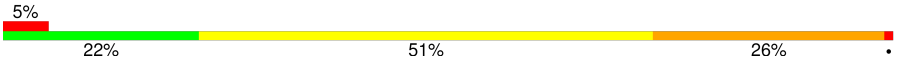


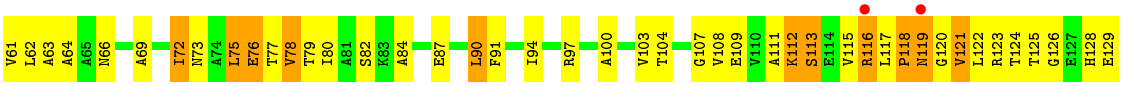


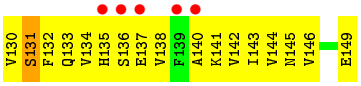


• Molecule 32: 50S ribosomal protein L9

Chain CH:

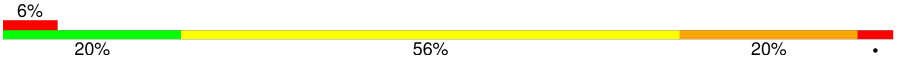


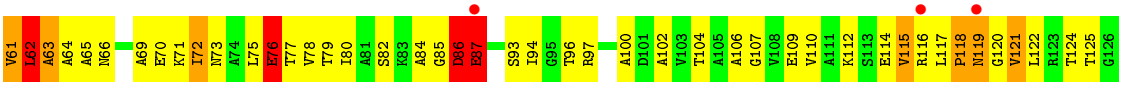


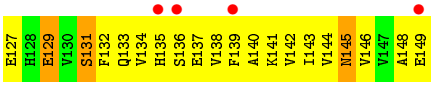


• Molecule 32: 50S ribosomal protein L9

Chain DH:

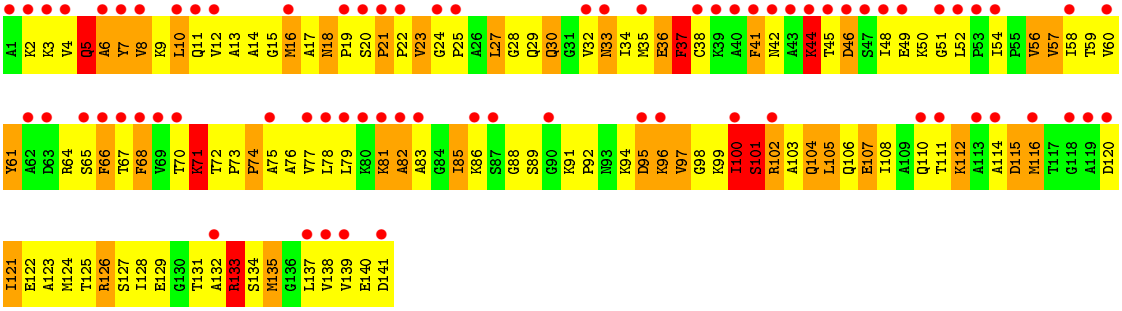




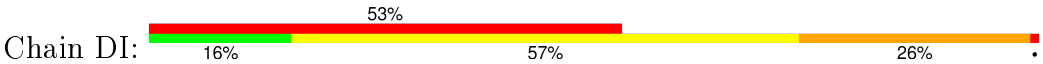


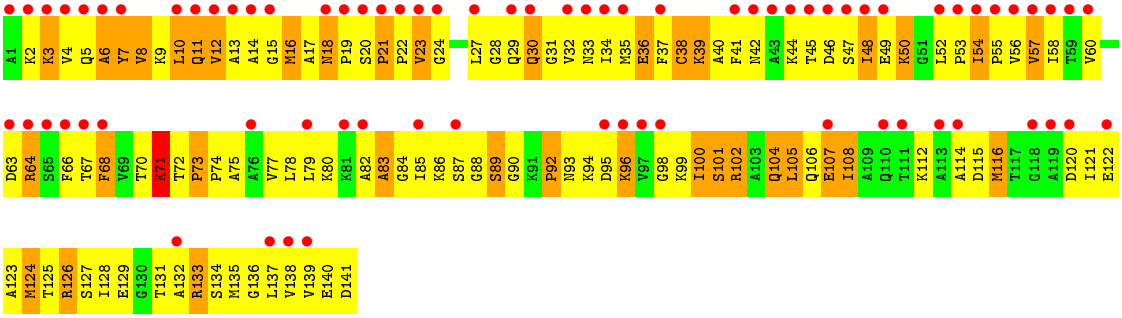
• Molecule 33: 50S ribosomal protein L11

Chain CI:

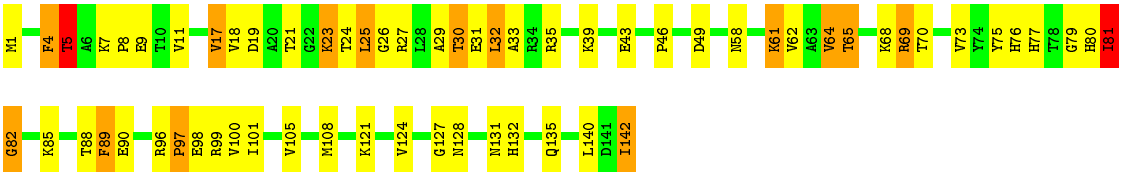


• Molecule 33: 50S ribosomal protein L11

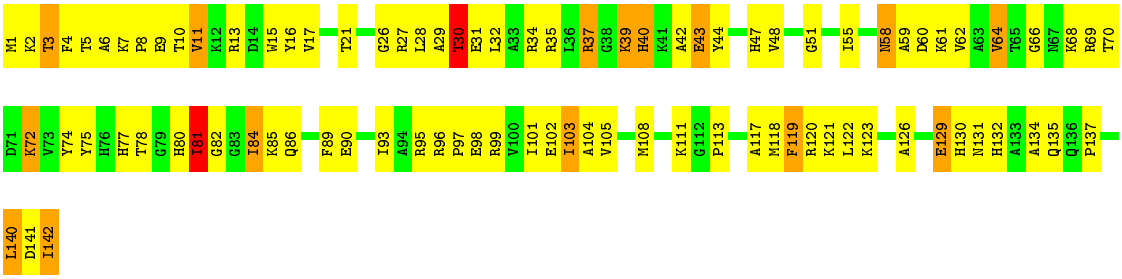




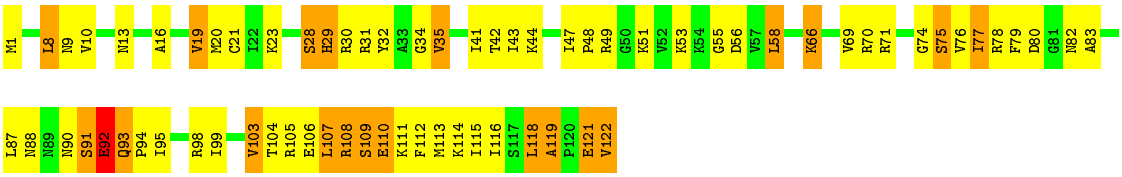
• Molecule 34: 50S ribosomal protein L13



• Molecule 34: 50S ribosomal protein L13

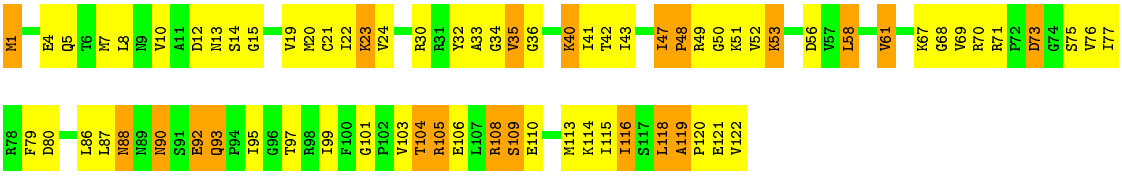


• Molecule 35: 50S ribosomal protein L14



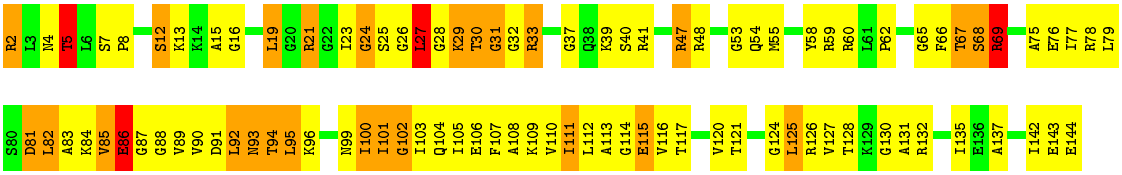
• Molecule 35: 50S ribosomal protein L14

Chain DK:



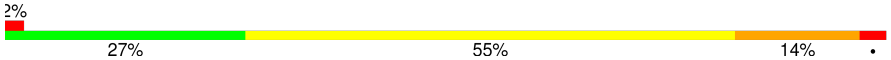
• Molecule 36: 50S ribosomal protein L15

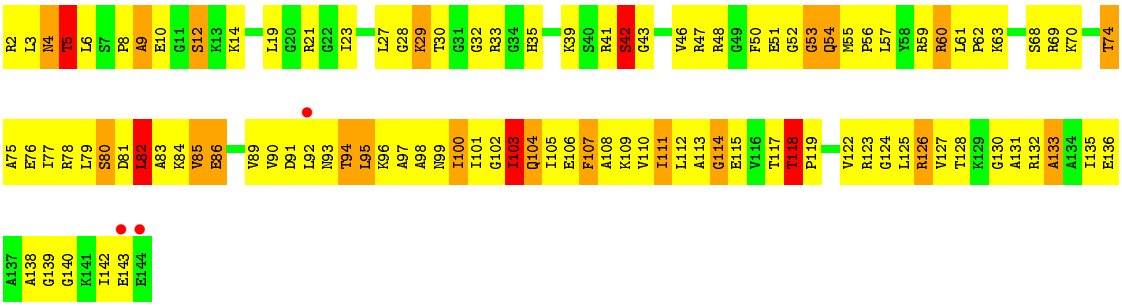
Chain CL:



• Molecule 36: 50S ribosomal protein L15

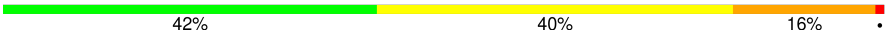
Chain DL:

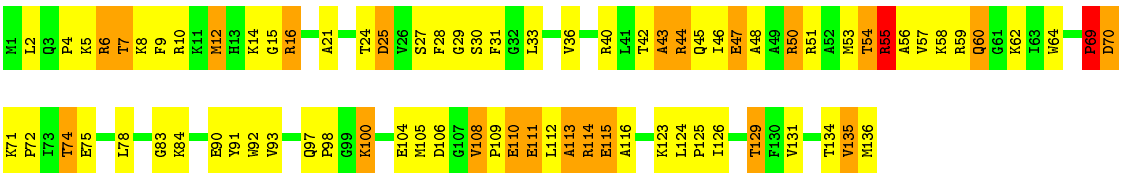




• Molecule 37: 50S ribosomal protein L16

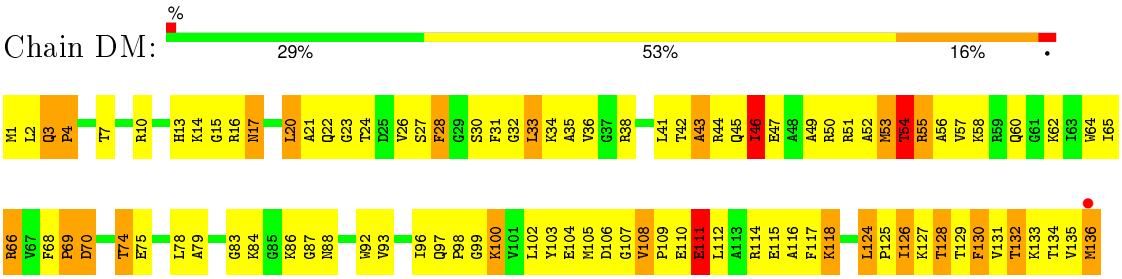
Chain CM:





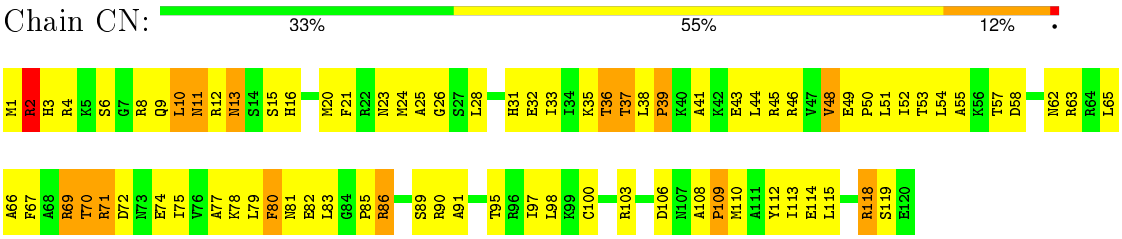
• Molecule 37: 50S ribosomal protein L16

Chain DM:



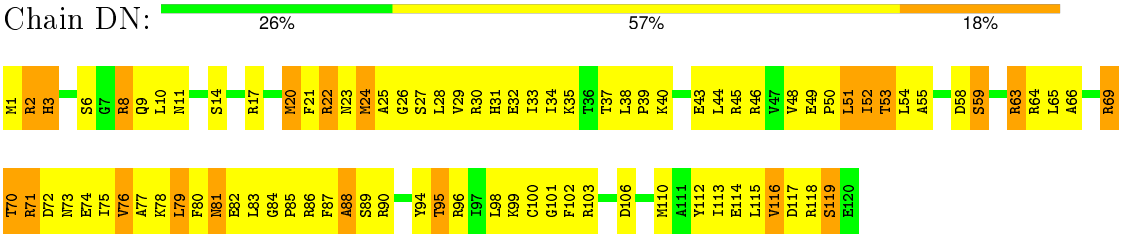
• Molecule 38: 50S ribosomal protein L17

Chain CN:



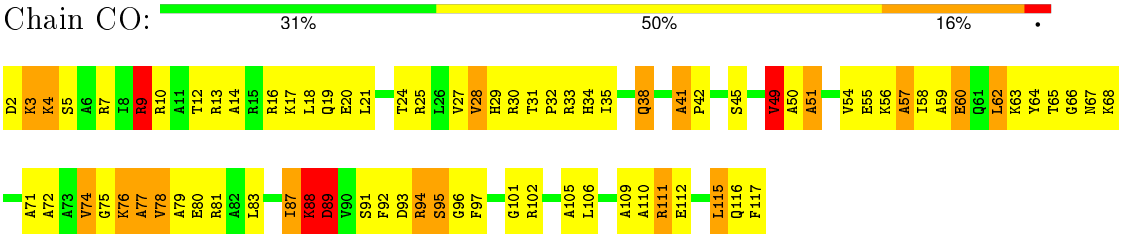
• Molecule 38: 50S ribosomal protein L17

Chain DN:



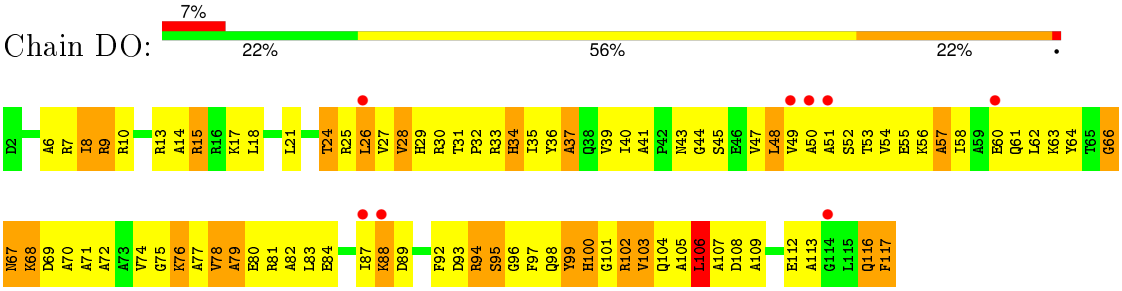
• Molecule 39: 50S ribosomal protein L18

Chain CO:



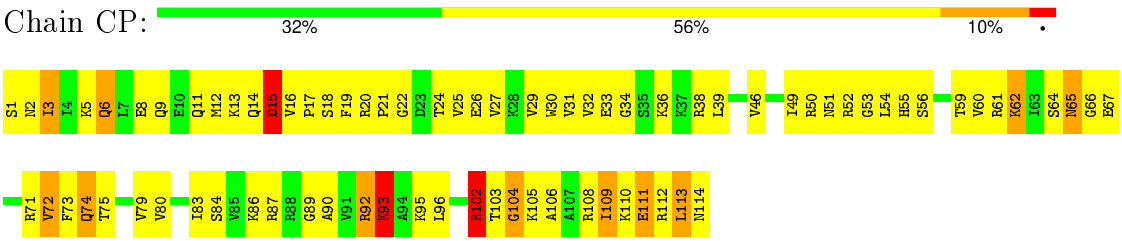
• Molecule 39: 50S ribosomal protein L18

Chain DO:



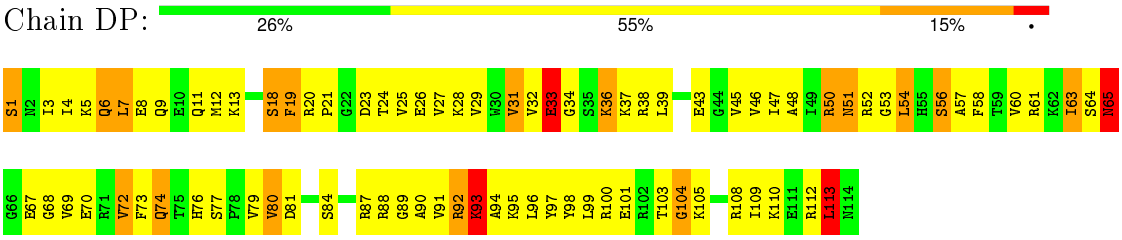
• Molecule 40: 50S ribosomal protein L19

Chain CP:



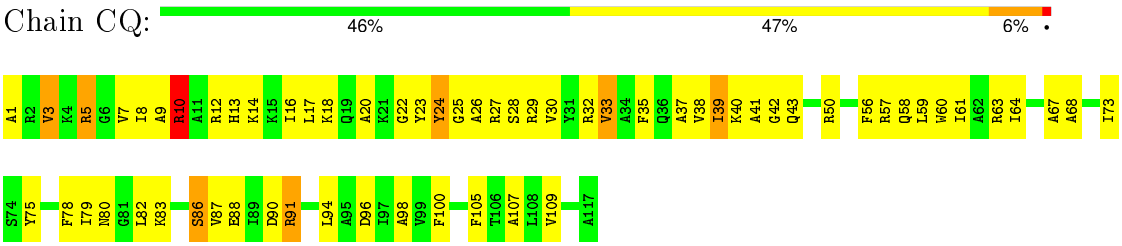
• Molecule 40: 50S ribosomal protein L19

Chain DP:



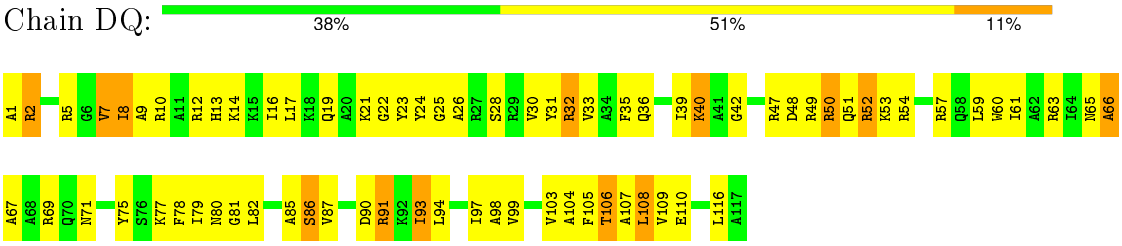
• Molecule 41: 50S ribosomal protein L20

Chain CQ:



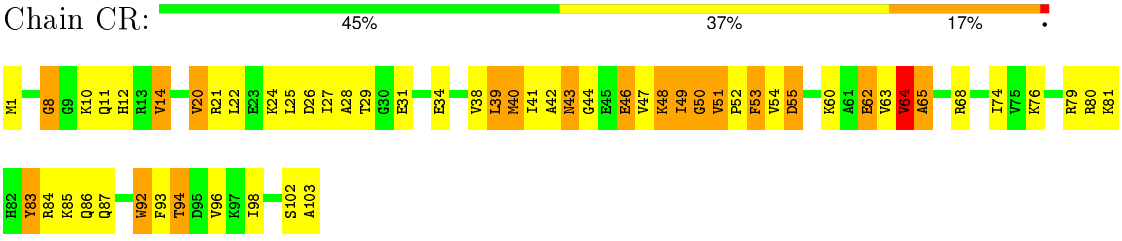
• Molecule 41: 50S ribosomal protein L20

Chain DQ:



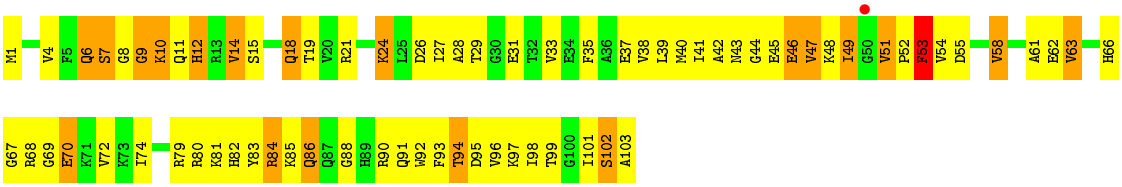
• Molecule 42: 50S ribosomal protein L21

Chain CR:



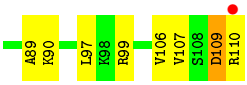
• Molecule 42: 50S ribosomal protein L21

Chain DR:



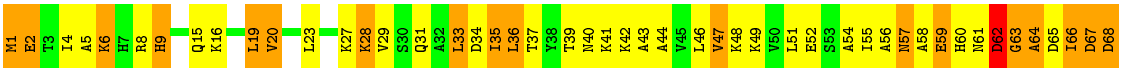
• Molecule 43: 50S ribosomal protein L22

Chain CS:



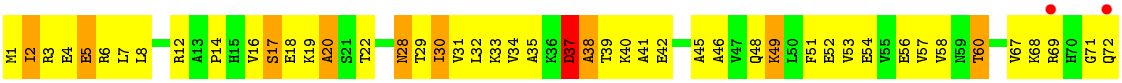
• Molecule 43: 50S ribosomal protein L22

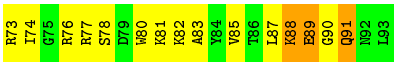
Chain DS:



• Molecule 44: 50S ribosomal protein L23

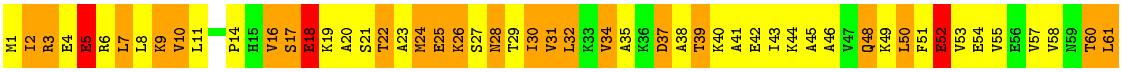
Chain CT:

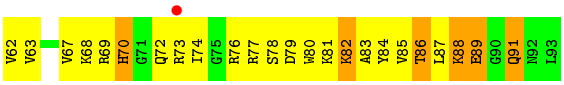




• Molecule 44: 50S ribosomal protein L23

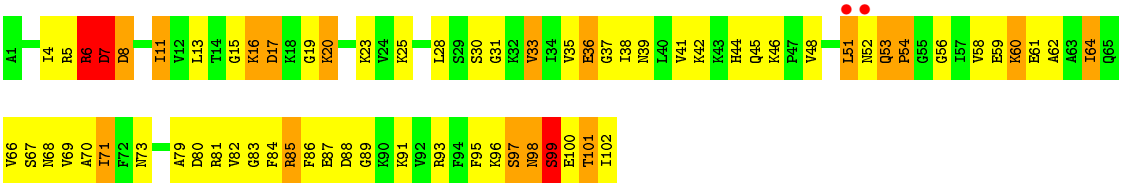
Chain DT:





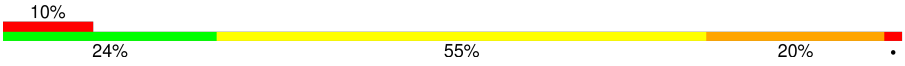
• Molecule 45: 50S ribosomal protein L24

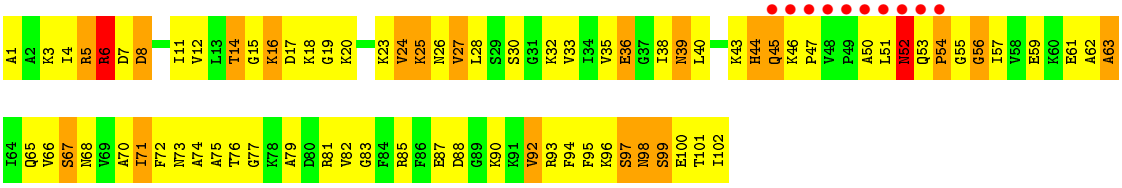
Chain CU:



• Molecule 45: 50S ribosomal protein L24

Chain DU:



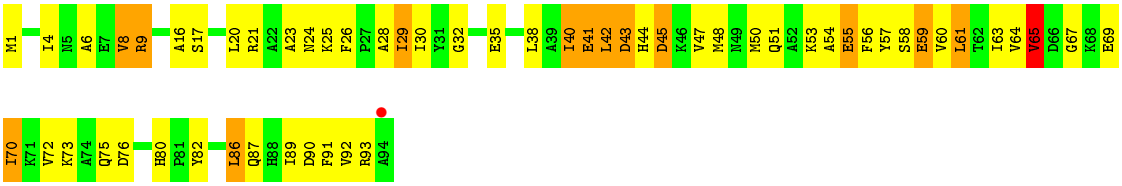


• Molecule 46: 50S ribosomal protein L25

Chain CV:

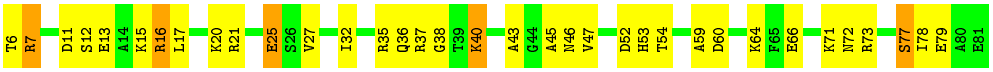
• Molecule 46: 50S ribosomal protein L25

Chain DV:



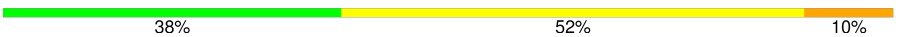
• Molecule 47: 50S ribosomal protein L27

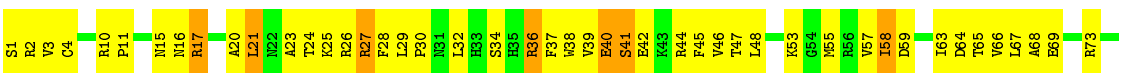
Chain CW:



• Molecule 48: 50S ribosomal protein L28

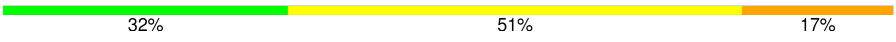
Chain CX:

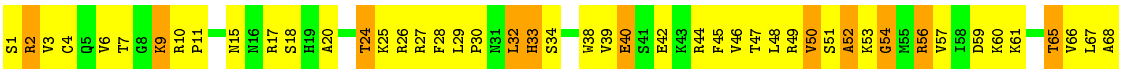


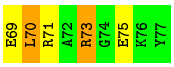


• Molecule 48: 50S ribosomal protein L28

Chain DX:

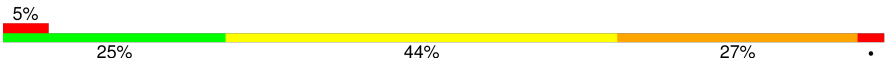






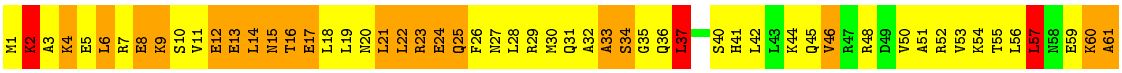
• Molecule 49: 50S ribosomal protein L29

Chain CY:



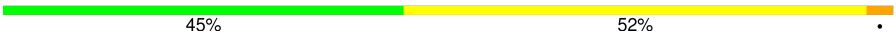
• Molecule 49: 50S ribosomal protein L29

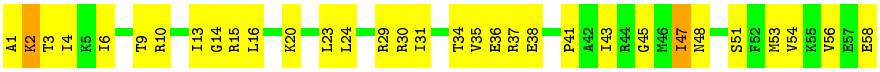
Chain DY:



• Molecule 50: 50S ribosomal protein L30

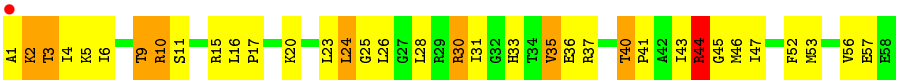
Chain CZ:





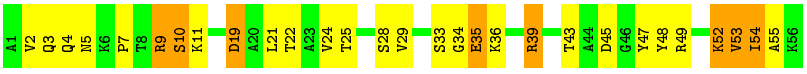
• Molecule 50: 50S ribosomal protein L30

Chain DZ:



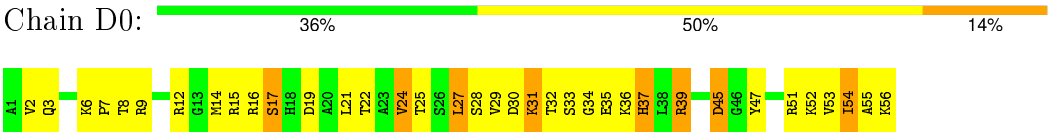
• Molecule 51: 50S ribosomal protein L32

Chain C0:



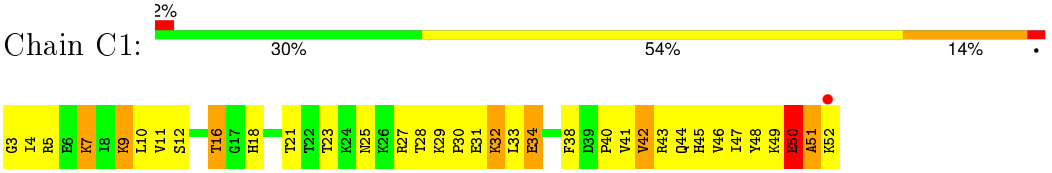
• Molecule 51: 50S ribosomal protein L32

Chain D0:



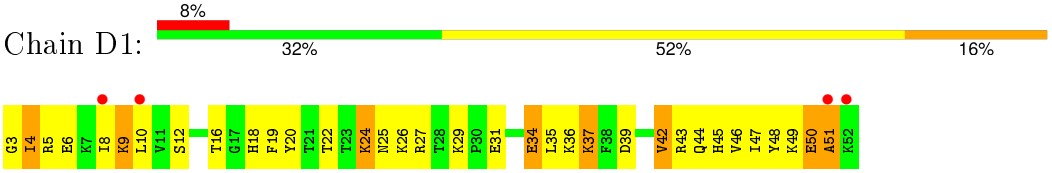
• Molecule 52: 50S ribosomal protein L33

Chain C1:



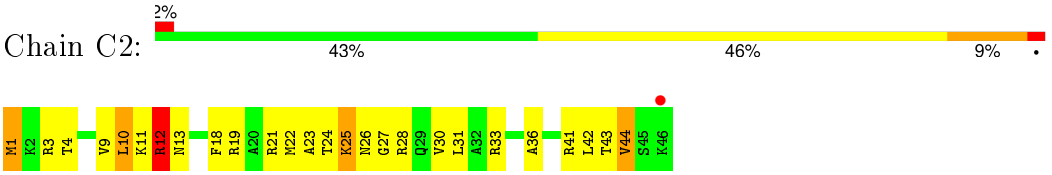
• Molecule 52: 50S ribosomal protein L33

Chain D1:



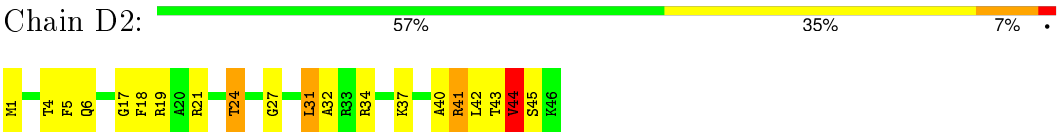
• Molecule 53: 50S ribosomal protein L34

Chain C2:



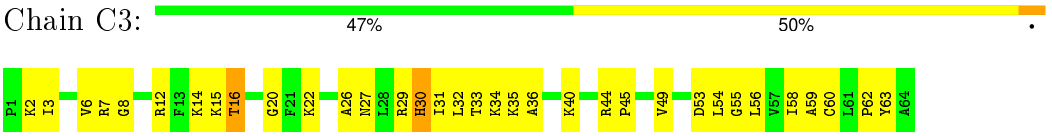
• Molecule 53: 50S ribosomal protein L34

Chain D2:



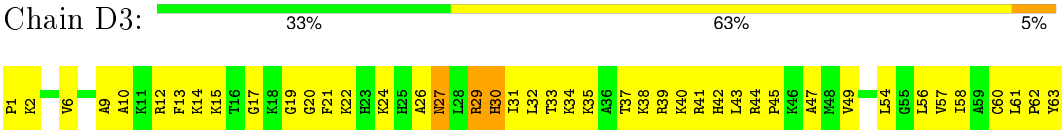
• Molecule 54: 50S ribosomal protein L35

Chain C3:



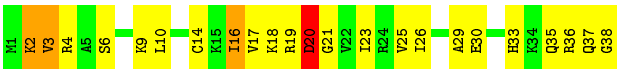
• Molecule 54: 50S ribosomal protein L35

Chain D3:



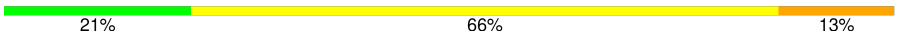
• Molecule 55: 50S ribosomal protein L36

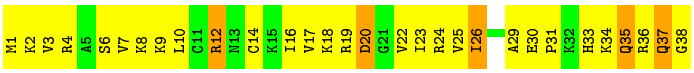
Chain C4:



• Molecule 55: 50S ribosomal protein L36

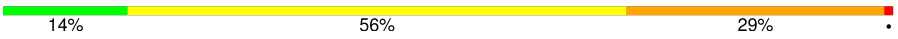
Chain D4:





• Molecule 56: 5S rRNA

Chain DB:



• Molecule 57: 50S ribosomal protein L27

Chain DW:

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	211.67Å 438.07Å 613.42Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	40.00 – 3.00 69.21 – 3.00	Depositor EDS
% Data completeness (in resolution range)	(Not available) (40.00-3.00) 83.5 (69.21-3.00)	Depositor EDS
R_{merge}	0.19	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.58 (at 3.01Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.202 , 0.260 0.195 , 0.251	Depositor DCC
R_{free} test set	19047 reflections (2.03%)	DCC
Wilson B-factor (Å^2)	44.7	Xtriage
Anisotropy	0.180	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.24 , 22.5	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning[2]	$< \|L\| > = 0.46$, $< L^2 > = 0.28$	Xtriage
Outliers	0 of 938380 reflections	Xtriage
F_o,F_c correlation	0.92	EDS
Total number of atoms	292354	wwPDB-VP
Average B, all atoms (Å^2)	29.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.44% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.375 respectively for untwinned datasets, and 0.333, 0.2 for perfectly twinned datasets.

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	#$\|Z\|>5$	RMSZ	#$\|Z\|>5$
1	AA	0.87	8/36944 (0.0%)	1.28	318/57632 (0.6%)
1	BA	0.86	8/36966 (0.0%)	1.30	335/57666 (0.6%)
2	AB	0.60	0/1736	0.79	0/2338
2	BB	0.54	0/1736	0.72	0/2338
3	AC	0.56	0/1652	0.72	0/2225
3	BC	0.51	0/1652	0.72	1/2225 (0.0%)
4	AD	0.59	0/1665	0.74	1/2227 (0.0%)
4	BD	0.65	0/1665	0.80	1/2227 (0.0%)
5	AE	0.62	0/1119	0.85	0/1504
5	BE	0.62	0/1119	0.85	0/1504
6	AF	0.65	0/836	0.82	1/1128 (0.1%)
6	BF	0.55	0/836	0.80	1/1128 (0.1%)
7	AG	0.50	0/1196	0.67	0/1602
7	BG	0.48	0/1196	0.67	0/1602
8	AH	0.60	0/989	0.77	0/1326
8	BH	0.58	0/989	0.74	0/1326
9	AI	0.48	0/1034	0.71	0/1375
9	BI	0.53	0/1034	0.75	0/1375
10	AJ	0.57	0/797	0.74	0/1077
10	BJ	0.52	0/797	0.76	1/1077 (0.1%)
11	AK	0.67	0/893	0.82	0/1205
11	BK	0.59	0/893	0.75	0/1205
12	AL	0.61	0/969	0.81	0/1300
12	BL	0.72	0/969	0.92	0/1300
13	AM	0.52	0/893	0.74	0/1193
13	BM	0.50	0/893	0.71	0/1193
14	AN	0.55	0/785	0.76	0/1043
14	BN	0.51	0/785	0.65	0/1043
15	AO	0.55	0/722	0.73	0/964
15	BO	0.53	0/722	0.73	0/964
16	AP	0.54	0/659	0.82	1/884 (0.1%)
16	BP	0.61	0/659	0.79	1/884 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	AQ	0.57	0/658	0.74	0/881
17	BQ	0.62	0/658	0.76	0/881
18	AR	0.61	0/463	0.69	0/621
18	BR	0.54	0/463	0.68	0/621
19	AS	0.48	0/653	0.73	0/877
19	BS	0.55	0/653	0.67	0/877
20	AT	0.54	0/671	0.69	0/888
20	BT	0.57	0/671	0.73	0/888
21	AU	0.93	0/431	0.96	0/570
21	BU	0.78	0/431	0.85	0/570
22	AV	0.76	1/1813 (0.1%)	1.22	14/2823 (0.5%)
22	BV	0.74	1/1813 (0.1%)	1.22	10/2823 (0.4%)
23	AX	0.86	0/363	1.11	0/564
23	BX	0.73	0/388	1.09	0/603
24	AY	0.65	0/1430	0.74	0/1924
25	CA	1.60	600/69659 (0.9%)	1.67	2062/108672 (1.9%)
25	DA	1.07	82/69633 (0.1%)	1.48	1284/108629 (1.2%)
26	CB	1.33	5/2847 (0.2%)	1.58	77/4440 (1.7%)
27	CC	0.80	0/2122	0.90	1/2852 (0.0%)
27	DC	0.68	1/2122 (0.0%)	0.86	1/2852 (0.0%)
28	CD	0.96	0/1586	0.92	1/2134 (0.0%)
28	DD	0.70	0/1586	0.87	2/2134 (0.1%)
29	CE	0.91	0/1571	0.89	1/2113 (0.0%)
29	DE	0.67	0/1571	0.81	0/2113
30	CF	0.64	0/1435	0.74	0/1926
30	DF	0.51	0/1435	0.67	0/1926
31	CG	0.75	0/1343	0.85	1/1816 (0.1%)
31	DG	0.51	0/1343	0.69	0/1816
32	CH	0.68	1/1121 (0.1%)	0.77	0/1515
32	DH	0.66	1/1121 (0.1%)	0.80	1/1515 (0.1%)
33	CI	0.72	0/1046	0.74	0/1410
33	DI	0.67	0/1046	0.72	0/1410
34	CJ	1.01	0/1152	0.84	1/1551 (0.1%)
34	DJ	0.77	0/1152	0.82	0/1551
35	CK	0.91	3/948 (0.3%)	0.94	1/1268 (0.1%)
35	DK	0.68	0/948	0.84	0/1268
36	CL	0.94	0/1054	1.01	0/1403
36	DL	0.65	0/1054	0.85	0/1403
37	CM	0.94	0/1093	0.96	0/1460
37	DM	0.64	0/1093	0.80	0/1460
38	CN	0.91	0/974	0.96	1/1301 (0.1%)
38	DN	0.67	0/974	0.82	0/1301
39	CO	0.76	0/902	0.87	1/1209 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
39	DO	0.50	0/902	0.66	0/1209
40	CP	0.89	0/929	0.88	1/1242 (0.1%)
40	DP	0.71	0/929	0.82	0/1242
41	CQ	1.14	0/960	0.96	1/1278 (0.1%)
41	DQ	0.80	0/960	0.79	0/1278
42	CR	1.01	1/829 (0.1%)	0.98	0/1107
42	DR	0.79	0/829	0.90	1/1107 (0.1%)
43	CS	1.08	1/864 (0.1%)	0.97	1/1156 (0.1%)
43	DS	0.71	0/864	0.89	1/1156 (0.1%)
44	CT	0.82	0/745	0.86	0/994
44	DT	0.59	0/745	0.74	0/994
45	CU	0.91	0/788	0.90	0/1051
45	DU	0.66	0/788	0.76	0/1051
46	CV	0.79	0/766	0.81	0/1025
46	DV	0.53	0/766	0.69	0/1025
47	CW	1.02	0/582	0.97	0/769
48	CX	0.78	0/635	0.84	0/848
48	DX	0.61	0/635	0.77	0/848
49	CY	0.76	0/510	0.96	1/677 (0.1%)
49	DY	0.56	0/510	0.77	0/677
50	CZ	1.04	0/453	0.94	0/605
50	DZ	0.58	0/453	0.78	0/605
51	C0	0.95	0/450	0.98	2/599 (0.3%)
51	D0	0.71	0/450	0.89	1/599 (0.2%)
52	C1	0.74	0/417	0.76	0/554
52	D1	0.50	0/417	0.66	0/554
53	C2	1.03	0/380	0.99	2/498 (0.4%)
53	D2	0.70	0/380	0.84	0/498
54	C3	0.94	0/513	0.85	0/676
54	D3	0.60	0/513	0.78	1/676 (0.1%)
55	C4	0.92	0/303	0.99	0/397
55	D4	0.68	0/303	0.76	0/397
56	DB	0.75	0/2828	1.23	18/4410 (0.4%)
57	DW	0.60	0/571	0.72	0/755
All	All	1.08	713/315257 (0.2%)	1.34	4150/471496 (0.9%)

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
4	AD	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
4	BD	0	1
5	AE	0	1
5	BE	0	2
6	BF	0	1
9	AI	0	1
11	AK	0	1
11	BK	0	2
12	BL	0	2
13	AM	0	1
14	AN	0	1
20	BT	0	1
21	AU	0	2
21	BU	0	1
27	CC	0	1
27	DC	0	1
28	CD	0	2
28	DD	0	1
32	DH	0	2
33	CI	0	1
34	DJ	0	1
39	DO	0	1
42	CR	0	1
45	CU	0	1
50	CZ	0	1
All	All	0	31

All (713) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	CA	1142	A	N9-C4	-18.22	1.26	1.37
25	CA	984	A	N9-C4	-13.29	1.29	1.37
25	DA	984	A	N9-C4	-10.51	1.31	1.37
25	CA	984	A	C5-C6	-10.44	1.31	1.41
25	CA	528	A	N7-C5	-10.29	1.33	1.39
25	CA	2250	G	N9-C4	-10.25	1.29	1.38
22	AV	1	G	OP3-P	-9.85	1.49	1.61
25	CA	672	C	N1-C6	-9.61	1.31	1.37
25	DA	528	A	N9-C4	-9.48	1.32	1.37
25	CA	1452	G	N9-C4	-9.46	1.30	1.38
22	BV	1	G	OP3-P	-9.45	1.49	1.61
25	DA	783	A	N9-C4	-9.41	1.32	1.37
25	CA	783	A	N9-C4	-8.99	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	CA	1999	C	N1-C6	-8.99	1.31	1.37
25	CA	1322	A	N9-C4	-8.76	1.32	1.37
25	CA	1779	U	N3-C4	-8.62	1.30	1.38
25	CA	814	C	N1-C6	-8.54	1.32	1.37
25	CA	974	G	N9-C8	8.52	1.43	1.37
25	CA	2711	A	N9-C4	-8.49	1.32	1.37
25	CA	752	A	N7-C5	-8.46	1.34	1.39
25	CA	1779	U	C2-N3	-8.38	1.31	1.37
25	CA	473	G	C6-N1	-8.36	1.33	1.39
25	CA	1452	G	N3-C4	-8.34	1.29	1.35
25	CA	1677	A	N9-C4	-8.23	1.32	1.37
25	CA	1452	G	C5-C6	-8.20	1.34	1.42
25	CA	1322	A	N3-C4	-8.19	1.29	1.34
25	CA	2286	G	N9-C4	-8.18	1.31	1.38
25	CA	668	A	N7-C5	-8.09	1.34	1.39
25	CA	2241	A	N9-C4	-8.05	1.33	1.37
25	CA	64	A	N3-C4	-8.04	1.30	1.34
25	CA	690	G	C5-C4	-7.98	1.32	1.38
25	CA	2071	A	N9-C4	-7.94	1.33	1.37
25	CA	1646	C	N1-C6	-7.93	1.32	1.37
25	CA	1307	A	N3-C4	-7.93	1.30	1.34
25	CA	2725	A	N9-C4	-7.89	1.33	1.37
25	CA	16	C	N1-C6	-7.83	1.32	1.37
25	CA	371	A	N9-C4	-7.83	1.33	1.37
25	CA	940	G	N7-C5	-7.82	1.34	1.39
25	CA	752	A	C5-C6	-7.81	1.34	1.41
25	CA	668	A	N9-C4	-7.76	1.33	1.37
25	DA	735	A	N3-C4	-7.75	1.30	1.34
25	DA	1142	A	N9-C4	-7.73	1.33	1.37
25	CA	690	G	N9-C4	-7.73	1.31	1.38
32	DH	149	GLU	CD-OE2	7.69	1.34	1.25
25	CA	1936	A	N9-C4	-7.68	1.33	1.37
25	CA	1999	C	N1-C2	-7.68	1.32	1.40
25	CA	2270	A	N3-C4	-7.63	1.30	1.34
25	CA	513	A	N7-C5	-7.62	1.34	1.39
25	CA	2426	A	N7-C5	-7.62	1.34	1.39
25	CA	221	A	N9-C4	-7.53	1.33	1.37
25	CA	21	A	N9-C4	-7.46	1.33	1.37
25	CA	1242	U	N1-C2	-7.40	1.31	1.38
25	CA	206	U	C2-N3	-7.39	1.32	1.37
25	DA	1936	A	N9-C4	-7.31	1.33	1.37
25	CA	1294	U	C2-N3	-7.30	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	CA	856	G	N3-C4	-7.29	1.30	1.35
25	CA	2267	A	N3-C4	-7.29	1.30	1.34
25	DA	526	A	N3-C4	-7.29	1.30	1.34
25	CA	1226	A	C5-C4	-7.28	1.33	1.38
25	CA	492	A	N3-C4	-7.26	1.30	1.34
25	CA	2616	C	N1-C6	-7.25	1.32	1.37
25	CA	819	A	N9-C4	-7.25	1.33	1.37
25	CA	1936	A	N3-C4	-7.25	1.30	1.34
32	CH	149	GLU	CD-OE2	7.24	1.33	1.25
25	CA	204	A	C6-N1	-7.21	1.30	1.35
25	CA	241	A	N9-C4	-7.21	1.33	1.37
25	CA	1657	U	N1-C2	-7.20	1.32	1.38
25	CA	974	G	N9-C4	-7.19	1.32	1.38
25	CA	1231	U	N1-C2	-7.16	1.32	1.38
25	CA	2388	A	C5-C4	-7.15	1.33	1.38
25	CA	1142	A	N3-C4	-7.13	1.30	1.34
25	CA	439	A	N9-C4	-7.05	1.33	1.37
25	CA	813	U	N1-C2	-7.03	1.32	1.38
25	CA	1029	A	N7-C5	-7.03	1.35	1.39
25	DA	480	A	N9-C4	-7.00	1.33	1.37
25	CA	1393	A	N3-C4	-7.00	1.30	1.34
25	CA	614	A	N9-C4	-7.00	1.33	1.37
25	DA	1247	A	N9-C4	-6.94	1.33	1.37
25	CA	1396	U	C2-N3	-6.91	1.32	1.37
25	CA	802	A	N7-C5	-6.91	1.35	1.39
25	CA	478	A	N9-C4	-6.90	1.33	1.37
25	CA	832	U	N1-C2	-6.90	1.32	1.38
25	CA	668	A	N3-C4	-6.89	1.30	1.34
25	CA	960	A	N3-C4	-6.89	1.30	1.34
25	CA	1311	G	N9-C4	-6.88	1.32	1.38
25	CA	1270	C	N1-C6	-6.88	1.33	1.37
25	CA	2017	U	C2-N3	-6.87	1.32	1.37
25	DA	1971	U	N3-C4	6.87	1.44	1.38
25	CA	218	A	N9-C4	-6.87	1.33	1.37
25	CA	1278	C	N1-C6	-6.86	1.33	1.37
25	CA	964	C	N1-C6	-6.80	1.33	1.37
25	CA	832	U	C2-N3	-6.80	1.32	1.37
25	CA	2009	A	C6-N1	-6.80	1.30	1.35
25	CA	1242	U	C2-O2	-6.79	1.16	1.22
25	CA	1255	U	C4-C5	-6.78	1.37	1.43
25	CA	477	A	N3-C4	-6.78	1.30	1.34
25	DA	782	A	N9-C4	-6.77	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	CA	204	A	N3-C4	-6.77	1.30	1.34
25	CA	800	A	N7-C5	-6.76	1.35	1.39
25	CA	323	C	N1-C6	-6.75	1.33	1.37
25	CA	580	U	N1-C2	-6.74	1.32	1.38
25	CA	1572	A	N3-C4	-6.73	1.30	1.34
25	CA	1833	C	N1-C6	-6.69	1.33	1.37
25	CA	536	G	C5-C4	-6.68	1.33	1.38
25	CA	786	C	N1-C6	-6.68	1.33	1.37
25	CA	2679	A	N9-C4	-6.66	1.33	1.37
25	CA	16	C	N3-C4	-6.65	1.29	1.33
25	CA	1278	C	N1-C2	-6.64	1.33	1.40
25	CA	974	G	C5-C6	-6.64	1.35	1.42
25	CA	1269	A	N3-C4	-6.63	1.30	1.34
25	CA	829	A	N9-C4	-6.63	1.33	1.37
25	CA	856	G	C5-C4	-6.61	1.33	1.38
25	CA	1674	G	N7-C5	-6.60	1.35	1.39
25	DA	822	G	N9-C4	-6.60	1.32	1.38
25	CA	2240	U	C2-N3	-6.56	1.33	1.37
25	CA	1354	A	N9-C4	-6.56	1.33	1.37
25	CA	2725	A	N3-C4	-6.55	1.30	1.34
25	CA	1031	G	C5-C4	-6.55	1.33	1.38
25	CA	478	A	N3-C4	-6.54	1.30	1.34
25	DA	574	A	N9-C4	-6.54	1.33	1.37
25	CA	1638	C	N1-C6	-6.53	1.33	1.37
25	CA	2721	A	N7-C5	-6.53	1.35	1.39
25	CA	2625	G	N7-C5	-6.53	1.35	1.39
25	DA	1946	U	C2-N3	-6.52	1.33	1.37
25	CA	2732	G	N3-C4	-6.50	1.30	1.35
1	AA	1413	A	N9-C4	-6.50	1.33	1.37
25	CA	526	A	N3-C4	-6.50	1.30	1.34
25	CA	1901	A	N9-C4	-6.49	1.33	1.37
25	CA	2068	U	N1-C2	-6.48	1.32	1.38
25	CA	2595	G	C6-N1	-6.48	1.35	1.39
25	CA	533	G	N7-C5	-6.47	1.35	1.39
25	CA	1133	A	N3-C4	-6.47	1.30	1.34
25	CA	735	A	N9-C4	-6.45	1.33	1.37
25	CA	2388	A	N3-C4	-6.43	1.30	1.34
25	CA	744	U	C2-N3	-6.42	1.33	1.37
25	CA	585	G	N7-C5	-6.41	1.35	1.39
25	CA	2067	G	C5-C6	-6.40	1.35	1.42
25	DA	1302	A	N7-C5	-6.38	1.35	1.39
1	AA	1499	A	N9-C4	-6.37	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	CA	1246	A	N9-C4	-6.37	1.34	1.37
25	CA	2059	A	C5-C6	-6.36	1.35	1.41
25	DA	735	A	N9-C4	-6.36	1.34	1.37
25	CA	824	U	N1-C2	-6.36	1.32	1.38
25	DA	2069	G	N9-C4	-6.35	1.32	1.38
25	CA	526	A	C6-N1	-6.35	1.31	1.35
25	CA	1667	G	C6-N1	-6.34	1.35	1.39
25	CA	2498	C	N3-C4	-6.34	1.29	1.33
25	CA	2388	A	N9-C4	-6.33	1.34	1.37
25	CA	657	U	C2-N3	-6.33	1.33	1.37
25	CA	204	A	C5-C6	-6.32	1.35	1.41
25	CA	1395	A	N9-C4	-6.32	1.34	1.37
25	CA	2749	A	N9-C4	-6.31	1.34	1.37
25	DA	454	A	N9-C4	-6.31	1.34	1.37
25	CA	235	U	C2-N3	-6.31	1.33	1.37
25	CA	2838	G	N9-C8	-6.29	1.33	1.37
25	CA	757	G	N9-C4	-6.28	1.32	1.38
25	CA	690	G	N9-C8	-6.28	1.33	1.37
25	CA	1008	A	N3-C4	-6.27	1.31	1.34
25	CA	2376	A	N3-C4	-6.27	1.31	1.34
25	CA	817	C	N1-C2	-6.26	1.33	1.40
25	CA	1255	U	C4-O4	-6.26	1.18	1.23
25	CA	2725	A	P-O5'	-6.25	1.53	1.59
25	DA	2699	C	N1-C6	-6.24	1.33	1.37
25	CA	13	A	N3-C4	-6.24	1.31	1.34
25	CA	1638	C	N1-C2	-6.24	1.33	1.40
25	CA	1640	A	N7-C5	-6.23	1.35	1.39
25	CA	1687	G	C6-N1	-6.23	1.35	1.39
25	CA	14	A	N3-C4	-6.22	1.31	1.34
25	CA	922	C	N1-C6	-6.22	1.33	1.37
25	CA	802	A	N3-C4	-6.22	1.31	1.34
25	DA	825	A	N9-C4	-6.21	1.34	1.37
25	DA	783	A	C5-C6	-6.21	1.35	1.41
25	CA	2364	C	N1-C6	-6.21	1.33	1.37
25	CA	2689	U	C2-N3	-6.21	1.33	1.37
25	CA	1013	C	N1-C6	-6.20	1.33	1.37
25	CA	1282	U	N1-C2	-6.20	1.32	1.38
25	CA	1528	A	N3-C4	-6.20	1.31	1.34
25	CA	523	C	N1-C6	-6.19	1.33	1.37
25	CA	1133	A	N9-C4	-6.19	1.34	1.37
25	CA	1677	A	N3-C4	-6.18	1.31	1.34
25	DA	1452	G	N9-C4	-6.18	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	CA	568	U	C2-N3	-6.18	1.33	1.37
25	CA	2250	G	N3-C4	-6.17	1.31	1.35
25	CA	2377	A	N9-C4	-6.17	1.34	1.37
25	CA	575	A	C6-N1	-6.17	1.31	1.35
25	CA	575	A	N7-C5	-6.16	1.35	1.39
25	CA	752	A	N3-C4	-6.16	1.31	1.34
25	CA	1960	A	N9-C4	-6.16	1.34	1.37
25	CA	975	A	N3-C4	-6.15	1.31	1.34
25	CA	2820	A	N3-C4	6.14	1.38	1.34
25	CA	423	A	N9-C4	-6.14	1.34	1.37
25	CA	823	C	N1-C6	-6.14	1.33	1.37
25	CA	1126	A	N7-C5	-6.13	1.35	1.39
25	CA	1977	A	N9-C4	-6.13	1.34	1.37
25	CA	745	G	N1-C2	-6.12	1.32	1.37
25	CA	2686	G	N7-C5	-6.12	1.35	1.39
25	CA	2620	C	N3-C4	-6.12	1.29	1.33
25	CA	693	A	N3-C4	-6.12	1.31	1.34
25	CA	943	A	N7-C5	-6.10	1.35	1.39
25	CA	1951	U	N1-C2	-6.10	1.33	1.38
25	CA	2053	G	N7-C5	-6.10	1.35	1.39
25	CA	528	A	N9-C4	-6.09	1.34	1.37
25	CA	663	G	N9-C8	-6.09	1.33	1.37
25	CA	2286	G	N3-C4	-6.09	1.31	1.35
25	DA	1779	U	C2-N3	-6.09	1.33	1.37
25	DA	483	A	N9-C4	-6.08	1.34	1.37
25	DA	1787	A	N9-C4	-6.08	1.34	1.37
25	CA	470	A	N9-C4	-6.07	1.34	1.37
25	CA	2576	G	N3-C4	-6.06	1.31	1.35
25	CA	564	C	N3-C4	-6.06	1.29	1.33
25	CA	394	C	N1-C6	-6.06	1.33	1.37
25	CA	910	A	C6-N1	-6.05	1.31	1.35
25	CA	2389	G	N9-C4	-6.04	1.33	1.38
25	CA	2626	C	N1-C6	-6.04	1.33	1.37
25	CA	2551	C	N1-C6	-6.03	1.33	1.37
1	AA	1346	A	N9-C4	-6.02	1.34	1.37
25	CA	1608	A	N9-C4	-6.02	1.34	1.37
25	CA	814	C	N3-C4	-6.02	1.29	1.33
25	DA	2014	A	N7-C5	-6.02	1.35	1.39
25	CA	819	A	N3-C4	-6.01	1.31	1.34
25	CA	2542	A	N9-C4	-6.01	1.34	1.37
25	CA	1345	C	N1-C6	-6.00	1.33	1.37
25	CA	752	A	N9-C4	-5.99	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	CA	2792	A	N7-C5	-5.99	1.35	1.39
25	CA	2496	C	N1-C6	-5.98	1.33	1.37
43	CS	73	LYS	CD-CE	5.98	1.66	1.51
25	CA	667	U	C2-N3	-5.98	1.33	1.37
25	CA	2348	U	C2-N3	-5.98	1.33	1.37
25	CA	1011	G	N3-C4	-5.98	1.31	1.35
25	CA	598	U	N1-C2	-5.97	1.33	1.38
25	CA	1143	A	N7-C5	-5.97	1.35	1.39
25	CA	706	A	N3-C4	-5.96	1.31	1.34
1	BA	283	U	C2-N3	5.96	1.42	1.37
25	CA	1028	A	N3-C4	-5.96	1.31	1.34
25	CA	1769	U	N1-C2	-5.95	1.33	1.38
25	DA	783	A	N7-C5	-5.95	1.35	1.39
25	CA	1791	A	N3-C4	-5.94	1.31	1.34
25	CA	384	A	N9-C4	-5.94	1.34	1.37
25	DA	1387	A	N9-C4	-5.94	1.34	1.37
25	CA	451	U	C2-N3	-5.94	1.33	1.37
25	DA	1802	A	N3-C4	-5.94	1.31	1.34
25	DA	2821	A	N3-C4	-5.93	1.31	1.34
25	CA	461	C	N3-C4	-5.93	1.29	1.33
25	CA	474	G	C5-C4	-5.93	1.34	1.38
25	CA	525	U	N1-C2	-5.93	1.33	1.38
1	BA	816	A	N9-C4	-5.93	1.34	1.37
25	CA	2250	G	C5-C6	-5.92	1.36	1.42
25	CA	2270	A	N9-C4	-5.92	1.34	1.37
25	DA	2049	G	N1-C2	-5.92	1.33	1.37
25	DA	2821	A	N9-C4	-5.91	1.34	1.37
25	DA	753	A	N9-C4	-5.91	1.34	1.37
25	CA	2083	G	N9-C4	-5.91	1.33	1.38
25	CA	2005	A	N9-C4	-5.91	1.34	1.37
25	CA	821	A	N9-C4	-5.90	1.34	1.37
25	CA	977	G	N9-C8	-5.90	1.33	1.37
25	CA	2061	G	N7-C5	-5.90	1.35	1.39
25	CA	2004	G	C6-N1	-5.90	1.35	1.39
25	CA	1353	A	C6-N1	-5.89	1.31	1.35
25	CA	2002	G	C5-C4	-5.89	1.34	1.38
25	CA	984	A	N3-C4	-5.89	1.31	1.34
25	CA	674	G	N9-C8	-5.88	1.33	1.37
25	CA	768	G	C5-C4	-5.87	1.34	1.38
25	CA	2515	C	N1-C6	-5.87	1.33	1.37
25	CA	964	C	N3-C4	-5.86	1.29	1.33
25	CA	2511	U	N1-C2	-5.86	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	CA	17	G	N9-C8	-5.85	1.33	1.37
25	CA	2418	A	N7-C5	-5.85	1.35	1.39
25	CA	683	U	N1-C2	-5.85	1.33	1.38
25	CA	1993	U	C2-N3	-5.85	1.33	1.37
25	DA	1192	G	N9-C8	-5.85	1.33	1.37
25	CA	120	U	C2-N3	-5.84	1.33	1.37
25	CA	2389	G	N9-C8	-5.84	1.33	1.37
25	DA	794	A	N9-C4	-5.84	1.34	1.37
25	CA	1251	C	N1-C6	-5.84	1.33	1.37
25	CA	2275	C	N3-C4	-5.84	1.29	1.33
25	CA	2259	U	N1-C6	-5.83	1.32	1.38
25	CA	2562	U	C2-N3	-5.83	1.33	1.37
25	CA	1994	C	N1-C6	-5.82	1.33	1.37
25	CA	2898	U	C2-N3	-5.82	1.33	1.37
25	CA	754	U	N3-C4	-5.82	1.33	1.38
25	DA	13	A	N3-C4	-5.81	1.31	1.34
25	DA	2047	C	N1-C6	-5.81	1.33	1.37
25	DA	693	A	N7-C5	-5.81	1.35	1.39
25	CA	1602	U	C2-N3	-5.80	1.33	1.37
25	CA	1309	G	N1-C2	-5.80	1.33	1.37
25	CA	1002	G	N1-C2	-5.79	1.33	1.37
25	CA	1046	A	N7-C5	-5.79	1.35	1.39
25	CA	2067	G	C5-C4	-5.79	1.34	1.38
25	CA	527	C	N1-C6	-5.79	1.33	1.37
25	CA	2358	A	N9-C4	-5.79	1.34	1.37
25	CA	513	A	C5-C6	-5.78	1.35	1.41
25	CA	2510	C	C2-N3	-5.78	1.31	1.35
25	CA	2691	C	N1-C6	-5.78	1.33	1.37
25	CA	1971	U	N3-C4	5.78	1.43	1.38
25	CA	1282	U	C2-N3	-5.78	1.33	1.37
25	CA	2051	A	N3-C4	-5.78	1.31	1.34
25	CA	2615	U	C2-N3	-5.78	1.33	1.37
25	CA	533	G	N9-C8	-5.77	1.33	1.37
25	CA	346	A	N3-C4	-5.77	1.31	1.34
25	CA	2067	G	N7-C5	-5.76	1.35	1.39
25	CA	993	G	C6-N1	-5.76	1.35	1.39
25	CA	1311	G	N1-C2	5.76	1.42	1.37
1	BA	397	A	N3-C4	-5.75	1.31	1.34
25	CA	1452	G	N7-C5	-5.75	1.35	1.39
25	CA	2614	A	N3-C4	-5.74	1.31	1.34
25	DA	753	A	N3-C4	-5.73	1.31	1.34
25	CA	970	U	N1-C2	-5.73	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	781	A	N3-C4	-5.73	1.31	1.34
25	DA	529	A	N9-C4	-5.73	1.34	1.37
25	CA	528	A	C5-C6	-5.72	1.35	1.41
25	CA	946	C	C4-N4	-5.72	1.28	1.33
25	CA	2894	G	N9-C8	-5.72	1.33	1.37
25	CA	1290	C	N1-C6	-5.72	1.33	1.37
1	BA	1514	G	C5-C4	-5.71	1.34	1.38
25	CA	443	A	N9-C4	-5.71	1.34	1.37
25	CA	1528	A	N9-C4	-5.71	1.34	1.37
25	CA	1254	A	N3-C4	-5.71	1.31	1.34
25	CA	1393	A	N9-C4	-5.71	1.34	1.37
25	CA	999	U	N1-C2	-5.71	1.33	1.38
25	CA	1245	G	C6-N1	-5.71	1.35	1.39
25	CA	2567	G	C5-C4	-5.70	1.34	1.38
25	CA	516	C	N3-C4	-5.70	1.29	1.33
25	CA	1218	G	N7-C5	-5.70	1.35	1.39
25	CA	589	U	C2-N3	-5.69	1.33	1.37
25	DA	2066	C	N1-C6	-5.69	1.33	1.37
25	CA	111	A	N9-C4	-5.69	1.34	1.37
25	CA	832	U	C2-O2	-5.69	1.17	1.22
25	CA	1123	C	N3-C4	-5.69	1.29	1.33
25	CA	2749	A	N3-C4	-5.69	1.31	1.34
25	DA	974	G	N9-C8	5.68	1.41	1.37
25	DA	2392	A	N9-C4	-5.68	1.34	1.37
25	DA	2811	G	N9-C4	-5.68	1.33	1.38
35	CK	92	GLU	CG-CD	5.68	1.60	1.51
25	CA	572	A	C6-N1	-5.67	1.31	1.35
25	CA	14	A	N9-C4	-5.67	1.34	1.37
25	CA	2523	G	N7-C5	-5.67	1.35	1.39
25	CA	2681	C	N1-C6	-5.67	1.33	1.37
25	CA	2579	C	N3-C4	-5.67	1.29	1.33
25	CA	1219	U	C2-N3	-5.66	1.33	1.37
25	CA	2591	C	N1-C6	-5.65	1.33	1.37
25	DA	910	A	N9-C4	-5.65	1.34	1.37
25	CA	1614	A	N9-C4	-5.65	1.34	1.37
25	CA	1396	U	N3-C4	-5.65	1.33	1.38
26	CB	78	A	N9-C4	-5.65	1.34	1.37
25	CA	1766	G	C5-C4	-5.64	1.34	1.38
25	CA	2264	C	N3-C4	-5.63	1.30	1.33
25	CA	2066	C	N1-C6	-5.63	1.33	1.37
25	CA	2478	A	N9-C4	-5.63	1.34	1.37
25	CA	2625	G	N9-C8	-5.62	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
42	CR	92	TRP	CB-CG	-5.62	1.40	1.50
25	CA	1286	A	N7-C5	-5.62	1.35	1.39
25	CA	863	A	N3-C4	-5.61	1.31	1.34
25	CA	2628	C	N3-C4	-5.61	1.30	1.33
25	CA	2060	A	N3-C4	-5.61	1.31	1.34
25	DA	203	A	N7-C5	-5.61	1.35	1.39
25	CA	204	A	N9-C4	-5.61	1.34	1.37
25	CA	946	C	N3-C4	-5.61	1.30	1.33
25	CA	1249	U	P-O5'	-5.60	1.54	1.59
25	CA	819	A	N7-C5	-5.60	1.35	1.39
25	CA	2628	C	N1-C6	-5.60	1.33	1.37
25	CA	735	A	N3-C4	-5.60	1.31	1.34
25	CA	1672	A	N7-C5	-5.60	1.35	1.39
25	CA	1009	A	N9-C4	-5.60	1.34	1.37
25	CA	554	U	N1-C2	-5.59	1.33	1.38
25	CA	2691	C	C2-N3	-5.59	1.31	1.35
25	CA	2724	U	C2-N3	-5.59	1.33	1.37
25	CA	1936	A	N9-C8	5.58	1.42	1.37
25	CA	2012	G	N9-C8	-5.58	1.33	1.37
25	CA	830	G	C6-N1	-5.58	1.35	1.39
25	CA	2053	G	C8-N7	-5.58	1.27	1.30
25	CA	1250	G	N9-C8	-5.57	1.33	1.37
25	CA	2049	G	C6-N1	-5.57	1.35	1.39
25	CA	1677	A	C6-N1	-5.57	1.31	1.35
25	CA	1470	A	N3-C4	-5.56	1.31	1.34
25	DA	2881	U	N1-C2	-5.56	1.33	1.38
25	CA	536	G	N9-C4	-5.56	1.33	1.38
25	CA	670	A	N9-C4	-5.56	1.34	1.37
25	CA	776	G	C8-N7	-5.56	1.27	1.30
25	CA	1250	G	N7-C5	-5.55	1.35	1.39
25	CA	2351	G	N7-C5	-5.55	1.35	1.39
25	CA	750	A	N9-C4	-5.55	1.34	1.37
25	CA	2052	A	N3-C4	-5.55	1.31	1.34
25	CA	579	G	N9-C8	-5.55	1.33	1.37
25	CA	656	G	N9-C4	-5.55	1.33	1.38
25	CA	1658	C	N1-C6	-5.55	1.33	1.37
25	CA	1929	G	P-O5'	-5.54	1.54	1.59
25	CA	384	A	C6-N1	-5.54	1.31	1.35
25	CA	2510	C	N1-C6	-5.54	1.33	1.37
25	CA	2728	U	C2-N3	-5.54	1.33	1.37
25	CA	1265	A	C6-N1	-5.54	1.31	1.35
25	CA	2866	U	C2-N3	-5.53	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	DA	2498	C	N1-C6	-5.53	1.33	1.37
25	CA	2753	A	N9-C4	-5.53	1.34	1.37
25	CA	908	C	N1-C6	-5.52	1.33	1.37
25	CA	1247	A	N9-C4	-5.52	1.34	1.37
25	CA	1319	C	N1-C2	-5.52	1.34	1.40
25	CA	2245	U	C2-N3	-5.52	1.33	1.37
1	AA	1408	A	N9-C4	-5.52	1.34	1.37
25	CA	2225	A	C5-C6	-5.52	1.36	1.41
25	CA	1196	C	N3-C4	-5.52	1.30	1.33
25	CA	1316	U	C2-N3	-5.51	1.33	1.37
25	CA	1620	G	N3-C4	-5.51	1.31	1.35
25	CA	1993	U	N1-C2	-5.51	1.33	1.38
25	CA	1667	G	N1-C2	-5.51	1.33	1.37
25	CA	2330	G	N3-C4	-5.51	1.31	1.35
25	DA	2497	A	N7-C5	-5.51	1.35	1.39
25	CA	1766	G	N9-C4	-5.51	1.33	1.38
25	CA	824	U	C2-N3	-5.50	1.33	1.37
25	CA	1216	G	C6-N1	-5.50	1.35	1.39
25	CA	518	G	N9-C8	-5.50	1.34	1.37
25	DA	1785	A	N9-C4	-5.50	1.34	1.37
25	CA	1125	G	N7-C5	-5.50	1.35	1.39
25	CA	1360	G	C6-N1	-5.49	1.35	1.39
25	CA	2012	G	C5-C4	-5.49	1.34	1.38
25	CA	1354	A	N3-C4	-5.49	1.31	1.34
25	CA	2435	A	N9-C4	-5.49	1.34	1.37
25	CA	980	A	N3-C4	-5.49	1.31	1.34
25	CA	555	G	C8-N7	-5.48	1.27	1.30
25	CA	536	G	C2-N3	-5.48	1.28	1.32
25	CA	1818	U	C2-N3	-5.48	1.33	1.37
25	CA	2633	G	N3-C4	-5.48	1.31	1.35
25	CA	1658	C	N3-C4	-5.48	1.30	1.33
25	DA	1129	A	N7-C5	-5.48	1.35	1.39
25	CA	2394	C	N1-C2	-5.48	1.34	1.40
25	CA	17	G	C5-C4	-5.47	1.34	1.38
25	CA	768	G	N7-C5	-5.47	1.35	1.39
25	DA	975	A	N3-C4	-5.47	1.31	1.34
25	CA	1284	A	N9-C4	-5.47	1.34	1.37
25	CA	672	C	N1-C2	-5.47	1.34	1.40
25	CA	474	G	N7-C5	-5.47	1.35	1.39
25	CA	1641	A	N7-C5	-5.47	1.35	1.39
25	CA	1654	A	N9-C4	-5.47	1.34	1.37
25	CA	2351	G	C5-C6	-5.47	1.36	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	DA	2485	G	N9-C4	-5.47	1.33	1.38
26	CB	78	A	N7-C5	-5.46	1.35	1.39
25	CA	985	C	C2-N3	-5.46	1.31	1.35
25	CA	620	G	N9-C4	-5.45	1.33	1.38
25	CA	2616	C	N1-C2	-5.45	1.34	1.40
25	DA	2614	A	N9-C4	-5.45	1.34	1.37
25	CA	188	G	C6-N1	-5.45	1.35	1.39
25	CA	453	A	N7-C5	-5.45	1.35	1.39
25	CA	482	A	N9-C4	-5.45	1.34	1.37
25	CA	567	U	N1-C2	-5.45	1.33	1.38
25	CA	760	G	C5-C4	-5.45	1.34	1.38
25	CA	2711	A	N3-C4	-5.44	1.31	1.34
25	CA	2485	G	C2-N3	-5.44	1.28	1.32
25	DA	975	A	N7-C5	-5.44	1.35	1.39
25	DA	2257	U	C2-N3	-5.44	1.33	1.37
25	CA	1187	G	N7-C5	-5.43	1.35	1.39
25	CA	501	A	C6-N1	-5.43	1.31	1.35
25	CA	2496	C	N3-C4	-5.43	1.30	1.33
25	CA	675	A	C6-N1	-5.43	1.31	1.35
25	CA	997	G	N9-C4	-5.43	1.33	1.38
25	CA	13	A	C6-N1	-5.42	1.31	1.35
25	CA	959	A	N3-C4	-5.42	1.31	1.34
25	CA	2012	G	N3-C4	-5.42	1.31	1.35
25	CA	2616	C	N3-C4	-5.42	1.30	1.33
25	CA	515	A	N7-C5	-5.41	1.36	1.39
25	CA	852	U	N1-C2	-5.41	1.33	1.38
25	CA	1787	A	N3-C4	-5.41	1.31	1.34
25	CA	586	A	C6-N1	-5.41	1.31	1.35
25	DA	2518	A	N7-C5	-5.41	1.36	1.39
25	CA	1312	U	C2-N3	-5.40	1.33	1.37
25	CA	1999	C	N3-C4	-5.40	1.30	1.33
25	CA	1656	C	C2-N3	-5.40	1.31	1.35
25	CA	1255	U	N1-C2	-5.40	1.33	1.38
25	CA	2005	A	N7-C5	-5.40	1.36	1.39
25	CA	2364	C	C2-N3	-5.40	1.31	1.35
25	CA	450	G	N9-C8	-5.39	1.34	1.37
25	DA	1971	U	C2-N3	5.39	1.41	1.37
25	CA	2500	U	N1-C2	-5.39	1.33	1.38
25	CA	2057	G	N1-C2	-5.38	1.33	1.37
25	CA	997	G	N3-C4	-5.38	1.31	1.35
25	CA	1790	C	N1-C6	-5.38	1.33	1.37
25	DA	2564	A	N7-C5	-5.38	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	CA	528	A	N3-C4	-5.38	1.31	1.34
25	CA	2046	G	C5-C6	-5.38	1.36	1.42
25	CA	1155	A	C5-C4	-5.37	1.34	1.38
25	CA	2685	G	P-O5'	-5.37	1.54	1.59
25	CA	1997	C	N1-C6	-5.37	1.33	1.37
25	DA	948	C	C2-O2	-5.37	1.19	1.24
25	CA	733	G	C5-C6	-5.37	1.36	1.42
25	CA	2376	A	C6-N1	-5.37	1.31	1.35
25	CA	817	C	C2-O2	-5.36	1.19	1.24
25	CA	1654	A	N7-C5	-5.36	1.36	1.39
25	CA	2788	C	N3-C4	-5.36	1.30	1.33
25	DA	2273	A	N9-C4	-5.36	1.34	1.37
25	CA	777	G	N9-C8	-5.36	1.34	1.37
25	CA	956	G	N9-C8	-5.36	1.34	1.37
25	CA	2020	A	N3-C4	-5.36	1.31	1.34
25	CA	2728	U	N3-C4	-5.36	1.33	1.38
25	CA	825	A	N9-C8	-5.36	1.33	1.37
25	CA	971	G	C5-C4	-5.35	1.34	1.38
26	CB	99	A	N7-C5	-5.35	1.36	1.39
25	CA	2590	A	N3-C4	-5.35	1.31	1.34
25	CA	1791	A	C5-C6	-5.34	1.36	1.41
25	CA	1301	A	N9-C4	-5.34	1.34	1.37
25	CA	2841	C	N1-C6	-5.34	1.33	1.37
25	CA	959	A	C6-N1	-5.34	1.31	1.35
25	CA	2579	C	C2-N3	-5.34	1.31	1.35
25	CA	1198	U	N1-C2	-5.34	1.33	1.38
25	CA	1226	A	N9-C8	-5.34	1.33	1.37
25	DA	2689	U	C2-N3	-5.34	1.34	1.37
25	CA	384	A	C5-C6	-5.33	1.36	1.41
25	CA	472	A	N9-C8	-5.33	1.33	1.37
25	CA	825	A	N9-C4	-5.33	1.34	1.37
25	DA	2013	A	N9-C4	-5.33	1.34	1.37
25	CA	2003	A	N7-C5	-5.33	1.36	1.39
25	CA	2349	G	C6-N1	-5.33	1.35	1.39
1	AA	1500	A	N9-C4	-5.33	1.34	1.37
25	CA	1641	A	N3-C4	-5.33	1.31	1.34
1	BA	1514	G	C5-C6	-5.33	1.37	1.42
25	DA	2508	G	N9-C8	-5.33	1.34	1.37
25	CA	1260	A	N9-C4	-5.32	1.34	1.37
25	CA	1672	A	P-O5'	-5.32	1.54	1.59
25	CA	1148	U	C2-N3	-5.32	1.34	1.37
25	CA	32	C	N1-C6	-5.32	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	CA	1661	G	C6-N1	-5.32	1.35	1.39
25	CA	1826	G	N9-C8	-5.32	1.34	1.37
25	CA	1656	C	C2-O2	-5.31	1.19	1.24
25	CA	2008	C	N1-C6	-5.31	1.33	1.37
25	CA	952	G	N9-C8	-5.31	1.34	1.37
25	CA	2277	G	C6-N1	-5.30	1.35	1.39
25	CA	2010	G	C5-C4	-5.30	1.34	1.38
25	DA	1131	G	N3-C4	-5.30	1.31	1.35
25	CA	2722	G	N9-C4	-5.30	1.33	1.38
25	CA	971	G	N9-C8	-5.30	1.34	1.37
26	CB	50	A	N9-C4	-5.29	1.34	1.37
25	CA	1774	C	C4-C5	-5.28	1.38	1.43
25	CA	961	C	N1-C6	-5.28	1.33	1.37
25	CA	618	G	C2-N3	-5.28	1.28	1.32
25	CA	856	G	C2-N3	-5.28	1.28	1.32
1	AA	896	C	N1-C6	-5.27	1.33	1.37
25	CA	1278	C	C4-C5	-5.27	1.38	1.43
25	CA	945	A	C5-C4	-5.27	1.35	1.38
25	CA	78	U	C2-N3	-5.26	1.34	1.37
25	CA	482	A	C5-C6	-5.26	1.36	1.41
25	CA	1163	G	N3-C4	-5.26	1.31	1.35
25	DA	1244	A	N9-C4	-5.26	1.34	1.37
25	CA	770	G	N3-C4	-5.25	1.31	1.35
25	CA	2790	U	N1-C2	5.25	1.43	1.38
25	CA	2397	G	C5-C4	-5.24	1.34	1.38
25	CA	2211	A	N9-C4	5.24	1.41	1.37
25	CA	2271	G	N1-C2	-5.24	1.33	1.37
25	DA	1928	A	N3-C4	5.24	1.38	1.34
25	CA	2560	A	N3-C4	-5.23	1.31	1.34
25	CA	640	C	N1-C6	-5.22	1.34	1.37
25	CA	2482	A	N9-C4	-5.22	1.34	1.37
25	CA	2716	C	N3-C4	-5.22	1.30	1.33
25	CA	95	A	N3-C4	-5.22	1.31	1.34
25	CA	384	A	C6-N6	-5.22	1.29	1.33
25	CA	1944	U	C2-N3	-5.22	1.34	1.37
25	CA	2453	A	N3-C4	-5.22	1.31	1.34
25	DA	1802	A	N9-C4	-5.22	1.34	1.37
25	CA	2286	G	C5-C6	-5.22	1.37	1.42
25	CA	482	A	N7-C5	-5.21	1.36	1.39
25	CA	2497	A	C8-N7	-5.21	1.27	1.31
25	CA	2751	G	N3-C4	-5.21	1.31	1.35
25	CA	754	U	C2-N3	-5.21	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	CA	960	A	C5-C4	-5.21	1.35	1.38
25	CA	749	A	N9-C4	-5.21	1.34	1.37
25	CA	89	A	C6-N1	-5.21	1.31	1.35
25	CA	2815	C	N3-C4	-5.21	1.30	1.33
25	CA	1332	G	C5-C4	-5.20	1.34	1.38
25	CA	2457	U	P-O5'	-5.20	1.54	1.59
25	CA	825	A	N3-C4	-5.20	1.31	1.34
25	CA	2277	G	N1-C2	-5.20	1.33	1.37
25	CA	522	A	N9-C8	-5.20	1.33	1.37
25	CA	1288	G	N9-C8	-5.20	1.34	1.37
25	CA	2709	G	C6-N1	-5.20	1.35	1.39
25	CA	1192	G	N7-C5	-5.19	1.36	1.39
25	CA	590	A	N9-C4	-5.19	1.34	1.37
25	CA	111	A	C5-C6	-5.19	1.36	1.41
25	CA	1950	G	C5-C4	-5.19	1.34	1.38
25	CA	533	G	C6-N1	-5.19	1.35	1.39
25	CA	1630	A	N3-C4	-5.19	1.31	1.34
25	CA	2010	G	N3-C4	-5.19	1.31	1.35
25	CA	1809	A	N9-C4	-5.19	1.34	1.37
25	CA	2508	G	C6-N1	-5.19	1.35	1.39
25	CA	2311	A	N9-C4	5.18	1.41	1.37
25	CA	1980	G	C6-N1	-5.18	1.35	1.39
25	CA	2071	A	N3-C4	-5.18	1.31	1.34
25	DA	1905	C	N1-C6	-5.18	1.34	1.37
25	CA	236	C	N1-C6	-5.18	1.34	1.37
25	CA	2589	A	C5-C6	-5.18	1.36	1.41
25	CA	679	C	N3-C4	-5.17	1.30	1.33
25	CA	1332	G	C6-N1	-5.17	1.35	1.39
25	CA	1791	A	N9-C4	-5.17	1.34	1.37
25	CA	1257	C	N1-C6	-5.16	1.34	1.37
25	CA	806	C	N3-C4	-5.16	1.30	1.33
25	CA	2056	G	C5-C4	-5.16	1.34	1.38
25	CA	2503	A	N7-C5	-5.16	1.36	1.39
25	CA	1570	A	N3-C4	-5.15	1.31	1.34
25	CA	827	U	N1-C2	-5.15	1.33	1.38
25	CA	2592	G	C6-N1	-5.15	1.35	1.39
25	CA	2851	A	N9-C4	5.15	1.41	1.37
25	CA	2823	A	N3-C4	-5.15	1.31	1.34
25	CA	1769	U	C2-N3	-5.15	1.34	1.37
25	CA	735	A	N9-C8	-5.14	1.33	1.37
25	CA	814	C	C4-C5	-5.14	1.38	1.43
25	DA	1217	U	C2-N3	-5.14	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	CA	971	G	C8-N7	-5.14	1.27	1.30
25	CA	1213	A	N3-C4	-5.14	1.31	1.34
25	CA	1980	G	C6-O6	-5.14	1.19	1.24
25	CA	743	A	N3-C4	-5.14	1.31	1.34
25	CA	1624	U	C2-N3	-5.14	1.34	1.37
25	CA	2822	G	N3-C4	-5.14	1.31	1.35
25	CA	245	G	C6-N1	-5.14	1.35	1.39
25	CA	2495	G	C6-N1	-5.14	1.35	1.39
25	CA	993	G	N1-C2	-5.13	1.33	1.37
25	CA	1315	C	N1-C6	-5.13	1.34	1.37
25	CA	21	A	N3-C4	-5.13	1.31	1.34
25	CA	1336	A	N9-C8	-5.13	1.33	1.37
25	CA	1265	A	C5-C4	-5.13	1.35	1.38
25	CA	598	U	C2-N3	-5.12	1.34	1.37
25	CA	1167	C	N3-C4	-5.12	1.30	1.33
25	CA	1278	C	N3-C4	-5.12	1.30	1.33
25	DA	534	U	C2-N3	-5.12	1.34	1.37
25	DA	1648	U	N1-C2	-5.12	1.33	1.38
25	CA	564	C	N1-C6	-5.12	1.34	1.37
25	CA	2802	G	N3-C4	-5.12	1.31	1.35
35	CK	122	VAL	CA-CB	5.12	1.65	1.54
25	DA	2066	C	N3-C4	-5.12	1.30	1.33
25	CA	856	G	N9-C4	-5.12	1.33	1.38
25	CA	1245	G	N1-C2	-5.12	1.33	1.37
1	AA	1101	A	N9-C4	5.11	1.41	1.37
25	CA	2060	A	N9-C4	-5.11	1.34	1.37
25	CA	2510	C	N3-C4	-5.11	1.30	1.33
25	DA	13	A	N7-C5	-5.11	1.36	1.39
25	CA	974	G	N3-C4	-5.11	1.31	1.35
25	CA	1331	G	N9-C4	-5.11	1.33	1.38
25	CA	1795	C	N1-C6	-5.11	1.34	1.37
25	CA	680	C	N1-C6	-5.11	1.34	1.37
25	CA	1677	A	C5-C4	-5.11	1.35	1.38
25	CA	2241	A	N3-C4	-5.11	1.31	1.34
25	CA	1271	G	N9-C8	-5.10	1.34	1.37
25	DA	2407	A	N3-C4	5.10	1.38	1.34
25	CA	825	A	C5-C4	-5.10	1.35	1.38
25	CA	978	G	N9-C8	-5.10	1.34	1.37
25	CA	1142	A	C5-C6	-5.10	1.36	1.41
27	DC	247	TRP	CB-CG	-5.09	1.41	1.50
25	CA	1125	G	C6-N1	-5.09	1.35	1.39
25	CA	2722	G	C6-N1	-5.09	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	CA	590	A	N3-C4	-5.09	1.31	1.34
25	CA	745	G	C6-N1	-5.09	1.35	1.39
25	CA	1767	G	C2-N3	-5.09	1.28	1.32
25	DA	2048	G	N1-C2	-5.09	1.33	1.37
25	CA	1318	U	C2-N3	-5.08	1.34	1.37
25	CA	2047	C	N1-C6	-5.08	1.34	1.37
25	CA	689	A	C6-N1	-5.08	1.31	1.35
25	CA	1301	A	N7-C5	-5.08	1.36	1.39
25	CA	704	G	N9-C8	-5.08	1.34	1.37
25	DA	2442	C	N1-C2	-5.08	1.35	1.40
25	CA	2571	U	N1-C2	-5.08	1.33	1.38
25	CA	2598	A	N9-C4	-5.08	1.34	1.37
25	CA	1399	C	N1-C6	-5.08	1.34	1.37
25	CA	1784	A	C5-C6	-5.07	1.36	1.41
25	CA	751	A	N7-C5	-5.07	1.36	1.39
1	BA	116	A	N9-C4	-5.07	1.34	1.37
25	CA	735	A	C6-N1	-5.07	1.32	1.35
25	CA	122	G	C5-C4	-5.06	1.34	1.38
25	CA	1009	A	N7-C5	-5.06	1.36	1.39
25	CA	409	G	N3-C4	-5.06	1.31	1.35
25	CA	2864	G	N1-C2	-5.06	1.33	1.37
26	CB	82	U	N1-C2	-5.06	1.33	1.38
25	DA	509	C	N1-C6	-5.06	1.34	1.37
25	CA	1770	G	N9-C8	-5.06	1.34	1.37
25	CA	2595	G	N3-C4	-5.06	1.31	1.35
25	CA	17	G	N9-C4	-5.05	1.33	1.38
25	CA	575	A	C5-C4	-5.05	1.35	1.38
25	CA	222	A	N3-C4	-5.05	1.31	1.34
25	CA	1031	G	N1-C2	-5.05	1.33	1.37
25	CA	2723	C	N3-C4	-5.05	1.30	1.33
25	CA	552	U	N1-C2	-5.05	1.34	1.38
25	CA	2838	G	N9-C4	-5.05	1.33	1.38
25	CA	1226	A	N3-C4	-5.04	1.31	1.34
25	CA	2254	C	N1-C2	-5.04	1.35	1.40
25	CA	2599	G	N7-C5	-5.04	1.36	1.39
25	CA	2364	C	N1-C2	-5.04	1.35	1.40
1	BA	1105	A	N9-C4	5.04	1.40	1.37
25	CA	1661	G	N1-C2	-5.04	1.33	1.37
25	CA	2021	C	P-O5'	-5.04	1.54	1.59
25	CA	777	G	N7-C5	-5.04	1.36	1.39
25	CA	2045	C	C2-N3	-5.04	1.31	1.35
25	CA	1188	U	N1-C2	-5.03	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	CA	17	G	C2-N3	-5.03	1.28	1.32
25	CA	1163	G	C5-C4	-5.03	1.34	1.38
25	DA	2053	G	C6-N1	-5.03	1.36	1.39
25	CA	591	U	C2-N3	-5.03	1.34	1.37
25	CA	1294	U	N1-C6	-5.03	1.33	1.38
25	CA	666	A	C6-N1	-5.03	1.32	1.35
25	CA	2802	G	N9-C4	-5.02	1.33	1.38
1	BA	1514	G	C6-N1	-5.02	1.36	1.39
25	CA	2598	A	N3-C4	-5.02	1.31	1.34
25	CA	675	A	N3-C4	-5.02	1.31	1.34
25	CA	2894	G	N9-C4	-5.02	1.33	1.38
25	CA	2523	G	C5-C6	-5.01	1.37	1.42
25	CA	784	G	P-O5'	-5.01	1.54	1.59
25	CA	409	G	C6-N1	-5.01	1.36	1.39
25	CA	917	A	N7-C5	-5.01	1.36	1.39
25	DA	2250	G	N9-C8	5.01	1.41	1.37
25	CA	739	A	N3-C4	-5.01	1.31	1.34
35	CK	92	GLU	CB-CG	5.01	1.61	1.52
25	DA	975	A	N9-C4	-5.01	1.34	1.37
25	CA	2047	C	C2-O2	-5.01	1.20	1.24
25	CA	382	A	C5-C6	-5.00	1.36	1.41
25	CA	575	A	C6-N6	-5.00	1.29	1.33
25	CA	690	G	N3-C4	-5.00	1.31	1.35
25	CA	2530	A	C5-C6	-5.00	1.36	1.41
25	CA	784	G	N7-C5	-5.00	1.36	1.39
25	CA	792	A	N7-C5	-5.00	1.36	1.39
25	CA	2498	C	N1-C6	-5.00	1.34	1.37
25	DA	1214	A	N9-C4	-5.00	1.34	1.37

All (4150) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	984	A	C2-N3-C4	-18.86	101.17	110.60
25	CA	2250	G	N3-C4-C5	17.23	137.22	128.60
25	CA	1638	C	N1-C2-O2	-16.64	108.92	118.90
25	CA	1142	A	C2-N3-C4	-16.61	102.29	110.60
25	CA	1142	A	N3-C4-C5	16.11	138.07	126.80
25	CA	984	A	N1-C6-N6	15.63	127.98	118.60
25	CA	1452	G	C4-C5-N7	15.46	116.98	110.80
25	DA	974	G	C4-C5-N7	15.43	116.97	110.80
25	CA	974	G	C5-N7-C8	-15.28	96.66	104.30
25	CA	1452	G	N1-C6-O6	15.19	129.01	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	2250	G	C2-N3-C4	-15.17	104.31	111.90
25	CA	752	A	C6-C5-N7	-15.15	121.70	132.30
25	CA	974	G	C4-C5-N7	15.10	116.84	110.80
25	CA	984	A	N3-C4-C5	14.97	137.28	126.80
25	CA	752	A	N1-C6-N6	14.67	127.40	118.60
25	CA	1142	A	N3-C4-N9	-14.48	115.81	127.40
25	DA	974	G	C5-N7-C8	-13.99	97.30	104.30
25	DA	1164	C	N1-C2-O2	-13.99	110.50	118.90
25	CA	974	G	N3-C4-C5	13.68	135.44	128.60
1	BA	245	U	C2-N1-C1'	-13.58	101.40	117.70
25	CA	1452	G	C5-N7-C8	-13.48	97.56	104.30
25	CA	1452	G	C6-C5-N7	-13.44	122.34	130.40
25	DA	984	A	C2-N3-C4	-13.34	103.93	110.60
25	CA	1452	G	C2-N3-C4	-13.22	105.29	111.90
25	CA	2250	G	N3-C4-N9	-13.20	118.08	126.00
25	DA	783	A	C5-N7-C8	-13.04	97.38	103.90
25	CA	752	A	C5-N7-C8	-12.86	97.47	103.90
25	CA	2250	G	C5-N7-C8	-12.78	97.91	104.30
28	CD	151	THR	C-N-CD	-12.63	92.82	120.60
25	CA	528	A	C6-C5-N7	-12.45	123.58	132.30
25	DA	974	G	N7-C8-N9	12.38	119.29	113.10
25	DA	1142	A	C2-N3-C4	-12.33	104.43	110.60
25	CA	752	A	C4-C5-N7	12.31	116.85	110.70
25	DA	783	A	C4-C5-N7	12.30	116.85	110.70
25	CA	783	A	C5-N7-C8	-12.28	97.76	103.90
25	CA	1779	U	C5-C4-O4	12.02	133.11	125.90
25	CA	2250	G	C4-C5-N7	11.98	115.59	110.80
25	CA	528	A	N7-C8-N9	11.88	119.74	113.80
25	CA	337	C	C6-N1-C2	11.86	125.04	120.30
25	CA	783	A	C4-C5-N7	11.75	116.57	110.70
25	DA	974	G	C6-C5-N7	-11.69	123.39	130.40
25	CA	1396	U	N3-C4-O4	-11.67	111.23	119.40
25	DA	660	C	C6-N1-C2	11.67	124.97	120.30
25	CA	2830	C	N1-C2-O2	-11.56	111.97	118.90
25	CA	1452	G	N3-C4-C5	11.49	134.34	128.60
25	CA	1547	C	N1-C2-O2	-11.48	112.01	118.90
25	DA	783	A	N1-C6-N6	11.30	125.38	118.60
25	DA	2594	C	N1-C2-O2	-11.30	112.12	118.90
25	DA	1936	A	C2-N3-C4	-11.25	104.97	110.60
25	CA	1319	C	C6-N1-C2	11.21	124.79	120.30
25	DA	253	C	N1-C2-O2	-11.18	112.19	118.90
25	CA	528	A	N1-C6-N6	11.16	125.30	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	CB	19	C	C6-N1-C2	11.15	124.76	120.30
25	CA	2364	C	C6-N1-C2	11.09	124.73	120.30
25	CA	528	A	C8-N9-C4	-11.01	101.39	105.80
25	CA	974	G	N3-C4-N9	-10.93	119.44	126.00
25	CA	1989	G	C5-C6-O6	-10.86	122.08	128.60
25	CA	1779	U	N3-C4-O4	-10.86	111.80	119.40
25	CA	1936	A	C2-N3-C4	-10.82	105.19	110.60
25	DA	2689	U	C5-C4-O4	10.80	132.38	125.90
25	CA	783	A	N1-C6-N6	10.76	125.06	118.60
25	CA	1547	C	N3-C2-O2	10.73	129.41	121.90
25	CA	2866	U	N3-C2-O2	-10.72	114.69	122.20
1	AA	1499	A	C8-N9-C4	10.69	110.08	105.80
25	DA	974	G	N1-C6-O6	10.60	126.26	119.90
25	CA	2286	G	C4-C5-N7	10.58	115.03	110.80
25	CA	342	A	N1-C6-N6	10.57	124.94	118.60
1	AA	245	U	C2-N1-C1'	-10.57	105.02	117.70
25	DA	2689	U	N3-C4-O4	-10.57	112.00	119.40
25	CA	528	A	C5-N7-C8	-10.53	98.64	103.90
25	CA	984	A	C5-C6-N1	-10.52	112.44	117.70
25	CA	974	G	N7-C8-N9	10.49	118.35	113.10
25	CA	984	A	C4-C5-N7	10.49	115.95	110.70
25	CA	1936	A	C5-N7-C8	-10.48	98.66	103.90
25	CA	444	C	N1-C2-O2	-10.46	112.62	118.90
25	DA	984	A	N3-C4-C5	10.43	134.10	126.80
25	CA	1142	A	C5-N7-C8	-10.42	98.69	103.90
25	CA	1311	G	N3-C4-C5	10.40	133.80	128.60
25	CA	1463	C	N1-C2-O2	-10.39	112.67	118.90
25	CA	752	A	C5-C6-N6	-10.36	115.41	123.70
25	CA	672	C	N3-C4-C5	-10.35	117.76	121.90
25	CA	2689	U	N3-C2-O2	-10.35	114.96	122.20
25	CA	332	A	N1-C6-N6	-10.34	112.39	118.60
1	BA	283	U	C2-N1-C1'	10.34	130.10	117.70
1	AA	1524	C	N1-C2-O2	-10.32	112.71	118.90
25	DA	129	C	C6-N1-C2	10.30	124.42	120.30
1	BA	245	U	C6-N1-C1'	10.30	135.62	121.20
25	CA	752	A	N7-C8-N9	10.29	118.94	113.80
25	CA	1779	U	N1-C2-N3	10.27	121.06	114.90
25	CA	914	G	N3-C4-C5	10.24	133.72	128.60
25	CA	528	A	C4-C5-C6	10.21	122.11	117.00
1	BA	677	U	N3-C2-O2	-10.19	115.07	122.20
25	CA	2286	G	C2-N3-C4	-10.19	106.81	111.90
25	CA	2286	G	N3-C4-C5	10.17	133.69	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	1325	U	C2-N1-C1'	-10.11	105.56	117.70
25	CA	984	A	C5-N7-C8	-10.11	98.84	103.90
25	CA	2286	G	C5-N7-C8	-10.10	99.25	104.30
25	CA	2275	C	C6-N1-C2	-10.09	116.26	120.30
25	CA	2820	A	C8-N9-C4	10.08	109.83	105.80
25	CA	984	A	N3-C4-N9	-10.07	119.34	127.40
25	CA	446	G	C5-C6-O6	-10.06	122.56	128.60
25	CA	1351	C	N1-C2-O2	-10.06	112.87	118.90
25	CA	1212	G	C8-N9-C4	10.02	110.41	106.40
1	BA	713	G	N1-C6-O6	-10.01	113.89	119.90
25	CA	528	A	N1-C2-N3	10.01	134.30	129.30
25	CA	2232	C	N1-C2-O2	-9.98	112.91	118.90
25	CA	1990	C	C6-N1-C2	-9.98	116.31	120.30
26	CB	114	C	C6-N1-C2	9.96	124.28	120.30
25	CA	483	A	C8-N9-C4	9.95	109.78	105.80
25	CA	993	G	N1-C6-O6	-9.93	113.94	119.90
25	CA	752	A	C4-N9-C1'	9.91	144.15	126.30
25	CA	1756	G	C5-C6-O6	-9.88	122.67	128.60
25	CA	1971	U	C5-C4-O4	-9.87	119.98	125.90
25	CA	550	C	C2-N1-C1'	9.85	129.63	118.80
28	DD	151	THR	C-N-CD	-9.82	98.99	120.60
25	DA	528	A	C2-N3-C4	-9.80	105.70	110.60
25	CA	979	A	N1-C6-N6	9.78	124.47	118.60
25	CA	784	G	C4-N9-C1'	9.71	139.13	126.50
25	CA	2031	A	C8-N9-C4	-9.71	101.92	105.80
25	CA	784	G	C8-N9-C1'	-9.69	114.40	127.00
25	CA	2840	C	N3-C4-C5	9.69	125.78	121.90
25	CA	1301	A	N1-C6-N6	9.67	124.40	118.60
25	DA	2286	G	N3-C4-C5	9.66	133.43	128.60
25	CA	555	G	C8-N9-C1'	-9.64	114.47	127.00
25	CA	1289	C	N3-C4-C5	9.62	125.75	121.90
25	DA	2532	G	N1-C6-O6	9.61	125.67	119.90
25	DA	2884	U	N1-C2-O2	-9.61	116.08	122.80
25	DA	2226	C	C2-N3-C4	-9.60	115.10	119.90
25	CA	2254	C	N1-C2-O2	-9.57	113.16	118.90
25	CA	817	C	N1-C2-O2	-9.57	113.16	118.90
25	CA	1988	G	N1-C6-O6	9.56	125.64	119.90
25	DA	979	A	N1-C6-N6	-9.56	112.86	118.60
25	CA	906	U	C2-N1-C1'	-9.54	106.25	117.70
25	CA	726	G	C6-C5-N7	-9.52	124.69	130.40
25	CA	974	G	C2-N3-C4	-9.50	107.15	111.90
25	CA	1220	G	C5-C6-O6	9.49	134.29	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	690	G	C8-N9-C4	9.48	110.19	106.40
25	DA	2226	C	N3-C4-C5	9.48	125.69	121.90
25	DA	2564	A	C8-N9-C4	-9.47	102.01	105.80
25	DA	528	A	C5-N7-C8	-9.46	99.17	103.90
25	DA	2686	G	C8-N9-C4	-9.44	102.62	106.40
25	CA	1311	G	C5-N7-C8	-9.40	99.60	104.30
25	DA	822	G	N3-C4-C5	9.37	133.29	128.60
25	DA	2841	C	C6-N1-C2	9.36	124.04	120.30
1	AA	283	U	C2-N1-C1'	9.35	128.92	117.70
25	CA	2820	A	N9-C4-C5	-9.32	102.07	105.80
1	BA	136	C	C6-N1-C2	9.31	124.02	120.30
1	AA	794	A	N1-C6-N6	-9.29	113.03	118.60
1	BA	691	G	N1-C6-O6	-9.29	114.33	119.90
1	BA	335	C	C6-N1-C2	-9.27	116.59	120.30
25	DA	1452	G	C2-N3-C4	-9.27	107.27	111.90
1	AA	1513	A	C8-N9-C4	9.26	109.50	105.80
25	DA	1653	G	C6-C5-N7	-9.24	124.86	130.40
25	CA	2762	C	C6-N1-C2	9.23	123.99	120.30
25	CA	733	G	C5-C6-O6	-9.21	123.07	128.60
25	CA	482	A	N1-C6-N6	9.21	124.13	118.60
25	DA	1278	C	C6-N1-C2	9.21	123.98	120.30
25	DA	1452	G	N3-C4-C5	9.20	133.20	128.60
25	CA	2771	C	N1-C2-O2	-9.19	113.39	118.90
25	CA	2689	U	N3-C4-O4	-9.17	112.98	119.40
1	AA	332	G	C8-N9-C4	9.17	110.07	106.40
1	BA	677	U	C2-N1-C1'	9.13	128.66	117.70
25	CA	528	A	C2-N3-C4	-9.12	106.04	110.60
1	BA	910	C	C6-N1-C2	-9.12	116.65	120.30
25	CA	2820	A	N1-C6-N6	9.10	124.06	118.60
25	CA	1249	U	N1-C2-O2	-9.09	116.44	122.80
25	DA	809	G	N9-C4-C5	9.09	109.04	105.40
22	AV	31	A	C8-N9-C4	9.09	109.43	105.80
25	CA	2295	C	N1-C2-O2	-9.05	113.47	118.90
25	DA	394	C	C6-N1-C2	9.05	123.92	120.30
25	CA	1315	C	N1-C2-O2	-9.01	113.50	118.90
25	CA	1779	U	C5-C6-N1	-9.01	118.20	122.70
25	CA	1572	A	N9-C4-C5	9.00	109.40	105.80
25	CA	2838	G	C8-N9-C4	9.00	110.00	106.40
1	BA	322	C	N3-C4-C5	8.98	125.49	121.90
25	CA	567	U	N1-C2-O2	-8.98	116.52	122.80
25	DA	424	G	N3-C4-C5	8.98	133.09	128.60
25	CA	1837	C	N1-C2-O2	-8.97	113.52	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	BA	677	U	C6-N1-C2	-8.97	115.62	121.00
25	CA	1936	A	C5-C6-N1	-8.96	113.22	117.70
25	DA	2811	G	N3-C4-C5	8.95	133.07	128.60
25	CA	598	U	C2-N1-C1'	-8.94	106.98	117.70
25	DA	488	G	N3-C4-N9	8.93	131.36	126.00
25	DA	2354	C	N1-C2-O2	-8.92	113.55	118.90
25	CA	1224	U	C2-N1-C1'	-8.91	107.00	117.70
25	DA	974	G	C8-N9-C4	-8.91	102.84	106.40
25	CA	1612	C	N1-C2-O2	-8.90	113.56	118.90
25	CA	752	A	C4-C5-C6	8.89	121.45	117.00
25	CA	992	C	N1-C2-O2	-8.89	113.56	118.90
25	DA	1142	A	C5-C6-N1	-8.89	113.25	117.70
25	CA	1638	C	N3-C2-O2	8.89	128.12	121.90
25	DA	1796	U	C6-N1-C2	8.89	126.33	121.00
25	CA	1756	G	N1-C6-O6	8.87	125.22	119.90
25	CA	1452	G	C5-C6-O6	-8.87	123.28	128.60
25	CA	332	A	N9-C4-C5	8.86	109.34	105.80
25	DA	1761	C	N1-C2-O2	-8.86	113.58	118.90
25	CA	237	C	N1-C2-O2	-8.85	113.59	118.90
25	CA	821	A	C8-N9-C4	8.84	109.34	105.80
25	DA	1939	U	C5-C4-O4	-8.84	120.60	125.90
25	CA	456	C	N1-C2-O2	-8.83	113.60	118.90
25	CA	1396	U	C5-C4-O4	8.83	131.20	125.90
25	DA	526	A	N9-C4-C5	8.83	109.33	105.80
25	DA	1423	G	C8-N9-C4	8.82	109.93	106.40
25	CA	2621	G	N9-C4-C5	8.82	108.93	105.40
1	AA	1457	G	C8-N9-C4	8.81	109.92	106.40
25	DA	826	U	N1-C2-O2	-8.80	116.64	122.80
25	DA	2521	C	N1-C2-O2	-8.80	113.62	118.90
25	CA	1936	A	N1-C6-N6	8.79	123.88	118.60
25	DA	787	C	N1-C2-O2	-8.79	113.62	118.90
25	DA	22	C	N3-C2-O2	-8.79	115.75	121.90
25	CA	1311	G	N1-C6-O6	8.78	125.17	119.90
25	CA	1319	C	N3-C2-O2	8.78	128.05	121.90
25	CA	807	U	C5-C4-O4	-8.78	120.63	125.90
25	CA	1573	G	N1-C6-O6	8.78	125.17	119.90
25	CA	63	A	N1-C6-N6	-8.76	113.34	118.60
25	CA	1985	C	N1-C2-O2	-8.76	113.64	118.90
25	DA	210	C	C6-N1-C2	8.75	123.80	120.30
25	CA	1612	C	N3-C2-O2	8.74	128.02	121.90
25	CA	675	A	C8-N9-C4	-8.74	102.31	105.80
25	CA	555	G	N3-C4-N9	8.73	131.24	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	713	G	N1-C6-O6	-8.73	114.66	119.90
25	CA	2067	G	C5-C6-O6	-8.72	123.37	128.60
25	DA	376	G	N1-C6-O6	8.71	125.13	119.90
25	CA	1804	C	N3-C4-C5	8.71	125.38	121.90
25	DA	2448	A	N1-C6-N6	8.68	123.81	118.60
25	CA	1793	C	C6-N1-C2	8.67	123.77	120.30
25	CA	2462	C	N1-C2-O2	-8.67	113.70	118.90
25	DA	2626	C	C6-N1-C2	8.67	123.77	120.30
25	CA	812	C	N1-C2-O2	-8.66	113.70	118.90
25	CA	2293	G	N1-C6-O6	-8.65	114.71	119.90
1	BA	176	C	C6-N1-C2	8.65	123.76	120.30
25	DA	16	C	N1-C2-O2	-8.64	113.72	118.90
25	CA	1660	G	C4-C5-N7	-8.62	107.35	110.80
25	DA	1325	U	N3-C2-O2	8.62	128.24	122.20
25	DA	2709	G	N3-C4-C5	8.61	132.91	128.60
25	CA	2090	A	N1-C6-N6	-8.61	113.43	118.60
25	CA	1808	A	N1-C6-N6	8.61	123.76	118.60
25	DA	2049	G	N3-C4-N9	8.60	131.16	126.00
25	DA	417	C	C6-N1-C2	-8.59	116.86	120.30
26	CB	8	C	C6-N1-C2	8.59	123.74	120.30
1	AA	796	C	N1-C2-O2	8.56	124.03	118.90
25	DA	2445	G	C5-C6-O6	-8.55	123.47	128.60
25	CA	2351	G	C6-C5-N7	-8.53	125.28	130.40
1	BA	846	G	N3-C4-C5	-8.52	124.34	128.60
25	DA	2261	C	N1-C2-O2	-8.52	113.79	118.90
25	DA	329	G	N1-C6-O6	-8.52	114.79	119.90
25	CA	2551	C	N1-C2-O2	-8.51	113.80	118.90
25	CA	221	A	C2-N3-C4	-8.51	106.35	110.60
1	BA	1484	C	C6-N1-C2	8.50	123.70	120.30
25	DA	528	A	N1-C6-N6	8.50	123.70	118.60
25	DA	2677	G	N9-C4-C5	8.50	108.80	105.40
25	CA	555	G	N9-C4-C5	-8.49	102.00	105.40
25	DA	2046	G	C8-N9-C4	8.49	109.80	106.40
25	CA	1335	C	N1-C2-O2	-8.48	113.81	118.90
25	CA	1556	C	N1-C2-O2	-8.46	113.82	118.90
25	CA	2598	A	N9-C4-C5	8.46	109.18	105.80
25	CA	1122	G	C5-C6-O6	8.46	133.67	128.60
25	CA	974	G	C8-N9-C4	-8.46	103.02	106.40
25	CA	208	C	C6-N1-C2	8.45	123.68	120.30
25	DA	2049	G	N3-C4-C5	-8.45	124.38	128.60
25	CA	2059	A	N1-C6-N6	8.44	123.67	118.60
26	CB	61	G	C8-N9-C4	8.44	109.78	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	501	A	C2-N3-C4	-8.44	106.38	110.60
25	DA	974	G	C5-C6-O6	-8.44	123.54	128.60
25	CA	1779	U	N3-C2-O2	-8.43	116.30	122.20
25	CA	1936	A	C8-N9-C4	-8.42	102.43	105.80
25	DA	984	A	N1-C6-N6	8.42	123.65	118.60
25	CA	1311	G	C4-C5-N7	8.39	114.16	110.80
25	CA	2553	G	N3-C4-N9	8.38	131.03	126.00
25	CA	1936	A	N7-C8-N9	8.37	117.98	113.80
25	CA	1564	C	N1-C2-O2	-8.37	113.88	118.90
25	CA	1311	G	C2-N3-C4	-8.36	107.72	111.90
25	CA	2277	G	N1-C6-O6	-8.36	114.88	119.90
25	CA	425	G	C5-C6-O6	-8.36	123.58	128.60
25	CA	2416	C	C6-N1-C2	-8.34	116.96	120.30
25	CA	1142	A	C5-C6-N1	-8.33	113.53	117.70
25	DA	783	A	N7-C8-N9	8.31	117.96	113.80
25	CA	446	G	N1-C6-O6	8.31	124.89	119.90
25	DA	22	C	C6-N1-C2	-8.31	116.98	120.30
25	CA	1378	A	N1-C6-N6	-8.31	113.62	118.60
25	CA	1437	C	N1-C2-O2	-8.31	113.92	118.90
25	DA	1646	C	C2-N1-C1'	-8.30	109.67	118.80
25	CA	1685	C	C6-N1-C2	8.28	123.61	120.30
25	DA	1676	A	C8-N9-C4	8.28	109.11	105.80
25	CA	2820	A	C2-N3-C4	-8.26	106.47	110.60
25	CA	1617	C	C6-N1-C2	8.25	123.60	120.30
25	CA	2147	A	N1-C6-N6	8.23	123.54	118.60
25	CA	752	A	C8-N9-C1'	-8.22	112.90	127.70
25	CA	2081	U	N1-C2-O2	-8.22	117.04	122.80
25	DA	871	U	C2-N1-C1'	-8.22	107.83	117.70
25	CA	2745	C	C6-N1-C2	8.22	123.59	120.30
25	DA	1936	A	C4-C5-N7	8.21	114.81	110.70
25	DA	2226	C	C5-C6-N1	-8.21	116.90	121.00
25	DA	814	C	C6-N1-C2	-8.20	117.02	120.30
1	BA	109	A	C2-N3-C4	-8.20	106.50	110.60
25	CA	90	U	N3-C2-O2	-8.20	116.46	122.20
25	DA	2885	G	C5-C6-O6	8.18	133.51	128.60
25	CA	1340	U	C5-C4-O4	8.18	130.81	125.90
25	CA	8	C	N1-C2-O2	-8.17	114.00	118.90
25	DA	2848	G	C4-C5-N7	-8.17	107.53	110.80
25	DA	1764	C	N1-C2-O2	-8.14	114.02	118.90
25	DA	732	C	N1-C2-O2	-8.14	114.02	118.90
25	DA	2226	C	N3-C4-N4	-8.13	112.31	118.00
25	CA	2745	C	N3-C4-C5	8.12	125.15	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	647	G	C8-N9-C4	8.12	109.65	106.40
25	DA	528	A	C5-C6-N1	-8.11	113.64	117.70
25	DA	574	A	C8-N9-C4	8.11	109.04	105.80
25	CA	1357	C	N3-C4-C5	8.10	125.14	121.90
25	DA	2250	G	C5-N7-C8	-8.10	100.25	104.30
25	CA	508	A	C8-N9-C4	8.10	109.04	105.80
25	DA	2434	A	N1-C6-N6	8.10	123.46	118.60
25	CA	516	C	N1-C2-O2	-8.09	114.05	118.90
25	CA	2512	C	N1-C2-O2	-8.08	114.05	118.90
25	DA	2876	G	C8-N9-C4	8.07	109.63	106.40
25	CA	935	C	N1-C2-O2	-8.07	114.06	118.90
25	CA	552	U	N1-C2-O2	-8.06	117.16	122.80
25	CA	1595	C	C6-N1-C2	8.06	123.52	120.30
25	CA	223	A	N9-C4-C5	8.06	109.02	105.80
25	CA	371	A	C8-N9-C4	8.05	109.02	105.80
25	CA	2177	C	N3-C2-O2	-8.05	116.27	121.90
25	CA	908	C	N1-C2-O2	-8.05	114.07	118.90
25	DA	22	C	C2-N1-C1'	8.04	127.64	118.80
25	DA	1941	C	N1-C2-O2	-8.04	114.08	118.90
25	CA	239	C	C6-N1-C2	8.04	123.52	120.30
1	BA	365	U	C5-C6-N1	-8.04	118.68	122.70
25	CA	919	U	N1-C2-O2	8.04	128.43	122.80
25	CA	2177	C	N1-C2-O2	8.04	123.72	118.90
25	CA	748	G	C4-C5-N7	-8.02	107.59	110.80
1	AA	1484	C	N1-C2-O2	-8.02	114.09	118.90
25	CA	2699	C	C6-N1-C2	8.02	123.51	120.30
25	CA	2523	G	N9-C4-C5	-8.01	102.20	105.40
25	DA	2885	G	N3-C4-C5	-8.01	124.60	128.60
25	CA	676	A	N1-C6-N6	-8.00	113.80	118.60
25	CA	2031	A	N9-C4-C5	8.00	109.00	105.80
25	CA	1437	C	N3-C2-O2	8.00	127.50	121.90
25	CA	2069	G	N3-C4-C5	8.00	132.60	128.60
25	CA	2896	C	N3-C2-O2	-7.99	116.31	121.90
25	DA	1298	C	C6-N1-C2	7.98	123.49	120.30
25	CA	2278	A	N1-C6-N6	7.97	123.38	118.60
25	DA	1142	A	N1-C6-N6	7.96	123.38	118.60
25	CA	1892	C	N1-C2-O2	-7.96	114.13	118.90
26	CB	15	A	C2-N3-C4	-7.96	106.62	110.60
25	CA	997	G	N3-C4-N9	-7.95	121.23	126.00
25	CA	2621	G	C5-C6-O6	7.95	133.37	128.60
25	CA	2032	G	C8-N9-C4	7.95	109.58	106.40
1	AA	71	A	N1-C6-N6	7.94	123.37	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	BA	691	G	C5-C6-O6	7.94	133.37	128.60
25	DA	984	A	N3-C4-N9	-7.94	121.05	127.40
25	CA	1519	G	C4-C5-N7	-7.94	107.62	110.80
25	CA	2067	G	C4-C5-N7	7.94	113.97	110.80
25	CA	1325	U	C5-C4-O4	7.93	130.66	125.90
25	DA	2503	A	N1-C6-N6	7.93	123.36	118.60
1	BA	1482	G	N3-C4-N9	7.93	130.76	126.00
25	CA	930	G	C4-C5-N7	-7.93	107.63	110.80
25	CA	2447	G	N9-C4-C5	-7.92	102.23	105.40
25	CA	1220	G	N1-C6-O6	-7.92	115.15	119.90
25	DA	826	U	N3-C2-O2	7.91	127.74	122.20
25	CA	2616	C	C6-N1-C2	7.90	123.46	120.30
25	DA	238	C	N1-C2-O2	-7.90	114.16	118.90
25	DA	15	G	C2-N3-C4	-7.90	107.95	111.90
25	CA	942	G	C5-C6-O6	7.89	133.34	128.60
25	CA	2896	C	C2-N1-C1'	7.89	127.48	118.80
25	CA	1804	C	C6-N1-C2	7.89	123.45	120.30
25	CA	2422	C	N1-C2-O2	-7.89	114.17	118.90
26	CB	47	C	N1-C2-O2	-7.89	114.17	118.90
25	DA	2282	G	N1-C6-O6	-7.89	115.17	119.90
25	CA	1013	C	N1-C2-O2	-7.88	114.17	118.90
25	CA	1389	G	C5-C6-O6	-7.88	123.88	128.60
25	DA	823	C	C5-C4-N4	-7.88	114.69	120.20
1	BA	926	G	C5-C6-O6	7.87	133.32	128.60
25	CA	2691	C	N3-C4-C5	7.87	125.05	121.90
25	CA	1022	G	N3-C4-N9	-7.87	121.28	126.00
25	CA	2320	U	C5-C4-O4	7.86	130.61	125.90
25	CA	1212	G	N9-C4-C5	-7.85	102.26	105.40
25	DA	2677	G	C6-C5-N7	7.85	135.11	130.40
22	AV	4	C	N1-C2-O2	-7.84	114.19	118.90
25	CA	1660	G	N9-C4-C5	7.84	108.54	105.40
25	CA	984	A	C6-N1-C2	7.84	123.30	118.60
25	CA	1265	A	C6-N1-C2	-7.84	113.90	118.60
25	CA	988	A	C5-C6-N1	-7.83	113.78	117.70
25	CA	2699	C	C2-N1-C1'	-7.83	110.19	118.80
25	CA	2286	G	C6-C5-N7	-7.83	125.70	130.40
25	CA	2289	G	C5-C6-O6	7.82	133.29	128.60
25	CA	801	G	N9-C4-C5	7.81	108.53	105.40
25	CA	205	G	N1-C6-O6	-7.81	115.21	119.90
26	CB	75	G	N1-C6-O6	-7.81	115.22	119.90
25	CA	1328	A	C2-N3-C4	-7.80	106.70	110.60
25	DA	1030	C	N3-C4-C5	7.80	125.02	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	984	A	C5-C6-N1	-7.80	113.80	117.70
25	CA	2289	G	N1-C6-O6	-7.80	115.22	119.90
25	DA	2885	G	C4-C5-N7	-7.79	107.68	110.80
25	CA	2067	G	C6-C5-N7	-7.79	125.73	130.40
25	CA	2760	C	C2-N1-C1'	-7.78	110.24	118.80
25	CA	754	U	C5-C4-O4	7.78	130.57	125.90
25	CA	2571	U	N1-C2-O2	-7.78	117.36	122.80
25	CA	1989	G	N1-C6-O6	7.77	124.56	119.90
25	CA	783	A	N7-C8-N9	7.77	117.68	113.80
26	CB	47	C	N3-C2-O2	7.77	127.34	121.90
25	DA	1904	G	C8-N9-C4	-7.76	103.29	106.40
25	DA	2226	C	C6-N1-C2	7.75	123.40	120.30
1	BA	297	G	N1-C6-O6	7.75	124.55	119.90
25	CA	626	A	N1-C6-N6	7.75	123.25	118.60
25	DA	974	G	C4-N9-C1'	7.75	136.58	126.50
25	CA	726	G	N1-C6-O6	7.75	124.55	119.90
25	DA	424	G	N3-C4-N9	-7.75	121.35	126.00
25	CA	11	C	N1-C2-O2	-7.75	114.25	118.90
25	CA	634	C	C5-C4-N4	-7.75	114.78	120.20
25	CA	2331	G	N3-C4-N9	7.75	130.65	126.00
25	CA	2468	A	N1-C6-N6	7.74	123.25	118.60
25	CA	1936	A	N3-C4-N9	-7.74	121.21	127.40
25	CA	2688	G	N3-C4-N9	-7.74	121.36	126.00
25	DA	1936	A	N1-C2-N3	7.73	133.16	129.30
25	CA	2853	C	N1-C2-O2	-7.73	114.26	118.90
25	CA	1133	A	C2-N3-C4	-7.72	106.74	110.60
25	CA	2447	G	N1-C6-O6	7.72	124.53	119.90
25	CA	1231	U	N3-C2-O2	7.72	127.60	122.20
25	CA	223	A	N1-C6-N6	-7.71	113.97	118.60
25	CA	341	C	C6-N1-C2	7.71	123.39	120.30
25	CA	1325	U	N3-C4-O4	-7.71	114.00	119.40
25	CA	1711	A	N1-C6-N6	-7.71	113.97	118.60
25	DA	1780	A	N1-C6-N6	7.71	123.22	118.60
25	CA	1519	G	N1-C6-O6	-7.70	115.28	119.90
25	DA	450	G	C5-C6-O6	7.70	133.22	128.60
16	AP	51	ARG	NE-CZ-NH1	7.70	124.15	120.30
25	CA	1436	G	N1-C6-O6	-7.70	115.28	119.90
25	CA	2840	C	C6-N1-C2	7.70	123.38	120.30
25	DA	862	G	N1-C6-O6	7.69	124.51	119.90
25	CA	1913	A	N1-C6-N6	7.68	123.21	118.60
25	CA	2682	A	N1-C6-N6	7.68	123.21	118.60
25	DA	1822	C	N1-C2-O2	-7.68	114.29	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	1158	C	N1-C2-O2	-7.68	114.29	118.90
25	DA	1936	A	N9-C4-C5	-7.68	102.73	105.80
25	DA	1936	A	C5-N7-C8	-7.67	100.06	103.90
1	AA	1422	G	C6-C5-N7	-7.67	125.80	130.40
25	DA	2502	G	N1-C6-O6	-7.67	115.30	119.90
25	CA	2121	G	N3-C4-C5	-7.67	124.77	128.60
25	CA	2721	A	C5-C6-N6	-7.67	117.57	123.70
25	DA	2250	G	N3-C4-N9	-7.67	121.40	126.00
25	CA	2500	U	N1-C2-O2	-7.67	117.44	122.80
1	AA	1063	C	N1-C2-O2	-7.66	114.30	118.90
25	CA	1663	G	C8-N9-C4	7.66	109.47	106.40
25	DA	1653	G	N3-C4-N9	7.66	130.59	126.00
1	BA	642	A	C8-N9-C4	7.66	108.86	105.80
25	CA	2523	G	C6-C5-N7	-7.65	125.81	130.40
1	AA	880	C	N1-C2-O2	-7.65	114.31	118.90
25	CA	336	C	N3-C2-O2	7.64	127.25	121.90
25	CA	311	A	N9-C4-C5	-7.64	102.74	105.80
1	BA	397	A	N1-C2-N3	7.64	133.12	129.30
25	CA	2799	A	N1-C6-N6	7.63	123.18	118.60
25	CA	1780	A	N1-C6-N6	7.63	123.18	118.60
25	CA	1757	A	C8-N9-C4	7.63	108.85	105.80
25	CA	2658	C	C2-N1-C1'	-7.63	110.41	118.80
25	DA	783	A	C6-C5-N7	-7.63	126.96	132.30
25	CA	1336	A	N1-C6-N6	-7.62	114.03	118.60
25	DA	378	C	C6-N1-C2	7.62	123.35	120.30
25	CA	1792	G	C8-N9-C4	7.62	109.45	106.40
25	CA	1064	C	C6-N1-C2	-7.61	117.25	120.30
25	CA	2762	C	C5-C6-N1	-7.61	117.20	121.00
25	CA	1394	U	N1-C2-N3	7.60	119.46	114.90
25	CA	93	G	C4-C5-N7	-7.60	107.76	110.80
25	DA	1838	C	C2-N1-C1'	-7.60	110.44	118.80
25	DA	2689	U	C2-N1-C1'	-7.60	108.58	117.70
25	DA	1164	C	N3-C2-O2	7.59	127.22	121.90
25	CA	783	A	C5-C6-N6	-7.59	117.62	123.70
25	DA	1954	G	C5-C6-O6	-7.59	124.05	128.60
25	DA	2461	A	C5-C6-N1	-7.59	113.91	117.70
25	DA	1311	G	C4-C5-N7	7.59	113.83	110.80
25	CA	1452	G	C5-C6-N1	-7.59	107.71	111.50
25	DA	801	G	C4-C5-N7	-7.58	107.77	110.80
25	CA	315	G	N1-C6-O6	7.58	124.45	119.90
25	DA	757	G	N3-C4-C5	7.57	132.39	128.60
25	CA	2271	G	N3-C4-N9	7.56	130.54	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	208	C	C2-N1-C1'	-7.55	110.49	118.80
25	CA	348	A	C8-N9-C4	7.55	108.82	105.80
25	DA	475	C	C6-N1-C2	-7.55	117.28	120.30
25	DA	784	G	N9-C4-C5	-7.55	102.38	105.40
1	BA	297	G	C2-N3-C4	-7.54	108.13	111.90
25	DA	660	C	C5-C6-N1	-7.54	117.23	121.00
25	CA	624	C	N1-C2-O2	-7.54	114.38	118.90
25	CA	2626	C	N1-C2-O2	-7.54	114.38	118.90
25	DA	2347	C	C2-N1-C1'	-7.54	110.51	118.80
1	BA	283	U	C6-N1-C2	-7.54	116.48	121.00
25	CA	1683	U	N1-C2-O2	-7.54	117.52	122.80
25	DA	1649	G	C5-C6-O6	7.54	133.12	128.60
25	DA	671	C	N1-C2-O2	-7.53	114.38	118.90
25	CA	1142	A	C6-N1-C2	7.53	123.12	118.60
25	DA	822	G	N1-C6-O6	7.52	124.41	119.90
25	DA	2540	C	C2-N1-C1'	-7.52	110.53	118.80
25	CA	2071	A	C2-N3-C4	-7.52	106.84	110.60
25	CA	311	A	N1-C6-N6	7.52	123.11	118.60
25	DA	757	G	C4-N9-C1'	-7.52	116.73	126.50
25	DA	2848	G	N9-C4-C5	7.52	108.41	105.40
25	CA	2447	G	C8-N9-C4	7.51	109.41	106.40
25	DA	765	C	N3-C4-C5	7.51	124.91	121.90
25	CA	1779	U	C2-N1-C1'	-7.51	108.69	117.70
25	CA	1780	A	C5-C6-N6	-7.51	117.69	123.70
25	CA	2866	U	C5-C4-O4	7.51	130.41	125.90
25	DA	1828	G	C5-C6-O6	7.51	133.11	128.60
1	BA	551	U	N1-C2-O2	-7.51	117.55	122.80
25	DA	1135	C	C6-N1-C2	7.50	123.30	120.30
25	DA	1340	U	C2-N1-C1'	7.50	126.70	117.70
25	CA	1563	U	C2-N1-C1'	-7.50	108.70	117.70
25	CA	1426	G	C6-C5-N7	-7.50	125.90	130.40
25	CA	1876	A	N1-C6-N6	-7.50	114.10	118.60
25	CA	124	G	C8-N9-C4	7.49	109.40	106.40
25	CA	210	C	C6-N1-C2	7.49	123.30	120.30
25	CA	1362	C	N1-C2-O2	-7.49	114.41	118.90
25	CA	2022	U	C5-C4-O4	-7.49	121.41	125.90
25	CA	2893	A	N1-C2-N3	7.49	133.04	129.30
25	DA	1649	G	N9-C4-C5	7.49	108.40	105.40
25	CA	458	G	N1-C6-O6	-7.49	115.41	119.90
1	AA	679	C	N1-C2-O2	7.48	123.39	118.90
25	CA	1045	C	N1-C2-O2	-7.48	114.41	118.90
25	CA	334	C	N1-C2-O2	-7.48	114.41	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	BA	503	C	N1-C2-O2	-7.48	114.41	118.90
25	CA	2678	C	C6-N1-C2	7.47	123.29	120.30
25	DA	1351	C	C6-N1-C2	7.47	123.29	120.30
1	BA	1226	C	C6-N1-C2	-7.47	117.31	120.30
1	AA	971	G	N3-C4-N9	-7.47	121.52	126.00
25	CA	97	C	N1-C2-O2	-7.47	114.42	118.90
1	BA	677	U	N1-C2-O2	7.46	128.02	122.80
25	CA	2803	G	N1-C6-O6	-7.46	115.42	119.90
25	DA	1950	G	C4-C5-N7	-7.46	107.82	110.80
25	CA	584	C	C6-N1-C2	7.46	123.28	120.30
25	CA	2884	U	C5-C4-O4	7.46	130.38	125.90
25	DA	2226	C	C2-N1-C1'	-7.46	110.60	118.80
25	DA	66	C	N1-C2-O2	-7.46	114.43	118.90
25	DA	682	G	C8-N9-C4	7.45	109.38	106.40
1	AA	1475	G	N1-C6-O6	7.45	124.37	119.90
25	CA	1426	G	C5-C6-O6	-7.45	124.13	128.60
1	BA	1482	G	N3-C4-C5	-7.45	124.88	128.60
25	CA	2227	A	N1-C6-N6	-7.45	114.13	118.60
25	DA	672	C	N1-C2-O2	-7.44	114.43	118.90
25	CA	208	C	N1-C2-O2	-7.44	114.44	118.90
1	BA	705	G	C5-C6-O6	7.44	133.06	128.60
25	DA	1970	A	C8-N9-C4	-7.44	102.83	105.80
25	CA	1209	U	N1-C2-O2	-7.43	117.59	122.80
25	CA	1315	C	C2-N3-C4	-7.43	116.18	119.90
25	CA	111	A	C2-N3-C4	-7.43	106.88	110.60
25	DA	1964	G	N3-C4-C5	-7.43	124.89	128.60
25	CA	2426	A	C8-N9-C4	-7.42	102.83	105.80
25	CA	1108	U	N1-C2-O2	-7.42	117.61	122.80
25	CA	2541	A	C8-N9-C4	7.41	108.77	105.80
25	DA	1649	G	C8-N9-C4	-7.41	103.44	106.40
25	CA	2155	U	N3-C2-O2	-7.41	117.02	122.20
25	CA	2591	C	N1-C2-O2	-7.40	114.46	118.90
25	CA	2067	G	N1-C6-O6	7.40	124.34	119.90
25	CA	2534	A	N9-C4-C5	-7.39	102.84	105.80
25	CA	1989	G	N9-C4-C5	-7.39	102.44	105.40
25	DA	442	G	N1-C6-O6	-7.39	115.47	119.90
25	CA	1640	A	C8-N9-C4	-7.39	102.84	105.80
25	CA	1727	C	C6-N1-C2	-7.39	117.34	120.30
1	BA	823	C	N1-C2-O2	-7.38	114.47	118.90
25	CA	1758	U	N1-C2-N3	7.37	119.33	114.90
25	CA	974	G	C6-C5-N7	-7.37	125.98	130.40
25	CA	2375	G	C5-C6-O6	-7.36	124.18	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	2067	G	N9-C4-C5	-7.36	102.45	105.40
25	CA	555	G	C4-N9-C1'	7.36	136.06	126.50
25	DA	1163	G	C5-C6-O6	-7.35	124.19	128.60
25	CA	2534	A	N1-C6-N6	7.35	123.01	118.60
25	DA	967	U	C5-C4-O4	7.35	130.31	125.90
25	CA	971	G	C2-N3-C4	7.35	115.57	111.90
25	DA	308	G	N3-C4-N9	7.35	130.41	126.00
25	CA	1950	G	C5-C6-O6	-7.34	124.19	128.60
25	CA	2068	U	N1-C2-O2	-7.34	117.66	122.80
25	DA	1239	G	N1-C6-O6	-7.34	115.49	119.90
25	DA	1681	G	N9-C4-C5	-7.34	102.46	105.40
25	CA	2351	G	N1-C6-O6	7.33	124.30	119.90
25	DA	801	G	N1-C6-O6	-7.33	115.50	119.90
25	CA	1043	C	C6-N1-C2	7.32	123.23	120.30
25	DA	2885	G	N1-C6-O6	-7.32	115.51	119.90
25	DA	394	C	N3-C2-O2	7.32	127.02	121.90
25	CA	901	C	C6-N1-C2	7.32	123.23	120.30
25	CA	555	G	N3-C2-N2	7.32	125.02	119.90
25	DA	1192	G	C8-N9-C4	7.31	109.33	106.40
25	DA	823	C	N3-C4-N4	7.31	123.12	118.00
25	CA	425	G	N1-C6-O6	7.31	124.28	119.90
25	CA	2896	C	C6-N1-C2	-7.31	117.38	120.30
25	CA	213	A	C8-N9-C4	7.30	108.72	105.80
25	CA	2813	A	C8-N9-C4	7.30	108.72	105.80
1	AA	1067	A	N1-C6-N6	-7.29	114.22	118.60
25	DA	1311	G	C5-C6-O6	-7.29	124.23	128.60
25	DA	1833	C	N1-C2-O2	-7.29	114.53	118.90
25	DA	243	U	C2-N1-C1'	-7.29	108.95	117.70
25	DA	379	G	N1-C6-O6	7.29	124.27	119.90
25	DA	801	G	C6-C5-N7	7.28	134.77	130.40
25	DA	809	G	C4-C5-N7	-7.28	107.89	110.80
25	CA	2375	G	C8-N9-C1'	7.28	136.46	127.00
25	CA	1595	C	N1-C2-O2	-7.28	114.53	118.90
25	CA	470	A	C2-N3-C4	-7.27	106.96	110.60
25	DA	1770	G	N1-C6-O6	7.27	124.26	119.90
1	BA	876	C	C6-N1-C2	7.27	123.21	120.30
25	CA	1779	U	C6-N1-C1'	7.27	131.38	121.20
25	DA	2518	A	C8-N9-C4	-7.27	102.89	105.80
25	CA	1835	G	C5-C6-O6	-7.27	124.24	128.60
25	DA	786	C	C6-N1-C2	7.27	123.21	120.30
1	AA	971	G	C8-N9-C1'	7.26	136.44	127.00
25	CA	1608	A	N1-C6-N6	7.26	122.96	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	1691	C	N1-C2-O2	-7.26	114.54	118.90
25	CA	2688	G	N9-C4-C5	7.26	108.31	105.40
25	CA	2347	C	C2-N1-C1'	-7.26	110.81	118.80
25	DA	396	G	C8-N9-C4	7.26	109.30	106.40
25	CA	2598	A	N1-C6-N6	-7.26	114.25	118.60
1	AA	245	U	C6-N1-C1'	7.25	131.35	121.20
1	AA	1422	G	C4-C5-N7	7.25	113.70	110.80
25	DA	645	C	C6-N1-C2	-7.25	117.40	120.30
1	AA	677	U	N3-C2-O2	-7.25	117.13	122.20
25	CA	1623	G	C4-C5-N7	7.25	113.70	110.80
25	CA	1833	C	N1-C2-O2	-7.25	114.55	118.90
25	DA	1786	A	N9-C4-C5	7.25	108.70	105.80
25	DA	1672	A	C4-C5-C6	7.25	120.62	117.00
25	CA	1704	C	C6-N1-C2	7.24	123.20	120.30
1	BA	488	C	C6-N1-C2	-7.24	117.40	120.30
25	CA	72	U	C2-N1-C1'	-7.24	109.01	117.70
25	DA	243	U	C5-C6-N1	-7.24	119.08	122.70
25	DA	2794	C	C6-N1-C2	-7.24	117.40	120.30
25	DA	467	G	C2-N3-C4	-7.24	108.28	111.90
25	CA	979	A	C5-C6-N6	-7.24	117.91	123.70
25	DA	2478	A	C8-N9-C4	7.24	108.69	105.80
25	DA	2518	A	C4-C5-C6	7.23	120.62	117.00
1	AA	90	C	N3-C2-O2	-7.23	116.84	121.90
25	CA	1117	C	C6-N1-C2	7.23	123.19	120.30
25	DA	467	G	C8-N9-C4	7.22	109.29	106.40
25	CA	473	G	N1-C6-O6	-7.22	115.57	119.90
25	CA	1142	A	C4-C5-C6	-7.22	113.39	117.00
1	AA	792	A	C8-N9-C4	7.22	108.69	105.80
25	CA	528	A	C4-C5-N7	7.22	114.31	110.70
25	DA	528	A	N7-C8-N9	7.22	117.41	113.80
25	DA	579	G	C4-C5-N7	-7.22	107.91	110.80
25	CA	2439	A	C8-N9-C4	7.22	108.69	105.80
25	DA	2442	C	N1-C2-O2	-7.21	114.57	118.90
25	CA	264	C	N1-C2-O2	7.21	123.23	118.90
25	CA	2551	C	N3-C2-O2	7.21	126.95	121.90
1	AA	90	C	N1-C2-O2	7.20	123.22	118.90
25	CA	1835	G	C2-N3-C4	7.20	115.50	111.90
25	CA	371	A	N1-C6-N6	-7.20	114.28	118.60
25	DA	822	G	N3-C4-N9	-7.20	121.68	126.00
1	BA	322	C	C6-N1-C2	7.19	123.18	120.30
25	CA	1904	G	N1-C6-O6	-7.19	115.58	119.90
25	DA	1333	G	C5-C6-O6	-7.19	124.28	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	2250	G	N7-C8-N9	7.19	116.70	113.10
25	CA	1955	U	C2-N1-C1'	-7.19	109.07	117.70
25	DA	2619	C	C6-N1-C2	7.19	123.17	120.30
1	AA	713	G	C6-C5-N7	7.19	134.71	130.40
1	AA	297	G	N3-C4-N9	-7.18	121.69	126.00
1	BA	1520	C	N1-C2-O2	-7.18	114.59	118.90
25	CA	914	G	C8-N9-C4	7.18	109.27	106.40
51	C0	19	ASP	CB-CG-OD2	7.18	124.76	118.30
25	DA	2461	A	C2-N3-C4	-7.18	107.01	110.60
1	BA	209	U	C2-N1-C1'	7.18	126.31	117.70
1	BA	322	C	C2-N3-C4	-7.17	116.31	119.90
25	DA	562	U	N1-C2-O2	-7.17	117.78	122.80
1	BA	1504	G	C8-N9-C4	7.17	109.27	106.40
25	CA	382	A	N1-C6-N6	7.17	122.90	118.60
25	CA	1158	C	C6-N1-C2	-7.17	117.43	120.30
25	CA	2866	U	N1-C2-O2	7.17	127.81	122.80
25	CA	1977	A	C2-N3-C4	-7.16	107.02	110.60
25	CA	1007	C	N3-C2-O2	7.16	126.91	121.90
26	CB	96	G	N1-C6-O6	-7.16	115.60	119.90
1	AA	555	U	N1-C2-O2	-7.16	117.79	122.80
25	CA	129	C	N1-C2-O2	-7.16	114.61	118.90
25	CA	315	G	N9-C4-C5	-7.16	102.54	105.40
25	CA	2506	U	N3-C2-O2	-7.16	117.19	122.20
25	DA	2342	C	C6-N1-C2	-7.16	117.44	120.30
25	CA	2375	G	C4-N9-C1'	-7.15	117.21	126.50
25	DA	2636	C	C6-N1-C2	-7.15	117.44	120.30
1	AA	1481	U	C5-C4-O4	7.15	130.19	125.90
25	CA	2351	G	C4-C5-N7	7.15	113.66	110.80
25	DA	783	A	N9-C4-C5	-7.14	102.94	105.80
25	CA	2367	G	C6-C5-N7	7.14	134.68	130.40
56	DB	91	C	C6-N1-C2	7.14	123.16	120.30
26	CB	8	C	N1-C2-O2	-7.14	114.62	118.90
25	CA	1351	C	C2-N1-C1'	-7.13	110.95	118.80
25	DA	1234	U	C5-C4-O4	7.13	130.18	125.90
25	DA	2532	G	C5-C6-O6	-7.13	124.32	128.60
25	CA	624	C	C2-N1-C1'	-7.13	110.96	118.80
25	CA	1017	G	C8-N9-C4	-7.12	103.55	106.40
25	CA	1405	U	N3-C2-O2	-7.12	117.22	122.20
25	DA	636	G	N3-C4-C5	-7.11	125.04	128.60
25	CA	752	A	C8-N9-C4	-7.11	102.95	105.80
25	CA	2359	C	N1-C2-O2	-7.11	114.63	118.90
25	DA	2055	C	N1-C2-O2	-7.11	114.63	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	AV	16	U	N1-C2-O2	7.11	127.78	122.80
25	CA	1360	G	C5-C6-O6	7.11	132.87	128.60
25	CA	1245	G	N1-C6-O6	-7.10	115.64	119.90
26	CB	15	A	N1-C6-N6	7.10	122.86	118.60
1	AA	48	C	C6-N1-C2	7.10	123.14	120.30
25	DA	2638	G	C5-C6-O6	7.10	132.86	128.60
25	CA	1226	A	C2-N3-C4	7.10	114.15	110.60
25	DA	585	G	N9-C4-C5	7.10	108.24	105.40
25	CA	783	A	N9-C4-C5	-7.10	102.96	105.80
25	DA	789	A	C8-N9-C4	7.10	108.64	105.80
25	CA	758	C	C6-N1-C2	-7.10	117.46	120.30
1	AA	760	G	N1-C2-N2	-7.09	109.81	116.20
25	CA	74	A	C8-N9-C4	-7.09	102.96	105.80
25	CA	801	G	C4-C5-N7	-7.09	107.96	110.80
25	CA	389	G	C8-N9-C4	7.09	109.24	106.40
25	CA	409	G	C2-N3-C4	-7.09	108.36	111.90
25	CA	1971	U	N3-C4-O4	7.09	124.36	119.40
1	BA	530	G	C4-C5-N7	7.09	113.64	110.80
25	CA	982	C	C2-N3-C4	-7.08	116.36	119.90
25	DA	1163	G	C4-N9-C1'	-7.08	117.29	126.50
25	CA	1762	A	N1-C6-N6	7.08	122.85	118.60
25	CA	1231	U	C6-N1-C2	7.08	125.25	121.00
25	DA	955	U	C6-N1-C2	-7.08	116.75	121.00
25	DA	1261	C	N1-C2-O2	-7.08	114.66	118.90
25	CA	942	G	N1-C6-O6	-7.07	115.66	119.90
25	CA	1340	U	C2-N1-C1'	-7.07	109.21	117.70
25	CA	509	C	C2-N3-C4	-7.07	116.36	119.90
25	CA	2055	C	C6-N1-C2	7.07	123.13	120.30
26	CB	71	C	N1-C2-O2	-7.07	114.66	118.90
1	BA	882	C	C6-N1-C2	7.07	123.13	120.30
25	CA	428	A	C8-N9-C4	7.07	108.63	105.80
1	AA	71	A	C5-C6-N6	-7.06	118.05	123.70
25	CA	2721	A	N1-C6-N6	7.06	122.84	118.60
25	DA	1036	G	N3-C4-C5	7.06	132.13	128.60
25	CA	208	C	C5-C6-N1	-7.06	117.47	121.00
25	CA	1600	C	C6-N1-C2	7.06	123.12	120.30
25	CA	1780	A	C4-C5-N7	7.06	114.23	110.70
25	CA	1040	A	C8-N9-C4	7.06	108.62	105.80
26	CB	19	C	C5-C6-N1	-7.06	117.47	121.00
25	DA	525	U	C5-C4-O4	7.06	130.13	125.90
1	AA	1414	U	N1-C2-O2	7.05	127.74	122.80
25	CA	1819	A	N1-C6-N6	-7.05	114.37	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1527	U	N1-C2-N3	7.05	119.13	114.90
25	CA	1519	G	N9-C4-C5	7.05	108.22	105.40
25	CA	1205	A	N1-C6-N6	7.05	122.83	118.60
25	DA	2677	G	N1-C6-O6	-7.05	115.67	119.90
25	DA	1904	G	N3-C4-C5	-7.05	125.08	128.60
1	AA	734	G	C6-C5-N7	-7.05	126.17	130.40
25	CA	152	A	C8-N9-C4	7.05	108.62	105.80
25	CA	264	C	N3-C2-O2	-7.05	116.97	121.90
25	CA	2286	G	N1-C6-O6	7.04	124.13	119.90
25	DA	2069	G	N3-C4-C5	7.04	132.12	128.60
25	CA	2720	U	C6-N1-C2	-7.04	116.78	121.00
25	DA	1037	G	N3-C4-C5	7.04	132.12	128.60
25	CA	2266	A	C8-N9-C4	-7.04	102.98	105.80
25	CA	564	C	N3-C2-O2	-7.04	116.97	121.90
25	CA	2021	C	N1-C2-O2	-7.04	114.68	118.90
25	CA	2820	A	N3-C4-C5	7.04	131.72	126.80
25	CA	1936	A	N3-C4-C5	7.03	131.72	126.80
25	CA	2141	G	N3-C4-C5	-7.03	125.08	128.60
25	CA	2135	A	N1-C6-N6	7.03	122.82	118.60
1	AA	1408	A	C2-N3-C4	-7.03	107.09	110.60
25	DA	2519	U	C5-C4-O4	-7.02	121.69	125.90
25	CA	854	C	C5-C4-N4	-7.02	115.29	120.20
25	CA	1018	U	N3-C2-O2	7.02	127.11	122.20
25	DA	1360	G	N3-C4-N9	-7.02	121.79	126.00
25	DA	1947	C	C6-N1-C2	7.02	123.11	120.30
25	CA	116	C	N1-C2-O2	-7.02	114.69	118.90
25	CA	655	A	N9-C4-C5	7.02	108.61	105.80
25	CA	2745	C	C2-N3-C4	-7.02	116.39	119.90
25	DA	950	G	N1-C6-O6	7.02	124.11	119.90
25	DA	2503	A	N3-C4-N9	7.02	133.01	127.40
25	DA	587	C	N1-C2-O2	-7.02	114.69	118.90
25	DA	1005	C	C6-N1-C2	7.02	123.11	120.30
25	CA	2275	C	N1-C2-N3	7.01	124.11	119.20
25	CA	2831	G	N3-C4-C5	-7.01	125.09	128.60
25	CA	2689	U	C2-N3-C4	-7.01	122.79	127.00
1	AA	108	G	C8-N9-C4	-7.01	103.60	106.40
1	BA	741	G	N1-C6-O6	7.01	124.10	119.90
26	CB	51	G	C4-C5-N7	7.01	113.60	110.80
25	DA	208	C	C6-N1-C2	7.01	123.10	120.30
25	DA	911	A	N1-C6-N6	7.01	122.80	118.60
25	CA	1393	A	N9-C4-C5	7.00	108.60	105.80
25	CA	1793	C	C5-C6-N1	-7.00	117.50	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	786	C	C2-N1-C1'	-7.00	111.10	118.80
25	CA	2629	U	C5-C4-O4	-7.00	121.70	125.90
25	CA	583	G	C8-N9-C4	7.00	109.20	106.40
25	DA	2874	C	C2-N1-C1'	-7.00	111.10	118.80
25	DA	979	A	C5-C6-N6	7.00	129.30	123.70
25	DA	1681	G	C5-C6-O6	-6.99	124.40	128.60
1	AA	334	C	C6-N1-C2	6.99	123.10	120.30
25	CA	2448	A	N1-C6-N6	6.99	122.80	118.60
1	BA	926	G	C4-C5-N7	-6.99	108.00	110.80
25	CA	1465	G	N1-C6-O6	-6.99	115.71	119.90
25	DA	488	G	N9-C4-C5	-6.99	102.60	105.40
25	CA	922	C	N1-C2-O2	-6.99	114.71	118.90
25	DA	679	C	C6-N1-C2	-6.98	117.51	120.30
25	DA	783	A	N3-C4-C5	6.98	131.69	126.80
1	AA	283	U	N3-C2-O2	-6.98	117.31	122.20
25	CA	1475	G	N3-C4-N9	-6.98	121.81	126.00
25	CA	2394	C	N1-C2-O2	-6.98	114.71	118.90
25	CA	332	A	C5-C6-N6	6.98	129.28	123.70
25	CA	2204	G	C6-C5-N7	-6.97	126.22	130.40
25	CA	2803	G	C4-C5-N7	-6.97	108.01	110.80
25	CA	567	U	N1-C2-N3	6.97	119.08	114.90
25	CA	2872	A	N9-C4-C5	6.97	108.59	105.80
1	AA	807	A	N1-C6-N6	-6.97	114.42	118.60
25	CA	2069	G	N3-C4-N9	-6.97	121.82	126.00
25	CA	1521	G	N3-C4-N9	6.96	130.18	126.00
25	CA	2068	U	N3-C2-O2	6.96	127.07	122.20
1	BA	713	G	C5-C6-O6	6.96	132.78	128.60
25	DA	216	A	N1-C6-N6	-6.96	114.42	118.60
25	CA	974	G	N1-C6-O6	6.96	124.08	119.90
25	DA	1799	G	C5-C6-O6	6.96	132.78	128.60
1	BA	1515	G	N1-C6-O6	6.96	124.07	119.90
25	DA	2286	G	N3-C4-N9	-6.96	121.83	126.00
25	CA	806	C	N1-C2-O2	6.96	123.07	118.90
25	DA	1569	A	C8-N9-C4	6.95	108.58	105.80
25	CA	813	U	N1-C2-O2	-6.95	117.93	122.80
25	DA	2686	G	N9-C4-C5	6.95	108.18	105.40
25	CA	1344	U	N3-C2-O2	-6.95	117.34	122.20
25	DA	1997	C	C5-C6-N1	-6.95	117.53	121.00
25	CA	2471	A	C8-N9-C4	6.94	108.58	105.80
25	DA	1019	U	N3-C2-O2	-6.94	117.34	122.20
25	CA	2347	C	C6-N1-C1'	6.94	129.12	120.80
25	CA	2760	C	C5-C6-N1	-6.94	117.53	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	13	A	C4-C5-C6	6.93	120.47	117.00
25	CA	1661	G	N1-C6-O6	-6.93	115.74	119.90
25	CA	2320	U	C2-N1-C1'	-6.93	109.38	117.70
25	CA	550	C	C6-N1-C1'	-6.93	112.48	120.80
25	CA	1971	U	N3-C2-O2	6.93	127.05	122.20
25	CA	2385	C	C5-C4-N4	-6.93	115.35	120.20
1	AA	453	G	N3-C4-N9	6.93	130.16	126.00
1	BA	971	G	N3-C4-N9	6.93	130.16	126.00
25	DA	908	C	N1-C2-O2	-6.93	114.74	118.90
25	DA	1666	G	N3-C4-N9	-6.93	121.84	126.00
25	DA	324	A	C8-N9-C4	6.92	108.57	105.80
1	BA	1525	G	C8-N9-C4	6.92	109.17	106.40
25	CA	315	G	C4-C5-N7	6.92	113.57	110.80
25	CA	2084	C	C2-N3-C4	-6.92	116.44	119.90
25	CA	1577	C	N1-C2-O2	-6.91	114.75	118.90
25	DA	661	A	C6-N1-C2	-6.91	114.45	118.60
25	DA	2514	U	N1-C2-N3	6.91	119.05	114.90
25	CA	2658	C	C6-N1-C2	6.91	123.06	120.30
25	CA	1340	U	N1-C2-O2	-6.91	117.96	122.80
25	CA	923	G	C2-N3-C4	-6.91	108.45	111.90
25	DA	1788	C	N1-C2-O2	-6.91	114.76	118.90
25	DA	2046	G	N9-C4-C5	-6.90	102.64	105.40
25	CA	393	C	C6-N1-C2	-6.90	117.54	120.30
25	DA	213	A	C8-N9-C4	6.90	108.56	105.80
25	DA	1164	C	C6-N1-C1'	6.90	129.08	120.80
25	CA	790	U	N1-C2-O2	-6.90	117.97	122.80
25	CA	2551	C	C6-N1-C2	6.90	123.06	120.30
25	DA	2809	A	N1-C6-N6	6.90	122.74	118.60
25	CA	2458	G	C8-N9-C4	-6.89	103.64	106.40
25	DA	2250	G	C8-N9-C4	-6.89	103.64	106.40
25	DA	1779	U	C5-C6-N1	-6.89	119.25	122.70
25	DA	2782	G	C5-C6-O6	-6.89	124.46	128.60
25	CA	2725	A	C2-N3-C4	-6.89	107.16	110.60
25	DA	2540	C	C6-N1-C1'	6.88	129.06	120.80
1	BA	297	G	C8-N9-C4	6.88	109.15	106.40
1	BA	771	G	N9-C4-C5	6.88	108.15	105.40
25	CA	993	G	C5-C6-N1	6.88	114.94	111.50
25	DA	2503	A	C5-C6-N6	-6.88	118.20	123.70
25	DA	2046	G	C5-C6-O6	-6.87	124.48	128.60
25	CA	1819	A	N9-C4-C5	6.87	108.55	105.80
25	CA	2320	U	N3-C4-O4	-6.87	114.59	119.40
1	AA	707	U	C5-C4-O4	-6.87	121.78	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	1252	G	N3-C2-N2	-6.87	115.09	119.90
25	DA	1681	G	C6-C5-N7	-6.87	126.28	130.40
1	AA	713	G	C4-C5-N7	-6.86	108.05	110.80
25	CA	578	G	C8-N9-C4	6.86	109.14	106.40
25	CA	1988	G	C6-C5-N7	-6.86	126.28	130.40
1	AA	869	G	N1-C6-O6	6.86	124.02	119.90
1	BA	586	C	N1-C2-O2	-6.86	114.78	118.90
25	CA	1989	G	N3-C4-N9	6.86	130.12	126.00
25	DA	2049	G	C4-N9-C1'	6.86	135.42	126.50
25	CA	2037	A	N1-C6-N6	-6.86	114.48	118.60
25	CA	2711	A	C8-N9-C4	6.86	108.54	105.80
25	CA	2265	U	N1-C2-O2	-6.86	118.00	122.80
25	DA	1967	C	N1-C2-O2	-6.86	114.79	118.90
25	CA	2553	G	N3-C2-N2	6.86	124.70	119.90
25	DA	22	C	N1-C2-O2	6.86	123.01	118.90
25	CA	2505	G	N3-C4-N9	-6.85	121.89	126.00
25	CA	578	G	C5-C6-N1	6.85	114.92	111.50
25	CA	830	G	N1-C6-O6	-6.85	115.79	119.90
25	CA	2790	U	N3-C2-O2	-6.85	117.41	122.20
25	CA	483	A	N7-C8-N9	-6.84	110.38	113.80
25	CA	1892	C	N3-C2-O2	6.84	126.69	121.90
25	DA	2323	G	N3-C4-C5	-6.84	125.18	128.60
25	CA	226	A	N1-C6-N6	6.84	122.70	118.60
25	CA	1501	G	N3-C4-C5	6.84	132.02	128.60
1	AA	1469	C	C6-N1-C2	6.84	123.03	120.30
25	CA	1521	G	C8-N9-C1'	-6.84	118.11	127.00
1	BA	771	G	N1-C6-O6	-6.83	115.80	119.90
25	CA	829	A	C8-N9-C4	6.83	108.53	105.80
25	CA	1001	A	C8-N9-C4	6.83	108.53	105.80
25	DA	1135	C	N1-C2-O2	-6.83	114.80	118.90
1	BA	963	G	N1-C6-O6	-6.83	115.80	119.90
25	CA	1587	G	N3-C4-C5	-6.83	125.19	128.60
25	CA	960	A	N9-C4-C5	6.83	108.53	105.80
1	AA	1422	G	N1-C6-O6	6.82	123.99	119.90
25	CA	784	G	N3-C4-C5	-6.82	125.19	128.60
25	DA	1002	G	N3-C2-N2	-6.82	115.13	119.90
25	CA	210	C	N1-C2-O2	-6.82	114.81	118.90
25	CA	2888	C	C2-N1-C1'	6.82	126.30	118.80
25	CA	2087	G	C5-C6-O6	-6.81	124.51	128.60
25	CA	77	G	N9-C4-C5	6.81	108.12	105.40
25	CA	1051	G	C4-N9-C1'	6.81	135.35	126.50
25	CA	2121	G	N3-C4-N9	6.81	130.09	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	1030	C	C6-N1-C2	6.81	123.02	120.30
25	DA	2626	C	C5-C6-N1	-6.81	117.60	121.00
25	CA	1378	A	C5-C6-N6	6.81	129.15	123.70
25	CA	1764	C	N1-C2-O2	-6.80	114.82	118.90
25	CA	2649	C	N1-C2-O2	-6.80	114.82	118.90
25	CA	1064	C	C2-N1-C1'	6.80	126.28	118.80
25	DA	443	A	C8-N9-C4	-6.80	103.08	105.80
1	AA	575	G	C4-C5-N7	-6.80	108.08	110.80
25	CA	2462	C	N3-C2-O2	6.80	126.66	121.90
25	CA	1301	A	C5-C6-N6	-6.80	118.26	123.70
25	CA	2251	G	C5-C6-O6	-6.80	124.52	128.60
25	CA	2642	G	N1-C6-O6	-6.80	115.82	119.90
1	BA	677	U	C5-C6-N1	6.79	126.10	122.70
25	CA	2733	A	N9-C4-C5	6.79	108.52	105.80
25	CA	1209	U	C2-N1-C1'	-6.79	109.55	117.70
25	CA	1425	G	C8-N9-C4	6.79	109.12	106.40
1	AA	859	G	N3-C4-N9	6.79	130.07	126.00
1	AA	940	C	N3-C4-N4	6.79	122.75	118.00
25	DA	380	G	C5-C6-O6	-6.79	124.53	128.60
25	DA	831	G	N3-C2-N2	6.79	124.65	119.90
25	CA	1758	U	C5-C6-N1	-6.79	119.31	122.70
25	CA	823	C	N1-C2-O2	-6.79	114.83	118.90
25	CA	1817	G	N1-C6-O6	-6.79	115.83	119.90
25	CA	2706	A	C5-C6-N1	-6.79	114.31	117.70
6	BF	86	ARG	NE-CZ-NH1	6.79	123.69	120.30
25	DA	1119	U	C6-N1-C2	6.79	125.07	121.00
25	DA	2006	C	N3-C4-N4	6.79	122.75	118.00
25	CA	315	G	C6-C5-N7	-6.78	126.33	130.40
25	CA	473	G	C5-C6-O6	6.78	132.67	128.60
25	CA	1404	C	C6-N1-C2	6.78	123.01	120.30
25	CA	2367	G	N1-C6-O6	-6.78	115.83	119.90
25	CA	1797	G	C2-N3-C4	-6.78	108.51	111.90
25	DA	2246	G	C5-C6-O6	-6.78	124.53	128.60
25	CA	774	G	N1-C6-O6	-6.78	115.83	119.90
25	DA	2070	A	C2-N3-C4	-6.78	107.21	110.60
1	AA	90	C	C6-N1-C2	-6.77	117.59	120.30
1	AA	686	U	C2-N1-C1'	-6.77	109.57	117.70
1	BA	117	G	N3-C4-C5	-6.77	125.22	128.60
25	CA	1769	U	C2-N1-C1'	-6.77	109.58	117.70
25	CA	2059	A	N9-C4-C5	-6.77	103.09	105.80
25	CA	1463	C	N3-C2-O2	6.77	126.64	121.90
25	DA	1646	C	C6-N1-C1'	6.77	128.92	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	1136	G	C8-N9-C4	6.77	109.11	106.40
1	BA	359	G	C5-C6-O6	-6.76	124.54	128.60
25	DA	2012	G	N9-C4-C5	-6.76	102.69	105.40
25	CA	2847	U	C5-C4-O4	6.76	129.96	125.90
25	CA	2751	G	N9-C4-C5	6.76	108.10	105.40
25	DA	985	C	C2-N1-C1'	6.76	126.23	118.80
25	CA	2090	A	C2-N3-C4	6.75	113.98	110.60
25	CA	1307	A	C8-N9-C4	-6.75	103.10	105.80
25	CA	1572	A	C8-N9-C4	-6.75	103.10	105.80
25	DA	243	U	N3-C4-O4	-6.75	114.67	119.40
25	DA	2588	G	C2-N3-C4	-6.75	108.52	111.90
25	DA	2848	G	C5-C6-O6	6.75	132.65	128.60
22	BV	74	C	C2-N1-C1'	6.75	126.23	118.80
25	DA	1666	G	N3-C4-C5	6.75	131.98	128.60
25	CA	1051	G	C8-N9-C1'	-6.75	118.22	127.00
25	DA	685	A	N1-C6-N6	6.75	122.65	118.60
25	DA	1666	G	C4-N9-C1'	-6.75	117.73	126.50
25	CA	1767	G	C8-N9-C4	6.74	109.10	106.40
25	CA	2225	A	N1-C6-N6	6.74	122.65	118.60
1	BA	705	G	N1-C6-O6	-6.74	115.86	119.90
25	CA	550	C	C5-C6-N1	6.74	124.37	121.00
25	CA	1650	A	N1-C6-N6	6.74	122.64	118.60
25	DA	2610	C	N1-C2-N3	6.74	123.92	119.20
25	DA	2811	G	C8-N9-C4	6.74	109.10	106.40
1	AA	351	G	N7-C8-N9	6.74	116.47	113.10
25	CA	205	G	N9-C4-C5	6.74	108.10	105.40
25	CA	818	G	C6-C5-N7	-6.74	126.36	130.40
25	CA	2523	G	N1-C6-O6	6.74	123.94	119.90
25	DA	1263	U	C6-N1-C2	-6.74	116.96	121.00
25	DA	2018	G	C8-N9-C4	6.74	109.09	106.40
25	CA	1404	C	C2-N1-C1'	-6.73	111.39	118.80
1	BA	428	G	C4-N9-C1'	-6.73	117.75	126.50
25	CA	2598	A	N3-C4-N9	-6.73	122.01	127.40
25	DA	180	G	C6-C5-N7	6.73	134.44	130.40
25	DA	967	U	C6-N1-C1'	6.73	130.62	121.20
25	DA	2619	C	N1-C2-O2	-6.73	114.86	118.90
1	AA	1499	A	N7-C8-N9	-6.72	110.44	113.80
25	CA	1006	C	N1-C2-O2	-6.72	114.87	118.90
25	DA	2532	G	C6-C5-N7	-6.72	126.37	130.40
25	DA	1452	G	C4-C5-N7	6.72	113.49	110.80
25	DA	2640	G	C8-N9-C4	6.72	109.09	106.40
25	CA	194	G	C8-N9-C4	6.72	109.09	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	1295	C	N1-C2-O2	-6.72	114.87	118.90
25	DA	2811	G	N3-C4-N9	-6.71	121.97	126.00
25	DA	2046	G	N1-C6-O6	6.71	123.93	119.90
25	CA	273	G	C4-N9-C1'	-6.71	117.77	126.50
25	CA	1307	A	N9-C4-C5	6.71	108.48	105.80
25	DA	1792	G	N3-C4-N9	-6.71	121.97	126.00
56	DB	76	G	C4-C5-N7	-6.71	108.11	110.80
25	DA	2012	G	C8-N9-C4	6.71	109.08	106.40
1	BA	378	G	N3-C2-N2	6.71	124.60	119.90
1	BA	1127	G	N3-C4-N9	6.71	130.03	126.00
1	BA	563	A	C5-N7-C8	-6.71	100.55	103.90
25	DA	1952	A	C5-C6-N1	6.71	121.05	117.70
25	CA	782	A	N1-C6-N6	6.71	122.62	118.60
25	CA	2091	C	N1-C2-O2	-6.70	114.88	118.90
25	DA	453	A	C8-N9-C4	6.70	108.48	105.80
25	CA	2155	U	N1-C2-O2	6.70	127.49	122.80
25	DA	2049	G	C5-C6-O6	-6.70	124.58	128.60
25	CA	90	U	C5-C4-O4	6.70	129.92	125.90
25	DA	2466	C	N3-C2-O2	6.70	126.59	121.90
56	DB	74	U	N3-C4-O4	-6.70	114.71	119.40
25	DA	1142	A	N3-C4-C5	6.69	131.49	126.80
25	CA	2232	C	N3-C2-O2	6.69	126.58	121.90
25	CA	2534	A	C8-N9-C4	6.69	108.48	105.80
1	BA	357	G	C8-N9-C4	6.69	109.08	106.40
25	CA	1158	C	N1-C2-N3	6.69	123.88	119.20
1	AA	12	U	N1-C2-N3	6.69	118.91	114.90
1	AA	686	U	C6-N1-C1'	6.69	130.56	121.20
25	CA	2523	G	C4-C5-N7	6.69	113.47	110.80
25	CA	2553	G	N3-C4-C5	-6.69	125.26	128.60
25	DA	375	G	C8-N9-C4	6.69	109.08	106.40
25	CA	666	A	N1-C6-N6	-6.69	114.59	118.60
25	CA	2785	C	N1-C2-O2	-6.69	114.89	118.90
25	CA	2511	U	N1-C2-O2	-6.68	118.12	122.80
26	CB	92	C	N1-C2-O2	-6.68	114.89	118.90
25	DA	2250	G	N3-C4-C5	6.68	131.94	128.60
25	DA	2636	C	N3-C2-O2	-6.68	117.22	121.90
22	AV	16	U	N3-C2-O2	-6.68	117.53	122.20
1	AA	1530	G	C5-C6-N1	6.67	114.84	111.50
25	DA	1770	G	C5-C6-O6	-6.67	124.59	128.60
1	AA	351	G	C5-N7-C8	-6.67	100.96	104.30
25	CA	978	G	C8-N9-C4	6.67	109.07	106.40
25	CA	175	G	C8-N9-C4	6.67	109.07	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	1278	C	C5-C6-N1	-6.67	117.66	121.00
25	DA	1770	G	C6-C5-N7	-6.67	126.40	130.40
25	DA	2606	C	C6-N1-C2	6.67	122.97	120.30
25	CA	1273	U	N1-C2-N3	6.67	118.90	114.90
25	DA	585	G	C8-N9-C4	-6.67	103.73	106.40
25	DA	2705	A	N9-C4-C5	-6.67	103.13	105.80
25	CA	1475	G	C4-N9-C1'	-6.67	117.83	126.50
1	AA	768	A	C8-N9-C4	6.67	108.47	105.80
1	BA	431	A	C8-N9-C4	6.67	108.47	105.80
56	DB	76	G	C5-C6-O6	6.67	132.60	128.60
1	BA	1482	G	C8-N9-C1'	-6.66	118.34	127.00
25	DA	1681	G	N3-C4-N9	6.66	130.00	126.00
1	BA	480	U	C6-N1-C2	6.66	125.00	121.00
1	BA	804	U	N3-C2-O2	-6.66	117.54	122.20
25	CA	2222	C	N1-C2-O2	-6.66	114.90	118.90
25	CA	1278	C	N1-C2-O2	-6.66	114.90	118.90
25	CA	1249	U	N3-C2-O2	6.66	126.86	122.20
25	DA	1002	G	N1-C2-N2	6.66	122.19	116.20
25	DA	2036	C	C6-N1-C2	-6.66	117.64	120.30
25	DA	2782	G	N1-C6-O6	6.66	123.90	119.90
1	BA	110	C	C6-N1-C1'	6.66	128.79	120.80
25	CA	2225	A	C2-N3-C4	-6.66	107.27	110.60
25	DA	488	G	C8-N9-C1'	-6.65	118.35	127.00
25	DA	1779	U	N3-C4-O4	-6.65	114.74	119.40
25	DA	2827	C	C6-N1-C2	6.65	122.96	120.30
25	DA	1838	C	C6-N1-C2	6.65	122.96	120.30
25	CA	1323	C	C6-N1-C2	6.65	122.96	120.30
25	CA	497	A	N1-C6-N6	6.64	122.59	118.60
25	CA	1125	G	N3-C4-C5	-6.64	125.28	128.60
25	CA	1319	C	N1-C2-O2	-6.64	114.91	118.90
1	BA	1480	A	N1-C6-N6	6.64	122.58	118.60
25	CA	1122	G	C4-C5-N7	-6.64	108.14	110.80
25	CA	176	A	C8-N9-C4	6.64	108.46	105.80
25	DA	1325	U	C6-N1-C2	6.64	124.98	121.00
25	DA	1270	C	C6-N1-C2	6.64	122.95	120.30
25	CA	27	G	C5-C6-N1	6.64	114.82	111.50
25	CA	1475	G	N3-C4-C5	6.64	131.92	128.60
25	DA	1164	C	C2-N1-C1'	-6.64	111.50	118.80
25	DA	1908	C	N1-C2-O2	-6.64	114.92	118.90
25	DA	1997	C	N1-C2-O2	-6.63	114.92	118.90
25	DA	10	A	C8-N9-C4	6.63	108.45	105.80
1	BA	106	C	N1-C2-O2	-6.63	114.92	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	690	G	C4-C5-N7	6.63	113.45	110.80
25	CA	2760	C	C6-N1-C2	6.63	122.95	120.30
25	CA	51	G	N1-C6-O6	-6.63	115.92	119.90
25	CA	982	C	N3-C4-C5	6.63	124.55	121.90
25	DA	1606	C	C6-N1-C2	-6.63	117.65	120.30
25	CA	1985	C	N1-C2-N3	6.63	123.84	119.20
25	DA	528	A	N3-C4-C5	6.63	131.44	126.80
1	BA	1482	G	C4-N9-C1'	6.62	135.11	126.50
25	CA	2715	C	N3-C4-C5	-6.62	119.25	121.90
25	DA	1236	G	C6-C5-N7	-6.62	126.42	130.40
25	DA	1975	G	C4-C5-N7	6.62	113.45	110.80
25	DA	2587	A	C8-N9-C4	6.62	108.45	105.80
25	CA	758	C	N1-C2-N3	6.62	123.83	119.20
25	CA	930	G	C6-C5-N7	6.62	134.37	130.40
25	DA	1325	U	N1-C2-O2	-6.62	118.17	122.80
25	CA	655	A	N1-C6-N6	-6.62	114.63	118.60
25	CA	2379	G	C8-N9-C4	6.62	109.05	106.40
25	CA	1382	G	N1-C6-O6	-6.62	115.93	119.90
25	CA	1842	G	C6-C5-N7	-6.62	126.43	130.40
25	CA	804	A	C8-N9-C4	-6.61	103.16	105.80
25	DA	992	C	C6-N1-C2	6.61	122.94	120.30
25	DA	1236	G	N1-C6-O6	6.61	123.87	119.90
25	CA	1452	G	N7-C8-N9	6.61	116.40	113.10
25	CA	184	C	N3-C4-C5	-6.61	119.26	121.90
25	CA	514	A	C8-N9-C4	6.61	108.44	105.80
25	DA	2609	U	N3-C2-O2	6.61	126.82	122.20
25	CA	83	A	C4-C5-N7	-6.60	107.40	110.70
25	CA	74	A	N9-C4-C5	6.60	108.44	105.80
25	CA	690	G	N7-C8-N9	-6.60	109.80	113.10
25	CA	2682	A	C5-C6-N6	-6.60	118.42	123.70
56	DB	78	A	C8-N9-C4	6.60	108.44	105.80
25	DA	2444	G	N1-C6-O6	-6.60	115.94	119.90
25	DA	2874	C	N1-C2-O2	-6.60	114.94	118.90
25	CA	1793	C	C2-N3-C4	-6.60	116.60	119.90
25	DA	752	A	C5-N7-C8	-6.60	100.60	103.90
25	CA	705	A	C8-N9-C4	-6.60	103.16	105.80
25	CA	2621	G	C4-C5-N7	-6.60	108.16	110.80
25	CA	249	C	N3-C2-O2	6.59	126.52	121.90
25	CA	223	A	C5-C6-N6	6.59	128.97	123.70
25	DA	519	U	N3-C2-O2	-6.59	117.58	122.20
1	BA	530	G	C6-C5-N7	-6.59	126.44	130.40
25	CA	754	U	N3-C2-O2	-6.59	117.59	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	2338	C	N1-C2-O2	-6.59	114.94	118.90
25	CA	1519	G	C6-C5-N7	6.59	134.35	130.40
25	CA	2770	G	C8-N9-C4	6.59	109.04	106.40
25	DA	1323	C	C6-N1-C2	-6.59	117.66	120.30
25	CA	332	A	C6-C5-N7	6.59	136.91	132.30
25	CA	1046	A	N1-C6-N6	6.59	122.55	118.60
25	CA	2824	C	N3-C4-N4	6.59	122.61	118.00
25	DA	1616	A	N9-C4-C5	6.59	108.43	105.80
25	CA	2621	G	C8-N9-C4	-6.58	103.77	106.40
25	CA	1808	A	N9-C4-C5	-6.58	103.17	105.80
25	DA	2801	G	C8-N9-C4	-6.58	103.77	106.40
25	DA	784	G	C8-N9-C1'	-6.58	118.44	127.00
25	CA	429	A	N1-C6-N6	6.58	122.55	118.60
1	AA	1417	G	N3-C2-N2	6.58	124.50	119.90
1	BA	46	G	N3-C4-C5	6.58	131.89	128.60
25	CA	439	A	C8-N9-C4	6.58	108.43	105.80
25	CA	1277	G	N1-C6-O6	-6.58	115.95	119.90
1	AA	788	U	N1-C2-O2	-6.58	118.20	122.80
25	CA	1426	G	N3-C4-N9	6.58	129.94	126.00
25	DA	330	A	N1-C6-N6	6.57	122.54	118.60
25	CA	446	G	C4-C5-N7	6.57	113.43	110.80
1	BA	378	G	N3-C4-N9	6.57	129.94	126.00
1	BA	924	C	C6-N1-C2	6.57	122.93	120.30
25	CA	667	U	N3-C4-C5	6.57	118.54	114.60
25	CA	2696	U	N1-C2-O2	6.57	127.40	122.80
25	DA	2432	A	C4-C5-C6	6.57	120.28	117.00
25	CA	2139	U	N1-C2-O2	6.57	127.40	122.80
1	AA	90	C	C2-N1-C1'	6.56	126.02	118.80
1	BA	1406	U	C2-N1-C1'	-6.56	109.82	117.70
25	CA	784	G	C6-C5-N7	-6.56	126.46	130.40
25	CA	2841	C	C6-N1-C2	-6.56	117.67	120.30
25	DA	1155	A	N9-C4-C5	6.56	108.42	105.80
25	DA	2439	A	N1-C6-N6	6.56	122.54	118.60
25	CA	431	U	C6-N1-C2	6.56	124.94	121.00
25	CA	1256	G	C8-N9-C4	6.56	109.02	106.40
25	DA	2559	C	N3-C4-N4	-6.56	113.41	118.00
25	CA	37	C	C6-N1-C2	6.56	122.92	120.30
25	CA	1351	C	N3-C2-O2	6.56	126.49	121.90
25	DA	1435	G	N1-C6-O6	-6.56	115.97	119.90
25	DA	2426	A	N1-C6-N6	-6.56	114.67	118.60
1	BA	812	G	N1-C6-O6	6.56	123.83	119.90
25	CA	470	A	C5-N7-C8	-6.56	100.62	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	930	G	C4-N9-C1'	-6.56	117.98	126.50
1	AA	859	G	C8-N9-C1'	-6.55	118.48	127.00
25	CA	1852	U	N3-C2-O2	-6.55	117.61	122.20
25	CA	235	U	N3-C4-O4	-6.55	114.81	119.40
25	DA	1997	C	C2-N1-C1'	-6.55	111.59	118.80
25	CA	1219	U	N3-C4-O4	-6.55	114.82	119.40
25	DA	394	C	N1-C2-O2	-6.55	114.97	118.90
25	CA	1985	C	C6-N1-C1'	6.55	128.66	120.80
1	BA	110	C	C2-N1-C1'	-6.55	111.60	118.80
1	BA	896	C	C2-N3-C4	-6.55	116.63	119.90
25	CA	990	A	N1-C6-N6	-6.55	114.67	118.60
25	CA	997	G	N9-C4-C5	6.54	108.02	105.40
25	DA	2446	G	N1-C6-O6	6.54	123.83	119.90
25	CA	305	C	C6-N1-C2	6.54	122.92	120.30
1	AA	1094	G	N1-C6-O6	6.54	123.82	119.90
25	CA	975	A	N1-C6-N6	-6.54	114.68	118.60
1	AA	297	G	N3-C4-C5	6.54	131.87	128.60
25	CA	456	C	C2-N3-C4	-6.54	116.63	119.90
25	CA	807	U	N3-C4-O4	6.54	123.97	119.40
25	CA	1002	G	N1-C6-O6	-6.54	115.98	119.90
25	CA	1526	C	C6-N1-C2	6.54	122.91	120.30
25	CA	2547	A	C8-N9-C4	6.54	108.41	105.80
25	CA	997	G	N3-C2-N2	-6.53	115.33	119.90
25	CA	2824	C	N3-C4-C5	-6.53	119.29	121.90
25	CA	1612	C	N3-C4-N4	6.53	122.57	118.00
25	CA	210	C	N3-C2-O2	6.53	126.47	121.90
25	CA	2430	A	C8-N9-C4	6.53	108.41	105.80
25	DA	2606	C	N1-C2-O2	-6.53	114.98	118.90
25	DA	961	C	N1-C2-O2	-6.53	114.98	118.90
1	AA	1520	C	C5-C4-N4	-6.53	115.63	120.20
25	DA	117	G	C8-N9-C4	-6.53	103.79	106.40
1	BA	406	G	N3-C4-N9	6.52	129.91	126.00
25	CA	2469	A	C8-N9-C4	6.52	108.41	105.80
25	DA	830	G	C5-C6-N1	6.52	114.76	111.50
25	CA	1663	G	C2-N3-C4	-6.52	108.64	111.90
1	BA	1531	A	C8-N9-C4	6.52	108.41	105.80
25	CA	1889	A	N1-C6-N6	-6.52	114.69	118.60
1	AA	8	A	C8-N9-C4	6.51	108.41	105.80
25	CA	315	G	C8-N9-C4	6.51	109.01	106.40
25	DA	2282	G	N3-C4-C5	-6.51	125.34	128.60
25	CA	622	G	C5-C6-O6	-6.51	124.69	128.60
25	CA	2331	G	C6-C5-N7	-6.51	126.49	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	2371	G	N9-C4-C5	6.51	108.00	105.40
1	BA	246	A	N1-C6-N6	6.51	122.50	118.60
25	CA	2633	G	N3-C4-N9	-6.51	122.09	126.00
25	CA	2295	C	N3-C2-O2	6.51	126.45	121.90
1	AA	330	C	N1-C2-O2	6.50	122.80	118.90
25	CA	1220	G	N1-C2-N2	-6.50	110.34	116.20
25	CA	994	C	N1-C2-O2	-6.50	115.00	118.90
25	CA	1026	G	N3-C4-C5	-6.50	125.35	128.60
25	CA	1602	U	N3-C4-C5	6.50	118.50	114.60
25	CA	2320	U	C6-N1-C1'	6.50	130.31	121.20
25	DA	2627	G	N1-C6-O6	-6.50	116.00	119.90
25	DA	2564	A	C4-C5-C6	6.50	120.25	117.00
26	CB	8	C	C5-C6-N1	-6.50	117.75	121.00
25	DA	1974	C	C6-N1-C2	6.50	122.90	120.30
25	CA	1946	U	C5-C4-O4	6.50	129.80	125.90
1	AA	111	G	C4-N9-C1'	-6.49	118.06	126.50
25	CA	461	C	C6-N1-C2	-6.49	117.70	120.30
25	DA	782	A	C5-C6-N6	6.49	128.89	123.70
25	DA	1311	G	N1-C6-O6	6.49	123.80	119.90
25	DA	1997	C	C6-N1-C2	6.49	122.90	120.30
25	DA	808	G	N1-C6-O6	6.49	123.79	119.90
25	DA	2825	G	C8-N9-C1'	-6.49	118.57	127.00
25	CA	2691	C	C6-N1-C2	6.49	122.89	120.30
25	DA	378	C	C2-N1-C1'	-6.48	111.67	118.80
25	DA	1655	A	C2-N3-C4	-6.48	107.36	110.60
25	DA	1903	G	N1-C6-O6	-6.48	116.01	119.90
25	DA	671	C	N3-C2-O2	6.48	126.44	121.90
25	DA	2556	C	N1-C2-O2	-6.48	115.01	118.90
1	AA	734	G	C4-C5-N7	6.48	113.39	110.80
25	CA	1662	U	N3-C4-O4	-6.48	114.87	119.40
25	DA	1125	G	C8-N9-C4	6.48	108.99	106.40
1	AA	1101	A	N3-C4-C5	-6.48	122.27	126.80
25	CA	192	C	C6-N1-C2	-6.48	117.71	120.30
25	DA	1964	G	N3-C4-N9	6.48	129.89	126.00
25	CA	129	C	N3-C2-O2	6.47	126.43	121.90
25	CA	1989	G	C6-C5-N7	-6.47	126.52	130.40
25	DA	2434	A	C5-C6-N6	-6.47	118.52	123.70
1	BA	359	G	N1-C6-O6	6.47	123.78	119.90
25	CA	919	U	N3-C2-O2	-6.47	117.67	122.20
1	BA	615	G	N3-C4-C5	-6.47	125.37	128.60
25	CA	783	A	N3-C4-C5	6.47	131.33	126.80
25	CA	1679	A	C8-N9-C4	6.47	108.39	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	2069	G	C4-C5-C6	-6.47	114.92	118.80
25	DA	2677	G	C4-C5-N7	-6.47	108.21	110.80
25	DA	2709	G	C5-C6-O6	-6.46	124.72	128.60
25	DA	2049	G	C6-C5-N7	-6.46	126.52	130.40
1	BA	278	G	N3-C4-N9	-6.46	122.12	126.00
25	CA	1770	G	N3-C4-C5	-6.46	125.37	128.60
26	CB	13	G	C8-N9-C4	6.46	108.98	106.40
25	CA	154	U	N1-C2-O2	6.46	127.32	122.80
1	BA	1063	C	C6-N1-C2	6.46	122.88	120.30
25	CA	380	G	N3-C2-N2	-6.46	115.38	119.90
25	CA	62	U	N1-C2-O2	-6.45	118.28	122.80
25	CA	1555	G	N1-C2-N3	6.45	127.77	123.90
25	CA	2503	A	N1-C6-N6	6.45	122.47	118.60
25	CA	754	U	N3-C4-O4	-6.45	114.88	119.40
25	CA	1142	A	C4-C5-N7	6.45	113.92	110.70
25	CA	1242	U	N1-C2-N3	6.45	118.77	114.90
25	CA	1521	G	C6-C5-N7	-6.45	126.53	130.40
1	AA	760	G	N3-C2-N2	6.45	124.41	119.90
25	CA	1958	C	C6-N1-C2	-6.45	117.72	120.30
1	BA	61	G	N3-C4-N9	6.44	129.87	126.00
25	CA	302	C	C2-N1-C1'	-6.44	111.71	118.80
25	CA	2692	G	C8-N9-C4	6.44	108.98	106.40
1	AA	1478	U	C5-C4-O4	6.44	129.76	125.90
25	CA	792	A	C8-N9-C4	-6.44	103.22	105.80
25	CA	2820	A	C6-N1-C2	6.44	122.46	118.60
22	BV	49	C	N1-C2-O2	-6.43	115.04	118.90
1	BA	1484	C	N3-C2-O2	6.43	126.40	121.90
25	DA	783	A	C5-C6-N6	-6.43	118.55	123.70
25	DA	798	G	C5-C6-O6	6.43	132.46	128.60
25	DA	2841	C	N3-C4-C5	6.43	124.47	121.90
25	CA	1168	G	C4-C5-N7	6.43	113.37	110.80
1	BA	615	G	N1-C6-O6	-6.43	116.04	119.90
25	DA	1213	A	C5-C6-N1	-6.42	114.49	117.70
25	CA	598	U	C6-N1-C2	6.42	124.85	121.00
25	CA	2677	G	N1-C6-O6	6.42	123.75	119.90
25	CA	2010	G	N1-C6-O6	-6.42	116.05	119.90
25	CA	2428	G	C5-C6-O6	-6.42	124.75	128.60
25	DA	1298	C	N3-C2-O2	6.42	126.39	121.90
25	DA	2564	A	N7-C8-N9	6.42	117.01	113.80
25	DA	2532	G	C4-C5-N7	6.42	113.37	110.80
25	DA	1786	A	C4-C5-N7	-6.42	107.49	110.70
1	AA	351	G	C8-N9-C4	-6.41	103.83	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	735	A	C8-N9-C4	6.41	108.37	105.80
25	CA	1769	U	N1-C2-O2	-6.41	118.31	122.80
25	CA	2375	G	N3-C2-N2	-6.41	115.41	119.90
25	CA	2890	G	C6-C5-N7	-6.41	126.55	130.40
25	DA	477	A	C5-C6-N6	-6.41	118.57	123.70
1	BA	1530	G	N3-C4-C5	6.41	131.80	128.60
25	CA	1977	A	C8-N9-C4	6.41	108.36	105.80
25	CA	2278	A	C5-C6-N6	-6.41	118.58	123.70
1	BA	1492	A	C8-N9-C4	-6.40	103.24	105.80
25	CA	518	G	N3-C2-N2	-6.40	115.42	119.90
25	CA	1499	C	N1-C2-O2	-6.40	115.06	118.90
25	CA	2699	C	N3-C4-C5	6.40	124.46	121.90
25	DA	85	G	N1-C6-O6	6.40	123.74	119.90
25	CA	513	A	C6-C5-N7	-6.40	127.82	132.30
25	CA	995	C	C6-N1-C2	-6.40	117.74	120.30
25	CA	1521	G	C4-N9-C1'	6.40	134.82	126.50
1	BA	728	A	C8-N9-C4	-6.40	103.24	105.80
25	CA	1443	U	N3-C2-O2	-6.40	117.72	122.20
25	CA	2716	C	N1-C2-O2	-6.40	115.06	118.90
25	DA	2029	G	N1-C2-N2	-6.40	110.44	116.20
26	CB	71	C	N3-C2-O2	6.40	126.38	121.90
25	DA	308	G	N3-C4-C5	-6.40	125.40	128.60
25	CA	1757	A	N9-C4-C5	-6.40	103.24	105.80
25	DA	1826	G	C8-N9-C4	6.40	108.96	106.40
1	AA	738	C	N1-C2-O2	-6.39	115.06	118.90
1	BA	1521	C	C6-N1-C2	6.39	122.86	120.30
25	DA	1648	U	N3-C2-O2	6.39	126.68	122.20
1	AA	1064	G	N1-C6-O6	-6.39	116.06	119.90
25	DA	1796	U	N3-C4-C5	6.39	118.44	114.60
25	DA	2487	G	C8-N9-C4	6.39	108.95	106.40
25	CA	942	G	N9-C4-C5	6.38	107.95	105.40
25	CA	1646	C	N1-C2-O2	-6.38	115.07	118.90
25	DA	1302	A	N1-C6-N6	6.38	122.43	118.60
1	AA	1520	C	N3-C4-C5	6.38	124.45	121.90
25	DA	1163	G	N3-C4-C5	6.38	131.79	128.60
25	DA	1970	A	N3-C4-C5	-6.38	122.33	126.80
25	DA	1225	G	C8-N9-C4	6.38	108.95	106.40
1	AA	914	A	C8-N9-C4	-6.38	103.25	105.80
1	BA	322	C	C5-C6-N1	-6.38	117.81	121.00
25	CA	1325	U	C2-N1-C1'	-6.38	110.05	117.70
25	DA	2811	G	C4-N9-C1'	-6.38	118.21	126.50
25	CA	743	A	N1-C6-N6	6.38	122.43	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	2829	A	C2-N3-C4	-6.38	107.41	110.60
25	CA	2724	U	N3-C4-O4	-6.38	114.94	119.40
56	DB	83	G	N3-C4-N9	-6.38	122.17	126.00
25	CA	316	C	C6-N1-C2	6.37	122.85	120.30
25	CA	1835	G	C5-C6-N1	6.37	114.69	111.50
25	CA	2250	G	N7-C8-N9	6.37	116.28	113.10
29	CE	146	VAL	CB-CA-C	-6.37	99.30	111.40
25	CA	2331	G	C4-N9-C1'	6.37	134.78	126.50
25	CA	1357	C	N1-C2-O2	-6.37	115.08	118.90
25	DA	1842	G	N3-C4-C5	6.37	131.78	128.60
25	CA	1543	G	C4-C5-N7	-6.37	108.25	110.80
1	AA	881	G	C8-N9-C4	6.36	108.94	106.40
25	DA	477	A	N1-C6-N6	6.36	122.42	118.60
25	DA	582	A	N1-C6-N6	6.36	122.42	118.60
25	DA	39	G	N3-C4-N9	-6.36	122.18	126.00
25	DA	443	A	N9-C4-C5	6.36	108.34	105.80
25	CA	101	A	C4-C5-C6	6.36	120.18	117.00
25	CA	2253	G	N3-C2-N2	-6.36	115.45	119.90
25	CA	2717	C	N1-C2-N3	6.36	123.65	119.20
25	DA	967	U	C2-N1-C1'	-6.36	110.07	117.70
25	CA	2688	G	N1-C6-O6	-6.36	116.09	119.90
25	DA	1422	G	C8-N9-C4	6.36	108.94	106.40
25	CA	1007	C	N1-C2-O2	-6.36	115.09	118.90
25	CA	1757	A	N1-C6-N6	6.36	122.41	118.60
1	AA	914	A	N9-C4-C5	6.35	108.34	105.80
1	BA	530	G	N7-C8-N9	6.35	116.28	113.10
25	DA	1985	C	C2-N1-C1'	-6.35	111.81	118.80
25	CA	2426	A	N7-C8-N9	6.35	116.98	113.80
25	CA	2469	A	N7-C8-N9	-6.35	110.62	113.80
25	DA	1971	U	C5-C4-O4	-6.35	122.09	125.90
25	CA	324	A	C8-N9-C4	6.35	108.34	105.80
25	CA	1902	C	C6-N1-C2	6.35	122.84	120.30
25	CA	1138	G	N1-C6-O6	6.34	123.71	119.90
25	CA	1595	C	C2-N1-C1'	-6.34	111.82	118.80
25	CA	1602	U	C6-N1-C2	6.34	124.81	121.00
1	AA	342	C	C6-N1-C2	6.34	122.84	120.30
1	AA	351	G	C6-C5-N7	-6.34	126.59	130.40
25	CA	382	A	C4-C5-N7	6.34	113.87	110.70
25	CA	1466	U	C6-N1-C2	6.34	124.81	121.00
25	DA	784	G	N3-C4-N9	6.34	129.81	126.00
1	AA	555	U	N3-C2-O2	6.34	126.64	122.20
25	CA	221	A	N3-C4-C5	6.34	131.24	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	2031	A	C2-N3-C4	6.34	113.77	110.60
25	CA	538	A	N9-C4-C5	6.34	108.33	105.80
25	CA	342	A	C5-C6-N6	-6.34	118.63	123.70
25	CA	1256	G	N9-C4-C5	-6.34	102.86	105.40
25	CA	2030	A	C5-C6-N6	6.34	128.77	123.70
1	BA	452	A	C2-N3-C4	-6.33	107.43	110.60
25	CA	2260	C	N3-C4-C5	6.33	124.43	121.90
25	DA	2503	A	N9-C4-C5	-6.33	103.27	105.80
1	AA	1060	U	N1-C2-O2	-6.33	118.37	122.80
25	CA	2530	A	N1-C6-N6	6.33	122.40	118.60
25	DA	752	A	C2-N3-C4	-6.33	107.44	110.60
1	BA	188	C	C6-N1-C2	-6.33	117.77	120.30
25	DA	1666	G	C8-N9-C1'	6.33	135.23	127.00
25	CA	772	C	N1-C2-O2	-6.33	115.10	118.90
25	CA	1164	C	N1-C2-O2	-6.33	115.10	118.90
25	CA	1759	A	C8-N9-C4	-6.33	103.27	105.80
25	CA	25	U	N3-C4-O4	6.33	123.83	119.40
25	DA	783	A	C2-N3-C4	-6.33	107.44	110.60
1	BA	278	G	C8-N9-C1'	6.33	135.22	127.00
25	CA	74	A	N1-C6-N6	-6.33	114.80	118.60
25	DA	462	C	C6-N1-C2	6.33	122.83	120.30
25	CA	1674	G	C4-N9-C1'	6.32	134.72	126.50
25	DA	13	A	C4-C5-C6	6.32	120.16	117.00
25	DA	2158	A	N1-C6-N6	6.32	122.39	118.60
25	DA	2447	G	C4-N9-C1'	-6.32	118.28	126.50
25	CA	2802	G	N1-C2-N3	6.32	127.69	123.90
25	DA	757	G	N3-C4-N9	-6.32	122.21	126.00
25	DA	1653	G	C8-N9-C1'	-6.32	118.78	127.00
25	CA	1679	A	N1-C6-N6	6.32	122.39	118.60
25	CA	2271	G	C4-N9-C1'	6.32	134.72	126.50
25	DA	1758	U	N3-C4-O4	-6.32	114.98	119.40
25	CA	626	A	C6-C5-N7	-6.32	127.88	132.30
32	DH	62	LEU	CB-CG-CD1	6.32	121.74	111.00
10	BJ	48	ARG	NE-CZ-NH1	6.31	123.46	120.30
25	CA	1232	G	N1-C6-O6	-6.31	116.11	119.90
25	DA	2631	G	N3-C4-N9	-6.31	122.21	126.00
25	CA	787	C	C6-N1-C2	-6.31	117.78	120.30
26	CB	55	U	C6-N1-C2	-6.31	117.22	121.00
1	BA	278	G	C4-N9-C1'	-6.31	118.30	126.50
1	BA	428	G	C8-N9-C1'	6.31	135.20	127.00
1	AA	1505	G	N1-C6-O6	6.30	123.68	119.90
25	CA	727	A	N1-C6-N6	6.30	122.38	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	BV	76	A	C8-N9-C4	6.30	108.32	105.80
25	DA	782	A	N1-C6-N6	-6.30	114.82	118.60
25	CA	187	G	C5-C6-O6	-6.30	124.82	128.60
25	CA	2492	U	C5-C4-O4	6.30	129.68	125.90
25	DA	424	G	C4-N9-C1'	-6.30	118.31	126.50
25	CA	2271	G	C4-C5-N7	6.30	113.32	110.80
25	CA	2354	C	C2-N3-C4	-6.30	116.75	119.90
25	DA	1653	G	N1-C6-O6	6.30	123.68	119.90
25	CA	2782	G	C8-N9-C4	6.29	108.92	106.40
25	CA	2598	A	C8-N9-C4	-6.29	103.28	105.80
25	DA	1836	C	N1-C2-O2	-6.29	115.13	118.90
25	CA	942	G	C4-C5-N7	-6.29	108.28	110.80
25	CA	832	U	N1-C2-O2	-6.29	118.40	122.80
25	CA	1341	G	C5-C6-O6	-6.29	124.83	128.60
25	CA	1672	A	C6-C5-N7	-6.29	127.90	132.30
26	CB	58	A	C5-C6-N1	6.29	120.84	117.70
25	DA	1659	G	N3-C4-N9	-6.29	122.23	126.00
25	DA	2502	G	C5-C6-N1	6.29	114.64	111.50
25	CA	1766	G	C8-N9-C4	6.29	108.92	106.40
1	BA	1466	C	C6-N1-C2	6.29	122.81	120.30
25	DA	77	G	N3-C4-C5	6.29	131.74	128.60
25	CA	459	U	N3-C4-C5	6.28	118.37	114.60
25	CA	1816	C	N3-C2-O2	6.28	126.30	121.90
25	CA	2009	A	N1-C6-N6	-6.28	114.83	118.60
25	CA	939	G	C5-C6-O6	-6.28	124.83	128.60
25	DA	249	C	C2-N1-C1'	-6.28	111.89	118.80
25	CA	821	A	N3-C4-C5	6.28	131.19	126.80
25	CA	1500	G	C5-C6-O6	-6.28	124.83	128.60
25	CA	2289	G	N3-C4-N9	-6.28	122.23	126.00
25	DA	955	U	C5-C6-N1	6.28	125.84	122.70
25	DA	985	C	C6-N1-C2	-6.28	117.79	120.30
25	DA	2884	U	N3-C2-O2	6.28	126.59	122.20
1	AA	35	G	N1-C6-O6	-6.27	116.14	119.90
1	AA	351	G	N1-C6-O6	6.27	123.66	119.90
25	CA	2147	A	C5-C6-N6	-6.27	118.68	123.70
27	CC	268	ARG	NE-CZ-NH1	6.27	123.44	120.30
25	CA	46	G	N9-C4-C5	6.27	107.91	105.40
25	CA	2626	C	N3-C2-O2	6.27	126.29	121.90
25	CA	2890	G	N1-C6-O6	6.27	123.66	119.90
25	DA	2030	A	C5-C6-N1	-6.27	114.56	117.70
25	DA	862	G	C5-C6-O6	-6.27	124.84	128.60
25	CA	171	U	C5-C4-O4	6.26	129.66	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	2830	C	N3-C2-O2	6.26	126.28	121.90
25	DA	225	C	C6-N1-C2	-6.26	117.79	120.30
1	BA	400	C	N1-C2-O2	-6.26	115.14	118.90
25	CA	1897	G	C4-N9-C1'	6.26	134.64	126.50
25	CA	1989	G	C4-C5-N7	6.26	113.31	110.80
25	CA	2000	C	N3-C4-C5	6.26	124.41	121.90
25	CA	2400	G	C5-C6-N1	6.26	114.63	111.50
25	CA	2538	C	N3-C4-C5	6.26	124.40	121.90
25	CA	2802	G	C2-N3-C4	-6.26	108.77	111.90
26	CB	12	C	C2-N3-C4	-6.26	116.77	119.90
25	DA	2491	U	N1-C2-N3	-6.26	111.14	114.90
25	CA	471	A	N1-C6-N6	6.26	122.35	118.60
25	CA	2436	G	N1-C2-N3	6.26	127.65	123.90
25	CA	534	U	N3-C2-O2	6.25	126.58	122.20
25	DA	528	A	C4-C5-N7	6.25	113.83	110.70
25	DA	1125	G	C8-N9-C1'	-6.25	118.87	127.00
25	DA	1265	A	C4-C5-C6	6.25	120.12	117.00
25	CA	1574	C	C5-C4-N4	-6.25	115.83	120.20
25	DA	1198	U	C6-N1-C2	-6.25	117.25	121.00
1	AA	536	C	C6-N1-C2	6.25	122.80	120.30
25	CA	1819	A	C5-C6-N6	6.25	128.70	123.70
25	CA	2045	C	N3-C4-C5	6.25	124.40	121.90
1	AA	153	C	C6-N1-C2	6.25	122.80	120.30
25	CA	1138	G	C5-C6-O6	-6.25	124.85	128.60
25	DA	2705	A	N1-C6-N6	6.25	122.35	118.60
25	CA	1108	U	N3-C2-O2	6.24	126.57	122.20
25	CA	1336	A	C4-C5-N7	-6.24	107.58	110.70
25	DA	1845	G	C4-C5-N7	-6.24	108.30	110.80
25	CA	1573	G	C5-C6-O6	-6.24	124.86	128.60
25	CA	453	A	C5-C6-N1	-6.24	114.58	117.70
25	CA	683	U	N1-C2-O2	-6.23	118.44	122.80
25	CA	481	G	N1-C6-O6	6.23	123.64	119.90
25	CA	1519	G	C5-C6-O6	6.23	132.34	128.60
1	BA	106	C	C6-N1-C2	6.23	122.79	120.30
25	CA	618	G	C5-C6-O6	6.23	132.34	128.60
25	CA	1378	A	N9-C4-C5	6.23	108.29	105.80
25	CA	208	C	C2-N3-C4	-6.23	116.79	119.90
25	CA	618	G	C4-C5-N7	-6.23	108.31	110.80
25	CA	1695	G	C6-C5-N7	-6.23	126.66	130.40
25	CA	812	C	N3-C2-O2	6.23	126.26	121.90
25	DA	1648	U	N1-C2-O2	-6.23	118.44	122.80
25	CA	2621	G	N3-C4-N9	-6.22	122.27	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	23	G	C8-N9-C4	6.22	108.89	106.40
26	CB	8	C	N3-C2-O2	6.22	126.25	121.90
1	AA	877	G	N1-C6-O6	-6.22	116.17	119.90
25	CA	222	A	N1-C2-N3	6.22	132.41	129.30
25	CA	640	C	N3-C2-O2	6.22	126.25	121.90
25	CA	2726	A	C2-N3-C4	6.22	113.71	110.60
25	DA	939	G	C4-N9-C1'	-6.22	118.41	126.50
25	DA	1135	C	C5-C4-N4	-6.22	115.85	120.20
25	DA	1681	G	C4-C5-N7	6.22	113.29	110.80
25	DA	2532	G	N9-C4-C5	-6.22	102.91	105.40
25	DA	979	A	N9-C4-C5	6.21	108.29	105.80
1	AA	904	U	N3-C2-O2	6.21	126.55	122.20
25	CA	2683	C	N3-C2-O2	-6.21	117.55	121.90
1	AA	404	G	N3-C2-N2	6.21	124.25	119.90
1	BA	1112	C	C6-N1-C2	-6.21	117.81	120.30
25	DA	2050	C	N1-C2-O2	-6.21	115.17	118.90
25	DA	2884	U	C5-C4-O4	6.21	129.63	125.90
25	CA	2583	G	N3-C2-N2	-6.21	115.55	119.90
25	DA	511	U	N3-C4-C5	6.21	118.33	114.60
25	CA	489	G	N3-C2-N2	-6.21	115.55	119.90
25	CA	2696	U	N3-C2-O2	-6.21	117.85	122.20
25	DA	1135	C	N3-C2-O2	6.21	126.25	121.90
25	DA	1340	U	N3-C2-O2	-6.21	117.85	122.20
25	CA	1402	U	C5-C6-N1	-6.21	119.60	122.70
25	CA	1936	A	C4-C5-N7	6.21	113.80	110.70
25	CA	727	A	N9-C4-C5	-6.21	103.32	105.80
25	CA	2855	C	N1-C2-O2	-6.20	115.18	118.90
25	DA	2208	C	C2-N1-C1'	6.20	125.62	118.80
25	DA	1930	G	C8-N9-C4	6.20	108.88	106.40
25	CA	2877	G	N1-C6-O6	6.20	123.62	119.90
1	BA	530	G	C5-N7-C8	-6.20	101.20	104.30
25	CA	122	G	N1-C6-O6	6.20	123.62	119.90
26	CB	43	C	C6-N1-C2	-6.20	117.82	120.30
1	AA	36	C	N3-C4-C5	-6.19	119.42	121.90
25	CA	1939	U	N3-C2-O2	6.19	126.53	122.20
25	DA	1447	C	C6-N1-C2	-6.19	117.82	120.30
25	CA	2331	G	C4-C5-N7	6.19	113.28	110.80
1	AA	1094	G	N9-C4-C5	-6.19	102.92	105.40
25	CA	1165	A	C2-N3-C4	-6.19	107.50	110.60
25	DA	2022	U	C5-C4-O4	-6.19	122.19	125.90
1	BA	735	C	C6-N1-C2	-6.19	117.83	120.30
25	DA	1791	A	N1-C6-N6	6.19	122.31	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	1005	C	N1-C2-O2	-6.18	115.19	118.90
25	CA	2838	G	N7-C8-N9	-6.18	110.01	113.10
25	DA	238	C	N3-C2-O2	6.18	126.23	121.90
25	CA	859	G	N1-C6-O6	-6.18	116.19	119.90
25	DA	1377	G	C8-N9-C4	-6.18	103.93	106.40
25	DA	2619	C	C2-N1-C1'	-6.18	112.00	118.80
25	CA	2282	G	N3-C4-C5	-6.18	125.51	128.60
25	DA	1187	G	C4-N9-C1'	6.18	134.53	126.50
25	CA	488	G	N3-C4-C5	-6.18	125.51	128.60
25	CA	1311	G	C5-C6-O6	-6.18	124.89	128.60
25	CA	1394	U	C6-N1-C1'	6.18	129.85	121.20
25	DA	1327	A	C5-C6-N1	-6.18	114.61	117.70
25	DA	2601	C	C6-N1-C2	-6.18	117.83	120.30
25	CA	2689	U	N1-C2-O2	6.18	127.12	122.80
1	BA	283	U	C5-C6-N1	6.18	125.79	122.70
25	CA	1808	A	C8-N9-C4	6.18	108.27	105.80
25	CA	1981	A	N1-C6-N6	-6.18	114.89	118.60
25	DA	1303	G	C8-N9-C4	-6.18	103.93	106.40
1	AA	1481	U	C6-N1-C1'	6.17	129.84	121.20
25	CA	17	G	C8-N9-C4	6.17	108.87	106.40
25	CA	331	C	N1-C2-O2	-6.17	115.19	118.90
25	CA	1920	C	C6-N1-C2	-6.17	117.83	120.30
25	CA	2364	C	N1-C2-O2	-6.17	115.19	118.90
25	CA	550	C	C6-N1-C2	-6.17	117.83	120.30
26	CB	61	G	N3-C4-C5	6.17	131.69	128.60
1	AA	365	U	N3-C4-O4	-6.17	115.08	119.40
1	BA	871	U	N1-C2-O2	6.17	127.12	122.80
25	CA	398	C	C2-N1-C1'	-6.17	112.01	118.80
25	CA	748	G	C5-N7-C8	6.17	107.39	104.30
25	CA	2364	C	C5-C6-N1	-6.17	117.91	121.00
25	CA	2782	G	C5-C6-N1	6.17	114.59	111.50
25	CA	1680	U	N3-C2-O2	-6.17	117.88	122.20
1	AA	351	G	C4-C5-N7	6.17	113.27	110.80
1	BA	378	G	N9-C4-C5	-6.17	102.93	105.40
25	CA	83	A	C6-N1-C2	-6.17	114.90	118.60
25	DA	1163	G	C8-N9-C1'	6.17	135.02	127.00
1	AA	971	G	N9-C4-C5	6.17	107.87	105.40
25	CA	371	A	N7-C8-N9	-6.17	110.72	113.80
25	CA	708	G	C4-N9-C1'	-6.17	118.48	126.50
25	CA	51	G	C8-N9-C4	-6.16	103.94	106.40
25	DA	792	A	N9-C4-C5	6.16	108.27	105.80
25	CA	417	C	C6-N1-C2	-6.16	117.83	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	984	A	N9-C4-C5	-6.16	103.33	105.80
25	DA	1970	A	C2-N3-C4	6.16	113.68	110.60
25	CA	171	U	N3-C4-O4	-6.16	115.09	119.40
25	CA	2808	G	N3-C2-N2	6.16	124.21	119.90
25	DA	2594	C	N3-C2-O2	6.16	126.21	121.90
25	CA	748	G	N9-C4-C5	6.16	107.86	105.40
25	CA	1446	C	N1-C2-O2	-6.16	115.20	118.90
25	DA	1681	G	N1-C6-O6	6.16	123.59	119.90
25	CA	1500	G	N1-C6-O6	6.15	123.59	119.90
25	CA	2688	G	C5-C6-O6	6.15	132.29	128.60
1	AA	664	G	C5-C6-O6	6.15	132.29	128.60
25	CA	66	C	C4-C5-C6	6.15	120.48	117.40
25	CA	1791	A	C2-N3-C4	-6.15	107.52	110.60
25	CA	2269	G	C8-N9-C4	-6.15	103.94	106.40
25	CA	2540	C	N1-C2-O2	-6.15	115.21	118.90
56	DB	100	G	C8-N9-C4	6.15	108.86	106.40
1	AA	822	U	N3-C2-O2	6.15	126.50	122.20
25	CA	215	G	N9-C4-C5	-6.15	102.94	105.40
25	CA	2271	G	N3-C2-N2	6.15	124.20	119.90
25	CA	2307	G	N3-C2-N2	-6.15	115.60	119.90
25	CA	2647	U	C5-C6-N1	-6.15	119.63	122.70
25	CA	91	A	C8-N9-C4	6.15	108.26	105.80
25	CA	642	U	N1-C2-O2	-6.15	118.50	122.80
25	CA	1456	G	N3-C4-C5	6.14	131.67	128.60
25	CA	1554	U	C5-C6-N1	-6.14	119.63	122.70
25	CA	2360	G	N1-C6-O6	6.14	123.59	119.90
25	DA	2709	G	N1-C6-O6	6.14	123.59	119.90
25	CA	335	C	N1-C2-O2	-6.14	115.22	118.90
25	CA	509	C	C5-C6-N1	-6.14	117.93	121.00
25	CA	1784	A	N1-C6-N6	6.14	122.28	118.60
25	CA	555	G	C6-C5-N7	-6.14	126.72	130.40
25	CA	2209	G	N1-C6-O6	6.14	123.58	119.90
25	CA	473	G	N9-C4-C5	6.14	107.86	105.40
25	DA	510	C	C5-C4-N4	-6.14	115.90	120.20
25	DA	661	A	C8-N9-C4	6.14	108.26	105.80
25	DA	1786	A	N1-C6-N6	-6.14	114.92	118.60
25	DA	2870	C	C2-N1-C1'	-6.14	112.05	118.80
25	DA	2503	A	C8-N9-C4	6.14	108.25	105.80
1	AA	279	A	N1-C6-N6	6.13	122.28	118.60
25	CA	2468	A	C6-C5-N7	-6.13	128.00	132.30
25	CA	11	C	N3-C2-O2	6.13	126.19	121.90
25	CA	2677	G	C5-C6-O6	-6.13	124.92	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	325	G	C8-N9-C4	6.13	108.85	106.40
25	DA	968	C	N1-C2-O2	-6.13	115.22	118.90
25	DA	2019	A	C8-N9-C4	6.13	108.25	105.80
25	CA	585	G	C8-N9-C4	-6.13	103.95	106.40
25	CA	1955	U	C5-C4-O4	6.13	129.58	125.90
1	AA	677	U	C2-N1-C1'	6.13	125.05	117.70
25	CA	616	A	C2-N3-C4	-6.13	107.54	110.60
25	CA	748	G	C5-C6-O6	6.13	132.28	128.60
25	CA	1255	U	N3-C2-O2	6.13	126.49	122.20
25	CA	1939	U	C4-C5-C6	-6.13	116.02	119.70
25	CA	2689	U	C5-C6-N1	-6.13	119.64	122.70
25	DA	2884	U	C2-N1-C1'	-6.13	110.35	117.70
25	CA	116	C	C2-N1-C1'	-6.12	112.06	118.80
25	CA	1127	A	C2-N3-C4	6.12	113.66	110.60
25	CA	2502	G	C8-N9-C4	-6.12	103.95	106.40
25	CA	2720	U	N3-C2-O2	-6.12	117.91	122.20
25	DA	2445	G	N1-C6-O6	6.12	123.57	119.90
25	CA	1758	U	C5-C4-O4	6.12	129.57	125.90
25	CA	1817	G	C5-C6-O6	6.12	132.27	128.60
25	CA	2897	U	C2-N3-C4	-6.12	123.33	127.00
25	DA	450	G	C4-C5-N7	-6.12	108.35	110.80
25	CA	2354	C	C5-C6-N1	-6.12	117.94	121.00
25	CA	840	C	N1-C2-O2	6.12	122.57	118.90
25	CA	2271	G	C6-C5-N7	-6.12	126.73	130.40
25	CA	1827	U	N1-C2-N3	6.12	118.57	114.90
25	CA	1770	G	N3-C4-N9	6.11	129.67	126.00
25	CA	2056	G	N1-C6-O6	6.11	123.57	119.90
25	DA	815	C	N3-C4-N4	6.11	122.28	118.00
1	AA	791	G	C5-C6-O6	-6.11	124.93	128.60
25	CA	1842	G	N1-C6-O6	6.11	123.56	119.90
25	DA	1997	C	C2-N3-C4	-6.11	116.85	119.90
25	DA	180	G	C4-N9-C1'	-6.11	118.56	126.50
25	CA	1842	G	N3-C4-N9	6.11	129.66	126.00
25	DA	561	G	C4-C5-N7	6.11	113.24	110.80
25	DA	2884	U	C6-N1-C1'	6.11	129.75	121.20
1	BA	538	G	N1-C6-O6	-6.10	116.24	119.90
25	CA	2226	C	C2-N3-C4	-6.10	116.85	119.90
25	DA	962	G	C2-N3-C4	-6.10	108.85	111.90
25	DA	1002	G	N3-C4-N9	-6.10	122.34	126.00
25	DA	2278	A	N1-C6-N6	6.10	122.26	118.60
25	DA	2870	C	C6-N1-C2	6.10	122.74	120.30
1	BA	326	G	C5-C6-O6	6.10	132.26	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	25	U	C5-C4-O4	-6.10	122.24	125.90
25	CA	268	C	C6-N1-C2	6.10	122.74	120.30
25	CA	827	U	N3-C2-O2	6.10	126.47	122.20
25	CA	1024	G	C4-C5-N7	6.10	113.24	110.80
25	CA	1436	G	C5-C6-O6	6.10	132.26	128.60
25	CA	2447	G	C5-C6-O6	-6.10	124.94	128.60
25	DA	562	U	N3-C4-O4	-6.10	115.13	119.40
25	DA	1074	G	N9-C4-C5	6.10	107.84	105.40
25	DA	2887	A	N1-C6-N6	6.10	122.26	118.60
25	CA	555	G	C4-C5-N7	6.10	113.24	110.80
25	CA	1572	A	N1-C6-N6	-6.10	114.94	118.60
1	AA	1524	C	N3-C2-O2	6.09	126.17	121.90
25	CA	1125	G	N1-C6-O6	-6.09	116.24	119.90
25	CA	1614	A	C8-N9-C4	6.09	108.24	105.80
25	DA	1573	G	C6-C5-N7	6.09	134.06	130.40
1	AA	53	A	N1-C6-N6	6.09	122.26	118.60
25	CA	2313	C	C6-N1-C2	-6.09	117.86	120.30
25	DA	2596	U	N3-C2-O2	-6.09	117.94	122.20
1	BA	1480	A	C5-C6-N1	-6.09	114.65	117.70
25	CA	1961	C	N3-C4-C5	6.09	124.34	121.90
25	DA	853	C	C6-N1-C2	6.09	122.74	120.30
25	DA	984	A	C4-N9-C1'	-6.09	115.34	126.30
25	DA	1845	G	N9-C4-C5	6.09	107.84	105.40
25	CA	175	G	C4-N9-C1'	-6.09	118.58	126.50
25	DA	2539	C	N1-C2-O2	-6.09	115.25	118.90
25	CA	2535	G	C8-N9-C4	6.09	108.83	106.40
25	CA	2553	G	N1-C2-N2	-6.09	110.72	116.20
25	DA	2433	A	C8-N9-C4	6.09	108.23	105.80
25	CA	404	A	N1-C6-N6	6.08	122.25	118.60
25	DA	757	G	C8-N9-C1'	6.08	134.91	127.00
25	CA	840	C	N3-C4-C5	6.08	124.33	121.90
25	CA	1336	A	N9-C4-C5	6.08	108.23	105.80
26	CB	58	A	C6-N1-C2	-6.08	114.95	118.60
25	DA	1001	A	C8-N9-C4	6.08	108.23	105.80
1	BA	823	C	N3-C2-O2	6.08	126.16	121.90
25	DA	1971	U	N3-C4-O4	6.08	123.66	119.40
1	AA	329	A	C8-N9-C4	6.08	108.23	105.80
25	CA	2490	G	C8-N9-C4	6.08	108.83	106.40
25	CA	2204	G	N1-C6-O6	6.08	123.55	119.90
25	CA	2289	G	N3-C4-C5	6.08	131.64	128.60
25	CA	2396	G	N1-C6-O6	-6.08	116.25	119.90
25	CA	2223	G	N1-C6-O6	6.08	123.55	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	1389	G	N1-C6-O6	6.08	123.55	119.90
25	DA	2783	U	N3-C4-O4	-6.08	115.15	119.40
25	CA	533	G	C8-N9-C1'	-6.07	119.11	127.00
1	AA	859	G	N9-C4-C5	-6.07	102.97	105.40
25	CA	1513	U	C2-N1-C1'	-6.07	110.42	117.70
25	CA	2893	A	C4-C5-C6	6.07	120.03	117.00
25	DA	1006	C	N3-C2-O2	6.07	126.15	121.90
25	DA	1192	G	N7-C8-N9	-6.07	110.06	113.10
25	DA	1711	A	C8-N9-C4	-6.07	103.37	105.80
25	DA	1605	C	N1-C2-O2	-6.07	115.26	118.90
25	DA	1236	G	C4-C5-N7	6.07	113.23	110.80
56	DB	91	C	C2-N1-C1'	-6.07	112.12	118.80
26	CB	51	G	C5-C6-O6	-6.07	124.96	128.60
25	CA	1294	U	C5-C6-N1	-6.06	119.67	122.70
25	DA	109	C	N1-C2-O2	-6.06	115.26	118.90
1	AA	734	G	N3-C4-N9	6.06	129.64	126.00
25	CA	1623	G	N1-C6-O6	6.06	123.54	119.90
25	CA	2045	C	C2-N3-C4	-6.06	116.87	119.90
25	CA	2884	U	N3-C4-O4	-6.06	115.16	119.40
25	DA	517	C	N3-C4-N4	6.06	122.24	118.00
25	DA	2383	G	N1-C6-O6	6.06	123.54	119.90
25	CA	499	U	N1-C2-N3	6.06	118.54	114.90
25	CA	1512	C	N1-C2-O2	-6.06	115.26	118.90
25	DA	526	A	C4-C5-N7	-6.06	107.67	110.70
25	DA	2388	A	N1-C6-N6	-6.06	114.96	118.60
1	AA	530	G	C6-C5-N7	-6.06	126.76	130.40
25	CA	1764	C	N3-C2-O2	6.06	126.14	121.90
25	CA	1766	G	N3-C4-C5	6.06	131.63	128.60
25	CA	2056	G	N1-C2-N2	6.06	121.65	116.20
25	CA	2155	U	C2-N1-C1'	6.06	124.97	117.70
1	AA	1457	G	N3-C4-C5	6.06	131.63	128.60
25	CA	979	A	C6-C5-N7	-6.06	128.06	132.30
25	CA	1827	U	C6-N1-C2	-6.06	117.36	121.00
25	CA	1452	G	N3-C4-N9	-6.06	122.37	126.00
26	CB	90	C	N1-C2-O2	-6.05	115.27	118.90
25	DA	424	G	C6-C5-N7	6.05	134.03	130.40
25	CA	1426	G	N1-C6-O6	6.05	123.53	119.90
25	CA	1695	G	N1-C6-O6	6.05	123.53	119.90
25	DA	746	U	N3-C2-O2	-6.05	117.96	122.20
1	AA	521	G	C8-N9-C4	6.05	108.82	106.40
25	DA	2355	G	N1-C6-O6	6.05	123.53	119.90
25	DA	2517	C	N1-C2-O2	-6.05	115.27	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	205	G	N3-C4-C5	-6.05	125.58	128.60
25	CA	1022	G	N3-C4-C5	6.05	131.62	128.60
25	DA	2445	G	N1-C2-N2	6.05	121.64	116.20
25	CA	1225	G	C4-C5-N7	6.04	113.22	110.80
25	CA	1587	G	C4-N9-C1'	6.04	134.36	126.50
25	DA	2647	U	C5-C6-N1	-6.04	119.68	122.70
25	CA	252	G	N3-C4-C5	6.04	131.62	128.60
25	CA	1450	G	C4-N9-C1'	-6.04	118.65	126.50
25	CA	1528	A	C2-N3-C4	-6.04	107.58	110.60
25	CA	1639	C	C6-N1-C2	-6.04	117.88	120.30
25	CA	2084	C	N1-C2-O2	-6.04	115.28	118.90
22	AV	41	C	N1-C2-O2	-6.04	115.28	118.90
25	CA	2011	U	C6-N1-C2	6.04	124.62	121.00
25	DA	29	U	N3-C2-O2	-6.04	117.97	122.20
25	DA	2843	G	N1-C6-O6	6.04	123.52	119.90
25	CA	1341	G	C8-N9-C4	6.04	108.81	106.40
25	CA	1617	C	C5-C6-N1	-6.04	117.98	121.00
1	BA	397	A	C6-N1-C2	-6.04	114.98	118.60
1	AA	1441	A	N1-C6-N6	-6.04	114.98	118.60
25	DA	1887	C	N1-C2-O2	6.04	122.52	118.90
1	BA	1080	A	C8-N9-C4	-6.03	103.39	105.80
25	DA	488	G	C8-N9-C4	6.03	108.81	106.40
25	DA	808	G	C8-N9-C1'	-6.03	119.16	127.00
1	AA	1174	G	C4-N9-C1'	-6.03	118.66	126.50
25	CA	2603	G	C2-N3-C4	-6.03	108.88	111.90
25	DA	1796	U	C2-N1-C1'	-6.03	110.46	117.70
1	AA	715	A	N1-C6-N6	6.03	122.22	118.60
25	CA	2053	G	C6-C5-N7	-6.03	126.78	130.40
25	CA	121	G	N1-C6-O6	6.03	123.52	119.90
25	CA	292	U	C5-C6-N1	-6.03	119.69	122.70
25	CA	1587	G	C8-N9-C4	-6.03	103.99	106.40
25	CA	1980	G	C5-C6-N1	6.03	114.52	111.50
26	CB	113	C	C5-C4-N4	-6.03	115.98	120.20
25	DA	122	G	N1-C6-O6	6.03	123.52	119.90
25	CA	946	C	N1-C2-O2	-6.03	115.28	118.90
25	DA	1757	A	C4-C5-C6	6.03	120.01	117.00
1	AA	190	A	N1-C6-N6	6.03	122.22	118.60
1	AA	308	C	C5-C6-N1	-6.03	117.99	121.00
25	CA	349	U	C6-N1-C2	6.03	124.61	121.00
25	DA	636	G	C4-N9-C1'	6.03	134.33	126.50
25	CA	2031	A	N3-C4-C5	-6.02	122.58	126.80
25	CA	2226	C	N1-C2-N3	6.02	123.42	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	1223	G	N3-C4-C5	6.02	131.61	128.60
26	CB	86	G	C8-N9-C4	6.02	108.81	106.40
25	CA	2711	A	C2-N3-C4	-6.02	107.59	110.60
25	CA	2762	C	C2-N3-C4	-6.02	116.89	119.90
25	DA	122	G	C5-C6-O6	-6.02	124.99	128.60
25	DA	1030	C	C6-N1-C2	6.02	122.71	120.30
25	DA	2432	A	N1-C6-N6	6.02	122.21	118.60
22	BV	29	G	N3-C4-C5	6.02	131.61	128.60
25	CA	1122	G	N9-C4-C5	6.02	107.81	105.40
25	CA	1187	G	C8-N9-C4	-6.02	103.99	106.40
25	CA	1357	C	C2-N3-C4	-6.01	116.89	119.90
1	AA	1481	U	C2-N1-C1'	-6.01	110.49	117.70
25	DA	129	C	C5-C6-N1	-6.01	117.99	121.00
25	DA	1931	U	N1-C2-O2	6.01	127.01	122.80
1	AA	12	U	C5-C4-O4	6.01	129.51	125.90
25	CA	1646	C	C2-N3-C4	-6.01	116.90	119.90
25	CA	2331	G	C8-N9-C1'	-6.01	119.19	127.00
25	CA	441	U	N3-C2-O2	-6.01	117.99	122.20
25	CA	1410	G	C8-N9-C4	6.01	108.80	106.40
25	CA	2888	C	C6-N1-C1'	-6.01	113.59	120.80
1	BA	987	G	N3-C4-C5	-6.01	125.60	128.60
25	DA	595	C	C6-N1-C2	6.01	122.70	120.30
25	DA	805	G	C2-N3-C4	-6.00	108.90	111.90
25	CA	1470	A	N9-C4-C5	6.00	108.20	105.80
25	CA	1988	G	C5-C6-N1	-6.00	108.50	111.50
25	CA	2619	C	N3-C4-C5	6.00	124.30	121.90
25	DA	1143	A	C8-N9-C4	6.00	108.20	105.80
25	DA	1932	A	N1-C6-N6	6.00	122.20	118.60
25	CA	60	G	C5-C6-O6	-6.00	125.00	128.60
25	CA	1200	C	N1-C2-O2	-6.00	115.30	118.90
25	DA	1653	G	C4-N9-C1'	6.00	134.30	126.50
25	DA	380	G	N1-C6-O6	6.00	123.50	119.90
25	DA	1161	C	N3-C4-C5	6.00	124.30	121.90
25	DA	242	G	N1-C6-O6	-6.00	116.30	119.90
25	DA	275	C	C6-N1-C2	-6.00	117.90	120.30
25	DA	1360	G	N9-C4-C5	6.00	107.80	105.40
25	CA	990	A	C2-N3-C4	-6.00	107.60	110.60
25	CA	1767	G	N3-C4-C5	6.00	131.60	128.60
25	CA	2347	C	N1-C2-O2	-6.00	115.30	118.90
1	BA	1286	U	C2-N1-C1'	5.99	124.89	117.70
25	CA	793	A	C5-C6-N6	5.99	128.49	123.70
25	CA	914	G	C4-N9-C1'	-5.99	118.71	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	1301	A	C4-C5-N7	5.99	113.70	110.70
25	DA	2677	G	C2-N3-C4	5.99	114.90	111.90
25	CA	2609	U	C6-N1-C2	5.99	124.59	121.00
25	CA	129	C	C6-N1-C2	5.99	122.70	120.30
25	CA	984	A	C4-N9-C1'	-5.99	115.52	126.30
25	CA	2032	G	N7-C8-N9	-5.99	110.11	113.10
25	DA	908	C	N3-C2-O2	5.99	126.09	121.90
25	CA	560	C	C6-N1-C2	-5.99	117.91	120.30
25	DA	29	U	C5-C4-O4	5.99	129.49	125.90
25	CA	1801	A	C2-N3-C4	-5.99	107.61	110.60
26	CB	80	U	N1-C2-O2	-5.98	118.61	122.80
25	DA	2396	G	N3-C4-C5	5.98	131.59	128.60
1	AA	67	C	C6-N1-C2	-5.98	117.91	120.30
1	BA	858	G	C5-C6-O6	5.98	132.19	128.60
25	CA	1999	C	N1-C2-O2	-5.98	115.31	118.90
25	DA	500	G	C8-N9-C4	5.98	108.79	106.40
25	CA	580	U	N1-C2-O2	-5.98	118.61	122.80
25	CA	2642	G	C5-C6-N1	5.98	114.49	111.50
56	DB	83	G	N9-C4-C5	5.98	107.79	105.40
25	DA	509	C	C2-N3-C4	-5.98	116.91	119.90
25	CA	1795	C	N1-C2-O2	-5.97	115.32	118.90
25	CA	2024	G	N3-C4-C5	-5.97	125.61	128.60
1	BA	713	G	C4-C5-N7	-5.97	108.41	110.80
25	CA	1073	A	C8-N9-C4	-5.97	103.41	105.80
25	DA	673	C	N3-C4-C5	5.97	124.29	121.90
25	CA	1660	G	N3-C2-N2	-5.97	115.72	119.90
25	DA	1910	G	C4-C5-N7	-5.97	108.41	110.80
1	BA	788	U	N3-C2-O2	5.97	126.38	122.20
25	CA	2621	G	C5-C6-N1	-5.97	108.52	111.50
25	DA	565	C	N3-C4-N4	5.97	122.18	118.00
25	DA	2006	C	N1-C2-O2	-5.97	115.32	118.90
25	CA	1208	C	C5-C6-N1	-5.97	118.02	121.00
25	DA	801	G	C5-C6-O6	5.97	132.18	128.60
25	DA	2061	G	N3-C4-C5	-5.97	125.62	128.60
25	DA	1753	G	N1-C6-O6	-5.97	116.32	119.90
1	AA	816	A	C8-N9-C4	5.96	108.19	105.80
25	CA	1674	G	N3-C4-C5	-5.96	125.62	128.60
25	CA	2435	A	C5-C6-N6	-5.96	118.93	123.70
25	DA	987	C	N1-C2-N3	5.96	123.37	119.20
1	AA	859	G	C4-N9-C1'	5.96	134.25	126.50
25	CA	315	G	C5-C6-O6	-5.96	125.02	128.60
25	DA	2018	G	N3-C4-C5	5.96	131.58	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	2731	G	C2-N3-C4	5.96	114.88	111.90
25	DA	308	G	C4-N9-C1'	5.96	134.25	126.50
25	CA	634	C	N3-C4-C5	5.96	124.28	121.90
25	CA	2495	G	C5-C6-O6	5.96	132.17	128.60
25	DA	159	G	C4-C5-N7	-5.96	108.42	110.80
25	CA	1351	C	C6-N1-C1'	5.96	127.95	120.80
25	CA	2059	A	C8-N9-C4	5.96	108.18	105.80
25	CA	2232	C	C2-N1-C1'	-5.95	112.25	118.80
25	CA	1311	G	N3-C4-N9	-5.95	122.43	126.00
25	CA	1660	G	N1-C6-O6	-5.95	116.33	119.90
25	CA	1743	G	N3-C4-N9	5.95	129.57	126.00
25	DA	1451	C	N1-C2-O2	-5.95	115.33	118.90
25	DA	2532	G	C2-N3-C4	-5.95	108.92	111.90
1	AA	365	U	C2-N1-C1'	-5.95	110.56	117.70
25	CA	1842	G	N9-C4-C5	-5.95	103.02	105.40
25	DA	424	G	C4-C5-C6	-5.95	115.23	118.80
1	AA	1322	C	N1-C2-O2	-5.95	115.33	118.90
25	CA	450	G	N3-C4-C5	-5.95	125.63	128.60
25	DA	1004	U	N3-C2-O2	5.95	126.36	122.20
25	DA	1404	C	C6-N1-C2	-5.95	117.92	120.30
25	CA	795	C	N1-C2-O2	-5.95	115.33	118.90
25	CA	866	A	N1-C6-N6	5.95	122.17	118.60
25	CA	2834	G	N3-C2-N2	5.95	124.06	119.90
1	AA	1417	G	N3-C4-N9	5.94	129.57	126.00
1	AA	664	G	C4-C5-N7	-5.94	108.42	110.80
1	AA	903	G	N1-C6-O6	-5.94	116.33	119.90
1	AA	1417	G	C4-C5-N7	5.94	113.18	110.80
25	CA	311	A	C8-N9-C4	5.94	108.18	105.80
25	CA	1036	G	C5-C6-N1	5.94	114.47	111.50
25	DA	752	A	C4-C5-N7	5.94	113.67	110.70
25	DA	1036	G	C4-N9-C1'	-5.94	118.78	126.50
25	CA	1301	A	C6-C5-N7	-5.94	128.14	132.30
25	CA	2385	C	N3-C4-C5	5.94	124.28	121.90
25	CA	2799	A	C5-C6-N6	-5.94	118.95	123.70
25	CA	554	U	N1-C2-O2	-5.93	118.65	122.80
25	CA	746	U	N1-C2-O2	-5.93	118.65	122.80
25	CA	813	U	N1-C2-N3	5.93	118.46	114.90
25	CA	1661	G	N3-C4-C5	-5.93	125.63	128.60
1	BA	890	G	C8-N9-C4	5.93	108.77	106.40
25	CA	600	G	C5-C6-N1	-5.93	108.53	111.50
25	DA	2509	G	C5-C6-O6	-5.93	125.04	128.60
25	DA	731	C	C6-N1-C2	5.93	122.67	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	734	G	N9-C4-C5	-5.93	103.03	105.40
25	CA	2546	U	C2-N1-C1'	-5.93	110.59	117.70
25	DA	1423	G	N7-C8-N9	-5.93	110.14	113.10
1	BA	365	U	C2-N1-C1'	-5.92	110.59	117.70
25	CA	1456	G	C2-N3-C4	-5.92	108.94	111.90
25	CA	1779	U	C2-N3-C4	-5.92	123.45	127.00
25	CA	2332	C	C5-C6-N1	-5.92	118.04	121.00
25	DA	242	G	C4-N9-C1'	-5.92	118.80	126.50
1	BA	1433	A	C4-C5-C6	5.92	119.96	117.00
25	CA	489	G	N3-C4-N9	-5.92	122.45	126.00
25	CA	1604	C	C2-N3-C4	-5.92	116.94	119.90
25	DA	2462	C	C4-C5-C6	5.92	120.36	117.40
25	DA	1897	G	C5-C6-O6	-5.92	125.05	128.60
25	CA	48	G	C5-C6-O6	-5.92	125.05	128.60
25	CA	786	C	C6-N1-C2	5.92	122.67	120.30
25	CA	1340	U	N3-C4-O4	-5.92	115.26	119.40
25	DA	1895	C	C6-N1-C2	5.92	122.67	120.30
25	CA	342	A	C2-N3-C4	-5.92	107.64	110.60
25	CA	1089	A	N1-C6-N6	-5.92	115.05	118.60
1	BA	286	C	C6-N1-C2	5.92	122.67	120.30
25	DA	1197	G	N1-C6-O6	5.92	123.45	119.90
25	CA	2251	G	C6-N1-C2	-5.91	121.55	125.10
25	DA	308	G	C8-N9-C1'	-5.91	119.31	127.00
25	CA	691	C	N1-C2-O2	-5.91	115.35	118.90
25	CA	1158	C	N1-C2-O2	-5.91	115.35	118.90
25	CA	1811	G	C5-C6-O6	-5.91	125.05	128.60
25	CA	2351	G	C5-C6-O6	-5.91	125.05	128.60
25	DA	2011	U	N1-C2-O2	-5.91	118.66	122.80
1	BA	134	G	C8-N9-C4	5.91	108.76	106.40
25	CA	398	C	N1-C2-O2	-5.91	115.36	118.90
25	CA	901	C	C5-C6-N1	-5.91	118.05	121.00
25	CA	2807	U	C2-N1-C1'	-5.91	110.61	117.70
25	DA	1756	G	N1-C6-O6	5.91	123.44	119.90
56	DB	76	G	N1-C6-O6	-5.91	116.35	119.90
26	CB	4	C	C6-N1-C2	5.91	122.66	120.30
1	AA	283	U	N1-C2-O2	5.91	126.93	122.80
25	CA	476	G	N1-C6-O6	-5.91	116.36	119.90
25	CA	827	U	N1-C2-O2	-5.91	118.67	122.80
25	DA	1290	C	C2-N1-C1'	-5.91	112.30	118.80
1	BA	498	A	C8-N9-C4	5.90	108.16	105.80
25	CA	242	G	N1-C6-O6	-5.90	116.36	119.90
25	CA	725	G	C4-N9-C1'	5.90	134.17	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	783	A	C6-C5-N7	-5.90	128.17	132.30
25	CA	784	G	C5-C6-O6	-5.90	125.06	128.60
25	DA	376	G	C5-C6-O6	-5.90	125.06	128.60
1	AA	297	G	C2-N3-C4	-5.90	108.95	111.90
25	CA	526	A	N9-C4-C5	5.90	108.16	105.80
25	CA	764	A	N9-C4-C5	5.90	108.16	105.80
25	CA	1423	G	N9-C4-C5	5.90	107.76	105.40
25	CA	2271	G	N1-C2-N2	-5.90	110.89	116.20
25	DA	526	A	N1-C6-N6	-5.90	115.06	118.60
25	CA	814	C	C2-N3-C4	-5.90	116.95	119.90
25	CA	1038	G	N3-C4-N9	5.90	129.54	126.00
25	CA	2553	G	C8-N9-C1'	-5.90	119.33	127.00
25	DA	2452	C	C6-N1-C2	-5.90	117.94	120.30
25	CA	555	G	N1-C2-N2	-5.90	110.89	116.20
25	CA	906	U	C5-C4-O4	5.90	129.44	125.90
25	CA	1721	G	N3-C4-C5	-5.89	125.65	128.60
25	DA	2021	C	N1-C2-O2	-5.89	115.36	118.90
25	CA	1277	G	C5-C6-O6	5.89	132.14	128.60
25	CA	1855	U	N3-C4-O4	5.89	123.53	119.40
25	DA	1125	G	N9-C4-C5	-5.89	103.04	105.40
25	DA	1757	A	N3-C4-C5	-5.89	122.68	126.80
25	CA	1981	A	N9-C4-C5	5.89	108.16	105.80
25	DA	1998	A	N1-C2-N3	5.89	132.25	129.30
25	DA	2848	G	N1-C6-O6	-5.89	116.36	119.90
25	CA	2239	G	C8-N9-C4	5.89	108.76	106.40
25	CA	2251	G	C5-C6-N1	5.89	114.44	111.50
25	DA	998	C	C6-N1-C2	-5.89	117.94	120.30
1	AA	53	A	C5-C6-N6	-5.89	118.99	123.70
1	BA	429	U	N3-C2-O2	-5.89	118.08	122.20
25	CA	989	G	C5-C6-O6	-5.89	125.07	128.60
25	CA	1216	G	C5-C6-N1	5.89	114.44	111.50
25	CA	2254	C	N3-C2-O2	5.89	126.02	121.90
25	DA	1719	G	N3-C4-N9	-5.89	122.47	126.00
1	AA	1101	A	C4-C5-C6	5.88	119.94	117.00
1	BA	1531	A	N9-C4-C5	-5.88	103.45	105.80
25	CA	310	A	C4-N9-C1'	-5.88	115.71	126.30
25	DA	1435	G	C6-C5-N7	5.88	133.93	130.40
25	DA	1904	G	N9-C4-C5	5.88	107.75	105.40
25	DA	2510	C	N3-C2-O2	5.88	126.02	121.90
1	AA	794	A	C5-C6-N6	5.88	128.41	123.70
1	AA	1524	C	C2-N1-C1'	-5.88	112.33	118.80
25	CA	2774	C	N3-C2-O2	5.88	126.02	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	2805	C	N1-C2-O2	-5.88	115.37	118.90
25	DA	786	C	N3-C4-C5	5.88	124.25	121.90
25	DA	509	C	N3-C4-C5	5.88	124.25	121.90
25	DA	1135	C	C2-N3-C4	-5.88	116.96	119.90
1	BA	26	A	C6-N1-C2	-5.88	115.07	118.60
25	CA	533	G	C2-N3-C4	-5.88	108.96	111.90
26	CB	93	C	N1-C2-O2	-5.88	115.37	118.90
25	DA	2633	G	C6-C5-N7	5.88	133.93	130.40
22	BV	13	C	C6-N1-C2	5.88	122.65	120.30
25	CA	444	C	N3-C2-O2	5.88	126.01	121.90
25	CA	2425	A	P-O3'-C3'	5.88	126.75	119.70
25	CA	2825	G	C8-N9-C1'	-5.88	119.36	127.00
25	CA	2832	U	N1-C2-O2	-5.88	118.69	122.80
25	CA	486	C	N3-C2-O2	5.88	126.01	121.90
25	CA	2069	G	C4-C5-N7	5.88	113.15	110.80
25	CA	2820	A	C5-C6-N1	-5.88	114.76	117.70
25	DA	1136	G	C4-C5-N7	5.88	113.15	110.80
25	CA	971	G	C5-C6-N1	5.87	114.44	111.50
25	CA	2553	G	C4-N9-C1'	5.87	134.14	126.50
25	CA	2557	G	N1-C6-O6	5.87	123.42	119.90
1	AA	105	G	C5-C6-O6	5.87	132.12	128.60
25	CA	1024	G	C6-C5-N7	-5.87	126.88	130.40
25	CA	2025	C	N3-C2-O2	-5.87	117.79	121.90
25	DA	770	G	N3-C4-C5	5.87	131.53	128.60
25	DA	862	G	N9-C4-C5	-5.87	103.05	105.40
25	DA	2825	G	N9-C4-C5	-5.87	103.05	105.40
1	AA	584	G	C8-N9-C4	5.87	108.75	106.40
1	BA	26	A	C5-C6-N1	5.87	120.64	117.70
25	DA	2520	C	C6-N1-C2	5.87	122.65	120.30
1	AA	853	C	N1-C2-O2	-5.87	115.38	118.90
25	CA	1228	G	N3-C4-N9	-5.87	122.48	126.00
25	DA	2049	G	C4-C5-N7	5.87	113.15	110.80
25	CA	2475	C	C6-N1-C2	5.87	122.65	120.30
25	CA	818	G	C4-N9-C1'	5.87	134.12	126.50
25	DA	1972	G	C8-N9-C4	-5.87	104.05	106.40
25	CA	1596	A	C8-N9-C4	5.86	108.15	105.80
25	CA	1761	C	N3-C4-N4	5.86	122.10	118.00
25	CA	2751	G	C8-N9-C4	-5.86	104.06	106.40
25	DA	2556	C	C6-N1-C2	-5.86	117.95	120.30
1	BA	1175	G	C4-N9-C1'	-5.86	118.88	126.50
25	CA	125	A	N9-C4-C5	5.86	108.14	105.80
25	CA	1255	U	N1-C2-O2	-5.86	118.70	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	529	A	N1-C6-N6	-5.86	115.08	118.60
25	CA	1209	U	N3-C2-O2	5.86	126.30	122.20
25	CA	1402	U	C6-N1-C2	5.86	124.51	121.00
25	CA	1623	G	C2-N3-C4	-5.86	108.97	111.90
25	CA	2632	A	C8-N9-C4	-5.86	103.46	105.80
25	CA	1155	A	N7-C8-N9	-5.85	110.87	113.80
25	DA	319	G	C2-N3-C4	-5.85	108.97	111.90
1	BA	1079	G	N3-C4-C5	-5.85	125.67	128.60
25	CA	9	G	C6-C5-N7	-5.85	126.89	130.40
25	CA	1277	G	C4-C5-N7	-5.85	108.46	110.80
1	AA	938	A	N1-C6-N6	-5.85	115.09	118.60
1	BA	669	G	C8-N9-C4	-5.85	104.06	106.40
25	CA	1403	A	N1-C6-N6	5.85	122.11	118.60
25	CA	2271	G	C8-N9-C1'	-5.85	119.40	127.00
25	CA	2901	C	C6-N1-C2	-5.85	117.96	120.30
25	DA	468	G	C5-C6-N1	5.85	114.42	111.50
1	BA	297	G	N9-C4-C5	-5.85	103.06	105.40
25	CA	468	G	N3-C4-C5	-5.85	125.68	128.60
25	CA	906	U	C6-N1-C1'	5.85	129.39	121.20
25	CA	2793	C	C6-N1-C2	5.85	122.64	120.30
25	CA	1256	G	C8-N9-C1'	-5.85	119.40	127.00
25	CA	1966	A	N1-C6-N6	5.84	122.11	118.60
25	CA	2391	G	O4'-C1'-N9	5.84	112.87	108.20
25	DA	1395	A	C8-N9-C4	5.84	108.14	105.80
25	DA	45	G	C4-C5-N7	-5.84	108.46	110.80
1	AA	275	G	N3-C4-N9	5.84	129.50	126.00
1	BA	457	G	N3-C4-C5	-5.84	125.68	128.60
25	CA	1981	A	C4-C5-N7	-5.84	107.78	110.70
1	AA	881	G	N1-C6-O6	5.84	123.40	119.90
1	AA	1513	A	N7-C8-N9	-5.84	110.88	113.80
25	CA	2004	G	N1-C2-N3	5.84	127.40	123.90
25	CA	2520	C	N3-C4-N4	5.84	122.08	118.00
1	BA	823	C	C6-N1-C2	5.83	122.63	120.30
25	CA	2254	C	N3-C4-N4	5.83	122.08	118.00
25	DA	1000	A	N1-C6-N6	-5.83	115.10	118.60
25	CA	1315	C	N1-C2-N3	5.83	123.28	119.20
25	DA	1681	G	C8-N9-C1'	-5.83	119.42	127.00
1	AA	957	U	C6-N1-C2	-5.83	117.50	121.00
1	AA	971	G	C4-N9-C1'	-5.83	118.92	126.50
25	CA	310	A	C8-N9-C1'	5.83	138.20	127.70
25	CA	757	G	N3-C4-C5	5.83	131.52	128.60
25	DA	506	G	N3-C4-C5	-5.83	125.68	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	2452	C	C2-N1-C1'	5.83	125.22	118.80
22	BV	40	C	N1-C2-O2	5.83	122.40	118.90
25	CA	1624	U	C6-N1-C2	5.83	124.50	121.00
25	CA	1769	U	C2-N3-C4	-5.83	123.50	127.00
1	BA	241	G	C8-N9-C4	-5.83	104.07	106.40
25	CA	1343	G	N3-C4-N9	5.83	129.50	126.00
25	CA	1816	C	C2-N1-C1'	-5.83	112.39	118.80
1	BA	897	C	C6-N1-C2	5.82	122.63	120.30
25	CA	342	A	N9-C4-C5	-5.82	103.47	105.80
25	CA	558	U	N1-C2-O2	-5.82	118.72	122.80
25	CA	861	A	N9-C4-C5	5.82	108.13	105.80
25	CA	1134	A	C2-N3-C4	-5.82	107.69	110.60
25	CA	1381	G	C5-C6-O6	5.82	132.09	128.60
25	DA	1934	C	C2-N3-C4	-5.82	116.99	119.90
25	CA	1359	A	C6-N1-C2	-5.82	115.11	118.60
1	BA	68	G	C8-N9-C4	-5.82	104.07	106.40
25	CA	291	G	N1-C6-O6	5.82	123.39	119.90
25	CA	302	C	N3-C4-C5	5.82	124.23	121.90
25	CA	2286	G	N3-C4-N9	-5.82	122.51	126.00
25	CA	2688	G	C8-N9-C4	-5.82	104.07	106.40
1	BA	858	G	N1-C6-O6	-5.82	116.41	119.90
25	CA	424	G	C8-N9-C4	5.82	108.73	106.40
25	CA	1816	C	N1-C2-O2	-5.82	115.41	118.90
25	CA	2346	A	N1-C6-N6	-5.82	115.11	118.60
25	CA	2365	G	C6-C5-N7	-5.82	126.91	130.40
25	CA	2840	C	C5-C4-N4	-5.82	116.13	120.20
25	DA	822	G	C5-N7-C8	-5.82	101.39	104.30
25	CA	1623	G	C5-N7-C8	-5.82	101.39	104.30
25	DA	515	A	N1-C6-N6	-5.81	115.11	118.60
1	BA	64	G	N1-C6-O6	5.81	123.39	119.90
1	BA	806	C	C6-N1-C2	-5.81	117.97	120.30
25	CA	371	A	C2-N3-C4	-5.81	107.69	110.60
25	CA	628	G	N1-C6-O6	-5.81	116.41	119.90
25	CA	2803	G	C5-C6-O6	5.81	132.09	128.60
25	CA	2894	G	C8-N9-C4	5.81	108.72	106.40
25	DA	242	G	C5-C6-N1	5.81	114.41	111.50
1	AA	337	G	C5-C6-N1	5.81	114.41	111.50
1	AA	1286	U	C2-N1-C1'	5.81	124.67	117.70
25	CA	793	A	N9-C4-C5	5.81	108.12	105.80
25	CA	2230	G	C4-C5-N7	-5.81	108.48	110.80
25	DA	694	U	N3-C2-O2	-5.81	118.13	122.20
25	DA	2012	G	N1-C6-O6	5.81	123.39	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	2707	U	C2-N1-C1'	-5.81	110.73	117.70
1	BA	308	C	C6-N1-C2	-5.81	117.98	120.30
25	CA	476	G	C4-C5-N7	-5.81	108.48	110.80
25	CA	726	G	C4-C5-N7	5.81	113.12	110.80
25	CA	2689	U	C5-C4-O4	5.81	129.38	125.90
25	CA	2859	G	N9-C4-C5	5.81	107.72	105.40
25	DA	2681	C	N1-C2-O2	5.81	122.38	118.90
1	AA	1478	U	N3-C4-O4	-5.81	115.34	119.40
4	BD	160	LEU	CA-CB-CG	5.80	128.65	115.30
25	CA	77	G	N3-C2-N2	-5.80	115.84	119.90
25	DA	562	U	C2-N1-C1'	-5.80	110.73	117.70
25	DA	1234	U	N3-C4-O4	-5.80	115.34	119.40
25	DA	2518	A	C6-C5-N7	-5.80	128.24	132.30
25	CA	1289	C	C6-N1-C2	5.80	122.62	120.30
25	CA	2475	C	N3-C2-O2	5.80	125.96	121.90
42	DR	9	GLY	N-CA-C	-5.80	98.59	113.10
25	CA	656	G	N3-C4-C5	5.80	131.50	128.60
25	CA	2092	U	N3-C2-O2	-5.80	118.14	122.20
25	DA	556	A	C8-N9-C4	5.80	108.12	105.80
25	DA	1813	G	C8-N9-C4	5.80	108.72	106.40
25	DA	2006	C	C5-C4-N4	-5.80	116.14	120.20
25	CA	2409	G	C2-N3-C4	-5.80	109.00	111.90
25	CA	2733	A	N1-C6-N6	-5.80	115.12	118.60
25	DA	1653	G	N9-C4-C5	-5.80	103.08	105.40
25	DA	809	G	N3-C2-N2	-5.80	115.84	119.90
25	DA	1518	C	C6-N1-C2	5.80	122.62	120.30
25	CA	1150	C	C2-N3-C4	-5.79	117.00	119.90
25	CA	2745	C	C5-C4-N4	-5.79	116.14	120.20
25	DA	527	C	C6-N1-C1'	5.79	127.75	120.80
25	DA	559	G	C8-N9-C4	5.79	108.72	106.40
25	DA	2689	U	C6-N1-C1'	5.79	129.31	121.20
6	AF	86	ARG	NE-CZ-NH1	5.79	123.20	120.30
25	CA	1620	G	C5-C6-O6	5.79	132.08	128.60
25	DA	177	G	N3-C4-N9	5.79	129.48	126.00
25	DA	2709	G	C4-C5-N7	5.79	113.12	110.80
25	CA	317	G	C5-C6-O6	-5.79	125.12	128.60
25	DA	2609	U	C6-N1-C2	5.79	124.47	121.00
1	AA	188	C	C2-N1-C1'	5.79	125.17	118.80
1	AA	1484	C	N3-C2-O2	5.79	125.95	121.90
25	CA	1010	A	C5-C6-N1	5.79	120.59	117.70
25	CA	1913	A	N9-C4-C5	-5.79	103.48	105.80
25	DA	2568	U	C5-C6-N1	-5.79	119.81	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	BA	1362	A	C8-N9-C4	5.79	108.12	105.80
25	CA	735	A	N1-C2-N3	5.79	132.19	129.30
25	CA	2422	C	N3-C2-O2	5.79	125.95	121.90
25	DA	822	G	C5-C6-O6	-5.79	125.13	128.60
25	DA	1954	G	N1-C6-O6	5.79	123.37	119.90
25	DA	2827	C	N3-C4-C5	5.79	124.22	121.90
43	DS	20	VAL	CB-CA-C	-5.79	100.40	111.40
25	CA	1902	C	C5-C6-N1	-5.79	118.11	121.00
25	CA	194	G	N9-C4-C5	-5.79	103.09	105.40
25	CA	1470	A	N1-C6-N6	-5.79	115.13	118.60
25	DA	984	A	C8-N9-C4	5.79	108.11	105.80
25	DA	1217	U	N3-C4-C5	5.79	118.07	114.60
25	CA	1443	U	C2-N1-C1'	5.78	124.64	117.70
25	CA	2876	G	N1-C6-O6	-5.78	116.43	119.90
25	DA	1300	G	N9-C4-C5	-5.78	103.09	105.40
25	DA	2048	G	N1-C6-O6	-5.78	116.43	119.90
1	BA	299	G	N1-C6-O6	-5.78	116.43	119.90
25	CA	1685	C	N3-C2-O2	5.78	125.94	121.90
25	DA	1643	G	C8-N9-C4	5.78	108.71	106.40
25	CA	2640	G	N1-C6-O6	-5.78	116.43	119.90
1	AA	212	G	N3-C4-C5	-5.78	125.71	128.60
1	BA	400	C	C6-N1-C2	5.78	122.61	120.30
25	CA	584	C	N3-C4-C5	5.78	124.21	121.90
25	CA	2426	A	C6-C5-N7	-5.78	128.26	132.30
25	DA	1928	A	N1-C6-N6	5.78	122.07	118.60
25	CA	1426	G	C4-N9-C1'	5.77	134.00	126.50
25	DA	675	A	N1-C6-N6	5.77	122.06	118.60
25	CA	46	G	C8-N9-C4	-5.77	104.09	106.40
25	CA	497	A	C5-C6-N6	-5.77	119.08	123.70
25	CA	624	C	C6-N1-C1'	5.77	127.72	120.80
25	CA	1327	A	C2-N3-C4	-5.77	107.72	110.60
25	DA	1149	G	C8-N9-C4	5.77	108.71	106.40
25	CA	993	G	N3-C4-C5	-5.77	125.72	128.60
25	CA	1289	C	C2-N3-C4	-5.77	117.02	119.90
25	CA	1692	U	N1-C2-O2	-5.77	118.76	122.80
1	AA	145	G	C5-C6-O6	5.76	132.06	128.60
25	CA	1327	A	C5-C6-N1	-5.76	114.82	117.70
25	DA	1957	C	N1-C2-O2	-5.76	115.44	118.90
25	DA	1985	C	C6-N1-C1'	5.76	127.72	120.80
25	CA	1426	G	C8-N9-C1'	-5.76	119.51	127.00
25	CA	1657	U	N1-C2-O2	-5.76	118.77	122.80
25	DA	1653	G	C4-C5-N7	5.76	113.10	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	721	G	N9-C4-C5	5.76	107.70	105.40
25	CA	2538	C	C5-C4-N4	-5.76	116.17	120.20
25	CA	2710	C	C4-C5-C6	5.76	120.28	117.40
25	CA	1130	U	N1-C2-O2	5.76	126.83	122.80
25	CA	2076	U	N1-C2-N3	5.76	118.36	114.90
25	CA	2598	A	C5-C6-N6	5.76	128.31	123.70
25	DA	2870	C	C5-C6-N1	-5.76	118.12	121.00
1	AA	1498	U	C6-N1-C2	-5.76	117.55	121.00
25	CA	1050	A	C8-N9-C4	5.76	108.10	105.80
25	CA	1126	A	C5-C6-N6	-5.76	119.09	123.70
25	CA	1555	G	C4-N9-C1'	5.76	133.98	126.50
25	CA	2831	G	N3-C4-N9	5.76	129.45	126.00
25	DA	1155	A	N1-C6-N6	-5.76	115.15	118.60
25	DA	1950	G	C5-C6-O6	5.76	132.05	128.60
25	CA	1287	A	N1-C2-N3	5.75	132.18	129.30
25	DA	468	G	C5-C6-O6	-5.75	125.15	128.60
25	CA	961	C	N3-C4-C5	-5.75	119.60	121.90
25	CA	1971	U	C6-N1-C2	5.75	124.45	121.00
25	DA	442	G	N9-C4-C5	5.75	107.70	105.40
25	CA	184	C	C6-N1-C2	-5.75	118.00	120.30
25	CA	686	U	C2-N1-C1'	-5.75	110.80	117.70
26	CB	71	C	C6-N1-C2	5.75	122.60	120.30
25	DA	661	A	C5-C6-N1	5.75	120.58	117.70
25	DA	1251	C	C6-N1-C2	-5.75	118.00	120.30
25	DA	2461	A	C4-C5-C6	5.75	119.88	117.00
25	CA	624	C	N3-C2-O2	5.75	125.92	121.90
25	DA	209	C	C6-N1-C2	5.75	122.60	120.30
25	DA	791	C	C6-N1-C2	5.75	122.60	120.30
1	AA	633	G	C8-N9-C4	-5.75	104.10	106.40
25	CA	446	G	N9-C4-C5	-5.75	103.10	105.40
1	AA	21	G	N3-C4-C5	-5.75	125.73	128.60
1	BA	713	G	C6-C5-N7	5.75	133.85	130.40
1	BA	1029	U	C2-N1-C1'	5.75	124.60	117.70
25	CA	463	G	C5-C6-O6	5.75	132.05	128.60
25	CA	821	A	N7-C8-N9	-5.75	110.93	113.80
25	CA	1183	U	N1-C2-N3	5.75	118.35	114.90
25	CA	1552	A	N9-C4-C5	5.75	108.10	105.80
25	CA	1988	G	C2-N3-C4	-5.75	109.03	111.90
25	DA	2426	A	N9-C4-C5	5.75	108.10	105.80
25	CA	2396	G	C5-C6-O6	5.75	132.05	128.60
25	DA	1720	U	N3-C4-O4	-5.74	115.38	119.40
25	CA	1817	G	C8-N9-C4	5.74	108.70	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	1277	G	C4-N9-C1'	-5.74	119.03	126.50
25	DA	2444	G	C5-C6-O6	5.74	132.04	128.60
1	AA	283	U	C6-N1-C1'	-5.74	113.16	121.20
26	CB	47	C	C6-N1-C2	5.74	122.60	120.30
25	CA	342	A	C4-C5-N7	5.74	113.57	110.70
25	CA	2433	A	C8-N9-C4	5.74	108.09	105.80
25	DA	2616	C	C6-N1-C2	5.74	122.59	120.30
25	DA	2840	C	C6-N1-C1'	5.74	127.69	120.80
1	AA	1458	G	C8-N9-C4	5.74	108.69	106.40
25	CA	147	C	N1-C2-O2	-5.74	115.46	118.90
25	CA	832	U	N1-C2-N3	5.74	118.34	114.90
1	BA	615	G	N3-C2-N2	5.74	123.92	119.90
25	CA	582	A	C4-C5-C6	5.74	119.87	117.00
25	CA	1040	A	N1-C6-N6	5.74	122.04	118.60
1	AA	312	C	C2-N3-C4	-5.73	117.03	119.90
25	CA	489	G	N9-C4-C5	5.73	107.69	105.40
25	CA	1612	C	C5-C4-N4	-5.73	116.19	120.20
25	CA	1764	C	C6-N1-C2	5.73	122.59	120.30
1	AA	1408	A	N3-C4-C5	5.73	130.81	126.80
25	CA	101	A	C6-C5-N7	-5.73	128.29	132.30
26	CB	24	G	N3-C4-C5	-5.73	125.73	128.60
25	DA	2419	U	C5-C6-N1	-5.73	119.83	122.70
25	CA	979	A	N9-C4-C5	-5.73	103.51	105.80
25	CA	1893	C	N1-C2-O2	-5.73	115.46	118.90
25	DA	2	G	C8-N9-C4	5.73	108.69	106.40
25	CA	1360	G	N1-C6-O6	-5.73	116.46	119.90
25	CA	2424	C	N3-C4-C5	-5.73	119.61	121.90
25	DA	325	G	N7-C8-N9	-5.73	110.24	113.10
25	CA	482	A	C6-C5-N7	-5.73	128.29	132.30
25	CA	2056	G	C5-C6-O6	-5.73	125.16	128.60
25	DA	780	G	N3-C2-N2	5.73	123.91	119.90
1	BA	357	G	N1-C6-O6	5.72	123.33	119.90
25	CA	1224	U	C6-N1-C1'	5.72	129.22	121.20
1	BA	106	C	N3-C2-O2	5.72	125.91	121.90
25	CA	522	A	C8-N9-C4	5.72	108.09	105.80
25	CA	536	G	N3-C4-C5	5.72	131.46	128.60
25	CA	1195	G	N1-C6-O6	-5.72	116.47	119.90
25	CA	2082	A	C4-C5-C6	5.72	119.86	117.00
25	CA	2248	C	C2-N3-C4	-5.72	117.04	119.90
25	CA	2448	A	C5-C6-N1	-5.72	114.84	117.70
25	CA	2571	U	N1-C2-N3	5.72	118.33	114.90
25	CA	2880	C	C6-N1-C2	-5.72	118.01	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	782	A	N3-C4-N9	-5.72	122.82	127.40
25	DA	1142	A	C6-C5-N7	-5.72	128.29	132.30
25	DA	2427	C	N1-C2-O2	-5.72	115.47	118.90
1	BA	1081	A	N1-C6-N6	5.72	122.03	118.60
25	CA	640	C	N1-C2-O2	-5.72	115.47	118.90
25	DA	1818	U	C6-N1-C2	5.72	124.43	121.00
25	CA	1303	G	C8-N9-C4	5.72	108.69	106.40
25	DA	488	G	N3-C2-N2	5.72	123.90	119.90
1	BA	846	G	N1-C6-O6	-5.72	116.47	119.90
1	BA	1402	C	N1-C2-O2	-5.72	115.47	118.90
25	CA	2306	C	C6-N1-C2	-5.72	118.01	120.30
25	DA	592	A	C2-N3-C4	5.72	113.46	110.60
25	CA	411	G	N1-C2-N3	5.71	127.33	123.90
25	CA	482	A	C5-C6-N6	-5.71	119.13	123.70
25	CA	1223	G	C8-N9-C4	5.71	108.69	106.40
25	DA	1562	U	N3-C2-O2	-5.71	118.20	122.20
25	DA	1668	A	C6-N1-C2	-5.71	115.17	118.60
25	CA	2555	U	N1-C2-O2	-5.71	118.80	122.80
25	DA	442	G	C2-N3-C4	5.71	114.76	111.90
1	AA	869	G	C5-C6-O6	-5.71	125.17	128.60
25	CA	1061	U	C2-N1-C1'	5.71	124.55	117.70
25	CA	1113	U	N3-C2-O2	5.71	126.20	122.20
25	CA	1232	G	N3-C2-N2	5.71	123.90	119.90
25	CA	1608	A	C2-N3-C4	-5.71	107.74	110.60
25	DA	455	C	C5-C4-N4	-5.71	116.20	120.20
25	DA	943	A	C5-C6-N1	-5.71	114.84	117.70
25	CA	757	G	C8-N9-C4	5.71	108.68	106.40
1	AA	836	G	N1-C6-O6	5.71	123.33	119.90
1	BA	546	A	N1-C6-N6	-5.71	115.17	118.60
25	CA	733	G	C4-C5-N7	5.71	113.08	110.80
25	CA	2866	U	N3-C4-O4	-5.71	115.41	119.40
26	CB	117	G	N3-C4-C5	5.71	131.45	128.60
25	CA	1767	G	C5-C6-N1	-5.71	108.65	111.50
1	BA	283	U	C6-N1-C1'	-5.71	113.21	121.20
1	AA	530	G	C4-C5-N7	5.70	113.08	110.80
1	AA	872	A	C8-N9-C4	-5.70	103.52	105.80
1	BA	109	A	N3-C4-C5	5.70	130.79	126.80
25	CA	944	C	N1-C2-O2	-5.70	115.48	118.90
25	CA	989	G	N3-C2-N2	-5.70	115.91	119.90
25	CA	2605	U	C2-N3-C4	5.70	130.42	127.00
25	DA	1300	G	N3-C2-N2	5.70	123.89	119.90
25	DA	2573	C	N1-C2-O2	-5.70	115.48	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	CB	46	A	N9-C4-C5	5.70	108.08	105.80
1	AA	921	U	C5-C4-O4	-5.70	122.48	125.90
25	CA	926	G	C2-N3-C4	-5.70	109.05	111.90
25	CA	1340	U	C6-N1-C1'	5.70	129.18	121.20
25	DA	2133	G	C4-N9-C1'	5.70	133.91	126.50
1	BA	768	A	N1-C6-N6	5.70	122.02	118.60
25	CA	1396	U	C2-N1-C1'	-5.70	110.86	117.70
25	CA	1595	C	N3-C2-O2	5.70	125.89	121.90
25	CA	1977	A	N3-C4-C5	5.70	130.79	126.80
26	CB	55	U	N1-C2-N3	5.70	118.32	114.90
25	CA	141	G	N3-C4-C5	-5.70	125.75	128.60
25	CA	1318	U	N3-C4-O4	-5.70	115.41	119.40
25	DA	2041	U	N1-C2-O2	-5.70	118.81	122.80
25	CA	241	A	C2-N3-C4	-5.70	107.75	110.60
25	CA	656	G	C2-N3-C4	-5.70	109.05	111.90
25	CA	1952	A	N1-C6-N6	-5.70	115.18	118.60
25	DA	1912	A	C8-N9-C4	5.70	108.08	105.80
25	CA	93	G	C5-N7-C8	5.69	107.15	104.30
25	CA	1842	G	C5-C6-O6	-5.69	125.18	128.60
25	DA	2595	G	C8-N9-C4	5.69	108.68	106.40
25	CA	1842	G	C8-N9-C1'	-5.69	119.60	127.00
25	DA	838	C	C5-C6-N1	-5.69	118.16	121.00
25	DA	1556	C	C6-N1-C2	5.69	122.58	120.30
25	DA	397	U	C6-N1-C2	5.69	124.41	121.00
25	DA	822	G	C2-N3-C4	-5.69	109.06	111.90
1	AA	690	G	N9-C4-C5	-5.69	103.12	105.40
1	BA	971	G	N3-C4-C5	-5.69	125.76	128.60
25	CA	60	G	P-O3'-C3'	5.69	126.53	119.70
25	CA	2676	C	C5-C4-N4	-5.69	116.22	120.20
25	DA	493	G	C8-N9-C1'	5.69	134.39	127.00
1	AA	957	U	N3-C2-O2	-5.68	118.22	122.20
1	AA	1174	G	C8-N9-C1'	5.68	134.39	127.00
1	BA	145	G	N3-C4-N9	-5.68	122.59	126.00
1	BA	1530	G	N3-C4-N9	-5.68	122.59	126.00
25	CA	1466	U	N3-C2-O2	5.68	126.18	122.20
25	CA	2485	G	N1-C6-O6	5.68	123.31	119.90
1	AA	822	U	N1-C2-O2	-5.68	118.82	122.80
1	BA	384	G	N1-C6-O6	-5.68	116.49	119.90
25	CA	1166	G	N1-C6-O6	5.68	123.31	119.90
25	CA	2395	C	N3-C4-N4	5.68	121.98	118.00
25	DA	2631	G	N3-C2-N2	-5.68	115.92	119.90
25	DA	621	A	C8-N9-C4	-5.68	103.53	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	BA	209	U	C6-N1-C1'	-5.68	113.25	121.20
25	CA	786	C	N1-C2-O2	-5.68	115.49	118.90
25	CA	1024	G	C5-N7-C8	-5.68	101.46	104.30
25	CA	1961	C	N1-C2-O2	5.68	122.31	118.90
25	CA	2030	A	C4-C5-N7	-5.68	107.86	110.70
25	CA	2085	U	C5-C6-N1	-5.68	119.86	122.70
25	DA	862	G	C6-C5-N7	-5.68	126.99	130.40
25	DA	1574	C	N1-C2-O2	-5.68	115.49	118.90
25	DA	2396	G	C4-N9-C1'	-5.68	119.12	126.50
1	AA	785	G	C5-C6-O6	-5.68	125.19	128.60
25	CA	1759	A	N1-C6-N6	-5.68	115.19	118.60
25	CA	2014	A	C8-N9-C4	-5.68	103.53	105.80
25	CA	1171	G	C8-N9-C4	-5.68	104.13	106.40
25	CA	1396	U	N3-C2-O2	-5.68	118.23	122.20
25	CA	2834	G	N3-C4-N9	5.68	129.41	126.00
25	DA	967	U	N1-C2-N3	5.68	118.31	114.90
1	BA	1081	A	C4-C5-C6	5.67	119.84	117.00
25	CA	1318	U	C5-C4-O4	5.67	129.30	125.90
25	DA	2367	G	C8-N9-C4	5.67	108.67	106.40
25	CA	1405	U	C2-N3-C4	-5.67	123.60	127.00
25	CA	914	G	N3-C4-N9	-5.67	122.60	126.00
25	DA	1161	C	C6-N1-C2	5.67	122.57	120.30
1	BA	771	G	C8-N9-C4	-5.67	104.13	106.40
25	CA	926	G	C5-C6-O6	5.67	132.00	128.60
25	DA	2165	C	C6-N1-C2	-5.67	118.03	120.30
1	AA	314	C	C6-N1-C2	5.67	122.57	120.30
1	AA	359	G	C8-N9-C4	5.67	108.67	106.40
25	CA	382	A	C5-N7-C8	-5.67	101.07	103.90
25	CA	497	A	C8-N9-C4	5.67	108.07	105.80
25	CA	1335	C	N1-C2-N3	5.67	123.17	119.20
25	CA	1552	A	N1-C6-N6	-5.67	115.20	118.60
25	CA	2802	G	C5-C6-O6	5.67	132.00	128.60
25	DA	2631	G	N3-C4-C5	5.67	131.43	128.60
1	BA	795	C	C2-N3-C4	-5.67	117.07	119.90
1	BA	1100	C	C6-N1-C2	-5.67	118.03	120.30
1	BA	1108	G	C5-C6-O6	5.67	132.00	128.60
25	DA	1254	A	C2-N3-C4	5.67	113.43	110.60
25	DA	748	G	N1-C6-O6	-5.66	116.50	119.90
25	DA	1786	A	C8-N9-C4	-5.66	103.53	105.80
25	DA	1827	U	N1-C2-N3	5.66	118.30	114.90
1	AA	506	G	C8-N9-C4	5.66	108.67	106.40
25	CA	1145	C	C2-N3-C4	-5.66	117.07	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	BA	404	G	N3-C2-N2	5.66	123.86	119.90
25	DA	527	C	N1-C2-N3	5.66	123.16	119.20
25	DA	851	C	N1-C2-O2	-5.66	115.50	118.90
25	DA	1325	U	N3-C4-C5	5.66	118.00	114.60
25	DA	1452	G	C5-N7-C8	-5.66	101.47	104.30
1	BA	563	A	N7-C8-N9	5.66	116.63	113.80
25	CA	2468	A	C5-C6-N6	-5.66	119.17	123.70
25	CA	2691	C	C5-C4-N4	-5.66	116.24	120.20
25	CA	2867	G	C5-C6-N1	5.66	114.33	111.50
25	DA	203	A	C5-C6-N1	-5.66	114.87	117.70
25	DA	2357	G	C8-N9-C4	5.66	108.66	106.40
1	AA	292	G	N3-C4-C5	-5.66	125.77	128.60
1	AA	903	G	C5-C6-O6	5.66	131.99	128.60
25	CA	2803	G	C6-C5-N7	5.66	133.79	130.40
25	DA	2049	G	C8-N9-C1'	-5.65	119.65	127.00
1	AA	798	U	C5-C4-O4	-5.65	122.51	125.90
1	AA	1515	G	C5-C6-O6	-5.65	125.21	128.60
25	DA	208	C	N1-C2-O2	-5.65	115.51	118.90
25	DA	1265	A	N9-C4-C5	5.65	108.06	105.80
25	DA	399	U	C2-N1-C1'	-5.65	110.92	117.70
25	DA	686	U	C2-N1-C1'	-5.65	110.92	117.70
25	DA	822	G	C4-C5-N7	5.65	113.06	110.80
25	CA	733	G	C6-C5-N7	-5.65	127.01	130.40
25	CA	1299	G	N1-C6-O6	-5.65	116.51	119.90
25	CA	1897	G	C8-N9-C1'	-5.65	119.66	127.00
25	CA	1161	C	C6-N1-C2	5.65	122.56	120.30
25	CA	342	A	C6-C5-N7	-5.64	128.35	132.30
25	CA	784	G	N3-C4-N9	5.64	129.39	126.00
25	CA	809	G	N1-C6-O6	-5.64	116.51	119.90
25	CA	1525	A	C2-N3-C4	-5.64	107.78	110.60
25	CA	164	C	C2-N1-C1'	-5.64	112.59	118.80
25	CA	440	C	N1-C2-O2	-5.64	115.52	118.90
25	CA	1299	G	C5-C6-O6	5.64	131.99	128.60
25	CA	2520	C	N1-C2-O2	-5.64	115.52	118.90
25	CA	873	C	N1-C2-O2	-5.64	115.52	118.90
1	BA	1476	A	C8-N9-C4	5.64	108.06	105.80
25	CA	301	G	C3'-C2'-C1'	-5.64	96.99	101.50
25	CA	471	A	C5-C6-N6	-5.64	119.19	123.70
25	CA	1296	G	N1-C6-O6	5.64	123.28	119.90
25	CA	1971	U	N1-C2-N3	-5.64	111.52	114.90
25	CA	2271	G	N3-C4-C5	-5.64	125.78	128.60
25	CA	2375	G	N1-C2-N2	5.64	121.28	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	CB	85	G	C4-C5-N7	-5.64	108.54	110.80
25	DA	91	A	N1-C6-N6	5.64	121.98	118.60
25	DA	494	G	N1-C6-O6	5.64	123.28	119.90
25	CA	726	G	C4-C5-C6	5.64	122.18	118.80
25	CA	2442	C	N1-C2-O2	-5.64	115.52	118.90
25	CA	2805	C	C2-N1-C1'	-5.64	112.60	118.80
25	DA	11	C	N1-C2-O2	-5.64	115.52	118.90
25	DA	1009	A	C5-C6-N1	5.64	120.52	117.70
25	DA	1779	U	C6-N1-C2	5.64	124.38	121.00
25	DA	2239	G	C8-N9-C4	5.64	108.65	106.40
1	BA	779	C	N3-C2-O2	5.63	125.84	121.90
25	CA	187	G	N1-C6-O6	5.63	123.28	119.90
25	CA	516	C	N3-C2-O2	5.63	125.84	121.90
25	DA	519	U	N3-C4-O4	-5.63	115.46	119.40
1	AA	4	U	N3-C2-O2	-5.63	118.26	122.20
1	BA	211	G	N3-C2-N2	5.63	123.84	119.90
25	CA	1220	G	N3-C2-N2	5.63	123.84	119.90
25	CA	2897	U	N3-C4-C5	5.63	117.98	114.60
25	DA	808	G	C6-C5-N7	-5.63	127.02	130.40
25	DA	1567	G	C5-C6-O6	-5.63	125.22	128.60
25	CA	392	U	C5-C4-O4	-5.63	122.52	125.90
25	CA	992	C	C5-C6-N1	-5.63	118.19	121.00
25	DA	1719	G	C4-N9-C1'	-5.63	119.18	126.50
25	DA	1314	C	N1-C2-O2	5.63	122.28	118.90
25	DA	2809	A	C5-C6-N6	-5.63	119.20	123.70
25	DA	1300	G	C4-C5-N7	5.62	113.05	110.80
1	BA	898	G	N3-C2-N2	-5.62	115.96	119.90
1	BA	926	G	N9-C4-C5	5.62	107.65	105.40
25	CA	463	G	N3-C4-N9	-5.62	122.63	126.00
25	CA	930	G	C8-N9-C1'	5.62	134.31	127.00
25	CA	1954	G	N1-C6-O6	5.62	123.27	119.90
25	CA	304	U	N3-C2-O2	5.62	126.13	122.20
25	CA	1762	A	N9-C4-C5	-5.62	103.55	105.80
25	CA	450	G	C2-N3-C4	5.62	114.71	111.90
25	DA	1761	C	N3-C2-O2	5.62	125.83	121.90
1	BA	377	G	C4-N9-C1'	5.62	133.81	126.50
25	CA	1265	A	N1-C2-N3	5.62	132.11	129.30
25	CA	2376	A	N1-C6-N6	-5.62	115.23	118.60
25	DA	1562	U	C6-N1-C2	-5.62	117.63	121.00
25	DA	2521	C	N1-C2-N3	5.62	123.13	119.20
1	AA	872	A	N7-C8-N9	5.62	116.61	113.80
1	AA	894	G	C2-N3-C4	-5.62	109.09	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	1341	G	N9-C4-C5	-5.62	103.15	105.40
25	CA	589	U	N3-C4-O4	-5.62	115.47	119.40
25	CA	733	G	N1-C6-O6	5.62	123.27	119.90
25	CA	1608	A	C5-N7-C8	-5.62	101.09	103.90
25	DA	249	C	C6-N1-C2	5.62	122.55	120.30
25	DA	2294	G	C8-N9-C1'	5.62	134.30	127.00
25	CA	404	A	C6-C5-N7	-5.61	128.37	132.30
25	DA	2282	G	N9-C4-C5	5.61	107.65	105.40
25	CA	476	G	C5-C6-O6	5.61	131.97	128.60
25	CA	1563	U	C6-N1-C1'	5.61	129.06	121.20
25	DA	194	G	N1-C2-N3	5.61	127.27	123.90
25	CA	154	U	N3-C2-O2	-5.61	118.27	122.20
1	BA	497	G	C5-C6-N1	5.61	114.30	111.50
1	BA	713	G	N9-C4-C5	5.61	107.64	105.40
25	DA	592	A	C5-C6-N1	5.61	120.50	117.70
25	DA	1573	G	C4-N9-C1'	-5.61	119.21	126.50
25	DA	1846	G	C8-N9-C4	5.61	108.64	106.40
25	DA	2347	C	C5-C6-N1	-5.61	118.20	121.00
25	CA	634	C	N3-C2-O2	5.61	125.82	121.90
25	CA	790	U	C6-N1-C1'	5.61	129.05	121.20
25	CA	906	U	C5-C6-N1	-5.61	119.90	122.70
25	CA	2524	G	C5-C6-N1	5.61	114.30	111.50
1	BA	846	G	C8-N9-C4	-5.60	104.16	106.40
25	CA	276	U	N1-C2-O2	5.60	126.72	122.80
25	CA	439	A	C2-N3-C4	-5.60	107.80	110.60
25	CA	984	A	C6-C5-N7	-5.60	128.38	132.30
25	CA	1047	G	N1-C6-O6	5.60	123.26	119.90
40	CP	102	ARG	NE-CZ-NH1	5.60	123.10	120.30
25	DA	1796	U	N3-C2-O2	5.60	126.12	122.20
25	DA	2029	G	N3-C2-N2	5.60	123.82	119.90
25	DA	2396	G	N3-C4-N9	-5.60	122.64	126.00
1	AA	372	C	C6-N1-C2	5.60	122.54	120.30
25	DA	1708	C	C5-C6-N1	-5.60	118.20	121.00
25	CA	1040	A	N9-C4-C5	-5.60	103.56	105.80
25	CA	1590	A	N1-C6-N6	5.60	121.96	118.60
25	CA	1770	G	C5-C6-O6	-5.60	125.24	128.60
25	DA	39	G	C8-N9-C1'	5.60	134.28	127.00
25	DA	1759	A	N1-C6-N6	5.60	121.96	118.60
25	CA	1699	G	C4-C5-N7	-5.60	108.56	110.80
25	CA	2724	U	C5-C4-O4	5.60	129.26	125.90
25	CA	2878	U	N1-C2-O2	-5.60	118.88	122.80
1	AA	78	A	C6-N1-C2	-5.59	115.24	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	337	G	C6-C5-N7	5.59	133.76	130.40
1	BA	274	A	C2-N3-C4	5.59	113.40	110.60
1	BA	615	G	N3-C4-N9	5.59	129.36	126.00
1	AA	135	C	C6-N1-C2	5.59	122.54	120.30
25	CA	528	A	C5-C6-N6	-5.59	119.22	123.70
25	CA	1266	G	C5-C6-N1	5.59	114.30	111.50
25	CA	2248	C	C6-N1-C2	-5.59	118.06	120.30
1	AA	734	G	C8-N9-C1'	-5.59	119.73	127.00
25	CA	336	C	C4-C5-C6	-5.59	114.60	117.40
25	DA	560	C	C6-N1-C2	5.59	122.54	120.30
25	DA	1407	G	C4-N9-C1'	-5.59	119.23	126.50
1	BA	110	C	N3-C4-C5	-5.59	119.66	121.90
1	BA	685	G	C2-N3-C4	-5.59	109.11	111.90
1	BA	863	U	C5-C4-O4	-5.59	122.55	125.90
1	BA	1226	C	N3-C4-C5	-5.59	119.66	121.90
25	CA	1273	U	N1-C2-O2	-5.59	118.89	122.80
25	CA	2307	G	C6-C5-N7	5.59	133.75	130.40
25	CA	2711	A	N3-C4-C5	5.59	130.71	126.80
25	DA	2250	G	C2-N3-C4	-5.59	109.11	111.90
1	BA	312	C	N1-C2-O2	-5.59	115.55	118.90
51	C0	19	ASP	CB-CG-OD1	-5.59	113.27	118.30
1	AA	947	G	C8-N9-C4	5.59	108.63	106.40
25	CA	958	U	C2-N1-C1'	-5.59	111.00	117.70
25	DA	1038	G	N3-C4-C5	5.59	131.39	128.60
25	DA	2437	G	C5-C6-O6	-5.59	125.25	128.60
25	CA	389	G	N9-C4-C5	-5.58	103.17	105.40
25	DA	1668	A	C5-C6-N1	5.58	120.49	117.70
1	BA	516	U	N3-C2-O2	-5.58	118.29	122.20
25	CA	793	A	N1-C6-N6	-5.58	115.25	118.60
25	CA	2030	A	N9-C4-C5	5.58	108.03	105.80
25	CA	2710	C	N1-C2-O2	-5.58	115.55	118.90
25	DA	2466	C	N1-C2-O2	-5.58	115.55	118.90
1	AA	738	C	N3-C2-O2	5.58	125.81	121.90
1	AA	875	U	N3-C2-O2	-5.58	118.29	122.20
25	CA	2893	A	C6-N1-C2	-5.58	115.25	118.60
1	AA	834	U	N3-C2-O2	-5.58	118.29	122.20
1	AA	809	G	C8-N9-C4	5.58	108.63	106.40
1	AA	828	U	N3-C2-O2	5.58	126.11	122.20
25	CA	1110	G	N9-C4-C5	-5.58	103.17	105.40
25	CA	1125	G	N3-C4-N9	5.58	129.35	126.00
25	CA	2621	G	N3-C2-N2	-5.58	115.99	119.90
25	CA	2732	G	N3-C4-N9	-5.58	122.65	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	579	G	C6-C5-N7	5.58	133.75	130.40
25	DA	2354	C	N3-C2-O2	5.58	125.81	121.90
25	CA	1811	G	N3-C2-N2	-5.58	116.00	119.90
26	CB	24	G	N1-C6-O6	-5.58	116.55	119.90
25	CA	640	C	C6-N1-C2	5.58	122.53	120.30
25	CA	2760	C	C2-N3-C4	-5.58	117.11	119.90
25	DA	205	G	C5-C6-N1	5.58	114.29	111.50
25	DA	703	U	N3-C2-O2	5.58	126.10	122.20
25	DA	2696	U	N1-C2-O2	-5.58	118.90	122.80
1	AA	712	A	C6-N1-C2	-5.57	115.26	118.60
1	AA	1413	A	C5-N7-C8	-5.57	101.11	103.90
25	CA	116	C	C6-N1-C1'	5.57	127.49	120.80
25	CA	273	G	C8-N9-C1'	5.57	134.25	127.00
25	CA	2250	G	C5-C6-N1	-5.57	108.71	111.50
1	AA	814	A	C6-N1-C2	-5.57	115.26	118.60
25	CA	1427	A	C5-C6-N1	5.57	120.49	117.70
25	CA	2410	G	N3-C4-N9	5.57	129.34	126.00
25	DA	2252	G	C2-N3-C4	-5.57	109.11	111.90
25	CA	687	C	N1-C2-O2	-5.57	115.56	118.90
25	CA	2380	C	C2-N3-C4	-5.57	117.11	119.90
25	DA	10	A	N7-C8-N9	-5.57	111.02	113.80
1	AA	679	C	C2-N1-C1'	5.57	124.93	118.80
25	DA	1584	U	C2-N1-C1'	5.57	124.38	117.70
25	DA	1843	C	C5-C4-N4	-5.57	116.30	120.20
1	BA	136	C	N3-C2-O2	5.57	125.80	121.90
25	CA	1022	G	C2-N3-C4	-5.57	109.12	111.90
26	CB	113	C	N1-C2-O2	-5.57	115.56	118.90
25	DA	194	G	C2-N3-C4	-5.57	109.12	111.90
25	DA	726	G	N3-C4-C5	5.57	131.38	128.60
1	AA	874	G	N3-C4-C5	-5.57	125.82	128.60
25	CA	1393	A	N1-C6-N6	-5.57	115.26	118.60
25	DA	110	G	C4-N9-C1'	-5.57	119.26	126.50
25	DA	175	G	N3-C4-N9	-5.57	122.66	126.00
25	DA	1903	G	C5-C6-N1	5.57	114.28	111.50
25	CA	534	U	N1-C2-O2	-5.56	118.91	122.80
25	CA	2749	A	C2-N3-C4	-5.56	107.82	110.60
1	BA	357	G	N9-C4-C5	-5.56	103.17	105.40
25	CA	48	G	N3-C4-N9	5.56	129.34	126.00
25	CA	2135	A	C5-C6-N6	-5.56	119.25	123.70
25	DA	519	U	C5-C4-O4	5.56	129.24	125.90
25	DA	1403	A	C8-N9-C4	-5.56	103.58	105.80
1	BA	770	C	N3-C2-O2	-5.56	118.01	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	2485	G	C8-N9-C4	5.56	108.62	106.40
1	AA	555	U	C2-N1-C1'	-5.56	111.03	117.70
25	DA	88	G	N3-C2-N2	-5.56	116.01	119.90
1	BA	234	C	N3-C2-O2	5.56	125.79	121.90
25	CA	1023	U	C2-N1-C1'	-5.56	111.03	117.70
25	CA	2008	C	C6-N1-C2	5.56	122.52	120.30
25	DA	1695	G	N3-C2-N2	5.56	123.79	119.90
1	BA	1433	A	C8-N9-C4	-5.56	103.58	105.80
25	DA	2794	C	C2-N1-C1'	5.56	124.91	118.80
16	BP	52	LEU	CA-CB-CG	5.55	128.07	115.30
25	CA	1955	U	C5-C6-N1	-5.55	119.92	122.70
25	DA	511	U	N1-C2-O2	5.55	126.69	122.80
25	DA	2228	G	N1-C6-O6	5.55	123.23	119.90
25	CA	302	C	C2-N3-C4	-5.55	117.12	119.90
25	CA	1208	C	C2-N3-C4	-5.55	117.12	119.90
25	CA	2717	C	N1-C2-O2	-5.55	115.57	118.90
22	AV	31	A	N9-C4-C5	-5.55	103.58	105.80
25	CA	509	C	N3-C4-N4	-5.55	114.11	118.00
25	CA	2382	G	C8-N9-C4	-5.55	104.18	106.40
25	CA	1388	G	C2-N3-C4	-5.55	109.12	111.90
25	CA	1608	A	C4-C5-N7	5.55	113.47	110.70
25	CA	2089	C	N1-C2-N3	5.55	123.08	119.20
25	CA	2632	A	N1-C6-N6	-5.55	115.27	118.60
25	CA	2851	A	C4-C5-C6	5.55	119.77	117.00
1	BA	357	G	C5-C6-O6	-5.55	125.27	128.60
25	CA	302	C	C5-C6-N1	-5.55	118.23	121.00
25	CA	1662	U	C5-C4-O4	5.55	129.23	125.90
25	CA	2783	U	C5-C4-O4	5.55	129.23	125.90
53	C2	10	LEU	CA-CB-CG	-5.55	102.54	115.30
25	DA	2771	C	C6-N1-C2	5.55	122.52	120.30
25	DA	1037	G	N3-C4-N9	-5.54	122.67	126.00
25	CA	708	G	C8-N9-C1'	5.54	134.21	127.00
25	DA	442	G	N3-C4-C5	-5.54	125.83	128.60
25	CA	462	C	N3-C4-C5	-5.54	119.68	121.90
25	CA	979	A	N3-C4-N9	5.54	131.83	127.40
25	CA	1936	A	C6-C5-N7	-5.54	128.42	132.30
25	DA	1277	G	C8-N9-C4	5.54	108.62	106.40
25	CA	2495	G	N1-C6-O6	-5.54	116.58	119.90
25	DA	869	G	C8-N9-C4	-5.54	104.18	106.40
1	AA	862	C	C6-N1-C2	-5.54	118.08	120.30
25	CA	395	U	N1-C2-O2	5.54	126.68	122.80
25	DA	3	U	N3-C4-C5	5.54	117.92	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	BA	1406	U	C5-C6-N1	-5.54	119.93	122.70
25	CA	949	G	C5-C6-O6	5.54	131.92	128.60
25	DA	828	U	N3-C2-O2	-5.54	118.32	122.20
1	BA	875	U	C5-C4-O4	5.54	129.22	125.90
25	DA	61	C	C2-N1-C1'	5.54	124.89	118.80
25	DA	211	C	N3-C4-N4	-5.54	114.12	118.00
25	CA	2592	G	C5-C6-O6	5.53	131.92	128.60
25	DA	805	G	N3-C4-C5	5.53	131.37	128.60
25	CA	482	A	C4-C5-N7	5.53	113.47	110.70
25	CA	2269	G	C6-N1-C2	-5.53	121.78	125.10
25	CA	2692	G	N9-C4-C5	-5.53	103.19	105.40
25	DA	211	C	C5-C4-N4	5.53	124.07	120.20
25	DA	2252	G	C4-N9-C1'	-5.53	119.31	126.50
25	CA	2280	G	N1-C6-O6	-5.53	116.58	119.90
25	DA	2709	G	C4-N9-C1'	-5.53	119.31	126.50
1	AA	21	G	N3-C4-N9	5.53	129.32	126.00
25	CA	738	G	C8-N9-C4	-5.53	104.19	106.40
25	CA	774	G	C5-C6-N1	5.53	114.26	111.50
25	DA	723	C	C6-N1-C2	5.53	122.51	120.30
25	DA	1833	C	C5-C4-N4	-5.53	116.33	120.20
1	BA	380	G	C5-C6-O6	-5.53	125.28	128.60
25	CA	501	A	N1-C2-N3	5.53	132.06	129.30
25	CA	598	U	N3-C2-O2	5.53	126.07	122.20
25	CA	1049	C	N1-C2-O2	-5.53	115.58	118.90
25	DA	541	A	C2-N3-C4	5.53	113.36	110.60
25	DA	1414	C	C6-N1-C2	-5.53	118.09	120.30
25	CA	205	G	C5-C6-O6	5.52	131.91	128.60
25	DA	619	G	N1-C6-O6	-5.52	116.58	119.90
25	DA	1659	G	C4-N9-C1'	-5.52	119.32	126.50
25	CA	121	G	C4-C5-N7	5.52	113.01	110.80
25	DA	1567	G	N1-C6-O6	5.52	123.21	119.90
25	DA	2048	G	N3-C2-N2	5.52	123.77	119.90
25	DA	2828	G	C8-N9-C4	5.52	108.61	106.40
1	BA	984	C	C6-N1-C2	5.52	122.51	120.30
26	CB	5	U	N1-C2-O2	5.52	126.67	122.80
25	DA	1843	C	N3-C4-N4	5.52	121.86	118.00
1	BA	1480	A	C2-N3-C4	-5.52	107.84	110.60
25	CA	801	G	N3-C4-N9	-5.52	122.69	126.00
25	CA	922	C	N3-C4-N4	5.52	121.86	118.00
25	DA	2445	G	C2-N3-C4	5.52	114.66	111.90
1	AA	818	G	C4-N9-C1'	-5.52	119.33	126.50
25	CA	2331	G	N3-C4-C5	-5.52	125.84	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	979	A	C4-C5-N7	-5.52	107.94	110.70
25	DA	1325	U	C6-N1-C1'	5.52	128.92	121.20
26	CB	98	G	C5-C6-O6	-5.52	125.29	128.60
25	DA	967	U	N1-C2-O2	-5.52	118.94	122.80
25	CA	856	G	C8-N9-C4	5.51	108.61	106.40
25	CA	941	A	C4-C5-N7	5.51	113.46	110.70
25	CA	2089	C	C2-N3-C4	-5.51	117.14	119.90
25	CA	2533	U	N3-C4-O4	-5.51	115.54	119.40
25	DA	727	A	C8-N9-C4	5.51	108.01	105.80
25	DA	2283	C	N1-C2-O2	-5.51	115.59	118.90
25	CA	2514	U	C6-N1-C2	5.51	124.31	121.00
1	BA	117	G	C8-N9-C4	-5.51	104.19	106.40
25	CA	1410	G	N7-C8-N9	-5.51	110.34	113.10
25	CA	1985	C	C2-N1-C1'	-5.51	112.74	118.80
25	DA	1298	C	N1-C2-O2	-5.51	115.59	118.90
25	DA	1649	G	N1-C6-O6	-5.51	116.59	119.90
25	DA	1930	G	C4-N9-C1'	-5.51	119.33	126.50
25	DA	2364	C	C2-N3-C4	-5.51	117.14	119.90
1	AA	686	U	N1-C2-O2	-5.51	118.94	122.80
25	CA	221	A	C8-N9-C4	5.51	108.00	105.80
25	DA	1427	A	N1-C6-N6	-5.51	115.29	118.60
1	BA	963	G	C4-C5-N7	-5.51	108.60	110.80
25	DA	398	C	N1-C2-O2	-5.51	115.59	118.90
25	DA	985	C	C5-C6-N1	5.51	123.75	121.00
25	DA	1905	C	C5-C6-N1	-5.51	118.25	121.00
1	BA	911	U	C5-C4-O4	5.51	129.20	125.90
25	DA	1213	A	N1-C6-N6	5.51	121.90	118.60
25	DA	253	C	N3-C4-C5	-5.50	119.70	121.90
56	DB	74	U	C5-C6-N1	-5.50	119.95	122.70
25	CA	1151	A	C5-N7-C8	-5.50	101.15	103.90
1	AA	308	C	C6-N1-C2	5.50	122.50	120.30
1	BA	778	G	C5-C6-O6	5.50	131.90	128.60
1	BA	1515	G	C5-C6-N1	-5.50	108.75	111.50
25	CA	446	G	C6-C5-N7	-5.50	127.10	130.40
25	CA	2205	A	C5-C6-N1	-5.50	114.95	117.70
25	DA	1074	G	C8-N9-C1'	5.50	134.15	127.00
25	DA	2347	C	C6-N1-C1'	5.50	127.40	120.80
35	CK	118	LEU	N-CA-C	-5.50	96.15	111.00
25	DA	1152	C	C5-C4-N4	-5.50	116.35	120.20
25	CA	119	A	C5-C6-N1	5.50	120.45	117.70
25	CA	1125	G	C5-C6-N1	5.50	114.25	111.50
25	CA	2285	C	C6-N1-C2	5.50	122.50	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	2642	G	N3-C4-N9	-5.50	122.70	126.00
25	CA	1223	G	N3-C4-C5	5.50	131.35	128.60
26	CB	43	C	N1-C2-N3	5.50	123.05	119.20
25	DA	648	G	C5-C6-O6	5.50	131.90	128.60
56	DB	98	G	C5-C6-O6	5.50	131.90	128.60
25	CA	906	U	C6-N1-C2	5.49	124.30	121.00
25	CA	2626	C	N3-C4-N4	5.49	121.84	118.00
25	DA	400	G	N3-C4-N9	5.49	129.30	126.00
25	DA	1996	C	C6-N1-C2	5.49	122.50	120.30
27	DC	62	ARG	NE-CZ-NH2	5.49	123.05	120.30
1	AA	1190	G	C5-C6-O6	-5.49	125.31	128.60
1	BA	779	C	N1-C2-O2	-5.49	115.61	118.90
25	CA	1563	U	C5-C4-O4	5.49	129.19	125.90
25	CA	2827	C	C6-N1-C2	5.49	122.50	120.30
25	DA	1970	A	C4-N9-C1'	5.49	136.18	126.30
25	DA	2070	A	C8-N9-C4	5.49	108.00	105.80
25	DA	2638	G	N1-C6-O6	-5.49	116.61	119.90
1	BA	1108	G	N1-C6-O6	-5.49	116.61	119.90
25	CA	229	C	N1-C2-O2	-5.49	115.61	118.90
25	CA	1369	G	N1-C6-O6	-5.49	116.61	119.90
25	CA	1372	U	C5-C4-O4	-5.49	122.61	125.90
25	CA	1405	U	N1-C2-N3	5.49	118.19	114.90
25	CA	2771	C	N3-C2-O2	5.49	125.74	121.90
25	CA	725	G	C8-N9-C1'	-5.49	119.87	127.00
25	CA	873	C	C6-N1-C2	5.49	122.49	120.30
25	CA	1122	G	N1-C6-O6	-5.49	116.61	119.90
25	DA	91	A	C5-C6-N6	-5.49	119.31	123.70
25	DA	1670	C	N3-C4-C5	-5.49	119.71	121.90
25	DA	2085	U	N3-C2-O2	-5.49	118.36	122.20
1	AA	858	G	N3-C2-N2	5.48	123.74	119.90
1	BA	326	G	N1-C6-O6	-5.48	116.61	119.90
25	CA	2523	G	C5-C6-O6	-5.48	125.31	128.60
25	CA	2682	A	C4-C5-C6	5.48	119.74	117.00
1	AA	19	A	N1-C6-N6	5.48	121.89	118.60
25	CA	606	U	N3-C4-O4	-5.48	115.56	119.40
25	CA	1525	A	N1-C6-N6	5.48	121.89	118.60
25	CA	2283	C	N1-C2-O2	-5.48	115.61	118.90
25	CA	2480	C	C6-N1-C2	-5.48	118.11	120.30
1	AA	283	U	C6-N1-C2	-5.48	117.71	121.00
25	CA	12	U	N3-C2-O2	-5.48	118.36	122.20
25	CA	919	U	C2-N1-C1'	5.48	124.28	117.70
25	CA	2897	U	C5-C6-N1	-5.48	119.96	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	1288	G	N3-C4-N9	5.48	129.29	126.00
25	DA	1936	A	C8-N9-C4	5.48	107.99	105.80
1	BA	108	G	N3-C4-N9	-5.48	122.71	126.00
25	CA	2678	C	N3-C4-C5	5.48	124.09	121.90
25	CA	974	G	C3'-C2'-C1'	-5.48	97.12	101.50
25	CA	1024	G	N7-C8-N9	5.48	115.84	113.10
25	DA	770	G	N3-C4-N9	-5.48	122.71	126.00
25	DA	2508	G	N3-C2-N2	5.48	123.73	119.90
1	BA	1145	A	N1-C6-N6	5.48	121.89	118.60
1	AA	796	C	N3-C2-O2	-5.47	118.07	121.90
1	AA	1174	G	C6-C5-N7	5.47	133.69	130.40
22	BV	56	C	C6-N1-C2	-5.47	118.11	120.30
25	CA	563	A	C5-N7-C8	-5.47	101.16	103.90
25	CA	923	G	N3-C4-N9	-5.47	122.72	126.00
25	DA	2386	A	C8-N9-C4	5.47	107.99	105.80
25	DA	2702	G	N3-C4-C5	-5.47	125.86	128.60
1	BA	824	G	N3-C4-C5	5.47	131.34	128.60
25	CA	210	C	C2-N1-C1'	-5.47	112.78	118.80
25	CA	2859	G	N1-C2-N3	5.47	127.18	123.90
26	CB	11	C	C6-N1-C2	-5.47	118.11	120.30
25	DA	2705	A	C2-N3-C4	-5.47	107.86	110.60
25	DA	2755	C	N1-C2-O2	5.47	122.18	118.90
1	AA	111	G	C8-N9-C1'	5.47	134.11	127.00
25	CA	1038	G	N3-C4-C5	-5.47	125.86	128.60
25	DA	792	A	C8-N9-C4	-5.47	103.61	105.80
25	DA	1844	C	N1-C2-O2	-5.47	115.62	118.90
25	CA	489	G	N1-C2-N2	5.47	121.12	116.20
25	CA	1447	C	C4-C5-C6	5.47	120.14	117.40
25	CA	2265	U	N1-C2-N3	5.47	118.18	114.90
25	DA	1207	C	N1-C2-O2	-5.47	115.62	118.90
25	DA	2803	G	C4-N9-C1'	-5.47	119.39	126.50
1	AA	768	A	N1-C6-N6	5.47	121.88	118.60
25	CA	2289	G	C2-N3-C4	-5.47	109.17	111.90
25	CA	1427	A	C2-N3-C4	5.47	113.33	110.60
25	CA	2365	G	C2-N3-C4	-5.47	109.17	111.90
25	DA	75	G	N3-C4-N9	-5.47	122.72	126.00
25	DA	308	G	N3-C2-N2	5.47	123.73	119.90
25	DA	1785	A	C2-N3-C4	-5.47	107.87	110.60
25	DA	2045	C	C6-N1-C2	5.47	122.49	120.30
25	DA	2064	C	N3-C4-N4	5.47	121.83	118.00
25	CA	318	C	N1-C2-O2	-5.46	115.62	118.90
25	CA	781	A	C4-C5-C6	5.46	119.73	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	2220	U	C2-N1-C1'	-5.46	111.14	117.70
25	CA	2330	G	N1-C2-N3	5.46	127.18	123.90
25	CA	2416	C	N1-C2-N3	5.46	123.03	119.20
25	DA	2539	C	C6-N1-C2	5.46	122.48	120.30
1	AA	234	C	C6-N1-C2	-5.46	118.12	120.30
25	CA	1243	C	N1-C2-O2	-5.46	115.62	118.90
25	CA	2054	A	N1-C6-N6	5.46	121.88	118.60
25	DA	598	U	N1-C2-O2	5.46	126.62	122.80
25	DA	740	C	N1-C2-O2	-5.46	115.62	118.90
25	DA	1265	A	C4-C5-N7	-5.46	107.97	110.70
25	DA	2688	G	N3-C4-C5	5.46	131.33	128.60
1	AA	1403	C	C2-N3-C4	-5.46	117.17	119.90
22	AV	70	G	C5-C6-O6	5.46	131.88	128.60
1	BA	109	A	C5-C6-N1	-5.46	114.97	117.70
25	CA	862	G	N1-C6-O6	-5.46	116.62	119.90
25	CA	2833	U	N3-C2-O2	-5.46	118.38	122.20
1	BA	653	U	N3-C2-O2	5.46	126.02	122.20
26	CB	16	G	N9-C4-C5	5.46	107.58	105.40
26	CB	72	G	C2-N3-C4	-5.46	109.17	111.90
25	DA	1797	G	C8-N9-C4	5.46	108.58	106.40
1	AA	245	U	C2-N3-C4	-5.46	123.73	127.00
1	AA	921	U	N3-C4-O4	5.46	123.22	119.40
1	BA	380	G	C8-N9-C4	5.46	108.58	106.40
1	BA	388	G	N1-C6-O6	-5.46	116.63	119.90
25	CA	92	U	N3-C2-O2	5.46	126.02	122.20
25	CA	856	G	N7-C8-N9	-5.46	110.37	113.10
25	DA	679	C	N3-C4-C5	-5.46	119.72	121.90
25	DA	1122	G	C4-N9-C1'	-5.46	119.41	126.50
25	DA	1614	A	C8-N9-C4	5.46	107.98	105.80
25	DA	2874	C	C6-N1-C1'	5.46	127.35	120.80
25	CA	960	A	C2-N3-C4	5.45	113.33	110.60
25	DA	781	A	C2-N3-C4	5.45	113.33	110.60
25	DA	1773	A	N9-C4-C5	5.45	107.98	105.80
1	AA	145	G	C8-N9-C4	-5.45	104.22	106.40
25	CA	1265	A	N3-C4-C5	-5.45	122.98	126.80
25	CA	1972	G	N3-C4-C5	-5.45	125.87	128.60
25	DA	2559	C	N3-C4-C5	5.45	124.08	121.90
25	CA	276	U	C2-N1-C1'	5.45	124.24	117.70
25	CA	2409	G	C8-N9-C4	5.45	108.58	106.40
25	DA	1369	G	C8-N9-C4	-5.45	104.22	106.40
25	CA	383	C	C2-N1-C1'	-5.45	112.81	118.80
25	CA	1958	C	N1-C2-N3	5.45	123.01	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	2371	G	C8-N9-C4	-5.45	104.22	106.40
25	DA	528	A	C6-C5-N7	-5.45	128.49	132.30
1	AA	897	C	C6-N1-C2	5.45	122.48	120.30
1	BA	1494	G	N3-C2-N2	-5.45	116.09	119.90
1	BA	1522	U	N1-C2-O2	-5.45	118.99	122.80
25	CA	226	A	C6-C5-N7	-5.45	128.49	132.30
25	CA	240	C	N1-C2-O2	-5.45	115.63	118.90
25	CA	581	C	C6-N1-C2	-5.45	118.12	120.30
25	CA	758	C	N1-C2-O2	-5.45	115.63	118.90
25	DA	939	G	C6-C5-N7	5.45	133.67	130.40
25	DA	2030	A	C5-C6-N6	5.45	128.06	123.70
25	CA	2396	G	N9-C4-C5	5.45	107.58	105.40
25	DA	1002	G	C8-N9-C1'	5.45	134.08	127.00
1	BA	26	A	C2-N3-C4	5.44	113.32	110.60
25	DA	782	A	C2-N3-C4	-5.44	107.88	110.60
25	CA	38	A	C5-C6-N1	5.44	120.42	117.70
25	CA	475	C	N1-C2-O2	-5.44	115.64	118.90
25	CA	1384	A	N1-C6-N6	-5.44	115.34	118.60
25	DA	212	G	C5-C6-O6	-5.44	125.33	128.60
25	DA	562	U	C6-N1-C1'	5.44	128.82	121.20
25	DA	642	U	C5-C4-O4	5.44	129.16	125.90
25	DA	2002	G	N3-C4-N9	-5.44	122.74	126.00
25	CA	2562	U	N3-C4-O4	-5.44	115.59	119.40
25	CA	2682	A	C6-C5-N7	-5.44	128.49	132.30
1	AA	734	G	C4-N9-C1'	5.44	133.57	126.50
25	CA	454	A	C5-C6-N6	-5.44	119.35	123.70
25	CA	765	C	N3-C4-C5	-5.44	119.72	121.90
25	CA	2067	G	C8-N9-C4	5.44	108.58	106.40
25	DA	2715	C	C2-N3-C4	-5.44	117.18	119.90
1	BA	896	C	N1-C2-O2	-5.44	115.64	118.90
25	CA	1130	U	N3-C2-O2	-5.44	118.39	122.20
25	CA	2534	A	C5-C6-N6	-5.44	119.35	123.70
25	CA	2770	G	N9-C4-C5	-5.44	103.23	105.40
1	BA	447	G	N3-C4-N9	5.43	129.26	126.00
25	CA	817	C	N3-C2-O2	5.43	125.70	121.90
25	CA	1394	U	C5-C4-O4	5.43	129.16	125.90
25	CA	2679	A	N1-C6-N6	5.43	121.86	118.60
25	CA	2762	C	N1-C2-O2	-5.43	115.64	118.90
25	DA	911	A	N9-C4-C5	-5.43	103.63	105.80
25	CA	821	A	C4-C5-C6	-5.43	114.28	117.00
25	CA	2330	G	C2-N3-C4	-5.43	109.18	111.90
1	BA	642	A	N9-C4-C5	-5.43	103.63	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	780	G	N1-C6-O6	-5.43	116.64	119.90
25	DA	1142	A	C5-N7-C8	-5.43	101.19	103.90
1	BA	776	G	N1-C6-O6	-5.43	116.64	119.90
25	CA	746	U	C6-N1-C2	-5.43	117.74	121.00
25	CA	2803	G	C5-N7-C8	5.43	107.02	104.30
26	CB	61	G	C2-N3-C4	-5.43	109.19	111.90
25	DA	1792	G	N3-C4-C5	5.43	131.31	128.60
25	DA	1831	G	C5-N7-C8	-5.43	101.59	104.30
25	DA	2470	G	N1-C6-O6	-5.43	116.64	119.90
25	DA	2781	A	C8-N9-C4	5.43	107.97	105.80
25	CA	680	C	C2-N1-C1'	5.43	124.77	118.80
1	BA	400	C	N3-C2-O2	5.43	125.70	121.90
25	CA	2794	C	C6-N1-C2	-5.43	118.13	120.30
25	DA	461	C	C6-N1-C2	5.43	122.47	120.30
25	DA	780	G	N3-C4-C5	-5.43	125.89	128.60
25	DA	1037	G	C4-N9-C1'	-5.43	119.45	126.50
25	DA	2263	C	C6-N1-C2	-5.43	118.13	120.30
1	AA	897	C	C2-N3-C4	-5.42	117.19	119.90
22	AV	31	A	N7-C8-N9	-5.42	111.09	113.80
1	BA	902	G	N1-C2-N2	-5.42	111.32	116.20
25	CA	47	C	N1-C2-O2	-5.42	115.64	118.90
25	CA	784	G	C6-N1-C2	-5.42	121.84	125.10
25	DA	1786	A	C4-C5-C6	5.42	119.71	117.00
1	AA	721	G	N3-C4-N9	-5.42	122.75	126.00
25	DA	579	G	N3-C2-N2	-5.42	116.10	119.90
25	DA	2070	A	C4-N9-C1'	-5.42	116.54	126.30
25	DA	2582	G	C4-C5-N7	-5.42	108.63	110.80
25	CA	404	A	N7-C8-N9	5.42	116.51	113.80
25	CA	1835	G	N1-C2-N2	5.42	121.08	116.20
25	DA	1617	C	N1-C2-O2	-5.42	115.65	118.90
1	BA	766	A	C8-N9-C4	5.42	107.97	105.80
25	CA	2426	A	C4-C5-C6	5.42	119.71	117.00
25	DA	1828	G	C8-N9-C4	-5.42	104.23	106.40
49	CY	56	LEU	N-CA-C	-5.42	96.38	111.00
1	BA	1199	U	C2-N1-C1'	-5.42	111.20	117.70
25	CA	921	C	N3-C4-N4	5.42	121.79	118.00
26	CB	9	G	C5-C6-N1	5.42	114.21	111.50
25	DA	1441	G	N9-C4-C5	-5.42	103.23	105.40
25	DA	2503	A	C2-N3-C4	5.42	113.31	110.60
1	BA	781	A	C8-N9-C4	5.41	107.97	105.80
25	CA	2158	A	C5-C6-N6	-5.41	119.37	123.70
25	CA	2609	U	N1-C2-N3	-5.41	111.65	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	CB	88	C	N3-C4-C5	-5.41	119.73	121.90
25	DA	1648	U	C5-C4-O4	-5.41	122.65	125.90
25	DA	2279	G	C8-N9-C4	5.41	108.56	106.40
1	BA	108	G	N1-C6-O6	-5.41	116.65	119.90
25	CA	1016	G	N1-C2-N2	5.41	121.07	116.20
25	CA	2333	A	C6-N1-C2	-5.41	115.35	118.60
25	DA	1846	G	N1-C6-O6	5.41	123.15	119.90
25	DA	2075	U	N3-C4-O4	-5.41	115.61	119.40
25	DA	2470	G	N9-C4-C5	5.41	107.56	105.40
1	BA	406	G	N3-C4-C5	-5.41	125.89	128.60
25	CA	1038	G	N1-C2-N2	-5.41	111.33	116.20
25	CA	1966	A	C5-C6-N6	-5.41	119.37	123.70
25	CA	2523	G	C8-N9-C1'	-5.41	119.97	127.00
25	DA	948	C	N1-C2-N3	5.41	122.99	119.20
1	BA	28	A	N1-C6-N6	5.41	121.84	118.60
1	BA	714	G	C4-C5-N7	5.41	112.96	110.80
25	CA	547	A	C8-N9-C4	-5.41	103.64	105.80
25	DA	1711	A	C2-N3-C4	5.41	113.30	110.60
25	DA	2044	C	C6-N1-C2	5.41	122.46	120.30
25	CA	733	G	N3-C4-N9	5.41	129.24	126.00
25	CA	2435	A	C8-N9-C4	5.41	107.96	105.80
25	CA	2444	G	N3-C2-N2	-5.41	116.11	119.90
25	DA	555	G	N1-C6-O6	5.41	123.14	119.90
25	DA	2502	G	N9-C4-C5	5.41	107.56	105.40
1	AA	1187	G	C4-N9-C1'	-5.41	119.47	126.50
1	AA	1360	A	C8-N9-C4	5.41	107.96	105.80
1	BA	822	U	C6-N1-C2	5.41	124.24	121.00
25	CA	32	C	C6-N1-C2	5.41	122.46	120.30
25	CA	332	A	C4-C5-N7	-5.41	108.00	110.70
25	CA	1841	U	N1-C2-O2	-5.41	119.02	122.80
25	CA	2250	G	C6-N1-C2	5.41	128.34	125.10
25	CA	2574	G	N1-C6-O6	5.40	123.14	119.90
25	DA	2053	G	C2-N3-C4	-5.40	109.20	111.90
25	DA	2852	G	C8-N9-C4	5.40	108.56	106.40
3	BC	174	LEU	CA-CB-CG	5.40	127.72	115.30
25	CA	1897	G	N3-C4-N9	5.40	129.24	126.00
25	CA	2535	G	N9-C4-C5	-5.40	103.24	105.40
25	DA	1939	U	N3-C4-C5	5.40	117.84	114.60
25	DA	2208	C	C6-N1-C2	-5.40	118.14	120.30
25	DA	2885	G	C8-N9-C4	-5.40	104.24	106.40
25	CA	1189	A	C5-C6-N1	5.40	120.40	117.70
25	DA	1653	G	C4-C5-C6	5.40	122.04	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	633	G	N9-C4-C5	5.40	107.56	105.40
1	BA	354	G	C4-N9-C1'	5.40	133.52	126.50
25	CA	239	C	N3-C2-O2	5.40	125.68	121.90
25	CA	516	C	C2-N1-C1'	-5.40	112.86	118.80
25	DA	209	C	N3-C4-N4	-5.40	114.22	118.00
25	DA	771	G	C5-C6-O6	-5.40	125.36	128.60
25	DA	2017	U	C5-C4-O4	5.40	129.14	125.90
1	AA	586	C	C6-N1-C2	5.40	122.46	120.30
26	CB	96	G	C4-C5-N7	-5.40	108.64	110.80
25	DA	2055	C	C2-N1-C1'	-5.40	112.86	118.80
25	CA	35	G	C2-N3-C4	-5.39	109.20	111.90
25	CA	2790	U	N1-C2-O2	5.39	126.58	122.80
41	CQ	10	ARG	NE-CZ-NH1	-5.39	117.60	120.30
25	CA	235	U	N3-C2-O2	-5.39	118.42	122.20
25	CA	982	C	N3-C4-N4	-5.39	114.23	118.00
25	CA	1035	U	C6-N1-C2	5.39	124.23	121.00
1	BA	1190	G	C8-N9-C4	5.39	108.56	106.40
25	DA	6	A	C2-N3-C4	-5.39	107.91	110.60
25	CA	984	A	C8-N9-C4	5.39	107.96	105.80
25	CA	1128	G	C2-N3-C4	-5.39	109.21	111.90
25	CA	1750	G	C8-N9-C4	-5.39	104.24	106.40
25	CA	1767	G	C2-N3-C4	-5.39	109.20	111.90
25	CA	2523	G	C2-N3-C4	-5.39	109.20	111.90
25	CA	990	A	C5-C6-N6	5.39	128.01	123.70
25	CA	2056	G	C2-N3-C4	5.39	114.59	111.90
1	AA	1483	A	N1-C6-N6	5.39	121.83	118.60
1	BA	332	G	C5-C6-O6	-5.39	125.37	128.60
25	CA	1743	G	N9-C4-C5	-5.39	103.25	105.40
25	CA	2141	G	N3-C4-N9	5.39	129.23	126.00
25	DA	395	U	C2-N1-C1'	-5.39	111.24	117.70
25	DA	1130	U	N1-C2-O2	5.39	126.57	122.80
25	DA	1676	A	N7-C8-N9	-5.39	111.11	113.80
25	DA	2702	G	C4-N9-C1'	5.39	133.50	126.50
1	BA	241	G	C5-C6-O6	5.38	131.83	128.60
1	BA	611	C	C2-N3-C4	-5.38	117.21	119.90
25	CA	821	A	C2-N3-C4	-5.38	107.91	110.60
25	CA	1407	G	N1-C6-O6	5.38	123.13	119.90
25	DA	906	U	C2-N1-C1'	-5.38	111.24	117.70
25	DA	2783	U	C2-N1-C1'	-5.38	111.24	117.70
1	BA	220	G	N3-C4-N9	-5.38	122.77	126.00
25	CA	1475	G	C8-N9-C1'	5.38	134.00	127.00
25	DA	2677	G	C8-N9-C1'	5.38	134.00	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	796	C	N1-C2-O2	-5.38	115.67	118.90
25	CA	1169	A	C8-N9-C4	5.38	107.95	105.80
1	AA	1499	A	N9-C4-C5	-5.38	103.65	105.80
25	CA	1783	A	N1-C6-N6	5.38	121.83	118.60
25	DA	1952	A	C2-N3-C4	5.38	113.29	110.60
25	DA	2371	G	N3-C2-N2	-5.38	116.13	119.90
1	AA	206	C	C6-N1-C2	-5.38	118.15	120.30
1	BA	563	A	C4-C5-N7	5.38	113.39	110.70
25	CA	218	A	N1-C6-N6	5.38	121.83	118.60
25	CA	249	C	N3-C4-N4	5.38	121.77	118.00
25	CA	2093	G	C5-C6-N1	-5.38	108.81	111.50
25	DA	2070	A	N1-C2-N3	5.38	131.99	129.30
25	DA	2652	C	C2-N1-C1'	-5.38	112.88	118.80
25	DA	400	G	N3-C4-C5	-5.38	125.91	128.60
25	DA	681	G	N1-C6-O6	5.38	123.13	119.90
25	DA	912	C	C6-N1-C2	-5.38	118.15	120.30
25	DA	1473	G	C8-N9-C4	5.38	108.55	106.40
25	DA	2518	A	N7-C8-N9	5.38	116.49	113.80
25	DA	2618	G	C8-N9-C4	5.38	108.55	106.40
1	AA	656	G	N3-C4-C5	-5.38	125.91	128.60
1	BA	35	G	N3-C4-C5	-5.38	125.91	128.60
1	BA	457	G	N3-C4-N9	5.38	129.22	126.00
25	CA	22	C	C2-N3-C4	-5.38	117.21	119.90
25	CA	1020	A	N3-C4-C5	5.38	130.56	126.80
25	CA	2679	A	C4-C5-N7	5.38	113.39	110.70
25	CA	2862	G	N3-C2-N2	-5.38	116.14	119.90
1	BA	358	U	N3-C2-O2	5.37	125.96	122.20
25	CA	620	G	N3-C2-N2	-5.37	116.14	119.90
25	CA	1997	C	C2-N1-C1'	-5.37	112.89	118.80
25	DA	246	C	N3-C2-O2	5.37	125.66	121.90
25	DA	297	G	C8-N9-C4	5.37	108.55	106.40
25	DA	1827	U	N1-C2-O2	-5.37	119.04	122.80
1	AA	29	U	C5-C4-O4	5.37	129.12	125.90
25	CA	169	G	N3-C4-N9	-5.37	122.78	126.00
25	CA	1652	A	N1-C6-N6	-5.37	115.38	118.60
26	CB	13	G	N9-C4-C5	-5.37	103.25	105.40
25	DA	1290	C	N1-C2-O2	-5.37	115.68	118.90
25	CA	946	C	N3-C4-C5	5.37	124.05	121.90
25	DA	1780	A	C5-C6-N6	-5.37	119.40	123.70
1	AA	212	G	N3-C4-N9	5.37	129.22	126.00
1	AA	293	G	C8-N9-C4	5.37	108.55	106.40
25	CA	760	G	N3-C2-N2	-5.37	116.14	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	1137	G	C5-C6-O6	-5.37	125.38	128.60
25	DA	528	A	N3-C4-N9	-5.37	123.11	127.40
1	AA	859	G	N1-C2-N2	-5.37	111.37	116.20
1	AA	980	C	C6-N1-C2	5.37	122.45	120.30
25	CA	915	C	N1-C2-O2	-5.37	115.68	118.90
25	CA	1155	A	C5-N7-C8	5.37	106.58	103.90
25	CA	1157	G	C4-N9-C1'	5.37	133.48	126.50
25	CA	2293	G	C5-C6-N1	5.37	114.18	111.50
25	DA	77	G	N3-C4-N9	-5.37	122.78	126.00
25	DA	672	C	N3-C2-O2	5.37	125.66	121.90
25	DA	871	U	C6-N1-C1'	5.37	128.71	121.20
25	DA	2649	C	N1-C2-O2	-5.37	115.68	118.90
25	CA	1245	G	C5-C6-O6	5.36	131.82	128.60
25	CA	2728	U	N3-C4-O4	-5.36	115.64	119.40
25	DA	129	C	N3-C4-C5	5.36	124.05	121.90
25	DA	413	C	C6-N1-C2	5.36	122.45	120.30
25	DA	453	A	N9-C4-C5	-5.36	103.66	105.80
22	AV	17	C	C3'-C2'-C1'	-5.36	97.21	101.50
25	CA	1378	A	N3-C4-N9	-5.36	123.11	127.40
25	CA	2081	U	N1-C2-N3	5.36	118.12	114.90
25	DA	61	C	N3-C4-N4	5.36	121.75	118.00
1	AA	292	G	N1-C6-O6	-5.36	116.68	119.90
1	AA	1510	C	C6-N1-C2	5.36	122.44	120.30
1	BA	278	G	N3-C4-C5	5.36	131.28	128.60
25	CA	249	C	C5-C4-N4	-5.36	116.45	120.20
26	CB	51	G	C5-N7-C8	-5.36	101.62	104.30
22	AV	15	G	N3-C4-C5	5.36	131.28	128.60
25	CA	2416	C	N3-C2-O2	-5.36	118.15	121.90
25	CA	1939	U	N3-C4-C5	5.36	117.81	114.60
25	CA	2364	C	C2-N1-C1'	-5.36	112.91	118.80
25	CA	2488	G	C5-C6-O6	-5.36	125.39	128.60
25	CA	2499	C	N3-C2-O2	5.36	125.65	121.90
25	DA	229	C	C6-N1-C2	5.36	122.44	120.30
25	DA	2803	G	C8-N9-C4	5.36	108.54	106.40
25	DA	2834	G	N3-C4-N9	5.36	129.22	126.00
1	BA	566	G	N3-C4-N9	5.36	129.21	126.00
25	CA	2085	U	C6-N1-C2	5.36	124.21	121.00
25	CA	2688	G	C8-N9-C1'	5.36	133.96	127.00
25	DA	243	U	C5-C4-O4	5.36	129.11	125.90
25	DA	2355	G	C2-N3-C4	-5.36	109.22	111.90
25	CA	2298	A	N1-C6-N6	-5.35	115.39	118.60
25	DA	950	G	C8-N9-C4	5.35	108.54	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	BA	795	C	N1-C2-O2	-5.35	115.69	118.90
1	BA	896	C	N1-C2-N3	5.35	122.95	119.20
25	CA	1646	C	C6-N1-C2	5.35	122.44	120.30
25	CA	1981	A	C5-C6-N6	5.35	127.98	123.70
25	DA	450	G	N1-C6-O6	-5.35	116.69	119.90
25	DA	527	C	C5-C4-N4	5.35	123.95	120.20
25	DA	1842	G	N3-C4-N9	-5.35	122.79	126.00
25	DA	2691	C	N3-C4-N4	5.35	121.75	118.00
25	CA	337	C	N3-C4-C5	5.35	124.04	121.90
25	CA	997	G	C4-C5-N7	-5.35	108.66	110.80
25	CA	1395	A	N3-C4-N9	-5.35	123.12	127.40
25	DA	1617	C	C2-N3-C4	-5.35	117.22	119.90
25	DA	2432	A	C6-C5-N7	-5.35	128.55	132.30
25	CA	85	G	C5-C6-N1	5.35	114.17	111.50
25	CA	576	U	N1-C2-O2	5.35	126.54	122.80
25	CA	1638	C	N1-C2-N3	5.35	122.94	119.20
25	CA	1970	A	C5-N7-C8	-5.35	101.22	103.90
26	CB	15	A	C5-C6-N1	-5.35	115.03	117.70
25	DA	1686	C	N1-C2-O2	-5.35	115.69	118.90
25	DA	2267	A	C6-C5-N7	-5.35	128.56	132.30
25	DA	2434	A	C6-C5-N7	-5.35	128.56	132.30
22	BV	62	C	N1-C2-O2	-5.35	115.69	118.90
26	CB	81	G	C5-C6-N1	5.35	114.17	111.50
25	DA	1300	G	N3-C4-N9	5.35	129.21	126.00
25	CA	873	C	N3-C2-O2	5.35	125.64	121.90
25	CA	2503	A	C5-C6-N6	-5.35	119.42	123.70
25	DA	721	A	C8-N9-C4	5.35	107.94	105.80
25	DA	1340	U	C6-N1-C1'	-5.35	113.72	121.20
1	BA	365	U	N3-C4-O4	-5.34	115.66	119.40
26	CB	80	U	N3-C2-O2	5.34	125.94	122.20
25	DA	855	G	C8-N9-C4	-5.34	104.26	106.40
25	DA	1647	U	N3-C4-C5	-5.34	111.39	114.60
25	CA	290	U	C5-C4-O4	5.34	129.11	125.90
25	CA	636	G	C5-C6-O6	5.34	131.81	128.60
25	CA	2059	A	C2-N3-C4	-5.34	107.93	110.60
25	DA	85	G	N3-C4-C5	5.34	131.27	128.60
25	DA	1119	U	C5-C6-N1	-5.34	120.03	122.70
1	AA	396	C	C6-N1-C2	5.34	122.44	120.30
25	DA	981	A	C5-N7-C8	-5.34	101.23	103.90
25	CA	301	G	C4-N9-C1'	-5.34	119.56	126.50
25	CA	2590	A	C8-N9-C4	5.34	107.94	105.80
25	CA	187	G	N3-C4-N9	5.34	129.20	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	647	G	N7-C8-N9	-5.34	110.43	113.10
25	CA	2867	G	N3-C4-N9	5.34	129.20	126.00
1	AA	502	A	N1-C6-N6	-5.34	115.40	118.60
1	AA	754	C	N3-C4-C5	-5.34	119.77	121.90
25	CA	310	A	C2-N3-C4	-5.34	107.93	110.60
25	CA	2071	A	N1-C2-N3	5.34	131.97	129.30
25	CA	2726	A	N9-C4-C5	5.34	107.94	105.80
25	DA	29	U	N3-C4-O4	-5.34	115.67	119.40
25	DA	2282	G	C5-C6-N1	5.34	114.17	111.50
25	DA	2425	A	P-O3'-C3'	5.34	126.10	119.70
25	DA	2564	A	C6-C5-N7	-5.34	128.56	132.30
4	AD	49	ASP	CB-CG-OD2	5.33	123.10	118.30
25	CA	1522	A	C4-C5-C6	5.33	119.67	117.00
25	DA	2823	A	N9-C4-C5	-5.33	103.67	105.80
28	DD	141	ARG	NE-CZ-NH1	5.33	122.97	120.30
1	AA	764	C	C6-N1-C2	-5.33	118.17	120.30
1	BA	823	C	C2-N1-C1'	-5.33	112.93	118.80
25	CA	533	G	C4-N9-C1'	5.33	133.43	126.50
25	DA	4	U	C5-C6-N1	-5.33	120.03	122.70
25	DA	1634	A	C8-N9-C4	5.33	107.93	105.80
25	CA	598	U	C5-C6-N1	-5.33	120.03	122.70
25	CA	1738	G	N3-C4-C5	-5.33	125.93	128.60
25	CA	2352	A	C5-N7-C8	5.33	106.57	103.90
26	CB	117	G	N3-C4-N9	-5.33	122.80	126.00
25	DA	785	G	C5-C6-N1	-5.33	108.83	111.50
25	DA	2029	G	C2-N3-C4	-5.33	109.23	111.90
25	DA	961	C	N3-C2-O2	5.33	125.63	121.90
1	AA	1309	G	C8-N9-C4	5.33	108.53	106.40
25	CA	223	A	N3-C4-N9	-5.33	123.14	127.40
25	DA	1157	G	C4-C5-N7	5.33	112.93	110.80
25	DA	1764	C	N1-C2-N3	5.33	122.93	119.20
1	BA	142	G	C4-N9-C1'	5.33	133.43	126.50
25	CA	488	G	N3-C4-N9	5.33	129.20	126.00
25	DA	1187	G	C8-N9-C1'	-5.33	120.08	127.00
1	BA	37	U	C6-N1-C2	5.33	124.20	121.00
1	BA	1433	A	C6-C5-N7	-5.33	128.57	132.30
25	CA	1892	C	C6-N1-C2	5.33	122.43	120.30
25	DA	211	C	C2-N1-C1'	-5.33	112.94	118.80
25	DA	1833	C	N3-C2-O2	5.33	125.63	121.90
1	BA	813	U	C5-C4-O4	-5.32	122.71	125.90
25	CA	1556	C	N3-C2-O2	5.32	125.63	121.90
25	CA	2177	C	C2-N1-C1'	5.32	124.66	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	2388	A	N7-C8-N9	-5.32	111.14	113.80
25	DA	395	U	C5-C6-N1	-5.32	120.04	122.70
25	DA	2019	A	C5-C6-N6	-5.32	119.44	123.70
1	AA	798	U	N1-C2-O2	-5.32	119.08	122.80
1	AA	1457	G	N7-C8-N9	-5.32	110.44	113.10
25	CA	458	G	C6-C5-N7	5.32	133.59	130.40
25	CA	2763	G	N1-C6-O6	5.32	123.09	119.90
25	DA	122	G	N9-C4-C5	-5.32	103.27	105.40
25	DA	2019	A	N1-C6-N6	5.32	121.79	118.60
25	CA	991	C	N1-C2-O2	-5.32	115.71	118.90
25	DA	527	C	N3-C2-O2	-5.32	118.17	121.90
25	DA	2783	U	C5-C4-O4	5.32	129.09	125.90
1	AA	311	C	C6-N1-C2	-5.32	118.17	120.30
1	BA	686	U	C2-N1-C1'	-5.32	111.32	117.70
25	CA	90	U	N1-C2-O2	5.32	126.52	122.80
25	CA	2427	C	N1-C2-O2	-5.32	115.71	118.90
25	DA	583	G	C2-N3-C4	-5.32	109.24	111.90
25	DA	2842	G	C8-N9-C4	5.32	108.53	106.40
1	AA	938	A	C5-C6-N6	5.32	127.95	123.70
25	CA	431	U	N1-C2-N3	-5.32	111.71	114.90
25	CA	1064	C	C5-C6-N1	5.32	123.66	121.00
25	CA	2000	C	C2-N3-C4	-5.32	117.24	119.90
25	CA	2458	G	N9-C4-C5	5.32	107.53	105.40
25	DA	838	C	C6-N1-C2	5.32	122.43	120.30
25	DA	2705	A	C4-C5-N7	5.32	113.36	110.70
1	AA	368	U	N3-C2-O2	-5.32	118.48	122.20
1	BA	563	A	C6-C5-N7	-5.32	128.58	132.30
25	CA	1110	G	C8-N9-C4	5.32	108.53	106.40
25	CA	2076	U	C5-C4-O4	5.32	129.09	125.90
1	AA	245	U	N3-C4-C5	5.31	117.79	114.60
25	CA	517	C	N3-C2-O2	5.31	125.62	121.90
25	CA	2717	C	C6-N1-C2	-5.31	118.17	120.30
25	DA	1771	C	C2-N3-C4	-5.31	117.24	119.90
1	BA	987	G	C8-N9-C4	-5.31	104.28	106.40
25	DA	634	C	N3-C4-N4	5.31	121.72	118.00
1	AA	869	G	C4-C5-N7	5.31	112.92	110.80
25	CA	2055	C	N3-C4-C5	5.31	124.02	121.90
25	CA	2612	C	N1-C2-O2	-5.31	115.72	118.90
25	CA	2646	C	C5-C4-N4	-5.31	116.48	120.20
25	DA	1684	G	C8-N9-C4	5.31	108.52	106.40
1	AA	1194	U	C5-C6-N1	-5.31	120.05	122.70
25	CA	195	A	C5-C6-N1	5.31	120.35	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	543	G	C8-N9-C1'	-5.31	120.10	127.00
25	CA	2277	G	C5-C6-N1	5.31	114.15	111.50
25	DA	122	G	C8-N9-C4	5.31	108.52	106.40
25	CA	1661	G	N3-C4-N9	5.31	129.18	126.00
25	CA	2030	A	C5-C6-N1	-5.31	115.05	117.70
25	DA	466	A	N1-C6-N6	-5.31	115.42	118.60
25	DA	634	C	C5-C4-N4	-5.31	116.48	120.20
1	BA	115	G	C5-C6-N1	5.30	114.15	111.50
1	BA	1441	A	C8-N9-C4	-5.30	103.68	105.80
22	BV	74	C	C6-N1-C1'	-5.30	114.44	120.80
25	CA	942	G	C6-C5-N7	5.30	133.58	130.40
25	DA	538	A	N1-C2-N3	5.30	131.95	129.30
25	DA	1951	U	N3-C4-C5	-5.30	111.42	114.60
25	DA	2069	G	N3-C4-N9	-5.30	122.82	126.00
56	DB	74	U	C5-C4-O4	5.30	129.08	125.90
56	DB	113	C	C6-N1-C2	-5.30	118.18	120.30
25	CA	1519	G	C5-N7-C8	5.30	106.95	104.30
25	CA	2158	A	N1-C6-N6	5.30	121.78	118.60
25	DA	1972	G	N3-C4-C5	-5.30	125.95	128.60
1	AA	332	G	N7-C8-N9	-5.30	110.45	113.10
25	CA	1228	G	C6-C5-N7	5.30	133.58	130.40
25	CA	2452	C	N1-C2-O2	-5.30	115.72	118.90
25	CA	2539	C	N1-C2-O2	-5.30	115.72	118.90
25	DA	746	U	N1-C2-O2	5.30	126.51	122.80
25	DA	2549	G	C4-N9-C1'	5.30	133.39	126.50
25	DA	2568	U	C6-N1-C2	5.30	124.18	121.00
25	DA	1651	G	C8-N9-C4	-5.30	104.28	106.40
25	DA	2364	C	N1-C2-O2	-5.30	115.72	118.90
1	AA	1524	C	C6-N1-C1'	5.30	127.16	120.80
25	DA	582	A	C5-C6-N6	-5.30	119.46	123.70
25	DA	1006	C	C5-C4-N4	-5.30	116.49	120.20
56	DB	76	G	N9-C4-C5	5.30	107.52	105.40
25	CA	221	A	C4-N9-C1'	-5.30	116.77	126.30
25	CA	542	C	N1-C2-O2	-5.30	115.72	118.90
25	CA	618	G	C6-C5-N7	5.30	133.58	130.40
25	CA	809	G	C5-C6-O6	5.30	131.78	128.60
25	CA	1190	G	C4-C5-N7	-5.30	108.68	110.80
25	CA	1595	C	C5-C6-N1	-5.30	118.35	121.00
25	CA	2031	A	N7-C8-N9	5.30	116.45	113.80
25	CA	2435	A	C6-N1-C2	-5.30	115.42	118.60
25	DA	1897	G	N9-C4-C5	-5.30	103.28	105.40
25	DA	2252	G	C8-N9-C4	5.30	108.52	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	2757	A	C2-N3-C4	5.30	113.25	110.60
25	DA	2795	C	C6-N1-C2	-5.30	118.18	120.30
25	CA	2642	G	N3-C2-N2	5.29	123.61	119.90
1	AA	818	G	C8-N9-C1'	5.29	133.88	127.00
1	AA	1475	G	C6-C5-N7	-5.29	127.22	130.40
1	BA	987	G	C4-N9-C1'	5.29	133.38	126.50
25	DA	815	C	N3-C4-C5	-5.29	119.78	121.90
25	DA	964	C	C2-N1-C1'	-5.29	112.98	118.80
25	DA	2267	A	C4-C5-C6	5.29	119.65	117.00
25	DA	2436	G	C2-N3-C4	-5.29	109.25	111.90
25	DA	2675	A	C6-N1-C2	-5.29	115.42	118.60
1	AA	337	G	C4-N9-C1'	-5.29	119.62	126.50
1	AA	914	A	C6-N1-C2	-5.29	115.42	118.60
25	CA	317	G	N1-C6-O6	5.29	123.08	119.90
25	CA	971	G	N3-C4-N9	5.29	129.18	126.00
25	CA	2726	A	C5-C6-N1	5.29	120.35	117.70
25	CA	2802	G	N3-C4-N9	-5.29	122.83	126.00
25	CA	2877	G	C8-N9-C4	5.29	108.52	106.40
25	DA	794	A	C8-N9-C4	5.29	107.92	105.80
1	AA	1051	C	N1-C2-O2	-5.29	115.73	118.90
25	CA	215	G	C8-N9-C4	5.29	108.52	106.40
25	CA	1450	G	N3-C4-C5	5.29	131.25	128.60
1	AA	796	C	C2-N1-C1'	5.29	124.62	118.80
25	DA	480	A	C4-N9-C1'	-5.29	116.78	126.30
25	DA	1633	G	N9-C4-C5	-5.29	103.28	105.40
25	DA	2049	G	C5-C6-N1	5.29	114.14	111.50
25	CA	486	C	N3-C4-N4	5.29	121.70	118.00
25	CA	1512	C	N3-C2-O2	5.29	125.60	121.90
25	DA	461	C	C5-C6-N1	-5.29	118.36	121.00
25	DA	701	G	C8-N9-C4	5.29	108.51	106.40
25	DA	1006	C	C6-N1-C2	5.29	122.41	120.30
25	DA	1499	C	C2-N1-C1'	-5.29	112.99	118.80
25	DA	1547	C	C6-N1-C2	5.29	122.41	120.30
25	DA	2739	U	N3-C2-O2	5.29	125.90	122.20
22	AV	47	U	C2-N1-C1'	5.28	124.04	117.70
25	CA	1224	U	C5-C6-N1	-5.28	120.06	122.70
25	CA	2046	G	C4-C5-N7	5.28	112.91	110.80
25	CA	2570	G	N3-C4-C5	5.28	131.24	128.60
25	CA	2590	A	C4-C5-C6	5.28	119.64	117.00
25	CA	2763	G	C4-C5-C6	5.28	121.97	118.80
25	DA	561	G	N9-C4-C5	-5.28	103.29	105.40
26	CB	16	G	N3-C2-N2	-5.28	116.20	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	1119	U	C2-N1-C1'	-5.28	111.36	117.70
54	D3	57	VAL	CB-CA-C	-5.28	101.36	111.40
25	CA	835	C	N3-C4-C5	-5.28	119.79	121.90
25	CA	859	G	C5-C6-O6	5.28	131.77	128.60
25	CA	2275	C	N3-C2-O2	-5.28	118.20	121.90
25	DA	2502	G	C8-N9-C4	-5.28	104.29	106.40
25	CA	528	A	C4-N9-C1'	5.28	135.80	126.30
1	BA	1504	G	C4-C5-C6	-5.28	115.63	118.80
25	CA	69	C	N1-C2-O2	-5.28	115.73	118.90
25	CA	1452	G	N9-C4-C5	-5.28	103.29	105.40
25	DA	698	C	C6-N1-C2	5.28	122.41	120.30
25	DA	2559	C	C2-N1-C1'	-5.28	113.00	118.80
1	AA	262	A	C8-N9-C4	5.28	107.91	105.80
1	AA	1167	A	N1-C6-N6	-5.28	115.44	118.60
25	CA	275	C	C6-N1-C2	-5.28	118.19	120.30
26	CB	19	C	C2-N1-C1'	-5.28	113.00	118.80
31	CG	97	VAL	CB-CA-C	-5.28	101.38	111.40
25	DA	1659	G	C8-N9-C1'	5.28	133.86	127.00
25	DA	2453	A	N1-C6-N6	5.28	121.77	118.60
1	BA	249	U	N3-C2-O2	-5.27	118.51	122.20
25	CA	813	U	C6-N1-C2	-5.27	117.84	121.00
25	DA	1234	U	C2-N1-C1'	-5.27	111.37	117.70
1	BA	281	G	N1-C6-O6	-5.27	116.74	119.90
1	BA	310	G	N1-C6-O6	5.27	123.06	119.90
25	CA	121	G	C5-N7-C8	-5.27	101.66	104.30
25	CA	324	A	C2-N3-C4	-5.27	107.96	110.60
25	CA	1660	G	C6-C5-N7	5.27	133.56	130.40
25	CA	1954	G	C5-C6-O6	-5.27	125.44	128.60
25	CA	2436	G	C2-N3-C4	-5.27	109.26	111.90
25	CA	2464	G	C8-N9-C1'	5.27	133.85	127.00
25	DA	2834	G	N3-C2-N2	5.27	123.59	119.90
1	AA	722	G	N1-C6-O6	5.27	123.06	119.90
1	BA	310	G	C5-C6-O6	-5.27	125.44	128.60
25	CA	1543	G	N3-C2-N2	-5.27	116.21	119.90
25	DA	1028	A	C2-N3-C4	-5.27	107.97	110.60
25	DA	2427	C	C6-N1-C2	-5.27	118.19	120.30
1	AA	265	G	C4-N9-C1'	-5.27	119.65	126.50
1	BA	404	G	C5-C6-N1	5.27	114.13	111.50
25	DA	192	C	N3-C4-C5	-5.27	119.79	121.90
25	CA	1954	G	N3-C2-N2	-5.27	116.21	119.90
26	CB	99	A	C8-N9-C4	-5.27	103.69	105.80
39	CO	9	ARG	NE-CZ-NH2	-5.27	117.67	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	948	C	C6-N1-C2	-5.27	118.19	120.30
25	DA	1569	A	N7-C8-N9	-5.27	111.17	113.80
56	DB	78	A	N7-C8-N9	-5.27	111.17	113.80
25	CA	2337	G	N1-C6-O6	5.27	123.06	119.90
1	BA	1186	G	C8-N9-C4	5.26	108.51	106.40
25	CA	2060	A	C2-N3-C4	-5.26	107.97	110.60
25	CA	2089	C	N1-C2-O2	-5.26	115.74	118.90
25	CA	2510	C	C2-N1-C1'	-5.26	113.01	118.80
25	CA	2720	U	N1-C2-N3	5.26	118.06	114.90
25	DA	2782	G	N9-C4-C5	-5.26	103.30	105.40
1	AA	108	G	N9-C4-C5	5.26	107.50	105.40
25	CA	825	A	N1-C6-N6	-5.26	115.44	118.60
25	CA	1769	U	C5-C6-N1	-5.26	120.07	122.70
25	DA	203	A	C2-N3-C4	-5.26	107.97	110.60
25	DA	313	G	C8-N9-C4	5.26	108.50	106.40
22	BV	30	G	N3-C4-C5	-5.26	125.97	128.60
25	CA	692	C	N1-C2-O2	-5.26	115.74	118.90
25	CA	945	A	C6-N1-C2	-5.26	115.44	118.60
25	CA	2235	G	C6-N1-C2	-5.26	121.94	125.10
25	CA	2488	G	N1-C6-O6	5.26	123.06	119.90
25	CA	2718	G	C4-C5-N7	5.26	112.90	110.80
25	DA	2286	G	C2-N3-C4	-5.26	109.27	111.90
25	DA	2508	G	C8-N9-C4	5.26	108.50	106.40
25	CA	1330	C	N3-C4-C5	5.26	124.00	121.90
25	CA	1492	G	N1-C2-N3	5.26	127.06	123.90
25	CA	1501	G	N1-C6-O6	5.26	123.06	119.90
25	CA	2157	G	N3-C4-C5	5.26	131.23	128.60
25	CA	2260	C	C2-N3-C4	-5.26	117.27	119.90
1	BA	142	G	N3-C4-N9	5.26	129.16	126.00
25	CA	2321	U	N3-C4-O4	-5.26	115.72	119.40
25	CA	83	A	C5-N7-C8	5.26	106.53	103.90
25	CA	428	A	N7-C8-N9	-5.26	111.17	113.80
25	CA	542	C	N3-C2-O2	5.26	125.58	121.90
25	CA	1339	G	N3-C2-N2	5.26	123.58	119.90
25	CA	1659	G	C4-N9-C1'	-5.26	119.67	126.50
1	BA	897	C	N3-C4-C5	5.25	124.00	121.90
25	CA	499	U	N1-C2-O2	-5.25	119.12	122.80
25	CA	2759	G	N1-C6-O6	-5.25	116.75	119.90
25	DA	13	A	C4-N9-C1'	5.25	135.76	126.30
1	BA	501	C	C6-N1-C2	5.25	122.40	120.30
25	CA	784	G	C8-N9-C4	-5.25	104.30	106.40
25	CA	1045	C	N3-C2-O2	5.25	125.58	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	1587	G	N3-C4-N9	5.25	129.15	126.00
25	CA	1638	C	C6-N1-C1'	5.25	127.11	120.80
26	CB	24	G	C5-C6-N1	5.25	114.13	111.50
25	DA	1653	G	C5-C6-O6	-5.25	125.45	128.60
25	CA	93	G	N7-C8-N9	-5.25	110.47	113.10
25	CA	1604	C	N3-C2-O2	-5.25	118.22	121.90
25	CA	1884	G	N9-C4-C5	-5.25	103.30	105.40
25	CA	1965	C	N1-C2-O2	-5.25	115.75	118.90
25	CA	2898	U	N1-C2-O2	5.25	126.48	122.80
25	DA	694	U	N1-C2-O2	5.25	126.48	122.80
25	DA	1217	U	N3-C4-O4	-5.25	115.72	119.40
25	DA	2321	U	N3-C2-O2	5.25	125.88	122.20
1	AA	453	G	C8-N9-C1'	-5.25	120.17	127.00
25	CA	680	C	N3-C2-O2	-5.25	118.22	121.90
25	CA	2002	G	C4-C5-N7	5.25	112.90	110.80
25	DA	2601	C	N3-C4-C5	-5.25	119.80	121.90
25	CA	778	G	C8-N9-C4	-5.25	104.30	106.40
25	CA	1272	A	N1-C6-N6	5.25	121.75	118.60
25	DA	831	G	C5-C6-O6	5.25	131.75	128.60
25	CA	93	G	N3-C2-N2	-5.25	116.23	119.90
25	CA	667	U	C4-C5-C6	-5.25	116.55	119.70
25	CA	1357	C	C2-N1-C1'	-5.25	113.03	118.80
25	CA	2765	A	N9-C4-C5	-5.25	103.70	105.80
26	CB	15	A	C5-N7-C8	-5.25	101.28	103.90
25	DA	2323	G	N3-C2-N2	5.25	123.57	119.90
25	DA	1802	A	C2-N3-C4	-5.25	107.98	110.60
25	DA	2286	G	C4-N9-C1'	-5.25	119.68	126.50
1	AA	759	A	C8-N9-C4	5.24	107.90	105.80
25	CA	962	G	N9-C4-C5	-5.24	103.30	105.40
25	CA	2375	G	N3-C4-N9	-5.24	122.85	126.00
25	CA	2477	U	C2-N1-C1'	-5.24	111.41	117.70
25	CA	2872	A	C4-C5-N7	-5.24	108.08	110.70
25	DA	2828	G	N7-C8-N9	-5.24	110.48	113.10
25	CA	2047	C	C2-N1-C1'	5.24	124.57	118.80
25	DA	527	C	C6-N1-C2	-5.24	118.20	120.30
1	BA	900	A	C5-C6-N6	5.24	127.89	123.70
25	CA	371	A	C5-C6-N6	5.24	127.89	123.70
25	CA	477	A	C6-N1-C2	-5.24	115.46	118.60
25	CA	1319	C	C5-C4-N4	-5.24	116.53	120.20
25	DA	2323	G	N1-C6-O6	-5.24	116.76	119.90
25	CA	832	U	C2-N1-C1'	-5.24	111.41	117.70
25	CA	1555	G	C8-N9-C1'	-5.24	120.19	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	1790	C	C5-C4-N4	-5.24	116.53	120.20
25	DA	581	C	C6-N1-C2	-5.24	118.20	120.30
25	DA	1987	A	C8-N9-C4	5.24	107.90	105.80
25	CA	818	G	C8-N9-C1'	-5.24	120.19	127.00
25	CA	323	C	N1-C2-O2	-5.24	115.76	118.90
25	CA	835	C	C6-N1-C2	-5.24	118.21	120.30
25	CA	1234	U	N3-C2-O2	-5.24	118.54	122.20
25	CA	1743	G	C8-N9-C1'	-5.24	120.19	127.00
25	CA	2326	C	C6-N1-C1'	-5.24	114.52	120.80
25	CA	2360	G	C5-C6-O6	-5.24	125.46	128.60
25	CA	2485	G	N3-C2-N2	-5.24	116.23	119.90
25	DA	682	G	N7-C8-N9	-5.24	110.48	113.10
25	DA	771	G	N1-C6-O6	5.24	123.04	119.90
25	DA	1474	U	N3-C2-O2	-5.24	118.53	122.20
25	CA	2540	C	C2-N1-C1'	-5.23	113.04	118.80
25	DA	220	G	C6-C5-N7	-5.23	127.26	130.40
25	DA	1435	G	C4-N9-C1'	-5.23	119.70	126.50
1	BA	1525	G	N9-C4-C5	-5.23	103.31	105.40
25	CA	2512	C	C2-N1-C1'	-5.23	113.04	118.80
25	CA	2547	A	N9-C4-C5	-5.23	103.71	105.80
1	AA	752	G	N1-C6-O6	-5.23	116.76	119.90
25	CA	782	A	C5-C6-N6	-5.23	119.52	123.70
25	CA	1219	U	C2-N1-C1'	-5.23	111.42	117.70
25	CA	1240	U	C5-C4-O4	-5.23	122.76	125.90
25	DA	967	U	N3-C4-C5	-5.23	111.46	114.60
25	DA	1252	G	C8-N9-C4	5.23	108.49	106.40
25	DA	2258	C	C2-N3-C4	-5.23	117.28	119.90
25	DA	2590	A	N1-C6-N6	5.23	121.74	118.60
25	CA	2278	A	C6-C5-N7	-5.23	128.64	132.30
1	AA	1358	U	N3-C4-O4	-5.23	115.74	119.40
25	CA	191	A	N1-C6-N6	-5.23	115.46	118.60
25	CA	2107	G	C5-C6-O6	5.23	131.74	128.60
25	CA	2236	U	C5-C4-O4	5.23	129.04	125.90
25	DA	2590	A	C2-N3-C4	-5.23	107.99	110.60
25	DA	2834	G	N9-C4-C5	-5.23	103.31	105.40
25	CA	530	G	C6-C5-N7	-5.23	127.26	130.40
25	CA	2367	G	C4-C5-C6	-5.23	115.67	118.80
25	DA	525	U	C2-N1-C1'	-5.23	111.43	117.70
1	BA	570	G	C8-N9-C4	-5.22	104.31	106.40
25	CA	215	G	C2-N3-C4	-5.22	109.29	111.90
25	CA	509	C	N1-C2-N3	5.22	122.86	119.20
25	CA	946	C	C2-N3-C4	-5.22	117.29	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	1343	G	N1-C2-N2	-5.22	111.50	116.20
25	CA	2067	G	C8-N9-C1'	-5.22	120.21	127.00
25	CA	2412	A	N1-C6-N6	5.22	121.73	118.60
25	CA	2831	G	C4-N9-C1'	5.22	133.29	126.50
25	DA	256	A	N1-C6-N6	-5.22	115.47	118.60
25	DA	1265	A	N1-C2-N3	5.22	131.91	129.30
25	DA	1764	C	C6-N1-C2	-5.22	118.21	120.30
25	DA	2049	G	C6-N1-C2	-5.22	121.97	125.10
25	CA	1407	G	C5-C6-O6	-5.22	125.47	128.60
25	CA	2447	G	C6-C5-N7	-5.22	127.27	130.40
25	CA	2678	C	N1-C2-O2	-5.22	115.77	118.90
25	DA	2649	C	N3-C2-O2	5.22	125.56	121.90
1	BA	1504	G	N9-C4-C5	-5.22	103.31	105.40
25	DA	612	G	N3-C4-C5	-5.22	125.99	128.60
25	DA	1258	U	N3-C2-O2	-5.22	118.55	122.20
25	DA	1326	U	C6-N1-C2	5.22	124.13	121.00
25	DA	2677	G	C5-C6-N1	5.22	114.11	111.50
25	CA	1343	G	N3-C2-N2	5.22	123.55	119.90
25	DA	13	A	C6-C5-N7	-5.22	128.65	132.30
25	DA	605	G	C5-C6-O6	-5.22	125.47	128.60
25	CA	125	A	N1-C6-N6	-5.22	115.47	118.60
25	DA	1006	C	N3-C4-N4	5.22	121.65	118.00
25	DA	2774	C	N1-C2-O2	-5.22	115.77	118.90
25	CA	533	G	C6-C5-N7	-5.22	127.27	130.40
25	CA	1037	G	N9-C4-C5	5.22	107.49	105.40
25	CA	1143	A	C8-N9-C4	-5.22	103.71	105.80
25	CA	1377	G	C8-N9-C4	5.22	108.49	106.40
25	CA	2710	C	N1-C2-N3	5.22	122.85	119.20
1	BA	480	U	N3-C2-O2	5.21	125.85	122.20
1	BA	898	G	N3-C4-C5	5.21	131.21	128.60
25	CA	1213	A	C5-N7-C8	5.21	106.51	103.90
25	CA	1955	U	C6-N1-C1'	5.21	128.50	121.20
25	CA	2367	G	C4-N9-C1'	-5.21	119.72	126.50
25	CA	2371	G	N3-C4-N9	-5.21	122.87	126.00
1	AA	1060	U	N3-C2-O2	5.21	125.85	122.20
1	BA	1084	G	C5-C6-O6	-5.21	125.47	128.60
1	BA	1515	G	C6-C5-N7	-5.21	127.27	130.40
25	CA	380	G	N3-C4-N9	-5.21	122.87	126.00
25	CA	786	C	N3-C2-O2	5.21	125.55	121.90
25	CA	992	C	C6-N1-C2	5.21	122.38	120.30
25	CA	2646	C	N3-C4-N4	5.21	121.65	118.00
25	CA	2717	C	C2-N3-C4	-5.21	117.30	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	CB	12	C	C6-N1-C2	5.21	122.38	120.30
25	DA	2267	A	C4-N9-C1'	5.21	135.68	126.30
1	BA	241	G	N9-C4-C5	5.21	107.48	105.40
1	BA	246	A	C5-C6-N6	-5.21	119.53	123.70
1	BA	894	G	C2-N3-C4	-5.21	109.30	111.90
1	BA	1504	G	N3-C4-C5	5.21	131.20	128.60
25	CA	378	C	C6-N1-C2	5.21	122.38	120.30
25	CA	461	C	N1-C2-N3	5.21	122.85	119.20
25	CA	2504	U	N1-C2-O2	5.21	126.45	122.80
25	DA	2530	A	N1-C6-N6	5.21	121.73	118.60
1	AA	1202	U	N3-C4-O4	-5.21	115.76	119.40
1	AA	1408	A	C8-N9-C4	5.21	107.88	105.80
1	BA	354	G	C6-C5-N7	-5.21	127.28	130.40
25	CA	481	G	N3-C2-N2	-5.21	116.25	119.90
25	CA	620	G	N3-C4-N9	-5.21	122.88	126.00
25	CA	1623	G	N3-C4-C5	5.21	131.20	128.60
25	CA	1817	G	N7-C8-N9	-5.21	110.50	113.10
25	CA	2321	U	C2-N1-C1'	-5.21	111.45	117.70
25	DA	2596	U	N1-C2-O2	5.21	126.44	122.80
25	CA	1043	C	N3-C4-C5	5.21	123.98	121.90
25	CA	2679	A	C5-C6-N6	-5.21	119.54	123.70
26	CB	114	C	N3-C2-O2	5.21	125.54	121.90
25	CA	321	U	N3-C2-O2	-5.20	118.56	122.20
25	CA	2890	G	C4-C5-N7	5.20	112.88	110.80
25	CA	2898	U	N3-C2-O2	-5.20	118.56	122.20
25	DA	790	U	N3-C4-O4	-5.20	115.76	119.40
25	DA	830	G	N1-C6-O6	-5.20	116.78	119.90
25	DA	2323	G	N3-C4-N9	5.20	129.12	126.00
25	CA	1228	G	N9-C4-C5	5.20	107.48	105.40
25	DA	2518	A	C4-N9-C1'	5.20	135.66	126.30
1	BA	1303	C	C6-N1-C2	-5.20	118.22	120.30
25	CA	1415	U	N3-C2-O2	-5.20	118.56	122.20
25	CA	2396	G	C4-C5-N7	-5.20	108.72	110.80
25	CA	2722	G	N1-C6-O6	-5.20	116.78	119.90
25	DA	518	G	N3-C2-N2	-5.20	116.26	119.90
25	DA	726	G	N3-C4-N9	-5.20	122.88	126.00
25	DA	2232	C	N3-C4-N4	5.20	121.64	118.00
25	DA	2609	U	C2-N1-C1'	-5.20	111.46	117.70
25	DA	2827	C	N3-C4-N4	-5.20	114.36	118.00
1	AA	796	C	C6-N1-C1'	-5.20	114.56	120.80
25	CA	2390	U	C6-N1-C2	5.20	124.12	121.00
25	CA	672	C	C4-C5-C6	5.20	120.00	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	1521	G	C4-C5-C6	5.20	121.92	118.80
25	CA	1572	A	C5-C6-N6	5.20	127.86	123.70
25	CA	2514	U	C5-C6-N1	-5.20	120.10	122.70
25	DA	205	G	C2-N3-C4	5.20	114.50	111.90
25	DA	256	A	C4-C5-N7	-5.20	108.10	110.70
25	DA	728	G	C8-N9-C4	5.20	108.48	106.40
1	BA	926	G	N1-C6-O6	-5.20	116.78	119.90
25	CA	815	C	N3-C2-O2	5.20	125.54	121.90
25	CA	905	A	C8-N9-C4	5.20	107.88	105.80
25	CA	2371	G	N3-C2-N2	-5.20	116.26	119.90
1	BA	1482	G	C4-C5-C6	5.19	121.92	118.80
25	DA	1610	A	N1-C6-N6	5.19	121.72	118.60
25	CA	1050	A	C5-C6-N6	-5.19	119.55	123.70
1	AA	836	G	C5-C6-O6	-5.19	125.49	128.60
25	CA	9	G	C4-C5-C6	5.19	121.92	118.80
25	DA	808	G	C4-N9-C1'	5.19	133.25	126.50
25	DA	1633	G	N3-C4-N9	5.19	129.11	126.00
25	DA	2070	A	N7-C8-N9	-5.19	111.20	113.80
25	DA	2277	G	N9-C4-C5	5.19	107.48	105.40
1	BA	117	G	N3-C4-N9	5.19	129.11	126.00
1	BA	803	G	C4-C5-N7	-5.19	108.72	110.80
1	BA	898	G	C4-N9-C1'	-5.19	119.76	126.50
25	CA	1761	C	C5-C4-N4	-5.19	116.57	120.20
1	BA	1515	G	C4-C5-C6	5.18	121.91	118.80
25	CA	517	C	C5-C4-N4	-5.18	116.57	120.20
25	CA	1213	A	N7-C8-N9	-5.18	111.21	113.80
25	CA	2523	G	N3-C4-N9	5.18	129.11	126.00
26	CB	75	G	C5-C6-O6	5.18	131.71	128.60
25	CA	873	C	N3-C4-C5	5.18	123.97	121.90
25	CA	1492	G	C2-N3-C4	-5.18	109.31	111.90
25	CA	1721	G	N3-C4-N9	5.18	129.11	126.00
25	DA	581	C	C4-C5-C6	5.18	119.99	117.40
56	DB	87	U	C2-N1-C1'	5.18	123.92	117.70
1	AA	430	A	N1-C6-N6	5.18	121.71	118.60
25	DA	2069	G	C8-N9-C4	5.18	108.47	106.40
25	CA	175	G	N3-C4-C5	5.18	131.19	128.60
25	CA	260	G	N3-C2-N2	-5.18	116.27	119.90
25	CA	971	G	N3-C4-C5	-5.18	126.01	128.60
25	DA	2501	C	C6-N1-C2	-5.18	118.23	120.30
25	DA	2705	A	C8-N9-C4	5.18	107.87	105.80
25	CA	2108	A	C8-N9-C4	-5.18	103.73	105.80
25	DA	636	G	N3-C4-N9	5.18	129.11	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	1288	G	N3-C2-N2	5.18	123.53	119.90
1	AA	859	G	C6-C5-N7	-5.18	127.30	130.40
1	BA	211	G	N3-C4-N9	5.18	129.11	126.00
25	CA	1809	A	N1-C6-N6	-5.18	115.49	118.60
25	DA	574	A	C2-N3-C4	-5.18	108.01	110.60
25	CA	9	G	C4-N9-C1'	5.17	133.23	126.50
25	CA	1212	G	N7-C8-N9	-5.17	110.51	113.10
25	DA	123	G	N3-C4-C5	5.17	131.19	128.60
25	DA	467	G	N1-C6-O6	5.17	123.00	119.90
25	DA	831	G	N1-C6-O6	-5.17	116.80	119.90
25	DA	1311	G	C6-C5-N7	-5.17	127.30	130.40
25	DA	2294	G	C4-N9-C1'	-5.17	119.77	126.50
1	BA	566	G	N3-C4-C5	-5.17	126.01	128.60
1	BA	1081	A	C6-C5-N7	-5.17	128.68	132.30
25	CA	2590	A	N1-C2-N3	5.17	131.89	129.30
25	CA	240	C	C6-N1-C2	-5.17	118.23	120.30
25	CA	645	C	N3-C2-O2	5.17	125.52	121.90
25	CA	686	U	N1-C2-O2	-5.17	119.18	122.80
25	CA	2724	U	C2-N1-C1'	-5.17	111.49	117.70
25	CA	2808	G	C6-C5-N7	-5.17	127.30	130.40
25	DA	2738	A	N1-C6-N6	-5.17	115.50	118.60
25	CA	109	C	C6-N1-C2	5.17	122.37	120.30
25	CA	1022	G	C5-C6-N1	-5.17	108.92	111.50
25	CA	1265	A	C4-C5-C6	5.17	119.58	117.00
25	CA	2276	G	N1-C2-N3	5.17	127.00	123.90
25	CA	873	C	C2-N1-C1'	-5.17	113.11	118.80
25	CA	991	C	N3-C2-O2	5.17	125.52	121.90
25	CA	1404	C	N3-C2-O2	5.17	125.52	121.90
25	DA	85	G	N3-C2-N2	-5.17	116.28	119.90
25	DA	784	G	C6-C5-N7	-5.17	127.30	130.40
25	DA	812	C	C6-N1-C2	-5.17	118.23	120.30
25	DA	1163	G	N1-C6-O6	5.17	123.00	119.90
25	DA	1967	C	N3-C2-O2	5.17	125.52	121.90
25	DA	2046	G	C4-C5-N7	5.17	112.87	110.80
1	AA	46	G	N3-C4-C5	5.17	131.18	128.60
1	BA	771	G	C5-C6-O6	5.17	131.70	128.60
25	CA	1271	G	C8-N9-C4	5.17	108.47	106.40
25	CA	1844	C	N1-C2-O2	-5.17	115.80	118.90
25	CA	2439	A	N9-C4-C5	-5.17	103.73	105.80
25	CA	2569	G	N9-C4-C5	5.17	107.47	105.40
25	CA	2733	A	C8-N9-C4	-5.17	103.73	105.80
34	CJ	5	THR	CB-CA-C	-5.17	97.65	111.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	974	G	C3'-C2'-C1'	-5.17	97.37	101.50
1	AA	679	C	C6-N1-C1'	-5.16	114.60	120.80
25	CA	2066	C	N3-C2-O2	-5.16	118.28	121.90
25	DA	1327	A	N1-C6-N6	5.16	121.70	118.60
25	DA	1415	U	N1-C2-O2	5.16	126.41	122.80
25	DA	1621	U	N1-C2-O2	-5.16	119.19	122.80
1	BA	380	G	N9-C4-C5	-5.16	103.33	105.40
25	DA	253	C	C6-N1-C1'	5.16	126.99	120.80
1	AA	1417	G	C6-C5-N7	-5.16	127.30	130.40
25	CA	675	A	N9-C4-C5	5.16	107.86	105.80
25	CA	1142	A	C5-C6-N6	5.16	127.83	123.70
25	CA	1574	C	N3-C4-C5	5.16	123.96	121.90
25	DA	1415	U	C2-N1-C1'	5.16	123.89	117.70
25	DA	2076	U	N1-C2-N3	5.16	118.00	114.90
25	DA	2823	A	N1-C6-N6	5.16	121.70	118.60
25	CA	975	A	N9-C4-C5	5.16	107.86	105.80
25	CA	1783	A	C5-C6-N6	-5.16	119.57	123.70
25	CA	1972	G	C5-C6-N1	5.16	114.08	111.50
26	CB	74	U	N1-C2-N3	5.16	118.00	114.90
25	DA	2539	C	C5-C6-N1	-5.16	118.42	121.00
1	BA	533	A	N1-C6-N6	5.16	121.69	118.60
25	CA	1011	G	N3-C2-N2	-5.16	116.29	119.90
25	CA	2059	A	C6-C5-N7	-5.16	128.69	132.30
25	DA	571	U	N1-C2-O2	-5.16	119.19	122.80
25	DA	1709	U	N1-C2-O2	-5.16	119.19	122.80
25	DA	1941	C	N3-C2-O2	5.16	125.51	121.90
25	DA	2738	A	N3-C4-N9	-5.16	123.28	127.40
25	CA	1711	A	C6-C5-N7	5.15	135.91	132.30
25	CA	2057	G	N1-C2-N2	-5.15	111.56	116.20
25	CA	2884	U	N3-C2-O2	-5.15	118.59	122.20
51	D0	27	LEU	CA-CB-CG	5.15	127.15	115.30
1	BA	60	A	N1-C6-N6	-5.15	115.51	118.60
25	CA	725	G	C4-C5-C6	5.15	121.89	118.80
25	CA	783	A	C2-N3-C4	-5.15	108.02	110.60
25	CA	790	U	N3-C2-O2	5.15	125.81	122.20
25	CA	984	A	C5-C6-N6	-5.15	119.58	123.70
25	CA	1426	G	C4-C5-N7	5.15	112.86	110.80
25	CA	2831	G	C6-C5-N7	-5.15	127.31	130.40
25	DA	2714	G	N3-C4-C5	-5.15	126.02	128.60
1	AA	802	A	N1-C6-N6	5.15	121.69	118.60
1	BA	1090	U	N3-C4-O4	-5.15	115.79	119.40
25	CA	239	C	C5-C4-N4	-5.15	116.59	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	BA	1514	G	C5-C6-O6	-5.15	125.51	128.60
25	CA	293	U	C5-C6-N1	-5.15	120.13	122.70
25	DA	488	G	N3-C4-C5	-5.15	126.03	128.60
22	AV	70	G	N1-C6-O6	-5.15	116.81	119.90
25	CA	2355	G	C8-N9-C4	5.15	108.46	106.40
25	CA	2477	U	N3-C4-O4	-5.15	115.80	119.40
25	CA	2553	G	C6-C5-N7	-5.15	127.31	130.40
25	CA	2813	A	N9-C4-C5	-5.15	103.74	105.80
25	DA	1239	G	C5-C6-O6	5.15	131.69	128.60
25	DA	1331	G	N3-C4-C5	-5.15	126.03	128.60
25	DA	1435	G	C8-N9-C1'	5.15	133.69	127.00
25	DA	1818	U	C2-N1-C1'	-5.15	111.52	117.70
25	DA	2840	C	C2-N1-C1'	-5.15	113.14	118.80
25	CA	1430	G	C8-N9-C4	5.15	108.46	106.40
25	DA	2158	A	N9-C4-C5	-5.15	103.74	105.80
25	CA	1673	G	N3-C4-C5	5.14	131.17	128.60
25	CA	2305	U	C2-N1-C1'	-5.14	111.53	117.70
25	DA	23	G	C5-C6-O6	5.14	131.69	128.60
25	DA	2328	A	N1-C6-N6	-5.14	115.51	118.60
1	AA	609	A	N1-C6-N6	5.14	121.69	118.60
1	BA	804	U	C6-N1-C2	-5.14	117.91	121.00
1	BA	318	G	C4-C5-N7	-5.14	108.74	110.80
1	BA	819	A	C8-N9-C4	-5.14	103.74	105.80
1	BA	1183	U	N3-C2-O2	-5.14	118.60	122.20
25	CA	526	A	C5-C6-N6	5.14	127.81	123.70
25	CA	690	G	N3-C4-C5	5.14	131.17	128.60
25	CA	827	U	C5-C4-O4	-5.14	122.82	125.90
25	CA	1322	A	C2-N3-C4	-5.14	108.03	110.60
25	CA	2632	A	N9-C4-C5	5.14	107.86	105.80
25	CA	2748	A	N1-C6-N6	-5.14	115.52	118.60
25	DA	96	C	N1-C2-O2	-5.14	115.82	118.90
25	DA	517	C	N1-C2-O2	-5.14	115.82	118.90
25	DA	2246	G	N1-C6-O6	5.14	122.98	119.90
1	AA	90	C	N3-C4-N4	-5.14	114.40	118.00
1	AA	875	U	N1-C2-O2	5.14	126.40	122.80
1	AA	897	C	N1-C2-O2	-5.14	115.82	118.90
25	CA	551	G	C8-N9-C4	5.14	108.45	106.40
25	DA	1910	G	N9-C4-C5	5.14	107.45	105.40
25	CA	2723	C	N3-C2-O2	-5.14	118.31	121.90
25	DA	2002	G	C4-N9-C1'	-5.14	119.82	126.50
25	DA	2864	G	N1-C6-O6	-5.14	116.82	119.90
1	BA	1175	G	C8-N9-C1'	5.13	133.68	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	315	G	N1-C6-O6	-5.13	116.82	119.90
25	DA	2688	G	C2-N3-C4	-5.13	109.33	111.90
25	CA	992	C	N3-C2-O2	5.13	125.49	121.90
25	CA	2468	A	C4-C5-C6	5.13	119.57	117.00
1	AA	251	G	N1-C6-O6	5.13	122.98	119.90
25	CA	131	A	N1-C6-N6	5.13	121.68	118.60
25	CA	1158	C	C2-N3-C4	-5.13	117.33	119.90
26	CB	66	A	C2-N3-C4	-5.13	108.03	110.60
25	DA	1278	C	C2-N1-C1'	-5.13	113.16	118.80
25	DA	2437	G	N1-C6-O6	5.13	122.98	119.90
25	CA	240	C	N3-C4-N4	5.13	121.59	118.00
25	CA	914	G	C4-C5-C6	-5.13	115.72	118.80
25	DA	2742	G	N3-C4-N9	-5.13	122.92	126.00
1	AA	894	G	N1-C6-O6	5.13	122.98	119.90
1	AA	1486	G	C5-C6-O6	-5.13	125.52	128.60
25	CA	989	G	N1-C2-N2	5.13	120.82	116.20
25	CA	2750	A	N9-C4-C5	5.13	107.85	105.80
25	DA	1936	A	N1-C6-N6	5.13	121.68	118.60
1	AA	331	G	N3-C4-C5	5.13	131.16	128.60
1	AA	782	A	C2-N3-C4	-5.13	108.04	110.60
1	BA	1522	U	C2-N1-C1'	-5.13	111.55	117.70
25	CA	642	U	N3-C2-O2	5.13	125.79	122.20
25	CA	1181	U	N1-C2-O2	-5.13	119.21	122.80
25	CA	1470	A	C4-C5-N7	-5.13	108.14	110.70
25	CA	2546	U	N3-C2-O2	5.13	125.79	122.20
25	DA	464	U	N1-C2-N3	5.13	117.98	114.90
25	DA	517	C	C6-N1-C2	-5.13	118.25	120.30
25	DA	752	A	C6-C5-N7	-5.13	128.71	132.30
25	DA	2252	G	N3-C4-C5	5.13	131.16	128.60
25	DA	493	G	C4-N9-C1'	-5.12	119.84	126.50
25	DA	681	G	C5-C6-O6	-5.12	125.53	128.60
25	DA	741	U	N3-C2-O2	5.12	125.79	122.20
25	DA	982	C	N3-C2-O2	-5.12	118.31	121.90
25	CA	1386	C	N1-C2-O2	-5.12	115.83	118.90
25	CA	1898	U	C2-N1-C1'	-5.12	111.55	117.70
25	CA	2699	C	C2-N3-C4	-5.12	117.34	119.90
25	DA	776	G	C8-N9-C1'	-5.12	120.34	127.00
1	AA	906	A	C4-C5-C6	5.12	119.56	117.00
1	BA	795	C	N1-C2-N3	5.12	122.78	119.20
25	CA	1331	G	C8-N9-C4	5.12	108.45	106.40
25	CA	1336	A	C5-C6-N6	5.12	127.80	123.70
25	DA	2446	G	C2-N3-C4	-5.12	109.34	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	1901	A	N1-C6-N6	-5.12	115.53	118.60
1	AA	1406	U	C5-C6-N1	-5.12	120.14	122.70
1	AA	1499	A	N3-C4-C5	5.12	130.38	126.80
25	CA	382	A	C5-C6-N6	-5.12	119.61	123.70
25	CA	602	A	N1-C6-N6	5.12	121.67	118.60
25	CA	752	A	N9-C4-C5	-5.12	103.75	105.80
25	CA	808	G	N1-C6-O6	5.12	122.97	119.90
25	CA	1016	G	N1-C2-N3	-5.12	120.83	123.90
25	CA	1395	A	C4-N9-C1'	-5.12	117.08	126.30
26	CB	51	G	C6-C5-N7	-5.12	127.33	130.40
25	DA	1621	U	N3-C2-O2	5.12	125.78	122.20
25	CA	470	A	N7-C8-N9	5.12	116.36	113.80
22	AV	72	C	C6-N1-C2	5.12	122.35	120.30
25	CA	724	U	C5-C4-O4	-5.12	122.83	125.90
25	DA	2610	C	C6-N1-C2	-5.12	118.25	120.30
25	DA	2834	G	C8-N9-C4	5.12	108.45	106.40
1	AA	1331	G	C4-N9-C1'	-5.11	119.85	126.50
1	BA	159	G	C4-N9-C1'	5.11	133.15	126.50
25	CA	58	G	N1-C6-O6	-5.11	116.83	119.90
25	CA	517	C	C6-N1-C2	5.11	122.34	120.30
25	CA	1189	A	C6-N1-C2	-5.11	115.53	118.60
25	DA	129	C	C2-N3-C4	-5.11	117.34	119.90
25	DA	689	A	N1-C6-N6	5.11	121.67	118.60
25	DA	1637	A	C8-N9-C4	5.11	107.85	105.80
25	DA	2677	G	N3-C2-N2	-5.11	116.32	119.90
1	AA	732	C	N1-C2-O2	-5.11	115.83	118.90
1	BA	1455	G	C8-N9-C1'	5.11	133.65	127.00
25	CA	1856	U	C5-C4-O4	5.11	128.97	125.90
25	CA	2679	A	N9-C4-C5	-5.11	103.75	105.80
25	DA	1435	G	N3-C4-N9	-5.11	122.93	126.00
25	DA	2771	C	N1-C2-O2	-5.11	115.83	118.90
25	CA	39	G	C2-N3-C4	5.11	114.46	111.90
25	CA	121	G	C2-N3-C4	-5.11	109.34	111.90
25	CA	423	A	C8-N9-C4	5.11	107.84	105.80
26	CB	15	A	C4-C5-N7	5.11	113.25	110.70
25	CA	1526	C	N3-C4-C5	5.11	123.94	121.90
25	DA	110	G	C8-N9-C4	5.11	108.44	106.40
25	DA	1675	C	N3-C4-C5	-5.11	119.86	121.90
25	CA	1114	C	N1-C2-O2	5.11	121.96	118.90
25	CA	1684	G	C5-C6-O6	-5.11	125.53	128.60
25	CA	2248	C	N1-C2-N3	5.11	122.78	119.20
25	DA	151	C	N1-C2-O2	-5.11	115.83	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	1786	A	N3-C4-C5	-5.11	123.22	126.80
25	DA	1788	C	N1-C2-N3	5.11	122.78	119.20
25	DA	2278	A	N9-C4-C5	-5.11	103.76	105.80
1	AA	331	G	C2-N3-C4	-5.11	109.35	111.90
25	CA	322	A	N1-C6-N6	-5.11	115.54	118.60
25	CA	522	A	C5-N7-C8	5.11	106.45	103.90
25	CA	1638	C	C2-N1-C1'	-5.11	113.19	118.80
25	DA	454	A	N1-C6-N6	5.11	121.66	118.60
25	DA	798	G	C8-N9-C4	-5.11	104.36	106.40
25	CA	787	C	N1-C2-N3	5.10	122.77	119.20
25	CA	987	C	N1-C2-O2	-5.10	115.84	118.90
25	CA	1238	G	N3-C4-C5	-5.10	126.05	128.60
25	CA	2841	C	N1-C2-N3	5.10	122.77	119.20
25	DA	1247	A	C2-N3-C4	-5.10	108.05	110.60
1	AA	815	A	N9-C4-C5	5.10	107.84	105.80
1	AA	966	G	C8-N9-C4	5.10	108.44	106.40
25	CA	841	G	C8-N9-C4	5.10	108.44	106.40
25	DA	177	G	N1-C2-N2	-5.10	111.61	116.20
25	DA	1403	A	N9-C4-C5	5.10	107.84	105.80
25	DA	2307	G	N3-C4-C5	-5.10	126.05	128.60
25	CA	2053	G	N9-C4-C5	-5.10	103.36	105.40
25	CA	130	C	C4-C5-C6	5.10	119.95	117.40
25	CA	190	A	N1-C6-N6	-5.10	115.54	118.60
25	CA	211	C	N3-C2-O2	-5.10	118.33	121.90
25	CA	411	G	C8-N9-C4	-5.10	104.36	106.40
25	DA	96	C	C6-N1-C2	5.10	122.34	120.30
25	DA	2437	G	C8-N9-C4	5.10	108.44	106.40
1	AA	904	U	C2-N1-C1'	-5.10	111.58	117.70
25	CA	59	U	C5-C4-O4	5.10	128.96	125.90
25	CA	1454	C	C6-N1-C2	5.10	122.34	120.30
25	DA	2874	C	N3-C2-O2	5.10	125.47	121.90
25	CA	1008	A	C6-N1-C2	-5.09	115.54	118.60
25	CA	2337	G	C5-C6-O6	-5.09	125.54	128.60
25	CA	2859	G	C8-N9-C4	-5.09	104.36	106.40
25	CA	2875	C	C2-N3-C4	-5.09	117.35	119.90
25	DA	1975	G	N3-C2-N2	5.09	123.47	119.90
25	DA	2582	G	C5-C6-O6	5.09	131.66	128.60
25	DA	1360	G	C4-C5-N7	-5.09	108.76	110.80
1	BA	705	G	C4-C5-N7	-5.09	108.76	110.80
25	CA	218	A	C5-N7-C8	-5.09	101.35	103.90
25	CA	245	G	N9-C4-C5	5.09	107.44	105.40
25	DA	789	A	N7-C8-N9	-5.09	111.25	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	2144	G	C8-N9-C4	-5.09	104.36	106.40
25	DA	2549	G	N3-C4-C5	-5.09	126.05	128.60
1	AA	78	A	N3-C4-N9	5.09	131.47	127.40
22	AV	72	C	C5-C6-N1	-5.09	118.45	121.00
25	DA	246	C	N3-C4-N4	5.09	121.56	118.00
25	DA	2440	C	C2-N3-C4	5.09	122.44	119.90
25	CA	2633	G	N9-C4-C5	5.09	107.44	105.40
25	DA	1786	A	C5-N7-C8	5.09	106.44	103.90
1	BA	219	U	C2-N1-C1'	-5.09	111.60	117.70
25	CA	518	G	C8-N9-C4	5.09	108.44	106.40
25	CA	737	C	C5-C4-N4	-5.09	116.64	120.20
25	DA	518	G	C5-C6-O6	-5.09	125.55	128.60
25	DA	1928	A	C5-C6-N6	-5.09	119.63	123.70
25	DA	2885	G	N9-C4-C5	5.09	107.44	105.40
1	AA	1047	G	N3-C4-N9	-5.08	122.95	126.00
25	CA	54	G	C5-C6-N1	5.08	114.04	111.50
25	CA	424	G	N3-C4-C5	5.08	131.14	128.60
25	CA	476	G	C6-C5-N7	5.08	133.45	130.40
25	CA	1617	C	C2-N3-C4	-5.08	117.36	119.90
26	CB	51	G	C8-N9-C4	-5.08	104.37	106.40
53	C2	12	ARG	NE-CZ-NH2	5.08	122.84	120.30
25	DA	210	C	C5-C6-N1	-5.08	118.46	121.00
25	CA	218	A	C4-C5-N7	5.08	113.24	110.70
25	CA	638	G	N1-C6-O6	-5.08	116.85	119.90
25	CA	830	G	C5-C6-N1	5.08	114.04	111.50
25	CA	922	C	N3-C2-O2	5.08	125.46	121.90
25	CA	2729	G	C8-N9-C1'	-5.08	120.39	127.00
25	DA	324	A	N9-C4-C5	-5.08	103.77	105.80
25	DA	1954	G	C6-C5-N7	-5.08	127.35	130.40
25	DA	2575	C	C6-N1-C1'	5.08	126.90	120.80
25	DA	2820	A	C8-N9-C4	5.08	107.83	105.80
25	CA	304	U	N1-C2-O2	-5.08	119.24	122.80
25	CA	668	A	C2-N3-C4	-5.08	108.06	110.60
25	CA	735	A	C2-N3-C4	-5.08	108.06	110.60
1	BA	428	G	N1-C2-N3	-5.08	120.85	123.90
25	CA	74	A	C6-N1-C2	-5.08	115.55	118.60
25	CA	392	U	N1-C2-O2	-5.08	119.24	122.80
25	CA	2726	A	N1-C6-N6	-5.08	115.55	118.60
1	AA	876	C	C2-N3-C4	-5.08	117.36	119.90
1	BA	545	C	N3-C4-C5	5.08	123.93	121.90
1	BA	741	G	C8-N9-C4	5.08	108.43	106.40
25	CA	336	C	N1-C2-O2	-5.08	115.85	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	540	C	N1-C2-O2	-5.08	115.85	118.90
25	CA	738	G	N7-C8-N9	5.08	115.64	113.10
25	CA	2039	U	N1-C2-N3	5.08	117.95	114.90
1	BA	1518	A	C4-C5-C6	5.08	119.54	117.00
25	DA	675	A	N9-C4-C5	-5.08	103.77	105.80
1	BA	1482	G	C6-C5-N7	-5.08	127.35	130.40
25	CA	598	U	N1-C2-O2	-5.08	119.25	122.80
25	CA	2331	G	C5-C6-O6	-5.08	125.56	128.60
25	DA	717	C	C6-N1-C2	5.08	122.33	120.30
25	DA	2446	G	N3-C2-N2	-5.08	116.35	119.90
1	BA	284	C	C6-N1-C2	5.07	122.33	120.30
25	CA	453	A	C4-C5-C6	5.07	119.54	117.00
25	CA	752	A	C1'-O4'-C4'	-5.07	105.84	109.90
25	CA	774	G	N1-C2-N2	-5.07	111.63	116.20
25	DA	374	A	C5-C6-N6	-5.07	119.64	123.70
25	DA	379	G	C5-C6-O6	-5.07	125.56	128.60
25	DA	533	G	N1-C6-O6	5.07	122.94	119.90
1	AA	23	C	N1-C2-O2	-5.07	115.86	118.90
1	BA	821	G	C8-N9-C4	5.07	108.43	106.40
25	CA	572	A	C5-N7-C8	-5.07	101.36	103.90
25	CA	1646	C	C5-C6-N1	-5.07	118.47	121.00
25	CA	1766	G	N7-C8-N9	-5.07	110.56	113.10
43	CS	73	LYS	CD-CE-NZ	5.07	123.36	111.70
25	DA	1009	A	C4-C5-C6	-5.07	114.46	117.00
1	AA	1331	G	N3-C4-N9	-5.07	122.96	126.00
25	CA	470	A	C6-C5-N7	-5.07	128.75	132.30
25	CA	2743	U	C5-C6-N1	-5.07	120.17	122.70
25	DA	585	G	C4-C5-N7	-5.07	108.77	110.80
25	DA	1820	U	N3-C4-O4	-5.07	115.85	119.40
25	DA	2900	A	N1-C6-N6	-5.07	115.56	118.60
1	AA	571	U	N3-C2-O2	5.07	125.75	122.20
25	CA	1240	U	N3-C2-O2	5.07	125.75	122.20
25	DA	398	C	N3-C2-O2	5.07	125.45	121.90
25	DA	2002	G	N3-C4-C5	5.07	131.13	128.60
1	AA	714	G	C5-C6-N1	5.07	114.03	111.50
25	CA	101	A	C5-C6-N1	-5.07	115.17	117.70
25	CA	379	G	N1-C6-O6	5.07	122.94	119.90
25	CA	963	U	N1-C2-O2	-5.07	119.25	122.80
25	CA	1232	G	C5-C6-O6	5.07	131.64	128.60
25	CA	1836	C	N3-C4-C5	5.07	123.93	121.90
25	CA	2034	U	C6-N1-C2	5.07	124.04	121.00
25	DA	2050	C	C6-N1-C2	-5.07	118.27	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	575	A	N9-C4-C5	5.06	107.83	105.80
25	CA	322	A	C5-C6-N6	5.06	127.75	123.70
25	CA	1878	G	N1-C6-O6	5.06	122.94	119.90
25	DA	210	C	N3-C2-O2	5.06	125.44	121.90
25	DA	1678	A	N1-C2-N3	5.06	131.83	129.30
25	DA	1903	G	C4-N9-C1'	-5.06	119.92	126.50
25	DA	2064	C	N3-C4-C5	-5.06	119.88	121.90
25	DA	2626	C	C2-N3-C4	-5.06	117.37	119.90
25	CA	803	U	C2-N1-C1'	5.06	123.77	117.70
25	DA	946	C	N1-C2-O2	-5.06	115.86	118.90
1	AA	910	C	N1-C2-O2	-5.06	115.87	118.90
1	BA	347	G	C4-N9-C1'	-5.06	119.92	126.50
25	CA	151	C	N1-C2-O2	-5.06	115.86	118.90
25	CA	598	U	N3-C4-O4	-5.06	115.86	119.40
25	CA	2689	U	N3-C4-C5	5.06	117.64	114.60
25	DA	1759	A	C5-C6-N6	-5.06	119.65	123.70
25	DA	2822	G	C8-N9-C4	5.06	108.42	106.40
1	AA	586	C	N3-C4-C5	5.06	123.92	121.90
38	CN	86	ARG	NE-CZ-NH2	-5.06	117.77	120.30
1	BA	245	U	C5-C6-N1	-5.05	120.17	122.70
25	CA	626	A	C5-C6-N1	-5.05	115.17	117.70
25	CA	713	G	N9-C4-C5	-5.05	103.38	105.40
25	CA	1640	A	N9-C4-C5	5.05	107.82	105.80
25	CA	2504	U	N3-C4-C5	5.05	117.63	114.60
25	DA	954	G	C5-C6-O6	5.05	131.63	128.60
25	DA	1256	G	C4-N9-C1'	5.05	133.07	126.50
1	BA	60	A	C5-C6-N6	5.05	127.74	123.70
25	CA	235	U	C5-C6-N1	-5.05	120.17	122.70
1	AA	957	U	C2-N1-C1'	5.05	123.76	117.70
1	BA	1035	A	N1-C6-N6	5.05	121.63	118.60
25	CA	565	C	C2-N3-C4	-5.05	117.37	119.90
25	CA	2382	G	N3-C4-C5	-5.05	126.07	128.60
26	CB	108	A	N1-C6-N6	-5.05	115.57	118.60
25	DA	1768	C	C6-N1-C2	-5.05	118.28	120.30
25	DA	2811	G	C2-N3-C4	-5.05	109.38	111.90
1	BA	365	U	C5-C4-O4	5.05	128.93	125.90
1	BA	807	A	C2-N3-C4	5.05	113.12	110.60
1	BA	898	G	N3-C4-N9	-5.05	122.97	126.00
25	CA	1325	U	C6-N1-C1'	5.05	128.27	121.20
25	CA	1639	C	N1-C2-O2	-5.05	115.87	118.90
25	DA	1299	G	N3-C2-N2	5.05	123.44	119.90
1	AA	1417	G	N1-C2-N2	-5.05	111.66	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	664	G	N9-C4-C5	5.05	107.42	105.40
25	DA	39	G	C4-N9-C1'	-5.05	119.94	126.50
1	AA	265	G	C8-N9-C1'	5.05	133.56	127.00
25	DA	1270	C	N3-C2-O2	5.05	125.43	121.90
25	CA	1191	G	C8-N9-C4	5.04	108.42	106.40
25	CA	2069	G	C5-N7-C8	-5.04	101.78	104.30
25	CA	2481	G	C8-N9-C4	-5.04	104.38	106.40
25	DA	2232	C	N3-C4-C5	-5.04	119.88	121.90
25	DA	2707	U	N3-C4-O4	-5.04	115.87	119.40
1	AA	4	U	C2-N1-C1'	5.04	123.75	117.70
1	AA	874	G	N3-C4-N9	5.04	129.03	126.00
1	BA	207	C	C2-N1-C1'	5.04	124.35	118.80
1	BA	1480	A	C6-C5-N7	-5.04	128.77	132.30
25	CA	2621	G	N1-C2-N3	5.04	126.93	123.90
25	DA	466	A	C5-N7-C8	5.04	106.42	103.90
25	DA	1657	U	N1-C2-N3	5.04	117.93	114.90
25	DA	2448	A	C4-C5-N7	5.04	113.22	110.70
25	DA	2825	G	C4-N9-C1'	5.04	133.06	126.50
1	BA	1386	G	C4-N9-C1'	-5.04	119.95	126.50
25	CA	486	C	C5-C4-N4	-5.04	116.67	120.20
25	CA	681	G	C8-N9-C1'	-5.04	120.45	127.00
25	DA	374	A	N1-C6-N6	5.04	121.62	118.60
25	DA	2555	U	N3-C4-C5	5.04	117.62	114.60
1	BA	377	G	N7-C8-N9	5.04	115.62	113.10
1	AA	35	G	N1-C2-N2	-5.04	111.67	116.20
1	AA	575	G	N9-C4-C5	5.04	107.42	105.40
1	AA	870	U	N3-C2-O2	5.04	125.73	122.20
25	CA	602	A	C5-C6-N6	-5.04	119.67	123.70
25	DA	325	G	C6-C5-N7	5.04	133.42	130.40
25	DA	2282	G	C4-C5-N7	-5.04	108.78	110.80
25	DA	2357	G	C5-C6-O6	-5.04	125.58	128.60
25	CA	123	G	N1-C6-O6	-5.04	116.88	119.90
25	DA	1303	G	N1-C6-O6	-5.04	116.88	119.90
25	DA	2447	G	C8-N9-C1'	5.04	133.55	127.00
1	BA	1494	G	N9-C4-C5	5.04	107.42	105.40
25	CA	385	C	N1-C2-O2	-5.04	115.88	118.90
25	DA	958	U	C2-N1-C1'	-5.04	111.66	117.70
1	AA	28	A	N1-C6-N6	5.03	121.62	118.60
25	CA	1844	C	C6-N1-C2	5.03	122.31	120.30
26	CB	14	U	N3-C2-O2	-5.03	118.68	122.20
25	DA	247	G	C2-N3-C4	5.03	114.42	111.90
25	DA	809	G	C8-N9-C4	-5.03	104.39	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	DA	1458	U	C2-N1-C1'	-5.03	111.66	117.70
25	CA	1901	A	N9-C4-C5	5.03	107.81	105.80
25	CA	2053	G	N3-C4-N9	5.03	129.02	126.00
25	CA	2266	A	N9-C4-C5	5.03	107.81	105.80
25	DA	2133	G	N3-C4-C5	-5.03	126.08	128.60
1	AA	453	G	N9-C4-C5	-5.03	103.39	105.40
25	CA	468	G	C8-N9-C4	-5.03	104.39	106.40
25	CA	2087	G	C4-C5-N7	5.03	112.81	110.80
25	DA	2583	G	C5-C6-N1	5.03	114.02	111.50
25	CA	1126	A	C6-N1-C2	-5.03	115.58	118.60
25	CA	1694	C	C6-N1-C2	5.03	122.31	120.30
25	CA	2133	G	N3-C4-N9	5.03	129.02	126.00
25	DA	375	G	N9-C4-C5	-5.03	103.39	105.40
25	DA	2610	C	C4-C5-C6	5.03	119.92	117.40
1	BA	846	G	C4-C5-N7	-5.03	108.79	110.80
25	CA	1482	G	N3-C4-C5	5.03	131.11	128.60
25	DA	1895	C	N1-C2-O2	-5.03	115.88	118.90
56	DB	89	U	N3-C2-O2	-5.03	118.68	122.20
1	BA	380	G	N1-C6-O6	5.03	122.92	119.90
25	CA	774	G	N3-C2-N2	5.03	123.42	119.90
26	CB	44	G	C6-C5-N7	-5.03	127.38	130.40
25	DA	1659	G	N3-C4-C5	5.03	131.11	128.60
25	DA	1897	G	C4-C5-N7	5.03	112.81	110.80
25	CA	775	G	C4-C5-C6	-5.02	115.79	118.80
25	CA	1631	G	C5-C6-O6	-5.02	125.58	128.60
25	CA	2377	A	C8-N9-C4	5.02	107.81	105.80
25	DA	1074	G	C4-C5-N7	-5.02	108.79	110.80
25	DA	2087	G	N3-C4-N9	-5.02	122.99	126.00
1	BA	1274	A	C8-N9-C4	-5.02	103.79	105.80
25	CA	238	C	N3-C2-O2	-5.02	118.38	121.90
25	CA	1168	G	N9-C4-C5	-5.02	103.39	105.40
25	CA	2067	G	N3-C4-N9	5.02	129.01	126.00
25	CA	2395	C	C5-C4-N4	-5.02	116.68	120.20
25	DA	329	G	C5-C6-O6	5.02	131.61	128.60
25	DA	579	G	N9-C4-C5	5.02	107.41	105.40
25	DA	787	C	N3-C2-O2	5.02	125.42	121.90
25	DA	1006	C	N1-C2-O2	-5.02	115.89	118.90
25	DA	1939	U	C4-C5-C6	-5.02	116.69	119.70
25	DA	1971	U	C5-C6-N1	5.02	125.21	122.70
1	AA	354	G	N1-C6-O6	5.02	122.91	119.90
25	CA	13	A	C6-C5-N7	-5.02	128.79	132.30
25	DA	1842	G	N1-C6-O6	5.02	122.91	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	382	A	C8-N9-C4	5.02	107.81	105.80
1	BA	813	U	N1-C2-O2	-5.02	119.29	122.80
25	CA	1721	G	C4-N9-C1'	5.02	133.03	126.50
25	CA	2790	U	C2-N1-C1'	5.02	123.72	117.70
25	DA	177	G	C8-N9-C1'	-5.02	120.47	127.00
25	DA	1954	G	N3-C4-C5	-5.02	126.09	128.60
1	BA	615	G	C2-N3-C4	5.02	114.41	111.90
25	CA	1086	A	N1-C6-N6	5.02	121.61	118.60
25	CA	1439	A	N7-C8-N9	-5.02	111.29	113.80
25	CA	1837	C	N3-C2-O2	5.02	125.41	121.90
25	CA	2139	U	C2-N1-C1'	5.02	123.72	117.70
25	CA	2807	U	N3-C2-O2	5.02	125.71	122.20
25	DA	2548	U	N3-C4-O4	5.02	122.91	119.40
1	BA	656	G	C2-N3-C4	5.02	114.41	111.90
25	CA	1554	U	C5-C4-O4	5.02	128.91	125.90
1	BA	108	G	N9-C4-C5	5.01	107.41	105.40
25	CA	781	A	N1-C6-N6	5.01	121.61	118.60
25	CA	980	A	N1-C6-N6	5.01	121.61	118.60
25	CA	2762	C	C2-N1-C1'	-5.01	113.28	118.80
1	BA	447	G	N3-C4-C5	-5.01	126.09	128.60
1	AA	830	G	C5-C6-O6	-5.01	125.59	128.60
25	CA	1216	G	N3-C4-N9	5.01	129.01	126.00
25	CA	1680	U	N1-C2-O2	5.01	126.31	122.80
1	AA	934	C	C6-N1-C2	-5.01	118.30	120.30
1	BA	109	A	C6-N1-C2	5.01	121.61	118.60
1	BA	538	G	N3-C4-C5	-5.01	126.09	128.60
25	CA	715	A	C8-N9-C4	5.01	107.80	105.80
25	CA	729	G	N1-C2-N2	5.01	120.71	116.20
26	CB	29	A	N1-C6-N6	5.01	121.61	118.60
26	CB	61	G	N7-C8-N9	-5.01	110.59	113.10
25	DA	561	G	C5-C6-O6	-5.01	125.59	128.60
25	DA	1954	G	N3-C4-N9	5.01	129.01	126.00
25	DA	2006	C	N3-C2-O2	5.01	125.41	121.90
25	DA	2768	U	N3-C2-O2	-5.01	118.69	122.20
1	BA	1484	C	N1-C2-O2	-5.01	115.89	118.90
26	CB	55	U	N1-C2-O2	-5.01	119.29	122.80
25	DA	1421	G	C4-N9-C1'	5.01	133.01	126.50
25	CA	1876	A	N9-C4-C5	5.01	107.80	105.80
25	CA	2447	G	C4-C5-N7	5.01	112.80	110.80
25	CA	2486	C	C2-N1-C1'	5.01	124.31	118.80
25	DA	15	G	N3-C4-C5	5.01	131.10	128.60
1	AA	397	A	C4-N9-C1'	5.00	135.31	126.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	CA	835	C	N1-C2-O2	-5.00	115.90	118.90
25	CA	2564	A	C8-N9-C4	-5.00	103.80	105.80
25	DA	1980	G	C2-N3-C4	-5.00	109.40	111.90
25	DA	2015	A	C4-C5-N7	-5.00	108.20	110.70
1	AA	586	C	C2-N1-C1'	-5.00	113.30	118.80
1	AA	1358	U	C5-C4-O4	5.00	128.90	125.90
1	BA	1121	U	C5-C6-N1	5.00	125.20	122.70
25	CA	561	G	N9-C4-C5	-5.00	103.40	105.40
25	CA	675	A	N7-C8-N9	5.00	116.30	113.80
25	CA	941	A	C5-N7-C8	-5.00	101.40	103.90
25	CA	2088	A	N1-C6-N6	-5.00	115.60	118.60
25	CA	2575	C	N1-C2-N3	5.00	122.70	119.20
25	CA	2854	G	C5-C6-O6	5.00	131.60	128.60
25	DA	974	G	C8-N9-C1'	-5.00	120.50	127.00
25	DA	1136	G	N9-C4-C5	-5.00	103.40	105.40
25	DA	2462	C	N1-C2-O2	-5.00	115.90	118.90
25	CA	262	A	C8-N9-C4	5.00	107.80	105.80
25	CA	1913	A	C8-N9-C4	5.00	107.80	105.80
25	CA	2210	U	N3-C4-O4	5.00	122.90	119.40
25	CA	2750	A	N1-C6-N6	-5.00	115.60	118.60
26	CB	30	C	N1-C2-O2	5.00	121.90	118.90
25	DA	169	G	C4-N9-C1'	-5.00	120.00	126.50
25	DA	555	G	C5-C6-O6	-5.00	125.60	128.60
25	DA	1567	G	C4-C5-N7	5.00	112.80	110.80

There are no chirality outliers.

All (31) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
4	AD	47	LEU	Peptide
5	AE	100	GLU	Peptide
9	AI	5	TYR	Peptide
11	AK	125	LYS	Peptide
13	AM	111	PRO	Peptide
14	AN	25	GLU	Peptide
21	AU	38	GLU	Peptide
21	AU	7	GLU	Peptide
4	BD	25	ARG	Peptide
5	BE	101	GLY	Peptide
5	BE	103	GLY	Peptide
6	BF	54	LEU	Peptide
11	BK	124	LYS	Peptide

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Mol	Chain	Res	Type	Group
11	BK	125	LYS	Peptide
12	BL	22	ALA	Peptide
12	BL	33	CYS	Peptide
20	BT	6	ALA	Peptide
21	BU	34	ARG	Peptide
27	CC	231	HIS	Peptide
28	CD	132	ALA	Peptide
28	CD	151	THR	Peptide
33	CI	37	PHE	Peptide
42	CR	8	GLY	Peptide
45	CU	52	ASN	Peptide
50	CZ	14	GLY	Peptide
27	DC	195	GLY	Peptide
28	DD	151	THR	Peptide
32	DH	4	ILE	Peptide
32	DH	63	ALA	Peptide
34	DJ	129	GLU	Peptide
39	DO	94	ARG	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	AA	32995	0	16607	2052	0
1	BA	33015	0	16617	2194	0
2	AB	1705	0	1732	374	0
2	BB	1705	0	1732	298	0
3	AC	1625	0	1699	235	0
3	BC	1625	0	1699	237	0
4	AD	1643	0	1710	291	0
4	BD	1643	0	1710	228	0
5	AE	1106	0	1148	214	0
5	BE	1106	0	1148	211	0
6	AF	818	0	808	116	0
6	BF	818	0	808	156	0
7	AG	1182	0	1240	116	0
7	BG	1182	0	1240	166	0
8	AH	979	0	1034	161	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
8	BH	979	0	1034	119	0
9	AI	1022	0	1070	189	0
9	BI	1022	0	1070	186	0
10	AJ	787	0	828	178	0
10	BJ	787	0	828	142	0
11	AK	877	0	887	160	0
11	BK	877	0	887	136	0
12	AL	955	0	1019	94	0
12	BL	955	0	1019	118	0
13	AM	884	0	944	163	0
13	BM	884	0	944	144	0
14	AN	774	0	827	130	0
14	BN	774	0	827	131	0
15	AO	714	0	737	61	0
15	BO	714	0	737	87	0
16	AP	649	0	666	106	0
16	BP	649	0	666	87	0
17	AQ	649	0	691	118	0
17	BQ	649	0	691	103	0
18	AR	456	0	478	46	0
18	BR	456	0	478	57	0
19	AS	638	0	665	88	0
19	BS	638	0	665	96	0
20	AT	665	0	714	84	0
20	BT	665	0	714	129	0
21	AU	426	0	449	139	0
21	BU	426	0	449	119	0
22	AV	1623	0	821	88	0
22	BV	1623	0	821	47	0
23	AX	324	0	162	19	0
23	BX	346	0	173	24	0
24	AY	1419	0	1467	97	0
25	CA	62195	0	31271	2445	0
25	DA	62173	0	31270	3398	0
26	CB	2548	0	1292	98	0
27	CC	2083	0	2157	227	0
27	DC	2083	0	2157	213	0
28	CD	1565	0	1616	129	0
28	DD	1565	0	1616	114	0
29	CE	1552	0	1619	143	0
29	DE	1552	0	1619	163	0
30	CF	1411	0	1447	202	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
30	DF	1411	0	1447	197	0
31	CG	1323	0	1374	146	0
31	DG	1323	0	1374	177	0
32	CH	1110	0	1148	145	0
32	DH	1110	0	1148	210	0
33	CI	1032	0	1088	246	0
33	DI	1032	0	1088	180	0
34	CJ	1129	0	1162	57	0
34	DJ	1129	0	1162	96	0
35	CK	939	0	1012	75	0
35	DK	939	0	1012	79	0
36	CL	1045	0	1117	130	0
36	DL	1045	0	1117	168	0
37	CM	1074	0	1157	96	0
37	DM	1074	0	1157	127	0
38	CN	961	0	1000	94	0
38	DN	961	0	1000	124	0
39	CO	892	0	923	84	0
39	DO	892	0	923	141	0
40	CP	917	0	965	93	0
40	DP	917	0	965	107	0
41	CQ	947	0	1022	63	0
41	DQ	947	0	1022	83	0
42	CR	816	0	839	84	0
42	DR	816	0	839	99	0
43	CS	857	0	922	42	0
43	DS	857	0	922	82	0
44	CT	739	0	807	71	0
44	DT	739	0	807	114	0
45	CU	780	0	834	66	0
45	DU	780	0	834	111	0
46	CV	753	0	780	59	0
46	DV	753	0	780	71	0
47	CW	575	0	589	27	0
48	CX	625	0	655	41	0
48	DX	625	0	655	58	0
49	CY	509	0	543	88	0
49	DY	509	0	543	109	0
50	CZ	449	0	491	26	0
50	DZ	449	0	491	47	0
51	C0	444	0	461	35	0
51	D0	444	0	461	41	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
52	C1	410	0	440	37	0
52	D1	410	0	440	45	0
53	C2	377	0	418	26	0
53	D2	377	0	418	18	0
54	C3	504	0	574	40	0
54	D3	504	0	574	42	0
55	C4	302	0	340	23	0
55	D4	302	0	340	34	0
56	DB	2529	0	1281	163	0
57	DW	564	0	576	36	0
58	AA	72	0	0	0	0
58	BA	56	0	0	0	0
58	CA	194	0	0	0	0
58	CB	4	0	0	0	0
58	CQ	1	0	0	0	0
58	DA	166	0	0	0	0
58	DB	3	0	0	0	0
58	DL	1	0	0	0	0
58	DQ	1	0	0	0	0
59	C4	1	0	0	0	0
59	D4	1	0	0	0	0
60	AA	197	0	0	11	0
60	AN	4	0	0	0	0
60	AT	1	0	0	0	0
60	AU	1	0	0	0	0
60	BA	190	0	0	12	0
60	BL	1	0	0	0	0
60	BN	5	0	0	1	0
60	BT	1	0	0	0	0
60	BU	1	0	0	0	0
60	C2	1	0	0	0	0
60	C3	1	0	0	0	0
60	C4	2	0	0	0	0
60	CA	625	0	0	62	0
60	CB	13	0	0	0	0
60	CC	8	0	0	0	0
60	CD	2	0	0	0	0
60	CE	2	0	0	0	0
60	CF	1	0	0	0	0
60	CJ	1	0	0	0	0
60	CL	6	0	0	2	0
60	CN	4	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	CS	1	0	0	0	0
60	CV	1	0	0	0	0
60	D2	1	0	0	0	0
60	D3	2	0	0	0	0
60	D4	1	0	0	0	0
60	DA	622	0	0	70	0
60	DB	14	0	0	0	0
60	DC	4	0	0	0	0
60	DD	5	0	0	2	0
60	DE	2	0	0	0	0
60	DJ	1	0	0	0	0
60	DL	4	0	0	1	0
60	DN	1	0	0	0	0
60	DR	1	0	0	0	0
All	All	292354	0	195461	20868	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 43.

All (20868) 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)
32:DH:93:SER:OG	32:DH:121:VAL:HG12	1.46	1.15
1:BA:1053:G:H4'	1:BA:1054:C:H5'	1.29	1.11
32:DH:93:SER:OG	32:DH:121:VAL:CG1	2.03	1.06
25:DA:1153:C:OP2	60:DA:3363:HOH:O	1.78	1.01
12:BL:33:CYS:HA	12:BL:54:VAL:HA	1.44	0.99
1:BA:1362:A:H4'	1:BA:1362:A:OP1	1.61	0.98
25:CA:2127:G:H4'	25:CA:2128:G:OP1	1.63	0.98
33:DI:38:CYS:HA	33:DI:41:PHE:HB3	1.46	0.98
25:DA:1060:U:H4'	25:DA:1061:U:H5'	1.41	0.98
25:DA:731:C:OP2	60:DA:3697:HOH:O	1.81	0.97
25:CA:416:U:C5	25:CA:417:C:C5	2.52	0.97
1:BA:1053:G:C4'	1:BA:1054:C:H5'	1.94	0.96
25:CA:2127:G:H2'	25:CA:2128:G:C8	2.00	0.95
25:CA:761:A:OP1	60:CA:3700:HOH:O	1.84	0.95
25:CA:2553:G:H5"	25:CA:2554:U:OP2	1.65	0.95
42:CR:42:ALA:HA	42:CR:46:GLU:HB2	1.45	0.95
4:BD:25:ARG:HG3	4:BD:26:ALA:N	1.80	0.95
25:CA:1779:U:H5	25:CA:1784:A:N7	1.63	0.94
32:CH:31:VAL:HB	32:CH:32:PRO:HD2	1.45	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:783:A:OP2	60:CA:3314:HOH:O	1.84	0.94
25:CA:999:U:OP2	60:CA:3360:HOH:O	1.82	0.94
25:DA:1314:C:OP1	60:DA:3770:HOH:O	1.84	0.94
1:AA:1142:G:C2	1:AA:1143:G:H1'	2.03	0.94
1:BA:1234:C:HO2'	1:BA:1364:U:H6	0.99	0.94
21:AU:19:LYS:CE	21:AU:19:LYS:HA	1.98	0.94
33:CI:21:PRO:HB2	33:CI:22:PRO:HD3	1.49	0.94
2:AB:49:PHE:HA	2:AB:52:ALA:HB3	1.49	0.93
1:AA:1313:U:OP2	19:AS:5:LYS:HB3	1.68	0.93
1:AA:255:G:O6	1:AA:266:G:O6	1.85	0.93
25:CA:1131:G:OP1	34:CJ:82:GLY:HA2	1.68	0.93
17:AQ:14:ASP:C	17:AQ:16:MET:SD	2.46	0.93
25:DA:219:A:N7	60:DA:3223:HOH:O	2.01	0.93
1:BA:1273:C:H2'	1:BA:1274:A:O4'	1.69	0.93
1:BA:1275:A:C2'	1:BA:1276:G:H5'	1.98	0.92
37:CM:57:VAL:O	37:CM:60:GLN:HG3	1.65	0.92
17:AQ:7:LEU:HD22	17:AQ:72:TRP:CZ3	2.04	0.92
1:BA:1062:U:H2'	1:BA:1063:C:C6	2.04	0.92
1:AA:1124:G:H3'	1:AA:1145:A:N6	1.83	0.92
1:BA:1151:A:C2	1:BA:1152:A:C5	2.57	0.92
25:DA:1746:A:H2'	25:DA:1747:U:C6	2.04	0.92
42:DR:39:LEU:HA	42:DR:49:ILE:HG21	1.50	0.92
25:DA:161:A:H3'	25:DA:162:U:H5"	1.50	0.92
1:AA:598:U:H4'	8:AH:85:TYR:CD1	2.05	0.92
25:CA:933:A:H5'	25:CA:934:U:OP2	1.70	0.92
1:AA:1074:G:O2'	2:AB:101:THR:HG21	1.70	0.92
25:CA:2473:U:C5	25:CA:2474:U:C5	2.57	0.92
13:BM:53:ASP:HA	13:BM:56:ARG:HB3	1.50	0.92
29:DE:108:ILE:HD11	29:DE:180:LEU:HB3	1.49	0.91
25:DA:2335:A:N7	25:DA:2337:G:C5	2.38	0.91
25:CA:981:A:OP1	60:CA:3598:HOH:O	1.85	0.91
32:DH:31:VAL:HB	32:DH:32:PRO:HD2	1.53	0.91
25:CA:1179:G:C5	25:CA:1180:U:H1'	2.04	0.91
31:CG:8:VAL:CG1	31:CG:49:LEU:HB2	1.99	0.91
25:CA:2346:A:H3'	25:CA:2347:C:C5'	1.99	0.91
2:AB:82:ALA:HA	2:AB:85:SER:OG	1.68	0.91
1:BA:484:G:H4'	1:BA:485:U:O5'	1.68	0.91
4:AD:169:TRP:NE1	4:AD:185:PRO:HG3	1.86	0.91
25:DA:958:U:H2'	56:DB:89:U:C6	2.04	0.90
25:CA:1287:A:H5'	38:CN:103:ARG:HD2	1.50	0.90
2:BB:209:VAL:O	2:BB:213:LEU:HB2	1.72	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:59:ALA:O	32:DH:62:LEU:HD12	1.70	0.90
1:AA:1101:A:H4'	1:AA:1102:A:O5'	1.69	0.90
52:D1:12:SER:HB2	52:D1:48:TYR:CE1	2.06	0.90
25:CA:1085:A:H2'	25:CA:1086:A:C2	2.07	0.89
25:DA:1993:U:H4'	28:DD:133:THR:HG21	1.52	0.89
34:CJ:80:HIS:HB3	34:CJ:81:ILE:HG22	1.54	0.89
1:AA:1123:U:H4'	10:AJ:39:PRO:HD2	1.54	0.89
35:DK:76:VAL:HG12	40:DP:72:VAL:CG2	2.03	0.89
1:AA:1539:C:H5"	21:AU:17:ARG:HG3	1.55	0.89
25:DA:860:U:C1'	25:DA:2268:A:H5'	2.02	0.89
25:DA:1315:C:OP2	60:DA:3770:HOH:O	1.91	0.89
1:AA:1538:C:C2'	1:AA:1539:C:H5'	2.03	0.88
25:DA:1494:A:C2	25:DA:1495:A:C4	2.62	0.88
16:BP:72:ALA:HA	16:BP:75:ILE:HD12	1.55	0.88
3:BC:149:LYS:HG3	3:BC:200:TRP:CE3	2.09	0.88
1:BA:1522:U:O2'	1:BA:1523:G:H5'	1.74	0.88
32:DH:94:ILE:HB	32:DH:122:LEU:HB2	1.56	0.88
1:BA:518:C:H2'	1:BA:530:G:C8	2.08	0.88
1:BA:1001:C:H2'	1:BA:1002:G:C8	2.08	0.88
25:CA:999:U:P	60:CA:3360:HOH:O	2.29	0.88
25:DA:2286:G:H4'	25:DA:2287:A:O5'	1.72	0.88
2:AB:207:ARG:C	2:AB:211:LEU:HD13	1.94	0.88
50:DZ:23:LEU:HD11	50:DZ:53:MET:HE1	1.56	0.88
17:BQ:13:SER:HB3	17:BQ:21:VAL:CG1	2.02	0.88
42:CR:49:ILE:HG22	42:CR:53:PHE:N	1.87	0.88
5:BE:148:SER:HB2	5:BE:151:MET:CG	2.04	0.87
40:CP:92:ARG:O	40:CP:93:LYS:HB2	1.71	0.87
25:CA:404:A:H1'	25:CA:405:U:OP2	1.74	0.87
43:CS:43:ALA:O	43:CS:47:VAL:HG12	1.74	0.87
1:BA:131:A:H2'	1:BA:132:C:C6	2.10	0.87
25:DA:988:A:O5'	50:DZ:11:SER:HB2	1.73	0.87
1:BA:1277:C:O2'	1:BA:1279:G:H1'	1.74	0.87
25:DA:1590:A:H2'	25:DA:1591:A:C8	2.09	0.87
25:CA:790:U:O2'	25:CA:791:C:OP2	1.93	0.87
3:BC:129:PHE:CE2	3:BC:130:ARG:HD3	2.10	0.87
25:CA:1187:G:H5"	42:CR:83:TYR:CE2	2.10	0.87
34:DJ:31:GLU:HG3	34:DJ:142:ILE:HD11	1.56	0.87
25:CA:721:A:H2'	25:CA:722:A:C8	2.09	0.86
11:AK:51:PHE:CB	11:AK:55:ARG:HB3	2.03	0.86
11:AK:69:CYS:O	11:AK:72:ALA:HB3	1.73	0.86
6:AF:5:GLU:HG2	6:AF:90:MET:HE1	1.58	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:16:MET:SD	33:DI:19:PRO:HB3	2.15	0.86
33:CI:107:GLU:HA	33:CI:110:GLN:HB3	1.58	0.86
8:AH:74:ILE:CD1	8:AH:128:VAL:HG22	2.04	0.86
25:DA:2491:U:H5"	25:DA:2570:G:H5"	1.57	0.86
25:CA:2711:A:P	60:CA:3551:HOH:O	2.33	0.86
1:BA:1166:G:C6	1:BA:1168:U:H5"	2.10	0.86
36:DL:91:ASP:HB3	36:DL:94:THR:HB	1.56	0.86
12:BL:24:GLU:O	12:BL:25:ALA:C	2.14	0.86
4:AD:36:ALA:HA	4:AD:41:GLY:HA3	1.57	0.86
15:AO:27:GLN:O	15:AO:30:LEU:HD12	1.76	0.86
46:CV:2:PHE:HD1	46:CV:50:MET:HE3	1.39	0.86
38:DN:77:ALA:O	38:DN:79:LEU:O	1.93	0.86
32:DH:62:LEU:HD13	32:DH:63:ALA:N	1.88	0.86
16:BP:61:VAL:CG2	16:BP:67:ILE:HD11	2.06	0.86
25:CA:2498:C:OP2	60:CA:3692:HOH:O	1.94	0.86
25:CA:1730:C:OP1	25:CA:1730:C:H4'	1.75	0.85
2:AB:105:THR:O	2:AB:106:VAL:HB	1.75	0.85
1:BA:1062:U:H2'	1:BA:1063:C:C5	2.10	0.85
25:DA:265:A:H4'	25:DA:266:G:OP1	1.75	0.85
25:DA:2223:G:H2'	25:DA:2224:G:H5'	1.56	0.85
32:CH:117:LEU:HD21	32:CH:121:VAL:HA	1.58	0.85
34:CJ:81:ILE:HG12	34:CJ:82:GLY:N	1.91	0.85
25:DA:2352:A:H2'	25:DA:2353:G:O4'	1.77	0.85
1:AA:142:G:C4	1:AA:143:A:C8	2.63	0.85
1:BA:1221:G:H4'	19:BS:76:THR:CG2	2.06	0.85
25:DA:2783:U:H2'	25:DA:2784:U:C6	2.12	0.85
25:CA:278:A:C2	25:CA:362:A:C8	2.63	0.85
25:CA:1854:A:H2'	25:CA:1855:U:H5'	1.57	0.85
4:BD:190:LEU:O	4:BD:191:SER:HB3	1.74	0.85
11:AK:16:SER:HA	11:AK:78:ILE:HA	1.58	0.85
1:AA:1181:G:O2'	1:AA:1182:G:C8	2.29	0.85
1:BA:8:A:C6	4:BD:205:LYS:HB3	2.12	0.85
25:CA:1060:U:C4'	25:CA:1062:G:H5'	2.07	0.85
25:DA:2335:A:OP1	39:DO:13:ARG:HD2	1.77	0.85
11:AK:80:ASN:HB3	11:AK:105:ARG:HB3	1.58	0.85
1:BA:1275:A:H2'	1:BA:1276:G:H5'	1.58	0.84
25:DA:214:G:H1'	25:DA:217:A:H5'	1.59	0.84
25:CA:2786:U:O2'	25:CA:2787:C:H5'	1.76	0.84
25:DA:2407:A:C4	25:DA:2408:U:C5	2.65	0.84
25:DA:2164:C:H2'	25:DA:2165:C:C6	2.11	0.84
1:BA:308:C:H2'	1:BA:309:A:H8	1.41	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1073:A:H3'	25:CA:1074:G:C5'	2.07	0.84
13:AM:19:THR:HA	13:AM:24:VAL:HG23	1.59	0.84
25:DA:1468:U:O2	25:DA:1525:A:C2	2.30	0.84
25:DA:947:A:O2'	25:DA:984:A:H2	1.61	0.84
1:AA:554:A:H5'	12:AL:25:ALA:HB1	1.58	0.84
25:CA:2307:G:N2	25:CA:2311:A:H2'	1.93	0.84
42:DR:68:ARG:HD3	42:DR:92:TRP:CE2	2.13	0.84
4:AD:169:TRP:CE2	4:AD:185:PRO:HG3	2.11	0.84
1:AA:554:A:H5'	12:AL:25:ALA:CB	2.07	0.84
1:AA:657:U:O2	15:AO:21:THR:HG23	1.78	0.84
25:DA:528:A:H8	25:DA:528:A:H3'	1.43	0.84
10:AJ:29:ALA:HA	10:AJ:32:THR:HG22	1.58	0.84
43:DS:84:ARG:HB2	43:DS:96:ILE:CG1	2.08	0.84
37:DM:21:ALA:HB1	37:DM:100:LYS:HG2	1.57	0.84
8:AH:52:GLY:HA3	8:AH:56:PRO:HA	1.57	0.84
42:CR:39:LEU:HA	42:CR:49:ILE:CG2	2.06	0.84
21:AU:13:VAL:HG13	21:AU:15:LEU:CD2	2.08	0.84
52:C1:18:HIS:CD2	52:C1:40:PRO:HD2	2.13	0.84
32:CH:27:ARG:O	32:CH:28:ASN:HB2	1.76	0.84
36:DL:85:VAL:O	36:DL:86:GLU:HB3	1.78	0.84
25:CA:2757:A:N1	31:CG:66:THR:HG21	1.92	0.84
25:DA:1435:G:C2'	25:DA:1436:G:H5'	2.08	0.83
32:CH:61:VAL:O	32:CH:64:ALA:HB3	1.77	0.83
25:CA:2602:A:H4'	25:CA:2603:G:OP2	1.78	0.83
1:AA:1031:C:H4'	1:AA:1032:G:H5"	1.58	0.83
25:DA:2711:A:OP2	60:DA:3554:HOH:O	1.96	0.83
1:BA:1040:U:H2'	1:BA:1041:G:C8	2.12	0.83
3:AC:52:SER:O	3:AC:53:ARG:HB2	1.76	0.83
25:DA:1458:U:H4'	25:DA:1459:G:O5'	1.78	0.83
39:DO:33:ARG:HG2	39:DO:34:HIS:CD2	2.12	0.83
25:CA:1167:C:H2'	25:CA:1168:G:H5"	1.60	0.83
25:DA:1605:C:H2'	25:DA:1606:C:H5'	1.58	0.83
25:DA:1069:A:N1	25:DA:1073:A:N7	2.26	0.83
1:AA:459:A:H2'	1:AA:460:A:C1'	2.08	0.83
25:CA:372:G:O2'	48:CX:53:LYS:HE2	1.78	0.83
25:DA:1602:U:O4	60:DA:3719:HOH:O	1.97	0.83
11:AK:22:ILE:HD11	11:AK:85:VAL:HG13	1.58	0.83
1:AA:459:A:H2'	1:AA:460:A:O4'	1.78	0.83
30:CF:24:VAL:O	30:CF:27:VAL:HG12	1.78	0.83
42:DR:39:LEU:HA	42:DR:49:ILE:CG2	2.08	0.83
1:BA:765:G:H5"	1:BA:766:A:OP1	1.79	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1124:G:C2	1:BA:1127:G:N2	2.46	0.83
25:CA:2211:A:H1'	25:CA:2212:A:OP1	1.79	0.83
5:BE:68:ARG:O	5:BE:69:ASN:HB2	1.78	0.82
42:CR:49:ILE:HB	42:CR:52:PRO:HA	1.60	0.82
12:AL:23:LEU:O	12:AL:25:ALA:N	2.12	0.82
1:AA:624:C:H4'	16:AP:11:ALA:HB2	1.59	0.82
25:DA:1124:G:H1'	55:D4:38:GLY:OXT	1.80	0.82
28:DD:104:VAL:O	28:DD:105:LYS:CB	2.26	0.82
3:AC:139:ASN:HA	3:AC:142:ARG:CB	2.10	0.82
25:DA:2127:G:H4'	25:DA:2128:G:OP1	1.79	0.82
36:DL:119:PRO:HB3	36:DL:139:GLY:HA3	1.59	0.82
51:C0:54:ILE:HG22	51:C0:55:ALA:N	1.91	0.82
25:DA:1943:U:H4'	25:DA:1944:U:OP1	1.79	0.82
39:DO:51:ALA:HB3	39:DO:78:VAL:HG22	1.61	0.82
1:AA:410:G:C5'	1:AA:411:A:OP1	2.28	0.82
33:CI:79:LEU:HD13	33:CI:135:MET:SD	2.19	0.82
5:BE:14:LEU:CB	5:BE:36:THR:HG22	2.09	0.82
5:BE:100:GLU:O	5:BE:102:THR:N	2.13	0.82
13:AM:21:ILE:HB	13:AM:24:VAL:CG2	2.08	0.82
25:DA:319:G:C2'	25:DA:320:A:O5'	2.28	0.82
21:AU:36:PHE:HA	21:AU:39:LYS:CE	2.10	0.82
1:AA:1083:U:H5	1:AA:1084:G:C5	1.98	0.82
41:CQ:23:TYR:O	41:CQ:24:TYR:CB	2.28	0.82
1:BA:86:G:H1'	1:BA:87:C:O4'	1.80	0.82
25:DA:2792:A:C2	25:DA:2793:C:C5	2.66	0.82
1:BA:1261:A:C2	1:BA:1262:C:C5	2.68	0.82
25:DA:1013:C:OP2	60:DA:3608:HOH:O	1.98	0.82
25:DA:2879:A:H4'	25:DA:2880:C:OP1	1.77	0.82
30:CF:118:ALA:HB1	30:CF:166:ARG:HD2	1.60	0.81
1:BA:188:C:H2'	1:BA:188:C:O2	1.80	0.81
1:AA:511:C:C2	1:AA:512:U:C5	2.68	0.81
1:BA:783:C:H2'	1:BA:784:A:H5'	1.62	0.81
25:DA:1779:U:C5	25:DA:1784:A:N7	2.48	0.81
1:AA:1397:C:O2'	1:AA:1398:A:OP1	1.96	0.81
1:BA:1108:G:H5"	3:BC:175:HIS:CD2	2.15	0.81
25:CA:1838:C:C2	25:CA:1898:U:C5	2.68	0.81
5:AE:136:VAL:O	5:AE:137:ARG:CB	2.27	0.81
41:CQ:78:PHE:CZ	41:CQ:82:LEU:HD11	2.15	0.81
42:DR:49:ILE:HD12	42:DR:52:PRO:HA	1.62	0.81
25:DA:2585:U:O2'	25:DA:2586:U:H5'	1.80	0.81
22:AV:52:G:C2	22:AV:53:G:C8	2.68	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2551:C:OP1	60:CA:3434:HOH:O	1.97	0.81
25:CA:804:A:H5"	25:CA:805:G:OP1	1.80	0.81
25:DA:1551:A:H2'	25:DA:1552:A:H5'	1.61	0.81
55:D4:17:VAL:HB	55:D4:26:ILE:HD11	1.62	0.81
33:CI:75:ALA:HB1	33:CI:128:ILE:CG2	2.11	0.81
25:DA:528:A:C8	25:DA:528:A:H3'	2.16	0.81
1:AA:79:G:H1	1:AA:90:C:H42	1.28	0.81
3:BC:22:PHE:CD2	3:BC:23:ALA:N	2.49	0.81
1:BA:71:A:C2	1:BA:100:G:C8	2.67	0.81
28:CD:181:ASP:OD2	28:CD:184:ARG:HD3	1.80	0.81
25:DA:1539:U:O2	25:DA:1540:G:C8	2.34	0.81
25:CA:1462:C:H2'	25:CA:1463:C:H5'	1.63	0.81
25:DA:2666:C:C5	25:DA:2667:C:C5	2.68	0.81
25:DA:2326:C:H1'	25:DA:2327:A:OP1	1.80	0.81
25:CA:2007:U:C2'	25:CA:2008:C:H5'	2.10	0.81
33:DI:124:MET:HA	33:DI:127:SER:HB3	1.61	0.81
1:BA:1053:G:N7	1:BA:1199:U:H3'	1.93	0.81
32:DH:9:VAL:HG22	32:DH:35:LYS:HE2	1.63	0.81
14:AN:41:ARG:HB2	14:AN:42:TRP:CZ3	2.16	0.81
25:DA:2143:C:H2'	25:DA:2144:G:O4'	1.79	0.81
25:DA:319:G:H2'	25:DA:320:A:O5'	1.81	0.81
10:BJ:57:VAL:O	10:BJ:58:ASN:HB2	1.80	0.81
1:BA:965:U:O2'	1:BA:966:G:OP2	1.97	0.81
1:BA:1348:U:H4'	9:BI:121:ARG:HG3	1.63	0.81
25:DA:1866:A:C2	25:DA:1876:A:C5	2.68	0.81
25:DA:1333:G:C2	25:DA:1334:G:C8	2.69	0.81
25:CA:1603:A:OP1	60:CA:3414:HOH:O	1.99	0.80
17:BQ:45:VAL:HG21	17:BQ:60:ILE:HD11	1.63	0.80
11:BK:51:PHE:CZ	11:BK:61:ALA:HA	2.16	0.80
25:CA:2346:A:H3'	25:CA:2347:C:H5'	1.64	0.80
5:BE:148:SER:HB2	5:BE:151:MET:HG3	1.62	0.80
5:AE:89:THR:HG22	5:AE:90:GLY:N	1.96	0.80
25:CA:1993:U:H4'	28:CD:133:THR:HG21	1.63	0.80
1:BA:1239:A:H4'	1:BA:1240:U:OP1	1.81	0.80
25:DA:685:A:H4'	25:DA:686:U:O5'	1.79	0.80
5:BE:101:GLY:O	5:BE:103:GLY:N	2.14	0.80
1:AA:181:A:N6	1:AA:195:A:C8	2.49	0.80
25:CA:1269:A:OP2	60:CA:3382:HOH:O	1.99	0.80
37:CM:16:ARG:HG2	37:CM:16:ARG:HH11	1.46	0.80
1:AA:204:G:H3'	1:AA:205:A:C5'	2.10	0.80
11:BK:14:GLN:HA	11:BK:76:TYR:HA	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:CC:164:VAL:HG22	27:CC:172:THR:O	1.81	0.80
1:BA:532:A:N6	1:BA:1206:G:O2'	2.15	0.80
2:AB:212:TYR:O	2:AB:216:VAL:HG23	1.80	0.80
5:BE:95:MET:CE	5:BE:114:LEU:HD21	2.11	0.80
8:AH:58:LEU:HD13	8:AH:59:GLU:N	1.97	0.80
31:DG:53:PRO:HG3	31:DG:61:TRP:CE2	2.15	0.80
1:AA:277:C:H2'	1:AA:278:G:O5'	1.82	0.80
32:CH:125:THR:HA	32:CH:146:VAL:HB	1.63	0.80
1:BA:1225:A:H2'	1:BA:1226:C:C5	2.17	0.80
25:DA:1401:G:C5	25:DA:1402:U:C5	2.70	0.80
25:DA:2340:A:H2'	25:DA:2341:G:C8	2.17	0.80
31:CG:37:ASN:O	31:CG:38:ASP:CB	2.30	0.80
3:AC:26:LYS:H	3:AC:26:LYS:HD2	1.47	0.80
1:BA:738:C:H2'	1:BA:739:C:H6	1.47	0.80
20:BT:35:TYR:CE1	20:BT:39:GLU:HB2	2.17	0.80
2:AB:162:VAL:HG11	2:AB:182:VAL:HG13	1.63	0.80
13:AM:28:ARG:CZ	13:AM:62:PHE:HB2	2.12	0.80
27:DC:242:HIS:O	27:DC:244:VAL:HG13	1.82	0.80
32:DH:53:GLU:O	32:DH:57:LYS:HB3	1.82	0.80
25:DA:1131:G:OP1	34:DJ:82:GLY:HA2	1.82	0.80
3:AC:76:ILE:HA	3:AC:83:VAL:HG23	1.64	0.80
2:AB:98:GLY:O	2:AB:102:ASN:HB2	1.81	0.80
2:AB:146:SER:O	2:AB:147:LEU:HG	1.80	0.80
25:DA:1444:G:H2'	25:DA:1445:G:C8	2.17	0.80
25:CA:2427:C:H5"	25:CA:2428:G:OP1	1.82	0.80
3:BC:71:ARG:HB3	3:BC:74:ILE:HG22	1.64	0.80
1:AA:17:U:H2'	1:AA:18:C:C6	2.17	0.80
1:AA:513:C:C2'	1:AA:514:C:O5'	2.30	0.80
25:DA:2262:U:O2'	25:DA:2263:C:H5'	1.82	0.80
42:DR:51:VAL:HB	42:DR:52:PRO:HD2	1.64	0.79
1:BA:1181:G:O2'	1:BA:1182:G:C8	2.35	0.79
1:BA:1181:G:O2'	1:BA:1182:G:N7	2.15	0.79
32:DH:117:LEU:HD21	32:DH:121:VAL:HA	1.62	0.79
37:CM:16:ARG:CG	37:CM:16:ARG:HH11	1.95	0.79
1:AA:481:G:H5"	1:AA:481:G:C8	2.17	0.79
1:AA:573:A:OP2	60:AA:1737:HOH:O	2.00	0.79
31:DG:112:VAL:HG11	31:DG:150:TYR:CE2	2.17	0.79
25:DA:2022:U:OP1	60:DA:3668:HOH:O	2.00	0.79
2:AB:46:VAL:HB	2:AB:47:PRO:HD3	1.64	0.79
1:BA:154:U:C2	1:BA:168:G:N2	2.50	0.79
1:AA:587:G:H4'	8:AH:3:GLN:HA	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:10:LEU:HB2	10:AJ:72:ARG:HB2	1.63	0.79
26:CB:57:A:H4'	30:CF:26:GLN:NE2	1.96	0.79
1:AA:91:U:H2'	1:AA:92:U:O4'	1.82	0.79
1:BA:1540:U:O3'	21:BU:17:ARG:CZ	2.31	0.79
49:DY:26:PHE:CE2	49:DY:30:MET:HG2	2.17	0.79
4:BD:160:LEU:HD22	4:BD:161:ALA:N	1.97	0.79
12:BL:33:CYS:HB3	12:BL:54:VAL:HG22	1.63	0.79
2:AB:216:VAL:O	2:AB:219:THR:HG23	1.82	0.79
25:DA:2783:U:H2'	25:DA:2784:U:H6	1.47	0.79
1:AA:206:C:H2'	1:AA:207:C:O4'	1.80	0.79
2:AB:50:ASN:O	2:AB:51:GLU:HB2	1.80	0.79
1:BA:869:G:O6	60:BA:1819:HOH:O	1.99	0.79
25:CA:1410:G:N7	60:CA:3628:HOH:O	2.14	0.79
33:CI:15:GLY:HA2	33:CI:50:LYS:HB3	1.64	0.79
36:DL:81:ASP:HA	36:DL:84:LYS:HG3	1.63	0.79
25:DA:984:A:H5"	25:DA:985:C:OP2	1.82	0.79
1:BA:841:C:H3'	1:BA:843:U:H5"	1.64	0.79
25:DA:1587:G:C5	25:DA:1588:G:N7	2.50	0.79
33:CI:96:LYS:HG3	33:CI:138:VAL:HG22	1.65	0.79
22:AV:18:G:H2'	22:AV:58:A:C2	2.18	0.79
8:AH:9:MET:HE1	8:AH:32:LYS:HA	1.65	0.79
9:BI:49:GLN:HA	9:BI:52:GLU:CD	2.02	0.79
25:CA:2305:U:N3	30:CF:150:GLY:HA3	1.98	0.79
25:DA:1799:G:OP1	27:DC:257:ARG:HD2	1.81	0.79
25:CA:2800:A:H3'	25:CA:2801:G:C5'	2.13	0.79
25:DA:1084:A:H2'	25:DA:1085:A:C8	2.18	0.79
25:CA:1179:G:N7	25:CA:1180:U:C1'	2.45	0.79
4:AD:169:TRP:HB3	4:AD:183:ARG:NH1	1.97	0.79
32:DH:59:ALA:O	32:DH:62:LEU:CD1	2.30	0.79
5:BE:103:GLY:HA3	5:BE:121:ASN:HA	1.63	0.79
1:AA:143:A:N3	1:AA:143:A:H2'	1.97	0.79
20:AT:24:ARG:O	20:AT:28:ARG:HG3	1.82	0.79
37:DM:108:VAL:HG12	37:DM:109:PRO:HD2	1.65	0.79
43:DS:20:VAL:HG21	43:DS:43:ALA:CB	2.13	0.79
25:CA:323:C:H2'	29:CE:163:ASN:ND2	1.97	0.79
25:CA:960:A:H5"	25:CA:961:C:OP2	1.82	0.79
29:CE:189:THR:HG22	29:CE:192:ALA:H	1.46	0.79
1:AA:1425:U:O2'	1:AA:1426:G:H5'	1.81	0.79
25:DA:1342:A:OP2	60:DA:3719:HOH:O	2.00	0.79
2:AB:65:LYS:N	2:AB:65:LYS:HD3	1.96	0.79
1:AA:1538:C:H2'	1:AA:1539:C:H5'	1.63	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:16:THR:HG22	4:AD:17:ASP:N	1.97	0.79
2:AB:103:TRP:CZ3	2:AB:157:PRO:HD3	2.17	0.79
4:BD:79:ALA:HA	4:BD:85:THR:OG1	1.82	0.79
2:AB:63:LYS:HE2	2:AB:63:LYS:HA	1.64	0.79
42:DR:68:ARG:HD3	42:DR:92:TRP:CZ2	2.18	0.79
56:DB:33:G:O2'	56:DB:34:A:O5'	2.00	0.79
21:AU:35:GLU:O	21:AU:36:PHE:HB2	1.83	0.79
1:AA:1285:A:H4'	1:AA:1286:U:N3	1.97	0.79
1:AA:1330:U:H2'	1:AA:1331:G:H5'	1.62	0.79
32:DH:40:THR:O	32:DH:42:LYS:N	2.15	0.79
1:BA:463:U:H5'	1:BA:464:U:OP2	1.82	0.79
2:BB:98:GLY:HA2	2:BB:101:THR:HG23	1.63	0.79
4:AD:31:CYS:O	4:AD:32:LYS:HB2	1.83	0.79
5:AE:102:THR:HG22	5:AE:103:GLY:N	1.97	0.79
35:CK:118:LEU:O	35:CK:119:ALA:HB3	1.81	0.79
27:DC:65:ASP:OD2	27:DC:101:ARG:HD3	1.83	0.79
1:AA:4:U:OP1	1:AA:5:U:O4	2.01	0.79
1:BA:922:G:H4'	5:BE:24:VAL:HA	1.65	0.79
25:CA:2152:G:C5	25:CA:2153:C:C5	2.70	0.79
35:DK:118:LEU:O	35:DK:119:ALA:CB	2.31	0.79
2:AB:150:ILE:HG23	2:AB:151:LYS:H	1.47	0.78
25:CA:1179:G:N7	25:CA:1180:U:H1'	1.99	0.78
32:CH:116:ARG:HD2	32:CH:133:GLN:HG2	1.64	0.78
31:DG:29:ASN:HB3	31:DG:78:VAL:HA	1.65	0.78
36:DL:79:LEU:H	36:DL:113:ALA:HB3	1.47	0.78
25:CA:1854:A:C2'	25:CA:1855:U:H5'	2.11	0.78
1:AA:1159:U:O2	1:AA:1182:G:C2	2.35	0.78
25:DA:2793:C:H2'	25:DA:2794:C:C6	2.18	0.78
25:DA:2162:G:H4'	25:DA:2163:A:OP1	1.83	0.78
25:CA:752:A:N6	25:CA:2609:U:H3	1.80	0.78
10:AJ:51:VAL:O	10:AJ:62:ARG:HA	1.84	0.78
16:BP:18:GLN:HG3	16:BP:35:ARG:HD2	1.66	0.78
25:CA:1084:A:H3'	25:CA:1085:A:C8	2.18	0.78
11:AK:51:PHE:HB3	11:AK:55:ARG:HB3	1.65	0.78
2:BB:98:GLY:O	2:BB:100:LEU:N	2.17	0.78
25:DA:2135:A:C2	25:DA:2136:G:H1'	2.18	0.78
12:BL:109:ARG:NH2	12:BL:116:TYR:CE2	2.51	0.78
25:DA:1720:U:H2'	25:DA:1721:G:O4'	1.82	0.78
25:CA:1203:U:O4	25:CA:1204:A:C6	2.36	0.78
40:CP:14:GLN:O	40:CP:15:ASP:HB3	1.82	0.78
1:BA:1302:C:C5	13:BM:16:ILE:HD13	2.18	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:761:A:OP1	60:DA:3697:HOH:O	2.00	0.78
32:DH:31:VAL:O	32:DH:32:PRO:C	2.21	0.78
25:CA:2498:C:P	60:CA:3692:HOH:O	2.40	0.78
1:AA:376:G:N3	1:AA:389:A:C2	2.52	0.78
42:CR:86:GLN:HG3	42:CR:87:GLN:N	1.97	0.78
1:AA:1113:C:H2'	1:AA:1114:C:H6	1.48	0.78
31:DG:42:VAL:HG23	31:DG:50:THR:O	1.83	0.78
4:AD:61:ARG:HG2	4:AD:71:PHE:CD2	2.18	0.78
25:DA:1277:G:H5'	38:DN:20:MET:CE	2.12	0.78
2:BB:112:ARG:CZ	2:BB:116:LEU:HD11	2.13	0.78
25:DA:2531:A:H4'	31:DG:156:TYR:CE1	2.18	0.78
38:CN:49:GLU:OE2	38:CN:95:THR:HG22	1.83	0.78
25:DA:1070:A:H2'	25:DA:1097:U:OP1	1.84	0.78
25:CA:1779:U:C5	25:CA:1784:A:N7	2.51	0.78
25:CA:790:U:O2'	25:CA:791:C:P	2.42	0.78
2:AB:34:ARG:NE	2:AB:34:ARG:HA	1.98	0.78
10:BJ:6:ILE:HD12	10:BJ:76:ILE:HB	1.66	0.78
5:AE:114:LEU:HG	5:AE:119:VAL:HG21	1.64	0.78
1:BA:738:C:H2'	1:BA:739:C:C6	2.19	0.78
9:BI:29:ILE:HA	9:BI:64:ILE:O	1.82	0.78
25:DA:2125:G:H5'	25:DA:2126:A:OP2	1.84	0.78
27:DC:140:VAL:HG12	27:DC:190:THR:O	1.84	0.78
25:DA:1097:U:C5	25:DA:1098:A:H1'	2.19	0.78
33:DI:68:PHE:HD1	33:DI:68:PHE:N	1.82	0.78
1:BA:501:C:H1'	1:BA:549:C:H1'	1.66	0.78
25:CA:1567:G:C8	27:CC:82:TYR:CE1	2.72	0.78
24:AY:76:SER:HB3	24:AY:77:PRO:HD3	1.65	0.78
25:CA:219:A:N7	60:CA:3224:HOH:O	2.17	0.78
2:AB:81:ASP:O	2:AB:84:LEU:N	2.17	0.78
25:DA:1866:A:N1	25:DA:1876:A:C8	2.52	0.78
9:AI:29:ILE:HD11	9:AI:37:TYR:CG	2.19	0.78
25:CA:1474:U:C4	25:CA:1475:G:N2	2.52	0.78
25:CA:587:C:OP2	36:CL:21:ARG:NH1	2.17	0.78
25:CA:946:C:OP2	60:CA:3348:HOH:O	2.01	0.78
25:CA:1417:C:H2'	25:CA:1418:G:O4'	1.84	0.77
41:DQ:35:PHE:CZ	41:DQ:39:ILE:HD11	2.20	0.77
8:BH:77:VAL:HG11	8:BH:124:ILE:HD11	1.65	0.77
25:CA:2790:U:H5'	25:CA:2893:A:N7	1.99	0.77
32:CH:82:SER:HB2	32:CH:94:ILE:HD11	1.66	0.77
1:AA:1271:A:H5'	1:AA:1314:C:H5'	1.66	0.77
40:CP:92:ARG:O	40:CP:93:LYS:CB	2.30	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:228:C:H4'	25:DA:229:C:H5"	1.65	0.77
6:BF:47:LEU:HB2	6:BF:55:HIS:HA	1.66	0.77
1:AA:1493:A:H8	1:AA:1493:A:OP2	1.67	0.77
25:DA:277:G:H1'	25:DA:361:G:O6	1.84	0.77
45:DU:11:ILE:HG21	45:DU:79:ALA:HB2	1.64	0.77
42:CR:46:GLU:OE1	42:CR:46:GLU:O	2.01	0.77
11:AK:30:ILE:HB	11:AK:45:THR:HG22	1.65	0.77
11:BK:126:ARG:H	21:BU:33:ARG:NH2	1.81	0.77
5:BE:152:VAL:HG23	5:BE:156:ARG:CB	2.13	0.77
25:DA:1588:G:C6	25:DA:1589:U:O4	2.37	0.77
16:AP:75:ILE:O	16:AP:78:VAL:HG12	1.83	0.77
1:AA:1060:U:H4'	10:AJ:53:ILE:HG22	1.64	0.77
27:DC:140:VAL:CG1	27:DC:190:THR:O	2.32	0.77
25:DA:2822:G:O6	38:DN:2:ARG:HG2	1.84	0.77
48:DX:53:LYS:O	48:DX:56:ARG:HB2	1.84	0.77
1:BA:1006:G:H2'	1:BA:1007:U:C6	2.19	0.77
25:DA:1450:G:C6	25:DA:1451:C:N4	2.52	0.77
40:DP:45:VAL:O	40:DP:60:VAL:HA	1.83	0.77
25:DA:585:G:N7	41:DQ:5:ARG:NH1	2.32	0.77
17:AQ:47:ASP:OD1	17:AQ:50:ASN:HA	1.84	0.77
28:DD:172:VAL:CG2	28:DD:194:PRO:HD3	2.14	0.77
4:AD:36:ALA:HA	4:AD:41:GLY:CA	2.13	0.77
25:CA:2142:A:H2'	25:CA:2143:C:C6	2.18	0.77
25:CA:2152:G:C6	25:CA:2153:C:C4	2.73	0.77
27:CC:42:ARG:HH11	27:CC:42:ARG:CG	1.97	0.77
25:CA:1869:G:H3'	25:CA:1870:C:H5'	1.65	0.77
25:CA:1074:G:H2'	25:CA:1075:C:H5'	1.65	0.77
42:DR:49:ILE:CD1	42:DR:52:PRO:HA	2.15	0.77
1:BA:1073:U:O2	1:BA:1073:U:H2'	1.81	0.77
1:AA:1412:C:C2	1:AA:1489:G:N2	2.53	0.77
2:AB:22:TRP:CZ3	2:AB:24:PRO:HA	2.19	0.77
5:BE:136:VAL:O	5:BE:137:ARG:HB2	1.83	0.77
2:BB:89:PHE:HB3	2:BB:149:GLY:O	1.83	0.77
2:BB:162:VAL:HG23	2:BB:184:ALA:HB2	1.67	0.77
52:C1:16:THR:HG21	52:C1:41:VAL:HB	1.64	0.77
1:BA:978:A:P	1:BA:1362:A:N6	2.58	0.77
25:DA:1711:A:O2'	25:DA:1712:U:H5'	1.84	0.77
25:CA:2007:U:H2'	25:CA:2008:C:H5'	1.65	0.77
25:CA:1604:C:OP1	60:CA:3408:HOH:O	2.03	0.77
3:AC:21:TRP:CB	3:AC:58:ARG:HG2	2.15	0.77
25:DA:1179:G:C5	25:DA:1180:U:H1'	2.19	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:C2:43:THR:O	53:C2:44:VAL:HB	1.83	0.77
36:DL:30:THR:O	36:DL:33:ARG:HG2	1.83	0.77
32:DH:72:ILE:HG22	32:DH:73:ASN:N	1.99	0.77
1:BA:1129:C:O2'	1:BA:1139:G:N7	2.18	0.77
8:AH:74:ILE:HD12	8:AH:127:TYR:O	1.85	0.77
1:AA:71:A:H3'	1:AA:71:A:OP2	1.85	0.77
2:BB:162:VAL:O	2:BB:184:ALA:HA	1.84	0.77
36:CL:110:VAL:O	36:CL:111:ILE:O	2.02	0.77
30:DF:41:GLU:HB2	30:DF:48:LEU:CD2	2.15	0.77
25:CA:2283:C:H5"	25:CA:2389:G:O2'	1.83	0.77
25:CA:359:G:C6	25:CA:360:U:C5	2.73	0.77
25:DA:2230:G:H2'	25:DA:2231:U:H6	1.50	0.77
1:BA:1244:G:C2	1:BA:1294:G:C2	2.73	0.77
50:CZ:1:ALA:HB1	50:CZ:2:LYS:HE3	1.66	0.77
13:AM:44:ILE:HG13	13:AM:47:LEU:HD13	1.67	0.77
16:AP:19:VAL:CG2	16:AP:36:VAL:O	2.33	0.77
27:CC:216:ARG:HB3	27:CC:217:PRO:CD	2.15	0.77
3:BC:149:LYS:HB3	3:BC:168:ARG:HG2	1.66	0.77
25:CA:278:A:H2	25:CA:362:A:C8	2.02	0.77
37:CM:111:GLU:CD	37:CM:111:GLU:C	2.43	0.77
27:DC:16:VAL:N	27:DC:203:VAL:HG22	1.99	0.77
9:AI:56:MET:SD	9:AI:57:VAL:N	2.57	0.77
1:BA:934:C:C5	1:BA:1344:C:C6	2.73	0.77
45:CU:6:ARG:O	45:CU:7:ASP:O	2.03	0.77
1:BA:332:G:H2'	1:BA:333:U:H5'	1.67	0.77
3:BC:41:TYR:CZ	3:BC:45:GLU:HG2	2.19	0.77
22:AV:59:U:C5	22:AV:60:U:C4	2.73	0.77
1:AA:205:A:OP1	1:AA:205:A:H4'	1.84	0.77
1:AA:1490:U:C2'	1:AA:1491:G:H5'	2.15	0.77
27:CC:234:GLY:O	27:CC:235:GLU:HB2	1.85	0.77
25:CA:1922:G:C5	25:CA:1923:U:C5	2.72	0.77
27:CC:35:LYS:O	27:CC:36:ASN:CB	2.31	0.77
1:AA:1439:G:C5	1:AA:1440:U:C5	2.73	0.77
1:BA:982:U:H4'	1:BA:983:A:H5'	1.67	0.76
25:DA:1084:A:C6	25:DA:1085:A:C6	2.73	0.76
17:AQ:15:LYS:N	17:AQ:16:MET:SD	2.58	0.76
1:BA:308:C:H2'	1:BA:309:A:C8	2.20	0.76
10:AJ:80:THR:HB	10:AJ:83:THR:HB	1.66	0.76
3:BC:17:TRP:CZ2	14:BN:95:GLY:HA2	2.20	0.76
1:BA:385:C:C5	1:BA:386:C:C5	2.73	0.76
1:BA:1492:A:N3	25:DA:1913:A:N6	2.33	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:BL:89:LEU:HB2	12:BL:92:VAL:HG21	1.66	0.76
5:BE:154:ALA:HB3	5:BE:155:LYS:HE3	1.66	0.76
25:DA:2112:G:N3	25:DA:2112:G:H2'	1.98	0.76
21:AU:36:PHE:HA	21:AU:39:LYS:HE3	1.65	0.76
25:CA:2151:U:H2'	25:CA:2152:G:C8	2.20	0.76
25:DA:1906:G:H2'	25:DA:1907:G:H5"	1.67	0.76
25:CA:197:A:N6	25:CA:2430:A:H2'	2.00	0.76
25:CA:1059:G:OP2	25:CA:1060:U:O2'	2.02	0.76
6:BF:39:LEU:HD12	6:BF:40:GLU:N	2.00	0.76
3:BC:171:ARG:O	3:BC:173:PRO:HD3	1.84	0.76
25:DA:722:A:H2'	25:DA:723:C:O4'	1.85	0.76
43:DS:59:GLU:HG3	43:DS:66:ILE:HD11	1.65	0.76
2:AB:215:ALA:O	2:AB:219:THR:HG22	1.86	0.76
25:DA:2346:A:H3'	25:DA:2347:C:H5'	1.66	0.76
25:CA:1869:G:C3'	25:CA:1870:C:H5'	2.15	0.76
16:AP:19:VAL:HG13	16:AP:38:PHE:HA	1.64	0.76
25:DA:1045:C:C3'	25:DA:1046:A:H5'	2.16	0.76
49:CY:56:LEU:O	49:CY:57:LEU:CB	2.32	0.76
25:CA:2103:C:C2'	25:CA:2104:C:H5'	2.16	0.76
25:CA:195:A:N7	60:CA:3767:HOH:O	2.18	0.76
28:DD:181:ASP:HB3	28:DD:186:LEU:HB2	1.67	0.76
25:DA:1063:G:O2'	33:DI:88:GLY:HA3	1.84	0.76
2:AB:49:PHE:HA	2:AB:212:TYR:OH	1.85	0.76
25:DA:1746:A:H2'	25:DA:1747:U:H6	1.47	0.76
38:DN:55:ALA:HA	38:DN:80:PHE:CE1	2.21	0.76
3:BC:110:LEU:HD13	3:BC:145:ALA:HB2	1.68	0.76
43:DS:73:LYS:HB2	43:DS:106:VAL:HB	1.67	0.76
25:CA:1494:A:C2'	25:CA:1495:A:O5'	2.34	0.76
3:AC:71:ARG:O	3:AC:74:ILE:HG22	1.86	0.76
1:BA:1333:A:H2'	1:BA:1334:G:O4'	1.86	0.76
8:AH:100:ILE:HD11	8:AH:128:VAL:CG2	2.16	0.76
25:DA:1777:U:O2'	25:DA:1778:U:H5'	1.86	0.76
1:AA:209:U:C5'	1:AA:210:C:OP2	2.34	0.76
3:AC:24:ASN:O	3:AC:26:LYS:HG2	1.86	0.76
25:DA:1045:C:H1'	25:DA:1047:G:C6	2.20	0.76
25:CA:1528:A:H5"	25:CA:1529:G:OP2	1.85	0.76
9:BI:56:MET:HB3	9:BI:60:LEU:HD23	1.67	0.76
32:CH:59:ALA:O	32:CH:62:LEU:HG	1.86	0.76
5:AE:23:THR:HA	5:AE:28:ARG:HA	1.66	0.76
29:DE:149:ILE:HG23	29:DE:188:MET:HG2	1.67	0.76
25:CA:761:A:P	60:CA:3700:HOH:O	2.42	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1032:G:C2	1:AA:1033:G:H1'	2.20	0.76
1:BA:374:A:H5"	1:BA:452:A:C2	2.20	0.76
25:CA:1736:U:H2'	25:CA:1737:G:O4'	1.85	0.76
29:DE:148:ILE:HD13	29:DE:187:VAL:HG12	1.68	0.76
25:DA:1556:C:O2'	25:DA:1557:C:H5'	1.84	0.76
22:AV:21:A:N6	22:AV:46:G:C4	2.54	0.76
25:CA:1462:C:C2'	25:CA:1463:C:H5'	2.15	0.76
32:CH:79:THR:HA	32:CH:145:ASN:HB2	1.68	0.76
25:DA:1827:U:H5'	25:DA:1971:U:H5'	1.67	0.76
32:DH:116:ARG:HG3	32:DH:133:GLN:HG3	1.68	0.76
25:CA:999:U:OP2	60:CA:3358:HOH:O	2.03	0.76
1:BA:261:U:OP2	20:BT:70:LYS:HD2	1.86	0.76
19:BS:14:LEU:HA	19:BS:17:LYS:HD2	1.66	0.76
16:AP:68:SER:HB2	16:AP:71:VAL:HB	1.67	0.76
1:BA:1538:C:H2'	1:BA:1539:C:C6	2.21	0.76
32:DH:2:GLN:O	32:DH:3:VAL:O	2.04	0.76
1:AA:1348:U:C5	1:AA:1373:G:N2	2.53	0.76
46:CV:80:HIS:CE1	46:CV:81:PRO:HD2	2.20	0.76
4:AD:190:LEU:O	4:AD:191:SER:HB2	1.86	0.76
28:DD:140:HIS:CD2	60:DD:303:HOH:O	2.37	0.76
25:DA:1725:U:H2'	25:DA:1726:C:O4'	1.86	0.76
25:CA:2277:G:H2'	25:CA:2278:A:O5'	1.85	0.76
25:CA:1046:A:H4'	25:CA:1046:A:OP2	1.86	0.76
10:AJ:44:THR:HG22	10:AJ:70:HIS:HA	1.67	0.76
25:DA:2340:A:H2'	25:DA:2341:G:H8	1.50	0.76
1:AA:1032:G:H5'	1:AA:1033:G:OP2	1.85	0.76
37:CM:15:GLY:O	37:CM:16:ARG:HD2	1.85	0.76
25:DA:1788:C:O2'	25:DA:1789:A:H5'	1.86	0.76
1:BA:381:C:H2'	1:BA:382:A:O4'	1.86	0.76
51:D0:54:ILE:HG22	51:D0:55:ALA:N	2.00	0.76
1:AA:620:C:H1'	4:AD:131:ILE:CD1	2.16	0.76
13:AM:21:ILE:HB	13:AM:24:VAL:HG21	1.66	0.75
10:AJ:27:GLU:HA	10:AJ:30:LYS:HE2	1.68	0.75
1:BA:1412:C:H2'	1:BA:1413:A:C8	2.21	0.75
15:AO:66:LEU:HD13	15:AO:87:ARG:NH2	2.01	0.75
25:CA:2681:C:OP2	28:CD:114:LYS:HE3	1.85	0.75
21:BU:9:GLU:CG	21:BU:10:PRO:HD3	2.15	0.75
33:CI:124:MET:HA	33:CI:127:SER:HB3	1.68	0.75
42:DR:46:GLU:CD	42:DR:46:GLU:C	2.44	0.75
32:DH:24:GLY:O	32:DH:28:ASN:HB2	1.87	0.75
25:DA:860:U:H1'	25:DA:2268:A:H5'	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1779:U:H5	25:DA:1784:A:N7	1.84	0.75
1:AA:204:G:H2'	1:AA:205:A:O4'	1.87	0.75
20:BT:42:ASP:CB	20:BT:45:ALA:HB3	2.16	0.75
9:AI:113:LYS:HG2	9:AI:119:LYS:HA	1.68	0.75
2:BB:67:LEU:HD22	2:BB:69:VAL:CG2	2.16	0.75
38:DN:85:PRO:HA	38:DN:88:ALA:HB2	1.68	0.75
1:BA:595:A:C2	1:BA:641:U:N3	2.54	0.75
25:CA:2071:A:H2'	25:CA:2072:C:C6	2.21	0.75
34:DJ:5:THR:HG22	34:DJ:6:ALA:O	1.86	0.75
11:AK:91:GLY:O	11:AK:95:THR:HG22	1.86	0.75
10:AJ:27:GLU:HA	10:AJ:30:LYS:CE	2.17	0.75
5:BE:136:VAL:O	5:BE:137:ARG:CB	2.34	0.75
45:CU:11:ILE:HG21	45:CU:79:ALA:HB2	1.68	0.75
25:CA:1509:A:O2'	25:CA:1510:G:OP2	2.03	0.75
25:DA:45:G:H5"	25:DA:46:G:H5'	1.67	0.75
1:BA:1313:U:OP2	19:BS:5:LYS:HA	1.86	0.75
32:DH:57:LYS:HG3	32:DH:58:LEU:HD23	1.67	0.75
2:BB:116:LEU:HB3	2:BB:140:LEU:HD11	1.68	0.75
21:AU:9:GLU:CD	21:AU:10:PRO:HD3	2.06	0.75
37:CM:36:VAL:HG23	37:CM:129:THR:HG22	1.68	0.75
25:CA:547:A:N7	25:CA:548:G:H1'	2.01	0.75
56:DB:62:C:H2'	56:DB:63:C:H6	1.50	0.75
25:DA:1122:G:H2'	25:DA:1122:G:N3	2.02	0.75
21:AU:40:PRO:HA	21:AU:44:ARG:NH1	2.01	0.75
12:BL:106:VAL:HG21	12:BL:116:TYR:HB3	1.69	0.75
14:BN:64:CYS:HB2	14:BN:80:SER:OG	1.87	0.75
1:AA:131:A:H2'	1:AA:132:C:C6	2.20	0.75
25:CA:1053:C:N3	25:CA:1054:A:C8	2.54	0.75
2:BB:51:GLU:HG2	2:BB:197:PHE:CE1	2.21	0.75
8:AH:1:SER:C	8:AH:3:GLN:N	2.39	0.75
25:CA:1585:C:H2'	25:CA:1586:A:O5'	1.87	0.75
25:CA:1585:C:O2'	25:CA:1586:A:H5'	1.85	0.75
25:CA:2800:A:H3'	25:CA:2801:G:H5'	1.69	0.75
30:CF:42:ALA:HB1	30:CF:45:ASP:O	1.86	0.75
25:DA:419:U:H2'	25:DA:420:C:C6	2.22	0.75
40:CP:102:ARG:CG	40:CP:102:ARG:HH11	1.98	0.75
25:DA:346:A:C5	25:DA:347:A:C8	2.74	0.75
27:DC:158:GLY:HA2	27:DC:194:VAL:O	1.86	0.75
31:DG:3:VAL:HG12	31:DG:68:ARG:HG2	1.68	0.75
2:BB:52:ALA:O	2:BB:56:LEU:HB2	1.85	0.75
27:CC:72:GLY:HA2	27:CC:116:GLN:NE2	2.01	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1539:C:OP1	21:AU:17:ARG:CZ	2.35	0.75
25:DA:2585:U:O2'	25:DA:2586:U:C5'	2.35	0.75
25:CA:1071:G:H1'	25:CA:1089:A:C8	2.21	0.75
2:BB:80:LYS:HG2	2:BB:84:LEU:HD23	1.67	0.75
44:DT:30:ILE:HD11	44:DT:32:LEU:CD2	2.17	0.75
1:AA:428:G:O4'	1:AA:430:A:C8	2.40	0.75
1:AA:170:U:O2'	1:AA:171:A:H5'	1.86	0.75
25:DA:1866:A:C2	25:DA:1876:A:C8	2.75	0.75
38:CN:2:ARG:O	38:CN:2:ARG:HD3	1.87	0.75
25:CA:1455:G:OP2	60:CA:3418:HOH:O	2.04	0.75
3:AC:96:VAL:HB	3:AC:97:PRO:CD	2.16	0.75
44:CT:2:ILE:N	44:CT:3:ARG:HB2	2.00	0.75
25:DA:120:U:OP2	25:DA:120:U:H3'	1.86	0.75
1:BA:1314:C:H2'	1:BA:1315:U:C6	2.22	0.75
25:CA:2553:G:C5'	25:CA:2554:U:OP2	2.33	0.75
11:AK:41:LEU:HB3	11:AK:76:TYR:CE2	2.21	0.75
24:AY:155:ARG:NH1	25:CA:2602:A:C2	2.55	0.75
5:AE:81:GLN:N	5:AE:146:MET:CE	2.50	0.75
3:AC:41:TYR:CE2	3:AC:45:GLU:HG3	2.22	0.75
25:DA:1105:U:O2	25:DA:1106:G:C8	2.40	0.75
25:DA:1372:U:O2'	25:DA:1373:A:H5'	1.86	0.75
15:AO:72:LYS:HA	15:AO:72:LYS:HE2	1.66	0.75
42:CR:24:LYS:HA	42:CR:94:THR:HG23	1.68	0.75
19:AS:14:LEU:HD13	19:AS:32:THR:HG21	1.68	0.75
56:DB:116:G:H4'	39:DO:54:VAL:O	1.86	0.75
13:BM:84:CYS:HA	19:BS:72:GLU:O	1.87	0.74
5:AE:44:ARG:HG2	5:AE:72:ASN:HB3	1.69	0.74
1:AA:462:G:H3'	1:AA:463:U:H6	1.51	0.74
1:BA:1182:G:H4'	1:BA:1183:U:C5'	2.16	0.74
25:CA:1530:G:O6	25:CA:1541:C:N3	2.20	0.74
38:CN:24:MET:HG2	38:CN:44:LEU:HD22	1.69	0.74
25:DA:1141:U:H4'	25:DA:1142:A:O4'	1.86	0.74
25:CA:2075:U:H2'	25:CA:2077:A:OP2	1.87	0.74
2:AB:60:ALA:HA	2:AB:64:GLY:CA	2.17	0.74
25:DA:2114:A:H5'	25:DA:2115:G:OP2	1.87	0.74
11:BK:70:ALA:O	11:BK:73:VAL:HG22	1.86	0.74
25:DA:1786:A:H1'	25:DA:1938:A:N6	2.03	0.74
25:DA:1242:U:H2'	25:DA:1243:C:C6	2.22	0.74
14:BN:15:LEU:HB3	14:BN:55:SER:HA	1.69	0.74
1:BA:1326:U:H2'	1:BA:1327:C:C6	2.23	0.74
1:BA:203:G:N2	1:BA:215:C:C2	2.55	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BB:67:LEU:HB3	2:BB:160:LEU:CD1	2.16	0.74
25:DA:96:C:H4'	49:DY:41:HIS:CE1	2.22	0.74
1:BA:1386:G:C2	1:BA:1387:G:C8	2.75	0.74
1:AA:109:A:H2'	1:AA:326:G:N2	2.01	0.74
10:AJ:10:LEU:HD23	10:AJ:96:VAL:HG11	1.68	0.74
1:BA:100:G:N7	1:BA:101:A:N7	2.36	0.74
10:AJ:57:VAL:O	10:AJ:58:ASN:HB2	1.86	0.74
25:DA:1178:C:H2'	25:DA:1179:G:C8	2.22	0.74
4:AD:190:LEU:O	4:AD:191:SER:CB	2.34	0.74
34:CJ:30:THR:HG22	34:CJ:31:GLU:N	2.00	0.74
1:AA:447:G:N2	1:AA:486:U:C5	2.55	0.74
32:CH:112:LYS:HA	32:CH:115:VAL:HG23	1.69	0.74
25:DA:60:G:C8	25:DA:62:U:C6	2.74	0.74
1:BA:686:U:C2	1:BA:687:A:N7	2.56	0.74
44:CT:88:LYS:O	44:CT:89:GLU:HG2	1.88	0.74
1:AA:1161:C:H2'	1:AA:1162:C:C6	2.23	0.74
3:BC:71:ARG:HB3	3:BC:74:ILE:CG2	2.17	0.74
17:AQ:59:GLU:HB3	17:AQ:75:VAL:HG23	1.68	0.74
1:BA:684:U:C2'	1:BA:685:G:H5'	2.17	0.74
4:BD:36:ALA:H	4:BD:37:PRO:HD3	1.52	0.74
25:DA:1385:A:H1'	25:DA:1386:C:C6	2.23	0.74
37:CM:51:ARG:O	37:CM:55:ARG:HB2	1.85	0.74
21:AU:19:LYS:NZ	21:AU:19:LYS:HA	2.01	0.74
56:DB:116:G:H5'	39:DO:55:GLU:HG3	1.70	0.74
25:DA:632:A:H2'	25:DA:633:A:C8	2.22	0.74
6:AF:18:VAL:HB	6:AF:19:PRO:CD	2.18	0.74
1:BA:1345:U:C4	1:BA:1377:A:C2	2.75	0.74
25:DA:2323:G:H2'	25:DA:2324:U:O4'	1.86	0.74
35:DK:118:LEU:O	35:DK:119:ALA:HB3	1.88	0.74
40:DP:32:VAL:HG12	40:DP:32:VAL:O	1.87	0.74
1:BA:66:A:H4'	1:BA:173:U:C5	2.22	0.74
25:CA:1929:G:N3	25:CA:1929:G:C5'	2.51	0.74
1:AA:711:G:O2'	1:AA:712:A:H5'	1.86	0.74
15:BO:3:SER:HB2	15:BO:6:ALA:HB3	1.70	0.74
1:AA:1138:G:H5"	1:AA:1138:G:N3	2.03	0.74
1:BA:783:C:C2'	1:BA:784:A:H5'	2.18	0.74
22:AV:65:G:N2	22:AV:66:U:C2	2.56	0.74
8:AH:1:SER:O	8:AH:3:GLN:N	2.21	0.74
25:CA:1494:A:H2'	25:CA:1495:A:O5'	1.86	0.74
18:AR:42:ARG:HG2	18:AR:43:ILE:HD13	1.70	0.74
1:AA:1108:G:N3	1:AA:1108:G:H2'	2.02	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:BU:25:ALA:HB3	23:BX:8:A:C5'	2.17	0.74
1:BA:859:G:H2'	1:BA:860:A:C8	2.22	0.74
25:DA:309:A:H5'	45:DU:16:LYS:HG2	1.69	0.74
29:CE:18:THR:HG22	29:CE:19:PHE:CD2	2.23	0.74
27:CC:110:LYS:HE2	27:CC:113:ASP:OD1	1.87	0.74
25:CA:1070:A:C2	25:CA:1097:U:H4'	2.22	0.74
25:CA:1179:G:OP2	25:CA:1180:U:H5"	1.88	0.74
9:BI:19:PHE:HB2	9:BI:63:TYR:HB3	1.68	0.74
25:CA:139:U:C4	44:CT:2:ILE:HD13	2.22	0.74
14:BN:15:LEU:HD22	14:BN:55:SER:HB3	1.70	0.74
56:DB:77:U:H2'	56:DB:78:A:H5'	1.68	0.74
25:DA:931:U:H4'	25:DA:932:U:OP2	1.88	0.74
3:BC:54:ILE:CD1	3:BC:56:ILE:HD13	2.18	0.74
9:AI:10:ARG:HB2	9:AI:14:SER:O	1.88	0.74
28:CD:151:THR:HG22	28:CD:152:PRO:HD2	1.70	0.74
26:CB:33:G:O2'	26:CB:34:A:H5'	1.88	0.74
23:BX:13:A:O2'	23:BX:14:A:OP2	2.06	0.74
25:CA:78:U:OP2	49:CY:2:LYS:HD3	1.87	0.74
1:AA:1502:A:N7	1:AA:1504:G:C2	2.56	0.74
1:AA:536:C:OP1	60:AA:1887:HOH:O	2.06	0.74
1:BA:929:G:H2'	1:BA:930:C:O5'	1.88	0.74
33:DI:68:PHE:N	33:DI:68:PHE:CD1	2.55	0.74
49:DY:9:LYS:O	49:DY:12:GLU:HB2	1.88	0.74
33:CI:20:SER:HA	33:CI:24:GLY:CA	2.18	0.74
42:CR:49:ILE:HB	42:CR:52:PRO:CA	2.17	0.74
30:DF:35:LEU:HD12	30:DF:153:ILE:HD12	1.69	0.74
1:AA:496:A:C2	1:AA:497:G:C5	2.76	0.74
5:AE:81:GLN:H	5:AE:146:MET:CE	2.01	0.74
1:BA:1298:U:O2	1:BA:1298:U:H2'	1.88	0.74
4:AD:16:THR:CG2	4:AD:17:ASP:N	2.50	0.74
1:AA:946:A:C2	1:AA:1236:A:C2	2.76	0.74
25:DA:1385:A:N3	25:DA:1386:C:C5	2.55	0.74
25:DA:929:U:H4'	50:DZ:37:ARG:NH2	2.03	0.74
19:AS:50:VAL:HG22	19:AS:70:LEU:CD1	2.18	0.74
25:DA:14:A:OP2	60:DA:3555:HOH:O	2.04	0.74
1:BA:673:A:H2'	1:BA:674:G:C8	2.23	0.74
25:DA:2755:C:O2'	25:DA:2756:U:H2'	1.88	0.74
4:BD:135:GLN:OE1	4:BD:135:GLN:HA	1.88	0.74
34:CJ:17:VAL:HG12	34:CJ:17:VAL:O	1.86	0.74
31:CG:23:ILE:O	31:CG:33:THR:HA	1.87	0.74
32:DH:66:ASN:O	32:DH:69:ALA:HB3	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BT:35:TYR:CD2	20:BT:36:ALA:N	2.56	0.73
10:AJ:65:TYR:HB3	14:AN:96:LEU:HD11	1.69	0.73
30:DF:41:GLU:HB2	30:DF:48:LEU:HD23	1.70	0.73
27:DC:14:HIS:O	27:DC:203:VAL:HG21	1.87	0.73
25:DA:65:U:H2'	25:DA:66:C:H6	1.53	0.73
28:DD:129:THR:HG22	28:DD:130:GLN:O	1.87	0.73
25:DA:1269:A:OP2	60:DA:3386:HOH:O	2.06	0.73
32:CH:76:GLU:HG2	32:CH:76:GLU:O	1.86	0.73
25:DA:1063:G:H2'	25:DA:1064:C:O4'	1.87	0.73
33:CI:18:ASN:HB2	33:CI:37:PHE:HB3	1.70	0.73
11:AK:75:GLU:N	11:AK:75:GLU:CD	2.41	0.73
25:DA:2131:U:H5'	25:DA:2132:U:H5"	1.70	0.73
9:AI:95:SER:HA	9:AI:98:ARG:HB2	1.69	0.73
28:DD:90:PHE:CE2	28:DD:96:ILE:HD11	2.23	0.73
25:CA:1082:U:OP1	33:CI:123:ALA:HB1	1.87	0.73
27:CC:268:ARG:HH11	27:CC:268:ARG:HG2	1.53	0.73
39:DO:26:LEU:HD13	39:DO:39:VAL:CG2	2.18	0.73
25:CA:2127:G:N1	25:CA:2161:C:C2	2.56	0.73
25:DA:1021:A:H5"	25:DA:1022:G:OP2	1.88	0.73
25:DA:512:G:N7	60:DA:3778:HOH:O	2.21	0.73
25:DA:2652:C:C2'	25:DA:2653:U:H5'	2.17	0.73
36:CL:27:LEU:HD23	36:CL:27:LEU:H	1.51	0.73
25:CA:662:G:C2'	25:CA:663:G:H5'	2.18	0.73
25:DA:1195:G:O2'	25:DA:1196:C:H5'	1.88	0.73
1:BA:716:A:N3	11:BK:118:ASN:O	2.20	0.73
25:CA:2055:C:N3	60:CA:3533:HOH:O	2.20	0.73
1:BA:844:G:OP2	1:BA:844:G:C8	2.41	0.73
31:DG:154:GLU:HG2	31:DG:155:PRO:HD2	1.70	0.73
25:CA:416:U:C6	25:CA:417:C:C5	2.76	0.73
25:CA:1073:A:OP1	25:CA:1073:A:C8	2.40	0.73
43:DS:84:ARG:HB2	43:DS:96:ILE:HG12	1.69	0.73
21:AU:13:VAL:HG13	21:AU:15:LEU:HD21	1.69	0.73
45:DU:27:VAL:HA	45:DU:33:VAL:HG12	1.70	0.73
25:DA:51:G:H4'	25:DA:52:A:H5'	1.70	0.73
14:AN:31:SER:O	14:AN:32:ASP:HB2	1.88	0.73
25:DA:2747:G:O2'	31:DG:66:THR:HG22	1.89	0.73
25:DA:616:A:H2'	25:DA:617:G:O5'	1.89	0.73
25:DA:2852:G:H2'	25:DA:2853:C:O4'	1.87	0.73
25:DA:2346:A:H3'	25:DA:2347:C:C5'	2.18	0.73
21:AU:25:ALA:CB	23:AX:9:G:H5"	2.17	0.73
1:AA:1502:A:C8	1:AA:1504:G:C4	2.76	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:674:G:H4'	18:BR:69:TYR:CD1	2.23	0.73
25:DA:692:C:C2'	25:DA:693:A:O5'	2.36	0.73
28:DD:121:THR:HB	28:DD:127:PHE:CD1	2.24	0.73
25:CA:1062:G:OP1	25:CA:1070:A:H4'	1.89	0.73
42:CR:25:LEU:H	42:CR:94:THR:CG2	2.01	0.73
25:DA:1025:G:H4'	25:DA:1026:G:OP2	1.89	0.73
25:DA:1385:A:N3	25:DA:1386:C:C6	2.57	0.73
25:CA:2469:A:H4'	37:CM:55:ARG:HH12	1.51	0.73
25:DA:2760:C:O2'	25:DA:2761:A:H5'	1.88	0.73
5:BE:44:ARG:HA	5:BE:71:ILE:O	1.88	0.73
25:CA:2275:C:O2	37:CM:84:LYS:HD3	1.88	0.73
29:CE:118:LEU:HD12	29:CE:119:ILE:N	2.03	0.73
28:CD:1:MET:SD	28:CD:100:LEU:HD11	2.29	0.73
44:CT:58:VAL:HG22	44:CT:85:VAL:HG22	1.71	0.73
42:DR:24:LYS:HA	42:DR:94:THR:OG1	1.88	0.73
1:AA:1452:C:H4'	1:AA:1453:G:H5"	1.70	0.73
25:CA:2711:A:OP1	60:CA:3551:HOH:O	2.05	0.73
25:DA:691:C:O2'	25:DA:692:C:H5'	1.89	0.73
25:CA:1519:G:C5	25:CA:1520:U:C5	2.77	0.73
12:AL:20:VAL:HG23	12:AL:94:TYR:CE1	2.23	0.73
10:AJ:5:ARG:HG2	10:AJ:79:PRO:HB3	1.69	0.73
41:CQ:40:LYS:HA	41:CQ:43:GLN:HG3	1.70	0.73
25:CA:2297:A:N1	25:CA:2321:U:C5	2.57	0.73
24:AY:41:ILE:HD11	24:AY:83:ILE:HA	1.71	0.73
1:AA:1226:C:H4'	1:AA:1227:A:OP1	1.89	0.73
1:AA:913:A:H4'	1:AA:914:A:OP1	1.89	0.73
5:AE:152:VAL:HG11	8:AH:98:LEU:HD13	1.68	0.73
1:AA:1366:C:O2'	1:AA:1367:C:H5'	1.89	0.73
2:AB:20:ARG:O	2:AB:22:TRP:N	2.21	0.73
1:AA:114:U:H2'	1:AA:115:G:C8	2.23	0.73
2:AB:45:THR:HG23	2:AB:200:PRO:HB2	1.69	0.73
1:BA:330:C:O2	1:BA:330:C:H2'	1.87	0.73
30:DF:28:PRO:HB2	30:DF:168:LEU:HD22	1.68	0.73
25:DA:1187:G:OP1	42:DR:85:LYS:HE3	1.89	0.73
55:C4:18:LYS:HG3	55:C4:23:ILE:HD13	1.68	0.73
49:DY:18:LEU:HD21	49:DY:22:LEU:HD22	1.70	0.73
5:BE:14:LEU:HA	5:BE:36:THR:HG22	1.70	0.73
25:DA:2272:U:H5"	25:DA:2273:A:OP1	1.87	0.73
1:BA:61:G:H2'	1:BA:62:U:O4'	1.88	0.73
3:AC:180:ASP:OD2	3:AC:203:LYS:HB2	1.89	0.73
27:DC:62:ARG:HG2	27:DC:62:ARG:HH21	1.54	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.24	0.73
1:BA:1000:A:C2	1:BA:1041:G:C2	2.76	0.73
11:AK:51:PHE:HZ	11:AK:64:VAL:HG11	1.54	0.73
9:AI:46:VAL:HG21	9:AI:75:ALA:HB1	1.71	0.73
25:DA:1469:A:H2'	25:DA:1470:A:C8	2.23	0.73
50:DZ:4:ILE:HD11	50:DZ:56:VAL:HG21	1.71	0.73
25:CA:614:A:O2'	25:CA:615:U:OP2	2.07	0.73
27:CC:16:VAL:HB	27:CC:203:VAL:HG22	1.71	0.73
25:DA:2579:C:C2'	25:DA:2580:U:H5'	2.19	0.73
32:DH:7:ASP:HB2	32:DH:35:LYS:HE3	1.71	0.72
1:AA:142:G:H3'	1:AA:143:A:H8	1.53	0.72
1:AA:208:U:C5	1:AA:210:C:C4	2.77	0.72
27:CC:226:PRO:HD3	27:CC:233:GLY:HA3	1.69	0.72
1:BA:1122:U:N3	1:BA:1123:U:C5	2.57	0.72
33:CI:33:ASN:HB2	33:CI:36:GLU:HG3	1.68	0.72
11:BK:24:ALA:HA	11:BK:29:THR:HG22	1.71	0.72
25:CA:1092:C:H2'	25:CA:1093:G:O4'	1.89	0.72
25:DA:2407:A:N3	25:DA:2408:U:C6	2.56	0.72
56:DB:33:G:C2'	56:DB:34:A:O5'	2.36	0.72
25:DA:2172:U:H4'	25:DA:2173:A:H5'	1.71	0.72
4:AD:176:LYS:N	4:AD:176:LYS:HD3	2.04	0.72
4:AD:57:LYS:HB3	4:AD:199:ILE:HB	1.70	0.72
12:BL:115:LYS:O	12:BL:116:TYR:CD2	2.42	0.72
2:BB:131:LYS:O	2:BB:135:MET:HB2	1.88	0.72
52:C1:16:THR:HG22	52:C1:41:VAL:HG11	1.72	0.72
36:CL:111:ILE:N	36:CL:111:ILE:HD12	2.03	0.72
25:CA:2820:A:H4'	38:CN:3:HIS:CD2	2.25	0.72
1:AA:239:U:H5"	1:AA:240:G:OP2	1.88	0.72
25:DA:547:A:H3'	25:DA:548:G:H5'	1.70	0.72
1:AA:1043:G:H2'	1:AA:1044:A:H5"	1.69	0.72
1:BA:1048:G:H5"	14:BN:2:LYS:HG3	1.70	0.72
2:BB:209:VAL:O	2:BB:213:LEU:CB	2.36	0.72
1:BA:68:G:C5	1:BA:69:G:H1'	2.24	0.72
21:BU:10:PRO:O	21:BU:11:PHE:CG	2.43	0.72
1:BA:1048:G:H4'	14:BN:2:LYS:CE	2.19	0.72
25:DA:1881:C:H2'	25:DA:1882:U:O4'	1.89	0.72
1:BA:114:U:O2'	1:BA:115:G:H5'	1.89	0.72
25:CA:4:U:O2'	25:CA:5:A:H5'	1.90	0.72
1:AA:1053:G:C4'	1:AA:1054:C:H5'	2.20	0.72
7:BG:39:GLU:HB2	7:BG:43:TYR:CE2	2.24	0.72
25:CA:2230:G:H5"	48:CX:29:LEU:HD12	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DT:14:PRO:HD2	49:DY:33:ALA:HB1	1.71	0.72
11:AK:22:ILE:HG12	11:AK:85:VAL:HG22	1.72	0.72
2:AB:84:LEU:HG	2:AB:85:SER:N	2.01	0.72
1:BA:1151:A:C2	1:BA:1152:A:N7	2.56	0.72
25:DA:1329:U:O2'	25:DA:1330:C:H5'	1.90	0.72
27:DC:229:HIS:O	27:DC:231:HIS:O	2.06	0.72
12:BL:115:LYS:O	12:BL:116:TYR:CG	2.42	0.72
2:BB:67:LEU:O	2:BB:160:LEU:HD12	1.88	0.72
13:AM:71:GLU:O	13:AM:74:MET:HB3	1.90	0.72
25:CA:1073:A:H3'	25:CA:1074:G:H5"	1.69	0.72
25:CA:981:A:C5'	60:CA:3598:HOH:O	2.36	0.72
21:AU:25:ALA:HA	21:AU:28:LEU:HB3	1.71	0.72
1:BA:463:U:H2'	1:BA:463:U:O2	1.88	0.72
1:BA:109:A:H2'	1:BA:326:G:N2	2.04	0.72
48:DX:32:LEU:O	48:DX:33:HIS:CG	2.42	0.72
25:CA:271:G:H4'	25:CA:272:A:OP1	1.89	0.72
25:DA:480:A:H5"	45:DU:43:LYS:HD2	1.72	0.72
28:CD:98:VAL:O	28:CD:98:VAL:HG22	1.89	0.72
1:BA:980:C:OP2	60:BA:1862:HOH:O	2.06	0.72
25:CA:1104:C:C2	25:CA:1105:U:C5	2.78	0.72
2:AB:65:LYS:HB2	2:AB:158:ASP:OD2	1.88	0.72
1:AA:277:C:C2'	1:AA:278:G:O5'	2.38	0.72
31:CG:25:ILE:O	31:CG:78:VAL:HG11	1.89	0.72
39:DO:26:LEU:HD13	39:DO:39:VAL:HG22	1.71	0.72
25:DA:1195:G:C2'	25:DA:1196:C:H5'	2.19	0.72
1:AA:844:G:C5	1:AA:846:G:O2'	2.43	0.72
25:CA:479:A:N3	25:CA:481:G:H5"	2.04	0.72
6:BF:18:VAL:HB	6:BF:19:PRO:HD3	1.72	0.72
6:AF:53:LYS:O	6:AF:54:LEU:HB3	1.90	0.72
25:DA:2498:C:P	60:DA:3689:HOH:O	2.47	0.72
46:CV:6:ALA:HB1	46:CV:40:ILE:HG23	1.70	0.72
1:BA:1361:G:N1	1:BA:1362:A:N7	2.37	0.72
25:CA:1085:A:C6	25:CA:1086:A:N6	2.57	0.72
32:DH:69:ALA:HB2	32:DH:138:VAL:CG1	2.20	0.72
17:BQ:15:LYS:C	17:BQ:16:MET:SD	2.68	0.72
1:AA:63:C:H2'	1:AA:64:G:H5'	1.72	0.72
27:DC:106:PRO:HB3	27:DC:141:HIS:CE1	2.24	0.72
25:CA:528:A:H2	25:CA:2043:C:C5'	2.03	0.72
1:AA:279:A:H4'	1:AA:280:C:O5'	1.90	0.72
25:CA:1309:G:OP1	53:C2:9:VAL:HG23	1.89	0.72
25:CA:1925:C:H4'	25:CA:1926:U:C5	2.25	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:138:G:C2'	1:AA:139:A:H5'	2.18	0.72
1:BA:147:G:N2	1:BA:176:C:C2	2.58	0.72
25:CA:1179:G:H3'	25:CA:1180:U:H4'	1.69	0.72
36:DL:109:LYS:HG2	36:DL:126:ARG:HB3	1.72	0.72
12:AL:24:GLU:O	12:AL:25:ALA:C	2.28	0.72
56:DB:44:G:N2	56:DB:48:U:C2	2.58	0.72
6:BF:4:TYR:O	6:BF:63:ASN:HA	1.89	0.72
25:DA:118:A:C8	25:DA:119:A:C8	2.78	0.72
25:DA:1385:A:C4	25:DA:1386:C:C5	2.78	0.72
33:CI:6:ALA:HB2	33:CI:60:VAL:HB	1.71	0.72
48:CX:40:GLU:HG3	48:CX:41:SER:N	2.04	0.72
25:CA:2648:G:H2'	25:CA:2649:C:C6	2.24	0.72
1:AA:649:A:H2'	1:AA:650:G:O4'	1.90	0.72
1:BA:1288:A:N1	1:BA:1371:G:H1'	2.04	0.72
25:CA:2845:U:H5"	40:CP:51:ASN:O	1.89	0.72
2:AB:70:GLY:HA2	2:AB:163:ILE:HG22	1.72	0.72
30:CF:48:LEU:HD12	30:CF:51:ASN:ND2	2.05	0.72
35:DK:20:MET:CE	35:DK:22:ILE:HG22	2.20	0.72
12:AL:62:VAL:HG22	12:AL:63:THR:H	1.54	0.72
34:DJ:47:HIS:ND1	34:DJ:48:VAL:HG23	2.05	0.72
1:AA:1168:U:H2'	1:AA:1168:U:O2	1.88	0.72
13:BM:113:LYS:HB2	13:BM:114:PRO:HD3	1.70	0.72
3:BC:76:ILE:HA	3:BC:83:VAL:HG23	1.70	0.72
31:CG:172:GLU:HA	31:CG:172:GLU:OE1	1.88	0.72
1:BA:1361:G:C2	1:BA:1362:A:N7	2.58	0.72
11:AK:22:ILE:HG13	11:AK:85:VAL:HA	1.72	0.72
25:DA:161:A:C3'	25:DA:162:U:H5"	2.18	0.72
40:DP:57:ALA:HB1	40:DP:73:PHE:O	1.90	0.72
5:BE:150:GLU:HG3	5:BE:151:MET:SD	2.29	0.72
25:CA:2748:A:H1'	31:CG:66:THR:HG22	1.69	0.72
9:BI:28:VAL:O	9:BI:64:ILE:HG13	1.89	0.72
43:DS:20:VAL:HG21	43:DS:43:ALA:HB3	1.71	0.72
30:DF:7:TYR:HA	30:DF:11:VAL:HB	1.72	0.72
25:DA:1091:G:N3	25:DA:1092:C:C5	2.58	0.72
25:DA:1562:U:C2	25:DA:1563:U:C6	2.77	0.72
1:AA:613:C:O2'	1:AA:614:C:H5'	1.90	0.72
54:D3:14:LYS:HD3	54:D3:22:LYS:HE2	1.72	0.72
32:DH:31:VAL:CB	32:DH:32:PRO:HD2	2.20	0.72
25:DA:1454:C:C6	38:DN:63:ARG:HG2	2.25	0.72
20:AT:28:ARG:HA	20:AT:31:ILE:HD12	1.72	0.72
1:AA:513:C:H2'	1:AA:514:C:H6	1.54	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:BF:9:MET:HG3	6:BF:86:ARG:HB2	1.71	0.72
40:DP:20:ARG:HB3	40:DP:21:PRO:HD2	1.71	0.72
2:BB:181:PRO:HA	2:BB:196:ASP:OD1	1.90	0.72
3:AC:21:TRP:HB3	3:AC:58:ARG:HG2	1.72	0.72
1:BA:1491:G:H2'	1:BA:1492:A:C8	2.23	0.72
25:DA:346:A:C4	25:DA:347:A:C8	2.77	0.72
25:DA:616:A:H2'	25:DA:617:G:C5'	2.20	0.72
56:DB:45:A:C2	56:DB:46:A:C4	2.78	0.72
9:AI:62:LEU:N	9:AI:62:LEU:HD22	2.05	0.72
48:CX:65:THR:O	48:CX:68:ALA:HB3	1.89	0.72
7:BG:26:VAL:HG12	7:BG:42:VAL:HG21	1.71	0.72
13:AM:76:ILE:CG2	13:AM:80:MET:HE1	2.19	0.72
32:DH:93:SER:HG	32:DH:121:VAL:HG12	1.51	0.71
2:AB:56:LEU:HD22	2:AB:56:LEU:C	2.10	0.71
25:DA:2223:G:C2'	25:DA:2224:G:H5'	2.19	0.71
5:BE:148:SER:O	5:BE:152:VAL:N	2.23	0.71
11:AK:15:VAL:HG12	11:AK:76:TYR:HB3	1.71	0.71
20:AT:27:MET:HG2	20:AT:31:ILE:HD11	1.71	0.71
12:AL:24:GLU:O	12:AL:26:CYS:N	2.23	0.71
21:AU:13:VAL:O	21:AU:15:LEU:HG	1.89	0.71
1:AA:1031:C:O2'	1:AA:1032:G:OP2	2.08	0.71
25:CA:1063:G:C2	33:CI:135:MET:HA	2.25	0.71
29:DE:126:VAL:CG2	29:DE:133:LEU:HB3	2.20	0.71
1:AA:1303:C:H2'	1:AA:1304:G:O5'	1.90	0.71
25:DA:348:A:H2'	25:DA:349:U:O4'	1.90	0.71
2:AB:163:ILE:HG23	2:AB:164:ASP:H	1.55	0.71
3:BC:76:ILE:HA	3:BC:83:VAL:CG2	2.20	0.71
27:DC:251:THR:HG22	27:DC:252:LYS:N	2.04	0.71
25:DA:804:A:H5"	25:DA:805:G:OP1	1.89	0.71
1:AA:590:U:O2'	1:AA:591:U:H5'	1.90	0.71
1:AA:997:U:H2'	1:AA:998:C:H5'	1.72	0.71
1:AA:1216:A:C6	1:AA:1217:C:N4	2.58	0.71
1:AA:978:A:C5	1:AA:1319:A:C2	2.77	0.71
25:DA:2199:A:C4	25:DA:2225:A:C2	2.78	0.71
36:DL:81:ASP:O	36:DL:82:LEU:HB3	1.90	0.71
1:AA:622:A:C8	1:AA:623:C:C6	2.78	0.71
42:CR:25:LEU:H	42:CR:94:THR:HG21	1.55	0.71
25:DA:60:G:N3	25:DA:74:A:C2	2.58	0.71
8:AH:110:MET:HE2	8:AH:115:ALA:N	2.04	0.71
1:AA:684:U:H1'	11:AK:39:ASN:O	1.90	0.71
18:BR:41:SER:HB3	18:BR:51:GLN:HE21	1.51	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:BJ:48:ARG:HH11	10:BJ:48:ARG:CG	2.02	0.71
32:DH:86:ASP:O	32:DH:87:GLU:HB2	1.89	0.71
32:DH:50:ARG:HA	32:DH:50:ARG:CZ	2.20	0.71
12:BL:64:SER:HB2	12:BL:81:ILE:HD11	1.71	0.71
13:BM:28:ARG:CZ	13:BM:62:PHE:HB2	2.21	0.71
25:CA:998:C:P	60:CA:3361:HOH:O	2.48	0.71
1:AA:1216:A:C4	1:AA:1217:C:C5	2.78	0.71
42:CR:49:ILE:CG2	42:CR:53:PHE:N	2.53	0.71
20:BT:66:ILE:HD11	20:BT:70:LYS:HD3	1.72	0.71
4:AD:58:GLN:O	4:AD:62:ARG:HG2	1.90	0.71
1:BA:1534:A:C5'	1:BA:1535:C:OP1	2.38	0.71
26:CB:33:G:C2'	26:CB:34:A:H5'	2.19	0.71
1:BA:171:A:O2'	1:BA:172:A:H5'	1.90	0.71
2:BB:20:ARG:O	2:BB:22:TRP:N	2.22	0.71
49:DY:56:LEU:O	49:DY:57:LEU:CB	2.38	0.71
51:D0:24:VAL:O	51:D0:25:THR:OG1	2.08	0.71
25:DA:443:A:C8	29:DE:40:ARG:HD3	2.24	0.71
1:BA:243:A:C2	1:BA:246:A:C8	2.78	0.71
25:DA:2701:U:H5"	25:DA:2702:G:H5"	1.71	0.71
1:BA:978:A:OP2	1:BA:1362:A:N6	2.22	0.71
19:BS:10:ILE:HG13	19:BS:11:ASP:N	2.04	0.71
42:DR:49:ILE:CG1	42:DR:49:ILE:O	2.37	0.71
56:DB:89:U:H4'	56:DB:89:U:OP2	1.88	0.71
33:CI:105:LEU:HA	33:CI:108:ILE:HB	1.70	0.71
33:CI:96:LYS:HB3	33:CI:138:VAL:CG2	2.20	0.71
35:CK:118:LEU:O	35:CK:119:ALA:CB	2.38	0.71
2:AB:22:TRP:CH2	2:AB:24:PRO:HA	2.25	0.71
31:DG:8:VAL:HG23	31:DG:68:ARG:HD2	1.71	0.71
25:CA:893:C:H2'	25:CA:894:U:O4'	1.89	0.71
1:BA:1452:C:H4'	1:BA:1453:G:O5'	1.90	0.71
25:CA:58:G:OP1	44:CT:78:SER:HB3	1.90	0.71
1:BA:1032:G:H1'	25:CA:2138:G:OP1	1.90	0.71
1:AA:889:A:H4'	1:AA:890:G:OP1	1.91	0.71
25:DA:729:G:H4'	25:DA:763:G:H5'	1.72	0.71
45:DU:98:ASN:O	45:DU:100:GLU:N	2.23	0.71
47:CW:37:ARG:HH11	47:CW:37:ARG:HG3	1.56	0.71
1:BA:1269:A:N7	1:BA:1270:G:H1'	2.06	0.71
13:BM:28:ARG:NH1	13:BM:62:PHE:HB2	2.05	0.71
25:DA:2286:G:OP1	52:D1:29:LYS:HE3	1.90	0.71
11:AK:41:LEU:HD22	11:AK:76:TYR:CE2	2.26	0.71
12:BL:20:VAL:N	12:BL:21:PRO:CD	2.53	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:950:U:H3'	13:AM:100:ARG:HH22	1.55	0.71
1:AA:245:U:H3	1:AA:283:U:H3	1.37	0.71
12:BL:28:GLN:HB2	12:BL:81:ILE:O	1.90	0.71
25:CA:1846:G:N2	25:CA:1895:C:C2	2.58	0.71
1:AA:380:G:N2	1:AA:384:G:C6	2.59	0.71
25:CA:45:G:H4'	25:CA:46:G:H5'	1.72	0.71
37:DM:27:SER:O	37:DM:28:PHE:CG	2.43	0.71
19:BS:62:THR:HB	19:BS:65:MET:HG3	1.72	0.71
43:CS:59:GLU:HA	43:CS:64:ALA:HA	1.70	0.71
25:CA:2886:A:C5	25:CA:2887:A:C8	2.78	0.71
1:BA:1138:G:C2	1:BA:1140:C:C5	2.79	0.71
25:DA:88:G:O2'	25:DA:89:A:H5'	1.90	0.71
25:DA:1670:C:C5	25:DA:1671:U:C4	2.79	0.71
13:AM:14:ALA:O	13:AM:18:LEU:HD23	1.90	0.71
39:DO:34:HIS:HA	39:DO:53:THR:OG1	1.90	0.71
1:BA:1535:C:O2'	1:BA:1536:C:OP2	2.08	0.71
27:DC:73:ILE:N	27:DC:73:ILE:HD12	2.05	0.71
25:CA:1908:C:H5"	25:CA:1909:C:OP2	1.90	0.71
27:CC:34:GLU:O	27:CC:35:LYS:O	2.08	0.71
31:CG:24:THR:O	31:CG:25:ILE:HD13	1.90	0.71
25:CA:997:G:OP1	41:CQ:91:ARG:HG2	1.91	0.71
4:AD:167:PRO:HG2	4:AD:170:LEU:HD11	1.71	0.71
25:DA:535:G:O2'	25:DA:536:G:H5'	1.90	0.71
45:CU:15:GLY:O	45:CU:17:ASP:N	2.23	0.71
25:CA:1161:C:H1'	42:CR:8:GLY:O	1.91	0.71
24:AY:9:ASP:HB3	24:AY:13:ARG:NH2	2.05	0.71
25:DA:826:U:O2'	36:DL:53:GLY:HA3	1.90	0.71
25:CA:2506:U:H2'	25:CA:2507:C:H5'	1.72	0.71
17:AQ:44:HIS:HB2	17:AQ:69:THR:O	1.91	0.71
25:CA:2128:G:H2'	25:CA:2129:C:O4'	1.91	0.71
25:DA:1096:A:H2'	25:DA:1097:U:C4'	2.20	0.71
11:BK:126:ARG:N	21:BU:33:ARG:NH2	2.38	0.71
25:DA:2749:A:H5"	31:DG:1:SER:HB2	1.73	0.71
38:DN:103:ARG:HB2	38:DN:110:MET:CE	2.20	0.71
45:DU:85:ARG:HG2	45:DU:94:PHE:CD2	2.25	0.71
1:BA:827:U:C4	1:BA:870:U:C2	2.79	0.71
50:DZ:40:THR:HG23	50:DZ:43:ILE:HG12	1.72	0.71
25:DA:2884:U:O2	25:DA:2884:U:O4'	1.99	0.71
25:CA:675:A:OP1	29:CE:58:LYS:HE2	1.90	0.71
25:CA:321:U:OP2	29:CE:130:LYS:HD3	1.90	0.71
25:CA:2172:U:H4'	25:CA:2173:A:H5'	1.70	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DR:49:ILE:CG1	42:DR:52:PRO:HA	2.21	0.71
1:AA:1330:U:C2'	1:AA:1331:G:H5'	2.20	0.71
1:AA:950:U:C5	13:AM:100:ARG:NH1	2.58	0.71
45:DU:40:LEU:N	45:DU:40:LEU:HD23	2.06	0.71
28:CD:4:LEU:HD21	28:CD:100:LEU:HD23	1.73	0.71
25:DA:977:G:N7	60:DA:3592:HOH:O	2.22	0.71
49:CY:46:VAL:O	49:CY:50:VAL:HG23	1.90	0.71
1:AA:1118:U:H5'	9:AI:105:ARG:HG3	1.72	0.71
1:AA:1476:A:H2'	1:AA:1477:U:O4'	1.91	0.71
39:CO:4:LYS:HG3	39:CO:5:SER:N	2.03	0.71
1:AA:414:A:H2'	1:AA:415:A:C8	2.26	0.71
1:BA:978:A:H4'	1:BA:1322:C:C5	2.26	0.71
25:CA:1086:A:O2'	25:CA:1087:G:N7	2.24	0.71
46:CV:2:PHE:CD1	46:CV:50:MET:HE3	2.25	0.71
1:AA:409:U:OP1	4:AD:23:GLY:HA3	1.91	0.71
25:DA:317:G:C5	25:DA:318:C:C5	2.79	0.71
1:AA:205:A:H2'	1:AA:205:A:N3	2.05	0.71
25:DA:346:A:C5	25:DA:347:A:N7	2.59	0.71
1:AA:1053:G:H4'	1:AA:1054:C:H5'	1.72	0.71
1:AA:659:U:O2	1:AA:660:C:C6	2.44	0.71
24:AY:145:LYS:H	24:AY:145:LYS:CE	2.04	0.71
25:CA:31:C:O2'	25:CA:1238:G:H5'	1.91	0.71
25:CA:2582:G:OP2	60:CA:3715:HOH:O	2.09	0.71
33:DI:44:LYS:HA	33:DI:47:SER:HB3	1.73	0.71
9:BI:89:TYR:C	9:BI:93:LEU:HD11	2.09	0.71
25:DA:1096:A:H2'	25:DA:1097:U:C5'	2.21	0.71
25:CA:416:U:C5	25:CA:417:C:C4	2.79	0.71
2:AB:110:ILE:HD11	2:AB:147:LEU:HD22	1.71	0.71
42:DR:49:ILE:HB	42:DR:53:PHE:N	2.06	0.71
20:BT:61:ALA:HA	20:BT:67:HIS:H	1.56	0.71
32:DH:53:GLU:O	32:DH:57:LYS:CB	2.39	0.71
25:CA:2305:U:O2'	30:CF:132:ARG:NE	2.24	0.71
25:DA:2467:C:N4	25:DA:2468:A:C6	2.59	0.71
25:CA:1372:U:H2'	25:CA:1373:A:O5'	1.91	0.71
25:DA:2011:U:OP1	43:DS:42:LYS:HE2	1.90	0.71
1:BA:757:U:O2'	1:BA:879:C:H1'	1.90	0.71
25:CA:842:U:O4	60:CA:3590:HOH:O	2.08	0.71
27:CC:104:LEU:N	27:CC:104:LEU:CD1	2.53	0.71
32:DH:76:GLU:HG2	32:DH:143:ILE:HD13	1.73	0.71
38:DN:24:MET:HE3	38:DN:44:LEU:HD13	1.72	0.70
56:DB:43:C:H1'	30:DF:89:THR:CG2	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2793:C:H2'	25:DA:2794:C:H6	1.53	0.70
1:AA:8:A:C5	4:AD:205:LYS:HB3	2.25	0.70
5:AE:33:THR:HG22	5:AE:51:LYS:HB3	1.73	0.70
37:DM:46:ILE:O	37:DM:103:TYR:OH	2.08	0.70
4:AD:61:ARG:CG	4:AD:71:PHE:CD2	2.74	0.70
21:BU:10:PRO:C	21:BU:11:PHE:CG	2.60	0.70
25:CA:544:C:H2'	25:CA:545:U:O4'	1.91	0.70
1:AA:1043:G:C2'	1:AA:1044:A:H5"	2.21	0.70
2:BB:22:TRP:O	2:BB:22:TRP:CG	2.43	0.70
25:CA:1171:G:C2	25:CA:1172:C:C2	2.78	0.70
25:DA:1378:A:N3	25:DA:1380:G:C8	2.59	0.70
25:CA:2309:A:C6	25:CA:2310:C:N4	2.59	0.70
25:DA:2072:C:H5"	25:DA:2072:C:H6	1.54	0.70
1:AA:542:G:C2	1:AA:543:U:C5	2.79	0.70
25:DA:1084:A:N6	25:DA:1085:A:N6	2.39	0.70
25:DA:1096:A:N1	25:DA:1097:U:C5	2.59	0.70
17:AQ:11:VAL:HG12	17:AQ:12:VAL:N	2.06	0.70
25:DA:2209:G:N2	25:DA:2216:G:C2	2.58	0.70
50:DZ:9:THR:HG22	50:DZ:53:MET:HA	1.71	0.70
36:DL:82:LEU:O	36:DL:85:VAL:HG22	1.90	0.70
25:DA:2110:G:C6	25:DA:2120:G:C8	2.79	0.70
25:DA:528:A:C2	25:DA:2043:C:H4'	2.26	0.70
39:DO:31:THR:HG23	39:DO:32:PRO:HD2	1.72	0.70
25:CA:2210:U:H4'	25:CA:2211:A:H5'	1.72	0.70
4:AD:122:ILE:N	4:AD:122:ILE:HD13	2.06	0.70
22:AV:55:U:O2'	22:AV:57:G:N7	2.21	0.70
1:AA:464:U:N3	1:AA:466:A:H5"	2.05	0.70
1:BA:245:U:H3	1:BA:283:U:H3	1.36	0.70
1:BA:246:A:H4'	1:BA:247:G:OP1	1.91	0.70
14:AN:19:TYR:O	14:AN:20:PHE:O	2.09	0.70
1:AA:872:A:C8	1:AA:874:G:C8	2.79	0.70
5:BE:113:VAL:HG22	5:BE:114:LEU:N	2.06	0.70
1:AA:147:G:H2'	1:AA:148:G:C8	2.26	0.70
25:DA:227:A:C2	25:DA:2407:A:H1'	2.26	0.70
25:DA:2165:C:H2'	25:DA:2165:C:O2	1.90	0.70
33:CI:132:ALA:O	33:CI:133:ARG:HB2	1.90	0.70
21:AU:39:LYS:N	21:AU:40:PRO:CD	2.55	0.70
45:DU:11:ILE:CG2	45:DU:79:ALA:HB2	2.20	0.70
7:BG:11:ILE:HD12	7:BG:23:ALA:HB1	1.73	0.70
1:AA:1179:A:H2'	1:AA:1180:A:O4'	1.91	0.70
25:CA:1171:G:C5	25:CA:1172:C:C4	2.80	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:39:PHE:CD2	16:AP:74:LEU:HD11	2.27	0.70
42:CR:26:ASP:O	42:CR:27:ILE:HD13	1.91	0.70
25:DA:2278:A:OP1	37:DM:10:ARG:HD3	1.92	0.70
1:AA:763:G:H2'	1:AA:764:C:H6	1.56	0.70
4:BD:56:GLU:OE2	4:BD:195:ASN:HB2	1.91	0.70
25:DA:1205:A:N1	29:DE:165:HIS:HB2	2.05	0.70
44:CT:71:GLY:O	44:CT:73:ARG:N	2.25	0.70
19:AS:28:LYS:HB2	19:AS:29:PRO:HD2	1.73	0.70
1:BA:158:G:H2'	1:BA:159:G:H5"	1.72	0.70
1:BA:1377:A:N3	7:BG:1:PRO:HG3	2.05	0.70
1:BA:1234:C:H1'	1:BA:1364:U:C6	2.27	0.70
25:CA:1097:U:H1'	33:CI:8:VAL:HG12	1.71	0.70
1:BA:1261:A:C2	1:BA:1262:C:C4	2.79	0.70
38:DN:112:TYR:CD1	51:D0:54:ILE:HD11	2.27	0.70
51:D0:55:ALA:O	51:D0:56:LYS:HB2	1.92	0.70
25:CA:2075:U:O4	60:CA:3506:HOH:O	2.08	0.70
25:DA:58:G:H2'	25:DA:59:U:H5'	1.73	0.70
19:AS:39:ILE:HG12	19:AS:70:LEU:HD23	1.72	0.70
25:DA:2091:C:H3'	25:DA:2092:U:H5"	1.73	0.70
1:AA:499:A:H4'	1:AA:500:G:OP1	1.91	0.70
35:DK:103:VAL:O	35:DK:122:VAL:HB	1.90	0.70
7:AG:94:ARG:NH2	7:AG:98:LEU:HD21	2.06	0.70
12:BL:2:THR:HB	12:BL:5:GLN:HG2	1.74	0.70
29:DE:155:GLU:HG3	29:DE:159:LEU:CD1	2.21	0.70
27:CC:129:LEU:N	27:CC:129:LEU:HD23	2.07	0.70
25:DA:1154:G:OP2	41:DQ:57:ARG:NH1	2.25	0.70
33:CI:17:ALA:O	33:CI:18:ASN:CB	2.38	0.70
42:DR:39:LEU:O	42:DR:49:ILE:HG23	1.90	0.70
4:AD:168:THR:HB	4:AD:183:ARG:HH22	1.55	0.70
32:DH:62:LEU:HD13	32:DH:63:ALA:H	1.55	0.70
1:AA:1446:A:O2'	1:AA:1447:A:H5'	1.90	0.70
3:AC:96:VAL:HB	3:AC:97:PRO:HD2	1.72	0.70
25:DA:55:G:O2'	25:DA:56:A:H5'	1.92	0.70
15:BO:7:THR:O	15:BO:11:VAL:HG23	1.92	0.70
25:DA:693:A:C2'	25:DA:694:U:O5'	2.40	0.70
12:AL:20:VAL:HG22	12:AL:20:VAL:O	1.92	0.70
25:CA:674:G:H1'	29:CE:69:ARG:HD3	1.72	0.70
11:BK:20:ALA:HA	11:BK:33:ILE:HD13	1.73	0.70
7:BG:79:VAL:HG12	7:BG:80:GLY:N	2.06	0.70
25:CA:2406:A:H2'	25:CA:2406:A:OP2	1.92	0.70
25:DA:1383:A:C2	25:DA:1384:A:C2	2.80	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:BE:149:PRO:O	5:BE:152:VAL:HG22	1.91	0.70
1:AA:439:U:C5	1:AA:440:C:C5	2.78	0.70
25:CA:1897:G:C2	25:CA:1898:U:O2	2.44	0.70
25:CA:2152:G:C2'	25:CA:2153:C:H5'	2.20	0.70
36:DL:28:GLY:O	36:DL:29:LYS:O	2.09	0.70
2:BB:58:LYS:O	2:BB:62:ARG:N	2.24	0.70
29:CE:111:GLU:OE1	29:CE:111:GLU:HA	1.89	0.70
16:AP:39:PHE:CD1	16:AP:39:PHE:C	2.64	0.70
32:CH:53:GLU:O	32:CH:57:LYS:HB3	1.90	0.70
25:DA:186:G:O2'	25:DA:187:G:H5'	1.90	0.70
25:CA:242:G:O5'	54:C3:2:LYS:HE2	1.90	0.70
1:AA:673:A:H2'	1:AA:674:G:C8	2.27	0.70
21:AU:19:LYS:CA	21:AU:19:LYS:CE	2.69	0.70
1:BA:1061:G:H5"	10:BJ:61:ALA:HB2	1.72	0.70
10:AJ:9:ARG:HB2	10:AJ:99:GLN:HB2	1.74	0.70
32:DH:5:LEU:C	32:DH:6:LEU:HD12	2.12	0.70
38:CN:103:ARG:HD3	38:CN:110:MET:CE	2.22	0.70
27:DC:144:GLU:HA	27:DC:151:GLY:HA2	1.72	0.70
9:AI:48:ARG:C	9:AI:48:ARG:HD3	2.11	0.70
37:CM:31:PHE:CZ	37:CM:110:GLU:HA	2.27	0.70
14:BN:66:GLN:HG3	14:BN:79:LEU:HD21	1.72	0.70
44:DT:69:ARG:HG3	44:DT:74:ILE:HG22	1.73	0.70
7:AG:26:VAL:HG12	7:AG:42:VAL:HG21	1.74	0.70
25:CA:287:G:H2'	25:CA:288:U:C6	2.26	0.70
25:DA:832:U:H2'	25:DA:833:A:C8	2.25	0.70
27:DC:1:ALA:HA	27:DC:198:GLU:OE2	1.92	0.70
55:C4:36:ARG:HG2	55:C4:37:GLN:H	1.56	0.70
49:CY:18:LEU:HD21	49:CY:22:LEU:HD22	1.74	0.70
1:BA:983:A:H2'	1:BA:983:A:N3	2.05	0.70
25:DA:1063:G:H3'	25:DA:1064:C:C6	2.26	0.70
33:DI:71:LYS:O	33:DI:72:THR:HG23	1.92	0.70
1:AA:142:G:C5	1:AA:143:A:N7	2.59	0.70
11:AK:124:LYS:CG	11:AK:125:LYS:N	2.53	0.70
1:AA:923:A:O4'	1:AA:1398:A:C2	2.45	0.70
1:BA:1106:G:H2'	1:BA:1107:C:H6	1.57	0.70
25:CA:1452:G:O2'	25:CA:1453:A:P	2.49	0.70
25:DA:1866:A:C2	25:DA:1876:A:N7	2.60	0.70
37:CM:15:GLY:C	37:CM:16:ARG:HD3	2.10	0.70
25:CA:2258:C:H4'	25:CA:2259:U:OP2	1.92	0.70
1:AA:1305:G:H2'	1:AA:1331:G:H22	1.56	0.70
25:DA:547:A:H3'	25:DA:548:G:C5'	2.22	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CP:30:TRP:CE2	40:CP:39:LEU:HD11	2.27	0.70
25:CA:1799:G:OP2	27:CC:269:ARG:NH2	2.25	0.70
25:DA:2188:U:H2'	25:DA:2189:U:O4'	1.91	0.70
25:CA:2334:U:C4	39:CO:16:ARG:HD3	2.26	0.70
25:CA:1026:G:H2'	25:CA:1027:A:C8	2.27	0.70
36:DL:57:LEU:HD12	36:DL:60:ARG:HD2	1.73	0.70
1:BA:1211:U:O2'	1:BA:1212:U:P	2.50	0.70
46:CV:41:GLU:O	46:CV:41:GLU:HG3	1.92	0.70
20:AT:66:ILE:HG23	20:AT:66:ILE:O	1.91	0.70
36:DL:107:PHE:CD2	36:DL:107:PHE:N	2.59	0.70
34:CJ:81:ILE:CG1	34:CJ:82:GLY:N	2.48	0.70
1:AA:1279:G:N2	10:AJ:45:ARG:HE	1.89	0.70
21:AU:25:ALA:HB3	23:AX:9:G:C5'	2.22	0.70
16:BP:61:VAL:HG22	16:BP:67:ILE:HD11	1.73	0.70
4:AD:57:LYS:HB3	4:AD:199:ILE:CG2	2.21	0.70
16:AP:71:VAL:O	16:AP:75:ILE:HG13	1.92	0.70
10:AJ:65:TYR:CB	14:AN:96:LEU:HD11	2.22	0.70
6:BF:86:ARG:CG	6:BF:86:ARG:HH11	2.05	0.70
19:AS:9:PHE:CD1	19:AS:10:ILE:N	2.60	0.70
1:BA:1284:C:C6	1:BA:1285:A:C8	2.80	0.70
45:DU:65:GLN:OE1	45:DU:65:GLN:HA	1.91	0.70
25:CA:2114:A:N3	25:CA:2114:A:H2'	2.06	0.70
12:BL:76:HIS:O	12:BL:77:SER:HB2	1.92	0.70
25:DA:1060:U:C4'	25:DA:1061:U:H5'	2.21	0.70
25:CA:1056:G:H4'	25:CA:1086:A:C8	2.26	0.70
5:BE:153:ALA:HA	5:BE:157:GLY:N	2.06	0.70
1:BA:1221:G:H4'	19:BS:76:THR:HG21	1.74	0.70
1:AA:657:U:O2	15:AO:21:THR:CG2	2.39	0.70
25:DA:1435:G:O2'	25:DA:1436:G:H5'	1.91	0.70
28:DD:104:VAL:O	28:DD:105:LYS:HB3	1.90	0.70
1:AA:435:A:C6	1:AA:436:C:C4	2.80	0.70
25:DA:2326:C:C1'	25:DA:2327:A:OP1	2.40	0.70
16:AP:75:ILE:HG22	16:AP:80:LYS:HE2	1.73	0.70
9:BI:17:ARG:O	9:BI:64:ILE:HA	1.91	0.70
2:BB:63:LYS:C	2:BB:63:LYS:HD3	2.13	0.70
25:DA:512:G:C8	60:DA:3778:HOH:O	2.44	0.70
25:DA:1379:U:C6	25:DA:1379:U:OP1	2.45	0.70
1:BA:279:A:H5"	1:BA:281:G:O4'	1.92	0.70
25:CA:2404:U:H2'	25:CA:2405:G:O5'	1.92	0.70
29:CE:12:LEU:HD23	29:CE:13:THR:N	2.07	0.70
25:DA:459:U:H5"	53:D2:40:ALA:HB2	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:136:ARG:O	2:AB:139:GLU:HB3	1.92	0.69
2:AB:81:ASP:O	2:AB:83:ALA:N	2.23	0.69
25:CA:1178:C:H2'	25:CA:1179:G:N7	2.06	0.69
33:CI:100:ILE:O	33:CI:140:GLU:HB2	1.91	0.69
29:DE:126:VAL:HG22	29:DE:133:LEU:HD13	1.73	0.69
3:BC:21:TRP:CD1	3:BC:56:ILE:HG22	2.27	0.69
6:BF:19:PRO:HA	6:BF:22:ILE:CD1	2.22	0.69
38:CN:75:ILE:O	38:CN:79:LEU:HD12	1.91	0.69
1:BA:560:A:N7	1:BA:566:G:C4	2.60	0.69
25:DA:910:A:C5	37:DM:13:HIS:CD2	2.80	0.69
1:AA:792:A:H4'	1:AA:793:U:O5'	1.92	0.69
25:DA:2209:G:C2	25:DA:2216:G:C2	2.79	0.69
25:DA:1416:G:O2'	25:DA:1417:C:OP2	2.05	0.69
25:DA:2711:A:OP2	60:DA:3551:HOH:O	2.09	0.69
5:AE:135:VAL:O	5:AE:138:ALA:HB3	1.92	0.69
30:CF:123:GLY:HA2	30:CF:162:ASP:OD1	1.92	0.69
1:BA:1072:G:C5	1:BA:1073:U:C5	2.79	0.69
25:CA:811:U:C4	36:CL:21:ARG:NH2	2.60	0.69
6:BF:5:GLU:C	6:BF:6:ILE:HD12	2.12	0.69
29:CE:28:VAL:O	29:CE:32:VAL:HG22	1.92	0.69
25:CA:528:A:C2	25:CA:2043:C:H4'	2.28	0.69
3:AC:166:TRP:N	3:AC:166:TRP:CE3	2.60	0.69
25:DA:2637:U:H2'	25:DA:2638:G:H5'	1.74	0.69
29:DE:76:PRO:HA	29:DE:82:GLY:HA3	1.75	0.69
1:BA:471:U:H2'	1:BA:472:U:O4'	1.91	0.69
25:CA:2852:G:H2'	25:CA:2853:C:H6	1.57	0.69
25:CA:2120:G:O2'	25:CA:2121:G:H5'	1.91	0.69
1:BA:852:G:C5	1:BA:853:C:C5	2.81	0.69
14:BN:22:LYS:HG3	14:BN:23:ARG:HG3	1.74	0.69
25:DA:2492:U:C2'	25:DA:2493:U:H5'	2.22	0.69
3:BC:174:LEU:HD12	3:BC:174:LEU:O	1.92	0.69
24:AY:33:ALA:HB1	24:AY:66:LEU:HD21	1.74	0.69
25:DA:2893:A:C4'	25:DA:2894:G:H5'	2.22	0.69
30:DF:39:VAL:HG11	30:DF:42:ALA:HB2	1.74	0.69
4:BD:25:ARG:HG3	4:BD:26:ALA:CA	2.22	0.69
2:AB:195:VAL:HG11	2:AB:198:VAL:HA	1.73	0.69
2:AB:95:TRP:CZ2	2:AB:99:MET:HG2	2.27	0.69
13:AM:40:GLU:HG3	13:AM:41:ASP:N	2.08	0.69
21:AU:13:VAL:CG1	21:AU:15:LEU:HD21	2.22	0.69
1:AA:10:A:O2'	1:AA:11:G:H5'	1.92	0.69
5:AE:140:ILE:HG22	5:AE:141:ASP:N	2.05	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:513:C:H2'	1:AA:514:C:C6	2.27	0.69
32:CH:72:ILE:HG22	32:CH:73:ASN:N	2.06	0.69
1:BA:114:U:C2'	1:BA:115:G:H5'	2.22	0.69
33:DI:98:GLY:HA3	33:DI:137:LEU:HD23	1.74	0.69
1:BA:1222:G:O6	60:BA:1862:HOH:O	2.09	0.69
25:CA:1784:A:P	60:CA:3703:HOH:O	2.50	0.69
49:DY:11:VAL:HA	49:DY:14:LEU:HB2	1.73	0.69
5:BE:155:LYS:HA	5:BE:158:LYS:NZ	2.07	0.69
25:DA:1587:G:C4	25:DA:1588:G:C8	2.81	0.69
56:DB:48:U:H4'	39:DO:100:HIS:CD2	2.28	0.69
39:DO:37:ALA:HB2	39:DO:106:LEU:HD11	1.73	0.69
21:AU:38:GLU:CA	21:AU:40:PRO:HD2	2.23	0.69
29:CE:189:THR:HG22	29:CE:192:ALA:N	2.07	0.69
1:AA:1303:C:OP1	60:AA:1796:HOH:O	2.09	0.69
1:BA:200:G:H2'	1:BA:201:G:H5'	1.73	0.69
3:BC:88:LYS:HD3	3:BC:89:VAL:HG13	1.74	0.69
27:CC:35:LYS:O	27:CC:36:ASN:HB3	1.89	0.69
21:BU:8:ASN:N	21:BU:11:PHE:HE2	1.90	0.69
25:CA:1929:G:N3	25:CA:1929:G:H5'	2.07	0.69
7:BG:78:ARG:HG2	7:BG:83:THR:HA	1.74	0.69
1:BA:254:G:OP1	17:BQ:68:LYS:O	2.10	0.69
56:DB:10:G:C8	56:DB:11:C:C5	2.81	0.69
29:CE:104:ALA:O	29:CE:108:ILE:HG22	1.91	0.69
25:CA:2131:U:H5'	25:CA:2132:U:H5"	1.74	0.69
33:DI:31:GLY:HA3	33:DI:60:VAL:HG11	1.73	0.69
25:CA:1073:A:N7	25:CA:1074:G:H8	1.90	0.69
12:BL:24:GLU:CB	12:BL:26:CYS:SG	2.80	0.69
25:DA:2305:U:H2'	25:DA:2306:C:C6	2.27	0.69
56:DB:49:C:OP1	39:DO:101:GLY:HA3	1.92	0.69
25:DA:1784:A:H4'	25:DA:1785:A:O5'	1.93	0.69
7:BG:64:ALA:HB1	7:BG:126:ALA:CB	2.23	0.69
25:CA:2547:A:H4'	35:CK:29:HIS:CE1	2.28	0.69
27:DC:123:ILE:HD11	27:DC:135:PRO:HD3	1.74	0.69
18:AR:60:ARG:O	18:AR:63:TYR:HB3	1.93	0.69
25:DA:2511:U:O4	25:DA:2575:C:N3	2.24	0.69
33:DI:49:GLU:OE1	33:DI:52:LEU:HD13	1.91	0.69
25:DA:194:G:N7	60:DA:3767:HOH:O	2.24	0.69
25:DA:1776:G:N7	60:DA:3452:HOH:O	2.23	0.69
8:AH:46:GLU:CB	8:AH:63:LYS:HG2	2.22	0.69
32:CH:13:GLY:O	32:CH:14:SER:HB3	1.92	0.69
25:DA:1071:G:C2'	25:DA:1072:C:H5"	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1073:A:C3'	25:CA:1074:G:H5"	2.23	0.69
21:AU:25:ALA:HB1	23:AX:9:G:H5"	1.74	0.69
3:AC:10:ARG:HE	3:AC:177:LEU:HA	1.58	0.69
25:DA:1444:G:H2'	25:DA:1445:G:H8	1.56	0.69
25:CA:1462:C:O2'	25:CA:1463:C:H5"	1.92	0.69
1:BA:965:U:HO2'	1:BA:966:G:P	2.16	0.69
36:CL:109:LYS:HE2	36:CL:128:THR:HG22	1.74	0.69
1:BA:451:A:N6	1:BA:481:G:H5'	2.07	0.69
25:DA:611:C:C2'	25:DA:612:G:H5'	2.22	0.69
1:BA:1048:G:H4'	14:BN:2:LYS:HE3	1.74	0.69
25:DA:2498:C:OP2	60:DA:3689:HOH:O	2.10	0.69
25:CA:1372:U:O2'	25:CA:1373:A:H5'	1.93	0.69
32:DH:76:GLU:HG2	32:DH:76:GLU:O	1.92	0.69
32:DH:76:GLU:O	32:DH:143:ILE:HB	1.93	0.69
36:DL:106:GLU:C	36:DL:107:PHE:CD2	2.66	0.69
31:CG:39:ALA:HA	31:CG:57:TYR:CD1	2.28	0.69
25:DA:2731:G:C6	25:DA:2732:G:O6	2.44	0.69
1:AA:768:A:C2'	1:AA:769:G:H5'	2.22	0.69
27:CC:51:ARG:HH22	27:CC:246:PRO:HG3	1.57	0.69
14:AN:61:ARG:O	14:AN:62:ASN:HB2	1.91	0.69
1:AA:1126:U:O4'	1:AA:1281:C:O2	2.11	0.69
25:DA:204:A:O4'	25:DA:206:U:C6	2.46	0.69
25:DA:2499:C:N3	60:DA:3536:HOH:O	2.25	0.69
4:BD:43:ARG:HA	4:BD:43:ARG:NE	2.08	0.69
25:CA:1486:U:O2'	25:CA:1487:U:H5'	1.92	0.69
1:BA:929:G:C5	1:BA:930:C:C5	2.81	0.69
17:AQ:7:LEU:HB2	17:AQ:60:ILE:HG22	1.73	0.69
5:BE:37:VAL:HG11	5:BE:113:VAL:HA	1.72	0.69
3:AC:139:ASN:HA	3:AC:142:ARG:HB2	1.74	0.69
3:AC:137:VAL:HA	3:AC:148:ILE:HD13	1.74	0.69
32:DH:3:VAL:HG12	32:DH:38:PRO:HA	1.73	0.69
27:DC:140:VAL:HG11	27:DC:189:ALA:HB1	1.73	0.69
14:AN:47:LYS:HB3	19:AS:12:LEU:HD21	1.75	0.69
27:CC:16:VAL:CB	27:CC:203:VAL:HG22	2.23	0.69
1:BA:632:U:O2	1:BA:632:U:H2'	1.92	0.69
27:CC:242:HIS:O	27:CC:243:PRO:C	2.30	0.69
5:AE:14:LEU:HB3	5:AE:36:THR:HG22	1.73	0.69
15:BO:62:ARG:O	15:BO:66:LEU:HD12	1.93	0.69
31:CG:148:ARG:CG	31:CG:148:ARG:HH11	2.06	0.69
25:CA:2881:U:O2'	25:CA:2882:A:H5'	1.93	0.69
2:AB:131:LYS:O	2:AB:135:MET:SD	2.51	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:BE:82:HIS:CG	8:BH:95:MET:HE2	2.27	0.69
25:DA:1412:U:H2'	25:DA:1413:A:C8	2.27	0.69
3:AC:142:ARG:HG3	3:AC:143:LEU:HD13	1.74	0.69
30:CF:7:TYR:HA	30:CF:11:VAL:CG2	2.22	0.69
1:BA:801:U:H2'	1:BA:802:A:H8	1.58	0.69
5:AE:136:VAL:O	5:AE:137:ARG:HB2	1.93	0.69
2:BB:143:LEU:HD23	2:BB:143:LEU:H	1.57	0.69
25:DA:2531:A:C4	25:DA:2532:G:C8	2.80	0.69
9:AI:25:GLY:N	9:AI:58:GLU:HA	2.08	0.69
31:DG:3:VAL:HG12	31:DG:68:ARG:CG	2.22	0.69
1:AA:108:G:C5	20:AT:9:ARG:HG2	2.28	0.69
21:BU:25:ALA:HB3	23:BX:8:A:H5"	1.74	0.69
25:CA:662:G:H2'	25:CA:663:G:H5'	1.75	0.69
13:AM:74:MET:SD	30:CF:111:ARG:CB	2.81	0.69
1:AA:613:C:C2'	1:AA:614:C:H5'	2.22	0.69
1:AA:663:A:O2'	1:AA:664:G:H5'	1.93	0.69
25:DA:2547:A:H2'	25:DA:2548:U:C6	2.27	0.69
14:BN:43:ASN:CG	14:BN:43:ASN:O	2.30	0.69
4:BD:150:LYS:HB2	4:BD:155:LYS:HE3	1.74	0.69
25:DA:1250:G:OP2	36:DL:21:ARG:NH2	2.26	0.69
13:AM:113:LYS:CB	13:AM:114:PRO:HD3	2.23	0.69
4:BD:90:LEU:HA	4:BD:93:LEU:HD12	1.73	0.69
21:BU:13:VAL:HG12	21:BU:15:LEU:CD2	2.22	0.69
25:CA:265:A:H4'	25:CA:266:G:OP1	1.91	0.69
1:BA:832:G:H2'	1:BA:833:G:H5'	1.74	0.69
1:AA:111:G:H5"	1:AA:112:G:OP2	1.93	0.69
25:DA:2768:U:H2'	25:DA:2769:U:O5'	1.93	0.69
25:DA:223:A:C8	25:DA:422:A:H1'	2.28	0.69
25:CA:1067:A:H2'	25:CA:1067:A:N3	2.06	0.69
25:DA:135:U:H2'	25:DA:136:G:C8	2.27	0.69
25:DA:1592:C:H2'	25:DA:1593:A:C8	2.28	0.69
13:BM:14:ALA:O	13:BM:18:LEU:HD23	1.93	0.69
49:DY:48:ARG:O	49:DY:51:ALA:HB3	1.93	0.69
1:BA:1000:A:C4	1:BA:1041:G:N2	2.61	0.69
21:AU:13:VAL:O	21:AU:15:LEU:CD1	2.41	0.69
1:AA:1032:G:H3'	1:AA:1033:G:O4'	1.93	0.69
1:AA:436:C:H4'	4:AD:152:SER:CB	2.23	0.69
22:AV:18:G:C2'	22:AV:58:A:C2	2.75	0.69
9:AI:43:ALA:HA	9:AI:45:MET:SD	2.33	0.69
45:DU:7:ASP:O	45:DU:8:ASP:HB2	1.92	0.69
50:CZ:1:ALA:HB1	50:CZ:2:LYS:CE	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CY:5:GLU:HG3	49:CY:56:LEU:CD1	2.21	0.69
46:CV:80:HIS:CG	46:CV:81:PRO:CD	2.76	0.69
25:DA:1356:G:C4	25:DA:1357:C:C6	2.81	0.69
8:AH:63:LYS:HB2	8:AH:70:VAL:HG21	1.73	0.69
25:CA:2291:U:H2'	25:CA:2292:U:C6	2.28	0.69
40:CP:1:SER:O	40:CP:5:LYS:HG2	1.92	0.69
1:AA:1049:U:H4'	1:AA:1050:G:OP2	1.92	0.69
13:AM:1:ALA:O	13:AM:9:PRO:HD2	1.93	0.69
25:DA:2403:C:C2	25:DA:2404:U:C5	2.81	0.69
25:CA:1056:G:N2	25:CA:1104:C:N4	2.40	0.69
2:AB:218:ALA:O	2:AB:219:THR:HG22	1.92	0.69
11:AK:51:PHE:CZ	11:AK:64:VAL:HG11	2.28	0.69
4:AD:146:GLU:O	4:AD:149:LYS:HB2	1.93	0.69
8:AH:98:LEU:N	8:AH:98:LEU:HD23	2.08	0.69
13:AM:28:ARG:HD2	13:AM:62:PHE:CD2	2.28	0.69
1:AA:1187:G:H5'	9:AI:114:LYS:HE3	1.74	0.69
1:BA:595:A:C2	1:BA:641:U:C2	2.81	0.69
31:DG:70:LEU:O	31:DG:74:MET:HG3	1.92	0.69
25:DA:692:C:H2'	25:DA:693:A:O5'	1.93	0.69
33:CI:4:VAL:O	33:CI:5:GLN:CB	2.40	0.69
25:DA:548:G:H4'	25:DA:549:G:C2	2.28	0.69
25:DA:2637:U:C2'	25:DA:2638:G:H5'	2.23	0.69
15:BO:85:GLY:O	15:BO:86:LEU:HB3	1.91	0.69
8:BH:79:ARG:HB2	8:BH:80:PRO:CD	2.23	0.69
25:DA:1739:A:H2'	25:DA:1740:G:O5'	1.92	0.69
31:CG:11:PRO:HD2	31:CG:14:VAL:HG21	1.72	0.69
40:CP:71:ARG:HD3	40:CP:73:PHE:CZ	2.28	0.69
1:BA:983:A:C2'	1:BA:983:A:N3	2.56	0.68
25:CA:2473:U:C5	25:CA:2474:U:H5	2.10	0.68
12:BL:24:GLU:HB3	12:BL:26:CYS:SG	2.33	0.68
25:DA:1605:C:C2'	25:DA:1606:C:H5'	2.23	0.68
1:BA:71:A:H5'	1:BA:71:A:H8	1.57	0.68
16:AP:77:GLU:C	16:AP:79:ASN:H	1.96	0.68
27:DC:16:VAL:HB	27:DC:203:VAL:HG13	1.74	0.68
14:AN:10:VAL:O	14:AN:13:VAL:HG12	1.93	0.68
1:BA:299:G:H2'	1:BA:300:A:C8	2.28	0.68
14:BN:24:ALA:O	14:BN:27:LYS:HG3	1.92	0.68
1:BA:832:G:C2'	1:BA:833:G:H5'	2.23	0.68
25:DA:137:U:OP2	25:DA:137:U:C5	2.46	0.68
25:DA:2800:A:C2	25:DA:2895:G:H1'	2.28	0.68
57:DW:41:PHE:O	57:DW:55:LEU:HD11	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:104:G:O2'	1:AA:105:G:H5'	1.93	0.68
25:CA:630:G:H5"	25:CA:631:A:OP2	1.94	0.68
3:BC:101:ASN:C	3:BC:102:ILE:HG13	2.14	0.68
25:CA:1866:A:C2	25:CA:1876:A:C4	2.81	0.68
6:AF:64:VAL:CG1	6:AF:65:GLU:N	2.56	0.68
1:AA:1351:U:H2'	1:AA:1352:C:C6	2.29	0.68
25:CA:978:G:C2'	25:CA:979:A:H5'	2.22	0.68
25:DA:1351:C:O2'	25:DA:1571:A:H1'	1.93	0.68
49:DY:8:GLU:HA	49:DY:12:GLU:HG3	1.75	0.68
2:AB:193:ASP:C	2:AB:193:ASP:OD1	2.32	0.68
1:BA:1142:G:C5	1:BA:1143:G:H1'	2.28	0.68
37:CM:15:GLY:O	37:CM:16:ARG:CD	2.41	0.68
1:BA:1072:G:H3'	1:BA:1073:U:H6	1.58	0.68
35:CK:113:MET:O	35:CK:114:LYS:C	2.30	0.68
6:BF:6:ILE:HA	6:BF:88:MET:O	1.92	0.68
6:BF:98:GLU:HG3	6:BF:99:ALA:N	2.07	0.68
21:BU:25:ALA:CB	23:BX:8:A:H5"	2.23	0.68
25:DA:1187:G:H5"	42:DR:83:TYR:CE2	2.28	0.68
12:BL:27:PRO:HB2	12:BL:28:GLN:OE1	1.92	0.68
1:AA:1118:U:C5'	9:AI:105:ARG:HG3	2.24	0.68
25:DA:783:A:C8	25:DA:784:G:H4'	2.28	0.68
46:DV:51:GLN:HB3	46:DV:56:PHE:CD2	2.28	0.68
1:BA:370:C:O2'	1:BA:371:A:H5'	1.93	0.68
1:AA:1038:C:C2'	1:AA:1039:G:H5'	2.23	0.68
28:CD:12:THR:HG23	40:CP:8:GLU:OE2	1.94	0.68
1:AA:223:A:H2'	1:AA:224:U:C6	2.28	0.68
8:AH:10:LEU:HD23	8:AH:10:LEU:H	1.58	0.68
12:BL:78:VAL:N	12:BL:102:ASP:OD2	2.25	0.68
25:DA:1031:G:H4'	55:D4:6:SER:HB2	1.75	0.68
28:DD:25:THR:HG21	28:DD:193:VAL:CG2	2.24	0.68
1:BA:613:C:O2'	1:BA:614:C:H5'	1.94	0.68
37:DM:124:LEU:HD23	37:DM:124:LEU:N	2.09	0.68
56:DB:41:G:H8	30:DF:65:LEU:HD11	1.59	0.68
25:DA:1936:A:H2	25:DA:1943:U:H3	1.40	0.68
33:CI:100:ILE:HG21	33:CI:105:LEU:HD12	1.73	0.68
11:AK:124:LYS:HG2	11:AK:125:LYS:N	2.08	0.68
1:AA:11:G:C2'	1:AA:12:U:O5'	2.42	0.68
1:AA:513:C:H2'	1:AA:514:C:O5'	1.93	0.68
30:CF:150:GLY:O	30:CF:151:LEU:HB2	1.92	0.68
9:AI:43:ALA:CA	9:AI:45:MET:SD	2.81	0.68
25:DA:585:G:H5"	25:DA:586:A:OP1	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:383:A:H2'	1:BA:384:G:H5'	1.75	0.68
25:DA:1788:C:C2'	25:DA:1789:A:H5'	2.23	0.68
25:DA:548:G:O2'	25:DA:549:G:C5	2.45	0.68
1:AA:659:U:O2	1:AA:659:U:H2'	1.93	0.68
29:DE:155:GLU:HG3	29:DE:159:LEU:HD12	1.73	0.68
25:DA:2310:C:H2'	25:DA:2311:A:O5'	1.93	0.68
25:CA:2106:U:H5"	25:CA:2107:G:OP2	1.93	0.68
25:CA:12:U:H2'	25:CA:12:U:O2	1.92	0.68
1:AA:468:A:C2	1:AA:469:C:C4	2.82	0.68
35:DK:7:MET:C	35:DK:8:LEU:HD12	2.13	0.68
25:CA:2785:C:O2'	28:CD:67:HIS:HD2	1.76	0.68
21:AU:3:ILE:N	21:AU:19:LYS:HE3	2.09	0.68
32:DH:4:ILE:HG23	32:DH:17:ASP:O	1.93	0.68
17:BQ:13:SER:OG	17:BQ:16:MET:HE1	1.93	0.68
3:AC:139:ASN:HA	3:AC:142:ARG:HB3	1.74	0.68
25:CA:585:G:O2'	29:CE:77:ILE:HG22	1.93	0.68
29:DE:149:ILE:CG2	29:DE:188:MET:HG2	2.23	0.68
1:AA:414:A:H2'	1:AA:415:A:H8	1.58	0.68
1:BA:628:G:H2'	1:BA:629:A:C8	2.29	0.68
8:BH:115:ALA:HA	8:BH:118:ALA:HB3	1.75	0.68
9:BI:98:ARG:HA	9:BI:103:VAL:HG21	1.75	0.68
28:DD:151:THR:HG22	28:DD:152:PRO:CD	2.22	0.68
30:CF:157:THR:CG2	30:CF:159:ALA:HB3	2.23	0.68
1:AA:718:A:H2'	1:AA:719:C:H5'	1.75	0.68
49:DY:45:GLN:O	49:DY:48:ARG:N	2.26	0.68
19:AS:4:LEU:O	19:AS:5:LYS:HG3	1.94	0.68
32:DH:9:VAL:CG2	32:DH:35:LYS:HE2	2.23	0.68
2:BB:205:ALA:O	2:BB:207:ARG:N	2.26	0.68
21:BU:36:PHE:HA	21:BU:39:LYS:HE3	1.76	0.68
1:BA:994:A:C2	1:BA:995:C:C6	2.81	0.68
9:AI:83:THR:HB	9:AI:97:LEU:HD21	1.74	0.68
2:BB:182:VAL:N	2:BB:196:ASP:OD1	2.27	0.68
29:CE:18:THR:HG21	29:CE:19:PHE:CE2	2.28	0.68
25:DA:2652:C:H2'	25:DA:2653:U:H5'	1.75	0.68
9:AI:6:TYR:HB2	9:AI:19:PHE:HA	1.76	0.68
25:CA:1172:C:C4	25:CA:1173:U:C6	2.82	0.68
25:DA:2730:C:O2'	25:DA:2731:G:H5'	1.93	0.68
1:AA:937:A:C2	1:AA:1379:G:O6	2.47	0.68
27:DC:173:LEU:HD22	27:DC:183:VAL:HG23	1.75	0.68
45:CU:48:VAL:O	45:CU:53:GLN:CB	2.42	0.68
27:DC:261:ARG:HG2	27:DC:262:THR:HG23	1.73	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:2:THR:HB	12:AL:5:GLN:HG3	1.76	0.68
29:CE:149:ILE:HD12	29:CE:150:THR:N	2.08	0.68
1:AA:804:U:H5"	1:AA:805:C:OP2	1.94	0.68
40:DP:9:GLN:HA	40:DP:12:MET:SD	2.34	0.68
25:DA:1570:A:H2'	25:DA:1571:A:C8	2.29	0.68
1:AA:260:G:H2'	1:AA:261:U:C6	2.29	0.68
42:DR:49:ILE:HG13	42:DR:49:ILE:O	1.94	0.68
25:DA:1551:A:H2'	25:DA:1552:A:C5'	2.23	0.68
25:CA:2133:G:HO2'	25:CA:2158:A:N6	1.92	0.68
25:CA:1505:A:H2'	25:CA:1506:U:O4'	1.92	0.68
7:BG:50:ALA:HB1	7:BG:56:SER:O	1.94	0.68
28:DD:148:GLN:HB2	28:DD:152:PRO:HG2	1.75	0.68
2:BB:46:VAL:HB	2:BB:47:PRO:HD3	1.76	0.68
29:CE:146:VAL:CG2	29:CE:167:VAL:HG22	2.24	0.68
4:AD:25:ARG:HD2	4:AD:30:LYS:HE2	1.75	0.68
4:AD:57:LYS:HB3	4:AD:199:ILE:CB	2.24	0.68
25:DA:340:A:H2'	25:DA:341:C:O4'	1.94	0.68
8:AH:5:PRO:O	8:AH:8:ASP:HB3	1.94	0.68
27:DC:66:PHE:HB3	27:DC:150:GLY:O	1.94	0.68
10:AJ:52:LEU:HB3	14:AN:81:ARG:HE	1.58	0.68
25:CA:1494:A:C2	25:CA:1495:A:C4	2.82	0.68
3:BC:54:ILE:HD13	3:BC:56:ILE:CD1	2.24	0.68
25:DA:1566:A:O2'	25:DA:1567:G:H5'	1.94	0.68
6:BF:16:GLU:O	6:BF:19:PRO:HD2	1.92	0.68
15:AO:6:ALA:O	15:AO:10:ILE:HD12	1.92	0.68
26:CB:7:G:H2'	26:CB:8:C:H5'	1.75	0.68
25:DA:1429:G:C2	25:DA:1430:G:C5	2.82	0.68
17:BQ:12:VAL:HG12	17:BQ:21:VAL:O	1.92	0.68
25:CA:1860:G:C2'	25:CA:1861:G:H5'	2.24	0.68
1:BA:87:C:H2'	1:BA:88:U:C6	2.29	0.68
25:DA:1551:A:C2'	25:DA:1552:A:H5'	2.24	0.68
1:AA:204:G:H3'	1:AA:205:A:H5"	1.76	0.68
25:CA:1734:G:H2'	25:CA:1735:A:H8	1.59	0.68
25:CA:1509:A:N3	25:CA:1510:G:C8	2.62	0.68
25:DA:481:G:C4	25:DA:507:A:C2	2.82	0.68
17:AQ:44:HIS:ND1	17:AQ:69:THR:CG2	2.56	0.68
49:CY:14:LEU:C	49:CY:17:GLU:HB3	2.14	0.68
25:DA:1593:A:H2'	25:DA:1594:U:O4'	1.93	0.68
25:CA:978:G:N7	60:CA:3592:HOH:O	2.26	0.68
35:DK:8:LEU:HD12	35:DK:8:LEU:N	2.08	0.68
3:BC:133:MET:CE	3:BC:167:TYR:HB2	2.24	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2528:U:O2'	25:DA:2529:G:H3'	1.94	0.68
4:BD:25:ARG:CG	4:BD:26:ALA:N	2.49	0.68
21:AU:19:LYS:HE2	21:AU:19:LYS:N	2.09	0.68
1:AA:1314:C:H2'	1:AA:1314:C:O2	1.92	0.68
1:BA:1256:A:C8	1:BA:1258:G:C2	2.82	0.68
31:CG:71:LEU:HD12	31:CG:71:LEU:N	2.09	0.68
35:DK:76:VAL:CG1	40:DP:72:VAL:CG2	2.72	0.68
5:BE:109:ALA:O	5:BE:110:MET:HB2	1.94	0.68
25:DA:1588:G:C4	25:DA:1589:U:C5	2.82	0.68
21:AU:38:GLU:N	21:AU:40:PRO:CD	2.57	0.68
1:AA:376:G:C2	1:AA:389:A:C2	2.81	0.68
9:AI:117:LEU:HA	9:AI:124:PRO:HD3	1.76	0.68
2:BB:125:PHE:N	2:BB:125:PHE:HD2	1.92	0.68
3:BC:21:TRP:CZ3	3:BC:31:ASN:ND2	2.62	0.68
25:DA:2893:A:C3'	25:DA:2894:G:H5'	2.23	0.68
27:DC:173:LEU:HD22	27:DC:183:VAL:CG2	2.24	0.68
25:DA:1005:C:N3	25:DA:1143:A:C2	2.62	0.68
31:DG:59:ASP:OD2	31:DG:63:GLN:HG3	1.92	0.68
25:DA:2882:A:OP1	38:DN:96:ARG:HD3	1.93	0.68
1:AA:1413:A:C5	1:AA:1414:U:C5	2.82	0.68
29:DE:178:VAL:CG1	29:DE:179:SER:N	2.57	0.68
25:CA:1060:U:O4'	25:CA:1062:G:H5'	1.94	0.68
25:DA:2219:U:H2'	25:DA:2220:U:O5'	1.93	0.68
1:BA:484:G:N7	1:BA:486:U:H1'	2.09	0.68
25:DA:2792:A:N3	25:DA:2792:A:H2'	2.09	0.68
12:AL:113:ARG:HD2	12:AL:118:VAL:HG12	1.76	0.68
22:AV:55:U:C2	22:AV:57:G:OP2	2.47	0.68
16:BP:19:VAL:HG22	16:BP:36:VAL:HG12	1.76	0.68
6:BF:85:ILE:O	6:BF:86:ARG:O	2.11	0.68
14:AN:26:LEU:O	14:AN:27:LYS:HB3	1.93	0.68
6:BF:19:PRO:HA	6:BF:22:ILE:HD12	1.75	0.68
25:CA:247:G:C8	25:CA:249:C:C6	2.82	0.68
1:AA:158:G:H2'	1:AA:159:G:H5"	1.75	0.68
4:BD:16:THR:HG22	4:BD:17:ASP:O	1.94	0.68
37:DM:20:LEU:N	37:DM:20:LEU:HD22	2.09	0.68
9:AI:33:SER:HB3	9:AI:36:GLN:HG3	1.74	0.68
25:DA:2062:A:OP1	60:DA:3501:HOH:O	2.10	0.68
36:CL:58:TYR:O	54:C3:12:ARG:NE	2.26	0.68
27:CC:120:ASP:O	27:CC:121:ALA:O	2.12	0.68
1:BA:1316:G:C5	1:BA:1318:A:OP2	2.46	0.67
25:DA:2223:G:H2'	25:DA:2224:G:C5'	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:BE:155:LYS:N	5:BE:155:LYS:HE3	2.09	0.67
25:DA:1411:U:H2'	25:DA:1412:U:O4'	1.94	0.67
3:BC:152:VAL:HB	3:BC:197:VAL:HG22	1.75	0.67
1:AA:207:C:H2'	1:AA:208:U:C2	2.29	0.67
1:AA:1333:A:H2'	1:AA:1334:G:O5'	1.94	0.67
1:BA:920:U:H2'	1:BA:921:U:C6	2.29	0.67
25:DA:2162:G:H1'	25:DA:2163:A:O5'	1.92	0.67
1:AA:1060:U:C4	3:AC:1:GLY:N	2.57	0.67
1:BA:453:G:H2'	1:BA:454:G:C8	2.29	0.67
25:CA:137:U:H2'	25:CA:140:C:C2	2.29	0.67
23:BX:13:A:N3	23:BX:14:A:C8	2.62	0.67
25:CA:1519:G:C4	25:CA:1520:U:C6	2.83	0.67
25:DA:479:A:H4'	25:DA:480:A:OP1	1.94	0.67
1:BA:1211:U:H1'	1:BA:1213:A:C2	2.27	0.67
1:AA:1126:U:C6	1:AA:1281:C:N3	2.62	0.67
42:CR:21:ARG:NH1	42:CR:93:PHE:CE1	2.62	0.67
56:DB:21:G:C5	56:DB:22:U:C5	2.82	0.67
33:DI:9:LYS:CB	33:DI:55:PRO:HB2	2.25	0.67
35:CK:8:LEU:N	35:CK:8:LEU:HD12	2.10	0.67
11:AK:33:ILE:HB	11:AK:73:VAL:HG11	1.76	0.67
36:DL:126:ARG:O	36:DL:127:VAL:HG23	1.94	0.67
13:AM:33:LEU:HD22	13:AM:40:GLU:HA	1.76	0.67
25:DA:1448:G:C2	25:DA:1449:G:C4	2.83	0.67
51:C0:43:THR:HG23	51:C0:47:TYR:O	1.94	0.67
1:BA:69:G:C4	1:BA:70:U:C5	2.81	0.67
20:BT:43:LYS:CG	20:BT:86:ALA:HA	2.24	0.67
20:BT:59:ARG:O	20:BT:63:LYS:HB2	1.95	0.67
25:CA:1589:U:H2'	25:CA:1589:U:O2	1.93	0.67
1:AA:1348:U:H4'	9:AI:121:ARG:HG3	1.77	0.67
9:AI:51:LEU:HA	9:AI:54:VAL:HG23	1.76	0.67
37:CM:111:GLU:OE1	37:CM:111:GLU:C	2.33	0.67
25:DA:1971:U:H6	25:DA:1971:U:H3'	1.59	0.67
25:CA:2297:A:N1	25:CA:2321:U:H5	1.91	0.67
25:CA:1171:G:C6	25:CA:1172:C:N3	2.62	0.67
25:CA:2110:G:H2'	25:CA:2120:G:OP2	1.94	0.67
25:CA:2665:A:C2	25:CA:2666:C:C6	2.82	0.67
25:CA:457:A:H5'	25:CA:459:U:H1'	1.75	0.67
1:BA:211:G:O2'	1:BA:212:G:C4'	2.42	0.67
31:CG:100:ASN:HD22	31:CG:100:ASN:H	1.40	0.67
1:BA:1338:G:H2'	1:BA:1339:A:C8	2.29	0.67
32:CH:10:ALA:O	32:CH:12:LEU:HD23	1.93	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:17:ALA:HB1	33:DI:42:ASN:HD21	1.60	0.67
42:DR:53:PHE:CD1	42:DR:53:PHE:N	2.60	0.67
32:DH:62:LEU:HD13	32:DH:63:ALA:CB	2.24	0.67
11:BK:124:LYS:C	11:BK:124:LYS:HE3	2.14	0.67
2:AB:206:ILE:O	2:AB:209:VAL:HG23	1.94	0.67
8:BH:95:MET:HB2	8:BH:98:LEU:O	1.94	0.67
25:DA:2491:U:C5'	25:DA:2570:G:H5"	2.24	0.67
38:DN:87:PHE:O	38:DN:89:SER:N	2.27	0.67
25:CA:2748:A:H1'	31:CG:66:THR:CG2	2.25	0.67
25:DA:301:G:H1'	25:DA:302:C:C6	2.30	0.67
1:AA:152:A:N6	1:AA:170:U:C2	2.63	0.67
1:BA:101:A:H2'	1:BA:102:G:O5'	1.94	0.67
1:AA:1303:C:C2'	1:AA:1304:G:O5'	2.42	0.67
25:CA:2146:C:H5"	25:CA:2147:A:OP1	1.95	0.67
1:BA:143:A:H5'	1:BA:144:G:H5'	1.75	0.67
17:AQ:67:SER:O	17:AQ:68:LYS:C	2.33	0.67
1:BA:1189:U:H5"	1:BA:1190:G:OP2	1.93	0.67
1:BA:192:A:C2'	1:BA:193:C:H5'	2.24	0.67
25:DA:2591:C:C2'	25:DA:2592:G:H5'	2.24	0.67
12:AL:88:ASP:HB3	12:AL:89:LEU:HD12	1.77	0.67
6:BF:11:HIS:CG	6:BF:12:PRO:HD2	2.30	0.67
1:AA:232:G:H1'	1:AA:262:A:N1	2.08	0.67
26:CB:53:A:H2'	26:CB:54:G:H5'	1.76	0.67
17:AQ:3:LYS:HG3	17:AQ:6:THR:HG22	1.76	0.67
25:DA:1350:C:C2	25:DA:1382:G:N2	2.63	0.67
25:DA:2195:U:C2	25:DA:2196:C:C6	2.83	0.67
5:BE:154:ALA:CB	5:BE:155:LYS:HE3	2.23	0.67
1:AA:141:G:C4	1:AA:142:G:C8	2.82	0.67
1:AA:459:A:C2	1:AA:460:A:C4	2.83	0.67
25:CA:2425:A:H4'	25:CA:2426:A:O5'	1.94	0.67
29:DE:149:ILE:HD11	29:DE:172:ALA:HA	1.75	0.67
27:DC:141:HIS:CB	27:DC:194:VAL:HG12	2.24	0.67
25:CA:995:C:H5'	25:CA:995:C:C6	2.30	0.67
1:AA:35:G:H2'	1:AA:36:C:H6	1.59	0.67
7:AG:59:GLU:HA	7:AG:62:GLU:HB2	1.76	0.67
1:AA:1275:A:H2'	1:AA:1276:G:O4'	1.93	0.67
3:BC:6:PRO:O	3:BC:9:ILE:HG22	1.94	0.67
31:CG:140:ILE:HD12	31:CG:141:GLY:N	2.10	0.67
29:CE:44:ARG:O	29:CE:45:ALA:HB2	1.93	0.67
19:BS:57:VAL:HG11	19:BS:74:ALA:HA	1.76	0.67
33:DI:60:VAL:HG22	33:DI:66:PHE:HB3	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1084:A:C3'	25:CA:1085:A:C8	2.77	0.67
33:CI:27:LEU:HD12	33:CI:27:LEU:O	1.94	0.67
2:AB:53:LEU:HD12	2:AB:219:THR:HG21	1.76	0.67
1:AA:991:U:C5	1:AA:1212:U:H1'	2.29	0.67
41:CQ:88:GLU:H	42:CR:49:ILE:HD12	1.60	0.67
5:AE:93:VAL:HG21	5:AE:110:MET:SD	2.34	0.67
17:BQ:7:LEU:HB3	17:BQ:24:ILE:HD13	1.76	0.67
32:DH:1:MET:O	32:DH:20:ASN:HA	1.95	0.67
9:AI:18:VAL:HG11	9:AI:82:ILE:HA	1.75	0.67
1:AA:1490:U:O2'	1:AA:1491:G:H5'	1.94	0.67
49:CY:6:LEU:HD13	49:CY:56:LEU:HD22	1.77	0.67
25:DA:149:A:N3	25:DA:150:U:C6	2.63	0.67
1:AA:1057:G:H2'	1:AA:1058:G:O5'	1.95	0.67
27:CC:161:VAL:HG22	27:CC:175:LEU:HA	1.76	0.67
26:CB:116:G:H4'	39:CO:54:VAL:HG22	1.76	0.67
51:D0:33:SER:OG	51:D0:35:GLU:HG2	1.94	0.67
25:CA:1313:U:P	60:CA:3390:HOH:O	2.52	0.67
33:DI:100:ILE:O	33:DI:101:SER:HB3	1.95	0.67
1:BA:1231:G:H4'	9:BI:127:SER:HB2	1.76	0.67
25:DA:1096:A:H2'	25:DA:1097:U:H5"	1.77	0.67
25:DA:1383:A:C2	25:DA:1384:A:C4	2.82	0.67
21:AU:18:PHE:O	21:AU:21:SER:CB	2.42	0.67
25:CA:1055:G:H5"	25:CA:1056:G:OP2	1.95	0.67
10:AJ:40:ILE:HG22	10:AJ:73:LEU:HB2	1.77	0.67
42:DR:51:VAL:HB	42:DR:52:PRO:CD	2.24	0.67
25:CA:1180:U:H2'	25:CA:1181:U:H5'	1.75	0.67
42:CR:49:ILE:HB	42:CR:52:PRO:C	2.15	0.67
25:CA:2308:G:C5	30:CF:76:PHE:CZ	2.83	0.67
25:DA:1439:A:C2	25:DA:1553:A:C5	2.83	0.67
25:CA:2305:U:H1'	30:CF:132:ARG:HG2	1.75	0.67
1:BA:1078:U:C2'	1:BA:1079:G:H5'	2.25	0.67
1:AA:1204:A:C5	1:AA:1205:U:C5	2.82	0.67
25:CA:1567:G:C8	27:CC:82:TYR:HE1	2.11	0.67
25:DA:1181:U:H5"	25:DA:1182:G:P	2.35	0.67
9:AI:24:ASN:HB3	9:AI:58:GLU:CD	2.15	0.67
30:DF:19:PHE:HB2	30:DF:21:TYR:CE2	2.28	0.67
25:DA:1354:A:C8	25:DA:1355:G:C8	2.83	0.67
8:AH:46:GLU:CA	8:AH:63:LYS:HG2	2.25	0.67
3:BC:166:TRP:HE3	3:BC:166:TRP:C	1.97	0.67
4:BD:172:VAL:HG13	4:BD:173:ASP:H	1.59	0.67
5:BE:106:ALA:HA	5:BE:124:ALA:HB3	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:381:G:OP1	48:CX:17:ARG:NH2	2.27	0.67
7:AG:145:GLU:HA	7:AG:148:LYS:HB2	1.77	0.67
4:BD:170:LEU:N	4:BD:170:LEU:HD12	2.09	0.67
3:AC:111:ASP:O	3:AC:115:VAL:HG23	1.95	0.67
24:AY:19:GLU:O	24:AY:23:THR:HG23	1.95	0.67
15:BO:72:LYS:HE2	15:BO:72:LYS:HA	1.75	0.67
1:BA:1029:U:O2	1:BA:1029:U:H2'	1.94	0.67
11:AK:127:ARG:HG2	11:AK:127:ARG:HH11	1.60	0.67
49:DY:9:LYS:N	49:DY:12:GLU:CG	2.57	0.67
25:CA:1060:U:H5'	25:CA:1062:G:C5'	2.25	0.67
25:CA:1854:A:C3'	25:CA:1855:U:H5'	2.25	0.67
4:AD:202:LEU:HD23	4:AD:203:TYR:CE2	2.30	0.67
4:AD:28:ASP:C	4:AD:29:THR:O	2.31	0.67
20:BT:53:MET:HG3	20:BT:54:GLN:N	2.09	0.67
1:AA:481:G:O2'	1:AA:482:A:C8	2.48	0.67
1:BA:1540:U:H4'	21:BU:17:ARG:HG2	1.76	0.67
10:AJ:56:HIS:O	10:AJ:57:VAL:HG12	1.95	0.67
10:BJ:66:GLU:HG3	14:BN:99:ALA:HB2	1.77	0.67
1:BA:247:G:OP1	1:BA:247:G:H4'	1.92	0.67
44:DT:69:ARG:HG3	44:DT:74:ILE:CG2	2.25	0.67
25:DA:2492:U:H2'	25:DA:2493:U:H5'	1.75	0.67
32:CH:7:ASP:HA	32:CH:15:LEU:HD22	1.77	0.67
1:AA:198:G:C5	1:AA:220:G:C2	2.83	0.67
30:CF:157:THR:HG23	30:CF:159:ALA:H	1.59	0.67
26:CB:7:G:C2'	26:CB:8:C:H5'	2.24	0.67
27:DC:226:PRO:HD3	27:DC:233:GLY:HA2	1.75	0.67
25:DA:295:G:C2	25:DA:296:U:C5	2.83	0.67
25:DA:1165:A:H2'	25:DA:1166:G:H8	1.60	0.67
40:DP:74:GLN:HB2	40:DP:77:SER:HB2	1.76	0.67
1:BA:1053:G:C5'	1:BA:1054:C:H5'	2.24	0.67
25:CA:1180:U:H2'	25:CA:1181:U:C5'	2.24	0.67
32:DH:63:ALA:O	32:DH:66:ASN:HB2	1.95	0.67
1:AA:143:A:H5'	1:AA:144:G:H5'	1.75	0.67
25:DA:1446:C:H2'	25:DA:1447:C:H6	1.60	0.67
25:DA:1525:A:C5	25:DA:1526:C:C5	2.83	0.67
25:DA:2127:G:H2'	25:DA:2128:G:C8	2.29	0.67
1:BA:189:A:H2'	1:BA:190:A:O5'	1.93	0.67
25:DA:740:C:H5'	25:DA:1784:A:H3'	1.75	0.67
5:AE:81:GLN:H	5:AE:146:MET:HE1	1.59	0.67
11:BK:64:VAL:HA	11:BK:67:GLU:HG3	1.76	0.67
25:CA:2155:U:H2'	25:CA:2156:G:O4'	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1179:G:N7	25:DA:1180:U:C6	2.62	0.67
9:AI:24:ASN:HB3	9:AI:58:GLU:OE1	1.95	0.67
33:CI:121:ILE:HA	33:CI:124:MET:SD	2.34	0.67
14:BN:43:ASN:HA	14:BN:45:VAL:HG22	1.76	0.67
25:DA:1738:G:O2'	25:DA:1739:A:P	2.53	0.67
25:DA:748:G:C8	43:DS:89:ALA:HB1	2.30	0.67
26:CB:20:G:O2'	26:CB:21:G:H5'	1.95	0.67
25:CA:1565:C:H3'	27:CC:17:LYS:NZ	2.10	0.67
4:BD:25:ARG:O	4:BD:26:ALA:HB2	1.94	0.67
17:AQ:14:ASP:CA	17:AQ:16:MET:SD	2.83	0.67
25:DA:2209:G:C5	25:DA:2210:U:C4	2.82	0.67
56:DB:8:C:H5"	39:DO:27:VAL:HG11	1.77	0.67
35:DK:118:LEU:N	35:DK:118:LEU:HD23	2.09	0.67
25:DA:232:G:H4'	25:DA:233:A:OP1	1.94	0.67
25:DA:58:G:N2	25:DA:70:G:C4	2.63	0.67
1:AA:1378:C:H2'	1:AA:1379:G:O5'	1.95	0.67
25:CA:1613:G:C2'	60:CA:3313:HOH:O	2.43	0.67
3:BC:28:PHE:HZ	14:BN:94:PRO:HD2	1.59	0.67
1:BA:1249:C:O2'	9:BI:70:GLY:HA2	1.94	0.67
5:AE:18:ASN:O	5:AE:32:PHE:HA	1.95	0.67
1:BA:206:C:H2'	1:BA:207:C:C4'	2.25	0.67
1:AA:1402:C:O2	1:AA:1500:A:N1	2.27	0.67
1:BA:497:G:O2'	1:BA:498:A:H5'	1.94	0.67
27:CC:38:LYS:HE2	27:CC:55:GLY:O	1.94	0.67
25:DA:1812:U:O2	25:DA:1812:U:H2'	1.93	0.67
12:BL:58:ASN:HD22	12:BL:58:ASN:H	1.43	0.67
42:DR:49:ILE:HG21	42:DR:53:PHE:H	1.58	0.67
21:AU:13:VAL:HG13	21:AU:15:LEU:CG	2.25	0.67
1:BA:88:U:C4	1:BA:89:U:C4	2.83	0.67
1:BA:499:A:H4'	1:BA:500:G:OP1	1.95	0.67
2:AB:34:ARG:HE	2:AB:34:ARG:HA	1.59	0.67
33:CI:6:ALA:HB3	33:CI:60:VAL:H	1.60	0.67
25:DA:1380:G:OP2	60:DA:3759:HOH:O	2.12	0.67
1:BA:1441:A:H3'	1:BA:1441:A:C8	2.29	0.67
25:DA:2005:A:H5"	60:DA:3384:HOH:O	1.94	0.67
25:CA:1387:A:H2'	25:CA:1388:G:O4'	1.95	0.67
10:BJ:80:THR:HB	10:BJ:83:THR:H	1.60	0.67
25:CA:1687:G:O2'	25:CA:1688:U:H5'	1.95	0.67
25:DA:2133:G:C2	25:DA:2158:A:N6	2.63	0.67
4:AD:96:ARG:O	4:AD:100:VAL:HG23	1.95	0.67
25:CA:322:A:H5'	25:CA:340:A:H1'	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:269:C:H2'	1:BA:270:A:C8	2.30	0.67
42:CR:42:ALA:HA	42:CR:46:GLU:CB	2.22	0.66
25:DA:1315:C:H2'	25:DA:1316:U:H6	1.61	0.66
1:AA:1134:G:C4	1:AA:1141:C:N4	2.63	0.66
2:AB:90:PHE:H	2:AB:149:GLY:HA3	1.60	0.66
5:BE:104:ILE:N	5:BE:121:ASN:O	2.27	0.66
3:BC:154:GLY:HA2	3:BC:162:ALA:HB1	1.75	0.66
25:DA:1526:C:N4	25:DA:1527:G:C6	2.63	0.66
3:AC:6:PRO:HG2	3:AC:183:TYR:CG	2.30	0.66
30:DF:34:THR:HG23	30:DF:89:THR:HA	1.77	0.66
55:D4:23:ILE:HB	55:D4:38:GLY:HA3	1.76	0.66
4:AD:31:CYS:SG	4:AD:32:LYS:N	2.68	0.66
30:CF:11:VAL:HG13	30:CF:171:ALA:HB1	1.76	0.66
3:AC:24:ASN:O	3:AC:26:LYS:N	2.27	0.66
25:CA:1585:C:C2'	25:CA:1586:A:O5'	2.43	0.66
9:BI:53:LEU:O	9:BI:54:VAL:HG22	1.95	0.66
3:BC:41:TYR:CE2	3:BC:45:GLU:HG2	2.30	0.66
25:CA:1530:G:H2'	25:CA:1530:G:N3	2.09	0.66
34:DJ:99:ARG:O	34:DJ:103:ILE:HD12	1.96	0.66
45:DU:15:GLY:O	45:DU:16:LYS:HB2	1.95	0.66
33:CI:74:PRO:HB2	33:CI:77:VAL:HG13	1.77	0.66
25:CA:2105:U:H2'	25:CA:2106:U:O4'	1.96	0.66
28:CD:85:ALA:HB3	28:CD:88:GLU:HG3	1.76	0.66
25:DA:168:G:H2'	25:DA:168:G:N3	2.10	0.66
8:AH:103:VAL:O	8:AH:103:VAL:HG22	1.94	0.66
25:DA:2615:U:H1'	51:D0:3:GLN:HB3	1.75	0.66
18:AR:24:ASP:HB3	18:AR:27:THR:HB	1.77	0.66
1:BA:1308:U:H5"	13:BM:96:VAL:CG2	2.25	0.66
25:DA:2196:C:C2'	25:DA:2197:U:H5'	2.25	0.66
25:CA:1179:G:N7	25:CA:1180:U:O4'	2.28	0.66
33:CI:83:ALA:HB2	33:CI:105:LEU:HD11	1.76	0.66
1:AA:510:A:H5"	1:AA:511:C:OP2	1.95	0.66
1:AA:1397:C:HO2'	1:AA:1398:A:P	2.17	0.66
5:BE:24:VAL:HG23	5:BE:26:GLY:H	1.59	0.66
10:BJ:10:LEU:N	10:BJ:10:LEU:HD12	2.10	0.66
6:BF:47:LEU:CD1	6:BF:51:ILE:CG2	2.73	0.66
49:CY:9:LYS:HE2	49:CY:11:VAL:CG2	2.25	0.66
17:BQ:44:HIS:ND1	17:BQ:69:THR:HG21	2.10	0.66
25:DA:422:A:OP2	60:DA:3567:HOH:O	2.12	0.66
13:AM:3:ILE:HD11	13:AM:9:PRO:CG	2.25	0.66
25:DA:2415:G:C4	25:DA:2416:C:C5	2.83	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AR:54:LEU:CD1	18:AR:58:ILE:HD11	2.25	0.66
31:DG:36:LEU:HD13	31:DG:40:VAL:HG11	1.78	0.66
25:DA:323:C:N3	25:DA:333:G:C8	2.64	0.66
35:CK:34:GLY:O	35:CK:35:VAL:C	2.33	0.66
25:CA:2172:U:OP1	25:CA:2174:C:C5	2.48	0.66
25:DA:1062:G:H2'	25:DA:1063:G:C4	2.30	0.66
25:DA:1351:C:O2	25:DA:1381:G:C2	2.48	0.66
32:DH:134:VAL:HG12	32:DH:138:VAL:O	1.94	0.66
1:BA:723:U:C5	21:BU:49:ALA:HA	2.31	0.66
20:BT:69:ASN:O	20:BT:70:LYS:C	2.34	0.66
1:AA:1031:C:C2'	1:AA:1032:G:OP2	2.43	0.66
30:DF:33:ILE:HG12	30:DF:155:ILE:HA	1.77	0.66
1:AA:1083:U:H5	1:AA:1084:G:C6	2.12	0.66
25:CA:2550:G:C2'	25:CA:2551:C:H5'	2.24	0.66
31:DG:112:VAL:HG21	31:DG:150:TYR:CD2	2.31	0.66
9:BI:43:ALA:HB1	9:BI:46:VAL:HG21	1.75	0.66
25:CA:2133:G:C2'	25:CA:2158:A:N6	2.59	0.66
2:BB:130:LYS:HA	2:BB:133:ALA:HB3	1.76	0.66
1:AA:518:C:H2'	1:AA:530:G:C8	2.30	0.66
25:CA:2887:A:H2'	25:CA:2887:A:N3	2.09	0.66
19:AS:28:LYS:CB	19:AS:29:PRO:HD2	2.25	0.66
45:CU:48:VAL:O	45:CU:53:GLN:HB2	1.95	0.66
4:BD:123:MET:HE3	4:BD:145:ARG:HB3	1.77	0.66
25:DA:82:U:H5'	25:DA:296:U:H5"	1.76	0.66
19:BS:3:SER:O	19:BS:4:LEU:HB2	1.93	0.66
24:AY:149:ILE:HG23	24:AY:153:ASP:CB	2.25	0.66
43:CS:45:VAL:O	43:CS:46:LEU:C	2.33	0.66
16:BP:10:GLY:HA3	16:BP:15:PRO:HA	1.76	0.66
25:CA:1180:U:OP1	25:CA:1180:U:O3'	2.14	0.66
25:DA:2146:C:H5"	25:DA:2147:A:OP1	1.95	0.66
25:CA:10:A:H2	25:CA:2800:A:HO2'	1.43	0.66
1:BA:469:C:H5	1:BA:470:C:C4	2.14	0.66
1:BA:423:G:N2	1:BA:424:G:C8	2.64	0.66
1:AA:1530:G:O2'	1:AA:1531:A:OP2	2.13	0.66
33:CI:54:ILE:HG12	33:CI:73:PRO:CA	2.25	0.66
45:DU:98:ASN:C	45:DU:98:ASN:OD1	2.34	0.66
4:BD:151:GLN:O	4:BD:154:VAL:HG12	1.96	0.66
10:BJ:87:LEU:HD13	10:BJ:88:MET:HG2	1.78	0.66
25:DA:2248:C:C2'	25:DA:2249:U:H5'	2.24	0.66
25:CA:1789:A:OP2	27:CC:220:ARG:NH1	2.28	0.66
5:BE:133:ILE:HD12	5:BE:133:ILE:H	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DC:20:ASN:OD1	27:DC:20:ASN:C	2.33	0.66
10:AJ:49:PHE:CD1	10:AJ:49:PHE:N	2.63	0.66
36:DL:4:ASN:C	36:DL:5:THR:HG22	2.15	0.66
1:AA:959:A:C2	1:AA:1222:G:O4'	2.48	0.66
37:CM:57:VAL:O	37:CM:60:GLN:CG	2.42	0.66
1:AA:1278:G:H4'	1:AA:1279:G:C8	2.31	0.66
42:DR:39:LEU:C	42:DR:49:ILE:HG23	2.16	0.66
1:BA:1262:C:C6	1:BA:1263:C:C5	2.83	0.66
6:BF:18:VAL:HA	6:BF:21:MET:CE	2.26	0.66
45:CU:17:ASP:HB3	45:CU:20:LYS:HD3	1.76	0.66
18:AR:35:SER:HA	18:AR:71:ASP:OD2	1.96	0.66
1:BA:590:U:H2'	1:BA:591:U:C6	2.30	0.66
1:BA:562:U:H4'	1:BA:563:A:H5'	1.78	0.66
25:DA:1001:A:OP2	60:DA:3742:HOH:O	2.13	0.66
25:DA:744:U:OP1	60:DA:3658:HOH:O	2.13	0.66
25:DA:1517:G:N2	25:DA:1732:C:C4	2.63	0.66
25:DA:2134:A:H62	25:DA:2157:G:H1'	1.61	0.66
2:AB:212:TYR:HA	2:AB:215:ALA:HB3	1.78	0.66
25:DA:2297:A:C2	25:DA:2298:A:C8	2.83	0.66
35:DK:76:VAL:HG12	40:DP:72:VAL:HG23	1.78	0.66
5:BE:121:ASN:O	5:BE:122:VAL:O	2.13	0.66
20:BT:64:GLY:HA2	20:BT:67:HIS:CE1	2.31	0.66
32:CH:117:LEU:HD21	32:CH:121:VAL:CA	2.24	0.66
11:AK:121:ARG:CZ	21:AU:35:GLU:HG3	2.26	0.66
21:AU:36:PHE:CD1	21:AU:39:LYS:HE3	2.31	0.66
25:DA:2666:C:C5	25:DA:2667:C:C4	2.83	0.66
9:BI:83:THR:HG21	9:BI:102:PHE:HB3	1.76	0.66
2:BB:98:GLY:HA2	2:BB:101:THR:CG2	2.24	0.66
35:DK:99:ILE:HD13	35:DK:118:LEU:HD12	1.77	0.66
25:CA:1474:U:H2'	25:CA:1475:G:H5'	1.76	0.66
21:AU:7:GLU:HB3	21:AU:11:PHE:HZ	1.60	0.66
44:CT:1:MET:C	44:CT:3:ARG:HB2	2.16	0.66
1:BA:1211:U:O2'	1:BA:1212:U:OP2	2.14	0.66
25:DA:2893:A:H4'	25:DA:2894:G:H5'	1.77	0.66
1:AA:918:A:H2'	1:AA:919:A:C8	2.30	0.66
1:BA:540:G:H2'	1:BA:541:G:O4'	1.95	0.66
27:DC:79:ARG:HD3	27:DC:92:LEU:HB3	1.76	0.66
36:DL:90:VAL:HG12	36:DL:90:VAL:O	1.94	0.66
25:CA:2203:U:H5"	25:CA:2204:G:OP1	1.95	0.66
25:DA:540:C:C2'	25:DA:541:A:H5'	2.25	0.66
47:CW:20:LYS:O	47:CW:21:ARG:HD3	1.94	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CP:29:VAL:HG13	40:CP:79:VAL:HG12	1.77	0.66
42:DR:61:ALA:HB1	42:DR:97:LYS:O	1.95	0.66
1:BA:1323:G:H2'	1:BA:1324:A:C8	2.30	0.66
1:AA:1138:G:C8	1:AA:1140:C:H5'	2.30	0.66
25:CA:1080:A:C2	25:CA:1081:U:C5	2.83	0.66
30:CF:121:PHE:HB3	30:CF:162:ASP:OD2	1.95	0.66
11:BK:62:ALA:CB	11:BK:91:GLY:HA2	2.26	0.66
7:AG:119:LEU:CD2	7:AG:123:LEU:CD2	2.73	0.66
55:C4:36:ARG:HG2	55:C4:37:GLN:N	2.11	0.66
25:CA:2334:U:O4	39:CO:16:ARG:NH2	2.29	0.66
33:DI:46:ASP:HA	33:DI:50:LYS:HD2	1.76	0.66
25:CA:246:C:H2'	25:CA:247:G:H5'	1.78	0.66
25:DA:900:A:C2	25:DA:901:C:C1'	2.78	0.66
8:BH:54:THR:C	8:BH:56:PRO:HD3	2.16	0.66
18:BR:38:ILE:CD1	18:BR:55:ALA:HA	2.26	0.66
3:BC:5:HIS:HD2	14:BN:89:MET:HB3	1.60	0.66
1:BA:328:C:H2'	1:BA:328:C:O2	1.93	0.66
34:CJ:64:VAL:HG13	34:CJ:68:LYS:HB2	1.78	0.66
25:DA:687:C:H2'	25:DA:688:U:O4'	1.96	0.66
25:DA:1087:G:C4	25:DA:1089:A:H1'	2.31	0.66
33:DI:38:CYS:CA	33:DI:41:PHE:HB3	2.22	0.66
42:CR:41:ILE:O	42:CR:46:GLU:HB2	1.95	0.66
32:CH:31:VAL:CB	32:CH:32:PRO:HD2	2.24	0.66
41:DQ:85:ALA:HB3	41:DQ:87:VAL:HG23	1.77	0.66
42:DR:49:ILE:HB	42:DR:51:VAL:O	1.96	0.66
1:AA:64:G:C2	1:AA:67:C:N4	2.64	0.66
17:BQ:61:ARG:C	17:BQ:72:TRP:CE3	2.69	0.66
32:DH:72:ILE:CG2	32:DH:73:ASN:N	2.59	0.66
1:BA:374:A:H5"	1:BA:452:A:H2	1.60	0.66
1:BA:451:A:H61	1:BA:481:G:H5'	1.61	0.66
4:AD:131:ILE:HD12	4:AD:134:TYR:N	2.11	0.66
49:CY:9:LYS:HE2	49:CY:11:VAL:HG21	1.77	0.66
25:DA:2133:G:N3	25:DA:2158:A:C6	2.64	0.66
25:DA:1477:A:C2	25:DA:1515:A:C4	2.82	0.66
1:BA:642:A:N3	8:BH:104:SER:OG	2.28	0.66
30:DF:103:ILE:HG22	30:DF:174:PHE:HA	1.78	0.66
40:DP:92:ARG:O	40:DP:93:LYS:HB2	1.95	0.66
25:DA:465:G:H2'	25:DA:466:A:C8	2.31	0.66
1:BA:940:C:H2'	1:BA:941:G:C8	2.30	0.66
33:DI:89:SER:HB3	33:DI:92:PRO:HG3	1.77	0.66
49:DY:9:LYS:HG2	49:DY:10:SER:N	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:78:U:OP1	49:DY:2:LYS:HD2	1.96	0.66
1:AA:1133:G:N1	1:AA:1142:G:C6	2.64	0.66
25:DA:2345:G:C5	25:DA:2381:A:C2	2.84	0.66
38:DN:32:GLU:HA	38:DN:115:LEU:HG	1.78	0.66
25:DA:2115:G:O2'	25:DA:2117:A:N6	2.29	0.66
25:DA:2148:G:H2'	25:DA:2149:U:C6	2.31	0.66
8:AH:95:MET:HB2	8:AH:98:LEU:O	1.96	0.66
1:BA:1239:A:H2'	1:BA:1298:U:O4	1.94	0.66
1:AA:204:G:C8	1:AA:205:A:H5"	2.31	0.66
1:BA:1005:A:N7	1:BA:1006:G:C4	2.64	0.66
21:AU:9:GLU:CG	21:AU:10:PRO:HD3	2.26	0.66
3:AC:87:ARG:HG2	3:AC:98:ALA:O	1.96	0.66
25:DA:1025:G:O2'	60:DA:3714:HOH:O	2.04	0.66
33:CI:71:LYS:CD	33:CI:71:LYS:N	2.58	0.66
25:DA:194:G:C8	60:DA:3767:HOH:O	2.49	0.66
27:CC:51:ARG:NH2	27:CC:246:PRO:HG3	2.11	0.66
25:DA:250:G:OP2	54:D3:12:ARG:NH1	2.29	0.66
28:DD:124:ARG:HD3	28:DD:125:TRP:NE1	2.11	0.66
12:AL:43:LYS:HB2	12:AL:44:PRO:CD	2.26	0.66
51:D0:12:ARG:O	51:D0:16:ARG:HG3	1.96	0.66
4:BD:169:TRP:CD1	4:BD:185:PRO:HG3	2.31	0.66
25:CA:2221:G:O2'	25:CA:2222:C:H5'	1.95	0.66
56:DB:102:G:H8	56:DB:102:G:O5'	1.78	0.66
25:CA:1058:U:H1'	25:CA:1081:U:O2	1.96	0.66
1:AA:1124:G:H3'	1:AA:1145:A:H61	1.59	0.66
25:DA:2206:C:O2'	25:DA:2207:C:H5'	1.95	0.66
25:DA:2338:C:C2	25:DA:2339:C:C5	2.84	0.66
25:CA:981:A:OP1	60:CA:3601:HOH:O	2.14	0.66
25:DA:860:U:O4'	25:DA:2268:A:H5'	1.96	0.66
5:BE:156:ARG:O	5:BE:158:LYS:N	2.29	0.66
1:AA:66:A:C2	1:AA:67:C:C6	2.84	0.66
17:BQ:7:LEU:HD22	17:BQ:72:TRP:CH2	2.31	0.66
2:BB:95:TRP:CZ3	2:BB:174:GLU:OE2	2.48	0.66
53:C2:43:THR:O	53:C2:44:VAL:CB	2.44	0.66
25:DA:418:C:H2'	25:DA:419:U:O4'	1.95	0.66
2:BB:49:PHE:CD1	2:BB:49:PHE:C	2.69	0.66
2:BB:56:LEU:O	2:BB:59:ILE:HG13	1.96	0.66
12:AL:89:LEU:HD12	12:AL:89:LEU:N	2.10	0.66
46:DV:42:LEU:HD12	46:DV:47:VAL:HG21	1.78	0.66
25:DA:1506:U:H2'	25:DA:1507:C:C6	2.30	0.66
7:BG:131:GLY:H	7:BG:134:VAL:CG1	2.08	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:4:U:C5'	1:BA:5:U:OP1	2.44	0.66
8:BH:82:LEU:HD13	8:BH:82:LEU:O	1.95	0.66
44:CT:35:ALA:O	44:CT:38:ALA:HB3	1.96	0.66
36:DL:10:GLU:HA	36:DL:10:GLU:OE1	1.96	0.66
25:CA:408:G:C2	25:CA:420:C:O2	2.49	0.66
6:BF:50:PRO:HD3	18:BR:73:HIS:HB3	1.77	0.66
2:BB:17:HIS:O	2:BB:18:GLN:HB2	1.95	0.65
25:DA:1590:A:H2'	25:DA:1591:A:H8	1.60	0.65
1:BA:1078:U:O2	5:BE:89:THR:HG21	1.96	0.65
25:DA:1177:G:H2'	25:DA:1178:C:O4'	1.96	0.65
9:AI:10:ARG:HB3	9:AI:15:ALA:HA	1.76	0.65
33:CI:57:VAL:HG23	33:CI:71:LYS:NZ	2.11	0.65
25:DA:1429:G:O2'	25:DA:1430:G:H5'	1.96	0.65
27:CC:17:LYS:HA	27:CC:17:LYS:HE3	1.78	0.65
25:DA:2133:G:N3	25:DA:2158:A:N6	2.43	0.65
25:CA:2202:U:H5"	25:CA:2203:U:OP1	1.96	0.65
30:DF:103:ILE:CG2	30:DF:174:PHE:HA	2.26	0.65
25:DA:2039:U:H2'	25:DA:2040:G:C8	2.30	0.65
25:DA:1638:C:H4'	25:DA:2710:C:O2	1.96	0.65
25:CA:2061:G:OP2	60:CA:3498:HOH:O	2.14	0.65
1:BA:414:A:C2	1:BA:415:A:H1'	2.31	0.65
33:DI:116:MET:SD	33:DI:128:ILE:HD11	2.36	0.65
32:CH:31:VAL:O	32:CH:32:PRO:C	2.31	0.65
25:CA:1060:U:H4'	25:CA:1061:U:H3'	1.78	0.65
25:DA:2216:G:H2'	25:DA:2217:G:C8	2.31	0.65
21:AU:28:LEU:O	21:AU:28:LEU:HD23	1.96	0.65
20:BT:64:GLY:C	20:BT:67:HIS:CE1	2.69	0.65
13:AM:21:ILE:HB	13:AM:24:VAL:HG22	1.76	0.65
25:DA:1542:U:O2'	25:DA:1543:G:H5'	1.95	0.65
1:BA:1142:G:C6	1:BA:1143:G:H1'	2.31	0.65
14:AN:35:ALA:CB	14:AN:41:ARG:HB3	2.25	0.65
8:AH:48:PHE:HD1	8:AH:48:PHE:H	1.42	0.65
16:AP:77:GLU:C	16:AP:79:ASN:N	2.48	0.65
9:BI:27:ILE:HG23	9:BI:62:LEU:CD1	2.25	0.65
3:AC:36:PHE:CZ	14:AN:92:GLU:OE2	2.49	0.65
1:BA:500:G:C6	1:BA:501:C:N4	2.64	0.65
2:BB:134:LEU:HA	2:BB:137:THR:OG1	1.95	0.65
1:BA:1113:C:C2	1:BA:1114:C:C5	2.85	0.65
33:CI:66:PHE:CE1	33:CI:68:PHE:CE1	2.84	0.65
25:CA:2114:A:C4	25:CA:2167:U:H5'	2.30	0.65
25:DA:2727:A:C6	25:DA:2728:U:O4	2.50	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:137:U:OP2	25:DA:137:U:C6	2.50	0.65
30:DF:99:PHE:O	30:DF:102:LEU:HB3	1.96	0.65
9:AI:66:VAL:HG22	9:AI:74:GLN:HG2	1.76	0.65
34:DJ:140:LEU:HD12	34:DJ:141:ASP:N	2.10	0.65
38:CN:13:ASN:C	38:CN:13:ASN:HD22	2.00	0.65
25:CA:215:G:H4'	25:CA:216:A:H4'	1.78	0.65
25:CA:2318:G:C6	25:CA:2319:G:N1	2.65	0.65
1:AA:505:G:H4'	1:AA:534:U:C5	2.31	0.65
6:AF:7:VAL:O	6:AF:7:VAL:HG13	1.96	0.65
22:BV:20:U:OP1	22:BV:20:U:O4'	2.15	0.65
1:AA:993:G:N3	1:AA:993:G:H2'	2.11	0.65
25:DA:2885:G:N7	51:D0:39:ARG:NH2	2.44	0.65
33:CI:38:CYS:HB3	33:CI:42:ASN:ND2	2.11	0.65
33:CI:42:ASN:OD1	33:CI:45:THR:HB	1.97	0.65
2:AB:119:GLN:N	2:AB:122:ASP:HB2	2.12	0.65
25:CA:981:A:H5"	60:CA:3598:HOH:O	1.93	0.65
20:BT:64:GLY:CA	20:BT:67:HIS:CE1	2.79	0.65
25:DA:2164:C:H2'	25:DA:2165:C:H6	1.60	0.65
56:DB:43:C:H5"	56:DB:44:G:OP2	1.96	0.65
25:CA:2055:C:H5'	25:CA:2056:G:H5"	1.77	0.65
1:BA:175:C:O2'	1:BA:176:C:H5'	1.96	0.65
25:DA:443:A:N7	29:DE:40:ARG:HD3	2.10	0.65
3:BC:102:ILE:N	3:BC:102:ILE:HD12	2.10	0.65
1:AA:805:C:O2'	1:AA:806:C:H5'	1.96	0.65
25:DA:1475:G:O2'	25:DA:1476:U:P	2.54	0.65
40:DP:93:LYS:HG2	40:DP:95:LYS:O	1.97	0.65
1:AA:744:C:H2'	1:AA:745:G:C8	2.31	0.65
40:CP:112:ARG:O	40:CP:113:LEU:HG	1.97	0.65
25:DA:665:U:O2	25:DA:665:U:H2'	1.96	0.65
8:BH:74:ILE:HD13	8:BH:128:VAL:HG22	1.78	0.65
1:AA:701:U:H4'	1:AA:702:A:H5"	1.79	0.65
1:BA:236:A:H2'	1:BA:237:G:C8	2.32	0.65
35:DK:1:MET:HG2	35:DK:32:TYR:CD1	2.31	0.65
33:DI:56:VAL:HB	33:DI:70:THR:HB	1.79	0.65
2:AB:102:ASN:HB3	2:AB:105:THR:HB	1.77	0.65
2:AB:88:GLN:CG	2:AB:220:VAL:HG11	2.26	0.65
32:DH:4:ILE:HG22	32:DH:5:LEU:H	1.61	0.65
1:BA:802:A:H5"	1:BA:803:G:OP2	1.96	0.65
5:AE:131:ASN:HD22	5:AE:131:ASN:C	1.99	0.65
10:AJ:63:ASP:OD1	14:AN:85:ARG:HD2	1.97	0.65
25:CA:544:C:C5	25:CA:545:U:C5	2.85	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:BU:23:GLU:HA	21:BU:27:VAL:HG22	1.77	0.65
11:BK:87:GLY:H	11:BK:113:THR:CG2	2.08	0.65
25:DA:479:A:N3	25:DA:481:G:H5"	2.11	0.65
1:AA:542:G:N3	1:AA:543:U:C5	2.64	0.65
1:AA:37:U:O2'	1:AA:500:G:H4'	1.97	0.65
25:CA:2119:A:C2	25:CA:2169:A:C2	2.85	0.65
44:DT:7:LEU:HD21	44:DT:46:ALA:CA	2.26	0.65
27:CC:161:VAL:CG1	27:CC:173:LEU:HB3	2.27	0.65
25:DA:2038:G:H2'	25:DA:2039:U:O4'	1.96	0.65
1:BA:1476:A:H2'	1:BA:1477:U:C6	2.31	0.65
52:C1:7:LYS:HA	52:C1:23:THR:HG22	1.79	0.65
44:DT:22:THR:HA	44:DT:25:GLU:CG	2.26	0.65
54:C3:30:HIS:O	54:C3:31:ILE:C	2.33	0.65
45:CU:45:GLN:OE1	45:CU:58:VAL:HG21	1.95	0.65
12:BL:29:LYS:HE3	12:BL:29:LYS:HA	1.79	0.65
25:DA:1301:A:H4'	25:DA:1302:A:OP1	1.96	0.65
33:DI:20:SER:HB3	33:DI:21:PRO:HD3	1.78	0.65
25:CA:760:G:C2'	25:CA:761:A:H5'	2.27	0.65
32:CH:31:VAL:HB	32:CH:32:PRO:CD	2.25	0.65
1:AA:1314:C:O2	1:AA:1315:U:C6	2.49	0.65
1:AA:1279:G:H5"	10:AJ:9:ARG:NH2	2.12	0.65
25:CA:1169:A:C2	25:CA:1181:U:O2	2.49	0.65
42:CR:49:ILE:HG22	42:CR:53:PHE:H	1.60	0.65
36:DL:127:VAL:HG12	36:DL:131:ALA:HB3	1.78	0.65
36:DL:82:LEU:HD23	36:DL:83:ALA:N	2.10	0.65
25:DA:2407:A:N3	25:DA:2408:U:C5	2.65	0.65
8:AH:9:MET:HG3	8:AH:26:MET:SD	2.36	0.65
25:CA:2304:G:H1'	30:CF:128:SER:HB3	1.78	0.65
25:CA:2141:G:H2'	25:CA:2142:A:H5'	1.78	0.65
6:BF:77:THR:O	6:BF:80:PHE:HB3	1.96	0.65
1:BA:1007:U:H2'	1:BA:1008:U:H5"	1.78	0.65
2:BB:156:LEU:HD23	2:BB:156:LEU:O	1.96	0.65
3:AC:59:PRO:HB3	10:AJ:94:ALA:HB1	1.78	0.65
30:CF:141:ASP:O	30:CF:145:VAL:HG13	1.96	0.65
27:DC:132:ARG:HG3	27:DC:133:ASN:OD1	1.96	0.65
25:DA:1233:C:H2'	25:DA:1234:U:O5'	1.95	0.65
60:CA:3660:HOH:O	28:CD:140:HIS:NE2	2.29	0.65
32:CH:2:GLN:O	32:CH:3:VAL:HG22	1.96	0.65
25:CA:1098:A:C6	25:CA:1099:G:N1	2.65	0.65
1:AA:403:C:H2'	1:AA:404:G:O4'	1.96	0.65
5:AE:59:ILE:HG13	5:AE:60:GLN:N	2.10	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DB:103:U:H2'	56:DB:104:A:H5'	1.78	0.65
1:BA:692:U:H2'	1:BA:694:A:OP2	1.97	0.65
1:BA:1160:G:HO2'	1:BA:1161:C:H6	1.42	0.65
49:DY:23:ARG:O	49:DY:24:GLU:C	2.35	0.65
17:AQ:15:LYS:C	17:AQ:16:MET:SD	2.75	0.65
38:CN:103:ARG:NE	38:CN:110:MET:HE2	2.11	0.65
20:BT:69:ASN:O	20:BT:71:ALA:N	2.30	0.65
37:DM:21:ALA:CB	37:DM:100:LYS:HG2	2.27	0.65
33:CI:83:ALA:CB	33:CI:105:LEU:HD11	2.27	0.65
22:AV:60:U:H5"	22:AV:61:C:H5	1.62	0.65
34:DJ:80:HIS:HB3	34:DJ:81:ILE:HG22	1.77	0.65
3:AC:21:TRP:CG	3:AC:58:ARG:HG2	2.31	0.65
2:BB:56:LEU:HD13	2:BB:57:ASN:N	2.12	0.65
14:AN:43:ASN:OD1	14:AN:47:LYS:HE2	1.97	0.65
25:DA:64:A:H2'	25:DA:65:U:C6	2.32	0.65
7:AG:38:ALA:O	7:AG:41:ILE:HB	1.97	0.65
14:BN:17:ASP:HA	14:BN:20:PHE:O	1.96	0.65
44:DT:39:THR:HG22	44:DT:42:GLU:HB2	1.77	0.65
34:DJ:37:ARG:HG2	34:DJ:39:LYS:HG2	1.78	0.65
25:CA:870:U:OP1	37:CM:6:ARG:HD3	1.97	0.65
25:CA:2161:C:O2	25:CA:2161:C:H2'	1.97	0.65
25:DA:2287:A:C8	25:DA:2289:G:C8	2.85	0.65
25:DA:1589:U:H2'	25:DA:1590:A:C8	2.31	0.65
34:DJ:31:GLU:O	34:DJ:34:ARG:HB3	1.96	0.65
1:BA:64:G:C8	1:BA:99:C:N4	2.65	0.65
1:BA:463:U:C2'	1:BA:463:U:O2	2.45	0.65
2:BB:99:MET:CA	2:BB:106:VAL:HG21	2.27	0.65
1:AA:972:C:H4'	10:AJ:59:LYS:CE	2.27	0.65
1:BA:1093:A:C2	1:BA:1095:U:C4'	2.79	0.65
2:AB:16:GLY:HA3	2:AB:39:ILE:HA	1.77	0.65
43:DS:59:GLU:CG	43:DS:66:ILE:HD11	2.27	0.65
25:DA:149:A:C4	25:DA:150:U:C6	2.85	0.65
33:CI:57:VAL:HG12	33:CI:58:ILE:N	2.12	0.65
25:DA:1091:G:C4	25:DA:1092:C:C5	2.85	0.65
18:BR:41:SER:CB	18:BR:51:GLN:HE21	2.09	0.65
35:DK:104:THR:HG22	35:DK:122:VAL:HG11	1.77	0.65
25:CA:2404:U:C2'	25:CA:2405:G:O5'	2.44	0.65
44:DT:2:ILE:HG12	44:DT:7:LEU:HD12	1.78	0.65
1:AA:198:G:C4	1:AA:199:A:C8	2.84	0.65
10:AJ:48:ARG:C	10:AJ:49:PHE:CD1	2.70	0.65
25:DA:1873:G:H2'	25:DA:1874:C:H6	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:CL:92:LEU:HD12	36:CL:92:LEU:H	1.62	0.65
3:AC:181:ILE:HD13	3:AC:202:PHE:HA	1.79	0.65
25:DA:623:C:H2'	25:DA:624:C:H6	1.61	0.65
25:CA:743:A:O3'	60:CA:3659:HOH:O	2.14	0.65
4:AD:3:TYR:O	4:AD:4:LEU:HB2	1.97	0.65
41:DQ:78:PHE:CZ	41:DQ:82:LEU:HD11	2.31	0.65
7:BG:85:GLN:NE2	7:BG:85:GLN:HA	2.11	0.65
34:CJ:76:HIS:CE1	34:CJ:85:LYS:HB2	2.31	0.65
11:AK:13:LYS:O	11:AK:14:GLN:CB	2.45	0.65
11:AK:13:LYS:O	11:AK:14:GLN:HB2	1.97	0.65
36:CL:90:VAL:HG23	36:CL:120:VAL:HG21	1.78	0.65
1:AA:1145:A:H2'	1:AA:1146:A:OP2	1.97	0.65
25:DA:2338:C:O2	25:DA:2339:C:C5	2.49	0.65
17:BQ:16:MET:HG2	17:BQ:19:SER:HB3	1.78	0.65
25:DA:1586:A:C8	25:DA:1587:G:C8	2.85	0.65
11:AK:41:LEU:HD22	11:AK:76:TYR:CD2	2.31	0.65
1:AA:144:G:C5	1:AA:179:A:C2	2.84	0.65
1:BA:82:G:O6	1:BA:87:C:N3	2.29	0.65
25:DA:362:A:N3	25:DA:362:A:H2'	2.10	0.65
2:AB:40:ILE:HG21	2:AB:201:GLY:HA2	1.79	0.65
2:BB:67:LEU:HD23	2:BB:90:PHE:HA	1.78	0.65
33:CI:56:VAL:HA	33:CI:71:LYS:HE2	1.79	0.65
33:CI:61:TYR:HH	33:CI:67:THR:HG1	1.42	0.65
13:AM:80:MET:HG2	13:AM:91:ARG:CZ	2.27	0.65
18:AR:56:ARG:HE	18:AR:60:ARG:NH1	1.95	0.65
1:BA:750:C:O2	15:BO:22:GLY:HA3	1.97	0.65
15:BO:80:LEU:HD11	15:BO:84:LEU:HD22	1.78	0.65
25:CA:973:A:OP2	42:CR:81:LYS:HE3	1.95	0.65
1:AA:737:C:O2'	1:AA:738:C:H5'	1.97	0.65
25:CA:1714:U:H5"	25:CA:1715:G:C5'	2.26	0.65
25:CA:34:U:O2'	25:CA:35:G:OP1	2.15	0.65
39:CO:31:THR:HG22	39:CO:33:ARG:H	1.61	0.65
25:DA:973:A:O4'	25:DA:1188:U:C6	2.49	0.65
1:BA:938:A:C2	1:BA:1345:U:O4	2.50	0.65
13:BM:85:TYR:CE2	13:BM:89:ARG:HG3	2.32	0.65
17:AQ:12:VAL:CG1	17:AQ:21:VAL:HG13	2.26	0.65
25:DA:2197:U:C6	25:DA:2224:G:N1	2.65	0.65
32:DH:31:VAL:HG12	32:DH:32:PRO:CD	2.27	0.65
32:DH:69:ALA:HB2	32:DH:138:VAL:HG12	1.78	0.65
13:AM:63:VAL:O	13:AM:68:LEU:HB2	1.97	0.65
25:DA:1538:G:O4'	25:DA:1538:G:OP2	2.15	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:58:ASN:ND2	12:AL:60:PHE:CD1	2.64	0.65
1:BA:1126:U:C5	1:BA:1281:C:N4	2.65	0.65
4:AD:144:ILE:HG22	4:AD:145:ARG:O	1.97	0.65
2:AB:55:GLU:HA	2:AB:58:LYS:CB	2.27	0.65
35:DK:79:PHE:HB3	40:DP:67:GLU:OE2	1.97	0.65
1:BA:1492:A:C2	25:DA:1913:A:N6	2.65	0.65
11:AK:95:THR:O	11:AK:99:LEU:CD2	2.45	0.65
56:DB:62:C:H2'	56:DB:63:C:C6	2.31	0.65
31:DG:154:GLU:HG2	31:DG:155:PRO:CD	2.26	0.65
30:DF:28:PRO:CB	30:DF:168:LEU:HD22	2.26	0.65
1:AA:541:G:C4	1:AA:542:G:C8	2.85	0.65
1:AA:35:G:H2'	1:AA:36:C:C6	2.31	0.65
8:AH:63:LYS:HB2	8:AH:70:VAL:CG2	2.27	0.65
4:BD:97:LEU:HD12	4:BD:97:LEU:C	2.17	0.65
26:CB:65:U:H2'	26:CB:108:A:N6	2.12	0.65
6:AF:7:VAL:HG11	18:AR:64:LEU:HD11	1.78	0.65
34:CJ:49:ASP:OD1	34:CJ:121:LYS:HE3	1.96	0.65
25:CA:1746:A:C2	25:CA:1747:U:C2	2.85	0.65
10:BJ:9:ARG:CZ	10:BJ:9:ARG:HB3	2.25	0.65
1:BA:240:G:OP1	1:BA:240:G:H4'	1.96	0.65
36:CL:126:ARG:HD3	36:CL:126:ARG:H	1.62	0.65
2:BB:104:LYS:HG2	2:BB:104:LYS:O	1.97	0.65
1:AA:421:U:C2	3:AC:126:ARG:NH2	2.65	0.65
36:DL:9:ALA:HB3	36:DL:12:SER:OG	1.97	0.65
4:BD:47:LEU:HD23	4:BD:52:VAL:CG1	2.27	0.65
33:DI:32:VAL:HG13	33:DI:66:PHE:CE2	2.32	0.65
25:DA:1338:G:O2'	25:DA:1339:G:H5'	1.96	0.65
1:BA:1234:C:C2'	1:BA:1235:U:H5'	2.26	0.65
25:DA:1414:C:C4	25:DA:1415:U:H5	2.14	0.65
25:DA:1589:U:C2	25:DA:1590:A:N7	2.65	0.65
36:DL:70:LYS:O	36:DL:74:THR:HG23	1.97	0.65
25:DA:1439:A:C2	25:DA:1553:A:C4	2.84	0.65
1:BA:840:C:N3	1:BA:842:U:H4'	2.11	0.65
1:BA:469:C:C5	1:BA:470:C:C4	2.84	0.65
2:BB:101:THR:HG22	2:BB:174:GLU:OE1	1.97	0.65
25:CA:2152:G:H2'	25:CA:2153:C:H5'	1.79	0.65
6:BF:36:ILE:HB	6:BF:64:VAL:HG22	1.78	0.65
25:DA:2749:A:OP1	31:DG:1:SER:HB3	1.97	0.65
44:CT:89:GLU:O	44:CT:91:GLN:HG2	1.97	0.65
1:BA:684:U:H2'	1:BA:685:G:H5'	1.78	0.65
29:CE:18:THR:CG2	29:CE:19:PHE:CD2	2.80	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:20:PHE:C	14:AN:22:LYS:H	1.99	0.65
25:DA:1429:G:N2	25:DA:1430:G:C4	2.65	0.65
25:DA:2591:C:O2'	25:DA:2592:G:H5'	1.97	0.65
1:AA:1402:C:H2'	1:AA:1403:C:O4'	1.97	0.65
1:AA:1478:U:H2'	1:AA:1479:C:H6	1.62	0.65
4:AD:90:LEU:HD21	4:AD:194:ILE:HD11	1.79	0.65
25:CA:1840:G:C5	25:CA:1841:U:C5	2.85	0.65
1:BA:121:U:O4'	1:BA:121:U:OP2	2.15	0.65
25:CA:594:U:H2'	25:CA:595:C:C6	2.32	0.65
7:AG:105:GLU:O	7:AG:109:LYS:HG2	1.97	0.65
4:BD:4:LEU:HD13	4:BD:4:LEU:N	2.12	0.64
25:CA:1086:A:H5"	25:CA:1087:G:OP1	1.97	0.64
1:AA:1318:A:H1'	19:AS:36:ARG:NH1	2.13	0.64
25:DA:2219:U:C2'	25:DA:2220:U:O5'	2.45	0.64
1:BA:1039:G:C6	1:BA:1040:U:C4	2.84	0.64
1:BA:986:U:H2'	1:BA:987:G:O4'	1.97	0.64
25:DA:529:A:H4'	25:DA:530:G:OP1	1.96	0.64
30:DF:33:ILE:HD13	30:DF:155:ILE:HG12	1.79	0.64
1:AA:410:G:H5"	4:AD:25:ARG:NH2	2.12	0.64
33:CI:92:PRO:HA	33:CI:97:VAL:HG21	1.79	0.64
20:BT:53:MET:CE	20:BT:57:VAL:HG21	2.27	0.64
20:BT:43:LYS:CE	20:BT:85:LEU:O	2.44	0.64
1:BA:1078:U:O2'	1:BA:1079:G:H5'	1.96	0.64
10:AJ:52:LEU:HD11	10:AJ:59:LYS:HA	1.78	0.64
25:CA:2103:C:H2'	25:CA:2104:C:H5'	1.78	0.64
25:DA:1469:A:C2	25:DA:1470:A:C5	2.85	0.64
11:AK:39:ASN:O	11:AK:40:ALA:HB3	1.97	0.64
32:DH:76:GLU:HG2	32:DH:143:ILE:CD1	2.27	0.64
7:AG:71:THR:HG23	7:AG:72:VAL:HG13	1.79	0.64
25:DA:811:U:C2	25:DA:1251:C:C5	2.84	0.64
25:CA:1313:U:H2'	25:CA:1610:A:C2	2.31	0.64
25:CA:192:C:H2'	25:CA:193:U:H5'	1.79	0.64
52:C1:33:LEU:H	52:C1:51:ALA:HB3	1.62	0.64
25:CA:2223:G:H2'	25:CA:2224:G:H5'	1.79	0.64
6:AF:42:TRP:CD1	6:AF:42:TRP:N	2.63	0.64
16:AP:20:VAL:CG2	16:AP:35:ARG:HA	2.27	0.64
35:DK:4:GLU:O	35:DK:5:GLN:HB2	1.96	0.64
1:AA:811:C:O2'	1:AA:901:A:N1	2.29	0.64
25:CA:1070:A:C2	33:CI:9:LYS:HG3	2.32	0.64
6:AF:3:HIS:HB2	6:AF:92:THR:HA	1.79	0.64
1:AA:1446:A:C2'	1:AA:1447:A:H5'	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:16:GLU:OE2	4:BD:190:LEU:O	2.14	0.64
25:CA:2311:A:N7	30:CF:76:PHE:CD2	2.66	0.64
39:DO:37:ALA:O	39:DO:78:VAL:HG21	1.97	0.64
21:AU:38:GLU:N	21:AU:40:PRO:HD2	2.11	0.64
1:BA:1292:G:H2'	1:BA:1293:C:C6	2.32	0.64
9:BI:53:LEU:O	9:BI:54:VAL:HG13	1.98	0.64
29:DE:148:ILE:HD12	29:DE:187:VAL:HG11	1.79	0.64
25:CA:1045:C:H3'	25:CA:1046:A:H5'	1.78	0.64
27:CC:161:VAL:HG11	27:CC:173:LEU:HG	1.78	0.64
25:CA:1142:A:C2	25:CA:1144:A:C8	2.85	0.64
30:DF:100:GLU:O	30:DF:101:ARG:C	2.36	0.64
25:CA:26:G:C6	25:CA:27:G:N1	2.65	0.64
24:AY:118:VAL:HG12	24:AY:176:LEU:CD1	2.27	0.64
25:CA:2731:G:C6	25:CA:2732:G:O6	2.50	0.64
19:AS:49:ALA:HA	19:AS:57:VAL:O	1.97	0.64
29:DE:61:ARG:HD2	29:DE:63:LYS:O	1.96	0.64
25:CA:1998:A:OP2	28:CD:141:ARG:NH2	2.30	0.64
31:CG:123:GLU:OE1	31:CG:123:GLU:HA	1.97	0.64
5:BE:56:PRO:O	5:BE:59:ILE:HG13	1.96	0.64
34:DJ:117:ALA:O	34:DJ:119:PHE:N	2.30	0.64
25:DA:517:C:OP2	51:D0:9:ARG:NH2	2.30	0.64
49:DY:10:SER:O	49:DY:14:LEU:HD12	1.97	0.64
25:DA:2296:U:C2	25:DA:2333:A:C2	2.86	0.64
5:BE:152:VAL:O	5:BE:153:ALA:C	2.35	0.64
34:DJ:142:ILE:HG23	34:DJ:142:ILE:OXT	1.97	0.64
25:DA:1454:C:C5	38:DN:63:ARG:HG2	2.33	0.64
1:AA:1033:G:N3	1:AA:1033:G:H2'	2.10	0.64
56:DB:52:A:C5	39:DO:33:ARG:NH2	2.66	0.64
5:BE:14:LEU:CA	5:BE:36:THR:HG22	2.27	0.64
25:DA:1442:U:C2'	25:DA:1443:U:O5'	2.45	0.64
1:AA:151:A:H2'	1:AA:152:A:O4'	1.98	0.64
1:BA:71:A:H5'	1:BA:71:A:C8	2.31	0.64
1:BA:72:A:N6	1:BA:99:C:H1'	2.11	0.64
20:BT:42:ASP:HB3	20:BT:45:ALA:HB3	1.78	0.64
1:AA:376:G:H2'	1:AA:377:G:H8	1.62	0.64
10:AJ:59:LYS:HE3	10:AJ:59:LYS:H	1.63	0.64
3:BC:84:GLU:HG3	3:BC:85:LYS:N	2.12	0.64
56:DB:63:C:C2'	56:DB:64:G:O5'	2.45	0.64
2:BB:221:ARG:HE	2:BB:222:GLU:H	1.44	0.64
27:CC:110:LYS:CE	27:CC:113:ASP:OD1	2.44	0.64
17:AQ:68:LYS:O	17:AQ:69:THR:HB	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:28:LYS:CB	19:AS:29:PRO:CD	2.74	0.64
25:CA:2852:G:H2'	25:CA:2853:C:C6	2.33	0.64
1:BA:852:G:C6	1:BA:853:C:C4	2.85	0.64
25:DA:1621:U:H5"	25:DA:1622:G:OP1	1.97	0.64
9:AI:96:GLU:OE2	9:AI:96:GLU:N	2.30	0.64
22:BV:26:A:C2'	22:BV:27:G:H5'	2.28	0.64
35:CK:58:LEU:HD22	35:CK:58:LEU:N	2.13	0.64
25:DA:469:G:O6	53:D2:37:LYS:HE2	1.97	0.64
1:BA:929:G:C2'	1:BA:930:C:O5'	2.44	0.64
2:AB:116:LEU:HA	2:AB:119:GLN:OE1	1.98	0.64
17:AQ:56:ASP:O	17:AQ:58:VAL:HG12	1.97	0.64
1:BA:485:U:OP2	1:BA:485:U:H4'	1.96	0.64
12:AL:23:LEU:O	12:AL:24:GLU:C	2.34	0.64
33:CI:79:LEU:HD11	33:CI:132:ALA:HB2	1.79	0.64
25:DA:1445:G:N2	25:DA:1547:C:C2	2.65	0.64
25:CA:1414:C:C4	25:CA:1415:U:C5	2.86	0.64
2:BB:125:PHE:N	2:BB:125:PHE:CD2	2.62	0.64
10:BJ:22:THR:HA	10:BJ:25:ILE:CG2	2.28	0.64
46:CV:80:HIS:CG	46:CV:81:PRO:HD2	2.32	0.64
21:BU:11:PHE:N	21:BU:11:PHE:CD1	2.63	0.64
1:AA:844:G:C6	1:AA:846:G:O2'	2.49	0.64
1:AA:874:G:C5	1:AA:875:U:C5	2.84	0.64
33:DI:9:LYS:HB2	33:DI:55:PRO:CB	2.26	0.64
32:CH:3:VAL:HB	32:CH:37:VAL:O	1.97	0.64
1:AA:1478:U:H2'	1:AA:1479:C:C6	2.32	0.64
28:DD:50:VAL:HG23	28:DD:51:THR:N	2.12	0.64
7:BG:68:VAL:O	7:BG:70:PRO:N	2.30	0.64
25:CA:557:C:H2'	25:CA:558:U:H6	1.62	0.64
25:CA:55:G:O2'	25:CA:127:A:N1	2.26	0.64
1:AA:419:C:H2'	1:AA:420:U:O5'	1.97	0.64
1:BA:430:A:OP2	4:BD:7:LYS:HD2	1.97	0.64
1:AA:271:C:H2'	1:AA:272:C:H6	1.63	0.64
13:BM:9:PRO:O	13:BM:10:ASP:HB2	1.96	0.64
3:AC:147:GLY:HA3	3:AC:171:ARG:O	1.97	0.64
1:AA:1083:U:C5	1:AA:1084:G:C4	2.86	0.64
5:AE:73:VAL:HG11	5:AE:143:LEU:HB3	1.80	0.64
5:AE:81:GLN:HG2	5:AE:149:PRO:HB3	1.79	0.64
1:BA:1130:A:H4'	9:BI:19:PHE:CE1	2.31	0.64
30:CF:128:SER:O	30:CF:129:MET:HB3	1.98	0.64
10:AJ:52:LEU:HD13	10:AJ:61:ALA:HB3	1.80	0.64
9:AI:39:GLY:O	9:AI:40:ARG:HB2	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:40:ILE:HD13	2:AB:40:ILE:C	2.17	0.64
37:CM:108:VAL:HG12	37:CM:109:PRO:HD2	1.78	0.64
3:AC:71:ARG:N	3:AC:72:PRO:HD3	2.13	0.64
38:CN:10:LEU:O	38:CN:12:ARG:N	2.30	0.64
33:CI:6:ALA:CB	33:CI:60:VAL:H	2.10	0.64
1:AA:254:G:OP1	17:AQ:69:THR:HB	1.96	0.64
25:DA:2414:G:C6	25:DA:2415:G:N7	2.65	0.64
29:DE:176:ASP:OD2	29:DE:178:VAL:HG12	1.97	0.64
24:AY:149:ILE:HG23	24:AY:153:ASP:HB3	1.80	0.64
30:DF:104:THR:O	30:DF:108:PRO:HG2	1.97	0.64
25:DA:1871:A:O2'	25:DA:1872:A:N7	2.30	0.64
8:BH:46:GLU:O	8:BH:47:ASP:HB2	1.98	0.64
38:CN:35:LYS:HB2	38:CN:112:TYR:CE1	2.33	0.64
1:AA:832:G:C2'	1:AA:833:G:H5'	2.26	0.64
28:DD:9:VAL:HG23	28:DD:26:VAL:O	1.98	0.64
1:BA:1527:U:OP2	21:BU:38:GLU:HG3	1.98	0.64
44:CT:16:VAL:O	44:CT:16:VAL:HG23	1.96	0.64
1:AA:1028:C:O2	1:AA:1028:C:H2'	1.97	0.64
25:CA:1234:U:H2'	25:CA:1235:G:O5'	1.97	0.64
18:BR:24:ASP:O	18:BR:26:ALA:N	2.30	0.64
2:AB:162:VAL:HG13	2:AB:184:ALA:HB2	1.78	0.64
1:AA:1213:A:C8	1:AA:1215:G:C5	2.86	0.64
1:AA:1356:G:O2'	1:AA:1357:A:H5'	1.98	0.64
10:BJ:53:ILE:HG22	10:BJ:61:ALA:O	1.98	0.64
25:DA:2291:U:H2'	25:DA:2292:U:C6	2.32	0.64
1:BA:518:C:H2'	1:BA:530:G:H8	1.62	0.64
19:BS:14:LEU:HD23	19:BS:37:SER:OG	1.96	0.64
56:DB:35:C:H2'	56:DB:36:C:O5'	1.97	0.64
1:BA:1126:U:C6	1:BA:1281:C:C4	2.86	0.64
30:CF:7:TYR:HA	30:CF:11:VAL:HG23	1.78	0.64
1:BA:69:G:H2'	1:BA:70:U:C6	2.32	0.64
17:BQ:7:LEU:H	17:BQ:60:ILE:HG22	1.62	0.64
1:AA:1304:G:OP2	60:AA:1795:HOH:O	2.14	0.64
2:BB:99:MET:O	2:BB:103:TRP:HA	1.97	0.64
10:BJ:5:ARG:HG3	10:BJ:6:ILE:HG12	1.80	0.64
25:DA:2230:G:H2'	25:DA:2231:U:C6	2.31	0.64
25:DA:1047:G:H4'	25:DA:1048:A:H5'	1.79	0.64
32:DH:133:GLN:HA	32:DH:139:PHE:CD1	2.32	0.64
25:CA:141:G:H3'	25:CA:142:A:C8	2.32	0.64
1:BA:1386:G:C2	1:BA:1387:G:N7	2.65	0.64
49:DY:53:VAL:O	49:DY:56:LEU:O	2.15	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DY:57:LEU:O	49:DY:61:ALA:HB3	1.96	0.64
49:CY:14:LEU:O	49:CY:17:GLU:HB3	1.96	0.64
49:CY:19:LEU:HA	49:CY:22:LEU:HB3	1.79	0.64
3:AC:166:TRP:O	3:AC:167:TYR:CD1	2.51	0.64
56:DB:22:U:H2'	56:DB:22:U:O2	1.96	0.64
25:DA:157:C:H2'	25:DA:158:U:O4'	1.98	0.64
30:DF:3:LEU:HD21	30:DF:100:GLU:HB2	1.80	0.64
21:BU:38:GLU:OE2	21:BU:41:THR:HG21	1.97	0.64
25:CA:18:U:OP1	41:CQ:29:ARG:NH2	2.31	0.64
25:DA:1916:A:H2'	25:DA:1917:U:O4'	1.98	0.64
38:CN:57:THR:O	38:CN:57:THR:HG22	1.95	0.64
17:BQ:5:ARG:NH1	17:BQ:5:ARG:HB2	2.12	0.64
30:CF:154:THR:HG22	30:CF:154:THR:O	1.98	0.64
4:BD:55:ARG:HH12	4:BD:58:GLN:HG2	1.62	0.64
1:AA:666:G:H5'	1:AA:726:C:H1'	1.80	0.64
25:DA:78:U:P	49:DY:2:LYS:HD2	2.38	0.64
25:CA:1076:C:N3	25:CA:1077:A:C6	2.66	0.64
1:BA:1521:C:C2'	1:BA:1522:U:O5'	2.46	0.64
25:DA:1538:G:OP2	25:DA:1538:G:H8	1.80	0.64
1:AA:1083:U:C5	1:AA:1084:G:C5	2.84	0.64
1:AA:205:A:C2	1:AA:206:C:O4'	2.50	0.64
1:BA:847:G:H2'	1:BA:848:C:O4'	1.97	0.64
32:DH:3:VAL:O	32:DH:19:VAL:HG22	1.97	0.64
6:BF:9:MET:HB2	6:BF:85:ILE:HG13	1.79	0.64
36:CL:76:GLU:C	36:CL:77:ILE:HD13	2.17	0.64
25:DA:1926:U:H1'	25:DA:1929:G:C6	2.33	0.64
25:CA:2277:G:C2'	25:CA:2278:A:O5'	2.43	0.64
3:AC:41:TYR:OH	3:AC:89:VAL:HG21	1.98	0.64
25:DA:615:U:H3'	25:DA:616:A:H5'	1.80	0.64
1:BA:1252:A:H2'	1:BA:1253:G:O4'	1.97	0.64
1:AA:768:A:H2'	1:AA:769:G:H5'	1.78	0.64
1:AA:718:A:H5'	11:AK:118:ASN:HB2	1.79	0.64
29:CE:146:VAL:HG22	29:CE:167:VAL:HG22	1.79	0.64
27:CC:120:ASP:O	27:CC:121:ALA:C	2.36	0.64
25:DA:876:C:N4	25:DA:877:A:C6	2.65	0.64
25:DA:1486:U:C2	25:DA:1504:A:C2	2.85	0.64
25:CA:2318:G:O2'	25:CA:2319:G:H5'	1.98	0.64
39:DO:49:VAL:HG12	39:DO:50:ALA:H	1.63	0.64
25:DA:2096:C:H2'	25:DA:2097:A:C8	2.33	0.64
25:CA:907:G:C2'	25:CA:908:C:H5'	2.27	0.64
25:CA:1467:U:C4	25:CA:1546:G:C2	2.85	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:484:C:H2'	25:DA:485:C:H6	1.62	0.64
25:DA:310:A:H5"	45:DU:14:THR:HG22	1.79	0.64
25:CA:395:U:O2'	25:CA:396:G:N7	2.24	0.64
4:AD:2:ARG:NH2	4:AD:114:ARG:HD3	2.13	0.64
1:BA:220:G:C2	1:BA:221:C:C6	2.86	0.64
33:DI:70:THR:C	33:DI:71:LYS:HD3	2.18	0.64
2:AB:64:GLY:C	2:AB:65:LYS:HD3	2.17	0.64
1:AA:1313:U:OP2	19:AS:5:LYS:CB	2.45	0.64
42:DR:47:VAL:HG12	42:DR:47:VAL:O	1.97	0.64
1:AA:1101:A:C4'	1:AA:1102:A:O5'	2.45	0.64
42:CR:51:VAL:HB	42:CR:52:PRO:CD	2.28	0.64
28:DD:180:VAL:HG12	28:DD:180:VAL:O	1.98	0.64
25:DA:2794:C:H2'	25:DA:2795:C:O4'	1.98	0.64
20:AT:81:GLN:O	20:AT:84:LYS:HB2	1.98	0.64
1:AA:1202:U:H1'	14:AN:69:ARG:HD2	1.78	0.64
25:DA:1385:A:H1'	25:DA:1386:C:H6	1.63	0.64
25:DA:616:A:C2'	25:DA:617:G:O5'	2.46	0.64
25:DA:1091:G:O6	25:DA:1101:U:O4	2.16	0.64
1:AA:717:U:H4'	11:AK:118:ASN:HD22	1.63	0.64
1:AA:802:A:H2'	1:AA:803:G:H5'	1.78	0.64
26:CB:54:G:H2'	26:CB:55:U:H6	1.63	0.64
28:DD:51:THR:OG1	28:DD:76:GLY:HA3	1.97	0.64
25:DA:1248:G:OP1	41:DQ:1:ALA:HB3	1.98	0.64
1:AA:575:G:O2'	1:AA:821:G:H5'	1.97	0.64
25:CA:164:C:H2'	25:CA:165:A:H5'	1.79	0.64
25:DA:866:A:O4'	25:DA:914:G:N2	2.30	0.64
12:BL:34:THR:HG22	12:BL:35:ARG:HG2	1.80	0.64
2:AB:105:THR:O	2:AB:106:VAL:CB	2.46	0.64
1:BA:1060:U:O2'	1:BA:1061:G:H5'	1.98	0.64
32:DH:34:GLY:O	32:DH:35:LYS:HG3	1.97	0.64
11:AK:60:PHE:O	11:AK:64:VAL:HG12	1.98	0.64
25:DA:1540:G:C5	25:DA:1541:C:C5	2.86	0.64
12:AL:23:LEU:HB2	12:AL:58:ASN:HD22	1.63	0.64
56:DB:48:U:P	39:DO:30:ARG:HH22	2.21	0.64
1:AA:945:G:C2	1:AA:946:A:C8	2.86	0.64
1:AA:1492:A:H3'	1:AA:1493:A:C8	2.33	0.64
1:BA:332:G:C2'	1:BA:333:U:H5'	2.27	0.64
3:AC:57:GLU:HG3	3:AC:64:ARG:HB3	1.80	0.64
4:BD:38:GLY:H	4:BD:41:GLY:HA3	1.62	0.64
1:AA:536:C:P	60:AA:1887:HOH:O	2.56	0.64
28:CD:1:MET:HG3	28:CD:205:PRO:HG2	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:994:C:O3'	25:CA:995:C:H3'	1.98	0.64
26:CB:53:A:C2'	26:CB:54:G:H5'	2.28	0.64
12:BL:29:LYS:CE	12:BL:29:LYS:HA	2.28	0.64
1:AA:1480:A:C2	1:AA:1481:U:C2	2.86	0.64
1:AA:190:A:C8	1:AA:191:G:C8	2.86	0.64
1:AA:395:C:H2'	1:AA:396:C:C6	2.33	0.64
22:BV:40:C:H2'	22:BV:41:C:H6	1.63	0.64
1:BA:436:C:H2'	1:BA:437:U:C6	2.32	0.64
8:BH:12:ARG:HD3	8:BH:26:MET:HE2	1.80	0.64
25:CA:580:U:H2'	25:CA:581:C:H6	1.62	0.64
25:DA:1087:G:H2'	25:DA:1088:A:H5'	1.78	0.64
2:AB:49:PHE:HA	2:AB:52:ALA:CB	2.26	0.64
42:CR:49:ILE:CG2	42:CR:53:PHE:H	2.11	0.64
36:DL:91:ASP:CB	36:DL:94:THR:HB	2.26	0.64
38:DN:33:ILE:HG23	38:DN:33:ILE:O	1.98	0.64
21:AU:13:VAL:HG13	21:AU:15:LEU:HG	1.79	0.64
4:AD:189:ASP:O	4:AD:190:LEU:HG	1.97	0.64
6:AF:18:VAL:HB	6:AF:19:PRO:HD3	1.81	0.64
28:CD:151:THR:HG22	28:CD:152:PRO:CD	2.27	0.64
1:AA:542:G:N3	1:AA:543:U:C6	2.65	0.64
33:DI:46:ASP:CA	33:DI:50:LYS:HD2	2.28	0.64
25:DA:2250:G:O5'	25:DA:2250:G:H8	1.81	0.64
36:CL:91:ASP:HB3	36:CL:93:ASN:O	1.98	0.64
30:CF:154:THR:CG2	30:CF:154:THR:O	2.46	0.64
1:BA:1086:U:OP1	1:BA:1086:U:H4'	1.98	0.64
40:DP:38:ARG:HG3	40:DP:39:LEU:H	1.62	0.64
25:DA:164:C:H2'	25:DA:165:A:H5'	1.80	0.64
1:AA:1004:A:C4	1:AA:1026:G:C5	2.87	0.64
1:AA:679:C:H2'	1:AA:680:C:O4'	1.97	0.64
31:CG:79:THR:HG22	31:CG:80:GLU:N	2.12	0.64
1:AA:951:G:C6	1:AA:1231:G:C6	2.86	0.64
31:CG:88:LEU:N	31:CG:88:LEU:HD12	2.13	0.64
27:CC:78:GLU:HB2	27:CC:92:LEU:O	1.98	0.64
1:AA:1246:A:H2'	1:AA:1247:U:C6	2.33	0.64
2:AB:88:GLN:C	2:AB:89:PHE:CD2	2.72	0.63
25:CA:846:U:O2'	25:CA:847:U:C5	2.50	0.63
1:BA:1521:C:H2'	1:BA:1522:U:O5'	1.97	0.63
1:BA:1522:U:H2'	1:BA:1523:G:O5'	1.98	0.63
11:BK:124:LYS:O	21:BU:34:ARG:HB2	1.98	0.63
1:BA:722:G:H4'	21:BU:48:LYS:HE2	1.80	0.63
46:CV:50:MET:O	46:CV:52:ALA:N	2.30	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2211:A:O2'	25:CA:2212:A:OP1	2.15	0.63
33:CI:101:SER:HB3	33:CI:104:GLN:NE2	2.13	0.63
33:CI:101:SER:HA	33:CI:140:GLU:C	2.18	0.63
17:BQ:60:ILE:HG23	17:BQ:61:ARG:N	2.12	0.63
20:AT:53:MET:O	20:AT:56:ILE:CG2	2.46	0.63
20:AT:80:ALA:O	20:AT:84:LYS:HG2	1.97	0.63
25:CA:1269:A:OP2	60:CA:3384:HOH:O	2.15	0.63
1:BA:1540:U:O3'	21:BU:17:ARG:NE	2.30	0.63
6:BF:46:GLN:HA	6:BF:56:LYS:HG3	1.80	0.63
25:DA:1176:U:C5	25:DA:1177:G:C6	2.87	0.63
25:DA:53:A:C8	25:DA:54:G:C8	2.87	0.63
25:DA:1385:A:C2	25:DA:1386:C:C4	2.86	0.63
25:DA:2746:U:C4	25:DA:2747:G:N7	2.66	0.63
7:AG:46:LEU:HG	7:AG:57:GLU:HG3	1.80	0.63
25:CA:2332:C:H5"	25:CA:2333:A:OP1	1.99	0.63
3:AC:166:TRP:HE3	3:AC:166:TRP:C	2.00	0.63
28:CD:56:LYS:O	28:CD:57:ALA:C	2.36	0.63
25:DA:2415:G:H2'	25:DA:2416:C:H6	1.63	0.63
1:AA:214:C:H2'	1:AA:215:C:H6	1.64	0.63
25:CA:2637:U:C2'	25:CA:2638:G:H5'	2.27	0.63
14:BN:73:PHE:CE2	14:BN:78:GLY:HA2	2.33	0.63
25:CA:1426:G:H1'	25:CA:1572:A:N6	2.13	0.63
25:CA:2328:A:H2'	25:CA:2329:U:C6	2.33	0.63
25:DA:1156:A:C8	41:DQ:50:ARG:HG2	2.32	0.63
1:BA:40:C:C2	1:BA:41:G:C8	2.86	0.63
34:DJ:17:VAL:HG23	34:DJ:137:PRO:CB	2.28	0.63
1:BA:572:A:H5'	1:BA:573:A:OP2	1.98	0.63
26:CB:112:G:H2'	26:CB:113:C:C6	2.33	0.63
25:CA:1665:A:N3	35:CK:1:MET:HE2	2.13	0.63
41:DQ:105:PHE:HA	41:DQ:108:LEU:HD12	1.79	0.63
33:DI:18:ASN:HB2	33:DI:38:CYS:HB3	1.79	0.63
33:DI:54:ILE:HA	33:DI:73:PRO:HA	1.78	0.63
25:CA:1080:A:H2'	25:CA:1080:A:N3	2.11	0.63
2:AB:147:LEU:HD22	2:AB:150:ILE:HG21	1.78	0.63
1:AA:144:G:C4	1:AA:179:A:C2	2.86	0.63
25:DA:1467:U:H2'	25:DA:1468:U:O5'	1.97	0.63
25:DA:2303:G:C2'	25:DA:2304:G:H5'	2.29	0.63
4:AD:34:GLU:O	4:AD:37:PRO:HD3	1.98	0.63
25:DA:1442:U:H2'	25:DA:1443:U:O5'	1.98	0.63
6:BF:29:ILE:HG22	6:BF:34:GLY:O	1.98	0.63
1:BA:1004:A:H2'	1:BA:1005:A:O4'	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:102:U:C4	49:CY:2:LYS:HD2	2.32	0.63
25:CA:615:U:C5	29:CE:35:TYR:CZ	2.86	0.63
25:DA:1356:G:N2	25:DA:1357:C:H1'	2.13	0.63
14:AN:12:ARG:O	14:AN:16:ALA:HB2	1.98	0.63
36:DL:107:PHE:HD2	36:DL:107:PHE:N	1.94	0.63
25:DA:2636:C:H2'	25:DA:2637:U:C6	2.34	0.63
14:BN:22:LYS:HG3	14:BN:23:ARG:N	2.11	0.63
15:BO:73:ASP:CG	15:BO:76:ARG:HG3	2.18	0.63
3:BC:5:HIS:CD2	14:BN:89:MET:HB3	2.33	0.63
25:CA:2221:G:C2'	25:CA:2222:C:H5'	2.28	0.63
1:AA:646:G:O6	60:AA:1745:HOH:O	2.11	0.63
25:CA:179:C:H2'	25:CA:180:G:O5'	1.97	0.63
25:CA:1038:G:O2'	25:CA:1039:A:H5'	1.97	0.63
49:DY:16:THR:HG22	49:DY:17:GLU:N	2.14	0.63
25:DA:102:U:C2	49:DY:2:LYS:HE2	2.34	0.63
25:CA:1078:U:H1'	25:CA:1088:A:C2	2.33	0.63
2:AB:98:GLY:HA2	2:AB:101:THR:HB	1.80	0.63
25:DA:858:G:O2'	25:DA:2268:A:H1'	1.98	0.63
1:BA:132:C:H5"	20:BT:68:LYS:CD	2.28	0.63
3:BC:153:SER:HA	3:BC:164:THR:HA	1.79	0.63
25:DA:1323:C:H2'	25:DA:1324:G:O5'	1.98	0.63
1:BA:736:C:H2'	1:BA:737:C:H6	1.62	0.63
1:AA:452:A:C8	1:AA:452:A:H3'	2.33	0.63
16:AP:80:LYS:HE3	16:AP:80:LYS:HA	1.81	0.63
1:BA:841:C:C6	1:BA:843:U:H5'	2.34	0.63
1:BA:462:G:H5"	1:BA:463:U:OP2	1.98	0.63
2:BB:156:LEU:HG	2:BB:157:PRO:O	1.98	0.63
1:BA:1489:G:H2'	1:BA:1490:U:H6	1.63	0.63
25:DA:929:U:H1'	50:DZ:25:GLY:O	1.98	0.63
10:BJ:48:ARG:O	10:BJ:49:PHE:CD2	2.51	0.63
25:CA:2888:C:H2'	25:CA:2889:C:C6	2.34	0.63
34:DJ:16:TYR:HB3	34:DJ:140:LEU:HB2	1.80	0.63
25:DA:2096:C:H2'	25:DA:2097:A:H8	1.62	0.63
8:AH:21:LYS:HE2	8:AH:21:LYS:HA	1.79	0.63
25:DA:412:A:H2'	25:DA:413:C:H5'	1.79	0.63
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.34	0.63
25:CA:1722:A:N1	25:CA:1723:G:C2	2.66	0.63
25:CA:374:A:C2	25:CA:401:A:C4	2.85	0.63
25:CA:47:C:H2'	25:CA:48:G:H5'	1.81	0.63
1:BA:1499:A:H2'	1:BA:1500:A:O5'	1.98	0.63
1:AA:328:C:O2	1:AA:328:C:H2'	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1857:G:C4	25:DA:1884:G:N2	2.66	0.63
25:CA:1490:A:O2'	27:CC:97:ASP:OD2	2.16	0.63
34:DJ:59:ALA:O	34:DJ:62:VAL:HG12	1.98	0.63
44:DT:40:LYS:HG3	44:DT:60:THR:CG2	2.29	0.63
7:AG:68:VAL:HG11	7:AG:133:ALA:HB3	1.78	0.63
2:AB:53:LEU:HD12	2:AB:219:THR:CG2	2.29	0.63
8:AH:85:TYR:CE2	8:AH:123:GLU:HB2	2.34	0.63
25:DA:2299:U:H2'	25:DA:2300:C:C6	2.33	0.63
39:DO:100:HIS:CD2	39:DO:101:GLY:N	2.67	0.63
1:AA:626:G:C2'	1:AA:627:G:H5'	2.28	0.63
8:AH:1:SER:C	8:AH:3:GLN:H	2.01	0.63
1:BA:1079:G:H2'	1:BA:1080:A:C8	2.34	0.63
2:BB:140:LEU:O	2:BB:144:GLU:N	2.32	0.63
56:DB:57:A:H1'	30:DF:26:GLN:HA	1.79	0.63
25:DA:1022:G:N2	25:DA:1142:A:C2	2.67	0.63
15:BO:80:LEU:HD11	15:BO:84:LEU:CD2	2.29	0.63
1:AA:1037:C:C2	1:AA:1038:C:C5	2.87	0.63
36:CL:93:ASN:O	36:CL:94:THR:HB	1.98	0.63
36:CL:93:ASN:O	36:CL:94:THR:CB	2.46	0.63
25:DA:406:G:H2'	25:DA:407:G:O4'	1.99	0.63
25:CA:707:G:O6	25:CA:724:U:O2	2.16	0.63
1:BA:91:U:C4	1:BA:92:U:C5	2.86	0.63
25:DA:714:U:H2'	25:DA:716:A:C8	2.34	0.63
25:DA:2567:G:H2'	25:DA:2568:U:C6	2.33	0.63
25:DA:1735:A:C2	25:DA:1736:U:H1'	2.33	0.63
25:DA:1654:A:OP2	38:DN:1:MET:HA	1.98	0.63
4:BD:14:GLU:HA	4:BD:14:GLU:OE1	1.97	0.63
25:DA:773:U:O2'	27:DC:47:ARG:HD3	1.99	0.63
7:BG:34:LYS:CB	7:BG:37:THR:HG22	2.28	0.63
25:CA:60:G:O2'	25:CA:61:C:O5'	2.17	0.63
9:BI:118:ARG:O	9:BI:119:LYS:HB3	1.98	0.63
25:DA:1406:U:C2	25:DA:1407:G:C8	2.86	0.63
33:CI:20:SER:HA	33:CI:24:GLY:HA2	1.79	0.63
25:DA:2093:G:C6	25:DA:2225:A:C8	2.87	0.63
38:CN:103:ARG:NH1	38:CN:110:MET:CE	2.62	0.63
17:BQ:14:ASP:N	17:BQ:16:MET:HE1	2.13	0.63
1:BA:132:C:H5"	20:BT:68:LYS:HD3	1.80	0.63
13:AM:19:THR:HA	13:AM:24:VAL:CG2	2.28	0.63
1:AA:11:G:H2'	1:AA:12:U:O5'	1.98	0.63
17:BQ:45:VAL:HG13	17:BQ:72:TRP:C	2.19	0.63
25:DA:582:A:C2	25:DA:1259:G:C2	2.87	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BC:85:LYS:O	3:BC:88:LYS:HB3	1.98	0.63
1:BA:1489:G:C5	1:BA:1490:U:C5	2.86	0.63
31:DG:51:PHE:CE2	31:DG:68:ARG:HA	2.33	0.63
3:AC:41:TYR:CE2	3:AC:45:GLU:CG	2.81	0.63
25:DA:58:G:P	44:DT:78:SER:HG	2.22	0.63
15:BO:34:GLN:NE2	15:BO:38:LEU:HD22	2.14	0.63
13:AM:5:GLY:C	13:AM:7:ASN:N	2.51	0.63
1:AA:636:U:H2'	1:AA:637:C:C6	2.33	0.63
3:BC:6:PRO:O	3:BC:10:ARG:HG2	1.98	0.63
25:CA:1546:G:H5"	25:CA:1547:C:H5"	1.81	0.63
1:BA:459:A:H2'	1:BA:460:A:O4'	1.99	0.63
25:CA:2592:G:C2'	25:CA:2593:U:H5'	2.29	0.63
30:CF:56:LEU:HD13	30:CF:88:VAL:HG23	1.80	0.63
29:CE:131:THR:HG22	29:CE:160:ALA:HA	1.80	0.63
6:AF:47:LEU:HD13	6:AF:51:ILE:HG23	1.81	0.63
1:BA:135:C:H2'	1:BA:136:C:H5'	1.79	0.63
3:AC:152:VAL:HG23	3:AC:156:LEU:HD21	1.81	0.63
13:BM:3:ILE:O	13:BM:3:ILE:HG13	1.98	0.63
25:CA:819:A:C4	25:CA:1189:A:C2	2.87	0.63
1:AA:148:G:H2'	1:AA:149:A:O5'	1.99	0.63
13:AM:53:ASP:HA	13:AM:56:ARG:HB2	1.80	0.63
25:DA:1526:C:N3	25:DA:1527:G:C4	2.66	0.63
25:DA:1457:U:H5"	25:DA:1458:U:OP1	1.99	0.63
5:BE:14:LEU:HB3	5:BE:36:THR:HG22	1.80	0.63
20:BT:43:LYS:HD3	20:BT:86:ALA:HA	1.79	0.63
9:BI:45:MET:HB2	9:BI:48:ARG:HB3	1.81	0.63
1:BA:1491:G:H2'	1:BA:1492:A:O4'	1.99	0.63
19:AS:12:LEU:O	19:AS:15:LEU:N	2.32	0.63
1:BA:686:U:O2	1:BA:687:A:C8	2.52	0.63
1:BA:687:A:C5	1:BA:701:U:H5	2.17	0.63
19:BS:62:THR:CB	19:BS:65:MET:HG3	2.27	0.63
44:DT:72:GLN:O	44:DT:74:ILE:HG23	1.98	0.63
31:CG:163:TYR:HB2	31:CG:166:GLU:HB2	1.79	0.63
1:AA:1378:C:C2'	1:AA:1379:G:O5'	2.46	0.63
56:DB:21:G:C4	56:DB:22:U:C6	2.86	0.63
25:DA:1520:U:H2'	25:DA:1521:G:H5'	1.80	0.63
4:BD:47:LEU:HD23	4:BD:52:VAL:HG12	1.80	0.63
25:DA:269:C:H2'	25:DA:270:A:H5'	1.81	0.63
5:AE:45:VAL:O	5:AE:70:MET:HG3	1.99	0.63
31:DG:88:LEU:HD13	31:DG:88:LEU:N	2.14	0.63
7:AG:3:ARG:HG3	7:AG:4:ARG:N	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:991:U:H4'	1:BA:992:U:OP1	1.99	0.63
1:BA:952:U:H2'	1:BA:953:G:C8	2.33	0.63
25:CA:2174:C:O2'	25:CA:2175:C:H5'	1.98	0.63
49:DY:21:LEU:HA	49:DY:25:GLN:HB3	1.79	0.63
1:AA:976:G:C8	1:AA:1358:U:O2	2.51	0.63
34:CJ:80:HIS:O	34:CJ:82:GLY:N	2.31	0.63
25:DA:2209:G:N2	25:DA:2216:G:C4	2.67	0.63
25:CA:1288:G:C4	25:CA:1327:A:C2	2.87	0.63
5:BE:155:LYS:HG2	8:BH:65:PHE:HB2	1.80	0.63
25:CA:570:G:O6	60:CA:3694:HOH:O	2.14	0.63
1:AA:1181:G:N1	1:AA:1182:G:N2	2.47	0.63
36:DL:119:PRO:HA	36:DL:138:ALA:O	1.99	0.63
1:AA:413:G:C6	4:AD:32:LYS:HD2	2.33	0.63
22:AV:21:A:C4	22:AV:48:C:C5	2.86	0.63
9:BI:9:GLY:N	9:BI:84:ARG:HD3	2.12	0.63
10:BJ:71:LEU:O	10:BJ:72:ARG:HG2	1.99	0.63
13:AM:44:ILE:HA	13:AM:47:LEU:HB2	1.81	0.63
1:BA:715:A:O2'	1:BA:716:A:H5'	1.98	0.63
1:BA:146:G:C2	1:BA:177:G:N7	2.67	0.63
1:BA:585:G:N3	1:BA:879:C:H4'	2.13	0.63
23:BX:11:U:H3'	23:BX:12:A:C5'	2.28	0.63
7:BG:78:ARG:HA	7:BG:82:SER:O	1.99	0.63
36:CL:2:ARG:O	36:CL:2:ARG:HG2	1.97	0.63
36:CL:4:ASN:O	36:CL:4:ASN:ND2	2.31	0.63
1:AA:773:G:H4'	27:CC:201:LEU:HD21	1.78	0.63
25:DA:1965:C:OP1	25:DA:1966:A:H2'	1.98	0.63
25:DA:1474:U:H2'	25:DA:1475:G:H5'	1.81	0.63
44:CT:38:ALA:HA	44:CT:42:GLU:OE1	1.98	0.63
25:DA:1873:G:H2'	25:DA:1874:C:C6	2.34	0.63
25:CA:1621:U:H5"	25:CA:1622:G:OP1	1.99	0.63
37:DM:7:THR:HG21	37:DM:92:TRP:CH2	2.33	0.63
25:CA:1594:U:H2'	25:CA:1595:C:C6	2.34	0.63
35:CK:71:ARG:HB2	35:CK:75:SER:HB2	1.80	0.63
1:AA:632:U:H3'	1:AA:632:U:H6	1.63	0.63
25:DA:1078:U:H4'	25:DA:1079:C:H5"	1.81	0.63
1:AA:960:U:C5	1:AA:1225:A:C8	2.86	0.63
1:AA:598:U:H4'	8:AH:85:TYR:HD1	1.58	0.63
8:AH:85:TYR:HD2	8:AH:123:GLU:HA	1.63	0.63
25:DA:2292:U:H2'	25:DA:2293:G:H8	1.63	0.63
25:DA:2193:G:N3	25:DA:2194:U:C5	2.66	0.63
2:BB:75:ALA:O	2:BB:79:VAL:HG23	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:62:LEU:O	32:DH:65:ALA:HB3	1.99	0.63
1:AA:143:A:H5'	1:AA:144:G:C5'	2.28	0.63
4:AD:173:ASP:OD1	4:AD:176:LYS:HE2	1.98	0.63
4:AD:176:LYS:O	4:AD:177:MET:HB2	1.99	0.63
25:CA:1452:G:H2'	25:CA:1457:U:O4	1.99	0.63
20:BT:82:ILE:HD12	20:BT:83:ASN:N	2.14	0.63
25:CA:2133:G:O2'	25:CA:2158:A:N6	2.30	0.63
25:DA:2230:G:C4	25:DA:2231:U:C5	2.87	0.63
29:DE:187:VAL:HG13	29:DE:187:VAL:O	1.98	0.63
28:CD:150:GLN:O	28:CD:153:GLY:N	2.32	0.63
25:DA:612:G:O2'	25:DA:613:A:C8	2.51	0.63
1:BA:4:U:C4'	1:BA:5:U:OP1	2.46	0.63
25:DA:2099:U:O2	25:DA:2100:G:C8	2.52	0.63
27:CC:78:GLU:OE1	27:CC:100:ARG:NE	2.32	0.63
3:AC:152:VAL:HG12	3:AC:197:VAL:HG22	1.81	0.63
1:BA:1083:U:H5	1:BA:1084:G:C6	2.17	0.63
25:DA:1612:C:H2'	25:DA:1613:G:O5'	1.99	0.63
1:AA:601:G:H2'	1:AA:602:A:C8	2.33	0.63
25:CA:276:U:H2'	25:CA:276:U:O2	1.97	0.63
43:CS:29:VAL:O	43:CS:33:LEU:HD12	1.99	0.63
1:BA:409:U:H2'	1:BA:410:G:O4'	1.99	0.63
1:AA:609:A:H2'	1:AA:610:U:H5'	1.81	0.63
25:DA:2514:U:H2'	25:DA:2515:C:C6	2.33	0.63
1:BA:1191:A:OP1	3:BC:3:LYS:HE3	1.97	0.63
3:BC:99:GLN:O	3:BC:100:ILE:HB	1.99	0.63
32:CH:27:ARG:O	32:CH:28:ASN:CB	2.46	0.63
1:BA:1275:A:C4	1:BA:1276:G:C8	2.87	0.63
25:DA:2290:G:H4'	25:DA:2381:A:O2'	1.98	0.63
5:BE:81:GLN:NE2	5:BE:149:PRO:HD3	2.14	0.63
1:AA:481:G:OP1	1:AA:481:G:H4'	1.98	0.63
9:AI:113:LYS:HE2	9:AI:117:LEU:O	1.98	0.63
12:BL:115:LYS:O	12:BL:116:TYR:CB	2.47	0.63
27:CC:42:ARG:HA	27:CC:47:ARG:O	1.99	0.63
25:CA:271:G:C4'	25:CA:272:A:OP1	2.47	0.63
25:DA:1356:G:N3	25:DA:1357:C:C6	2.67	0.63
30:DF:30:VAL:HG22	30:DF:95:MET:SD	2.39	0.63
4:BD:58:GLN:O	4:BD:62:ARG:CG	2.47	0.63
25:CA:179:C:C2'	25:CA:180:G:O5'	2.47	0.63
44:DT:57:VAL:HG22	44:DT:58:VAL:H	1.64	0.63
25:CA:947:A:O2'	25:CA:984:A:C2	2.51	0.63
37:DM:31:PHE:CE2	37:DM:110:GLU:HG3	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:600:G:H2'	25:DA:601:C:C6	2.34	0.63
31:CG:95:ALA:HB2	31:CG:104:LEU:HD23	1.81	0.63
38:DN:86:ARG:CD	38:DN:117:ASP:OD2	2.47	0.63
1:BA:358:U:H2'	1:BA:359:G:C8	2.34	0.63
37:DM:36:VAL:HG23	37:DM:128:THR:CA	2.29	0.63
7:BG:144:ALA:O	7:BG:145:GLU:HB2	1.99	0.63
25:CA:1669:A:OP2	60:CA:3731:HOH:O	2.15	0.63
12:BL:51:VAL:CG2	12:BL:52:CYS:N	2.61	0.63
4:AD:78:ALA:HB1	4:AD:85:THR:O	1.98	0.63
1:AA:1444:U:O2	1:AA:1444:U:H2'	1.98	0.63
1:BA:1438:G:O2'	1:BA:1439:G:H5'	1.99	0.63
13:BM:80:MET:O	13:BM:82:LEU:N	2.32	0.62
25:CA:846:U:O2	25:CA:846:U:H2'	1.98	0.62
25:DA:2201:G:C2	25:DA:2202:U:C2	2.87	0.62
12:BL:24:GLU:HB2	12:BL:26:CYS:SG	2.39	0.62
1:BA:986:U:H1'	19:BS:53:GLY:O	1.99	0.62
25:DA:184:C:O2	25:DA:213:A:C2	2.52	0.62
56:DB:54:G:N2	56:DB:55:U:H1'	2.14	0.62
4:AD:117:VAL:HA	4:AD:122:ILE:CD1	2.28	0.62
5:AE:82:HIS:CD2	8:AH:95:MET:SD	2.92	0.62
25:DA:2328:A:H2'	25:DA:2329:U:C6	2.34	0.62
1:AA:209:U:C4'	1:AA:210:C:OP2	2.47	0.62
1:BA:872:A:C4	1:BA:874:G:N7	2.67	0.62
30:CF:120:SER:HB2	30:CF:127:TYR:CE1	2.34	0.62
29:CE:189:THR:CG2	29:CE:190:ALA:N	2.62	0.62
10:BJ:27:GLU:O	10:BJ:31:ARG:HB3	1.99	0.62
6:BF:72:ASP:O	6:BF:76:THR:HG23	1.99	0.62
1:BA:384:G:O2'	1:BA:385:C:H5'	1.99	0.62
56:DB:64:G:H2'	56:DB:65:U:C6	2.33	0.62
34:DJ:64:VAL:CG2	34:DJ:68:LYS:HB2	2.29	0.62
4:BD:35:GLN:O	4:BD:36:ALA:HB2	1.99	0.62
3:BC:39:ARG:CZ	3:BC:54:ILE:HD11	2.29	0.62
33:CI:33:ASN:CB	33:CI:36:GLU:CG	2.76	0.62
25:DA:910:A:N3	25:DA:2264:C:O2'	2.31	0.62
25:DA:370:G:O2'	25:DA:423:A:H3'	1.99	0.62
1:AA:880:C:OP2	12:AL:2:THR:HG21	1.99	0.62
25:CA:246:C:C2'	25:CA:247:G:H5'	2.29	0.62
33:DI:9:LYS:HB3	33:DI:55:PRO:HB2	1.80	0.62
25:DA:167:A:C2	25:DA:168:G:H1'	2.33	0.62
3:BC:5:HIS:HB3	14:BN:89:MET:SD	2.39	0.62
8:AH:64:TYR:HD2	8:AH:69:ALA:HA	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:CB:42:C:C5	26:CB:43:C:C5	2.87	0.62
1:AA:595:A:C6	1:AA:641:U:C6	2.87	0.62
25:CA:535:G:C2'	25:CA:536:G:H5'	2.28	0.62
1:AA:842:U:H2'	1:AA:842:U:O2	1.99	0.62
25:CA:914:G:H5'	25:CA:915:C:OP2	1.99	0.62
25:DA:172:A:H2'	25:DA:173:A:C8	2.33	0.62
1:AA:399:G:H2'	1:AA:400:C:C6	2.34	0.62
1:BA:978:A:P	1:BA:1362:A:H62	2.22	0.62
2:AB:48:MET:O	2:AB:52:ALA:HB2	1.98	0.62
1:BA:1151:A:N3	1:BA:1152:A:C8	2.67	0.62
25:CA:1179:G:C8	25:CA:1180:U:O4'	2.52	0.62
38:CN:103:ARG:HD3	38:CN:110:MET:HE2	1.79	0.62
1:BA:1522:U:O2'	1:BA:1523:G:C5'	2.47	0.62
42:CR:50:GLY:C	42:CR:51:VAL:O	2.34	0.62
25:DA:1588:G:C2	25:DA:1589:U:C4	2.87	0.62
6:AF:92:THR:O	6:AF:93:LYS:HG2	1.99	0.62
1:AA:407:U:C2	1:AA:408:A:C8	2.87	0.62
33:CI:76:ALA:HA	33:CI:79:LEU:HD12	1.81	0.62
1:AA:501:C:OP1	12:AL:113:ARG:NH2	2.32	0.62
5:AE:82:HIS:HD2	8:AH:95:MET:SD	2.23	0.62
20:BT:35:TYR:CG	20:BT:36:ALA:N	2.62	0.62
9:BI:79:ARG:NH2	9:BI:102:PHE:HA	2.14	0.62
10:AJ:59:LYS:HD2	10:AJ:59:LYS:C	2.19	0.62
36:CL:19:LEU:HD22	36:CL:31:GLY:O	1.98	0.62
2:AB:14:HIS:HB2	2:AB:208:ALA:HB2	1.81	0.62
2:BB:89:PHE:CE1	2:BB:153:MET:HA	2.34	0.62
9:AI:5:TYR:HB3	9:AI:88:GLU:HG2	1.81	0.62
30:DF:13:LYS:O	30:DF:16:MET:HB2	1.99	0.62
25:DA:2758:A:C5	25:DA:2759:G:C8	2.87	0.62
27:CC:268:ARG:HH11	27:CC:268:ARG:CG	2.11	0.62
25:DA:2579:C:O5'	25:DA:2579:C:H6	1.83	0.62
33:CI:56:VAL:CG2	33:CI:70:THR:HA	2.29	0.62
25:DA:2700:A:H2'	25:DA:2701:U:C6	2.34	0.62
25:DA:142:A:H2'	25:DA:143:C:C6	2.34	0.62
32:CH:4:ILE:HG22	32:CH:5:LEU:N	2.13	0.62
26:CB:48:U:O2'	26:CB:49:C:H5'	1.98	0.62
25:DA:2098:U:N3	25:DA:2099:U:C6	2.66	0.62
19:BS:28:LYS:CB	19:BS:29:PRO:HD2	2.29	0.62
57:DW:47:VAL:HG21	57:DW:76:ILE:O	1.99	0.62
25:DA:22:C:H2'	25:DA:23:G:O5'	1.99	0.62
1:BA:1277:C:H2'	1:BA:1277:C:O2	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:44:THR:CG2	10:AJ:70:HIS:HA	2.28	0.62
25:DA:2209:G:C6	25:DA:2210:U:C4	2.87	0.62
56:DB:35:C:C2'	56:DB:36:C:O5'	2.47	0.62
25:CA:1420:A:N1	25:CA:2211:A:C2	2.67	0.62
21:AU:36:PHE:HA	21:AU:39:LYS:HE2	1.80	0.62
10:BJ:35:GLN:HB2	10:BJ:78:GLU:HB3	1.81	0.62
2:BB:90:PHE:HD2	2:BB:149:GLY:HA3	1.63	0.62
1:BA:386:C:C2'	1:BA:387:U:H5'	2.28	0.62
25:DA:347:A:C2	25:DA:348:A:C4	2.87	0.62
28:CD:4:LEU:HD23	28:CD:101:PHE:CE1	2.34	0.62
13:AM:76:ILE:CG2	13:AM:80:MET:CE	2.77	0.62
1:AA:100:G:N7	1:AA:101:A:N7	2.47	0.62
1:AA:224:U:H2'	1:AA:225:C:H6	1.65	0.62
39:CO:54:VAL:O	39:CO:54:VAL:HG22	1.98	0.62
3:BC:5:HIS:CE1	3:BC:183:TYR:CE2	2.87	0.62
32:CH:2:GLN:C	32:CH:3:VAL:HG13	2.17	0.62
1:AA:737:C:H2'	1:AA:738:C:H6	1.63	0.62
1:AA:595:A:C6	1:AA:641:U:C5	2.87	0.62
1:BA:1265:C:N3	1:BA:1271:A:C2	2.67	0.62
25:DA:146:A:H2'	25:DA:147:C:C6	2.34	0.62
36:CL:96:LYS:HE2	36:CL:103:ILE:O	1.99	0.62
38:DN:58:ASP:O	38:DN:59:SER:HB3	1.99	0.62
27:CC:251:THR:HG22	27:CC:252:LYS:H	1.65	0.62
25:CA:460:A:OP1	53:C2:41:ARG:NH1	2.32	0.62
25:CA:649:G:H2'	25:CA:650:C:C6	2.34	0.62
25:CA:602:A:C2	25:CA:656:G:C6	2.87	0.62
1:BA:77:A:H2'	1:BA:78:A:O4'	1.99	0.62
25:CA:471:A:H8	25:CA:471:A:O5'	1.83	0.62
40:CP:13:LYS:HE3	40:CP:75:THR:O	1.99	0.62
1:BA:603:U:O2'	1:BA:604:G:H5'	1.99	0.62
1:BA:769:G:H4'	1:BA:1513:A:H4'	1.79	0.62
25:DA:1152:C:H3'	60:DA:3363:HOH:O	1.99	0.62
1:BA:1227:A:OP2	13:BM:109:LYS:HE3	2.00	0.62
1:BA:1313:U:P	19:BS:5:LYS:HB3	2.39	0.62
1:BA:977:A:H2'	1:BA:977:A:N3	2.12	0.62
25:CA:1085:A:H2'	25:CA:1086:A:N3	2.13	0.62
33:CI:19:PRO:O	33:CI:23:VAL:HG23	1.99	0.62
2:AB:118:THR:O	2:AB:119:GLN:CB	2.47	0.62
2:AB:133:ALA:O	2:AB:137:THR:HG23	1.99	0.62
2:AB:53:LEU:N	2:AB:53:LEU:HD22	2.14	0.62
1:AA:1211:U:C2'	1:AA:1212:U:OP2	2.46	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2213:U:H4'	25:DA:2214:C:OP2	1.98	0.62
1:AA:1102:A:C2'	1:AA:1103:C:H5'	2.30	0.62
1:AA:1539:C:H5"	21:AU:17:ARG:CG	2.28	0.62
1:BA:721:G:H4'	1:BA:722:G:O4'	1.99	0.62
25:CA:819:A:OP2	25:CA:1187:G:N2	2.32	0.62
25:DA:2782:G:N2	25:DA:2783:U:C2	2.68	0.62
25:DA:2166:U:C5	25:DA:2167:U:C5	2.86	0.62
25:DA:1456:G:C5	25:DA:1457:U:C5	2.87	0.62
1:AA:412:A:H1'	1:AA:413:G:H5"	1.82	0.62
4:AD:49:ASP:O	4:AD:53:GLN:HB2	1.98	0.62
11:AK:126:ARG:N	21:AU:33:ARG:CZ	2.62	0.62
1:BA:840:C:C2	1:BA:842:U:H4'	2.34	0.62
1:BA:920:U:O4'	1:BA:1080:A:C2	2.53	0.62
50:CZ:2:LYS:H	50:CZ:2:LYS:CD	2.11	0.62
25:CA:1482:G:N2	25:CA:1483:G:C4	2.67	0.62
2:BB:212:TYR:O	2:BB:216:VAL:HG23	1.99	0.62
25:DA:56:A:H2'	25:DA:57:C:O5'	1.98	0.62
25:CA:2110:G:O2'	25:CA:2120:G:H5'	1.99	0.62
17:BQ:49:ASN:O	17:BQ:51:GLU:N	2.33	0.62
25:DA:140:C:H4'	25:DA:141:G:N2	2.14	0.62
1:AA:1041:G:H2'	1:AA:1042:A:C8	2.35	0.62
1:BA:209:U:OP2	1:BA:210:C:C4	2.53	0.62
25:DA:541:A:H2'	25:DA:542:C:O4'	1.99	0.62
25:CA:1142:A:N3	25:CA:1144:A:C8	2.67	0.62
32:CH:6:LEU:HD13	32:CH:37:VAL:HG12	1.81	0.62
25:DA:1871:A:O2'	25:DA:1872:A:C8	2.53	0.62
1:AA:189:A:N7	1:AA:190:A:C6	2.67	0.62
7:BG:144:ALA:O	7:BG:145:GLU:CB	2.47	0.62
1:AA:1442:G:C2'	1:AA:1443:C:O5'	2.46	0.62
25:CA:1435:G:O2'	25:CA:1436:G:H5'	1.99	0.62
25:DA:2377:A:C2'	25:DA:2378:A:H5'	2.28	0.62
28:DD:85:ALA:O	28:DD:86:GLU:HB3	2.00	0.62
20:AT:4:LYS:O	20:AT:6:ALA:N	2.32	0.62
27:CC:170:TYR:CE2	27:CC:184:GLU:HB3	2.34	0.62
1:BA:977:A:C2	1:BA:1224:U:C4	2.87	0.62
33:DI:28:GLY:HA2	33:DI:32:VAL:HB	1.81	0.62
25:CA:1061:U:C2	33:CI:9:LYS:HB2	2.34	0.62
2:AB:63:LYS:HD3	2:AB:64:GLY:N	2.14	0.62
25:DA:1746:A:C4	25:DA:1747:U:C5	2.88	0.62
2:BB:17:HIS:CD2	2:BB:202:ASN:ND2	2.68	0.62
25:DA:2109:U:H5"	25:DA:2110:G:OP2	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:132:PRO:O	5:AE:134:ASN:N	2.33	0.62
22:AV:17:C:C6	22:AV:17:C:H3'	2.35	0.62
1:BA:214:C:H2'	1:BA:215:C:C6	2.34	0.62
27:DC:16:VAL:N	27:DC:203:VAL:CG2	2.62	0.62
44:CT:2:ILE:CA	44:CT:3:ARG:HB2	2.30	0.62
25:CA:1536:C:H4'	25:CA:1537:G:H5"	1.80	0.62
25:CA:1501:G:O2'	25:CA:1502:A:H5'	1.98	0.62
25:DA:223:A:C4	25:DA:422:A:C8	2.87	0.62
13:AM:9:PRO:O	13:AM:10:ASP:CB	2.48	0.62
25:DA:2403:C:H2'	25:DA:2404:U:H6	1.64	0.62
1:AA:214:C:O2'	1:AA:215:C:H5'	1.99	0.62
25:DA:160:A:C8	25:DA:167:A:C6	2.87	0.62
32:CH:37:VAL:HG23	32:CH:38:PRO:HD2	1.80	0.62
1:BA:572:A:H5'	1:BA:573:A:P	2.39	0.62
44:DT:89:GLU:O	44:DT:91:GLN:NE2	2.32	0.62
30:CF:113:PHE:CZ	30:CF:115:GLY:HA2	2.33	0.62
3:BC:35:ASP:O	3:BC:38:VAL:HG22	1.98	0.62
25:CA:574:A:H4'	25:CA:575:A:O5'	1.99	0.62
1:AA:25:C:C5	1:AA:558:G:N2	2.68	0.62
33:DI:56:VAL:HG22	33:DI:57:VAL:N	2.15	0.62
25:CA:1059:G:H5"	25:CA:1060:U:H3'	1.81	0.62
33:CI:46:ASP:HA	33:CI:50:LYS:HD2	1.80	0.62
1:AA:1210:C:O4'	1:AA:1214:C:C5	2.53	0.62
25:DA:1712:U:C4	25:DA:1713:A:C5	2.87	0.62
21:AU:24:LYS:CD	21:AU:25:ALA:N	2.63	0.62
25:DA:1417:C:N3	25:DA:1581:G:O6	2.33	0.62
42:CR:39:LEU:HA	42:CR:49:ILE:HG23	1.81	0.62
1:BA:1165:U:H2'	1:BA:1166:G:O4'	1.98	0.62
30:CF:4:HIS:O	30:CF:7:TYR:HB3	1.99	0.62
27:DC:73:ILE:O	27:DC:116:GLN:HG3	2.00	0.62
1:AA:973:G:H1'	10:AJ:56:HIS:HD2	1.64	0.62
10:AJ:57:VAL:HG22	10:AJ:58:ASN:H	1.65	0.62
16:BP:38:PHE:CZ	16:BP:51:ARG:HB2	2.35	0.62
2:BB:141:GLU:HA	2:BB:144:GLU:HB2	1.80	0.62
45:CU:6:ARG:O	45:CU:7:ASP:C	2.38	0.62
3:BC:41:TYR:CZ	3:BC:45:GLU:CG	2.83	0.62
32:DH:116:ARG:HD2	32:DH:133:GLN:HG2	1.79	0.62
45:DU:94:PHE:HA	45:DU:102:ILE:HD12	1.81	0.62
44:DT:69:ARG:HB3	44:DT:69:ARG:NH1	2.14	0.62
49:CY:17:GLU:O	49:CY:18:LEU:C	2.35	0.62
17:BQ:44:HIS:CG	17:BQ:69:THR:HG21	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2768:U:C2'	25:DA:2769:U:O5'	2.47	0.62
8:AH:6:ILE:O	8:AH:10:LEU:HD23	1.99	0.62
28:DD:25:THR:HG21	28:DD:193:VAL:HG22	1.82	0.62
1:BA:4:U:H4'	1:BA:5:U:OP1	2.00	0.62
1:BA:1476:A:H2'	1:BA:1477:U:H6	1.65	0.62
39:DO:49:VAL:HG21	39:DO:82:ALA:HA	1.82	0.62
1:BA:525:C:C2'	1:BA:526:C:H5'	2.30	0.62
36:CL:87:GLY:O	36:CL:89:VAL:HG12	2.00	0.62
31:DG:173:ALA:O	31:DG:174:LYS:O	2.16	0.62
48:CX:10:ARG:HB2	48:CX:11:PRO:CD	2.29	0.62
25:CA:1997:C:OP2	28:CD:129:THR:HB	2.00	0.62
30:CF:73:VAL:HG22	30:CF:78:ILE:HD11	1.81	0.62
1:BA:1347:G:H8	9:BI:108:ARG:HB3	1.64	0.62
34:CJ:77:HIS:CD2	34:CJ:79:GLY:H	2.16	0.62
28:CD:103:ASP:OD1	28:CD:103:ASP:C	2.38	0.62
1:BA:940:C:H2'	1:BA:941:G:H8	1.64	0.62
44:DT:32:LEU:O	44:DT:34:VAL:HG13	1.99	0.62
33:CI:17:ALA:O	33:CI:18:ASN:HB2	1.98	0.62
34:CJ:81:ILE:HG12	34:CJ:82:GLY:CA	2.29	0.62
25:DA:2294:G:N2	25:DA:2295:C:H1'	2.15	0.62
32:DH:4:ILE:HG23	32:DH:17:ASP:C	2.20	0.62
17:BQ:11:VAL:HG12	17:BQ:12:VAL:N	2.14	0.62
24:AY:7:ARG:HD3	24:AY:160:ASP:OD2	2.00	0.62
1:AA:1034:G:H2'	1:AA:1035:A:O4'	2.00	0.62
3:AC:120:THR:HG22	3:AC:121:SER:N	2.14	0.62
4:AD:62:ARG:HE	4:AD:62:ARG:HA	1.65	0.62
1:BA:70:U:C2	1:BA:94:G:N7	2.68	0.62
48:DX:53:LYS:HG2	48:DX:54:GLY:N	2.14	0.62
27:DC:16:VAL:HB	27:DC:203:VAL:HG22	1.81	0.62
25:CA:2681:C:OP2	28:CD:114:LYS:CE	2.47	0.62
25:CA:1482:G:C2	25:CA:1483:G:C8	2.87	0.62
56:DB:60:C:C2'	56:DB:61:G:H5'	2.30	0.62
6:AF:17:GLN:O	6:AF:18:VAL:C	2.38	0.62
56:DB:77:U:H2'	56:DB:78:A:C5'	2.29	0.62
3:BC:54:ILE:CD1	3:BC:56:ILE:CD1	2.78	0.62
1:AA:997:U:C2'	1:AA:998:C:H5'	2.29	0.62
35:DK:35:VAL:HG22	35:DK:69:VAL:HG12	1.82	0.62
36:CL:2:ARG:HA	36:CL:5:THR:HG21	1.82	0.62
1:AA:1125:U:C5	1:AA:1127:G:C6	2.88	0.62
44:DT:7:LEU:CD2	44:DT:46:ALA:HB2	2.29	0.62
25:DA:2849:U:H4'	25:DA:2868:A:C2	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2517:C:C6	25:DA:2542:A:N7	2.67	0.62
37:CM:135:VAL:O	37:CM:136:MET:O	2.17	0.62
25:DA:215:G:H4'	25:DA:216:A:H4'	1.82	0.62
25:DA:1085:A:C5	25:DA:1086:A:N6	2.68	0.62
1:BA:1234:C:H2'	1:BA:1235:U:H5'	1.82	0.62
20:AT:70:LYS:HG3	20:AT:74:HIS:CD2	2.35	0.62
1:BA:1522:U:C2'	1:BA:1523:G:O5'	2.47	0.62
25:DA:1435:G:H2'	25:DA:1436:G:H5'	1.81	0.62
25:DA:2305:U:C4	30:DF:151:LEU:HA	2.35	0.62
4:AD:54:LEU:HD23	4:AD:55:ARG:N	2.15	0.62
31:CG:37:ASN:O	31:CG:38:ASP:HB2	1.99	0.62
11:BK:22:ILE:O	11:BK:22:ILE:HG13	2.00	0.62
2:BB:99:MET:HA	2:BB:106:VAL:HG21	1.82	0.62
1:AA:1060:U:H5"	10:AJ:53:ILE:CG2	2.30	0.62
27:CC:42:ARG:HH11	27:CC:42:ARG:HG3	1.63	0.62
25:DA:1018:U:N3	25:DA:1019:U:C5	2.67	0.62
25:DA:1023:U:H2'	25:DA:1024:G:H5'	1.80	0.62
9:AI:14:SER:HA	9:AI:68:GLY:O	1.99	0.62
50:DZ:3:THR:HG21	50:DZ:36:GLU:OE1	2.00	0.62
25:DA:693:A:H2'	25:DA:694:U:O5'	1.99	0.62
33:CI:33:ASN:HB3	33:CI:36:GLU:H	1.63	0.62
33:CI:5:GLN:O	33:CI:6:ALA:HB3	2.00	0.62
1:AA:1057:G:C2'	1:AA:1058:G:O5'	2.48	0.62
32:DH:50:ARG:HA	32:DH:50:ARG:NH1	2.15	0.62
14:BN:35:ALA:CB	14:BN:41:ARG:HG3	2.30	0.62
1:BA:612:C:H2'	1:BA:613:C:H6	1.64	0.62
1:BA:211:G:H21	1:BA:212:G:H1'	1.63	0.62
25:DA:1883:U:C2'	25:DA:1884:G:O5'	2.48	0.62
41:CQ:20:ALA:HB2	41:CQ:38:VAL:CG2	2.29	0.62
44:DT:49:LYS:HB2	44:DT:50:LEU:CD1	2.29	0.62
41:CQ:57:ARG:HA	41:CQ:60:TRP:CE3	2.34	0.62
1:BA:1469:C:H2'	1:BA:1470:U:O4'	2.00	0.62
25:DA:260:G:C5	25:DA:261:G:C8	2.88	0.62
1:BA:105:G:H2'	1:BA:106:C:C6	2.35	0.62
24:AY:110:ARG:O	24:AY:111:ARG:C	2.37	0.62
16:AP:51:ARG:CG	16:AP:51:ARG:HH11	2.13	0.62
25:DA:2063:C:O2	25:DA:2450:A:N1	2.32	0.62
25:CA:880:G:C6	25:CA:881:G:N7	2.67	0.62
1:BA:1053:G:H4'	1:BA:1054:C:C5'	2.17	0.62
1:BA:1342:C:H2'	1:BA:1343:G:C8	2.34	0.62
13:BM:18:LEU:HG	13:BM:33:LEU:HD21	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:85:VAL:HG12	11:AK:92:ARG:NH1	2.15	0.62
1:AA:274:A:H5'	17:AQ:15:LYS:CE	2.30	0.62
1:BA:488:C:H2'	1:BA:489:C:H6	1.65	0.62
25:CA:362:A:N3	25:CA:362:A:H2'	2.15	0.62
25:DA:528:A:C3'	25:DA:528:A:C8	2.82	0.62
1:BA:1263:C:H2'	1:BA:1264:U:C6	2.35	0.62
5:AE:89:THR:HG22	5:AE:90:GLY:H	1.65	0.62
22:AV:62:C:C2	22:AV:63:G:C8	2.88	0.62
1:BA:102:G:H2'	1:BA:103:U:H6	1.64	0.62
14:AN:41:ARG:HG3	14:AN:42:TRP:CD2	2.34	0.62
20:AT:54:GLN:HB3	20:AT:55:PRO:CD	2.29	0.62
1:BA:1182:G:H4'	1:BA:1183:U:H5"	1.82	0.62
1:AA:451:A:O4'	1:AA:452:A:C2	2.53	0.62
1:BA:1534:A:H4'	1:BA:1535:C:H2'	1.82	0.62
9:BI:18:VAL:HG12	9:BI:85:ALA:HB2	1.82	0.62
1:AA:1305:G:O2'	1:AA:1306:A:C8	2.53	0.62
32:DH:2:GLN:HB2	32:DH:39:ALA:HB3	1.81	0.62
1:BA:501:C:H2'	1:BA:502:A:H8	1.65	0.62
53:C2:12:ARG:HD2	53:C2:44:VAL:HG11	1.80	0.62
49:CY:56:LEU:O	49:CY:57:LEU:HB3	2.00	0.62
25:DA:1824:G:C2'	25:DA:1825:U:H5'	2.30	0.62
31:DG:5:LYS:O	31:DG:6:ALA:HB2	1.99	0.62
25:DA:1018:U:O2'	25:DA:1019:U:H5'	2.00	0.62
6:BF:18:VAL:HA	6:BF:21:MET:HE2	1.81	0.62
11:AK:34:THR:HA	11:AK:40:ALA:HA	1.81	0.62
9:AI:105:ARG:NH1	9:AI:107:ALA:HA	2.15	0.62
24:AY:146:ASP:O	24:AY:148:GLU:N	2.32	0.62
1:AA:999:C:H2'	1:AA:1000:A:C8	2.35	0.62
25:CA:274:C:H2'	25:CA:275:C:O4'	2.00	0.62
1:AA:841:C:H5'	1:AA:843:U:OP2	1.99	0.62
7:BG:8:GLN:HG3	7:BG:8:GLN:O	1.98	0.62
25:CA:878:A:H5'	25:CA:879:G:OP2	2.00	0.62
27:DC:124:LYS:HB2	27:DC:125:PRO:HD2	1.82	0.62
8:AH:82:LEU:HD13	8:AH:84:ILE:HD11	1.82	0.62
31:CG:114:HIS:CD2	31:CG:147:LEU:HD21	2.35	0.62
42:DR:27:ILE:HG21	42:DR:33:VAL:CG1	2.29	0.62
8:BH:1:SER:HB2	8:BH:3:GLN:HE21	1.64	0.62
52:D1:8:ILE:HD12	52:D1:10:LEU:HD21	1.81	0.62
6:AF:8:PHE:CE1	6:AF:60:VAL:HB	2.35	0.62
4:BD:72:ARG:HD3	4:BD:203:TYR:CE2	2.35	0.62
31:CG:173:ALA:O	31:CG:174:LYS:HB3	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1060:U:O4'	25:DA:1062:G:H5'	1.99	0.62
32:CH:34:GLY:O	32:CH:35:LYS:HG3	2.00	0.62
49:DY:24:GLU:O	49:DY:25:GLN:C	2.39	0.62
2:AB:215:ALA:O	2:AB:219:THR:CG2	2.47	0.62
2:AB:60:ALA:HA	2:AB:64:GLY:N	2.14	0.62
5:BE:80:LEU:HA	5:BE:146:MET:HE1	1.82	0.62
1:AA:459:A:C2'	1:AA:460:A:O4'	2.46	0.62
4:AD:24:VAL:HG12	4:AD:25:ARG:N	2.15	0.62
1:BA:785:G:H2'	1:BA:786:G:H5'	1.81	0.62
5:AE:155:LYS:HA	8:AH:65:PHE:CD2	2.35	0.62
1:BA:1298:U:H4'	1:BA:1299:A:C4	2.34	0.62
7:BG:44:SER:O	7:BG:48:THR:HG23	2.00	0.62
1:AA:943:U:H2'	1:AA:944:G:H5'	1.81	0.62
2:BB:101:THR:HA	2:BB:178:LEU:HD21	1.82	0.62
6:BF:7:VAL:HA	6:BF:60:VAL:O	2.00	0.62
1:BA:1028:C:H2'	1:BA:1028:C:O2	1.98	0.62
1:BA:1034:G:H2'	1:BA:1035:A:C8	2.35	0.62
21:BU:10:PRO:O	21:BU:11:PHE:CD2	2.53	0.62
40:CP:102:ARG:HG2	40:CP:102:ARG:HH11	1.64	0.62
1:BA:1505:G:H4'	1:BA:1506:U:H5"	1.82	0.62
19:AS:50:VAL:HG12	19:AS:51:HIS:O	2.00	0.62
25:DA:729:G:H4'	25:DA:763:G:C5'	2.30	0.62
7:AG:39:GLU:HA	7:AG:42:VAL:HG22	1.82	0.62
12:AL:49:ARG:CB	12:AL:89:LEU:HD21	2.29	0.62
1:BA:237:G:OP1	17:BQ:41:THR:HG23	2.00	0.62
36:CL:90:VAL:HG23	36:CL:120:VAL:CG2	2.30	0.62
34:DJ:17:VAL:HG23	34:DJ:137:PRO:HB2	1.80	0.62
25:CA:947:A:O2'	25:CA:984:A:H2	1.82	0.62
1:AA:40:C:H2'	1:AA:41:G:O4'	2.00	0.62
42:CR:28:ALA:HB3	42:CR:31:GLU:HG3	1.80	0.62
45:CU:98:ASN:O	45:CU:100:GLU:N	2.32	0.62
25:DA:1433:A:H5"	25:DA:1434:A:OP2	1.99	0.62
25:CA:108:G:C2'	25:CA:109:C:H5'	2.30	0.62
4:AD:124:VAL:HG23	4:AD:125:ASN:N	2.15	0.62
28:CD:26:VAL:HG12	28:CD:186:LEU:HD13	1.82	0.62
32:DH:145:ASN:N	32:DH:145:ASN:OD1	2.31	0.62
25:DA:2235:G:H2'	25:DA:2236:U:O4'	1.99	0.62
25:CA:2173:A:H2'	25:CA:2174:C:C6	2.35	0.61
25:DA:1095:A:N1	33:DI:29:GLN:HG2	2.15	0.61
16:BP:41:PRO:O	16:BP:42:ILE:HD13	2.00	0.61
25:DA:627:A:C6	25:DA:637:A:C8	2.88	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:80:THR:O	10:AJ:83:THR:HG22	2.00	0.61
39:DO:33:ARG:O	39:DO:34:HIS:HB2	2.00	0.61
4:AD:156:ALA:O	4:AD:159:GLU:HB3	2.00	0.61
1:BA:100:G:C8	1:BA:101:A:N7	2.68	0.61
25:CA:1410:G:H2'	25:CA:1411:U:C6	2.35	0.61
9:BI:5:TYR:HB2	9:BI:20:ILE:HB	1.81	0.61
9:BI:49:GLN:N	9:BI:50:PRO:HD2	2.15	0.61
36:CL:75:ALA:HB2	36:CL:105:ILE:HD12	1.82	0.61
37:CM:31:PHE:CZ	37:CM:110:GLU:HB2	2.35	0.61
1:BA:934:C:C6	1:BA:1344:C:C5	2.88	0.61
9:BI:56:MET:SD	9:BI:56:MET:N	2.73	0.61
30:DF:21:TYR:CD1	30:DF:26:GLN:HG2	2.35	0.61
2:BB:58:LYS:HA	2:BB:61:SER:HB2	1.82	0.61
19:AS:12:LEU:O	19:AS:14:LEU:N	2.32	0.61
32:CH:72:ILE:HG21	32:CH:140:ALA:HB1	1.82	0.61
33:CI:66:PHE:CD2	33:CI:66:PHE:N	2.68	0.61
45:DU:98:ASN:OD1	45:DU:98:ASN:O	2.17	0.61
25:DA:1356:G:C2	25:DA:1357:C:N1	2.68	0.61
1:BA:471:U:O2'	1:BA:472:U:H5'	2.00	0.61
14:BN:24:ALA:O	14:BN:27:LYS:CG	2.47	0.61
25:CA:978:G:H2'	25:CA:979:A:H5'	1.80	0.61
48:CX:17:ARG:CZ	48:CX:23:ALA:HB2	2.30	0.61
25:DA:1301:A:N3	25:DA:1301:A:H2'	2.15	0.61
4:AD:2:ARG:CZ	4:AD:114:ARG:HD3	2.30	0.61
1:AA:1023:U:H2'	1:AA:1024:G:O4'	2.00	0.61
30:DF:116:LEU:HD23	30:DF:175:PRO:HB2	1.81	0.61
1:AA:868:C:C2'	1:AA:869:G:H5'	2.30	0.61
4:BD:77:GLU:OE1	4:BD:77:GLU:HA	1.99	0.61
1:AA:164:G:H2'	1:AA:165:G:H5'	1.81	0.61
25:DA:2897:U:H2'	25:DA:2898:U:C6	2.35	0.61
25:CA:798:G:O6	60:CA:3322:HOH:O	2.14	0.61
33:DI:72:THR:HB	33:DI:73:PRO:HD2	1.81	0.61
25:CA:1784:A:H4'	25:CA:1785:A:O5'	2.00	0.61
6:AF:86:ARG:CG	6:AF:86:ARG:HH11	2.13	0.61
1:AA:258:G:N2	1:AA:259:G:H1'	2.14	0.61
13:BM:9:PRO:O	13:BM:10:ASP:CB	2.48	0.61
25:DA:2195:U:H2'	25:DA:2196:C:H6	1.64	0.61
38:CN:103:ARG:CD	38:CN:110:MET:HE2	2.31	0.61
32:DH:62:LEU:HD23	32:DH:135:HIS:CE1	2.36	0.61
8:BH:65:PHE:CD1	8:BH:65:PHE:C	2.72	0.61
11:AK:52:ARG:NH2	11:AK:56:LYS:HE2	2.14	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DN:24:MET:HB3	38:DN:44:LEU:HD13	1.81	0.61
25:CA:1731:G:C6	25:CA:1733:G:C5	2.88	0.61
4:AD:115:GLN:NE2	4:AD:119:HIS:CE1	2.68	0.61
1:AA:511:C:H1'	1:AA:512:U:H6	1.65	0.61
33:DI:121:ILE:HA	33:DI:124:MET:SD	2.40	0.61
1:AA:1233:G:C6	1:AA:1234:C:C4	2.88	0.61
9:AI:29:ILE:HD11	9:AI:37:TYR:CD2	2.35	0.61
45:DU:40:LEU:CD2	45:DU:61:GLU:HG3	2.30	0.61
2:BB:67:LEU:HB3	2:BB:160:LEU:HD12	1.82	0.61
12:BL:86:VAL:HG11	12:BL:89:LEU:HD22	1.82	0.61
51:D0:52:LYS:CE	51:D0:55:ALA:HA	2.31	0.61
51:D0:52:LYS:HE3	51:D0:55:ALA:HA	1.81	0.61
51:D0:52:LYS:NZ	51:D0:55:ALA:HA	2.15	0.61
21:BU:9:GLU:HG2	21:BU:10:PRO:HD3	1.82	0.61
30:DF:7:TYR:HA	30:DF:11:VAL:CG2	2.30	0.61
39:DO:56:LYS:CG	39:DO:57:ALA:N	2.63	0.61
19:AS:8:PRO:HB2	19:AS:40:PHE:HZ	1.65	0.61
25:CA:2056:G:H2'	25:CA:2056:G:N3	2.14	0.61
25:DA:833:A:OP1	36:DL:39:LYS:HE2	2.01	0.61
27:CC:229:HIS:CD2	27:CC:246:PRO:HB3	2.35	0.61
44:DT:1:MET:O	44:DT:2:ILE:HG13	2.00	0.61
46:DV:9:ARG:HG2	46:DV:41:GLU:HB3	1.82	0.61
4:BD:55:ARG:NH1	4:BD:55:ARG:HA	2.14	0.61
1:BA:436:C:C2	1:BA:437:U:C5	2.88	0.61
40:DP:38:ARG:CG	40:DP:39:LEU:H	2.13	0.61
1:AA:595:A:C5	1:AA:641:U:C5	2.88	0.61
1:BA:78:A:C6	1:BA:79:G:C6	2.87	0.61
44:DT:44:LYS:HG3	44:DT:55:VAL:HG11	1.81	0.61
24:AY:133:ARG:NH2	25:CA:1942:C:O4'	2.33	0.61
6:AF:46:GLN:HB2	6:AF:56:LYS:HE3	1.82	0.61
39:CO:117:PHE:C	39:CO:117:PHE:CD1	2.73	0.61
34:CJ:69:ARG:O	34:CJ:90:GLU:HB3	1.99	0.61
27:DC:93:VAL:HG11	27:DC:103:ILE:HD11	1.81	0.61
25:CA:2902:C:C4	25:CA:2903:U:O4	2.53	0.61
11:AK:87:GLY:H	11:AK:113:THR:HG22	1.66	0.61
33:CI:38:CYS:HB3	33:CI:42:ASN:HD22	1.64	0.61
32:DH:4:ILE:HG23	32:DH:17:ASP:N	2.16	0.61
25:DA:1412:U:H2'	25:DA:1413:A:H8	1.63	0.61
30:DF:33:ILE:HD11	30:DF:155:ILE:HG23	1.83	0.61
30:DF:33:ILE:O	30:DF:90:LEU:HB2	2.00	0.61
1:AA:1527:U:H2'	1:AA:1528:U:C6	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BD:160:LEU:HD22	4:BD:161:ALA:H	1.63	0.61
35:CK:13:ASN:HD22	35:CK:98:ARG:HB2	1.65	0.61
6:BF:3:HIS:H	6:BF:92:THR:HG23	1.64	0.61
12:BL:89:LEU:HB2	12:BL:92:VAL:CG2	2.29	0.61
28:DD:140:HIS:NE2	60:DD:303:HOH:O	2.30	0.61
13:AM:74:MET:SD	30:CF:111:ARG:HB3	2.40	0.61
6:BF:24:ARG:O	6:BF:27:ALA:HB3	2.00	0.61
13:AM:76:ILE:HG23	13:AM:80:MET:HE1	1.80	0.61
57:DW:10:ARG:O	57:DW:11:ASP:HB2	1.98	0.61
7:AG:21:LEU:HD11	7:AG:61:PHE:CZ	2.36	0.61
1:BA:644:U:H5'	8:BH:83:ARG:HH12	1.64	0.61
1:BA:412:A:C2	1:BA:414:A:H1'	2.34	0.61
25:CA:1658:C:P	60:CA:3660:HOH:O	2.56	0.61
25:CA:1547:C:C5'	25:CA:1547:C:H6	2.12	0.61
3:AC:155:ARG:H	3:AC:162:ALA:HA	1.65	0.61
1:BA:1067:A:H4'	1:BA:1068:G:O5'	1.99	0.61
6:BF:1:MET:HE1	6:BF:67:PRO:HB3	1.83	0.61
25:DA:335:C:H5"	45:DU:81:ARG:HD3	1.82	0.61
45:CU:39:ASN:HB3	45:CU:62:ALA:HB3	1.81	0.61
11:BK:21:HIS:CE1	11:BK:34:THR:HG21	2.34	0.61
28:CD:33:ARG:NH2	28:CD:74:GLU:O	2.33	0.61
51:C0:22:THR:O	51:C0:22:THR:HG23	2.01	0.61
25:DA:2790:U:H4'	25:DA:2791:G:OP1	1.99	0.61
25:DA:1651:G:H5'	38:DN:39:PRO:HG2	1.81	0.61
25:DA:1056:G:H4'	25:DA:1086:A:C8	2.35	0.61
25:DA:1059:G:N1	25:DA:1080:A:C2	2.68	0.61
25:DA:1094:U:H2'	25:DA:1096:A:OP2	2.01	0.61
25:CA:417:C:H2'	25:CA:418:C:O5'	2.00	0.61
49:DY:21:LEU:O	49:DY:23:ARG:O	2.19	0.61
1:AA:1213:A:C5	1:AA:1215:G:C4	2.87	0.61
17:AQ:13:SER:CB	17:AQ:21:VAL:CG1	2.79	0.61
17:AQ:45:VAL:HG11	17:AQ:60:ILE:HG13	1.83	0.61
25:DA:2207:C:C2	25:DA:2218:G:C2	2.88	0.61
25:DA:2209:G:N2	25:DA:2216:G:N3	2.48	0.61
8:BH:65:PHE:O	8:BH:66:GLN:O	2.19	0.61
25:CA:404:A:C1'	25:CA:405:U:OP2	2.47	0.61
6:AF:5:GLU:HB3	6:AF:90:MET:HB2	1.83	0.61
38:DN:51:LEU:N	38:DN:51:LEU:HD23	2.15	0.61
25:CA:280:U:H2'	25:CA:281:C:O4'	2.01	0.61
30:DF:34:THR:HA	30:DF:88:VAL:O	2.00	0.61
1:AA:429:U:H3'	4:AD:8:LEU:HD23	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:301:G:H5'	25:DA:317:G:N2	2.15	0.61
1:AA:8:A:C6	4:AD:205:LYS:HB3	2.35	0.61
1:BA:1298:U:H4'	1:BA:1299:A:N9	2.16	0.61
20:BT:63:LYS:HA	20:BT:63:LYS:HE3	1.82	0.61
1:BA:1534:A:C4'	1:BA:1535:C:OP1	2.47	0.61
1:BA:861:G:C5	1:BA:862:C:C5	2.87	0.61
25:DA:277:G:N3	25:DA:277:G:H3'	2.16	0.61
1:BA:1410:A:C2	1:BA:1491:G:C2	2.88	0.61
1:BA:1493:A:H8	1:BA:1493:A:OP2	1.84	0.61
25:CA:1494:A:N1	25:CA:1495:A:C2	2.68	0.61
4:AD:190:LEU:HD12	4:AD:190:LEU:O	2.00	0.61
27:DC:60:ALA:O	27:DC:62:ARG:NH2	2.33	0.61
7:BG:39:GLU:HB2	7:BG:43:TYR:HE2	1.64	0.61
25:CA:1372:U:C2'	25:CA:1373:A:O5'	2.48	0.61
30:DF:39:VAL:CG1	30:DF:42:ALA:HB2	2.29	0.61
4:AD:3:TYR:C	4:AD:3:TYR:CD1	2.71	0.61
35:CK:91:SER:O	35:CK:93:GLN:HG2	2.00	0.61
25:DA:2690:U:C5	25:DA:2873:A:N1	2.68	0.61
40:CP:62:LYS:HE3	40:CP:64:SER:HB2	1.82	0.61
54:D3:15:LYS:HE2	54:D3:19:GLY:HA2	1.80	0.61
25:CA:2492:U:C2'	25:CA:2493:U:H5'	2.30	0.61
27:DC:265:PHE:N	27:DC:265:PHE:CD1	2.68	0.61
25:DA:2862:G:H2'	25:DA:2863:C:H6	1.66	0.61
27:CC:159:THR:H	27:CC:194:VAL:CG1	2.13	0.61
31:DG:86:LEU:HD11	31:DG:163:TYR:CD1	2.36	0.61
15:AO:41:HIS:CD2	15:AO:42:PHE:CE2	2.88	0.61
8:BH:64:TYR:CD1	8:BH:64:TYR:N	2.69	0.61
1:BA:1486:G:H2'	1:BA:1487:G:O4'	1.99	0.61
13:BM:28:ARG:HG3	13:BM:62:PHE:CE2	2.36	0.61
19:BS:40:PHE:HA	19:BS:66:VAL:HG13	1.83	0.61
25:CA:417:C:H2'	25:CA:418:C:H6	1.65	0.61
2:AB:118:THR:O	2:AB:119:GLN:HB2	2.01	0.61
1:AA:1313:U:P	19:AS:5:LYS:HB3	2.41	0.61
36:DL:135:ILE:HG22	36:DL:140:GLY:HA2	1.83	0.61
1:BA:1126:U:N1	1:BA:1281:C:C5	2.69	0.61
25:CA:1420:A:C6	25:CA:2211:A:C2	2.87	0.61
11:AK:124:LYS:HG2	11:AK:125:LYS:H	1.64	0.61
5:AE:72:ASN:H	5:AE:72:ASN:HD22	1.48	0.61
1:AA:91:U:C2	1:AA:92:U:H1'	2.35	0.61
1:AA:64:G:C8	1:AA:99:C:N4	2.68	0.61
25:DA:1866:A:N1	25:DA:1876:A:N7	2.49	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BT:56:ILE:O	20:BT:60:GLN:HG2	2.00	0.61
25:CA:1415:U:O2	25:CA:1415:U:H3'	2.01	0.61
9:BI:75:ALA:HA	9:BI:78:ILE:HD12	1.81	0.61
32:DH:1:MET:HE2	32:DH:23:ALA:HA	1.82	0.61
4:AD:131:ILE:HD12	4:AD:134:TYR:H	1.64	0.61
1:BA:1122:U:C2	1:BA:1123:U:C6	2.88	0.61
33:CI:54:ILE:CG1	33:CI:73:PRO:HB3	2.30	0.61
33:CI:4:VAL:O	33:CI:5:GLN:HB3	1.98	0.61
45:DU:85:ARG:HG2	45:DU:94:PHE:HD2	1.65	0.61
49:CY:45:GLN:O	49:CY:46:VAL:HB	2.00	0.61
15:BO:69:LEU:HD13	15:BO:77:TYR:HB2	1.81	0.61
5:BE:124:ALA:O	5:BE:125:LYS:CB	2.49	0.61
25:DA:900:A:C2	25:DA:901:C:H1'	2.35	0.61
46:DV:63:ILE:HG22	46:DV:65:VAL:HG12	1.83	0.61
5:AE:59:ILE:O	5:AE:62:ALA:HB3	2.01	0.61
1:AA:757:U:O2'	1:AA:879:C:H1'	2.00	0.61
7:BG:34:LYS:HB3	7:BG:37:THR:HG22	1.82	0.61
25:CA:1300:G:H4'	25:CA:1301:A:H5'	1.82	0.61
1:BA:1471:U:O2'	1:BA:1472:U:H5'	2.01	0.61
1:AA:853:C:H2'	1:AA:854:U:H6	1.66	0.61
33:CI:126:ARG:HA	33:CI:129:GLU:HG3	1.82	0.61
28:DD:100:LEU:C	28:DD:100:LEU:HD12	2.20	0.61
27:CC:167:ASP:OD2	27:CC:167:ASP:C	2.38	0.61
1:AA:121:U:H4'	1:AA:121:U:OP2	2.00	0.61
26:CB:102:G:C2'	26:CB:103:U:H5'	2.31	0.61
44:CT:69:ARG:HB2	44:CT:74:ILE:HG22	1.81	0.61
1:BA:600:A:C4	1:BA:639:G:N2	2.68	0.61
49:CY:37:LEU:C	49:CY:37:LEU:HD12	2.21	0.61
44:CT:34:VAL:HG22	44:CT:81:LYS:HB3	1.83	0.61
25:DA:1057:A:N7	25:DA:1086:A:H2'	2.16	0.61
4:BD:3:TYR:O	4:BD:4:LEU:HB2	2.00	0.61
25:DA:1383:A:C2	25:DA:1384:A:N3	2.69	0.61
49:DY:13:GLU:O	49:DY:16:THR:N	2.33	0.61
25:CA:1073:A:C3'	25:CA:1074:G:C5'	2.79	0.61
2:AB:63:LYS:O	2:AB:65:LYS:HE2	2.00	0.61
25:DA:1540:G:C6	25:DA:1541:C:C4	2.89	0.61
16:AP:73:ALA:O	16:AP:77:GLU:CB	2.48	0.61
37:DM:62:LYS:HD3	37:DM:64:TRP:CH2	2.34	0.61
25:DA:1789:A:O2'	25:DA:1790:C:H5'	2.01	0.61
25:DA:1790:C:C5	25:DA:1828:G:C2	2.89	0.61
37:CM:54:THR:O	37:CM:56:ALA:N	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:BU:26:GLY:O	21:BU:30:GLU:HB2	2.01	0.61
45:DU:15:GLY:O	45:DU:16:LYS:CB	2.48	0.61
14:BN:90:ARG:HB2	14:BN:92:GLU:HG3	1.83	0.61
1:BA:1356:G:H2'	1:BA:1357:A:C8	2.35	0.61
1:AA:542:G:C4	1:AA:543:U:C5	2.88	0.61
12:BL:2:THR:HB	12:BL:5:GLN:CG	2.31	0.61
1:AA:468:A:H5'	1:AA:469:C:OP2	2.01	0.61
34:DJ:117:ALA:HA	34:DJ:120:ARG:HD2	1.83	0.61
25:DA:404:A:C1'	25:DA:405:U:OP2	2.48	0.61
16:AP:51:ARG:HH11	16:AP:51:ARG:HG2	1.64	0.61
27:DC:264:LYS:HB3	27:DC:265:PHE:CE1	2.35	0.61
18:BR:31:TYR:O	18:BR:39:VAL:HG23	2.00	0.61
25:DA:2184:A:H2'	25:DA:2185:U:C6	2.36	0.61
41:DQ:93:ILE:HD13	42:DR:11:GLN:HB2	1.83	0.61
34:DJ:129:GLU:OE1	34:DJ:129:GLU:N	2.34	0.61
42:CR:74:ILE:N	42:CR:74:ILE:HD12	2.15	0.61
1:AA:983:A:C2'	1:AA:983:A:N3	2.62	0.61
10:BJ:53:ILE:HG22	10:BJ:61:ALA:C	2.21	0.61
10:AJ:14:ASP:HB3	10:AJ:17:LEU:HD22	1.81	0.61
16:BP:42:ILE:O	16:BP:44:SER:N	2.34	0.61
1:BA:723:U:H5'	1:BA:724:G:OP1	2.01	0.61
10:AJ:28:THR:O	10:AJ:32:THR:HG22	2.01	0.61
4:AD:21:LYS:O	4:AD:23:GLY:N	2.33	0.61
7:BG:41:ILE:HG23	7:BG:116:ALA:HB2	1.82	0.61
1:BA:1536:C:H5"	1:BA:1537:U:OP2	2.01	0.61
25:CA:2304:G:H2'	25:CA:2305:U:C5'	2.31	0.61
2:BB:49:PHE:CD1	2:BB:49:PHE:O	2.53	0.61
4:BD:34:GLU:O	4:BD:36:ALA:N	2.32	0.61
50:DZ:35:VAL:HG21	50:DZ:37:ARG:NH2	2.15	0.61
2:AB:168:GLU:OE1	2:AB:168:GLU:HA	2.00	0.61
43:CS:59:GLU:HG3	43:CS:66:ILE:CD1	2.31	0.61
25:CA:1372:U:H2'	25:CA:1373:A:C5'	2.30	0.61
27:CC:104:LEU:HD12	27:CC:104:LEU:N	2.15	0.61
31:CG:41:GLU:HG3	31:CG:54:ARG:HH21	1.66	0.61
9:AI:33:SER:CB	9:AI:36:GLN:HG3	2.30	0.61
32:CH:11:ASN:O	32:CH:12:LEU:HB3	2.01	0.61
46:DV:38:LEU:HB3	46:DV:40:ILE:HD11	1.83	0.61
3:AC:122:GLN:O	3:AC:127:VAL:HG22	2.00	0.61
25:DA:404:A:H1'	25:DA:405:U:OP2	2.01	0.61
1:AA:545:C:OP1	4:AD:68:GLU:HG3	2.01	0.61
25:CA:454:A:H4'	25:CA:455:C:OP2	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CZ:48:ASN:O	50:CZ:51:SER:HB3	2.00	0.61
25:DA:572:A:H5"	25:DA:573:U:OP2	2.00	0.61
15:AO:18:ALA:O	15:AO:19:ASN:CB	2.49	0.61
5:BE:17:VAL:HG13	5:BE:18:ASN:N	2.14	0.61
2:AB:71:THR:O	2:AB:72:LYS:HB3	2.01	0.61
30:DF:142:TYR:O	30:DF:145:VAL:HG22	2.01	0.61
28:DD:176:ASP:O	28:DD:189:VAL:HG12	2.00	0.61
1:BA:1377:A:N3	7:BG:1:PRO:CG	2.64	0.61
25:CA:2127:G:C4'	25:CA:2128:G:OP1	2.45	0.61
25:CA:1081:U:O2	25:CA:1081:U:H2'	2.00	0.61
33:CI:46:ASP:HA	33:CI:50:LYS:CD	2.30	0.61
2:AB:88:GLN:HG2	2:AB:220:VAL:HG11	1.83	0.61
38:DN:24:MET:CE	38:DN:44:LEU:HD13	2.30	0.61
1:BA:1219:A:H2'	1:BA:1220:G:C8	2.35	0.61
25:DA:1526:C:H2'	25:DA:1527:G:O4'	2.01	0.61
4:AD:9:LYS:HA	4:AD:12:ARG:HG3	1.83	0.61
33:CI:100:ILE:CG1	33:CI:137:LEU:HD13	2.31	0.61
11:AK:125:LYS:C	21:AU:33:ARG:CZ	2.69	0.61
5:AE:80:LEU:HD21	5:AE:122:VAL:HG12	1.82	0.61
25:CA:1462:C:O2'	25:CA:1463:C:C5'	2.48	0.61
11:BK:75:GLU:HB2	11:BK:76:TYR:CD1	2.35	0.61
25:CA:1416:G:HO2'	25:CA:1417:C:H6	1.47	0.61
1:AA:943:U:C2'	1:AA:944:G:H5'	2.30	0.61
27:DC:144:GLU:HG2	27:DC:151:GLY:H	1.66	0.61
1:BA:1028:C:C6	1:BA:1034:G:N2	2.68	0.61
36:CL:81:ASP:O	36:CL:83:ALA:N	2.33	0.61
2:BB:61:SER:HA	2:BB:223:GLY:HA2	1.83	0.61
42:CR:24:LYS:HA	42:CR:94:THR:CG2	2.30	0.61
7:AG:119:LEU:HD22	7:AG:123:LEU:HD23	1.82	0.61
27:DC:123:ILE:CD1	27:DC:135:PRO:HD3	2.30	0.61
3:BC:101:ASN:C	3:BC:102:ILE:CG1	2.69	0.61
25:CA:2657:A:H1'	25:CA:2665:A:N6	2.16	0.61
30:DF:98:PHE:O	30:DF:99:PHE:C	2.39	0.61
6:AF:7:VAL:O	6:AF:7:VAL:HG22	1.99	0.61
1:BA:1265:C:C2	1:BA:1271:A:C2	2.88	0.61
30:CF:40:GLY:HA2	30:CF:84:ILE:CD1	2.31	0.61
56:DB:95:U:C2	56:DB:96:G:C8	2.89	0.61
31:CG:108:PHE:HE2	31:CG:151:ARG:CZ	2.13	0.61
1:AA:61:G:C4	1:AA:107:G:N2	2.68	0.61
25:CA:1740:G:O2'	25:CA:1741:C:H5'	2.00	0.61
1:BA:1021:A:H2'	1:BA:1022:A:H5"	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:14:ASP:H	7:AG:23:ALA:HB2	1.66	0.61
25:DA:2489:U:C4	25:DA:2490:G:C6	2.88	0.61
25:CA:211:C:OP1	53:C2:25:LYS:NZ	2.33	0.61
25:CA:1673:G:C2'	25:CA:1674:G:H5'	2.30	0.61
37:DM:17:ASN:O	37:DM:38:ARG:NH1	2.33	0.61
33:DI:11:GLN:HE22	33:DI:53:PRO:HA	1.66	0.61
25:DA:1314:C:P	60:DA:3770:HOH:O	2.52	0.61
25:DA:78:U:OP2	49:DY:2:LYS:CD	2.49	0.61
25:CA:1069:A:H4'	25:CA:1070:A:H8	1.66	0.61
42:DR:49:ILE:HG13	42:DR:52:PRO:HA	1.83	0.61
17:BQ:14:ASP:OD2	17:BQ:53:GLY:HA2	2.01	0.61
6:AF:92:THR:HG22	6:AF:93:LYS:N	2.14	0.61
36:DL:111:ILE:N	36:DL:111:ILE:HD12	2.16	0.61
1:AA:429:U:H1'	1:AA:430:A:H5"	1.81	0.61
1:AA:495:A:C2	1:AA:496:A:N6	2.69	0.61
29:DE:130:LYS:O	29:DE:132:LYS:N	2.34	0.61
25:CA:1844:C:C2	25:CA:1897:G:N2	2.69	0.61
16:AP:79:ASN:HB2	16:AP:82:ALA:O	2.00	0.61
25:CA:323:C:H2'	29:CE:163:ASN:HD21	1.64	0.61
27:DC:71:ASP:HA	27:DC:117:SER:O	2.01	0.61
8:BH:77:VAL:HG11	8:BH:124:ILE:CD1	2.30	0.61
6:BF:55:HIS:O	6:BF:56:LYS:HB2	2.01	0.61
12:BL:42:LYS:HG2	12:BL:43:LYS:HD3	1.81	0.61
43:DS:59:GLU:HA	43:DS:64:ALA:CB	2.31	0.61
21:AU:10:PRO:HD2	21:AU:11:PHE:CD2	2.36	0.61
6:BF:43:GLY:O	6:BF:58:HIS:HA	2.01	0.61
9:BI:12:LYS:O	9:BI:13:SER:HB3	2.00	0.61
27:DC:120:ASP:O	27:DC:121:ALA:O	2.19	0.61
25:DA:1410:G:C2	25:DA:1593:A:C6	2.89	0.61
4:BD:172:VAL:O	4:BD:173:ASP:CB	2.49	0.61
46:DV:63:ILE:HD12	46:DV:72:VAL:HG21	1.81	0.61
56:DB:103:U:C2'	56:DB:104:A:H5'	2.31	0.61
19:BS:28:LYS:HB3	19:BS:29:PRO:HD2	1.83	0.61
3:BC:114:LEU:O	3:BC:115:VAL:C	2.39	0.61
50:CZ:29:ARG:O	50:CZ:30:ARG:HB3	2.00	0.61
30:CF:104:THR:HG23	30:CF:105:ILE:HG23	1.81	0.61
1:AA:1392:G:O2'	1:AA:1393:U:H5'	2.00	0.61
25:DA:244:A:H2'	25:DA:245:G:O4'	1.99	0.61
46:CV:29:ILE:HD13	46:CV:30:ILE:H	1.64	0.61
25:DA:2386:A:H2'	25:DA:2387:U:C6	2.36	0.61
39:CO:83:LEU:HD22	39:CO:88:LYS:HB3	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1392:A:C6	25:DA:1393:A:N6	2.69	0.61
35:DK:24:VAL:HG13	35:DK:33:ALA:HB2	1.82	0.61
25:CA:96:C:H4'	49:CY:41:HIS:CD2	2.36	0.61
25:CA:1060:U:C5'	25:CA:1062:G:H5'	2.30	0.61
25:DA:2204:G:N3	25:DA:2205:A:C8	2.69	0.61
17:BQ:12:VAL:CG1	17:BQ:21:VAL:HG22	2.30	0.61
3:BC:153:SER:CB	3:BC:164:THR:HG22	2.31	0.61
12:BL:18:SER:O	12:BL:21:PRO:HD3	2.01	0.61
13:AM:18:LEU:CD1	13:AM:32:ILE:HG21	2.31	0.61
30:DF:32:LYS:O	30:DF:33:ILE:CG1	2.49	0.61
39:DO:75:GLY:CA	39:DO:106:LEU:HD23	2.31	0.61
1:BA:765:G:H3'	1:BA:812:G:H22	1.65	0.61
1:AA:462:G:H3'	1:AA:463:U:C6	2.35	0.61
1:BA:154:U:O2	1:BA:154:U:H2'	2.01	0.61
25:CA:1475:G:O2'	25:CA:1476:U:P	2.58	0.61
13:AM:44:ILE:HA	13:AM:47:LEU:CB	2.31	0.61
1:BA:1113:C:N3	1:BA:1114:C:C5	2.68	0.61
25:CA:1509:A:O2'	25:CA:1510:G:P	2.58	0.61
25:CA:2469:A:H4'	37:CM:55:ARG:NH1	2.15	0.61
54:D3:26:ALA:O	54:D3:27:ASN:HB2	1.99	0.61
14:BN:35:ALA:HB2	14:BN:42:TRP:CH2	2.36	0.61
13:AM:113:LYS:CB	13:AM:114:PRO:CD	2.78	0.61
1:AA:202:G:O2'	1:AA:468:A:C8	2.48	0.61
25:DA:1515:A:H5'	25:DA:1516:G:OP2	2.00	0.61
36:CL:85:VAL:HG11	36:CL:94:THR:HG22	1.83	0.61
25:CA:1714:U:H5"	25:CA:1715:G:H5'	1.82	0.61
25:DA:714:U:C5'	25:DA:715:A:OP2	2.49	0.61
31:DG:97:VAL:HG21	31:DG:123:GLU:HA	1.82	0.61
37:DM:31:PHE:CZ	37:DM:110:GLU:HA	2.36	0.61
37:DM:36:VAL:HG23	37:DM:128:THR:HA	1.83	0.61
25:CA:460:A:H2'	25:CA:461:C:O4'	2.01	0.61
27:CC:170:TYR:CD2	27:CC:184:GLU:HA	2.36	0.61
25:CA:1526:C:H2'	25:CA:1527:G:O5'	2.00	0.61
25:CA:304:U:O2'	25:CA:305:C:H5'	2.01	0.61
40:DP:105:LYS:O	40:DP:108:ARG:HD3	2.01	0.61
13:AM:45:SER:O	13:AM:46:GLU:HB3	2.01	0.61
15:AO:34:GLN:HB3	15:AO:58:MET:CE	2.30	0.61
1:AA:1342:C:O2'	1:AA:1343:G:H5'	2.00	0.61
1:BA:1308:U:H5"	13:BM:96:VAL:HG23	1.82	0.60
13:BM:68:LEU:O	13:BM:71:GLU:HB2	2.01	0.60
33:DI:75:ALA:HA	33:DI:78:LEU:HB2	1.81	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:110:ILE:CG1	2:AB:150:ILE:HG12	2.30	0.60
1:AA:983:A:H2'	1:AA:983:A:N3	2.16	0.60
17:AQ:54:ILE:C	17:AQ:54:ILE:HD13	2.21	0.60
4:AD:168:THR:HB	4:AD:183:ARG:NH2	2.15	0.60
41:CQ:87:VAL:HG13	42:CR:49:ILE:HD11	1.82	0.60
25:DA:1588:G:C6	25:DA:1589:U:C4	2.88	0.60
36:DL:93:ASN:OD1	36:DL:94:THR:N	2.34	0.60
10:AJ:26:VAL:O	10:AJ:30:LYS:HD3	2.01	0.60
1:AA:1032:G:C5'	1:AA:1033:G:OP2	2.47	0.60
5:AE:39:GLY:HA3	5:AE:116:VAL:O	2.01	0.60
5:AE:81:GLN:OE1	5:AE:147:ASN:O	2.18	0.60
31:DG:84:LYS:HG3	31:DG:140:ILE:HD12	1.82	0.60
1:BA:1493:A:OP2	1:BA:1493:A:C8	2.54	0.60
25:DA:1360:G:OP2	60:DA:3623:HOH:O	2.16	0.60
28:CD:1:MET:SD	28:CD:100:LEU:CD1	2.88	0.60
11:BK:90:PRO:O	11:BK:91:GLY:C	2.37	0.60
29:DE:158:PHE:CD1	29:DE:158:PHE:C	2.73	0.60
25:DA:1477:A:C2	25:DA:1515:A:C5	2.89	0.60
46:DV:29:ILE:HG12	46:DV:38:LEU:O	2.02	0.60
25:DA:1486:U:N3	25:DA:1504:A:C2	2.69	0.60
1:AA:190:A:N7	1:AA:191:G:C8	2.69	0.60
1:BA:459:A:C2	1:BA:460:A:C4	2.89	0.60
1:BA:135:C:C2	16:BP:1:MET:HB2	2.36	0.60
15:AO:34:GLN:HB3	15:AO:58:MET:HE1	1.82	0.60
25:CA:1243:C:H2'	25:CA:1244:A:O5'	2.01	0.60
35:DK:87:LEU:O	35:DK:88:ASN:C	2.39	0.60
25:CA:1988:G:C2'	25:CA:1989:G:H5'	2.29	0.60
1:AA:294:U:H2'	1:AA:295:C:C6	2.36	0.60
38:CN:63:ARG:HG3	38:CN:80:PHE:CZ	2.35	0.60
25:CA:2051:A:OP2	25:CA:2051:A:H8	1.84	0.60
19:BS:55:GLN:CD	19:BS:56:HIS:H	2.04	0.60
25:DA:1363:C:O2'	25:DA:1364:G:H5'	2.00	0.60
40:CP:80:VAL:O	40:CP:80:VAL:HG12	1.99	0.60
24:AY:10:ALA:O	24:AY:11:GLU:C	2.38	0.60
25:CA:2314:A:H2'	25:CA:2315:G:H8	1.66	0.60
25:DA:735:A:H3'	25:DA:736:C:C6	2.36	0.60
1:AA:1228:C:OP2	13:AM:106:ARG:NH2	2.34	0.60
54:C3:26:ALA:O	54:C3:27:ASN:HB2	2.01	0.60
29:CE:48:THR:HG22	29:CE:86:ALA:HB3	1.82	0.60
13:BM:15:VAL:HG13	13:BM:33:LEU:HD12	1.83	0.60
1:AA:1356:G:N2	1:AA:1357:A:N3	2.48	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:108:ILE:HD11	29:DE:180:LEU:CB	2.28	0.60
25:DA:2335:A:OP1	39:DO:13:ARG:CD	2.48	0.60
36:DL:93:ASN:O	36:DL:94:THR:HG22	2.01	0.60
1:BA:1221:G:C4'	19:BS:76:THR:HG21	2.31	0.60
13:AM:19:THR:CA	13:AM:24:VAL:HG23	2.30	0.60
51:C0:52:LYS:O	51:C0:52:LYS:CG	2.49	0.60
4:AD:121:ALA:N	4:AD:122:ILE:CD1	2.64	0.60
5:AE:80:LEU:CD2	5:AE:122:VAL:HG12	2.31	0.60
1:BA:101:A:C2'	1:BA:102:G:O5'	2.49	0.60
25:DA:1319:C:O2'	25:DA:1320:C:H5'	2.01	0.60
43:DS:20:VAL:CG2	43:DS:43:ALA:HB3	2.30	0.60
2:BB:99:MET:O	2:BB:103:TRP:CA	2.49	0.60
32:CH:116:ARG:HG3	32:CH:133:GLN:CD	2.21	0.60
3:AC:51:VAL:HG21	3:AC:67:ILE:CG2	2.31	0.60
25:CA:1508:A:OP1	25:CA:1508:A:H4'	2.01	0.60
44:CT:1:MET:HB2	44:CT:2:ILE:HD12	1.84	0.60
25:DA:1372:U:C2'	25:DA:1373:A:H5'	2.31	0.60
1:BA:678:U:H2'	1:BA:679:C:C6	2.37	0.60
1:BA:60:A:N1	1:BA:107:G:O2'	2.31	0.60
25:CA:1893:C:H2'	25:CA:1894:C:H5'	1.82	0.60
45:DU:85:ARG:O	45:DU:92:VAL:CG2	2.49	0.60
25:DA:1410:G:N3	25:DA:1593:A:C2	2.68	0.60
27:DC:236:GLY:O	27:DC:237:ARG:CB	2.49	0.60
25:DA:323:C:O4'	25:DA:323:C:O2	2.17	0.60
8:AH:78:SER:HA	8:AH:84:ILE:HG12	1.83	0.60
40:CP:80:VAL:HG11	40:CP:83:ILE:HD11	1.83	0.60
7:BG:4:ARG:NE	7:BG:4:ARG:HA	2.15	0.60
25:DA:1489:C:C2	25:DA:1501:G:N2	2.69	0.60
6:AF:10:VAL:CG1	6:AF:11:HIS:N	2.64	0.60
36:CL:48:ARG:HD2	54:C3:59:ALA:O	2.01	0.60
20:AT:33:LYS:CE	20:AT:33:LYS:HA	2.29	0.60
52:C1:47:ILE:H	52:C1:47:ILE:HD12	1.66	0.60
1:AA:340:U:H2'	1:AA:341:C:H6	1.65	0.60
25:CA:2522:U:H2'	25:CA:2523:G:H5'	1.81	0.60
25:DA:1113:U:H2'	25:DA:1114:C:C6	2.36	0.60
1:BA:1420:U:H2'	1:BA:1421:G:O4'	2.00	0.60
25:CA:2709:G:O2'	25:CA:2710:C:H5'	2.01	0.60
1:BA:978:A:C5	1:BA:1318:A:N6	2.69	0.60
1:BA:938:A:N6	1:BA:939:G:C6	2.70	0.60
17:AQ:14:ASP:OD1	17:AQ:54:ILE:HB	2.01	0.60
38:CN:103:ARG:CZ	38:CN:110:MET:CE	2.79	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:BQ:14:ASP:HA	17:BQ:20:ILE:CD1	2.31	0.60
42:CR:39:LEU:CA	42:CR:49:ILE:HG23	2.31	0.60
5:BE:154:ALA:HB3	5:BE:155:LYS:CE	2.31	0.60
36:DL:77:ILE:O	36:DL:110:VAL:O	2.19	0.60
36:DL:126:ARG:O	36:DL:127:VAL:CG2	2.49	0.60
1:AA:175:C:O2'	1:AA:176:C:H5'	2.01	0.60
25:CA:1856:U:C2'	25:CA:1857:G:H5'	2.31	0.60
1:BA:767:A:O2'	1:BA:1524:C:O2	2.17	0.60
1:BA:1141:C:O2'	1:BA:1142:G:P	2.59	0.60
25:DA:301:G:C2	25:DA:302:C:C2	2.89	0.60
21:AU:35:GLU:O	21:AU:36:PHE:CB	2.50	0.60
25:CA:533:G:OP1	41:CQ:23:TYR:O	2.19	0.60
1:BA:87:C:H2'	1:BA:88:U:N1	2.16	0.60
25:DA:2794:C:C6	25:DA:2794:C:OP2	2.54	0.60
5:AE:102:THR:CG2	5:AE:103:GLY:N	2.65	0.60
25:DA:1335:C:O2'	25:DA:1336:A:H5'	2.01	0.60
25:CA:1591:A:H2'	25:CA:1592:C:C6	2.36	0.60
1:AA:1286:U:C5'	1:AA:1287:A:OP2	2.50	0.60
27:DC:69:ASN:O	27:DC:71:ASP:N	2.35	0.60
10:BJ:26:VAL:HG22	10:BJ:36:VAL:HG11	1.81	0.60
2:BB:159:ALA:HA	2:BB:181:PRO:HD2	1.83	0.60
25:DA:1172:C:H2'	25:DA:1173:U:C6	2.36	0.60
25:DA:1179:G:C5	25:DA:1180:U:C1'	2.85	0.60
9:AI:25:GLY:HA3	9:AI:57:VAL:O	2.00	0.60
25:CA:138:U:H4'	25:CA:139:U:C5'	2.31	0.60
44:CT:4:GLU:HA	44:CT:7:LEU:HD12	1.81	0.60
25:DA:1358:G:C8	25:DA:1371:G:O6	2.54	0.60
25:DA:309:A:H4'	45:DU:15:GLY:HA2	1.84	0.60
1:AA:1533:C:H5'	1:AA:1534:A:OP1	2.01	0.60
1:AA:1506:U:H4'	11:AK:128:VAL:OXT	2.00	0.60
1:BA:714:G:H2'	1:BA:715:A:C8	2.36	0.60
25:DA:1794:A:H2'	25:DA:1795:C:H6	1.65	0.60
38:DN:103:ARG:HB2	38:DN:110:MET:HE3	1.82	0.60
25:DA:769:U:C4	25:DA:770:G:N7	2.70	0.60
25:DA:2279:G:N7	57:DW:10:ARG:NH2	2.49	0.60
15:BO:72:LYS:CE	15:BO:72:LYS:HA	2.30	0.60
44:DT:49:LYS:HB2	44:DT:50:LEU:HD13	1.83	0.60
6:AF:46:GLN:HB2	6:AF:56:LYS:CE	2.32	0.60
1:BA:1423:G:H2'	1:BA:1424:U:H6	1.67	0.60
1:BA:1381:U:C5	1:BA:1382:C:C5	2.88	0.60
1:BA:317:U:C2	1:BA:318:G:C8	2.89	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DT:21:SER:O	44:DT:24:MET:N	2.34	0.60
51:D0:31:LYS:HG2	51:D0:32:THR:N	2.15	0.60
3:AC:61:LYS:HA	3:AC:61:LYS:CE	2.30	0.60
8:BH:33:VAL:HG12	8:BH:34:ALA:N	2.16	0.60
1:AA:1317:C:H2'	1:AA:1318:A:C5'	2.32	0.60
1:AA:274:A:C5'	17:AQ:15:LYS:HE2	2.32	0.60
39:DO:13:ARG:O	39:DO:17:LYS:HG2	2.01	0.60
50:DZ:9:THR:HG22	50:DZ:53:MET:C	2.22	0.60
5:BE:37:VAL:CG1	5:BE:116:VAL:HG21	2.31	0.60
1:AA:425:G:H2'	1:AA:426:U:O4'	2.02	0.60
25:DA:948:C:O2	25:DA:984:A:O2'	2.18	0.60
32:DH:57:LYS:HG3	32:DH:58:LEU:CD2	2.31	0.60
1:AA:972:C:H4'	10:AJ:59:LYS:HE2	1.83	0.60
25:DA:1179:G:C6	25:DA:1180:U:H1'	2.37	0.60
16:AP:19:VAL:HG22	16:AP:36:VAL:O	2.00	0.60
9:AI:25:GLY:CA	9:AI:58:GLU:HA	2.30	0.60
56:DB:30:C:H2'	56:DB:31:C:C5'	2.31	0.60
27:DC:141:HIS:HB2	27:DC:194:VAL:HG12	1.83	0.60
3:AC:54:ILE:HD12	3:AC:54:ILE:O	2.01	0.60
15:AO:72:LYS:CE	15:AO:72:LYS:HA	2.30	0.60
15:BO:3:SER:O	15:BO:7:THR:HG23	2.00	0.60
25:DA:2755:C:O2'	25:DA:2756:U:H6	1.85	0.60
33:CI:66:PHE:CD1	33:CI:68:PHE:CD1	2.89	0.60
36:CL:2:ARG:HA	36:CL:5:THR:CG2	2.31	0.60
1:BA:357:G:OP1	1:BA:367:U:H2'	2.02	0.60
25:DA:2354:C:H5"	25:DA:2354:C:H6	1.67	0.60
16:AP:48:GLU:HG3	16:AP:49:GLY:N	2.16	0.60
25:DA:332:A:C2	25:DA:335:C:C5	2.90	0.60
25:CA:897:C:O5'	25:CA:897:C:H6	1.83	0.60
25:CA:2420:C:OP2	54:C3:32:LEU:HB2	2.00	0.60
25:CA:1344:U:H4'	25:CA:1345:C:OP2	2.02	0.60
27:CC:143:VAL:HB	27:CC:153:LEU:HD12	1.82	0.60
39:CO:59:ALA:HA	39:CO:62:LEU:HD12	1.83	0.60
31:DG:45:ALA:O	31:DG:46:ASP:HB2	2.02	0.60
1:BA:1010:U:H2'	1:BA:1011:C:C6	2.36	0.60
43:CS:4:ILE:HD12	43:CS:4:ILE:N	2.17	0.60
27:DC:50:THR:HG21	27:DC:53:ILE:HD11	1.83	0.60
1:BA:344:A:H4'	1:BA:345:C:OP2	2.01	0.60
1:BA:954:G:N2	1:BA:1228:C:N3	2.48	0.60
25:DA:1096:A:H2'	25:DA:1097:U:O4'	2.01	0.60
33:DI:56:VAL:CG2	33:DI:70:THR:HB	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BD:4:LEU:CD1	4:BD:4:LEU:N	2.64	0.60
25:DA:1350:C:C2	25:DA:1382:G:C2	2.90	0.60
44:DT:8:LEU:HD13	49:DY:21:LEU:HB3	1.82	0.60
25:DA:2218:G:O2'	25:DA:2219:U:H5'	2.01	0.60
25:DA:2198:A:H4'	25:DA:2199:A:OP1	2.01	0.60
2:BB:163:ILE:HA	2:BB:185:ILE:HG22	1.83	0.60
21:BU:33:ARG:NE	21:BU:34:ARG:HB2	2.16	0.60
17:BQ:13:SER:HB3	17:BQ:21:VAL:HG13	1.83	0.60
1:AA:437:U:C2'	1:AA:438:U:H5'	2.31	0.60
16:AP:73:ALA:O	16:AP:77:GLU:HB3	2.01	0.60
5:BE:89:THR:HG22	5:BE:90:GLY:N	2.17	0.60
10:BJ:18:ILE:CG2	10:BJ:19:ASP:N	2.63	0.60
36:CL:100:ILE:HG13	36:CL:101:ILE:HG23	1.84	0.60
1:BA:934:C:C5	1:BA:1344:C:C5	2.88	0.60
29:DE:148:ILE:HD13	29:DE:187:VAL:CG1	2.31	0.60
46:CV:80:HIS:ND1	46:CV:81:PRO:HD2	2.16	0.60
25:CA:1929:G:N3	25:CA:1929:G:H5"	2.15	0.60
25:CA:2055:C:H5'	25:CA:2056:G:OP1	2.02	0.60
7:BG:50:ALA:HB2	7:BG:57:GLU:OE2	2.01	0.60
1:BA:149:A:C2	1:BA:150:U:N1	2.69	0.60
14:AN:20:PHE:HA	14:AN:24:ALA:HB3	1.82	0.60
25:DA:2461:A:H1'	25:DA:2492:U:C2	2.37	0.60
33:DI:45:THR:O	33:DI:50:LYS:HD3	2.02	0.60
25:DA:1739:A:C2'	25:DA:1740:G:O5'	2.47	0.60
1:AA:802:A:H2'	1:AA:803:G:C5'	2.32	0.60
1:BA:207:C:H2'	1:BA:207:C:O2	2.01	0.60
25:DA:876:C:N4	25:DA:877:A:N6	2.50	0.60
18:BR:38:ILE:HD11	18:BR:55:ALA:HA	1.83	0.60
25:DA:1503:A:N6	25:DA:1504:A:C6	2.70	0.60
1:BA:1157:A:H4'	1:BA:1158:C:O5'	2.01	0.60
1:BA:435:A:H2'	1:BA:436:C:O5'	2.02	0.60
25:CA:2542:A:H5"	25:CA:2766:A:O2'	2.02	0.60
25:CA:1609:A:H5"	60:CA:3651:HOH:O	2.01	0.60
46:DV:55:GLU:H	46:DV:55:GLU:CD	2.04	0.60
25:CA:1992:G:N7	60:CA:3428:HOH:O	2.32	0.60
1:BA:50:A:N6	1:BA:361:G:C4'	2.64	0.60
27:CC:142:ASN:OD1	27:CC:151:GLY:HA3	2.02	0.60
1:AA:930:C:C4	1:AA:931:C:C5	2.89	0.60
25:CA:2312:U:OP1	30:CF:70:ARG:HB2	2.02	0.60
11:BK:30:ILE:HG12	11:BK:30:ILE:O	2.01	0.60
22:BV:14:A:C2	22:BV:15:G:H1'	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1007:C:OP1	34:CJ:39:LYS:HE2	2.02	0.60
25:DA:2572:A:OP1	25:DA:2574:G:H4'	2.01	0.60
25:CA:8:C:O2'	25:CA:9:G:H5'	2.02	0.60
25:DA:2301:C:H2'	25:DA:2302:U:C6	2.35	0.60
8:AH:57:GLU:HA	8:AH:57:GLU:OE2	2.01	0.60
7:BG:66:GLU:O	7:BG:66:GLU:HG2	2.01	0.60
25:DA:1153:C:OP1	41:DQ:91:ARG:NH1	2.35	0.60
13:BM:15:VAL:CG1	13:BM:33:LEU:HD12	2.31	0.60
25:DA:1404:C:O2'	25:DA:1405:U:H5'	2.01	0.60
6:AF:86:ARG:HH11	6:AF:86:ARG:HG2	1.67	0.60
1:AA:1216:A:H2'	1:AA:1217:C:H6	1.66	0.60
1:AA:1320:C:H2'	1:AA:1321:U:O4'	2.00	0.60
25:DA:2193:G:C4	25:DA:2194:U:C5	2.90	0.60
1:BA:1217:C:H2'	1:BA:1218:C:H6	1.66	0.60
1:BA:1221:G:H4'	19:BS:76:THR:HG22	1.83	0.60
56:DB:51:G:H5"	39:DO:64:TYR:CD2	2.36	0.60
25:CA:2211:A:C1'	25:CA:2212:A:OP1	2.49	0.60
3:AC:142:ARG:CG	3:AC:143:LEU:HD13	2.30	0.60
25:DA:2792:A:N1	25:DA:2793:C:C4	2.70	0.60
1:BA:785:G:C2'	1:BA:786:G:H5'	2.32	0.60
28:CD:130:GLN:O	28:CD:131:ASP:C	2.39	0.60
25:CA:2152:G:C5	25:CA:2153:C:C4	2.90	0.60
10:AJ:63:ASP:OD1	14:AN:85:ARG:CD	2.50	0.60
25:CA:2075:U:C2'	25:CA:2077:A:OP2	2.49	0.60
1:AA:1502:A:C8	1:AA:1504:G:C5	2.89	0.60
1:AA:533:A:C2	1:AA:536:C:C6	2.89	0.60
25:DA:26:G:C6	25:DA:27:G:N1	2.70	0.60
10:AJ:5:ARG:HG2	10:AJ:79:PRO:CB	2.32	0.60
49:DY:56:LEU:O	49:DY:57:LEU:HB3	2.01	0.60
45:DU:85:ARG:O	45:DU:92:VAL:HG23	2.02	0.60
21:BU:13:VAL:O	21:BU:15:LEU:HD11	2.02	0.60
20:AT:67:HIS:HB3	20:AT:68:LYS:HE3	1.84	0.60
18:AR:19:GLU:N	18:AR:27:THR:HG21	2.17	0.60
1:AA:402:G:C2'	1:AA:403:C:H5'	2.31	0.60
7:BG:70:PRO:HG3	7:BG:102:TRP:CH2	2.36	0.60
1:AA:1231:G:C5	1:AA:1232:U:C5	2.89	0.60
25:DA:1857:G:C4	25:DA:1884:G:C2	2.90	0.60
25:CA:1434:A:HO2'	25:CA:1435:G:H8	1.42	0.60
25:CA:725:G:C6	25:CA:726:G:N1	2.69	0.60
1:AA:58:C:O2'	1:AA:388:G:N7	2.17	0.60
40:DP:7:LEU:O	40:DP:7:LEU:HD23	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DT:16:VAL:O	44:DT:17:SER:HB3	2.00	0.60
3:AC:205:GLU:O	3:AC:206:ILE:O	2.20	0.60
25:CA:1403:A:C2	25:CA:1404:C:C2	2.89	0.60
25:DA:2331:G:O2'	25:DA:2336:A:N1	2.26	0.60
25:DA:682:G:H2'	25:DA:682:G:N3	2.16	0.60
15:BO:9:LYS:O	15:BO:13:GLU:HG3	2.02	0.60
25:CA:2813:A:C2'	25:CA:2814:A:H5'	2.31	0.60
1:BA:1342:C:H1'	9:BI:125:GLN:HG3	1.83	0.60
1:AA:1134:G:C5	1:AA:1141:C:N4	2.69	0.60
33:CI:20:SER:HA	33:CI:24:GLY:HA3	1.82	0.60
2:AB:160:LEU:O	2:AB:162:VAL:HG12	2.02	0.60
56:DB:89:U:H3'	56:DB:90:C:O4'	2.02	0.60
52:D1:18:HIS:CG	52:D1:19:PHE:N	2.70	0.60
5:BE:73:VAL:O	5:BE:75:LEU:HD12	2.02	0.60
1:AA:694:A:OP1	11:AK:54:SER:HB3	2.01	0.60
36:DL:103:ILE:O	36:DL:105:ILE:N	2.35	0.60
25:DA:300:A:H1'	25:DA:319:G:O4'	2.01	0.60
1:AA:502:A:O2'	1:AA:503:C:H5'	2.02	0.60
1:BA:802:A:C2	1:BA:803:G:H1'	2.37	0.60
11:BK:14:GLN:HG3	11:BK:14:GLN:O	2.01	0.60
1:AA:1491:G:H2'	1:AA:1492:A:C8	2.36	0.60
2:BB:66:ILE:HG22	2:BB:67:LEU:N	2.15	0.60
9:BI:56:MET:HB3	9:BI:60:LEU:CD2	2.32	0.60
25:DA:56:A:C2	25:DA:57:C:C2	2.89	0.60
3:AC:86:LEU:O	3:AC:87:ARG:C	2.40	0.60
32:CH:72:ILE:CG2	32:CH:73:ASN:N	2.65	0.60
24:AY:41:ILE:HG22	24:AY:52:LEU:HB3	1.82	0.60
1:AA:889:A:H5'	1:AA:891:U:O4'	2.02	0.60
14:AN:25:GLU:HB2	14:AN:28:ALA:HB2	1.83	0.60
25:CA:2110:G:O2'	25:CA:2120:G:C5'	2.50	0.60
25:CA:2683:C:OP1	40:CP:50:ARG:NH2	2.34	0.60
25:DA:2615:U:C2	51:D0:3:GLN:HA	2.36	0.60
4:BD:47:LEU:CD2	4:BD:52:VAL:HG12	2.32	0.60
1:BA:120:A:H4'	1:BA:121:U:OP1	2.02	0.60
34:DJ:119:PHE:CD1	34:DJ:119:PHE:C	2.74	0.60
25:DA:484:C:O5'	25:DA:484:C:H6	1.85	0.60
41:DQ:93:ILE:CD1	42:DR:11:GLN:HB2	2.32	0.60
25:CA:2186:G:H2'	25:CA:2187:U:C6	2.37	0.60
25:DA:2803:G:H2'	25:DA:2804:U:H6	1.67	0.60
10:AJ:7:ARG:HB2	10:AJ:75:ASP:OD1	2.02	0.60
25:DA:1575:C:C4	25:DA:1576:U:C5	2.90	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:CO:28:VAL:HG11	39:CO:92:PHE:CZ	2.36	0.60
20:AT:43:LYS:HB3	20:AT:86:ALA:HB1	1.83	0.60
46:CV:48:MET:O	46:CV:51:GLN:HG3	2.01	0.60
1:AA:909:A:C8	1:AA:910:C:C5	2.90	0.60
13:BM:25:GLY:O	13:BM:27:THR:N	2.35	0.60
25:CA:998:C:H3'	60:CA:3360:HOH:O	2.00	0.60
11:AK:109:ILE:CG2	21:AU:16:ARG:HE	2.14	0.60
2:AB:63:LYS:HA	2:AB:63:LYS:CE	2.27	0.60
1:AA:1216:A:C2	1:AA:1217:C:C5	2.89	0.60
1:BA:1060:U:C5	3:BC:1:GLY:HA3	2.36	0.60
25:DA:2333:A:H5'	25:DA:2335:A:H1'	1.83	0.60
1:BA:1218:C:H2'	1:BA:1219:A:C8	2.37	0.60
4:BD:190:LEU:H	4:BD:190:LEU:HD12	1.67	0.60
13:AM:69:ARG:HD2	30:CF:143:ASP:OD1	2.02	0.60
25:DA:1455:G:OP2	60:DA:3417:HOH:O	2.17	0.60
21:AU:33:ARG:NH2	21:AU:34:ARG:HD2	2.16	0.60
20:BT:53:MET:HE1	20:BT:57:VAL:HG21	1.82	0.60
20:BT:82:ILE:HD12	20:BT:86:ALA:HB3	1.84	0.60
9:BI:28:VAL:HB	9:BI:63:TYR:HD2	1.67	0.60
1:AA:1238:A:C2	1:AA:1241:G:N3	2.69	0.60
1:BA:17:U:H2'	1:BA:18:C:C6	2.36	0.60
1:AA:1060:U:H4'	10:AJ:53:ILE:CG2	2.30	0.60
10:BJ:78:GLU:O	10:BJ:78:GLU:HG3	2.02	0.60
6:BF:6:ILE:HG22	6:BF:7:VAL:N	2.17	0.60
2:AB:32:GLY:HA3	2:AB:39:ILE:N	2.17	0.60
1:BA:1490:U:C2'	1:BA:1491:G:H5'	2.32	0.60
25:DA:45:G:H5"	25:DA:46:G:OP1	2.00	0.60
25:DA:55:G:C2'	25:DA:56:A:H5'	2.32	0.60
39:DO:56:LYS:HG3	39:DO:57:ALA:N	2.16	0.60
1:AA:447:G:N2	1:AA:486:U:C4	2.70	0.60
19:AS:43:MET:HA	19:AS:46:LEU:HD12	1.84	0.60
13:AM:71:GLU:O	13:AM:74:MET:CB	2.50	0.60
22:AV:69:G:C2'	22:AV:70:G:H5'	2.32	0.60
7:AG:39:GLU:HA	7:AG:42:VAL:CG2	2.32	0.60
25:DA:295:G:C2	25:DA:296:U:C6	2.90	0.60
25:DA:158:U:H2'	25:DA:159:G:H5'	1.82	0.60
44:DT:22:THR:HA	44:DT:25:GLU:HG2	1.83	0.60
1:BA:646:G:H2'	1:BA:647:C:O4'	2.02	0.60
25:DA:934:U:H2'	25:DA:935:C:C6	2.36	0.60
25:CA:2207:C:H2'	25:CA:2208:C:C6	2.37	0.60
56:DB:110:C:H2'	56:DB:111:U:C6	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:952:U:H2'	1:AA:953:G:C8	2.37	0.60
16:BP:23:ASP:O	16:BP:26:ASN:ND2	2.34	0.60
25:CA:2436:G:N3	25:CA:2598:A:H2	1.99	0.60
25:CA:117:G:C6	25:CA:119:A:N6	2.70	0.60
1:BA:1204:A:O5'	1:BA:1204:A:H8	1.85	0.60
9:BI:119:LYS:O	9:BI:120:ALA:HB3	2.02	0.60
25:DA:1083:U:O2	25:DA:1086:A:N1	2.35	0.60
32:CH:27:ARG:HG2	32:CH:27:ARG:O	2.02	0.60
1:AA:1320:C:OP1	19:AS:69:LYS:HG3	2.01	0.60
1:BA:484:G:C5	1:BA:486:U:H1'	2.36	0.60
17:BQ:11:VAL:HA	17:BQ:22:VAL:HG13	1.84	0.60
41:CQ:23:TYR:O	41:CQ:24:TYR:HB2	2.01	0.60
20:AT:53:MET:O	20:AT:56:ILE:HG22	2.02	0.60
1:AA:451:A:C2	1:AA:480:U:C4	2.90	0.60
21:BU:3:ILE:N	21:BU:18:PHE:CE1	2.70	0.60
43:DS:20:VAL:HG21	43:DS:43:ALA:HB1	1.84	0.60
1:AA:1306:A:N7	1:AA:1307:U:C5	2.70	0.60
1:BA:465:A:C6	1:BA:466:A:C6	2.90	0.60
2:BB:99:MET:O	2:BB:103:TRP:HB2	2.02	0.60
40:DP:21:PRO:HA	40:DP:46:VAL:CG1	2.32	0.60
14:AN:43:ASN:HA	14:AN:45:VAL:HG22	1.82	0.60
1:AA:380:G:N2	1:AA:384:G:C5	2.70	0.60
57:DW:10:ARG:HG3	57:DW:10:ARG:HH11	1.67	0.60
25:CA:1502:A:H2'	25:CA:1503:A:O4'	2.01	0.60
28:CD:55:LYS:HG2	28:CD:56:LYS:N	2.16	0.60
44:DT:2:ILE:HA	44:DT:3:ARG:HB2	1.83	0.60
44:DT:39:THR:HG23	44:DT:41:ALA:H	1.66	0.60
22:BV:26:A:H2'	22:BV:27:G:H5'	1.82	0.60
25:DA:483:A:O3'	45:DU:47:PRO:HD3	2.01	0.60
35:CK:70:ARG:HD3	35:CK:76:VAL:HG22	1.84	0.60
1:AA:632:U:H2'	1:AA:633:G:OP1	2.02	0.60
1:AA:1443:C:C4	1:AA:1444:U:C5	2.89	0.60
1:BA:1422:G:C2	1:BA:1423:G:C8	2.90	0.60
37:DM:47:GLU:O	37:DM:50:ARG:HB3	2.02	0.60
25:CA:157:C:H2'	25:CA:158:U:O4'	2.02	0.60
10:BJ:52:LEU:HB2	14:BN:81:ARG:HD2	1.82	0.60
42:CR:64:VAL:O	42:CR:65:ALA:HB2	2.02	0.60
25:DA:1190:G:OP1	36:DL:32:GLY:HA2	2.01	0.60
14:AN:51:LEU:N	14:AN:51:LEU:HD23	2.17	0.60
4:BD:18:LEU:HD22	4:BD:63:ILE:HG13	1.84	0.60
44:DT:14:PRO:HA	44:DT:32:LEU:HB3	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1138:G:N7	1:AA:1140:C:O4'	2.35	0.60
1:AA:713:G:H2'	1:AA:714:G:C8	2.37	0.60
25:CA:1055:G:N3	25:CA:1055:G:H2'	2.17	0.60
1:AA:955:U:C4	1:AA:956:U:C4	2.90	0.60
17:AQ:62:GLU:HB2	17:AQ:72:TRP:CH2	2.37	0.60
25:DA:2216:G:H2'	25:DA:2217:G:H8	1.67	0.60
38:CN:103:ARG:NH1	38:CN:110:MET:HE1	2.17	0.60
1:AA:1539:C:C5'	21:AU:17:ARG:HG3	2.30	0.60
25:DA:1494:A:N3	25:DA:1495:A:C8	2.69	0.60
1:BA:229:U:H2'	1:BA:230:G:O4'	2.02	0.60
6:AF:3:HIS:O	6:AF:4:TYR:CG	2.54	0.60
25:DA:634:C:H2'	25:DA:635:C:C6	2.37	0.60
1:AA:1158:C:N4	1:AA:1160:G:C4	2.70	0.60
10:AJ:26:VAL:HG12	10:AJ:30:LYS:HD3	1.84	0.60
31:DG:119:GLY:O	31:DG:120:ILE:HD13	2.02	0.60
1:BA:1534:A:H4'	1:BA:1535:C:OP1	2.02	0.60
30:CF:129:MET:HG3	30:CF:129:MET:O	2.02	0.60
48:DX:53:LYS:O	48:DX:56:ARG:N	2.35	0.60
35:DK:79:PHE:CD2	40:DP:69:VAL:HG13	2.37	0.60
1:BA:934:C:C6	1:BA:1344:C:C6	2.90	0.60
10:BJ:67:ILE:HG23	14:BN:95:GLY:O	2.01	0.60
38:DN:112:TYR:CG	51:D0:54:ILE:HD11	2.37	0.60
25:DA:419:U:OP1	60:DA:3232:HOH:O	2.16	0.60
2:BB:53:LEU:HD12	2:BB:219:THR:HG21	1.84	0.60
25:DA:2703:C:N3	25:DA:2704:C:C5	2.70	0.60
27:DC:1:ALA:HA	27:DC:198:GLU:CD	2.23	0.60
30:DF:39:VAL:HG12	30:DF:84:ILE:C	2.22	0.60
10:BJ:84:VAL:O	10:BJ:88:MET:HG2	2.01	0.60
30:DF:30:VAL:CG2	30:DF:95:MET:SD	2.90	0.60
46:DV:41:GLU:C	46:DV:42:LEU:HD23	2.23	0.60
25:DA:484:C:H2'	25:DA:485:C:C6	2.37	0.60
7:BG:34:LYS:HB2	7:BG:37:THR:CG2	2.32	0.60
3:AC:152:VAL:HG23	3:AC:156:LEU:CD2	2.31	0.60
40:CP:21:PRO:HD3	40:CP:49:ILE:HD12	1.82	0.60
25:CA:2516:A:N6	25:CA:2517:C:N4	2.50	0.60
25:DA:1524:G:H8	25:DA:1524:G:O5'	1.84	0.60
25:DA:247:G:H4'	25:DA:386:G:C5	2.37	0.60
28:CD:189:VAL:O	28:CD:189:VAL:HG23	2.02	0.60
1:AA:1213:A:N7	1:AA:1215:G:C5	2.70	0.59
1:AA:270:A:N7	1:AA:271:C:C4	2.70	0.59
17:AQ:11:VAL:O	17:AQ:12:VAL:HG12	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2346:A:H3'	25:CA:2347:C:H5"	1.84	0.59
17:BQ:11:VAL:HG23	17:BQ:56:ASP:O	2.01	0.59
25:DA:1588:G:N1	25:DA:1589:U:C4	2.70	0.59
32:CH:117:LEU:HD12	32:CH:118:PRO:HD2	1.83	0.59
11:AK:80:ASN:HB3	11:AK:105:ARG:CB	2.31	0.59
1:AA:624:C:H2'	1:AA:625:U:O5'	2.02	0.59
4:AD:54:LEU:C	4:AD:54:LEU:HD23	2.22	0.59
30:CF:116:LEU:HD23	30:CF:175:PRO:HB2	1.82	0.59
22:AV:17:C:O3'	22:AV:18:G:C4'	2.50	0.59
25:CA:2550:G:H2'	25:CA:2551:C:H5'	1.84	0.59
25:DA:686:U:OP2	60:DA:3726:HOH:O	2.16	0.59
1:AA:1285:A:H5'	1:AA:1286:U:O4	2.01	0.59
1:BA:1101:A:H1'	1:BA:1102:A:O4'	2.02	0.59
1:BA:1092:A:N6	1:BA:1093:A:C6	2.70	0.59
45:DU:6:ARG:O	45:DU:24:VAL:HB	2.02	0.59
17:AQ:49:ASN:O	17:AQ:51:GLU:N	2.35	0.59
25:DA:1178:C:C2'	25:DA:1179:G:C8	2.85	0.59
25:DA:1178:C:C3'	25:DA:1179:G:C8	2.85	0.59
10:BJ:67:ILE:HG12	14:BN:96:LEU:HA	1.83	0.59
3:AC:71:ARG:N	3:AC:72:PRO:CD	2.65	0.59
25:CA:2480:C:C2'	25:CA:2481:G:H5'	2.32	0.59
27:CC:16:VAL:N	27:CC:203:VAL:HG22	2.16	0.59
1:AA:1053:G:N7	1:AA:1199:U:H3'	2.17	0.59
6:AF:53:LYS:O	6:AF:54:LEU:CB	2.47	0.59
1:AA:243:A:C2	1:AA:246:A:C8	2.90	0.59
1:BA:1250:A:C8	1:BA:1287:A:N7	2.70	0.59
25:CA:2506:U:C2'	25:CA:2507:C:H5'	2.32	0.59
21:BU:13:VAL:O	21:BU:15:LEU:CD1	2.50	0.59
25:DA:141:G:H3'	25:DA:142:A:C8	2.36	0.59
3:BC:166:TRP:CE3	3:BC:166:TRP:C	2.75	0.59
25:DA:878:A:N6	25:DA:900:A:C8	2.69	0.59
30:DF:3:LEU:H	30:DF:3:LEU:HD23	1.67	0.59
36:CL:85:VAL:HG11	36:CL:95:LEU:HD23	1.84	0.59
1:AA:418:C:O2'	1:AA:419:C:H5'	2.02	0.59
41:DQ:67:ALA:HB2	41:DQ:98:ALA:HB1	1.83	0.59
33:CI:125:THR:HG22	33:CI:126:ARG:N	2.15	0.59
30:CF:107:VAL:HG12	30:CF:108:PRO:HD3	1.83	0.59
1:BA:1444:U:C2'	1:BA:1445:U:O5'	2.50	0.59
25:CA:2549:G:N2	25:CA:2560:A:C4	2.69	0.59
25:CA:1306:C:O2	25:CA:1306:C:H2'	2.01	0.59
25:CA:2343:U:H2'	25:CA:2344:U:C6	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:341:C:O2	1:BA:349:A:C2	2.55	0.59
32:DH:9:VAL:O	32:DH:10:ALA:C	2.39	0.59
32:CH:119:ASN:N	32:CH:120:GLY:CA	2.65	0.59
25:DA:2119:A:N6	25:DA:2167:U:H1'	2.17	0.59
25:DA:570:G:H2'	25:DA:2030:A:N7	2.16	0.59
28:DD:104:VAL:HG23	28:DD:105:LYS:H	1.66	0.59
5:AE:150:GLU:O	5:AE:153:ALA:HB3	2.02	0.59
1:AA:208:U:H5	1:AA:210:C:C5	2.21	0.59
20:BT:32:LYS:O	20:BT:33:LYS:C	2.40	0.59
2:AB:14:HIS:CB	2:AB:208:ALA:HB2	2.32	0.59
1:BA:376:G:C4	1:BA:377:G:C8	2.89	0.59
25:DA:1374:G:C2	25:DA:1375:U:C2	2.90	0.59
40:DP:31:VAL:CG2	40:DP:32:VAL:N	2.65	0.59
1:BA:678:U:O2'	1:BA:679:C:H5'	2.03	0.59
6:BF:19:PRO:HA	6:BF:22:ILE:CG1	2.32	0.59
3:BC:76:ILE:CA	3:BC:83:VAL:HG23	2.32	0.59
38:DN:103:ARG:HB2	38:DN:110:MET:HE2	1.82	0.59
49:CY:13:GLU:C	49:CY:15:ASN:H	2.05	0.59
21:BU:13:VAL:HG12	21:BU:15:LEU:HD23	1.82	0.59
13:AM:3:ILE:HD11	13:AM:9:PRO:HG3	1.83	0.59
1:AA:721:G:C6	1:AA:733:G:C2	2.90	0.59
12:AL:2:THR:HG22	12:AL:4:ASN:CB	2.32	0.59
36:DL:4:ASN:C	36:DL:5:THR:CG2	2.71	0.59
34:DJ:117:ALA:C	34:DJ:119:PHE:H	2.05	0.59
1:BA:78:A:N6	1:BA:79:G:C6	2.70	0.59
27:CC:156:SER:O	27:CC:194:VAL:HG11	2.02	0.59
25:CA:1606:C:O2'	25:CA:1607:C:H5'	2.02	0.59
16:BP:79:ASN:ND2	16:BP:82:ALA:HB3	2.17	0.59
25:DA:1754:A:C6	25:DA:1755:A:C6	2.90	0.59
25:DA:564:C:O4'	41:DQ:36:GLN:NE2	2.34	0.59
39:CO:76:LYS:HE3	39:CO:80:GLU:OE2	2.02	0.59
2:BB:118:THR:O	2:BB:119:GLN:CB	2.49	0.59
25:CA:1064:C:H2'	25:CA:1064:C:O2	2.02	0.59
28:CD:39:ASP:OD2	28:CD:40:LEU:HB2	2.01	0.59
6:AF:70:VAL:HA	6:AF:73:GLU:CG	2.32	0.59
6:AF:70:VAL:HA	6:AF:73:GLU:HG3	1.84	0.59
1:BA:1358:U:OP1	14:BN:75:ARG:HB2	2.02	0.59
25:DA:1096:A:C6	25:DA:1097:U:C5	2.90	0.59
25:DA:1609:A:O2'	25:DA:1610:A:H5'	2.03	0.59
49:DY:45:GLN:O	49:DY:46:VAL:C	2.38	0.59
2:AB:106:VAL:H	2:AB:108:GLN:HG2	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:982:U:H4'	1:AA:983:A:O5'	2.02	0.59
25:DA:2337:G:C5	25:DA:2338:C:C5	2.89	0.59
25:DA:2345:G:C6	25:DA:2381:A:C6	2.91	0.59
21:AU:24:LYS:CD	21:AU:25:ALA:H	2.15	0.59
30:DF:56:LEU:HD21	30:DF:151:LEU:HD22	1.85	0.59
4:AD:28:ASP:O	4:AD:30:LYS:HD3	2.02	0.59
22:AV:21:A:C5	22:AV:48:C:C5	2.91	0.59
1:AA:170:U:O2'	1:AA:171:A:C5'	2.50	0.59
1:BA:98:A:H2'	1:BA:99:C:O4'	2.03	0.59
11:BK:61:ALA:O	11:BK:64:VAL:HG13	2.02	0.59
1:AA:196:A:N3	1:AA:222:C:H1'	2.17	0.59
20:BT:43:LYS:HE2	20:BT:85:LEU:O	2.02	0.59
1:AA:373:A:C2	1:AA:482:A:C6	2.91	0.59
1:AA:1202:U:C2'	1:AA:1203:C:H5'	2.32	0.59
25:CA:1203:U:C4	25:CA:1204:A:C5	2.90	0.59
31:DG:42:VAL:HA	31:DG:43:LYS:HE2	1.83	0.59
6:BF:71:ILE:CG2	6:BF:72:ASP:N	2.66	0.59
17:AQ:51:GLU:H	17:AQ:51:GLU:CD	2.06	0.59
2:AB:15:PHE:O	2:AB:40:ILE:HD12	2.01	0.59
2:BB:90:PHE:CD2	2:BB:90:PHE:O	2.55	0.59
29:CE:18:THR:CG2	29:CE:19:PHE:CE2	2.85	0.59
1:BA:110:C:C4	1:BA:111:G:C5	2.90	0.59
33:CI:74:PRO:HG2	33:CI:77:VAL:CG1	2.32	0.59
36:DL:57:LEU:HA	36:DL:60:ARG:HD2	1.84	0.59
4:BD:86:GLY:HA3	4:BD:196:GLU:HB3	1.84	0.59
12:AL:2:THR:CG2	12:AL:4:ASN:HB2	2.31	0.59
4:BD:172:VAL:O	4:BD:173:ASP:HB3	2.01	0.59
25:CA:870:U:C2'	25:CA:871:U:H5'	2.33	0.59
25:DA:1883:U:H2'	25:DA:1884:G:O5'	2.01	0.59
44:DT:58:VAL:HG22	44:DT:85:VAL:HG22	1.84	0.59
26:CB:73:A:C4	26:CB:104:A:C2	2.90	0.59
3:BC:52:SER:O	3:BC:53:ARG:CB	2.50	0.59
25:DA:1310:G:H1'	25:DA:1611:C:H5'	1.84	0.59
4:BD:137:SER:O	4:BD:140:ASP:HB2	2.02	0.59
1:BA:181:A:N6	1:BA:194:C:H2'	2.16	0.59
25:CA:1392:A:H61	44:CT:18:GLU:CD	2.06	0.59
25:CA:2674:G:H4'	35:CK:30:ARG:HD2	1.83	0.59
25:CA:1742:U:H2'	25:CA:1743:G:O5'	2.01	0.59
1:BA:979:C:C5	1:BA:980:C:C5	2.90	0.59
25:CA:2171:A:O2'	25:CA:2172:U:H5'	2.02	0.59
1:BA:1060:U:C4	3:BC:1:GLY:N	2.61	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:35:ILE:HD11	8:AH:125:ILE:HG21	1.82	0.59
50:DZ:9:THR:HG22	50:DZ:53:MET:CA	2.32	0.59
42:CR:51:VAL:HG23	42:CR:52:PRO:HD2	1.83	0.59
13:AM:21:ILE:CB	13:AM:24:VAL:HG22	2.33	0.59
13:AM:25:GLY:O	13:AM:26:LYS:C	2.40	0.59
1:AA:657:U:O2	1:AA:657:U:H2'	2.02	0.59
1:AA:482:A:C2	1:AA:483:C:H1'	2.38	0.59
25:CA:2799:A:O2'	25:CA:2800:A:H5'	2.01	0.59
43:DS:43:ALA:O	43:DS:47:VAL:HG12	2.02	0.59
25:CA:2133:G:C2'	25:CA:2158:A:H61	2.14	0.59
2:AB:18:GLN:HG2	2:AB:189:ASN:HD22	1.68	0.59
25:DA:1105:U:H2'	25:DA:1106:G:C8	2.37	0.59
1:BA:1368:A:H2'	1:BA:1369:C:H6	1.66	0.59
49:CY:23:ARG:O	49:CY:24:GLU:O	2.20	0.59
25:DA:328:U:O3'	45:DU:65:GLN:HG3	2.02	0.59
17:BQ:47:ASP:OD2	17:BQ:47:ASP:N	2.35	0.59
25:CA:1141:U:H4'	25:CA:1142:A:O4'	2.03	0.59
25:DA:1483:G:C4	25:DA:1484:U:C5	2.90	0.59
25:DA:664:G:H4'	25:DA:941:A:OP1	2.01	0.59
36:CL:85:VAL:CG1	36:CL:94:THR:HG22	2.31	0.59
25:DA:976:G:OP2	60:DA:3594:HOH:O	2.17	0.59
25:DA:1856:U:O2'	25:DA:1857:G:H5'	2.02	0.59
30:CF:90:LEU:HB3	30:CF:95:MET:HA	1.85	0.59
6:AF:51:ILE:HG12	6:AF:51:ILE:O	2.02	0.59
25:DA:22:C:C2'	25:DA:23:G:O5'	2.50	0.59
11:BK:19:VAL:HG13	11:BK:82:GLU:O	2.02	0.59
8:BH:29:SER:O	8:BH:30:LYS:C	2.41	0.59
1:BA:1057:G:O3'	3:BC:196:GLY:HA3	2.02	0.59
1:AA:749:A:C2	1:AA:750:C:C2	2.91	0.59
1:BA:820:U:H4'	1:BA:821:G:OP2	2.02	0.59
25:DA:897:C:H2'	25:DA:898:C:C6	2.37	0.59
28:DD:158:GLY:O	28:DD:159:LYS:C	2.41	0.59
25:DA:1199:U:H2'	25:DA:1200:C:C6	2.38	0.59
25:CA:771:G:C2'	25:CA:772:C:H5'	2.33	0.59
29:DE:200:LEU:HD13	29:DE:200:LEU:N	2.18	0.59
25:CA:626:A:H2'	36:CL:78:ARG:NH1	2.17	0.59
32:CH:32:PRO:O	32:CH:33:GLN:HB2	2.02	0.59
25:CA:1060:U:OP1	25:CA:1062:G:H4'	2.03	0.59
33:CI:37:PHE:CD1	33:CI:41:PHE:HB2	2.36	0.59
2:AB:151:LYS:HG3	2:AB:152:ASP:O	2.02	0.59
25:DA:1712:U:C6	25:DA:1713:A:C8	2.90	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BB:205:ALA:C	2:BB:207:ARG:N	2.55	0.59
5:BE:149:PRO:HB3	8:BH:98:LEU:HD21	1.85	0.59
25:DA:637:A:H4'	25:DA:638:G:O5'	2.02	0.59
4:BD:202:LEU:C	4:BD:202:LEU:HD12	2.23	0.59
25:DA:1436:G:C2	25:DA:1557:C:O2	2.56	0.59
25:DA:1556:C:C2'	25:DA:1557:C:H5'	2.32	0.59
1:BA:1262:C:C5	1:BA:1263:C:C5	2.90	0.59
22:AV:47:U:H2'	22:AV:47:U:O2	2.01	0.59
1:BA:73:C:H1'	1:BA:74:A:H5'	1.85	0.59
10:BJ:58:ASN:O	10:BJ:60:ASP:N	2.34	0.59
20:BT:31:ILE:HG12	20:BT:53:MET:HE3	1.84	0.59
1:AA:513:C:O2'	1:AA:514:C:O5'	2.21	0.59
25:DA:2262:U:OP1	57:DW:37:ARG:NH2	2.36	0.59
25:CA:1585:C:H2'	25:CA:1586:A:C5'	2.32	0.59
1:AA:1286:U:H5'	1:AA:1287:A:OP2	2.02	0.59
32:DH:2:GLN:CB	32:DH:39:ALA:HB3	2.33	0.59
2:BB:99:MET:HB3	2:BB:106:VAL:HG21	1.84	0.59
10:AJ:52:LEU:HD22	10:AJ:62:ARG:HG2	1.83	0.59
10:AJ:52:LEU:HB3	14:AN:81:ARG:NE	2.18	0.59
10:BJ:22:THR:HA	10:BJ:25:ILE:HG21	1.84	0.59
25:CA:2102:G:N2	25:CA:2188:U:H1'	2.16	0.59
25:DA:1971:U:C6	25:DA:1971:U:H3'	2.38	0.59
15:AO:86:LEU:N	15:AO:86:LEU:CD2	2.65	0.59
2:BB:84:LEU:HG	2:BB:84:LEU:O	2.03	0.59
25:CA:102:U:C5	49:CY:2:LYS:HD2	2.38	0.59
28:CD:99:GLU:HA	28:CD:99:GLU:OE1	2.01	0.59
2:AB:185:ILE:HG13	2:AB:185:ILE:O	2.02	0.59
20:BT:5:SER:OG	20:BT:6:ALA:N	2.33	0.59
25:DA:537:G:N1	25:DA:555:G:C2	2.70	0.59
1:BA:557:G:H3'	1:BA:558:G:C8	2.38	0.59
25:DA:2478:A:N3	25:DA:2529:G:H2'	2.17	0.59
4:BD:173:ASP:O	4:BD:174:ALA:HB3	2.03	0.59
12:AL:43:LYS:CB	12:AL:44:PRO:CD	2.80	0.59
25:DA:1483:G:C5	25:DA:1484:U:C5	2.90	0.59
25:DA:1867:G:C2'	25:DA:1868:C:H5'	2.32	0.59
1:AA:1293:C:H5'	1:AA:1294:G:OP2	2.03	0.59
1:BA:1471:U:C2'	1:BA:1472:U:H5'	2.32	0.59
8:BH:31:LEU:O	8:BH:31:LEU:HD12	2.01	0.59
25:DA:2383:G:H2'	25:DA:2384:U:C6	2.37	0.59
39:DO:79:ALA:HB1	39:DO:113:ALA:CB	2.32	0.59
1:BA:1503:A:C8	1:BA:1531:A:H1'	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:125:A:OP2	53:C2:19:ARG:HD3	2.02	0.59
1:AA:1268:G:C6	1:AA:1269:A:N6	2.71	0.59
40:DP:57:ALA:CB	40:DP:73:PHE:O	2.51	0.59
20:BT:66:ILE:C	20:BT:67:HIS:CD2	2.76	0.59
36:DL:82:LEU:C	36:DL:82:LEU:HD23	2.22	0.59
25:DA:383:C:N3	25:DA:391:A:N6	2.49	0.59
25:DA:947:A:HO2'	25:DA:984:A:H2	0.77	0.59
10:AJ:80:THR:HG22	10:AJ:82:LYS:H	1.67	0.59
25:DA:2793:C:O2	25:DA:2794:C:C5	2.56	0.59
1:AA:481:G:H2'	1:AA:483:C:N4	2.18	0.59
1:AA:572:A:H5'	1:AA:573:A:OP2	2.03	0.59
27:DC:175:LEU:HD12	27:DC:179:GLU:HB3	1.83	0.59
32:DH:1:MET:HG3	32:DH:2:GLN:N	2.18	0.59
2:BB:169:HIS:HA	2:BB:172:ILE:HD12	1.84	0.59
2:AB:20:ARG:O	2:AB:22:TRP:HD1	1.84	0.59
37:CM:31:PHE:CE2	37:CM:110:GLU:HB2	2.38	0.59
25:DA:56:A:C2'	25:DA:57:C:O5'	2.50	0.59
38:CN:21:PHE:CE2	38:CN:24:MET:CE	2.85	0.59
19:AS:50:VAL:HG22	19:AS:70:LEU:HD12	1.84	0.59
1:AA:115:G:H4'	1:AA:116:A:O5'	2.01	0.59
1:BA:152:A:N6	1:BA:170:U:C2	2.71	0.59
1:BA:1355:G:C4	1:BA:1368:A:C2	2.91	0.59
2:AB:70:GLY:HA2	2:AB:163:ILE:CG2	2.32	0.59
25:CA:841:G:H2'	25:CA:842:U:C6	2.38	0.59
25:DA:673:C:H5"	29:DE:76:PRO:HD2	1.85	0.59
24:AY:33:ALA:O	24:AY:34:SER:CB	2.50	0.59
1:AA:198:G:C6	1:AA:220:G:C2	2.91	0.59
1:AA:159:G:C5'	1:AA:159:G:H8	2.16	0.59
17:AQ:3:LYS:O	17:AQ:3:LYS:HD2	2.03	0.59
4:BD:178:GLU:HG2	4:BD:179:GLY:N	2.17	0.59
7:AG:145:GLU:O	7:AG:148:LYS:HB3	2.02	0.59
1:BA:206:C:H2'	1:BA:207:C:H4'	1.84	0.59
25:DA:540:C:O2'	25:DA:541:A:H5'	2.02	0.59
25:CA:47:C:C2'	25:CA:48:G:H5'	2.32	0.59
1:BA:1499:A:C2'	1:BA:1500:A:O5'	2.49	0.59
1:BA:92:U:H5'	1:BA:93:U:OP2	2.03	0.59
3:AC:154:GLY:HA2	3:AC:163:ARG:H	1.68	0.59
25:CA:624:C:O2'	25:CA:657:U:OP1	2.19	0.59
6:AF:60:VAL:HG12	6:AF:60:VAL:O	2.02	0.59
25:DA:1219:U:O2'	25:DA:1220:G:H5'	2.02	0.59
45:DU:72:PHE:CE2	45:DU:74:ALA:HA	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:735:A:C8	25:CA:736:C:C5	2.91	0.59
25:CA:2286:G:C8	25:CA:2286:G:H5'	2.38	0.59
25:DA:659:G:H4'	29:DE:95:LYS:HB3	1.84	0.59
22:BV:38:A:H2'	22:BV:39:U:O5'	2.03	0.59
25:DA:920:A:H2'	25:DA:921:C:H6	1.66	0.59
14:AN:49:GLN:OE1	14:AN:49:GLN:HA	2.01	0.59
25:CA:2256:G:C2'	25:CA:2257:U:O5'	2.50	0.59
1:BA:969:A:C5	1:BA:970:C:C5	2.91	0.59
25:CA:971:G:OP1	25:CA:974:G:O2'	2.17	0.59
13:BM:79:LEU:CD2	13:BM:84:CYS:SG	2.91	0.59
1:AA:1141:C:C2	1:AA:1142:G:C8	2.91	0.59
25:CA:1055:G:H3'	25:CA:1056:G:C8	2.38	0.59
25:CA:1059:G:C6	25:CA:1080:A:C2	2.90	0.59
11:AK:52:ARG:O	11:AK:55:ARG:CG	2.51	0.59
25:DA:1529:G:C6	25:DA:1543:G:N2	2.71	0.59
4:AD:150:LYS:HA	4:AD:177:MET:HE1	1.85	0.59
1:AA:463:U:O2	1:AA:463:U:H2'	2.01	0.59
1:BA:738:C:C2	1:BA:739:C:C5	2.91	0.59
1:AA:390:U:C2'	1:AA:391:G:O5'	2.51	0.59
25:CA:2112:G:H2'	25:CA:2112:G:N3	2.17	0.59
25:DA:278:A:C2	25:DA:362:A:H1'	2.37	0.59
36:CL:110:VAL:N	36:CL:111:ILE:HD12	2.17	0.59
1:BA:1113:C:O2	1:BA:1114:C:C6	2.56	0.59
2:BB:49:PHE:HD1	2:BB:53:LEU:HD23	1.68	0.59
25:DA:1018:U:C4	25:DA:1019:U:C5	2.91	0.59
1:BA:693:G:C2	23:BX:13:A:N6	2.71	0.59
25:CA:528:A:H2	25:CA:2043:C:H5'	1.66	0.59
24:AY:145:LYS:HE2	24:AY:145:LYS:H	1.68	0.59
25:DA:2425:A:H5"	25:DA:2427:C:O4'	2.03	0.59
1:BA:25:C:C4	1:BA:558:G:N2	2.71	0.59
15:BO:63:ARG:NH1	15:BO:87:ARG:NH2	2.50	0.59
1:AA:1040:U:H2'	1:AA:1041:G:C8	2.38	0.59
4:BD:145:ARG:CZ	4:BD:147:LYS:HE3	2.33	0.59
25:DA:1473:G:N2	25:DA:1519:G:C4	2.70	0.59
31:CG:126:THR:HG22	31:CG:127:GLN:N	2.18	0.59
25:CA:580:U:H2'	25:CA:581:C:C6	2.38	0.59
41:DQ:97:ILE:HG22	41:DQ:105:PHE:HB2	1.84	0.59
25:DA:145:C:C4	25:DA:146:A:N7	2.71	0.59
30:DF:116:LEU:O	30:DF:117:SER:C	2.41	0.59
25:DA:2861:U:O2'	25:DA:2862:G:H5'	2.02	0.59
40:CP:20:ARG:HB2	40:CP:21:PRO:HD2	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:56:LYS:HB2	28:DD:59:ARG:HB2	1.85	0.59
28:DD:62:LYS:HB2	28:DD:63:PRO:HD3	1.84	0.59
25:DA:1998:A:H2'	25:DA:1999:C:C6	2.36	0.59
30:DF:110:ILE:HB	30:DF:113:PHE:HB2	1.83	0.59
25:DA:284:U:O2	25:DA:284:U:H2'	2.03	0.59
22:BV:45:U:H5"	22:BV:46:G:OP2	2.03	0.59
29:CE:152:GLU:HA	29:CE:152:GLU:OE1	2.02	0.59
2:AB:125:PHE:N	2:AB:125:PHE:CD2	2.70	0.59
4:AD:138:PRO:O	4:AD:139:ASN:HB2	2.01	0.59
1:AA:723:U:H5'	1:AA:724:G:O5'	2.02	0.59
1:BA:1268:G:O2'	1:BA:1269:A:H5'	2.02	0.59
1:BA:1323:G:H2'	1:BA:1324:A:H8	1.68	0.59
1:BA:1345:U:C2	1:BA:1377:A:C6	2.90	0.59
33:DI:74:PRO:HG2	33:DI:77:VAL:HG21	1.85	0.59
25:DA:1404:C:O2	25:DA:1405:U:C6	2.56	0.59
2:AB:69:VAL:HG22	2:AB:91:VAL:HB	1.85	0.59
19:AS:4:LEU:O	19:AS:5:LYS:CG	2.51	0.59
1:AA:256:U:H2'	1:AA:257:G:C8	2.37	0.59
17:AQ:21:VAL:HG22	17:AQ:22:VAL:N	2.18	0.59
5:BE:152:VAL:HG23	5:BE:156:ARG:HB3	1.85	0.59
38:DN:49:GLU:N	38:DN:50:PRO:HD2	2.18	0.59
1:AA:149:A:H1'	1:AA:1446:A:C2	2.37	0.59
3:AC:6:PRO:HD2	3:AC:183:TYR:CD2	2.38	0.59
10:BJ:7:ARG:HD3	10:BJ:75:ASP:OD1	2.02	0.59
1:AA:222:C:O2	1:AA:222:C:H2'	2.02	0.59
25:DA:2163:A:OP1	25:DA:2171:A:C8	2.56	0.59
36:CL:101:ILE:O	36:CL:105:ILE:HG13	2.03	0.59
1:BA:594:U:C2	1:BA:595:A:C8	2.91	0.59
25:DA:121:G:H2'	25:DA:122:G:C8	2.38	0.59
1:BA:688:G:O2'	1:BA:704:A:N1	2.26	0.59
25:DA:1268:A:C2	25:DA:2013:A:C4	2.91	0.59
1:BA:1356:G:O2'	1:BA:1357:A:H5'	2.03	0.59
9:AI:62:LEU:N	9:AI:62:LEU:CD2	2.65	0.59
7:BG:11:ILE:HD13	7:BG:27:ASN:HD21	1.68	0.59
25:CA:58:G:OP1	44:CT:78:SER:CB	2.51	0.59
25:CA:995:C:H5'	25:CA:995:C:H6	1.66	0.59
24:AY:141:LYS:O	24:AY:145:LYS:CE	2.51	0.59
3:AC:166:TRP:CE3	3:AC:166:TRP:C	2.76	0.59
44:DT:2:ILE:HG23	44:DT:3:ARG:C	2.22	0.59
25:DA:1738:G:HO2'	25:DA:1739:A:P	2.24	0.59
54:C3:8:GLY:O	54:C3:12:ARG:HG3	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:620:C:H1'	4:BD:131:ILE:HD13	1.84	0.59
25:DA:1520:U:C2'	25:DA:1521:G:H5'	2.32	0.59
25:CA:2637:U:H2'	25:CA:2638:G:H5'	1.84	0.59
27:CC:158:GLY:N	27:CC:194:VAL:HG13	2.18	0.59
31:DG:45:ALA:O	31:DG:46:ASP:CB	2.51	0.59
7:AG:121:ASN:O	7:AG:124:SER:HB3	2.02	0.59
29:CE:178:VAL:HG13	29:CE:179:SER:N	2.17	0.59
25:CA:2019:A:H2'	25:CA:2020:A:O5'	2.03	0.59
12:AL:98:ARG:HA	12:AL:103:CYS:SG	2.42	0.59
14:AN:4:SER:O	14:AN:8:ARG:HG3	2.03	0.59
8:BH:16:GLY:O	8:BH:19:ALA:N	2.36	0.59
5:AE:108:GLY:HA2	5:AE:111:ARG:CB	2.33	0.59
37:CM:27:SER:O	37:CM:28:PHE:CD2	2.56	0.59
1:BA:1206:G:H4'	3:BC:191:THR:O	2.02	0.59
1:BA:1267:C:H2'	1:BA:1268:G:H5'	1.84	0.59
1:BA:978:A:HO2'	1:BA:1322:C:H5	1.49	0.59
1:BA:951:G:C2	1:BA:1231:G:C2	2.91	0.59
25:DA:1063:G:N3	33:DI:89:SER:OG	2.35	0.59
33:CI:28:GLY:O	33:CI:34:ILE:HD11	2.03	0.59
2:AB:110:ILE:HD11	2:AB:150:ILE:HG12	1.85	0.59
2:AB:135:MET:N	2:AB:135:MET:SD	2.75	0.59
14:AN:73:PHE:CD1	14:AN:74:LEU:N	2.71	0.59
1:AA:1145:A:C2'	1:AA:1146:A:OP2	2.49	0.59
42:DR:39:LEU:CD1	42:DR:39:LEU:N	2.65	0.59
25:CA:1182:G:H2'	25:CA:1183:U:O4'	2.01	0.59
11:BK:124:LYS:CE	11:BK:125:LYS:HA	2.32	0.59
3:BC:153:SER:HB2	3:BC:164:THR:HG22	1.84	0.59
25:CA:2307:G:C2	25:CA:2311:A:H2'	2.37	0.59
39:DO:47:VAL:HG23	39:DO:48:LEU:N	2.17	0.59
28:DD:104:VAL:O	28:DD:105:LYS:HB2	2.01	0.59
1:AA:922:G:N1	1:AA:923:A:C2	2.71	0.59
7:BG:115:MET:O	7:BG:119:LEU:HB2	2.02	0.59
1:AA:1333:A:C2'	1:AA:1334:G:O5'	2.50	0.59
25:CA:1251:C:OP2	41:CQ:5:ARG:HD2	2.02	0.59
25:CA:946:C:P	60:CA:3348:HOH:O	2.57	0.59
36:CL:127:VAL:HG11	36:CL:132:ARG:HB2	1.84	0.59
1:BA:386:C:H2'	1:BA:387:U:H5'	1.83	0.59
32:DH:116:ARG:HD2	32:DH:133:GLN:CG	2.32	0.59
32:DH:116:ARG:CG	32:DH:133:GLN:HG3	2.31	0.59
1:BA:1122:U:C2	1:BA:1123:U:C5	2.91	0.59
13:AM:74:MET:SD	30:CF:111:ARG:HD3	2.43	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:283:U:H2'	1:BA:284:C:C6	2.38	0.59
25:DA:2703:C:C4	25:DA:2704:C:C5	2.91	0.59
33:DI:9:LYS:HB2	33:DI:55:PRO:HB3	1.83	0.59
32:CH:10:ALA:O	32:CH:12:LEU:N	2.35	0.59
28:CD:103:ASP:O	28:CD:105:LYS:N	2.36	0.59
4:BD:57:LYS:HB2	4:BD:199:ILE:HD12	1.84	0.59
22:AV:33:U:H2'	22:AV:35:A:OP2	2.03	0.59
5:BE:21:SER:HB2	5:BE:30:PHE:CD2	2.38	0.59
11:BK:80:ASN:HB3	11:BK:105:ARG:HG2	1.84	0.59
1:AA:882:C:C2'	1:AA:883:C:O5'	2.50	0.59
54:C3:44:ARG:N	54:C3:45:PRO:HD2	2.18	0.59
43:DS:51:LEU:O	43:DS:55:ILE:HG13	2.02	0.59
25:DA:2742:G:C2'	25:DA:2743:U:H5'	2.33	0.59
13:BM:38:ILE:HG13	13:BM:55:LEU:HD11	1.83	0.59
25:DA:1057:A:C2	25:DA:1058:U:C5	2.90	0.59
17:AQ:12:VAL:HG13	17:AQ:21:VAL:HG13	1.84	0.59
25:DA:2211:A:H1'	25:DA:2212:A:OP1	2.03	0.59
56:DB:89:U:H5"	56:DB:89:U:O2	2.03	0.59
25:CA:1287:A:C5'	38:CN:103:ARG:HD2	2.27	0.59
2:BB:79:VAL:HA	2:BB:213:LEU:HD21	1.84	0.59
32:DH:62:LEU:HD23	32:DH:135:HIS:NE2	2.17	0.59
20:BT:66:ILE:HG23	20:BT:67:HIS:N	2.18	0.59
25:DA:1415:U:O2	25:DA:1415:U:H2'	2.03	0.59
25:DA:626:A:H2'	36:DL:78:ARG:NH1	2.18	0.59
30:DF:151:LEU:HD12	30:DF:152:ASP:N	2.17	0.59
11:AK:126:ARG:HB2	21:AU:33:ARG:HD2	1.84	0.59
1:BA:1514:G:O2'	1:BA:1515:G:H5'	2.03	0.59
1:AA:79:G:N2	1:AA:91:U:C4	2.71	0.59
1:BA:735:C:H2'	1:BA:736:C:H6	1.68	0.59
43:DS:20:VAL:CG2	43:DS:43:ALA:CB	2.81	0.59
36:CL:110:VAL:O	36:CL:111:ILE:C	2.42	0.59
43:DS:69:LEU:C	43:DS:70:LYS:HD2	2.23	0.59
25:CA:1046:A:C4'	25:CA:1046:A:OP2	2.50	0.59
21:BU:9:GLU:HG3	21:BU:10:PRO:HD3	1.84	0.59
18:AR:39:VAL:HG13	18:AR:40:PRO:HD2	1.83	0.59
29:CE:111:GLU:OE1	29:CE:111:GLU:CA	2.50	0.59
1:BA:107:G:O6	20:BT:9:ARG:HD3	2.03	0.59
1:BA:1122:U:C4	1:BA:1123:U:C5	2.91	0.59
25:CA:366:C:H2'	25:CA:367:G:O4'	2.03	0.59
1:AA:1180:A:OP1	9:AI:104:THR:HG23	2.03	0.59
14:AN:15:LEU:O	14:AN:17:ASP:N	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:C3:3:ILE:O	54:C3:63:TYR:HE2	1.86	0.59
7:AG:119:LEU:CD2	7:AG:123:LEU:HD23	2.32	0.59
49:CY:13:GLU:C	49:CY:15:ASN:N	2.55	0.59
1:AA:718:A:C2'	1:AA:719:C:H5'	2.33	0.59
1:BA:211:G:N3	1:BA:212:G:H1'	2.17	0.59
46:DV:9:ARG:CG	46:DV:41:GLU:HB3	2.33	0.59
6:BF:49:TYR:HB2	6:BF:50:PRO:CD	2.33	0.59
32:CH:41:LYS:HA	32:CH:44:ILE:HG12	1.85	0.59
25:DA:606:U:H4'	25:DA:658:U:H4'	1.83	0.59
18:BR:24:ASP:HB2	18:BR:27:THR:HB	1.84	0.59
25:DA:2803:G:H2'	25:DA:2804:U:C6	2.38	0.59
5:AE:108:GLY:O	5:AE:109:ALA:HB3	2.03	0.59
36:DL:68:SER:O	36:DL:69:ARG:HB2	2.03	0.59
25:CA:582:A:C2	25:CA:1259:G:C2	2.90	0.59
37:DM:2:LEU:HB3	37:DM:68:PHE:CE1	2.38	0.59
39:CO:106:LEU:C	39:CO:106:LEU:HD23	2.23	0.59
1:BA:825:A:O2'	1:BA:826:C:H5'	2.03	0.59
46:DV:76:ASP:HB3	46:DV:90:ASP:HB2	1.84	0.59
8:AH:13:ILE:O	8:AH:15:ASN:N	2.36	0.59
1:AA:708:C:H2'	1:AA:709:U:H6	1.68	0.59
36:CL:67:THR:O	36:CL:67:THR:HG22	2.02	0.59
35:CK:122:VAL:OXT	35:CK:122:VAL:HG12	2.03	0.59
12:BL:76:HIS:O	12:BL:77:SER:CB	2.50	0.58
1:BA:1295:U:H2'	1:BA:1296:C:C6	2.38	0.58
25:CA:998:C:H2'	25:CA:999:U:O5'	2.03	0.58
44:DT:9:LYS:O	44:DT:11:LEU:N	2.35	0.58
1:AA:1271:A:H5'	1:AA:1314:C:C5'	2.31	0.58
25:DA:1709:U:O2'	25:DA:1710:G:H5'	2.03	0.58
13:BM:7:ASN:ND2	13:BM:9:PRO:HG3	2.17	0.58
17:BQ:13:SER:O	17:BQ:20:ILE:HD12	2.02	0.58
42:CR:53:PHE:CD1	42:CR:53:PHE:N	2.69	0.58
5:BE:105:ILE:HD11	5:BE:123:LEU:CD2	2.32	0.58
41:CQ:23:TYR:O	41:CQ:24:TYR:HB3	2.03	0.58
1:AA:194:C:C2'	1:AA:195:A:H5'	2.33	0.58
1:AA:208:U:C5	1:AA:210:C:C5	2.91	0.58
1:AA:386:C:C2'	1:AA:387:U:H5'	2.33	0.58
43:DS:43:ALA:O	43:DS:44:ALA:C	2.39	0.58
1:AA:1367:C:H5"	10:AJ:62:ARG:NH1	2.18	0.58
2:BB:90:PHE:O	2:BB:149:GLY:HA3	2.03	0.58
25:CA:197:A:H62	25:CA:2430:A:H2'	1.67	0.58
43:DS:59:GLU:HG3	43:DS:66:ILE:CD1	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:594:U:H3'	1:BA:595:A:H8	1.67	0.58
30:DF:12:VAL:O	30:DF:16:MET:HG2	2.02	0.58
25:DA:1371:G:O2'	25:DA:1372:U:H5'	2.03	0.58
1:BA:66:A:C4'	1:BA:173:U:C5	2.86	0.58
56:DB:77:U:C2'	56:DB:78:A:H5'	2.33	0.58
1:BA:109:A:H4'	1:BA:110:C:OP2	2.03	0.58
25:DA:1794:A:H2'	25:DA:1795:C:C6	2.38	0.58
10:BJ:66:GLU:CG	14:BN:99:ALA:HB2	2.32	0.58
47:CW:37:ARG:HG3	47:CW:37:ARG:NH1	2.18	0.58
1:AA:36:C:OP1	12:AL:119:LYS:HE3	2.03	0.58
25:DA:2547:A:H2'	25:DA:2548:U:H6	1.66	0.58
1:BA:192:A:H2'	1:BA:193:C:H5'	1.85	0.58
1:AA:833:G:C5	1:AA:834:U:C5	2.91	0.58
3:BC:114:LEU:O	3:BC:117:ASP:N	2.36	0.58
1:AA:882:C:H2'	1:AA:883:C:O5'	2.04	0.58
37:CM:113:ALA:O	37:CM:114:ARG:C	2.41	0.58
1:BA:577:G:C8	1:BA:816:A:C6	2.91	0.58
25:DA:2738:A:N3	25:DA:2738:A:H2'	2.17	0.58
25:DA:992:C:O2'	25:DA:993:G:H5'	2.03	0.58
1:BA:290:C:O2'	1:BA:291:U:H5'	2.02	0.58
25:CA:1120:G:C2'	25:CA:1121:C:H5'	2.33	0.58
11:AK:81:LEU:CD2	11:AK:81:LEU:N	2.65	0.58
34:DJ:130:HIS:ND1	34:DJ:130:HIS:O	2.36	0.58
48:CX:20:ALA:O	48:CX:21:LEU:HB2	2.02	0.58
1:BA:1431:A:C6	1:BA:1432:G:C6	2.91	0.58
42:DR:67:GLY:HA3	42:DR:93:PHE:CE2	2.39	0.58
1:AA:634:C:H2'	1:AA:635:A:O4'	2.03	0.58
33:DI:19:PRO:HB2	33:DI:22:PRO:HD2	1.84	0.58
44:DT:30:ILE:HD11	44:DT:32:LEU:HD21	1.85	0.58
25:CA:1073:A:C2'	25:CA:1074:G:H5"	2.34	0.58
17:AQ:13:SER:HB2	17:AQ:21:VAL:HG11	1.84	0.58
25:DA:1711:A:C2'	25:DA:1712:U:H5'	2.33	0.58
17:BQ:13:SER:C	17:BQ:16:MET:HE1	2.24	0.58
12:BL:23:LEU:HG	12:BL:24:GLU:N	2.17	0.58
25:DA:2306:C:H3'	25:DA:2307:G:H5"	1.84	0.58
1:AA:622:A:H2'	1:AA:623:C:H5'	1.83	0.58
20:BT:34:VAL:HG11	20:BT:78:LEU:CD1	2.32	0.58
20:BT:35:TYR:CE2	20:BT:36:ALA:HB2	2.38	0.58
9:BI:49:GLN:HA	9:BI:52:GLU:OE2	2.01	0.58
1:BA:466:A:H2'	1:BA:468:A:H2	1.67	0.58
10:BJ:36:VAL:HA	10:BJ:76:ILE:HA	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DU:12:VAL:HG12	45:DU:18:LYS:HA	1.84	0.58
25:DA:1167:C:C2'	25:DA:1168:G:H5"	2.33	0.58
12:BL:42:LYS:HE3	12:BL:43:LYS:HD3	1.83	0.58
12:BL:43:LYS:CB	12:BL:44:PRO:HD3	2.33	0.58
56:DB:61:G:C6	56:DB:62:C:N3	2.71	0.58
2:BB:57:ASN:HA	2:BB:60:ALA:HB3	1.85	0.58
33:CI:5:GLN:O	33:CI:6:ALA:CB	2.51	0.58
25:DA:500:G:N2	25:DA:502:A:H3'	2.18	0.58
25:DA:480:A:OP2	45:DU:43:LYS:HE2	2.02	0.58
36:DL:106:GLU:C	36:DL:107:PHE:HD2	2.06	0.58
25:DA:1738:G:O2'	25:DA:1739:A:O5'	2.21	0.58
25:DA:1165:A:H2'	25:DA:1166:G:C8	2.38	0.58
5:AE:68:ARG:HH11	5:AE:68:ARG:HG3	1.68	0.58
25:DA:973:A:OP2	42:DR:81:LYS:NZ	2.36	0.58
1:BA:436:C:H2'	1:BA:437:U:H6	1.67	0.58
30:CF:62:GLN:NE2	30:CF:94:ARG:HD3	2.18	0.58
4:AD:125:ASN:HA	4:AD:141:VAL:CG2	2.32	0.58
25:DA:2648:G:H2'	25:DA:2649:C:C6	2.38	0.58
8:BH:110:MET:HB3	8:BH:114:ALA:HB1	1.84	0.58
25:CA:1281:G:N2	25:CA:1290:C:C2	2.71	0.58
37:CM:46:ILE:HD12	37:CM:69:PRO:HD3	1.85	0.58
25:DA:2887:A:H5'	25:DA:2888:C:OP2	2.03	0.58
25:DA:2341:G:H2'	25:DA:2342:C:C6	2.38	0.58
25:DA:2199:A:H1'	32:DH:28:ASN:HD21	1.67	0.58
25:CA:1288:G:C5	25:CA:1327:A:C2	2.91	0.58
2:BB:17:HIS:O	2:BB:188:THR:HG23	2.03	0.58
32:DH:59:ALA:O	32:DH:62:LEU:HB3	2.02	0.58
21:AU:24:LYS:HD3	21:AU:25:ALA:N	2.18	0.58
5:BE:121:ASN:CG	5:BE:122:VAL:N	2.56	0.58
25:DA:1538:G:C2	25:DA:1539:U:C6	2.91	0.58
16:AP:16:PHE:C	16:AP:16:PHE:CD1	2.75	0.58
4:AD:122:ILE:N	4:AD:122:ILE:CD1	2.66	0.58
22:AV:21:A:C6	22:AV:46:G:C4	2.91	0.58
25:DA:1866:A:N3	25:DA:1876:A:C5	2.71	0.58
25:DA:1323:C:C2'	25:DA:1324:G:O5'	2.51	0.58
2:BB:95:TRP:CZ3	2:BB:96:LEU:O	2.56	0.58
9:AI:119:LYS:O	9:AI:120:ALA:HB3	2.03	0.58
40:DP:21:PRO:HA	40:DP:46:VAL:HG12	1.84	0.58
9:AI:20:ILE:HD13	9:AI:86:LEU:HD12	1.85	0.58
11:AK:95:THR:O	11:AK:99:LEU:HD22	2.03	0.58
2:BB:53:LEU:CD1	2:BB:219:THR:HG21	2.32	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1018:U:C2	25:DA:1019:U:C6	2.91	0.58
1:BA:1388:C:H2'	1:BA:1389:C:C6	2.38	0.58
1:AA:1532:U:C4	1:AA:1533:C:N4	2.71	0.58
12:AL:93:ARG:C	12:AL:94:TYR:CD2	2.77	0.58
33:CI:70:THR:C	33:CI:71:LYS:HD2	2.24	0.58
6:BF:19:PRO:HA	6:BF:22:ILE:HG13	1.85	0.58
1:BA:164:G:H2'	1:BA:165:G:H5'	1.85	0.58
25:DA:2258:C:H4'	25:DA:2259:U:OP2	2.04	0.58
29:DE:176:ASP:OD1	29:DE:179:SER:HB3	2.03	0.58
27:CC:161:VAL:CG1	27:CC:162:GLN:N	2.66	0.58
26:CB:48:U:P	39:CO:30:ARG:HH22	2.26	0.58
1:AA:327:A:O3'	1:AA:328:C:H4'	2.02	0.58
25:CA:656:G:C2'	25:CA:657:U:O5'	2.52	0.58
25:DA:1392:A:C6	25:DA:1393:A:C6	2.91	0.58
14:AN:46:LEU:O	14:AN:48:LEU:N	2.36	0.58
25:DA:247:G:H4'	25:DA:386:G:C4	2.37	0.58
25:CA:440:C:O2'	25:CA:441:U:H5'	2.02	0.58
29:DE:23:PHE:CG	29:DE:111:GLU:HG3	2.39	0.58
25:CA:1902:C:H4'	27:CC:241:LYS:O	2.03	0.58
25:CA:928:A:O2'	25:CA:929:U:H5'	2.02	0.58
25:CA:1919:A:H2'	25:CA:1919:A:N3	2.18	0.58
12:AL:80:LEU:HB2	12:AL:101:LEU:HD22	1.84	0.58
25:DA:368:A:C2'	25:DA:369:U:H5'	2.33	0.58
22:AV:50:U:C2	22:AV:51:U:C5	2.92	0.58
1:BA:867:G:H2'	1:BA:868:C:H6	1.69	0.58
25:DA:1719:G:N2	25:DA:1742:U:H1'	2.18	0.58
35:DK:58:LEU:N	35:DK:58:LEU:HD23	2.18	0.58
37:DM:70:ASP:OD1	37:DM:70:ASP:C	2.42	0.58
25:CA:2720:U:OP1	40:CP:52:ARG:NH2	2.37	0.58
2:AB:165:ALA:HB2	2:AB:186:VAL:HG12	1.85	0.58
25:CA:417:C:C2'	25:CA:418:C:O5'	2.50	0.58
25:CA:1075:C:H2'	25:CA:1076:C:C6	2.39	0.58
2:AB:158:ASP:O	2:AB:181:PRO:HD2	2.04	0.58
2:AB:56:LEU:HD21	2:AB:220:VAL:HG22	1.86	0.58
1:AA:259:G:C6	1:AA:260:G:C5	2.90	0.58
1:AA:271:C:H2'	1:AA:272:C:C6	2.38	0.58
1:AA:277:C:O2'	1:AA:278:G:H5'	2.02	0.58
17:AQ:11:VAL:O	17:AQ:12:VAL:CB	2.51	0.58
1:BA:1062:U:C2'	1:BA:1063:C:C6	2.83	0.58
25:DA:1748:C:C2'	25:DA:1749:A:O5'	2.51	0.58
1:BA:448:A:C8	1:BA:487:A:C6	2.92	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2114:A:C5	25:DA:2167:U:H4'	2.38	0.58
25:DA:1538:G:C8	25:DA:1538:G:OP2	2.56	0.58
39:DO:33:ARG:O	39:DO:34:HIS:CB	2.51	0.58
1:BA:1142:G:C4	1:BA:1143:G:H1'	2.38	0.58
1:AA:412:A:C1'	1:AA:413:G:H5"	2.34	0.58
4:AD:158:LEU:O	4:AD:161:ALA:HB3	2.03	0.58
21:AU:36:PHE:HB3	21:AU:40:PRO:HG3	1.85	0.58
1:AA:93:U:H2'	1:AA:94:G:H5'	1.83	0.58
1:AA:209:U:H5"	1:AA:210:C:OP2	2.02	0.58
20:BT:24:ARG:O	20:BT:28:ARG:HG2	2.02	0.58
16:AP:6:LEU:HD13	16:AP:71:VAL:HG23	1.85	0.58
16:AP:19:VAL:HG13	16:AP:38:PHE:CA	2.31	0.58
38:CN:2:ARG:O	38:CN:3:HIS:C	2.42	0.58
21:AU:11:PHE:N	21:AU:11:PHE:HD2	2.01	0.58
3:AC:96:VAL:CB	3:AC:97:PRO:CD	2.81	0.58
30:DF:24:VAL:O	30:DF:27:VAL:HG12	2.04	0.58
49:CY:13:GLU:O	49:CY:15:ASN:N	2.36	0.58
49:CY:21:LEU:O	49:CY:22:LEU:O	2.21	0.58
26:CB:20:G:N2	26:CB:64:G:C4	2.72	0.58
16:AP:3:THR:HG22	16:AP:4:ILE:N	2.19	0.58
9:AI:96:GLU:CD	9:AI:96:GLU:N	2.57	0.58
1:AA:1292:G:H2'	1:AA:1293:C:O4'	2.03	0.58
1:BA:459:A:H2'	1:BA:460:A:C8	2.39	0.58
1:AA:602:A:O2'	1:AA:603:U:H5'	2.03	0.58
1:AA:739:C:C4	1:AA:740:U:C5	2.91	0.58
1:BA:1022:A:C6	1:BA:1023:U:C4	2.91	0.58
37:CM:43:ALA:O	37:CM:46:ILE:N	2.36	0.58
25:CA:1979:U:O2'	25:CA:1980:G:H5'	2.03	0.58
44:DT:54:GLU:HB3	44:DT:88:LYS:HG3	1.85	0.58
2:BB:165:ALA:HB2	2:BB:186:VAL:HG12	1.86	0.58
27:CC:259:ASN:CG	27:CC:262:THR:HG23	2.24	0.58
42:CR:102:SER:O	42:CR:103:ALA:O	2.22	0.58
25:CA:2782:G:C2'	25:CA:2783:U:H5'	2.32	0.58
25:DA:1063:G:H3'	25:DA:1064:C:C5	2.39	0.58
25:DA:1350:C:N4	25:DA:1351:C:N4	2.52	0.58
2:AB:66:ILE:HB	2:AB:88:GLN:HB3	1.85	0.58
17:AQ:11:VAL:O	17:AQ:12:VAL:HB	2.04	0.58
17:AQ:54:ILE:HD13	17:AQ:55:GLY:N	2.18	0.58
25:DA:2193:G:C2	25:DA:2194:U:C4	2.91	0.58
32:DH:34:GLY:O	32:DH:35:LYS:CB	2.50	0.58
5:BE:148:SER:CB	5:BE:151:MET:HG3	2.31	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2499:C:OP2	60:CA:3692:HOH:O	2.17	0.58
1:AA:142:G:N3	1:AA:142:G:H2'	2.18	0.58
25:CA:277:G:H1'	25:CA:361:G:O6	2.03	0.58
3:AC:52:SER:O	3:AC:53:ARG:CB	2.49	0.58
1:AA:502:A:H2'	1:AA:503:C:C6	2.39	0.58
20:BT:53:MET:O	20:BT:56:ILE:HG22	2.02	0.58
34:DJ:81:ILE:HG12	34:DJ:82:GLY:N	2.19	0.58
31:DG:148:ARG:HA	31:DG:161:VAL:CG1	2.33	0.58
25:CA:1405:U:H2'	25:CA:1406:U:O4'	2.03	0.58
35:CK:113:MET:HA	35:CK:116:ILE:HG13	1.86	0.58
38:CN:48:VAL:HG12	38:CN:49:GLU:N	2.18	0.58
6:BF:47:LEU:CD1	6:BF:51:ILE:HG23	2.32	0.58
1:BA:1003:G:N2	1:BA:1004:A:O2'	2.37	0.58
21:AU:11:PHE:CD2	21:AU:11:PHE:N	2.71	0.58
14:BN:64:CYS:SG	14:BN:83:LYS:HG3	2.44	0.58
1:AA:925:G:O4'	1:AA:1502:A:C2	2.57	0.58
19:AS:61:VAL:HA	19:AS:65:MET:SD	2.44	0.58
1:BA:718:A:H5'	11:BK:118:ASN:ND2	2.19	0.58
1:BA:112:G:H2'	1:BA:113:G:H5'	1.84	0.58
43:CS:63:GLY:O	43:CS:64:ALA:HB3	2.04	0.58
15:BO:34:GLN:HE22	15:BO:38:LEU:HD22	1.69	0.58
31:CG:148:ARG:HH21	31:CG:166:GLU:CD	2.07	0.58
14:BN:41:ARG:NH1	14:BN:45:VAL:HG11	2.19	0.58
1:AA:505:G:H4'	1:AA:534:U:C4	2.38	0.58
1:BA:1527:U:OP2	21:BU:38:GLU:CG	2.51	0.58
25:DA:2097:A:H2'	25:DA:2098:U:H6	1.69	0.58
1:BA:435:A:C2'	1:BA:436:C:O5'	2.51	0.58
1:AA:1005:A:H2'	1:AA:1006:G:O4'	2.04	0.58
25:CA:2592:G:H2'	25:CA:2593:U:H5'	1.85	0.58
25:DA:2690:U:C4	25:DA:2873:A:N1	2.72	0.58
49:CY:28:LEU:HD23	49:CY:37:LEU:CD2	2.33	0.58
30:CF:40:GLY:O	30:CF:43:ILE:HD13	2.02	0.58
40:DP:18:SER:O	40:DP:19:PHE:HB3	2.02	0.58
22:BV:7:A:H3'	22:BV:8:U:H5'	1.86	0.58
29:DE:1:MET:HG3	29:DE:14:VAL:HG23	1.85	0.58
37:DM:125:PRO:HG2	37:DM:126:ILE:HG23	1.86	0.58
2:BB:32:GLY:O	2:BB:33:ALA:HB2	2.02	0.58
8:BH:88:LYS:HG3	8:BH:89:ASP:N	2.18	0.58
25:CA:1835:G:N7	60:CA:3473:HOH:O	2.31	0.58
25:DA:388:G:N7	25:DA:390:U:H2'	2.18	0.58
57:DW:17:LEU:HD22	57:DW:35:ARG:HB3	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1259:C:H5"	1:AA:1260:G:OP2	2.03	0.58
15:BO:44:GLU:HG2	15:BO:45:HIS:N	2.18	0.58
33:DI:21:PRO:HB2	33:DI:22:PRO:HD3	1.85	0.58
25:DA:1351:C:C2	25:DA:1381:G:C2	2.91	0.58
25:DA:1350:C:N3	25:DA:1382:G:C2	2.71	0.58
25:DA:1394:U:H2'	25:DA:1395:A:O5'	2.04	0.58
2:AB:131:LYS:O	2:AB:133:ALA:N	2.37	0.58
1:AA:1356:G:N2	1:AA:1357:A:C2	2.72	0.58
10:AJ:40:ILE:CG2	10:AJ:73:LEU:HB2	2.33	0.58
38:CN:103:ARG:CZ	38:CN:110:MET:HE2	2.34	0.58
8:AH:74:ILE:HD11	8:AH:128:VAL:HG22	1.83	0.58
1:AA:553:A:O4'	12:AL:27:PRO:HA	2.04	0.58
56:DB:41:G:C8	30:DF:65:LEU:HD11	2.37	0.58
1:AA:411:A:P	4:AD:25:ARG:HH22	2.26	0.58
4:AD:57:LYS:HB3	4:AD:199:ILE:HG22	1.86	0.58
25:CA:1063:G:N3	33:CI:135:MET:HA	2.18	0.58
11:AK:125:LYS:HD3	11:AK:125:LYS:N	2.18	0.58
1:BA:71:A:C2	1:BA:100:G:N9	2.72	0.58
1:AA:463:U:H5'	1:AA:464:U:OP2	2.03	0.58
25:DA:2170:A:H1'	25:DA:2171:A:C8	2.38	0.58
1:AA:1114:C:O2	1:AA:1114:C:H2'	2.03	0.58
36:CL:76:GLU:HG3	36:CL:111:ILE:HG12	1.86	0.58
25:CA:1508:A:O2'	25:CA:1509:A:O4'	2.22	0.58
6:AF:24:ARG:HG2	6:AF:24:ARG:HH11	1.69	0.58
33:CI:33:ASN:HB2	33:CI:36:GLU:CG	2.33	0.58
18:BR:41:SER:HB3	18:BR:51:GLN:NE2	2.19	0.58
14:AN:15:LEU:O	14:AN:16:ALA:C	2.42	0.58
15:BO:73:ASP:CB	15:BO:76:ARG:HG3	2.34	0.58
9:BI:98:ARG:HA	9:BI:103:VAL:HG11	1.85	0.58
1:AA:44:A:C2'	1:AA:45:G:H5'	2.33	0.58
1:BA:50:A:N6	1:BA:361:G:H4'	2.18	0.58
25:DA:905:A:H2'	25:DA:906:U:H5'	1.85	0.58
45:CU:71:ILE:HD13	45:CU:82:VAL:HG23	1.86	0.58
29:CE:196:VAL:HA	29:CE:199:MET:HB2	1.85	0.58
1:AA:299:G:C6	1:AA:300:A:N1	2.71	0.58
1:AA:1487:G:N2	1:AA:1488:G:H1'	2.19	0.58
8:BH:17:GLN:HG2	8:BH:62:LEU:HD13	1.85	0.58
32:CH:84:ALA:HB2	32:CH:90:LEU:HD12	1.86	0.58
1:BA:579:A:C2'	1:BA:580:C:H5'	2.33	0.58
55:C4:25:VAL:HB	55:C4:35:GLN:HB2	1.85	0.58
25:DA:1066:U:H1'	25:DA:1074:G:N2	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DY:1:MET:HG2	49:DY:5:GLU:OE2	2.04	0.58
1:AA:1253:G:N2	1:AA:1254:A:C4	2.72	0.58
25:DA:2335:A:C8	25:DA:2337:G:C5	2.92	0.58
32:DH:114:GLU:OE2	32:DH:134:VAL:HA	2.04	0.58
40:DP:58:PHE:O	40:DP:72:VAL:HA	2.03	0.58
21:BU:45:LYS:HG2	21:BU:45:LYS:O	2.03	0.58
1:BA:1000:A:N3	1:BA:1041:G:N2	2.50	0.58
17:BQ:11:VAL:O	17:BQ:12:VAL:HB	2.02	0.58
25:DA:2707:U:H2'	25:DA:2707:U:O2	2.03	0.58
25:DA:2114:A:OP2	25:DA:2115:G:N7	2.37	0.58
25:DA:1542:U:H2'	25:DA:1543:G:O5'	2.04	0.58
5:AE:81:GLN:CG	5:AE:149:PRO:HB3	2.33	0.58
22:AV:61:C:H2'	22:AV:62:C:C6	2.38	0.58
25:DA:2666:C:C6	25:DA:2667:C:C5	2.92	0.58
25:CA:1589:U:H2'	25:CA:1590:A:H5'	1.85	0.58
8:AH:31:LEU:CD1	8:AH:31:LEU:C	2.72	0.58
1:AA:1309:G:OP1	13:AM:90:HIS:HE1	1.87	0.58
1:AA:1061:G:C5	1:AA:1197:A:C2	2.92	0.58
45:DU:8:ASP:O	45:DU:23:LYS:HA	2.03	0.58
2:BB:182:VAL:O	2:BB:195:VAL:HG12	2.03	0.58
27:DC:13:ARG:HG2	27:DC:14:HIS:ND1	2.18	0.58
3:AC:64:ARG:O	3:AC:99:GLN:O	2.22	0.58
21:BU:25:ALA:O	21:BU:26:GLY:C	2.42	0.58
25:DA:1269:A:H2'	25:DA:1270:C:C6	2.39	0.58
1:BA:707:U:H2'	1:BA:708:C:C6	2.38	0.58
25:DA:545:U:C6	25:DA:547:A:O3'	2.57	0.58
11:AK:21:HIS:CD2	11:AK:34:THR:CG2	2.86	0.58
1:BA:279:A:H5"	1:BA:281:G:C5'	2.34	0.58
33:DI:50:LYS:HD3	33:DI:50:LYS:N	2.19	0.58
25:DA:188:G:H2'	25:DA:189:G:H5'	1.86	0.58
37:DM:49:ALA:CB	37:DM:124:LEU:HD21	2.34	0.58
25:CA:2183:A:H2'	25:CA:2184:A:C8	2.38	0.58
30:DF:105:ILE:HD11	30:DF:138:PRO:HG2	1.84	0.58
14:BN:61:ARG:O	14:BN:62:ASN:HB2	2.04	0.58
26:CB:45:A:C4	26:CB:46:A:C8	2.91	0.58
1:AA:601:G:H2'	1:AA:602:A:H8	1.67	0.58
16:AP:51:ARG:HB3	16:AP:51:ARG:NH1	2.19	0.58
26:CB:73:A:N3	26:CB:73:A:H2'	2.18	0.58
30:CF:107:VAL:N	30:CF:108:PRO:CD	2.67	0.58
25:CA:1988:G:O2'	25:CA:1989:G:H5'	2.04	0.58
27:DC:50:THR:CG2	27:DC:53:ILE:HD11	2.32	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:CE:176:ASP:C	29:CE:176:ASP:OD1	2.42	0.58
1:BA:22:G:H4'	1:BA:885:G:C8	2.39	0.58
29:DE:48:THR:OG1	29:DE:50:ALA:HB3	2.04	0.58
25:DA:1257:C:H5'	29:DE:78:TRP:CZ3	2.39	0.58
35:DK:21:CYS:HA	35:DK:41:ILE:HG22	1.85	0.58
37:DM:114:ARG:HG2	37:DM:130:PHE:CE1	2.39	0.58
35:DK:105:ARG:O	35:DK:108:ARG:HB3	2.03	0.58
1:AA:27:G:C2'	1:AA:28:A:O5'	2.51	0.58
7:AG:49:LEU:HD11	7:AG:60:ALA:HB1	1.86	0.58
41:DQ:57:ARG:HA	41:DQ:60:TRP:CE3	2.39	0.58
25:CA:1054:A:H2'	25:CA:1054:A:N3	2.18	0.58
25:CA:1097:U:O2'	33:CI:8:VAL:HA	2.04	0.58
2:AB:49:PHE:CD1	2:AB:49:PHE:C	2.76	0.58
2:AB:60:ALA:HA	2:AB:64:GLY:HA3	1.85	0.58
1:BA:1272:G:C6	1:BA:1273:C:C4	2.92	0.58
2:BB:71:THR:HG22	2:BB:94:ARG:NH1	2.19	0.58
25:DA:1494:A:C2	25:DA:1495:A:N9	2.72	0.58
5:BE:45:VAL:CG2	5:BE:117:ALA:HB2	2.33	0.58
5:BE:81:GLN:H	5:BE:146:MET:HE3	1.68	0.58
4:AD:31:CYS:SG	4:AD:33:ILE:N	2.77	0.58
25:DA:317:G:C4	25:DA:318:C:C6	2.92	0.58
11:AK:124:LYS:C	21:AU:33:ARG:HH21	2.06	0.58
1:AA:514:C:H2'	1:AA:515:G:O5'	2.04	0.58
1:BA:846:G:O2'	1:BA:847:G:H5'	2.04	0.58
25:CA:2801:G:H2'	25:CA:2802:G:H8	1.68	0.58
1:AA:1338:G:H1'	22:AV:41:C:O2'	2.03	0.58
25:CA:1567:G:N7	27:CC:82:TYR:CE1	2.72	0.58
25:DA:230:G:N3	25:DA:231:A:C8	2.72	0.58
25:CA:1873:G:H2'	25:CA:1874:C:H6	1.69	0.58
2:BB:156:LEU:HD12	2:BB:180:ILE:HD11	1.85	0.58
25:DA:1178:C:H2'	25:DA:1179:G:N7	2.19	0.58
1:AA:620:C:H1'	4:AD:131:ILE:HD11	1.85	0.58
1:AA:108:G:C6	20:AT:9:ARG:HG2	2.39	0.58
3:BC:21:TRP:HD1	3:BC:56:ILE:HG22	1.66	0.58
19:AS:8:PRO:HB2	19:AS:40:PHE:CZ	2.38	0.58
25:DA:2746:U:N3	25:DA:2747:G:C8	2.71	0.58
25:DA:1187:G:OP1	42:DR:85:LYS:CE	2.51	0.58
33:CI:74:PRO:HG2	33:CI:77:VAL:HG11	1.86	0.58
17:BQ:51:GLU:HG2	17:BQ:52:CYS:N	2.19	0.58
3:BC:66:THR:HG22	3:BC:67:ILE:N	2.19	0.58
28:DD:151:THR:HG22	28:DD:152:PRO:HD2	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1314:C:O2	25:CA:1314:C:H2'	2.02	0.58
25:CA:1313:U:H5"	25:CA:1314:C:OP2	2.04	0.58
44:CT:42:GLU:O	44:CT:45:ALA:HB3	2.04	0.58
40:CP:24:THR:HG22	40:CP:25:VAL:N	2.18	0.58
25:CA:1547:C:H2'	25:CA:1548:A:O4'	2.03	0.58
25:CA:1490:A:N3	25:CA:1490:A:H2'	2.18	0.58
1:AA:595:A:C4	1:AA:641:U:C4	2.91	0.58
7:AG:14:ASP:HB2	7:AG:19:SER:HB3	1.86	0.58
1:AA:723:U:H5'	1:AA:724:G:P	2.44	0.58
1:AA:706:A:C2'	1:AA:707:U:H5'	2.34	0.58
1:BA:1176:A:H2'	1:BA:1177:G:O4'	2.04	0.58
25:CA:2091:C:O3'	48:CX:55:MET:HE1	2.03	0.58
1:BA:543:U:C2'	1:BA:544:G:H5'	2.34	0.58
25:CA:1716:U:O2'	25:CA:1717:A:H5'	2.04	0.58
25:DA:981:A:C5'	60:DA:3598:HOH:O	2.51	0.58
39:CO:75:GLY:O	39:CO:78:VAL:HG23	2.02	0.58
33:CI:44:LYS:O	33:CI:48:ILE:HG12	2.03	0.58
10:BJ:91:ASP:O	10:BJ:92:LEU:O	2.22	0.58
25:CA:2698:U:H2'	25:CA:2699:C:C6	2.39	0.58
12:AL:75:GLU:O	12:AL:76:HIS:HB2	2.02	0.58
19:BS:6:LYS:CA	19:BS:6:LYS:HE2	2.33	0.58
19:AS:73:PHE:CD1	19:AS:73:PHE:N	2.72	0.58
25:CA:1794:A:H2'	25:CA:1795:C:H6	1.68	0.58
1:BA:978:A:C5	1:BA:1318:A:C6	2.92	0.58
13:BM:89:ARG:HD2	13:BM:95:PRO:O	2.04	0.58
19:BS:68:HIS:HB3	19:BS:72:GLU:OE2	2.03	0.58
25:CA:2128:G:O2'	25:CA:2129:C:H5'	2.04	0.58
4:BD:28:ASP:O	4:BD:29:THR:HB	2.04	0.58
49:DY:28:LEU:CD1	49:DY:46:VAL:HG21	2.33	0.58
2:AB:88:GLN:HE21	2:AB:220:VAL:HB	1.68	0.58
10:AJ:73:LEU:O	10:AJ:74:VAL:HB	2.04	0.58
5:BE:109:ALA:O	5:BE:110:MET:CB	2.52	0.58
5:BE:94:PHE:CZ	5:BE:96:GLN:HG2	2.38	0.58
25:CA:279:A:H2'	25:CA:280:U:H5'	1.84	0.58
13:AM:32:ILE:HD13	13:AM:58:GLU:CG	2.34	0.58
25:DA:1448:G:C6	25:DA:1449:G:C5	2.92	0.58
25:DA:1526:C:C4	25:DA:1527:G:C5	2.92	0.58
30:DF:37:MET:HE3	30:DF:151:LEU:HB3	1.84	0.58
1:AA:89:U:O2'	1:AA:90:C:H5"	2.04	0.58
20:BT:54:GLN:HB3	20:BT:55:PRO:CD	2.34	0.58
35:CK:113:MET:SD	35:CK:116:ILE:HD11	2.44	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2125:G:N1	25:DA:2171:A:OP1	2.36	0.58
27:DC:140:VAL:HG13	27:DC:190:THR:O	2.03	0.58
45:DU:5:ARG:O	45:DU:6:ARG:O	2.21	0.58
2:BB:67:LEU:HD22	2:BB:69:VAL:HG23	1.85	0.58
43:DS:63:GLY:O	43:DS:64:ALA:HB3	2.03	0.58
43:DS:66:ILE:N	43:DS:66:ILE:HD13	2.19	0.58
30:DF:170:ALA:C	30:DF:172:PHE:H	2.07	0.58
54:D3:14:LYS:HB3	54:D3:22:LYS:HE2	1.84	0.58
5:BE:124:ALA:O	5:BE:125:LYS:HB3	2.03	0.58
25:DA:158:U:C2'	25:DA:159:G:H5'	2.33	0.58
1:BA:642:A:C2	8:BH:104:SER:O	2.57	0.58
25:CA:409:G:O2'	25:CA:410:G:H5'	2.04	0.58
19:BS:43:MET:HA	19:BS:46:LEU:HD12	1.86	0.58
25:DA:261:G:N3	25:DA:261:G:H2'	2.18	0.58
25:CA:1526:C:C2'	25:CA:1527:G:O5'	2.52	0.58
16:BP:79:ASN:O	16:BP:80:LYS:HB2	2.02	0.58
52:C1:28:THR:C	52:C1:29:LYS:HG2	2.24	0.58
16:BP:3:THR:HG22	16:BP:66:THR:OG1	2.03	0.58
25:CA:2880:C:H1'	38:CN:91:ALA:O	2.04	0.58
31:DG:101:VAL:HG22	31:DG:115:GLN:OE1	2.03	0.58
32:DH:96:THR:HG22	32:DH:115:VAL:CG1	2.34	0.58
45:CU:42:LYS:HG2	45:CU:59:GLU:HB2	1.85	0.58
36:CL:116:VAL:O	36:CL:116:VAL:HG13	2.02	0.58
1:BA:1237:C:C6	1:BA:1336:C:N4	2.71	0.58
33:CI:91:LYS:HB3	33:CI:94:LYS:CG	2.33	0.58
4:BD:109:THR:O	4:BD:111:ALA:N	2.37	0.58
25:CA:1968:G:H5"	60:CA:3468:HOH:O	2.02	0.58
1:BA:420:U:C2'	1:BA:421:U:H5"	2.34	0.58
1:AA:956:U:H2'	1:AA:957:U:O4'	2.04	0.58
25:CA:846:U:H1'	25:CA:847:U:H5	1.69	0.58
25:DA:2294:G:C2	25:DA:2295:C:C2	2.92	0.58
36:DL:91:ASP:HB3	36:DL:94:THR:CB	2.30	0.58
30:CF:118:ALA:HA	30:CF:176:PHE:CE2	2.38	0.58
22:AV:18:G:H4'	22:AV:19:G:OP1	2.03	0.58
7:BG:64:ALA:HB1	7:BG:126:ALA:HB1	1.85	0.58
8:AH:48:PHE:O	8:AH:49:LYS:CB	2.51	0.58
1:BA:466:A:H2'	1:BA:468:A:C2	2.38	0.58
9:AI:49:GLN:NE2	9:AI:79:ARG:NH1	2.52	0.58
29:DE:148:ILE:CD1	29:DE:187:VAL:CG1	2.82	0.58
25:DA:2409:G:C6	25:DA:2410:G:C5	2.92	0.58
3:AC:86:LEU:O	3:AC:89:VAL:HG22	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:BU:24:LYS:CG	21:BU:25:ALA:N	2.66	0.58
1:BA:674:G:H4'	18:BR:69:TYR:CE1	2.38	0.58
25:DA:1194:A:H2'	25:DA:1195:G:O5'	2.04	0.58
20:BT:4:LYS:O	20:BT:6:ALA:N	2.36	0.58
1:BA:209:U:H2'	1:BA:209:U:O2	2.04	0.58
1:BA:328:C:H4'	1:BA:329:A:H5"	1.85	0.58
32:CH:3:VAL:HG12	32:CH:38:PRO:HA	1.86	0.58
1:BA:1162:C:H1'	1:BA:1175:G:N2	2.19	0.58
7:BG:94:ARG:HA	7:BG:97:ALA:HB3	1.86	0.58
25:CA:61:C:C2	25:CA:94:A:C2	2.91	0.58
25:CA:2590:A:O2'	25:CA:2591:C:H5'	2.04	0.58
30:CF:57:ALA:HB2	30:CF:64:PRO:HD3	1.86	0.58
27:CC:157:ALA:HB1	27:CC:196:ASN:O	2.04	0.58
43:CS:4:ILE:H	43:CS:4:ILE:HD12	1.68	0.58
25:CA:117:G:C6	25:CA:119:A:C6	2.92	0.58
45:DU:72:PHE:CZ	45:DU:77:GLY:HA2	2.39	0.58
36:CL:68:SER:O	36:CL:69:ARG:CB	2.52	0.58
40:CP:52:ARG:HH11	40:CP:52:ARG:HG2	1.69	0.58
25:DA:402:A:H2'	25:DA:403:U:H5'	1.85	0.58
25:DA:1787:A:O4'	25:DA:2589:A:H4'	2.04	0.58
40:DP:52:ARG:H	40:DP:56:SER:HB3	1.68	0.58
50:DZ:6:ILE:HD11	50:DZ:47:ILE:HD11	1.85	0.58
1:BA:1210:C:O4'	1:BA:1214:C:C4	2.57	0.58
44:CT:48:GLN:OE1	44:CT:54:GLU:HA	2.04	0.58
33:DI:126:ARG:HD3	33:DI:126:ARG:H	1.69	0.58
41:CQ:90:ASP:O	41:CQ:94:LEU:HD12	2.03	0.58
33:DI:27:LEU:HD13	33:DI:37:PHE:CD2	2.38	0.57
25:CA:1072:C:OP2	25:CA:1075:C:N4	2.37	0.57
25:CA:1061:U:O4	33:CI:10:LEU:HA	2.04	0.57
1:BA:1276:G:C5	1:BA:1277:C:C5	2.92	0.57
17:AQ:57:VAL:HG12	17:AQ:78:VAL:HB	1.86	0.57
25:DA:2295:C:C2'	25:DA:2296:U:O5'	2.52	0.57
25:DA:2094:A:C2	25:DA:2196:C:C2	2.91	0.57
32:DH:59:ALA:O	32:DH:62:LEU:CB	2.51	0.57
25:CA:790:U:O5'	25:CA:790:U:H2'	2.03	0.57
36:DL:110:VAL:O	36:DL:111:ILE:O	2.22	0.57
36:DL:79:LEU:O	36:DL:81:ASP:O	2.22	0.57
1:AA:1162:C:C2	1:AA:1175:G:C2	2.92	0.57
4:AD:52:VAL:CG2	4:AD:53:GLN:N	2.67	0.57
1:AA:511:C:H1'	1:AA:512:U:C6	2.37	0.57
12:AL:115:LYS:O	12:AL:116:TYR:HB2	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:91:U:C4	1:AA:92:U:C2	2.92	0.57
7:BG:41:ILE:HD13	7:BG:115:MET:HB3	1.85	0.57
4:BD:160:LEU:CD2	4:BD:161:ALA:N	2.66	0.57
1:AA:1309:G:C6	1:AA:1329:A:C6	2.92	0.57
1:BA:1092:A:C6	1:BA:1093:A:C6	2.92	0.57
25:DA:363:G:H2'	25:DA:364:C:C6	2.39	0.57
1:BA:1489:G:C4	1:BA:1490:U:C6	2.92	0.57
43:DS:59:GLU:HA	43:DS:64:ALA:HB2	1.86	0.57
25:DA:1121:C:N3	25:DA:1122:G:C8	2.72	0.57
14:BN:80:SER:O	14:BN:84:VAL:HG23	2.04	0.57
25:DA:618:G:N3	25:DA:618:G:H2'	2.18	0.57
1:BA:112:G:C6	1:BA:330:C:C5	2.92	0.57
1:BA:145:G:C2'	1:BA:146:G:O5'	2.52	0.57
25:DA:2591:C:OP2	27:DC:236:GLY:O	2.21	0.57
32:CH:40:THR:O	32:CH:42:LYS:N	2.37	0.57
25:DA:773:U:C5'	27:DC:46:GLY:HA3	2.34	0.57
25:CA:108:G:H2'	25:CA:109:C:H5'	1.85	0.57
8:BH:20:ASN:HA	8:BH:64:TYR:CE2	2.39	0.57
10:AJ:36:VAL:HA	10:AJ:75:ASP:O	2.04	0.57
25:DA:1229:C:H2'	25:DA:1230:A:C8	2.39	0.57
8:BH:111:THR:O	8:BH:114:ALA:HB3	2.03	0.57
25:CA:1439:A:H2'	25:CA:1440:U:H5'	1.85	0.57
25:DA:2819:G:H5"	60:DA:3816:HOH:O	2.03	0.57
31:CG:53:PRO:HD3	31:CG:61:TRP:CH2	2.39	0.57
29:CE:122:GLU:O	29:CE:123:LYS:HD3	2.04	0.57
25:CA:187:G:H2'	25:CA:188:G:H5"	1.84	0.57
25:CA:1185:G:H5"	25:CA:1186:G:OP1	2.03	0.57
25:CA:2040:G:H2'	25:CA:2041:U:O4'	2.04	0.57
36:CL:23:ILE:O	36:CL:25:SER:N	2.37	0.57
1:AA:87:C:C2'	1:AA:88:U:H5'	2.34	0.57
25:CA:2502:G:H5'	25:CA:2503:A:H5"	1.85	0.57
1:BA:993:G:H2'	1:BA:993:G:N3	2.19	0.57
42:CR:29:THR:HG22	42:CR:29:THR:O	2.02	0.57
31:CG:97:VAL:HG12	31:CG:97:VAL:O	2.02	0.57
25:CA:225:C:C2	25:CA:231:A:C2	2.92	0.57
33:DI:40:ALA:HB3	33:DI:68:PHE:CZ	2.39	0.57
25:DA:1312:U:H4'	25:DA:1313:U:O5'	2.05	0.57
25:CA:1059:G:OP2	25:CA:1060:U:C2'	2.52	0.57
2:AB:114:LYS:O	2:AB:116:LEU:N	2.37	0.57
2:AB:53:LEU:CD1	2:AB:216:VAL:HA	2.34	0.57
17:AQ:57:VAL:C	17:AQ:58:VAL:HG12	2.25	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2344:U:H4'	25:DA:2345:G:OP1	2.04	0.57
42:CR:39:LEU:C	42:CR:49:ILE:HG23	2.25	0.57
11:AK:41:LEU:HB3	11:AK:76:TYR:HE2	1.67	0.57
30:DF:151:LEU:HD11	30:DF:153:ILE:HD11	1.86	0.57
39:DO:25:ARG:HG3	39:DO:27:VAL:HG23	1.85	0.57
33:CI:139:VAL:HG23	33:CI:141:ASP:HB2	1.86	0.57
25:DA:2834:G:H2'	25:DA:2879:A:H61	1.69	0.57
5:AE:120:HIS:O	5:AE:121:ASN:HB3	2.04	0.57
5:AE:81:GLN:N	5:AE:146:MET:HE1	2.18	0.57
14:AN:35:ALA:HA	14:AN:41:ARG:HB3	1.86	0.57
20:AT:53:MET:HE3	20:AT:54:GLN:HA	1.86	0.57
1:BA:736:C:H2'	1:BA:737:C:C6	2.38	0.57
16:AP:78:VAL:O	16:AP:80:LYS:N	2.37	0.57
25:CA:1589:U:C2'	25:CA:1590:A:H5'	2.33	0.57
1:AA:1298:U:H4'	1:AA:1299:A:O5'	2.03	0.57
31:DG:43:LYS:N	31:DG:43:LYS:CE	2.67	0.57
25:CA:1475:G:N3	25:CA:1475:G:O4'	2.34	0.57
25:CA:1869:G:O2'	25:CA:1872:A:N6	2.38	0.57
2:BB:90:PHE:H	2:BB:149:GLY:HA3	1.68	0.57
2:BB:90:PHE:HE2	2:BB:148:GLY:O	1.87	0.57
25:DA:53:A:H2'	25:DA:54:G:H5'	1.86	0.57
1:BA:423:G:H2'	1:BA:424:G:O4'	2.04	0.57
25:CA:2480:C:H2'	25:CA:2481:G:H5'	1.86	0.57
11:BK:89:GLY:O	11:BK:90:PRO:O	2.22	0.57
1:BA:149:A:C2	1:BA:150:U:C2	2.92	0.57
3:BC:83:VAL:O	3:BC:86:LEU:HB2	2.03	0.57
25:DA:1356:G:C5	25:DA:1357:C:C5	2.92	0.57
40:CP:30:TRP:CD2	40:CP:39:LEU:CD1	2.87	0.57
25:DA:630:G:H5"	25:DA:631:A:OP2	2.04	0.57
8:BH:82:LEU:CD1	8:BH:84:ILE:HD11	2.34	0.57
25:CA:215:G:C4'	25:CA:216:A:H4'	2.34	0.57
36:CL:85:VAL:O	36:CL:86:GLU:O	2.22	0.57
25:DA:819:A:H2'	25:DA:820:A:O5'	2.04	0.57
25:CA:2327:A:H2'	25:CA:2328:A:C8	2.39	0.57
1:AA:294:U:C2	1:AA:295:C:C5	2.91	0.57
1:BA:1010:U:H2'	1:BA:1011:C:H6	1.69	0.57
1:BA:1009:U:H2'	1:BA:1010:U:H5'	1.86	0.57
25:DA:2383:G:H2'	25:DA:2384:U:H6	1.69	0.57
25:CA:1794:A:H2'	25:CA:1795:C:C6	2.39	0.57
25:DA:1043:C:C4	25:DA:1044:C:C4	2.92	0.57
27:CC:96:LYS:HD2	27:CC:96:LYS:N	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:CF:71:LYS:HD3	30:CF:72:SER:N	2.20	0.57
25:CA:2064:C:H2'	25:CA:2065:C:C6	2.40	0.57
1:AA:995:C:N3	1:AA:1046:A:O2'	2.29	0.57
33:CI:115:ASP:O	33:CI:116:MET:HG2	2.05	0.57
25:CA:2415:G:H4'	36:CL:66:PHE:HB3	1.86	0.57
17:AQ:80:LYS:N	17:AQ:80:LYS:HD3	2.19	0.57
4:AD:147:LYS:H	4:AD:147:LYS:CD	2.17	0.57
25:DA:1058:U:H2'	25:DA:1059:G:C8	2.39	0.57
1:AA:1074:G:H4'	2:AB:101:THR:HG23	1.86	0.57
1:BA:1273:C:C6	1:BA:1274:A:C8	2.92	0.57
10:AJ:9:ARG:O	10:AJ:98:VAL:HA	2.04	0.57
42:DR:49:ILE:CB	42:DR:53:PHE:N	2.68	0.57
34:DJ:31:GLU:HB3	34:DJ:142:ILE:HG12	1.87	0.57
38:DN:33:ILE:HG13	38:DN:114:GLU:HB3	1.86	0.57
13:AM:16:ILE:O	13:AM:17:ALA:C	2.42	0.57
32:CH:61:VAL:O	32:CH:64:ALA:CB	2.50	0.57
1:AA:1031:C:C4'	1:AA:1032:G:H5"	2.31	0.57
5:AE:88:HIS:ND1	5:AE:137:ARG:HD3	2.18	0.57
25:DA:2323:G:O2'	25:DA:2324:U:H5'	2.04	0.57
20:BT:43:LYS:CD	20:BT:86:ALA:HA	2.33	0.57
25:CA:1587:G:C5	25:CA:1588:G:C8	2.92	0.57
1:BA:1130:A:C2'	1:BA:1131:G:H5'	2.35	0.57
1:BA:1073:U:C2	1:BA:1074:G:C8	2.91	0.57
9:AI:20:ILE:HD13	9:AI:86:LEU:CD1	2.33	0.57
25:CA:1045:C:H3'	25:CA:1046:A:C5'	2.33	0.57
31:DG:8:VAL:CG2	31:DG:68:ARG:HD2	2.33	0.57
25:DA:2746:U:O4	25:DA:2747:G:C5	2.57	0.57
11:BK:87:GLY:H	11:BK:113:THR:HG22	1.67	0.57
17:AQ:68:LYS:O	17:AQ:69:THR:CB	2.52	0.57
12:BL:2:THR:HG22	12:BL:4:ASN:H	1.69	0.57
4:BD:153:ARG:O	4:BD:157:ALA:HB2	2.05	0.57
8:AH:10:LEU:N	8:AH:10:LEU:HD23	2.19	0.57
1:AA:201:G:C2	1:AA:217:C:O2	2.58	0.57
25:DA:665:U:C2	25:DA:666:A:C8	2.92	0.57
25:DA:819:A:C4	25:DA:1189:A:C2	2.91	0.57
1:AA:1479:C:C2	1:AA:1480:A:C8	2.93	0.57
52:C1:34:GLU:HG2	52:C1:49:LYS:HG3	1.84	0.57
31:CG:80:GLU:O	31:CG:81:GLY:O	2.23	0.57
1:BA:290:C:C2'	1:BA:291:U:H5'	2.34	0.57
54:D3:44:ARG:N	54:D3:45:PRO:HD2	2.19	0.57
22:BV:5:G:C2	22:BV:69:G:C2	2.92	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CV:70:ILE:HG22	46:CV:72:VAL:CG1	2.34	0.57
31:CG:158:GLY:O	31:CG:159:LYS:C	2.43	0.57
25:DA:1853:A:N1	25:DA:2087:G:H1'	2.19	0.57
31:DG:39:ALA:HB2	31:DG:57:TYR:HB3	1.87	0.57
1:AA:83:C:H4'	1:AA:83:C:OP1	2.04	0.57
1:BA:1120:C:H2'	1:BA:1121:U:H6	1.69	0.57
1:BA:889:A:H4'	1:BA:890:G:OP1	2.05	0.57
25:DA:1097:U:H3'	25:DA:1098:A:O4'	2.03	0.57
25:DA:1401:G:N7	25:DA:1402:U:C5	2.73	0.57
25:CA:1066:U:O2	25:CA:1069:A:N7	2.38	0.57
2:AB:81:ASP:H	2:AB:84:LEU:HB3	1.69	0.57
25:DA:2291:U:O2'	25:DA:2292:U:H5'	2.03	0.57
21:BU:46:ARG:HA	21:BU:49:ALA:HB3	1.86	0.57
2:AB:207:ARG:O	2:AB:209:VAL:N	2.37	0.57
42:CR:40:MET:CE	42:CR:48:LYS:HE2	2.34	0.57
1:AA:413:G:C2	4:AD:32:LYS:HD3	2.39	0.57
21:AU:38:GLU:N	21:AU:40:PRO:HD3	2.19	0.57
5:AE:114:LEU:O	5:AE:119:VAL:HG22	2.05	0.57
5:AE:152:VAL:O	5:AE:155:LYS:HB2	2.05	0.57
22:AV:21:A:C6	22:AV:48:C:C6	2.92	0.57
1:AA:514:C:C2'	1:AA:515:G:O5'	2.52	0.57
1:AA:1287:A:N6	1:AA:1288:A:N6	2.52	0.57
31:DG:29:ASN:CB	31:DG:78:VAL:HA	2.35	0.57
25:DA:2125:G:C5'	25:DA:2126:A:OP2	2.53	0.57
25:DA:230:G:C2	25:DA:231:A:C8	2.93	0.57
31:DG:71:LEU:HA	31:DG:74:MET:SD	2.44	0.57
25:CA:1071:G:C1'	25:CA:1089:A:N7	2.68	0.57
25:DA:119:A:H4'	25:DA:120:U:O5'	2.04	0.57
14:AN:29:ILE:O	14:AN:30:ILE:C	2.41	0.57
17:AQ:59:GLU:HG2	17:AQ:75:VAL:HG21	1.85	0.57
13:AM:74:MET:SD	30:CF:111:ARG:HB2	2.45	0.57
30:CF:142:TYR:C	30:CF:145:VAL:HG22	2.24	0.57
1:BA:150:U:C4	1:BA:170:U:C5	2.93	0.57
1:BA:1450:U:H2'	1:BA:1452:C:C5	2.39	0.57
1:AA:543:U:O2'	1:AA:544:G:H5'	2.04	0.57
25:CA:2403:C:O2'	25:CA:2404:U:H5'	2.05	0.57
29:CE:104:ALA:O	29:CE:108:ILE:CG2	2.52	0.57
5:AE:158:LYS:O	8:AH:63:LYS:HE3	2.04	0.57
14:BN:45:VAL:HG23	14:BN:46:LEU:H	1.67	0.57
25:DA:1869:G:N2	25:DA:1873:G:C6	2.72	0.57
45:CU:96:LYS:O	45:CU:97:SER:CB	2.51	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:883:C:O2'	1:AA:884:U:H5'	2.04	0.57
25:CA:2719:G:O2'	25:CA:2720:U:H5'	2.04	0.57
27:CC:259:ASN:O	27:CC:260:LYS:CB	2.52	0.57
1:AA:299:G:C6	1:AA:300:A:C2	2.92	0.57
1:BA:264:C:H2'	1:BA:265:G:O4'	2.05	0.57
54:D3:62:PRO:HG2	54:D3:63:TYR:CD2	2.39	0.57
1:BA:660:C:H2'	1:BA:661:G:O4'	2.04	0.57
43:DS:1:MET:HB3	43:DS:109:ASP:OD2	2.04	0.57
25:DA:749:A:N1	25:DA:753:A:O2'	2.32	0.57
25:DA:434:U:H4'	25:DA:435:C:OP1	2.03	0.57
25:CA:2870:C:C4	25:CA:2871:U:C5	2.92	0.57
25:DA:560:C:O2	41:DQ:47:ARG:NH1	2.36	0.57
9:AI:11:ARG:HG2	9:AI:11:ARG:HH11	1.70	0.57
43:DS:67:ASP:N	43:DS:67:ASP:OD1	2.36	0.57
38:CN:38:LEU:HB3	38:CN:39:PRO:CD	2.34	0.57
14:BN:5:MET:HB3	14:BN:63:ARG:NH2	2.18	0.57
25:DA:1029:A:C8	25:DA:1030:C:C6	2.92	0.57
4:BD:101:VAL:HG12	4:BD:113:ALA:HB1	1.85	0.57
25:DA:2315:G:H2'	25:DA:2316:G:O4'	2.04	0.57
1:BA:1345:U:H2'	60:BA:1831:HOH:O	2.05	0.57
9:BI:128:LYS:CD	9:BI:129:ARG:H	2.18	0.57
13:BM:66:GLY:HA2	13:BM:69:ARG:CD	2.35	0.57
32:CH:34:GLY:O	32:CH:35:LYS:CB	2.53	0.57
2:AB:143:LEU:H	2:AB:143:LEU:HD23	1.69	0.57
1:AA:1211:U:O2'	1:AA:1212:U:P	2.61	0.57
25:CA:1178:C:O3'	25:CA:1179:G:C8	2.58	0.57
2:BB:185:ILE:HA	2:BB:199:ILE:HB	1.85	0.57
42:CR:39:LEU:CA	42:CR:49:ILE:CG2	2.82	0.57
20:BT:66:ILE:HD11	20:BT:70:LYS:CD	2.33	0.57
25:DA:1413:A:C2	25:DA:1414:C:C2	2.93	0.57
1:AA:1183:U:O4'	1:AA:1183:U:OP2	2.22	0.57
25:DA:969:G:H2'	25:DA:970:U:C6	2.40	0.57
1:BA:730:G:O2'	1:BA:766:A:H5'	2.03	0.57
25:CA:1420:A:O2'	25:CA:1421:G:H5'	2.03	0.57
1:AA:624:C:C2'	1:AA:625:U:O5'	2.52	0.57
4:AD:176:LYS:HD3	4:AD:176:LYS:H	1.67	0.57
5:AE:93:VAL:HG21	5:AE:110:MET:CE	2.34	0.57
1:BA:72:A:C6	1:BA:73:C:N4	2.72	0.57
16:AP:72:ALA:HA	16:AP:75:ILE:CD1	2.35	0.57
31:DG:112:VAL:CG1	31:DG:150:TYR:CE2	2.88	0.57
25:CA:1414:C:C5	25:CA:1415:U:C5	2.93	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:43:ASN:O	32:DH:46:PHE:HB3	2.04	0.57
1:BA:1073:U:H5'	1:BA:1074:G:OP2	2.05	0.57
14:AN:6:LYS:N	14:AN:6:LYS:HD3	2.20	0.57
10:BJ:18:ILE:HG23	10:BJ:19:ASP:N	2.18	0.57
25:CA:1873:G:O2'	25:CA:1874:C:H5'	2.04	0.57
29:DE:189:THR:HG22	29:DE:192:ALA:H	1.70	0.57
28:CD:150:GLN:O	28:CD:153:GLY:CA	2.52	0.57
1:BA:1049:U:H4'	1:BA:1050:G:OP2	2.05	0.57
1:AA:244:U:H4'	1:AA:245:U:C5'	2.34	0.57
1:AA:244:U:H4'	1:AA:245:U:H5'	1.86	0.57
1:BA:145:G:H2'	1:BA:146:G:O5'	2.04	0.57
1:BA:244:U:H4'	1:BA:245:U:C5'	2.35	0.57
1:BA:1032:G:N3	1:BA:1032:G:H3'	2.19	0.57
25:DA:729:G:N3	25:DA:729:G:H2'	2.18	0.57
9:BI:89:TYR:O	9:BI:93:LEU:HD21	2.04	0.57
25:DA:1356:G:C2	25:DA:1357:C:C6	2.92	0.57
14:AN:20:PHE:CD2	14:AN:24:ALA:CB	2.87	0.57
35:CK:77:ILE:N	35:CK:77:ILE:CD1	2.67	0.57
1:AA:104:G:C2'	1:AA:105:G:H5'	2.34	0.57
36:DL:90:VAL:HG11	36:DL:122:VAL:HG13	1.86	0.57
46:DV:28:ALA:HB3	46:DV:42:LEU:HD21	1.86	0.57
25:CA:535:G:O2'	25:CA:536:G:H5'	2.04	0.57
25:DA:146:A:H2'	25:DA:147:C:H6	1.70	0.57
8:AH:82:LEU:HD22	8:AH:83:ARG:O	2.05	0.57
12:BL:6:LEU:HD22	12:BL:11:ARG:HD2	1.85	0.57
25:DA:1014:A:C2	25:DA:1149:G:C2	2.92	0.57
53:C2:27:GLY:O	53:C2:30:VAL:HB	2.04	0.57
30:CF:134:GLN:O	30:CF:134:GLN:HG2	2.03	0.57
28:DD:187:LEU:O	28:DD:188:LEU:HD23	2.04	0.57
1:BA:1245:C:O2'	1:BA:1246:A:H5'	2.04	0.57
39:DO:14:ALA:O	39:DO:18:LEU:HD23	2.04	0.57
1:BA:430:A:H4'	4:BD:6:PRO:HG3	1.87	0.57
2:AB:115:ASP:O	2:AB:116:LEU:HB2	2.05	0.57
25:DA:2333:A:N7	25:DA:2335:A:C2	2.73	0.57
25:DA:2335:A:N7	25:DA:2337:G:C6	2.73	0.57
25:DA:2343:U:H2'	25:DA:2344:U:C6	2.40	0.57
25:DA:2193:G:H2'	25:DA:2194:U:C6	2.38	0.57
21:AU:28:LEU:C	21:AU:28:LEU:CD2	2.73	0.57
5:BE:95:MET:HE2	5:BE:114:LEU:HD21	1.84	0.57
5:BE:100:GLU:HA	5:BE:121:ASN:CB	2.34	0.57
10:AJ:33:GLY:HA3	10:AJ:83:THR:HB	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:53:ASP:CG	8:AH:54:THR:N	2.58	0.57
21:AU:13:VAL:O	21:AU:15:LEU:CG	2.53	0.57
3:AC:16:PRO:O	3:AC:17:TRP:HB2	2.04	0.57
1:AA:625:U:O2'	1:AA:626:G:H5'	2.03	0.57
3:AC:141:MET:HE1	3:AC:147:GLY:HA2	1.86	0.57
1:AA:435:A:C5	1:AA:436:C:C5	2.92	0.57
1:AA:439:U:C6	1:AA:440:C:C5	2.93	0.57
33:CI:83:ALA:HB1	33:CI:100:ILE:HD12	1.85	0.57
11:AK:123:PRO:O	11:AK:124:LYS:O	2.22	0.57
1:BA:189:A:C2'	1:BA:190:A:O5'	2.52	0.57
8:AH:58:LEU:HD13	8:AH:58:LEU:C	2.24	0.57
1:BA:735:C:H2'	1:BA:736:C:C6	2.39	0.57
31:DG:120:ILE:HD12	31:DG:140:ILE:CG2	2.35	0.57
1:BA:842:U:C2	1:BA:845:A:OP1	2.57	0.57
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.39	0.57
6:BF:86:ARG:HG2	6:BF:86:ARG:HH11	1.69	0.57
2:AB:202:ASN:OD1	2:AB:203:ASP:N	2.38	0.57
25:CA:686:U:H2'	25:CA:788:A:N1	2.19	0.57
38:CN:2:ARG:O	38:CN:2:ARG:CD	2.52	0.57
25:CA:1483:G:C5	25:CA:1484:U:C5	2.92	0.57
2:BB:219:THR:H	2:BB:221:ARG:HD3	1.69	0.57
2:BB:49:PHE:HB2	2:BB:212:TYR:OH	2.05	0.57
25:CA:1071:G:C1'	25:CA:1089:A:C8	2.88	0.57
14:AN:30:ILE:HG22	14:AN:31:SER:N	2.20	0.57
1:BA:1387:G:C6	1:BA:1388:C:C4	2.92	0.57
25:DA:60:G:O2'	25:DA:61:C:O5'	2.23	0.57
20:BT:6:ALA:HB1	20:BT:9:ARG:HB2	1.86	0.57
6:BF:10:VAL:HG11	6:BF:18:VAL:CG2	2.34	0.57
56:DB:45:A:C2	56:DB:46:A:N9	2.73	0.57
25:DA:2884:U:O2	25:DA:2884:U:C4'	2.51	0.57
7:BG:80:GLY:HA3	23:BX:11:U:H5"	1.86	0.57
25:DA:189:G:P	48:DX:25:LYS:HE2	2.44	0.57
15:BO:20:ASP:OD2	15:BO:23:SER:HB2	2.05	0.57
15:BO:69:LEU:HD22	15:BO:77:TYR:HB2	1.87	0.57
31:CG:148:ARG:HG3	31:CG:148:ARG:HH11	1.70	0.57
9:BI:98:ARG:HA	9:BI:103:VAL:CG2	2.34	0.57
1:BA:211:G:O2'	1:BA:212:G:O4'	2.22	0.57
25:DA:2134:A:N6	25:DA:2157:G:O2'	2.37	0.57
1:AA:419:C:C2'	1:AA:420:U:O5'	2.52	0.57
25:DA:2098:U:C4	25:DA:2099:U:C5	2.93	0.57
49:CY:36:GLN:O	49:CY:37:LEU:HB3	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:883:C:C2'	1:AA:884:U:H5'	2.33	0.57
4:AD:147:LYS:HD3	4:AD:147:LYS:H	1.69	0.57
5:AE:96:GLN:HB2	5:AE:123:LEU:CD1	2.35	0.57
40:DP:90:ALA:HB2	40:DP:112:ARG:HA	1.86	0.57
25:CA:751:A:H5'	43:CS:90:LYS:HA	1.86	0.57
25:DA:2642:G:C2	25:DA:2773:C:C2	2.92	0.57
31:DG:21:GLN:OE1	31:DG:21:GLN:HA	2.04	0.57
11:BK:100:ASN:C	11:BK:100:ASN:OD1	2.41	0.57
25:DA:580:U:O3'	41:DQ:30:VAL:HG13	2.04	0.57
32:DH:117:LEU:HD12	32:DH:118:PRO:HD2	1.85	0.57
13:BM:78:ARG:O	13:BM:82:LEU:HD23	2.04	0.57
25:DA:1090:A:N1	25:DA:1102:C:O2	2.37	0.57
1:AA:676:A:O2'	1:AA:677:U:H5'	2.05	0.57
21:AU:19:LYS:HE2	21:AU:19:LYS:CA	2.33	0.57
1:AA:1211:U:O2'	1:AA:1212:U:OP2	2.22	0.57
17:AQ:71:SER:C	17:AQ:72:TRP:CD1	2.78	0.57
25:CA:2473:U:C6	25:CA:2474:U:H5	2.21	0.57
32:DH:6:LEU:HD13	32:DH:35:LYS:H	1.70	0.57
25:CA:1169:A:H2'	25:CA:1170:C:O4'	2.04	0.57
25:CA:1181:U:H2'	25:CA:1182:G:C8	2.39	0.57
4:AD:94:GLU:OE2	4:AD:103:ARG:NH1	2.37	0.57
2:BB:71:THR:O	2:BB:72:LYS:CG	2.52	0.57
1:BA:1217:C:H2'	1:BA:1218:C:C6	2.38	0.57
25:DA:1465:G:C6	25:DA:1466:U:C4	2.92	0.57
10:AJ:33:GLY:O	10:AJ:34:ALA:HB2	2.05	0.57
25:DA:1458:U:H5'	25:DA:1459:G:C2	2.40	0.57
1:AA:410:G:H5'	1:AA:411:A:OP1	2.03	0.57
1:AA:22:G:C6	1:AA:23:C:N3	2.73	0.57
1:BA:74:A:C2	1:BA:97:G:C4	2.93	0.57
17:BQ:60:ILE:O	17:BQ:61:ARG:HB3	2.04	0.57
3:BC:46:LEU:HB3	3:BC:49:ALA:HB3	1.86	0.57
25:DA:2018:G:O2'	25:DA:2019:A:H5'	2.04	0.57
9:BI:8:THR:HB	9:BI:84:ARG:HH11	1.68	0.57
35:CK:114:LYS:O	35:CK:118:LEU:HG	2.04	0.57
1:BA:920:U:H2'	1:BA:921:U:H6	1.69	0.57
1:BA:502:A:H2'	1:BA:503:C:H6	1.70	0.57
9:AI:39:GLY:O	9:AI:40:ARG:CB	2.52	0.57
2:AB:40:ILE:HG21	2:AB:201:GLY:CA	2.35	0.57
3:AC:51:VAL:HG21	3:AC:67:ILE:HG23	1.87	0.57
27:DC:106:PRO:CB	27:DC:141:HIS:CE1	2.86	0.57
2:BB:218:ALA:O	2:BB:219:THR:HB	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1050:G:H2'	1:BA:1051:C:C6	2.40	0.57
25:CA:528:A:H3'	25:CA:528:A:H8	1.70	0.57
56:DB:47:C:H6	56:DB:47:C:O5'	1.88	0.57
13:AM:76:ILE:HG22	13:AM:80:MET:CE	2.34	0.57
1:AA:1475:G:O2'	1:AA:1476:A:H5'	2.05	0.57
13:AM:10:ASP:O	13:AM:11:HIS:HB2	2.04	0.57
25:DA:630:G:C3'	25:DA:631:A:H5"	2.34	0.57
1:AA:104:G:N2	1:AA:105:G:C4	2.72	0.57
40:DP:13:LYS:HE3	40:DP:76:HIS:HA	1.87	0.57
30:DF:96:TRP:O	30:DF:97:GLU:C	2.42	0.57
8:BH:82:LEU:HD13	8:BH:82:LEU:C	2.25	0.57
10:BJ:9:ARG:O	10:BJ:98:VAL:HA	2.05	0.57
9:AI:89:TYR:O	9:AI:90:ASP:CG	2.43	0.57
18:BR:26:ALA:HA	18:BR:29:LYS:HG2	1.86	0.57
37:DM:66:ARG:HG3	37:DM:66:ARG:NH1	2.19	0.57
34:CJ:7:LYS:O	34:CJ:11:VAL:HG23	2.04	0.57
7:BG:74:VAL:HG21	7:BG:143:MET:HG3	1.87	0.57
25:DA:558:U:OP1	34:DJ:113:PRO:HD2	2.04	0.57
32:CH:69:ALA:CB	32:CH:138:VAL:HG12	2.34	0.57
30:DF:63:LYS:HG2	30:DF:63:LYS:O	2.03	0.57
32:CH:31:VAL:CB	32:CH:32:PRO:CD	2.83	0.57
1:AA:1312:G:N2	1:AA:1326:U:C2	2.73	0.57
1:BA:1257:A:H4'	1:BA:1258:G:OP2	2.05	0.57
25:DA:2209:G:C8	25:DA:2210:U:C6	2.93	0.57
21:AU:25:ALA:CB	23:AX:9:G:C5'	2.83	0.57
11:BK:125:LYS:HA	21:BU:33:ARG:HH21	1.69	0.57
1:BA:994:A:C8	1:BA:1216:A:H4'	2.40	0.57
1:AA:1183:U:C4'	1:AA:1183:U:OP2	2.52	0.57
56:DB:43:C:H1'	30:DF:89:THR:HG22	1.85	0.57
29:DE:126:VAL:HG21	29:DE:133:LEU:HB3	1.85	0.57
20:AT:53:MET:CE	20:AT:54:GLN:HA	2.35	0.57
1:BA:1534:A:H4'	1:BA:1535:C:H6	1.69	0.57
25:CA:1416:G:O2'	25:CA:1417:C:H6	1.86	0.57
1:BA:1130:A:C1'	1:BA:1146:A:C2	2.88	0.57
25:CA:2801:G:H2'	25:CA:2802:G:C8	2.40	0.57
1:BA:920:U:C2	1:BA:921:U:C5	2.93	0.57
8:BH:77:VAL:HG12	8:BH:78:SER:N	2.18	0.57
25:DA:1176:U:C4	25:DA:1177:G:C6	2.92	0.57
2:BB:61:SER:C	2:BB:63:LYS:N	2.58	0.57
25:DA:1021:A:N3	25:DA:1021:A:H3'	2.19	0.57
1:BA:1250:A:N7	1:BA:1287:A:N7	2.53	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:158:G:C4	1:BA:159:G:C8	2.93	0.57
1:AA:769:G:O2'	1:AA:770:C:H5'	2.05	0.57
25:CA:1501:G:H4'	27:CC:94:LEU:HD21	1.86	0.57
4:BD:83:GLY:O	4:BD:84:ASN:C	2.42	0.57
1:BA:833:G:O2'	1:BA:834:U:H5'	2.05	0.57
1:AA:110:C:H2'	1:AA:111:G:O4'	2.04	0.57
3:BC:5:HIS:CE1	3:BC:183:TYR:CD2	2.93	0.57
30:DF:104:THR:HG22	30:DF:105:ILE:HG22	1.87	0.57
1:BA:1088:G:C2	1:BA:1089:G:C4	2.93	0.57
1:AA:1442:G:H2'	1:AA:1443:C:O5'	2.04	0.57
30:CF:43:ILE:HG22	30:CF:82:TYR:CZ	2.39	0.57
1:BA:705:G:H21	11:BK:30:ILE:HD12	1.69	0.57
28:CD:40:LEU:O	28:CD:41:ALA:C	2.43	0.57
25:DA:282:A:H2'	25:DA:283:G:C8	2.39	0.57
57:DW:17:LEU:HA	57:DW:35:ARG:HB2	1.87	0.57
25:CA:185:G:C4	25:CA:186:G:C8	2.93	0.57
37:DM:66:ARG:HG3	37:DM:66:ARG:HH11	1.70	0.57
1:BA:974:A:C8	14:BN:71:HIS:CD2	2.92	0.57
25:DA:1348:C:H5"	25:DA:1349:C:OP2	2.05	0.57
25:DA:720:U:H2'	25:DA:721:A:C8	2.40	0.57
46:CV:23:ALA:O	46:CV:24:ASN:C	2.39	0.57
46:CV:25:LYS:HE2	46:CV:43:ASP:HA	1.87	0.57
25:DA:1837:C:O2'	25:DA:1927:A:N3	2.30	0.57
30:CF:66:ILE:HD12	30:CF:66:ILE:O	2.04	0.57
48:CX:58:ILE:HG13	48:CX:66:VAL:HG21	1.86	0.57
1:BA:1269:A:N1	1:BA:1312:G:O2'	2.33	0.57
1:BA:1310:G:C6	1:BA:1311:A:C5	2.93	0.57
25:DA:1073:A:H2'	25:DA:1074:G:H5'	1.85	0.57
2:AB:150:ILE:HG13	2:AB:151:LYS:N	2.20	0.57
1:BA:1151:A:N3	1:BA:1152:A:N7	2.52	0.57
13:BM:10:ASP:O	13:BM:11:HIS:HB2	2.03	0.57
41:CQ:86:SER:CB	42:CR:51:VAL:HA	2.35	0.57
25:DA:1414:C:C4	25:DA:1415:U:C5	2.93	0.57
25:DA:1412:U:O2	25:DA:1591:A:C2	2.57	0.57
8:AH:74:ILE:HD13	8:AH:128:VAL:HG13	1.87	0.57
25:CA:281:C:H2'	25:CA:282:A:C8	2.40	0.57
13:AM:40:GLU:CG	13:AM:41:ASP:N	2.68	0.57
20:BT:77:ASN:O	20:BT:81:GLN:HG2	2.05	0.57
1:AA:376:G:C4	1:AA:389:A:C2	2.93	0.57
1:BA:462:G:C5'	1:BA:463:U:OP2	2.52	0.57
1:AA:1493:A:C8	1:AA:1493:A:OP2	2.55	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:5:TYR:HB3	9:AI:88:GLU:CG	2.35	0.57
49:CY:56:LEU:O	49:CY:57:LEU:HB2	2.05	0.57
9:BI:60:LEU:N	9:BI:60:LEU:HD23	2.20	0.57
29:DE:119:ILE:O	29:DE:187:VAL:HA	2.04	0.57
25:CA:2722:G:H4'	38:CN:4:ARG:HB2	1.87	0.57
1:AA:131:A:C6	1:AA:132:C:N4	2.73	0.57
1:AA:519:C:H2'	1:AA:520:A:C8	2.40	0.57
19:AS:48:ILE:H	19:AS:48:ILE:HD12	1.68	0.57
9:AI:98:ARG:CD	9:AI:103:VAL:HG21	2.35	0.57
28:CD:96:ILE:HG22	28:CD:97:SER:N	2.19	0.57
1:BA:115:G:H4'	1:BA:116:A:O5'	2.04	0.57
30:CF:48:LEU:HD12	30:CF:51:ASN:HD21	1.68	0.57
7:BG:30:MET:HG2	7:BG:30:MET:O	2.04	0.57
25:CA:1171:G:C5	25:CA:1172:C:N3	2.73	0.57
25:DA:2799:A:O2'	25:DA:2800:A:C5'	2.53	0.57
45:CU:53:GLN:N	45:CU:54:PRO:CD	2.67	0.57
3:BC:5:HIS:HE1	3:BC:183:TYR:CD2	2.23	0.57
30:DF:92:GLY:O	30:DF:95:MET:HB3	2.05	0.57
3:BC:99:GLN:O	3:BC:100:ILE:CB	2.53	0.57
19:BS:29:PRO:HA	19:BS:47:THR:O	2.04	0.57
1:AA:164:G:C2'	1:AA:165:G:H5'	2.34	0.57
25:CA:2314:A:H2'	25:CA:2315:G:C8	2.40	0.57
25:CA:834:G:N3	25:CA:2358:A:H1'	2.19	0.57
2:BB:118:THR:O	2:BB:119:GLN:HB3	2.05	0.57
35:CK:121:GLU:O	35:CK:122:VAL:O	2.23	0.57
25:CA:183:C:H2'	25:CA:184:C:H5'	1.87	0.57
53:C2:30:VAL:HG12	53:C2:31:LEU:N	2.19	0.57
29:DE:2:GLU:OE2	29:DE:13:THR:HG23	2.04	0.57
8:BH:101:ALA:HB3	8:BH:112:ASP:HB3	1.86	0.57
37:CM:90:GLU:O	37:CM:91:TYR:HB3	2.02	0.57
27:CC:257:ARG:NH1	27:CC:263:ASP:OD2	2.38	0.57
12:BL:87:LYS:HG3	12:BL:87:LYS:O	2.04	0.57
9:AI:28:VAL:HG11	9:AI:31:GLN:HA	1.87	0.57
31:CG:15:ASP:HB2	31:CG:26:LYS:HG3	1.86	0.57
13:BM:86:ARG:HG2	13:BM:96:VAL:HG12	1.87	0.57
25:DA:1084:A:C5	25:DA:1085:A:C5	2.93	0.57
25:DA:1339:G:H21	25:DA:1603:A:H1'	1.70	0.57
21:AU:18:PHE:O	21:AU:21:SER:HB3	2.05	0.57
25:CA:1070:A:O2'	25:CA:1097:U:OP1	2.22	0.57
2:AB:138:ARG:HG3	2:AB:139:GLU:N	2.19	0.57
2:AB:66:ILE:HG21	2:AB:68:PHE:CE2	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:79:VAL:O	2:AB:83:ALA:HB3	2.05	0.57
1:AA:1216:A:C2	1:AA:1217:C:C4	2.93	0.57
17:AQ:13:SER:HB3	17:AQ:21:VAL:HG12	1.85	0.57
1:BA:1256:A:N7	1:BA:1258:G:N2	2.52	0.57
32:DH:9:VAL:CG1	32:DH:12:LEU:HG	2.35	0.57
13:AM:32:ILE:HG22	13:AM:33:LEU:N	2.18	0.57
25:DA:1455:G:P	60:DA:3417:HOH:O	2.63	0.57
25:DA:2303:G:O2'	25:DA:2304:G:H5'	2.04	0.57
1:AA:437:U:C4	1:AA:438:U:C5	2.93	0.57
22:AV:64:A:C2	22:AV:65:G:C8	2.93	0.57
20:AT:35:TYR:HA	20:AT:38:ILE:HD12	1.87	0.57
9:BI:18:VAL:HA	9:BI:64:ILE:HG22	1.87	0.57
43:DS:43:ALA:HA	43:DS:46:LEU:HD12	1.86	0.57
36:CL:30:THR:O	36:CL:33:ARG:HG2	2.05	0.57
6:BF:6:ILE:N	6:BF:6:ILE:HD12	2.19	0.57
1:BA:1490:U:O2'	1:BA:1491:G:H5'	2.05	0.57
25:CA:2102:G:H5'	25:CA:2103:C:OP2	2.04	0.57
25:CA:1495:A:C2'	25:CA:1496:A:O5'	2.53	0.57
25:DA:1786:A:C4	25:DA:1938:A:C6	2.93	0.57
1:BA:677:U:H1'	11:BK:120:CYS:SG	2.44	0.57
1:BA:62:U:O2'	1:BA:379:C:H1'	2.05	0.57
32:DH:50:ARG:CZ	32:DH:50:ARG:CA	2.83	0.57
25:DA:88:G:C2'	25:DA:89:A:H5'	2.34	0.57
4:BD:195:ASN:HB3	4:BD:197:HIS:HD2	1.69	0.57
38:CN:78:LYS:C	38:CN:79:LEU:O	2.40	0.57
31:CG:148:ARG:CG	31:CG:148:ARG:NH1	2.67	0.57
25:DA:2415:G:H2'	25:DA:2416:C:C6	2.39	0.57
45:CU:53:GLN:N	45:CU:54:PRO:HD3	2.19	0.57
29:CE:149:ILE:HD12	29:CE:149:ILE:C	2.25	0.57
40:DP:11:GLN:HB2	40:DP:54:LEU:HD21	1.87	0.57
1:BA:649:A:H2'	1:BA:650:G:O4'	2.04	0.57
46:DV:63:ILE:HD11	46:DV:91:PHE:CE1	2.40	0.57
1:BA:234:C:H2'	1:BA:235:C:C6	2.40	0.57
44:DT:35:ALA:HB3	44:DT:38:ALA:HB2	1.86	0.57
8:BH:46:GLU:N	8:BH:63:LYS:HG3	2.19	0.57
24:AY:107:THR:HG23	24:AY:110:ARG:HG2	1.87	0.57
25:DA:2898:U:H2'	25:DA:2899:A:H8	1.70	0.57
26:CB:102:G:H2'	26:CB:103:U:H5'	1.87	0.57
1:BA:180:U:H2'	1:BA:181:A:O5'	2.05	0.57
40:DP:113:LEU:O	40:DP:113:LEU:HG	2.04	0.57
1:AA:1096:C:O2'	1:AA:1097:C:H5'	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:CE:115:GLN:O	29:CE:116:ASP:HB2	2.04	0.57
1:AA:470:C:C2	1:AA:471:U:C5	2.93	0.57
5:AE:15:ILE:N	5:AE:15:ILE:HD12	2.20	0.57
4:BD:165:GLU:O	4:BD:166:LYS:O	2.23	0.57
40:CP:72:VAL:CG2	40:CP:72:VAL:O	2.53	0.57
39:DO:92:PHE:HB2	39:DO:117:PHE:CD1	2.40	0.57
25:DA:2847:U:H2'	25:DA:2848:G:O5'	2.05	0.57
25:DA:2663:G:C4	25:DA:2664:G:C8	2.93	0.57
25:DA:1068:G:H2'	25:DA:1068:G:N3	2.19	0.57
36:DL:19:LEU:HD12	36:DL:19:LEU:N	2.20	0.57
1:AA:1340:A:H2'	1:AA:1341:U:O4'	2.05	0.57
4:AD:77:GLU:OE1	4:AD:77:GLU:HA	2.03	0.57
11:BK:83:VAL:HG11	11:BK:96:ILE:HG22	1.87	0.57
13:BM:23:GLY:HA2	13:BM:68:LEU:CD2	2.34	0.56
25:CA:1060:U:H5'	25:CA:1062:G:H5'	1.85	0.56
1:AA:274:A:H5"	17:AQ:15:LYS:HE2	1.87	0.56
25:DA:1670:C:C5	25:DA:1671:U:N3	2.73	0.56
16:BP:17:TYR:N	16:BP:17:TYR:CD1	2.73	0.56
25:CA:1731:G:N1	25:CA:1733:G:C4	2.73	0.56
56:DB:49:C:O3'	39:DO:68:LYS:HE2	2.05	0.56
39:DO:93:ASP:OD2	39:DO:95:SER:CA	2.52	0.56
1:AA:412:A:H4'	1:AA:413:G:OP1	2.04	0.56
21:AU:40:PRO:HA	21:AU:44:ARG:HH11	1.68	0.56
25:CA:1838:C:C5	25:CA:1899:A:C5	2.93	0.56
5:AE:154:ALA:HB1	8:AH:65:PHE:CZ	2.40	0.56
25:DA:1440:U:C4	25:DA:1552:A:H2	2.23	0.56
17:BQ:60:ILE:HA	17:BQ:74:LEU:HA	1.87	0.56
20:AT:50:PHE:O	20:AT:53:MET:HG3	2.05	0.56
31:DG:145:ALA:O	31:DG:148:ARG:N	2.37	0.56
1:AA:1299:A:O2'	1:AA:1300:G:H4'	2.05	0.56
1:BA:918:A:H2'	1:BA:919:A:C8	2.40	0.56
16:BP:19:VAL:HG13	16:BP:38:PHE:N	2.19	0.56
25:DA:2531:A:N3	25:DA:2658:C:O2'	2.29	0.56
25:CA:1474:U:C2'	25:CA:1475:G:H5'	2.34	0.56
1:BA:1492:A:H3'	1:BA:1493:A:C8	2.40	0.56
25:DA:149:A:H2'	25:DA:150:U:H6	1.70	0.56
25:DA:1567:G:O2'	27:DC:84:PRO:HG3	2.05	0.56
6:BF:14:GLN:C	6:BF:16:GLU:H	2.06	0.56
1:BA:158:G:C2'	1:BA:159:G:H5"	2.35	0.56
1:BA:565:U:OP2	1:BA:566:G:O2'	2.23	0.56
24:AY:59:THR:HG22	24:AY:60:VAL:N	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:631:C:H5”	1:BA:632:U:H5’	1.86	0.56
1:AA:1049:U:C4’	1:AA:1050:G:OP2	2.53	0.56
13:AM:10:ASP:OD1	13:AM:11:HIS:N	2.38	0.56
25:DA:2098:U:C2’	25:DA:2099:U:H5’	2.35	0.56
24:AY:107:THR:CG2	24:AY:110:ARG:HG2	2.35	0.56
7:AG:14:ASP:CB	7:AG:19:SER:HB3	2.35	0.56
1:BA:645:G:C6	1:BA:646:G:N7	2.73	0.56
1:BA:1444:U:H2’	1:BA:1445:U:O5’	2.05	0.56
5:AE:108:GLY:HA2	5:AE:111:ARG:HB3	1.87	0.56
7:AG:87:PRO:HD3	7:AG:147:ASN:HB2	1.86	0.56
44:DT:80:TRP:CZ3	44:DT:82:LYS:HB2	2.39	0.56
25:CA:2331:G:N2	25:CA:2385:C:C6	2.73	0.56
55:D4:7:VAL:C	55:D4:8:LYS:HG3	2.24	0.56
25:CA:2491:U:H5”	25:CA:2570:G:H5”	1.87	0.56
1:AA:65:A:C2	1:AA:381:C:C6	2.93	0.56
25:DA:1682:G:H2’	25:DA:1683:U:C6	2.40	0.56
7:BG:135:LYS:O	7:BG:136:LYS:C	2.43	0.56
1:BA:1397:C:O2	1:BA:1397:C:O4’	2.21	0.56
11:BK:104:PHE:O	11:BK:106:ILE:N	2.38	0.56
25:CA:2579:C:H6	25:CA:2579:C:O5’	1.88	0.56
22:AV:75:C:O4’	25:CA:2432:A:H1’	2.05	0.56
25:DA:71:A:OP2	25:DA:113:U:H5’	2.04	0.56
36:DL:50:PHE:CZ	36:DL:52:GLY:O	2.57	0.56
45:DU:52:ASN:C	45:DU:54:PRO:HD3	2.25	0.56
13:AM:89:ARG:HD3	13:AM:95:PRO:O	2.05	0.56
34:DJ:7:LYS:O	34:DJ:11:VAL:HG22	2.04	0.56
1:BA:979:C:C6	1:BA:1318:A:N1	2.72	0.56
1:AA:775:G:C2’	1:AA:776:G:H5’	2.35	0.56
11:AK:22:ILE:CG1	11:AK:85:VAL:HG22	2.35	0.56
1:BA:1275:A:H2’	1:BA:1276:G:O4’	2.05	0.56
1:BA:1061:G:C5’	10:BJ:61:ALA:HB2	2.35	0.56
25:DA:1710:G:C4	25:DA:1749:A:C2	2.94	0.56
5:BE:99:SER:O	5:BE:101:GLY:N	2.37	0.56
1:AA:693:G:C6	1:AA:694:A:C5	2.93	0.56
37:DM:21:ALA:N	37:DM:97:GLN:HB2	2.20	0.56
5:BE:47:PHE:C	5:BE:47:PHE:CD2	2.78	0.56
1:BA:98:A:H2’	1:BA:99:C:C6	2.40	0.56
25:DA:1866:A:C2	25:DA:1876:A:C4	2.93	0.56
1:BA:1298:U:C2’	1:BA:1298:U:O2	2.52	0.56
1:AA:376:G:H5”	16:AP:5:ARG:HB3	1.86	0.56
30:CF:151:LEU:HD12	30:CF:152:ASP:H	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:91:GLY:O	14:AN:93:ILE:N	2.37	0.56
1:BA:502:A:H2'	1:BA:503:C:C6	2.40	0.56
10:BJ:5:ARG:HG3	10:BJ:6:ILE:CG1	2.35	0.56
25:DA:230:G:C4	25:DA:231:A:C8	2.94	0.56
18:BR:66:LEU:HD23	18:BR:66:LEU:N	2.20	0.56
17:AQ:74:LEU:O	17:AQ:74:LEU:HD12	2.04	0.56
25:CA:1907:G:C6	25:CA:1908:C:C4	2.93	0.56
3:BC:144:GLY:O	3:BC:145:ALA:O	2.23	0.56
56:DB:116:G:OP1	39:DO:55:GLU:HG2	2.04	0.56
25:CA:1533:C:H2'	25:CA:1533:C:O2	2.04	0.56
25:DA:27:G:N2	25:DA:512:G:H1'	2.19	0.56
25:CA:273:G:N2	25:CA:365:U:O2	2.38	0.56
35:DK:22:ILE:CG2	35:DK:42:THR:HG22	2.35	0.56
14:AN:61:ARG:O	14:AN:62:ASN:CB	2.54	0.56
15:BO:26:VAL:O	15:BO:27:GLN:C	2.43	0.56
25:DA:143:C:O2	44:DT:1:MET:N	2.36	0.56
25:DA:2473:U:O2	25:DA:2473:U:H2'	2.05	0.56
1:BA:210:C:H5"	1:BA:211:G:OP1	2.05	0.56
10:BJ:87:LEU:C	10:BJ:87:LEU:HD22	2.25	0.56
32:CH:4:ILE:HD11	32:CH:44:ILE:HA	1.87	0.56
5:AE:45:VAL:HG13	5:AE:117:ALA:HB2	1.87	0.56
28:CD:103:ASP:OD1	28:CD:104:VAL:N	2.38	0.56
25:DA:260:G:C6	25:DA:261:G:N7	2.72	0.56
25:CA:2577:A:H5"	25:CA:2578:G:H5'	1.86	0.56
25:DA:1362:C:C2'	25:DA:1363:C:H5'	2.35	0.56
1:BA:1009:U:C2'	1:BA:1010:U:H5'	2.35	0.56
37:CM:43:ALA:O	37:CM:45:GLN:N	2.37	0.56
1:BA:22:G:H2'	1:BA:23:C:C6	2.40	0.56
25:DA:1252:G:N3	41:DQ:32:ARG:HG2	2.18	0.56
1:AA:1066:C:C5'	1:AA:1067:A:OP2	2.52	0.56
22:AV:12:U:H2'	22:AV:13:C:O5'	2.05	0.56
48:CX:63:ILE:HD11	48:CX:67:LEU:HG	1.86	0.56
1:AA:304:U:O2'	1:AA:305:G:H5'	2.05	0.56
25:DA:2674:G:H4'	35:DK:30:ARG:HD2	1.86	0.56
40:DP:24:THR:HB	40:DP:87:ARG:HB3	1.86	0.56
36:CL:107:PHE:CD2	36:CL:107:PHE:N	2.72	0.56
15:BO:1:SER:O	15:BO:2:LEU:HB2	2.05	0.56
1:BA:1346:A:N1	1:BA:1374:A:H5"	2.20	0.56
1:BA:1379:G:N7	7:BG:1:PRO:HB2	2.20	0.56
14:BN:48:LEU:O	14:BN:51:LEU:HD21	2.05	0.56
25:DA:1064:C:H4'	33:DI:90:GLY:H	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:35:MET:O	33:DI:37:PHE:N	2.39	0.56
44:DT:30:ILE:HD13	44:DT:30:ILE:C	2.25	0.56
1:AA:1142:G:N2	1:AA:1143:G:H1'	2.20	0.56
25:CA:1061:U:O2	33:CI:9:LYS:HB2	2.06	0.56
2:AB:53:LEU:HD21	2:AB:212:TYR:CE2	2.40	0.56
25:DA:2204:G:C2	25:DA:2205:A:C8	2.93	0.56
32:DH:32:PRO:O	32:DH:33:GLN:CB	2.52	0.56
25:CA:1327:A:H2'	25:CA:1328:A:O4'	2.06	0.56
25:DA:1670:C:C4	25:DA:1671:U:N3	2.73	0.56
3:BC:149:LYS:HG3	3:BC:200:TRP:CZ3	2.40	0.56
42:CR:49:ILE:C	42:CR:51:VAL:O	2.43	0.56
5:BE:149:PRO:C	5:BE:151:MET:H	2.08	0.56
5:BE:45:VAL:HG22	5:BE:117:ALA:HB2	1.87	0.56
34:DJ:30:THR:HG22	34:DJ:31:GLU:N	2.19	0.56
25:CA:277:G:C1'	25:CA:361:G:O6	2.54	0.56
1:AA:1030:U:H5'	1:AA:1031:C:O2	2.05	0.56
56:DB:28:C:N3	56:DB:56:G:O6	2.37	0.56
1:BA:1124:G:N2	1:BA:1127:G:C2	2.74	0.56
3:AC:171:ARG:O	3:AC:172:VAL:HG22	2.04	0.56
1:AA:1525:G:OP1	11:AK:121:ARG:NH2	2.37	0.56
30:CF:11:VAL:HG13	30:CF:171:ALA:CB	2.35	0.56
25:DA:1778:U:H2'	25:DA:1784:A:N6	2.20	0.56
31:DG:120:ILE:HD12	31:DG:140:ILE:HG23	1.86	0.56
31:DG:106:LEU:HD13	31:DG:150:TYR:HB3	1.87	0.56
2:AB:55:GLU:HA	2:AB:58:LYS:HB2	1.88	0.56
25:CA:1414:C:C4	25:CA:1415:U:H5	2.22	0.56
9:BI:45:MET:HA	9:BI:47:VAL:HG23	1.86	0.56
9:BI:25:GLY:O	9:BI:62:LEU:HD21	2.06	0.56
25:CA:2304:G:C1'	30:CF:128:SER:HB3	2.34	0.56
1:AA:1234:C:H2'	1:AA:1235:U:H6	1.68	0.56
2:BB:99:MET:O	2:BB:103:TRP:CB	2.54	0.56
25:CA:2153:C:H2'	25:CA:2154:A:O4'	2.05	0.56
1:BA:919:A:C2	1:BA:920:U:C5	2.93	0.56
2:BB:133:ALA:O	2:BB:137:THR:HG23	2.05	0.56
1:AA:1114:C:C2	1:AA:1115:U:C6	2.93	0.56
10:BJ:5:ARG:HG2	10:BJ:79:PRO:HD3	1.86	0.56
1:AA:1410:A:H2'	1:AA:1411:C:C6	2.40	0.56
2:AB:23:ASN:ND2	2:AB:191:ASP:HA	2.21	0.56
25:CA:359:G:C5	25:CA:360:U:C5	2.93	0.56
9:AI:24:ASN:C	9:AI:58:GLU:HA	2.25	0.56
15:AO:86:LEU:N	15:AO:86:LEU:HD23	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BC:56:ILE:HG13	3:BC:65:VAL:HG22	1.88	0.56
32:CH:72:ILE:CG2	32:CH:140:ALA:HB1	2.35	0.56
1:BA:107:G:H2'	1:BA:108:G:H5"	1.86	0.56
2:AB:185:ILE:HA	2:AB:199:ILE:HB	1.86	0.56
25:CA:528:A:C2	25:CA:2042:A:H2'	2.40	0.56
25:CA:528:A:C2	25:CA:2043:C:C5'	2.86	0.56
25:DA:1091:G:N3	25:DA:1092:C:C6	2.73	0.56
22:AV:69:G:O2'	22:AV:70:G:H5'	2.05	0.56
25:DA:535:G:C2'	25:DA:536:G:H5'	2.36	0.56
25:DA:1353:A:C2	25:DA:1378:A:C2	2.93	0.56
25:DA:1356:G:H21	25:DA:1357:C:H1'	1.70	0.56
1:AA:541:G:H2'	1:AA:542:G:O4'	2.06	0.56
1:BA:164:G:C2'	1:BA:165:G:H5'	2.35	0.56
40:CP:30:TRP:CE3	40:CP:39:LEU:CD1	2.88	0.56
1:BA:853:C:O2'	1:BA:854:U:H5'	2.06	0.56
25:DA:2493:U:H2'	25:DA:2494:G:O5'	2.05	0.56
25:DA:2308:G:O6	30:DF:76:PHE:HE2	1.89	0.56
17:BQ:44:HIS:HB2	17:BQ:69:THR:HG22	1.87	0.56
14:BN:49:GLN:OE1	14:BN:49:GLN:HA	2.06	0.56
35:CK:77:ILE:HG22	35:CK:78:ARG:N	2.21	0.56
12:AL:2:THR:HG22	12:AL:4:ASN:N	2.20	0.56
36:DL:10:GLU:CA	36:DL:10:GLU:OE1	2.53	0.56
25:DA:1486:U:C2	25:DA:1504:A:H2	2.23	0.56
1:BA:4:U:OP1	1:BA:5:U:O4	2.21	0.56
25:DA:2039:U:H2'	25:DA:2040:G:H8	1.71	0.56
22:BV:20:U:P	22:BV:20:U:O4'	2.64	0.56
31:CG:124:CYS:HA	31:CG:129:GLU:O	2.04	0.56
25:CA:557:C:H2'	25:CA:558:U:C6	2.39	0.56
25:CA:1234:U:C2'	25:CA:1235:G:O5'	2.53	0.56
34:DJ:101:ILE:O	34:DJ:105:VAL:HG23	2.05	0.56
36:CL:87:GLY:O	36:CL:89:VAL:N	2.37	0.56
52:D1:24:LYS:HG3	52:D1:25:ASN:N	2.20	0.56
52:D1:49:LYS:O	52:D1:50:GLU:HB3	2.05	0.56
28:DD:100:LEU:O	28:DD:100:LEU:HD12	2.05	0.56
52:C1:28:THR:O	52:C1:29:LYS:HG2	2.05	0.56
1:BA:969:A:C4	1:BA:970:C:C6	2.93	0.56
8:BH:87:ARG:O	8:BH:88:LYS:HB3	2.06	0.56
25:CA:2091:C:O2'	48:CX:55:MET:CE	2.54	0.56
9:AI:11:ARG:CG	9:AI:11:ARG:HH11	2.19	0.56
25:DA:2847:U:C2'	25:DA:2848:G:O5'	2.54	0.56
7:BG:58:LEU:HG	7:BG:59:GLU:H	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1197:G:H2'	25:DA:1198:U:H6	1.69	0.56
25:CA:207:A:H2'	25:CA:208:C:O4'	2.06	0.56
25:CA:851:C:H2'	25:CA:852:U:H6	1.71	0.56
25:CA:2078:C:O2'	25:CA:2079:U:H5'	2.06	0.56
1:BA:996:A:C2	1:BA:1046:A:H4'	2.41	0.56
25:CA:1694:C:H4'	25:CA:1695:G:O5'	2.05	0.56
25:DA:90:U:H3'	25:DA:91:A:H8	1.71	0.56
46:DV:75:GLN:HB2	46:DV:92:VAL:HG23	1.88	0.56
25:CA:2205:A:H2'	25:CA:2206:C:C6	2.40	0.56
41:CQ:68:ALA:HB1	41:CQ:73:ILE:O	2.05	0.56
25:DA:454:A:H4'	25:DA:455:C:OP2	2.05	0.56
1:BA:689:C:OP2	11:BK:52:ARG:NH2	2.39	0.56
25:DA:1002:G:C5	25:DA:1003:G:C8	2.94	0.56
25:DA:1672:A:C2	25:DA:1673:G:C4	2.93	0.56
30:CF:13:LYS:HG3	30:CF:14:LYS:N	2.20	0.56
46:CV:61:LEU:HD13	46:CV:61:LEU:N	2.21	0.56
31:DG:10:VAL:HG23	31:DG:14:VAL:HB	1.86	0.56
1:BA:939:G:C6	1:BA:940:C:C4	2.94	0.56
25:CA:2164:C:H3'	25:CA:2165:C:C6	2.40	0.56
1:AA:714:G:H2'	1:AA:715:A:C8	2.41	0.56
33:CI:18:ASN:ND2	33:CI:27:LEU:HD21	2.20	0.56
17:AQ:16:MET:HG2	17:AQ:19:SER:CB	2.36	0.56
25:DA:2204:G:C4	25:DA:2205:A:C8	2.93	0.56
11:AK:15:VAL:O	11:AK:16:SER:CB	2.54	0.56
25:CA:363:G:H2'	25:CA:364:C:C6	2.40	0.56
1:AA:1161:C:H2'	1:AA:1162:C:H6	1.67	0.56
25:CA:2786:U:C2'	25:CA:2787:C:H5'	2.34	0.56
12:AL:113:ARG:NH2	12:AL:120:ARG:HG2	2.20	0.56
5:AE:119:VAL:HG21	5:AE:122:VAL:HG11	1.87	0.56
25:CA:2009:A:OP1	43:CS:41:LYS:HE2	2.06	0.56
1:BA:1182:G:C5'	1:BA:1184:G:H5"	2.36	0.56
9:AI:43:ALA:N	9:AI:45:MET:SD	2.78	0.56
2:AB:39:ILE:N	2:AB:39:ILE:HD13	2.20	0.56
25:CA:1734:G:C4	25:CA:1735:A:C8	2.93	0.56
27:DC:159:THR:H	27:DC:194:VAL:HG13	1.70	0.56
25:DA:1105:U:H2'	25:DA:1106:G:H8	1.70	0.56
25:CA:1536:C:O4'	25:CA:1537:G:C2	2.58	0.56
25:DA:60:G:C4	25:DA:74:A:N1	2.74	0.56
1:AA:1502:A:N7	1:AA:1504:G:C4	2.73	0.56
1:AA:1054:C:H4'	1:AA:1055:A:OP1	2.04	0.56
25:DA:480:A:OP2	45:DU:43:LYS:CE	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1250:A:O2'	1:BA:1251:A:H5'	2.06	0.56
25:CA:2886:A:C2	25:CA:2887:A:H1'	2.40	0.56
1:AA:500:G:C6	1:AA:546:A:C2	2.93	0.56
1:BA:558:G:H8	1:BA:558:G:O5'	1.88	0.56
1:AA:198:G:C5	1:AA:199:A:N7	2.74	0.56
27:CC:161:VAL:HG22	27:CC:175:LEU:HD23	1.87	0.56
30:CF:56:LEU:CD1	30:CF:64:PRO:HB3	2.34	0.56
38:DN:86:ARG:HD3	38:DN:117:ASP:OD2	2.06	0.56
1:BA:1347:G:C8	9:BI:108:ARG:HB3	2.40	0.56
9:BI:106:ASP:OD2	9:BI:108:ARG:HG3	2.06	0.56
1:BA:601:G:O2'	1:BA:602:A:H5'	2.06	0.56
25:CA:2360:G:H1'	36:CL:60:ARG:HD3	1.87	0.56
25:DA:2105:U:C5	25:DA:2106:U:C5	2.93	0.56
25:CA:2897:U:H2'	25:CA:2898:U:C6	2.41	0.56
36:CL:79:LEU:O	36:CL:82:LEU:HD22	2.05	0.56
1:BA:1348:U:O3'	9:BI:121:ARG:HB2	2.05	0.56
1:AA:1134:G:C2	1:AA:1135:U:H1'	2.40	0.56
1:BA:1364:U:H2'	1:BA:1364:U:O2	2.04	0.56
1:BA:1061:G:N7	1:BA:1062:U:C5	2.74	0.56
5:BE:121:ASN:CG	5:BE:122:VAL:H	2.09	0.56
1:AA:1181:G:O2'	1:AA:1182:G:N7	2.38	0.56
10:AJ:32:THR:HG23	10:AJ:33:GLY:N	2.21	0.56
4:AD:7:LYS:NZ	4:AD:21:LYS:HG3	2.20	0.56
4:AD:48:SER:O	4:AD:52:VAL:HG13	2.05	0.56
21:AU:33:ARG:CZ	21:AU:34:ARG:HB2	2.35	0.56
1:BA:188:C:C2'	1:BA:188:C:O2	2.52	0.56
22:AV:52:G:C6	22:AV:63:G:C6	2.94	0.56
1:BA:71:A:C2'	1:BA:72:A:O5'	2.54	0.56
1:AA:482:A:H2'	1:AA:483:C:O4'	2.05	0.56
1:BA:1537:U:H3'	1:BA:1538:C:C6	2.40	0.56
9:BI:7:GLY:CA	9:BI:84:ARG:HB3	2.36	0.56
1:AA:1299:A:C2	1:AA:1301:U:N3	2.74	0.56
1:AA:1299:A:N3	1:AA:1299:A:H2'	2.19	0.56
9:AI:18:VAL:HA	9:AI:64:ILE:HG22	1.88	0.56
25:DA:1167:C:H2'	25:DA:1168:G:H5"	1.88	0.56
3:BC:110:LEU:N	3:BC:110:LEU:CD2	2.68	0.56
25:CA:1494:A:C6	25:CA:1495:A:C6	2.93	0.56
1:BA:374:A:O2'	1:BA:375:U:H5'	2.05	0.56
2:BB:59:ILE:HD12	2:BB:60:ALA:N	2.21	0.56
19:AS:10:ILE:HG21	19:AS:40:PHE:CE2	2.41	0.56
25:DA:2755:C:HO2'	25:DA:2756:U:H6	1.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:691:C:C2'	25:DA:692:C:H5'	2.36	0.56
28:CD:100:LEU:HD12	28:CD:100:LEU:O	2.04	0.56
46:CV:39:ALA:O	46:CV:40:ILE:HD13	2.05	0.56
25:CA:31:C:O3'	25:CA:1238:G:H5"	2.05	0.56
7:BG:79:VAL:HG12	7:BG:80:GLY:H	1.70	0.56
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.88	0.56
46:DV:56:PHE:CE1	46:DV:61:LEU:CD2	2.89	0.56
25:DA:1429:G:C4	25:DA:1568:G:C2	2.94	0.56
33:DI:96:LYS:HG2	33:DI:138:VAL:HG22	1.87	0.56
1:BA:622:A:H3'	1:BA:623:C:H6	1.70	0.56
25:DA:1473:G:O2'	25:DA:1474:U:H5'	2.05	0.56
39:CO:31:THR:HG22	39:CO:33:ARG:N	2.21	0.56
25:CA:2223:G:C2'	25:CA:2224:G:H5'	2.35	0.56
7:BG:70:PRO:HA	7:BG:137:ARG:HG3	1.87	0.56
4:BD:58:GLN:O	4:BD:62:ARG:HG2	2.05	0.56
7:BG:7:GLY:O	7:BG:8:GLN:HB3	2.04	0.56
25:CA:2256:G:H2'	25:CA:2257:U:O5'	2.05	0.56
5:BE:21:SER:HB2	5:BE:30:PHE:CE2	2.40	0.56
36:DL:68:SER:O	36:DL:69:ARG:CB	2.53	0.56
39:CO:71:ALA:HB1	39:CO:106:LEU:HB2	1.87	0.56
1:AA:707:U:H2'	1:AA:708:C:C6	2.40	0.56
39:CO:78:VAL:O	39:CO:79:ALA:C	2.43	0.56
25:CA:1678:A:N7	60:CA:3441:HOH:O	2.33	0.56
1:AA:53:A:H2'	1:AA:54:C:O4'	2.04	0.56
1:AA:55:A:C4	1:AA:56:U:C6	2.94	0.56
48:DX:51:SER:O	48:DX:52:ALA:C	2.43	0.56
17:BQ:77:VAL:C	17:BQ:78:VAL:HG22	2.26	0.56
25:CA:1470:A:N6	25:CA:1521:G:H1'	2.20	0.56
25:DA:38:A:H2'	25:DA:39:G:O4'	2.05	0.56
57:DW:22:PHE:N	57:DW:22:PHE:CD2	2.72	0.56
13:BM:22:TYR:O	13:BM:65:GLU:N	2.38	0.56
1:AA:1267:C:C5	1:AA:1268:G:C5	2.94	0.56
25:CA:2473:U:C6	25:CA:2474:U:C5	2.94	0.56
25:DA:2294:G:N1	25:DA:2295:C:C2	2.74	0.56
25:DA:2201:G:C6	25:DA:2202:U:C4	2.93	0.56
32:DH:5:LEU:O	32:DH:6:LEU:HD12	2.06	0.56
25:DA:1418:G:C2	25:DA:1579:A:N7	2.73	0.56
5:BE:105:ILE:HD11	5:BE:123:LEU:HD23	1.87	0.56
25:CA:1860:G:O2'	25:CA:1861:G:H5'	2.06	0.56
25:CA:2211:A:C2'	25:CA:2212:A:OP1	2.54	0.56
1:BA:1261:A:N3	1:BA:1262:C:C5	2.72	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1261:A:H1'	1:BA:1283:U:H5'	1.88	0.56
5:AE:81:GLN:NE2	5:AE:149:PRO:HD3	2.21	0.56
10:BJ:56:HIS:O	10:BJ:57:VAL:HG12	2.05	0.56
1:BA:166:U:O2'	1:BA:167:A:H5'	2.05	0.56
1:AA:1308:U:O2'	1:AA:1309:G:H5'	2.06	0.56
2:BB:134:LEU:O	2:BB:136:ARG:N	2.39	0.56
12:BL:49:ARG:NH1	12:BL:88:ASP:OD1	2.38	0.56
21:BU:9:GLU:HG3	21:BU:10:PRO:CD	2.36	0.56
2:BB:53:LEU:HA	2:BB:56:LEU:HB3	1.87	0.56
1:BA:718:A:H5'	11:BK:118:ASN:HD21	1.70	0.56
25:CA:611:C:H2'	25:CA:612:G:H5'	1.87	0.56
1:BA:143:A:C5'	1:BA:144:G:H5'	2.36	0.56
25:CA:1894:C:H2'	25:CA:1895:C:C6	2.40	0.56
25:CA:2851:A:N6	25:CA:2852:G:C6	2.73	0.56
25:DA:2591:C:H2'	25:DA:2592:G:C8	2.40	0.56
27:CC:161:VAL:HG12	27:CC:162:GLN:N	2.20	0.56
25:DA:1474:U:C4	25:DA:1475:G:N2	2.73	0.56
36:DL:61:LEU:O	54:D3:12:ARG:HD3	2.05	0.56
36:CL:120:VAL:HG22	36:CL:121:THR:N	2.21	0.56
25:DA:2444:G:OP2	29:DE:63:LYS:HE2	2.05	0.56
1:BA:459:A:H2'	1:BA:460:A:C1'	2.36	0.56
44:DT:50:LEU:CD1	44:DT:50:LEU:N	2.68	0.56
6:AF:8:PHE:CD1	6:AF:8:PHE:C	2.79	0.56
31:CG:173:ALA:O	31:CG:174:LYS:CB	2.52	0.56
1:BA:1421:G:C2	1:BA:1422:G:C8	2.94	0.56
2:AB:125:PHE:HD2	2:AB:125:PHE:N	2.02	0.56
1:BA:543:U:O2'	1:BA:544:G:H5'	2.06	0.56
41:DQ:30:VAL:O	41:DQ:31:TYR:C	2.44	0.56
37:DM:26:VAL:HG12	37:DM:104:GLU:OE2	2.06	0.56
25:CA:2196:C:O2'	25:CA:2197:U:H5'	2.05	0.56
25:CA:660:C:OP1	29:CE:94:GLN:HB2	2.06	0.56
25:CA:1130:U:C2	25:CA:2025:C:H5'	2.41	0.56
27:DC:246:PRO:HG2	27:DC:247:TRP:CZ3	2.40	0.56
5:BE:15:ILE:HD11	5:BE:112:ALA:CB	2.36	0.56
34:DJ:35:ARG:HG2	34:DJ:40:HIS:HD2	1.71	0.56
33:DI:104:GLN:O	33:DI:105:LEU:CB	2.53	0.56
25:DA:1923:U:H2'	25:DA:1924:C:C6	2.41	0.56
39:DO:7:ARG:HG3	39:DO:96:GLY:O	2.05	0.56
1:AA:1165:U:C2'	1:AA:1166:G:H5'	2.36	0.56
38:CN:72:ASP:OD2	38:CN:72:ASP:C	2.42	0.56
2:BB:65:LYS:HD2	2:BB:65:LYS:N	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1791:A:H5"	27:CC:204:LEU:HD23	1.87	0.56
1:BA:1377:A:C2'	7:BG:1:PRO:HG2	2.36	0.56
25:DA:1077:A:H2	25:DA:1088:A:C2	2.24	0.56
25:CA:1073:A:N7	25:CA:1074:G:C8	2.73	0.56
25:CA:1084:A:H5"	25:CA:1085:A:OP2	2.06	0.56
1:AA:1322:C:O5'	1:AA:1322:C:O2	2.23	0.56
48:DX:38:TRP:HB2	48:DX:45:PHE:HE2	1.71	0.56
11:BK:124:LYS:O	21:BU:33:ARG:NE	2.35	0.56
25:DA:2286:G:C4'	25:DA:2287:A:O5'	2.51	0.56
5:BE:153:ALA:O	5:BE:156:ARG:N	2.39	0.56
3:BC:154:GLY:O	3:BC:156:LEU:N	2.39	0.56
1:AA:691:G:O6	11:AK:52:ARG:NH2	2.39	0.56
36:DL:77:ILE:HD11	36:DL:101:ILE:HG21	1.88	0.56
56:DB:34:A:H2'	56:DB:35:C:OP2	2.05	0.56
10:BJ:73:LEU:HD22	10:BJ:75:ASP:HB2	1.88	0.56
1:AA:408:A:C2'	1:AA:409:U:H5'	2.36	0.56
8:AH:31:LEU:O	8:AH:32:LYS:C	2.43	0.56
25:CA:2146:C:H5'	25:CA:2147:A:C5	2.41	0.56
6:BF:70:VAL:HG23	6:BF:71:ILE:N	2.20	0.56
25:CA:1484:U:H2'	25:CA:1484:U:O2	2.04	0.56
1:BA:677:U:C2'	1:BA:678:U:H5'	2.36	0.56
12:BL:64:SER:OG	12:BL:96:THR:HG23	2.06	0.56
2:BB:47:PRO:O	2:BB:50:ASN:HB2	2.06	0.56
25:CA:1613:G:H2'	60:CA:3313:HOH:O	2.02	0.56
52:C1:33:LEU:N	52:C1:51:ALA:HB3	2.21	0.56
25:DA:2098:U:H2'	25:DA:2099:U:H5'	1.88	0.56
1:AA:1004:A:C2	1:AA:1026:G:C2	2.94	0.56
40:CP:27:VAL:HG22	40:CP:83:ILE:HG13	1.87	0.56
25:DA:2742:G:O2'	25:DA:2743:U:H5'	2.06	0.56
25:DA:237:C:O2'	25:DA:238:C:H5'	2.06	0.56
50:CZ:6:ILE:HD11	50:CZ:47:ILE:HD11	1.86	0.56
25:CA:2661:G:C6	25:CA:2662:A:C2	2.94	0.56
50:DZ:26:LEU:HD21	50:DZ:46:MET:HB2	1.88	0.56
38:DN:10:LEU:O	38:DN:11:ASN:C	2.44	0.56
41:DQ:71:ASN:OD1	41:DQ:106:THR:HG23	2.04	0.56
29:CE:4:VAL:HA	29:CE:11:ALA:HA	1.86	0.56
13:BM:76:ILE:O	13:BM:80:MET:HG3	2.05	0.56
17:AQ:10:ARG:HH21	17:AQ:55:GLY:HA2	1.71	0.56
25:DA:2223:G:C3'	25:DA:2224:G:H5'	2.35	0.56
25:DA:1494:A:C2	25:DA:1495:A:C5	2.93	0.56
5:BE:67:ARG:O	5:BE:70:MET:HE3	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:52:SER:HB2	3:AC:113:LYS:HB3	1.88	0.56
25:DA:1126:A:H4'	25:DA:1127:A:O5'	2.06	0.56
28:DD:101:PHE:O	28:DD:180:VAL:HG21	2.06	0.56
33:CI:132:ALA:HB1	33:CI:137:LEU:HD12	1.88	0.56
25:DA:320:A:H4'	25:DA:322:A:N7	2.21	0.56
1:BA:188:C:O2	1:BA:189:A:C8	2.58	0.56
1:AA:89:U:O2'	1:AA:90:C:C5'	2.54	0.56
37:CM:15:GLY:C	37:CM:16:ARG:CD	2.73	0.56
16:AP:6:LEU:CD2	16:AP:70:ARG:HG3	2.35	0.56
30:CF:121:PHE:CZ	30:CF:127:TYR:HB2	2.41	0.56
10:BJ:27:GLU:C	10:BJ:29:ALA:H	2.09	0.56
29:DE:143:LEU:HB3	29:DE:146:VAL:HG11	1.87	0.56
1:AA:108:G:N3	1:AA:108:G:C5'	2.69	0.56
25:DA:65:U:C2	25:DA:66:C:C5	2.93	0.56
3:BC:64:ARG:O	3:BC:65:VAL:HB	2.05	0.56
9:AI:98:ARG:HA	9:AI:103:VAL:CG2	2.36	0.56
25:DA:511:U:C3'	25:DA:512:G:H5'	2.35	0.56
1:BA:110:C:N4	1:BA:111:G:C6	2.73	0.56
1:BA:112:G:C2'	1:BA:113:G:H5'	2.35	0.56
25:DA:545:U:H1'	25:DA:548:G:OP2	2.06	0.56
25:DA:1562:U:O2	25:DA:1563:U:C6	2.58	0.56
25:CA:32:C:O2'	25:CA:33:C:H5'	2.05	0.56
25:CA:150:U:H2'	25:CA:151:C:C6	2.40	0.56
31:CG:163:TYR:HB2	31:CG:166:GLU:CB	2.36	0.56
4:BD:150:LYS:O	4:BD:151:GLN:OE1	2.23	0.56
25:CA:2182:U:H2'	25:CA:2183:A:C8	2.40	0.56
40:DP:12:MET:HB3	40:DP:76:HIS:CE1	2.41	0.56
3:BC:133:MET:O	3:BC:137:VAL:HG23	2.05	0.56
42:DR:61:ALA:HB2	42:DR:98:ILE:HA	1.87	0.56
1:BA:1160:G:O2'	1:BA:1161:C:H6	1.89	0.56
25:CA:2732:G:C3'	25:CA:2733:A:H5'	2.36	0.56
25:CA:2590:A:O3'	27:CC:237:ARG:NH1	2.39	0.56
19:BS:63:ASP:HB3	19:BS:64:GLU:CD	2.26	0.56
1:BA:587:G:H4'	8:BH:3:GLN:CB	2.36	0.56
1:BA:587:G:H4'	8:BH:3:GLN:HB3	1.88	0.56
30:DF:175:PRO:O	30:DF:176:PHE:HB2	2.05	0.56
43:CS:4:ILE:HG23	43:CS:106:VAL:HG22	1.88	0.56
4:BD:137:SER:HB2	4:BD:138:PRO:HD2	1.88	0.56
8:BH:110:MET:HB3	8:BH:114:ALA:CB	2.36	0.56
1:BA:866:C:C4	1:BA:867:G:H1'	2.41	0.56
1:BA:867:G:H2'	1:BA:868:C:C6	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:48:THR:O	29:DE:52:VAL:HG23	2.06	0.56
25:DA:1224:U:H4'	42:DR:88:GLY:O	2.05	0.56
50:CZ:34:THR:HG22	50:CZ:35:VAL:N	2.21	0.56
25:DA:2556:C:H2'	25:DA:2557:G:O5'	2.06	0.56
40:DP:91:VAL:HG21	40:DP:96:LEU:HD21	1.87	0.56
30:DF:72:SER:HB2	30:DF:80:GLN:HB3	1.88	0.56
25:CA:2325:G:H5"	25:CA:2326:C:OP2	2.06	0.56
25:DA:1292:G:O2'	25:DA:1293:C:H5'	2.06	0.56
4:BD:54:LEU:C	4:BD:54:LEU:CD2	2.74	0.56
52:D1:31:GLU:O	52:D1:31:GLU:HG2	2.04	0.56
22:AV:20:U:O2	22:AV:20:U:H2'	2.05	0.56
54:D3:31:ILE:O	54:D3:35:LYS:HD2	2.06	0.56
1:BA:1055:A:H5"	1:BA:1056:U:OP2	2.06	0.56
33:DI:74:PRO:HG2	33:DI:77:VAL:CG2	2.34	0.56
1:AA:1142:G:C2	1:AA:1143:G:C1'	2.84	0.56
1:AA:270:A:C5	1:AA:271:C:C4	2.94	0.56
1:AA:1277:C:H2'	1:AA:1279:G:H8	1.71	0.56
25:DA:2345:G:OP2	52:D1:45:HIS:HE1	1.88	0.56
25:DA:1494:A:N1	25:DA:1495:A:C5	2.74	0.56
16:BP:48:GLU:CG	16:BP:49:GLY:H	2.19	0.56
1:BA:1000:A:C2	1:BA:1041:G:N2	2.73	0.56
3:BC:154:GLY:O	3:BC:156:LEU:HD12	2.06	0.56
1:BA:994:A:N7	1:BA:1216:A:H4'	2.21	0.56
21:AU:13:VAL:CG1	21:AU:15:LEU:CD2	2.78	0.56
25:CA:1419:A:O2'	25:CA:1420:A:H5"	2.06	0.56
25:DA:1551:A:N6	25:DA:1552:A:C2	2.74	0.56
1:BA:96:U:O2'	1:BA:97:G:O5'	2.24	0.56
1:BA:1292:G:C6	1:BA:1293:C:N4	2.74	0.56
14:AN:3:GLN:HA	14:AN:6:LYS:HE2	1.88	0.56
1:BA:1097:C:H2'	1:BA:1098:C:C6	2.41	0.56
32:CH:59:ALA:HA	32:CH:62:LEU:CD2	2.35	0.56
21:AU:9:GLU:OE1	21:AU:10:PRO:HG3	2.06	0.56
30:DF:16:MET:O	30:DF:20:ASN:HA	2.06	0.56
25:DA:1138:G:H2'	34:DJ:108:MET:HE2	1.88	0.56
25:DA:59:U:H6	25:DA:59:U:H3'	1.71	0.56
1:BA:708:C:H2'	1:BA:709:U:C6	2.41	0.56
25:CA:1925:C:H4'	25:CA:1926:U:C6	2.41	0.56
1:AA:542:G:C2	1:AA:543:U:C6	2.94	0.56
13:AM:113:LYS:HB3	13:AM:114:PRO:HD3	1.88	0.56
25:DA:2473:U:H5"	25:DA:2474:U:OP2	2.05	0.56
26:CB:55:U:O2	26:CB:55:U:H2'	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DL:2:ARG:HA	36:DL:5:THR:HG23	1.88	0.56
12:AL:43:LYS:HB2	12:AL:44:PRO:HD3	1.86	0.56
25:CA:870:U:H2'	25:CA:871:U:H5'	1.86	0.56
25:DA:1867:G:H2'	25:DA:1868:C:H5'	1.88	0.56
36:CL:85:VAL:HB	36:CL:94:THR:HG23	1.87	0.56
14:BN:73:PHE:CZ	14:BN:78:GLY:HA2	2.41	0.56
1:AA:647:C:O2'	1:AA:648:A:H5'	2.06	0.56
25:DA:920:A:H2'	25:DA:921:C:C6	2.40	0.56
44:CT:14:PRO:HD2	49:CY:33:ALA:HB1	1.88	0.56
35:DK:120:PRO:O	35:DK:121:GLU:HB2	2.06	0.56
25:CA:2376:A:N3	39:CO:111:ARG:NH1	2.53	0.56
26:CB:106:G:H2'	26:CB:107:G:O4'	2.06	0.56
9:AI:71:ILE:HG22	9:AI:72:SER:N	2.21	0.56
1:AA:696:A:O5'	1:AA:696:A:H8	1.88	0.56
25:CA:2076:U:O2	25:CA:2076:U:O4'	2.24	0.56
14:AN:100:SER:O	14:AN:101:TRP:HB3	2.05	0.56
52:D1:3:GLY:O	52:D1:5:ARG:N	2.39	0.56
28:DD:44:GLY:O	28:DD:45:TYR:HB3	2.06	0.56
32:DH:119:ASN:N	32:DH:120:GLY:CA	2.69	0.56
1:BA:1325:C:O2'	1:BA:1326:U:H5'	2.06	0.56
19:BS:35:ARG:HH21	19:BS:74:ALA:HB3	1.70	0.56
2:AB:86:CYS:HB2	2:AB:88:GLN:CD	2.26	0.56
42:DR:39:LEU:CA	42:DR:49:ILE:CG2	2.83	0.56
25:CA:1183:U:H2'	25:CA:1184:U:C6	2.41	0.56
4:AD:169:TRP:CD1	4:AD:185:PRO:HD3	2.41	0.56
1:AA:1101:A:H1'	1:AA:1102:A:O4'	2.05	0.56
3:BC:149:LYS:HB3	3:BC:168:ARG:CG	2.35	0.56
1:BA:1166:G:H2'	1:BA:1168:U:OP2	2.06	0.56
36:DL:127:VAL:HG13	36:DL:131:ALA:HB1	1.88	0.56
1:BA:1014:A:H2'	1:BA:1015:G:O4'	2.05	0.56
25:DA:1446:C:H2'	25:DA:1447:C:C6	2.40	0.56
25:DA:1525:A:N7	25:DA:1526:C:C5	2.74	0.56
30:DF:57:ALA:O	30:DF:60:SER:O	2.24	0.56
1:AA:410:G:C4'	1:AA:411:A:OP1	2.53	0.56
4:AD:10:LEU:CD2	4:AD:62:ARG:HD3	2.36	0.56
4:AD:97:LEU:HD23	4:AD:117:VAL:HG11	1.88	0.56
29:DE:131:THR:O	29:DE:132:LYS:C	2.43	0.56
1:BA:188:C:O2	1:BA:189:A:C1'	2.54	0.56
14:AN:35:ALA:HB2	14:AN:41:ARG:HB3	1.88	0.56
3:BC:89:VAL:HA	3:BC:92:ASP:OD1	2.06	0.56
25:DA:1111:A:H4'	25:DA:1112:G:OP1	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BB:82:ALA:HA	2:BB:85:SER:HB3	1.88	0.56
25:DA:120:U:H5"	25:DA:122:G:OP2	2.06	0.56
25:CA:1531:C:H2'	25:CA:1532:A:C8	2.41	0.56
14:BN:15:LEU:O	14:BN:55:SER:HB2	2.06	0.56
21:BU:25:ALA:HB3	23:BX:8:A:H5'	1.88	0.56
50:DZ:36:GLU:O	50:DZ:37:ARG:HD3	2.06	0.56
1:BA:108:G:N3	1:BA:108:G:O4'	2.39	0.56
42:DR:83:TYR:C	42:DR:83:TYR:CD1	2.79	0.56
10:BJ:48:ARG:HH11	10:BJ:48:ARG:HG2	1.71	0.56
1:BA:1451:U:O5'	1:BA:1452:C:H5	1.89	0.56
25:DA:536:G:H2'	25:DA:537:G:O5'	2.05	0.56
25:DA:1356:G:H2'	25:DA:1357:C:H6	1.71	0.56
14:AN:15:LEU:HD23	14:AN:15:LEU:N	2.20	0.56
14:AN:20:PHE:CD2	14:AN:24:ALA:HB3	2.40	0.56
8:AH:46:GLU:O	8:AH:47:ASP:CB	2.54	0.56
44:DT:3:ARG:HD2	44:DT:3:ARG:N	2.21	0.56
25:DA:2800:A:H3'	25:DA:2801:G:H5'	1.87	0.56
1:AA:937:A:C2	1:AA:1379:G:C6	2.94	0.56
25:DA:333:G:H2'	25:DA:334:C:H6	1.71	0.56
34:CJ:64:VAL:CG1	34:CJ:68:LYS:HB2	2.35	0.56
25:DA:464:U:H5'	53:D2:5:PHE:CD2	2.41	0.56
56:DB:74:U:O2	46:DV:29:ILE:CD1	2.54	0.56
52:C1:50:GLU:O	52:C1:51:ALA:HB2	2.05	0.56
34:DJ:17:VAL:HG22	34:DJ:55:ILE:HB	1.86	0.56
3:AC:154:GLY:HA3	3:AC:162:ALA:HB1	1.88	0.56
48:CX:3:VAL:HG13	48:CX:10:ARG:HB3	1.86	0.56
1:AA:868:C:H2'	1:AA:869:G:H5'	1.86	0.56
8:BH:20:ASN:HA	8:BH:64:TYR:HE2	1.71	0.56
25:CA:703:U:O4	25:CA:704:G:C6	2.59	0.56
25:CA:1742:U:C2'	25:CA:1743:G:O5'	2.54	0.56
43:DS:29:VAL:HG11	43:DS:55:ILE:HD13	1.88	0.56
24:AY:112:LYS:O	24:AY:113:ASP:C	2.44	0.56
25:CA:435:C:H2'	25:CA:436:C:H5'	1.88	0.56
29:DE:5:LEU:O	29:DE:6:LYS:C	2.44	0.56
25:DA:1648:U:H2'	25:DA:1649:G:O4'	2.07	0.56
25:CA:229:C:H2'	25:CA:230:G:O5'	2.05	0.56
1:BA:1375:A:H2'	1:BA:1376:U:H5'	1.88	0.55
19:BS:10:ILE:HG21	19:BS:40:PHE:CE2	2.42	0.55
25:CA:415:A:C2	25:CA:416:U:O2	2.58	0.55
2:AB:113:LEU:O	2:AB:117:GLU:HG2	2.05	0.55
2:AB:218:ALA:C	2:AB:219:THR:HG22	2.27	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1279:G:H5"	10:AJ:9:ARG:HH22	1.71	0.55
2:BB:207:ARG:O	2:BB:209:VAL:N	2.38	0.55
2:BB:207:ARG:HB3	2:BB:211:LEU:HD13	1.87	0.55
16:BP:6:LEU:HD23	16:BP:17:TYR:CG	2.41	0.55
17:BQ:11:VAL:O	17:BQ:22:VAL:HA	2.06	0.55
25:DA:391:A:C2	25:DA:411:G:C5	2.93	0.55
33:CI:101:SER:HB3	33:CI:104:GLN:CG	2.37	0.55
41:CQ:26:ALA:HB1	41:CQ:33:VAL:HG21	1.89	0.55
25:DA:2792:A:C2	25:DA:2793:C:C6	2.94	0.55
5:AE:120:HIS:O	5:AE:121:ASN:CB	2.54	0.55
5:AE:81:GLN:CD	5:AE:149:PRO:HB3	2.25	0.55
1:BA:100:G:C8	1:BA:101:A:C8	2.95	0.55
25:CA:1452:G:H5"	25:CA:1452:G:C8	2.41	0.55
25:DA:1317:G:N2	25:DA:1336:A:C4	2.74	0.55
16:AP:52:LEU:O	16:AP:53:ASP:C	2.44	0.55
1:AA:573:A:P	60:AA:1737:HOH:O	2.64	0.55
25:CA:2144:G:O2'	25:CA:2147:A:N1	2.38	0.55
1:AA:1060:U:C1'	10:AJ:54:SER:HB2	2.36	0.55
25:DA:1277:G:H5'	38:DN:20:MET:HE1	1.88	0.55
25:CA:1871:A:C8	25:CA:1872:A:N1	2.74	0.55
2:AB:19:THR:HB	2:AB:36:LYS:O	2.06	0.55
25:CA:358:U:H2'	25:CA:359:G:C8	2.41	0.55
25:CA:84:A:N3	25:CA:85:G:H1'	2.21	0.55
43:DS:66:ILE:CD1	43:DS:66:ILE:N	2.69	0.55
25:CA:2276:G:C2'	25:CA:2277:G:H5'	2.36	0.55
11:AK:93:GLU:OE2	21:AU:20:ARG:NH2	2.39	0.55
25:DA:1105:U:O2	25:DA:1106:G:N7	2.38	0.55
3:BC:58:ARG:HA	3:BC:63:ILE:HA	1.87	0.55
1:BA:114:U:H2'	1:BA:115:G:H5'	1.88	0.55
54:D3:22:LYS:HA	54:D3:47:ALA:O	2.06	0.55
25:DA:1378:A:C2	25:DA:1380:G:C8	2.94	0.55
1:AA:499:A:N6	1:AA:547:A:H5"	2.21	0.55
49:CY:18:LEU:O	49:CY:22:LEU:N	2.39	0.55
32:CH:14:SER:OG	32:CH:17:ASP:HB2	2.06	0.55
13:AM:113:LYS:HB2	13:AM:114:PRO:HD3	1.87	0.55
28:CD:12:THR:HG22	28:CD:13:ARG:H	1.71	0.55
28:DD:16:THR:OG1	28:DD:20:VAL:HB	2.07	0.55
15:AO:10:ILE:O	15:AO:14:PHE:HD1	1.89	0.55
4:BD:144:ILE:HG21	4:BD:149:LYS:HA	1.88	0.55
1:BA:620:C:C1'	4:BD:131:ILE:HD13	2.36	0.55
1:AA:918:A:C6	1:AA:919:A:C6	2.94	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:C3:31:ILE:CG2	54:C3:34:LYS:HE3	2.36	0.55
25:DA:621:A:OP2	25:DA:622:G:OP2	2.23	0.55
33:CI:91:LYS:HB3	33:CI:94:LYS:HG3	1.87	0.55
33:DI:120:ASP:O	33:DI:123:ALA:HB3	2.06	0.55
30:CF:19:PHE:O	30:CF:20:ASN:C	2.44	0.55
28:DD:55:LYS:HG3	28:DD:77:ARG:HA	1.88	0.55
7:BG:105:GLU:HA	7:BG:108:ARG:HB2	1.87	0.55
25:DA:1049:C:H2'	25:DA:1050:A:H5'	1.87	0.55
31:DG:15:ASP:HB2	31:DG:26:LYS:HG2	1.88	0.55
1:BA:924:C:O2'	1:BA:1502:A:N1	2.33	0.55
41:CQ:75:TYR:CZ	41:CQ:79:ILE:HG13	2.41	0.55
25:CA:1340:U:O2	25:CA:1340:U:O4'	2.13	0.55
1:BA:511:C:H1'	1:BA:512:U:C6	2.41	0.55
1:BA:1314:C:H2'	1:BA:1315:U:H6	1.72	0.55
1:BA:981:U:H2'	1:BA:982:U:C5	2.41	0.55
13:BM:90:HIS:O	13:BM:92:ARG:N	2.40	0.55
25:CA:1078:U:H5"	25:CA:1079:C:OP1	2.07	0.55
33:CI:24:GLY:O	33:CI:27:LEU:HD23	2.06	0.55
1:AA:1319:A:OP1	19:AS:4:LEU:HD21	2.06	0.55
34:CJ:80:HIS:HB3	34:CJ:81:ILE:CG2	2.34	0.55
38:CN:103:ARG:HD3	38:CN:110:MET:HE3	1.88	0.55
2:AB:209:VAL:O	2:AB:211:LEU:N	2.40	0.55
12:BL:20:VAL:N	12:BL:21:PRO:HD2	2.21	0.55
1:BA:987:G:C2	1:BA:1219:A:C2	2.94	0.55
25:DA:2148:G:H2'	25:DA:2149:U:H6	1.71	0.55
1:AA:626:G:H2'	1:AA:627:G:H5'	1.88	0.55
1:AA:91:U:C6	1:AA:92:U:C6	2.94	0.55
27:DC:231:HIS:NE2	27:DC:243:PRO:HA	2.20	0.55
25:CA:960:A:O3'	25:CA:961:C:H3'	2.06	0.55
25:CA:2144:G:C2'	25:CA:2147:A:H61	2.18	0.55
2:BB:124:THR:C	2:BB:125:PHE:CD2	2.80	0.55
25:DA:1181:U:H5"	25:DA:1182:G:OP2	2.06	0.55
25:DA:1773:A:N7	25:DA:1829:A:H1'	2.22	0.55
49:CY:5:GLU:C	49:CY:7:ARG:N	2.56	0.55
25:DA:2748:A:C4	25:DA:2749:A:C8	2.94	0.55
2:BB:222:GLU:OE2	2:BB:225:SER:HA	2.05	0.55
25:DA:1022:G:O6	34:DJ:68:LYS:HE2	2.05	0.55
25:DA:979:A:H2'	25:DA:982:C:H42	1.70	0.55
1:BA:687:A:C5	1:BA:701:U:C5	2.94	0.55
19:AS:50:VAL:HG21	19:AS:70:LEU:O	2.06	0.55
32:CH:129:GLU:HG2	32:CH:143:ILE:HG13	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:503:A:H5'	25:DA:505:A:OP1	2.06	0.55
1:AA:138:G:H2'	1:AA:139:A:H5'	1.87	0.55
30:CF:51:ASN:HB3	30:CF:146:ASP:CG	2.26	0.55
49:CY:18:LEU:O	49:CY:22:LEU:CB	2.54	0.55
25:DA:2311:A:C2	30:DF:84:ILE:HD11	2.41	0.55
25:DA:2250:G:OP1	37:DM:84:LYS:NZ	2.39	0.55
25:DA:962:G:H21	25:DA:2250:G:H1	1.54	0.55
46:DV:63:ILE:O	46:DV:65:VAL:HG12	2.06	0.55
1:AA:404:G:N7	4:AD:1:ALA:N	2.54	0.55
41:DQ:81:GLY:HA2	41:DQ:116:LEU:HD13	1.88	0.55
1:AA:1243:C:H2'	1:AA:1244:G:C8	2.42	0.55
1:AA:1294:G:C6	1:AA:1295:U:C4	2.95	0.55
25:DA:7:G:H4'	34:DJ:15:TRP:CZ2	2.41	0.55
1:BA:525:C:H2'	1:BA:526:C:H5'	1.88	0.55
27:CC:156:SER:O	27:CC:157:ALA:C	2.43	0.55
2:AB:71:THR:O	2:AB:72:LYS:CB	2.55	0.55
30:CF:43:ILE:HG22	30:CF:82:TYR:CE1	2.41	0.55
12:AL:101:LEU:HD13	12:AL:101:LEU:N	2.21	0.55
1:AA:299:G:N1	1:AA:300:A:C2	2.74	0.55
25:CA:2365:G:H2'	25:CA:2366:A:C8	2.42	0.55
31:CG:154:GLU:OE2	31:CG:157:LYS:HB2	2.06	0.55
25:DA:2441:U:OP1	25:DA:2441:U:H4'	2.05	0.55
25:DA:2813:A:H2'	25:DA:2814:A:C8	2.41	0.55
25:DA:104:A:C5	25:DA:105:C:C5	2.94	0.55
18:BR:59:LYS:O	18:BR:62:ARG:HB2	2.05	0.55
60:CA:3293:HOH:O	29:CE:98:LYS:HE2	2.07	0.55
25:CA:554:U:O2'	25:CA:555:G:H5'	2.06	0.55
1:AA:771:G:C2'	1:AA:772:U:H5'	2.36	0.55
25:CA:2219:U:H2'	25:CA:2220:U:O5'	2.06	0.55
39:CO:94:ARG:O	39:CO:96:GLY:N	2.39	0.55
2:AB:73:ARG:O	2:AB:74:ALA:HB2	2.06	0.55
5:AE:76:ASN:O	5:AE:77:ASN:CB	2.55	0.55
1:BA:978:A:N7	1:BA:1318:A:N6	2.54	0.55
33:DI:3:LYS:HD2	33:DI:4:VAL:H	1.72	0.55
33:CI:46:ASP:CA	33:CI:50:LYS:HD2	2.35	0.55
2:AB:110:ILE:O	2:AB:111:LYS:C	2.43	0.55
1:AA:1314:C:OP2	19:AS:5:LYS:NZ	2.38	0.55
1:AA:1322:C:O4'	1:AA:1322:C:O2	2.19	0.55
3:BC:129:PHE:CE2	3:BC:156:LEU:HD23	2.41	0.55
1:BA:306:A:C2'	1:BA:307:C:H5'	2.36	0.55
25:DA:1542:U:C2'	25:DA:1543:G:O5'	2.54	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1783:A:N1	25:DA:2587:A:H2'	2.21	0.55
1:BA:100:G:C5	1:BA:101:A:C5	2.94	0.55
11:BK:13:LYS:C	11:BK:13:LYS:CD	2.75	0.55
9:BI:25:GLY:H	9:BI:58:GLU:CA	2.19	0.55
2:BB:172:ILE:HG22	2:BB:176:ASN:OD1	2.06	0.55
1:BA:35:G:H2'	1:BA:36:C:C6	2.41	0.55
25:DA:1277:G:H4'	38:DN:20:MET:HE2	1.88	0.55
1:BA:451:A:H5'	16:BP:70:ARG:HH12	1.71	0.55
25:DA:1726:C:H2'	25:DA:1727:C:H6	1.70	0.55
51:D0:54:ILE:CG2	51:D0:55:ALA:N	2.70	0.55
56:DB:60:C:H2'	56:DB:61:G:H5'	1.88	0.55
42:DR:66:HIS:CE1	42:DR:94:THR:CG2	2.88	0.55
25:CA:611:C:C2'	25:CA:612:G:H5'	2.36	0.55
30:CF:142:TYR:HA	30:CF:145:VAL:HG13	1.87	0.55
48:DX:32:LEU:O	48:DX:33:HIS:CD2	2.60	0.55
1:BA:175:C:H2'	1:BA:176:C:C6	2.42	0.55
2:AB:70:GLY:CA	2:AB:163:ILE:HG22	2.35	0.55
1:AA:589:U:H2'	1:AA:590:U:H6	1.71	0.55
25:DA:2884:U:O2	25:DA:2884:U:O5'	2.23	0.55
25:DA:1355:G:C2	25:DA:1356:G:C8	2.95	0.55
49:CY:18:LEU:CD2	49:CY:22:LEU:HD22	2.35	0.55
1:BA:279:A:H4'	1:BA:281:G:C8	2.42	0.55
29:CE:12:LEU:C	29:CE:12:LEU:HD23	2.27	0.55
25:DA:2730:C:C2'	25:DA:2731:G:O5'	2.54	0.55
4:BD:86:GLY:CA	4:BD:196:GLU:HB3	2.37	0.55
1:AA:113:G:C6	1:AA:315:A:N6	2.74	0.55
6:AF:64:VAL:HG12	6:AF:65:GLU:N	2.22	0.55
46:DV:51:GLN:HB3	46:DV:56:PHE:CE2	2.42	0.55
1:BA:211:G:C2'	1:BA:212:G:O4'	2.54	0.55
26:CB:64:G:H2'	26:CB:65:U:C6	2.41	0.55
25:DA:817:C:P	60:DA:3585:HOH:O	2.63	0.55
7:BG:68:VAL:O	7:BG:70:PRO:HD3	2.06	0.55
26:CB:41:G:C6	30:CF:68:LYS:HE2	2.42	0.55
25:DA:680:C:H2'	25:DA:681:G:C8	2.40	0.55
37:DM:2:LEU:HD12	37:DM:2:LEU:N	2.20	0.55
25:DA:2660:A:H2'	25:DA:2661:G:C8	2.41	0.55
1:AA:52:C:O2'	1:AA:53:A:H5'	2.07	0.55
3:AC:5:HIS:CD2	3:AC:8:GLY:H	2.25	0.55
31:CG:86:LEU:HD11	31:CG:132:LEU:HD12	1.88	0.55
25:DA:2025:C:P	60:DA:3477:HOH:O	2.64	0.55
27:CC:182:LYS:O	27:CC:183:VAL:HG23	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:417:G:C5	1:BA:418:C:C4	2.93	0.55
44:DT:26:LYS:O	44:DT:26:LYS:HG2	2.06	0.55
25:DA:77:G:OP1	49:DY:52:ARG:HD3	2.06	0.55
25:DA:863:A:C2'	25:DA:864:G:O5'	2.54	0.55
25:DA:2221:G:C2'	25:DA:2222:C:H5'	2.36	0.55
25:CA:236:C:H2'	25:CA:237:C:H6	1.71	0.55
1:BA:935:A:C2	1:BA:936:C:C2	2.94	0.55
1:BA:1379:G:O6	7:BG:1:PRO:HD2	2.06	0.55
4:BD:3:TYR:CE1	4:BD:5:GLY:HA3	2.41	0.55
6:AF:86:ARG:NH1	6:AF:86:ARG:CG	2.69	0.55
25:CA:1057:A:C5	25:CA:1086:A:H2'	2.41	0.55
1:BA:1273:C:C5	1:BA:1274:A:N7	2.74	0.55
25:DA:2204:G:H2'	25:DA:2205:A:H8	1.72	0.55
4:AD:169:TRP:NE1	4:AD:185:PRO:CG	2.66	0.55
17:BQ:15:LYS:O	17:BQ:16:MET:SD	2.65	0.55
5:BE:150:GLU:CG	5:BE:151:MET:SD	2.95	0.55
11:AK:50:GLY:O	11:AK:51:PHE:CD2	2.58	0.55
36:DL:119:PRO:HG3	36:DL:138:ALA:O	2.06	0.55
4:AD:150:LYS:HA	4:AD:177:MET:CE	2.36	0.55
33:CI:102:ARG:N	33:CI:141:ASP:HA	2.21	0.55
5:AE:132:PRO:C	5:AE:134:ASN:H	2.09	0.55
5:AE:152:VAL:HG22	5:AE:153:ALA:N	2.21	0.55
16:AP:75:ILE:O	16:AP:77:GLU:N	2.39	0.55
25:CA:2305:U:H3	30:CF:150:GLY:HA3	1.67	0.55
1:BA:1093:A:C2	1:BA:1095:U:H4'	2.41	0.55
2:BB:180:ILE:HG22	2:BB:181:PRO:O	2.07	0.55
25:CA:100:U:C2	25:CA:101:A:N6	2.75	0.55
25:DA:1906:G:H5"	25:DA:1929:G:O2'	2.06	0.55
25:CA:545:U:O2	25:CA:545:U:O5'	2.25	0.55
4:BD:31:CYS:O	4:BD:32:LYS:CB	2.54	0.55
25:CA:2571:U:O2'	28:CD:151:THR:HG22	2.06	0.55
19:AS:40:PHE:O	19:AS:43:MET:HG3	2.06	0.55
25:DA:614:A:O2'	25:DA:615:U:OP2	2.24	0.55
10:AJ:5:ARG:HE	10:AJ:79:PRO:HG3	1.71	0.55
33:CI:6:ALA:HB1	33:CI:60:VAL:HG23	1.88	0.55
1:AA:246:A:H4'	1:AA:247:G:OP1	2.07	0.55
4:AD:167:PRO:CG	4:AD:170:LEU:HD11	2.37	0.55
4:BD:195:ASN:HB3	4:BD:197:HIS:CD2	2.41	0.55
29:CE:108:ILE:HD12	36:CL:2:ARG:HH12	1.71	0.55
15:BO:75:ALA:C	15:BO:77:TYR:N	2.56	0.55
15:BO:77:TYR:O	15:BO:80:LEU:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:353:A:H2'	1:AA:354:G:OP2	2.05	0.55
25:DA:1184:U:O2'	25:DA:1185:G:H5'	2.06	0.55
1:BA:403:C:O2'	1:BA:404:G:H5'	2.07	0.55
25:DA:665:U:N3	25:DA:666:A:N7	2.55	0.55
31:CG:123:GLU:CD	31:CG:124:CYS:N	2.60	0.55
7:BG:137:ARG:NH2	7:BG:138:GLU:HG2	2.21	0.55
18:BR:24:ASP:O	18:BR:27:THR:N	2.39	0.55
46:CV:93:ARG:O	46:CV:94:ALA:HB2	2.05	0.55
16:AP:50:THR:O	16:AP:51:ARG:C	2.44	0.55
22:BV:74:C:H5'	22:BV:75:C:OP2	2.07	0.55
45:CU:97:SER:O	45:CU:98:ASN:CB	2.54	0.55
10:AJ:100:ILE:HG13	10:AJ:101:SER:N	2.22	0.55
1:BA:349:A:O2'	1:BA:350:G:H5'	2.06	0.55
13:AM:94:LEU:CB	13:AM:95:PRO:CD	2.83	0.55
25:CA:851:C:H2'	25:CA:852:U:C6	2.40	0.55
25:DA:2554:U:C4	25:DA:2555:U:O4	2.59	0.55
25:DA:2078:C:H2'	25:DA:2079:U:O4'	2.06	0.55
25:CA:1707:G:O2'	25:CA:1708:C:H5'	2.07	0.55
25:CA:2519:U:C5	25:CA:2541:A:C6	2.94	0.55
25:CA:2846:G:H2'	25:CA:2847:U:O4'	2.07	0.55
11:AK:110:THR:HG23	21:AU:4:LYS:HB3	1.87	0.55
25:DA:2032:G:C2	28:DD:150:GLN:HG2	2.42	0.55
33:DI:102:ARG:O	33:DI:106:GLN:HB2	2.07	0.55
54:C3:16:THR:HG23	54:C3:20:GLY:O	2.06	0.55
22:BV:54:U:O5'	22:BV:54:U:H6	1.90	0.55
25:DA:1497:U:H3'	25:DA:1498:C:H6	1.71	0.55
8:AH:24:VAL:O	8:AH:24:VAL:HG13	2.07	0.55
25:CA:806:C:O2	25:CA:2444:G:O2'	2.25	0.55
11:AK:30:ILE:CB	11:AK:45:THR:HG22	2.37	0.55
2:AB:116:LEU:HG	2:AB:140:LEU:CD1	2.37	0.55
1:AA:1222:G:C6	1:AA:1223:C:C4	2.95	0.55
1:AA:1313:U:P	19:AS:5:LYS:CB	2.94	0.55
1:AA:1253:G:H1'	1:AA:1355:G:O2'	2.07	0.55
32:DH:25:TYR:CZ	32:DH:30:LEU:HD11	2.42	0.55
1:AA:1102:A:O2'	1:AA:1103:C:H5'	2.07	0.55
46:CV:4:ILE:HD11	46:CV:56:PHE:HE1	1.71	0.55
13:AM:21:ILE:HG22	13:AM:22:TYR:O	2.06	0.55
10:AJ:33:GLY:HA3	10:AJ:83:THR:CB	2.37	0.55
25:CA:1167:C:C2'	25:CA:1168:G:H5"	2.35	0.55
1:BA:1141:C:O2'	1:BA:1142:G:O5'	2.23	0.55
36:DL:119:PRO:CA	36:DL:138:ALA:O	2.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:35:GLU:OE2	21:AU:37:TYR:HD1	1.90	0.55
21:AU:39:LYS:N	21:AU:40:PRO:HD2	2.21	0.55
1:AA:504:C:O4'	1:AA:510:A:C2	2.59	0.55
5:AE:132:PRO:HA	5:AE:135:VAL:CG1	2.36	0.55
5:AE:99:SER:O	5:AE:100:GLU:C	2.44	0.55
1:BA:76:G:N2	1:BA:95:C:C2	2.74	0.55
1:BA:1299:A:C6	1:BA:1301:U:O2	2.60	0.55
31:DG:148:ARG:HA	31:DG:161:VAL:HG11	1.89	0.55
8:AH:4:ASP:HB2	8:AH:80:PRO:CG	2.36	0.55
32:DH:3:VAL:HA	32:DH:39:ALA:N	2.21	0.55
8:BH:7:ALA:HB2	8:BH:76:ARG:HD2	1.88	0.55
12:BL:43:LYS:HB2	12:BL:44:PRO:HD3	1.89	0.55
25:DA:1045:C:H4'	25:DA:1047:G:N7	2.21	0.55
34:DJ:3:THR:HG23	34:DJ:4:PHE:N	2.22	0.55
11:AK:91:GLY:O	11:AK:95:THR:CG2	2.54	0.55
56:DB:62:C:C2	56:DB:63:C:C5	2.95	0.55
14:BN:83:LYS:HA	14:BN:83:LYS:HE2	1.87	0.55
30:CF:42:ALA:CB	30:CF:45:ASP:O	2.54	0.55
1:BA:687:A:C4	1:BA:701:U:H5	2.25	0.55
6:BF:18:VAL:HG12	6:BF:19:PRO:N	2.21	0.55
1:BA:149:A:C2'	1:BA:150:U:H5'	2.36	0.55
1:BA:1368:A:H2'	1:BA:1369:C:C6	2.40	0.55
26:CB:30:C:H2'	26:CB:31:C:H5'	1.88	0.55
27:CC:123:ILE:O	27:CC:123:ILE:HG22	2.06	0.55
32:CH:14:SER:HB3	32:CH:17:ASP:OD2	2.05	0.55
1:AA:769:G:H2'	1:AA:770:C:O5'	2.07	0.55
25:DA:2403:C:N3	25:DA:2404:U:C5	2.74	0.55
28:CD:2:ILE:HD13	28:CD:90:PHE:CE1	2.42	0.55
25:DA:2249:U:H4'	25:DA:2250:G:OP2	2.06	0.55
4:AD:3:TYR:CD1	4:AD:3:TYR:O	2.60	0.55
18:BR:39:VAL:HG13	18:BR:40:PRO:HD2	1.88	0.55
30:CF:107:VAL:HG12	30:CF:108:PRO:CD	2.36	0.55
25:CA:1243:C:C2'	25:CA:1244:A:O5'	2.53	0.55
25:CA:2392:A:H5'	54:C3:27:ASN:OD1	2.07	0.55
16:BP:77:GLU:C	16:BP:79:ASN:H	2.08	0.55
25:DA:659:G:H4'	29:DE:95:LYS:HD3	1.89	0.55
29:DE:193:VAL:O	29:DE:197:GLU:HB2	2.06	0.55
25:DA:133:U:H3'	25:DA:133:U:C6	2.41	0.55
1:AA:1462:C:H2'	1:AA:1463:U:C6	2.41	0.55
25:CA:1266:G:O6	43:CS:13:SER:HB3	2.06	0.55
34:CJ:29:ALA:HA	34:CJ:32:LEU:HB2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2751:G:C4	31:CG:2:ARG:CD	2.90	0.55
25:CA:1458:U:H4'	25:CA:1459:G:O5'	2.06	0.55
1:BA:389:A:C6	1:BA:390:U:H1'	2.42	0.55
32:CH:60:GLU:O	32:CH:63:ALA:HB3	2.06	0.55
25:DA:182:A:C5	25:DA:183:C:C4	2.94	0.55
1:BA:791:G:C2'	1:BA:792:A:H5'	2.36	0.55
8:AH:33:VAL:HG12	8:AH:34:ALA:N	2.21	0.55
25:DA:674:G:H1'	29:DE:69:ARG:HD3	1.88	0.55
9:BI:117:LEU:N	9:BI:117:LEU:CD1	2.70	0.55
25:CA:2163:A:H3'	25:CA:2164:C:H4'	1.89	0.55
25:CA:415:A:C2	25:CA:2409:G:C2	2.94	0.55
25:DA:1315:C:C2	25:DA:1338:G:N2	2.75	0.55
44:DT:32:LEU:O	44:DT:34:VAL:CG1	2.54	0.55
25:CA:1073:A:H3'	25:CA:1074:G:H5'	1.86	0.55
1:AA:1217:C:H2'	1:AA:1218:C:H6	1.70	0.55
1:AA:976:G:H5'	1:AA:977:A:OP1	2.07	0.55
25:DA:1748:C:H2'	25:DA:1749:A:O5'	2.07	0.55
32:DH:11:ASN:C	32:DH:12:LEU:HD23	2.26	0.55
25:CA:1178:C:C2'	25:CA:1179:G:N7	2.69	0.55
6:AF:3:HIS:H	6:AF:92:THR:HG23	1.72	0.55
25:CA:2747:G:O2'	31:CG:66:THR:HG22	2.07	0.55
56:DB:51:G:C8	39:DO:64:TYR:HE2	2.24	0.55
1:BA:1124:G:O2'	1:BA:1145:A:N6	2.39	0.55
25:DA:1936:A:H2	25:DA:1943:U:N3	2.05	0.55
7:BG:123:LEU:O	7:BG:126:ALA:HB3	2.07	0.55
31:CG:37:ASN:O	31:CG:38:ASP:HB3	2.04	0.55
20:BT:85:LEU:O	20:BT:85:LEU:HG	2.07	0.55
1:BA:1148:U:C5	1:BA:1149:C:C4	2.95	0.55
1:BA:1148:U:H2'	1:BA:1149:C:O4'	2.05	0.55
1:AA:1305:G:O2'	1:AA:1306:A:H8	1.87	0.55
9:AI:51:LEU:HA	9:AI:54:VAL:CG2	2.36	0.55
6:BF:88:MET:CE	18:BR:63:TYR:CD2	2.90	0.55
25:DA:363:G:H2'	25:DA:364:C:H6	1.71	0.55
25:CA:1495:A:O2'	25:CA:1496:A:H5'	2.07	0.55
1:BA:375:U:C4	1:BA:376:G:N7	2.74	0.55
25:CA:1045:C:O5'	25:CA:1046:A:H5'	2.07	0.55
40:CP:102:ARG:CD	40:CP:106:ALA:O	2.55	0.55
21:BU:24:LYS:HG2	21:BU:25:ALA:N	2.21	0.55
3:BC:39:ARG:HG2	3:BC:54:ILE:HD11	1.87	0.55
19:AS:50:VAL:CG2	19:AS:70:LEU:HD13	2.36	0.55
25:DA:2747:G:O6	25:DA:2755:C:H5"	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2014:A:H2'	25:DA:2015:A:C8	2.42	0.55
32:CH:129:GLU:HA	32:CH:142:VAL:O	2.06	0.55
28:CD:101:PHE:CE2	28:CD:203:VAL:HG12	2.41	0.55
1:AA:1168:U:O2	1:AA:1168:U:C2'	2.53	0.55
25:DA:729:G:H2'	25:DA:1775:U:H1'	1.87	0.55
25:CA:45:G:C4'	25:CA:46:G:H5'	2.36	0.55
33:DI:14:ALA:HB1	33:DI:45:THR:HG21	1.87	0.55
15:BO:25:GLU:OE2	15:BO:76:ARG:HB3	2.07	0.55
56:DB:20:G:C2'	56:DB:21:G:H5'	2.37	0.55
25:DA:1483:G:C2	25:DA:1484:U:C6	2.95	0.55
32:CH:2:GLN:O	32:CH:19:VAL:O	2.24	0.55
9:AI:90:ASP:OD2	9:AI:93:LEU:HG	2.06	0.55
7:BG:106:ALA:HB1	7:BG:122:GLU:HG3	1.88	0.55
1:BA:1088:G:C4	1:BA:1089:G:C8	2.93	0.55
3:AC:154:GLY:CA	3:AC:162:ALA:HB1	2.37	0.55
3:AC:164:THR:O	3:AC:165:GLU:HB2	2.06	0.55
25:CA:2313:C:H6	25:CA:2313:C:H3'	1.71	0.55
13:AM:106:ARG:HG2	13:AM:106:ARG:NH1	2.22	0.55
28:CD:39:ASP:OD1	28:CD:46:ARG:HD2	2.06	0.55
25:DA:996:A:H4'	41:DQ:90:ASP:OD1	2.07	0.55
25:DA:1717:A:C2	25:DA:1718:G:H1'	2.42	0.55
25:DA:1346:G:C2'	25:DA:1347:A:O5'	2.54	0.55
29:DE:5:LEU:O	29:DE:7:ASP:N	2.39	0.55
25:CA:2544:G:O2'	25:CA:2545:G:H5'	2.06	0.55
57:DW:46:ASN:HB3	57:DW:59:ALA:HB3	1.88	0.55
25:CA:2375:G:O2'	25:CA:2377:A:N7	2.32	0.55
25:DA:108:G:O2'	25:DA:109:C:H5'	2.06	0.55
20:AT:7:LYS:O	20:AT:10:ALA:HB3	2.06	0.55
25:CA:1830:C:O5'	25:CA:1830:C:H6	1.89	0.55
25:CA:213:A:C2	25:CA:214:G:C5	2.95	0.55
4:BD:10:LEU:N	4:BD:10:LEU:HD23	2.21	0.55
40:DP:81:ASP:O	40:DP:81:ASP:OD2	2.24	0.55
25:CA:2704:C:H3'	25:CA:2705:A:H8	1.71	0.55
1:BA:1518:A:C2	1:BA:1519:A:C2	2.95	0.55
1:BA:1317:C:H2'	1:BA:1318:A:O4'	2.07	0.55
1:BA:1375:A:C2'	1:BA:1376:U:H5'	2.37	0.55
1:BA:928:G:O2'	1:BA:929:G:H5'	2.06	0.55
33:DI:7:TYR:HB3	33:DI:58:ILE:O	2.06	0.55
2:AB:147:LEU:CD2	2:AB:150:ILE:HG21	2.35	0.55
1:AA:1226:C:C5	13:AM:102:LYS:HB2	2.42	0.55
1:BA:1276:G:C4	1:BA:1277:C:C5	2.95	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:109:LEU:HD13	29:DE:180:LEU:CD1	2.37	0.55
25:DA:2292:U:C2	25:DA:2293:G:C8	2.94	0.55
11:BK:121:ARG:NH1	21:BU:35:GLU:HG2	2.22	0.55
2:AB:206:ILE:HD13	2:AB:207:ARG:H	1.72	0.55
36:DL:96:LYS:HE2	36:DL:103:ILE:O	2.06	0.55
25:CA:280:U:H2'	25:CA:281:C:C6	2.42	0.55
1:BA:307:C:H2'	1:BA:308:C:O5'	2.07	0.55
8:AH:28:SER:HB3	8:AH:56:PRO:HB3	1.89	0.55
25:DA:1436:G:C2'	25:DA:1437:C:O5'	2.55	0.55
25:DA:1606:C:H6	25:DA:1606:C:H3'	1.70	0.55
1:BA:1124:G:N2	1:BA:1127:G:N2	2.55	0.55
25:CA:1063:G:H4'	33:CI:76:ALA:CB	2.36	0.55
1:BA:84:U:O2'	1:BA:85:U:H5'	2.07	0.55
25:DA:2262:U:C2'	25:DA:2263:C:H5'	2.37	0.55
1:AA:373:A:C4	1:AA:482:A:N7	2.75	0.55
1:AA:377:G:OP1	16:AP:5:ARG:HD3	2.07	0.55
9:BI:26:LYS:O	9:BI:62:LEU:HD23	2.07	0.55
32:DH:40:THR:O	32:DH:41:LYS:C	2.44	0.55
1:AA:1202:U:H2'	1:AA:1203:C:O4'	2.07	0.55
38:CN:49:GLU:N	38:CN:50:PRO:CD	2.70	0.55
1:BA:1007:U:H2'	1:BA:1008:U:C5'	2.36	0.55
40:DP:60:VAL:O	40:DP:70:GLU:HA	2.07	0.55
14:BN:91:GLY:O	14:BN:93:ILE:N	2.40	0.55
12:BL:89:LEU:CB	12:BL:92:VAL:HG21	2.34	0.55
15:AO:63:ARG:NH1	15:AO:87:ARG:NH2	2.55	0.55
27:DC:158:GLY:N	27:DC:194:VAL:HG22	2.21	0.55
25:DA:1241:A:C8	25:DA:1242:U:C5	2.94	0.55
1:AA:1107:C:C5	1:AA:1108:G:C8	2.94	0.55
25:CA:2647:U:O2'	25:CA:2648:G:H5'	2.07	0.55
25:CA:1171:G:C2	25:CA:1172:C:O2	2.60	0.55
27:CC:129:LEU:CD2	27:CC:129:LEU:N	2.70	0.55
25:CA:2334:U:H4'	25:CA:2335:A:OP2	2.06	0.55
25:CA:1503:A:C2	25:CA:1504:A:C4	2.94	0.55
14:BN:44:ALA:HA	14:BN:47:LYS:HG3	1.89	0.55
29:CE:150:THR:HG22	29:CE:170:ARG:O	2.06	0.55
1:BA:1160:G:C2	1:BA:1161:C:C2	2.95	0.55
25:CA:907:G:H2'	25:CA:908:C:H5'	1.89	0.55
7:AG:134:VAL:CG2	7:AG:135:LYS:N	2.69	0.55
57:DW:32:ILE:HG23	57:DW:54:THR:HG23	1.88	0.55
16:AP:50:THR:HG22	16:AP:50:THR:O	2.06	0.55
27:CC:195:GLY:O	27:CC:196:ASN:O	2.25	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1392:A:C5	25:DA:1393:A:N6	2.75	0.55
25:DA:402:A:C2'	25:DA:403:U:H5'	2.36	0.55
31:DG:26:LYS:O	31:DG:27:GLY:O	2.25	0.55
39:CO:27:VAL:HG12	39:CO:93:ASP:HB3	1.87	0.55
55:D4:25:VAL:HB	55:D4:35:GLN:HG3	1.88	0.55
1:BA:1172:C:H2'	1:BA:1173:U:C6	2.41	0.55
25:CA:1863:G:C2	25:CA:1880:U:O2	2.60	0.55
30:DF:121:PHE:HB3	30:DF:162:ASP:HB2	1.88	0.55
40:CP:36:LYS:HE3	40:CP:38:ARG:HE	1.72	0.55
25:DA:2523:G:O2'	25:DA:2524:G:H5'	2.07	0.55
27:CC:124:LYS:HB2	27:CC:125:PRO:HD2	1.89	0.55
25:DA:1063:G:H3'	25:DA:1064:C:H6	1.70	0.55
33:DI:57:VAL:HG12	33:DI:58:ILE:N	2.22	0.55
11:AK:111:ASP:O	21:AU:3:ILE:CG2	2.55	0.55
2:AB:138:ARG:HG3	2:AB:139:GLU:H	1.72	0.55
1:AA:1355:G:H2'	1:AA:1356:G:H8	1.72	0.55
1:AA:1153:G:C6	1:AA:1154:G:N7	2.74	0.55
42:DR:39:LEU:N	42:DR:39:LEU:HD12	2.21	0.55
25:DA:2207:C:N3	25:DA:2218:G:C2	2.75	0.55
13:BM:1:ALA:CB	13:BM:9:PRO:O	2.55	0.55
25:DA:2193:G:C2	25:DA:2194:U:C5	2.95	0.55
32:DH:32:PRO:HG3	48:DX:38:TRP:HB3	1.88	0.55
32:DH:9:VAL:HG22	32:DH:35:LYS:CE	2.36	0.55
31:CG:8:VAL:HG12	31:CG:49:LEU:O	2.06	0.55
2:BB:94:ARG:H	2:BB:94:ARG:NE	2.05	0.55
36:DL:77:ILE:HG22	36:DL:78:ARG:O	2.06	0.55
25:CA:282:A:H2'	25:CA:283:G:H8	1.72	0.55
25:DA:1436:G:H2'	25:DA:1437:C:O5'	2.07	0.55
25:DA:1459:G:O2'	25:DA:1460:U:H2'	2.06	0.55
1:BA:1262:C:C5	1:BA:1263:C:C4	2.95	0.55
1:BA:786:G:C2	1:BA:787:A:H1'	2.42	0.55
1:BA:972:C:H2'	10:BJ:57:VAL:HG23	1.89	0.55
13:AM:28:ARG:CZ	13:AM:62:PHE:CB	2.85	0.55
2:AB:55:GLU:HA	2:AB:58:LYS:HB3	1.87	0.55
1:AA:5:U:OP1	1:AA:5:U:C2	2.60	0.55
10:BJ:34:ALA:HB3	10:BJ:78:GLU:HG2	1.89	0.55
8:BH:7:ALA:CB	8:BH:76:ARG:HG3	2.37	0.55
30:DF:7:TYR:O	30:DF:12:VAL:HG23	2.06	0.55
1:BA:1211:U:C2'	1:BA:1212:U:OP2	2.54	0.55
1:BA:474:G:C5	1:BA:475:C:C5	2.95	0.55
56:DB:9:G:OP1	39:DO:15:ARG:HD2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:BH:79:ARG:HB2	8:BH:80:PRO:HD3	1.87	0.55
1:BA:1192:C:C5	1:BA:1193:G:C8	2.95	0.55
27:DC:236:GLY:O	27:DC:237:ARG:HB2	2.07	0.55
6:AF:42:TRP:CZ2	6:AF:61:LEU:HB2	2.42	0.55
5:AE:45:VAL:O	5:AE:70:MET:CG	2.54	0.55
22:BV:75:C:H3'	22:BV:76:A:H3'	1.89	0.55
1:BA:420:U:H2'	1:BA:421:U:H5"	1.88	0.55
25:DA:90:U:H3'	25:DA:91:A:C8	2.42	0.55
25:CA:2751:G:C4	31:CG:2:ARG:HD2	2.42	0.55
27:DC:32:LEU:O	27:DC:63:ILE:HD12	2.06	0.55
25:DA:1425:G:H2'	25:DA:1426:G:C8	2.41	0.55
25:CA:1441:G:H2'	25:CA:1442:U:H6	1.72	0.55
24:AY:131:ASN:O	24:AY:135:ASP:OD2	2.24	0.55
32:CH:122:LEU:HD13	32:CH:128:HIS:CD2	2.42	0.55
1:AA:570:G:H1'	1:AA:820:U:C4	2.42	0.55
31:CG:68:ARG:O	31:CG:68:ARG:HD3	2.06	0.55
9:BI:16:ALA:HB2	9:BI:66:VAL:HG23	1.88	0.55
1:BA:1012:A:C2	1:BA:1018:G:C2	2.95	0.55
30:DF:126:ASN:OD1	30:DF:156:THR:HA	2.07	0.55
25:DA:2776:A:C6	25:DA:2778:A:C6	2.95	0.55
25:DA:2271:G:H8	25:DA:2271:G:O5'	1.90	0.55
25:CA:1762:A:H8	25:CA:1762:A:O5'	1.90	0.55
25:DA:1946:U:C2'	25:DA:1947:C:H5'	2.37	0.55
33:DI:93:ASN:HD21	33:DI:134:SER:HA	1.72	0.55
25:DA:126:A:O5'	53:D2:19:ARG:HG3	2.06	0.55
49:DY:9:LYS:H	49:DY:12:GLU:CG	2.19	0.55
33:CI:18:ASN:CB	33:CI:37:PHE:HB3	2.35	0.55
2:AB:86:CYS:HB2	2:AB:88:GLN:OE1	2.05	0.55
14:AN:78:GLY:C	14:AN:79:LEU:HG	2.27	0.55
31:CG:8:VAL:HG12	31:CG:49:LEU:HB2	1.88	0.55
1:BA:486:U:H2'	1:BA:486:U:O2	2.07	0.55
56:DB:89:U:OP2	56:DB:89:U:C4'	2.55	0.55
25:CA:1187:G:HO2'	25:CA:1188:U:H6	1.55	0.55
1:AA:694:A:H2'	1:AA:695:A:O5'	2.07	0.55
1:AA:142:G:H5'	1:AA:143:A:OP2	2.07	0.55
1:AA:175:C:C2'	1:AA:176:C:H5'	2.37	0.55
39:DO:75:GLY:HA3	39:DO:106:LEU:HD23	1.89	0.55
1:BA:82:G:C6	1:BA:83:C:C2	2.94	0.55
1:BA:1261:A:C4	1:BA:1262:C:C6	2.95	0.55
55:D4:26:ILE:N	55:D4:26:ILE:HD13	2.21	0.55
11:BK:76:TYR:N	11:BK:76:TYR:CD1	2.75	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BT:27:MET:O	20:BT:31:ILE:HG13	2.07	0.55
31:DG:120:ILE:HG21	31:DG:140:ILE:HG22	1.89	0.55
9:AI:46:VAL:O	9:AI:49:GLN:HB2	2.06	0.55
6:BF:46:GLN:HA	6:BF:56:LYS:CG	2.37	0.55
52:C1:16:THR:CG2	52:C1:41:VAL:HG11	2.36	0.55
30:DF:7:TYR:HA	30:DF:11:VAL:CB	2.35	0.55
25:CA:1071:G:H8	25:CA:1071:G:OP2	1.90	0.55
3:BC:96:VAL:HB	3:BC:97:PRO:HD2	1.88	0.55
29:DE:175:ILE:O	29:DE:175:ILE:HG13	2.06	0.55
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.36	0.55
25:DA:1794:A:O4'	25:DA:1900:A:C2	2.60	0.55
13:AM:2:ARG:HG3	13:AM:3:ILE:N	2.19	0.55
25:DA:962:G:O2'	25:DA:963:U:H5'	2.06	0.55
25:DA:666:A:C4	25:DA:667:U:C5	2.94	0.55
1:BA:1157:A:C6	1:BA:1180:A:C5	2.94	0.55
39:CO:31:THR:O	39:CO:102:ARG:NH1	2.37	0.55
1:AA:1294:G:N3	1:AA:1294:G:H2'	2.21	0.55
25:CA:2619:C:OP1	28:CD:157:LYS:HE2	2.06	0.55
35:CK:90:ASN:O	35:CK:91:SER:HB3	2.06	0.55
31:CG:150:TYR:O	31:CG:151:ARG:HB2	2.07	0.55
30:CF:105:ILE:C	30:CF:108:PRO:HD2	2.27	0.55
13:AM:106:ARG:HG2	13:AM:106:ARG:HH11	1.71	0.55
25:CA:188:G:H2'	25:CA:189:G:H5'	1.89	0.55
25:DA:753:A:H2'	25:DA:754:U:C6	2.42	0.55
5:AE:105:ILE:HD11	5:AE:123:LEU:HB3	1.89	0.55
3:AC:7:ASN:OD1	3:AC:7:ASN:C	2.46	0.55
25:CA:1248:G:OP1	41:CQ:1:ALA:N	2.39	0.55
1:BA:652:U:H1'	1:BA:653:U:C5	2.42	0.55
25:CA:1932:A:H2'	25:CA:1933:G:O4'	2.07	0.55
45:CU:35:VAL:O	45:CU:36:GLU:C	2.45	0.55
25:DA:1744:A:H3'	25:DA:1745:A:H8	1.71	0.55
39:CO:24:THR:HG22	39:CO:42:PRO:CD	2.37	0.55
45:DU:44:HIS:CD2	45:DU:57:ILE:HG12	2.41	0.55
4:BD:25:ARG:HH11	4:BD:30:LYS:HE3	1.72	0.55
49:DY:31:GLN:HG2	49:DY:37:LEU:HB2	1.88	0.55
2:AB:81:ASP:O	2:AB:82:ALA:C	2.45	0.55
1:AA:985:C:C2	1:AA:1221:G:N2	2.75	0.55
1:AA:257:G:C2	1:AA:258:G:C5	2.95	0.55
1:BA:1255:G:N1	1:BA:1279:G:C8	2.75	0.55
17:AQ:58:VAL:HG22	17:AQ:60:ILE:HD13	1.89	0.55
52:D1:42:VAL:CG1	52:D1:44:GLN:HB2	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DP:58:PHE:CD2	40:DP:58:PHE:N	2.75	0.55
25:DA:1414:C:C2	25:DA:1415:U:H5	2.25	0.55
36:DL:136:GLU:HA	36:DL:140:GLY:HA3	1.89	0.55
25:DA:2784:U:O2'	25:DA:2785:C:H5'	2.07	0.55
1:BA:764:C:H2'	1:BA:765:G:H8	1.72	0.55
1:AA:1080:A:OP1	5:AE:51:LYS:CE	2.55	0.55
25:DA:2585:U:O2'	25:DA:2586:U:O5'	2.24	0.55
25:CA:1452:G:O2'	25:CA:1453:A:OP1	2.25	0.55
1:BA:1103:C:C4	1:BA:1104:G:N7	2.75	0.55
25:CA:2139:U:H2'	25:CA:2140:G:H8	1.72	0.55
1:BA:501:C:H2'	1:BA:502:A:C8	2.41	0.55
45:DU:8:ASP:HB3	45:DU:24:VAL:HG23	1.88	0.55
32:DH:27:ARG:HE	48:DX:59:ASP:HA	1.72	0.55
2:AB:22:TRP:HA	2:AB:189:ASN:HA	1.89	0.55
2:AB:202:ASN:C	2:AB:202:ASN:OD1	2.45	0.55
38:CN:2:ARG:C	38:CN:2:ARG:CD	2.75	0.55
25:DA:415:A:C5	25:DA:416:U:C5	2.95	0.55
30:CF:48:LEU:O	30:CF:51:ASN:N	2.39	0.55
9:BI:90:ASP:OD2	9:BI:93:LEU:HG	2.07	0.55
25:DA:2188:U:H2'	25:DA:2189:U:C1'	2.37	0.55
32:CH:9:VAL:O	32:CH:10:ALA:O	2.25	0.55
9:AI:66:VAL:O	9:AI:66:VAL:HG13	2.06	0.55
5:AE:64:GLU:OE2	5:AE:68:ARG:NH2	2.40	0.55
25:DA:404:A:H1'	25:DA:405:U:P	2.47	0.55
30:CF:62:GLN:HE22	30:CF:94:ARG:HD3	1.72	0.55
37:DM:36:VAL:O	37:DM:98:PRO:HB3	2.07	0.55
7:BG:87:PRO:HB3	7:BG:144:ALA:CB	2.37	0.55
25:CA:2313:C:C6	25:CA:2313:C:H3'	2.42	0.55
56:DB:15:A:C5	56:DB:109:A:C2	2.95	0.55
8:BH:100:ILE:HG22	8:BH:112:ASP:OD1	2.07	0.55
31:CG:26:LYS:HB3	31:CG:31:GLU:HG3	1.88	0.55
31:DG:10:VAL:HG23	31:DG:14:VAL:CG1	2.37	0.55
1:AA:55:A:C2	1:AA:56:U:H1'	2.42	0.55
27:DC:32:LEU:O	27:DC:63:ILE:CD1	2.55	0.55
1:BA:29:U:O2'	1:BA:30:U:H5'	2.06	0.55
25:DA:2138:G:C5	25:DA:2154:A:C2	2.95	0.55
25:DA:1973:G:C2'	25:DA:1974:C:H5'	2.37	0.55
25:DA:2722:G:H2'	25:DA:2723:C:C6	2.42	0.55
3:BC:176:THR:HG22	3:BC:178:ARG:HG3	1.89	0.55
3:BC:178:ARG:O	3:BC:205:GLU:O	2.25	0.55
25:DA:2007:U:H2'	25:DA:2008:C:O5'	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:543:G:H1'	25:CA:551:G:N2	2.21	0.55
14:BN:10:VAL:O	14:BN:11:LYS:C	2.45	0.55
1:AA:188:C:O2	1:AA:188:C:H2'	2.05	0.55
25:CA:1626:A:H8	25:CA:1626:A:OP2	1.90	0.55
1:BA:690:G:H2'	1:BA:691:G:O4'	2.07	0.55
27:CC:24:HIS:CD2	27:CC:79:ARG:CZ	2.90	0.55
1:BA:1269:A:C8	1:BA:1270:G:C1'	2.90	0.54
1:BA:1323:G:O2'	1:BA:1324:A:H5'	2.07	0.54
1:BA:958:A:C6	1:BA:959:A:N1	2.75	0.54
13:BM:77:LYS:HA	13:BM:80:MET:CE	2.36	0.54
1:BA:1364:U:C2'	1:BA:1364:U:O2	2.54	0.54
25:CA:1096:A:H2'	25:CA:1097:U:O4'	2.07	0.54
1:AA:987:G:O2'	1:AA:988:G:H5'	2.07	0.54
17:BQ:11:VAL:O	17:BQ:12:VAL:CB	2.55	0.54
36:DL:93:ASN:C	36:DL:95:LEU:H	2.10	0.54
38:DN:33:ILE:CG2	38:DN:33:ILE:O	2.54	0.54
25:DA:2111:U:H5'	25:DA:2112:G:OP2	2.07	0.54
56:DB:43:C:H1'	30:DF:89:THR:HG21	1.88	0.54
1:AA:429:U:O2	1:AA:430:A:H5"	2.07	0.54
25:DA:2834:G:H2'	25:DA:2879:A:N6	2.22	0.54
25:CA:1838:C:C2	25:CA:1898:U:H5	2.25	0.54
5:AE:80:LEU:HA	5:AE:146:MET:HE1	1.88	0.54
22:AV:60:U:H5"	22:AV:61:C:C5	2.41	0.54
11:BK:15:VAL:O	11:BK:16:SER:CB	2.55	0.54
1:BA:1458:G:OP1	20:BT:29:THR:HG21	2.07	0.54
1:AA:375:U:C4	1:AA:376:G:N7	2.75	0.54
25:CA:1416:G:O2'	25:CA:1417:C:C6	2.59	0.54
2:AB:103:TRP:CZ2	2:AB:153:MET:HG2	2.42	0.54
1:AA:1308:U:OP2	13:AM:97:ARG:HG2	2.07	0.54
1:BA:462:G:C6	1:BA:463:U:C5	2.95	0.54
1:AA:1205:U:H2'	1:AA:1205:U:O2	2.07	0.54
4:AD:61:ARG:HG3	4:AD:71:PHE:CD2	2.42	0.54
25:CA:587:C:O2	36:CL:33:ARG:NH2	2.40	0.54
3:AC:21:TRP:CD1	3:AC:58:ARG:HD3	2.42	0.54
37:CM:54:THR:O	37:CM:55:ARG:C	2.46	0.54
11:BK:29:THR:HG21	11:BK:91:GLY:HA3	1.89	0.54
49:CY:18:LEU:CD2	49:CY:22:LEU:CD2	2.85	0.54
33:DI:98:GLY:O	33:DI:137:LEU:HA	2.07	0.54
25:DA:2729:G:O2'	25:DA:2730:C:H5'	2.07	0.54
1:AA:198:G:O2'	1:AA:199:A:H5'	2.06	0.54
25:DA:157:C:C5	25:DA:158:U:C5	2.95	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1475:G:HO2'	25:DA:1476:U:P	2.30	0.54
44:CT:35:ALA:O	44:CT:38:ALA:CB	2.55	0.54
25:DA:1734:G:H2'	25:DA:1735:A:H8	1.71	0.54
28:CD:26:VAL:CG1	28:CD:186:LEU:HD13	2.36	0.54
10:AJ:7:ARG:CB	10:AJ:75:ASP:OD1	2.54	0.54
40:DP:113:LEU:O	40:DP:113:LEU:CG	2.55	0.54
7:BG:136:LYS:O	7:BG:139:ASP:HB2	2.07	0.54
54:C3:15:LYS:HG3	54:C3:16:THR:N	2.21	0.54
25:DA:1498:C:H2'	25:DA:1499:C:C6	2.42	0.54
8:AH:62:LEU:HD22	8:AH:62:LEU:H	1.72	0.54
25:DA:2137:U:O4	25:DA:2154:A:N1	2.40	0.54
25:DA:1227:G:C2'	25:DA:1228:G:H5'	2.37	0.54
25:DA:1145:C:H2'	25:DA:1146:C:H6	1.72	0.54
8:AH:124:ILE:O	8:AH:124:ILE:CG1	2.55	0.54
32:CH:46:PHE:CD2	32:CH:46:PHE:C	2.80	0.54
50:CZ:9:THR:HG22	50:CZ:10:ARG:HG3	1.88	0.54
25:DA:2002:G:OP1	38:DN:17:ARG:NH1	2.40	0.54
37:DM:136:MET:HE1	46:DV:57:TYR:CE2	2.42	0.54
8:AH:93:LYS:HD3	8:AH:96:ALA:O	2.06	0.54
30:CF:96:TRP:O	30:CF:99:PHE:N	2.40	0.54
25:CA:1480:C:H2'	25:CA:1481:U:O4'	2.08	0.54
25:DA:41:C:H2'	25:DA:42:A:O5'	2.08	0.54
25:DA:2683:C:H2'	25:DA:2684:U:H6	1.71	0.54
34:DJ:69:ARG:O	34:DJ:89:PHE:HB3	2.07	0.54
1:AA:160:A:H1'	1:AA:344:A:C5	2.42	0.54
31:CG:10:VAL:O	31:CG:47:ASN:ND2	2.40	0.54
1:BA:954:G:C2	1:BA:1228:C:N3	2.75	0.54
11:AK:111:ASP:O	21:AU:3:ILE:HG22	2.07	0.54
2:AB:110:ILE:HD11	2:AB:147:LEU:CD2	2.37	0.54
2:AB:93:HIS:ND1	2:AB:145:ASN:HB2	2.22	0.54
1:BA:1060:U:H5"	10:BJ:53:ILE:HG12	1.88	0.54
1:AA:1130:A:H1'	1:AA:1146:A:C2	2.42	0.54
32:DH:4:ILE:HG22	32:DH:5:LEU:N	2.22	0.54
4:AD:169:TRP:CD1	4:AD:185:PRO:HG3	2.41	0.54
4:AD:94:GLU:HG2	4:AD:185:PRO:HG2	1.89	0.54
32:DH:62:LEU:HB2	32:DH:135:HIS:CE1	2.43	0.54
25:DA:1588:G:H2'	25:DA:1589:U:C6	2.42	0.54
32:CH:120:GLY:O	32:CH:121:VAL:C	2.46	0.54
3:AC:15:LYS:HG3	3:AC:16:PRO:CD	2.37	0.54
4:AD:8:LEU:CD2	4:AD:21:LYS:HB2	2.36	0.54
5:AE:113:VAL:HG22	5:AE:114:LEU:N	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:18:G:H1	22:AV:55:U:H1'	1.73	0.54
1:AA:93:U:H2'	1:AA:94:G:C5'	2.37	0.54
11:BK:13:LYS:C	11:BK:13:LYS:HD2	2.27	0.54
13:AM:28:ARG:NH1	13:AM:62:PHE:HB3	2.22	0.54
16:AP:67:ILE:HG13	16:AP:71:VAL:CG1	2.37	0.54
37:DM:107:GLY:C	37:DM:108:VAL:HG22	2.28	0.54
14:AN:3:GLN:OE1	14:AN:6:LYS:HE3	2.07	0.54
1:BA:1489:G:C4	1:BA:1490:U:C5	2.95	0.54
1:BA:376:G:H5"	16:BP:5:ARG:HB2	1.89	0.54
1:BA:594:U:H2'	1:BA:595:A:C8	2.42	0.54
3:AC:63:ILE:HG22	3:AC:96:VAL:CG2	2.37	0.54
1:BA:1386:G:N2	1:BA:1387:G:C4	2.75	0.54
25:CA:2571:U:O2'	28:CD:151:THR:CG2	2.55	0.54
48:DX:32:LEU:HD23	48:DX:49:ARG:NE	2.22	0.54
1:BA:471:U:C2'	1:BA:472:U:H5'	2.37	0.54
25:DA:2311:A:O2'	25:DA:2312:U:P	2.65	0.54
1:AA:1038:C:H2'	1:AA:1039:G:H5'	1.89	0.54
25:DA:295:G:C5	25:DA:344:A:C2	2.94	0.54
25:DA:2158:A:H4'	25:DA:2159:G:OP1	2.01	0.54
18:AR:50:TYR:O	18:AR:54:LEU:HB2	2.05	0.54
1:BA:403:C:H5'	4:BD:131:ILE:HG23	1.88	0.54
25:DA:1474:U:H2'	25:DA:1475:G:C5'	2.37	0.54
1:AA:417:G:C6	1:AA:418:C:C4	2.96	0.54
25:CA:581:C:OP1	41:CQ:32:ARG:HG3	2.07	0.54
25:DA:1735:A:H2'	25:DA:1736:U:O4'	2.07	0.54
37:DM:7:THR:HG21	37:DM:92:TRP:HH2	1.72	0.54
25:CA:1669:A:H5"	25:CA:1670:C:OP2	2.08	0.54
25:CA:1434:A:O2'	25:CA:1435:G:C8	2.56	0.54
1:BA:824:G:H1'	8:BH:1:SER:N	2.22	0.54
27:CC:196:ASN:C	27:CC:196:ASN:OD1	2.45	0.54
3:BC:119:ILE:HD11	3:BC:136:ALA:CB	2.38	0.54
35:DK:120:PRO:HG2	40:DP:65:ASN:ND2	2.22	0.54
35:DK:47:ILE:HB	35:DK:48:PRO:CD	2.37	0.54
31:DG:171:LYS:HG3	31:DG:172:GLU:N	2.22	0.54
44:DT:29:THR:OG1	44:DT:86:THR:CG2	2.55	0.54
22:AV:24:G:H2'	22:AV:25:C:O5'	2.06	0.54
25:CA:368:A:N7	25:CA:369:U:C5	2.75	0.54
25:CA:1291:C:C2'	25:CA:1292:G:H5'	2.36	0.54
1:BA:583:A:H2'	1:BA:584:G:O4'	2.07	0.54
20:AT:82:ILE:HG13	20:AT:83:ASN:H	1.73	0.54
42:DR:102:SER:O	42:DR:103:ALA:O	2.25	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2685:G:H2'	25:DA:2686:G:H8	1.73	0.54
37:DM:118:LYS:HA	37:DM:118:LYS:HE2	1.89	0.54
25:CA:1538:G:H8	25:CA:1538:G:OP2	1.88	0.54
1:AA:20:U:C2'	1:AA:21:G:H5'	2.38	0.54
25:DA:956:G:OP2	37:DM:86:LYS:NZ	2.40	0.54
17:BQ:31:PRO:HB2	17:BQ:32:ILE:HD12	1.88	0.54
25:DA:1313:U:H2'	25:DA:1610:A:C2	2.42	0.54
44:DT:30:ILE:HD11	44:DT:32:LEU:HD23	1.88	0.54
49:DY:11:VAL:HG13	49:DY:15:ASN:OD1	2.07	0.54
25:CA:1079:C:H2'	25:CA:1080:A:H8	1.73	0.54
33:CI:17:ALA:HA	33:CI:41:PHE:CZ	2.43	0.54
2:AB:132:GLU:O	2:AB:136:ARG:HB2	2.08	0.54
2:AB:159:ALA:HA	2:AB:181:PRO:HD2	1.89	0.54
1:BA:1258:G:O2'	1:BA:1259:C:H5'	2.08	0.54
25:DA:1578:U:H2'	25:DA:1579:A:O5'	2.07	0.54
16:BP:46:LYS:HD3	16:BP:48:GLU:H	1.72	0.54
3:BC:152:VAL:O	3:BC:164:THR:O	2.25	0.54
11:AK:52:ARG:N	11:AK:55:ARG:HB2	2.22	0.54
36:DL:128:THR:OG1	36:DL:131:ALA:HB2	2.08	0.54
1:AA:1160:G:O2'	1:AA:1161:C:O5'	2.23	0.54
1:BA:8:A:N6	4:BD:205:LYS:HB3	2.21	0.54
10:AJ:27:GLU:O	10:AJ:30:LYS:HG2	2.07	0.54
39:DO:40:ILE:HG22	39:DO:41:ALA:N	2.23	0.54
25:CA:1420:A:HO2'	25:CA:1421:G:C5'	2.19	0.54
4:AD:29:THR:C	4:AD:30:LYS:HD3	2.27	0.54
29:DE:131:THR:O	29:DE:134:LEU:N	2.40	0.54
25:DA:740:C:H5'	25:DA:1784:A:C3'	2.37	0.54
5:AE:17:VAL:HA	5:AE:33:THR:O	2.07	0.54
1:BA:71:A:H2'	1:BA:72:A:O5'	2.06	0.54
8:AH:58:LEU:HD11	8:AH:60:LEU:HD21	1.88	0.54
1:AA:1305:G:HO2'	1:AA:1306:A:H8	1.49	0.54
10:BJ:27:GLU:HA	10:BJ:30:LYS:HG2	1.89	0.54
1:AA:1411:C:O2'	1:AA:1412:C:H5'	2.08	0.54
3:AC:59:PRO:O	3:AC:60:ALA:HB3	2.06	0.54
29:DE:148:ILE:CD1	29:DE:187:VAL:HG11	2.36	0.54
2:BB:220:VAL:O	2:BB:222:GLU:N	2.39	0.54
25:DA:1469:A:N3	25:DA:1469:A:H2'	2.21	0.54
33:CI:73:PRO:HB2	33:CI:77:VAL:HG21	1.89	0.54
7:AG:91:ARG:HE	7:AG:93:VAL:CG2	2.21	0.54
31:CG:41:GLU:HB2	31:CG:54:ARG:NH2	2.22	0.54
14:BN:46:LEU:O	14:BN:49:GLN:HB2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:7:THR:O	15:AO:11:VAL:HG23	2.07	0.54
9:AI:33:SER:HB3	9:AI:36:GLN:CG	2.37	0.54
27:CC:149:LYS:HD3	27:CC:152:GLN:OE1	2.08	0.54
25:DA:1502:A:C2	25:DA:1503:A:C4	2.95	0.54
3:AC:155:ARG:HD3	3:AC:192:TYR:O	2.06	0.54
25:CA:877:A:C6	25:CA:899:A:C6	2.96	0.54
3:BC:18:ASN:OD1	3:BC:53:ARG:NE	2.41	0.54
25:CA:158:U:O2	25:CA:158:U:H2'	2.07	0.54
27:DC:51:ARG:NH1	27:DC:246:PRO:HG3	2.22	0.54
1:BA:791:G:C6	1:BA:792:A:N7	2.75	0.54
25:DA:107:G:O2'	25:DA:108:G:H5'	2.07	0.54
1:AA:346:G:H8	40:CP:36:LYS:HE2	1.71	0.54
18:BR:44:THR:O	18:BR:46:THR:HG22	2.07	0.54
25:DA:752:A:H62	25:DA:2609:U:H3	1.55	0.54
25:CA:449:A:H2'	25:CA:450:G:H5'	1.89	0.54
28:DD:142:VAL:HG23	28:DD:144:GLY:H	1.72	0.54
38:CN:41:ALA:HB1	38:CN:97:ILE:HD13	1.89	0.54
37:CM:12:MET:HE3	37:CM:71:LYS:HA	1.89	0.54
52:C1:31:GLU:O	52:C1:32:LYS:C	2.45	0.54
43:CS:57:ASN:O	43:CS:61:ASN:HB2	2.07	0.54
22:BV:36:A:C2	23:BX:17:U:C2	2.95	0.54
42:DR:86:GLN:HG3	42:DR:86:GLN:O	2.07	0.54
16:AP:42:ILE:O	16:AP:42:ILE:HG22	2.08	0.54
25:DA:1203:U:O4	25:DA:1204:A:C6	2.60	0.54
41:CQ:9:ALA:O	41:CQ:10:ARG:C	2.45	0.54
25:CA:2086:U:H2'	25:CA:2087:G:C8	2.42	0.54
1:BA:1053:G:N2	1:BA:1056:U:C5	2.75	0.54
13:BM:70:ARG:O	13:BM:74:MET:HB2	2.08	0.54
11:AK:114:PRO:O	11:AK:115:ILE:HD13	2.07	0.54
2:AB:137:THR:HA	2:AB:140:LEU:HB2	1.88	0.54
1:AA:1271:A:OP1	1:AA:1314:C:H4'	2.08	0.54
1:AA:955:U:C5	1:AA:956:U:C5	2.95	0.54
1:AA:1314:C:OP2	19:AS:5:LYS:HD3	2.08	0.54
10:AJ:40:ILE:HG21	10:AJ:73:LEU:HD12	1.89	0.54
5:BE:80:LEU:HD13	5:BE:80:LEU:N	2.22	0.54
20:BT:66:ILE:HG23	20:BT:67:HIS:H	1.72	0.54
25:DA:2144:G:N3	25:DA:2146:C:O2	2.41	0.54
25:DA:1468:U:C2	25:DA:1525:A:C2	2.95	0.54
39:DO:40:ILE:HG21	39:DO:44:GLY:HA2	1.90	0.54
28:DD:101:PHE:HD1	28:DD:104:VAL:HG11	1.73	0.54
51:C0:54:ILE:CG2	51:C0:55:ALA:N	2.58	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:787:A:N1	1:BA:795:C:N4	2.54	0.54
1:BA:73:C:O2'	1:BA:74:A:O5'	2.25	0.54
20:BT:79:THR:O	20:BT:80:ALA:C	2.44	0.54
21:BU:19:LYS:C	21:BU:21:SER:H	2.10	0.54
25:CA:1588:G:C5	25:CA:1589:U:C5	2.95	0.54
1:BA:1291:U:H4'	9:BI:41:GLU:OE2	2.08	0.54
1:AA:1234:C:C2'	1:AA:1235:U:H5'	2.38	0.54
35:DK:114:LYS:HD2	35:DK:118:LEU:HD21	1.89	0.54
2:BB:111:LYS:HD3	2:BB:111:LYS:C	2.28	0.54
9:AI:46:VAL:CG2	9:AI:75:ALA:HB1	2.38	0.54
25:CA:587:C:O2'	36:CL:19:LEU:HD11	2.07	0.54
9:AI:20:ILE:HD11	9:AI:85:ALA:HB3	1.88	0.54
29:DE:143:LEU:HB3	29:DE:146:VAL:CG1	2.37	0.54
29:DE:187:VAL:O	29:DE:187:VAL:CG1	2.55	0.54
25:CA:1507:C:N4	25:CA:1508:A:C2	2.75	0.54
25:CA:547:A:C8	25:CA:548:G:N3	2.75	0.54
44:CT:7:LEU:HD22	44:CT:46:ALA:HA	1.88	0.54
1:AA:109:A:C6	1:AA:326:G:C6	2.95	0.54
18:AR:32:ILE:HA	18:AR:39:VAL:HG23	1.89	0.54
29:CE:19:PHE:CE1	29:CE:109:LEU:HD23	2.42	0.54
1:AA:240:G:OP1	1:AA:240:G:C4'	2.56	0.54
46:CV:6:ALA:HB1	46:CV:40:ILE:CG2	2.38	0.54
1:BA:1251:A:O2'	1:BA:1252:A:H5'	2.06	0.54
13:AM:80:MET:HG2	13:AM:91:ARG:NH2	2.22	0.54
19:BS:62:THR:HB	19:BS:65:MET:CG	2.37	0.54
1:BA:157:U:O2'	1:BA:158:G:H5'	2.08	0.54
25:CA:1486:U:O2	25:CA:1504:A:C2	2.60	0.54
27:CC:161:VAL:HG13	27:CC:173:LEU:HB3	1.88	0.54
28:CD:86:GLU:OE1	28:CD:86:GLU:CA	2.54	0.54
1:BA:1179:A:H4'	9:BI:104:THR:HA	1.90	0.54
35:DK:4:GLU:O	35:DK:5:GLN:CB	2.55	0.54
31:DG:128:THR:O	31:DG:129:GLU:HG2	2.07	0.54
8:AH:82:LEU:HD22	8:AH:82:LEU:C	2.27	0.54
25:DA:1433:A:H2'	25:DA:1434:A:C1'	2.37	0.54
1:BA:1022:A:C5	1:BA:1023:U:C5	2.96	0.54
19:BS:55:GLN:CD	19:BS:56:HIS:N	2.60	0.54
25:DA:2660:A:C2	25:DA:2661:G:C4	2.96	0.54
11:BK:96:ILE:HD12	11:BK:96:ILE:C	2.27	0.54
25:DA:2024:G:H2'	25:DA:2025:C:O4'	2.08	0.54
1:BA:417:G:C6	1:BA:418:C:C4	2.95	0.54
25:DA:2221:G:C4	25:DA:2222:C:C5	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2808:G:N1	25:DA:2891:U:C5	2.75	0.54
25:DA:2177:C:N4	25:DA:2178:C:H41	2.05	0.54
25:DA:2364:C:C2'	25:DA:2365:G:H5'	2.38	0.54
25:DA:1703:G:H2'	25:DA:1704:C:C6	2.43	0.54
1:BA:747:A:N6	1:BA:748:G:C6	2.76	0.54
25:CA:1212:G:H1'	25:CA:1236:G:N2	2.23	0.54
25:CA:1936:A:H3'	25:CA:1937:A:H5'	1.89	0.54
16:BP:50:THR:HG22	16:BP:50:THR:O	2.06	0.54
25:DA:2053:G:N2	25:DA:2054:A:H1'	2.22	0.54
25:CA:2534:A:H2'	25:CA:2535:G:O5'	2.07	0.54
25:CA:1051:G:H5'	25:CA:1052:C:OP2	2.07	0.54
25:DA:1010:A:H1'	25:DA:1153:C:H1'	1.88	0.54
13:BM:94:LEU:HB3	13:BM:95:PRO:HD2	1.88	0.54
25:DA:1061:U:O2	25:DA:1061:U:H5"	2.08	0.54
4:BD:25:ARG:O	4:BD:26:ALA:CB	2.55	0.54
25:CA:998:C:C2'	25:CA:999:U:O5'	2.56	0.54
49:DY:8:GLU:CA	49:DY:12:GLU:HG3	2.38	0.54
1:BA:949:A:C4	1:BA:1233:G:N2	2.75	0.54
25:CA:1061:U:HO2'	25:CA:1062:G:P	2.28	0.54
1:AA:1215:G:H2'	1:AA:1216:A:H5'	1.90	0.54
1:AA:257:G:N2	1:AA:258:G:C4	2.76	0.54
32:DH:4:ILE:CG2	32:DH:17:ASP:N	2.70	0.54
2:BB:72:LYS:O	2:BB:74:ALA:N	2.40	0.54
17:BQ:12:VAL:HG11	17:BQ:21:VAL:HG22	1.89	0.54
6:AF:3:HIS:HB2	6:AF:92:THR:HG23	1.89	0.54
8:AH:100:ILE:HD11	8:AH:128:VAL:HG23	1.90	0.54
36:DL:110:VAL:HB	36:DL:127:VAL:HG13	1.89	0.54
1:AA:1161:C:O2	1:AA:1176:A:C2	2.60	0.54
25:DA:1538:G:O2'	25:DA:1539:U:H5'	2.08	0.54
51:C0:47:TYR:CE2	51:C0:52:LYS:HB2	2.42	0.54
25:DA:318:C:O2'	25:DA:319:G:H5'	2.07	0.54
1:BA:190:A:H2'	1:BA:191:G:O5'	2.07	0.54
1:AA:8:A:H5'	5:AE:124:ALA:O	2.07	0.54
1:AA:376:G:H2'	1:AA:377:G:C8	2.41	0.54
25:DA:2019:A:H4'	41:DQ:33:VAL:HG21	1.90	0.54
1:BA:846:G:C2'	1:BA:847:G:H5'	2.38	0.54
8:AH:29:SER:O	8:AH:30:LYS:C	2.46	0.54
1:BA:467:U:H3'	1:BA:468:A:C5'	2.38	0.54
25:CA:2141:G:C2	25:CA:2142:A:H1'	2.43	0.54
10:BJ:26:VAL:HG21	10:BJ:39:PRO:HD3	1.90	0.54
25:DA:230:G:N1	25:DA:231:A:C5	2.76	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:189:THR:O	29:DE:192:ALA:HB3	2.07	0.54
25:CA:1277:G:H5'	38:CN:20:MET:CE	2.38	0.54
6:AF:43:GLY:HA2	6:AF:58:HIS:NE2	2.22	0.54
1:AA:1504:G:H4'	1:AA:1505:G:C4	2.43	0.54
25:DA:14:A:C6	25:DA:526:A:C2	2.96	0.54
12:BL:65:TYR:O	12:BL:96:THR:OG1	2.24	0.54
25:DA:2072:C:H5"	25:DA:2072:C:C6	2.40	0.54
25:DA:832:U:H2'	25:DA:833:A:H8	1.73	0.54
40:CP:30:TRP:CZ3	40:CP:39:LEU:HD13	2.43	0.54
1:BA:564:C:C4	1:BA:565:U:C4	2.96	0.54
25:DA:2311:A:O2'	25:DA:2312:U:O4'	2.25	0.54
1:BA:605:U:O2'	1:BA:606:G:H5'	2.08	0.54
1:BA:628:G:H2'	1:BA:629:A:H8	1.70	0.54
15:BO:75:ALA:O	15:BO:76:ARG:C	2.44	0.54
25:DA:2769:U:H2'	25:DA:2769:U:O2	2.07	0.54
1:BA:404:G:O2'	1:BA:405:U:H5'	2.08	0.54
1:AA:1245:C:H2'	1:AA:1246:A:O4'	2.08	0.54
25:DA:404:A:C4'	25:DA:405:U:OP2	2.54	0.54
25:CA:2492:U:H2'	25:CA:2493:U:H5'	1.88	0.54
1:AA:293:G:C5	1:AA:294:U:C5	2.95	0.54
1:AA:85:U:H4'	1:AA:86:G:OP1	2.06	0.54
25:CA:2870:C:C5	25:CA:2871:U:C5	2.96	0.54
25:DA:2692:G:H1'	25:DA:2847:U:H1'	1.89	0.54
25:CA:2331:G:O4'	47:CW:38:GLY:HA3	2.07	0.54
1:AA:303:A:H2'	1:AA:304:U:O4'	2.08	0.54
1:BA:905:U:H2'	1:BA:906:A:H5'	1.88	0.54
25:CA:2585:U:HO2'	25:CA:2586:U:P	2.30	0.54
25:CA:1379:U:OP1	25:CA:1379:U:C6	2.61	0.54
25:DA:995:C:OP2	41:DQ:52:ARG:NH1	2.40	0.54
34:CJ:97:PRO:O	34:CJ:98:GLU:C	2.46	0.54
1:BA:775:G:H2'	1:BA:776:G:O4'	2.08	0.54
25:CA:2006:C:O5'	25:CA:2006:C:H6	1.91	0.54
36:DL:89:VAL:HG13	36:DL:89:VAL:O	2.08	0.54
5:AE:20:VAL:O	5:AE:20:VAL:CG2	2.55	0.54
25:CA:1783:A:H5'	25:CA:2608:G:H4'	1.89	0.54
1:BA:1070:U:H2'	1:BA:1071:C:H6	1.72	0.54
1:BA:1244:G:N1	1:BA:1294:G:N1	2.56	0.54
1:BA:929:G:C6	1:BA:930:C:C4	2.95	0.54
1:BA:977:A:C2'	1:BA:977:A:N3	2.71	0.54
13:BM:22:TYR:HB3	13:BM:65:GLU:HA	1.90	0.54
25:CA:2127:G:N2	25:CA:2161:C:O2	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2170:A:C8	25:CA:2170:A:OP2	2.61	0.54
25:DA:1090:A:C2	25:DA:1102:C:O2	2.60	0.54
49:DY:10:SER:C	49:DY:14:LEU:HD12	2.28	0.54
49:DY:32:ALA:O	49:DY:35:GLY:HA2	2.07	0.54
49:DY:35:GLY:C	49:DY:36:GLN:CG	2.76	0.54
2:AB:67:LEU:HB3	2:AB:160:LEU:HD23	1.90	0.54
2:AB:53:LEU:CD1	2:AB:56:LEU:HD12	2.38	0.54
17:AQ:16:MET:HG2	17:AQ:19:SER:HB3	1.88	0.54
25:DA:2291:U:H2'	25:DA:2292:U:C5	2.43	0.54
25:CA:981:A:P	60:CA:3598:HOH:O	2.58	0.54
25:DA:2196:C:O2'	25:DA:2197:U:H5'	2.08	0.54
25:CA:2346:A:C3'	25:CA:2347:C:C5'	2.81	0.54
2:AB:205:ALA:O	2:AB:207:ARG:N	2.41	0.54
5:BE:148:SER:HB2	5:BE:151:MET:HG2	1.89	0.54
20:BT:68:LYS:HB3	20:BT:69:ASN:OD1	2.07	0.54
8:AH:74:ILE:HD13	8:AH:128:VAL:HG22	1.86	0.54
15:AO:23:SER:HB3	15:AO:26:VAL:CG2	2.37	0.54
25:DA:528:A:C2	25:DA:2043:C:H5'	2.42	0.54
25:CA:2602:A:C4'	25:CA:2603:G:OP2	2.53	0.54
39:DO:31:THR:HG23	39:DO:32:PRO:CD	2.36	0.54
25:DA:1607:C:H4'	25:DA:1608:A:O5'	2.08	0.54
1:AA:428:G:H4'	1:AA:429:U:OP1	2.07	0.54
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.41	0.54
1:AA:73:C:O2'	1:AA:74:A:H5"	2.08	0.54
14:AN:41:ARG:HG3	14:AN:42:TRP:CE3	2.42	0.54
10:BJ:59:LYS:O	10:BJ:62:ARG:HD2	2.08	0.54
25:DA:1324:G:C2	25:DA:1328:A:N1	2.76	0.54
31:DG:83:THR:OG1	31:DG:133:LYS:HG2	2.08	0.54
2:AB:54:ALA:O	2:AB:58:LYS:HB2	2.07	0.54
11:BK:22:ILE:HD11	11:BK:85:VAL:HG13	1.89	0.54
9:BI:43:ALA:HB1	9:BI:46:VAL:CG2	2.36	0.54
1:AA:1299:A:C6	1:AA:1301:U:O2	2.60	0.54
2:AB:34:ARG:NE	2:AB:34:ARG:CA	2.71	0.54
10:BJ:36:VAL:HG22	10:BJ:76:ILE:HG12	1.90	0.54
3:BC:84:GLU:HG3	3:BC:85:LYS:H	1.72	0.54
25:CA:1908:C:C5'	25:CA:1909:C:OP2	2.55	0.54
12:BL:86:VAL:HG11	12:BL:89:LEU:CD2	2.37	0.54
32:CH:62:LEU:C	32:CH:62:LEU:HD12	2.28	0.54
14:AN:30:ILE:HG23	14:AN:45:VAL:HB	1.88	0.54
4:BD:32:LYS:NZ	4:BD:32:LYS:HB2	2.22	0.54
4:BD:32:LYS:HG3	4:BD:32:LYS:O	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CI:57:VAL:CG1	33:CI:58:ILE:N	2.71	0.54
33:CI:59:THR:HG22	33:CI:61:TYR:CZ	2.43	0.54
25:CA:1926:U:O2	25:CA:1926:U:H2'	2.06	0.54
27:DC:251:THR:CG2	27:DC:252:LYS:N	2.69	0.54
1:AA:683:G:O2'	1:AA:684:U:H5'	2.07	0.54
7:AG:70:PRO:HG3	7:AG:102:TRP:CH2	2.43	0.54
4:BD:172:VAL:O	4:BD:178:GLU:O	2.26	0.54
25:DA:82:U:H2'	25:DA:83:A:C8	2.42	0.54
34:CJ:65:THR:O	34:CJ:68:LYS:HG3	2.07	0.54
25:CA:2318:G:C6	25:CA:2319:G:C6	2.95	0.54
25:DA:623:C:H2'	25:DA:624:C:C6	2.42	0.54
25:DA:2104:C:C2	25:DA:2186:G:N2	2.75	0.54
1:BA:194:C:H3'	60:BA:1716:HOH:O	2.08	0.54
1:BA:660:C:C2	1:BA:661:G:C8	2.95	0.54
11:BK:107:THR:HG22	11:BK:108:ASN:ND2	2.22	0.54
11:AK:110:THR:HG23	21:AU:4:LYS:CB	2.38	0.54
39:CO:24:THR:HG22	39:CO:42:PRO:HG3	1.89	0.54
25:DA:298:G:O5'	25:DA:298:G:H8	1.91	0.54
43:DS:9:HIS:CD2	43:DS:9:HIS:N	2.76	0.54
1:AA:827:U:H5"	1:AA:828:U:OP2	2.08	0.54
25:CA:301:G:C4	25:CA:302:C:C5	2.96	0.54
23:AX:10:G:C5	23:AX:11:U:C4	2.96	0.54
44:CT:67:VAL:HG22	44:CT:76:ARG:HG3	1.90	0.54
25:CA:1851:U:H2'	25:CA:1852:U:O5'	2.07	0.54
27:CC:265:PHE:CD1	27:CC:265:PHE:N	2.75	0.54
27:CC:270:ARG:HH11	27:CC:270:ARG:HG2	1.71	0.54
25:DA:9:G:C6	25:DA:2629:U:C5	2.96	0.54
25:CA:90:U:H2'	25:CA:91:A:C8	2.41	0.54
12:BL:73:LEU:CD1	12:BL:79:ILE:HG21	2.37	0.54
1:BA:1363:A:C5	1:BA:1365:G:C6	2.96	0.54
13:BM:85:TYR:C	13:BM:85:TYR:CD2	2.80	0.54
25:DA:1062:G:C5	25:DA:1088:A:H2'	2.43	0.54
33:DI:27:LEU:HD12	33:DI:27:LEU:C	2.27	0.54
44:DT:14:PRO:CD	49:DY:33:ALA:HB1	2.38	0.54
10:AJ:18:ILE:HG12	10:AJ:72:ARG:HG3	1.90	0.54
42:CR:51:VAL:C	42:CR:52:PRO:O	2.43	0.54
3:BC:164:THR:O	3:BC:165:GLU:HB3	2.08	0.54
25:CA:277:G:H4'	25:CA:278:A:N6	2.22	0.54
4:AD:112:GLU:O	4:AD:113:ALA:C	2.44	0.54
4:AD:144:ILE:HD13	4:AD:177:MET:HB3	1.90	0.54
4:AD:57:LYS:HG2	4:AD:202:LEU:HD22	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:136:VAL:O	5:AE:137:ARG:HB3	2.06	0.54
7:BG:115:MET:HA	7:BG:118:ARG:HD3	1.90	0.54
1:AA:209:U:H4'	1:AA:210:C:OP2	2.06	0.54
25:DA:279:A:C5	25:DA:280:U:C5	2.95	0.54
3:AC:59:PRO:CB	10:AJ:94:ALA:HB1	2.38	0.54
25:DA:120:U:O4'	25:DA:149:A:C8	2.61	0.54
4:BD:33:ILE:O	4:BD:34:GLU:CB	2.54	0.54
9:AI:95:SER:CA	9:AI:98:ARG:HB2	2.35	0.54
1:BA:175:C:C2'	1:BA:176:C:H5'	2.38	0.54
25:CA:1371:G:O2'	25:CA:1372:U:H5'	2.07	0.54
25:DA:2392:A:C2	25:DA:2393:U:C2	2.96	0.54
44:DT:2:ILE:HG23	44:DT:3:ARG:O	2.07	0.54
9:BI:97:LEU:O	9:BI:103:VAL:HG13	2.07	0.54
3:BC:133:MET:HE3	3:BC:167:TYR:HB2	1.90	0.54
1:AA:128:G:O2'	1:AA:129:A:H5'	2.07	0.54
40:DP:74:GLN:O	40:DP:77:SER:CB	2.56	0.54
25:DA:2248:C:H2'	25:DA:2249:U:H5'	1.90	0.54
30:DF:103:ILE:O	30:DF:108:PRO:HD3	2.07	0.54
40:CP:111:GLU:HG3	40:CP:112:ARG:N	2.23	0.54
1:AA:832:G:H2'	1:AA:833:G:H5'	1.88	0.54
1:AA:1244:G:O2'	1:AA:1245:C:H5'	2.07	0.54
1:AA:1247:U:O2'	1:AA:1248:A:H5'	2.08	0.54
26:CB:43:C:H5"	26:CB:44:G:OP2	2.07	0.54
6:AF:10:VAL:HG13	6:AF:11:HIS:N	2.23	0.54
1:BA:363:A:C6	1:BA:364:A:C6	2.96	0.54
25:DA:1998:A:H2'	25:DA:1999:C:H6	1.73	0.54
25:CA:2019:A:C2'	25:CA:2020:A:O5'	2.56	0.54
8:BH:19:ALA:C	8:BH:21:LYS:H	2.11	0.54
1:BA:1237:C:H2'	1:BA:1336:C:C5	2.42	0.54
1:AA:86:G:N3	1:AA:86:G:O4'	2.40	0.54
7:BG:135:LYS:HE2	7:BG:139:ASP:OD1	2.08	0.54
25:DA:2221:G:C5	25:DA:2222:C:C5	2.96	0.54
25:CA:1889:A:H1'	25:CA:2086:U:O2'	2.08	0.54
25:CA:1246:A:H2'	25:CA:1247:A:O5'	2.08	0.54
25:DA:792:A:C3'	25:DA:793:A:H5'	2.37	0.54
25:DA:2179:C:C2	25:DA:2180:U:C6	2.96	0.54
1:BA:1460:C:H2'	1:BA:1461:G:O5'	2.07	0.54
25:CA:2458:G:C2	25:CA:2490:G:N2	2.76	0.54
1:BA:666:G:H5'	1:BA:726:C:H1'	1.90	0.54
1:BA:394:G:H2'	1:BA:395:C:H6	1.72	0.54
1:AA:81:A:H2'	1:AA:82:G:H5'	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:338:A:N1	1:AA:351:G:O6	2.41	0.54
33:DI:6:ALA:O	33:DI:58:ILE:HB	2.08	0.54
44:DT:10:VAL:HG12	44:DT:11:LEU:HD23	1.89	0.54
21:AU:3:ILE:HD13	21:AU:19:LYS:HE3	1.90	0.54
1:AA:980:C:C5	1:AA:981:U:C4	2.95	0.54
25:DA:2217:G:C2'	25:DA:2218:G:H5'	2.38	0.54
2:BB:207:ARG:O	2:BB:210:THR:N	2.41	0.54
25:DA:1494:A:H2'	25:DA:1495:A:C8	2.43	0.54
16:BP:74:LEU:O	16:BP:75:ILE:C	2.46	0.54
11:BK:123:PRO:O	11:BK:125:LYS:N	2.41	0.54
11:AK:15:VAL:O	11:AK:16:SER:OG	2.21	0.54
1:AA:424:G:O2'	1:AA:425:G:H5'	2.08	0.54
38:DN:51:LEU:CD1	38:DN:70:THR:HG22	2.38	0.54
1:BA:1219:A:H2'	1:BA:1220:G:H8	1.73	0.54
25:CA:2748:A:C2	25:CA:2757:A:C4	2.96	0.54
3:AC:13:ILE:C	3:AC:14:VAL:HG13	2.27	0.54
39:DO:33:ARG:O	39:DO:34:HIS:CD2	2.61	0.54
4:AD:75:TYR:CG	4:AD:203:TYR:HD1	2.26	0.54
5:AE:33:THR:HB	5:AE:49:TYR:CE2	2.42	0.54
16:AP:5:ARG:HA	16:AP:68:SER:OG	2.08	0.54
37:DM:57:VAL:O	37:DM:58:LYS:HB2	2.08	0.54
25:CA:2145:C:H6	25:CA:2145:C:H3'	1.73	0.54
14:AN:87:ALA:HA	14:AN:90:ARG:HH12	1.72	0.54
10:BJ:78:GLU:O	10:BJ:78:GLU:CG	2.56	0.54
9:AI:44:ARG:N	9:AI:45:MET:SD	2.80	0.54
27:DC:16:VAL:H	27:DC:203:VAL:HG22	1.71	0.54
10:BJ:67:ILE:HG12	14:BN:96:LEU:CA	2.37	0.54
25:DA:1047:G:C4'	25:DA:1048:A:H5'	2.37	0.54
56:DB:65:U:C4	56:DB:108:A:C4	2.96	0.54
2:BB:53:LEU:HA	2:BB:56:LEU:CB	2.38	0.54
37:CM:55:ARG:CG	37:CM:55:ARG:HH21	2.20	0.54
26:CB:33:G:H2'	26:CB:34:A:H5'	1.89	0.54
19:AS:39:ILE:CD1	19:AS:70:LEU:HD22	2.38	0.54
1:AA:1451:U:H5"	1:AA:1452:C:C5	2.42	0.54
48:DX:32:LEU:HD23	48:DX:49:ARG:CZ	2.36	0.54
6:BF:25:TYR:C	6:BF:27:ALA:N	2.60	0.54
1:BA:146:G:C2'	1:BA:147:G:H5'	2.38	0.54
25:DA:1563:U:O2'	25:DA:1564:C:H5'	2.07	0.54
23:BX:10:G:O2'	23:BX:11:U:H5'	2.07	0.54
14:BN:26:LEU:O	14:BN:27:LYS:HB3	2.08	0.54
25:DA:2309:A:C5	25:DA:2310:C:C4	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:CE:108:ILE:HD12	29:CE:108:ILE:O	2.08	0.54
25:DA:2730:C:O2'	25:DA:2731:G:C5'	2.55	0.54
25:DA:630:G:H3'	25:DA:631:A:C5'	2.37	0.54
37:DM:41:LEU:HD21	37:DM:124:LEU:HD13	1.90	0.54
12:AL:2:THR:CG2	12:AL:4:ASN:CB	2.86	0.54
4:BD:178:GLU:CG	4:BD:179:GLY:N	2.70	0.54
5:BE:106:ALA:HB1	5:BE:124:ALA:CB	2.38	0.54
4:BD:167:PRO:HG2	4:BD:170:LEU:HD11	1.90	0.54
1:BA:220:G:O2'	1:BA:221:C:H5'	2.07	0.54
15:BO:8:ALA:O	15:BO:9:LYS:C	2.45	0.54
32:CH:135:HIS:HD2	32:CH:138:VAL:HG23	1.73	0.54
25:DA:2673:G:C2	25:DA:2674:G:C8	2.96	0.54
25:CA:2218:G:C6	25:CA:2219:U:C4	2.96	0.54
25:DA:792:A:C4'	25:DA:793:A:H5'	2.38	0.54
25:CA:717:C:H2'	25:CA:718:A:H5'	1.89	0.54
25:DA:1629:U:O2	25:DA:2698:U:H5"	2.08	0.54
25:CA:1645:G:H5"	25:CA:1646:C:H5'	1.90	0.54
24:AY:14:MET:O	24:AY:17:CYS:HB2	2.07	0.54
31:CG:130:ILE:HG22	31:CG:131:VAL:H	1.73	0.54
25:CA:1100:C:H2'	25:CA:1101:U:C6	2.43	0.54
53:D2:44:VAL:O	53:D2:44:VAL:HG12	2.08	0.54
35:CK:9:ASN:O	35:CK:83:ALA:HA	2.08	0.54
25:DA:591:U:H1'	54:D3:1:PRO:N	2.23	0.54
41:DQ:61:ILE:HG23	41:DQ:75:TYR:CE1	2.43	0.54
1:BA:1269:A:C8	1:BA:1270:G:H1'	2.42	0.54
1:BA:1324:A:C6	1:BA:1325:C:C4	2.96	0.54
25:DA:1077:A:C2	25:DA:1088:A:C2	2.96	0.54
33:DI:74:PRO:O	33:DI:78:LEU:HD12	2.07	0.54
49:DY:28:LEU:HD13	49:DY:46:VAL:HG21	1.89	0.54
25:CA:1085:A:C5	25:CA:1086:A:N1	2.76	0.54
1:AA:1323:G:C2	1:AA:1324:A:C4	2.95	0.54
29:DE:109:LEU:HD13	29:DE:180:LEU:HD13	1.89	0.54
52:D1:46:VAL:CG1	52:D1:47:ILE:N	2.70	0.54
25:DA:1494:A:C4	25:DA:1495:A:C8	2.96	0.54
1:BA:1002:G:C2	1:BA:1039:G:C2	2.96	0.54
41:CQ:88:GLU:H	42:CR:49:ILE:CD1	2.21	0.54
1:BA:261:U:C5	20:BT:73:ARG:CZ	2.91	0.54
6:AF:71:ILE:HG13	6:AF:72:ASP:N	2.23	0.54
36:DL:126:ARG:C	36:DL:127:VAL:HG23	2.28	0.54
36:DL:81:ASP:O	36:DL:82:LEU:CB	2.54	0.54
10:AJ:28:THR:O	10:AJ:32:THR:CG2	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:101:PHE:HA	28:DD:104:VAL:CG1	2.38	0.54
4:AD:146:GLU:HA	4:AD:149:LYS:HD2	1.89	0.54
1:AA:452:A:N6	1:AA:480:U:H3	2.05	0.54
1:AA:451:A:OP2	16:AP:70:ARG:NH2	2.41	0.54
25:DA:2020:A:C2	25:DA:2022:U:O4'	2.61	0.54
9:BI:27:ILE:HG23	9:BI:62:LEU:HG	1.89	0.54
2:BB:96:LEU:O	2:BB:99:MET:HG2	2.07	0.54
1:BA:16:A:C2	1:BA:17:U:C6	2.95	0.54
1:AA:1060:U:H5"	10:AJ:53:ILE:HG23	1.89	0.54
25:DA:2531:A:H4'	31:DG:156:TYR:CD1	2.42	0.54
52:C1:16:THR:HG21	52:C1:41:VAL:CB	2.35	0.54
6:AF:20:GLY:O	6:AF:23:GLU:HB3	2.07	0.54
29:CE:118:LEU:C	29:CE:119:ILE:HD13	2.29	0.54
29:CE:118:LEU:HD11	29:CE:188:MET:HG3	1.88	0.54
33:CI:57:VAL:O	33:CI:58:ILE:HD13	2.07	0.54
33:CI:32:VAL:HG21	33:CI:58:ILE:HG23	1.90	0.54
47:CW:37:ARG:O	47:CW:53:HIS:ND1	2.41	0.54
33:DI:79:LEU:HD13	33:DI:135:MET:SD	2.48	0.54
28:CD:13:ARG:O	28:CD:14:ILE:HD13	2.08	0.54
1:BA:209:U:C4'	1:BA:210:C:OP2	2.56	0.54
1:BA:270:A:C6	1:BA:271:C:C4	2.96	0.54
31:DG:37:ASN:HB3	31:DG:40:VAL:HG23	1.90	0.54
1:BA:620:C:C2	4:BD:131:ILE:HG12	2.43	0.54
25:DA:1233:C:C2'	25:DA:1234:U:O5'	2.56	0.54
25:DA:1870:C:C3'	25:DA:1871:A:H5'	2.38	0.54
7:BG:99:ALA:O	7:BG:103:ILE:HG13	2.08	0.54
25:DA:2097:A:C5	25:DA:2098:U:C5	2.95	0.54
25:DA:715:A:H8	25:DA:715:A:OP1	1.91	0.54
38:DN:86:ARG:HD2	38:DN:117:ASP:OD2	2.07	0.54
8:AH:76:ARG:NE	8:AH:78:SER:O	2.41	0.54
1:BA:49:U:O2	1:BA:362:G:H1'	2.08	0.54
4:BD:71:PHE:CE1	4:BD:199:ILE:HD11	2.42	0.54
5:AE:106:ALA:O	5:AE:111:ARG:NH2	2.41	0.54
25:DA:871:U:H4'	37:DM:68:PHE:CD2	2.43	0.54
35:DK:108:ARG:O	35:DK:109:SER:HB3	2.08	0.54
40:DP:51:ASN:O	40:DP:52:ARG:HD3	2.08	0.54
40:DP:53:GLY:O	40:DP:56:SER:OG	2.26	0.54
25:DA:2233:U:H2'	25:DA:2234:G:C8	2.43	0.54
13:AM:94:LEU:HB3	13:AM:95:PRO:CD	2.38	0.54
25:DA:1704:C:H2'	25:DA:1705:A:C8	2.43	0.54
25:DA:1693:U:H4'	25:DA:1694:C:OP2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:87:LYS:HG3	12:AL:87:LYS:O	2.07	0.54
36:DL:123:ARG:HG3	36:DL:143:GLU:HG3	1.90	0.54
25:DA:2816:G:O3'	38:DN:99:LYS:HE2	2.08	0.54
29:CE:128:ALA:HB1	29:CE:129:PRO:CD	2.38	0.54
25:DA:845:A:H3'	25:DA:845:A:N3	2.23	0.54
25:DA:1758:U:C5	25:DA:2696:U:H5'	2.43	0.54
1:BA:1207:G:H2'	1:BA:1208:C:O4'	2.07	0.54
25:DA:197:A:N6	25:DA:2430:A:H2'	2.23	0.54
25:CA:2615:U:C2	51:C0:3:GLN:HA	2.43	0.54
36:CL:104:GLN:OE1	36:CL:104:GLN:HA	2.08	0.54
36:DL:76:GLU:O	36:DL:76:GLU:CG	2.56	0.54
12:BL:19:ASN:ND2	12:BL:19:ASN:H	2.05	0.54
25:DA:1276:A:H5"	25:DA:1276:A:C8	2.43	0.54
25:DA:1276:A:H5"	25:DA:1276:A:H8	1.73	0.54
30:DF:131:VAL:O	30:DF:131:VAL:HG23	2.08	0.54
25:DA:200:U:C4	25:DA:248:G:C2	2.96	0.54
31:CG:29:ASN:O	31:CG:29:ASN:CG	2.46	0.54
25:DA:1153:C:H5"	41:DQ:61:ILE:HD13	1.89	0.54
12:BL:33:CYS:CA	12:BL:54:VAL:HA	2.29	0.54
1:BA:960:U:H2'	1:BA:1225:A:H62	1.73	0.54
1:BA:1302:C:OP1	13:BM:12:LYS:HE2	2.08	0.54
1:BA:979:C:C6	1:BA:980:C:C5	2.96	0.54
13:BM:15:VAL:O	13:BM:18:LEU:HB2	2.08	0.54
25:DA:1096:A:C2'	25:DA:1097:U:H5"	2.38	0.54
5:BE:149:PRO:C	5:BE:151:MET:N	2.61	0.54
32:CH:117:LEU:HD21	32:CH:121:VAL:N	2.22	0.54
25:CA:285:G:C6	25:CA:286:U:C4	2.96	0.54
4:BD:187:ARG:O	4:BD:190:LEU:HD12	2.08	0.54
10:AJ:34:ALA:O	10:AJ:35:GLN:HB2	2.08	0.54
5:BE:14:LEU:O	5:BE:14:LEU:HD12	2.08	0.54
1:AA:510:A:H5"	1:AA:511:C:P	2.48	0.54
25:CA:1838:C:N1	25:CA:1898:U:H5	2.05	0.54
1:AA:9:G:O2'	1:AA:10:A:H5'	2.08	0.54
5:AE:71:ILE:HG21	5:AE:144:GLU:HB2	1.90	0.54
1:BA:96:U:O2'	1:BA:97:G:C5'	2.56	0.54
1:AA:464:U:N3	1:AA:466:A:C5'	2.71	0.54
1:AA:374:A:O4'	1:AA:481:G:N2	2.41	0.54
21:BU:3:ILE:HG23	21:BU:19:LYS:HE3	1.90	0.54
9:BI:26:LYS:O	9:BI:62:LEU:CD2	2.56	0.54
27:DC:181:ARG:HG2	27:DC:181:ARG:O	2.08	0.54
1:AA:1305:G:H2'	1:AA:1331:G:N2	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:943:U:H2'	1:AA:944:G:C5'	2.37	0.54
27:DC:73:ILE:HG22	27:DC:74:PRO:O	2.08	0.54
1:AA:1201:A:H1'	1:AA:1202:U:OP2	2.07	0.54
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.73	0.54
6:BF:38:ARG:NH1	6:BF:61:LEU:HD21	2.23	0.54
32:CH:59:ALA:HA	32:CH:62:LEU:HD23	1.89	0.54
33:CI:121:ILE:HG23	33:CI:124:MET:SD	2.48	0.54
25:DA:45:G:C5'	25:DA:46:G:H5'	2.37	0.54
3:AC:57:GLU:HG3	3:AC:64:ARG:CB	2.38	0.54
1:BA:699:C:C2'	1:BA:700:G:H5'	2.37	0.54
25:DA:2757:A:H2'	25:DA:2757:A:N3	2.23	0.54
1:BA:1050:G:N2	1:BA:1209:C:O2	2.41	0.54
1:BA:1253:G:C2	1:BA:1285:A:N6	2.76	0.54
25:CA:995:C:O2'	25:CA:996:A:P	2.66	0.54
25:CA:31:C:C2'	25:CA:32:C:H5'	2.38	0.54
1:AA:549:C:H2'	1:AA:550:G:O5'	2.08	0.54
1:BA:557:G:H5"	1:BA:558:G:OP2	2.08	0.54
1:AA:791:G:C6	1:AA:792:A:N7	2.76	0.54
1:AA:850:U:H2'	1:AA:851:G:H5"	1.90	0.54
12:AL:2:THR:HG22	12:AL:4:ASN:HB2	1.90	0.54
26:CB:64:G:C5	26:CB:65:U:C4	2.96	0.54
56:DB:74:U:H2'	56:DB:75:G:O4'	2.08	0.54
56:DB:104:A:H2'	56:DB:105:G:O4'	2.08	0.54
1:AA:1007:U:H2'	1:AA:1008:U:H5'	1.89	0.54
25:DA:7:G:H5"	34:DJ:123:LYS:NZ	2.23	0.54
41:DQ:98:ALA:HB2	41:DQ:105:PHE:CE2	2.42	0.54
3:BC:117:ASP:O	3:BC:120:THR:HG22	2.07	0.54
3:BC:18:ASN:HA	3:BC:55:VAL:HG13	1.89	0.54
45:DU:73:ASN:HA	45:DU:95:PHE:CE2	2.43	0.54
8:AH:13:ILE:HG22	8:AH:14:ARG:N	2.22	0.54
25:CA:2870:C:C2'	25:CA:2871:U:H5'	2.38	0.54
5:AE:96:GLN:HB2	5:AE:123:LEU:HD11	1.89	0.54
25:DA:2642:G:N2	25:DA:2773:C:C2	2.76	0.54
25:DA:39:G:H1'	29:DE:43:THR:HG21	1.90	0.54
54:D3:35:LYS:O	54:D3:40:LYS:HE2	2.08	0.54
25:CA:213:A:C2	25:CA:214:G:C4	2.96	0.54
9:BI:16:ALA:HB1	9:BI:65:THR:O	2.08	0.54
25:CA:2287:A:C8	25:CA:2289:G:C8	2.96	0.54
25:DA:893:C:H2'	25:DA:894:U:O4'	2.08	0.54
30:DF:52:ALA:HB2	30:DF:149:ARG:HD2	1.90	0.54
4:BD:168:THR:CG2	4:BD:183:ARG:HH21	2.20	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:83:VAL:CG1	29:DE:86:ALA:HA	2.38	0.54
25:CA:1744:A:H3'	25:CA:1745:A:H8	1.72	0.54
25:CA:559:G:C2'	25:CA:560:C:H5'	2.38	0.54
25:CA:1867:G:O2'	25:CA:1868:C:H5'	2.07	0.54
25:CA:864:G:O2'	25:CA:865:C:H5'	2.08	0.54
24:AY:25:ILE:HG22	24:AY:26:SER:N	2.22	0.54
25:CA:64:A:H2'	25:CA:65:U:C6	2.43	0.54
31:DG:18:ILE:O	31:DG:18:ILE:HG22	2.08	0.54
19:AS:80:ARG:HE	19:AS:80:ARG:HA	1.73	0.54
2:AB:130:LYS:HA	2:AB:130:LYS:HE2	1.90	0.54
17:AQ:40:THR:HG22	17:AQ:41:THR:N	2.23	0.54
25:DA:954:G:C5	25:DA:955:U:C5	2.95	0.54
1:BA:1302:C:C5	13:BM:16:ILE:CD1	2.91	0.53
25:CA:2128:G:C2'	25:CA:2129:C:H5'	2.38	0.53
25:DA:1056:G:C2	25:DA:1102:C:C5	2.95	0.53
33:DI:30:GLN:HG2	33:DI:31:GLY:H	1.73	0.53
33:DI:33:ASN:HB3	33:DI:36:GLU:HG2	1.89	0.53
25:CA:1954:G:O2'	25:CA:1956:U:O4	2.19	0.53
25:DA:78:U:OP2	49:DY:2:LYS:HD3	2.07	0.53
49:DY:12:GLU:HA	49:DY:12:GLU:OE1	2.08	0.53
49:DY:13:GLU:C	49:DY:15:ASN:N	2.58	0.53
25:CA:1084:A:H2'	25:CA:1085:A:C8	2.43	0.53
33:CI:18:ASN:ND2	33:CI:27:LEU:CD2	2.71	0.53
2:AB:110:ILE:HD12	2:AB:147:LEU:HD13	1.90	0.53
1:AA:988:G:C6	1:AA:989:U:N3	2.76	0.53
10:BJ:53:ILE:HG12	10:BJ:53:ILE:O	2.07	0.53
25:DA:1708:C:H2'	25:DA:1709:U:C6	2.43	0.53
25:DA:1495:A:H1'	25:DA:1579:A:H5'	1.90	0.53
16:BP:39:PHE:O	16:BP:41:PRO:HD3	2.08	0.53
5:BE:82:HIS:NE2	5:BE:146:MET:HG3	2.23	0.53
25:DA:2707:U:C2'	25:DA:2707:U:O2	2.54	0.53
25:DA:1463:C:H2'	25:DA:1464:G:O4'	2.09	0.53
25:DA:1467:U:C2'	25:DA:1468:U:O5'	2.56	0.53
3:AC:174:LEU:O	3:AC:174:LEU:HD12	2.08	0.53
1:AA:622:A:C8	1:AA:623:C:C5	2.96	0.53
4:AD:24:VAL:O	4:AD:25:ARG:O	2.25	0.53
33:CI:101:SER:HB3	33:CI:104:GLN:CD	2.28	0.53
11:AK:124:LYS:O	21:AU:33:ARG:NE	2.40	0.53
1:BA:83:C:OP1	1:BA:83:C:H4'	2.08	0.53
25:DA:2833:U:H4'	25:DA:2834:G:OP2	2.08	0.53
25:CA:1838:C:N4	25:CA:1899:A:C4	2.76	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:BU:3:ILE:N	21:BU:18:PHE:CD1	2.77	0.53
25:CA:1409:U:H2'	25:CA:1410:G:O4'	2.08	0.53
1:BA:1128:C:H4'	1:BA:1148:U:O2	2.07	0.53
25:CA:2303:G:C5	25:CA:2304:G:N7	2.77	0.53
1:BA:1073:U:C2'	1:BA:1073:U:O2	2.53	0.53
25:CA:2156:G:H3'	25:CA:2157:G:C8	2.43	0.53
1:AA:1060:U:C5'	10:AJ:53:ILE:HG23	2.37	0.53
10:AJ:65:TYR:HA	14:AN:98:LYS:HA	1.91	0.53
6:BF:96:VAL:O	6:BF:97:THR:HG23	2.07	0.53
25:DA:417:C:C2	25:DA:418:C:C5	2.96	0.53
25:DA:1140:C:H5'	34:DJ:26:GLY:HA3	1.90	0.53
1:BA:1386:G:N3	1:BA:1387:G:C8	2.76	0.53
1:AA:324:G:N2	1:AA:326:G:H3'	2.22	0.53
25:DA:60:G:H1'	25:DA:61:C:OP1	2.07	0.53
29:CE:23:PHE:HB2	29:CE:111:GLU:HG2	1.90	0.53
1:BA:1285:A:H4'	1:BA:1286:U:N3	2.22	0.53
3:BC:83:VAL:HA	3:BC:86:LEU:HD12	1.89	0.53
1:BA:244:U:H4'	1:BA:245:U:H5"	1.89	0.53
7:AG:93:VAL:O	7:AG:96:ASN:OD1	2.25	0.53
49:CY:18:LEU:HG	49:CY:22:LEU:HB2	1.90	0.53
25:CA:1799:G:H4'	25:CA:1800:C:O5'	2.07	0.53
4:BD:43:ARG:HA	4:BD:43:ARG:CZ	2.38	0.53
14:BN:35:ALA:CB	14:BN:41:ARG:CG	2.85	0.53
11:BK:109:ILE:HG22	21:BU:16:ARG:CZ	2.38	0.53
52:C1:10:LEU:HA	52:C1:49:LYS:O	2.08	0.53
39:DO:49:VAL:CG1	39:DO:81:ARG:HB3	2.37	0.53
7:BG:34:LYS:CB	7:BG:37:THR:CG2	2.86	0.53
25:CA:2592:G:C6	25:CA:2593:U:C4	2.96	0.53
30:CF:69:ALA:HB2	30:CF:82:TYR:O	2.08	0.53
1:BA:1424:U:C4	1:BA:1425:U:C4	2.96	0.53
10:AJ:6:ILE:HD12	10:AJ:76:ILE:O	2.08	0.53
44:CT:17:SER:O	44:CT:18:GLU:C	2.46	0.53
25:DA:2648:G:C5	25:DA:2649:C:C5	2.96	0.53
7:AG:55:LYS:O	7:AG:60:ALA:HB2	2.08	0.53
25:DA:2673:G:N3	25:DA:2674:G:C8	2.76	0.53
25:DA:91:A:H4'	25:DA:92:U:O5'	2.09	0.53
1:BA:417:G:C6	1:BA:418:C:N3	2.76	0.53
32:CH:48:GLU:C	32:CH:48:GLU:CD	2.66	0.53
1:BA:446:G:H2'	1:BA:447:G:O5'	2.07	0.53
34:DJ:95:ARG:HG2	34:DJ:96:ARG:N	2.22	0.53
25:CA:2383:G:O2'	25:CA:2384:U:H5'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:718:A:H2'	25:DA:719:C:H5'	1.90	0.53
1:AA:1497:G:C2'	1:AA:1498:U:H5'	2.38	0.53
25:DA:1912:A:C8	25:DA:1918:A:C2	2.96	0.53
1:BA:1318:A:O2'	19:BS:36:ARG:HD3	2.08	0.53
13:BM:18:LEU:CG	13:BM:33:LEU:HD21	2.38	0.53
25:DA:1089:A:H5"	25:DA:1090:A:OP2	2.08	0.53
33:DI:7:TYR:HA	33:DI:58:ILE:HB	1.91	0.53
49:DY:11:VAL:CG1	49:DY:11:VAL:O	2.56	0.53
11:AK:86:LYS:HG3	11:AK:113:THR:HA	1.90	0.53
25:CA:1090:A:C6	25:CA:1091:G:N7	2.76	0.53
2:AB:65:LYS:O	2:AB:158:ASP:HB2	2.08	0.53
1:AA:1323:G:H2'	1:AA:1324:A:H8	1.73	0.53
25:DA:2207:C:H2'	25:DA:2208:C:H6	1.73	0.53
25:DA:2293:G:C2'	25:DA:2294:G:H5'	2.38	0.53
2:BB:163:ILE:CG1	2:BB:203:ASP:HB2	2.38	0.53
28:DD:133:THR:HG23	28:DD:134:HIS:CD2	2.43	0.53
13:AM:18:LEU:HD11	13:AM:32:ILE:HG21	1.89	0.53
1:BA:731:G:H5'	1:BA:766:A:H4'	1.89	0.53
1:BA:189:A:H2'	1:BA:190:A:C5'	2.37	0.53
25:CA:1462:C:C2'	25:CA:1463:C:C5'	2.86	0.53
20:AT:81:GLN:HA	20:AT:84:LYS:HG2	1.89	0.53
3:AC:24:ASN:O	3:AC:25:THR:C	2.46	0.53
1:AA:1233:G:OP2	9:AI:125:GLN:HB2	2.06	0.53
10:AJ:61:ALA:O	10:AJ:62:ARG:HB2	2.07	0.53
2:BB:114:LYS:O	2:BB:116:LEU:N	2.41	0.53
25:DA:277:G:H2'	25:DA:278:A:OP2	2.07	0.53
1:BA:1113:C:C2	1:BA:1114:C:C6	2.97	0.53
25:CA:2723:C:H2'	25:CA:2724:U:O5'	2.08	0.53
2:BB:53:LEU:HD21	2:BB:212:TYR:CE2	2.44	0.53
14:BN:16:ALA:HA	14:BN:55:SER:O	2.09	0.53
1:AA:1502:A:N7	1:AA:1504:G:N3	2.57	0.53
28:CD:96:ILE:CG2	28:CD:97:SER:N	2.71	0.53
25:DA:2579:C:O2'	25:DA:2580:U:H5'	2.08	0.53
19:AS:28:LYS:HB3	19:AS:29:PRO:CD	2.38	0.53
7:AG:45:ALA:HB1	7:AG:119:LEU:HB3	1.90	0.53
14:BN:25:GLU:OE1	14:BN:26:LEU:HD23	2.08	0.53
1:BA:830:G:O2'	1:BA:831:A:H5'	2.08	0.53
1:AA:805:C:C2'	1:AA:806:C:H5'	2.38	0.53
1:BA:210:C:H5'	1:BA:211:G:C4	2.43	0.53
40:DP:77:SER:HB3	40:DP:80:VAL:HG12	1.90	0.53
3:BC:5:HIS:CE1	3:BC:183:TYR:HE2	2.26	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:CO:30:ARG:HG2	39:CO:31:THR:N	2.22	0.53
4:AD:2:ARG:NE	4:AD:114:ARG:HD3	2.23	0.53
14:BN:62:ASN:OD1	14:BN:73:PHE:CE1	2.62	0.53
1:BA:527:G:O2'	1:BA:535:A:N1	2.31	0.53
9:BI:11:ARG:NH1	9:BI:106:ASP:HB3	2.24	0.53
25:DA:263:G:H1'	25:DA:430:A:N3	2.24	0.53
44:DT:45:ALA:O	44:DT:48:GLN:HB2	2.08	0.53
30:CF:69:ALA:HA	30:CF:84:ILE:HG21	1.89	0.53
53:C2:24:THR:O	53:C2:25:LYS:C	2.47	0.53
28:CD:38:LYS:HB3	28:CD:43:ASP:CB	2.38	0.53
11:BK:17:ASP:HB2	11:BK:80:ASN:O	2.08	0.53
22:BV:51:U:H2'	22:BV:52:G:C8	2.43	0.53
7:BG:62:GLU:C	7:BG:62:GLU:OE2	2.47	0.53
31:CG:1:SER:O	31:CG:2:ARG:C	2.46	0.53
25:CA:1881:C:C4	25:CA:1882:U:C5	2.95	0.53
22:AV:24:G:O2'	22:AV:25:C:H5'	2.08	0.53
1:BA:186:C:C4'	20:BT:75:LYS:HD2	2.39	0.53
40:DP:99:LEU:C	40:DP:101:GLU:H	2.10	0.53
25:CA:1478:G:H1	25:CA:1513:U:H3	1.56	0.53
1:AA:1430:A:OP2	1:AA:1430:A:C8	2.61	0.53
4:AD:47:LEU:HD23	4:AD:47:LEU:O	2.08	0.53
40:CP:96:LEU:HD23	40:CP:96:LEU:N	2.23	0.53
25:DA:2485:G:H5"	37:DM:45:GLN:HE21	1.72	0.53
57:DW:30:GLY:O	57:DW:31:SER:C	2.46	0.53
12:BL:74:GLN:O	12:BL:76:HIS:N	2.41	0.53
1:BA:931:C:H2'	1:BA:932:C:H6	1.74	0.53
1:BA:982:U:O2	1:BA:983:A:N1	2.41	0.53
13:BM:15:VAL:HG13	13:BM:40:GLU:HA	1.89	0.53
33:DI:116:MET:CE	33:DI:128:ILE:HD11	2.39	0.53
25:CA:1784:A:OP2	60:CA:3703:HOH:O	2.18	0.53
1:AA:1211:U:H1'	1:AA:1213:A:C2	2.44	0.53
10:BJ:40:ILE:HG23	10:BJ:41:PRO:HD2	1.91	0.53
13:BM:3:ILE:O	13:BM:5:GLY:N	2.42	0.53
13:BM:6:ILE:HD12	13:BM:6:ILE:N	2.23	0.53
32:DH:9:VAL:CG2	32:DH:35:LYS:CE	2.86	0.53
1:AA:1539:C:H1'	23:AX:7:G:N2	2.24	0.53
16:BP:6:LEU:HD12	16:BP:71:VAL:HG23	1.90	0.53
17:BQ:13:SER:O	17:BQ:20:ILE:CD1	2.56	0.53
20:BT:69:ASN:O	20:BT:72:ALA:N	2.41	0.53
6:AF:6:ILE:HA	6:AF:89:VAL:HA	1.89	0.53
8:AH:100:ILE:CD1	8:AH:128:VAL:HG23	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DL:109:LYS:HB3	36:DL:111:ILE:CD1	2.39	0.53
1:BA:1126:U:C1'	1:BA:1281:C:C6	2.91	0.53
5:BE:63:MET:O	5:BE:64:GLU:C	2.44	0.53
28:DD:101:PHE:HA	28:DD:104:VAL:HG13	1.90	0.53
1:AA:437:U:H2'	1:AA:438:U:H5'	1.89	0.53
1:AA:64:G:N2	1:AA:67:C:C4	2.75	0.53
32:DH:3:VAL:O	32:DH:19:VAL:CG2	2.56	0.53
10:BJ:71:LEU:O	10:BJ:72:ARG:HD3	2.08	0.53
6:BF:70:VAL:HA	6:BF:73:GLU:OE1	2.09	0.53
25:DA:1171:G:N2	25:DA:1178:C:O2	2.41	0.53
16:AP:38:PHE:C	16:AP:38:PHE:CD1	2.81	0.53
56:DB:30:C:H1'	56:DB:57:A:H61	1.74	0.53
3:AC:64:ARG:O	3:AC:65:VAL:HB	2.07	0.53
25:DA:121:G:H2'	25:DA:122:G:H8	1.72	0.53
25:DA:149:A:C2	25:DA:150:U:C6	2.97	0.53
3:AC:84:GLU:HG3	3:AC:85:LYS:N	2.23	0.53
1:AA:1108:G:H5'	3:AC:175:HIS:CD2	2.44	0.53
1:AA:533:A:C2	1:AA:536:C:C5	2.97	0.53
1:AA:1167:A:N7	1:AA:1169:A:C6	2.76	0.53
25:DA:2277:G:H2'	25:DA:2278:A:H5"	1.89	0.53
32:CH:7:ASP:CA	32:CH:15:LEU:HD22	2.38	0.53
4:BD:144:ILE:HG22	4:BD:145:ARG:O	2.08	0.53
25:CA:1563:U:H2'	25:CA:1564:C:C6	2.43	0.53
28:CD:86:GLU:OE1	28:CD:86:GLU:HA	2.08	0.53
25:DA:543:G:C5'	25:DA:543:G:H8	2.22	0.53
34:DJ:117:ALA:C	34:DJ:119:PHE:N	2.62	0.53
25:DA:2236:U:C2'	25:DA:2237:G:H5'	2.37	0.53
25:DA:2104:C:O2	25:DA:2186:G:N2	2.41	0.53
15:AO:18:ALA:O	15:AO:19:ASN:HB2	2.07	0.53
25:CA:2522:U:C2'	25:CA:2523:G:H5'	2.38	0.53
37:CM:113:ALA:O	37:CM:116:ALA:N	2.40	0.53
37:CM:72:PRO:HB3	37:CM:92:TRP:CZ3	2.43	0.53
22:BV:51:U:H2'	22:BV:52:G:H8	1.72	0.53
45:CU:82:VAL:HG12	45:CU:83:GLY:N	2.22	0.53
1:BA:923:A:H8	1:BA:923:A:O5'	1.91	0.53
27:CC:124:LYS:CB	27:CC:125:PRO:HD2	2.39	0.53
32:CH:80:ILE:HD12	32:CH:144:VAL:CG1	2.39	0.53
17:BQ:30:HIS:CD2	17:BQ:31:PRO:HD2	2.43	0.53
27:DC:76:VAL:HG23	27:DC:112:GLY:O	2.08	0.53
25:DA:1844:C:O3'	27:DC:255:LYS:HE3	2.08	0.53
22:AV:27:G:O2'	22:AV:28:G:H5'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:38:G:C2	1:AA:397:A:C2	2.96	0.53
32:CH:100:ALA:O	32:CH:104:THR:HG23	2.08	0.53
23:AX:14:A:N6	23:AX:15:A:N1	2.57	0.53
8:BH:85:TYR:O	8:BH:86:LYS:HD2	2.09	0.53
12:BL:107:LYS:O	12:BL:108:ASP:HB2	2.09	0.53
3:AC:168:ARG:NE	3:AC:168:ARG:O	2.41	0.53
27:CC:22:GLU:HG3	27:CC:22:GLU:O	2.09	0.53
36:CL:47:ARG:HG2	36:CL:47:ARG:NH2	2.23	0.53
25:DA:2057:G:P	60:DA:3492:HOH:O	2.65	0.53
24:AY:53:ARG:HH22	24:AY:54:GLN:NE2	2.06	0.53
12:BL:33:CYS:HA	12:BL:53:ARG:O	2.08	0.53
1:BA:1328:C:H5"	13:BM:27:THR:HG21	1.90	0.53
33:CI:17:ALA:HB1	33:CI:41:PHE:CE2	2.44	0.53
1:AA:1266:G:N1	1:AA:1270:G:C6	2.76	0.53
10:AJ:42:LEU:HB3	10:AJ:71:LEU:HB3	1.89	0.53
42:DR:49:ILE:CG2	42:DR:53:PHE:N	2.71	0.53
48:DX:38:TRP:HE3	48:DX:45:PHE:CD2	2.26	0.53
21:AU:24:LYS:O	21:AU:28:LEU:HB2	2.07	0.53
34:DJ:29:ALA:HA	34:DJ:32:LEU:HD12	1.89	0.53
38:DN:87:PHE:CE1	38:DN:94:TYR:HB3	2.43	0.53
6:AF:16:GLU:CD	4:BD:190:LEU:O	2.46	0.53
25:DA:1456:G:C6	25:DA:1457:U:C4	2.96	0.53
1:AA:458:U:H2'	1:AA:459:A:C8	2.43	0.53
3:AC:109:GLU:HB2	3:AC:143:LEU:CD2	2.39	0.53
1:AA:437:U:N3	1:AA:438:U:C5	2.76	0.53
4:AD:117:VAL:HG12	4:AD:130:ASN:HA	1.91	0.53
20:BT:54:GLN:HB3	20:BT:55:PRO:HD3	1.90	0.53
8:AH:79:ARG:HB2	8:AH:80:PRO:CD	2.38	0.53
1:BA:842:U:O2'	1:BA:846:G:C2	2.62	0.53
1:BA:847:G:O2'	1:BA:848:C:H5'	2.09	0.53
1:BA:1148:U:H5"	9:BI:8:THR:CG2	2.39	0.53
1:BA:462:G:C5	1:BA:463:U:C6	2.96	0.53
25:CA:752:A:H62	25:CA:2609:U:H3	1.55	0.53
6:BF:99:ALA:O	6:BF:100:SER:HB3	2.09	0.53
32:DH:72:ILE:HG21	32:DH:140:ALA:HB1	1.90	0.53
1:BA:1492:A:H3'	1:BA:1493:A:H8	1.72	0.53
3:AC:72:PRO:HG3	3:AC:104:GLU:HB2	1.89	0.53
56:DB:30:C:H2'	56:DB:31:C:H5'	1.89	0.53
1:BA:844:G:OP1	1:BA:844:G:H3'	2.08	0.53
25:CA:2298:A:C2'	25:CA:2299:U:H5'	2.38	0.53
1:AA:589:U:H2'	1:AA:590:U:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:110:MET:HE1	8:AH:115:ALA:HA	1.91	0.53
49:DY:60:LYS:O	49:DY:61:ALA:O	2.26	0.53
55:C4:37:GLN:HG2	55:C4:37:GLN:O	2.08	0.53
25:DA:328:U:H4'	45:DU:65:GLN:HG3	1.89	0.53
14:BN:46:LEU:HD12	14:BN:49:GLN:HB2	1.89	0.53
1:BA:209:U:C5'	1:BA:210:C:OP2	2.56	0.53
25:DA:2134:A:N6	25:DA:2157:G:H1'	2.23	0.53
54:C3:31:ILE:O	54:C3:35:LYS:HE3	2.08	0.53
29:DE:44:ARG:O	29:DE:45:ALA:HB2	2.07	0.53
30:CF:91:ARG:HA	30:CF:95:MET:HE2	1.90	0.53
29:CE:131:THR:HG22	29:CE:160:ALA:CA	2.39	0.53
6:AF:47:LEU:HD12	6:AF:55:HIS:HA	1.90	0.53
25:DA:21:A:C2'	25:DA:22:C:H5'	2.39	0.53
25:DA:2102:G:C2'	25:DA:2103:C:H5'	2.39	0.53
25:DA:1363:C:O2'	25:DA:1809:A:H1'	2.07	0.53
25:CA:2708:G:O2'	25:CA:2709:G:H5'	2.09	0.53
56:DB:109:A:H2'	56:DB:110:C:O4'	2.08	0.53
37:CM:113:ALA:O	37:CM:115:GLU:N	2.40	0.53
25:CA:2660:A:N1	25:CA:2661:G:C4	2.76	0.53
25:DA:2155:U:H2'	25:DA:2156:G:O4'	2.08	0.53
25:DA:534:U:O2'	41:DQ:48:ASP:OD1	2.21	0.53
27:CC:140:VAL:HG11	27:CC:189:ALA:HB1	1.89	0.53
1:AA:1013:G:N2	1:AA:1017:U:N3	2.56	0.53
29:DE:115:GLN:HA	29:DE:115:GLN:OE1	2.09	0.53
27:DC:136:VAL:HG22	27:DC:166:ARG:HB2	1.90	0.53
16:BP:12:LYS:O	16:BP:13:LYS:HB2	2.07	0.53
1:AA:1429:A:OP2	1:AA:1429:A:H8	1.91	0.53
1:BA:1340:A:C2	1:BA:1341:U:C2	2.96	0.53
14:BN:75:ARG:O	14:BN:76:LYS:C	2.46	0.53
25:DA:1074:G:O2'	25:DA:1075:C:H5'	2.08	0.53
33:DI:56:VAL:HG21	33:DI:68:PHE:HB2	1.90	0.53
42:CR:42:ALA:CA	42:CR:46:GLU:HB2	2.31	0.53
32:DH:63:ALA:HA	32:DH:66:ASN:H	1.74	0.53
16:BP:16:PHE:CD2	16:BP:40:ASN:HB2	2.43	0.53
11:AK:15:VAL:HG22	11:AK:16:SER:N	2.24	0.53
6:AF:5:GLU:HG3	6:AF:5:GLU:O	2.08	0.53
6:AF:93:LYS:O	6:AF:94:HIS:HB2	2.07	0.53
46:CV:2:PHE:HB3	46:CV:50:MET:CE	2.39	0.53
25:DA:2114:A:C2	25:DA:2166:U:H2'	2.43	0.53
1:AA:430:A:H2'	1:AA:430:A:N3	2.23	0.53
33:CI:82:ALA:HB1	33:CI:108:ILE:HD13	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:71:ILE:HG23	5:AE:72:ASN:N	2.22	0.53
22:AV:61:C:H2'	22:AV:62:C:H6	1.73	0.53
25:DA:1439:A:C8	25:DA:1440:U:C6	2.97	0.53
25:DA:1324:G:C4	25:DA:1328:A:N6	2.77	0.53
1:BA:1239:A:C4'	1:BA:1240:U:OP1	2.56	0.53
1:AA:204:G:H1'	1:AA:465:A:C2	2.43	0.53
8:AH:48:PHE:O	8:AH:49:LYS:HB2	2.07	0.53
1:BA:154:U:C2	1:BA:168:G:C2	2.96	0.53
1:AA:587:G:H4'	8:AH:3:GLN:CA	2.34	0.53
1:BA:872:A:C5	1:BA:874:G:C8	2.96	0.53
9:BI:46:VAL:HA	9:BI:49:GLN:HG3	1.90	0.53
9:BI:47:VAL:HG12	9:BI:78:ILE:CG2	2.38	0.53
1:BA:1073:U:N3	1:BA:1074:G:N7	2.57	0.53
2:BB:99:MET:CB	2:BB:106:VAL:HG21	2.38	0.53
32:CH:116:ARG:HD2	32:CH:133:GLN:CG	2.37	0.53
13:AM:44:ILE:N	13:AM:44:ILE:CD1	2.72	0.53
3:BC:110:LEU:CD1	3:BC:145:ALA:HB2	2.38	0.53
27:CC:72:GLY:HA2	27:CC:116:GLN:HE21	1.73	0.53
3:AC:87:ARG:HG3	3:AC:100:ILE:HG22	1.91	0.53
21:BU:23:GLU:HA	21:BU:27:VAL:CG2	2.38	0.53
32:CH:76:GLU:HG2	32:CH:143:ILE:HD12	1.90	0.53
12:AL:19:ASN:C	12:AL:20:VAL:HG12	2.29	0.53
25:CA:365:U:O2'	25:CA:366:C:H5'	2.07	0.53
1:AA:283:U:H2'	1:AA:284:C:H6	1.72	0.53
1:AA:649:A:H2'	1:AA:650:G:H5"	1.89	0.53
25:DA:2703:C:C2	25:DA:2704:C:C5	2.96	0.53
1:AA:382:A:H2'	1:AA:383:A:C8	2.43	0.53
9:AI:105:ARG:HD2	9:AI:105:ARG:O	2.09	0.53
1:BA:255:G:C4	1:BA:256:U:C5	2.97	0.53
3:BC:150:VAL:HA	3:BC:198:LYS:O	2.09	0.53
1:BA:209:U:H4'	1:BA:210:C:OP2	2.09	0.53
51:D0:14:MET:O	51:D0:17:SER:HB2	2.09	0.53
46:DV:30:ILE:HG13	46:DV:40:ILE:HG13	1.91	0.53
16:AP:20:VAL:HG22	16:AP:35:ARG:HA	1.90	0.53
16:AP:18:GLN:HG3	16:AP:35:ARG:HD2	1.90	0.53
7:BG:68:VAL:O	7:BG:70:PRO:CD	2.57	0.53
1:AA:1246:A:C2	1:AA:1247:U:C2	2.97	0.53
1:BA:40:C:H2'	1:BA:41:G:O4'	2.07	0.53
41:CQ:20:ALA:HB2	41:CQ:38:VAL:HG23	1.90	0.53
16:AP:48:GLU:CG	16:AP:49:GLY:N	2.71	0.53
25:CA:772:C:C2'	25:CA:773:U:O5'	2.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:CM:43:ALA:O	37:CM:44:ARG:C	2.45	0.53
39:CO:24:THR:HG22	39:CO:42:PRO:HD3	1.90	0.53
25:CA:2287:A:H2'	25:CA:2287:A:N3	2.24	0.53
1:BA:183:C:HO2'	1:BA:184:G:P	2.32	0.53
27:CC:141:HIS:CE1	27:CC:190:THR:CG2	2.92	0.53
14:BN:31:SER:O	14:BN:32:ASP:CB	2.57	0.53
25:DA:2774:C:H2'	25:DA:2775:G:O4'	2.09	0.53
42:DR:29:THR:HG22	42:DR:29:THR:O	2.09	0.53
25:DA:1681:G:N3	25:DA:1762:A:H2'	2.23	0.53
13:BM:24:VAL:CG2	13:BM:25:GLY:N	2.72	0.53
33:DI:21:PRO:HD2	33:DI:22:PRO:HD2	1.90	0.53
25:DA:1351:C:H2'	25:DA:1352:U:C1'	2.39	0.53
11:AK:22:ILE:HG22	11:AK:31:VAL:HG22	1.90	0.53
2:AB:53:LEU:HD11	2:AB:216:VAL:HA	1.90	0.53
2:AB:53:LEU:HD11	2:AB:216:VAL:HG22	1.90	0.53
17:AQ:45:VAL:HG11	17:AQ:60:ILE:CG1	2.38	0.53
1:AA:1151:A:O2'	1:AA:1152:A:O5'	2.21	0.53
25:CA:2474:U:H5"	25:CA:2475:C:OP2	2.08	0.53
2:BB:34:ARG:O	2:BB:36:LYS:N	2.42	0.53
5:BE:152:VAL:HG23	5:BE:156:ARG:HB2	1.90	0.53
1:AA:142:G:C5	1:AA:143:A:C8	2.96	0.53
3:AC:117:ASP:HA	3:AC:120:THR:HB	1.91	0.53
39:DO:34:HIS:HB3	39:DO:36:TYR:CE2	2.44	0.53
33:CI:79:LEU:HD13	33:CI:135:MET:CE	2.39	0.53
25:DA:2792:A:C2	25:DA:2793:C:C4	2.96	0.53
25:DA:1779:U:H2'	60:DA:3695:HOH:O	2.07	0.53
1:BA:1106:G:H2'	1:BA:1107:C:C6	2.42	0.53
5:AE:75:LEU:HD21	5:AE:119:VAL:HG12	1.90	0.53
3:BC:22:PHE:O	3:BC:23:ALA:HB2	2.09	0.53
17:BQ:7:LEU:HB3	17:BQ:24:ILE:CD1	2.39	0.53
1:AA:193:C:O4'	20:AT:54:GLN:OE1	2.26	0.53
21:BU:3:ILE:HA	21:BU:19:LYS:HZ1	1.74	0.53
1:BA:872:A:C4	1:BA:874:G:C8	2.96	0.53
9:BI:19:PHE:CB	9:BI:63:TYR:HB3	2.35	0.53
25:CA:2147:A:H2'	25:CA:2148:G:O4'	2.08	0.53
2:AB:32:GLY:O	2:AB:33:ALA:HB2	2.09	0.53
30:DF:41:GLU:CB	30:DF:48:LEU:CD2	2.85	0.53
27:CC:216:ARG:HB3	27:CC:217:PRO:HD2	1.91	0.53
1:BA:1410:A:H2'	1:BA:1411:C:C6	2.44	0.53
25:CA:2276:G:H2'	25:CA:2277:G:H5'	1.89	0.53
25:CA:1483:G:C4	25:CA:1484:U:C5	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BD:34:GLU:O	4:BD:37:PRO:HD3	2.08	0.53
18:AR:42:ARG:HG2	18:AR:43:ILE:CD1	2.39	0.53
19:AS:10:ILE:HG13	19:AS:37:SER:HB3	1.91	0.53
33:CI:5:GLN:HG2	33:CI:5:GLN:O	2.07	0.53
33:CI:57:VAL:C	33:CI:68:PHE:HB2	2.29	0.53
25:DA:549:G:N3	25:DA:549:G:O4'	2.41	0.53
1:BA:1250:A:N7	1:BA:1287:A:C8	2.76	0.53
12:BL:28:GLN:CB	12:BL:81:ILE:O	2.57	0.53
26:CB:30:C:C2'	26:CB:31:C:H5'	2.39	0.53
25:DA:1354:A:N7	25:DA:1355:G:N9	2.57	0.53
1:BA:559:A:H4'	1:BA:560:A:H3'	1.90	0.53
1:BA:254:G:C4	1:BA:255:G:C8	2.97	0.53
33:DI:45:THR:CG2	33:DI:50:LYS:HG3	2.39	0.53
25:CA:2685:G:OP1	35:CK:78:ARG:NH2	2.41	0.53
37:DM:124:LEU:CD2	37:DM:124:LEU:N	2.71	0.53
27:CC:173:LEU:HD13	27:CC:173:LEU:N	2.23	0.53
1:BA:404:G:N7	4:BD:1:ALA:N	2.56	0.53
25:DA:1475:G:H1'	25:DA:1476:U:OP2	2.08	0.53
34:CJ:64:VAL:HG13	34:CJ:65:THR:N	2.22	0.53
25:DA:665:U:O2	25:DA:665:U:C2'	2.54	0.53
16:AP:20:VAL:HG23	16:AP:35:ARG:HA	1.90	0.53
28:DD:52:THR:HG23	28:DD:53:GLY:N	2.24	0.53
1:BA:220:G:C2	1:BA:221:C:C5	2.96	0.53
7:BG:145:GLU:OE1	7:BG:148:LYS:HE2	2.09	0.53
25:DA:2690:U:C4	25:DA:2873:A:C2	2.97	0.53
25:DA:2102:G:O2'	25:DA:2103:C:H5'	2.07	0.53
1:BA:1422:G:N2	1:BA:1423:G:C4	2.76	0.53
25:CA:2418:A:C5	25:CA:2419:U:C5	2.97	0.53
1:BA:705:G:N2	11:BK:30:ILE:HD12	2.24	0.53
10:AJ:7:ARG:O	10:AJ:100:ILE:O	2.27	0.53
25:DA:2742:G:OP1	55:D4:36:ARG:CD	2.56	0.53
31:DG:41:GLU:HB2	31:DG:54:ARG:HE	1.73	0.53
33:DI:104:GLN:O	33:DI:105:LEU:HB2	2.07	0.53
49:CY:32:ALA:O	49:CY:33:ALA:C	2.46	0.53
21:AU:4:LYS:C	21:AU:4:LYS:HD2	2.29	0.53
31:CG:51:PHE:CE2	31:CG:68:ARG:HA	2.44	0.53
25:CA:1246:A:C2'	25:CA:1247:A:O5'	2.57	0.53
34:DJ:96:ARG:HG2	34:DJ:96:ARG:HH21	1.72	0.53
1:AA:369:G:C4	1:AA:370:C:C5	2.97	0.53
25:CA:964:C:O2'	25:CA:2273:A:N3	2.35	0.53
25:DA:2228:G:H2'	25:DA:2229:U:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:728:A:N6	1:BA:729:A:N6	2.55	0.53
10:BJ:93:ALA:HB1	10:BJ:96:VAL:HB	1.91	0.53
1:AA:538:G:H5"	12:AL:110:LYS:HB2	1.89	0.53
25:CA:2185:U:H2'	25:CA:2185:U:O2	2.06	0.53
29:DE:198:GLU:HG3	29:DE:198:GLU:O	2.09	0.53
25:CA:550:C:H2'	25:CA:550:C:O2	2.08	0.53
25:DA:2796:U:C2'	25:DA:2797:U:H2'	2.39	0.53
25:CA:1499:C:C4	25:CA:1500:G:N7	2.77	0.53
37:DM:33:LEU:HD22	37:DM:117:PHE:CG	2.44	0.53
20:AT:14:GLU:O	20:AT:15:LYS:C	2.46	0.53
25:DA:997:G:OP1	41:DQ:91:ARG:HG2	2.08	0.53
1:BA:1267:C:C2'	1:BA:1268:G:H5'	2.38	0.53
14:BN:50:THR:C	14:BN:51:LEU:HD23	2.29	0.53
2:AB:110:ILE:HG22	2:AB:111:LYS:N	2.22	0.53
2:AB:80:LYS:HG3	2:AB:84:LEU:HD22	1.91	0.53
1:AA:978:A:C2'	1:AA:979:C:H5'	2.39	0.53
1:AA:989:U:H2'	1:AA:990:C:H6	1.74	0.53
32:DH:31:VAL:CB	32:DH:32:PRO:CD	2.87	0.53
25:DA:1670:C:O2	25:DA:1993:U:H1'	2.09	0.53
16:BP:6:LEU:N	16:BP:6:LEU:HD12	2.23	0.53
5:BE:104:ILE:HD11	5:BE:114:LEU:HB3	1.91	0.53
1:AA:1446:A:H2'	1:AA:1447:A:H5'	1.89	0.53
25:DA:2148:G:H2'	25:DA:2149:U:C5	2.43	0.53
1:BA:840:C:C4	1:BA:842:U:C5'	2.91	0.53
1:BA:1149:C:HO2'	1:BA:1280:A:H2	1.55	0.53
25:CA:2143:C:H2'	25:CA:2144:G:C8	2.43	0.53
25:DA:362:A:OP2	25:DA:362:A:C8	2.62	0.53
25:CA:1869:G:C6	25:CA:1871:A:OP2	2.61	0.53
9:AI:56:MET:HA	9:AI:59:LYS:CB	2.38	0.53
56:DB:58:A:H2'	56:DB:59:A:C8	2.44	0.53
2:BB:57:ASN:O	2:BB:58:LYS:HB2	2.08	0.53
3:AC:56:ILE:HG12	3:AC:65:VAL:HG22	1.90	0.53
4:BD:32:LYS:O	4:BD:33:ILE:C	2.47	0.53
25:DA:2756:U:C4	25:DA:2759:G:O6	2.62	0.53
28:DD:90:PHE:CE2	28:DD:96:ILE:CD1	2.90	0.53
25:DA:1196:C:O4'	25:DA:1226:A:C2	2.61	0.53
25:DA:545:U:C6	25:DA:547:A:H4'	2.44	0.53
7:BG:17:PHE:CZ	7:BG:57:GLU:HG2	2.44	0.53
27:DC:253:GLY:O	27:DC:254:LYS:CB	2.57	0.53
25:CA:892:A:N3	25:CA:892:A:H2'	2.23	0.53
1:BA:1452:C:H4'	1:BA:1453:G:C5'	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2886:A:C4	25:CA:2887:A:C8	2.97	0.53
1:BA:854:U:H3'	1:BA:871:U:H3	1.72	0.53
14:BN:35:ALA:HB2	14:BN:41:ARG:HG3	1.88	0.53
25:DA:422:A:H2'	25:DA:422:A:N3	2.24	0.53
25:CA:247:G:C8	25:CA:249:C:C5	2.97	0.53
40:CP:25:VAL:HG23	40:CP:84:SER:O	2.07	0.53
25:DA:817:C:OP1	60:DA:3585:HOH:O	2.19	0.53
31:CG:126:THR:CG2	31:CG:127:GLN:N	2.72	0.53
1:AA:395:C:H2'	1:AA:396:C:H6	1.74	0.53
1:AA:633:G:OP2	8:AH:87:ARG:NH2	2.42	0.53
25:CA:649:G:H2'	25:CA:650:C:H6	1.73	0.53
34:CJ:77:HIS:CD2	34:CJ:79:GLY:HA2	2.43	0.53
25:DA:1392:A:C5	25:DA:1393:A:C6	2.97	0.53
25:CA:1902:C:H5"	27:CC:239:PHE:CE1	2.44	0.53
25:DA:515:A:H1'	25:DA:581:C:H1'	1.90	0.53
7:BG:136:LYS:O	7:BG:139:ASP:CB	2.57	0.53
25:CA:2631:G:H2'	25:CA:2632:A:O5'	2.09	0.53
3:BC:146:LYS:HG3	3:BC:203:LYS:O	2.08	0.53
45:CU:87:GLU:O	45:CU:88:ASP:HB3	2.08	0.53
1:BA:552:U:H2'	1:BA:553:A:C8	2.43	0.53
1:BA:567:G:H2'	1:BA:568:G:O4'	2.08	0.53
27:DC:170:TYR:CD2	27:DC:184:GLU:HA	2.43	0.53
21:BU:4:LYS:HD2	21:BU:4:LYS:O	2.08	0.53
25:DA:531:C:C5	25:DA:2035:G:C2	2.97	0.53
25:CA:1319:C:O2'	25:CA:1320:C:H5'	2.08	0.53
38:DN:35:LYS:HD2	38:DN:100:CYS:SG	2.49	0.53
1:BA:1377:A:O2'	7:BG:1:PRO:HG2	2.08	0.53
1:BA:1328:C:H5"	13:BM:27:THR:CG2	2.38	0.53
13:BM:77:LYS:HA	13:BM:80:MET:HE2	1.91	0.53
25:DA:1313:U:H5"	25:DA:1314:C:OP2	2.08	0.53
1:AA:1321:U:H3'	1:AA:1322:C:O2	2.09	0.53
25:DA:2372:U:O4'	52:D1:45:HIS:CD2	2.62	0.53
2:BB:163:ILE:HG12	2:BB:164:ASP:N	2.23	0.53
11:AK:54:SER:O	11:AK:55:ARG:C	2.48	0.53
6:AF:2:ARG:HG2	6:AF:92:THR:HG21	1.90	0.53
25:DA:640:C:C5	25:DA:641:U:C5	2.97	0.53
38:DN:76:VAL:CG1	38:DN:77:ALA:N	2.71	0.53
25:DA:2114:A:C2	25:DA:2115:G:O4'	2.62	0.53
13:AM:17:ALA:O	13:AM:20:SER:CB	2.57	0.53
25:DA:984:A:C5'	25:DA:985:C:OP2	2.54	0.53
30:DF:35:LEU:HD12	30:DF:153:ILE:CD1	2.36	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:34:ARG:O	21:AU:36:PHE:N	2.42	0.53
5:AE:132:PRO:C	5:AE:134:ASN:N	2.62	0.53
5:AE:148:SER:O	5:AE:152:VAL:HG12	2.08	0.53
1:AA:386:C:O2'	1:AA:387:U:H5'	2.09	0.53
43:DS:20:VAL:O	43:DS:23:LEU:HB2	2.09	0.53
29:CE:190:ALA:C	29:CE:192:ALA:H	2.11	0.53
4:AD:16:THR:HG22	4:AD:17:ASP:O	2.08	0.53
1:AA:1239:A:C2	1:AA:1241:G:N1	2.77	0.53
1:BA:215:C:H2'	1:BA:216:U:O4'	2.09	0.53
1:BA:15:G:C2	1:BA:16:A:C4	2.97	0.53
25:DA:2162:G:C4'	25:DA:2171:A:H2'	2.39	0.53
1:AA:1060:U:C5'	10:AJ:53:ILE:CG2	2.85	0.53
25:CA:585:G:N7	41:CQ:5:ARG:NH1	2.57	0.53
6:BF:36:ILE:HA	6:BF:64:VAL:HG13	1.90	0.53
6:BF:38:ARG:HG3	6:BF:39:LEU:N	2.21	0.53
6:BF:90:MET:O	6:BF:91:ARG:O	2.26	0.53
6:BF:97:THR:O	6:BF:98:GLU:HG2	2.08	0.53
25:DA:582:A:N6	25:DA:583:G:O6	2.42	0.53
25:DA:585:G:H5"	25:DA:586:A:P	2.49	0.53
2:BB:81:ASP:OD1	2:BB:83:ALA:HB3	2.08	0.53
27:DC:12:ARG:O	27:DC:13:ARG:C	2.46	0.53
27:DC:13:ARG:HG2	27:DC:14:HIS:CE1	2.44	0.53
9:AI:20:ILE:HG21	9:AI:60:LEU:HD12	1.90	0.53
38:DN:81:ASN:O	38:DN:85:PRO:HD2	2.09	0.53
25:CA:1485:U:N3	25:CA:1505:A:C2	2.77	0.53
25:DA:120:U:H1'	25:DA:149:A:N7	2.23	0.53
25:DA:122:G:C2'	25:DA:123:G:H5'	2.39	0.53
23:BX:8:A:C6	23:BX:9:G:C5	2.97	0.53
36:CL:26:GLY:O	36:CL:27:LEU:C	2.46	0.53
1:BA:116:A:H61	1:BA:313:A:H1'	1.74	0.53
13:BM:113:LYS:CB	13:BM:114:PRO:HD3	2.38	0.53
27:DC:251:THR:HG22	27:DC:252:LYS:HG2	1.91	0.53
25:CA:664:G:C2'	25:CA:665:U:H5'	2.39	0.53
25:DA:2493:U:C2'	25:DA:2494:G:O5'	2.57	0.53
17:BQ:44:HIS:CG	17:BQ:69:THR:CG2	2.92	0.53
25:DA:188:G:C2'	25:DA:189:G:H5'	2.39	0.53
15:BO:27:GLN:O	15:BO:31:LEU:HD12	2.08	0.53
12:AL:49:ARG:HB2	12:AL:89:LEU:HD21	1.91	0.53
25:DA:2159:G:O2'	25:DA:2160:C:H5'	2.08	0.53
30:DF:135:ILE:HG23	30:DF:140:ILE:HG22	1.90	0.53
1:BA:1179:A:H2'	1:BA:1180:A:H5'	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:657:U:H2'	25:DA:658:U:C6	2.44	0.53
5:BE:55:VAL:HB	5:BE:56:PRO:CD	2.39	0.53
4:BD:58:GLN:O	4:BD:62:ARG:HG3	2.07	0.53
40:DP:38:ARG:HG3	40:DP:39:LEU:N	2.24	0.53
41:DQ:67:ALA:HB1	41:DQ:105:PHE:CE1	2.44	0.53
25:CA:178:G:C2'	25:CA:179:C:H5'	2.39	0.53
25:DA:2411:A:O2'	25:DA:2412:A:H5'	2.08	0.53
26:CB:39:A:C2	26:CB:44:G:C2	2.97	0.53
30:CF:69:ALA:HA	30:CF:84:ILE:CG2	2.37	0.53
30:CF:100:GLU:OE2	30:CF:104:THR:HG21	2.08	0.53
8:BH:9:MET:CE	8:BH:32:LYS:O	2.57	0.53
1:BA:646:G:H2'	1:BA:647:C:H6	1.74	0.53
25:CA:1120:G:H2'	25:CA:1121:C:H5'	1.91	0.53
11:AK:81:LEU:HD23	11:AK:81:LEU:N	2.24	0.53
25:DA:368:A:H2'	25:DA:369:U:H5'	1.91	0.53
25:DA:1719:G:H22	25:DA:1742:U:H1'	1.74	0.53
25:DA:182:A:C6	25:DA:183:C:C4	2.96	0.53
27:CC:136:VAL:CG1	27:CC:137:GLY:N	2.72	0.53
1:BA:455:G:C2'	1:BA:456:A:H5'	2.38	0.53
57:DW:64:LYS:HD3	57:DW:79:GLU:OE2	2.08	0.53
25:CA:2849:U:H4'	25:CA:2868:A:C2	2.43	0.53
41:CQ:98:ALA:HB2	41:CQ:105:PHE:CD2	2.44	0.53
25:CA:606:U:OP2	29:CE:99:LYS:HE3	2.09	0.53
25:CA:1558:C:H4'	25:CA:1559:U:O5'	2.08	0.53
25:DA:2850:A:C4	25:DA:2851:A:C8	2.97	0.53
3:AC:129:PHE:CZ	3:AC:130:ARG:HD2	2.44	0.53
46:DV:32:GLY:O	46:DV:35:GLU:OE1	2.27	0.53
16:AP:61:VAL:HA	16:AP:65:ALA:HB3	1.91	0.53
9:BI:23:GLY:HA3	9:BI:61:ASP:OD2	2.09	0.53
25:DA:1096:A:C8	25:DA:1096:A:H3'	2.44	0.53
32:CH:34:GLY:O	32:CH:35:LYS:CG	2.57	0.53
25:DA:1315:C:C2	25:DA:1316:U:C5	2.97	0.53
49:DY:24:GLU:O	49:DY:27:ASN:N	2.42	0.53
2:AB:89:PHE:HB3	2:AB:149:GLY:O	2.08	0.53
1:AA:978:A:C1'	1:AA:1322:C:H5	2.22	0.53
14:AN:73:PHE:HE1	14:AN:75:ARG:HA	1.73	0.53
1:AA:274:A:C5'	17:AQ:15:LYS:CE	2.87	0.53
17:AQ:16:MET:CB	17:AQ:19:SER:HB3	2.39	0.53
25:CA:846:U:O2	25:CA:846:U:C2'	2.57	0.53
5:BE:97:PRO:O	5:BE:98:ALA:HB3	2.09	0.53
15:AO:23:SER:OG	15:AO:26:VAL:HG23	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:BS:17:LYS:HA	19:BS:20:LYS:NZ	2.24	0.53
25:DA:1540:G:C5	25:DA:1541:C:C4	2.97	0.53
10:AJ:29:ALA:CA	10:AJ:32:THR:HG22	2.33	0.53
1:BA:89:U:H2'	1:BA:90:C:C6	2.44	0.53
30:CF:7:TYR:HA	30:CF:11:VAL:HG21	1.91	0.53
34:DJ:80:HIS:O	34:DJ:82:GLY:N	2.41	0.53
27:DC:74:PRO:HB2	27:DC:96:LYS:CE	2.38	0.53
6:BF:87:SER:O	6:BF:88:MET:HB2	2.09	0.53
17:AQ:51:GLU:N	17:AQ:51:GLU:OE1	2.42	0.53
3:AC:35:ASP:OD1	3:AC:58:ARG:NH1	2.42	0.53
36:CL:77:ILE:HD11	36:CL:101:ILE:HG21	1.90	0.53
10:BJ:65:TYR:HB3	14:BN:96:LEU:HD11	1.90	0.53
12:BL:47:ALA:HB3	12:BL:49:ARG:HE	1.73	0.53
46:CV:80:HIS:CD2	46:CV:81:PRO:HD2	2.44	0.53
1:AA:446:G:H2'	1:AA:447:G:O4'	2.09	0.53
1:AA:118:U:O4	1:AA:288:A:H2'	2.09	0.53
44:DT:69:ARG:CZ	44:DT:69:ARG:HB3	2.39	0.53
7:AG:25:PHE:O	7:AG:26:VAL:C	2.47	0.53
36:DL:4:ASN:O	36:DL:5:THR:HG22	2.09	0.53
25:CA:1392:A:N6	44:CT:18:GLU:HG2	2.24	0.53
28:DD:61:THR:HB	28:DD:63:PRO:HD2	1.91	0.53
25:DA:2742:G:OP1	55:D4:36:ARG:HD2	2.09	0.53
25:CA:1121:C:H3'	25:CA:1121:C:C6	2.44	0.53
1:AA:300:A:H1'	1:AA:565:U:O2	2.08	0.53
40:DP:51:ASN:HA	40:DP:56:SER:HB3	1.91	0.53
32:CH:46:PHE:HD2	32:CH:47:PHE:N	2.07	0.53
38:DN:17:ARG:HH21	38:DN:17:ARG:HG3	1.73	0.53
25:DA:41:C:C2'	25:DA:42:A:O5'	2.57	0.53
25:DA:2817:U:OP1	38:DN:99:LYS:HE2	2.08	0.53
27:CC:83:ASP:OD1	27:CC:83:ASP:C	2.46	0.53
25:CA:347:A:H2'	25:CA:348:A:C8	2.43	0.53
25:CA:1445:G:H2'	25:CA:1446:C:C6	2.44	0.53
51:C0:35:GLU:OE2	51:C0:45:ASP:HB2	2.08	0.53
1:AA:689:C:H2'	1:AA:690:G:C8	2.44	0.53
27:CC:28:PRO:HG2	27:CC:33:LEU:HD11	1.91	0.53
28:CD:28:GLU:OE2	28:CD:30:GLU:HG3	2.08	0.53
1:AA:322:C:O3'	20:AT:17:ARG:HG3	2.07	0.53
37:DM:15:GLY:O	37:DM:16:ARG:HD3	2.08	0.53
8:BH:58:LEU:HD12	8:BH:58:LEU:C	2.29	0.53
25:DA:588:U:H2'	25:DA:589:U:C6	2.44	0.53
25:DA:1300:G:H3'	60:DA:3655:HOH:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:BM:2:ARG:HA	13:BM:8:ILE:HG12	1.91	0.53
12:BL:74:GLN:O	12:BL:75:GLU:C	2.47	0.53
49:DY:13:GLU:O	49:DY:15:ASN:N	2.41	0.53
49:DY:32:ALA:O	49:DY:35:GLY:N	2.42	0.53
25:CA:1060:U:H5'	25:CA:1062:G:H4'	1.91	0.53
33:CI:18:ASN:HD21	33:CI:27:LEU:HD11	1.72	0.53
2:AB:112:ARG:O	2:AB:115:ASP:O	2.27	0.53
2:AB:89:PHE:N	2:AB:89:PHE:CD2	2.76	0.53
1:AA:956:U:O2	1:AA:1225:A:C2	2.61	0.53
1:AA:1151:A:HO2'	1:AA:1152:A:C5'	2.20	0.53
25:DA:2207:C:C2	25:DA:2208:C:H5	2.27	0.53
25:DA:2210:U:H4'	25:DA:2211:A:H5'	1.90	0.53
25:DA:2211:A:N3	25:DA:2211:A:H5"	2.24	0.53
52:D1:44:GLN:NE2	52:D1:44:GLN:HA	2.23	0.53
41:CQ:86:SER:HB3	42:CR:51:VAL:HA	1.91	0.53
5:BE:155:LYS:H	5:BE:155:LYS:HE3	1.74	0.53
20:BT:66:ILE:O	20:BT:67:HIS:HB2	2.09	0.53
1:AA:692:U:O2'	1:AA:694:A:N7	2.32	0.53
11:AK:75:GLU:N	11:AK:75:GLU:OE1	2.42	0.53
25:CA:2499:C:OP1	60:CA:3694:HOH:O	2.19	0.53
19:BS:17:LYS:HB3	19:BS:30:LEU:HD23	1.90	0.53
25:DA:1539:U:C2	25:DA:1540:G:C8	2.97	0.53
56:DB:28:C:P	39:DO:31:THR:HG21	2.49	0.53
1:AA:477:C:H2'	1:AA:478:A:C8	2.43	0.53
4:AD:159:GLU:O	4:AD:161:ALA:N	2.42	0.53
1:BA:1298:U:O4'	1:BA:1299:A:C5	2.62	0.53
31:DG:108:PHE:HE2	31:DG:151:ARG:CZ	2.22	0.53
2:BB:98:GLY:O	2:BB:101:THR:N	2.41	0.53
27:DC:16:VAL:CB	27:DC:203:VAL:HG22	2.39	0.53
25:DA:58:G:OP1	44:DT:78:SER:OG	2.26	0.53
19:AS:39:ILE:HG12	19:AS:70:LEU:CD2	2.38	0.53
44:CT:30:ILE:HD11	44:CT:32:LEU:HD21	1.91	0.53
1:BA:107:G:H2'	1:BA:108:G:C5'	2.39	0.53
33:CI:56:VAL:HG23	33:CI:70:THR:HA	1.90	0.53
13:AM:70:ARG:HD2	13:AM:74:MET:HE3	1.91	0.53
25:DA:480:A:H5"	45:DU:43:LYS:CD	2.38	0.53
25:CA:2888:C:H2'	25:CA:2889:C:H6	1.72	0.53
45:DU:101:THR:HG22	45:DU:102:ILE:N	2.24	0.53
7:AG:21:LEU:HD13	7:AG:21:LEU:C	2.29	0.53
33:DI:79:LEU:HD11	33:DI:132:ALA:CB	2.39	0.53
56:DB:10:G:N7	56:DB:11:C:C5	2.76	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:749:A:O2'	1:BA:750:C:H5'	2.08	0.53
31:CG:142:GLN:O	31:CG:145:ALA:HB3	2.10	0.53
1:AA:1379:G:O2'	1:AA:1380:U:H5'	2.09	0.53
25:CA:2665:A:C2	25:CA:2666:C:C5	2.97	0.53
30:CF:56:LEU:HD12	30:CF:64:PRO:CB	2.39	0.53
1:BA:408:A:H2'	1:BA:409:U:O4'	2.08	0.53
3:BC:38:VAL:O	3:BC:42:LEU:HB2	2.09	0.53
1:BA:1009:U:O2	1:BA:1009:U:H2'	2.07	0.53
25:CA:2766:A:H2'	25:CA:2766:A:N3	2.24	0.53
38:CN:38:LEU:HB3	38:CN:39:PRO:HD3	1.90	0.53
25:DA:2771:C:H2'	25:DA:2772:C:C6	2.44	0.53
25:CA:1829:A:H2'	25:CA:1830:C:H5'	1.91	0.53
25:DA:1934:C:H4'	25:DA:1974:C:O3'	2.09	0.53
1:AA:160:A:H2'	1:AA:161:A:O4'	2.09	0.53
1:BA:728:A:C6	1:BA:729:A:C6	2.97	0.53
1:AA:363:A:OP1	12:AL:30:ARG:HB3	2.09	0.53
1:BA:815:A:OP2	60:BA:1815:HOH:O	2.19	0.53
25:DA:1053:C:C2	25:DA:1107:G:C2	2.97	0.53
1:BA:55:A:C4	1:BA:56:U:C6	2.97	0.53
25:CA:910:A:C6	25:CA:911:A:C6	2.97	0.53
31:CG:117:PRO:O	31:CG:118:ALA:C	2.47	0.53
5:BE:11:GLN:HA	5:BE:11:GLN:OE1	2.09	0.53
25:CA:2215:C:O2'	25:CA:2216:G:H5'	2.09	0.53
46:DV:20:LEU:CD2	46:DV:26:PHE:CA	2.87	0.53
46:DV:26:PHE:CD2	46:DV:44:HIS:HA	2.44	0.53
29:DE:145:ASP:HB3	29:DE:184:ASP:HB2	1.91	0.53
41:DQ:65:ASN:O	41:DQ:69:ARG:HG3	2.08	0.53
12:AL:32:VAL:HG12	12:AL:78:VAL:HG22	1.90	0.53
25:DA:1832:C:N4	25:DA:1833:C:C4	2.77	0.53
52:C1:42:VAL:HG22	52:C1:44:GLN:HB2	1.90	0.53
1:BA:406:G:C2	1:BA:407:U:C6	2.97	0.53
34:CJ:27:ARG:HG2	34:CJ:27:ARG:HH11	1.74	0.53
9:BI:110:VAL:HG23	9:BI:110:VAL:O	2.09	0.53
1:BA:516:U:C2'	1:BA:517:G:H5'	2.39	0.53
13:BM:47:LEU:HD22	13:BM:52:ILE:HG13	1.91	0.53
4:BD:3:TYR:C	4:BD:3:TYR:CD1	2.82	0.52
2:AB:66:ILE:O	2:AB:67:LEU:HB2	2.08	0.52
2:AB:86:CYS:HB2	2:AB:88:GLN:NE2	2.24	0.52
1:AA:1216:A:N3	1:AA:1217:C:C5	2.77	0.52
1:AA:1312:G:N7	19:AS:2:ARG:N	2.57	0.52
17:AQ:13:SER:CB	17:AQ:16:MET:HE2	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:16:ARG:O	10:AJ:16:ARG:HG3	2.09	0.52
25:CA:1180:U:H2'	25:CA:1181:U:O5'	2.08	0.52
31:CG:8:VAL:HG13	31:CG:49:LEU:HB2	1.87	0.52
2:BB:93:HIS:CG	2:BB:94:ARG:NH2	2.77	0.52
16:BP:16:PHE:CE2	16:BP:40:ASN:HB2	2.44	0.52
11:BK:126:ARG:N	21:BU:33:ARG:CZ	2.72	0.52
2:AB:206:ILE:HG12	2:AB:207:ARG:N	2.23	0.52
42:CR:39:LEU:O	42:CR:40:MET:CB	2.56	0.52
11:AK:51:PHE:CA	11:AK:55:ARG:HB3	2.39	0.52
11:AK:74:LYS:C	11:AK:75:GLU:OE1	2.47	0.52
38:DN:79:LEU:HA	38:DN:83:LEU:HB2	1.90	0.52
25:DA:2303:G:H2'	25:DA:2304:G:H5'	1.90	0.52
51:C0:54:ILE:O	51:C0:55:ALA:HB3	2.09	0.52
1:AA:1523:G:OP1	11:AK:124:LYS:HE2	2.10	0.52
1:BA:188:C:O2	1:BA:189:A:N9	2.41	0.52
1:AA:513:C:O2'	1:AA:514:C:C5'	2.58	0.52
9:BI:28:VAL:CB	9:BI:63:TYR:HD2	2.22	0.52
27:DC:175:LEU:HD11	27:DC:181:ARG:HD2	1.91	0.52
1:BA:466:A:H5"	1:BA:467:U:OP2	2.09	0.52
45:DU:36:GLU:HG3	45:DU:36:GLU:O	2.09	0.52
45:DU:4:ILE:HD13	45:DU:66:VAL:HG13	1.89	0.52
1:BA:1028:C:C5	1:BA:1034:G:C2	2.97	0.52
25:DA:1167:C:H2'	25:DA:1168:G:C5'	2.39	0.52
43:DS:59:GLU:CD	43:DS:66:ILE:HD11	2.29	0.52
21:BU:10:PRO:C	21:BU:11:PHE:CD1	2.82	0.52
1:BA:593:U:H2'	1:BA:594:U:H6	1.74	0.52
25:DA:55:G:C2	25:DA:56:A:C8	2.98	0.52
37:CM:55:ARG:CG	37:CM:55:ARG:NH2	2.66	0.52
44:CT:30:ILE:HG22	44:CT:85:VAL:O	2.09	0.52
1:AA:895:G:H2'	1:AA:896:C:C6	2.44	0.52
1:AA:379:C:C2'	1:AA:380:G:H5'	2.39	0.52
1:AA:542:G:C2	1:AA:543:U:C4	2.96	0.52
7:AG:122:GLU:O	7:AG:123:LEU:C	2.48	0.52
25:CA:1028:A:N6	25:CA:1125:G:H2'	2.24	0.52
14:BN:23:ARG:O	14:BN:26:LEU:HB2	2.09	0.52
25:CA:1820:U:OP1	27:CC:176:ARG:NH2	2.42	0.52
1:BA:211:G:N2	1:BA:212:G:H1'	2.24	0.52
12:AL:49:ARG:NH1	12:AL:88:ASP:OD1	2.41	0.52
25:DA:1503:A:C6	25:DA:1504:A:C5	2.96	0.52
38:CN:13:ASN:ND2	38:CN:13:ASN:C	2.61	0.52
1:BA:1160:G:O2'	1:BA:1161:C:O5'	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:484:C:OP1	45:DU:47:PRO:HG3	2.09	0.52
1:BA:438:U:H5'	4:BD:119:HIS:CD2	2.43	0.52
41:DQ:104:ALA:O	41:DQ:107:ALA:HB3	2.09	0.52
44:DT:44:LYS:HE3	44:DT:55:VAL:HG12	1.91	0.52
1:BA:1472:U:C2'	1:BA:1473:G:O5'	2.57	0.52
26:CB:102:G:O2'	26:CB:103:U:H5'	2.09	0.52
55:D4:36:ARG:O	55:D4:37:GLN:O	2.25	0.52
1:BA:1431:A:C5	1:BA:1432:G:C6	2.97	0.52
29:DE:1:MET:HG3	29:DE:14:VAL:CG2	2.39	0.52
54:D3:29:ARG:O	54:D3:30:HIS:HB3	2.09	0.52
1:BA:1170:A:H2'	1:BA:1171:A:O4'	2.09	0.52
20:AT:65:LEU:O	20:AT:65:LEU:HD12	2.09	0.52
32:DH:15:LEU:HD22	32:DH:15:LEU:N	2.24	0.52
18:BR:49:LYS:HA	18:BR:52:ARG:NH1	2.24	0.52
40:DP:3:ILE:HD12	40:DP:3:ILE:H	1.74	0.52
4:AD:40:HIS:HB3	4:AD:43:ARG:HG3	1.90	0.52
25:CA:120:U:H5"	25:CA:122:G:OP2	2.08	0.52
56:DB:25:U:C5	56:DB:26:C:C5	2.97	0.52
25:DA:190:A:H2'	25:DA:191:A:O4'	2.08	0.52
25:CA:1775:U:P	60:CA:3450:HOH:O	2.67	0.52
25:DA:381:G:OP1	48:DX:17:ARG:NH2	2.42	0.52
55:C4:16:ILE:O	55:C4:16:ILE:HG22	2.09	0.52
12:AL:36:VAL:HG12	12:AL:36:VAL:O	2.09	0.52
48:DX:73:ARG:O	48:DX:73:ARG:HG3	2.09	0.52
42:CR:62:GLU:O	42:CR:62:GLU:HG2	2.08	0.52
12:AL:6:LEU:HB3	17:AQ:33:TYR:CE1	2.45	0.52
25:DA:1701:A:C2'	25:DA:1702:G:H5'	2.39	0.52
1:BA:951:G:N3	1:BA:1231:G:C2	2.77	0.52
9:BI:127:SER:O	9:BI:128:LYS:C	2.47	0.52
13:BM:32:ILE:HD13	13:BM:58:GLU:CG	2.40	0.52
13:BM:80:MET:O	13:BM:81:ASP:C	2.48	0.52
19:BS:10:ILE:HD11	19:BS:15:LEU:CA	2.39	0.52
33:DI:53:PRO:O	33:DI:74:PRO:CD	2.56	0.52
49:DY:5:GLU:HA	49:DY:8:GLU:OE1	2.09	0.52
25:DA:1748:C:O2'	25:DA:1749:A:H5'	2.09	0.52
32:DH:59:ALA:C	32:DH:62:LEU:HD12	2.30	0.52
21:AU:25:ALA:O	21:AU:26:GLY:O	2.28	0.52
17:BQ:16:MET:CG	17:BQ:19:SER:HB3	2.40	0.52
5:BE:81:GLN:OE1	5:BE:148:SER:HA	2.08	0.52
20:AT:27:MET:O	20:AT:31:ILE:HD12	2.10	0.52
25:DA:1448:G:C4	25:DA:1464:G:N2	2.78	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DO:27:VAL:HG21	39:DO:40:ILE:HD12	1.92	0.52
28:DD:101:PHE:CD1	28:DD:104:VAL:HG11	2.44	0.52
4:AD:154:VAL:O	4:AD:158:LEU:HG	2.08	0.52
4:AD:159:GLU:HG2	4:AD:160:LEU:N	2.24	0.52
4:AD:57:LYS:N	4:AD:199:ILE:HG22	2.24	0.52
1:AA:11:G:C6	1:AA:12:U:C4	2.97	0.52
5:AE:93:VAL:HG12	5:AE:138:ALA:HB1	1.92	0.52
5:AE:149:PRO:HA	8:AH:98:LEU:HD11	1.91	0.52
22:AV:61:C:O2'	22:AV:62:C:H5'	2.08	0.52
25:DA:2327:A:H2'	25:DA:2328:A:C8	2.44	0.52
20:BT:33:LYS:O	20:BT:36:ALA:HB3	2.08	0.52
1:AA:16:A:H2'	1:AA:17:U:H5'	1.90	0.52
1:AA:452:A:C3'	1:AA:452:A:C8	2.89	0.52
1:AA:452:A:C8	1:AA:453:G:O4'	2.62	0.52
1:AA:1308:U:O3'	13:AM:90:HIS:CE1	2.62	0.52
1:BA:201:G:O2'	1:BA:202:G:H5'	2.09	0.52
1:BA:1101:A:H4'	1:BA:1102:A:O5'	2.10	0.52
1:BA:1102:A:H2'	1:BA:1103:C:C6	2.44	0.52
2:BB:99:MET:HA	2:BB:106:VAL:CG2	2.39	0.52
27:DC:74:PRO:HB2	27:DC:96:LYS:CG	2.40	0.52
2:BB:120:SER:O	2:BB:125:PHE:HB3	2.10	0.52
6:BF:78:PHE:CD1	6:BF:87:SER:HB3	2.45	0.52
27:DC:9:SER:O	27:DC:12:ARG:HB3	2.08	0.52
4:AD:87:GLU:HG2	4:AD:187:ARG:HD3	1.89	0.52
14:BN:64:CYS:SG	14:BN:80:SER:HB2	2.49	0.52
44:CT:2:ILE:HG22	44:CT:2:ILE:O	2.10	0.52
25:DA:58:G:C2'	25:DA:59:U:H5'	2.38	0.52
1:BA:426:U:H5"	4:BD:36:ALA:HB1	1.91	0.52
50:DZ:3:THR:CG2	50:DZ:36:GLU:OE1	2.57	0.52
2:AB:185:ILE:CG1	2:AB:185:ILE:O	2.57	0.52
33:CI:59:THR:HG22	33:CI:61:TYR:OH	2.09	0.52
25:DA:545:U:O2	25:DA:545:U:OP2	2.27	0.52
7:BG:50:ALA:CB	7:BG:57:GLU:OE2	2.57	0.52
25:DA:1562:U:O2	25:DA:1563:U:C1'	2.56	0.52
25:DA:2704:C:H3'	25:DA:2705:A:C8	2.44	0.52
25:CA:1893:C:C2'	25:CA:1894:C:H5'	2.38	0.52
25:CA:309:A:H4'	45:CU:15:GLY:HA2	1.91	0.52
25:DA:910:A:C5	37:DM:13:HIS:NE2	2.77	0.52
1:BA:255:G:C6	1:BA:256:U:C4	2.98	0.52
15:BO:35:ILE:HD11	15:BO:59:VAL:N	2.25	0.52
28:CD:57:ALA:O	28:CD:58:ASN:C	2.48	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BD:86:GLY:O	4:BD:89:LEU:HB3	2.09	0.52
13:AM:2:ARG:HA	13:AM:8:ILE:HG12	1.91	0.52
1:AA:1037:C:N3	1:AA:1038:C:C5	2.77	0.52
25:DA:1430:G:H2'	25:DA:1431:A:O4'	2.08	0.52
27:CC:219:VAL:O	27:CC:220:ARG:C	2.45	0.52
25:CA:1141:U:OP2	34:CJ:65:THR:HG21	2.09	0.52
5:AE:59:ILE:O	5:AE:63:MET:HG2	2.09	0.52
7:BG:68:VAL:CG2	7:BG:99:ALA:HA	2.40	0.52
31:CG:75:VAL:O	31:CG:79:THR:HB	2.09	0.52
1:BA:1084:G:C5	1:BA:1085:U:C4	2.97	0.52
46:CV:92:VAL:O	46:CV:93:ARG:C	2.47	0.52
25:DA:2898:U:H2'	25:DA:2899:A:C8	2.44	0.52
28:DD:11:MET:HG2	28:DD:24:VAL:O	2.08	0.52
3:BC:52:SER:HB2	3:BC:114:LEU:HG	1.90	0.52
25:CA:1244:A:H5'	36:CL:8:PRO:HD2	1.92	0.52
1:BA:316:C:H2'	1:BA:317:U:H6	1.75	0.52
8:AH:15:ASN:O	8:AH:18:ALA:N	2.42	0.52
25:DA:2738:A:C2	25:DA:2739:U:C1'	2.93	0.52
29:DE:3:LEU:HD11	29:DE:14:VAL:HG21	1.90	0.52
1:AA:1259:C:H6	1:AA:1259:C:O5'	1.91	0.52
7:AG:49:LEU:HD11	7:AG:60:ALA:CB	2.38	0.52
5:AE:105:ILE:HG13	5:AE:105:ILE:O	2.08	0.52
41:CQ:73:ILE:HG23	41:CQ:73:ILE:O	2.09	0.52
31:CG:86:LEU:HD11	31:CG:132:LEU:CD1	2.39	0.52
25:CA:301:G:H1'	25:CA:302:C:C6	2.44	0.52
25:CA:301:G:OP2	45:CU:81:ARG:NH1	2.41	0.52
1:BA:183:C:O2'	1:BA:184:G:O5'	2.19	0.52
48:DX:39:VAL:HG22	48:DX:44:ARG:O	2.08	0.52
22:AV:44:G:N3	22:AV:45:U:N3	2.56	0.52
19:AS:33:TRP:CZ2	19:AS:56:HIS:CE1	2.97	0.52
25:DA:1631:G:N2	25:DA:1634:A:OP2	2.40	0.52
40:CP:74:GLN:HA	40:CP:74:GLN:HE21	1.75	0.52
34:DJ:78:THR:HG21	34:DJ:85:LYS:HE2	1.91	0.52
1:BA:1326:U:H2'	1:BA:1327:C:H6	1.74	0.52
1:BA:931:C:H2'	1:BA:932:C:C6	2.44	0.52
25:CA:1056:G:C2	25:CA:1102:C:C5	2.97	0.52
1:AA:1215:G:N2	1:AA:1216:A:C1'	2.72	0.52
1:AA:1225:A:H2'	1:AA:1226:C:C5	2.44	0.52
1:AA:259:G:N2	1:AA:260:G:H1'	2.23	0.52
25:CA:1180:U:C2'	25:CA:1181:U:O5'	2.57	0.52
1:BA:489:C:O2	1:BA:490:C:C6	2.63	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:133:THR:HG23	28:DD:134:HIS:N	2.25	0.52
1:BA:261:U:OP2	20:BT:73:ARG:NH2	2.42	0.52
1:BA:994:A:C6	1:BA:995:C:C5	2.97	0.52
1:AA:455:G:N2	1:AA:478:A:C2	2.77	0.52
1:AA:459:A:H2'	1:AA:460:A:H1'	1.91	0.52
1:BA:1126:U:C6	1:BA:1281:C:C5	2.98	0.52
3:AC:141:MET:HE1	3:AC:170:GLY:HA3	1.92	0.52
4:AD:58:GLN:HA	4:AD:58:GLN:OE1	2.10	0.52
33:CI:96:LYS:HE3	33:CI:96:LYS:HA	1.90	0.52
5:AE:104:ILE:HD12	5:AE:122:VAL:CG2	2.39	0.52
5:AE:152:VAL:CG2	5:AE:153:ALA:N	2.72	0.52
5:AE:154:ALA:O	5:AE:155:LYS:C	2.47	0.52
1:AA:71:A:O2'	1:AA:72:A:H5"	2.09	0.52
3:BC:22:PHE:CG	3:BC:23:ALA:N	2.77	0.52
1:AA:465:A:H2'	1:AA:466:A:C8	2.45	0.52
20:BT:36:ALA:O	20:BT:39:GLU:N	2.42	0.52
1:AA:1425:U:C2'	1:AA:1426:G:H5'	2.38	0.52
1:AA:949:A:C2	1:AA:1233:G:N3	2.78	0.52
32:DH:3:VAL:N	32:DH:39:ALA:HB2	2.24	0.52
10:AJ:59:LYS:CE	10:AJ:59:LYS:N	2.72	0.52
2:BB:130:LYS:HA	2:BB:133:ALA:CB	2.38	0.52
9:AI:34:LEU:HD21	9:AI:47:VAL:HG21	1.91	0.52
25:DA:279:A:N7	25:DA:280:U:C5	2.78	0.52
3:AC:23:ALA:HB2	3:AC:31:ASN:ND2	2.24	0.52
25:DA:2230:G:C5	25:DA:2231:U:C5	2.98	0.52
3:BC:170:GLY:O	3:BC:171:ARG:HB2	2.10	0.52
25:DA:1045:C:C4'	25:DA:1046:A:H5'	2.38	0.52
31:DG:1:SER:C	31:DG:3:VAL:N	2.60	0.52
28:CD:99:GLU:HG2	28:CD:182:ALA:HB2	1.91	0.52
25:CA:2298:A:C4	25:CA:2321:U:C5	2.98	0.52
13:AM:76:ILE:HG23	13:AM:80:MET:CE	2.39	0.52
25:CA:1372:U:C2'	25:CA:1373:A:H5'	2.39	0.52
16:AP:39:PHE:CG	16:AP:74:LEU:HD11	2.44	0.52
29:DE:158:PHE:HD1	29:DE:159:LEU:N	2.07	0.52
7:AG:21:LEU:HD11	7:AG:61:PHE:HZ	1.73	0.52
1:AA:224:U:H2'	1:AA:225:C:C6	2.42	0.52
1:AA:215:C:H2'	1:AA:216:U:O4'	2.09	0.52
1:BA:211:G:O2'	1:BA:212:G:H4'	2.09	0.52
3:BC:10:ARG:NH2	3:BC:181:ILE:HG13	2.25	0.52
27:CC:3:VAL:HB	27:CC:17:LYS:HB2	1.90	0.52
1:BA:1441:A:C8	1:BA:1442:G:C8	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:BG:131:GLY:H	7:BG:134:VAL:HG11	1.73	0.52
39:CO:66:GLY:CA	39:CO:102:ARG:NH2	2.73	0.52
3:AC:156:LEU:HD12	3:AC:163:ARG:HB2	1.92	0.52
1:AA:44:A:H2'	1:AA:45:G:H5'	1.91	0.52
25:CA:880:G:C2	25:CA:881:G:C8	2.97	0.52
25:DA:2862:G:H2'	25:DA:2863:C:C6	2.45	0.52
1:BA:600:A:N1	1:BA:601:G:C5	2.77	0.52
46:DV:58:SER:O	46:DV:59:GLU:O	2.27	0.52
25:CA:1121:C:H2'	25:CA:1122:G:O5'	2.09	0.52
12:AL:101:LEU:N	12:AL:101:LEU:CD1	2.73	0.52
1:BA:1238:A:OP1	1:BA:1336:C:H5	1.93	0.52
25:DA:104:A:C6	25:DA:105:C:C4	2.96	0.52
25:CA:1917:U:O4	25:CA:1918:A:C6	2.62	0.52
25:DA:1275:A:N1	25:DA:1295:C:O2'	2.33	0.52
25:DA:1215:G:C2'	25:DA:1216:G:H5'	2.40	0.52
44:CT:40:LYS:HE2	44:CT:60:THR:HG23	1.91	0.52
27:CC:166:ARG:CZ	27:CC:166:ARG:HB2	2.39	0.52
15:AO:37:HIS:CD2	15:AO:37:HIS:C	2.83	0.52
18:AR:20:ILE:HD12	18:AR:21:ASP:N	2.25	0.52
33:DI:80:LYS:HA	33:DI:85:ILE:O	2.09	0.52
25:CA:2805:C:C4	25:CA:2806:C:C4	2.97	0.52
41:DQ:59:LEU:O	41:DQ:60:TRP:C	2.45	0.52
1:BA:1327:C:H2'	1:BA:1328:C:C6	2.45	0.52
13:BM:90:HIS:HA	13:BM:108:ARG:NH2	2.24	0.52
33:DI:89:SER:CB	33:DI:92:PRO:HG3	2.40	0.52
25:CA:1073:A:H2'	25:CA:1074:G:H5"	1.91	0.52
25:DA:2334:U:H4'	25:DA:2335:A:OP2	2.10	0.52
25:DA:644:A:N1	25:DA:2369:A:H1'	2.25	0.52
16:BP:17:TYR:HE1	16:BP:41:PRO:HG3	1.75	0.52
21:BU:36:PHE:CG	21:BU:40:PRO:HG3	2.45	0.52
17:BQ:20:ILE:HG23	17:BQ:22:VAL:HG22	1.91	0.52
38:DN:32:GLU:HB3	38:DN:115:LEU:HD12	1.91	0.52
1:AA:1182:G:C4'	1:AA:1183:U:H5'	2.39	0.52
25:DA:2119:A:H61	25:DA:2167:U:H1'	1.75	0.52
1:AA:410:G:H5"	1:AA:411:A:OP1	2.06	0.52
25:DA:300:A:OP2	45:DU:96:LYS:HD2	2.10	0.52
5:AE:119:VAL:HG21	5:AE:122:VAL:CG1	2.40	0.52
25:DA:1441:G:C2	25:DA:1551:A:C2	2.97	0.52
25:DA:1324:G:N2	25:DA:1331:G:C4	2.76	0.52
25:DA:1336:A:H2'	25:DA:1337:G:O5'	2.10	0.52
32:DH:58:LEU:HA	32:DH:61:VAL:HG23	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:CK:109:SER:O	35:CK:111:LYS:N	2.42	0.52
10:AJ:56:HIS:O	10:AJ:57:VAL:O	2.27	0.52
10:BJ:36:VAL:CG2	10:BJ:76:ILE:HG23	2.39	0.52
10:BJ:29:ALA:CB	10:BJ:76:ILE:HD13	2.38	0.52
2:AB:26:MET:HE2	2:AB:29:PHE:CD2	2.45	0.52
2:BB:66:ILE:HG21	2:BB:68:PHE:CE2	2.44	0.52
25:CA:84:A:N1	25:CA:103:A:C5	2.78	0.52
4:AD:187:ARG:NH2	4:AD:191:SER:OG	2.43	0.52
4:AD:191:SER:OG	4:AD:192:ALA:N	2.42	0.52
1:BA:381:C:N4	1:BA:382:A:C6	2.77	0.52
1:AA:1533:C:C5'	1:AA:1534:A:OP1	2.58	0.52
1:AA:138:G:O2'	1:AA:139:A:H5'	2.09	0.52
1:BA:150:U:C5	1:BA:170:U:C5	2.97	0.52
7:BG:11:ILE:CD1	7:BG:23:ALA:HB1	2.40	0.52
13:AM:82:LEU:HD23	13:AM:82:LEU:N	2.25	0.52
10:BJ:48:ARG:HA	10:BJ:66:GLU:HB3	1.91	0.52
26:CB:47:C:OP2	39:CO:3:LYS:HE3	2.08	0.52
1:AA:182:A:C8	1:AA:184:G:C5	2.98	0.52
25:CA:2183:A:H2'	25:CA:2184:A:O4'	2.09	0.52
1:AA:198:G:N3	1:AA:199:A:C8	2.77	0.52
2:BB:47:PRO:HA	2:BB:50:ASN:ND2	2.24	0.52
10:BJ:80:THR:OG1	10:BJ:83:THR:CG2	2.58	0.52
1:BA:328:C:H4'	1:BA:329:A:C5'	2.39	0.52
1:BA:1118:U:H1'	1:BA:1179:A:C5	2.44	0.52
41:CQ:29:ARG:NE	51:C0:9:ARG:HH11	2.07	0.52
38:DN:118:ARG:O	38:DN:119:SER:CB	2.57	0.52
1:BA:53:A:N1	1:BA:359:G:C6	2.78	0.52
25:DA:2378:A:H2'	25:DA:2379:G:O5'	2.10	0.52
25:DA:905:A:C2'	25:DA:906:U:H5'	2.39	0.52
25:DA:2820:A:C2'	25:DA:2821:A:OP1	2.56	0.52
25:DA:863:A:H2'	25:DA:864:G:O5'	2.09	0.52
1:AA:652:U:O2'	1:AA:653:U:P	2.67	0.52
25:CA:1660:G:N2	25:CA:2001:C:C2	2.78	0.52
47:CW:45:ALA:O	47:CW:46:ASN:HB2	2.10	0.52
25:CA:1265:A:O4'	25:CA:1267:U:C6	2.63	0.52
25:DA:2373:G:O2'	25:DA:2374:C:H5'	2.08	0.52
25:DA:1663:G:C6	25:DA:1992:G:N7	2.78	0.52
20:BT:44:ALA:O	20:BT:47:GLN:N	2.42	0.52
25:DA:1814:G:C6	25:DA:1815:A:C6	2.98	0.52
25:DA:1079:C:C5	25:DA:1080:A:N7	2.77	0.52
25:DA:1084:A:H2'	25:DA:1085:A:O4'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:19:PRO:HG2	33:DI:23:VAL:CG2	2.40	0.52
33:DI:60:VAL:CG2	33:DI:66:PHE:HB3	2.39	0.52
25:DA:1571:A:O5'	25:DA:1571:A:H8	1.92	0.52
2:AB:49:PHE:CA	2:AB:212:TYR:OH	2.56	0.52
1:AA:1216:A:N1	1:AA:1217:C:C4	2.77	0.52
1:AA:257:G:C2	1:AA:258:G:C8	2.98	0.52
10:AJ:8:ILE:CD1	10:AJ:74:VAL:HG11	2.40	0.52
25:DA:2193:G:H2'	25:DA:2194:U:H6	1.72	0.52
6:AF:3:HIS:N	6:AF:92:THR:HG23	2.25	0.52
1:AA:145:G:N2	1:AA:146:G:C4	2.77	0.52
30:DF:32:LYS:O	30:DF:33:ILE:HG13	2.09	0.52
39:DO:28:VAL:HG23	39:DO:36:TYR:O	2.09	0.52
4:AD:12:ARG:HD2	4:AD:33:ILE:HA	1.92	0.52
4:AD:176:LYS:CB	4:AD:178:GLU:HG2	2.39	0.52
5:AE:49:TYR:CE2	5:AE:133:ILE:HD11	2.45	0.52
25:DA:1554:U:H4'	25:DA:1555:G:OP2	2.09	0.52
7:BG:119:LEU:O	7:BG:123:LEU:HG	2.10	0.52
7:BG:64:ALA:HB1	7:BG:126:ALA:HB3	1.89	0.52
30:CF:132:ARG:HA	30:CF:150:GLY:HA2	1.91	0.52
1:AA:1239:A:H62	1:AA:1299:A:N6	2.07	0.52
1:BA:465:A:H2'	1:BA:466:A:C8	2.44	0.52
10:BJ:27:GLU:HB2	10:BJ:30:LYS:HE3	1.91	0.52
6:BF:30:THR:HA	6:BF:34:GLY:O	2.10	0.52
6:BF:3:HIS:HA	6:BF:65:GLU:HA	1.92	0.52
25:DA:582:A:C6	25:DA:583:G:C6	2.98	0.52
2:BB:67:LEU:HD21	2:BB:91:VAL:HG23	1.92	0.52
25:DA:1176:U:C5	25:DA:1177:G:C5	2.98	0.52
32:DH:72:ILE:HG21	32:DH:140:ALA:CB	2.39	0.52
9:AI:56:MET:CE	9:AI:57:VAL:H	2.22	0.52
27:CC:235:GLU:HA	27:CC:235:GLU:OE1	2.09	0.52
3:AC:70:ALA:HB2	3:AC:105:VAL:HB	1.90	0.52
3:AC:41:TYR:CE1	3:AC:89:VAL:HG21	2.44	0.52
38:CN:21:PHE:CD2	38:CN:24:MET:CE	2.93	0.52
1:BA:699:C:H2'	1:BA:700:G:H5'	1.92	0.52
1:AA:1503:A:C2	1:AA:1531:A:H2	2.26	0.52
1:BA:58:C:O2'	1:BA:59:A:H5'	2.10	0.52
27:CC:203:VAL:O	27:CC:203:VAL:HG23	2.09	0.52
25:CA:479:A:H4'	25:CA:480:A:OP1	2.09	0.52
1:BA:1355:G:C5	1:BA:1368:A:C2	2.97	0.52
9:AI:6:TYR:HE2	9:AI:17:ARG:CB	2.23	0.52
25:DA:1462:C:O2'	25:DA:2702:G:H1'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:BQ:35:LYS:HG3	17:BQ:37:ILE:CD1	2.39	0.52
1:BA:158:G:C5	1:BA:164:G:C6	2.98	0.52
25:CA:2851:A:C5	25:CA:2852:G:C5	2.98	0.52
14:BN:34:ASN:O	14:BN:35:ALA:HB2	2.09	0.52
1:AA:103:U:C2	1:AA:104:G:C8	2.98	0.52
25:CA:978:G:O2'	25:CA:979:A:H5'	2.08	0.52
39:CO:54:VAL:CG2	39:CO:54:VAL:O	2.58	0.52
4:BD:172:VAL:HG13	4:BD:173:ASP:N	2.24	0.52
7:AG:144:ALA:O	7:AG:145:GLU:CB	2.55	0.52
25:DA:2133:G:C2	25:DA:2158:A:C6	2.98	0.52
1:BA:121:U:C4'	1:BA:121:U:OP2	2.57	0.52
1:BA:1526:G:P	21:BU:38:GLU:HB2	2.49	0.52
4:BD:75:TYR:C	4:BD:75:TYR:CD1	2.82	0.52
25:CA:1301:A:H2'	25:CA:1301:A:N3	2.25	0.52
25:DA:2185:U:H2'	25:DA:2186:G:O4'	2.09	0.52
25:DA:1220:G:C2'	25:DA:1221:C:O5'	2.58	0.52
2:BB:32:GLY:HA2	2:BB:39:ILE:H	1.73	0.52
43:CS:89:ALA:O	43:CS:90:LYS:HB2	2.09	0.52
11:BK:96:ILE:O	11:BK:99:LEU:HB2	2.10	0.52
25:DA:1682:G:C8	25:DA:1757:A:C2	2.97	0.52
25:DA:1923:U:H2'	25:DA:1924:C:H6	1.73	0.52
25:DA:2557:G:H2'	25:DA:2558:C:C6	2.44	0.52
25:DA:224:U:H2'	25:DA:225:C:O4'	2.09	0.52
25:DA:2080:A:H2'	25:DA:2081:U:C6	2.44	0.52
1:BA:42:G:H2'	1:BA:43:C:C6	2.45	0.52
11:AK:82:GLU:HG3	11:AK:108:ASN:ND2	2.24	0.52
7:BG:92:PRO:HA	7:BG:95:ARG:HB2	1.92	0.52
1:AA:237:G:H2'	1:AA:238:A:C8	2.44	0.52
1:AA:974:A:H4'	1:AA:975:A:H3'	1.92	0.52
28:CD:187:LEU:C	28:CD:188:LEU:HD23	2.30	0.52
34:DJ:28:LEU:HD12	34:DJ:28:LEU:O	2.08	0.52
12:BL:73:LEU:H	12:BL:73:LEU:CD2	2.23	0.52
1:BA:942:G:C2	1:BA:1342:C:C2	2.97	0.52
25:CA:2174:C:O2	25:CA:2175:C:C6	2.63	0.52
25:DA:1097:U:C6	25:DA:1098:A:H1'	2.44	0.52
2:AB:221:ARG:HG2	2:AB:221:ARG:HH11	1.74	0.52
34:CJ:81:ILE:HG23	34:CJ:82:GLY:H	1.75	0.52
25:DA:1746:A:C2'	25:DA:1747:U:H6	2.20	0.52
25:DA:1545:A:H2'	25:DA:1546:G:H5'	1.92	0.52
25:DA:947:A:O2'	25:DA:984:A:C2	2.47	0.52
12:AL:23:LEU:HB2	12:AL:58:ASN:ND2	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:BJ:73:LEU:CD2	10:BJ:75:ASP:HB2	2.40	0.52
25:DA:2127:G:O2'	25:DA:2173:A:C2	2.61	0.52
1:AA:437:U:C4	1:AA:438:U:H5	2.28	0.52
4:AD:151:GLN:O	4:AD:152:SER:C	2.47	0.52
25:DA:322:A:C5	25:DA:340:A:C2	2.97	0.52
1:AA:1081:A:C2	1:AA:1082:A:C4	2.97	0.52
1:BA:786:G:C2'	1:BA:787:A:O5'	2.58	0.52
22:AV:59:U:C6	22:AV:60:U:C5	2.97	0.52
1:BA:96:U:H2'	1:BA:97:G:C8	2.45	0.52
10:BJ:56:HIS:O	10:BJ:57:VAL:O	2.27	0.52
8:AH:48:PHE:N	8:AH:48:PHE:CD1	2.74	0.52
9:BI:37:TYR:O	9:BI:38:PHE:HB3	2.10	0.52
1:AA:1330:U:H2'	1:AA:1331:G:C5'	2.37	0.52
14:AN:6:LYS:H	14:AN:6:LYS:HD3	1.73	0.52
10:AJ:65:TYR:HA	14:AN:99:ALA:H	1.74	0.52
10:BJ:26:VAL:HG12	10:BJ:27:GLU:N	2.24	0.52
25:DA:2822:G:H2'	25:DA:2823:A:H5"	1.92	0.52
2:AB:14:HIS:HD2	2:AB:15:PHE:N	2.08	0.52
5:BE:140:ILE:HD12	5:BE:140:ILE:H	1.74	0.52
2:BB:153:MET:HE2	2:BB:157:PRO:HG3	1.92	0.52
27:DC:16:VAL:HG23	27:DC:203:VAL:HG21	1.91	0.52
9:BI:51:LEU:HD13	9:BI:56:MET:HG2	1.92	0.52
25:DA:1019:U:O2'	25:DA:1021:A:N7	2.43	0.52
25:DA:60:G:C2	25:DA:74:A:C2	2.98	0.52
37:CM:55:ARG:HG3	37:CM:55:ARG:NH2	2.25	0.52
26:CB:34:A:O2'	26:CB:35:C:H5"	2.09	0.52
26:CB:36:C:C5'	26:CB:37:C:OP2	2.58	0.52
19:AS:39:ILE:HD11	19:AS:70:LEU:HD22	1.89	0.52
32:CH:72:ILE:HG23	32:CH:141:LYS:O	2.09	0.52
48:DX:10:ARG:HB3	48:DX:11:PRO:HD2	1.92	0.52
1:BA:1372:U:OP2	9:BI:12:LYS:NZ	2.42	0.52
35:DK:104:THR:HA	35:DK:122:VAL:HG12	1.92	0.52
44:DT:68:LYS:O	44:DT:74:ILE:HB	2.10	0.52
25:CA:2114:A:C2	25:CA:2166:U:H2'	2.45	0.52
25:DA:1410:G:C2	25:DA:1593:A:N1	2.77	0.52
25:DA:2414:G:C4	25:DA:2415:G:C8	2.97	0.52
1:AA:1041:G:C6	1:AA:1042:A:N6	2.77	0.52
28:CD:13:ARG:HD2	28:CD:15:PHE:CZ	2.45	0.52
1:BA:251:G:C6	1:BA:266:G:O6	2.63	0.52
30:DF:4:HIS:O	30:DF:8:LYS:HG3	2.09	0.52
54:D3:10:ALA:O	54:D3:12:ARG:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:42:LYS:O	12:AL:43:LYS:C	2.47	0.52
1:AA:505:G:H5'	1:AA:534:U:H2'	1.90	0.52
4:AD:193:ASP:C	4:AD:194:ILE:HG22	2.29	0.52
25:CA:192:C:O2'	25:CA:802:A:N3	2.35	0.52
8:BH:63:LYS:HE2	8:BH:70:VAL:HG21	1.92	0.52
8:AH:87:ARG:O	8:AH:121:GLY:HA3	2.09	0.52
25:CA:1901:A:N3	25:CA:1901:A:H2'	2.25	0.52
25:DA:246:C:C2'	25:DA:247:G:H5'	2.39	0.52
29:DE:194:LYS:O	29:DE:197:GLU:N	2.43	0.52
25:DA:2819:G:C6	25:DA:2821:A:C2	2.98	0.52
50:CZ:43:ILE:O	50:CZ:47:ILE:HD12	2.10	0.52
2:AB:75:ALA:O	2:AB:76:SER:C	2.48	0.52
25:DA:2079:U:O3'	48:DX:20:ALA:HB2	2.09	0.52
1:AA:161:A:H2'	1:AA:162:A:C8	2.45	0.52
1:BA:1494:G:N2	25:DA:1912:A:N3	2.58	0.52
18:BR:33:THR:CG2	18:BR:35:SER:HB2	2.39	0.52
1:BA:33:A:H2'	1:BA:34:C:C6	2.45	0.52
4:BD:99:ASN:HD22	4:BD:100:VAL:N	2.07	0.52
25:CA:638:G:C5	25:CA:639:U:C5	2.98	0.52
13:AM:49:GLU:O	13:AM:50:GLY:C	2.47	0.52
15:BO:18:ALA:O	15:BO:19:ASN:CB	2.57	0.52
25:DA:396:G:C6	25:DA:397:U:C4	2.97	0.52
9:AI:126:PHE:CD2	9:AI:126:PHE:C	2.82	0.52
25:DA:2321:U:H5"	25:DA:2322:A:OP2	2.10	0.52
25:DA:2419:U:H5	60:DA:3672:HOH:O	1.92	0.52
1:BA:1324:A:C5	1:BA:1325:C:C4	2.97	0.52
1:BA:1351:U:H4'	7:BG:32:ASP:CG	2.30	0.52
25:CA:731:C:OP2	60:CA:3700:HOH:O	2.19	0.52
1:AA:1133:G:C5	1:AA:1134:G:N7	2.77	0.52
11:AK:109:ILE:HG21	21:AU:16:ARG:HE	1.74	0.52
25:CA:1061:U:H3'	25:CA:1062:G:H5'	1.91	0.52
33:CI:46:ASP:CB	33:CI:50:LYS:HD2	2.40	0.52
17:AQ:46:HIS:O	17:AQ:73:THR:HG23	2.08	0.52
25:DA:2343:U:H2'	25:DA:2344:U:C5	2.44	0.52
25:DA:1589:U:C2	25:DA:1590:A:C8	2.98	0.52
11:AK:52:ARG:NE	11:AK:52:ARG:HA	2.25	0.52
8:AH:94:VAL:HG21	8:AH:100:ILE:O	2.10	0.52
38:DN:69:ARG:C	38:DN:70:THR:HG23	2.30	0.52
12:AL:23:LEU:HG	12:AL:24:GLU:H	1.75	0.52
24:AY:155:ARG:O	24:AY:156:ARG:C	2.47	0.52
3:AC:6:PRO:HB3	3:AC:174:LEU:HD13	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:33:ILE:HA	30:DF:154:THR:O	2.09	0.52
51:C0:53:VAL:O	51:C0:54:ILE:C	2.45	0.52
1:AA:439:U:H2'	1:AA:440:C:O5'	2.10	0.52
33:CI:100:ILE:HG21	33:CI:105:LEU:CD1	2.38	0.52
1:AA:63:C:C2'	1:AA:64:G:H5'	2.40	0.52
43:CS:41:LYS:O	43:CS:42:LYS:C	2.46	0.52
1:AA:1233:G:C5	1:AA:1234:C:C5	2.98	0.52
6:BF:84:VAL:HG13	6:BF:84:VAL:O	2.10	0.52
25:DA:1168:G:H8	25:DA:1168:G:H5'	1.75	0.52
29:DE:146:VAL:HG21	29:DE:148:ILE:HD11	1.90	0.52
3:BC:31:ASN:HD21	3:BC:58:ARG:HD3	1.74	0.52
33:CI:56:VAL:CG2	33:CI:57:VAL:N	2.73	0.52
1:BA:143:A:H5'	1:BA:144:G:C5'	2.39	0.52
7:AG:119:LEU:HD22	7:AG:123:LEU:CD2	2.38	0.52
45:DU:65:GLN:HB2	45:DU:68:ASN:ND2	2.25	0.52
25:DA:910:A:C6	37:DM:13:HIS:CD2	2.98	0.52
4:BD:90:LEU:CD1	4:BD:196:GLU:HG3	2.39	0.52
1:BA:831:A:H2'	1:BA:832:G:O5'	2.09	0.52
1:AA:722:G:H3'	1:AA:722:G:N3	2.24	0.52
25:CA:250:G:OP2	54:C3:12:ARG:NH1	2.42	0.52
1:AA:262:A:H4'	20:AT:68:LYS:HZ1	1.75	0.52
26:CB:54:G:C4	26:CB:55:U:C6	2.97	0.52
26:CB:20:G:C2	26:CB:64:G:C4	2.98	0.52
1:BA:268:U:H2'	1:BA:269:C:C6	2.45	0.52
30:DF:133:GLU:HG3	30:DF:135:ILE:HD12	1.91	0.52
5:BE:56:PRO:O	5:BE:59:ILE:CG1	2.57	0.52
44:CT:69:ARG:HA	44:CT:74:ILE:HA	1.91	0.52
30:CF:100:GLU:O	30:CF:101:ARG:C	2.47	0.52
44:DT:21:SER:O	44:DT:24:MET:HB2	2.09	0.52
25:DA:1230:A:C2	25:DA:1231:U:C2	2.98	0.52
1:AA:634:C:O2'	1:AA:635:A:H5'	2.10	0.52
25:CA:2096:C:H2'	25:CA:2096:C:O2	2.09	0.52
25:CA:1717:A:H2'	25:CA:1718:G:O5'	2.09	0.52
25:CA:189:G:P	48:CX:25:LYS:HD2	2.50	0.52
25:CA:65:U:H2'	25:CA:66:C:C6	2.45	0.52
11:AK:107:THR:CG2	11:AK:108:ASN:ND2	2.72	0.52
31:CG:153:PRO:HG3	31:CG:161:VAL:O	2.10	0.52
17:BQ:6:THR:OG1	17:BQ:59:GLU:HG2	2.09	0.52
25:CA:172:A:H2'	25:CA:173:A:C8	2.45	0.52
25:CA:2339:C:H2'	25:CA:2340:A:C8	2.44	0.52
25:CA:2124:G:H2'	25:CA:2125:G:H5'	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:195:A:C2'	25:DA:196:A:OP1	2.58	0.52
1:BA:1417:G:N2	1:BA:1484:C:C4	2.78	0.52
25:CA:2626:C:O5'	25:CA:2626:C:H6	1.92	0.52
48:CX:36:ARG:HG3	48:CX:47:THR:HB	1.92	0.52
18:BR:21:ASP:OD1	18:BR:22:TYR:N	2.43	0.52
33:DI:10:LEU:O	33:DI:10:LEU:HD13	2.09	0.52
33:DI:5:GLN:O	33:DI:6:ALA:HB2	2.09	0.52
1:AA:1142:G:H2'	1:AA:1143:G:O4'	2.09	0.52
25:CA:1079:C:C4	25:CA:1088:A:C5	2.98	0.52
2:AB:122:ASP:O	2:AB:123:GLY:O	2.27	0.52
2:AB:146:SER:O	2:AB:147:LEU:CG	2.53	0.52
42:DR:49:ILE:CG2	42:DR:53:PHE:H	2.22	0.52
25:DA:2295:C:H2'	25:DA:2296:U:O5'	2.10	0.52
32:DH:16:GLY:C	32:DH:17:ASP:OD1	2.48	0.52
2:BB:34:ARG:O	2:BB:37:VAL:HG12	2.10	0.52
25:DA:1417:C:H2'	25:DA:1418:G:O4'	2.10	0.52
21:BU:36:PHE:CA	21:BU:39:LYS:HE3	2.39	0.52
17:BQ:16:MET:HG2	17:BQ:19:SER:CB	2.39	0.52
11:AK:33:ILE:HG12	11:AK:69:CYS:SG	2.49	0.52
36:DL:127:VAL:CG1	36:DL:131:ALA:CB	2.87	0.52
1:AA:142:G:H3'	1:AA:143:A:C8	2.41	0.52
33:CI:83:ALA:HB2	33:CI:105:LEU:HD21	1.92	0.52
25:DA:320:A:H4'	25:DA:322:A:C8	2.45	0.52
25:DA:1283:G:H22	25:DA:1286:A:H5'	1.73	0.52
1:AA:464:U:C2	1:AA:466:A:H5"	2.45	0.52
1:AA:374:A:C6	1:AA:375:U:C4	2.97	0.52
1:AA:452:A:N7	1:AA:453:G:N9	2.58	0.52
1:AA:1337:G:H4'	1:AA:1338:G:OP1	2.09	0.52
2:BB:168:GLU:O	2:BB:169:HIS:C	2.48	0.52
9:AI:29:ILE:HA	9:AI:64:ILE:HG12	1.92	0.52
1:AA:1410:A:H2'	1:AA:1411:C:H6	1.75	0.52
25:DA:276:U:C2'	25:DA:277:G:O5'	2.58	0.52
25:DA:279:A:N6	25:DA:361:G:H1'	2.24	0.52
2:AB:20:ARG:O	2:AB:22:TRP:CD1	2.62	0.52
37:CM:31:PHE:CZ	37:CM:110:GLU:CA	2.93	0.52
25:DA:55:G:H2'	25:DA:56:A:H5'	1.92	0.52
40:DP:31:VAL:O	40:DP:37:LYS:HA	2.09	0.52
25:DA:1268:A:C2	25:DA:2013:A:C5	2.98	0.52
27:DC:62:ARG:HG3	27:DC:83:ASP:OD1	2.10	0.52
25:DA:545:U:O2	25:DA:545:U:O5'	2.26	0.52
7:BG:16:LYS:HE2	7:BG:17:PHE:CE1	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:BF:43:GLY:HA2	6:BF:58:HIS:NE2	2.25	0.52
35:DK:22:ILE:HG21	35:DK:42:THR:HG22	1.92	0.52
50:DZ:43:ILE:O	50:DZ:45:GLY:N	2.42	0.52
25:CA:674:G:H5"	29:CE:71:GLY:N	2.24	0.52
25:CA:2114:A:C5	25:CA:2167:U:H5'	2.44	0.52
25:DA:910:A:C6	37:DM:13:HIS:NE2	2.78	0.52
14:BN:25:GLU:HG3	14:BN:26:LEU:N	2.24	0.52
8:AH:46:GLU:N	8:AH:63:LYS:CG	2.72	0.52
32:CH:8:LYS:NZ	32:CH:14:SER:HA	2.25	0.52
31:CG:54:ARG:CD	31:CG:57:TYR:HE1	2.23	0.52
13:AM:2:ARG:O	13:AM:3:ILE:O	2.28	0.52
25:CA:11:C:H2'	25:CA:12:U:H5'	1.91	0.52
15:AO:3:SER:HB2	15:AO:6:ALA:CB	2.39	0.52
1:BA:562:U:OP2	12:BL:13:ARG:CZ	2.57	0.52
1:BA:692:U:H5	11:BK:27:ASN:ND2	2.08	0.52
24:AY:107:THR:OG1	24:AY:108:GLU:N	2.43	0.52
25:DA:1433:A:H2'	25:DA:1434:A:O4'	2.10	0.52
25:DA:2185:U:H2'	25:DA:2186:G:C8	2.45	0.52
8:BH:125:ILE:HG22	8:BH:126:CYS:SG	2.49	0.52
40:CP:52:ARG:HH11	40:CP:52:ARG:CG	2.23	0.52
8:BH:103:VAL:HG23	8:BH:123:GLU:O	2.10	0.52
22:AV:75:C:H4'	22:AV:76:A:OP1	2.08	0.52
25:DA:2430:A:H5'	25:DA:2431:U:OP2	2.10	0.52
1:AA:38:G:N2	1:AA:397:A:C4	2.78	0.52
38:DN:100:CYS:SG	38:DN:100:CYS:O	2.68	0.52
41:DQ:8:ILE:HG13	41:DQ:9:ALA:N	2.25	0.52
25:DA:2811:G:H2'	25:DA:2812:G:O4'	2.10	0.52
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.73	0.52
1:AA:1371:G:O3'	9:AI:70:GLY:HA3	2.09	0.52
32:CH:103:VAL:HG12	32:CH:108:VAL:O	2.10	0.52
19:AS:74:ALA:N	19:AS:75:PRO:CD	2.73	0.52
1:AA:302:G:N3	1:AA:556:C:H4'	2.25	0.52
25:DA:2668:G:C2	25:DA:2669:G:C8	2.98	0.52
1:BA:1306:A:H2'	1:BA:1307:U:O4'	2.10	0.52
1:AA:235:C:H2'	1:AA:236:A:C8	2.45	0.52
25:DA:1115:G:HO2'	25:DA:1116:G:H8	1.57	0.52
4:AD:89:LEU:HD12	4:AD:89:LEU:O	2.10	0.52
1:BA:337:G:H2'	1:BA:338:A:C8	2.45	0.52
38:DN:72:ASP:OD1	38:DN:75:ILE:HG12	2.10	0.52
29:CE:54:GLY:CA	29:CE:74:LYS:HE2	2.40	0.52
1:BA:1267:C:O2	1:BA:1267:C:H2'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1294:G:C2	1:BA:1295:U:C2	2.98	0.52
1:BA:1323:G:O4'	1:BA:1362:A:H2	1.93	0.52
1:BA:1348:U:C2	1:BA:1349:A:C8	2.98	0.52
25:CA:2127:G:N1	25:CA:2161:C:O2	2.42	0.52
4:BD:21:LYS:O	4:BD:22:SER:C	2.48	0.52
25:DA:1404:C:C2	25:DA:1405:U:C5	2.98	0.52
2:AB:131:LYS:CG	2:AB:132:GLU:N	2.71	0.52
2:AB:139:GLU:HG2	2:AB:143:LEU:HD21	1.90	0.52
1:AA:1226:C:H2'	13:AM:101:THR:HB	1.92	0.52
1:AA:979:C:OP1	1:AA:981:U:O4	2.27	0.52
1:BA:1277:C:H1'	1:BA:1282:C:H1'	1.92	0.52
42:DR:49:ILE:HD12	42:DR:52:PRO:CA	2.35	0.52
1:AA:1539:C:OP1	21:AU:17:ARG:NH1	2.43	0.52
3:BC:129:PHE:CE1	3:BC:156:LEU:HB3	2.45	0.52
12:BL:23:LEU:C	12:BL:25:ALA:N	2.62	0.52
25:DA:2407:A:H2'	25:DA:2408:U:C6	2.45	0.52
1:AA:1302:C:C5	13:AM:16:ILE:HD13	2.44	0.52
25:CA:2307:G:N2	25:CA:2311:A:C2'	2.69	0.52
25:DA:1124:G:O2'	25:DA:1125:G:H5'	2.10	0.52
3:AC:172:VAL:N	3:AC:173:PRO:HD3	2.25	0.52
5:AE:110:MET:HE1	5:AE:124:ALA:HB1	1.92	0.52
5:AE:35:LEU:HD21	5:AE:136:VAL:HG11	1.92	0.52
22:AV:18:G:C4	22:AV:58:A:C6	2.97	0.52
25:DA:1444:G:C2	25:DA:1548:A:C2	2.97	0.52
1:AA:1285:A:H4'	1:AA:1286:U:C2	2.45	0.52
2:BB:95:TRP:NE1	2:BB:171:ALA:HB2	2.24	0.52
1:AA:1202:U:H2'	1:AA:1203:C:H5'	1.91	0.52
45:DU:35:VAL:O	45:DU:35:VAL:HG12	2.08	0.52
45:DU:40:LEU:HD22	45:DU:61:GLU:HG3	1.90	0.52
45:DU:70:ALA:HB3	45:DU:79:ALA:HB1	1.91	0.52
32:DH:72:ILE:HG22	32:DH:73:ASN:H	1.73	0.52
3:AC:105:VAL:HG12	3:AC:106:ARG:O	2.10	0.52
56:DB:61:G:C5	56:DB:62:C:C4	2.98	0.52
25:DA:1018:U:C4	25:DA:1019:U:H5	2.28	0.52
10:AJ:5:ARG:HG2	10:AJ:79:PRO:HG3	1.90	0.52
28:CD:98:VAL:CG2	28:CD:98:VAL:O	2.57	0.52
6:BF:14:GLN:C	6:BF:16:GLU:N	2.64	0.52
1:AA:106:C:O2	1:AA:379:C:H4'	2.10	0.52
25:CA:1171:G:H2'	25:CA:1172:C:C6	2.44	0.52
8:AH:46:GLU:N	8:AH:63:LYS:HG3	2.25	0.52
14:BN:43:ASN:ND2	14:BN:43:ASN:O	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:7:THR:HA	15:AO:10:ILE:HD12	1.90	0.52
7:AG:82:SER:HB3	7:AG:84:TYR:CD2	2.45	0.52
1:BA:207:C:HO2'	1:BA:213:G:N2	2.08	0.52
1:BA:207:C:C2'	1:BA:207:C:O2	2.57	0.52
25:CA:1019:U:H3	25:CA:1142:A:H62	1.58	0.52
46:DV:63:ILE:HG22	46:DV:65:VAL:CG1	2.39	0.52
9:AI:16:ALA:HB2	9:AI:66:VAL:HG23	1.92	0.52
6:AF:9:MET:CE	18:AR:64:LEU:HD22	2.40	0.52
5:AE:55:VAL:HB	5:AE:56:PRO:CD	2.39	0.52
1:BA:438:U:C4'	4:BD:119:HIS:CD2	2.92	0.52
14:BN:61:ARG:O	14:BN:62:ASN:CB	2.57	0.52
31:CG:95:ALA:CB	31:CG:104:LEU:HD23	2.39	0.52
25:CA:656:G:H2'	25:CA:657:U:O5'	2.09	0.52
18:BR:31:TYR:O	18:BR:39:VAL:CG2	2.57	0.52
30:CF:40:GLY:HA2	30:CF:84:ILE:HD11	1.91	0.52
25:DA:843:G:C2	25:DA:936:A:C2	2.98	0.52
25:DA:1998:A:OP2	28:DD:141:ARG:NH2	2.42	0.52
5:AE:37:VAL:HG23	5:AE:47:PHE:CB	2.40	0.52
7:BG:139:ASP:C	7:BG:141:HIS:N	2.64	0.52
25:DA:1197:G:H2'	25:DA:1198:U:C6	2.45	0.52
28:DD:149:ASN:OD1	28:DD:150:GLN:N	2.43	0.52
1:AA:19:A:O2'	1:AA:20:U:H5'	2.10	0.52
30:DF:51:ASN:O	30:DF:52:ALA:C	2.48	0.52
25:CA:1267:U:H2'	25:CA:1267:U:O2	2.10	0.52
5:BE:49:TYR:O	5:BE:62:ALA:HB2	2.08	0.52
25:DA:371:A:H61	25:DA:401:A:H3'	1.74	0.52
3:BC:79:LYS:HE3	3:BC:79:LYS:HA	1.92	0.52
25:CA:2713:U:H3'	25:CA:2714:G:H5"	1.92	0.52
46:CV:8:VAL:HG12	46:CV:65:VAL:HG21	1.91	0.52
12:BL:73:LEU:N	12:BL:73:LEU:CD2	2.73	0.52
1:BA:1296:C:H4'	1:BA:1302:C:N4	2.25	0.52
1:BA:1362:A:C4'	1:BA:1362:A:OP1	2.46	0.52
25:CA:414:C:H2'	25:CA:415:A:C8	2.45	0.52
25:CA:1090:A:H2'	25:CA:1091:G:O5'	2.10	0.52
2:AB:48:MET:HG2	2:AB:198:VAL:O	2.10	0.52
17:AQ:13:SER:HB2	17:AQ:21:VAL:CG1	2.39	0.52
25:CA:2473:U:C5	25:CA:2474:U:C4	2.98	0.52
1:BA:723:U:C5'	1:BA:724:G:OP1	2.58	0.52
5:BE:153:ALA:O	5:BE:155:LYS:N	2.43	0.52
1:BA:1015:G:HO2'	1:BA:1218:C:HO2'	1.58	0.52
1:AA:1182:G:H4'	1:AA:1183:U:H5'	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:392:U:H2'	25:DA:393:C:H6	1.75	0.52
12:AL:31:GLY:HA3	12:AL:54:VAL:CG1	2.40	0.52
25:DA:2306:C:H3'	25:DA:2307:G:C5'	2.38	0.52
56:DB:37:C:C5	56:DB:38:C:C4	2.98	0.52
56:DB:49:C:H2'	56:DB:50:A:O5'	2.10	0.52
1:BA:786:G:H2'	1:BA:787:A:O5'	2.10	0.52
5:AE:82:HIS:CE1	5:AE:146:MET:HG3	2.45	0.52
1:BA:972:C:C2'	10:BJ:57:VAL:HG23	2.40	0.52
20:AT:77:ASN:O	20:AT:81:GLN:HG2	2.10	0.52
20:BT:84:LYS:HA	20:BT:84:LYS:HE3	1.91	0.52
1:AA:451:A:C8	1:AA:481:G:C6	2.97	0.52
1:BA:1532:U:H5"	1:BA:1533:C:OP2	2.10	0.52
9:BI:83:THR:HA	9:BI:86:LEU:HD12	1.91	0.52
1:AA:1285:A:H5'	1:AA:1286:U:C4	2.44	0.52
1:AA:1304:G:N7	1:AA:1305:G:C6	2.78	0.52
1:BA:1104:G:C2	1:BA:1105:A:C4	2.98	0.52
32:CH:116:ARG:HG3	32:CH:133:GLN:CG	2.40	0.52
1:AA:1202:U:C2	14:AN:82:ILE:HG21	2.45	0.52
25:DA:2531:A:C5	25:DA:2532:G:N7	2.78	0.52
9:AI:42:THR:O	9:AI:43:ALA:HB3	2.09	0.52
6:BF:4:TYR:CD2	6:BF:71:ILE:CD1	2.93	0.52
1:AA:1410:A:C4	1:AA:1491:G:N2	2.78	0.52
3:AC:58:ARG:HA	3:AC:62:SER:O	2.09	0.52
36:CL:81:ASP:C	36:CL:83:ALA:H	2.14	0.52
45:CU:6:ARG:HG3	45:CU:7:ASP:H	1.75	0.52
12:BL:49:ARG:HB2	12:BL:89:LEU:HD11	1.92	0.52
25:CA:547:A:C8	25:CA:548:G:O4'	2.63	0.52
32:CH:72:ILE:HG22	32:CH:73:ASN:OD1	2.10	0.52
25:DA:545:U:H6	25:DA:547:A:O3'	1.93	0.52
30:CF:142:TYR:O	30:CF:142:TYR:CG	2.63	0.52
25:CA:1372:U:C2'	25:CA:1373:A:C5'	2.88	0.52
14:AN:20:PHE:CG	14:AN:24:ALA:HB3	2.45	0.52
1:AA:763:G:C2'	1:AA:764:C:O5'	2.57	0.52
25:CA:2539:C:H5'	55:C4:3:VAL:HG21	1.92	0.52
25:DA:2799:A:O2'	25:DA:2800:A:H5'	2.10	0.52
25:CA:630:G:C3'	25:CA:631:A:H5"	2.41	0.52
1:AA:802:A:C2'	1:AA:803:G:H5'	2.39	0.52
25:DA:1731:G:C5	25:DA:1733:G:C8	2.98	0.52
34:CJ:65:THR:HG23	34:CJ:68:LYS:HZ2	1.75	0.52
30:DF:3:LEU:HD21	30:DF:100:GLU:OE1	2.10	0.52
46:DV:65:VAL:O	46:DV:65:VAL:HG22	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:61:ARG:CD	29:DE:63:LYS:O	2.58	0.52
25:DA:2097:A:C4	25:DA:2098:U:C5	2.98	0.52
25:CA:1468:U:H5'	25:CA:1469:A:OP1	2.10	0.52
1:BA:1087:G:C2	1:BA:1088:G:C8	2.98	0.52
26:CB:39:A:O2'	26:CB:40:U:H5'	2.10	0.52
20:AT:4:LYS:CA	20:AT:4:LYS:HE2	2.40	0.52
1:BA:526:C:H2'	1:BA:527:G:C4'	2.39	0.52
9:BI:10:ARG:HA	9:BI:77:ALA:HB1	1.92	0.52
18:BR:28:LEU:O	18:BR:31:TYR:N	2.43	0.52
25:CA:1673:G:H2'	25:CA:1674:G:H5'	1.90	0.52
25:DA:1392:A:N6	25:DA:1393:A:H61	2.08	0.52
35:DK:87:LEU:HD22	35:DK:92:GLU:HA	1.92	0.52
1:BA:180:U:C2'	1:BA:181:A:O5'	2.58	0.52
37:DM:2:LEU:O	37:DM:3:GLN:CB	2.57	0.52
39:CO:35:ILE:HD11	39:CO:106:LEU:HD13	1.92	0.52
5:AE:94:PHE:C	5:AE:94:PHE:CD1	2.82	0.52
11:BK:96:ILE:HD12	11:BK:97:ARG:N	2.24	0.52
39:CO:7:ARG:HG3	39:CO:96:GLY:HA3	1.92	0.52
1:AA:188:C:O2	1:AA:188:C:C2'	2.57	0.52
27:CC:24:HIS:NE2	27:CC:79:ARG:NH2	2.58	0.52
32:DH:14:SER:HA	32:DH:15:LEU:HD22	1.90	0.52
25:DA:1701:A:H2'	25:DA:1702:G:H5'	1.92	0.52
18:BR:22:TYR:O	18:BR:22:TYR:CD1	2.63	0.52
36:CL:125:LEU:CD1	36:CL:125:LEU:N	2.73	0.52
4:BD:156:ALA:O	4:BD:159:GLU:HB3	2.10	0.52
29:CE:141:MET:O	29:CE:142:ALA:HB3	2.09	0.52
25:DA:724:U:H2'	25:DA:725:G:O4'	2.10	0.52
52:C1:25:ASN:OD1	52:C1:27:ARG:HB2	2.10	0.52
1:BA:570:G:O6	1:BA:865:A:N6	2.42	0.52
8:AH:50:VAL:O	8:AH:50:VAL:HG22	2.10	0.52
2:AB:59:ILE:C	2:AB:59:ILE:HD12	2.30	0.52
1:AA:525:C:H2'	1:AA:526:C:C6	2.44	0.52
44:DT:51:PHE:O	44:DT:52:GLU:C	2.49	0.52
1:BA:1345:U:C2	1:BA:1377:A:N1	2.78	0.51
25:DA:1096:A:C2	25:DA:1097:U:C5	2.98	0.51
25:DA:1394:U:H3'	25:DA:1394:U:C6	2.44	0.51
49:DY:16:THR:O	49:DY:19:LEU:N	2.44	0.51
25:CA:1094:U:O2	25:CA:1096:A:N7	2.43	0.51
33:CI:14:ALA:HB1	33:CI:45:THR:HG23	1.92	0.51
2:AB:116:LEU:CG	2:AB:140:LEU:HD11	2.39	0.51
25:DA:1746:A:N3	25:DA:1747:U:C5	2.77	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:BE:104:ILE:H	5:BE:121:ASN:CA	2.22	0.51
5:BE:152:VAL:O	5:BE:155:LYS:NZ	2.33	0.51
5:BE:153:ALA:HA	5:BE:156:ARG:C	2.30	0.51
25:DA:604:G:C5	25:DA:625:G:C2	2.98	0.51
12:BL:18:SER:OG	12:BL:20:VAL:HG23	2.10	0.51
38:DN:50:PRO:HB2	38:DN:51:LEU:HD23	1.90	0.51
25:CA:277:G:C8	25:CA:361:G:O6	2.63	0.51
10:AJ:27:GLU:O	10:AJ:29:ALA:N	2.44	0.51
10:AJ:32:THR:CG2	10:AJ:83:THR:HA	2.39	0.51
25:DA:1760:C:H2'	25:DA:1761:C:O4'	2.11	0.51
56:DB:50:A:OP1	39:DO:68:LYS:HG3	2.10	0.51
3:AC:109:GLU:HB2	3:AC:143:LEU:HD23	1.93	0.51
4:AD:10:LEU:HD21	4:AD:62:ARG:HD3	1.90	0.51
5:AE:154:ALA:HB1	8:AH:65:PHE:CE2	2.45	0.51
1:AA:79:G:H1	1:AA:90:C:N4	2.01	0.51
1:AA:97:G:H2'	1:AA:98:A:O5'	2.10	0.51
1:BA:1298:U:O2	7:BG:113:LYS:HE2	2.09	0.51
25:DA:2469:A:O2'	37:DM:55:ARG:NH2	2.43	0.51
1:BA:15:G:C6	1:BA:16:A:C5	2.98	0.51
16:BP:19:VAL:CG1	16:BP:38:PHE:N	2.73	0.51
31:DG:42:VAL:HG22	31:DG:43:LYS:N	2.25	0.51
9:AI:18:VAL:HG11	9:AI:82:ILE:HG12	1.92	0.51
9:AI:83:THR:HB	9:AI:97:LEU:CD2	2.38	0.51
27:CC:216:ARG:HB3	27:CC:217:PRO:HD3	1.92	0.51
3:AC:106:ARG:N	3:AC:106:ARG:HD3	2.25	0.51
1:AA:490:C:H2'	1:AA:491:G:O4'	2.10	0.51
1:BA:711:G:O2'	1:BA:712:A:H5'	2.10	0.51
27:DC:83:ASP:HB3	27:DC:86:ARG:HG2	1.92	0.51
1:AA:684:U:H2'	1:AA:685:G:O4'	2.10	0.51
45:DU:94:PHE:CA	45:DU:102:ILE:HD12	2.40	0.51
25:DA:2392:A:O2'	36:DL:60:ARG:O	2.28	0.51
1:BA:474:G:C4	1:BA:475:C:C6	2.97	0.51
17:BQ:46:HIS:CG	17:BQ:47:ASP:H	2.28	0.51
25:DA:2403:C:C4	25:DA:2415:G:N1	2.78	0.51
3:BC:66:THR:HG22	3:BC:67:ILE:H	1.73	0.51
1:AA:781:A:C4	1:AA:802:A:C2	2.98	0.51
29:DE:178:VAL:HG13	29:DE:179:SER:N	2.24	0.51
4:BD:145:ARG:HB2	4:BD:147:LYS:HE2	1.90	0.51
1:BA:694:A:H2'	1:BA:695:A:O5'	2.10	0.51
25:DA:1867:G:O2'	25:DA:1868:C:H5'	2.09	0.51
7:BG:106:ALA:HB1	7:BG:122:GLU:OE2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:CF:56:LEU:HD13	30:CF:64:PRO:HB3	1.91	0.51
31:DG:97:VAL:CG2	31:DG:124:CYS:SG	2.99	0.51
25:DA:215:G:C4'	25:DA:216:A:H4'	2.40	0.51
16:AP:50:THR:O	16:AP:51:ARG:O	2.28	0.51
1:BA:1472:U:H2'	1:BA:1473:G:O5'	2.10	0.51
54:C3:44:ARG:HH11	54:C3:44:ARG:HG3	1.74	0.51
44:DT:87:LEU:O	44:DT:88:LYS:O	2.27	0.51
1:AA:1066:C:O2	1:AA:1066:C:H2'	2.10	0.51
50:CZ:6:ILE:CD1	50:CZ:47:ILE:HD11	2.40	0.51
31:CG:130:ILE:HG22	31:CG:131:VAL:N	2.24	0.51
36:DL:123:ARG:HG3	36:DL:143:GLU:CG	2.39	0.51
25:CA:1744:A:C2	25:CA:1745:A:H1'	2.45	0.51
1:BA:186:C:O4'	20:BT:75:LYS:HD2	2.10	0.51
40:DP:100:ARG:C	40:DP:101:GLU:HG2	2.31	0.51
20:AT:16:ALA:O	20:AT:20:ASN:ND2	2.44	0.51
25:CA:2093:G:C6	25:CA:2225:A:C8	2.98	0.51
8:AH:111:THR:O	8:AH:114:ALA:HB3	2.09	0.51
1:BA:908:A:H2'	1:BA:909:A:C8	2.45	0.51
25:DA:1255:U:C5	29:DE:68:ALA:HA	2.45	0.51
44:CT:19:LYS:O	44:CT:20:ALA:C	2.49	0.51
43:CS:48:LYS:HE3	43:CS:52:GLU:OE2	2.10	0.51
25:CA:473:G:H2'	25:CA:474:G:O5'	2.10	0.51
1:BA:671:G:C5	1:BA:672:U:C5	2.98	0.51
29:DE:147:LEU:HB3	29:DE:186:VAL:HG22	1.91	0.51
43:DS:36:LEU:CD1	43:DS:48:LYS:HB2	2.41	0.51
25:DA:742:A:H2'	25:DA:743:A:C8	2.45	0.51
7:AG:86:VAL:O	7:AG:86:VAL:HG12	2.09	0.51
1:AA:1136:C:O2	1:AA:1136:C:O4'	2.29	0.51
1:BA:1242:G:H2'	1:BA:1243:C:O4'	2.09	0.51
41:CQ:13:HIS:O	41:CQ:14:LYS:C	2.48	0.51
1:BA:1308:U:H5"	13:BM:96:VAL:HG21	1.91	0.51
49:DY:11:VAL:HG12	49:DY:11:VAL:O	2.08	0.51
11:AK:30:ILE:HD12	11:AK:31:VAL:N	2.24	0.51
25:CA:1074:G:C2'	25:CA:1075:C:H5'	2.35	0.51
25:DA:1746:A:C2	25:DA:1747:U:C4	2.99	0.51
13:BM:59:VAL:HG22	13:BM:60:ALA:N	2.24	0.51
52:D1:46:VAL:HG12	52:D1:47:ILE:N	2.25	0.51
25:DA:2298:A:H2'	25:DA:2299:U:C6	2.45	0.51
25:DA:2299:U:H2'	25:DA:2300:C:H6	1.76	0.51
5:BE:82:HIS:HB2	5:BE:83:PRO:HD2	1.91	0.51
1:BA:261:U:H5	20:BT:73:ARG:CZ	2.23	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:148:G:C2'	1:AA:149:A:O5'	2.59	0.51
25:CA:1860:G:C6	25:CA:1883:U:O2	2.63	0.51
4:BD:53:GLN:HG2	4:BD:202:LEU:HB2	1.93	0.51
25:DA:2119:A:H3'	25:DA:2120:G:C5'	2.40	0.51
30:CF:24:VAL:CG2	30:CF:24:VAL:O	2.58	0.51
4:AD:112:GLU:O	4:AD:115:GLN:HB3	2.10	0.51
4:AD:117:VAL:HA	4:AD:122:ILE:HD12	1.91	0.51
33:CI:79:LEU:CD2	33:CI:100:ILE:HD11	2.41	0.51
1:BA:782:A:C2'	1:BA:783:C:H5'	2.40	0.51
5:AE:81:GLN:HE22	5:AE:148:SER:HA	1.75	0.51
7:BG:41:ILE:HG23	7:BG:116:ALA:CA	2.40	0.51
13:AM:28:ARG:NH1	13:AM:62:PHE:CB	2.73	0.51
1:BA:840:C:C6	1:BA:842:U:H5"	2.44	0.51
16:BP:51:ARG:HH11	16:BP:51:ARG:HB3	1.74	0.51
2:BB:69:VAL:HG22	2:BB:91:VAL:HG23	1.92	0.51
2:BB:86:CYS:C	2:BB:88:GLN:H	2.14	0.51
25:CA:356:G:O2'	25:CA:357:C:H5'	2.10	0.51
25:CA:1495:A:H2'	25:CA:1496:A:O5'	2.10	0.51
2:BB:63:LYS:C	2:BB:63:LYS:CD	2.78	0.51
44:CT:2:ILE:HG23	44:CT:7:LEU:HD12	1.93	0.51
3:AC:41:TYR:CZ	3:AC:89:VAL:HG21	2.45	0.51
44:CT:28:ASN:HD21	44:CT:91:GLN:HB3	1.75	0.51
9:AI:98:ARG:HA	9:AI:103:VAL:HG21	1.92	0.51
1:BA:844:G:N3	1:BA:844:G:H2'	2.24	0.51
11:AK:39:ASN:O	11:AK:40:ALA:CB	2.59	0.51
1:AA:891:U:C5	1:AA:906:A:C2	2.98	0.51
25:CA:666:A:H2'	25:CA:667:U:C6	2.45	0.51
49:CY:9:LYS:HB3	49:CY:12:GLU:H	1.76	0.51
38:CN:74:GLU:HG2	38:CN:75:ILE:HD12	1.91	0.51
33:DI:45:THR:HG22	33:DI:50:LYS:HG3	1.93	0.51
14:BN:41:ARG:HH22	14:BN:45:VAL:HG21	1.74	0.51
25:DA:2415:G:N3	25:DA:2416:C:C6	2.78	0.51
25:DA:630:G:H3'	25:DA:631:A:H5"	1.92	0.51
8:BH:80:PRO:HA	8:BH:83:ARG:HE	1.76	0.51
37:DM:41:LEU:HD12	37:DM:96:ILE:CD1	2.40	0.51
25:CA:2784:U:H2'	25:CA:2785:C:C6	2.43	0.51
7:AG:144:ALA:O	7:AG:145:GLU:HB2	2.09	0.51
25:DA:1505:A:H2'	25:DA:1506:U:C6	2.44	0.51
25:DA:716:A:H3'	25:DA:717:C:H5"	1.93	0.51
30:CF:110:ILE:HG12	30:CF:136:ILE:HG21	1.92	0.51
1:AA:853:C:H2'	1:AA:854:U:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CY:28:LEU:CD2	49:CY:37:LEU:HD21	2.40	0.51
1:BA:1424:U:C4	1:BA:1425:U:C5	2.98	0.51
25:DA:354:A:C6	25:DA:355:U:C4	2.98	0.51
33:DI:120:ASP:OD2	33:DI:122:GLU:HB3	2.10	0.51
25:DA:2314:A:C2	25:DA:2315:G:C5	2.99	0.51
41:DQ:31:TYR:C	41:DQ:31:TYR:CD2	2.84	0.51
31:DG:26:LYS:HB3	31:DG:31:GLU:OE2	2.10	0.51
1:BA:1171:A:H2'	1:BA:1172:C:H6	1.75	0.51
25:CA:1681:G:O2'	25:CA:1762:A:H1'	2.10	0.51
37:DM:136:MET:HE3	37:DM:136:MET:O	2.10	0.51
25:DA:847:U:O2	25:DA:847:U:H2'	2.11	0.51
29:DE:46:GLN:HB3	29:DE:83:VAL:HG21	1.92	0.51
25:CA:1917:U:C4	25:CA:1918:A:C5	2.99	0.51
4:BD:98:ASP:OD1	4:BD:99:ASN:N	2.42	0.51
32:DH:129:GLU:OE2	32:DH:141:LYS:HB3	2.11	0.51
28:DD:4:LEU:HD23	28:DD:29:VAL:HG11	1.91	0.51
1:AA:1472:U:O2'	1:AA:1473:G:H5'	2.09	0.51
42:DR:14:VAL:HA	42:DR:18:GLN:NE2	2.25	0.51
2:AB:8:MET:HB2	2:AB:43:GLU:OE2	2.09	0.51
3:AC:135:ARG:O	3:AC:136:ALA:C	2.48	0.51
25:DA:359:G:H2'	25:DA:360:U:H5'	1.92	0.51
25:CA:1766:G:H2'	25:CA:1767:G:H8	1.74	0.51
20:BT:14:GLU:HA	20:BT:14:GLU:OE2	2.10	0.51
3:BC:161:ILE:HD12	3:BC:161:ILE:O	2.10	0.51
1:AA:432:A:H2'	1:AA:433:G:O5'	2.11	0.51
34:CJ:88:THR:O	34:CJ:89:PHE:C	2.47	0.51
1:BA:1223:C:P	19:BS:77:ARG:HH12	2.33	0.51
1:BA:1266:G:N1	1:BA:1270:G:C6	2.78	0.51
1:BA:1358:U:H2'	1:BA:1359:C:O4'	2.10	0.51
1:BA:980:C:H2'	1:BA:981:U:H5'	1.91	0.51
25:DA:1340:U:C5	25:DA:1603:A:C8	2.98	0.51
1:AA:1140:C:O2'	1:AA:1141:C:P	2.68	0.51
2:AB:116:LEU:HB3	2:AB:140:LEU:HD11	1.93	0.51
25:DA:2338:C:C2	25:DA:2339:C:H5	2.28	0.51
2:BB:70:GLY:HA3	2:BB:163:ILE:CG2	2.40	0.51
25:DA:1578:U:C2'	25:DA:1579:A:O5'	2.57	0.51
21:BU:35:GLU:OE1	21:BU:35:GLU:HA	2.10	0.51
25:DA:970:U:O5'	25:DA:970:U:H6	1.93	0.51
25:CA:2748:A:C1'	31:CG:66:THR:HG22	2.39	0.51
1:BA:1145:A:H4'	1:BA:1145:A:OP1	2.08	0.51
16:AP:10:GLY:HA3	16:AP:15:PRO:HA	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:120:LYS:C	4:AD:122:ILE:HD13	2.31	0.51
4:AD:33:ILE:HG12	4:AD:34:GLU:HB2	1.91	0.51
5:AE:131:ASN:HD22	5:AE:132:PRO:N	2.09	0.51
1:BA:70:U:H1'	1:BA:71:A:N7	2.26	0.51
25:CA:1463:C:H5'	25:CA:1463:C:H6	1.74	0.51
14:AN:35:ALA:CA	14:AN:41:ARG:HB3	2.40	0.51
14:AN:41:ARG:HB2	14:AN:42:TRP:CE3	2.44	0.51
20:AT:35:TYR:HA	20:AT:38:ILE:CD1	2.40	0.51
9:AI:18:VAL:HG11	9:AI:82:ILE:CG1	2.40	0.51
25:DA:583:G:C5	25:DA:584:C:C5	2.98	0.51
32:CH:126:GLY:O	32:CH:145:ASN:HA	2.10	0.51
51:D0:54:ILE:O	51:D0:55:ALA:HB3	2.11	0.51
25:CA:1534:U:H5'	25:CA:1535:A:OP2	2.09	0.51
25:DA:1386:C:H2'	25:DA:1387:A:C8	2.45	0.51
6:AF:21:MET:HA	6:AF:24:ARG:NH2	2.25	0.51
6:AF:43:GLY:HA2	6:AF:58:HIS:CD2	2.45	0.51
1:BA:680:C:O2'	1:BA:681:A:H5'	2.10	0.51
1:AA:284:C:H2'	1:AA:285:C:C6	2.46	0.51
9:AI:27:ILE:HG23	9:AI:62:LEU:HD23	1.92	0.51
1:AA:383:A:H2'	1:AA:384:G:O4'	2.11	0.51
1:AA:541:G:C2	1:AA:542:G:C4	2.98	0.51
25:DA:223:A:C8	25:DA:422:A:C1'	2.94	0.51
13:AM:5:GLY:C	13:AM:7:ASN:H	2.13	0.51
25:CA:2108:A:C6	25:CA:2109:U:C2	2.98	0.51
25:DA:1966:A:N3	25:DA:2592:G:O2'	2.32	0.51
25:DA:1812:U:O2	25:DA:1812:U:C2'	2.54	0.51
39:CO:31:THR:HB	39:CO:34:HIS:H	1.75	0.51
7:BG:98:LEU:HD22	7:BG:102:TRP:CZ2	2.45	0.51
25:CA:18:U:O3'	41:CQ:22:GLY:HA2	2.11	0.51
1:AA:1293:C:C4	1:AA:1294:G:N7	2.78	0.51
25:DA:7:G:C6	25:DA:8:C:C4	2.99	0.51
1:BA:359:G:H2'	1:BA:360:G:O4'	2.11	0.51
8:BH:9:MET:HE1	8:BH:32:LYS:O	2.10	0.51
40:DP:7:LEU:CD2	40:DP:7:LEU:O	2.58	0.51
3:AC:204:GLY:O	3:AC:205:GLU:HG2	2.10	0.51
25:DA:2720:U:OP1	40:DP:52:ARG:NH2	2.44	0.51
10:BJ:28:THR:HG21	10:BJ:90:LEU:HD12	1.92	0.51
41:DQ:71:ASN:HB3	41:DQ:109:VAL:HG11	1.91	0.51
8:AH:77:VAL:HG11	8:AH:124:ILE:HD11	1.91	0.51
28:DD:139:SER:HA	28:DD:142:VAL:HG13	1.91	0.51
25:CA:89:A:O2'	25:CA:90:U:H5'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2059:A:O3'	29:DE:64:GLY:HA2	2.10	0.51
11:BK:32:THR:OG1	11:BK:43:TRP:HB3	2.09	0.51
25:DA:801:G:H4'	25:DA:802:A:OP2	2.10	0.51
25:DA:272:A:C6	25:DA:273:G:C6	2.98	0.51
1:BA:857:C:C2'	1:BA:858:G:O5'	2.58	0.51
1:BA:588:G:C6	1:BA:589:U:N3	2.79	0.51
25:CA:1106:G:H2'	25:CA:1106:G:N3	2.26	0.51
21:BU:52:VAL:HG13	21:BU:53:LYS:H	1.74	0.51
47:CW:13:GLU:O	47:CW:15:LYS:HE2	2.09	0.51
25:CA:720:U:O2	25:CA:720:U:H2'	2.10	0.51
12:AL:55:ARG:HH21	12:AL:55:ARG:HG3	1.75	0.51
4:BD:74:TYR:O	4:BD:78:ALA:N	2.43	0.51
35:CK:87:LEU:HD23	35:CK:94:PRO:HA	1.92	0.51
38:CN:51:LEU:O	38:CN:54:LEU:HB3	2.10	0.51
25:DA:1073:A:H3'	25:DA:1074:G:C5'	2.40	0.51
11:AK:85:VAL:CG1	11:AK:92:ARG:NH1	2.73	0.51
25:CA:1056:G:HO2'	25:CA:1086:A:H8	1.53	0.51
33:CI:45:THR:HG22	33:CI:50:LYS:HG3	1.92	0.51
1:AA:994:A:C8	1:AA:1216:A:H4'	2.46	0.51
25:DA:2207:C:C2	25:DA:2208:C:C5	2.98	0.51
52:D1:42:VAL:O	52:D1:43:ARG:HB2	2.11	0.51
1:BA:626:G:C2'	1:BA:627:G:O5'	2.59	0.51
30:CF:76:PHE:C	30:CF:77:LYS:HG3	2.30	0.51
25:DA:1777:U:C2'	25:DA:1778:U:H5'	2.41	0.51
25:DA:2584:U:H2'	25:DA:2585:U:H5'	1.92	0.51
25:DA:1441:G:C2	25:DA:1442:U:C4	2.98	0.51
55:D4:17:VAL:CB	55:D4:26:ILE:HD11	2.38	0.51
7:BG:41:ILE:HG23	7:BG:116:ALA:CB	2.41	0.51
31:DG:122:ALA:HB2	31:DG:132:LEU:HB3	1.92	0.51
1:BA:1149:C:H6	1:BA:1149:C:O5'	1.94	0.51
1:AA:1286:U:OP1	1:AA:1286:U:C6	2.63	0.51
1:AA:1332:A:H2'	1:AA:1333:A:O5'	2.10	0.51
10:AJ:56:HIS:O	10:AJ:57:VAL:CG1	2.59	0.51
12:BL:49:ARG:CG	12:BL:89:LEU:HD11	2.40	0.51
4:AD:131:ILE:O	4:AD:131:ILE:HD12	2.10	0.51
44:CT:2:ILE:HG12	44:CT:7:LEU:HD11	1.92	0.51
25:DA:149:A:C4	25:DA:150:U:C5	2.99	0.51
25:DA:1358:G:H2'	25:DA:1359:A:OP2	2.10	0.51
39:DO:55:GLU:O	39:DO:56:LYS:C	2.49	0.51
25:CA:1533:C:H5'	25:CA:1534:U:OP2	2.10	0.51
1:AA:108:G:N3	1:AA:108:G:H5'	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:491:G:N3	1:AA:491:G:H2'	2.23	0.51
40:DP:32:VAL:CG1	40:DP:32:VAL:O	2.58	0.51
25:DA:1195:G:H2'	25:DA:1196:C:H5'	1.91	0.51
1:BA:111:G:O6	1:BA:330:C:N4	2.43	0.51
25:DA:2579:C:H2'	25:DA:2580:U:H5'	1.92	0.51
25:DA:536:G:C2'	25:DA:537:G:O5'	2.59	0.51
45:DU:94:PHE:HA	45:DU:102:ILE:CD1	2.41	0.51
17:BQ:37:ILE:HG22	17:BQ:38:LYS:O	2.10	0.51
1:AA:874:G:C4	1:AA:875:U:C5	2.98	0.51
57:DW:11:ASP:OD2	57:DW:12:SER:N	2.43	0.51
25:DA:136:G:H2'	25:DA:137:U:C5	2.45	0.51
1:BA:1441:A:C8	1:BA:1441:A:C3'	2.93	0.51
25:DA:323:C:N4	25:DA:333:G:N7	2.59	0.51
25:DA:664:G:C5	25:DA:665:U:C5	2.99	0.51
4:BD:55:ARG:HH11	4:BD:55:ARG:HA	1.75	0.51
44:DT:40:LYS:HG2	44:DT:58:VAL:O	2.10	0.51
7:AG:134:VAL:O	7:AG:138:GLU:HG2	2.10	0.51
3:BC:37:LYS:HG3	3:BC:37:LYS:O	2.11	0.51
25:CA:878:A:N7	25:CA:899:A:H2	2.09	0.51
4:AD:125:ASN:HA	4:AD:141:VAL:HG22	1.93	0.51
49:CY:28:LEU:O	49:CY:29:ARG:C	2.49	0.51
25:DA:2804:U:H2'	25:DA:2805:C:C6	2.45	0.51
1:BA:969:A:H2'	1:BA:970:C:H6	1.74	0.51
9:AI:129:ARG:NH1	22:AV:35:A:OP1	2.44	0.51
25:CA:1439:A:C2'	25:CA:1440:U:H5'	2.41	0.51
25:DA:2818:U:O2'	25:DA:2837:A:H5'	2.09	0.51
25:CA:181:A:C2	25:CA:182:A:C4	2.99	0.51
25:DA:2660:A:H2'	25:DA:2661:G:O4'	2.11	0.51
1:BA:512:U:H2'	1:BA:513:C:C6	2.46	0.51
25:CA:1851:U:C2'	25:CA:1852:U:O5'	2.58	0.51
4:BD:168:THR:CG2	4:BD:183:ARG:NH2	2.74	0.51
46:DV:26:PHE:CE2	46:DV:44:HIS:HA	2.45	0.51
25:DA:359:G:C6	25:DA:360:U:O2	2.63	0.51
47:CW:6:THR:O	47:CW:7:ARG:CB	2.58	0.51
35:CK:51:LYS:HD3	35:CK:95:ILE:HG22	1.92	0.51
15:AO:78:THR:O	15:AO:82:GLU:OE1	2.29	0.51
1:AA:1112:C:O2	3:AC:178:ARG:HG3	2.10	0.51
25:DA:239:C:C4	25:DA:240:C:N3	2.78	0.51
25:DA:2573:C:P	60:DA:3716:HOH:O	2.68	0.51
40:DP:63:ILE:HA	40:DP:68:GLY:HA2	1.91	0.51
46:CV:16:ALA:N	46:CV:19:ARG:HH21	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BC:73:GLY:O	3:BC:75:VAL:N	2.44	0.51
13:BM:26:LYS:HD3	13:BM:26:LYS:O	2.10	0.51
34:DJ:43:GLU:H	34:DJ:43:GLU:CD	2.13	0.51
1:BA:1236:A:H4'	1:BA:1304:G:H5'	1.91	0.51
25:CA:324:A:H2'	25:CA:325:G:O5'	2.10	0.51
29:CE:53:THR:O	29:CE:53:THR:HG22	2.09	0.51
1:BA:1317:C:H2'	1:BA:1318:A:O5'	2.11	0.51
1:BA:1361:G:C6	1:BA:1362:A:N7	2.79	0.51
1:BA:427:U:H2'	1:BA:428:G:C8	2.46	0.51
25:DA:1313:U:H4'	25:DA:1332:G:H4'	1.91	0.51
25:CA:1059:G:H3'	25:CA:1060:U:H6	1.76	0.51
2:AB:151:LYS:HG3	2:AB:152:ASP:N	2.25	0.51
2:AB:90:PHE:N	2:AB:149:GLY:HA3	2.23	0.51
1:AA:1269:A:C2	1:AA:1313:U:H1'	2.46	0.51
25:DA:2337:G:C4	25:DA:2338:C:C5	2.99	0.51
25:DA:1495:A:H2'	25:DA:1496:A:C8	2.45	0.51
1:BA:723:U:C4	21:BU:49:ALA:HA	2.46	0.51
11:BK:123:PRO:O	11:BK:124:LYS:C	2.49	0.51
5:BE:82:HIS:CE1	8:BH:95:MET:HE3	2.45	0.51
13:AM:18:LEU:HG	13:AM:33:LEU:CD1	2.41	0.51
25:DA:1447:C:H1'	25:DA:1545:A:H1'	1.92	0.51
25:DA:1532:A:C6	25:DA:1533:C:N3	2.78	0.51
3:AC:16:PRO:O	3:AC:17:TRP:CB	2.59	0.51
4:AD:121:ALA:N	4:AD:122:ILE:HD13	2.24	0.51
4:AD:173:ASP:CB	4:AD:176:LYS:HB2	2.41	0.51
1:AA:1082:A:C2	1:AA:1083:U:O2	2.64	0.51
25:DA:1779:U:C4	25:DA:1784:A:N7	2.78	0.51
25:DA:2324:U:H6	25:DA:2324:U:OP2	1.93	0.51
20:BT:34:VAL:O	20:BT:35:TYR:C	2.49	0.51
27:DC:231:HIS:HA	27:DC:241:LYS:HE3	1.92	0.51
16:AP:76:LYS:O	16:AP:77:GLU:HB2	2.09	0.51
1:BA:1538:C:H2'	1:BA:1539:C:C5	2.45	0.51
9:BI:50:PRO:HD3	9:BI:79:ARG:HG2	1.93	0.51
1:BA:16:A:C6	1:BA:17:U:C5	2.98	0.51
9:AI:46:VAL:HA	9:AI:49:GLN:HG3	1.91	0.51
1:AA:1411:C:H2'	1:AA:1412:C:H6	1.76	0.51
25:DA:276:U:H2'	25:DA:277:G:O5'	2.09	0.51
45:DU:8:ASP:HB3	45:DU:24:VAL:CG2	2.40	0.51
25:DA:2822:G:O6	38:DN:2:ARG:CG	2.57	0.51
9:AI:87:MET:CG	9:AI:88:GLU:N	2.72	0.51
25:CA:1922:G:C4	25:CA:1923:U:C6	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1113:C:H2'	1:BA:1114:C:H6	1.74	0.51
1:BA:451:A:H4'	1:BA:452:A:O4'	2.10	0.51
4:AD:129:VAL:HG11	4:AD:134:TYR:CD1	2.45	0.51
25:CA:2469:A:C4'	37:CM:55:ARG:HH22	2.22	0.51
25:DA:1269:A:H2'	25:DA:1270:C:H6	1.73	0.51
33:CI:71:LYS:HD3	33:CI:71:LYS:N	2.25	0.51
25:CA:2230:G:H4'	48:CX:29:LEU:HB2	1.92	0.51
1:AA:893:C:H2'	1:AA:894:G:H8	1.75	0.51
7:AG:91:ARG:HE	7:AG:93:VAL:HG23	1.74	0.51
44:DT:69:ARG:HB2	44:DT:74:ILE:CG2	2.40	0.51
7:AG:59:GLU:O	7:AG:63:VAL:HG23	2.10	0.51
25:CA:2881:U:C2'	25:CA:2882:A:O5'	2.59	0.51
1:AA:663:A:H5'	1:AA:836:G:OP1	2.10	0.51
44:DT:7:LEU:HD21	44:DT:46:ALA:HB2	1.93	0.51
44:DT:7:LEU:HD21	44:DT:46:ALA:N	2.25	0.51
25:DA:783:A:H8	25:DA:784:G:H4'	1.74	0.51
25:CA:2179:C:C4	25:CA:2180:U:C5	2.98	0.51
24:AY:149:ILE:HG23	24:AY:153:ASP:HB2	1.92	0.51
1:AA:866:C:H4'	1:AA:919:A:H5'	1.92	0.51
25:DA:1485:U:H2'	25:DA:1486:U:C6	2.45	0.51
1:BA:1087:G:C2	1:BA:1088:G:N7	2.78	0.51
1:AA:1008:U:C2	1:AA:1022:A:C2	2.99	0.51
25:DA:1883:U:C4	25:DA:1884:G:C6	2.98	0.51
31:DG:88:LEU:HB3	31:DG:93:TYR:HB3	1.92	0.51
52:D1:6:GLU:OE2	52:D1:26:LYS:HB2	2.11	0.51
11:BK:21:HIS:ND1	11:BK:34:THR:HG21	2.26	0.51
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.46	0.51
1:BA:1381:U:C6	1:BA:1382:C:C5	2.98	0.51
8:BH:31:LEU:O	8:BH:32:LYS:C	2.48	0.51
25:DA:246:C:H2'	25:DA:247:G:H5'	1.93	0.51
1:AA:87:C:H2'	1:AA:88:U:H5'	1.92	0.51
5:AE:37:VAL:HG23	5:AE:47:PHE:CA	2.40	0.51
34:DJ:35:ARG:HG2	34:DJ:40:HIS:CD2	2.46	0.51
25:DA:237:C:C2'	25:DA:238:C:H5'	2.41	0.51
21:AU:4:LYS:O	21:AU:4:LYS:HD2	2.09	0.51
6:AF:81:ASN:O	6:AF:84:VAL:HG12	2.11	0.51
27:DC:29:PHE:CE2	27:DC:31:PRO:HG2	2.45	0.51
34:CJ:18:VAL:HG12	34:CJ:19:ASP:N	2.25	0.51
22:BV:23:A:H2'	22:BV:24:G:C8	2.44	0.51
31:DG:100:ASN:O	31:DG:116:LEU:HB2	2.10	0.51
25:DA:2376:A:N3	39:DO:99:TYR:CE2	2.78	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:85:TYR:HA	13:AM:88:LEU:HD12	1.91	0.51
25:CA:1816:C:C5	27:CC:61:TYR:CE1	2.99	0.51
1:AA:449:G:O2'	1:AA:450:G:H5'	2.10	0.51
31:CG:19:ASN:C	31:CG:22:VAL:HG23	2.31	0.51
54:C3:54:LEU:O	54:C3:58:ILE:HD12	2.10	0.51
1:BA:1055:A:C6	1:BA:1206:G:C5	2.99	0.51
1:BA:1231:G:C2	1:BA:1232:U:O2	2.63	0.51
14:BN:51:LEU:O	14:BN:53:ARG:N	2.44	0.51
25:CA:782:A:H4'	25:CA:783:A:O5'	2.11	0.51
33:CI:10:LEU:HD12	33:CI:23:VAL:HG12	1.91	0.51
2:AB:81:ASP:N	2:AB:84:LEU:HB3	2.26	0.51
25:DA:2195:U:N3	25:DA:2196:C:C5	2.79	0.51
1:BA:489:C:C2	1:BA:490:C:C5	2.99	0.51
1:AA:1103:C:H2'	1:AA:1104:G:O5'	2.10	0.51
5:BE:96:GLN:HE21	5:BE:97:PRO:HD2	1.76	0.51
6:AF:91:ARG:O	6:AF:92:THR:OG1	2.26	0.51
25:CA:282:A:H2'	25:CA:283:G:C8	2.46	0.51
51:C0:52:LYS:HE2	51:C0:55:ALA:HA	1.92	0.51
33:CI:99:LYS:HB3	33:CI:138:VAL:HB	1.92	0.51
1:BA:69:G:C6	1:BA:70:U:O4	2.64	0.51
11:BK:13:LYS:HD2	11:BK:14:GLN:O	2.11	0.51
1:BA:1182:G:H5'	1:BA:1184:G:H5"	1.91	0.51
9:BI:18:VAL:HG21	9:BI:82:ILE:N	2.25	0.51
37:DM:111:GLU:C	37:DM:111:GLU:CD	2.70	0.51
1:BA:468:A:H2'	1:BA:469:C:O5'	2.11	0.51
32:CH:116:ARG:HG3	32:CH:133:GLN:OE1	2.11	0.51
25:DA:1277:G:C5'	38:DN:20:MET:CE	2.87	0.51
10:BJ:29:ALA:HB1	10:BJ:76:ILE:HD13	1.92	0.51
8:BH:76:ARG:O	8:BH:77:VAL:HG23	2.10	0.51
1:AA:830:G:O2'	1:AA:831:A:H5'	2.11	0.51
2:BB:67:LEU:HD13	2:BB:160:LEU:CD1	2.41	0.51
9:AI:85:ALA:C	9:AI:87:MET:N	2.64	0.51
56:DB:59:A:C6	56:DB:60:C:C4	2.98	0.51
56:DB:63:C:O2'	56:DB:64:G:O5'	2.24	0.51
44:CT:1:MET:CB	44:CT:2:ILE:HD12	2.41	0.51
33:CI:57:VAL:O	33:CI:68:PHE:HB2	2.11	0.51
1:BA:1251:A:H1'	1:BA:1369:C:O2'	2.10	0.51
7:BG:26:VAL:HG23	7:BG:27:ASN:H	1.75	0.51
49:CY:45:GLN:O	49:CY:46:VAL:CB	2.58	0.51
35:DK:69:VAL:O	35:DK:69:VAL:HG23	2.10	0.51
44:DT:69:ARG:CG	44:DT:74:ILE:HG22	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DL:56:PRO:O	36:DL:60:ARG:HB3	2.11	0.51
1:BA:560:A:C5	5:BE:127:TYR:CE2	2.99	0.51
1:AA:112:G:C2'	1:AA:113:G:H5'	2.40	0.51
1:AA:1380:U:N3	7:AG:2:ARG:HD3	2.26	0.51
1:AA:880:C:O2'	1:AA:881:G:H5'	2.10	0.51
5:BE:106:ALA:CB	5:BE:124:ALA:CB	2.88	0.51
1:AA:864:A:H3'	1:AA:865:A:C8	2.45	0.51
4:BD:186:GLU:HB2	4:BD:189:ASP:OD1	2.10	0.51
32:CH:37:VAL:HG23	32:CH:38:PRO:CD	2.41	0.51
25:DA:1874:C:H3'	25:DA:1875:G:H8	1.76	0.51
7:BG:102:TRP:HZ3	7:BG:137:ARG:HB2	1.75	0.51
25:CA:17:G:H2'	25:CA:18:U:C6	2.45	0.51
7:BG:145:GLU:HA	7:BG:148:LYS:HB2	1.93	0.51
28:CD:104:VAL:O	28:CD:105:LYS:HB2	2.11	0.51
1:AA:29:U:H5'	1:AA:296:U:OP1	2.11	0.51
25:CA:2312:U:H6	25:CA:2312:U:H3'	1.74	0.51
28:CD:39:ASP:OD2	28:CD:40:LEU:N	2.44	0.51
25:DA:898:C:H2'	25:DA:899:A:H5'	1.92	0.51
11:BK:79:LYS:O	11:BK:105:ARG:HB3	2.10	0.51
27:CC:259:ASN:O	27:CC:261:ARG:N	2.43	0.51
50:DZ:6:ILE:CG2	50:DZ:28:LEU:HD11	2.41	0.51
36:DL:51:GLU:OE1	54:D3:56:LEU:HD13	2.10	0.51
1:BA:633:G:O2'	1:BA:634:C:H5'	2.11	0.51
25:CA:1712:U:C4	25:CA:1713:A:C5	2.99	0.51
25:CA:1176:U:H2'	25:CA:1177:G:C8	2.46	0.51
28:CD:119:ALA:O	28:CD:162:ALA:HB1	2.10	0.51
25:DA:1982:U:O2	25:DA:1982:U:H2'	2.09	0.51
25:DA:712:G:N3	25:DA:712:G:H2'	2.26	0.51
25:DA:2142:A:C2	25:DA:2150:C:N3	2.79	0.51
1:BA:163:C:H2'	1:BA:163:C:O2	2.11	0.51
19:BS:38:THR:HG23	19:BS:69:LYS:HD3	1.93	0.51
32:CH:24:GLY:O	32:CH:27:ARG:O	2.29	0.51
32:CH:33:GLN:O	32:CH:34:GLY:O	2.29	0.51
25:CA:1078:U:H1'	25:CA:1088:A:N1	2.24	0.51
2:AB:63:LYS:NZ	2:AB:87:ASP:OD1	2.44	0.51
2:AB:95:TRP:CH2	2:AB:99:MET:HG2	2.45	0.51
1:AA:1310:G:O6	1:AA:1327:C:N4	2.44	0.51
25:DA:2209:G:C5	25:DA:2210:U:C5	2.99	0.51
8:AH:123:GLU:HG2	8:AH:125:ILE:HD12	1.92	0.51
13:BM:53:ASP:HA	13:BM:56:ARG:CB	2.33	0.51
25:DA:2197:U:C5	25:DA:2224:G:C6	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:32:PRO:O	32:DH:33:GLN:HB2	2.09	0.51
25:DA:1581:G:C2'	25:DA:1582:C:O5'	2.59	0.51
11:AK:15:VAL:HG13	11:AK:16:SER:H	1.74	0.51
36:DL:111:ILE:CD1	36:DL:111:ILE:N	2.74	0.51
25:DA:184:C:H2'	25:DA:185:G:C8	2.45	0.51
13:AM:13:HIS:CD2	13:AM:41:ASP:HB2	2.46	0.51
10:AJ:29:ALA:HA	10:AJ:32:THR:CG2	2.34	0.51
56:DB:29:A:OP2	39:DO:31:THR:HG23	2.11	0.51
30:DF:33:ILE:N	30:DF:90:LEU:O	2.43	0.51
3:AC:140:ALA:O	3:AC:145:ALA:HB3	2.10	0.51
1:AA:495:A:O4'	1:AA:496:A:C8	2.64	0.51
4:AD:54:LEU:CD2	4:AD:55:ARG:N	2.74	0.51
33:CI:98:GLY:O	33:CI:138:VAL:HG23	2.11	0.51
5:AE:132:PRO:HA	5:AE:135:VAL:HG13	1.92	0.51
22:AV:17:C:C6	22:AV:17:C:C3'	2.94	0.51
1:AA:66:A:H2'	1:AA:67:C:H5'	1.91	0.51
1:BA:1240:U:H3'	1:BA:1241:G:H5'	1.91	0.51
25:DA:686:U:H1'	53:D2:6:GLN:O	2.11	0.51
31:DG:61:TRP:O	31:DG:64:ALA:HB3	2.11	0.51
9:BI:25:GLY:H	9:BI:58:GLU:HA	1.75	0.51
35:DK:115:ILE:O	35:DK:118:LEU:O	2.29	0.51
25:CA:84:A:H5"	45:CU:5:ARG:HD3	1.91	0.51
25:CA:1045:C:C3'	25:CA:1046:A:H5'	2.40	0.51
3:AC:39:ARG:O	3:AC:40:GLN:C	2.49	0.51
25:DA:1361:G:C6	25:DA:1371:G:N2	2.79	0.51
14:AN:43:ASN:OD1	14:AN:47:LYS:CE	2.59	0.51
25:DA:1469:A:N1	25:DA:1470:A:C6	2.78	0.51
1:BA:108:G:N3	1:BA:108:G:C5'	2.74	0.51
27:CC:226:PRO:HD3	27:CC:233:GLY:CA	2.37	0.51
1:AA:892:A:C6	1:AA:893:C:C4	2.98	0.51
2:AB:70:GLY:CA	2:AB:163:ILE:CG2	2.89	0.51
25:CA:31:C:H2'	25:CA:32:C:H5'	1.92	0.51
25:CA:2582:G:C2	25:CA:2583:G:C8	2.98	0.51
25:CA:674:G:OP2	60:CA:3333:HOH:O	2.19	0.51
27:DC:198:GLU:O	27:DC:199:HIS:C	2.48	0.51
15:BO:80:LEU:CD1	15:BO:84:LEU:HD22	2.41	0.51
25:DA:1429:G:N3	25:DA:1568:G:C2	2.79	0.51
25:CA:246:C:H2'	25:CA:247:G:C5'	2.41	0.51
1:BA:622:A:H3'	1:BA:623:C:C6	2.45	0.51
25:DA:1483:G:N3	25:DA:1484:U:C6	2.79	0.51
25:CA:2330:G:O3'	47:CW:40:LYS:HE3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:646:G:C6	1:AA:647:C:N4	2.79	0.51
44:DT:40:LYS:HG3	44:DT:60:THR:HG23	1.91	0.51
8:AH:82:LEU:HD23	17:AQ:35:LYS:HA	1.92	0.51
25:DA:1220:G:H2'	25:DA:1221:C:O5'	2.10	0.51
28:DD:57:ALA:O	28:DD:60:VAL:HG12	2.10	0.51
22:BV:63:G:H2'	22:BV:64:A:C8	2.45	0.51
1:BA:1177:G:O6	1:BA:1178:G:C2	2.63	0.51
1:BA:1177:G:C6	1:BA:1178:G:C4	2.98	0.51
4:AD:147:LYS:O	4:AD:148:ALA:C	2.49	0.51
39:CO:24:THR:CG2	39:CO:42:PRO:HG3	2.40	0.51
1:BA:338:A:H2'	1:BA:339:C:H6	1.75	0.51
50:CZ:23:LEU:HD11	50:CZ:53:MET:CE	2.41	0.51
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.46	0.51
25:CA:709:U:H2'	25:CA:710:U:C6	2.46	0.51
47:CW:71:LYS:O	47:CW:72:ASN:HB2	2.11	0.51
20:AT:47:GLN:O	20:AT:47:GLN:NE2	2.43	0.51
11:AK:58:THR:HB	11:AK:59:PRO:HD2	1.92	0.51
37:DM:22:GLN:O	37:DM:24:THR:N	2.44	0.51
1:BA:399:G:H2'	1:BA:400:C:C6	2.45	0.51
25:DA:1635:A:C2	25:DA:1636:U:H1'	2.46	0.51
25:DA:1117:C:O2	25:DA:1117:C:H2'	2.10	0.51
2:AB:224:ARG:O	2:AB:224:ARG:HG2	2.10	0.51
25:DA:1028:A:N3	25:DA:2486:C:O2'	2.38	0.51
25:CA:1138:G:H5"	25:CA:1139:G:OP2	2.10	0.51
1:BA:1361:G:C5	1:BA:1362:A:C8	2.99	0.51
1:BA:1228:C:OP1	13:BM:112:ARG:HA	2.10	0.51
33:CI:75:ALA:CB	33:CI:128:ILE:CG2	2.87	0.51
41:DQ:86:SER:HB3	42:DR:51:VAL:HA	1.91	0.51
8:AH:35:ILE:CD1	8:AH:125:ILE:HG21	2.41	0.51
4:AD:169:TRP:HB2	4:AD:183:ARG:HG3	1.92	0.51
2:BB:70:GLY:CA	2:BB:163:ILE:CG2	2.89	0.51
2:BB:70:GLY:HA3	2:BB:163:ILE:HG21	1.93	0.51
1:AA:1539:C:O3'	21:AU:17:ARG:HG2	2.10	0.51
2:AB:209:VAL:HG23	2:AB:210:THR:H	1.74	0.51
25:DA:1414:C:H3'	25:DA:1414:C:C6	2.46	0.51
36:DL:91:ASP:HB3	36:DL:93:ASN:O	2.11	0.51
4:AD:35:GLN:O	4:AD:36:ALA:HB2	2.11	0.51
46:CV:2:PHE:CD1	46:CV:50:MET:CE	2.93	0.51
39:DO:32:PRO:HA	39:DO:102:ARG:HH12	1.76	0.51
39:DO:75:GLY:HA2	39:DO:106:LEU:CD2	2.41	0.51
1:AA:497:G:H2'	1:AA:498:A:C8	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1783:A:N7	60:DA:3695:HOH:O	2.34	0.51
25:CA:1838:C:C4	25:CA:1899:A:C4	2.98	0.51
25:CA:196:A:H2'	25:CA:805:G:O6	2.10	0.51
11:BK:63:GLN:O	11:BK:67:GLU:HG3	2.11	0.51
1:BA:862:C:H1'	1:BA:874:G:H5"	1.91	0.51
29:CE:189:THR:HG23	29:CE:190:ALA:N	2.25	0.51
5:BE:23:THR:HA	5:BE:28:ARG:HA	1.91	0.51
10:BJ:26:VAL:O	10:BJ:29:ALA:HB3	2.10	0.51
9:AI:40:ARG:H	9:AI:44:ARG:CB	2.24	0.51
6:BF:32:ALA:O	6:BF:34:GLY:N	2.43	0.51
6:BF:61:LEU:HD12	6:BF:62:MET:N	2.26	0.51
25:DA:586:A:N1	25:DA:809:G:O2'	2.34	0.51
2:AB:16:GLY:HA2	2:AB:40:ILE:HG23	1.91	0.51
5:BE:140:ILE:C	5:BE:142:GLY:H	2.12	0.51
34:CJ:31:GLU:OE2	34:CJ:35:ARG:HD2	2.10	0.51
25:DA:68:G:N2	25:DA:74:A:O4'	2.44	0.51
25:DA:611:C:H2'	25:DA:612:G:H5'	1.92	0.51
25:DA:2852:G:C2'	25:DA:2853:C:O4'	2.58	0.51
25:CA:528:A:C8	25:CA:528:A:H3'	2.46	0.51
1:BA:172:A:C5	1:BA:174:A:N7	2.79	0.51
30:CF:51:ASN:HD22	30:CF:146:ASP:CB	2.24	0.51
25:DA:2278:A:H2'	25:DA:2279:G:O5'	2.10	0.51
44:DT:74:ILE:HD12	44:DT:74:ILE:C	2.31	0.51
25:CA:2334:U:O4	39:CO:16:ARG:CZ	2.59	0.51
25:DA:630:G:C5'	25:DA:631:A:OP2	2.59	0.51
30:CF:157:THR:CG2	30:CF:159:ALA:CB	2.88	0.51
15:AO:3:SER:HB2	15:AO:6:ALA:HB2	1.92	0.51
25:DA:751:A:H5'	43:DS:90:LYS:HA	1.92	0.51
25:CA:1564:C:O2'	25:CA:1565:C:H5'	2.11	0.51
25:DA:1503:A:N6	25:DA:1504:A:N6	2.59	0.51
6:AF:62:MET:O	6:AF:63:ASN:HB2	2.10	0.51
31:CG:123:GLU:OE2	31:CG:124:CYS:HB2	2.11	0.51
45:CU:38:ILE:HG22	45:CU:39:ASN:N	2.25	0.51
25:DA:1362:C:O2'	25:DA:1363:C:H5'	2.11	0.51
8:AH:13:ILE:O	8:AH:14:ARG:C	2.48	0.51
33:CI:114:ALA:O	33:CI:115:ASP:HB2	2.11	0.51
5:AE:15:ILE:O	5:AE:16:ALA:HB2	2.10	0.51
5:BE:15:ILE:HD11	5:BE:112:ALA:HB1	1.92	0.51
39:DO:7:ARG:HD2	39:DO:97:PHE:CZ	2.46	0.51
25:DA:2681:C:C4	25:DA:2724:U:C5	2.99	0.51
44:DT:29:THR:OG1	44:DT:86:THR:HG22	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1559:U:C3'	25:CA:1560:G:H5'	2.41	0.51
25:CA:627:A:C6	25:CA:637:A:C8	2.99	0.51
17:BQ:59:GLU:OE2	17:BQ:76:ARG:HD3	2.10	0.51
25:CA:2642:G:N2	25:CA:2773:C:C2	2.78	0.51
25:CA:2294:G:H2'	25:CA:2295:C:H6	1.75	0.51
6:AF:37:HIS:N	6:AF:37:HIS:CD2	2.79	0.51
33:DI:12:VAL:CG2	33:DI:16:MET:HB2	2.41	0.51
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.45	0.51
1:BA:1275:A:C5	1:BA:1276:G:C5	2.99	0.51
1:BA:1275:A:C5	1:BA:1276:G:C8	2.98	0.51
25:DA:2204:G:C5	25:DA:2205:A:N7	2.79	0.51
25:DA:2204:G:C4	25:DA:2205:A:N7	2.79	0.51
25:DA:2196:C:H2'	25:DA:2196:C:O2	2.11	0.51
2:BB:207:ARG:O	2:BB:211:LEU:N	2.44	0.51
32:DH:60:GLU:HA	32:DH:60:GLU:OE2	2.11	0.51
25:DA:2042:A:H2'	25:DA:2043:C:H5'	1.93	0.51
25:DA:1760:C:C2'	25:DA:1761:C:H5'	2.40	0.51
4:AD:49:ASP:O	4:AD:53:GLN:CB	2.58	0.51
33:CI:105:LEU:HD23	33:CI:108:ILE:HG21	1.93	0.51
29:DE:130:LYS:O	29:DE:131:THR:C	2.49	0.51
20:BT:28:ARG:HA	20:BT:31:ILE:HD12	1.93	0.51
25:CA:2895:G:H2'	25:CA:2896:C:C6	2.46	0.51
4:AD:16:THR:HG22	4:AD:17:ASP:C	2.30	0.51
4:AD:61:ARG:HG2	4:AD:71:PHE:HD2	1.71	0.51
10:BJ:71:LEU:O	10:BJ:72:ARG:CG	2.59	0.51
2:AB:18:GLN:HG2	2:AB:189:ASN:ND2	2.24	0.51
12:BL:49:ARG:HG3	12:BL:89:LEU:HD11	1.93	0.51
4:AD:131:ILE:CD1	4:AD:134:TYR:N	2.73	0.51
34:DJ:3:THR:CG2	34:DJ:4:PHE:N	2.73	0.51
27:DC:141:HIS:HB3	27:DC:194:VAL:HG12	1.92	0.51
3:AC:41:TYR:CD1	3:AC:42:LEU:CD1	2.94	0.51
1:AA:1533:C:C6	1:AA:1533:C:OP2	2.64	0.51
50:DZ:1:ALA:HA	50:DZ:2:LYS:HE2	1.93	0.51
19:AS:70:LEU:O	19:AS:70:LEU:HD13	2.11	0.51
33:CI:57:VAL:HG11	33:CI:59:THR:OG1	2.11	0.51
30:CF:48:LEU:HA	30:CF:51:ASN:CG	2.31	0.51
9:BI:88:GLU:HG3	9:BI:89:TYR:H	1.75	0.51
7:AG:110:ARG:HD2	7:AG:122:GLU:HG2	1.92	0.51
3:AC:166:TRP:O	3:AC:167:TYR:HD1	1.94	0.51
25:CA:2851:A:N7	25:CA:2852:G:N7	2.58	0.51
33:DI:98:GLY:C	33:DI:137:LEU:HA	2.31	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:14:ALA:HB3	33:DI:50:LYS:HA	1.92	0.51
8:AH:46:GLU:O	8:AH:47:ASP:HB2	2.11	0.51
15:BO:38:LEU:HD12	15:BO:41:HIS:HB2	1.92	0.51
25:DA:2769:U:C2'	25:DA:2770:G:H5'	2.41	0.51
13:AM:9:PRO:O	13:AM:10:ASP:HB2	2.11	0.51
37:DM:49:ALA:CB	37:DM:124:LEU:CD2	2.89	0.51
27:CC:120:ASP:OD1	27:CC:120:ASP:N	2.44	0.51
4:BD:170:LEU:HD12	4:BD:170:LEU:H	1.75	0.51
12:BL:13:ARG:C	12:BL:14:LYS:O	2.47	0.51
30:DF:106:ALA:HB1	30:DF:136:ILE:O	2.11	0.51
54:D3:10:ALA:C	54:D3:12:ARG:H	2.15	0.51
4:BD:45:PRO:O	4:BD:46:ARG:C	2.50	0.51
4:AD:195:ASN:O	4:AD:198:LEU:HB2	2.11	0.51
31:CG:127:GLN:HE21	31:CG:127:GLN:HA	1.76	0.51
34:DJ:58:ASN:HA	34:DJ:126:ALA:O	2.10	0.51
25:DA:269:C:H2'	25:DA:270:A:C5'	2.40	0.51
31:DG:88:LEU:N	31:DG:88:LEU:CD1	2.74	0.51
1:AA:842:U:H3'	1:AA:843:U:C5'	2.41	0.51
30:CF:105:ILE:HG13	30:CF:106:ALA:N	2.25	0.51
25:CA:2578:G:OP2	25:CA:2578:G:H4'	2.10	0.51
8:BH:21:LYS:HA	8:BH:21:LYS:HE2	1.91	0.51
29:DE:15:SER:HB2	29:DE:18:THR:HB	1.91	0.51
25:DA:581:C:OP1	41:DQ:32:ARG:HB2	2.10	0.51
54:D3:37:THR:HA	54:D3:40:LYS:HE3	1.92	0.51
1:AA:570:G:H5"	1:AA:571:U:OP2	2.10	0.51
1:BA:1242:G:C2'	1:BA:1243:C:H5'	2.39	0.51
25:DA:2074:U:H2'	25:DA:2075:U:C6	2.46	0.51
10:BJ:17:LEU:HA	10:BJ:20:GLN:HG3	1.93	0.51
2:BB:166:ASP:OD2	2:BB:190:SER:HA	2.11	0.51
2:BB:14:HIS:O	2:BB:16:GLY:N	2.44	0.51
25:CA:1809:A:H2'	25:CA:1810:A:C8	2.45	0.51
34:CJ:21:THR:HA	34:CJ:61:LYS:HB3	1.92	0.51
25:DA:999:U:P	60:DA:3362:HOH:O	2.69	0.51
34:CJ:4:PHE:CD1	34:CJ:4:PHE:C	2.84	0.51
37:CM:21:ALA:HB1	37:CM:100:LYS:HG2	1.93	0.51
25:DA:292:U:C4	25:DA:293:U:C5	2.99	0.51
30:CF:29:ARG:O	30:CF:158:THR:HG23	2.11	0.51
25:DA:2602:A:H4'	25:DA:2603:G:O5'	2.11	0.51
25:DA:2422:C:C4	25:DA:2424:C:C4	2.99	0.51
2:BB:150:ILE:O	2:BB:151:LYS:C	2.49	0.51
25:DA:1095:A:C2	33:DI:29:GLN:HG2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1394:U:H4'	25:DA:1603:A:H4'	1.93	0.51
2:AB:141:GLU:O	2:AB:145:ASN:OD1	2.29	0.51
25:DA:2194:U:C2	25:DA:2195:U:C6	2.99	0.51
3:BC:149:LYS:O	3:BC:200:TRP:HE3	1.94	0.51
5:BE:45:VAL:HG13	5:BE:116:VAL:HG23	1.93	0.51
5:BE:96:GLN:O	5:BE:122:VAL:HA	2.11	0.51
25:CA:1753:G:OP1	40:CP:92:ARG:HD3	2.10	0.51
36:DL:110:VAL:CG2	36:DL:127:VAL:HG22	2.40	0.51
13:AM:33:LEU:HD23	13:AM:38:ILE:HB	1.93	0.51
25:DA:1446:C:O2'	25:DA:1447:C:H5'	2.10	0.51
1:AA:429:U:OP2	4:AD:31:CYS:O	2.29	0.51
25:DA:2794:C:H2'	25:DA:2794:C:O2	2.09	0.51
22:AV:59:U:H2'	22:AV:60:U:C6	2.46	0.51
1:BA:96:U:O2'	1:BA:97:G:H5'	2.11	0.51
25:DA:1335:C:C2'	25:DA:1336:A:H5'	2.42	0.51
1:AA:451:A:H61	1:AA:481:G:C5'	2.23	0.51
31:DG:94:ARG:O	31:DG:95:ALA:HB2	2.11	0.51
1:BA:1540:U:O2'	21:BU:17:ARG:HG2	2.11	0.51
1:BA:1130:A:H1'	1:BA:1146:A:C2	2.45	0.51
1:BA:919:A:O2'	1:BA:920:U:H5'	2.11	0.51
25:CA:2139:U:O2'	25:CA:2140:G:H5'	2.11	0.51
14:AN:3:GLN:HA	14:AN:6:LYS:CE	2.40	0.51
36:CL:127:VAL:CG1	36:CL:132:ARG:HB2	2.41	0.51
1:AA:1439:G:C6	1:AA:1440:U:C4	2.99	0.51
1:BA:1411:C:H2'	1:BA:1412:C:H6	1.76	0.51
25:CA:1735:A:N3	25:CA:1736:U:C6	2.78	0.51
11:AK:95:THR:O	11:AK:99:LEU:HD23	2.11	0.51
25:CA:1483:G:C2	25:CA:1507:C:C2	2.99	0.51
25:CA:1277:G:H5'	38:CN:20:MET:HE2	1.93	0.51
1:AA:109:A:C8	1:AA:326:G:H2'	2.46	0.51
1:AA:446:G:C2	1:AA:489:C:C2	2.98	0.51
33:CI:66:PHE:HD2	33:CI:66:PHE:N	2.08	0.51
1:AA:1057:G:O2'	1:AA:1058:G:H5'	2.10	0.51
25:CA:151:C:OP1	25:CA:1359:A:O2'	2.28	0.51
49:CY:23:ARG:HA	49:CY:27:ASN:ND2	2.26	0.51
27:DC:123:ILE:CD1	27:DC:135:PRO:CD	2.89	0.51
25:DA:2511:U:C5	25:DA:2512:C:C5	2.99	0.51
1:AA:353:A:C2'	1:AA:354:G:OP2	2.59	0.51
44:DT:3:ARG:HB3	44:DT:6:ARG:HB3	1.93	0.51
8:AH:6:ILE:HG23	8:AH:10:LEU:HD21	1.93	0.51
6:BF:11:HIS:ND1	6:BF:12:PRO:HD2	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:343:C:C2'	25:DA:344:A:H5'	2.41	0.51
26:CB:20:G:H2'	26:CB:21:G:C5'	2.41	0.51
1:BA:328:C:C2'	1:BA:328:C:O2	2.54	0.51
1:BA:5:U:C5	1:BA:5:U:OP1	2.64	0.51
25:CA:871:U:H2'	25:CA:872:U:C6	2.45	0.51
25:DA:622:G:H2'	25:DA:623:C:C6	2.45	0.51
42:DR:82:HIS:O	42:DR:82:HIS:CG	2.62	0.51
25:CA:1547:C:C6	25:CA:1547:C:H3'	2.46	0.51
26:CB:111:U:H2'	26:CB:112:G:C8	2.46	0.51
25:DA:269:C:C2'	25:DA:270:A:H5'	2.41	0.51
7:BG:87:PRO:HB3	7:BG:144:ALA:HB1	1.93	0.51
1:AA:1444:U:O2	1:AA:1444:U:C2'	2.59	0.51
1:BA:655:A:O2'	1:BA:755:G:H5'	2.11	0.51
1:AA:41:G:O2'	1:AA:42:G:H5'	2.11	0.51
3:BC:114:LEU:O	3:BC:116:ALA:N	2.44	0.51
42:CR:64:VAL:HG22	42:CR:96:VAL:HA	1.93	0.51
37:CM:28:PHE:HB3	37:CM:64:TRP:CE2	2.46	0.51
27:CC:259:ASN:O	27:CC:260:LYS:HB2	2.10	0.51
1:AA:1255:G:O2'	1:AA:1258:G:H1'	2.11	0.51
1:AA:470:C:N3	1:AA:471:U:C5	2.79	0.51
25:DA:2663:G:C2'	25:DA:2664:G:H5'	2.40	0.51
25:CA:1678:A:H2'	25:CA:1679:A:O4'	2.10	0.51
25:CA:435:C:C2'	25:CA:436:C:H5'	2.41	0.51
25:CA:1318:U:H2'	25:CA:1319:C:C6	2.46	0.51
1:AA:33:A:H2'	1:AA:34:C:C6	2.46	0.51
28:CD:172:VAL:HG21	28:CD:194:PRO:HD3	1.92	0.51
1:BA:806:C:H2'	1:BA:807:A:C8	2.46	0.51
1:BA:443:C:O2'	1:BA:444:G:H5'	2.11	0.51
45:DU:82:VAL:HG12	45:DU:83:GLY:N	2.25	0.51
1:BA:130:A:OP1	17:BQ:64:ARG:HD2	2.11	0.51
25:CA:2248:C:H5"	25:CA:2249:U:OP2	2.11	0.51
27:CC:244:VAL:HG12	27:CC:250:GLN:HA	1.93	0.51
25:CA:2027:G:C5	25:CA:2028:U:C5	2.99	0.51
25:CA:1826:G:C5	25:CA:1827:U:C5	2.99	0.51
2:AB:127:LYS:HG3	2:AB:128:LEU:N	2.26	0.51
10:AJ:87:LEU:HD13	10:AJ:87:LEU:C	2.32	0.51
7:AG:20:GLU:HA	7:AG:20:GLU:OE2	2.11	0.51
1:AA:441:A:H2'	1:AA:442:G:H5'	1.93	0.51
1:AA:809:G:H2'	1:AA:810:C:O5'	2.11	0.51
12:BL:73:LEU:HD21	12:BL:103:CYS:SG	2.51	0.50
13:BM:28:ARG:HG3	13:BM:62:PHE:HE2	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DT:61:LEU:C	44:DT:61:LEU:HD12	2.31	0.50
49:DY:18:LEU:HD21	49:DY:22:LEU:CD2	2.41	0.50
25:CA:1088:A:N3	25:CA:1088:A:H3'	2.26	0.50
1:AA:1215:G:C2'	1:AA:1216:A:H5'	2.41	0.50
1:AA:1226:C:N4	13:AM:102:LYS:HG3	2.26	0.50
13:BM:6:ILE:HG12	30:DF:111:ARG:HD3	1.93	0.50
21:BU:40:PRO:O	21:BU:44:ARG:HB2	2.11	0.50
5:BE:80:LEU:HA	5:BE:146:MET:CE	2.41	0.50
38:DN:52:ILE:HG21	38:DN:94:TYR:CD2	2.46	0.50
19:BS:13:HIS:CD2	19:BS:13:HIS:H	2.29	0.50
30:DF:65:LEU:HD12	30:DF:66:ILE:N	2.26	0.50
39:DO:98:GLN:O	39:DO:100:HIS:N	2.44	0.50
1:AA:413:G:N1	4:AD:32:LYS:CD	2.74	0.50
5:AE:80:LEU:HD12	5:AE:146:MET:SD	2.51	0.50
1:AA:98:A:H2'	1:AA:99:C:C6	2.46	0.50
25:DA:1336:A:C2'	25:DA:1337:G:O5'	2.59	0.50
31:DG:144:ALA:O	31:DG:145:ALA:C	2.49	0.50
37:DM:107:GLY:O	37:DM:108:VAL:HG22	2.11	0.50
1:BA:465:A:C6	1:BA:466:A:C5	2.99	0.50
1:BA:1075:U:H2'	1:BA:1076:U:H6	1.76	0.50
2:BB:95:TRP:CE3	2:BB:96:LEU:C	2.85	0.50
35:CK:13:ASN:ND2	35:CK:98:ARG:HG3	2.26	0.50
25:DA:2126:A:C5	25:DA:2162:G:C6	2.98	0.50
1:BA:1099:G:C5	1:BA:1100:C:C5	2.99	0.50
6:BF:45:ARG:O	6:BF:56:LYS:HA	2.11	0.50
27:CC:42:ARG:HG2	27:CC:42:ARG:HH11	1.73	0.50
1:BA:934:C:H5"	60:BA:1828:HOH:O	2.11	0.50
43:DS:59:GLU:HA	43:DS:64:ALA:HA	1.92	0.50
25:CA:1734:G:C4	25:CA:1735:A:N7	2.79	0.50
25:DA:1122:G:C2'	25:DA:1122:G:N3	2.70	0.50
25:CA:137:U:O2'	25:CA:138:U:P	2.70	0.50
25:DA:122:G:H2'	25:DA:123:G:H5'	1.92	0.50
6:AF:18:VAL:CB	6:AF:19:PRO:CD	2.87	0.50
1:BA:198:G:C4	1:BA:199:A:C8	2.98	0.50
23:BX:8:A:N6	23:BX:9:G:C6	2.79	0.50
25:DA:849:A:C4	25:DA:930:G:N2	2.79	0.50
1:BA:673:A:H2'	1:BA:674:G:O4'	2.11	0.50
29:CE:118:LEU:CD1	29:CE:188:MET:HG3	2.41	0.50
1:AA:240:G:OP1	1:AA:240:G:H4'	2.11	0.50
2:BB:21:TYR:O	2:BB:22:TRP:C	2.48	0.50
1:AA:35:G:C4	1:AA:36:C:C5	2.98	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2120:G:C2'	25:CA:2121:G:H5'	2.41	0.50
6:AF:88:MET:HB2	18:AR:63:TYR:HE2	1.75	0.50
14:BN:35:ALA:CB	14:BN:41:ARG:HB2	2.41	0.50
13:AM:10:ASP:CG	13:AM:11:HIS:N	2.65	0.50
25:DA:2403:C:C2	25:DA:2404:U:C6	2.99	0.50
3:BC:66:THR:HG23	3:BC:101:ASN:HB2	1.93	0.50
3:BC:19:SER:O	14:BN:94:PRO:HB3	2.11	0.50
18:AR:54:LEU:HD11	18:AR:58:ILE:HD11	1.93	0.50
25:DA:323:C:C4	25:DA:333:G:C8	2.99	0.50
10:AJ:49:PHE:HD1	10:AJ:49:PHE:N	2.09	0.50
34:DJ:140:LEU:C	34:DJ:140:LEU:HD12	2.32	0.50
1:AA:398:U:O2'	1:AA:399:G:H5'	2.11	0.50
4:BD:77:GLU:OE1	4:BD:77:GLU:CA	2.60	0.50
40:DP:105:LYS:HA	40:DP:108:ARG:CD	2.42	0.50
25:DA:1809:A:H2'	25:DA:1810:A:C8	2.44	0.50
39:CO:56:LYS:O	39:CO:58:ILE:N	2.43	0.50
10:AJ:6:ILE:CD1	10:AJ:76:ILE:HB	2.41	0.50
8:BH:19:ALA:O	8:BH:21:LYS:N	2.44	0.50
1:AA:298:A:N6	1:AA:299:G:N1	2.58	0.50
1:BA:1237:C:H2'	1:BA:1238:A:OP1	2.11	0.50
11:BK:107:THR:HG22	11:BK:108:ASN:CG	2.32	0.50
1:AA:1461:G:H2'	1:AA:1462:C:O4'	2.11	0.50
1:BA:1171:A:H2'	1:BA:1172:C:C6	2.45	0.50
25:DA:1227:G:O2'	25:DA:1228:G:H5'	2.11	0.50
25:DA:1833:C:H2'	25:DA:1834:U:H6	1.76	0.50
1:AA:233:C:H2'	1:AA:234:C:H6	1.75	0.50
25:CA:1106:G:C6	25:CA:1107:G:C5	3.00	0.50
25:DA:1878:G:O2'	25:DA:1879:C:H5'	2.11	0.50
25:DA:2714:G:C2'	25:DA:2715:C:H5'	2.41	0.50
55:C4:10:LEU:N	55:C4:10:LEU:HD23	2.24	0.50
25:DA:1600:C:O2'	25:DA:1601:G:H5'	2.10	0.50
25:CA:2656:U:H2'	25:CA:2656:U:O2	2.10	0.50
21:AU:27:VAL:HG12	21:AU:30:GLU:OE1	2.11	0.50
39:DO:9:ARG:HG3	39:DO:10:ARG:N	2.26	0.50
25:CA:2581:G:C4	25:CA:2610:C:C5	2.99	0.50
25:CA:298:G:H5"	25:CA:299:A:OP1	2.11	0.50
25:DA:645:C:O2'	25:DA:646:U:O5'	2.29	0.50
25:CA:2371:G:O2'	52:C1:45:HIS:HD2	1.93	0.50
35:CK:43:ILE:HD12	35:CK:56:ASP:HB2	1.93	0.50
31:DG:162:ARG:NH2	31:DG:168:VAL:HG21	2.25	0.50
57:DW:53:HIS:N	57:DW:53:HIS:CD2	2.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:258:G:H2'	1:BA:259:G:O4'	2.12	0.50
1:BA:1309:G:C6	1:BA:1329:A:N1	2.79	0.50
1:BA:1350:A:OP2	9:BI:119:LYS:HD3	2.10	0.50
9:BI:126:PHE:CD2	9:BI:126:PHE:C	2.81	0.50
44:DT:34:VAL:HG22	44:DT:81:LYS:HB3	1.94	0.50
25:CA:1060:U:O4'	25:CA:1062:G:C5'	2.59	0.50
2:AB:147:LEU:C	2:AB:150:ILE:HG22	2.32	0.50
25:DA:2210:U:O2	25:DA:2212:A:C8	2.65	0.50
13:BM:56:ARG:O	13:BM:59:VAL:HG13	2.11	0.50
32:DH:4:ILE:O	32:DH:36:ALA:HA	2.11	0.50
1:AA:1123:U:O3'	10:AJ:38:GLY:HA3	2.10	0.50
16:BP:43:ALA:O	16:BP:44:SER:CB	2.58	0.50
5:BE:104:ILE:H	5:BE:121:ASN:HA	1.76	0.50
20:BT:69:ASN:C	20:BT:71:ALA:N	2.62	0.50
1:AA:1302:C:C6	13:AM:16:ILE:HD13	2.46	0.50
25:DA:1541:C:O2'	25:DA:1542:U:H5'	2.11	0.50
1:BA:1126:U:H1'	1:BA:1281:C:C6	2.46	0.50
28:DD:103:ASP:OD2	28:DD:104:VAL:N	2.45	0.50
4:AD:24:VAL:C	4:AD:25:ARG:O	2.49	0.50
4:AD:57:LYS:HD2	4:AD:57:LYS:C	2.32	0.50
1:AA:22:G:H2'	1:AA:23:C:O4'	2.11	0.50
5:AE:102:THR:HG22	5:AE:103:GLY:H	1.73	0.50
22:AV:52:G:N3	22:AV:52:G:H2'	2.26	0.50
1:AA:77:A:H2'	1:AA:78:A:N7	2.26	0.50
20:AT:54:GLN:HB3	20:AT:55:PRO:HD3	1.94	0.50
25:CA:2304:G:H2'	25:CA:2305:U:H5"	1.92	0.50
1:AA:1287:A:C6	1:AA:1288:A:C6	2.98	0.50
1:AA:1241:G:C4	1:AA:1242:G:C8	2.99	0.50
1:AA:1306:A:C8	1:AA:1307:U:C5	2.99	0.50
10:AJ:52:LEU:HD21	10:AJ:59:LYS:HA	1.93	0.50
2:BB:146:SER:OG	2:BB:147:LEU:HG	2.11	0.50
10:BJ:36:VAL:HG22	10:BJ:76:ILE:HG23	1.93	0.50
25:DA:278:A:H2'	25:DA:278:A:N3	2.25	0.50
25:CA:1869:G:C2'	25:CA:1870:C:H5'	2.41	0.50
1:AA:830:G:C2'	1:AA:831:A:H5'	2.41	0.50
1:BA:594:U:C2'	1:BA:595:A:H8	2.25	0.50
3:AC:77:GLY:O	3:AC:79:LYS:N	2.44	0.50
25:DA:1194:A:C2'	25:DA:1195:G:O5'	2.59	0.50
1:BA:108:G:C6	20:BT:9:ARG:HG2	2.45	0.50
7:BG:27:ASN:O	7:BG:30:MET:HB3	2.11	0.50
14:AN:13:VAL:O	14:AN:16:ALA:HB3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:763:G:C5	1:AA:764:C:C5	3.00	0.50
25:DA:2678:C:O5'	25:DA:2678:C:H6	1.93	0.50
5:AE:14:LEU:O	5:AE:14:LEU:HD12	2.11	0.50
1:AA:1380:U:C4	7:AG:2:ARG:HD3	2.47	0.50
34:DJ:117:ALA:O	34:DJ:120:ARG:N	2.44	0.50
25:CA:658:U:C2'	25:CA:659:G:O5'	2.60	0.50
25:CA:305:C:H6	25:CA:305:C:O5'	1.95	0.50
45:CU:41:VAL:O	45:CU:59:GLU:HA	2.11	0.50
1:BA:890:G:OP1	1:BA:890:G:H4'	2.11	0.50
29:DE:2:GLU:OE1	29:DE:13:THR:HA	2.10	0.50
29:CE:5:LEU:HD12	29:CE:5:LEU:N	2.25	0.50
31:DG:26:LYS:HB3	31:DG:31:GLU:HG3	1.91	0.50
41:DQ:51:GLN:O	41:DQ:52:ARG:C	2.46	0.50
29:DE:145:ASP:O	29:DE:184:ASP:HB2	2.11	0.50
18:BR:35:SER:CB	18:BR:37:LYS:HD2	2.41	0.50
1:AA:155:A:C2	1:AA:167:A:C2	2.99	0.50
38:CN:67:PHE:O	38:CN:71:ARG:HA	2.10	0.50
25:DA:2457:U:C4	25:DA:2458:G:C6	2.99	0.50
29:CE:126:VAL:HG21	29:CE:133:LEU:HB2	1.93	0.50
25:CA:21:A:H2'	25:CA:22:C:O5'	2.11	0.50
52:C1:3:GLY:O	52:C1:4:ILE:HB	2.10	0.50
5:BE:19:ARG:HG2	5:BE:20:VAL:N	2.26	0.50
1:AA:537:G:OP1	12:AL:109:ARG:NH2	2.45	0.50
25:CA:1584:U:H3'	25:CA:1584:U:O2	2.11	0.50
25:DA:2055:C:H5'	25:DA:2056:G:H5"	1.93	0.50
1:BA:248:C:C4	1:BA:249:U:C5	2.99	0.50
41:DQ:57:ARG:HH21	41:DQ:91:ARG:CZ	2.23	0.50
21:AU:16:ARG:NH1	21:AU:19:LYS:CG	2.74	0.50
25:CA:1076:C:H2'	25:CA:1077:A:N9	2.26	0.50
2:AB:147:LEU:C	2:AB:150:ILE:CG2	2.79	0.50
1:AA:257:G:C2	1:AA:270:A:C2	3.00	0.50
17:AQ:21:VAL:CG2	17:AQ:22:VAL:N	2.74	0.50
1:AA:1151:A:O2'	1:AA:1152:A:P	2.69	0.50
41:DQ:85:ALA:CB	41:DQ:87:VAL:HG23	2.42	0.50
52:D1:42:VAL:HG12	52:D1:44:GLN:N	2.26	0.50
25:DA:2371:G:C2	25:DA:2372:U:C6	3.00	0.50
25:DA:2298:A:OP1	30:DF:70:ARG:HD2	2.11	0.50
2:BB:199:ILE:HD12	2:BB:199:ILE:N	2.26	0.50
2:BB:70:GLY:O	2:BB:92:ASN:HA	2.12	0.50
21:BU:44:ARG:O	21:BU:45:LYS:HB2	2.10	0.50
5:BE:113:VAL:CG2	5:BE:114:LEU:N	2.72	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:636:G:O2'	25:DA:638:G:H4'	2.11	0.50
25:DA:2111:U:N3	25:DA:2147:A:H2	2.09	0.50
25:DA:1467:U:N3	25:DA:1546:G:N2	2.59	0.50
37:DM:21:ALA:CB	37:DM:100:LYS:N	2.74	0.50
8:AH:52:GLY:HA3	8:AH:56:PRO:CA	2.35	0.50
22:AV:58:A:C2	22:AV:61:C:C6	2.99	0.50
1:BA:73:C:O2'	1:BA:74:A:P	2.70	0.50
1:BA:663:A:H2'	1:BA:664:G:O4'	2.12	0.50
20:BT:32:LYS:O	20:BT:34:VAL:N	2.44	0.50
25:DA:1902:C:H4'	27:DC:241:LYS:O	2.11	0.50
1:AA:451:A:O4'	1:AA:452:A:N3	2.44	0.50
31:DG:120:ILE:HD12	31:DG:134:GLY:HA3	1.93	0.50
25:CA:1414:C:C5	25:CA:1415:U:C4	2.99	0.50
25:CA:1589:U:C2'	25:CA:1589:U:O2	2.60	0.50
1:AA:1304:G:C5	1:AA:1305:G:N1	2.80	0.50
1:BA:1073:U:C4	1:BA:1074:G:N7	2.80	0.50
38:CN:45:ARG:HG2	38:CN:95:THR:HG21	1.93	0.50
28:DD:172:VAL:HG21	28:DD:194:PRO:HD3	1.93	0.50
2:AB:32:GLY:HA3	2:AB:38:HIS:CB	2.42	0.50
43:DS:28:LYS:HA	43:DS:70:LYS:HG3	1.91	0.50
25:DA:1023:U:C2'	25:DA:1024:G:H5'	2.42	0.50
25:DA:61:C:H6	25:DA:61:C:O5'	1.93	0.50
6:AF:21:MET:O	6:AF:22:ILE:C	2.47	0.50
29:CE:109:LEU:O	29:CE:110:SER:C	2.47	0.50
25:DA:1997:C:OP2	28:DD:129:THR:HB	2.12	0.50
1:BA:110:C:O2	1:BA:110:C:C2'	2.58	0.50
33:CI:3:LYS:CD	33:CI:4:VAL:H	2.24	0.50
1:BA:1372:U:H2'	1:BA:1373:G:O4'	2.11	0.50
25:DA:1562:U:O2	25:DA:1563:U:N1	2.44	0.50
1:AA:590:U:H2'	1:AA:591:U:C6	2.46	0.50
10:BJ:48:ARG:HG3	10:BJ:48:ARG:HH11	1.74	0.50
1:BA:158:G:C2	1:BA:159:G:C8	3.00	0.50
1:BA:158:G:N3	1:BA:159:G:C8	2.80	0.50
25:CA:592:A:O2'	54:C3:2:LYS:HA	2.12	0.50
1:AA:1513:A:H2'	1:AA:1514:G:C8	2.46	0.50
46:DV:51:GLN:CB	46:DV:56:PHE:CD2	2.94	0.50
25:DA:1429:G:C2'	25:DA:1430:G:O5'	2.60	0.50
15:BO:72:LYS:CA	15:BO:72:LYS:HE2	2.38	0.50
1:BA:5:U:OP1	1:BA:5:U:C6	2.64	0.50
56:DB:95:U:N3	56:DB:96:G:N7	2.60	0.50
29:CE:48:THR:C	29:CE:50:ALA:H	2.15	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DP:51:ASN:H	40:DP:51:ASN:HD22	1.59	0.50
25:CA:2502:G:C5'	25:CA:2503:A:H5"	2.41	0.50
25:CA:2691:C:O3'	25:CA:2871:U:H4'	2.11	0.50
25:CA:851:C:O2'	25:CA:852:U:H5'	2.12	0.50
25:DA:447:A:C2	25:DA:454:A:C8	3.00	0.50
32:CH:128:HIS:O	32:CH:144:VAL:N	2.44	0.50
25:DA:2121:G:N2	25:DA:2178:C:C2	2.79	0.50
25:DA:2796:U:H2'	25:DA:2797:U:H2'	1.93	0.50
1:AA:1385:G:C6	1:AA:1386:G:C5	2.99	0.50
43:DS:34:ASP:O	43:DS:37:THR:N	2.44	0.50
25:DA:359:G:H2'	25:DA:360:U:C5'	2.42	0.50
20:AT:46:ALA:O	20:AT:47:GLN:C	2.48	0.50
25:CA:71:A:H5"	25:CA:72:U:H2'	1.91	0.50
1:BA:439:U:C5	1:BA:440:C:C5	2.99	0.50
34:DJ:70:THR:HG22	34:DJ:90:GLU:OE1	2.12	0.50
25:DA:2695:U:O5'	25:DA:2695:U:H6	1.94	0.50
16:AP:12:LYS:HG2	16:AP:13:LYS:HG2	1.92	0.50
16:AP:22:ALA:HA	16:AP:33:ILE:HG13	1.93	0.50
27:CC:199:HIS:O	27:CC:202:ARG:HD3	2.12	0.50
25:DA:1109:C:O2	25:DA:1109:C:H2'	2.11	0.50
32:DH:84:ALA:HB3	32:DH:148:ALA:HB2	1.92	0.50
1:BA:433:G:C5	1:BA:434:U:C5	2.99	0.50
25:DA:998:C:P	41:DQ:91:ARG:HH22	2.34	0.50
12:BL:31:GLY:HA3	12:BL:54:VAL:CG1	2.41	0.50
1:BA:981:U:C6	1:BA:982:U:C6	3.00	0.50
25:DA:1080:A:C2	25:DA:1081:U:C6	3.00	0.50
33:DI:72:THR:HG23	33:DI:115:ASP:HB3	1.92	0.50
25:CA:784:G:H5'	60:CA:3316:HOH:O	2.10	0.50
1:AA:257:G:N3	1:AA:258:G:C8	2.79	0.50
1:AA:1279:G:H22	10:AJ:45:ARG:HE	1.60	0.50
8:AH:104:SER:HA	8:AH:109:VAL:HA	1.94	0.50
31:CG:8:VAL:CG1	31:CG:49:LEU:CB	2.83	0.50
5:BE:37:VAL:HG12	5:BE:116:VAL:HG21	1.93	0.50
36:DL:96:LYS:HD3	36:DL:103:ILE:HA	1.93	0.50
1:BA:1014:A:C4	19:BS:33:TRP:CZ3	2.99	0.50
56:DB:27:C:OP1	39:DO:34:HIS:NE2	2.45	0.50
39:DO:28:VAL:O	39:DO:95:SER:HB3	2.11	0.50
1:AA:622:A:C2'	1:AA:623:C:H5'	2.41	0.50
55:D4:18:LYS:HG3	55:D4:23:ILE:HD13	1.93	0.50
1:AA:439:U:C6	1:AA:440:C:H5	2.28	0.50
16:AP:73:ALA:O	16:AP:77:GLU:HB2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1585:C:C2'	25:CA:1586:A:C5'	2.89	0.50
25:DA:2469:A:H4'	37:DM:55:ARG:HD3	1.94	0.50
10:AJ:57:VAL:HG22	10:AJ:58:ASN:N	2.26	0.50
2:BB:129:THR:O	2:BB:130:LYS:HE2	2.11	0.50
25:DA:2531:A:H3'	25:DA:2532:G:H8	1.76	0.50
6:BF:81:ASN:HB3	6:BF:84:VAL:CG1	2.41	0.50
25:CA:1873:G:H2'	25:CA:1874:C:C6	2.47	0.50
2:AB:30:ILE:CD1	2:AB:38:HIS:CG	2.95	0.50
2:BB:83:ALA:O	2:BB:88:GLN:NE2	2.44	0.50
1:BA:595:A:N1	1:BA:641:U:C2	2.79	0.50
25:CA:1535:A:C5'	25:CA:1536:C:H5	2.25	0.50
25:DA:1142:A:H4'	34:DJ:27:ARG:NH2	2.27	0.50
15:BO:3:SER:CB	15:BO:6:ALA:HB3	2.38	0.50
50:DZ:35:VAL:CG2	50:DZ:37:ARG:CZ	2.90	0.50
25:DA:2131:U:H5'	25:DA:2132:U:C5'	2.40	0.50
1:BA:675:A:H1'	11:BK:117:HIS:CG	2.47	0.50
11:BK:86:LYS:HA	11:BK:113:THR:HG22	1.94	0.50
14:BN:2:LYS:N	60:BN:205:HOH:O	2.44	0.50
6:BF:25:TYR:O	6:BF:26:THR:C	2.49	0.50
43:CS:66:ILE:CG2	43:CS:66:ILE:O	2.59	0.50
25:DA:88:G:C6	25:DA:89:A:N7	2.80	0.50
26:CB:47:C:OP2	39:CO:3:LYS:CE	2.59	0.50
1:AA:540:G:C2'	1:AA:541:G:H5'	2.41	0.50
27:CC:128:THR:C	27:CC:129:LEU:CD2	2.79	0.50
1:BA:280:C:H4'	1:BA:281:G:OP2	2.11	0.50
25:DA:2729:G:H2'	25:DA:2730:C:H6	1.77	0.50
15:BO:69:LEU:C	15:BO:69:LEU:CD2	2.80	0.50
15:BO:87:ARG:O	15:BO:87:ARG:CD	2.60	0.50
31:CG:148:ARG:NH2	31:CG:166:GLU:OE2	2.44	0.50
25:DA:223:A:C5	25:DA:422:A:C8	2.98	0.50
28:DD:148:GLN:HB2	28:DD:152:PRO:CG	2.41	0.50
1:BA:208:U:C5	1:BA:210:C:H6	2.29	0.50
4:BD:172:VAL:O	4:BD:179:GLY:HA2	2.11	0.50
25:DA:1731:G:H2'	25:DA:1732:C:O5'	2.11	0.50
25:DA:2849:U:N3	25:DA:2867:G:O4'	2.44	0.50
37:DM:31:PHE:HD2	37:DM:132:THR:HG23	1.76	0.50
25:CA:622:G:H2'	25:CA:623:C:H6	1.77	0.50
25:CA:898:C:C4	25:CA:899:A:N7	2.79	0.50
4:BD:69:ARG:O	4:BD:72:ARG:HB2	2.11	0.50
25:DA:2861:U:C2	25:DA:2862:G:C8	3.00	0.50
25:DA:1810:A:H2'	25:DA:1811:G:O4'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CP:17:PRO:HG3	40:CP:83:ILE:O	2.11	0.50
25:CA:2392:A:C2	36:CL:55:MET:HE3	2.46	0.50
1:BA:1058:G:C2'	1:BA:1059:C:O5'	2.60	0.50
16:BP:80:LYS:HB2	16:BP:80:LYS:NZ	2.26	0.50
28:DD:57:ALA:O	28:DD:60:VAL:CG1	2.59	0.50
29:CE:176:ASP:OD1	29:CE:178:VAL:N	2.44	0.50
25:DA:1853:A:N3	25:DA:2233:U:O2'	2.43	0.50
25:DA:559:G:H2'	25:DA:560:C:O4'	2.12	0.50
29:DE:12:LEU:HD23	29:DE:13:THR:N	2.27	0.50
25:CA:1470:A:H2'	25:CA:1471:G:O4'	2.12	0.50
31:CG:154:GLU:HG2	31:CG:155:PRO:N	2.27	0.50
42:DR:29:THR:CG2	42:DR:29:THR:O	2.59	0.50
3:AC:129:PHE:CE1	3:AC:130:ARG:HD2	2.47	0.50
25:CA:2714:G:C2'	25:CA:2715:C:H5'	2.42	0.50
1:AA:1470:U:O2'	1:AA:1471:U:H5'	2.11	0.50
25:CA:1106:G:N2	25:CA:1107:G:H1'	2.26	0.50
47:CW:6:THR:O	47:CW:7:ARG:HB2	2.12	0.50
10:BJ:15:HIS:CG	10:BJ:16:ARG:N	2.79	0.50
39:CO:12:THR:O	39:CO:13:ARG:C	2.46	0.50
25:CA:74:A:H4'	25:CA:75:G:OP2	2.10	0.50
25:DA:1423:G:OP1	25:DA:1492:G:O2'	2.27	0.50
1:BA:476:U:H2'	1:BA:477:C:C6	2.46	0.50
25:DA:1266:G:OP1	51:D0:15:ARG:NE	2.44	0.50
39:DO:72:ALA:HA	39:DO:109:ALA:CB	2.41	0.50
25:CA:920:A:C2	25:CA:921:C:C2	2.99	0.50
25:CA:923:G:H4'	47:CW:25:GLU:HG3	1.93	0.50
1:AA:667:G:H4'	15:AO:50:HIS:ND1	2.26	0.50
35:CK:48:PRO:O	35:CK:49:ARG:HG3	2.11	0.50
27:CC:43:ASN:HB3	27:CC:49:THR:HG21	1.93	0.50
25:CA:763:G:C4	25:CA:765:C:C6	3.00	0.50
35:DK:86:LEU:HD23	35:DK:86:LEU:N	2.26	0.50
27:DC:250:GLN:HA	27:DC:250:GLN:HE21	1.77	0.50
45:CU:101:THR:HG22	45:CU:102:ILE:N	2.26	0.50
25:DA:5:A:H2'	25:DA:6:A:C8	2.46	0.50
22:BV:1:G:C6	22:BV:73:A:C2	2.99	0.50
19:AS:19:GLU:C	19:AS:21:ALA:H	2.14	0.50
13:BM:32:ILE:CD1	13:BM:58:GLU:HB3	2.42	0.50
25:DA:1401:G:C4	25:DA:1402:U:C6	3.00	0.50
11:AK:87:GLY:O	11:AK:92:ARG:HD2	2.10	0.50
33:CI:21:PRO:HB2	33:CI:22:PRO:CD	2.30	0.50
1:AA:960:U:O2'	1:AA:1223:C:H4'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:52:ASN:OD1	19:AS:55:GLN:O	2.30	0.50
42:DR:6:GLN:HB3	42:DR:37:GLU:HB3	1.93	0.50
25:DA:2207:C:H2'	25:DA:2208:C:C6	2.46	0.50
32:DH:31:VAL:HG12	32:DH:32:PRO:HD3	1.92	0.50
31:CG:49:LEU:HD12	31:CG:71:LEU:HD23	1.94	0.50
21:AU:24:LYS:HD2	21:AU:25:ALA:H	1.75	0.50
34:DJ:31:GLU:CG	34:DJ:142:ILE:HD11	2.36	0.50
25:CA:284:U:H2'	25:CA:285:G:H8	1.76	0.50
25:CA:2311:A:C8	30:CF:76:PHE:CG	2.99	0.50
43:DS:84:ARG:HB2	43:DS:96:ILE:HG13	1.90	0.50
33:CI:79:LEU:HA	33:CI:83:ALA:HB3	1.94	0.50
1:AA:1075:U:O2'	1:AA:1076:U:H5'	2.11	0.50
25:DA:2835:A:C2	25:DA:2879:A:N7	2.80	0.50
25:DA:1782:U:H2'	25:DA:2608:G:O2'	2.11	0.50
1:AA:390:U:H2'	1:AA:391:G:H8	1.75	0.50
1:AA:390:U:H2'	1:AA:391:G:O5'	2.11	0.50
31:DG:108:PHE:CE2	31:DG:151:ARG:CZ	2.94	0.50
9:BI:37:TYR:CD2	9:BI:38:PHE:CE2	3.00	0.50
1:AA:1300:G:C6	1:AA:1334:G:C5	3.00	0.50
2:BB:103:TRP:HZ3	2:BB:107:ARG:CZ	2.23	0.50
27:DC:150:GLY:O	27:DC:151:GLY:O	2.29	0.50
16:BP:38:PHE:C	16:BP:38:PHE:CD1	2.84	0.50
6:BF:81:ASN:HB3	6:BF:84:VAL:HG12	1.92	0.50
1:AA:1492:A:H3'	1:AA:1493:A:H8	1.75	0.50
30:DF:45:ASP:HB3	30:DF:48:LEU:CB	2.41	0.50
12:BL:42:LYS:HE3	12:BL:43:LYS:CE	2.42	0.50
14:BN:64:CYS:O	14:BN:66:GLN:N	2.44	0.50
25:DA:415:A:H2'	25:DA:416:U:H6	1.76	0.50
31:DG:67:ALA:O	31:DG:68:ARG:C	2.50	0.50
25:DA:1360:G:H3'	25:DA:1361:G:H8	1.77	0.50
14:AN:43:ASN:CA	14:AN:45:VAL:HG22	2.41	0.50
4:BD:12:ARG:HB3	4:BD:37:PRO:HG3	1.91	0.50
25:DA:2757:A:C2	25:DA:2758:A:C8	3.00	0.50
30:DF:28:PRO:O	30:DF:29:ARG:HB3	2.10	0.50
1:BA:1203:C:C5'	14:BN:67:THR:HB	2.41	0.50
6:BF:26:THR:O	6:BF:27:ALA:O	2.29	0.50
8:AH:110:MET:CE	8:AH:115:ALA:N	2.74	0.50
25:CA:1124:G:H1'	55:C4:38:GLY:OXT	2.11	0.50
15:BO:24:THR:O	15:BO:25:GLU:C	2.50	0.50
1:AA:201:G:N1	1:AA:217:C:C2	2.80	0.50
27:DC:173:LEU:CD2	27:DC:183:VAL:HG21	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:262:A:N6	1:AA:263:A:N6	2.60	0.50
26:CB:20:G:C2'	26:CB:21:G:H5'	2.42	0.50
30:DF:135:ILE:C	30:DF:137:PHE:N	2.64	0.50
25:DA:622:G:O2'	25:DA:623:C:H5'	2.11	0.50
25:CA:1547:C:C3'	25:CA:1547:C:C6	2.95	0.50
34:DJ:15:TRP:CZ2	34:DJ:135:GLN:HG2	2.46	0.50
1:BA:1083:U:C5	1:BA:1084:G:C6	2.97	0.50
26:CB:103:U:O2'	26:CB:104:A:H5'	2.12	0.50
25:DA:2103:C:H2'	25:DA:2104:C:C6	2.45	0.50
40:CP:80:VAL:HG11	40:CP:83:ILE:CD1	2.41	0.50
8:BH:33:VAL:O	8:BH:36:ALA:N	2.45	0.50
25:CA:2194:U:H2'	25:CA:2194:U:O2	2.12	0.50
5:AE:37:VAL:HG23	5:AE:47:PHE:HA	1.92	0.50
7:BG:105:GLU:O	7:BG:109:LYS:HG2	2.11	0.50
25:DA:590:A:H2'	25:DA:591:U:C6	2.46	0.50
1:BA:815:A:H4'	1:BA:817:C:C4	2.46	0.50
25:CA:2216:G:H2'	25:CA:2217:G:C8	2.46	0.50
32:DH:14:SER:C	32:DH:15:LEU:CD2	2.79	0.50
25:DA:678:C:H2'	25:DA:679:C:C6	2.46	0.50
1:BA:908:A:H2'	1:BA:909:A:H8	1.76	0.50
54:C3:54:LEU:O	54:C3:58:ILE:CD1	2.60	0.50
32:DH:84:ALA:HB3	32:DH:148:ALA:CB	2.42	0.50
25:CA:1805:A:N3	27:CC:49:THR:HB	2.26	0.50
39:CO:110:ALA:HB1	39:CO:115:LEU:HD22	1.94	0.50
25:CA:1368:G:O2'	25:CA:1369:G:H5'	2.12	0.50
25:DA:1537:G:N3	25:DA:1537:G:H3'	2.27	0.50
25:DA:290:U:O5'	25:DA:290:U:H6	1.95	0.50
1:BA:461:A:H8	1:BA:461:A:OP2	1.95	0.50
25:CA:2798:U:H6	25:CA:2798:U:H5'	1.77	0.50
35:DK:51:LYS:O	35:DK:52:VAL:HG13	2.12	0.50
25:DA:668:A:H2'	25:DA:670:A:H62	1.77	0.50
24:AY:64:ARG:HA	24:AY:103:LEU:HB2	1.92	0.50
1:BA:951:G:OP2	13:BM:100:ARG:NH2	2.45	0.50
13:BM:21:ILE:HG22	13:BM:22:TYR:N	2.26	0.50
25:DA:1060:U:O4'	25:DA:1062:G:C5'	2.60	0.50
25:DA:1344:U:O2'	25:DA:1345:C:P	2.69	0.50
25:DA:1383:A:N1	25:DA:1384:A:C2	2.80	0.50
49:DY:16:THR:HG22	49:DY:17:GLU:H	1.75	0.50
11:AK:109:ILE:HG22	21:AU:16:ARG:NE	2.27	0.50
2:AB:116:LEU:HG	2:AB:140:LEU:HD11	1.93	0.50
1:AA:955:U:C5	1:AA:956:U:C4	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1062:U:O4	3:BC:2:GLN:HG2	2.12	0.50
25:DA:2209:G:C4	25:DA:2210:U:C5	2.99	0.50
25:DA:2348:U:O4	25:DA:2382:G:C6	2.64	0.50
35:DK:71:ARG:CZ	35:DK:77:ILE:HD11	2.41	0.50
5:BE:100:GLU:O	5:BE:100:GLU:CD	2.49	0.50
25:DA:2839:G:C5	25:DA:2840:C:C5	2.99	0.50
25:CA:1856:U:O2'	25:CA:1857:G:H5'	2.11	0.50
10:AJ:28:THR:HG22	10:AJ:86:ALA:HB1	1.94	0.50
56:DB:49:C:C2'	56:DB:50:A:O5'	2.60	0.50
30:DF:35:LEU:HD21	30:DF:90:LEU:CD1	2.42	0.50
1:BA:731:G:OP1	1:BA:766:A:H1'	2.12	0.50
1:AA:412:A:H1'	1:AA:413:G:C5'	2.41	0.50
4:AD:53:GLN:NE2	4:AD:202:LEU:N	2.60	0.50
25:DA:2326:C:O2'	25:DA:2327:A:O5'	2.26	0.50
1:BA:972:C:H4'	10:BJ:59:LYS:CG	2.42	0.50
21:BU:17:ARG:O	21:BU:20:ARG:N	2.45	0.50
29:CE:189:THR:HG22	29:CE:191:ASP:N	2.27	0.50
29:CE:190:ALA:C	29:CE:192:ALA:N	2.63	0.50
1:BA:202:G:O2'	1:BA:468:A:C8	2.59	0.50
25:CA:2155:U:H2'	25:CA:2156:G:C4'	2.41	0.50
10:AJ:57:VAL:O	10:AJ:58:ASN:CB	2.56	0.50
2:BB:139:GLU:C	2:BB:143:LEU:CD2	2.80	0.50
6:BF:97:THR:O	6:BF:98:GLU:CB	2.59	0.50
3:AC:93:ILE:HG22	3:AC:94:ALA:N	2.26	0.50
25:CA:1535:A:H5"	25:CA:1536:C:H5	1.76	0.50
25:DA:60:G:C2	25:DA:74:A:C6	2.99	0.50
18:AR:32:ILE:O	18:AR:32:ILE:CG1	2.59	0.50
1:BA:1505:G:H2'	23:BX:15:A:OP2	2.12	0.50
33:CI:7:TYR:HA	33:CI:58:ILE:HG12	1.94	0.50
33:CI:56:VAL:HG22	33:CI:68:PHE:HD2	1.77	0.50
1:BA:141:G:C2	1:BA:142:G:H1'	2.47	0.50
1:BA:1450:U:O2'	1:BA:1451:U:H2'	2.12	0.50
25:DA:2311:A:H2	30:DF:84:ILE:HD11	1.75	0.50
15:BO:63:ARG:NH1	15:BO:67:ASP:OD2	2.45	0.50
25:CA:1686:C:C2'	25:CA:1687:G:H5'	2.42	0.50
25:DA:464:U:H5'	53:D2:5:PHE:CE2	2.47	0.50
25:DA:1233:C:C4	25:DA:1234:U:C5	2.99	0.50
52:C1:34:GLU:CG	52:C1:49:LYS:HG3	2.42	0.50
7:AG:66:GLU:HG3	7:AG:69:ARG:NH2	2.25	0.50
25:CA:2593:U:H2'	25:CA:2594:C:H6	1.76	0.50
1:AA:609:A:H2'	1:AA:610:U:C5'	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:45:G:N2	1:AA:398:U:C4	2.80	0.50
16:AP:51:ARG:CB	16:AP:51:ARG:HH11	2.24	0.50
30:CF:105:ILE:CG1	30:CF:106:ALA:N	2.74	0.50
50:CZ:3:THR:HG22	50:CZ:4:ILE:N	2.26	0.50
25:DA:2674:G:H2'	25:DA:2675:A:O4'	2.12	0.50
46:DV:75:GLN:HB2	46:DV:92:VAL:CG2	2.42	0.50
25:CA:434:U:H4'	25:CA:435:C:OP1	2.11	0.50
1:AA:1462:C:H2'	1:AA:1463:U:H6	1.75	0.50
4:BD:168:THR:HB	4:BD:183:ARG:NH2	2.27	0.50
29:DE:115:GLN:O	29:DE:116:ASP:HB2	2.12	0.50
11:BK:84:MET:HA	11:BK:110:THR:O	2.11	0.50
4:BD:96:ARG:HB3	4:BD:98:ASP:OD1	2.12	0.50
1:AA:234:C:H2'	1:AA:235:C:C6	2.47	0.50
28:DD:4:LEU:HG	28:DD:32:ASN:OD1	2.11	0.50
25:DA:802:A:OP1	60:DA:3330:HOH:O	2.19	0.50
9:BI:33:SER:HB3	9:BI:36:GLN:CD	2.31	0.50
25:DA:31:C:O3'	25:DA:1238:G:H5"	2.12	0.50
25:DA:1885:A:C4	25:DA:1886:U:C6	3.00	0.50
20:BT:17:ARG:O	20:BT:21:ALA:HB2	2.11	0.50
25:DA:2465:C:H2'	25:DA:2466:C:H6	1.76	0.50
35:CK:66:LYS:HD2	35:CK:79:PHE:O	2.11	0.50
25:CA:2024:G:P	60:CA:3476:HOH:O	2.69	0.50
25:DA:2107:G:C2	25:DA:2108:A:H1'	2.47	0.50
17:AQ:37:ILE:H	17:AQ:37:ILE:HD12	1.77	0.50
1:BA:519:C:O2	1:BA:519:C:H2'	2.12	0.50
9:BI:35:GLU:H	9:BI:35:GLU:CD	2.13	0.50
25:DA:1678:A:C2'	25:DA:1679:A:H5'	2.42	0.50
7:AG:101:ARG:O	7:AG:104:VAL:N	2.45	0.50
19:BS:57:VAL:HG11	19:BS:74:ALA:CA	2.42	0.50
25:DA:1406:U:H2'	25:DA:1407:G:C8	2.46	0.50
25:CA:1060:U:O4'	25:CA:1062:G:C4'	2.60	0.50
17:AQ:15:LYS:N	17:AQ:16:MET:HE1	2.27	0.50
2:BB:71:THR:HA	2:BB:92:ASN:O	2.11	0.50
1:BA:722:G:C8	1:BA:724:G:H1'	2.47	0.50
42:CR:39:LEU:O	42:CR:49:ILE:HG23	2.11	0.50
4:BD:202:LEU:HD12	4:BD:202:LEU:O	2.12	0.50
25:DA:569:U:C4	25:DA:570:G:C6	3.00	0.50
25:DA:2313:C:O4'	30:DF:36:ASN:HB2	2.12	0.50
1:AA:455:G:C2	1:AA:478:A:C2	3.00	0.50
1:AA:625:U:H4'	16:AP:16:PHE:CE2	2.46	0.50
1:AA:438:U:C2	1:AA:494:G:C6	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:114:LEU:HG	5:AE:122:VAL:HG11	1.94	0.50
1:BA:1239:A:C2	1:BA:1297:G:C2	2.99	0.50
8:AH:59:GLU:OE2	8:AH:59:GLU:C	2.49	0.50
1:AA:373:A:C2'	1:AA:374:A:O5'	2.60	0.50
31:DG:106:LEU:CD1	31:DG:150:TYR:HB3	2.41	0.50
25:CA:1414:C:N3	25:CA:1415:U:H5	2.09	0.50
25:CA:1415:U:O2	25:CA:1415:U:C2'	2.59	0.50
1:BA:841:C:N1	1:BA:843:U:H5'	2.27	0.50
1:AA:643:C:C5'	8:AH:31:LEU:HD23	2.42	0.50
1:BA:1291:U:H2'	1:BA:1292:G:C8	2.47	0.50
2:BB:162:VAL:O	2:BB:184:ALA:CA	2.57	0.50
1:BA:378:G:C2	1:BA:386:C:C2	3.00	0.50
1:BA:383:A:C2'	1:BA:384:G:H5'	2.41	0.50
3:AC:54:ILE:HD12	3:AC:54:ILE:C	2.32	0.50
25:DA:1105:U:O2'	25:DA:1106:G:O5'	2.30	0.50
1:AA:1501:C:C2	1:AA:1504:G:C6	3.00	0.50
1:AA:542:G:H2'	1:AA:543:U:H6	1.75	0.50
27:DC:1:ALA:HA	27:DC:198:GLU:OE1	2.12	0.50
49:CY:22:LEU:O	49:CY:23:ARG:C	2.48	0.50
17:BQ:46:HIS:HA	17:BQ:70:LYS:CE	2.42	0.50
29:CE:181:ILE:HG23	36:CL:2:ARG:HD3	1.94	0.50
1:BA:833:G:C5	1:BA:834:U:C5	2.99	0.50
25:DA:1737:G:C6	25:DA:1738:G:N1	2.80	0.50
28:CD:12:THR:HG21	40:CP:8:GLU:HG2	1.92	0.50
1:AA:218:U:O2'	1:AA:219:U:H5'	2.11	0.50
42:CR:21:ARG:CZ	42:CR:93:PHE:CE1	2.94	0.50
27:DC:237:ARG:O	27:DC:238:ASN:O	2.30	0.50
5:BE:106:ALA:CA	5:BE:124:ALA:HB3	2.41	0.50
30:CF:90:LEU:C	30:CF:95:MET:HB2	2.32	0.50
29:CE:131:THR:HG22	29:CE:160:ALA:C	2.30	0.50
1:BA:1068:G:C2	1:BA:1069:C:C6	2.99	0.50
27:DC:124:LYS:CB	27:DC:125:PRO:HD2	2.42	0.50
1:BA:893:C:H2'	1:BA:894:G:H8	1.76	0.50
1:AA:852:G:C5	1:AA:853:C:C5	2.99	0.50
42:CR:74:ILE:N	42:CR:74:ILE:CD1	2.74	0.50
31:CG:108:PHE:CE2	31:CG:151:ARG:CZ	2.94	0.50
39:CO:56:LYS:O	39:CO:57:ALA:C	2.51	0.50
1:BA:349:A:C2'	1:BA:350:G:H5'	2.42	0.50
22:BV:38:A:C2'	22:BV:39:U:O5'	2.59	0.50
14:AN:49:GLN:OE1	14:AN:49:GLN:CA	2.58	0.50
25:DA:993:G:O2'	25:DA:994:C:H5'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2095:A:N1	25:CA:2194:U:O4	2.45	0.50
22:BV:8:U:H5"	22:BV:49:C:OP2	2.11	0.50
10:BJ:86:ALA:O	10:BJ:90:LEU:HD12	2.11	0.50
25:DA:2555:U:C5	25:DA:2556:C:C2	3.00	0.50
25:CA:229:C:C2'	25:CA:230:G:O5'	2.60	0.50
25:DA:133:U:H3'	25:DA:133:U:H6	1.76	0.50
25:DA:2698:U:H2'	25:DA:2699:C:C6	2.47	0.50
25:CA:1478:G:H2'	25:CA:1479:G:C8	2.47	0.50
1:AA:974:A:H4'	1:AA:975:A:O5'	2.10	0.50
1:AA:234:C:H2'	1:AA:235:C:H6	1.77	0.50
1:BA:160:A:H2'	1:BA:161:A:O4'	2.11	0.50
1:AA:356:A:H2	1:AA:368:U:O2	1.94	0.50
3:BC:14:VAL:HG11	3:BC:206:ILE:OXT	2.11	0.50
50:DZ:30:ARG:HG2	50:DZ:33:HIS:HB2	1.92	0.50
25:DA:453:A:H5"	60:DA:3241:HOH:O	2.12	0.50
31:DG:79:THR:HG22	31:DG:80:GLU:N	2.27	0.50
32:DH:100:ALA:O	32:DH:104:THR:HG23	2.11	0.50
1:AA:796:C:O2'	1:AA:797:C:H5'	2.11	0.50
25:DA:471:A:H2'	25:DA:472:A:O4'	2.12	0.50
38:DN:106:ASP:C	38:DN:106:ASP:OD1	2.50	0.50
44:CT:49:LYS:HE3	44:CT:49:LYS:CA	2.42	0.50
33:CI:85:ILE:CG1	33:CI:88:GLY:HA2	2.42	0.50
9:BI:118:ARG:HH22	9:BI:122:ARG:NH2	2.10	0.50
13:BM:30:LYS:NZ	13:BM:40:GLU:HB3	2.27	0.50
49:DY:1:MET:O	49:DY:2:LYS:C	2.50	0.50
2:AB:193:ASP:C	2:AB:195:VAL:H	2.14	0.50
1:AA:987:G:C2	1:AA:1219:A:C2	2.99	0.50
10:AJ:11:LYS:HA	10:AJ:70:HIS:O	2.11	0.50
1:BA:448:A:H2'	1:BA:448:A:N3	2.26	0.50
21:BU:45:LYS:O	21:BU:49:ALA:HB2	2.11	0.50
5:BE:152:VAL:O	5:BE:154:ALA:N	2.45	0.50
5:BE:79:THR:HG23	5:BE:80:LEU:O	2.11	0.50
1:AA:694:A:C2'	1:AA:695:A:O5'	2.60	0.50
25:DA:2785:C:H2'	25:DA:2786:U:C6	2.46	0.50
25:CA:2308:G:C5	30:CF:76:PHE:HZ	2.29	0.50
8:AH:52:GLY:O	8:AH:53:ASP:HB3	2.11	0.50
3:AC:12:GLY:C	3:AC:13:ILE:HG23	2.33	0.50
1:BA:1240:U:C5	7:BG:115:MET:HG2	2.47	0.50
34:DJ:84:ILE:HG23	34:DJ:84:ILE:O	2.11	0.50
31:DG:146:ASP:O	31:DG:149:ALA:HB3	2.12	0.50
4:BD:160:LEU:O	4:BD:162:GLU:N	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1292:G:C6	1:BA:1293:C:C4	3.00	0.50
1:BA:1072:G:C8	1:BA:1073:U:C5	3.00	0.50
27:DC:117:SER:HB3	27:DC:128:THR:HB	1.94	0.50
1:BA:1078:U:C2	5:BE:89:THR:HG21	2.47	0.50
25:DA:2532:G:C6	25:DA:2533:U:C4	2.99	0.50
36:CL:77:ILE:HG23	36:CL:100:ILE:HD11	1.94	0.50
25:CA:2283:C:H2'	25:CA:2284:A:O5'	2.12	0.50
13:AM:44:ILE:N	13:AM:44:ILE:HD12	2.27	0.50
1:BA:384:G:O2'	1:BA:385:C:C5'	2.60	0.50
38:CN:1:MET:O	38:CN:2:ARG:CB	2.59	0.50
33:CI:121:ILE:HG12	33:CI:124:MET:SD	2.51	0.50
25:DA:1358:G:O6	25:DA:1371:G:C8	2.65	0.50
25:DA:2746:U:C4'	31:DG:138:GLN:HA	2.40	0.50
28:CD:3:GLY:HA3	28:CD:203:VAL:O	2.12	0.50
33:CI:33:ASN:HB3	33:CI:36:GLU:CG	2.42	0.50
1:BA:1287:A:C6	1:BA:1288:A:C6	2.99	0.50
25:DA:1355:G:N3	25:DA:1356:G:C8	2.80	0.50
44:DT:69:ARG:HG2	44:DT:70:HIS:N	2.27	0.50
3:AC:166:TRP:N	3:AC:166:TRP:CD2	2.74	0.50
5:AE:14:LEU:O	5:AE:14:LEU:CD1	2.60	0.50
15:BO:66:LEU:HD12	15:BO:66:LEU:H	1.76	0.50
1:AA:100:G:C5	1:AA:101:A:N7	2.80	0.50
29:CE:146:VAL:O	29:CE:146:VAL:HG23	2.12	0.50
25:CA:247:G:N7	25:CA:249:C:C2	2.79	0.50
27:CC:161:VAL:HG11	27:CC:173:LEU:HB3	1.94	0.50
10:BJ:87:LEU:C	10:BJ:87:LEU:CD2	2.80	0.50
46:DV:29:ILE:O	46:DV:91:PHE:HB2	2.12	0.50
25:DA:1485:U:O2'	25:DA:1486:U:H5'	2.12	0.50
1:AA:687:A:C2	1:AA:704:A:C5	2.99	0.50
1:BA:1179:A:C2'	1:BA:1180:A:H5'	2.41	0.50
25:DA:1870:C:H5"	25:DA:1871:A:C5	2.47	0.50
6:AF:38:ARG:CG	6:AF:39:LEU:N	2.75	0.50
1:AA:646:G:N1	1:AA:647:C:C4	2.80	0.50
7:AG:130:LYS:N	7:AG:134:VAL:HG11	2.27	0.50
25:CA:2619:C:H5'	28:CD:155:VAL:O	2.12	0.50
11:BK:19:VAL:HG22	11:BK:82:GLU:HG2	1.93	0.50
15:AO:42:PHE:O	15:AO:46:LYS:HG2	2.11	0.50
37:CM:28:PHE:HB2	37:CM:104:GLU:OE2	2.12	0.50
25:DA:871:U:H5"	37:DM:68:PHE:CE2	2.47	0.50
36:CL:67:THR:O	36:CL:68:SER:O	2.29	0.50
25:DA:753:A:H2'	25:DA:754:U:H6	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DP:88:ARG:HD2	40:DP:112:ARG:NH2	2.26	0.50
46:CV:25:LYS:HE2	46:CV:43:ASP:CA	2.42	0.50
48:CX:37:PHE:CE1	48:CX:58:ILE:HG21	2.46	0.50
55:D4:7:VAL:O	55:D4:8:LYS:CG	2.60	0.50
25:CA:1128:G:O6	25:CA:2491:U:H5	1.94	0.50
13:AM:89:ARG:NH2	13:AM:94:LEU:HD12	2.26	0.50
35:DK:120:PRO:O	35:DK:121:GLU:CB	2.58	0.50
44:DT:29:THR:HG23	44:DT:86:THR:HA	1.94	0.50
37:DM:42:THR:HA	37:DM:93:VAL:HG12	1.94	0.50
1:AA:369:G:C6	1:AA:370:C:N4	2.80	0.50
25:DA:1300:G:C2	25:DA:1626:A:C6	2.99	0.50
34:DJ:93:ILE:HA	34:DJ:97:PRO:HB3	1.94	0.50
25:DA:2357:G:H5'	25:DA:2358:A:OP2	2.12	0.50
41:DQ:23:TYR:O	41:DQ:28:SER:HB3	2.12	0.50
30:CF:80:GLN:CD	30:CF:81:GLY:N	2.65	0.50
25:CA:643:A:H1'	52:C1:43:ARG:NH2	2.27	0.50
1:BA:751:U:C2'	1:BA:752:G:H5'	2.41	0.50
32:DH:78:VAL:HG11	32:DH:102:ALA:O	2.12	0.50
12:AL:65:TYR:O	12:AL:96:THR:N	2.44	0.50
37:CM:24:THR:O	37:CM:24:THR:CG2	2.60	0.50
25:CA:2178:C:H6	25:CA:2178:C:H3'	1.77	0.50
1:AA:605:U:C2'	1:AA:606:G:H5'	2.42	0.50
13:AM:84:CYS:HA	19:AS:72:GLU:O	2.12	0.50
34:CJ:140:LEU:HD11	34:CJ:142:ILE:HD13	1.93	0.50
25:DA:2561:U:O3'	35:DK:40:LYS:HD3	2.12	0.50
29:CE:7:ASP:C	29:CE:9:GLN:N	2.65	0.50
1:BA:930:C:O2'	1:BA:931:C:H5'	2.12	0.50
25:CA:2163:A:H3'	25:CA:2164:C:C4'	2.42	0.50
33:DI:10:LEU:O	33:DI:10:LEU:CD1	2.59	0.50
33:DI:56:VAL:CB	33:DI:70:THR:HB	2.41	0.50
49:DY:18:LEU:HG	49:DY:22:LEU:HB2	1.93	0.50
2:AB:67:LEU:CD2	2:AB:69:VAL:HG23	2.41	0.50
1:AA:1358:U:OP1	14:AN:75:ARG:HG3	2.12	0.50
17:AQ:16:MET:SD	17:AQ:16:MET:N	2.85	0.50
1:BA:1272:G:C2	1:BA:1273:C:N1	2.80	0.50
25:DA:2291:U:C2	25:DA:2292:U:C5	3.00	0.50
25:DA:2223:G:C2'	25:DA:2224:G:C5'	2.86	0.50
16:BP:39:PHE:C	16:BP:39:PHE:CD1	2.84	0.50
5:BE:76:ASN:OD1	5:BE:81:GLN:HG2	2.11	0.50
25:DA:988:A:C5'	50:DZ:11:SER:HB2	2.42	0.50
4:AD:36:ALA:CA	4:AD:41:GLY:HA3	2.37	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2838:G:C6	25:DA:2839:G:C5	3.00	0.50
1:BA:1014:A:C4	19:BS:33:TRP:CE3	3.00	0.50
1:AA:1296:C:H4'	1:AA:1302:C:N4	2.27	0.50
25:CA:2307:G:H22	25:CA:2311:A:C2'	2.25	0.50
25:DA:1637:A:H5'	25:DA:1760:C:O2'	2.12	0.50
25:DA:1459:G:C2'	25:DA:1460:U:O5'	2.60	0.50
30:DF:57:ALA:CB	30:DF:62:GLN:O	2.60	0.50
16:AP:10:GLY:O	16:AP:11:ALA:HB2	2.12	0.50
1:BA:88:U:C4	1:BA:89:U:C5	2.99	0.50
25:DA:2793:C:H2'	25:DA:2794:C:C5	2.47	0.50
1:BA:1106:G:C4	1:BA:1107:C:C5	3.00	0.50
5:AE:95:MET:HB3	5:AE:124:ALA:HB2	1.93	0.50
22:AV:48:C:O2	22:AV:59:U:H1'	2.12	0.50
8:AH:48:PHE:O	8:AH:49:LYS:HG3	2.10	0.50
1:BA:1538:C:C6	1:BA:1538:C:OP2	2.65	0.50
9:BI:5:TYR:HB2	9:BI:20:ILE:CB	2.40	0.50
37:DM:57:VAL:CG2	37:DM:58:LYS:O	2.60	0.50
1:AA:1304:G:C5	1:AA:1305:G:C2	2.99	0.50
1:AA:947:G:H2'	1:AA:948:C:O4'	2.12	0.50
1:BA:215:C:C2'	1:BA:216:U:H5'	2.42	0.50
1:BA:1072:G:N7	1:BA:1073:U:C5	2.80	0.50
27:DC:73:ILE:N	27:DC:73:ILE:CD1	2.72	0.50
16:BP:19:VAL:HG13	16:BP:37:GLY:C	2.32	0.50
1:AA:1114:C:C2'	1:AA:1114:C:O2	2.58	0.50
2:BB:112:ARG:O	2:BB:113:LEU:C	2.51	0.50
2:BB:116:LEU:HB3	2:BB:140:LEU:CD1	2.39	0.50
2:BB:139:GLU:HB3	2:BB:143:LEU:HD21	1.94	0.50
10:BJ:35:GLN:HG2	10:BJ:77:VAL:HG23	1.93	0.50
25:CA:587:C:C2'	36:CL:19:LEU:HD11	2.42	0.50
45:DU:33:VAL:HG13	45:DU:66:VAL:CG2	2.42	0.50
9:AI:56:MET:HA	9:AI:59:LYS:HB2	1.92	0.50
25:CA:1922:G:C6	25:CA:1923:U:C4	3.00	0.50
43:DS:63:GLY:O	43:DS:64:ALA:CB	2.59	0.50
25:DA:1045:C:H4'	25:DA:1047:G:C8	2.47	0.50
25:DA:308:G:O2'	45:DU:16:LYS:HE2	2.12	0.50
25:CA:1172:C:N3	25:CA:1173:U:H1'	2.26	0.50
25:DA:2427:C:H5"	25:DA:2428:G:OP1	2.11	0.50
1:BA:1212:U:H5'	1:BA:1213:A:C5	2.47	0.50
1:BA:853:C:C2'	1:BA:854:U:H5'	2.41	0.50
27:DC:129:LEU:O	27:DC:134:ILE:HD11	2.12	0.50
8:AH:46:GLU:HB2	8:AH:63:LYS:HG2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:CC:246:PRO:HG2	27:CC:247:TRP:CZ3	2.47	0.50
46:DV:51:GLN:C	46:DV:51:GLN:CD	2.70	0.50
1:AA:198:G:C2	1:AA:199:A:C8	2.99	0.50
1:AA:774:G:N2	1:AA:806:C:C6	2.80	0.50
27:CC:200:MET:HG3	27:CC:201:LEU:HD12	1.94	0.50
33:DI:9:LYS:HB2	33:DI:55:PRO:HB2	1.89	0.50
4:BD:97:LEU:HD12	4:BD:97:LEU:O	2.12	0.50
1:BA:1441:A:N7	1:BA:1442:G:C8	2.80	0.50
30:DF:102:LEU:HG	30:DF:107:VAL:CG2	2.42	0.50
30:DF:102:LEU:HG	30:DF:107:VAL:HG21	1.94	0.50
25:CA:2318:G:C2'	25:CA:2319:G:H5'	2.41	0.50
1:AA:737:C:H2'	1:AA:738:C:C6	2.44	0.50
4:BD:13:ARG:HG3	4:BD:55:ARG:HE	1.77	0.50
1:AA:725:G:C2'	1:AA:726:C:H5'	2.42	0.50
1:AA:1294:G:C5	1:AA:1295:U:C5	3.00	0.50
31:DG:124:CYS:HB3	31:DG:129:GLU:O	2.11	0.50
3:BC:35:ASP:O	3:BC:38:VAL:CG2	2.59	0.50
39:DO:117:PHE:CD1	39:DO:117:PHE:C	2.85	0.50
55:D4:33:HIS:O	55:D4:35:GLN:HG2	2.12	0.50
25:DA:2850:A:H2'	25:DA:2851:A:O4'	2.12	0.50
5:BE:9:GLU:HG3	5:BE:10:LEU:N	2.27	0.50
29:CE:7:ASP:O	29:CE:9:GLN:N	2.44	0.50
25:CA:2639:A:C2	25:CA:2778:A:C8	3.00	0.50
27:CC:93:VAL:HG11	27:CC:103:ILE:HD11	1.92	0.50
7:BG:88:VAL:HG22	7:BG:89:GLU:N	2.27	0.50
25:DA:1366:A:H2'	25:DA:1367:A:O4'	2.12	0.50
31:CG:93:TYR:CD2	31:CG:106:LEU:HA	2.47	0.50
25:DA:2765:A:N3	25:DA:2765:A:H3'	2.26	0.50
25:DA:654:A:N3	25:DA:654:A:H3'	2.27	0.50
27:DC:56:GLY:O	27:DC:57:HIS:O	2.30	0.50
25:DA:998:C:P	41:DQ:91:ARG:NH2	2.84	0.49
1:BA:1317:C:N3	14:BN:53:ARG:HD3	2.27	0.49
25:DA:1071:G:H2'	25:DA:1072:C:H5"	1.92	0.49
33:DI:53:PRO:O	33:DI:73:PRO:CB	2.60	0.49
49:DY:9:LYS:N	49:DY:12:GLU:HB2	2.27	0.49
49:DY:42:LEU:O	49:DY:46:VAL:HG23	2.12	0.49
49:DY:9:LYS:N	49:DY:12:GLU:HG3	2.25	0.49
1:AA:675:A:O4'	11:AK:117:HIS:CD2	2.65	0.49
25:CA:1053:C:C4	25:CA:1054:A:C8	3.00	0.49
32:DH:7:ASP:HB2	32:DH:35:LYS:CE	2.41	0.49
32:DH:34:GLY:O	32:DH:35:LYS:HB2	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1178:C:C5'	25:CA:1179:G:OP1	2.60	0.49
32:DH:135:HIS:CD2	32:DH:137:GLU:HG2	2.47	0.49
32:DH:66:ASN:HA	32:DH:138:VAL:HG11	1.94	0.49
1:BA:132:C:H4'	20:BT:68:LYS:HE2	1.94	0.49
36:DL:77:ILE:HD12	36:DL:77:ILE:N	2.26	0.49
42:DR:68:ARG:HA	42:DR:91:GLN:O	2.12	0.49
1:AA:656:G:C5	1:AA:657:U:C5	2.99	0.49
21:AU:14:ALA:O	21:AU:15:LEU:HD12	2.12	0.49
30:DF:129:MET:HE2	30:DF:130:GLY:O	2.12	0.49
30:DF:34:THR:CG2	30:DF:89:THR:HA	2.42	0.49
25:CA:1420:A:C6	25:CA:2211:A:N1	2.79	0.49
3:AC:109:GLU:H	3:AC:109:GLU:CD	2.15	0.49
4:AD:173:ASP:OD1	4:AD:176:LYS:CE	2.60	0.49
21:AU:34:ARG:O	21:AU:35:GLU:C	2.51	0.49
21:AU:44:ARG:HD2	21:AU:44:ARG:N	2.27	0.49
30:CF:173:ASP:O	30:CF:174:PHE:C	2.51	0.49
22:AV:48:C:H2'	22:AV:59:U:O4'	2.12	0.49
25:DA:2328:A:H2'	25:DA:2329:U:H6	1.74	0.49
9:BI:27:ILE:HG12	9:BI:62:LEU:HD11	1.94	0.49
1:BA:200:G:C2'	1:BA:201:G:H5'	2.42	0.49
1:BA:1073:U:N3	1:BA:1074:G:C8	2.79	0.49
21:AU:11:PHE:H	21:AU:11:PHE:HD2	1.59	0.49
1:BA:1388:C:H2'	1:BA:1389:C:H6	1.76	0.49
24:AY:41:ILE:HG22	24:AY:52:LEU:CB	2.42	0.49
25:DA:2580:U:C5	25:DA:2581:G:C6	3.00	0.49
43:CS:59:GLU:HG3	43:CS:66:ILE:HD11	1.94	0.49
9:AI:7:GLY:HA3	9:AI:84:ARG:HB3	1.94	0.49
1:AA:541:G:N3	1:AA:542:G:C8	2.80	0.49
25:CA:2119:A:H61	25:CA:2167:U:H1'	1.77	0.49
1:AA:101:A:C6	1:AA:102:G:N7	2.80	0.49
7:AG:84:TYR:CE1	7:AG:150:PHE:HE2	2.30	0.49
18:AR:26:ALA:O	18:AR:29:LYS:HE3	2.12	0.49
36:DL:2:ARG:CA	36:DL:5:THR:HG23	2.42	0.49
31:CG:126:THR:HG22	31:CG:128:THR:H	1.76	0.49
25:DA:2190:G:O2'	25:DA:2191:A:H5'	2.11	0.49
16:BP:73:ALA:O	16:BP:77:GLU:HB2	2.12	0.49
34:DJ:130:HIS:O	34:DJ:130:HIS:CG	2.65	0.49
4:BD:107:GLY:HA3	4:BD:113:ALA:HB2	1.94	0.49
4:AD:77:GLU:OE1	4:AD:77:GLU:CA	2.59	0.49
19:AS:80:ARG:NE	19:AS:80:ARG:HA	2.27	0.49
1:AA:1497:G:O2'	1:AA:1498:U:H5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2272:U:H5"	25:CA:2273:A:OP1	2.12	0.49
25:CA:2209:G:C2	25:CA:2216:G:C2	3.00	0.49
2:AB:127:LYS:CG	2:AB:128:LEU:N	2.75	0.49
22:BV:1:G:H2'	22:BV:2:C:H6	1.76	0.49
25:CA:989:G:C8	50:CZ:13:ILE:HD11	2.47	0.49
39:CO:18:LEU:HD11	39:CO:91:SER:HB3	1.94	0.49
1:BA:1187:G:H2'	1:BA:1188:A:C8	2.47	0.49
1:AA:123:U:H4'	1:AA:290:C:O2	2.12	0.49
1:AA:1399:C:O2	1:AA:1401:G:C5	2.65	0.49
25:CA:383:C:N3	25:CA:391:A:N6	2.60	0.49
25:CA:1:G:C2	25:CA:2:G:C8	3.00	0.49
26:CB:59:A:H2'	26:CB:60:C:O5'	2.12	0.49
50:CZ:15:ARG:N	50:CZ:15:ARG:HD3	2.26	0.49
30:CF:55:ASP:N	30:CF:55:ASP:OD2	2.44	0.49
25:DA:1714:U:H2'	25:DA:1714:U:O2	2.11	0.49
1:AA:443:C:H2'	1:AA:444:G:O4'	2.11	0.49
13:BM:22:TYR:CD2	13:BM:68:LEU:HD23	2.47	0.49
1:BA:1234:C:O2'	1:BA:1235:U:H5'	2.12	0.49
11:AK:111:ASP:OD1	11:AK:113:THR:HG23	2.12	0.49
25:CA:1081:U:H6	25:CA:1081:U:OP2	1.95	0.49
2:AB:62:ARG:O	2:AB:63:LYS:CB	2.60	0.49
1:AA:977:A:H1'	1:AA:982:U:O4	2.11	0.49
17:AQ:13:SER:HB3	17:AQ:21:VAL:CG1	2.42	0.49
8:AH:104:SER:H	8:AH:125:ILE:HD13	1.76	0.49
32:DH:34:GLY:O	32:DH:35:LYS:CG	2.59	0.49
5:BE:104:ILE:CD1	5:BE:114:LEU:HB3	2.43	0.49
11:AK:71:ASP:O	11:AK:72:ALA:HB2	2.12	0.49
20:AT:28:ARG:CA	20:AT:31:ILE:HD12	2.41	0.49
25:CA:1856:U:H2'	25:CA:1857:G:H5'	1.93	0.49
25:DA:2407:A:H2'	25:DA:2408:U:H6	1.76	0.49
25:DA:569:U:H1'	25:DA:947:A:O4'	2.11	0.49
37:DM:21:ALA:HB3	37:DM:100:LYS:N	2.27	0.49
25:DA:1557:C:C5	25:DA:1558:C:C2	3.00	0.49
1:AA:437:U:H4'	4:AD:153:ARG:NH2	2.27	0.49
4:AD:57:LYS:CB	4:AD:199:ILE:HB	2.40	0.49
30:CF:118:ALA:HB1	30:CF:166:ARG:CD	2.36	0.49
1:BA:187:G:H5"	1:BA:188:C:OP2	2.12	0.49
5:AE:113:VAL:CG2	5:AE:114:LEU:N	2.75	0.49
5:AE:104:ILE:HA	5:AE:122:VAL:HG23	1.94	0.49
5:AE:148:SER:HB2	5:AE:151:MET:HB2	1.93	0.49
20:AT:53:MET:O	20:AT:56:ILE:HG23	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:390:U:H2'	1:AA:391:G:C8	2.47	0.49
25:DA:2162:G:C5'	25:DA:2171:A:H2'	2.42	0.49
25:DA:2135:A:N1	25:DA:2136:G:H1'	2.27	0.49
1:BA:549:C:C2'	1:BA:550:G:O5'	2.60	0.49
24:AY:76:SER:HB3	24:AY:77:PRO:CD	2.39	0.49
1:BA:1004:A:C2	1:BA:1026:G:N3	2.80	0.49
25:DA:1926:U:H1'	25:DA:1929:G:O6	2.12	0.49
25:DA:1789:A:H2'	25:DA:1790:C:C6	2.47	0.49
31:DG:67:ALA:O	31:DG:70:LEU:N	2.46	0.49
4:BD:32:LYS:CG	4:BD:32:LYS:O	2.59	0.49
40:DP:31:VAL:HG23	40:DP:32:VAL:N	2.27	0.49
1:BA:108:G:N3	1:BA:108:G:H5'	2.27	0.49
46:CV:40:ILE:HG21	46:CV:42:LEU:HD21	1.93	0.49
25:CA:1924:C:H3'	25:CA:1925:C:H5'	1.93	0.49
1:AA:1167:A:H5"	1:AA:1168:U:OP2	2.12	0.49
1:AA:414:A:C6	1:AA:431:A:C2	3.00	0.49
25:CA:1800:C:H3'	27:CC:145:MET:HE1	1.95	0.49
25:DA:2311:A:N7	30:DF:76:PHE:CE2	2.80	0.49
4:BD:196:GLU:H	4:BD:196:GLU:CD	2.14	0.49
37:DM:49:ALA:HB1	37:DM:124:LEU:HD21	1.94	0.49
1:AA:721:G:C6	1:AA:733:G:N2	2.80	0.49
1:AA:1413:A:C4	1:AA:1414:U:C6	3.00	0.49
56:DB:21:G:C5	56:DB:22:U:C6	3.00	0.49
1:BA:9:G:OP1	5:BE:107:GLY:CA	2.60	0.49
5:AE:19:ARG:NH1	5:AE:30:PHE:CD2	2.79	0.49
30:DF:2:LYS:HG2	30:DF:3:LEU:N	2.27	0.49
25:CA:593:U:H2'	25:CA:594:U:C6	2.47	0.49
6:AF:38:ARG:HG3	6:AF:39:LEU:H	1.77	0.49
34:DJ:55:ILE:HD11	34:DJ:132:HIS:HB2	1.94	0.49
7:AG:67:ASN:O	7:AG:137:ARG:NH1	2.45	0.49
1:BA:91:U:C2	1:BA:92:U:C6	3.00	0.49
1:BA:1085:U:H5'	1:BA:1094:G:N2	2.27	0.49
2:BB:119:GLN:HA	2:BB:122:ASP:HB2	1.93	0.49
25:DA:1229:C:H2'	25:DA:1230:A:H8	1.76	0.49
25:DA:2648:G:H2'	25:DA:2649:C:O4'	2.12	0.49
1:BA:1245:C:C5	1:BA:1246:A:N7	2.80	0.49
31:DG:26:LYS:O	31:DG:26:LYS:HG3	2.11	0.49
1:AA:570:G:H1'	1:AA:820:U:N3	2.27	0.49
9:BI:16:ALA:HB2	9:BI:66:VAL:HB	1.94	0.49
3:BC:178:ARG:HH11	3:BC:178:ARG:HG2	1.76	0.49
25:DA:508:A:N6	43:DS:9:HIS:CE1	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2817:U:P	38:DN:99:LYS:HE2	2.53	0.49
25:CA:1767:G:O2'	25:CA:1768:C:H5'	2.12	0.49
2:BB:40:ILE:HG21	2:BB:201:GLY:HA2	1.94	0.49
1:BA:457:G:C5	1:BA:458:U:C5	2.99	0.49
25:CA:1:G:N3	25:CA:2:G:C8	2.80	0.49
26:CB:77:U:C2'	26:CB:78:A:H5'	2.41	0.49
16:BP:60:TRP:O	16:BP:63:GLN:N	2.44	0.49
7:BG:125:ASP:O	7:BG:129:ASN:HA	2.12	0.49
28:CD:142:VAL:HB	28:CD:143:PRO:CD	2.42	0.49
25:DA:170:U:O2'	25:DA:171:U:H5'	2.13	0.49
12:BL:32:VAL:HG23	12:BL:55:ARG:O	2.12	0.49
25:DA:446:G:OP1	41:DQ:2:ARG:HD2	2.12	0.49
1:AA:318:G:C4	1:AA:336:A:C2	3.00	0.49
27:DC:259:ASN:O	27:DC:260:LYS:HB2	2.12	0.49
34:DJ:42:ALA:O	41:DQ:63:ARG:HD3	2.12	0.49
12:BL:71:HIS:ND1	12:BL:71:HIS:C	2.65	0.49
1:AA:1171:A:C2	1:AA:1172:C:C2	3.00	0.49
13:BM:16:ILE:O	13:BM:20:SER:OG	2.30	0.49
49:DY:24:GLU:O	49:DY:27:ASN:HB2	2.12	0.49
2:AB:150:ILE:O	2:AB:151:LYS:O	2.30	0.49
2:AB:66:ILE:O	2:AB:67:LEU:CB	2.59	0.49
2:AB:81:ASP:OD1	2:AB:83:ALA:HB3	2.13	0.49
1:AA:1314:C:N3	1:AA:1315:U:C5	2.80	0.49
1:AA:256:U:H2'	1:AA:257:G:H8	1.76	0.49
17:AQ:11:VAL:O	17:AQ:12:VAL:CG1	2.60	0.49
17:AQ:15:LYS:HD2	17:AQ:15:LYS:C	2.33	0.49
25:DA:1708:C:H2'	25:DA:1709:U:H6	1.78	0.49
17:BQ:14:ASP:HA	17:BQ:20:ILE:HD11	1.92	0.49
25:DA:1414:C:C2	25:DA:1415:U:C5	3.00	0.49
25:DA:1586:A:H2'	25:DA:1587:G:O4'	2.12	0.49
36:DL:91:ASP:HB2	36:DL:94:THR:HG21	1.93	0.49
1:BA:995:C:H5'	14:BN:7:ALA:HB1	1.95	0.49
1:AA:1181:G:C2	1:AA:1182:G:N2	2.80	0.49
3:AC:15:LYS:HG3	3:AC:16:PRO:HD2	1.93	0.49
1:BA:1124:G:H5'	10:BJ:37:ARG:O	2.11	0.49
1:AA:406:G:C4	1:AA:407:U:C5	3.01	0.49
1:AA:429:U:H1'	1:AA:430:A:C5'	2.41	0.49
1:AA:439:U:C2'	1:AA:440:C:O5'	2.60	0.49
1:BA:1261:A:C5'	1:BA:1262:C:OP2	2.60	0.49
1:AA:64:G:N7	1:AA:99:C:C4	2.80	0.49
11:BK:51:PHE:CE2	11:BK:61:ALA:HA	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BK:14:GLN:HE21	11:BK:14:GLN:C	2.15	0.49
20:BT:34:VAL:O	20:BT:38:ILE:HG13	2.12	0.49
1:AA:451:A:H5'	1:AA:452:A:N3	2.27	0.49
25:CA:1417:C:C2'	25:CA:1418:G:H5'	2.43	0.49
32:DH:40:THR:O	32:DH:40:THR:OG1	2.31	0.49
1:BA:468:A:N7	1:BA:469:C:O2	2.45	0.49
2:BB:169:HIS:CD2	2:BB:170:ILE:H	2.30	0.49
10:AJ:67:ILE:HG13	14:AN:96:LEU:HD13	1.94	0.49
8:BH:77:VAL:HG11	8:BH:124:ILE:CG1	2.41	0.49
25:DA:1178:C:H2'	25:DA:1179:G:C5	2.47	0.49
25:CA:1734:G:N3	25:CA:1735:A:C8	2.80	0.49
25:DA:1971:U:C6	25:DA:1971:U:C3'	2.95	0.49
31:DG:75:VAL:C	31:DG:77:GLY:N	2.64	0.49
2:BB:54:ALA:O	2:BB:57:ASN:O	2.29	0.49
29:CE:120:VAL:HA	29:CE:188:MET:O	2.12	0.49
33:CI:56:VAL:HG22	33:CI:68:PHE:CD2	2.47	0.49
30:CF:48:LEU:O	30:CF:51:ASN:HB2	2.11	0.49
11:AK:34:THR:OG1	11:AK:35:ASP:N	2.45	0.49
25:CA:996:A:C2	25:CA:997:G:C8	3.00	0.49
45:DU:93:ARG:C	45:DU:102:ILE:HD12	2.32	0.49
25:CA:1026:G:H2'	25:CA:1027:A:H8	1.74	0.49
9:BI:98:ARG:HA	9:BI:103:VAL:CG1	2.41	0.49
27:CC:176:ARG:HH21	27:CC:176:ARG:CG	2.24	0.49
25:DA:2472:G:N2	25:DA:2529:G:C6	2.80	0.49
25:CA:2221:G:H2'	25:CA:2222:C:C5'	2.42	0.49
43:CS:29:VAL:CG1	43:CS:55:ILE:HD11	2.43	0.49
9:BI:11:ARG:HG3	9:BI:11:ARG:O	2.11	0.49
41:CQ:60:TRP:O	41:CQ:61:ILE:C	2.51	0.49
1:BA:104:G:O2'	1:BA:105:G:H5'	2.12	0.49
6:AF:46:GLN:HA	6:AF:56:LYS:HG2	1.95	0.49
25:CA:897:C:C6	25:CA:897:C:O5'	2.64	0.49
43:DS:29:VAL:O	43:DS:33:LEU:HB2	2.12	0.49
8:AH:11:THR:HA	8:AH:14:ARG:NH1	2.27	0.49
25:CA:2485:G:H5"	37:CM:45:GLN:HE21	1.77	0.49
22:BV:49:C:N3	22:BV:50:U:C5	2.79	0.49
25:DA:1347:A:C6	25:DA:1348:C:C2	3.00	0.49
25:DA:2154:A:H2'	25:DA:2155:U:C6	2.47	0.49
25:CA:1783:A:C2	25:CA:2588:G:O4'	2.65	0.49
1:AA:828:U:H2'	1:AA:829:G:O5'	2.12	0.49
16:BP:11:ALA:O	16:BP:12:LYS:C	2.50	0.49
1:AA:233:C:C2	1:AA:234:C:C5	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1085:U:C6	1:AA:1094:G:N1	2.80	0.49
40:DP:26:GLU:HB2	40:DP:43:GLU:HG3	1.93	0.49
25:CA:905:A:C6	25:CA:906:U:C5	3.01	0.49
25:DA:2390:U:OP2	54:D3:34:LYS:HE2	2.12	0.49
1:BA:1110:A:H2'	1:BA:1111:A:C8	2.48	0.49
24:AY:44:GLU:HA	24:AY:44:GLU:OE1	2.12	0.49
25:CA:353:C:H2'	25:CA:353:C:O2	2.12	0.49
16:BP:78:VAL:O	16:BP:78:VAL:HG22	2.11	0.49
47:CW:32:ILE:HG23	47:CW:54:THR:HG23	1.94	0.49
25:CA:1690:A:H2'	25:CA:1691:C:O4'	2.12	0.49
1:BA:1223:C:P	19:BS:77:ARG:NH1	2.85	0.49
1:BA:1342:C:H5"	9:BI:126:PHE:HE2	1.77	0.49
33:DI:116:MET:HE3	33:DI:128:ILE:HD11	1.95	0.49
33:DI:19:PRO:HG2	33:DI:23:VAL:HG22	1.93	0.49
32:CH:31:VAL:HG12	32:CH:32:PRO:CD	2.42	0.49
33:CI:18:ASN:HD21	33:CI:27:LEU:HD21	1.78	0.49
2:AB:63:LYS:HB3	2:AB:65:LYS:HE2	1.95	0.49
1:AA:1323:G:C6	1:AA:1324:A:C6	3.00	0.49
1:BA:1061:G:H2'	1:BA:1062:U:C5'	2.42	0.49
25:DA:2292:U:H2'	25:DA:2293:G:C8	2.46	0.49
25:DA:2335:A:C8	25:DA:2337:G:N7	2.80	0.49
25:DA:2345:G:C5	25:DA:2381:A:N1	2.81	0.49
25:DA:2199:A:C5	25:DA:2225:A:C2	3.00	0.49
32:DH:31:VAL:CG1	32:DH:32:PRO:CD	2.91	0.49
25:CA:1327:A:N6	25:CA:1328:A:C2	2.80	0.49
21:AU:25:ALA:O	21:AU:26:GLY:C	2.50	0.49
36:DL:135:ILE:O	36:DL:140:GLY:HA3	2.12	0.49
25:DA:2839:G:H2'	25:DA:2840:C:H6	1.78	0.49
38:DN:73:ASN:OD1	38:DN:76:VAL:HG11	2.12	0.49
14:BN:7:ALA:O	14:BN:8:ARG:C	2.51	0.49
25:DA:1448:G:C4	25:DA:1449:G:C8	3.01	0.49
39:DO:104:GLN:O	39:DO:107:ALA:HB3	2.11	0.49
39:DO:93:ASP:OD2	39:DO:95:SER:HA	2.12	0.49
3:AC:148:ILE:O	3:AC:169:GLU:O	2.30	0.49
25:DA:2127:G:C4'	25:DA:2128:G:OP1	2.57	0.49
5:AE:103:GLY:O	5:AE:104:ILE:HG22	2.12	0.49
22:AV:18:G:N3	22:AV:18:G:H2'	2.27	0.49
1:BA:98:A:H2'	1:BA:99:C:H6	1.77	0.49
20:AT:34:VAL:CG1	20:AT:78:LEU:HD22	2.42	0.49
20:AT:54:GLN:HG3	20:AT:75:LYS:NZ	2.27	0.49
16:AP:79:ASN:O	16:AP:80:LYS:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:4:ASP:HB2	8:AH:80:PRO:HG2	1.93	0.49
9:BI:27:ILE:HG13	9:BI:62:LEU:HD21	1.94	0.49
27:DC:94:LEU:HG	27:DC:95:TYR:O	2.12	0.49
5:BE:25:LYS:HA	5:BE:25:LYS:HE2	1.94	0.49
31:DG:43:LYS:N	31:DG:43:LYS:HE3	2.28	0.49
25:DA:2531:A:H5'	31:DG:156:TYR:CZ	2.48	0.49
6:BF:61:LEU:CG	6:BF:62:MET:H	2.25	0.49
25:DA:1169:A:C2	25:DA:1181:U:O2	2.66	0.49
3:AC:51:VAL:HA	3:AC:69:THR:HA	1.95	0.49
25:DA:53:A:N7	25:DA:54:G:C8	2.81	0.49
3:AC:86:LEU:HA	3:AC:89:VAL:HG22	1.94	0.49
25:CA:1530:G:H5'	25:CA:1531:C:OP2	2.12	0.49
1:BA:681:A:H2'	1:BA:682:G:O4'	2.11	0.49
33:CI:71:LYS:HD2	33:CI:71:LYS:N	2.27	0.49
25:CA:2309:A:N6	25:CA:2310:C:N4	2.60	0.49
1:AA:874:G:C4	1:AA:875:U:C6	3.00	0.49
7:AG:45:ALA:CB	7:AG:119:LEU:HB3	2.42	0.49
49:CY:17:GLU:HA	49:CY:17:GLU:OE2	2.13	0.49
38:CN:79:LEU:HD12	38:CN:79:LEU:H	1.76	0.49
1:BA:631:C:C5'	1:BA:632:U:H5'	2.41	0.49
28:CD:55:LYS:HD2	28:CD:60:VAL:HG22	1.93	0.49
25:DA:223:A:N7	25:DA:422:A:H1'	2.27	0.49
44:DT:7:LEU:CD2	44:DT:46:ALA:HA	2.42	0.49
25:CA:2181:U:O2'	25:CA:2182:U:H5'	2.12	0.49
29:CE:149:ILE:HD11	29:CE:172:ALA:N	2.27	0.49
1:BA:211:G:H2'	1:BA:212:G:O4'	2.11	0.49
51:D0:35:GLU:OE2	51:D0:45:ASP:HB2	2.13	0.49
25:DA:83:A:H5"	45:DU:1:ALA:N	2.28	0.49
1:BA:624:C:H4'	16:BP:10:GLY:O	2.11	0.49
1:BA:327:A:O3'	1:BA:328:C:H4'	2.13	0.49
30:DF:133:GLU:HB3	30:DF:136:ILE:HG23	1.95	0.49
1:BA:1478:U:O2'	1:BA:1479:C:H5'	2.13	0.49
32:CH:3:VAL:HA	32:CH:39:ALA:N	2.28	0.49
25:CA:580:U:O3'	41:CQ:30:VAL:HG13	2.13	0.49
25:CA:1424:G:H2'	25:CA:1425:G:O4'	2.12	0.49
5:AE:45:VAL:HG22	5:AE:117:ALA:CB	2.42	0.49
1:AA:632:U:C6	1:AA:632:U:H3'	2.47	0.49
1:BA:1083:U:C5	1:BA:1084:G:C5	3.01	0.49
25:CA:898:C:H2'	25:CA:899:A:O4'	2.13	0.49
1:BA:596:A:N1	1:BA:645:G:C4	2.79	0.49
25:DA:881:G:C2	25:DA:897:C:O2	2.66	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DS:29:VAL:HG11	43:DS:55:ILE:CD1	2.42	0.49
29:DE:18:THR:HG22	29:DE:19:PHE:CD2	2.47	0.49
29:DE:83:VAL:HG11	29:DE:86:ALA:HA	1.94	0.49
8:BH:85:TYR:C	8:BH:86:LYS:HD2	2.33	0.49
25:CA:1599:U:P	44:CT:40:LYS:HG3	2.53	0.49
6:AF:84:VAL:HG13	6:AF:84:VAL:O	2.11	0.49
1:AA:809:G:C2'	1:AA:810:C:O5'	2.60	0.49
25:DA:1816:C:C5	27:DC:61:TYR:CD1	3.00	0.49
16:BP:53:ASP:OD2	16:BP:56:ARG:HG2	2.11	0.49
37:CM:74:THR:O	37:CM:75:GLU:HG3	2.13	0.49
18:AR:67:LEU:HD23	18:AR:68:PRO:HD3	1.95	0.49
1:BA:1195:C:N3	1:BA:1197:A:C8	2.81	0.49
57:DW:62:LYS:O	57:DW:78:ILE:HG23	2.12	0.49
25:CA:2875:C:H2'	25:CA:2876:G:O5'	2.12	0.49
13:BM:45:SER:O	13:BM:46:GLU:HB3	2.13	0.49
1:AA:794:A:H2'	1:AA:795:C:C6	2.48	0.49
25:CA:2884:U:O2	25:CA:2884:U:O4'	2.30	0.49
29:DE:129:PRO:HG3	29:DE:156:ASN:OD1	2.11	0.49
25:DA:942:G:H2'	25:DA:943:A:O4'	2.12	0.49
1:BA:1272:G:N2	1:BA:1273:C:H1'	2.27	0.49
25:DA:2293:G:C6	25:DA:2340:A:N1	2.80	0.49
25:DA:643:A:N3	25:DA:643:A:H2'	2.26	0.49
5:BE:100:GLU:O	5:BE:100:GLU:OE2	2.30	0.49
20:BT:73:ARG:O	20:BT:74:HIS:C	2.51	0.49
36:DL:91:ASP:CB	36:DL:94:THR:CG2	2.91	0.49
25:DA:1544:A:N6	25:DA:1545:A:N1	2.60	0.49
25:CA:2748:A:C2	25:CA:2757:A:C5	3.01	0.49
1:AA:66:A:C2'	1:AA:67:C:H5'	2.42	0.49
1:BA:64:G:C8	1:BA:99:C:C4	3.01	0.49
20:BT:83:ASN:HA	20:BT:86:ALA:H	1.78	0.49
30:CF:153:ILE:HD13	30:CF:153:ILE:N	2.27	0.49
37:DM:107:GLY:C	37:DM:108:VAL:CG2	2.81	0.49
2:AB:103:TRP:HZ2	2:AB:153:MET:HG2	1.77	0.49
32:DH:41:LYS:O	32:DH:44:ILE:HG12	2.12	0.49
27:DC:66:PHE:CE2	27:DC:155:ARG:NH2	2.80	0.49
1:BA:921:U:H2'	1:BA:922:G:O4'	2.12	0.49
6:BF:47:LEU:HG	6:BF:56:LYS:N	2.27	0.49
1:BA:1004:A:C2	1:BA:1026:G:C4	3.01	0.49
25:CA:1872:A:H2'	25:CA:1873:G:O4'	2.13	0.49
2:AB:30:ILE:HG12	2:AB:38:HIS:HB2	1.95	0.49
53:C2:12:ARG:CG	53:C2:13:ASN:N	2.75	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:321:A:C2	1:BA:333:U:O2	2.65	0.49
29:DE:149:ILE:HD12	29:DE:150:THR:N	2.26	0.49
25:DA:1788:C:H2'	25:DA:1789:A:H5'	1.95	0.49
31:DG:8:VAL:HG23	31:DG:68:ARG:CD	2.41	0.49
25:DA:149:A:H2'	25:DA:150:U:O5'	2.11	0.49
19:AS:12:LEU:O	19:AS:13:HIS:C	2.51	0.49
33:CI:54:ILE:HG13	33:CI:73:PRO:HB3	1.94	0.49
7:BG:14:ASP:OD2	7:BG:16:LYS:N	2.45	0.49
56:DB:46:A:C5	56:DB:47:C:C4	3.01	0.49
24:AY:140:VAL:O	24:AY:142:ALA:N	2.45	0.49
32:CH:53:GLU:HG2	32:CH:57:LYS:HD3	1.93	0.49
25:CA:630:G:N2	25:CA:634:C:C4	2.79	0.49
40:CP:50:ARG:O	40:CP:56:SER:HA	2.13	0.49
25:DA:2473:U:C4	25:DA:2474:U:C5	3.00	0.49
26:CB:53:A:H2'	26:CB:54:G:C5'	2.43	0.49
27:CC:161:VAL:CG2	27:CC:175:LEU:HD23	2.42	0.49
4:BD:149:LYS:NZ	4:BD:177:MET:HB3	2.26	0.49
7:AG:145:GLU:HG3	7:AG:148:LYS:HE2	1.94	0.49
1:BA:270:A:H2'	1:BA:271:C:O4'	2.13	0.49
36:DL:2:ARG:HA	36:DL:5:THR:CG2	2.41	0.49
5:AE:55:VAL:O	5:AE:58:ALA:HB3	2.13	0.49
7:BG:68:VAL:HG21	7:BG:103:ILE:HD11	1.93	0.49
25:CA:1039:A:H2'	25:CA:1040:A:O5'	2.13	0.49
25:CA:1595:C:O2	25:CA:1595:C:H2'	2.12	0.49
35:CK:70:ARG:CD	35:CK:76:VAL:HG22	2.43	0.49
1:AA:609:A:O5'	1:AA:609:A:C8	2.66	0.49
25:CA:535:G:H2'	25:CA:536:G:H5'	1.94	0.49
19:BS:28:LYS:HB3	19:BS:29:PRO:CD	2.43	0.49
19:BS:44:ILE:CD1	19:BS:63:ASP:HA	2.42	0.49
25:DA:2377:A:H2'	25:DA:2378:A:H5'	1.94	0.49
36:CL:78:ARG:CZ	36:CL:113:ALA:HB1	2.42	0.49
25:DA:870:U:C4	25:DA:871:U:C5	3.00	0.49
32:DH:112:LYS:HA	32:DH:115:VAL:HG23	1.95	0.49
1:AA:996:A:C2	1:AA:1046:A:H5'	2.47	0.49
33:CI:115:ASP:O	33:CI:116:MET:CB	2.60	0.49
25:DA:2316:G:H4'	30:DF:124:ARG:HD3	1.95	0.49
39:CO:93:ASP:C	39:CO:95:SER:H	2.16	0.49
55:D4:10:LEU:HD12	55:D4:33:HIS:HA	1.94	0.49
35:DK:47:ILE:HB	35:DK:48:PRO:HD3	1.93	0.49
44:DT:29:THR:HG23	44:DT:86:THR:CA	2.42	0.49
25:CA:1936:A:H2	25:CA:1943:U:H3	1.56	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DQ:51:GLN:HA	41:DQ:54:ARG:HG3	1.95	0.49
23:AX:10:G:C6	23:AX:11:U:N3	2.81	0.49
15:BO:50:HIS:O	15:BO:53:ARG:HB3	2.13	0.49
27:DC:170:TYR:HD2	27:DC:184:GLU:HA	1.77	0.49
41:DQ:8:ILE:O	41:DQ:12:ARG:HG3	2.11	0.49
25:CA:627:A:C5	25:CA:637:A:N7	2.80	0.49
2:BB:14:HIS:ND1	2:BB:14:HIS:C	2.65	0.49
25:CA:2247:A:H2'	25:CA:2248:C:H6	1.77	0.49
8:AH:88:LYS:HG3	8:AH:89:ASP:N	2.27	0.49
1:AA:858:G:O2'	1:AA:859:G:H5'	2.13	0.49
28:CD:32:ASN:N	28:CD:32:ASN:HD22	2.09	0.49
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.46	0.49
48:DX:26:ARG:HG3	48:DX:27:ARG:N	2.23	0.49
32:DH:120:GLY:O	32:DH:121:VAL:C	2.50	0.49
1:BA:1244:G:N2	1:BA:1294:G:C4	2.81	0.49
1:BA:976:G:N2	1:BA:1362:A:O2'	2.46	0.49
1:BA:978:A:C4'	1:BA:1322:C:C5	2.94	0.49
1:BA:1317:C:C4	14:BN:53:ARG:CD	2.96	0.49
33:DI:4:VAL:HA	33:DI:7:TYR:CE1	2.48	0.49
25:DA:1345:C:H5'	25:DA:1396:U:H5	1.77	0.49
25:DA:1391:U:O2	25:DA:1394:U:C4	2.65	0.49
49:DY:21:LEU:O	49:DY:22:LEU:C	2.51	0.49
21:AU:16:ARG:C	21:AU:18:PHE:H	2.15	0.49
2:AB:112:ARG:O	2:AB:116:LEU:HB2	2.12	0.49
2:AB:136:ARG:O	2:AB:139:GLU:CB	2.60	0.49
19:AS:5:LYS:HD2	19:AS:6:LYS:HG2	1.94	0.49
17:AQ:16:MET:HB2	17:AQ:19:SER:HB3	1.95	0.49
1:BA:1061:G:H2'	1:BA:1062:U:O5'	2.13	0.49
25:DA:2372:U:C4'	52:D1:45:HIS:CD2	2.96	0.49
25:DA:2296:U:H4'	25:DA:2297:A:OP1	2.12	0.49
1:BA:1221:G:H5"	19:BS:76:THR:HG21	1.93	0.49
25:CA:277:G:O2'	25:CA:361:G:C6	2.59	0.49
30:DF:37:MET:HB2	30:DF:56:LEU:HD11	1.94	0.49
1:AA:407:U:O2'	4:AD:112:GLU:HG3	2.13	0.49
1:AA:429:U:O2	1:AA:430:A:C8	2.65	0.49
1:AA:496:A:H2'	1:AA:496:A:N3	2.26	0.49
4:AD:156:ALA:HA	4:AD:159:GLU:HB3	1.94	0.49
1:BA:87:C:H2'	1:BA:88:U:C1'	2.43	0.49
1:AA:11:G:C2	1:AA:24:U:O2	2.65	0.49
25:CA:1591:A:H2'	25:CA:1592:C:O4'	2.13	0.49
9:BI:79:ARG:NH1	9:BI:102:PHE:CD1	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1300:G:C5	1:AA:1334:G:C6	3.01	0.49
1:BA:919:A:C4	1:BA:920:U:C5	3.01	0.49
5:BE:24:VAL:HG23	5:BE:25:LYS:N	2.27	0.49
1:AA:1061:G:C5'	1:AA:1062:U:OP2	2.60	0.49
10:AJ:59:LYS:HE3	10:AJ:59:LYS:N	2.26	0.49
10:BJ:34:ALA:N	10:BJ:78:GLU:HG2	2.27	0.49
36:CL:28:GLY:C	36:CL:29:LYS:O	2.51	0.49
6:BF:68:GLN:HA	6:BF:71:ILE:CG2	2.43	0.49
36:CL:110:VAL:HB	36:CL:127:VAL:HG22	1.95	0.49
45:CU:4:ILE:HG22	45:CU:5:ARG:N	2.27	0.49
25:CA:547:A:N7	25:CA:548:G:C1'	2.71	0.49
3:AC:39:ARG:HG2	3:AC:54:ILE:HG12	1.93	0.49
3:AC:54:ILE:CG1	3:AC:54:ILE:O	2.60	0.49
3:AC:86:LEU:O	3:AC:89:VAL:CG2	2.61	0.49
25:DA:1241:A:N7	25:DA:1242:U:C5	2.81	0.49
1:AA:445:G:C2'	1:AA:446:G:H5'	2.43	0.49
44:CT:28:ASN:ND2	44:CT:91:GLN:HB3	2.28	0.49
21:BU:25:ALA:HA	21:BU:28:LEU:HB3	1.95	0.49
31:CG:16:VAL:HG22	31:CG:25:ILE:CD1	2.43	0.49
25:CA:994:C:H1'	42:CR:10:LYS:HE3	1.95	0.49
45:DU:85:ARG:HD3	45:DU:87:GLU:HG3	1.94	0.49
1:AA:658:C:C4	1:AA:659:U:H5	2.29	0.49
35:DK:104:THR:O	35:DK:106:GLU:N	2.45	0.49
7:AG:22:LEU:CD2	7:AG:61:PHE:CZ	2.94	0.49
15:BO:86:LEU:C	15:BO:88:ARG:H	2.14	0.49
25:DA:1410:G:N3	25:DA:1593:A:N1	2.60	0.49
28:DD:13:ARG:HD3	28:DD:21:SER:OG	2.12	0.49
51:D0:33:SER:HB3	51:D0:47:TYR:CD1	2.48	0.49
5:BE:106:ALA:HB1	5:BE:124:ALA:HB2	1.93	0.49
12:AL:43:LYS:CB	12:AL:44:PRO:HD3	2.43	0.49
4:AD:3:TYR:O	4:AD:4:LEU:CB	2.60	0.49
52:C1:33:LEU:H	52:C1:51:ALA:CB	2.25	0.49
25:DA:483:A:H4'	45:DU:46:LYS:HA	1.92	0.49
1:AA:646:G:C6	1:AA:647:C:C4	3.00	0.49
28:DD:85:ALA:O	28:DD:86:GLU:CB	2.61	0.49
16:AP:48:GLU:OE2	16:AP:51:ARG:HG3	2.11	0.49
13:AM:106:ARG:CG	13:AM:106:ARG:HH11	2.25	0.49
1:AA:929:G:C6	1:AA:930:C:C4	3.00	0.49
28:CD:47:ALA:HA	28:CD:84:LEU:HG	1.94	0.49
28:CD:47:ALA:HB1	28:CD:82:PHE:O	2.13	0.49
29:CE:177:PRO:O	29:CE:178:VAL:C	2.51	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:CC:96:LYS:HA	27:CC:96:LYS:HE2	1.95	0.49
8:BH:113:ARG:O	8:BH:116:ARG:HB3	2.12	0.49
29:CE:3:LEU:O	29:CE:11:ALA:HA	2.12	0.49
30:DF:69:ALA:HB3	30:DF:81:GLY:H	1.78	0.49
25:CA:228:C:H4'	25:CA:229:C:H5"	1.94	0.49
11:BK:110:THR:HA	21:BU:4:LYS:HA	1.94	0.49
1:BA:1306:A:H2'	1:BA:1307:U:C6	2.48	0.49
1:BA:338:A:H2'	1:BA:339:C:C6	2.48	0.49
2:AB:127:LYS:O	2:AB:128:LEU:O	2.30	0.49
35:CK:55:GLY:O	35:CK:56:ASP:C	2.50	0.49
39:DO:108:ASP:O	39:DO:112:GLU:HG3	2.12	0.49
29:CE:27:LEU:CD1	29:CE:100:MET:HE3	2.42	0.49
37:CM:125:PRO:C	37:CM:126:ILE:HG23	2.33	0.49
25:DA:1054:A:N6	25:DA:1055:G:C6	2.81	0.49
25:CA:2514:U:H2'	25:CA:2515:C:C6	2.48	0.49
60:DA:3254:HOH:O	36:DL:35:HIS:HD2	1.95	0.49
1:BA:396:C:H2'	1:BA:397:A:H5"	1.95	0.49
25:DA:861:A:C2	25:DA:917:A:C4	3.00	0.49
6:BF:13:ASP:C	6:BF:15:SER:H	2.16	0.49
10:AJ:91:ASP:C	10:AJ:92:LEU:HG	2.33	0.49
33:CI:52:LEU:HD11	33:CI:81:LYS:HE2	1.95	0.49
33:CI:78:LEU:HD23	33:CI:81:LYS:HZ1	1.77	0.49
30:CF:168:LEU:O	30:CF:168:LEU:HG	2.13	0.49
25:DA:945:A:H4'	25:DA:946:C:OP2	2.11	0.49
25:DA:1491:G:C6	25:DA:1500:G:C2	3.00	0.49
43:DS:5:ALA:CB	43:DS:54:ALA:HB2	2.42	0.49
1:BA:1345:U:C5	1:BA:1377:A:C2	3.00	0.49
1:BA:1222:G:H5"	19:BS:77:ARG:NH1	2.28	0.49
25:DA:1073:A:C3'	25:DA:1074:G:H5'	2.42	0.49
25:DA:1342:A:N7	25:DA:1397:U:C2	2.81	0.49
17:AQ:62:GLU:N	17:AQ:72:TRP:CE3	2.81	0.49
32:DH:21:VAL:O	32:DH:22:LYS:C	2.51	0.49
2:BB:183:PHE:CD1	2:BB:197:PHE:HB2	2.46	0.49
1:AA:1537:U:H6	1:AA:1537:U:O5'	1.95	0.49
16:BP:44:SER:OG	16:BP:46:LYS:CG	2.60	0.49
25:DA:1448:G:C6	25:DA:1449:G:C6	3.01	0.49
25:DA:1465:G:C2	25:DA:1466:U:C2	3.00	0.49
56:DB:55:U:H2'	56:DB:56:G:O4'	2.12	0.49
56:DB:43:C:O2'	30:DF:91:ARG:HG3	2.13	0.49
1:BA:71:A:C8	1:BA:71:A:C3'	2.96	0.49
14:AN:42:TRP:HE3	14:AN:42:TRP:H	1.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:972:C:H4'	10:BJ:59:LYS:HE3	1.95	0.49
8:AH:1:SER:O	8:AH:4:ASP:N	2.44	0.49
43:DS:46:LEU:O	43:DS:49:LYS:HB2	2.12	0.49
1:AA:5:U:H4'	1:AA:6:G:C4	2.47	0.49
25:CA:2152:G:C4	25:CA:2153:C:C6	3.00	0.49
35:DK:99:ILE:N	35:DK:99:ILE:CD1	2.75	0.49
6:BF:61:LEU:HG	6:BF:62:MET:H	1.78	0.49
25:DA:1179:G:N7	25:DA:1180:U:C1'	2.76	0.49
25:DA:1180:U:H5'	25:DA:1181:U:OP2	2.13	0.49
9:AI:87:MET:HG2	9:AI:88:GLU:N	2.27	0.49
29:DE:161:ALA:HB1	29:DE:167:VAL:HG12	1.95	0.49
46:CV:80:HIS:CD2	46:CV:81:PRO:CD	2.95	0.49
2:BB:224:ARG:O	2:BB:225:SER:CB	2.60	0.49
34:CJ:31:GLU:O	34:CJ:35:ARG:HG3	2.13	0.49
3:BC:57:GLU:HG3	3:BC:64:ARG:HB3	1.94	0.49
33:CI:32:VAL:HG21	33:CI:58:ILE:CG2	2.42	0.49
1:AA:1044:A:C5	1:AA:1045:C:H1'	2.47	0.49
1:BA:1284:C:H2'	1:BA:1285:A:C8	2.48	0.49
25:CA:894:U:H2'	25:CA:895:U:C6	2.47	0.49
25:CA:2167:U:H2'	25:CA:2169:A:OP2	2.13	0.49
25:CA:2183:A:H2'	25:CA:2184:A:H8	1.77	0.49
1:AA:803:G:C6	1:AA:804:U:N3	2.81	0.49
25:CA:1565:C:H3'	27:CC:17:LYS:HZ3	1.76	0.49
25:DA:333:G:C4	25:DA:334:C:C5	3.01	0.49
1:BA:623:C:C2	1:BA:624:C:C6	3.01	0.49
25:CA:2204:G:OP2	27:CC:146:LYS:HE3	2.13	0.49
36:DL:59:ARG:CZ	36:DL:59:ARG:HB3	2.41	0.49
46:DV:89:ILE:HG21	46:DV:91:PHE:CE2	2.48	0.49
38:DN:1:MET:O	38:DN:3:HIS:N	2.46	0.49
29:CE:134:LEU:HD23	29:CE:160:ALA:O	2.12	0.49
52:D1:50:GLU:O	52:D1:51:ALA:HB2	2.13	0.49
27:CC:194:VAL:HG22	27:CC:195:GLY:N	2.27	0.49
15:AO:41:HIS:HD2	15:AO:42:PHE:CE2	2.29	0.49
51:D0:31:LYS:CG	51:D0:32:THR:N	2.75	0.49
1:BA:363:A:H2'	1:BA:364:A:C8	2.47	0.49
1:BA:1058:G:H2'	1:BA:1059:C:O5'	2.12	0.49
35:CK:28:SER:C	35:CK:30:ARG:H	2.15	0.49
25:DA:919:U:C4	25:DA:920:A:C5	3.00	0.49
1:BA:577:G:H1'	1:BA:816:A:N3	2.28	0.49
25:DA:1030:C:O2	25:DA:1030:C:H2'	2.12	0.49
40:DP:47:ILE:O	40:DP:48:ALA:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:CF:20:ASN:O	30:CF:20:ASN:ND2	2.45	0.49
25:DA:1050:A:C4	25:DA:2751:G:C2	3.01	0.49
30:DF:121:PHE:CE1	30:DF:127:TYR:HB2	2.48	0.49
45:DU:44:HIS:HB3	45:DU:56:GLY:O	2.11	0.49
3:BC:178:ARG:HG2	3:BC:178:ARG:NH1	2.28	0.49
25:DA:2177:C:N4	25:DA:2178:C:N4	2.60	0.49
32:DH:14:SER:HA	32:DH:15:LEU:CD2	2.42	0.49
25:CA:1599:U:H2'	25:CA:1600:C:C6	2.48	0.49
11:AK:82:GLU:HG3	11:AK:108:ASN:HD22	1.77	0.49
25:CA:1:G:H2'	25:CA:2:G:H8	1.78	0.49
25:DA:830:G:H1'	25:DA:2448:A:N1	2.28	0.49
4:BD:94:GLU:OE2	4:BD:103:ARG:NH1	2.46	0.49
1:AA:600:A:C4	1:AA:639:G:N2	2.80	0.49
1:AA:472:U:C5	1:AA:473:U:C5	3.00	0.49
1:AA:1485:U:H2'	1:AA:1486:G:C8	2.48	0.49
36:DL:92:LEU:CD2	36:DL:124:GLY:HA3	2.42	0.49
25:CA:1223:G:P	42:CR:68:ARG:HH12	2.35	0.49
22:BV:56:C:H2'	22:BV:56:C:O2	2.11	0.49
31:CG:9:VAL:HG12	31:CG:9:VAL:O	2.13	0.49
25:DA:2006:C:O5'	25:DA:2006:C:H6	1.95	0.49
25:DA:258:G:H1'	36:DL:104:GLN:NE2	2.27	0.49
1:BA:1052:U:H5"	1:BA:1053:G:OP2	2.12	0.49
1:BA:1315:U:O4	1:BA:1316:G:N1	2.45	0.49
1:BA:1315:U:O4	1:BA:1316:G:C6	2.66	0.49
1:BA:942:G:H2'	1:BA:942:G:N3	2.28	0.49
25:DA:1062:G:C2	25:DA:1063:G:N1	2.81	0.49
25:DA:1066:U:O2	25:DA:1066:U:H2'	2.13	0.49
33:DI:40:ALA:HB3	33:DI:68:PHE:HZ	1.77	0.49
25:DA:1064:C:H4'	33:DI:90:GLY:N	2.28	0.49
2:AB:129:THR:HB	2:AB:131:LYS:HB3	1.95	0.49
17:AQ:60:ILE:HG23	17:AQ:72:TRP:HE3	1.78	0.49
1:BA:1151:A:H5'	10:BJ:44:THR:H	1.78	0.49
25:DA:1420:A:C5	25:DA:2211:A:C6	3.00	0.49
25:DA:2370:G:C6	25:DA:2371:G:C5	3.00	0.49
32:DH:32:PRO:HB3	48:DX:38:TRP:CB	2.42	0.49
4:AD:168:THR:CG2	4:AD:183:ARG:NH2	2.75	0.49
2:BB:71:THR:HG22	2:BB:72:LYS:H	1.78	0.49
25:DA:857:G:H5'	57:DW:65:PHE:CD1	2.48	0.49
25:DA:1494:A:H2'	25:DA:1494:A:N3	2.27	0.49
5:BE:94:PHE:CZ	5:BE:96:GLN:CG	2.96	0.49
1:AA:149:A:C1'	1:AA:1446:A:C2	2.96	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2112:G:H5'	25:DA:2113:U:C5	2.47	0.49
13:AM:22:TYR:CD2	13:AM:68:LEU:HD23	2.48	0.49
10:AJ:33:GLY:HA3	10:AJ:83:THR:OG1	2.11	0.49
21:AU:14:ALA:O	21:AU:15:LEU:CB	2.60	0.49
56:DB:33:G:C4	56:DB:50:A:C2	3.01	0.49
25:CA:1838:C:H4'	25:CA:1839:G:H8	1.77	0.49
5:AE:100:GLU:O	5:AE:100:GLU:HG3	2.12	0.49
5:AE:100:GLU:OE2	5:AE:102:THR:HA	2.12	0.49
5:AE:39:GLY:HA2	5:AE:44:ARG:O	2.13	0.49
8:AH:65:PHE:CD1	8:AH:65:PHE:C	2.82	0.49
22:AV:17:C:O3'	22:AV:18:G:H4'	2.12	0.49
9:BI:28:VAL:O	9:BI:64:ILE:CG1	2.61	0.49
1:AA:1060:U:H2'	1:AA:1061:G:H8	1.78	0.49
14:AN:87:ALA:HB3	14:AN:93:ILE:HD11	1.94	0.49
31:DG:42:VAL:CA	31:DG:43:LYS:HE2	2.42	0.49
10:BJ:10:LEU:HB2	10:BJ:18:ILE:HD11	1.94	0.49
24:AY:77:PRO:O	24:AY:81:LYS:HG2	2.13	0.49
3:AC:59:PRO:HD2	3:AC:62:SER:O	2.12	0.49
36:DL:28:GLY:C	36:DL:29:LYS:O	2.50	0.49
28:DD:181:ASP:OD2	28:DD:184:ARG:HD2	2.12	0.49
25:CA:1495:A:O2'	25:CA:1496:A:C5'	2.60	0.49
3:AC:105:VAL:C	3:AC:106:ARG:O	2.51	0.49
15:AO:85:GLY:O	15:AO:86:LEU:HB3	2.13	0.49
2:BB:52:ALA:C	2:BB:53:LEU:HD22	2.32	0.49
25:DA:60:G:N7	25:DA:62:U:C6	2.80	0.49
11:BK:37:GLN:OE1	11:BK:37:GLN:HA	2.11	0.49
6:AF:17:GLN:HA	6:AF:17:GLN:HE21	1.78	0.49
1:BA:677:U:H3	1:BA:713:G:H1	1.59	0.49
1:BA:715:A:H1'	1:BA:777:A:N1	2.28	0.49
25:DA:616:A:H2'	25:DA:617:G:H5'	1.95	0.49
28:CD:97:SER:O	28:CD:99:GLU:N	2.46	0.49
33:CI:70:THR:HA	33:CI:71:LYS:HD2	1.95	0.49
13:AM:70:ARG:HD2	13:AM:74:MET:CE	2.43	0.49
1:BA:1250:A:H4'	9:BI:69:GLY:O	2.12	0.49
1:AA:1118:U:H5"	9:AI:105:ARG:HG3	1.95	0.49
49:CY:22:LEU:HG	49:CY:23:ARG:H	1.78	0.49
24:AY:59:THR:O	24:AY:66:LEU:HD22	2.13	0.49
24:AY:59:THR:HG22	24:AY:60:VAL:C	2.33	0.49
17:BQ:51:GLU:CG	17:BQ:52:CYS:N	2.76	0.49
17:BQ:44:HIS:CE1	17:BQ:69:THR:HG21	2.47	0.49
1:BA:9:G:OP1	5:BE:107:GLY:HA3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:82:SER:CB	7:AG:84:TYR:CD2	2.96	0.49
1:BA:207:C:O2'	1:BA:213:G:N2	2.46	0.49
25:DA:333:G:H2'	25:DA:334:C:C6	2.47	0.49
1:AA:1006:G:C2	1:AA:1007:U:C2	3.01	0.49
44:CT:69:ARG:CG	44:CT:69:ARG:O	2.60	0.49
3:BC:18:ASN:HA	3:BC:55:VAL:CG1	2.42	0.49
7:BG:3:ARG:HG3	7:BG:4:ARG:N	2.28	0.49
4:BD:57:LYS:HE2	4:BD:68:GLU:OE1	2.13	0.49
25:CA:2520:C:C6	25:CA:2567:G:H1'	2.48	0.49
25:DA:1220:G:N2	25:DA:1230:A:C4	2.81	0.49
36:CL:68:SER:O	36:CL:69:ARG:HB2	2.13	0.49
1:BA:659:U:C2'	1:BA:660:C:O5'	2.61	0.49
25:DA:2692:G:C6	25:DA:2718:G:C6	3.01	0.49
53:D2:44:VAL:O	53:D2:44:VAL:CG1	2.61	0.49
25:DA:2537:U:H2'	25:DA:2538:C:C6	2.48	0.49
1:BA:811:C:H4'	1:BA:900:A:N6	2.28	0.49
1:BA:19:A:C4	1:BA:917:G:N2	2.81	0.49
34:DJ:13:ARG:HG2	34:DJ:51:GLY:O	2.13	0.49
5:AE:22:LYS:HB3	5:AE:29:ILE:HG23	1.94	0.49
15:AO:80:LEU:O	15:AO:84:LEU:HB2	2.13	0.49
1:BA:204:G:C2'	1:BA:205:A:O5'	2.61	0.49
5:AE:40:ASP:C	5:AE:40:ASP:OD1	2.51	0.49
25:DA:1584:U:H3'	25:DA:1584:U:O2	2.13	0.49
39:CO:49:VAL:HG12	39:CO:49:VAL:O	2.11	0.49
17:BQ:8:GLN:HE21	17:BQ:8:GLN:HA	1.77	0.49
27:CC:210:ALA:O	27:CC:215:VAL:HB	2.12	0.49
12:BL:54:VAL:HG21	12:BL:79:ILE:HD11	1.94	0.49
1:BA:938:A:C6	1:BA:939:G:C5	3.01	0.49
9:BI:117:LEU:HD12	9:BI:117:LEU:N	2.28	0.49
13:BM:28:ARG:NH1	13:BM:32:ILE:HD11	2.28	0.49
33:DI:56:VAL:CG2	33:DI:57:VAL:N	2.76	0.49
33:DI:53:PRO:O	33:DI:74:PRO:HD3	2.13	0.49
25:DA:1382:G:H5"	25:DA:1383:A:OP2	2.13	0.49
25:DA:1391:U:C2	25:DA:1394:U:O4	2.66	0.49
25:CA:1056:G:C4'	25:CA:1086:A:C8	2.96	0.49
21:AU:28:LEU:C	21:AU:28:LEU:HD23	2.33	0.49
25:DA:1495:A:OP2	25:DA:1495:A:C8	2.65	0.49
5:BE:104:ILE:HD11	5:BE:114:LEU:CB	2.43	0.49
1:BA:1216:A:H2'	1:BA:1217:C:C6	2.47	0.49
25:DA:2111:U:O2	25:DA:2118:U:H1'	2.12	0.49
43:DS:84:ARG:CB	43:DS:96:ILE:HD11	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2127:G:O3'	25:DA:2128:G:H8	1.96	0.49
51:C0:52:LYS:HE2	51:C0:55:ALA:CA	2.43	0.49
4:AD:53:GLN:HE21	4:AD:202:LEU:N	2.10	0.49
22:AV:46:G:H4'	22:AV:47:U:OP1	2.13	0.49
22:AV:63:G:H2'	22:AV:64:A:C8	2.47	0.49
20:BT:78:LEU:O	20:BT:81:GLN:HB2	2.12	0.49
1:BA:1540:U:HO3'	21:BU:17:ARG:CZ	2.25	0.49
9:BI:53:LEU:C	9:BI:54:VAL:HG22	2.33	0.49
1:AA:1300:G:C4	1:AA:1334:G:C6	3.01	0.49
2:BB:137:THR:O	2:BB:139:GLU:N	2.45	0.49
25:DA:229:C:H2'	25:DA:230:G:O5'	2.12	0.49
36:CL:111:ILE:CD1	36:CL:111:ILE:N	2.73	0.49
15:AO:86:LEU:O	15:AO:87:ARG:HB3	2.13	0.49
25:DA:118:A:N3	25:DA:178:G:H1'	2.27	0.49
27:CC:76:VAL:HA	27:CC:113:ASP:O	2.12	0.49
11:BK:117:HIS:O	11:BK:118:ASN:HB2	2.12	0.49
25:DA:611:C:H2'	25:DA:612:G:O4'	2.13	0.49
1:BA:1032:G:N2	1:BA:1033:G:C8	2.81	0.49
9:BI:88:GLU:CG	9:BI:89:TYR:N	2.76	0.49
57:DW:10:ARG:HG3	57:DW:10:ARG:NH1	2.27	0.49
1:BA:1211:U:C1'	1:BA:1213:A:C2	2.95	0.49
20:AT:66:ILE:CG2	20:AT:66:ILE:O	2.60	0.49
25:DA:2311:A:P	25:DA:2311:A:H3'	2.53	0.49
30:DF:39:VAL:HG13	30:DF:40:GLY:N	2.28	0.49
25:DA:2730:C:H4'	28:DD:175:LEU:HD23	1.94	0.49
25:CA:1875:G:C2'	25:CA:1876:A:OP2	2.60	0.49
31:DG:36:LEU:HD13	31:DG:40:VAL:CG1	2.40	0.49
24:AY:152:ASP:O	24:AY:153:ASP:C	2.49	0.49
1:BA:692:U:O2'	1:BA:694:A:N7	2.37	0.49
5:BE:55:VAL:HB	5:BE:56:PRO:HD2	1.95	0.49
1:BA:91:U:N3	1:BA:92:U:C5	2.81	0.49
25:DA:1612:C:C2'	25:DA:1613:G:O5'	2.57	0.49
3:BC:32:LEU:O	3:BC:32:LEU:HD12	2.12	0.49
6:BF:66:ALA:HB1	6:BF:67:PRO:HD2	1.95	0.49
8:BH:29:SER:O	8:BH:32:LYS:HB2	2.13	0.49
4:BD:61:ARG:NH1	4:BD:68:GLU:HG2	2.27	0.49
1:AA:564:C:H2'	1:AA:565:U:O4'	2.12	0.49
25:CA:186:G:C2	25:CA:187:G:N7	2.81	0.49
22:BV:5:G:N3	22:BV:69:G:C2	2.81	0.49
31:DG:39:ALA:CB	31:DG:57:TYR:CB	2.91	0.49
7:BG:104:VAL:O	7:BG:108:ARG:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CG:154:GLU:HG2	31:CG:155:PRO:HD2	1.93	0.49
39:CO:7:ARG:HA	39:CO:10:ARG:NH2	2.28	0.49
54:C3:16:THR:HG23	54:C3:20:GLY:C	2.33	0.49
9:BI:16:ALA:HB2	9:BI:66:VAL:CG2	2.43	0.49
1:BA:29:U:H5'	1:BA:296:U:OP1	2.12	0.49
37:DM:118:LYS:CA	37:DM:118:LYS:HE2	2.41	0.49
27:CC:140:VAL:CG1	27:CC:189:ALA:HB1	2.42	0.49
25:CA:122:G:H2'	25:CA:123:G:O4'	2.12	0.49
1:BA:338:A:H2'	1:BA:339:C:O4'	2.13	0.49
25:DA:2376:A:C2	39:DO:99:TYR:CE2	3.01	0.49
25:CA:2293:G:H2'	25:CA:2294:G:O4'	2.12	0.49
25:DA:1878:G:C5	25:DA:1879:C:C5	3.01	0.49
25:CA:20:C:O2'	25:CA:21:A:H5'	2.12	0.49
45:CU:101:THR:CG2	45:CU:102:ILE:N	2.75	0.49
1:AA:735:C:O2'	1:AA:736:C:H5'	2.13	0.49
38:CN:66:ALA:O	38:CN:69:ARG:O	2.30	0.49
25:DA:607:U:H2'	25:DA:608:A:H5'	1.94	0.49
1:BA:913:A:H4'	1:BA:914:A:OP1	2.12	0.49
48:DX:6:VAL:HG12	48:DX:7:THR:N	2.28	0.49
1:BA:658:C:C1'	15:BO:21:THR:HG21	2.43	0.49
30:CF:59:ILE:HG23	30:CF:137:PHE:CD1	2.48	0.49
25:CA:1561:C:H2'	25:CA:1562:U:C6	2.48	0.49
1:AA:423:G:H3'	1:AA:423:G:N3	2.28	0.49
25:CA:687:C:H1'	53:C2:4:THR:HG22	1.95	0.49
1:AA:516:U:C4	1:AA:517:G:C6	3.00	0.49
1:BA:976:G:C2	1:BA:1362:A:H2'	2.48	0.49
25:DA:1073:A:H3'	25:DA:1074:G:H5'	1.93	0.49
33:DI:38:CYS:HA	33:DI:41:PHE:CB	2.31	0.49
11:AK:30:ILE:HB	11:AK:45:THR:CG2	2.41	0.49
25:CA:1103:A:C8	25:CA:1104:C:C5	3.01	0.49
2:AB:106:VAL:HA	2:AB:109:SER:OG	2.12	0.49
2:AB:193:ASP:C	2:AB:195:VAL:N	2.66	0.49
2:AB:56:LEU:HD13	2:AB:57:ASN:N	2.28	0.49
2:AB:63:LYS:C	2:AB:65:LYS:HE2	2.33	0.49
17:AQ:71:SER:O	17:AQ:72:TRP:CD1	2.65	0.49
10:AJ:18:ILE:CG2	10:AJ:19:ASP:N	2.75	0.49
1:AA:1538:C:O5'	1:AA:1538:C:H6	1.96	0.49
16:BP:43:ALA:O	16:BP:46:LYS:HG2	2.13	0.49
5:BE:105:ILE:O	5:BE:105:ILE:HD12	2.13	0.49
25:CA:790:U:O2	25:CA:790:U:O4'	2.26	0.49
6:AF:3:HIS:CB	6:AF:92:THR:HG23	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DL:109:LYS:CG	36:DL:126:ARG:HB3	2.42	0.49
25:CA:284:U:H2'	25:CA:285:G:C8	2.48	0.49
25:DA:1448:G:H2'	25:DA:1449:G:C8	2.48	0.49
25:DA:1027:A:C6	25:DA:1126:A:N3	2.81	0.49
38:CN:98:LEU:HD13	51:C0:54:ILE:HD11	1.94	0.49
4:AD:122:ILE:H	4:AD:122:ILE:HD13	1.78	0.49
4:AD:57:LYS:H	4:AD:199:ILE:HG22	1.76	0.49
5:AE:104:ILE:O	5:AE:104:ILE:HG23	2.13	0.49
22:AV:65:G:N1	22:AV:66:U:C4	2.81	0.49
1:BA:76:G:C2	1:BA:95:C:N3	2.81	0.49
21:BU:19:LYS:N	21:BU:19:LYS:HZ3	2.11	0.49
9:BI:81:GLY:O	9:BI:84:ARG:CB	2.60	0.49
25:CA:2305:U:H2'	25:CA:2306:C:C6	2.47	0.49
1:AA:1233:G:C4	1:AA:1234:C:C5	3.01	0.49
1:AA:1241:G:H2'	1:AA:1242:G:H8	1.78	0.49
35:CK:109:SER:O	35:CK:112:PHE:N	2.46	0.49
31:DG:30:GLY:C	31:DG:78:VAL:CG1	2.81	0.49
1:AA:1059:C:H2'	1:AA:1060:U:H6	1.78	0.49
31:DG:7:PRO:HG3	31:DG:50:THR:HG22	1.95	0.49
6:BF:4:TYR:CD2	6:BF:71:ILE:HD13	2.48	0.49
6:BF:88:MET:HE3	18:BR:63:TYR:HD2	1.77	0.49
2:BB:90:PHE:HD2	2:BB:149:GLY:CA	2.25	0.49
9:AI:20:ILE:CD1	9:AI:86:LEU:CD1	2.91	0.49
1:BA:374:A:OP1	1:BA:452:A:C2	2.66	0.49
1:BA:452:A:H62	1:BA:480:U:H3	1.60	0.49
25:CA:1737:G:C6	25:CA:1738:G:C2	3.01	0.49
29:DE:148:ILE:HA	29:DE:187:VAL:HG12	1.95	0.49
27:DC:156:SER:O	27:DC:159:THR:OG1	2.30	0.49
25:DA:49:A:H4'	25:DA:51:G:C8	2.48	0.49
3:AC:41:TYR:CD1	3:AC:42:LEU:HD12	2.48	0.49
44:CT:56:GLU:HB2	44:CT:88:LYS:H	1.77	0.49
4:BD:31:CYS:O	4:BD:32:LYS:HB3	2.12	0.49
40:DP:32:VAL:C	40:DP:34:GLY:H	2.16	0.49
27:CC:16:VAL:HG23	27:CC:203:VAL:CG2	2.43	0.49
33:CI:56:VAL:HG21	33:CI:70:THR:CB	2.43	0.49
6:BF:10:VAL:HG12	6:BF:58:HIS:CB	2.43	0.49
25:DA:1796:U:H2'	25:DA:1797:G:C8	2.47	0.49
14:AN:25:GLU:C	14:AN:28:ALA:H	2.15	0.49
1:AA:35:G:C4	1:AA:550:G:N2	2.80	0.49
7:AG:115:MET:O	7:AG:119:LEU:HB2	2.12	0.49
14:BN:27:LYS:H	14:BN:30:ILE:HD13	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:44:PHE:HA	8:AH:70:VAL:HG11	1.95	0.49
37:DM:41:LEU:HD12	37:DM:96:ILE:HD11	1.95	0.49
29:CE:171:ASP:OD1	29:CE:171:ASP:O	2.30	0.49
29:CE:44:ARG:O	29:CE:45:ALA:CB	2.59	0.49
56:DB:74:U:O2	46:DV:29:ILE:HD12	2.13	0.49
1:AA:402:G:H2'	1:AA:403:C:H5'	1.94	0.49
26:CB:24:G:N2	26:CB:28:C:C2	2.80	0.49
16:AP:18:GLN:HE21	16:AP:35:ARG:NE	2.10	0.49
7:BG:96:ASN:O	7:BG:99:ALA:HB3	2.12	0.49
18:BR:26:ALA:O	18:BR:29:LYS:HG2	2.12	0.49
1:AA:575:G:HO2'	1:AA:821:G:H5'	1.76	0.49
25:CA:275:C:C4	25:CA:276:U:H6	2.31	0.49
1:BA:1265:C:C2	1:BA:1271:A:H2	2.31	0.49
25:CA:657:U:H2'	25:CA:658:U:C6	2.48	0.49
48:CX:10:ARG:HB2	48:CX:11:PRO:HD2	1.95	0.49
6:AF:46:GLN:HA	6:AF:56:LYS:HA	1.94	0.49
18:BR:31:TYR:O	18:BR:39:VAL:HB	2.12	0.49
25:CA:2207:C:H2'	25:CA:2208:C:H6	1.78	0.49
25:CA:734:A:C5	25:CA:735:A:C8	3.01	0.49
25:DA:282:A:H2'	25:DA:283:G:H8	1.78	0.49
29:CE:178:VAL:CG1	29:CE:179:SER:N	2.75	0.49
25:CA:1122:G:C2	25:CA:1123:C:C6	3.01	0.49
25:DA:981:A:H5"	60:DA:3598:HOH:O	2.12	0.49
31:CG:53:PRO:HD3	31:CG:61:TRP:CZ2	2.48	0.49
25:CA:186:G:N2	25:CA:187:G:C4	2.81	0.49
27:CC:70:LYS:HE3	27:CC:95:TYR:CD2	2.47	0.49
5:AE:105:ILE:CG1	5:AE:123:LEU:HB3	2.42	0.49
25:CA:1292:G:H2'	25:CA:1293:C:O5'	2.13	0.49
25:CA:864:G:C6	25:CA:865:C:N4	2.81	0.49
4:BD:99:ASN:OD1	4:BD:110:ARG:NH1	2.46	0.49
39:DO:6:ALA:O	39:DO:9:ARG:HG2	2.12	0.49
25:DA:875:G:N2	25:DA:903:C:C2	2.80	0.49
36:DL:117:THR:HG22	36:DL:118:THR:H	1.78	0.49
25:DA:2716:C:H2'	25:DA:2717:C:H6	1.77	0.49
40:DP:27:VAL:HG12	40:DP:29:VAL:HG23	1.95	0.49
25:CA:2644:G:O2'	25:CA:2645:G:H5'	2.12	0.49
7:AG:80:GLY:HA3	23:AX:12:A:H4'	1.95	0.49
25:CA:2745:C:C4	25:CA:2746:U:C4	3.00	0.49
25:CA:1361:G:C6	25:CA:1362:C:N4	2.81	0.49
25:DA:1482:G:H1'	25:DA:1509:A:N6	2.28	0.49
25:CA:49:A:C8	25:CA:51:G:C2	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2058:A:H8	25:DA:2058:A:O5'	1.94	0.49
27:DC:213:ARG:HH11	27:DC:213:ARG:HG3	1.77	0.49
38:DN:116:VAL:HG13	38:DN:116:VAL:O	2.12	0.49
29:DE:24:ASN:O	29:DE:28:VAL:HG23	2.12	0.49
25:DA:1685:C:O2'	25:DA:1686:C:H5'	2.12	0.49
1:BA:1294:G:H2'	1:BA:1295:U:C6	2.47	0.48
1:BA:1329:A:H5"	13:BM:24:VAL:HA	1.94	0.48
25:CA:2170:A:C2	25:CA:2171:A:C5	3.01	0.48
25:DA:1084:A:C6	25:DA:1085:A:N6	2.81	0.48
44:DT:5:GLU:O	44:DT:8:LEU:HB2	2.13	0.48
1:AA:714:G:H5'	1:AA:776:G:H5"	1.95	0.48
25:CA:1069:A:O2'	25:CA:1070:A:H5"	2.12	0.48
1:AA:1213:A:C2	1:AA:1215:G:H1'	2.47	0.48
1:AA:1215:G:N2	1:AA:1216:A:H1'	2.28	0.48
1:AA:270:A:C6	1:AA:271:C:N3	2.81	0.48
17:AQ:12:VAL:HG13	17:AQ:21:VAL:CG1	2.42	0.48
17:AQ:46:HIS:O	17:AQ:73:THR:CG2	2.61	0.48
25:DA:643:A:H1'	52:D1:43:ARG:NH2	2.27	0.48
1:BA:487:A:H5"	1:BA:488:C:OP2	2.12	0.48
25:DA:2839:G:C4	25:DA:2840:C:C6	3.01	0.48
25:CA:1730:C:H1'	25:CA:1731:G:C6	2.48	0.48
1:AA:174:A:C6	1:AA:175:C:C4	3.01	0.48
25:CA:361:G:HO2'	25:CA:362:A:P	2.35	0.48
4:BD:202:LEU:C	4:BD:202:LEU:CD1	2.81	0.48
25:DA:2112:G:C2'	25:DA:2112:G:N3	2.73	0.48
25:DA:2110:G:C6	25:DA:2120:G:N7	2.80	0.48
25:DA:984:A:C4'	25:DA:985:C:OP2	2.60	0.48
25:DA:1556:C:H2'	25:DA:1557:C:C5'	2.43	0.48
39:DO:51:ALA:HB1	39:DO:77:ALA:HB1	1.94	0.48
1:BA:765:G:H3'	1:BA:812:G:N2	2.27	0.48
28:DD:101:PHE:HB3	28:DD:104:VAL:HG21	1.95	0.48
25:DA:2172:U:H4'	25:DA:2173:A:C5'	2.43	0.48
4:AD:121:ALA:N	4:AD:122:ILE:HD12	2.28	0.48
4:AD:33:ILE:HG13	4:AD:34:GLU:N	2.28	0.48
21:AU:40:PRO:O	21:AU:44:ARG:HD3	2.13	0.48
20:BT:37:ALA:CB	20:BT:46:ALA:HA	2.43	0.48
9:BI:40:ARG:O	9:BI:44:ARG:NH1	2.45	0.48
35:DK:99:ILE:HG12	35:DK:115:ILE:HG23	1.94	0.48
6:BF:38:ARG:NH2	6:BF:96:VAL:HG23	2.28	0.48
1:AA:1494:G:C2	1:AA:1495:U:C6	3.01	0.48
25:DA:278:A:N1	25:DA:362:A:C8	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:24:PRO:C	2:AB:26:MET:H	2.16	0.48
2:BB:67:LEU:HD22	2:BB:69:VAL:HG22	1.93	0.48
3:AC:28:PHE:HE2	3:AC:32:LEU:HD23	1.77	0.48
1:BA:1492:A:O2'	25:DA:1913:A:N1	2.42	0.48
25:DA:419:U:C4	25:DA:420:C:N4	2.80	0.48
3:AC:54:ILE:O	3:AC:54:ILE:CD1	2.61	0.48
1:AA:1108:G:C2'	1:AA:1108:G:N3	2.74	0.48
29:CE:23:PHE:CE1	29:CE:28:VAL:HG21	2.47	0.48
3:BC:63:ILE:CG1	3:BC:65:VAL:CG2	2.91	0.48
33:CI:33:ASN:C	33:CI:35:MET:H	2.16	0.48
25:DA:547:A:C8	25:DA:548:G:N3	2.81	0.48
30:CF:142:TYR:HD1	30:CF:145:VAL:HG11	1.78	0.48
25:DA:476:G:O4'	25:DA:505:A:C2	2.66	0.48
25:CA:2531:A:H4'	31:CG:156:TYR:CD1	2.48	0.48
2:BB:20:ARG:NE	2:BB:20:ARG:HA	2.28	0.48
25:CA:892:A:C2	25:CA:893:C:C6	3.01	0.48
25:DA:2309:A:H2'	25:DA:2310:C:C6	2.48	0.48
17:BQ:46:HIS:HB2	17:BQ:66:LEU:CD1	2.43	0.48
15:BO:63:ARG:HD3	15:BO:87:ARG:HH22	1.78	0.48
13:AM:2:ARG:CG	13:AM:3:ILE:N	2.75	0.48
25:DA:2402:U:H2'	25:DA:2403:C:OP2	2.13	0.48
3:BC:181:ILE:HG22	3:BC:181:ILE:O	2.12	0.48
4:BD:144:ILE:N	4:BD:144:ILE:HD12	2.28	0.48
40:DP:77:SER:HB3	40:DP:80:VAL:CG1	2.42	0.48
25:DA:168:G:N2	25:DA:169:G:C1'	2.76	0.48
4:BD:131:ILE:HG22	4:BD:133:SER:H	1.77	0.48
29:DE:26:ALA:HB1	36:DL:9:ALA:HB2	1.94	0.48
1:AA:417:G:C6	1:AA:418:C:N4	2.81	0.48
25:CA:2590:A:OP2	27:CC:236:GLY:HA2	2.13	0.48
29:CE:131:THR:HA	29:CE:160:ALA:HB1	1.93	0.48
10:AJ:36:VAL:HG22	10:AJ:76:ILE:HG12	1.94	0.48
1:BA:646:G:C4	1:BA:647:C:C6	3.01	0.48
11:BK:80:ASN:HB3	11:BK:105:ARG:CG	2.42	0.48
25:CA:2491:U:H5'	25:CA:2570:G:H5'	1.95	0.48
30:CF:16:MET:O	30:CF:20:ASN:HA	2.13	0.48
35:CK:108:ARG:HH12	40:CP:34:GLY:N	2.10	0.48
25:DA:2721:A:H2'	25:DA:2722:G:O4'	2.13	0.48
25:DA:2723:C:O5'	25:DA:2723:C:H6	1.95	0.48
25:CA:368:A:H2'	25:CA:369:U:O5'	2.12	0.48
17:BQ:30:HIS:HD2	17:BQ:32:ILE:H	1.61	0.48
17:BQ:32:ILE:N	17:BQ:32:ILE:HD12	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DP:99:LEU:C	40:DP:101:GLU:N	2.67	0.48
37:DM:33:LEU:HD22	37:DM:117:PHE:CB	2.43	0.48
46:DV:20:LEU:HD22	46:DV:26:PHE:HA	1.95	0.48
4:AD:89:LEU:O	4:AD:93:LEU:HD12	2.13	0.48
25:DA:372:G:OP2	48:DX:60:LYS:HD3	2.13	0.48
43:DS:36:LEU:HD12	43:DS:48:LYS:HA	1.95	0.48
2:BB:151:LYS:HG3	2:BB:152:ASP:N	2.28	0.48
7:AG:103:ILE:O	7:AG:104:VAL:C	2.51	0.48
25:DA:861:A:H3'	25:DA:862:G:H8	1.78	0.48
28:CD:125:TRP:CD2	28:CD:160:LYS:HD2	2.48	0.48
25:CA:1348:C:H2'	25:CA:1349:C:H5'	1.95	0.48
43:CS:19:LEU:HB3	51:C0:21:LEU:CD1	2.42	0.48
25:DA:2545:G:H2'	25:DA:2546:U:O4'	2.13	0.48
48:CX:69:GLU:O	48:CX:73:ARG:HG2	2.13	0.48
29:DE:71:GLY:O	29:DE:72:SER:HB2	2.13	0.48
25:DA:448:U:H4'	25:DA:449:A:OP2	2.13	0.48
29:CE:144:GLU:OE2	29:CE:166:LYS:HD3	2.13	0.48
51:D0:36:LYS:O	51:D0:37:HIS:HB3	2.12	0.48
28:DD:80:TRP:CE3	28:DD:80:TRP:N	2.81	0.48
25:CA:967:U:H2'	25:CA:968:C:C6	2.48	0.48
32:DH:117:LEU:HD21	32:DH:121:VAL:CA	2.38	0.48
1:BA:1363:A:C8	1:BA:1365:G:C5	3.01	0.48
13:BM:108:ARG:O	13:BM:108:ARG:HG3	2.13	0.48
25:DA:1096:A:H3'	25:DA:1096:A:H8	1.78	0.48
1:BA:949:A:N3	1:BA:1233:G:N2	2.61	0.48
2:AB:95:TRP:CZ3	2:AB:174:GLU:OE2	2.66	0.48
42:DR:49:ILE:HG21	42:DR:53:PHE:N	2.25	0.48
25:DA:2293:G:H5"	39:DO:94:ARG:NH1	2.28	0.48
1:AA:1539:C:C5'	21:AU:17:ARG:CG	2.90	0.48
25:DA:1413:A:C6	25:DA:1590:A:N1	2.81	0.48
34:DJ:29:ALA:O	34:DJ:30:THR:C	2.52	0.48
25:CA:721:A:H2'	25:CA:722:A:H8	1.73	0.48
36:DL:103:ILE:H	36:DL:103:ILE:HD13	1.78	0.48
4:BD:190:LEU:N	4:BD:190:LEU:HD12	2.26	0.48
1:AA:656:G:N3	1:AA:657:U:C6	2.81	0.48
37:DM:21:ALA:CB	37:DM:100:LYS:CA	2.92	0.48
33:CI:79:LEU:HD11	33:CI:132:ALA:CB	2.41	0.48
25:CA:1838:C:H4'	25:CA:1839:G:C8	2.48	0.48
5:AE:150:GLU:O	5:AE:153:ALA:CB	2.60	0.48
10:BJ:59:LYS:HD2	10:BJ:60:ASP:H	1.78	0.48
25:DA:1317:G:H2'	25:DA:1318:U:O4'	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1149:C:N4	1:BA:1150:A:N6	2.61	0.48
9:BI:45:MET:HB2	9:BI:48:ARG:CB	2.43	0.48
1:BA:465:A:N6	1:BA:466:A:C6	2.81	0.48
25:CA:2139:U:C2	25:CA:2140:G:C8	3.01	0.48
1:AA:1061:G:C4	1:AA:1197:A:C2	3.01	0.48
6:BF:74:LEU:O	6:BF:75:GLU:C	2.52	0.48
6:BF:51:ILE:HD13	6:BF:85:ILE:HD12	1.95	0.48
3:AC:28:PHE:C	3:AC:28:PHE:CD2	2.87	0.48
25:CA:686:U:O4	53:C2:12:ARG:HB2	2.13	0.48
37:CM:108:VAL:HG12	37:CM:109:PRO:CD	2.43	0.48
27:DC:11:GLY:O	27:DC:12:ARG:HB2	2.13	0.48
3:BC:13:ILE:HD13	3:BC:13:ILE:N	2.27	0.48
1:BA:1491:G:H2'	1:BA:1492:A:H8	1.74	0.48
12:BL:43:LYS:CB	12:BL:44:PRO:CD	2.91	0.48
49:CY:5:GLU:C	49:CY:7:ARG:H	2.16	0.48
25:DA:418:C:C2	25:DA:419:U:C6	3.01	0.48
2:BB:49:PHE:HA	2:BB:52:ALA:HB3	1.94	0.48
56:DB:116:G:H5'	39:DO:55:GLU:CG	2.41	0.48
20:AT:8:LYS:O	20:AT:9:ARG:C	2.50	0.48
6:AF:17:GLN:O	6:AF:17:GLN:NE2	2.45	0.48
25:CA:1520:U:H2'	25:CA:1520:U:O2	2.13	0.48
25:CA:2298:A:H2'	25:CA:2299:U:H5'	1.95	0.48
6:BF:10:VAL:HG12	6:BF:58:HIS:HB2	1.95	0.48
1:BA:146:G:O2'	1:BA:147:G:H5'	2.13	0.48
30:CF:48:LEU:HA	30:CF:51:ASN:ND2	2.28	0.48
25:CA:2531:A:H4'	31:CG:156:TYR:CE1	2.48	0.48
1:AA:591:U:H2'	1:AA:592:G:C8	2.48	0.48
1:BA:1450:U:H2'	1:BA:1452:C:C4	2.48	0.48
25:CA:329:G:O4'	25:CA:477:A:H1'	2.13	0.48
1:AA:769:G:C2'	1:AA:770:C:O5'	2.62	0.48
15:BO:62:ARG:O	15:BO:65:LEU:HB2	2.12	0.48
46:DV:56:PHE:CD1	46:DV:61:LEU:HD21	2.48	0.48
4:BD:128:VAL:HG23	4:BD:145:ARG:HD3	1.95	0.48
5:BE:106:ALA:CB	5:BE:124:ALA:HB2	2.43	0.48
1:BA:270:A:C5	1:BA:271:C:C5	3.01	0.48
28:CD:85:ALA:O	28:CD:86:GLU:O	2.31	0.48
25:CA:1020:A:C2	25:CA:1141:U:C2	3.01	0.48
6:AF:7:VAL:HG11	18:AR:64:LEU:CD1	2.41	0.48
6:AF:9:MET:HE1	18:AR:64:LEU:HD22	1.95	0.48
1:BA:92:U:H2'	1:BA:92:U:O2	2.12	0.48
1:AA:595:A:C2	1:AA:641:U:C2	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:CF:131:VAL:HG21	30:CF:136:ILE:HD11	1.94	0.48
25:DA:2517:C:C2	25:DA:2542:A:N6	2.80	0.48
31:DG:86:LEU:HD12	31:DG:163:TYR:HA	1.96	0.48
1:BA:341:C:H2'	1:BA:342:C:H6	1.78	0.48
55:D4:24:ARG:NH2	55:D4:36:ARG:HG3	2.28	0.48
29:DE:197:GLU:O	29:DE:201:ALA:HB2	2.12	0.48
1:AA:564:C:O2'	1:AA:565:U:H5'	2.13	0.48
37:DM:130:PHE:CD2	37:DM:130:PHE:C	2.87	0.48
1:BA:1045:C:C2	1:BA:1046:A:C8	3.01	0.48
30:DF:125:GLY:HA2	30:DF:162:ASP:HA	1.94	0.48
25:CA:348:A:H2'	25:CA:349:U:C6	2.48	0.48
25:CA:473:G:C2'	25:CA:474:G:O5'	2.61	0.48
41:DQ:16:ILE:HG22	41:DQ:17:LEU:N	2.28	0.48
24:AY:123:GLU:HA	24:AY:126:ARG:HG3	1.95	0.48
25:CA:679:C:C2'	25:CA:680:C:H5'	2.43	0.48
30:CF:147:ARG:CG	30:CF:148:VAL:N	2.76	0.48
25:DA:2874:C:H2'	25:DA:2874:C:O2	2.12	0.48
14:BN:77:PHE:N	14:BN:77:PHE:CD1	2.81	0.48
25:CA:116:C:C2'	25:CA:116:C:O2	2.57	0.48
5:AE:125:LYS:HG3	5:AE:126:ALA:N	2.28	0.48
1:BA:1379:G:O2'	1:BA:1380:U:H5'	2.14	0.48
13:BM:72:ILE:O	13:BM:73:SER:C	2.51	0.48
1:BA:428:G:H8	1:BA:428:G:OP1	1.96	0.48
11:AK:22:ILE:HG22	11:AK:31:VAL:CG2	2.43	0.48
21:AU:16:ARG:NH1	21:AU:19:LYS:HG2	2.28	0.48
2:AB:93:HIS:O	2:AB:94:ARG:C	2.52	0.48
1:AA:1213:A:N1	1:AA:1215:G:H1'	2.27	0.48
1:BA:1256:A:O4'	1:BA:1258:G:C4	2.66	0.48
1:BA:625:U:H5"	16:BP:16:PHE:CD1	2.48	0.48
11:AK:70:ALA:O	11:AK:72:ALA:N	2.46	0.48
38:DN:49:GLU:N	38:DN:50:PRO:CD	2.77	0.48
1:BA:307:C:C2'	1:BA:308:C:O5'	2.60	0.48
1:AA:1296:C:H4'	1:AA:1302:C:H41	1.78	0.48
30:DF:32:LYS:HA	30:DF:90:LEU:O	2.12	0.48
1:BA:1261:A:N1	1:BA:1262:C:C4	2.81	0.48
5:AE:100:GLU:HB2	5:AE:121:ASN:HB3	1.95	0.48
1:BA:74:A:C2	1:BA:97:G:C2	3.01	0.48
1:BA:1298:U:H4'	1:BA:1299:A:C8	2.48	0.48
1:AA:466:A:H5'	1:AA:467:U:OP2	2.13	0.48
31:DG:120:ILE:CD1	31:DG:134:GLY:HA3	2.43	0.48
9:BI:50:PRO:HG3	9:BI:82:ILE:HD12	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2801:G:C2	25:CA:2802:G:C4	3.01	0.48
37:DM:108:VAL:CG1	37:DM:109:PRO:HD2	2.39	0.48
1:BA:499:A:C6	1:BA:547:A:C8	3.01	0.48
31:DG:43:LYS:H	31:DG:43:LYS:HE3	1.77	0.48
2:BB:131:LYS:HA	2:BB:135:MET:SD	2.53	0.48
10:BJ:6:ILE:HG13	10:BJ:76:ILE:O	2.13	0.48
45:DU:12:VAL:HG11	45:DU:17:ASP:C	2.33	0.48
45:DU:4:ILE:C	45:DU:5:ARG:HG2	2.34	0.48
45:DU:5:ARG:O	45:DU:8:ASP:HB3	2.12	0.48
11:AK:96:ILE:HG13	11:AK:97:ARG:N	2.27	0.48
50:DZ:5:LYS:HB2	50:DZ:57:GLU:HG3	1.95	0.48
25:CA:2298:A:C5	25:CA:2321:U:C5	3.02	0.48
1:BA:113:G:O4'	1:BA:354:G:H4'	2.13	0.48
13:AM:80:MET:CB	13:AM:91:ARG:HH22	2.26	0.48
27:DC:251:THR:O	27:DC:252:LYS:HB2	2.13	0.48
1:BA:1032:G:C2	1:BA:1033:G:O4'	2.66	0.48
1:AA:414:A:C5	1:AA:431:A:C2	3.01	0.48
32:DH:127:GLU:HA	32:DH:144:VAL:O	2.13	0.48
27:DC:1:ALA:CB	27:DC:198:GLU:OE2	2.61	0.48
49:CY:20:ASN:O	49:CY:21:LEU:C	2.52	0.48
25:CA:1124:G:H2'	25:CA:1125:G:C5'	2.42	0.48
17:BQ:68:LYS:O	17:BQ:69:THR:CB	2.61	0.48
5:AE:158:LYS:OXT	8:AH:46:GLU:OE2	2.31	0.48
5:AE:14:LEU:C	5:AE:14:LEU:CD1	2.81	0.48
15:BO:66:LEU:O	15:BO:67:ASP:C	2.49	0.48
25:DA:1429:G:H2'	25:DA:1430:G:O5'	2.13	0.48
1:BA:211:G:C2	1:BA:212:G:H1'	2.49	0.48
4:BD:97:LEU:HG	4:BD:117:VAL:HG21	1.96	0.48
1:BA:562:U:H4'	1:BA:563:A:C5'	2.44	0.48
25:DA:1476:U:H1'	25:DA:1732:C:C2	2.48	0.48
25:DA:542:C:C3'	25:DA:543:G:H5"	2.44	0.48
25:DA:714:U:H5"	25:DA:715:A:OP2	2.14	0.48
1:BA:53:A:H2'	1:BA:54:C:O4'	2.12	0.48
1:AA:399:G:H2'	1:AA:400:C:H6	1.77	0.48
25:CA:79:C:O2	25:CA:108:G:C2	2.66	0.48
3:BC:119:ILE:HD11	3:BC:136:ALA:HB1	1.95	0.48
25:DA:244:A:C2	25:DA:255:A:C4	3.02	0.48
25:CA:96:C:H4'	49:CY:41:HIS:CG	2.49	0.48
1:BA:970:C:O2	1:BA:970:C:H2'	2.12	0.48
42:DR:9:GLY:C	42:DR:10:LYS:HG2	2.33	0.48
1:BA:890:G:HO2'	1:BA:891:U:P	2.36	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:D3:60:CYS:C	54:D3:61:LEU:HD23	2.34	0.48
54:D3:60:CYS:O	54:D3:62:PRO:HD3	2.13	0.48
40:DP:113:LEU:O	40:DP:113:LEU:HD23	2.13	0.48
32:CH:69:ALA:CB	32:CH:138:VAL:CG1	2.91	0.48
25:CA:208:C:O2	25:CA:208:C:C2'	2.54	0.48
25:DA:1050:A:C1'	25:DA:2751:G:N2	2.76	0.48
1:BA:552:U:H2'	1:BA:553:A:H8	1.78	0.48
56:DB:25:U:C4	56:DB:26:C:C5	3.01	0.48
1:BA:634:C:H2'	1:BA:635:A:O5'	2.13	0.48
2:BB:16:GLY:HA3	2:BB:40:ILE:H	1.78	0.48
10:BJ:15:HIS:HB3	10:BJ:70:HIS:CD2	2.48	0.48
25:DA:1054:A:C6	25:DA:1055:G:C5	3.01	0.48
25:CA:2728:U:O2'	25:CA:2729:G:P	2.70	0.48
3:BC:139:ASN:HA	3:BC:142:ARG:HB3	1.95	0.48
15:BO:81:ILE:CG1	15:BO:82:GLU:N	2.75	0.48
37:CM:97:GLN:O	37:CM:98:PRO:C	2.50	0.48
15:AO:15:GLY:O	15:AO:16:ARG:C	2.51	0.48
25:DA:2027:G:C6	25:DA:2028:U:C4	3.02	0.48
25:DA:1559:U:H3'	25:DA:1560:G:H5'	1.94	0.48
25:CA:1518:C:O5'	25:CA:1518:C:H6	1.95	0.48
40:CP:3:ILE:HD12	40:CP:3:ILE:N	2.29	0.48
1:BA:607:A:C2	1:BA:608:A:C4	3.00	0.48
1:BA:979:C:H3'	1:BA:980:C:H6	1.79	0.48
13:BM:92:ARG:HG2	13:BM:92:ARG:HH11	1.77	0.48
25:DA:1073:A:C2'	25:DA:1074:G:H5'	2.43	0.48
25:DA:1338:G:C2'	25:DA:1339:G:H5'	2.43	0.48
25:CA:1081:U:OP2	25:CA:1081:U:C6	2.66	0.48
2:AB:160:LEU:HB3	2:AB:182:VAL:HA	1.94	0.48
1:BA:1256:A:H5'	1:BA:1258:G:C1'	2.43	0.48
42:DR:49:ILE:HG22	42:DR:54:VAL:N	2.28	0.48
42:CR:51:VAL:HB	42:CR:52:PRO:HD3	1.94	0.48
42:CR:49:ILE:HG22	42:CR:53:PHE:CA	2.41	0.48
1:BA:1166:G:N1	1:BA:1168:U:H5"	2.28	0.48
25:DA:1467:U:C5	25:DA:1468:U:C5	3.01	0.48
56:DB:51:G:C2'	56:DB:52:A:O5'	2.61	0.48
39:DO:37:ALA:CB	39:DO:106:LEU:HD11	2.40	0.48
4:AD:117:VAL:O	4:AD:130:ASN:HB2	2.14	0.48
25:DA:320:A:H2'	29:DE:131:THR:HG21	1.94	0.48
1:BA:88:U:O4	1:BA:89:U:C4	2.67	0.48
25:CA:1450:G:C6	25:CA:1451:C:N4	2.81	0.48
17:BQ:45:VAL:HG22	17:BQ:72:TRP:HB2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:462:G:C8	1:AA:463:U:C5	3.01	0.48
25:CA:2305:U:H4'	25:CA:2305:U:OP1	2.14	0.48
30:CF:121:PHE:CE2	30:CF:127:TYR:CD1	3.01	0.48
1:AA:1235:U:H2'	1:AA:1236:A:O5'	2.13	0.48
25:CA:2149:U:H2'	25:CA:2150:C:C6	2.49	0.48
25:CA:1567:G:C5	27:CC:82:TYR:CD1	3.01	0.48
6:BF:61:LEU:HD12	6:BF:62:MET:H	1.79	0.48
45:DU:6:ARG:CG	45:DU:7:ASP:H	2.27	0.48
25:DA:1179:G:O6	25:DA:1180:U:C2	2.66	0.48
36:CL:77:ILE:HD12	36:CL:100:ILE:HD11	1.96	0.48
1:BA:523:A:N6	12:BL:49:ARG:HH12	2.12	0.48
3:BC:147:GLY:HA2	3:BC:170:GLY:HA3	1.95	0.48
21:BU:11:PHE:O	21:BU:12:ASP:HB2	2.14	0.48
25:DA:1104:C:C2	25:DA:1105:U:C5	3.01	0.48
1:AA:446:G:C2'	1:AA:447:G:H5'	2.43	0.48
25:CA:2032:G:H1'	28:CD:150:GLN:OE1	2.13	0.48
25:DA:2131:U:H5'	25:DA:2132:U:OP1	2.13	0.48
25:DA:615:U:H3'	25:DA:616:A:C5'	2.43	0.48
28:CD:4:LEU:HD11	28:CD:96:ILE:HG22	1.95	0.48
44:CT:31:VAL:HA	44:CT:83:ALA:O	2.13	0.48
27:DC:83:ASP:C	27:DC:85:ASN:H	2.17	0.48
25:DA:477:A:C6	25:DA:478:A:C6	3.01	0.48
50:DZ:43:ILE:C	50:DZ:45:GLY:N	2.64	0.48
7:AG:22:LEU:HD21	7:AG:61:PHE:CZ	2.47	0.48
1:BA:475:C:O2	1:BA:475:C:H2'	2.12	0.48
15:BO:75:ALA:O	15:BO:77:TYR:N	2.46	0.48
25:DA:141:G:H5"	25:DA:142:A:C5	2.47	0.48
1:BA:369:G:C2'	1:BA:370:C:O5'	2.61	0.48
25:CA:2683:C:H4'	28:CD:13:ARG:NH1	2.28	0.48
1:AA:198:G:H2'	1:AA:199:A:H8	1.79	0.48
1:AA:636:U:H2'	1:AA:637:C:H6	1.77	0.48
25:CA:1613:G:C2	25:CA:1619:G:C5	3.01	0.48
25:DA:2615:U:O2	25:DA:2615:U:H2'	2.12	0.48
34:CJ:65:THR:HG23	34:CJ:68:LYS:NZ	2.28	0.48
30:DF:100:GLU:O	30:DF:103:ILE:N	2.46	0.48
30:DF:30:VAL:HG22	30:DF:95:MET:HE3	1.96	0.48
25:DA:666:A:C5	25:DA:667:U:C5	3.01	0.48
32:CH:5:LEU:O	32:CH:6:LEU:HD12	2.13	0.48
25:CA:35:G:C2'	25:CA:36:G:O5'	2.60	0.48
18:BR:24:ASP:C	18:BR:26:ALA:N	2.65	0.48
4:AD:2:ARG:CZ	4:AD:114:ARG:CD	2.92	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:821:G:H2'	1:AA:822:U:C6	2.48	0.48
1:AA:189:A:C6	1:AA:190:A:C2	3.02	0.48
25:DA:2514:U:H2'	25:DA:2515:C:H6	1.77	0.48
25:CA:1154:G:OP2	41:CQ:57:ARG:NH1	2.45	0.48
27:CC:158:GLY:H	27:CC:194:VAL:HG13	1.79	0.48
35:DK:92:GLU:O	35:DK:93:GLN:HB2	2.12	0.48
25:CA:2813:A:H2'	25:CA:2814:A:H5'	1.94	0.48
25:DA:871:U:C5'	37:DM:68:PHE:CE2	2.97	0.48
22:BV:63:G:H2'	22:BV:64:A:O4'	2.14	0.48
29:CE:175:ILE:HD13	29:CE:196:VAL:CG2	2.43	0.48
45:CU:42:LYS:HZ3	45:CU:42:LYS:HB2	1.79	0.48
25:CA:1707:G:H2'	25:CA:1708:C:O4'	2.14	0.48
25:DA:1498:C:H2'	25:DA:1499:C:H6	1.78	0.48
22:AV:24:G:C2'	22:AV:25:C:O5'	2.61	0.48
25:DA:200:U:O4	25:DA:248:G:C2	2.66	0.48
25:CA:2287:A:C4	25:CA:2289:G:N7	2.82	0.48
25:CA:1559:U:H3'	25:CA:1560:G:H5'	1.95	0.48
42:CR:62:GLU:O	42:CR:62:GLU:CG	2.61	0.48
21:BU:52:VAL:HG13	21:BU:53:LYS:N	2.28	0.48
1:AA:1068:G:N7	1:AA:1094:G:H2'	2.28	0.48
25:CA:1348:C:C5	25:CA:1349:C:C5	3.02	0.48
24:AY:86:SER:O	24:AY:87:ASP:C	2.51	0.48
25:CA:572:A:H3'	25:CA:573:U:O4'	2.14	0.48
1:BA:1036:A:H2'	1:BA:1036:A:N3	2.28	0.48
36:CL:112:LEU:HG	36:CL:112:LEU:O	2.14	0.48
1:AA:488:C:H6	1:AA:488:C:O5'	1.96	0.48
25:CA:691:C:O2'	25:CA:692:C:H5'	2.14	0.48
36:DL:23:ILE:HD13	42:DR:84:ARG:CG	2.42	0.48
46:CV:66:ASP:O	46:CV:67:GLY:C	2.52	0.48
1:BA:933:G:OP2	7:BG:2:ARG:HB3	2.14	0.48
1:BA:937:A:H1'	1:BA:1379:G:N2	2.29	0.48
9:BI:128:LYS:HD3	9:BI:129:ARG:H	1.77	0.48
25:DA:1087:G:C2	25:DA:1089:A:N3	2.81	0.48
11:AK:30:ILE:HA	11:AK:45:THR:HG22	1.96	0.48
2:AB:88:GLN:HG3	2:AB:220:VAL:HG11	1.95	0.48
1:AA:1312:G:C2	1:AA:1326:U:C2	3.01	0.48
1:AA:1326:U:H2'	1:AA:1327:C:C6	2.47	0.48
1:AA:276:G:C4	1:AA:277:C:C5	3.01	0.48
25:DA:2204:G:O5'	27:DC:149:LYS:HE3	2.14	0.48
25:CA:1180:U:HO2'	25:CA:1181:U:P	2.37	0.48
31:CG:73:SER:HA	31:CG:76:ILE:HG12	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:169:TRP:HB3	4:AD:183:ARG:CZ	2.43	0.48
2:BB:206:ILE:N	2:BB:206:ILE:HD13	2.29	0.48
32:DH:62:LEU:CD1	32:DH:63:ALA:N	2.69	0.48
1:BA:615:G:C6	1:BA:626:G:C6	3.01	0.48
36:DL:110:VAL:HB	36:DL:127:VAL:HG22	1.95	0.48
38:DN:79:LEU:O	38:DN:80:PHE:HB2	2.13	0.48
13:AM:33:LEU:HD23	13:AM:38:ILE:CG2	2.43	0.48
25:DA:570:G:H2'	25:DA:2030:A:C8	2.47	0.48
1:AA:409:U:C4	1:AA:410:G:C6	3.02	0.48
41:CQ:25:GLY:O	41:CQ:26:ALA:C	2.51	0.48
22:AV:59:U:C4	22:AV:60:U:C4	3.00	0.48
1:AA:194:C:H2'	1:AA:195:A:H5'	1.95	0.48
25:CA:1592:C:H2'	25:CA:1593:A:C8	2.49	0.48
1:AA:1332:A:N3	1:AA:1332:A:H5'	2.29	0.48
2:BB:101:THR:CA	2:BB:178:LEU:HD21	2.44	0.48
25:DA:2126:A:C4	25:DA:2162:G:O6	2.66	0.48
12:BL:106:VAL:CG2	12:BL:116:TYR:HB3	2.40	0.48
8:BH:7:ALA:HA	8:BH:76:ARG:HG3	1.94	0.48
40:DP:20:ARG:HB3	40:DP:21:PRO:CD	2.43	0.48
2:BB:181:PRO:C	2:BB:182:VAL:HG23	2.34	0.48
12:BL:63:THR:HG23	12:BL:92:VAL:HA	1.95	0.48
25:DA:1047:G:H1'	25:DA:1110:G:N1	2.28	0.48
29:DE:149:ILE:HD12	29:DE:150:THR:H	1.78	0.48
25:CA:1721:G:C6	25:CA:1738:G:C6	3.01	0.48
25:DA:349:U:H2'	25:DA:350:G:H8	1.77	0.48
39:DO:56:LYS:O	39:DO:57:ALA:C	2.51	0.48
38:CN:24:MET:HG2	38:CN:44:LEU:CD2	2.40	0.48
1:BA:688:G:H5'	11:BK:48:GLY:HA2	1.95	0.48
1:BA:58:C:C2'	1:BA:59:A:H5'	2.43	0.48
1:BA:1048:G:H4'	14:BN:2:LYS:HE2	1.93	0.48
1:BA:141:G:H2'	1:BA:142:G:O4'	2.12	0.48
1:BA:1286:U:H3'	1:BA:1286:U:O2	2.13	0.48
3:BC:86:LEU:O	3:BC:90:VAL:HG23	2.13	0.48
25:CA:894:U:O2'	25:CA:895:U:H5'	2.14	0.48
25:DA:2477:U:H5"	25:DA:2479:U:O4	2.14	0.48
25:CA:1359:A:N7	25:CA:1373:A:C2	2.81	0.48
25:CA:1359:A:C8	25:CA:1373:A:N1	2.81	0.48
25:CA:592:A:C2	25:CA:666:A:C4	3.01	0.48
3:BC:66:THR:O	3:BC:67:ILE:HG13	2.13	0.48
15:AO:3:SER:O	15:AO:7:THR:HG23	2.12	0.48
1:AA:159:G:C5'	1:AA:159:G:C8	2.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BD:145:ARG:NH2	4:BD:147:LYS:HE3	2.28	0.48
25:DA:1873:G:C4	25:DA:1874:C:C5	3.02	0.48
4:AD:196:GLU:CD	4:AD:196:GLU:N	2.66	0.48
25:CA:1840:G:C4	25:CA:1841:U:C6	3.02	0.48
1:BA:27:G:H2'	1:BA:28:A:O4'	2.12	0.48
3:BC:111:ASP:O	3:BC:115:VAL:HG23	2.13	0.48
25:CA:1989:G:H2'	25:CA:1990:C:O5'	2.13	0.48
19:BS:50:VAL:O	19:BS:56:HIS:HA	2.13	0.48
25:CA:702:U:H2'	25:CA:703:U:O4'	2.13	0.48
25:DA:680:C:H2'	25:DA:681:G:H8	1.78	0.48
29:CE:175:ILE:HD13	29:CE:196:VAL:HG21	1.94	0.48
32:DH:112:LYS:O	32:DH:115:VAL:HB	2.14	0.48
25:CA:184:C:H2'	25:CA:185:G:C8	2.48	0.48
31:DG:39:ALA:HB2	31:DG:57:TYR:CB	2.43	0.48
5:AE:94:PHE:CZ	5:AE:96:GLN:HG3	2.48	0.48
5:AE:37:VAL:HA	5:AE:47:PHE:HA	1.94	0.48
25:CA:2545:G:H2'	25:CA:2546:U:O4'	2.14	0.48
27:CC:124:LYS:HD3	27:CC:127:ASN:ND2	2.29	0.48
25:DA:2137:U:C2	25:DA:2138:G:C8	3.02	0.48
1:BA:815:A:H4'	1:BA:817:C:C5	2.48	0.48
25:DA:861:A:H3'	25:DA:862:G:C8	2.48	0.48
29:DE:28:VAL:HG12	29:DE:32:VAL:HG22	1.95	0.48
5:AE:83:PRO:CA	5:AE:97:PRO:HD3	2.44	0.48
25:DA:1932:A:C2	25:DA:1969:A:C6	3.02	0.48
43:CS:11:ARG:O	43:CS:12:SER:CB	2.61	0.48
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.48	0.48
19:BS:79:TYR:O	19:BS:80:ARG:CB	2.62	0.48
27:DC:188:ARG:HG3	27:DC:188:ARG:NH2	2.29	0.48
11:AK:37:GLN:OE1	11:AK:37:GLN:CA	2.61	0.48
18:AR:22:TYR:C	18:AR:22:TYR:CD1	2.86	0.48
25:CA:2127:G:C2'	25:CA:2128:G:C8	2.86	0.48
25:DA:1057:A:C2	25:DA:1058:U:C6	3.02	0.48
25:DA:1090:A:N1	25:DA:1102:C:C2	2.82	0.48
32:CH:24:GLY:O	32:CH:25:TYR:C	2.51	0.48
2:AB:90:PHE:HD2	2:AB:90:PHE:H	1.60	0.48
1:AA:1319:A:N7	1:AA:1323:G:C5	2.81	0.48
17:AQ:16:MET:C	17:AQ:19:SER:HB3	2.33	0.48
1:BA:1256:A:C8	1:BA:1278:G:C8	3.02	0.48
1:BA:1275:A:H2'	1:BA:1276:G:C5'	2.39	0.48
25:DA:1710:G:C2	25:DA:1711:A:C4	3.01	0.48
13:BM:1:ALA:HB1	13:BM:9:PRO:HD2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BB:79:VAL:HG12	2:BB:79:VAL:O	2.13	0.48
52:D1:18:HIS:CD2	52:D1:48:TYR:OH	2.67	0.48
5:BE:96:GLN:HB2	5:BE:123:LEU:HB2	1.95	0.48
25:CA:1857:G:H1'	25:CA:1884:G:N2	2.29	0.48
1:AA:1158:C:N4	1:AA:1160:G:C5	2.81	0.48
12:AL:56:LEU:HB3	12:AL:58:ASN:OD1	2.14	0.48
10:AJ:81:GLU:HA	10:AJ:84:VAL:HG12	1.94	0.48
1:BA:1124:G:C2	1:BA:1127:G:C2	3.01	0.48
4:AD:164:ARG:C	4:AD:166:LYS:N	2.66	0.48
5:AE:88:HIS:O	5:AE:89:THR:HB	2.13	0.48
22:AV:61:C:C2	22:AV:62:C:C5	3.01	0.48
3:BC:22:PHE:CD2	3:BC:22:PHE:C	2.86	0.48
1:BA:72:A:C5	1:BA:73:C:N4	2.80	0.48
20:BT:35:TYR:CE2	20:BT:36:ALA:HA	2.49	0.48
16:AP:52:LEU:HD23	16:AP:78:VAL:HG11	1.95	0.48
1:AA:1304:G:C6	1:AA:1305:G:C2	3.02	0.48
32:DH:42:LYS:HD3	32:DH:43:ASN:N	2.28	0.48
35:DK:114:LYS:CE	35:DK:118:LEU:HD21	2.43	0.48
1:BA:1098:C:H2'	1:BA:1099:G:O4'	2.13	0.48
2:BB:134:LEU:CD1	2:BB:138:ARG:HB3	2.43	0.48
10:BJ:46:LYS:HE2	10:BJ:68:ARG:NE	2.29	0.48
14:BN:64:CYS:SG	14:BN:79:LEU:CD2	3.01	0.48
40:CP:102:ARG:HG3	40:CP:102:ARG:HH11	1.76	0.48
2:BB:224:ARG:O	2:BB:225:SER:HB2	2.13	0.48
2:BB:80:LYS:HG2	2:BB:84:LEU:CD2	2.39	0.48
25:DA:118:A:H1'	25:DA:178:G:O4'	2.14	0.48
1:AA:1505:G:H4'	1:AA:1506:U:H5"	1.96	0.48
32:DH:50:ARG:CA	32:DH:50:ARG:NE	2.76	0.48
25:DA:1354:A:N7	25:DA:1355:G:C8	2.82	0.48
25:DA:2311:A:C5	30:DF:76:PHE:CD2	3.02	0.48
25:DA:2800:A:C3'	25:DA:2801:G:H5'	2.43	0.48
3:BC:102:ILE:N	3:BC:102:ILE:CD1	2.75	0.48
25:CA:2183:A:O2'	25:CA:2184:A:H5'	2.13	0.48
1:AA:568:G:O2'	1:AA:574:A:N1	2.28	0.48
29:DE:177:PRO:O	29:DE:178:VAL:C	2.52	0.48
7:AG:143:MET:C	7:AG:144:ALA:O	2.47	0.48
1:BA:642:A:C5	8:BH:106:SER:HA	2.49	0.48
28:CD:132:ALA:HA	28:CD:140:HIS:HD1	1.79	0.48
25:CA:1747:U:H2'	25:CA:1748:C:C6	2.48	0.48
6:AF:39:LEU:HD13	6:AF:40:GLU:N	2.29	0.48
6:AF:40:GLU:HB2	6:AF:42:TRP:HE1	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:575:G:H4'	1:AA:576:C:OP1	2.14	0.48
1:AA:1245:C:H2'	1:AA:1246:A:C8	2.48	0.48
25:DA:146:A:C2	25:DA:147:C:C2	3.01	0.48
52:D1:9:LYS:O	52:D1:50:GLU:HG2	2.12	0.48
28:CD:33:ARG:NH1	28:CD:53:GLY:O	2.46	0.48
1:BA:1473:G:O2'	1:BA:1474:U:H5'	2.14	0.48
1:AA:941:G:C6	1:AA:1343:G:C6	3.01	0.48
25:CA:2419:U:OP1	54:C3:40:LYS:HE2	2.13	0.48
4:BD:61:ARG:HG2	4:BD:71:PHE:CD2	2.49	0.48
25:DA:994:C:H1'	42:DR:10:LYS:HE3	1.94	0.48
1:AA:634:C:C2	1:AA:635:A:C8	3.02	0.48
29:DE:194:LYS:O	29:DE:195:GLN:C	2.52	0.48
1:AA:83:C:H2'	1:AA:85:U:OP2	2.13	0.48
25:DA:1347:A:N1	25:DA:1348:C:O2	2.46	0.48
13:AM:94:LEU:N	13:AM:94:LEU:HD23	2.28	0.48
17:BQ:77:VAL:O	17:BQ:78:VAL:HG22	2.14	0.48
1:BA:790:A:C6	1:BA:791:G:C6	3.02	0.48
55:D4:16:ILE:HD13	55:D4:25:VAL:CG2	2.44	0.48
37:DM:135:VAL:O	37:DM:136:MET:O	2.32	0.48
25:DA:776:G:H4'	25:DA:777:G:O5'	2.13	0.48
46:DV:20:LEU:O	46:DV:25:LYS:HB2	2.14	0.48
3:AC:134:LYS:O	3:AC:138:GLN:HG3	2.13	0.48
1:BA:519:C:O2	1:BA:519:C:C2'	2.57	0.48
1:AA:859:G:H2'	1:AA:860:A:C8	2.49	0.48
25:DA:2874:C:O2	25:DA:2874:C:C2'	2.52	0.48
38:CN:28:LEU:O	38:CN:28:LEU:HD12	2.14	0.48
27:DC:216:ARG:HB3	27:DC:217:PRO:CD	2.44	0.48
25:DA:629:G:H5"	25:DA:650:C:O2'	2.14	0.48
25:CA:640:C:O2'	25:CA:641:U:H5'	2.13	0.48
16:AP:28:ARG:HG2	16:AP:29:ASN:OD1	2.14	0.48
25:CA:493:G:H2'	25:CA:494:G:O4'	2.13	0.48
36:CL:117:THR:HG22	36:CL:117:THR:O	2.14	0.48
3:AC:22:PHE:C	3:AC:22:PHE:CD2	2.85	0.48
11:AK:106:ILE:O	11:AK:106:ILE:HG23	2.13	0.48
47:CW:17:LEU:HD23	47:CW:35:ARG:HB3	1.96	0.48
25:CA:2438:U:O2'	25:CA:2439:A:H5"	2.13	0.48
19:AS:18:VAL:HG11	19:AS:42:ASN:OD1	2.13	0.48
28:DD:39:ASP:O	28:DD:43:ASP:HB2	2.13	0.48
1:BA:1225:A:C2'	1:BA:1226:C:C5	2.94	0.48
1:BA:1226:C:H4'	1:BA:1227:A:OP1	2.14	0.48
1:AA:1140:C:O2	1:AA:1141:C:C5	2.66	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:22:ILE:HG13	11:AK:22:ILE:O	2.14	0.48
25:CA:1090:A:C2'	25:CA:1091:G:O5'	2.62	0.48
2:AB:117:GLU:HA	2:AB:120:SER:HB2	1.96	0.48
2:AB:146:SER:O	2:AB:147:LEU:CB	2.61	0.48
2:AB:98:GLY:N	2:AB:174:GLU:OE2	2.46	0.48
2:AB:61:SER:C	2:AB:63:LYS:N	2.67	0.48
25:DA:2293:G:N2	25:DA:2294:G:H1'	2.28	0.48
43:CS:20:VAL:HG11	43:CS:44:ALA:HA	1.96	0.48
25:CA:790:U:O5'	25:CA:790:U:C2'	2.62	0.48
6:AF:89:VAL:HG23	6:AF:90:MET:N	2.28	0.48
1:AA:146:G:C2'	1:AA:147:G:H5'	2.44	0.48
19:BS:13:HIS:CD2	19:BS:13:HIS:N	2.81	0.48
13:AM:40:GLU:HG3	13:AM:41:ASP:H	1.77	0.48
13:AM:53:ASP:HA	13:AM:56:ARG:HE	1.79	0.48
30:DF:62:GLN:NE2	30:DF:88:VAL:HG13	2.29	0.48
1:BA:812:G:OP1	1:BA:903:G:H1'	2.13	0.48
1:BA:782:A:H2'	1:BA:783:C:H5'	1.95	0.48
22:AV:59:U:C5	22:AV:60:U:O4	2.66	0.48
25:DA:1328:A:H2'	25:DA:1330:C:C5	2.49	0.48
25:DA:1336:A:C2	25:DA:1337:G:C4	3.02	0.48
7:BG:41:ILE:HG23	7:BG:116:ALA:HA	1.96	0.48
1:AA:193:C:H2'	1:AA:194:C:H6	1.78	0.48
1:BA:1458:G:H5'	20:BT:26:MET:HB3	1.96	0.48
20:BT:25:SER:O	20:BT:29:THR:HG23	2.14	0.48
1:BA:1150:A:H1'	1:BA:1280:A:N6	2.28	0.48
1:BA:1072:G:C3'	1:BA:1073:U:H6	2.26	0.48
9:AI:30:ASN:O	9:AI:32:ARG:N	2.46	0.48
29:DE:146:VAL:HG22	29:DE:167:VAL:HG22	1.96	0.48
31:DG:67:ALA:HA	31:DG:70:LEU:HD12	1.96	0.48
25:DA:52:A:C2'	25:DA:53:A:O5'	2.61	0.48
25:DA:1360:G:N3	25:DA:1360:G:H2'	2.28	0.48
1:BA:1387:G:C6	1:BA:1388:C:N4	2.82	0.48
21:BU:24:LYS:CG	21:BU:25:ALA:H	2.25	0.48
1:AA:520:A:N1	1:AA:536:C:H1'	2.28	0.48
32:CH:76:GLU:O	32:CH:143:ILE:HB	2.14	0.48
33:CI:54:ILE:HG12	33:CI:73:PRO:HA	1.94	0.48
25:DA:1862:G:C2	25:DA:1881:C:O2	2.67	0.48
1:AA:685:G:O2'	1:AA:686:U:H5'	2.14	0.48
45:DU:94:PHE:N	45:DU:102:ILE:HD12	2.29	0.48
25:DA:2311:A:C8	25:DA:2311:A:H5'	2.49	0.48
25:CA:634:C:H6	25:CA:634:C:O5'	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:2:THR:HB	12:AL:5:GLN:CG	2.43	0.48
33:DI:96:LYS:HA	33:DI:136:GLY:O	2.14	0.48
46:DV:30:ILE:HG12	46:DV:91:PHE:CB	2.43	0.48
1:BA:1477:U:O2'	1:BA:1478:U:H5'	2.13	0.48
25:CA:35:G:H2'	25:CA:36:G:O5'	2.13	0.48
6:AF:38:ARG:HB3	6:AF:63:ASN:HB2	1.94	0.48
1:BA:438:U:C2	1:BA:494:G:C6	3.02	0.48
1:BA:1423:G:H2'	1:BA:1424:U:C6	2.46	0.48
44:DT:21:SER:O	44:DT:23:ALA:N	2.47	0.48
25:CA:1392:A:N6	44:CT:18:GLU:CG	2.77	0.48
43:DS:29:VAL:HG13	43:DS:55:ILE:HD11	1.96	0.48
25:DA:871:U:H4'	37:DM:68:PHE:CE2	2.49	0.48
25:DA:1717:A:H2'	25:DA:1718:G:O4'	2.13	0.48
8:BH:112:ASP:CG	8:BH:113:ARG:H	2.17	0.48
36:CL:106:GLU:HB3	36:CL:107:PHE:CE2	2.48	0.48
40:DP:98:TYR:CD2	40:DP:98:TYR:O	2.66	0.48
25:DA:133:U:C6	25:DA:133:U:C3'	2.97	0.48
5:BE:9:GLU:O	5:BE:10:LEU:C	2.51	0.48
46:DV:20:LEU:CD2	46:DV:26:PHE:N	2.77	0.48
56:DB:25:U:H2'	56:DB:26:C:O4'	2.14	0.48
25:DA:2080:A:C5	25:DA:2081:U:C5	3.01	0.48
1:BA:1304:G:O3'	1:BA:1305:G:O4'	2.31	0.48
31:DG:162:ARG:CZ	31:DG:168:VAL:HG21	2.43	0.48
16:BP:56:ARG:HD2	16:BP:56:ARG:HA	1.64	0.48
1:BA:1036:A:H5'	1:BA:1037:C:OP2	2.13	0.48
1:BA:272:C:H2'	1:BA:273:U:H6	1.78	0.48
56:DB:91:C:H2'	56:DB:92:C:C6	2.48	0.48
34:CJ:73:VAL:HG11	34:CJ:75:TYR:CZ	2.49	0.48
25:DA:2048:G:H2'	25:DA:2049:G:O5'	2.13	0.48
30:DF:6:TYR:CE1	30:DF:10:GLU:HB2	2.49	0.48
25:DA:2599:G:N7	27:DC:234:GLY:O	2.47	0.48
29:DE:97:ASN:HB2	29:DE:100:MET:HB2	1.95	0.48
16:BP:7:ALA:HA	16:BP:28:ARG:HG2	1.96	0.48
25:CA:1385:A:O2'	25:CA:1396:U:O2	2.31	0.48
30:CF:135:ILE:HD12	30:CF:135:ILE:N	2.29	0.48
26:CB:2:G:N3	26:CB:2:G:H2'	2.29	0.48
22:BV:60:U:H5"	22:BV:61:C:C5	2.49	0.48
31:CG:89:VAL:HG21	31:CG:162:ARG:CZ	2.44	0.48
2:AB:155:GLY:O	2:AB:156:LEU:O	2.31	0.48
1:BA:1426:G:O2'	1:BA:1427:C:H5'	2.13	0.48
25:DA:2619:C:H5'	28:DD:155:VAL:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1097:U:C3'	25:DA:1098:A:H5'	2.44	0.48
33:DI:11:GLN:NE2	33:DI:53:PRO:HA	2.29	0.48
11:AK:30:ILE:C	11:AK:30:ILE:HD12	2.34	0.48
25:CA:1079:C:C4	25:CA:1088:A:C6	3.02	0.48
25:CA:1104:C:OP2	25:CA:1104:C:C6	2.67	0.48
1:AA:1213:A:C8	1:AA:1215:G:N7	2.82	0.48
25:DA:2347:C:H2'	25:DA:2348:U:C6	2.48	0.48
20:BT:72:ALA:O	20:BT:73:ARG:C	2.50	0.48
12:BL:24:GLU:O	12:BL:25:ALA:O	2.31	0.48
25:CA:361:G:O2'	25:CA:362:A:O5'	2.30	0.48
25:DA:1528:A:H2'	25:DA:1529:G:O4'	2.13	0.48
1:AA:554:A:H2'	1:AA:555:U:C6	2.49	0.48
12:AL:54:VAL:HG12	12:AL:56:LEU:HD23	1.96	0.48
4:AD:156:ALA:O	4:AD:160:LEU:HD13	2.14	0.48
4:AD:54:LEU:HD23	4:AD:55:ARG:HA	1.96	0.48
1:BA:1262:C:C4	1:BA:1263:C:C4	3.02	0.48
30:CF:171:ALA:C	30:CF:173:ASP:H	2.16	0.48
25:DA:1779:U:O4	25:DA:1784:A:C8	2.66	0.48
1:AA:72:A:N6	1:AA:73:C:N4	2.62	0.48
1:BA:1299:A:H2'	1:BA:1299:A:N3	2.28	0.48
1:BA:717:U:O2'	1:BA:734:G:O4'	2.27	0.48
20:BT:35:TYR:C	20:BT:35:TYR:CD1	2.78	0.48
25:DA:563:A:C4	25:DA:2018:G:C2	3.02	0.48
1:AA:1329:A:H2'	1:AA:1330:U:H5'	1.95	0.48
10:AJ:65:TYR:OH	14:AN:85:ARG:CD	2.62	0.48
17:AQ:20:ILE:HD13	17:AQ:47:ASP:OD1	2.14	0.48
36:CL:77:ILE:N	36:CL:77:ILE:HD13	2.27	0.48
3:BC:82:ASP:O	3:BC:85:LYS:HG3	2.13	0.48
11:AK:95:THR:HG23	11:AK:96:ILE:H	1.79	0.48
14:BN:14:ALA:O	14:BN:16:ALA:N	2.47	0.48
25:DA:67:U:C2	25:DA:68:G:C8	3.01	0.48
15:BO:3:SER:HB3	15:BO:6:ALA:H	1.79	0.48
1:AA:1503:A:C4	1:AA:1531:A:N3	2.82	0.48
50:DZ:5:LYS:O	50:DZ:56:VAL:HG23	2.14	0.48
49:DY:56:LEU:HD23	49:DY:59:GLU:OE1	2.13	0.48
27:CC:104:LEU:HD13	27:CC:104:LEU:N	2.28	0.48
32:DH:76:GLU:O	32:DH:76:GLU:CG	2.62	0.48
25:DA:1354:A:N7	25:DA:1355:G:C4	2.82	0.48
1:AA:872:A:C4	1:AA:874:G:N7	2.82	0.48
25:DA:833:A:P	36:DL:39:LYS:HE2	2.54	0.48
49:CY:9:LYS:H	49:CY:12:GLU:HB2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:BO:42:PHE:CE1	15:BO:55:LEU:HD22	2.48	0.48
25:DA:2414:G:C5	25:DA:2415:G:N7	2.82	0.48
26:CB:65:U:O5'	26:CB:65:U:H6	1.97	0.48
5:AE:32:PHE:N	5:AE:32:PHE:CD2	2.82	0.48
42:DR:61:ALA:CB	42:DR:97:LYS:O	2.59	0.48
28:CD:136:ASN:HD22	28:CD:140:HIS:CD2	2.31	0.48
6:AF:38:ARG:HG3	6:AF:39:LEU:N	2.29	0.48
31:CG:87:GLN:C	31:CG:88:LEU:HD12	2.33	0.48
25:DA:404:A:C2	25:DA:406:G:N3	2.82	0.48
30:CF:94:ARG:HB3	30:CF:94:ARG:NH1	2.29	0.48
20:AT:4:LYS:C	20:AT:4:LYS:HE2	2.34	0.48
28:CD:157:LYS:HE3	34:CJ:79:GLY:O	2.14	0.48
1:BA:600:A:C2	1:BA:601:G:C5	3.02	0.48
44:CT:12:ARG:HH21	49:CY:29:ARG:NH2	2.12	0.48
16:BP:77:GLU:C	16:BP:79:ASN:N	2.67	0.48
25:DA:898:C:C2'	25:DA:899:A:H5'	2.43	0.48
1:AA:708:C:H2'	1:AA:709:U:C6	2.47	0.48
25:DA:2648:G:H2'	25:DA:2649:C:H6	1.75	0.48
1:BA:1237:C:C2'	1:BA:1238:A:OP1	2.60	0.48
40:DP:51:ASN:H	40:DP:51:ASN:ND2	2.12	0.48
30:CF:71:LYS:HD3	30:CF:72:SER:H	1.78	0.48
25:DA:2555:U:H5	25:DA:2556:C:C2	2.31	0.48
8:AH:124:ILE:O	8:AH:124:ILE:HG13	2.13	0.48
1:AA:1430:A:H8	1:AA:1430:A:OP2	1.95	0.48
54:C3:54:LEU:O	54:C3:55:GLY:C	2.50	0.48
1:BA:634:C:O2'	1:BA:635:A:H5'	2.13	0.48
1:AA:809:G:C6	1:AA:810:C:C5	3.01	0.48
25:DA:1421:G:C2	25:DA:1422:G:C8	3.02	0.48
34:CJ:23:LYS:HE3	34:CJ:142:ILE:OXT	2.13	0.48
25:DA:967:U:H2'	25:DA:968:C:C6	2.49	0.48
25:CA:2191:A:N3	25:CA:2191:A:H2'	2.29	0.48
31:CG:5:LYS:O	31:CG:7:PRO:HD3	2.13	0.48
29:CE:84:THR:HG22	29:CE:85:PHE:CG	2.48	0.48
1:AA:731:G:OP1	1:AA:766:A:H1'	2.13	0.48
27:CC:10:PRO:O	27:CC:11:GLY:O	2.32	0.48
49:DY:50:VAL:O	49:DY:54:LYS:HG3	2.13	0.48
1:AA:307:C:C5	1:AA:308:C:C5	3.02	0.48
25:CA:2774:C:H2'	25:CA:2775:G:O4'	2.14	0.48
45:DU:45:GLN:O	45:DU:45:GLN:HG2	2.13	0.48
42:DR:63:VAL:HA	42:DR:95:ASP:O	2.13	0.48
33:DI:72:THR:HB	33:DI:73:PRO:CD	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:73:PRO:HB2	33:DI:74:PRO:HD2	1.95	0.48
25:CA:2552:U:C2	25:CA:2554:U:H5'	2.49	0.48
2:AB:53:LEU:N	2:AB:53:LEU:CD2	2.77	0.48
19:AS:11:ASP:OD1	19:AS:36:ARG:HD2	2.13	0.48
25:DA:1708:C:C2'	25:DA:1709:U:H5'	2.43	0.48
25:DA:1709:U:H2'	25:DA:1710:G:O5'	2.13	0.48
16:BP:44:SER:HG	16:BP:46:LYS:HG2	1.79	0.48
42:CR:49:ILE:HB	42:CR:51:VAL:O	2.13	0.48
38:DN:32:GLU:CB	38:DN:115:LEU:HD12	2.44	0.48
38:DN:51:LEU:HD11	38:DN:70:THR:HG22	1.94	0.48
25:DA:2118:U:C4	25:DA:2149:U:H1'	2.48	0.48
25:DA:1525:A:C4	25:DA:1526:C:C6	3.02	0.48
24:AY:157:SER:O	24:AY:160:ASP:N	2.47	0.48
4:AD:162:GLU:HA	4:AD:166:LYS:CD	2.44	0.48
5:AE:115:GLU:CD	5:AE:115:GLU:C	2.73	0.48
5:AE:137:ARG:O	5:AE:138:ALA:C	2.50	0.48
5:AE:150:GLU:O	5:AE:153:ALA:N	2.47	0.48
1:AA:94:G:N1	1:AA:98:A:C2	2.82	0.48
31:DG:140:ILE:HA	31:DG:143:VAL:HG23	1.96	0.48
9:BI:62:LEU:HD23	9:BI:62:LEU:H	1.78	0.48
9:BI:62:LEU:HD23	9:BI:62:LEU:N	2.29	0.48
29:CE:189:THR:HB	29:CE:192:ALA:HB2	1.94	0.48
1:AA:1288:A:H2'	1:AA:1289:A:O4'	2.13	0.48
1:AA:1238:A:N3	1:AA:1241:G:H1'	2.29	0.48
25:DA:2162:G:H4'	25:DA:2171:A:H2'	1.95	0.48
38:CN:48:VAL:CG1	38:CN:49:GLU:N	2.74	0.48
10:BJ:8:ILE:HD13	10:BJ:25:ILE:HD11	1.96	0.48
45:DU:4:ILE:HG22	45:DU:5:ARG:N	2.29	0.48
28:DD:172:VAL:CG2	28:DD:194:PRO:CD	2.90	0.48
2:AB:30:ILE:CD1	2:AB:38:HIS:HB2	2.44	0.48
9:AI:22:PRO:HA	9:AI:60:LEU:HB3	1.96	0.48
25:CA:1734:G:C5	25:CA:1735:A:N7	2.82	0.48
21:BU:10:PRO:O	21:BU:11:PHE:CB	2.61	0.48
56:DB:63:C:H2'	56:DB:64:G:O5'	2.13	0.48
25:CA:1532:A:H3'	25:CA:1533:C:H6	1.79	0.48
34:DJ:104:ALA:O	34:DJ:108:MET:HG3	2.14	0.48
25:DA:1240:U:HO2'	25:DA:1241:A:P	2.37	0.48
56:DB:78:A:H2'	56:DB:79:G:O4'	2.13	0.48
25:DA:2013:A:H2'	25:DA:2014:A:O5'	2.14	0.48
1:BA:778:G:O2'	11:BK:120:CYS:HB3	2.14	0.48
25:DA:548:G:H4'	25:DA:549:G:N1	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1925:C:C5'	25:CA:1926:U:C5	2.97	0.48
48:CX:40:GLU:O	48:CX:42:GLU:N	2.46	0.48
18:BR:48:ALA:O	18:BR:51:GLN:HB3	2.13	0.48
14:AN:22:LYS:O	14:AN:23:ARG:C	2.52	0.48
7:AG:99:ALA:O	7:AG:100:MET:C	2.51	0.48
25:DA:2730:C:H2'	25:DA:2731:G:O5'	2.14	0.48
25:DA:205:G:O2'	25:DA:206:U:OP2	2.29	0.48
15:BO:73:ASP:HB3	15:BO:76:ARG:HG3	1.94	0.48
15:BO:70:LYS:HD2	15:BO:77:TYR:CZ	2.49	0.48
4:BD:90:LEU:HD11	4:BD:196:GLU:HG3	1.96	0.48
1:AA:201:G:H2'	1:AA:202:G:C8	2.49	0.48
28:DD:14:ILE:HA	40:DP:11:GLN:HE22	1.77	0.48
31:DG:59:ASP:O	31:DG:60:GLY:C	2.52	0.48
1:BA:211:G:H2'	1:BA:211:G:N3	2.28	0.48
46:DV:38:LEU:HB3	46:DV:40:ILE:CD1	2.43	0.48
36:DL:8:PRO:O	36:DL:9:ALA:O	2.32	0.48
25:CA:1665:A:N3	35:CK:1:MET:CE	2.76	0.48
52:D1:24:LYS:CG	52:D1:25:ASN:N	2.75	0.48
25:DA:1754:A:N6	25:DA:1755:A:N6	2.62	0.48
25:DA:898:C:H2'	25:DA:899:A:C5'	2.44	0.48
9:AI:129:ARG:HB3	9:AI:129:ARG:CZ	2.44	0.48
8:AH:15:ASN:O	8:AH:16:GLY:C	2.52	0.48
40:CP:52:ARG:O	40:CP:53:GLY:C	2.50	0.48
25:CA:1716:U:C2'	25:CA:1717:A:H5'	2.44	0.48
25:CA:2415:G:H2'	25:CA:2416:C:O5'	2.14	0.48
25:DA:2662:A:H2'	25:DA:2663:G:O4'	2.14	0.48
1:BA:1397:C:H3'	1:BA:1398:A:H5"	1.94	0.48
25:DA:71:A:N3	25:DA:71:A:H2'	2.29	0.48
25:DA:863:A:N7	60:DA:3733:HOH:O	2.35	0.48
1:AA:20:U:H2'	1:AA:21:G:H5'	1.95	0.48
16:AP:42:ILE:O	16:AP:44:SER:N	2.46	0.48
1:BA:184:G:O2'	1:BA:185:U:H5'	2.12	0.48
25:DA:1663:G:C6	25:DA:1992:G:C8	3.02	0.48
43:DS:34:ASP:O	43:DS:35:ILE:C	2.52	0.48
25:DA:2422:C:C4	25:DA:2424:C:N4	2.81	0.48
56:DB:81:G:C5	56:DB:82:U:C5	3.02	0.48
4:AD:171:GLU:HG2	4:AD:182:LYS:NZ	2.29	0.48
25:DA:732:C:H2'	25:DA:733:G:H5'	1.96	0.48
42:DR:35:PHE:O	42:DR:58:VAL:HA	2.14	0.48
15:AO:45:HIS:C	15:AO:47:LYS:H	2.17	0.48
25:DA:911:A:O5'	25:DA:911:A:H8	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:CC:181:ARG:HG2	27:CC:181:ARG:HH21	1.79	0.48
25:DA:1676:A:N1	25:DA:1677:A:N3	2.61	0.48
1:BA:1313:U:C2	1:BA:1314:C:C6	3.02	0.48
1:BA:1360:A:C1'	14:BN:58:SER:HG	2.27	0.48
1:BA:980:C:H4'	14:BN:59:ARG:HH12	1.79	0.48
13:BM:15:VAL:CG1	13:BM:40:GLU:HA	2.44	0.48
25:CA:2161:C:O2	25:CA:2162:G:H8	1.96	0.48
33:DI:112:LYS:HE2	33:DI:116:MET:HE3	1.95	0.48
25:CA:1057:A:N6	25:CA:1086:A:O3'	2.47	0.48
2:AB:53:LEU:CD1	2:AB:216:VAL:HG13	2.43	0.48
1:AA:258:G:C6	1:AA:259:G:C5	3.01	0.48
2:AB:206:ILE:O	2:AB:210:THR:HG23	2.14	0.48
5:BE:115:GLU:O	5:BE:118:GLY:HA2	2.14	0.48
5:BE:122:VAL:HG23	5:BE:122:VAL:O	2.14	0.48
1:AA:1160:G:O2'	1:AA:1161:C:P	2.72	0.48
25:DA:217:A:H2'	25:DA:218:A:O4'	2.14	0.48
25:DA:528:A:N1	25:DA:2043:C:H5'	2.29	0.48
4:AD:22:SER:O	4:AD:23:GLY:C	2.52	0.48
21:AU:36:PHE:O	21:AU:37:TYR:CB	2.61	0.48
5:AE:110:MET:HA	5:AE:113:VAL:HG13	1.95	0.48
22:AV:64:A:C6	22:AV:65:G:N7	2.82	0.48
16:AP:53:ASP:O	16:AP:57:ILE:HG13	2.14	0.48
1:AA:572:A:C5'	1:AA:573:A:OP2	2.62	0.48
31:DG:143:VAL:O	31:DG:144:ALA:C	2.53	0.48
1:BA:1534:A:H5"	1:BA:1535:C:OP1	2.12	0.48
11:BK:111:ASP:HB3	21:BU:3:ILE:CG2	2.44	0.48
11:BK:85:VAL:CG1	11:BK:92:ARG:NH1	2.77	0.48
1:AA:643:C:C2'	1:AA:644:U:H5'	2.44	0.48
29:CE:192:ALA:O	29:CE:193:VAL:C	2.52	0.48
1:AA:1304:G:C6	1:AA:1305:G:N2	2.82	0.48
1:AA:949:A:C4	1:AA:1233:G:N2	2.82	0.48
1:AA:949:A:C5	1:AA:950:U:C5	3.02	0.48
45:CU:70:ALA:HB3	45:CU:79:ALA:HB1	1.95	0.48
2:BB:61:SER:O	2:BB:63:LYS:N	2.47	0.48
25:CA:141:G:H5"	25:CA:142:A:N7	2.29	0.48
25:DA:1372:U:H2'	25:DA:1373:A:C5'	2.44	0.48
1:AA:108:G:H5'	1:AA:109:A:H2	1.78	0.48
25:CA:2032:G:N1	25:CA:2572:A:C8	2.82	0.48
33:CI:57:VAL:HG23	33:CI:71:LYS:HZ3	1.78	0.48
25:CA:883:G:N2	25:CA:894:U:H1'	2.29	0.48
4:AD:167:PRO:HB2	4:AD:170:LEU:HD11	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:CN:78:LYS:HG2	38:CN:78:LYS:O	2.13	0.48
30:DF:42:ALA:O	30:DF:46:LYS:HD2	2.14	0.48
33:DI:79:LEU:O	33:DI:83:ALA:HB3	2.14	0.48
25:CA:2547:A:H2'	25:CA:2548:U:C6	2.49	0.48
25:DA:2729:G:H2'	25:DA:2730:C:C6	2.48	0.48
14:AN:61:ARG:HG2	14:AN:70:PRO:HB3	1.95	0.48
25:DA:587:C:OP2	36:DL:21:ARG:NH1	2.47	0.48
25:DA:631:A:N3	25:DA:2415:G:O2'	2.39	0.48
25:CA:2105:U:O4	25:CA:2184:A:N1	2.47	0.48
15:AO:5:GLU:HG2	15:AO:6:ALA:N	2.29	0.48
1:AA:1413:A:C6	1:AA:1414:U:C5	3.02	0.48
27:CC:121:ALA:O	27:CC:122:ALA:C	2.50	0.48
4:BD:173:ASP:HB3	4:BD:178:GLU:O	2.13	0.48
25:DA:157:C:H3'	25:DA:157:C:H6	1.79	0.48
56:DB:102:G:C8	56:DB:102:G:O5'	2.64	0.48
1:AA:951:G:C5	1:AA:1231:G:C6	3.01	0.48
30:CF:30:VAL:CG2	30:CF:30:VAL:O	2.62	0.48
3:AC:158:GLY:HA2	3:AC:192:TYR:CD1	2.49	0.48
27:CC:170:TYR:CD2	27:CC:184:GLU:CA	2.96	0.48
1:AA:157:U:H1'	1:AA:165:G:N2	2.29	0.48
10:AJ:6:ILE:HD13	10:AJ:76:ILE:HB	1.96	0.48
39:CO:76:LYS:O	39:CO:77:ALA:C	2.52	0.48
1:AA:706:A:H2'	1:AA:707:U:H5'	1.95	0.48
25:CA:1979:U:C2'	25:CA:1980:G:H5'	2.44	0.48
25:CA:183:C:C2'	25:CA:184:C:H5'	2.42	0.48
25:CA:225:C:C2'	25:CA:226:A:H5'	2.44	0.48
30:CF:71:LYS:HE2	30:CF:71:LYS:HA	1.96	0.48
1:AA:55:A:H2'	1:AA:56:U:O4'	2.14	0.48
7:BG:105:GLU:O	7:BG:108:ARG:HB2	2.13	0.48
25:CA:2751:G:H2'	25:CA:2751:G:N3	2.29	0.48
1:BA:728:A:C6	1:BA:729:A:N6	2.82	0.48
25:CA:1319:C:C2'	25:CA:1320:C:H5'	2.44	0.48
1:BA:162:A:H5"	1:BA:163:C:OP2	2.12	0.48
25:DA:2712:C:OP1	25:DA:2714:G:H4'	2.14	0.48
9:BI:33:SER:HB3	9:BI:36:GLN:HB2	1.95	0.48
25:CA:1:G:H8	25:CA:1:G:OP2	1.97	0.48
25:DA:446:G:OP1	41:DQ:2:ARG:CD	2.62	0.48
36:DL:23:ILE:HD13	42:DR:84:ARG:HG2	1.95	0.48
1:BA:275:G:C2	1:BA:276:G:C8	3.02	0.48
54:D3:39:ARG:O	54:D3:43:LEU:HD12	2.14	0.48
24:AY:122:ALA:O	24:AY:125:ALA:HB3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:CC:90:ILE:HD12	27:CC:102:TYR:CD1	2.49	0.48
25:DA:2482:A:H2'	25:DA:2483:C:C6	2.48	0.48
11:BK:58:THR:HB	11:BK:59:PRO:HD2	1.96	0.48
31:CG:169:ARG:HH12	55:C4:29:ALA:HA	1.78	0.48
22:BV:65:G:H2'	22:BV:66:U:C6	2.49	0.48
25:DA:778:G:C5	25:DA:779:U:C4	3.02	0.48
13:BM:33:LEU:HD23	13:BM:33:LEU:N	2.29	0.47
33:DI:89:SER:HB3	33:DI:92:PRO:CG	2.44	0.47
49:DY:12:GLU:CA	49:DY:12:GLU:OE1	2.61	0.47
33:CI:41:PHE:CE2	33:CI:42:ASN:OD1	2.67	0.47
2:AB:110:ILE:CD1	2:AB:150:ILE:HG12	2.43	0.47
10:AJ:40:ILE:HB	10:AJ:73:LEU:CB	2.44	0.47
25:CA:2472:G:H2'	25:CA:2475:C:H42	1.79	0.47
25:DA:643:A:H3'	25:DA:644:A:H8	1.78	0.47
50:DZ:20:LYS:O	50:DZ:23:LEU:HB2	2.14	0.47
5:BE:110:MET:O	5:BE:114:LEU:HB2	2.14	0.47
25:DA:1527:G:H5"	25:DA:1528:A:OP1	2.14	0.47
37:DM:21:ALA:HA	37:DM:97:GLN:HE21	1.79	0.47
3:AC:10:ARG:O	3:AC:12:GLY:N	2.46	0.47
4:AD:160:LEU:N	4:AD:160:LEU:HD22	2.29	0.47
1:AA:413:G:N1	4:AD:32:LYS:HD2	2.29	0.47
1:BA:81:A:H2'	1:BA:82:G:H8	1.79	0.47
1:AA:503:C:H6	1:AA:503:C:O5'	1.97	0.47
1:AA:921:U:H2'	1:AA:922:G:O4'	2.14	0.47
1:AA:16:A:C2'	1:AA:17:U:H5'	2.44	0.47
1:AA:452:A:H3'	1:AA:452:A:H8	1.77	0.47
16:AP:72:ALA:HA	16:AP:75:ILE:HD11	1.95	0.47
1:AA:1306:A:C5	1:AA:1307:U:C5	3.01	0.47
25:CA:2141:G:C2'	25:CA:2142:A:H5'	2.44	0.47
25:CA:2145:C:C6	25:CA:2145:C:H3'	2.49	0.47
25:CA:2136:G:H1	25:CA:2155:U:H3	1.61	0.47
35:DK:99:ILE:N	35:DK:99:ILE:HD12	2.29	0.47
25:DA:362:A:C2	25:DA:363:G:C8	3.02	0.47
25:CA:1871:A:N7	25:CA:1872:A:N1	2.61	0.47
2:BB:86:CYS:H	2:BB:88:GLN:NE2	2.12	0.47
25:CA:359:G:C6	25:CA:360:U:C6	3.01	0.47
1:BA:452:A:C8	1:BA:452:A:H3'	2.49	0.47
25:DA:1789:A:OP2	27:DC:220:ARG:NH1	2.47	0.47
25:DA:417:C:H2'	25:DA:418:C:H6	1.79	0.47
25:DA:59:U:H2'	25:DA:60:G:O5'	2.14	0.47
25:DA:66:C:H2'	25:DA:67:U:H6	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:684:U:O2'	11:BK:39:ASN:O	2.24	0.47
25:CA:2469:A:H4'	37:CM:55:ARG:HH22	1.78	0.47
25:DA:2746:U:C4	25:DA:2747:G:C8	3.01	0.47
25:DA:1268:A:H2'	25:DA:1269:A:O5'	2.14	0.47
1:BA:681:A:C6	1:BA:710:G:C6	3.02	0.47
25:DA:616:A:C2'	25:DA:617:G:C5'	2.91	0.47
25:DA:548:G:O2'	25:DA:549:G:C6	2.61	0.47
25:DA:2091:C:C3'	25:DA:2092:U:H5"	2.43	0.47
1:AA:244:U:O2	1:AA:894:G:H1'	2.13	0.47
3:BC:76:ILE:HA	3:BC:83:VAL:HG21	1.96	0.47
25:CA:1894:C:H2'	25:CA:1895:C:H6	1.79	0.47
43:CS:66:ILE:HA	43:CS:69:LEU:CD2	2.44	0.47
39:CO:16:ARG:O	39:CO:20:GLU:HG3	2.14	0.47
14:BN:35:ALA:HB3	14:BN:41:ARG:HD3	1.96	0.47
8:BH:105:THR:HG21	8:BH:115:ALA:HB2	1.96	0.47
2:BB:44:LYS:O	2:BB:48:MET:HB2	2.14	0.47
25:DA:2472:G:N2	25:DA:2529:G:N1	2.61	0.47
27:DC:236:GLY:O	27:DC:237:ARG:CG	2.62	0.47
25:CA:1314:C:O2	25:CA:1314:C:C2'	2.61	0.47
25:DA:2016:U:H1'	51:D0:2:VAL:HG21	1.95	0.47
25:DA:1475:G:O2'	25:DA:1476:U:OP1	2.25	0.47
30:DF:97:GLU:O	30:DF:100:GLU:HB3	2.14	0.47
7:BG:131:GLY:CA	7:BG:134:VAL:HG13	2.44	0.47
1:AA:745:G:O2'	1:AA:746:A:H5'	2.14	0.47
17:BQ:5:ARG:HB2	17:BQ:5:ARG:HH11	1.78	0.47
27:CC:100:ARG:NH1	27:CC:100:ARG:HG3	2.28	0.47
45:CU:97:SER:O	45:CU:98:ASN:HB3	2.14	0.47
27:CC:159:THR:N	27:CC:194:VAL:CG1	2.77	0.47
53:C2:23:ALA:C	53:C2:24:THR:CG2	2.82	0.47
1:BA:49:U:C4	1:BA:364:A:C6	3.02	0.47
1:BA:340:U:C2	1:BA:350:G:N2	2.82	0.47
25:DA:1231:U:H2'	25:DA:1232:G:H8	1.79	0.47
25:DA:1161:C:H1'	42:DR:8:GLY:O	2.13	0.47
41:DQ:90:ASP:OD2	41:DQ:90:ASP:C	2.51	0.47
32:CH:66:ASN:CG	32:CH:138:VAL:HG21	2.34	0.47
25:DA:447:A:C6	25:DA:454:A:C8	3.01	0.47
25:CA:2196:C:C2'	25:CA:2197:U:H5'	2.43	0.47
32:CH:80:ILE:CD1	32:CH:144:VAL:CG1	2.92	0.47
1:BA:857:C:H2'	1:BA:858:G:O5'	2.14	0.47
35:CK:47:ILE:HB	35:CK:48:PRO:HD3	1.96	0.47
56:DB:91:C:H2'	56:DB:92:C:H6	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2870:C:C4	25:DA:2871:U:C5	3.02	0.47
25:CA:565:C:H4'	25:CA:1253:A:N6	2.29	0.47
19:BS:32:THR:HB	19:BS:34:SER:H	1.78	0.47
34:CJ:33:ALA:HB2	34:CJ:105:VAL:HG13	1.95	0.47
25:DA:2857:G:N2	25:DA:2859:G:C8	2.82	0.47
12:AL:105:GLY:HA3	12:AL:117:GLY:O	2.14	0.47
56:DB:4:C:H2'	56:DB:5:U:H6	1.78	0.47
25:CA:220:G:H1'	25:CA:234:U:H1'	1.95	0.47
1:BA:957:U:O2	1:BA:959:A:H8	1.96	0.47
33:CI:17:ALA:CB	33:CI:41:PHE:CE2	2.97	0.47
2:AB:145:ASN:O	2:AB:146:SER:CB	2.61	0.47
2:AB:183:PHE:CE2	2:AB:197:PHE:CD2	3.02	0.47
2:AB:68:PHE:HE2	2:AB:88:GLN:CB	2.27	0.47
1:AA:1215:G:C2	1:AA:1216:A:C8	3.02	0.47
10:AJ:42:LEU:HD23	10:AJ:43:PRO:HD2	1.94	0.47
25:DA:2297:A:N3	25:DA:2298:A:C8	2.82	0.47
25:DA:2286:G:H5'	25:DA:2287:A:O4'	2.14	0.47
5:BE:99:SER:O	5:BE:100:GLU:C	2.52	0.47
25:DA:1414:C:N3	25:DA:1415:U:H5	2.12	0.47
1:BA:1014:A:N7	1:BA:1015:G:C5	2.82	0.47
25:CA:277:G:H2'	25:CA:278:A:OP2	2.14	0.47
1:AA:656:G:C4	1:AA:657:U:C6	3.01	0.47
10:AJ:25:ILE:HG22	10:AJ:26:VAL:N	2.28	0.47
25:DA:1458:U:H5'	25:DA:1459:G:N3	2.28	0.47
25:DA:2303:G:H2'	25:DA:2304:G:C5'	2.44	0.47
1:AA:623:C:H2'	1:AA:624:C:H5'	1.96	0.47
3:AC:141:MET:HE3	3:AC:145:ALA:O	2.14	0.47
3:AC:171:ARG:C	3:AC:172:VAL:CG2	2.82	0.47
1:AA:430:A:OP2	4:AD:7:LYS:HG2	2.15	0.47
4:AD:97:LEU:CD2	4:AD:117:VAL:HG11	2.44	0.47
11:AK:125:LYS:C	21:AU:33:ARG:NH2	2.67	0.47
5:AE:115:GLU:OE1	5:AE:116:VAL:HG12	2.15	0.47
5:AE:81:GLN:NE2	5:AE:149:PRO:CD	2.77	0.47
11:BK:15:VAL:HG12	11:BK:76:TYR:HB3	1.96	0.47
11:BK:76:TYR:O	11:BK:77:GLY:C	2.53	0.47
27:DC:230:PRO:C	27:DC:231:HIS:O	2.49	0.47
1:BA:166:U:C2'	1:BA:167:A:H5'	2.43	0.47
10:AJ:59:LYS:N	10:AJ:59:LYS:NZ	2.62	0.47
10:AJ:63:ASP:OD2	14:AN:98:LYS:HD2	2.14	0.47
6:BF:5:GLU:O	6:BF:89:VAL:HA	2.13	0.47
25:DA:280:U:H2'	25:DA:281:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:14:HIS:O	2:AB:15:PHE:C	2.52	0.47
25:DA:1929:G:H4'	25:DA:1930:G:OP1	2.13	0.47
40:CP:102:ARG:HD2	40:CP:106:ALA:O	2.15	0.47
4:BD:35:GLN:O	4:BD:36:ALA:CB	2.62	0.47
25:DA:1225:G:H2'	25:DA:1226:A:C8	2.49	0.47
41:CQ:40:LYS:C	41:CQ:42:GLY:N	2.59	0.47
1:AA:710:G:H5"	6:AF:53:LYS:NZ	2.29	0.47
25:CA:1924:C:H3'	25:CA:1925:C:C5'	2.44	0.47
4:AD:167:PRO:CB	4:AD:170:LEU:HD11	2.44	0.47
1:AA:872:A:N7	1:AA:874:G:C8	2.83	0.47
27:CC:128:THR:C	27:CC:129:LEU:HD23	2.34	0.47
3:AC:166:TRP:O	3:AC:166:TRP:HE3	1.98	0.47
30:DF:39:VAL:CG1	30:DF:40:GLY:N	2.77	0.47
18:AR:48:ALA:O	18:AR:49:LYS:C	2.52	0.47
4:BD:152:SER:O	4:BD:153:ARG:C	2.53	0.47
1:AA:212:G:H2'	1:AA:213:G:C8	2.48	0.47
1:AA:806:C:O2	1:AA:807:A:C8	2.67	0.47
25:CA:1820:U:O2	27:CC:200:MET:HB3	2.14	0.47
3:BC:10:ARG:HH21	3:BC:181:ILE:HG13	1.79	0.47
25:CA:2221:G:H2'	25:CA:2222:C:H5'	1.95	0.47
1:BA:1477:U:H2'	1:BA:1478:U:C6	2.49	0.47
32:CH:1:MET:SD	32:CH:3:VAL:CG1	3.02	0.47
25:CA:1098:A:C5	25:CA:1099:G:C6	3.02	0.47
5:AE:56:PRO:O	5:AE:60:GLN:HB2	2.14	0.47
56:DB:73:A:C4	56:DB:104:A:C2	3.03	0.47
29:DE:45:ALA:HB1	29:DE:87:ALA:O	2.14	0.47
1:AA:1007:U:C2'	1:AA:1008:U:H5'	2.45	0.47
25:DA:1883:U:O4	25:DA:1884:G:C6	2.67	0.47
45:CU:37:GLY:O	45:CU:38:ILE:HD13	2.15	0.47
18:BR:28:LEU:O	18:BR:30:ASN:N	2.47	0.47
29:CE:29:HIS:CE1	36:CL:8:PRO:HD3	2.48	0.47
1:BA:342:C:C4	1:BA:348:G:N1	2.82	0.47
1:AA:748:G:H2'	1:AA:749:A:H8	1.79	0.47
29:DE:15:SER:N	29:DE:197:GLU:OE2	2.47	0.47
1:AA:1259:C:N4	1:AA:1260:G:C4	2.82	0.47
1:BA:1237:C:C6	1:BA:1336:C:C4	3.03	0.47
40:DP:88:ARG:CD	40:DP:112:ARG:NH2	2.77	0.47
25:DA:2891:U:O2'	25:DA:2892:G:H5'	2.14	0.47
25:CA:769:U:HO2'	25:CA:1379:U:H6	1.60	0.47
1:BA:186:C:H4'	20:BT:75:LYS:HG3	1.96	0.47
52:C1:44:GLN:HA	52:C1:44:GLN:OE1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2371:G:N2	25:CA:2372:U:H1'	2.28	0.47
1:AA:335:C:O2'	1:AA:336:A:H5'	2.14	0.47
1:BA:1036:A:H5'	1:BA:1037:C:P	2.54	0.47
27:DC:34:GLU:O	27:DC:35:LYS:C	2.53	0.47
25:CA:152:A:C2	25:CA:175:G:C2	3.02	0.47
43:CS:35:ILE:O	43:CS:36:LEU:C	2.51	0.47
34:CJ:58:ASN:N	34:CJ:127:GLY:O	2.45	0.47
17:BQ:54:ILE:O	17:BQ:54:ILE:HD13	2.13	0.47
23:AX:5:A:H5'	23:AX:6:G:OP2	2.15	0.47
9:BI:67:LYS:HD3	9:BI:67:LYS:N	2.28	0.47
40:DP:6:GLN:C	40:DP:6:GLN:HE21	2.18	0.47
25:DA:1647:U:P	25:DA:1647:U:H3'	2.54	0.47
25:DA:3:U:H2'	25:DA:4:U:O4'	2.14	0.47
30:CF:23:SER:O	30:CF:25:MET:N	2.47	0.47
1:AA:1519:A:C8	1:AA:1520:C:H1'	2.49	0.47
1:BA:985:C:H2'	1:BA:985:C:O2	2.13	0.47
25:CA:2128:G:H2'	25:CA:2129:C:C6	2.49	0.47
33:DI:32:VAL:HG11	33:DI:37:PHE:CE2	2.49	0.47
11:AK:109:ILE:HG22	21:AU:16:ARG:HE	1.79	0.47
2:AB:49:PHE:CB	2:AB:212:TYR:OH	2.62	0.47
2:AB:84:LEU:O	2:AB:88:GLN:O	2.33	0.47
1:AA:277:C:H2'	1:AA:278:G:C5'	2.44	0.47
17:AQ:12:VAL:HG12	17:AQ:21:VAL:HG13	1.96	0.47
1:AA:1124:G:C2	1:AA:1150:A:C2	3.03	0.47
25:DA:2214:C:H2'	25:DA:2215:C:O4'	2.15	0.47
25:DA:2294:G:O2'	25:DA:2295:C:H5'	2.14	0.47
25:DA:2344:U:P	52:D1:36:LYS:HD2	2.55	0.47
1:AA:1103:C:C2'	1:AA:1104:G:O5'	2.62	0.47
25:DA:1581:G:O2'	25:DA:1582:C:O5'	2.31	0.47
41:CQ:107:ALA:HB1	42:CR:48:LYS:HZ2	1.78	0.47
5:BE:95:MET:HE1	5:BE:114:LEU:HD21	1.93	0.47
5:BE:37:VAL:CG1	5:BE:38:VAL:N	2.77	0.47
11:AK:52:ARG:O	11:AK:55:ARG:HB2	2.14	0.47
6:AF:71:ILE:HG23	6:AF:72:ASP:H	1.79	0.47
25:DA:2491:U:C5'	25:DA:2570:G:C5'	2.92	0.47
1:AA:143:A:H5'	1:AA:144:G:O5'	2.15	0.47
13:AM:18:LEU:HD12	13:AM:32:ILE:HG21	1.96	0.47
13:AM:40:GLU:CG	13:AM:41:ASP:H	2.28	0.47
1:AA:656:G:C4	1:AA:657:U:C5	3.02	0.47
25:DA:528:A:N1	25:DA:2043:C:C5'	2.77	0.47
39:DO:67:ASN:C	39:DO:69:ASP:H	2.16	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1606:C:C2'	25:DA:1607:C:OP2	2.62	0.47
25:CA:2211:A:O2'	25:CA:2212:A:P	2.72	0.47
1:AA:427:U:H3'	1:AA:428:G:H2'	1.96	0.47
1:BA:82:G:N7	1:BA:83:C:C4	2.82	0.47
1:AA:923:A:H2'	1:AA:924:C:O4'	2.15	0.47
1:AA:173:U:C6	1:AA:197:A:C2	3.01	0.47
3:BC:49:ALA:O	3:BC:71:ARG:HB2	2.14	0.47
1:AA:373:A:H2'	1:AA:374:A:H8	1.79	0.47
31:DG:95:ALA:CB	31:DG:104:LEU:HD23	2.44	0.47
1:BA:840:C:O2	1:BA:847:G:C2	2.67	0.47
1:AA:1285:A:H4'	1:AA:1286:U:C4	2.50	0.47
1:AA:1374:A:C2'	1:AA:1375:A:H5'	2.44	0.47
10:AJ:59:LYS:CD	10:AJ:59:LYS:C	2.82	0.47
25:CA:587:C:N3	36:CL:33:ARG:NH2	2.61	0.47
2:AB:26:MET:CE	2:AB:29:PHE:CD2	2.97	0.47
25:CA:359:G:C5	25:CA:360:U:C6	3.02	0.47
13:AM:44:ILE:HG22	13:AM:44:ILE:O	2.15	0.47
25:CA:1922:G:N7	25:CA:1923:U:C5	2.82	0.47
3:AC:69:THR:O	3:AC:104:GLU:HA	2.14	0.47
1:BA:381:C:C4	1:BA:382:A:C5	3.03	0.47
4:AD:134:TYR:C	4:AD:134:TYR:CD2	2.88	0.47
25:DA:2748:A:C5	25:DA:2749:A:C8	3.02	0.47
26:CB:35:C:H2'	26:CB:36:C:O4'	2.14	0.47
1:BA:1501:C:OP1	1:BA:1508:A:H4'	2.13	0.47
19:AS:39:ILE:CD1	19:AS:70:LEU:CD2	2.92	0.47
28:CD:205:PRO:O	28:CD:206:ALA:C	2.52	0.47
1:BA:1049:U:C4'	1:BA:1050:G:OP2	2.62	0.47
1:BA:144:G:H2'	1:BA:145:G:O5'	2.14	0.47
29:DE:40:ARG:NH2	29:DE:92:HIS:CE1	2.82	0.47
1:AA:872:A:C5	1:AA:874:G:C8	3.03	0.47
12:BL:2:THR:N	12:BL:5:GLN:HG3	2.29	0.47
3:BC:133:MET:HE1	3:BC:167:TYR:HB2	1.95	0.47
25:DA:2591:C:H2'	25:DA:2592:G:H8	1.79	0.47
4:BD:123:MET:HE2	4:BD:145:ARG:HD2	1.96	0.47
8:BH:82:LEU:HD11	8:BH:84:ILE:HD11	1.95	0.47
25:DA:818:G:H2'	25:DA:819:A:H5"	1.95	0.47
4:BD:58:GLN:HA	4:BD:58:GLN:OE1	2.14	0.47
40:DP:28:LYS:HB3	40:DP:39:LEU:HD21	1.96	0.47
24:AY:130:ARG:HD3	25:CA:1942:C:O2	2.15	0.47
25:CA:2516:A:C6	25:CA:2517:C:N4	2.82	0.47
25:CA:1281:G:C2	25:CA:1290:C:C2	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CI:115:ASP:O	33:CI:116:MET:CG	2.63	0.47
22:AV:12:U:C2'	22:AV:13:C:O5'	2.63	0.47
1:AA:160:A:H1'	1:AA:344:A:N7	2.29	0.47
48:DX:39:VAL:O	48:DX:39:VAL:HG23	2.14	0.47
43:DS:36:LEU:CD1	43:DS:48:LYS:HA	2.43	0.47
25:CA:1106:G:C4	25:CA:1107:G:C8	3.01	0.47
25:DA:1678:A:H2'	25:DA:1679:A:H5'	1.95	0.47
1:AA:859:G:C2'	1:AA:860:A:O5'	2.62	0.47
42:CR:68:ARG:HG2	42:CR:92:TRP:CE3	2.49	0.47
1:AA:735:C:H2'	1:AA:736:C:H6	1.78	0.47
29:CE:145:ASP:HA	29:CE:166:LYS:O	2.15	0.47
25:CA:1249:U:H4'	41:CQ:3:VAL:HG11	1.96	0.47
36:DL:112:LEU:HD13	36:DL:130:GLY:O	2.15	0.47
1:BA:753:A:H4'	1:BA:754:C:O2	2.14	0.47
11:AK:46:ALA:HA	11:AK:65:ALA:HB2	1.96	0.47
49:DY:7:ARG:O	49:DY:7:ARG:HG3	2.14	0.47
25:DA:207:A:H2'	25:DA:208:C:O4'	2.13	0.47
6:BF:53:LYS:O	6:BF:54:LEU:HB2	2.15	0.47
1:BA:1308:U:C5	13:BM:97:ARG:NH2	2.82	0.47
19:BS:57:VAL:CG1	19:BS:74:ALA:HB2	2.45	0.47
25:DA:1057:A:N3	25:DA:1057:A:H2'	2.28	0.47
25:CA:417:C:H2'	25:CA:418:C:C6	2.48	0.47
33:CI:18:ASN:H	33:CI:19:PRO:HD3	1.79	0.47
2:AB:142:LYS:O	2:AB:145:ASN:OD1	2.32	0.47
42:DR:54:VAL:O	42:DR:55:ASP:C	2.53	0.47
32:DH:21:VAL:HG23	32:DH:25:TYR:CD2	2.48	0.47
3:BC:149:LYS:CB	3:BC:168:ARG:HA	2.44	0.47
17:BQ:13:SER:OG	17:BQ:16:MET:CE	2.60	0.47
5:BE:80:LEU:N	5:BE:80:LEU:CD1	2.76	0.47
25:DA:989:G:OP2	50:DZ:11:SER:OG	2.26	0.47
7:AG:149:ALA:CB	11:AK:55:ARG:HH22	2.28	0.47
1:BA:554:A:H5'	12:BL:25:ALA:HB1	1.96	0.47
1:BA:1221:G:C5'	19:BS:76:THR:HG21	2.44	0.47
4:BD:190:LEU:O	4:BD:191:SER:CB	2.52	0.47
13:AM:65:GLU:O	13:AM:68:LEU:N	2.48	0.47
10:AJ:80:THR:HB	10:AJ:83:THR:CB	2.42	0.47
24:AY:155:ARG:NH2	25:CA:2602:A:O2'	2.48	0.47
3:AC:13:ILE:HG12	3:AC:13:ILE:O	2.14	0.47
56:DB:50:A:OP2	39:DO:67:ASN:HA	2.14	0.47
4:AD:18:LEU:C	4:AD:19:PHE:CG	2.87	0.47
41:CQ:23:TYR:HB3	41:CQ:27:ARG:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1397:C:H3'	1:AA:1398:A:H5"	1.95	0.47
5:AE:152:VAL:CG1	8:AH:98:LEU:HD13	2.43	0.47
1:AA:66:A:H2'	1:AA:66:A:N3	2.30	0.47
1:AA:69:G:H2'	1:AA:70:U:C6	2.49	0.47
1:AA:79:G:H2'	1:AA:80:A:O4'	2.15	0.47
20:AT:34:VAL:HG21	20:AT:53:MET:HG2	1.96	0.47
11:BK:76:TYR:N	11:BK:76:TYR:HD1	2.13	0.47
20:BT:34:VAL:CG1	20:BT:78:LEU:CD1	2.92	0.47
16:AP:6:LEU:HG	16:AP:17:TYR:CB	2.44	0.47
16:AP:72:ALA:HA	16:AP:75:ILE:HD12	1.97	0.47
9:BI:42:THR:HA	9:BI:44:ARG:NH2	2.29	0.47
9:BI:28:VAL:HB	9:BI:63:TYR:CD2	2.48	0.47
9:BI:7:GLY:HA2	9:BI:84:ARG:HB3	1.96	0.47
1:AA:1367:C:C2	1:AA:1368:A:C8	3.03	0.47
1:BA:1093:A:C2	1:BA:1095:U:O4'	2.67	0.47
10:BJ:78:GLU:C	10:BJ:78:GLU:OE1	2.52	0.47
6:BF:8:PHE:CE1	6:BF:60:VAL:HG21	2.49	0.47
45:DU:11:ILE:CG1	45:DU:19:GLY:O	2.62	0.47
2:BB:66:ILE:HB	2:BB:88:GLN:HB3	1.96	0.47
37:CM:111:GLU:O	37:CM:111:GLU:OE1	2.31	0.47
25:CA:2102:G:C5	25:CA:2103:C:C5	3.02	0.47
25:DA:46:G:C6	25:DA:47:C:N4	2.82	0.47
25:DA:611:C:C5	25:DA:612:G:N7	2.82	0.47
25:DA:690:G:O2'	27:DC:42:ARG:NH2	2.43	0.47
25:CA:1519:G:C4	25:CA:1520:U:C5	3.02	0.47
10:AJ:5:ARG:HG2	10:AJ:79:PRO:CG	2.43	0.47
7:BG:14:ASP:HB3	7:BG:18:GLY:N	2.28	0.47
1:BA:247:G:C6	1:BA:278:G:C2	3.02	0.47
45:CU:15:GLY:O	45:CU:16:LYS:C	2.52	0.47
9:BI:90:ASP:OD2	9:BI:90:ASP:C	2.52	0.47
14:AN:20:PHE:C	14:AN:22:LYS:N	2.66	0.47
1:BA:558:G:H5"	1:BA:559:A:O5'	2.14	0.47
17:BQ:47:ASP:HB2	17:BQ:51:GLU:OE2	2.14	0.47
25:DA:2678:C:H2'	25:DA:2679:A:O4'	2.14	0.47
28:CD:55:LYS:HG2	28:CD:56:LYS:H	1.79	0.47
27:CC:17:LYS:CE	27:CC:17:LYS:HA	2.44	0.47
25:DA:1477:A:N3	25:DA:1515:A:C6	2.83	0.47
46:DV:28:ALA:CB	46:DV:42:LEU:HD21	2.44	0.47
1:AA:744:C:H2'	1:AA:745:G:H8	1.76	0.47
25:CA:742:A:H2'	25:CA:743:A:C8	2.49	0.47
7:BG:106:ALA:CB	7:BG:122:GLU:HG3	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1234:U:O5'	25:CA:1234:U:H6	1.97	0.47
4:BD:119:HIS:O	4:BD:120:LYS:HB2	2.14	0.47
1:AA:1020:G:H2'	1:AA:1020:G:N3	2.28	0.47
25:CA:178:G:O2'	25:CA:179:C:H5'	2.14	0.47
3:AC:154:GLY:HA2	3:AC:163:ARG:N	2.29	0.47
3:BC:34:SER:HA	3:BC:37:LYS:HB3	1.97	0.47
24:AY:29:ARG:HD3	24:AY:110:ARG:HH22	1.79	0.47
6:BF:69:GLU:OE1	6:BF:69:GLU:CA	2.62	0.47
38:DN:38:LEU:HB3	38:DN:39:PRO:HD3	1.95	0.47
3:BC:120:THR:CG2	3:BC:121:SER:N	2.78	0.47
30:CF:105:ILE:CD1	30:CF:138:PRO:HG3	2.44	0.47
50:CZ:3:THR:CG2	50:CZ:36:GLU:HB3	2.45	0.47
25:DA:2771:C:H2'	25:DA:2772:C:H6	1.79	0.47
25:DA:2673:G:H2'	25:DA:2674:G:H8	1.78	0.47
25:DA:38:A:N3	29:DE:43:THR:HB	2.29	0.47
5:BE:15:ILE:O	5:BE:16:ALA:HB2	2.15	0.47
29:CE:4:VAL:C	29:CE:5:LEU:HD12	2.35	0.47
25:CA:1880:U:H2'	25:CA:1881:C:C6	2.49	0.47
25:DA:2523:G:C2'	25:DA:2524:G:H5'	2.44	0.47
1:BA:652:U:H1'	1:BA:653:U:C6	2.50	0.47
25:DA:2682:A:C2'	25:DA:2683:C:H5'	2.45	0.47
18:BR:44:THR:OG1	18:BR:46:THR:CG2	2.63	0.47
16:AP:44:SER:OG	16:AP:46:LYS:HG3	2.14	0.47
25:DA:1681:G:O2'	25:DA:1762:A:H1'	2.14	0.47
25:DA:1275:A:O2'	25:DA:1645:G:N3	2.47	0.47
25:DA:2059:A:C2	25:DA:2503:A:C6	3.02	0.47
1:BA:806:C:H2'	1:BA:807:A:H8	1.79	0.47
15:AO:45:HIS:O	15:AO:47:LYS:N	2.48	0.47
28:DD:49:GLN:OE1	28:DD:79:LEU:HB3	2.14	0.47
48:DX:1:SER:O	48:DX:3:VAL:HG23	2.14	0.47
3:BC:180:ASP:HB3	3:BC:204:GLY:H	1.79	0.47
25:DA:1398:C:H2'	25:DA:1399:C:O5'	2.15	0.47
2:AB:134:LEU:HA	2:AB:137:THR:OG1	2.14	0.47
2:AB:220:VAL:O	2:AB:221:ARG:C	2.52	0.47
2:AB:63:LYS:HD3	2:AB:63:LYS:C	2.33	0.47
2:AB:84:LEU:HG	2:AB:85:SER:CA	2.44	0.47
1:AA:987:G:C2'	1:AA:988:G:H5'	2.45	0.47
1:AA:1322:C:OP1	19:AS:77:ARG:NH2	2.47	0.47
1:BA:1275:A:C5	1:BA:1276:G:N7	2.82	0.47
10:AJ:19:ASP:O	10:AJ:23:ALA:HB2	2.14	0.47
32:DH:9:VAL:HB	32:DH:13:GLY:HA3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:448:A:H3'	1:BA:449:G:H8	1.78	0.47
2:BB:202:ASN:OD1	2:BB:203:ASP:N	2.47	0.47
25:DA:1494:A:C6	25:DA:1495:A:C5	3.03	0.47
25:DA:1414:C:C5	25:DA:1415:U:H5	2.31	0.47
25:DA:1588:G:C3'	25:DA:1589:U:H6	2.27	0.47
25:DA:625:G:H2'	25:DA:626:A:C8	2.50	0.47
1:AA:147:G:H2'	1:AA:148:G:H8	1.77	0.47
25:CA:1855:U:O2'	25:CA:1856:U:H5'	2.15	0.47
25:DA:410:G:C6	25:DA:2407:A:N6	2.82	0.47
13:AM:53:ASP:CB	13:AM:56:ARG:HE	2.27	0.47
3:AC:6:PRO:O	3:AC:10:ARG:HG3	2.14	0.47
25:DA:1455:G:C5	25:DA:1456:G:C8	3.02	0.47
30:DF:32:LYS:O	30:DF:33:ILE:HG12	2.14	0.47
25:DA:1123:C:O2'	25:DA:1124:G:H5'	2.14	0.47
4:AD:123:MET:HG3	4:AD:145:ARG:HG2	1.96	0.47
33:CI:105:LEU:HA	33:CI:108:ILE:CB	2.43	0.47
1:BA:94:G:H5'	1:BA:95:C:H5	1.79	0.47
14:AN:34:ASN:O	14:AN:41:ARG:HD3	2.14	0.47
25:DA:1331:G:C5	25:DA:1333:G:C8	3.02	0.47
1:BA:1539:C:C2'	1:BA:1540:U:H5'	2.45	0.47
25:CA:1408:G:C2'	25:CA:1409:U:H5'	2.44	0.47
1:BA:468:A:N3	1:BA:468:A:O4'	2.46	0.47
1:BA:468:A:H2'	1:BA:469:C:C5'	2.44	0.47
10:AJ:59:LYS:HZ2	10:AJ:60:ASP:H	1.61	0.47
10:BJ:19:ASP:O	10:BJ:22:THR:HG22	2.14	0.47
9:AI:43:ALA:C	9:AI:45:MET:H	2.17	0.47
9:AI:48:ARG:O	9:AI:49:GLN:C	2.53	0.47
6:BF:51:ILE:HD11	6:BF:85:ILE:HB	1.96	0.47
6:BF:86:ARG:CG	6:BF:86:ARG:NH1	2.70	0.47
45:DU:8:ASP:O	45:DU:24:VAL:HG23	2.15	0.47
45:DU:35:VAL:CG1	45:DU:38:ILE:HG13	2.44	0.47
25:DA:585:G:C5'	25:DA:586:A:OP1	2.62	0.47
2:BB:181:PRO:CA	2:BB:196:ASP:OD1	2.61	0.47
25:DA:1168:G:H2'	25:DA:1169:A:O4'	2.14	0.47
9:AI:60:LEU:HD23	9:AI:60:LEU:N	2.28	0.47
56:DB:62:C:O5'	56:DB:62:C:H6	1.97	0.47
31:DG:67:ALA:O	31:DG:71:LEU:HD12	2.15	0.47
25:DA:149:A:C2'	25:DA:150:U:O5'	2.62	0.47
25:CA:1536:C:H4'	25:CA:1537:G:C5'	2.45	0.47
25:DA:59:U:C2'	25:DA:60:G:O5'	2.62	0.47
1:BA:686:U:C2	1:BA:687:A:C8	3.01	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BC:65:VAL:HG12	3:BC:65:VAL:O	2.13	0.47
25:DA:929:U:O2	50:DZ:25:GLY:HA2	2.14	0.47
25:DA:1269:A:H8	25:DA:1269:A:O5'	1.97	0.47
27:CC:16:VAL:CG2	27:CC:203:VAL:HG22	2.44	0.47
33:CI:56:VAL:O	33:CI:57:VAL:O	2.32	0.47
33:CI:6:ALA:CB	33:CI:60:VAL:N	2.78	0.47
7:BG:16:LYS:HD3	7:BG:17:PHE:CE1	2.50	0.47
7:BG:16:LYS:CE	7:BG:17:PHE:CE1	2.98	0.47
25:CA:1924:C:H2'	25:CA:1925:C:H5"	1.96	0.47
1:BA:1251:A:O2'	1:BA:1252:A:C5'	2.62	0.47
8:AH:110:MET:CE	8:AH:115:ALA:HA	2.45	0.47
25:CA:892:A:C2	25:CA:893:C:C5	3.02	0.47
25:DA:2476:A:C2	25:DA:2477:U:C2	3.02	0.47
1:AA:540:G:O2'	1:AA:541:G:H5'	2.14	0.47
32:CH:57:LYS:HG2	32:CH:58:LEU:HG	1.96	0.47
25:DA:2259:U:H1'	25:DA:2427:C:C2	2.49	0.47
1:BA:560:A:H4'	1:BA:561:U:H5"	1.96	0.47
25:DA:909:A:C6	25:DA:912:C:C2	3.02	0.47
27:DC:123:ILE:O	27:DC:123:ILE:HG22	2.14	0.47
25:CA:2831:G:OP1	28:CD:56:LYS:HE2	2.15	0.47
1:BA:833:G:C4	1:BA:834:U:C6	3.02	0.47
1:AA:103:U:O2'	1:AA:104:G:H5'	2.14	0.47
1:AA:158:G:C2'	1:AA:159:G:H5"	2.43	0.47
1:BA:9:G:OP2	5:BE:125:LYS:HE2	2.14	0.47
7:AG:145:GLU:HA	7:AG:148:LYS:HE2	1.96	0.47
1:BA:498:A:H8	1:BA:498:A:OP2	1.96	0.47
25:DA:158:U:C3'	25:DA:159:G:H5'	2.44	0.47
36:DL:59:ARG:NH1	36:DL:59:ARG:HB3	2.29	0.47
4:BD:169:TRP:CG	4:BD:185:PRO:HG3	2.49	0.47
44:CT:35:ALA:HB1	44:CT:37:ASP:OD1	2.15	0.47
25:DA:1244:A:H5'	36:DL:8:PRO:HD2	1.97	0.47
25:CA:371:A:H5"	25:CA:423:A:C2	2.48	0.47
30:CF:56:LEU:HD11	30:CF:86:CYS:O	2.14	0.47
30:CF:30:VAL:HG23	30:CF:95:MET:SD	2.55	0.47
1:BA:53:A:C2	1:BA:359:G:C2	3.03	0.47
25:CA:1434:A:O2'	25:CA:1435:G:H8	1.95	0.47
24:AY:107:THR:HG23	24:AY:110:ARG:CG	2.44	0.47
7:BG:7:GLY:O	7:BG:8:GLN:CB	2.63	0.47
25:CA:1306:C:C2'	25:CA:1306:C:O2	2.62	0.47
28:DD:56:LYS:O	28:DD:57:ALA:C	2.53	0.47
8:AH:11:THR:HG23	8:AH:14:ARG:HH12	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.50	0.47
35:DK:19:VAL:HG11	35:DK:41:ILE:HD13	1.97	0.47
37:DM:130:PHE:CD2	37:DM:131:VAL:N	2.82	0.47
33:DI:125:THR:HG22	33:DI:126:ARG:N	2.29	0.47
25:DA:1043:C:H2'	25:DA:1044:C:O4'	2.14	0.47
54:D3:60:CYS:O	54:D3:61:LEU:HD23	2.14	0.47
25:DA:2660:A:C6	25:DA:2661:G:C6	3.02	0.47
25:DA:2656:U:C5	25:DA:2664:G:N2	2.82	0.47
11:BK:81:LEU:N	11:BK:81:LEU:HD23	2.30	0.47
1:BA:446:G:C2'	1:BA:447:G:O5'	2.63	0.47
27:DC:112:GLY:O	27:DC:113:ASP:C	2.52	0.47
22:BV:32:U:C4	22:BV:33:U:C5	3.02	0.47
37:DM:32:GLY:C	37:DM:117:PHE:CE2	2.87	0.47
25:CA:720:U:O2	25:CA:720:U:C2'	2.61	0.47
34:CJ:73:VAL:HG12	34:CJ:75:TYR:CE2	2.49	0.47
1:AA:915:A:H2'	1:AA:916:U:H5'	1.96	0.47
41:DQ:24:TYR:CG	41:DQ:25:GLY:N	2.83	0.47
25:DA:1893:C:H2'	25:DA:1894:C:H5'	1.97	0.47
56:DB:12:C:C2	57:DW:70:PRO:HA	2.50	0.47
39:DO:58:ILE:HG22	39:DO:62:LEU:HD11	1.96	0.47
25:CA:1199:U:H5"	60:CA:3712:HOH:O	2.15	0.47
25:CA:483:A:O2'	45:CU:56:GLY:HA2	2.15	0.47
25:DA:838:C:O2'	25:DA:839:U:H5'	2.15	0.47
6:AF:82:ASP:N	6:AF:82:ASP:OD1	2.47	0.47
25:DA:2646:C:O5'	25:DA:2646:C:H6	1.98	0.47
40:CP:9:GLN:C	40:CP:11:GLN:H	2.16	0.47
2:AB:9:LEU:HG	2:AB:11:ALA:H	1.78	0.47
1:BA:1350:A:C6	1:BA:1351:U:N3	2.83	0.47
1:BA:929:G:C6	1:BA:930:C:C5	3.02	0.47
33:DI:16:MET:SD	33:DI:22:PRO:HG2	2.55	0.47
33:DI:7:TYR:O	33:DI:8:VAL:HG13	2.15	0.47
25:CA:1069:A:N1	25:CA:1074:G:C5	2.82	0.47
25:CA:1075:C:H3'	25:CA:1075:C:C6	2.49	0.47
25:DA:2293:G:H2'	25:DA:2294:G:O4'	2.14	0.47
32:DH:135:HIS:HB3	32:DH:138:VAL:HB	1.96	0.47
16:BP:44:SER:O	16:BP:46:LYS:HG3	2.14	0.47
36:DL:132:ARG:HG3	36:DL:142:ILE:HD12	1.95	0.47
12:BL:20:VAL:N	12:BL:21:PRO:HD3	2.30	0.47
16:BP:61:VAL:HG21	16:BP:67:ILE:HD11	1.90	0.47
25:CA:1731:G:C2	25:CA:1733:G:C4	3.03	0.47
1:AA:140:U:H2'	1:AA:141:G:O5'	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:278:A:H2'	25:CA:278:A:N3	2.29	0.47
1:AA:1181:G:C6	1:AA:1182:G:N2	2.83	0.47
13:AM:53:ASP:HB3	13:AM:56:ARG:HH21	1.79	0.47
13:AM:68:LEU:O	13:AM:72:ILE:HG13	2.14	0.47
25:DA:1464:G:H2'	25:DA:1465:G:C8	2.49	0.47
25:DA:947:A:H2'	25:DA:948:C:C6	2.49	0.47
1:AA:456:A:N6	1:AA:457:G:C6	2.83	0.47
4:AD:21:LYS:O	4:AD:22:SER:C	2.53	0.47
33:CI:100:ILE:HG22	33:CI:104:GLN:HB2	1.95	0.47
25:DA:2793:C:C2	25:DA:2794:C:C5	3.03	0.47
1:BA:1298:U:H5'	1:BA:1299:A:C8	2.50	0.47
1:BA:842:U:O2	1:BA:845:A:OP1	2.33	0.47
25:CA:2140:G:O6	25:CA:2151:U:O2	2.32	0.47
1:AA:1186:G:H2'	1:AA:1187:G:O5'	2.14	0.47
10:AJ:65:TYR:HB2	14:AN:96:LEU:HD11	1.96	0.47
6:BF:6:ILE:HB	6:BF:62:MET:CB	2.44	0.47
3:AC:106:ARG:O	3:AC:107:LYS:C	2.51	0.47
25:CA:1735:A:C2	25:CA:1736:U:C2	3.03	0.47
1:BA:594:U:C3'	1:BA:595:A:H8	2.26	0.47
11:AK:96:ILE:HD12	11:AK:96:ILE:C	2.35	0.47
25:DA:1018:U:C2	25:DA:1019:U:C5	3.02	0.47
44:CT:87:LEU:O	44:CT:89:GLU:N	2.46	0.47
1:BA:1505:G:H4'	1:BA:1506:U:C5'	2.45	0.47
25:DA:615:U:C3'	25:DA:616:A:H5'	2.42	0.47
13:AM:66:GLY:O	13:AM:70:ARG:HB3	2.15	0.47
25:CA:528:A:C8	25:CA:528:A:C3'	2.97	0.47
1:AA:591:U:H2'	1:AA:592:G:H8	1.79	0.47
1:BA:243:A:N1	1:BA:246:A:N7	2.62	0.47
25:CA:1124:G:H2'	25:CA:1125:G:H5'	1.95	0.47
36:CL:2:ARG:O	36:CL:2:ARG:CG	2.62	0.47
1:BA:606:G:N2	1:BA:632:U:OP1	2.47	0.47
25:DA:140:C:O2	25:DA:140:C:O4'	2.33	0.47
1:AA:198:G:C6	1:AA:199:A:N7	2.82	0.47
4:BD:123:MET:CE	4:BD:145:ARG:HD2	2.44	0.47
1:BA:590:U:H2'	1:BA:591:U:H6	1.76	0.47
1:BA:220:G:N3	1:BA:221:C:C6	2.83	0.47
1:AA:599:C:H4'	8:AH:121:GLY:C	2.35	0.47
30:CF:73:VAL:HG22	30:CF:78:ILE:CD1	2.44	0.47
30:CF:101:ARG:O	30:CF:102:LEU:C	2.53	0.47
15:AO:49:HIS:O	15:AO:52:ARG:HB3	2.15	0.47
1:BA:1424:U:C2	1:BA:1425:U:C6	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:318:G:N1	1:BA:319:G:C5	2.82	0.47
44:DT:17:SER:O	44:DT:20:ALA:N	2.47	0.47
3:AC:205:GLU:OE2	3:AC:205:GLU:HA	2.14	0.47
25:DA:1523:U:O2'	25:DA:1524:G:H5'	2.14	0.47
25:CA:1122:G:C6	25:CA:1123:C:C5	3.03	0.47
45:CU:71:ILE:HG12	45:CU:71:ILE:O	2.14	0.47
33:DI:122:GLU:O	33:DI:125:THR:HB	2.14	0.47
25:DA:2418:A:OP1	54:D3:44:ARG:HD3	2.15	0.47
46:CV:70:ILE:HG22	46:CV:72:VAL:HG13	1.96	0.47
11:BK:18:GLY:O	11:BK:81:LEU:HB2	2.15	0.47
25:DA:2555:U:H2'	25:DA:2556:C:H5'	1.96	0.47
7:BG:114:SER:HB3	7:BG:117:LEU:HG	1.96	0.47
31:DG:26:LYS:CB	31:DG:31:GLU:HG3	2.45	0.47
39:CO:27:VAL:HG23	39:CO:38:GLN:HG3	1.97	0.47
1:BA:791:G:H2'	1:BA:792:A:H5'	1.95	0.47
57:DW:15:LYS:O	57:DW:16:ARG:CB	2.63	0.47
25:DA:2137:U:N3	25:DA:2138:G:C8	2.83	0.47
25:DA:2723:C:H2'	25:DA:2724:U:O5'	2.14	0.47
52:C1:31:GLU:O	52:C1:31:GLU:HG2	2.15	0.47
25:DA:1911:U:H2'	25:DA:1918:A:C2	2.49	0.47
25:DA:1918:A:HO2'	25:DA:1920:C:N4	2.13	0.47
25:CA:729:G:H2'	25:CA:1775:U:H1'	1.96	0.47
38:DN:26:GLY:O	38:DN:29:VAL:N	2.47	0.47
25:DA:1635:A:C6	25:DA:1636:U:C2	3.02	0.47
29:CE:27:LEU:HD13	29:CE:100:MET:HE3	1.96	0.47
27:DC:188:ARG:HH21	27:DC:188:ARG:HG3	1.80	0.47
25:DA:252:G:N2	25:DA:253:C:H1'	2.30	0.47
25:CA:1637:A:H5'	25:CA:1760:C:O2'	2.14	0.47
32:CH:50:ARG:O	32:CH:51:ARG:C	2.53	0.47
23:AX:18:C:H3'	23:AX:19:U:C5'	2.45	0.47
25:CA:7:G:H5'	34:CJ:132:HIS:CE1	2.49	0.47
25:DA:915:C:H2'	25:DA:916:G:H5'	1.97	0.47
25:CA:1776:G:N3	25:CA:1776:G:H2'	2.29	0.47
29:CE:30:GLN:HG2	29:CE:30:GLN:O	2.14	0.47
25:CA:1878:G:H2'	25:CA:1879:C:O4'	2.15	0.47
34:CJ:96:ARG:NH2	34:CJ:99:ARG:HD3	2.30	0.47
25:DA:1010:A:H1'	25:DA:1153:C:C1'	2.45	0.47
1:BA:1302:C:C4	13:BM:16:ILE:CD1	2.98	0.47
1:BA:1323:G:C1'	1:BA:1362:A:C2	2.97	0.47
13:BM:18:LEU:O	13:BM:20:SER:N	2.47	0.47
25:CA:2161:C:O2	25:CA:2162:G:C8	2.66	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1069:A:C2	25:DA:1073:A:N7	2.83	0.47
25:DA:1087:G:N1	25:DA:1089:A:C2	2.83	0.47
33:DI:30:GLN:HG2	33:DI:32:VAL:HG23	1.95	0.47
33:DI:8:VAL:O	33:DI:56:VAL:O	2.32	0.47
25:DA:1340:U:O2'	44:DT:61:LEU:HD13	2.15	0.47
1:AA:714:G:O2'	1:AA:715:A:H5'	2.14	0.47
25:CA:1076:C:H2'	25:CA:1077:A:O4'	2.14	0.47
25:CA:1090:A:N1	25:CA:1091:G:N7	2.62	0.47
33:CI:27:LEU:HD11	33:CI:34:ILE:HA	1.96	0.47
33:CI:42:ASN:HB3	33:CI:46:ASP:OD1	2.14	0.47
25:CA:1079:C:N4	25:CA:1088:A:C4	2.83	0.47
2:AB:56:LEU:CD2	2:AB:56:LEU:C	2.80	0.47
17:AQ:17:GLU:O	17:AQ:18:LYS:HB2	2.15	0.47
1:AA:258:G:C2	1:AA:269:C:O2	2.68	0.47
52:D1:42:VAL:HG12	52:D1:44:GLN:H	1.80	0.47
25:DA:2292:U:H2'	25:DA:2293:G:O5'	2.15	0.47
25:DA:2293:G:C2	25:DA:2340:A:C2	3.03	0.47
1:BA:484:G:H4'	1:BA:485:U:C5'	2.44	0.47
25:CA:1287:A:H3'	25:CA:1288:G:N2	2.30	0.47
2:BB:163:ILE:HG13	2:BB:203:ASP:HB2	1.96	0.47
1:BA:1523:G:OP1	11:BK:124:LYS:HD3	2.15	0.47
1:BA:518:C:C2'	1:BA:530:G:C8	2.91	0.47
5:BE:93:VAL:CG1	5:BE:110:MET:HE3	2.44	0.47
5:BE:92:ARG:CZ	5:BE:92:ARG:HB3	2.43	0.47
5:BE:155:LYS:CG	8:BH:65:PHE:HB2	2.43	0.47
20:BT:66:ILE:O	20:BT:67:HIS:CB	2.62	0.47
25:DA:1587:G:C5	25:DA:1588:G:C8	3.03	0.47
3:BC:130:ARG:HE	3:BC:130:ARG:H	1.62	0.47
6:AF:67:PRO:O	6:AF:69:GLU:N	2.48	0.47
25:DA:640:C:H2'	25:DA:641:U:O4'	2.14	0.47
1:BA:8:A:N6	4:BD:201:GLU:O	2.47	0.47
25:DA:227:A:N6	25:DA:410:G:H1'	2.30	0.47
25:DA:227:A:N3	25:DA:2407:A:H1'	2.29	0.47
25:DA:948:C:H1'	25:DA:984:A:O2'	2.15	0.47
37:DM:97:GLN:N	37:DM:97:GLN:CD	2.68	0.47
56:DB:49:C:O3'	39:DO:68:LYS:HG3	2.14	0.47
25:CA:2210:U:O3'	25:CA:2211:A:H4'	2.14	0.47
4:AD:101:VAL:HA	4:AD:104:MET:HG3	1.96	0.47
21:AU:38:GLU:HA	21:AU:40:PRO:HD2	1.96	0.47
21:AU:38:GLU:OE2	21:AU:41:THR:HG21	2.14	0.47
41:CQ:26:ALA:O	41:CQ:28:SER:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:115:LYS:O	12:AL:116:TYR:CB	2.63	0.47
1:BA:801:U:C2	1:BA:802:A:C8	3.03	0.47
1:AA:502:A:C2	1:AA:503:C:C2	3.03	0.47
25:CA:1838:C:C4	25:CA:1899:A:C5	3.03	0.47
22:AV:48:C:C2	22:AV:59:U:H1'	2.50	0.47
22:AV:21:A:O4'	22:AV:48:C:N4	2.48	0.47
25:DA:1441:G:C2'	25:DA:1442:U:O5'	2.63	0.47
1:AA:71:A:O2'	1:AA:72:A:P	2.73	0.47
20:AT:53:MET:HA	20:AT:56:ILE:CG2	2.44	0.47
20:BT:53:MET:HG3	20:BT:54:GLN:H	1.78	0.47
16:AP:52:LEU:O	16:AP:54:LEU:N	2.48	0.47
49:DY:26:PHE:CE2	49:DY:30:MET:CG	2.95	0.47
25:CA:1415:U:O2	25:CA:1415:U:C3'	2.63	0.47
25:CA:1585:C:C2'	25:CA:1586:A:H5'	2.44	0.47
25:CA:2303:G:C4	25:CA:2304:G:C8	3.02	0.47
25:DA:1799:G:O2'	27:DC:179:GLU:OE2	2.20	0.47
9:BI:19:PHE:O	9:BI:62:LEU:HA	2.14	0.47
9:BI:5:TYR:HB2	9:BI:20:ILE:CG2	2.44	0.47
9:BI:24:ASN:HB3	9:BI:58:GLU:CD	2.34	0.47
37:DM:54:THR:O	37:DM:55:ARG:C	2.53	0.47
1:BA:467:U:H3'	1:BA:467:U:O2	2.15	0.47
2:BB:95:TRP:CH2	2:BB:99:MET:HG3	2.49	0.47
1:AA:1286:U:O2	1:AA:1286:U:H2'	2.14	0.47
1:BA:15:G:C6	1:BA:16:A:C6	3.03	0.47
25:DA:2162:G:HO2'	25:DA:2163:A:H8	1.60	0.47
6:BF:29:ILE:HG21	6:BF:36:ILE:HG22	1.97	0.47
6:BF:70:VAL:HG23	6:BF:71:ILE:H	1.80	0.47
1:AA:1490:U:H2'	1:AA:1491:G:H5'	1.94	0.47
25:CA:1869:G:H2'	25:CA:1870:C:H5'	1.97	0.47
2:AB:40:ILE:HG21	2:AB:201:GLY:H	1.79	0.47
2:BB:68:PHE:O	2:BB:90:PHE:HA	2.15	0.47
25:CA:2388:A:H5'	25:CA:2389:G:OP2	2.15	0.47
11:AK:96:ILE:HA	11:AK:99:LEU:HD23	1.96	0.47
2:BB:49:PHE:O	2:BB:52:ALA:HB3	2.15	0.47
31:DG:8:VAL:HG21	31:DG:72:ASN:HB2	1.95	0.47
2:BB:82:ALA:O	2:BB:85:SER:OG	2.30	0.47
25:CA:1533:C:N4	25:CA:1534:U:C4	2.83	0.47
25:CA:1534:U:O2	25:CA:1534:U:H2'	2.13	0.47
4:BD:36:ALA:O	4:BD:38:GLY:N	2.48	0.47
21:BU:24:LYS:NZ	21:BU:25:ALA:HB2	2.30	0.47
1:AA:1507:A:C5	1:AA:1530:G:C6	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:662:G:O3'	36:CL:16:GLY:HA2	2.14	0.47
1:BA:709:U:H2'	1:BA:710:G:H8	1.79	0.47
25:DA:511:U:C2'	25:DA:512:G:H5'	2.45	0.47
13:AM:70:ARG:HD2	13:AM:70:ARG:O	2.15	0.47
48:DX:29:LEU:HD23	48:DX:29:LEU:HA	1.77	0.47
25:CA:894:U:H2'	25:CA:895:U:H6	1.77	0.47
25:DA:1287:A:H5'	38:DN:103:ARG:HD2	1.96	0.47
1:AA:763:G:H2'	1:AA:764:C:O5'	2.13	0.47
1:BA:158:G:C5	1:BA:159:G:N7	2.82	0.47
7:AG:94:ARG:CZ	7:AG:98:LEU:HD21	2.44	0.47
27:DC:1:ALA:CA	27:DC:198:GLU:OE2	2.62	0.47
7:AG:42:VAL:O	7:AG:46:LEU:N	2.47	0.47
49:CY:24:GLU:O	49:CY:25:GLN:C	2.52	0.47
49:CY:9:LYS:HB3	49:CY:12:GLU:CG	2.45	0.47
1:BA:560:A:C8	1:BA:566:G:N3	2.83	0.47
17:BQ:69:THR:O	17:BQ:70:LYS:CB	2.63	0.47
7:BG:77:ARG:O	7:BG:78:ARG:C	2.52	0.47
33:DI:50:LYS:N	33:DI:50:LYS:CD	2.78	0.47
11:BK:109:ILE:CG2	21:BU:16:ARG:NE	2.77	0.47
21:BU:14:ALA:C	21:BU:15:LEU:HG	2.34	0.47
28:CD:12:THR:HG21	40:CP:8:GLU:CG	2.45	0.47
3:BC:151:GLU:HA	3:BC:166:TRP:HB3	1.96	0.47
3:BC:7:ASN:C	3:BC:9:ILE:H	2.18	0.47
25:DA:295:G:N1	25:DA:296:U:C5	2.83	0.47
25:DA:1165:A:C2	25:DA:1185:G:C2	3.03	0.47
1:BA:401:C:O2'	1:BA:621:A:N3	2.38	0.47
1:AA:864:A:OP1	1:AA:864:A:H8	1.98	0.47
30:DF:101:ARG:O	30:DF:102:LEU:O	2.32	0.47
1:BA:414:A:C2	1:BA:415:A:C1'	2.97	0.47
25:CA:2317:A:N6	25:CA:2318:G:C2	2.83	0.47
44:DT:38:ALA:O	44:DT:39:THR:HB	2.15	0.47
39:CO:64:TYR:HB3	39:CO:67:ASN:ND2	2.29	0.47
25:DA:818:G:C2'	25:DA:819:A:H5"	2.44	0.47
25:CA:1840:G:C4	25:CA:1841:U:C5	3.02	0.47
1:AA:417:G:C2	1:AA:418:C:C2	3.02	0.47
25:CA:1547:C:C2'	25:CA:1548:A:O5'	2.62	0.47
39:DO:49:VAL:HG11	39:DO:81:ARG:CB	2.44	0.47
25:DA:7:G:C5	25:DA:8:C:C5	3.03	0.47
25:DA:404:A:N1	25:DA:406:G:C2	2.82	0.47
3:AC:153:SER:HA	3:AC:164:THR:HA	1.95	0.47
30:CF:57:ALA:O	30:CF:60:SER:O	2.33	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:599:C:O2	1:AA:640:A:C2	2.68	0.47
1:AA:609:A:O5'	1:AA:609:A:H8	1.97	0.47
1:BA:1438:G:C2'	1:BA:1439:G:H5'	2.44	0.47
37:DM:30:SER:HB2	37:DM:31:PHE:CE1	2.50	0.47
1:BA:352:C:H42	1:BA:357:G:N2	2.11	0.47
25:CA:460:A:P	53:C2:41:ARG:HH12	2.37	0.47
25:CA:1433:A:H2'	25:CA:1434:A:O4'	2.15	0.47
25:DA:2378:A:C2'	25:DA:2379:G:O5'	2.62	0.47
52:D1:25:ASN:O	52:D1:26:LYS:C	2.53	0.47
31:CG:102:ILE:HD12	31:CG:147:LEU:HD11	1.96	0.47
44:DT:44:LYS:HG3	44:DT:55:VAL:CG1	2.43	0.47
27:CC:156:SER:O	27:CC:194:VAL:CG1	2.62	0.47
1:AA:340:U:H2'	1:AA:341:C:C6	2.47	0.47
1:BA:1422:G:C2'	1:BA:1423:G:H5'	2.44	0.47
1:BA:1381:U:H2'	1:BA:1382:C:H6	1.80	0.47
56:DB:15:A:C8	56:DB:109:A:C6	3.03	0.47
25:CA:158:U:H2'	25:CA:159:G:H5'	1.96	0.47
4:BD:71:PHE:HE1	4:BD:199:ILE:HD11	1.79	0.47
25:CA:2516:A:C2	25:CA:2569:G:N3	2.83	0.47
1:BA:179:A:H2'	1:BA:180:U:C6	2.50	0.47
25:DA:282:A:H2'	25:DA:283:G:O4'	2.15	0.47
5:AE:108:GLY:O	5:AE:109:ALA:CB	2.62	0.47
50:CZ:36:GLU:O	50:CZ:37:ARG:HD3	2.14	0.47
1:AA:299:G:O6	1:AA:300:A:N1	2.48	0.47
27:CC:96:LYS:HA	27:CC:96:LYS:CE	2.45	0.47
5:AE:94:PHE:HZ	5:AE:96:GLN:HG3	1.79	0.47
41:DQ:26:ALA:HB1	41:DQ:30:VAL:CG2	2.44	0.47
32:CH:135:HIS:CD2	32:CH:137:GLU:HG2	2.49	0.47
8:BH:112:ASP:O	8:BH:113:ARG:C	2.53	0.47
25:DA:2556:C:C2'	25:DA:2557:G:O5'	2.63	0.47
25:CA:2219:U:C2'	25:CA:2220:U:O5'	2.62	0.47
1:BA:389:A:H2'	1:BA:390:U:H5'	1.97	0.47
25:CA:1773:A:N7	25:CA:1829:A:H1'	2.30	0.47
25:CA:1441:G:H2'	25:CA:1442:U:C6	2.50	0.47
57:DW:15:LYS:O	57:DW:16:ARG:HB2	2.14	0.47
9:BI:66:VAL:HG13	9:BI:66:VAL:O	2.14	0.47
41:CQ:10:ARG:HA	41:CQ:10:ARG:HD2	1.63	0.47
25:CA:1888:G:H5"	25:CA:1889:A:OP1	2.15	0.47
25:DA:2180:U:C4	25:DA:2181:U:C4	3.03	0.47
25:DA:845:A:C2	25:DA:847:U:C6	3.03	0.47
1:AA:1497:G:H2'	1:AA:1498:U:H5'	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2850:A:C6	25:DA:2851:A:C5	3.02	0.47
1:BA:406:G:C2	1:BA:407:U:C5	3.03	0.47
25:DA:1833:C:H2'	25:DA:1834:U:C6	2.50	0.47
25:CA:729:G:C6	27:CC:206:LYS:HB2	2.49	0.47
25:DA:396:G:H1'	48:DX:28:PHE:HB3	1.97	0.47
1:BA:337:G:C6	1:BA:338:A:C6	3.02	0.47
44:DT:51:PHE:O	44:DT:53:VAL:HG13	2.15	0.47
1:BA:161:A:H2'	1:BA:162:A:C8	2.49	0.47
1:AA:154:U:O4	1:AA:167:A:N1	2.48	0.47
25:CA:21:A:C2'	25:CA:22:C:O5'	2.63	0.47
29:CE:7:ASP:C	29:CE:9:GLN:H	2.17	0.47
1:AA:1417:G:N2	1:AA:1482:G:H2'	2.29	0.47
1:BA:607:A:H2'	1:BA:608:A:C8	2.48	0.47
43:CS:11:ARG:O	43:CS:12:SER:HB3	2.14	0.47
2:AB:27:LYS:N	2:AB:28:PRO:HD3	2.30	0.47
1:AA:130:A:N7	17:AQ:64:ARG:HB2	2.29	0.47
25:DA:294:A:N7	25:DA:345:A:C6	2.82	0.47
20:AT:2:ASN:O	20:AT:3:ILE:C	2.52	0.47
43:DS:2:GLU:HA	43:DS:108:SER:HB3	1.97	0.47
1:BA:1392:G:C2'	1:BA:1393:U:H5'	2.45	0.47
1:AA:1508:A:H2'	1:AA:1509:C:C6	2.50	0.47
1:AA:1230:C:O5'	1:AA:1230:C:H6	1.97	0.47
25:DA:1214:A:H4'	25:DA:1239:G:H4'	1.97	0.47
18:AR:25:ILE:HA	18:AR:28:LEU:HB2	1.95	0.47
1:BA:1155:A:O2'	1:BA:1156:G:H5'	2.15	0.47
25:CA:2063:C:O2	25:CA:2450:A:N1	2.48	0.47
25:DA:609:A:C8	25:DA:610:C:C6	3.03	0.47
1:AA:49:U:O2'	1:AA:50:A:H2'	2.14	0.47
25:DA:709:U:H2'	25:DA:710:U:O4'	2.15	0.47
25:CA:632:A:H2'	25:CA:633:A:C8	2.49	0.47
25:DA:1490:A:O2'	27:DC:97:ASP:OD2	2.32	0.47
48:DX:65:THR:O	48:DX:68:ALA:HB3	2.15	0.47
25:DA:2350:C:H2'	25:DA:2351:G:O5'	2.15	0.47
25:CA:684:G:C6	25:CA:774:G:C4	3.02	0.47
25:DA:2362:C:O5'	25:DA:2362:C:H6	1.97	0.47
12:BL:50:LYS:CD	12:BL:50:LYS:N	2.78	0.47
25:CA:1196:C:O4'	25:CA:1226:A:C2	2.68	0.47
25:DA:2420:C:OP1	54:D3:33:THR:HB	2.14	0.47
1:BA:1361:G:C6	1:BA:1362:A:C8	3.03	0.47
13:BM:15:VAL:HG23	13:BM:16:ILE:HG13	1.97	0.47
13:BM:76:ILE:HG23	13:BM:90:HIS:CD2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1066:U:H1'	25:DA:1074:G:H22	1.78	0.47
33:DI:17:ALA:HB1	33:DI:41:PHE:CD2	2.50	0.47
49:DY:28:LEU:HD23	49:DY:37:LEU:HD11	1.97	0.47
11:AK:87:GLY:H	11:AK:113:THR:CG2	2.27	0.47
1:AA:1225:A:O4'	19:AS:77:ARG:HD3	2.15	0.47
1:AA:985:C:H2'	1:AA:986:U:C6	2.50	0.47
31:CG:71:LEU:CD1	31:CG:71:LEU:N	2.78	0.47
1:BA:489:C:H2'	1:BA:490:C:H6	1.80	0.47
5:BE:153:ALA:N	5:BE:156:ARG:HB3	2.30	0.47
12:BL:21:PRO:C	12:BL:23:LEU:H	2.18	0.47
25:DA:2839:G:C4	25:DA:2840:C:C5	3.02	0.47
13:AM:32:ILE:HD13	13:AM:58:GLU:HG3	1.97	0.47
39:DO:40:ILE:CG2	39:DO:44:GLY:HA2	2.45	0.47
25:DA:1943:U:C4'	25:DA:1944:U:OP1	2.56	0.47
1:BA:784:A:H2'	1:BA:785:G:O4'	2.15	0.47
1:AA:1079:G:C6	1:AA:1080:A:N6	2.83	0.47
1:BA:1458:G:H2'	1:BA:1459:G:H8	1.79	0.47
1:BA:841:C:C3'	1:BA:843:U:H5"	2.38	0.47
38:DN:20:MET:CG	38:DN:21:PHE:N	2.78	0.47
25:DA:2531:A:C6	25:DA:2532:G:C5	3.03	0.47
6:BF:6:ILE:CG2	6:BF:7:VAL:N	2.77	0.47
37:CM:36:VAL:HG23	37:CM:129:THR:CG2	2.42	0.47
3:AC:84:GLU:C	3:AC:86:LEU:H	2.18	0.47
25:DA:64:A:C6	25:DA:65:U:O4	2.68	0.47
1:BA:173:U:H6	1:BA:198:G:HO2'	1.63	0.47
1:AA:1106:G:C6	1:AA:1107:C:N4	2.83	0.47
21:BU:23:GLU:O	21:BU:24:LYS:C	2.52	0.47
26:CB:36:C:H5"	26:CB:37:C:OP2	2.15	0.47
32:CH:72:ILE:HD12	32:CH:140:ALA:HB3	1.97	0.47
25:DA:511:U:H2'	25:DA:512:G:H5'	1.96	0.47
1:BA:712:A:C2'	1:BA:713:G:O5'	2.62	0.47
29:CE:119:ILE:N	29:CE:119:ILE:HD13	2.30	0.47
25:DA:545:U:P	25:DA:545:U:O2	2.73	0.47
48:DX:10:ARG:HB3	48:DX:11:PRO:CD	2.45	0.47
9:AI:27:ILE:CG1	9:AI:62:LEU:HD21	2.45	0.47
12:BL:80:LEU:HD12	12:BL:81:ILE:H	1.80	0.47
25:DA:1356:G:C2	25:DA:1376:C:O2	2.67	0.47
25:DA:1356:G:C2	25:DA:1357:C:C2	3.02	0.47
16:AP:39:PHE:CB	16:AP:74:LEU:HD11	2.45	0.47
25:DA:2278:A:C2'	25:DA:2279:G:O5'	2.62	0.47
40:CP:30:TRP:CE3	40:CP:39:LEU:HD12	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:CN:77:ALA:O	38:CN:79:LEU:O	2.33	0.47
27:CC:51:ARG:O	27:CC:52:HIS:HB2	2.14	0.47
1:BA:629:A:H2'	1:BA:630:A:O4'	2.15	0.47
1:BA:631:C:C3'	1:BA:632:U:H5'	2.44	0.47
25:CA:2881:U:H2'	25:CA:2882:A:O5'	2.15	0.47
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.49	0.47
46:DV:54:ALA:C	46:DV:56:PHE:H	2.16	0.47
1:AA:203:G:N2	1:AA:215:C:C2	2.83	0.47
25:CA:2785:C:O2'	28:CD:67:HIS:CD2	2.62	0.47
27:DC:161:VAL:HG11	27:DC:173:LEU:HG	1.96	0.47
33:DI:101:SER:HB2	33:DI:140:GLU:O	2.15	0.47
1:BA:562:U:C4'	1:BA:563:A:H5'	2.43	0.47
25:DA:1517:G:O2'	25:DA:1518:C:H5'	2.15	0.47
25:DA:877:A:C2	25:DA:900:A:N7	2.82	0.47
1:BA:4:U:H5"	1:BA:5:U:OP1	2.14	0.47
25:DA:624:C:O2'	25:DA:657:U:H5"	2.15	0.47
1:AA:1480:A:C4	1:AA:1481:U:C6	3.02	0.47
1:AA:833:G:C4	1:AA:834:U:C6	3.03	0.47
25:CA:396:G:H1'	48:CX:28:PHE:HB3	1.97	0.47
25:CA:2593:U:H2'	25:CA:2594:C:C6	2.50	0.47
26:CB:45:A:H2'	26:CB:46:A:O4'	2.15	0.47
30:CF:30:VAL:CG2	30:CF:95:MET:SD	3.03	0.47
35:CK:69:VAL:O	35:CK:76:VAL:HA	2.14	0.47
1:BA:409:U:OP1	4:BD:23:GLY:HA3	2.14	0.47
38:DN:117:ASP:O	38:DN:118:ARG:HB2	2.14	0.47
56:DB:14:U:H4'	56:DB:15:A:OP2	2.14	0.47
40:CP:21:PRO:HD3	40:CP:49:ILE:CD1	2.44	0.47
25:CA:1121:C:C3'	25:CA:1121:C:C6	2.98	0.47
29:DE:23:PHE:CD1	29:DE:111:GLU:HG3	2.49	0.47
37:DM:34:LYS:HE3	37:DM:131:VAL:HG11	1.96	0.47
25:DA:2661:G:H2'	25:DA:2662:A:O5'	2.15	0.47
25:DA:2663:G:O2'	25:DA:2664:G:H5'	2.14	0.47
55:D4:7:VAL:C	55:D4:8:LYS:CG	2.83	0.47
1:BA:1397:C:C3'	1:BA:1398:A:H5"	2.44	0.47
36:CL:106:GLU:CB	36:CL:107:PHE:CE2	2.98	0.47
25:CA:2660:A:C2	25:CA:2661:G:H1'	2.49	0.47
29:CE:3:LEU:CD1	29:CE:14:VAL:HG21	2.44	0.47
29:CE:5:LEU:CD1	29:CE:5:LEU:N	2.77	0.47
3:AC:7:ASN:O	3:AC:8:GLY:C	2.53	0.47
8:AH:24:VAL:CG1	8:AH:62:LEU:HD21	2.44	0.47
44:DT:29:THR:HG23	44:DT:86:THR:N	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2383:G:C2'	25:CA:2384:U:H5'	2.45	0.47
1:BA:1242:G:O2'	1:BA:1243:C:H5'	2.15	0.47
25:DA:2424:C:H6	25:DA:2424:C:H5'	1.80	0.47
1:BA:443:C:H2'	1:BA:444:G:O4'	2.15	0.47
31:DG:89:VAL:HG21	31:DG:162:ARG:HE	1.79	0.47
31:CG:9:VAL:CG1	31:CG:9:VAL:O	2.63	0.47
18:AR:22:TYR:CE1	18:AR:23:LYS:HG3	2.49	0.47
1:AA:47:C:H4'	1:AA:48:C:O5'	2.15	0.47
46:DV:69:GLU:O	46:DV:70:ILE:HG12	2.14	0.47
25:DA:18:U:O3'	41:DQ:22:GLY:HA2	2.14	0.47
25:DA:705:A:C2	25:DA:706:A:C4	3.03	0.47
25:DA:1990:C:H5"	25:DA:1991:U:P	2.54	0.47
48:CX:76:LYS:HE3	48:CX:77:TYR:H	1.79	0.47
48:DX:66:VAL:O	48:DX:69:GLU:HB2	2.15	0.47
43:DS:19:LEU:HG	51:D0:21:LEU:HG	1.96	0.47
24:AY:18:VAL:O	24:AY:21:PHE:HB3	2.14	0.47
31:DG:126:THR:HG22	31:DG:127:GLN:N	2.29	0.47
25:DA:2070:A:H2'	25:DA:2070:A:N3	2.30	0.47
11:AK:23:HIS:C	11:AK:23:HIS:CD2	2.88	0.47
12:BL:17:LYS:O	12:BL:17:LYS:HD2	2.15	0.47
46:CV:18:ARG:HG3	46:CV:18:ARG:HH11	1.79	0.47
25:CA:134:G:H2'	25:CA:135:U:O5'	2.15	0.47
1:BA:1269:A:H2	1:BA:1312:G:N3	2.13	0.47
1:BA:1374:A:C2'	1:BA:1375:A:H5'	2.45	0.47
33:DI:27:LEU:O	33:DI:30:GLN:OE1	2.32	0.47
33:DI:7:TYR:HB2	33:DI:58:ILE:H	1.80	0.47
25:DA:1395:A:O2'	25:DA:1397:U:C6	2.68	0.47
25:CA:1079:C:C2	25:CA:1080:A:C8	3.03	0.47
33:CI:18:ASN:ND2	33:CI:27:LEU:CD1	2.78	0.47
33:CI:24:GLY:O	33:CI:34:ILE:HG23	2.15	0.47
2:AB:112:ARG:O	2:AB:116:LEU:HD23	2.15	0.47
2:AB:63:LYS:O	2:AB:65:LYS:CE	2.61	0.47
14:AN:73:PHE:CZ	14:AN:78:GLY:HA2	2.49	0.47
25:DA:2210:U:C2	25:DA:2212:A:N7	2.83	0.47
29:DE:109:LEU:HD12	29:DE:109:LEU:HA	1.74	0.47
25:DA:858:G:C4	25:DA:2268:A:C2	3.02	0.47
16:BP:39:PHE:CZ	16:BP:41:PRO:HB3	2.50	0.47
5:BE:93:VAL:CG1	5:BE:110:MET:CE	2.93	0.47
5:BE:155:LYS:CE	5:BE:155:LYS:N	2.77	0.47
3:BC:153:SER:HB3	3:BC:164:THR:HB	1.96	0.47
25:DA:1454:C:N4	38:DN:73:ASN:HD21	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:478:A:H2'	1:AA:479:U:O5'	2.14	0.47
3:AC:141:MET:CE	3:AC:147:GLY:HA2	2.44	0.47
25:CA:1063:G:N2	33:CI:89:SER:HG	2.12	0.47
33:CI:100:ILE:HG12	33:CI:137:LEU:HD13	1.97	0.47
1:BA:188:C:C2	1:BA:189:A:C8	3.02	0.47
1:BA:664:G:H22	1:BA:741:G:H1	1.63	0.47
30:CF:129:MET:HB2	30:CF:129:MET:HE3	1.89	0.47
32:DH:2:GLN:O	32:DH:19:VAL:HG23	2.15	0.47
32:DH:2:GLN:HA	32:DH:19:VAL:O	2.15	0.47
1:BA:1072:G:C4	1:BA:1073:U:C6	3.02	0.47
2:BB:117:GLU:N	2:BB:140:LEU:HD21	2.29	0.47
10:BJ:19:ASP:HB3	10:BJ:72:ARG:HH21	1.80	0.47
2:AB:30:ILE:HD13	2:AB:38:HIS:CG	2.50	0.47
3:BC:41:TYR:CE1	3:BC:89:VAL:HG21	2.50	0.47
25:CA:1907:G:C5	25:CA:1908:C:C5	3.03	0.47
25:CA:1724:G:H1	25:CA:1737:G:H1'	1.80	0.47
25:DA:782:A:C2	27:DC:224:MET:SD	3.08	0.47
30:DF:21:TYR:HD1	30:DF:26:GLN:HG2	1.80	0.47
3:AC:41:TYR:CE1	3:AC:42:LEU:HD12	2.50	0.47
3:AC:46:LEU:HD21	3:AC:86:LEU:HD11	1.97	0.47
25:DA:979:A:C2'	25:DA:980:A:OP1	2.62	0.47
25:DA:1387:A:C4'	25:DA:1469:A:H1'	2.44	0.47
1:BA:66:A:O4'	1:BA:173:U:C4	2.68	0.47
31:CG:16:VAL:HG22	31:CG:25:ILE:HD13	1.97	0.47
33:CI:33:ASN:CB	33:CI:36:GLU:HG2	2.45	0.47
25:DA:480:A:OP2	45:DU:43:LYS:NZ	2.47	0.47
6:BF:10:VAL:HG11	6:BF:18:VAL:HG22	1.97	0.47
35:DK:22:ILE:O	35:DK:23:LYS:HB2	2.15	0.47
25:DA:2704:C:H3'	25:DA:2705:A:H8	1.80	0.47
1:BA:1031:C:H4'	1:BA:1032:G:C4	2.50	0.47
14:BN:17:ASP:O	14:BN:18:LYS:C	2.53	0.47
14:BN:19:TYR:CD1	14:BN:19:TYR:N	2.83	0.47
27:DC:118:GLY:O	27:DC:120:ASP:N	2.48	0.47
27:DC:118:GLY:O	27:DC:119:VAL:C	2.52	0.47
25:DA:2677:G:C6	25:DA:2731:G:C6	3.03	0.47
15:BO:16:ARG:O	15:BO:17:ASP:CB	2.63	0.47
14:BN:42:TRP:CD1	14:BN:42:TRP:O	2.68	0.47
1:AA:1351:U:H2'	1:AA:1352:C:H6	1.80	0.47
1:AA:214:C:H2'	1:AA:215:C:C6	2.48	0.47
42:DR:81:LYS:O	42:DR:82:HIS:HB3	2.14	0.47
25:CA:2732:G:O2'	25:CA:2733:A:H5'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2591:C:H2'	25:CA:2592:G:C8	2.49	0.47
1:BA:1085:U:H5'	1:BA:1094:G:C2	2.50	0.47
24:AY:133:ARG:HH22	25:CA:1941:C:H2'	1.80	0.47
1:AA:853:C:C2	1:AA:854:U:C6	3.03	0.47
30:DF:142:TYR:O	30:DF:142:TYR:CG	2.68	0.47
29:CE:48:THR:C	29:CE:50:ALA:N	2.68	0.47
1:BA:317:U:N3	1:BA:318:G:N7	2.63	0.47
25:DA:1575:C:N3	25:DA:1576:U:C5	2.83	0.47
37:CM:42:THR:HG22	37:CM:93:VAL:HG12	1.97	0.47
25:CA:1919:A:H5"	25:CA:1920:C:OP2	2.15	0.47
25:DA:2232:C:C4	25:DA:2233:U:C5	3.03	0.47
13:AM:94:LEU:CB	13:AM:95:PRO:HD2	2.45	0.47
25:DA:447:A:N1	25:DA:454:A:C8	2.83	0.47
1:AA:1164:G:C5'	10:BJ:89:ARG:HD2	2.45	0.47
25:DA:236:C:O2'	25:DA:237:C:H5'	2.15	0.47
54:D3:30:HIS:ND1	54:D3:31:ILE:HG13	2.29	0.47
25:CA:551:G:H2'	25:CA:552:U:O4'	2.15	0.47
25:CA:368:A:H8	25:CA:368:A:O5'	1.97	0.47
25:CA:1292:G:O2'	25:CA:1293:C:H5'	2.15	0.47
25:DA:1053:C:C2	25:DA:1107:G:N2	2.82	0.47
5:BE:10:LEU:HD23	5:BE:11:GLN:H	1.80	0.47
46:DV:20:LEU:CD2	46:DV:26:PHE:HA	2.44	0.47
41:DQ:7:VAL:HG12	41:DQ:8:ILE:HG22	1.96	0.47
13:AM:88:LEU:O	13:AM:92:ARG:HG3	2.13	0.47
1:BA:634:C:C2'	1:BA:635:A:O5'	2.63	0.47
25:CA:1139:G:O3'	34:CJ:26:GLY:CA	2.62	0.47
36:DL:117:THR:O	36:DL:118:THR:C	2.53	0.47
25:DA:1482:G:H1'	25:DA:1509:A:H61	1.80	0.47
2:AB:9:LEU:HD11	2:AB:11:ALA:O	2.14	0.47
25:CA:601:C:O2	25:CA:605:G:H4'	2.14	0.47
37:DM:51:ARG:O	37:DM:52:ALA:C	2.53	0.47
33:CI:12:VAL:O	33:CI:13:ALA:HB2	2.15	0.47
8:BH:48:PHE:C	8:BH:48:PHE:CD1	2.88	0.47
36:CL:99:ASN:CG	60:CL:202:HOH:O	2.53	0.47
25:DA:249:C:O2'	36:DL:63:LYS:HE2	2.15	0.47
40:CP:103:THR:O	40:CP:105:LYS:N	2.48	0.47
27:CC:58:LYS:O	27:CC:59:GLN:HG3	2.15	0.47
35:CK:104:THR:HB	35:CK:106:GLU:OE1	2.15	0.47
1:AA:1149:C:H6	1:AA:1149:C:O5'	1.98	0.47
13:BM:32:ILE:HD13	13:BM:58:GLU:HB3	1.97	0.47
19:BS:39:ILE:O	19:BS:66:VAL:O	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1060:U:H4'	25:DA:1061:U:H3'	1.97	0.47
33:DI:30:GLN:HG2	33:DI:31:GLY:N	2.30	0.47
25:CA:416:U:H3'	25:CA:416:U:H6	1.80	0.47
25:DA:1389:G:C2	25:DA:1390:U:C2	3.03	0.47
21:AU:18:PHE:C	21:AU:19:LYS:HE2	2.35	0.47
25:CA:1088:A:N3	25:CA:1088:A:H5"	2.30	0.47
25:DA:161:A:H2	25:DA:2218:G:O4'	1.97	0.47
25:DA:2345:G:C4	25:DA:2347:C:C5	3.03	0.47
25:DA:2199:A:H2'	25:DA:2200:C:H6	1.80	0.47
16:BP:39:PHE:CD2	16:BP:74:LEU:HD11	2.49	0.47
50:DZ:52:PHE:CE2	50:DZ:53:MET:HG2	2.50	0.47
36:DL:113:ALA:O	36:DL:114:GLY:O	2.33	0.47
25:DA:2839:G:H2'	25:DA:2840:C:O5'	2.15	0.47
1:AA:143:A:N3	1:AA:143:A:C2'	2.75	0.47
1:AA:1175:G:O2'	1:AA:1176:A:H5'	2.14	0.47
10:AJ:27:GLU:C	10:AJ:29:ALA:H	2.17	0.47
3:AC:183:TYR:HA	3:AC:199:VAL:O	2.14	0.47
39:DO:93:ASP:OD2	39:DO:95:SER:N	2.48	0.47
1:AA:458:U:H2'	1:AA:458:U:O2	2.14	0.47
3:AC:147:GLY:CA	3:AC:171:ARG:H	2.27	0.47
25:DA:2127:G:C2'	25:DA:2128:G:C8	2.97	0.47
4:AD:164:ARG:O	4:AD:166:LYS:N	2.47	0.47
11:AK:124:LYS:HA	21:AU:34:ARG:HG3	1.97	0.47
1:BA:189:A:N6	1:BA:190:A:N1	2.63	0.47
1:AA:921:U:C5	1:AA:922:G:N7	2.83	0.47
5:AE:88:HIS:CE1	5:AE:137:ARG:HD3	2.50	0.47
22:AV:21:A:N6	22:AV:46:G:N9	2.62	0.47
22:AV:63:G:N3	22:AV:63:G:H2'	2.30	0.47
25:CA:1270:C:H6	25:CA:1270:C:O5'	1.98	0.47
25:CA:1270:C:H5"	25:CA:1271:G:O5'	2.15	0.47
8:AH:48:PHE:HB3	8:AH:60:LEU:HD23	1.97	0.47
1:BA:861:G:C4	1:BA:862:C:C6	3.03	0.47
9:BI:42:THR:O	9:BI:43:ALA:C	2.52	0.47
38:CN:49:GLU:HB2	38:CN:50:PRO:HD3	1.96	0.47
9:AI:48:ARG:HD3	9:AI:49:GLN:N	2.30	0.47
9:AI:49:GLN:HE22	9:AI:79:ARG:NH1	2.12	0.47
17:AQ:47:ASP:O	17:AQ:48:GLU:O	2.33	0.47
17:AQ:51:GLU:N	17:AQ:51:GLU:CD	2.67	0.47
25:CA:2102:G:C5	25:CA:2103:C:C4	3.03	0.47
1:BA:479:U:C2'	1:BA:480:U:H5'	2.45	0.47
25:CA:1482:G:C2	25:CA:1483:G:C5	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CP:102:ARG:HD3	40:CP:106:ALA:O	2.15	0.47
2:BB:216:VAL:HA	2:BB:219:THR:CG2	2.45	0.47
3:AC:39:ARG:HG2	3:AC:54:ILE:CG1	2.45	0.47
3:AC:54:ILE:O	3:AC:54:ILE:HG13	2.15	0.47
14:AN:31:SER:O	14:AN:32:ASP:CB	2.62	0.47
25:DA:1024:G:OP2	25:DA:1025:G:H3'	2.15	0.47
1:AA:323:U:O4	1:AA:324:G:C6	2.68	0.47
25:DA:65:U:O2'	25:DA:66:C:H5'	2.15	0.47
26:CB:34:A:O2'	26:CB:35:C:C5'	2.63	0.47
1:BA:59:A:C5	1:BA:331:G:N2	2.83	0.47
56:DB:45:A:N1	56:DB:46:A:C4	2.83	0.47
1:AA:540:G:C4	1:AA:541:G:C8	3.03	0.47
44:CT:8:LEU:HD22	49:CY:22:LEU:HA	1.95	0.47
1:AA:1126:U:H4'	1:AA:1127:G:OP2	2.15	0.47
15:BO:58:MET:O	15:BO:60:SER:N	2.48	0.47
14:BN:35:ALA:HB1	14:BN:41:ARG:HB2	1.96	0.47
56:DB:21:G:H2'	56:DB:22:U:O4'	2.15	0.47
25:DA:1972:G:OP2	27:DC:237:ARG:NH1	2.47	0.47
17:AQ:3:LYS:C	17:AQ:4:ILE:HD12	2.36	0.47
25:DA:1513:U:C2	25:DA:1514:G:C8	3.03	0.47
25:DA:1476:U:C5	25:DA:1514:G:N2	2.83	0.47
25:DA:540:C:H2'	25:DA:541:A:H5'	1.95	0.47
10:BJ:98:VAL:O	10:BJ:99:GLN:HG2	2.15	0.47
5:BE:55:VAL:N	5:BE:56:PRO:HD2	2.30	0.47
25:DA:1915:U:H2'	25:DA:1916:A:O5'	2.14	0.47
39:DO:49:VAL:HG11	39:DO:81:ARG:HB3	1.97	0.47
1:AA:1004:A:C2	1:AA:1026:G:C4	3.03	0.47
25:DA:976:G:H5'	25:DA:1156:A:N6	2.30	0.47
25:CA:60:G:O2'	25:CA:61:C:P	2.73	0.47
12:BL:51:VAL:HG23	12:BL:52:CYS:N	2.28	0.47
1:AA:854:U:C6	1:AA:871:U:O4	2.68	0.47
49:CY:36:GLN:O	49:CY:37:LEU:CB	2.63	0.47
25:DA:2183:A:H2'	25:DA:2184:A:C8	2.50	0.47
28:DD:24:VAL:HA	28:DD:189:VAL:O	2.15	0.47
19:BS:50:VAL:CG2	19:BS:70:LEU:HD13	2.44	0.47
25:CA:2255:G:H2'	25:CA:2256:G:C5'	2.45	0.47
29:CE:198:GLU:O	29:CE:199:MET:C	2.54	0.47
16:BP:4:ILE:HD12	16:BP:66:THR:O	2.15	0.47
25:DA:2836:U:H2'	25:DA:2837:A:C8	2.50	0.47
32:CH:135:HIS:HB3	32:CH:138:VAL:HB	1.96	0.47
30:DF:63:LYS:H	30:DF:63:LYS:HE2	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:8:U:C2	22:AV:15:G:O6	2.67	0.47
1:AA:1164:G:H5"	10:BJ:89:ARG:HD2	1.97	0.47
25:DA:1292:G:C2'	25:DA:1293:C:H5'	2.45	0.47
25:DA:1050:A:H2'	25:DA:1051:G:O4'	2.14	0.47
57:DW:64:LYS:HE3	57:DW:66:GLU:OE1	2.15	0.47
5:BE:11:GLN:CA	5:BE:11:GLN:OE1	2.62	0.47
18:BR:33:THR:HG23	18:BR:36:GLY:H	1.79	0.47
1:BA:1303:C:N4	1:BA:1304:G:C6	2.82	0.47
54:C3:49:VAL:HG12	54:C3:53:ASP:HB2	1.96	0.47
25:DA:1633:G:C6	25:DA:1635:A:C4	3.03	0.47
25:DA:2714:G:H2'	25:DA:2715:C:H5'	1.97	0.47
30:CF:148:VAL:O	30:CF:148:VAL:HG23	2.15	0.47
25:DA:81:G:O4'	25:DA:294:A:C2	2.68	0.47
25:CA:1616:A:H4'	25:CA:1617:C:OP2	2.15	0.47
20:BT:8:LYS:HG2	20:BT:12:GLN:OE1	2.13	0.47
25:CA:2668:G:C2'	25:CA:2669:G:O5'	2.62	0.47
46:DV:80:HIS:HE1	46:DV:82:TYR:CE2	2.33	0.47
13:AM:75:SER:O	13:AM:79:LEU:HD12	2.15	0.47
1:BA:138:G:C4	1:BA:226:G:C2	3.03	0.47
25:CA:128:C:H2'	25:CA:129:C:H6	1.80	0.47
25:CA:1023:U:H2'	25:CA:1024:G:H5'	1.96	0.47
25:CA:777:G:O2'	25:CA:778:G:H5'	2.15	0.47
7:AG:30:MET:CG	7:AG:31:VAL:N	2.78	0.47
38:CN:36:THR:HG23	38:CN:37:THR:N	2.29	0.47
55:C4:19:ARG:O	55:C4:21:GLY:N	2.48	0.47
25:CA:2348:U:H2'	25:CA:2349:G:O4'	2.14	0.47
25:DA:1864:U:C2'	25:DA:1865:U:H5'	2.44	0.47
1:BA:1309:G:C4	1:BA:1310:G:C8	3.03	0.46
1:BA:981:U:H2'	1:BA:982:U:H5	1.79	0.46
9:BI:117:LEU:HD23	9:BI:120:ALA:C	2.35	0.46
25:CA:2162:G:O2'	25:CA:2163:A:N7	2.47	0.46
25:DA:1071:G:O2'	25:DA:1072:C:H5"	2.15	0.46
4:BD:30:LYS:HD3	4:BD:30:LYS:N	2.30	0.46
25:DA:1342:A:C2	25:DA:1345:C:C5	3.04	0.46
2:AB:69:VAL:O	2:AB:69:VAL:HG12	2.15	0.46
1:AA:1317:C:H2'	1:AA:1318:A:H5'	1.97	0.46
25:DA:2370:G:H4'	52:D1:43:ARG:NH1	2.31	0.46
32:DH:69:ALA:HB2	32:DH:138:VAL:HG11	1.97	0.46
1:AA:1538:C:O2'	1:AA:1539:C:H5'	2.13	0.46
3:BC:149:LYS:HB3	3:BC:168:ARG:HA	1.98	0.46
8:AH:100:ILE:HD11	8:AH:128:VAL:HB	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:BL:23:LEU:HG	12:BL:24:GLU:H	1.79	0.46
1:AA:1162:C:C2	1:AA:1175:G:N2	2.83	0.46
10:AJ:32:THR:HG23	10:AJ:83:THR:HA	1.97	0.46
25:DA:1556:C:C2'	25:DA:1557:C:C5'	2.94	0.46
25:DA:1455:G:C6	25:DA:1456:G:C8	3.03	0.46
1:AA:455:G:C2	1:AA:478:A:N1	2.83	0.46
30:CF:26:GLN:O	30:CF:27:VAL:C	2.52	0.46
33:CI:102:ARG:HA	33:CI:141:ASP:OD2	2.14	0.46
1:AA:22:G:C6	1:AA:23:C:C4	3.03	0.46
1:AA:92:U:H2'	1:AA:93:U:C6	2.50	0.46
1:BA:72:A:N6	1:BA:73:C:N4	2.63	0.46
25:DA:1131:G:C4	34:DJ:77:HIS:CD2	3.02	0.46
1:AA:374:A:C5	1:AA:375:U:C5	3.04	0.46
31:DG:108:PHE:CE2	31:DG:151:ARG:NH2	2.83	0.46
1:AA:1239:A:N3	1:AA:1241:G:N1	2.63	0.46
14:AN:93:ILE:HA	14:AN:94:PRO:HD3	1.70	0.46
25:CA:84:A:H62	25:CA:101:A:H2	1.63	0.46
15:AO:66:LEU:HD13	15:AO:87:ARG:HH22	1.75	0.46
11:AK:94:SER:O	11:AK:97:ARG:HB2	2.15	0.46
25:CA:547:A:H8	25:CA:548:G:N3	2.13	0.46
25:DA:417:C:C2	25:DA:418:C:C6	3.03	0.46
25:CA:141:G:C2	44:CT:1:MET:HE3	2.50	0.46
25:CA:142:A:OP2	25:CA:142:A:C8	2.67	0.46
25:DA:980:A:N7	25:DA:1136:G:H5"	2.31	0.46
9:AI:98:ARG:HD3	9:AI:103:VAL:HG21	1.97	0.46
25:DA:1565:C:C5	25:DA:1567:G:C6	3.02	0.46
48:DX:11:PRO:HB3	48:DX:29:LEU:CD2	2.46	0.46
13:AM:78:ARG:O	13:AM:82:LEU:HG	2.15	0.46
10:BJ:48:ARG:NH1	10:BJ:48:ARG:HG2	2.30	0.46
1:BA:245:U:C2'	1:BA:245:U:O2	2.53	0.46
1:AA:659:U:O2'	1:AA:660:C:H5'	2.15	0.46
25:CA:31:C:H2'	25:CA:32:C:C5'	2.45	0.46
32:DH:142:VAL:HG12	32:DH:143:ILE:H	1.80	0.46
14:AN:22:LYS:HA	14:AN:25:GLU:OE2	2.15	0.46
1:AA:499:A:H61	1:AA:547:A:C5'	2.28	0.46
1:AA:790:A:C6	1:AA:791:G:C6	3.03	0.46
1:BA:472:U:H2'	1:BA:473:U:C6	2.50	0.46
14:BN:20:PHE:HA	14:BN:24:ALA:HB2	1.97	0.46
3:BC:101:ASN:O	3:BC:102:ILE:HG13	2.15	0.46
1:AA:1000:A:C2	1:AA:1041:G:C2	3.03	0.46
1:AA:932:C:N4	7:AG:2:ARG:NH2	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:67:HIS:HB3	20:AT:68:LYS:HG3	1.96	0.46
5:AE:19:ARG:HA	5:AE:31:SER:O	2.15	0.46
25:DA:2004:G:C6	25:DA:2005:A:C4	3.03	0.46
25:DA:1474:U:C5	25:DA:1475:G:C2	3.03	0.46
25:DA:1514:G:H5"	25:DA:1515:A:OP1	2.15	0.46
25:CA:2223:G:C3'	25:CA:2224:G:H5'	2.45	0.46
7:BG:65:LEU:CD2	7:BG:69:ARG:CZ	2.94	0.46
1:AA:833:G:H2'	1:AA:834:U:O4'	2.15	0.46
25:CA:371:A:N6	25:CA:402:A:OP2	2.48	0.46
25:DA:404:A:C2	25:DA:406:G:C2	3.04	0.46
7:BG:148:LYS:CD	11:BK:60:PHE:CZ	2.99	0.46
8:AH:82:LEU:HD22	8:AH:83:ARG:N	2.31	0.46
1:BA:49:U:C2	1:BA:362:G:H1'	2.50	0.46
25:CA:158:U:C2'	25:CA:159:G:H5'	2.46	0.46
25:CA:1607:C:H4'	25:CA:1608:A:C8	2.50	0.46
25:CA:2782:G:H2'	25:CA:2783:U:H5'	1.97	0.46
1:BA:580:C:C2'	1:BA:581:G:O5'	2.63	0.46
53:C2:30:VAL:O	53:C2:31:LEU:C	2.52	0.46
45:DU:44:HIS:HD2	45:DU:57:ILE:HG12	1.79	0.46
25:CA:449:A:C2'	25:CA:450:G:H5'	2.45	0.46
12:AL:87:LYS:HE3	12:AL:87:LYS:HB2	1.78	0.46
23:AX:13:A:O2'	23:AX:14:A:C8	2.68	0.46
25:CA:1445:G:C2	25:CA:1446:C:C2	3.03	0.46
31:CG:117:PRO:HD2	31:CG:120:ILE:HB	1.97	0.46
25:DA:1688:U:H1'	25:DA:1701:A:C6	2.49	0.46
25:DA:371:A:N6	25:DA:401:A:H3'	2.31	0.46
25:CA:1140:C:H5'	34:CJ:26:GLY:HA3	1.97	0.46
27:CC:10:PRO:O	27:CC:11:GLY:C	2.52	0.46
42:DR:19:THR:HA	42:DR:96:VAL:O	2.14	0.46
25:DA:2871:U:O2	25:DA:2871:U:H2'	2.13	0.46
25:DA:709:U:O2'	25:DA:710:U:H5'	2.15	0.46
25:CA:586:A:C2	25:CA:1254:A:C2	3.04	0.46
48:CX:26:ARG:HG3	48:CX:27:ARG:N	2.30	0.46
12:AL:37:TYR:O	12:AL:38:THR:CG2	2.63	0.46
1:AA:75:G:H5'	1:AA:76:G:OP2	2.15	0.46
4:AD:197:HIS:O	4:AD:201:GLU:HG3	2.15	0.46
48:DX:70:LEU:HB3	48:DX:75:GLU:HG3	1.97	0.46
25:CA:490:C:H4'	25:CA:491:G:OP2	2.15	0.46
36:CL:143:GLU:O	36:CL:143:GLU:HG3	2.15	0.46
21:AU:32:ARG:HH11	21:AU:32:ARG:HG2	1.78	0.46
17:AQ:30:HIS:ND1	17:AQ:31:PRO:HD2	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D2:31:LEU:O	53:D2:34:ARG:N	2.48	0.46
1:BA:895:G:C6	1:BA:896:C:C4	3.03	0.46
12:BL:73:LEU:H	12:BL:73:LEU:HD23	1.80	0.46
1:BA:1267:C:H2'	1:BA:1268:G:C5'	2.46	0.46
9:BI:119:LYS:O	9:BI:120:ALA:CB	2.63	0.46
33:DI:20:SER:O	33:DI:24:GLY:CA	2.64	0.46
25:CA:415:A:H8	25:CA:415:A:O5'	1.98	0.46
4:BD:27:ILE:O	4:BD:28:ASP:C	2.54	0.46
25:DA:1406:U:H2'	25:DA:1407:G:H8	1.79	0.46
49:DY:8:GLU:HB3	49:DY:12:GLU:HB3	1.98	0.46
25:CA:1084:A:C5	25:CA:1085:A:N6	2.82	0.46
25:CA:1096:A:C5	25:CA:1097:U:C5	3.04	0.46
1:AA:1213:A:C4	1:AA:1215:G:C8	3.02	0.46
1:AA:1356:G:N2	1:AA:1357:A:C4	2.83	0.46
1:BA:1275:A:C6	1:BA:1276:G:C5	3.03	0.46
2:BB:18:GLN:O	2:BB:37:VAL:HG22	2.15	0.46
2:BB:93:HIS:CD2	2:BB:145:ASN:HB2	2.50	0.46
52:D1:37:LYS:HB2	52:D1:48:TYR:CD2	2.49	0.46
1:AA:1539:C:H5"	21:AU:17:ARG:HE	1.79	0.46
42:CR:51:VAL:CB	42:CR:52:PRO:CD	2.92	0.46
43:CS:20:VAL:HG11	43:CS:47:VAL:HG11	1.97	0.46
1:BA:1015:G:H2'	1:BA:1016:A:C8	2.50	0.46
3:AC:6:PRO:HA	3:AC:174:LEU:HD11	1.97	0.46
56:DB:54:G:H2'	56:DB:54:G:N3	2.30	0.46
30:DF:150:GLY:O	30:DF:151:LEU:HB3	2.15	0.46
11:AK:124:LYS:HE3	21:AU:34:ARG:NH2	2.31	0.46
1:AA:501:C:O2'	1:AA:502:A:H5'	2.15	0.46
1:AA:511:C:C2	1:AA:512:U:C6	3.04	0.46
1:BA:780:A:C2	1:BA:803:G:C6	3.03	0.46
25:DA:2283:C:H2'	25:DA:2284:A:O4'	2.15	0.46
11:BK:67:GLU:O	11:BK:70:ALA:HB3	2.15	0.46
8:AH:23:ALA:HA	8:AH:60:LEU:O	2.15	0.46
20:BT:35:TYR:CD2	20:BT:36:ALA:CA	2.98	0.46
1:AA:374:A:C4	1:AA:375:U:C5	3.03	0.46
1:AA:452:A:N7	1:AA:453:G:C8	2.83	0.46
16:AP:79:ASN:CB	16:AP:82:ALA:O	2.63	0.46
25:CA:1413:A:C2	25:CA:1590:A:C2	3.02	0.46
25:CA:1413:A:C2	25:CA:1414:C:O2	2.68	0.46
1:AA:643:C:O5'	1:AA:643:C:H6	1.98	0.46
37:DM:106:ASP:OD1	37:DM:107:GLY:N	2.48	0.46
25:CA:1871:A:C8	25:CA:1872:A:C2	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BB:67:LEU:HD21	2:BB:91:VAL:CG2	2.45	0.46
38:DN:98:LEU:HD13	51:D0:53:VAL:HG21	1.96	0.46
30:DF:11:VAL:HG12	30:DF:15:LEU:HD11	1.96	0.46
31:DG:23:ILE:HD12	31:DG:71:LEU:HD21	1.96	0.46
2:BB:53:LEU:CD2	2:BB:212:TYR:OH	2.63	0.46
14:AN:44:ALA:HA	14:AN:47:LYS:HG3	1.97	0.46
3:BC:64:ARG:O	3:BC:65:VAL:CB	2.63	0.46
19:AS:43:MET:CE	19:AS:48:ILE:HG12	2.45	0.46
1:BA:111:G:C6	1:BA:330:C:N4	2.84	0.46
33:CI:57:VAL:HB	33:CI:68:PHE:HB2	1.97	0.46
1:BA:152:A:N1	1:BA:170:U:O2	2.48	0.46
1:BA:176:C:C2'	1:BA:177:G:O5'	2.63	0.46
30:CF:51:ASN:O	30:CF:52:ALA:C	2.53	0.46
7:BG:30:MET:SD	7:BG:33:GLY:HA2	2.54	0.46
25:CA:2333:A:P	47:CW:73:ARG:HH22	2.37	0.46
8:AH:40:LYS:N	8:AH:45:ILE:HG12	2.29	0.46
8:AH:46:GLU:HA	8:AH:63:LYS:HG2	1.98	0.46
25:CA:1486:U:C2'	25:CA:1487:U:H5'	2.45	0.46
1:AA:198:G:C6	1:AA:220:G:C4	3.03	0.46
18:AR:72:ARG:HG3	18:AR:72:ARG:HH11	1.80	0.46
25:CA:1801:A:C8	25:CA:2203:U:H2'	2.50	0.46
30:DF:105:ILE:CG1	30:DF:106:ALA:N	2.78	0.46
25:DA:2849:U:P	40:DP:92:ARG:HH21	2.38	0.46
25:DA:1504:A:H3'	25:DA:1505:A:H8	1.80	0.46
8:BH:82:LEU:CD1	8:BH:82:LEU:O	2.63	0.46
26:CB:29:A:OP2	39:CO:31:THR:HG23	2.14	0.46
52:C1:33:LEU:HB3	52:C1:51:ALA:HB2	1.96	0.46
7:BG:96:ASN:HA	7:BG:99:ALA:HB2	1.97	0.46
1:AA:191:G:C2'	1:AA:192:A:H5'	2.45	0.46
25:DA:164:C:H2'	25:DA:165:A:C5'	2.44	0.46
1:AA:841:C:C6	1:AA:843:U:OP2	2.69	0.46
27:CC:195:GLY:O	27:CC:196:ASN:C	2.52	0.46
30:CF:40:GLY:HA2	30:CF:84:ILE:HD12	1.97	0.46
44:DT:18:GLU:O	44:DT:19:LYS:C	2.52	0.46
25:DA:2803:G:C2'	25:DA:2804:U:O5'	2.62	0.46
29:DE:1:MET:HG2	29:DE:16:GLU:HA	1.96	0.46
25:DA:2843:G:H2'	25:DA:2844:G:O4'	2.15	0.46
40:DP:51:ASN:N	40:DP:51:ASN:ND2	2.63	0.46
46:CV:21:ARG:C	46:CV:23:ALA:H	2.18	0.46
25:DA:237:C:H2'	25:DA:238:C:H6	1.80	0.46
36:DL:76:GLU:O	36:DL:76:GLU:HG3	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2849:U:C6	25:CA:2867:G:N2	2.83	0.46
1:AA:1370:G:O2'	1:AA:1371:G:H5'	2.15	0.46
1:BA:248:C:C4	1:BA:249:U:C4	3.03	0.46
39:DO:72:ALA:HA	39:DO:109:ALA:HB2	1.97	0.46
25:DA:669:G:H2'	25:DA:670:A:N7	2.31	0.46
39:CO:14:ALA:O	39:CO:18:LEU:CD2	2.63	0.46
5:AE:40:ASP:OD1	5:AE:42:ASN:N	2.49	0.46
41:DQ:16:ILE:O	41:DQ:19:GLN:HB2	2.15	0.46
25:DA:2482:A:H2'	25:DA:2483:C:H6	1.80	0.46
25:DA:2870:C:C4	25:DA:2871:U:C4	3.03	0.46
56:DB:12:C:N3	57:DW:70:PRO:HB3	2.30	0.46
25:DA:648:G:H1'	25:DA:2351:G:OP1	2.15	0.46
21:AU:32:ARG:HH11	21:AU:32:ARG:CG	2.28	0.46
8:AH:105:THR:HG21	8:AH:120:LEU:CD1	2.45	0.46
25:CA:388:G:H5'	25:CA:389:G:OP2	2.15	0.46
25:CA:2046:G:C2'	25:CA:2047:C:H5'	2.45	0.46
4:BD:40:HIS:O	4:BD:42:ALA:N	2.48	0.46
14:AN:57:PRO:C	14:AN:59:ARG:H	2.18	0.46
46:DV:43:ASP:C	46:DV:43:ASP:OD1	2.53	0.46
28:DD:202:ILE:HG22	28:DD:202:ILE:O	2.16	0.46
27:CC:77:VAL:HG12	27:CC:111:ALA:HA	1.97	0.46
30:CF:36:ASN:CG	30:CF:37:MET:N	2.68	0.46
1:BA:1312:G:N7	19:BS:2:ARG:N	2.63	0.46
9:BI:117:LEU:HD23	9:BI:120:ALA:O	2.15	0.46
25:CA:2174:C:H2'	25:CA:2175:C:H6	1.80	0.46
25:DA:1097:U:H2'	25:DA:1098:A:H5'	1.97	0.46
4:BD:3:TYR:C	4:BD:4:LEU:HD13	2.36	0.46
25:DA:1315:C:N3	25:DA:1316:U:C5	2.84	0.46
25:CA:1060:U:O4'	25:CA:1062:G:OP2	2.34	0.46
25:CA:1094:U:O4	25:CA:1097:U:OP2	2.34	0.46
33:CI:50:LYS:HD3	33:CI:50:LYS:N	2.31	0.46
1:AA:1216:A:H2'	1:AA:1217:C:C6	2.50	0.46
1:AA:1313:U:C2	1:AA:1314:C:C5	3.02	0.46
1:AA:978:A:C6	1:AA:1319:A:C2	3.03	0.46
32:DH:30:LEU:C	32:DH:31:VAL:O	2.53	0.46
2:BB:209:VAL:CG2	2:BB:210:THR:N	2.79	0.46
32:DH:62:LEU:HD13	32:DH:63:ALA:CA	2.46	0.46
5:BE:114:LEU:O	5:BE:119:VAL:HG23	2.15	0.46
5:BE:153:ALA:O	5:BE:156:ARG:O	2.32	0.46
25:DA:1412:U:O2	25:DA:1591:A:N1	2.49	0.46
25:DA:640:C:H2'	25:DA:641:U:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DN:87:PHE:CZ	38:DN:94:TYR:HB3	2.50	0.46
4:BD:191:SER:OG	4:BD:192:ALA:N	2.41	0.46
4:AD:146:GLU:HA	4:AD:149:LYS:CD	2.46	0.46
1:AA:413:G:N1	4:AD:32:LYS:HD3	2.31	0.46
4:AD:54:LEU:HD23	4:AD:55:ARG:CA	2.46	0.46
1:BA:782:A:H2'	1:BA:783:C:O4'	2.15	0.46
5:AE:116:VAL:HG23	5:AE:116:VAL:O	2.15	0.46
25:DA:1866:A:C6	25:DA:1876:A:N7	2.83	0.46
20:BT:53:MET:CE	20:BT:57:VAL:CG2	2.93	0.46
34:DJ:80:HIS:C	34:DJ:81:ILE:CG2	2.84	0.46
1:BA:1540:U:H4'	21:BU:17:ARG:CG	2.43	0.46
1:BA:1130:A:H2'	1:BA:1131:G:H5'	1.97	0.46
9:BI:8:THR:HB	9:BI:84:ARG:NH1	2.31	0.46
1:AA:1238:A:H2	1:AA:1241:G:N3	2.11	0.46
1:AA:1204:A:C4	1:AA:1205:U:C6	3.03	0.46
45:DU:17:ASP:O	45:DU:18:LYS:C	2.53	0.46
45:DU:35:VAL:O	45:DU:36:GLU:C	2.54	0.46
45:DU:7:ASP:O	45:DU:8:ASP:CB	2.63	0.46
2:AB:32:GLY:HA3	2:AB:39:ILE:H	1.80	0.46
3:AC:60:ALA:O	3:AC:62:SER:N	2.49	0.46
30:DF:19:PHE:N	30:DF:19:PHE:CD1	2.82	0.46
2:BB:216:VAL:HA	2:BB:219:THR:HG21	1.97	0.46
3:AC:55:VAL:HG12	3:AC:56:ILE:N	2.30	0.46
19:AS:13:HIS:O	19:AS:17:LYS:HG3	2.15	0.46
25:DA:1017:G:C2'	25:DA:1018:U:H5'	2.45	0.46
34:DJ:66:GLY:C	34:DJ:68:LYS:H	2.19	0.46
1:AA:490:C:H2'	1:AA:491:G:C8	2.50	0.46
3:BC:63:ILE:HG22	3:BC:96:VAL:HG23	1.98	0.46
19:AS:43:MET:O	19:AS:44:ILE:C	2.54	0.46
1:BA:844:G:N7	1:BA:844:G:OP2	2.49	0.46
27:CC:5:CYS:SG	27:CC:15:VAL:HG12	2.55	0.46
1:BA:175:C:H2'	1:BA:176:C:H6	1.80	0.46
30:CF:46:LYS:C	30:CF:48:LEU:H	2.18	0.46
2:BB:20:ARG:HA	2:BB:20:ARG:CZ	2.45	0.46
25:CA:2887:A:H5'	25:CA:2888:C:OP2	2.15	0.46
9:AI:7:GLY:HA3	9:AI:84:ARG:O	2.16	0.46
1:AA:791:G:C5	1:AA:792:A:N7	2.83	0.46
25:DA:2310:C:C2'	25:DA:2311:A:O5'	2.51	0.46
27:DC:120:ASP:CG	27:DC:121:ALA:H	2.18	0.46
33:DI:45:THR:O	33:DI:49:GLU:N	2.49	0.46
25:CA:2180:U:H3'	25:CA:2181:U:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:49:ARG:HG3	12:AL:89:LEU:HD11	1.96	0.46
1:BA:9:G:C4	1:BA:10:A:C8	3.04	0.46
25:DA:748:G:O6	25:DA:751:A:H4'	2.14	0.46
4:BD:45:PRO:O	4:BD:47:LEU:HB2	2.15	0.46
52:C1:50:GLU:OE2	52:C1:52:LYS:HD3	2.15	0.46
16:AP:18:GLN:HE21	16:AP:35:ARG:HE	1.63	0.46
7:BG:68:VAL:HG23	7:BG:99:ALA:CB	2.45	0.46
1:AA:1020:G:C2	1:AA:1021:A:C5	3.03	0.46
34:DJ:105:VAL:HG11	34:DJ:122:LEU:HD23	1.97	0.46
7:BG:145:GLU:C	7:BG:147:ASN:H	2.18	0.46
25:DA:261:G:C2	25:DA:262:A:C8	3.04	0.46
27:DC:124:LYS:HB2	27:DC:125:PRO:CD	2.45	0.46
52:D1:50:GLU:HG3	52:D1:51:ALA:N	2.29	0.46
30:CF:107:VAL:N	30:CF:108:PRO:HD2	2.30	0.46
39:CO:87:ILE:HG22	39:CO:88:LYS:N	2.30	0.46
1:AA:294:U:H2'	1:AA:295:C:H6	1.78	0.46
25:DA:1362:C:H2'	25:DA:1363:C:H5'	1.97	0.46
25:DA:2738:A:N1	25:DA:2739:U:C2	2.83	0.46
25:DA:1271:G:H5"	25:DA:1272:A:OP1	2.14	0.46
30:DF:69:ALA:HB3	30:DF:80:GLN:HA	1.97	0.46
25:DA:1050:A:H2'	25:DA:1051:G:C8	2.50	0.46
57:DW:46:ASN:C	57:DW:58:LYS:HB2	2.36	0.46
1:BA:1012:A:C2	1:BA:1018:G:N1	2.83	0.46
25:CA:1917:U:C4	25:CA:1918:A:N7	2.83	0.46
25:DA:359:G:C2'	25:DA:360:U:H5'	2.46	0.46
27:CC:250:GLN:HB3	27:CC:254:LYS:HB2	1.96	0.46
25:DA:1816:C:C5	27:DC:61:TYR:CE1	3.03	0.46
15:BO:81:ILE:HG13	15:BO:82:GLU:N	2.30	0.46
29:CE:84:THR:HG22	29:CE:85:PHE:CD2	2.50	0.46
3:BC:179:ALA:HB1	3:BC:202:PHE:HE1	1.79	0.46
3:BC:180:ASP:O	3:BC:202:PHE:HA	2.16	0.46
28:CD:207:VAL:HG13	28:CD:208:LYS:N	2.29	0.46
1:AA:1156:G:H5"	1:AA:1157:A:P	2.55	0.46
6:AF:99:ALA:O	6:AF:100:SER:CB	2.63	0.46
1:AA:1291:U:O5'	1:AA:1291:U:H6	1.97	0.46
1:AA:1291:U:OP1	7:AG:36:SER:OG	2.30	0.46
1:AA:1389:C:C2'	1:AA:1390:U:H5'	2.45	0.46
1:AA:579:A:H2'	1:AA:580:C:C6	2.50	0.46
25:CA:1274:A:N1	25:CA:1644:C:O2'	2.44	0.46
28:DD:97:SER:O	28:DD:99:GLU:N	2.48	0.46
3:AC:68:HIS:HA	3:AC:103:ALA:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:CK:19:VAL:CG1	35:CK:41:ILE:HD13	2.45	0.46
35:CK:21:CYS:HA	35:CK:41:ILE:HG22	1.97	0.46
25:CA:1217:U:O2	25:CA:1217:U:H2'	2.15	0.46
7:AG:85:GLN:HA	7:AG:85:GLN:OE1	2.15	0.46
1:AA:754:C:H3'	1:AA:754:C:O2	2.16	0.46
21:BU:32:ARG:CG	21:BU:32:ARG:O	2.62	0.46
36:DL:54:GLN:O	36:DL:55:MET:C	2.54	0.46
33:DI:71:LYS:HG2	33:DI:115:ASP:OD2	2.16	0.46
25:DA:1097:U:O2'	33:DI:8:VAL:HG11	2.16	0.46
1:BA:429:U:H4'	1:BA:430:A:OP1	2.14	0.46
32:CH:29:PHE:CD2	32:CH:30:LEU:HD23	2.50	0.46
25:DA:1343:G:N2	25:DA:1405:U:C4	2.83	0.46
1:AA:1141:C:O2	1:AA:1142:G:C8	2.68	0.46
1:AA:1219:A:OP1	14:AN:53:ARG:NH1	2.49	0.46
1:AA:258:G:C2	1:AA:259:G:H1'	2.50	0.46
1:AA:276:G:C5	1:AA:277:C:C5	3.03	0.46
25:DA:2371:G:C6	25:DA:2372:U:C5	3.03	0.46
32:DH:63:ALA:HB1	32:DH:66:ASN:HD22	1.80	0.46
23:AX:7:G:O2'	23:AX:8:A:H5'	2.15	0.46
25:DA:2287:A:N7	25:DA:2289:G:C8	2.84	0.46
5:BE:82:HIS:ND1	8:BH:95:MET:HE2	2.29	0.46
20:BT:66:ILE:HG13	20:BT:70:LYS:HB3	1.97	0.46
20:BT:68:LYS:CB	20:BT:69:ASN:OD1	2.63	0.46
11:AK:73:VAL:O	11:AK:75:GLU:N	2.48	0.46
38:DN:52:ILE:O	38:DN:53:THR:C	2.54	0.46
38:DN:52:ILE:O	38:DN:55:ALA:N	2.49	0.46
25:DA:2165:C:C2'	25:DA:2165:C:O2	2.62	0.46
12:AL:28:GLN:HB2	12:AL:81:ILE:O	2.14	0.46
56:DB:34:A:C2'	56:DB:35:C:OP2	2.64	0.46
25:CA:1168:G:C5'	25:CA:1168:G:H8	2.29	0.46
10:BJ:7:ARG:HD2	10:BJ:73:LEU:HD11	1.96	0.46
3:AC:143:LEU:N	3:AC:143:LEU:HD13	2.31	0.46
51:C0:52:LYS:HE2	51:C0:55:ALA:HB2	1.98	0.46
4:AD:123:MET:HE2	4:AD:145:ARG:HD2	1.97	0.46
33:CI:101:SER:HB3	33:CI:104:GLN:HG3	1.96	0.46
33:CI:102:ARG:HB3	33:CI:141:ASP:O	2.15	0.46
25:DA:301:G:H5'	25:DA:317:G:H22	1.78	0.46
1:AA:97:G:C2'	1:AA:98:A:O5'	2.63	0.46
20:BT:34:VAL:O	20:BT:36:ALA:N	2.48	0.46
25:CA:2258:C:O2'	25:CA:2426:A:H5"	2.16	0.46
31:DG:104:LEU:HB2	31:DG:112:VAL:HB	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:104:LEU:O	31:DG:111:PRO:HB3	2.16	0.46
31:DG:84:LYS:HB2	31:DG:132:LEU:HD11	1.97	0.46
1:BA:1291:U:H2'	1:BA:1292:G:H8	1.80	0.46
25:DA:1799:G:OP1	27:DC:257:ARG:CD	2.59	0.46
25:CA:752:A:H61	25:CA:2609:U:H3	1.58	0.46
1:BA:549:C:H2'	1:BA:550:G:O5'	2.15	0.46
2:BB:157:PRO:O	2:BB:180:ILE:HD12	2.15	0.46
9:AI:23:GLY:H	9:AI:60:LEU:HA	1.81	0.46
25:DA:1045:C:H3'	25:DA:1046:A:H5'	1.96	0.46
51:D0:53:VAL:O	51:D0:54:ILE:HB	2.15	0.46
25:CA:547:A:C8	25:CA:548:G:C1'	2.99	0.46
25:DA:55:G:O2'	25:DA:56:A:C5'	2.62	0.46
25:DA:65:U:C2	25:DA:66:C:C6	3.04	0.46
37:CM:50:ARG:CG	37:CM:51:ARG:N	2.78	0.46
32:CH:72:ILE:HD11	32:CH:132:PHE:CD2	2.51	0.46
42:DR:66:HIS:CE1	42:DR:94:THR:HG21	2.50	0.46
1:AA:1451:U:C3'	1:AA:1452:C:H5'	2.46	0.46
6:BF:20:GLY:O	6:BF:24:ARG:HB2	2.16	0.46
1:BA:152:A:C6	1:BA:170:U:O2	2.68	0.46
1:BA:1287:A:N6	1:BA:1288:A:N6	2.63	0.46
7:BG:26:VAL:HG23	7:BG:27:ASN:N	2.31	0.46
1:AA:654:G:C2'	1:AA:655:A:H5'	2.46	0.46
49:DY:56:LEU:O	49:DY:57:LEU:HB2	2.14	0.46
25:CA:666:A:H2'	25:CA:667:U:H6	1.79	0.46
49:CY:22:LEU:CG	49:CY:23:ARG:H	2.28	0.46
25:DA:2392:A:O3'	54:D3:26:ALA:HB1	2.15	0.46
14:BN:19:TYR:HD1	14:BN:19:TYR:N	2.13	0.46
33:DI:135:MET:HG3	33:DI:137:LEU:HD11	1.97	0.46
44:DT:2:ILE:CA	44:DT:3:ARG:HB2	2.45	0.46
1:AA:218:U:C2'	1:AA:219:U:H5'	2.46	0.46
36:DL:2:ARG:C	36:DL:5:THR:HG23	2.36	0.46
5:BE:56:PRO:O	5:BE:59:ILE:HD11	2.15	0.46
1:AA:610:U:H2'	1:AA:611:C:C6	2.51	0.46
25:CA:622:G:H2'	25:CA:623:C:C6	2.50	0.46
34:CJ:77:HIS:HD2	34:CJ:79:GLY:HA2	1.80	0.46
25:DA:2516:A:O2'	25:DA:2517:C:H5'	2.15	0.46
27:CC:105:ALA:O	27:CC:195:GLY:CA	2.63	0.46
1:BA:600:A:C4	1:BA:639:G:C2	3.04	0.46
39:CO:56:LYS:HA	39:CO:59:ALA:HB3	1.97	0.46
25:CA:772:C:H2'	25:CA:773:U:H6	1.79	0.46
25:DA:1160:G:C6	25:DA:1161:C:C4	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1121:C:C2'	25:CA:1122:G:O5'	2.63	0.46
25:CA:927:A:H2'	25:CA:928:A:C8	2.49	0.46
41:CQ:90:ASP:OD1	42:CR:11:GLN:HG3	2.16	0.46
25:CA:2414:G:C2'	25:CA:2415:G:H5'	2.46	0.46
13:AM:94:LEU:HB3	13:AM:95:PRO:HD2	1.97	0.46
25:CA:2544:G:H2'	25:CA:2545:G:O5'	2.15	0.46
9:BI:16:ALA:HB2	9:BI:66:VAL:CB	2.44	0.46
25:DA:2121:G:C2	25:DA:2178:C:N3	2.83	0.46
1:BA:747:A:H2'	1:BA:748:G:O4'	2.15	0.46
25:DA:2182:U:O2	25:DA:2182:U:H2'	2.14	0.46
1:BA:455:G:H2'	1:BA:456:A:H5'	1.97	0.46
41:CQ:105:PHE:CE1	41:CQ:109:VAL:CG2	2.98	0.46
34:CJ:4:PHE:CG	34:CJ:5:THR:N	2.83	0.46
32:DH:104:THR:HG22	32:DH:109:GLU:HA	1.98	0.46
25:CA:1348:C:H2'	25:CA:1349:C:C5'	2.45	0.46
25:DA:2026:U:C4	25:DA:2027:G:N7	2.83	0.46
45:CU:86:PHE:CE1	45:CU:91:LYS:HB2	2.50	0.46
25:CA:1808:A:O2'	48:CX:2:ARG:NH1	2.49	0.46
25:DA:840:C:H2'	25:DA:841:G:O4'	2.16	0.46
51:C0:29:VAL:HG12	51:C0:34:GLY:HA2	1.97	0.46
27:CC:7:PRO:HA	27:CC:13:ARG:HA	1.97	0.46
25:CA:823:C:C4	25:CA:824:U:C4	3.04	0.46
25:CA:1664:A:C2	25:CA:2726:A:C8	3.03	0.46
43:CS:109:ASP:O	43:CS:110:ARG:O	2.34	0.46
25:CA:1581:G:C2'	25:CA:1582:C:H5'	2.45	0.46
13:AM:110:GLY:O	13:AM:111:PRO:C	2.54	0.46
25:CA:132:G:H2'	25:CA:133:U:C6	2.50	0.46
47:CW:43:ALA:HB1	47:CW:47:VAL:O	2.15	0.46
3:BC:131:ARG:HD3	3:BC:135:ARG:HH21	1.80	0.46
25:CA:2127:G:C2	25:CA:2161:C:O2	2.68	0.46
25:DA:1064:C:O4'	33:DI:89:SER:HB2	2.15	0.46
25:CA:417:C:C2	25:CA:418:C:C5	3.03	0.46
49:DY:11:VAL:O	49:DY:12:GLU:C	2.52	0.46
25:CA:1085:A:C2'	25:CA:1086:A:C2	2.91	0.46
33:CI:18:ASN:ND2	33:CI:27:LEU:HD11	2.30	0.46
1:AA:1271:A:C5'	1:AA:1314:C:C5'	2.93	0.46
1:AA:987:G:C2	1:AA:988:G:C4	3.04	0.46
56:DB:89:U:O4'	56:DB:89:U:O2	2.33	0.46
2:BB:202:ASN:HD22	2:BB:205:ALA:HB2	1.80	0.46
16:BP:6:LEU:CD1	16:BP:71:VAL:HG23	2.46	0.46
25:DA:635:C:P	36:DL:126:ARG:HD2	2.56	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:214:G:O5'	25:DA:214:G:H8	1.98	0.46
56:DB:50:A:C5	56:DB:51:G:C8	3.03	0.46
1:BA:1126:U:O4	10:BJ:73:LEU:HD12	2.15	0.46
1:BA:1134:G:C2	1:BA:1141:C:N3	2.84	0.46
25:DA:2128:G:H22	25:DA:2161:C:H1'	1.80	0.46
4:AD:149:LYS:O	4:AD:151:GLN:N	2.48	0.46
4:AD:154:VAL:O	4:AD:157:ALA:HB3	2.15	0.46
4:AD:53:GLN:HE21	4:AD:202:LEU:CA	2.28	0.46
4:AD:54:LEU:CD2	4:AD:58:GLN:HB2	2.46	0.46
17:BQ:7:LEU:HB2	17:BQ:60:ILE:CG2	2.45	0.46
37:CM:16:ARG:N	37:CM:16:ARG:HD3	2.31	0.46
11:BK:13:LYS:HD3	11:BK:13:LYS:O	2.15	0.46
1:BA:1182:G:H5"	1:BA:1184:G:H5"	1.98	0.46
1:BA:1537:U:O2	1:BA:1537:U:H2'	2.14	0.46
25:CA:2799:A:O2'	25:CA:2800:A:C5'	2.63	0.46
32:DH:3:VAL:HA	32:DH:37:VAL:O	2.15	0.46
1:AA:4:U:O2	1:AA:4:U:H3'	2.15	0.46
25:CA:2111:U:O2	25:CA:2118:U:O2	2.33	0.46
16:BP:18:GLN:O	16:BP:20:VAL:HG12	2.15	0.46
9:AI:29:ILE:HG22	9:AI:64:ILE:HD11	1.96	0.46
8:BH:78:SER:HB3	8:BH:124:ILE:O	2.15	0.46
6:BF:61:LEU:CD1	6:BF:62:MET:H	2.29	0.46
6:BF:74:LEU:C	6:BF:76:THR:N	2.67	0.46
45:DU:32:LYS:HB3	45:DU:63:ALA:HB1	1.97	0.46
2:AB:14:HIS:HB2	2:AB:202:ASN:HB3	1.97	0.46
3:AC:35:ASP:O	3:AC:38:VAL:HG22	2.16	0.46
25:CA:2278:A:OP1	37:CM:10:ARG:NH2	2.48	0.46
25:CA:1484:U:O2	25:CA:1484:U:C2'	2.63	0.46
25:DA:417:C:N3	25:DA:418:C:C5	2.84	0.46
44:CT:2:ILE:HA	44:CT:3:ARG:C	2.36	0.46
25:DA:1105:U:C2	25:DA:1106:G:N7	2.83	0.46
25:DA:1240:U:O2'	25:DA:1241:A:O5'	2.31	0.46
25:DA:58:G:C2	25:DA:70:G:C2	3.03	0.46
21:BU:23:GLU:CA	21:BU:27:VAL:HG22	2.46	0.46
7:BG:36:SER:O	7:BG:39:GLU:HG2	2.15	0.46
25:DA:2091:C:H1'	48:DX:33:HIS:CD2	2.50	0.46
6:BF:43:GLY:O	6:BF:58:HIS:CD2	2.69	0.46
25:CA:2648:G:H2'	25:CA:2649:C:H6	1.78	0.46
1:BA:1286:U:H5'	1:BA:1287:A:OP2	2.16	0.46
1:BA:243:A:H4'	1:BA:244:U:H5"	1.97	0.46
45:DU:97:SER:O	45:DU:98:ASN:HB3	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1353:A:N6	25:DA:1354:A:N1	2.64	0.46
49:CY:17:GLU:HG3	49:CY:18:LEU:N	2.30	0.46
1:BA:26:A:H61	1:BA:558:G:C2'	2.29	0.46
14:BN:19:TYR:O	14:BN:22:LYS:HB3	2.15	0.46
17:BQ:46:HIS:HA	17:BQ:70:LYS:HE3	1.98	0.46
15:BO:87:ARG:O	15:BO:87:ARG:CG	2.63	0.46
25:CA:1866:A:C2	25:CA:1876:A:C5	3.03	0.46
46:DV:61:LEU:N	46:DV:61:LEU:HD12	2.30	0.46
12:AL:89:LEU:CD1	12:AL:89:LEU:N	2.78	0.46
1:BA:404:G:C2	1:BA:405:U:C2	3.04	0.46
40:CP:24:THR:HB	40:CP:87:ARG:HB3	1.97	0.46
39:CO:31:THR:O	39:CO:32:PRO:C	2.52	0.46
4:BD:47:LEU:HD21	4:BD:51:GLY:C	2.35	0.46
4:AD:56:GLU:OE2	4:AD:194:ILE:HA	2.15	0.46
9:AI:93:LEU:HD12	9:AI:94:ARG:N	2.29	0.46
7:BG:103:ILE:O	7:BG:106:ALA:HB3	2.15	0.46
25:CA:164:C:C2'	25:CA:165:A:H5'	2.46	0.46
7:AG:65:LEU:C	7:AG:67:ASN:N	2.68	0.46
1:AA:739:C:HO2'	15:AO:41:HIS:HD1	1.63	0.46
25:CA:2313:C:C6	25:CA:2313:C:C3'	2.98	0.46
3:AC:61:LYS:HA	3:AC:61:LYS:HE3	1.97	0.46
25:DA:935:C:O2'	25:DA:936:A:H5'	2.16	0.46
1:BA:1445:U:H2'	1:BA:1446:A:OP2	2.15	0.46
8:BH:88:LYS:HA	8:BH:91:LEU:HD12	1.97	0.46
1:BA:543:U:C2	1:BA:544:G:C8	3.03	0.46
1:AA:1066:C:H5'	1:AA:1067:A:OP2	2.16	0.46
25:CA:368:A:C8	25:CA:368:A:H3'	2.51	0.46
1:BA:368:U:N3	32:CH:91:PHE:HB3	2.30	0.46
46:DV:44:HIS:O	46:DV:45:ASP:C	2.53	0.46
38:DN:72:ASP:HB3	38:DN:75:ILE:HG12	1.98	0.46
25:DA:292:U:N3	25:DA:293:U:C5	2.84	0.46
25:DA:1421:G:C8	25:DA:1421:G:O5'	2.69	0.46
25:CA:245:G:O6	54:C3:7:ARG:HD3	2.15	0.46
16:BP:52:LEU:CD2	16:BP:54:LEU:CD2	2.94	0.46
25:DA:879:G:N1	25:DA:880:G:C6	2.84	0.46
25:CA:1710:G:H4'	25:CA:2858:C:O2	2.15	0.46
31:CG:64:ALA:O	31:CG:67:ALA:N	2.48	0.46
9:AI:9:GLY:HA3	9:AI:80:HIS:HB3	1.98	0.46
30:DF:73:VAL:HG23	30:DF:78:ILE:HD11	1.97	0.46
30:DF:74:ALA:O	30:DF:75:GLY:C	2.53	0.46
25:DA:1281:G:N2	25:DA:1290:C:C2	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1838:C:N4	25:DA:1898:U:H2'	2.31	0.46
42:DR:62:GLU:HG3	42:DR:62:GLU:O	2.16	0.46
27:DC:100:ARG:HG3	27:DC:100:ARG:HH11	1.81	0.46
55:C4:2:LYS:HB2	55:C4:2:LYS:NZ	2.31	0.46
25:CA:1671:U:O5'	25:CA:1671:U:H6	1.98	0.46
25:CA:39:G:H1'	29:CE:43:THR:HG21	1.96	0.46
1:AA:812:G:OP1	1:AA:903:G:H1'	2.15	0.46
1:BA:1226:C:H2'	13:BM:101:THR:HB	1.97	0.46
1:BA:1302:C:C4	13:BM:16:ILE:HD11	2.51	0.46
1:BA:413:G:H22	1:BA:429:U:P	2.39	0.46
25:DA:1402:U:H2'	25:DA:1403:A:O5'	2.15	0.46
25:DA:1403:A:N3	25:DA:1404:C:C6	2.84	0.46
25:CA:1085:A:C5	25:CA:1086:A:C6	3.04	0.46
2:AB:216:VAL:O	2:AB:220:VAL:HG23	2.15	0.46
17:AQ:15:LYS:H	17:AQ:16:MET:HE1	1.80	0.46
1:AA:1151:A:HO2'	1:AA:1152:A:P	2.39	0.46
42:DR:47:VAL:O	42:DR:47:VAL:CG1	2.63	0.46
25:DA:2345:G:C4	25:DA:2381:A:C2	3.03	0.46
31:CG:71:LEU:HD12	31:CG:71:LEU:H	1.79	0.46
25:DA:1579:A:H2'	25:DA:1580:A:O4'	2.15	0.46
5:BE:45:VAL:HG22	5:BE:117:ALA:CB	2.46	0.46
25:DA:1588:G:H3'	25:DA:1589:U:H6	1.81	0.46
11:AK:73:VAL:C	11:AK:75:GLU:H	2.18	0.46
36:DL:78:ARG:HG3	36:DL:81:ASP:OD1	2.15	0.46
1:AA:142:G:C6	1:AA:143:A:C5	3.03	0.46
25:DA:569:U:O4	25:DA:570:G:C6	2.69	0.46
30:DF:31:GLU:OE1	30:DF:91:ARG:NH1	2.49	0.46
39:DO:27:VAL:HA	39:DO:93:ASP:HB3	1.98	0.46
1:BA:1141:C:C2	1:BA:1142:G:C8	3.03	0.46
1:AA:625:U:O2'	1:AA:626:G:C5'	2.64	0.46
1:BA:74:A:C2	1:BA:97:G:C5	3.04	0.46
25:DA:2325:G:C6	25:DA:2326:C:N4	2.84	0.46
18:BR:34:GLU:HB2	21:BU:18:PHE:CE1	2.51	0.46
9:BI:41:GLU:O	9:BI:42:THR:O	2.33	0.46
5:BE:24:VAL:O	5:BE:25:LYS:C	2.53	0.46
25:CA:2157:G:O2'	25:CA:2158:A:O5'	2.24	0.46
10:BJ:5:ARG:CD	10:BJ:79:PRO:HG3	2.45	0.46
25:DA:566:U:H5"	36:DL:29:LYS:HE3	1.97	0.46
25:CA:1908:C:C4	25:CA:1909:C:C5	3.04	0.46
25:CA:1909:C:H5'	25:CA:1910:G:OP2	2.16	0.46
25:CA:2102:G:H3'	25:CA:2103:C:H6	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:71:ARG:HB3	3:AC:74:ILE:HG22	1.98	0.46
25:DA:1824:G:O2'	25:DA:1825:U:H5'	2.16	0.46
25:DA:178:G:C2'	25:DA:179:C:H5'	2.46	0.46
25:DA:1385:A:H4'	25:DA:1386:C:OP1	2.15	0.46
25:DA:511:U:C5	25:DA:512:G:C5	3.04	0.46
1:BA:1253:G:N2	1:BA:1285:A:H62	2.13	0.46
7:AG:119:LEU:CD2	7:AG:123:LEU:HD21	2.45	0.46
1:BA:473:U:H2'	1:BA:474:G:H8	1.81	0.46
33:DI:82:ALA:O	33:DI:83:ALA:HB2	2.15	0.46
25:DA:189:G:H2'	25:DA:205:G:H22	1.80	0.46
15:BO:35:ILE:CD1	15:BO:62:ARG:NH1	2.78	0.46
25:DA:1738:G:C2'	25:DA:1739:A:OP2	2.63	0.46
1:AA:102:G:C2	1:AA:103:U:C5	3.04	0.46
46:DV:56:PHE:CD1	46:DV:61:LEU:CD2	2.99	0.46
12:AL:1:ALA:HB3	12:AL:5:GLN:OE1	2.16	0.46
1:AA:773:G:C2	1:AA:807:A:C2	3.03	0.46
1:BA:1319:A:OP2	19:BS:4:LEU:HD21	2.16	0.46
24:AY:150:SER:O	24:AY:153:ASP:HB2	2.16	0.46
30:DF:92:GLY:O	30:DF:93:GLU:C	2.52	0.46
18:BR:70:THR:HG23	18:BR:72:ARG:H	1.80	0.46
28:CD:136:ASN:ND2	28:CD:140:HIS:CD2	2.83	0.46
37:DM:30:SER:HB2	37:DM:31:PHE:CD1	2.50	0.46
44:DT:91:GLN:OE1	44:DT:91:GLN:O	2.33	0.46
46:CV:75:GLN:HB2	46:CV:92:VAL:HG23	1.97	0.46
52:D1:8:ILE:HB	52:D1:51:ALA:HA	1.97	0.46
45:CU:96:LYS:O	45:CU:97:SER:OG	2.34	0.46
33:CI:122:GLU:C	33:CI:125:THR:HB	2.36	0.46
33:CI:122:GLU:O	33:CI:126:ARG:HD3	2.16	0.46
30:CF:43:ILE:O	30:CF:82:TYR:OH	2.32	0.46
3:BC:132:ALA:O	3:BC:136:ALA:CB	2.64	0.46
3:BC:132:ALA:O	3:BC:136:ALA:HB2	2.16	0.46
8:BH:35:ILE:HD11	8:BH:125:ILE:HG21	1.97	0.46
25:CA:2516:A:C2	25:CA:2569:G:C2	3.03	0.46
1:AA:748:G:C4	1:AA:749:A:C8	3.03	0.46
37:CM:92:TRP:C	37:CM:93:VAL:HG13	2.35	0.46
25:CA:2415:G:C4'	36:CL:66:PHE:HB3	2.46	0.46
4:BD:116:LEU:HD23	4:BD:121:ALA:HB3	1.97	0.46
7:AG:87:PRO:C	7:AG:88:VAL:HG12	2.35	0.46
1:BA:1170:A:H8	1:BA:1170:A:O5'	1.98	0.46
8:AH:77:VAL:HG11	8:AH:124:ILE:CG1	2.46	0.46
13:BM:47:LEU:CD2	13:BM:52:ILE:HG13	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:BR:33:THR:HG23	18:BR:35:SER:HB2	1.97	0.46
25:CA:2656:U:C5	25:CA:2664:G:N2	2.83	0.46
6:BF:13:ASP:O	6:BF:15:SER:N	2.48	0.46
1:AA:1072:G:OP1	5:AE:61:LYS:NZ	2.49	0.46
56:DB:3:C:O2'	56:DB:4:C:H5'	2.16	0.46
2:AB:9:LEU:HG	2:AB:11:ALA:N	2.30	0.46
36:DL:62:PRO:CG	54:D3:24:LYS:HD2	2.45	0.46
44:DT:63:VAL:O	44:DT:79:ASP:HA	2.15	0.46
42:CR:14:VAL:HG11	42:CR:98:ILE:CD1	2.45	0.46
28:DD:47:ALA:HA	28:DD:84:LEU:HG	1.97	0.46
30:CF:35:LEU:HD11	30:CF:98:PHE:CZ	2.49	0.46
27:DC:17:LYS:C	27:DC:18:VAL:HG23	2.36	0.46
39:DO:88:LYS:O	39:DO:88:LYS:HG3	2.14	0.46
1:BA:617:G:C6	1:BA:618:C:C5	3.04	0.46
41:DQ:57:ARG:NH2	41:DQ:91:ARG:CZ	2.79	0.46
25:CA:2172:U:OP1	25:CA:2174:C:H5	1.98	0.46
25:DA:1063:G:C3'	25:DA:1064:C:H6	2.29	0.46
25:DA:1062:G:H2'	25:DA:1063:G:C5	2.50	0.46
27:CC:221:GLY:O	27:CC:223:ALA:N	2.48	0.46
25:DA:1400:U:H2'	25:DA:1401:G:O5'	2.16	0.46
17:AQ:60:ILE:HA	17:AQ:73:THR:O	2.16	0.46
1:BA:1151:A:O4'	10:BJ:41:PRO:HB2	2.15	0.46
25:DA:2290:G:C6	25:DA:2291:U:C4	3.04	0.46
1:BA:721:G:H4'	1:BA:722:G:C5'	2.46	0.46
21:BU:34:ARG:O	21:BU:35:GLU:O	2.33	0.46
25:DA:1586:A:N7	25:DA:1587:G:C4	2.84	0.46
36:DL:100:ILE:HG13	36:DL:100:ILE:O	2.15	0.46
36:DL:110:VAL:HG11	36:DL:135:ILE:HD11	1.98	0.46
36:DL:79:LEU:O	36:DL:80:SER:C	2.53	0.46
56:DB:42:C:O2'	30:DF:62:GLN:HB3	2.16	0.46
39:DO:47:VAL:C	39:DO:48:LEU:HD23	2.36	0.46
4:AD:112:GLU:O	4:AD:115:GLN:N	2.49	0.46
1:AA:619:U:H3	4:AD:130:ASN:ND2	2.14	0.46
4:AD:172:VAL:HG22	4:AD:173:ASP:N	2.31	0.46
4:AD:52:VAL:HG23	4:AD:53:GLN:N	2.30	0.46
11:AK:121:ARG:NE	21:AU:35:GLU:HG3	2.31	0.46
1:AA:922:G:C2	1:AA:1396:A:C6	3.04	0.46
25:CA:1897:G:C6	25:CA:1898:U:N3	2.83	0.46
1:AA:68:G:C5	1:AA:69:G:H1'	2.50	0.46
1:BA:71:A:H3'	1:BA:71:A:C8	2.50	0.46
7:BG:45:ALA:HB1	7:BG:120:ALA:HB2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BT:42:ASP:HB3	20:BT:45:ALA:CB	2.44	0.46
9:BI:18:VAL:CG1	9:BI:85:ALA:HB2	2.45	0.46
2:BB:97:GLY:HA2	2:BB:174:GLU:OE2	2.15	0.46
1:BA:1097:C:H5"	2:BB:138:ARG:NH2	2.31	0.46
9:AI:38:PHE:HA	9:AI:41:GLU:CD	2.36	0.46
25:DA:230:G:C2	25:DA:231:A:C4	3.04	0.46
40:DP:21:PRO:HG3	40:DP:94:ALA:HA	1.98	0.46
2:AB:15:PHE:HB2	2:AB:39:ILE:HG23	1.97	0.46
2:BB:67:LEU:O	2:BB:160:LEU:CD1	2.62	0.46
2:BB:86:CYS:HB2	2:BB:88:GLN:HG3	1.97	0.46
43:DS:59:GLU:OE1	43:DS:66:ILE:HD11	2.16	0.46
3:AC:72:PRO:O	3:AC:73:GLY:C	2.54	0.46
16:BP:5:ARG:NH1	16:BP:24:SER:HA	2.30	0.46
25:CA:1482:G:N3	25:CA:1483:G:C8	2.83	0.46
2:BB:216:VAL:O	2:BB:217:ALA:C	2.54	0.46
2:BB:53:LEU:C	2:BB:56:LEU:HB3	2.36	0.46
3:AC:45:GLU:C	3:AC:47:ALA:H	2.18	0.46
1:BA:681:A:N1	1:BA:710:G:C6	2.84	0.46
33:CI:33:ASN:HB3	33:CI:36:GLU:CB	2.45	0.46
1:AA:1053:G:H4'	1:AA:1054:C:C5'	2.43	0.46
1:BA:146:G:N2	1:BA:177:G:C8	2.84	0.46
7:BG:35:LYS:O	7:BG:38:ALA:HB3	2.15	0.46
2:AB:163:ILE:HG12	2:AB:164:ASP:N	2.30	0.46
1:BA:283:U:C4	1:BA:284:C:N4	2.84	0.46
22:AV:70:G:O2'	25:CA:1893:C:H1'	2.15	0.46
25:DA:537:G:C2	25:DA:555:G:N2	2.83	0.46
25:DA:828:U:C5	25:DA:2247:A:H4'	2.51	0.46
26:CB:30:C:C3'	26:CB:31:C:H5'	2.46	0.46
24:AY:140:VAL:O	24:AY:141:LYS:C	2.53	0.46
14:AN:7:ALA:HA	14:AN:10:VAL:CG2	2.46	0.46
1:AA:763:G:C4	1:AA:764:C:C6	3.04	0.46
7:AG:73:GLU:HA	7:AG:140:VAL:CG1	2.46	0.46
29:DE:155:GLU:HA	29:DE:155:GLU:OE1	2.15	0.46
44:DT:69:ARG:CB	44:DT:74:ILE:CG2	2.94	0.46
49:CY:9:LYS:O	49:CY:13:GLU:HB2	2.15	0.46
49:CY:17:GLU:CA	49:CY:17:GLU:OE2	2.63	0.46
49:CY:18:LEU:HD23	49:CY:22:LEU:HD23	1.98	0.46
29:DE:76:PRO:HA	29:DE:82:GLY:CA	2.45	0.46
25:CA:2852:G:C5	25:CA:2853:C:C5	3.04	0.46
15:BO:87:ARG:O	15:BO:88:ARG:OXT	2.34	0.46
6:AF:35:LYS:HE3	6:AF:65:GLU:OE2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:16:ALA:HA	9:AI:65:THR:O	2.15	0.46
25:DA:666:A:H2'	25:DA:667:U:C6	2.51	0.46
1:AA:687:A:C8	1:AA:701:U:C4	3.04	0.46
5:AE:55:VAL:HB	5:AE:56:PRO:HD3	1.98	0.46
41:DQ:81:GLY:CA	41:DQ:116:LEU:HD13	2.46	0.46
39:CO:66:GLY:HA2	39:CO:102:ARG:NH2	2.30	0.46
16:AP:20:VAL:HG11	16:AP:32:PHE:CB	2.46	0.46
5:BE:56:PRO:O	5:BE:59:ILE:CD1	2.64	0.46
1:BA:1090:U:O2	1:BA:1090:U:H2'	2.16	0.46
1:AA:328:C:O2	1:AA:328:C:C2'	2.62	0.46
25:CA:2592:G:C5	25:CA:2593:U:C4	3.03	0.46
1:AA:610:U:H2'	1:AA:611:C:H6	1.79	0.46
1:BA:600:A:C2	1:BA:601:G:C4	3.03	0.46
1:BA:1057:G:C5	1:BA:1058:G:C5	3.04	0.46
1:BA:341:C:C2	1:BA:349:A:C2	3.04	0.46
29:DE:191:ASP:O	29:DE:194:LYS:HB3	2.16	0.46
8:BH:62:LEU:N	8:BH:62:LEU:HD23	2.31	0.46
4:BD:109:THR:O	4:BD:112:GLU:N	2.49	0.46
33:DI:120:ASP:CG	33:DI:122:GLU:HB3	2.36	0.46
25:DA:1272:A:N7	25:DA:1618:A:H1'	2.30	0.46
1:AA:470:C:N3	1:AA:471:U:C4	2.84	0.46
36:CL:106:GLU:C	36:CL:107:PHE:CD2	2.89	0.46
25:CA:2661:G:C2'	25:CA:2662:A:O5'	2.63	0.46
25:DA:2137:U:H2'	25:DA:2137:U:O2	2.16	0.46
25:CA:1291:C:O2'	25:CA:1292:G:H5'	2.15	0.46
25:CA:1853:A:C5	25:CA:1889:A:C6	3.03	0.46
25:CA:2534:A:C2'	25:CA:2535:G:O5'	2.64	0.46
25:CA:2585:U:O2'	25:CA:2586:U:H5'	2.16	0.46
25:CA:1782:U:H2'	25:CA:2608:G:O2'	2.16	0.46
25:DA:845:A:N1	25:DA:847:U:C6	2.84	0.46
57:DW:30:GLY:O	57:DW:56:PHE:HB2	2.15	0.46
22:BV:33:U:O2	22:BV:35:A:C8	2.69	0.46
25:DA:224:U:H2'	25:DA:225:C:O5'	2.15	0.46
25:CA:2123:G:O2'	25:CA:2124:G:H5'	2.16	0.46
20:AT:47:GLN:HE21	20:AT:47:GLN:C	2.19	0.46
45:DU:71:ILE:CD1	45:DU:82:VAL:HG22	2.46	0.46
35:DK:14:SER:O	35:DK:52:VAL:HG22	2.15	0.46
7:BG:88:VAL:CG2	7:BG:89:GLU:N	2.79	0.46
28:DD:39:ASP:H	28:DD:43:ASP:HB2	1.81	0.46
2:AB:27:LYS:N	2:AB:28:PRO:CD	2.79	0.46
25:DA:80:G:C2'	25:DA:81:G:H5'	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DX:66:VAL:O	48:DX:69:GLU:N	2.49	0.46
1:AA:1002:G:C6	1:AA:1003:G:C5	3.03	0.46
26:CB:61:G:H2'	26:CB:62:C:C6	2.50	0.46
18:BR:19:GLU:HG3	18:BR:54:LEU:HD13	1.98	0.46
52:C1:11:VAL:O	52:C1:12:SER:C	2.53	0.46
33:DI:63:ASP:O	33:DI:64:ARG:CB	2.64	0.46
27:CC:63:ILE:O	27:CC:63:ILE:HG22	2.14	0.46
25:DA:12:U:O2	25:DA:12:U:H2'	2.14	0.46
42:DR:45:GLU:HA	42:DR:45:GLU:OE2	2.16	0.46
56:DB:70:C:O2	56:DB:70:C:H2'	2.16	0.46
18:AR:33:THR:HG23	18:AR:36:GLY:H	1.81	0.46
1:BA:1350:A:C2	1:BA:1351:U:C2	3.04	0.46
19:BS:57:VAL:CG1	19:BS:74:ALA:CB	2.94	0.46
49:DY:9:LYS:HB3	49:DY:12:GLU:HG2	1.97	0.46
1:AA:675:A:H2'	1:AA:676:A:O5'	2.15	0.46
33:CI:20:SER:N	33:CI:21:PRO:CD	2.79	0.46
2:AB:101:THR:N	2:AB:174:GLU:OE1	2.49	0.46
2:AB:52:ALA:CB	2:AB:212:TYR:OH	2.64	0.46
2:AB:57:ASN:HA	2:AB:60:ALA:HB3	1.97	0.46
1:BA:1256:A:H5'	1:BA:1258:G:O4'	2.15	0.46
25:DA:1710:G:C5	25:DA:1749:A:N1	2.83	0.46
42:DR:47:VAL:HG13	42:DR:54:VAL:HG22	1.97	0.46
5:BE:158:LYS:HG3	5:BE:158:LYS:O	2.16	0.46
34:DJ:34:ARG:HG3	34:DJ:34:ARG:HH11	1.81	0.46
33:CI:110:GLN:O	33:CI:110:GLN:HG2	2.16	0.46
1:AA:426:U:H5"	4:AD:36:ALA:CB	2.46	0.46
1:BA:1216:A:C6	1:BA:1217:C:N4	2.83	0.46
19:BS:17:LYS:HA	19:BS:20:LYS:HZ3	1.81	0.46
25:CA:277:G:C2'	25:CA:361:G:O6	2.64	0.46
1:AA:622:A:N7	1:AA:623:C:C6	2.84	0.46
1:AA:439:U:C4	1:AA:440:C:C5	3.04	0.46
33:CI:100:ILE:HD11	33:CI:137:LEU:HD13	1.97	0.46
1:BA:101:A:O2'	1:BA:102:G:H5'	2.16	0.46
1:BA:69:G:H2'	1:BA:70:U:H6	1.79	0.46
1:BA:72:A:C8	1:BA:73:C:H5	2.34	0.46
1:BA:72:A:C6	1:BA:99:C:H1'	2.51	0.46
1:BA:972:C:O2'	10:BJ:57:VAL:CG2	2.64	0.46
1:BA:972:C:O2'	10:BJ:57:VAL:HG22	2.16	0.46
7:BG:120:ALA:HA	7:BG:123:LEU:HB2	1.98	0.46
1:AA:375:U:O2'	16:AP:6:LEU:O	2.33	0.46
1:BA:1103:C:H5"	2:BB:96:LEU:HD13	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2111:U:H5'	25:CA:2112:G:P	2.55	0.46
31:DG:30:GLY:CA	31:DG:78:VAL:HG12	2.45	0.46
9:AI:100:ALA:O	9:AI:102:PHE:CD1	2.69	0.46
25:CA:1473:G:C6	25:CA:1474:U:N3	2.83	0.46
45:DU:62:ALA:O	45:DU:63:ALA:O	2.33	0.46
25:DA:584:C:OP1	41:DQ:5:ARG:HG2	2.16	0.46
2:AB:32:GLY:HA3	2:AB:38:HIS:CA	2.46	0.46
2:BB:67:LEU:HD13	2:BB:160:LEU:HD11	1.97	0.46
25:DA:1172:C:H3'	25:DA:1173:U:C5	2.51	0.46
45:CU:4:ILE:CG2	45:CU:5:ARG:N	2.79	0.46
25:DA:59:U:C3'	25:DA:59:U:C6	2.98	0.46
4:BD:31:CYS:SG	4:BD:32:LYS:N	2.88	0.46
40:DP:32:VAL:O	40:DP:34:GLY:N	2.49	0.46
21:BU:28:LEU:HD23	21:BU:28:LEU:O	2.15	0.46
28:CD:99:GLU:O	28:CD:102:ALA:N	2.49	0.46
25:CA:1520:U:C2'	25:CA:1520:U:O2	2.62	0.46
1:BA:110:C:H2'	1:BA:110:C:O2	2.14	0.46
25:CA:2229:U:H2'	25:CA:2230:G:C8	2.51	0.46
1:AA:684:U:O2'	11:AK:39:ASN:O	2.33	0.46
25:CA:31:C:O3'	25:CA:1238:G:C5'	2.64	0.46
25:CA:1372:U:H6	25:CA:1372:U:H5'	1.81	0.46
1:BA:158:G:C3'	1:BA:159:G:H5"	2.46	0.46
7:AG:119:LEU:HD23	7:AG:123:LEU:CD2	2.46	0.46
38:CN:75:ILE:O	38:CN:79:LEU:CD1	2.61	0.46
3:AC:166:TRP:CA	3:AC:166:TRP:CE3	2.99	0.46
25:DA:2492:U:O2'	25:DA:2493:U:H5'	2.16	0.46
44:DT:7:LEU:CD2	44:DT:46:ALA:CA	2.93	0.46
13:AM:2:ARG:O	13:AM:7:ASN:O	2.34	0.46
46:DV:56:PHE:CE1	46:DV:61:LEU:HD22	2.51	0.46
29:CE:138:LEU:CD1	29:CE:167:VAL:HG21	2.46	0.46
20:AT:68:LYS:HB2	20:AT:69:ASN:H	1.60	0.46
20:AT:69:ASN:OD1	20:AT:69:ASN:N	2.49	0.46
4:BD:122:ILE:CG2	4:BD:142:VAL:HG23	2.46	0.46
1:BA:251:G:C6	1:BA:266:G:C6	3.04	0.46
18:AR:54:LEU:O	18:AR:58:ILE:HG13	2.15	0.46
25:DA:1519:G:C6	25:DA:1520:U:N3	2.84	0.46
36:DL:90:VAL:HB	36:DL:122:VAL:HG22	1.98	0.46
43:DS:15:GLN:HG3	51:D0:16:ARG:HH12	1.80	0.46
46:DV:64:VAL:HG13	46:DV:67:GLY:HA2	1.97	0.46
5:AE:63:MET:O	5:AE:64:GLU:C	2.54	0.46
25:DA:1874:C:H3'	25:DA:1875:G:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2060:A:H3'	29:DE:63:LYS:HZ1	1.81	0.46
9:AI:90:ASP:OD2	9:AI:90:ASP:C	2.54	0.46
30:CF:32:LYS:HD3	30:CF:91:ARG:NH1	2.30	0.46
5:AE:45:VAL:C	5:AE:70:MET:HG3	2.37	0.46
9:BI:11:ARG:O	9:BI:11:ARG:CG	2.63	0.46
1:AA:739:C:C5	1:AA:740:U:C5	3.03	0.46
40:CP:80:VAL:CG1	40:CP:83:ILE:CD1	2.94	0.46
1:BA:318:G:C6	1:BA:319:G:N7	2.84	0.46
25:DA:2648:G:C6	25:DA:2649:C:C4	3.04	0.46
37:CM:69:PRO:O	37:CM:70:ASP:OD2	2.33	0.46
27:CC:259:ASN:OD1	27:CC:262:THR:HG23	2.15	0.46
22:BV:50:U:C2	22:BV:51:U:C5	3.04	0.46
22:BV:52:G:C6	22:BV:53:G:N7	2.83	0.46
35:DK:19:VAL:HG12	35:DK:43:ILE:HG12	1.96	0.46
25:CA:2091:C:O2'	48:CX:55:MET:HE3	2.16	0.46
1:BA:1245:C:C4	1:BA:1246:A:N7	2.84	0.46
22:AV:14:A:N6	22:AV:22:G:C5	2.83	0.46
7:BG:110:ARG:CZ	7:BG:121:ASN:HB3	2.46	0.46
31:CG:154:GLU:HG2	31:CG:155:PRO:CD	2.45	0.46
25:DA:106:C:H5"	25:DA:107:G:OP2	2.16	0.46
25:CA:1830:C:H2'	25:CA:1831:G:H8	1.80	0.46
40:CP:32:VAL:HG13	40:CP:36:LYS:O	2.16	0.46
25:DA:222:A:C5	25:DA:224:U:C2	3.04	0.46
25:CA:2124:G:H2'	25:CA:2125:G:C5'	2.45	0.46
1:BA:856:C:C2'	1:BA:857:C:H5'	2.46	0.46
1:BA:19:A:C4	1:BA:917:G:C2	3.04	0.46
25:CA:2189:U:H2'	25:CA:2190:G:H8	1.80	0.46
25:DA:1676:A:N7	60:DA:3775:HOH:O	2.36	0.46
25:DA:1893:C:C5	25:DA:1894:C:C5	3.03	0.46
25:CA:1693:U:O2'	27:CC:13:ARG:NH2	2.49	0.46
25:DA:1953:A:H2	25:DA:2549:G:N3	2.13	0.46
25:CA:354:A:C5	25:CA:355:U:C5	3.03	0.46
25:CA:263:G:H2'	25:CA:264:C:O4'	2.16	0.46
25:CA:2016:U:H1'	51:C0:2:VAL:CG2	2.46	0.46
50:DZ:41:PRO:O	50:DZ:44:ARG:HB2	2.16	0.46
56:DB:2:G:N3	56:DB:2:G:H2'	2.31	0.46
25:DA:1237:A:O5'	25:DA:1237:A:H2'	2.15	0.46
34:DJ:72:LYS:HD3	34:DJ:74:TYR:CE1	2.51	0.46
25:DA:305:C:H1'	25:DA:313:G:N2	2.30	0.46
1:BA:1349:A:H2'	1:BA:1350:A:O4'	2.16	0.46
1:BA:932:C:C4	7:BG:2:ARG:NH2	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:10:LEU:HD13	33:DI:23:VAL:HG11	1.98	0.46
4:BD:27:ILE:O	4:BD:28:ASP:O	2.34	0.46
32:CH:24:GLY:O	32:CH:28:ASN:HB2	2.16	0.46
25:DA:1394:U:C2'	25:DA:1395:A:O5'	2.62	0.46
25:DA:1401:G:C6	25:DA:1402:U:C4	3.04	0.46
44:DT:61:LEU:O	44:DT:61:LEU:HG	2.15	0.46
25:CA:1061:U:HO2'	25:CA:1062:G:C5'	2.26	0.46
2:AB:62:ARG:O	2:AB:63:LYS:HB2	2.16	0.46
17:AQ:13:SER:CB	17:AQ:21:VAL:HG11	2.46	0.46
1:AA:1152:A:H5'	10:AJ:15:HIS:CD2	2.50	0.46
25:DA:1709:U:C2	25:DA:1710:G:C8	3.04	0.46
42:DR:39:LEU:HB3	42:DR:49:ILE:HD13	1.97	0.46
13:BM:4:ALA:O	13:BM:6:ILE:N	2.49	0.46
25:DA:2292:U:C2'	25:DA:2293:G:O5'	2.64	0.46
32:DH:9:VAL:HG11	32:DH:12:LEU:HD11	1.96	0.46
1:BA:489:C:H2'	1:BA:490:C:C6	2.51	0.46
32:DH:62:LEU:CD1	32:DH:63:ALA:HB2	2.45	0.46
11:AK:88:PRO:HD3	21:AU:28:LEU:HD11	1.97	0.46
16:BP:6:LEU:HD23	16:BP:17:TYR:CB	2.45	0.46
16:BP:71:VAL:HG12	16:BP:75:ILE:HD11	1.98	0.46
2:AB:207:ARG:O	2:AB:211:LEU:HD13	2.14	0.46
50:DZ:9:THR:CG2	50:DZ:53:MET:HA	2.42	0.46
42:CR:54:VAL:O	42:CR:55:ASP:O	2.33	0.46
25:DA:640:C:C6	25:DA:641:U:C5	3.04	0.46
36:DL:127:VAL:HG13	36:DL:131:ALA:CB	2.46	0.46
38:DN:77:ALA:O	38:DN:78:LYS:C	2.54	0.46
25:CA:570:G:H2'	25:CA:2030:A:N7	2.31	0.46
25:CA:277:G:H4'	25:CA:278:A:C6	2.50	0.46
25:CA:362:A:OP2	25:CA:362:A:C8	2.69	0.46
25:DA:227:A:C4	25:DA:2407:A:H1'	2.51	0.46
25:DA:2114:A:N1	25:DA:2115:G:H1'	2.31	0.46
37:DM:97:GLN:H	37:DM:97:GLN:NE2	2.14	0.46
39:DO:105:ALA:O	39:DO:106:LEU:C	2.54	0.46
39:DO:35:ILE:HG23	39:DO:74:VAL:HG11	1.97	0.46
4:AD:97:LEU:HD23	4:AD:117:VAL:CG1	2.45	0.46
25:DA:1553:A:C6	25:DA:1555:G:H1'	2.51	0.46
16:AP:67:ILE:O	16:AP:67:ILE:CG2	2.63	0.46
1:AA:1309:G:P	13:AM:90:HIS:HE1	2.38	0.46
32:DH:42:LYS:HE2	32:DH:42:LYS:C	2.35	0.46
2:BB:100:LEU:N	2:BB:100:LEU:CD2	2.79	0.46
2:BB:169:HIS:O	2:BB:170:ILE:C	2.53	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1203:C:N4	1:AA:1204:A:N6	2.64	0.46
10:AJ:58:ASN:O	10:AJ:60:ASP:N	2.49	0.46
1:BA:500:G:C6	1:BA:501:C:C4	3.04	0.46
9:AI:38:PHE:CE1	9:AI:75:ALA:HB2	2.50	0.46
36:CL:29:LYS:HG2	36:CL:30:THR:HG23	1.97	0.46
2:AB:15:PHE:HD1	2:AB:16:GLY:H	1.64	0.46
36:CL:76:GLU:O	36:CL:77:ILE:HD13	2.15	0.46
30:DF:45:ASP:HB3	30:DF:48:LEU:HB3	1.97	0.46
25:CA:2820:A:C2'	25:CA:2821:A:OP1	2.64	0.46
25:DA:1359:A:C8	25:DA:1373:A:C2	3.03	0.46
25:DA:979:A:H2'	25:DA:980:A:OP1	2.15	0.46
19:AS:10:ILE:HG21	19:AS:40:PHE:HE2	1.81	0.46
27:CC:16:VAL:HB	27:CC:203:VAL:HG13	1.98	0.46
33:CI:57:VAL:O	33:CI:68:PHE:CB	2.64	0.46
1:AA:1057:G:H2'	1:AA:1058:G:C5'	2.46	0.46
6:BF:21:MET:HB3	6:BF:25:TYR:CZ	2.50	0.46
9:AI:27:ILE:HG12	9:AI:62:LEU:HD21	1.97	0.46
32:DH:142:VAL:HG12	32:DH:143:ILE:N	2.30	0.46
12:BL:2:THR:O	12:BL:3:VAL:C	2.54	0.46
49:CY:9:LYS:N	49:CY:12:GLU:HB2	2.31	0.46
25:CA:2110:G:O2'	25:CA:2120:G:H5"	2.16	0.46
14:BN:27:LYS:O	14:BN:28:ALA:O	2.34	0.46
36:CL:4:ASN:O	36:CL:4:ASN:CG	2.54	0.46
33:DI:46:ASP:CG	33:DI:50:LYS:HD2	2.37	0.46
25:CA:1501:G:C2'	25:CA:1502:A:O5'	2.64	0.46
11:BK:109:ILE:O	21:BU:5:VAL:HG22	2.16	0.46
25:DA:137:U:C2	25:DA:140:C:H1'	2.51	0.46
1:AA:100:G:C6	1:AA:101:A:C5	3.04	0.46
25:DA:1031:G:C4'	55:D4:6:SER:HB2	2.45	0.46
25:CA:2182:U:C2	25:CA:2183:A:N7	2.83	0.46
1:BA:402:G:C6	1:BA:403:C:C4	3.03	0.46
25:CA:1142:A:C4	25:CA:1144:A:C8	3.04	0.46
25:CA:1098:A:C6	25:CA:1099:G:C6	3.04	0.46
25:CA:1714:U:C5'	25:CA:1715:G:H5'	2.46	0.46
25:CA:1748:C:H2'	25:CA:1749:A:O4'	2.16	0.46
1:AA:421:U:O2	3:AC:126:ARG:NH2	2.49	0.46
7:BG:96:ASN:HA	7:BG:99:ALA:CB	2.45	0.46
1:AA:726:C:O2'	1:AA:727:G:H5'	2.16	0.46
1:BA:220:G:H2'	1:BA:221:C:O5'	2.16	0.46
1:AA:189:A:C5	1:AA:190:A:C2	3.04	0.46
25:DA:412:A:N6	25:DA:2412:A:O4'	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DT:57:VAL:HG22	44:DT:58:VAL:N	2.30	0.46
25:CA:708:G:O6	25:CA:723:C:N3	2.49	0.46
25:CA:1966:A:N3	25:CA:2592:G:O2'	2.41	0.46
25:DA:155:A:C2	25:DA:172:A:C2	3.03	0.46
17:AQ:34:GLY:O	17:AQ:35:LYS:C	2.53	0.46
6:BF:69:GLU:HA	6:BF:69:GLU:OE1	2.16	0.46
40:CP:64:SER:OG	40:CP:65:ASN:ND2	2.49	0.46
33:CI:126:ARG:HA	33:CI:129:GLU:CG	2.45	0.46
29:CE:48:THR:CG2	29:CE:86:ALA:HB3	2.46	0.46
1:BA:1423:G:C5	1:BA:1424:U:C5	3.04	0.46
1:BA:706:A:C1'	11:BK:30:ILE:HD11	2.45	0.46
25:DA:681:G:H2'	25:DA:682:G:O4'	2.15	0.46
10:AJ:6:ILE:H	10:AJ:6:ILE:HD12	1.81	0.46
25:CA:2567:G:H2'	25:CA:2568:U:C6	2.51	0.46
6:AF:70:VAL:HA	6:AF:73:GLU:HG2	1.98	0.46
25:DA:996:A:N6	25:DA:1160:G:C6	2.83	0.46
8:BH:88:LYS:C	8:BH:90:GLU:H	2.18	0.46
1:AA:564:C:C4	1:AA:565:U:C4	3.04	0.46
35:DK:105:ARG:NH1	40:DP:33:GLU:HG3	2.31	0.46
25:DA:2671:G:C2	25:DA:2672:U:C2	3.04	0.46
41:CQ:67:ALA:O	41:CQ:68:ALA:C	2.54	0.46
1:BA:775:G:C2'	1:BA:776:G:H5'	2.45	0.46
1:BA:1070:U:H2'	1:BA:1071:C:C6	2.50	0.46
25:DA:590:A:O2'	25:DA:591:U:H5'	2.16	0.46
25:DA:846:U:H1'	25:DA:847:U:H5	1.80	0.46
25:CA:1446:C:H2'	25:CA:1447:C:C6	2.50	0.46
8:AH:38:VAL:CG1	8:AH:111:THR:HG22	2.46	0.46
5:AE:125:LYS:HD3	5:AE:127:TYR:CE2	2.50	0.46
25:CA:2355:G:O2'	47:CW:35:ARG:HD2	2.16	0.46
1:AA:1519:A:N7	1:AA:1520:C:H1'	2.31	0.46
25:DA:1614:A:C6	43:DS:87:PRO:HB3	2.51	0.46
1:BA:799:G:C2'	1:BA:800:G:H5'	2.46	0.46
30:CF:117:SER:C	30:CF:119:LYS:H	2.20	0.46
25:CA:1904:G:H1'	25:CA:1927:A:N1	2.31	0.46
25:CA:1004:U:C2'	25:CA:1005:C:OP2	2.63	0.46
25:CA:392:U:H2'	25:CA:393:C:H6	1.81	0.46
25:CA:2760:C:O2	25:CA:2760:C:C2'	2.60	0.46
45:DU:25:LYS:HE3	45:DU:25:LYS:HA	1.98	0.46
25:CA:2526:G:H2'	25:CA:2527:C:O5'	2.16	0.46
47:CW:27:VAL:HG21	47:CW:78:ILE:HD11	1.98	0.46
25:DA:747:U:C4	25:DA:2613:U:C5	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:84:A:N3	25:DA:85:G:H1'	2.31	0.46
12:BL:33:CYS:HB3	12:BL:54:VAL:CG2	2.42	0.46
9:BI:113:LYS:HG3	9:BI:119:LYS:HA	1.97	0.46
25:DA:1078:U:H5"	25:DA:1079:C:OP1	2.16	0.46
33:DI:58:ILE:HG23	33:DI:66:PHE:CD1	2.51	0.46
25:DA:1407:G:C2	25:DA:1596:A:C2	3.03	0.46
49:DY:16:THR:CG2	49:DY:17:GLU:N	2.79	0.46
33:CI:15:GLY:CA	33:CI:50:LYS:HB3	2.41	0.46
2:AB:134:LEU:HG	2:AB:137:THR:OG1	2.16	0.46
1:AA:255:G:H5'	17:AQ:17:GLU:O	2.16	0.46
1:AA:276:G:C5	1:AA:277:C:H5	2.33	0.46
1:AA:276:G:OP1	17:AQ:16:MET:HE2	2.16	0.46
25:DA:2197:U:C6	25:DA:2224:G:C6	3.03	0.46
31:CG:72:ASN:ND2	31:CG:76:ILE:HD11	2.31	0.46
16:BP:74:LEU:HD23	16:BP:74:LEU:N	2.31	0.46
42:CR:54:VAL:O	42:CR:55:ASP:C	2.54	0.46
3:BC:153:SER:HB3	3:BC:164:THR:HG22	1.98	0.46
36:DL:95:LEU:C	36:DL:97:ALA:N	2.68	0.46
46:CV:4:ILE:HG12	46:CV:50:MET:SD	2.55	0.46
1:AA:142:G:N3	1:AA:143:A:C8	2.83	0.46
25:DA:391:A:H1'	25:DA:411:G:O4'	2.16	0.46
25:DA:2148:G:C2	25:DA:2149:U:C4	3.04	0.46
39:DO:105:ALA:O	39:DO:107:ALA:N	2.49	0.46
1:AA:456:A:C6	1:AA:457:G:C5	3.04	0.46
4:AD:162:GLU:HA	4:AD:166:LYS:HD3	1.97	0.46
1:AA:503:C:O2'	1:AA:504:C:H5'	2.16	0.46
1:BA:1514:G:H2'	1:BA:1515:G:O4'	2.16	0.46
1:BA:1107:C:C2	1:BA:1108:G:C8	3.04	0.46
25:CA:1838:C:C5	25:CA:1899:A:C6	3.04	0.46
5:AE:152:VAL:HG22	5:AE:153:ALA:H	1.80	0.46
1:AA:71:A:N1	1:AA:99:C:O2'	2.48	0.46
1:AA:91:U:H2'	1:AA:92:U:C1'	2.45	0.46
25:CA:1449:G:C2'	25:CA:1450:G:O5'	2.64	0.46
1:BA:1239:A:H62	1:BA:1299:A:N6	2.14	0.46
20:BT:81:GLN:O	20:BT:84:LYS:HB2	2.16	0.46
1:AA:451:A:C8	1:AA:481:G:N1	2.84	0.46
31:DG:147:LEU:HA	31:DG:150:TYR:CD1	2.51	0.46
11:BK:85:VAL:HG11	11:BK:92:ARG:NH1	2.31	0.46
25:CA:1417:C:O2'	25:CA:1587:G:C2'	2.64	0.46
1:AA:1061:G:C6	1:AA:1197:A:C2	3.03	0.46
10:AJ:52:LEU:CD1	10:AJ:61:ALA:HB3	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:BL:106:VAL:HG23	12:BL:116:TYR:O	2.15	0.46
1:AA:1494:G:C8	25:CA:1913:A:C2	3.04	0.46
36:CL:110:VAL:O	36:CL:110:VAL:CG1	2.64	0.46
27:DC:16:VAL:CB	27:DC:203:VAL:HG13	2.45	0.46
1:AA:1439:G:N7	1:AA:1440:U:C5	2.84	0.46
25:DA:1930:G:N2	25:DA:1968:G:H2'	2.31	0.46
3:AC:72:PRO:HG2	3:AC:104:GLU:HG3	1.98	0.46
25:CA:1482:G:C6	25:CA:1508:A:N1	2.84	0.46
25:DA:55:G:C2'	25:DA:56:A:C5'	2.94	0.46
25:DA:55:G:HO2'	25:DA:56:A:H5'	1.81	0.46
3:AC:84:GLU:O	3:AC:86:LEU:N	2.49	0.46
25:DA:65:U:N3	25:DA:66:C:C5	2.83	0.46
48:DX:34:SER:HA	48:DX:49:ARG:HA	1.96	0.46
9:BI:12:LYS:H	9:BI:105:ARG:HH12	1.63	0.46
35:DK:20:MET:HE2	35:DK:22:ILE:HG22	1.97	0.46
25:DA:1092:C:H3'	25:DA:1093:G:H8	1.81	0.46
4:AD:167:PRO:HB2	4:AD:170:LEU:CD1	2.46	0.46
1:AA:550:G:C6	1:AA:551:U:C4	3.04	0.46
25:DA:833:A:H2'	25:DA:834:G:C8	2.51	0.46
33:DI:14:ALA:CB	33:DI:45:THR:HG21	2.45	0.46
1:BA:630:A:C2	1:BA:631:C:C2	3.03	0.46
15:BO:17:ASP:OD1	15:BO:20:ASP:HB2	2.16	0.46
15:BO:26:VAL:HG12	15:BO:30:LEU:CD1	2.45	0.46
1:AA:101:A:C5	1:AA:102:G:N7	2.83	0.46
28:DD:12:THR:HG22	40:DP:8:GLU:OE2	2.15	0.46
15:AO:3:SER:HB3	15:AO:6:ALA:H	1.81	0.46
26:CB:54:G:C5	26:CB:55:U:C5	3.03	0.46
7:AG:82:SER:CB	7:AG:84:TYR:CE2	2.99	0.46
25:DA:1164:C:O2'	25:DA:1165:A:H5'	2.15	0.46
30:DF:100:GLU:HG3	30:DF:104:THR:OG1	2.15	0.46
52:C1:10:LEU:N	52:C1:10:LEU:HD23	2.30	0.46
25:DA:24:G:H1'	43:DS:77:ASP:HB3	1.98	0.46
1:AA:757:U:C5'	1:AA:822:U:O2	2.64	0.46
1:BA:1086:U:O2'	1:BA:1087:G:H5'	2.15	0.46
1:AA:1020:G:C2	1:AA:1021:A:N7	2.84	0.46
1:AA:646:G:C4	1:AA:647:C:C5	3.04	0.46
1:BA:459:A:C2	1:BA:460:A:C5	3.04	0.46
25:CA:1595:C:O2	25:CA:1595:C:C2'	2.53	0.46
8:AH:82:LEU:C	8:AH:82:LEU:CD2	2.84	0.46
11:BK:19:VAL:HB	11:BK:34:THR:CG2	2.46	0.46
41:DQ:93:ILE:HD13	42:DR:11:GLN:CB	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:CN:55:ALA:HB1	38:CN:80:PHE:H	1.81	0.46
25:CA:2313:C:H5"	30:CF:87:LYS:HD3	1.97	0.46
44:DT:23:ALA:O	44:DT:27:SER:HB3	2.16	0.46
8:BH:31:LEU:O	8:BH:33:VAL:N	2.49	0.46
25:CA:2186:G:H2'	25:CA:2187:U:H6	1.78	0.46
25:CA:734:A:C4	25:CA:735:A:C8	3.04	0.46
11:BK:80:ASN:HA	11:BK:105:ARG:O	2.16	0.46
25:DA:2738:A:C2'	25:DA:2738:A:N3	2.76	0.46
37:CM:42:THR:O	37:CM:46:ILE:HG13	2.16	0.46
45:CU:82:VAL:CG1	45:CU:83:GLY:N	2.79	0.46
25:DA:2720:U:H4'	25:DA:2845:U:O2'	2.16	0.46
25:CA:185:G:C5	25:CA:186:G:N7	2.84	0.46
25:CA:208:C:O2	25:CA:208:C:H2'	2.14	0.46
25:DA:104:A:C5	25:DA:105:C:C4	3.03	0.46
55:D4:16:ILE:HD13	55:D4:25:VAL:HG22	1.98	0.46
25:DA:2681:C:OP2	28:DD:114:LYS:CE	2.64	0.46
30:DF:55:ASP:O	30:DF:59:ILE:HG13	2.16	0.46
1:AA:322:C:O2	1:AA:332:G:N2	2.49	0.46
30:CF:28:PRO:O	30:CF:29:ARG:HG2	2.16	0.46
1:BA:457:G:C5	1:BA:458:U:C4	3.03	0.46
25:DA:31:C:O3'	25:DA:1238:G:C5'	2.64	0.46
1:AA:794:A:C6	1:AA:795:C:N4	2.84	0.46
27:DC:188:ARG:HH21	27:DC:188:ARG:CG	2.29	0.46
35:CK:104:THR:O	35:CK:107:LEU:HD12	2.16	0.46
25:CA:1601:G:C2'	25:CA:1602:U:H5'	2.46	0.46
25:CA:1983:G:C2'	25:CA:1984:G:H5'	2.46	0.46
11:AK:32:THR:OG1	11:AK:43:TRP:HB3	2.16	0.46
25:CA:1268:A:C2	25:CA:2013:A:C4	3.04	0.46
28:DD:22:ILE:HG23	28:DD:190:LYS:HD2	1.98	0.46
36:DL:99:ASN:ND2	60:DL:302:HOH:O	2.48	0.46
2:BB:9:LEU:HA	2:BB:42:LEU:HD13	1.98	0.46
3:AC:2:GLN:C	3:AC:3:LYS:HG2	2.35	0.46
25:CA:2250:G:H8	25:CA:2250:G:O5'	1.99	0.46
38:DN:113:ILE:HG23	38:DN:113:ILE:O	2.16	0.46
25:CA:1456:G:N3	25:CA:1456:G:H2'	2.31	0.46
26:CB:38:C:C6	26:CB:38:C:H3'	2.51	0.46
10:BJ:81:GLU:OE2	10:BJ:81:GLU:HA	2.17	0.46
25:CA:785:G:H2'	25:CA:786:C:C6	2.51	0.46
28:CD:8:LYS:HE3	28:CD:193:VAL:O	2.15	0.46
1:BA:1230:C:O2'	1:BA:1231:G:H5'	2.16	0.45
1:BA:1349:A:OP2	9:BI:119:LYS:HE2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:78:U:P	49:DY:2:LYS:CD	3.02	0.45
49:DY:31:GLN:HA	49:DY:34:SER:HG	1.82	0.45
33:CI:37:PHE:CE1	33:CI:41:PHE:HD1	2.35	0.45
1:AA:1216:A:C5	1:AA:1217:C:C5	3.04	0.45
1:AA:1271:A:H5"	1:AA:1314:C:H5"	1.98	0.45
20:AT:76:ALA:O	20:AT:79:THR:HB	2.16	0.45
25:DA:1708:C:O2'	25:DA:1709:U:H5'	2.16	0.45
25:CA:847:U:O2	25:CA:934:U:H1'	2.16	0.45
25:DA:2199:A:C2'	25:DA:2200:C:H5'	2.46	0.45
4:AD:91:ALA:O	4:AD:94:GLU:N	2.48	0.45
2:BB:15:PHE:CE1	2:BB:17:HIS:CE1	3.04	0.45
2:BB:205:ALA:C	2:BB:207:ARG:H	2.19	0.45
21:AU:28:LEU:O	21:AU:28:LEU:CD2	2.63	0.45
36:DL:79:LEU:N	36:DL:113:ALA:HB3	2.25	0.45
12:AL:54:VAL:HG21	12:AL:79:ILE:HD11	1.98	0.45
56:DB:53:A:H2'	56:DB:53:A:N3	2.30	0.45
56:DB:24:G:C6	56:DB:56:G:C4	3.04	0.45
1:AA:410:G:H5"	1:AA:411:A:P	2.56	0.45
1:AA:435:A:C6	1:AA:436:C:C5	3.04	0.45
33:CI:83:ALA:HB1	33:CI:100:ILE:CD1	2.46	0.45
1:AA:1076:U:N3	1:AA:1082:A:C2	2.84	0.45
5:AE:150:GLU:CG	5:AE:151:MET:N	2.80	0.45
1:AA:71:A:H61	1:AA:99:C:C2'	2.29	0.45
20:BT:43:LYS:NZ	20:BT:85:LEU:O	2.48	0.45
32:DH:53:GLU:O	32:DH:57:LYS:HB2	2.15	0.45
1:AA:373:A:C2	1:AA:482:A:N6	2.84	0.45
1:AA:451:A:N7	1:AA:481:G:C6	2.83	0.45
1:BA:1540:U:O3'	21:BU:17:ARG:NH2	2.50	0.45
1:BA:869:G:H4'	1:BA:872:A:C8	2.51	0.45
8:AH:30:LYS:O	8:AH:31:LEU:C	2.55	0.45
9:BI:37:TYR:CD2	9:BI:38:PHE:CD2	3.04	0.45
9:BI:47:VAL:HG12	9:BI:78:ILE:HG22	1.98	0.45
9:BI:52:GLU:O	9:BI:54:VAL:O	2.34	0.45
1:AA:945:G:N1	1:AA:1337:G:C2	2.84	0.45
32:DH:2:GLN:HA	32:DH:2:GLN:OE1	2.15	0.45
27:DC:73:ILE:H	27:DC:73:ILE:HD12	1.78	0.45
31:DG:30:GLY:N	31:DG:78:VAL:HG12	2.30	0.45
9:AI:123:ARG:CG	9:AI:124:PRO:HD2	2.46	0.45
31:DG:7:PRO:HB3	31:DG:49:LEU:O	2.16	0.45
9:AI:40:ARG:H	9:AI:44:ARG:HB3	1.82	0.45
5:BE:136:VAL:HA	5:BE:139:THR:OG1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BB:182:VAL:HG12	2:BB:195:VAL:HG13	1.99	0.45
1:BA:1114:C:H2'	1:BA:1114:C:O2	2.16	0.45
43:DS:59:GLU:HA	43:DS:64:ALA:CA	2.46	0.45
25:CA:1724:G:C5	25:CA:1725:U:C5	3.04	0.45
25:CA:1735:A:C4	25:CA:1736:U:C5	3.04	0.45
25:DA:1824:G:H2'	25:DA:1825:U:H5'	1.98	0.45
4:AD:186:GLU:HA	4:AD:186:GLU:OE1	2.15	0.45
15:AO:87:ARG:O	15:AO:88:ARG:HB2	2.15	0.45
44:CT:2:ILE:HG23	44:CT:7:LEU:CD1	2.46	0.45
44:CT:5:GLU:O	44:CT:6:ARG:C	2.54	0.45
3:AC:100:ILE:O	3:AC:100:ILE:HG23	2.16	0.45
38:CN:9:GLN:O	38:CN:10:LEU:C	2.55	0.45
25:CA:1928:A:C3'	25:CA:1929:G:H5"	2.46	0.45
25:CA:1519:G:H2'	25:CA:1520:U:O4'	2.16	0.45
3:AC:110:LEU:HD13	3:AC:203:LYS:HE3	1.98	0.45
6:BF:18:VAL:CB	6:BF:19:PRO:HD3	2.45	0.45
6:BF:25:TYR:O	6:BF:27:ALA:N	2.49	0.45
1:AA:614:C:H2'	1:AA:615:G:O4'	2.16	0.45
32:DH:143:ILE:CG2	32:DH:144:VAL:N	2.79	0.45
25:CA:242:G:H5"	54:C3:63:TYR:CZ	2.50	0.45
55:C4:3:VAL:CG1	55:C4:36:ARG:HB3	2.45	0.45
1:BA:853:C:C2	1:BA:854:U:C6	3.03	0.45
25:DA:2767:C:C2'	25:DA:2768:U:H5'	2.45	0.45
1:AA:1378:C:C3'	1:AA:1378:C:C6	2.99	0.45
1:AA:1379:G:N7	7:AG:1:PRO:HB2	2.30	0.45
29:CE:138:LEU:HD22	29:CE:143:LEU:HB2	1.98	0.45
25:DA:1429:G:H2'	25:DA:1430:G:H8	1.81	0.45
25:DA:2472:G:H3'	25:DA:2473:U:C5'	2.46	0.45
1:AA:159:G:H8	1:AA:159:G:H5"	1.80	0.45
10:BJ:80:THR:O	10:BJ:84:VAL:HB	2.16	0.45
9:AI:66:VAL:HG21	9:AI:74:GLN:HB3	1.98	0.45
32:CH:41:LYS:H	32:CH:44:ILE:HG23	1.80	0.45
5:AE:55:VAL:CB	5:AE:56:PRO:CD	2.94	0.45
9:AI:91:GLU:C	9:AI:93:LEU:H	2.19	0.45
7:BG:94:ARG:HG3	7:BG:98:LEU:HG	1.97	0.45
1:AA:418:C:H2'	1:AA:419:C:C6	2.52	0.45
25:DA:1248:G:P	41:DQ:1:ALA:HB3	2.56	0.45
7:BG:34:LYS:HB2	7:BG:37:THR:HG22	1.95	0.45
37:DM:35:ALA:O	37:DM:98:PRO:HA	2.16	0.45
7:BG:145:GLU:OE1	7:BG:148:LYS:CE	2.65	0.45
25:DA:260:G:C6	25:DA:261:G:C8	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:51:ARG:HB3	16:AP:51:ARG:HH11	1.81	0.45
30:CF:41:GLU:O	30:CF:43:ILE:HG12	2.16	0.45
25:CA:1525:A:C2'	25:CA:1526:C:H5'	2.46	0.45
1:AA:293:G:C6	1:AA:294:U:C4	3.04	0.45
25:CA:2313:C:H2'	25:CA:2314:A:H5'	1.97	0.45
25:CA:896:A:H5'	25:CA:897:C:OP2	2.16	0.45
25:DA:2331:G:C2'	25:DA:2336:A:N1	2.79	0.45
25:CA:771:G:C6	25:CA:772:C:C4	3.04	0.45
13:BM:51:GLN:O	13:BM:55:LEU:HD12	2.16	0.45
25:DA:2738:A:C2	25:DA:2739:U:H1'	2.51	0.45
1:AA:299:G:C6	1:AA:300:A:C6	3.04	0.45
25:CA:184:C:H2'	25:CA:185:G:H8	1.81	0.45
25:CA:2039:U:H2'	25:CA:2040:G:C8	2.51	0.45
25:DA:1347:A:H2'	25:DA:1348:C:O5'	2.16	0.45
8:BH:100:ILE:HD12	8:BH:100:ILE:H	1.81	0.45
1:AA:54:C:O2	1:AA:54:C:H2'	2.16	0.45
1:AA:1441:A:H62	1:AA:1461:G:H21	1.65	0.45
1:AA:1013:G:H3'	1:AA:1013:G:C8	2.51	0.45
31:CG:120:ILE:O	31:CG:121:THR:HG23	2.16	0.45
1:AA:1386:G:H2'	1:AA:1387:G:C8	2.51	0.45
1:AA:525:C:C4	1:AA:526:C:N4	2.84	0.45
25:CA:2094:A:OP1	32:CH:22:LYS:HD2	2.16	0.45
25:DA:2857:G:N2	25:DA:2859:G:H3'	2.31	0.45
25:DA:709:U:C2'	25:DA:710:U:H5'	2.46	0.45
28:DD:113:SER:HB3	28:DD:170:VAL:HG21	1.97	0.45
1:BA:758:C:H2'	1:BA:759:A:OP2	2.17	0.45
1:BA:1202:U:H2'	1:BA:1202:U:O2	2.15	0.45
25:CA:653:U:H2'	25:CA:654:A:OP1	2.16	0.45
3:BC:70:ALA:O	3:BC:72:PRO:HD3	2.16	0.45
25:DA:2640:G:O5'	25:DA:2640:G:H8	1.99	0.45
25:CA:198:C:H6	25:CA:198:C:O5'	2.00	0.45
25:DA:2504:U:H5"	25:DA:2505:G:OP2	2.16	0.45
3:BC:106:ARG:HD3	3:BC:106:ARG:H	1.81	0.45
25:DA:997:G:H5"	41:DQ:91:ARG:HH21	1.80	0.45
1:BA:1266:G:N2	1:BA:1269:A:OP2	2.48	0.45
1:BA:936:C:C2'	1:BA:937:A:H5'	2.46	0.45
1:BA:939:G:C6	1:BA:940:C:N4	2.84	0.45
13:BM:21:ILE:CG2	13:BM:22:TYR:N	2.79	0.45
19:BS:35:ARG:O	19:BS:36:ARG:C	2.54	0.45
25:CA:2171:A:H3'	25:CA:2173:A:C8	2.51	0.45
4:BD:22:SER:O	4:BD:26:ALA:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1075:C:C6	25:CA:1075:C:C3'	2.99	0.45
2:AB:139:GLU:O	2:AB:143:LEU:CD2	2.64	0.45
19:AS:4:LEU:C	19:AS:5:LYS:HG3	2.36	0.45
1:BA:1256:A:N7	1:BA:1258:G:C2	2.84	0.45
1:BA:1276:G:H2'	1:BA:1277:C:H6	1.81	0.45
37:CM:57:VAL:O	37:CM:57:VAL:HG23	2.15	0.45
25:DA:2347:C:C2	25:DA:2348:U:C5	3.04	0.45
25:DA:1416:G:C4	25:DA:1417:C:C5	3.03	0.45
2:AB:209:VAL:O	2:AB:210:THR:C	2.54	0.45
5:BE:154:ALA:HB1	8:BH:65:PHE:CD2	2.51	0.45
36:DL:132:ARG:HG3	36:DL:142:ILE:CD1	2.46	0.45
38:DN:76:VAL:O	38:DN:79:LEU:HD12	2.15	0.45
20:AT:22:SER:O	20:AT:25:SER:HB3	2.15	0.45
25:DA:2785:C:H2'	25:DA:2786:U:H6	1.81	0.45
25:DA:2114:A:N3	25:DA:2114:A:H2'	2.30	0.45
1:AA:1032:G:C2	1:AA:1033:G:C1'	2.95	0.45
1:AA:457:G:C5	1:AA:458:U:C5	3.04	0.45
25:DA:1124:G:C2'	25:DA:1125:G:H5'	2.47	0.45
33:CI:100:ILE:HG22	33:CI:104:GLN:CB	2.45	0.45
5:BE:14:LEU:CD1	5:BE:14:LEU:C	2.84	0.45
10:BJ:57:VAL:HG22	10:BJ:58:ASN:H	1.81	0.45
16:AP:70:ARG:HB2	16:AP:70:ARG:HH11	1.81	0.45
9:BI:19:PHE:HB2	9:BI:63:TYR:O	2.17	0.45
1:BA:16:A:C5	1:BA:17:U:C5	3.04	0.45
9:AI:123:ARG:HG3	9:AI:124:PRO:HD2	1.99	0.45
14:AN:86:GLU:HB3	14:AN:90:ARG:NH2	2.31	0.45
45:DU:39:ASN:CB	45:DU:62:ALA:O	2.64	0.45
25:DA:1179:G:C8	25:DA:1180:U:O4'	2.70	0.45
36:CL:81:ASP:CG	36:CL:100:ILE:HD13	2.37	0.45
9:BI:59:LYS:O	9:BI:59:LYS:HD2	2.17	0.45
3:AC:89:VAL:O	3:AC:93:ILE:HB	2.16	0.45
25:DA:1359:A:N6	25:DA:1360:G:C2	2.84	0.45
7:BG:55:LYS:O	7:BG:56:SER:O	2.35	0.45
25:CA:2228:G:H2'	25:CA:2229:U:C6	2.50	0.45
7:BG:22:LEU:O	7:BG:26:VAL:HG22	2.16	0.45
13:AM:76:ILE:HG22	13:AM:77:LYS:N	2.31	0.45
25:DA:1775:U:P	60:DA:3454:HOH:O	2.74	0.45
1:AA:379:C:H2'	1:AA:380:G:H5'	1.97	0.45
1:BA:1137:C:H1'	1:BA:1138:G:N2	2.31	0.45
25:DA:88:G:H2'	25:DA:89:A:C5'	2.46	0.45
41:CQ:91:ARG:H	41:CQ:91:ARG:HG2	1.62	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1180:A:P	9:AI:104:THR:HG23	2.56	0.45
1:AA:414:A:C4	1:AA:415:A:C8	3.04	0.45
25:CA:411:G:OP2	25:CA:2406:A:O2'	2.31	0.45
7:AG:21:LEU:CD1	7:AG:22:LEU:HD23	2.47	0.45
25:CA:2332:C:H2'	25:CA:2335:A:N3	2.31	0.45
40:CP:8:GLU:HB3	40:CP:54:LEU:HB2	1.99	0.45
1:BA:2:A:N3	1:BA:613:C:O2'	2.48	0.45
28:DD:15:PHE:HA	28:DD:20:VAL:O	2.17	0.45
2:BB:48:MET:C	2:BB:50:ASN:N	2.70	0.45
33:DI:9:LYS:CB	33:DI:55:PRO:CB	2.88	0.45
33:DI:99:LYS:HA	33:DI:138:VAL:H	1.81	0.45
24:AY:150:SER:C	24:AY:152:ASP:N	2.69	0.45
25:DA:2248:C:H6	25:DA:2248:C:O5'	1.99	0.45
30:CF:56:LEU:HD12	30:CF:64:PRO:HB2	1.97	0.45
25:DA:2377:A:O2'	25:DA:2378:A:H5'	2.16	0.45
52:D1:8:ILE:HD11	52:D1:22:THR:CG2	2.46	0.45
24:AY:133:ARG:HG2	24:AY:165:THR:OG1	2.17	0.45
25:CA:1301:A:C2	25:CA:1303:G:C6	3.03	0.45
49:CY:28:LEU:HD23	49:CY:37:LEU:HD21	1.98	0.45
25:CA:2393:U:O3'	36:CL:62:PRO:HA	2.15	0.45
1:BA:1381:U:C5	1:BA:1382:C:H5	2.34	0.45
25:DA:1576:U:O2'	25:DA:1577:C:H5'	2.16	0.45
1:AA:952:U:H4'	1:AA:964:A:H61	1.82	0.45
13:BM:36:ALA:HB3	13:BM:38:ILE:HG12	1.98	0.45
35:CK:122:VAL:OXT	35:CK:122:VAL:CG1	2.64	0.45
25:DA:447:A:C5	25:DA:454:A:N7	2.84	0.45
25:DA:2221:G:H2'	25:DA:2222:C:H5'	1.97	0.45
31:CG:51:PHE:CD2	31:CG:51:PHE:N	2.84	0.45
25:CA:1681:G:N3	25:CA:1762:A:H2'	2.31	0.45
25:DA:40:U:H2'	25:DA:41:C:C6	2.51	0.45
25:CA:1292:G:C2'	25:CA:1293:C:O5'	2.65	0.45
1:BA:516:U:H2'	1:BA:517:G:H5'	1.98	0.45
25:CA:1766:G:O2'	25:CA:1767:G:H5'	2.16	0.45
1:AA:794:A:C6	1:AA:795:C:C4	3.04	0.45
1:AA:1435:G:O6	1:AA:1465:A:N6	2.49	0.45
10:AJ:92:LEU:O	10:AJ:93:ALA:HB3	2.15	0.45
1:AA:600:A:C4	1:AA:639:G:C2	3.04	0.45
25:DA:258:G:H8	25:DA:258:G:O5'	1.99	0.45
29:DE:28:VAL:O	29:DE:32:VAL:HG23	2.16	0.45
23:AX:5:A:C5'	23:AX:6:G:OP2	2.65	0.45
13:AM:79:LEU:HD23	13:AM:86:ARG:HD3	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DX:70:LEU:HB2	48:DX:75:GLU:HB2	1.97	0.45
31:CG:34:ARG:HG2	31:CG:35:THR:H	1.81	0.45
1:BA:636:U:H2'	1:BA:637:C:C6	2.52	0.45
50:CZ:41:PRO:O	50:CZ:45:GLY:N	2.49	0.45
37:DM:65:ILE:O	37:DM:65:ILE:HG22	2.16	0.45
25:DA:490:C:H4'	25:DA:491:G:OP2	2.16	0.45
6:AF:74:LEU:HD23	6:AF:78:PHE:CZ	2.51	0.45
4:BD:5:GLY:O	4:BD:6:PRO:C	2.53	0.45
25:CA:1080:A:N3	25:CA:1080:A:C2'	2.79	0.45
25:CA:1059:G:O2'	33:CI:128:ILE:HA	2.16	0.45
2:AB:80:LYS:CG	2:AB:84:LEU:HD22	2.47	0.45
1:AA:1317:C:H2'	1:AA:1318:A:O5'	2.16	0.45
17:AQ:15:LYS:N	17:AQ:16:MET:CE	2.80	0.45
1:BA:1151:A:C5'	10:BJ:44:THR:H	2.29	0.45
25:DA:2211:A:C1'	25:DA:2212:A:OP1	2.64	0.45
13:BM:57:ASP:O	13:BM:60:ALA:N	2.49	0.45
25:CA:1169:A:H8	25:CA:1169:A:O5'	1.99	0.45
1:BA:1000:A:C2	1:BA:1001:C:C2	3.05	0.45
38:DN:24:MET:CE	38:DN:44:LEU:HB2	2.45	0.45
25:DA:410:G:O3'	25:DA:2407:A:OP2	2.34	0.45
39:DO:66:GLY:HA2	39:DO:102:ARG:NH2	2.32	0.45
1:AA:438:U:O2'	1:AA:439:U:P	2.75	0.45
5:AE:131:ASN:ND2	5:AE:131:ASN:C	2.68	0.45
5:AE:90:GLY:O	5:AE:128:GLY:HA3	2.15	0.45
1:AA:79:G:H2'	1:AA:80:A:C8	2.51	0.45
25:CA:1461:C:H2'	25:CA:1462:C:O5'	2.16	0.45
31:DG:61:TRP:O	31:DG:64:ALA:N	2.49	0.45
3:BC:46:LEU:HB3	3:BC:49:ALA:CB	2.45	0.45
1:AA:375:U:N3	1:AA:376:G:C8	2.85	0.45
16:AP:72:ALA:O	16:AP:75:ILE:HD12	2.15	0.45
1:AA:1285:A:C5'	1:AA:1286:U:C4	2.98	0.45
1:AA:1304:G:C6	1:AA:1305:G:N1	2.84	0.45
32:DH:40:THR:O	32:DH:42:LYS:HB3	2.16	0.45
2:BB:172:ILE:O	2:BB:173:LYS:C	2.55	0.45
35:DK:114:LYS:O	35:DK:114:LYS:HD2	2.16	0.45
1:AA:1348:U:O4	1:AA:1374:A:C8	2.70	0.45
1:BA:1095:U:H5'	1:BA:1109:C:O2	2.16	0.45
24:AY:74:SER:O	24:AY:77:PRO:HD2	2.16	0.45
6:BF:74:LEU:O	6:BF:76:THR:N	2.49	0.45
25:DA:280:U:N3	25:DA:281:C:C4	2.85	0.45
40:DP:45:VAL:HG12	40:DP:46:VAL:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1870:C:H5”	25:CA:1871:A:C8	2.51	0.45
36:CL:127:VAL:HG13	36:CL:131:ALA:HB3	1.97	0.45
1:BA:522:C:H2’	1:BA:523:A:O4’	2.16	0.45
25:CA:2070:A:C2	25:CA:2442:C:C2	3.05	0.45
25:CA:545:U:H6	25:CA:548:G:P	2.39	0.45
25:CA:1534:U:H5’	25:CA:1535:A:P	2.56	0.45
38:CN:20:MET:HG2	38:CN:21:PHE:N	2.31	0.45
37:CM:53:MET:HE2	37:CM:53:MET:HB3	1.89	0.45
25:CA:2469:A:C4’	37:CM:55:ARG:HH12	2.23	0.45
3:BC:54:ILE:HD13	3:BC:56:ILE:HD11	1.97	0.45
1:AA:1505:G:H4’	1:AA:1506:U:C5’	2.46	0.45
25:DA:930:G:C1’	50:DZ:24:LEU:HD21	2.47	0.45
25:CA:2298:A:H2’	25:CA:2298:A:N3	2.31	0.45
20:BT:7:LYS:H	20:BT:7:LYS:HG2	1.55	0.45
9:AI:7:GLY:HA3	9:AI:84:ARG:C	2.36	0.45
25:DA:1356:G:O2’	25:DA:1357:C:H5’	2.17	0.45
7:AG:22:LEU:O	7:AG:25:PHE:HB3	2.17	0.45
31:CG:145:ALA:O	31:CG:148:ARG:HB3	2.16	0.45
11:BK:109:ILE:CG2	21:BU:16:ARG:CZ	2.93	0.45
1:BA:369:G:H2’	1:BA:370:C:O5’	2.16	0.45
1:BA:613:C:H2’	1:BA:614:C:C6	2.52	0.45
3:BC:6:PRO:C	3:BC:9:ILE:HG22	2.37	0.45
1:AA:865:A:H2	1:AA:918:A:H4’	1.81	0.45
25:DA:878:A:C6	25:DA:900:A:C8	3.05	0.45
28:CD:136:ASN:HD21	28:CD:139:SER:C	2.20	0.45
41:DQ:81:GLY:O	41:DQ:82:LEU:C	2.55	0.45
25:DA:1188:U:H2’	25:DA:1189:A:O5’	2.17	0.45
18:BR:24:ASP:CB	18:BR:27:THR:HB	2.46	0.45
1:BA:1086:U:O2’	1:BA:1087:G:C5’	2.64	0.45
1:AA:1293:C:H2’	1:AA:1293:C:O2	2.16	0.45
25:DA:714:U:H5’	25:DA:715:A:OP2	2.17	0.45
1:AA:632:U:C6	1:AA:632:U:C3’	2.99	0.45
1:AA:632:U:C2’	1:AA:633:G:OP1	2.64	0.45
25:CA:536:G:H2’	25:CA:537:G:O5’	2.16	0.45
41:CQ:56:PHE:O	41:CQ:57:ARG:C	2.52	0.45
22:BV:76:A:N6	25:DA:2450:A:O2’	2.49	0.45
39:CO:89:ASP:HA	39:CO:116:GLN:HB3	1.96	0.45
25:DA:2803:G:O2’	25:DA:2804:U:O5’	2.34	0.45
25:DA:843:G:C6	25:DA:936:A:N1	2.85	0.45
25:DA:870:U:C4	25:DA:871:U:H5	2.34	0.45
25:DA:2888:C:H2’	25:DA:2888:C:O2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1718:G:N2	25:DA:1719:G:H1'	2.31	0.45
35:DK:58:LEU:N	35:DK:58:LEU:CD2	2.79	0.45
27:CC:74:PRO:HB2	27:CC:96:LYS:HD3	1.97	0.45
25:DA:2316:G:N2	25:DA:2317:A:H1'	2.30	0.45
46:CV:21:ARG:HA	46:CV:25:LYS:O	2.17	0.45
37:DM:26:VAL:CG1	37:DM:104:GLU:OE2	2.64	0.45
39:DO:7:ARG:HG2	39:DO:7:ARG:O	2.16	0.45
31:DG:26:LYS:CB	31:DG:31:GLU:CG	2.94	0.45
25:CA:2218:G:O2'	25:CA:2219:U:H5'	2.17	0.45
5:AE:76:ASN:O	5:AE:77:ASN:HB2	2.16	0.45
25:DA:1146:C:H2'	25:DA:1146:C:O2	2.16	0.45
25:CA:1889:A:C2'	25:CA:1890:A:O5'	2.63	0.45
20:AT:20:ASN:HB3	20:AT:65:LEU:HD22	1.99	0.45
19:AS:74:ALA:N	19:AS:75:PRO:HD2	2.32	0.45
38:DN:29:VAL:HG12	38:DN:30:ARG:N	2.31	0.45
25:CA:1712:U:C4	25:CA:1713:A:C6	3.05	0.45
50:CZ:53:MET:O	50:CZ:54:VAL:CG1	2.65	0.45
25:DA:2604:U:C2'	25:DA:2605:U:O5'	2.65	0.45
2:BB:150:ILE:C	2:BB:152:ASP:N	2.68	0.45
33:CI:85:ILE:HG12	33:CI:88:GLY:HA2	1.97	0.45
25:DA:1509:A:O2'	25:DA:1510:G:P	2.74	0.45
30:CF:135:ILE:O	30:CF:135:ILE:HG22	2.15	0.45
40:CP:103:THR:O	40:CP:104:GLY:C	2.54	0.45
25:CA:807:U:H1'	25:CA:2445:G:OP1	2.16	0.45
1:AA:1071:C:N3	1:AA:1105:A:C2	2.83	0.45
25:CA:813:U:H2'	25:CA:814:C:C6	2.51	0.45
1:BA:294:U:H2'	1:BA:295:C:C6	2.52	0.45
25:CA:1641:A:H2'	25:CA:1642:G:O4'	2.16	0.45
31:DG:109:SER:O	31:DG:110:HIS:HB3	2.17	0.45
24:AY:177:ALA:O	24:AY:178:ASP:C	2.53	0.45
28:DD:1:MET:HE3	28:DD:1:MET:H3	1.81	0.45
39:DO:116:GLN:N	39:DO:116:GLN:OE1	2.50	0.45
6:AF:25:TYR:N	6:AF:25:TYR:CD2	2.84	0.45
31:CG:82:PHE:N	31:CG:82:PHE:CD2	2.83	0.45
29:CE:154:ASP:C	29:CE:154:ASP:OD2	2.55	0.45
1:BA:1435:G:H2'	1:BA:1436:U:C6	2.51	0.45
1:BA:983:A:O2'	1:BA:984:C:O5'	2.33	0.45
13:BM:63:VAL:O	13:BM:68:LEU:HD13	2.16	0.45
19:BS:9:PHE:CD1	19:BS:9:PHE:C	2.90	0.45
33:DI:53:PRO:O	33:DI:74:PRO:HD2	2.15	0.45
25:CA:1056:G:H4'	25:CA:1086:A:H8	1.77	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CI:75:ALA:HB1	33:CI:128:ILE:HG23	1.98	0.45
2:AB:53:LEU:HD13	2:AB:56:LEU:HD12	1.98	0.45
2:AB:95:TRP:CZ3	2:AB:97:GLY:HA2	2.51	0.45
1:AA:1270:G:O3'	1:AA:1314:C:H5'	2.15	0.45
1:AA:261:U:C5	20:AT:73:ARG:NH1	2.85	0.45
1:AA:1277:C:H1'	1:AA:1282:C:H1'	1.99	0.45
25:DA:2293:G:H5"	39:DO:94:ARG:HH12	1.82	0.45
23:AX:7:G:H2'	23:AX:8:A:O4'	2.17	0.45
41:CQ:86:SER:HB2	42:CR:51:VAL:HA	1.98	0.45
13:AM:38:ILE:HD13	13:AM:38:ILE:N	2.32	0.45
25:DA:1556:C:H2'	25:DA:1557:C:O5'	2.16	0.45
3:AC:52:SER:OG	3:AC:52:SER:O	2.32	0.45
3:AC:6:PRO:HG2	3:AC:183:TYR:CD1	2.52	0.45
56:DB:43:C:O2	30:DF:89:THR:HG21	2.16	0.45
25:DA:319:G:O2'	25:DA:320:A:O5'	2.34	0.45
25:DA:322:A:H5'	25:DA:340:A:H1'	1.98	0.45
11:BK:63:GLN:O	11:BK:66:ALA:HB3	2.16	0.45
1:AA:451:A:H5'	16:AP:70:ARG:HH22	1.81	0.45
9:BI:47:VAL:O	9:BI:50:PRO:HD2	2.16	0.45
27:DC:144:GLU:HG2	27:DC:151:GLY:N	2.29	0.45
25:CA:2157:G:H8	25:CA:2157:G:OP2	2.00	0.45
10:AJ:53:ILE:HG22	10:AJ:54:SER:N	2.31	0.45
1:BA:1096:C:N4	1:BA:1097:C:N4	2.65	0.45
10:BJ:6:ILE:O	10:BJ:8:ILE:N	2.50	0.45
6:BF:6:ILE:HB	6:BF:62:MET:HB3	1.98	0.45
1:AA:1492:A:N3	25:CA:1913:A:N6	2.65	0.45
45:DU:6:ARG:O	45:DU:8:ASP:HB3	2.16	0.45
2:AB:14:HIS:CD2	2:AB:14:HIS:C	2.89	0.45
2:BB:153:MET:O	2:BB:154:GLY:O	2.35	0.45
25:CA:1735:A:H2'	25:CA:1736:U:H6	1.82	0.45
21:BU:8:ASN:OD1	21:BU:8:ASN:N	2.49	0.45
21:AU:7:GLU:CB	21:AU:11:PHE:HZ	2.26	0.45
25:DA:1361:G:C5	25:DA:1371:G:N2	2.85	0.45
25:DA:64:A:C6	25:DA:65:U:C4	3.04	0.45
1:BA:1506:U:H2'	60:BA:1884:HOH:O	2.17	0.45
25:DA:2756:U:C4'	25:DA:2757:A:O5'	2.65	0.45
1:BA:149:A:H2'	1:BA:149:A:N3	2.32	0.45
17:AQ:44:HIS:ND1	17:AQ:69:THR:HG21	2.30	0.45
1:AA:1475:G:C2'	1:AA:1476:A:H5'	2.46	0.45
17:BQ:35:LYS:CG	17:BQ:37:ILE:HD11	2.47	0.45
25:CA:1173:U:H2'	25:CA:1173:U:O2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:186:G:C2'	25:DA:187:G:H5'	2.45	0.45
40:CP:30:TRP:CE2	40:CP:39:LEU:CD1	2.99	0.45
1:BA:253:A:C2	1:BA:254:G:C4	3.04	0.45
40:DP:74:GLN:O	40:DP:77:SER:HB3	2.16	0.45
30:DF:5:ASP:HA	30:DF:8:LYS:HD2	1.98	0.45
8:BH:74:ILE:HA	8:BH:127:TYR:O	2.16	0.45
1:AA:403:C:O2'	1:AA:404:G:H5'	2.16	0.45
57:DW:33:ILE:HG21	57:DW:76:ILE:HG21	1.97	0.45
28:DD:85:ALA:HB3	28:DD:88:GLU:HG3	1.97	0.45
38:CN:63:ARG:HG3	38:CN:80:PHE:CE1	2.51	0.45
46:CV:48:MET:HA	46:CV:51:GLN:HG2	1.98	0.45
25:DA:282:A:C2	25:DA:283:G:C5	3.04	0.45
55:D4:22:VAL:HG11	55:D4:36:ARG:HG2	1.99	0.45
37:DM:130:PHE:HD2	37:DM:131:VAL:N	2.14	0.45
22:BV:5:G:C4	22:BV:69:G:N2	2.84	0.45
25:DA:181:A:C4	25:DA:435:C:C6	3.04	0.45
4:AD:77:GLU:O	4:AD:80:ARG:N	2.49	0.45
45:DU:52:ASN:OD1	45:DU:52:ASN:N	2.50	0.45
25:DA:398:C:OP1	48:DX:52:ALA:CB	2.64	0.45
25:DA:2007:U:O5'	25:DA:2007:U:H6	1.99	0.45
25:DA:359:G:C6	25:DA:360:U:C2	3.04	0.45
27:CC:202:ARG:O	27:CC:202:ARG:HG2	2.15	0.45
37:CM:24:THR:HG22	37:CM:25:ASP:OD1	2.15	0.45
7:BG:72:VAL:HG12	7:BG:89:GLU:HA	1.98	0.45
1:BA:1187:G:H2'	1:BA:1188:A:H8	1.81	0.45
1:BA:1154:G:C2	1:BA:1155:A:C8	3.04	0.45
25:DA:840:C:O2	25:DA:939:G:C6	2.69	0.45
25:CA:245:G:O6	54:C3:7:ARG:CD	2.64	0.45
1:AA:939:G:C6	1:AA:940:C:N4	2.84	0.45
1:AA:1206:G:H2'	1:AA:1207:G:O4'	2.17	0.45
25:CA:866:A:C5	25:CA:867:C:C5	3.05	0.45
42:DR:79:ARG:HG3	42:DR:79:ARG:O	2.17	0.45
37:CM:14:LYS:HE3	37:CM:14:LYS:HB2	1.80	0.45
1:AA:1422:G:N2	1:AA:1423:G:C4	2.85	0.45
5:BE:57:ALA:O	5:BE:60:GLN:HB3	2.16	0.45
1:BA:1350:A:H2'	1:BA:1351:U:O4'	2.17	0.45
1:BA:952:U:H2'	1:BA:953:G:H8	1.81	0.45
1:BA:1328:C:H5"	13:BM:27:THR:HB	1.99	0.45
33:DI:17:ALA:O	33:DI:18:ASN:CB	2.64	0.45
1:BA:428:G:O4'	1:BA:430:A:C8	2.70	0.45
25:DA:1315:C:C2'	25:DA:1316:U:O5'	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:216:VAL:HA	2:AB:219:THR:CG2	2.46	0.45
1:AA:1217:C:C2	1:AA:1218:C:C5	3.03	0.45
32:DH:9:VAL:HG12	32:DH:12:LEU:HG	1.99	0.45
32:DH:9:VAL:HA	32:DH:35:LYS:HE2	1.98	0.45
2:BB:187:ASP:OD2	2:BB:202:ASN:HA	2.16	0.45
5:BE:80:LEU:HB3	5:BE:146:MET:HE3	1.99	0.45
25:DA:1589:U:H2'	25:DA:1590:A:H8	1.78	0.45
36:DL:96:LYS:CE	36:DL:103:ILE:O	2.65	0.45
56:DB:28:C:H2'	56:DB:29:A:C8	2.51	0.45
39:DO:47:VAL:O	39:DO:48:LEU:CD2	2.65	0.45
28:DD:105:LYS:O	28:DD:177:VAL:HG12	2.17	0.45
4:AD:115:GLN:HA	4:AD:115:GLN:HE21	1.82	0.45
4:AD:176:LYS:HB3	4:AD:178:GLU:HG2	1.98	0.45
21:AU:33:ARG:HH22	21:AU:34:ARG:HD2	1.81	0.45
1:BA:190:A:C2'	1:BA:191:G:O5'	2.64	0.45
5:AE:33:THR:HG22	5:AE:51:LYS:CB	2.45	0.45
5:AE:79:THR:HG23	5:AE:80:LEU:O	2.16	0.45
25:CA:196:A:N3	25:CA:196:A:H2'	2.31	0.45
1:AA:67:C:H4'	1:AA:172:A:O4'	2.17	0.45
1:AA:71:A:C3'	1:AA:71:A:OP2	2.62	0.45
1:AA:93:U:C2'	1:AA:94:G:H5"	2.47	0.45
1:AA:69:G:O6	1:AA:98:A:N6	2.50	0.45
14:AN:42:TRP:N	14:AN:42:TRP:CE3	2.84	0.45
20:BT:28:ARG:O	20:BT:32:LYS:HG2	2.16	0.45
20:BT:42:ASP:HB2	20:BT:45:ALA:HB3	1.93	0.45
31:DG:83:THR:HG23	31:DG:133:LYS:HG3	1.97	0.45
25:CA:1413:A:N1	25:CA:1590:A:C2	2.84	0.45
1:AA:1241:G:N3	1:AA:1242:G:C8	2.84	0.45
27:DC:69:ASN:O	27:DC:70:LYS:C	2.54	0.45
25:CA:2154:A:C2	25:CA:2155:U:C4	3.05	0.45
1:AA:1048:G:OP1	14:AN:2:LYS:HA	2.16	0.45
16:BP:20:VAL:CG2	16:BP:32:PHE:HB2	2.46	0.45
10:BJ:24:GLU:C	10:BJ:26:VAL:N	2.69	0.45
36:CL:132:ARG:NH1	36:CL:142:ILE:HG21	2.31	0.45
27:DC:106:PRO:HD2	27:DC:109:LEU:HD22	1.99	0.45
25:CA:138:U:OP2	25:CA:139:U:H5"	2.16	0.45
25:DA:1026:G:OP1	25:DA:1134:A:H1'	2.16	0.45
11:BK:87:GLY:N	11:BK:113:THR:HG22	2.31	0.45
33:CI:33:ASN:CB	33:CI:36:GLU:HG3	2.38	0.45
1:BA:1355:G:C2	1:BA:1356:G:C4	3.05	0.45
38:DN:103:ARG:NE	38:DN:110:MET:CE	2.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:827:U:O4	1:BA:870:U:C2	2.69	0.45
1:AA:539:A:H2'	1:AA:540:G:C8	2.50	0.45
1:AA:549:C:C2'	1:AA:550:G:O5'	2.64	0.45
7:AG:24:LYS:HB3	7:AG:100:MET:HE1	1.99	0.45
7:AG:70:PRO:O	7:AG:95:ARG:HD3	2.15	0.45
7:AG:61:PHE:CD1	7:AG:62:GLU:N	2.85	0.45
55:C4:3:VAL:O	55:C4:4:ARG:HB3	2.16	0.45
27:DC:119:VAL:HG13	27:DC:132:ARG:HH11	1.81	0.45
25:DA:2679:A:O2'	25:DA:2680:U:H5'	2.16	0.45
28:CD:56:LYS:O	28:CD:57:ALA:O	2.35	0.45
25:DA:1738:G:O2'	25:DA:1739:A:OP2	2.34	0.45
1:AA:781:A:C5	1:AA:802:A:C2	3.04	0.45
40:DP:5:LYS:O	40:DP:9:GLN:HG2	2.17	0.45
3:BC:137:VAL:O	3:BC:138:GLN:C	2.55	0.45
25:DA:2478:A:C2	25:DA:2529:G:H2'	2.52	0.45
5:BE:130:THR:O	5:BE:130:THR:HG23	2.17	0.45
43:DS:89:ALA:O	43:DS:90:LYS:HB2	2.16	0.45
1:BA:623:C:N3	1:BA:624:C:C5	2.84	0.45
4:BD:129:VAL:HG11	4:BD:134:TYR:CD1	2.51	0.45
1:AA:918:A:C2'	1:AA:919:A:O5'	2.64	0.45
25:CA:2204:G:O5'	27:CC:149:LYS:CE	2.65	0.45
25:CA:1098:A:H5'	25:CA:1099:G:OP2	2.17	0.45
1:AA:1021:A:H2'	1:AA:1022:A:O4'	2.15	0.45
38:DN:86:ARG:O	38:DN:86:ARG:HG2	2.17	0.45
7:BG:145:GLU:C	7:BG:147:ASN:N	2.69	0.45
30:CF:110:ILE:HB	30:CF:113:PHE:HB2	1.98	0.45
38:DN:37:THR:OG1	38:DN:40:LYS:HB2	2.17	0.45
1:BA:1204:A:H2'	1:BA:1205:U:O4'	2.17	0.45
1:BA:577:G:C8	1:BA:816:A:N1	2.85	0.45
25:DA:2648:G:C5	25:DA:2649:C:C4	3.04	0.45
2:BB:165:ALA:CB	2:BB:186:VAL:HG12	2.44	0.45
25:DA:558:U:O5'	25:DA:558:U:H6	1.99	0.45
46:CV:25:LYS:HE2	46:CV:43:ASP:HB2	1.98	0.45
1:AA:1098:C:C4	1:AA:1099:G:N7	2.85	0.45
25:DA:71:A:OP2	25:DA:113:U:C5'	2.64	0.45
46:DV:75:GLN:CB	46:DV:92:VAL:HG23	2.47	0.45
50:CZ:34:THR:HG22	50:CZ:35:VAL:H	1.82	0.45
1:BA:791:G:C5	1:BA:792:A:N7	2.84	0.45
45:DU:55:GLY:O	45:DU:56:GLY:O	2.35	0.45
32:CH:104:THR:HG22	32:CH:109:GLU:HA	1.98	0.45
1:BA:1341:U:H5'	22:BV:32:U:H5"	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BC:182:ASP:HB2	3:BC:203:LYS:HE3	1.97	0.45
3:AC:135:ARG:O	3:AC:138:GLN:HB2	2.16	0.45
25:CA:21:A:O2'	25:CA:22:C:H5'	2.17	0.45
19:AS:19:GLU:C	19:AS:21:ALA:N	2.69	0.45
38:CN:32:GLU:CD	38:CN:86:ARG:HH22	2.19	0.45
12:BL:17:LYS:C	12:BL:17:LYS:HD2	2.36	0.45
16:BP:52:LEU:CD2	16:BP:54:LEU:HD21	2.46	0.45
6:AF:1:MET:HG3	6:AF:66:ALA:C	2.37	0.45
25:DA:2854:G:H2'	25:DA:2855:C:O5'	2.17	0.45
25:CA:205:G:O2'	25:CA:206:U:P	2.74	0.45
8:BH:41:GLU:CD	8:BH:41:GLU:O	2.54	0.45
2:AB:196:ASP:N	2:AB:196:ASP:OD1	2.49	0.45
1:AA:264:C:N4	1:AA:265:G:C6	2.85	0.45
1:BA:1374:A:H2'	1:BA:1375:A:H5'	1.99	0.45
33:DI:73:PRO:HB2	33:DI:74:PRO:CD	2.46	0.45
25:DA:1394:U:C3'	25:DA:1394:U:C6	3.00	0.45
25:CA:1076:C:H2'	25:CA:1077:A:C1'	2.46	0.45
1:AA:1319:A:C8	1:AA:1323:G:C5	3.04	0.45
1:AA:957:U:H1'	1:AA:960:U:N3	2.31	0.45
17:AQ:13:SER:CB	17:AQ:21:VAL:HG12	2.46	0.45
10:AJ:40:ILE:CB	10:AJ:73:LEU:HB2	2.46	0.45
1:BA:1151:A:C2	1:BA:1152:A:C8	3.04	0.45
13:BM:4:ALA:HB2	13:BM:56:ARG:CG	2.46	0.45
32:DH:9:VAL:HG11	32:DH:12:LEU:CG	2.47	0.45
25:CA:1180:U:C2'	25:CA:1181:U:H5'	2.42	0.45
2:BB:183:PHE:HB3	2:BB:199:ILE:HD11	1.99	0.45
16:BP:6:LEU:HB3	16:BP:17:TYR:CD2	2.52	0.45
5:BE:104:ILE:H	5:BE:121:ASN:C	2.20	0.45
25:DA:1585:C:H2'	25:DA:1586:A:H5'	1.97	0.45
3:BC:123:LEU:HD21	3:BC:129:PHE:HB3	1.98	0.45
11:AK:75:GLU:CA	11:AK:75:GLU:OE1	2.65	0.45
6:AF:4:TYR:OH	6:AF:68:GLN:HB3	2.17	0.45
6:AF:92:THR:CG2	6:AF:93:LYS:N	2.74	0.45
38:DN:46:ARG:O	38:DN:50:PRO:HG2	2.16	0.45
1:AA:144:G:N2	1:AA:145:G:H1'	2.31	0.45
20:AT:22:SER:O	20:AT:23:ARG:C	2.55	0.45
1:AA:176:C:H5"	20:AT:23:ARG:NH1	2.31	0.45
4:BD:191:SER:O	4:BD:192:ALA:HB3	2.17	0.45
10:AJ:35:GLN:HG2	10:AJ:78:GLU:N	2.31	0.45
56:DB:51:G:C2	56:DB:52:A:N7	2.84	0.45
56:DB:53:A:C2	56:DB:54:G:C8	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CI:103:ALA:O	33:CI:105:LEU:N	2.50	0.45
1:BA:972:C:H4'	10:BJ:59:LYS:HG3	1.99	0.45
1:BA:1240:U:C4	7:BG:115:MET:HG2	2.52	0.45
3:BC:71:ARG:HB3	3:BC:74:ILE:HG21	1.96	0.45
31:DG:112:VAL:HG21	31:DG:150:TYR:HD2	1.81	0.45
25:CA:960:A:C5'	25:CA:961:C:OP2	2.58	0.45
2:BB:174:GLU:O	2:BB:178:LEU:CD2	2.65	0.45
1:BA:1079:G:C6	1:BA:1080:A:N6	2.84	0.45
40:CP:15:ASP:O	40:CP:16:VAL:C	2.55	0.45
10:BJ:36:VAL:HG12	10:BJ:38:GLY:H	1.82	0.45
9:AI:18:VAL:HG11	9:AI:82:ILE:CA	2.46	0.45
6:BF:40:GLU:HB3	6:BF:42:TRP:HE1	1.81	0.45
6:BF:82:ASP:N	6:BF:82:ASP:OD2	2.49	0.45
6:BF:97:THR:O	6:BF:98:GLU:CG	2.64	0.45
6:BF:97:THR:O	6:BF:98:GLU:HB3	2.16	0.45
25:CA:1869:G:C5	25:CA:1871:A:OP2	2.70	0.45
52:C1:16:THR:CG2	52:C1:41:VAL:CG1	2.95	0.45
36:CL:110:VAL:O	36:CL:110:VAL:HG12	2.17	0.45
27:DC:203:VAL:O	27:DC:204:LEU:HB2	2.16	0.45
9:AI:20:ILE:CD1	9:AI:86:LEU:HD12	2.47	0.45
25:CA:2103:C:O2'	25:CA:2104:C:H5'	2.17	0.45
25:CA:2723:C:C2'	25:CA:2724:U:O5'	2.65	0.45
25:CA:2820:A:H4'	38:CN:3:HIS:HD2	1.74	0.45
25:DA:2748:A:C5	25:DA:2749:A:N7	2.85	0.45
25:DA:1358:G:C2'	25:DA:1359:A:OP2	2.64	0.45
38:CN:10:LEU:O	38:CN:11:ASN:C	2.53	0.45
25:DA:1019:U:OP1	25:DA:1035:U:O2'	2.26	0.45
14:BN:15:LEU:O	14:BN:55:SER:CB	2.65	0.45
1:BA:1386:G:C2	1:BA:1387:G:C5	3.05	0.45
1:BA:688:G:C5	1:BA:700:G:C2	3.05	0.45
11:BK:37:GLN:HB2	11:BK:39:ASN:ND2	2.32	0.45
50:DZ:35:VAL:HG22	50:DZ:37:ARG:CZ	2.46	0.45
32:CH:132:PHE:CE2	32:CH:142:VAL:HG23	2.52	0.45
1:BA:715:A:H2'	1:BA:716:A:C8	2.52	0.45
25:DA:693:A:O2'	25:DA:694:U:O5'	2.34	0.45
1:BA:1050:G:N2	1:BA:1209:C:C2	2.85	0.45
49:DY:6:LEU:HD13	49:DY:56:LEU:HD22	1.99	0.45
50:DZ:43:ILE:C	50:DZ:45:GLY:H	2.19	0.45
9:BI:89:TYR:CB	9:BI:93:LEU:HD11	2.47	0.45
25:DA:2467:C:H41	25:DA:2468:A:N6	2.15	0.45
25:CA:1358:G:C2'	25:CA:1359:A:OP2	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:769:U:C2	25:DA:770:G:C8	3.04	0.45
7:AG:91:ARG:O	7:AG:95:ARG:HB2	2.17	0.45
12:BL:3:VAL:HG13	12:BL:4:ASN:N	2.32	0.45
49:CY:23:ARG:O	49:CY:24:GLU:C	2.55	0.45
1:BA:1211:U:H1'	1:BA:1213:A:N1	2.31	0.45
14:BN:27:LYS:HG3	14:BN:28:ALA:N	2.31	0.45
33:DI:46:ASP:HA	33:DI:50:LYS:CD	2.45	0.45
40:DP:54:LEU:CD1	40:DP:76:HIS:HB2	2.46	0.45
3:BC:133:MET:HE3	3:BC:167:TYR:CB	2.47	0.45
17:AQ:4:ILE:HG22	17:AQ:5:ARG:HG3	1.99	0.45
10:BJ:80:THR:OG1	10:BJ:83:THR:HB	2.16	0.45
25:DA:1485:U:H2'	25:DA:1486:U:H6	1.80	0.45
1:BA:415:A:H2'	1:BA:416:G:O4'	2.16	0.45
1:AA:992:U:H4'	1:AA:993:G:O5'	2.17	0.45
1:AA:737:C:C2'	1:AA:738:C:O5'	2.64	0.45
4:AD:56:GLU:OE2	4:AD:59:LYS:HE3	2.16	0.45
1:AA:900:A:H2'	1:AA:901:A:C8	2.52	0.45
1:BA:220:G:C2'	1:BA:221:C:O5'	2.64	0.45
1:AA:1004:A:C2	1:AA:1026:G:N3	2.85	0.45
25:CA:60:G:HO2'	25:CA:61:C:P	2.39	0.45
26:CB:39:A:C2	26:CB:44:G:N3	2.84	0.45
30:CF:34:THR:HA	30:CF:88:VAL:O	2.17	0.45
37:DM:4:PRO:HB2	37:DM:7:THR:CG2	2.46	0.45
27:CC:251:THR:O	27:CC:252:LYS:C	2.54	0.45
1:BA:587:G:C2	1:BA:755:G:C5	3.04	0.45
1:BA:28:A:OP1	4:BD:72:ARG:NH2	2.50	0.45
1:BA:1422:G:N3	1:BA:1423:G:C8	2.84	0.45
8:BH:30:LYS:HE3	8:BH:30:LYS:HA	1.98	0.45
1:AA:953:G:C2	1:AA:1229:A:C2	3.04	0.45
25:CA:1392:A:N6	25:CA:1393:A:N6	2.64	0.45
25:CA:188:G:H2'	25:CA:189:G:C5'	2.46	0.45
25:CA:225:C:H2'	25:CA:226:A:H5'	1.98	0.45
55:D4:34:LYS:C	55:D4:35:GLN:HG2	2.37	0.45
25:CA:1293:C:H2'	25:CA:1294:U:O5'	2.16	0.45
8:BH:85:TYR:O	8:BH:86:LYS:CE	2.65	0.45
46:DV:25:LYS:O	46:DV:26:PHE:HB3	2.17	0.45
45:DU:71:ILE:HD11	45:DU:82:VAL:CG2	2.46	0.45
1:BA:476:U:H2'	1:BA:476:U:O2	2.16	0.45
1:BA:273:U:N3	1:BA:274:A:N7	2.64	0.45
25:DA:2049:G:C2'	25:DA:2050:C:H5'	2.47	0.45
27:CC:9:SER:O	27:CC:10:PRO:C	2.53	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CP:9:GLN:HA	40:CP:12:MET:HG3	1.99	0.45
48:CX:16:ASN:OD1	48:CX:26:ARG:HD2	2.15	0.45
25:CA:823:C:C2'	25:CA:824:U:H5'	2.47	0.45
3:BC:106:ARG:HD3	3:BC:106:ARG:N	2.31	0.45
41:CQ:35:PHE:C	41:CQ:37:ALA:N	2.70	0.45
25:DA:2788:C:H2'	25:DA:2789:C:C6	2.51	0.45
25:CA:1833:C:C4	25:CA:1834:U:C4	3.05	0.45
41:CQ:80:ASN:O	41:CQ:83:LYS:HB3	2.15	0.45
36:CL:37:GLY:O	36:CL:41:ARG:HG3	2.16	0.45
25:CA:1174:U:O4'	25:CA:1174:U:O2	2.35	0.45
32:CH:54:LEU:HD22	32:CH:54:LEU:HA	1.80	0.45
25:DA:461:C:O5'	25:DA:461:C:H6	1.99	0.45
25:DA:497:A:C2'	25:DA:498:G:H5'	2.46	0.45
25:DA:1153:C:N4	25:DA:1154:G:C6	2.85	0.45
1:BA:960:U:O2'	1:BA:1223:C:H4'	2.17	0.45
25:DA:1063:G:C8	25:DA:1064:C:C6	3.05	0.45
25:DA:1078:U:H4'	25:DA:1079:C:C5'	2.45	0.45
33:DI:37:PHE:C	33:DI:41:PHE:HB2	2.37	0.45
33:DI:56:VAL:HG23	33:DI:70:THR:N	2.32	0.45
25:CA:760:G:H2'	25:CA:761:A:H5'	1.96	0.45
1:AA:954:G:N1	1:AA:955:U:O2	2.49	0.45
37:CM:57:VAL:O	37:CM:58:LYS:C	2.53	0.45
10:BJ:53:ILE:HG13	14:BN:85:ARG:HD2	1.97	0.45
1:AA:1151:A:H5"	10:AJ:44:THR:OG1	2.16	0.45
25:DA:2205:A:C2	25:DA:2206:C:N3	2.85	0.45
25:DA:2093:G:C5	25:DA:2225:A:N7	2.85	0.45
4:AD:103:ARG:NH1	4:AD:110:ARG:HH22	2.14	0.45
2:BB:183:PHE:HA	2:BB:197:PHE:O	2.17	0.45
32:DH:62:LEU:HD13	32:DH:63:ALA:HB2	1.98	0.45
2:AB:206:ILE:CG1	2:AB:207:ARG:N	2.78	0.45
36:DL:85:VAL:CG1	36:DL:95:LEU:HD23	2.47	0.45
1:BA:994:A:C5	1:BA:1216:A:H4'	2.52	0.45
25:DA:1540:G:C4	25:DA:1541:C:C6	3.04	0.45
1:AA:1032:G:N3	1:AA:1032:G:C5'	2.80	0.45
1:AA:457:G:C6	1:AA:458:U:C4	3.04	0.45
1:AA:459:A:C2	1:AA:460:A:C5	3.05	0.45
1:AA:439:U:C5	1:AA:440:C:H5	2.32	0.45
4:AD:12:ARG:HH11	4:AD:12:ARG:HB3	1.81	0.45
4:AD:53:GLN:NE2	4:AD:202:LEU:HA	2.32	0.45
1:AA:922:G:N2	1:AA:1396:A:C5	2.85	0.45
1:AA:1397:C:O4'	1:AA:1397:C:O2	2.33	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BT:43:LYS:HG2	20:BT:86:ALA:HA	1.96	0.45
11:BK:92:ARG:HH22	21:BU:19:LYS:HD2	1.82	0.45
1:AA:946:A:H2'	1:AA:947:G:C8	2.52	0.45
2:BB:101:THR:N	2:BB:178:LEU:HD21	2.32	0.45
35:CK:99:ILE:HG21	35:CK:119:ALA:HB2	1.99	0.45
1:AA:1346:A:H5"	9:AI:121:ARG:HH12	1.82	0.45
10:AJ:67:ILE:HG22	10:AJ:67:ILE:O	2.17	0.45
14:AN:1:ALA:O	14:AN:2:LYS:HB3	2.16	0.45
1:BA:35:G:C6	1:BA:36:C:N4	2.85	0.45
12:BL:115:LYS:O	12:BL:116:TYR:HB2	2.16	0.45
2:AB:34:ARG:HE	2:AB:34:ARG:CA	2.27	0.45
9:AI:29:ILE:CD1	9:AI:38:PHE:HE2	2.30	0.45
2:AB:19:THR:O	2:AB:20:ARG:CZ	2.65	0.45
14:BN:93:ILE:HG21	14:BN:96:LEU:HB2	1.99	0.45
1:BA:1492:A:OP2	1:BA:1492:A:H8	1.99	0.45
3:AC:70:ALA:C	3:AC:72:PRO:HD3	2.36	0.45
56:DB:63:C:HO2'	56:DB:64:G:C5'	2.28	0.45
25:DA:346:A:C6	25:DA:347:A:C5	3.05	0.45
31:DG:76:ILE:HD13	31:DG:76:ILE:N	2.32	0.45
2:BB:49:PHE:HA	2:BB:212:TYR:OH	2.16	0.45
3:AC:96:VAL:CB	3:AC:97:PRO:HD2	2.41	0.45
25:DA:120:U:C1'	25:DA:149:A:N7	2.79	0.45
1:AA:489:C:C2'	1:AA:490:C:O5'	2.65	0.45
11:BK:88:PRO:HD3	21:BU:28:LEU:HD11	1.97	0.45
1:BA:1504:G:H4'	1:BA:1505:G:C4	2.52	0.45
25:DA:929:U:O2'	25:DA:930:G:H5'	2.16	0.45
25:DA:2852:G:H2'	25:DA:2853:C:C6	2.52	0.45
20:BT:4:LYS:O	20:BT:5:SER:C	2.54	0.45
27:CC:16:VAL:HG23	27:CC:203:VAL:HG22	1.97	0.45
1:AA:650:G:C5	1:AA:651:C:C5	3.05	0.45
30:CF:46:LYS:NZ	30:CF:83:PRO:HG2	2.32	0.45
1:AA:654:G:C6	1:AA:753:A:N7	2.85	0.45
25:DA:88:G:H2'	25:DA:89:A:H5'	1.98	0.45
25:CA:1172:C:C5	25:CA:1173:U:C6	3.04	0.45
25:DA:909:A:O2'	25:DA:910:A:H5'	2.16	0.45
17:BQ:46:HIS:CG	17:BQ:47:ASP:N	2.85	0.45
32:CH:7:ASP:C	32:CH:15:LEU:HD22	2.38	0.45
14:BN:46:LEU:HD11	14:BN:49:GLN:HG2	1.97	0.45
44:DT:7:LEU:CD2	44:DT:46:ALA:CB	2.94	0.45
1:AA:202:G:N2	1:AA:216:U:O2	2.49	0.45
25:DA:2591:C:H2'	25:DA:2592:G:H5'	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DC:226:PRO:HD3	27:DC:233:GLY:CA	2.43	0.45
30:DF:102:LEU:C	30:DF:107:VAL:HG23	2.37	0.45
30:DF:173:ASP:O	30:DF:174:PHE:HB3	2.17	0.45
5:AE:56:PRO:HA	5:AE:59:ILE:HG12	1.97	0.45
9:AI:93:LEU:HA	9:AI:96:GLU:OE1	2.16	0.45
26:CB:43:C:C4	26:CB:45:A:C6	3.05	0.45
20:AT:4:LYS:O	20:AT:5:SER:C	2.54	0.45
25:CA:2461:A:H1'	25:CA:2492:U:C2	2.52	0.45
1:BA:1485:U:O2'	1:BA:1486:G:H5'	2.17	0.45
25:DA:2103:C:C2	25:DA:2104:C:C5	3.04	0.45
1:AA:61:G:C5	1:AA:107:G:C2	3.04	0.45
40:DP:105:LYS:HA	40:DP:108:ARG:HD2	1.98	0.45
1:BA:1446:A:H2'	1:BA:1446:A:N3	2.32	0.45
1:BA:342:C:C2'	1:BA:343:U:H5'	2.47	0.45
25:CA:771:G:H2'	25:CA:772:C:H5'	1.99	0.45
55:D4:36:ARG:O	55:D4:37:GLN:C	2.55	0.45
25:CA:1979:U:H2'	25:CA:1980:G:O5'	2.16	0.45
1:AA:27:G:H2'	1:AA:28:A:O5'	2.17	0.45
32:DH:96:THR:HG22	32:DH:115:VAL:HG11	1.97	0.45
41:CQ:90:ASP:C	41:CQ:90:ASP:OD2	2.55	0.45
22:AV:13:C:O2'	22:AV:14:A:H5'	2.16	0.45
25:DA:1051:G:H2'	25:DA:1051:G:N3	2.32	0.45
35:CK:108:ARG:NH1	40:CP:34:GLY:CA	2.80	0.45
32:CH:46:PHE:O	32:CH:49:ALA:HB3	2.16	0.45
25:DA:776:G:C8	25:DA:793:A:C2	3.05	0.45
46:DV:17:SER:O	46:DV:20:LEU:HB3	2.16	0.45
22:BV:72:C:N4	22:BV:73:A:N6	2.65	0.45
1:AA:1399:C:O2	1:AA:1401:G:C6	2.70	0.45
1:AA:1485:U:H2'	1:AA:1486:G:H8	1.80	0.45
25:DA:1509:A:N3	25:DA:1510:G:C8	2.85	0.45
25:CA:2727:A:C2'	25:CA:2728:U:H5'	2.47	0.45
42:CR:14:VAL:HG11	42:CR:98:ILE:HD12	1.99	0.45
26:CB:61:G:H2'	26:CB:62:C:H6	1.82	0.45
57:DW:45:ALA:H	57:DW:77:SER:HB3	1.80	0.45
43:DS:97:LEU:HD23	43:DS:99:ARG:HH12	1.80	0.45
25:DA:1256:G:C2'	29:DE:77:ILE:HD11	2.46	0.45
25:DA:1479:G:H2'	25:DA:1480:C:O4'	2.17	0.45
25:CA:829:A:H5"	25:CA:831:G:N7	2.32	0.45
1:BA:1013:G:N2	1:BA:1017:U:H1'	2.32	0.45
36:CL:53:GLY:O	36:CL:54:GLN:C	2.55	0.45
25:DA:264:C:H2'	25:DA:264:C:O2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:125:THR:HA	32:DH:146:VAL:HB	1.97	0.45
48:CX:30:PRO:HB2	48:CX:32:LEU:HG	1.98	0.45
42:CR:79:ARG:O	42:CR:80:ARG:HB3	2.16	0.45
1:BA:1053:G:H5"	1:BA:1055:A:OP1	2.17	0.45
1:BA:1227:A:N1	1:BA:1228:C:O2	2.50	0.45
1:BA:935:A:H2'	1:BA:935:A:N3	2.31	0.45
1:BA:957:U:O2	1:BA:959:A:C8	2.70	0.45
13:BM:109:LYS:O	13:BM:110:GLY:O	2.35	0.45
14:BN:53:ARG:O	14:BN:59:ARG:HD2	2.17	0.45
25:CA:2172:U:OP2	25:CA:2173:A:H5"	2.16	0.45
25:DA:1071:G:N7	25:DA:1089:A:C6	2.85	0.45
1:AA:1142:G:C2'	1:AA:1143:G:H5'	2.47	0.45
25:CA:1069:A:H4'	25:CA:1070:A:C8	2.50	0.45
2:AB:133:ALA:C	2:AB:135:MET:H	2.20	0.45
2:AB:80:LYS:HB2	2:AB:90:PHE:HE1	1.81	0.45
1:AA:1216:A:N1	1:AA:1217:C:N4	2.65	0.45
10:AJ:17:LEU:C	10:AJ:17:LEU:HD23	2.37	0.45
10:AJ:73:LEU:O	10:AJ:74:VAL:CB	2.65	0.45
2:BB:93:HIS:HB2	2:BB:145:ASN:O	2.17	0.45
52:D1:39:ASP:HA	52:D1:48:TYR:OH	2.16	0.45
25:DA:1993:U:H4'	28:DD:133:THR:CG2	2.37	0.45
1:AA:1539:C:H1'	23:AX:7:G:C2	2.52	0.45
1:BA:720:C:N4	1:BA:721:G:C2	2.85	0.45
33:CI:107:GLU:CA	33:CI:110:GLN:HB3	2.40	0.45
19:BS:48:ILE:O	19:BS:48:ILE:HD12	2.17	0.45
4:BD:202:LEU:C	4:BD:204:SER:H	2.20	0.45
25:DA:2043:C:N3	25:DA:2777:G:C2	2.85	0.45
56:DB:34:A:O4'	56:DB:35:C:H5	2.00	0.45
30:DF:89:THR:O	30:DF:90:LEU:HD23	2.17	0.45
39:DO:34:HIS:HB3	39:DO:36:TYR:HE2	1.81	0.45
39:DO:51:ALA:HB1	39:DO:77:ALA:CB	2.47	0.45
25:DA:1606:C:H3'	25:DA:1606:C:C6	2.51	0.45
1:BA:767:A:H2'	1:BA:768:A:O4'	2.16	0.45
1:BA:1126:U:O2'	1:BA:1127:G:H5'	2.17	0.45
25:CA:1421:G:H2'	25:CA:1422:G:O5'	2.17	0.45
4:AD:57:LYS:N	4:AD:199:ILE:CG2	2.80	0.45
25:DA:1011:G:C2	25:DA:1013:C:O2	2.70	0.45
1:AA:22:G:O2'	1:AA:913:A:N1	2.39	0.45
5:AE:72:ASN:H	5:AE:72:ASN:ND2	2.14	0.45
1:AA:64:G:C2	1:AA:67:C:C4	3.05	0.45
1:BA:96:U:H2'	1:BA:97:G:H8	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:205:A:N3	1:AA:205:A:C2'	2.78	0.45
1:AA:513:C:O2'	1:AA:514:C:H5'	2.16	0.45
9:BI:24:ASN:HB3	9:BI:58:GLU:OE1	2.17	0.45
9:BI:27:ILE:HG23	9:BI:62:LEU:CG	2.45	0.45
25:CA:2800:A:C3'	25:CA:2801:G:C5'	2.91	0.45
37:DM:53:MET:CE	37:DM:103:TYR:CG	2.99	0.45
37:DM:105:MET:HG2	37:DM:106:ASP:N	2.32	0.45
1:AA:1299:A:C2	1:AA:1301:U:C2	3.05	0.45
35:CK:13:ASN:HD22	35:CK:98:ARG:CB	2.30	0.45
27:DC:116:GLN:HG2	27:DC:117:SER:N	2.32	0.45
25:CA:2139:U:C2'	25:CA:2140:G:H5'	2.47	0.45
1:AA:1061:G:H5'	1:AA:1062:U:OP2	2.17	0.45
1:AA:1366:C:C2'	1:AA:1367:C:H5'	2.46	0.45
10:AJ:67:ILE:HD11	14:AN:96:LEU:HB2	1.97	0.45
25:DA:1277:G:C4'	38:DN:20:MET:HE2	2.46	0.45
6:BF:73:GLU:O	6:BF:73:GLU:HG2	2.17	0.45
27:CC:234:GLY:HA2	27:CC:238:ASN:HB2	1.98	0.45
1:AA:620:C:H1'	4:AD:131:ILE:HD13	1.98	0.45
21:BU:11:PHE:O	21:BU:12:ASP:CB	2.65	0.45
25:DA:54:G:H2'	25:DA:55:G:O5'	2.17	0.45
1:BA:424:G:N2	1:BA:425:G:C4	2.85	0.45
37:CM:50:ARG:HG2	37:CM:51:ARG:N	2.31	0.45
1:AA:1106:G:C6	1:AA:1107:C:C4	3.05	0.45
50:DZ:35:VAL:CG2	50:DZ:37:ARG:NH2	2.79	0.45
30:DF:27:VAL:O	30:DF:28:PRO:O	2.34	0.45
1:BA:147:G:C2	1:BA:176:C:C2	3.05	0.45
12:AL:63:THR:CG2	12:AL:91:GLY:O	2.65	0.45
9:AI:6:TYR:HE2	9:AI:17:ARG:CA	2.30	0.45
1:BA:283:U:H2'	1:BA:284:C:H6	1.78	0.45
25:DA:2702:G:H2'	25:DA:2703:C:C6	2.52	0.45
22:AV:69:G:H2'	22:AV:70:G:H5'	1.99	0.45
25:DA:2884:U:O2	25:DA:2884:U:C3'	2.65	0.45
25:DA:2476:A:C2'	25:DA:2477:U:H5'	2.47	0.45
1:AA:549:C:H2'	1:AA:550:G:O4'	2.16	0.45
7:BG:75:LYS:O	7:BG:86:VAL:HG23	2.17	0.45
15:BO:69:LEU:O	15:BO:70:LYS:C	2.55	0.45
1:AA:662:U:O2'	1:AA:836:G:O5'	2.35	0.45
1:AA:1038:C:O2'	1:AA:1039:G:H5'	2.17	0.45
25:CA:2107:G:N2	25:CA:2108:A:H1'	2.32	0.45
27:DC:236:GLY:O	27:DC:237:ARG:HG3	2.17	0.45
3:BC:5:HIS:HE1	3:BC:183:TYR:HD2	1.63	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:BH:10:LEU:HD13	8:BH:74:ILE:HG13	1.99	0.45
41:CQ:29:ARG:HE	51:C0:9:ARG:HH11	1.63	0.45
26:CB:112:G:H2'	26:CB:113:C:H6	1.80	0.45
25:DA:404:A:C1'	25:DA:405:U:P	3.04	0.45
30:CF:56:LEU:CD1	30:CF:86:CYS:O	2.65	0.45
57:DW:32:ILE:HG23	57:DW:54:THR:CG2	2.47	0.45
25:CA:1901:A:OP2	27:CC:252:LYS:HD2	2.17	0.45
7:AG:11:ILE:HD11	7:AG:23:ALA:HB3	1.98	0.45
1:BA:1422:G:N1	1:BA:1423:G:C5	2.85	0.45
8:BH:29:SER:O	8:BH:32:LYS:N	2.50	0.45
25:CA:703:U:C2'	25:CA:704:G:H5'	2.46	0.45
1:AA:723:U:C5'	1:AA:724:G:O5'	2.65	0.45
11:AK:18:GLY:O	11:AK:81:LEU:HA	2.17	0.45
25:DA:1717:A:H2'	25:DA:1718:G:H5'	1.98	0.45
37:DM:34:LYS:HD3	37:DM:99:GLY:HA2	1.99	0.45
25:CA:2415:G:C2'	25:CA:2416:C:O5'	2.65	0.45
46:CV:43:ASP:C	46:CV:43:ASP:OD1	2.54	0.45
1:AA:1096:C:H2'	1:AA:1097:C:C6	2.52	0.45
25:CA:2331:G:N2	25:CA:2385:C:C5	2.85	0.45
55:D4:16:ILE:HG22	55:D4:16:ILE:O	2.17	0.45
25:DA:2007:U:C2'	25:DA:2008:C:O5'	2.65	0.45
25:CA:717:C:C2'	25:CA:718:A:H5'	2.46	0.45
1:BA:185:U:O2'	1:BA:186:C:H5'	2.17	0.45
27:CC:83:ASP:OD1	27:CC:84:PRO:N	2.49	0.45
25:CA:637:A:H4'	25:CA:638:G:O5'	2.17	0.45
29:CE:54:GLY:N	29:CE:74:LYS:HE2	2.32	0.45
28:CD:172:VAL:CG2	28:CD:194:PRO:HD3	2.47	0.45
16:AP:12:LYS:O	16:AP:13:LYS:HB2	2.17	0.45
1:BA:457:G:C6	1:BA:458:U:C4	3.04	0.45
1:AA:355:C:C4	1:AA:356:A:N7	2.84	0.45
30:CF:147:ARG:HG2	30:CF:148:VAL:N	2.32	0.45
56:DB:4:C:H2'	56:DB:5:U:C6	2.51	0.45
31:DG:109:SER:O	31:DG:110:HIS:CB	2.65	0.45
29:CE:60:TRP:O	29:CE:61:ARG:O	2.35	0.45
46:CV:78:GLN:O	46:CV:87:GLN:HB2	2.17	0.45
25:CA:2651:C:O2'	25:CA:2652:C:H5'	2.17	0.45
25:CA:1726:C:O2'	25:CA:1727:C:H5'	2.17	0.45
25:CA:924:G:O2'	25:CA:925:A:H5'	2.17	0.45
16:AP:1:MET:HB3	16:AP:1:MET:HE2	1.88	0.45
1:BA:128:G:C6	1:BA:129:A:N6	2.85	0.45
1:AA:1036:A:N3	1:AA:1036:A:H2'	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:38:LEU:HA	15:AO:38:LEU:HD12	1.81	0.45
25:DA:303:G:H2'	25:DA:304:U:C6	2.51	0.45
25:DA:1069:A:O2'	25:DA:1070:A:H5"	2.16	0.45
25:DA:1095:A:C5	25:DA:1096:A:C2	3.05	0.45
25:DA:1097:U:C2'	25:DA:1098:A:H5'	2.47	0.45
4:BD:3:TYR:CZ	4:BD:5:GLY:HA3	2.51	0.45
1:AA:1210:C:O4'	1:AA:1214:C:H5	2.00	0.45
1:AA:979:C:P	1:AA:981:U:O4	2.75	0.45
1:AA:981:U:C2	1:AA:982:U:C5	3.04	0.45
1:BA:1060:U:O2'	1:BA:1061:G:C5'	2.64	0.45
25:DA:1747:U:C2	25:DA:1748:C:C5	3.05	0.45
2:BB:183:PHE:CD2	2:BB:183:PHE:N	2.85	0.45
32:DH:135:HIS:CD2	32:DH:138:VAL:HG23	2.52	0.45
32:DH:63:ALA:HB1	32:DH:66:ASN:HB2	1.99	0.45
5:BE:103:GLY:CA	5:BE:121:ASN:HA	2.41	0.45
25:DA:1588:G:H3'	25:DA:1589:U:C6	2.51	0.45
11:AK:41:LEU:CB	11:AK:76:TYR:HE2	2.29	0.45
36:DL:85:VAL:HG12	36:DL:95:LEU:HD23	1.99	0.45
36:DL:95:LEU:O	36:DL:96:LYS:C	2.55	0.45
25:DA:2118:U:H5'	25:DA:2119:A:OP1	2.16	0.45
13:AM:55:LEU:O	13:AM:58:GLU:N	2.50	0.45
13:AM:35:ALA:HB3	13:AM:58:GLU:OE1	2.17	0.45
1:AA:657:U:C2'	1:AA:657:U:O2	2.62	0.45
3:AC:119:ILE:O	3:AC:121:SER:N	2.50	0.45
56:DB:54:G:H21	56:DB:55:U:H1'	1.82	0.45
30:DF:130:GLY:HA2	30:DF:152:ASP:HB3	1.99	0.45
1:BA:763:G:C2'	1:BA:764:C:O5'	2.65	0.45
1:AA:623:C:C2'	1:AA:624:C:H5'	2.46	0.45
25:DA:2161:C:O2	25:DA:2161:C:H2'	2.17	0.45
4:AD:101:VAL:CG1	4:AD:113:ALA:HB1	2.46	0.45
33:CI:102:ARG:HG2	33:CI:103:ALA:N	2.32	0.45
25:DA:1441:G:C4	25:DA:1442:U:C5	3.05	0.45
1:AA:462:G:N7	1:AA:463:U:C5	2.84	0.45
1:AA:375:U:C2	1:AA:376:G:C8	3.05	0.45
31:DG:112:VAL:HG21	31:DG:150:TYR:CE2	2.52	0.45
25:DA:2020:A:H5'	51:D0:8:THR:CG2	2.47	0.45
25:CA:1407:G:C2	25:CA:1596:A:C2	3.05	0.45
9:BI:5:TYR:HD1	9:BI:20:ILE:O	2.00	0.45
30:CF:129:MET:HG3	30:CF:153:ILE:HB	1.98	0.45
32:DH:38:PRO:O	32:DH:40:THR:HG23	2.16	0.45
25:CA:2144:G:O2'	25:CA:2145:C:H5	2.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2146:C:C5'	25:CA:2147:A:OP1	2.62	0.45
14:AN:90:ARG:HB3	14:AN:92:GLU:CG	2.47	0.45
2:BB:141:GLU:H	2:BB:141:GLU:CD	2.21	0.45
2:BB:143:LEU:HB2	2:BB:147:LEU:HD12	1.99	0.45
10:BJ:27:GLU:HA	10:BJ:30:LYS:CG	2.45	0.45
9:AI:35:GLU:HA	9:AI:39:GLY:CA	2.47	0.45
36:CL:19:LEU:CD2	36:CL:31:GLY:O	2.64	0.45
36:CL:30:THR:O	36:CL:32:GLY:N	2.50	0.45
25:DA:230:G:C2	25:DA:231:A:C5	3.05	0.45
25:DA:233:A:H2'	25:DA:234:U:O4'	2.17	0.45
6:BF:47:LEU:H	6:BF:56:LYS:H	1.64	0.45
2:BB:175:ALA:HB1	2:BB:180:ILE:HB	1.97	0.45
3:BC:82:ASP:O	3:BC:85:LYS:CG	2.65	0.45
25:CA:1494:A:N1	25:CA:1495:A:C4	2.85	0.45
25:CA:1494:A:N1	25:CA:1495:A:N3	2.65	0.45
25:DA:415:A:C2	25:DA:2409:G:C2	3.05	0.45
25:CA:137:U:H2'	25:CA:140:C:N1	2.32	0.45
3:AC:39:ARG:C	3:AC:41:TYR:N	2.70	0.45
14:AN:43:ASN:OD1	14:AN:47:LYS:NZ	2.47	0.45
25:DA:60:G:C4	25:DA:74:A:C2	3.05	0.45
1:BA:686:U:O2	1:BA:687:A:N7	2.50	0.45
1:BA:684:U:C3'	1:BA:685:G:H5'	2.46	0.45
6:AF:24:ARG:O	6:AF:27:ALA:HB3	2.17	0.45
25:DA:2756:U:H4'	25:DA:2757:A:O5'	2.16	0.45
32:CH:72:ILE:CD1	32:CH:140:ALA:O	2.65	0.45
44:CT:30:ILE:HG23	44:CT:85:VAL:HB	1.98	0.45
33:CI:72:THR:HB	33:CI:73:PRO:HD2	1.98	0.45
46:CV:40:ILE:HD13	46:CV:40:ILE:HA	1.71	0.45
1:BA:1117:A:H4'	9:BI:105:ARG:NE	2.32	0.45
14:AN:7:ALA:HA	14:AN:10:VAL:HG23	1.99	0.45
1:AA:550:G:C5	1:AA:551:U:C5	3.05	0.45
7:AG:73:GLU:HA	7:AG:140:VAL:HG12	1.98	0.45
27:CC:123:ILE:CD1	27:CC:129:LEU:HD11	2.47	0.45
49:CY:9:LYS:C	49:CY:11:VAL:H	2.20	0.45
49:CY:24:GLU:OE1	49:CY:24:GLU:HA	2.17	0.45
25:DA:2259:U:H2'	25:DA:2260:C:H6	1.82	0.45
8:AH:40:LYS:NZ	8:AH:47:ASP:OD2	2.49	0.45
1:BA:631:C:H3'	1:BA:632:U:H5'	1.99	0.45
15:BO:69:LEU:HD13	15:BO:77:TYR:CB	2.47	0.45
28:DD:13:ARG:O	28:DD:14:ILE:HD13	2.17	0.45
15:AO:6:ALA:O	15:AO:10:ILE:CD1	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1429:G:C2	25:DA:1568:G:N2	2.84	0.45
1:AA:1414:U:H2'	1:AA:1414:U:O2	2.16	0.45
25:DA:1183:U:H2'	25:DA:1184:U:C6	2.51	0.45
1:BA:694:A:C2'	1:BA:695:A:O5'	2.65	0.45
25:CA:27:G:C4	25:CA:512:G:N2	2.85	0.45
25:CA:2732:G:H3'	25:CA:2733:A:C5'	2.47	0.45
25:DA:2098:U:C2	25:DA:2099:U:C6	3.05	0.45
1:AA:189:A:O2'	1:AA:190:A:H5'	2.16	0.45
1:BA:135:C:O2	16:BP:1:MET:HB2	2.16	0.45
31:CG:114:HIS:CD2	31:CG:147:LEU:CD2	2.99	0.45
30:DF:116:LEU:O	30:DF:176:PHE:HA	2.17	0.45
54:D3:15:LYS:HD2	54:D3:20:GLY:O	2.17	0.45
1:AA:854:U:H2'	1:AA:855:U:H6	1.82	0.45
44:CT:12:ARG:N	44:CT:12:ARG:HD2	2.32	0.45
3:BC:120:THR:HG22	3:BC:121:SER:N	2.32	0.45
25:DA:934:U:H2'	25:DA:935:C:H6	1.81	0.45
14:AN:50:THR:H	14:AN:51:LEU:HD23	1.81	0.45
45:DU:73:ASN:OD1	45:DU:76:THR:HG23	2.17	0.45
37:CM:92:TRP:C	37:CM:93:VAL:CG1	2.85	0.45
31:CG:59:ASP:HB2	31:CG:62:ALA:HB3	1.98	0.45
4:BD:113:ALA:O	4:BD:116:LEU:HB2	2.17	0.45
32:CH:69:ALA:HB2	32:CH:134:VAL:HG11	1.99	0.45
54:D3:30:HIS:ND1	54:D3:30:HIS:C	2.70	0.45
31:CG:122:ALA:HB2	31:CG:132:LEU:HA	1.99	0.45
25:DA:182:A:C6	25:DA:183:C:N3	2.85	0.45
25:CA:1378:A:H4'	25:CA:1379:U:OP1	2.16	0.45
37:DM:42:THR:O	37:DM:45:GLN:HB2	2.16	0.45
25:CA:911:A:C5	37:CM:9:PHE:CD2	3.05	0.45
44:DT:51:PHE:HB3	44:DT:53:VAL:HG22	1.99	0.45
25:CA:1107:G:C5	25:CA:1108:U:C5	3.05	0.45
27:DC:29:PHE:O	27:DC:30:ALA:C	2.56	0.45
25:CA:1807:G:H2'	25:CA:1809:A:N7	2.32	0.45
45:DU:82:VAL:CG1	45:DU:83:GLY:N	2.79	0.45
25:DA:1492:G:H2'	25:DA:1493:C:OP1	2.16	0.45
25:CA:2023:C:O2'	25:CA:2024:G:H5'	2.16	0.45
26:CB:99:A:C6	26:CB:100:G:C4	3.05	0.45
1:AA:858:G:O2'	1:AA:859:G:C5'	2.65	0.45
1:BA:916:U:C2'	1:BA:917:G:H5'	2.47	0.45
27:CC:7:PRO:CB	27:CC:13:ARG:HB2	2.47	0.45
1:BA:1202:U:H1'	14:BN:69:ARG:HD2	1.98	0.45
1:AA:938:A:N6	1:AA:939:G:C6	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:BS:12:LEU:CD2	19:BS:16:LYS:HE3	2.46	0.45
45:CU:84:PHE:O	45:CU:85:ARG:HB3	2.16	0.45
25:CA:825:A:H2'	25:CA:826:U:O4'	2.17	0.45
9:BI:91:GLU:HA	9:BI:94:ARG:HB2	1.99	0.45
14:BN:101:TRP:N	14:BN:101:TRP:CE3	2.85	0.45
25:DA:1052:C:H6	25:DA:1052:C:O5'	1.99	0.45
40:DP:50:ARG:HG2	40:DP:50:ARG:O	2.17	0.45
25:DA:2766:A:N3	25:DA:2766:A:H2'	2.31	0.45
25:CA:1931:U:H5'	25:CA:1931:U:H6	1.81	0.45
43:DS:60:HIS:ND1	43:DS:61:ASN:N	2.65	0.45
24:AY:5:ASP:O	24:AY:8:LYS:HB2	2.17	0.45
44:DT:67:VAL:HG22	44:DT:76:ARG:HD2	1.98	0.45
1:BA:1342:C:H1'	9:BI:125:GLN:CG	2.47	0.45
9:BI:118:ARG:O	9:BI:119:LYS:CB	2.62	0.45
19:BS:10:ILE:HD11	19:BS:15:LEU:CB	2.46	0.45
33:DI:5:GLN:O	33:DI:6:ALA:CB	2.65	0.45
25:DA:1340:U:H4'	25:DA:1341:G:OP2	2.17	0.45
25:DA:1388:G:C2'	25:DA:1389:G:H5'	2.47	0.45
2:AB:65:LYS:HE3	2:AB:158:ASP:OD2	2.18	0.45
2:AB:81:ASP:C	2:AB:83:ALA:N	2.70	0.45
25:DA:2208:C:H2'	25:DA:2208:C:O2	2.16	0.45
1:BA:484:G:C4'	1:BA:485:U:O5'	2.48	0.45
42:CR:40:MET:HA	42:CR:54:VAL:HG21	1.99	0.45
5:BE:75:LEU:HD23	5:BE:119:VAL:HG13	1.99	0.45
25:DA:1586:A:N7	25:DA:1587:G:C8	2.85	0.45
25:DA:1012:U:O4	34:DJ:30:THR:HG21	2.17	0.45
1:BA:554:A:H2'	1:BA:555:U:C6	2.51	0.45
25:DA:2838:G:H1'	38:DN:45:ARG:NH1	2.32	0.45
38:DN:51:LEU:CD1	38:DN:70:THR:CG2	2.95	0.45
1:BA:307:C:H6	1:BA:307:C:O5'	2.00	0.45
13:AM:19:THR:C	13:AM:24:VAL:HG23	2.38	0.45
13:AM:39:ALA:O	13:AM:41:ASP:N	2.50	0.45
1:AA:553:A:O2'	12:AL:25:ALA:HB1	2.17	0.45
3:AC:119:ILE:O	3:AC:120:THR:C	2.55	0.45
56:DB:28:C:O2'	56:DB:29:A:H5'	2.17	0.45
4:AD:157:ALA:O	4:AD:160:LEU:HD22	2.17	0.45
1:BA:189:A:N1	1:BA:190:A:N3	2.65	0.45
5:AE:140:ILE:O	5:AE:143:LEU:HB2	2.16	0.45
25:DA:1440:U:H2'	25:DA:1441:G:C8	2.52	0.45
25:CA:1339:G:N2	25:CA:1603:A:N3	2.64	0.45
1:BA:740:U:O2'	1:BA:741:G:H5'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:31:LEU:C	8:AH:31:LEU:HD13	2.37	0.45
1:BA:462:G:C5	1:BA:463:U:C5	3.05	0.45
9:AI:114:LYS:O	9:AI:115:VAL:C	2.55	0.45
10:AJ:56:HIS:C	10:AJ:57:VAL:O	2.54	0.45
1:BA:502:A:OP1	12:BL:114:SER:HB2	2.17	0.45
25:DA:230:G:O2'	25:DA:231:A:H5'	2.17	0.45
25:DA:565:C:H2'	25:DA:566:U:O4'	2.17	0.45
12:BL:89:LEU:CB	12:BL:92:VAL:CG2	2.94	0.45
49:CY:3:ALA:C	49:CY:5:GLU:H	2.20	0.45
25:DA:1825:U:H2'	25:DA:1826:G:C8	2.52	0.45
30:DF:19:PHE:O	30:DF:20:ASN:ND2	2.50	0.45
3:AC:84:GLU:HA	3:AC:87:ARG:NH2	2.31	0.45
25:DA:65:U:H2'	25:DA:66:C:C6	2.43	0.45
3:BC:63:ILE:HG12	3:BC:65:VAL:CG2	2.46	0.45
3:BC:63:ILE:HG12	3:BC:65:VAL:HG23	1.98	0.45
25:CA:2571:U:C2'	25:CA:2572:A:OP1	2.64	0.45
1:AA:1504:G:OP2	1:AA:1507:A:O2'	2.28	0.45
1:BA:673:A:C2'	1:BA:674:G:O4'	2.65	0.45
31:DG:66:THR:O	31:DG:69:ALA:HB3	2.17	0.45
44:CT:30:ILE:HG12	44:CT:31:VAL:N	2.31	0.45
20:BT:2:ASN:O	20:BT:4:LYS:N	2.49	0.45
6:BF:21:MET:HA	6:BF:24:ARG:HB2	2.00	0.45
1:AA:710:G:H5"	6:AF:53:LYS:HZ1	1.82	0.45
1:BA:1251:A:C2'	1:BA:1252:A:O5'	2.65	0.45
54:D3:14:LYS:HB3	54:D3:22:LYS:CE	2.47	0.45
27:DC:251:THR:HG22	27:DC:252:LYS:H	1.80	0.45
25:DA:729:G:C5	27:DC:206:LYS:HB2	2.52	0.45
25:DA:1354:A:H3'	25:DA:1354:A:C8	2.52	0.45
36:CL:4:ASN:C	36:CL:5:THR:HG22	2.36	0.45
46:DV:60:VAL:CG1	46:DV:61:LEU:N	2.79	0.45
1:AA:213:G:H2'	1:AA:214:C:H5'	1.99	0.45
33:DI:96:LYS:HD2	33:DI:96:LYS:N	2.31	0.45
25:DA:900:A:C2	25:DA:901:C:N1	2.84	0.45
30:DF:135:ILE:HG22	30:DF:135:ILE:O	2.17	0.45
28:DD:125:TRP:O	28:DD:126:ASN:HB2	2.17	0.45
46:DV:4:ILE:HB	46:DV:63:ILE:HG12	1.99	0.45
32:CH:6:LEU:CD1	32:CH:37:VAL:HG12	2.46	0.45
6:AF:39:LEU:CD1	6:AF:39:LEU:C	2.85	0.45
1:AA:757:U:H5"	1:AA:822:U:O2	2.17	0.45
1:AA:1025:U:OP2	1:AA:1025:U:C6	2.70	0.45
25:CA:1425:G:O2'	25:CA:1426:G:H5'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:707:G:O6	25:CA:724:U:C2	2.70	0.45
19:BS:63:ASP:HB3	19:BS:64:GLU:OE1	2.17	0.45
24:AY:108:GLU:O	24:AY:109:GLU:C	2.55	0.45
56:DB:97:C:H2'	56:DB:98:G:O5'	2.17	0.45
54:C3:36:ALA:O	54:C3:40:LYS:HG3	2.16	0.45
45:CU:82:VAL:HG13	45:CU:93:ARG:HB3	1.99	0.45
39:CO:74:VAL:O	39:CO:78:VAL:CG2	2.65	0.45
25:DA:558:U:P	34:DJ:113:PRO:HD2	2.56	0.45
32:CH:135:HIS:CG	32:CH:136:SER:N	2.85	0.45
25:DA:1346:G:H2'	25:DA:1347:A:O5'	2.16	0.45
1:AA:1163:A:H2'	1:AA:1164:G:C8	2.52	0.45
1:AA:696:A:H2'	1:AA:697:U:H6	1.82	0.45
24:AY:25:ILE:HG23	24:AY:179:LYS:NZ	2.31	0.45
25:DA:1918:A:O2'	25:DA:1920:C:C4	2.70	0.45
25:DA:2796:U:O2'	25:DA:2797:U:H2'	2.17	0.45
25:DA:588:U:H1'	29:DE:85:PHE:CD1	2.52	0.45
1:BA:55:A:H2'	1:BA:56:U:H6	1.81	0.45
1:AA:233:C:H2'	1:AA:234:C:C6	2.52	0.45
1:BA:1110:A:P	60:BA:1857:HOH:O	2.75	0.45
8:AH:88:LYS:HG3	8:AH:89:ASP:H	1.82	0.45
5:AE:40:ASP:O	5:AE:42:ASN:HB2	2.17	0.45
37:CM:97:GLN:N	37:CM:97:GLN:CD	2.70	0.45
25:DA:1132:U:O2'	25:DA:1133:A:H5'	2.17	0.45
53:D2:34:ARG:HB2	53:D2:42:LEU:CD1	2.47	0.45
1:AA:1188:A:H2'	1:AA:1189:U:O4'	2.17	0.45
45:CU:80:ASP:OD1	45:CU:95:PHE:HD2	2.00	0.45
1:BA:818:G:O2'	1:BA:819:A:H5'	2.16	0.45
34:CJ:24:THR:O	34:CJ:25:LEU:C	2.55	0.45
25:CA:1818:U:H2'	27:CC:155:ARG:HD2	1.99	0.45
51:C0:24:VAL:HG13	51:C0:25:THR:N	2.31	0.45
42:DR:43:ASN:HB3	42:DR:44:GLY:H	1.62	0.45
13:BM:42:VAL:O	13:BM:42:VAL:HG23	2.16	0.45
27:CC:30:ALA:HB3	27:CC:31:PRO:HD3	1.98	0.45
1:AA:508:U:H4'	1:AA:509:A:OP1	2.17	0.45
25:CA:2337:G:N3	25:CA:2337:G:H2'	2.32	0.45
27:CC:211:ARG:HA	27:CC:211:ARG:HD2	1.55	0.45
31:DG:167:VAL:HG13	31:DG:167:VAL:O	2.16	0.45
25:CA:2658:C:O2	25:CA:2658:C:C2'	2.59	0.45
25:DA:854:C:O2'	25:DA:855:G:H5'	2.17	0.45
1:AA:1335:U:H5"	1:AA:1336:C:H5'	1.99	0.45
28:CD:62:LYS:N	28:CD:63:PRO:CD	2.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:941:G:C6	1:BA:1343:G:N1	2.85	0.44
1:BA:954:G:C2	1:BA:955:U:C2	3.05	0.44
25:DA:1071:G:C5	25:DA:1089:A:C6	3.05	0.44
25:CA:2408:U:H2'	25:CA:2409:G:C8	2.52	0.44
4:BD:30:LYS:CD	4:BD:30:LYS:N	2.81	0.44
44:DT:30:ILE:HD13	44:DT:31:VAL:N	2.33	0.44
1:AA:675:A:C2'	1:AA:676:A:O5'	2.65	0.44
2:AB:135:MET:CA	2:AB:138:ARG:HG2	2.47	0.44
17:AQ:11:VAL:HG12	17:AQ:12:VAL:H	1.80	0.44
10:AJ:17:LEU:HA	10:AJ:20:GLN:HB2	1.99	0.44
10:AJ:40:ILE:HG13	10:AJ:41:PRO:HD2	1.98	0.44
25:DA:1712:U:H2'	25:DA:1713:A:C8	2.51	0.44
13:BM:6:ILE:HD11	30:DF:111:ARG:HD3	1.98	0.44
3:BC:149:LYS:HB3	3:BC:168:ARG:CB	2.47	0.44
25:DA:1588:G:C2	25:DA:1589:U:N3	2.85	0.44
3:BC:152:VAL:HA	3:BC:197:VAL:HG22	1.99	0.44
20:AT:23:ARG:O	20:AT:24:ARG:C	2.55	0.44
24:AY:156:ARG:HH21	24:AY:159:ASP:HB3	1.82	0.44
24:AY:157:SER:C	24:AY:159:ASP:N	2.69	0.44
25:DA:1458:U:C4'	25:DA:1459:G:O5'	2.57	0.44
3:AC:147:GLY:HA3	3:AC:171:ARG:H	1.82	0.44
33:CI:104:GLN:O	33:CI:105:LEU:HB2	2.17	0.44
25:CA:2550:G:O2'	25:CA:2551:C:H5'	2.16	0.44
1:BA:71:A:N3	1:BA:100:G:C4	2.86	0.44
25:DA:1334:G:C6	25:DA:1335:C:C4	3.05	0.44
20:BT:54:GLN:N	20:BT:55:PRO:HD2	2.31	0.44
31:DG:106:LEU:HD21	31:DG:161:VAL:HG23	1.99	0.44
31:DG:139:VAL:O	31:DG:142:GLN:HB3	2.17	0.44
25:CA:1408:G:O2'	25:CA:1409:U:H5'	2.16	0.44
37:DM:57:VAL:HG11	37:DM:105:MET:HE2	2.00	0.44
1:BA:462:G:C5	1:BA:463:U:H6	2.34	0.44
25:CA:2142:A:H2'	25:CA:2143:C:H6	1.79	0.44
1:AA:1047:G:H2'	1:AA:1048:G:H5'	1.98	0.44
10:BJ:19:ASP:HA	10:BJ:22:THR:CG2	2.48	0.44
25:DA:229:C:C2'	25:DA:230:G:O5'	2.65	0.44
6:BF:39:LEU:HD12	6:BF:40:GLU:C	2.37	0.44
45:DU:6:ARG:HG3	45:DU:7:ASP:H	1.82	0.44
1:BA:1115:U:H5'	10:BJ:68:ARG:HH22	1.81	0.44
3:BC:11:LEU:O	3:BC:13:ILE:N	2.50	0.44
3:AC:71:ARG:HB3	3:AC:74:ILE:CG2	2.47	0.44
25:CA:1724:G:C6	25:CA:1725:U:C4	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:592:G:C6	1:BA:593:U:N3	2.84	0.44
30:DF:7:TYR:CA	30:DF:11:VAL:HB	2.44	0.44
31:DG:51:PHE:CD2	31:DG:68:ARG:HA	2.52	0.44
3:AC:84:GLU:C	3:AC:86:LEU:N	2.70	0.44
25:DA:1372:U:C2'	25:DA:1373:A:C5'	2.95	0.44
38:CN:23:ASN:O	38:CN:24:MET:C	2.54	0.44
17:AQ:59:GLU:HG2	17:AQ:75:VAL:CG2	2.47	0.44
1:BA:424:G:C2	1:BA:425:G:C4	3.05	0.44
1:BA:676:A:C2	1:BA:677:U:C2	3.05	0.44
1:AA:588:G:C6	1:AA:589:U:N3	2.84	0.44
1:AA:588:G:C6	1:AA:589:U:C2	3.05	0.44
25:DA:443:A:N1	25:DA:1245:G:O2'	2.45	0.44
1:BA:247:G:C5	1:BA:278:G:N2	2.85	0.44
25:CA:892:A:H2	25:CA:893:C:C6	2.34	0.44
45:DU:94:PHE:CD1	45:DU:94:PHE:C	2.91	0.44
25:CA:1373:A:H2'	25:CA:1374:G:O4'	2.16	0.44
32:DH:143:ILE:HG22	32:DH:144:VAL:N	2.31	0.44
14:AN:13:VAL:HA	14:AN:16:ALA:HB2	1.98	0.44
1:BA:159:G:C8	1:BA:159:G:C5'	3.00	0.44
27:DC:129:LEU:HD12	27:DC:133:ASN:HB2	1.98	0.44
8:AH:39:LEU:HD23	8:AH:39:LEU:HA	1.79	0.44
1:AA:767:A:H2'	1:AA:768:A:O4'	2.16	0.44
1:AA:315:A:OP1	60:AA:1709:HOH:O	2.21	0.44
35:CK:77:ILE:N	35:CK:77:ILE:HD13	2.31	0.44
25:CA:634:C:H2'	25:CA:635:C:O4'	2.17	0.44
25:CA:1875:G:H2'	25:CA:1876:A:OP2	2.17	0.44
25:CA:978:G:H2'	25:CA:979:A:C5'	2.46	0.44
1:AA:1039:G:C2'	1:AA:1040:U:O5'	2.65	0.44
28:CD:49:GLN:OE1	28:CD:67:HIS:HE1	1.99	0.44
9:BI:101:GLY:O	9:BI:103:VAL:N	2.49	0.44
4:BD:144:ILE:H	4:BD:144:ILE:HD12	1.81	0.44
4:BD:173:ASP:O	4:BD:174:ALA:CB	2.64	0.44
25:DA:2133:G:N3	25:DA:2158:A:N1	2.64	0.44
26:CB:28:C:H2'	26:CB:29:A:O4'	2.17	0.44
34:DJ:105:VAL:HG11	34:DJ:122:LEU:CD2	2.47	0.44
25:CA:707:G:N2	25:CA:708:G:H1'	2.32	0.44
26:CB:43:C:O2'	30:CF:91:ARG:HG3	2.17	0.44
6:AF:51:ILE:CG1	6:AF:52:ASN:HB2	2.47	0.44
19:BS:43:MET:O	19:BS:44:ILE:C	2.56	0.44
25:DA:1432:G:N2	25:DA:1433:A:N3	2.66	0.44
30:CF:69:ALA:CB	30:CF:82:TYR:O	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2392:A:C2	36:CL:55:MET:CE	2.99	0.44
25:CA:704:G:H1'	25:CA:726:G:N2	2.32	0.44
25:CA:2186:G:C4	25:CA:2187:U:C5	3.05	0.44
1:BA:181:A:N1	1:BA:195:A:C5	2.85	0.44
29:DE:1:MET:HE2	29:DE:19:PHE:C	2.37	0.44
25:DA:181:A:C2	25:DA:435:C:C5	3.04	0.44
1:BA:923:A:H2'	1:BA:924:C:O4'	2.17	0.44
25:CA:2703:C:C2	25:CA:2704:C:C5	3.05	0.44
25:DA:126:A:C5	53:D2:18:PHE:CD2	3.05	0.44
25:DA:1203:U:C4	25:DA:1204:A:C5	3.05	0.44
25:CA:1889:A:H2'	25:CA:1890:A:O5'	2.17	0.44
25:DA:9:G:C6	25:DA:2629:U:C6	3.06	0.44
25:DA:2817:U:OP1	38:DN:99:LYS:CE	2.64	0.44
40:DP:97:TYR:CD2	40:DP:100:ARG:NH2	2.84	0.44
1:BA:728:A:C8	15:BO:53:ARG:CZ	3.00	0.44
25:DA:1630:A:H2'	25:DA:1631:G:H5'	1.98	0.44
25:CA:2124:G:H2'	25:CA:2125:G:O4'	2.17	0.44
1:BA:337:G:C6	1:BA:338:A:N6	2.85	0.44
1:AA:1377:A:C2	7:AG:6:ILE:HD11	2.52	0.44
25:DA:2562:U:O2	25:DA:2562:U:H2'	2.17	0.44
26:CB:78:A:H61	26:CB:98:G:C2'	2.30	0.44
22:BV:61:C:H2'	22:BV:62:C:H6	1.82	0.44
32:CH:50:ARG:NH1	32:CH:50:ARG:HA	2.33	0.44
25:DA:1490:A:H2'	25:DA:1490:A:N3	2.31	0.44
25:DA:648:G:H8	25:DA:648:G:O5'	2.01	0.44
36:CL:99:ASN:ND2	36:CL:99:ASN:O	2.50	0.44
12:BL:113:ARG:HB3	12:BL:118:VAL:HB	1.99	0.44
14:AN:14:ALA:O	14:AN:18:LYS:HG3	2.17	0.44
37:DM:74:THR:HA	37:DM:88:ASN:O	2.17	0.44
25:DA:575:A:H4'	25:DA:2500:U:H5"	2.00	0.44
1:BA:1399:C:N3	1:BA:1401:G:C2	2.85	0.44
27:DC:215:VAL:O	27:DC:215:VAL:CG1	2.65	0.44
35:DK:90:ASN:ND2	35:DK:90:ASN:H	2.14	0.44
1:AA:211:G:H3'	1:AA:211:G:N3	2.32	0.44
38:DN:22:ARG:HG2	38:DN:23:ASN:N	2.33	0.44
38:CN:8:ARG:HD2	38:CN:43:GLU:CG	2.47	0.44
1:BA:1317:C:O2'	1:BA:1318:A:OP1	2.34	0.44
1:BA:943:U:H2'	1:BA:944:G:H5'	1.99	0.44
33:DI:116:MET:HE3	33:DI:128:ILE:CD1	2.47	0.44
25:DA:1383:A:N1	25:DA:1384:A:N1	2.65	0.44
25:DA:1403:A:H2'	25:DA:1404:C:H6	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:676:A:H5"	11:AK:114:PRO:HB3	2.00	0.44
25:CA:1084:A:C2'	25:CA:1085:A:C8	3.00	0.44
2:AB:162:VAL:O	2:AB:184:ALA:HA	2.17	0.44
2:AB:184:ALA:HB3	2:AB:195:VAL:HG22	1.98	0.44
2:AB:53:LEU:HD12	2:AB:56:LEU:HD12	1.98	0.44
2:AB:57:ASN:HB2	2:AB:219:THR:O	2.18	0.44
17:AQ:10:ARG:HG3	17:AQ:10:ARG:HH11	1.83	0.44
42:DR:42:ALA:HA	42:DR:46:GLU:CB	2.47	0.44
13:BM:6:ILE:CG1	30:DF:111:ARG:HD3	2.46	0.44
25:DA:2093:G:C5	25:DA:2225:A:C8	3.05	0.44
31:CG:71:LEU:O	31:CG:72:ASN:C	2.55	0.44
2:BB:71:THR:O	2:BB:72:LYS:HG3	2.17	0.44
25:DA:1669:A:N3	25:DA:1669:A:H2'	2.32	0.44
17:BQ:10:ARG:NH2	17:BQ:12:VAL:N	2.65	0.44
42:CR:51:VAL:CG2	42:CR:52:PRO:HD2	2.46	0.44
5:BE:100:GLU:O	5:BE:102:THR:CA	2.64	0.44
6:AF:90:MET:O	6:AF:91:ARG:O	2.34	0.44
1:BA:1165:U:C2'	1:BA:1166:G:H5'	2.46	0.44
25:DA:636:G:OP2	36:DL:128:THR:HG22	2.17	0.44
36:DL:127:VAL:CG1	36:DL:131:ALA:HB3	2.42	0.44
25:DA:2407:A:C2	25:DA:2408:U:C5	3.05	0.44
25:DA:2110:G:C5	25:DA:2120:G:C8	3.05	0.44
25:DA:2111:U:H1'	25:DA:2118:U:O4'	2.17	0.44
25:DA:1448:G:N1	25:DA:1449:G:C5	2.85	0.44
25:DA:1526:C:N3	25:DA:1527:G:C5	2.86	0.44
37:DM:21:ALA:HB1	37:DM:100:LYS:CG	2.39	0.44
56:DB:42:C:C6	30:DF:65:LEU:HD22	2.52	0.44
39:DO:51:ALA:HB3	39:DO:78:VAL:CG2	2.41	0.44
3:AC:140:ALA:H	3:AC:142:ARG:HB3	1.82	0.44
1:BA:85:U:H4'	1:BA:86:G:H5'	1.99	0.44
1:BA:1261:A:H5'	1:BA:1262:C:OP2	2.17	0.44
1:AA:923:A:O5'	1:AA:923:A:H8	2.00	0.44
5:AE:98:ALA:O	5:AE:100:GLU:N	2.50	0.44
11:BK:69:CYS:O	11:BK:73:VAL:CG1	2.65	0.44
37:CM:16:ARG:HG2	37:CM:16:ARG:NH1	2.23	0.44
4:BD:160:LEU:O	4:BD:163:GLN:N	2.49	0.44
9:BI:5:TYR:HB2	9:BI:20:ILE:HG22	2.00	0.44
1:BA:16:A:O2'	1:BA:17:U:H5'	2.18	0.44
25:CA:2146:C:H4'	25:CA:2147:A:C8	2.51	0.44
10:AJ:53:ILE:HD11	10:AJ:63:ASP:CG	2.38	0.44
1:BA:503:C:O2	1:BA:510:A:H2	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1097:C:H5"	2:BB:138:ARG:HH21	1.81	0.44
2:BB:110:ILE:HD11	2:BB:147:LEU:HD22	2.00	0.44
10:BJ:35:GLN:HG2	10:BJ:77:VAL:CB	2.47	0.44
6:BF:88:MET:HG2	6:BF:90:MET:HG2	1.98	0.44
9:AI:25:GLY:N	9:AI:58:GLU:HG2	2.31	0.44
3:BC:17:TRP:CZ2	14:BN:95:GLY:CA	2.97	0.44
1:BA:1491:G:C2'	1:BA:1492:A:O5'	2.65	0.44
30:DF:16:MET:HE3	30:DF:16:MET:HA	1.99	0.44
25:DA:54:G:C2'	25:DA:55:G:O5'	2.66	0.44
3:AC:79:LYS:O	3:AC:81:GLU:N	2.51	0.44
38:CN:12:ARG:NH1	38:CN:20:MET:HE1	2.32	0.44
19:AS:63:ASP:HB3	30:CF:114:ARG:NH2	2.33	0.44
28:CD:4:LEU:HD23	28:CD:101:PHE:HE1	1.82	0.44
33:CI:57:VAL:HG23	33:CI:71:LYS:HZ1	1.79	0.44
33:CI:58:ILE:HA	33:CI:68:PHE:HB3	1.99	0.44
25:DA:501:A:N6	25:DA:502:A:C6	2.85	0.44
25:DA:2702:G:C6	25:DA:2703:C:N4	2.85	0.44
1:BA:1032:G:N2	1:BA:1033:G:O4'	2.50	0.44
45:DU:85:ARG:HG3	45:DU:92:VAL:HG23	1.97	0.44
1:BA:560:A:N7	1:BA:566:G:C5	2.84	0.44
27:DC:119:VAL:HG13	27:DC:133:ASN:HD21	1.82	0.44
35:CK:77:ILE:HD12	40:CP:71:ARG:HG3	2.00	0.44
25:CA:634:C:H2'	25:CA:635:C:C6	2.52	0.44
6:AF:64:VAL:HG13	6:AF:65:GLU:N	2.31	0.44
1:AA:721:G:H4'	1:AA:722:G:O4'	2.17	0.44
29:CE:136:GLN:HE22	29:CE:139:LYS:NZ	2.15	0.44
1:AA:636:U:H5"	17:AQ:5:ARG:HG2	1.99	0.44
25:CA:1386:C:H2'	25:CA:1387:A:C8	2.52	0.44
4:AD:96:ARG:HB3	4:AD:98:ASP:OD1	2.16	0.44
18:AR:71:ASP:OD1	18:AR:72:ARG:HG2	2.17	0.44
1:AA:918:A:H2'	1:AA:919:A:H8	1.78	0.44
41:DQ:103:VAL:O	41:DQ:104:ALA:C	2.56	0.44
1:AA:1193:G:C2'	1:AA:1194:U:H5'	2.48	0.44
34:DJ:58:ASN:ND2	34:DJ:61:LYS:HD3	2.33	0.44
7:AG:65:LEU:O	7:AG:67:ASN:N	2.49	0.44
44:DT:55:VAL:HG12	44:DT:55:VAL:O	2.17	0.44
30:CF:107:VAL:HG12	30:CF:108:PRO:N	2.31	0.44
25:DA:1489:C:N3	25:DA:1501:G:C2	2.84	0.44
44:DT:27:SER:O	44:DT:28:ASN:HB2	2.17	0.44
39:CO:55:GLU:HG3	39:CO:58:ILE:HG13	1.99	0.44
25:CA:2343:U:H2'	25:CA:2344:U:C5	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:CT:18:GLU:O	44:CT:22:THR:HG23	2.17	0.44
25:DA:920:A:C2'	25:DA:921:C:O5'	2.65	0.44
35:DK:105:ARG:O	35:DK:108:ARG:CB	2.66	0.44
36:CL:23:ILE:O	36:CL:24:GLY:C	2.55	0.44
25:DA:1043:C:C4	25:DA:1044:C:C5	3.05	0.44
1:BA:1120:C:H2'	1:BA:1121:U:C6	2.50	0.44
40:CP:32:VAL:HG12	40:CP:34:GLY:O	2.17	0.44
25:DA:2685:G:C2	25:DA:2725:A:C2	3.05	0.44
41:DQ:48:ASP:O	41:DQ:49:ARG:C	2.54	0.44
34:CJ:98:GLU:HB3	34:CJ:124:VAL:HG22	1.98	0.44
44:CT:67:VAL:HG12	44:CT:68:LYS:N	2.32	0.44
25:CA:2216:G:H2'	25:CA:2217:G:H8	1.82	0.44
46:DV:26:PHE:HD2	46:DV:44:HIS:HB2	1.81	0.44
25:CA:120:U:H4'	25:CA:121:G:H5"	1.99	0.44
36:CL:124:GLY:C	36:CL:125:LEU:HD12	2.38	0.44
25:DA:945:A:C4'	25:DA:946:C:OP2	2.66	0.44
1:AA:1416:G:C2	1:AA:1485:U:O2	2.70	0.44
25:CA:2644:G:C2'	25:CA:2645:G:H5'	2.47	0.44
25:DA:1676:A:N1	25:DA:1677:A:C2	2.85	0.44
25:DA:609:A:C8	25:DA:610:C:C5	3.05	0.44
8:BH:48:PHE:O	8:BH:49:LYS:HB2	2.16	0.44
25:CA:2658:C:H2'	25:CA:2658:C:O2	2.16	0.44
2:AB:170:ILE:O	2:AB:171:ALA:C	2.55	0.44
25:DA:1750:G:C2'	25:DA:1751:U:O5'	2.65	0.44
25:CA:2768:U:H2'	25:CA:2769:U:O5'	2.17	0.44
13:AM:6:ILE:HG21	30:CF:144:LYS:HE3	2.00	0.44
35:DK:13:ASN:OD1	35:DK:13:ASN:O	2.35	0.44
38:DN:27:SER:O	38:DN:31:HIS:HB2	2.17	0.44
24:AY:56:ALA:CB	24:AY:70:VAL:HA	2.46	0.44
1:BA:1227:A:N1	1:BA:1228:C:C2	2.86	0.44
1:BA:953:G:O6	1:BA:1228:C:N4	2.50	0.44
1:BA:1244:G:N1	1:BA:1294:G:C6	2.86	0.44
1:BA:982:U:C4'	1:BA:983:A:H5'	2.44	0.44
1:BA:1360:A:C8	14:BN:58:SER:HB3	2.52	0.44
25:DA:1063:G:C8	25:DA:1064:C:C5	3.05	0.44
25:DA:1396:U:O4'	25:DA:1396:U:O2	2.31	0.44
25:DA:1399:C:O2'	25:DA:1400:U:H5'	2.17	0.44
11:AK:22:ILE:CG1	11:AK:22:ILE:O	2.65	0.44
25:CA:1078:U:O2	25:CA:1088:A:C2	2.71	0.44
2:AB:134:LEU:HA	2:AB:137:THR:HG23	2.00	0.44
1:AA:1218:C:O2'	1:AA:1219:A:H5'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1253:G:C2	1:AA:1254:A:C5	3.06	0.44
14:AN:64:CYS:HB2	14:AN:80:SER:CB	2.48	0.44
35:DK:76:VAL:HG22	35:DK:77:ILE:N	2.32	0.44
25:DA:858:G:H3'	25:DA:859:G:C8	2.52	0.44
21:BU:36:PHE:HB3	21:BU:37:TYR:H	1.59	0.44
5:BE:95:MET:HB3	5:BE:95:MET:HE3	1.81	0.44
5:BE:82:HIS:CG	8:BH:95:MET:CE	2.97	0.44
25:DA:988:A:P	50:DZ:11:SER:HB2	2.57	0.44
25:DA:640:C:H2'	25:DA:641:U:H6	1.82	0.44
12:BL:23:LEU:C	12:BL:25:ALA:H	2.20	0.44
25:DA:2148:G:C2'	25:DA:2149:U:H6	2.30	0.44
25:DA:528:A:C2	25:DA:2043:C:C4'	3.00	0.44
56:DB:27:C:H2'	56:DB:28:C:O5'	2.18	0.44
30:DF:36:ASN:ND2	30:DF:37:MET:N	2.65	0.44
25:CA:1420:A:O2'	25:CA:1421:G:C5'	2.64	0.44
5:BE:12:GLU:HB2	5:BE:63:MET:HE1	1.99	0.44
1:AA:496:A:C2	1:AA:497:G:N7	2.85	0.44
4:AD:54:LEU:HD23	4:AD:58:GLN:HB2	1.99	0.44
4:AD:55:ARG:NH2	4:AD:58:GLN:HG2	2.33	0.44
1:BA:802:A:H2'	1:BA:802:A:N3	2.32	0.44
5:AE:100:GLU:CB	5:AE:121:ASN:CB	2.95	0.44
25:DA:2324:U:C2'	25:DA:2325:G:OP1	2.65	0.44
1:BA:1239:A:N6	1:BA:1299:A:H62	2.16	0.44
1:AA:452:A:H1'	16:AP:70:ARG:NH1	2.32	0.44
9:BI:42:THR:HA	9:BI:44:ARG:HH21	1.82	0.44
32:DH:2:GLN:HB3	32:DH:39:ALA:CB	2.48	0.44
1:BA:1072:G:C4	1:BA:1073:U:C5	3.04	0.44
35:CK:98:ARG:O	35:CK:99:ILE:HD13	2.18	0.44
25:CA:2145:C:C5	25:CA:2147:A:C2	3.05	0.44
31:DG:30:GLY:C	31:DG:78:VAL:HG12	2.37	0.44
25:DA:2162:G:H21	25:DA:2163:A:H1'	1.81	0.44
14:AN:1:ALA:HB3	14:AN:68:GLY:HA3	1.99	0.44
1:BA:551:U:H5'	12:BL:115:LYS:HE2	2.00	0.44
1:BA:1027:C:N4	1:BA:1034:G:O6	2.50	0.44
50:CZ:2:LYS:H	50:CZ:2:LYS:HD3	1.82	0.44
29:DE:164:LEU:HB2	29:DE:167:VAL:HB	1.99	0.44
15:AO:88:ARG:NH1	25:CA:716:A:OP1	2.50	0.44
25:CA:545:U:H2'	25:CA:546:U:O3'	2.16	0.44
2:BB:58:LYS:O	2:BB:62:ARG:HB2	2.18	0.44
2:BB:58:LYS:H	2:BB:60:ALA:H	1.65	0.44
44:CT:3:ARG:O	44:CT:6:ARG:HB3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1142:A:C5	25:DA:1144:A:C5	3.05	0.44
25:DA:60:G:N1	25:DA:74:A:C6	2.85	0.44
40:DP:32:VAL:HA	40:DP:36:LYS:O	2.18	0.44
3:BC:36:PHE:HA	3:BC:39:ARG:HD2	1.99	0.44
26:CB:33:G:H2'	26:CB:34:A:C5'	2.46	0.44
28:CD:4:LEU:CD2	28:CD:101:PHE:HE1	2.31	0.44
41:CQ:40:LYS:O	41:CQ:41:ALA:C	2.54	0.44
1:AA:287:U:H2'	1:AA:288:A:C8	2.53	0.44
25:DA:549:G:N3	25:DA:549:G:H5'	2.31	0.44
6:BF:16:GLU:O	6:BF:19:PRO:CD	2.62	0.44
6:BF:18:VAL:CA	6:BF:21:MET:HE2	2.47	0.44
1:BA:149:A:N1	1:BA:150:U:C2	2.86	0.44
1:BA:174:A:H2'	1:BA:175:C:C5'	2.48	0.44
49:DY:56:LEU:CD2	49:DY:59:GLU:OE1	2.66	0.44
25:DA:729:G:C2'	25:DA:729:G:N3	2.80	0.44
37:DM:27:SER:O	37:DM:28:PHE:CD2	2.70	0.44
45:DU:87:GLU:HB2	45:DU:92:VAL:HG21	1.99	0.44
45:DU:87:GLU:O	45:DU:88:ASP:CB	2.65	0.44
25:CA:2120:G:HO2'	25:CA:2121:G:H5'	1.82	0.44
14:BN:35:ALA:CB	14:BN:42:TRP:CH2	2.99	0.44
25:CA:2291:U:H5"	25:CA:2380:C:O2'	2.16	0.44
46:DV:60:VAL:HG22	46:DV:73:LYS:HG3	1.98	0.44
26:CB:20:G:C2	26:CB:64:G:N3	2.86	0.44
1:AA:1499:A:O2'	1:AA:1500:A:H5'	2.17	0.44
30:DF:105:ILE:C	30:DF:108:PRO:HD2	2.38	0.44
46:DV:6:ALA:HB1	46:DV:41:GLU:O	2.18	0.44
25:DA:621:A:H2'	25:DA:622:G:O4'	2.18	0.44
39:CO:29:HIS:CD2	39:CO:30:ARG:H	2.36	0.44
35:CK:58:LEU:CD2	35:CK:58:LEU:N	2.81	0.44
25:CA:401:A:H2'	25:CA:402:A:O4'	2.16	0.44
25:DA:715:A:C6	25:DA:716:A:C6	3.05	0.44
25:CA:1244:A:OP1	36:CL:7:SER:HB2	2.16	0.44
6:AF:12:PRO:O	6:AF:13:ASP:C	2.56	0.44
25:CA:2419:U:H2'	25:CA:2420:C:C6	2.53	0.44
25:DA:1190:G:P	36:DL:32:GLY:HA2	2.57	0.44
1:AA:749:A:N1	1:AA:750:C:N3	2.66	0.44
29:DE:200:LEU:CD1	29:DE:200:LEU:N	2.80	0.44
25:DA:994:C:O2'	25:DA:996:A:OP1	2.32	0.44
1:BA:22:G:H2'	1:BA:23:C:H6	1.82	0.44
31:DG:39:ALA:O	31:DG:54:ARG:HB3	2.18	0.44
25:DA:2661:G:C2'	25:DA:2662:A:O5'	2.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BK:81:LEU:N	11:BK:81:LEU:CD2	2.81	0.44
37:DM:136:MET:CE	46:DV:57:TYR:CD2	3.00	0.44
25:CA:90:U:H2'	25:CA:91:A:N7	2.32	0.44
2:AB:130:LYS:HA	2:AB:130:LYS:CE	2.43	0.44
11:BK:84:MET:CE	11:BK:112:VAL:HG11	2.47	0.44
25:DA:2080:A:O5'	48:DX:18:SER:CB	2.64	0.44
25:CA:2124:G:C2'	25:CA:2125:G:H5'	2.46	0.44
25:CA:2094:A:P	32:CH:22:LYS:HD2	2.57	0.44
50:CZ:23:LEU:HD11	50:CZ:53:MET:HE2	1.99	0.44
2:BB:40:ILE:O	2:BB:40:ILE:HD12	2.17	0.44
25:CA:72:U:O2	49:CY:51:ALA:HB1	2.17	0.44
3:AC:22:PHE:C	3:AC:22:PHE:HD2	2.20	0.44
22:BV:60:U:H5"	22:BV:61:C:H5	1.83	0.44
11:BK:58:THR:HB	11:BK:59:PRO:CD	2.48	0.44
31:DG:126:THR:HG22	31:DG:127:GLN:H	1.82	0.44
27:CC:86:ARG:HG3	27:CC:88:ALA:H	1.82	0.44
25:DA:797:G:C6	25:DA:798:G:C5	3.06	0.44
25:DA:1157:G:H2'	25:DA:1158:C:H6	1.81	0.44
25:DA:532:A:HO2'	25:DA:2021:C:H5	1.58	0.44
27:DC:15:VAL:HG22	27:DC:205:GLY:HA3	1.99	0.44
25:DA:2688:G:H2'	25:DA:2689:U:OP2	2.17	0.44
1:BA:232:G:C5	1:BA:233:C:C5	3.05	0.44
31:DG:152:ARG:HH21	31:DG:152:ARG:HB2	1.81	0.44
3:BC:27:GLU:HG2	3:BC:27:GLU:O	2.16	0.44
25:CA:1315:C:C2'	25:CA:1316:U:O5'	2.65	0.44
1:BA:1429:A:C4	1:BA:1430:A:C8	3.06	0.44
26:CB:85:G:H2'	26:CB:86:G:O5'	2.18	0.44
23:BX:6:G:O2'	23:BX:7:G:H5'	2.16	0.44
1:BA:1314:C:C5	19:BS:5:LYS:HE2	2.53	0.44
25:DA:1078:U:H5"	25:DA:1079:C:P	2.57	0.44
33:DI:72:THR:HG22	33:DI:112:LYS:HG2	1.99	0.44
49:DY:24:GLU:C	49:DY:28:LEU:HD12	2.38	0.44
49:DY:32:ALA:O	49:DY:35:GLY:CA	2.65	0.44
1:AA:1135:U:O4'	1:AA:1135:U:OP2	2.36	0.44
25:CA:1072:C:P	25:CA:1075:C:N4	2.91	0.44
25:CA:1104:C:H2'	25:CA:1105:U:C6	2.52	0.44
2:AB:195:VAL:HG12	2:AB:197:PHE:C	2.37	0.44
25:CA:846:U:O2'	25:CA:847:U:C6	2.66	0.44
25:DA:2291:U:H2'	25:DA:2292:U:H6	1.77	0.44
40:DP:58:PHE:CE2	40:DP:73:PHE:HB2	2.51	0.44
50:DZ:9:THR:HG23	50:DZ:10:ARG:HG2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:BQ:13:SER:HB3	17:BQ:21:VAL:HG11	1.92	0.44
42:CR:49:ILE:O	42:CR:50:GLY:O	2.35	0.44
3:BC:130:ARG:H	3:BC:130:ARG:NE	2.15	0.44
1:BA:1014:A:O3'	19:BS:13:HIS:CE1	2.70	0.44
25:DA:2782:G:N2	25:DA:2783:U:N1	2.66	0.44
25:CA:361:G:O2'	25:CA:362:A:P	2.75	0.44
25:DA:2118:U:C5	25:DA:2149:U:H1'	2.53	0.44
1:BA:306:A:H2'	1:BA:307:C:H5'	1.99	0.44
21:AU:13:VAL:O	21:AU:15:LEU:HD11	2.17	0.44
1:AA:1032:G:N3	1:AA:1032:G:H3'	2.32	0.44
3:AC:171:ARG:O	3:AC:172:VAL:CG2	2.66	0.44
1:BA:782:A:H4'	1:BA:1514:G:O2'	2.16	0.44
1:AA:463:U:C2'	1:AA:463:U:O2	2.65	0.44
20:BT:42:ASP:O	20:BT:43:LYS:C	2.53	0.44
16:AP:53:ASP:C	16:AP:53:ASP:OD1	2.55	0.44
1:BA:1533:C:H4'	1:BA:1534:A:OP1	2.16	0.44
25:CA:1410:G:C2	25:CA:1593:A:C2	3.06	0.44
25:CA:1586:A:H3'	25:CA:1586:A:C8	2.53	0.44
1:BA:840:C:C3'	1:BA:841:C:C5'	2.96	0.44
30:CF:151:LEU:HD13	30:CF:151:LEU:HA	1.91	0.44
29:CE:189:THR:CG2	29:CE:191:ASP:N	2.80	0.44
1:AA:943:U:O2'	1:AA:944:G:H5'	2.18	0.44
1:BA:1074:G:H4'	2:BB:102:ASN:HB3	2.00	0.44
25:CA:2146:C:H5'	25:CA:2147:A:N7	2.32	0.44
10:AJ:53:ILE:HB	10:AJ:61:ALA:HB1	1.97	0.44
9:AI:38:PHE:HA	9:AI:41:GLU:OE1	2.17	0.44
6:BF:76:THR:O	6:BF:79:ARG:HB2	2.18	0.44
40:DP:64:SER:N	40:DP:67:GLU:O	2.51	0.44
25:CA:100:U:N3	25:CA:101:A:N6	2.65	0.44
49:CY:5:GLU:HG3	49:CY:56:LEU:HD11	1.98	0.44
1:AA:15:G:H4'	5:AE:28:ARG:NH1	2.32	0.44
25:CA:1483:G:C6	25:CA:1484:U:C4	3.05	0.44
25:CA:1509:A:H1'	25:CA:1510:G:H5'	1.99	0.44
25:DA:1105:U:HO2'	25:DA:1106:G:C5'	2.31	0.44
25:CA:2075:U:O2'	25:CA:2077:A:OP2	2.33	0.44
18:AR:44:THR:OG1	18:AR:46:THR:HB	2.17	0.44
25:DA:2746:U:H4'	31:DG:138:GLN:HA	1.98	0.44
1:BA:110:C:H2'	1:BA:111:G:O4'	2.17	0.44
25:CA:272:A:C2	25:CA:366:C:O2	2.70	0.44
25:DA:1794:A:H1'	25:DA:1900:A:N3	2.33	0.44
1:AA:380:G:C4	1:AA:382:A:OP2	2.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1118:U:H1'	1:AA:1179:A:C4	2.52	0.44
14:BN:18:LYS:HB3	14:BN:19:TYR:HD1	1.83	0.44
31:CG:54:ARG:O	31:CG:55:ASP:C	2.56	0.44
15:BO:36:ASN:C	15:BO:38:LEU:N	2.70	0.44
14:BN:43:ASN:C	14:BN:45:VAL:H	2.19	0.44
4:BD:87:GLU:O	4:BD:89:LEU:N	2.50	0.44
25:DA:1429:G:C2	25:DA:1430:G:C4	3.06	0.44
51:D0:2:VAL:HG22	51:D0:3:GLN:N	2.33	0.44
1:AA:865:A:C2	1:AA:918:A:H4'	2.53	0.44
1:AA:918:A:H2'	1:AA:919:A:O5'	2.16	0.44
30:DF:3:LEU:O	30:DF:4:HIS:C	2.55	0.44
51:D0:16:ARG:O	51:D0:17:SER:C	2.55	0.44
25:DA:1486:U:O5'	25:DA:1486:U:H6	2.01	0.44
4:BD:47:LEU:HD23	4:BD:52:VAL:HG13	1.98	0.44
1:BA:39:G:O2'	1:BA:40:C:H5'	2.17	0.44
1:AA:1193:G:O2'	1:AA:1194:U:H5'	2.18	0.44
25:DA:404:A:O4'	25:DA:405:U:OP2	2.34	0.44
37:DM:110:GLU:O	37:DM:110:GLU:HG2	2.17	0.44
12:AL:34:THR:O	12:AL:35:ARG:HG3	2.17	0.44
18:BR:32:ILE:HA	18:BR:39:VAL:HG23	1.98	0.44
1:BA:647:C:H2'	1:BA:647:C:O2	2.17	0.44
28:CD:84:LEU:HD23	28:CD:84:LEU:HA	1.73	0.44
25:DA:920:A:H2'	25:DA:921:C:O5'	2.18	0.44
8:BH:19:ALA:C	8:BH:21:LYS:N	2.71	0.44
37:CM:2:LEU:HB2	37:CM:69:PRO:HG2	1.98	0.44
45:CU:71:ILE:CD1	45:CU:82:VAL:CG2	2.95	0.44
25:DA:1043:C:N4	25:DA:1044:C:N4	2.65	0.44
25:DA:2672:U:H2'	25:DA:2673:G:O5'	2.18	0.44
48:DX:4:CYS:SG	48:DX:51:SER:HB3	2.58	0.44
57:DW:22:PHE:O	57:DW:23:GLY:C	2.56	0.44
25:DA:2441:U:C2'	25:DA:2442:C:H5'	2.47	0.44
1:BA:1018:G:O6	1:BA:1019:A:N6	2.51	0.44
27:CC:24:HIS:CD2	27:CC:79:ARG:NH2	2.85	0.44
36:CL:47:ARG:HH21	36:CL:47:ARG:HG2	1.81	0.44
3:AC:129:PHE:O	3:AC:130:ARG:C	2.55	0.44
43:DS:36:LEU:CD1	43:DS:48:LYS:CA	2.95	0.44
28:DD:3:GLY:O	28:DD:4:LEU:CD1	2.66	0.44
25:CA:1827:U:H2'	25:CA:1828:G:O5'	2.18	0.44
25:DA:669:G:N3	25:DA:669:G:C2'	2.80	0.44
26:CB:94:A:C5	26:CB:95:U:C5	3.06	0.44
56:DB:93:C:H2'	56:DB:94:A:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:41:PRO:HD3	12:AL:47:ALA:O	2.17	0.44
25:CA:838:C:C2	25:CA:941:A:C2	3.05	0.44
1:AA:788:U:C2'	1:AA:789:U:H5'	2.47	0.44
29:CE:180:LEU:HD23	29:CE:180:LEU:HA	1.77	0.44
25:CA:1021:A:N3	25:CA:1021:A:H3'	2.32	0.44
45:CU:60:LYS:HG3	45:CU:61:GLU:H	1.82	0.44
25:CA:812:C:H5"	25:CA:1250:G:O2'	2.17	0.44
1:BA:942:G:N2	1:BA:943:U:C2	2.86	0.44
13:BM:73:SER:O	13:BM:77:LYS:HG3	2.17	0.44
19:BS:52:ASN:HB3	19:BS:74:ALA:O	2.17	0.44
25:DA:1070:A:H61	33:DI:10:LEU:HB3	1.82	0.44
25:DA:1076:C:H2'	25:DA:1077:A:O5'	2.18	0.44
25:CA:1956:U:H2'	25:CA:1956:U:O2	2.17	0.44
2:AB:172:ILE:O	2:AB:175:ALA:HB3	2.17	0.44
1:AA:1271:A:H2'	1:AA:1272:G:C8	2.52	0.44
20:AT:73:ARG:O	20:AT:76:ALA:HB3	2.17	0.44
1:BA:1061:G:C8	1:BA:1062:U:C5	3.06	0.44
1:AA:1280:A:H5"	10:AJ:42:LEU:HD21	1.98	0.44
25:DA:2296:U:O2	25:DA:2333:A:N1	2.50	0.44
4:AD:94:GLU:CG	4:AD:185:PRO:HG2	2.47	0.44
2:BB:17:HIS:O	2:BB:188:THR:CG2	2.65	0.44
21:BU:44:ARG:O	21:BU:45:LYS:CB	2.66	0.44
5:BE:153:ALA:HA	5:BE:156:ARG:HB3	1.99	0.44
38:DN:32:GLU:O	38:DN:114:GLU:HA	2.18	0.44
20:AT:27:MET:CG	20:AT:31:ILE:HD11	2.45	0.44
1:BA:1014:A:H4'	19:BS:13:HIS:CE1	2.52	0.44
25:DA:2146:C:H4'	25:DA:2147:A:OP1	2.17	0.44
3:AC:16:PRO:O	3:AC:17:TRP:CE3	2.71	0.44
5:BE:65:LYS:O	5:BE:69:ASN:HB2	2.18	0.44
1:AA:496:A:N3	1:AA:497:G:N7	2.65	0.44
4:AD:62:ARG:HE	4:AD:62:ARG:CA	2.30	0.44
5:AE:141:ASP:O	5:AE:143:LEU:N	2.50	0.44
1:BA:68:G:C6	1:BA:69:G:H1'	2.51	0.44
25:DA:1333:G:N2	25:DA:1334:G:N9	2.65	0.44
11:BK:64:VAL:C	11:BK:66:ALA:N	2.67	0.44
1:AA:204:G:N3	1:AA:465:A:C2	2.84	0.44
1:BA:734:G:O2'	1:BA:735:C:H5'	2.18	0.44
31:DG:83:THR:CG2	31:DG:133:LYS:HG3	2.47	0.44
11:BK:22:ILE:O	11:BK:22:ILE:CG1	2.65	0.44
25:CA:1418:G:O6	25:CA:1578:U:H3'	2.18	0.44
9:BI:9:GLY:H	9:BI:84:ARG:HD3	1.79	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1286:U:O2	1:AA:1286:U:C2'	2.65	0.44
1:AA:1308:U:O3'	13:AM:90:HIS:HE1	2.00	0.44
32:DH:3:VAL:N	32:DH:39:ALA:CB	2.81	0.44
25:CA:2147:A:H3'	25:CA:2147:A:C8	2.52	0.44
1:AA:1060:U:O2'	10:AJ:54:SER:HB2	2.16	0.44
16:BP:38:PHE:CE2	16:BP:51:ARG:CB	3.01	0.44
6:BF:29:ILE:HG22	6:BF:30:THR:N	2.31	0.44
45:DU:5:ARG:O	45:DU:8:ASP:CB	2.65	0.44
2:AB:23:ASN:O	2:AB:26:MET:HB2	2.18	0.44
3:AC:59:PRO:O	3:AC:60:ALA:CB	2.65	0.44
36:CL:81:ASP:OD2	36:CL:100:ILE:HD13	2.17	0.44
3:BC:80:GLY:O	3:BC:84:GLU:HG2	2.18	0.44
1:BA:1113:C:O2'	3:BC:13:ILE:HD11	2.17	0.44
43:DS:70:LYS:O	43:DS:107:VAL:HA	2.16	0.44
21:AU:9:GLU:OE2	21:AU:10:PRO:HD3	2.17	0.44
25:CA:141:G:H5"	25:CA:142:A:C5	2.52	0.44
38:CN:21:PHE:CE2	38:CN:24:MET:HE3	2.52	0.44
4:BD:36:ALA:H	4:BD:37:PRO:CD	2.27	0.44
27:CC:110:LYS:H	27:CC:110:LYS:HE2	1.83	0.44
48:DX:29:LEU:HD22	48:DX:30:PRO:HD2	1.98	0.44
6:BF:20:GLY:O	6:BF:24:ARG:HD3	2.17	0.44
49:DY:57:LEU:HD12	49:DY:57:LEU:O	2.17	0.44
1:BA:1451:U:C5'	1:BA:1452:C:H5	2.30	0.44
25:DA:2475:C:H2'	25:DA:2476:A:H5'	1.99	0.44
25:DA:770:G:C4	25:DA:771:G:C8	3.06	0.44
25:DA:2259:U:C5	25:DA:2427:C:N4	2.86	0.44
1:BA:1212:U:OP1	1:BA:1212:U:C6	2.70	0.44
33:DI:79:LEU:HD23	33:DI:83:ALA:HB2	2.00	0.44
5:AE:158:LYS:O	8:AH:63:LYS:CE	2.65	0.44
15:BO:42:PHE:HE1	15:BO:55:LEU:HD22	1.82	0.44
31:CG:164:ALA:C	31:CG:166:GLU:H	2.21	0.44
13:AM:11:HIS:C	13:AM:43:LYS:HE3	2.38	0.44
13:AM:8:ILE:O	13:AM:8:ILE:HG22	2.18	0.44
25:DA:2417:C:H2'	25:DA:2417:C:O2	2.17	0.44
1:AA:103:U:H2'	1:AA:104:G:H8	1.82	0.44
1:AA:1000:A:N3	1:AA:1041:G:N2	2.66	0.44
1:AA:203:G:C2	1:AA:215:C:C2	3.06	0.44
1:BA:1441:A:H3'	1:BA:1441:A:H8	1.77	0.44
30:DF:98:PHE:O	30:DF:100:GLU:N	2.50	0.44
30:DF:98:PHE:HA	30:DF:101:ARG:NH2	2.33	0.44
25:DA:1872:A:H2'	25:DA:1873:G:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1481:U:C2'	1:AA:1481:U:O2	2.62	0.44
25:CA:1840:G:C6	25:CA:1841:U:C4	3.05	0.44
25:DA:164:C:C2'	25:DA:165:A:H5'	2.46	0.44
1:BA:358:U:H2'	1:BA:359:G:H8	1.79	0.44
25:DA:2516:A:C2'	25:DA:2517:C:H5'	2.47	0.44
25:CA:108:G:H2'	25:CA:109:C:C5'	2.48	0.44
40:CP:64:SER:O	40:CP:66:GLY:N	2.50	0.44
8:BH:29:SER:N	8:BH:32:LYS:HB2	2.32	0.44
28:DD:62:LYS:N	28:DD:63:PRO:HD2	2.33	0.44
22:AV:50:U:N3	22:AV:51:U:C5	2.85	0.44
25:CA:186:G:C2	25:CA:187:G:C5	3.06	0.44
39:DO:14:ALA:O	39:DO:18:LEU:CD2	2.65	0.44
18:BR:45:GLY:O	18:BR:46:THR:HG23	2.18	0.44
25:DA:845:A:H5'	25:DA:846:U:OP2	2.18	0.44
16:AP:60:TRP:HB3	16:AP:65:ALA:HB2	2.00	0.44
27:CC:83:ASP:OD1	27:CC:84:PRO:CD	2.66	0.44
43:DS:36:LEU:HD13	43:DS:48:LYS:HB2	1.98	0.44
25:DA:1635:A:C8	25:DA:1636:U:C5	3.06	0.44
25:DA:2602:A:H4'	25:DA:2603:G:C5'	2.47	0.44
31:DG:89:VAL:HG23	31:DG:160:GLY:O	2.17	0.44
25:DA:1534:U:O2'	25:DA:1537:G:O6	2.35	0.44
25:CA:2884:U:C5	51:C0:39:ARG:NH2	2.86	0.44
25:DA:2716:C:C2	25:DA:2717:C:C5	3.06	0.44
25:CA:1217:U:C2'	25:CA:1217:U:O2	2.62	0.44
29:CE:60:TRP:O	29:CE:61:ARG:C	2.56	0.44
25:CA:833:A:OP1	36:CL:39:LYS:HD3	2.18	0.44
25:CA:1278:C:O2'	25:CA:1279:G:H5'	2.17	0.44
1:BA:445:G:H2'	1:BA:445:G:N3	2.32	0.44
25:CA:901:C:O2	25:CA:901:C:C2'	2.65	0.44
25:CA:2058:A:H8	25:CA:2058:A:O5'	2.00	0.44
25:CA:588:U:H2'	25:CA:589:U:C6	2.52	0.44
25:CA:319:G:H2'	25:CA:320:A:O4'	2.18	0.44
25:CA:1059:G:N2	25:CA:1080:A:H1'	2.33	0.44
25:CA:1079:C:C5	25:CA:1088:A:C2	3.05	0.44
33:CI:17:ALA:O	33:CI:18:ASN:HB3	2.17	0.44
33:CI:37:PHE:CZ	33:CI:41:PHE:HD1	2.35	0.44
1:AA:1320:C:O2	19:AS:35:ARG:NH1	2.50	0.44
1:AA:259:G:C4	1:AA:260:G:C8	3.04	0.44
1:BA:1275:A:O2'	1:BA:1276:G:H5'	2.16	0.44
17:AQ:7:LEU:CB	17:AQ:60:ILE:HG22	2.46	0.44
1:AA:1278:G:C4'	1:AA:1279:G:C8	3.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:15:HIS:CG	10:AJ:16:ARG:N	2.86	0.44
10:AJ:42:LEU:O	10:AJ:43:PRO:O	2.36	0.44
25:DA:2196:C:H2'	25:DA:2197:U:H5'	1.99	0.44
25:DA:2201:G:C5	25:DA:2223:G:C2	3.06	0.44
4:AD:184:LYS:HA	4:AD:185:PRO:HD2	1.86	0.44
2:BB:206:ILE:N	2:BB:206:ILE:CD1	2.81	0.44
3:BC:153:SER:HB3	3:BC:164:THR:CB	2.47	0.44
25:DA:391:A:H2'	25:DA:392:U:H5'	2.00	0.44
25:DA:2110:G:O2'	25:DA:2120:G:H5'	2.17	0.44
25:DA:1448:G:H2'	25:DA:1449:G:H8	1.83	0.44
25:CA:2757:A:N1	31:CG:66:THR:CG2	2.74	0.44
25:DA:1452:G:H2'	25:DA:1457:U:O4	2.18	0.44
1:BA:1142:G:C2	1:BA:1143:G:H1'	2.51	0.44
1:AA:626:G:H2'	1:AA:627:G:C5'	2.46	0.44
25:DA:1125:G:C6	25:DA:1126:A:N6	2.86	0.44
25:DA:1127:A:C2'	25:DA:1128:G:H5'	2.48	0.44
1:AA:429:U:H4'	1:AA:430:A:OP1	2.18	0.44
4:AD:143:SER:HB2	4:AD:178:GLU:HA	1.99	0.44
1:BA:74:A:N1	1:BA:97:G:C6	2.86	0.44
8:AH:48:PHE:O	8:AH:49:LYS:CG	2.65	0.44
1:BA:663:A:N1	1:BA:743:A:C2	2.85	0.44
31:DG:147:LEU:O	31:DG:150:TYR:HB2	2.18	0.44
1:BA:154:U:O4	1:BA:167:A:N1	2.50	0.44
8:AH:79:ARG:HB2	8:AH:80:PRO:HD2	2.00	0.44
21:BU:17:ARG:O	21:BU:18:PHE:C	2.55	0.44
37:DM:57:VAL:HG23	37:DM:58:LYS:O	2.18	0.44
1:BA:470:C:C6	1:BA:470:C:H3'	2.52	0.44
25:CA:2152:G:N7	25:CA:2153:C:C5	2.85	0.44
9:AI:49:GLN:O	9:AI:51:LEU:N	2.51	0.44
25:DA:230:G:H2'	25:DA:231:A:H8	1.82	0.44
3:BC:89:VAL:O	3:BC:93:ILE:HG13	2.18	0.44
1:BA:376:G:H2'	1:BA:377:G:H8	1.83	0.44
56:DB:57:A:C2'	56:DB:58:A:H5'	2.48	0.44
30:DF:16:MET:CE	30:DF:21:TYR:HB2	2.47	0.44
25:CA:1535:A:C5'	25:CA:1536:C:C5	3.00	0.44
23:BX:14:A:N6	23:BX:15:A:N1	2.65	0.44
25:DA:1268:A:H2'	25:DA:1269:A:O4'	2.18	0.44
25:CA:2297:A:C6	25:CA:2298:A:N7	2.85	0.44
1:BA:107:G:C2'	1:BA:108:G:H5"	2.47	0.44
1:BA:59:A:C6	1:BA:331:G:N3	2.86	0.44
7:BG:14:ASP:OD2	7:BG:14:ASP:C	2.56	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:CF:51:ASN:HD22	30:CF:146:ASP:HB3	1.83	0.44
1:AA:1167:A:H5"	1:AA:1168:U:P	2.57	0.44
45:DU:101:THR:CG2	45:DU:102:ILE:N	2.80	0.44
24:AY:144:LEU:HA	24:AY:144:LEU:HD23	1.70	0.44
1:AA:874:G:C6	1:AA:875:U:C4	3.05	0.44
49:CY:15:ASN:O	49:CY:19:LEU:HG	2.18	0.44
40:CP:30:TRP:CD2	40:CP:39:LEU:HD11	2.52	0.44
25:DA:2511:U:H2'	25:DA:2512:C:H6	1.83	0.44
1:AA:848:C:H2'	1:AA:849:G:O5'	2.17	0.44
4:BD:87:GLU:O	4:BD:88:ASN:C	2.54	0.44
21:BU:13:VAL:O	21:BU:15:LEU:CG	2.66	0.44
25:CA:1875:G:O2'	25:CA:1876:A:P	2.75	0.44
25:CA:2108:A:C6	25:CA:2109:U:O2	2.70	0.44
25:CA:2181:U:C2	25:CA:2182:U:C6	3.05	0.44
1:AA:1378:C:H3'	1:AA:1378:C:C6	2.53	0.44
27:CC:176:ARG:HG2	27:CC:176:ARG:HH21	1.83	0.44
25:DA:295:G:C4	25:DA:344:A:C2	3.06	0.44
25:DA:1516:G:C2'	25:DA:1517:G:H5'	2.48	0.44
25:DA:1731:G:O2'	25:DA:1732:C:H2'	2.18	0.44
3:BC:4:VAL:HG22	3:BC:5:HIS:N	2.33	0.44
32:CH:41:LYS:O	32:CH:42:LYS:C	2.55	0.44
26:CB:51:G:C6	26:CB:52:A:N6	2.86	0.44
25:DA:2100:G:C5	25:DA:2190:G:C6	3.06	0.44
1:AA:1022:A:C6	1:AA:1023:U:C4	3.06	0.44
41:DQ:105:PHE:C	41:DQ:107:ALA:N	2.71	0.44
6:AF:50:PRO:O	6:AF:51:ILE:C	2.56	0.44
25:DA:22:C:C3'	25:DA:22:C:C6	3.01	0.44
35:CK:91:SER:O	35:CK:92:GLU:C	2.56	0.44
1:BA:892:A:C5	1:BA:893:C:C4	3.06	0.44
44:CT:69:ARG:O	44:CT:69:ARG:HG3	2.18	0.44
49:CY:43:LEU:HD23	49:CY:43:LEU:HA	1.76	0.44
30:CF:105:ILE:HD12	30:CF:138:PRO:HG3	1.99	0.44
25:DA:734:A:C5	25:DA:735:A:C8	3.06	0.44
25:DA:283:G:H2'	25:DA:284:U:O4'	2.17	0.44
25:DA:869:G:C2'	25:DA:870:U:H5'	2.48	0.44
25:CA:2870:C:H2'	25:CA:2871:U:H5'	1.98	0.44
30:DF:72:SER:OG	30:DF:79:ARG:HA	2.17	0.44
30:DF:131:VAL:O	30:DF:131:VAL:CG2	2.66	0.44
1:AA:1012:A:N6	1:AA:1013:G:C6	2.85	0.44
1:AA:689:C:H2'	1:AA:690:G:O4'	2.18	0.44
25:DA:381:G:C6	25:DA:382:A:C8	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:CD:187:LEU:O	28:CD:188:LEU:HD23	2.17	0.44
29:CE:52:VAL:CG1	29:CE:53:THR:N	2.81	0.44
29:CE:52:VAL:HG12	29:CE:53:THR:N	2.32	0.44
25:CA:1138:G:N3	34:CJ:108:MET:HE2	2.33	0.44
39:DO:8:ILE:HG22	39:DO:9:ARG:N	2.32	0.44
25:DA:1421:G:H8	25:DA:1421:G:O5'	2.01	0.44
25:CA:382:A:C2'	25:CA:383:C:O5'	2.65	0.44
25:CA:2874:C:C2'	25:CA:2875:C:H5'	2.47	0.44
36:DL:117:THR:HG22	36:DL:118:THR:N	2.32	0.44
38:DN:116:VAL:O	38:DN:116:VAL:CG1	2.61	0.44
29:DE:28:VAL:HG12	29:DE:32:VAL:CG2	2.48	0.44
29:CE:145:ASP:HB3	29:CE:184:ASP:HB2	2.00	0.44
25:CA:2190:G:H3'	25:CA:2191:A:H8	1.82	0.44
25:DA:1208:C:C2	25:DA:1239:G:N2	2.86	0.44
48:DX:70:LEU:O	48:DX:71:ARG:C	2.53	0.44
25:CA:825:A:C2	25:CA:833:A:C2	3.05	0.44
25:CA:1355:G:C2'	25:CA:1356:G:O5'	2.66	0.44
5:BE:141:ASP:O	5:BE:145:ASN:ND2	2.51	0.44
25:DA:2462:C:H2'	25:DA:2463:C:C6	2.53	0.44
25:DA:1995:U:OP1	60:DA:3819:HOH:O	2.21	0.44
1:AA:583:A:H2'	1:AA:584:G:H5'	1.99	0.44
44:CT:33:LYS:HG3	44:CT:80:TRP:CE3	2.52	0.44
25:CA:1676:A:H2'	25:CA:1677:A:O5'	2.18	0.44
9:AI:12:LYS:O	9:AI:12:LYS:HG2	2.17	0.44
29:DE:170:ARG:NH2	29:DE:170:ARG:HG2	2.33	0.44
33:CI:16:MET:HA	33:CI:16:MET:CE	2.47	0.44
25:DA:1644:C:O2	25:DA:1644:C:H2'	2.17	0.44
1:BA:883:C:C2'	1:BA:884:U:H5'	2.48	0.44
24:AY:50:THR:OG1	24:AY:55:LEU:HD21	2.17	0.44
55:D4:29:ALA:O	55:D4:31:PRO:HD3	2.18	0.44
43:DS:56:ALA:O	43:DS:57:ASN:C	2.56	0.44
1:BA:1310:G:C5	1:BA:1311:A:N7	2.86	0.44
1:BA:1350:A:C2	1:BA:1351:U:O2	2.71	0.44
1:BA:1329:A:H4'	13:BM:23:GLY:O	2.17	0.44
25:DA:1080:A:C2	25:DA:1081:U:C2	3.06	0.44
25:CA:416:U:C5	25:CA:417:C:N4	2.85	0.44
4:BD:7:LYS:HB2	4:BD:20:LEU:HD13	1.98	0.44
33:CI:34:ILE:HD13	33:CI:34:ILE:N	2.32	0.44
2:AB:132:GLU:O	2:AB:136:ARG:N	2.51	0.44
1:AA:1322:C:P	19:AS:77:ARG:HH21	2.41	0.44
1:AA:980:C:C5	1:AA:981:U:N3	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:4:LEU:O	19:AS:5:LYS:CD	2.66	0.44
20:AT:72:ALA:O	20:AT:73:ARG:C	2.56	0.44
1:BA:1275:A:C3'	1:BA:1276:G:H5'	2.43	0.44
37:CM:57:VAL:C	37:CM:58:LYS:HG2	2.38	0.44
2:BB:205:ALA:O	2:BB:206:ILE:C	2.56	0.44
32:DH:59:ALA:O	32:DH:62:LEU:CG	2.66	0.44
25:DA:1670:C:C4	25:DA:1671:U:C2	3.05	0.44
17:BQ:16:MET:CB	17:BQ:19:SER:HB3	2.48	0.44
17:BQ:10:ARG:CZ	17:BQ:55:GLY:HA2	2.47	0.44
20:BT:66:ILE:CG2	20:BT:67:HIS:H	2.31	0.44
11:AK:52:ARG:O	11:AK:55:ARG:HG3	2.18	0.44
38:DN:83:LEU:HD21	38:DN:115:LEU:HD13	2.00	0.44
1:AA:140:U:C2'	1:AA:141:G:O5'	2.66	0.44
25:DA:2148:G:N3	25:DA:2149:U:C5	2.86	0.44
13:AM:52:ILE:HG22	13:AM:56:ARG:NH2	2.33	0.44
13:AM:65:GLU:O	13:AM:67:ASP:N	2.50	0.44
25:DA:528:A:H2'	25:DA:529:A:O5'	2.17	0.44
39:DO:67:ASN:O	39:DO:69:ASP:N	2.50	0.44
1:BA:764:C:H2'	1:BA:765:G:C8	2.50	0.44
1:AA:438:U:N3	1:AA:494:G:C6	2.86	0.44
22:AV:65:G:H2'	22:AV:66:U:C6	2.52	0.44
25:DA:1441:G:C2	25:DA:1442:U:C5	3.05	0.44
25:DA:1330:C:H2'	25:DA:1331:G:O5'	2.17	0.44
25:CA:1269:A:O5'	25:CA:1269:A:H8	2.01	0.44
1:BA:1458:G:H2'	1:BA:1459:G:C8	2.53	0.44
1:AA:451:A:C8	1:AA:452:A:C2	3.06	0.44
1:AA:642:A:C6	1:AA:643:C:N3	2.85	0.44
9:BI:38:PHE:CE1	9:BI:75:ALA:HB2	2.52	0.44
25:CA:2800:A:H3'	25:CA:2801:G:H5"	1.96	0.44
35:CK:113:MET:O	35:CK:116:ILE:N	2.50	0.44
27:DC:144:GLU:CA	27:DC:151:GLY:HA2	2.43	0.44
5:BE:22:LYS:O	5:BE:23:THR:CB	2.64	0.44
31:DG:43:LYS:HE2	31:DG:43:LYS:N	2.32	0.44
2:AB:34:ARG:HE	2:AB:35:ASN:N	2.16	0.44
6:BF:62:MET:HG3	6:BF:64:VAL:HG23	2.00	0.44
45:DU:40:LEU:HD21	45:DU:61:GLU:HG3	1.99	0.44
9:BI:56:MET:HA	9:BI:59:LYS:CB	2.48	0.44
25:CA:1737:G:C6	25:CA:1738:G:N2	2.86	0.44
30:DF:7:TYR:O	30:DF:11:VAL:HB	2.18	0.44
30:CF:42:ALA:HB1	30:CF:45:ASP:C	2.38	0.44
31:DG:75:VAL:O	31:DG:76:ILE:C	2.56	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1358:G:O2'	25:DA:1359:A:H5'	2.17	0.44
25:DA:59:U:O2'	25:DA:60:G:C5'	2.65	0.44
37:CM:50:ARG:O	37:CM:51:ARG:C	2.56	0.44
21:BU:24:LYS:HD3	21:BU:25:ALA:H	1.83	0.44
25:CA:2571:U:H2'	25:CA:2572:A:OP1	2.17	0.44
2:AB:199:ILE:O	2:AB:200:PRO:O	2.35	0.44
1:AA:1055:A:C6	1:AA:1056:U:C6	3.05	0.44
25:CA:272:A:H2'	25:CA:273:G:O4'	2.17	0.44
13:AM:80:MET:O	13:AM:81:ASP:C	2.56	0.44
1:BA:247:G:C5	1:BA:278:G:C2	3.06	0.44
25:CA:892:A:H2	25:CA:893:C:C2	2.36	0.44
39:CO:2:ASP:O	39:CO:4:LYS:N	2.51	0.44
7:AG:91:ARG:NE	7:AG:93:VAL:HG21	2.32	0.44
40:CP:30:TRP:CZ3	40:CP:39:LEU:CD1	3.00	0.44
1:BA:878:A:OP1	8:BH:80:PRO:HD2	2.18	0.44
40:CP:55:HIS:O	40:CP:56:SER:C	2.56	0.44
1:AA:200:G:C2	1:AA:218:U:O2	2.71	0.44
25:DA:1005:C:C4	25:DA:1143:A:N3	2.86	0.44
37:DM:20:LEU:N	37:DM:20:LEU:CD2	2.80	0.44
25:DA:1477:A:C2	25:DA:1515:A:C2	3.05	0.44
25:DA:463:G:N1	25:DA:467:G:C6	2.85	0.44
32:CH:18:GLN:O	32:CH:19:VAL:HG13	2.18	0.44
56:DB:72:G:N2	56:DB:103:U:C5	2.86	0.44
36:CL:91:ASP:OD1	36:CL:92:LEU:HD12	2.18	0.44
1:AA:646:G:C2	1:AA:647:C:C5	3.05	0.44
8:AH:21:LYS:HE2	8:AH:21:LYS:CA	2.46	0.44
25:DA:773:U:H4'	27:DC:46:GLY:HA3	1.99	0.44
28:CD:105:LYS:NZ	28:CD:105:LYS:HB3	2.33	0.44
1:BA:1428:A:C2	1:BA:1473:G:C2	3.06	0.44
1:BA:1381:U:C6	1:BA:1382:C:H5	2.36	0.44
51:D0:29:VAL:HG13	51:D0:34:GLY:C	2.38	0.44
44:DT:17:SER:O	44:DT:18:GLU:C	2.56	0.44
43:DS:29:VAL:CG1	43:DS:55:ILE:HD11	2.48	0.44
10:BJ:92:LEU:HD23	10:BJ:92:LEU:N	2.32	0.44
31:CG:97:VAL:O	31:CG:97:VAL:CG1	2.62	0.44
17:BQ:77:VAL:C	17:BQ:78:VAL:CG2	2.86	0.44
54:D3:30:HIS:CE1	54:D3:31:ILE:CD1	3.01	0.44
25:CA:2544:G:C2'	25:CA:2545:G:O5'	2.65	0.44
40:CP:36:LYS:HE3	40:CP:38:ARG:NE	2.33	0.44
32:CH:46:PHE:CD2	32:CH:47:PHE:N	2.85	0.44
25:CA:1291:C:H2'	25:CA:1292:G:H5'	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2631:G:C2'	25:CA:2632:A:O5'	2.65	0.44
27:DC:184:GLU:O	27:DC:187:CYS:SG	2.74	0.44
25:CA:2849:U:N3	25:CA:2867:G:O4'	2.51	0.44
1:BA:338:A:O5'	1:BA:338:A:H8	2.00	0.44
3:BC:79:LYS:N	3:BC:79:LYS:HD2	2.32	0.44
1:AA:367:U:O2'	1:AA:368:U:H4'	2.18	0.44
26:CB:78:A:C2	26:CB:99:A:C4	3.05	0.44
29:CE:97:ASN:HB3	29:CE:100:MET:HG3	1.98	0.44
11:AK:37:GLN:OE1	11:AK:37:GLN:N	2.50	0.44
24:AY:18:VAL:HG22	24:AY:172:ILE:CG1	2.48	0.44
1:AA:1240:U:C2	7:AG:31:VAL:CG1	3.01	0.44
25:CA:2349:G:O6	25:CA:2350:C:C4	2.70	0.44
35:CK:41:ILE:HD12	35:CK:41:ILE:C	2.38	0.44
25:CA:1818:U:OP2	27:CC:155:ARG:NH1	2.51	0.44
1:AA:552:U:H4'	12:AL:83:GLY:O	2.16	0.44
24:AY:128:ALA:O	24:AY:129:VAL:C	2.56	0.44
5:AE:12:GLU:CB	5:AE:38:VAL:HG12	2.48	0.44
25:CA:2486:C:H2'	25:CA:2487:G:O4'	2.18	0.44
25:DA:442:G:O4'	29:DE:41:GLN:OE1	2.36	0.44
1:BA:393:A:H5'	1:BA:483:C:O2'	2.17	0.44
1:AA:309:A:C2	1:AA:310:G:C8	3.05	0.44
1:AA:320:A:C2	1:AA:334:C:N3	2.86	0.44
25:CA:1684:G:H2'	25:CA:1685:C:C6	2.53	0.44
42:CR:76:LYS:O	42:CR:84:ARG:HA	2.17	0.44
38:DN:28:LEU:O	38:DN:28:LEU:HD12	2.18	0.44
25:DA:1967:C:O2	25:DA:1967:C:H2'	2.17	0.44
33:CI:29:GLN:HG2	33:CI:29:GLN:O	2.17	0.44
29:DE:21:ARG:O	29:DE:22:ASP:C	2.56	0.44
29:DE:182:ALA:HB2	36:DL:3:LEU:HD22	2.00	0.44
25:CA:503:A:H5'	25:CA:504:A:H3'	1.99	0.44
9:BI:118:ARG:O	9:BI:118:ARG:HG2	2.18	0.44
1:BA:1330:U:OP1	13:BM:24:VAL:O	2.35	0.44
13:BM:24:VAL:HG22	13:BM:25:GLY:N	2.32	0.44
13:BM:32:ILE:HG23	13:BM:58:GLU:HB3	1.99	0.44
33:DI:27:LEU:HD11	33:DI:34:ILE:CD1	2.48	0.44
4:BD:7:LYS:NZ	4:BD:21:LYS:HD2	2.33	0.44
32:CH:25:TYR:HE1	32:CH:29:PHE:CD2	2.35	0.44
25:DA:78:U:OP2	49:DY:2:LYS:HD2	2.18	0.44
21:AU:16:ARG:HH11	21:AU:19:LYS:HG2	1.83	0.44
25:CA:1091:G:HO2'	25:CA:1092:C:H5	1.64	0.44
33:CI:10:LEU:O	33:CI:23:VAL:HG11	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:95:TRP:CH2	2:AB:174:GLU:CD	2.91	0.44
1:AA:1212:U:O2	1:AA:1212:U:H2'	2.18	0.44
1:AA:1313:U:P	19:AS:5:LYS:HB2	2.58	0.44
19:AS:35:ARG:NH2	19:AS:76:THR:HG23	2.32	0.44
17:AQ:13:SER:HB3	17:AQ:16:MET:HE2	2.00	0.44
17:AQ:54:ILE:C	17:AQ:54:ILE:CD1	2.86	0.44
1:BA:615:G:C2	1:BA:616:G:C8	3.06	0.44
1:BA:724:G:N2	1:BA:725:G:H1'	2.33	0.44
5:BE:158:LYS:CG	5:BE:158:LYS:O	2.65	0.44
5:BE:45:VAL:O	5:BE:70:MET:HG3	2.17	0.44
25:DA:636:G:H3'	36:DL:128:THR:HG21	1.99	0.44
38:DN:8:ARG:HE	38:DN:43:GLU:CG	2.31	0.44
25:CA:2311:A:C8	30:CF:76:PHE:CD2	3.06	0.44
39:DO:53:THR:HG22	39:DO:74:VAL:HG21	2.00	0.44
1:BA:1144:G:H3'	1:BA:1145:A:O4'	2.17	0.44
5:BE:64:GLU:OE2	5:BE:68:ARG:NH1	2.51	0.44
3:AC:142:ARG:HH11	3:AC:142:ARG:HG3	1.83	0.44
25:CA:1063:G:H4'	33:CI:76:ALA:HB3	2.00	0.44
30:CF:7:TYR:CA	30:CF:11:VAL:HG23	2.48	0.44
1:AA:510:A:N7	60:AA:1723:HOH:O	2.37	0.44
1:AA:197:A:O2'	1:AA:221:C:H1'	2.18	0.44
25:CA:2008:C:H2'	25:CA:2009:A:O5'	2.18	0.44
1:AA:376:G:O3'	16:AP:5:ARG:HD2	2.18	0.44
31:DG:142:GLN:O	31:DG:143:VAL:C	2.56	0.44
31:DG:95:ALA:HB2	31:DG:104:LEU:HD23	2.00	0.44
1:BA:1149:C:N4	1:BA:1150:A:C6	2.86	0.44
9:AI:117:LEU:N	9:AI:117:LEU:HD12	2.33	0.44
2:BB:134:LEU:HD11	2:BB:138:ARG:HB3	1.99	0.44
25:DA:1178:C:C5'	25:DA:1179:G:OP1	2.66	0.44
37:CM:111:GLU:OE1	37:CM:112:LEU:HA	2.17	0.44
9:AI:24:ASN:O	9:AI:60:LEU:N	2.50	0.44
45:CU:5:ARG:C	45:CU:6:ARG:O	2.54	0.44
1:BA:321:A:H2	1:BA:333:U:O2	2.00	0.44
12:BL:49:ARG:CB	12:BL:89:LEU:HD11	2.48	0.44
6:AF:21:MET:HE2	6:AF:21:MET:HB3	1.79	0.44
25:CA:2298:A:C6	25:CA:2321:U:C4	3.06	0.44
46:CV:40:ILE:HG22	46:CV:42:LEU:HD23	2.00	0.44
27:DC:252:LYS:O	27:DC:253:GLY:O	2.35	0.44
25:DA:1354:A:H5"	25:DA:1355:G:OP2	2.17	0.44
7:BG:80:GLY:CA	23:BX:11:U:H5"	2.48	0.44
7:AG:46:LEU:HA	7:AG:46:LEU:HD12	1.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2403:C:C2'	25:CA:2404:U:H5'	2.48	0.44
7:BG:78:ARG:CG	7:BG:83:THR:HG23	2.48	0.44
15:BO:55:LEU:O	15:BO:59:VAL:HG23	2.18	0.44
1:AA:836:G:C5	1:AA:851:G:C6	3.06	0.44
44:DT:2:ILE:HA	44:DT:3:ARG:CB	2.46	0.44
1:AA:469:C:H6	1:AA:469:C:O5'	2.00	0.44
25:DA:1731:G:C6	25:DA:1733:G:C5	3.05	0.44
25:DA:901:C:C4	25:DA:902:C:C2	3.05	0.44
30:DF:101:ARG:HA	30:DF:105:ILE:HG23	1.99	0.44
30:DF:99:PHE:O	30:DF:103:ILE:HG12	2.18	0.44
30:DF:104:THR:O	30:DF:108:PRO:CG	2.63	0.44
6:BF:49:TYR:HB2	6:BF:50:PRO:HD3	1.98	0.44
25:DA:1870:C:H3'	25:DA:1871:A:H5'	2.00	0.44
39:CO:102:ARG:O	39:CO:105:ALA:HB3	2.17	0.44
1:AA:190:A:C8	1:AA:190:A:H3'	2.53	0.44
30:CF:93:GLU:O	30:CF:94:ARG:C	2.56	0.44
26:CB:102:G:H2'	26:CB:103:U:C5'	2.48	0.44
1:BA:639:G:C4	1:BA:640:A:C8	3.06	0.44
25:CA:1606:C:H6	25:CA:1606:C:H3'	1.82	0.44
16:BP:79:ASN:ND2	16:BP:82:ALA:CB	2.81	0.44
16:BP:80:LYS:HB2	16:BP:80:LYS:HZ3	1.82	0.44
25:DA:1221:C:C4	25:DA:1222:U:C5	3.06	0.44
25:DA:1717:A:H2'	25:DA:1718:G:C5'	2.48	0.44
25:DA:1741:C:H2'	25:DA:1742:U:H6	1.82	0.44
29:DE:151:GLY:O	29:DE:195:GLN:NE2	2.51	0.44
25:CA:1439:A:N7	25:CA:1552:A:H2	2.15	0.44
27:CC:74:PRO:O	27:CC:75:ALA:HB2	2.18	0.44
31:DG:39:ALA:CB	31:DG:57:TYR:HB3	2.47	0.44
32:CH:128:HIS:O	32:CH:144:VAL:HG23	2.18	0.44
1:AA:569:C:H5"	1:AA:570:G:OP1	2.17	0.44
25:DA:2179:C:H2'	25:DA:2180:U:H6	1.82	0.44
27:DC:110:LYS:O	27:DC:113:ASP:OD2	2.36	0.44
27:DC:136:VAL:HG22	27:DC:166:ARG:CB	2.47	0.44
37:DM:33:LEU:HD22	37:DM:117:PHE:HB3	2.00	0.44
13:AM:48:SER:O	13:AM:49:GLU:C	2.55	0.44
50:CZ:53:MET:C	50:CZ:54:VAL:HG13	2.37	0.44
25:CA:2247:A:H2'	25:CA:2248:C:C6	2.52	0.44
25:DA:1878:G:C2'	25:DA:1879:C:H5'	2.48	0.44
30:CF:79:ARG:HG2	30:CF:80:GLN:H	1.83	0.44
25:CA:643:A:H2'	25:CA:644:A:C8	2.53	0.44
32:DH:102:ALA:O	32:DH:106:ALA:HB2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:CE:27:LEU:CD1	29:CE:100:MET:CE	2.96	0.44
25:DA:945:A:C4	25:DA:2448:A:C2	3.06	0.44
35:CK:105:ARG:O	35:CK:106:GLU:C	2.57	0.44
25:DA:2854:G:C2'	25:DA:2855:C:O5'	2.66	0.44
25:CA:1726:C:C2'	25:CA:1727:C:H5'	2.48	0.44
1:AA:135:C:O2	16:AP:1:MET:N	2.34	0.44
1:BA:1399:C:H4'	1:BA:1400:C:O5'	2.17	0.44
25:CA:1310:G:H1'	25:CA:1611:C:H5'	1.99	0.44
46:DV:48:MET:HA	46:DV:86:LEU:HD11	1.99	0.44
1:AA:966:G:O2'	9:AI:128:LYS:O	2.36	0.44
25:CA:306:U:O4	25:CA:307:G:C6	2.70	0.44
25:DA:2029:G:H2'	25:DA:2031:A:OP1	2.18	0.44
1:AA:229:U:O2'	1:AA:230:G:H5'	2.17	0.44
3:BC:61:LYS:HA	3:BC:61:LYS:HE3	2.00	0.44
25:DA:1512:C:O5'	25:DA:1512:C:H6	2.00	0.44
31:DG:130:ILE:HG22	31:DG:131:VAL:N	2.33	0.44
41:DQ:79:ILE:HA	41:DQ:79:ILE:HD13	1.73	0.44
33:DI:11:GLN:NE2	33:DI:54:ILE:H	2.16	0.44
1:AA:1135:U:H6	1:AA:1135:U:OP2	2.01	0.44
21:AU:3:ILE:HD13	21:AU:3:ILE:N	2.33	0.44
25:CA:1060:U:OP2	33:CI:75:ALA:N	2.50	0.44
25:CA:1078:U:H1'	25:CA:1088:A:H2	1.83	0.44
2:AB:147:LEU:HD23	2:AB:147:LEU:HA	1.89	0.44
1:AA:1310:G:N2	1:AA:1328:C:C2	2.86	0.44
10:AJ:42:LEU:HA	10:AJ:43:PRO:HD2	1.85	0.44
25:DA:2093:G:C6	25:DA:2225:A:N7	2.86	0.44
25:DA:1589:U:O2	25:DA:1589:U:H2'	2.18	0.44
3:BC:152:VAL:CG2	3:BC:156:LEU:HD21	2.47	0.44
3:BC:156:LEU:O	3:BC:159:ALA:HB2	2.17	0.44
36:DL:127:VAL:CG1	36:DL:131:ALA:HB1	2.47	0.44
38:DN:55:ALA:CB	38:DN:79:LEU:HB2	2.48	0.44
19:BS:14:LEU:O	19:BS:14:LEU:HD12	2.17	0.44
39:DO:29:HIS:CD2	39:DO:30:ARG:N	2.86	0.44
29:DE:132:LYS:O	29:DE:135:ALA:HB3	2.17	0.44
1:AA:1076:U:C2	1:AA:1082:A:C2	3.06	0.44
1:BA:1262:C:H3'	1:BA:1263:C:H6	1.83	0.44
30:CF:7:TYR:CD2	30:CF:11:VAL:HB	2.53	0.44
5:AE:135:VAL:HG22	5:AE:136:VAL:N	2.32	0.44
1:BA:72:A:N1	1:BA:99:C:H4'	2.33	0.44
25:CA:1461:C:C2'	25:CA:1462:C:O5'	2.65	0.44
20:AT:34:VAL:HG12	20:AT:38:ILE:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BT:29:THR:O	20:BT:32:LYS:N	2.51	0.44
20:BT:35:TYR:CE2	20:BT:36:ALA:CA	3.01	0.44
20:BT:60:GLN:O	20:BT:63:LYS:N	2.51	0.44
31:DG:84:LYS:HB2	31:DG:132:LEU:CD1	2.48	0.44
31:DG:145:ALA:O	31:DG:146:ASP:C	2.56	0.44
2:AB:47:PRO:HA	2:AB:50:ASN:ND2	2.33	0.44
1:BA:861:G:H2'	1:BA:862:C:H6	1.82	0.44
9:BI:20:ILE:HG22	9:BI:20:ILE:O	2.17	0.44
2:BB:174:GLU:O	2:BB:178:LEU:HD23	2.18	0.44
1:BA:550:G:H2'	1:BA:551:U:C6	2.53	0.44
1:BA:1097:C:OP1	2:BB:138:ARG:NH2	2.51	0.44
2:AB:20:ARG:HD3	2:AB:20:ARG:HA	1.79	0.44
46:CV:80:HIS:CE1	46:CV:83:LYS:CE	3.01	0.44
25:CA:137:U:HO2'	25:CA:138:U:P	2.39	0.44
25:DA:122:G:O2'	25:DA:123:G:H5'	2.17	0.44
25:DA:1104:C:N4	25:DA:1105:U:O4	2.51	0.44
11:BK:39:ASN:O	11:BK:40:ALA:HB3	2.17	0.44
1:BA:425:G:H2'	1:BA:426:U:O4'	2.18	0.44
19:AS:43:MET:O	19:AS:46:LEU:HG	2.18	0.44
25:CA:1082:U:H6	25:CA:1082:U:H3'	1.83	0.44
25:CA:1519:G:C6	25:CA:1520:U:C4	3.06	0.44
1:BA:57:G:C5	1:BA:58:C:C4	3.06	0.44
11:BK:24:ALA:HA	11:BK:29:THR:CG2	2.46	0.44
1:BA:145:G:N2	1:BA:178:C:N3	2.66	0.44
2:AB:164:ASP:O	2:AB:168:GLU:HG2	2.17	0.44
9:AI:6:TYR:CE2	9:AI:17:ARG:CB	3.01	0.44
25:CA:327:G:H2'	25:CA:328:U:O4'	2.18	0.44
17:AQ:69:THR:CG2	17:AQ:69:THR:O	2.66	0.44
25:DA:1356:G:C4	25:DA:1357:C:C5	3.06	0.44
14:AN:15:LEU:C	14:AN:17:ASP:N	2.71	0.44
15:BO:16:ARG:HD3	15:BO:16:ARG:H	1.83	0.44
15:BO:22:GLY:O	15:BO:23:SER:C	2.54	0.44
1:AA:663:A:C2'	1:AA:664:G:H5'	2.48	0.44
1:AA:663:A:H5"	18:AR:49:LYS:HD2	2.00	0.44
1:BA:831:A:C2'	1:BA:832:G:O5'	2.66	0.44
1:AA:568:G:O6	12:AL:1:ALA:HB2	2.18	0.44
4:BD:133:SER:O	4:BD:134:TYR:C	2.57	0.44
25:DA:1477:A:C2	25:DA:1515:A:C6	3.06	0.44
12:AL:42:LYS:O	12:AL:44:PRO:N	2.50	0.44
1:BA:1157:A:N6	1:BA:1180:A:C5	2.85	0.44
34:DJ:119:PHE:HD1	34:DJ:119:PHE:C	2.20	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1526:G:H2'	1:BA:1527:U:C6	2.53	0.44
1:AA:1004:A:C5	1:AA:1026:G:C8	3.06	0.44
34:DJ:55:ILE:HA	34:DJ:123:LYS:O	2.18	0.44
1:BA:459:A:C4	1:BA:460:A:C8	3.06	0.44
52:D1:8:ILE:CG1	52:D1:22:THR:HG23	2.48	0.44
52:D1:8:ILE:HG21	52:D1:24:LYS:HD2	2.00	0.44
18:BR:31:TYR:O	18:BR:39:VAL:CB	2.65	0.44
30:CF:109:ARG:HH12	30:CF:138:PRO:HA	1.83	0.44
15:AO:55:LEU:O	15:AO:58:MET:HB2	2.18	0.44
13:AM:106:ARG:HH21	13:AM:112:ARG:HB3	1.82	0.44
25:CA:974:G:C2'	25:CA:974:G:N3	2.81	0.44
29:DE:48:THR:C	29:DE:50:ALA:N	2.71	0.44
54:D3:9:ALA:HB3	54:D3:61:LEU:HD21	2.00	0.44
46:CV:20:LEU:O	46:CV:23:ALA:N	2.51	0.44
25:DA:1002:G:H2'	25:DA:1003:G:O5'	2.18	0.44
31:DG:10:VAL:HG23	31:DG:14:VAL:CB	2.48	0.44
25:DA:2365:G:N7	54:D3:38:LYS:NZ	2.64	0.44
25:CA:2585:U:O2'	25:CA:2586:U:C5'	2.66	0.44
25:CA:1744:A:H5"	25:CA:1745:A:OP2	2.18	0.44
1:BA:567:G:H2'	1:BA:568:G:O5'	2.18	0.44
57:DW:64:LYS:CE	57:DW:66:GLU:OE1	2.66	0.44
27:CC:83:ASP:OD1	27:CC:85:ASN:N	2.51	0.44
25:DA:2419:U:H3'	54:D3:32:LEU:HD12	2.00	0.44
1:BA:864:A:C6	1:BA:865:A:C2	3.06	0.44
25:DA:2391:G:H1'	25:DA:2424:C:N4	2.33	0.44
45:DU:71:ILE:CD1	45:DU:82:VAL:CG2	2.96	0.44
25:DA:289:G:C6	25:DA:290:U:N3	2.86	0.44
32:DH:104:THR:HG22	32:DH:110:VAL:H	1.83	0.44
25:DA:258:G:H1'	36:DL:104:GLN:HE21	1.83	0.44
1:BA:1426:G:H2'	1:BA:1427:C:C6	2.53	0.44
21:AU:32:ARG:NH1	21:AU:32:ARG:HG2	2.32	0.44
25:CA:2016:U:H1'	51:C0:2:VAL:HG21	1.99	0.44
3:BC:113:LYS:HD2	3:BC:113:LYS:O	2.17	0.44
26:CB:17:C:H2'	26:CB:18:G:O5'	2.17	0.44
25:DA:521:U:H2'	25:DA:522:A:C8	2.53	0.44
14:BN:9:GLU:O	14:BN:12:ARG:N	2.51	0.44
52:C1:21:THR:HG23	54:C3:33:THR:HG23	2.00	0.44
1:AA:316:C:C2	1:AA:317:U:C5	3.06	0.44
25:DA:1963:U:H3'	25:DA:1963:U:C6	2.53	0.44
25:CA:2822:G:H8	25:CA:2822:G:O5'	2.01	0.44
25:CA:1365:A:H2'	25:CA:1365:A:N3	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2657:A:H2'	25:DA:2657:A:N3	2.33	0.44
55:C4:30:GLU:O	55:C4:33:HIS:N	2.51	0.44
1:BA:1323:G:O4'	1:BA:1362:A:C2	2.71	0.43
1:BA:1349:A:C2	1:BA:1350:A:H1'	2.54	0.43
1:BA:976:G:C2	1:BA:1363:A:C2	3.06	0.43
1:BA:977:A:H1'	1:BA:982:U:O4	2.17	0.43
13:BM:90:HIS:O	13:BM:91:ARG:C	2.57	0.43
25:DA:1070:A:N6	33:DI:10:LEU:HB3	2.32	0.43
33:DI:17:ALA:CB	33:DI:41:PHE:CE2	3.00	0.43
25:DA:1403:A:C6	25:DA:1404:C:C4	3.06	0.43
25:DA:1428:C:N4	25:DA:1570:A:OP2	2.47	0.43
49:DY:8:GLU:HB3	49:DY:13:GLU:HG3	2.00	0.43
11:AK:109:ILE:HB	21:AU:5:VAL:HG22	2.00	0.43
21:AU:18:PHE:O	21:AU:21:SER:N	2.51	0.43
25:CA:1062:G:H21	33:CI:134:SER:HB3	1.83	0.43
1:AA:1211:U:H2'	1:AA:1212:U:OP2	2.17	0.43
14:AN:64:CYS:HB2	14:AN:80:SER:HB2	2.00	0.43
17:AQ:54:ILE:HG23	17:AQ:54:ILE:O	2.18	0.43
1:AA:1124:G:C3'	1:AA:1145:A:N6	2.69	0.43
1:AA:1144:G:C5'	1:AA:1145:A:OP2	2.66	0.43
42:DR:47:VAL:CG1	42:DR:54:VAL:CG2	2.96	0.43
25:DA:2333:A:O4'	25:DA:2335:A:H1'	2.18	0.43
32:DH:8:LYS:O	32:DH:9:VAL:HB	2.17	0.43
25:CA:1179:G:C6	25:CA:1180:U:H1'	2.52	0.43
32:DH:135:HIS:CD2	32:DH:137:GLU:H	2.35	0.43
1:BA:625:U:O2'	1:BA:626:G:H5'	2.17	0.43
16:BP:6:LEU:HD23	16:BP:17:TYR:HB2	2.00	0.43
17:BQ:10:ARG:HA	17:BQ:57:VAL:HA	1.99	0.43
17:BQ:57:VAL:HG12	17:BQ:58:VAL:N	2.33	0.43
25:CA:818:G:H2'	25:CA:819:A:OP2	2.18	0.43
11:AK:41:LEU:HB2	11:AK:73:VAL:CG1	2.48	0.43
36:DL:91:ASP:HB3	36:DL:94:THR:CG2	2.48	0.43
25:DA:2838:G:C2'	25:DA:2839:G:H5'	2.48	0.43
38:DN:43:GLU:O	38:DN:44:LEU:C	2.56	0.43
32:CH:119:ASN:N	32:CH:120:GLY:HA3	2.31	0.43
13:AM:21:ILE:CG2	13:AM:22:TYR:O	2.65	0.43
43:DS:84:ARG:HB3	43:DS:96:ILE:HD11	2.00	0.43
30:DF:57:ALA:HB1	30:DF:62:GLN:O	2.18	0.43
1:BA:1144:G:C3'	1:BA:1145:A:O4'	2.66	0.43
1:AA:412:A:H4'	1:AA:412:A:OP1	2.18	0.43
33:CI:92:PRO:HB3	33:CI:135:MET:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CI:96:LYS:HG3	33:CI:138:VAL:CG2	2.42	0.43
12:AL:113:ARG:O	12:AL:115:LYS:O	2.36	0.43
5:AE:93:VAL:CG2	5:AE:110:MET:CE	2.96	0.43
5:AE:93:VAL:CG2	5:AE:110:MET:SD	3.06	0.43
5:AE:33:THR:HB	5:AE:49:TYR:CZ	2.53	0.43
5:AE:35:LEU:HD22	5:AE:133:ILE:HA	1.99	0.43
25:DA:1441:G:N3	25:DA:1442:U:C5	2.86	0.43
20:AT:78:LEU:O	20:AT:81:GLN:HB2	2.17	0.43
25:CA:2259:U:C4	25:CA:2427:C:N4	2.86	0.43
8:AH:9:MET:HE1	8:AH:32:LYS:CA	2.43	0.43
9:AI:113:LYS:HD3	9:AI:114:LYS:N	2.33	0.43
9:AI:117:LEU:HD23	9:AI:121:ARG:C	2.38	0.43
9:AI:122:ARG:NH1	9:AI:123:ARG:O	2.51	0.43
1:BA:1092:A:C6	1:BA:1093:A:C5	3.06	0.43
9:AI:30:ASN:O	9:AI:32:ARG:HB2	2.18	0.43
6:BF:86:ARG:HG3	6:BF:86:ARG:HH11	1.81	0.43
25:DA:279:A:C5	25:DA:280:U:C6	3.06	0.43
48:DX:53:LYS:O	48:DX:54:GLY:C	2.57	0.43
1:BA:1114:C:C2	1:BA:1115:U:C6	3.06	0.43
10:BJ:67:ILE:CG1	14:BN:96:LEU:HA	2.47	0.43
1:BA:375:U:N3	1:BA:376:G:C8	2.86	0.43
31:DG:5:LYS:O	31:DG:6:ALA:CB	2.63	0.43
2:BB:49:PHE:CA	2:BB:52:ALA:HB3	2.48	0.43
25:CA:1071:G:N9	25:CA:1089:A:N7	2.66	0.43
56:DB:116:G:O2'	56:DB:117:G:H5'	2.18	0.43
25:DA:60:G:P	25:DA:60:G:H3'	2.58	0.43
40:DP:32:VAL:C	40:DP:34:GLY:N	2.70	0.43
31:CG:25:ILE:O	31:CG:78:VAL:CG1	2.62	0.43
33:CI:57:VAL:H	33:CI:71:LYS:HE2	1.83	0.43
1:BA:1049:U:H5	1:BA:1203:C:OP1	2.00	0.43
30:CF:142:TYR:HA	30:CF:145:VAL:CG1	2.48	0.43
25:CA:479:A:HO2'	25:CA:481:G:H8	1.65	0.43
1:AA:243:A:H4'	1:AA:244:U:H5"	1.99	0.43
25:DA:1795:C:C4	25:DA:1796:U:C5	3.06	0.43
45:DU:85:ARG:O	45:DU:92:VAL:HG22	2.16	0.43
24:AY:141:LYS:O	24:AY:145:LYS:HE3	2.18	0.43
24:AY:146:ASP:O	24:AY:147:LYS:C	2.56	0.43
7:AG:25:PHE:O	7:AG:27:ASN:N	2.51	0.43
40:CP:30:TRP:CZ2	40:CP:39:LEU:HD11	2.52	0.43
1:BA:558:G:H5"	1:BA:559:A:H3'	2.00	0.43
1:BA:852:G:C6	1:BA:853:C:C5	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:79:LEU:HD23	33:DI:83:ALA:CB	2.48	0.43
25:CA:2547:A:C5'	35:CK:29:HIS:NE2	2.81	0.43
8:AH:46:GLU:CA	8:AH:63:LYS:CG	2.96	0.43
25:DA:2678:C:O2'	25:DA:2679:A:H5'	2.18	0.43
25:CA:1502:A:C4	25:CA:1503:A:C8	3.06	0.43
15:BO:35:ILE:HD12	15:BO:62:ARG:HH11	1.83	0.43
25:CA:2107:G:C2	25:CA:2108:A:C8	3.05	0.43
25:DA:1429:G:H2'	25:DA:1430:G:C8	2.53	0.43
29:DE:178:VAL:HG12	29:DE:179:SER:N	2.32	0.43
3:BC:10:ARG:HH21	3:BC:181:ILE:CG1	2.31	0.43
4:BD:167:PRO:HG2	4:BD:170:LEU:CD1	2.47	0.43
25:CA:1687:G:HO2'	25:CA:1688:U:H5'	1.81	0.43
25:DA:1731:G:C2'	25:DA:1732:C:O5'	2.65	0.43
32:CH:2:GLN:O	32:CH:3:VAL:HG13	2.18	0.43
25:DA:1868:C:H2'	25:DA:1869:G:O4'	2.18	0.43
6:AF:39:LEU:CD1	6:AF:40:GLU:N	2.81	0.43
25:CA:2733:A:H2'	25:CA:2734:A:H8	1.83	0.43
25:DA:1598:A:C6	25:DA:1599:U:N3	2.86	0.43
25:CA:2592:G:O5'	25:CA:2592:G:H8	2.01	0.43
25:CA:2591:C:OP2	27:CC:236:GLY:O	2.35	0.43
3:BC:99:GLN:C	3:BC:100:ILE:HG22	2.37	0.43
1:BA:1265:C:N3	1:BA:1271:A:N1	2.65	0.43
1:BA:824:G:H1'	8:BH:1:SER:H2	1.82	0.43
4:BD:75:TYR:CE2	4:BD:203:TYR:HB2	2.52	0.43
15:AO:52:ARG:O	15:AO:55:LEU:HB3	2.18	0.43
1:BA:49:U:O2	1:BA:362:G:C1'	2.66	0.43
4:BD:137:SER:CB	4:BD:138:PRO:HD2	2.47	0.43
25:DA:659:G:O5'	29:DE:95:LYS:CD	2.66	0.43
25:CA:974:G:N3	25:CA:974:G:H2'	2.32	0.43
12:AL:74:GLN:O	12:AL:75:GLU:C	2.55	0.43
25:DA:39:G:H2'	25:DA:39:G:N3	2.33	0.43
5:BE:111:ARG:O	5:BE:112:ALA:C	2.57	0.43
25:DA:1051:G:OP2	25:DA:1051:G:H8	2.01	0.43
25:CA:2218:G:C2'	25:CA:2219:U:H5'	2.48	0.43
2:AB:73:ARG:O	2:AB:74:ALA:CB	2.65	0.43
11:AK:110:THR:HG23	21:AU:4:LYS:HA	2.00	0.43
1:BA:1170:A:H2'	1:BA:1171:A:O5'	2.17	0.43
25:CA:551:G:H2'	25:CA:552:U:C5'	2.48	0.43
40:DP:100:ARG:O	40:DP:101:GLU:HG2	2.17	0.43
27:CC:135:PRO:O	27:CC:136:VAL:C	2.57	0.43
1:BA:864:A:C6	1:BA:865:A:N1	2.85	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1366:A:C2	25:DA:1367:A:H1'	2.52	0.43
1:BA:1036:A:H3'	1:BA:1037:C:C6	2.53	0.43
34:CJ:58:ASN:HD21	34:CJ:128:ASN:HB2	1.82	0.43
25:DA:1667:G:O2'	25:DA:1991:U:O4	2.19	0.43
23:BX:4:A:H2'	23:BX:5:A:C8	2.53	0.43
7:AG:111:GLY:O	7:AG:112:ASP:O	2.35	0.43
25:CA:1689:A:C6	25:CA:1700:A:C2	3.06	0.43
40:CP:60:VAL:HG12	40:CP:61:ARG:N	2.33	0.43
34:DJ:9:GLU:O	34:DJ:10:THR:HG22	2.18	0.43
1:AA:1116:U:O2'	9:AI:109:GLN:HG3	2.18	0.43
1:AA:669:G:O2'	1:AA:670:G:H5'	2.18	0.43
25:CA:2670:A:H2'	25:CA:2671:G:O5'	2.18	0.43
25:CA:1772:A:OP1	60:CA:3459:HOH:O	2.21	0.43
53:C2:33:ARG:O	53:C2:36:ALA:HB3	2.18	0.43
29:CE:183:PHE:N	29:CE:183:PHE:CD1	2.85	0.43
25:CA:969:G:H2'	25:CA:970:U:C6	2.53	0.43
15:AO:69:LEU:O	15:AO:70:LYS:C	2.54	0.43
1:BA:933:G:C4	1:BA:935:A:C8	3.06	0.43
33:DI:36:GLU:HB2	33:DI:66:PHE:HE2	1.83	0.43
11:AK:113:THR:HA	11:AK:114:PRO:HD3	1.86	0.43
21:AU:18:PHE:O	21:AU:18:PHE:HD2	2.00	0.43
33:CI:28:GLY:O	33:CI:34:ILE:CD1	2.66	0.43
2:AB:181:PRO:O	2:AB:182:VAL:C	2.56	0.43
1:AA:1357:A:C5	1:AA:1358:U:C5	3.06	0.43
14:AN:64:CYS:CB	14:AN:80:SER:H	2.31	0.43
42:DR:49:ILE:CG2	42:DR:53:PHE:CA	2.96	0.43
25:DA:2370:G:O6	25:DA:2371:G:C6	2.71	0.43
32:DH:29:PHE:CD2	32:DH:30:LEU:HD23	2.53	0.43
43:CS:43:ALA:O	43:CS:47:VAL:CG1	2.57	0.43
25:DA:1414:C:N3	25:DA:1415:U:C5	2.87	0.43
6:AF:4:TYR:CE2	6:AF:71:ILE:HG21	2.53	0.43
25:DA:2839:G:C2'	25:DA:2840:C:O5'	2.67	0.43
38:DN:32:GLU:CG	38:DN:115:LEU:HD12	2.48	0.43
38:DN:55:ALA:HB1	38:DN:80:PHE:N	2.33	0.43
1:BA:1014:A:C5	1:BA:1015:G:C6	3.06	0.43
25:CA:277:G:H8	25:CA:361:G:O6	2.00	0.43
25:DA:2148:G:H2'	25:DA:2149:U:OP2	2.18	0.43
13:AM:18:LEU:O	13:AM:24:VAL:HG21	2.18	0.43
42:DR:68:ARG:HB3	42:DR:90:ARG:HD3	1.99	0.43
10:AJ:35:GLN:OE1	10:AJ:78:GLU:CB	2.66	0.43
1:AA:1029:U:O2	1:AA:1033:G:C4	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1032:G:N2	1:AA:1033:G:C8	2.86	0.43
1:AA:1033:G:N1	1:AA:1034:G:C8	2.86	0.43
30:DF:89:THR:O	30:DF:89:THR:HG22	2.18	0.43
39:DO:106:LEU:CD2	39:DO:106:LEU:O	2.66	0.43
1:AA:460:A:H5"	1:AA:461:A:OP2	2.18	0.43
1:BA:1125:U:C2	1:BA:1127:G:C8	3.06	0.43
25:DA:1936:A:H2	25:DA:1943:U:O4	2.00	0.43
5:AE:114:LEU:HD12	5:AE:114:LEU:HA	1.74	0.43
1:AA:194:C:O2'	1:AA:195:A:H5'	2.18	0.43
25:CA:2305:U:O2'	30:CF:132:ARG:CZ	2.67	0.43
1:AA:1426:G:H2'	1:AA:1427:C:O5'	2.18	0.43
25:CA:2146:C:H4'	25:CA:2147:A:N7	2.33	0.43
25:CA:2152:G:C6	25:CA:2153:C:N3	2.85	0.43
1:AA:1203:C:H4'	14:AN:67:THR:HG22	2.00	0.43
25:DA:2531:A:C5	25:DA:2532:G:C8	3.06	0.43
36:CL:109:LYS:HE2	36:CL:128:THR:CG2	2.45	0.43
25:DA:1773:A:C2'	25:DA:1774:C:H5'	2.48	0.43
25:CA:2681:C:C2	25:CA:2724:U:O4	2.71	0.43
25:CA:142:A:C2	44:CT:1:MET:HE3	2.53	0.43
25:DA:54:G:C6	25:DA:55:G:N7	2.86	0.43
38:CN:23:ASN:O	38:CN:26:GLY:N	2.52	0.43
19:AS:46:LEU:O	19:AS:61:VAL:HG23	2.18	0.43
25:DA:1268:A:C2'	25:DA:1269:A:O5'	2.67	0.43
1:BA:110:C:N4	1:BA:111:G:N1	2.66	0.43
1:BA:108:G:C5	20:BT:9:ARG:HG2	2.53	0.43
25:CA:528:A:C2	25:CA:2043:C:O5'	2.71	0.43
25:CA:2531:A:C2	25:CA:2532:G:N9	2.86	0.43
1:AA:654:G:C6	1:AA:753:A:C8	3.06	0.43
1:AA:763:G:C4	1:AA:764:C:C5	3.06	0.43
1:BA:557:G:H3'	1:BA:558:G:H8	1.83	0.43
1:BA:560:A:C6	1:BA:566:G:O4'	2.71	0.43
1:BA:253:A:C2	1:BA:254:G:C5	3.06	0.43
25:DA:811:U:H2'	36:DL:21:ARG:HA	1.98	0.43
44:DT:7:LEU:HD21	44:DT:46:ALA:CB	2.47	0.43
25:DA:1408:G:H2'	25:DA:1409:U:C6	2.53	0.43
27:DC:171:VAL:HG23	27:DC:173:LEU:HD13	2.00	0.43
27:CC:121:ALA:O	27:CC:122:ALA:O	2.37	0.43
1:BA:1064:G:N2	1:BA:1190:G:H1'	2.33	0.43
1:BA:621:A:H2'	1:BA:622:A:C8	2.52	0.43
10:AJ:49:PHE:CD2	14:AN:77:PHE:CE1	3.06	0.43
10:AJ:49:PHE:CE2	14:AN:77:PHE:CZ	3.05	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1161:C:N3	1:BA:1175:G:O6	2.51	0.43
39:CO:66:GLY:HA2	39:CO:102:ARG:HH22	1.83	0.43
4:AD:198:LEU:C	4:AD:200:VAL:H	2.20	0.43
25:DA:1248:G:OP1	29:DE:44:ARG:NH1	2.52	0.43
1:BA:1090:U:N3	1:BA:1091:U:C4	2.85	0.43
1:BA:135:C:N3	16:BP:1:MET:HB2	2.32	0.43
35:CK:75:SER:O	35:CK:76:VAL:HG23	2.18	0.43
1:BA:505:G:C6	1:BA:535:A:C2	3.06	0.43
52:D1:8:ILE:HG12	52:D1:22:THR:HG23	1.99	0.43
30:CF:39:VAL:O	30:CF:41:GLU:N	2.51	0.43
35:DK:92:GLU:CA	35:DK:92:GLU:OE2	2.65	0.43
25:DA:2803:G:C4	25:DA:2804:U:C5	3.05	0.43
25:DA:282:A:N1	25:DA:283:G:C6	2.86	0.43
25:DA:2648:G:C4	25:DA:2649:C:C6	3.05	0.43
25:CA:2193:G:C6	25:CA:2194:U:C5	3.06	0.43
37:DM:66:ARG:HH11	37:DM:66:ARG:CG	2.30	0.43
48:CX:57:VAL:HG12	48:CX:58:ILE:N	2.32	0.43
29:CE:10:SER:O	29:CE:11:ALA:C	2.55	0.43
25:CA:1881:C:H2'	25:CA:1882:U:O4'	2.18	0.43
39:CO:24:THR:HG22	39:CO:42:PRO:CG	2.47	0.43
50:CZ:9:THR:HG22	50:CZ:10:ARG:CG	2.48	0.43
37:DM:136:MET:HE2	46:DV:57:TYR:CD2	2.53	0.43
17:BQ:30:HIS:HA	17:BQ:31:PRO:HD3	1.87	0.43
25:DA:846:U:O2'	25:DA:847:U:P	2.77	0.43
27:DC:147:PRO:CD	27:DC:184:GLU:OE2	2.66	0.43
8:BH:58:LEU:C	8:BH:58:LEU:CD1	2.86	0.43
1:AA:155:A:H2'	1:AA:156:C:C6	2.54	0.43
25:CA:72:U:H1'	49:CY:51:ALA:CB	2.48	0.43
25:DA:2562:U:P	35:DK:40:LYS:HD3	2.58	0.43
1:AA:290:C:C6	1:AA:290:C:H3'	2.53	0.43
1:BA:273:U:C4	1:BA:274:A:N7	2.86	0.43
27:DC:35:LYS:NZ	27:DC:37:SER:HB3	2.33	0.43
25:CA:1239:G:H2'	25:CA:1240:U:O4'	2.18	0.43
1:BA:538:G:H5"	12:BL:110:LYS:HB2	1.99	0.43
39:CO:19:GLN:C	39:CO:21:LEU:H	2.20	0.43
25:DA:2047:C:N4	60:DA:3680:HOH:O	2.51	0.43
25:CA:1351:C:H2'	25:CA:1352:U:O4'	2.18	0.43
48:DX:48:LEU:O	48:DX:50:VAL:HG13	2.17	0.43
27:CC:1:ALA:HB3	27:CC:19:VAL:O	2.18	0.43
25:DA:357:C:N4	25:DA:358:U:O4	2.51	0.43
31:CG:136:ASP:O	31:CG:137:LYS:C	2.57	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:822:G:H2'	25:DA:823:C:H6	1.83	0.43
13:AM:59:VAL:C	13:AM:61:LYS:H	2.21	0.43
25:CA:2238:G:N3	25:CA:2238:G:H2'	2.32	0.43
43:CS:85:ILE:CG2	43:CS:86:MET:N	2.81	0.43
41:DQ:75:TYR:CZ	41:DQ:79:ILE:HG13	2.54	0.43
1:BA:1360:A:N6	1:BA:1361:G:N2	2.66	0.43
13:BM:58:GLU:O	13:BM:61:LYS:HB2	2.19	0.43
25:DA:1064:C:N3	25:DA:1074:G:N2	2.65	0.43
25:DA:1341:G:OP2	25:DA:1394:U:H1'	2.19	0.43
25:CA:1085:A:N6	25:CA:1086:A:H61	2.17	0.43
25:CA:1095:A:C6	25:CA:1096:A:N6	2.86	0.43
2:AB:180:ILE:HA	2:AB:181:PRO:HD3	1.69	0.43
2:AB:195:VAL:CG1	2:AB:197:PHE:O	2.66	0.43
2:AB:53:LEU:HD12	2:AB:216:VAL:HA	2.00	0.43
42:DR:37:GLU:OE2	42:DR:53:PHE:CE2	2.72	0.43
4:AD:168:THR:CB	4:AD:183:ARG:HH22	2.27	0.43
35:DK:76:VAL:HG12	40:DP:72:VAL:HG21	1.94	0.43
25:CA:404:A:C8	25:CA:406:G:C6	3.07	0.43
1:BA:303:A:O2'	1:BA:555:U:H4'	2.18	0.43
12:BL:23:LEU:HD23	12:BL:24:GLU:HG3	2.01	0.43
46:CV:50:MET:C	46:CV:52:ALA:H	2.20	0.43
25:DA:948:C:H2'	25:DA:949:G:C8	2.54	0.43
25:DA:2304:G:O2'	30:DF:152:ASP:HB2	2.19	0.43
30:CF:27:VAL:O	30:CF:27:VAL:HG13	2.18	0.43
36:DL:119:PRO:CG	36:DL:138:ALA:O	2.65	0.43
4:AD:152:SER:OG	4:AD:153:ARG:N	2.50	0.43
33:CI:79:LEU:HD22	33:CI:137:LEU:HD11	2.00	0.43
20:AT:34:VAL:O	20:AT:35:TYR:C	2.56	0.43
1:BA:1538:C:H3'	1:BA:1538:C:H6	1.83	0.43
25:CA:1414:C:C6	25:CA:1415:U:C5	3.06	0.43
1:BA:1291:U:C2	1:BA:1292:G:N7	2.85	0.43
1:AA:944:G:O6	1:AA:1337:G:H3'	2.18	0.43
1:AA:1201:A:H4'	1:AA:1202:U:O5'	2.18	0.43
10:AJ:65:TYR:HB3	14:AN:96:LEU:CD1	2.45	0.43
14:AN:82:ILE:HG22	14:AN:83:LYS:N	2.33	0.43
9:AI:83:THR:HG21	9:AI:102:PHE:CB	2.48	0.43
6:BF:63:ASN:ND2	6:BF:96:VAL:HG22	2.32	0.43
2:BB:180:ILE:HG22	2:BB:181:PRO:N	2.33	0.43
2:BB:78:ALA:O	2:BB:81:ASP:OD2	2.35	0.43
3:AC:21:TRP:CD1	3:AC:58:ARG:CD	3.01	0.43
9:AI:56:MET:SD	9:AI:56:MET:N	2.91	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:BJ:46:LYS:HG2	10:BJ:68:ARG:HG2	2.00	0.43
12:BL:42:LYS:HE3	12:BL:43:LYS:CD	2.46	0.43
25:DA:1724:G:C6	25:DA:1725:U:C4	3.06	0.43
25:CA:2723:C:N4	25:CA:2724:U:C4	2.85	0.43
33:CI:121:ILE:HG22	33:CI:121:ILE:O	2.19	0.43
25:DA:1136:G:C2'	25:DA:1137:G:H5'	2.47	0.43
3:BC:63:ILE:CG1	3:BC:65:VAL:HG23	2.47	0.43
3:BC:57:GLU:OE1	10:BJ:94:ALA:HB1	2.18	0.43
19:AS:44:ILE:CD1	19:AS:63:ASP:HA	2.47	0.43
25:DA:2745:C:C2	25:DA:2746:U:C6	3.06	0.43
25:DA:2746:U:C4	25:DA:2747:G:C5	3.05	0.43
33:CI:57:VAL:CG1	33:CI:59:THR:OG1	2.67	0.43
13:AM:74:MET:SD	30:CF:111:ARG:CD	3.06	0.43
25:CA:527:C:H4'	25:CA:528:A:O5'	2.18	0.43
1:AA:285:C:C2	1:AA:286:C:C5	3.06	0.43
2:BB:19:THR:O	2:BB:20:ARG:CZ	2.67	0.43
25:DA:88:G:C2	25:DA:89:A:C8	3.05	0.43
49:CY:9:LYS:HG2	49:CY:11:VAL:H	1.82	0.43
25:CA:2120:G:C8	25:CA:2120:G:H3'	2.52	0.43
15:BO:86:LEU:O	15:BO:88:ARG:N	2.52	0.43
4:BD:84:ASN:OD1	4:BD:87:GLU:HG3	2.19	0.43
25:DA:2769:U:H2'	25:DA:2770:G:O4'	2.17	0.43
25:DA:370:G:OP2	60:DA:3567:HOH:O	2.21	0.43
25:DA:1410:G:N2	25:DA:1593:A:C5	2.86	0.43
25:DA:1594:U:O5'	25:DA:1594:U:H6	2.01	0.43
13:AM:3:ILE:O	13:AM:3:ILE:HG12	2.18	0.43
37:DM:49:ALA:HB2	37:DM:124:LEU:CD2	2.48	0.43
26:CB:20:G:C2'	26:CB:21:G:C5'	2.96	0.43
25:DA:1471:G:H2'	25:DA:1471:G:N3	2.33	0.43
25:DA:1517:G:N2	25:DA:1732:C:N3	2.66	0.43
25:DA:250:G:C6	25:DA:251:A:C6	3.06	0.43
18:BR:72:ARG:HB2	18:BR:73:HIS:HD2	1.82	0.43
28:CD:132:ALA:HA	28:CD:140:HIS:ND1	2.33	0.43
4:AD:14:GLU:HA	4:AD:14:GLU:OE1	2.17	0.43
1:AA:1004:A:H2'	1:AA:1005:A:C5'	2.49	0.43
25:DA:1857:G:H1'	25:DA:1884:G:N2	2.32	0.43
30:CF:94:ARG:HH11	30:CF:94:ARG:HB3	1.84	0.43
25:CA:275:C:C4	25:CA:276:U:C6	3.07	0.43
9:BI:11:ARG:CZ	9:BI:106:ASP:OD1	2.66	0.43
25:DA:262:A:C2	25:DA:430:A:N3	2.86	0.43
27:DC:124:LYS:HG2	27:DC:127:ASN:ND2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:D1:6:GLU:CD	52:D1:26:LYS:HB2	2.38	0.43
25:CA:96:C:O2'	25:CA:97:C:H5'	2.17	0.43
1:BA:1422:G:C2	1:BA:1423:G:C4	3.06	0.43
1:BA:1423:G:C4	1:BA:1424:U:C6	3.06	0.43
1:BA:318:G:C6	1:BA:319:G:C5	3.07	0.43
51:D0:29:VAL:HG12	51:D0:30:ASP:N	2.33	0.43
25:DA:935:C:C2'	25:DA:936:A:H5'	2.49	0.43
25:CA:626:A:C2	36:CL:78:ARG:HD3	2.53	0.43
25:DA:353:C:N4	25:DA:354:A:N6	2.66	0.43
9:AI:129:ARG:HB3	9:AI:129:ARG:NH1	2.33	0.43
25:CA:929:U:H4'	50:CZ:37:ARG:NH2	2.33	0.43
1:AA:771:G:H2'	1:AA:772:U:H5'	2.00	0.43
1:BA:390:U:H2'	1:BA:391:G:C8	2.53	0.43
54:D3:38:LYS:O	54:D3:38:LYS:HG3	2.18	0.43
25:DA:200:U:H2'	25:DA:201:C:H5'	2.00	0.43
37:DM:42:THR:O	37:DM:43:ALA:C	2.55	0.43
46:DV:21:ARG:HA	46:DV:25:LYS:O	2.17	0.43
40:DP:1:SER:H2	40:DP:3:ILE:H	1.66	0.43
25:DA:2080:A:C5'	48:DX:18:SER:HB3	2.49	0.43
1:AA:525:C:N4	1:AA:526:C:N4	2.65	0.43
1:BA:1236:A:H4'	1:BA:1304:G:H4'	1.99	0.43
25:CA:1806:C:H2'	25:CA:1807:G:O5'	2.19	0.43
55:C4:9:LYS:C	55:C4:10:LEU:HD23	2.39	0.43
25:CA:71:A:C5'	25:CA:72:U:H3'	2.47	0.43
25:DA:1885:A:C2'	25:DA:1886:U:H5'	2.49	0.43
37:CM:125:PRO:C	37:CM:126:ILE:CG2	2.86	0.43
25:DA:861:A:C2	25:DA:917:A:N3	2.86	0.43
25:DA:1133:A:C8	25:DA:2026:U:H4'	2.53	0.43
25:DA:2618:G:C6	25:DA:2619:C:C4	3.07	0.43
25:CA:1249:U:H4'	41:CQ:3:VAL:CG1	2.48	0.43
6:BF:53:LYS:O	6:BF:54:LEU:CB	2.65	0.43
28:DD:1:MET:CE	28:DD:1:MET:N	2.82	0.43
25:DA:264:C:C2'	25:DA:264:C:O2	2.64	0.43
25:CA:2650:U:H2'	25:CA:2651:C:C6	2.53	0.43
1:BA:128:G:N1	1:BA:129:A:C6	2.87	0.43
1:AA:1188:A:C2'	1:AA:1189:U:H5'	2.48	0.43
7:BG:100:MET:O	7:BG:101:ARG:C	2.55	0.43
51:C0:11:LYS:HA	51:C0:11:LYS:HD2	1.92	0.43
42:CR:34:GLU:CD	42:CR:60:LYS:HE2	2.38	0.43
22:BV:18:G:N2	22:BV:57:G:H2'	2.34	0.43
25:CA:1915:U:H3'	25:CA:1916:A:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:BI:123:ARG:HG3	9:BI:124:PRO:N	2.33	0.43
29:CE:155:GLU:HG3	29:CE:159:LEU:HD22	2.00	0.43
24:AY:106:LEU:HA	24:AY:106:LEU:HD13	1.76	0.43
25:DA:1914:C:O4'	25:DA:1914:C:O2	2.34	0.43
25:DA:2399:G:H2'	25:DA:2400:G:O4'	2.17	0.43
9:BI:114:LYS:HB2	9:BI:117:LEU:HD22	1.99	0.43
25:CA:2172:U:P	25:CA:2174:C:H5	2.41	0.43
25:DA:1401:G:C8	25:DA:1402:U:C5	3.06	0.43
49:DY:8:GLU:CG	49:DY:12:GLU:HB3	2.49	0.43
1:AA:674:G:C2'	1:AA:675:A:O5'	2.66	0.43
2:AB:116:LEU:CB	2:AB:140:LEU:HD11	2.48	0.43
2:AB:69:VAL:O	2:AB:162:VAL:HA	2.18	0.43
2:AB:63:LYS:CB	2:AB:65:LYS:HE2	2.48	0.43
1:AA:1321:U:O3'	19:AS:77:ARG:NH2	2.52	0.43
20:AT:71:ALA:O	20:AT:74:HIS:HB2	2.18	0.43
1:BA:1275:A:C6	1:BA:1276:G:C4	3.06	0.43
17:AQ:56:ASP:N	17:AQ:56:ASP:OD2	2.51	0.43
17:AQ:76:ARG:HH21	17:AQ:78:VAL:HG22	1.84	0.43
1:AA:1150:A:O2'	10:AJ:43:PRO:HD3	2.19	0.43
1:AA:1124:G:O4'	10:AJ:40:ILE:HD11	2.18	0.43
42:DR:42:ALA:HA	42:DR:46:GLU:HB2	2.00	0.43
8:AH:122:GLY:O	8:AH:123:GLU:C	2.56	0.43
32:DH:21:VAL:CG2	32:DH:25:TYR:CD2	3.02	0.43
32:DH:32:PRO:HB3	48:DX:38:TRP:HB3	2.01	0.43
2:BB:183:PHE:CE1	2:BB:197:PHE:CD2	3.06	0.43
25:DA:1579:A:O2'	25:DA:1580:A:H5'	2.18	0.43
25:DA:1582:C:C5	25:DA:1583:A:C2	3.06	0.43
21:BU:36:PHE:CD1	21:BU:40:PRO:HG3	2.54	0.43
5:BE:81:GLN:CD	5:BE:149:PRO:HD3	2.38	0.43
38:DN:55:ALA:HB2	38:DN:79:LEU:HB2	1.99	0.43
21:AU:14:ALA:O	21:AU:15:LEU:HB2	2.18	0.43
1:AA:1031:C:O2'	1:AA:1032:G:P	2.76	0.43
3:AC:13:ILE:HG13	3:AC:14:VAL:HG13	2.00	0.43
56:DB:48:U:H4'	39:DO:100:HIS:NE2	2.33	0.43
39:DO:74:VAL:O	39:DO:77:ALA:HB3	2.19	0.43
4:AD:104:MET:SD	4:AD:106:PHE:CE2	3.12	0.43
4:AD:159:GLU:O	4:AD:162:GLU:OE1	2.37	0.43
25:DA:318:C:C2'	25:DA:319:G:O5'	2.66	0.43
1:AA:10:A:OP2	5:AE:130:THR:OG1	2.32	0.43
1:BA:102:G:C4	1:BA:103:U:C5	3.07	0.43
1:BA:69:G:C4	1:BA:70:U:H5	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1452:G:C8	25:CA:1457:U:N3	2.86	0.43
25:CA:2008:C:C2'	25:CA:2009:A:O5'	2.66	0.43
11:BK:69:CYS:O	11:BK:73:VAL:HG11	2.18	0.43
20:AT:34:VAL:HG11	20:AT:78:LEU:HD22	2.01	0.43
1:BA:1538:C:OP2	1:BA:1538:C:C5	2.72	0.43
9:BI:18:VAL:CG1	9:BI:85:ALA:CB	2.96	0.43
35:CK:109:SER:O	35:CK:110:GLU:C	2.57	0.43
12:BL:98:ARG:HB2	12:BL:116:TYR:HA	2.00	0.43
10:BJ:35:GLN:CD	10:BJ:77:VAL:HB	2.38	0.43
25:DA:231:A:C6	25:DA:232:G:N1	2.86	0.43
6:BF:38:ARG:NH1	6:BF:63:ASN:HB2	2.33	0.43
1:AA:1494:G:C2	1:AA:1495:U:C5	3.06	0.43
2:AB:40:ILE:HG12	2:AB:41:ASN:N	2.32	0.43
25:CA:100:U:H4'	25:CA:101:A:O5'	2.16	0.43
25:DA:1045:C:O2	25:DA:1047:G:N1	2.51	0.43
4:AD:189:ASP:O	4:AD:190:LEU:CG	2.66	0.43
25:DA:1789:A:OP1	27:DC:219:VAL:HA	2.19	0.43
25:CA:677:A:O3'	25:CA:2071:A:H5"	2.19	0.43
25:CA:1484:U:C2	25:CA:1485:U:C5	3.06	0.43
25:DA:1373:A:C5	25:DA:1374:G:H1'	2.53	0.43
1:BA:1387:G:C2'	1:BA:1388:C:H5'	2.48	0.43
1:AA:445:G:H2'	1:AA:446:G:O4'	2.18	0.43
25:DA:2758:A:C6	25:DA:2759:G:C8	3.07	0.43
28:CD:107:VAL:HA	28:CD:206:ALA:H	1.83	0.43
24:AY:140:VAL:HG12	24:AY:154:ASP:OD2	2.17	0.43
14:AN:7:ALA:O	14:AN:10:VAL:HB	2.18	0.43
1:AA:499:A:H61	1:AA:547:A:H5"	1.83	0.43
49:CY:9:LYS:C	49:CY:11:VAL:N	2.72	0.43
15:BO:69:LEU:HD13	15:BO:77:TYR:HA	2.00	0.43
14:BN:43:ASN:O	14:BN:47:LYS:CG	2.66	0.43
25:DA:136:G:H1	25:DA:143:C:H42	1.66	0.43
1:AA:100:G:C5	1:AA:101:A:C5	3.06	0.43
25:DA:783:A:H3'	25:DA:783:A:C8	2.54	0.43
1:AA:212:G:C2	1:AA:213:G:C5	3.06	0.43
40:DP:11:GLN:HB2	40:DP:54:LEU:CD2	2.48	0.43
3:BC:150:VAL:CG1	3:BC:199:VAL:HB	2.48	0.43
16:BP:10:GLY:HA3	16:BP:15:PRO:CA	2.45	0.43
51:D0:14:MET:O	51:D0:17:SER:CB	2.65	0.43
36:CL:85:VAL:CG1	36:CL:94:THR:CG2	2.95	0.43
52:C1:9:LYS:O	52:C1:50:GLU:HG3	2.19	0.43
1:AA:833:G:C6	1:AA:834:U:C4	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:879:C:C6	1:AA:879:C:H3'	2.54	0.43
25:DA:7:G:H4'	34:DJ:15:TRP:CH2	2.53	0.43
25:DA:1856:U:C5	25:DA:1857:G:C5	3.07	0.43
25:DA:1599:U:OP2	44:DT:40:LYS:HD2	2.18	0.43
31:DG:123:GLU:O	31:DG:125:PRO:HD2	2.18	0.43
35:CK:74:GLY:O	35:CK:75:SER:O	2.36	0.43
25:DA:2354:C:O2'	57:DW:32:ILE:N	2.51	0.43
37:CM:136:MET:SD	46:CV:75:GLN:O	2.76	0.43
24:AY:110:ARG:HE	24:AY:114:LEU:HD11	1.84	0.43
25:DA:2449:U:H4'	25:DA:2450:A:OP1	2.18	0.43
44:CT:12:ARG:O	49:CY:29:ARG:HD2	2.18	0.43
2:AB:71:THR:HG22	2:AB:92:ASN:O	2.18	0.43
19:BS:49:ALA:HB1	19:BS:56:HIS:HB3	2.00	0.43
25:DA:2742:G:OP1	55:D4:36:ARG:HD3	2.19	0.43
1:AA:1257:A:H4'	1:AA:1258:G:OP2	2.18	0.43
54:D3:6:VAL:HB	54:D3:60:CYS:HB3	2.00	0.43
46:CV:24:ASN:OD1	46:CV:44:HIS:HB3	2.18	0.43
25:CA:2078:C:C2'	25:CA:2079:U:H5'	2.48	0.43
5:BE:111:ARG:CZ	5:BE:111:ARG:HB2	2.48	0.43
28:DD:38:LYS:HD2	28:DD:45:TYR:OH	2.18	0.43
3:AC:5:HIS:CB	14:AN:89:MET:HG3	2.49	0.43
1:BA:1018:G:C6	1:BA:1019:A:C6	3.06	0.43
25:DA:2722:G:O2'	25:DA:2723:C:H5'	2.17	0.43
32:CH:45:GLU:O	32:CH:48:GLU:HB3	2.18	0.43
25:DA:2808:G:C2	25:DA:2891:U:C5	3.07	0.43
25:DA:2176:A:H2'	25:DA:2177:C:C6	2.53	0.43
14:BN:32:ASP:OD2	14:BN:32:ASP:C	2.56	0.43
45:CU:88:ASP:CG	45:CU:89:GLY:H	2.22	0.43
5:BE:9:GLU:O	5:BE:11:GLN:HB3	2.19	0.43
19:AS:33:TRP:CZ2	19:AS:56:HIS:HE1	2.37	0.43
25:DA:224:U:C4	25:DA:225:C:C5	3.06	0.43
25:DA:1878:G:H2'	25:DA:1879:C:H6	1.82	0.43
25:CA:919:U:C2	25:CA:920:A:C8	3.06	0.43
15:AO:29:ALA:HA	15:AO:84:LEU:HD21	2.01	0.43
27:DC:216:ARG:HB3	27:DC:217:PRO:HD2	1.98	0.43
25:DA:2048:G:C2'	25:DA:2049:G:O5'	2.67	0.43
25:CA:2190:G:N3	25:CA:2190:G:H2'	2.33	0.43
25:CA:1693:U:O4	25:CA:1977:A:C5	2.71	0.43
29:DE:21:ARG:O	29:DE:22:ASP:O	2.37	0.43
25:CA:2452:C:C4	25:CA:2453:A:C6	3.07	0.43
25:CA:538:A:O2'	34:CJ:8:PRO:HD2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CY:61:ALA:O	49:CY:63:ALA:N	2.51	0.43
56:DB:17:C:C2'	56:DB:18:G:H5'	2.48	0.43
25:CA:1683:U:H6	25:CA:1683:U:O5'	2.01	0.43
1:AA:1347:G:C8	9:AI:108:ARG:CB	3.01	0.43
25:CA:2356:U:O3'	47:CW:16:ARG:HD3	2.19	0.43
1:BA:942:G:C2	1:BA:1342:C:O2	2.72	0.43
1:BA:956:U:C4	1:BA:957:U:C5	3.07	0.43
25:DA:1096:A:C6	25:DA:1097:U:H5	2.35	0.43
49:DY:45:GLN:O	49:DY:48:ARG:HB2	2.19	0.43
1:BA:949:A:H2'	1:BA:950:U:O4'	2.18	0.43
25:CA:1070:A:C6	33:CI:9:LYS:O	2.71	0.43
25:CA:1102:C:H2'	25:CA:1103:A:C8	2.53	0.43
1:AA:1253:G:C2	1:AA:1254:A:C4	3.06	0.43
1:BA:1275:A:N7	1:BA:1276:G:N7	2.66	0.43
42:DR:6:GLN:O	42:DR:7:SER:HB2	2.18	0.43
25:CA:2474:U:C5'	25:CA:2475:C:OP2	2.67	0.43
3:BC:129:PHE:CD2	3:BC:156:LEU:HD23	2.54	0.43
36:DL:98:ALA:O	36:DL:100:ILE:HG22	2.19	0.43
46:CV:50:MET:C	46:CV:52:ALA:N	2.68	0.43
25:CA:1883:U:H2'	25:CA:1884:G:O4'	2.18	0.43
13:AM:17:ALA:O	13:AM:20:SER:HB2	2.19	0.43
13:AM:65:GLU:O	13:AM:68:LEU:HB3	2.18	0.43
52:C1:38:PHE:CE2	52:C1:40:PRO:HA	2.53	0.43
25:DA:1556:C:H2'	25:DA:1557:C:H5'	1.98	0.43
25:DA:1459:G:H2'	25:DA:1460:U:O5'	2.18	0.43
22:AV:62:C:N3	22:AV:63:G:N7	2.67	0.43
1:BA:100:G:O6	1:BA:101:A:C6	2.72	0.43
1:BA:72:A:H61	1:BA:99:C:H1'	1.83	0.43
25:CA:1464:G:O2'	25:CA:1465:G:H5'	2.18	0.43
1:BA:663:A:C2	1:BA:743:A:C2	3.06	0.43
25:CA:1406:U:H2'	25:CA:1407:G:C8	2.53	0.43
37:DM:64:TRP:HZ3	37:DM:106:ASP:HB3	1.82	0.43
1:AA:1299:A:C5	1:AA:1301:U:O2	2.72	0.43
1:AA:1306:A:C5	1:AA:1307:U:C6	3.06	0.43
1:AA:1337:G:C4'	1:AA:1338:G:OP1	2.66	0.43
1:AA:1337:G:H5'	1:AA:1338:G:OP1	2.18	0.43
22:AV:41:C:O5'	22:AV:41:C:H6	2.01	0.43
32:DH:3:VAL:CA	32:DH:39:ALA:HB2	2.49	0.43
1:BA:16:A:N1	1:BA:919:A:H2	2.14	0.43
25:CA:2145:C:C6	25:CA:2145:C:C3'	3.02	0.43
25:CA:2133:G:H2'	25:CA:2158:A:N6	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1191:A:C2'	1:AA:1192:C:H5'	2.47	0.43
1:BA:1095:U:C4	1:BA:1096:C:C4	3.06	0.43
10:BJ:77:VAL:O	10:BJ:79:PRO:HD3	2.19	0.43
6:BF:74:LEU:HA	6:BF:74:LEU:HD12	1.78	0.43
25:DA:277:G:O2'	25:DA:361:G:N1	2.52	0.43
40:DP:69:VAL:C	40:DP:70:GLU:HG3	2.39	0.43
25:CA:1872:A:H8	25:CA:1873:G:C1'	2.32	0.43
2:AB:29:PHE:O	2:AB:41:ASN:N	2.51	0.43
36:CL:130:GLY:O	36:CL:131:ALA:C	2.57	0.43
16:AP:36:VAL:HG13	16:AP:36:VAL:O	2.18	0.43
45:CU:5:ARG:O	45:CU:6:ARG:O	2.35	0.43
38:DN:81:ASN:OD1	38:DN:81:ASN:N	2.50	0.43
31:DG:3:VAL:O	31:DG:4:ALA:C	2.55	0.43
6:AF:14:GLN:OE1	6:AF:17:GLN:HB2	2.18	0.43
18:AR:40:PRO:O	18:AR:44:THR:HG23	2.18	0.43
33:CI:33:ASN:HB3	33:CI:36:GLU:HB2	2.01	0.43
25:CA:5:A:C2	25:CA:2899:A:C2	3.07	0.43
25:DA:480:A:H2'	25:DA:480:A:N3	2.33	0.43
6:BF:19:PRO:CA	6:BF:22:ILE:HD12	2.44	0.43
1:AA:893:C:H2'	1:AA:894:G:C8	2.53	0.43
25:CA:328:U:H2'	25:CA:329:G:OP1	2.18	0.43
39:CO:2:ASP:O	39:CO:3:LYS:C	2.57	0.43
1:BA:471:U:C4	1:BA:472:U:C4	3.06	0.43
14:BN:27:LYS:CA	14:BN:30:ILE:HB	2.48	0.43
1:AA:1125:U:HO2'	1:AA:1126:U:P	2.42	0.43
1:AA:849:G:H2'	1:AA:850:U:O5'	2.17	0.43
21:BU:13:VAL:O	21:BU:15:LEU:HG	2.18	0.43
25:DA:2402:U:C2'	25:DA:2403:C:OP2	2.67	0.43
12:AL:49:ARG:HB3	12:AL:89:LEU:HD21	1.99	0.43
33:DI:100:ILE:O	33:DI:101:SER:CB	2.64	0.43
27:CC:17:LYS:CE	27:CC:17:LYS:CA	2.95	0.43
36:DL:4:ASN:HD22	36:DL:4:ASN:N	2.17	0.43
25:DA:1519:G:N1	25:DA:1520:U:C2	2.86	0.43
25:DA:543:G:C5'	25:DA:543:G:C8	3.02	0.43
25:CA:1142:A:C2	25:CA:1144:A:N9	2.86	0.43
46:DV:30:ILE:HG12	46:DV:91:PHE:HB2	1.99	0.43
46:DV:8:VAL:O	46:DV:9:ARG:C	2.56	0.43
44:DT:39:THR:HG23	44:DT:41:ALA:N	2.32	0.43
26:CB:51:G:O2'	26:CB:52:A:H5'	2.18	0.43
39:CO:66:GLY:CA	39:CO:102:ARG:HH22	2.31	0.43
34:DJ:55:ILE:CD1	34:DJ:132:HIS:HB2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:178:G:H8	25:CA:178:G:O5'	2.02	0.43
25:DA:412:A:C2'	25:DA:413:C:H5'	2.47	0.43
1:BA:459:A:C2'	1:BA:460:A:O4'	2.65	0.43
26:CB:42:C:P	30:CF:63:LYS:HE3	2.58	0.43
16:AP:51:ARG:CG	16:AP:51:ARG:NH1	2.79	0.43
49:CY:37:LEU:CD1	49:CY:37:LEU:C	2.87	0.43
1:AA:61:G:C5	1:AA:107:G:N2	2.87	0.43
39:CO:88:LYS:O	39:CO:89:ASP:HB2	2.18	0.43
1:BA:363:A:OP1	12:BL:30:ARG:HB3	2.18	0.43
1:BA:49:U:C4	1:BA:364:A:C5	3.06	0.43
1:BA:596:A:C6	1:BA:645:G:C2	3.06	0.43
4:BD:60:VAL:O	4:BD:63:ILE:N	2.51	0.43
2:BB:32:GLY:O	2:BB:33:ALA:CB	2.66	0.43
39:CO:74:VAL:O	39:CO:78:VAL:HG22	2.19	0.43
25:DA:1252:G:C2	41:DQ:32:ARG:HG2	2.54	0.43
25:CA:2703:C:N4	25:CA:2704:C:H41	2.16	0.43
1:AA:346:G:N2	1:AA:347:G:C8	2.86	0.43
25:DA:1424:G:C2	25:DA:1425:G:H1'	2.53	0.43
25:DA:2364:C:H2'	25:DA:2365:G:H5'	2.00	0.43
4:BD:168:THR:HB	4:BD:183:ARG:HH21	1.84	0.43
13:BM:47:LEU:HD13	13:BM:52:ILE:CG1	2.48	0.43
22:AV:11:C:H6	22:AV:11:C:O5'	2.01	0.43
25:CA:2093:G:O2'	25:CA:2094:A:H5'	2.18	0.43
25:CA:919:U:C2'	25:CA:920:A:H5'	2.49	0.43
25:DA:1675:C:C2'	25:DA:1676:A:H5'	2.49	0.43
1:AA:1520:C:H2'	1:AA:1521:C:H6	1.83	0.43
1:AA:915:A:C2'	1:AA:916:U:H5'	2.48	0.43
25:CA:586:A:H5"	25:CA:586:A:H8	1.83	0.43
27:DC:215:VAL:HG12	27:DC:215:VAL:O	2.18	0.43
25:CA:2281:A:O2'	25:CA:2282:G:H5'	2.18	0.43
25:DA:756:A:H2'	25:DA:757:G:O4'	2.18	0.43
5:AE:24:VAL:O	5:AE:25:LYS:C	2.57	0.43
27:CC:56:GLY:HA2	27:CC:212:TRP:HA	2.00	0.43
43:CS:3:THR:HG21	43:CS:58:ALA:N	2.34	0.43
16:AP:45:GLU:HG2	16:AP:45:GLU:O	2.19	0.43
45:CU:46:LYS:HB3	45:CU:46:LYS:HE2	1.85	0.43
19:BS:10:ILE:HG12	19:BS:15:LEU:HD22	2.01	0.43
25:CA:2161:C:C2'	25:CA:2161:C:O2	2.62	0.43
25:CA:2552:U:H2'	25:CA:2554:U:H5"	2.00	0.43
25:DA:1398:C:C2'	25:DA:1399:C:O5'	2.65	0.43
25:DA:1402:U:H2'	25:DA:1402:U:O2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DT:34:VAL:HG21	44:DT:43:ILE:HD11	2.00	0.43
49:DY:9:LYS:H	49:DY:12:GLU:HG3	1.81	0.43
25:CA:1058:U:O2	25:CA:1058:U:H2'	2.18	0.43
25:CA:1059:G:C4	25:CA:1060:U:C5	3.07	0.43
2:AB:159:ALA:O	2:AB:160:LEU:HB2	2.18	0.43
2:AB:53:LEU:HA	2:AB:56:LEU:HB3	2.01	0.43
1:AA:257:G:C2	1:AA:258:G:N7	2.87	0.43
20:AT:57:VAL:HG12	20:AT:58:ASP:N	2.33	0.43
25:CA:1180:U:C2'	25:CA:1181:U:C5'	2.95	0.43
52:D1:16:THR:HG21	52:D1:39:ASP:OD1	2.18	0.43
42:CR:40:MET:HE2	42:CR:48:LYS:HE2	1.99	0.43
42:CR:48:LYS:HE3	42:CR:48:LYS:HB3	1.52	0.43
41:CQ:87:VAL:CG1	42:CR:49:ILE:HD11	2.48	0.43
42:CR:49:ILE:O	42:CR:51:VAL:O	2.37	0.43
20:BT:66:ILE:CG2	20:BT:67:HIS:N	2.80	0.43
6:AF:69:GLU:O	6:AF:72:ASP:HB3	2.18	0.43
6:AF:92:THR:CG2	6:AF:93:LYS:H	2.31	0.43
33:CI:107:GLU:HA	33:CI:110:GLN:OE1	2.18	0.43
1:AA:426:U:H5"	4:AD:36:ALA:HB1	2.00	0.43
25:CA:570:G:OP1	25:CA:972:A:O2'	2.27	0.43
19:BS:17:LYS:HA	19:BS:20:LYS:HB3	2.01	0.43
25:DA:2407:A:C2	25:DA:2408:U:C6	3.06	0.43
25:DA:2111:U:C4	25:DA:2147:A:H2	2.37	0.43
25:DA:2114:A:C2'	25:DA:2114:A:N3	2.80	0.43
39:DO:36:TYR:N	39:DO:36:TYR:CD2	2.83	0.43
25:CA:1063:G:H4'	33:CI:76:ALA:HB1	2.00	0.43
1:BA:81:A:H2'	1:BA:82:G:C8	2.54	0.43
25:DA:2794:C:O2	25:DA:2795:C:N1	2.52	0.43
5:AE:149:PRO:HA	8:AH:98:LEU:CD1	2.48	0.43
1:AA:89:U:O2'	1:AA:90:C:H5'	2.18	0.43
31:DG:53:PRO:HG3	31:DG:61:TRP:CD2	2.53	0.43
27:DC:243:PRO:C	27:DC:244:VAL:HG13	2.38	0.43
34:DJ:80:HIS:HB3	34:DJ:81:ILE:CG2	2.46	0.43
3:BC:71:ARG:CB	3:BC:74:ILE:CG2	2.94	0.43
31:DG:136:ASP:HB3	31:DG:139:VAL:HG23	2.01	0.43
9:BI:41:GLU:O	9:BI:42:THR:C	2.56	0.43
9:BI:6:TYR:HA	9:BI:18:VAL:O	2.19	0.43
25:CA:2304:G:C2'	25:CA:2305:U:H5"	2.47	0.43
30:CF:127:TYR:CE2	30:CF:129:MET:HG2	2.53	0.43
25:CA:323:C:O2	25:CA:323:C:O4'	2.31	0.43
1:AA:1285:A:C5'	1:AA:1286:U:O4	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:949:A:C6	1:AA:950:U:C4	3.07	0.43
2:BB:141:GLU:HG2	2:BB:142:LYS:H	1.83	0.43
10:BJ:36:VAL:HG12	10:BJ:38:GLY:HA2	2.01	0.43
10:BJ:35:GLN:NE2	10:BJ:77:VAL:HB	2.33	0.43
9:AI:49:GLN:C	9:AI:51:LEU:H	2.22	0.43
9:AI:53:LEU:HD12	9:AI:53:LEU:N	2.34	0.43
25:CA:811:U:O4	36:CL:21:ARG:NH2	2.51	0.43
6:BF:29:ILE:CD1	6:BF:29:ILE:N	2.82	0.43
6:BF:47:LEU:HD13	6:BF:51:ILE:CG2	2.48	0.43
6:BF:82:ASP:C	6:BF:84:VAL:H	2.22	0.43
6:BF:88:MET:HG2	6:BF:90:MET:CG	2.49	0.43
45:DU:23:LYS:HB3	45:DU:36:GLU:CD	2.39	0.43
2:BB:67:LEU:HA	2:BB:89:PHE:O	2.19	0.43
30:DF:41:GLU:O	30:DF:45:ASP:OD1	2.36	0.43
27:CC:35:LYS:O	27:CC:36:ASN:HB2	2.14	0.43
1:BA:1491:G:C8	1:BA:1492:A:N7	2.86	0.43
25:CA:1483:G:C2	25:CA:1507:C:O2	2.71	0.43
25:CA:1071:G:C4	25:CA:1089:A:C5	3.07	0.43
19:AS:50:VAL:CG2	19:AS:70:LEU:CD1	2.90	0.43
31:CG:25:ILE:HG21	31:CG:74:MET:O	2.19	0.43
32:CH:142:VAL:HG12	32:CH:143:ILE:H	1.83	0.43
39:DO:26:LEU:CD1	39:DO:39:VAL:CG2	2.92	0.43
12:AL:93:ARG:O	12:AL:94:TYR:CG	2.72	0.43
11:BK:62:ALA:HB3	11:BK:91:GLY:HA2	1.99	0.43
1:BA:148:G:H2'	1:BA:149:A:O5'	2.18	0.43
1:AA:650:G:C2'	1:AA:651:C:H5'	2.49	0.43
1:BA:1285:A:H5'	1:BA:1286:U:O4	2.18	0.43
1:AA:380:G:H3'	1:AA:380:G:C8	2.53	0.43
1:BA:1136:C:H4'	1:BA:1137:C:OP2	2.19	0.43
24:AY:9:ASP:HB3	24:AY:13:ARG:HH22	1.78	0.43
24:AY:12:VAL:HG12	24:AY:13:ARG:N	2.32	0.43
25:CA:2114:A:C2'	25:CA:2114:A:N3	2.79	0.43
14:BN:20:PHE:CA	14:BN:24:ALA:HB2	2.49	0.43
17:BQ:46:HIS:HB2	17:BQ:70:LYS:HE2	2.01	0.43
25:DA:2511:U:H2'	25:DA:2512:C:O4'	2.17	0.43
15:BO:30:LEU:O	15:BO:34:GLN:HB2	2.18	0.43
25:CA:2831:G:H1'	25:CA:2883:A:H2'	2.01	0.43
25:DA:784:G:P	60:DA:3317:HOH:O	2.76	0.43
7:AG:148:LYS:C	7:AG:150:PHE:N	2.69	0.43
28:CD:2:ILE:HG23	28:CD:88:GLU:OE2	2.18	0.43
1:BA:620:C:O2	4:BD:131:ILE:HG21	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1487:U:N3	25:DA:1503:A:C2	2.86	0.43
25:DA:1301:A:N3	25:DA:1301:A:C2'	2.82	0.43
34:DJ:39:LYS:NZ	34:DJ:44:TYR:CZ	2.86	0.43
6:AF:62:MET:O	6:AF:63:ASN:CB	2.66	0.43
7:BG:137:ARG:NH2	7:BG:138:GLU:CG	2.81	0.43
27:CC:92:LEU:HD11	27:CC:100:ARG:HD3	2.00	0.43
34:DJ:122:LEU:HD12	34:DJ:123:LYS:N	2.33	0.43
20:AT:5:SER:OG	20:AT:6:ALA:N	2.52	0.43
1:BA:1347:G:C8	9:BI:108:ARG:CB	3.02	0.43
25:CA:2051:A:H5'	25:CA:2578:G:O4'	2.19	0.43
6:AF:11:HIS:HA	6:AF:12:PRO:HD2	1.77	0.43
39:CO:59:ALA:O	39:CO:60:GLU:C	2.56	0.43
14:AN:48:LEU:HD23	14:AN:51:LEU:HD21	1.99	0.43
25:CA:2516:A:C6	25:CA:2517:C:C4	3.06	0.43
25:DA:1221:C:H2'	25:DA:1222:U:O4'	2.19	0.43
25:DA:659:G:O5'	29:DE:95:LYS:HD3	2.18	0.43
28:DD:62:LYS:N	28:DD:63:PRO:CD	2.81	0.43
55:D4:1:MET:SD	55:D4:36:ARG:HB2	2.59	0.43
35:CK:103:VAL:O	35:CK:122:VAL:HB	2.17	0.43
1:AA:1258:G:C2	1:AA:1259:C:C2	3.06	0.43
4:AD:73:ASN:O	4:AD:77:GLU:HB2	2.18	0.43
25:CA:852:U:H2'	25:CA:853:C:C6	2.53	0.43
46:CV:60:VAL:C	46:CV:61:LEU:HD13	2.39	0.43
25:DA:2751:G:H2'	25:DA:2751:G:N3	2.34	0.43
25:DA:864:G:O2'	25:DA:865:C:H5'	2.19	0.43
55:D4:10:LEU:N	55:D4:14:CYS:SG	2.92	0.43
31:CG:42:VAL:HB	31:CG:51:PHE:CD1	2.53	0.43
25:DA:42:A:N3	25:DA:438:G:C2	2.87	0.43
25:DA:1681:G:C8	25:DA:1762:A:C2	3.06	0.43
25:CA:1559:U:H4'	25:CA:1560:G:OP2	2.19	0.43
1:AA:33:A:O2'	1:AA:363:A:H1'	2.18	0.43
11:AK:107:THR:HG22	11:AK:108:ASN:ND2	2.33	0.43
1:BA:901:A:C5	1:BA:902:G:H1'	2.53	0.43
38:CN:32:GLU:OE1	38:CN:118:ARG:HA	2.18	0.43
25:DA:80:G:H2'	25:DA:81:G:H5'	2.00	0.43
1:AA:1508:A:H2'	1:AA:1509:C:O4'	2.18	0.43
46:DV:80:HIS:HE1	46:DV:82:TYR:CD2	2.36	0.43
28:CD:61:THR:OG1	28:CD:64:GLU:HG3	2.19	0.43
1:BA:392:C:O2'	1:BA:483:C:H1'	2.18	0.43
25:CA:306:U:C4	25:CA:307:G:C5	3.07	0.43
34:DJ:98:GLU:O	34:DJ:102:GLU:HG3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:796:C:OP1	29:DE:57:LYS:NZ	2.47	0.43
25:DA:2540:C:C2'	25:DA:2541:A:H5'	2.49	0.43
25:DA:2588:G:C6	25:DA:2607:G:C2	3.06	0.43
25:CA:848:C:H2'	25:CA:849:A:C8	2.53	0.43
1:AA:250:A:N3	1:AA:250:A:H5'	2.33	0.43
25:CA:2636:C:H2'	25:CA:2636:C:O2	2.18	0.43
29:DE:114:ARG:HE	29:DE:114:ARG:HB2	1.61	0.43
5:BE:29:ILE:O	5:BE:29:ILE:HG23	2.18	0.43
14:BN:33:VAL:O	14:BN:33:VAL:HG12	2.18	0.43
25:CA:86:G:C2	25:CA:87:U:C4	3.06	0.43
25:CA:67:U:O2	25:CA:88:G:C2	2.71	0.43
45:CU:68:ASN:C	45:CU:69:VAL:HG13	2.38	0.43
1:AA:1449:C:H1'	1:AA:1455:G:N2	2.34	0.43
15:BO:48:ASP:CG	15:BO:51:SER:HB2	2.39	0.43
1:AA:815:A:O2'	1:AA:816:A:OP1	2.26	0.43
12:BL:54:VAL:CG2	12:BL:79:ILE:HD11	2.48	0.43
1:BA:1317:C:H2'	1:BA:1318:A:C5'	2.49	0.43
1:BA:1317:C:C2'	1:BA:1318:A:O5'	2.66	0.43
13:BM:14:ALA:HA	13:BM:44:ILE:HD11	2.01	0.43
19:BS:39:ILE:HG22	19:BS:66:VAL:HA	2.00	0.43
33:DI:12:VAL:HG23	33:DI:16:MET:HB2	2.00	0.43
4:BD:30:LYS:HE2	4:BD:30:LYS:H	1.84	0.43
25:DA:1344:U:H1'	25:DA:1384:A:H2'	2.01	0.43
1:AA:1140:C:HO2'	1:AA:1141:C:P	2.40	0.43
1:BA:1233:G:C6	1:BA:1234:C:C4	3.07	0.43
2:AB:110:ILE:CD1	2:AB:147:LEU:HD13	2.49	0.43
19:AS:54:ARG:HG3	19:AS:54:ARG:H	1.69	0.43
1:BA:1276:G:H2'	1:BA:1277:C:C6	2.54	0.43
1:BA:1151:A:C2	1:BA:1152:A:C6	3.06	0.43
42:DR:47:VAL:CG1	42:DR:54:VAL:HG22	2.48	0.43
2:BB:18:GLN:O	2:BB:37:VAL:CG2	2.67	0.43
2:BB:71:THR:O	2:BB:72:LYS:HG2	2.19	0.43
1:AA:1539:C:P	21:AU:17:ARG:CZ	3.07	0.43
1:BA:1000:A:C6	1:BA:1001:C:N3	2.87	0.43
25:DA:1414:C:C3'	25:DA:1414:C:C6	3.01	0.43
33:CI:106:GLN:O	33:CI:110:GLN:N	2.52	0.43
20:AT:23:ARG:O	20:AT:26:MET:N	2.51	0.43
10:AJ:83:THR:CG2	10:AJ:84:VAL:N	2.82	0.43
43:DS:85:ILE:N	43:DS:96:ILE:HD11	2.33	0.43
56:DB:33:G:H2'	56:DB:34:A:C8	2.53	0.43
39:DO:35:ILE:HG23	39:DO:35:ILE:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:762:U:H2'	1:BA:763:G:C8	2.53	0.43
16:AP:15:PRO:O	16:AP:16:PHE:HB2	2.19	0.43
4:AD:123:MET:O	4:AD:142:VAL:HA	2.18	0.43
4:AD:106:PHE:CG	4:AD:144:ILE:HD11	2.53	0.43
30:CF:116:LEU:HD22	30:CF:116:LEU:N	2.33	0.43
1:BA:782:A:C6	1:BA:801:U:C2	3.07	0.43
1:AA:66:A:O4'	1:AA:173:U:C4	2.71	0.43
1:BA:98:A:O2'	1:BA:99:C:H5'	2.19	0.43
14:AN:41:ARG:CB	14:AN:42:TRP:CE3	3.01	0.43
20:BT:35:TYR:HE1	20:BT:39:GLU:OE2	2.01	0.43
32:DH:61:VAL:O	32:DH:64:ALA:HB3	2.18	0.43
25:CA:1414:C:H6	25:CA:1414:C:H3'	1.83	0.43
1:BA:1148:U:C4	1:BA:1149:C:N3	2.86	0.43
35:CK:13:ASN:HD21	35:CK:98:ARG:HG3	1.83	0.43
27:DC:70:LYS:HG2	27:DC:101:ARG:NH1	2.33	0.43
1:AA:1374:A:O2'	1:AA:1375:A:H5'	2.19	0.43
40:CP:14:GLN:O	40:CP:15:ASP:CB	2.59	0.43
2:BB:117:GLU:HA	2:BB:120:SER:HB2	2.00	0.43
2:BB:130:LYS:O	2:BB:134:LEU:N	2.51	0.43
10:BJ:10:LEU:N	10:BJ:10:LEU:CD1	2.77	0.43
10:BJ:35:GLN:HG2	10:BJ:77:VAL:HB	2.00	0.43
9:AI:35:GLU:OE2	9:AI:39:GLY:HA3	2.18	0.43
9:AI:49:GLN:N	9:AI:50:PRO:HD2	2.34	0.43
6:BF:40:GLU:OE1	6:BF:100:SER:CB	2.66	0.43
25:CA:1870:C:H2'	25:CA:1871:A:N3	2.33	0.43
25:DA:1178:C:H5'	25:DA:1179:G:OP1	2.18	0.43
9:AI:24:ASN:C	9:AI:58:GLU:CA	2.87	0.43
25:DA:1370:C:H2'	25:DA:1371:G:O4'	2.18	0.43
1:AA:108:G:N2	1:AA:109:A:N1	2.66	0.43
25:DA:67:U:H2'	25:DA:68:G:O4'	2.18	0.43
25:DA:1386:C:H2'	25:DA:1387:A:H8	1.83	0.43
29:CE:109:LEU:O	29:CE:111:GLU:N	2.52	0.43
1:BA:926:G:C6	1:BA:1505:G:C6	3.07	0.43
1:AA:518:C:H5"	1:AA:519:C:C6	2.54	0.43
25:DA:616:A:O2'	25:DA:617:G:H5'	2.18	0.43
33:CI:57:VAL:CG1	33:CI:68:PHE:HA	2.49	0.43
48:DX:29:LEU:HD22	48:DX:30:PRO:CD	2.49	0.43
1:AA:283:U:H2'	1:AA:284:C:C6	2.53	0.43
1:BA:174:A:C5	1:BA:175:C:C5	3.07	0.43
7:BG:23:ALA:O	7:BG:26:VAL:CG2	2.66	0.43
25:DA:537:G:C2	25:DA:555:G:C2	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DN:103:ARG:NE	38:DN:110:MET:HE3	2.33	0.43
25:DA:1353:A:C6	25:DA:1354:A:C2	3.07	0.43
14:AN:20:PHE:O	14:AN:21:ALA:HB3	2.19	0.43
25:DA:205:G:HO2'	25:DA:206:U:P	2.41	0.43
25:DA:1722:A:C2	25:DA:1739:A:N3	2.86	0.43
25:CA:1875:G:HO2'	25:CA:1876:A:P	2.41	0.43
1:AA:182:A:N7	1:AA:184:G:C5	2.87	0.43
1:AA:199:A:C2	1:AA:200:G:C5	3.06	0.43
10:BJ:84:VAL:O	10:BJ:88:MET:CG	2.67	0.43
30:DF:109:ARG:NH1	30:DF:138:PRO:HG3	2.34	0.43
25:CA:2221:G:C2'	25:CA:2222:C:C5'	2.96	0.43
32:CH:4:ILE:CG2	32:CH:5:LEU:N	2.80	0.43
25:DA:973:A:H5'	25:DA:1188:U:H1'	2.01	0.43
36:CL:126:ARG:HD3	36:CL:126:ARG:N	2.32	0.43
4:AD:194:ILE:HG13	4:AD:196:GLU:OE2	2.18	0.43
16:AP:3:THR:HG22	16:AP:4:ILE:H	1.82	0.43
25:CA:1039:A:C2'	25:CA:1040:A:O5'	2.66	0.43
25:DA:1856:U:O4	25:DA:1857:G:C6	2.71	0.43
30:CF:63:LYS:HA	30:CF:64:PRO:HD3	1.87	0.43
25:CA:1434:A:O2'	25:CA:1435:G:O4'	2.37	0.43
25:CA:877:A:C2	25:CA:899:A:C2	3.07	0.43
1:BA:1486:G:N1	1:BA:1487:G:C2	2.86	0.43
25:CA:928:A:C2'	25:CA:929:U:H5'	2.48	0.43
40:DP:112:ARG:O	40:DP:113:LEU:HD23	2.18	0.43
25:DA:2772:C:H2'	25:DA:2773:C:C6	2.53	0.43
31:DG:26:LYS:HB3	31:DG:31:GLU:CD	2.39	0.43
33:DI:102:ARG:H	33:DI:141:ASP:HB2	1.84	0.43
55:D4:9:LYS:HG2	55:D4:14:CYS:CB	2.48	0.43
35:CK:108:ARG:NH1	40:CP:34:GLY:HA2	2.34	0.43
25:DA:2808:G:N2	25:DA:2891:U:C6	2.86	0.43
1:BA:905:U:C2'	1:BA:906:A:H5'	2.48	0.43
25:DA:202:U:H2'	25:DA:203:A:C8	2.52	0.43
27:CC:134:ILE:HG23	27:CC:135:PRO:CD	2.49	0.43
25:DA:2080:A:C5	25:DA:2081:U:C4	3.07	0.43
43:DS:35:ILE:O	43:DS:36:LEU:C	2.53	0.43
25:DA:2150:C:C4	25:DA:2151:U:C5	3.07	0.43
25:DA:1117:C:O2	25:DA:1117:C:C2'	2.65	0.43
25:DA:2603:G:C6	25:DA:2604:U:C4	3.07	0.43
1:BA:807:A:H2'	1:BA:808:C:C6	2.54	0.43
25:CA:1826:G:O2'	25:CA:1971:U:OP2	2.36	0.43
25:CA:2655:G:HO2'	25:CA:2656:U:P	2.40	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:CO:110:ALA:O	39:CO:115:LEU:HB2	2.18	0.43
35:CK:66:LYS:HD2	35:CK:66:LYS:HA	1.79	0.43
25:DA:1559:U:H3'	25:DA:1560:G:C5'	2.49	0.43
40:CP:3:ILE:CD1	40:CP:3:ILE:N	2.82	0.43
25:CA:684:G:C2	25:CA:794:A:C2	3.07	0.43
2:BB:9:LEU:HB2	2:BB:42:LEU:HD22	2.00	0.43
31:DG:131:VAL:O	31:DG:131:VAL:HG12	2.18	0.43
25:DA:241:A:O2'	54:D3:2:LYS:NZ	2.52	0.43
7:BG:13:PRO:HA	7:BG:20:GLU:HG3	1.99	0.43
29:DE:157:LEU:HD23	29:DE:169:VAL:HG11	2.01	0.43
25:CA:671:C:H2'	25:CA:672:C:C6	2.54	0.43
25:CA:1583:A:O4'	25:CA:1583:A:N3	2.50	0.43
25:CA:130:C:H2'	25:CA:131:A:O5'	2.19	0.43
29:DE:168:ASP:HB2	29:DE:183:PHE:CZ	2.53	0.43
1:BA:971:G:H1'	1:BA:1365:G:O2'	2.19	0.43
33:DI:35:MET:SD	33:DI:39:LYS:HB2	2.58	0.43
33:DI:58:ILE:CD1	33:DI:66:PHE:CE1	3.02	0.43
32:CH:21:VAL:HG22	32:CH:25:TYR:HB3	2.00	0.43
25:DA:1406:U:N3	25:DA:1407:G:N7	2.66	0.43
49:DY:20:ASN:O	49:DY:21:LEU:O	2.37	0.43
49:DY:24:GLU:HB3	49:DY:28:LEU:HD11	2.00	0.43
1:AA:1135:U:C2	1:AA:1137:C:N3	2.87	0.43
1:AA:677:U:H3	1:AA:713:G:H1	1.66	0.43
25:CA:1069:A:C4'	25:CA:1070:A:H8	2.32	0.43
2:AB:101:THR:HB	2:AB:174:GLU:OE1	2.19	0.43
1:AA:1271:A:C5'	1:AA:1314:C:H5"	2.49	0.43
1:AA:1324:A:C2	1:AA:1325:C:C2	3.06	0.43
10:AJ:16:ARG:O	10:AJ:17:LEU:CB	2.67	0.43
27:DC:146:LYS:HB2	27:DC:149:LYS:HD2	1.99	0.43
25:DA:2339:C:O2'	25:DA:2340:A:H5'	2.19	0.43
32:DH:8:LYS:O	32:DH:9:VAL:CB	2.67	0.43
17:BQ:16:MET:N	17:BQ:16:MET:SD	2.92	0.43
38:DN:48:VAL:O	38:DN:49:GLU:C	2.56	0.43
1:AA:145:G:C2'	1:AA:146:G:O5'	2.67	0.43
25:DA:2168:G:C6	25:DA:2169:A:C6	3.07	0.43
13:AM:21:ILE:O	13:AM:24:VAL:HG22	2.19	0.43
25:DA:1540:G:H2'	25:DA:1541:C:H6	1.83	0.43
25:DA:1544:A:N6	25:DA:1545:A:C6	2.86	0.43
25:DA:970:U:H1'	25:DA:985:C:OP1	2.18	0.43
12:AL:56:LEU:CB	12:AL:58:ASN:OD1	2.67	0.43
30:DF:57:ALA:HB2	30:DF:64:PRO:HD3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DO:40:ILE:CG2	39:DO:41:ALA:N	2.82	0.43
4:AD:11:SER:OG	4:AD:18:LEU:HG	2.19	0.43
4:AD:11:SER:O	4:AD:12:ARG:C	2.57	0.43
4:AD:149:LYS:O	4:AD:150:LYS:C	2.56	0.43
4:AD:156:ALA:O	4:AD:160:LEU:HD22	2.19	0.43
33:CI:79:LEU:HD11	33:CI:132:ALA:CA	2.49	0.43
1:BA:81:A:C2	1:BA:89:U:C2	3.07	0.43
5:AE:104:ILE:HD12	5:AE:122:VAL:HG23	2.01	0.43
22:AV:55:U:C2'	22:AV:57:G:N7	2.81	0.43
25:DA:1324:G:H1'	25:DA:1616:A:N6	2.33	0.43
20:BT:80:ALA:O	20:BT:81:GLN:C	2.57	0.43
1:AA:377:G:C2	1:AA:387:U:O2	2.71	0.43
1:BA:154:U:O2	1:BA:168:G:N2	2.52	0.43
25:CA:1416:G:O2'	25:CA:1417:C:OP2	2.37	0.43
1:AA:1298:U:O4	7:AG:113:LYS:O	2.37	0.43
1:BA:462:G:C6	1:BA:463:U:C6	3.07	0.43
2:BB:102:ASN:O	2:BB:103:TRP:C	2.57	0.43
25:CA:2156:G:N7	25:CA:2157:G:C6	2.87	0.43
1:AA:1346:A:O2'	7:AG:9:ARG:NH1	2.51	0.43
16:BP:35:ARG:HG2	16:BP:36:VAL:H	1.83	0.43
25:CA:811:U:C2	25:CA:1251:C:C5	3.06	0.43
6:BF:68:GLN:HA	6:BF:71:ILE:HG22	2.00	0.43
6:BF:9:MET:SD	6:BF:59:TYR:CE1	3.12	0.43
45:DU:17:ASP:OD1	45:DU:38:ILE:O	2.37	0.43
3:AC:35:ASP:HA	3:AC:38:VAL:HG22	2.01	0.43
12:BL:41:PRO:HB3	12:BL:88:ASP:OD1	2.18	0.43
25:CA:545:U:O2	25:CA:545:U:P	2.77	0.43
32:CH:97:ARG:HE	32:CH:112:LYS:NZ	2.16	0.43
25:DA:2131:U:C5'	25:DA:2132:U:H5"	2.45	0.43
33:CI:32:VAL:CG1	33:CI:33:ASN:N	2.81	0.43
25:DA:1092:C:H3'	25:DA:1093:G:C8	2.54	0.43
47:CW:52:ASP:N	47:CW:52:ASP:OD1	2.52	0.43
1:BA:1137:C:O4'	1:BA:1137:C:O2	2.36	0.43
1:AA:541:G:H2'	1:AA:542:G:H8	1.83	0.43
35:DK:35:VAL:HG12	35:DK:36:GLY:N	2.33	0.43
49:CY:18:LEU:O	49:CY:22:LEU:HB2	2.18	0.43
1:BA:559:A:H4'	1:BA:560:A:H5"	1.99	0.43
1:BA:560:A:C8	1:BA:566:G:C2	3.06	0.43
25:DA:910:A:N7	37:DM:13:HIS:CD2	2.87	0.43
25:CA:2853:C:C2	25:CA:2854:G:C8	3.06	0.43
14:BN:19:TYR:O	14:BN:20:PHE:O	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CG:148:ARG:HG2	31:CG:148:ARG:NH1	2.34	0.43
21:BU:14:ALA:C	21:BU:16:ARG:H	2.22	0.43
40:DP:8:GLU:O	40:DP:54:LEU:CD2	2.67	0.43
30:DF:95:MET:O	30:DF:96:TRP:C	2.57	0.43
25:DA:250:G:O5'	36:DL:59:ARG:HD2	2.19	0.43
12:AL:42:LYS:O	12:AL:44:PRO:HD2	2.19	0.43
7:BG:131:GLY:H	7:BG:134:VAL:CG2	2.30	0.43
25:CA:408:G:O6	25:CA:409:G:C6	2.72	0.43
4:AD:193:ASP:OD2	4:AD:193:ASP:N	2.50	0.43
25:CA:2734:A:H2'	25:CA:2735:G:O4'	2.18	0.43
25:CA:163:C:H2'	25:CA:164:C:O4'	2.19	0.43
1:BA:1088:G:N1	1:BA:1089:G:C5	2.87	0.43
1:AA:1004:A:O2'	1:AA:1005:A:H5'	2.18	0.43
1:AA:645:G:C5	1:AA:646:G:N7	2.87	0.43
25:DA:1856:U:C4	25:DA:1857:G:C6	3.07	0.43
7:AG:65:LEU:C	7:AG:67:ASN:H	2.22	0.43
5:AE:45:VAL:HG22	5:AE:117:ALA:HB1	2.01	0.43
1:BA:357:G:C2'	1:BA:358:U:O5'	2.67	0.43
25:CA:915:C:H2'	25:CA:916:G:O5'	2.18	0.43
6:BF:1:MET:SD	6:BF:67:PRO:HD3	2.59	0.43
30:CF:43:ILE:HA	30:CF:82:TYR:OH	2.19	0.43
7:AG:13:PRO:O	7:AG:14:ASP:O	2.37	0.43
1:AA:927:G:C2	1:AA:1391:U:O2	2.71	0.43
1:AA:295:C:H2'	1:AA:296:U:H6	1.84	0.43
8:BH:36:ALA:O	8:BH:39:LEU:N	2.52	0.43
43:CS:4:ILE:CD1	43:CS:4:ILE:N	2.80	0.43
25:CA:2568:U:H2'	25:CA:2569:G:O4'	2.18	0.43
28:CD:39:ASP:OD2	28:CD:40:LEU:CB	2.67	0.43
37:CM:4:PRO:HG3	37:CM:70:ASP:HA	2.01	0.43
25:DA:2818:U:H4'	25:DA:2837:A:O4'	2.19	0.43
40:DP:89:GLY:O	40:DP:112:ARG:HD3	2.19	0.43
32:CH:135:HIS:CD2	32:CH:138:VAL:HG23	2.54	0.43
25:CA:2078:C:H2'	25:CA:2079:U:O4'	2.19	0.43
3:BC:178:ARG:CD	3:BC:178:ARG:O	2.67	0.43
17:BQ:31:PRO:HB2	17:BQ:32:ILE:CD1	2.48	0.43
40:DP:100:ARG:C	40:DP:101:GLU:CG	2.85	0.43
23:AX:14:A:N6	23:AX:15:A:C6	2.86	0.43
15:AO:78:THR:C	15:AO:82:GLU:OE1	2.57	0.43
28:DD:39:ASP:O	28:DD:43:ASP:CB	2.67	0.43
42:DR:95:ASP:C	42:DR:96:VAL:HG13	2.38	0.43
1:AA:1405:G:H1'	1:AA:1518:A:O2'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DX:66:VAL:HG12	48:DX:67:LEU:N	2.34	0.43
30:CF:36:ASN:ND2	30:CF:37:MET:H	2.17	0.43
25:CA:319:G:H2'	25:CA:320:A:O5'	2.18	0.43
41:DQ:13:HIS:O	41:DQ:14:LYS:C	2.57	0.43
25:CA:2555:U:C3'	25:CA:2556:C:H5'	2.49	0.43
27:DC:212:TRP:C	27:DC:214:GLY:H	2.22	0.43
37:DM:78:LEU:HD23	37:DM:79:ALA:N	2.33	0.43
35:CK:10:VAL:HB	35:CK:16:ALA:O	2.18	0.43
29:DE:10:SER:O	29:DE:11:ALA:O	2.37	0.43
4:AD:109:THR:HG1	4:AD:111:ALA:HB3	1.84	0.43
25:DA:2406:A:H2'	25:DA:2406:A:OP2	2.18	0.43
38:CN:33:ILE:O	38:CN:33:ILE:HG23	2.19	0.43
15:AO:65:LEU:HD23	15:AO:65:LEU:HA	1.75	0.43
35:DK:61:VAL:O	35:DK:61:VAL:HG13	2.19	0.43
25:DA:546:U:O2	25:DA:546:U:H3'	2.19	0.43
25:CA:2808:G:C2	25:CA:2891:U:C6	3.07	0.43
25:DA:1956:U:H1'	25:DA:2552:U:OP1	2.18	0.43
33:DI:133:ARG:CZ	33:DI:139:VAL:HB	2.49	0.43
25:CA:858:G:O2'	25:CA:2268:A:H1'	2.19	0.43
1:BA:1312:G:C2	1:BA:1326:U:C2	3.07	0.43
1:BA:1359:C:O2'	1:BA:1361:G:N7	2.51	0.43
1:BA:979:C:H2'	1:BA:979:C:O2	2.19	0.43
33:DI:3:LYS:CD	33:DI:4:VAL:H	2.32	0.43
25:CA:1059:G:OP2	25:CA:1060:U:C3'	2.67	0.43
25:CA:1078:U:C5'	25:CA:1079:C:OP1	2.67	0.43
2:AB:145:ASN:OD1	2:AB:145:ASN:N	2.52	0.43
2:AB:175:ALA:CB	2:AB:182:VAL:CG2	2.96	0.43
1:AA:1267:C:H2'	1:AA:1268:G:O4'	2.19	0.43
1:AA:257:G:H2'	1:AA:258:G:H8	1.84	0.43
1:BA:1277:C:H2'	1:BA:1278:G:H5"	2.01	0.43
10:AJ:40:ILE:HB	10:AJ:73:LEU:HB2	2.00	0.43
29:DE:104:ALA:O	29:DE:108:ILE:HG23	2.19	0.43
25:DA:1494:A:C2	25:DA:1495:A:C8	3.06	0.43
16:BP:40:ASN:OD1	16:BP:42:ILE:HB	2.18	0.43
1:BA:1038:C:H2'	1:BA:1039:G:C8	2.53	0.43
50:DZ:9:THR:CG2	50:DZ:10:ARG:N	2.81	0.43
5:BE:74:ALA:HB1	5:BE:81:GLN:NE2	2.34	0.43
36:DL:95:LEU:O	36:DL:98:ALA:N	2.52	0.43
38:DN:43:GLU:C	38:DN:45:ARG:N	2.71	0.43
1:AA:141:G:C5	1:AA:142:G:N7	2.87	0.43
1:BA:1216:A:C2	1:BA:1217:C:C4	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1220:G:H21	19:BS:53:GLY:HA2	1.83	0.43
25:DA:2784:U:H6	25:DA:2784:U:O5'	2.02	0.43
30:DF:64:PRO:HB3	30:DF:88:VAL:CG2	2.48	0.43
39:DO:47:VAL:O	39:DO:48:LEU:HD23	2.18	0.43
39:DO:28:VAL:O	39:DO:95:SER:CB	2.67	0.43
1:BA:1134:G:C5	1:BA:1135:U:C5	3.07	0.43
28:DD:105:LYS:C	28:DD:177:VAL:HG12	2.39	0.43
1:AA:427:U:C4	1:AA:428:G:C6	3.07	0.43
4:AD:25:ARG:HD2	4:AD:30:LYS:CE	2.45	0.43
4:AD:8:LEU:O	4:AD:10:LEU:N	2.52	0.43
41:CQ:26:ALA:HB1	41:CQ:33:VAL:CG2	2.48	0.43
1:AA:9:G:H5'	5:AE:107:GLY:HA3	2.00	0.43
5:AE:33:THR:HG21	5:AE:49:TYR:OH	2.17	0.43
22:AV:48:C:C2	22:AV:59:U:C1'	3.02	0.43
22:AV:59:U:H3'	22:AV:60:U:C5	2.53	0.43
22:AV:65:G:C2	22:AV:66:U:C4	3.06	0.43
25:DA:2323:G:C2'	25:DA:2324:U:H5'	2.49	0.43
1:BA:1159:U:C4	1:BA:1182:G:C5	3.07	0.43
1:BA:1535:C:HO2'	1:BA:1536:C:P	2.36	0.43
1:AA:1332:A:C2'	1:AA:1333:A:O5'	2.67	0.43
1:AA:1338:G:O5'	1:AA:1338:G:H8	2.02	0.43
14:AN:87:ALA:HA	14:AN:90:ARG:NH1	2.33	0.43
9:AI:100:ALA:HB1	9:AI:102:PHE:CZ	2.54	0.43
6:BF:71:ILE:HG22	6:BF:72:ASP:N	2.34	0.43
6:BF:80:PHE:CD2	6:BF:81:ASN:N	2.86	0.43
6:BF:88:MET:CE	18:BR:63:TYR:HD2	2.29	0.43
17:AQ:47:ASP:O	17:AQ:48:GLU:C	2.56	0.43
25:CA:357:C:H2'	25:CA:358:U:C6	2.54	0.43
9:AI:25:GLY:HA3	9:AI:58:GLU:HA	2.01	0.43
3:AC:69:THR:HG21	3:AC:75:VAL:HG21	2.00	0.43
32:DH:133:GLN:HA	32:DH:139:PHE:CE1	2.53	0.43
51:D0:53:VAL:O	51:D0:55:ALA:N	2.52	0.43
25:DA:1139:G:H2'	25:DA:1140:C:O5'	2.19	0.43
25:DA:61:C:OP2	49:DY:44:LYS:HB2	2.19	0.43
6:AF:18:VAL:O	6:AF:21:MET:N	2.51	0.43
1:BA:675:A:C4	1:BA:676:A:C8	3.07	0.43
28:CD:4:LEU:HD11	28:CD:96:ILE:CG2	2.49	0.43
33:CI:68:PHE:CG	33:CI:68:PHE:O	2.72	0.43
48:DX:30:PRO:HB2	48:DX:32:LEU:HD13	2.00	0.43
1:BA:174:A:C4	1:BA:175:C:C6	3.07	0.43
2:AB:163:ILE:HG23	2:AB:164:ASP:N	2.28	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1091:G:C2	25:DA:1092:C:C4	3.07	0.43
25:DA:2705:A:H2	38:DN:64:ARG:NH1	2.16	0.43
1:AA:1178:G:H2'	1:AA:1180:A:OP2	2.18	0.43
24:AY:145:LYS:H	24:AY:145:LYS:CD	2.31	0.43
15:BO:34:GLN:O	15:BO:35:ILE:C	2.56	0.43
14:BN:46:LEU:CD1	14:BN:49:GLN:HG2	2.49	0.43
21:BU:13:VAL:HG12	21:BU:15:LEU:HG	2.01	0.43
44:DT:1:MET:C	44:DT:2:ILE:HD12	2.39	0.43
25:CA:2183:A:C2	25:CA:2184:A:C5	3.07	0.43
42:CR:21:ARG:NH1	42:CR:93:PHE:CZ	2.86	0.43
1:BA:1338:G:H2'	1:BA:1339:A:H8	1.80	0.43
4:BD:117:VAL:HG22	4:BD:122:ILE:HG13	2.01	0.43
5:BE:106:ALA:CB	5:BE:124:ALA:HB3	2.48	0.43
25:DA:1483:G:C6	25:DA:1484:U:C5	3.07	0.43
1:AA:687:A:C5	1:AA:701:U:C5	3.07	0.43
1:AA:687:A:C8	1:AA:701:U:O4	2.72	0.43
25:CA:192:C:C2'	25:CA:193:U:H5'	2.47	0.43
9:AI:90:ASP:OD2	9:AI:92:SER:N	2.52	0.43
7:BG:106:ALA:HB2	7:BG:133:ALA:HB2	2.00	0.43
25:CA:1467:U:C4	25:CA:1546:G:N2	2.87	0.43
7:AG:68:VAL:HG12	7:AG:134:VAL:HG12	2.01	0.43
1:AA:45:G:C2	1:AA:398:U:N3	2.87	0.43
1:BA:603:U:H2'	1:BA:604:G:O5'	2.18	0.43
25:CA:834:G:H5'	54:C3:56:LEU:HD11	2.00	0.43
39:CO:77:ALA:O	39:CO:81:ARG:HG3	2.19	0.43
28:CD:38:LYS:O	28:CD:46:ARG:HA	2.19	0.43
25:CA:1280:G:H2'	25:CA:1281:G:O5'	2.18	0.43
22:BV:6:G:O2'	22:BV:7:A:H5'	2.19	0.43
25:CA:182:A:C5	25:CA:183:C:C4	3.07	0.43
25:DA:1347:A:C6	25:DA:1348:C:N3	2.86	0.43
46:CV:24:ASN:O	46:CV:25:LYS:HG2	2.18	0.43
4:BD:165:GLU:O	4:BD:166:LYS:C	2.57	0.43
25:DA:2672:U:C2'	25:DA:2673:G:O5'	2.66	0.43
3:BC:178:ARG:HD2	3:BC:178:ARG:O	2.19	0.43
1:BA:1460:C:C2'	1:BA:1461:G:O5'	2.66	0.43
1:BA:1461:G:H8	1:BA:1461:G:O5'	2.01	0.43
25:CA:2458:G:O2'	25:CA:2460:U:O4	2.32	0.43
1:BA:1416:G:C6	1:BA:1417:G:C4	3.06	0.43
43:DS:36:LEU:O	43:DS:37:THR:C	2.57	0.43
54:C3:54:LEU:HD23	54:C3:54:LEU:HA	1.79	0.43
25:DA:645:C:O2	25:DA:645:C:C2'	2.65	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:CE:125:SER:OG	29:CE:126:VAL:N	2.52	0.43
1:BA:433:G:C6	1:BA:434:U:C4	3.06	0.43
25:DA:1419:A:C8	25:DA:1421:G:C6	3.07	0.43
1:BA:457:G:N7	1:BA:458:U:C5	2.87	0.43
28:CD:142:VAL:CB	28:CD:143:PRO:CD	2.97	0.43
51:D0:28:SER:O	51:D0:37:HIS:CD2	2.71	0.43
29:DE:96:VAL:HG12	29:DE:97:ASN:O	2.19	0.43
1:BA:1155:A:C2'	1:BA:1156:G:O5'	2.66	0.43
25:DA:303:G:H2'	25:DA:304:U:O4'	2.19	0.43
25:CA:1684:G:C6	25:CA:1685:C:N4	2.87	0.43
47:CW:64:LYS:HD3	47:CW:79:GLU:OE2	2.19	0.43
43:CS:74:ILE:O	43:CS:75:PHE:HB3	2.19	0.43
25:DA:2280:G:C2'	25:DA:2281:A:H5'	2.49	0.43
25:DA:1174:U:H5'	25:DA:1175:A:OP2	2.18	0.43
25:CA:1370:C:O2'	25:CA:1811:G:O2'	2.37	0.43
1:AA:1190:G:OP1	3:AC:4:VAL:HG12	2.18	0.43
25:DA:2577:A:H5"	25:DA:2578:G:H5'	1.99	0.43
25:CA:668:A:H2'	25:CA:670:A:H62	1.84	0.43
1:AA:134:G:H1'	1:AA:325:A:C5	2.54	0.43
44:CT:51:PHE:N	44:CT:51:PHE:CD1	2.86	0.43
25:DA:602:A:O2'	25:DA:655:A:N1	2.45	0.43
1:BA:1406:U:H2'	1:BA:1407:C:O4'	2.19	0.43
2:AB:21:TYR:N	2:AB:21:TYR:CD1	2.87	0.43
1:AA:839:C:H6	1:AA:839:C:O5'	2.00	0.43
28:CD:177:VAL:O	28:CD:177:VAL:HG22	2.19	0.43
30:DF:94:ARG:HE	30:DF:94:ARG:HB2	1.63	0.43
25:DA:1206:G:C5	25:DA:1207:C:C5	3.07	0.43
1:BA:1343:G:O2'	9:BI:122:ARG:HD2	2.19	0.43
1:BA:1363:A:C5	1:BA:1365:G:N1	2.87	0.43
1:BA:1365:G:C5	1:BA:1366:C:C5	3.07	0.43
1:BA:1232:U:OP1	9:BI:125:GLN:NE2	2.52	0.43
13:BM:100:ARG:HD2	13:BM:103:THR:OG1	2.19	0.43
19:BS:38:THR:HG22	19:BS:68:HIS:O	2.19	0.43
21:AU:18:PHE:O	21:AU:21:SER:HB2	2.18	0.43
25:CA:1069:A:O2'	25:CA:1070:A:H2'	2.19	0.43
33:CI:41:PHE:CD2	33:CI:42:ASN:OD1	2.72	0.43
1:BA:1255:G:C6	1:BA:1279:G:C5	3.06	0.43
25:DA:1713:A:C2	25:DA:1716:U:C6	3.07	0.43
25:DA:1747:U:O2'	25:DA:1748:C:H5'	2.19	0.43
25:DA:2335:A:N7	25:DA:2337:G:C4	2.84	0.43
1:AA:1537:U:H2'	1:AA:1538:C:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:BQ:16:MET:O	17:BQ:17:GLU:CB	2.66	0.43
36:DL:135:ILE:O	36:DL:140:GLY:CA	2.67	0.43
12:BL:24:GLU:C	12:BL:26:CYS:N	2.65	0.43
38:DN:48:VAL:C	38:DN:50:PRO:HD2	2.39	0.43
25:DA:265:A:H2	25:DA:427:U:O2	2.02	0.43
1:AA:145:G:C2	1:AA:146:G:C8	3.07	0.43
1:BA:1015:G:H2'	1:BA:1016:A:O4'	2.18	0.43
19:BS:30:LEU:HB2	19:BS:48:ILE:HG22	2.00	0.43
25:DA:2782:G:C2	25:DA:2783:U:C6	3.07	0.43
1:AA:1161:C:H2'	1:AA:1162:C:C5	2.52	0.43
25:DA:2146:C:C4'	25:DA:2147:A:OP1	2.67	0.43
1:AA:1034:G:H2'	1:AA:1035:A:C8	2.54	0.43
39:DO:36:TYR:O	39:DO:37:ALA:HB2	2.17	0.43
1:AA:623:C:N4	1:AA:624:C:N4	2.67	0.43
3:AC:133:MET:O	3:AC:137:VAL:HG23	2.19	0.43
3:AC:140:ALA:HB1	3:AC:148:ILE:HD12	2.00	0.43
1:AA:408:A:H2'	1:AA:409:U:H5'	1.99	0.43
1:AA:429:U:C4'	1:AA:430:A:O5'	2.67	0.43
4:AD:97:LEU:HD23	4:AD:117:VAL:HG21	2.01	0.43
25:DA:300:A:H5"	25:DA:301:G:OP2	2.19	0.43
1:BA:1241:G:H8	1:BA:1241:G:O5'	2.01	0.43
7:BG:124:SER:C	7:BG:126:ALA:N	2.70	0.43
3:AC:26:LYS:CD	3:AC:26:LYS:H	2.15	0.43
2:AB:47:PRO:O	2:AB:50:ASN:HB2	2.19	0.43
25:CA:1586:A:O5'	25:CA:1586:A:H8	2.02	0.43
8:AH:31:LEU:HD13	8:AH:31:LEU:O	2.18	0.43
37:DM:56:ALA:C	37:DM:58:LYS:N	2.72	0.43
1:AA:1426:G:C2'	1:AA:1427:C:O5'	2.66	0.43
1:AA:1234:C:H2'	1:AA:1235:U:C6	2.52	0.43
1:AA:1235:U:C2'	1:AA:1236:A:O5'	2.66	0.43
1:BA:1103:C:N3	1:BA:1104:G:C8	2.87	0.43
1:BA:1103:C:C2	1:BA:1104:G:C8	3.07	0.43
25:DA:2533:U:OP1	25:DA:2665:A:O2'	2.35	0.43
36:CL:29:LYS:O	36:CL:31:GLY:N	2.51	0.43
6:BF:88:MET:HE3	18:BR:63:TYR:CD2	2.50	0.43
2:BB:69:VAL:HB	2:BB:162:VAL:CG1	2.49	0.43
29:DE:188:MET:HE3	29:DE:192:ALA:HB1	2.00	0.43
25:DA:1788:C:O5'	25:DA:1788:C:H6	2.02	0.43
51:D0:52:LYS:HE3	51:D0:55:ALA:CA	2.49	0.43
21:BU:10:PRO:O	21:BU:10:PRO:HD2	2.19	0.43
21:BU:8:ASN:N	21:BU:11:PHE:CE2	2.80	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1142:A:N3	25:DA:1144:A:C8	2.87	0.43
25:DA:59:U:C6	25:DA:59:U:H3'	2.52	0.43
44:CT:87:LEU:HD23	44:CT:87:LEU:HA	1.78	0.43
1:AA:711:G:C2'	1:AA:712:A:H5'	2.49	0.43
18:AR:40:PRO:HG2	18:AR:43:ILE:HG12	2.00	0.43
1:BA:1501:C:C6	1:BA:1504:G:C8	3.07	0.43
41:CQ:39:ILE:HG22	41:CQ:40:LYS:N	2.34	0.43
33:CI:56:VAL:HG21	33:CI:70:THR:HA	2.01	0.43
33:CI:54:ILE:HG21	33:CI:71:LYS:O	2.19	0.43
1:AA:246:A:N3	1:AA:279:A:N6	2.67	0.43
1:BA:171:A:C2	1:BA:172:A:C4	3.07	0.43
30:CF:146:ASP:HB2	30:CF:149:ARG:NH2	2.34	0.43
25:DA:1794:A:C1'	25:DA:1900:A:C2	3.02	0.43
16:AP:40:ASN:HA	16:AP:41:PRO:HD2	1.91	0.43
35:DK:35:VAL:CG1	35:DK:106:GLU:HG2	2.49	0.43
54:C3:3:ILE:HG21	54:C3:62:PRO:HG3	2.00	0.43
25:CA:1799:G:O6	27:CC:177:SER:HB3	2.18	0.43
56:DB:9:G:N2	56:DB:10:G:H1'	2.34	0.43
15:BO:58:MET:O	15:BO:59:VAL:C	2.56	0.43
1:AA:662:U:H2'	1:AA:663:A:C8	2.54	0.43
6:AF:35:LYS:CE	6:AF:65:GLU:OE2	2.67	0.43
1:AA:219:U:C2	1:AA:220:G:C8	3.07	0.43
1:BA:1192:C:N4	1:BA:1193:G:C5	2.87	0.43
25:DA:900:A:C5	25:DA:901:C:C6	3.07	0.43
8:BH:55:LYS:N	8:BH:56:PRO:HD3	2.34	0.43
25:DA:464:U:C4	25:DA:465:G:C6	3.07	0.43
38:CN:13:ASN:ND2	38:CN:16:HIS:H	2.17	0.43
1:AA:404:G:H2'	1:AA:405:U:O4'	2.18	0.43
1:BA:1160:G:N2	1:BA:1161:C:C2	2.87	0.43
36:CL:85:VAL:HB	36:CL:94:THR:CG2	2.48	0.43
1:AA:737:C:H2'	1:AA:738:C:O5'	2.19	0.43
25:DA:973:A:H5'	25:DA:1188:U:C1'	2.49	0.43
31:DG:128:THR:O	31:DG:129:GLU:CG	2.65	0.43
31:DG:88:LEU:HB2	31:DG:128:THR:HG22	2.01	0.43
19:BS:18:VAL:CG2	19:BS:43:MET:HG2	2.49	0.43
45:CU:98:ASN:C	45:CU:100:GLU:N	2.70	0.43
25:DA:1650:A:H2'	25:DA:1651:G:O4'	2.19	0.43
8:BH:20:ASN:O	8:BH:22:ALA:N	2.52	0.43
25:CA:1301:A:C4	25:CA:1303:G:N7	2.86	0.43
25:DA:1810:A:H8	25:DA:1810:A:O5'	2.01	0.43
1:AA:57:G:H2'	1:AA:58:C:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2383:G:C4	25:DA:2384:U:C5	3.07	0.43
25:CA:124:G:H3'	53:C2:19:ARG:HH21	1.84	0.43
25:DA:872:U:H2'	25:DA:873:C:C6	2.54	0.43
45:CU:71:ILE:HD13	45:CU:82:VAL:CG2	2.49	0.43
1:AA:27:G:O2'	1:AA:28:A:O5'	2.34	0.43
33:DI:123:ALA:C	33:DI:125:THR:H	2.23	0.43
25:CA:186:G:N2	25:CA:187:G:C5	2.87	0.43
25:CA:188:G:H8	25:CA:188:G:H5"	1.83	0.43
25:CA:185:G:H4'	25:CA:218:A:H4'	1.99	0.43
5:AE:105:ILE:CD1	5:AE:123:LEU:HB3	2.49	0.43
40:DP:96:LEU:O	40:DP:98:TYR:N	2.52	0.43
30:DF:51:ASN:O	30:DF:53:ALA:N	2.52	0.43
13:BM:50:GLY:C	13:BM:52:ILE:H	2.21	0.43
25:DA:381:G:C6	25:DA:382:A:N7	2.87	0.43
1:AA:432:A:C2'	1:AA:433:G:O5'	2.67	0.43
1:BA:1194:U:H2'	1:BA:1195:C:C6	2.53	0.43
13:BM:46:GLU:HG3	13:BM:46:GLU:O	2.19	0.43
43:CS:19:LEU:HB3	51:C0:21:LEU:HD12	2.00	0.43
24:AY:18:VAL:HG22	24:AY:172:ILE:HG13	2.00	0.43
25:DA:2400:G:N1	25:DA:2401:U:O2	2.52	0.43
25:CA:1981:A:O5'	25:CA:1982:U:OP2	2.37	0.43
50:DZ:16:LEU:HB3	50:DZ:17:PRO:CD	2.49	0.43
25:DA:807:U:C2'	25:DA:808:G:H5'	2.49	0.43
25:DA:574:A:C8	60:DA:3579:HOH:O	2.71	0.43
25:DA:2052:A:O4'	28:DD:147:GLY:HA3	2.19	0.43
3:BC:189:HIS:O	3:BC:190:THR:O	2.36	0.43
25:DA:365:U:N3	25:DA:366:C:C4	2.87	0.43
4:BD:141:VAL:HG12	4:BD:180:THR:OG1	2.19	0.43
1:BA:495:A:C2	1:BA:496:A:C6	3.06	0.43
25:DA:2798:U:O5'	25:DA:2798:U:H6	2.02	0.43
25:CA:740:C:O2	25:CA:740:C:H2'	2.18	0.43
11:AK:83:VAL:O	11:AK:83:VAL:HG12	2.18	0.43
36:DL:41:ARG:O	36:DL:42:SER:C	2.57	0.43
16:AP:7:ALA:O	16:AP:9:HIS:N	2.51	0.43
48:CX:34:SER:HA	48:CX:48:LEU:O	2.19	0.43
1:BA:1313:U:OP2	19:BS:5:LYS:CA	2.62	0.42
1:BA:979:C:C5	1:BA:980:C:C4	3.06	0.42
13:BM:73:SER:HB3	13:BM:77:LYS:HZ1	1.84	0.42
25:CA:2126:A:C8	25:CA:2162:G:C2	3.07	0.42
25:DA:1063:G:P	25:DA:1063:G:H8	2.42	0.42
33:DI:23:VAL:CG2	33:DI:27:LEU:HD23	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1338:G:H2'	25:DA:1339:G:C5'	2.49	0.42
25:DA:1341:G:C6	44:DT:84:TYR:CE2	3.07	0.42
25:DA:1400:U:O2'	25:DA:1401:G:H5'	2.19	0.42
1:AA:1314:C:P	19:AS:5:LYS:HZ3	2.41	0.42
17:AQ:16:MET:HB2	17:AQ:19:SER:CB	2.49	0.42
1:AA:1154:G:H2'	1:AA:1154:G:N3	2.32	0.42
10:AJ:17:LEU:HD23	10:AJ:18:ILE:N	2.33	0.42
29:DE:105:LEU:HA	29:DE:108:ILE:HG23	2.01	0.42
32:DH:17:ASP:N	32:DH:17:ASP:OD1	2.51	0.42
17:BQ:12:VAL:HG13	17:BQ:21:VAL:HG13	1.99	0.42
8:BH:65:PHE:CG	8:BH:66:GLN:N	2.86	0.42
25:DA:2491:U:H5'	25:DA:2570:G:H5'	2.01	0.42
20:AT:26:MET:HG3	20:AT:27:MET:N	2.33	0.42
25:DA:185:G:C6	25:DA:212:G:N1	2.87	0.42
12:AL:57:THR:CG2	12:AL:58:ASN:N	2.82	0.42
10:AJ:88:MET:O	10:AJ:89:ARG:CB	2.67	0.42
25:DA:1557:C:H2'	25:DA:1558:C:C6	2.54	0.42
3:AC:10:ARG:O	3:AC:13:ILE:HG12	2.19	0.42
25:DA:2305:U:C5	30:DF:151:LEU:HA	2.54	0.42
39:DO:67:ASN:H	39:DO:70:ALA:HB3	1.84	0.42
1:AA:456:A:C5	1:AA:457:G:N7	2.87	0.42
1:AA:459:A:C8	1:AA:459:A:OP2	2.72	0.42
25:CA:1421:G:C2'	25:CA:1422:G:O5'	2.67	0.42
1:AA:439:U:HO2'	1:AA:440:C:P	2.41	0.42
1:AA:495:A:C2	1:AA:496:A:C6	3.07	0.42
4:AD:158:LEU:O	4:AD:159:GLU:O	2.37	0.42
33:CI:97:VAL:HG12	33:CI:98:GLY:N	2.34	0.42
22:AV:65:G:C2	22:AV:66:U:C2	3.07	0.42
11:BK:13:LYS:O	11:BK:13:LYS:CD	2.67	0.42
20:BT:53:MET:O	20:BT:54:GLN:C	2.58	0.42
8:AH:1:SER:HB3	8:AH:2:MET:HG3	2.00	0.42
25:CA:2303:G:C4	25:CA:2304:G:N7	2.86	0.42
2:BB:170:ILE:O	2:BB:174:GLU:HG3	2.18	0.42
35:CK:113:MET:C	35:CK:115:ILE:N	2.68	0.42
16:BP:35:ARG:HG2	16:BP:36:VAL:N	2.34	0.42
10:BJ:26:VAL:CG1	10:BJ:27:GLU:N	2.82	0.42
6:BF:47:LEU:HD11	6:BF:51:ILE:HG23	2.00	0.42
25:DA:1168:G:N2	25:DA:1182:G:H1'	2.33	0.42
3:BC:80:GLY:O	3:BC:81:GLU:C	2.57	0.42
1:BA:523:A:H61	12:BL:49:ARG:HH12	1.67	0.42
2:BB:49:PHE:C	2:BB:52:ALA:HB3	2.39	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BB:56:LEU:HD13	2:BB:57:ASN:H	1.83	0.42
3:BC:95:GLY:O	3:BC:96:VAL:CG1	2.67	0.42
31:DG:69:ALA:O	31:DG:73:SER:HB3	2.19	0.42
28:CD:97:SER:C	28:CD:99:GLU:H	2.22	0.42
44:CT:30:ILE:CD1	44:CT:32:LEU:HD21	2.48	0.42
33:CI:5:GLN:HG2	33:CI:60:VAL:O	2.19	0.42
1:AA:240:G:C2	1:AA:287:U:O2	2.70	0.42
1:BA:1050:G:H2'	1:BA:1051:C:H6	1.81	0.42
1:BA:142:G:C6	1:BA:143:A:C5	3.07	0.42
1:BA:149:A:C2	1:BA:150:U:C1'	3.02	0.42
7:BG:27:ASN:O	7:BG:28:ILE:C	2.56	0.42
17:AQ:69:THR:O	17:AQ:69:THR:HG22	2.19	0.42
35:DK:122:VAL:OXT	35:DK:122:VAL:HG12	2.19	0.42
1:BA:853:C:H2'	1:BA:854:U:O4'	2.19	0.42
14:BN:23:ARG:HG2	14:BN:26:LEU:HD12	2.00	0.42
44:DT:1:MET:O	44:DT:2:ILE:CG1	2.64	0.42
1:AA:212:G:H2'	1:AA:213:G:H8	1.84	0.42
29:CE:171:ASP:O	29:CE:172:ALA:C	2.58	0.42
25:DA:1429:G:N3	25:DA:1568:G:N2	2.66	0.42
25:CA:457:A:O4'	25:CA:459:U:C6	2.72	0.42
25:DA:962:G:N2	25:DA:2250:G:H1	2.17	0.42
25:DA:1476:U:C4	25:DA:1514:G:N2	2.87	0.42
43:DS:15:GLN:HG3	51:D0:16:ARG:NH1	2.34	0.42
4:BD:169:TRP:CZ3	4:BD:189:ASP:HB3	2.54	0.42
25:DA:1483:G:C6	25:DA:1484:U:C4	3.07	0.42
25:CA:409:G:H2'	25:CA:410:G:C8	2.54	0.42
1:BA:1158:C:N3	1:BA:1160:G:N7	2.67	0.42
1:BA:1161:C:O2'	1:BA:1162:C:H5'	2.18	0.42
25:DA:1874:C:H2'	25:DA:1875:G:O4'	2.19	0.42
31:CG:75:VAL:C	31:CG:77:GLY:N	2.67	0.42
41:DQ:98:ALA:HB2	41:DQ:105:PHE:CD2	2.54	0.42
1:AA:603:U:O2'	1:AA:604:G:H5'	2.18	0.42
25:DA:22:C:H3'	25:DA:22:C:C6	2.54	0.42
31:CG:102:ILE:HG22	31:CG:103:ASN:N	2.34	0.42
6:BF:67:PRO:C	6:BF:69:GLU:N	2.70	0.42
27:CC:159:THR:O	27:CC:194:VAL:HG12	2.19	0.42
49:CY:28:LEU:HB3	49:CY:43:LEU:HD21	2.01	0.42
49:CY:39:GLN:HB2	49:CY:41:HIS:ND1	2.33	0.42
6:AF:10:VAL:HG13	6:AF:11:HIS:H	1.82	0.42
25:DA:352:A:H2'	25:DA:353:C:O4'	2.18	0.42
1:AA:1260:G:H4'	1:AA:1283:U:O2'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:89:ARG:HB3	13:AM:96:VAL:HG22	2.01	0.42
25:DA:447:A:C6	25:DA:454:A:C5	3.07	0.42
40:DP:47:ILE:HA	40:DP:96:LEU:HB2	2.01	0.42
25:CA:2218:G:C4	25:CA:2219:U:C5	3.07	0.42
35:CK:108:ARG:HH12	40:CP:34:GLY:CA	2.32	0.42
40:CP:32:VAL:CG1	40:CP:34:GLY:O	2.68	0.42
25:DA:396:G:C5	25:DA:397:U:C5	3.07	0.42
25:CA:324:A:C2'	25:CA:325:G:O5'	2.67	0.42
1:AA:441:A:C2'	1:AA:442:G:H5'	2.49	0.42
1:AA:290:C:C6	1:AA:290:C:C3'	3.02	0.42
26:CB:77:U:O2'	26:CB:78:A:H5'	2.19	0.42
1:AA:736:C:H2'	1:AA:736:C:O2	2.19	0.42
27:CC:6:LYS:HA	27:CC:7:PRO:HD3	1.91	0.42
27:DC:100:ARG:NH1	27:DC:100:ARG:HG3	2.34	0.42
18:AR:33:THR:HG22	18:AR:37:LYS:N	2.34	0.42
1:AA:938:A:H8	1:AA:938:A:OP2	2.02	0.42
41:CQ:35:PHE:C	41:CQ:37:ALA:H	2.22	0.42
43:CS:85:ILE:HG22	43:CS:86:MET:N	2.32	0.42
51:C0:10:SER:O	51:C0:11:LYS:C	2.56	0.42
25:DA:130:C:H2'	25:DA:131:A:O5'	2.19	0.42
25:CA:514:A:H2'	25:CA:515:A:O4'	2.19	0.42
1:AA:825:A:C6	1:AA:826:C:C4	3.07	0.42
20:BT:19:HIS:HD2	20:BT:20:ASN:ND2	2.17	0.42
3:BC:25:THR:HG22	3:BC:26:LYS:CD	2.49	0.42
25:DA:1299:G:O6	25:DA:1639:C:H5"	2.19	0.42
39:DO:80:GLU:HA	39:DO:83:LEU:HD12	2.01	0.42
25:DA:2495:G:C2'	25:DA:2496:C:H5'	2.49	0.42
36:CL:59:ARG:NH1	60:CL:206:HOH:O	2.51	0.42
37:CM:47:GLU:O	37:CM:48:ALA:C	2.56	0.42
36:DL:125:LEU:N	36:DL:125:LEU:HD12	2.34	0.42
35:DK:53:LYS:HG2	35:DK:56:ASP:OD1	2.19	0.42
25:CA:697:G:C2	25:CA:766:U:O2	2.72	0.42
1:BA:939:G:C2	1:BA:940:C:C2	3.07	0.42
1:BA:1320:C:N3	19:BS:35:ARG:NH1	2.66	0.42
33:DI:39:LYS:HD3	33:DI:39:LYS:HA	1.84	0.42
25:CA:1956:U:H1'	25:CA:2552:U:OP1	2.20	0.42
25:DA:1315:C:H2'	25:DA:1316:U:O5'	2.19	0.42
25:DA:1403:A:C4	25:DA:1404:C:C5	3.07	0.42
1:AA:1133:G:C4	1:AA:1134:G:C8	3.06	0.42
1:AA:674:G:OP1	6:AF:86:ARG:NH2	2.52	0.42
2:AB:110:ILE:CG1	2:AB:150:ILE:CG1	2.97	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:106:VAL:O	2:AB:110:ILE:HD13	2.19	0.42
2:AB:94:ARG:HH12	2:AB:96:LEU:HA	1.84	0.42
25:DA:2209:G:C2	25:DA:2216:G:N1	2.87	0.42
52:D1:45:HIS:O	52:D1:46:VAL:HG23	2.18	0.42
16:BP:71:VAL:O	16:BP:75:ILE:HG13	2.19	0.42
5:BE:81:GLN:HE22	5:BE:148:SER:HA	1.84	0.42
25:DA:2707:U:O2	38:DN:71:ARG:NH1	2.53	0.42
10:AJ:84:VAL:O	10:AJ:88:MET:HG2	2.18	0.42
25:DA:1760:C:H2'	25:DA:1761:C:H5'	2.01	0.42
39:DO:69:ASP:C	39:DO:71:ALA:N	2.73	0.42
3:AC:140:ALA:N	3:AC:142:ARG:HB3	2.34	0.42
4:AD:117:VAL:O	4:AD:130:ASN:HA	2.19	0.42
4:AD:152:SER:O	4:AD:155:LYS:HB2	2.20	0.42
29:DE:131:THR:O	29:DE:133:LEU:N	2.52	0.42
5:AE:100:GLU:O	5:AE:100:GLU:CG	2.67	0.42
5:AE:113:VAL:O	5:AE:115:GLU:N	2.52	0.42
22:AV:65:G:H2'	22:AV:66:U:H6	1.84	0.42
25:CA:196:A:C4	25:CA:805:G:C6	3.07	0.42
1:AA:73:C:C2	1:AA:74:A:C8	3.07	0.42
1:BA:97:G:H2'	1:BA:98:A:O5'	2.18	0.42
1:BA:1297:G:H4'	1:BA:1298:U:O5'	2.19	0.42
7:BG:119:LEU:O	7:BG:123:LEU:CG	2.68	0.42
20:AT:84:LYS:HD2	20:AT:84:LYS:HA	1.84	0.42
27:DC:244:VAL:CG2	27:DC:248:GLY:HA2	2.49	0.42
1:BA:1159:U:N3	1:BA:1182:G:C4	2.87	0.42
9:BI:14:SER:HB3	9:BI:74:GLN:HA	2.00	0.42
37:DM:108:VAL:HG11	37:DM:112:LEU:HD23	2.01	0.42
37:DM:53:MET:HE3	37:DM:103:TYR:CG	2.54	0.42
1:BA:1101:A:N3	1:BA:1102:A:H1'	2.34	0.42
2:BB:98:GLY:CA	2:BB:101:THR:CG2	2.97	0.42
35:CK:113:MET:O	35:CK:115:ILE:N	2.52	0.42
25:DA:2126:A:C4	25:DA:2162:G:C6	3.07	0.42
1:AA:972:C:H4'	10:AJ:59:LYS:HE3	2.01	0.42
14:AN:68:GLY:O	14:AN:69:ARG:O	2.37	0.42
1:BA:1099:G:C4	1:BA:1100:C:C6	3.07	0.42
9:AI:18:VAL:HG22	9:AI:64:ILE:CG2	2.49	0.42
6:BF:74:LEU:O	6:BF:77:THR:N	2.52	0.42
1:BA:1007:U:C2'	1:BA:1008:U:H5"	2.46	0.42
1:AA:831:A:OP1	2:AB:20:ARG:HG3	2.19	0.42
2:BB:181:PRO:O	2:BB:182:VAL:HG23	2.19	0.42
12:BL:40:THR:HA	12:BL:41:PRO:HD3	1.75	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:72:PRO:CG	3:AC:104:GLU:HG3	2.48	0.42
25:CA:1738:G:HO2'	25:CA:1739:A:H8	1.65	0.42
27:DC:220:ARG:O	27:DC:221:GLY:C	2.57	0.42
2:BB:53:LEU:HD12	2:BB:219:THR:CG2	2.49	0.42
3:AC:81:GLU:O	3:AC:84:GLU:HB3	2.19	0.42
25:DA:1137:G:C2'	25:DA:1138:G:O5'	2.68	0.42
25:DA:1142:A:C4	25:DA:1144:A:C8	3.07	0.42
1:AA:108:G:N3	1:AA:108:G:O4'	2.52	0.42
1:AA:446:G:N2	1:AA:489:C:C2	2.88	0.42
6:AF:17:GLN:OE1	6:AF:21:MET:HG3	2.19	0.42
25:DA:930:G:H1'	50:DZ:24:LEU:CD2	2.49	0.42
50:DZ:2:LYS:N	50:DZ:2:LYS:CD	2.82	0.42
27:CC:15:VAL:HG13	27:CC:16:VAL:N	2.34	0.42
1:BA:247:G:C6	1:BA:278:G:N1	2.87	0.42
25:DA:1378:A:O2'	25:DA:1380:G:N7	2.42	0.42
14:AN:17:ASP:C	14:AN:19:TYR:N	2.71	0.42
1:AA:36:C:H2'	1:AA:37:U:O4'	2.19	0.42
1:BA:26:A:H61	1:BA:558:G:H2'	1.85	0.42
27:DC:134:ILE:HG22	27:DC:135:PRO:HD2	2.01	0.42
8:AH:6:ILE:O	8:AH:10:LEU:CD2	2.65	0.42
28:CD:67:HIS:O	28:CD:68:PHE:C	2.57	0.42
30:CF:157:THR:HG21	30:CF:159:ALA:HB3	1.98	0.42
3:BC:150:VAL:HG13	3:BC:199:VAL:HB	2.00	0.42
1:BA:414:A:C2	1:BA:415:A:C4	3.08	0.42
25:CA:2300:C:N3	25:CA:2317:A:C2	2.87	0.42
25:CA:1098:A:N6	25:CA:1099:G:H1	2.16	0.42
29:DE:26:ALA:CB	36:DL:9:ALA:HB2	2.49	0.42
4:AD:14:GLU:HB3	4:AD:59:LYS:HG3	2.01	0.42
25:CA:118:A:N3	25:CA:178:G:H1'	2.33	0.42
25:DA:1855:U:H2'	25:DA:1856:U:H5'	2.02	0.42
46:CV:29:ILE:HD13	46:CV:38:LEU:O	2.19	0.42
8:BH:31:LEU:HD11	8:BH:35:ILE:HG13	2.01	0.42
25:DA:1190:G:OP1	36:DL:32:GLY:CA	2.66	0.42
1:BA:340:U:H2'	1:BA:340:U:O2	2.18	0.42
25:CA:1979:U:H2'	25:CA:1980:G:C5'	2.48	0.42
25:CA:1717:A:C2'	25:CA:1718:G:O5'	2.67	0.42
48:CX:63:ILE:CD1	48:CX:67:LEU:HG	2.50	0.42
25:DA:1049:C:C2'	25:DA:1050:A:H5'	2.48	0.42
1:BA:511:C:N1	1:BA:512:U:C5	2.86	0.42
25:CA:1936:A:H2	25:CA:1943:U:N3	2.17	0.42
35:CK:95:ILE:O	35:CK:95:ILE:HG22	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:CD:127:PHE:HZ	28:CD:160:LYS:HB2	1.84	0.42
1:AA:50:A:N6	1:AA:361:G:H4'	2.34	0.42
1:AA:1454:G:C2	1:AA:1455:G:C8	3.06	0.42
25:DA:2438:U:O3'	25:DA:2439:A:H3'	2.19	0.42
5:AE:84:VAL:HG21	5:AE:142:GLY:O	2.19	0.42
28:DD:108:ASP:OD1	28:DD:207:VAL:HG12	2.19	0.42
25:CA:1297:C:O2'	25:CA:1302:A:N1	2.46	0.42
25:DA:1994:C:OP1	28:DD:132:ALA:CB	2.68	0.42
3:AC:151:GLU:HG2	3:AC:198:LYS:HB2	2.02	0.42
29:CE:148:ILE:HB	29:CE:169:VAL:HG22	2.01	0.42
29:DE:88:ARG:HB3	29:DE:89:PRO:HD2	2.00	0.42
1:BA:491:G:O2'	1:BA:492:C:H5'	2.19	0.42
25:CA:1394:U:C4	25:CA:1395:A:C6	3.08	0.42
49:CY:53:VAL:CG1	49:CY:53:VAL:O	2.67	0.42
42:DR:21:ARG:HB2	42:DR:21:ARG:HE	1.75	0.42
25:DA:1817:G:H2'	25:DA:1817:G:N3	2.34	0.42
1:AA:1431:A:C6	1:AA:1432:G:O6	2.72	0.42
1:BA:1404:C:O5'	1:BA:1404:C:H6	2.02	0.42
32:DH:131:SER:C	32:DH:132:PHE:CD2	2.92	0.42
25:DA:1118:C:N4	25:DA:1119:U:C4	2.87	0.42
1:BA:960:U:C5	1:BA:1225:A:C8	3.07	0.42
1:BA:1314:C:OP2	19:BS:5:LYS:HG2	2.19	0.42
1:BA:1317:C:N3	14:BN:53:ARG:CD	2.83	0.42
13:BM:101:THR:C	13:BM:103:THR:N	2.73	0.42
1:BA:957:U:H4'	19:BS:78:THR:O	2.19	0.42
25:DA:1097:U:C3'	25:DA:1098:A:C5'	2.97	0.42
27:CC:221:GLY:HA2	27:CC:224:MET:HG3	2.00	0.42
25:DA:1339:G:N2	25:DA:1603:A:H1'	2.34	0.42
49:DY:16:THR:HG23	49:DY:20:ASN:HD21	1.84	0.42
1:BA:1233:G:H2'	1:BA:1234:C:C6	2.54	0.42
1:AA:1215:G:C2	1:AA:1216:A:N9	2.88	0.42
1:AA:979:C:O5'	1:AA:980:C:OP2	2.37	0.42
1:AA:977:A:O2'	1:AA:979:C:OP2	2.32	0.42
42:DR:39:LEU:O	42:DR:40:MET:HB2	2.18	0.42
42:DR:40:MET:C	42:DR:41:ILE:HG13	2.39	0.42
25:DA:2369:A:H2'	25:DA:2370:G:O4'	2.19	0.42
25:DA:2299:U:OP2	30:DF:70:ARG:NH2	2.52	0.42
25:DA:2201:G:C6	25:DA:2223:G:N1	2.87	0.42
38:DN:70:THR:OG1	38:DN:71:ARG:N	2.52	0.42
25:CA:1730:C:O2'	25:CA:1731:G:C4	2.59	0.42
1:AA:1182:G:H5"	1:AA:1183:U:H5'	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2109:U:H4'	25:DA:2110:G:OP2	2.19	0.42
13:AM:38:ILE:HG22	13:AM:39:ALA:N	2.34	0.42
25:DA:1526:C:C2	25:DA:1527:G:C8	3.07	0.42
30:DF:35:LEU:HD21	30:DF:90:LEU:HD11	2.01	0.42
39:DO:48:LEU:HD12	39:DO:87:ILE:HD11	2.01	0.42
1:BA:1143:G:C6	1:BA:1144:G:C6	3.07	0.42
4:AD:18:LEU:HD12	4:AD:20:LEU:HD11	2.02	0.42
4:AD:57:LYS:HG3	4:AD:58:GLN:N	2.33	0.42
5:AE:82:HIS:CE1	5:AE:146:MET:CG	3.02	0.42
25:DA:1331:G:C5	25:DA:1333:G:N7	2.88	0.42
17:BQ:60:ILE:HG12	17:BQ:61:ARG:H	1.84	0.42
17:BQ:7:LEU:HB2	17:BQ:60:ILE:HG21	2.01	0.42
1:BA:1240:U:OP2	7:BG:115:MET:HB3	2.19	0.42
7:BG:41:ILE:HA	7:BG:44:SER:HB3	2.01	0.42
16:AP:67:ILE:HG13	16:AP:71:VAL:HG11	2.01	0.42
1:AA:877:G:H21	8:AH:1:SER:N	2.17	0.42
9:BI:20:ILE:HD12	9:BI:85:ALA:CB	2.50	0.42
1:AA:946:A:O2'	1:AA:1333:A:N3	2.47	0.42
1:BA:15:G:C4	1:BA:16:A:C8	3.08	0.42
25:CA:2144:G:HO2'	25:CA:2147:A:H61	1.67	0.42
1:AA:1368:A:C2	1:AA:1369:C:C6	3.06	0.42
10:AJ:63:ASP:OD2	14:AN:98:LYS:CD	2.67	0.42
9:AI:46:VAL:HG23	9:AI:47:VAL:N	2.34	0.42
36:CL:109:LYS:CE	36:CL:128:THR:HG22	2.46	0.42
36:CL:127:VAL:CG1	36:CL:128:THR:N	2.80	0.42
37:CM:110:GLU:HG3	37:CM:110:GLU:O	2.18	0.42
43:DS:66:ILE:O	43:DS:69:LEU:HB3	2.20	0.42
4:AD:186:GLU:O	4:AD:187:ARG:C	2.56	0.42
25:CA:1045:C:C3'	25:CA:1046:A:C5'	2.96	0.42
25:DA:150:U:H2'	25:DA:151:C:C6	2.55	0.42
25:DA:96:C:H2'	25:DA:97:C:H6	1.84	0.42
44:CT:56:GLU:HB2	44:CT:88:LYS:HA	2.01	0.42
21:BU:25:ALA:O	21:BU:27:VAL:N	2.51	0.42
26:CB:33:G:C2'	26:CB:34:A:C5'	2.94	0.42
1:AA:1531:A:C2'	1:AA:1532:U:H5'	2.50	0.42
31:CG:25:ILE:HG22	31:CG:25:ILE:O	2.19	0.42
1:BA:679:C:O2	1:BA:712:A:C2	2.73	0.42
33:CI:56:VAL:HG21	33:CI:70:THR:CA	2.49	0.42
7:BG:14:ASP:OD2	7:BG:15:PRO:N	2.52	0.42
25:DA:480:A:C2'	25:DA:480:A:N3	2.79	0.42
25:DA:481:G:H1'	25:DA:507:A:N1	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:844:G:C4	1:AA:846:G:O2'	2.72	0.42
1:AA:894:G:C2	1:AA:895:G:C8	3.07	0.42
1:AA:499:A:C4'	1:AA:500:G:OP1	2.65	0.42
25:DA:189:G:H2'	25:DA:205:G:N2	2.33	0.42
1:AA:850:U:H2'	1:AA:851:G:C5'	2.48	0.42
25:DA:2414:G:C2	25:DA:2415:G:C8	3.07	0.42
8:AH:6:ILE:N	8:AH:6:ILE:HD12	2.33	0.42
1:AA:805:C:H2'	1:AA:806:C:H5'	2.01	0.42
27:CC:176:ARG:NH2	27:CC:176:ARG:CG	2.81	0.42
28:DD:20:VAL:HG12	28:DD:21:SER:N	2.33	0.42
31:DG:59:ASP:OD2	31:DG:63:GLN:CG	2.62	0.42
4:BD:104:MET:SD	4:BD:142:VAL:HG13	2.59	0.42
11:AK:127:ARG:CG	11:AK:127:ARG:HH11	2.30	0.42
10:BJ:87:LEU:HD22	10:BJ:88:MET:N	2.34	0.42
28:CD:2:ILE:CD1	28:CD:90:PHE:CZ	3.02	0.42
37:DM:83:GLY:O	37:DM:84:LYS:HB2	2.19	0.42
10:AJ:47:GLU:HB2	10:AJ:49:PHE:CE1	2.54	0.42
18:BR:70:THR:HG23	18:BR:71:ASP:N	2.33	0.42
39:CO:66:GLY:C	39:CO:102:ARG:NH2	2.72	0.42
4:AD:2:ARG:HH21	4:AD:114:ARG:HD3	1.84	0.42
1:AA:1246:A:C5	1:AA:1247:U:C4	3.07	0.42
1:AA:610:U:C2'	1:AA:611:C:O5'	2.68	0.42
1:BA:1191:A:C8	1:BA:1191:A:O5'	2.72	0.42
9:BI:11:ARG:HB3	9:BI:77:ALA:HB2	2.01	0.42
25:DA:2517:C:C6	25:DA:2542:A:C8	3.08	0.42
27:DC:93:VAL:O	27:DC:93:VAL:CG2	2.67	0.42
11:BK:19:VAL:HB	11:BK:34:THR:HG23	2.01	0.42
39:CO:88:LYS:O	39:CO:89:ASP:CB	2.67	0.42
25:DA:1392:A:N6	25:DA:1393:A:N6	2.67	0.42
11:BK:30:ILE:CG1	11:BK:30:ILE:O	2.60	0.42
25:DA:386:G:H4'	25:DA:387:U:OP2	2.19	0.42
16:BP:79:ASN:O	16:BP:80:LYS:NZ	2.52	0.42
25:DA:1717:A:C2'	25:DA:1718:G:H5'	2.50	0.42
15:BO:44:GLU:HG2	15:BO:45:HIS:H	1.85	0.42
1:AA:300:A:H2	1:AA:566:G:O6	2.03	0.42
25:DA:1927:A:C6	25:DA:1928:A:C6	3.08	0.42
27:CC:257:ARG:HG3	27:CC:258:SER:N	2.33	0.42
11:BK:106:ILE:HD13	11:BK:107:THR:N	2.33	0.42
48:CX:63:ILE:HD12	48:CX:63:ILE:O	2.19	0.42
25:DA:1050:A:H1'	25:DA:2751:G:H21	1.84	0.42
25:DA:2221:G:C6	25:DA:2222:C:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2221:G:O2'	25:DA:2222:C:H5'	2.19	0.42
25:CA:2751:G:C5	31:CG:2:ARG:HD3	2.54	0.42
1:BA:390:U:H2'	1:BA:391:G:H8	1.84	0.42
25:CA:212:G:H2'	25:CA:213:A:O4'	2.20	0.42
57:DW:14:ALA:HB3	57:DW:16:ARG:HH21	1.84	0.42
35:DK:15:GLY:HA2	35:DK:47:ILE:HD11	2.00	0.42
27:CC:265:PHE:HD1	27:CC:265:PHE:N	2.16	0.42
1:BA:394:G:C5	1:BA:395:C:C5	3.08	0.42
12:AL:85:ARG:CZ	12:AL:87:LYS:HB3	2.49	0.42
25:CA:1443:U:H2'	25:CA:1444:G:O4'	2.19	0.42
56:DB:25:U:O5'	56:DB:25:U:H6	2.03	0.42
41:DQ:7:VAL:HG12	41:DQ:8:ILE:N	2.34	0.42
25:DA:471:A:O5'	25:DA:471:A:H8	2.02	0.42
28:CD:142:VAL:HB	28:CD:143:PRO:HD2	2.02	0.42
25:DA:2049:G:H2'	25:DA:2050:C:H5'	2.01	0.42
27:DC:234:GLY:O	27:DC:235:GLU:HB2	2.20	0.42
48:DX:1:SER:C	48:DX:3:VAL:HG23	2.40	0.42
25:CA:2668:G:H2'	25:CA:2669:G:O5'	2.19	0.42
9:AI:9:GLY:CA	9:AI:80:HIS:HB3	2.49	0.42
25:CA:1279:G:O4'	38:CN:31:HIS:CE1	2.73	0.42
26:CB:96:G:C2'	26:CB:97:C:H5'	2.49	0.42
42:CR:12:HIS:CE1	42:CR:22:LEU:CD2	3.02	0.42
31:DG:24:THR:O	31:DG:25:ILE:HG13	2.18	0.42
1:AA:779:C:O2'	1:AA:780:A:H5'	2.18	0.42
25:DA:377:G:H2'	25:DA:378:C:O4'	2.18	0.42
31:CG:146:ASP:O	31:CG:149:ALA:HB3	2.19	0.42
25:DA:1655:A:H3'	25:DA:1656:C:C6	2.54	0.42
25:DA:1657:U:H2'	25:DA:1658:C:C6	2.54	0.42
25:DA:1657:U:H2'	25:DA:1658:C:H6	1.84	0.42
25:DA:2507:C:O5'	25:DA:2507:C:H6	2.02	0.42
1:BA:346:G:H3'	1:BA:346:G:N3	2.33	0.42
24:AY:61:GLU:O	24:AY:61:GLU:CG	2.68	0.42
38:CN:52:ILE:O	38:CN:53:THR:C	2.57	0.42
1:BA:1269:A:C8	1:BA:1270:G:O4'	2.73	0.42
1:BA:980:C:C2'	1:BA:981:U:H5'	2.49	0.42
4:BD:30:LYS:H	4:BD:30:LYS:CD	2.32	0.42
44:DT:8:LEU:O	44:DT:9:LYS:C	2.57	0.42
11:AK:112:VAL:O	11:AK:113:THR:C	2.54	0.42
2:AB:143:LEU:O	2:AB:147:LEU:HB2	2.20	0.42
2:AB:56:LEU:HB2	2:AB:183:PHE:CE1	2.54	0.42
1:AA:1268:G:N1	1:AA:1269:A:C6	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1314:C:OP2	19:AS:5:LYS:CD	2.67	0.42
1:AA:1310:G:C2	1:AA:1328:C:C2	3.07	0.42
1:AA:259:G:N1	1:AA:260:G:C4	2.87	0.42
25:DA:1748:C:O2'	25:DA:1749:A:C5'	2.67	0.42
25:DA:2204:G:C6	25:DA:2205:A:C5	3.07	0.42
25:DA:2338:C:N3	25:DA:2339:C:C5	2.87	0.42
25:DA:2199:A:H2'	25:DA:2200:C:C6	2.53	0.42
23:AX:8:A:H2'	23:AX:9:G:O4'	2.19	0.42
21:BU:35:GLU:HB3	21:BU:36:PHE:H	1.71	0.42
2:AB:205:ALA:C	2:AB:206:ILE:HD13	2.39	0.42
5:BE:93:VAL:HG11	5:BE:110:MET:HE3	2.01	0.42
25:DA:638:G:C5	25:DA:639:U:C4	3.07	0.42
36:DL:95:LEU:HB2	36:DL:101:ILE:HG12	2.01	0.42
36:DL:133:ALA:O	36:DL:136:GLU:HB2	2.19	0.42
38:DN:49:GLU:O	38:DN:50:PRO:C	2.58	0.42
1:AA:1296:C:C4'	1:AA:1302:C:N4	2.83	0.42
3:AC:119:ILE:HG22	3:AC:123:LEU:HD12	2.01	0.42
30:CF:24:VAL:HG22	30:CF:24:VAL:O	2.20	0.42
5:BE:36:THR:O	5:BE:47:PHE:HA	2.18	0.42
25:DA:318:C:H2'	25:DA:319:G:O5'	2.18	0.42
29:DE:134:LEU:O	29:DE:134:LEU:HD12	2.19	0.42
41:CQ:26:ALA:O	41:CQ:27:ARG:C	2.56	0.42
1:AA:923:A:H2	1:AA:1395:C:C2	2.37	0.42
1:AA:77:A:H8	1:AA:77:A:OP2	2.03	0.42
1:AA:451:A:N6	1:AA:481:G:C5'	2.83	0.42
31:DG:119:GLY:C	31:DG:120:ILE:HD13	2.38	0.42
9:BI:81:GLY:O	9:BI:82:ILE:C	2.58	0.42
37:DM:54:THR:HA	37:DM:57:VAL:HG22	2.00	0.42
4:AD:16:THR:CG2	4:AD:17:ASP:H	2.30	0.42
1:AA:1329:A:H2'	1:AA:1329:A:N3	2.34	0.42
32:DH:1:MET:HE2	32:DH:23:ALA:CB	2.49	0.42
25:CA:2140:G:C2	25:CA:2141:G:C8	3.08	0.42
25:CA:2144:G:HO2'	25:CA:2147:A:N6	2.18	0.42
1:AA:1367:C:P	9:AI:113:LYS:HZ1	2.42	0.42
14:AN:92:GLU:H	14:AN:92:GLU:HG2	1.77	0.42
38:CN:45:ARG:HB2	38:CN:45:ARG:HE	1.60	0.42
6:BF:70:VAL:O	6:BF:71:ILE:C	2.57	0.42
45:DU:38:ILE:HG22	45:DU:39:ASN:N	2.35	0.42
2:AB:187:ASP:OD2	2:AB:202:ASN:HA	2.19	0.42
2:AB:40:ILE:HG21	2:AB:201:GLY:N	2.34	0.42
32:DH:70:GLU:O	32:DH:72:ILE:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:20:ILE:CG2	9:AI:60:LEU:HD12	2.49	0.42
14:BN:88:ALA:N	14:BN:93:ILE:HD13	2.35	0.42
25:CA:2430:A:H5'	25:CA:2431:U:OP2	2.19	0.42
25:CA:1735:A:C2	25:CA:1736:U:N1	2.87	0.42
25:DA:1374:G:C6	25:DA:1375:U:N3	2.88	0.42
6:AF:20:GLY:O	6:AF:21:MET:C	2.58	0.42
25:CA:102:U:C6	49:CY:2:LYS:HD2	2.54	0.42
31:CG:24:THR:C	31:CG:25:ILE:HG12	2.39	0.42
24:AY:52:LEU:O	24:AY:52:LEU:HD12	2.20	0.42
33:CI:5:GLN:CG	33:CI:5:GLN:O	2.67	0.42
1:BA:1048:G:H2'	1:BA:1050:G:C8	2.54	0.42
7:BG:16:LYS:HD3	7:BG:17:PHE:CD1	2.54	0.42
30:CF:111:ARG:HG2	30:CF:112:ASP:HB2	2.01	0.42
25:CA:528:A:C2	25:CA:2043:C:C4'	3.00	0.42
11:AK:34:THR:HB	11:AK:40:ALA:HA	2.01	0.42
1:AA:542:G:N1	1:AA:543:U:C4	2.88	0.42
35:DK:68:GLY:C	35:DK:69:VAL:HG13	2.40	0.42
25:DA:2309:A:C2'	25:DA:2310:C:O5'	2.68	0.42
27:DC:131:MET:HA	27:DC:134:ILE:HD12	2.02	0.42
15:BO:35:ILE:HD12	15:BO:62:ARG:NH1	2.34	0.42
31:CG:164:ALA:C	31:CG:166:GLU:N	2.69	0.42
1:AA:849:G:C2'	1:AA:850:U:O5'	2.68	0.42
13:AM:113:LYS:HB3	13:AM:114:PRO:CD	2.46	0.42
25:DA:136:G:C6	25:DA:137:U:O4	2.71	0.42
25:DA:1408:G:O6	25:DA:1594:U:O2	2.36	0.42
25:DA:2416:C:N3	25:DA:2417:C:C5	2.88	0.42
25:DA:1738:G:O2'	25:DA:1739:A:H8	2.03	0.42
1:AA:999:C:H2'	1:AA:1000:A:H8	1.84	0.42
25:CA:2179:C:C2'	25:CA:2180:U:H5'	2.49	0.42
25:CA:2784:U:H2'	25:CA:2785:C:H6	1.83	0.42
6:BF:11:HIS:ND1	6:BF:12:PRO:CD	2.83	0.42
20:AT:68:LYS:HB2	20:AT:69:ASN:OD1	2.19	0.42
3:BC:9:ILE:HD12	14:BN:98:LYS:HG3	2.01	0.42
25:CA:380:G:H2'	25:CA:381:G:O4'	2.19	0.42
25:DA:1520:U:O4	25:DA:1521:G:C6	2.72	0.42
40:CP:29:VAL:HG13	40:CP:79:VAL:CG1	2.48	0.42
1:BA:1162:C:O2	1:BA:1175:G:C2	2.72	0.42
26:CB:51:G:O6	39:CO:32:PRO:HB3	2.19	0.42
25:CA:1467:U:C4	25:CA:1546:G:N3	2.87	0.42
1:AA:1293:C:N3	1:AA:1294:G:C8	2.88	0.42
1:AA:399:G:O2'	1:AA:400:C:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:CC:156:SER:O	27:CC:159:THR:HG23	2.18	0.42
7:AG:11:ILE:CD1	7:AG:23:ALA:HB3	2.49	0.42
19:BS:51:HIS:ND1	19:BS:55:GLN:O	2.52	0.42
1:AA:57:G:H2'	1:AA:58:C:C6	2.55	0.42
28:DD:179:ARG:NH1	40:DP:7:LEU:HD21	2.34	0.42
1:BA:181:A:C2	1:BA:195:A:C5	3.07	0.42
39:DO:76:LYS:O	39:DO:79:ALA:HB3	2.20	0.42
39:DO:79:ALA:HB1	39:DO:113:ALA:HB3	2.02	0.42
29:CE:176:ASP:OD1	29:CE:177:PRO:N	2.53	0.42
37:DM:3:GLN:O	37:DM:3:GLN:HG2	2.19	0.42
7:BG:117:LEU:O	7:BG:121:ASN:N	2.52	0.42
2:AB:77:GLU:HG3	2:AB:78:ALA:N	2.35	0.42
25:CA:1050:A:C2	25:CA:2751:G:C4	3.07	0.42
1:BA:1461:G:O2'	1:BA:1462:C:H5'	2.20	0.42
25:DA:2850:A:C2	25:DA:2851:A:C4	3.08	0.42
25:DA:1215:G:H5"	41:DQ:7:VAL:HG21	2.01	0.42
47:CW:45:ALA:H	47:CW:77:SER:HB3	1.84	0.42
22:BV:61:C:H2'	22:BV:62:C:C6	2.54	0.42
25:DA:1675:C:H2'	25:DA:1676:A:H5'	2.01	0.42
56:DB:69:G:C2	56:DB:70:C:H1'	2.53	0.42
43:DS:86:MET:HA	43:DS:87:PRO:HD3	1.86	0.42
25:CA:1770:G:C6	25:CA:1983:G:C5	3.08	0.42
25:CA:2636:C:C2'	25:CA:2636:C:O2	2.63	0.42
27:DC:153:LEU:O	27:DC:154:ALA:HB3	2.19	0.42
1:AA:782:A:H2'	1:AA:783:C:O4'	2.19	0.42
33:CI:111:THR:O	33:CI:112:LYS:C	2.57	0.42
24:AY:67:LYS:O	24:AY:67:LYS:HG2	2.18	0.42
29:CE:65:THR:HG23	29:CE:65:THR:O	2.19	0.42
1:AA:528:C:H5'	1:AA:529:G:OP2	2.19	0.42
45:CU:31:GLY:O	45:CU:66:VAL:HG12	2.20	0.42
4:AD:88:ASN:O	4:AD:92:LEU:HD23	2.20	0.42
1:BA:1055:A:H2'	3:BC:155:ARG:HE	1.84	0.42
1:BA:1346:A:C8	1:BA:1348:U:C2	3.07	0.42
13:BM:13:HIS:H	13:BM:16:ILE:HD12	1.83	0.42
13:BM:92:ARG:HH11	13:BM:92:ARG:CG	2.32	0.42
25:CA:2164:C:H3'	25:CA:2165:C:C5	2.55	0.42
25:CA:2170:A:N3	25:CA:2171:A:N7	2.67	0.42
1:BA:429:U:H3'	4:BD:8:LEU:CD2	2.49	0.42
25:DA:1596:A:O2'	25:DA:1597:A:H5'	2.19	0.42
49:DY:14:LEU:O	49:DY:17:GLU:HB3	2.19	0.42
25:CA:1084:A:C6	25:CA:1085:A:N6	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:110:ILE:HG12	2:AB:150:ILE:CG1	2.49	0.42
25:DA:2093:G:H2'	25:DA:2094:A:O5'	2.19	0.42
25:DA:2094:A:N1	25:DA:2196:C:C2	2.88	0.42
1:AA:1102:A:H2'	1:AA:1103:C:H5'	1.99	0.42
1:AA:1539:C:P	21:AU:17:ARG:NE	2.92	0.42
21:AU:25:ALA:HB3	23:AX:9:G:H4'	2.01	0.42
25:DA:1579:A:N1	25:DA:1580:A:C2	2.87	0.42
42:CR:39:LEU:CD1	42:CR:39:LEU:N	2.83	0.42
5:BE:100:GLU:HA	5:BE:121:ASN:HB3	2.02	0.42
25:DA:639:U:H2'	25:DA:640:C:C6	2.53	0.42
38:DN:24:MET:O	38:DN:25:ALA:C	2.58	0.42
1:BA:1219:A:N6	1:BA:1220:G:O6	2.53	0.42
25:DA:411:G:P	25:DA:2407:A:OP2	2.77	0.42
24:AY:157:SER:O	24:AY:159:ASP:N	2.53	0.42
56:DB:39:A:C2	56:DB:44:G:C4	3.08	0.42
10:BJ:42:LEU:CD1	10:BJ:73:LEU:HB2	2.49	0.42
25:CA:1419:A:N7	25:CA:1421:G:C6	2.87	0.42
5:BE:68:ARG:H	5:BE:68:ARG:HE	1.66	0.42
1:AA:626:G:H2'	1:AA:627:G:O4'	2.20	0.42
4:AD:120:LYS:HB2	4:AD:128:VAL:HG21	2.02	0.42
21:AU:44:ARG:O	21:AU:45:LYS:C	2.58	0.42
1:BA:803:G:OP1	60:BA:1802:HOH:O	2.21	0.42
5:AE:110:MET:O	5:AE:114:LEU:HB2	2.20	0.42
5:AE:154:ALA:CB	8:AH:65:PHE:CE2	3.03	0.42
7:BG:124:SER:O	7:BG:126:ALA:N	2.53	0.42
8:AH:5:PRO:O	8:AH:8:ASP:CB	2.64	0.42
1:BA:1537:U:H5"	1:BA:1538:C:P	2.58	0.42
21:BU:19:LYS:C	21:BU:21:SER:N	2.73	0.42
25:CA:1590:A:H2'	25:CA:1591:A:C8	2.55	0.42
1:BA:841:C:H2'	1:BA:843:U:C5'	2.49	0.42
9:BI:24:ASN:HA	9:BI:58:GLU:O	2.18	0.42
27:DC:66:PHE:CD2	27:DC:155:ARG:NH2	2.88	0.42
25:CA:2130:U:O2	25:CA:2158:A:H2	2.02	0.42
14:AN:81:ARG:O	14:AN:82:ILE:C	2.58	0.42
6:BF:45:ARG:HD2	6:BF:59:TYR:CE2	2.55	0.42
2:AB:14:HIS:HB3	2:AB:208:ALA:HB2	2.01	0.42
2:AB:30:ILE:HD11	2:AB:38:HIS:CG	2.55	0.42
25:DA:1176:U:C6	25:DA:1177:G:C5	3.07	0.42
36:CL:75:ALA:HB3	36:CL:108:ALA:HB2	2.01	0.42
25:CA:1483:G:N2	25:CA:1507:C:C2	2.87	0.42
2:BB:223:GLY:O	2:BB:225:SER:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1020:A:C2	25:DA:1141:U:C2	3.08	0.42
18:AR:40:PRO:HG2	18:AR:43:ILE:CG1	2.50	0.42
28:CD:101:PHE:HE2	28:CD:203:VAL:HG12	1.81	0.42
30:DF:24:VAL:HG13	30:DF:25:MET:N	2.34	0.42
1:AA:1056:U:O2	1:AA:1057:G:C8	2.73	0.42
25:DA:478:A:C6	25:DA:480:A:C6	3.08	0.42
25:DA:480:A:P	45:DU:43:LYS:HZ3	2.42	0.42
7:BG:26:VAL:O	7:BG:27:ASN:C	2.57	0.42
25:CA:31:C:O2'	25:CA:32:C:H5'	2.19	0.42
9:BI:88:GLU:C	9:BI:88:GLU:OE2	2.58	0.42
17:BQ:35:LYS:CG	17:BQ:37:ILE:CD1	2.98	0.42
7:AG:28:ILE:HD12	7:AG:100:MET:CE	2.50	0.42
49:CY:16:THR:HA	49:CY:19:LEU:HD12	2.02	0.42
44:CT:8:LEU:CD2	49:CY:22:LEU:HA	2.50	0.42
25:DA:2677:G:O2'	25:DA:2678:C:H5'	2.19	0.42
25:CA:2379:G:H2'	25:CA:2380:C:C6	2.54	0.42
25:DA:2413:G:H2'	25:DA:2414:G:O5'	2.18	0.42
25:DA:783:A:C4	25:DA:785:G:H1'	2.54	0.42
25:DA:780:G:H21	25:DA:783:A:H62	1.68	0.42
25:CA:11:C:H2'	25:CA:12:U:C5'	2.49	0.42
40:DP:12:MET:HG3	40:DP:54:LEU:HD22	2.02	0.42
42:CR:20:VAL:HG13	42:CR:21:ARG:N	2.32	0.42
48:CX:17:ARG:HA	48:CX:17:ARG:HD2	1.76	0.42
25:DA:157:C:C6	25:DA:157:C:H3'	2.54	0.42
25:DA:2016:U:H1'	51:D0:2:VAL:CG2	2.50	0.42
25:DA:2249:U:C4'	25:DA:2250:G:OP2	2.68	0.42
1:BA:648:A:C2	1:BA:649:A:C4	3.07	0.42
46:DV:9:ARG:HG3	46:DV:40:ILE:O	2.19	0.42
34:DJ:119:PHE:CD1	34:DJ:119:PHE:O	2.72	0.42
18:BR:24:ASP:HB3	18:BR:27:THR:OG1	2.19	0.42
8:AH:87:ARG:H	8:AH:90:GLU:HB2	1.83	0.42
57:DW:34:VAL:HG21	57:DW:76:ILE:CD1	2.50	0.42
8:AH:78:SER:HA	8:AH:84:ILE:CG1	2.50	0.42
49:CY:39:GLN:O	49:CY:40:SER:C	2.55	0.42
8:BH:33:VAL:O	8:BH:35:ILE:N	2.53	0.42
1:BA:596:A:C2	1:BA:645:G:N3	2.86	0.42
56:DB:111:U:O2	56:DB:112:G:N7	2.53	0.42
25:CA:1392:A:C6	25:CA:1393:A:C6	3.07	0.42
25:CA:1979:U:HO2'	25:CA:1980:G:H5'	1.82	0.42
1:AA:298:A:N6	1:AA:299:G:C2	2.88	0.42
32:DH:96:THR:O	32:DH:97:ARG:C	2.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:39:ALA:HB2	31:DG:57:TYR:CG	2.55	0.42
39:DO:92:PHE:HB2	39:DO:117:PHE:CE1	2.54	0.42
25:DA:1003:G:N2	25:DA:1004:U:C2	2.87	0.42
25:DA:928:A:H2	50:DZ:46:MET:HE1	1.85	0.42
25:DA:2555:U:C2'	25:DA:2556:C:H5'	2.49	0.42
17:BQ:30:HIS:NE2	17:BQ:32:ILE:HD13	2.33	0.42
16:AP:44:SER:OG	16:AP:46:LYS:HD2	2.20	0.42
25:CA:2585:U:O2'	25:CA:2586:U:O5'	2.33	0.42
11:BK:84:MET:HE2	11:BK:112:VAL:HG11	2.02	0.42
25:CA:1445:G:C5	25:CA:1446:C:C4	3.08	0.42
25:CA:1599:U:OP2	44:CT:40:LYS:HG3	2.19	0.42
25:CA:2339:C:H2'	25:CA:2340:A:H8	1.84	0.42
25:DA:1115:G:C2	25:DA:1116:G:C5	3.07	0.42
42:DR:15:SER:O	42:DR:18:GLN:HB2	2.19	0.42
1:BA:1304:G:H2'	1:BA:1305:G:C1'	2.49	0.42
25:CA:2294:G:C5	25:CA:2295:C:C5	3.07	0.42
25:CA:1827:U:C2'	25:CA:1828:G:O5'	2.68	0.42
39:DO:9:ARG:CG	39:DO:10:ARG:N	2.82	0.42
18:AR:22:TYR:HB2	18:AR:57:ALA:O	2.20	0.42
1:AA:903:G:H2'	1:AA:904:U:C6	2.53	0.42
25:DA:747:U:C5	25:DA:2613:U:C5	3.07	0.42
1:BA:1436:U:H2'	1:BA:1437:A:C8	2.54	0.42
25:CA:924:G:H2'	25:CA:925:A:O4'	2.19	0.42
25:CA:812:C:H4'	41:CQ:12:ARG:HH22	1.85	0.42
1:BA:883:C:O2'	1:BA:884:U:H5'	2.20	0.42
36:DL:41:ARG:O	36:DL:43:GLY:N	2.53	0.42
3:BC:26:LYS:NZ	3:BC:26:LYS:HB3	2.34	0.42
38:CN:108:ALA:HA	38:CN:109:PRO:HD3	1.91	0.42
1:BA:1465:A:H2'	1:BA:1466:C:C6	2.54	0.42
25:CA:2243:U:O2'	25:CA:2244:U:H5'	2.20	0.42
25:CA:566:U:H2'	25:CA:567:U:O4'	2.19	0.42
25:DA:36:G:C5	25:DA:37:C:C5	3.07	0.42
1:BA:1496:C:H2'	1:BA:1497:G:O4'	2.19	0.42
25:CA:1751:U:H2'	25:CA:1752:C:C6	2.55	0.42
1:AA:1434:A:O5'	1:AA:1434:A:H8	2.02	0.42
19:AS:30:LEU:HD12	19:AS:30:LEU:HA	1.86	0.42
25:DA:800:A:OP1	25:DA:800:A:H8	2.02	0.42
16:BP:22:ALA:HA	16:BP:33:ILE:HD12	2.02	0.42
40:CP:22:GLY:O	40:CP:109:ILE:HD11	2.18	0.42
25:DA:2484:G:OP1	37:DM:44:ARG:HD3	2.19	0.42
48:DX:15:ASN:HA	48:DX:24:THR:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1225:A:H2'	1:BA:1226:C:C4	2.53	0.42
1:BA:1310:G:C6	1:BA:1311:A:N7	2.88	0.42
33:DI:75:ALA:HB3	33:DI:131:THR:HG21	2.02	0.42
49:DY:13:GLU:C	49:DY:15:ASN:H	2.22	0.42
49:DY:8:GLU:C	49:DY:12:GLU:HB2	2.39	0.42
25:CA:1056:G:O2'	25:CA:1086:A:H8	2.02	0.42
25:CA:1085:A:C4	25:CA:1086:A:N1	2.88	0.42
25:CA:1090:A:N1	25:CA:1091:G:C5	2.87	0.42
25:CA:1104:C:O2	25:CA:1105:U:C5	2.72	0.42
2:AB:159:ALA:O	2:AB:160:LEU:CB	2.68	0.42
2:AB:175:ALA:C	2:AB:177:ASN:N	2.73	0.42
2:AB:95:TRP:O	2:AB:97:GLY:N	2.52	0.42
1:AA:978:A:C6	1:AA:1318:A:C6	3.08	0.42
1:AA:1325:C:O2'	1:AA:1326:U:H5'	2.18	0.42
1:AA:976:G:C8	1:AA:1358:U:C2	3.07	0.42
10:AJ:10:LEU:HB2	10:AJ:72:ARG:CB	2.41	0.42
25:CA:846:U:C2'	25:CA:847:U:OP2	2.67	0.42
31:CG:8:VAL:HG12	31:CG:49:LEU:CB	2.48	0.42
52:D1:18:HIS:HE2	52:D1:20:TYR:HE2	1.68	0.42
1:BA:626:G:H2'	1:BA:627:G:O5'	2.19	0.42
25:DA:2491:U:H5'	25:DA:2570:G:C5'	2.50	0.42
25:DA:2146:C:C5'	25:DA:2147:A:OP1	2.66	0.42
39:DO:101:GLY:O	39:DO:102:ARG:C	2.58	0.42
39:DO:70:ALA:O	39:DO:74:VAL:HB	2.19	0.42
25:DA:1936:A:H2	25:DA:1943:U:C4	2.36	0.42
1:AA:406:G:C8	1:AA:495:A:C4	3.07	0.42
11:AK:125:LYS:N	11:AK:125:LYS:CD	2.82	0.42
1:AA:93:U:C2'	1:AA:94:G:C5'	2.97	0.42
1:AA:64:G:C8	1:AA:99:C:C4	3.08	0.42
25:DA:1866:A:N3	25:DA:1876:A:C6	2.88	0.42
1:BA:1239:A:H2	1:BA:1297:G:C2	2.37	0.42
1:AA:195:A:H1'	1:AA:222:C:O2'	2.20	0.42
1:BA:737:C:O2'	1:BA:738:C:H5'	2.20	0.42
20:BT:50:PHE:O	20:BT:53:MET:N	2.52	0.42
31:DG:147:LEU:HA	31:DG:150:TYR:HD1	1.85	0.42
1:BA:1538:C:H3'	1:BA:1538:C:C6	2.54	0.42
1:BA:840:C:C4	1:BA:842:U:H5'	2.55	0.42
1:BA:842:U:O2'	1:BA:846:G:N1	2.52	0.42
9:BI:29:ILE:O	9:BI:29:ILE:HG23	2.20	0.42
27:DC:68:ARG:NH1	27:DC:128:THR:OG1	2.52	0.42
1:BA:16:A:C4	1:BA:17:U:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2111:U:C4	25:CA:2145:C:O2	2.73	0.42
25:DA:2162:G:H3'	25:DA:2162:G:P	2.59	0.42
1:AA:1367:C:N3	1:AA:1368:A:C8	2.87	0.42
10:AJ:59:LYS:HD2	10:AJ:60:ASP:N	2.35	0.42
10:AJ:53:ILE:HB	10:AJ:62:ARG:N	2.33	0.42
1:AA:1114:C:O2	1:AA:1115:U:C6	2.72	0.42
25:CA:587:C:C2	36:CL:33:ARG:NH2	2.87	0.42
8:BH:92:PRO:HG3	8:BH:124:ILE:HD12	2.01	0.42
6:BF:86:ARG:HD3	18:BR:63:TYR:CE1	2.54	0.42
45:DU:12:VAL:HB	45:DU:17:ASP:O	2.20	0.42
48:DX:56:ARG:O	48:DX:59:ASP:HB2	2.19	0.42
3:BC:41:TYR:OH	3:BC:45:GLU:CG	2.67	0.42
21:BU:8:ASN:C	21:BU:11:PHE:CE2	2.93	0.42
25:DA:149:A:C5	25:DA:150:U:C5	3.08	0.42
25:DA:52:A:H2'	25:DA:53:A:O5'	2.18	0.42
25:DA:56:A:H2'	25:DA:57:C:O4'	2.20	0.42
50:DZ:4:ILE:HG22	50:DZ:37:ARG:O	2.19	0.42
25:DA:2746:U:H2'	25:DA:2747:G:H5'	2.00	0.42
11:BK:113:THR:HA	11:BK:114:PRO:HD3	1.83	0.42
1:BA:59:A:C4	1:BA:331:G:N2	2.87	0.42
1:BA:59:A:C5	1:BA:354:G:C6	3.07	0.42
27:DC:83:ASP:OD1	27:DC:84:PRO:HD2	2.19	0.42
25:CA:273:G:C2	25:CA:365:U:O2	2.73	0.42
9:AI:6:TYR:CE2	9:AI:17:ARG:HB2	2.55	0.42
24:AY:140:VAL:O	24:AY:143:LEU:N	2.53	0.42
32:DH:80:ILE:CD1	32:DH:144:VAL:CG1	2.97	0.42
11:BK:20:ALA:CB	11:BK:33:ILE:CD1	2.98	0.42
49:CY:9:LYS:H	49:CY:12:GLU:HG3	1.83	0.42
25:CA:2852:G:C4	25:CA:2853:C:C5	3.07	0.42
24:AY:59:THR:CG2	24:AY:60:VAL:N	2.81	0.42
29:CE:108:ILE:CD1	36:CL:2:ARG:HH12	2.32	0.42
8:AH:36:ALA:O	8:AH:45:ILE:HD11	2.20	0.42
25:DA:2730:C:H5'	28:DD:175:LEU:CD2	2.50	0.42
4:BD:150:LYS:O	4:BD:150:LYS:HG3	2.19	0.42
27:DC:161:VAL:HG13	27:DC:174:ARG:O	2.19	0.42
26:CB:8:C:H2'	26:CB:9:G:O4'	2.20	0.42
28:DD:124:ARG:HD3	28:DD:125:TRP:HE1	1.84	0.42
8:BH:10:LEU:HD22	8:BH:10:LEU:HA	1.85	0.42
11:BK:27:ASN:HB3	11:BK:56:LYS:HE3	2.02	0.42
25:DA:1188:U:C2'	25:DA:1189:A:O5'	2.67	0.42
25:DA:817:C:H2'	25:DA:818:G:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:458:G:H22	25:DA:469:G:H2'	1.85	0.42
34:DJ:21:THR:HG23	34:DJ:61:LYS:HB3	2.00	0.42
25:DA:714:U:H2'	25:DA:716:A:N7	2.34	0.42
30:CF:56:LEU:HD12	30:CF:64:PRO:HB3	2.00	0.42
3:AC:152:VAL:CG2	3:AC:156:LEU:CD2	2.96	0.42
1:BA:1085:U:O4'	1:BA:1094:G:C6	2.73	0.42
19:BS:44:ILE:HD11	19:BS:63:ASP:HA	2.01	0.42
25:DA:145:C:H3'	25:DA:145:C:C6	2.54	0.42
1:AA:164:G:N2	1:AA:165:G:H1'	2.34	0.42
35:DK:92:GLU:N	35:DK:92:GLU:OE2	2.53	0.42
40:CP:21:PRO:HA	40:CP:46:VAL:HG12	2.01	0.42
40:CP:52:ARG:CG	40:CP:52:ARG:NH1	2.80	0.42
1:AA:1255:G:H5"	1:AA:1256:A:OP1	2.19	0.42
25:DA:2844:G:C2'	25:DA:2845:U:H5'	2.50	0.42
25:CA:751:A:C6	25:CA:789:A:C5	3.07	0.42
32:CH:66:ASN:HA	32:CH:138:VAL:HG11	2.02	0.42
36:DL:19:LEU:CD1	36:DL:19:LEU:N	2.82	0.42
7:BG:109:LYS:O	7:BG:110:ARG:C	2.57	0.42
25:DA:1050:A:H1'	25:DA:2751:G:N2	2.35	0.42
55:D4:9:LYS:HG2	55:D4:14:CYS:HB3	2.01	0.42
25:DA:2179:C:C2	25:DA:2180:U:C5	3.07	0.42
1:BA:394:G:H2'	1:BA:395:C:C6	2.53	0.42
48:DX:39:VAL:O	48:DX:40:GLU:C	2.57	0.42
54:C3:53:ASP:O	54:C3:54:LEU:C	2.57	0.42
25:DA:1421:G:H2'	25:DA:1422:G:H5'	2.01	0.42
1:BA:457:G:C6	1:BA:458:U:N3	2.87	0.42
25:DA:1885:A:H2'	25:DA:1886:U:H5'	2.00	0.42
25:CA:2875:C:C2'	25:CA:2876:G:O5'	2.68	0.42
1:AA:1416:G:C6	1:AA:1417:G:C5	3.08	0.42
25:DA:1675:C:OP2	60:DA:3772:HOH:O	2.21	0.42
8:BH:41:GLU:CD	8:BH:41:GLU:C	2.77	0.42
23:BX:5:A:H2'	23:BX:6:G:H5'	2.01	0.42
25:DA:1692:U:O2	25:DA:1696:G:C2	2.73	0.42
18:AR:41:SER:N	18:AR:51:GLN:NE2	2.66	0.42
39:CO:72:ALA:HA	39:CO:109:ALA:HB2	2.01	0.42
25:CA:2839:G:C6	25:CA:2840:C:C4	3.07	0.42
15:AO:59:VAL:HG11	25:CA:715:A:C8	2.55	0.42
25:DA:1891:G:C5	25:DA:1892:C:C4	3.07	0.42
28:DD:33:ARG:NH2	28:DD:74:GLU:O	2.53	0.42
25:DA:1955:U:H2'	25:DA:2551:C:O2'	2.19	0.42
41:CQ:63:ARG:O	41:CQ:64:ILE:C	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1483:A:H1'	25:DA:1948:G:H1'	2.02	0.42
15:AO:24:THR:O	15:AO:25:GLU:C	2.58	0.42
30:DF:43:ILE:HA	30:DF:82:TYR:CE1	2.54	0.42
25:CA:1117:C:C2'	25:CA:1118:C:H5'	2.50	0.42
25:CA:114:U:H2'	25:CA:115:C:C6	2.55	0.42
28:CD:48:ILE:HG13	28:CD:50:VAL:HG13	2.02	0.42
25:CA:779:U:H2'	25:CA:780:G:O5'	2.19	0.42
2:AB:167:HIS:ND1	2:AB:167:HIS:O	2.52	0.42
29:DE:67:ARG:HE	29:DE:67:ARG:HB3	1.65	0.42
1:BA:837:U:O5'	1:BA:837:U:H6	2.03	0.42
35:DK:113:MET:O	35:DK:116:ILE:HG13	2.20	0.42
37:CM:62:LYS:O	37:CM:105:MET:HA	2.20	0.42
1:BA:1360:A:C8	14:BN:58:SER:CB	3.03	0.42
1:BA:1361:G:C8	1:BA:1362:A:H5"	2.55	0.42
1:BA:1323:G:H1'	1:BA:1362:A:C2	2.55	0.42
1:BA:943:U:C2'	1:BA:944:G:H5'	2.50	0.42
13:BM:88:LEU:C	13:BM:90:HIS:N	2.72	0.42
25:CA:2162:G:OP2	25:CA:2164:C:N4	2.52	0.42
25:DA:1062:G:H2'	25:DA:1063:G:N9	2.34	0.42
49:DY:8:GLU:CB	49:DY:12:GLU:HB3	2.50	0.42
25:CA:1058:U:H1'	25:CA:1081:U:C2	2.55	0.42
25:CA:1076:C:C2'	25:CA:1077:A:O4'	2.68	0.42
2:AB:137:THR:O	2:AB:141:GLU:HG3	2.19	0.42
1:AA:986:U:O2'	1:AA:987:G:H5'	2.20	0.42
1:BA:1272:G:C2	1:BA:1273:C:C2	3.07	0.42
10:AJ:44:THR:O	10:AJ:45:ARG:C	2.57	0.42
10:AJ:42:LEU:HB3	10:AJ:71:LEU:CB	2.49	0.42
25:DA:2298:A:H2'	25:DA:2299:U:H6	1.81	0.42
25:DA:2093:G:O2'	25:DA:2094:A:H5'	2.19	0.42
25:DA:1668:A:C2	25:DA:1670:C:N3	2.88	0.42
17:BQ:17:GLU:O	17:BQ:18:LYS:HB2	2.19	0.42
5:BE:115:GLU:O	5:BE:118:GLY:N	2.52	0.42
5:BE:152:VAL:HG23	5:BE:153:ALA:N	2.34	0.42
3:BC:129:PHE:CD2	3:BC:130:ARG:HD3	2.54	0.42
11:AK:52:ARG:N	11:AK:55:ARG:CB	2.83	0.42
6:AF:4:TYR:HA	6:AF:90:MET:O	2.19	0.42
1:AA:1160:G:HO2'	1:AA:1161:C:P	2.43	0.42
10:AJ:27:GLU:C	10:AJ:29:ALA:N	2.73	0.42
10:AJ:28:THR:CG2	10:AJ:86:ALA:HB1	2.49	0.42
25:DA:1637:A:H4'	25:DA:2711:A:O2'	2.20	0.42
56:DB:49:C:H4'	39:DO:68:LYS:HE2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DB:52:A:H2'	56:DB:52:A:OP2	2.20	0.42
4:AD:162:GLU:HA	4:AD:166:LYS:HE2	2.00	0.42
33:CI:95:ASP:CG	33:CI:97:VAL:H	2.23	0.42
30:CF:6:TYR:CE2	30:CF:11:VAL:HG22	2.54	0.42
1:BA:188:C:N3	1:BA:189:A:C5	2.87	0.42
1:AA:511:C:N1	1:AA:512:U:C5	2.87	0.42
1:BA:794:A:H2'	1:BA:795:C:C6	2.54	0.42
5:AE:131:ASN:HA	5:AE:132:PRO:HD3	1.94	0.42
5:AE:148:SER:O	5:AE:152:VAL:CG1	2.67	0.42
22:AV:59:U:H3'	22:AV:60:U:C6	2.54	0.42
1:AA:171:A:C6	1:AA:172:A:C6	3.07	0.42
3:BC:22:PHE:CD2	3:BC:23:ALA:CA	3.01	0.42
1:BA:100:G:C5	1:BA:101:A:N7	2.87	0.42
9:BI:115:VAL:HG21	10:BJ:62:ARG:HB2	2.02	0.42
11:BK:12:ARG:CZ	11:BK:76:TYR:OH	2.68	0.42
20:BT:35:TYR:CD1	20:BT:35:TYR:O	2.73	0.42
25:CA:1585:C:O2'	25:CA:1586:A:C5'	2.62	0.42
25:CA:1588:G:C4	25:CA:1589:U:C5	3.08	0.42
25:CA:2800:A:C2	25:CA:2895:G:H1'	2.55	0.42
35:CK:114:LYS:HD2	35:CK:114:LYS:HA	1.82	0.42
10:AJ:59:LYS:CE	10:AJ:59:LYS:H	2.29	0.42
1:BA:1096:C:C4	1:BA:1097:C:N4	2.88	0.42
25:DA:2531:A:H2'	25:DA:2531:A:N3	2.34	0.42
27:DC:139:THR:C	27:DC:140:VAL:CG2	2.88	0.42
6:BF:6:ILE:C	6:BF:7:VAL:HG12	2.40	0.42
1:AA:1410:A:O2'	1:AA:1411:C:H5'	2.20	0.42
3:AC:28:PHE:HD2	3:AC:28:PHE:C	2.23	0.42
3:BC:88:LYS:HG2	3:BC:89:VAL:N	2.35	0.42
9:BI:60:LEU:CD2	9:BI:60:LEU:N	2.82	0.42
29:DE:167:VAL:O	29:DE:167:VAL:HG12	2.20	0.42
32:CH:78:VAL:O	32:CH:145:ASN:N	2.53	0.42
38:CN:1:MET:O	38:CN:2:ARG:HB3	2.20	0.42
25:CA:1485:U:C2	25:CA:1505:A:C2	3.08	0.42
25:DA:65:U:H4'	44:DT:73:ARG:HH11	1.85	0.42
25:CA:2469:A:N6	25:CA:2481:G:H1'	2.35	0.42
37:CM:50:ARG:O	37:CM:53:MET:HG2	2.19	0.42
21:BU:25:ALA:HB1	23:BX:8:A:H5"	2.00	0.42
29:CE:118:LEU:HD12	29:CE:119:ILE:H	1.81	0.42
1:AA:1053:G:O5'	1:AA:1054:C:H5'	2.19	0.42
30:CF:51:ASN:OD1	30:CF:51:ASN:N	2.51	0.42
13:AM:78:ARG:O	13:AM:81:ASP:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1795:C:C2	25:DA:1796:U:C6	3.08	0.42
32:DH:86:ASP:O	32:DH:87:GLU:CB	2.61	0.42
25:DA:443:A:C5	29:DE:40:ARG:HD3	2.54	0.42
45:DU:94:PHE:CA	45:DU:102:ILE:CD1	2.97	0.42
25:DA:1356:G:C6	25:DA:1357:C:C4	3.08	0.42
1:AA:540:G:C5	1:AA:541:G:C8	3.08	0.42
1:BA:164:G:O2'	1:BA:165:G:H5'	2.19	0.42
25:CA:665:U:H2'	25:CA:666:A:H8	1.85	0.42
25:DA:2311:A:O2'	25:DA:2312:U:O5'	2.37	0.42
7:BG:78:ARG:HG2	7:BG:83:THR:HG23	2.02	0.42
1:BA:253:A:N1	1:BA:254:G:C5	2.88	0.42
27:DC:118:GLY:C	27:DC:120:ASP:N	2.71	0.42
27:DC:134:ILE:HA	27:DC:135:PRO:HD3	1.81	0.42
25:DA:2769:U:C2	25:DA:2770:G:C8	3.08	0.42
25:CA:2181:U:H2'	25:CA:2182:U:H6	1.83	0.42
1:AA:721:G:O4'	1:AA:722:G:C5	2.73	0.42
25:DA:2473:U:C2	25:DA:2474:U:C6	3.07	0.42
31:CG:100:ASN:H	31:CG:100:ASN:ND2	2.13	0.42
1:AA:262:A:C6	1:AA:263:A:C6	3.07	0.42
27:CC:163:ILE:HA	27:CC:173:LEU:HD12	2.01	0.42
1:BA:1478:U:H2'	1:BA:1479:C:C6	2.55	0.42
25:DA:24:G:H2'	25:DA:25:U:O4'	2.20	0.42
25:CA:908:C:H2'	25:CA:909:A:O5'	2.19	0.42
25:CA:1547:C:C4'	25:CA:1547:C:C6	3.02	0.42
1:AA:1008:U:N3	1:AA:1022:A:C2	2.87	0.42
25:CA:2328:A:H2'	25:CA:2329:U:H6	1.80	0.42
8:AH:21:LYS:N	8:AH:64:TYR:OH	2.52	0.42
25:DA:413:C:C2'	25:DA:414:C:O5'	2.68	0.42
7:AG:69:ARG:O	7:AG:137:ARG:HD3	2.20	0.42
30:CF:88:VAL:CG1	30:CF:89:THR:N	2.83	0.42
25:CA:623:C:H2'	25:CA:624:C:C6	2.54	0.42
48:CX:1:SER:O	48:CX:3:VAL:N	2.52	0.42
24:AY:130:ARG:O	24:AY:133:ARG:HB2	2.19	0.42
30:CF:68:LYS:O	30:CF:69:ALA:C	2.58	0.42
1:AA:293:G:C4	1:AA:294:U:C5	3.08	0.42
1:BA:1057:G:C6	1:BA:1204:A:C2	3.08	0.42
1:BA:927:G:H4'	1:BA:1503:A:N7	2.34	0.42
5:AE:108:GLY:HA2	5:AE:111:ARG:HB2	2.01	0.42
43:DS:29:VAL:CG1	43:DS:55:ILE:CD1	2.98	0.42
25:DA:1717:A:C5	25:DA:1718:G:C8	3.08	0.42
15:BO:44:GLU:O	15:BO:45:HIS:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:186:G:C2	25:CA:187:G:C8	3.07	0.42
17:AQ:80:LYS:CD	17:AQ:80:LYS:N	2.82	0.42
40:CP:59:THR:HG23	40:CP:72:VAL:HG12	2.00	0.42
7:BG:59:GLU:HA	7:BG:62:GLU:HB3	2.00	0.42
17:BQ:31:PRO:CB	17:BQ:32:ILE:HD12	2.49	0.42
25:DA:2181:U:H2'	25:DA:2182:U:H6	1.85	0.42
25:DA:846:U:C2'	25:DA:847:U:OP2	2.68	0.42
8:BH:85:TYR:O	8:BH:86:LYS:CD	2.67	0.42
25:CA:1446:C:H2'	25:CA:1447:C:H6	1.84	0.42
13:BM:47:LEU:HD13	13:BM:52:ILE:HG13	2.02	0.42
3:AC:135:ARG:O	3:AC:138:GLN:N	2.53	0.42
1:BA:1304:G:H2'	1:BA:1305:G:H1'	2.02	0.42
28:CD:111:GLY:HA3	28:CD:194:PRO:HB2	2.01	0.42
17:BQ:64:ARG:HD3	17:BQ:64:ARG:H	1.85	0.42
1:AA:1068:G:C2'	1:AA:1069:C:H5'	2.50	0.42
29:CE:24:ASN:OD1	29:CE:27:LEU:CB	2.68	0.42
3:BC:179:ALA:HB1	3:BC:202:PHE:CE1	2.55	0.42
25:DA:294:A:C5	25:DA:345:A:C2	3.07	0.42
1:BA:1155:A:H2'	1:BA:1156:G:O5'	2.19	0.42
11:AK:23:HIS:CD2	11:AK:23:HIS:O	2.73	0.42
12:AL:37:TYR:CD2	12:AL:37:TYR:N	2.87	0.42
25:CA:2555:U:C2'	25:CA:2556:C:H5'	2.50	0.42
25:CA:2555:U:C5	25:CA:2556:C:C2	3.08	0.42
25:CA:740:C:O2	25:CA:740:C:C2'	2.66	0.42
25:DA:93:G:O2'	25:DA:94:A:H5'	2.19	0.42
1:AA:1119:C:H2'	1:AA:1120:C:C6	2.54	0.42
41:CQ:96:ASP:OD1	41:CQ:100:PHE:CD1	2.73	0.42
41:DQ:40:LYS:C	41:DQ:42:GLY:N	2.73	0.42
25:CA:2301:C:C2'	25:CA:2302:U:H5'	2.50	0.42
32:DH:51:ARG:O	32:DH:55:GLU:HB2	2.20	0.42
25:CA:936:A:H2'	25:CA:937:C:C6	2.55	0.42
55:D4:12:ARG:HB2	55:D4:12:ARG:NH1	2.34	0.42
4:AD:64:TYR:HE2	4:AD:99:ASN:OD1	2.02	0.42
12:BL:73:LEU:O	12:BL:74:GLN:HB3	2.19	0.42
9:BI:125:GLN:C	9:BI:125:GLN:HE21	2.23	0.42
25:DA:1076:C:C2'	25:DA:1077:A:O5'	2.68	0.42
44:DT:8:LEU:HD11	49:DY:22:LEU:HA	2.02	0.42
49:DY:16:THR:O	49:DY:17:GLU:C	2.57	0.42
25:DA:78:U:OP1	49:DY:2:LYS:HB2	2.20	0.42
49:DY:36:GLN:O	49:DY:37:LEU:C	2.58	0.42
1:AA:1141:C:O2'	1:AA:1142:G:P	2.78	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:673:A:H5"	6:AF:86:ARG:NH1	2.35	0.42
25:CA:1056:G:H4'	25:CA:1086:A:N7	2.34	0.42
2:AB:174:GLU:O	2:AB:177:ASN:HB3	2.19	0.42
2:AB:216:VAL:O	2:AB:219:THR:CG2	2.63	0.42
1:AA:980:C:H5	1:AA:981:U:C4	2.37	0.42
1:AA:258:G:C2	1:AA:259:G:C1'	3.01	0.42
1:BA:1255:G:C6	1:BA:1279:G:N7	2.88	0.42
25:CA:1178:C:H5'	25:CA:1179:G:OP1	2.20	0.42
38:CN:103:ARG:CD	38:CN:110:MET:CE	2.93	0.42
1:BA:615:G:C4	1:BA:616:G:C8	3.08	0.42
5:BE:115:GLU:CG	5:BE:116:VAL:N	2.82	0.42
25:DA:1411:U:C6	25:DA:1411:U:H3'	2.54	0.42
3:BC:154:GLY:C	3:BC:156:LEU:HD12	2.40	0.42
11:AK:52:ARG:CZ	11:AK:56:LYS:HE2	2.50	0.42
8:AH:100:ILE:HD12	8:AH:100:ILE:C	2.40	0.42
8:AH:100:ILE:HD11	8:AH:128:VAL:CB	2.49	0.42
25:DA:184:C:O2'	25:DA:217:A:H1'	2.20	0.42
25:DA:2111:U:O4	25:DA:2145:C:H3'	2.19	0.42
13:AM:53:ASP:O	13:AM:56:ARG:CB	2.68	0.42
25:DA:1446:C:H6	25:DA:1446:C:O5'	2.02	0.42
12:AL:27:PRO:O	12:AL:28:GLN:HB3	2.20	0.42
56:DB:27:C:C2'	56:DB:28:C:O5'	2.67	0.42
51:C0:53:VAL:O	51:C0:55:ALA:N	2.53	0.42
33:CI:102:ARG:HE	33:CI:103:ALA:H	1.68	0.42
1:AA:502:A:OP1	12:AL:114:SER:HB3	2.20	0.42
5:AE:82:HIS:HE1	5:AE:146:MET:CG	2.33	0.42
1:AA:66:A:C6	1:AA:67:C:C5	3.08	0.42
1:AA:71:A:H3'	1:AA:71:A:P	2.60	0.42
1:AA:208:U:O4	1:AA:210:C:N3	2.53	0.42
16:AP:70:ARG:HD3	16:AP:70:ARG:HA	1.79	0.42
2:AB:46:VAL:HB	2:AB:47:PRO:CD	2.42	0.42
8:AH:2:MET:O	8:AH:5:PRO:HD3	2.19	0.42
25:CA:1407:G:C2'	25:CA:1408:G:H5'	2.49	0.42
37:DM:111:GLU:OE1	37:DM:115:GLU:HG2	2.18	0.42
5:BE:22:LYS:O	5:BE:23:THR:HB	2.19	0.42
32:CH:116:ARG:HB2	32:CH:131:SER:O	2.19	0.42
1:AA:1062:U:H5"	1:AA:1063:C:OP1	2.20	0.42
10:AJ:56:HIS:C	10:AJ:57:VAL:HG12	2.40	0.42
2:BB:112:ARG:HH22	2:BB:136:ARG:HD3	1.85	0.42
10:BJ:27:GLU:C	10:BJ:29:ALA:N	2.73	0.42
25:CA:1474:U:C5	25:CA:1475:G:N2	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DL:29:LYS:HG2	36:DL:30:THR:HG23	2.02	0.42
45:CU:6:ARG:HG3	45:CU:7:ASP:N	2.35	0.42
1:BA:1492:A:OP1	12:BL:43:LYS:HA	2.20	0.42
25:DA:1826:G:O2'	25:DA:1971:U:OP2	2.37	0.42
15:AO:86:LEU:O	15:AO:87:ARG:CB	2.68	0.42
1:BA:594:U:H2'	1:BA:595:A:H8	1.81	0.42
21:AU:9:GLU:CD	21:AU:10:PRO:HG3	2.40	0.42
14:AN:43:ASN:C	14:AN:45:VAL:N	2.73	0.42
25:CA:1535:A:H5"	25:CA:1536:C:C5	2.54	0.42
1:BA:1386:G:H2'	1:BA:1387:G:H8	1.84	0.42
1:BA:684:U:C2'	11:BK:39:ASN:O	2.67	0.42
25:DA:930:G:C1'	50:DZ:24:LEU:CD2	2.98	0.42
30:CF:114:ARG:HD3	30:CF:114:ARG:HA	1.90	0.42
25:DA:690:G:H2'	25:DA:691:C:O4'	2.20	0.42
25:DA:692:C:O2'	25:DA:693:A:O5'	2.37	0.42
30:DF:170:ALA:C	30:DF:172:PHE:N	2.72	0.42
33:CI:56:VAL:HG21	33:CI:70:THR:HB	2.02	0.42
25:CA:270:A:OP1	25:CA:271:G:H2'	2.20	0.42
25:CA:1925:C:H5"	25:CA:1926:U:C5	2.54	0.42
1:BA:1371:G:OP2	9:BI:12:LYS:HD3	2.20	0.42
47:CW:52:ASP:O	47:CW:53:HIS:HB2	2.20	0.42
1:AA:1179:A:O3'	9:AI:104:THR:HG23	2.19	0.42
24:AY:144:LEU:O	24:AY:147:LYS:HA	2.20	0.42
25:CA:1359:A:C8	25:CA:1373:A:C2	3.08	0.42
25:DA:769:U:HO2'	25:DA:1379:U:H6	1.65	0.42
7:AG:39:GLU:C	7:AG:41:ILE:N	2.71	0.42
25:DA:2259:U:H2'	25:DA:2260:C:C6	2.54	0.42
1:AA:113:G:C1'	1:AA:354:G:H5'	2.50	0.42
25:DA:140:C:O2	25:DA:140:C:OP2	2.38	0.42
8:BH:79:ARG:O	8:BH:83:ARG:HD3	2.19	0.42
25:CA:631:A:H1'	36:CL:65:GLY:HA2	2.02	0.42
1:AA:807:A:H2'	1:AA:808:C:O4'	2.19	0.42
4:BD:123:MET:O	4:BD:142:VAL:HA	2.20	0.42
44:DT:39:THR:HG22	44:DT:42:GLU:H	1.85	0.42
3:AC:125:ARG:O	3:AC:126:ARG:CB	2.66	0.42
25:DA:24:G:C2	25:DA:517:C:C2	3.07	0.42
25:CA:556:A:H2'	25:CA:557:C:O5'	2.19	0.42
26:CB:111:U:H2'	26:CB:112:G:H8	1.83	0.42
1:AA:646:G:C5	1:AA:647:C:C5	3.08	0.42
25:DA:406:G:O2'	25:DA:407:G:H5'	2.19	0.42
3:BC:118:SER:O	3:BC:121:SER:HB2	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1524:G:H2'	25:CA:1525:A:O4'	2.20	0.42
25:DA:1362:C:H2'	25:DA:1363:C:C5'	2.49	0.42
13:AM:106:ARG:HA	13:AM:106:ARG:HD3	1.77	0.42
25:CA:2312:U:OP2	25:CA:2312:U:C5	2.73	0.42
42:CR:63:VAL:HA	42:CR:96:VAL:HG12	2.01	0.42
42:DR:67:GLY:CA	42:DR:93:PHE:CE2	3.03	0.42
25:CA:927:A:H2'	25:CA:928:A:O5'	2.20	0.42
25:DA:1257:C:H5'	29:DE:78:TRP:CH2	2.54	0.42
1:BA:659:U:H2'	1:BA:660:C:C6	2.55	0.42
11:BK:93:GLU:O	11:BK:96:ILE:HG13	2.20	0.42
25:DA:1682:G:C8	25:DA:1757:A:N3	2.87	0.42
1:AA:1164:G:C2	1:AA:1165:U:C6	3.08	0.42
18:BR:58:ILE:HG22	18:BR:62:ARG:HD2	2.01	0.42
24:AY:132:VAL:HA	24:AY:135:ASP:OD2	2.20	0.42
27:CC:134:ILE:HG23	27:CC:135:PRO:HD2	2.00	0.42
25:DA:1700:A:H5'	25:DA:1701:A:OP2	2.19	0.42
22:AV:45:U:H2'	22:AV:45:U:O2	2.18	0.42
38:DN:72:ASP:HB3	38:DN:75:ILE:CG1	2.49	0.42
3:AC:134:LYS:O	3:AC:135:ARG:C	2.57	0.42
25:DA:830:G:C4	25:DA:2448:A:C5	3.08	0.42
25:CA:2727:A:H2'	25:CA:2728:U:H5'	2.01	0.42
11:AK:106:ILE:C	11:AK:106:ILE:HD13	2.40	0.42
25:DA:779:U:H6	25:DA:779:U:O5'	2.02	0.42
3:BC:70:ALA:C	3:BC:72:PRO:HD3	2.39	0.42
45:CU:85:ARG:HH12	45:CU:99:SER:CB	2.33	0.42
25:CA:1315:C:H2'	25:CA:1316:U:O5'	2.19	0.42
35:DK:53:LYS:HG3	35:DK:56:ASP:OD2	2.20	0.42
25:DA:1994:C:OP1	28:DD:132:ALA:HB2	2.20	0.42
25:DA:2445:G:C2'	25:DA:2446:G:H5'	2.50	0.42
25:DA:271:G:C6	25:DA:367:G:C6	3.08	0.42
25:CA:682:G:H5'	53:C2:26:ASN:CG	2.40	0.42
47:CW:11:ASP:OD2	47:CW:12:SER:N	2.52	0.42
41:DQ:77:LYS:O	41:DQ:80:ASN:HB3	2.19	0.42
25:DA:110:G:H2'	25:DA:110:G:N3	2.34	0.42
25:DA:2902:C:H6	25:DA:2902:C:OP2	2.03	0.42
25:CA:713:G:O5'	25:CA:713:G:H8	2.03	0.42
29:DE:127:GLU:OE1	29:DE:127:GLU:HA	2.19	0.42
1:AA:617:G:N1	1:AA:618:C:C4	2.88	0.42
24:AY:162:GLN:NE2	24:AY:162:GLN:HA	2.33	0.42
17:AQ:27:PHE:CE1	17:AQ:36:PHE:HB3	2.54	0.42
3:BC:127:VAL:HG23	3:BC:128:MET:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DS:27:LYS:O	43:DS:71:VAL:HG23	2.19	0.42
13:BM:18:LEU:C	13:BM:20:SER:N	2.73	0.42
19:BS:39:ILE:O	19:BS:66:VAL:HG13	2.19	0.42
19:BS:57:VAL:HG11	19:BS:74:ALA:CB	2.50	0.42
25:CA:2174:C:C2	25:CA:2175:C:C5	3.08	0.42
33:DI:72:THR:CG2	33:DI:112:LYS:HG2	2.50	0.42
33:DI:7:TYR:O	33:DI:7:TYR:CD1	2.72	0.42
27:CC:221:GLY:C	27:CC:223:ALA:N	2.72	0.42
2:AB:177:ASN:OD1	2:AB:178:LEU:HD23	2.19	0.42
2:AB:52:ALA:HB3	2:AB:212:TYR:OH	2.19	0.42
2:AB:93:HIS:ND1	2:AB:145:ASN:CB	2.83	0.42
1:AA:1214:C:H4'	1:AA:1215:G:OP2	2.19	0.42
25:DA:1712:U:C2	25:DA:1713:A:N7	2.88	0.42
25:DA:2338:C:O2	25:DA:2339:C:C6	2.73	0.42
25:DA:1579:A:C2	25:DA:1580:A:C2	3.07	0.42
3:BC:148:ILE:HA	3:BC:200:TRP:O	2.20	0.42
1:BA:6:G:C6	5:BE:98:ALA:HB1	2.55	0.42
5:BE:155:LYS:CE	5:BE:155:LYS:H	2.31	0.42
1:AA:1446:A:H2'	1:AA:1447:A:C5'	2.49	0.42
19:BS:14:LEU:HD23	19:BS:37:SER:CB	2.50	0.42
25:DA:2784:U:C2	25:DA:2785:C:C5	3.08	0.42
4:BD:201:GLU:O	4:BD:204:SER:HB2	2.20	0.42
25:DA:2119:A:C2	25:DA:2169:A:H2'	2.55	0.42
25:DA:1448:G:N1	25:DA:1449:G:C4	2.88	0.42
12:AL:56:LEU:HA	12:AL:56:LEU:HD23	1.87	0.42
12:AL:81:ILE:HA	12:AL:97:VAL:HG23	2.02	0.42
3:AC:16:PRO:CG	3:AC:53:ARG:NH2	2.83	0.42
30:DF:128:SER:OG	30:DF:154:THR:HG23	2.19	0.42
1:BA:1134:G:C6	1:BA:1135:U:C4	3.08	0.42
4:AD:121:ALA:O	4:AD:122:ILE:HG23	2.20	0.42
25:DA:317:G:C4	25:DA:318:C:C5	3.08	0.42
25:DA:2794:C:O2	25:DA:2795:C:C2	2.73	0.42
1:AA:885:G:O2'	1:AA:914:A:N1	2.27	0.42
5:AE:104:ILE:HD12	5:AE:104:ILE:HA	1.79	0.42
25:DA:1443:U:H2'	25:DA:1444:G:C8	2.54	0.42
10:BJ:58:ASN:O	10:BJ:59:LYS:C	2.58	0.42
25:DA:1286:A:C6	25:DA:1329:U:C2	3.08	0.42
25:DA:1327:A:C2'	25:DA:1328:A:H5'	2.50	0.42
20:AT:56:ILE:O	20:AT:56:ILE:HD12	2.20	0.42
1:BA:737:C:C2	1:BA:738:C:C5	3.08	0.42
21:BU:18:PHE:HA	21:BU:21:SER:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DM:111:GLU:OE1	37:DM:112:LEU:HA	2.20	0.42
29:CE:193:VAL:O	29:CE:197:GLU:HB2	2.19	0.42
1:BA:1074:G:H2'	1:BA:1075:U:O4'	2.20	0.42
27:DC:74:PRO:O	27:DC:96:LYS:HG2	2.20	0.42
1:BA:919:A:H2'	1:BA:920:U:H6	1.83	0.42
9:AI:119:LYS:O	9:AI:120:ALA:CB	2.68	0.42
10:BJ:22:THR:O	10:BJ:22:THR:HG23	2.19	0.42
45:DU:17:ASP:O	45:DU:19:GLY:N	2.53	0.42
17:AQ:47:ASP:O	17:AQ:47:ASP:CG	2.57	0.42
17:AQ:48:GLU:O	17:AQ:49:ASN:C	2.58	0.42
50:CZ:2:LYS:N	50:CZ:2:LYS:HD3	2.35	0.42
16:AP:19:VAL:CG2	16:AP:19:VAL:O	2.67	0.42
12:BL:43:LYS:HB2	12:BL:44:PRO:CD	2.50	0.42
25:DA:1045:C:H4'	25:DA:1046:A:H5'	2.02	0.42
31:DG:3:VAL:O	31:DG:6:ALA:HB3	2.20	0.42
31:DG:8:VAL:CG2	31:DG:72:ASN:HB2	2.49	0.42
25:DA:53:A:C2'	25:DA:54:G:H5'	2.49	0.42
14:AN:27:LYS:CA	14:AN:30:ILE:HB	2.50	0.42
1:BA:687:A:N3	1:BA:688:G:H1'	2.35	0.42
25:DA:511:U:O4	25:DA:512:G:N1	2.53	0.42
25:DA:616:A:N3	29:DE:173:THR:HG21	2.34	0.42
20:BT:7:LYS:O	20:BT:10:ALA:HB3	2.20	0.42
25:CA:4:U:C2'	25:CA:5:A:H5'	2.49	0.42
1:BA:1251:A:C2	1:BA:1252:A:C4	3.08	0.42
25:DA:1562:U:H2'	25:DA:1563:U:O4'	2.20	0.42
25:CA:45:G:H5'	25:CA:46:G:H5'	2.01	0.42
9:BI:89:TYR:CA	9:BI:93:LEU:HD11	2.49	0.42
25:DA:1378:A:C2	25:DA:1380:G:N9	2.87	0.42
16:AP:39:PHE:CD1	16:AP:40:ASN:N	2.87	0.42
25:DA:321:U:C2	29:DE:159:LEU:CD2	3.03	0.42
40:CP:30:TRP:CD2	40:CP:39:LEU:HD12	2.55	0.42
1:BA:1211:U:O2'	1:BA:1212:U:O5'	2.37	0.42
1:BA:474:G:C6	1:BA:475:C:C4	3.08	0.42
25:DA:2731:G:O2'	25:DA:2732:G:O5'	2.38	0.42
44:DT:7:LEU:O	44:DT:7:LEU:CD2	2.68	0.42
1:AA:100:G:C5	1:AA:101:A:C8	3.07	0.42
1:AA:1038:C:C2	1:AA:1039:G:C8	3.08	0.42
25:CA:2179:C:N3	25:CA:2180:U:C5	2.87	0.42
1:BA:1337:G:H5"	1:BA:1338:G:OP1	2.19	0.42
27:DC:225:ASN:O	27:DC:226:PRO:C	2.57	0.42
10:BJ:80:THR:CB	10:BJ:83:THR:HG22	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BD:134:TYR:C	4:BD:134:TYR:CD2	2.93	0.42
36:DL:10:GLU:HG3	36:DL:10:GLU:O	2.20	0.42
5:AE:64:GLU:OE2	5:AE:68:ARG:CZ	2.68	0.42
5:AE:66:ALA:O	5:AE:67:ARG:C	2.58	0.42
36:CL:120:VAL:CG2	36:CL:121:THR:N	2.83	0.42
3:AC:122:GLN:O	3:AC:125:ARG:HB2	2.20	0.42
4:AD:193:ASP:O	4:AD:194:ILE:HG22	2.20	0.42
25:CA:594:U:H2'	25:CA:595:C:H6	1.80	0.42
16:AP:4:ILE:HA	16:AP:20:VAL:O	2.20	0.42
25:CA:2732:G:C3'	25:CA:2733:A:C5'	2.98	0.42
18:BR:26:ALA:O	18:BR:27:THR:C	2.58	0.42
34:DJ:62:VAL:O	34:DJ:62:VAL:HG13	2.18	0.42
3:BC:34:SER:O	3:BC:38:VAL:HG13	2.20	0.42
12:AL:35:ARG:NH2	24:AY:110:ARG:HD2	2.35	0.42
18:BR:28:LEU:N	18:BR:28:LEU:CD1	2.83	0.42
3:BC:115:VAL:O	3:BC:118:SER:HB3	2.20	0.42
3:BC:116:ALA:O	3:BC:119:ILE:N	2.52	0.42
25:DA:255:A:H2'	25:DA:256:A:O4'	2.20	0.42
1:BA:361:G:C2'	1:BA:362:G:H5'	2.50	0.42
25:CA:2415:G:H2'	25:CA:2416:C:H6	1.85	0.42
31:DG:39:ALA:HB2	31:DG:57:TYR:CD2	2.55	0.42
7:BG:74:VAL:HG21	7:BG:143:MET:CG	2.47	0.42
1:AA:304:U:C2'	1:AA:305:G:H5'	2.49	0.42
50:DZ:26:LEU:HD21	50:DZ:46:MET:CB	2.49	0.42
31:DG:26:LYS:CB	31:DG:31:GLU:CD	2.87	0.42
31:DG:26:LYS:HB3	31:DG:31:GLU:CG	2.48	0.42
54:C3:16:THR:CG2	54:C3:20:GLY:O	2.68	0.42
25:DA:107:G:H2'	25:DA:108:G:H8	1.85	0.42
32:CH:130:VAL:HG21	32:CH:144:VAL:HG21	2.01	0.42
25:DA:2721:A:H2'	25:DA:2722:G:C8	2.54	0.42
25:CA:368:A:C8	25:CA:368:A:C3'	3.03	0.42
25:CA:559:G:H2'	25:CA:560:C:H5'	2.02	0.42
1:AA:538:G:OP2	12:AL:111:GLN:HG3	2.19	0.42
37:DM:32:GLY:C	37:DM:117:PHE:HE2	2.23	0.42
25:CA:1444:G:C4	25:CA:1445:G:C8	3.07	0.42
1:BA:55:A:C2	32:CH:91:PHE:CD2	3.07	0.42
25:CA:123:G:H4'	25:CA:1376:C:O5'	2.20	0.42
25:CA:1712:U:H2'	25:CA:1713:A:C8	2.55	0.42
25:DA:1885:A:C5	25:DA:1886:U:C5	3.08	0.42
25:DA:1367:A:C5	25:DA:1368:G:H1'	2.54	0.42
39:CO:14:ALA:O	39:CO:18:LEU:HD22	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:CB:78:A:H61	26:CB:98:G:H2'	1.83	0.42
1:AA:859:G:H2'	1:AA:860:A:H8	1.83	0.42
1:BA:811:C:O2'	1:BA:901:A:N1	2.46	0.42
47:CW:17:LEU:HD23	47:CW:35:ARG:CB	2.50	0.42
56:DB:82:U:C2	56:DB:83:G:C8	3.08	0.42
25:DA:2350:C:C2'	25:DA:2351:G:O5'	2.68	0.42
25:CA:1726:C:C4	25:CA:1727:C:C5	3.07	0.42
25:DA:494:G:H4'	43:DS:6:LYS:HG3	2.01	0.42
3:BC:113:LYS:HB2	3:BC:184:ASN:ND2	2.34	0.42
25:CA:1914:C:C5	25:CA:1915:U:C5	3.08	0.42
4:AD:109:THR:OG1	4:AD:111:ALA:HB3	2.20	0.42
25:DA:129:C:C2'	25:DA:130:C:H5'	2.50	0.42
53:D2:21:ARG:O	53:D2:27:GLY:HA3	2.20	0.42
42:CR:43:ASN:HD22	42:CR:43:ASN:HA	1.63	0.42
51:C0:28:SER:O	51:C0:36:LYS:HA	2.20	0.42
38:CN:58:ASP:OD2	38:CN:58:ASP:C	2.58	0.42
27:CC:23:LEU:HD12	27:CC:23:LEU:HA	1.82	0.42
35:CK:44:LYS:HA	35:CK:44:LYS:HD3	1.91	0.42
30:DF:132:ARG:CG	30:DF:132:ARG:HH21	2.33	0.42
37:CM:29:GLY:CA	37:CM:106:ASP:HB2	2.50	0.42
55:D4:19:ARG:O	55:D4:20:ASP:HB2	2.20	0.42
54:C3:6:VAL:HG21	54:C3:60:CYS:SG	2.60	0.42
25:DA:2433:A:H5"	25:DA:2434:A:OP1	2.19	0.42
32:DH:118:PRO:O	32:DH:119:ASN:HB2	2.20	0.42
1:BA:1308:U:C6	13:BM:97:ARG:NH2	2.87	0.42
33:DI:58:ILE:HD13	33:DI:66:PHE:CD1	2.55	0.42
25:CA:1079:C:C5	25:CA:1088:A:N1	2.88	0.42
33:CI:18:ASN:H	33:CI:19:PRO:CD	2.33	0.42
33:CI:75:ALA:HB1	33:CI:128:ILE:HG22	1.98	0.42
10:AJ:72:ARG:HA	10:AJ:72:ARG:HD3	1.94	0.42
25:DA:1709:U:C2'	25:DA:1710:G:O5'	2.68	0.42
8:AH:85:TYR:CD2	8:AH:123:GLU:HA	2.48	0.42
25:DA:2192:U:H2'	25:DA:2193:G:C8	2.55	0.42
32:DH:21:VAL:HG13	32:DH:21:VAL:O	2.20	0.42
31:CG:8:VAL:O	31:CG:8:VAL:HG13	2.19	0.42
1:BA:488:C:C2	1:BA:489:C:C5	3.08	0.42
3:BC:129:PHE:CE2	3:BC:156:LEU:CD2	3.03	0.42
1:AA:1446:A:C2'	1:AA:1447:A:C5'	2.97	0.42
25:DA:2165:C:O2	25:DA:2166:U:C1'	2.67	0.42
25:DA:570:G:C4	25:DA:2030:A:N7	2.88	0.42
39:DO:31:THR:HG22	39:DO:33:ARG:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1134:G:N1	1:BA:1141:C:N4	2.67	0.42
4:AD:151:GLN:O	4:AD:154:VAL:HG12	2.19	0.42
4:AD:106:PHE:HD1	4:AD:158:LEU:CD2	2.32	0.42
1:BA:82:G:C5	1:BA:83:C:C2	3.08	0.42
25:DA:2585:U:HO2'	25:DA:2586:U:C5'	2.24	0.42
1:AA:96:U:O2'	1:AA:97:G:P	2.77	0.42
1:BA:1240:U:H3'	1:BA:1241:G:C5'	2.49	0.42
1:AA:386:C:H2'	1:AA:387:U:C5'	2.50	0.42
1:AA:451:A:C2	1:AA:480:U:N3	2.88	0.42
1:BA:1533:C:H4'	1:BA:1533:C:OP1	2.20	0.42
1:BA:840:C:C5	1:BA:842:U:H5"	2.55	0.42
9:BI:53:LEU:O	9:BI:54:VAL:CG2	2.67	0.42
25:CA:2141:G:C2	25:CA:2142:A:C1'	3.02	0.42
3:AC:28:PHE:CE2	3:AC:32:LEU:HD23	2.55	0.42
25:DA:1168:G:C2'	25:DA:1169:A:O5'	2.68	0.42
25:DA:1178:C:C5	25:DA:1180:U:C4	3.08	0.42
1:BA:385:C:H6	1:BA:385:C:H3'	1.85	0.42
3:AC:51:VAL:CG2	3:AC:67:ILE:CG2	2.98	0.42
25:DA:1121:C:H2'	25:DA:1122:G:O4'	2.20	0.42
2:BB:59:ILE:O	2:BB:63:LYS:HA	2.20	0.42
25:DA:54:G:C6	25:DA:55:G:C5	3.07	0.42
42:CR:25:LEU:N	42:CR:94:THR:CG2	2.77	0.42
1:AA:108:G:N7	20:AT:9:ARG:HG2	2.34	0.42
1:AA:490:C:C2	1:AA:491:G:C8	3.08	0.42
25:DA:1469:A:C2'	25:DA:1470:A:C8	3.00	0.42
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.54	0.42
28:CD:205:PRO:O	28:CD:206:ALA:O	2.38	0.42
25:DA:545:U:C5	25:DA:547:A:O3'	2.73	0.42
1:BA:1117:A:H4'	9:BI:105:ARG:CD	2.50	0.42
1:AA:613:C:C2	1:AA:628:G:N2	2.87	0.42
49:DY:60:LYS:HB2	49:DY:60:LYS:HE3	1.94	0.42
1:AA:1178:G:H3'	1:AA:1178:G:C8	2.55	0.42
25:DA:2477:U:H4'	25:DA:2479:U:O4	2.19	0.42
14:AN:25:GLU:O	14:AN:28:ALA:HB3	2.20	0.42
7:AG:91:ARG:HB2	7:AG:94:ARG:HG2	2.02	0.42
44:DT:69:ARG:CB	44:DT:74:ILE:HG22	2.50	0.42
44:DT:69:ARG:HB2	44:DT:74:ILE:HG21	2.02	0.42
25:DA:2393:U:H2'	25:DA:2394:C:H6	1.84	0.42
38:CN:79:LEU:HG	38:CN:83:LEU:HD12	2.02	0.42
29:DE:181:ILE:HD13	36:DL:2:ARG:NH1	2.35	0.42
25:DA:900:A:C5	25:DA:901:C:C5	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:169:LEU:HD13	30:DF:174:PHE:CE1	2.55	0.42
9:AI:89:TYR:HB3	9:AI:93:LEU:HD21	2.01	0.42
7:BG:65:LEU:HD21	7:BG:69:ARG:CZ	2.50	0.42
1:BA:1088:G:N3	1:BA:1089:G:C8	2.88	0.42
25:DA:1856:U:C2'	25:DA:1857:G:H5'	2.49	0.42
6:AF:51:ILE:HG13	6:AF:52:ASN:HB2	2.02	0.42
25:CA:623:C:H2'	25:CA:624:C:H6	1.84	0.42
25:DA:2862:G:C4	25:DA:2863:C:C5	3.08	0.42
1:BA:1023:U:H2'	1:BA:1024:G:O4'	2.19	0.42
25:CA:2314:A:C4	25:CA:2315:G:C8	3.07	0.42
29:CE:48:THR:O	29:CE:50:ALA:N	2.53	0.42
1:BA:318:G:C4	1:BA:319:G:C8	3.08	0.42
1:BA:645:G:C5	1:BA:646:G:N7	2.88	0.42
56:DB:112:G:H8	56:DB:112:G:O5'	2.02	0.42
16:BP:23:ASP:OD1	16:BP:23:ASP:C	2.57	0.42
1:BA:1446:A:N6	1:BA:1447:A:N6	2.68	0.42
25:DA:2886:A:H3'	25:DA:2887:A:H8	1.85	0.42
2:BB:186:VAL:HG23	2:BB:186:VAL:O	2.20	0.42
25:CA:2038:G:H2'	25:CA:2039:U:O4'	2.20	0.42
37:DM:66:ARG:HB2	37:DM:102:LEU:O	2.20	0.42
25:CA:2331:G:C5'	25:CA:2331:G:H8	2.32	0.42
1:AA:1066:C:H3'	1:AA:1067:A:C8	2.55	0.42
48:CX:67:LEU:HD23	48:CX:67:LEU:HA	1.89	0.42
31:DG:10:VAL:O	31:DG:47:ASN:ND2	2.53	0.42
48:DX:51:SER:O	48:DX:52:ALA:O	2.37	0.42
37:DM:26:VAL:HB	37:DM:133:LYS:HA	2.02	0.42
25:DA:2177:C:C4	25:DA:2178:C:N4	2.88	0.42
25:DA:201:C:H2'	25:DA:202:U:O5'	2.18	0.42
27:CC:190:THR:HG22	27:CC:191:LEU:O	2.20	0.42
25:CA:1911:U:C2	25:CA:1918:A:C2	3.08	0.42
1:AA:233:C:N3	1:AA:234:C:C5	2.87	0.42
1:AA:1345:U:C4	1:AA:1377:A:C2	3.08	0.42
10:BJ:17:LEU:N	10:BJ:20:GLN:HG2	2.35	0.42
35:CK:53:LYS:O	35:CK:56:ASP:HB2	2.20	0.42
26:CB:59:A:C2'	26:CB:60:C:O5'	2.67	0.42
36:DL:92:LEU:HD23	36:DL:124:GLY:HA3	2.02	0.42
28:CD:121:THR:HG22	28:CD:125:TRP:HD1	1.85	0.42
1:AA:1405:G:O4'	1:AA:1519:A:H4'	2.20	0.42
48:DX:1:SER:O	48:DX:3:VAL:N	2.53	0.42
25:CA:1637:A:H5'	25:CA:1760:C:HO2'	1.85	0.42
28:DD:47:ALA:HB2	28:DD:83:ARG:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:508:U:H1'	1:AA:509:A:N7	2.35	0.42
25:DA:2462:C:H2'	25:DA:2463:C:H6	1.85	0.42
49:CY:59:GLU:O	49:CY:63:ALA:CB	2.68	0.42
44:CT:51:PHE:O	44:CT:53:VAL:HG13	2.20	0.42
25:DA:1656:C:H6	25:DA:1656:C:O5'	2.01	0.42
25:CA:1255:U:C5	29:CE:68:ALA:HA	2.55	0.42
8:AH:102:VAL:HG21	8:AH:126:CYS:SG	2.60	0.42
25:CA:2482:A:H2'	25:CA:2483:C:O4'	2.20	0.42
1:AA:585:G:C6	1:AA:586:C:C4	3.08	0.42
25:CA:1197:G:H2'	25:CA:1198:U:C6	2.55	0.42
29:DE:137:LYS:O	29:DE:140:ASP:HB2	2.20	0.42
8:BH:11:THR:HA	8:BH:14:ARG:NH1	2.35	0.42
23:BX:18:C:H3'	23:BX:19:U:C5'	2.49	0.42
1:BA:506:G:C5	1:BA:507:C:C4	3.07	0.42
25:CA:1575:C:H2'	25:CA:1576:U:O5'	2.20	0.42
26:CB:68:C:C6	26:CB:68:C:H3'	2.55	0.42
2:AB:31:PHE:CD2	2:AB:31:PHE:O	2.73	0.42
1:AA:1001:C:H3'	1:AA:1001:C:H6	1.85	0.42
27:CC:174:ARG:O	27:CC:174:ARG:HG2	2.20	0.42
25:CA:699:A:H4'	25:CA:1634:A:N7	2.35	0.42
25:CA:1262:A:OP2	43:CS:99:ARG:NH2	2.52	0.42
12:BL:35:ARG:HD2	12:BL:53:ARG:NH2	2.35	0.41
1:BA:1328:C:H5"	13:BM:27:THR:CB	2.50	0.41
1:BA:959:A:H5"	1:BA:960:U:OP2	2.20	0.41
13:BM:20:SER:C	13:BM:21:ILE:HD12	2.39	0.41
25:DA:1063:G:C2	33:DI:89:SER:OG	2.72	0.41
25:CA:416:U:C4	25:CA:417:C:C4	3.08	0.41
4:BD:30:LYS:HD3	4:BD:30:LYS:H	1.85	0.41
11:AK:92:ARG:NH2	21:AU:19:LYS:HG3	2.35	0.41
33:CI:75:ALA:CB	33:CI:128:ILE:HG23	2.50	0.41
2:AB:68:PHE:CE2	2:AB:88:GLN:CB	3.03	0.41
2:AB:67:LEU:HA	2:AB:89:PHE:O	2.19	0.41
1:AA:957:U:C2	1:AA:959:A:OP2	2.73	0.41
17:AQ:60:ILE:HG23	17:AQ:72:TRP:CE3	2.55	0.41
10:AJ:71:LEU:O	10:AJ:72:ARG:NE	2.53	0.41
25:CA:1165:A:O2'	25:CA:1166:G:H5'	2.20	0.41
11:AK:88:PRO:HB3	21:AU:28:LEU:HD13	2.00	0.41
1:BA:723:U:O2'	1:BA:855:U:H4'	2.20	0.41
17:BQ:10:ARG:NH2	17:BQ:55:GLY:HA2	2.35	0.41
11:AK:63:GLN:O	11:AK:64:VAL:C	2.58	0.41
36:DL:132:ARG:O	36:DL:133:ALA:C	2.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:2031:A:C6	25:CA:2498:C:H1'	2.55	0.41
25:DA:2407:A:H5"	25:DA:2408:U:OP2	2.19	0.41
13:AM:22:TYR:CE2	13:AM:68:LEU:HD23	2.54	0.41
56:DB:50:A:P	39:DO:68:LYS:HG3	2.60	0.41
28:DD:180:VAL:O	28:DD:180:VAL:CG1	2.68	0.41
1:AA:430:A:OP2	4:AD:7:LYS:CG	2.68	0.41
4:AD:24:VAL:HG12	4:AD:25:ARG:H	1.83	0.41
25:DA:1333:G:N2	25:DA:1334:G:C8	2.88	0.41
20:AT:34:VAL:HG11	20:AT:78:LEU:HD13	2.02	0.41
1:BA:734:G:H2'	1:BA:735:C:C6	2.54	0.41
1:AA:386:C:H2'	1:AA:387:U:H5'	2.00	0.41
21:BU:18:PHE:CD2	21:BU:18:PHE:O	2.73	0.41
1:BA:862:C:H2'	1:BA:862:C:O2	2.19	0.41
25:CA:1414:C:C2	25:CA:1415:U:C5	3.08	0.41
25:CA:1415:U:C6	25:CA:1588:G:N1	2.88	0.41
25:CA:1591:A:H2'	25:CA:1592:C:H6	1.84	0.41
1:BA:1130:A:C4	1:BA:1146:A:C2	3.07	0.41
9:BI:18:VAL:HG12	9:BI:18:VAL:O	2.19	0.41
37:DM:109:PRO:O	37:DM:112:LEU:N	2.53	0.41
1:BA:464:U:C2	1:BA:466:A:OP2	2.74	0.41
27:DC:143:VAL:C	27:DC:151:GLY:HA2	2.40	0.41
27:DC:64:VAL:HB	27:DC:66:PHE:CE1	2.55	0.41
10:AJ:51:VAL:HB	14:AN:81:ARG:HB2	2.02	0.41
4:AD:61:ARG:NH2	4:AD:67:LEU:HD13	2.35	0.41
36:CL:101:ILE:O	36:CL:102:GLY:O	2.39	0.41
37:CM:110:GLU:O	37:CM:111:GLU:C	2.57	0.41
25:DA:1825:U:H2'	25:DA:1826:G:H8	1.84	0.41
25:DA:1828:G:OP1	60:DA:3460:HOH:O	2.22	0.41
27:DC:221:GLY:O	27:DC:224:MET:HG3	2.20	0.41
38:CN:2:ARG:C	38:CN:2:ARG:HD2	2.39	0.41
31:DG:8:VAL:HG11	31:DG:72:ASN:HA	2.01	0.41
2:BB:53:LEU:HD13	2:BB:56:LEU:HD12	2.00	0.41
25:DA:1035:U:O2	25:DA:1120:G:C6	2.73	0.41
1:AA:489:C:H2'	1:AA:490:C:O5'	2.18	0.41
19:AS:44:ILE:HG23	19:AS:62:THR:HA	2.03	0.41
32:CH:75:LEU:O	32:CH:76:GLU:HB3	2.20	0.41
25:DA:1193:G:O2'	25:DA:1194:A:H5'	2.20	0.41
10:AJ:5:ARG:CG	10:AJ:79:PRO:HG3	2.49	0.41
7:BG:16:LYS:HD3	7:BG:43:TYR:CE1	2.54	0.41
1:AA:282:A:H5"	1:AA:283:U:OP2	2.20	0.41
25:DA:1796:U:H2'	25:DA:1797:G:H8	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2702:G:H2'	25:DA:2703:C:H6	1.84	0.41
1:BA:585:G:N3	1:BA:879:C:C5'	2.83	0.41
7:AG:70:PRO:O	7:AG:95:ARG:CD	2.68	0.41
29:DE:158:PHE:CD1	29:DE:159:LEU:N	2.88	0.41
55:C4:36:ARG:CG	55:C4:37:GLN:H	2.26	0.41
49:CY:22:LEU:CG	49:CY:23:ARG:N	2.83	0.41
25:DA:2428:G:H5"	25:DA:2429:G:P	2.60	0.41
32:CH:14:SER:O	32:CH:15:LEU:HB2	2.19	0.41
13:AM:2:ARG:C	13:AM:3:ILE:HD13	2.40	0.41
25:CA:322:A:H5'	25:CA:340:A:C1'	2.47	0.41
25:DA:168:G:N2	25:DA:169:G:H1'	2.34	0.41
25:DA:1474:U:H2'	25:DA:1475:G:O5'	2.20	0.41
25:DA:542:C:H6	25:DA:542:C:OP2	2.03	0.41
42:DR:61:ALA:HB2	42:DR:98:ILE:HD13	2.02	0.41
30:DF:3:LEU:CD2	30:DF:3:LEU:H	2.24	0.41
11:AK:13:LYS:HB3	11:AK:14:GLN:H	1.63	0.41
16:AP:20:VAL:HG11	16:AP:32:PHE:HB3	2.02	0.41
31:CG:123:GLU:OE1	31:CG:123:GLU:CA	2.66	0.41
25:DA:468:G:OP2	53:D2:37:LYS:NZ	2.53	0.41
1:BA:437:U:C2'	4:BD:119:HIS:HD2	2.33	0.41
25:DA:1857:G:N9	25:DA:1884:G:N2	2.68	0.41
27:DC:47:ARG:O	27:DC:49:THR:HG23	2.19	0.41
25:CA:93:G:C6	25:CA:94:A:C5	3.08	0.41
6:AF:47:LEU:HD13	6:AF:51:ILE:CG2	2.49	0.41
52:D1:8:ILE:HD11	52:D1:22:THR:HG23	2.01	0.41
31:DG:85:LYS:O	31:DG:86:LEU:HD12	2.20	0.41
2:AB:72:LYS:HE3	2:AB:204:ASP:HB2	2.02	0.41
25:DA:1489:C:N3	25:DA:1501:G:N2	2.68	0.41
1:BA:1422:G:C2	1:BA:1423:G:C5	3.08	0.41
25:CA:1606:C:O2'	25:CA:1607:C:C5'	2.67	0.41
25:CA:2286:G:OP1	52:C1:29:LYS:HE3	2.20	0.41
8:BH:91:LEU:HD21	8:BH:103:VAL:HG11	2.01	0.41
1:AA:299:G:C2'	1:AA:300:A:O5'	2.68	0.41
43:DS:68:ASP:O	43:DS:109:ASP:HA	2.20	0.41
25:DA:559:G:H2'	25:DA:560:C:H6	1.85	0.41
1:AA:1097:C:H2'	1:AA:1098:C:C6	2.54	0.41
1:AA:1165:U:H2'	1:AA:1166:G:H5'	2.02	0.41
1:BA:511:C:H1'	1:BA:512:U:H6	1.85	0.41
25:DA:106:C:O2	25:DA:106:C:H2'	2.19	0.41
32:CH:45:GLU:O	32:CH:46:PHE:C	2.59	0.41
25:DA:995:C:OP2	41:DQ:53:LYS:HE3	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BD:99:ASN:O	4:BD:100:VAL:C	2.57	0.41
28:DD:3:GLY:O	28:DD:4:LEU:HD13	2.20	0.41
25:DA:2422:C:C5	25:DA:2424:C:N4	2.88	0.41
1:BA:808:C:H2'	1:BA:809:G:O5'	2.20	0.41
45:DU:3:LYS:HD3	45:DU:82:VAL:HB	2.01	0.41
38:CN:70:THR:O	38:CN:71:ARG:C	2.58	0.41
1:BA:439:U:H2'	1:BA:440:C:O5'	2.20	0.41
3:BC:14:VAL:O	3:BC:15:LYS:HB2	2.19	0.41
34:CJ:23:LYS:CE	34:CJ:142:ILE:OXT	2.67	0.41
25:CA:2858:C:H6	25:CA:2858:C:O5'	2.02	0.41
25:DA:1750:G:O2'	25:DA:1751:U:H5'	2.20	0.41
28:DD:173:GLN:OE1	28:DD:208:LYS:HE3	2.20	0.41
24:AY:6:ILE:HG12	24:AY:139:LYS:HD3	2.02	0.41
1:BA:293:G:C6	1:BA:305:G:C2	3.08	0.41
51:C0:48:TYR:O	51:C0:49:ARG:HB2	2.20	0.41
45:CU:33:VAL:O	45:CU:64:ILE:HG22	2.19	0.41
51:C0:5:ASN:O	51:C0:7:PRO:HD3	2.20	0.41
25:CA:1114:C:O2'	25:CA:1115:G:H5'	2.20	0.41
54:C3:14:LYS:HD2	54:C3:22:LYS:HE2	2.02	0.41
1:AA:289:G:H5"	1:AA:289:G:H8	1.85	0.41
25:CA:2863:C:H2'	25:CA:2863:C:O2	2.19	0.41
25:CA:1044:C:H1'	25:CA:1048:A:H1'	2.02	0.41
1:AA:527:G:O2'	1:AA:535:A:N1	2.52	0.41
14:BN:13:VAL:HA	14:BN:60:GLN:NE2	2.35	0.41
13:BM:84:CYS:CA	19:BS:72:GLU:O	2.65	0.41
25:CA:2170:A:H1'	25:CA:2171:A:C8	2.56	0.41
25:DA:1062:G:C3'	25:DA:1063:G:C8	3.03	0.41
25:CA:2508:G:HO2'	25:CA:2554:U:HO2'	1.67	0.41
1:BA:429:U:H1'	1:BA:430:A:H5"	2.02	0.41
4:BD:3:TYR:O	4:BD:4:LEU:CB	2.67	0.41
49:DY:35:GLY:O	49:DY:36:GLN:HG2	2.20	0.41
1:AA:1134:G:C6	1:AA:1141:C:N4	2.89	0.41
25:CA:1088:A:N3	25:CA:1088:A:C5'	2.83	0.41
1:AA:255:G:H2'	1:AA:256:U:O4'	2.21	0.41
1:AA:1130:A:C1'	1:AA:1146:A:C2	3.02	0.41
13:BM:6:ILE:CD1	30:DF:111:ARG:HD3	2.50	0.41
13:BM:7:ASN:O	13:BM:9:PRO:HD3	2.21	0.41
25:DA:2093:G:H4'	32:DH:25:TYR:N	2.35	0.41
25:DA:2195:U:C2	25:DA:2196:C:C5	3.08	0.41
31:CG:76:ILE:HD13	31:CG:76:ILE:N	2.35	0.41
2:BB:94:ARG:N	2:BB:94:ARG:NE	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:59:ALA:O	32:DH:60:GLU:C	2.58	0.41
21:BU:40:PRO:C	21:BU:42:THR:H	2.22	0.41
2:AB:12:GLY:HA3	2:AB:207:ARG:HH22	1.85	0.41
5:BE:76:ASN:O	5:BE:77:ASN:CB	2.68	0.41
5:BE:75:LEU:HB3	5:BE:77:ASN:O	2.20	0.41
20:BT:66:ILE:HG12	20:BT:70:LYS:HG2	2.02	0.41
11:AK:41:LEU:HB2	11:AK:73:VAL:HG12	2.01	0.41
25:DA:1557:C:H2'	25:DA:1558:C:C5	2.55	0.41
25:DA:2306:C:C5	25:DA:2307:G:H2'	2.55	0.41
56:DB:7:G:H5'	39:DO:29:HIS:ND1	2.35	0.41
39:DO:40:ILE:HA	39:DO:47:VAL:HA	2.01	0.41
39:DO:41:ALA:HB1	39:DO:43:ASN:ND2	2.35	0.41
25:DA:1606:C:C3'	25:DA:1606:C:C6	3.02	0.41
25:DA:1606:C:H2'	25:DA:1607:C:OP2	2.19	0.41
1:AA:623:C:N3	1:AA:624:C:C5	2.88	0.41
4:AD:115:GLN:CA	4:AD:115:GLN:HE21	2.33	0.41
4:AD:120:LYS:HA	4:AD:122:ILE:CD1	2.50	0.41
4:AD:159:GLU:OE1	4:AD:160:LEU:HD13	2.19	0.41
4:AD:57:LYS:CB	4:AD:199:ILE:CG2	2.95	0.41
4:AD:53:GLN:O	4:AD:202:LEU:HD13	2.20	0.41
25:DA:1011:G:C2	25:DA:1151:A:N3	2.88	0.41
5:AE:130:THR:O	5:AE:131:ASN:C	2.58	0.41
5:AE:110:MET:HE3	5:AE:139:THR:HG21	2.02	0.41
5:AE:81:GLN:HB2	5:AE:146:MET:HE2	2.02	0.41
25:CA:196:A:C2'	25:CA:805:G:O6	2.69	0.41
1:AA:73:C:HO2'	1:AA:74:A:H5"	1.85	0.41
1:AA:96:U:C2	1:AA:97:G:C8	3.08	0.41
25:DA:1319:C:O2	25:DA:1334:G:C2	2.73	0.41
20:BT:34:VAL:C	20:BT:36:ALA:N	2.72	0.41
20:BT:53:MET:HE3	20:BT:53:MET:HB2	1.98	0.41
1:BA:840:C:C2	1:BA:842:U:H5"	2.56	0.41
1:BA:1130:A:N9	1:BA:1146:A:C2	2.88	0.41
30:CF:162:ASP:O	30:CF:163:GLU:C	2.58	0.41
1:AA:948:C:C5	13:AM:104:ASN:OD1	2.73	0.41
1:BA:1072:G:C5	1:BA:1073:U:C4	3.07	0.41
27:DC:70:LYS:HB3	27:DC:95:TYR:CE2	2.56	0.41
6:BF:86:ARG:HD3	18:BR:63:TYR:CZ	2.55	0.41
45:DU:62:ALA:O	45:DU:63:ALA:C	2.57	0.41
2:BB:69:VAL:O	2:BB:162:VAL:HA	2.20	0.41
2:BB:181:PRO:O	2:BB:182:VAL:CG2	2.68	0.41
36:CL:110:VAL:CA	36:CL:111:ILE:HD12	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:360:U:O2	25:CA:360:U:H2'	2.21	0.41
25:DA:1723:G:O2'	25:DA:1724:G:H5'	2.20	0.41
14:BN:83:LYS:HE2	14:BN:86:GLU:HG3	2.01	0.41
2:BB:80:LYS:CG	2:BB:84:LEU:CD2	2.98	0.41
25:DA:1018:U:C2'	25:DA:1019:U:H5'	2.50	0.41
25:DA:1135:C:C2'	25:DA:1136:G:OP1	2.68	0.41
50:DZ:2:LYS:O	50:DZ:3:THR:O	2.38	0.41
19:AS:39:ILE:HB	19:AS:65:MET:O	2.19	0.41
25:CA:2017:U:H4'	51:C0:4:GLN:O	2.19	0.41
25:DA:616:A:H4'	29:DE:101:TYR:CE2	2.55	0.41
33:CI:66:PHE:CD1	33:CI:68:PHE:CE1	3.08	0.41
49:DY:6:LEU:HA	49:DY:56:LEU:HD13	2.02	0.41
25:DA:826:U:H2'	25:DA:828:U:O4'	2.20	0.41
29:CE:130:LYS:HD3	29:CE:130:LYS:HA	1.89	0.41
26:CB:30:C:OP1	39:CO:3:LYS:NZ	2.52	0.41
24:AY:140:VAL:C	24:AY:142:ALA:N	2.73	0.41
9:BI:88:GLU:HG3	9:BI:89:TYR:N	2.35	0.41
25:CA:2309:A:C6	25:CA:2310:C:C4	3.08	0.41
25:DA:2392:A:C8	25:DA:2429:G:C2	3.09	0.41
30:DF:39:VAL:H	30:DF:85:GLY:HA2	1.84	0.41
15:BO:23:SER:O	15:BO:26:VAL:HB	2.20	0.41
15:BO:55:LEU:O	15:BO:58:MET:N	2.53	0.41
8:BH:105:THR:HG21	8:BH:115:ALA:CB	2.49	0.41
9:BI:98:ARG:CA	9:BI:103:VAL:HG11	2.48	0.41
29:CE:143:LEU:HB3	29:CE:146:VAL:HG11	2.01	0.41
9:AI:33:SER:HB3	9:AI:36:GLN:CB	2.50	0.41
9:AI:33:SER:HB3	9:AI:36:GLN:HB2	2.02	0.41
1:BA:1029:U:O2	1:BA:1029:U:C2'	2.66	0.41
25:DA:1474:U:C2'	25:DA:1475:G:H5'	2.49	0.41
1:AA:865:A:H5'	1:AA:1078:U:O4	2.19	0.41
30:DF:92:GLY:O	30:DF:95:MET:N	2.53	0.41
56:DB:71:C:H2'	56:DB:72:G:H5'	2.01	0.41
25:CA:1840:G:C2'	25:CA:1841:U:H5'	2.50	0.41
52:C1:9:LYS:C	52:C1:10:LEU:HD23	2.41	0.41
34:DJ:119:PHE:C	34:DJ:121:LYS:N	2.73	0.41
22:BV:26:A:C4	22:BV:27:G:C8	3.08	0.41
1:AA:1246:A:C6	1:AA:1292:G:C6	3.07	0.41
9:BI:11:ARG:HG2	9:BI:73:GLY:HA2	2.02	0.41
25:DA:2898:U:O2	34:DJ:134:ALA:HB1	2.20	0.41
45:CU:39:ASN:CB	45:CU:62:ALA:O	2.68	0.41
30:CF:3:LEU:HG	30:CF:100:GLU:HG3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DT:18:GLU:CD	44:DT:18:GLU:N	2.73	0.41
45:DU:73:ASN:OD1	45:DU:75:ALA:HB3	2.20	0.41
45:DU:73:ASN:O	45:DU:74:ALA:HB3	2.19	0.41
25:CA:2255:G:H2'	25:CA:2256:G:H5'	2.03	0.41
29:DE:14:VAL:HB	29:DE:197:GLU:OE1	2.20	0.41
29:CE:196:VAL:O	29:CE:200:LEU:HD23	2.20	0.41
31:CG:59:ASP:O	31:CG:61:TRP:N	2.53	0.41
25:CA:189:G:OP1	48:CX:25:LYS:HD2	2.19	0.41
5:AE:37:VAL:HG23	5:AE:47:PHE:HB3	2.01	0.41
34:DJ:7:LYS:HA	34:DJ:8:PRO:HD3	1.88	0.41
28:DD:45:TYR:CD1	28:DD:45:TYR:C	2.91	0.41
29:DE:5:LEU:N	29:DE:5:LEU:HD12	2.35	0.41
25:DA:864:G:N2	25:DA:913:U:C2	2.88	0.41
27:CC:124:LYS:CB	27:CC:125:PRO:CD	2.98	0.41
25:DA:1946:U:O2'	25:DA:1947:C:H5'	2.19	0.41
25:DA:1744:A:C8	25:DA:1745:A:N7	2.88	0.41
31:CG:10:VAL:O	31:CG:10:VAL:CG2	2.68	0.41
5:AE:20:VAL:O	5:AE:20:VAL:HG22	2.19	0.41
27:CC:270:ARG:HH11	27:CC:270:ARG:CG	2.33	0.41
25:DA:1845:G:OP1	27:DC:255:LYS:HE3	2.20	0.41
41:DQ:65:ASN:O	41:DQ:66:ALA:C	2.57	0.41
25:CA:1139:G:O3'	34:CJ:26:GLY:HA3	2.20	0.41
1:AA:1094:G:O2'	60:AA:1863:HOH:O	2.14	0.41
43:CS:31:GLN:O	43:CS:35:ILE:HG12	2.19	0.41
1:BA:654:G:C2	1:BA:753:A:C4	3.08	0.41
1:BA:799:G:H2'	1:BA:800:G:O4'	2.19	0.41
19:BS:12:LEU:HD22	19:BS:16:LYS:HE3	2.03	0.41
28:CD:62:LYS:N	28:CD:63:PRO:HD2	2.34	0.41
25:DA:1157:G:H2'	25:DA:1158:C:C6	2.56	0.41
25:CA:1355:G:H2'	25:CA:1356:G:O5'	2.20	0.41
25:DA:36:G:N3	25:DA:450:G:O2'	2.51	0.41
18:AR:51:GLN:HG3	18:AR:51:GLN:O	2.20	0.41
29:DE:127:GLU:OE1	29:DE:127:GLU:CA	2.68	0.41
54:D3:21:PHE:O	54:D3:49:VAL:HG23	2.20	0.41
25:CA:28:A:C2'	25:CA:29:U:H5'	2.50	0.41
25:CA:2758:A:H2'	25:CA:2759:G:H5'	2.02	0.41
19:AS:79:TYR:CD2	19:AS:79:TYR:C	2.93	0.41
25:CA:2232:C:O2	25:CA:2232:C:C2'	2.64	0.41
51:D0:6:LYS:HA	51:D0:7:PRO:HD3	1.86	0.41
42:DR:69:GLY:O	42:DR:70:GLU:C	2.59	0.41
37:CM:7:THR:O	37:CM:8:LYS:C	2.57	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:BG:49:LEU:C	7:BG:51:GLN:N	2.72	0.41
1:BA:976:G:H5'	1:BA:977:A:OP1	2.19	0.41
13:BM:88:LEU:O	13:BM:89:ARG:C	2.58	0.41
1:BA:1223:C:OP1	19:BS:77:ARG:NH1	2.53	0.41
25:CA:2173:A:C3'	25:CA:2174:C:H6	2.33	0.41
25:DA:1057:A:N1	25:DA:1058:U:C4	2.88	0.41
33:DI:56:VAL:HG23	33:DI:70:THR:CA	2.49	0.41
25:CA:417:C:C2	25:CA:418:C:C6	3.09	0.41
25:CA:1056:G:H5"	25:CA:1057:A:H5'	2.02	0.41
25:CA:1056:G:C4'	25:CA:1086:A:H8	2.33	0.41
25:CA:1103:A:N7	25:CA:1104:C:C5	2.89	0.41
2:AB:110:ILE:O	2:AB:113:LEU:N	2.53	0.41
2:AB:129:THR:CG2	2:AB:131:LYS:HB3	2.50	0.41
1:AA:1131:G:H22	1:AA:1144:G:H4'	1.85	0.41
10:AJ:41:PRO:O	10:AJ:42:LEU:CB	2.68	0.41
25:CA:404:A:C2'	25:CA:405:U:OP2	2.69	0.41
25:DA:1590:A:C2'	25:DA:1591:A:H8	2.30	0.41
11:AK:41:LEU:CB	11:AK:73:VAL:HG12	2.50	0.41
46:CV:1:MET:HG3	46:CV:2:PHE:N	2.35	0.41
1:BA:1220:G:C4	1:BA:1221:G:C8	3.07	0.41
19:BS:13:HIS:O	19:BS:17:LYS:CD	2.68	0.41
25:DA:2116:G:C5'	25:DA:2117:A:OP2	2.68	0.41
10:AJ:33:GLY:O	10:AJ:34:ALA:CB	2.68	0.41
30:DF:64:PRO:HB3	30:DF:88:VAL:HG23	2.01	0.41
25:DA:1027:A:N1	25:DA:1126:A:C1'	2.84	0.41
4:AD:8:LEU:HD22	4:AD:21:LYS:HB2	2.02	0.41
4:AD:8:LEU:C	4:AD:10:LEU:N	2.74	0.41
12:AL:116:TYR:N	12:AL:116:TYR:CD1	2.87	0.41
1:AA:22:G:C5	1:AA:23:C:C4	3.08	0.41
25:DA:1441:G:H2'	25:DA:1442:U:C6	2.55	0.41
7:BG:115:MET:CA	7:BG:118:ARG:HD3	2.50	0.41
20:BT:32:LYS:O	20:BT:35:TYR:HD2	2.04	0.41
1:AA:375:U:OP1	16:AP:70:ARG:NH1	2.53	0.41
25:CA:1407:G:O2'	25:CA:1408:G:H5'	2.20	0.41
25:CA:1588:G:C6	25:CA:1589:U:C5	3.09	0.41
9:BI:29:ILE:HB	9:BI:64:ILE:HD11	2.02	0.41
1:AA:1233:G:H2'	1:AA:1234:C:H6	1.85	0.41
32:DH:1:MET:HE2	32:DH:23:ALA:CA	2.50	0.41
1:BA:201:G:O6	1:BA:216:U:O2	2.37	0.41
1:BA:468:A:N7	1:BA:469:C:C2	2.88	0.41
1:BA:17:U:H2'	1:BA:17:U:O2	2.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:17:U:N3	1:BA:18:C:C4	2.88	0.41
9:AI:48:ARG:C	9:AI:50:PRO:HD2	2.40	0.41
45:DU:38:ILE:N	45:DU:40:LEU:HD21	2.34	0.41
1:BA:1004:A:H5'	1:BA:1025:U:O2	2.20	0.41
2:AB:14:HIS:CD2	2:AB:15:PHE:N	2.87	0.41
25:DA:1173:U:C6	25:DA:1173:U:OP2	2.74	0.41
25:DA:1171:G:H1	25:DA:1177:G:H1	1.67	0.41
9:AI:20:ILE:HG22	9:AI:21:LYS:N	2.35	0.41
9:AI:24:ASN:O	9:AI:60:LEU:C	2.58	0.41
25:CA:1909:C:H2'	25:CA:1909:C:O2	2.21	0.41
1:BA:1491:G:O2'	1:BA:1492:A:O5'	2.25	0.41
1:BA:376:G:N3	1:BA:377:G:C8	2.88	0.41
31:DG:75:VAL:O	31:DG:77:GLY:N	2.54	0.41
25:DA:1025:G:C4	25:DA:1135:C:O4'	2.73	0.41
25:DA:96:C:H4'	49:DY:41:HIS:ND1	2.35	0.41
44:CT:28:ASN:OD1	44:CT:91:GLN:HB3	2.19	0.41
25:CA:2469:A:H4'	37:CM:55:ARG:NH2	2.34	0.41
6:AF:18:VAL:HG21	6:AF:58:HIS:CE1	2.55	0.41
21:BU:25:ALA:CB	23:BX:8:A:C5'	2.89	0.41
28:CD:4:LEU:CD2	28:CD:100:LEU:HD23	2.47	0.41
20:BT:6:ALA:O	20:BT:9:ARG:HB2	2.20	0.41
33:CI:58:ILE:HG22	33:CI:60:VAL:HG23	2.02	0.41
1:AA:243:A:N1	1:AA:246:A:C8	2.89	0.41
1:BA:174:A:H2'	1:BA:175:C:H5'	2.02	0.41
1:BA:1250:A:C5	1:BA:1287:A:C5	3.08	0.41
25:DA:2701:U:H5"	25:DA:2702:G:C5'	2.47	0.41
25:CA:883:G:H22	25:CA:894:U:H1'	1.85	0.41
1:AA:267:C:OP1	17:AQ:68:LYS:HB2	2.20	0.41
45:DU:88:ASP:HB3	45:DU:90:LYS:HG2	2.01	0.41
1:BA:827:U:H5"	1:BA:828:U:OP2	2.19	0.41
33:DI:44:LYS:O	33:DI:48:ILE:CG1	2.69	0.41
33:DI:44:LYS:O	33:DI:48:ILE:HG13	2.19	0.41
49:CY:22:LEU:HD12	49:CY:23:ARG:N	2.35	0.41
25:CA:2332:C:H5"	25:CA:2333:A:P	2.60	0.41
33:DI:135:MET:HG3	33:DI:137:LEU:CD1	2.51	0.41
25:CA:2882:A:H2'	25:CA:2883:A:O5'	2.19	0.41
44:DT:2:ILE:CG2	44:DT:4:GLU:HG2	2.50	0.41
5:AE:31:SER:C	5:AE:32:PHE:CD2	2.94	0.41
9:AI:16:ALA:HB2	9:AI:66:VAL:CG2	2.50	0.41
25:CA:2317:A:C2'	25:CA:2318:G:H5'	2.51	0.41
1:BA:234:C:H2'	1:BA:235:C:H6	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1748:C:C4	25:CA:1749:A:N7	2.88	0.41
52:C1:34:GLU:HA	52:C1:48:TYR:O	2.20	0.41
1:AA:416:G:C2'	1:AA:417:G:H5'	2.50	0.41
4:BD:58:GLN:O	4:BD:59:LYS:C	2.58	0.41
1:AA:190:A:H8	1:AA:190:A:H3'	1.85	0.41
8:BH:25:THR:O	8:BH:26:MET:HB3	2.21	0.41
25:DA:1598:A:C6	25:DA:1599:U:C2	3.08	0.41
3:AC:163:ARG:O	3:AC:164:THR:HG23	2.20	0.41
38:DN:37:THR:OG1	38:DN:39:PRO:HD2	2.20	0.41
1:BA:1445:U:C2'	1:BA:1446:A:OP2	2.68	0.41
1:BA:575:G:C8	1:BA:881:G:N2	2.88	0.41
42:DR:10:LYS:O	42:DR:12:HIS:CE1	2.73	0.41
45:CU:71:ILE:CD1	45:CU:82:VAL:HG23	2.49	0.41
25:DA:1272:A:C5	25:DA:1618:A:H1'	2.54	0.41
53:C2:21:ARG:O	53:C2:27:GLY:HA3	2.20	0.41
7:AG:75:LYS:HB3	7:AG:88:VAL:HG11	2.01	0.41
25:CA:434:U:H1'	25:CA:435:C:H5	1.85	0.41
30:DF:121:PHE:O	30:DF:122:ASP:C	2.58	0.41
25:DA:1744:A:H3'	25:DA:1745:A:C8	2.53	0.41
25:DA:42:A:C2	25:DA:438:G:C2	3.09	0.41
25:CA:1293:C:C4	25:CA:1294:U:C5	3.08	0.41
25:CA:1101:U:H2'	25:CA:1101:U:O2	2.20	0.41
30:DF:53:ALA:O	30:DF:55:ASP:N	2.54	0.41
32:DH:15:LEU:CD2	32:DH:15:LEU:N	2.84	0.41
43:CS:48:LYS:CG	43:CS:48:LYS:O	2.68	0.41
1:BA:671:G:C4	1:BA:672:U:C6	3.08	0.41
25:DA:239:C:N4	25:DA:240:C:N3	2.68	0.41
1:BA:1305:G:H21	1:BA:1332:A:H2	1.67	0.41
25:CA:2663:G:H2'	25:CA:2664:G:O5'	2.21	0.41
25:DA:1508:A:C2'	25:DA:1509:A:O5'	2.68	0.41
15:AO:44:GLU:O	15:AO:45:HIS:HB2	2.19	0.41
25:DA:2856:A:C2'	25:DA:2857:G:H5'	2.50	0.41
26:CB:85:G:C2'	26:CB:86:G:O5'	2.68	0.41
35:DK:73:ASP:OD1	35:DK:75:SER:HB2	2.20	0.41
1:AA:1092:A:N6	1:AA:1093:A:N6	2.68	0.41
29:CE:75:SER:O	29:CE:81:GLY:HA3	2.21	0.41
25:CA:1631:G:N2	25:CA:1633:G:H3'	2.34	0.41
34:CJ:46:PRO:HD3	41:CQ:59:LEU:HD13	2.03	0.41
25:DA:1805:A:C2	25:DA:1813:G:C2	3.09	0.41
25:CA:126:A:C5	53:C2:18:PHE:CD2	3.09	0.41
25:CA:747:U:C5	25:CA:2613:U:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:1754:A:C6	25:CA:1755:A:C6	3.08	0.41
25:CA:1428:C:O2'	25:CA:1569:A:OP2	2.31	0.41
25:DA:297:G:H8	25:DA:297:G:O5'	2.03	0.41
17:AQ:43:LEU:HA	17:AQ:43:LEU:HD23	1.82	0.41
7:AG:108:ARG:HE	7:AG:108:ARG:HA	1.84	0.41
39:DO:21:LEU:HA	39:DO:21:LEU:HD23	1.85	0.41
37:CM:123:LYS:N	37:CM:123:LYS:HD3	2.34	0.41
37:CM:124:LEU:HD23	37:CM:124:LEU:HA	1.84	0.41
38:CN:115:LEU:HA	38:CN:115:LEU:HD23	1.81	0.41
52:D1:34:GLU:O	52:D1:35:LEU:HG	2.20	0.41
12:BL:73:LEU:N	12:BL:73:LEU:HD22	2.36	0.41
1:BA:1324:A:N6	1:BA:1325:C:N4	2.69	0.41
1:BA:936:C:C5	1:BA:937:A:N7	2.87	0.41
1:BA:430:A:OP1	4:BD:8:LEU:HB2	2.20	0.41
25:DA:1315:C:C2	25:DA:1316:U:C6	3.08	0.41
1:AA:1137:C:H1'	1:AA:1138:G:N2	2.35	0.41
25:CA:1104:C:N3	25:CA:1105:U:C5	2.88	0.41
2:AB:142:LYS:C	2:AB:144:GLU:N	2.74	0.41
1:AA:956:U:C2	1:AA:1225:A:C2	3.08	0.41
1:AA:1253:G:O2'	1:AA:1356:G:H4'	2.20	0.41
14:AN:64:CYS:HB2	14:AN:80:SER:H	1.85	0.41
1:AA:273:U:O4	1:AA:274:A:N6	2.53	0.41
32:DH:12:LEU:HG	32:DH:13:GLY:N	2.35	0.41
25:CA:1287:A:OP2	38:CN:103:ARG:HG3	2.20	0.41
38:CN:103:ARG:HB3	38:CN:106:ASP:OD1	2.20	0.41
52:D1:12:SER:HB2	52:D1:48:TYR:CZ	2.54	0.41
25:DA:1581:G:H2'	25:DA:1582:C:C6	2.55	0.41
21:BU:39:LYS:HB3	21:BU:40:PRO:HD3	2.03	0.41
17:BQ:20:ILE:HA	17:BQ:20:ILE:HD12	1.82	0.41
5:BE:152:VAL:C	5:BE:154:ALA:N	2.73	0.41
11:AK:52:ARG:H	11:AK:55:ARG:HG3	1.86	0.41
25:DA:634:C:OP1	36:DL:70:LYS:HE2	2.20	0.41
12:BL:21:PRO:O	12:BL:23:LEU:N	2.54	0.41
25:DA:1652:A:OP1	38:DN:8:ARG:HD3	2.19	0.41
38:DN:52:ILE:CG2	38:DN:94:TYR:CD2	3.04	0.41
25:DA:2784:U:C2'	25:DA:2785:C:H5'	2.51	0.41
25:DA:2111:U:H4'	25:DA:2112:G:OP1	2.19	0.41
13:AM:52:ILE:CG2	13:AM:56:ARG:NH2	2.84	0.41
25:DA:1446:C:C2'	25:DA:1447:C:H5'	2.50	0.41
3:AC:112:ALA:O	3:AC:113:LYS:C	2.57	0.41
3:AC:199:VAL:O	3:AC:199:VAL:CG2	2.65	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DB:33:G:H2'	56:DB:34:A:O5'	2.15	0.41
39:DO:32:PRO:HA	39:DO:102:ARG:NH1	2.34	0.41
1:AA:456:A:C2	1:AA:477:C:O2	2.73	0.41
21:AU:33:ARG:NE	21:AU:34:ARG:HB2	2.34	0.41
21:AU:43:GLU:HB3	21:AU:44:ARG:NH1	2.35	0.41
30:CF:6:TYR:C	30:CF:6:TYR:CD2	2.93	0.41
5:AE:122:VAL:HG23	5:AE:122:VAL:O	2.20	0.41
28:CD:133:THR:HG23	28:CD:134:HIS:N	2.36	0.41
1:AA:481:G:C5'	1:AA:481:G:C8	2.97	0.41
31:DG:83:THR:HG23	31:DG:132:LEU:O	2.21	0.41
9:BI:7:GLY:HA3	9:BI:84:ARG:HB3	2.01	0.41
1:AA:1309:G:C2	1:AA:1329:A:C4	3.09	0.41
25:CA:2135:A:N6	25:CA:2156:G:O2'	2.54	0.41
25:CA:2141:G:N2	25:CA:2142:A:H1'	2.35	0.41
25:CA:2133:G:H1'	25:CA:2158:A:H61	1.85	0.41
1:BA:35:G:H2'	1:BA:36:C:H6	1.85	0.41
2:BB:137:THR:C	2:BB:139:GLU:N	2.73	0.41
2:BB:139:GLU:O	2:BB:143:LEU:HD23	2.19	0.41
9:AI:30:ASN:HB2	9:AI:37:TYR:CE1	2.56	0.41
9:AI:29:ILE:CG2	9:AI:34:LEU:HD12	2.49	0.41
9:AI:43:ALA:O	9:AI:46:VAL:HG22	2.19	0.41
9:AI:48:ARG:NH2	9:AI:52:GLU:HA	2.35	0.41
6:BF:81:ASN:HD21	6:BF:83:ALA:HB3	1.85	0.41
32:DH:27:ARG:HD3	32:DH:27:ARG:HA	1.92	0.41
25:CA:84:A:H4'	25:CA:85:G:O5'	2.20	0.41
25:CA:1494:A:N6	25:CA:1495:A:N1	2.68	0.41
25:DA:1790:C:C6	25:DA:1828:G:N2	2.89	0.41
25:CA:545:U:O2	25:CA:545:U:OP2	2.38	0.41
2:BB:53:LEU:CA	2:BB:56:LEU:HB3	2.48	0.41
3:AC:41:TYR:CZ	3:AC:45:GLU:HG3	2.55	0.41
1:BA:712:A:H2'	1:BA:713:G:O5'	2.19	0.41
25:DA:616:A:C2'	25:DA:617:G:H5'	2.49	0.41
1:BA:108:G:N2	1:BA:109:A:C2	2.88	0.41
25:CA:612:G:H2'	25:CA:614:A:C8	2.55	0.41
25:DA:501:A:C6	25:DA:502:A:C6	3.08	0.41
30:CF:46:LYS:HZ3	30:CF:83:PRO:HG2	1.86	0.41
31:CG:156:TYR:CE2	31:CG:171:LYS:HG3	2.55	0.41
1:AA:380:G:C2	1:AA:384:G:C6	3.07	0.41
1:AA:382:A:N1	1:AA:383:A:C6	2.88	0.41
1:BA:1138:G:C4	1:BA:1140:C:C6	3.08	0.41
25:DA:88:G:C2'	25:DA:89:A:C5'	2.98	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:79:LEU:HD13	33:DI:135:MET:CE	2.51	0.41
25:DA:760:G:H4'	25:DA:1776:G:OP1	2.20	0.41
15:BO:24:THR:HG23	15:BO:65:LEU:HD12	2.02	0.41
35:CK:77:ILE:CG2	35:CK:78:ARG:N	2.83	0.41
1:BA:613:C:C2'	1:BA:614:C:H5'	2.50	0.41
1:AA:199:A:C2	1:AA:200:G:C8	3.09	0.41
45:CU:48:VAL:O	45:CU:48:VAL:HG13	2.20	0.41
40:DP:4:ILE:O	40:DP:5:LYS:C	2.56	0.41
25:DA:158:U:O2	25:DA:169:G:C2	2.73	0.41
39:CO:67:ASN:HA	39:CO:102:ARG:HD3	2.02	0.41
1:AA:1480:A:C6	1:AA:1481:U:C4	3.08	0.41
35:CK:58:LEU:HD22	35:CK:58:LEU:H	1.84	0.41
28:DD:51:THR:OG1	28:DD:52:THR:N	2.52	0.41
7:BG:137:ARG:HG2	7:BG:137:ARG:O	2.21	0.41
25:CA:1467:U:C5	25:CA:1546:G:N3	2.89	0.41
1:BA:1088:G:C2	1:BA:1089:G:C5	3.08	0.41
1:AA:1294:G:C4	1:AA:1295:U:C5	3.08	0.41
25:CA:2329:U:H2'	25:CA:2330:G:O4'	2.20	0.41
8:AH:20:ASN:HA	8:AH:64:TYR:OH	2.20	0.41
7:AG:68:VAL:HA	7:AG:137:ARG:NE	2.35	0.41
25:CA:108:G:O2'	25:CA:109:C:H5'	2.20	0.41
30:CF:105:ILE:O	30:CF:108:PRO:HD2	2.20	0.41
40:CP:80:VAL:CG1	40:CP:83:ILE:HD11	2.47	0.41
25:DA:736:C:H2'	25:DA:737:C:C6	2.55	0.41
1:BA:49:U:C5	1:BA:364:A:C6	3.08	0.41
1:BA:645:G:C2	1:BA:646:G:C8	3.08	0.41
28:CD:46:ARG:HB3	28:CD:84:LEU:HB2	2.01	0.41
25:CA:2485:G:H5"	37:CM:45:GLN:NE2	2.35	0.41
25:CA:2193:G:C5	25:CA:2194:U:C5	3.08	0.41
15:BO:45:HIS:C	15:BO:47:LYS:H	2.23	0.41
1:BA:580:C:H2'	1:BA:581:G:O4'	2.20	0.41
1:AA:87:C:H2'	1:AA:88:U:C4'	2.50	0.41
40:DP:90:ALA:HB2	40:DP:112:ARG:HG3	2.02	0.41
25:DA:1347:A:C2'	25:DA:1348:C:O5'	2.68	0.41
7:BG:135:LYS:O	7:BG:139:ASP:HB2	2.20	0.41
11:BK:81:LEU:HD13	11:BK:104:PHE:CZ	2.55	0.41
25:CA:1792:G:OP1	27:CC:204:LEU:HB2	2.20	0.41
1:AA:696:A:H2'	1:AA:697:U:C6	2.55	0.41
31:CG:86:LEU:HD12	31:CG:86:LEU:H	1.86	0.41
40:CP:33:GLU:HB2	40:CP:36:LYS:HB2	2.01	0.41
51:C0:33:SER:OG	51:C0:35:GLU:CG	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:191:A:H1'	25:DA:679:C:H1'	2.02	0.41
22:AV:10:G:H2'	22:AV:11:C:C6	2.55	0.41
25:DA:224:U:C2'	25:DA:225:C:O5'	2.69	0.41
18:BR:33:THR:HG23	18:BR:36:GLY:N	2.36	0.41
1:BA:908:A:C2	1:BA:909:A:C4	3.08	0.41
34:CJ:61:LYS:O	34:CJ:62:VAL:C	2.58	0.41
25:CA:2654:A:O4'	25:CA:2656:U:H1'	2.20	0.41
33:CI:85:ILE:N	33:CI:85:ILE:HD12	2.35	0.41
1:AA:1072:G:C5	1:AA:1073:U:C4	3.08	0.41
39:DO:61:GLN:C	39:DO:62:LEU:HG	2.40	0.41
4:BD:40:HIS:C	4:BD:42:ALA:N	2.72	0.41
25:CA:1983:G:O2'	25:CA:1984:G:H5'	2.21	0.41
25:CA:901:C:H2'	25:CA:901:C:O2	2.20	0.41
25:DA:1963:U:C3'	25:DA:1963:U:C6	3.03	0.41
25:CA:1427:A:C2	25:CA:1570:A:OP2	2.74	0.41
25:CA:443:A:C2	25:CA:1245:G:N3	2.88	0.41
22:AV:71:G:H4'	25:CA:1892:C:O2	2.20	0.41
1:AA:730:G:N2	1:AA:765:G:H5"	2.35	0.41
25:CA:1824:G:O2'	27:CC:245:THR:HG22	2.20	0.41
25:CA:2678:C:H2'	25:CA:2679:A:O4'	2.21	0.41
25:DA:2395:C:H2'	25:DA:2396:G:O4'	2.20	0.41
1:AA:962:C:H2'	1:AA:963:G:O4'	2.21	0.41
25:DA:1660:G:H8	25:DA:1660:G:H5"	1.86	0.41
53:C2:1:MET:HB2	53:C2:1:MET:HE2	1.94	0.41
25:CA:2716:C:H6	25:CA:2716:C:H5"	1.85	0.41
25:CA:2634:A:H5"	25:CA:2634:A:H8	1.85	0.41
25:DA:1895:C:O5'	25:DA:1895:C:H6	2.03	0.41
25:CA:837:C:H6	25:CA:837:C:O5'	2.03	0.41
55:C4:14:CYS:HA	55:C4:26:ILE:O	2.20	0.41
17:BQ:27:PHE:C	17:BQ:28:VAL:HG12	2.40	0.41
1:BA:1053:G:N7	1:BA:1199:U:C3'	2.74	0.41
41:DQ:75:TYR:C	41:DQ:75:TYR:CD2	2.93	0.41
1:BA:980:C:H4'	14:BN:59:ARG:NH1	2.35	0.41
13:BM:103:THR:O	13:BM:104:ASN:C	2.59	0.41
1:BA:1302:C:N4	13:BM:16:ILE:HD11	2.35	0.41
1:BA:1317:C:C4	14:BN:53:ARG:HD3	2.55	0.41
1:BA:1317:C:OP1	14:BN:57:PRO:HD2	2.20	0.41
25:CA:760:G:H2'	25:CA:761:A:O4'	2.20	0.41
25:CA:782:A:C2	27:CC:224:MET:SD	3.13	0.41
25:DA:1314:C:OP1	25:DA:1332:G:H5"	2.20	0.41
44:DT:34:VAL:HG11	44:DT:83:ALA:CB	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DY:37:LEU:HD23	49:DY:37:LEU:O	2.20	0.41
2:AB:122:ASP:O	2:AB:123:GLY:C	2.59	0.41
1:AA:1317:C:C2'	1:AA:1318:A:O5'	2.68	0.41
1:AA:1325:C:C2'	1:AA:1326:U:H5'	2.50	0.41
1:AA:958:A:C5	19:AS:54:ARG:HG2	2.55	0.41
1:BA:1273:C:C2	1:BA:1274:A:C8	3.08	0.41
17:AQ:62:GLU:HB2	17:AQ:72:TRP:CZ3	2.55	0.41
17:AQ:78:VAL:O	17:AQ:79:GLU:HB2	2.21	0.41
32:DH:9:VAL:HG11	32:DH:12:LEU:HG	2.01	0.41
32:DH:30:LEU:HB3	32:DH:36:ALA:HB2	2.03	0.41
32:DH:7:ASP:HB3	32:DH:35:LYS:NZ	2.35	0.41
25:CA:2345:G:H5'	25:CA:2347:C:O4'	2.19	0.41
32:DH:66:ASN:O	32:DH:69:ALA:CB	2.64	0.41
16:BP:6:LEU:HB3	16:BP:17:TYR:HB3	2.00	0.41
5:BE:92:ARG:C	5:BE:93:VAL:HG23	2.40	0.41
25:DA:636:G:P	36:DL:128:THR:HG22	2.61	0.41
1:BA:988:G:H1'	1:BA:1015:G:H22	1.86	0.41
1:AA:1160:G:C6	1:AA:1181:G:O6	2.74	0.41
25:DA:393:C:H2'	25:DA:394:C:H6	1.85	0.41
56:DB:29:A:OP2	39:DO:32:PRO:HD2	2.20	0.41
39:DO:75:GLY:CA	39:DO:106:LEU:CD2	2.97	0.41
1:BA:1135:U:O2	1:BA:1135:U:H2'	2.20	0.41
1:AA:410:G:C5'	1:AA:411:A:P	3.08	0.41
33:CI:96:LYS:CG	33:CI:138:VAL:HG22	2.40	0.41
1:AA:503:C:OP2	12:AL:112:ALA:HB2	2.20	0.41
25:DA:1440:U:C4	25:DA:1552:A:C2	3.08	0.41
31:DG:52:GLY:HA2	31:DG:53:PRO:HD2	1.85	0.41
20:BT:36:ALA:O	20:BT:37:ALA:C	2.57	0.41
20:BT:59:ARG:O	20:BT:59:ARG:HG2	2.20	0.41
9:BI:45:MET:O	9:BI:48:ARG:HB3	2.21	0.41
1:AA:1300:G:C4	1:AA:1334:G:O6	2.73	0.41
2:BB:102:ASN:O	2:BB:102:ASN:CG	2.59	0.41
1:AA:1186:G:C2'	1:AA:1187:G:O5'	2.69	0.41
16:BP:38:PHE:CE2	16:BP:51:ARG:HB3	2.56	0.41
1:BA:1109:C:H2'	1:BA:1109:C:O2	2.20	0.41
10:BJ:35:GLN:O	10:BJ:36:VAL:CB	2.68	0.41
1:AA:1495:U:O2	1:AA:1495:U:H2'	2.20	0.41
25:DA:1829:A:O2'	27:DC:14:HIS:CD2	2.74	0.41
3:BC:84:GLU:CG	3:BC:85:LYS:N	2.83	0.41
14:BN:93:ILE:HG21	14:BN:96:LEU:CB	2.50	0.41
12:BL:39:THR:HG22	12:BL:40:THR:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:131:A:C2	1:AA:132:C:C4	3.08	0.41
25:DA:416:U:H2'	25:DA:417:C:C6	2.55	0.41
2:BB:219:THR:N	2:BB:221:ARG:HD3	2.32	0.41
25:CA:1533:C:C2'	25:CA:1533:C:O2	2.69	0.41
38:CN:21:PHE:CD2	38:CN:24:MET:HE2	2.55	0.41
25:DA:60:G:C8	25:DA:62:U:C5	3.08	0.41
25:DA:2759:G:C6	25:DA:2760:C:C5	3.09	0.41
1:AA:1451:U:H3'	1:AA:1452:C:H6	1.86	0.41
24:AY:40:GLY:O	24:AY:41:ILE:C	2.57	0.41
7:BG:39:GLU:O	7:BG:43:TYR:CD2	2.73	0.41
46:CV:40:ILE:CG2	46:CV:42:LEU:CD2	2.98	0.41
1:BA:144:G:C2'	1:BA:145:G:O5'	2.69	0.41
48:CX:40:GLU:O	48:CX:41:SER:C	2.58	0.41
1:AA:542:G:H2'	1:AA:543:U:C6	2.53	0.41
7:AG:94:ARG:O	7:AG:97:ALA:N	2.54	0.41
12:BL:3:VAL:HG13	12:BL:4:ASN:H	1.86	0.41
25:CA:242:G:P	54:C3:2:LYS:HE2	2.60	0.41
1:BA:560:A:H4'	1:BA:561:U:C5'	2.49	0.41
7:BG:77:ARG:HG3	7:BG:86:VAL:HG21	2.02	0.41
4:BD:152:SER:O	4:BD:154:VAL:N	2.54	0.41
8:BH:115:ALA:HA	8:BH:118:ALA:CB	2.48	0.41
30:CF:157:THR:HG22	30:CF:159:ALA:HB3	2.01	0.41
30:CF:157:THR:CG2	30:CF:159:ALA:H	2.29	0.41
1:BA:1337:G:C5'	1:BA:1338:G:OP1	2.68	0.41
25:CA:340:A:H2'	25:CA:341:C:O4'	2.20	0.41
25:DA:1515:A:H3'	25:DA:1516:G:H8	1.85	0.41
40:CP:86:LYS:O	40:CP:87:ARG:HB2	2.20	0.41
25:DA:664:G:C4	25:DA:665:U:C6	3.08	0.41
1:AA:704:A:C2	1:AA:705:G:H1'	2.56	0.41
44:DT:37:ASP:O	44:DT:38:ALA:HB3	2.21	0.41
3:AC:156:LEU:C	3:AC:158:GLY:H	2.24	0.41
46:CV:93:ARG:O	46:CV:94:ALA:CB	2.69	0.41
24:AY:114:LEU:N	24:AY:114:LEU:HD12	2.36	0.41
24:AY:114:LEU:O	24:AY:117:ILE:HB	2.20	0.41
1:AA:164:G:H2'	1:AA:165:G:C5'	2.49	0.41
1:BA:892:A:O2'	1:BA:1415:G:H4'	2.21	0.41
1:BA:893:C:H2'	1:BA:894:G:C8	2.55	0.41
3:BC:119:ILE:HA	3:BC:122:GLN:HE21	1.86	0.41
4:BD:60:VAL:O	4:BD:61:ARG:C	2.59	0.41
25:CA:2560:A:H2'	25:CA:2561:U:O4'	2.21	0.41
36:DL:68:SER:C	36:DL:69:ARG:HG3	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:BO:44:GLU:CG	15:BO:45:HIS:N	2.83	0.41
25:DA:2661:G:N1	25:DA:2662:A:C4	2.88	0.41
25:DA:864:G:N2	25:DA:913:U:N3	2.69	0.41
25:DA:2271:G:OP1	57:DW:14:ALA:HB1	2.21	0.41
25:DA:125:A:OP2	53:D2:19:ARG:NH2	2.44	0.41
25:CA:1936:A:C2	25:CA:1943:U:N3	2.81	0.41
42:DR:14:VAL:HA	42:DR:18:GLN:HE22	1.85	0.41
1:AA:1068:G:O2'	1:AA:1069:C:H5'	2.21	0.41
1:BA:1197:A:OP2	1:BA:1197:A:H3'	2.20	0.41
8:AH:88:LYS:HA	8:AH:91:LEU:HG	2.01	0.41
29:DE:28:VAL:O	29:DE:29:HIS:C	2.59	0.41
30:CF:147:ARG:CG	30:CF:148:VAL:H	2.33	0.41
22:BV:66:U:H2'	22:BV:67:C:O4'	2.20	0.41
25:DA:2870:C:N4	25:DA:2871:U:C4	2.89	0.41
51:C0:29:VAL:CG1	51:C0:34:GLY:HA2	2.51	0.41
45:CU:80:ASP:OD1	45:CU:80:ASP:C	2.59	0.41
25:CA:2281:A:C2'	25:CA:2282:G:H5'	2.50	0.41
25:DA:2634:A:H2'	25:DA:2635:A:O4'	2.21	0.41
25:CA:1628:G:H2'	25:CA:1629:U:O5'	2.20	0.41
25:CA:1350:C:C2	25:CA:1382:G:C2	3.09	0.41
46:DV:23:ALA:O	46:DV:24:ASN:HB3	2.21	0.41
25:CA:1864:U:OP1	25:CA:2411:A:H5'	2.20	0.41
1:BA:963:G:O2'	1:BA:964:A:H5'	2.21	0.41
40:CP:19:PHE:C	40:CP:19:PHE:CD1	2.93	0.41
40:CP:6:GLN:O	40:CP:6:GLN:HG2	2.20	0.41
25:DA:671:C:H2'	25:DA:672:C:C6	2.56	0.41
25:CA:498:G:HO2'	45:CU:44:HIS:CE1	2.37	0.41
28:DD:46:ARG:NH2	28:DD:89:GLU:OE2	2.54	0.41
1:BA:1316:G:C6	1:BA:1318:A:OP2	2.73	0.41
1:BA:933:G:C2	1:BA:935:A:C8	3.08	0.41
1:BA:978:A:P	1:BA:1362:A:H61	2.41	0.41
13:BM:69:ARG:O	13:BM:73:SER:N	2.51	0.41
25:DA:1073:A:C3'	25:DA:1074:G:C5'	2.99	0.41
25:DA:1084:A:N6	25:DA:1085:A:C6	2.86	0.41
33:DI:35:MET:C	33:DI:37:PHE:N	2.74	0.41
4:BD:28:ASP:C	4:BD:30:LYS:N	2.74	0.41
25:DA:1401:G:H2'	25:DA:1402:U:H6	1.86	0.41
49:DY:9:LYS:N	49:DY:12:GLU:HG2	2.35	0.41
25:CA:1079:C:H2'	25:CA:1080:A:C8	2.54	0.41
2:AB:115:ASP:O	2:AB:116:LEU:CB	2.69	0.41
2:AB:135:MET:C	2:AB:138:ARG:HG2	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:140:LEU:O	2:AB:144:GLU:HB2	2.20	0.41
2:AB:110:ILE:HG12	2:AB:150:ILE:HG12	2.00	0.41
2:AB:56:LEU:HD13	2:AB:57:ASN:H	1.85	0.41
2:AB:96:LEU:N	2:AB:99:MET:CE	2.84	0.41
1:AA:1277:C:C1'	1:AA:1282:C:H1'	2.51	0.41
1:AA:597:G:N7	1:AA:598:U:C5	2.88	0.41
25:DA:2199:A:C1'	32:DH:28:ASN:HD21	2.33	0.41
32:DH:134:VAL:CG1	32:DH:138:VAL:HB	2.51	0.41
25:DA:1495:A:OP2	25:DA:1495:A:H8	2.04	0.41
5:BE:116:VAL:HG23	5:BE:117:ALA:N	2.35	0.41
20:BT:65:LEU:C	20:BT:67:HIS:CD2	2.93	0.41
15:AO:23:SER:O	15:AO:27:GLN:HG3	2.19	0.41
25:CA:279:A:H2'	25:CA:279:A:N3	2.36	0.41
10:AJ:80:THR:HB	10:AJ:83:THR:H	1.85	0.41
56:DB:33:G:HO2'	56:DB:34:A:C5'	2.33	0.41
1:BA:763:G:H2'	1:BA:764:C:O5'	2.20	0.41
16:AP:16:PHE:HD1	16:AP:16:PHE:C	2.23	0.41
4:AD:164:ARG:C	4:AD:166:LYS:H	2.24	0.41
30:CF:172:PHE:O	30:CF:173:ASP:HB3	2.20	0.41
5:AE:113:VAL:O	5:AE:114:LEU:C	2.58	0.41
5:AE:72:ASN:N	5:AE:72:ASN:HD22	2.13	0.41
25:DA:2583:G:C5	25:DA:2584:U:C4	3.08	0.41
25:DA:1551:A:N6	25:DA:1552:A:N1	2.69	0.41
1:AA:79:G:N2	1:AA:91:U:O4	2.54	0.41
1:BA:64:G:N7	1:BA:99:C:C4	2.88	0.41
1:BA:71:A:C5'	1:BA:71:A:H8	2.29	0.41
1:BA:96:U:C2'	1:BA:97:G:O5'	2.69	0.41
11:BK:15:VAL:O	11:BK:16:SER:HB3	2.20	0.41
20:BT:43:LYS:HB3	20:BT:86:ALA:HB1	2.01	0.41
27:DC:244:VAL:HG21	27:DC:248:GLY:HA2	2.01	0.41
16:AP:75:ILE:HA	16:AP:78:VAL:HG12	2.03	0.41
31:DG:150:TYR:O	31:DG:151:ARG:HB2	2.21	0.41
1:BA:873:A:H4'	1:BA:874:G:OP2	2.19	0.41
37:DM:57:VAL:HG23	37:DM:60:GLN:O	2.20	0.41
1:AA:1306:A:C4	1:AA:1307:U:C6	3.08	0.41
27:DC:64:VAL:HG22	27:DC:102:TYR:HB3	2.03	0.41
1:AA:1346:A:C5'	9:AI:121:ARG:HH12	2.33	0.41
2:BB:139:GLU:C	2:BB:143:LEU:HD23	2.41	0.41
10:BJ:35:GLN:O	10:BJ:36:VAL:HG23	2.21	0.41
9:AI:50:PRO:HB3	9:AI:83:THR:CG2	2.50	0.41
2:BB:86:CYS:N	2:BB:88:GLN:NE2	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:23:ALA:CB	3:AC:28:PHE:HA	2.51	0.41
27:DC:204:LEU:HA	27:DC:204:LEU:HD12	1.72	0.41
9:AI:56:MET:HA	9:AI:59:LYS:HB3	2.01	0.41
3:AC:51:VAL:CG2	3:AC:67:ILE:HG22	2.51	0.41
29:DE:143:LEU:O	29:DE:144:GLU:HB2	2.21	0.41
4:AD:131:ILE:CD1	4:AD:134:TYR:HB2	2.51	0.41
21:AU:9:GLU:CD	21:AU:10:PRO:CD	2.82	0.41
25:CA:548:G:O2'	25:CA:549:G:N1	2.53	0.41
2:BB:57:ASN:OD1	2:BB:60:ALA:HB3	2.20	0.41
4:BD:33:ILE:O	4:BD:33:ILE:HG23	2.21	0.41
6:AF:24:ARG:HH11	6:AF:24:ARG:CG	2.32	0.41
1:BA:173:U:C2	1:BA:197:A:C6	3.08	0.41
29:CE:23:PHE:HE1	29:CE:28:VAL:HG21	1.84	0.41
25:DA:2756:U:C5	25:DA:2759:G:O6	2.73	0.41
25:DA:1265:A:H61	25:DA:2013:A:H3'	1.85	0.41
32:CH:76:GLU:CG	32:CH:76:GLU:O	2.62	0.41
25:DA:2131:U:C5'	25:DA:2132:U:C5'	2.98	0.41
25:DA:612:G:H2'	25:DA:614:A:C8	2.56	0.41
25:CA:1519:G:H2'	25:CA:1520:U:H6	1.85	0.41
1:BA:59:A:C4	1:BA:331:G:C2	3.08	0.41
33:CI:54:ILE:HG12	33:CI:73:PRO:CB	2.50	0.41
33:CI:56:VAL:HG22	33:CI:57:VAL:N	2.36	0.41
25:DA:547:A:C3'	25:DA:548:G:H5'	2.45	0.41
1:BA:152:A:N6	1:BA:170:U:N3	2.69	0.41
7:BG:11:ILE:HD13	7:BG:27:ASN:ND2	2.34	0.41
25:DA:2427:C:P	60:DA:3703:HOH:O	2.79	0.41
1:BA:279:A:C5'	1:BA:281:G:O4'	2.64	0.41
29:CE:31:VAL:HG21	29:CE:104:ALA:HB2	2.01	0.41
15:BO:38:LEU:HG	15:BO:42:PHE:CE1	2.55	0.41
28:CD:57:ALA:O	28:CD:59:ARG:N	2.54	0.41
13:AM:10:ASP:O	13:AM:11:HIS:CB	2.68	0.41
31:CG:11:PRO:O	31:CG:14:VAL:HG23	2.21	0.41
1:BA:612:C:H2'	1:BA:613:C:C6	2.51	0.41
1:AA:201:G:H2'	1:AA:202:G:O4'	2.21	0.41
29:CE:143:LEU:HB3	29:CE:146:VAL:CG1	2.50	0.41
33:DI:101:SER:CB	33:DI:140:GLU:O	2.68	0.41
4:BD:176:LYS:O	4:BD:177:MET:CB	2.68	0.41
1:BA:621:A:H2'	1:BA:622:A:O4'	2.21	0.41
25:DA:1471:G:O6	25:DA:1521:G:N2	2.54	0.41
1:BA:1160:G:O2'	1:BA:1161:C:C6	2.61	0.41
31:CG:124:CYS:C	31:CG:126:THR:N	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:BG:68:VAL:O	7:BG:69:ARG:C	2.59	0.41
25:CA:1467:U:C4	25:CA:1468:U:C5	3.08	0.41
31:CG:88:LEU:N	31:CG:88:LEU:CD1	2.80	0.41
31:DG:128:THR:C	31:DG:129:GLU:CG	2.89	0.41
25:CA:303:G:H2'	25:CA:304:U:H6	1.85	0.41
19:BS:51:HIS:HA	19:BS:55:GLN:O	2.21	0.41
25:CA:2419:U:H5	60:CA:3675:HOH:O	2.02	0.41
25:CA:772:C:H2'	25:CA:773:U:O5'	2.20	0.41
25:CA:124:G:H3'	53:C2:19:ARG:NH2	2.35	0.41
22:BV:37:A:H2'	22:BV:38:A:H5'	2.02	0.41
39:CO:106:LEU:O	39:CO:106:LEU:HD23	2.20	0.41
22:BV:52:G:C2	22:BV:63:G:C6	3.09	0.41
33:CI:114:ALA:O	33:CI:115:ASP:CB	2.67	0.41
9:AI:28:VAL:CG1	9:AI:31:GLN:HA	2.51	0.41
25:DA:2663:G:H2'	25:DA:2664:G:H8	1.85	0.41
1:AA:1066:C:H5"	1:AA:1067:A:OP2	2.19	0.41
39:CO:94:ARG:O	39:CO:95:SER:C	2.59	0.41
39:CO:94:ARG:O	39:CO:97:PHE:N	2.48	0.41
1:AA:346:G:O5'	40:CP:33:GLU:HG2	2.20	0.41
25:CA:2006:C:C6	25:CA:2006:C:O5'	2.73	0.41
25:CA:2458:G:N3	25:CA:2490:G:N2	2.69	0.41
31:CG:27:GLY:O	31:CG:29:ASN:N	2.53	0.41
34:DJ:96:ARG:CG	34:DJ:96:ARG:HH21	2.33	0.41
25:CA:1478:G:H2'	25:CA:1479:G:H8	1.85	0.41
5:BE:49:TYR:O	5:BE:50:GLY:O	2.38	0.41
1:AA:794:A:C5	1:AA:795:C:C4	3.08	0.41
25:DA:945:A:C2	25:DA:2448:A:C4	3.09	0.41
25:DA:2537:U:H2'	25:DA:2538:C:H6	1.85	0.41
8:BH:48:PHE:O	8:BH:49:LYS:CB	2.68	0.41
32:DH:124:THR:O	32:DH:146:VAL:HG11	2.20	0.41
24:AY:56:ALA:HB2	24:AY:70:VAL:HA	2.02	0.41
25:DA:574:A:N7	60:DA:3579:HOH:O	2.37	0.41
1:AA:826:C:H2'	1:AA:826:C:O2	2.20	0.41
31:DG:17:LYS:HB2	31:DG:24:THR:HB	2.01	0.41
24:AY:61:GLU:O	24:AY:62:ASP:HB3	2.20	0.41
25:CA:2839:G:C5	25:CA:2840:C:C4	3.09	0.41
8:BH:13:ILE:O	8:BH:14:ARG:C	2.59	0.41
25:CA:1043:C:H2'	25:CA:1044:C:C6	2.56	0.41
1:AA:1093:A:N3	1:AA:1109:C:O2'	2.33	0.41
27:CC:130:PRO:HB2	27:CC:133:ASN:HD22	1.85	0.41
48:CX:15:ASN:HA	48:CX:24:THR:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:13:A:N3	25:CA:15:G:C6	2.88	0.41
56:DB:99:A:C5	56:DB:100:G:C5	3.09	0.41
25:DA:10:A:N3	25:DA:10:A:H2'	2.35	0.41
25:CA:2116:G:C5'	25:CA:2117:A:OP2	2.68	0.41
42:DR:1:MET:HE1	42:DR:101:ILE:HB	2.03	0.41
28:DD:171:THR:HG22	28:DD:171:THR:O	2.19	0.41
25:CA:487:C:O5'	25:CA:487:C:H6	2.03	0.41
1:AA:728:A:C6	1:AA:729:A:C6	3.09	0.41
1:BA:1053:G:N2	1:BA:1056:U:C4	2.89	0.41
1:BA:1323:G:C4'	1:BA:1362:A:H2	2.33	0.41
13:BM:24:VAL:HG23	13:BM:28:ARG:HB3	2.03	0.41
25:DA:1096:A:C3'	25:DA:1096:A:C8	3.04	0.41
25:DA:1382:G:C5'	25:DA:1383:A:OP2	2.69	0.41
44:DT:31:VAL:HG13	44:DT:84:TYR:HA	2.02	0.41
44:DT:61:LEU:HD12	44:DT:62:VAL:N	2.36	0.41
25:CA:1066:U:H2'	25:CA:1066:U:O2	2.19	0.41
1:AA:1310:G:C2	1:AA:1328:C:O2	2.74	0.41
1:AA:977:A:C2'	1:AA:978:A:H5"	2.51	0.41
1:AA:990:C:O2'	1:AA:991:U:H5'	2.21	0.41
1:BA:1256:A:C4	1:BA:1278:G:C5	3.08	0.41
1:BA:1277:C:HO2'	1:BA:1279:G:H1'	1.83	0.41
25:DA:2218:G:C2'	25:DA:2219:U:H5'	2.51	0.41
52:D1:42:VAL:HG12	52:D1:44:GLN:HB2	2.03	0.41
52:D1:47:ILE:H	52:D1:47:ILE:HD12	1.86	0.41
32:DH:5:LEU:HA	32:DH:35:LYS:O	2.20	0.41
17:BQ:11:VAL:HG12	17:BQ:12:VAL:H	1.83	0.41
5:BE:110:MET:HA	5:BE:113:VAL:HG13	2.02	0.41
5:BE:153:ALA:CA	5:BE:156:ARG:HB3	2.50	0.41
5:BE:80:LEU:CD1	5:BE:119:VAL:HG11	2.51	0.41
25:DA:1589:U:N3	25:DA:1590:A:N7	2.68	0.41
1:AA:693:G:C6	1:AA:694:A:C6	3.09	0.41
25:DA:627:A:C5	25:DA:637:A:N7	2.89	0.41
36:DL:91:ASP:O	36:DL:93:ASN:O	2.39	0.41
12:BL:24:GLU:O	12:BL:26:CYS:N	2.53	0.41
46:CV:1:MET:SD	46:CV:1:MET:C	2.99	0.41
38:DN:49:GLU:HB2	38:DN:50:PRO:HD3	2.03	0.41
1:BA:1014:A:N7	1:BA:1015:G:C6	2.89	0.41
25:CA:362:A:C2	25:CA:363:G:C4	3.08	0.41
25:DA:2165:C:O2	25:DA:2166:U:O4'	2.38	0.41
25:DA:1531:C:H2'	25:DA:1532:A:O4'	2.20	0.41
52:C1:18:HIS:NE2	52:C1:40:PRO:HD2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:13:ILE:C	3:AC:15:LYS:H	2.24	0.41
3:AC:13:ILE:O	3:AC:15:LYS:N	2.54	0.41
3:AC:6:PRO:O	3:AC:9:ILE:HG22	2.21	0.41
56:DB:51:G:H21	56:DB:53:A:H62	1.67	0.41
39:DO:24:THR:HG22	39:DO:40:ILE:O	2.20	0.41
39:DO:75:GLY:C	39:DO:77:ALA:N	2.72	0.41
3:AC:140:ALA:O	3:AC:145:ALA:CB	2.68	0.41
3:AC:142:ARG:NH1	3:AC:142:ARG:HG3	2.36	0.41
1:AA:435:A:N6	1:AA:436:C:C4	2.88	0.41
1:AA:439:U:H4'	4:AD:120:LYS:HE3	2.03	0.41
4:AD:156:ALA:C	4:AD:159:GLU:HB3	2.41	0.41
1:AA:1526:G:H2'	1:AA:1527:U:C6	2.55	0.41
7:BG:44:SER:OG	7:BG:116:ALA:HB1	2.20	0.41
25:DA:1131:G:H4'	34:DJ:84:ILE:HD13	2.02	0.41
31:DG:143:VAL:O	31:DG:144:ALA:O	2.37	0.41
2:AB:50:ASN:O	2:AB:51:GLU:CB	2.62	0.41
1:BA:1537:U:H5"	1:BA:1538:C:OP2	2.21	0.41
25:CA:1408:G:H2'	25:CA:1409:U:C5'	2.51	0.41
1:BA:841:C:H2'	1:BA:843:U:O4'	2.20	0.41
1:BA:846:G:H2'	1:BA:847:G:H5'	2.02	0.41
1:AA:1239:A:N3	1:AA:1241:G:C6	2.89	0.41
1:AA:1063:C:H3'	1:AA:1064:G:H2'	2.02	0.41
8:BH:4:ASP:CG	8:BH:7:ALA:CB	2.89	0.41
25:CA:358:U:H2'	25:CA:359:G:H8	1.84	0.41
27:DC:203:VAL:O	27:DC:204:LEU:CB	2.68	0.41
25:DA:1045:C:H41	25:DA:1111:A:H2'	1.86	0.41
3:BC:110:LEU:N	3:BC:110:LEU:HD23	2.36	0.41
25:CA:1721:G:O6	25:CA:1738:G:O6	2.39	0.41
29:DE:164:LEU:N	29:DE:164:LEU:HD13	2.35	0.41
34:DJ:4:PHE:CG	34:DJ:5:THR:N	2.89	0.41
11:AK:93:GLU:O	11:AK:94:SER:C	2.57	0.41
2:BB:216:VAL:O	2:BB:219:THR:HG22	2.21	0.41
3:AC:39:ARG:O	3:AC:41:TYR:N	2.53	0.41
25:DA:1359:A:C8	25:DA:1360:G:C8	3.09	0.41
14:AN:26:LEU:O	14:AN:27:LYS:CB	2.65	0.41
25:DA:1022:G:C6	25:DA:1140:C:C5	3.09	0.41
25:DA:1786:A:H1'	25:DA:1938:A:H61	1.82	0.41
25:DA:60:G:C2	25:DA:74:A:N1	2.88	0.41
23:BX:8:A:C6	23:BX:9:G:C6	3.09	0.41
26:CB:32:U:O2'	26:CB:33:G:H5'	2.21	0.41
32:CH:129:GLU:HA	32:CH:143:ILE:HA	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:CH:76:GLU:HG2	32:CH:143:ILE:CD1	2.49	0.41
30:DF:29:ARG:O	30:DF:29:ARG:HG3	2.20	0.41
25:DA:1567:G:O5'	25:DA:1567:G:H2'	2.21	0.41
33:CI:4:VAL:O	33:CI:5:GLN:HB2	2.19	0.41
25:DA:2702:G:C6	25:DA:2703:C:C4	3.09	0.41
45:CU:19:GLY:O	45:CU:20:LYS:C	2.59	0.41
1:BA:827:U:C4	1:BA:870:U:O2	2.73	0.41
25:DA:2011:U:OP2	43:DS:16:LYS:HE2	2.20	0.41
25:DA:1356:G:C6	25:DA:1357:C:C5	3.08	0.41
25:DA:1378:A:C4	25:DA:1380:G:N7	2.89	0.41
25:CA:242:G:H5"	54:C3:63:TYR:CE2	2.56	0.41
25:CA:1027:A:H5"	25:CA:1028:A:OP1	2.21	0.41
38:CN:79:LEU:O	38:CN:81:ASN:N	2.54	0.41
1:BA:560:A:C4	5:BE:127:TYR:CE2	3.09	0.41
25:CA:2120:G:H2'	25:CA:2121:G:H8	1.85	0.41
25:DA:2677:G:H2'	25:DA:2678:C:C6	2.55	0.41
25:DA:2728:U:O2'	25:DA:2729:G:C5'	2.69	0.41
11:BK:109:ILE:HG21	21:BU:16:ARG:NE	2.36	0.41
1:AA:104:G:C2	1:AA:105:G:C5	3.09	0.41
1:AA:806:C:O2	1:AA:806:C:H2'	2.20	0.41
29:CE:146:VAL:HA	29:CE:185:LYS:O	2.20	0.41
1:BA:209:U:OP2	1:BA:210:C:C5	2.74	0.41
20:AT:68:LYS:HB2	20:AT:68:LYS:NZ	2.36	0.41
33:DI:99:LYS:O	33:DI:100:ILE:HD13	2.21	0.41
25:DA:167:A:C5	25:DA:168:G:C8	3.09	0.41
18:AR:24:ASP:C	18:AR:26:ALA:N	2.72	0.41
1:BA:401:C:H2'	1:BA:402:G:C8	2.56	0.41
25:DA:876:C:H41	25:DA:877:A:N6	2.19	0.41
40:CP:87:ARG:NH2	40:CP:111:GLU:HB2	2.35	0.41
56:DB:71:C:H2'	56:DB:71:C:O2	2.21	0.41
47:CW:36:GLN:OE1	47:CW:40:LYS:N	2.54	0.41
34:CJ:77:HIS:CD2	34:CJ:79:GLY:N	2.85	0.41
26:CB:104:A:H2'	26:CB:105:G:O4'	2.21	0.41
25:CA:303:G:H2'	25:CA:304:U:C6	2.56	0.41
25:CA:1606:C:H3'	25:CA:1606:C:C6	2.55	0.41
43:DS:33:LEU:HD21	43:DS:52:GLU:CG	2.50	0.41
42:DR:4:VAL:HA	42:DR:12:HIS:O	2.20	0.41
1:BA:579:A:H2'	1:BA:580:C:H5'	2.02	0.41
37:DM:130:PHE:C	37:DM:130:PHE:HD2	2.23	0.41
25:CA:182:A:C6	25:CA:183:C:C4	3.08	0.41
25:CA:2415:G:H2'	25:CA:2416:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:891:U:P	60:BA:1825:HOH:O	2.78	0.41
25:DA:2317:A:N6	25:DA:2318:G:C2	2.89	0.41
25:CA:2206:C:C2'	25:CA:2206:C:O2	2.66	0.41
1:AA:52:C:H2'	1:AA:53:A:C8	2.55	0.41
39:DO:7:ARG:CG	39:DO:96:GLY:HA3	2.51	0.41
54:C3:16:THR:CG2	54:C3:20:GLY:C	2.89	0.41
55:D4:10:LEU:HB2	55:D4:33:HIS:ND1	2.36	0.41
25:CA:1880:U:H2'	25:CA:1881:C:H6	1.86	0.41
25:DA:1744:A:H2'	25:DA:1745:A:O4'	2.21	0.41
29:DE:46:GLN:HB2	29:DE:83:VAL:HG11	2.02	0.41
4:AD:42:ALA:O	4:AD:43:ARG:C	2.59	0.41
48:DX:44:ARG:HH21	48:DX:46:VAL:HG22	1.86	0.41
27:CC:166:ARG:NH2	27:CC:166:ARG:HB2	2.35	0.41
25:DA:2080:A:H2'	25:DA:2081:U:H6	1.83	0.41
25:CA:2626:C:H2'	25:CA:2627:G:O4'	2.21	0.41
1:AA:1377:A:C2	7:AG:6:ILE:CD1	3.03	0.41
25:CA:70:G:H4'	25:CA:71:A:OP1	2.21	0.41
25:DA:2694:G:H2'	25:DA:2695:U:C6	2.56	0.41
7:BG:125:ASP:HA	7:BG:128:GLU:OE1	2.21	0.41
22:BV:56:C:O2	22:BV:56:C:C2'	2.69	0.41
25:DA:1685:C:H2'	25:DA:1686:C:C6	2.55	0.41
29:CE:145:ASP:HB3	29:CE:184:ASP:CG	2.40	0.41
26:CB:56:G:OP1	30:CF:23:SER:HB2	2.21	0.41
25:CA:483:A:C8	25:CA:484:C:C5	3.08	0.41
25:DA:2420:C:O2'	25:DA:2421:G:H5'	2.21	0.41
25:CA:388:G:N7	25:CA:390:U:H2'	2.36	0.41
1:BA:392:C:OP1	16:BP:8:ARG:NH2	2.53	0.41
25:DA:522:A:H2'	25:DA:523:C:C6	2.56	0.41
56:DB:17:C:H2'	56:DB:18:G:H5'	2.03	0.41
43:CS:58:ALA:O	43:CS:62:ASP:HB2	2.20	0.41
25:DA:1696:G:C6	25:DA:1697:G:C4	3.08	0.41
25:CA:2840:C:H2'	25:CA:2841:C:C6	2.55	0.41
53:D2:24:THR:HG23	53:D2:27:GLY:H	1.85	0.41
1:AA:585:G:C5	1:AA:586:C:C5	3.09	0.41
25:DA:408:G:C6	25:DA:409:G:C5	3.08	0.41
54:D3:54:LEU:O	54:D3:58:ILE:HG13	2.21	0.41
25:DA:2543:G:H2'	25:DA:2544:G:O4'	2.20	0.41
38:DN:101:GLY:C	38:DN:102:PHE:CD2	2.94	0.41
25:DA:338:G:N2	25:DA:339:U:H1'	2.36	0.41
25:DA:2734:A:C5	25:DA:2735:G:C8	3.09	0.41
49:DY:3:ALA:O	49:DY:4:LYS:C	2.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:BG:142:ARG:O	7:BG:146:ALA:CB	2.69	0.41
13:AM:51:GLN:O	13:AM:54:THR:HG23	2.21	0.41
22:AV:2:C:H2'	22:AV:3:C:C6	2.55	0.41
27:CC:144:GLU:HB2	27:CC:187:CYS:HB3	2.02	0.41
1:BA:126:G:N2	1:BA:127:G:H1'	2.35	0.41
25:DA:987:C:O2'	25:DA:1000:A:N3	2.40	0.41
25:CA:412:A:H8	25:CA:412:A:O5'	2.04	0.41
25:DA:593:U:O2	25:DA:593:U:H2'	2.19	0.41
25:CA:902:C:H6	25:CA:902:C:O5'	2.04	0.41
35:CK:23:LYS:HA	35:CK:23:LYS:HD3	1.93	0.41
25:CA:2855:C:O2	25:CA:2855:C:H2'	2.20	0.41
25:DA:557:C:H6	25:DA:557:C:O5'	2.04	0.41
1:BA:1315:U:C4	1:BA:1316:G:C6	3.09	0.41
13:BM:67:ASP:HA	13:BM:70:ARG:HG2	2.02	0.41
13:BM:70:ARG:HA	13:BM:73:SER:HB2	2.02	0.41
19:BS:10:ILE:CD1	19:BS:15:LEU:HD22	2.50	0.41
25:DA:1403:A:C2	25:DA:1404:C:C6	3.09	0.41
49:DY:9:LYS:N	49:DY:12:GLU:CB	2.84	0.41
25:CA:1056:G:O2'	25:CA:1086:A:C8	2.70	0.41
1:AA:1210:C:C4'	1:AA:1214:C:H5	2.33	0.41
20:AT:57:VAL:CG1	20:AT:71:ALA:CB	2.99	0.41
1:AA:1152:A:N6	1:AA:1153:G:C6	2.88	0.41
1:AA:1277:C:C2'	1:AA:1279:G:H8	2.33	0.41
10:AJ:19:ASP:HA	10:AJ:22:THR:HB	2.03	0.41
25:DA:1746:A:C2	25:DA:1747:U:C5	3.08	0.41
41:DQ:86:SER:OG	42:DR:51:VAL:HG12	2.20	0.41
25:DA:2291:U:H4'	25:DA:2380:C:O2	2.21	0.41
32:DH:31:VAL:CG1	32:DH:32:PRO:HD2	2.49	0.41
32:DH:32:PRO:CG	48:DX:38:TRP:HB3	2.51	0.41
25:DA:857:G:C6	25:DA:858:G:C6	3.09	0.41
11:BK:124:LYS:O	21:BU:34:ARG:HD2	2.21	0.41
21:BU:33:ARG:CD	21:BU:34:ARG:HB2	2.51	0.41
11:AK:52:ARG:O	11:AK:55:ARG:CB	2.69	0.41
11:AK:69:CYS:O	11:AK:70:ALA:C	2.59	0.41
15:AO:23:SER:HB3	15:AO:26:VAL:HG21	2.03	0.41
6:AF:16:GLU:OE1	4:BD:190:LEU:O	2.39	0.41
10:AJ:27:GLU:HA	10:AJ:30:LYS:CD	2.51	0.41
43:DS:96:ILE:HD13	43:DS:96:ILE:N	2.36	0.41
8:AH:28:SER:HB3	8:AH:56:PRO:CB	2.50	0.41
1:AA:1033:G:C2	1:AA:1034:G:C8	3.09	0.41
25:DA:1455:G:C6	25:DA:1456:G:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DB:49:C:O2'	39:DO:68:LYS:HE2	2.21	0.41
1:BA:1142:G:N1	1:BA:1143:G:H1'	2.35	0.41
36:DL:119:PRO:CB	36:DL:138:ALA:O	2.69	0.41
4:AD:149:LYS:HE2	4:AD:176:LYS:O	2.20	0.41
25:DA:2584:U:C2'	25:DA:2585:U:H5'	2.50	0.41
22:AV:48:C:H2'	22:AV:59:U:C4'	2.51	0.41
25:CA:1269:A:H2'	25:CA:1270:C:C6	2.55	0.41
1:AA:642:A:C5	1:AA:643:C:C4	3.08	0.41
9:BI:74:GLN:O	9:BI:78:ILE:HG13	2.19	0.41
32:DH:40:THR:O	32:DH:43:ASN:N	2.53	0.41
1:BA:469:C:C5	1:BA:470:C:C5	3.08	0.41
1:BA:15:G:H4'	5:BE:28:ARG:NH1	2.36	0.41
9:AI:118:ARG:O	9:AI:119:LYS:CB	2.69	0.41
14:AN:88:ALA:CA	14:AN:93:ILE:HD12	2.50	0.41
10:AJ:65:TYR:CE2	14:AN:98:LYS:HG2	2.56	0.41
1:AA:1113:C:C2	1:AA:1114:C:C5	3.09	0.41
38:CN:49:GLU:N	38:CN:50:PRO:HD2	2.36	0.41
9:AI:49:GLN:CB	9:AI:50:PRO:CD	2.98	0.41
9:AI:79:ARG:O	9:AI:83:THR:HG23	2.20	0.41
25:DA:2822:G:O6	38:DN:2:ARG:CB	2.69	0.41
1:BA:1026:G:C6	1:BA:1027:C:N4	2.89	0.41
3:AC:23:ALA:HB2	3:AC:31:ASN:HD22	1.85	0.41
25:DA:1173:U:O2'	25:DA:1176:U:O2	2.28	0.41
36:CL:135:ILE:HD12	36:CL:142:ILE:HD11	2.03	0.41
30:DF:48:LEU:HG	30:DF:48:LEU:O	2.21	0.41
9:AI:24:ASN:HB2	9:AI:61:ASP:OD2	2.21	0.41
25:CA:2599:G:N7	27:CC:235:GLU:HB2	2.35	0.41
3:BC:8:GLY:HA2	3:BC:11:LEU:HG	2.02	0.41
2:BB:84:LEU:O	2:BB:85:SER:HB3	2.21	0.41
14:AN:43:ASN:C	14:AN:45:VAL:HG22	2.41	0.41
25:DA:1021:A:C6	25:DA:1023:U:C5	3.08	0.41
1:BA:1386:G:N2	1:BA:1387:G:C8	2.88	0.41
25:DA:1386:C:C2'	25:DA:1386:C:O2	2.65	0.41
1:AA:1505:G:H4'	1:AA:1506:U:O5'	2.21	0.41
1:BA:676:A:N1	1:BA:677:U:C4	2.89	0.41
25:CA:2055:C:C5'	25:CA:2056:G:OP1	2.67	0.41
30:DF:29:ARG:CG	30:DF:29:ARG:O	2.69	0.41
25:DA:2273:A:H2'	25:DA:2274:A:C8	2.55	0.41
13:AM:70:ARG:HA	30:CF:142:TYR:CE2	2.56	0.41
31:CG:171:LYS:HG3	31:CG:172:GLU:O	2.21	0.41
14:AN:13:VAL:HA	14:AN:16:ALA:CB	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2428:G:H5”	25:DA:2429:G:O5’	2.20	0.41
25:DA:908:C:O2’	25:DA:909:A:H5’	2.20	0.41
1:AA:792:A:H4’	1:AA:793:U:C5’	2.50	0.41
15:BO:86:LEU:C	15:BO:88:ARG:N	2.74	0.41
31:CG:163:TYR:O	31:CG:166:GLU:HB3	2.20	0.41
14:BN:41:ARG:NH2	14:BN:45:VAL:HG21	2.36	0.41
1:AA:184:G:O4’	1:AA:224:U:H4’	2.21	0.41
25:DA:168:G:N3	25:DA:168:G:C2’	2.80	0.41
25:DA:1476:U:C5	25:DA:1514:G:C2	3.08	0.41
1:BA:1478:U:H2’	1:BA:1479:C:H6	1.85	0.41
37:CM:5:LYS:O	37:CM:6:ARG:HB2	2.20	0.41
25:DA:1915:U:C2’	25:DA:1916:A:O5’	2.68	0.41
25:CA:1038:G:C2’	25:CA:1039:A:H5’	2.51	0.41
25:CA:723:C:H2’	25:CA:724:U:O4’	2.21	0.41
1:BA:1068:G:O2’	1:BA:1191:A:N1	2.45	0.41
57:DW:32:ILE:HG22	57:DW:33:ILE:N	2.36	0.41
25:DA:260:G:C4	25:DA:261:G:C8	3.08	0.41
1:BA:1473:G:H2’	1:BA:1474:U:O4’	2.20	0.41
1:AA:293:G:C4	1:AA:294:U:C6	3.08	0.41
25:DA:1364:G:H2’	25:DA:1365:A:C5’	2.51	0.41
1:BA:49:U:O4	1:BA:365:U:C5	2.73	0.41
25:CA:703:U:H2’	25:CA:704:G:H5’	2.02	0.41
25:DA:1754:A:C2	25:DA:1755:A:C4	3.09	0.41
1:BA:575:G:O2’	1:BA:821:G:OP2	2.26	0.41
28:DD:58:ASN:ND2	28:DD:59:ARG:N	2.68	0.41
25:CA:2692:G:H4’	25:CA:2870:C:O2	2.21	0.41
14:BN:5:MET:HB3	14:BN:63:ARG:CZ	2.51	0.41
48:CX:37:PHE:O	48:CX:45:PHE:HA	2.21	0.41
54:D3:31:ILE:O	54:D3:35:LYS:CD	2.68	0.41
25:CA:2703:C:O5’	25:CA:2703:C:H6	2.04	0.41
25:DA:2723:C:C2’	25:DA:2724:U:O5’	2.68	0.41
16:AP:46:LYS:HD3	16:AP:47:GLU:N	2.35	0.41
25:DA:2816:G:H2’	25:DA:2817:U:O5’	2.20	0.41
25:CA:64:A:H2’	25:CA:65:U:H6	1.86	0.41
25:CA:2092:U:H4’	25:CA:2093:G:O5’	2.20	0.41
25:DA:2573:C:H3’	60:DA:3716:HOH:O	2.20	0.41
25:CA:71:A:H5”	25:CA:72:U:C2’	2.51	0.41
16:AP:12:LYS:C	16:AP:14:ARG:H	2.24	0.41
19:AS:19:GLU:HA	19:AS:19:GLU:OE2	2.21	0.41
43:CS:18:ARG:O	43:CS:19:LEU:C	2.58	0.41
30:DF:6:TYR:CD1	30:DF:6:TYR:C	2.91	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:27:LYS:HB2	2:AB:27:LYS:HE3	1.94	0.41
48:CX:76:LYS:HA	48:CX:76:LYS:HD2	1.75	0.41
43:DS:97:LEU:HD12	43:DS:97:LEU:HA	1.97	0.41
25:DA:797:G:C4	25:DA:798:G:C8	3.08	0.41
25:CA:319:G:C2'	25:CA:320:A:O5'	2.69	0.41
1:AA:1347:G:C8	9:AI:108:ARG:HB2	2.56	0.41
27:DC:153:LEU:N	27:DC:153:LEU:HD23	2.36	0.41
40:CP:89:GLY:HA3	40:CP:109:ILE:HD11	2.03	0.41
25:CA:1116:G:C6	25:CA:1117:C:C4	3.08	0.41
49:CY:44:LYS:O	49:CY:47:ARG:HB3	2.20	0.41
25:CA:437:U:C2'	25:CA:438:G:O5'	2.69	0.41
1:BA:745:G:H1'	1:BA:836:G:O2'	2.21	0.41
10:BJ:50:THR:OG1	10:BJ:64:GLN:CG	2.69	0.41
1:BA:574:A:P	60:BA:1785:HOH:O	2.79	0.41
32:CH:111:ALA:C	32:CH:113:SER:H	2.22	0.41
53:D2:41:ARG:HH21	53:D2:41:ARG:HB2	1.84	0.41
38:CN:113:ILE:HG23	38:CN:113:ILE:O	2.21	0.41
1:AA:581:G:O5'	1:AA:581:G:H8	2.04	0.41
37:CM:33:LEU:HD12	37:CM:33:LEU:HA	1.83	0.41
28:DD:30:GLU:O	28:DD:31:ALA:C	2.59	0.41
25:CA:787:C:P	60:CA:3765:HOH:O	2.79	0.41
25:CA:2448:A:H4'	25:CA:2449:U:OP2	2.21	0.41
32:DH:119:ASN:N	32:DH:120:GLY:HA3	2.33	0.41
13:BM:79:LEU:HD11	13:BM:86:ARG:HB3	2.03	0.41
9:BI:128:LYS:CD	9:BI:129:ARG:N	2.83	0.41
25:DA:1059:G:C6	25:DA:1080:A:N1	2.89	0.41
25:DA:1062:G:O3'	25:DA:1063:G:C8	2.74	0.41
4:BD:28:ASP:C	4:BD:30:LYS:H	2.24	0.41
1:BA:429:U:H3'	4:BD:8:LEU:HD22	2.03	0.41
32:CH:28:ASN:H	32:CH:32:PRO:HG2	1.85	0.41
25:CA:783:A:H8	25:CA:784:G:H4'	1.86	0.41
25:DA:1343:G:O4'	25:DA:1597:A:H2'	2.21	0.41
25:DA:1391:U:H6	25:DA:1391:U:H3'	1.85	0.41
49:DY:9:LYS:CB	49:DY:12:GLU:HG2	2.51	0.41
25:CA:1055:G:H3'	25:CA:1056:G:H8	1.85	0.41
33:CI:38:CYS:HA	33:CI:41:PHE:HB3	2.03	0.41
25:CA:1053:C:N4	25:CA:1054:A:N7	2.69	0.41
25:CA:1056:G:O2'	25:CA:1086:A:H1'	2.21	0.41
25:CA:1091:G:O2'	25:CA:1092:C:C5	2.73	0.41
25:CA:1104:C:H2'	25:CA:1105:U:H6	1.85	0.41
2:AB:68:PHE:HE2	2:AB:88:GLN:HB3	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1317:C:C4	14:AN:53:ARG:HD2	2.56	0.41
1:AA:1322:C:P	19:AS:77:ARG:NH2	2.94	0.41
2:AB:218:ALA:HB1	2:AB:221:ARG:HH21	1.85	0.41
1:AA:274:A:H5'	17:AQ:15:LYS:HE3	2.03	0.41
17:AQ:21:VAL:C	17:AQ:22:VAL:CG2	2.89	0.41
17:AQ:16:MET:CG	17:AQ:19:SER:HB3	2.50	0.41
10:AJ:17:LEU:N	10:AJ:20:GLN:HG3	2.35	0.41
42:DR:46:GLU:OE1	42:DR:47:VAL:N	2.53	0.41
1:BA:1151:A:N1	1:BA:1152:A:C6	2.89	0.41
13:BM:5:GLY:O	13:BM:7:ASN:N	2.54	0.41
25:DA:2339:C:O2'	25:DA:2340:A:C5'	2.69	0.41
25:CA:1179:G:O5'	25:CA:1180:U:O5'	2.39	0.41
35:DK:76:VAL:CG1	40:DP:72:VAL:HG22	2.47	0.41
11:BK:124:LYS:O	11:BK:124:LYS:HE3	2.21	0.41
11:BK:125:LYS:C	21:BU:33:ARG:CZ	2.89	0.41
1:BA:719:C:C5	1:BA:720:C:C4	3.09	0.41
41:CQ:107:ALA:CB	42:CR:48:LYS:HZ2	2.34	0.41
25:DA:1414:C:H6	25:DA:1414:C:H3'	1.84	0.41
36:DL:79:LEU:O	36:DL:82:LEU:HD22	2.21	0.41
36:DL:95:LEU:HD12	36:DL:101:ILE:HD13	2.03	0.41
36:DL:86:GLU:HG2	36:DL:86:GLU:O	2.21	0.41
25:DA:2840:C:H5"	38:DN:53:THR:CG2	2.51	0.41
38:DN:65:LEU:HG	38:DN:69:ARG:NH2	2.36	0.41
25:CA:1731:G:C2	25:CA:1733:G:H1'	2.55	0.41
1:AA:176:C:O4'	1:AA:1447:A:C2	2.74	0.41
1:AA:179:A:C2'	1:AA:180:U:H5'	2.51	0.41
25:CA:283:G:C2'	25:CA:284:U:O5'	2.69	0.41
25:DA:2111:U:O4'	25:DA:2118:U:H1'	2.21	0.41
1:BA:292:G:N2	1:BA:309:A:C4	2.89	0.41
13:AM:22:TYR:CE2	13:AM:69:ARG:HG2	2.55	0.41
13:AM:35:ALA:CB	13:AM:58:GLU:OE1	2.69	0.41
13:AM:65:GLU:OE1	13:AM:65:GLU:HA	2.19	0.41
25:DA:1447:C:C2	25:DA:1448:G:C8	3.09	0.41
25:DA:528:A:C2	25:DA:2043:C:C5'	3.03	0.41
25:CA:2757:A:OP1	55:C4:20:ASP:N	2.54	0.41
1:AA:1031:C:C3'	1:AA:1032:G:H5"	2.50	0.41
3:AC:120:THR:CG2	3:AC:121:SER:N	2.80	0.41
56:DB:51:G:O2'	56:DB:52:A:O5'	2.39	0.41
56:DB:24:G:N1	56:DB:56:G:C2	2.89	0.41
30:DF:62:GLN:OE1	30:DF:90:LEU:HD23	2.20	0.41
39:DO:28:VAL:CG2	39:DO:36:TYR:O	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:436:C:H4'	4:AD:152:SER:HB2	2.00	0.41
4:AD:173:ASP:HB3	4:AD:176:LYS:HB2	2.03	0.41
1:AA:439:U:C6	4:AD:119:HIS:CD2	3.09	0.41
4:AD:151:GLN:O	4:AD:152:SER:O	2.39	0.41
11:AK:124:LYS:HE3	21:AU:34:ARG:CZ	2.50	0.41
21:AU:43:GLU:OE2	21:AU:44:ARG:NH1	2.54	0.41
11:AK:126:ARG:N	21:AU:33:ARG:NH1	2.68	0.41
5:AE:131:ASN:ND2	5:AE:133:ILE:HG22	2.35	0.41
5:AE:104:ILE:CD1	5:AE:122:VAL:CG2	2.98	0.41
5:AE:143:LEU:O	5:AE:144:GLU:C	2.59	0.41
1:AA:66:A:C2	1:AA:67:C:N1	2.89	0.41
1:AA:91:U:C5	1:AA:92:U:C6	3.09	0.41
1:BA:94:G:N2	1:BA:96:U:C4	2.89	0.41
1:AA:68:G:C6	1:AA:69:G:H1'	2.55	0.41
14:AN:35:ALA:HB2	14:AN:41:ARG:NE	2.36	0.41
7:BG:115:MET:N	7:BG:118:ARG:HD3	2.36	0.41
1:BA:1298:U:C4'	1:BA:1299:A:C4	3.02	0.41
1:AA:207:C:H2'	1:AA:208:U:O2	2.19	0.41
1:BA:168:G:H5"	1:BA:168:G:H8	1.85	0.41
11:BK:92:ARG:HG3	11:BK:92:ARG:HH11	1.85	0.41
25:CA:1405:U:O2'	25:CA:1406:U:H5'	2.20	0.41
25:CA:1417:C:O2'	25:CA:1587:G:O2'	2.27	0.41
25:DA:1798:U:H5"	27:DC:257:ARG:HB2	2.02	0.41
1:AA:643:C:H5'	8:AH:31:LEU:CD2	2.51	0.41
37:DM:53:MET:HE1	37:DM:103:TYR:CB	2.51	0.41
37:DM:62:LYS:HD3	37:DM:64:TRP:CZ2	2.56	0.41
22:AV:41:C:H2'	22:AV:42:C:C6	2.56	0.41
2:BB:95:TRP:CE3	2:BB:96:LEU:O	2.74	0.41
35:CK:112:PHE:O	35:CK:115:ILE:HB	2.21	0.41
9:AI:116:GLY:O	9:AI:124:PRO:CG	2.69	0.41
1:AA:1202:U:N3	14:AN:82:ILE:HG21	2.35	0.41
16:BP:38:PHE:CE2	16:BP:51:ARG:HB2	2.55	0.41
31:DG:43:LYS:HE3	31:DG:50:THR:OG1	2.21	0.41
31:DG:42:VAL:CG2	31:DG:43:LYS:N	2.84	0.41
10:BJ:35:GLN:HG2	10:BJ:77:VAL:CG2	2.50	0.41
9:AI:30:ASN:C	9:AI:32:ARG:N	2.73	0.41
9:AI:53:LEU:HD12	9:AI:53:LEU:H	1.85	0.41
25:CA:587:C:O2'	36:CL:19:LEU:CD1	2.68	0.41
25:DA:278:A:C2'	25:DA:278:A:N3	2.84	0.41
6:BF:59:TYR:HE2	18:BR:66:LEU:CD2	2.34	0.41
6:BF:91:ARG:CG	6:BF:92:THR:H	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DU:6:ARG:HA	45:DU:6:ARG:HD3	1.74	0.41
25:DA:1258:U:H2'	25:DA:1259:G:C8	2.56	0.41
2:BB:175:ALA:C	2:BB:177:ASN:N	2.70	0.41
30:DF:45:ASP:CB	30:DF:48:LEU:HB3	2.51	0.41
37:CM:31:PHE:CZ	37:CM:110:GLU:CB	3.03	0.41
27:CC:35:LYS:CG	27:CC:36:ASN:N	2.84	0.41
43:DS:64:ALA:O	43:DS:65:ASP:HB3	2.21	0.41
1:BA:375:U:N3	1:BA:376:G:N7	2.69	0.41
15:AO:63:ARG:HA	15:AO:63:ARG:HD2	1.89	0.41
38:DN:81:ASN:O	38:DN:85:PRO:CD	2.69	0.41
25:CA:1484:U:N3	25:CA:1485:U:C5	2.89	0.41
25:DA:46:G:N1	25:DA:47:C:C4	2.89	0.41
21:AU:11:PHE:C	21:AU:12:ASP:OD2	2.58	0.41
56:DB:61:G:C6	56:DB:62:C:C4	3.08	0.41
25:DA:346:A:C6	25:DA:347:A:C8	3.09	0.41
31:DG:72:ASN:O	31:DG:75:VAL:HB	2.21	0.41
3:AC:57:GLU:O	3:AC:63:ILE:HA	2.20	0.41
25:DA:52:A:H2	25:DA:179:C:O4'	2.02	0.41
25:DA:52:A:H8	25:DA:52:A:O5'	2.04	0.41
3:AC:43:THR:O	3:AC:47:ALA:HA	2.21	0.41
3:AC:87:ARG:HG3	3:AC:100:ILE:CG2	2.51	0.41
19:AS:12:LEU:C	19:AS:14:LEU:N	2.72	0.41
25:DA:982:C:H5"	25:DA:983:A:P	2.61	0.41
25:DA:1469:A:N3	25:DA:1469:A:C2'	2.84	0.41
1:BA:1501:C:C5	1:BA:1504:G:C4	3.09	0.41
25:DA:932:U:O4'	25:DA:933:A:C2	2.73	0.41
3:BC:36:PHE:HZ	14:BN:90:ARG:NH1	2.19	0.41
50:DZ:35:VAL:HG21	50:DZ:37:ARG:CZ	2.49	0.41
25:DA:27:G:O2'	25:DA:28:A:OP2	2.35	0.41
29:DE:173:THR:O	29:DE:175:ILE:N	2.54	0.41
1:AA:116:A:OP2	1:AA:116:A:C8	2.73	0.41
1:BA:325:A:H2'	1:BA:326:G:O4'	2.21	0.41
33:CI:54:ILE:HG12	33:CI:73:PRO:HB3	2.03	0.41
33:CI:57:VAL:HB	33:CI:68:PHE:CA	2.50	0.41
14:BN:2:LYS:O	14:BN:4:SER:N	2.54	0.41
25:DA:503:A:C5	25:DA:506:G:C6	3.08	0.41
25:CA:1924:C:H2'	25:CA:1925:C:C5'	2.51	0.41
13:AM:80:MET:CA	13:AM:91:ARG:HH22	2.34	0.41
1:AA:588:G:C4	1:AA:753:A:C2	3.09	0.41
14:BN:99:ALA:O	14:BN:100:SER:HB3	2.21	0.41
1:BA:246:A:N1	1:BA:278:G:O2'	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1449:C:H2'	1:BA:1450:U:H5'	2.02	0.41
25:CA:2886:A:C5	25:CA:2887:A:N7	2.88	0.41
24:AY:9:ASP:CB	24:AY:13:ARG:NH2	2.81	0.41
24:AY:144:LEU:C	24:AY:145:LYS:O	2.58	0.41
17:BQ:37:ILE:HD12	17:BQ:37:ILE:N	2.36	0.41
25:DA:2476:A:H2'	25:DA:2476:A:N3	2.35	0.41
14:AN:25:GLU:CB	14:AN:28:ALA:HB2	2.49	0.41
7:AG:102:TRP:CH2	7:AG:140:VAL:HG21	2.56	0.41
55:C4:3:VAL:HG12	55:C4:36:ARG:HB3	2.02	0.41
25:DA:2258:C:O2'	25:DA:2426:A:H5"	2.20	0.41
29:CE:12:LEU:HD23	29:CE:13:THR:O	2.21	0.41
25:DA:2311:A:H8	25:DA:2311:A:H5'	1.85	0.41
1:BA:254:G:H2'	1:BA:255:G:O4'	2.20	0.41
25:CA:2547:A:H5'	35:CK:29:HIS:NE2	2.36	0.41
27:CC:51:ARG:HE	27:CC:52:HIS:CE1	2.38	0.41
1:AA:847:G:C6	1:AA:848:C:C4	3.08	0.41
40:DP:8:GLU:O	40:DP:54:LEU:HD22	2.21	0.41
3:BC:166:TRP:HE3	3:BC:167:TYR:N	2.19	0.41
1:AA:637:C:N3	1:AA:638:U:C5	2.89	0.41
20:AT:67:HIS:C	20:AT:68:LYS:HG3	2.42	0.41
4:BD:123:MET:HA	4:BD:127:ARG:O	2.20	0.41
3:BC:28:PHE:O	3:BC:28:PHE:HD2	2.04	0.41
18:AR:54:LEU:O	18:AR:54:LEU:HD13	2.21	0.41
1:BA:402:G:C5	1:BA:403:C:C5	3.08	0.41
1:AA:864:A:H2'	1:AA:865:A:C8	2.56	0.41
27:DC:79:ARG:NH2	27:DC:79:ARG:HG3	2.36	0.41
30:DF:101:ARG:O	30:DF:102:LEU:C	2.59	0.41
25:DA:1486:U:C2	25:DA:1487:U:C5	3.08	0.41
25:DA:1484:U:C2	25:DA:1485:U:C5	3.09	0.41
1:AA:993:G:C2'	1:AA:993:G:N3	2.82	0.41
40:CP:112:ARG:O	40:CP:113:LEU:CG	2.65	0.41
40:CP:25:VAL:HG13	40:CP:25:VAL:O	2.21	0.41
25:CA:2731:G:C6	25:CA:2732:G:C6	3.09	0.41
1:BA:1526:G:OP1	21:BU:38:GLU:HB2	2.21	0.41
18:BR:24:ASP:C	18:BR:26:ALA:H	2.23	0.41
1:AA:725:G:H2'	1:AA:726:C:H5'	2.02	0.41
39:DO:49:VAL:HG12	39:DO:50:ALA:N	2.34	0.41
25:DA:2097:A:C4	25:DA:2098:U:C6	3.08	0.41
31:CG:77:GLY:C	31:CG:79:THR:H	2.24	0.41
3:AC:156:LEU:CD1	3:AC:163:ARG:CB	2.99	0.41
37:DM:31:PHE:CE2	37:DM:110:GLU:HB2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:BS:18:VAL:O	19:BS:22:VAL:HG23	2.21	0.41
19:BS:46:LEU:C	19:BS:47:THR:HG23	2.41	0.41
25:DA:147:C:H2'	25:DA:148:U:O5'	2.19	0.41
20:AT:4:LYS:HE2	20:AT:4:LYS:HA	2.03	0.41
1:BA:526:C:H2'	1:BA:527:G:H4'	2.03	0.41
27:DC:124:LYS:CB	27:DC:125:PRO:CD	2.98	0.41
6:BF:67:PRO:O	6:BF:69:GLU:N	2.54	0.41
27:DC:264:LYS:HB3	27:DC:265:PHE:CD1	2.56	0.41
25:DA:572:A:OP2	42:DR:80:ARG:NH2	2.53	0.41
4:AD:68:GLU:O	4:AD:72:ARG:HG2	2.21	0.41
3:BC:112:ALA:O	3:BC:114:LEU:N	2.54	0.41
25:CA:1244:A:OP1	36:CL:7:SER:CB	2.69	0.41
36:CL:8:PRO:HB2	36:CL:12:SER:HB2	2.03	0.41
13:AM:105:ALA:O	13:AM:106:ARG:C	2.59	0.41
25:CA:2313:C:C2'	25:CA:2314:A:H5'	2.51	0.41
1:BA:1424:U:H2'	1:BA:1425:U:O4'	2.21	0.41
25:CA:2516:A:C5	25:CA:2517:C:C4	3.09	0.41
1:BA:341:C:H2'	1:BA:342:C:C6	2.55	0.41
1:BA:969:A:H2'	1:BA:970:C:O5'	2.20	0.41
1:AA:882:C:O2'	1:AA:883:C:H5'	2.20	0.41
12:AL:100:ALA:O	12:AL:101:LEU:C	2.58	0.41
25:DA:2837:A:H5"	60:DA:3816:HOH:O	2.20	0.41
46:CV:70:ILE:HG22	46:CV:72:VAL:HG12	2.03	0.41
25:DA:749:A:H4'	25:DA:1271:G:N3	2.36	0.41
25:DA:2317:A:H2'	25:DA:2318:G:C5'	2.50	0.41
25:DA:2317:A:H2'	25:DA:2318:G:H5'	2.01	0.41
53:C2:28:ARG:C	53:C2:30:VAL:N	2.75	0.41
39:DO:117:PHE:OXT	39:DO:117:PHE:CD1	2.73	0.41
25:DA:2655:G:N3	25:DA:2664:G:C6	2.89	0.41
46:CV:61:LEU:CD1	46:CV:61:LEU:N	2.84	0.41
1:BA:511:C:C6	1:BA:512:U:C5	3.09	0.41
11:AK:110:THR:HG23	21:AU:4:LYS:CA	2.51	0.41
55:D4:30:GLU:HB3	55:D4:33:HIS:CG	2.56	0.41
25:DA:1744:A:C8	25:DA:1745:A:C8	3.09	0.41
52:C1:30:PRO:HD2	52:C1:31:GLU:OE2	2.20	0.41
25:DA:2808:G:C2	25:DA:2891:U:C6	3.09	0.41
25:DA:298:G:H5"	25:DA:299:A:OP1	2.21	0.41
31:CG:130:ILE:C	31:CG:131:VAL:HG23	2.40	0.41
53:D2:43:THR:O	53:D2:44:VAL:CB	2.67	0.41
25:CA:2289:G:N3	25:CA:2289:G:H2'	2.36	0.41
30:DF:47:LYS:O	30:DF:50:ASP:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:50:ASP:O	30:DF:53:ALA:HB3	2.21	0.41
20:AT:14:GLU:C	20:AT:16:ALA:N	2.75	0.41
34:CJ:27:ARG:NH1	34:CJ:27:ARG:HG2	2.36	0.41
1:AA:237:G:H2'	1:AA:238:A:H8	1.86	0.41
31:CG:152:ARG:HA	31:CG:153:PRO:HD3	1.88	0.41
48:DX:57:VAL:O	48:DX:60:LYS:N	2.53	0.41
1:BA:570:G:H2'	1:BA:571:U:C6	2.56	0.41
1:BA:856:C:H2'	1:BA:857:C:H5'	2.02	0.41
20:AT:47:GLN:C	20:AT:47:GLN:NE2	2.74	0.41
20:AT:47:GLN:CA	20:AT:47:GLN:NE2	2.84	0.41
31:DG:89:VAL:HG21	31:DG:162:ARG:NE	2.36	0.41
25:DA:1422:G:C2	25:DA:1423:G:C4	3.09	0.41
25:CA:923:G:H4'	47:CW:25:GLU:CG	2.51	0.41
25:DA:668:A:H2'	25:DA:670:A:N6	2.36	0.41
25:CA:1:G:C4	25:CA:2:G:C8	3.09	0.41
26:CB:78:A:N6	26:CB:98:G:H2'	2.36	0.41
16:BP:56:ARG:O	16:BP:57:ILE:C	2.59	0.41
16:BP:53:ASP:OD1	16:BP:53:ASP:C	2.59	0.41
25:CA:679:C:O2'	25:CA:680:C:H5'	2.21	0.41
3:BC:142:ARG:HG2	3:BC:143:LEU:HD13	2.02	0.41
1:BA:608:A:H2'	1:BA:609:A:O4'	2.20	0.41
38:CN:28:LEU:O	38:CN:32:GLU:N	2.53	0.41
25:DA:915:C:C2'	25:DA:916:G:H5'	2.51	0.41
46:DV:69:GLU:C	46:DV:70:ILE:HG12	2.42	0.41
46:DV:80:HIS:C	46:DV:80:HIS:ND1	2.74	0.41
1:AA:75:G:H5'	1:AA:76:G:P	2.61	0.41
3:BC:131:ARG:HD3	3:BC:135:ARG:NH2	2.36	0.41
25:CA:653:U:C2'	25:CA:654:A:OP1	2.69	0.41
25:CA:1818:U:H2'	27:CC:155:ARG:CD	2.51	0.41
27:CC:211:ARG:CG	27:CC:211:ARG:HH21	2.33	0.41
1:BA:1399:C:H4'	1:BA:1400:C:C5'	2.51	0.41
25:DA:1750:G:H2'	25:DA:1751:U:O5'	2.21	0.41
1:AA:168:G:H8	1:AA:168:G:C5'	2.34	0.41
39:CO:19:GLN:C	39:CO:21:LEU:N	2.73	0.41
20:BT:19:HIS:HD2	20:BT:20:ASN:HD22	1.67	0.41
39:DO:80:GLU:O	39:DO:84:GLU:HG3	2.21	0.41
1:AA:1432:G:HO2'	1:AA:1433:A:P	2.43	0.41
42:CR:43:ASN:HB3	42:CR:44:GLY:H	1.51	0.41
25:CA:1627:G:C2	25:CA:1628:G:C8	3.09	0.41
25:DA:975:A:H1'	25:DA:990:A:C2	2.56	0.41
25:DA:2632:A:O2'	25:DA:2633:G:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CA:799:G:N1	25:CA:800:A:N6	2.68	0.41
29:CE:49:ARG:HH11	29:CE:72:SER:HB2	1.86	0.41
29:CE:49:ARG:HA	29:CE:82:GLY:HA3	2.03	0.41
5:BE:31:SER:OG	5:BE:32:PHE:N	2.54	0.41
25:DA:1006:C:O2'	25:DA:1007:C:H5'	2.20	0.41
4:BD:67:LEU:HA	4:BD:67:LEU:HD23	1.83	0.41
25:DA:306:U:C6	25:DA:306:U:H3'	2.56	0.41
21:AU:31:VAL:O	21:AU:31:VAL:CG1	2.69	0.41
25:DA:2858:C:O5'	25:DA:2858:C:H6	2.04	0.41
25:CA:2617:U:C2'	25:CA:2618:G:H5'	2.51	0.41
25:CA:495:G:H2'	25:CA:496:G:O5'	2.21	0.41
25:CA:693:A:O2'	25:CA:694:U:H5'	2.21	0.41
1:BA:1247:U:O2'	1:BA:1248:A:H5'	2.21	0.41
1:AA:1349:A:C2	1:AA:1350:A:H1'	2.56	0.41
27:DC:52:HIS:NE2	27:DC:218:THR:HG23	2.36	0.41
36:DL:75:ALA:O	36:DL:108:ALA:HA	2.21	0.41
30:CF:15:LEU:HA	30:CF:18:GLU:HB2	2.03	0.41
25:DA:1235:G:C6	25:DA:1236:G:N1	2.89	0.41
1:BA:46:G:H2'	1:BA:366:A:N7	2.36	0.41
18:BR:50:TYR:HA	18:BR:53:GLN:NE2	2.36	0.41
38:CN:82:GLU:O	38:CN:85:PRO:HG2	2.21	0.41
25:CA:2675:A:H2'	25:CA:2676:C:O5'	2.21	0.41
25:CA:1550:C:O2'	25:CA:1551:A:H5'	2.21	0.41
40:DP:103:THR:O	40:DP:104:GLY:C	2.59	0.41
38:CN:100:CYS:SG	38:CN:100:CYS:O	2.79	0.41
27:DC:227:VAL:O	27:DC:227:VAL:HG22	2.20	0.41
25:CA:980:A:N7	25:CA:1136:G:H5"	2.36	0.41
1:BA:1320:C:N4	19:BS:35:ARG:HB2	2.36	0.41
1:BA:939:G:N1	1:BA:940:C:N3	2.69	0.41
4:BD:7:LYS:HZ3	4:BD:21:LYS:HD2	1.86	0.41
33:CI:24:GLY:HA3	33:CI:25:PRO:HD3	1.99	0.41
2:AB:65:LYS:CB	2:AB:158:ASP:OD2	2.66	0.41
25:DA:2217:G:O2'	25:DA:2218:G:H5'	2.21	0.41
13:BM:10:ASP:OD1	13:BM:11:HIS:N	2.53	0.41
25:DA:2201:G:O6	25:DA:2223:G:C6	2.74	0.41
25:DA:1668:A:H4'	25:DA:1669:A:O5'	2.21	0.41
21:BU:33:ARG:HD3	21:BU:34:ARG:CB	2.50	0.41
4:BD:187:ARG:HH12	4:BD:191:SER:CB	2.34	0.41
13:AM:52:ILE:O	13:AM:55:LEU:HB2	2.21	0.41
25:DA:2043:C:H2'	25:DA:2044:C:C6	2.56	0.41
3:AC:199:VAL:O	3:AC:199:VAL:HG22	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DB:36:C:H5"	56:DB:37:C:OP2	2.20	0.41
1:AA:1526:G:P	21:AU:38:GLU:HB3	2.61	0.41
1:BA:87:C:O3'	1:BA:88:U:O4'	2.38	0.41
25:DA:1782:U:C4	25:DA:2587:A:C2	3.09	0.41
25:CA:1843:C:H2'	25:CA:1844:C:C6	2.56	0.41
8:AH:98:LEU:HD23	8:AH:98:LEU:H	1.82	0.41
22:AV:16:U:H2'	22:AV:17:C:H5'	2.03	0.41
22:AV:18:G:C4	22:AV:58:A:N1	2.89	0.41
1:AA:66:A:N1	1:AA:67:C:C6	2.89	0.41
25:CA:1450:G:H21	25:CA:1452:G:H1	1.68	0.41
20:AT:56:ILE:CD1	20:AT:60:GLN:HG2	2.51	0.41
20:BT:29:THR:HA	20:BT:32:LYS:HG2	2.04	0.41
16:AP:80:LYS:CA	16:AP:80:LYS:HE3	2.43	0.41
1:BA:840:C:O2	1:BA:847:G:N2	2.54	0.41
32:DH:40:THR:O	32:DH:42:LYS:CA	2.69	0.41
32:DH:46:PHE:O	32:DH:49:ALA:HB3	2.21	0.41
27:DC:64:VAL:CG1	27:DC:65:ASP:N	2.83	0.41
1:AA:1197:A:OP1	1:AA:1198:G:OP2	2.38	0.41
14:AN:85:ARG:O	14:AN:86:GLU:C	2.60	0.41
2:AB:187:ASP:HB2	2:AB:203:ASP:OD1	2.21	0.41
5:BE:136:VAL:HG23	5:BE:140:ILE:HD11	2.02	0.41
3:AC:35:ASP:C	3:AC:37:LYS:H	2.24	0.41
1:BA:1129:C:C2'	1:BA:1139:G:N7	2.84	0.41
1:BA:376:G:C5	1:BA:377:G:N7	2.89	0.41
1:BA:452:A:C3'	1:BA:452:A:C8	3.03	0.41
46:CV:83:LYS:HE3	46:CV:83:LYS:HB2	1.94	0.41
25:CA:2278:A:H8	25:CA:2278:A:H5"	1.86	0.41
25:CA:2070:A:H2'	25:CA:2071:A:O4'	2.21	0.41
25:CA:2072:C:H5"	25:CA:2072:C:H6	1.86	0.41
11:BK:45:THR:O	11:BK:48:GLY:N	2.54	0.41
1:BA:710:G:N2	1:BA:711:G:H1'	2.36	0.41
25:DA:617:G:H2'	25:DA:618:G:O5'	2.21	0.41
25:CA:2297:A:C6	25:CA:2298:A:C8	3.09	0.41
25:CA:614:A:H8	25:CA:614:A:H5'	1.86	0.41
11:BK:23:HIS:O	11:BK:29:THR:HA	2.20	0.41
11:BK:89:GLY:O	11:BK:90:PRO:C	2.59	0.41
25:DA:476:G:H4'	25:DA:502:A:N1	2.36	0.41
1:AA:246:A:C4	1:AA:279:A:N6	2.89	0.41
1:BA:1373:G:C5'	7:BG:35:LYS:HB2	2.51	0.41
2:BB:19:THR:O	2:BB:20:ARG:NH2	2.53	0.41
25:DA:2468:A:H2'	25:DA:2476:A:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:585:G:OP1	17:BQ:38:LYS:HE3	2.21	0.41
1:BA:585:G:H1'	1:BA:879:C:H5"	2.03	0.41
25:CA:842:U:C2'	25:CA:843:G:H5'	2.51	0.41
7:AG:72:VAL:O	7:AG:140:VAL:HG12	2.21	0.41
7:AG:61:PHE:HD2	7:AG:123:LEU:HD11	1.86	0.41
25:DA:2259:U:C6	25:DA:2427:C:C4	3.09	0.41
17:BQ:51:GLU:O	17:BQ:52:CYS:O	2.38	0.41
1:AA:112:G:H2'	1:AA:113:G:H5'	2.02	0.41
25:DA:2769:U:C4	25:DA:2770:G:C5	3.09	0.41
27:DC:261:ARG:HG2	27:DC:262:THR:CG2	2.48	0.41
29:CE:138:LEU:O	29:CE:139:LYS:C	2.59	0.41
26:CB:55:U:C2'	26:CB:55:U:O2	2.60	0.41
1:BA:10:A:OP2	5:BE:130:THR:HG21	2.21	0.41
18:AR:24:ASP:O	18:AR:26:ALA:N	2.53	0.41
25:CA:2002:G:OP1	38:CN:13:ASN:HA	2.21	0.41
40:CP:90:ALA:HB2	40:CP:112:ARG:HA	2.02	0.41
1:BA:1118:U:H2'	1:BA:1119:C:C6	2.55	0.41
25:CA:557:C:C2	25:CA:558:U:C5	3.09	0.41
8:AH:17:GLN:CD	8:AH:69:ALA:HB1	2.41	0.41
34:DJ:59:ALA:H	34:DJ:126:ALA:HA	1.86	0.41
25:CA:706:A:H2'	25:CA:707:G:O4'	2.21	0.41
30:CF:91:ARG:O	30:CF:94:ARG:HG3	2.21	0.41
7:AG:4:ARG:O	7:AG:5:VAL:C	2.59	0.41
1:BA:603:U:C2'	1:BA:604:G:O5'	2.69	0.41
3:BC:32:LEU:O	3:BC:35:ASP:HB2	2.20	0.41
26:CB:73:A:C5	26:CB:104:A:C2	3.09	0.41
1:BA:1021:A:C2'	1:BA:1022:A:H5"	2.50	0.41
39:CO:87:ILE:C	39:CO:88:LYS:O	2.59	0.41
25:DA:1113:U:H2'	25:DA:1114:C:H6	1.84	0.41
27:CC:142:ASN:H	27:CC:154:ALA:HB3	1.85	0.41
25:CA:125:A:C6	53:C2:10:LEU:HD13	2.56	0.41
13:BM:51:GLN:O	13:BM:55:LEU:CD1	2.68	0.41
8:BH:17:GLN:HE21	8:BH:71:VAL:HG23	1.86	0.41
25:DA:1257:C:H4'	29:DE:78:TRP:CD2	2.56	0.41
54:D3:42:HIS:O	54:D3:45:PRO:HG2	2.20	0.41
22:BV:5:G:N3	22:BV:69:G:N2	2.68	0.41
32:CH:69:ALA:HB1	32:CH:138:VAL:HG12	2.04	0.41
15:BO:2:LEU:HD12	15:BO:2:LEU:HA	1.87	0.41
25:DA:2816:G:C2'	25:DA:2817:U:O5'	2.69	0.41
25:CA:1744:A:N3	25:CA:1744:A:H2'	2.35	0.41
37:DM:1:MET:HE3	37:DM:43:ALA:HB1	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1013:G:O5'	1:AA:1013:G:H8	2.04	0.41
25:DA:2035:G:H4'	25:DA:2036:C:OP2	2.21	0.41
1:AA:322:C:C2	1:AA:332:G:N2	2.89	0.41
25:DA:1300:G:N3	25:DA:1626:A:C6	2.88	0.41
1:AA:524:G:H2'	1:AA:525:C:C6	2.56	0.41
25:CA:1805:A:H1'	27:CC:49:THR:O	2.21	0.41
5:AE:22:LYS:HB3	5:AE:29:ILE:CG2	2.51	0.41
1:BA:274:A:H4'	1:BA:275:G:OP1	2.18	0.41
25:CA:2191:A:C2	25:CA:2192:U:C6	3.09	0.41
32:CH:52:ALA:O	32:CH:56:ALA:HB3	2.21	0.41
25:DA:2070:A:C2'	25:DA:2070:A:N3	2.82	0.41
1:AA:75:G:N3	1:AA:75:G:H2'	2.35	0.41
27:CC:13:ARG:HG2	27:CC:14:HIS:CD2	2.56	0.41
1:AA:1421:G:C6	1:AA:1422:G:N7	2.89	0.41
1:AA:264:C:O2	17:AQ:65:PRO:HG2	2.21	0.41
25:CA:828:U:O2'	25:CA:829:A:H5'	2.21	0.41
13:BM:39:ALA:HB3	13:BM:42:VAL:HG13	2.02	0.41
25:CA:1982:U:H2'	25:CA:1982:U:O2	2.21	0.41
25:CA:513:A:C2	25:CA:514:A:C4	3.09	0.41
25:CA:1628:G:C2'	25:CA:1629:U:O5'	2.69	0.41
43:DS:82:MET:HB2	43:DS:98:LYS:HB2	2.03	0.41
2:BB:25:LYS:CE	2:BB:193:ASP:OD2	2.69	0.41
1:AA:392:C:H2'	1:AA:393:A:C8	2.56	0.41
25:CA:2687:U:H2'	25:CA:2688:G:O4'	2.20	0.41
25:CA:1947:C:N3	25:CA:1960:A:C2	2.89	0.41
25:CA:153:U:H6	25:CA:153:U:O5'	2.04	0.41
45:CU:13:LEU:HA	45:CU:13:LEU:HD23	1.89	0.41
25:DA:1010:A:N3	25:DA:1153:C:H1'	2.36	0.40
19:BS:9:PHE:CD1	19:BS:10:ILE:N	2.90	0.40
25:CA:2163:A:H5'	25:CA:2170:A:O2'	2.21	0.40
25:DA:1069:A:O3'	25:DA:1070:A:H8	2.04	0.40
25:DA:1095:A:C6	25:DA:1096:A:C2	3.09	0.40
33:DI:30:GLN:OE1	33:DI:32:VAL:HB	2.21	0.40
25:CA:1091:G:O2'	25:CA:1092:C:H5	2.04	0.40
25:CA:1059:G:C2'	33:CI:131:THR:OG1	2.69	0.40
2:AB:131:LYS:O	2:AB:132:GLU:C	2.60	0.40
1:AA:977:A:H3'	1:AA:977:A:N3	2.37	0.40
14:AN:53:ARG:HH11	14:AN:53:ARG:HG2	1.86	0.40
19:AS:54:ARG:HH21	19:AS:55:GLN:CB	2.34	0.40
20:AT:71:ALA:O	20:AT:72:ALA:C	2.59	0.40
37:CM:57:VAL:C	37:CM:60:GLN:HE21	2.24	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:57:VAL:C	17:AQ:58:VAL:CG1	2.89	0.40
42:DR:51:VAL:CB	42:DR:52:PRO:CD	2.94	0.40
25:DA:2215:C:O2'	25:DA:2216:G:H5'	2.21	0.40
25:DA:2334:U:O3'	39:DO:13:ARG:HB2	2.21	0.40
2:AB:206:ILE:HD13	2:AB:206:ILE:N	2.36	0.40
2:AB:211:LEU:C	2:AB:213:LEU:H	2.25	0.40
5:BE:38:VAL:CG2	5:BE:70:MET:CE	2.99	0.40
1:BA:1167:A:O2'	1:BA:1168:U:C4	2.74	0.40
25:DA:1542:U:O2'	25:DA:1543:G:C5'	2.68	0.40
12:AL:27:PRO:HG2	12:AL:28:GLN:OE1	2.21	0.40
1:AA:1035:A:OP2	1:AA:1035:A:C8	2.74	0.40
25:DA:1760:C:C5	25:DA:1761:C:C4	3.10	0.40
56:DB:49:C:OP1	39:DO:102:ARG:N	2.53	0.40
1:BA:1524:C:H6	1:BA:1524:C:O5'	2.03	0.40
51:C0:52:LYS:CE	51:C0:55:ALA:HB2	2.51	0.40
51:C0:52:LYS:HE2	51:C0:55:ALA:CB	2.50	0.40
1:AA:495:A:H4'	1:AA:496:A:O4'	2.20	0.40
1:BA:189:A:H2'	1:BA:190:A:H5'	2.04	0.40
5:AE:131:ASN:O	5:AE:135:VAL:HG12	2.22	0.40
5:AE:150:GLU:C	5:AE:152:VAL:H	2.25	0.40
1:BA:1239:A:N6	1:BA:1299:A:N6	2.70	0.40
1:BA:738:C:H2'	1:BA:739:C:C5	2.54	0.40
9:BI:46:VAL:O	9:BI:49:GLN:HB2	2.21	0.40
1:AA:1236:A:O2'	1:AA:1304:G:H4'	2.21	0.40
1:BA:202:G:H2'	1:BA:203:G:O4'	2.21	0.40
2:BB:110:ILE:O	2:BB:111:LYS:C	2.60	0.40
24:AY:75:MET:O	24:AY:76:SER:C	2.59	0.40
9:AI:102:PHE:N	9:AI:102:PHE:CD1	2.87	0.40
6:BF:40:GLU:CB	6:BF:42:TRP:HE1	2.34	0.40
1:AA:1492:A:C8	1:AA:1492:A:OP2	2.74	0.40
17:AQ:47:ASP:HB2	17:AQ:74:LEU:HD21	2.02	0.40
9:AI:20:ILE:CD1	9:AI:85:ALA:CB	2.99	0.40
12:BL:62:VAL:HG23	12:BL:63:THR:N	2.36	0.40
43:DS:28:LYS:HD3	43:DS:31:GLN:OE1	2.22	0.40
25:CA:1724:G:H2'	25:CA:1725:U:H5'	2.02	0.40
25:CA:2722:G:C2'	25:CA:2723:C:H5'	2.51	0.40
38:CN:3:HIS:O	38:CN:4:ARG:HB2	2.21	0.40
30:DF:21:TYR:HH	30:DF:164:GLU:CD	2.24	0.40
25:DA:419:U:H5"	60:DA:3232:HOH:O	2.21	0.40
27:DC:194:VAL:HG23	27:DC:195:GLY:N	2.35	0.40
38:CN:23:ASN:O	38:CN:25:ALA:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DJ:103:ILE:HG22	34:DJ:104:ALA:N	2.35	0.40
14:BN:14:ALA:C	14:BN:16:ALA:N	2.74	0.40
1:AA:1394:A:N6	1:AA:1501:C:H5'	2.36	0.40
25:DA:511:U:H5"	25:DA:512:G:OP2	2.21	0.40
25:CA:2056:G:C2'	25:CA:2056:G:N3	2.84	0.40
1:BA:844:G:C5	1:BA:844:G:OP2	2.74	0.40
12:AL:93:ARG:C	12:AL:94:TYR:CG	2.95	0.40
25:DA:1862:G:C2	25:DA:1881:C:C2	3.09	0.40
1:AA:840:C:N3	1:AA:846:G:O6	2.54	0.40
1:AA:840:C:H6	1:AA:840:C:O5'	2.04	0.40
9:BI:13:SER:O	9:BI:68:GLY:HA3	2.21	0.40
1:AA:614:C:C4	1:AA:615:G:N7	2.89	0.40
9:AI:19:PHE:O	9:AI:62:LEU:HA	2.21	0.40
32:DH:85:GLY:O	32:DH:86:ASP:C	2.60	0.40
1:BA:156:C:C4	1:BA:157:U:C4	3.09	0.40
21:BU:13:VAL:C	21:BU:15:LEU:HG	2.42	0.40
45:CU:53:GLN:H	45:CU:54:PRO:HD3	1.83	0.40
4:BD:173:ASP:CG	4:BD:176:LYS:HE2	2.42	0.40
25:CA:1613:G:N2	25:CA:1619:G:C4	2.89	0.40
1:BA:1319:A:H5'	19:BS:4:LEU:HD13	2.03	0.40
27:CC:146:LYS:O	27:CC:149:LYS:HB3	2.21	0.40
25:DA:1996:C:H5	35:DK:32:TYR:OH	2.04	0.40
25:DA:1867:G:C5	25:DA:1868:C:C5	3.09	0.40
25:CA:1234:U:H3'	25:CA:1234:U:C6	2.56	0.40
25:DA:2100:G:C6	25:DA:2190:G:C6	3.08	0.40
1:BA:1089:G:N2	1:BA:1090:U:H1'	2.35	0.40
25:CA:1490:A:O2'	25:CA:1491:G:H5'	2.21	0.40
27:CC:97:ASP:OD1	27:CC:97:ASP:C	2.59	0.40
25:DA:1734:G:C5	25:DA:1735:A:N7	2.89	0.40
7:BG:87:PRO:HB3	7:BG:144:ALA:HB2	2.03	0.40
31:DG:174:LYS:HG2	31:DG:175:LYS:N	2.36	0.40
25:CA:2619:C:H4'	28:CD:156:PHE:O	2.21	0.40
4:AD:141:VAL:O	4:AD:141:VAL:HG23	2.20	0.40
45:CU:39:ASN:HD22	45:CU:62:ALA:HB3	1.86	0.40
1:BA:1486:G:C2	1:BA:1487:G:N3	2.89	0.40
51:D0:30:ASP:O	51:D0:31:LYS:C	2.60	0.40
25:CA:2312:U:C3'	25:CA:2312:U:C6	3.03	0.40
25:CA:2207:C:C2'	25:CA:2208:C:O5'	2.68	0.40
1:AA:749:A:C6	1:AA:750:C:C4	3.09	0.40
25:DA:659:G:C4'	29:DE:95:LYS:HD3	2.51	0.40
29:DE:18:THR:HG22	29:DE:19:PHE:CE2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:48:THR:C	29:DE:50:ALA:H	2.23	0.40
1:BA:542:G:C2	1:BA:543:U:C5	3.10	0.40
45:CU:42:LYS:NZ	45:CU:42:LYS:HB2	2.35	0.40
27:CC:75:ALA:HB2	27:CC:95:TYR:HA	2.03	0.40
4:AD:147:LYS:HD3	4:AD:147:LYS:N	2.33	0.40
25:DA:2661:G:N1	25:DA:2662:A:N3	2.69	0.40
25:CA:162:U:O4	25:CA:2218:G:H4'	2.20	0.40
25:CA:2443:C:O2'	25:CA:2444:G:H5'	2.21	0.40
39:CO:41:ALA:HB1	39:CO:42:PRO:CD	2.51	0.40
38:DN:9:GLN:O	38:DN:17:ARG:NH2	2.54	0.40
25:DA:2683:C:C6	25:DA:2684:U:H5	2.39	0.40
17:BQ:31:PRO:C	17:BQ:32:ILE:HD12	2.41	0.40
30:DF:147:ARG:HG3	30:DF:149:ARG:H	1.86	0.40
25:CA:1478:G:C6	25:CA:1514:G:C2	3.09	0.40
25:CA:1446:C:O5'	25:CA:1446:C:H6	2.04	0.40
25:CA:729:G:C5	27:CC:206:LYS:HB2	2.56	0.40
38:DN:29:VAL:HG11	38:DN:75:ILE:HG23	2.01	0.40
25:DA:371:A:N3	48:DX:60:LYS:NZ	2.69	0.40
9:BI:33:SER:HB3	9:BI:36:GLN:NE2	2.37	0.40
1:BA:322:C:O3'	20:BT:17:ARG:CG	2.69	0.40
36:DL:92:LEU:HD21	36:DL:124:GLY:HA3	2.03	0.40
48:DX:7:THR:OG1	48:DX:9:LYS:HD2	2.21	0.40
1:BA:657:U:O2	15:BO:21:THR:CG2	2.68	0.40
25:DA:2545:G:C2'	25:DA:2546:U:H5'	2.51	0.40
25:CA:2189:U:H2'	25:CA:2190:G:C8	2.56	0.40
6:BF:52:ASN:O	6:BF:53:LYS:HB2	2.21	0.40
25:CA:135:U:O5'	25:CA:135:U:H6	2.04	0.40
55:C4:2:LYS:HZ2	55:C4:2:LYS:HB2	1.85	0.40
25:CA:2760:C:O2	25:CA:2760:C:H2'	2.21	0.40
25:DA:84:A:H4'	25:DA:85:G:O5'	2.21	0.40
1:BA:1013:G:N2	1:BA:1017:U:C2	2.90	0.40
28:CD:63:PRO:O	28:CD:64:GLU:C	2.60	0.40
25:CA:838:C:O2'	25:CA:839:U:H5'	2.21	0.40
25:DA:1644:C:O2	25:DA:1644:C:C2'	2.66	0.40
25:CA:2807:U:C2'	25:CA:2808:G:H5'	2.51	0.40
25:CA:1569:A:C6	25:CA:1570:A:C6	3.09	0.40
25:DA:1792:G:O2'	25:DA:1793:C:H5'	2.20	0.40
1:AA:755:G:H2'	1:AA:756:C:H6	1.87	0.40
6:AF:45:ARG:HB3	6:AF:59:TYR:CD1	2.55	0.40
25:DA:1756:G:C8	25:DA:1756:G:H3'	2.56	0.40
21:AU:8:ASN:N	21:AU:8:ASN:OD1	2.53	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DP:61:ARG:HH21	40:DP:61:ARG:HG3	1.87	0.40
25:CA:2401:U:H6	25:CA:2401:U:O5'	2.03	0.40
43:CS:7:HIS:CD2	43:CS:7:HIS:C	2.94	0.40
32:DH:75:LEU:HA	32:DH:75:LEU:HD23	1.75	0.40
1:BA:977:A:C1'	1:BA:982:U:O4	2.69	0.40
1:BA:984:C:H2'	1:BA:985:C:H6	1.86	0.40
25:DA:1081:U:C5'	25:DA:1082:U:OP2	2.69	0.40
32:CH:31:VAL:HG12	32:CH:32:PRO:N	2.37	0.40
49:DY:9:LYS:HG2	49:DY:11:VAL:H	1.86	0.40
11:AK:111:ASP:CG	11:AK:113:THR:HG23	2.42	0.40
1:AA:1216:A:C4	1:AA:1217:C:H5	2.36	0.40
1:AA:1216:A:C6	1:AA:1217:C:C4	3.09	0.40
1:AA:1312:G:C2	1:AA:1326:U:N3	2.89	0.40
37:CM:59:ARG:O	37:CM:60:GLN:HG2	2.21	0.40
41:DQ:85:ALA:O	41:DQ:86:SER:CB	2.69	0.40
25:DA:2382:G:N2	54:D3:41:ARG:NH2	2.70	0.40
25:DA:2195:U:O2	25:DA:2196:C:C6	2.74	0.40
25:CA:1166:G:N2	25:CA:1184:U:H1'	2.35	0.40
25:DA:860:U:C6	25:DA:2268:A:O4'	2.74	0.40
25:DA:2286:G:OP1	52:D1:29:LYS:CE	2.63	0.40
17:BQ:11:VAL:O	17:BQ:12:VAL:HG12	2.20	0.40
36:DL:103:ILE:HD13	36:DL:103:ILE:N	2.35	0.40
38:DN:51:LEU:O	38:DN:54:LEU:HB3	2.21	0.40
25:DA:2110:G:H5'	25:DA:2118:U:O2	2.20	0.40
25:DA:1465:G:N1	25:DA:1466:U:N3	2.69	0.40
25:DA:528:A:C2'	25:DA:529:A:O5'	2.69	0.40
30:DF:37:MET:CG	30:DF:56:LEU:HD11	2.51	0.40
4:AD:154:VAL:HA	4:AD:157:ALA:HB3	2.03	0.40
33:CI:101:SER:OG	33:CI:102:ARG:N	2.55	0.40
25:DA:1011:G:C2	25:DA:1151:A:C2	3.10	0.40
5:AE:81:GLN:N	5:AE:146:MET:HE3	2.34	0.40
41:CQ:78:PHE:CE2	41:CQ:82:LEU:HD11	2.55	0.40
25:DA:2329:U:H2'	25:DA:2330:G:O4'	2.21	0.40
7:BG:45:ALA:CA	7:BG:120:ALA:HB2	2.50	0.40
1:BA:734:G:H2'	1:BA:735:C:H6	1.87	0.40
1:BA:736:C:OP1	18:BR:60:ARG:NH1	2.54	0.40
1:BA:740:U:O2'	1:BA:741:G:C5'	2.69	0.40
20:BT:79:THR:O	20:BT:82:ILE:N	2.55	0.40
1:AA:16:A:C2	1:AA:920:U:O2	2.74	0.40
1:AA:389:A:C3'	1:AA:390:U:H5'	2.51	0.40
8:AH:5:PRO:O	8:AH:8:ASP:N	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:1131:G:N7	1:BA:1132:C:C5	2.90	0.40
1:BA:1074:G:C2	1:BA:1102:A:C4	3.09	0.40
2:BB:170:ILE:O	2:BB:171:ALA:C	2.59	0.40
25:CA:2142:A:C2	25:CA:2150:C:N3	2.89	0.40
2:BB:136:ARG:O	2:BB:139:GLU:CG	2.69	0.40
9:AI:18:VAL:HG12	9:AI:18:VAL:O	2.21	0.40
8:BH:4:ASP:CG	8:BH:7:ALA:HB2	2.41	0.40
25:DA:1176:U:C4	25:DA:1177:G:O6	2.74	0.40
25:CA:359:G:C2'	25:CA:360:U:H5'	2.50	0.40
37:CM:109:PRO:O	37:CM:112:LEU:N	2.54	0.40
3:BC:11:LEU:HD13	3:BC:17:TRP:CE2	2.56	0.40
29:DE:171:ASP:OD1	29:DE:172:ALA:N	2.55	0.40
25:CA:1735:A:C2	25:CA:1736:U:C6	3.09	0.40
25:DA:1790:C:H6	25:DA:1790:C:O5'	2.04	0.40
11:AK:96:ILE:O	11:AK:99:LEU:N	2.53	0.40
25:DA:1373:A:H2'	25:DA:1374:G:O4'	2.22	0.40
34:DJ:99:ARG:C	34:DJ:103:ILE:HD12	2.42	0.40
37:CM:54:THR:C	37:CM:56:ALA:N	2.75	0.40
21:BU:24:LYS:HZ3	21:BU:25:ALA:HB2	1.86	0.40
27:CC:110:LYS:HE2	27:CC:113:ASP:CG	2.40	0.40
1:BA:1505:G:C2'	23:BX:15:A:OP2	2.69	0.40
32:CH:72:ILE:HD12	32:CH:140:ALA:CB	2.51	0.40
25:DA:1195:G:N3	25:DA:1226:A:H2	2.19	0.40
25:CA:528:A:N1	25:CA:2043:C:O5'	2.54	0.40
4:AD:170:LEU:HD12	4:AD:170:LEU:H	1.87	0.40
1:AA:1118:U:O3'	9:AI:84:ARG:NH2	2.54	0.40
25:CA:1373:A:H2'	25:CA:1374:G:O5'	2.20	0.40
25:CA:842:U:O2'	25:CA:843:G:H5'	2.21	0.40
35:DK:34:GLY:O	35:DK:36:GLY:N	2.54	0.40
25:CA:666:A:C4	25:CA:667:U:C5	3.09	0.40
27:DC:199:HIS:O	27:DC:202:ARG:HG2	2.22	0.40
1:BA:255:G:H2'	1:BA:256:U:C6	2.56	0.40
17:BQ:51:GLU:N	17:BQ:51:GLU:CD	2.75	0.40
25:CA:1875:G:O2'	25:CA:1876:A:O5'	2.36	0.40
1:AA:720:C:H3'	1:AA:721:G:C8	2.56	0.40
3:BC:150:VAL:O	3:BC:166:TRP:HA	2.21	0.40
25:DA:1964:G:H4'	25:DA:1965:C:OP2	2.21	0.40
12:AL:86:VAL:O	12:AL:88:ASP:N	2.54	0.40
3:BC:6:PRO:HB3	3:BC:181:ILE:HG21	2.04	0.40
25:CA:2204:G:O5'	27:CC:149:LYS:HE3	2.21	0.40
25:DA:900:A:C4	25:DA:901:C:C6	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BD:186:GLU:CB	4:BD:189:ASP:OD1	2.69	0.40
25:DA:1486:U:H2'	25:DA:1487:U:C6	2.56	0.40
25:DA:819:A:C2'	25:DA:820:A:O5'	2.65	0.40
25:CA:1748:C:C2	25:CA:1749:A:C8	3.09	0.40
4:AD:196:GLU:C	4:AD:198:LEU:N	2.74	0.40
8:AH:19:ALA:O	8:AH:20:ASN:HB2	2.21	0.40
6:AF:49:TYR:HA	6:AF:50:PRO:HD3	1.82	0.40
25:CA:1432:G:O2'	25:CA:1433:A:H5'	2.22	0.40
28:CD:103:ASP:C	28:CD:104:VAL:CG2	2.89	0.40
25:DA:2860:A:C8	25:DA:2861:U:C6	3.09	0.40
1:AA:60:A:C2	1:AA:107:G:N3	2.88	0.40
25:DA:2331:G:H2'	25:DA:2336:A:N1	2.36	0.40
25:DA:282:A:C4	25:DA:283:G:C8	3.08	0.40
37:CM:2:LEU:H	37:CM:2:LEU:HD22	1.86	0.40
15:BO:44:GLU:HB3	15:BO:45:HIS:CD2	2.56	0.40
7:AG:49:LEU:CD1	7:AG:60:ALA:CB	2.99	0.40
4:BD:114:ARG:O	4:BD:116:LEU:N	2.55	0.40
48:CX:38:TRP:HE3	48:CX:45:PHE:CD2	2.40	0.40
5:AE:15:ILE:HD11	5:AE:37:VAL:HB	2.03	0.40
45:DU:51:LEU:O	45:DU:52:ASN:C	2.60	0.40
1:AA:1165:U:H2'	1:AA:1166:G:O4'	2.22	0.40
10:BJ:89:ARG:O	10:BJ:90:LEU:HG	2.20	0.40
30:CF:16:MET:HB3	30:CF:16:MET:HE2	1.95	0.40
31:CG:86:LEU:N	31:CG:86:LEU:HD12	2.36	0.40
16:AP:46:LYS:HE2	16:AP:47:GLU:H	1.86	0.40
25:DA:1629:U:O2	25:DA:2698:U:C5'	2.69	0.40
1:AA:32:A:H2'	1:AA:33:A:C8	2.56	0.40
25:DA:2810:A:H2'	25:DA:2811:G:O4'	2.21	0.40
25:DA:645:C:O2'	25:DA:646:U:C5'	2.69	0.40
25:CA:1584:U:C2'	25:CA:1584:U:O2	2.68	0.40
1:BA:457:G:N2	1:BA:476:U:C2	2.89	0.40
39:DO:109:ALA:HA	39:DO:112:GLU:HB2	2.04	0.40
25:DA:2765:A:C2'	25:DA:2765:A:N3	2.85	0.40
28:DD:49:GLN:HA	28:DD:81:GLU:HA	2.04	0.40
25:DA:294:A:N6	25:DA:345:A:C4	2.89	0.40
25:DA:648:G:H2'	25:DA:649:G:H8	1.86	0.40
50:DZ:44:ARG:HD2	50:DZ:44:ARG:HA	1.74	0.40
26:CB:86:G:N7	26:CB:88:C:C4	2.89	0.40
25:CA:1261:C:C2'	25:CA:1262:A:O5'	2.70	0.40
1:BA:293:G:C6	1:BA:305:G:N1	2.90	0.40
1:AA:186:C:H2'	1:AA:187:G:O4'	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:428:A:H2'	25:DA:429:A:O4'	2.21	0.40
33:DI:13:ALA:C	33:DI:15:GLY:N	2.75	0.40
18:AR:62:ARG:HB3	18:AR:69:TYR:CZ	2.56	0.40
25:CA:170:U:H2'	25:CA:171:U:H6	1.86	0.40
25:DA:2824:C:C4	25:DA:2825:G:C5	3.08	0.40
11:AK:98:ALA:O	11:AK:101:ALA:HB3	2.21	0.40
35:DK:10:VAL:HG12	35:DK:12:ASP:OD1	2.22	0.40
25:DA:812:C:N3	25:DA:813:U:C5	2.89	0.40
25:DA:2779:U:O4'	25:DA:2781:A:C5	2.74	0.40
27:DC:160:TYR:CD1	27:DC:160:TYR:C	2.95	0.40
5:BE:35:LEU:HD12	5:BE:35:LEU:HA	1.73	0.40
1:BA:1244:G:N2	1:BA:1294:G:N3	2.70	0.40
25:DA:1059:G:C6	25:DA:1080:A:C2	3.08	0.40
25:DA:1084:A:H2'	25:DA:1085:A:C1'	2.51	0.40
25:DA:1087:G:N9	25:DA:1089:A:H1'	2.37	0.40
49:DY:45:GLN:HG3	49:DY:46:VAL:H	1.85	0.40
2:AB:117:GLU:O	2:AB:120:SER:HB3	2.21	0.40
2:AB:142:LYS:O	2:AB:144:GLU:N	2.54	0.40
1:AA:1315:U:C4	1:AA:1316:G:C6	3.09	0.40
1:AA:987:G:N3	1:AA:1219:A:C2	2.89	0.40
1:BA:1061:G:C5	1:BA:1062:U:C5	3.09	0.40
1:BA:1061:G:O5'	1:BA:1061:G:H8	2.05	0.40
1:AA:1144:G:N1	1:AA:1145:A:H2	2.19	0.40
42:DR:49:ILE:HB	42:DR:52:PRO:C	2.42	0.40
32:DH:9:VAL:HG11	32:DH:12:LEU:CD1	2.52	0.40
32:DH:63:ALA:CA	32:DH:66:ASN:HB2	2.51	0.40
11:BK:125:LYS:O	11:BK:126:ARG:HG3	2.21	0.40
2:AB:211:LEU:C	2:AB:213:LEU:N	2.75	0.40
5:BE:73:VAL:O	5:BE:75:LEU:CD1	2.69	0.40
25:DA:2840:C:H5"	38:DN:53:THR:HG21	2.03	0.40
38:DN:79:LEU:O	38:DN:80:PHE:CB	2.69	0.40
38:DN:49:GLU:OE2	38:DN:95:THR:HG21	2.22	0.40
25:DA:391:A:C5	25:DA:392:U:C5	3.09	0.40
13:AM:19:THR:HB	13:AM:25:GLY:HA2	2.02	0.40
1:AA:1033:G:N2	1:AA:1034:G:O4'	2.54	0.40
3:AC:113:LYS:O	3:AC:117:ASP:OD2	2.39	0.40
4:AD:128:VAL:HG13	4:AD:128:VAL:O	2.22	0.40
1:AA:430:A:OP1	4:AD:8:LEU:HB2	2.21	0.40
11:AK:124:LYS:HZ2	21:AU:34:ARG:NH2	2.19	0.40
21:AU:33:ARG:HH21	21:AU:34:ARG:HG3	1.85	0.40
1:BA:781:A:N6	1:BA:802:A:H1'	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:78:A:N6	1:AA:79:G:C2	2.89	0.40
1:BA:64:G:H2'	1:BA:64:G:O5'	2.21	0.40
11:BK:51:PHE:HB2	11:BK:55:ARG:HB2	2.03	0.40
11:BK:14:GLN:HE21	11:BK:15:VAL:N	2.19	0.40
1:BA:739:C:H2'	1:BA:740:U:O5'	2.21	0.40
20:BT:27:MET:SD	20:BT:60:GLN:HG3	2.61	0.40
25:DA:2019:A:H2'	25:DA:2020:A:O5'	2.21	0.40
25:DA:2019:A:C2'	25:DA:2020:A:O5'	2.69	0.40
25:CA:1415:U:C4	25:CA:1587:G:O6	2.74	0.40
30:CF:121:PHE:CE2	30:CF:127:TYR:HD1	2.39	0.40
1:AA:1048:G:P	60:AA:1783:HOH:O	2.79	0.40
2:BB:134:LEU:HD23	2:BB:135:MET:SD	2.61	0.40
25:DA:2531:A:C5	25:DA:2532:G:C5	3.10	0.40
10:BJ:22:THR:C	10:BJ:25:ILE:HG22	2.42	0.40
10:BJ:25:ILE:HG21	10:BJ:74:VAL:HG21	2.04	0.40
9:AI:41:GLU:O	9:AI:44:ARG:NH1	2.52	0.40
6:BF:55:HIS:ND1	6:BF:55:HIS:N	2.66	0.40
25:DA:277:G:C2'	25:DA:278:A:OP2	2.69	0.40
25:DA:280:U:C2	25:DA:281:C:C5	3.09	0.40
40:DP:20:ARG:CB	40:DP:21:PRO:HD2	2.47	0.40
25:CA:686:U:H2'	25:CA:788:A:C2	2.56	0.40
1:BA:1129:C:C2	1:BA:1139:G:C6	3.09	0.40
27:DC:7:PRO:HB3	27:DC:13:ARG:HA	2.01	0.40
27:CC:35:LYS:HG2	27:CC:36:ASN:N	2.36	0.40
43:DS:62:ASP:O	43:DS:63:GLY:C	2.59	0.40
28:DD:185:ASN:O	28:DD:186:LEU:HD23	2.21	0.40
25:CA:677:A:O2'	25:CA:2071:A:H5'	2.21	0.40
25:CA:544:C:C5	25:CA:545:U:C6	3.09	0.40
25:DA:151:C:H2'	25:DA:152:A:C8	2.57	0.40
25:DA:55:G:C2	25:DA:56:A:N7	2.90	0.40
14:BN:15:LEU:HB3	14:BN:55:SER:CA	2.47	0.40
25:DA:13:A:H4'	25:DA:14:A:OP1	2.20	0.40
31:CG:25:ILE:O	31:CG:78:VAL:HG21	2.22	0.40
1:BA:708:C:H2'	1:BA:709:U:H6	1.84	0.40
28:CD:99:GLU:CG	28:CD:182:ALA:HB2	2.52	0.40
1:BA:109:A:C6	1:BA:326:G:C6	3.10	0.40
30:DF:168:LEU:O	30:DF:172:PHE:CE1	2.75	0.40
33:CI:56:VAL:HA	33:CI:71:LYS:CE	2.49	0.40
33:CI:57:VAL:C	33:CI:68:PHE:CB	2.90	0.40
30:CF:48:LEU:O	30:CF:51:ASN:CB	2.69	0.40
25:DA:1796:U:H4'	27:DC:253:GLY:N	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DK:69:VAL:O	35:DK:69:VAL:CG2	2.69	0.40
7:AG:96:ASN:O	7:AG:100:MET:HG3	2.21	0.40
25:DA:186:G:HO2'	25:DA:187:G:H5'	1.85	0.40
25:CA:664:G:H2'	25:CA:665:U:H5'	2.03	0.40
49:CY:18:LEU:O	49:CY:22:LEU:HB3	2.21	0.40
49:CY:23:ARG:CA	49:CY:27:ASN:ND2	2.84	0.40
11:BK:109:ILE:CG2	21:BU:16:ARG:CD	2.99	0.40
1:AA:1000:A:C2	1:AA:1041:G:N2	2.89	0.40
1:AA:720:C:H1'	18:AR:38:ILE:HG21	2.03	0.40
36:CL:58:TYR:O	54:C3:12:ARG:CD	2.70	0.40
31:CG:140:ILE:HD12	31:CG:140:ILE:C	2.40	0.40
18:AR:71:ASP:O	18:AR:73:HIS:N	2.54	0.40
30:DF:109:ARG:HH21	30:DF:109:ARG:HG2	1.85	0.40
5:AE:67:ARG:O	5:AE:68:ARG:O	2.40	0.40
25:DA:1870:C:H5"	25:DA:1871:A:C4	2.56	0.40
1:AA:1023:U:C2'	1:AA:1024:G:O4'	2.68	0.40
27:CC:100:ARG:HG3	27:CC:100:ARG:HH11	1.87	0.40
7:AG:67:ASN:OD1	7:AG:129:ASN:HB3	2.21	0.40
25:DA:600:G:C5	25:DA:601:C:C4	3.09	0.40
1:BA:1415:G:C2	1:BA:1486:G:C4	3.08	0.40
26:CB:73:A:C8	26:CB:104:A:C6	3.09	0.40
40:DP:105:LYS:HA	40:DP:108:ARG:HD3	2.03	0.40
1:AA:295:C:C2	1:AA:296:U:C6	3.09	0.40
25:DA:1364:G:H2'	25:DA:1365:A:H5'	2.02	0.40
25:CA:2392:A:C2	25:CA:2393:U:C2	3.09	0.40
54:C3:56:LEU:O	54:C3:59:ALA:HB3	2.21	0.40
46:DV:55:GLU:O	46:DV:59:GLU:HB2	2.21	0.40
28:CD:40:LEU:HG	28:CD:40:LEU:H	1.72	0.40
25:CA:771:G:C6	25:CA:772:C:N4	2.89	0.40
25:CA:2095:A:H5'	25:CA:2096:C:OP2	2.21	0.40
8:BH:88:LYS:C	8:BH:90:GLU:N	2.74	0.40
25:DA:402:A:O5'	25:DA:402:A:H8	2.04	0.40
25:DA:1030:C:O2	25:DA:1030:C:C2'	2.65	0.40
5:AE:96:GLN:HB2	5:AE:123:LEU:HD12	2.04	0.40
40:DP:23:ASP:OD2	40:DP:112:ARG:NH1	2.55	0.40
25:DA:2660:A:C6	25:DA:2661:G:C5	3.09	0.40
25:DA:2751:G:H3'	25:DA:2752:C:C6	2.56	0.40
39:CO:9:ARG:O	39:CO:10:ARG:C	2.58	0.40
31:CG:1:SER:C	31:CG:3:VAL:N	2.70	0.40
25:DA:1146:C:O2	25:DA:1146:C:C2'	2.65	0.40
53:D2:43:THR:O	53:D2:44:VAL:HB	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BD:168:THR:HG21	4:BD:183:ARG:NH2	2.36	0.40
29:DE:83:VAL:HG12	29:DE:86:ALA:HA	2.03	0.40
1:AA:369:G:H2'	1:AA:370:C:H6	1.86	0.40
25:CA:710:U:O5'	25:CA:710:U:H6	2.05	0.40
25:CA:1827:U:O2'	25:CA:1828:G:H5'	2.21	0.40
7:BG:125:ASP:HB3	7:BG:130:LYS:CG	2.52	0.40
32:CH:51:ARG:HB2	32:CH:52:ALA:H	1.77	0.40
2:BB:9:LEU:CD2	2:BB:11:ALA:HB3	2.51	0.40
26:CB:38:C:C6	26:CB:38:C:C3'	3.04	0.40
25:DA:2787:C:O2'	25:DA:2788:C:H5'	2.21	0.40
25:DA:494:G:OP1	43:DS:8:ARG:HD3	2.21	0.40
27:DC:145:MET:HG3	27:DC:153:LEU:HD21	2.03	0.40
25:CA:1752:C:H5'	25:CA:2861:U:O3'	2.21	0.40
8:AH:101:ALA:O	8:AH:102:VAL:C	2.59	0.40
25:CA:443:A:H2	25:CA:1245:G:N3	2.19	0.40
25:DA:10:A:C5	25:DA:11:C:C5	3.10	0.40
1:BA:1081:A:C2	1:BA:1082:A:C4	3.10	0.40
25:CA:1701:A:H2'	25:CA:1702:G:H5'	2.02	0.40
5:BE:132:PRO:HA	5:BE:135:VAL:CG1	2.51	0.40
25:CA:2667:C:N3	31:CG:109:SER:OG	2.49	0.40
25:DA:2470:G:O2'	25:DA:2471:A:H5'	2.20	0.40
33:DI:107:GLU:C	33:DI:108:ILE:HG13	2.42	0.40
12:BL:60:PHE:CD1	12:BL:60:PHE:N	2.90	0.40
42:DR:74:ILE:N	42:DR:74:ILE:HD12	2.37	0.40
13:AM:30:LYS:HB3	13:AM:30:LYS:HE3	1.88	0.40
27:CC:106:PRO:HD2	27:CC:109:LEU:HD22	2.02	0.40
1:BA:1313:U:N3	1:BA:1314:C:C5	2.89	0.40
1:BA:1324:A:C5	1:BA:1325:C:C5	3.09	0.40
9:BI:128:LYS:CD	9:BI:129:ARG:OXT	2.70	0.40
1:BA:952:U:O4	13:BM:102:LYS:HG2	2.22	0.40
33:DI:7:TYR:CB	33:DI:58:ILE:H	2.34	0.40
25:DA:1384:A:H1'	25:DA:1405:U:H1'	2.03	0.40
25:DA:1401:G:C5	25:DA:1402:U:C4	3.09	0.40
11:AK:111:ASP:OD2	11:AK:113:THR:HG23	2.21	0.40
2:AB:87:ASP:HB2	2:AB:220:VAL:HG12	2.03	0.40
1:AA:958:A:C6	1:AA:959:A:N1	2.89	0.40
42:DR:39:LEU:CB	42:DR:49:ILE:HD13	2.52	0.40
25:DA:2207:C:C4	25:DA:2218:G:N1	2.89	0.40
31:CG:8:VAL:HG21	31:CG:72:ASN:HA	2.04	0.40
4:AD:168:THR:CB	4:AD:183:ARG:NH2	2.84	0.40
2:BB:93:HIS:CG	2:BB:94:ARG:HH21	2.40	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:724:G:C2	1:BA:725:G:C8	3.10	0.40
5:BE:104:ILE:HA	5:BE:104:ILE:HD12	1.96	0.40
1:BA:230:G:H2'	1:BA:231:U:O4'	2.22	0.40
25:DA:1587:G:C6	25:DA:1588:G:N7	2.89	0.40
25:CA:819:A:N3	25:CA:1189:A:C2	2.90	0.40
36:DL:111:ILE:HD12	36:DL:111:ILE:H	1.84	0.40
36:DL:77:ILE:HG23	36:DL:81:ASP:OD2	2.22	0.40
12:BL:21:PRO:C	12:BL:23:LEU:N	2.74	0.40
25:DA:1545:A:C8	25:DA:1546:G:C8	3.09	0.40
1:BA:766:A:H2'	1:BA:767:A:O4'	2.21	0.40
4:AD:155:LYS:HA	4:AD:155:LYS:HD3	1.92	0.40
4:AD:8:LEU:HA	4:AD:8:LEU:HD13	1.86	0.40
30:CF:175:PRO:O	30:CF:176:PHE:HB2	2.20	0.40
1:BA:801:U:C2'	1:BA:802:A:O5'	2.69	0.40
22:AV:65:G:N3	22:AV:66:U:C6	2.89	0.40
1:AA:69:G:H2'	1:AA:69:G:N3	2.35	0.40
1:AA:80:A:H2'	1:AA:80:A:N3	2.36	0.40
25:CA:1448:G:C2'	25:CA:1449:G:H5'	2.51	0.40
25:CA:1450:G:C2	25:CA:1462:C:C2	3.09	0.40
25:DA:2284:A:H1'	25:DA:2325:G:C2	2.57	0.40
1:AA:181:A:C2	1:AA:194:C:N3	2.90	0.40
11:BK:15:VAL:HG13	11:BK:16:SER:N	2.36	0.40
3:BC:46:LEU:O	3:BC:49:ALA:HB3	2.22	0.40
16:AP:79:ASN:O	16:AP:80:LYS:HE3	2.21	0.40
9:BI:29:ILE:CD1	9:BI:37:TYR:CD2	3.05	0.40
37:DM:53:MET:C	37:DM:57:VAL:HG13	2.41	0.40
32:DH:41:LYS:HA	32:DH:44:ILE:HG23	2.03	0.40
25:CA:2111:U:O4	25:CA:2145:C:O2	2.39	0.40
1:AA:1060:U:H1'	10:AJ:54:SER:HB2	2.02	0.40
14:AN:2:LYS:C	14:AN:6:LYS:HE2	2.42	0.40
16:BP:32:PHE:O	16:BP:32:PHE:CD1	2.74	0.40
2:BB:124:THR:O	2:BB:125:PHE:HB3	2.21	0.40
10:BJ:35:GLN:OE1	10:BJ:78:GLU:HB2	2.22	0.40
1:BA:1028:C:C5	1:BA:1034:G:N2	2.89	0.40
25:DA:2230:G:H8	25:DA:2230:G:O5'	2.05	0.40
13:AM:44:ILE:HG13	13:AM:47:LEU:CD1	2.46	0.40
3:BC:11:LEU:HD23	3:BC:11:LEU:HA	1.84	0.40
1:BA:386:C:H2'	1:BA:387:U:C5'	2.52	0.40
3:AC:106:ARG:NH1	3:AC:107:LYS:O	2.54	0.40
46:CV:80:HIS:CE1	46:CV:83:LYS:HE2	2.56	0.40
25:DA:1142:A:C4	25:DA:1144:A:N7	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:17:GLN:CA	6:AF:17:GLN:HE21	2.35	0.40
37:CM:83:GLY:C	37:CM:84:LYS:HG2	2.39	0.40
33:CI:56:VAL:CA	33:CI:71:LYS:HE2	2.50	0.40
1:AA:1056:U:O2'	1:AA:1057:G:H5'	2.21	0.40
25:CA:2649:C:O5'	25:CA:2649:C:H6	2.04	0.40
30:CF:51:ASN:ND2	30:CF:146:ASP:HB3	2.36	0.40
1:AA:614:C:H2'	1:AA:615:G:O5'	2.21	0.40
13:AM:76:ILE:HG22	13:AM:80:MET:HE3	2.04	0.40
43:CS:63:GLY:O	43:CS:64:ALA:CB	2.69	0.40
25:CA:328:U:C2'	25:CA:329:G:OP1	2.69	0.40
45:DU:90:LYS:HD3	45:DU:90:LYS:HA	1.83	0.40
12:BL:2:THR:C	12:BL:4:ASN:N	2.75	0.40
25:DA:2259:U:C4	25:DA:2427:C:N4	2.89	0.40
1:BA:560:A:C8	1:BA:566:G:C4	3.09	0.40
33:DI:135:MET:HB2	33:DI:137:LEU:HG	2.04	0.40
8:AH:39:LEU:C	8:AH:45:ILE:HG12	2.42	0.40
1:BA:644:U:C5'	8:BH:83:ARG:HH12	2.31	0.40
35:DK:8:LEU:CD1	35:DK:8:LEU:N	2.78	0.40
1:AA:932:C:N4	7:AG:2:ARG:HH22	2.20	0.40
29:CE:171:ASP:OD1	29:CE:171:ASP:C	2.60	0.40
3:BC:7:ASN:C	3:BC:9:ILE:N	2.73	0.40
28:CD:2:ILE:HD13	28:CD:90:PHE:CZ	2.57	0.40
25:DA:541:A:C8	25:DA:541:A:H3'	2.56	0.40
30:DF:103:ILE:CG2	30:DF:174:PHE:CD2	3.04	0.40
1:BA:1158:C:C2'	1:BA:1158:C:O2	2.67	0.40
25:CA:869:G:C6	25:CA:870:U:C4	3.10	0.40
16:AP:3:THR:CG2	16:AP:4:ILE:N	2.85	0.40
1:AA:1025:U:C5'	1:AA:1026:G:O5'	2.69	0.40
1:AA:678:U:O2'	1:AA:679:C:H5'	2.21	0.40
34:DJ:58:ASN:HD22	34:DJ:61:LYS:HD3	1.86	0.40
57:DW:43:ALA:CB	57:DW:47:VAL:HG12	2.51	0.40
44:CT:69:ARG:CB	44:CT:74:ILE:HG22	2.48	0.40
25:DA:2184:A:OP2	25:DA:2184:A:H8	2.04	0.40
25:DA:734:A:C4	25:DA:735:A:C8	3.10	0.40
10:AJ:36:VAL:HG23	10:AJ:76:ILE:HG23	2.03	0.40
1:AA:952:U:H2'	1:AA:953:G:H8	1.85	0.40
25:CA:771:G:OP2	53:C2:11:LYS:HD3	2.21	0.40
25:CA:772:C:C2	25:CA:773:U:C5	3.10	0.40
25:DA:2742:G:N2	25:DA:2763:G:H1'	2.37	0.40
25:DA:2648:G:C4	25:DA:2649:C:C5	3.09	0.40
25:DA:873:C:N3	25:DA:905:A:C2	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2821:A:OP2	28:DD:115:GLY:CA	2.69	0.40
4:BD:114:ARG:O	4:BD:115:GLN:C	2.59	0.40
41:DQ:31:TYR:O	41:DQ:32:ARG:C	2.56	0.40
48:CX:44:ARG:CG	48:CX:45:PHE:N	2.84	0.40
34:DJ:7:LYS:O	34:DJ:11:VAL:CG2	2.68	0.40
25:DA:2683:C:H2'	25:DA:2684:U:C6	2.52	0.40
41:DQ:48:ASP:HA	41:DQ:51:GLN:HB2	2.04	0.40
24:AY:25:ILE:HG23	24:AY:179:LYS:HE2	2.04	0.40
1:AA:1016:A:H3'	1:AA:1017:U:O4'	2.21	0.40
25:DA:222:A:C8	25:DA:224:U:C6	3.09	0.40
1:BA:1417:G:C6	1:BA:1482:G:C6	3.10	0.40
1:AA:1471:U:C2'	1:AA:1472:U:O5'	2.70	0.40
25:DA:1982:U:O2	25:DA:1982:U:C2'	2.69	0.40
25:DA:1600:C:N4	60:DA:3720:HOH:O	2.54	0.40
43:CS:35:ILE:HB	43:CS:36:LEU:H	1.78	0.40
25:CA:1580:A:H2'	25:CA:1581:G:C5'	2.52	0.40
25:CA:1726:C:C2	25:CA:1727:C:C6	3.08	0.40
12:BL:113:ARG:HD2	12:BL:118:VAL:HG12	2.04	0.40
39:CO:50:ALA:O	39:CO:51:ALA:HB2	2.21	0.40
29:DE:124:PHE:CD1	29:DE:124:PHE:C	2.95	0.40
25:CA:912:C:C4	25:CA:913:U:O4	2.74	0.40
27:CC:26:GLY:O	27:CC:27:LYS:C	2.60	0.40
25:CA:1958:C:O2'	25:CA:1959:G:H5'	2.21	0.40
41:DQ:94:LEU:HD23	41:DQ:94:LEU:HA	1.90	0.40
50:CZ:16:LEU:HD23	50:CZ:16:LEU:HA	1.90	0.40
25:CA:2463:C:O5'	25:CA:2463:C:H6	2.05	0.40
1:AA:476:U:H2'	1:AA:476:U:O2	2.20	0.40
25:DA:1821:A:H8	25:DA:1821:A:O5'	2.04	0.40
25:CA:757:G:N3	25:CA:757:G:H2'	2.35	0.40
25:DA:835:C:O5'	25:DA:835:C:H6	2.04	0.40
25:CA:80:G:N3	25:CA:294:A:C2	2.90	0.40
24:AY:91:ASN:O	24:AY:102:PRO:HD2	2.21	0.40
1:BA:1226:C:P	13:BM:89:ARG:HH22	2.44	0.40
13:BM:106:ARG:HD2	13:BM:112:ARG:CZ	2.52	0.40
13:BM:32:ILE:HD13	13:BM:58:GLU:CB	2.51	0.40
13:BM:79:LEU:O	13:BM:80:MET:O	2.38	0.40
19:BS:9:PHE:O	19:BS:38:THR:OG1	2.39	0.40
33:DI:3:LYS:CD	33:DI:4:VAL:HG23	2.51	0.40
32:CH:31:VAL:CG1	32:CH:32:PRO:CD	2.99	0.40
25:DA:1351:C:H2'	25:DA:1352:U:N1	2.36	0.40
49:DY:31:GLN:HA	49:DY:34:SER:OG	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DY:35:GLY:C	49:DY:36:GLN:HG2	2.42	0.40
49:DY:33:ALA:C	49:DY:35:GLY:N	2.75	0.40
1:BA:1234:C:H2'	1:BA:1235:U:C5'	2.49	0.40
25:CA:1057:A:C5	25:CA:1058:U:C5	3.10	0.40
25:CA:1080:A:C2	25:CA:1081:U:C6	3.10	0.40
25:CA:1087:G:N2	25:CA:1090:A:C8	2.90	0.40
2:AB:135:MET:HA	2:AB:138:ARG:HG2	2.03	0.40
2:AB:53:LEU:CD1	2:AB:219:THR:HG21	2.49	0.40
14:AN:64:CYS:HA	14:AN:79:LEU:HA	2.03	0.40
13:BM:6:ILE:O	13:BM:7:ASN:C	2.59	0.40
32:DH:25:TYR:CE1	32:DH:30:LEU:HD11	2.56	0.40
32:DH:62:LEU:C	32:DH:62:LEU:HD22	2.42	0.40
25:DA:857:G:H2'	25:DA:858:G:O4'	2.21	0.40
38:DN:52:ILE:O	38:DN:54:LEU:N	2.54	0.40
38:DN:66:ALA:O	38:DN:69:ARG:O	2.40	0.40
6:AF:16:GLU:OE1	4:BD:187:ARG:NH1	2.55	0.40
1:AA:1296:C:H5'	13:AM:13:HIS:CE1	2.56	0.40
25:DA:1525:A:C8	25:DA:1526:C:C5	3.09	0.40
25:CA:2307:G:H4'	25:CA:2308:G:O5'	2.21	0.40
10:AJ:84:VAL:O	10:AJ:84:VAL:HG22	2.22	0.40
25:DA:2304:G:H4'	30:DF:128:SER:C	2.42	0.40
56:DB:24:G:C2	56:DB:56:G:C6	3.09	0.40
5:BE:12:GLU:OE2	5:BE:63:MET:HE3	2.21	0.40
1:AA:408:A:N1	1:AA:409:U:C2	2.90	0.40
4:AD:29:THR:O	4:AD:30:LYS:C	2.58	0.40
4:AD:25:ARG:CD	4:AD:30:LYS:CE	3.00	0.40
4:AD:30:LYS:HB2	4:AD:30:LYS:HE2	1.93	0.40
30:CF:174:PHE:HA	30:CF:175:PRO:HD2	1.74	0.40
1:AA:1398:A:H8	1:AA:1398:A:H5"	1.86	0.40
1:AA:9:G:C2'	1:AA:10:A:H5'	2.51	0.40
25:DA:1441:G:N2	25:DA:1442:U:C2	2.89	0.40
1:BA:69:G:N3	1:BA:70:U:C5	2.90	0.40
25:CA:1463:C:O2'	25:CA:1464:G:H5'	2.22	0.40
28:CD:131:ASP:C	28:CD:133:THR:H	2.25	0.40
8:AH:58:LEU:C	8:AH:58:LEU:CD1	2.90	0.40
20:BT:79:THR:HG22	20:BT:80:ALA:N	2.36	0.40
1:AA:513:C:O5'	1:AA:513:C:H6	2.05	0.40
2:AB:51:GLU:HA	2:AB:54:ALA:HB3	2.04	0.40
11:BK:22:ILE:HG21	11:BK:95:THR:CG2	2.51	0.40
9:BI:5:TYR:CD1	9:BI:20:ILE:HG22	2.56	0.40
9:BI:50:PRO:HB3	9:BI:83:THR:HG23	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:41:LYS:HA	32:DH:44:ILE:HG12	2.04	0.40
25:CA:1203:U:C4	25:CA:1204:A:C6	3.10	0.40
38:CN:46:ARG:O	38:CN:50:PRO:HG2	2.21	0.40
2:AB:34:ARG:HE	2:AB:35:ASN:H	1.69	0.40
10:BJ:35:GLN:C	10:BJ:36:VAL:HG23	2.42	0.40
10:BJ:71:LEU:HD13	10:BJ:71:LEU:HA	1.90	0.40
9:AI:52:GLU:HB3	9:AI:53:LEU:HD12	2.04	0.40
25:DA:362:A:C4	25:DA:363:G:C8	3.10	0.40
3:AC:21:TRP:CH2	3:AC:31:ASN:CB	3.05	0.40
25:DA:1178:C:N3	25:DA:1179:G:O6	2.54	0.40
36:CL:127:VAL:HG11	36:CL:132:ARG:CA	2.51	0.40
25:CA:356:G:C2'	25:CA:357:C:H5'	2.52	0.40
4:AD:131:ILE:HD11	4:AD:134:TYR:CA	2.52	0.40
25:CA:2681:C:C4	25:CA:2724:U:C5	3.10	0.40
28:CD:115:GLY:O	38:CN:3:HIS:CE1	2.75	0.40
21:BU:7:GLU:C	21:BU:11:PHE:HE2	2.24	0.40
34:DJ:3:THR:HG23	34:DJ:4:PHE:H	1.86	0.40
25:CA:545:U:H1'	25:CA:548:G:OP2	2.21	0.40
19:AS:48:ILE:HD12	19:AS:48:ILE:N	2.36	0.40
31:CG:23:ILE:HG23	31:CG:25:ILE:HD11	2.03	0.40
25:DA:1194:A:C2	25:DA:1195:G:C4	3.10	0.40
1:BA:707:U:OP1	11:BK:86:LYS:CE	2.70	0.40
25:CA:2056:G:H4'	51:C0:4:GLN:NE2	2.37	0.40
44:CT:29:THR:HG22	44:CT:30:ILE:N	2.36	0.40
20:BT:5:SER:O	20:BT:7:LYS:HG2	2.22	0.40
25:DA:478:A:N1	25:DA:500:G:H4'	2.36	0.40
3:BC:86:LEU:O	3:BC:87:ARG:C	2.60	0.40
25:DA:1562:U:N3	25:DA:1563:U:C5	2.89	0.40
25:CA:329:G:H1	45:CU:16:LYS:HG2	1.86	0.40
55:C4:36:ARG:CG	55:C4:37:GLN:N	2.77	0.40
49:CY:18:LEU:HD21	49:CY:22:LEU:CD2	2.45	0.40
1:BA:474:G:C4	1:BA:475:C:C5	3.09	0.40
14:BN:43:ASN:O	14:BN:47:LYS:HG3	2.22	0.40
11:BK:109:ILE:HG22	21:BU:16:ARG:NH1	2.37	0.40
25:DA:137:U:H5"	25:DA:140:C:C5	2.57	0.40
28:CD:12:THR:CG2	40:CP:8:GLU:HG2	2.52	0.40
1:AA:217:C:O2'	1:AA:218:U:H5'	2.22	0.40
1:AA:719:C:O2'	18:AR:38:ILE:O	2.29	0.40
1:AA:803:G:H8	1:AA:803:G:O5'	2.04	0.40
3:BC:166:TRP:O	3:BC:166:TRP:HE3	2.04	0.40
27:CC:173:LEU:O	27:CC:180:MET:HA	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:CB:20:G:H2'	26:CB:21:G:O5'	2.21	0.40
18:AR:54:LEU:C	18:AR:54:LEU:HD13	2.42	0.40
1:BA:401:C:H2'	1:BA:402:G:H8	1.86	0.40
46:DV:64:VAL:C	46:DV:65:VAL:HG12	2.41	0.40
1:BA:235:C:H2'	1:BA:236:A:C8	2.56	0.40
1:BA:692:U:H5	11:BK:27:ASN:HD22	1.68	0.40
39:CO:67:ASN:O	39:CO:68:LYS:C	2.57	0.40
25:DA:2060:A:O4'	25:DA:2502:G:H1'	2.22	0.40
1:AA:191:G:H2'	1:AA:192:A:H5'	2.02	0.40
25:CA:1723:G:H3'	25:CA:1723:G:H8	1.87	0.40
34:DJ:60:ASP:OD1	34:DJ:61:LYS:N	2.54	0.40
29:CE:134:LEU:CD2	29:CE:160:ALA:O	2.69	0.40
1:AA:841:C:O2	1:AA:843:U:C4	2.75	0.40
25:CA:109:C:O5'	25:CA:109:C:H6	2.03	0.40
44:DT:44:LYS:O	44:DT:45:ALA:C	2.59	0.40
1:BA:1473:G:C2'	1:BA:1474:U:H5'	2.52	0.40
56:DB:96:G:O2'	56:DB:97:C:H5'	2.21	0.40
46:CV:30:ILE:HA	46:CV:91:PHE:O	2.21	0.40
25:CA:1989:G:C2'	25:CA:1990:C:O5'	2.68	0.40
25:DA:284:U:H5'	25:DA:285:G:OP2	2.22	0.40
8:AH:11:THR:O	8:AH:14:ARG:HB3	2.21	0.40
25:DA:1854:A:O4'	25:DA:2233:U:H4'	2.21	0.40
5:AE:105:ILE:HG13	5:AE:123:LEU:HB3	2.04	0.40
30:CF:66:ILE:O	30:CF:66:ILE:CG1	2.69	0.40
1:AA:53:A:N1	1:AA:359:G:C6	2.89	0.40
1:AA:54:C:C2'	1:AA:54:C:O2	2.67	0.40
25:CA:228:C:H4'	25:CA:229:C:C5'	2.51	0.40
2:AB:74:ALA:O	2:AB:75:ALA:HB2	2.21	0.40
2:AB:75:ALA:O	2:AB:78:ALA:N	2.55	0.40
25:DA:132:G:C2	25:DA:133:U:C2	3.09	0.40
25:CA:1441:G:C4	25:CA:1442:U:C5	3.10	0.40
13:BM:47:LEU:HD23	13:BM:48:SER:N	2.36	0.40
12:AL:55:ARG:NH2	12:AL:55:ARG:HG3	2.35	0.40
2:BB:14:HIS:HD2	2:BB:208:ALA:HB2	1.86	0.40
25:CA:2655:G:O2'	25:CA:2656:U:P	2.80	0.40
36:DL:117:THR:CG2	36:DL:118:THR:H	2.34	0.40
29:DE:28:VAL:O	29:DE:32:VAL:CG2	2.69	0.40
28:CD:125:TRP:O	28:CD:126:ASN:HB2	2.21	0.40
1:BA:1037:C:H6	1:BA:1037:C:OP2	2.03	0.40
37:DM:74:THR:O	37:DM:75:GLU:HB2	2.20	0.40
25:DA:494:G:H21	43:DS:57:ASN:HD21	1.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BC:61:LYS:CA	3:BC:61:LYS:HE3	2.52	0.40
55:C4:30:GLU:HB3	55:C4:33:HIS:CG	2.56	0.40
15:AO:69:LEU:O	15:AO:69:LEU:HD23	2.21	0.40
7:BG:24:LYS:HB3	7:BG:100:MET:HE3	2.03	0.40
25:CA:669:G:H2'	25:CA:670:A:N7	2.36	0.40
1:BA:491:G:H2'	1:BA:492:C:H6	1.86	0.40
8:BH:11:THR:HG23	8:BH:14:ARG:HH12	1.87	0.40
29:DE:124:PHE:O	29:DE:125:SER:HB3	2.21	0.40
25:CA:712:G:O6	25:CA:719:C:N3	2.54	0.40
8:BH:68:LYS:HE2	8:BH:72:GLU:OE2	2.20	0.40
29:CE:91:ASP:OD1	29:CE:92:HIS:N	2.55	0.40
25:DA:2659:G:OP1	31:DG:157:LYS:HD2	2.21	0.40
1:AA:751:U:H1'	15:AO:22:GLY:O	2.21	0.40
27:DC:24:HIS:CE1	27:DC:25:LYS:O	2.75	0.40
15:AO:40:GLY:O	15:AO:43:ALA:HB3	2.21	0.40
18:BR:47:ARG:HD2	18:BR:47:ARG:N	2.36	0.40
15:AO:28:VAL:O	15:AO:28:VAL:HG12	2.21	0.40
28:CD:5:VAL:HG21	28:CD:80:TRP:CD2	2.57	0.40
25:DA:1860:G:C2'	25:DA:1861:G:H5'	2.52	0.40
19:AS:26:ASP:OD2	19:AS:27:LYS:O	2.40	0.40
15:AO:77:TYR:O	15:AO:81:ILE:HG23	2.22	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 X-ray entries followed by that with respect to entries of similar resolution.

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	
2	AB	216/218 (99%)	109 (50%)	49 (23%)	58 (27%)	0	0
2	BB	216/218 (99%)	112 (52%)	49 (23%)	55 (26%)	0	0
3	AC	204/206 (99%)	125 (61%)	49 (24%)	30 (15%)	0	1
3	BC	204/206 (99%)	126 (62%)	47 (23%)	31 (15%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
4	AD	203/205 (99%)	123 (61%)	41 (20%)	39 (19%)	0 0
4	BD	203/205 (99%)	136 (67%)	36 (18%)	31 (15%)	0 1
5	AE	148/150 (99%)	87 (59%)	38 (26%)	23 (16%)	0 1
5	BE	148/150 (99%)	90 (61%)	31 (21%)	27 (18%)	0 0
6	AF	98/100 (98%)	62 (63%)	21 (21%)	15 (15%)	0 1
6	BF	98/100 (98%)	54 (55%)	23 (24%)	21 (21%)	0 0
7	AG	149/151 (99%)	86 (58%)	41 (28%)	22 (15%)	0 1
7	BG	149/151 (99%)	79 (53%)	46 (31%)	24 (16%)	0 1
8	AH	127/129 (98%)	79 (62%)	37 (29%)	11 (9%)	1 4
8	BH	127/129 (98%)	82 (65%)	32 (25%)	13 (10%)	1 3
9	AI	125/127 (98%)	76 (61%)	34 (27%)	15 (12%)	0 2
9	BI	125/127 (98%)	77 (62%)	33 (26%)	15 (12%)	0 2
10	AJ	96/98 (98%)	60 (62%)	14 (15%)	22 (23%)	0 0
10	BJ	96/98 (98%)	64 (67%)	14 (15%)	18 (19%)	0 0
11	AK	115/117 (98%)	84 (73%)	17 (15%)	14 (12%)	0 2
11	BK	115/117 (98%)	81 (70%)	19 (16%)	15 (13%)	0 1
12	AL	121/123 (98%)	85 (70%)	29 (24%)	7 (6%)	2 12
12	BL	121/123 (98%)	91 (75%)	16 (13%)	14 (12%)	0 2
13	AM	112/114 (98%)	78 (70%)	22 (20%)	12 (11%)	0 2
13	BM	112/114 (98%)	65 (58%)	24 (21%)	23 (20%)	0 0
14	AN	92/100 (92%)	47 (51%)	27 (29%)	18 (20%)	0 0
14	BN	92/100 (92%)	39 (42%)	30 (33%)	23 (25%)	0 0
15	AO	86/88 (98%)	57 (66%)	22 (26%)	7 (8%)	1 5
15	BO	86/88 (98%)	52 (60%)	17 (20%)	17 (20%)	0 0
16	AP	80/82 (98%)	48 (60%)	11 (14%)	21 (26%)	0 0
16	BP	80/82 (98%)	47 (59%)	22 (28%)	11 (14%)	0 1
17	AQ	78/80 (98%)	47 (60%)	18 (23%)	13 (17%)	0 1
17	BQ	78/80 (98%)	48 (62%)	18 (23%)	12 (15%)	0 1
18	AR	53/55 (96%)	34 (64%)	13 (24%)	6 (11%)	0 2
18	BR	53/55 (96%)	31 (58%)	19 (36%)	3 (6%)	2 12
19	AS	77/79 (98%)	36 (47%)	29 (38%)	12 (16%)	0 1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
19	BS	77/79 (98%)	56 (73%)	14 (18%)	7 (9%)	1 4
20	AT	83/85 (98%)	37 (45%)	31 (37%)	15 (18%)	0 0
20	BT	83/85 (98%)	46 (55%)	23 (28%)	14 (17%)	0 1
21	AU	49/51 (96%)	20 (41%)	15 (31%)	14 (29%)	0 0
21	BU	49/51 (96%)	22 (45%)	10 (20%)	17 (35%)	0 0
24	AY	181/183 (99%)	135 (75%)	35 (19%)	11 (6%)	2 11
27	CC	269/271 (99%)	216 (80%)	32 (12%)	21 (8%)	1 6
27	DC	269/271 (99%)	198 (74%)	43 (16%)	28 (10%)	1 3
28	CD	207/209 (99%)	166 (80%)	30 (14%)	11 (5%)	2 14
28	DD	207/209 (99%)	162 (78%)	35 (17%)	10 (5%)	3 17
29	CE	199/201 (99%)	158 (79%)	32 (16%)	9 (4%)	3 18
29	DE	199/201 (99%)	142 (71%)	38 (19%)	19 (10%)	1 3
30	CF	175/177 (99%)	118 (67%)	38 (22%)	19 (11%)	0 2
30	DF	175/177 (99%)	113 (65%)	34 (19%)	28 (16%)	0 1
31	CG	174/176 (99%)	129 (74%)	30 (17%)	15 (9%)	1 4
31	DG	174/176 (99%)	106 (61%)	43 (25%)	25 (14%)	0 1
32	CH	147/149 (99%)	95 (65%)	29 (20%)	23 (16%)	0 1
32	DH	147/149 (99%)	95 (65%)	27 (18%)	25 (17%)	0 1
33	CI	139/141 (99%)	65 (47%)	47 (34%)	27 (19%)	0 0
33	DI	139/141 (99%)	71 (51%)	46 (33%)	22 (16%)	0 1
34	CJ	140/142 (99%)	123 (88%)	11 (8%)	6 (4%)	3 19
34	DJ	140/142 (99%)	112 (80%)	24 (17%)	4 (3%)	6 29
35	CK	120/122 (98%)	88 (73%)	24 (20%)	8 (7%)	1 8
35	DK	120/122 (98%)	87 (72%)	21 (18%)	12 (10%)	1 3
36	CL	141/143 (99%)	99 (70%)	21 (15%)	21 (15%)	0 1
36	DL	141/143 (99%)	88 (62%)	36 (26%)	17 (12%)	0 2
37	CM	134/136 (98%)	110 (82%)	15 (11%)	9 (7%)	1 8
37	DM	134/136 (98%)	97 (72%)	23 (17%)	14 (10%)	1 3
38	CN	118/120 (98%)	91 (77%)	21 (18%)	6 (5%)	2 15
38	DN	118/120 (98%)	82 (70%)	28 (24%)	8 (7%)	1 7
39	CO	114/116 (98%)	83 (73%)	17 (15%)	14 (12%)	0 2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
39	DO	114/116 (98%)	77 (68%)	25 (22%)	12 (10%)	1 3
40	CP	112/114 (98%)	96 (86%)	12 (11%)	4 (4%)	4 24
40	DP	112/114 (98%)	86 (77%)	19 (17%)	7 (6%)	2 9
41	CQ	115/117 (98%)	100 (87%)	13 (11%)	2 (2%)	11 46
41	DQ	115/117 (98%)	95 (83%)	18 (16%)	2 (2%)	11 46
42	CR	101/103 (98%)	84 (83%)	9 (9%)	8 (8%)	1 5
42	DR	101/103 (98%)	78 (77%)	14 (14%)	9 (9%)	1 4
43	CS	108/110 (98%)	90 (83%)	12 (11%)	6 (6%)	2 13
43	DS	108/110 (98%)	78 (72%)	19 (18%)	11 (10%)	1 3
44	CT	91/93 (98%)	67 (74%)	13 (14%)	11 (12%)	0 2
44	DT	91/93 (98%)	59 (65%)	20 (22%)	12 (13%)	0 1
45	CU	100/102 (98%)	74 (74%)	14 (14%)	12 (12%)	0 2
45	DU	100/102 (98%)	73 (73%)	14 (14%)	13 (13%)	0 1
46	CV	92/94 (98%)	78 (85%)	12 (13%)	2 (2%)	8 38
46	DV	92/94 (98%)	71 (77%)	15 (16%)	6 (6%)	1 8
47	CW	74/76 (97%)	68 (92%)	4 (5%)	2 (3%)	6 32
48	CX	75/77 (97%)	64 (85%)	9 (12%)	2 (3%)	6 32
48	DX	75/77 (97%)	54 (72%)	15 (20%)	6 (8%)	1 5
49	CY	61/63 (97%)	34 (56%)	13 (21%)	14 (23%)	0 0
49	DY	61/63 (97%)	28 (46%)	16 (26%)	17 (28%)	0 0
50	CZ	56/58 (97%)	50 (89%)	6 (11%)	0	100 100
50	DZ	56/58 (97%)	50 (89%)	4 (7%)	2 (4%)	4 24
51	C0	54/56 (96%)	44 (82%)	8 (15%)	2 (4%)	4 23
51	D0	54/56 (96%)	39 (72%)	10 (18%)	5 (9%)	1 4
52	C1	48/50 (96%)	32 (67%)	12 (25%)	4 (8%)	1 5
52	D1	48/50 (96%)	36 (75%)	10 (21%)	2 (4%)	3 20
53	C2	44/46 (96%)	37 (84%)	6 (14%)	1 (2%)	8 36
53	D2	44/46 (96%)	31 (70%)	8 (18%)	5 (11%)	0 2
54	C3	62/64 (97%)	56 (90%)	6 (10%)	0	100 100
54	D3	62/64 (97%)	49 (79%)	11 (18%)	2 (3%)	5 27
55	C4	36/38 (95%)	31 (86%)	4 (11%)	1 (3%)	6 30

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
55	D4	36/38 (95%)	31 (86%)	4 (11%)	1 (3%)	6 30
57	DW	73/75 (97%)	57 (78%)	12 (16%)	4 (6%)	2 13
All	All	11416/11626 (98%)	7804 (68%)	2248 (20%)	1364 (12%)	0 2

All (1364) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	15	PHE
2	AB	21	TYR
2	AB	33	ALA
2	AB	63	LYS
2	AB	67	LEU
2	AB	72	LYS
2	AB	74	ALA
2	AB	82	ALA
2	AB	86	CYS
2	AB	91	VAL
2	AB	94	ARG
2	AB	106	VAL
2	AB	114	LYS
2	AB	115	ASP
2	AB	116	LEU
2	AB	119	GLN
2	AB	128	LEU
2	AB	131	LYS
2	AB	132	GLU
2	AB	133	ALA
2	AB	144	GLU
2	AB	147	LEU
2	AB	151	LYS
2	AB	156	LEU
2	AB	160	LEU
2	AB	163	ILE
2	AB	182	VAL
2	AB	200	PRO
2	AB	206	ILE
2	AB	208	ALA
2	AB	211	LEU
2	AB	219	THR
2	AB	221	ARG
3	AC	11	LEU

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Mol	Chain	Res	Type
3	AC	14	VAL
3	AC	16	PRO
3	AC	17	TRP
3	AC	25	THR
3	AC	53	ARG
3	AC	78	LYS
3	AC	79	LYS
3	AC	119	ILE
3	AC	120	THR
3	AC	138	GLN
3	AC	145	ALA
3	AC	167	TYR
4	AD	22	SER
4	AD	25	ARG
4	AD	28	ASP
4	AD	32	LYS
4	AD	34	GLU
4	AD	43	ARG
4	AD	48	SER
4	AD	150	LYS
4	AD	152	SER
4	AD	155	LYS
4	AD	159	GLU
4	AD	167	PRO
4	AD	190	LEU
4	AD	191	SER
4	AD	202	LEU
5	AE	11	GLN
5	AE	61	LYS
5	AE	68	ARG
5	AE	81	GLN
5	AE	99	SER
5	AE	104	ILE
5	AE	112	ALA
5	AE	121	ASN
5	AE	137	ARG
6	AF	6	ILE
6	AF	18	VAL
6	AF	36	ILE
6	AF	63	ASN
6	AF	82	ASP
6	AF	91	ARG

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Mol	Chain	Res	Type
6	AF	92	THR
7	AG	14	ASP
7	AG	49	LEU
7	AG	58	LEU
7	AG	93	VAL
7	AG	101	ARG
7	AG	112	ASP
7	AG	129	ASN
8	AH	2	MET
8	AH	13	ILE
8	AH	14	ARG
8	AH	49	LYS
8	AH	53	ASP
8	AH	56	PRO
8	AH	102	VAL
9	AI	40	ARG
9	AI	71	ILE
9	AI	87	MET
9	AI	90	ASP
9	AI	119	LYS
10	AJ	17	LEU
10	AJ	32	THR
10	AJ	33	GLY
10	AJ	34	ALA
10	AJ	43	PRO
10	AJ	57	VAL
10	AJ	61	ALA
10	AJ	101	SER
11	AK	14	GLN
11	AK	51	PHE
11	AK	71	ASP
11	AK	72	ALA
11	AK	74	LYS
11	AK	124	LYS
11	AK	125	LYS
12	AL	23	LEU
12	AL	24	GLU
12	AL	25	ALA
12	AL	43	LYS
13	AM	3	ILE
13	AM	10	ASP
13	AM	11	HIS

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Mol	Chain	Res	Type
13	AM	26	LYS
13	AM	40	GLU
13	AM	113	LYS
14	AN	20	PHE
14	AN	28	ALA
14	AN	30	ILE
14	AN	32	ASP
14	AN	47	LYS
14	AN	49	GLN
14	AN	52	PRO
14	AN	62	ASN
14	AN	92	GLU
15	AO	72	LYS
16	AP	11	ALA
16	AP	16	PHE
16	AP	43	ALA
16	AP	46	LYS
16	AP	51	ARG
16	AP	77	GLU
16	AP	79	ASN
17	AQ	12	VAL
17	AQ	50	ASN
19	AS	28	LYS
19	AS	64	GLU
19	AS	75	PRO
20	AT	4	LYS
20	AT	5	SER
20	AT	43	LYS
20	AT	72	ALA
20	AT	76	ALA
21	AU	10	PRO
21	AU	23	GLU
21	AU	35	GLU
21	AU	37	TYR
21	AU	39	LYS
24	AY	34	SER
24	AY	112	LYS
24	AY	113	ASP
24	AY	147	LYS
2	BB	9	LEU
2	BB	15	PHE
2	BB	21	TYR

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Mol	Chain	Res	Type
2	BB	35	ASN
2	BB	56	LEU
2	BB	58	LYS
2	BB	62	ARG
2	BB	73	ARG
2	BB	99	MET
2	BB	115	ASP
2	BB	120	SER
2	BB	125	PHE
2	BB	133	ALA
2	BB	139	GLU
2	BB	140	LEU
2	BB	150	ILE
2	BB	221	ARG
3	BC	11	LEU
3	BC	16	PRO
3	BC	53	ARG
3	BC	63	ILE
3	BC	81	GLU
3	BC	100	ILE
3	BC	102	ILE
3	BC	140	ALA
3	BC	145	ALA
3	BC	155	ARG
3	BC	171	ARG
3	BC	190	THR
4	BD	25	ARG
4	BD	26	ALA
4	BD	32	LYS
4	BD	34	GLU
4	BD	35	GLN
4	BD	36	ALA
4	BD	110	ARG
4	BD	163	GLN
4	BD	166	LYS
4	BD	173	ASP
4	BD	191	SER
5	BE	11	GLN
5	BE	50	GLY
5	BE	67	ARG
5	BE	97	PRO
5	BE	100	GLU

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Mol	Chain	Res	Type
5	BE	101	GLY
5	BE	102	THR
5	BE	122	VAL
5	BE	137	ARG
5	BE	154	ALA
6	BF	15	SER
6	BF	27	ALA
6	BF	33	GLU
6	BF	54	LEU
6	BF	55	HIS
6	BF	86	ARG
6	BF	91	ARG
6	BF	92	THR
6	BF	93	LYS
6	BF	98	GLU
7	BG	8	GLN
7	BG	56	SER
7	BG	69	ARG
7	BG	126	ALA
7	BG	129	ASN
8	BH	30	LYS
8	BH	49	LYS
8	BH	66	GLN
8	BH	77	VAL
8	BH	88	LYS
9	BI	38	PHE
9	BI	40	ARG
9	BI	42	THR
9	BI	44	ARG
9	BI	54	VAL
9	BI	119	LYS
9	BI	128	LYS
10	BJ	7	ARG
10	BJ	42	LEU
10	BJ	57	VAL
10	BJ	59	LYS
10	BJ	86	ALA
10	BJ	92	LEU
10	BJ	93	ALA
11	BK	51	PHE
11	BK	90	PRO
11	BK	124	LYS

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Mol	Chain	Res	Type
11	BK	126	ARG
12	BL	14	LYS
12	BL	43	LYS
12	BL	75	GLU
12	BL	116	TYR
13	BM	10	ASP
13	BM	26	LYS
13	BM	31	ALA
13	BM	65	GLU
13	BM	80	MET
13	BM	81	ASP
13	BM	113	LYS
14	BN	10	VAL
14	BN	20	PHE
14	BN	22	LYS
14	BN	28	ALA
14	BN	32	ASP
14	BN	52	PRO
14	BN	59	ARG
14	BN	62	ASN
15	BO	58	MET
15	BO	59	VAL
15	BO	74	VAL
15	BO	86	LEU
16	BP	43	ALA
16	BP	44	SER
16	BP	80	LYS
17	BQ	4	ILE
17	BQ	9	GLY
17	BQ	11	VAL
17	BQ	12	VAL
17	BQ	50	ASN
17	BQ	51	GLU
17	BQ	52	CYS
18	BR	46	THR
20	BT	3	ILE
20	BT	5	SER
20	BT	40	ALA
21	BU	8	ASN
21	BU	11	PHE
21	BU	16	ARG
21	BU	23	GLU

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Mol	Chain	Res	Type
21	BU	35	GLU
21	BU	36	PHE
21	BU	39	LYS
21	BU	45	LYS
27	CC	35	LYS
27	CC	36	ASN
27	CC	121	ALA
27	CC	122	ALA
27	CC	167	ASP
27	CC	196	ASN
27	CC	235	GLU
28	CD	41	ALA
28	CD	104	VAL
28	CD	152	PRO
30	CF	175	PRO
31	CG	81	GLY
31	CG	117	PRO
31	CG	118	ALA
32	CH	2	GLN
32	CH	10	ALA
32	CH	11	ASN
32	CH	12	LEU
32	CH	14	SER
32	CH	31	VAL
32	CH	32	PRO
32	CH	33	GLN
32	CH	56	ALA
33	CI	5	GLN
33	CI	6	ALA
33	CI	18	ASN
33	CI	30	GLN
33	CI	57	VAL
33	CI	64	ARG
33	CI	65	SER
33	CI	74	PRO
33	CI	104	GLN
33	CI	105	LEU
33	CI	115	ASP
33	CI	116	MET
33	CI	133	ARG
34	CJ	81	ILE
35	CK	35	VAL

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Mol	Chain	Res	Type
35	CK	75	SER
35	CK	91	SER
35	CK	110	GLU
36	CL	15	ALA
36	CL	29	LYS
36	CL	68	SER
36	CL	69	ARG
36	CL	86	GLU
36	CL	88	GLY
36	CL	94	THR
36	CL	111	ILE
36	CL	115	GLU
37	CM	44	ARG
37	CM	55	ARG
37	CM	69	PRO
37	CM	78	LEU
38	CN	11	ASN
39	CO	49	VAL
40	CP	15	ASP
40	CP	93	LYS
40	CP	104	GLY
41	CQ	24	TYR
41	CQ	86	SER
42	CR	40	MET
42	CR	51	VAL
42	CR	55	ASP
42	CR	65	ALA
44	CT	72	GLN
44	CT	89	GLU
45	CU	6	ARG
45	CU	7	ASP
45	CU	16	LYS
45	CU	97	SER
45	CU	98	ASN
45	CU	99	SER
49	CY	17	GLU
49	CY	22	LEU
49	CY	24	GLU
49	CY	33	ALA
52	C1	16	THR
52	C1	51	ALA
53	C2	44	VAL

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Mol	Chain	Res	Type
27	DC	12	ARG
27	DC	57	HIS
27	DC	70	LYS
27	DC	107	LYS
27	DC	121	ALA
27	DC	237	ARG
27	DC	238	ASN
27	DC	254	LYS
28	DD	98	VAL
28	DD	105	LYS
28	DD	152	PRO
29	DE	6	LYS
29	DE	7	ASP
29	DE	8	ALA
29	DE	11	ALA
29	DE	22	ASP
29	DE	72	SER
29	DE	131	THR
29	DE	144	GLU
30	DF	2	LYS
30	DF	28	PRO
30	DF	100	GLU
30	DF	102	LEU
30	DF	122	ASP
30	DF	149	ARG
30	DF	175	PRO
31	DG	6	ALA
31	DG	27	GLY
31	DG	46	ASP
31	DG	110	HIS
31	DG	118	ALA
31	DG	144	ALA
31	DG	173	ALA
31	DG	174	LYS
32	DH	3	VAL
32	DH	8	LYS
32	DH	9	VAL
32	DH	10	ALA
32	DH	31	VAL
32	DH	32	PRO
32	DH	33	GLN
32	DH	41	LYS

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Mol	Chain	Res	Type
32	DH	115	VAL
32	DH	119	ASN
33	DI	6	ALA
33	DI	18	ASN
33	DI	64	ARG
33	DI	89	SER
33	DI	92	PRO
33	DI	101	SER
33	DI	114	ALA
35	DK	109	SER
35	DK	119	ALA
36	DL	9	ALA
36	DL	29	LYS
36	DL	80	SER
36	DL	103	ILE
36	DL	104	GLN
36	DL	111	ILE
36	DL	133	ALA
37	DM	3	GLN
37	DM	43	ALA
37	DM	53	MET
37	DM	69	PRO
38	DN	2	ARG
38	DN	59	SER
38	DN	88	ALA
38	DN	119	SER
39	DO	99	TYR
40	DP	93	LYS
42	DR	7	SER
42	DR	24	LYS
43	DS	64	ALA
43	DS	109	ASP
44	DT	10	VAL
44	DT	17	SER
44	DT	18	GLU
44	DT	37	ASP
44	DT	48	GLN
44	DT	88	LYS
45	DU	6	ARG
45	DU	8	ASP
45	DU	52	ASN
45	DU	54	PRO

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Mol	Chain	Res	Type
45	DU	99	SER
46	DV	59	GLU
49	DY	17	GLU
49	DY	21	LEU
49	DY	24	GLU
49	DY	37	LEU
49	DY	57	LEU
49	DY	61	ALA
50	DZ	3	THR
52	D1	4	ILE
52	D1	51	ALA
53	D2	32	ALA
2	AB	13	VAL
2	AB	50	ASN
2	AB	51	GLU
2	AB	56	LEU
2	AB	75	ALA
2	AB	96	LEU
2	AB	122	ASP
2	AB	123	GLY
2	AB	127	LYS
2	AB	154	GLY
2	AB	176	ASN
2	AB	207	ARG
2	AB	209	VAL
2	AB	210	THR
3	AC	61	LYS
3	AC	80	GLY
3	AC	93	ILE
3	AC	106	ARG
3	AC	126	ARG
3	AC	140	ALA
4	AD	6	PRO
4	AD	9	LYS
4	AD	23	GLY
4	AD	31	CYS
4	AD	101	VAL
4	AD	124	VAL
4	AD	165	GLU
4	AD	174	ALA
5	AE	75	LEU
5	AE	77	ASN

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Mol	Chain	Res	Type
5	AE	87	VAL
5	AE	98	ALA
5	AE	119	VAL
5	AE	133	ILE
5	AE	146	MET
5	AE	156	ARG
6	AF	8	PHE
6	AF	51	ILE
7	AG	74	VAL
7	AG	86	VAL
7	AG	99	ALA
7	AG	102	TRP
7	AG	124	SER
7	AG	131	GLY
8	AH	24	VAL
8	AH	47	ASP
9	AI	31	GLN
9	AI	106	ASP
10	AJ	28	THR
10	AJ	35	GLN
10	AJ	41	PRO
10	AJ	59	LYS
10	AJ	74	VAL
10	AJ	93	ALA
11	AK	16	SER
11	AK	77	GLY
11	AK	118	ASN
12	AL	88	ASP
13	AM	66	GLY
14	AN	16	ALA
14	AN	27	LYS
14	AN	75	ARG
16	AP	10	GLY
16	AP	15	PRO
16	AP	36	VAL
16	AP	53	ASP
16	AP	76	LYS
16	AP	78	VAL
16	AP	80	LYS
17	AQ	8	GLN
17	AQ	11	VAL
17	AQ	48	GLU

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Mol	Chain	Res	Type
17	AQ	49	ASN
17	AQ	68	LYS
17	AQ	69	THR
18	AR	24	ASP
19	AS	8	PRO
19	AS	13	HIS
19	AS	29	PRO
20	AT	57	VAL
20	AT	73	ARG
21	AU	26	GLY
24	AY	87	ASP
24	AY	141	LYS
24	AY	153	ASP
2	BB	18	GLN
2	BB	22	TRP
2	BB	32	GLY
2	BB	33	ALA
2	BB	63	LYS
2	BB	72	LYS
2	BB	85	SER
2	BB	123	GLY
2	BB	138	ARG
2	BB	154	GLY
2	BB	170	ILE
2	BB	206	ILE
2	BB	208	ALA
2	BB	219	THR
2	BB	224	ARG
3	BC	12	GLY
3	BC	13	ILE
3	BC	76	ILE
3	BC	79	LYS
3	BC	88	LYS
3	BC	115	VAL
4	BD	31	CYS
4	BD	33	ILE
4	BD	46	ARG
4	BD	78	ALA
4	BD	161	ALA
4	BD	175	GLY
5	BE	99	SER
5	BE	110	MET

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Mol	Chain	Res	Type
5	BE	125	LYS
5	BE	129	SER
5	BE	153	ALA
5	BE	157	GLY
6	BF	14	GLN
6	BF	52	ASN
6	BF	75	GLU
7	BG	16	LYS
7	BG	28	ILE
7	BG	79	VAL
7	BG	139	ASP
8	BH	21	LYS
8	BH	114	ALA
9	BI	9	GLY
9	BI	90	ASP
9	BI	100	ALA
9	BI	102	PHE
10	BJ	17	LEU
10	BJ	35	GLN
10	BJ	36	VAL
10	BJ	100	ILE
11	BK	14	GLN
11	BK	16	SER
11	BK	91	GLY
11	BK	103	GLY
11	BK	105	ARG
12	BL	3	VAL
12	BL	16	ALA
12	BL	77	SER
12	BL	88	ASP
12	BL	117	GLY
13	BM	4	ALA
13	BM	5	GLY
13	BM	11	HIS
13	BM	19	THR
13	BM	40	GLU
13	BM	91	ARG
13	BM	104	ASN
13	BM	110	GLY
14	BN	3	GLN
14	BN	17	ASP
14	BN	27	LYS

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Mol	Chain	Res	Type
14	BN	30	ILE
14	BN	33	VAL
14	BN	42	TRP
14	BN	76	LYS
14	BN	92	GLU
14	BN	100	SER
15	BO	2	LEU
15	BO	17	ASP
15	BO	26	VAL
15	BO	27	GLN
15	BO	35	ILE
15	BO	85	GLY
16	BP	31	ARG
16	BP	53	ASP
16	BP	75	ILE
17	BQ	17	GLU
19	BS	4	LEU
19	BS	5	LYS
19	BS	37	SER
19	BS	63	ASP
21	BU	10	PRO
21	BU	12	ASP
21	BU	24	LYS
27	CC	11	GLY
27	CC	12	ARG
27	CC	70	LYS
27	CC	151	GLY
27	CC	177	SER
28	CD	86	GLU
28	CD	88	GLU
28	CD	206	ALA
29	CE	45	ALA
29	CE	151	GLY
29	CE	161	ALA
30	CF	20	ASN
30	CF	40	GLY
30	CF	41	GLU
30	CF	52	ALA
30	CF	69	ALA
30	CF	151	LEU
30	CF	159	ALA
31	CG	38	ASP

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Mol	Chain	Res	Type
31	CG	60	GLY
31	CG	151	ARG
32	CH	3	VAL
32	CH	28	ASN
32	CH	34	GLY
32	CH	35	LYS
32	CH	41	LYS
32	CH	118	PRO
32	CH	119	ASN
32	CH	121	VAL
33	CI	21	PRO
33	CI	23	VAL
33	CI	44	LYS
33	CI	71	LYS
33	CI	97	VAL
35	CK	109	SER
36	CL	24	GLY
36	CL	27	LEU
36	CL	30	THR
36	CL	31	GLY
36	CL	81	ASP
36	CL	102	GLY
36	CL	114	GLY
37	CM	54	THR
38	CN	2	ARG
38	CN	10	LEU
39	CO	3	LYS
39	CO	57	ALA
39	CO	77	ALA
39	CO	87	ILE
42	CR	49	ILE
42	CR	50	GLY
42	CR	53	PHE
44	CT	38	ALA
45	CU	8	ASP
45	CU	51	LEU
45	CU	101	THR
46	CV	51	GLN
48	CX	41	SER
49	CY	14	LEU
49	CY	32	ALA
49	CY	37	LEU

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Mol	Chain	Res	Type
49	CY	62	GLY
51	C0	54	ILE
27	DC	35	LYS
27	DC	151	GLY
27	DC	188	ARG
27	DC	239	PHE
27	DC	253	GLY
28	DD	104	VAL
29	DE	122	GLU
29	DE	127	GLU
29	DE	132	LYS
29	DE	163	ASN
29	DE	194	LYS
30	DF	20	ASN
30	DF	29	ARG
30	DF	53	ALA
30	DF	96	TRP
30	DF	104	THR
30	DF	115	GLY
30	DF	160	LYS
31	DG	5	LYS
31	DG	60	GLY
31	DG	81	GLY
31	DG	95	ALA
31	DG	151	ARG
32	DH	12	LEU
32	DH	22	LYS
32	DH	34	GLY
32	DH	35	LYS
32	DH	87	GLU
32	DH	118	PRO
32	DH	121	VAL
33	DI	8	VAL
33	DI	71	LYS
33	DI	83	ALA
33	DI	87	SER
33	DI	105	LEU
34	DJ	81	ILE
34	DJ	118	MET
35	DK	35	VAL
35	DK	101	GLY
35	DK	105	ARG

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Mol	Chain	Res	Type
36	DL	5	THR
36	DL	54	GLN
36	DL	102	GLY
36	DL	114	GLY
36	DL	115	GLU
37	DM	23	GLY
37	DM	111	GLU
39	DO	34	HIS
39	DO	37	ALA
39	DO	57	ALA
39	DO	63	LYS
39	DO	76	LYS
39	DO	103	VAL
39	DO	106	LEU
40	DP	19	PHE
40	DP	104	GLY
42	DR	102	SER
43	DS	33	LEU
43	DS	59	GLU
43	DS	63	GLY
43	DS	80	PRO
44	DT	9	LYS
44	DT	22	THR
44	DT	52	GLU
45	DU	20	LYS
45	DU	56	GLY
45	DU	63	ALA
46	DV	9	ARG
46	DV	65	VAL
46	DV	93	ARG
57	DW	23	GLY
48	DX	2	ARG
48	DX	56	ARG
49	DY	2	LYS
49	DY	9	LYS
49	DY	25	GLN
49	DY	33	ALA
49	DY	46	VAL
51	D0	17	SER
51	D0	31	LYS
53	D2	17	GLY
55	D4	37	GLN

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Mol	Chain	Res	Type
2	AB	25	LYS
2	AB	40	ILE
2	AB	125	PHE
3	AC	65	VAL
3	AC	87	ARG
3	AC	135	ARG
3	AC	139	ASN
4	AD	160	LEU
4	AD	166	LYS
4	AD	168	THR
4	AD	169	TRP
4	AD	192	ALA
5	AE	60	GLN
5	AE	67	ARG
5	AE	142	GLY
5	AE	150	GLU
6	AF	56	LYS
6	AF	68	GLN
6	AF	69	GLU
7	AG	50	ALA
7	AG	100	MET
8	AH	96	ALA
9	AI	8	THR
9	AI	52	GLU
9	AI	55	ASP
10	AJ	39	PRO
10	AJ	58	ASN
10	AJ	95	GLY
13	AM	56	ARG
13	AM	104	ASN
14	AN	42	TRP
14	AN	76	LYS
15	AO	57	ARG
16	AP	49	GLY
16	AP	65	ALA
17	AQ	16	MET
17	AQ	17	GLU
17	AQ	39	ARG
18	AR	48	ALA
19	AS	23	GLU
20	AT	3	ILE
20	AT	15	LYS

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Mol	Chain	Res	Type
21	AU	36	PHE
21	AU	47	ALA
2	BB	17	HIS
2	BB	50	ASN
2	BB	74	ALA
2	BB	86	CYS
2	BB	94	ARG
2	BB	101	THR
2	BB	169	HIS
2	BB	192	PRO
2	BB	204	ASP
2	BB	217	ALA
3	BC	116	ALA
3	BC	138	GLN
4	BD	84	ASN
4	BD	88	ASN
4	BD	104	MET
4	BD	172	VAL
5	BE	44	ARG
5	BE	69	ASN
5	BE	121	ASN
5	BE	144	GLU
6	BF	26	THR
6	BF	53	LYS
6	BF	69	GLU
7	BG	6	ILE
7	BG	9	ARG
7	BG	15	PRO
7	BG	38	ALA
7	BG	58	LEU
7	BG	81	GLY
7	BG	83	THR
8	BH	34	ALA
8	BH	70	VAL
8	BH	112	ASP
9	BI	120	ALA
10	BJ	58	ASN
10	BJ	75	ASP
11	BK	71	ASP
11	BK	97	ARG
11	BK	98	ALA
12	BL	33	CYS

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Mol	Chain	Res	Type
12	BL	122	LYS
13	BM	51	GLN
13	BM	90	HIS
13	BM	109	LYS
14	BN	8	ARG
14	BN	21	ALA
14	BN	64	CYS
15	BO	25	GLU
15	BO	65	LEU
15	BO	70	LYS
15	BO	72	LYS
16	BP	11	ALA
17	BQ	61	ARG
20	BT	33	LYS
20	BT	35	TYR
20	BT	68	LYS
20	BT	70	LYS
20	BT	74	HIS
21	BU	20	ARG
21	BU	34	ARG
27	CC	65	ASP
27	CC	74	PRO
27	CC	157	ALA
28	CD	40	LEU
29	CE	8	ALA
29	CE	142	ALA
29	CE	173	THR
30	CF	9	ASP
30	CF	24	VAL
30	CF	44	ALA
30	CF	109	ARG
30	CF	116	LEU
31	CG	28	LYS
31	CG	77	GLY
31	CG	150	TYR
32	CH	26	ALA
32	CH	107	GLY
33	CI	36	GLU
33	CI	41	PHE
33	CI	82	ALA
33	CI	100	ILE
33	CI	112	LYS

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Mol	Chain	Res	Type
34	CJ	32	LEU
35	CK	93	GLN
35	CK	119	ALA
36	CL	137	ALA
37	CM	6	ARG
37	CM	43	ALA
37	CM	113	ALA
38	CN	80	PHE
39	CO	60	GLU
39	CO	88	LYS
39	CO	89	ASP
39	CO	95	SER
40	CP	65	ASN
43	CS	12	SER
43	CS	46	LEU
43	CS	64	ALA
44	CT	20	ALA
44	CT	88	LYS
46	CV	67	GLY
49	CY	20	ASN
49	CY	57	LEU
52	C1	32	LYS
27	DC	18	VAL
27	DC	189	ALA
27	DC	204	LEU
27	DC	224	MET
28	DD	36	GLN
28	DD	43	ASP
28	DD	45	TYR
28	DD	159	LYS
28	DD	174	SER
29	DE	61	ARG
29	DE	83	VAL
30	DF	42	ALA
30	DF	51	ASN
30	DF	52	ALA
30	DF	95	MET
30	DF	97	GLU
30	DF	99	PHE
30	DF	101	ARG
31	DG	79	THR
31	DG	145	ALA

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Mol	Chain	Res	Type
33	DI	36	GLU
33	DI	38	CYS
35	DK	88	ASN
35	DK	108	ARG
36	DL	42	SER
36	DL	118	THR
38	DN	3	HIS
38	DN	53	THR
39	DO	68	LYS
39	DO	79	ALA
40	DP	33	GLU
42	DR	6	GLN
42	DR	28	ALA
42	DR	70	GLU
43	DS	58	ALA
44	DT	5	GLU
45	DU	36	GLU
45	DU	97	SER
57	DW	31	SER
48	DX	33	HIS
48	DX	52	ALA
48	DX	61	LYS
49	DY	14	LEU
49	DY	22	LEU
50	DZ	44	ARG
53	D2	45	SER
54	D3	27	ASN
2	AB	142	LYS
3	AC	8	GLY
3	AC	60	ALA
3	AC	85	LYS
4	AD	29	THR
4	AD	35	GLN
4	AD	42	ALA
4	AD	78	ALA
4	AD	125	ASN
4	AD	148	ALA
5	AE	23	THR
6	AF	53	LYS
7	AG	16	LYS
7	AG	144	ALA
8	AH	118	ALA

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Mol	Chain	Res	Type
9	AI	68	GLY
10	AJ	36	VAL
10	AJ	42	LEU
10	AJ	92	LEU
11	AK	40	ALA
11	AK	126	ARG
13	AM	111	PRO
14	AN	64	CYS
14	AN	69	ARG
15	AO	2	LEU
15	AO	9	LYS
15	AO	45	HIS
17	AQ	5	ARG
17	AQ	35	LYS
18	AR	26	ALA
18	AR	29	LYS
18	AR	60	ARG
19	AS	4	LEU
20	AT	23	ARG
20	AT	29	THR
20	AT	74	HIS
21	AU	9	GLU
2	BB	81	ASP
2	BB	134	LEU
2	BB	182	VAL
2	BB	187	ASP
3	BC	47	ALA
3	BC	65	VAL
3	BC	74	ILE
4	BD	41	GLY
4	BD	115	GLN
4	BD	153	ARG
4	BD	174	ALA
4	BD	203	TYR
5	BE	106	ALA
5	BE	112	ALA
5	BE	149	PRO
6	BF	13	ASP
6	BF	62	MET
7	BG	27	ASN
7	BG	130	LYS
7	BG	136	LYS

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Mol	Chain	Res	Type
10	BJ	29	ALA
11	BK	77	GLY
11	BK	88	PRO
11	BK	118	ASN
12	BL	21	PRO
13	BM	32	ILE
14	BN	15	LEU
14	BN	57	PRO
14	BN	65	ARG
15	BO	45	HIS
17	BQ	47	ASP
17	BQ	70	LYS
17	BQ	79	GLU
18	BR	29	LYS
20	BT	6	ALA
20	BT	50	PHE
27	CC	160	TYR
27	CC	204	LEU
28	CD	57	ALA
28	CD	67	HIS
28	CD	133	THR
30	CF	129	MET
30	CF	132	ARG
31	CG	131	VAL
32	CH	8	LYS
32	CH	9	VAL
32	CH	51	ARG
34	CJ	89	PHE
39	CO	51	ALA
39	CO	76	LYS
39	CO	94	ARG
44	CT	5	GLU
44	CT	41	ALA
44	CT	52	GLU
47	CW	7	ARG
47	CW	59	ALA
48	CX	59	ASP
49	CY	10	SER
49	CY	21	LEU
51	C0	53	VAL
52	C1	50	GLU
55	C4	20	ASP

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Mol	Chain	Res	Type
27	DC	113	ASP
27	DC	158	GLY
27	DC	200	MET
27	DC	231	HIS
27	DC	243	PRO
28	DD	133	THR
29	DE	200	LEU
30	DF	4	HIS
30	DF	26	GLN
30	DF	54	ALA
30	DF	171	ALA
31	DG	3	VAL
31	DG	7	PRO
31	DG	45	ALA
31	DG	159	LYS
32	DH	16	GLY
32	DH	42	LYS
32	DH	71	LYS
33	DI	21	PRO
33	DI	100	ILE
34	DJ	30	THR
35	DK	23	LYS
35	DK	110	GLU
36	DL	82	LEU
37	DM	17	ASN
37	DM	28	PHE
37	DM	54	THR
38	DN	84	GLY
39	DO	60	GLU
40	DP	110	LYS
41	DQ	66	ALA
42	DR	49	ILE
43	DS	36	LEU
45	DU	50	ALA
46	DV	16	ALA
46	DV	43	ASP
57	DW	11	ASP
49	DY	4	LYS
49	DY	34	SER
49	DY	60	LYS
51	D0	19	ASP
51	D0	37	HIS

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Mol	Chain	Res	Type
2	AB	42	LEU
2	AB	83	ALA
2	AB	111	LYS
2	AB	218	ALA
3	AC	26	LYS
3	AC	64	ARG
3	AC	76	ILE
3	AC	166	TRP
4	AD	69	ARG
4	AD	139	ASN
5	AE	55	VAL
6	AF	54	LEU
7	AG	78	ARG
9	AI	56	MET
10	AJ	31	ARG
11	AK	55	ARG
11	AK	123	PRO
12	AL	20	VAL
13	AM	49	GLU
16	AP	8	ARG
16	AP	50	THR
18	AR	59	LYS
19	AS	12	LEU
19	AS	30	LEU
19	AS	74	ALA
20	AT	39	GLU
21	AU	14	ALA
21	AU	22	CYS
21	AU	24	LYS
21	AU	51	ALA
24	AY	41	ILE
24	AY	95	ALA
2	BB	119	GLN
2	BB	135	MET
2	BB	151	LYS
2	BB	211	LEU
3	BC	44	LYS
3	BC	114	LEU
4	BD	49	ASP
4	BD	169	TRP
6	BF	18	VAL
6	BF	94	HIS

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Mol	Chain	Res	Type
7	BG	78	ARG
8	BH	20	ASN
8	BH	32	LYS
9	BI	125	GLN
10	BJ	31	ARG
10	BJ	90	LEU
12	BL	76	HIS
15	BO	28	VAL
16	BP	10	GLY
16	BP	13	LYS
16	BP	74	LEU
19	BS	22	VAL
19	BS	26	ASP
20	BT	37	ALA
20	BT	54	GLN
20	BT	85	LEU
21	BU	22	CYS
21	BU	52	VAL
27	CC	75	ALA
28	CD	98	VAL
29	CE	97	ASN
30	CF	42	ALA
31	CG	7	PRO
31	CG	78	VAL
31	CG	98	LYS
31	CG	155	PRO
32	CH	55	GLU
33	CI	120	ASP
34	CJ	25	LEU
35	CK	29	HIS
36	CL	5	THR
36	CL	84	LYS
36	CL	101	ILE
38	CN	118	ARG
39	CO	41	ALA
43	CS	10	ALA
44	CT	37	ASP
44	CT	90	GLY
49	CY	5	GLU
27	DC	142	ASN
29	DE	135	ALA
30	DF	109	ARG

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Mol	Chain	Res	Type
31	DG	66	THR
31	DG	155	PRO
33	DI	116	MET
36	DL	86	GLU
37	DM	116	ALA
40	DP	65	ASN
40	DP	113	LEU
42	DR	53	PHE
43	DS	57	ASN
43	DS	62	ASP
44	DT	24	MET
45	DU	67	SER
57	DW	16	ARG
48	DX	54	GLY
49	DY	23	ARG
53	D2	31	LEU
53	D2	44	VAL
4	AD	36	ALA
6	AF	27	ALA
7	AG	17	PHE
7	AG	104	VAL
9	AI	49	GLN
9	AI	50	PRO
10	AJ	45	ARG
15	AO	16	ARG
16	AP	28	ARG
16	AP	44	SER
20	AT	54	GLN
24	AY	33	ALA
2	BB	16	GLY
2	BB	34	ARG
2	BB	87	ASP
3	BC	73	GLY
5	BE	23	THR
5	BE	98	ALA
5	BE	132	PRO
7	BG	26	VAL
7	BG	30	MET
13	BM	9	PRO
15	BO	24	THR
21	BU	26	GLY
21	BU	37	TYR

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Mol	Chain	Res	Type
27	CC	154	ALA
29	CE	177	PRO
30	CF	102	LEU
30	CF	174	PHE
33	CI	51	GLY
33	CI	101	SER
36	CL	12	SER
37	CM	114	ARG
42	CR	64	VAL
43	CS	45	VAL
45	CU	36	GLU
27	DC	252	LYS
27	DC	269	ARG
29	DE	97	ASN
30	DF	93	GLU
32	DH	53	GLU
32	DH	57	LYS
32	DH	76	GLU
32	DH	86	ASP
33	DI	73	PRO
33	DI	108	ILE
37	DM	55	ARG
38	DN	52	ILE
41	DQ	106	THR
44	DT	2	ILE
45	DU	16	LYS
51	D0	54	ILE
4	AD	24	VAL
7	AG	5	VAL
9	AI	54	VAL
20	AT	66	ILE
21	AU	40	PRO
3	BC	71	ARG
3	BC	75	VAL
3	BC	148	ILE
4	BD	27	ILE
5	BE	107	GLY
10	BJ	39	PRO
19	BS	44	ILE
27	CC	27	LYS
29	CE	193	VAL
31	CG	11	PRO

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Mol	Chain	Res	Type
27	DC	28	PRO
29	DE	177	PRO
33	DI	84	GLY
35	DK	50	GLY
35	DK	93	GLN
37	DM	46	ILE
42	DR	63	VAL
2	AB	150	ILE
4	AD	100	VAL
7	AG	80	GLY
14	AN	10	VAL
15	AO	85	GLY
19	AS	44	ILE
24	AY	129	VAL
2	BB	172	ILE
4	BD	24	VAL
7	BG	7	GLY
9	BI	71	ILE
10	BJ	41	PRO
18	BR	25	ILE
38	CN	109	PRO
45	CU	54	PRO
35	DK	48	PRO
37	DM	87	GLY
2	AB	79	VAL
2	AB	155	GLY
12	AL	70	GLY
14	AN	45	VAL
16	AP	75	ILE
7	BG	92	PRO
9	BI	57	VAL
12	BL	15	VAL
13	BM	59	VAL
27	CC	195	GLY
33	CI	121	ILE
34	CJ	82	GLY
34	CJ	97	PRO
39	CO	101	GLY
43	CS	66	ILE
49	CY	46	VAL
31	DG	16	VAL
31	DG	125	PRO

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Mol	Chain	Res	Type
37	DM	4	PRO
43	DS	35	ILE
13	AM	94	LEU
3	BC	59	PRO
4	BD	51	GLY
20	BT	82	ILE
30	CF	28	PRO
27	DC	123	ILE
30	DF	75	GLY
31	DG	143	VAL
33	DI	12	VAL
33	DI	57	VAL
34	DJ	103	ILE
36	DL	53	GLY
39	DO	66	GLY
2	BB	200	PRO
3	BC	97	PRO
6	BF	29	ILE
8	BH	71	VAL
13	BM	6	ILE
13	BM	64	VAL
16	BP	36	VAL
44	CT	2	ILE
45	CU	53	GLN
27	DC	130	PRO
31	DG	75	VAL
32	DH	107	GLY
54	D3	17	GLY

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 X-ray entries followed by that with respect to entries of similar resolution.

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
2	AB	180/180 (100%)	114 (63%)	66 (37%)	0 1
2	BB	180/180 (100%)	131 (73%)	49 (27%)	0 2
3	AC	170/170 (100%)	127 (75%)	43 (25%)	1 3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	BC	170/170 (100%)	123 (72%)	47 (28%)	0 2
4	AD	172/172 (100%)	132 (77%)	40 (23%)	1 4
4	BD	172/172 (100%)	123 (72%)	49 (28%)	0 2
5	AE	113/113 (100%)	80 (71%)	33 (29%)	0 2
5	BE	113/113 (100%)	87 (77%)	26 (23%)	1 5
6	AF	87/87 (100%)	60 (69%)	27 (31%)	0 2
6	BF	87/87 (100%)	61 (70%)	26 (30%)	0 2
7	AG	124/124 (100%)	90 (73%)	34 (27%)	0 2
7	BG	124/124 (100%)	85 (68%)	39 (32%)	0 2
8	AH	104/104 (100%)	78 (75%)	26 (25%)	1 3
8	BH	104/104 (100%)	78 (75%)	26 (25%)	1 3
9	AI	105/105 (100%)	74 (70%)	31 (30%)	0 2
9	BI	105/105 (100%)	67 (64%)	38 (36%)	0 1
10	AJ	86/86 (100%)	63 (73%)	23 (27%)	0 3
10	BJ	86/86 (100%)	61 (71%)	25 (29%)	0 2
11	AK	90/90 (100%)	66 (73%)	24 (27%)	0 3
11	BK	90/90 (100%)	67 (74%)	23 (26%)	0 3
12	AL	103/103 (100%)	86 (84%)	17 (16%)	3 13
12	BL	103/103 (100%)	75 (73%)	28 (27%)	0 2
13	AM	92/92 (100%)	73 (79%)	19 (21%)	1 7
13	BM	92/92 (100%)	71 (77%)	21 (23%)	1 5
14	AN	79/83 (95%)	56 (71%)	23 (29%)	0 2
14	BN	79/83 (95%)	60 (76%)	19 (24%)	1 4
15	AO	76/76 (100%)	61 (80%)	15 (20%)	1 9
15	BO	76/76 (100%)	60 (79%)	16 (21%)	1 6
16	AP	65/65 (100%)	45 (69%)	20 (31%)	0 2
16	BP	65/65 (100%)	48 (74%)	17 (26%)	0 3
17	AQ	74/74 (100%)	54 (73%)	20 (27%)	0 3
17	BQ	74/74 (100%)	47 (64%)	27 (36%)	0 1
18	AR	48/48 (100%)	40 (83%)	8 (17%)	3 13
18	BR	48/48 (100%)	40 (83%)	8 (17%)	3 13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
19	AS	70/70 (100%)	56 (80%)	14 (20%)	1 8
19	BS	70/70 (100%)	53 (76%)	17 (24%)	1 4
20	AT	65/65 (100%)	45 (69%)	20 (31%)	0 2
20	BT	65/65 (100%)	47 (72%)	18 (28%)	0 2
21	AU	44/44 (100%)	23 (52%)	21 (48%)	0 0
21	BU	44/44 (100%)	26 (59%)	18 (41%)	0 0
24	AY	157/157 (100%)	139 (88%)	18 (12%)	7 28
27	CC	216/216 (100%)	182 (84%)	34 (16%)	3 15
27	DC	216/216 (100%)	173 (80%)	43 (20%)	1 8
28	CD	164/164 (100%)	143 (87%)	21 (13%)	5 23
28	DD	164/164 (100%)	135 (82%)	29 (18%)	2 11
29	CE	165/165 (100%)	143 (87%)	22 (13%)	5 21
29	DE	165/165 (100%)	126 (76%)	39 (24%)	1 4
30	CF	148/148 (100%)	112 (76%)	36 (24%)	1 4
30	DF	148/148 (100%)	114 (77%)	34 (23%)	1 5
31	CG	137/137 (100%)	114 (83%)	23 (17%)	2 13
31	DG	137/137 (100%)	119 (87%)	18 (13%)	5 22
32	CH	114/114 (100%)	89 (78%)	25 (22%)	1 6
32	DH	114/114 (100%)	92 (81%)	22 (19%)	2 9
33	CI	109/109 (100%)	78 (72%)	31 (28%)	0 2
33	DI	109/109 (100%)	83 (76%)	26 (24%)	1 4
34	CJ	116/116 (100%)	97 (84%)	19 (16%)	3 14
34	DJ	116/116 (100%)	95 (82%)	21 (18%)	2 11
35	CK	103/103 (100%)	85 (82%)	18 (18%)	2 12
35	DK	103/103 (100%)	85 (82%)	18 (18%)	2 12
36	CL	102/102 (100%)	81 (79%)	21 (21%)	1 7
36	DL	102/102 (100%)	81 (79%)	21 (21%)	1 7
37	CM	109/109 (100%)	87 (80%)	22 (20%)	1 8
37	DM	109/109 (100%)	87 (80%)	22 (20%)	1 8
38	CN	100/100 (100%)	83 (83%)	17 (17%)	2 13
38	DN	100/100 (100%)	80 (80%)	20 (20%)	1 8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
39	CO	86/86 (100%)	68 (79%)	18 (21%)	1 7
39	DO	86/86 (100%)	66 (77%)	20 (23%)	1 4
40	CP	99/99 (100%)	78 (79%)	21 (21%)	1 6
40	DP	99/99 (100%)	76 (77%)	23 (23%)	1 5
41	CQ	89/89 (100%)	76 (85%)	13 (15%)	4 18
41	DQ	89/89 (100%)	74 (83%)	15 (17%)	2 13
42	CR	84/84 (100%)	70 (83%)	14 (17%)	3 13
42	DR	84/84 (100%)	66 (79%)	18 (21%)	1 6
43	CS	93/93 (100%)	83 (89%)	10 (11%)	8 30
43	DS	93/93 (100%)	71 (76%)	22 (24%)	1 4
44	CT	80/80 (100%)	69 (86%)	11 (14%)	4 20
44	DT	80/80 (100%)	57 (71%)	23 (29%)	0 2
45	CU	83/83 (100%)	64 (77%)	19 (23%)	1 5
45	DU	83/83 (100%)	63 (76%)	20 (24%)	1 4
46	CV	78/78 (100%)	63 (81%)	15 (19%)	2 10
46	DV	78/78 (100%)	63 (81%)	15 (19%)	2 10
47	CW	56/58 (97%)	50 (89%)	6 (11%)	8 31
48	CX	67/67 (100%)	56 (84%)	11 (16%)	3 14
48	DX	67/67 (100%)	56 (84%)	11 (16%)	3 14
49	CY	55/55 (100%)	46 (84%)	9 (16%)	3 14
49	DY	55/55 (100%)	43 (78%)	12 (22%)	1 6
50	CZ	48/48 (100%)	40 (83%)	8 (17%)	3 13
50	DZ	48/48 (100%)	38 (79%)	10 (21%)	1 7
51	C0	47/47 (100%)	41 (87%)	6 (13%)	5 23
51	D0	47/47 (100%)	41 (87%)	6 (13%)	5 23
52	C1	45/45 (100%)	38 (84%)	7 (16%)	3 16
52	D1	45/45 (100%)	37 (82%)	8 (18%)	2 11
53	C2	38/38 (100%)	32 (84%)	6 (16%)	3 15
53	D2	38/38 (100%)	33 (87%)	5 (13%)	5 22
54	C3	51/51 (100%)	48 (94%)	3 (6%)	24 63
54	D3	51/51 (100%)	48 (94%)	3 (6%)	24 63

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
55	C4	34/34 (100%)	28 (82%)	6 (18%)	2 12
55	D4	34/34 (100%)	27 (79%)	7 (21%)	1 7
57	DW	55/57 (96%)	47 (86%)	8 (14%)	4 18
All	All	9482/9494 (100%)	7392 (78%)	2090 (22%)	1 6

All (2090) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	9	LEU
2	AB	13	VAL
2	AB	14	HIS
2	AB	18	GLN
2	AB	19	THR
2	AB	20	ARG
2	AB	22	TRP
2	AB	31	PHE
2	AB	34	ARG
2	AB	38	HIS
2	AB	40	ILE
2	AB	43	GLU
2	AB	45	THR
2	AB	48	MET
2	AB	49	PHE
2	AB	51	GLU
2	AB	55	GLU
2	AB	56	LEU
2	AB	63	LYS
2	AB	65	LYS
2	AB	67	LEU
2	AB	69	VAL
2	AB	71	THR
2	AB	77	GLU
2	AB	81	ASP
2	AB	84	LEU
2	AB	88	GLN
2	AB	89	PHE
2	AB	90	PHE
2	AB	100	LEU
2	AB	101	THR
2	AB	106	VAL
2	AB	108	GLN

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Mol	Chain	Res	Type
2	AB	110	ILE
2	AB	111	LYS
2	AB	116	LEU
2	AB	125	PHE
2	AB	128	LEU
2	AB	129	THR
2	AB	130	LYS
2	AB	131	LYS
2	AB	132	GLU
2	AB	134	LEU
2	AB	135	MET
2	AB	136	ARG
2	AB	142	LYS
2	AB	143	LEU
2	AB	145	ASN
2	AB	156	LEU
2	AB	160	LEU
2	AB	162	VAL
2	AB	169	HIS
2	AB	173	LYS
2	AB	178	LEU
2	AB	180	ILE
2	AB	185	ILE
2	AB	187	ASP
2	AB	193	ASP
2	AB	196	ASP
2	AB	198	VAL
2	AB	204	ASP
2	AB	206	ILE
2	AB	207	ARG
2	AB	209	VAL
2	AB	219	THR
2	AB	224	ARG
3	AC	2	GLN
3	AC	3	LYS
3	AC	7	ASN
3	AC	10	ARG
3	AC	13	ILE
3	AC	14	VAL
3	AC	15	LYS
3	AC	17	TRP
3	AC	22	PHE

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Mol	Chain	Res	Type
3	AC	24	ASN
3	AC	25	THR
3	AC	26	LYS
3	AC	28	PHE
3	AC	32	LEU
3	AC	34	SER
3	AC	36	PHE
3	AC	43	THR
3	AC	54	ILE
3	AC	57	GLU
3	AC	58	ARG
3	AC	63	ILE
3	AC	81	GLU
3	AC	85	LYS
3	AC	93	ILE
3	AC	102	ILE
3	AC	106	ARG
3	AC	110	LEU
3	AC	120	THR
3	AC	128	MET
3	AC	139	ASN
3	AC	141	MET
3	AC	143	LEU
3	AC	149	LYS
3	AC	153	SER
3	AC	156	LEU
3	AC	160	GLU
3	AC	161	ILE
3	AC	165	GLU
3	AC	166	TRP
3	AC	168	ARG
3	AC	171	ARG
3	AC	183	TYR
3	AC	184	ASN
4	AD	2	ARG
4	AD	3	TYR
4	AD	4	LEU
4	AD	8	LEU
4	AD	12	ARG
4	AD	30	LYS
4	AD	31	CYS
4	AD	34	GLU

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Mol	Chain	Res	Type
4	AD	43	ARG
4	AD	44	LYS
4	AD	47	LEU
4	AD	54	LEU
4	AD	55	ARG
4	AD	57	LYS
4	AD	59	LYS
4	AD	62	ARG
4	AD	68	GLU
4	AD	69	ARG
4	AD	77	GLU
4	AD	82	LYS
4	AD	85	THR
4	AD	103	ARG
4	AD	104	MET
4	AD	109	THR
4	AD	115	GLN
4	AD	118	SER
4	AD	122	ILE
4	AD	130	ASN
4	AD	137	SER
4	AD	142	VAL
4	AD	160	LEU
4	AD	162	GLU
4	AD	170	LEU
4	AD	176	LYS
4	AD	178	GLU
4	AD	193	ASP
4	AD	194	ILE
4	AD	195	ASN
4	AD	196	GLU
4	AD	205	LYS
5	AE	14	LEU
5	AE	18	ASN
5	AE	25	LYS
5	AE	37	VAL
5	AE	45	VAL
5	AE	53	ARG
5	AE	54	GLU
5	AE	55	VAL
5	AE	64	GLU
5	AE	68	ARG

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Mol	Chain	Res	Type
5	AE	71	ILE
5	AE	72	ASN
5	AE	73	VAL
5	AE	77	ASN
5	AE	82	HIS
5	AE	87	VAL
5	AE	92	ARG
5	AE	94	PHE
5	AE	100	GLU
5	AE	102	THR
5	AE	114	LEU
5	AE	115	GLU
5	AE	119	VAL
5	AE	121	ASN
5	AE	123	LEU
5	AE	125	LYS
5	AE	130	THR
5	AE	131	ASN
5	AE	133	ILE
5	AE	135	VAL
5	AE	136	VAL
5	AE	139	THR
5	AE	148	SER
6	AF	2	ARG
6	AF	6	ILE
6	AF	11	HIS
6	AF	14	GLN
6	AF	15	SER
6	AF	17	GLN
6	AF	24	ARG
6	AF	35	LYS
6	AF	39	LEU
6	AF	42	TRP
6	AF	44	ARG
6	AF	46	GLN
6	AF	51	ILE
6	AF	52	ASN
6	AF	55	HIS
6	AF	62	MET
6	AF	63	ASN
6	AF	69	GLU
6	AF	71	ILE

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Mol	Chain	Res	Type
6	AF	73	GLU
6	AF	77	THR
6	AF	82	ASP
6	AF	85	ILE
6	AF	87	SER
6	AF	96	VAL
6	AF	97	THR
6	AF	100	SER
7	AG	3	ARG
7	AG	5	VAL
7	AG	6	ILE
7	AG	8	GLN
7	AG	12	LEU
7	AG	25	PHE
7	AG	29	LEU
7	AG	31	VAL
7	AG	42	VAL
7	AG	46	LEU
7	AG	48	THR
7	AG	51	GLN
7	AG	58	LEU
7	AG	61	PHE
7	AG	62	GLU
7	AG	67	ASN
7	AG	69	ARG
7	AG	74	VAL
7	AG	75	LYS
7	AG	77	ARG
7	AG	78	ARG
7	AG	79	VAL
7	AG	85	GLN
7	AG	88	VAL
7	AG	89	GLU
7	AG	90	VAL
7	AG	91	ARG
7	AG	110	ARG
7	AG	119	LEU
7	AG	134	VAL
7	AG	135	LYS
7	AG	141	HIS
7	AG	145	GLU
7	AG	147	ASN

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Mol	Chain	Res	Type
8	AH	2	MET
8	AH	10	LEU
8	AH	12	ARG
8	AH	21	LYS
8	AH	25	THR
8	AH	29	SER
8	AH	30	LYS
8	AH	31	LEU
8	AH	37	ASN
8	AH	41	GLU
8	AH	47	ASP
8	AH	48	PHE
8	AH	54	THR
8	AH	76	ARG
8	AH	82	LEU
8	AH	86	LYS
8	AH	88	LYS
8	AH	89	ASP
8	AH	93	LYS
8	AH	98	LEU
8	AH	102	VAL
8	AH	103	VAL
8	AH	106	SER
8	AH	111	THR
8	AH	120	LEU
8	AH	124	ILE
9	AI	6	TYR
9	AI	10	ARG
9	AI	11	ARG
9	AI	12	LYS
9	AI	13	SER
9	AI	17	ARG
9	AI	21	LYS
9	AI	29	ILE
9	AI	32	ARG
9	AI	35	GLU
9	AI	41	GLU
9	AI	42	THR
9	AI	45	MET
9	AI	48	ARG
9	AI	56	MET
9	AI	60	LEU

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Mol	Chain	Res	Type
9	AI	62	LEU
9	AI	67	LYS
9	AI	86	LEU
9	AI	87	MET
9	AI	88	GLU
9	AI	89	TYR
9	AI	93	LEU
9	AI	96	GLU
9	AI	98	ARG
9	AI	105	ARG
9	AI	115	VAL
9	AI	119	LYS
9	AI	126	PHE
9	AI	128	LYS
9	AI	129	ARG
10	AJ	6	ILE
10	AJ	8	ILE
10	AJ	15	HIS
10	AJ	17	LEU
10	AJ	25	ILE
10	AJ	27	GLU
10	AJ	28	THR
10	AJ	40	ILE
10	AJ	42	LEU
10	AJ	44	THR
10	AJ	49	PHE
10	AJ	52	LEU
10	AJ	53	ILE
10	AJ	54	SER
10	AJ	59	LYS
10	AJ	63	ASP
10	AJ	71	LEU
10	AJ	73	LEU
10	AJ	75	ASP
10	AJ	83	THR
10	AJ	89	ARG
10	AJ	92	LEU
10	AJ	101	SER
11	AK	17	ASP
11	AK	23	HIS
11	AK	30	ILE
11	AK	31	VAL

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Mol	Chain	Res	Type
11	AK	34	THR
11	AK	37	GLN
11	AK	51	PHE
11	AK	64	VAL
11	AK	75	GLU
11	AK	80	ASN
11	AK	81	LEU
11	AK	82	GLU
11	AK	92	ARG
11	AK	93	GLU
11	AK	95	THR
11	AK	96	ILE
11	AK	100	ASN
11	AK	106	ILE
11	AK	108	ASN
11	AK	110	THR
11	AK	113	THR
11	AK	121	ARG
11	AK	125	LYS
11	AK	127	ARG
12	AL	3	VAL
12	AL	18	SER
12	AL	20	VAL
12	AL	24	GLU
12	AL	28	GLN
12	AL	29	LYS
12	AL	43	LYS
12	AL	53	ARG
12	AL	61	GLU
12	AL	63	THR
12	AL	73	LEU
12	AL	74	GLN
12	AL	75	GLU
12	AL	77	SER
12	AL	101	LEU
12	AL	114	SER
12	AL	120	ARG
13	AM	3	ILE
13	AM	12	LYS
13	AM	15	VAL
13	AM	26	LYS
13	AM	28	ARG

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Mol	Chain	Res	Type
13	AM	43	LYS
13	AM	44	ILE
13	AM	54	THR
13	AM	56	ARG
13	AM	70	ARG
13	AM	71	GLU
13	AM	78	ARG
13	AM	82	LEU
13	AM	86	ARG
13	AM	90	HIS
13	AM	94	LEU
13	AM	106	ARG
13	AM	107	THR
13	AM	111	PRO
14	AN	6	LYS
14	AN	9	GLU
14	AN	15	LEU
14	AN	23	ARG
14	AN	25	GLU
14	AN	27	LYS
14	AN	41	ARG
14	AN	43	ASN
14	AN	46	LEU
14	AN	48	LEU
14	AN	49	GLN
14	AN	51	LEU
14	AN	58	SER
14	AN	62	ASN
14	AN	63	ARG
14	AN	65	ARG
14	AN	76	LYS
14	AN	81	ARG
14	AN	82	ILE
14	AN	89	MET
14	AN	92	GLU
14	AN	98	LYS
14	AN	100	SER
15	AO	7	THR
15	AO	12	SER
15	AO	16	ARG
15	AO	21	THR
15	AO	23	SER

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Mol	Chain	Res	Type
15	AO	30	LEU
15	AO	34	GLN
15	AO	38	LEU
15	AO	39	GLN
15	AO	47	LYS
15	AO	52	ARG
15	AO	56	LEU
15	AO	57	ARG
15	AO	74	VAL
15	AO	86	LEU
16	AP	1	MET
16	AP	2	VAL
16	AP	6	LEU
16	AP	9	HIS
16	AP	16	PHE
16	AP	18	GLN
16	AP	19	VAL
16	AP	20	VAL
16	AP	31	ARG
16	AP	33	ILE
16	AP	34	GLU
16	AP	39	PHE
16	AP	46	LYS
16	AP	51	ARG
16	AP	67	ILE
16	AP	69	ASP
16	AP	70	ARG
16	AP	75	ILE
16	AP	76	LYS
16	AP	80	LYS
17	AQ	3	LYS
17	AQ	6	THR
17	AQ	10	ARG
17	AQ	13	SER
17	AQ	16	MET
17	AQ	20	ILE
17	AQ	22	VAL
17	AQ	27	PHE
17	AQ	28	VAL
17	AQ	37	ILE
17	AQ	50	ASN
17	AQ	51	GLU

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Mol	Chain	Res	Type
17	AQ	54	ILE
17	AQ	58	VAL
17	AQ	60	ILE
17	AQ	73	THR
17	AQ	75	VAL
17	AQ	76	ARG
17	AQ	80	LYS
17	AQ	82	VAL
18	AR	24	ASP
18	AR	29	LYS
18	AR	35	SER
18	AR	42	ARG
18	AR	47	ARG
18	AR	60	ARG
18	AR	70	THR
18	AR	71	ASP
19	AS	5	LYS
19	AS	15	LEU
19	AS	20	LYS
19	AS	26	ASP
19	AS	34	SER
19	AS	39	ILE
19	AS	48	ILE
19	AS	54	ARG
19	AS	55	GLN
19	AS	62	THR
19	AS	64	GLU
19	AS	70	LEU
19	AS	73	PHE
19	AS	78	THR
20	AT	4	LYS
20	AT	7	LYS
20	AT	9	ARG
20	AT	11	ILE
20	AT	12	GLN
20	AT	14	GLU
20	AT	22	SER
20	AT	25	SER
20	AT	26	MET
20	AT	29	THR
20	AT	33	LYS
20	AT	47	GLN

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Mol	Chain	Res	Type
20	AT	52	GLU
20	AT	53	MET
20	AT	65	LEU
20	AT	67	HIS
20	AT	68	LYS
20	AT	69	ASN
20	AT	75	LYS
20	AT	83	ASN
21	AU	4	LYS
21	AU	5	VAL
21	AU	8	ASN
21	AU	9	GLU
21	AU	11	PHE
21	AU	15	LEU
21	AU	17	ARG
21	AU	18	PHE
21	AU	19	LYS
21	AU	27	VAL
21	AU	28	LEU
21	AU	32	ARG
21	AU	33	ARG
21	AU	36	PHE
21	AU	42	THR
21	AU	43	GLU
21	AU	45	LYS
21	AU	46	ARG
21	AU	50	SER
21	AU	52	VAL
21	AU	53	LYS
24	AY	16	LYS
24	AY	23	THR
24	AY	25	ILE
24	AY	38	LEU
24	AY	41	ILE
24	AY	57	SER
24	AY	87	ASP
24	AY	98	ASP
24	AY	106	LEU
24	AY	107	THR
24	AY	133	ARG
24	AY	135	ASP
24	AY	145	LYS

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Mol	Chain	Res	Type
24	AY	147	LYS
24	AY	157	SER
24	AY	159	ASP
24	AY	163	LYS
24	AY	179	LYS
2	BB	13	VAL
2	BB	14	HIS
2	BB	15	PHE
2	BB	17	HIS
2	BB	18	GLN
2	BB	19	THR
2	BB	23	ASN
2	BB	26	MET
2	BB	27	LYS
2	BB	34	ARG
2	BB	39	ILE
2	BB	42	LEU
2	BB	48	MET
2	BB	49	PHE
2	BB	50	ASN
2	BB	56	LEU
2	BB	62	ARG
2	BB	65	LYS
2	BB	67	LEU
2	BB	80	LYS
2	BB	81	ASP
2	BB	87	ASP
2	BB	88	GLN
2	BB	90	PHE
2	BB	91	VAL
2	BB	93	HIS
2	BB	94	ARG
2	BB	95	TRP
2	BB	100	LEU
2	BB	105	THR
2	BB	116	LEU
2	BB	125	PHE
2	BB	129	THR
2	BB	132	GLU
2	BB	135	MET
2	BB	138	ARG
2	BB	142	LYS

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Mol	Chain	Res	Type
2	BB	143	LEU
2	BB	162	VAL
2	BB	163	ILE
2	BB	169	HIS
2	BB	173	LYS
2	BB	187	ASP
2	BB	195	VAL
2	BB	196	ASP
2	BB	206	ILE
2	BB	209	VAL
2	BB	219	THR
2	BB	221	ARG
3	BC	2	GLN
3	BC	14	VAL
3	BC	15	LYS
3	BC	17	TRP
3	BC	25	THR
3	BC	26	LYS
3	BC	28	PHE
3	BC	32	LEU
3	BC	36	PHE
3	BC	42	LEU
3	BC	44	LYS
3	BC	45	GLU
3	BC	52	SER
3	BC	55	VAL
3	BC	57	GLU
3	BC	69	THR
3	BC	79	LYS
3	BC	93	ILE
3	BC	102	ILE
3	BC	106	ARG
3	BC	110	LEU
3	BC	111	ASP
3	BC	118	SER
3	BC	120	THR
3	BC	128	MET
3	BC	130	ARG
3	BC	131	ARG
3	BC	139	ASN
3	BC	143	LEU
3	BC	146	LYS

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Mol	Chain	Res	Type
3	BC	148	ILE
3	BC	150	VAL
3	BC	151	GLU
3	BC	166	TRP
3	BC	167	TYR
3	BC	169	GLU
3	BC	174	LEU
3	BC	175	HIS
3	BC	177	LEU
3	BC	178	ARG
3	BC	184	ASN
3	BC	189	HIS
3	BC	191	THR
3	BC	192	TYR
3	BC	199	VAL
3	BC	200	TRP
3	BC	201	ILE
4	BD	4	LEU
4	BD	7	LYS
4	BD	8	LEU
4	BD	27	ILE
4	BD	28	ASP
4	BD	30	LYS
4	BD	31	CYS
4	BD	32	LYS
4	BD	46	ARG
4	BD	53	GLN
4	BD	54	LEU
4	BD	55	ARG
4	BD	57	LYS
4	BD	58	GLN
4	BD	62	ARG
4	BD	66	VAL
4	BD	68	GLU
4	BD	80	ARG
4	BD	82	LYS
4	BD	85	THR
4	BD	89	LEU
4	BD	90	LEU
4	BD	92	LEU
4	BD	97	LEU
4	BD	99	ASN

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Mol	Chain	Res	Type
4	BD	101	VAL
4	BD	109	THR
4	BD	115	GLN
4	BD	116	LEU
4	BD	119	HIS
4	BD	124	VAL
4	BD	127	ARG
4	BD	128	VAL
4	BD	131	ILE
4	BD	137	SER
4	BD	142	VAL
4	BD	146	GLU
4	BD	151	GLN
4	BD	160	LEU
4	BD	162	GLU
4	BD	170	LEU
4	BD	177	MET
4	BD	178	GLU
4	BD	183	ARG
4	BD	190	LEU
4	BD	197	HIS
4	BD	199	ILE
4	BD	202	LEU
4	BD	205	LYS
5	BE	9	GLU
5	BE	14	LEU
5	BE	17	VAL
5	BE	24	VAL
5	BE	25	LYS
5	BE	28	ARG
5	BE	45	VAL
5	BE	68	ARG
5	BE	72	ASN
5	BE	76	ASN
5	BE	79	THR
5	BE	80	LEU
5	BE	92	ARG
5	BE	96	GLN
5	BE	100	GLU
5	BE	111	ARG
5	BE	113	VAL
5	BE	114	LEU

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Mol	Chain	Res	Type
5	BE	119	VAL
5	BE	125	LYS
5	BE	130	THR
5	BE	136	VAL
5	BE	139	THR
5	BE	151	MET
5	BE	155	LYS
5	BE	156	ARG
6	BF	1	MET
6	BF	2	ARG
6	BF	5	GLU
6	BF	7	VAL
6	BF	8	PHE
6	BF	9	MET
6	BF	10	VAL
6	BF	23	GLU
6	BF	24	ARG
6	BF	29	ILE
6	BF	35	LYS
6	BF	36	ILE
6	BF	38	ARG
6	BF	39	LEU
6	BF	51	ILE
6	BF	53	LYS
6	BF	54	LEU
6	BF	55	HIS
6	BF	63	ASN
6	BF	69	GLU
6	BF	73	GLU
6	BF	77	THR
6	BF	87	SER
6	BF	91	ARG
6	BF	93	LYS
6	BF	97	THR
7	BG	2	ARG
7	BG	4	ARG
7	BG	5	VAL
7	BG	8	GLN
7	BG	11	ILE
7	BG	21	LEU
7	BG	22	LEU
7	BG	25	PHE

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Mol	Chain	Res	Type
7	BG	29	LEU
7	BG	35	LYS
7	BG	46	LEU
7	BG	47	GLU
7	BG	49	LEU
7	BG	52	ARG
7	BG	58	LEU
7	BG	61	PHE
7	BG	65	LEU
7	BG	69	ARG
7	BG	72	VAL
7	BG	74	VAL
7	BG	76	SER
7	BG	77	ARG
7	BG	83	THR
7	BG	86	VAL
7	BG	89	GLU
7	BG	90	VAL
7	BG	94	ARG
7	BG	96	ASN
7	BG	108	ARG
7	BG	110	ARG
7	BG	119	LEU
7	BG	125	ASP
7	BG	128	GLU
7	BG	129	ASN
7	BG	134	VAL
7	BG	137	ARG
7	BG	139	ASP
7	BG	143	MET
7	BG	145	GLU
8	BH	2	MET
8	BH	10	LEU
8	BH	12	ARG
8	BH	21	LYS
8	BH	29	SER
8	BH	30	LYS
8	BH	41	GLU
8	BH	46	GLU
8	BH	48	PHE
8	BH	53	ASP
8	BH	58	LEU

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Mol	Chain	Res	Type
8	BH	62	LEU
8	BH	64	TYR
8	BH	65	PHE
8	BH	66	GLN
8	BH	73	SER
8	BH	74	ILE
8	BH	76	ARG
8	BH	79	ARG
8	BH	86	LYS
8	BH	100	ILE
8	BH	103	VAL
8	BH	111	THR
8	BH	116	ARG
8	BH	120	LEU
8	BH	124	ILE
9	BI	8	THR
9	BI	10	ARG
9	BI	11	ARG
9	BI	17	ARG
9	BI	27	ILE
9	BI	28	VAL
9	BI	31	GLN
9	BI	32	ARG
9	BI	35	GLU
9	BI	42	THR
9	BI	44	ARG
9	BI	45	MET
9	BI	47	VAL
9	BI	48	ARG
9	BI	53	LEU
9	BI	55	ASP
9	BI	56	MET
9	BI	58	GLU
9	BI	59	LYS
9	BI	60	LEU
9	BI	62	LEU
9	BI	65	THR
9	BI	67	LYS
9	BI	84	ARG
9	BI	87	MET
9	BI	88	GLU
9	BI	89	TYR

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Mol	Chain	Res	Type
9	BI	92	SER
9	BI	93	LEU
9	BI	96	GLU
9	BI	98	ARG
9	BI	104	THR
9	BI	105	ARG
9	BI	115	VAL
9	BI	119	LYS
9	BI	125	GLN
9	BI	126	PHE
9	BI	128	LYS
10	BJ	9	ARG
10	BJ	10	LEU
10	BJ	22	THR
10	BJ	25	ILE
10	BJ	27	GLU
10	BJ	32	THR
10	BJ	35	GLN
10	BJ	42	LEU
10	BJ	45	ARG
10	BJ	48	ARG
10	BJ	50	THR
10	BJ	58	ASN
10	BJ	59	LYS
10	BJ	63	ASP
10	BJ	64	GLN
10	BJ	66	GLU
10	BJ	73	LEU
10	BJ	77	VAL
10	BJ	78	GLU
10	BJ	80	THR
10	BJ	83	THR
10	BJ	84	VAL
10	BJ	87	LEU
10	BJ	89	ARG
10	BJ	92	LEU
11	BK	14	GLN
11	BK	26	PHE
11	BK	30	ILE
11	BK	32	THR
11	BK	41	LEU
11	BK	45	THR

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Mol	Chain	Res	Type
11	BK	63	GLN
11	BK	64	VAL
11	BK	71	ASP
11	BK	76	TYR
11	BK	80	ASN
11	BK	81	LEU
11	BK	82	GLU
11	BK	95	THR
11	BK	99	LEU
11	BK	100	ASN
11	BK	104	PHE
11	BK	105	ARG
11	BK	106	ILE
11	BK	113	THR
11	BK	124	LYS
11	BK	125	LYS
11	BK	127	ARG
12	BL	3	VAL
12	BL	4	ASN
12	BL	5	GLN
12	BL	9	LYS
12	BL	11	ARG
12	BL	15	VAL
12	BL	17	LYS
12	BL	19	ASN
12	BL	20	VAL
12	BL	21	PRO
12	BL	28	GLN
12	BL	30	ARG
12	BL	35	ARG
12	BL	43	LYS
12	BL	51	VAL
12	BL	57	THR
12	BL	58	ASN
12	BL	73	LEU
12	BL	74	GLN
12	BL	81	ILE
12	BL	85	ARG
12	BL	89	LEU
12	BL	92	VAL
12	BL	93	ARG
12	BL	101	LEU

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Mol	Chain	Res	Type
12	BL	109	ARG
12	BL	114	SER
12	BL	120	ARG
13	BM	6	ILE
13	BM	20	SER
13	BM	24	VAL
13	BM	28	ARG
13	BM	30	LYS
13	BM	33	LEU
13	BM	40	GLU
13	BM	47	LEU
13	BM	52	ILE
13	BM	53	ASP
13	BM	55	LEU
13	BM	59	VAL
13	BM	62	PHE
13	BM	67	ASP
13	BM	71	GLU
13	BM	79	LEU
13	BM	86	ARG
13	BM	89	ARG
13	BM	90	HIS
13	BM	96	VAL
13	BM	100	ARG
14	BN	3	GLN
14	BN	9	GLU
14	BN	12	ARG
14	BN	15	LEU
14	BN	19	TYR
14	BN	22	LYS
14	BN	25	GLU
14	BN	27	LYS
14	BN	31	SER
14	BN	32	ASP
14	BN	34	ASN
14	BN	43	ASN
14	BN	48	LEU
14	BN	51	LEU
14	BN	60	GLN
14	BN	71	HIS
14	BN	77	PHE
14	BN	85	ARG

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Mol	Chain	Res	Type
14	BN	90	ARG
15	BO	3	SER
15	BO	5	GLU
15	BO	16	ARG
15	BO	21	THR
15	BO	25	GLU
15	BO	34	GLN
15	BO	38	LEU
15	BO	47	LYS
15	BO	61	GLN
15	BO	62	ARG
15	BO	63	ARG
15	BO	69	LEU
15	BO	78	THR
15	BO	84	LEU
15	BO	86	LEU
15	BO	87	ARG
16	BP	1	MET
16	BP	2	VAL
16	BP	3	THR
16	BP	8	ARG
16	BP	17	TYR
16	BP	19	VAL
16	BP	26	ASN
16	BP	34	GLU
16	BP	36	VAL
16	BP	39	PHE
16	BP	46	LYS
16	BP	48	GLU
16	BP	51	ARG
16	BP	63	GLN
16	BP	69	ASP
16	BP	74	LEU
16	BP	80	LYS
17	BQ	3	LYS
17	BQ	4	ILE
17	BQ	6	THR
17	BQ	7	LEU
17	BQ	8	GLN
17	BQ	10	ARG
17	BQ	16	MET
17	BQ	17	GLU

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Mol	Chain	Res	Type
17	BQ	22	VAL
17	BQ	26	ARG
17	BQ	27	PHE
17	BQ	28	VAL
17	BQ	39	ARG
17	BQ	47	ASP
17	BQ	50	ASN
17	BQ	51	GLU
17	BQ	54	ILE
17	BQ	58	VAL
17	BQ	64	ARG
17	BQ	69	THR
17	BQ	73	THR
17	BQ	74	LEU
17	BQ	75	VAL
17	BQ	77	VAL
17	BQ	78	VAL
17	BQ	80	LYS
17	BQ	82	VAL
18	BR	20	ILE
18	BR	24	ASP
18	BR	28	LEU
18	BR	32	ILE
18	BR	38	ILE
18	BR	46	THR
18	BR	47	ARG
18	BR	54	LEU
19	BS	5	LYS
19	BS	6	LYS
19	BS	10	ILE
19	BS	11	ASP
19	BS	12	LEU
19	BS	13	HIS
19	BS	15	LEU
19	BS	22	VAL
19	BS	24	SER
19	BS	27	LYS
19	BS	32	THR
19	BS	36	ARG
19	BS	38	THR
19	BS	48	ILE
19	BS	55	GLN

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Mol	Chain	Res	Type
19	BS	57	VAL
19	BS	65	MET
20	BT	4	LYS
20	BT	7	LYS
20	BT	9	ARG
20	BT	11	ILE
20	BT	14	GLU
20	BT	18	LYS
20	BT	20	ASN
20	BT	26	MET
20	BT	28	ARG
20	BT	35	TYR
20	BT	38	ILE
20	BT	48	LYS
20	BT	53	MET
20	BT	63	LYS
20	BT	66	ILE
20	BT	75	LYS
20	BT	77	ASN
20	BT	78	LEU
21	BU	4	LYS
21	BU	7	GLU
21	BU	8	ASN
21	BU	11	PHE
21	BU	13	VAL
21	BU	15	LEU
21	BU	16	ARG
21	BU	18	PHE
21	BU	19	LYS
21	BU	21	SER
21	BU	27	VAL
21	BU	33	ARG
21	BU	35	GLU
21	BU	36	PHE
21	BU	37	TYR
21	BU	42	THR
21	BU	46	ARG
21	BU	48	LYS
27	CC	2	VAL
27	CC	9	SER
27	CC	13	ARG
27	CC	15	VAL

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Mol	Chain	Res	Type
27	CC	17	LYS
27	CC	34	GLU
27	CC	37	SER
27	CC	42	ARG
27	CC	76	VAL
27	CC	96	LYS
27	CC	101	ARG
27	CC	104	LEU
27	CC	109	LEU
27	CC	110	LYS
27	CC	113	ASP
27	CC	120	ASP
27	CC	124	LYS
27	CC	129	LEU
27	CC	138	SER
27	CC	153	LEU
27	CC	155	ARG
27	CC	167	ASP
27	CC	173	LEU
27	CC	176	ARG
27	CC	196	ASN
27	CC	198	GLU
27	CC	211	ARG
27	CC	224	MET
27	CC	225	ASN
27	CC	256	THR
27	CC	259	ASN
27	CC	262	THR
27	CC	268	ARG
27	CC	270	ARG
28	CD	12	THR
28	CD	13	ARG
28	CD	18	ASP
28	CD	26	VAL
28	CD	28	GLU
28	CD	32	ASN
28	CD	35	THR
28	CD	48	ILE
28	CD	77	ARG
28	CD	83	ARG
28	CD	89	GLU
28	CD	95	SER

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Mol	Chain	Res	Type
28	CD	97	SER
28	CD	100	LEU
28	CD	105	LYS
28	CD	121	THR
28	CD	129	THR
28	CD	139	SER
28	CD	159	LYS
28	CD	176	ASP
28	CD	177	VAL
29	CE	7	ASP
29	CE	12	LEU
29	CE	40	ARG
29	CE	47	LYS
29	CE	55	SER
29	CE	72	SER
29	CE	77	ILE
29	CE	80	SER
29	CE	90	GLN
29	CE	97	ASN
29	CE	108	ILE
29	CE	111	GLU
29	CE	113	VAL
29	CE	123	LYS
29	CE	149	ILE
29	CE	150	THR
29	CE	159	LEU
29	CE	163	ASN
29	CE	164	LEU
29	CE	170	ARG
29	CE	176	ASP
29	CE	189	THR
30	CF	2	LYS
30	CF	13	LYS
30	CF	18	GLU
30	CF	20	ASN
30	CF	24	VAL
30	CF	26	GLN
30	CF	30	VAL
30	CF	34	THR
30	CF	35	LEU
30	CF	41	GLU
30	CF	43	ILE

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Mol	Chain	Res	Type
30	CF	49	LEU
30	CF	50	ASP
30	CF	55	ASP
30	CF	56	LEU
30	CF	60	SER
30	CF	67	THR
30	CF	77	LYS
30	CF	82	TYR
30	CF	91	ARG
30	CF	93	GLU
30	CF	94	ARG
30	CF	100	GLU
30	CF	104	THR
30	CF	107	VAL
30	CF	120	SER
30	CF	124	ARG
30	CF	129	MET
30	CF	131	VAL
30	CF	146	ASP
30	CF	149	ARG
30	CF	151	LEU
30	CF	154	THR
30	CF	157	THR
30	CF	173	ASP
30	CF	176	PHE
31	CG	5	LYS
31	CG	9	VAL
31	CG	14	VAL
31	CG	22	VAL
31	CG	31	GLU
31	CG	41	GLU
31	CG	42	VAL
31	CG	47	ASN
31	CG	49	LEU
31	CG	68	ARG
31	CG	76	ILE
31	CG	91	VAL
31	CG	100	ASN
31	CG	105	SER
31	CG	123	GLU
31	CG	148	ARG
31	CG	151	ARG

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Mol	Chain	Res	Type
31	CG	154	GLU
31	CG	155	PRO
31	CG	159	LYS
31	CG	165	ASP
31	CG	167	VAL
31	CG	170	THR
32	CH	1	MET
32	CH	3	VAL
32	CH	7	ASP
32	CH	15	LEU
32	CH	18	GLN
32	CH	19	VAL
32	CH	25	TYR
32	CH	27	ARG
32	CH	37	VAL
32	CH	48	GLU
32	CH	50	ARG
32	CH	60	GLU
32	CH	72	ILE
32	CH	75	LEU
32	CH	76	GLU
32	CH	77	THR
32	CH	78	VAL
32	CH	87	GLU
32	CH	90	LEU
32	CH	112	LYS
32	CH	113	SER
32	CH	116	ARG
32	CH	123	ARG
32	CH	124	THR
32	CH	131	SER
33	CI	2	LYS
33	CI	5	GLN
33	CI	7	TYR
33	CI	8	VAL
33	CI	10	LEU
33	CI	11	GLN
33	CI	16	MET
33	CI	27	LEU
33	CI	30	GLN
33	CI	33	ASN
33	CI	37	PHE

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Mol	Chain	Res	Type
33	CI	44	LYS
33	CI	46	ASP
33	CI	49	GLU
33	CI	56	VAL
33	CI	61	TYR
33	CI	66	PHE
33	CI	68	PHE
33	CI	71	LYS
33	CI	81	LYS
33	CI	85	ILE
33	CI	86	LYS
33	CI	95	ASP
33	CI	96	LYS
33	CI	100	ILE
33	CI	101	SER
33	CI	102	ARG
33	CI	107	GLU
33	CI	126	ARG
33	CI	133	ARG
33	CI	135	MET
34	CJ	1	MET
34	CJ	4	PHE
34	CJ	5	THR
34	CJ	9	GLU
34	CJ	17	VAL
34	CJ	23	LYS
34	CJ	30	THR
34	CJ	43	GLU
34	CJ	61	LYS
34	CJ	64	VAL
34	CJ	65	THR
34	CJ	69	ARG
34	CJ	70	THR
34	CJ	81	ILE
34	CJ	100	VAL
34	CJ	101	ILE
34	CJ	131	ASN
34	CJ	135	GLN
34	CJ	142	ILE
35	CK	8	LEU
35	CK	19	VAL
35	CK	20	MET

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Mol	Chain	Res	Type
35	CK	28	SER
35	CK	31	ARG
35	CK	32	TYR
35	CK	42	THR
35	CK	58	LEU
35	CK	66	LYS
35	CK	77	ILE
35	CK	80	ASP
35	CK	82	ASN
35	CK	88	ASN
35	CK	92	GLU
35	CK	103	VAL
35	CK	107	LEU
35	CK	108	ARG
35	CK	121	GLU
36	CL	2	ARG
36	CL	5	THR
36	CL	13	LYS
36	CL	19	LEU
36	CL	21	ARG
36	CL	27	LEU
36	CL	33	ARG
36	CL	40	SER
36	CL	47	ARG
36	CL	67	THR
36	CL	69	ARG
36	CL	82	LEU
36	CL	85	VAL
36	CL	86	GLU
36	CL	92	LEU
36	CL	93	ASN
36	CL	95	LEU
36	CL	100	ILE
36	CL	115	GLU
36	CL	125	LEU
36	CL	144	GLU
37	CM	7	THR
37	CM	12	MET
37	CM	16	ARG
37	CM	25	ASP
37	CM	30	SER
37	CM	40	ARG

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Mol	Chain	Res	Type
37	CM	47	GLU
37	CM	50	ARG
37	CM	55	ARG
37	CM	60	GLN
37	CM	69	PRO
37	CM	70	ASP
37	CM	74	THR
37	CM	100	LYS
37	CM	108	VAL
37	CM	110	GLU
37	CM	111	GLU
37	CM	115	GLU
37	CM	129	THR
37	CM	131	VAL
37	CM	134	THR
37	CM	135	VAL
38	CN	2	ARG
38	CN	6	SER
38	CN	13	ASN
38	CN	15	SER
38	CN	36	THR
38	CN	37	THR
38	CN	39	PRO
38	CN	48	VAL
38	CN	62	ASN
38	CN	65	LEU
38	CN	69	ARG
38	CN	70	THR
38	CN	71	ARG
38	CN	89	SER
38	CN	90	ARG
38	CN	114	GLU
38	CN	119	SER
39	CO	4	LYS
39	CO	9	ARG
39	CO	17	LYS
39	CO	25	ARG
39	CO	28	VAL
39	CO	38	GLN
39	CO	45	SER
39	CO	49	VAL
39	CO	62	LEU

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Mol	Chain	Res	Type
39	CO	63	LYS
39	CO	65	THR
39	CO	74	VAL
39	CO	78	VAL
39	CO	88	LYS
39	CO	89	ASP
39	CO	111	ARG
39	CO	112	GLU
39	CO	115	LEU
40	CP	2	ASN
40	CP	3	ILE
40	CP	6	GLN
40	CP	15	ASP
40	CP	18	SER
40	CP	26	GLU
40	CP	31	VAL
40	CP	62	LYS
40	CP	67	GLU
40	CP	72	VAL
40	CP	74	GLN
40	CP	92	ARG
40	CP	93	LYS
40	CP	95	LYS
40	CP	102	ARG
40	CP	108	ARG
40	CP	109	ILE
40	CP	110	LYS
40	CP	111	GLU
40	CP	113	LEU
40	CP	114	ASN
41	CQ	3	VAL
41	CQ	5	ARG
41	CQ	7	VAL
41	CQ	8	ILE
41	CQ	10	ARG
41	CQ	16	ILE
41	CQ	17	LEU
41	CQ	18	LYS
41	CQ	33	VAL
41	CQ	39	ILE
41	CQ	50	ARG
41	CQ	58	GLN

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Mol	Chain	Res	Type
41	CQ	91	ARG
42	CR	1	MET
42	CR	14	VAL
42	CR	20	VAL
42	CR	38	VAL
42	CR	39	LEU
42	CR	43	ASN
42	CR	46	GLU
42	CR	47	VAL
42	CR	48	LYS
42	CR	62	GLU
42	CR	64	VAL
42	CR	83	TYR
42	CR	85	LYS
42	CR	94	THR
43	CS	4	ILE
43	CS	6	LYS
43	CS	12	SER
43	CS	19	LEU
43	CS	35	ILE
43	CS	69	LEU
43	CS	81	SER
43	CS	97	LEU
43	CS	107	VAL
43	CS	109	ASP
44	CT	17	SER
44	CT	28	ASN
44	CT	30	ILE
44	CT	37	ASP
44	CT	39	THR
44	CT	49	LYS
44	CT	57	VAL
44	CT	60	THR
44	CT	77	ARG
44	CT	82	LYS
44	CT	91	GLN
45	CU	6	ARG
45	CU	7	ASP
45	CU	8	ASP
45	CU	11	ILE
45	CU	17	ASP
45	CU	20	LYS

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Mol	Chain	Res	Type
45	CU	23	LYS
45	CU	25	LYS
45	CU	28	LEU
45	CU	30	SER
45	CU	33	VAL
45	CU	51	LEU
45	CU	60	LYS
45	CU	64	ILE
45	CU	67	SER
45	CU	71	ILE
45	CU	73	ASN
45	CU	85	ARG
45	CU	99	SER
46	CV	1	MET
46	CV	3	THR
46	CV	8	VAL
46	CV	10	LYS
46	CV	11	GLU
46	CV	19	ARG
46	CV	29	ILE
46	CV	43	ASP
46	CV	53	LYS
46	CV	61	LEU
46	CV	62	THR
46	CV	65	VAL
46	CV	70	ILE
46	CV	77	VAL
46	CV	90	ASP
47	CW	16	ARG
47	CW	25	GLU
47	CW	40	LYS
47	CW	60	ASP
47	CW	66	GLU
47	CW	77	SER
48	CX	4	CYS
48	CX	17	ARG
48	CX	21	LEU
48	CX	27	ARG
48	CX	36	ARG
48	CX	39	VAL
48	CX	40	GLU
48	CX	46	VAL

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Mol	Chain	Res	Type
48	CX	58	ILE
48	CX	64	ASP
48	CX	76	LYS
49	CY	2	LYS
49	CY	6	LEU
49	CY	13	GLU
49	CY	16	THR
49	CY	22	LEU
49	CY	37	LEU
49	CY	44	LYS
49	CY	58	ASN
49	CY	59	GLU
50	CZ	2	LYS
50	CZ	20	LYS
50	CZ	24	LEU
50	CZ	31	ILE
50	CZ	38	GLU
50	CZ	47	ILE
50	CZ	56	VAL
50	CZ	58	GLU
51	C0	9	ARG
51	C0	10	SER
51	C0	19	ASP
51	C0	35	GLU
51	C0	39	ARG
51	C0	52	LYS
52	C1	5	ARG
52	C1	7	LYS
52	C1	9	LYS
52	C1	34	GLU
52	C1	42	VAL
52	C1	46	VAL
52	C1	50	GLU
53	C2	1	MET
53	C2	3	ARG
53	C2	12	ARG
53	C2	22	MET
53	C2	25	LYS
53	C2	42	LEU
54	C3	16	THR
54	C3	29	ARG
54	C3	30	HIS

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Mol	Chain	Res	Type
55	C4	2	LYS
55	C4	3	VAL
55	C4	6	SER
55	C4	16	ILE
55	C4	17	VAL
55	C4	20	ASP
27	DC	5	CYS
27	DC	8	THR
27	DC	19	VAL
27	DC	20	ASN
27	DC	27	LYS
27	DC	35	LYS
27	DC	47	ARG
27	DC	50	THR
27	DC	51	ARG
27	DC	52	HIS
27	DC	58	LYS
27	DC	62	ARG
27	DC	63	ILE
27	DC	69	ASN
27	DC	73	ILE
27	DC	79	ARG
27	DC	87	SER
27	DC	93	VAL
27	DC	103	ILE
27	DC	104	LEU
27	DC	110	LYS
27	DC	113	ASP
27	DC	117	SER
27	DC	153	LEU
27	DC	155	ARG
27	DC	159	THR
27	DC	167	ASP
27	DC	173	LEU
27	DC	174	ARG
27	DC	181	ARG
27	DC	188	ARG
27	DC	200	MET
27	DC	201	LEU
27	DC	204	LEU
27	DC	212	TRP
27	DC	215	VAL

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Mol	Chain	Res	Type
27	DC	235	GLU
27	DC	250	GLN
27	DC	255	LYS
27	DC	261	ARG
27	DC	264	LYS
27	DC	266	ILE
27	DC	271	SER
28	DD	1	MET
28	DD	11	MET
28	DD	18	ASP
28	DD	33	ARG
28	DD	42	ASN
28	DD	43	ASP
28	DD	49	GLN
28	DD	50	VAL
28	DD	52	THR
28	DD	55	LYS
28	DD	60	VAL
28	DD	73	VAL
28	DD	80	TRP
28	DD	84	LEU
28	DD	86	GLU
28	DD	91	THR
28	DD	95	SER
28	DD	99	GLU
28	DD	100	LEU
28	DD	103	ASP
28	DD	107	VAL
28	DD	136	ASN
28	DD	141	ARG
28	DD	150	GLN
28	DD	170	VAL
28	DD	172	VAL
28	DD	177	VAL
28	DD	179	ARG
28	DD	189	VAL
29	DE	22	ASP
29	DE	32	VAL
29	DE	33	VAL
29	DE	44	ARG
29	DE	63	LYS
29	DE	65	THR

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Mol	Chain	Res	Type
29	DE	69	ARG
29	DE	77	ILE
29	DE	78	TRP
29	DE	88	ARG
29	DE	90	GLN
29	DE	93	SER
29	DE	100	MET
29	DE	108	ILE
29	DE	109	LEU
29	DE	113	VAL
29	DE	118	LEU
29	DE	120	VAL
29	DE	124	PHE
29	DE	127	GLU
29	DE	130	LYS
29	DE	131	THR
29	DE	149	ILE
29	DE	154	ASP
29	DE	158	PHE
29	DE	159	LEU
29	DE	163	ASN
29	DE	164	LEU
29	DE	168	ASP
29	DE	170	ARG
29	DE	171	ASP
29	DE	173	THR
29	DE	178	VAL
29	DE	179	SER
29	DE	181	ILE
29	DE	184	ASP
29	DE	189	THR
29	DE	198	GLU
29	DE	200	LEU
30	DF	3	LEU
30	DF	6	TYR
30	DF	9	ASP
30	DF	13	LYS
30	DF	19	PHE
30	DF	20	ASN
30	DF	25	MET
30	DF	30	VAL
30	DF	34	THR

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Mol	Chain	Res	Type
30	DF	35	LEU
30	DF	43	ILE
30	DF	51	ASN
30	DF	63	LYS
30	DF	65	LEU
30	DF	73	VAL
30	DF	79	ARG
30	DF	80	GLN
30	DF	82	TYR
30	DF	89	THR
30	DF	91	ARG
30	DF	94	ARG
30	DF	102	LEU
30	DF	103	ILE
30	DF	105	ILE
30	DF	113	PHE
30	DF	124	ARG
30	DF	132	ARG
30	DF	140	ILE
30	DF	146	ASP
30	DF	148	VAL
30	DF	149	ARG
30	DF	156	THR
30	DF	173	ASP
30	DF	177	ARG
31	DG	10	VAL
31	DG	15	ASP
31	DG	28	LYS
31	DG	43	LYS
31	DG	50	THR
31	DG	73	SER
31	DG	83	THR
31	DG	88	LEU
31	DG	103	ASN
31	DG	116	LEU
31	DG	128	THR
31	DG	131	VAL
31	DG	132	LEU
31	DG	151	ARG
31	DG	154	GLU
31	DG	159	LYS
31	DG	165	ASP

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Mol	Chain	Res	Type
31	DG	171	LYS
32	DH	7	ASP
32	DH	12	LEU
32	DH	14	SER
32	DH	15	LEU
32	DH	42	LYS
32	DH	48	GLU
32	DH	50	ARG
32	DH	54	LEU
32	DH	60	GLU
32	DH	61	VAL
32	DH	62	LEU
32	DH	72	ILE
32	DH	76	GLU
32	DH	77	THR
32	DH	79	THR
32	DH	82	SER
32	DH	86	ASP
32	DH	87	GLU
32	DH	129	GLU
32	DH	131	SER
32	DH	136	SER
32	DH	145	ASN
33	DI	2	LYS
33	DI	3	LYS
33	DI	7	TYR
33	DI	10	LEU
33	DI	11	GLN
33	DI	16	MET
33	DI	23	VAL
33	DI	30	GLN
33	DI	39	LYS
33	DI	48	ILE
33	DI	50	LYS
33	DI	54	ILE
33	DI	67	THR
33	DI	68	PHE
33	DI	71	LYS
33	DI	86	LYS
33	DI	94	LYS
33	DI	95	ASP
33	DI	96	LYS

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Mol	Chain	Res	Type
33	DI	102	ARG
33	DI	104	GLN
33	DI	107	GLU
33	DI	124	MET
33	DI	126	ARG
33	DI	129	GLU
33	DI	133	ARG
34	DJ	1	MET
34	DJ	2	LYS
34	DJ	3	THR
34	DJ	11	VAL
34	DJ	30	THR
34	DJ	37	ARG
34	DJ	39	LYS
34	DJ	40	HIS
34	DJ	43	GLU
34	DJ	58	ASN
34	DJ	64	VAL
34	DJ	72	LYS
34	DJ	75	TYR
34	DJ	81	ILE
34	DJ	84	ILE
34	DJ	86	GLN
34	DJ	111	LYS
34	DJ	119	PHE
34	DJ	131	ASN
34	DJ	140	LEU
34	DJ	142	ILE
35	DK	1	MET
35	DK	40	LYS
35	DK	47	ILE
35	DK	49	ARG
35	DK	53	LYS
35	DK	58	LEU
35	DK	61	VAL
35	DK	67	LYS
35	DK	70	ARG
35	DK	73	ASP
35	DK	80	ASP
35	DK	90	ASN
35	DK	92	GLU
35	DK	95	ILE

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Mol	Chain	Res	Type
35	DK	97	THR
35	DK	104	THR
35	DK	116	ILE
35	DK	118	LEU
36	DL	4	ASN
36	DL	5	THR
36	DL	6	LEU
36	DL	12	SER
36	DL	14	LYS
36	DL	27	LEU
36	DL	42	SER
36	DL	46	VAL
36	DL	47	ARG
36	DL	48	ARG
36	DL	60	ARG
36	DL	74	THR
36	DL	82	LEU
36	DL	85	VAL
36	DL	94	THR
36	DL	95	LEU
36	DL	100	ILE
36	DL	103	ILE
36	DL	107	PHE
36	DL	118	THR
36	DL	126	ARG
37	DM	14	LYS
37	DM	20	LEU
37	DM	33	LEU
37	DM	46	ILE
37	DM	54	THR
37	DM	66	ARG
37	DM	69	PRO
37	DM	70	ASP
37	DM	74	THR
37	DM	100	LYS
37	DM	108	VAL
37	DM	111	GLU
37	DM	118	LYS
37	DM	124	LEU
37	DM	126	ILE
37	DM	127	LYS
37	DM	128	THR

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Mol	Chain	Res	Type
37	DM	129	THR
37	DM	130	PHE
37	DM	132	THR
37	DM	134	THR
37	DM	136	MET
38	DN	6	SER
38	DN	8	ARG
38	DN	14	SER
38	DN	20	MET
38	DN	22	ARG
38	DN	24	MET
38	DN	34	ILE
38	DN	51	LEU
38	DN	63	ARG
38	DN	69	ARG
38	DN	70	THR
38	DN	71	ARG
38	DN	74	GLU
38	DN	76	VAL
38	DN	79	LEU
38	DN	81	ASN
38	DN	82	GLU
38	DN	90	ARG
38	DN	95	THR
38	DN	116	VAL
39	DO	8	ILE
39	DO	9	ARG
39	DO	15	ARG
39	DO	24	THR
39	DO	26	LEU
39	DO	28	VAL
39	DO	45	SER
39	DO	48	LEU
39	DO	52	SER
39	DO	67	ASN
39	DO	78	VAL
39	DO	88	LYS
39	DO	89	ASP
39	DO	95	SER
39	DO	100	HIS
39	DO	102	ARG
39	DO	103	VAL

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Mol	Chain	Res	Type
39	DO	106	LEU
39	DO	116	GLN
39	DO	117	PHE
40	DP	1	SER
40	DP	6	GLN
40	DP	7	LEU
40	DP	18	SER
40	DP	25	VAL
40	DP	31	VAL
40	DP	33	GLU
40	DP	36	LYS
40	DP	50	ARG
40	DP	51	ASN
40	DP	54	LEU
40	DP	56	SER
40	DP	63	ILE
40	DP	65	ASN
40	DP	72	VAL
40	DP	74	GLN
40	DP	79	VAL
40	DP	80	VAL
40	DP	84	SER
40	DP	92	ARG
40	DP	93	LYS
40	DP	109	ILE
40	DP	113	LEU
41	DQ	2	ARG
41	DQ	7	VAL
41	DQ	8	ILE
41	DQ	10	ARG
41	DQ	21	LYS
41	DQ	32	ARG
41	DQ	40	LYS
41	DQ	50	ARG
41	DQ	52	ARG
41	DQ	86	SER
41	DQ	91	ARG
41	DQ	93	ILE
41	DQ	99	VAL
41	DQ	108	LEU
41	DQ	110	GLU
42	DR	10	LYS

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Mol	Chain	Res	Type
42	DR	12	HIS
42	DR	14	VAL
42	DR	18	GLN
42	DR	26	ASP
42	DR	31	GLU
42	DR	38	VAL
42	DR	46	GLU
42	DR	47	VAL
42	DR	48	LYS
42	DR	51	VAL
42	DR	53	PHE
42	DR	58	VAL
42	DR	72	VAL
42	DR	84	ARG
42	DR	86	GLN
42	DR	94	THR
42	DR	99	THR
43	DS	1	MET
43	DS	2	GLU
43	DS	4	ILE
43	DS	6	LYS
43	DS	9	HIS
43	DS	19	LEU
43	DS	28	LYS
43	DS	39	THR
43	DS	40	ASN
43	DS	41	LYS
43	DS	47	VAL
43	DS	62	ASP
43	DS	66	ILE
43	DS	67	ASP
43	DS	68	ASP
43	DS	80	PRO
43	DS	81	SER
43	DS	86	MET
43	DS	96	ILE
43	DS	97	LEU
43	DS	104	THR
43	DS	109	ASP
44	DT	3	ARG
44	DT	5	GLU
44	DT	7	LEU

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Mol	Chain	Res	Type
44	DT	16	VAL
44	DT	18	GLU
44	DT	25	GLU
44	DT	26	LYS
44	DT	28	ASN
44	DT	30	ILE
44	DT	31	VAL
44	DT	32	LEU
44	DT	34	VAL
44	DT	39	THR
44	DT	50	LEU
44	DT	52	GLU
44	DT	60	THR
44	DT	61	LEU
44	DT	70	HIS
44	DT	77	ARG
44	DT	82	LYS
44	DT	86	THR
44	DT	89	GLU
44	DT	91	GLN
45	DU	5	ARG
45	DU	6	ARG
45	DU	14	THR
45	DU	24	VAL
45	DU	25	LYS
45	DU	26	ASN
45	DU	27	VAL
45	DU	28	LEU
45	DU	30	SER
45	DU	39	ASN
45	DU	44	HIS
45	DU	45	GLN
45	DU	52	ASN
45	DU	53	GLN
45	DU	59	GLU
45	DU	67	SER
45	DU	71	ILE
45	DU	92	VAL
45	DU	98	ASN
45	DU	99	SER
46	DV	1	MET
46	DV	8	VAL

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Mol	Chain	Res	Type
46	DV	29	ILE
46	DV	40	ILE
46	DV	41	GLU
46	DV	42	LEU
46	DV	45	ASP
46	DV	50	MET
46	DV	53	LYS
46	DV	55	GLU
46	DV	61	LEU
46	DV	65	VAL
46	DV	70	ILE
46	DV	86	LEU
46	DV	87	GLN
57	DW	16	ARG
57	DW	25	GLU
57	DW	26	SER
57	DW	37	ARG
57	DW	66	GLU
57	DW	73	ARG
57	DW	77	SER
57	DW	79	GLU
48	DX	2	ARG
48	DX	9	LYS
48	DX	24	THR
48	DX	32	LEU
48	DX	40	GLU
48	DX	42	GLU
48	DX	47	THR
48	DX	50	VAL
48	DX	65	THR
48	DX	70	LEU
48	DX	73	ARG
49	DY	2	LYS
49	DY	6	LEU
49	DY	8	GLU
49	DY	12	GLU
49	DY	13	GLU
49	DY	15	ASN
49	DY	16	THR
49	DY	29	ARG
49	DY	37	LEU
49	DY	40	SER

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Mol	Chain	Res	Type
49	DY	55	THR
49	DY	57	LEU
50	DZ	2	LYS
50	DZ	9	THR
50	DZ	10	ARG
50	DZ	15	ARG
50	DZ	24	LEU
50	DZ	30	ARG
50	DZ	31	ILE
50	DZ	35	VAL
50	DZ	40	THR
50	DZ	44	ARG
51	D0	22	THR
51	D0	24	VAL
51	D0	27	LEU
51	D0	39	ARG
51	D0	45	ASP
51	D0	51	ARG
52	D1	4	ILE
52	D1	9	LYS
52	D1	24	LYS
52	D1	27	ARG
52	D1	34	GLU
52	D1	37	LYS
52	D1	42	VAL
52	D1	50	GLU
53	D2	1	MET
53	D2	4	THR
53	D2	24	THR
53	D2	41	ARG
53	D2	44	VAL
54	D3	13	PHE
54	D3	29	ARG
54	D3	30	HIS
55	D4	2	LYS
55	D4	3	VAL
55	D4	4	ARG
55	D4	12	ARG
55	D4	20	ASP
55	D4	26	ILE
55	D4	35	GLN

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (211) such

sidechains are listed below:

Mol	Chain	Res	Type
2	AB	14	HIS
2	AB	50	ASN
2	AB	189	ASN
3	AC	5	HIS
4	AD	53	GLN
4	AD	115	GLN
4	AD	119	HIS
4	AD	130	ASN
4	AD	163	GLN
4	AD	195	ASN
4	AD	197	HIS
5	AE	11	GLN
5	AE	72	ASN
5	AE	81	GLN
5	AE	82	HIS
5	AE	88	HIS
5	AE	121	ASN
5	AE	131	ASN
6	AF	3	HIS
7	AG	141	HIS
9	AI	3	ASN
9	AI	24	ASN
9	AI	49	GLN
10	AJ	56	HIS
11	AK	21	HIS
11	AK	23	HIS
11	AK	108	ASN
11	AK	118	ASN
13	AM	90	HIS
15	AO	37	HIS
15	AO	61	GLN
16	AP	18	GLN
17	AQ	8	GLN
18	AR	53	GLN
19	AS	51	HIS
19	AS	56	HIS
20	AT	20	ASN
20	AT	47	GLN
20	AT	51	ASN
20	AT	74	HIS
20	AT	83	ASN
24	AY	54	GLN

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Mol	Chain	Res	Type
2	BB	17	HIS
2	BB	38	HIS
2	BB	50	ASN
2	BB	93	HIS
2	BB	169	HIS
2	BB	202	ASN
3	BC	5	HIS
3	BC	122	GLN
3	BC	175	HIS
4	BD	119	HIS
4	BD	139	ASN
4	BD	197	HIS
5	BE	60	GLN
5	BE	96	GLN
6	BF	17	GLN
6	BF	52	ASN
6	BF	63	ASN
7	BG	67	ASN
7	BG	129	ASN
8	BH	17	GLN
8	BH	66	GLN
9	BI	24	ASN
9	BI	125	GLN
10	BJ	20	GLN
10	BJ	64	GLN
10	BJ	70	HIS
10	BJ	99	GLN
11	BK	14	GLN
11	BK	23	HIS
11	BK	27	ASN
11	BK	39	ASN
12	BL	4	ASN
12	BL	19	ASN
12	BL	58	ASN
12	BL	72	ASN
13	BM	90	HIS
14	BN	71	HIS
15	BO	34	GLN
15	BO	61	GLN
16	BP	26	ASN
16	BP	79	ASN
17	BQ	8	GLN

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Mol	Chain	Res	Type
17	BQ	30	HIS
17	BQ	46	HIS
18	BR	51	GLN
18	BR	53	GLN
19	BS	56	HIS
19	BS	68	HIS
20	BT	19	HIS
20	BT	20	ASN
20	BT	60	GLN
20	BT	67	HIS
27	CC	85	ASN
27	CC	116	GLN
27	CC	133	ASN
27	CC	141	HIS
28	CD	67	HIS
28	CD	136	ASN
29	CE	90	GLN
29	CE	136	GLN
29	CE	163	ASN
30	CF	4	HIS
30	CF	20	ASN
30	CF	36	ASN
30	CF	51	ASN
30	CF	62	GLN
31	CG	21	GLN
31	CG	72	ASN
31	CG	100	ASN
31	CG	114	HIS
31	CG	127	GLN
32	CH	43	ASN
32	CH	128	HIS
32	CH	135	HIS
33	CI	11	GLN
33	CI	18	ASN
34	CJ	58	ASN
34	CJ	77	HIS
34	CJ	80	HIS
34	CJ	138	GLN
35	CK	3	GLN
35	CK	5	GLN
35	CK	13	ASN
35	CK	90	ASN

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Mol	Chain	Res	Type
36	CL	35	HIS
37	CM	13	HIS
37	CM	60	GLN
38	CN	13	ASN
38	CN	31	HIS
38	CN	62	ASN
39	CO	29	HIS
40	CP	2	ASN
40	CP	11	GLN
40	CP	40	GLN
40	CP	65	ASN
42	CR	12	HIS
42	CR	43	ASN
42	CR	87	GLN
42	CR	89	HIS
43	CS	9	HIS
43	CS	57	ASN
45	CU	68	ASN
45	CU	73	ASN
48	CX	19	HIS
49	CY	25	GLN
49	CY	27	ASN
49	CY	58	ASN
51	C0	3	GLN
51	C0	41	HIS
52	C1	18	HIS
52	C1	45	HIS
54	C3	30	HIS
27	DC	24	HIS
27	DC	141	HIS
27	DC	250	GLN
28	DD	42	ASN
28	DD	58	ASN
28	DD	134	HIS
28	DD	136	ASN
28	DD	150	GLN
29	DE	90	GLN
29	DE	92	HIS
29	DE	156	ASN
29	DE	163	ASN
29	DE	195	GLN
30	DF	20	ASN

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Mol	Chain	Res	Type
30	DF	22	ASN
30	DF	36	ASN
30	DF	62	GLN
31	DG	29	ASN
31	DG	44	HIS
31	DG	72	ASN
31	DG	103	ASN
32	DH	128	HIS
32	DH	135	HIS
33	DI	11	GLN
33	DI	42	ASN
33	DI	93	ASN
34	DJ	58	ASN
34	DJ	86	GLN
35	DK	5	GLN
35	DK	90	ASN
36	DL	4	ASN
36	DL	35	HIS
37	DM	97	GLN
40	DP	51	ASN
40	DP	65	ASN
40	DP	74	GLN
41	DQ	36	GLN
42	DR	86	GLN
43	DS	9	HIS
43	DS	57	ASN
44	DT	91	GLN
45	DU	26	ASN
45	DU	53	GLN
46	DV	24	ASN
46	DV	75	GLN
46	DV	87	GLN
57	DW	53	HIS
48	DX	15	ASN
49	DY	20	ASN
49	DY	36	GLN
52	D1	18	HIS
52	D1	25	ASN
52	D1	45	HIS
53	D2	13	ASN
53	D2	26	ASN
53	D2	29	GLN

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Mol	Chain	Res	Type
55	D4	35	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1537/1539 (99%)	441 (28%)	28 (1%)
1	BA	1538/1539 (99%)	445 (28%)	20 (1%)
22	AV	75/76 (98%)	29 (38%)	1 (1%)
22	BV	75/76 (98%)	15 (20%)	1 (1%)
23	AX	14/16 (87%)	5 (35%)	0
23	BX	15/16 (93%)	4 (26%)	0
25	CA	2895/2903 (99%)	747 (25%)	53 (1%)
25	DA	2893/2903 (99%)	764 (26%)	48 (1%)
26	CB	118/119 (99%)	24 (20%)	1 (0%)
56	DB	117/118 (99%)	34 (29%)	3 (2%)
All	All	9277/9305 (99%)	2508 (27%)	155 (1%)

All (2508) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	5	U
1	AA	6	G
1	AA	7	A
1	AA	9	G
1	AA	12	U
1	AA	13	U
1	AA	15	G
1	AA	22	G
1	AA	28	A
1	AA	32	A
1	AA	39	G
1	AA	44	A
1	AA	45	G
1	AA	47	C
1	AA	48	C
1	AA	49	U
1	AA	51	A
1	AA	62	U
1	AA	67	C
1	AA	69	G
1	AA	70	U

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Mol	Chain	Res	Type
1	AA	71	A
1	AA	72	A
1	AA	75	G
1	AA	76	G
1	AA	77	A
1	AA	80	A
1	AA	82	G
1	AA	83	C
1	AA	84	U
1	AA	85	U
1	AA	86	G
1	AA	89	U
1	AA	90	C
1	AA	91	U
1	AA	92	U
1	AA	94	G
1	AA	95	C
1	AA	97	G
1	AA	108	G
1	AA	109	A
1	AA	111	G
1	AA	116	A
1	AA	117	G
1	AA	121	U
1	AA	122	G
1	AA	130	A
1	AA	131	A
1	AA	137	U
1	AA	139	A
1	AA	142	G
1	AA	143	A
1	AA	144	G
1	AA	149	A
1	AA	159	G
1	AA	162	A
1	AA	163	C
1	AA	164	G
1	AA	168	G
1	AA	176	C
1	AA	181	A
1	AA	182	A
1	AA	183	C

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Mol	Chain	Res	Type
1	AA	195	A
1	AA	200	G
1	AA	204	G
1	AA	205	A
1	AA	209	U
1	AA	210	C
1	AA	213	G
1	AA	220	G
1	AA	226	G
1	AA	240	G
1	AA	245	U
1	AA	247	G
1	AA	251	G
1	AA	260	G
1	AA	262	A
1	AA	263	A
1	AA	266	G
1	AA	267	C
1	AA	278	G
1	AA	279	A
1	AA	280	C
1	AA	289	G
1	AA	290	C
1	AA	300	A
1	AA	308	C
1	AA	321	A
1	AA	328	C
1	AA	329	A
1	AA	331	G
1	AA	332	G
1	AA	346	G
1	AA	347	G
1	AA	352	C
1	AA	354	G
1	AA	359	G
1	AA	367	U
1	AA	370	C
1	AA	371	A
1	AA	372	C
1	AA	374	A
1	AA	382	A
1	AA	383	A

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Mol	Chain	Res	Type
1	AA	384	G
1	AA	391	G
1	AA	398	U
1	AA	402	G
1	AA	403	C
1	AA	406	G
1	AA	407	U
1	AA	409	U
1	AA	410	G
1	AA	411	A
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	418	C
1	AA	420	U
1	AA	421	U
1	AA	422	C
1	AA	423	G
1	AA	424	G
1	AA	429	U
1	AA	430	A
1	AA	433	G
1	AA	435	A
1	AA	439	U
1	AA	440	C
1	AA	445	G
1	AA	453	G
1	AA	456	A
1	AA	457	G
1	AA	458	U
1	AA	459	A
1	AA	460	A
1	AA	463	U
1	AA	465	A
1	AA	466	A
1	AA	467	U
1	AA	468	A
1	AA	474	G
1	AA	481	G
1	AA	482	A
1	AA	484	G
1	AA	485	U

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Mol	Chain	Res	Type
1	AA	486	U
1	AA	490	C
1	AA	491	G
1	AA	492	C
1	AA	494	G
1	AA	495	A
1	AA	497	G
1	AA	498	A
1	AA	500	G
1	AA	501	C
1	AA	509	A
1	AA	511	C
1	AA	514	C
1	AA	515	G
1	AA	518	C
1	AA	521	G
1	AA	527	G
1	AA	530	G
1	AA	531	U
1	AA	532	A
1	AA	534	U
1	AA	547	A
1	AA	550	G
1	AA	559	A
1	AA	562	U
1	AA	564	C
1	AA	570	G
1	AA	572	A
1	AA	573	A
1	AA	576	C
1	AA	578	C
1	AA	596	A
1	AA	605	U
1	AA	611	C
1	AA	615	G
1	AA	619	U
1	AA	625	U
1	AA	630	A
1	AA	631	C
1	AA	640	A
1	AA	644	U
1	AA	650	G

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Mol	Chain	Res	Type
1	AA	652	U
1	AA	653	U
1	AA	656	G
1	AA	661	G
1	AA	665	A
1	AA	686	U
1	AA	695	A
1	AA	702	A
1	AA	703	G
1	AA	707	U
1	AA	720	C
1	AA	721	G
1	AA	723	U
1	AA	724	G
1	AA	731	G
1	AA	733	G
1	AA	755	G
1	AA	756	C
1	AA	764	C
1	AA	773	G
1	AA	774	G
1	AA	776	G
1	AA	777	A
1	AA	778	G
1	AA	786	G
1	AA	787	A
1	AA	788	U
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	799	G
1	AA	804	U
1	AA	805	C
1	AA	815	A
1	AA	817	C
1	AA	821	G
1	AA	828	U
1	AA	829	G
1	AA	833	G
1	AA	841	C
1	AA	842	U
1	AA	843	U

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Mol	Chain	Res	Type
1	AA	845	A
1	AA	846	G
1	AA	849	G
1	AA	854	U
1	AA	859	G
1	AA	860	A
1	AA	869	G
1	AA	883	C
1	AA	890	G
1	AA	896	C
1	AA	900	A
1	AA	902	G
1	AA	910	C
1	AA	912	C
1	AA	914	A
1	AA	919	A
1	AA	926	G
1	AA	927	G
1	AA	932	C
1	AA	934	C
1	AA	935	A
1	AA	938	A
1	AA	946	A
1	AA	960	U
1	AA	963	G
1	AA	964	A
1	AA	966	G
1	AA	969	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	979	C
1	AA	982	U
1	AA	983	A
1	AA	986	U
1	AA	989	U
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	994	A
1	AA	1002	G
1	AA	1004	A

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Mol	Chain	Res	Type
1	AA	1007	U
1	AA	1008	U
1	AA	1016	A
1	AA	1017	U
1	AA	1019	A
1	AA	1021	A
1	AA	1022	A
1	AA	1025	U
1	AA	1026	G
1	AA	1027	C
1	AA	1028	C
1	AA	1030	U
1	AA	1031	C
1	AA	1032	G
1	AA	1033	G
1	AA	1034	G
1	AA	1035	A
1	AA	1036	A
1	AA	1037	C
1	AA	1039	G
1	AA	1043	G
1	AA	1044	A
1	AA	1049	U
1	AA	1050	G
1	AA	1054	C
1	AA	1055	A
1	AA	1056	U
1	AA	1058	G
1	AA	1063	C
1	AA	1065	U
1	AA	1066	C
1	AA	1067	A
1	AA	1086	U
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1102	A
1	AA	1114	C
1	AA	1115	U
1	AA	1118	U
1	AA	1124	G
1	AA	1127	G

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Mol	Chain	Res	Type
1	AA	1133	G
1	AA	1134	G
1	AA	1135	U
1	AA	1136	C
1	AA	1137	C
1	AA	1139	G
1	AA	1140	C
1	AA	1141	C
1	AA	1142	G
1	AA	1145	A
1	AA	1146	A
1	AA	1152	A
1	AA	1157	A
1	AA	1159	U
1	AA	1160	G
1	AA	1161	C
1	AA	1164	G
1	AA	1166	G
1	AA	1167	A
1	AA	1168	U
1	AA	1169	A
1	AA	1181	G
1	AA	1182	G
1	AA	1183	U
1	AA	1184	G
1	AA	1187	G
1	AA	1188	A
1	AA	1190	G
1	AA	1191	A
1	AA	1192	C
1	AA	1196	A
1	AA	1197	A
1	AA	1201	A
1	AA	1202	U
1	AA	1203	C
1	AA	1212	U
1	AA	1213	A
1	AA	1215	G
1	AA	1224	U
1	AA	1227	A
1	AA	1228	C
1	AA	1235	U

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Mol	Chain	Res	Type
1	AA	1238	A
1	AA	1239	A
1	AA	1240	U
1	AA	1256	A
1	AA	1257	A
1	AA	1259	C
1	AA	1260	G
1	AA	1271	A
1	AA	1272	G
1	AA	1275	A
1	AA	1280	A
1	AA	1284	C
1	AA	1285	A
1	AA	1286	U
1	AA	1287	A
1	AA	1293	C
1	AA	1294	G
1	AA	1297	G
1	AA	1299	A
1	AA	1300	G
1	AA	1302	C
1	AA	1303	C
1	AA	1304	G
1	AA	1305	G
1	AA	1317	C
1	AA	1318	A
1	AA	1320	C
1	AA	1322	C
1	AA	1323	G
1	AA	1326	U
1	AA	1329	A
1	AA	1330	U
1	AA	1332	A
1	AA	1334	G
1	AA	1336	C
1	AA	1337	G
1	AA	1338	G
1	AA	1340	A
1	AA	1341	U
1	AA	1346	A
1	AA	1352	C
1	AA	1353	G

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Mol	Chain	Res	Type
1	AA	1354	U
1	AA	1357	A
1	AA	1358	U
1	AA	1363	A
1	AA	1365	G
1	AA	1368	A
1	AA	1378	C
1	AA	1379	G
1	AA	1397	C
1	AA	1398	A
1	AA	1399	C
1	AA	1414	U
1	AA	1418	A
1	AA	1426	G
1	AA	1427	C
1	AA	1429	A
1	AA	1430	A
1	AA	1432	G
1	AA	1433	A
1	AA	1441	A
1	AA	1443	C
1	AA	1446	A
1	AA	1448	C
1	AA	1452	C
1	AA	1453	G
1	AA	1455	G
1	AA	1491	G
1	AA	1492	A
1	AA	1493	A
1	AA	1497	G
1	AA	1505	G
1	AA	1506	U
1	AA	1507	A
1	AA	1517	G
1	AA	1526	G
1	AA	1529	G
1	AA	1530	G
1	AA	1531	A
1	AA	1533	C
1	AA	1534	A
1	AA	1535	C
1	AA	1539	C

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Mol	Chain	Res	Type
22	AV	8	U
22	AV	10	G
22	AV	13	C
22	AV	16	U
22	AV	17	C
22	AV	18	G
22	AV	19	G
22	AV	20	U
22	AV	21	A
22	AV	22	G
22	AV	26	A
22	AV	33	U
22	AV	36	A
22	AV	37	A
22	AV	38	A
22	AV	44	G
22	AV	45	U
22	AV	46	G
22	AV	47	U
22	AV	48	C
22	AV	51	U
22	AV	57	G
22	AV	58	A
22	AV	59	U
22	AV	61	C
22	AV	64	A
22	AV	67	C
22	AV	74	C
22	AV	76	A
23	AX	11	U
23	AX	12	A
23	AX	13	A
23	AX	14	A
23	AX	19	U
1	BA	4	U
1	BA	5	U
1	BA	6	G
1	BA	7	A
1	BA	8	A
1	BA	9	G
1	BA	19	A
1	BA	32	A

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Mol	Chain	Res	Type
1	BA	39	G
1	BA	47	C
1	BA	48	C
1	BA	51	A
1	BA	52	C
1	BA	62	U
1	BA	63	C
1	BA	68	G
1	BA	70	U
1	BA	71	A
1	BA	74	A
1	BA	78	A
1	BA	81	A
1	BA	83	C
1	BA	84	U
1	BA	85	U
1	BA	87	C
1	BA	88	U
1	BA	89	U
1	BA	91	U
1	BA	92	U
1	BA	97	G
1	BA	99	C
1	BA	102	G
1	BA	108	G
1	BA	116	A
1	BA	120	A
1	BA	121	U
1	BA	122	G
1	BA	127	G
1	BA	130	A
1	BA	131	A
1	BA	138	G
1	BA	142	G
1	BA	143	A
1	BA	144	G
1	BA	150	U
1	BA	151	A
1	BA	154	U
1	BA	155	A
1	BA	156	C
1	BA	157	U

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Mol	Chain	Res	Type
1	BA	159	G
1	BA	161	A
1	BA	163	C
1	BA	168	G
1	BA	176	C
1	BA	177	G
1	BA	179	A
1	BA	181	A
1	BA	182	A
1	BA	183	C
1	BA	184	G
1	BA	187	G
1	BA	189	A
1	BA	190	A
1	BA	193	C
1	BA	195	A
1	BA	197	A
1	BA	200	G
1	BA	201	G
1	BA	204	G
1	BA	205	A
1	BA	206	C
1	BA	207	C
1	BA	208	U
1	BA	209	U
1	BA	210	C
1	BA	211	G
1	BA	212	G
1	BA	213	G
1	BA	214	C
1	BA	223	A
1	BA	240	G
1	BA	244	U
1	BA	245	U
1	BA	247	G
1	BA	249	U
1	BA	251	G
1	BA	253	A
1	BA	266	G
1	BA	267	C
1	BA	269	C
1	BA	275	G

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Mol	Chain	Res	Type
1	BA	279	A
1	BA	289	G
1	BA	298	A
1	BA	308	C
1	BA	309	A
1	BA	317	U
1	BA	318	G
1	BA	320	A
1	BA	321	A
1	BA	328	C
1	BA	329	A
1	BA	330	C
1	BA	332	G
1	BA	333	U
1	BA	339	C
1	BA	341	C
1	BA	349	A
1	BA	352	C
1	BA	354	G
1	BA	367	U
1	BA	369	G
1	BA	370	C
1	BA	372	C
1	BA	373	A
1	BA	378	G
1	BA	383	A
1	BA	398	U
1	BA	406	G
1	BA	409	U
1	BA	411	A
1	BA	412	A
1	BA	413	G
1	BA	421	U
1	BA	422	C
1	BA	423	G
1	BA	429	U
1	BA	430	A
1	BA	436	C
1	BA	440	C
1	BA	456	A
1	BA	458	U
1	BA	461	A

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Mol	Chain	Res	Type
1	BA	462	G
1	BA	463	U
1	BA	464	U
1	BA	466	A
1	BA	467	U
1	BA	468	A
1	BA	469	C
1	BA	474	G
1	BA	477	C
1	BA	478	A
1	BA	481	G
1	BA	482	A
1	BA	484	G
1	BA	485	U
1	BA	486	U
1	BA	494	G
1	BA	495	A
1	BA	497	G
1	BA	498	A
1	BA	499	A
1	BA	500	G
1	BA	506	G
1	BA	511	C
1	BA	518	C
1	BA	519	C
1	BA	524	G
1	BA	526	C
1	BA	527	G
1	BA	530	G
1	BA	531	U
1	BA	532	A
1	BA	533	A
1	BA	537	G
1	BA	545	C
1	BA	547	A
1	BA	550	G
1	BA	557	G
1	BA	558	G
1	BA	559	A
1	BA	560	A
1	BA	562	U
1	BA	563	A

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Mol	Chain	Res	Type
1	BA	568	G
1	BA	572	A
1	BA	573	A
1	BA	576	C
1	BA	579	A
1	BA	580	C
1	BA	581	G
1	BA	582	C
1	BA	595	A
1	BA	614	C
1	BA	627	G
1	BA	628	G
1	BA	633	G
1	BA	638	U
1	BA	641	U
1	BA	650	G
1	BA	653	U
1	BA	660	C
1	BA	665	A
1	BA	674	G
1	BA	675	A
1	BA	683	G
1	BA	684	U
1	BA	685	G
1	BA	694	A
1	BA	695	A
1	BA	700	G
1	BA	702	A
1	BA	710	G
1	BA	713	G
1	BA	718	A
1	BA	719	C
1	BA	720	C
1	BA	721	G
1	BA	723	U
1	BA	724	G
1	BA	731	G
1	BA	733	G
1	BA	734	G
1	BA	745	G
1	BA	752	G
1	BA	755	G

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Mol	Chain	Res	Type
1	BA	764	C
1	BA	765	G
1	BA	766	A
1	BA	776	G
1	BA	777	A
1	BA	778	G
1	BA	784	A
1	BA	785	G
1	BA	792	A
1	BA	793	U
1	BA	794	A
1	BA	798	U
1	BA	802	A
1	BA	805	C
1	BA	809	G
1	BA	815	A
1	BA	817	C
1	BA	819	A
1	BA	820	U
1	BA	827	U
1	BA	828	U
1	BA	833	G
1	BA	841	C
1	BA	842	U
1	BA	843	U
1	BA	844	G
1	BA	845	A
1	BA	846	G
1	BA	847	G
1	BA	849	G
1	BA	858	G
1	BA	870	U
1	BA	872	A
1	BA	874	G
1	BA	876	C
1	BA	885	G
1	BA	914	A
1	BA	918	A
1	BA	921	U
1	BA	926	G
1	BA	927	G
1	BA	930	C

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Mol	Chain	Res	Type
1	BA	934	C
1	BA	935	A
1	BA	958	A
1	BA	960	U
1	BA	966	G
1	BA	968	A
1	BA	969	A
1	BA	970	C
1	BA	971	G
1	BA	972	C
1	BA	975	A
1	BA	976	G
1	BA	977	A
1	BA	983	A
1	BA	988	G
1	BA	989	U
1	BA	992	U
1	BA	993	G
1	BA	995	C
1	BA	996	A
1	BA	1003	G
1	BA	1004	A
1	BA	1008	U
1	BA	1009	U
1	BA	1017	U
1	BA	1018	G
1	BA	1020	G
1	BA	1022	A
1	BA	1025	U
1	BA	1026	G
1	BA	1027	C
1	BA	1028	C
1	BA	1030	U
1	BA	1031	C
1	BA	1032	G
1	BA	1033	G
1	BA	1034	G
1	BA	1037	C
1	BA	1039	G
1	BA	1043	G
1	BA	1044	A
1	BA	1049	U

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Mol	Chain	Res	Type
1	BA	1050	G
1	BA	1054	C
1	BA	1056	U
1	BA	1057	G
1	BA	1059	C
1	BA	1065	U
1	BA	1066	C
1	BA	1073	U
1	BA	1079	G
1	BA	1080	A
1	BA	1081	A
1	BA	1084	G
1	BA	1086	U
1	BA	1087	G
1	BA	1089	G
1	BA	1094	G
1	BA	1095	U
1	BA	1100	C
1	BA	1101	A
1	BA	1102	A
1	BA	1103	C
1	BA	1105	A
1	BA	1107	C
1	BA	1116	U
1	BA	1122	U
1	BA	1124	G
1	BA	1125	U
1	BA	1132	C
1	BA	1133	G
1	BA	1134	G
1	BA	1135	U
1	BA	1136	C
1	BA	1137	C
1	BA	1138	G
1	BA	1139	G
1	BA	1140	C
1	BA	1141	C
1	BA	1142	G
1	BA	1145	A
1	BA	1154	G
1	BA	1155	A
1	BA	1158	C

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Mol	Chain	Res	Type
1	BA	1159	U
1	BA	1160	G
1	BA	1161	C
1	BA	1167	A
1	BA	1171	A
1	BA	1176	A
1	BA	1180	A
1	BA	1183	U
1	BA	1184	G
1	BA	1192	C
1	BA	1196	A
1	BA	1197	A
1	BA	1200	C
1	BA	1201	A
1	BA	1202	U
1	BA	1203	C
1	BA	1212	U
1	BA	1213	A
1	BA	1227	A
1	BA	1238	A
1	BA	1240	U
1	BA	1243	C
1	BA	1247	U
1	BA	1253	G
1	BA	1257	A
1	BA	1263	C
1	BA	1264	U
1	BA	1275	A
1	BA	1276	G
1	BA	1280	A
1	BA	1283	U
1	BA	1285	A
1	BA	1286	U
1	BA	1287	A
1	BA	1292	G
1	BA	1293	C
1	BA	1298	U
1	BA	1299	A
1	BA	1300	G
1	BA	1302	C
1	BA	1304	G
1	BA	1305	G

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Mol	Chain	Res	Type
1	BA	1317	C
1	BA	1318	A
1	BA	1320	C
1	BA	1322	C
1	BA	1335	U
1	BA	1336	C
1	BA	1338	G
1	BA	1340	A
1	BA	1346	A
1	BA	1362	A
1	BA	1363	A
1	BA	1365	G
1	BA	1370	G
1	BA	1378	C
1	BA	1379	G
1	BA	1384	C
1	BA	1388	C
1	BA	1398	A
1	BA	1401	G
1	BA	1412	C
1	BA	1413	A
1	BA	1419	G
1	BA	1425	U
1	BA	1426	G
1	BA	1435	G
1	BA	1440	U
1	BA	1441	A
1	BA	1442	G
1	BA	1445	U
1	BA	1446	A
1	BA	1452	C
1	BA	1454	G
1	BA	1455	G
1	BA	1456	A
1	BA	1468	A
1	BA	1473	G
1	BA	1480	A
1	BA	1487	G
1	BA	1491	G
1	BA	1492	A
1	BA	1497	G
1	BA	1498	U

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Mol	Chain	Res	Type
1	BA	1499	A
1	BA	1500	A
1	BA	1503	A
1	BA	1505	G
1	BA	1506	U
1	BA	1517	G
1	BA	1522	U
1	BA	1529	G
1	BA	1530	G
1	BA	1531	A
1	BA	1532	U
1	BA	1533	C
1	BA	1534	A
1	BA	1535	C
1	BA	1536	C
1	BA	1538	C
1	BA	1540	U
22	BV	5	G
22	BV	8	U
22	BV	17	C
22	BV	18	G
22	BV	19	G
22	BV	20	U
22	BV	21	A
22	BV	37	A
22	BV	39	U
22	BV	45	U
22	BV	48	C
22	BV	56	C
22	BV	58	A
22	BV	74	C
22	BV	76	A
23	BX	5	A
23	BX	12	A
23	BX	14	A
23	BX	19	U
25	CA	10	A
25	CA	12	U
25	CA	13	A
25	CA	15	G
25	CA	34	U
25	CA	35	G

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Mol	Chain	Res	Type
25	CA	46	G
25	CA	61	C
25	CA	63	A
25	CA	71	A
25	CA	72	U
25	CA	74	A
25	CA	75	G
25	CA	84	A
25	CA	86	G
25	CA	87	U
25	CA	101	A
25	CA	103	A
25	CA	110	G
25	CA	118	A
25	CA	119	A
25	CA	120	U
25	CA	123	G
25	CA	128	C
25	CA	138	U
25	CA	139	U
25	CA	140	C
25	CA	141	G
25	CA	142	A
25	CA	143	C
25	CA	146	A
25	CA	147	C
25	CA	158	U
25	CA	180	G
25	CA	181	A
25	CA	188	G
25	CA	196	A
25	CA	208	C
25	CA	216	A
25	CA	221	A
25	CA	222	A
25	CA	227	A
25	CA	230	G
25	CA	245	G
25	CA	248	G
25	CA	249	C
25	CA	254	G
25	CA	255	A

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Mol	Chain	Res	Type
25	CA	265	A
25	CA	266	G
25	CA	271	G
25	CA	272	A
25	CA	273	G
25	CA	277	G
25	CA	278	A
25	CA	279	A
25	CA	282	A
25	CA	284	U
25	CA	285	G
25	CA	293	U
25	CA	302	C
25	CA	306	U
25	CA	310	A
25	CA	311	A
25	CA	325	G
25	CA	329	G
25	CA	330	A
25	CA	331	C
25	CA	340	A
25	CA	344	A
25	CA	351	C
25	CA	353	C
25	CA	359	G
25	CA	361	G
25	CA	362	A
25	CA	370	G
25	CA	371	A
25	CA	372	G
25	CA	386	G
25	CA	389	G
25	CA	396	G
25	CA	402	A
25	CA	404	A
25	CA	405	U
25	CA	406	G
25	CA	409	G
25	CA	411	G
25	CA	412	A
25	CA	414	C
25	CA	415	A

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Mol	Chain	Res	Type
25	CA	418	C
25	CA	420	C
25	CA	424	G
25	CA	425	G
25	CA	428	A
25	CA	429	A
25	CA	438	G
25	CA	442	G
25	CA	451	U
25	CA	455	C
25	CA	456	C
25	CA	457	A
25	CA	471	A
25	CA	474	G
25	CA	480	A
25	CA	481	G
25	CA	491	G
25	CA	503	A
25	CA	504	A
25	CA	505	A
25	CA	508	A
25	CA	509	C
25	CA	510	C
25	CA	528	A
25	CA	529	A
25	CA	531	C
25	CA	532	A
25	CA	533	G
25	CA	537	G
25	CA	538	A
25	CA	542	C
25	CA	543	G
25	CA	544	C
25	CA	545	U
25	CA	546	U
25	CA	547	A
25	CA	548	G
25	CA	549	G
25	CA	550	C
25	CA	551	G
25	CA	557	C
25	CA	563	A

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Mol	Chain	Res	Type
25	CA	572	A
25	CA	573	U
25	CA	575	A
25	CA	586	A
25	CA	603	A
25	CA	613	A
25	CA	614	A
25	CA	615	U
25	CA	627	A
25	CA	631	A
25	CA	634	C
25	CA	637	A
25	CA	645	C
25	CA	646	U
25	CA	647	G
25	CA	648	G
25	CA	654	A
25	CA	655	A
25	CA	657	U
25	CA	663	G
25	CA	669	G
25	CA	680	C
25	CA	686	U
25	CA	701	G
25	CA	702	U
25	CA	711	G
25	CA	722	A
25	CA	726	G
25	CA	730	A
25	CA	736	C
25	CA	738	G
25	CA	747	U
25	CA	751	A
25	CA	761	A
25	CA	762	U
25	CA	764	A
25	CA	765	C
25	CA	772	C
25	CA	773	U
25	CA	775	G
25	CA	776	G
25	CA	782	A

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Mol	Chain	Res	Type
25	CA	784	G
25	CA	785	G
25	CA	791	C
25	CA	792	A
25	CA	805	G
25	CA	812	C
25	CA	819	A
25	CA	824	U
25	CA	827	U
25	CA	828	U
25	CA	829	A
25	CA	830	G
25	CA	835	C
25	CA	845	A
25	CA	846	U
25	CA	847	U
25	CA	848	C
25	CA	858	G
25	CA	859	G
25	CA	868	U
25	CA	873	C
25	CA	878	A
25	CA	879	G
25	CA	884	U
25	CA	885	C
25	CA	894	U
25	CA	896	A
25	CA	901	C
25	CA	910	A
25	CA	914	G
25	CA	915	C
25	CA	916	G
25	CA	930	G
25	CA	931	U
25	CA	932	U
25	CA	941	A
25	CA	946	C
25	CA	957	C
25	CA	961	C
25	CA	971	G
25	CA	973	A
25	CA	974	G

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Mol	Chain	Res	Type
25	CA	983	A
25	CA	984	A
25	CA	985	C
25	CA	987	C
25	CA	989	G
25	CA	995	C
25	CA	996	A
25	CA	999	U
25	CA	1009	A
25	CA	1012	U
25	CA	1013	C
25	CA	1021	A
25	CA	1026	G
25	CA	1027	A
25	CA	1033	U
25	CA	1041	G
25	CA	1046	A
25	CA	1047	G
25	CA	1053	C
25	CA	1057	A
25	CA	1059	G
25	CA	1061	U
25	CA	1062	G
25	CA	1066	U
25	CA	1067	A
25	CA	1068	G
25	CA	1070	A
25	CA	1071	G
25	CA	1072	C
25	CA	1073	A
25	CA	1074	G
25	CA	1075	C
25	CA	1079	C
25	CA	1081	U
25	CA	1087	G
25	CA	1088	A
25	CA	1091	G
25	CA	1092	C
25	CA	1093	G
25	CA	1098	A
25	CA	1099	G
25	CA	1100	C

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Mol	Chain	Res	Type
25	CA	1101	U
25	CA	1104	C
25	CA	1106	G
25	CA	1112	G
25	CA	1119	U
25	CA	1121	C
25	CA	1126	A
25	CA	1130	U
25	CA	1131	G
25	CA	1132	U
25	CA	1133	A
25	CA	1135	C
25	CA	1136	G
25	CA	1138	G
25	CA	1139	G
25	CA	1141	U
25	CA	1142	A
25	CA	1155	A
25	CA	1168	G
25	CA	1170	C
25	CA	1171	G
25	CA	1172	C
25	CA	1173	U
25	CA	1174	U
25	CA	1175	A
25	CA	1176	U
25	CA	1178	C
25	CA	1179	G
25	CA	1180	U
25	CA	1181	U
25	CA	1182	G
25	CA	1214	A
25	CA	1222	U
25	CA	1235	G
25	CA	1238	G
25	CA	1239	G
25	CA	1249	U
25	CA	1253	A
25	CA	1256	G
25	CA	1258	U
25	CA	1266	G
25	CA	1271	G

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Mol	Chain	Res	Type
25	CA	1272	A
25	CA	1273	U
25	CA	1288	G
25	CA	1294	U
25	CA	1299	G
25	CA	1300	G
25	CA	1301	A
25	CA	1306	C
25	CA	1310	G
25	CA	1315	C
25	CA	1316	U
25	CA	1321	A
25	CA	1325	U
25	CA	1341	G
25	CA	1345	C
25	CA	1349	C
25	CA	1352	U
25	CA	1359	A
25	CA	1365	A
25	CA	1367	A
25	CA	1370	C
25	CA	1372	U
25	CA	1373	A
25	CA	1374	G
25	CA	1378	A
25	CA	1379	U
25	CA	1380	G
25	CA	1383	A
25	CA	1386	C
25	CA	1387	A
25	CA	1390	U
25	CA	1406	U
25	CA	1407	G
25	CA	1415	U
25	CA	1416	G
25	CA	1417	C
25	CA	1418	G
25	CA	1419	A
25	CA	1420	A
25	CA	1424	G
25	CA	1427	A
25	CA	1428	C

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Mol	Chain	Res	Type
25	CA	1450	G
25	CA	1451	C
25	CA	1452	G
25	CA	1453	A
25	CA	1460	U
25	CA	1461	C
25	CA	1462	C
25	CA	1463	C
25	CA	1472	C
25	CA	1482	G
25	CA	1485	U
25	CA	1491	G
25	CA	1493	C
25	CA	1494	A
25	CA	1495	A
25	CA	1504	A
25	CA	1505	A
25	CA	1508	A
25	CA	1509	A
25	CA	1510	G
25	CA	1515	A
25	CA	1523	U
25	CA	1526	C
25	CA	1527	G
25	CA	1528	A
25	CA	1530	G
25	CA	1532	A
25	CA	1533	C
25	CA	1534	U
25	CA	1535	A
25	CA	1536	C
25	CA	1538	G
25	CA	1547	C
25	CA	1554	U
25	CA	1555	G
25	CA	1556	C
25	CA	1560	G
25	CA	1568	G
25	CA	1569	A
25	CA	1576	U
25	CA	1578	U
25	CA	1582	C

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Mol	Chain	Res	Type
25	CA	1583	A
25	CA	1584	U
25	CA	1585	C
25	CA	1586	A
25	CA	1590	A
25	CA	1593	A
25	CA	1606	C
25	CA	1607	C
25	CA	1608	A
25	CA	1618	A
25	CA	1619	G
25	CA	1623	G
25	CA	1626	A
25	CA	1634	A
25	CA	1639	C
25	CA	1647	U
25	CA	1648	U
25	CA	1649	G
25	CA	1651	G
25	CA	1652	A
25	CA	1661	G
25	CA	1674	G
25	CA	1677	A
25	CA	1686	C
25	CA	1687	G
25	CA	1695	G
25	CA	1710	G
25	CA	1711	A
25	CA	1714	U
25	CA	1715	G
25	CA	1717	A
25	CA	1718	G
25	CA	1721	G
25	CA	1725	U
25	CA	1729	U
25	CA	1730	C
25	CA	1736	U
25	CA	1738	G
25	CA	1743	G
25	CA	1744	A
25	CA	1750	G
25	CA	1754	A

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Mol	Chain	Res	Type
25	CA	1757	A
25	CA	1758	U
25	CA	1764	C
25	CA	1771	C
25	CA	1773	A
25	CA	1782	U
25	CA	1791	A
25	CA	1800	C
25	CA	1801	A
25	CA	1802	A
25	CA	1808	A
25	CA	1809	A
25	CA	1811	G
25	CA	1816	C
25	CA	1828	G
25	CA	1829	A
25	CA	1833	C
25	CA	1835	G
25	CA	1839	G
25	CA	1841	U
25	CA	1845	G
25	CA	1848	A
25	CA	1854	A
25	CA	1855	U
25	CA	1858	A
25	CA	1861	G
25	CA	1862	G
25	CA	1866	A
25	CA	1870	C
25	CA	1871	A
25	CA	1872	A
25	CA	1873	G
25	CA	1876	A
25	CA	1884	G
25	CA	1885	A
25	CA	1889	A
25	CA	1890	A
25	CA	1902	C
25	CA	1908	C
25	CA	1909	C
25	CA	1913	A
25	CA	1914	C

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Mol	Chain	Res	Type
25	CA	1915	U
25	CA	1925	C
25	CA	1926	U
25	CA	1927	A
25	CA	1928	A
25	CA	1929	G
25	CA	1930	G
25	CA	1931	U
25	CA	1932	A
25	CA	1937	A
25	CA	1938	A
25	CA	1944	U
25	CA	1955	U
25	CA	1960	A
25	CA	1965	C
25	CA	1966	A
25	CA	1967	C
25	CA	1970	A
25	CA	1971	U
25	CA	1972	G
25	CA	1975	G
25	CA	1981	A
25	CA	1985	C
25	CA	1990	C
25	CA	1991	U
25	CA	1992	G
25	CA	1993	U
25	CA	1997	C
25	CA	2008	C
25	CA	2009	A
25	CA	2020	A
25	CA	2022	U
25	CA	2023	C
25	CA	2025	C
25	CA	2027	G
25	CA	2031	A
25	CA	2033	A
25	CA	2034	U
25	CA	2035	G
25	CA	2043	C
25	CA	2055	C
25	CA	2056	G

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Mol	Chain	Res	Type
25	CA	2060	A
25	CA	2061	G
25	CA	2062	A
25	CA	2066	C
25	CA	2069	G
25	CA	2071	A
25	CA	2072	C
25	CA	2077	A
25	CA	2078	C
25	CA	2083	G
25	CA	2096	C
25	CA	2097	A
25	CA	2101	A
25	CA	2102	G
25	CA	2104	C
25	CA	2107	G
25	CA	2109	U
25	CA	2110	G
25	CA	2111	U
25	CA	2112	G
25	CA	2113	U
25	CA	2115	G
25	CA	2116	G
25	CA	2117	A
25	CA	2118	U
25	CA	2119	A
25	CA	2120	G
25	CA	2122	U
25	CA	2123	G
25	CA	2126	A
25	CA	2128	G
25	CA	2129	C
25	CA	2130	U
25	CA	2132	U
25	CA	2133	G
25	CA	2135	A
25	CA	2136	G
25	CA	2145	C
25	CA	2146	C
25	CA	2147	A
25	CA	2152	G
25	CA	2153	C

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Mol	Chain	Res	Type
25	CA	2155	U
25	CA	2157	G
25	CA	2158	A
25	CA	2160	C
25	CA	2162	G
25	CA	2163	A
25	CA	2164	C
25	CA	2165	C
25	CA	2167	U
25	CA	2168	G
25	CA	2169	A
25	CA	2170	A
25	CA	2171	A
25	CA	2172	U
25	CA	2173	A
25	CA	2178	C
25	CA	2179	C
25	CA	2181	U
25	CA	2183	A
25	CA	2184	A
25	CA	2185	U
25	CA	2187	U
25	CA	2198	A
25	CA	2203	U
25	CA	2204	G
25	CA	2208	C
25	CA	2211	A
25	CA	2212	A
25	CA	2213	U
25	CA	2214	C
25	CA	2220	U
25	CA	2225	A
25	CA	2226	C
25	CA	2233	U
25	CA	2238	G
25	CA	2239	G
25	CA	2248	C
25	CA	2250	G
25	CA	2257	U
25	CA	2261	C
25	CA	2268	A
25	CA	2277	G

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Mol	Chain	Res	Type
25	CA	2278	A
25	CA	2280	G
25	CA	2283	C
25	CA	2284	A
25	CA	2286	G
25	CA	2287	A
25	CA	2288	A
25	CA	2296	U
25	CA	2302	U
25	CA	2303	G
25	CA	2305	U
25	CA	2308	G
25	CA	2309	A
25	CA	2311	A
25	CA	2312	U
25	CA	2325	G
25	CA	2326	C
25	CA	2327	A
25	CA	2329	U
25	CA	2331	G
25	CA	2332	C
25	CA	2333	A
25	CA	2335	A
25	CA	2340	A
25	CA	2341	G
25	CA	2347	C
25	CA	2348	U
25	CA	2350	C
25	CA	2354	C
25	CA	2358	A
25	CA	2361	G
25	CA	2366	A
25	CA	2372	U
25	CA	2376	A
25	CA	2383	G
25	CA	2384	U
25	CA	2385	C
25	CA	2396	G
25	CA	2402	U
25	CA	2405	G
25	CA	2406	A
25	CA	2410	G

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Mol	Chain	Res	Type
25	CA	2419	U
25	CA	2424	C
25	CA	2425	A
25	CA	2426	A
25	CA	2427	C
25	CA	2428	G
25	CA	2429	G
25	CA	2430	A
25	CA	2435	A
25	CA	2441	U
25	CA	2445	G
25	CA	2448	A
25	CA	2449	U
25	CA	2468	A
25	CA	2469	A
25	CA	2474	U
25	CA	2476	A
25	CA	2491	U
25	CA	2493	U
25	CA	2494	G
25	CA	2497	A
25	CA	2502	G
25	CA	2505	G
25	CA	2507	C
25	CA	2508	G
25	CA	2514	U
25	CA	2518	A
25	CA	2520	C
25	CA	2523	G
25	CA	2525	G
25	CA	2527	C
25	CA	2529	G
25	CA	2552	U
25	CA	2553	G
25	CA	2554	U
25	CA	2555	U
25	CA	2556	C
25	CA	2566	A
25	CA	2567	G
25	CA	2573	C
25	CA	2585	U
25	CA	2586	U

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Mol	Chain	Res	Type
25	CA	2602	A
25	CA	2603	G
25	CA	2604	U
25	CA	2609	U
25	CA	2610	C
25	CA	2613	U
25	CA	2629	U
25	CA	2632	A
25	CA	2634	A
25	CA	2646	C
25	CA	2662	A
25	CA	2664	G
25	CA	2669	G
25	CA	2676	C
25	CA	2681	C
25	CA	2682	A
25	CA	2689	U
25	CA	2690	U
25	CA	2704	C
25	CA	2711	A
25	CA	2714	G
25	CA	2716	C
25	CA	2720	U
25	CA	2721	A
25	CA	2724	U
25	CA	2726	A
25	CA	2729	G
25	CA	2744	G
25	CA	2745	C
25	CA	2748	A
25	CA	2760	C
25	CA	2767	C
25	CA	2778	A
25	CA	2783	U
25	CA	2784	U
25	CA	2791	G
25	CA	2792	A
25	CA	2798	U
25	CA	2799	A
25	CA	2800	A
25	CA	2811	G
25	CA	2813	A

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Mol	Chain	Res	Type
25	CA	2818	U
25	CA	2820	A
25	CA	2821	A
25	CA	2823	A
25	CA	2825	G
25	CA	2835	A
25	CA	2836	U
25	CA	2837	A
25	CA	2849	U
25	CA	2854	G
25	CA	2858	C
25	CA	2861	U
25	CA	2864	G
25	CA	2867	G
25	CA	2870	C
25	CA	2874	C
25	CA	2880	C
25	CA	2881	U
25	CA	2883	A
25	CA	2884	U
25	CA	2885	G
25	CA	2886	A
25	CA	2887	A
25	CA	2889	C
25	CA	2899	A
25	CA	2900	A
25	CA	2903	U
26	CB	2	G
26	CB	3	C
26	CB	8	C
26	CB	12	C
26	CB	15	A
26	CB	16	G
26	CB	35	C
26	CB	36	C
26	CB	37	C
26	CB	41	G
26	CB	44	G
26	CB	45	A
26	CB	49	C
26	CB	56	G
26	CB	57	A

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Mol	Chain	Res	Type
26	CB	60	C
26	CB	66	A
26	CB	67	G
26	CB	89	U
26	CB	90	C
26	CB	98	G
26	CB	99	A
26	CB	109	A
26	CB	119	A
25	DA	2	G
25	DA	10	A
25	DA	12	U
25	DA	13	A
25	DA	15	G
25	DA	17	G
25	DA	22	C
25	DA	31	C
25	DA	34	U
25	DA	41	C
25	DA	42	A
25	DA	43	G
25	DA	45	G
25	DA	46	G
25	DA	53	A
25	DA	55	G
25	DA	56	A
25	DA	57	C
25	DA	58	G
25	DA	59	U
25	DA	60	G
25	DA	61	C
25	DA	63	A
25	DA	70	G
25	DA	71	A
25	DA	74	A
25	DA	75	G
25	DA	80	G
25	DA	82	U
25	DA	84	A
25	DA	90	U
25	DA	91	A
25	DA	92	U

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Mol	Chain	Res	Type
25	DA	98	G
25	DA	99	U
25	DA	101	A
25	DA	102	U
25	DA	103	A
25	DA	105	C
25	DA	106	C
25	DA	118	A
25	DA	119	A
25	DA	120	U
25	DA	135	U
25	DA	137	U
25	DA	138	U
25	DA	139	U
25	DA	140	C
25	DA	141	G
25	DA	142	A
25	DA	150	U
25	DA	158	U
25	DA	159	G
25	DA	162	U
25	DA	163	C
25	DA	196	A
25	DA	199	A
25	DA	202	U
25	DA	204	A
25	DA	216	A
25	DA	221	A
25	DA	222	A
25	DA	225	C
25	DA	231	A
25	DA	232	G
25	DA	244	A
25	DA	248	G
25	DA	249	C
25	DA	255	A
25	DA	256	A
25	DA	257	C
25	DA	264	C
25	DA	265	A
25	DA	266	G
25	DA	272	A

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Mol	Chain	Res	Type
25	DA	276	U
25	DA	277	G
25	DA	279	A
25	DA	280	U
25	DA	281	C
25	DA	285	G
25	DA	287	G
25	DA	294	A
25	DA	296	U
25	DA	301	G
25	DA	311	A
25	DA	312	G
25	DA	320	A
25	DA	329	G
25	DA	330	A
25	DA	331	C
25	DA	343	C
25	DA	353	C
25	DA	354	A
25	DA	361	G
25	DA	362	A
25	DA	365	U
25	DA	367	G
25	DA	371	A
25	DA	372	G
25	DA	385	C
25	DA	386	G
25	DA	399	U
25	DA	405	U
25	DA	411	G
25	DA	414	C
25	DA	417	C
25	DA	424	G
25	DA	425	G
25	DA	436	C
25	DA	437	U
25	DA	446	G
25	DA	455	C
25	DA	480	A
25	DA	481	G
25	DA	485	C
25	DA	486	C

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Mol	Chain	Res	Type
25	DA	491	G
25	DA	504	A
25	DA	505	A
25	DA	508	A
25	DA	510	C
25	DA	521	U
25	DA	530	G
25	DA	531	C
25	DA	532	A
25	DA	533	G
25	DA	537	G
25	DA	541	A
25	DA	542	C
25	DA	543	G
25	DA	544	C
25	DA	545	U
25	DA	546	U
25	DA	547	A
25	DA	548	G
25	DA	549	G
25	DA	550	C
25	DA	563	A
25	DA	567	U
25	DA	573	U
25	DA	575	A
25	DA	585	G
25	DA	586	A
25	DA	603	A
25	DA	608	A
25	DA	609	A
25	DA	612	G
25	DA	613	A
25	DA	614	A
25	DA	615	U
25	DA	617	G
25	DA	618	G
25	DA	620	G
25	DA	627	A
25	DA	630	G
25	DA	631	A
25	DA	637	A
25	DA	639	U

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Mol	Chain	Res	Type
25	DA	640	C
25	DA	641	U
25	DA	645	C
25	DA	646	U
25	DA	647	G
25	DA	648	G
25	DA	654	A
25	DA	655	A
25	DA	673	C
25	DA	677	A
25	DA	683	U
25	DA	686	U
25	DA	693	A
25	DA	694	U
25	DA	702	U
25	DA	704	G
25	DA	710	U
25	DA	711	G
25	DA	714	U
25	DA	715	A
25	DA	716	A
25	DA	717	C
25	DA	721	A
25	DA	730	A
25	DA	738	G
25	DA	740	C
25	DA	747	U
25	DA	762	U
25	DA	764	A
25	DA	765	C
25	DA	775	G
25	DA	776	G
25	DA	782	A
25	DA	783	A
25	DA	784	G
25	DA	785	G
25	DA	792	A
25	DA	799	G
25	DA	805	G
25	DA	811	U
25	DA	812	C
25	DA	816	C

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Mol	Chain	Res	Type
25	DA	819	A
25	DA	820	A
25	DA	827	U
25	DA	828	U
25	DA	829	A
25	DA	830	G
25	DA	844	A
25	DA	845	A
25	DA	846	U
25	DA	847	U
25	DA	858	G
25	DA	859	G
25	DA	860	U
25	DA	863	A
25	DA	864	G
25	DA	865	C
25	DA	880	G
25	DA	881	G
25	DA	882	G
25	DA	885	C
25	DA	896	A
25	DA	897	C
25	DA	902	C
25	DA	904	G
25	DA	910	A
25	DA	914	G
25	DA	921	C
25	DA	927	A
25	DA	931	U
25	DA	932	U
25	DA	934	U
25	DA	941	A
25	DA	946	C
25	DA	961	C
25	DA	974	G
25	DA	982	C
25	DA	983	A
25	DA	985	C
25	DA	990	A
25	DA	995	C
25	DA	996	A
25	DA	997	G

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Mol	Chain	Res	Type
25	DA	1005	C
25	DA	1010	A
25	DA	1012	U
25	DA	1013	C
25	DA	1016	G
25	DA	1021	A
25	DA	1022	G
25	DA	1025	G
25	DA	1026	G
25	DA	1030	C
25	DA	1033	U
25	DA	1042	G
25	DA	1046	A
25	DA	1047	G
25	DA	1048	A
25	DA	1053	C
25	DA	1058	U
25	DA	1059	G
25	DA	1060	U
25	DA	1061	U
25	DA	1062	G
25	DA	1063	G
25	DA	1065	U
25	DA	1066	U
25	DA	1067	A
25	DA	1068	G
25	DA	1070	A
25	DA	1071	G
25	DA	1072	C
25	DA	1073	A
25	DA	1074	G
25	DA	1075	C
25	DA	1077	A
25	DA	1079	C
25	DA	1082	U
25	DA	1083	U
25	DA	1087	G
25	DA	1088	A
25	DA	1089	A
25	DA	1090	A
25	DA	1091	G
25	DA	1092	C

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Mol	Chain	Res	Type
25	DA	1094	U
25	DA	1097	U
25	DA	1100	C
25	DA	1104	C
25	DA	1110	G
25	DA	1111	A
25	DA	1112	G
25	DA	1115	G
25	DA	1122	G
25	DA	1128	G
25	DA	1132	U
25	DA	1133	A
25	DA	1135	C
25	DA	1136	G
25	DA	1137	G
25	DA	1138	G
25	DA	1141	U
25	DA	1142	A
25	DA	1143	A
25	DA	1156	A
25	DA	1158	C
25	DA	1168	G
25	DA	1169	A
25	DA	1171	G
25	DA	1173	U
25	DA	1174	U
25	DA	1175	A
25	DA	1176	U
25	DA	1178	C
25	DA	1179	G
25	DA	1180	U
25	DA	1181	U
25	DA	1182	G
25	DA	1186	G
25	DA	1189	A
25	DA	1198	U
25	DA	1208	C
25	DA	1212	G
25	DA	1221	C
25	DA	1227	G
25	DA	1234	U
25	DA	1238	G

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Mol	Chain	Res	Type
25	DA	1241	A
25	DA	1248	G
25	DA	1253	A
25	DA	1256	G
25	DA	1262	A
25	DA	1266	G
25	DA	1269	A
25	DA	1271	G
25	DA	1272	A
25	DA	1278	C
25	DA	1286	A
25	DA	1300	G
25	DA	1301	A
25	DA	1302	A
25	DA	1310	G
25	DA	1311	G
25	DA	1313	U
25	DA	1315	C
25	DA	1316	U
25	DA	1321	A
25	DA	1324	G
25	DA	1332	G
25	DA	1337	G
25	DA	1345	C
25	DA	1347	A
25	DA	1348	C
25	DA	1349	C
25	DA	1352	U
25	DA	1359	A
25	DA	1361	G
25	DA	1365	A
25	DA	1368	G
25	DA	1372	U
25	DA	1378	A
25	DA	1379	U
25	DA	1383	A
25	DA	1386	C
25	DA	1387	A
25	DA	1389	G
25	DA	1390	U
25	DA	1395	A
25	DA	1398	C

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Mol	Chain	Res	Type
25	DA	1412	U
25	DA	1413	A
25	DA	1414	C
25	DA	1416	G
25	DA	1417	C
25	DA	1418	G
25	DA	1419	A
25	DA	1420	A
25	DA	1423	G
25	DA	1427	A
25	DA	1428	C
25	DA	1429	G
25	DA	1433	A
25	DA	1434	A
25	DA	1436	G
25	DA	1442	U
25	DA	1443	U
25	DA	1450	G
25	DA	1452	G
25	DA	1453	A
25	DA	1454	C
25	DA	1455	G
25	DA	1456	G
25	DA	1458	U
25	DA	1467	U
25	DA	1471	G
25	DA	1475	G
25	DA	1476	U
25	DA	1478	G
25	DA	1480	C
25	DA	1482	G
25	DA	1484	U
25	DA	1493	C
25	DA	1495	A
25	DA	1499	C
25	DA	1504	A
25	DA	1509	A
25	DA	1510	G
25	DA	1515	A
25	DA	1516	G
25	DA	1523	U
25	DA	1528	A

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Mol	Chain	Res	Type
25	DA	1530	G
25	DA	1531	C
25	DA	1533	C
25	DA	1534	U
25	DA	1535	A
25	DA	1536	C
25	DA	1537	G
25	DA	1538	G
25	DA	1556	C
25	DA	1566	A
25	DA	1569	A
25	DA	1578	U
25	DA	1579	A
25	DA	1581	G
25	DA	1582	C
25	DA	1583	A
25	DA	1584	U
25	DA	1585	C
25	DA	1586	A
25	DA	1606	C
25	DA	1607	C
25	DA	1608	A
25	DA	1610	A
25	DA	1613	G
25	DA	1616	A
25	DA	1622	G
25	DA	1623	G
25	DA	1647	U
25	DA	1648	U
25	DA	1649	G
25	DA	1651	G
25	DA	1654	A
25	DA	1674	G
25	DA	1676	A
25	DA	1677	A
25	DA	1702	G
25	DA	1705	A
25	DA	1706	C
25	DA	1709	U
25	DA	1715	G
25	DA	1728	C
25	DA	1729	U

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Mol	Chain	Res	Type
25	DA	1730	C
25	DA	1731	G
25	DA	1735	A
25	DA	1738	G
25	DA	1739	A
25	DA	1740	G
25	DA	1744	A
25	DA	1754	A
25	DA	1756	G
25	DA	1762	A
25	DA	1764	C
25	DA	1773	A
25	DA	1774	C
25	DA	1776	G
25	DA	1782	U
25	DA	1800	C
25	DA	1801	A
25	DA	1808	A
25	DA	1811	G
25	DA	1816	C
25	DA	1823	G
25	DA	1825	U
25	DA	1827	U
25	DA	1828	G
25	DA	1829	A
25	DA	1846	G
25	DA	1858	A
25	DA	1859	U
25	DA	1869	G
25	DA	1870	C
25	DA	1871	A
25	DA	1872	A
25	DA	1874	C
25	DA	1884	G
25	DA	1888	G
25	DA	1903	G
25	DA	1905	C
25	DA	1906	G
25	DA	1907	G
25	DA	1913	A
25	DA	1914	C
25	DA	1916	A

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Mol	Chain	Res	Type
25	DA	1927	A
25	DA	1929	G
25	DA	1930	G
25	DA	1935	G
25	DA	1936	A
25	DA	1937	A
25	DA	1938	A
25	DA	1944	U
25	DA	1947	C
25	DA	1948	G
25	DA	1949	G
25	DA	1951	U
25	DA	1955	U
25	DA	1958	C
25	DA	1961	C
25	DA	1963	U
25	DA	1965	C
25	DA	1966	A
25	DA	1967	C
25	DA	1970	A
25	DA	1971	U
25	DA	1972	G
25	DA	1974	C
25	DA	1983	G
25	DA	1991	U
25	DA	1992	G
25	DA	1993	U
25	DA	1997	C
25	DA	2019	A
25	DA	2022	U
25	DA	2023	C
25	DA	2031	A
25	DA	2033	A
25	DA	2042	A
25	DA	2043	C
25	DA	2055	C
25	DA	2056	G
25	DA	2057	G
25	DA	2060	A
25	DA	2061	G
25	DA	2062	A
25	DA	2069	G

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Mol	Chain	Res	Type
25	DA	2072	C
25	DA	2076	U
25	DA	2092	U
25	DA	2093	G
25	DA	2096	C
25	DA	2102	G
25	DA	2103	C
25	DA	2107	G
25	DA	2108	A
25	DA	2109	U
25	DA	2110	G
25	DA	2111	U
25	DA	2112	G
25	DA	2113	U
25	DA	2115	G
25	DA	2116	G
25	DA	2117	A
25	DA	2118	U
25	DA	2119	A
25	DA	2125	G
25	DA	2126	A
25	DA	2127	G
25	DA	2128	G
25	DA	2131	U
25	DA	2132	U
25	DA	2133	G
25	DA	2135	A
25	DA	2136	G
25	DA	2137	U
25	DA	2145	C
25	DA	2146	C
25	DA	2147	A
25	DA	2148	G
25	DA	2149	U
25	DA	2150	C
25	DA	2151	U
25	DA	2152	G
25	DA	2158	A
25	DA	2159	G
25	DA	2162	G
25	DA	2163	A
25	DA	2164	C

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Mol	Chain	Res	Type
25	DA	2165	C
25	DA	2169	A
25	DA	2170	A
25	DA	2171	A
25	DA	2172	U
25	DA	2173	A
25	DA	2177	C
25	DA	2178	C
25	DA	2184	A
25	DA	2189	U
25	DA	2190	G
25	DA	2194	U
25	DA	2197	U
25	DA	2198	A
25	DA	2204	G
25	DA	2211	A
25	DA	2212	A
25	DA	2214	C
25	DA	2220	U
25	DA	2223	G
25	DA	2224	G
25	DA	2225	A
25	DA	2226	C
25	DA	2227	A
25	DA	2228	G
25	DA	2236	U
25	DA	2238	G
25	DA	2242	G
25	DA	2243	U
25	DA	2245	U
25	DA	2250	G
25	DA	2268	A
25	DA	2269	G
25	DA	2273	A
25	DA	2278	A
25	DA	2280	G
25	DA	2283	C
25	DA	2287	A
25	DA	2293	G
25	DA	2294	G
25	DA	2296	U
25	DA	2297	A

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Mol	Chain	Res	Type
25	DA	2305	U
25	DA	2307	G
25	DA	2309	A
25	DA	2310	C
25	DA	2311	A
25	DA	2312	U
25	DA	2320	U
25	DA	2321	U
25	DA	2322	A
25	DA	2324	U
25	DA	2325	G
25	DA	2327	A
25	DA	2333	A
25	DA	2335	A
25	DA	2336	A
25	DA	2344	U
25	DA	2347	C
25	DA	2354	C
25	DA	2356	U
25	DA	2357	G
25	DA	2358	A
25	DA	2361	G
25	DA	2378	A
25	DA	2379	G
25	DA	2383	G
25	DA	2385	C
25	DA	2402	U
25	DA	2403	C
25	DA	2406	A
25	DA	2407	A
25	DA	2414	G
25	DA	2423	U
25	DA	2424	C
25	DA	2425	A
25	DA	2426	A
25	DA	2429	G
25	DA	2430	A
25	DA	2431	U
25	DA	2434	A
25	DA	2435	A
25	DA	2441	U
25	DA	2446	G

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Mol	Chain	Res	Type
25	DA	2448	A
25	DA	2473	U
25	DA	2476	A
25	DA	2477	U
25	DA	2484	G
25	DA	2491	U
25	DA	2494	G
25	DA	2502	G
25	DA	2504	U
25	DA	2505	G
25	DA	2518	A
25	DA	2525	G
25	DA	2529	G
25	DA	2532	G
25	DA	2534	A
25	DA	2535	G
25	DA	2547	A
25	DA	2554	U
25	DA	2557	G
25	DA	2566	A
25	DA	2567	G
25	DA	2572	A
25	DA	2573	C
25	DA	2574	G
25	DA	2580	U
25	DA	2585	U
25	DA	2592	G
25	DA	2602	A
25	DA	2603	G
25	DA	2605	U
25	DA	2609	U
25	DA	2613	U
25	DA	2614	A
25	DA	2615	U
25	DA	2629	U
25	DA	2630	G
25	DA	2653	U
25	DA	2656	U
25	DA	2663	G
25	DA	2681	C
25	DA	2683	C
25	DA	2689	U

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Mol	Chain	Res	Type
25	DA	2690	U
25	DA	2701	U
25	DA	2702	G
25	DA	2703	C
25	DA	2713	U
25	DA	2714	G
25	DA	2718	G
25	DA	2724	U
25	DA	2726	A
25	DA	2729	G
25	DA	2732	G
25	DA	2743	U
25	DA	2748	A
25	DA	2757	A
25	DA	2758	A
25	DA	2764	A
25	DA	2765	A
25	DA	2768	U
25	DA	2769	U
25	DA	2770	G
25	DA	2778	A
25	DA	2791	G
25	DA	2793	C
25	DA	2794	C
25	DA	2798	U
25	DA	2799	A
25	DA	2800	A
25	DA	2805	C
25	DA	2807	U
25	DA	2818	U
25	DA	2820	A
25	DA	2821	A
25	DA	2825	G
25	DA	2826	A
25	DA	2833	U
25	DA	2835	A
25	DA	2836	U
25	DA	2840	C
25	DA	2848	G
25	DA	2855	C
25	DA	2856	A
25	DA	2858	C

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Mol	Chain	Res	Type
25	DA	2861	U
25	DA	2863	C
25	DA	2867	G
25	DA	2871	U
25	DA	2872	A
25	DA	2873	A
25	DA	2875	C
25	DA	2879	A
25	DA	2880	C
25	DA	2883	A
25	DA	2884	U
25	DA	2887	A
25	DA	2889	C
25	DA	2894	G
25	DA	2895	G
25	DA	2902	C
25	DA	2903	U
56	DB	8	C
56	DB	11	C
56	DB	13	G
56	DB	15	A
56	DB	16	G
56	DB	19	C
56	DB	21	G
56	DB	22	U
56	DB	24	G
56	DB	25	U
56	DB	32	U
56	DB	33	G
56	DB	34	A
56	DB	35	C
56	DB	36	C
56	DB	38	C
56	DB	39	A
56	DB	44	G
56	DB	45	A
56	DB	46	A
56	DB	52	A
56	DB	56	G
56	DB	58	A
56	DB	59	A
56	DB	61	G

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Mol	Chain	Res	Type
56	DB	64	G
56	DB	73	A
56	DB	88	C
56	DB	89	U
56	DB	90	C
56	DB	93	C
56	DB	99	A
56	DB	105	G
56	DB	109	A

All (155) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	115	G
1	AA	120	A
1	AA	148	G
1	AA	209	U
1	AA	329	A
1	AA	351	G
1	AA	410	G
1	AA	412	A
1	AA	428	G
1	AA	429	U
1	AA	439	U
1	AA	481	G
1	AA	510	A
1	AA	513	C
1	AA	653	U
1	AA	889	A
1	AA	1031	C
1	AA	1049	U
1	AA	1101	A
1	AA	1126	U
1	AA	1145	A
1	AA	1201	A
1	AA	1211	U
1	AA	1227	A
1	AA	1286	U
1	AA	1337	G
1	AA	1378	C
1	AA	1533	C
22	AV	18	G

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Mol	Chain	Res	Type
1	BA	4	U
1	BA	96	U
1	BA	115	G
1	BA	209	U
1	BA	274	A
1	BA	428	G
1	BA	429	U
1	BA	485	U
1	BA	653	U
1	BA	733	G
1	BA	926	G
1	BA	1049	U
1	BA	1101	A
1	BA	1168	U
1	BA	1201	A
1	BA	1211	U
1	BA	1299	A
1	BA	1317	C
1	BA	1491	G
1	BA	1534	A
22	BV	19	G
25	CA	60	G
25	CA	71	A
25	CA	74	A
25	CA	196	A
25	CA	221	A
25	CA	271	G
25	CA	301	G
25	CA	370	G
25	CA	404	A
25	CA	479	A
25	CA	503	A
25	CA	614	A
25	CA	620	G
25	CA	685	A
25	CA	764	A
25	CA	776	G
25	CA	790	U
25	CA	960	A
25	CA	984	A
25	CA	995	C
25	CA	1046	A

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Mol	Chain	Res	Type
25	CA	1086	A
25	CA	1133	A
25	CA	1180	U
25	CA	1212	G
25	CA	1234	U
25	CA	1253	A
25	CA	1286	A
25	CA	1301	A
25	CA	1344	U
25	CA	1373	A
25	CA	1378	A
25	CA	1494	A
25	CA	1606	C
25	CA	1647	U
25	CA	1674	G
25	CA	1800	C
25	CA	1875	G
25	CA	1900	A
25	CA	1929	G
25	CA	2060	A
25	CA	2127	G
25	CA	2157	G
25	CA	2211	A
25	CA	2286	G
25	CA	2326	C
25	CA	2406	A
25	CA	2422	C
25	CA	2425	A
25	CA	2602	A
25	CA	2681	C
25	CA	2848	G
25	CA	2873	A
26	CB	15	A
25	DA	60	G
25	DA	162	U
25	DA	199	A
25	DA	221	A
25	DA	271	G
25	DA	319	G
25	DA	404	A
25	DA	479	A
25	DA	503	A

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Mol	Chain	Res	Type
25	DA	529	A
25	DA	531	C
25	DA	614	A
25	DA	616	A
25	DA	764	A
25	DA	776	G
25	DA	945	A
25	DA	984	A
25	DA	1033	U
25	DA	1071	G
25	DA	1237	A
25	DA	1240	U
25	DA	1344	U
25	DA	1378	A
25	DA	1394	U
25	DA	1475	G
25	DA	1606	C
25	DA	1738	G
25	DA	1943	U
25	DA	2109	U
25	DA	2111	U
25	DA	2127	G
25	DA	2146	C
25	DA	2158	A
25	DA	2162	G
25	DA	2211	A
25	DA	2225	A
25	DA	2286	G
25	DA	2296	U
25	DA	2308	G
25	DA	2311	A
25	DA	2326	C
25	DA	2425	A
25	DA	2602	A
25	DA	2756	U
25	DA	2768	U
25	DA	2797	U
25	DA	2800	A
25	DA	2873	A
56	DB	33	G
56	DB	34	A
56	DB	89	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 500 ligands modelled in this entry, 500 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.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	AA	1538/1539 (99%)	-0.64	8 (0%) 91 76	0, 31, 105, 170	0
1	BA	1539/1539 (100%)	-0.58	10 (0%) 90 73	0, 33, 101, 147	0
2	AB	218/218 (100%)	0.62	15 (6%) 20 7	12, 52, 84, 115	0
2	BB	218/218 (100%)	0.44	12 (5%) 29 11	19, 59, 88, 113	0
3	AC	206/206 (100%)	-0.30	0 100 100	0, 35, 69, 93	0
3	BC	206/206 (100%)	0.26	4 (1%) 70 41	9, 46, 75, 92	0
4	AD	205/205 (100%)	0.11	5 (2%) 62 32	14, 42, 73, 98	0
4	BD	205/205 (100%)	-0.24	1 (0%) 91 76	0, 24, 64, 82	0
5	AE	150/150 (100%)	-0.13	3 (2%) 68 39	0, 32, 68, 105	0
5	BE	150/150 (100%)	-0.36	0 100 100	0, 31, 68, 98	0
6	AF	100/100 (100%)	-0.35	0 100 100	0, 33, 68, 86	0
6	BF	100/100 (100%)	0.02	1 (1%) 84 60	17, 54, 80, 93	0
7	AG	151/151 (100%)	0.53	14 (9%) 11 4	12, 56, 86, 111	0
7	BG	151/151 (100%)	0.04	6 (3%) 42 17	20, 54, 81, 94	0
8	AH	129/129 (100%)	-0.47	0 100 100	0, 32, 60, 71	0
8	BH	129/129 (100%)	-0.23	1 (0%) 87 67	4, 34, 58, 82	0
9	AI	127/127 (100%)	0.20	4 (3%) 52 24	6, 54, 79, 108	0
9	BI	127/127 (100%)	0.40	11 (8%) 13 4	20, 55, 85, 117	0
10	AJ	98/98 (100%)	0.45	5 (5%) 32 12	8, 55, 89, 104	0
10	BJ	98/98 (100%)	0.42	6 (6%) 25 9	25, 58, 82, 113	0
11	AK	117/117 (100%)	-0.36	1 (0%) 85 64	0, 19, 50, 87	0
11	BK	117/117 (100%)	-0.22	0 100 100	0, 32, 66, 79	0
12	AL	123/123 (100%)	-0.30	2 (1%) 74 47	0, 22, 67, 93	0
12	BL	123/123 (100%)	-0.26	3 (2%) 62 32	0, 17, 58, 93	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	AM	114/114 (100%)	0.11	5 (4%) 38 16	9, 53, 87, 100	0
13	BM	114/114 (100%)	0.77	9 (7%) 15 5	26, 63, 87, 97	0
14	AN	96/100 (96%)	-0.01	1 (1%) 84 60	12, 45, 84, 107	0
14	BN	96/100 (96%)	0.29	4 (4%) 40 16	10, 56, 84, 98	0
15	AO	88/88 (100%)	-0.38	1 (1%) 82 58	0, 28, 55, 93	0
15	BO	88/88 (100%)	-0.05	1 (1%) 82 58	1, 33, 66, 89	0
16	AP	82/82 (100%)	0.15	3 (3%) 45 19	5, 30, 73, 86	0
16	BP	82/82 (100%)	-0.10	4 (4%) 33 13	0, 24, 67, 91	0
17	AQ	80/80 (100%)	0.05	1 (1%) 79 53	8, 42, 75, 96	0
17	BQ	80/80 (100%)	-0.08	1 (1%) 79 53	7, 44, 79, 94	0
18	AR	55/55 (100%)	-0.36	1 (1%) 71 43	0, 25, 59, 93	0
18	BR	55/55 (100%)	-0.09	2 (3%) 46 20	5, 38, 80, 101	0
19	AS	79/79 (100%)	0.55	5 (6%) 23 9	21, 52, 83, 98	0
19	BS	79/79 (100%)	0.82	9 (11%) 7 2	37, 65, 83, 95	0
20	AT	85/85 (100%)	0.22	4 (4%) 35 14	7, 37, 67, 80	0
20	BT	85/85 (100%)	0.23	2 (2%) 62 32	8, 38, 69, 96	0
21	AU	51/51 (100%)	0.23	5 (9%) 10 4	7, 39, 74, 77	0
21	BU	51/51 (100%)	0.30	3 (5%) 26 10	8, 47, 74, 80	0
22	AV	76/76 (100%)	-0.21	2 (2%) 59 29	0, 70, 127, 154	0
22	BV	76/76 (100%)	-0.31	0 100 100	22, 43, 72, 119	0
23	AX	15/16 (93%)	0.44	1 (6%) 21 7	6, 76, 115, 133	0
23	BX	16/16 (100%)	0.22	1 (6%) 23 9	16, 77, 102, 124	0
24	AY	183/183 (100%)	0.75	38 (20%) 1 1	0, 50, 96, 117	0
25	CA	2897/2903 (99%)	-0.51	35 (1%) 81 55	0, 0, 103, 162	0
25	DA	2896/2903 (99%)	-0.59	27 (0%) 85 64	0, 15, 109, 162	0
26	CB	119/119 (100%)	-0.84	0 100 100	0, 7, 32, 85	0
27	CC	271/271 (100%)	-0.61	0 100 100	0, 1, 29, 56	0
27	DC	271/271 (100%)	-0.52	0 100 100	0, 19, 47, 77	0
28	CD	209/209 (100%)	-0.62	0 100 100	0, 0, 19, 61	0
28	DD	209/209 (100%)	-0.54	1 (0%) 91 76	0, 10, 52, 66	0
29	CE	201/201 (100%)	-0.52	0 100 100	0, 0, 39, 84	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
29	DE	201/201 (100%)	-0.37	0 100 100	0, 21, 60, 89	0
30	CF	177/177 (100%)	0.09	4 (2%) 64 33	0, 35, 82, 91	0
30	DF	177/177 (100%)	0.44	8 (4%) 37 15	12, 58, 84, 95	0
31	CG	176/176 (100%)	-0.35	0 100 100	0, 15, 48, 88	0
31	DG	176/176 (100%)	0.22	2 (1%) 82 58	15, 48, 73, 93	0
32	CH	149/149 (100%)	0.12	7 (4%) 35 14	0, 52, 87, 100	0
32	DH	149/149 (100%)	0.64	9 (6%) 25 9	8, 58, 92, 107	0
33	CI	141/141 (100%)	2.40	74 (52%) 0 0	44, 79, 102, 124	0
33	DI	141/141 (100%)	2.52	75 (53%) 0 0	54, 82, 104, 118	0
34	CJ	142/142 (100%)	-0.60	0 100 100	0, 0, 21, 56	0
34	DJ	142/142 (100%)	-0.43	0 100 100	0, 8, 37, 65	0
35	CK	122/122 (100%)	-0.63	0 100 100	0, 0, 27, 73	0
35	DK	122/122 (100%)	-0.44	0 100 100	0, 15, 50, 71	0
36	CL	143/143 (100%)	-0.53	0 100 100	0, 0, 27, 68	0
36	DL	143/143 (100%)	-0.28	3 (2%) 67 36	0, 18, 56, 82	0
37	CM	136/136 (100%)	-0.60	0 100 100	0, 0, 21, 83	0
37	DM	136/136 (100%)	-0.15	1 (0%) 89 70	0, 21, 55, 88	0
38	CN	120/120 (100%)	-0.56	0 100 100	0, 0, 14, 68	0
38	DN	120/120 (100%)	-0.49	0 100 100	0, 12, 44, 78	0
39	CO	116/116 (100%)	-0.54	0 100 100	0, 11, 39, 49	0
39	DO	116/116 (100%)	0.36	8 (6%) 20 7	5, 49, 78, 98	0
40	CP	114/114 (100%)	-0.60	0 100 100	0, 0, 47, 70	0
40	DP	114/114 (100%)	-0.44	0 100 100	0, 21, 51, 81	0
41	CQ	117/117 (100%)	-0.59	0 100 100	0, 0, 7, 63	0
41	DQ	117/117 (100%)	-0.69	0 100 100	0, 2, 27, 45	0
42	CR	103/103 (100%)	-0.56	0 100 100	0, 0, 35, 57	0
42	DR	103/103 (100%)	-0.59	1 (0%) 84 60	0, 10, 46, 78	0
43	CS	110/110 (100%)	-0.45	1 (0%) 85 64	0, 0, 22, 98	0
43	DS	110/110 (100%)	-0.62	0 100 100	0, 8, 40, 77	0
44	CT	93/93 (100%)	-0.25	2 (2%) 65 35	0, 6, 68, 78	0
44	DT	93/93 (100%)	0.15	1 (1%) 82 58	0, 35, 71, 96	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
45	CU	102/102 (100%)	-0.48	2 (1%) 68 39	0, 5, 42, 79	0
45	DU	102/102 (100%)	0.38	10 (9%) 10 4	0, 34, 74, 100	0
46	CV	94/94 (100%)	-0.54	0 100 100	0, 6, 42, 62	0
46	DV	94/94 (100%)	-0.08	1 (1%) 82 58	11, 43, 68, 82	0
47	CW	76/76 (100%)	-0.53	0 100 100	0, 1, 31, 69	0
48	CX	77/77 (100%)	-0.46	0 100 100	0, 1, 47, 74	0
48	DX	77/77 (100%)	-0.40	0 100 100	0, 23, 55, 67	0
49	CY	63/63 (100%)	-0.30	3 (4%) 34 14	0, 14, 56, 97	0
49	DY	63/63 (100%)	-0.16	0 100 100	8, 43, 70, 111	0
50	CZ	58/58 (100%)	-0.52	0 100 100	0, 0, 13, 50	0
50	DZ	58/58 (100%)	-0.37	1 (1%) 73 45	0, 20, 52, 72	0
51	C0	56/56 (100%)	-0.58	0 100 100	0, 0, 25, 69	0
51	D0	56/56 (100%)	-0.53	0 100 100	0, 10, 53, 94	0
52	C1	50/50 (100%)	-0.01	1 (2%) 68 39	0, 8, 51, 93	0
52	D1	50/50 (100%)	0.51	4 (8%) 15 5	21, 38, 70, 88	0
53	C2	46/46 (100%)	-0.49	1 (2%) 65 35	0, 0, 15, 101	0
53	D2	46/46 (100%)	-0.63	0 100 100	0, 10, 26, 94	0
54	C3	64/64 (100%)	-0.60	0 100 100	0, 0, 11, 38	0
54	D3	64/64 (100%)	-0.41	0 100 100	0, 15, 35, 52	0
55	C4	38/38 (100%)	-0.36	0 100 100	0, 1, 32, 72	0
55	D4	38/38 (100%)	-0.10	0 100 100	3, 26, 59, 65	0
56	DB	118/118 (100%)	-0.70	0 100 100	6, 58, 86, 106	0
57	DW	75/75 (100%)	-0.14	1 (1%) 79 53	0, 27, 54, 94	0
All	All	20908/20931 (99%)	-0.30	498 (2%) 62 32	0, 23, 86, 170	0

All (498) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
33	CI	52	LEU	11.0
33	DI	2	LYS	9.7
33	DI	59	THR	9.2
33	DI	4	VAL	9.1
33	CI	48	ILE	8.8
33	DI	66	PHE	8.7

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Mol	Chain	Res	Type	RSRZ
33	DI	1	ALA	8.6
33	CI	47	SER	8.4
33	DI	3	LYS	8.2
2	AB	156	LEU	8.1
33	CI	2	LYS	7.8
7	AG	84	TYR	7.7
24	AY	46	TYR	7.2
24	AY	47	GLY	7.1
45	DU	48	VAL	6.8
25	CA	2145	C	6.8
33	DI	5	GLN	6.7
33	CI	70	THR	6.6
45	DU	52	ASN	6.5
33	CI	3	LYS	6.5
7	AG	7	GLY	6.4
13	BM	114	PRO	6.3
16	AP	81	ALA	6.1
33	DI	58	ILE	6.0
32	DH	119	ASN	6.0
33	CI	46	ASP	6.0
12	AL	123	ALA	5.9
33	DI	10	LEU	5.9
1	BA	1031	C	5.7
25	CA	2141	G	5.7
33	CI	66	PHE	5.5
24	AY	44	GLU	5.5
25	CA	138	U	5.4
33	CI	1	ALA	5.4
2	AB	155	GLY	5.4
49	CY	63	ALA	5.4
45	DU	46	LYS	5.4
52	C1	52	LYS	5.4
33	DI	18	ASN	5.3
25	DA	138	U	5.3
33	DI	11	GLN	5.3
33	CI	65	SER	5.3
33	DI	67	THR	5.3
18	BR	19	GLU	5.3
33	DI	27	LEU	5.3
25	CA	2140	G	5.2
25	DA	1175	A	5.1
33	DI	54	ILE	5.1

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Mol	Chain	Res	Type	RSRZ
24	AY	43	VAL	5.1
33	DI	7	TYR	5.0
25	CA	2139	U	5.0
24	AY	73	ARG	5.0
10	AJ	102	LEU	4.9
24	AY	74	SER	4.9
1	BA	841	C	4.9
33	DI	47	SER	4.9
45	DU	50	ALA	4.8
33	CI	132	ALA	4.7
33	DI	12	VAL	4.7
2	BB	127	LYS	4.7
33	DI	52	LEU	4.7
24	AY	45	TYR	4.7
45	CU	52	ASN	4.7
24	AY	95	ALA	4.6
19	AS	2	ARG	4.6
33	DI	139	VAL	4.6
2	BB	73	ARG	4.5
24	AY	97	SER	4.5
2	AB	154	GLY	4.5
33	CI	87	SER	4.5
19	BS	2	ARG	4.5
2	BB	131	LYS	4.5
17	AQ	82	VAL	4.4
33	DI	98	GLY	4.4
25	CA	2146	C	4.4
9	BI	39	GLY	4.4
25	CA	2132	U	4.4
33	DI	65	SER	4.3
25	DA	2132	U	4.3
33	CI	38	CYS	4.3
33	CI	86	LYS	4.3
33	CI	10	LEU	4.3
5	AE	158	LYS	4.2
1	BA	1030	U	4.2
2	AB	64	GLY	4.2
32	CH	137	GLU	4.2
19	BS	29	PRO	4.2
33	CI	7	TYR	4.2
32	CH	136	SER	4.2
33	CI	25	PRO	4.2

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Mol	Chain	Res	Type	RSRZ
20	AT	3	ILE	4.1
33	CI	19	PRO	4.1
25	CA	2153	C	4.1
24	AY	96	GLY	4.1
24	AY	75	MET	4.1
33	DI	114	ALA	4.1
25	CA	2154	A	4.1
33	DI	68	PHE	4.1
33	CI	20	SER	4.1
33	DI	19	PRO	4.1
45	DU	53	GLN	4.1
16	BP	81	ALA	4.1
45	DU	45	GLN	4.1
1	AA	844	G	4.1
25	CA	2172	U	4.0
25	DA	2172	U	4.0
2	BB	8	MET	4.0
33	DI	82	ALA	4.0
7	AG	79	VAL	4.0
25	CA	139	U	4.0
42	DR	50	GLY	4.0
2	AB	17	HIS	4.0
4	AD	27	ILE	4.0
53	C2	46	LYS	4.0
33	CI	67	THR	4.0
25	DA	139	U	3.9
33	CI	78	LEU	3.9
24	AY	98	ASP	3.9
23	AX	12	A	3.9
33	CI	113	ALA	3.9
7	AG	78	ARG	3.9
19	BS	63	ASP	3.9
7	AG	77	ARG	3.9
7	AG	82	SER	3.9
33	DI	55	PRO	3.8
25	DA	546	U	3.8
33	CI	54	ILE	3.8
25	CA	2152	G	3.8
24	AY	94	SER	3.8
33	DI	111	THR	3.8
33	CI	114	ALA	3.8
24	AY	49	PRO	3.7

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Mol	Chain	Res	Type	RSRZ
25	DA	884	U	3.7
33	CI	4	VAL	3.7
23	BX	12	A	3.7
14	AN	29	ILE	3.7
45	DU	49	PRO	3.7
16	AP	82	ALA	3.7
25	DA	613	A	3.7
4	BD	24	VAL	3.7
25	CA	546	U	3.7
7	AG	83	THR	3.7
24	AY	42	VAL	3.7
33	DI	6	ALA	3.7
33	DI	23	VAL	3.7
25	DA	2131	U	3.7
30	DF	129	MET	3.7
30	CF	79	ARG	3.6
19	BS	25	GLY	3.6
1	AA	1031	C	3.6
33	DI	43	ALA	3.6
2	BB	128	LEU	3.6
24	AY	72	ASP	3.6
45	DU	51	LEU	3.6
7	AG	80	GLY	3.6
9	BI	40	ARG	3.6
33	CI	62	ALA	3.6
25	CA	1065	U	3.5
24	AY	85	ALA	3.5
33	DI	113	ALA	3.5
5	AE	157	GLY	3.5
7	BG	78	ARG	3.5
49	CY	59	GLU	3.5
52	D1	52	LYS	3.5
33	CI	53	PRO	3.5
24	AY	52	LEU	3.5
25	CA	1171	G	3.5
25	DA	2402	U	3.5
45	DU	54	PRO	3.5
33	DI	14	ALA	3.5
50	DZ	1	ALA	3.4
25	CA	2402	U	3.4
33	CI	51	GLY	3.4
33	CI	21	PRO	3.4

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Mol	Chain	Res	Type	RSRZ
25	CA	2144	G	3.4
9	AI	40	ARG	3.4
33	CI	138	VAL	3.4
18	BR	73	HIS	3.3
33	CI	139	VAL	3.3
24	AY	101	VAL	3.3
33	CI	95	ASP	3.3
20	BT	3	ILE	3.3
24	AY	37	LEU	3.3
25	DA	883	G	3.3
16	BP	45	GLU	3.3
25	CA	2163	A	3.3
16	BP	47	GLU	3.3
21	AU	46	ARG	3.3
1	BA	1032	G	3.3
25	DA	2126	A	3.3
33	CI	79	LEU	3.3
21	BU	37	TYR	3.2
33	CI	11	GLN	3.2
39	DO	50	ALA	3.2
9	AI	42	THR	3.2
33	CI	119	ALA	3.2
33	DI	132	ALA	3.2
25	CA	2142	A	3.2
20	AT	51	ASN	3.2
25	CA	1172	C	3.2
33	CI	58	ILE	3.2
33	DI	48	ILE	3.2
33	CI	120	ASP	3.2
33	CI	80	LYS	3.2
8	BH	1	SER	3.2
33	DI	21	PRO	3.2
33	DI	22	PRO	3.2
33	DI	57	VAL	3.2
1	BA	843	U	3.2
25	CA	2133	G	3.2
15	AO	88	ARG	3.2
39	DO	88	LYS	3.1
2	AB	134	LEU	3.1
25	CA	2138	G	3.1
33	DI	95	ASP	3.1
32	DH	87	GLU	3.1

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Mol	Chain	Res	Type	RSRZ
24	AY	38	LEU	3.1
1	AA	1032	G	3.1
22	AV	20	U	3.1
7	AG	8	GLN	3.1
10	AJ	91	ASP	3.1
2	AB	8	MET	3.1
13	AM	114	PRO	3.1
39	DO	51	ALA	3.0
33	DI	33	ASN	3.0
39	DO	26	LEU	3.0
33	DI	45	THR	3.0
21	AU	23	GLU	3.0
33	CI	137	LEU	3.0
33	CI	35	MET	3.0
7	AG	10	LYS	3.0
30	DF	169	LEU	3.0
33	CI	77	VAL	3.0
52	D1	51	ALA	3.0
32	CH	119	ASN	3.0
33	DI	44	LYS	3.0
1	AA	86	G	3.0
33	CI	24	GLY	3.0
33	CI	63	ASP	3.0
7	AG	22	LEU	3.0
25	CA	2143	C	3.0
33	DI	81	LYS	2.9
9	BI	31	GLN	2.9
33	DI	85	ILE	2.9
1	AA	88	U	2.9
7	BG	7	GLY	2.9
33	CI	44	LYS	2.9
25	DA	2168	G	2.9
21	AU	37	TYR	2.9
33	CI	6	ALA	2.9
14	BN	29	ILE	2.9
33	CI	42	ASN	2.9
13	BM	112	ARG	2.9
30	DF	45	ASP	2.9
7	AG	6	ILE	2.9
25	DA	882	G	2.8
1	BA	1033	G	2.8
4	AD	150	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
24	AY	48	THR	2.8
24	AY	56	ALA	2.8
33	CI	39	LYS	2.8
10	BJ	76	ILE	2.8
24	AY	76	SER	2.8
9	BI	20	ILE	2.8
25	DA	1174	U	2.8
33	DI	46	ASP	2.8
33	DI	60	VAL	2.8
11	AK	125	LYS	2.8
25	DA	881	G	2.8
33	CI	12	VAL	2.8
19	AS	37	SER	2.8
16	AP	80	LYS	2.8
31	DG	47	ASN	2.8
33	DI	137	LEU	2.7
24	AY	51	PRO	2.7
33	DI	20	SER	2.7
32	DH	149	GLU	2.7
25	CA	1179	G	2.7
33	DI	97	VAL	2.7
7	BG	8	GLN	2.7
2	BB	129	THR	2.7
25	CA	2164	C	2.7
1	AA	1492	A	2.7
33	CI	32	VAL	2.7
25	DA	2796	U	2.7
37	DM	136	MET	2.7
21	AU	20	ARG	2.7
43	CS	110	ARG	2.7
25	CA	1078	U	2.7
24	AY	50	THR	2.7
33	DI	64	ARG	2.7
3	BC	36	PHE	2.7
39	DO	114	GLY	2.7
33	CI	83	ALA	2.6
33	DI	37	PHE	2.6
1	AA	78	A	2.6
1	BA	1534	A	2.6
10	AJ	25	ILE	2.6
10	AJ	90	LEU	2.6
14	BN	34	ASN	2.6

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Mol	Chain	Res	Type	RSRZ
24	AY	93	ASN	2.6
24	AY	71	PHE	2.6
45	DU	47	PRO	2.6
24	AY	68	ILE	2.6
28	DD	209	ALA	2.6
46	DV	94	ALA	2.6
2	BB	34	ARG	2.6
33	CI	68	PHE	2.6
7	AG	81	GLY	2.6
33	CI	141	ASP	2.6
24	AY	79	VAL	2.6
25	CA	2173	A	2.6
12	BL	24	GLU	2.6
2	BB	33	ALA	2.6
25	CA	2147	A	2.6
33	CI	40	ALA	2.6
13	BM	7	ASN	2.6
33	DI	56	VAL	2.6
33	DI	24	GLY	2.6
44	CT	69	ARG	2.6
2	BB	135	MET	2.6
9	BI	3	ASN	2.6
25	DA	2118	U	2.6
25	DA	2797	U	2.6
33	DI	34	ILE	2.5
33	DI	110	GLN	2.5
2	AB	127	LYS	2.5
33	DI	15	GLY	2.5
13	AM	32	ILE	2.5
9	BI	5	TYR	2.5
24	AY	70	VAL	2.5
25	DA	1171	G	2.5
7	BG	83	THR	2.5
14	BN	18	LYS	2.5
32	DH	135	HIS	2.5
25	DA	1172	C	2.5
25	CA	549	G	2.5
2	BB	212	TYR	2.5
14	BN	52	PRO	2.5
33	CI	43	ALA	2.5
19	AS	31	ARG	2.5
33	CI	116	MET	2.5

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Mol	Chain	Res	Type	RSRZ
36	DL	143	GLU	2.5
32	DH	18	GLN	2.5
33	CI	96	LYS	2.5
32	CH	135	HIS	2.5
33	CI	49	GLU	2.5
24	AY	77	PRO	2.4
3	BC	81	GLU	2.4
25	DA	2158	A	2.4
13	BM	95	PRO	2.4
2	BB	17	HIS	2.4
25	CA	2148	G	2.4
25	CA	2165	C	2.4
2	BB	32	GLY	2.4
2	AB	65	LYS	2.4
2	AB	153	MET	2.4
12	BL	43	LYS	2.4
25	DA	885	C	2.4
45	CU	51	LEU	2.4
39	DO	60	GLU	2.4
25	DA	2125	G	2.4
33	CI	75	ALA	2.4
30	DF	119	LYS	2.4
32	CH	116	ARG	2.4
33	DI	32	VAL	2.4
25	DA	1870	C	2.4
17	BQ	3	LYS	2.4
19	BS	46	LEU	2.4
30	DF	82	TYR	2.4
20	BT	35	TYR	2.4
32	DH	136	SER	2.3
9	AI	22	PRO	2.3
12	BL	123	ALA	2.3
33	CI	118	GLY	2.3
30	CF	80	GLN	2.3
44	CT	72	GLN	2.3
18	AR	19	GLU	2.3
30	DF	147	ARG	2.3
30	CF	112	ASP	2.3
9	BI	38	PHE	2.3
25	CA	896	A	2.3
33	CI	69	VAL	2.3
2	AB	122	ASP	2.3

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Mol	Chain	Res	Type	RSRZ
33	DI	41	PHE	2.3
25	CA	613	A	2.3
19	AS	23	GLU	2.3
19	BS	40	PHE	2.3
24	AY	58	VAL	2.3
33	DI	29	GLN	2.3
30	DF	30	VAL	2.3
10	BJ	100	ILE	2.3
13	BM	3	ILE	2.3
16	BP	80	LYS	2.3
24	AY	86	SER	2.3
4	AD	190	LEU	2.3
15	BO	15	GLY	2.3
33	CI	16	MET	2.3
33	DI	76	ALA	2.3
33	CI	81	LYS	2.3
7	BG	4	ARG	2.3
21	BU	46	ARG	2.3
24	AY	99	ILE	2.3
32	CH	140	ALA	2.3
33	CI	8	VAL	2.3
10	AJ	89	ARG	2.2
1	BA	842	U	2.2
33	CI	45	THR	2.2
33	CI	82	ALA	2.2
33	DI	13	ALA	2.2
2	AB	128	LEU	2.2
33	CI	22	PRO	2.2
33	DI	120	ASP	2.2
33	CI	100	ILE	2.2
21	BU	43	GLU	2.2
13	BM	55	LEU	2.2
36	DL	92	LEU	2.2
33	DI	53	PRO	2.2
33	CI	41	PHE	2.2
33	DI	42	ASN	2.2
33	DI	30	GLN	2.2
36	DL	144	GLU	2.2
10	BJ	6	ILE	2.2
31	DG	176	LYS	2.2
33	DI	138	VAL	2.2
2	AB	133	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
19	BS	43	MET	2.2
7	AG	151	ALA	2.2
39	DO	49	VAL	2.2
20	AT	86	ALA	2.2
10	BJ	75	ASP	2.2
3	BC	150	VAL	2.2
39	DO	87	ILE	2.2
12	AL	122	LYS	2.2
13	AM	97	ARG	2.2
10	BJ	8	ILE	2.2
24	AY	84	MET	2.1
30	DF	160	LYS	2.1
32	CH	139	PHE	2.1
33	DI	119	ALA	2.1
52	D1	8	ILE	2.1
32	DH	116	ARG	2.1
33	CI	102	ARG	2.1
24	AY	91	ASN	2.1
13	BM	113	LYS	2.1
21	AU	44	ARG	2.1
24	AY	146	ASP	2.1
33	CI	110	GLN	2.1
9	BI	66	VAL	2.1
4	AD	104	MET	2.1
33	DI	96	LYS	2.1
33	DI	87	SER	2.1
10	BJ	32	THR	2.1
33	CI	33	ASN	2.1
33	DI	35	MET	2.1
33	DI	107	GLU	2.1
44	DT	73	ARG	2.1
1	BA	209	U	2.1
1	BA	1286	U	2.1
19	BS	26	ASP	2.1
9	AI	18	VAL	2.1
9	BI	129	ARG	2.1
33	CI	60	VAL	2.1
2	AB	118	THR	2.1
33	CI	111	THR	2.1
19	BS	39	ILE	2.1
1	AA	1441	A	2.1
19	AS	36	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
33	DI	49	GLU	2.1
13	AM	3	ILE	2.1
33	DI	63	ASP	2.1
33	CI	90	GLY	2.1
57	DW	68	LYS	2.1
20	AT	56	ILE	2.1
25	CA	2178	C	2.1
9	BI	42	THR	2.1
32	DH	139	PHE	2.1
13	BM	77	LYS	2.1
5	AE	99	SER	2.0
33	DI	79	LEU	2.0
30	CF	38	GLY	2.0
33	DI	118	GLY	2.0
9	BI	16	ALA	2.0
13	AM	6	ILE	2.0
32	DH	52	ALA	2.0
13	BM	26	LYS	2.0
4	AD	165	GLU	2.0
6	BF	13	ASP	2.0
3	BC	101	ASN	2.0
49	CY	62	GLY	2.0
52	D1	10	LEU	2.0
25	CA	2128	G	2.0
7	BG	58	LEU	2.0
22	AV	56	C	2.0
33	DI	122	GLU	2.0
2	AB	73	ARG	2.0
25	DA	277	G	2.0
25	DA	846	U	2.0

6.2 Non-standard residues in protein, DNA, RNA chains (i)

There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates (i)

There are no carbohydrates in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
58	MG	DA	3131	1/1	0.90	0.58	37.92	55,55,55,55	0
58	MG	CA	3132	1/1	0.93	0.40	20.75	24,24,24,24	0
58	MG	DA	3139	1/1	0.96	0.28	13.50	0,0,0,0	0
58	MG	CA	3147	1/1	0.98	0.26	12.45	0,0,0,0	0
58	MG	CA	3159	1/1	0.98	0.26	10.09	0,0,0,0	0
58	MG	CA	3186	1/1	0.98	0.27	8.84	0,0,0,0	0
58	MG	AA	1604	1/1	0.91	0.18	8.53	22,22,22,22	0
58	MG	DA	3154	1/1	0.96	0.17	8.45	0,0,0,0	0
58	MG	DA	3157	1/1	0.97	0.22	6.86	0,0,0,0	0
58	MG	CA	3121	1/1	0.95	0.19	4.89	0,0,0,0	0
58	MG	CA	3175	1/1	0.95	0.17	4.51	0,0,0,0	0
58	MG	CA	3153	1/1	0.95	0.29	4.32	0,0,0,0	0
58	MG	CA	3066	1/1	0.98	0.22	4.32	0,0,0,0	0
58	MG	CA	3155	1/1	0.96	0.37	4.23	0,0,0,0	0
58	MG	CA	3188	1/1	0.96	0.15	4.06	2,2,2,2	0
58	MG	CA	3165	1/1	0.96	0.19	3.90	0,0,0,0	0
58	MG	CA	3163	1/1	0.97	0.20	3.49	0,0,0,0	0
58	MG	DA	3152	1/1	0.92	0.17	3.47	6,6,6,6	0
58	MG	DA	3142	1/1	0.98	0.16	2.97	0,0,0,0	0
58	MG	AA	1622	1/1	0.96	0.17	2.47	0,0,0,0	0
58	MG	DA	3116	1/1	0.85	0.14	2.18	13,13,13,13	0
58	MG	DA	3108	1/1	0.99	0.17	2.09	0,0,0,0	0
58	MG	CA	3161	1/1	0.98	0.19	1.90	0,0,0,0	0
58	MG	BA	1640	1/1	0.98	0.14	1.47	0,0,0,0	0
58	MG	CA	3110	1/1	0.97	0.17	1.17	0,0,0,0	0
58	MG	CA	3064	1/1	0.98	0.18	0.72	0,0,0,0	0
58	MG	CA	3025	1/1	0.93	0.17	0.64	0,0,0,0	0
58	MG	CA	3152	1/1	0.98	0.18	0.57	0,0,0,0	0
58	MG	CA	3012	1/1	0.98	0.18	0.52	0,0,0,0	0
58	MG	AA	1656	1/1	0.96	0.13	0.52	14,14,14,14	0
58	MG	DA	3063	1/1	0.92	0.15	0.52	0,0,0,0	0
58	MG	CA	3106	1/1	0.84	0.18	0.42	0,0,0,0	0
58	MG	CA	3084	1/1	0.78	0.11	0.39	22,22,22,22	0
58	MG	BA	1646	1/1	0.95	0.14	0.15	10,10,10,10	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
58	MG	CA	3050	1/1	1.00	0.16	0.13	0,0,0,0	0
58	MG	DA	3040	1/1	0.96	0.14	0.10	5,5,5,5	0
58	MG	CA	3130	1/1	0.98	0.18	0.09	0,0,0,0	0
58	MG	DA	3145	1/1	0.95	0.11	-0.02	0,0,0,0	0
58	MG	DA	3057	1/1	0.89	0.14	-0.06	14,14,14,14	0
58	MG	DA	3151	1/1	0.99	0.15	-0.08	11,11,11,11	0
58	MG	DA	3013	1/1	0.96	0.14	-0.12	0,0,0,0	0
58	MG	DA	3109	1/1	0.94	0.13	-0.21	2,2,2,2	0
58	MG	CA	3131	1/1	0.98	0.15	-0.23	0,0,0,0	0
58	MG	CA	3017	1/1	0.98	0.16	-0.44	0,0,0,0	0
58	MG	CA	3105	1/1	0.84	0.16	-0.58	0,0,0,0	0
58	MG	CA	3145	1/1	0.97	0.13	-0.73	0,0,0,0	0
58	MG	DA	3017	1/1	0.98	0.13	-0.78	0,0,0,0	0
58	MG	AA	1636	1/1	0.92	0.08	-0.79	0,0,0,0	0
58	MG	DA	3136	1/1	0.85	0.11	-0.81	28,28,28,28	0
58	MG	CA	3041	1/1	0.95	0.16	-0.89	0,0,0,0	0
58	MG	CA	3109	1/1	0.95	0.15	-0.92	0,0,0,0	0
58	MG	AA	1607	1/1	0.94	0.08	-0.95	10,10,10,10	0
58	MG	DA	3101	1/1	0.87	0.12	-1.01	0,0,0,0	0
58	MG	BA	1631	1/1	0.78	0.13	-1.03	35,35,35,35	0
58	MG	DA	3120	1/1	0.94	0.11	-1.08	8,8,8,8	0
58	MG	CA	3013	1/1	0.97	0.15	-1.16	0,0,0,0	0
58	MG	DA	3005	1/1	0.87	0.10	-1.16	25,25,25,25	0
58	MG	BA	1616	1/1	0.95	0.11	-1.19	0,0,0,0	0
58	MG	BA	1614	1/1	0.90	0.07	-1.27	19,19,19,19	0
58	MG	AA	1616	1/1	0.94	0.09	-1.28	11,11,11,11	0
58	MG	AA	1632	1/1	0.92	0.07	-1.29	15,15,15,15	0
58	MG	DA	3153	1/1	0.99	0.10	-1.33	11,11,11,11	0
58	MG	DA	3077	1/1	0.94	0.05	-1.35	12,12,12,12	0
58	MG	CA	3074	1/1	0.97	0.15	-1.38	0,0,0,0	0
58	MG	CA	3054	1/1	0.98	0.14	-1.48	0,0,0,0	0
58	MG	DA	3008	1/1	0.98	0.10	-1.53	0,0,0,0	0
58	MG	CA	3117	1/1	0.89	0.14	-1.60	5,5,5,5	0
58	MG	DA	3038	1/1	0.93	0.12	-1.61	0,0,0,0	0
58	MG	DA	3097	1/1	0.97	0.08	-1.67	13,13,13,13	0
58	MG	DA	3036	1/1	0.90	0.08	-1.73	21,21,21,21	0
58	MG	CA	3113	1/1	0.97	0.12	-1.86	0,0,0,0	0
59	ZN	C4	101	1/1	0.99	0.07	-1.89	0,0,0,0	0
58	MG	AA	1617	1/1	0.88	0.05	-1.92	21,21,21,21	0
58	MG	DA	3078	1/1	0.82	0.09	-1.96	15,15,15,15	0
59	ZN	D4	101	1/1	0.99	0.06	-1.96	41,41,41,41	0
58	MG	BA	1603	1/1	0.93	0.09	-1.96	13,13,13,13	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
58	MG	CA	3033	1/1	0.98	0.14	-2.17	0,0,0,0	0
58	MG	CA	3137	1/1	0.96	0.09	-2.28	4,4,4,4	0
58	MG	BA	1601	1/1	0.98	0.08	-2.30	2,2,2,2	0
58	MG	CA	3023	1/1	0.97	0.13	-2.34	0,0,0,0	0
58	MG	CA	3098	1/1	0.95	0.14	-2.35	0,0,0,0	0
58	MG	DA	3073	1/1	0.97	0.11	-2.44	6,6,6,6	0
58	MG	DA	3012	1/1	0.96	0.11	-2.53	0,0,0,0	0
58	MG	DA	3018	1/1	0.96	0.07	-2.53	6,6,6,6	0
58	MG	DA	3105	1/1	0.96	0.11	-2.56	0,0,0,0	0
58	MG	DA	3107	1/1	0.98	0.09	-2.56	9,9,9,9	0
58	MG	CA	3102	1/1	0.92	0.15	-2.59	0,0,0,0	0
58	MG	CA	3133	1/1	0.99	0.05	-2.60	0,0,0,0	0
58	MG	DA	3071	1/1	0.92	0.08	-2.62	0,0,0,0	0
58	MG	DA	3070	1/1	0.92	0.08	-2.66	0,0,0,0	0
58	MG	DA	3112	1/1	0.94	0.09	-2.67	5,5,5,5	0
58	MG	DA	3027	1/1	0.95	0.10	-2.68	14,14,14,14	0
58	MG	DA	3132	1/1	0.96	0.05	-2.74	6,6,6,6	0
58	MG	CA	3069	1/1	0.98	0.14	-2.82	0,0,0,0	0
58	MG	CA	3097	1/1	0.98	0.12	-2.89	0,0,0,0	0
58	MG	DA	3028	1/1	0.95	0.11	-2.91	0,0,0,0	0
58	MG	BA	1630	1/1	0.81	0.07	-2.92	41,41,41,41	0
58	MG	CA	3051	1/1	0.95	0.09	-3.07	3,3,3,3	0
58	MG	CA	3024	1/1	0.93	0.11	-3.15	0,0,0,0	0
58	MG	DA	3134	1/1	0.99	0.07	-3.22	0,0,0,0	0
58	MG	CA	3059	1/1	0.95	0.07	-3.30	4,4,4,4	0
58	MG	CA	3022	1/1	0.99	0.14	-3.37	0,0,0,0	0
58	MG	CA	3108	1/1	0.97	0.10	-3.50	0,0,0,0	0
58	MG	CA	3029	1/1	0.98	0.13	-3.51	0,0,0,0	0
58	MG	DA	3021	1/1	0.95	0.08	-3.55	3,3,3,3	0
58	MG	AA	1629	1/1	0.99	0.07	-3.65	0,0,0,0	0
58	MG	DA	3114	1/1	0.94	0.08	-3.66	14,14,14,14	0
58	MG	CA	3063	1/1	0.95	0.12	-3.80	0,0,0,0	0
58	MG	DA	3024	1/1	0.98	0.07	-3.82	0,0,0,0	0
58	MG	DA	3129	1/1	0.99	0.08	-3.89	0,0,0,0	0
58	MG	BA	1619	1/1	0.98	0.08	-3.98	0,0,0,0	0
58	MG	DA	3053	1/1	0.99	0.06	-3.98	0,0,0,0	0
58	MG	AA	1630	1/1	0.92	0.09	-4.05	16,16,16,16	0
58	MG	CA	3028	1/1	0.92	0.14	-4.11	21,21,21,21	0
58	MG	AA	1618	1/1	0.96	0.07	-4.12	21,21,21,21	0
58	MG	DA	3079	1/1	0.92	0.08	-4.24	27,27,27,27	0
58	MG	DA	3023	1/1	0.97	0.06	-4.26	0,0,0,0	0
58	MG	AA	1642	1/1	0.98	0.06	-4.36	1,1,1,1	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
58	MG	DA	3068	1/1	0.97	0.06	-4.36	6,6,6,6	0
58	MG	DA	3104	1/1	0.97	0.09	-4.39	0,0,0,0	0
58	MG	CA	3008	1/1	0.97	0.09	-4.40	0,0,0,0	0
58	MG	CA	3056	1/1	0.94	0.08	-4.42	10,10,10,10	0
58	MG	CA	3125	1/1	0.96	0.09	-4.55	0,0,0,0	0
58	MG	DA	3124	1/1	0.94	0.05	-4.59	0,0,0,0	0
58	MG	DA	3046	1/1	0.96	0.07	-4.60	1,1,1,1	0
58	MG	CA	3170	1/1	0.97	0.07	-4.65	0,0,0,0	0
58	MG	BA	1635	1/1	0.92	0.08	-4.78	21,21,21,21	0
58	MG	AA	1613	1/1	0.92	0.06	-4.95	2,2,2,2	0
58	MG	DA	3096	1/1	0.95	0.06	-5.02	13,13,13,13	0
58	MG	AA	1641	1/1	0.93	0.09	-5.04	0,0,0,0	0
58	MG	CB	201	1/1	0.94	0.05	-5.10	0,0,0,0	0
58	MG	BA	1617	1/1	0.94	0.06	-5.28	13,13,13,13	0
58	MG	DA	3110	1/1	0.94	0.05	-5.33	18,18,18,18	0
58	MG	BA	1607	1/1	0.97	0.06	-5.37	1,1,1,1	0
58	MG	CA	3135	1/1	0.94	0.12	-5.43	0,0,0,0	0
58	MG	CA	3080	1/1	0.93	0.06	-5.51	1,1,1,1	0
58	MG	CA	3043	1/1	0.98	0.07	-5.54	0,0,0,0	0
58	MG	DA	3058	1/1	0.98	0.07	-5.64	6,6,6,6	0
58	MG	CA	3071	1/1	0.96	0.07	-5.65	0,0,0,0	0
58	MG	BA	1632	1/1	0.94	0.04	-5.81	18,18,18,18	0
58	MG	BA	1634	1/1	0.93	0.05	-6.08	10,10,10,10	0
58	MG	DA	3050	1/1	0.89	0.06	-6.39	0,0,0,0	0
58	MG	CA	3072	1/1	0.98	0.07	-6.43	0,0,0,0	0
58	MG	AA	1625	1/1	0.94	0.07	-6.68	6,6,6,6	0
58	MG	BA	1626	1/1	0.94	0.06	-6.83	14,14,14,14	0
58	MG	DA	3065	1/1	0.93	0.08	-6.93	0,0,0,0	0
58	MG	BA	1612	1/1	0.94	0.05	-7.13	18,18,18,18	0
58	MG	DA	3002	1/1	0.97	0.05	-7.26	1,1,1,1	0
58	MG	BA	1610	1/1	0.97	0.03	-7.43	0,0,0,0	0
58	MG	AA	1609	1/1	0.98	0.05	-7.63	0,0,0,0	0
58	MG	DA	3049	1/1	0.98	0.05	-8.10	0,0,0,0	0
58	MG	BA	1621	1/1	0.98	0.05	-8.76	12,12,12,12	0
58	MG	CA	3111	1/1	0.96	0.04	-9.72	6,6,6,6	0
58	MG	CA	3035	1/1	0.94	0.07	-10.28	1,1,1,1	0
58	MG	CA	3009	1/1	0.95	0.11	-10.36	0,0,0,0	0
58	MG	CA	3002	1/1	0.93	0.07	-10.61	0,0,0,0	0
58	MG	CA	3119	1/1	0.99	0.02	-12.88	8,8,8,8	0
58	MG	DA	3022	1/1	0.98	0.07	-13.69	0,0,0,0	0
58	MG	CA	3037	1/1	0.97	0.06	-15.61	11,11,11,11	0
58	MG	CA	3127	1/1	0.95	0.12	-	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
58	MG	CA	3103	1/1	0.97	0.09	-	0,0,0,0	0
58	MG	CA	3168	1/1	0.95	0.20	-	0,0,0,0	0
58	MG	CB	202	1/1	0.96	0.10	-	0,0,0,0	0
58	MG	CA	3173	1/1	0.95	0.25	-	0,0,0,0	0
58	MG	CA	3091	1/1	0.92	0.08	-	3,3,3,3	0
58	MG	BA	1637	1/1	0.95	0.16	-	19,19,19,19	0
58	MG	DA	3166	1/1	0.96	0.20	-	9,9,9,9	0
58	MG	AA	1605	1/1	0.99	0.07	-	0,0,0,0	0
58	MG	CA	3055	1/1	0.98	0.10	-	6,6,6,6	0
58	MG	DA	3130	1/1	0.99	0.11	-	0,0,0,0	0
58	MG	CA	3093	1/1	0.96	0.12	-	11,11,11,11	0
58	MG	AA	1650	1/1	0.97	0.11	-	0,0,0,0	0
58	MG	CA	3156	1/1	0.98	0.29	-	0,0,0,0	0
58	MG	DA	3035	1/1	0.98	0.10	-	0,0,0,0	0
58	MG	CA	3136	1/1	0.96	0.09	-	0,0,0,0	0
58	MG	CA	3085	1/1	0.95	0.21	-	12,12,12,12	0
58	MG	DA	3081	1/1	0.97	0.06	-	0,0,0,0	0
58	MG	CA	3038	1/1	0.99	0.20	-	0,0,0,0	0
58	MG	CA	3058	1/1	0.95	0.10	-	10,10,10,10	0
58	MG	DA	3121	1/1	0.96	0.07	-	7,7,7,7	0
58	MG	AA	1637	1/1	0.91	0.09	-	1,1,1,1	0
58	MG	BA	1609	1/1	0.90	0.09	-	26,26,26,26	0
58	MG	CA	3011	1/1	0.97	0.20	-	0,0,0,0	0
58	MG	DA	3062	1/1	0.93	0.09	-	0,0,0,0	0
58	MG	CA	3149	1/1	0.98	0.32	-	0,0,0,0	0
58	MG	BA	1639	1/1	0.95	0.06	-	0,0,0,0	0
58	MG	DA	3085	1/1	0.94	0.20	-	0,0,0,0	0
58	MG	CA	3118	1/1	0.98	0.07	-	0,0,0,0	0
58	MG	CA	3048	1/1	0.91	0.09	-	13,13,13,13	0
58	MG	CA	3193	1/1	0.96	0.25	-	0,0,0,0	0
58	MG	DA	3025	1/1	0.88	0.20	-	16,16,16,16	0
58	MG	BA	1618	1/1	0.87	0.19	-	4,4,4,4	0
58	MG	BA	1656	1/1	0.96	0.19	-	9,9,9,9	0
58	MG	DA	3044	1/1	0.94	0.05	-	11,11,11,11	0
58	MG	AA	1639	1/1	0.86	0.10	-	22,22,22,22	0
58	MG	BA	1602	1/1	0.82	0.08	-	21,21,21,21	0
58	MG	DA	3161	1/1	0.93	0.09	-	15,15,15,15	0
58	MG	DA	3014	1/1	0.93	0.11	-	12,12,12,12	0
58	MG	CA	3166	1/1	0.96	0.14	-	0,0,0,0	0
58	MG	BA	1627	1/1	0.89	0.12	-	35,35,35,35	0
58	MG	CA	3010	1/1	0.98	0.11	-	0,0,0,0	0
58	MG	AA	1640	1/1	0.74	0.19	-	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
58	MG	DA	3033	1/1	0.94	0.12	-	0,0,0,0	0
58	MG	DA	3056	1/1	0.97	0.05	-	5,5,5,5	0
58	MG	CA	3099	1/1	0.88	0.85	-	53,53,53,53	0
58	MG	CA	3021	1/1	0.96	0.10	-	0,0,0,0	0
58	MG	AA	1620	1/1	0.83	0.07	-	10,10,10,10	0
58	MG	DA	3140	1/1	0.97	0.28	-	0,0,0,0	0
58	MG	AA	1664	1/1	0.98	0.11	-	4,4,4,4	0
58	MG	CA	3178	1/1	0.94	0.13	-	0,0,0,0	0
58	MG	AA	1654	1/1	0.93	0.16	-	5,5,5,5	0
58	MG	AA	1612	1/1	0.96	0.05	-	0,0,0,0	0
58	MG	DA	3020	1/1	0.98	0.06	-	0,0,0,0	0
58	MG	CA	3046	1/1	0.95	0.06	-	0,0,0,0	0
58	MG	DA	3080	1/1	0.85	0.09	-	1,1,1,1	0
58	MG	CA	3177	1/1	0.96	0.13	-	0,0,0,0	0
58	MG	AA	1665	1/1	0.95	0.08	-	0,0,0,0	0
58	MG	CA	3128	1/1	0.98	0.14	-	0,0,0,0	0
58	MG	CA	3143	1/1	0.99	0.28	-	0,0,0,0	0
58	MG	BA	1648	1/1	0.96	0.17	-	0,0,0,0	0
58	MG	DA	3143	1/1	0.98	0.21	-	0,0,0,0	0
58	MG	DA	3119	1/1	0.94	0.15	-	44,44,44,44	0
58	MG	DA	3162	1/1	0.94	0.20	-	4,4,4,4	0
58	MG	DA	3037	1/1	0.95	0.18	-	0,0,0,0	0
58	MG	DA	3098	1/1	0.65	0.54	-	49,49,49,49	0
58	MG	BA	1628	1/1	0.99	0.08	-	25,25,25,25	0
58	MG	AA	1651	1/1	0.97	0.24	-	0,0,0,0	0
58	MG	AA	1649	1/1	0.96	0.23	-	0,0,0,0	0
58	MG	BA	1622	1/1	0.94	0.05	-	4,4,4,4	0
58	MG	DA	3059	1/1	0.94	0.11	-	6,6,6,6	0
58	MG	AA	1671	1/1	0.94	0.17	-	6,6,6,6	0
58	MG	AA	1610	1/1	0.97	0.07	-	32,32,32,32	0
58	MG	DA	3011	1/1	0.98	0.08	-	0,0,0,0	0
58	MG	AA	1655	1/1	0.92	0.15	-	0,0,0,0	0
58	MG	AA	1626	1/1	0.85	0.10	-	0,0,0,0	0
58	MG	CA	3073	1/1	0.98	0.12	-	0,0,0,0	0
58	MG	DA	3003	1/1	0.94	0.07	-	8,8,8,8	0
58	MG	DA	3084	1/1	0.87	0.12	-	32,32,32,32	0
58	MG	AA	1669	1/1	0.90	0.14	-	10,10,10,10	0
58	MG	CA	3164	1/1	0.92	0.24	-	0,0,0,0	0
58	MG	DA	3087	1/1	0.90	0.05	-	20,20,20,20	0
58	MG	CA	3092	1/1	0.90	0.09	-	16,16,16,16	0
58	MG	DA	3115	1/1	0.60	0.18	-	27,27,27,27	0
58	MG	DA	3102	1/1	0.90	0.09	-	12,12,12,12	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
58	MG	CA	3057	1/1	0.98	0.04	-	0,0,0,0	0
58	MG	CA	3189	1/1	0.98	0.14	-	0,0,0,0	0
58	MG	CA	3154	1/1	0.94	0.29	-	0,0,0,0	0
58	MG	CA	3122	1/1	1.00	0.11	-	0,0,0,0	0
58	MG	CA	3031	1/1	0.97	0.22	-	0,0,0,0	0
58	MG	DA	3118	1/1	0.95	0.10	-	7,7,7,7	0
58	MG	CA	3150	1/1	0.96	0.10	-	0,0,0,0	0
58	MG	DA	3095	1/1	0.92	0.11	-	10,10,10,10	0
58	MG	DA	3010	1/1	0.94	0.09	-	7,7,7,7	0
58	MG	DA	3026	1/1	0.94	0.09	-	0,0,0,0	0
58	MG	CA	3006	1/1	0.94	0.07	-	1,1,1,1	0
58	MG	DL	201	1/1	0.93	0.05	-	10,10,10,10	0
58	MG	CA	3174	1/1	0.98	0.31	-	0,0,0,0	0
58	MG	CA	3115	1/1	0.97	0.06	-	0,0,0,0	0
58	MG	DA	3006	1/1	0.91	0.05	-	10,10,10,10	0
58	MG	BA	1652	1/1	0.95	0.10	-	1,1,1,1	0
58	MG	DB	201	1/1	0.95	0.05	-	24,24,24,24	0
58	MG	CA	3034	1/1	0.95	0.20	-	0,0,0,0	0
58	MG	AA	1624	1/1	0.96	0.06	-	10,10,10,10	0
58	MG	CA	3001	1/1	0.95	0.10	-	0,0,0,0	0
58	MG	DA	3094	1/1	0.96	0.08	-	43,43,43,43	0
58	MG	DA	3034	1/1	0.94	0.06	-	11,11,11,11	0
58	MG	AA	1638	1/1	0.98	0.06	-	12,12,12,12	0
58	MG	DA	3041	1/1	0.98	0.04	-	6,6,6,6	0
58	MG	AA	1661	1/1	0.97	0.15	-	15,15,15,15	0
58	MG	BA	1620	1/1	0.96	0.07	-	19,19,19,19	0
58	MG	AA	1615	1/1	0.97	0.08	-	9,9,9,9	0
58	MG	DA	3004	1/1	0.93	0.10	-	30,30,30,30	0
58	MG	AA	1643	1/1	0.96	0.27	-	0,0,0,0	0
58	MG	BA	1613	1/1	0.95	0.13	-	0,0,0,0	0
58	MG	CA	3160	1/1	0.94	0.32	-	0,0,0,0	0
58	MG	DA	3117	1/1	0.95	0.05	-	5,5,5,5	0
58	MG	BA	1615	1/1	0.94	0.18	-	9,9,9,9	0
58	MG	DA	3127	1/1	0.98	0.05	-	0,0,0,0	0
58	MG	CA	3049	1/1	0.97	0.07	-	0,0,0,0	0
58	MG	DA	3147	1/1	0.97	0.18	-	0,0,0,0	0
58	MG	CA	3162	1/1	0.98	0.28	-	0,0,0,0	0
58	MG	DA	3111	1/1	0.95	0.08	-	1,1,1,1	0
58	MG	CA	3191	1/1	0.94	0.20	-	0,0,0,0	0
58	MG	AA	1648	1/1	0.96	0.12	-	4,4,4,4	0
58	MG	DA	3076	1/1	0.95	0.09	-	5,5,5,5	0
58	MG	DA	3007	1/1	0.99	0.19	-	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
58	MG	CA	3040	1/1	0.94	0.16	-	0,0,0,0	0
58	MG	CA	3015	1/1	0.79	0.25	-	36,36,36,36	0
58	MG	BA	1624	1/1	0.89	0.07	-	1,1,1,1	0
58	MG	AA	1621	1/1	0.97	0.03	-	10,10,10,10	0
58	MG	CA	3060	1/1	0.97	0.04	-	4,4,4,4	0
58	MG	CA	3134	1/1	0.89	0.32	-	14,14,14,14	0
58	MG	DA	3159	1/1	0.98	0.26	-	3,3,3,3	0
58	MG	CA	3018	1/1	0.99	0.18	-	0,0,0,0	0
58	MG	AA	1659	1/1	0.92	0.08	-	12,12,12,12	0
58	MG	AA	1603	1/1	0.85	0.08	-	28,28,28,28	0
58	MG	CA	3053	1/1	0.97	0.08	-	0,0,0,0	0
58	MG	CA	3100	1/1	0.93	0.10	-	0,0,0,0	0
58	MG	CA	3141	1/1	0.98	0.27	-	0,0,0,0	0
58	MG	AA	1601	1/1	0.82	0.10	-	44,44,44,44	0
58	MG	DA	3165	1/1	0.87	0.23	-	0,0,0,0	0
58	MG	DA	3030	1/1	0.92	0.12	-	0,0,0,0	0
58	MG	CA	3078	1/1	0.98	0.07	-	0,0,0,0	0
58	MG	AA	1657	1/1	0.96	0.17	-	2,2,2,2	0
58	MG	CA	3081	1/1	0.95	0.07	-	0,0,0,0	0
58	MG	CA	3171	1/1	0.95	0.14	-	0,0,0,0	0
58	MG	CA	3185	1/1	0.93	0.28	-	0,0,0,0	0
58	MG	BA	1608	1/1	0.92	0.15	-	18,18,18,18	0
58	MG	DA	3061	1/1	0.81	0.19	-	24,24,24,24	0
58	MG	CA	3179	1/1	0.96	0.14	-	0,0,0,0	0
58	MG	AA	1614	1/1	0.96	0.05	-	12,12,12,12	0
58	MG	AA	1634	1/1	0.90	0.05	-	2,2,2,2	0
58	MG	CA	3086	1/1	0.96	0.16	-	0,0,0,0	0
58	MG	CA	3142	1/1	0.99	0.41	-	0,0,0,0	0
58	MG	CA	3065	1/1	0.97	0.09	-	0,0,0,0	0
58	MG	CA	3007	1/1	0.96	0.04	-	0,0,0,0	0
58	MG	DA	3060	1/1	0.95	0.13	-	5,5,5,5	0
58	MG	DA	3067	1/1	0.97	0.07	-	0,0,0,0	0
58	MG	CA	3088	1/1	0.98	0.10	-	0,0,0,0	0
58	MG	DA	3031	1/1	0.97	0.11	-	0,0,0,0	0
58	MG	DA	3158	1/1	0.99	0.14	-	0,0,0,0	0
58	MG	CA	3083	1/1	0.98	0.04	-	10,10,10,10	0
58	MG	CA	3032	1/1	0.95	0.07	-	0,0,0,0	0
58	MG	BA	1642	1/1	0.96	0.23	-	6,6,6,6	0
58	MG	CA	3079	1/1	0.97	0.05	-	3,3,3,3	0
58	MG	CA	3181	1/1	0.96	0.15	-	0,0,0,0	0
58	MG	DA	3069	1/1	0.97	0.09	-	41,41,41,41	0
58	MG	CA	3144	1/1	0.98	0.33	-	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
58	MG	DA	3055	1/1	0.71	0.13	-	28,28,28,28	0
58	MG	CA	3075	1/1	0.96	0.07	-	0,0,0,0	0
58	MG	DA	3082	1/1	0.95	0.05	-	7,7,7,7	0
58	MG	CA	3169	1/1	0.95	0.22	-	7,7,7,7	0
58	MG	AA	1619	1/1	0.94	0.16	-	32,32,32,32	0
58	MG	BA	1623	1/1	0.97	0.08	-	3,3,3,3	0
58	MG	DA	3045	1/1	0.95	0.09	-	0,0,0,0	0
58	MG	AA	1658	1/1	0.87	0.19	-	16,16,16,16	0
58	MG	CA	3045	1/1	0.95	0.10	-	0,0,0,0	0
58	MG	DA	3113	1/1	0.95	0.12	-	0,0,0,0	0
58	MG	CA	3094	1/1	0.96	0.05	-	3,3,3,3	0
58	MG	CA	3112	1/1	0.93	0.10	-	4,4,4,4	0
58	MG	DA	3048	1/1	0.98	0.06	-	0,0,0,0	0
58	MG	CA	3047	1/1	0.98	0.09	-	0,0,0,0	0
58	MG	AA	1660	1/1	0.91	0.12	-	15,15,15,15	0
58	MG	AA	1635	1/1	0.91	0.09	-	18,18,18,18	0
58	MG	DA	3123	1/1	0.98	0.05	-	6,6,6,6	0
58	MG	CA	3076	1/1	0.93	0.15	-	0,0,0,0	0
58	MG	AA	1667	1/1	0.92	0.26	-	13,13,13,13	0
58	MG	CA	3014	1/1	0.88	0.14	-	12,12,12,12	0
58	MG	DB	203	1/1	0.88	0.06	-	16,16,16,16	0
58	MG	AA	1645	1/1	0.88	0.24	-	8,8,8,8	0
58	MG	AA	1662	1/1	0.87	0.10	-	8,8,8,8	0
58	MG	CA	3052	1/1	0.97	0.12	-	0,0,0,0	0
58	MG	CB	204	1/1	0.98	0.39	-	0,0,0,0	0
58	MG	CA	3158	1/1	0.97	0.34	-	0,0,0,0	0
58	MG	DA	3149	1/1	0.95	0.18	-	0,0,0,0	0
58	MG	DA	3009	1/1	0.94	0.09	-	4,4,4,4	0
58	MG	CB	203	1/1	0.98	0.04	-	5,5,5,5	0
58	MG	DA	3083	1/1	0.65	0.22	-	31,31,31,31	0
58	MG	BA	1641	1/1	0.88	0.09	-	20,20,20,20	0
58	MG	DA	3099	1/1	0.95	0.07	-	0,0,0,0	0
58	MG	DA	3100	1/1	0.96	0.06	-	4,4,4,4	0
58	MG	DA	3043	1/1	0.97	0.05	-	6,6,6,6	0
58	MG	DA	3039	1/1	0.98	0.09	-	3,3,3,3	0
58	MG	DA	3148	1/1	0.99	0.27	-	0,0,0,0	0
58	MG	DA	3128	1/1	0.96	0.11	-	0,0,0,0	0
58	MG	CA	3044	1/1	0.95	0.06	-	0,0,0,0	0
58	MG	DA	3137	1/1	0.97	0.46	-	0,0,0,0	0
58	MG	DA	3163	1/1	0.98	0.09	-	0,0,0,0	0
58	MG	DA	3090	1/1	0.86	0.08	-	15,15,15,15	0
58	MG	DA	3015	1/1	0.88	0.18	-	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
58	MG	CA	3116	1/1	0.93	0.22	-	10,10,10,10	0
58	MG	CA	3039	1/1	0.98	0.11	-	0,0,0,0	0
58	MG	CA	3104	1/1	0.97	0.06	-	0,0,0,0	0
58	MG	DA	3093	1/1	0.96	0.08	-	2,2,2,2	0
58	MG	DA	3106	1/1	0.98	0.17	-	0,0,0,0	0
58	MG	CA	3082	1/1	0.86	0.12	-	0,0,0,0	0
58	MG	DA	3088	1/1	0.74	0.10	-	12,12,12,12	0
58	MG	DA	3160	1/1	0.91	0.12	-	0,0,0,0	0
58	MG	CA	3124	1/1	0.96	0.09	-	0,0,0,0	0
58	MG	BA	1654	1/1	0.96	0.09	-	22,22,22,22	0
58	MG	CA	3187	1/1	0.93	0.16	-	0,0,0,0	0
58	MG	AA	1623	1/1	0.87	0.07	-	24,24,24,24	0
58	MG	CA	3062	1/1	0.80	0.46	-	46,46,46,46	0
58	MG	CA	3114	1/1	0.91	0.10	-	0,0,0,0	0
58	MG	DA	3089	1/1	0.98	0.08	-	24,24,24,24	0
58	MG	CA	3020	1/1	0.98	0.12	-	0,0,0,0	0
58	MG	DA	3126	1/1	0.94	0.13	-	0,0,0,0	0
58	MG	CA	3070	1/1	0.96	0.12	-	25,25,25,25	0
58	MG	DA	3042	1/1	0.96	0.06	-	5,5,5,5	0
58	MG	DA	3074	1/1	0.99	0.13	-	0,0,0,0	0
58	MG	BA	1611	1/1	0.92	0.11	-	13,13,13,13	0
58	MG	CA	3068	1/1	0.99	0.12	-	0,0,0,0	0
58	MG	BA	1605	1/1	0.92	0.06	-	21,21,21,21	0
58	MG	CA	3026	1/1	0.91	0.33	-	30,30,30,30	0
58	MG	DA	3064	1/1	0.87	0.10	-	0,0,0,0	0
58	MG	DA	3052	1/1	0.98	0.05	-	0,0,0,0	0
58	MG	DA	3092	1/1	0.92	0.25	-	34,34,34,34	0
58	MG	CA	3042	1/1	0.97	0.10	-	0,0,0,0	0
58	MG	DA	3016	1/1	0.93	0.08	-	1,1,1,1	0
58	MG	DA	3103	1/1	0.90	0.08	-	0,0,0,0	0
58	MG	AA	1608	1/1	0.95	0.20	-	0,0,0,0	0
58	MG	DA	3164	1/1	0.97	0.15	-	0,0,0,0	0
58	MG	BA	1644	1/1	0.97	0.09	-	0,0,0,0	0
58	MG	BA	1604	1/1	0.97	0.07	-	13,13,13,13	0
58	MG	BA	1651	1/1	0.97	0.14	-	7,7,7,7	0
58	MG	BA	1633	1/1	0.94	0.12	-	11,11,11,11	0
58	MG	AA	1663	1/1	0.95	0.10	-	6,6,6,6	0
58	MG	CA	3077	1/1	0.98	0.07	-	0,0,0,0	0
58	MG	CA	3190	1/1	0.99	0.23	-	0,0,0,0	0
58	MG	DA	3146	1/1	0.97	0.18	-	0,0,0,0	0
58	MG	CA	3067	1/1	0.96	0.13	-	0,0,0,0	0
58	MG	DA	3032	1/1	0.98	0.08	-	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
58	MG	CA	3148	1/1	0.98	0.47	-	0,0,0,0	0
58	MG	CA	3183	1/1	0.97	0.18	-	0,0,0,0	0
58	MG	AA	1606	1/1	0.91	0.06	-	6,6,6,6	0
58	MG	CA	3182	1/1	0.99	0.30	-	0,0,0,0	0
58	MG	CA	3061	1/1	0.95	0.12	-	9,9,9,9	0
58	MG	DA	3001	1/1	0.96	0.05	-	0,0,0,0	0
58	MG	DA	3135	1/1	0.94	0.08	-	11,11,11,11	0
58	MG	DA	3072	1/1	0.97	0.09	-	0,0,0,0	0
58	MG	CA	3139	1/1	0.99	0.42	-	0,0,0,0	0
58	MG	BA	1643	1/1	0.96	0.14	-	3,3,3,3	0
58	MG	DA	3150	1/1	0.96	0.15	-	0,0,0,0	0
58	MG	CA	3151	1/1	0.99	0.32	-	0,0,0,0	0
58	MG	AA	1646	1/1	0.96	0.17	-	0,0,0,0	0
58	MG	CA	3027	1/1	0.95	0.14	-	0,0,0,0	0
58	MG	CA	3172	1/1	0.96	0.17	-	0,0,0,0	0
58	MG	AA	1672	1/1	0.96	0.21	-	3,3,3,3	0
58	MG	CA	3176	1/1	0.97	0.14	-	10,10,10,10	0
58	MG	AA	1647	1/1	0.96	0.23	-	1,1,1,1	0
58	MG	AA	1628	1/1	0.98	0.04	-	1,1,1,1	0
58	MG	DA	3091	1/1	0.71	0.26	-	50,50,50,50	0
58	MG	BA	1647	1/1	0.98	0.06	-	0,0,0,0	0
58	MG	DA	3125	1/1	0.98	0.07	-	0,0,0,0	0
58	MG	AA	1631	1/1	0.82	0.17	-	35,35,35,35	0
58	MG	CA	3129	1/1	0.93	0.12	-	0,0,0,0	0
58	MG	AA	1644	1/1	0.84	0.19	-	5,5,5,5	0
58	MG	CA	3140	1/1	0.96	0.52	-	0,0,0,0	0
58	MG	DB	202	1/1	0.96	0.04	-	9,9,9,9	0
58	MG	CQ	201	1/1	0.97	0.31	-	0,0,0,0	0
58	MG	DQ	801	1/1	0.97	0.26	-	0,0,0,0	0
58	MG	CA	3003	1/1	0.96	0.06	-	0,0,0,0	0
58	MG	CA	3138	1/1	0.92	0.43	-	0,0,0,0	0
58	MG	CA	3095	1/1	0.98	0.16	-	17,17,17,17	0
58	MG	AA	1633	1/1	0.96	0.04	-	3,3,3,3	0
58	MG	DA	3047	1/1	0.91	0.05	-	28,28,28,28	0
58	MG	CA	3180	1/1	0.95	0.19	-	6,6,6,6	0
58	MG	CA	3030	1/1	0.94	0.11	-	0,0,0,0	0
58	MG	DA	3019	1/1	0.92	0.11	-	0,0,0,0	0
58	MG	CA	3107	1/1	0.98	0.17	-	0,0,0,0	0
58	MG	AA	1653	1/1	0.95	0.15	-	1,1,1,1	0
58	MG	BA	1625	1/1	0.93	0.06	-	0,0,0,0	0
58	MG	CA	3019	1/1	0.89	0.09	-	0,0,0,0	0
58	MG	DA	3156	1/1	0.94	0.23	-	3,3,3,3	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
58	MG	AA	1668	1/1	0.97	0.09	-	0,0,0,0	0
58	MG	DA	3029	1/1	0.99	0.05	-	0,0,0,0	0
58	MG	CA	3004	1/1	0.97	0.05	-	11,11,11,11	0
58	MG	BA	1649	1/1	0.92	0.15	-	11,11,11,11	0
58	MG	CA	3192	1/1	0.98	0.11	-	0,0,0,0	0
58	MG	AA	1627	1/1	0.94	0.14	-	19,19,19,19	0
58	MG	CA	3157	1/1	0.97	0.21	-	0,0,0,0	0
58	MG	BA	1650	1/1	0.98	0.21	-	5,5,5,5	0
58	MG	AA	1602	1/1	0.95	0.11	-	17,17,17,17	0
58	MG	CA	3090	1/1	0.96	0.08	-	1,1,1,1	0
58	MG	BA	1655	1/1	0.91	0.11	-	9,9,9,9	0
58	MG	CA	3123	1/1	0.98	0.20	-	0,0,0,0	0
58	MG	CA	3087	1/1	0.99	0.12	-	0,0,0,0	0
58	MG	DA	3133	1/1	0.91	0.17	-	16,16,16,16	0
58	MG	CA	3005	1/1	0.99	0.05	-	14,14,14,14	0
58	MG	CA	3167	1/1	0.97	0.30	-	0,0,0,0	0
58	MG	BA	1636	1/1	0.86	0.10	-	42,42,42,42	0
58	MG	DA	3144	1/1	0.97	0.07	-	0,0,0,0	0
58	MG	BA	1638	1/1	0.96	0.09	-	27,27,27,27	0
58	MG	AA	1670	1/1	0.92	0.27	-	11,11,11,11	0
58	MG	CA	3016	1/1	0.99	0.12	-	0,0,0,0	0
58	MG	BA	1653	1/1	0.91	0.09	-	7,7,7,7	0
58	MG	CA	3120	1/1	0.94	0.12	-	2,2,2,2	0
58	MG	CA	3126	1/1	0.95	0.13	-	0,0,0,0	0
58	MG	DA	3075	1/1	0.93	0.12	-	8,8,8,8	0
58	MG	CA	3101	1/1	0.95	0.11	-	0,0,0,0	0
58	MG	CA	3089	1/1	0.90	0.08	-	19,19,19,19	0
58	MG	CA	3184	1/1	0.97	0.22	-	0,0,0,0	0
58	MG	AA	1611	1/1	0.85	0.09	-	0,0,0,0	0
58	MG	AA	1652	1/1	0.98	0.12	-	13,13,13,13	0
58	MG	DA	3138	1/1	0.92	0.45	-	0,0,0,0	0
58	MG	BA	1629	1/1	0.92	0.06	-	17,17,17,17	0
58	MG	BA	1645	1/1	0.93	0.08	-	8,8,8,8	0
58	MG	DA	3054	1/1	0.98	0.09	-	0,0,0,0	0
58	MG	DA	3122	1/1	0.95	0.15	-	0,0,0,0	0
58	MG	DA	3051	1/1	0.97	0.07	-	0,0,0,0	0
58	MG	CA	3194	1/1	0.94	0.19	-	0,0,0,0	0
58	MG	DA	3086	1/1	0.98	0.15	-	0,0,0,0	0
58	MG	DA	3066	1/1	0.95	0.05	-	0,0,0,0	0
58	MG	CA	3036	1/1	0.98	0.16	-	0,0,0,0	0
58	MG	DA	3141	1/1	0.99	0.23	-	0,0,0,0	0
58	MG	DA	3155	1/1	0.98	0.18	-	1,1,1,1	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
58	MG	CA	3096	1/1	0.99	0.06	-	0,0,0,0	0
58	MG	AA	1666	1/1	0.90	0.16	-	13,13,13,13	0
58	MG	CA	3146	1/1	0.96	0.33	-	0,0,0,0	0
58	MG	BA	1606	1/1	0.97	0.12	-	24,24,24,24	0

6.5 Other polymers (i)

There are no such residues in this entry.