Full wwPDB X-ray Structure Validation Report (i)

Aug 6, 2026 – 01:17 AM EDT

PDB ID	:	4V8E / pdb_00004v8e
Title	:	Crystal structure analysis of ribosomal decoding (near-cognate tRNA-tyr complex).
Authors	:	Jenner, L.; Demeshkina, N.; Yusupov, M.; Yusupova, G.
Deposited on	:	2011-12-07
Resolution	:	3.30 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
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the (i) symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

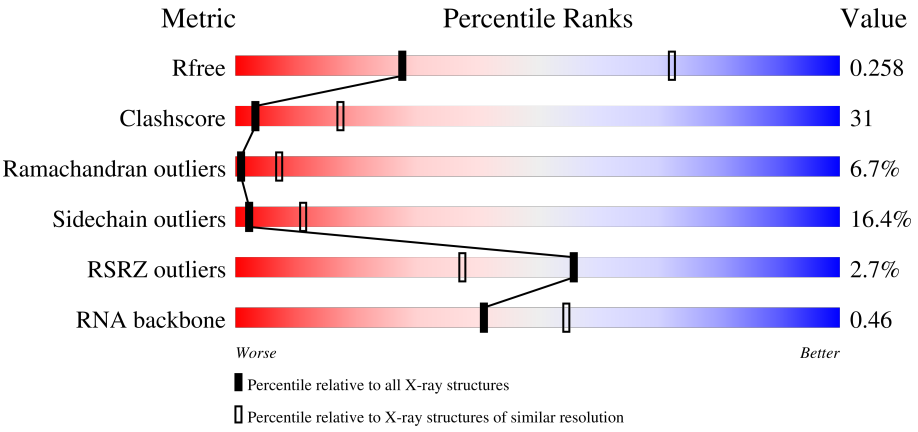
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.50

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 3.30 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}	180053	1169 (3.32-3.28)
Clashscore	190562	1209 (3.32-3.28)
Ramachandran outliers	187476	1188 (3.32-3.28)
Sidechain outliers	187428	1187 (3.32-3.28)
RSRZ outliers	180081	1169 (3.32-3.28)
RNA backbone	3983	1048 (3.60-3.00)

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 of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. 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	2912	36% 47% 17%
1	CA	2912	32% 50% 17%
2	AB	122	43% 48% 10%
2	CB	122	% 31% 48% 20%

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Mol	Chain	Length	Quality of chain
3	AD	276	3% 39% 44% 13%
3	CD	276	5% 44% 43% 10%
4	AE	206	8% 29% 48% 21%
4	CE	206	4% 34% 39% 22%
5	AF	210	% 38% 46% 11%
5	CF	210	3% 29% 49% 20%
6	AG	182	3% 41% 49% 8%
6	CG	182	8% 34% 57% 9%
7	AH	180	6% 37% 33% 21% 6%
7	CH	180	11% 34% 45% 14% 6%
8	AK	148	7% 32% 47% 18%
8	CK	148	% 41% 43% 15%
9	AM	140	6% 38% 49% 11%
9	CM	140	3% 41% 42% 14%
10	AN	122	% 48% 43% 10%
10	CN	122	% 48% 41% 10%
11	AO	150	% 30% 41% 25%
11	CO	150	6% 23% 47% 22% 7%
12	AP	141	14% 38% 38% 21%
12	CP	141	21% 26% 46% 23%
13	A0	118	44% 41% 15%
13	C0	118	36% 53% 10%
14	AQ	112	2% 31% 51% 16%
14	CQ	112	4% 35% 48% 13%
15	AR	146	3% 34% 42% 16% 6%

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Mol	Chain	Length	Quality of chain
15	CR	146	4% 32% 51% 10% 6%
16	A1	118	42% 42% 14%
16	C1	118	% 45% 42% 13%
17	A2	101	7% 43% 44% 11%
17	C2	101	9% 32% 47% 15% 7%
18	AS	113	% 42% 46% 12%
18	CS	113	% 40% 51% 9%
19	AT	96	2% 49% 38% 9%
19	CT	96	6% 51% 33% 11%
20	AU	110	5% 35% 43% 14% 7%
20	CU	110	14% 34% 34% 25% 7%
21	AV	206	7% 24% 43% 16% 15%
21	CV	206	4% 25% 45% 15% 13%
22	A3	85	% 41% 36% 11% 11%
22	C3	85	4% 41% 41% 8% 9%
23	AZ	98	5% 45% 41% 12%
23	CZ	98	5% 50% 36% 11%
24	AW	72	3% 24% 51% 15% 8%
24	CW	72	4% 29% 49% 11% 8%
25	AX	60	2% 45% 43% 10%
25	CX	60	3% 40% 52% 7%
26	A4	71	3% 31% 42% 15% 7%
26	C4	71	13% 15% 35% 31% 7% 11%
27	A5	60	15% 37% 40% 18%
27	C5	60	3% 53% 33% 8%

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Mol	Chain	Length	Quality of chain
28	A6	54	15% 7% 50% 20% 6% 17%
28	C6	54	20% 17% 43% 24% 17%
29	A7	49	6% 53% 29% 10% 8%
29	C7	49	2% 41% 41% 10% 8%
30	A8	65	34% 40% 15% 8%
30	C8	65	12% 20% 45% 22% 6% 8%
31	BA	1506	% 29% 52% 19%
31	DA	1506	28% 53% 19%
32	BE	256	3% 35% 44% 12% 7%
32	DE	256	32% 46% 12% 7%
33	BF	239	2% 38% 39% 8% 14%
33	DF	239	2% 38% 41% 7% 14%
34	BG	208	5% 51% 37% 11%
34	DG	208	2% 40% 44% 15%
35	BH	162	% 43% 40% 10% 7%
35	DH	162	2% 37% 48% 8% 7%
36	BI	101	52% 40% 8%
36	DI	101	47% 49% 5%
37	BJ	156	3% 45% 47% 8%
37	DJ	156	% 47% 45% 7%
38	BK	138	% 43% 43% 14%
38	DK	138	50% 41% 9%
39	BL	128	45% 49% 5%
39	DL	128	% 31% 55% 13%
40	BM	105	2% 34% 51% 9% 6%

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Mol	Chain	Length	Quality of chain
40	DM	105	% 33% 50% 10% • 6%
41	BN	129	4% 43% 40% 10% 8%
41	DN	129	5% 48% 36% 9% 8%
42	BO	132	5% 52% 33% 8% • 5%
42	DO	132	7% 33% 45% 16% • 5%
43	BP	126	2% 44% 37% 10% • 8%
43	DP	126	6% 33% 44% 14% • 7%
44	BQ	61	2% 34% 51% 10% 5%
44	DQ	61	38% 44% 11% • 5%
45	BR	89	48% 40% 10% •
45	DR	89	54% 39% 6% •
46	BS	88	36% 45% 13% • 5%
46	DS	88	51% 39% 6% 5%
47	BT	105	4% 41% 43% 10% • 5%
47	DT	105	3% 52% 39% • 5%
48	BU	88	% 41% 36% 5% 18%
48	DU	88	5% 42% 32% 8% 18%
49	BV	93	4% 41% 35% 6% • 16%
49	DV	93	2% 24% 47% 12% • 16%
50	BW	106	39% 45% 9% 7%
50	DW	106	42% 41% 9% • 7%
51	BX	27	44% 44% • 7%
51	DX	27	4% 26% 59% • • 7%
52	BB	85	29% 11% 38% 52%
52	BD	85	8% 21% 45% 34%

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Mol	Chain	Length	Quality of chain
52	DB	85	20% 11% 33% 56%
52	DD	85	11% 19% 47% 34%
53	BC	77	6% 44% 39% 17%
53	DC	77	3% 45% 39% 16%
54	B1	16	19% 50% 19% 31%
54	D1	16	12% 31% 38% 31%

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
55	MG	AA	3144	-	-	-	X
55	MG	BA	1745	-	-	-	X
55	MG	BB	104	-	-	-	X
55	MG	BC	105	-	-	-	X
55	MG	CA	3045	-	-	-	X
55	MG	CA	3455	-	-	-	X
56	OHX	AA	3568	-	-	X	-
56	OHX	BA	1673	-	-	X	-
56	OHX	BA	1684	-	-	X	-
56	OHX	C6	101	-	-	X	-
56	OHX	DA	1731	-	-	X	-
56	OHX	DA	1760	-	-	X	-
56	OHX	DA	1767	-	-	X	-
56	OHX	DC	107	-	-	X	-

2 Entry composition (i)

There are 57 unique types of molecules in this entry. The entry contains 303952 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 RNA (2912-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	2912	Total	C	N	O	P	0	0	0
			62707	27911	11722	20163	2911			
1	CA	2907	Total	C	N	O	P	0	0	0
			62607	27866	11712	20123	2906			

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AA	161	U	-	insertion	GB AP008226.1
AA	654A	A	G	conflict	GB AP008226.1
AA	654E	C	G	conflict	GB AP008226.1
AA	654P	G	C	conflict	GB AP008226.1
AA	654T	A	C	conflict	GB AP008226.1
AA	1058	U	G	conflict	GB AP008226.1
AA	1080	A	C	conflict	GB AP008226.1
CA	156	U	-	insertion	GB AP008226.1
CA	681	A	G	conflict	GB AP008226.1
CA	685	C	G	conflict	GB AP008226.1
CA	696	G	C	conflict	GB AP008226.1
CA	700	A	C	conflict	GB AP008226.1
CA	1105	U	G	conflict	GB AP008226.1
CA	1127	A	C	conflict	GB AP008226.1

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			
2	CB	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			

- Molecule 3 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			
3	CD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			

- Molecule 4 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			
4	CE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			

- Molecule 5 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AF	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			
5	CF	208	Total	C	N	O	S	0	0	0
			1627	1037	304	283	3			

- Molecule 6 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			
6	CG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			

- Molecule 7 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AH	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			
7	CH	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			

- Molecule 8 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AK	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	CK	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

- Molecule 9 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AM	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			
9	CM	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

- Molecule 10 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AN	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
10	CN	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 11 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AO	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			
11	CO	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			

- Molecule 12 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AP	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
12	CP	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 13 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	A0	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
13	C0	117	Total	C	N	O		0	0	0
			960	599	202	159				

- Molecule 14 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	AQ	111	Total	C	N	O	0	0	0
			882	556	176	150			
14	CQ	111	Total	C	N	O	0	0	0
			882	556	176	150			

- Molecule 15 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AR	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			
15	CR	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			

- Molecule 16 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	A1	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			
16	C1	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			

- Molecule 17 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	A2	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
17	C2	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 18 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	AS	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			
18	CS	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			

- Molecule 19 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
19	AT	92	Total 725	C 471	N 131	O 123	0	0	0
19	CT	92	Total 725	C 471	N 131	O 123	0	0	0

- Molecule 20 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AU	102	Total 785	C 505	N 150	O 125	S 5	0	0	0
20	CU	102	Total 785	C 505	N 150	O 125	S 5	0	0	0

- Molecule 21 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	AV	175	Total 1397	C 892	N 251	O 251	S 3	0	0	0
21	CV	179	Total 1428	C 911	N 255	O 259	S 3	0	0	0

- Molecule 22 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	A3	76	Total 607	C 376	N 128	O 102	S 1	0	0	0
22	C3	77	Total 613	C 379	N 129	O 104	S 1	0	0	0

- Molecule 23 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AZ	97	Total 763	C 481	N 150	O 131	S 1	0	0	0
23	CZ	97	Total 763	C 481	N 150	O 131	S 1	0	0	0

- Molecule 24 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AW	66	Total 558	C 346	N 113	O 98	S 1	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	CW	66	Total	C	N	O	S	0	0	0
			558	346	113	98	1			

- Molecule 25 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
25	AX	59	Total	C	N	O	0	0	0
			469	298	90	81			
25	CX	59	Total	C	N	O	0	0	0
			469	298	90	81			

- Molecule 26 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	A4	66	Total	C	N	O	S	0	0	0
			533	335	96	97	5			
26	C4	63	Total	C	N	O	S	0	0	0
			515	326	93	91	5			

- Molecule 27 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	A5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
27	C5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			

- Molecule 28 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	A6	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			
28	C6	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			

- Molecule 29 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	A7	45	Total	C	N	O	S	0	0	0
			391	240	97	52	2			
29	C7	45	Total	C	N	O	S	0	0	0
			391	240	97	52	2			

- Molecule 30 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	A8	60	Total	C	N	O	S	0	0	0
			480	306	98	74	2			
30	C8	60	Total	C	N	O	S	0	0	0
			480	306	98	74	2			

- Molecule 31 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BA	1502	Total	C	N	O	P	0	0	0
			32284	14370	5982	10431	1501			
31	DA	1502	Total	C	N	O	P	0	0	0
			32287	14370	5982	10433	1502			

- Molecule 32 is a protein called 30S RIBOSOMAL PROTEIN S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BE	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			
32	DE	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			

- Molecule 33 is a protein called 30S RIBOSOMAL PROTEIN S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BF	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			
33	DF	206	Total	C	N	O	S	0	0	0
			1612	1016	314	281	1			

- Molecule 34 is a protein called 30S RIBOSOMAL PROTEIN S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BG	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			
34	DG	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

- Molecule 35 is a protein called 30S RIBOSOMAL PROTEIN S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BH	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			
35	DH	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			

- Molecule 36 is a protein called 30S RIBOSOMAL PROTEIN S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BI	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
36	DI	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 37 is a protein called 30S RIBOSOMAL PROTEIN S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BJ	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
37	DJ	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 38 is a protein called 30S RIBOSOMAL PROTEIN S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BK	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
38	DK	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

- Molecule 39 is a protein called 30S RIBOSOMAL PROTEIN S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
39	BL	127	Total	C	N	O	0	0	0
			1010	639	197	174			
39	DL	127	Total	C	N	O	0	0	0
			1010	639	197	174			

- Molecule 40 is a protein called 30S RIBOSOMAL PROTEIN S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BM	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	DM	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

- Molecule 41 is a protein called 30S RIBOSOMAL PROTEIN S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BN	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
41	DN	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			

- Molecule 42 is a protein called 30S RIBOSOMAL PROTEIN S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BO	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			
42	DO	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			

- Molecule 43 is a protein called 30S RIBOSOMAL PROTEIN S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BP	116	Total	C	N	O	S	0	0	0
			928	574	191	161	2			
43	DP	117	Total	C	N	O	S	0	0	0
			933	577	192	162	2			

- Molecule 44 is a protein called 30S RIBOSOMAL PROTEIN S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BQ	58	Total	C	N	O	S	0	0	0
			476	303	99	70	4			
44	DQ	58	Total	C	N	O	S	0	0	0
			476	303	99	70	4			

- Molecule 45 is a protein called 30S RIBOSOMAL PROTEIN S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BR	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
45	DR	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			

- Molecule 46 is a protein called 30S RIBOSOMAL PROTEIN S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BS	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			
46	DS	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			

- Molecule 47 is a protein called 30S RIBOSOMAL PROTEIN S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BT	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			
47	DT	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			

- Molecule 48 is a protein called 30S RIBOSOMAL PROTEIN S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
48	BU	72	Total	C	N	O	0	0	0
			591	376	117	98			
48	DU	72	Total	C	N	O	0	0	0
			591	376	117	98			

- Molecule 49 is a protein called 30S RIBOSOMAL PROTEIN S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	BV	78	Total	C	N	O	S	0	0	0
			624	398	115	109	2			
49	DV	78	Total	C	N	O	S	0	0	0
			624	398	115	109	2			

- Molecule 50 is a protein called 30S RIBOSOMAL PROTEIN S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	BW	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			
50	DW	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

- Molecule 51 is a protein called 30S RIBOSOMAL PROTEIN THX.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
51	BX	25	Total	C	N	O	0	0	0
			217	134	52	31			
51	DX	25	Total	C	N	O	0	0	0
			217	134	52	31			

- Molecule 52 is a RNA chain called TRNA-TYR.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
52	BB	85	Total	C	N	O	P	S	0	0	0
			1814	813	323	592	85	1			
52	BD	85	Total	C	N	O	P	S	0	0	0
			1814	813	323	592	85	1			
52	DB	85	Total	C	N	O	P	S	0	0	0
			1814	813	323	592	85	1			
52	DD	85	Total	C	N	O	P	S	0	0	0
			1814	813	323	592	85	1			

- Molecule 53 is a RNA chain called TRNA-FMET.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	BC	77	Total	C	N	O	P	0	0	0
			1643	732	298	536	77			
53	DC	77	Total	C	N	O	P	0	0	0
			1643	732	298	536	77			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BC	18	C	U	conflict	GB AP012306.1
DC	18	C	U	conflict	GB AP012306.1

- Molecule 54 is a RNA chain called MRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	B1	16	Total	C	N	O	P	0	0	0
			347	156	69	106	16			
54	D1	16	Total	C	N	O	P	0	0	0
			347	156	69	106	16			

- Molecule 55 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

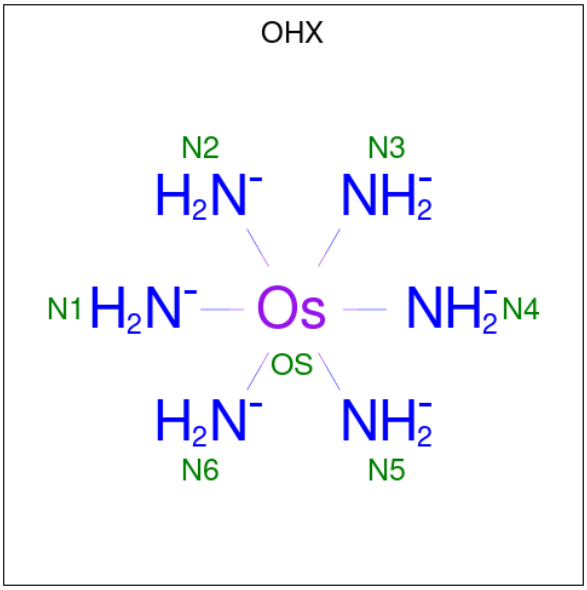
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	AA	331	Total Mg 331 331	0	0
55	AB	6	Total Mg 6 6	0	0
55	AE	3	Total Mg 3 3	0	0
55	AF	2	Total Mg 2 2	0	0
55	AO	3	Total Mg 3 3	0	0
55	A0	1	Total Mg 1 1	0	0
55	A1	1	Total Mg 1 1	0	0
55	A3	1	Total Mg 1 1	0	0
55	A5	1	Total Mg 1 1	0	0
55	BA	115	Total Mg 115 115	0	0
55	BN	1	Total Mg 1 1	0	0
55	BQ	1	Total Mg 1 1	0	0
55	BS	1	Total Mg 1 1	0	0
55	BB	5	Total Mg 5 5	0	0
55	BC	5	Total Mg 5 5	0	0
55	BD	1	Total Mg 1 1	0	0
55	B1	1	Total Mg 1 1	0	0
55	CA	274	Total Mg 274 274	0	0
55	CB	7	Total Mg 7 7	0	0
55	CE	1	Total Mg 1 1	0	0
55	C0	1	Total Mg 1 1	0	0
55	C5	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	C7	1	Total Mg 1 1	0	0
55	DA	119	Total Mg 119 119	0	0
55	DL	1	Total Mg 1 1	0	0
55	DN	1	Total Mg 1 1	0	0
55	DB	2	Total Mg 2 2	0	0
55	DC	6	Total Mg 6 6	0	0
55	D1	1	Total Mg 1 1	0	0

- Molecule 56 is osmium (III) hexammine (CCD ID: OHX) (formula: $H_{12}N_6Os$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total 7	N 6	Os 1	0	0
56	AA	1	Total 7	N 6	Os 1	0	0
56	AA	1	Total 7	N 6	Os 1	0	0
56	AB	1	Total 7	N 6	Os 1	0	0
56	AB	1	Total 7	N 6	Os 1	0	0
56	AB	1	Total 7	N 6	Os 1	0	0
56	AB	1	Total 7	N 6	Os 1	0	0
56	AB	1	Total 7	N 6	Os 1	0	0
56	AB	1	Total 7	N 6	Os 1	0	0
56	AB	1	Total 7	N 6	Os 1	0	0
56	AB	1	Total 7	N 6	Os 1	0	0
56	AB	1	Total 7	N 6	Os 1	0	0
56	AB	1	Total 7	N 6	Os 1	0	0
56	AB	1	Total 7	N 6	Os 1	0	0
56	AB	1	Total 7	N 6	Os 1	0	0
56	AB	1	Total 7	N 6	Os 1	0	0
56	AB	1	Total 7	N 6	Os 1	0	0
56	AE	1	Total 7	N 6	Os 1	0	0
56	AF	1	Total 7	N 6	Os 1	0	0
56	AO	1	Total 7	N 6	Os 1	0	0
56	AO	1	Total 7	N 6	Os 1	0	0
56	A1	1	Total 7	N 6	Os 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	A1	1	Total	N	Os	0	0
			7	6	1		
56	A3	1	Total	N	Os	0	0
			7	6	1		
56	AW	1	Total	N	Os	0	0
			7	6	1		
56	A6	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
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56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	BG	1	Total 7	N 6	Os 1	0	0
56	BR	1	Total 7	N 6	Os 1	0	0
56	BB	1	Total 7	N 6	Os 1	0	0
56	BB	1	Total 7	N 6	Os 1	0	0
56	BC	1	Total 7	N 6	Os 1	0	0
56	BC	1	Total 7	N 6	Os 1	0	0
56	BD	1	Total 7	N 6	Os 1	0	0
56	BD	1	Total 7	N 6	Os 1	0	0
56	BD	1	Total 7	N 6	Os 1	0	0
56	CA	1	Total 7	N 6	Os 1	0	0
56	CA	1	Total 7	N 6	Os 1	0	0
56	CA	1	Total 7	N 6	Os 1	0	0
56	CA	1	Total 7	N 6	Os 1	0	0
56	CA	1	Total 7	N 6	Os 1	0	0
56	CA	1	Total 7	N 6	Os 1	0	0
56	CA	1	Total 7	N 6	Os 1	0	0
56	CA	1	Total 7	N 6	Os 1	0	0
56	CA	1	Total 7	N 6	Os 1	0	0
56	CA	1	Total 7	N 6	Os 1	0	0
56	CA	1	Total 7	N 6	Os 1	0	0
56	CA	1	Total 7	N 6	Os 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
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56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
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56	CA	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
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56	CA	1	Total	N	Os	0	0
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			7	6	1		
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			7	6	1		
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			7	6	1		
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56	CA	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
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56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
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			7	6	1		
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			7	6	1		
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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56	CA	1	Total	N	Os	0	0
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			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
56	CA	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
56	CA	1	Total	N	Os	0	0
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			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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56	CA	1	Total	N	Os	0	0
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			7	6	1		
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			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
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			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
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			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
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			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
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56	DA	1	Total	N	Os	0	0
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56	DA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
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56	DK	1	Total N Os 7 6 1	0	0
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56	DV	1	Total N Os 7 6 1	0	0
56	DB	1	Total N Os 7 6 1	0	0
56	DB	1	Total N Os 7 6 1	0	0
56	DB	1	Total N Os 7 6 1	0	0
56	DC	1	Total N Os 7 6 1	0	0
56	DC	1	Total N Os 7 6 1	0	0
56	DC	1	Total N Os 7 6 1	0	0
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- Molecule 57 is ZINC ION (CCD ID: ZN) (formula: Zn).

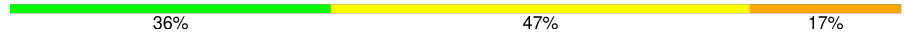
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57	BQ	1	Total Zn 1 1	0	0
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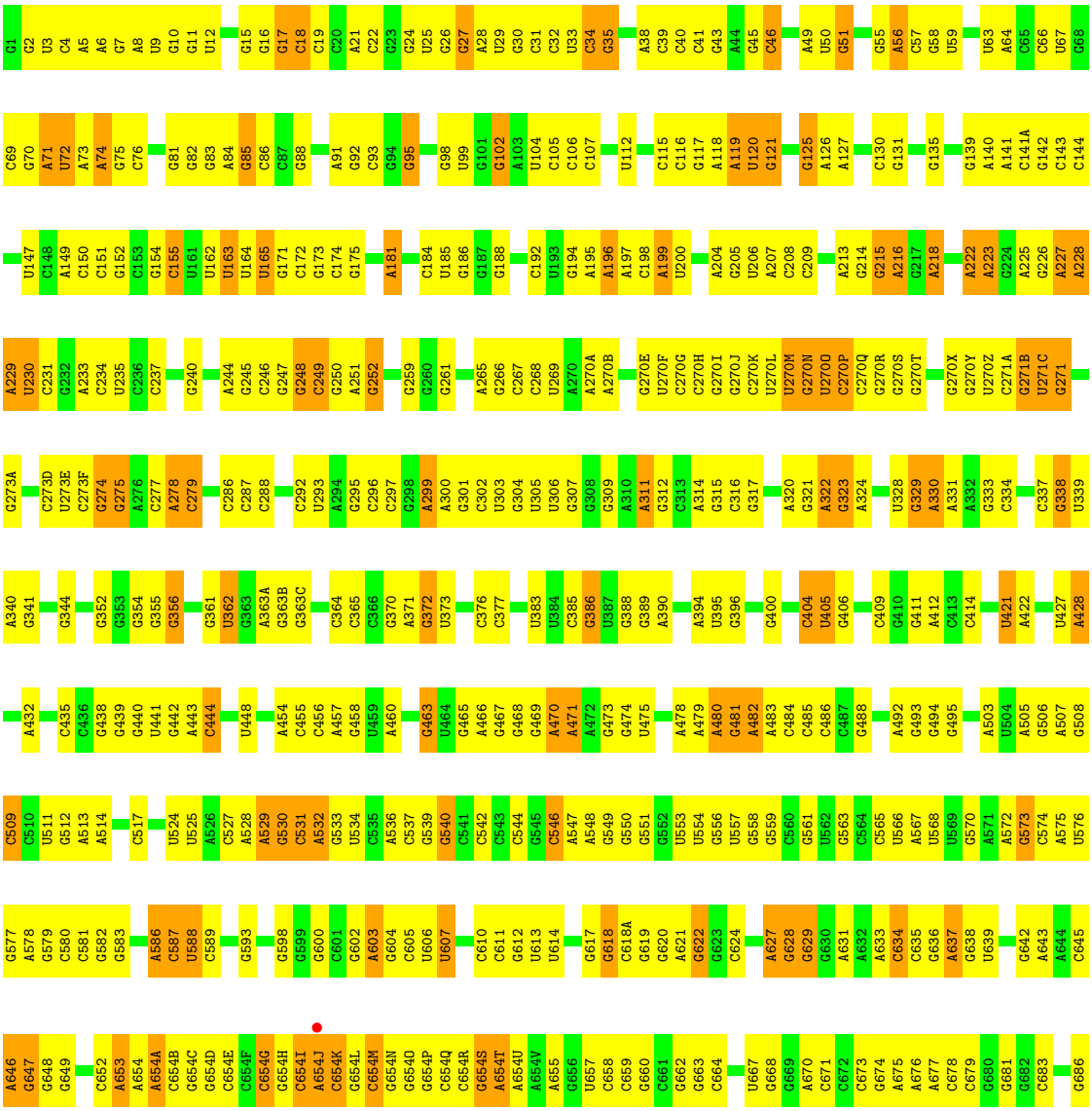
3 Residue-property plots (i)

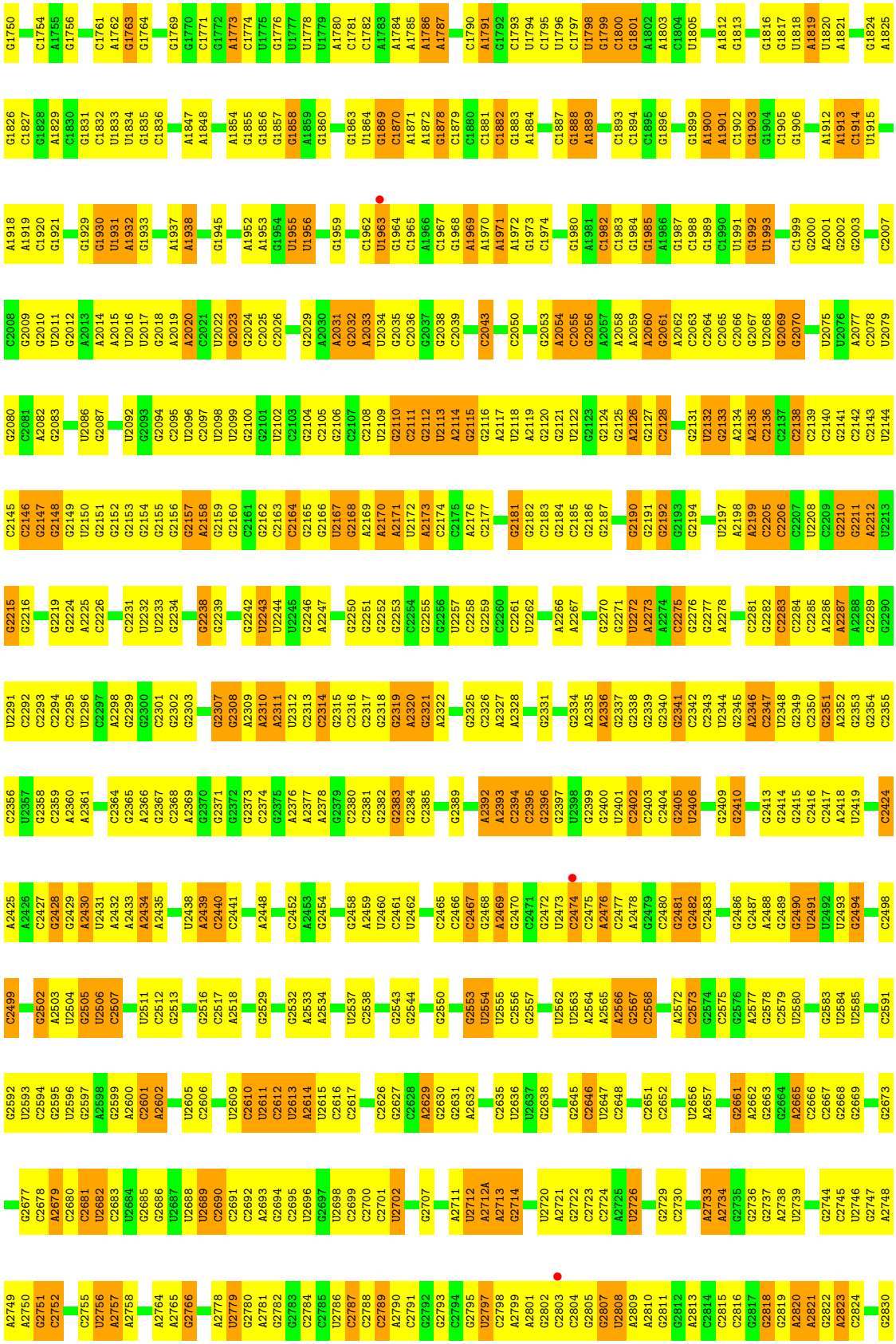
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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.

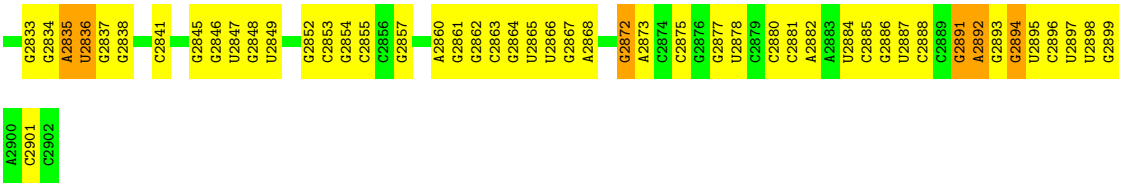
- Molecule 1: RNA (2912-MER)

Chain AA:





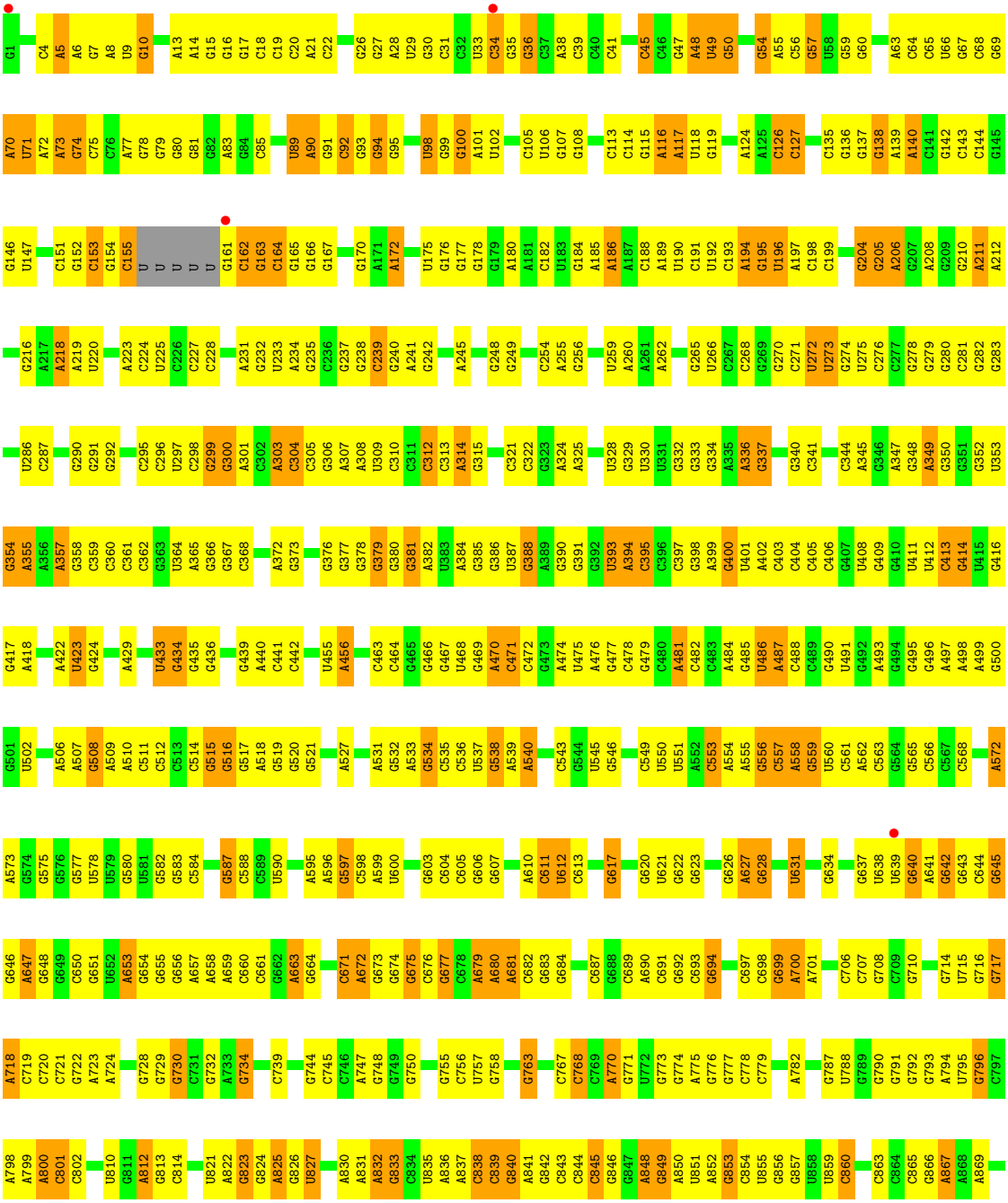


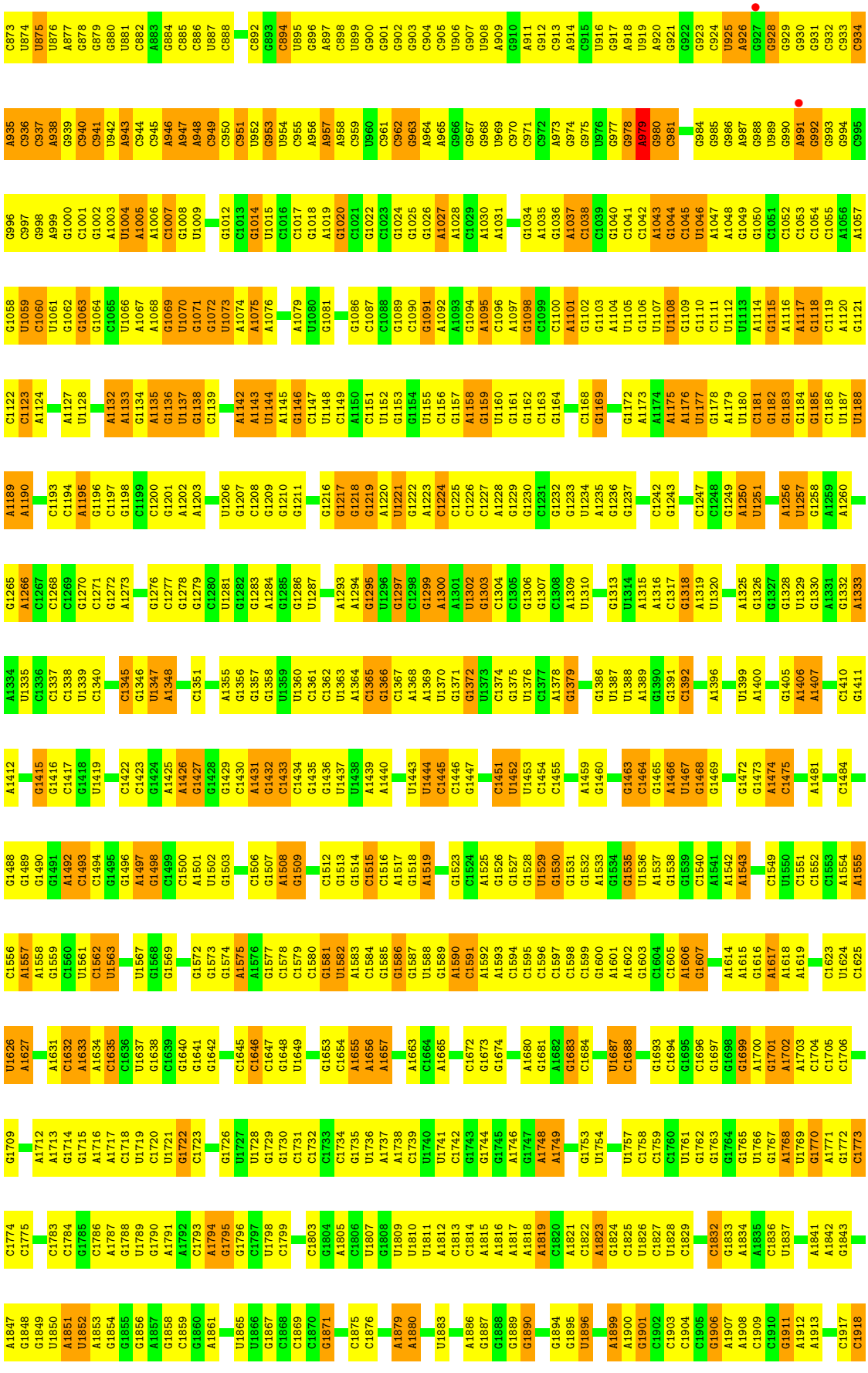


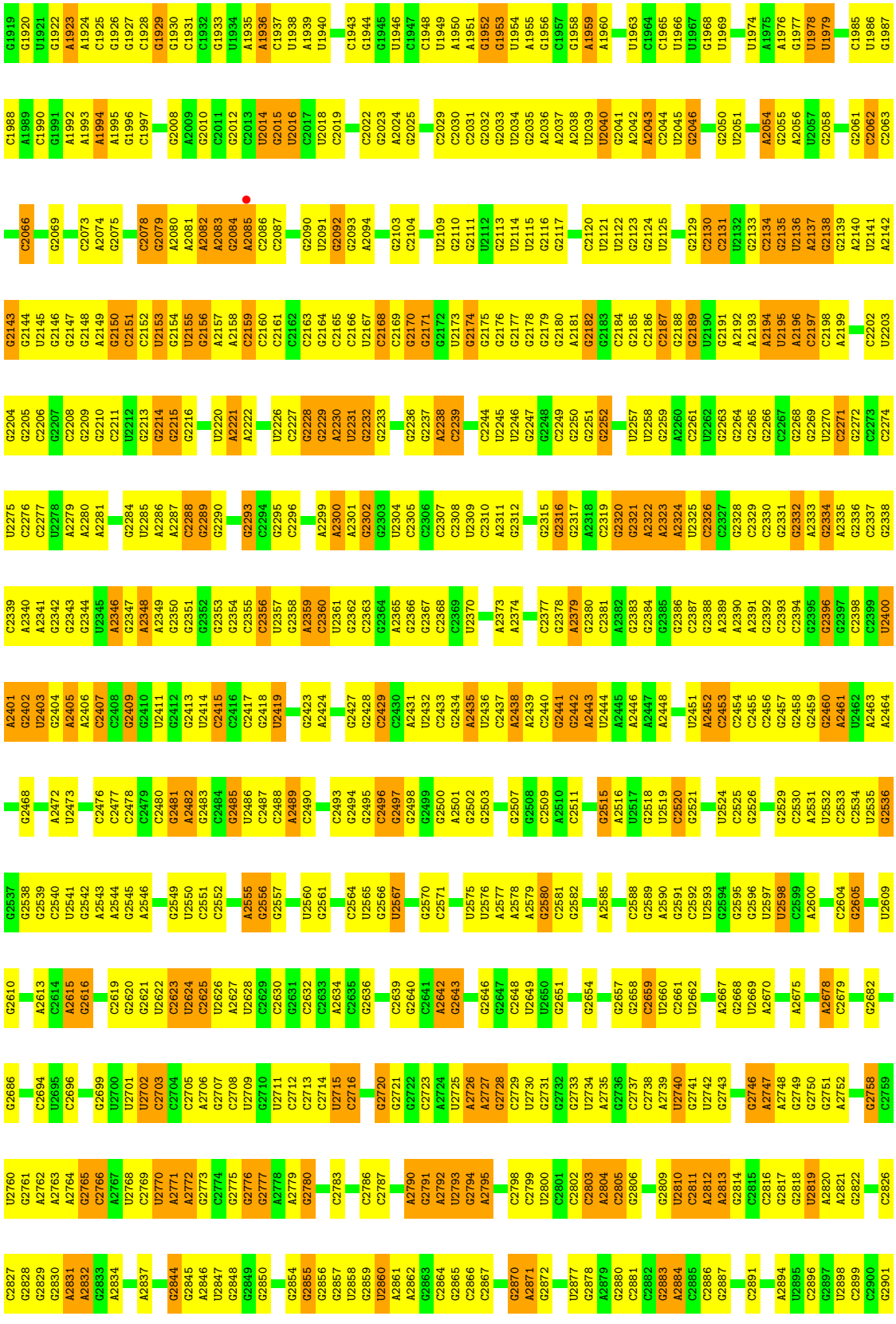
• Molecule 1: RNA (2912-MER)

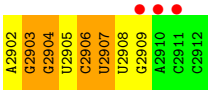
Chain CA:







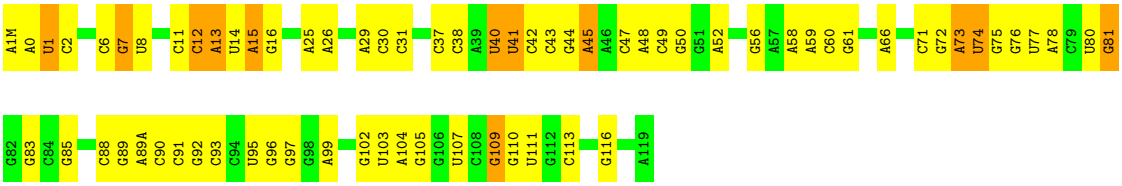

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C1988 A1989 C1990 G1991 A1992 A1993 A1994 A1995 G1996 C1997 G2008 A2009 G2010 C2011 G2012 C2013 U2014 G2015 U2016 C2017 U2018 C2019 C2022 G2023 A2024 G2025 C2029 C2030 C2031 G2032 G2033 U2034 G2035 A2036 A2037 A2038 U2039 U2040 G2041 A2042 A2043 C2044 U2045 G2046 G2050 U2051 A2054 G2055 A2056 U2057 G2058 G2061 C2062 C2063
C2066 G2069 C2073 A2074 G2075 C2078 G2079 A2080 A2081 A2082 A2083 G2084 A2085 C2086 C2087 G2090 U2091 G2092 G2093 A2094 G2103 C2104 U2109 G2110 G2111 U2112 G2113 U2114 U2115 G2116 G2117 C2120 U2121 U2122 G2123 G2124 U2125 G2129 C2130 C2131 U2132 G2133 C2134 G2135 U2136 A2137 G2138 G2139 A2140 U2141 A2142
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• Molecule 2: 5S RIBOSOMAL RNA

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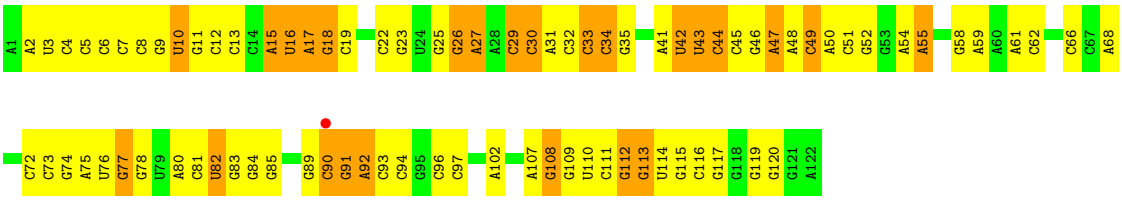




• Molecule 2: 5S RIBOSOMAL RNA

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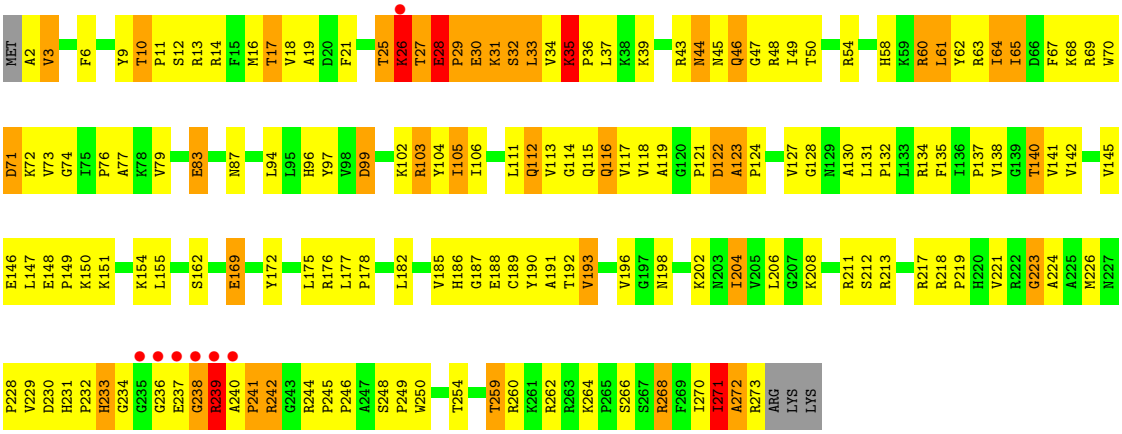




• Molecule 3: 50S ribosomal protein L2

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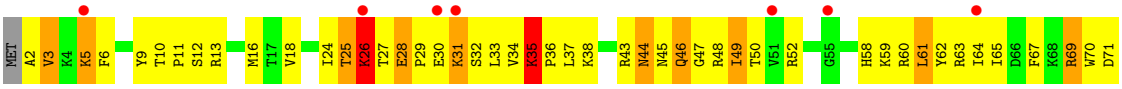


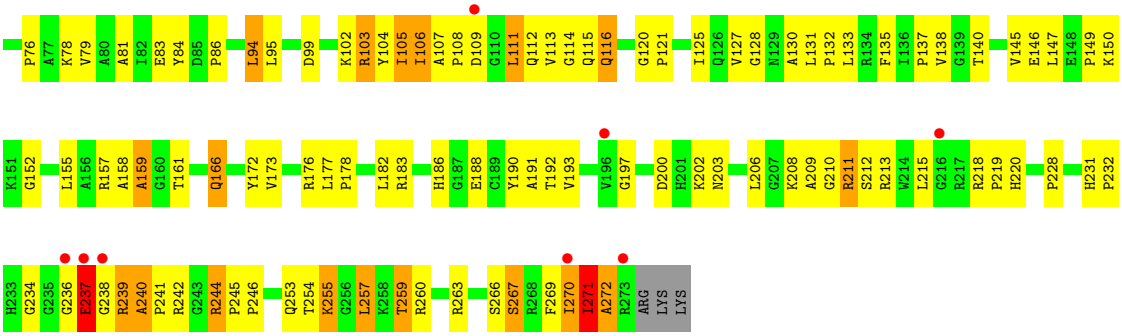


• Molecule 3: 50S ribosomal protein L2

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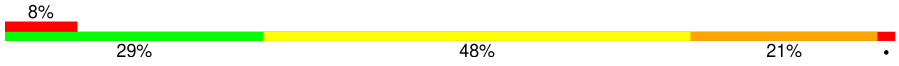


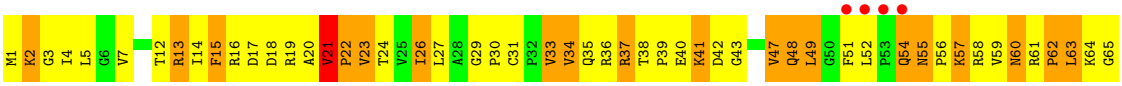


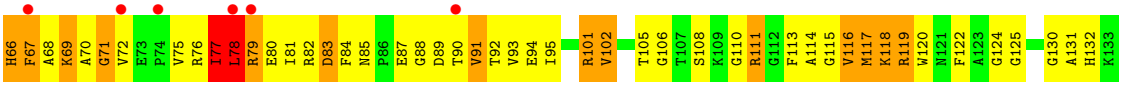


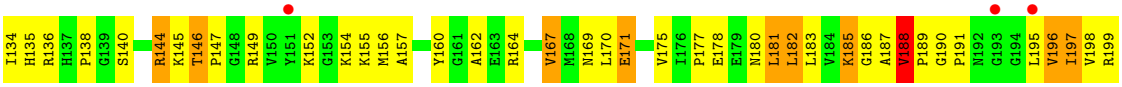
• Molecule 4: 50S ribosomal protein L3

Chain AE:





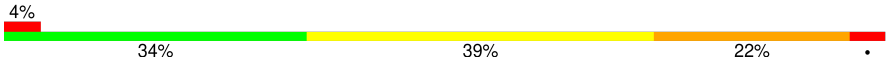


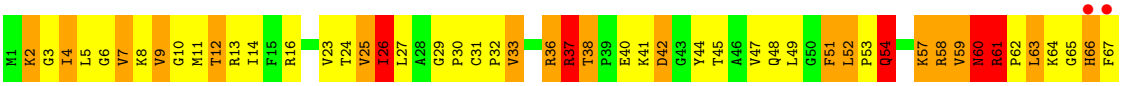


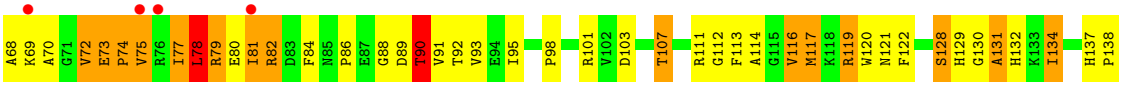


• Molecule 4: 50S ribosomal protein L3

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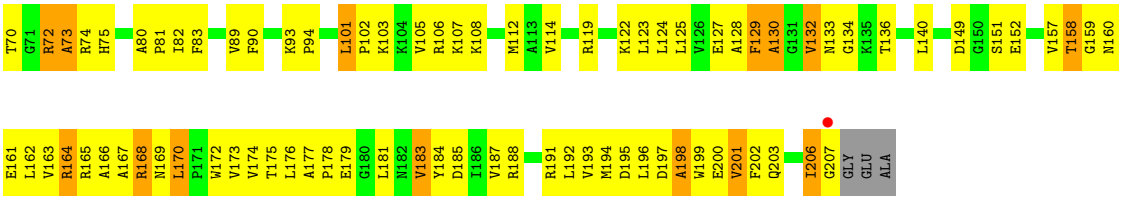


• Molecule 5: 50S ribosomal protein L4

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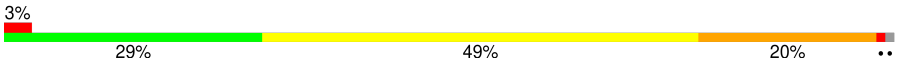


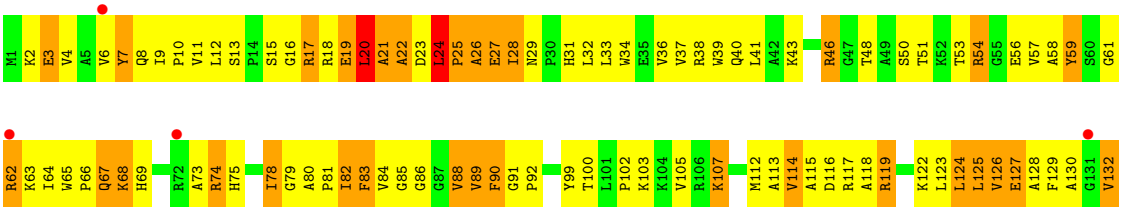


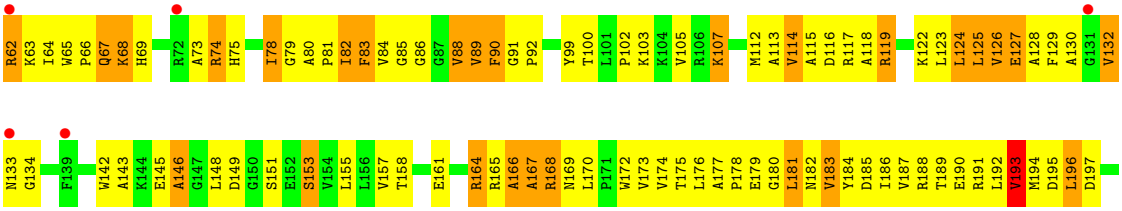


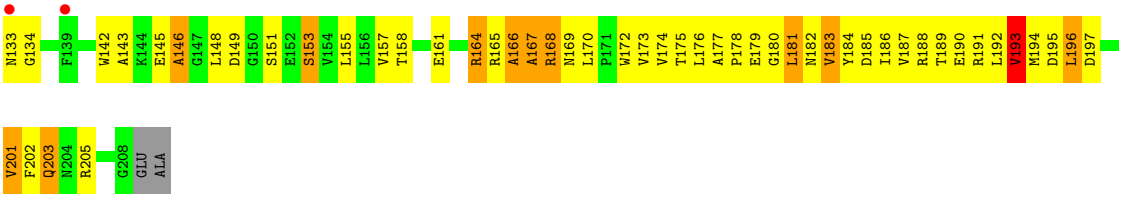
• Molecule 5: 50S ribosomal protein L4

Chain CF:





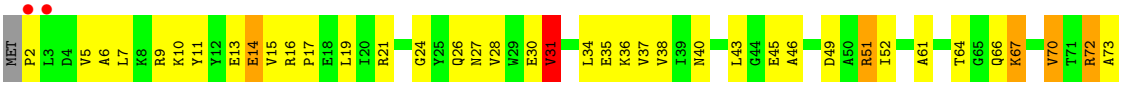




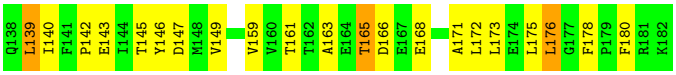
• Molecule 6: 50S ribosomal protein L5

Chain AG:







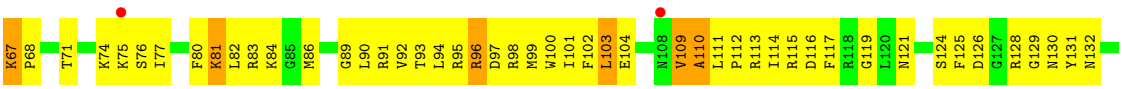


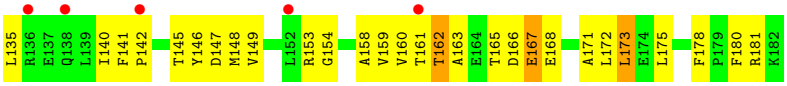
• Molecule 6: 50S ribosomal protein L5

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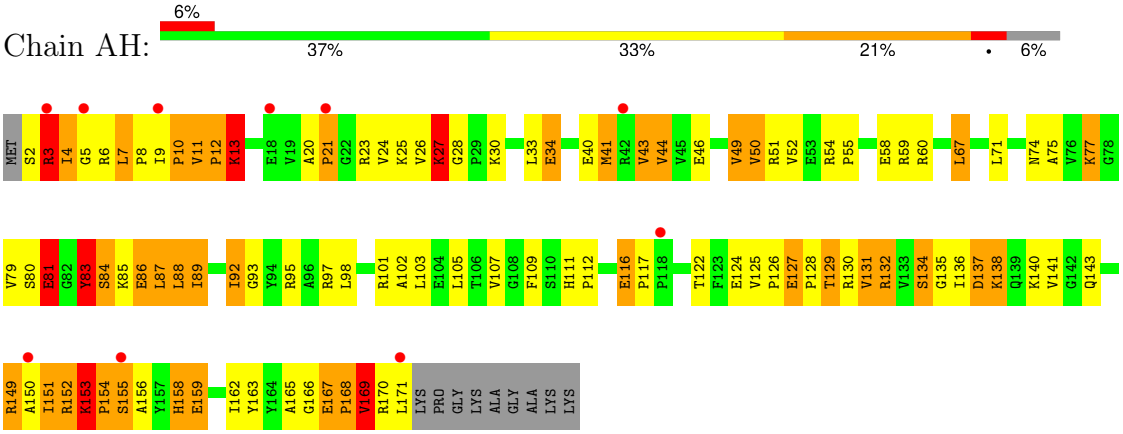




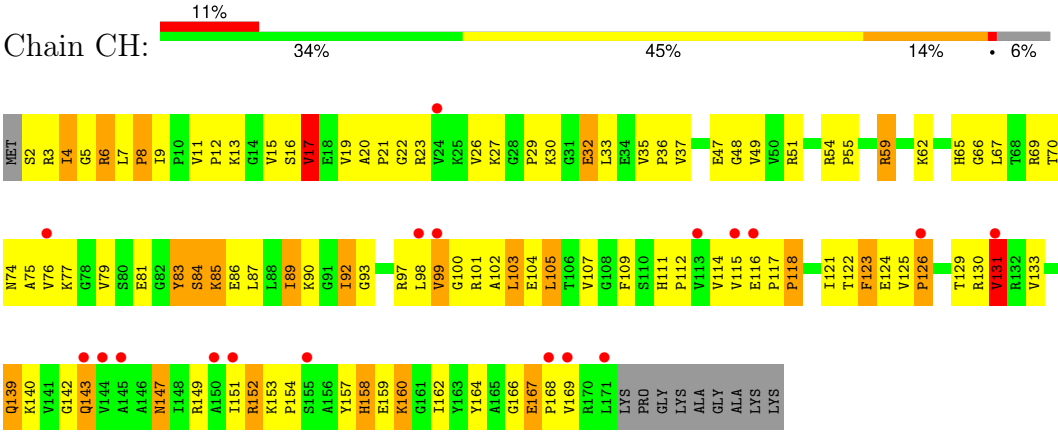




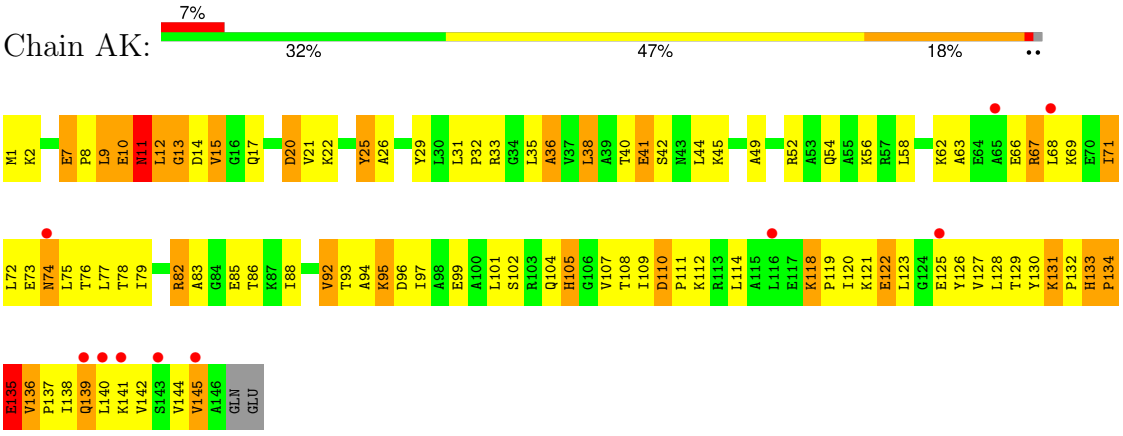
• Molecule 7: 50S ribosomal protein L6



• Molecule 7: 50S ribosomal protein L6

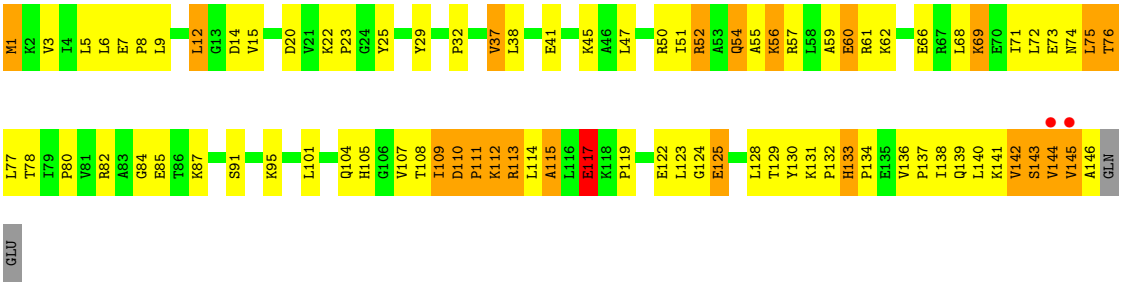


• Molecule 8: 50S ribosomal protein L9

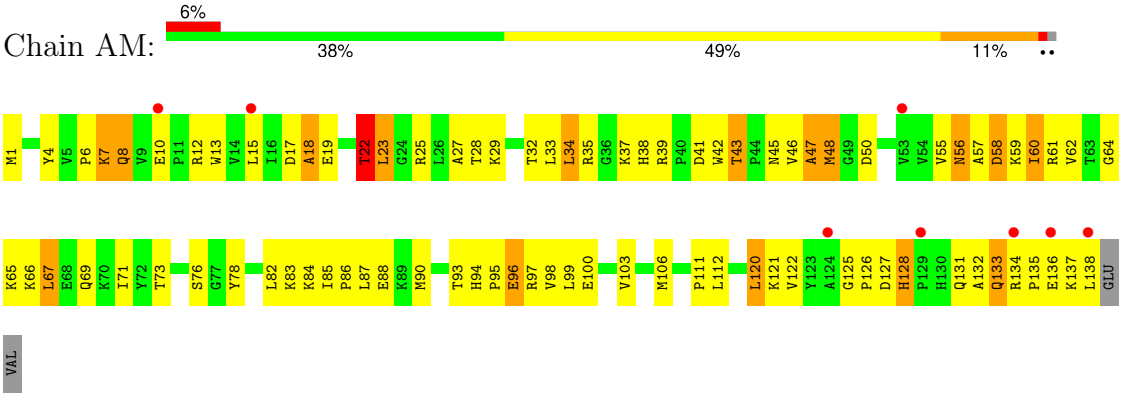


• Molecule 8: 50S ribosomal protein L9

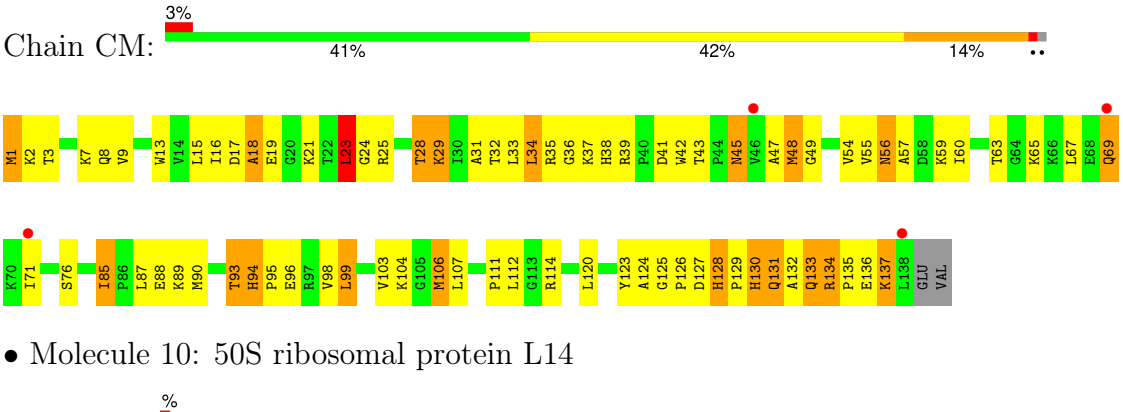




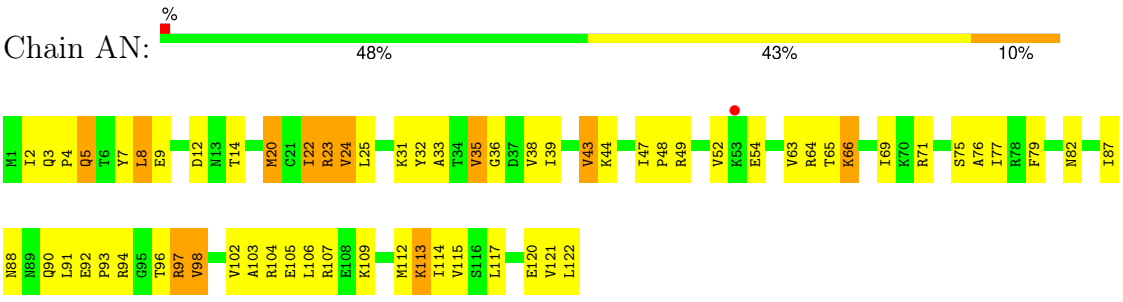
• Molecule 9: 50S ribosomal protein L13



• Molecule 9: 50S ribosomal protein L13

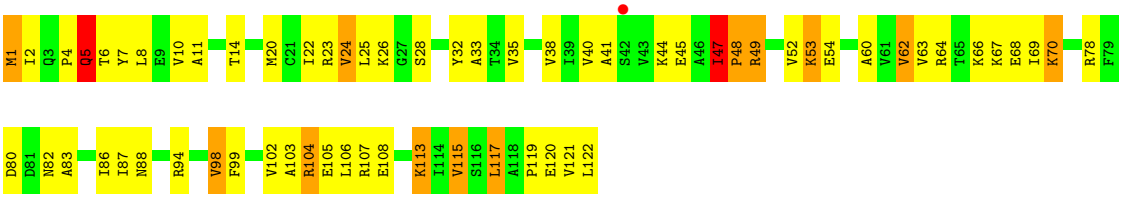


• Molecule 10: 50S ribosomal protein L14



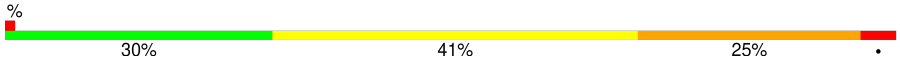
• Molecule 10: 50S ribosomal protein L14

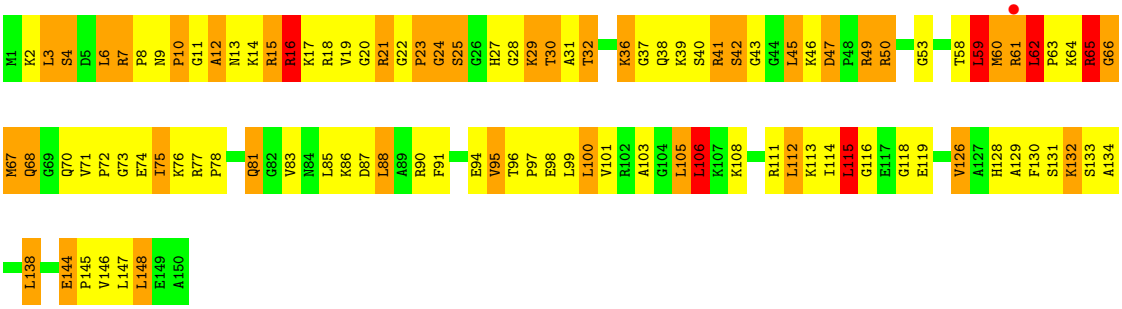




• Molecule 11: 50S ribosomal protein L15

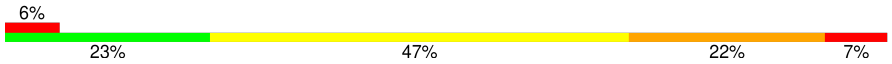
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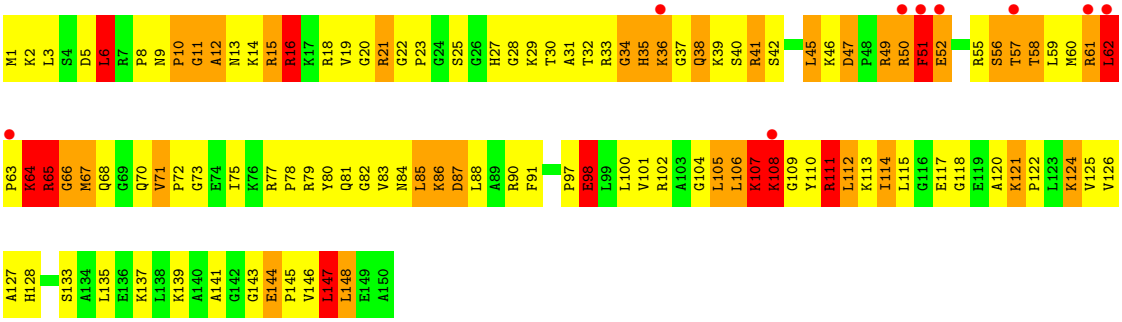




• Molecule 11: 50S ribosomal protein L15

Chain CO:

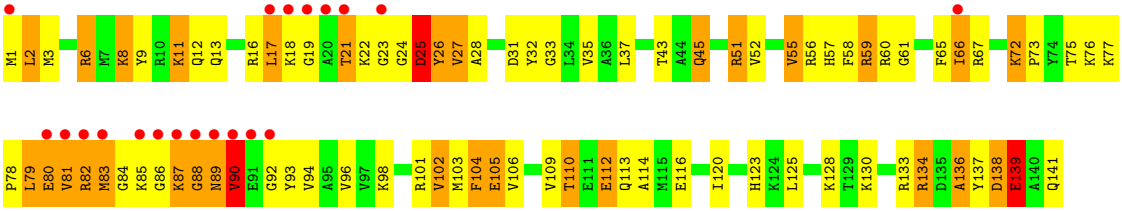




• Molecule 12: 50S ribosomal protein L16

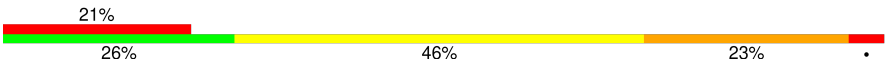
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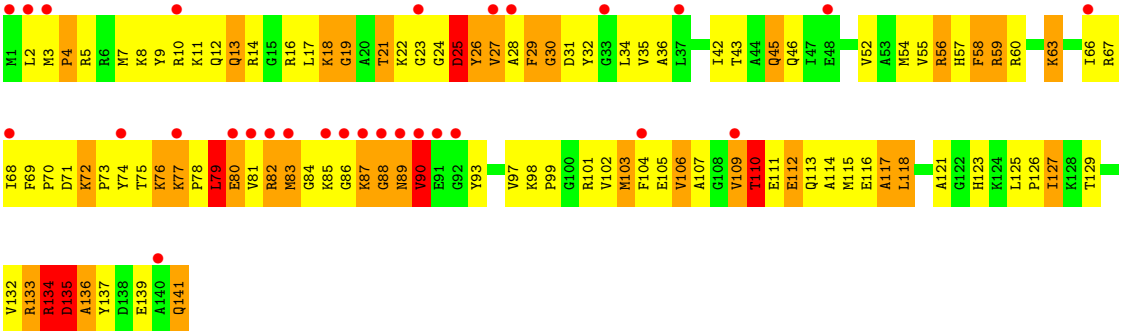




• Molecule 12: 50S ribosomal protein L16

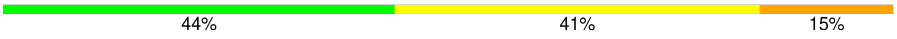
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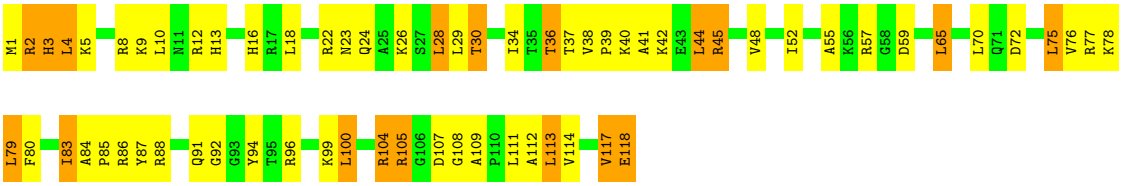




• Molecule 13: 50S ribosomal protein L17

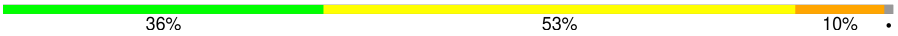
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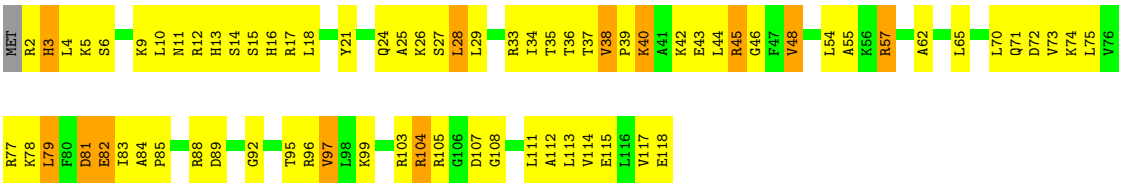




• Molecule 13: 50S ribosomal protein L17

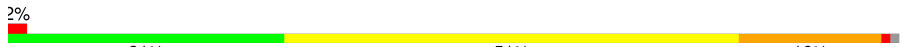
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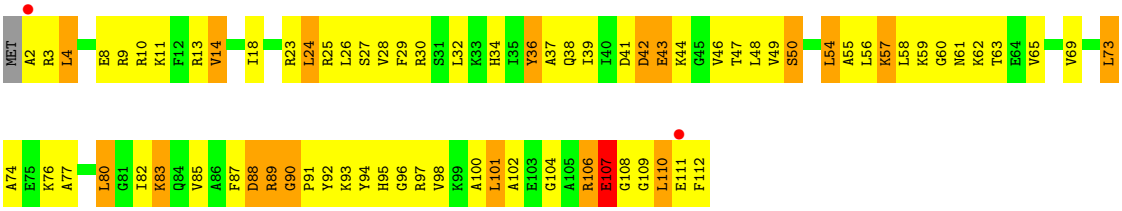




• Molecule 14: 50S ribosomal protein L18

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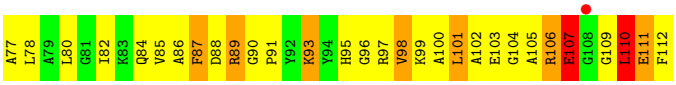


• Molecule 14: 50S ribosomal protein L18

Chain CQ:



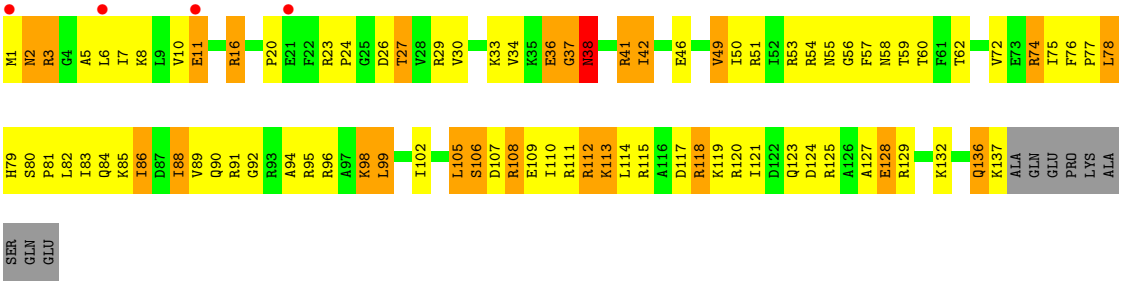




• Molecule 15: 50S ribosomal protein L19

Chain AR:

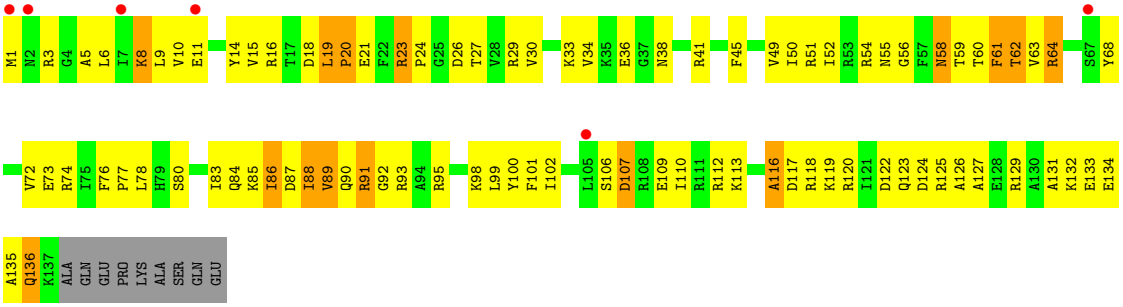




• Molecule 15: 50S ribosomal protein L19

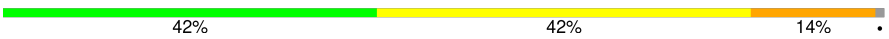
Chain CR:

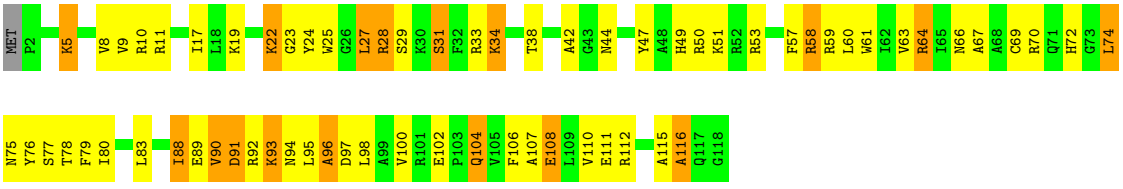




• Molecule 16: 50S ribosomal protein L20

Chain A1:

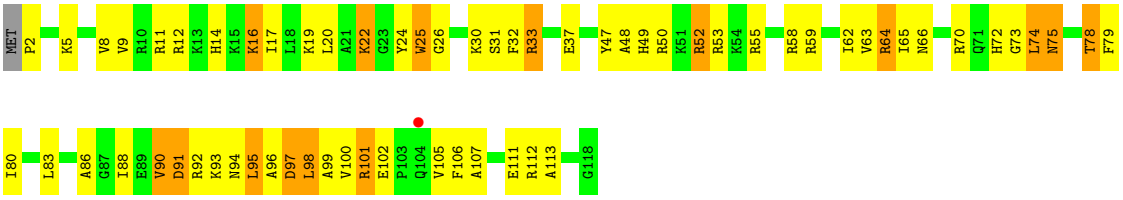




• Molecule 16: 50S ribosomal protein L20

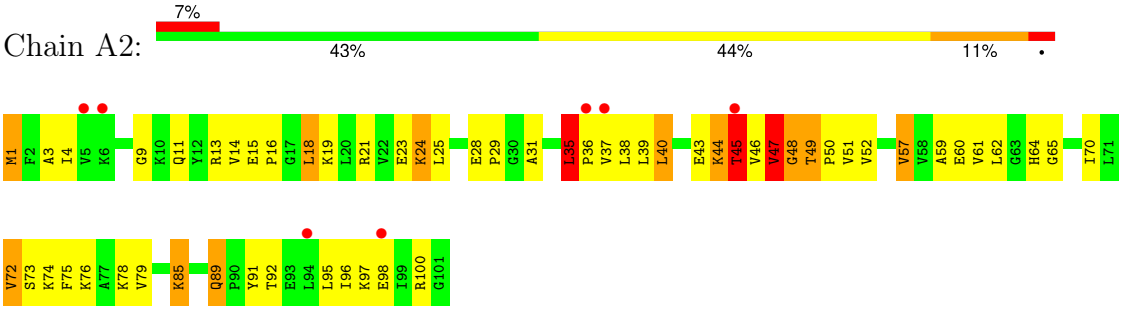
Chain C1:





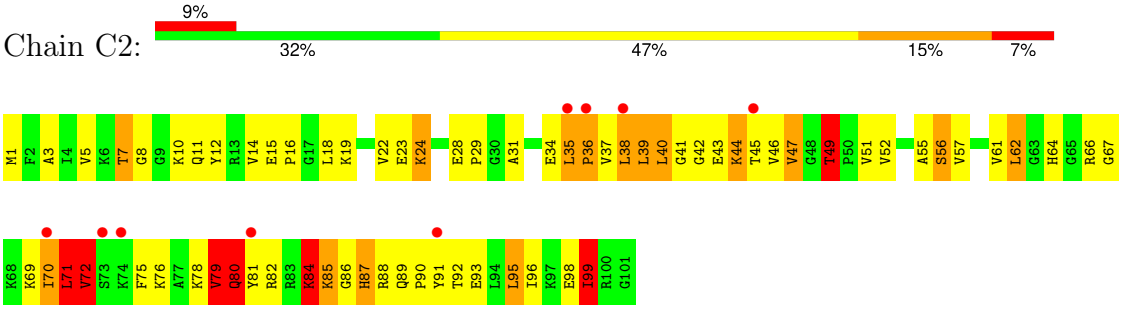
• Molecule 17: 50S ribosomal protein L21

Chain A2:



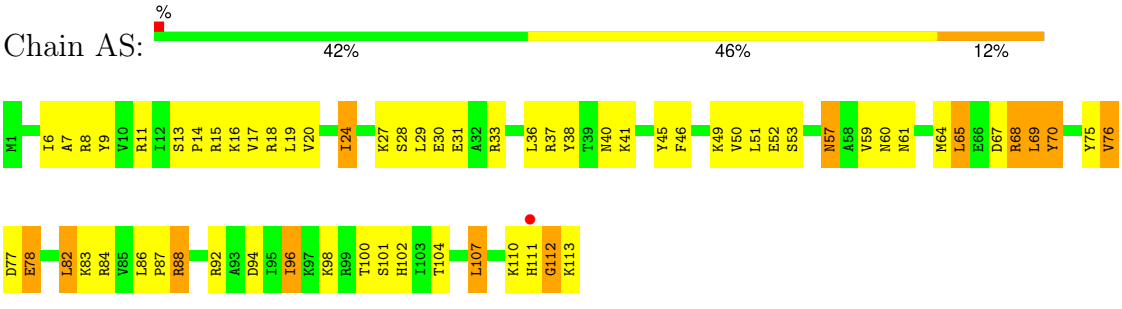
• Molecule 17: 50S ribosomal protein L21

Chain C2:



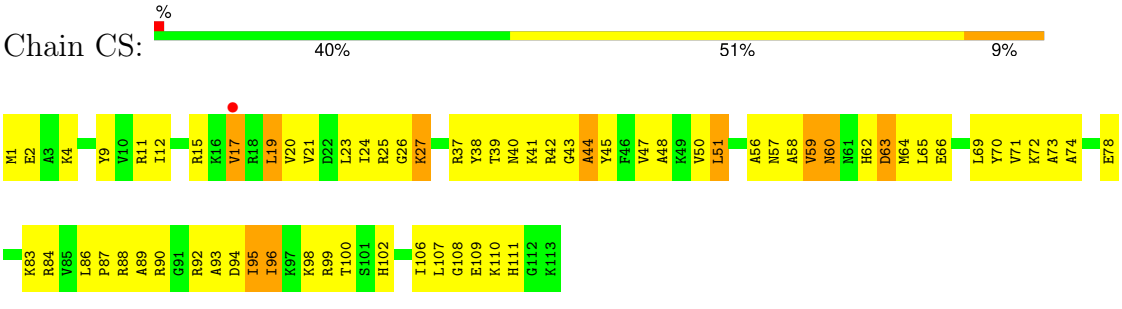
• Molecule 18: 50S ribosomal protein L22

Chain AS:



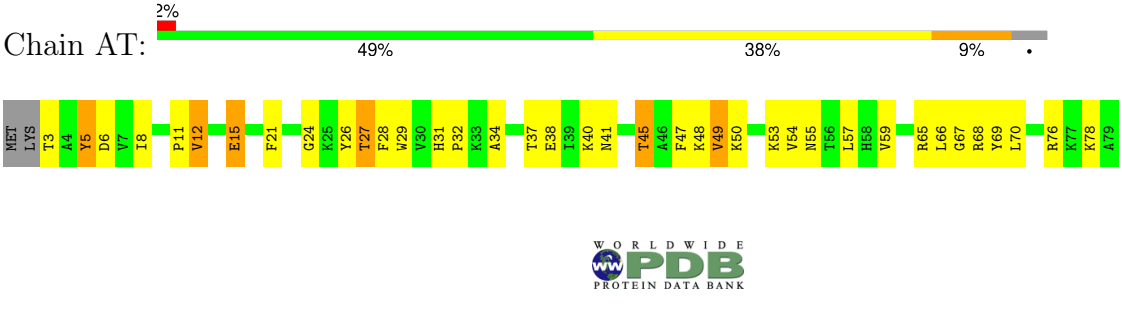
• Molecule 18: 50S ribosomal protein L22

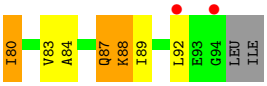
Chain CS:



• Molecule 19: 50S ribosomal protein L23

Chain AT:

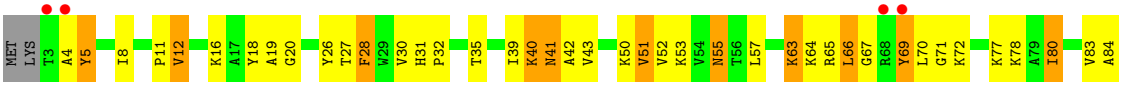


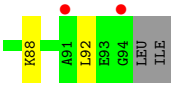


• Molecule 19: 50S ribosomal protein L23

Chain CT:



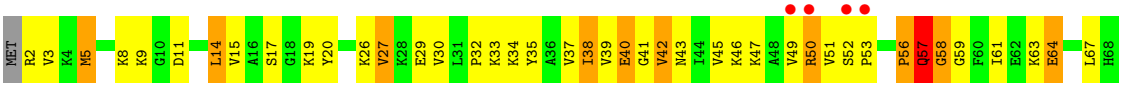




• Molecule 20: 50S ribosomal protein L24

Chain AU:

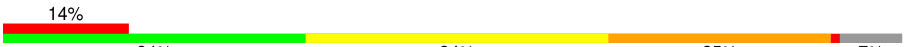


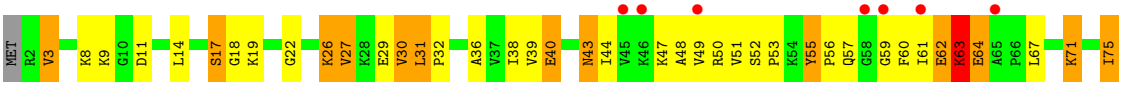




• Molecule 20: 50S ribosomal protein L24

Chain CU:



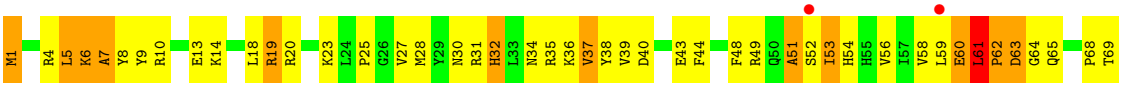


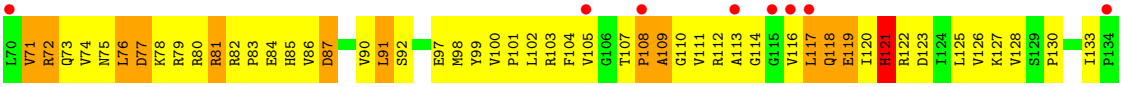


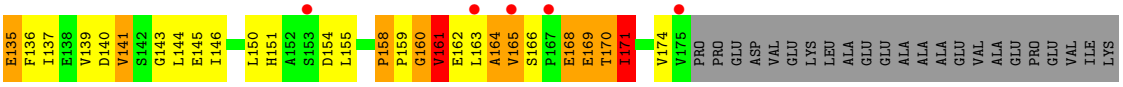
• Molecule 21: 50S ribosomal protein L25

Chain AV:





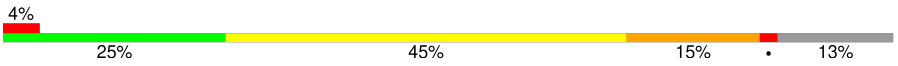


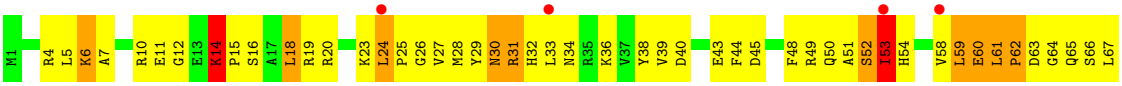




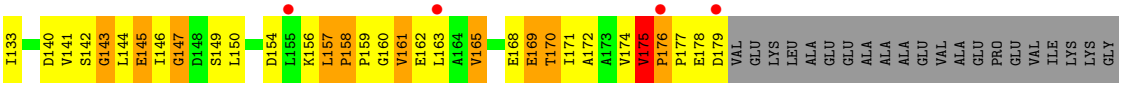
• Molecule 21: 50S ribosomal protein L25

Chain CV:







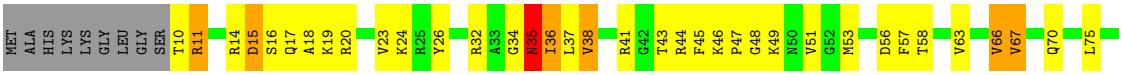


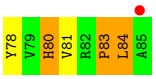


• Molecule 22: 50S ribosomal protein L27

Chain A3:



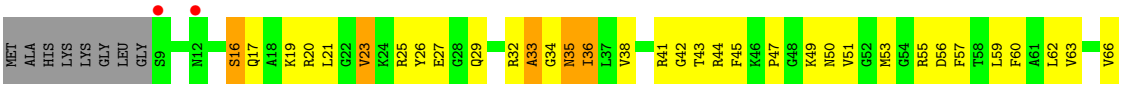


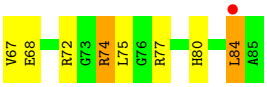


• Molecule 22: 50S ribosomal protein L27

Chain C3:



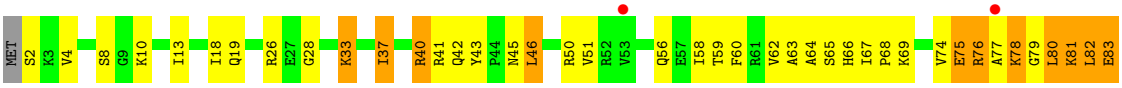




• Molecule 23: 50S ribosomal protein L28

Chain AZ:



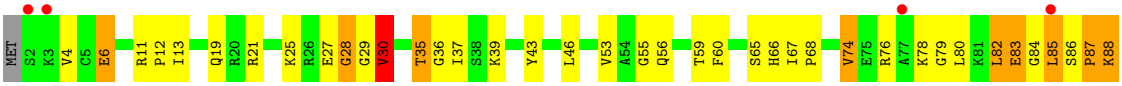


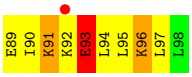


• Molecule 23: 50S ribosomal protein L28

Chain CZ:

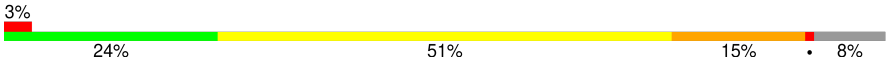


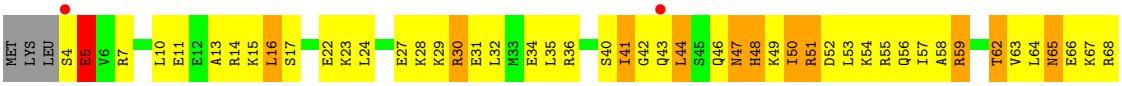




• Molecule 24: 50S ribosomal protein L29

Chain AW:

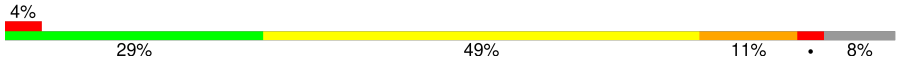


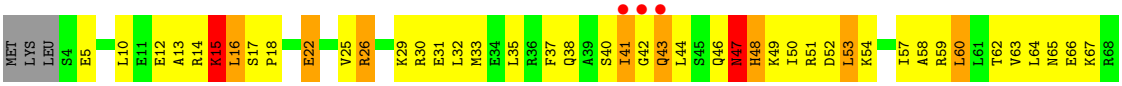




• Molecule 24: 50S ribosomal protein L29

Chain CW:



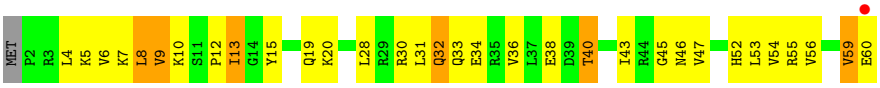




• Molecule 25: 50S ribosomal protein L30

Chain AX:

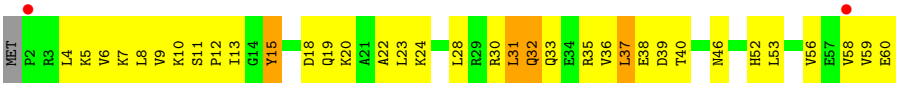




• Molecule 25: 50S ribosomal protein L30

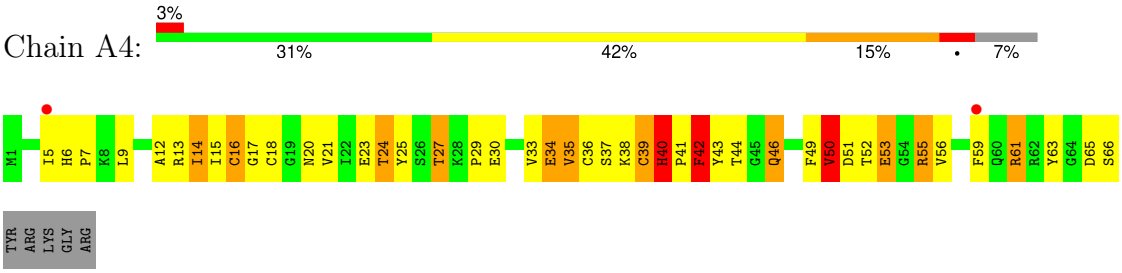
Chain CX:





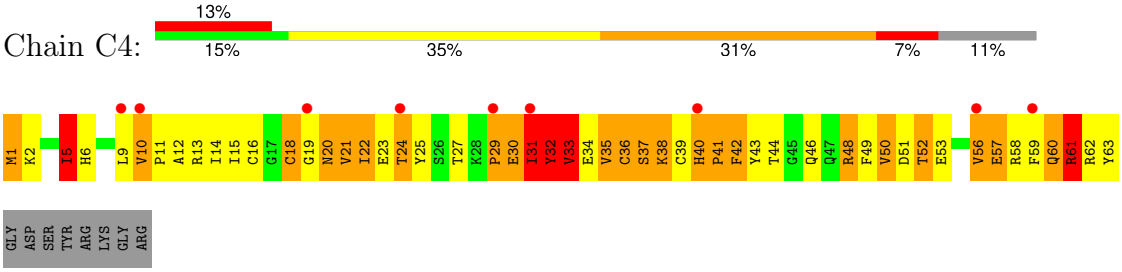
• Molecule 26: 50S ribosomal protein L31

Chain A4:



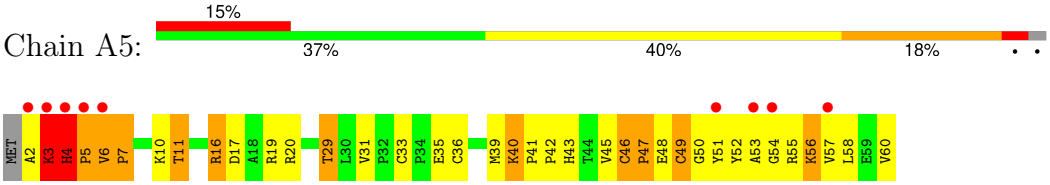
• Molecule 26: 50S ribosomal protein L31

Chain C4:



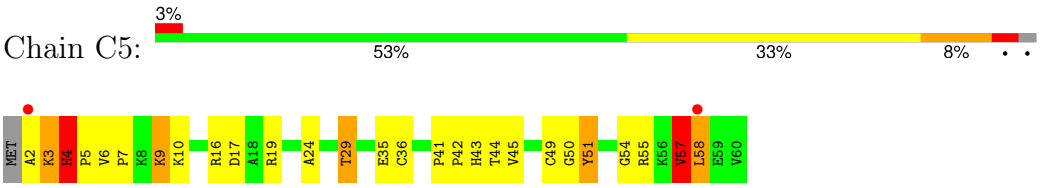
• Molecule 27: 50S ribosomal protein L32

Chain A5:



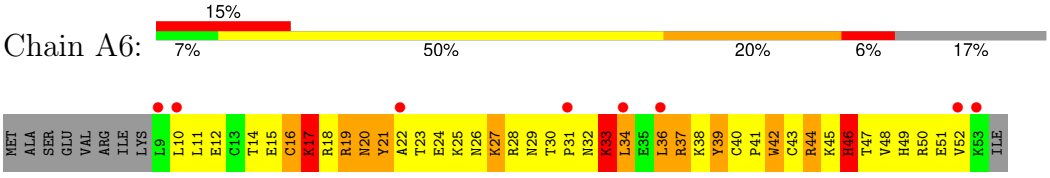
• Molecule 27: 50S ribosomal protein L32

Chain C5:



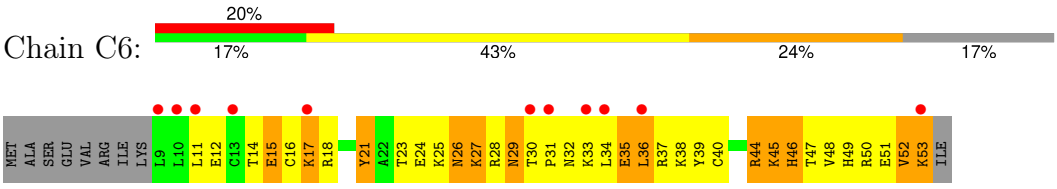
• Molecule 28: 50S ribosomal protein L33

Chain A6:



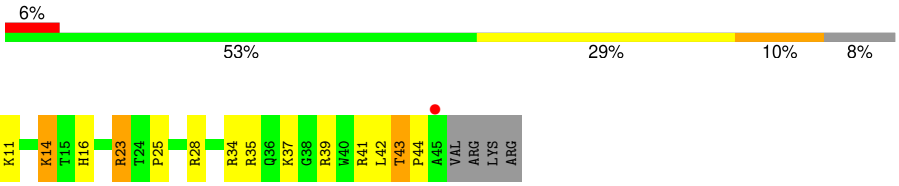
• Molecule 28: 50S ribosomal protein L33

Chain C6:



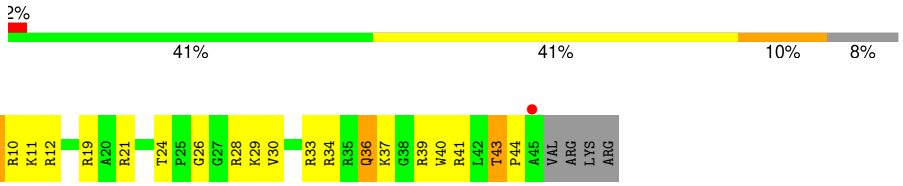
• Molecule 29: 50S ribosomal protein L34

Chain A7:



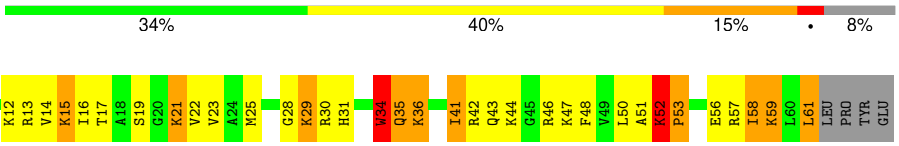
• Molecule 29: 50S ribosomal protein L34

Chain C7:



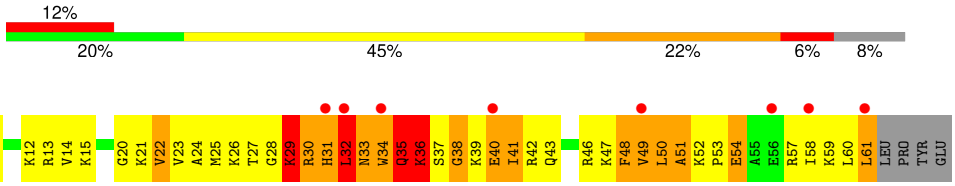
• Molecule 30: 50S ribosomal protein L35

Chain A8:



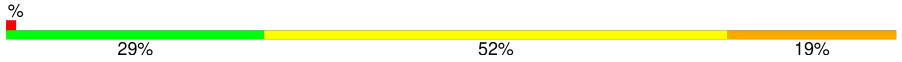
• Molecule 30: 50S ribosomal protein L35

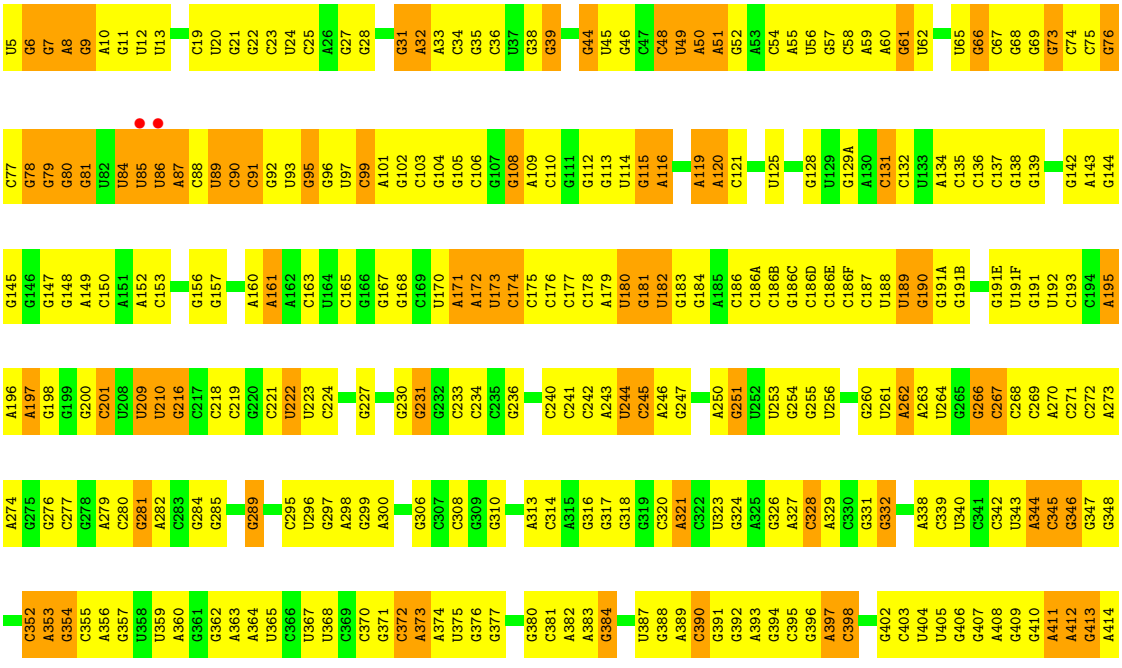
Chain C8:

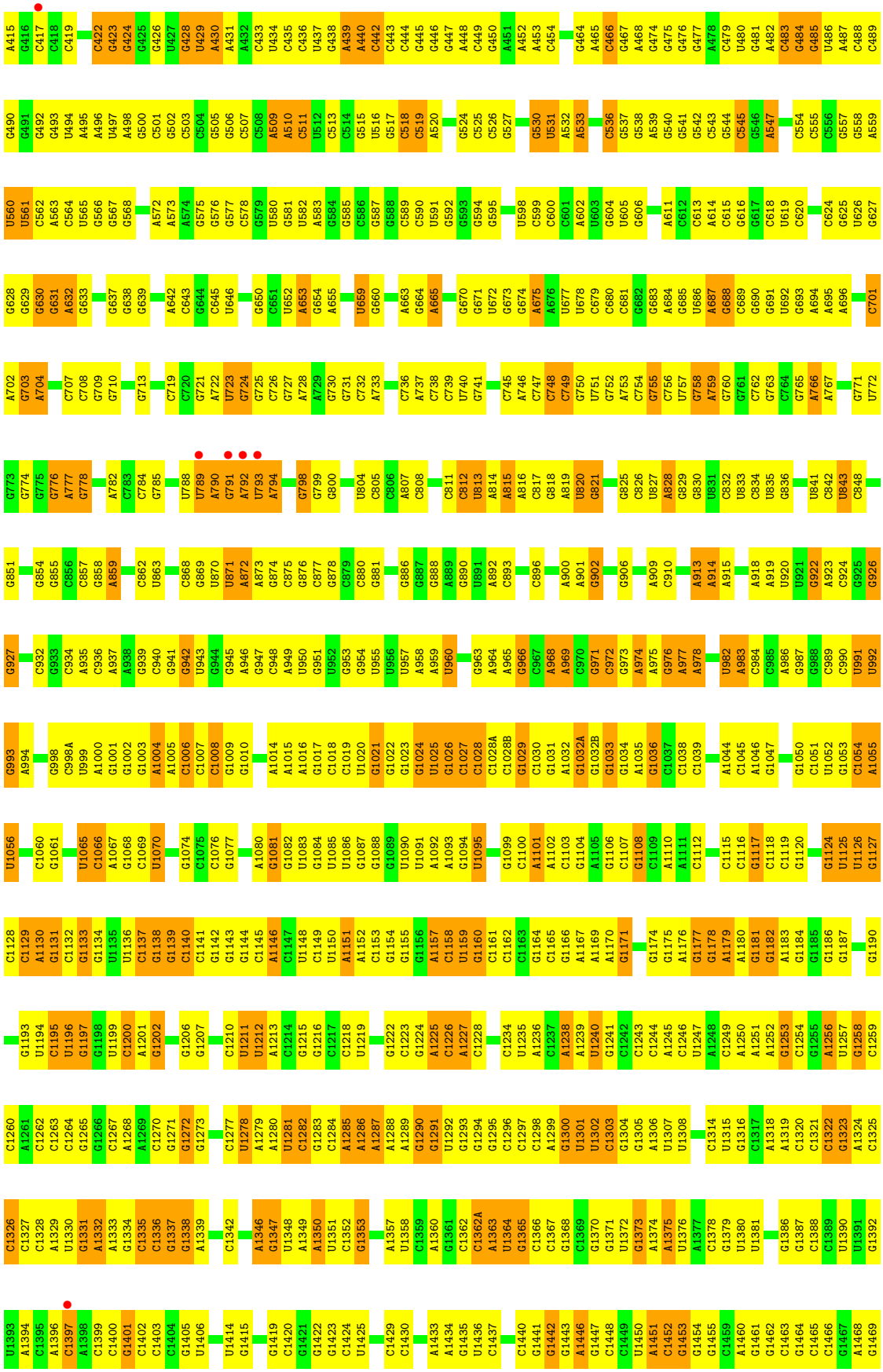


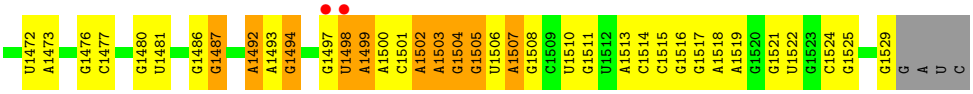
• Molecule 31: 16S ribosomal RNA

Chain BA:



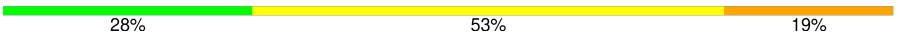


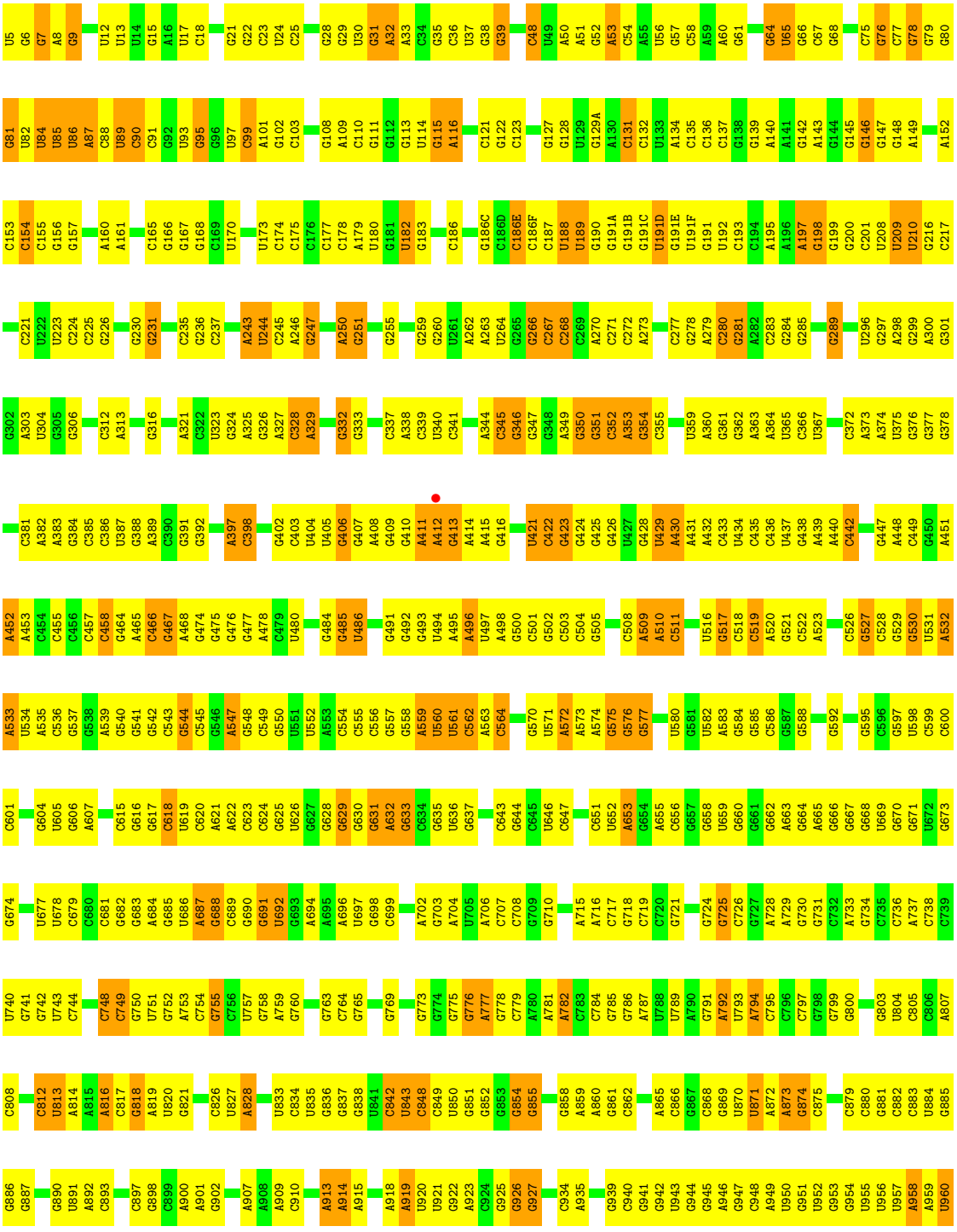


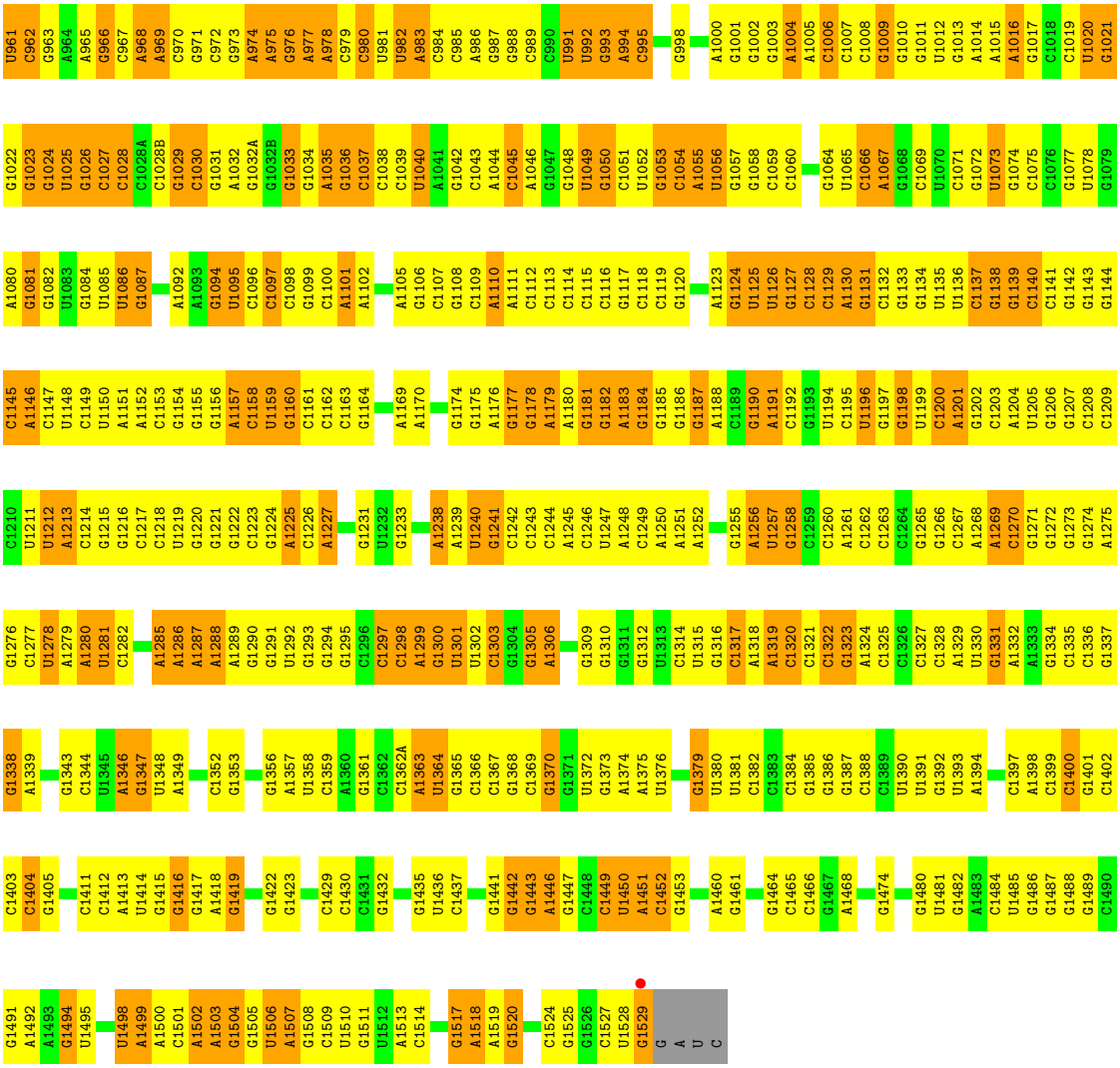


• Molecule 31: 16S ribosomal RNA

Chain DA:



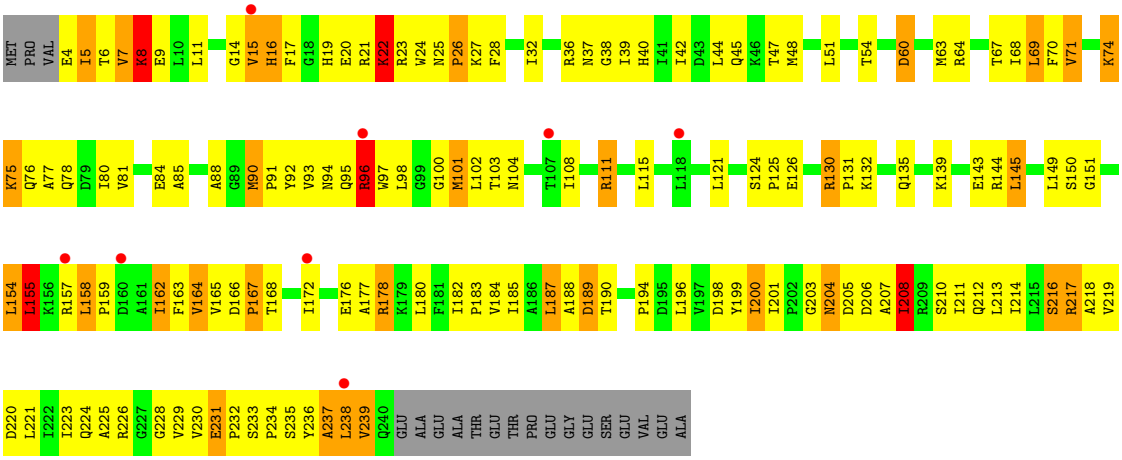




• Molecule 32: 30S RIBOSOMAL PROTEIN S2

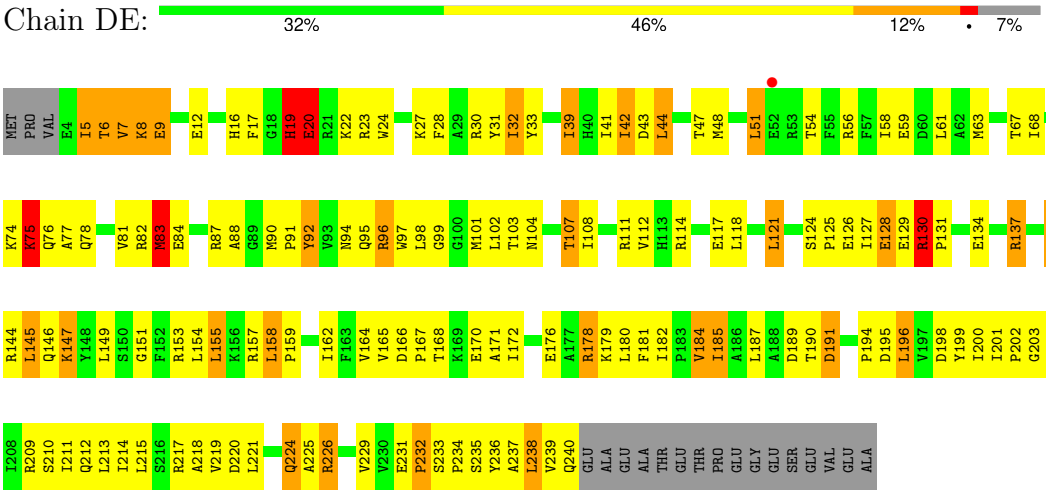
Chain BE:





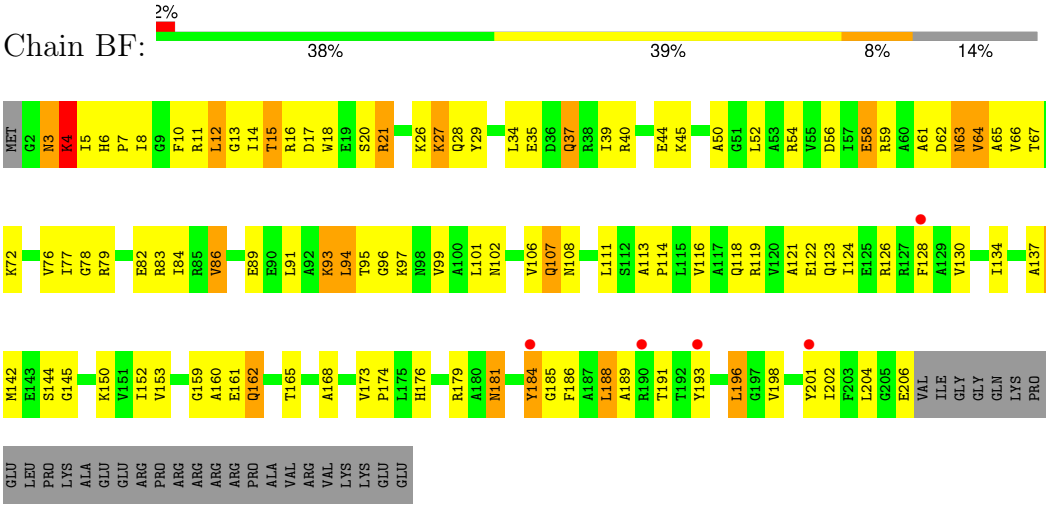
• Molecule 32: 30S RIBOSOMAL PROTEIN S2

Chain DE:



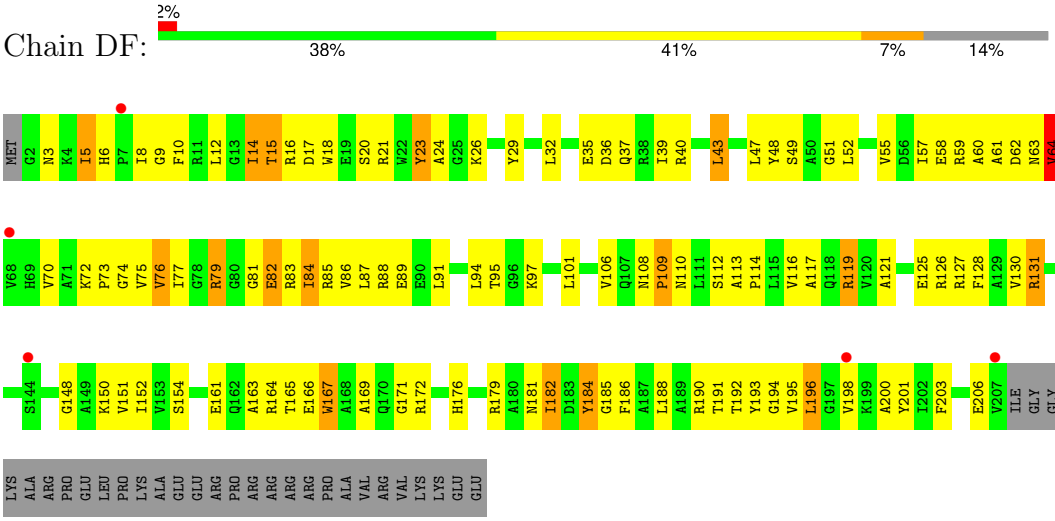
• Molecule 33: 30S RIBOSOMAL PROTEIN S3

Chain BF:



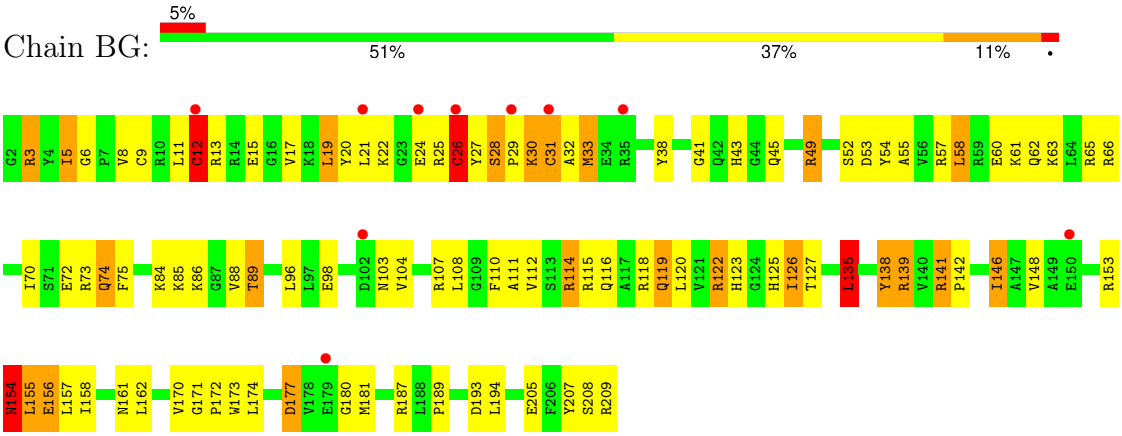
• Molecule 33: 30S RIBOSOMAL PROTEIN S3

Chain DF:



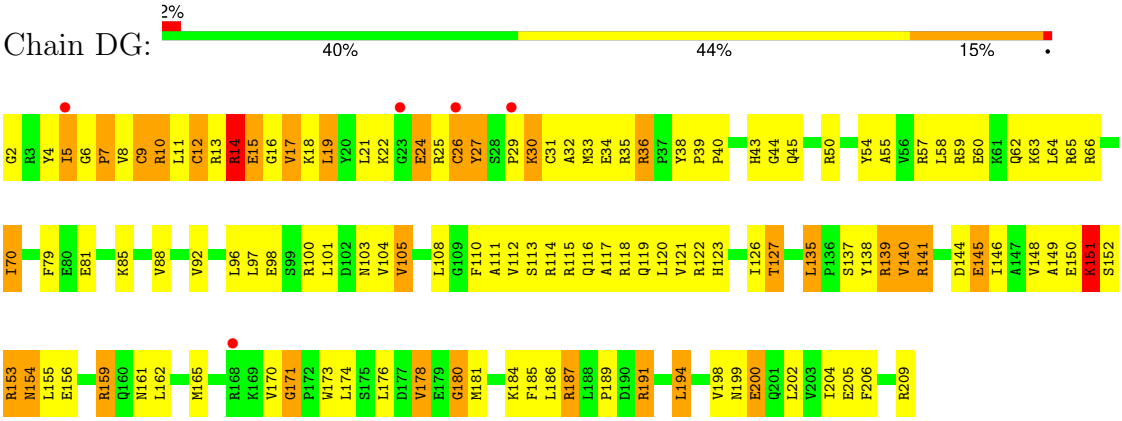
• Molecule 34: 30S RIBOSOMAL PROTEIN S4

Chain BG:



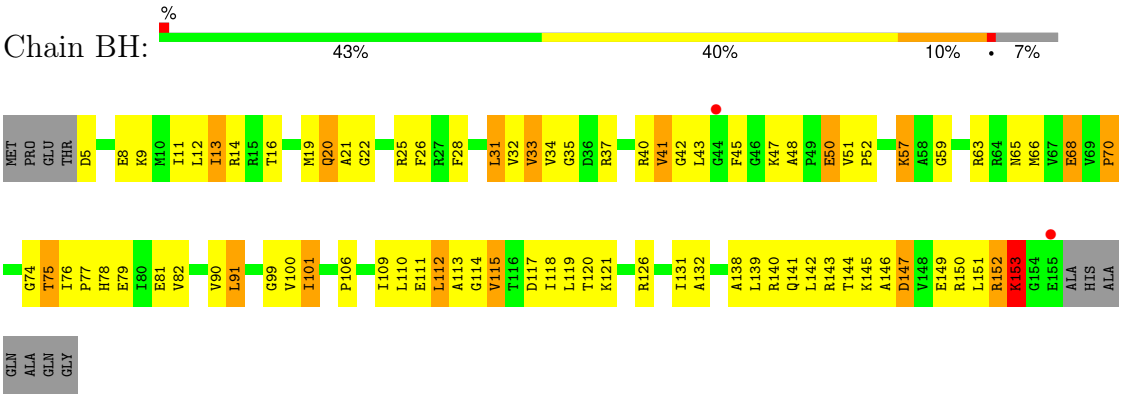
• Molecule 34: 30S RIBOSOMAL PROTEIN S4

Chain DG:



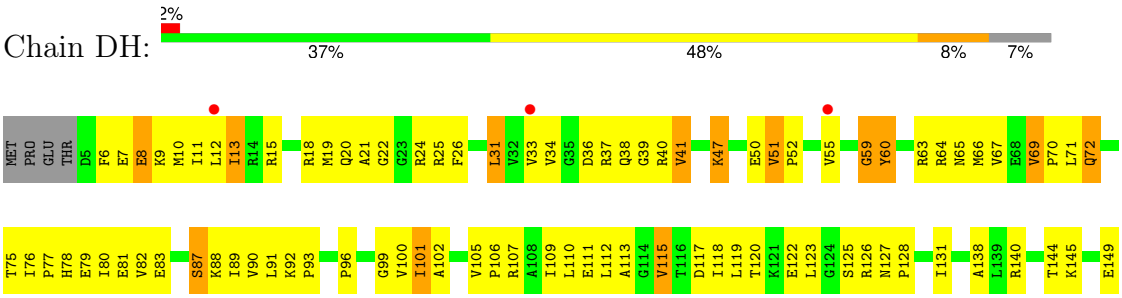
• Molecule 35: 30S RIBOSOMAL PROTEIN S5

Chain BH:



• Molecule 35: 30S RIBOSOMAL PROTEIN S5

Chain DH:

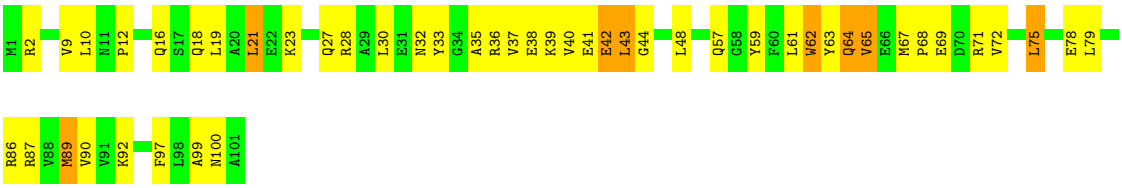




• Molecule 36: 30S RIBOSOMAL PROTEIN S6

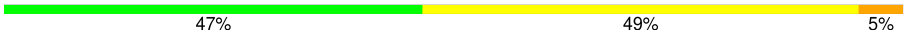
Chain BI:

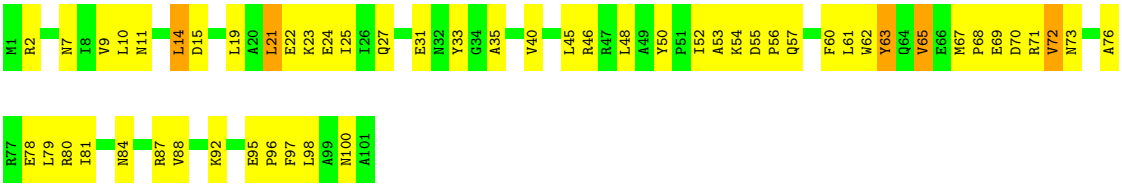




• Molecule 36: 30S RIBOSOMAL PROTEIN S6

Chain DI:





• Molecule 37: 30S RIBOSOMAL PROTEIN S7

Chain BJ:

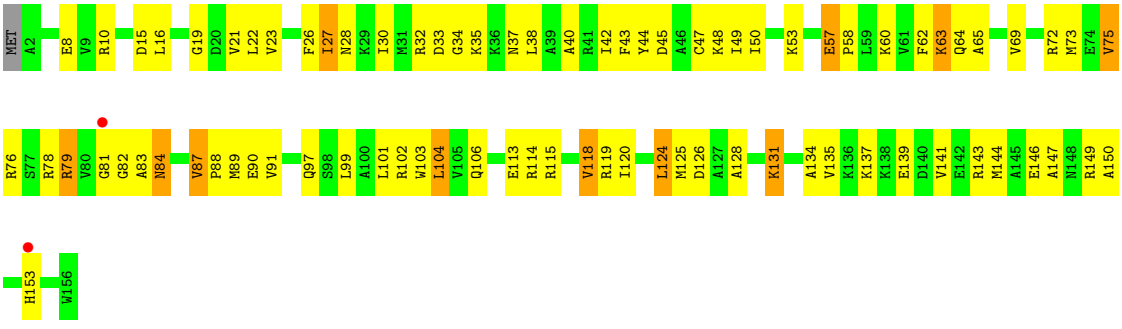




• Molecule 37: 30S RIBOSOMAL PROTEIN S7

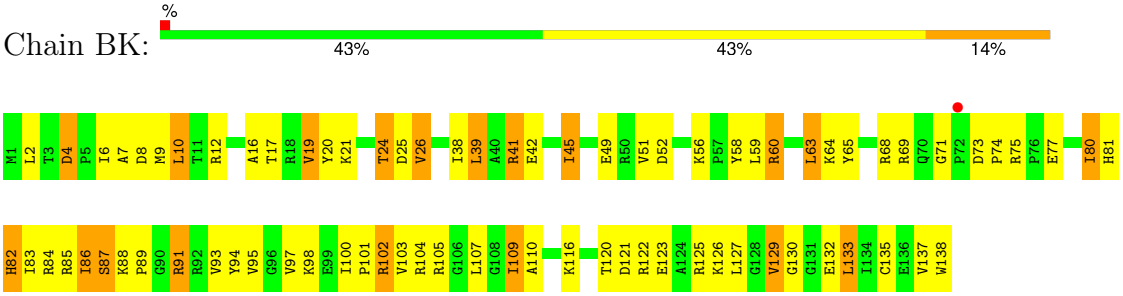
Chain DJ:





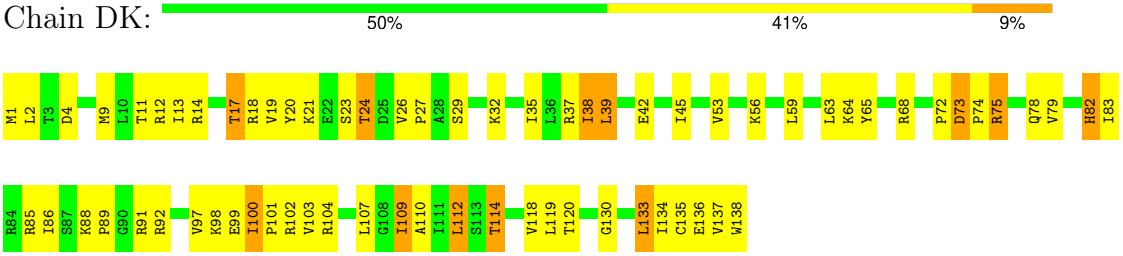
• Molecule 38: 30S RIBOSOMAL PROTEIN S8

Chain BK:



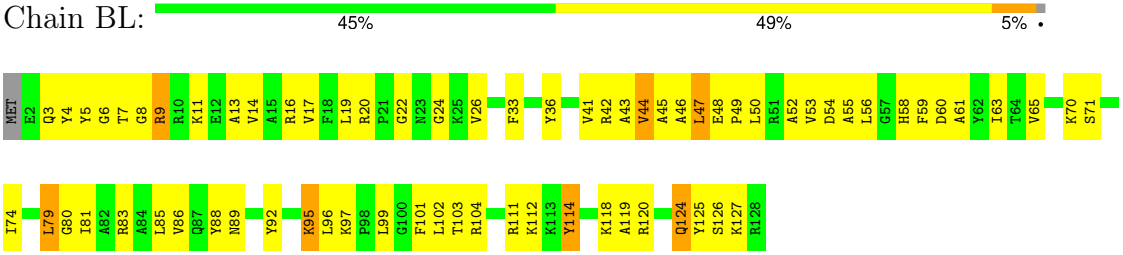
• Molecule 38: 30S RIBOSOMAL PROTEIN S8

Chain DK:



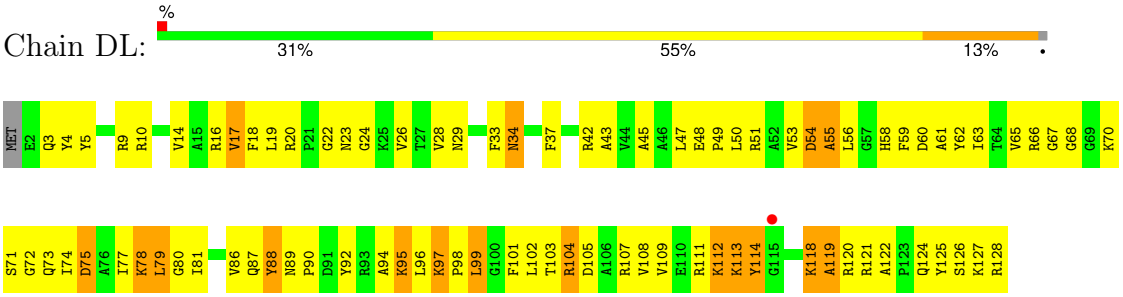
• Molecule 39: 30S RIBOSOMAL PROTEIN S9

Chain BL:



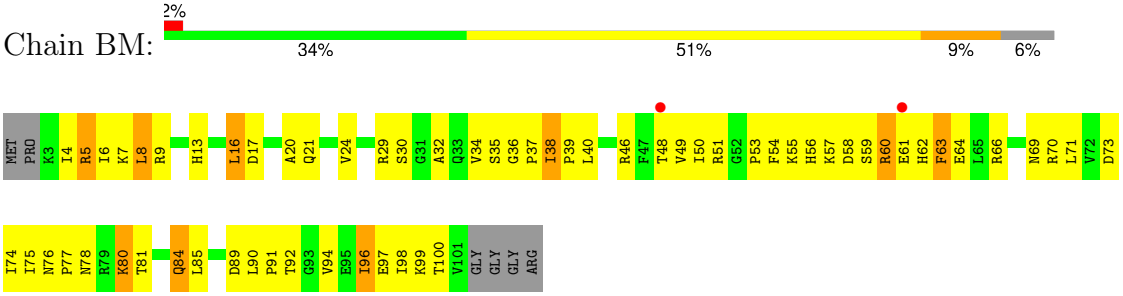
• Molecule 39: 30S RIBOSOMAL PROTEIN S9

Chain DL:



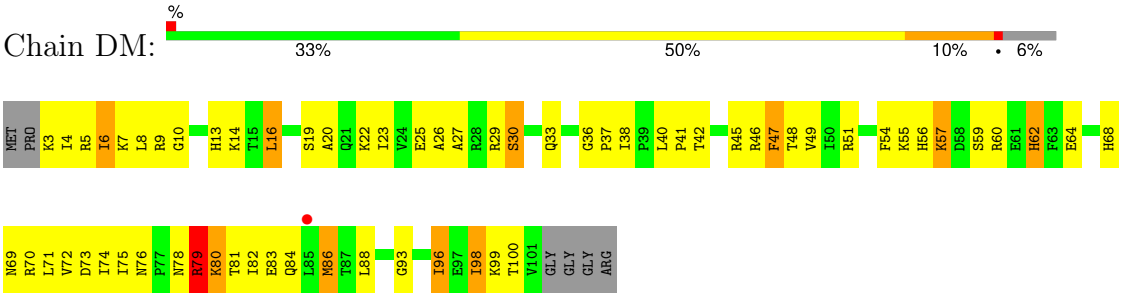
• Molecule 40: 30S RIBOSOMAL PROTEIN S10

Chain BM:



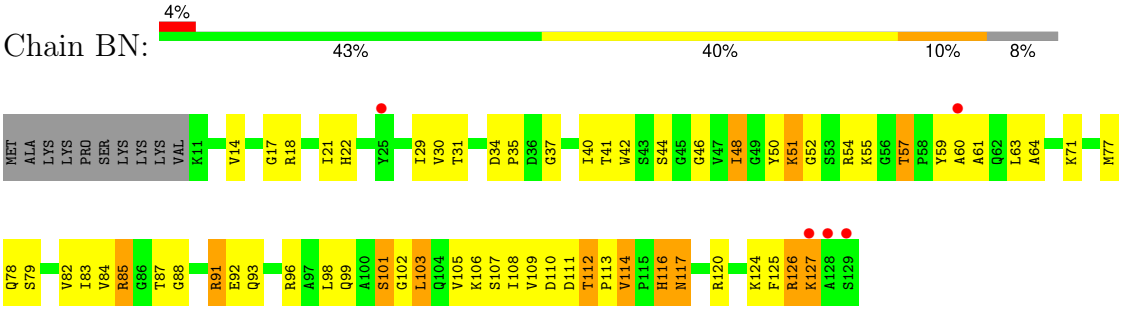
• Molecule 40: 30S RIBOSOMAL PROTEIN S10

Chain DM:



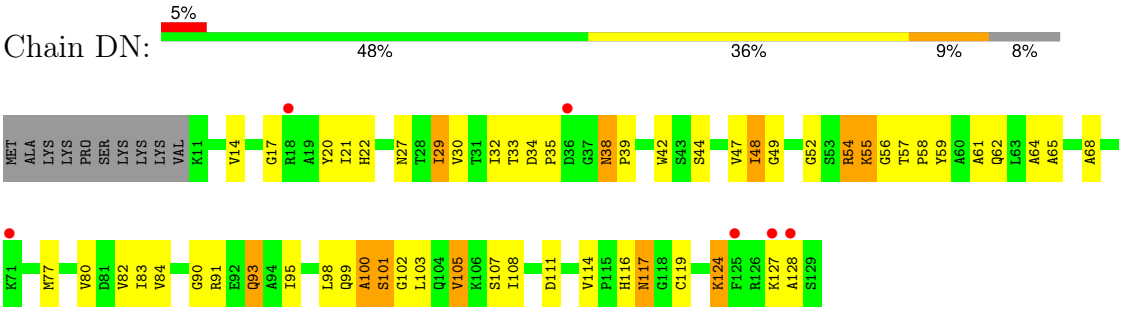
• Molecule 41: 30S RIBOSOMAL PROTEIN S11

Chain BN:



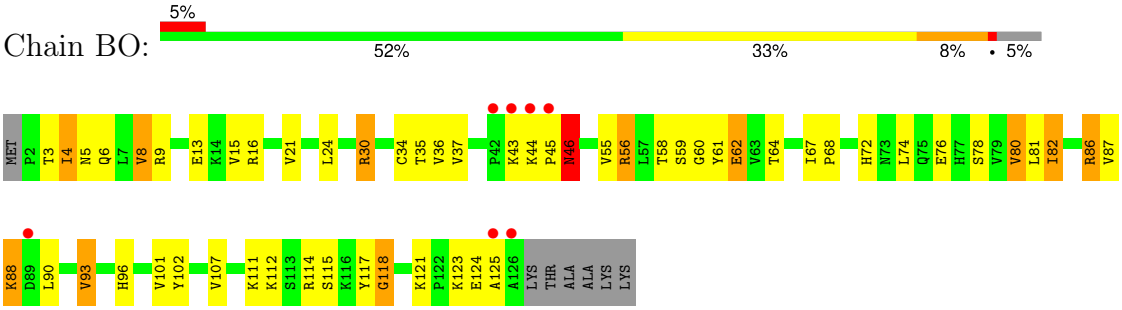
• Molecule 41: 30S RIBOSOMAL PROTEIN S11

Chain DN:



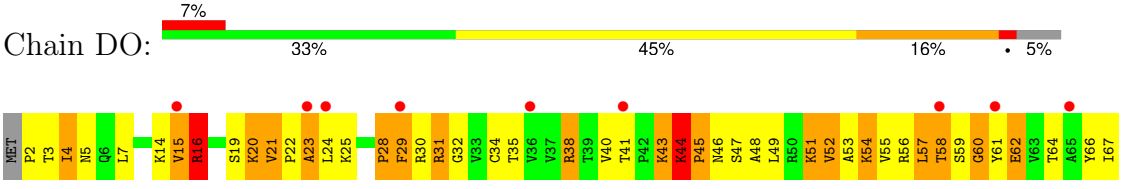
• Molecule 42: 30S RIBOSOMAL PROTEIN S12

Chain BO:



• Molecule 42: 30S RIBOSOMAL PROTEIN S12

Chain DO:

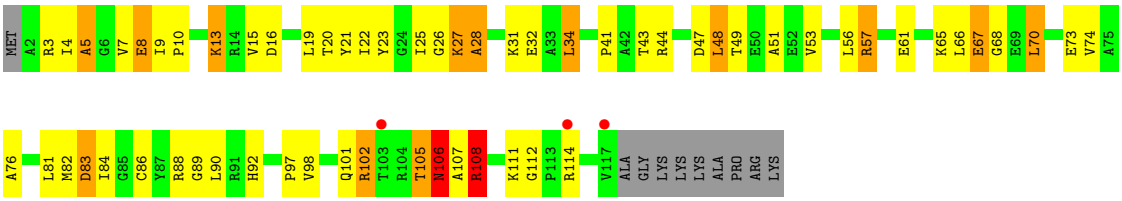




• Molecule 43: 30S RIBOSOMAL PROTEIN S13

Chain BP:

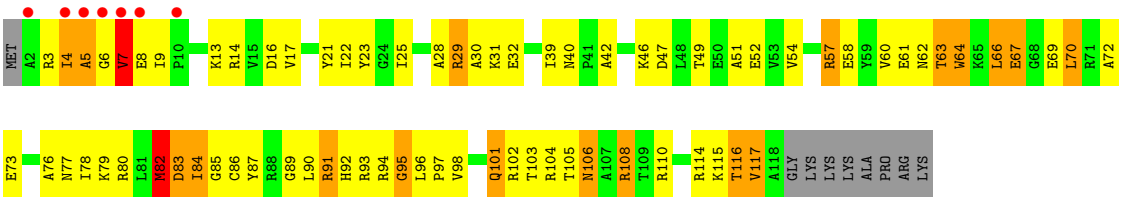




• Molecule 43: 30S RIBOSOMAL PROTEIN S13

Chain DP:





• Molecule 44: 30S RIBOSOMAL PROTEIN S14

Chain BQ:





• Molecule 44: 30S RIBOSOMAL PROTEIN S14

Chain DQ:

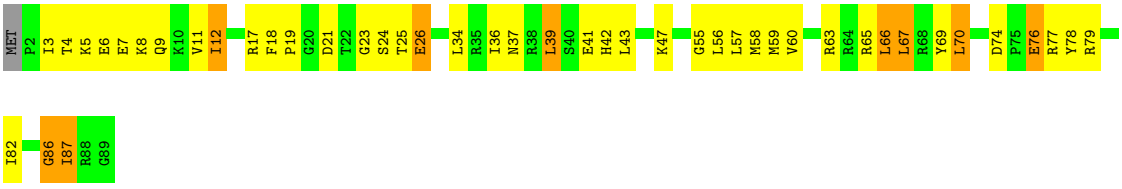




• Molecule 45: 30S RIBOSOMAL PROTEIN S15

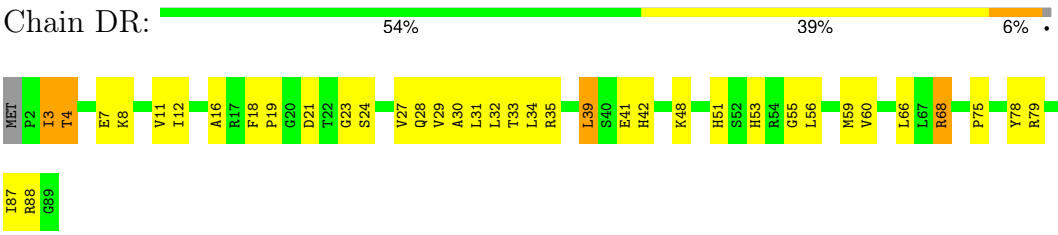
Chain BR:





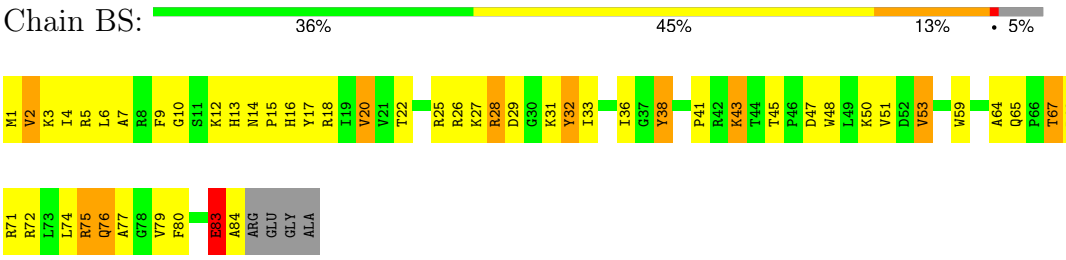
• Molecule 45: 30S RIBOSOMAL PROTEIN S15

Chain DR:



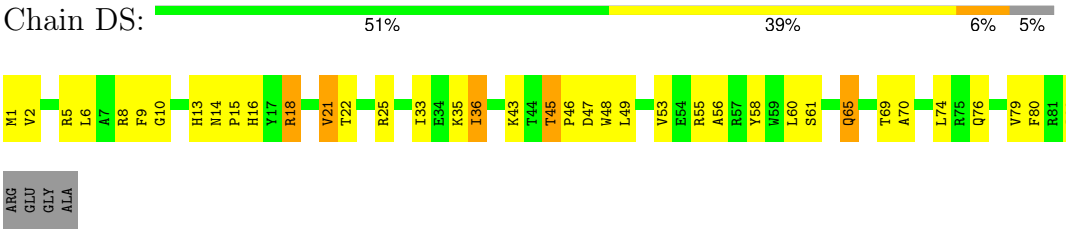
• Molecule 46: 30S RIBOSOMAL PROTEIN S16

Chain BS:



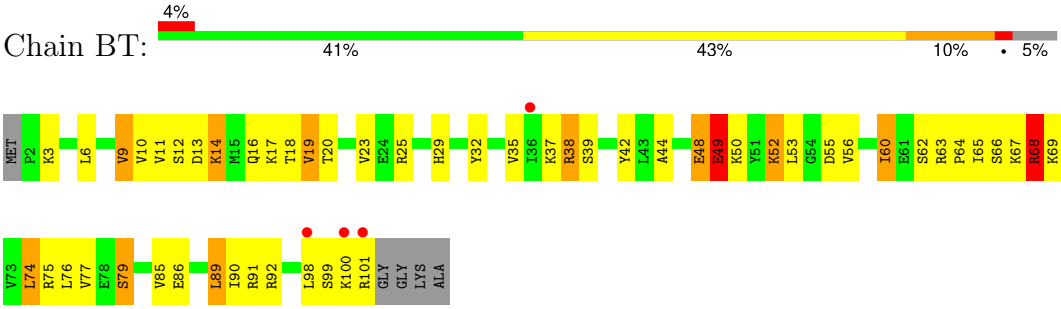
• Molecule 46: 30S RIBOSOMAL PROTEIN S16

Chain DS:



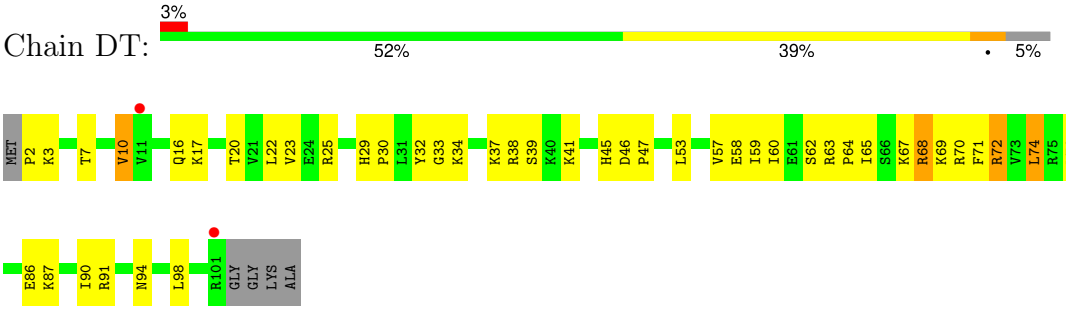
• Molecule 47: 30S RIBOSOMAL PROTEIN S17

Chain BT:



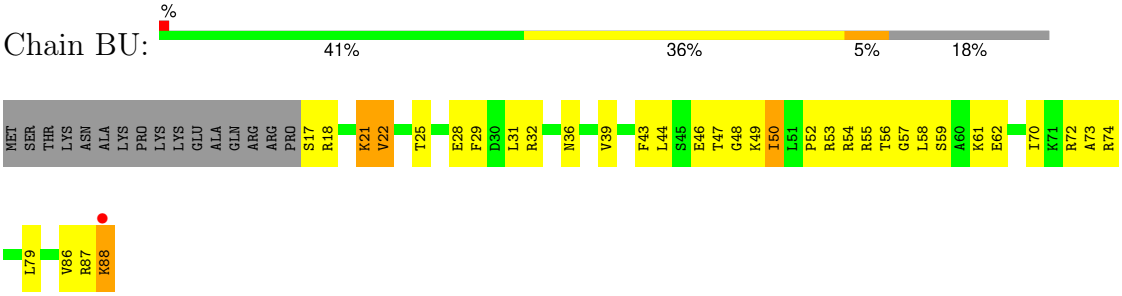
• Molecule 47: 30S RIBOSOMAL PROTEIN S17

Chain DT:



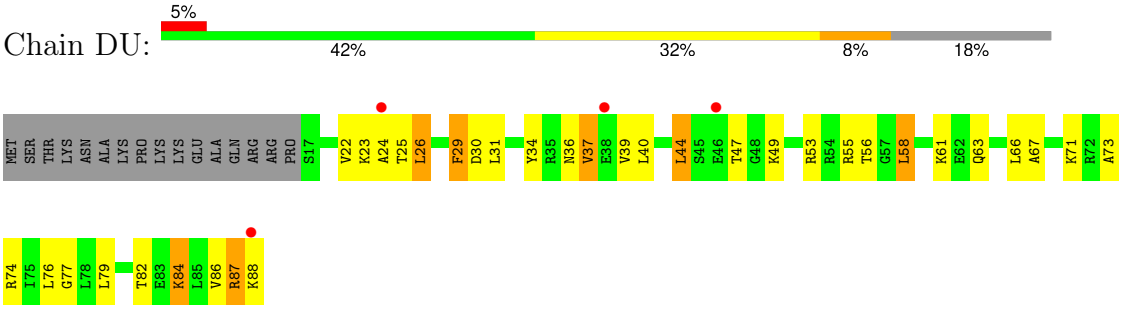
• Molecule 48: 30S RIBOSOMAL PROTEIN S18

Chain BU:



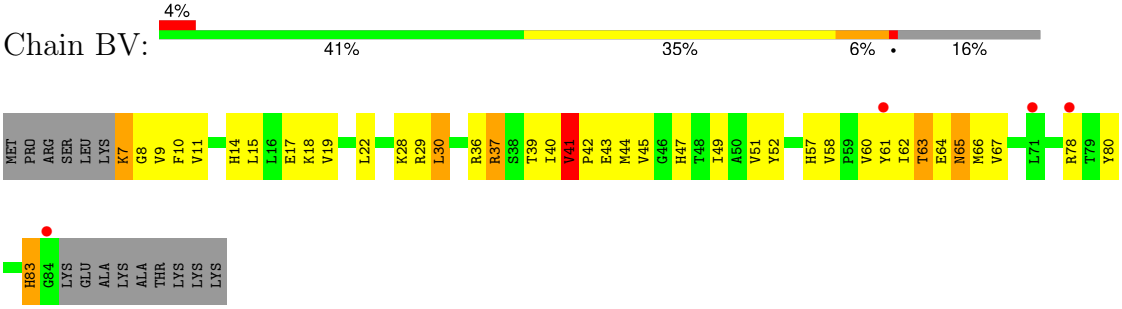
• Molecule 48: 30S RIBOSOMAL PROTEIN S18

Chain DU:



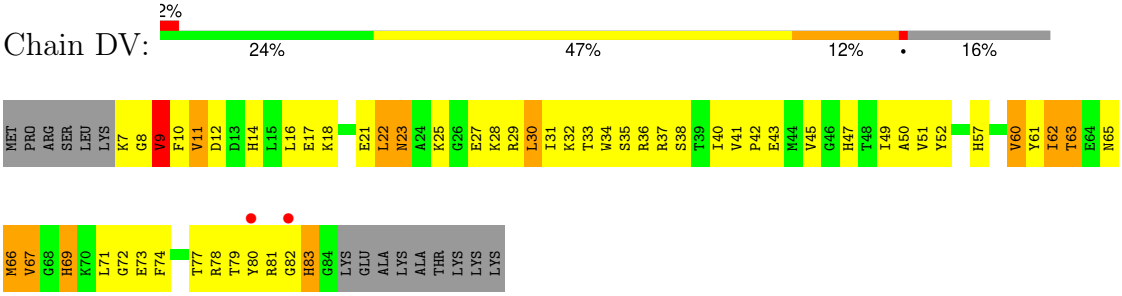
• Molecule 49: 30S RIBOSOMAL PROTEIN S19

Chain BV:



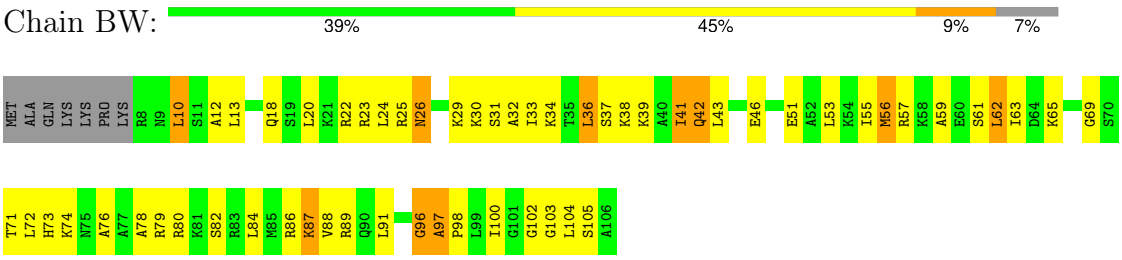
• Molecule 49: 30S RIBOSOMAL PROTEIN S19

Chain DV:



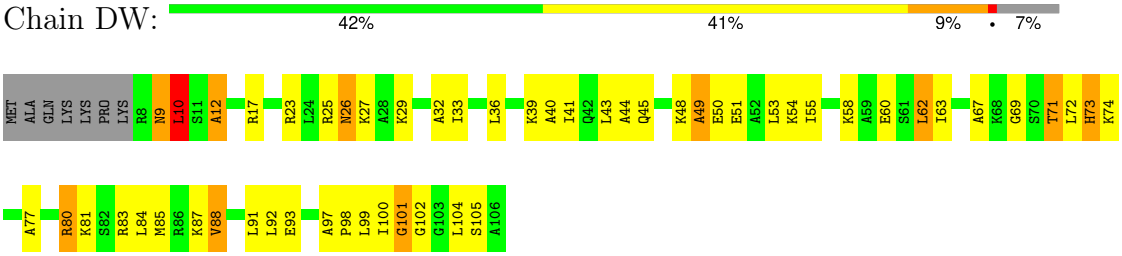
• Molecule 50: 30S RIBOSOMAL PROTEIN S20

Chain BW:



• Molecule 50: 30S RIBOSOMAL PROTEIN S20

Chain DW:



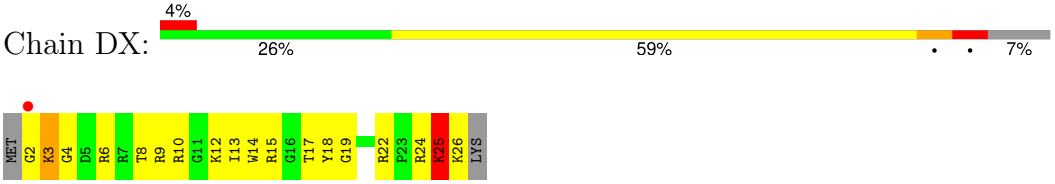
• Molecule 51: 30S RIBOSOMAL PROTEIN THX

Chain BX:



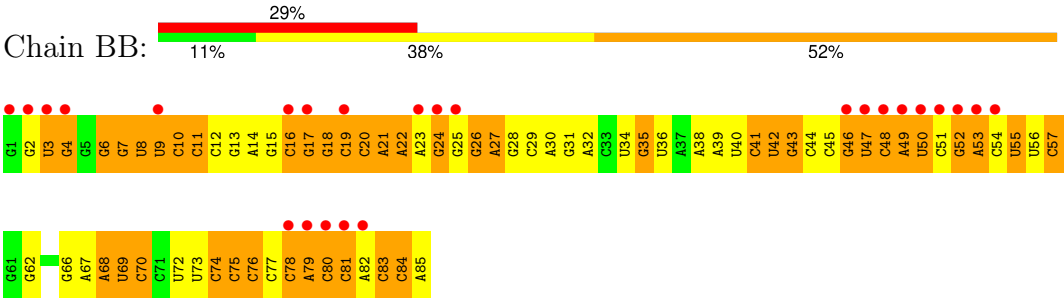
• Molecule 51: 30S RIBOSOMAL PROTEIN THX

Chain DX:



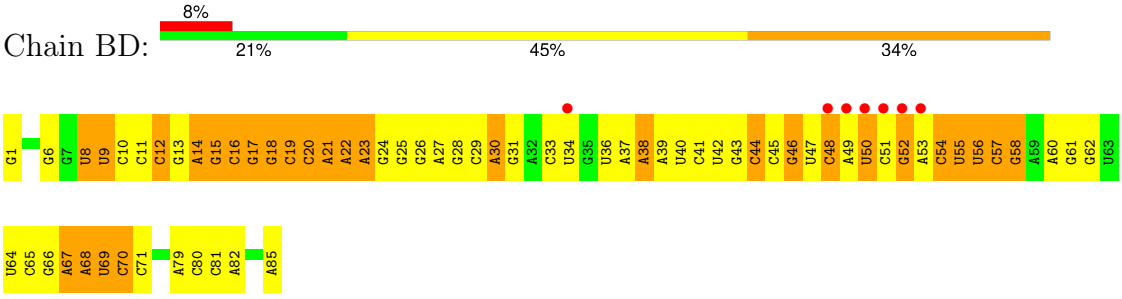
• Molecule 52: TRNA-TYR

Chain BB:



• Molecule 52: TRNA-TYR

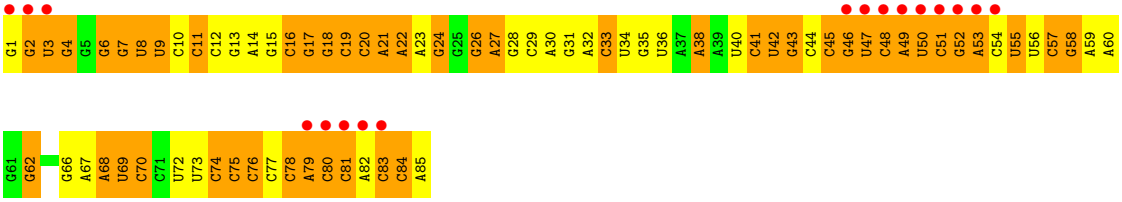
Chain BD:



• Molecule 52: TRNA-TYR

Chain DB:

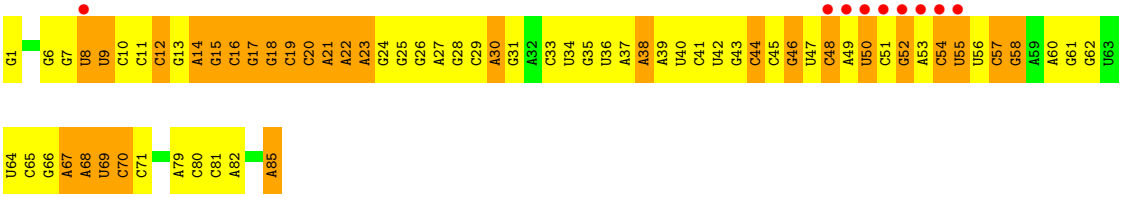




• Molecule 52: TRNA-TYR

Chain DD:

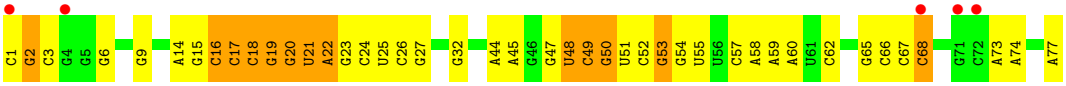




• Molecule 53: TRNA-FMET

Chain BC:

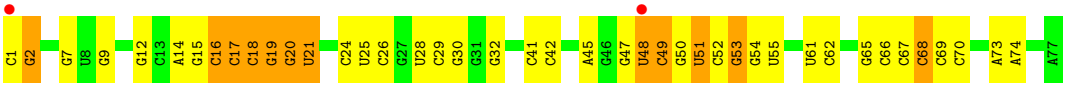




• Molecule 53: TRNA-FMET

Chain DC:

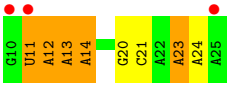




• Molecule 54: MRNA

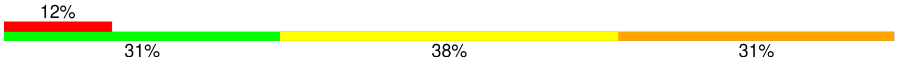
Chain B1:





• Molecule 54: MRNA

Chain D1:





4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	210.25Å 450.87Å 622.66Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	256.19 – 3.30 256.19 – 3.30	Depositor EDS
% Data completeness (in resolution range)	100.0 (256.19-3.30) 94.2 (256.19-3.30)	Depositor EDS
R_{merge}	0.30	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.27 (at 3.19Å)	Xtriage
Refinement program	PHENIX dev_810	Depositor
R, R_{free}	0.206 , 0.259 0.206 , 0.258	Depositor DCC
R_{free} test set	2000 reflections (0.21%)	wwPDB-VP
Wilson B-factor (Å^2)	90.6	Xtriage
Anisotropy	0.322	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.26 , 72.6	EDS
L-test for twinning[2]	$< \|L\| > = 0.45$, $< L^2 > = 0.28$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	303952	wwPDB-VP
Average B, all atoms (Å^2)	109.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.42% 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, 0.333 respectively for untwinned datasets, and 0.375, 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, OHX, MIA

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	0.19	0/70233	0.35	0/109643
1	CA	0.17	0/70122	0.34	1/109469 (0.0%)
2	AB	0.17	0/2928	0.35	0/4568
2	CB	0.15	0/2928	0.34	0/4568
3	AD	0.39	0/2165	0.90	2/2919 (0.1%)
3	CD	0.35	0/2165	0.81	0/2919
4	AE	0.35	0/1601	0.92	10/2160 (0.5%)
4	CE	0.35	0/1601	0.88	5/2160 (0.2%)
5	AF	0.36	0/1620	0.82	6/2194 (0.3%)
5	CF	0.32	0/1662	0.89	8/2249 (0.4%)
6	AG	0.29	0/1499	0.81	3/2016 (0.1%)
6	CG	0.28	0/1499	0.80	1/2016 (0.0%)
7	AH	0.35	0/1332	0.82	0/1802
7	CH	0.31	0/1332	0.81	0/1802
8	AK	0.33	0/1151	0.82	3/1558 (0.2%)
8	CK	0.30	0/1151	0.84	5/1558 (0.3%)
9	AM	0.34	0/1131	0.79	0/1525
9	CM	0.30	0/1131	0.79	2/1525 (0.1%)
10	AN	0.32	0/943	0.80	0/1269
10	CN	0.31	0/943	0.79	2/1269 (0.2%)
11	AO	0.35	0/1162	0.93	4/1544 (0.3%)
11	CO	0.31	0/1162	0.78	0/1544
12	AP	0.33	0/1143	0.76	1/1527 (0.1%)
12	CP	0.28	0/1143	0.72	1/1527 (0.1%)
13	A0	0.33	0/982	0.76	1/1312 (0.1%)
13	C0	0.31	0/974	0.72	0/1302
14	AQ	0.32	0/892	0.78	0/1187
14	CQ	0.30	0/892	0.71	1/1187 (0.1%)
15	AR	0.34	0/1155	0.83	1/1542 (0.1%)
15	CR	0.30	0/1155	0.77	2/1542 (0.1%)
16	A1	0.33	0/982	0.86	2/1306 (0.2%)
16	C1	0.30	0/982	0.71	0/1306

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	A2	0.32	0/790	0.82	2/1057 (0.2%)
17	C2	0.34	0/790	0.89	2/1057 (0.2%)
18	AS	0.35	0/911	0.76	0/1220
18	CS	0.33	0/911	0.77	0/1220
19	AT	0.35	0/739	0.79	1/993 (0.1%)
19	CT	0.34	0/739	0.82	2/993 (0.2%)
20	AU	0.34	0/798	0.82	0/1064
20	CU	0.33	0/798	0.77	0/1064
21	AV	0.31	0/1427	0.79	1/1935 (0.1%)
21	CV	0.30	0/1460	0.81	3/1982 (0.2%)
22	A3	0.30	0/615	0.75	0/819
22	C3	0.29	0/621	0.82	0/827
23	AZ	0.33	0/770	0.77	0/1022
23	CZ	0.32	0/770	0.81	0/1022
24	AW	0.35	0/560	0.85	1/741 (0.1%)
24	CW	0.29	0/560	0.73	0/741
25	AX	0.32	0/474	0.77	0/635
25	CX	0.26	0/474	0.83	2/635 (0.3%)
26	A4	0.31	0/545	0.88	3/733 (0.4%)
26	C4	0.37	0/527	0.84	2/709 (0.3%)
27	A5	0.34	0/473	0.90	2/639 (0.3%)
27	C5	0.34	0/473	0.83	0/639
28	A6	0.35	0/396	0.81	0/529
28	C6	0.37	0/396	0.87	1/529 (0.2%)
29	A7	0.40	0/399	0.76	0/526
29	C7	0.34	0/399	0.83	0/526
30	A8	0.44	0/486	0.98	3/638 (0.5%)
30	C8	0.34	0/486	0.83	1/638 (0.2%)
31	BA	0.15	0/36139	0.33	0/56406
31	DA	0.14	0/36142	0.32	0/56410
32	BE	0.27	0/1959	0.76	2/2642 (0.1%)
32	DE	0.29	0/1959	0.79	3/2642 (0.1%)
33	BF	0.29	0/1629	0.70	0/2195
33	DF	0.29	0/1636	0.73	0/2205
34	BG	0.32	0/1733	0.82	5/2318 (0.2%)
34	DG	0.29	0/1733	0.83	6/2318 (0.3%)
35	BH	0.30	0/1171	0.78	0/1576
35	DH	0.30	0/1171	0.79	0/1576
36	BI	0.28	0/856	0.72	0/1154
36	DI	0.29	0/856	0.76	0/1154
37	BJ	0.28	0/1276	0.72	0/1709
37	DJ	0.28	0/1276	0.71	0/1709
38	BK	0.30	0/1136	0.87	5/1527 (0.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
38	DK	0.27	0/1136	0.78	2/1527 (0.1%)
39	BL	0.29	0/1029	0.73	0/1379
39	DL	0.29	0/1029	0.81	3/1379 (0.2%)
40	BM	0.29	0/814	0.77	0/1095
40	DM	0.28	0/814	0.82	0/1095
41	BN	0.31	0/900	0.83	4/1213 (0.3%)
41	DN	0.29	0/900	0.80	2/1213 (0.2%)
42	BO	0.33	0/991	0.79	1/1327 (0.1%)
42	DO	0.29	0/991	0.74	0/1327
43	BP	0.28	0/938	0.76	1/1258 (0.1%)
43	DP	0.28	0/943	0.76	1/1265 (0.1%)
44	BQ	0.32	0/485	0.75	0/643
44	DQ	0.29	0/485	0.75	0/643
45	BR	0.30	0/745	0.70	0/992
45	DR	0.28	0/745	0.67	0/992
46	BS	0.28	0/721	0.76	2/970 (0.2%)
46	DS	0.28	0/721	0.73	0/970
47	BT	0.28	0/847	0.76	0/1131
47	DT	0.27	0/847	0.72	0/1131
48	BU	0.29	0/596	0.73	0/790
48	DU	0.29	0/596	0.72	0/790
49	BV	0.30	0/638	0.83	0/860
49	DV	0.31	0/638	0.82	0/860
50	BW	0.29	0/765	0.76	0/1007
50	DW	0.29	0/765	0.84	1/1007 (0.1%)
51	BX	0.29	0/221	0.67	0/288
51	DX	0.28	0/221	0.79	2/288 (0.7%)
52	BB	0.20	0/1992	0.37	0/3099
52	BD	0.17	0/1992	0.33	0/3099
52	DB	0.20	0/1992	0.36	0/3099
52	DD	0.18	0/1992	0.34	0/3099
53	BC	0.16	0/1835	0.31	0/2859
53	DC	0.14	0/1835	0.29	0/2859
54	B1	0.18	0/390	0.39	0/606
54	D1	0.17	0/390	0.40	0/606
All	All	0.22	0/324159	0.50	127/485455 (0.0%)

There are no bond length outliers.

All (127) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	AE	65	GLY	N-CA-C	-9.11	104.64	114.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
50	DW	12	ALA	N-CA-C	-8.96	102.35	113.28
17	C2	49	THR	CA-C-N	-8.14	109.67	119.84
17	C2	49	THR	C-N-CA	-8.14	109.67	119.84
27	A5	46	CYS	CA-C-N	7.53	129.25	119.84
27	A5	46	CYS	C-N-CA	7.53	129.25	119.84
39	DL	89	ASN	CA-C-N	7.42	129.12	119.84
39	DL	89	ASN	C-N-CA	7.42	129.12	119.84
11	AO	59	LEU	N-CA-C	-7.37	95.10	110.80
34	BG	135	LEU	CA-C-N	7.34	127.05	119.56
34	BG	135	LEU	C-N-CA	7.34	127.05	119.56
16	A1	9	VAL	N-CA-C	7.24	117.96	110.36
34	BG	31	CYS	N-CA-C	-7.19	104.88	112.93
15	AR	113	LYS	N-CA-C	-7.10	104.10	114.39
30	C8	54	GLU	N-CA-C	-7.10	104.61	113.20
3	AD	272	ALA	N-CA-C	6.85	117.68	108.23
4	AE	58	ARG	N-CA-C	-6.75	104.17	112.88
24	AW	5	GLU	N-CA-C	-6.74	104.53	112.89
5	CF	20	LEU	N-CA-C	6.74	116.24	108.49
8	AK	135	GLU	N-CA-C	6.61	118.60	109.29
6	AG	31	VAL	CA-C-N	6.57	128.05	119.84
6	AG	31	VAL	C-N-CA	6.57	128.05	119.84
14	CQ	56	LEU	N-CA-C	-6.51	105.07	114.12
4	CE	73	GLU	CA-C-N	6.39	127.83	119.84
4	CE	73	GLU	C-N-CA	6.39	127.83	119.84
25	CX	15	TYR	CA-C-N	6.37	126.39	119.89
25	CX	15	TYR	C-N-CA	6.37	126.39	119.89
8	CK	143	SER	CB-CA-C	-6.34	109.25	116.54
34	DG	180	GLY	N-CA-C	-6.33	106.82	114.66
6	CG	44	GLY	N-CA-C	-6.25	106.60	114.16
19	AT	5	TYR	N-CA-C	-6.18	105.50	113.16
5	CF	85	GLY	N-CA-C	-6.16	107.25	115.32
38	DK	75	ARG	CA-C-N	6.14	126.49	119.92
38	DK	75	ARG	C-N-CA	6.14	126.49	119.92
26	C4	61	ARG	N-CA-C	-6.13	105.45	113.17
5	CF	24	LEU	CA-C-N	-6.05	112.28	119.84
5	CF	24	LEU	C-N-CA	-6.05	112.28	119.84
34	DG	6	GLY	CA-C-N	5.97	127.30	119.84
34	DG	6	GLY	C-N-CA	5.97	127.30	119.84
38	BK	4	ASP	CA-C-N	5.94	125.32	118.85
38	BK	4	ASP	C-N-CA	5.94	125.32	118.85
11	AO	73	GLY	N-CA-C	5.92	118.06	112.08
38	BK	19	VAL	N-CA-C	-5.92	107.22	112.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	AE	188	VAL	N-CA-C	5.91	115.41	108.96
4	AE	23	VAL	N-CA-C	5.90	117.26	108.46
8	CK	110	ASP	CA-C-N	5.90	127.22	119.84
8	CK	110	ASP	C-N-CA	5.90	127.22	119.84
4	AE	185	LYS	N-CA-C	5.80	117.35	109.11
4	AE	188	VAL	CA-C-N	5.80	127.09	119.84
4	AE	188	VAL	C-N-CA	5.80	127.09	119.84
6	AG	70	VAL	N-CA-C	5.77	115.14	106.42
5	AF	65	TRP	CA-C-N	5.70	126.97	119.84
5	AF	65	TRP	C-N-CA	5.70	126.97	119.84
21	AV	164	ALA	N-CA-C	-5.68	106.94	112.97
21	CV	147	GLY	N-CA-C	-5.67	106.68	114.67
11	AO	60	MET	N-CA-C	-5.66	105.02	112.72
12	CP	118	LEU	N-CA-C	-5.65	106.37	113.72
21	CV	14	LYS	CA-C-N	5.64	125.17	119.19
21	CV	14	LYS	C-N-CA	5.64	125.17	119.19
11	AO	115	LEU	N-CA-C	5.63	117.09	108.42
9	CM	85	ILE	CA-C-N	5.62	126.09	120.52
9	CM	85	ILE	C-N-CA	5.62	126.09	120.52
5	CF	26	ALA	N-CA-C	-5.60	105.78	113.56
34	DG	171	GLY	CA-C-N	5.60	125.27	119.56
34	DG	171	GLY	C-N-CA	5.60	125.27	119.56
26	C4	27	THR	N-CA-C	-5.56	107.75	114.75
30	A8	53	PRO	N-CA-C	-5.55	106.91	114.80
8	AK	7	GLU	CA-C-N	5.51	125.44	119.76
8	AK	7	GLU	C-N-CA	5.51	125.44	119.76
28	C6	29	ASN	N-CA-C	-5.50	106.43	113.02
8	CK	143	SER	N-CA-C	5.44	116.58	108.31
32	DE	158	LEU	CA-C-N	5.44	126.64	119.84
32	DE	158	LEU	C-N-CA	5.44	126.64	119.84
26	A4	40	HIS	CA-C-N	-5.42	115.00	120.85
26	A4	40	HIS	C-N-CA	-5.42	115.00	120.85
42	BO	102	TYR	CB-CA-C	-5.37	110.40	116.63
46	BS	20	VAL	N-CA-C	5.37	116.45	108.46
5	AF	24	LEU	CA-C-N	5.36	126.54	119.84
5	AF	24	LEU	C-N-CA	5.36	126.54	119.84
15	CR	19	LEU	CA-C-N	5.35	126.53	119.84
15	CR	19	LEU	C-N-CA	5.35	126.53	119.84
5	CF	170	LEU	CA-C-N	5.34	124.53	118.97
5	CF	170	LEU	C-N-CA	5.34	124.53	118.97
17	A2	35	LEU	CA-C-N	5.32	126.49	119.84
17	A2	35	LEU	C-N-CA	5.32	126.49	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	DX	22	ARG	CA-C-N	5.31	125.21	119.85
51	DX	22	ARG	C-N-CA	5.31	125.21	119.85
30	A8	34	TRP	CA-C-N	5.30	131.23	121.70
30	A8	34	TRP	C-N-CA	5.30	131.23	121.70
39	DL	17	VAL	N-CA-C	5.29	115.47	107.75
34	BG	38	TYR	CA-C-N	5.27	123.51	119.66
34	BG	38	TYR	C-N-CA	5.27	123.51	119.66
4	CE	128	SER	N-CA-C	5.27	114.99	108.19
4	CE	61	ARG	CA-C-N	-5.24	113.29	119.84
4	CE	61	ARG	C-N-CA	-5.24	113.29	119.84
38	BK	73	ASP	CA-C-N	5.23	124.84	119.56
38	BK	73	ASP	C-N-CA	5.23	124.84	119.56
12	AP	136	ALA	N-CA-C	-5.22	106.76	113.23
5	CF	15	SER	CB-CA-C	-5.22	110.14	117.23
41	BN	114	VAL	CA-C-N	5.20	124.96	119.76
41	BN	114	VAL	C-N-CA	5.20	124.96	119.76
34	DG	10	ARG	N-CA-C	-5.19	106.46	112.89
10	CN	47	ILE	CA-C-N	5.18	126.32	119.84
10	CN	47	ILE	C-N-CA	5.18	126.32	119.84
5	AF	80	ALA	CA-C-N	5.18	124.98	119.28
5	AF	80	ALA	C-N-CA	5.18	124.98	119.28
16	A1	96	ALA	N-CA-C	-5.16	107.01	113.72
41	DN	38	ASN	CA-C-N	5.16	126.29	119.84
41	DN	38	ASN	C-N-CA	5.16	126.29	119.84
8	CK	142	VAL	N-CA-C	5.16	115.28	107.80
43	DP	91	ARG	N-CA-C	-5.16	106.99	113.28
19	CT	5	TYR	N-CA-C	-5.15	106.84	113.02
43	BP	107	ALA	N-CA-C	-5.13	105.92	113.61
41	BN	112	THR	CA-C-N	5.08	125.88	119.98
41	BN	112	THR	C-N-CA	5.08	125.88	119.98
4	AE	125	GLY	CA-C-N	5.08	124.84	119.76
4	AE	125	GLY	C-N-CA	5.08	124.84	119.76
46	BS	83	GLU	CB-CA-C	-5.07	110.33	117.23
3	AD	223	GLY	N-CA-C	-5.05	106.53	112.64
13	A0	83	ILE	N-CA-C	5.05	115.34	110.74
26	A4	17	GLY	N-CA-C	-5.04	107.54	113.99
1	CA	979	A	C4-N9-C1'	5.03	141.38	126.30
19	CT	4	ALA	N-CA-C	-5.02	108.90	114.62
4	AE	77	ILE	N-CA-C	-5.02	105.69	113.16
32	BE	90	MET	CA-C-N	5.01	124.91	119.85
32	BE	90	MET	C-N-CA	5.01	124.91	119.85
32	DE	19	HIS	N-CA-C	5.01	115.14	108.23

There are no chirality outliers.

There are no planarity outliers.

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	62707	0	31613	2358	0
1	CA	62607	0	31564	2409	0
2	AB	2617	0	1328	88	0
2	CB	2617	0	1328	129	0
3	AD	2115	0	2195	239	0
3	CD	2115	0	2195	202	0
4	AE	1568	0	1634	163	0
4	CE	1568	0	1634	171	0
5	AF	1585	0	1632	131	0
5	CF	1627	0	1680	195	0
6	AG	1474	0	1535	116	0
6	CG	1474	0	1535	125	0
7	AH	1307	0	1382	133	0
7	CH	1307	0	1382	113	1
8	AK	1136	0	1223	97	0
8	CK	1136	0	1223	82	0
9	AM	1104	0	1180	89	0
9	CM	1104	0	1180	75	0
10	AN	933	0	996	66	0
10	CN	933	0	996	56	0
11	AO	1145	0	1228	183	0
11	CO	1145	0	1228	273	0
12	AP	1122	0	1179	176	0
12	CP	1122	0	1179	199	0
13	A0	968	0	1033	74	0
13	C0	960	0	1021	73	0
14	AQ	882	0	943	87	0
14	CQ	882	0	943	92	0
15	AR	1141	0	1202	111	0
15	CR	1141	0	1202	94	0
16	A1	964	0	1022	90	0
16	C1	964	0	1022	85	0
17	A2	779	0	852	67	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
17	C2	779	0	852	103	0
18	AS	900	0	964	58	0
18	CS	900	0	964	60	0
19	AT	725	0	778	45	0
19	CT	725	0	778	43	0
20	AU	785	0	878	78	0
20	CU	785	0	878	82	0
21	AV	1397	0	1430	149	0
21	CV	1428	0	1454	157	0
22	A3	607	0	628	44	0
22	C3	613	0	633	47	0
23	AZ	763	0	848	53	0
23	CZ	763	0	848	46	0
24	AW	558	0	610	46	0
24	CW	558	0	610	52	0
25	AX	469	0	518	28	0
25	CX	469	0	518	29	0
26	A4	533	0	522	74	0
26	C4	515	0	510	102	0
27	A5	459	0	480	90	0
27	C5	459	0	478	36	0
28	A6	389	0	404	61	0
28	C6	389	0	404	52	0
29	A7	391	0	432	21	0
29	C7	391	0	432	32	0
30	A8	480	0	549	65	0
30	C8	480	0	549	123	0
31	BA	32284	0	16296	1470	1
31	DA	32287	0	16295	1439	0
32	BE	1924	0	1975	148	0
32	DE	1924	0	1975	166	0
33	BF	1605	0	1668	101	0
33	DF	1612	0	1677	118	0
34	BG	1703	0	1763	123	0
34	DG	1703	0	1763	135	0
35	BH	1155	0	1213	74	0
35	DH	1155	0	1213	82	0
36	BI	843	0	857	38	0
36	DI	843	0	857	48	0
37	BJ	1257	0	1296	76	0
37	DJ	1257	0	1296	93	0
38	BK	1116	0	1177	83	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
38	DK	1116	0	1177	58	0
39	BL	1010	0	1037	73	0
39	DL	1010	0	1037	117	0
40	BM	801	0	849	79	0
40	DM	801	0	849	92	0
41	BN	885	0	904	57	0
41	DN	885	0	904	60	0
42	BO	975	0	1062	54	0
42	DO	975	0	1062	92	0
43	BP	928	0	987	76	0
43	DP	933	0	992	83	0
44	BQ	476	0	511	47	0
44	DQ	476	0	511	54	0
45	BR	734	0	771	38	0
45	DR	734	0	771	40	0
46	BS	705	0	725	57	0
46	DS	705	0	725	36	0
47	BT	834	0	904	55	0
47	DT	834	0	904	41	0
48	BU	591	0	662	41	0
48	DU	591	0	662	40	0
49	BV	624	0	636	50	0
49	DV	624	0	636	84	0
50	BW	763	0	861	60	0
50	DW	763	0	861	50	0
51	BX	217	0	234	12	0
51	DX	217	0	234	21	0
52	BB	1814	0	932	159	0
52	BD	1814	0	932	153	0
52	DB	1814	0	932	174	0
52	DD	1814	0	932	173	0
53	BC	1643	0	837	47	0
53	DC	1643	0	837	52	0
54	B1	347	0	174	24	0
54	D1	347	0	174	25	0
55	A0	1	0	0	0	0
55	A1	1	0	0	0	0
55	A3	1	0	0	0	0
55	A5	1	0	0	0	0
55	AA	331	0	0	0	0
55	AB	6	0	0	0	0
55	AE	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	AF	2	0	0	0	0
55	AO	3	0	0	0	0
55	B1	1	0	0	0	0
55	BA	115	0	0	0	0
55	BB	5	0	0	0	0
55	BC	5	0	0	0	0
55	BD	1	0	0	0	0
55	BN	1	0	0	0	0
55	BQ	1	0	0	0	0
55	BS	1	0	0	0	0
55	C0	1	0	0	0	0
55	C5	1	0	0	0	0
55	C7	1	0	0	0	0
55	CA	274	0	0	0	0
55	CB	7	0	0	0	0
55	CE	1	0	0	0	0
55	D1	1	0	0	0	0
55	DA	119	0	0	0	0
55	DB	2	0	0	0	0
55	DC	6	0	0	0	0
55	DL	1	0	0	0	0
55	DN	1	0	0	0	0
56	A1	14	0	0	0	0
56	A3	7	0	0	0	0
56	A6	7	0	0	3	0
56	AA	1666	0	0	98	0
56	AB	91	0	0	4	0
56	AE	7	0	0	0	0
56	AF	7	0	0	1	0
56	AO	14	0	0	1	0
56	AW	7	0	0	0	0
56	BA	707	0	0	51	0
56	BB	14	0	0	1	0
56	BC	14	0	0	2	0
56	BD	21	0	0	1	0
56	BG	7	0	0	2	0
56	BR	7	0	0	0	0
56	C1	7	0	0	0	0
56	C3	7	0	0	0	0
56	C5	7	0	0	1	0
56	C6	7	0	0	4	0
56	CA	1526	0	0	72	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	CB	91	0	0	4	0
56	CF	7	0	0	0	0
56	CO	7	0	0	0	0
56	DA	651	0	0	55	0
56	DB	21	0	0	1	0
56	DC	28	0	0	10	0
56	DD	7	0	0	1	0
56	DG	7	0	0	2	0
56	DK	7	0	0	1	0
56	DR	7	0	0	0	0
56	DV	7	0	0	1	0
57	BG	1	0	0	0	0
57	BQ	1	0	0	0	0
57	DG	1	0	0	0	0
57	DQ	1	0	0	0	0
All	All	303952	0	200977	15360	1

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 31.

All (15360) 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)
1:CA:2320:G:C8	1:CA:2324:A:C2	1.85	1.64
1:CA:216:G:N2	1:CA:218:A:H61	1.09	1.47
1:AA:2308:G:N1	1:AA:2311:A:N1	1.63	1.43
1:CA:216:G:H21	1:CA:218:A:N6	0.92	1.42
1:AA:2308:G:N2	1:AA:2311:A:H2	1.02	1.42
1:CA:2320:G:C8	1:CA:2324:A:H2	1.24	1.40
11:AO:19:VAL:HG23	11:AO:27:HIS:CB	1.51	1.39
11:AO:19:VAL:CG2	11:AO:27:HIS:HB3	1.52	1.37
1:AA:2015:A:C1'	27:A5:2:ALA:HA	1.56	1.35
1:AA:2255:G:N2	12:AP:85:LYS:HE2	1.40	1.35
1:CA:2431:A:OP2	30:C8:29:LYS:NZ	1.63	1.32
27:A5:4:HIS:HB3	27:A5:5:PRO:CD	1.60	1.32
12:AP:17:LEU:HD23	12:AP:96:VAL:CG1	1.58	1.31
12:AP:17:LEU:CD2	12:AP:96:VAL:HG13	1.60	1.30
12:AP:24:GLY:HA3	12:AP:25:ASP:CB	1.43	1.30
1:CA:2320:G:C4	1:CA:2324:A:N1	2.00	1.30
12:AP:77:LYS:NZ	12:AP:83:MET:HA	1.47	1.29
1:AA:883:G:H1	1:AA:893:C:N4	1.30	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1056:G:H21	1:AA:1103:A:N6	1.29	1.27
12:CP:24:GLY:HA3	12:CP:25:ASP:CB	1.52	1.26
1:AA:2136:C:N4	1:AA:2155:G:H1	1.30	1.25
11:CO:64:LYS:HD3	30:C8:25:MET:SD	1.75	1.25
11:CO:71:VAL:CG1	11:CO:72:PRO:HD3	1.65	1.25
1:CA:2694:C:C5	1:CA:2739:A:N6	2.06	1.24
53:BC:48:U:O2'	53:BC:49:C:OP2	1.57	1.22
1:CA:933:C:N4	1:CA:938:A:H62	1.36	1.22
1:CA:933:C:C4	1:CA:938:A:N6	2.08	1.21
1:CA:895:U:C4	1:CA:979:A:N6	2.09	1.19
53:DC:48:U:O2'	53:DC:49:C:OP2	1.58	1.18
53:DC:17:C:H3'	53:DC:18:C:C5'	1.70	1.18
12:CP:3:MET:SD	12:CP:93:TYR:HE1	1.65	1.18
8:AK:131:LYS:HB3	8:AK:132:PRO:HA	1.25	1.17
12:CP:24:GLY:HA3	12:CP:25:ASP:HB2	1.20	1.17
30:C8:37:SER:O	30:C8:39:LYS:N	1.76	1.17
1:AA:2016:U:H1'	27:A5:6:VAL:HG13	1.21	1.17
11:CO:101:VAL:HG21	11:CO:108:LYS:HG2	1.19	1.16
30:C8:32:LEU:H	30:C8:32:LEU:CD1	1.54	1.16
1:CA:2288:C:O2'	12:CP:84:GLY:HA3	1.45	1.16
30:C8:29:LYS:O	30:C8:29:LYS:HG3	1.44	1.16
1:AA:1056:G:N2	1:AA:1103:A:H62	1.43	1.16
11:AO:15:ARG:HG2	11:AO:15:ARG:HH11	1.10	1.16
12:CP:3:MET:SD	12:CP:93:TYR:CE1	2.38	1.16
1:CA:1101:A:N6	1:CA:1152:U:H3	1.43	1.15
1:CA:2320:G:N9	1:CA:2324:A:C2	2.12	1.15
12:CP:134:ARG:HH11	12:CP:134:ARG:HG2	1.09	1.15
52:BD:17:G:O2'	52:BD:66:G:N2	1.77	1.15
11:CO:61:ARG:C	11:CO:62:LEU:HD22	1.71	1.15
31:BA:788:U:C2'	31:BA:789:U:H5'	1.77	1.15
52:BD:48:C:H3'	52:BD:49:A:C8	1.82	1.14
30:C8:32:LEU:HD13	30:C8:32:LEU:N	1.56	1.14
52:DD:48:C:H3'	52:DD:49:A:C8	1.82	1.14
53:DC:18:C:O2'	56:DC:110:OHX:N3	1.80	1.14
11:CO:80:TYR:CE1	11:CO:111:ARG:HG2	1.82	1.14
12:AP:19:GLY:HA3	12:AP:98:LYS:HZ2	1.10	1.13
11:CO:52:GLU:HG3	11:CO:57:THR:HA	1.26	1.13
1:AA:2015:A:H1'	27:A5:2:ALA:CA	1.79	1.13
1:CA:2791:G:H5"	1:CA:2792:A:H5'	1.22	1.12
11:AO:65:ARG:HH11	11:AO:65:ARG:HG3	0.98	1.12
11:CO:64:LYS:HB2	30:C8:25:MET:HG3	1.24	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:889:C:H3'	1:AA:890:A:H4'	1.24	1.12
1:CA:2325:U:H2'	1:CA:2326:C:H5'	1.32	1.12
34:DG:14:ARG:HG3	34:DG:14:ARG:HH11	1.01	1.12
1:CA:933:C:N4	1:CA:938:A:N6	1.94	1.12
1:AA:654(D):G:H1	1:AA:654(Q):C:N4	1.46	1.11
52:BB:48:C:N4	52:BB:52:G:H1	1.47	1.11
11:CO:46:LYS:HD3	11:CO:51:PHE:CZ	1.85	1.11
11:CO:62:LEU:HG	30:C8:25:MET:HB2	1.14	1.11
1:CA:2405:A:OP2	30:C8:31:HIS:CD2	2.03	1.11
31:DA:1176:A:H2'	31:DA:1177:G:H5'	1.20	1.11
1:AA:1061:U:H4'	1:AA:1070:A:H1'	1.19	1.11
1:AA:2467:C:H4'	12:AP:123:HIS:ND1	1.64	1.11
11:CO:19:VAL:HG23	11:CO:27:HIS:CB	1.80	1.11
24:CW:17:SER:HB2	24:CW:18:PRO:HA	1.19	1.11
12:AP:24:GLY:CA	12:AP:25:ASP:HB3	1.78	1.10
1:CA:1090:C:N4	1:CA:1159:G:H1	1.48	1.10
1:CA:2405:A:OP2	30:C8:31:HIS:HD2	1.33	1.10
11:CO:61:ARG:CB	11:CO:61:ARG:HH21	1.63	1.10
11:CO:71:VAL:HG13	11:CO:72:PRO:CD	1.79	1.10
1:CA:2405:A:H8	11:CO:60:MET:HB2	1.11	1.10
1:AA:1533:C:H3'	1:AA:1534:G:H5"	1.28	1.09
3:AD:28:GLU:HB3	3:AD:29:PRO:HD2	1.10	1.09
12:AP:79:LEU:O	12:AP:80:GLU:HB2	1.52	1.09
1:AA:2308:G:N2	1:AA:2311:A:C2	1.87	1.09
52:BD:47:U:H2'	52:BD:48:C:C6	1.86	1.09
31:BA:1053:G:H5'	31:BA:1054:C:H5'	1.29	1.09
52:BD:48:C:H3'	52:BD:49:A:H8	1.10	1.09
11:CO:97:PRO:CG	11:CO:112:LEU:HD12	1.81	1.09
31:BA:1299:A:H2'	31:BA:1301:U:H1'	1.34	1.08
52:DD:48:C:H3'	52:DD:49:A:H8	1.07	1.08
12:AP:75:THR:HB	12:AP:88:GLY:HA3	1.17	1.08
27:A5:3:LYS:HA	27:A5:3:LYS:HE3	1.35	1.08
27:A5:4:HIS:CB	27:A5:5:PRO:CD	2.29	1.08
1:CA:417:G:H1	11:CO:71:VAL:HG12	1.16	1.08
37:DJ:113:GLU:HB2	37:DJ:119:ARG:HG2	1.35	1.08
31:BA:1160:G:O6	31:BA:1181:G:O6	1.69	1.08
1:CA:1379:G:N2	1:CA:1656:A:O2'	1.85	1.08
17:C2:85:LYS:HG3	17:C2:87:HIS:H	1.16	1.08
11:CO:15:ARG:HH11	11:CO:15:ARG:CG	1.67	1.08
1:CA:2431:A:P	30:C8:29:LYS:NZ	2.25	1.07
12:AP:24:GLY:HA3	12:AP:25:ASP:HB3	1.08	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:73:G:O6	31:BA:97:U:O2	1.70	1.07
31:BA:1003:G:H2'	31:BA:1004:A:H5'	1.30	1.07
11:CO:61:ARG:HH21	11:CO:61:ARG:CG	1.66	1.07
1:AA:2689:U:H4'	1:AA:2690:C:H5'	1.34	1.07
3:CD:60:ARG:HD3	3:CD:86:PRO:HB2	1.33	1.07
31:DA:1443:G:H3'	31:DA:1446:A:H5"	1.29	1.07
12:AP:24:GLY:CA	12:AP:25:ASP:CB	2.31	1.07
31:BA:1271:G:H2'	31:BA:1272:G:H5"	1.28	1.07
52:BD:18:G:H1'	52:BD:19:C:OP2	1.54	1.07
26:C4:61:ARG:HH11	26:C4:61:ARG:HG3	1.15	1.07
21:AV:7:ALA:HB3	21:AV:61:LEU:HB3	1.33	1.07
1:CA:2289:G:OP1	12:CP:84:GLY:HA2	1.55	1.06
11:CO:106:LEU:O	11:CO:107:LYS:HB2	1.55	1.06
42:DO:44:LYS:HB3	42:DO:45:PRO:HD2	1.37	1.06
12:AP:24:GLY:HA3	12:AP:25:ASP:HB2	1.35	1.06
1:CA:2431:A:P	30:C8:29:LYS:HZ1	1.79	1.06
5:AF:101:LEU:HD13	5:AF:102:PRO:HD2	1.38	1.06
27:C5:4:HIS:HB3	27:C5:5:PRO:HD3	1.33	1.06
33:BF:70:VAL:HG12	33:BF:72:LYS:H	1.20	1.06
34:DG:22:LYS:HB2	34:DG:26:CYS:HB2	1.32	1.06
1:AA:882:G:N2	1:AA:894:C:N3	2.04	1.05
1:AA:2015:A:O4'	27:A5:2:ALA:CB	2.04	1.05
3:AD:28:GLU:HB3	3:AD:29:PRO:CD	1.86	1.05
11:AO:15:ARG:HH11	11:AO:15:ARG:CG	1.67	1.05
11:AO:9:ASN:HB3	11:AO:10:PRO:HD2	1.38	1.05
31:BA:156:G:H1	31:BA:165:C:N4	1.55	1.05
52:BB:46:G:O2'	52:BB:47:U:H5'	1.56	1.05
11:CO:65:ARG:HH11	11:CO:65:ARG:HG3	0.98	1.05
1:CA:2320:G:N7	1:CA:2324:A:C2	2.24	1.05
1:AA:873:G:H1	1:AA:904:C:N4	1.55	1.05
1:AA:67:U:N3	1:AA:74:A:C2	2.25	1.05
1:CA:417:G:N1	11:CO:71:VAL:HG12	1.70	1.05
11:CO:15:ARG:HH11	11:CO:15:ARG:HG2	1.10	1.05
12:CP:75:THR:CB	12:CP:88:GLY:HA3	1.87	1.05
41:DN:54:ARG:HH11	41:DN:54:ARG:HG2	1.17	1.05
1:AA:593:G:H4'	30:A8:61:LEU:HD13	1.33	1.04
1:CA:2714:C:H3'	1:CA:2715:U:H5"	1.38	1.04
27:A5:4:HIS:CB	27:A5:5:PRO:HD2	1.85	1.04
31:BA:1004:A:H5"	31:BA:1025:U:O4	1.57	1.04
1:CA:2417:C:H1'	11:CO:67:MET:HE1	1.37	1.04
52:DB:46:G:O2'	52:DB:47:U:H5'	1.56	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:89:U:H2'	1:CA:90:A:H5"	1.30	1.04
11:CO:97:PRO:HG3	11:CO:112:LEU:CD1	1.87	1.04
1:AA:882:G:H1	1:AA:894:C:N4	1.56	1.04
1:CA:216:G:N2	1:CA:218:A:N6	1.75	1.04
6:CG:104:GLU:HG2	26:C4:23:GLU:HG2	1.37	1.04
15:AR:105:LEU:O	15:AR:107:ASP:N	1.90	1.04
52:DD:18:G:H1'	52:DD:19:C:OP2	1.57	1.04
12:CP:75:THR:HB	12:CP:88:GLY:CA	1.87	1.03
52:DD:17:G:O2'	52:DD:66:G:N2	1.91	1.03
5:AF:46:ARG:HH11	5:AF:46:ARG:HG2	1.20	1.03
31:BA:791:G:H3'	31:BA:792:A:C5'	1.86	1.03
32:DE:185:ILE:HG22	32:DE:199:TYR:HB2	1.40	1.03
20:AU:42:VAL:HB	20:AU:67:LEU:HD11	1.34	1.03
1:AA:880:G:H1	1:AA:897:C:N4	1.57	1.03
1:CA:295:C:N4	1:CA:391:G:H1	1.57	1.03
1:CA:930:G:H1	1:CA:941:C:N4	1.56	1.03
1:CA:2166:C:N4	1:CA:2171:G:H1	1.57	1.03
1:CA:2268:G:N2	12:CP:85:LYS:HE2	1.73	1.03
1:AA:2210:G:H3'	1:AA:2211:G:C8	1.93	1.02
1:AA:1332:G:N2	1:AA:1609:A:O2'	1.91	1.02
1:AA:1899:G:H22	1:AA:1902:C:N4	1.57	1.02
1:CA:1135:A:H4'	1:CA:1136:G:H8	1.25	1.02
1:CA:2405:A:C8	11:CO:60:MET:HB2	1.95	1.02
11:CO:9:ASN:HB3	11:CO:10:PRO:HD2	1.40	1.02
1:AA:880:G:N2	1:AA:897:C:N3	2.05	1.02
3:CD:255:LYS:H	3:CD:255:LYS:HE3	1.25	1.02
12:AP:75:THR:CB	12:AP:88:GLY:HA3	1.90	1.02
11:CO:52:GLU:HG3	11:CO:57:THR:CA	1.90	1.02
31:DA:1503:A:O2'	31:DA:1504:G:O5'	1.78	1.02
2:AB:6:C:H2'	2:AB:7:G:H5"	1.42	1.02
12:AP:51:ARG:HH11	12:AP:51:ARG:HG2	1.21	1.02
52:BD:67:A:H4'	52:BD:68:A:OP1	1.54	1.02
1:CA:2159:C:N4	1:CA:2178:G:N1	2.06	1.02
14:CQ:109:GLY:O	14:CQ:111:GLU:N	1.91	1.02
1:AA:49:A:N7	1:AA:120:U:C4	2.27	1.01
1:AA:2015:A:O4'	27:A5:2:ALA:HB2	1.57	1.01
35:BH:78:HIS:HE1	35:BH:143:ARG:H	1.08	1.01
11:CO:97:PRO:HG3	11:CO:112:LEU:HD12	1.07	1.01
3:AD:27:THR:HG21	3:AD:83:GLU:HB3	1.37	1.01
5:CF:18:ARG:HG2	5:CF:19:GLU:H	1.19	1.01
1:AA:847:U:O4	1:AA:933:A:N1	1.93	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2014:A:HO2'	27:A5:2:ALA:N	1.58	1.01
31:BA:1175:G:H2'	31:BA:1176:A:C8	1.95	1.01
12:CP:28:ALA:O	12:CP:105:GLU:OE1	1.77	1.01
3:AD:43:ARG:NH1	3:AD:44:ASN:OD1	1.92	1.01
31:BA:791:G:H3'	31:BA:792:A:H5"	1.03	1.01
1:AA:2308:G:C2	1:AA:2311:A:C2	2.49	1.01
1:CA:2809:G:H3'	1:CA:2810:U:H5"	1.43	1.01
1:CA:2325:U:C2'	1:CA:2326:C:H5'	1.91	1.00
52:DD:11:C:H2'	52:DD:12:C:H5'	1.40	1.00
1:AA:881:G:O6	1:AA:895:U:O2	1.78	1.00
1:AA:1689:A:H62	1:AA:1698:A:H2	1.06	1.00
1:AA:2131:G:H5'	1:AA:2132:U:H5"	1.43	1.00
6:AG:161:THR:HG22	6:AG:163:ALA:H	1.25	1.00
45:DR:39:LEU:HD11	45:DR:56:LEU:HB2	1.43	1.00
1:CA:2161:C:H42	1:CA:2176:G:H1	1.08	1.00
1:CA:2324:A:H4'	1:CA:2324:A:OP1	1.61	1.00
45:DR:68:ARG:HG3	45:DR:68:ARG:HH11	1.25	1.00
1:AA:49:A:N7	1:AA:120:U:O4	1.95	1.00
1:AA:2016:U:H1'	27:A5:6:VAL:CG1	1.90	1.00
52:BD:47:U:H2'	52:BD:48:C:H6	1.23	1.00
12:CP:24:GLY:HA3	12:CP:25:ASP:HB3	1.40	1.00
34:BG:114:ARG:HG3	34:BG:114:ARG:HH11	1.19	1.00
31:BA:789:U:H5	31:BA:792:A:O5'	1.41	1.00
31:BA:77:C:H2'	31:BA:78:G:H5"	1.43	0.99
1:CA:2130:C:H42	1:CA:2205:G:H1	1.10	0.99
12:CP:19:GLY:H	12:CP:98:LYS:HZ3	1.01	0.99
31:DA:81:G:N2	31:DA:88:C:N3	2.10	0.99
31:DA:632:A:H1'	31:DA:633:G:OP2	1.62	0.99
5:CF:63:LYS:HE2	5:CF:67:GLN:HB2	1.43	0.99
30:A8:52:LYS:H	30:A8:53:PRO:HD2	1.25	0.99
1:CA:2130:C:N3	1:CA:2205:G:N2	2.09	0.99
1:AA:654(D):G:N2	1:AA:654(Q):C:N3	2.10	0.99
1:AA:2438:U:O3'	1:AA:2439:A:H3'	1.61	0.99
1:AA:2610:C:H4'	1:AA:2611:U:OP2	1.53	0.99
1:CA:657:A:OP1	11:CO:64:LYS:HE2	1.63	0.99
52:DD:14:A:H3'	52:DD:15:G:H5"	1.43	0.99
3:AD:35:LYS:HD2	3:AD:104:TYR:CD1	1.97	0.99
52:BD:11:C:H2'	52:BD:12:C:H5'	1.40	0.99
31:DA:1160:G:O6	31:DA:1181:G:O6	1.79	0.99
53:DC:17:C:H3'	53:DC:18:C:H5"	1.40	0.99
12:AP:78:PRO:HG2	12:AP:81:VAL:HG11	1.44	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CP:78:PRO:O	12:CP:79:LEU:HD12	1.62	0.99
1:CA:1089:G:H1	1:CA:1160:U:H3	1.06	0.99
34:DG:139:ARG:HG3	34:DG:139:ARG:HH11	1.25	0.99
12:AP:19:GLY:HA3	12:AP:98:LYS:NZ	1.77	0.98
53:BC:48:U:HO2'	53:BC:49:C:P	1.85	0.98
1:CA:2451:U:O3'	1:CA:2452:A:H3'	1.62	0.98
33:BF:181:ASN:HD21	33:BF:204:LEU:HB2	1.27	0.98
52:BD:14:A:H3'	52:BD:15:G:H5"	1.45	0.98
1:AA:2346:A:H4'	1:AA:2347:C:OP2	1.63	0.98
31:BA:1065:U:O2'	31:BA:1066:C:OP2	1.80	0.98
52:BD:12:C:O2	52:BD:24:G:N2	1.96	0.98
31:DA:82:U:H3	31:DA:87:A:N6	1.62	0.98
52:DD:67:A:H4'	52:DD:68:A:OP1	1.59	0.98
38:BK:60:ARG:HH11	38:BK:60:ARG:HG3	1.22	0.98
42:BO:45:PRO:O	42:BO:46:ASN:ND2	1.97	0.98
1:CA:895:U:N3	1:CA:979:A:N6	2.06	0.98
5:CF:25:PRO:HB2	5:CF:27:GLU:H	1.28	0.98
11:CO:64:LYS:CB	30:C8:25:MET:HG3	1.93	0.98
31:BA:792:A:O2'	31:BA:794:A:N7	1.96	0.98
31:BA:1028:C:H42	31:BA:1033:G:H1	1.06	0.98
33:BF:20:SER:HB2	33:BF:40:ARG:HH22	1.23	0.98
52:DB:48:C:N4	52:DB:52:G:H1	1.62	0.98
1:AA:1014:U:H2'	1:AA:1015:G:H5"	1.45	0.98
31:DA:82:U:H3	31:DA:87:A:H61	1.11	0.98
52:BB:3:U:HO2'	52:BB:4:G:H8	1.03	0.98
12:CP:24:GLY:CA	12:CP:25:ASP:CB	2.39	0.98
31:DA:975:A:H4'	31:DA:976:G:H5"	1.46	0.97
3:CD:35:LYS:HG2	3:CD:64:ILE:H	1.30	0.97
5:CF:46:ARG:HH11	5:CF:46:ARG:HG2	1.26	0.97
52:DB:75:C:O2'	52:DB:76:C:OP1	1.81	0.97
21:AV:27:VAL:HG12	21:AV:87:ASP:HB3	1.47	0.97
31:BA:788:U:H2'	31:BA:789:U:H5'	1.43	0.97
1:AA:2136:C:N3	1:AA:2155:G:N2	2.11	0.97
52:BB:75:C:O2'	52:BB:76:C:OP1	1.82	0.97
1:CA:9:U:N3	1:CA:2642:A:N6	2.11	0.97
1:CA:1090:C:N3	1:CA:1159:G:N2	2.12	0.97
1:AA:880:G:H1	1:AA:897:C:H42	1.08	0.97
7:AH:4:ILE:HG13	7:AH:6:ARG:CZ	1.94	0.97
1:CA:933:C:C4	1:CA:938:A:C6	2.51	0.97
11:CO:80:TYR:CD1	11:CO:111:ARG:HB3	2.00	0.97
1:AA:1332:G:N2	1:AA:1609:A:HO2'	1.58	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CF:188:ARG:HA	11:CO:3:LEU:HD11	1.45	0.97
31:DA:652:U:H1'	31:DA:653:A:H2	1.30	0.97
1:AA:780:G:N2	1:AA:783:A:H62	1.60	0.97
1:AA:882:G:N1	1:AA:894:C:N4	2.13	0.97
1:AA:2251:G:OP1	12:AP:82:ARG:NH1	1.98	0.97
1:CA:2320:G:N9	1:CA:2324:A:N1	2.11	0.96
31:DA:81:G:H1	31:DA:88:C:N4	1.62	0.96
1:AA:2701:C:H3'	1:AA:2702:U:H5"	1.43	0.96
33:DF:60:ALA:HA	40:DM:93:GLY:HA2	1.45	0.96
31:DA:987:G:H1	31:DA:1218:C:H42	1.04	0.96
15:AR:36:GLU:HG3	15:AR:41:ARG:HD3	1.46	0.96
1:CA:66:U:N3	1:CA:73:A:C2	2.34	0.96
1:CA:2166:C:H42	1:CA:2171:G:H1	1.10	0.96
31:DA:989:C:H42	31:DA:1216:G:H1	1.09	0.96
1:CA:1066:U:H2'	1:CA:1067:A:H8	1.31	0.96
31:DA:1346:A:H1'	31:DA:1347:G:OP2	1.65	0.96
1:AA:2068:U:H3	1:AA:2430:A:H2	1.08	0.96
12:AP:66:ILE:HG13	12:AP:67:ARG:H	1.30	0.96
31:DA:328:C:H1'	31:DA:329:A:OP2	1.66	0.95
31:BA:1162:C:N4	31:BA:1174:G:H1	1.64	0.95
1:AA:1678:G:N2	1:AA:1989:G:H22	1.65	0.95
11:CO:62:LEU:HD22	11:CO:62:LEU:N	1.81	0.95
27:A5:4:HIS:CG	27:A5:5:PRO:HD3	2.00	0.95
31:DA:1176:A:C2'	31:DA:1177:G:H5'	1.96	0.95
43:BP:4:ILE:HG22	43:BP:5:ALA:H	1.30	0.95
3:CD:35:LYS:HE3	3:CD:64:ILE:C	1.91	0.95
1:AA:330:A:H2	1:AA:1210:A:HO2'	1.02	0.95
1:AA:2210:G:H3'	1:AA:2211:G:H8	1.23	0.95
11:AO:50:ARG:HH21	11:AO:50:ARG:HG3	1.27	0.95
11:AO:114:ILE:HD11	11:AO:130:PHE:HD1	1.32	0.95
31:BA:1305:G:H22	31:BA:1331:G:H2'	1.28	0.95
1:CA:2405:A:H8	11:CO:60:MET:CB	1.80	0.95
11:CO:65:ARG:HG3	11:CO:65:ARG:NH1	1.72	0.95
31:DA:266:G:H1	31:DA:270:A:H62	0.95	0.95
53:DC:17:C:C3'	53:DC:18:C:H5"	1.96	0.95
1:AA:864:G:N7	12:AP:22:LYS:NZ	2.14	0.95
26:A4:16:CYS:HB2	26:A4:36:CYS:H	1.31	0.95
32:DE:75:LYS:HA	32:DE:78:GLN:HB2	1.48	0.95
33:DF:14:ILE:HG12	33:DF:15:THR:H	1.29	0.95
3:AD:30:GLU:HG3	3:AD:63:ARG:HH21	1.30	0.95
15:AR:55:ASN:H	15:AR:59:THR:HG22	1.31	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CP:79:LEU:HD12	12:CP:79:LEU:O	1.67	0.95
19:CT:11:PRO:HA	19:CT:28:PHE:HB3	1.45	0.95
1:AA:1778:U:H2'	1:AA:1784:A:N6	1.81	0.95
1:AA:2032:G:H21	4:AE:146:THR:HG23	1.32	0.95
1:AA:2583:G:H21	52:BB:85:A:H8	1.11	0.95
31:BA:1028(B):C:N3	31:BA:1032(A):G:N2	2.14	0.95
1:CA:2623:C:H4'	1:CA:2624:U:OP2	1.67	0.95
31:BA:1139:G:H1	31:BA:1144:G:H22	1.02	0.94
1:CA:2319:C:H3'	1:CA:2320:G:H5"	1.46	0.94
1:CA:2810:U:H2'	1:CA:2811:C:H5'	1.48	0.94
52:BD:17:G:H1'	52:BD:18:G:OP1	1.67	0.94
1:AA:883:G:N2	1:AA:893:C:N3	2.14	0.94
1:CA:2166:C:N3	1:CA:2171:G:N2	2.15	0.94
20:AU:76:CYS:SG	20:AU:77:PRO:HD2	2.08	0.94
1:CA:1737:A:N6	1:CA:1746:A:H2	1.65	0.94
1:CA:2715:U:H2'	1:CA:2716:C:H5	1.32	0.94
26:C4:22:ILE:HG12	26:C4:23:GLU:H	1.32	0.94
31:DA:266:G:H1	31:DA:270:A:N6	1.64	0.94
3:AD:30:GLU:HG3	3:AD:63:ARG:NH2	1.81	0.94
7:AH:86:GLU:HG3	7:AH:165:ALA:HB3	1.47	0.94
5:CF:68:LYS:HB3	5:CF:69:HIS:HD2	1.33	0.94
5:CF:132:VAL:HG22	5:CF:133:ASN:H	1.33	0.94
1:AA:2317:C:H2'	1:AA:2318:G:H5'	1.49	0.94
50:BW:26:ASN:HB2	50:BW:71:THR:HG23	1.46	0.94
30:C8:34:TRP:CG	30:C8:35:GLN:H	1.85	0.94
37:DJ:144:MET:HE1	52:DD:31:G:H21	1.29	0.94
1:AA:1055:G:N2	1:AA:1104:C:N3	2.16	0.94
1:AA:1081:U:O2'	1:AA:1082:U:OP1	1.84	0.94
1:AA:2210:G:H5'	1:AA:2211:G:N7	1.83	0.94
17:A2:44:LYS:O	17:A2:46:VAL:N	2.00	0.94
49:BV:65:ASN:HD22	49:BV:65:ASN:H	1.15	0.94
52:BB:52:G:H2'	52:BB:53:A:C8	2.01	0.94
52:BB:78:C:O2'	52:BB:79:A:O5'	1.86	0.94
1:CA:2438:A:H5'	1:CA:2440:C:O4'	1.67	0.94
1:CA:2883:G:C5	1:CA:2884:A:N1	2.36	0.94
1:AA:1055:G:H1	1:AA:1104:C:N4	1.64	0.94
1:AA:2287:A:H62	1:AA:2344:U:H3	1.06	0.94
21:CV:128:VAL:HG22	21:CV:129:SER:H	1.33	0.93
1:CA:1135:A:H5'	1:CA:1136:G:H5'	1.48	0.93
34:DG:14:ARG:HG3	34:DG:14:ARG:NH1	1.80	0.93
12:AP:75:THR:HB	12:AP:88:GLY:CA	1.98	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:A6:15:GLU:HA	28:A6:49:HIS:HA	1.49	0.93
34:BG:19:LEU:H	34:BG:19:LEU:HD22	1.30	0.93
31:DA:1160:G:H1	31:DA:1177:G:N2	1.66	0.93
33:DF:58:GLU:HB2	33:DF:65:ALA:HB3	1.49	0.93
1:CA:1388:U:H3'	1:CA:1389:A:H2	1.33	0.93
11:CO:80:TYR:HE1	11:CO:111:ARG:HG2	1.32	0.93
27:C5:57:VAL:HG12	27:C5:58:LEU:H	1.33	0.93
15:AR:41:ARG:HH11	15:AR:41:ARG:HG2	1.34	0.93
1:CA:2433:C:P	30:C8:33:ASN:H	1.91	0.93
31:DA:989:C:N4	31:DA:1216:G:H1	1.64	0.93
1:CA:2288:C:O2'	12:CP:84:GLY:CA	2.15	0.93
31:DA:992:U:H3	31:DA:1044:A:H62	1.13	0.93
5:CF:119:ARG:HH11	5:CF:119:ARG:HG2	1.32	0.93
1:AA:2255:G:H22	12:AP:85:LYS:HE2	1.21	0.93
1:CA:66:U:N3	1:CA:73:A:H2	1.65	0.93
1:AA:1899:G:H22	1:AA:1902:C:H41	1.08	0.93
3:AD:25:THR:HG23	3:AD:26:LYS:HD2	1.51	0.93
16:A1:92:ARG:O	16:A1:94:ASN:N	2.02	0.93
1:CA:295:C:H42	1:CA:391:G:H1	1.02	0.93
52:DB:16:C:H2'	52:DB:18:G:OP2	1.68	0.93
1:CA:2714:C:H3'	1:CA:2715:U:C5'	1.98	0.92
1:AA:2599:G:C8	3:AD:236:GLY:HA2	2.05	0.92
1:CA:1922:G:O2'	1:CA:1923:A:H5"	1.68	0.92
11:CO:62:LEU:N	11:CO:62:LEU:CD2	2.30	0.92
1:AA:2016:U:C1'	27:A5:6:VAL:CG1	2.47	0.92
1:AA:2466:C:C2'	1:AA:2467:C:H5'	1.99	0.92
1:CA:1737:A:H62	1:CA:1746:A:H2	0.95	0.92
2:CB:16:U:O2'	2:CB:110:U:O2'	1.86	0.92
11:CO:52:GLU:CG	11:CO:57:THR:HA	1.99	0.92
31:DA:1145:C:H4'	31:DA:1146:A:OP1	1.68	0.92
39:BL:48:GLU:H	39:BL:49:PRO:HD2	1.34	0.92
42:BO:43:LYS:HG2	42:BO:45:PRO:HD2	1.49	0.92
31:BA:60:A:H4'	31:BA:61:G:H5'	1.52	0.92
20:CU:17:SER:HB3	20:CU:71:LYS:HB3	1.52	0.92
11:AO:15:ARG:HG2	11:AO:15:ARG:NH1	1.77	0.92
1:AA:2394:C:OP1	11:AO:63:PRO:HD2	1.69	0.92
3:CD:35:LYS:HG2	3:CD:64:ILE:N	1.84	0.92
1:AA:154:G:H2'	1:AA:155:C:H5"	1.52	0.92
1:AA:602:G:N2	1:AA:655:A:N7	2.16	0.92
1:CA:598:C:N3	4:CE:145:LYS:NZ	2.16	0.92
1:CA:1020:G:O2'	1:CA:1022:G:N7	2.01	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1059:U:O4	9:CM:25:ARG:HA	1.70	0.92
11:CO:15:ARG:HG2	11:CO:15:ARG:NH1	1.76	0.92
31:DA:1157:A:H1'	31:DA:1158:C:N3	1.85	0.92
52:DD:12:C:H2'	52:DD:13:G:O4'	1.70	0.92
52:DD:47:U:H2'	52:DD:48:C:C6	2.05	0.92
1:AA:780:G:H21	1:AA:783:A:H62	0.96	0.91
31:BA:254:G:H21	47:BT:16:GLN:HE21	1.18	0.91
31:BA:791:G:C3'	31:BA:792:A:H5"	1.97	0.91
31:BA:1006:C:H42	31:BA:1023:G:H1	0.95	0.91
31:BA:444:C:H42	31:BA:490:G:H1	1.08	0.91
31:DA:1305:G:HO2'	31:DA:1306:A:H8	0.95	0.91
11:AO:64:LYS:O	11:AO:66:GLY:N	2.04	0.91
31:BA:1008:C:H42	31:BA:1021:G:H1	1.10	0.91
1:CA:1068:A:H61	1:CA:1189:A:H61	0.99	0.91
1:CA:1135:A:H4'	1:CA:1136:G:C8	2.05	0.91
52:DB:3:U:HO2'	52:DB:4:G:H8	0.98	0.91
1:AA:527:C:OP2	1:AA:2779:U:H5	1.52	0.91
12:AP:77:LYS:HZ1	12:AP:83:MET:HA	1.02	0.91
30:C8:32:LEU:H	30:C8:32:LEU:HD13	0.75	0.91
31:DA:519:C:O2	56:DA:1724:OHX:N4	2.03	0.91
31:DA:559:A:H4'	31:DA:560:U:H3'	1.52	0.91
1:AA:67:U:N3	1:AA:74:A:H2	1.65	0.91
1:CA:1700:A:H62	13:C0:11:ASN:HD21	1.05	0.91
3:CD:65:ILE:HD11	3:CD:67:PHE:CZ	2.06	0.91
31:DA:993:G:H2'	31:DA:995:C:H41	1.32	0.91
1:AA:1899:G:N2	1:AA:1902:C:H41	1.68	0.91
1:AA:2133:G:H1'	1:AA:2158:A:H61	1.34	0.91
21:CV:6:LYS:HG3	21:CV:7:ALA:H	1.35	0.91
31:DA:736:C:H2'	31:DA:737:A:H8	1.32	0.91
52:DB:83:C:H2'	52:DB:84:C:H5'	1.52	0.91
1:CA:2433:C:OP2	30:C8:33:ASN:N	2.03	0.91
16:C1:92:ARG:HH22	17:C2:10:LYS:HA	1.35	0.91
31:DA:820:U:H4'	31:DA:821:G:OP2	1.69	0.91
31:DA:1026:G:N7	31:DA:1036:G:N2	2.19	0.91
1:AA:1069:A:H4'	1:AA:1070:A:H5"	1.51	0.91
11:AO:64:LYS:C	11:AO:66:GLY:H	1.79	0.91
24:AW:4:SER:HB3	24:AW:5:GLU:OE2	1.71	0.91
31:BA:1006:C:N4	31:BA:1023:G:H1	1.68	0.91
52:BB:52:G:H2'	52:BB:53:A:H8	1.34	0.91
11:CO:51:PHE:O	11:CO:52:GLU:HG2	1.70	0.91
1:AA:141:A:H8	1:AA:1595:G:H21	1.13	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BB:51:C:H3'	52:BB:52:G:C8	2.06	0.90
1:AA:1026:U:H1'	1:AA:1027:A:O5'	1.71	0.90
31:BA:81:G:H1	31:BA:88:C:N4	1.68	0.90
32:BE:69:LEU:HB3	32:BE:162:ILE:HG22	1.53	0.90
41:DN:100:ALA:O	41:DN:102:GLY:N	2.04	0.90
1:AA:780:G:H21	1:AA:783:A:N6	1.69	0.90
1:AA:2466:C:H2'	1:AA:2467:C:H5'	1.52	0.90
4:AE:78:LEU:O	4:AE:79:ARG:HB2	1.70	0.90
1:CA:2146:G:H1	1:CA:2198:C:H42	1.06	0.90
25:CX:59:VAL:HG12	25:CX:60:GLU:H	1.35	0.90
1:AA:1071:G:O6	1:AA:1091:G:O6	1.90	0.90
13:A0:3:HIS:O	13:A0:5:LYS:N	2.02	0.90
1:AA:676:A:H8	1:AA:2069:G:H21	0.91	0.90
1:AA:2308:G:N1	1:AA:2311:A:C2	2.38	0.90
1:CA:622:G:C1'	11:CO:12:ALA:HB2	2.01	0.90
11:CO:80:TYR:CD1	11:CO:111:ARG:CB	2.55	0.90
12:CP:11:LYS:HD3	12:CP:87:LYS:HG2	1.51	0.90
23:CZ:86:SER:N	23:CZ:87:PRO:HD2	1.85	0.90
31:DA:976:G:H5'	31:DA:1358:U:O2'	1.71	0.90
1:AA:847:U:C4	1:AA:933:A:N1	2.40	0.90
7:AH:153:LYS:HB3	7:AH:154:PRO:CD	2.01	0.90
50:BW:71:THR:HG22	50:BW:72:LEU:H	1.37	0.90
11:CO:61:ARG:CB	11:CO:61:ARG:NH2	2.34	0.90
1:CA:139:A:H8	1:CA:1455:C:HO2'	0.99	0.90
52:DB:52:G:H2'	52:DB:53:A:C8	2.06	0.89
1:AA:1496:A:H8	1:AA:1577:C:O2'	1.56	0.89
1:AA:1535:U:H3'	1:AA:1536:A:H5"	1.54	0.89
27:A5:4:HIS:HB3	27:A5:5:PRO:HD2	0.92	0.89
31:BA:1028(B):C:N4	31:BA:1032(A):G:N1	2.19	0.89
11:CO:71:VAL:HG13	11:CO:72:PRO:HD3	0.92	0.89
24:CW:46:GLN:H	24:CW:49:LYS:HZ2	1.21	0.89
1:AA:1359:A:N1	1:AA:1372:U:N3	2.18	0.89
11:AO:65:ARG:HG3	11:AO:65:ARG:NH1	1.77	0.89
1:CA:355:A:H2	1:CA:1256:A:HO2'	0.94	0.89
1:CA:2702:U:H4'	1:CA:2703:C:H5'	1.53	0.89
4:AE:77:ILE:O	4:AE:79:ARG:N	2.06	0.89
31:BA:156:G:H1	31:BA:165:C:H42	1.04	0.89
6:CG:64:THR:HG23	6:CG:66:GLN:H	1.37	0.89
1:CA:2159:C:N3	1:CA:2178:G:N2	2.19	0.89
6:CG:125:PHE:HB3	6:CG:166:ASP:HB2	1.53	0.89
1:AA:1062:G:H2'	1:AA:1063:G:C8	2.07	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1822:C:H5"	1:CA:1823:A:OP1	1.72	0.89
32:DE:7:VAL:HG13	32:DE:8:LYS:HD3	1.53	0.89
32:DE:7:VAL:HG22	32:DE:8:LYS:H	1.35	0.89
1:AA:1887:C:H2'	1:AA:1888:G:H5"	1.54	0.89
31:BA:81:G:N2	31:BA:88:C:C2	2.40	0.89
52:BB:57:C:O2'	52:BB:68:A:H4'	1.71	0.89
20:CU:97:ARG:HH21	20:CU:98:VAL:HB	1.38	0.89
30:A8:34:TRP:CD2	30:A8:35:GLN:HB2	2.08	0.89
31:BA:559:A:OP2	35:BH:126:ARG:NH2	2.05	0.89
11:CO:61:ARG:HH21	11:CO:61:ARG:HG2	1.37	0.89
31:BA:136:C:H42	31:BA:227:G:H1	1.14	0.89
1:AA:1109:C:O2'	1:AA:1110:G:O4'	1.92	0.88
1:CA:5:A:H61	1:CA:2908:U:H3	1.18	0.88
1:CA:2150:G:H1	1:CA:2184:C:H42	1.15	0.88
28:C6:25:LYS:HD2	30:C8:34:TRP:HZ3	1.38	0.88
1:AA:2015:A:C1'	27:A5:2:ALA:CA	2.43	0.88
12:AP:78:PRO:O	12:AP:81:VAL:HG13	1.71	0.88
34:BG:28:SER:HB2	34:BG:29:PRO:HD2	1.55	0.88
1:CA:895:U:C4	1:CA:979:A:C6	2.61	0.88
12:CP:75:THR:HB	12:CP:88:GLY:HA3	0.93	0.88
8:AK:133:HIS:HB2	8:AK:134:PRO:HD2	1.53	0.88
31:BA:611:A:H61	31:BA:629:G:H1	1.20	0.88
12:CP:26:TYR:HD1	12:CP:139:GLU:CG	1.86	0.88
31:DA:1443:G:H3'	31:DA:1446:A:C5'	2.02	0.88
1:AA:2212:A:H1'	1:AA:2215:G:C5	2.09	0.88
11:CO:62:LEU:CG	30:C8:25:MET:HB2	2.03	0.88
17:C2:71:LEU:H	17:C2:86:GLY:HA2	1.36	0.88
1:CA:2320:G:C5	1:CA:2324:A:C2	2.60	0.88
11:AO:105:LEU:O	11:AO:106:LEU:HB2	1.70	0.88
7:AH:152:ARG:HG3	7:AH:153:LYS:H	1.39	0.88
28:A6:16:CYS:O	28:A6:17:LYS:HB2	1.70	0.88
18:CS:25:ARG:NH2	18:CS:74:ALA:O	2.06	0.88
1:AA:2308:G:C2	1:AA:2311:A:N1	2.42	0.88
22:A3:35:ASN:HD22	22:A3:35:ASN:H	1.20	0.88
42:BO:43:LYS:CG	42:BO:44:LYS:H	1.87	0.88
3:AD:35:LYS:HG2	3:AD:64:ILE:N	1.88	0.88
12:AP:17:LEU:HD23	12:AP:96:VAL:HG11	1.53	0.88
52:BD:61:G:H1	52:BD:71:C:H42	1.21	0.88
30:C8:31:HIS:HE1	52:DD:85:A:H2	1.20	0.88
12:AP:25:ASP:H	12:AP:102:VAL:CG2	1.87	0.88
31:BA:991:U:O4	31:BA:1212:U:O2'	1.91	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BD:12:C:H2'	52:BD:13:G:O4'	1.74	0.88
52:DB:57:C:O2'	52:DB:68:A:H4'	1.72	0.88
12:AP:17:LEU:CD2	12:AP:96:VAL:CG1	2.32	0.87
31:BA:1162:C:H42	31:BA:1174:G:H1	0.92	0.87
52:BB:10:C:H42	52:BB:26:G:H1	1.20	0.87
31:DA:690:G:H22	41:DN:55:LYS:HE2	1.39	0.87
1:AA:1019:U:HO2'	1:AA:1021:A:H2	0.87	0.87
3:AD:44:ASN:HB3	3:AD:49:ILE:HA	1.53	0.87
20:AU:79:CYS:SG	20:AU:80:GLY:N	2.46	0.87
31:DA:736:C:H2'	31:DA:737:A:C8	2.10	0.87
1:AA:1077:A:H3'	1:AA:1078:U:C5'	2.05	0.87
1:AA:2562:U:H1'	10:AN:23:ARG:HH11	1.37	0.87
9:AM:62:VAL:HG22	9:AM:66:LYS:HD2	1.57	0.87
31:BA:1003:G:C2'	31:BA:1004:A:H5'	2.04	0.87
54:B1:13:A:O2'	54:B1:14:A:OP1	1.93	0.87
14:CQ:17:ARG:HH11	14:CQ:17:ARG:CG	1.86	0.87
30:C8:33:ASN:OD1	30:C8:41:ILE:HD11	1.74	0.87
30:C8:35:GLN:NE2	30:C8:36:LYS:H	1.71	0.87
35:DH:83:GLU:HB3	35:DH:88:LYS:HG2	1.57	0.87
1:AA:270(O):U:H4'	1:AA:270(P):C:OP2	1.71	0.87
26:A4:16:CYS:SG	26:A4:18:CYS:N	2.46	0.87
5:CF:27:GLU:O	5:CF:28:ILE:HG12	1.73	0.87
52:DB:51:C:H3'	52:DB:52:G:C8	2.08	0.87
1:AA:1026:U:H4'	1:AA:1027:A:OP1	1.74	0.87
12:AP:25:ASP:N	12:AP:102:VAL:CG2	2.38	0.87
39:BL:48:GLU:N	39:BL:49:PRO:HD2	1.89	0.87
11:CO:19:VAL:CG2	11:CO:27:HIS:CB	2.52	0.87
31:DA:1305:G:H22	31:DA:1331:G:H2'	1.37	0.87
53:DC:17:C:H3'	53:DC:18:C:H5'	1.54	0.87
1:AA:2276:G:P	12:AP:84:GLY:HA2	2.15	0.87
30:A8:34:TRP:CG	30:A8:35:GLN:HB2	2.08	0.87
31:BA:1006:C:N3	31:BA:1023:G:N2	2.21	0.87
31:BA:1226:C:O2'	43:BP:111:LYS:NZ	2.07	0.87
1:CA:1066:U:H2'	1:CA:1067:A:C8	2.08	0.87
28:C6:52:VAL:HG22	28:C6:53:LYS:H	1.40	0.87
1:AA:774:A:H2	1:AA:787:U:HO2'	0.90	0.87
1:AA:1102:C:H2'	1:AA:1103:A:C8	2.10	0.87
1:CA:348:G:H5'	5:CF:169:ASN:HD21	1.38	0.87
1:CA:855:U:H2'	1:CA:856:G:H8	1.38	0.87
20:CU:47:LYS:HA	20:CU:60:PHE:HB3	1.55	0.87
38:DK:12:ARG:NH1	38:DK:27:PRO:HD3	1.88	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DK:103:VAL:HG21	38:DK:110:ALA:HB2	1.57	0.87
1:AA:70:G:H4'	1:AA:71:A:OP1	1.71	0.87
11:AO:114:ILE:HD11	11:AO:130:PHE:CD1	2.09	0.87
31:BA:1139:G:H22	31:BA:1144:G:H1	1.21	0.87
1:CA:1379:G:N2	1:CA:1656:A:HO2'	1.72	0.87
1:CA:1579:C:H42	1:CA:1586:G:H1	1.20	0.87
30:C8:31:HIS:CE1	52:DD:85:A:H2	1.93	0.87
31:DA:409:G:OP1	34:DG:24:GLU:HG2	1.75	0.87
34:DG:62:GLN:HE22	34:DG:65:ARG:HE	1.22	0.87
1:CA:2288:C:HO2'	12:CP:84:GLY:HA3	1.31	0.86
18:CS:73:ALA:HB3	18:CS:106:ILE:HD11	1.57	0.86
31:DA:1003:G:H1	31:DA:1037:C:N4	1.73	0.86
49:DV:49:ILE:HG13	49:DV:62:ILE:HD11	1.57	0.86
35:BH:8:GLU:OE1	35:BH:63:ARG:NH2	2.08	0.86
1:CA:1272:G:H5'	17:C2:85:LYS:H	1.41	0.86
11:CO:19:VAL:HG23	11:CO:27:HIS:HB2	1.56	0.86
31:BA:1002:G:H2'	31:BA:1003:G:H8	1.37	0.86
31:BA:1004:A:H2'	31:BA:1005:A:O4'	1.73	0.86
1:CA:2658:G:H3'	1:CA:2659:C:H5'	1.56	0.86
11:CO:64:LYS:CD	30:C8:25:MET:SD	2.62	0.86
1:AA:880:G:O2'	1:AA:881:G:OP1	1.92	0.86
16:A1:8:VAL:HG23	16:A1:11:ARG:HH21	1.38	0.86
41:BN:57:THR:HG22	41:BN:60:ALA:H	1.39	0.86
1:CA:2596:G:H21	52:DB:85:A:H8	1.18	0.86
30:C8:49:VAL:O	30:C8:50:LEU:HB2	1.75	0.86
27:A5:3:LYS:HA	27:A5:3:LYS:CE	2.00	0.86
1:CA:1508:A:H4'	1:CA:1509:G:OP2	1.75	0.86
30:C8:33:ASN:O	30:C8:34:TRP:CD1	2.29	0.86
31:DA:1305:G:O2'	31:DA:1306:A:O5'	1.92	0.86
52:DB:53:A:H2'	52:DB:54:C:O4'	1.75	0.86
1:AA:330:A:O2'	1:AA:331:A:H8	1.59	0.86
21:AV:61:LEU:HB2	21:AV:62:PRO:HD2	1.58	0.86
1:AA:517:C:OP1	27:A5:16:ARG:NH2	2.07	0.86
1:AA:620:G:H4'	1:AA:621:A:H5"	1.56	0.86
1:AA:681:G:N7	56:AA:3438:OHX:N1	2.23	0.86
31:BA:1503:A:O2'	31:BA:1504:G:O5'	1.93	0.86
11:CO:86:LYS:HB3	11:CO:118:GLY:HA3	1.58	0.86
1:AA:674:G:H1'	5:AF:74:ARG:HD3	1.58	0.86
31:BA:1374:A:H2'	31:BA:1375:A:H5'	1.57	0.86
1:CA:1104:A:N1	1:CA:1128:U:O4	2.09	0.86
4:CE:8:LYS:HE3	4:CE:188:VAL:HG13	1.56	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1389:A:N6	1:CA:1649:U:C2	2.44	0.86
21:CV:59:LEU:O	21:CV:60:GLU:HB3	1.74	0.86
31:BA:210:U:HO2'	31:BA:216:G:H8	1.21	0.86
18:CS:92:ARG:NH1	18:CS:94:ASP:OD2	2.09	0.86
30:C8:34:TRP:CG	30:C8:35:GLN:N	2.44	0.86
12:AP:77:LYS:HD2	12:AP:81:VAL:CG2	2.06	0.85
31:BA:79:G:N2	31:BA:90:C:N3	2.24	0.85
31:BA:468:A:H2'	31:BA:474:G:H5'	1.58	0.85
31:BA:1176:A:H2'	31:BA:1177:G:H5"	1.56	0.85
31:BA:1346:A:H5"	39:BL:120:ARG:HH12	1.41	0.85
52:BB:16:C:H2'	52:BB:18:G:OP2	1.75	0.85
1:CA:486:U:H5"	29:C7:40:TRP:CD2	2.10	0.85
1:CA:2883:G:C4	1:CA:2884:A:N1	2.44	0.85
24:CW:17:SER:HB2	24:CW:18:PRO:CA	2.06	0.85
1:AA:1210:A:H5'	1:AA:1210:A:H8	1.37	0.85
16:A1:27:LEU:HD13	16:A1:31:SER:HB3	1.56	0.85
1:CA:354:G:O6	20:CU:19:LYS:HG2	1.76	0.85
1:CA:724:A:H8	1:CA:2092:G:H21	0.89	0.85
1:CA:1137:U:O4	1:CA:1148:U:O2	1.92	0.85
1:CA:2715:U:H2'	1:CA:2716:C:C5	2.11	0.85
11:CO:80:TYR:CE1	11:CO:111:ARG:CG	2.59	0.85
16:C1:88:ILE:HG22	17:C2:49:THR:HA	1.58	0.85
24:CW:46:GLN:H	24:CW:49:LYS:NZ	1.73	0.85
1:AA:249:C:O2	30:A8:12:LYS:NZ	2.08	0.85
1:AA:1900:A:H5'	1:AA:1900:A:H8	1.39	0.85
2:AB:44:G:H1'	2:AB:47:C:H42	1.40	0.85
13:A0:105:ARG:O	13:A0:105:ARG:HG3	1.76	0.85
1:CA:2396:G:OP2	30:C8:37:SER:HB2	1.76	0.85
3:AD:35:LYS:NZ	3:AD:104:TYR:HB2	1.90	0.85
12:AP:51:ARG:HH11	12:AP:51:ARG:CG	1.89	0.85
4:CE:7:VAL:HG21	15:CR:1:MET:HE3	1.58	0.85
11:CO:19:VAL:CG2	11:CO:27:HIS:HB3	2.06	0.85
11:CO:79:ARG:HD3	11:CO:110:TYR:CE1	2.11	0.85
11:CO:101:VAL:HG21	11:CO:108:LYS:CG	2.04	0.85
26:C4:22:ILE:HG12	26:C4:23:GLU:N	1.88	0.85
27:C5:4:HIS:HB3	27:C5:5:PRO:CD	2.07	0.85
31:DA:1129:C:H4'	31:DA:1130:A:H5'	1.56	0.85
28:A6:34:LEU:HB2	28:A6:36:LEU:HD22	1.56	0.85
2:CB:46:G:H5"	2:CB:47:A:OP1	1.75	0.85
31:DA:1449:C:O3'	31:DA:1450:U:H4'	1.74	0.85
1:AA:1021:A:H61	1:AA:1142(A):A:H61	1.23	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AS:9:TYR:H	18:AS:102:HIS:HD2	1.24	0.85
1:CA:98:U:H4'	1:CA:100:G:H1'	1.58	0.85
6:CG:47:LYS:HD3	6:CG:81:LYS:HG3	1.58	0.85
12:CP:79:LEU:HD12	12:CP:79:LEU:C	2.02	0.85
31:DA:503:C:OP2	42:DO:113:SER:HB3	1.77	0.85
12:AP:77:LYS:HZ1	12:AP:83:MET:CA	1.88	0.85
31:BA:631:G:O2'	31:BA:632:A:O4'	1.94	0.85
11:CO:62:LEU:HD11	30:C8:25:MET:C	2.02	0.85
12:CP:134:ARG:HH11	12:CP:134:ARG:CG	1.87	0.85
16:C1:98:LEU:C	16:C1:100:VAL:H	1.83	0.85
39:DL:95:LYS:HZ1	39:DL:96:LEU:HD13	1.39	0.85
52:DB:78:C:O2'	52:DB:79:A:O5'	1.94	0.85
3:CD:25:THR:O	3:CD:27:THR:N	2.09	0.85
15:CR:77:PRO:HG2	15:CR:80:SER:HB2	1.59	0.85
26:A4:63:TYR:HE2	49:BV:42:PRO:HD3	1.42	0.85
30:A8:34:TRP:N	30:A8:35:GLN:HB3	1.90	0.85
30:A8:52:LYS:H	30:A8:53:PRO:CD	1.89	0.85
52:BB:83:C:H2'	52:BB:84:C:H5'	1.58	0.85
1:CA:1003:A:H4'	12:CP:74:TYR:OH	1.77	0.85
2:CB:17:A:H3'	2:CB:18:G:H5'	1.58	0.85
2:AB:15:A:H5'	2:AB:16:G:C8	2.12	0.84
7:AH:20:ALA:HB1	7:AH:21:PRO:HD2	1.59	0.84
31:BA:1004:A:H5"	31:BA:1025:U:C4	2.11	0.84
4:CE:24:THR:HG23	4:CE:186:GLY:HA2	1.58	0.84
12:AP:92:GLY:O	12:AP:93:TYR:CD1	2.30	0.84
31:BA:789:U:C5	31:BA:792:A:O5'	2.29	0.84
1:CA:2320:G:C5	1:CA:2324:A:N1	2.46	0.84
17:C2:80:GLN:HA	17:C2:80:GLN:HE21	1.39	0.84
52:DD:61:G:H1	52:DD:71:C:H42	1.23	0.84
1:AA:2276:G:OP2	12:AP:84:GLY:HA2	1.76	0.84
1:AA:2321:G:H5"	1:AA:2322:A:OP2	1.78	0.84
5:AF:29:ASN:H	5:AF:112:MET:CE	1.91	0.84
8:AK:131:LYS:HB3	8:AK:132:PRO:CA	2.06	0.84
15:AR:51:ARG:HB2	15:AR:98:LYS:HD3	1.57	0.84
11:CO:65:ARG:HH11	11:CO:65:ARG:CG	1.87	0.84
15:CR:50:ILE:HD11	15:CR:102:ILE:HD11	1.60	0.84
53:DC:17:C:C3'	53:DC:18:C:C5'	2.52	0.84
52:DD:12:C:O2	52:DD:24:G:N2	2.10	0.84
1:AA:1434:A:H61	1:AA:1558:A:N6	1.75	0.84
1:AA:1882:C:H3'	1:AA:1883:G:H8	1.41	0.84
5:AF:66:PRO:O	5:AF:67:GLN:HB3	1.75	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AP:23:GLY:HA2	12:AP:25:ASP:CB	2.08	0.84
31:BA:788:U:O2'	31:BA:789:U:H5'	1.75	0.84
43:BP:108:ARG:HD2	43:BP:108:ARG:H	1.41	0.84
5:CF:203:GLN:HA	5:CF:203:GLN:HE21	1.42	0.84
24:CW:29:LYS:HE3	24:CW:57:ILE:HG21	1.59	0.84
1:AA:1790:C:H5"	1:AA:1791:A:OP1	1.76	0.84
40:BM:34:VAL:HG22	40:BM:74:ILE:HG22	1.57	0.84
1:CA:2854:G:H2'	1:CA:2855:G:H5"	1.58	0.84
12:CP:26:TYR:CD1	12:CP:139:GLU:HG2	2.11	0.84
16:C1:65:ILE:HD11	16:C1:96:ALA:HB1	1.57	0.84
1:AA:910:A:N7	12:AP:13:GLN:HG3	1.93	0.84
13:A0:10:LEU:O	13:A0:12:ARG:HG2	1.77	0.84
31:BA:1271:G:C2'	31:BA:1272:G:H5"	2.05	0.84
1:CA:1218:G:H1'	1:CA:1219:G:O4'	1.77	0.84
1:CA:1388:U:H3'	1:CA:1389:A:C2	2.12	0.84
1:CA:2535:U:H2'	1:CA:2536:G:H5"	1.60	0.84
10:AN:48:PRO:HB3	31:BA:1422:G:H5"	1.59	0.84
27:A5:40:LYS:NZ	27:A5:46:CYS:HB3	1.93	0.84
31:BA:748:C:H1'	31:BA:749:C:OP2	1.76	0.84
34:BG:114:ARG:HH11	34:BG:114:ARG:CG	1.90	0.84
34:BG:139:ARG:HH11	34:BG:139:ARG:HG3	1.41	0.84
4:CE:38:THR:HG23	4:CE:40:GLU:H	1.42	0.84
52:DD:50:U:H2'	52:DD:51:C:C6	2.12	0.84
31:BA:530:G:H4'	31:BA:531:U:OP2	1.77	0.84
31:BA:992:U:H1'	31:BA:993:G:OP2	1.77	0.84
11:CO:52:GLU:HG3	11:CO:57:THR:CB	2.07	0.84
31:DA:1175:G:H2'	31:DA:1176:A:C8	2.13	0.84
52:DD:48:C:C3'	52:DD:49:A:H8	1.90	0.84
1:AA:2346:A:O3'	28:A6:39:TYR:OH	1.94	0.84
6:AG:21:ARG:HH11	6:AG:21:ARG:HG2	1.42	0.84
29:A7:8:ASN:HD22	29:A7:11:LYS:H	1.25	0.84
5:CF:89:VAL:HG12	5:CF:90:PHE:H	1.41	0.84
28:C6:12:GLU:HB3	28:C6:23:THR:HG22	1.57	0.84
1:AA:2255:G:N2	12:AP:85:LYS:CE	2.33	0.83
1:AA:2347:C:H4'	28:A6:39:TYR:HE2	1.43	0.83
1:CA:89:U:C2'	1:CA:90:A:H5"	2.08	0.83
1:CA:98:U:H1'	1:CA:100:G:N3	1.92	0.83
1:CA:1426:A:H4'	1:CA:1427:G:OP2	1.77	0.83
40:DM:78:ASN:HD22	40:DM:80:LYS:HB3	1.43	0.83
46:DS:1:MET:HE1	46:DS:65:GLN:HB2	1.60	0.83
1:AA:602:G:HO2'	1:AA:604:G:HO2'	1.14	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:907:U:H5'	12:AP:23:GLY:O	1.78	0.83
1:AA:1952:A:N1	10:AN:22:ILE:HD11	1.94	0.83
1:CA:822:A:H2	1:CA:835:U:HO2'	1.26	0.83
11:CO:97:PRO:O	11:CO:98:GLU:HB3	1.77	0.83
1:AA:2645:G:H3'	1:AA:2646:C:H5'	1.59	0.83
31:BA:81:G:N2	31:BA:88:C:N3	2.26	0.83
32:BE:185:ILE:HG22	32:BE:199:TYR:HB2	1.60	0.83
49:BV:41:VAL:HB	49:BV:42:PRO:HA	1.59	0.83
1:CA:1922:G:H22	1:CA:1925:C:N4	1.76	0.83
31:DA:1162:C:H42	31:DA:1174:G:H1	1.26	0.83
49:BV:30:LEU:H	49:BV:30:LEU:HD13	1.43	0.83
1:AA:1870:C:H2'	1:AA:1870:C:O2	1.76	0.83
1:CA:70:A:H3'	1:CA:70:A:OP2	1.75	0.83
11:CO:9:ASN:HB3	11:CO:10:PRO:CD	2.08	0.83
12:CP:134:ARG:HG2	12:CP:134:ARG:NH1	1.88	0.83
1:AA:1952:A:C6	10:AN:22:ILE:HD11	2.14	0.83
35:BH:8:GLU:HG2	35:BH:34:VAL:HG22	1.60	0.83
1:CA:295:C:N3	1:CA:391:G:N2	2.25	0.83
31:DA:1002:G:H1	31:DA:1038:C:H42	1.27	0.83
11:AO:112:LEU:H	11:AO:128:HIS:CD2	1.96	0.83
31:BA:1128:C:O2'	31:BA:1130:A:C8	2.31	0.83
1:CA:2150:G:H1	1:CA:2184:C:N4	1.74	0.83
11:CO:80:TYR:HD1	11:CO:111:ARG:HB3	1.43	0.83
12:CP:26:TYR:HD1	12:CP:139:GLU:HG2	1.42	0.83
31:DA:987:G:H1	31:DA:1218:C:N4	1.76	0.83
31:DA:1322:C:O2'	31:DA:1323:G:H5'	1.79	0.83
31:BA:251:G:O6	31:BA:271:C:N4	2.12	0.83
1:CA:2348:A:O2'	1:CA:2349:A:H2'	1.78	0.83
1:CA:2803:C:H3'	1:CA:2804:A:H5"	1.60	0.83
31:DA:79:G:H1	31:DA:90:C:H42	1.24	0.83
4:AE:13:ARG:HD3	4:AE:21:VAL:HG12	1.60	0.83
31:BA:624:C:O3'	46:BS:10:GLY:HA2	1.78	0.83
31:BA:1077:G:N2	31:BA:1080:A:OP2	2.12	0.83
31:BA:1285:A:H4'	31:BA:1286:A:O5'	1.77	0.83
52:BB:57:C:C2	52:BB:68:A:H1'	2.13	0.83
31:DA:421:U:H5"	31:DA:422:C:OP2	1.79	0.83
1:AA:885:C:N3	1:AA:890:A:N7	2.27	0.83
1:CA:622:G:H1'	11:CO:12:ALA:HB2	1.61	0.83
1:CA:1101:A:H61	1:CA:1152:U:H3	0.84	0.83
1:CA:2642:A:N3	1:CA:2642:A:H5"	1.92	0.83
2:CB:54:A:O2'	2:CB:55:A:N7	2.11	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CF:63:LYS:HE2	5:CF:67:GLN:CB	2.09	0.83
34:DG:31:CYS:C	34:DG:33:MET:H	1.87	0.83
3:AD:28:GLU:O	3:AD:29:PRO:C	2.22	0.82
1:AA:2135:A:O2'	1:AA:2136:C:OP1	1.96	0.82
8:AK:104:GLN:O	8:AK:105:HIS:HB2	1.76	0.82
31:BA:31:G:O2'	31:BA:48:C:N4	2.12	0.82
31:BA:156:G:N2	31:BA:165:C:N3	2.25	0.82
35:BH:78:HIS:CE1	35:BH:143:ARG:H	1.96	0.82
52:BB:78:C:H2'	52:BB:79:A:H8	1.44	0.82
26:C4:30:GLU:O	26:C4:31:ILE:HG13	1.79	0.82
31:DA:1300:G:O2'	31:DA:1301:U:O5'	1.96	0.82
20:AU:91:GLU:HG3	20:AU:92:ASN:H	1.45	0.82
2:CB:89:G:N2	2:CB:92:A:OP2	2.12	0.82
8:AK:67:ARG:HH21	8:AK:68:LEU:HB2	1.44	0.82
31:BA:484:G:O2'	31:BA:485:G:OP2	1.95	0.82
31:BA:1364:U:O2'	31:BA:1365:G:OP1	1.97	0.82
16:C1:92:ARG:NH2	17:C2:10:LYS:HA	1.95	0.82
17:C2:71:LEU:HA	17:C2:86:GLY:HA2	1.60	0.82
17:C2:71:LEU:N	17:C2:86:GLY:HA2	1.94	0.82
17:C2:85:LYS:HD2	17:C2:86:GLY:H	1.42	0.82
52:DD:23:A:H3'	52:DD:24:G:H8	1.45	0.82
32:BE:124:SER:HB2	32:BE:125:PRO:HD2	1.61	0.82
32:DE:172:ILE:H	32:DE:172:ILE:HD12	1.43	0.82
1:AA:917:A:H2'	1:AA:918:A:H5'	1.61	0.82
1:AA:2317:C:C2'	1:AA:2318:G:H5'	2.09	0.82
31:BA:49:U:O2'	31:BA:50:A:H3'	1.79	0.82
42:BO:3:THR:H	42:BO:6:GLN:HE21	1.26	0.82
52:BD:19:C:H2'	52:BD:20:C:H4'	1.62	0.82
1:CA:66:U:H3	1:CA:73:A:H2	0.91	0.82
1:AA:2016:U:O4'	27:A5:6:VAL:HG11	1.79	0.82
17:A2:15:GLU:HG3	17:A2:16:PRO:HD2	1.62	0.82
31:BA:652:U:H1'	31:BA:653:A:C2	2.15	0.82
1:AA:2015:A:H1'	27:A5:2:ALA:HA	0.83	0.82
1:AA:2599:G:H8	3:AD:236:GLY:HA2	1.41	0.82
33:BF:27:LYS:HE2	33:BF:27:LYS:HA	1.61	0.82
1:CA:2800:U:H4'	4:CE:65:GLY:N	1.94	0.82
8:CK:131:LYS:HB3	8:CK:132:PRO:HA	1.61	0.82
1:AA:1364:G:N7	23:AZ:2:SER:HB3	1.94	0.82
12:AP:21:THR:HG22	21:AV:78:LYS:HD2	1.60	0.82
15:AR:77:PRO:HG2	15:AR:80:SER:HB2	1.60	0.82
30:A8:29:LYS:HB3	30:A8:44:LYS:HG2	1.61	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:736:C:H2'	31:BA:737:A:C8	2.14	0.82
31:BA:792:A:C2	31:BA:794:A:N6	2.48	0.82
28:C6:25:LYS:HD2	30:C8:34:TRP:CZ3	2.14	0.82
31:DA:1286:A:H3'	31:DA:1287:A:H5"	1.62	0.82
1:AA:1416:G:O2'	1:AA:1417:C:O5'	1.97	0.82
21:AV:10:ARG:HD3	21:AV:38:TYR:HB3	1.59	0.82
52:BB:23:A:H2'	52:BB:24:G:H5"	1.58	0.82
5:CF:53:THR:HG22	5:CF:56:GLU:HG3	1.62	0.82
15:CR:3:ARG:HE	15:CR:6:LEU:HD13	1.45	0.82
1:AA:2689:U:C4'	1:AA:2690:C:H5'	2.08	0.81
31:DA:80:G:H1	31:DA:89:U:H3	1.25	0.81
1:AA:1250:G:N7	11:AO:18:ARG:NH2	2.28	0.81
8:AK:129:THR:HA	8:AK:137:PRO:HA	1.62	0.81
15:AR:2:ASN:O	15:AR:3:ARG:HG2	1.81	0.81
20:AU:52:SER:HB2	20:AU:53:PRO:HD3	1.60	0.81
8:CK:77:LEU:HD13	8:CK:141:LYS:HD2	1.59	0.81
1:AA:631:A:OP2	30:A8:46:ARG:NH2	2.13	0.81
1:AA:895:U:H4'	1:AA:896:A:OP2	1.80	0.81
1:AA:1871:A:H2'	1:AA:1872:A:C8	2.15	0.81
3:AD:35:LYS:NZ	3:AD:64:ILE:O	2.12	0.81
31:BA:387:U:OP1	56:BA:1760:OHX:N1	2.13	0.81
52:BD:14:A:H3'	52:BD:15:G:C5'	2.10	0.81
1:CA:2803:C:C3'	1:CA:2804:A:H5"	2.10	0.81
5:CF:68:LYS:HB3	5:CF:69:HIS:CD2	2.14	0.81
23:CZ:82:LEU:HD23	23:CZ:82:LEU:H	1.44	0.81
26:C4:61:ARG:HH11	26:C4:61:ARG:CG	1.91	0.81
31:DA:870:U:H4'	31:DA:871:U:H5'	1.62	0.81
31:DA:1356:G:H2'	31:DA:1357:A:C8	2.16	0.81
34:DG:19:LEU:HB2	34:DG:21:LEU:HD11	1.60	0.81
34:BG:126:ILE:HD13	34:BG:127:THR:H	1.45	0.81
1:CA:2130:C:N4	1:CA:2205:G:H1	1.78	0.81
12:CP:26:TYR:CD1	12:CP:139:GLU:CG	2.64	0.81
31:DA:1199:U:H4'	40:DM:54:PHE:CE1	2.15	0.81
45:DR:16:ALA:HB1	45:DR:21:ASP:HB3	1.61	0.81
45:DR:87:ILE:HG22	45:DR:88:ARG:H	1.45	0.81
1:AA:676:A:H8	1:AA:2069:G:N2	1.77	0.81
1:AA:1689:A:N6	1:AA:1698:A:H2	1.76	0.81
27:A5:56:LYS:HD2	27:A5:56:LYS:H	1.45	0.81
1:CA:957:A:H62	12:CP:12:GLN:HA	1.45	0.81
31:DA:653:A:C8	38:DK:56:LYS:HE3	2.14	0.81
31:DA:1392:G:H21	31:DA:1502:A:H8	1.25	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1512:C:HO2'	1:CA:1575:A:H8	1.26	0.81
12:CP:12:GLN:HE21	12:CP:73:PRO:HD2	1.45	0.81
1:AA:968:G:O6	56:AA:3568:OHX:N1	2.13	0.81
29:A7:8:ASN:ND2	29:A7:11:LYS:H	1.79	0.81
31:BA:820:U:H4'	31:BA:821:G:OP2	1.81	0.81
31:BA:1190:G:OP1	33:BF:4:LYS:HA	1.81	0.81
34:BG:25:ARG:O	34:BG:27:TYR:N	2.14	0.81
1:CA:1297:G:N7	11:CO:18:ARG:NH2	2.29	0.81
2:CB:5:C:H42	2:CB:120:G:H1	1.26	0.81
31:DA:652:U:H1'	31:DA:653:A:C2	2.16	0.81
21:AV:120:ILE:HG21	21:AV:170:THR:HB	1.62	0.81
31:BA:411:A:H62	31:BA:413:G:H21	1.29	0.81
31:BA:1322:C:O2'	31:BA:1323:G:O5'	1.97	0.81
1:CA:933:C:C5	1:CA:938:A:N6	2.48	0.81
4:CE:33:VAL:HG21	4:CE:36:ARG:HE	1.46	0.81
26:C4:34:GLU:HG2	26:C4:35:VAL:H	1.44	0.81
31:DA:1129:C:H4'	31:DA:1130:A:C5'	2.10	0.81
39:DL:112:LYS:HA	39:DL:119:ALA:HB2	1.62	0.81
42:DO:31:ARG:HG3	42:DO:32:GLY:N	1.96	0.81
1:AA:2068:U:N3	1:AA:2430:A:H2	1.78	0.81
9:AM:4:TYR:OH	9:AM:7:LYS:NZ	2.14	0.81
30:C8:49:VAL:HG12	30:C8:50:LEU:N	1.96	0.81
31:DA:812:C:H1'	31:DA:813:U:OP2	1.80	0.81
31:DA:1022:G:H2'	31:DA:1023:G:O4'	1.80	0.81
31:DA:1157:A:O2'	31:DA:1158:C:O5'	1.99	0.81
31:DA:1297:C:H1'	31:DA:1298:C:OP2	1.80	0.81
31:DA:1325:C:H4'	51:DX:17:THR:HG21	1.60	0.81
1:AA:2016:U:C1'	27:A5:6:VAL:HG13	2.05	0.81
11:AO:75:ILE:HD13	11:AO:75:ILE:H	1.44	0.81
38:BK:7:ALA:HB2	38:BK:85:ARG:HD2	1.61	0.81
11:CO:85:LEU:HB3	11:CO:114:ILE:HD11	1.62	0.81
12:CP:3:MET:HB2	12:CP:93:TYR:CD1	2.15	0.81
12:CP:19:GLY:N	12:CP:98:LYS:HZ3	1.79	0.81
31:DA:382:A:H2'	31:DA:383:A:C8	2.15	0.81
31:DA:1318:A:O2'	49:DV:37:ARG:HB3	1.81	0.81
52:DD:19:C:H2'	52:DD:20:C:H4'	1.63	0.81
7:AH:13:LYS:HE2	7:AH:13:LYS:HA	1.63	0.80
33:BF:91:LEU:HB2	33:BF:99:VAL:HG21	1.63	0.80
14:CQ:24:LEU:HB2	14:CQ:85:VAL:HG12	1.61	0.80
15:CR:61:PHE:HD2	15:CR:61:PHE:H	1.29	0.80
1:AA:2016:U:C1'	27:A5:6:VAL:HG11	2.10	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AU:35:TYR:CE1	20:AU:69:ALA:HB3	2.16	0.80
37:DJ:44:TYR:HA	37:DJ:47:CYS:HB3	1.62	0.80
53:DC:1:C:H2'	53:DC:1:C:O2	1.80	0.80
1:AA:1055:G:N1	1:AA:1104:C:N4	2.25	0.80
1:AA:2163:C:H5"	1:AA:2172:U:OP2	1.80	0.80
18:AS:9:TYR:H	18:AS:102:HIS:CD2	1.98	0.80
31:BA:1004:A:C5'	31:BA:1025:U:H3	1.92	0.80
31:BA:1452:C:O2'	31:BA:1453:G:OP2	1.98	0.80
1:AA:2733:A:H2'	1:AA:2734:A:H5"	1.64	0.80
4:AE:41:LYS:HE2	4:AE:41:LYS:HA	1.61	0.80
20:AU:97:ARG:HH21	20:AU:98:VAL:HB	1.46	0.80
31:BA:382:A:H2'	31:BA:383:A:H8	1.47	0.80
47:BT:86:GLU:HA	47:BT:89:LEU:HB2	1.63	0.80
28:C6:28:ARG:HD2	28:C6:31:PRO:HD2	1.64	0.80
52:DD:14:A:H3'	52:DD:15:G:C5'	2.11	0.80
1:AA:2427:C:H5"	1:AA:2428:G:OP1	1.81	0.80
31:BA:1086:U:H3	31:BA:1099:G:H22	1.26	0.80
1:CA:1674:G:OP2	56:CA:3327:OHX:N5	2.14	0.80
7:CH:3:ARG:HG3	7:CH:4:ILE:H	1.45	0.80
7:CH:19:VAL:HG12	7:CH:20:ALA:H	1.47	0.80
11:CO:61:ARG:CG	11:CO:61:ARG:NH2	2.39	0.80
52:DB:23:A:H2'	52:DB:24:G:H5"	1.63	0.80
1:AA:917:A:H2'	1:AA:918:A:C5'	2.11	0.80
1:AA:2343:C:HO2'	1:AA:2373:G:HO2'	1.21	0.80
7:AH:3:ARG:NE	7:AH:3:ARG:HA	1.97	0.80
27:A5:33:CYS:HB2	27:A5:40:LYS:HD3	1.61	0.80
31:BA:88:C:H2'	31:BA:88:C:O2	1.82	0.80
32:BE:162:ILE:HD11	32:BE:184:VAL:HG22	1.62	0.80
37:BJ:111:ARG:HD2	37:BJ:123:GLU:HB2	1.62	0.80
1:CA:932:C:H42	1:CA:939:G:H1	1.30	0.80
12:CP:26:TYR:CE1	12:CP:139:GLU:HB2	2.16	0.80
15:CR:3:ARG:HG2	15:CR:6:LEU:HB2	1.61	0.80
21:CV:115:GLY:HA3	21:CV:174:VAL:HG13	1.64	0.80
1:AA:2394:C:H2'	1:AA:2395:C:H5'	1.63	0.80
5:AF:64:ILE:HG23	5:AF:65:TRP:CD1	2.16	0.80
15:AR:84:GLN:HG2	15:AR:85:LYS:HG2	1.62	0.80
1:CA:724:A:H8	1:CA:2092:G:N2	1.75	0.80
12:CP:79:LEU:C	12:CP:79:LEU:CD1	2.54	0.80
15:CR:64:ARG:HB2	15:CR:73:GLU:HG2	1.63	0.80
31:DA:542:G:OP1	34:DG:10:ARG:NH2	2.13	0.80
42:DO:44:LYS:CB	42:DO:45:PRO:HD2	2.12	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:77:LYS:HE2	7:AH:138:LYS:HD2	1.62	0.80
11:AO:9:ASN:HB3	11:AO:10:PRO:CD	2.11	0.80
31:BA:93:U:H2'	31:BA:95:G:O4'	1.81	0.80
40:BM:8:LEU:HD12	40:BM:20:ALA:HB2	1.62	0.80
4:CE:101:ARG:HG3	4:CE:203:LYS:HE3	1.64	0.80
14:CQ:11:LYS:HG3	14:CQ:91:PRO:HD3	1.63	0.80
17:C2:85:LYS:HG3	17:C2:87:HIS:N	1.94	0.80
21:CV:174:VAL:O	21:CV:175:VAL:HB	1.81	0.80
49:DV:66:MET:HA	49:DV:67:VAL:O	1.82	0.80
1:AA:222:A:H3'	1:AA:421:U:H5'	1.63	0.80
1:AA:2307:G:C8	1:AA:2311:A:C2	2.70	0.80
1:AA:2327:A:H2'	1:AA:2328:A:C8	2.17	0.80
12:AP:79:LEU:HD12	12:AP:79:LEU:N	1.96	0.80
17:A2:47:VAL:HG22	17:A2:48:GLY:N	1.95	0.80
31:BA:881:G:P	42:BO:9:ARG:HH22	2.04	0.80
1:CA:550:U:H2'	1:CA:551:U:H6	1.46	0.80
1:CA:1218:G:H4'	1:CA:1219:G:OP1	1.78	0.80
1:CA:2831:A:O2'	1:CA:2832:A:OP1	2.00	0.80
15:CR:24:PRO:HA	15:CR:49:VAL:HG23	1.63	0.80
1:AA:287:C:H2'	1:AA:288:C:H6	1.46	0.80
1:AA:2164:C:H2'	1:AA:2165:G:O4'	1.82	0.80
6:AG:13:GLU:O	6:AG:14:GLU:HB3	1.81	0.80
31:BA:737:A:H2'	31:BA:738:C:C6	2.17	0.80
31:BA:789:U:C6	31:BA:792:A:H5'	2.16	0.80
31:BA:1028:C:N4	31:BA:1033:G:H1	1.78	0.80
1:CA:2844:G:OP1	1:CA:2844:G:H8	1.63	0.80
53:DC:16:C:O2'	53:DC:62:C:OP1	1.99	0.80
42:BO:44:LYS:HB3	42:BO:45:PRO:HD3	1.61	0.79
52:BB:53:A:H2'	52:BB:54:C:O4'	1.82	0.79
1:AA:1430:C:H2'	1:AA:1431:U:C6	2.17	0.79
1:AA:2636:U:OP1	4:AE:79:ARG:HA	1.81	0.79
7:AH:10:PRO:O	7:AH:11:VAL:HG13	1.82	0.79
12:AP:21:THR:O	12:AP:21:THR:CG2	2.30	0.79
46:BS:50:LYS:HD3	46:BS:51:VAL:H	1.45	0.79
1:CA:1606:A:H1'	1:CA:1607:G:OP2	1.82	0.79
10:CN:47:ILE:HG13	10:CN:48:PRO:HD2	1.64	0.79
12:CP:21:THR:CG2	12:CP:21:THR:O	2.30	0.79
17:C2:71:LEU:H	17:C2:86:GLY:CA	1.94	0.79
31:DA:64:G:H4'	31:DA:65:U:O5'	1.81	0.79
1:AA:1798:U:H5"	3:AD:259:THR:HG22	1.63	0.79
9:AM:96:GLU:C	9:AM:98:VAL:H	1.90	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BK:91:ARG:HH11	38:BK:91:ARG:CG	1.94	0.79
49:BV:39:THR:HG22	49:BV:40:ILE:H	1.45	0.79
52:BD:62:G:H1	52:BD:70:C:H42	1.29	0.79
1:CA:2480:C:H4'	12:CP:123:HIS:CD2	2.17	0.79
2:CB:16:U:HO2'	2:CB:110:U:HO2'	1.29	0.79
31:DA:82:U:O2	31:DA:87:A:N1	2.15	0.79
31:DA:870:U:H4'	31:DA:871:U:C5'	2.12	0.79
52:DB:31:G:H1	52:DB:41:C:H42	1.28	0.79
1:AA:1378:A:O2'	1:AA:1380:G:N7	2.14	0.79
15:AR:105:LEU:C	15:AR:107:ASP:H	1.89	0.79
52:BD:48:C:C3'	52:BD:49:A:H8	1.92	0.79
1:CA:671:C:O2	1:CA:671:C:H2'	1.80	0.79
1:CA:2417:C:H1'	11:CO:67:MET:CE	2.13	0.79
11:CO:62:LEU:HD11	30:C8:25:MET:O	1.83	0.79
54:D1:13:A:O2'	54:D1:14:A:OP1	2.01	0.79
1:AA:607:U:H3	1:AA:621:A:H2	1.27	0.79
17:A2:16:PRO:HA	17:A2:96:ILE:HG22	1.63	0.79
11:CO:79:ARG:HB3	11:CO:110:TYR:CD1	2.17	0.79
1:AA:1071:G:N1	1:AA:1091:G:N7	2.29	0.79
1:AA:1507:A:H3'	1:AA:1508:A:H5"	1.65	0.79
2:AB:43:C:P	6:AG:67:LYS:HZ2	2.04	0.79
11:CO:79:ARG:O	11:CO:111:ARG:HB2	1.83	0.79
4:AE:181:LEU:HD21	15:AR:7:ILE:HG23	1.65	0.79
12:AP:19:GLY:O	12:AP:98:LYS:HD3	1.81	0.79
12:AP:77:LYS:NZ	12:AP:83:MET:CA	2.39	0.79
17:A2:35:LEU:O	17:A2:37:VAL:N	2.14	0.79
31:BA:135:C:H2'	31:BA:136:C:H5'	1.63	0.79
31:BA:1008:C:N4	31:BA:1021:G:H1	1.81	0.79
32:BE:74:LYS:HD2	32:BE:74:LYS:H	1.48	0.79
9:CM:128:HIS:HB2	9:CM:129:PRO:HD2	1.65	0.79
10:CN:14:THR:HG21	10:CN:86:ILE:HD12	1.65	0.79
22:C3:66:VAL:HG12	22:C3:67:VAL:H	1.48	0.79
25:CX:19:GLN:HE22	25:CX:52:HIS:HE1	1.30	0.79
1:AA:945:A:H1'	1:AA:946:G:OP1	1.82	0.79
1:AA:2167:U:O2'	1:AA:2168:G:OP1	1.99	0.79
9:AM:65:LYS:HB3	9:AM:69:GLN:HG3	1.64	0.79
31:BA:382:A:H2'	31:BA:383:A:C8	2.17	0.79
52:BD:20:C:H5'	52:BD:68:A:H62	1.48	0.79
1:CA:2791:G:C5'	1:CA:2792:A:H5'	2.11	0.79
5:CF:4:VAL:HA	5:CF:19:GLU:HB3	1.65	0.79
31:DA:887:G:O6	56:DA:1787:OHX:N5	2.16	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:882:G:H2'	1:AA:883:G:C8	2.18	0.79
8:AK:110:ASP:HB2	8:AK:112:LYS:N	1.98	0.79
11:AO:60:MET:O	11:AO:60:MET:HG3	1.83	0.79
31:BA:1492:A:OP1	42:BO:44:LYS:N	2.16	0.79
34:BG:153:ARG:NH2	34:BG:181:MET:HB2	1.98	0.79
38:BK:88:LYS:HB3	38:BK:89:PRO:HD2	1.65	0.79
1:CA:954:U:H5'	12:CP:23:GLY:O	1.82	0.79
1:CA:1053:C:H1'	9:CM:106:MET:HE3	1.64	0.79
31:DA:1285:A:H1'	31:DA:1286:A:OP2	1.82	0.79
33:DF:113:ALA:HB3	33:DF:114:PRO:HD3	1.65	0.79
54:D1:11:U:H2'	54:D1:12:A:C5	2.18	0.79
31:BA:664:G:H22	31:BA:741:G:H1	1.30	0.79
1:CA:2193:A:H5"	1:CA:2194:A:OP2	1.82	0.79
13:C0:34:ILE:HG22	13:C0:114:VAL:HB	1.64	0.79
21:CV:11:GLU:CG	21:CV:12:GLY:H	1.94	0.79
1:AA:164:U:H5"	1:AA:165:U:OP2	1.84	0.78
3:AD:35:LYS:HD2	3:AD:104:TYR:CE1	2.18	0.78
21:AV:62:PRO:C	21:AV:64:GLY:HA2	2.07	0.78
31:BA:789:U:C5	31:BA:792:A:C5'	2.66	0.78
52:BD:48:C:H42	52:BD:52:G:H1	1.29	0.78
1:CA:930:G:N2	1:CA:941:C:N3	2.28	0.78
1:CA:2615:A:H4'	1:CA:2616:G:O5'	1.83	0.78
11:CO:105:LEU:O	11:CO:106:LEU:CB	2.31	0.78
12:CP:28:ALA:O	12:CP:29:PHE:HB2	1.83	0.78
20:CU:43:ASN:HD22	20:CU:43:ASN:H	1.31	0.78
39:DL:17:VAL:HA	39:DL:63:ILE:HG12	1.63	0.78
12:AP:25:ASP:N	12:AP:102:VAL:HG22	1.97	0.78
49:DV:78:ARG:HD3	49:DV:78:ARG:H	1.47	0.78
1:AA:1509:C:H3'	1:AA:1510:A:H5"	1.65	0.78
7:AH:83:TYR:HD1	7:AH:134:SER:HB3	1.48	0.78
23:AZ:80:LEU:C	23:AZ:81:LYS:HE2	2.08	0.78
31:BA:444:C:N4	31:BA:490:G:H1	1.80	0.78
1:CA:2131:C:H42	1:CA:2204:G:H1	1.32	0.78
12:CP:34:LEU:HD11	12:CP:129:THR:HB	1.66	0.78
31:DA:250:A:H1'	31:DA:251:G:OP2	1.82	0.78
31:DA:574:A:H5"	31:DA:575:G:OP2	1.83	0.78
1:AA:1533:C:H3'	1:AA:1534:G:C5'	2.13	0.78
1:AA:2167:U:HO2'	1:AA:2168:G:P	2.07	0.78
5:AF:136:THR:HG22	5:AF:166:ALA:O	1.83	0.78
1:CA:1726:G:N2	1:CA:2012:G:H22	1.82	0.78
28:C6:24:GLU:HG3	28:C6:25:LYS:H	1.48	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2287:A:N6	1:AA:2344:U:H3	1.82	0.78
1:CA:1118:G:H5"	1:CA:1119:C:OP2	1.83	0.78
1:CA:1693:G:H5"	1:CA:1694:C:H5'	1.63	0.78
52:DD:17:G:H1'	52:DD:18:G:OP1	1.82	0.78
1:AA:1055:G:H1	1:AA:1104:C:H42	0.81	0.78
1:AA:2723:C:O3'	13:A0:1:MET:HE3	1.84	0.78
3:AD:16:MET:HE3	3:AD:211:ARG:HD3	1.66	0.78
20:AU:81:LYS:HD2	20:AU:96:ILE:HD12	1.66	0.78
30:A8:52:LYS:N	30:A8:53:PRO:HD2	1.98	0.78
31:BA:737:A:H2'	31:BA:738:C:H6	1.48	0.78
31:BA:1162:C:N3	31:BA:1174:G:N2	2.29	0.78
1:CA:2428:G:H4'	11:CO:67:MET:H	1.46	0.78
1:CA:2694:C:H5	1:CA:2739:A:N6	1.80	0.78
31:DA:1129:C:N4	31:DA:1142:G:O6	2.15	0.78
1:AA:1568:G:H5'	3:AD:60:ARG:HA	1.65	0.78
1:AA:1899:G:N2	1:AA:1902:C:C5	2.51	0.78
12:AP:11:LYS:HD3	12:AP:87:LYS:HG2	1.66	0.78
1:CA:140:A:C8	1:CA:1455:C:H1'	2.18	0.78
21:CV:158:PRO:HB2	21:CV:159:PRO:HD2	1.64	0.78
31:DA:987:G:N2	31:DA:1218:C:N3	2.31	0.78
31:BA:1331:G:HO2'	31:BA:1332:A:H8	1.31	0.78
43:BP:3:ARG:HG2	43:BP:9:ILE:HD11	1.65	0.78
1:CA:2159:C:N4	1:CA:2178:G:H1	1.77	0.78
12:CP:24:GLY:CA	12:CP:25:ASP:HB3	2.09	0.78
1:AA:1427:A:H4'	1:AA:1428:C:O5'	1.81	0.78
1:AA:2467:C:C4'	12:AP:123:HIS:ND1	2.47	0.78
15:AR:24:PRO:HA	15:AR:49:VAL:HG22	1.64	0.78
21:AV:76:LEU:H	21:AV:76:LEU:HD22	1.47	0.78
1:CA:105:C:H2'	1:CA:106:U:H6	1.49	0.78
1:CA:155:C:N3	1:CA:161:G:N2	2.32	0.78
20:CU:39:VAL:O	20:CU:40:GLU:HB2	1.84	0.78
52:DB:29:C:H2'	52:DB:30:A:C8	2.19	0.78
1:AA:910:A:C5	12:AP:13:GLN:HG3	2.19	0.78
1:AA:2475:C:H2'	1:AA:2475:C:O2	1.84	0.78
2:AB:73:A:H2'	2:AB:74:U:H5'	1.66	0.78
9:AM:22:THR:HG22	9:AM:23:LEU:N	1.97	0.78
21:AV:9:TYR:HE1	21:AV:35:ARG:HD3	1.49	0.78
28:A6:27:LYS:HB2	28:A6:27:LYS:HZ2	1.48	0.78
1:CA:543:C:OP1	27:C5:16:ARG:NH2	2.16	0.78
1:CA:710:G:H5"	11:CO:16:ARG:HG2	1.66	0.78
1:CA:827:U:OP1	3:CD:49:ILE:HG22	1.84	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1216:G:H2'	1:CA:1217:G:O4'	1.83	0.78
11:CO:64:LYS:HG3	11:CO:65:ARG:N	1.96	0.78
30:C8:34:TRP:CE2	30:C8:35:GLN:HB2	2.19	0.78
41:DN:54:ARG:HH11	41:DN:54:ARG:CG	1.95	0.78
1:AA:2392:A:H8	11:AO:60:MET:HB2	1.48	0.77
31:BA:77:C:C2'	31:BA:78:G:H5"	2.15	0.77
32:BE:80:ILE:HD11	32:BE:208:ILE:HG23	1.65	0.77
32:BE:204:ASN:HD22	32:BE:206:ASP:H	1.31	0.77
1:CA:155:C:H42	1:CA:161:G:H1	1.32	0.77
4:CE:25:VAL:HG12	4:CE:26:ILE:H	1.49	0.77
4:CE:89:ASP:O	4:CE:90:THR:HG22	1.84	0.77
11:CO:106:LEU:HD11	11:CO:111:ARG:O	1.84	0.77
12:CP:90:VAL:O	12:CP:90:VAL:CG1	2.32	0.77
31:DA:485:G:H1'	31:DA:486:U:H5	1.48	0.77
1:AA:49:A:C8	1:AA:120:U:C5	2.72	0.77
1:AA:873:G:H1	1:AA:904:C:H42	0.81	0.77
11:AO:65:ARG:HH11	11:AO:65:ARG:CG	1.87	0.77
15:AR:118:ARG:HA	15:AR:118:ARG:HE	1.49	0.77
30:A8:48:PHE:HE2	30:A8:50:LEU:HD13	1.49	0.77
34:BG:19:LEU:HD23	34:BG:21:LEU:HG	1.66	0.77
1:CA:2130:C:N4	1:CA:2205:G:N1	2.27	0.77
3:CD:34:VAL:C	3:CD:35:LYS:HG3	2.09	0.77
11:CO:101:VAL:CG2	11:CO:108:LYS:HG2	2.08	0.77
17:C2:71:LEU:CA	17:C2:86:GLY:HA2	2.14	0.77
30:C8:49:VAL:HG12	30:C8:50:LEU:H	1.49	0.77
52:DD:48:C:H42	52:DD:52:G:H1	1.27	0.77
1:AA:1448:G:O2'	1:AA:1529:A:N1	2.16	0.77
28:A6:15:GLU:OE1	28:A6:44:ARG:NH2	2.17	0.77
37:BJ:120:ILE:O	37:BJ:124:LEU:HB2	1.84	0.77
1:CA:355:A:H2	1:CA:1256:A:O2'	1.67	0.77
1:CA:2014:U:H2'	1:CA:2015:G:H5"	1.66	0.77
3:CD:183:ARG:HG3	3:CD:270:ILE:HG23	1.67	0.77
14:CQ:29:PHE:HD2	14:CQ:30:ARG:N	1.81	0.77
31:DA:1331:G:OP1	31:DA:1331:G:H4'	1.84	0.77
7:AH:86:GLU:HG3	7:AH:165:ALA:CB	2.14	0.77
23:AZ:76:ARG:HD3	23:AZ:76:ARG:H	1.48	0.77
31:BA:78:G:H1	31:BA:91:C:H42	1.30	0.77
31:BA:119:A:H4'	31:BA:120:A:O5'	1.81	0.77
31:BA:1125:U:OP2	31:BA:1145:C:N4	2.17	0.77
37:BJ:65:ALA:HB1	37:BJ:127:ALA:HB3	1.66	0.77
52:BD:23:A:H3'	52:BD:24:G:H8	1.47	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BD:67:A:C4'	52:BD:68:A:OP1	2.31	0.77
11:CO:64:LYS:HB2	30:C8:25:MET:CG	2.13	0.77
19:CT:57:LEU:HD21	19:CT:78:LYS:HD2	1.64	0.77
30:C8:48:PHE:CG	30:C8:49:VAL:N	2.50	0.77
32:DE:74:LYS:HD2	32:DE:166:ASP:HB2	1.66	0.77
40:DM:99:LYS:HD3	40:DM:100:THR:H	1.50	0.77
1:AA:2124:G:H1	1:AA:2174:C:H42	1.30	0.77
5:AF:103:LYS:HA	5:AF:106:ARG:HG3	1.65	0.77
5:AF:164:ARG:HH11	5:AF:164:ARG:HG2	1.49	0.77
52:BD:48:C:C3'	52:BD:49:A:C8	2.65	0.77
3:CD:45:ASN:OD1	3:CD:46:GLN:N	2.17	0.77
12:CP:132:VAL:HG22	12:CP:133:ARG:H	1.50	0.77
24:CW:50:ILE:H	24:CW:50:ILE:HD12	1.48	0.77
1:AA:4:C:H2'	1:AA:5:A:H8	1.47	0.77
1:AA:2392:A:C8	11:AO:60:MET:HB2	2.18	0.77
31:BA:673:G:H2'	31:BA:674:G:C8	2.19	0.77
31:BA:736:C:H2'	31:BA:737:A:H8	1.47	0.77
31:BA:1002:G:H2'	31:BA:1003:G:C8	2.19	0.77
1:CA:2264:G:OP1	12:CP:82:ARG:NH1	2.18	0.77
11:CO:16:ARG:HG3	11:CO:16:ARG:HH11	1.49	0.77
16:C1:52:ARG:HH11	16:C1:52:ARG:HB3	1.46	0.77
26:A4:34:GLU:HG3	43:BP:3:ARG:HB2	1.64	0.77
49:BV:63:THR:HG23	49:BV:65:ASN:HD21	1.48	0.77
1:CA:2360:C:H4'	28:C6:39:TYR:HE2	1.50	0.77
4:CE:11:MET:HA	4:CE:24:THR:HA	1.66	0.77
31:DA:1322:C:H2'	31:DA:1322:C:O2	1.84	0.77
40:BM:61:GLU:OE2	44:BQ:45:ARG:NH1	2.17	0.77
1:CA:155:C:N4	1:CA:161:G:H1	1.83	0.77
1:AA:557:U:H2'	1:AA:558:G:H8	1.48	0.77
27:A5:40:LYS:HG2	27:A5:47:PRO:HD2	1.64	0.77
34:BG:25:ARG:C	34:BG:27:TYR:H	1.89	0.77
43:BP:13:LYS:O	43:BP:44:ARG:HD2	1.85	0.77
1:CA:9:U:N3	1:CA:2642:A:C6	2.53	0.77
1:CA:622:G:O4'	11:CO:12:ALA:HB2	1.84	0.77
1:CA:2146:G:H1	1:CA:2198:C:N4	1.81	0.77
1:CA:2152:C:C2'	1:CA:2153:U:H5'	2.14	0.77
11:CO:64:LYS:CB	30:C8:25:MET:CG	2.62	0.77
15:CR:61:PHE:CE2	15:CR:76:PHE:HB2	2.19	0.77
31:DA:989:C:N3	31:DA:1216:G:N2	2.30	0.77
52:DD:48:C:C3'	52:DD:49:A:C8	2.65	0.77
3:AD:13:ARG:NH1	3:AD:16:MET:SD	2.58	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AF:46:ARG:HH11	5:AF:46:ARG:CG	1.98	0.77
7:AH:153:LYS:HB3	7:AH:154:PRO:HD2	1.67	0.77
1:CA:2320:G:C4	1:CA:2324:A:C2	2.57	0.77
3:CD:35:LYS:CG	3:CD:64:ILE:H	1.98	0.77
21:CV:33:LEU:HD23	21:CV:90:VAL:HG21	1.65	0.77
31:DA:687:A:H1'	31:DA:688:G:OP2	1.83	0.77
32:DE:178:ARG:HH21	38:DK:68:ARG:NH2	1.83	0.77
43:DP:39:ILE:HG22	43:DP:40:ASN:H	1.49	0.77
31:BA:345:C:H5'	31:BA:346:G:OP1	1.86	0.76
3:CD:218:ARG:HB3	3:CD:219:PRO:HD2	1.66	0.76
1:CA:98:U:H1'	1:CA:100:G:C2	2.20	0.76
18:CS:86:LEU:HD12	18:CS:87:PRO:HD2	1.68	0.76
31:DA:1002:G:H2'	31:DA:1003:G:C8	2.21	0.76
31:DA:1053:G:O6	31:DA:1199:U:H2'	1.85	0.76
31:DA:1160:G:O6	31:DA:1181:G:C6	2.38	0.76
33:DF:36:ASP:HA	33:DF:39:ILE:HD12	1.66	0.76
52:DB:57:C:C2	52:DB:68:A:H1'	2.20	0.76
1:AA:1210:A:H5'	1:AA:1210:A:C8	2.19	0.76
14:AQ:30:ARG:HH11	14:AQ:30:ARG:HG3	1.49	0.76
26:A4:14:ILE:HG23	26:A4:21:VAL:HB	1.67	0.76
31:BA:880:C:OP1	42:BO:5:ASN:ND2	2.17	0.76
34:BG:153:ARG:NH2	34:BG:180:GLY:O	2.18	0.76
23:CZ:92:LYS:O	23:CZ:94:LEU:N	2.18	0.76
31:DA:81:G:N1	31:DA:88:C:N4	2.27	0.76
31:DA:345:C:H1'	31:DA:346:G:C2	2.20	0.76
1:AA:2114:A:H2'	1:AA:2168:G:H5"	1.67	0.76
3:AD:155:LEU:HD23	3:AD:177:LEU:HD21	1.67	0.76
7:AH:124:GLU:HB3	7:AH:132:ARG:HG3	1.67	0.76
12:AP:19:GLY:C	12:AP:98:LYS:HD3	2.09	0.76
33:BF:181:ASN:ND2	33:BF:204:LEU:HB2	2.00	0.76
1:CA:1467:U:O2'	1:CA:1468:G:OP1	2.01	0.76
1:CA:2391:A:O2'	14:CQ:21:THR:HG21	1.85	0.76
28:C6:29:ASN:HA	28:C6:32:ASN:HD22	1.50	0.76
50:DW:51:GLU:HA	50:DW:54:LYS:HB3	1.64	0.76
26:A4:50:VAL:HG11	43:BP:65:LYS:HB3	1.67	0.76
31:BA:1322:C:O2	31:BA:1322:C:H2'	1.85	0.76
32:BE:204:ASN:ND2	32:BE:206:ASP:H	1.83	0.76
52:BB:12:C:O2	52:BB:24:G:N1	2.19	0.76
1:CA:896:G:H1'	1:CA:979:A:H8	1.50	0.76
1:CA:2321:G:O2'	1:CA:2322:A:P	2.43	0.76
1:CA:2419:U:O4	11:CO:70:GLN:HB2	1.84	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CF:21:ALA:C	5:CF:23:ASP:H	1.92	0.76
39:DL:97:LYS:HB2	39:DL:102:LEU:HD12	1.68	0.76
1:AA:2629:A:O2'	1:AA:2630:G:H5"	1.85	0.76
7:AH:153:LYS:HG2	7:AH:162:ILE:HB	1.68	0.76
18:AS:53:SER:O	18:AS:57:ASN:HB2	1.85	0.76
24:AW:47:ASN:O	24:AW:49:LYS:N	2.17	0.76
45:BR:6:GLU:OE2	45:BR:6:GLU:N	2.15	0.76
1:CA:855:U:H2'	1:CA:856:G:C8	2.19	0.76
21:CV:11:GLU:HG3	21:CV:12:GLY:H	1.50	0.76
31:DA:455:C:H42	31:DA:477:G:H1	1.33	0.76
31:DA:977:A:H2'	31:DA:978:A:H5'	1.68	0.76
1:AA:140:A:H8	1:AA:1408:C:O2'	1.68	0.76
1:AA:547:A:H2'	1:AA:548:A:C8	2.21	0.76
31:BA:1023:G:H3'	31:BA:1024:G:H5"	1.64	0.76
31:BA:1178:G:O2'	31:BA:1179:A:OP1	2.03	0.76
43:BP:82:MET:O	43:BP:84:ILE:N	2.19	0.76
1:CA:930:G:H1	1:CA:941:C:H42	0.79	0.76
31:DA:1278:U:H5'	31:DA:1279:A:O4'	1.84	0.76
33:DF:32:LEU:O	33:DF:36:ASP:HB2	1.86	0.76
1:AA:1535:U:H3'	1:AA:1536:A:C5'	2.15	0.76
2:AB:30:C:H2'	2:AB:31:C:H5'	1.68	0.76
4:AE:61:ARG:HB2	4:AE:62:PRO:HD3	1.67	0.76
11:AO:38:GLN:HG2	11:AO:45:LEU:HD13	1.65	0.76
11:AO:58:THR:CG2	11:AO:61:ARG:HG3	2.15	0.76
12:AP:23:GLY:HA2	12:AP:25:ASP:HB2	1.66	0.76
1:CA:1158:A:H5'	7:CH:3:ARG:HH11	1.51	0.76
1:CA:1249:G:H3'	1:CA:1250:A:H5"	1.68	0.76
2:CB:17:A:H1'	2:CB:112:G:C5	2.20	0.76
17:C2:37:VAL:HG21	17:C2:57:VAL:HG12	1.67	0.76
30:C8:29:LYS:O	30:C8:29:LYS:CG	2.30	0.76
34:DG:127:THR:HG21	34:DG:149:ALA:HB2	1.68	0.76
52:DB:10:C:H42	52:DB:26:G:H1	1.32	0.76
1:AA:2580:U:H4'	4:AE:130:GLY:HA3	1.67	0.76
31:BA:881:G:OP2	42:BO:9:ARG:NH2	2.18	0.76
1:CA:479:G:H5'	5:CF:59:TYR:HE2	1.49	0.76
31:DA:1049:U:H4'	31:DA:1050:G:C5'	2.16	0.76
1:AA:482:A:H4'	20:AU:47:LYS:HD3	1.68	0.76
3:AD:35:LYS:HB3	3:AD:63:ARG:HA	1.67	0.76
5:AF:101:LEU:HD13	5:AF:102:PRO:CD	2.16	0.76
50:BW:100:ILE:HG13	50:BW:102:GLY:H	1.51	0.76
11:CO:64:LYS:CG	11:CO:65:ARG:N	2.48	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:CW:17:SER:CB	24:CW:18:PRO:HA	2.06	0.76
31:DA:6:G:H4'	31:DA:298:A:H4'	1.68	0.76
1:AA:654(E):C:H42	1:AA:654(P):G:H1	1.34	0.75
1:AA:2636:U:P	4:AE:79:ARG:HA	2.25	0.75
24:AW:32:LEU:HD11	24:AW:54:LYS:HG2	1.69	0.75
31:BA:73:G:O6	31:BA:97:U:C2	2.39	0.75
37:BJ:144:MET:HE2	52:BD:42:U:H1'	1.67	0.75
39:BL:114:TYR:HD2	39:BL:114:TYR:H	1.31	0.75
1:CA:1068:A:N6	1:CA:1189:A:H61	1.81	0.75
1:CA:1922:G:N2	1:CA:1925:C:C5	2.54	0.75
16:C1:100:VAL:O	16:C1:101:ARG:HG2	1.87	0.75
21:CV:80:ARG:HD3	21:CV:82:ARG:HH21	1.51	0.75
1:AA:302:C:H2'	1:AA:303:U:H6	1.51	0.75
1:AA:889:C:H3'	1:AA:890:A:C4'	2.11	0.75
31:BA:406:G:H2'	31:BA:407:G:H8	1.51	0.75
1:CA:1071:G:H3'	1:CA:1072:G:H5"	1.68	0.75
1:CA:2570:G:H2'	1:CA:2571:C:C6	2.22	0.75
2:CB:44:C:O2	6:CG:93:THR:N	2.17	0.75
7:CH:125:VAL:HG23	7:CH:126:PRO:HB3	1.65	0.75
31:DA:1346:A:C1'	31:DA:1347:G:OP2	2.33	0.75
7:AH:4:ILE:HG13	7:AH:6:ARG:NE	2.00	0.75
14:CQ:10:ARG:HH21	14:CQ:91:PRO:HB2	1.51	0.75
20:CU:43:ASN:HD22	20:CU:43:ASN:N	1.84	0.75
21:CV:52:SER:O	21:CV:54:HIS:N	2.19	0.75
31:DA:1056:U:H2'	31:DA:1056:U:O2	1.86	0.75
41:DN:57:THR:HG22	41:DN:59:TYR:H	1.52	0.75
7:AH:83:TYR:HD2	7:AH:83:TYR:H	1.32	0.75
22:A3:36:ILE:HD13	22:A3:36:ILE:O	1.86	0.75
2:CB:54:A:O2'	2:CB:55:A:C8	2.39	0.75
11:CO:46:LYS:HB2	11:CO:51:PHE:CD2	2.21	0.75
19:CT:43:VAL:HG23	19:CT:51:VAL:HG21	1.68	0.75
21:CV:10:ARG:HG2	21:CV:11:GLU:H	1.52	0.75
31:DA:973:G:H1'	40:DM:55:LYS:CE	2.15	0.75
31:DA:1128:C:O2'	31:DA:1129:C:OP1	2.04	0.75
31:DA:1321:C:H3'	31:DA:1322:C:H5"	1.68	0.75
11:AO:16:ARG:HH11	11:AO:16:ARG:HG3	1.49	0.75
16:A1:90:VAL:O	16:A1:92:ARG:N	2.19	0.75
31:BA:1139:G:N2	31:BA:1143:G:O6	2.19	0.75
38:BK:86:ILE:HG22	38:BK:87:SER:H	1.52	0.75
39:BL:42:ARG:HH11	39:BL:71:SER:HB3	1.50	0.75
1:CA:1813:C:O2'	56:CA:3272:OHX:N6	2.20	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:2809:G:H3'	1:CA:2810:U:C5'	2.14	0.75
32:DE:42:ILE:HG21	32:DE:203:GLY:HA2	1.68	0.75
1:AA:1313:U:H2'	1:AA:1610:A:C2	2.21	0.75
31:DA:56:U:H2'	31:DA:57:G:C8	2.22	0.75
31:DA:414:A:OP2	31:DA:428:G:N2	2.20	0.75
1:AA:1014:U:C2'	1:AA:1015:G:H5"	2.17	0.75
1:AA:1075:C:H2'	1:AA:1076:C:O4'	1.86	0.75
31:BA:411:A:C5	31:BA:413:G:H1'	2.22	0.75
31:BA:789:U:H2'	31:BA:791:G:OP2	1.85	0.75
32:BE:77:ALA:HB2	32:BE:211:ILE:HD13	1.68	0.75
40:BM:48:THR:HA	40:BM:62:HIS:HB3	1.69	0.75
41:BN:99:GLN:HG2	41:BN:105:VAL:HG21	1.68	0.75
1:CA:896:G:H1'	1:CA:979:A:C8	2.22	0.75
1:CA:1654:C:H4'	1:CA:1655:A:O5'	1.85	0.75
5:CF:164:ARG:HH11	5:CF:164:ARG:CB	2.00	0.75
49:DV:78:ARG:HH11	49:DV:79:THR:H	1.33	0.75
1:AA:524:U:H2'	1:AA:525:U:C6	2.22	0.75
1:AA:527:C:OP2	1:AA:2779:U:C5	2.39	0.75
1:AA:1535:U:N3	1:AA:1536:A:H3'	2.02	0.75
1:AA:2795:G:H3'	1:AA:2797:U:C5'	2.17	0.75
8:AK:7:GLU:HA	8:AK:15:VAL:HG22	1.67	0.75
8:AK:25:TYR:CE2	8:AK:29:TYR:HD2	2.05	0.75
11:AO:50:ARG:HH21	11:AO:50:ARG:CG	1.98	0.75
31:BA:7:G:H5'	31:BA:298:A:O4'	1.86	0.75
31:BA:149:A:H2'	31:BA:150:C:C6	2.21	0.75
31:BA:422:C:O2'	31:BA:423:G:N3	2.19	0.75
31:BA:937:A:H1'	31:BA:1379:G:H22	1.52	0.75
32:BE:111:ARG:HH11	32:BE:111:ARG:HG2	1.52	0.75
1:CA:2176:G:H2'	1:CA:2177:G:C8	2.22	0.75
26:C4:1:MET:SD	26:C4:1:MET:N	2.59	0.75
52:DB:48:C:H42	52:DB:52:G:H1	0.81	0.75
31:BA:1346:A:H5"	39:BL:120:ARG:NH1	2.02	0.75
33:BF:40:ARG:O	33:BF:44:GLU:HG2	1.87	0.75
1:CA:5:A:N6	1:CA:2908:U:H3	1.83	0.75
1:CA:933:C:H41	1:CA:938:A:H62	1.33	0.75
11:CO:11:GLY:C	11:CO:13:ASN:H	1.95	0.75
42:DO:57:LEU:HB2	42:DO:61:TYR:HB3	1.68	0.75
52:DB:6:G:O2'	52:DB:7:G:OP1	2.04	0.75
52:DD:52:G:H2'	52:DD:53:A:C8	2.22	0.75
52:DD:67:A:C4'	52:DD:68:A:OP1	2.34	0.75
1:AA:2400:G:H2'	1:AA:2401:U:C6	2.22	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BS:48:TRP:HZ2	46:BS:76:GLN:HE22	1.33	0.74
52:BD:61:G:H1	52:BD:71:C:N4	1.85	0.74
1:CA:1271:C:O2'	17:C2:85:LYS:HB2	1.87	0.74
1:CA:2791:G:H5"	1:CA:2792:A:C5'	2.11	0.74
17:C2:35:LEU:H	17:C2:35:LEU:HD23	1.52	0.74
31:DA:1004:A:H5"	31:DA:1025:U:O4	1.87	0.74
1:AA:330:A:O2'	1:AA:331:A:C8	2.40	0.74
1:AA:620:G:H4'	1:AA:621:A:C5'	2.16	0.74
3:AD:155:LEU:HD23	3:AD:177:LEU:CD2	2.17	0.74
5:AF:184:TYR:O	5:AF:188:ARG:HG3	1.87	0.74
8:AK:11:ASN:O	8:AK:12:LEU:HB2	1.87	0.74
17:A2:35:LEU:C	17:A2:37:VAL:H	1.93	0.74
18:AS:92:ARG:NH1	18:AS:94:ASP:OD2	2.21	0.74
31:BA:81:G:N1	31:BA:88:C:N4	2.34	0.74
41:BN:87:THR:HG22	41:BN:88:GLY:H	1.52	0.74
16:C1:74:LEU:HD13	16:C1:79:PHE:HB2	1.69	0.74
22:C3:27:GLU:HG3	22:C3:68:GLU:HA	1.69	0.74
31:DA:1146:A:OP1	31:DA:1146:A:H8	1.68	0.74
45:DR:68:ARG:HG3	45:DR:68:ARG:NH1	2.02	0.74
1:AA:2216:G:O6	56:AA:3420:OHX:N3	2.20	0.74
12:AP:17:LEU:HD21	12:AP:96:VAL:HG13	1.66	0.74
31:BA:1301:U:H2'	31:BA:1301:U:O2	1.86	0.74
32:BE:92:TYR:HE1	32:BE:94:ASN:HD22	1.35	0.74
1:CA:1270:G:N2	1:CA:1273:A:OP2	2.19	0.74
1:CA:1389:A:C6	1:CA:1444:U:C5	2.74	0.74
18:CS:9:TYR:H	18:CS:102:HIS:CD2	2.05	0.74
19:CT:28:PHE:N	19:CT:28:PHE:CD1	2.53	0.74
31:DA:1305:G:O2'	31:DA:1306:A:H8	1.67	0.74
1:AA:998:C:H2'	1:AA:999:U:O5'	1.87	0.74
1:AA:1854:A:H62	1:AA:1888:G:H8	1.34	0.74
7:CH:27:LYS:HD3	7:CH:32:GLU:HB3	1.70	0.74
12:CP:78:PRO:O	12:CP:79:LEU:CD1	2.34	0.74
31:DA:1134:G:H2'	31:DA:1135:U:H5'	1.68	0.74
37:DJ:45:ASP:OD1	37:DJ:115:ARG:NH1	2.20	0.74
1:AA:105:C:H4'	20:AU:2:ARG:HH21	1.53	0.74
1:AA:2286:A:H8	28:A6:37:ARG:HH11	1.34	0.74
27:A5:40:LYS:HZ2	27:A5:46:CYS:HB3	1.52	0.74
31:BA:1007:C:H2'	31:BA:1008:C:H5"	1.70	0.74
40:BM:49:VAL:HG23	44:BQ:41:ARG:HB2	1.69	0.74
1:CA:2288:C:O2	12:CP:85:LYS:HG2	1.87	0.74
3:CD:43:ARG:HH11	3:CD:49:ILE:HB	1.52	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:950:U:H3'	43:DP:102:ARG:NH2	2.02	0.74
31:DA:1128:C:H4'	39:DL:16:ARG:HH12	1.53	0.74
52:DD:33:C:O2'	52:DD:38:MIA:H152	1.87	0.74
1:AA:1430:C:H2'	1:AA:1431:U:H6	1.49	0.74
10:AN:24:VAL:HA	10:AN:39:ILE:HG22	1.69	0.74
13:A0:24:GLN:HE22	13:A0:36:THR:HG21	1.51	0.74
13:A0:34:ILE:HG22	13:A0:114:VAL:HB	1.68	0.74
20:AU:76:CYS:O	20:AU:78:ALA:N	2.21	0.74
32:BE:91:PRO:HG3	32:BE:154:LEU:HB3	1.69	0.74
8:CK:75:LEU:HD23	8:CK:76:THR:H	1.53	0.74
34:DG:139:ARG:HG3	34:DG:139:ARG:NH1	2.03	0.74
35:DH:101:ILE:HD11	35:DH:119:LEU:HD23	1.70	0.74
42:DO:54:LYS:HG3	42:DO:64:THR:HG22	1.70	0.74
1:AA:905:U:H2'	1:AA:906:G:H5"	1.69	0.74
7:AH:152:ARG:CG	7:AH:153:LYS:H	2.00	0.74
1:CA:38:A:H2'	1:CA:39:C:C6	2.23	0.74
1:CA:1040:G:H1'	17:C2:87:HIS:CE1	2.23	0.74
1:CA:1379:G:H21	1:CA:1657:A:H8	1.35	0.74
1:CA:1583:A:H5"	1:CA:1584:C:OP2	1.87	0.74
1:CA:2188:G:N7	1:CA:2189:G:N2	2.34	0.74
4:CE:9:VAL:HG21	4:CE:25:VAL:HB	1.70	0.74
11:CO:15:ARG:HH11	11:CO:15:ARG:CB	2.01	0.74
11:CO:19:VAL:HG23	11:CO:27:HIS:CG	2.23	0.74
14:CQ:107:GLU:H	14:CQ:110:LEU:HD11	1.51	0.74
1:AA:2016:U:C4'	27:A5:6:VAL:HG11	2.18	0.74
1:AA:2875:C:H4'	15:AR:5:ALA:HB2	1.68	0.74
5:AF:65:TRP:CZ3	5:AF:72:ARG:HB3	2.22	0.74
11:AO:115:LEU:HA	11:AO:134:ALA:HB2	1.69	0.74
31:BA:652:U:H1'	31:BA:653:A:H2	1.52	0.74
32:BE:88:ALA:HB2	32:BE:219:VAL:HG13	1.69	0.74
49:BV:15:LEU:O	49:BV:19:VAL:N	2.18	0.74
1:CA:2396:G:OP2	30:C8:37:SER:CB	2.35	0.74
31:DA:84:U:H2'	31:DA:84:U:O2	1.88	0.74
31:DA:664:G:H22	31:DA:741:G:H1	1.36	0.74
31:DA:1008:C:N3	31:DA:1021:G:O6	2.21	0.74
40:DM:54:PHE:CD2	40:DM:55:LYS:HD3	2.21	0.74
1:AA:488:G:OP2	56:AA:3526:OHX:N4	2.21	0.74
1:AA:1045:A:O2'	1:AA:1047:G:C4	2.40	0.74
3:AD:34:VAL:HG21	3:AD:103:ARG:HA	1.70	0.74
3:AD:186:HIS:HD2	3:AD:188:GLU:H	1.36	0.74
12:AP:79:LEU:C	12:AP:80:GLU:OE2	2.31	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AV:104:PHE:HE1	21:AV:119:GLU:HB3	1.53	0.74
24:AW:47:ASN:C	24:AW:49:LYS:H	1.94	0.74
31:BA:244:U:H4'	31:BA:245:C:C5'	2.18	0.74
1:CA:875:U:O2'	1:CA:2091:U:C2	2.38	0.74
31:DA:115:G:H4'	31:DA:116:A:O5'	1.86	0.74
31:DA:1280:A:H5'	31:DA:1281:U:OP2	1.87	0.74
35:DH:76:ILE:HG22	35:DH:78:HIS:H	1.52	0.74
38:DK:42:GLU:HG3	38:DK:109:ILE:HD12	1.70	0.74
1:AA:1434:A:H61	1:AA:1558:A:H61	1.34	0.74
32:BE:165:VAL:HG23	32:BE:166:ASP:H	1.50	0.74
33:BF:12:LEU:C	33:BF:14:ILE:H	1.94	0.74
20:CU:9:LYS:O	20:CU:27:VAL:HG23	1.88	0.74
31:DA:116:A:OP2	31:DA:116:A:C8	2.41	0.74
31:DA:950:U:H3'	43:DP:102:ARG:HH22	1.53	0.74
52:DB:84:C:H2'	52:DB:85:A:C4	2.22	0.74
1:AA:667:U:OP2	56:AO:205:OHX:N4	2.21	0.73
3:AD:237:GLU:O	3:AD:239:ARG:N	2.21	0.73
12:AP:79:LEU:O	12:AP:80:GLU:CB	2.35	0.73
31:BA:35:G:O2'	42:BO:115:SER:O	2.06	0.73
1:CA:556:G:O2'	1:CA:558:A:C8	2.41	0.73
1:CA:617:G:H1'	30:C8:4:MET:HE1	1.69	0.73
1:CA:2263:G:C2	12:CP:83:MET:HB2	2.23	0.73
5:CF:46:ARG:HH11	5:CF:46:ARG:CG	2.01	0.73
31:DA:983:A:H1'	31:DA:1049:U:O2	1.88	0.73
52:DD:47:U:H2'	52:DD:48:C:H6	1.52	0.73
1:AA:270(M):U:O2'	1:AA:270(N):G:O5'	2.05	0.73
7:AH:83:TYR:HB2	7:AH:134:SER:HA	1.70	0.73
1:CA:1115:G:O2'	1:CA:1143:A:O2'	2.06	0.73
1:CA:1474:A:H4'	1:CA:1475:C:O5'	1.86	0.73
3:CD:35:LYS:HD2	3:CD:104:TYR:CD1	2.23	0.73
8:CK:52:ARG:HA	8:CK:55:ALA:HB3	1.68	0.73
16:C1:25:TRP:CD1	16:C1:25:TRP:C	2.66	0.73
52:DD:11:C:H2'	52:DD:12:C:C5'	2.18	0.73
1:AA:873:G:N2	1:AA:904:C:N3	2.33	0.73
21:AV:160:GLY:O	21:AV:161:VAL:HG13	1.88	0.73
49:BV:63:THR:HG22	49:BV:66:MET:HE3	1.70	0.73
1:CA:950:C:O2'	21:CV:168:GLU:HG2	1.85	0.73
1:CA:2228:G:H3'	1:CA:2229:G:C5	2.23	0.73
3:CD:28:GLU:H	3:CD:29:PRO:HD2	1.53	0.73
3:CD:64:ILE:O	3:CD:64:ILE:HG13	1.89	0.73
3:CD:182:LEU:H	3:CD:272:ALA:HB3	1.52	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CP:90:VAL:O	12:CP:90:VAL:HG12	1.86	0.73
1:AA:2163:C:H2'	1:AA:2164:C:H5'	1.71	0.73
21:AV:128:VAL:HA	21:AV:161:VAL:HG21	1.70	0.73
31:BA:677:U:H3	31:BA:713:G:H22	1.34	0.73
31:BA:789:U:C5	31:BA:792:A:H5'	2.23	0.73
1:CA:660:C:H2'	1:CA:661:C:C6	2.23	0.73
1:CA:1073:U:H2'	1:CA:1073:U:O2	1.88	0.73
14:CQ:17:ARG:HH11	14:CQ:17:ARG:HG3	1.49	0.73
19:CT:51:VAL:H	19:CT:83:VAL:HG23	1.53	0.73
1:AA:55:G:H2'	1:AA:56:A:H8	1.53	0.73
31:BA:937:A:H1'	31:BA:1379:G:N2	2.02	0.73
31:BA:1374:A:O2'	37:BJ:28:ASN:HB3	1.88	0.73
1:CA:1389:A:C6	1:CA:1649:U:N3	2.56	0.73
31:DA:1404:C:H2'	31:DA:1405:G:C8	2.24	0.73
42:DO:114:ARG:HB3	42:DO:119:THR:HB	1.69	0.73
1:AA:49:A:N7	1:AA:120:U:C5	2.56	0.73
1:AA:2134:A:H2'	1:AA:2135:A:H8	1.54	0.73
1:AA:2572:A:N7	4:AE:144:ARG:HD2	2.03	0.73
11:AO:15:ARG:HH11	11:AO:15:ARG:CB	2.01	0.73
20:AU:49:VAL:O	20:AU:51:VAL:N	2.21	0.73
24:AW:58:ALA:O	24:AW:62:THR:HG22	1.88	0.73
31:BA:142:G:H1	31:BA:221:C:H42	1.36	0.73
31:BA:1176:A:N6	31:BA:1177:G:C5	2.57	0.73
1:CA:2300:A:H62	1:CA:2357:U:H3	1.35	0.73
10:CN:115:VAL:HG13	10:CN:121:VAL:HG21	1.71	0.73
23:CZ:87:PRO:HA	23:CZ:90:ILE:HG22	1.71	0.73
31:DA:1159:U:H1'	31:DA:1181:G:H1	1.53	0.73
1:AA:2544:G:OP1	56:AA:3533:OHX:N2	2.21	0.73
34:BG:22:LYS:HB2	34:BG:26:CYS:HB2	1.69	0.73
52:BB:36:U:H3	54:B1:20:G:H1	1.36	0.73
52:BD:13:G:H2'	52:BD:14:A:H8	1.52	0.73
8:CK:1:MET:HE2	8:CK:23:PRO:HA	1.68	0.73
52:DB:52:G:H2'	52:DB:53:A:H8	1.52	0.73
1:AA:286:C:H2'	1:AA:287:C:C6	2.24	0.73
1:AA:654(M):C:H3'	1:AA:654(N):G:H8	1.54	0.73
1:AA:674:G:C1'	5:AF:74:ARG:HD3	2.18	0.73
1:AA:796:C:H2'	1:AA:797:C:C6	2.24	0.73
1:AA:2394:C:C2'	1:AA:2395:C:H5'	2.19	0.73
4:AE:101:ARG:HG2	4:AE:169:ASN:OD1	1.89	0.73
15:AR:56:GLY:O	15:AR:59:THR:HG23	1.88	0.73
20:AU:76:CYS:HB3	20:AU:96:ILE:HD13	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AX:6:VAL:HG12	25:AX:56:VAL:HG22	1.70	0.73
31:BA:1124:G:H3'	31:BA:1145:C:H41	1.53	0.73
52:BB:56:U:O2	52:BB:56:U:H2'	1.89	0.73
1:CA:896:G:H2'	1:CA:897:A:C8	2.24	0.73
1:CA:1105:U:H2'	1:CA:1106:G:C8	2.24	0.73
1:CA:1618:A:O4'	3:CD:38:LYS:HE2	1.89	0.73
1:CA:2174:G:H2'	1:CA:2175:G:H8	1.54	0.73
5:CF:164:ARG:HH11	5:CF:164:ARG:HB3	1.52	0.73
10:CN:2:ILE:HD12	10:CN:6:THR:HG21	1.71	0.73
12:CP:98:LYS:HB3	12:CP:99:PRO:HD2	1.71	0.73
37:DJ:16:LEU:HD13	39:DL:45:ALA:HB2	1.70	0.73
4:AE:20:ALA:O	4:AE:21:VAL:HG22	1.87	0.73
11:AO:61:ARG:HB3	11:AO:61:ARG:CZ	2.18	0.73
28:A6:43:CYS:HB3	28:A6:44:ARG:NH1	2.03	0.73
31:BA:201:C:H42	31:BA:216:G:H1	1.35	0.73
31:BA:559:A:H4'	31:BA:560:U:H3'	1.68	0.73
36:BI:69:GLU:O	36:BI:72:VAL:HG12	1.88	0.73
1:CA:631:U:H3	1:CA:647:A:H2	1.35	0.73
5:CF:102:PRO:HB2	5:CF:105:VAL:HG23	1.71	0.73
31:DA:1157:A:H1'	31:DA:1158:C:C2	2.23	0.73
31:DA:1190:G:O6	56:DA:1760:OHX:N6	2.22	0.73
35:DH:101:ILE:H	35:DH:101:ILE:HD13	1.52	0.73
1:AA:654(N):G:H2'	1:AA:654(O):G:C8	2.24	0.73
3:AD:35:LYS:HZ1	3:AD:65:ILE:HA	1.53	0.73
31:BA:486:U:H2'	31:BA:487:A:C8	2.24	0.73
31:BA:721:G:H4'	31:BA:722:A:O4'	1.89	0.73
53:BC:1:C:H2'	53:BC:1:C:O2	1.88	0.73
31:DA:913:A:H4'	31:DA:914:A:O5'	1.89	0.73
1:AA:1088:A:H5'	1:AA:1089:G:H5'	1.71	0.72
1:AA:2467:C:H4'	12:AP:123:HIS:CE1	2.22	0.72
27:A5:4:HIS:CG	27:A5:5:PRO:CD	2.68	0.72
30:A8:52:LYS:N	30:A8:53:PRO:CD	2.51	0.72
31:BA:266:G:H5"	31:BA:267:C:C5	2.24	0.72
31:BA:858:G:N7	56:BA:1684:OHX:N3	2.37	0.72
31:BA:1128:C:H5"	39:BL:16:ARG:HH22	1.54	0.72
31:BA:1321:C:H3'	31:BA:1322:C:H5"	1.71	0.72
52:BD:50:U:H2'	52:BD:51:C:C6	2.23	0.72
1:CA:1095:A:H2	1:CA:1159:G:H21	1.34	0.72
6:CG:161:THR:HG22	6:CG:163:ALA:H	1.53	0.72
26:C4:31:ILE:HG22	26:C4:32:TYR:N	2.02	0.72
30:C8:23:VAL:HG22	30:C8:47:LYS:HB3	1.69	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1175:G:H2'	31:DA:1176:A:H8	1.50	0.72
39:DL:3:GLN:HE21	39:DL:20:ARG:NH1	1.87	0.72
52:DB:78:C:H2'	52:DB:79:A:H8	1.54	0.72
52:DD:51:C:H3'	52:DD:52:G:C8	2.24	0.72
1:AA:1022:G:H22	1:AA:1142(A):A:H2	1.32	0.72
1:AA:1076:C:C2'	1:AA:1077:A:H5"	2.19	0.72
1:AA:2277:G:H5"	12:AP:87:LYS:HB3	1.69	0.72
2:AB:6:C:C2'	2:AB:7:G:H5"	2.19	0.72
3:AD:35:LYS:HD3	3:AD:63:ARG:CB	2.19	0.72
4:AE:3:GLY:HA3	4:AE:81:ILE:HG21	1.69	0.72
6:AG:108:ASN:HA	26:A4:38:LYS:HB2	1.71	0.72
16:A1:66:ASN:HB2	16:A1:76:TYR:HB2	1.71	0.72
31:BA:1053:G:O6	31:BA:1199:U:H2'	1.89	0.72
35:BH:63:ARG:HA	35:BH:66:MET:HE3	1.71	0.72
52:BB:9:U:H2'	52:BB:9:U:O2	1.87	0.72
1:CA:657:A:OP1	11:CO:64:LYS:CE	2.37	0.72
11:CO:61:ARG:HH21	11:CO:61:ARG:HB3	1.54	0.72
52:DD:17:G:H4'	52:DD:18:G:OP2	1.89	0.72
54:D1:12:A:O2'	54:D1:13:A:P	2.46	0.72
1:AA:140:A:C8	1:AA:1408:C:O2'	2.42	0.72
1:AA:1729:A:H8	1:AA:1730:U:H5	1.37	0.72
1:AA:1900:A:H5'	1:AA:1900:A:C8	2.22	0.72
11:AO:112:LEU:H	11:AO:128:HIS:HD2	1.35	0.72
26:A4:59:PHE:O	26:A4:63:TYR:HB3	1.90	0.72
31:BA:210:U:O2'	31:BA:216:G:H8	1.71	0.72
31:BA:542:G:H5'	34:BG:41:GLY:HA3	1.71	0.72
31:BA:1335:C:H5'	31:BA:1336:C:OP1	1.90	0.72
49:BV:51:VAL:HG12	49:BV:52:TYR:H	1.53	0.72
1:CA:947:A:H3'	1:CA:948:A:H8	1.54	0.72
5:CF:24:LEU:HB3	5:CF:25:PRO:CD	2.19	0.72
16:C1:90:VAL:HG22	17:C2:39:LEU:HB3	1.71	0.72
35:DH:71:LEU:HD22	35:DH:115:VAL:HG13	1.70	0.72
50:DW:50:GLU:HA	50:DW:100:ILE:HG21	1.70	0.72
1:AA:945:A:C1'	1:AA:946:G:OP1	2.36	0.72
1:AA:1060:U:H3	1:AA:1088:A:H8	1.37	0.72
1:AA:2402:C:H5	1:AA:2415:G:H22	1.36	0.72
1:AA:2789:C:H1'	1:AA:2892:A:H2	1.53	0.72
4:AE:105:THR:HG22	4:AE:106:GLY:H	1.53	0.72
5:AF:67:GLN:O	5:AF:67:GLN:HG3	1.89	0.72
18:AS:14:PRO:HG2	18:AS:78:GLU:HB2	1.71	0.72
1:CA:699:G:C4'	1:CA:700:A:OP1	2.38	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:953:G:OP1	12:CP:26:TYR:OH	2.07	0.72
2:CB:90:C:H3'	2:CB:91:G:C8	2.25	0.72
5:CF:119:ARG:HH11	5:CF:119:ARG:CG	2.02	0.72
18:CS:4:LYS:HB3	18:CS:106:ILE:HG22	1.70	0.72
18:CS:9:TYR:H	18:CS:102:HIS:HD2	1.36	0.72
2:AB:73:A:C2'	2:AB:74:U:H5'	2.18	0.72
11:AO:85:LEU:HA	11:AO:88:LEU:HD22	1.70	0.72
31:BA:749:C:OP1	56:BA:1683:OHX:N3	2.22	0.72
31:BA:1504:G:OP1	31:BA:1507:A:H4'	1.90	0.72
1:CA:672:A:H2'	1:CA:673:G:O4'	1.90	0.72
1:CA:800:A:H4'	1:CA:801:C:O5'	1.86	0.72
1:CA:2161:C:N4	1:CA:2176:G:H1	1.83	0.72
1:CA:2460:G:H1'	1:CA:2461:A:OP2	1.90	0.72
5:CF:21:ALA:O	5:CF:23:ASP:N	2.21	0.72
5:CF:192:LEU:O	5:CF:193:VAL:HG23	1.90	0.72
28:C6:23:THR:O	56:C6:101:OHX:N4	2.21	0.72
28:C6:44:ARG:O	28:C6:45:LYS:HB2	1.88	0.72
31:DA:79:G:H1	31:DA:90:C:N4	1.86	0.72
1:AA:1310:G:OP2	29:A7:9:ARG:HD2	1.90	0.72
1:AA:1510:A:H2'	1:AA:1510:A:N3	2.04	0.72
3:AD:35:LYS:HZ1	3:AD:104:TYR:HB2	1.53	0.72
4:AE:38:THR:OG1	4:AE:39:PRO:HD2	1.88	0.72
6:AG:37:VAL:HG22	6:AG:159:VAL:HG12	1.69	0.72
16:A1:112:ARG:NH2	17:A2:47:VAL:HG13	2.05	0.72
31:BA:244:U:H4'	31:BA:245:C:O5'	1.89	0.72
31:BA:498:A:H4'	31:BA:500:G:OP1	1.90	0.72
34:BG:173:TRP:CD1	34:BG:174:LEU:HG	2.23	0.72
42:BO:43:LYS:CG	42:BO:44:LYS:N	2.51	0.72
54:B1:12:A:O2'	54:B1:13:A:P	2.48	0.72
1:CA:1379:G:N2	1:CA:1657:A:C8	2.57	0.72
1:CA:2870:G:H4'	1:CA:2871:A:OP1	1.90	0.72
4:CE:92:THR:O	4:CE:95:ILE:HG13	1.88	0.72
21:CV:11:GLU:HG3	21:CV:12:GLY:N	2.05	0.72
24:CW:65:ASN:HD22	24:CW:69:ARG:HH21	1.35	0.72
26:C4:21:VAL:HG22	26:C4:22:ILE:H	1.55	0.72
37:DJ:115:ARG:HB3	37:DJ:118:VAL:HG13	1.70	0.72
1:AA:1952:A:C2	10:AN:22:ILE:HD11	2.24	0.72
11:AO:46:LYS:O	11:AO:47:ASP:HB3	1.89	0.72
12:AP:21:THR:HG22	12:AP:21:THR:O	1.89	0.72
31:BA:1149:C:H2'	31:BA:1150:U:H6	1.54	0.72
1:CA:9:U:H3	1:CA:2642:A:N6	1.86	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:897:A:OP1	56:CA:3411:OHX:N3	2.21	0.72
1:CA:1325:A:H2'	1:CA:1326:G:H8	1.55	0.72
4:CE:91:VAL:HB	4:CE:95:ILE:HD11	1.71	0.72
48:DU:22:VAL:HG22	48:DU:23:LYS:H	1.54	0.72
53:DC:24:C:H2'	53:DC:25:U:H6	1.54	0.72
1:AA:154:G:C2'	1:AA:155:C:H5"	2.20	0.72
1:AA:1331:A:O2'	1:AA:1332:G:H8	1.72	0.72
32:BE:7:VAL:HG23	32:BE:8:LYS:HE2	1.69	0.72
34:BG:24:GLU:O	34:BG:27:TYR:HB2	1.89	0.72
37:BJ:16:LEU:HD12	39:BL:42:ARG:HA	1.72	0.72
1:CA:626:G:HO2'	1:CA:628:G:HO2'	1.38	0.72
1:CA:800:A:H3'	29:C7:1:MET:SD	2.30	0.72
1:CA:1726:G:H22	1:CA:2012:G:H22	1.37	0.72
1:CA:2151:C:H2'	1:CA:2152:C:C6	2.24	0.72
3:CD:25:THR:C	3:CD:27:THR:H	1.98	0.72
4:CE:23:VAL:HA	4:CE:184:VAL:O	1.89	0.72
31:DA:1374:A:O2'	37:DJ:28:ASN:HB3	1.89	0.72
34:DG:145:GLU:HB2	34:DG:184:LYS:HE3	1.72	0.72
38:DK:89:PRO:HA	38:DK:92:ARG:NH1	2.04	0.72
1:AA:1021:A:H61	1:AA:1142(A):A:N6	1.87	0.72
31:BA:1053:G:C5'	31:BA:1054:C:H5'	2.14	0.72
31:BA:1254:C:H42	31:BA:1283:G:H1	1.36	0.72
1:CA:2391:A:H4'	14:CQ:23:ARG:HH11	1.54	0.72
3:CD:35:LYS:HG2	3:CD:64:ILE:HG12	1.72	0.72
3:CD:35:LYS:CD	3:CD:104:TYR:HD1	2.03	0.72
7:CH:92:ILE:HG22	7:CH:93:GLY:N	2.03	0.72
23:CZ:29:GLY:O	23:CZ:30:VAL:HG22	1.90	0.72
40:DM:84:GLN:HB3	40:DM:88:LEU:HD22	1.72	0.72
1:AA:1833:U:O2'	1:AA:1969:A:N1	2.21	0.72
34:BG:98:GLU:OE2	34:BG:103:ASN:ND2	2.20	0.72
40:BM:4:ILE:HB	40:BM:74:ILE:HG13	1.71	0.72
52:BB:6:G:O2'	52:BB:7:G:OP1	2.08	0.72
1:CA:1379:G:N2	1:CA:1657:A:H8	1.87	0.72
1:CA:2230:A:H1'	1:CA:2232:G:C5	2.25	0.72
5:CF:18:ARG:HG2	5:CF:19:GLU:N	1.99	0.72
5:CF:124:LEU:HG	5:CF:126:VAL:HG13	1.72	0.72
11:CO:57:THR:C	11:CO:59:LEU:H	1.97	0.72
31:DA:1159:U:H1'	31:DA:1181:G:N1	2.05	0.72
31:DA:1372:U:OP1	39:DL:72:GLY:N	2.22	0.72
40:DM:48:THR:HA	40:DM:62:HIS:HB3	1.72	0.72
1:AA:1171:G:N2	1:AA:1179:C:O2	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1778:U:H2'	1:AA:1784:A:H62	1.53	0.71
32:BE:17:PHE:HB3	32:BE:44:LEU:HD21	1.71	0.71
1:CA:1887:G:N7	56:CA:3484:OHX:N1	2.38	0.71
1:CA:2320:G:N9	1:CA:2324:A:H2	1.65	0.71
11:CO:61:ARG:C	11:CO:62:LEU:CD2	2.57	0.71
20:CU:87:LYS:HB3	20:CU:92:ASN:HB3	1.72	0.71
31:DA:266:G:O6	31:DA:270:A:N7	2.23	0.71
52:DD:13:G:H2'	52:DD:14:A:H8	1.54	0.71
1:AA:1278:A:O2'	13:A0:34:ILE:HD11	1.90	0.71
1:AA:1754:C:OP1	15:AR:96:ARG:NH1	2.23	0.71
31:BA:625:G:H4'	46:BS:16:HIS:CD2	2.25	0.71
31:BA:1348:U:H4'	39:BL:120:ARG:HD2	1.70	0.71
38:BK:91:ARG:HD2	42:BO:4:ILE:HG13	1.71	0.71
50:BW:23:ARG:HA	50:BW:26:ASN:HD21	1.54	0.71
1:CA:1069:G:O2'	1:CA:1070:U:OP2	2.07	0.71
1:CA:1256:A:H5"	1:CA:1257:U:H3'	1.71	0.71
35:DH:78:HIS:HB2	38:DK:104:ARG:HD2	1.72	0.71
52:DB:56:U:H2'	52:DB:56:U:O2	1.90	0.71
1:AA:2820:A:O2'	1:AA:2821:A:OP1	2.07	0.71
3:AD:71:ASP:HB3	3:AD:103:ARG:HH22	1.55	0.71
11:AO:64:LYS:C	11:AO:66:GLY:N	2.39	0.71
23:AZ:92:LYS:HA	23:AZ:95:LEU:HB2	1.72	0.71
31:BA:1028(B):C:N4	31:BA:1032(A):G:H1	1.87	0.71
31:BA:1116:C:C2'	31:BA:1117:G:H5'	2.20	0.71
1:CA:1968:G:OP1	56:CA:3377:OHX:N6	2.23	0.71
2:CB:33:C:H2'	2:CB:34:C:H5'	1.72	0.71
11:CO:61:ARG:NH2	11:CO:61:ARG:HG2	2.01	0.71
31:DA:1027:C:C2	31:DA:1035:A:N6	2.57	0.71
31:DA:1349:A:OP2	39:DL:118:LYS:NZ	2.23	0.71
42:DO:15:VAL:O	42:DO:16:ARG:HB2	1.89	0.71
1:AA:598:G:C1'	11:AO:12:ALA:HB2	2.20	0.71
1:AA:2712:U:H5'	1:AA:2712:U:O2	1.90	0.71
13:A0:72:ASP:OD1	13:A0:75:LEU:HB2	1.90	0.71
1:CA:2246:U:H2'	1:CA:2247:G:C8	2.25	0.71
8:CK:101:LEU:HD23	8:CK:101:LEU:H	1.53	0.71
11:CO:15:ARG:CG	11:CO:15:ARG:NH1	2.39	0.71
12:CP:83:MET:SD	12:CP:83:MET:N	2.63	0.71
31:DA:1160:G:N1	31:DA:1177:G:N2	2.36	0.71
1:AA:996:A:H4'	16:A1:92:ARG:HE	1.54	0.71
6:AG:13:GLU:O	6:AG:14:GLU:CB	2.39	0.71
13:A0:1:MET:O	13:A0:2:ARG:HB2	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:27:G:H4'	34:BG:209:ARG:HG3	1.71	0.71
31:BA:438:G:OP1	34:BG:125:HIS:HE1	1.73	0.71
1:CA:1705:C:H2'	1:CA:1706:C:C6	2.26	0.71
12:CP:19:GLY:H	12:CP:98:LYS:NZ	1.85	0.71
20:CU:81:LYS:HG2	20:CU:97:ARG:CZ	2.20	0.71
22:C3:68:GLU:HG3	22:C3:80:HIS:HB2	1.73	0.71
31:DA:1126:U:O2'	31:DA:1127:G:P	2.48	0.71
1:AA:557:U:H2'	1:AA:558:G:C8	2.24	0.71
15:AR:111:ARG:HD3	15:AR:111:ARG:H	1.55	0.71
28:A6:41:PRO:HB2	28:A6:44:ARG:HH12	1.56	0.71
49:BV:63:THR:HG23	49:BV:65:ASN:ND2	2.04	0.71
1:CA:1218:G:H2'	1:CA:1218:G:OP2	1.91	0.71
1:CA:1543:A:H8	1:CA:1625:C:HO2'	1.35	0.71
1:CA:2486:U:O2	1:CA:2486:U:H2'	1.90	0.71
1:CA:2520:C:H2'	1:CA:2521:G:O4'	1.89	0.71
3:CD:45:ASN:CG	3:CD:46:GLN:H	1.98	0.71
31:DA:843:U:H3'	31:DA:848:C:O4'	1.91	0.71
32:DE:233:SER:HB2	32:DE:234:PRO:HD2	1.71	0.71
52:DB:3:U:H4'	52:DB:4:G:OP1	1.89	0.71
52:DB:15:G:H1'	52:DB:20:C:H5	1.55	0.71
52:DD:23:A:H2'	52:DD:24:G:O4'	1.90	0.71
1:AA:404:C:H1'	1:AA:405:U:OP2	1.91	0.71
1:AA:580:C:H2'	1:AA:581:C:H6	1.55	0.71
1:AA:900:A:H3'	1:AA:901:A:H8	1.56	0.71
1:AA:1464:C:HO2'	1:AA:1528:A:H8	1.38	0.71
12:AP:83:MET:SD	12:AP:83:MET:N	2.63	0.71
21:AV:52:SER:O	21:AV:54:HIS:N	2.24	0.71
52:BD:21:A:N1	52:BD:55:U:O4	2.24	0.71
16:C1:72:HIS:HE1	16:C1:107:ALA:HA	1.54	0.71
19:CT:28:PHE:N	19:CT:28:PHE:HD1	1.89	0.71
56:DA:1760:OHX:N2	40:DM:59:SER:HB3	2.06	0.71
52:DB:3:U:C4'	52:DB:4:G:OP1	2.39	0.71
1:AA:1516:U:H2'	1:AA:1517:G:H8	1.55	0.71
1:AA:1871:A:H2'	1:AA:1872:A:H8	1.56	0.71
1:AA:2656:U:H3	1:AA:2665:A:H2	1.39	0.71
34:BG:31:CYS:C	34:BG:33:MET:H	1.98	0.71
1:CA:1985:C:O2'	1:CA:1987:G:OP2	2.08	0.71
1:CA:2752:A:OP2	56:CA:3321:OHX:N3	2.24	0.71
14:CQ:66:ALA:O	14:CQ:69:VAL:HG12	1.91	0.71
16:C1:50:ARG:HH11	17:C2:70:ILE:HG22	1.56	0.71
41:DN:116:HIS:O	41:DN:117:ASN:HB2	1.90	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DO:44:LYS:HB3	42:DO:45:PRO:CD	2.18	0.71
1:AA:229:A:H4'	1:AA:230:U:H5'	1.72	0.71
1:AA:2567:G:H2'	1:AA:2568:C:C6	2.25	0.71
3:AD:238:GLY:C	3:AD:239:ARG:HG3	2.14	0.71
6:AG:64:THR:HG23	6:AG:94:LEU:HD13	1.73	0.71
20:AU:42:VAL:CB	20:AU:67:LEU:HD11	2.19	0.71
35:BH:78:HIS:HE1	35:BH:143:ARG:N	1.87	0.71
1:CA:1922:G:N2	1:CA:1925:C:H41	1.88	0.71
1:CA:2620:G:O6	56:CA:3462:OHX:N1	2.23	0.71
1:CA:2715:U:C2'	1:CA:2716:C:H5	2.02	0.71
31:DA:498:A:H4'	31:DA:500:G:OP1	1.90	0.71
1:AA:1533:C:C3'	1:AA:1534:G:H5"	2.16	0.71
1:AA:2756:U:H4'	1:AA:2757:A:OP1	1.90	0.71
24:AW:16:LEU:O	24:AW:16:LEU:HG	1.89	0.71
31:BA:266:G:H5'	31:BA:268:C:H41	1.56	0.71
31:BA:1240:U:C5	37:BJ:32:ARG:HD2	2.26	0.71
37:BJ:144:MET:HE1	52:BD:31:G:H21	1.56	0.71
52:BB:7:G:OP2	56:BB:106:OHX:N5	2.23	0.71
52:BD:33:C:O2'	52:BD:38:MIA:H152	1.90	0.71
1:CA:140:A:H8	1:CA:1642:G:H21	1.37	0.71
1:CA:2288:C:O2	12:CP:85:LYS:CG	2.39	0.71
1:CA:2418:G:O2'	1:CA:2419:U:OP1	2.07	0.71
27:C5:16:ARG:NH1	27:C5:17:ASP:OD1	2.24	0.71
32:DE:236:TYR:HB2	32:DE:239:VAL:HB	1.71	0.71
34:DG:8:VAL:O	34:DG:11:LEU:N	2.13	0.71
50:DW:72:LEU:O	50:DW:73:HIS:HB2	1.91	0.71
19:AT:31:HIS:ND1	19:AT:32:PRO:HD2	2.06	0.70
21:AV:92:SER:O	21:AV:130:PRO:HG2	1.90	0.70
31:BA:411:A:C4	31:BA:413:G:H1'	2.26	0.70
33:BF:8:ILE:HG23	33:BF:16:ARG:HG2	1.73	0.70
52:BB:50:U:H2'	52:BB:51:C:O4'	1.91	0.70
1:CA:1922:G:N2	1:CA:1925:C:N4	2.38	0.70
1:CA:2694:C:H6	1:CA:2696:C:H41	1.38	0.70
31:DA:900:A:H2'	31:DA:901:A:C8	2.26	0.70
32:DE:84:GLU:HG3	32:DE:215:LEU:HB3	1.72	0.70
40:DM:6:ILE:HD11	40:DM:72:VAL:HB	1.71	0.70
49:DV:18:LYS:O	49:DV:22:LEU:HB2	1.90	0.70
1:AA:140:A:H8	1:AA:1408:C:HO2'	1.29	0.70
1:AA:559:G:H22	16:A1:49:HIS:CD2	2.08	0.70
1:AA:593:G:O3'	30:A8:61:LEU:HD22	1.92	0.70
1:AA:1076:C:H2'	1:AA:1077:A:H5"	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1607:C:H4'	1:AA:1608:A:O5'	1.91	0.70
1:AA:2689:U:H4'	1:AA:2690:C:C5'	2.17	0.70
27:A5:2:ALA:O	27:A5:3:LYS:HB2	1.89	0.70
31:BA:963:G:H21	40:BM:55:LYS:NZ	1.89	0.70
36:BI:2:ARG:HD2	36:BI:69:GLU:HB3	1.73	0.70
1:CA:1250:A:O2'	1:CA:1251:U:OP2	2.09	0.70
1:CA:2438:A:H5"	1:CA:2439:A:H3'	1.72	0.70
7:CH:23:ARG:HA	7:CH:36:PRO:HA	1.73	0.70
49:DV:23:ASN:HA	49:DV:27:GLU:HG3	1.73	0.70
52:DB:48:C:H3'	52:DB:49:A:H8	1.56	0.70
52:DD:18:G:C1'	52:DD:19:C:OP2	2.39	0.70
1:AA:879:G:H1	1:AA:898:C:N4	1.88	0.70
1:AA:1056:G:N2	1:AA:1103:A:N6	2.15	0.70
1:AA:1888:G:H5'	1:AA:1888:G:N3	2.07	0.70
12:AP:51:ARG:HG2	12:AP:51:ARG:NH1	1.95	0.70
15:AR:107:ASP:O	15:AR:110:ILE:HG22	1.91	0.70
1:CA:1072:G:OP1	1:CA:1072:G:H8	1.74	0.70
1:CA:1444:U:O2'	1:CA:1445:C:P	2.49	0.70
1:CA:1851:A:H5"	3:CD:161:THR:HG21	1.74	0.70
1:CA:2536:G:H8	1:CA:2536:G:H5'	1.56	0.70
1:CA:2737:C:OP1	13:C0:3:HIS:HD2	1.74	0.70
6:CG:55:LYS:HZ3	6:CG:148:MET:HE3	1.54	0.70
9:CM:13:TRP:O	9:CM:135:PRO:HD2	1.91	0.70
9:CM:137:LYS:HA	9:CM:137:LYS:NZ	2.06	0.70
15:CR:56:GLY:O	15:CR:59:THR:HG23	1.91	0.70
20:CU:99:CYS:SG	20:CU:100:ALA:N	2.64	0.70
31:DA:345:C:O2'	31:DA:346:G:O5'	2.09	0.70
31:DA:1442:G:O2'	31:DA:1443:G:OP1	2.08	0.70
38:DK:12:ARG:HH11	38:DK:27:PRO:HD3	1.53	0.70
43:DP:3:ARG:HG2	43:DP:9:ILE:HG13	1.73	0.70
1:AA:2014:A:O2'	27:A5:2:ALA:HB2	1.91	0.70
31:BA:1303:C:H2'	31:BA:1304:G:H5'	1.72	0.70
1:CA:1978:U:O3'	1:CA:1979:U:H6	1.75	0.70
1:CA:2533:C:H41	1:CA:2555:A:H62	1.38	0.70
3:CD:43:ARG:HD2	3:CD:44:ASN:OD1	1.91	0.70
7:CH:6:ARG:HH21	7:CH:54:ARG:HH22	1.40	0.70
17:C2:24:LYS:HA	17:C2:92:THR:OG1	1.90	0.70
31:DA:328:C:C1'	31:DA:329:A:OP2	2.37	0.70
31:DA:663:A:H5'	31:DA:836:G:OP1	1.90	0.70
1:AA:1423:G:H2'	1:AA:1424:G:H8	1.55	0.70
15:AR:24:PRO:HA	15:AR:49:VAL:CG2	2.22	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:963:G:H5'	56:BA:1688:OHX:N1	2.05	0.70
31:BA:1128:C:H2'	31:BA:1139:G:O6	1.90	0.70
32:BE:84:GLU:HB3	32:BE:219:VAL:HG21	1.72	0.70
35:BH:31:LEU:HD23	35:BH:45:PHE:CD1	2.26	0.70
31:DA:890:G:O6	56:DA:1754:OHX:N5	2.24	0.70
52:DB:55:U:C6	52:DB:56:U:H1'	2.27	0.70
12:AP:92:GLY:C	12:AP:93:TYR:CD1	2.70	0.70
38:BK:51:VAL:HG11	38:BK:60:ARG:HG3	1.74	0.70
8:CK:76:THR:HG23	8:CK:77:LEU:H	1.54	0.70
29:C7:8:ASN:C	29:C7:8:ASN:HD22	1.99	0.70
31:DA:1286:A:C8	31:DA:1287:A:H4'	2.26	0.70
31:DA:1363:A:H4'	31:DA:1364:U:H5"	1.74	0.70
34:DG:150:GLU:O	34:DG:152:SER:N	2.23	0.70
38:DK:86:ILE:HD11	38:DK:136:GLU:HG2	1.73	0.70
1:AA:1069:A:H4'	1:AA:1070:A:C5'	2.21	0.70
1:AA:1278:A:OP1	13:A0:36:THR:HG22	1.92	0.70
4:AE:35:GLN:CD	4:AE:37:ARG:NH2	2.49	0.70
9:AM:73:THR:HB	9:AM:82:LEU:HD11	1.74	0.70
17:A2:89:GLN:HA	17:A2:89:GLN:HE21	1.57	0.70
28:A6:33:LYS:HG3	28:A6:34:LEU:HD22	1.74	0.70
33:BF:70:VAL:HG12	33:BF:72:LYS:N	2.03	0.70
36:BI:89:MET:HE1	48:BU:72:ARG:HG2	1.73	0.70
1:CA:140:A:H8	1:CA:1455:C:H1'	1.55	0.70
1:CA:1467:U:O2'	1:CA:1468:G:P	2.50	0.70
1:CA:2159:C:N4	1:CA:2178:G:C6	2.59	0.70
5:CF:3:GLU:O	5:CF:19:GLU:HB2	1.90	0.70
9:CM:15:LEU:HB2	9:CM:134:ARG:HG2	1.74	0.70
30:C8:23:VAL:CG2	30:C8:47:LYS:HB3	2.21	0.70
36:DI:61:LEU:HD23	36:DI:63:TYR:OH	1.92	0.70
1:AA:880:G:O2'	1:AA:881:G:P	2.49	0.70
1:AA:1058:U:H2'	1:AA:1059:G:C8	2.27	0.70
6:AG:114:ILE:HD11	6:AG:140:ILE:HD12	1.73	0.70
38:BK:63:LEU:HB3	38:BK:65:TYR:CE1	2.26	0.70
43:BP:19:LEU:HD11	43:BP:56:LEU:HD11	1.74	0.70
1:CA:2145:U:H2'	1:CA:2146:G:O4'	1.92	0.70
12:CP:21:THR:O	12:CP:21:THR:HG22	1.91	0.70
31:DA:250:A:H4'	31:DA:251:G:O5'	1.92	0.70
31:DA:973:G:H3'	31:DA:974:A:H5"	1.73	0.70
31:DA:1206:G:H2'	31:DA:1207:G:C8	2.27	0.70
31:DA:1347:G:C8	39:DL:107:ARG:HB3	2.27	0.70
52:DD:62:G:H1	52:DD:70:C:H42	1.39	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:4:C:H2'	1:AA:5:A:C8	2.25	0.70
1:AA:1065:U:H1'	1:AA:1074:G:N2	2.07	0.70
31:BA:390:C:H2'	31:BA:391:G:C8	2.27	0.70
31:BA:1145:C:H5"	31:BA:1146:A:OP1	1.90	0.70
34:BG:173:TRP:HZ3	34:BG:193:ASP:HB3	1.56	0.70
38:BK:60:ARG:HH11	38:BK:60:ARG:CG	2.03	0.70
43:BP:82:MET:C	43:BP:84:ILE:H	1.99	0.70
52:BD:50:U:H2'	52:BD:51:C:O4'	1.92	0.70
1:CA:1700:A:N6	13:C0:11:ASN:HD21	1.86	0.70
1:CA:1832:C:OP2	3:CD:266:SER:OG	2.08	0.70
1:CA:2694:C:C4	1:CA:2739:A:N6	2.48	0.70
11:CO:79:ARG:HB3	11:CO:110:TYR:HD1	1.55	0.70
31:DA:748:C:H4'	31:DA:749:C:O5'	1.92	0.70
46:DS:70:ALA:O	46:DS:74:LEU:HD23	1.92	0.70
1:AA:747:U:C2	27:A5:2:ALA:N	2.60	0.70
1:AA:1882:C:H3'	1:AA:1883:G:C8	2.25	0.70
1:AA:1887:C:C2'	1:AA:1888:G:H5"	2.22	0.70
3:AD:175:LEU:HD12	3:AD:185:VAL:HG21	1.74	0.70
5:AF:107:LYS:HD2	5:AF:206:ILE:HA	1.74	0.70
7:AH:80:SER:C	7:AH:81:GLU:HG3	2.17	0.70
31:BA:1392:G:O2'	31:BA:1502:A:H5"	1.92	0.70
52:BD:22:A:H2'	52:BD:22:A:N3	2.06	0.70
54:B1:11:U:H2'	54:B1:12:A:C5	2.26	0.70
3:CD:49:ILE:HD11	3:CD:52:ARG:HA	1.72	0.70
17:C2:15:GLU:HG2	17:C2:16:PRO:HD2	1.74	0.70
31:DA:522:C:H42	31:DA:527:G:H1	1.37	0.70
1:AA:654(G):C:N3	1:AA:654(N):G:O6	2.25	0.69
1:AA:993:G:OP1	16:A1:50:ARG:NH2	2.24	0.69
1:AA:1130:U:O2'	1:AA:1131:G:O5'	2.08	0.69
1:AA:1291:C:H5'	1:AA:1536:A:H5'	1.73	0.69
1:AA:2172:U:H2'	1:AA:2172:U:O2	1.92	0.69
1:AA:2631:G:H1	1:AA:2787:C:H42	1.40	0.69
1:AA:2744:G:H21	7:AH:143:GLN:HE22	1.40	0.69
1:AA:2751:G:O2'	1:AA:2752:C:P	2.50	0.69
3:AD:27:THR:HG21	3:AD:83:GLU:CB	2.20	0.69
5:AF:29:ASN:H	5:AF:112:MET:HE1	1.55	0.69
5:AF:185:ASP:HA	5:AF:188:ARG:HD3	1.72	0.69
16:A1:58:ARG:HA	16:A1:61:TRP:CE3	2.27	0.69
17:A2:47:VAL:HG22	17:A2:48:GLY:H	1.56	0.69
21:AV:117:LEU:HD22	21:AV:118:GLN:N	2.06	0.69
31:BA:913:A:H4'	31:BA:914:A:O5'	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1736:U:O2	1:CA:1748:A:H5'	1.92	0.69
11:CO:63:PRO:O	11:CO:64:LYS:C	2.35	0.69
16:C1:65:ILE:HD11	16:C1:96:ALA:CB	2.22	0.69
31:DA:1277:C:O2'	31:DA:1279:A:H1'	1.92	0.69
34:DG:4:TYR:HE2	34:DG:11:LEU:HD11	1.57	0.69
1:AA:2313:C:H2'	1:AA:2314:C:H6	1.57	0.69
1:AA:2400:G:H2'	1:AA:2401:U:H6	1.55	0.69
1:AA:2419:U:O4	30:A8:30:ARG:CZ	2.40	0.69
3:AD:10:THR:HG23	3:AD:13:ARG:HB2	1.74	0.69
6:AG:111:LEU:HA	6:AG:114:ILE:HD13	1.73	0.69
8:AK:8:PRO:HG3	8:AK:14:ASP:HB2	1.74	0.69
38:BK:6:ILE:O	38:BK:10:LEU:HD23	1.92	0.69
42:BO:114:ARG:NH2	42:BO:121:LYS:HB2	2.06	0.69
52:BD:20:C:H5'	52:BD:68:A:N6	2.06	0.69
1:CA:1581:G:H5'	1:CA:1582:U:OP2	1.92	0.69
1:CA:2082:A:H5'	1:CA:2083:A:OP2	1.91	0.69
1:CA:2431:A:P	30:C8:29:LYS:HZ2	2.15	0.69
10:CN:20:MET:HE3	10:CN:44:LYS:HE3	1.74	0.69
31:DA:509:A:O2'	31:DA:510:A:OP1	2.09	0.69
31:DA:1023:G:H3'	31:DA:1024:G:H5"	1.72	0.69
33:DF:131:ARG:NH1	35:DH:50:GLU:HG3	2.07	0.69
36:DI:35:ALA:HB1	36:DI:65:VAL:HG11	1.73	0.69
1:AA:654(M):C:H3'	1:AA:654(N):G:C8	2.28	0.69
31:BA:79:G:O2'	31:BA:80:G:O5'	2.10	0.69
31:BA:685:G:O2'	31:BA:686:U:H5'	1.92	0.69
31:BA:1301:U:O4	31:BA:1303:C:H1'	1.92	0.69
36:BI:44:GLY:HA2	36:BI:59:TYR:CZ	2.26	0.69
1:CA:2196:A:C6	1:CA:2197:C:H1'	2.27	0.69
1:CA:2432:U:H4'	28:C6:23:THR:HG21	1.74	0.69
3:CD:35:LYS:HE2	3:CD:104:TYR:HB2	1.73	0.69
3:CD:95:LEU:HD11	3:CD:105:ILE:HD12	1.73	0.69
8:CK:3:VAL:HG12	8:CK:38:LEU:HA	1.73	0.69
17:C2:79:VAL:O	17:C2:80:GLN:HB2	1.92	0.69
16:A1:88:ILE:C	16:A1:90:VAL:H	2.00	0.69
21:AV:30:ASN:HD22	21:AV:32:HIS:H	1.39	0.69
41:BN:22:HIS:HB3	41:BN:29:ILE:HG23	1.74	0.69
52:BB:3:U:H4'	52:BB:4:G:OP1	1.91	0.69
1:CA:2289:G:P	12:CP:84:GLY:HA2	2.32	0.69
1:CA:2325:U:O2'	6:CG:40:ASN:ND2	2.24	0.69
31:DA:1250:A:H4'	39:DL:68:GLY:N	2.06	0.69
1:AA:443:A:N7	5:AF:45:ARG:HD2	2.06	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AR:110:ILE:HG23	15:AR:111:ARG:HD3	1.75	0.69
56:BA:1675:OHX:N6	47:BT:39:SER:O	2.26	0.69
52:BD:13:G:H2'	52:BD:14:A:C8	2.27	0.69
1:CA:2883:G:C8	1:CA:2884:A:C2	2.81	0.69
5:CF:114:VAL:HG21	5:CF:202:PHE:CZ	2.27	0.69
31:DA:468:A:H2'	31:DA:474:G:H5'	1.73	0.69
32:DE:42:ILE:HD11	32:DE:202:PRO:HB2	1.74	0.69
42:DO:21:VAL:HG12	42:DO:23:ALA:HB2	1.75	0.69
1:AA:479:A:H4'	1:AA:480:A:OP1	1.92	0.69
1:AA:2146:C:H5"	1:AA:2147:G:OP1	1.92	0.69
1:AA:2593:U:H2'	1:AA:2594:C:H6	1.58	0.69
8:AK:133:HIS:CB	8:AK:134:PRO:HD2	2.22	0.69
14:AQ:108:GLY:H	14:AQ:110:LEU:HD21	1.58	0.69
31:BA:81:G:N1	31:BA:88:C:C4	2.59	0.69
31:BA:1005:A:H5"	31:BA:1006:C:C6	2.27	0.69
31:BA:1374:A:H2'	31:BA:1375:A:C5'	2.22	0.69
52:BD:51:C:H3'	52:BD:52:G:C8	2.28	0.69
1:CA:699:G:H4'	1:CA:700:A:OP1	1.92	0.69
1:CA:2129:G:H2'	1:CA:2130:C:O4'	1.92	0.69
5:CF:11:VAL:HG23	5:CF:12:LEU:H	1.57	0.69
30:C8:34:TRP:CD2	30:C8:35:GLN:N	2.61	0.69
37:DJ:113:GLU:HB2	37:DJ:119:ARG:CG	2.18	0.69
52:DB:44:C:H2'	52:DB:45:C:O4'	1.92	0.69
1:AA:1102:C:H2'	1:AA:1103:A:H8	1.54	0.69
2:AB:8:U:O3'	14:AQ:25:ARG:NH2	2.26	0.69
13:A0:2:ARG:HG3	13:A0:5:LYS:HZ1	1.56	0.69
20:AU:5:MET:HE1	20:AU:32:PRO:HA	1.73	0.69
31:BA:173:U:H5"	31:BA:197:A:O4'	1.93	0.69
52:BB:6:G:C2'	52:BB:7:G:OP1	2.41	0.69
20:CU:89:PHE:CD1	20:CU:90:LEU:HG	2.28	0.69
21:CV:175:VAL:HG22	21:CV:176:PRO:HB3	1.73	0.69
26:C4:9:LEU:O	26:C4:10:VAL:HG12	1.93	0.69
27:C5:3:LYS:HA	27:C5:3:LYS:HE3	1.75	0.69
31:DA:200:G:H1	31:DA:217:C:H42	1.39	0.69
31:DA:340:U:H3	31:DA:349:A:H61	1.40	0.69
52:DB:12:C:O2	52:DB:24:G:N1	2.24	0.69
52:DD:22:A:H2'	52:DD:22:A:N3	2.06	0.69
1:AA:1077:A:H3'	1:AA:1078:U:H5'	1.73	0.69
1:AA:2790:A:C2	1:AA:2894:G:H5'	2.27	0.69
7:AH:151:ILE:O	7:AH:152:ARG:HG2	1.93	0.69
12:AP:77:LYS:HD2	12:AP:81:VAL:HG23	1.72	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AV:110:GLY:HA3	21:AV:145:GLU:HG2	1.73	0.69
31:BA:136:C:N4	31:BA:227:G:H1	1.87	0.69
31:BA:624:C:H2'	31:BA:625:G:H8	1.56	0.69
31:BA:1336:C:O2'	31:BA:1337:G:N3	2.24	0.69
35:BH:75:THR:OG1	35:BH:76:ILE:N	2.24	0.69
52:BB:48:C:H3'	52:BB:49:A:H8	1.56	0.69
52:BD:29:C:C2'	52:BD:30:A:H5'	2.23	0.69
1:CA:957:A:C5	12:CP:13:GLN:HG3	2.28	0.69
1:CA:2804:A:H1'	1:CA:2805:C:OP1	1.93	0.69
3:CD:246:PRO:O	3:CD:254:THR:HG22	1.93	0.69
18:CS:40:ASN:O	18:CS:41:LYS:HG2	1.93	0.69
30:C8:33:ASN:OD1	30:C8:41:ILE:CD1	2.41	0.69
31:DA:706:A:O4'	41:DN:29:ILE:HD11	1.93	0.69
31:DA:991:U:O2'	31:DA:992:U:O5'	2.10	0.69
33:DF:47:LEU:HD23	33:DF:52:LEU:HD13	1.74	0.69
1:AA:67:U:O4	1:AA:74:A:N1	2.26	0.69
1:AA:240:G:O6	56:AA:3560:OHX:N4	2.25	0.69
1:AA:1081:U:O2'	1:AA:1082:U:P	2.50	0.69
1:AA:2803:C:H2'	1:AA:2804:C:H6	1.58	0.69
2:AB:15:A:H5'	2:AB:16:G:H8	1.57	0.69
5:AF:123:LEU:HD12	5:AF:124:LEU:H	1.58	0.69
19:AT:41:ASN:O	19:AT:45:THR:HG23	1.93	0.69
31:BA:976:G:H5'	31:BA:1358:U:O2'	1.93	0.69
4:CE:111:ARG:HG2	13:C0:2:ARG:HH22	1.58	0.69
53:DC:17:C:C2'	53:DC:18:C:H5"	2.22	0.69
1:AA:274:G:H2'	1:AA:275:G:O4'	1.92	0.69
1:AA:1061:U:C4'	1:AA:1070:A:H1'	2.11	0.69
1:AA:1079:C:H5'	1:AA:1080:A:OP2	1.93	0.69
1:AA:2815:C:H5'	27:A5:29:THR:HG21	1.74	0.69
4:AE:117:MET:HE1	4:AE:136:ARG:HA	1.75	0.69
13:A0:117:VAL:O	13:A0:118:GLU:HB2	1.90	0.69
31:BA:412:A:H1'	31:BA:413:G:OP2	1.93	0.69
32:BE:100:GLY:N	32:BE:176:GLU:OE2	2.25	0.69
35:BH:51:VAL:HB	35:BH:52:PRO:HD3	1.74	0.69
36:BI:28:ARG:O	36:BI:32:ASN:ND2	2.16	0.69
42:BO:43:LYS:HG3	42:BO:44:LYS:H	1.56	0.69
52:BB:55:U:C5	52:BB:56:U:H1'	2.28	0.69
1:CA:1389:A:C2	1:CA:1444:U:C2	2.81	0.69
1:CA:2173:U:H2'	1:CA:2174:G:C8	2.28	0.69
1:CA:2482:A:O2'	12:CP:56:ARG:HG2	1.92	0.69
5:CF:25:PRO:HB2	5:CF:27:GLU:N	2.06	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CQ:86:ALA:O	14:CQ:87:PHE:HB2	1.92	0.69
15:CR:27:THR:HG22	15:CR:90:GLN:HB3	1.73	0.69
18:CS:2:GLU:HG2	18:CS:72:LYS:NZ	2.08	0.69
31:DA:575:G:O2'	31:DA:821:G:H5'	1.92	0.69
31:DA:1056:U:H5'	33:DF:163:ALA:HB2	1.75	0.69
31:DA:1392:G:N2	31:DA:1502:A:H8	1.89	0.69
34:DG:8:VAL:HG11	34:DG:21:LEU:HB2	1.74	0.69
39:DL:4:TYR:CZ	39:DL:59:PHE:HE2	2.11	0.69
52:DB:9:U:O2	52:DB:9:U:H2'	1.92	0.69
52:DD:41:C:H2'	52:DD:42:U:H6	1.58	0.69
1:AA:34:C:O2'	1:AA:35:G:P	2.50	0.68
4:AE:87:GLU:O	4:AE:89:ASP:N	2.26	0.68
31:BA:789:U:C6	31:BA:792:A:C5'	2.76	0.68
31:BA:1281:U:H5'	31:BA:1282:C:H5	1.58	0.68
38:BK:4:ASP:OD1	38:BK:85:ARG:NH1	2.26	0.68
52:BB:75:C:H2'	52:BB:76:C:H6	1.58	0.68
1:CA:417:G:N1	11:CO:71:VAL:CG1	2.53	0.68
1:CA:537:U:H5"	1:CA:538:G:OP2	1.92	0.68
1:CA:1116:A:H4'	1:CA:1117:A:H5"	1.73	0.68
1:CA:1388:U:H2'	1:CA:1444:U:O2	1.93	0.68
1:CA:1955:A:OP2	56:CA:3269:OHX:N4	2.27	0.68
1:CA:2161:C:N3	1:CA:2176:G:N2	2.32	0.68
1:CA:2541:U:O2'	1:CA:2543:A:OP1	2.10	0.68
12:CP:23:GLY:HA2	12:CP:25:ASP:HB2	1.75	0.68
31:DA:266:G:H4'	31:DA:267:C:O5'	1.93	0.68
31:DA:1298:C:OP2	37:DJ:114:ARG:NH2	2.26	0.68
31:DA:1310:G:H5'	43:DP:77:ASN:HD21	1.57	0.68
1:AA:524:U:H2'	1:AA:525:U:H6	1.56	0.68
1:AA:2610:C:C4'	1:AA:2611:U:OP2	2.37	0.68
1:AA:2733:A:C2'	1:AA:2734:A:H5"	2.23	0.68
11:AO:19:VAL:HG23	11:AO:27:HIS:CG	2.26	0.68
31:BA:531:U:O2	56:BA:1673:OHX:N1	2.26	0.68
35:BH:81:GLU:HG2	35:BH:90:VAL:HG23	1.74	0.68
36:BI:36:ARG:NH2	36:BI:38:GLU:OE2	2.26	0.68
1:CA:195:G:H1'	1:CA:196:U:OP2	1.92	0.68
1:CA:961:C:H3'	1:CA:962:C:H5"	1.74	0.68
1:CA:1529:U:H5'	1:CA:1530:G:OP2	1.92	0.68
1:CA:2834:A:OP1	4:CE:113:PHE:HB2	1.92	0.68
3:CD:35:LYS:HB3	3:CD:63:ARG:HA	1.76	0.68
11:CO:19:VAL:HG23	11:CO:27:HIS:HB3	1.64	0.68
11:CO:81:GLN:OE1	11:CO:106:LEU:HA	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:CV:14:LYS:H	21:CV:14:LYS:NZ	1.91	0.68
31:DA:411:A:C5	31:DA:413:G:H1'	2.28	0.68
31:DA:1024:G:H2'	31:DA:1025:U:C6	2.29	0.68
32:DE:104:ASN:OD1	32:DE:107:THR:OG1	2.10	0.68
52:DD:61:G:H1	52:DD:71:C:N4	1.89	0.68
1:AA:165:U:O2	1:AA:165:U:H3'	1.93	0.68
1:AA:598:G:H1'	11:AO:12:ALA:HB2	1.76	0.68
1:AA:1061:U:O2'	1:AA:1070:A:O4'	2.11	0.68
31:BA:811:C:H4'	31:BA:900:A:N6	2.07	0.68
31:BA:989:C:H42	31:BA:1216:G:H1	1.40	0.68
38:BK:21:LYS:O	38:BK:65:TYR:OH	2.08	0.68
52:BD:18:G:C1'	52:BD:19:C:OP2	2.36	0.68
1:CA:757:U:H2'	1:CA:758:G:C8	2.28	0.68
1:CA:2370:U:OP1	22:C3:20:ARG:NH1	2.25	0.68
1:CA:2670:A:O2'	7:CH:160:LYS:HE3	1.93	0.68
5:CF:89:VAL:O	5:CF:91:GLY:N	2.26	0.68
7:CH:109:PHE:HE1	7:CH:152:ARG:HD3	1.58	0.68
10:CN:68:GLU:OE2	10:CN:78:ARG:NH1	2.26	0.68
21:CV:28:MET:O	21:CV:34:ASN:HA	1.94	0.68
31:DA:838:G:C6	31:DA:842:C:H1'	2.28	0.68
48:DU:53:ARG:HA	48:DU:56:THR:OG1	1.93	0.68
1:AA:1061:U:H4'	1:AA:1070:A:C1'	2.11	0.68
1:AA:2114:A:H2'	1:AA:2114:A:N3	2.07	0.68
3:AD:96:HIS:CE1	3:AD:102:LYS:HD3	2.28	0.68
9:AM:133:GLN:HE21	9:AM:133:GLN:H	1.39	0.68
16:A1:8:VAL:HG23	16:A1:11:ARG:NH2	2.08	0.68
27:A5:51:TYR:H	27:A5:56:LYS:HG3	1.59	0.68
31:BA:1305:G:H22	31:BA:1331:G:C2'	2.04	0.68
38:BK:129:VAL:HG23	38:BK:130:GLY:H	1.57	0.68
52:BB:10:C:N4	52:BB:26:G:H1	1.92	0.68
1:CA:2400:U:H5"	1:CA:2401:A:OP2	1.93	0.68
1:CA:2481:G:H3'	1:CA:2489:A:C2	2.28	0.68
18:CS:4:LYS:CB	18:CS:106:ILE:HG22	2.24	0.68
23:CZ:67:ILE:N	23:CZ:68:PRO:HD2	2.08	0.68
31:DA:1200:C:H5'	31:DA:1201:A:H5'	1.75	0.68
35:DH:6:PHE:HB2	35:DH:34:VAL:HG22	1.75	0.68
49:DV:11:VAL:HG22	49:DV:12:ASP:H	1.58	0.68
49:DV:78:ARG:NH1	49:DV:79:THR:H	1.90	0.68
1:AA:287:C:H2'	1:AA:288:C:C6	2.29	0.68
1:AA:573:G:O2'	1:AA:574:C:H3'	1.93	0.68
1:AA:1220:A:H3'	1:AA:1221:C:H5'	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1340:U:H4'	1:AA:1341:U:OP2	1.93	0.68
1:AA:1864:U:O4	56:AA:3531:OHX:N4	2.26	0.68
6:AG:67:LYS:O	6:AG:67:LYS:HD2	1.93	0.68
13:A0:2:ARG:HG3	13:A0:5:LYS:NZ	2.08	0.68
31:BA:1053:G:O3'	31:BA:1054:C:H4'	1.93	0.68
38:BK:10:LEU:HD13	38:BK:83:ILE:HD11	1.76	0.68
1:CA:1589:G:H3'	1:CA:1590:A:H5"	1.76	0.68
2:CB:17:A:H1'	2:CB:112:G:C8	2.29	0.68
30:C8:37:SER:O	30:C8:38:GLY:C	2.37	0.68
31:DA:957:U:H2'	31:DA:959:A:OP2	1.93	0.68
31:DA:1206:G:H2'	31:DA:1207:G:H8	1.57	0.68
31:DA:1503:A:O2'	31:DA:1504:G:P	2.51	0.68
49:DV:66:MET:H	49:DV:66:MET:HE3	1.58	0.68
52:DD:46:G:N2	52:DD:54:C:O2	2.16	0.68
52:DD:67:A:O2'	52:DD:69:U:OP2	2.11	0.68
1:AA:320:A:O2'	1:AA:322:A:OP2	2.11	0.68
1:AA:2152:G:H2'	1:AA:2153:G:C8	2.29	0.68
1:AA:2346:A:H5"	1:AA:2383:G:O4'	1.94	0.68
1:AA:2738:A:OP2	56:AA:3431:OHX:N5	2.26	0.68
5:AF:197:ASP:O	5:AF:199:TRP:N	2.26	0.68
34:BG:173:TRP:CZ3	34:BG:193:ASP:HB3	2.29	0.68
43:BP:4:ILE:HG22	43:BP:5:ALA:N	2.06	0.68
1:CA:622:G:H1'	11:CO:12:ALA:CB	2.24	0.68
9:CM:34:LEU:O	9:CM:49:GLY:HA3	1.94	0.68
11:CO:52:GLU:OE1	11:CO:55:ARG:NE	2.25	0.68
11:CO:79:ARG:O	11:CO:111:ARG:N	2.22	0.68
20:CU:48:ALA:HB3	20:CU:59:GLY:O	1.94	0.68
20:CU:97:ARG:NH2	20:CU:98:VAL:HB	2.06	0.68
26:C4:22:ILE:CG1	26:C4:23:GLU:H	2.05	0.68
26:C4:59:PHE:CD1	49:DV:66:MET:HE2	2.28	0.68
52:DB:6:G:C2'	52:DB:7:G:OP1	2.42	0.68
1:AA:636:G:OP1	11:AO:132:LYS:HG2	1.94	0.68
1:AA:1558:A:H1'	1:AA:1559:G:OP2	1.94	0.68
1:AA:2473:U:H2'	1:AA:2473:U:O2	1.91	0.68
17:A2:59:ALA:HB2	17:A2:96:ILE:HD13	1.76	0.68
31:BA:13:U:OP2	56:BA:1762:OHX:N4	2.26	0.68
31:BA:39:G:N7	31:BA:547:A:H8	1.92	0.68
31:BA:266:G:H5"	31:BA:267:C:H5	1.58	0.68
31:BA:974:A:OP2	44:BQ:41:ARG:NH1	2.27	0.68
31:BA:1054:C:H2'	31:BA:1054:C:O2	1.91	0.68
31:BA:1129:C:H42	31:BA:1143:G:H1	1.41	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BG:119:GLN:HG3	34:BG:123:HIS:HD2	1.59	0.68
42:BO:44:LYS:HB3	42:BO:45:PRO:CD	2.24	0.68
52:BD:46:G:H2'	52:BD:47:U:C6	2.29	0.68
52:BD:51:C:C5	52:BD:52:G:H1'	2.28	0.68
1:CA:1004:U:H5"	12:CP:14:ARG:HD3	1.74	0.68
1:CA:2156:G:H1'	1:CA:2181:A:N6	2.08	0.68
3:CD:239:ARG:O	3:CD:240:ALA:HB2	1.93	0.68
15:CR:107:ASP:HB2	31:DA:1432:G:OP1	1.93	0.68
31:DA:1119:C:OP2	39:DL:9:ARG:NH2	2.27	0.68
39:DL:47:LEU:HB2	39:DL:50:LEU:HD12	1.76	0.68
1:AA:1833:U:H2'	1:AA:1834:U:H6	1.58	0.68
11:AO:64:LYS:HD2	30:A8:25:MET:SD	2.34	0.68
12:AP:92:GLY:O	12:AP:93:TYR:CG	2.46	0.68
26:A4:55:ARG:HG2	26:A4:56:VAL:N	2.09	0.68
36:BI:9:VAL:HB	36:BI:87:ARG:HB2	1.74	0.68
47:BT:18:THR:OG1	47:BT:69:LYS:NZ	2.26	0.68
1:CA:2570:G:H2'	1:CA:2571:C:H6	1.58	0.68
3:CD:244:ARG:HB2	3:CD:245:PRO:HD2	1.76	0.68
11:CO:58:THR:HG22	11:CO:58:THR:O	1.92	0.68
12:CP:16:ARG:C	12:CP:17:LEU:HD23	2.19	0.68
31:DA:1129:C:H41	31:DA:1141:C:N4	1.91	0.68
35:DH:12:LEU:HD11	35:DH:128:PRO:HB2	1.76	0.68
1:AA:1364:G:OP2	23:AZ:2:SER:OG	2.12	0.68
1:AA:1803:A:O2'	3:AD:259:THR:HG21	1.93	0.68
1:AA:2406:U:C4	11:AO:72:PRO:HG2	2.29	0.68
1:AA:2734:A:H5'	1:AA:2734:A:H8	1.59	0.68
1:AA:2803:C:H2'	1:AA:2804:C:C6	2.29	0.68
8:AK:13:GLY:HA3	8:AK:17:GLN:OE1	1.94	0.68
31:BA:723:U:H2'	31:BA:723:U:O2	1.92	0.68
31:BA:1178:G:N2	31:BA:1181:G:C8	2.60	0.68
41:BN:124:LYS:HD2	41:BN:125:PHE:CE2	2.28	0.68
45:BR:63:ARG:HG2	45:BR:67:LEU:HD12	1.76	0.68
50:BW:53:LEU:HD12	50:BW:102:GLY:HA3	1.74	0.68
52:BB:19:C:H4'	52:BB:20:C:OP1	1.93	0.68
52:BB:55:U:C6	52:BB:56:U:H1'	2.29	0.68
52:BD:9:U:H2'	52:BD:9:U:O2	1.94	0.68
1:CA:1356:G:N7	56:CA:3332:OHX:N2	2.42	0.68
1:CA:2515:G:H5"	1:CA:2516:A:H5"	1.76	0.68
1:CA:2668:G:N2	1:CA:2678:A:OP2	2.27	0.68
1:CA:2734:U:H2'	1:CA:2735:A:O4'	1.94	0.68
4:CE:62:PRO:C	4:CE:64:LYS:H	2.02	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CO:61:ARG:CB	11:CO:62:LEU:HD22	2.24	0.68
21:CV:27:VAL:HG12	21:CV:87:ASP:HB3	1.76	0.68
21:CV:39:VAL:HG21	21:CV:44:PHE:HD2	1.59	0.68
31:DA:328:C:O2'	31:DA:329:A:OP2	2.11	0.68
31:DA:1003:G:C2'	31:DA:1004:A:H5'	2.24	0.68
31:DA:1025:U:O2'	31:DA:1026:G:O5'	2.11	0.68
52:DB:46:G:O2'	52:DB:47:U:OP1	2.11	0.68
1:AA:322:A:H4'	1:AA:323:G:OP2	1.93	0.68
1:AA:882:G:H2'	1:AA:883:G:N7	2.08	0.68
2:AB:44:G:H1'	2:AB:47:C:N4	2.09	0.68
2:AB:95:U:H2'	2:AB:96:G:H8	1.59	0.68
4:AE:35:GLN:OE1	4:AE:37:ARG:NH2	2.26	0.68
14:AQ:89:ARG:HG2	14:AQ:89:ARG:O	1.94	0.68
43:BP:108:ARG:HD2	43:BP:108:ARG:N	2.09	0.68
45:BR:26:GLU:OE2	45:BR:77:ARG:NH1	2.27	0.68
52:BD:41:C:H2'	52:BD:42:U:C6	2.28	0.68
1:CA:1463:G:O2'	1:CA:1464:C:O5'	2.08	0.68
1:CA:2152:C:H2'	1:CA:2153:U:H5'	1.74	0.68
4:CE:77:ILE:C	4:CE:78:LEU:HG	2.19	0.68
4:CE:119:ARG:HD3	4:CE:160:TYR:HB2	1.76	0.68
8:CK:131:LYS:HB3	8:CK:132:PRO:CA	2.24	0.68
11:CO:47:ASP:OD2	11:CO:49:ARG:NE	2.20	0.68
17:C2:80:GLN:HE21	17:C2:80:GLN:CA	2.05	0.68
26:C4:61:ARG:HG3	26:C4:61:ARG:NH1	1.94	0.68
31:DA:601:C:H42	31:DA:637:G:H1	1.40	0.68
31:DA:632:A:H4'	31:DA:633:G:O5'	1.94	0.68
36:DI:33:TYR:CE1	36:DI:78:GLU:HG3	2.28	0.68
1:AA:86:C:H4'	1:AA:104:U:H1'	1.75	0.67
1:AA:427:U:OP2	56:AA:3329:OHX:N1	2.27	0.67
1:AA:654(B):C:N3	1:AA:654(S):G:N2	2.41	0.67
1:AA:1654:A:OP1	13:A0:2:ARG:HD3	1.94	0.67
4:AE:131:ALA:HB1	4:AE:135:HIS:CE1	2.29	0.67
8:AK:95:LYS:HE3	8:AK:99:GLU:HG3	1.76	0.67
12:AP:35:VAL:HG13	12:AP:130:LYS:HB3	1.76	0.67
12:AP:90:VAL:O	12:AP:90:VAL:HG12	1.93	0.67
31:BA:56:U:H2'	31:BA:57:G:C8	2.29	0.67
31:BA:1157:A:N6	31:BA:1178:G:H21	1.91	0.67
35:BH:76:ILE:HB	35:BH:77:PRO:HD2	1.77	0.67
39:BL:114:TYR:HD1	40:BM:60:ARG:H	1.40	0.67
49:BV:15:LEU:HD23	49:BV:15:LEU:H	1.57	0.67
1:CA:1481:A:H61	1:CA:1606:A:N6	1.92	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1582:U:H2'	1:CA:1582:U:O2	1.92	0.67
5:CF:7:TYR:CD2	5:CF:18:ARG:HB2	2.30	0.67
33:DF:164:ARG:HG2	33:DF:165:THR:H	1.59	0.67
44:DQ:24:CYS:SG	44:DQ:27:CYS:O	2.52	0.67
47:DT:57:VAL:HG12	47:DT:76:LEU:HA	1.75	0.67
1:AA:1108:U:C4	1:AA:1109:C:N4	2.62	0.67
4:AE:120:TRP:CD2	4:AE:155:LYS:HD3	2.30	0.67
9:AM:46:VAL:CG1	9:AM:48:MET:HG3	2.24	0.67
21:AV:44:PHE:CZ	21:AV:86:VAL:HG11	2.30	0.67
31:BA:95:G:H3'	31:BA:96:G:H8	1.58	0.67
31:BA:1014:A:C2	31:BA:1219:U:H1'	2.29	0.67
31:BA:1397:C:H6	31:BA:1397:C:H3'	1.59	0.67
39:BL:114:TYR:HD2	39:BL:114:TYR:N	1.93	0.67
50:BW:26:ASN:HB2	50:BW:71:THR:CG2	2.23	0.67
1:CA:799:A:H5'	18:CS:90:ARG:HA	1.76	0.67
1:CA:2150:G:H3'	1:CA:2151:C:H5"	1.77	0.67
1:CA:2348:A:O2'	1:CA:2349:A:O5'	2.11	0.67
5:CF:66:PRO:O	5:CF:67:GLN:HB3	1.93	0.67
5:CF:67:GLN:O	5:CF:67:GLN:HG3	1.93	0.67
5:CF:122:LYS:O	5:CF:123:LEU:HB3	1.94	0.67
6:CG:113:ARG:HG2	26:C4:35:VAL:HG23	1.77	0.67
31:DA:632:A:C1'	31:DA:633:G:OP2	2.41	0.67
31:DA:667:G:OP2	56:DA:1755:OHX:N6	2.27	0.67
31:DA:742:G:OP2	45:DR:35:ARG:NH2	2.26	0.67
31:DA:1503:A:H1'	31:DA:1504:G:OP1	1.94	0.67
1:AA:890:A:H5'	1:AA:892:G:OP2	1.95	0.67
4:AE:1:MET:HG2	4:AE:83:ASP:O	1.94	0.67
12:AP:90:VAL:O	12:AP:90:VAL:CG1	2.42	0.67
17:A2:15:GLU:CG	17:A2:16:PRO:HD2	2.24	0.67
34:BG:65:ARG:NH1	34:BG:70:ILE:O	2.27	0.67
2:CB:9:G:H4'	14:CQ:29:PHE:CD1	2.29	0.67
52:DB:78:C:O2'	52:DB:79:A:C5'	2.43	0.67
53:DC:24:C:H2'	53:DC:25:U:C6	2.28	0.67
1:AA:494:G:H21	18:AS:57:ASN:HD21	1.43	0.67
7:AH:86:GLU:CD	7:AH:86:GLU:H	2.01	0.67
7:AH:154:PRO:O	7:AH:156:ALA:N	2.28	0.67
31:BA:260:G:O6	56:BA:1671:OHX:N5	2.26	0.67
31:BA:670:G:OP2	56:BA:1800:OHX:N5	2.28	0.67
31:BA:1436:U:H2'	31:BA:1437:C:O4'	1.93	0.67
37:BJ:113:GLU:HB2	37:BJ:119:ARG:HG2	1.77	0.67
1:CA:1105:U:H3	1:CA:1127:A:H61	1.42	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CP:79:LEU:HD13	12:CP:80:GLU:HB2	1.76	0.67
24:CW:47:ASN:O	24:CW:49:LYS:N	2.26	0.67
31:DA:586:C:N3	31:DA:755:G:O6	2.27	0.67
34:DG:26:CYS:HA	34:DG:31:CYS:HB2	1.75	0.67
1:AA:588:U:H1'	5:AF:90:PHE:CD1	2.29	0.67
1:AA:908:C:OP1	12:AP:22:LYS:HB3	1.94	0.67
1:AA:1899:G:N2	1:AA:1902:C:H5	1.89	0.67
17:A2:38:LEU:HD12	17:A2:57:VAL:HG12	1.77	0.67
17:A2:60:GLU:HB2	17:A2:97:LYS:HE2	1.76	0.67
26:A4:38:LYS:O	26:A4:39:CYS:HB3	1.93	0.67
30:A8:15:LYS:HB2	30:A8:46:ARG:HH12	1.58	0.67
31:BA:530:G:C4'	31:BA:531:U:OP2	2.42	0.67
31:BA:791:G:N1	31:BA:1498:U:OP1	2.27	0.67
31:BA:1263:C:N3	31:BA:1272:G:O6	2.28	0.67
36:BI:67:MET:HB2	36:BI:68:PRO:HD2	1.75	0.67
44:BQ:4:LYS:O	44:BQ:7:ILE:HG13	1.94	0.67
45:BR:39:LEU:HD13	45:BR:56:LEU:HB2	1.76	0.67
48:BU:50:ILE:HD11	48:BU:70:ILE:HG21	1.76	0.67
1:CA:1107:U:H5"	1:CA:1108:U:C5	2.29	0.67
1:CA:2750:G:H2'	1:CA:2751:G:H8	1.58	0.67
11:CO:64:LYS:O	11:CO:65:ARG:C	2.38	0.67
12:CP:78:PRO:HG2	12:CP:81:VAL:HG11	1.76	0.67
16:C1:50:ARG:HH12	17:C2:72:VAL:HB	1.59	0.67
32:DE:98:LEU:O	32:DE:101:MET:HG2	1.95	0.67
32:DE:103:THR:HA	32:DE:180:LEU:HD11	1.76	0.67
32:BE:5:ILE:HG21	32:BE:221:LEU:HD23	1.77	0.67
52:BD:44:C:H2'	52:BD:45:C:O4'	1.94	0.67
1:CA:83:A:N6	1:CA:100:G:O2'	2.17	0.67
1:CA:932:C:N4	1:CA:939:G:H1	1.91	0.67
1:CA:951:C:H5'	1:CA:952:U:OP2	1.93	0.67
1:CA:1325:A:O2'	1:CA:1326:G:H5'	1.95	0.67
1:CA:2827:C:O3'	13:C0:99:LYS:NZ	2.28	0.67
12:CP:87:LYS:O	12:CP:88:GLY:C	2.37	0.67
16:C1:95:LEU:C	16:C1:97:ASP:H	2.01	0.67
20:CU:75:ILE:HG12	20:CU:76:CYS:N	2.08	0.67
20:CU:84:ARG:NH2	20:CU:97:ARG:HB2	2.09	0.67
21:CV:11:GLU:CG	21:CV:12:GLY:N	2.58	0.67
31:DA:631:G:H3'	31:DA:632:A:C8	2.30	0.67
32:DE:47:THR:HA	32:DE:202:PRO:HG2	1.75	0.67
1:AA:76:C:O2'	24:AW:62:THR:HG21	1.95	0.67
1:AA:583:G:OP2	16:A1:10:ARG:NH1	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:879:G:H1	1:AA:898:C:H42	1.43	0.67
12:AP:88:GLY:O	12:AP:89:ASN:HB2	1.95	0.67
28:A6:23:THR:O	56:A6:101:OHX:N6	2.28	0.67
31:BA:896:C:O3'	47:BT:101:ARG:HD3	1.94	0.67
31:BA:1000:A:H4'	1:CA:2160:C:OP1	1.94	0.67
49:BV:65:ASN:HD22	49:BV:65:ASN:N	1.86	0.67
1:CA:590:U:H5"	11:CO:29:LYS:HE3	1.76	0.67
1:CA:1090:C:H42	1:CA:1159:G:H1	0.73	0.67
1:CA:2822:G:OP1	4:CE:61:ARG:HB2	1.93	0.67
4:CE:23:VAL:O	4:CE:24:THR:OG1	2.04	0.67
14:CQ:24:LEU:O	14:CQ:85:VAL:HB	1.93	0.67
31:DA:688:G:H1	31:DA:699:C:H42	1.43	0.67
31:DA:1347:G:N2	31:DA:1373:G:H2'	2.09	0.67
1:AA:948:G:O6	56:AA:3568:OHX:N1	2.28	0.67
1:AA:1063:G:H1	1:AA:1075:C:H42	1.41	0.67
4:AE:14:ILE:O	4:AE:15:PHE:HB2	1.92	0.67
9:AM:62:VAL:CG2	9:AM:66:LYS:HD2	2.23	0.67
15:AR:50:ILE:HD11	15:AR:102:ILE:HD11	1.77	0.67
15:AR:136:GLN:HG3	15:AR:137:LYS:H	1.59	0.67
31:BA:611:A:N6	31:BA:629:G:H1	1.90	0.67
31:BA:1234:C:H1'	31:BA:1364:U:O2	1.94	0.67
1:CA:92:C:H5'	1:CA:93:G:OP2	1.94	0.67
1:CA:611:C:O2'	11:CO:19:VAL:HG12	1.94	0.67
1:CA:935:A:H2'	1:CA:935:A:N3	2.10	0.67
1:CA:955:C:OP1	12:CP:22:LYS:CB	2.43	0.67
3:CD:69:ARG:NH2	3:CD:128:GLY:O	2.28	0.67
16:C1:92:ARG:HD3	16:C1:94:ASN:HB3	1.77	0.67
37:DJ:43:PHE:O	37:DJ:47:CYS:N	2.25	0.67
52:DB:51:C:C4	52:DB:52:G:H1'	2.30	0.67
1:AA:299:A:H5'	20:AU:84:ARG:HH21	1.60	0.67
1:AA:2154:G:H2'	1:AA:2155:G:H8	1.57	0.67
1:AA:2591:C:H2'	1:AA:2592:G:C8	2.30	0.67
4:AE:131:ALA:HB1	4:AE:135:HIS:HE1	1.59	0.67
5:AF:132:VAL:HG23	5:AF:133:ASN:N	2.09	0.67
6:AG:67:LYS:HE2	26:A4:6:HIS:CE1	2.29	0.67
52:BB:15:G:H1'	52:BB:20:C:H5	1.58	0.67
1:CA:378:G:H2'	1:CA:379:G:H5'	1.77	0.67
1:CA:936:C:H1'	1:CA:937:C:OP1	1.95	0.67
1:CA:2896:C:OP2	56:CA:3333:OHX:N1	2.28	0.67
3:CD:71:ASP:CG	3:CD:103:ARG:HH22	2.03	0.67
4:CE:116:VAL:O	4:CE:117:MET:CB	2.42	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CM:57:ALA:H	9:CM:124:ALA:HA	1.58	0.67
21:CV:158:PRO:CB	21:CV:159:PRO:HD2	2.25	0.67
26:C4:59:PHE:HD1	49:DV:66:MET:HE2	1.59	0.67
31:DA:791:G:C6	31:DA:792:A:N7	2.62	0.67
40:DM:51:ARG:HB2	40:DM:60:ARG:HA	1.76	0.67
40:DM:78:ASN:ND2	40:DM:80:LYS:HB3	2.09	0.67
1:AA:443:A:H1'	1:AA:1201:C:O4'	1.95	0.67
1:AA:1465:G:H5'	1:AA:1528:A:H1'	1.77	0.67
1:AA:2055:C:H5'	1:AA:2056:G:OP1	1.95	0.67
3:AD:169:GLU:O	3:AD:169:GLU:HG3	1.94	0.67
12:AP:25:ASP:H	12:AP:102:VAL:HG21	1.59	0.67
24:AW:53:LEU:O	24:AW:57:ILE:HG13	1.95	0.67
25:AX:5:LYS:HE3	25:AX:34:GLU:OE1	1.95	0.67
26:A4:9:LEU:H	26:A4:27:THR:HG23	1.60	0.67
31:BA:1004:A:OP1	31:BA:1025:U:C4	2.48	0.67
31:BA:1028(A):C:N4	31:BA:1028(B):C:H41	1.92	0.67
31:BA:1034:G:H2'	31:BA:1035:A:C8	2.30	0.67
1:CA:1713:A:H1'	10:CN:1:MET:HG3	1.76	0.67
1:CA:2761:G:O6	1:CA:2769:C:H5"	1.95	0.67
31:DA:1003:G:H2'	31:DA:1004:A:H5'	1.76	0.67
31:DA:1321:C:H41	31:DA:1322:C:N4	1.93	0.67
31:DA:1449:C:O2'	31:DA:1450:U:P	2.53	0.67
32:DE:178:ARG:HH22	32:DE:196:LEU:HA	1.58	0.67
42:DO:74:LEU:HD21	42:DO:104:ALA:HB2	1.77	0.67
1:AA:320:A:H2'	5:AF:136:THR:HG21	1.76	0.66
1:AA:833:U:H2'	1:AA:834:C:C6	2.30	0.66
7:AH:87:LEU:HB2	7:AH:131:VAL:HG12	1.76	0.66
31:BA:575:G:OP1	56:BA:1786:OHX:N3	2.28	0.66
31:BA:975:A:H4'	31:BA:976:G:H5"	1.77	0.66
49:BV:44:MET:O	49:BV:47:HIS:HB2	1.95	0.66
1:CA:90:A:H2'	1:CA:91:G:H5'	1.78	0.66
1:CA:1105:U:C2	1:CA:1127:A:N1	2.63	0.66
1:CA:1810:U:H2'	1:CA:1816:A:N6	2.10	0.66
1:CA:2723:C:OP1	13:C0:15:SER:OG	2.12	0.66
2:CB:41:A:H2'	26:C4:1:MET:CE	2.25	0.66
26:C4:18:CYS:SG	26:C4:19:GLY:HA2	2.34	0.66
31:DA:509:A:N3	31:DA:543:C:O2'	2.27	0.66
31:DA:554:C:H2'	31:DA:555:C:H6	1.60	0.66
31:DA:1128:C:O2'	31:DA:1129:C:P	2.53	0.66
31:DA:1148:U:H2'	31:DA:1149:C:O4'	1.95	0.66
47:DT:67:LYS:O	47:DT:68:ARG:HB3	1.93	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1796:U:H2'	1:AA:1797:C:C6	2.30	0.66
3:AD:244:ARG:HB2	3:AD:245:PRO:HD2	1.77	0.66
7:AH:150:ALA:O	7:AH:152:ARG:N	2.21	0.66
9:AM:132:ALA:HB1	9:AM:133:GLN:HE21	1.59	0.66
16:A1:92:ARG:HD3	16:A1:94:ASN:HB3	1.75	0.66
24:AW:47:ASN:HB2	24:AW:50:ILE:HD11	1.77	0.66
35:BH:91:LEU:HD12	35:BH:120:THR:HG22	1.76	0.66
52:BD:57:C:O2'	52:BD:68:A:H4'	1.94	0.66
1:CA:1339:U:H2'	1:CA:1340:C:C6	2.31	0.66
5:CF:113:ALA:HB1	5:CF:186:ILE:HG21	1.77	0.66
26:C4:40:HIS:HA	26:C4:44:THR:HB	1.78	0.66
31:DA:973:G:H1'	40:DM:55:LYS:HE3	1.77	0.66
31:DA:1179:A:H2'	31:DA:1180:A:O4'	1.96	0.66
40:DM:54:PHE:CG	40:DM:55:LYS:HD3	2.29	0.66
43:DP:84:ILE:O	43:DP:86:CYS:N	2.28	0.66
52:DB:68:A:H3'	52:DB:69:U:H6	1.58	0.66
1:AA:2277:G:OP1	12:AP:86:GLY:HA2	1.96	0.66
11:AO:138:LEU:HD12	11:AO:144:GLU:HG3	1.78	0.66
15:AR:41:ARG:HH11	15:AR:41:ARG:CG	2.07	0.66
15:AR:74:ARG:HD3	15:AR:76:PHE:CE2	2.31	0.66
31:BA:1287:A:H2	31:BA:1353:G:H1'	1.60	0.66
52:BB:21:A:H2	52:BB:56:U:O2	1.77	0.66
52:BD:52:G:H2'	52:BD:53:A:C8	2.30	0.66
15:CR:55:ASN:H	15:CR:59:THR:HG22	1.59	0.66
22:C3:47:PRO:HG3	22:C3:53:MET:HB2	1.77	0.66
29:C7:8:ASN:ND2	29:C7:11:LYS:H	1.93	0.66
31:DA:690:G:C2'	31:DA:691:G:H5'	2.25	0.66
40:DM:84:GLN:O	40:DM:88:LEU:HB2	1.95	0.66
52:DB:52:G:O2'	52:DB:53:A:H5'	1.95	0.66
1:AA:1264:G:H3'	1:AA:1265:A:H5"	1.78	0.66
31:BA:78:G:N2	31:BA:91:C:N3	2.43	0.66
31:BA:1028(B):C:C2	31:BA:1032(A):G:N2	2.63	0.66
31:BA:1318:A:H1'	49:BV:37:ARG:HH21	1.59	0.66
31:BA:1518:A:OP1	56:BA:1783:OHX:N2	2.29	0.66
1:CA:553:C:OP2	1:CA:2793:U:H5	1.78	0.66
1:CA:1188:U:O2	1:CA:1188:U:H2'	1.94	0.66
1:CA:1590:A:H1'	1:CA:1592:A:H1'	1.78	0.66
1:CA:1726:G:N2	1:CA:2012:G:N2	2.43	0.66
1:CA:2179:G:C6	1:CA:2180:G:C2	2.83	0.66
5:CF:177:ALA:HB1	5:CF:178:PRO:HD2	1.76	0.66
12:CP:75:THR:HG22	12:CP:89:ASN:H	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CQ:10:ARG:NH2	14:CQ:91:PRO:HB2	2.10	0.66
31:DA:618:C:N3	31:DA:622:A:N6	2.44	0.66
31:DA:1298:C:H4'	31:DA:1299:A:C8	2.30	0.66
33:DF:5:ILE:HD13	33:DF:5:ILE:H	1.60	0.66
37:DJ:69:VAL:HG11	37:DJ:134:ALA:HB1	1.77	0.66
39:DL:65:VAL:HG21	39:DL:73:GLN:HB3	1.77	0.66
43:DP:83:ASP:O	43:DP:84:ILE:HB	1.95	0.66
52:DB:31:G:H1	52:DB:41:C:N4	1.93	0.66
1:AA:26:G:C6	1:AA:27:G:N1	2.63	0.66
1:AA:163:U:H2'	1:AA:164:U:H5'	1.77	0.66
1:AA:218:A:H2	1:AA:235:U:H4'	1.60	0.66
1:AA:881:G:H5'	1:AA:882:G:OP2	1.96	0.66
9:AM:133:GLN:H	9:AM:133:GLN:NE2	1.94	0.66
21:AV:107:THR:HB	21:AV:108:PRO:HD2	1.77	0.66
31:BA:789:U:C5	31:BA:791:G:H5'	2.30	0.66
33:BF:119:ARG:HD3	33:BF:140:ARG:HH22	1.59	0.66
38:BK:116:LYS:HG3	38:BK:129:VAL:HG11	1.76	0.66
42:BO:5:ASN:O	42:BO:8:VAL:HG23	1.96	0.66
52:BB:78:C:H2'	52:BB:79:A:C8	2.27	0.66
52:BD:41:C:H2'	52:BD:42:U:H6	1.59	0.66
1:CA:30:G:H2'	1:CA:31:C:H6	1.59	0.66
1:CA:693:C:H3'	1:CA:694:G:C8	2.30	0.66
1:CA:955:C:OP1	12:CP:22:LYS:HB3	1.96	0.66
1:CA:1705:C:H2'	1:CA:1706:C:H6	1.61	0.66
1:CA:2316:G:O2'	1:CA:2317:G:H5'	1.95	0.66
1:CA:2658:G:C3'	1:CA:2659:C:H5'	2.25	0.66
3:CD:28:GLU:H	3:CD:29:PRO:CD	2.08	0.66
3:CD:176:ARG:HH11	3:CD:176:ARG:HG2	1.60	0.66
21:CV:104:PHE:O	21:CV:105:VAL:HB	1.96	0.66
30:C8:40:GLU:HA	30:C8:43:GLN:HB2	1.78	0.66
31:DA:142:G:H2'	31:DA:143:A:H8	1.61	0.66
32:DE:44:LEU:H	32:DE:44:LEU:HD23	1.59	0.66
32:DE:96:ARG:H	32:DE:96:ARG:HD2	1.60	0.66
39:DL:5:TYR:HE2	39:DL:16:ARG:HG2	1.59	0.66
1:AA:330:A:HO2'	1:AA:331:A:H8	1.37	0.66
1:AA:654(H):G:H2'	1:AA:654(H):G:N3	2.10	0.66
1:AA:2689:U:H4'	1:AA:2690:C:OP2	1.96	0.66
3:AD:69:ARG:NH2	3:AD:128:GLY:O	2.24	0.66
12:AP:87:LYS:O	12:AP:88:GLY:C	2.38	0.66
16:A1:88:ILE:O	16:A1:90:VAL:N	2.28	0.66
31:BA:377:G:OP1	46:BS:3:LYS:HD2	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:939:G:C6	31:BA:940:C:N4	2.64	0.66
34:BG:5:ILE:HG23	34:BG:6:GLY:N	2.11	0.66
38:BK:121:ASP:O	38:BK:125:ARG:HB2	1.96	0.66
52:BB:3:U:C4'	52:BB:4:G:OP1	2.42	0.66
52:BB:31:G:H1	52:BB:41:C:H42	1.43	0.66
11:CO:19:VAL:CG2	11:CO:27:HIS:HB2	2.23	0.66
11:CO:61:ARG:NH2	11:CO:61:ARG:HB2	2.09	0.66
21:CV:69:THR:HB	21:CV:88:PHE:HB3	1.78	0.66
26:C4:34:GLU:HG3	43:DP:3:ARG:HB2	1.78	0.66
52:DB:75:C:H2'	52:DB:76:C:H6	1.58	0.66
53:DC:7:G:OP1	56:DC:107:OHX:N3	2.28	0.66
1:AA:247:G:H4'	1:AA:386:G:C5	2.30	0.66
1:AA:2210:G:H5'	1:AA:2211:G:C8	2.30	0.66
31:BA:627:G:H2'	31:BA:628:G:H8	1.61	0.66
31:BA:812:C:H4'	31:BA:813:U:O5'	1.95	0.66
31:BA:1065:U:C2'	31:BA:1066:C:OP2	2.43	0.66
31:BA:1157:A:H1'	31:BA:1158:C:C4	2.31	0.66
52:BD:49:A:H2'	52:BD:50:U:O5'	1.96	0.66
1:CA:10:G:C5	1:CA:2642:A:N6	2.64	0.66
1:CA:30:G:H2'	1:CA:31:C:C6	2.31	0.66
1:CA:2032:G:OP1	18:CS:41:LYS:HE3	1.96	0.66
1:CA:2310:C:O2	1:CA:2310:C:H2'	1.94	0.66
6:CG:119:GLY:HA3	6:CG:180:PHE:C	2.21	0.66
7:CH:7:LEU:N	7:CH:8:PRO:HD2	2.10	0.66
31:DA:1250:A:H4'	39:DL:68:GLY:H	1.61	0.66
52:DD:11:C:H42	52:DD:25:G:H1	1.42	0.66
1:AA:2439:A:C8	1:AA:2439:A:H5'	2.31	0.66
7:AH:80:SER:O	7:AH:81:GLU:HG3	1.95	0.66
7:AH:168:PRO:O	7:AH:169:VAL:HG12	1.95	0.66
11:AO:11:GLY:C	11:AO:13:ASN:H	2.01	0.66
15:AR:111:ARG:O	15:AR:112:ARG:HB3	1.96	0.66
16:A1:66:ASN:HD21	16:A1:70:ARG:HE	1.41	0.66
21:AV:117:LEU:HD22	21:AV:118:GLN:H	1.59	0.66
31:BA:1028:C:N3	31:BA:1033:G:N2	2.43	0.66
33:BF:50:ALA:HB1	33:BF:70:VAL:HG11	1.78	0.66
36:BI:75:LEU:HD22	36:BI:79:LEU:HG	1.78	0.66
43:BP:15:VAL:HG23	43:BP:43:THR:O	1.96	0.66
52:BB:78:C:O2'	52:BB:79:A:P	2.54	0.66
52:BD:49:A:H2	52:BD:51:C:P	2.18	0.66
1:CA:455:U:OP2	56:CA:3492:OHX:N1	2.29	0.66
1:CA:931:G:H2'	1:CA:932:C:C6	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1136:G:H4'	1:CA:1137:U:OP1	1.95	0.66
1:CA:1567:U:OP2	56:CA:3278:OHX:N6	2.29	0.66
1:CA:2333:A:H1'	1:CA:2334:G:C6	2.30	0.66
1:CA:2800:U:H4'	4:CE:65:GLY:H	1.58	0.66
21:CV:11:GLU:CD	21:CV:12:GLY:H	2.04	0.66
31:DA:560:U:H4'	31:DA:561:U:O5'	1.96	0.66
49:DV:62:ILE:HD12	49:DV:62:ILE:N	2.11	0.66
52:DB:21:A:H2	52:DB:56:U:O2	1.79	0.66
52:DB:68:A:H3'	52:DB:69:U:C6	2.31	0.66
1:AA:890:A:H8	1:AA:892:G:C8	2.14	0.66
1:AA:1971:A:C4	3:AD:241:PRO:HD3	2.31	0.66
1:AA:2377:A:H2'	1:AA:2378:A:C8	2.29	0.66
15:AR:55:ASN:N	15:AR:59:THR:HG22	2.10	0.66
21:AV:4:ARG:HG2	21:AV:58:VAL:HG21	1.78	0.66
21:AV:104:PHE:CE1	21:AV:119:GLU:HB3	2.30	0.66
31:BA:788:U:H2'	31:BA:789:U:O2	1.96	0.66
31:BA:1028(B):C:N3	31:BA:1032(A):G:C2	2.64	0.66
1:CA:2884:A:H2'	1:CA:2884:A:N3	2.09	0.66
9:CM:42:TRP:O	16:C1:64:ARG:NH2	2.28	0.66
33:DF:59:ARG:HH12	33:DF:97:LYS:HD2	1.61	0.66
34:DG:150:GLU:C	34:DG:152:SER:H	2.04	0.66
1:AA:2233:U:H2'	1:AA:2234:G:C8	2.31	0.66
1:AA:2506:U:H2'	1:AA:2506:U:O2	1.95	0.66
31:BA:620:C:C4	34:BG:135:LEU:HD23	2.31	0.66
32:BE:115:LEU:HD13	32:BE:145:LEU:HB3	1.78	0.66
39:BL:9:ARG:O	39:BL:104:ARG:HG3	1.96	0.66
50:BW:25:ARG:HG2	50:BW:29:LYS:HE3	1.78	0.66
52:BB:78:C:O2'	52:BB:79:A:C5'	2.43	0.66
1:CA:1444:U:H1'	1:CA:1445:C:OP1	1.96	0.66
1:CA:2142:A:N6	1:CA:2193:A:H62	1.94	0.66
1:CA:2884:A:H8	13:C0:5:LYS:HA	1.60	0.66
4:CE:111:ARG:HA	13:C0:2:ARG:HH12	1.60	0.66
12:CP:19:GLY:HA3	12:CP:98:LYS:HZ2	1.61	0.66
31:DA:411:A:N7	31:DA:413:G:N3	2.44	0.66
32:DE:92:TYR:CD2	32:DE:151:GLY:HA3	2.31	0.66
33:DF:18:TRP:CD1	44:DQ:54:PRO:HA	2.31	0.66
3:AD:44:ASN:HB2	3:AD:48:ARG:O	1.95	0.65
7:AH:126:PRO:O	7:AH:127:GLU:HB2	1.96	0.65
31:BA:789:U:O2	31:BA:789:U:C5'	2.45	0.65
35:BH:152:ARG:HA	38:BK:64:LYS:HZ3	1.61	0.65
40:BM:40:LEU:HB2	40:BM:69:ASN:HB2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1108:U:H5”	1:CA:1109:G:OP2	1.96	0.65
1:CA:1145:A:H2’	1:CA:1146:G:H5’	1.77	0.65
9:CM:133:GLN:HG2	9:CM:135:PRO:HD3	1.78	0.65
15:CR:122:ASP:OD2	31:DA:1443:G:O2’	2.14	0.65
28:C6:35:GLU:O	28:C6:36:LEU:HB2	1.97	0.65
42:DO:67:ILE:HD13	42:DO:74:LEU:HD12	1.78	0.65
52:DD:49:A:H2	52:DD:51:C:P	2.19	0.65
1:AA:147:U:O4	56:AA:3434:OHX:N4	2.30	0.65
1:AA:307:G:H21	1:AA:330:A:H62	1.45	0.65
1:AA:1798:U:C5’	3:AD:259:THR:HG22	2.25	0.65
1:AA:2275:C:O2’	12:AP:84:GLY:HA3	1.96	0.65
1:AA:2593:U:H2’	1:AA:2594:C:C6	2.31	0.65
1:AA:2681:C:H1’	1:AA:2682:U:OP2	1.96	0.65
7:AH:126:PRO:O	7:AH:127:GLU:CB	2.44	0.65
9:AM:42:TRP:HA	9:AM:48:MET:HE1	1.78	0.65
12:AP:52:VAL:HA	12:AP:55:VAL:CG1	2.26	0.65
21:AV:62:PRO:O	21:AV:63:ASP:HB2	1.97	0.65
28:A6:25:LYS:HE2	28:A6:27:LYS:HD3	1.78	0.65
34:BG:25:ARG:C	34:BG:27:TYR:N	2.55	0.65
1:CA:700:A:H2’	1:CA:701:A:O4’	1.96	0.65
1:CA:2153:U:H2’	1:CA:2181:A:N1	2.11	0.65
6:CG:4:ASP:O	6:CG:5:VAL:HB	1.95	0.65
31:DA:21:G:H2’	31:DA:22:G:C8	2.31	0.65
31:DA:1190:G:C6	56:DA:1760:OHX:N6	2.64	0.65
32:DE:101:MET:HE2	32:DE:101:MET:HA	1.78	0.65
1:AA:528:A:C2	1:AA:2043:C:H4’	2.31	0.65
1:AA:1468:C:H2’	1:AA:1469:A:H8	1.60	0.65
1:AA:2502:G:H5”	1:AA:2503:A:H5”	1.77	0.65
4:AE:54:GLN:O	4:AE:55:ASN:HB2	1.96	0.65
11:AO:131:SER:H	11:AO:134:ALA:HB3	1.61	0.65
31:BA:560:U:H4’	31:BA:561:U:O5’	1.96	0.65
31:BA:1145:C:H4’	31:BA:1146:A:C8	2.30	0.65
52:BD:23:A:H3’	52:BD:24:G:C8	2.30	0.65
1:CA:2103:G:H5’	23:CZ:35:THR:OG1	1.96	0.65
11:CO:97:PRO:CD	11:CO:112:LEU:HD12	2.27	0.65
11:CO:125:VAL:O	11:CO:144:GLU:HB3	1.97	0.65
31:DA:266:G:H1’	31:DA:267:C:OP2	1.96	0.65
1:AA:654(D):G:H1	1:AA:654(Q):C:H42	0.69	0.65
9:AM:13:TRP:O	9:AM:135:PRO:HD2	1.97	0.65
9:AM:34:LEU:HD21	9:AM:120:LEU:HB2	1.78	0.65
31:BA:135:C:O2’	56:BA:1813:OHX:N1	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:222:U:H2'	31:BA:223:U:C6	2.32	0.65
31:BA:453:A:H4'	46:BS:72:ARG:HB2	1.78	0.65
31:BA:1331:G:O2'	31:BA:1332:A:O5'	2.13	0.65
42:BO:43:LYS:HG2	42:BO:44:LYS:H	1.60	0.65
42:BO:123:LYS:HG2	42:BO:125:ALA:H	1.61	0.65
52:BD:48:C:N4	52:BD:52:G:H1	1.94	0.65
52:BD:62:G:N2	52:BD:70:C:N3	2.39	0.65
1:CA:139:A:C8	1:CA:1455:C:O2'	2.47	0.65
1:CA:1004:U:O2	2:CB:92:A:H4'	1.95	0.65
1:CA:1230:G:OP2	25:CX:30:ARG:NH2	2.27	0.65
1:CA:2309:U:H4'	1:CA:2310:C:OP1	1.95	0.65
1:CA:2810:U:H2'	1:CA:2811:C:C5'	2.23	0.65
2:CB:41:A:H2'	26:C4:1:MET:HE3	1.79	0.65
2:CB:81:C:H2'	2:CB:82:U:O4'	1.96	0.65
31:DA:1244:C:OP2	51:DX:9:ARG:HG2	1.95	0.65
41:DN:29:ILE:HG22	41:DN:44:SER:HB2	1.77	0.65
1:AA:270(O):U:C4'	1:AA:270(P):C:OP2	2.42	0.65
1:AA:2270:G:OP2	56:AA:3458:OHX:N4	2.30	0.65
1:AA:2301:C:H2'	1:AA:2302:G:H8	1.61	0.65
1:AA:2340:G:O2'	1:AA:2341:G:H5'	1.97	0.65
1:AA:2562:U:H1'	10:AN:23:ARG:NH1	2.10	0.65
3:AD:35:LYS:HG2	3:AD:64:ILE:H	1.60	0.65
3:AD:35:LYS:CD	3:AD:104:TYR:CD1	2.77	0.65
5:AF:34:TRP:NE1	11:AO:8:PRO:HD3	2.10	0.65
7:AH:97:ARG:HG2	7:AH:98:LEU:H	1.62	0.65
12:AP:66:ILE:HG13	12:AP:67:ARG:N	2.08	0.65
31:BA:363:A:OP1	42:BO:30:ARG:HG3	1.95	0.65
1:CA:1579:C:N4	1:CA:1586:G:H1	1.92	0.65
4:CE:128:SER:OG	4:CE:129:HIS:N	2.28	0.65
12:CP:4:PRO:HD3	12:CP:70:PRO:O	1.97	0.65
25:CX:19:GLN:NE2	25:CX:52:HIS:HE1	1.94	0.65
30:C8:52:LYS:O	30:C8:54:GLU:N	2.27	0.65
31:DA:273:A:H1'	47:DT:16:GLN:HE21	1.60	0.65
31:DA:1158:C:C2	31:DA:1160:G:N7	2.64	0.65
52:DB:21:A:C8	52:DB:46:G:C8	2.85	0.65
1:AA:64:A:H1'	19:AT:66:LEU:HB2	1.78	0.65
1:AA:2147:G:H2'	1:AA:2148:G:H4'	1.79	0.65
1:AA:2723:C:OP1	13:A0:3:HIS:HD2	1.78	0.65
6:AG:21:ARG:HG2	6:AG:21:ARG:NH1	2.02	0.65
12:AP:78:PRO:HG2	12:AP:81:VAL:CG1	2.24	0.65
31:BA:953:G:H5'	31:BA:965:A:H61	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:89:U:O2'	1:CA:90:A:C8	2.50	0.65
1:CA:155:C:N3	1:CA:161:G:C2	2.65	0.65
1:CA:417:G:H22	11:CO:72:PRO:CD	2.10	0.65
1:CA:521:G:H1'	18:CS:57:ASN:ND2	2.10	0.65
1:CA:2164:G:O6	1:CA:2173:U:O2	2.14	0.65
7:CH:149:ARG:HD3	7:CH:164:TYR:CE1	2.30	0.65
11:CO:107:LYS:O	11:CO:109:GLY:N	2.30	0.65
12:CP:56:ARG:HH11	12:CP:56:ARG:HB2	1.62	0.65
12:CP:88:GLY:O	12:CP:89:ASN:HB2	1.95	0.65
21:CV:107:THR:N	21:CV:108:PRO:HD2	2.11	0.65
31:DA:1411:C:H2'	31:DA:1412:C:C6	2.31	0.65
1:AA:1065:U:H1'	1:AA:1074:G:H22	1.60	0.65
1:AA:1496:A:C8	1:AA:1577:C:O2'	2.38	0.65
1:AA:2747:G:O6	1:AA:2755:C:H5"	1.97	0.65
12:AP:59:ARG:HD2	12:AP:59:ARG:H	1.61	0.65
31:BA:1498:U:H1'	31:BA:1499:A:OP2	1.95	0.65
41:BN:78:GLN:O	41:BN:103:LEU:HA	1.97	0.65
43:BP:108:ARG:HH11	43:BP:108:ARG:HA	1.62	0.65
1:CA:899:U:O2	1:CA:974:G:C2	2.50	0.65
1:CA:2529:G:C6	1:CA:2530:C:N4	2.65	0.65
3:CD:35:LYS:CG	3:CD:64:ILE:N	2.58	0.65
3:CD:231:HIS:ND1	3:CD:232:PRO:HD2	2.12	0.65
21:CV:178:GLU:O	21:CV:179:ASP:HB2	1.96	0.65
23:CZ:86:SER:N	23:CZ:87:PRO:CD	2.60	0.65
30:C8:33:ASN:O	30:C8:35:GLN:N	2.29	0.65
35:DH:51:VAL:HG23	35:DH:52:PRO:HD3	1.78	0.65
43:DP:78:ILE:HG23	43:DP:92:HIS:HD2	1.62	0.65
50:DW:72:LEU:HD11	50:DW:80:ARG:HD2	1.77	0.65
1:AA:2058:A:H5"	1:AA:2059:A:OP2	1.97	0.65
1:AA:2567:G:H2'	1:AA:2568:C:H6	1.58	0.65
1:AA:2811:G:OP1	4:AE:61:ARG:HG2	1.97	0.65
2:AB:95:U:H2'	2:AB:96:G:C8	2.31	0.65
31:BA:178:C:H2'	31:BA:179:A:H8	1.61	0.65
1:CA:2432:U:OP2	30:C8:33:ASN:ND2	2.29	0.65
2:CB:41:A:N6	26:C4:1:MET:HB3	2.11	0.65
5:CF:51:THR:HB	5:CF:88:VAL:HG11	1.79	0.65
31:DA:1056:U:O4	31:DA:1200:C:C6	2.50	0.65
31:DA:1240:U:O2'	31:DA:1241:G:OP1	2.14	0.65
31:DA:1343:G:H1'	39:DL:121:ARG:NH1	2.11	0.65
52:DB:55:U:C5	52:DB:56:U:H1'	2.32	0.65
52:DD:41:C:H2'	52:DD:42:U:C6	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:443:A:C5	5:AF:45:ARG:HD2	2.32	0.65
1:AA:2119:A:C2	1:AA:2171:A:H1'	2.32	0.65
1:AA:2211:G:H4'	1:AA:2212:A:OP2	1.97	0.65
1:AA:2474:C:H2'	1:AA:2475:C:O4'	1.97	0.65
3:AD:70:TRP:CH2	3:AD:150:LYS:HA	2.32	0.65
6:AG:146:TYR:O	6:AG:149:VAL:HG22	1.96	0.65
8:AK:129:THR:HG22	8:AK:137:PRO:HB3	1.77	0.65
18:AS:86:LEU:HD12	18:AS:87:PRO:HD2	1.77	0.65
20:AU:20:TYR:CE1	20:AU:42:VAL:HA	2.32	0.65
31:BA:73:G:H2'	31:BA:74:C:O4'	1.97	0.65
33:BF:108:ASN:ND2	33:BF:144:SER:OG	2.29	0.65
1:CA:1218:G:H1	1:CA:1224:C:H42	1.44	0.65
1:CA:1325:A:OP1	13:C0:36:THR:HG22	1.97	0.65
1:CA:2850:G:H5'	13:C0:46:GLY:HA2	1.79	0.65
3:CD:236:GLY:O	3:CD:237:GLU:C	2.40	0.65
11:CO:63:PRO:HA	30:C8:13:ARG:HA	1.76	0.65
11:CO:122:PRO:HB3	11:CO:141:ALA:HB1	1.76	0.65
17:C2:15:GLU:CG	17:C2:16:PRO:HD2	2.26	0.65
26:C4:53:GLU:CD	26:C4:58:ARG:HB2	2.22	0.65
31:DA:1003:G:N2	31:DA:1037:C:N3	2.43	0.65
31:DA:1024:G:H2'	31:DA:1025:U:H6	1.61	0.65
31:DA:1301:U:H2'	31:DA:1301:U:O2	1.95	0.65
1:AA:340:A:H2'	1:AA:341:G:O4'	1.96	0.65
1:AA:658:C:H2'	1:AA:659:C:C6	2.31	0.65
1:AA:1113:U:H2'	1:AA:1114:G:C8	2.32	0.65
23:AZ:76:ARG:HD3	23:AZ:76:ARG:N	2.12	0.65
26:A4:38:LYS:NZ	26:A4:44:THR:OG1	2.30	0.65
31:BA:703:G:H4'	31:BA:704:A:O5'	1.96	0.65
31:BA:1452:C:O2'	31:BA:1453:G:P	2.54	0.65
31:BA:1503:A:HO2'	31:BA:1504:G:C5'	2.10	0.65
38:BK:101:PRO:HG2	38:BK:133:LEU:HD11	1.78	0.65
1:CA:13:A:H61	1:CA:551:U:H3'	1.62	0.65
1:CA:1059:U:H3	9:CM:25:ARG:HH11	1.44	0.65
1:CA:1360:U:H2'	1:CA:1657:A:C2	2.32	0.65
1:CA:2203:U:H2'	1:CA:2204:G:O4'	1.97	0.65
1:CA:2238:A:H4'	1:CA:2239:C:O5'	1.97	0.65
3:CD:130:ALA:C	3:CD:131:LEU:HD12	2.21	0.65
6:CG:109:VAL:HG11	6:CG:142:PRO:HB3	1.79	0.65
7:CH:6:ARG:HD3	7:CH:6:ARG:H	1.62	0.65
8:CK:37:VAL:HG12	8:CK:38:LEU:H	1.62	0.65
13:C0:81:ASP:O	13:C0:82:GLU:CB	2.45	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:CV:115:GLY:HA2	21:CV:177:PRO:HG2	1.78	0.65
31:DA:1256:A:N6	31:DA:1278:U:OP2	2.30	0.65
31:DA:1316:G:N2	31:DA:1318:A:H3'	2.12	0.65
32:DE:180:LEU:O	32:DE:181:PHE:HB2	1.96	0.65
50:DW:50:GLU:HB2	50:DW:100:ILE:HG12	1.78	0.65
1:AA:309:G:N3	1:AA:329:G:O2'	2.29	0.64
1:AA:1754:C:P	15:AR:96:ARG:HH12	2.19	0.64
31:BA:359:U:H2'	31:BA:360:A:C8	2.33	0.64
31:BA:674:G:O2'	31:BA:675:A:H5'	1.97	0.64
31:BA:1014:A:H2	31:BA:1219:U:H1'	1.61	0.64
1:CA:554:A:H2	1:CA:2066:C:H4'	1.61	0.64
1:CA:1101:A:N6	1:CA:1152:U:N3	2.19	0.64
15:CR:8:LYS:HB2	15:CR:8:LYS:NZ	2.12	0.64
17:C2:87:HIS:CE1	17:C2:89:GLN:HB2	2.33	0.64
21:CV:59:LEU:HD22	21:CV:61:LEU:HG	1.79	0.64
26:C4:38:LYS:HA	26:C4:44:THR:HG21	1.79	0.64
31:DA:961:U:OP2	31:DA:1223:C:O2'	2.12	0.64
32:DE:239:VAL:HG12	32:DE:240:GLN:HG3	1.77	0.64
35:DH:126:ARG:HA	35:DH:131:ILE:HD11	1.79	0.64
52:DB:47:U:H2'	52:DB:48:C:H6	1.62	0.64
1:AA:1203:G:H3'	1:AA:1204:A:H5"	1.79	0.64
1:AA:2111:C:C2	1:AA:2118:U:H4'	2.32	0.64
21:AV:139:VAL:HG22	21:AV:155:LEU:HD22	1.79	0.64
26:A4:52:THR:OG1	26:A4:53:GLU:N	2.29	0.64
31:BA:240:C:H2'	31:BA:241:C:H6	1.62	0.64
31:BA:1281:U:H5'	31:BA:1282:C:C5	2.33	0.64
31:BA:1510:U:H2'	31:BA:1511:G:C8	2.32	0.64
38:BK:42:GLU:HG3	38:BK:109:ILE:HD12	1.79	0.64
1:CA:507:A:H1'	20:CU:44:ILE:HD13	1.79	0.64
1:CA:1714:G:OP1	10:CN:66:LYS:HD3	1.96	0.64
1:CA:1737:A:N6	1:CA:1746:A:C2	2.46	0.64
1:CA:2034:U:OP1	18:CS:42:ARG:NH1	2.30	0.64
1:CA:2275:U:O2'	1:CA:2276:C:H5'	1.96	0.64
1:CA:2883:G:C5	1:CA:2884:A:C2	2.85	0.64
3:CD:35:LYS:CE	3:CD:104:TYR:HD1	2.10	0.64
3:CD:64:ILE:O	3:CD:64:ILE:CG1	2.45	0.64
4:CE:101:ARG:NH1	4:CE:171:GLU:HB2	2.13	0.64
21:CV:5:LEU:HD11	21:CV:44:PHE:HA	1.79	0.64
31:DA:458:C:H2'	31:DA:464:G:O4'	1.97	0.64
31:DA:1003:G:N2	31:DA:1037:C:C2	2.61	0.64
31:DA:1213:A:C6	31:DA:1215:G:H1'	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1321:C:N4	31:DA:1322:C:H41	1.94	0.64
32:DE:17:PHE:CE2	32:DE:44:LEU:HA	2.33	0.64
1:AA:633:A:H2'	1:AA:634:C:H5'	1.80	0.64
1:AA:1534:G:H2'	1:AA:1534:G:N3	2.12	0.64
1:AA:2015:A:O4'	27:A5:2:ALA:CA	2.44	0.64
3:AD:186:HIS:CD2	3:AD:188:GLU:H	2.13	0.64
4:AE:2:LYS:NZ	4:AE:95:ILE:O	2.30	0.64
4:AE:27:LEU:HD13	15:AR:1:MET:HE1	1.79	0.64
9:AM:35:ARG:O	9:AM:42:TRP:CZ3	2.50	0.64
23:AZ:58:ILE:HG21	23:AZ:87:PRO:HG3	1.78	0.64
28:A6:44:ARG:H	28:A6:44:ARG:HH11	1.44	0.64
31:BA:87:A:H2'	31:BA:88:C:C6	2.32	0.64
32:BE:98:LEU:HB2	32:BE:101:MET:HG3	1.78	0.64
1:CA:2769:C:HO2'	1:CA:2770:U:H6	1.45	0.64
2:CB:41:A:C6	26:C4:1:MET:HB3	2.31	0.64
10:CN:102:VAL:HG22	10:CN:121:VAL:HG22	1.77	0.64
13:C0:37:THR:OG1	13:C0:40:LYS:NZ	2.29	0.64
13:C0:96:ARG:HH21	13:C0:117:VAL:HG23	1.62	0.64
17:C2:62:LEU:HB3	17:C2:93:GLU:O	1.97	0.64
28:C6:21:TYR:N	28:C6:21:TYR:CD2	2.64	0.64
33:DF:182:ILE:HG22	33:DF:203:PHE:HA	1.79	0.64
37:DJ:27:ILE:HG12	37:DJ:43:PHE:HD2	1.63	0.64
39:DL:20:ARG:O	39:DL:60:ASP:HB2	1.98	0.64
52:DB:13:G:H1'	52:DB:24:G:N1	2.13	0.64
52:DD:43:G:O2'	52:DD:44:C:H5'	1.98	0.64
5:AF:184:TYR:CE2	5:AF:188:ARG:HD2	2.32	0.64
37:BJ:16:LEU:HD11	39:BL:45:ALA:HB2	1.78	0.64
52:BB:46:G:H2'	52:BB:47:U:C6	2.33	0.64
52:BB:47:U:H2'	52:BB:48:C:O4'	1.97	0.64
1:CA:611:C:N3	11:CO:33:ARG:NH1	2.45	0.64
1:CA:1405:G:O2'	1:CA:1406:A:H5"	1.96	0.64
1:CA:2340:A:H2'	1:CA:2341:A:C8	2.31	0.64
1:CA:2535:U:C2'	1:CA:2536:G:H5"	2.26	0.64
7:CH:4:ILE:HD11	7:CH:7:LEU:HD23	1.79	0.64
25:CX:23:LEU:HD12	25:CX:23:LEU:H	1.62	0.64
31:DA:388:G:OP1	56:DA:1721:OHX:N5	2.31	0.64
31:DA:1039:C:H3'	31:DA:1040:U:H5"	1.79	0.64
31:DA:1098:C:H2'	31:DA:1099:G:O4'	1.97	0.64
31:DA:1132:C:O2'	31:DA:1133:G:H5'	1.98	0.64
31:DA:1297:C:C1'	31:DA:1298:C:OP2	2.45	0.64
32:DE:190:THR:O	32:DE:191:ASP:CB	2.45	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DL:99:LEU:HB3	39:DL:101:PHE:CE1	2.32	0.64
52:DB:19:C:H4'	52:DB:20:C:OP1	1.96	0.64
52:DD:9:U:O2	52:DD:9:U:H2'	1.97	0.64
1:AA:55:G:H2'	1:AA:56:A:C8	2.32	0.64
1:AA:631:A:P	30:A8:46:ARG:HH21	2.20	0.64
1:AA:1264:G:H5'	27:A5:11:THR:CG2	2.28	0.64
1:AA:1516:U:H2'	1:AA:1517:G:C8	2.32	0.64
8:AK:110:ASP:HB2	8:AK:112:LYS:H	1.63	0.64
9:AM:35:ARG:HG3	9:AM:37:LYS:HG3	1.80	0.64
31:BA:1195:C:H5"	31:BA:1196:U:O5'	1.98	0.64
31:BA:1502:A:H2	31:BA:1505:G:H1	1.43	0.64
31:BA:1503:A:N6	54:B1:12:A:C4	2.65	0.64
38:BK:41:ARG:NH2	38:BK:123:GLU:OE1	2.29	0.64
52:BB:52:G:O2'	52:BB:53:A:O5'	2.12	0.64
52:BD:17:G:H4'	52:BD:18:G:OP2	1.96	0.64
1:CA:409:G:C4	1:CA:422:A:C2	2.85	0.64
3:CD:208:LYS:HG3	3:CD:210:GLY:H	1.63	0.64
6:CG:61:ALA:HA	6:CG:64:THR:HG22	1.79	0.64
16:C1:88:ILE:HA	17:C2:49:THR:O	1.97	0.64
30:C8:31:HIS:O	30:C8:32:LEU:C	2.40	0.64
31:DA:485:G:O2'	31:DA:486:U:C6	2.51	0.64
31:DA:986:A:H2'	31:DA:987:G:O4'	1.97	0.64
34:DG:85:LYS:O	56:DG:302:OHX:N2	2.29	0.64
36:DI:9:VAL:HB	36:DI:87:ARG:HB2	1.80	0.64
37:DJ:120:ILE:O	37:DJ:124:LEU:HB2	1.97	0.64
43:DP:84:ILE:HG12	49:DV:63:THR:HG21	1.78	0.64
52:DB:50:U:H2'	52:DB:51:C:O4'	1.96	0.64
1:AA:1064:C:H41	1:AA:1070:A:P	2.20	0.64
1:AA:1292:U:H2'	1:AA:1293:C:C6	2.32	0.64
1:AA:2301:C:H2'	1:AA:2302:G:C8	2.31	0.64
1:AA:2415:G:H4'	11:AO:66:GLY:C	2.21	0.64
1:AA:2712:U:OP1	1:AA:2714:G:H4'	1.96	0.64
9:AM:35:ARG:HD3	9:AM:37:LYS:HD2	1.79	0.64
10:AN:88:ASN:HD21	10:AN:92:GLU:HG3	1.61	0.64
28:A6:42:TRP:CD1	28:A6:42:TRP:N	2.63	0.64
31:BA:1000:A:H2'	31:BA:1001:G:H8	1.62	0.64
33:BF:95:THR:HG22	33:BF:96:GLY:H	1.61	0.64
1:CA:2300:A:H2	1:CA:2359:A:N1	1.96	0.64
1:CA:2452:A:C8	1:CA:2452:A:H5'	2.33	0.64
11:CO:112:LEU:CB	11:CO:128:HIS:HD2	2.11	0.64
17:C2:67:GLY:O	17:C2:88:ARG:HD2	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:C3:43:THR:O	22:C3:45:PHE:N	2.30	0.64
52:DD:21:A:N1	52:DD:55:U:O4	2.30	0.64
2:AB:103:U:O2'	21:AV:72:ARG:HG2	1.97	0.64
15:AR:26:ASP:HB3	15:AR:92:GLY:H	1.62	0.64
21:AV:28:MET:HB2	21:AV:37:VAL:HG11	1.80	0.64
31:BA:524:G:H2'	31:BA:525:C:C6	2.33	0.64
1:CA:989:U:OP2	11:CO:36:LYS:HG3	1.98	0.64
1:CA:2042:A:N7	27:C5:9:LYS:HE3	2.12	0.64
1:CA:2138:G:H1'	1:CA:2194:A:N1	2.12	0.64
1:CA:2321:G:C2'	1:CA:2322:A:OP1	2.45	0.64
3:CD:102:LYS:C	3:CD:103:ARG:HG2	2.23	0.64
5:CF:25:PRO:CB	5:CF:27:GLU:H	2.07	0.64
10:CN:24:VAL:CG2	10:CN:33:ALA:HB2	2.28	0.64
27:C5:51:TYR:HB3	27:C5:54:GLY:H	1.63	0.64
43:DP:97:PRO:HB2	43:DP:101:GLN:HG3	1.79	0.64
52:DD:29:C:C2'	52:DD:30:A:H5'	2.28	0.64
1:AA:607:U:OP1	5:AF:102:PRO:HA	1.97	0.64
1:AA:882:G:N2	1:AA:894:C:C2	2.65	0.64
1:AA:882:G:H3'	1:AA:883:G:H5"	1.79	0.64
1:AA:1043:C:H42	1:AA:1112:G:H1	1.43	0.64
1:AA:2287:A:N6	1:AA:2344:U:N3	2.41	0.64
26:A4:12:ALA:HB1	26:A4:29:PRO:HA	1.79	0.64
28:A6:29:ASN:O	28:A6:32:ASN:HB3	1.96	0.64
52:BB:75:C:H2'	52:BB:76:C:C6	2.33	0.64
52:BD:11:C:H2'	52:BD:12:C:C5'	2.21	0.64
1:CA:1044:G:C2'	1:CA:1045:C:H5'	2.28	0.64
1:CA:1512:C:O2'	1:CA:1575:A:H8	1.79	0.64
1:CA:1543:A:H8	1:CA:1625:C:O2'	1.80	0.64
1:CA:2642:A:O2'	1:CA:2643:G:OP2	2.13	0.64
3:CD:270:ILE:C	3:CD:271:ILE:HG13	2.21	0.64
7:CH:118:PRO:HG2	7:CH:121:ILE:HG13	1.79	0.64
8:CK:104:GLN:HG2	8:CK:105:HIS:HD2	1.61	0.64
31:DA:570:G:H1'	31:DA:820:U:C4	2.33	0.64
31:DA:975:A:C4'	31:DA:976:G:H5"	2.22	0.64
31:DA:1275:A:H2'	31:DA:1276:G:O4'	1.97	0.64
34:DG:70:ILE:HD11	34:DG:100:ARG:HD2	1.79	0.64
47:DT:87:LYS:O	47:DT:91:ARG:HG3	1.98	0.64
52:DD:13:G:H2'	52:DD:14:A:C8	2.32	0.64
1:AA:572:A:H5"	1:AA:573:G:OP2	1.97	0.64
1:AA:1558:A:O2'	1:AA:1559:G:OP2	2.11	0.64
1:AA:2159:G:H2'	1:AA:2160:G:H8	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:69:ARG:HH21	3:AD:130:ALA:H	1.46	0.64
7:AH:10:PRO:HG2	7:AH:50:VAL:HG13	1.80	0.64
9:AM:43:THR:HB	9:AM:46:VAL:HG12	1.78	0.64
14:AQ:106:ARG:HA	14:AQ:110:LEU:CD2	2.28	0.64
31:BA:422:C:O2'	31:BA:423:G:C2	2.51	0.64
31:BA:973:G:H3'	31:BA:974:A:H5"	1.78	0.64
31:BA:1074:G:O2'	31:BA:1101:A:N1	2.30	0.64
34:BG:209:ARG:NE	34:BG:209:ARG:HA	2.13	0.64
35:BH:20:GLN:O	35:BH:22:GLY:N	2.31	0.64
1:CA:38:A:H2'	1:CA:39:C:H6	1.62	0.64
1:CA:561:C:O2'	1:CA:562:A:H5'	1.96	0.64
1:CA:641:A:C8	5:CF:176:LEU:HD11	2.33	0.64
1:CA:1936:A:H4'	1:CA:1937:C:H5"	1.79	0.64
1:CA:2706:A:H2'	1:CA:2707:G:H8	1.62	0.64
1:CA:2813:A:H2'	1:CA:2814:G:O4'	1.96	0.64
7:CH:6:ARG:HB2	7:CH:66:GLY:HA2	1.80	0.64
21:CV:29:TYR:HB3	21:CV:34:ASN:HD22	1.63	0.64
27:C5:41:PRO:HG2	27:C5:44:THR:OG1	1.98	0.64
28:C6:12:GLU:HG3	28:C6:21:TYR:HD1	1.61	0.64
31:DA:406:G:H5'	34:DG:5:ILE:CG2	2.28	0.64
31:DA:1449:C:O2'	31:DA:1450:U:OP1	2.15	0.64
49:DV:28:LYS:HD3	49:DV:29:ARG:H	1.62	0.64
50:DW:69:GLY:O	50:DW:73:HIS:CD2	2.51	0.64
1:AA:1266:G:O2'	1:AA:2012:G:O6	2.09	0.64
1:AA:1525:G:H2'	1:AA:1526:G:H8	1.63	0.64
1:AA:1607:C:O2	56:AA:3473:OHX:N5	2.31	0.64
1:AA:2133:G:H1'	1:AA:2158:A:N6	2.08	0.64
1:AA:2151:G:H2'	1:AA:2152:G:C8	2.32	0.64
2:AB:49:C:OP1	14:AQ:97:ARG:HG2	1.97	0.64
26:A4:63:TYR:CE2	49:BV:42:PRO:HD3	2.29	0.64
28:A6:17:LYS:HE2	28:A6:17:LYS:HA	1.80	0.64
31:BA:975:A:C4'	31:BA:976:G:H5"	2.28	0.64
31:BA:1004:A:H2	31:BA:1024:G:C8	2.16	0.64
34:BG:108:LEU:HB3	34:BG:110:PHE:CE1	2.33	0.64
52:BD:55:U:OP1	52:BD:55:U:H4'	1.98	0.64
1:CA:7:G:H1	1:CA:2906:C:H42	1.44	0.64
1:CA:1040:G:H1'	17:C2:87:HIS:HE1	1.60	0.64
1:CA:2228:G:H3'	1:CA:2229:G:C4	2.32	0.64
1:CA:2642:A:H4'	1:CA:2643:G:O5'	1.98	0.64
5:CF:164:ARG:HH11	5:CF:164:ARG:CG	2.10	0.64
10:CN:119:PRO:HB2	15:CR:68:TYR:CE2	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CS:84:ARG:HG3	18:CS:98:LYS:HE3	1.80	0.64
31:DA:1305:G:H22	31:DA:1331:G:C2'	2.11	0.64
32:DE:63:MET:HG3	32:DE:225:ALA:HB1	1.80	0.64
35:DH:60:TYR:HD2	35:DH:64:ARG:HH21	1.46	0.64
35:DH:145:LYS:O	35:DH:149:GLU:HG2	1.98	0.64
46:DS:9:PHE:HD2	46:DS:18:ARG:HG3	1.62	0.64
1:AA:2062:A:N3	1:AA:2062:A:H2'	2.13	0.63
9:AM:67:LEU:HD23	9:AM:88:GLU:HB3	1.80	0.63
21:AV:60:GLU:O	21:AV:61:LEU:HD13	1.97	0.63
31:BA:526:C:OP2	42:BO:88:LYS:HE3	1.98	0.63
31:BA:957:U:H3	31:BA:960:U:H5"	1.63	0.63
31:BA:989:C:N4	31:BA:1216:G:H1	1.96	0.63
32:BE:63:MET:HB3	32:BE:225:ALA:HB1	1.79	0.63
32:BE:212:GLN:HE22	32:BE:216:SER:HB2	1.63	0.63
1:CA:470:A:H1'	1:CA:1247:C:O4'	1.97	0.63
1:CA:2415:C:H5	1:CA:2428:G:H22	1.41	0.63
2:CB:5:C:N4	2:CB:120:G:H1	1.95	0.63
2:CB:90:C:H3'	2:CB:91:G:H8	1.63	0.63
4:CE:119:ARG:HG2	4:CE:160:TYR:HB2	1.79	0.63
11:CO:106:LEU:O	11:CO:107:LYS:CB	2.38	0.63
21:CV:14:LYS:HB3	21:CV:14:LYS:HZ2	1.62	0.63
21:CV:76:LEU:HD23	21:CV:76:LEU:H	1.63	0.63
31:DA:24:U:H2'	31:DA:25:C:H6	1.62	0.63
33:DF:39:ILE:O	33:DF:43:LEU:HB2	1.97	0.63
1:AA:270(F):U:H2'	1:AA:270(G):C:C6	2.33	0.63
1:AA:1105:U:H2'	1:AA:1106:G:C8	2.33	0.63
1:AA:2308:G:N1	1:AA:2311:A:C6	2.62	0.63
3:AD:25:THR:O	3:AD:27:THR:HB	1.98	0.63
3:AD:32:SER:HA	3:AD:36:PRO:CD	2.27	0.63
3:AD:34:VAL:C	3:AD:35:LYS:HG3	2.22	0.63
6:AG:115:ARG:NH1	43:BP:7:VAL:HB	2.14	0.63
9:AM:96:GLU:C	9:AM:98:VAL:N	2.56	0.63
31:BA:129(A):G:N2	31:BA:188:U:O2'	2.31	0.63
31:BA:1224:G:C6	31:BA:1322:C:H1'	2.34	0.63
34:BG:126:ILE:HD13	34:BG:127:THR:N	2.11	0.63
37:BJ:15:ASP:OD1	37:BJ:44:TYR:OH	2.15	0.63
1:CA:398:G:H4'	1:CA:399:A:OP2	1.97	0.63
1:CA:680:A:N3	1:CA:680:A:H2'	2.12	0.63
1:CA:1389:A:C6	1:CA:1444:U:C4	2.86	0.63
1:CA:1767:G:H8	1:CA:1770:G:H1	1.46	0.63
1:CA:2252:G:OP2	3:CD:244:ARG:NH2	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CD:186:HIS:CD2	3:CD:188:GLU:H	2.15	0.63
3:CD:255:LYS:HE3	3:CD:255:LYS:N	2.06	0.63
4:CE:64:LYS:HB2	4:CE:66:HIS:CD2	2.32	0.63
9:CM:133:GLN:O	9:CM:134:ARG:HD3	1.99	0.63
11:CO:146:VAL:HG22	11:CO:147:LEU:HD12	1.79	0.63
12:CP:102:VAL:HG12	12:CP:102:VAL:O	1.98	0.63
14:CQ:102:ALA:HA	14:CQ:105:ALA:HB3	1.79	0.63
31:DA:1299:A:C6	31:DA:1301:U:C2	2.86	0.63
33:DF:73:PRO:O	33:DF:76:VAL:HG22	1.96	0.63
41:DN:22:HIS:HB3	41:DN:29:ILE:HG12	1.80	0.63
1:AA:660:G:H21	11:AO:12:ALA:HA	1.63	0.63
1:AA:784:A:C5	3:AD:229:VAL:HG21	2.32	0.63
1:AA:998:C:C2’	1:AA:999:U:O5’	2.46	0.63
1:AA:1899:G:N2	1:AA:1902:C:N4	2.35	0.63
1:AA:2602:A:C6	53:BC:77:A:H4’	2.34	0.63
1:AA:2790:A:H1’	1:AA:2893:G:O2’	1.99	0.63
9:AM:46:VAL:HG13	9:AM:48:MET:HG3	1.79	0.63
11:AO:58:THR:HG23	11:AO:61:ARG:HG3	1.79	0.63
11:AO:105:LEU:O	11:AO:106:LEU:CB	2.45	0.63
12:AP:21:THR:HG22	21:AV:78:LYS:CD	2.27	0.63
18:AS:14:PRO:CG	18:AS:78:GLU:HB2	2.28	0.63
19:AT:26:TYR:CD1	19:AT:89:ILE:HD12	2.33	0.63
31:BA:376:G:H5”	46:BS:5:ARG:HD2	1.80	0.63
1:CA:554:A:C2	1:CA:2066:C:H4’	2.33	0.63
1:CA:2883:G:C8	1:CA:2884:A:H2	2.16	0.63
4:CE:25:VAL:O	4:CE:26:ILE:HG13	1.99	0.63
11:CO:11:GLY:O	11:CO:13:ASN:N	2.30	0.63
12:CP:111:GLU:O	12:CP:115:MET:HG2	1.98	0.63
31:DA:376:G:H5”	46:DS:5:ARG:HD2	1.80	0.63
34:DG:31:CYS:HB3	34:DG:33:MET:HB2	1.80	0.63
1:AA:676:A:N1	1:AA:802:A:N1	2.46	0.63
1:AA:1060:U:C2	1:AA:1062:G:H5’	2.34	0.63
1:AA:2110:G:H4’	1:AA:2111:C:OP2	1.98	0.63
14:AQ:36:TYR:N	14:AQ:36:TYR:CD1	2.65	0.63
17:A2:38:LEU:O	17:A2:51:VAL:HG13	1.97	0.63
18:AS:70:TYR:HD2	18:AS:70:TYR:H	1.45	0.63
32:BE:238:LEU:H	32:BE:238:LEU:HD12	1.62	0.63
50:BW:31:SER:HA	50:BW:34:LYS:HE3	1.80	0.63
1:CA:470:A:H5”	1:CA:471:C:OP1	1.98	0.63
1:CA:1590:A:H2’	1:CA:1591:C:H3’	1.79	0.63
1:CA:2138:G:H21	1:CA:2195:U:H3	1.45	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:2844:G:OP1	1:CA:2844:G:C8	2.49	0.63
7:CH:3:ARG:HG3	7:CH:4:ILE:N	2.13	0.63
33:DF:117:ALA:HB2	33:DF:200:ALA:HB2	1.80	0.63
34:DG:19:LEU:HB2	34:DG:21:LEU:CD1	2.28	0.63
37:DJ:84:ASN:HB2	52:DD:38:MIA:H153	1.79	0.63
41:DN:44:SER:OG	41:DN:47:VAL:HG23	1.98	0.63
52:DB:47:U:H2'	52:DB:48:C:O4'	1.98	0.63
52:DB:48:C:H2'	52:DB:49:A:C8	2.32	0.63
1:AA:330:A:H2	1:AA:1210:A:O2'	1.76	0.63
1:AA:646:A:H2'	1:AA:647:G:O4'	1.98	0.63
1:AA:947:G:O6	56:AA:3568:OHX:N5	2.32	0.63
1:AA:1468:C:H2'	1:AA:1469:A:C8	2.33	0.63
1:AA:1902:C:OP1	3:AD:242:ARG:HD2	1.99	0.63
4:AE:13:ARG:HH11	4:AE:21:VAL:CG1	2.12	0.63
4:AE:24:THR:OG1	4:AE:186:GLY:HA2	1.99	0.63
4:AE:102:VAL:HG21	4:AE:198:VAL:HG13	1.80	0.63
4:AE:117:MET:HE2	4:AE:124:GLY:HA3	1.78	0.63
9:AM:46:VAL:O	9:AM:47:ALA:HB3	1.98	0.63
10:AN:23:ARG:HG3	10:AN:24:VAL:N	2.12	0.63
14:AQ:24:LEU:HB3	14:AQ:85:VAL:HG12	1.81	0.63
31:BA:748:C:C1'	31:BA:749:C:OP2	2.46	0.63
31:BA:990:C:H2'	31:BA:991:U:C6	2.34	0.63
31:BA:1254:C:N4	31:BA:1283:G:H1	1.96	0.63
39:BL:114:TYR:N	39:BL:114:TYR:CD2	2.64	0.63
1:CA:1071:G:H5"	1:CA:1072:G:H5"	1.80	0.63
1:CA:1117:A:H5'	1:CA:1118:G:C5'	2.28	0.63
1:CA:2187:C:H2'	1:CA:2188:G:O4'	1.99	0.63
1:CA:2431:A:OP1	30:C8:29:LYS:NZ	2.31	0.63
2:CB:108:G:N7	56:CB:209:OHX:N5	2.46	0.63
31:DA:748:C:H1'	31:DA:749:C:OP2	1.98	0.63
31:DA:1077:G:N2	31:DA:1080:A:OP2	2.32	0.63
31:DA:1190:G:O6	56:DA:1760:OHX:N3	2.30	0.63
31:DA:1194:U:H2'	31:DA:1195:C:C6	2.34	0.63
44:DQ:23:ARG:HD3	44:DQ:28:GLY:O	1.98	0.63
52:DD:57:C:O2'	52:DD:68:A:H4'	1.99	0.63
1:AA:1090:U:O4	1:AA:1101:U:O2	2.17	0.63
1:AA:2159:G:H2'	1:AA:2160:G:C8	2.32	0.63
3:AD:148:GLU:HB2	3:AD:151:LYS:HD2	1.81	0.63
12:AP:12:GLN:HG2	12:AP:73:PRO:HD2	1.80	0.63
14:AQ:106:ARG:O	14:AQ:107:GLU:HB3	1.98	0.63
15:AR:53:ARG:CZ	15:AR:53:ARG:HB3	2.28	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:A2:24:LYS:HB2	17:A2:92:THR:HG23	1.81	0.63
21:AV:79:ARG:HD2	21:AV:80:ARG:NH2	2.14	0.63
31:BA:1002:G:C4	31:BA:1003:G:C8	2.86	0.63
31:BA:1301:U:H3'	31:BA:1302:U:H5'	1.81	0.63
36:BI:97:PHE:HD2	48:BU:31:LEU:HD21	1.64	0.63
49:BV:40:ILE:O	49:BV:41:VAL:HG22	1.99	0.63
1:CA:919:U:OP1	12:CP:5:ARG:HG2	1.98	0.63
1:CA:1325:A:H2'	1:CA:1326:G:C8	2.34	0.63
1:CA:2176:G:O2'	1:CA:2177:G:O4'	2.13	0.63
1:CA:2428:G:H4'	11:CO:66:GLY:HA3	1.79	0.63
2:CB:112:G:H2'	2:CB:113:G:H8	1.63	0.63
4:CE:51:PHE:CE2	4:CE:52:LEU:HG	2.33	0.63
4:CE:68:ALA:C	4:CE:70:ALA:H	2.06	0.63
15:CR:20:PRO:HD2	15:CR:86:ILE:HG23	1.81	0.63
31:DA:631:G:H1'	31:DA:632:A:OP1	1.99	0.63
31:DA:1142:G:H2'	31:DA:1143:G:O4'	1.97	0.63
32:DE:75:LYS:CA	32:DE:78:GLN:HB2	2.25	0.63
40:DM:40:LEU:HB3	40:DM:69:ASN:HB3	1.80	0.63
52:DD:48:C:N4	52:DD:52:G:H1	1.96	0.63
6:AG:178:PHE:HB3	6:AG:180:PHE:HE1	1.63	0.63
11:AO:64:LYS:HB2	30:A8:25:MET:HG3	1.81	0.63
12:AP:84:GLY:O	12:AP:85:LYS:HB2	1.99	0.63
31:BA:414:A:OP2	31:BA:428:G:N2	2.28	0.63
31:BA:1065:U:H1'	31:BA:1066:C:OP2	1.98	0.63
32:BE:111:ARG:HG2	32:BE:111:ARG:NH1	2.12	0.63
33:BF:15:THR:HG21	33:BF:181:ASN:HA	1.81	0.63
33:BF:150:LYS:HE2	33:BF:152:ILE:HD11	1.81	0.63
1:CA:10:G:C6	1:CA:2642:A:C6	2.87	0.63
1:CA:305:C:H2'	1:CA:306:G:H5'	1.81	0.63
1:CA:2138:G:N2	1:CA:2195:U:H3	1.96	0.63
18:CS:78:GLU:OE1	18:CS:99:ARG:HD3	1.99	0.63
21:CV:116:VAL:HG12	21:CV:117:LEU:H	1.64	0.63
31:DA:1139:G:H22	31:DA:1143:G:H1	1.44	0.63
31:DA:1162:C:N4	31:DA:1174:G:H1	1.96	0.63
32:DE:82:ARG:HA	32:DE:92:TYR:HE1	1.64	0.63
33:DF:35:GLU:O	33:DF:39:ILE:HG13	1.99	0.63
33:DF:70:VAL:HG12	33:DF:72:LYS:H	1.64	0.63
1:AA:806:C:OP2	11:AO:41:ARG:HD3	1.98	0.63
3:AD:32:SER:O	3:AD:33:LEU:HB3	1.99	0.63
6:AG:173:LEU:O	6:AG:178:PHE:HB2	1.99	0.63
12:AP:77:LYS:HZ2	12:AP:83:MET:HA	1.59	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:A0:18:LEU:HD11	13:A0:22:ARG:CZ	2.28	0.63
31:BA:96:G:C6	31:BA:97:U:C2	2.87	0.63
31:BA:516:U:OP2	56:BA:1673:OHX:N3	2.31	0.63
31:BA:1128:C:O2'	31:BA:1130:A:N7	2.25	0.63
31:BA:1414:U:H2'	31:BA:1415:G:H8	1.64	0.63
33:BF:134:ILE:HG22	33:BF:168:ALA:HB3	1.80	0.63
33:BF:184:TYR:HD1	33:BF:201:TYR:HE2	1.45	0.63
41:BN:85:ARG:HG2	41:BN:113:PRO:HD3	1.80	0.63
47:BT:53:LEU:H	47:BT:53:LEU:HD12	1.64	0.63
52:BB:29:C:H2'	52:BB:30:A:C8	2.33	0.63
52:BD:46:G:H2'	52:BD:47:U:H6	1.64	0.63
1:CA:1832:C:OP2	3:CD:183:ARG:NH2	2.31	0.63
4:CE:37:ARG:HD3	4:CE:44:TYR:OH	1.99	0.63
4:CE:199:ARG:HB3	4:CE:200:GLU:OE1	1.99	0.63
17:C2:78:LYS:O	17:C2:79:VAL:HG13	1.99	0.63
28:C6:25:LYS:CD	30:C8:34:TRP:HZ3	2.10	0.63
31:DA:1129:C:C2	31:DA:1132:C:N4	2.66	0.63
40:DM:79:ARG:O	40:DM:83:GLU:HB2	1.98	0.63
43:DP:84:ILE:C	43:DP:86:CYS:H	2.07	0.63
52:DD:19:C:H6	52:DD:19:C:H3'	1.64	0.63
52:DD:21:A:H4'	52:DD:22:A:OP1	1.99	0.63
1:AA:509:C:OP1	56:AA:3450:OHX:N1	2.32	0.63
1:AA:974(A):C:H4'	1:AA:975:G:O5'	1.98	0.63
1:AA:1042:G:H2'	1:AA:1043:C:C6	2.34	0.63
1:AA:2733:A:C3'	1:AA:2734:A:H5"	2.28	0.63
7:AH:151:ILE:HB	7:AH:153:LYS:HD3	1.81	0.63
8:AK:21:VAL:HG21	8:AK:25:TYR:HD1	1.64	0.63
8:AK:79:ILE:HB	8:AK:142:VAL:HG12	1.81	0.63
1:CA:1201:G:OP1	16:C1:58:ARG:HD2	1.99	0.63
1:CA:2714:C:C3'	1:CA:2715:U:H5"	2.23	0.63
5:CF:53:THR:HG22	5:CF:56:GLU:CG	2.28	0.63
6:CG:114:ILE:HD11	6:CG:140:ILE:HD13	1.81	0.63
12:CP:84:GLY:O	12:CP:85:LYS:HB2	1.98	0.63
31:DA:328:C:C2'	31:DA:329:A:OP2	2.47	0.63
31:DA:1022:G:N3	31:DA:1023:G:H1'	2.13	0.63
35:DH:10:MET:HG2	35:DH:11:ILE:N	2.13	0.63
43:DP:8:GLU:OE2	43:DP:22:ILE:HA	1.99	0.63
43:DP:108:ARG:HD3	43:DP:114:ARG:HG2	1.81	0.63
52:DD:62:G:N2	52:DD:70:C:N3	2.44	0.63
1:AA:634:C:H2'	1:AA:635:C:C6	2.34	0.62
1:AA:1496:A:H8	1:AA:1577:C:HO2'	0.75	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1557:C:H5”	1:AA:1558:A:OP2	1.98	0.62
15:AR:23:ARG:NH2	15:AR:120:ARG:HD3	2.14	0.62
23:AZ:65:SER:HB2	23:AZ:66:HIS:HD2	1.63	0.62
23:AZ:83:GLU:HG2	23:AZ:85:LEU:H	1.64	0.62
27:A5:3:LYS:HE3	27:A5:3:LYS:CA	2.21	0.62
31:BA:113:G:H2’	31:BA:114:U:H6	1.64	0.62
31:BA:1502:A:H4’	31:BA:1503:A:OP2	1.98	0.62
4:CE:41:LYS:HE3	4:CE:42:ASP:OD2	1.99	0.62
31:DA:362:G:N7	56:DA:1795:OHX:N1	2.47	0.62
31:DA:1323:G:H2’	31:DA:1324:A:C8	2.34	0.62
37:DJ:143:ARG:HH11	52:DD:43:G:H5’	1.63	0.62
43:DP:5:ALA:HB2	43:DP:22:ILE:HD13	1.81	0.62
52:DB:20:C:H5”	52:DB:22:A:H5’	1.81	0.62
52:DD:16:C:H2’	52:DD:18:G:OP2	1.99	0.62
52:DD:52:G:H2’	52:DD:53:A:H8	1.63	0.62
1:AA:1545(A):A:H2’	1:AA:1546:C:H5’	1.81	0.62
6:AG:112:PRO:HB3	26:A4:37:SER:OG	1.98	0.62
7:AH:105:LEU:HD23	7:AH:105:LEU:H	1.64	0.62
10:AN:88:ASN:ND2	10:AN:92:GLU:O	2.31	0.62
11:AO:15:ARG:CG	11:AO:15:ARG:NH1	2.39	0.62
13:A0:12:ARG:CB	13:A0:16:HIS:HD2	2.12	0.62
18:AS:57:ASN:O	18:AS:61:ASN:HB2	1.98	0.62
31:BA:38:G:C2	31:BA:397:A:C2	2.86	0.62
31:BA:344:A:O2’	31:BA:345:C:OP1	2.15	0.62
37:BJ:50:ILE:HG21	37:BJ:58:PRO:HA	1.80	0.62
43:BP:82:MET:HE3	43:BP:92:HIS:HB3	1.80	0.62
52:BD:54:C:H2’	52:BD:55:U:O4’	1.98	0.62
1:CA:26:G:C6	1:CA:27:G:N1	2.68	0.62
1:CA:442:C:O2	1:CA:1896:U:O2’	2.16	0.62
1:CA:486:U:H4’	29:C7:40:TRP:CZ3	2.34	0.62
1:CA:1008:G:O2’	1:CA:1009:U:H5’	1.99	0.62
1:CA:1107:U:O4’	1:CA:1109:G:H5’	1.98	0.62
1:CA:2725:U:O2’	1:CA:2726:A:P	2.57	0.62
1:CA:2790:A:H3’	1:CA:2790:A:OP1	1.99	0.62
1:CA:2903:G:H4’	1:CA:2904:G:O5’	1.99	0.62
2:CB:54:A:H62	14:CQ:33:LYS:HG3	1.63	0.62
5:CF:32:LEU:O	5:CF:36:VAL:HG23	1.99	0.62
6:CG:28:VAL:O	6:CG:31:VAL:HG12	1.99	0.62
7:CH:6:ARG:HH21	7:CH:54:ARG:NH2	1.96	0.62
9:CM:15:LEU:HB3	9:CM:136:GLU:HA	1.80	0.62
12:CP:59:ARG:O	12:CP:60:ARG:HD2	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:C5:49:CYS:SG	27:C5:50:GLY:N	2.72	0.62
31:DA:1374:A:H2'	31:DA:1375:A:H5'	1.82	0.62
31:DA:1505:G:H4'	54:D1:13:A:H62	1.64	0.62
34:DG:112:VAL:HG12	34:DG:116:GLN:OE1	1.99	0.62
39:DL:92:TYR:HA	39:DL:95:LYS:HD2	1.81	0.62
40:DM:4:ILE:HG12	40:DM:100:THR:HG22	1.81	0.62
42:DO:52:VAL:HG22	42:DO:53:ALA:H	1.64	0.62
44:DQ:25:VAL:O	44:DQ:26:ARG:CB	2.47	0.62
52:DB:51:C:N3	52:DB:52:G:H1'	2.13	0.62
1:AA:1368:G:N7	56:AA:3566:OHX:N3	2.47	0.62
1:AA:2141:G:O6	1:AA:2150:U:O2	2.17	0.62
6:AG:135:LEU:HD23	6:AG:140:ILE:HD11	1.79	0.62
21:AV:165:VAL:HB	21:AV:166:SER:HA	1.81	0.62
30:A8:43:GLN:C	30:A8:44:LYS:HD2	2.25	0.62
31:BA:1132:C:O2'	31:BA:1133:G:H5'	1.98	0.62
52:BB:20:C:H5"	52:BB:22:A:H5'	1.81	0.62
52:BB:75:C:O2'	52:BB:76:C:P	2.57	0.62
1:CA:27:G:N2	1:CA:538:G:O2'	2.30	0.62
1:CA:596:A:H5"	1:CA:597:G:OP2	1.99	0.62
1:CA:892:C:H42	1:CA:980:G:H1	1.45	0.62
7:CH:104:GLU:HB2	7:CH:114:VAL:HG22	1.81	0.62
11:CO:66:GLY:O	11:CO:67:MET:C	2.40	0.62
12:CP:133:ARG:O	12:CP:134:ARG:HB2	1.98	0.62
15:CR:55:ASN:N	15:CR:59:THR:HG22	2.14	0.62
31:DA:363:A:O2'	31:DA:364:A:H5'	1.99	0.62
52:DB:75:C:O2'	52:DB:76:C:P	2.57	0.62
53:DC:48:U:HO2'	53:DC:49:C:P	2.19	0.62
1:AA:270(O):U:O2	1:AA:270(O):U:H2'	1.99	0.62
1:AA:654(E):C:N4	1:AA:654(P):G:H1	1.98	0.62
1:AA:1138:G:H21	9:AM:106:MET:HE3	1.63	0.62
1:AA:1537:C:H2'	1:AA:1538:G:O4'	1.99	0.62
1:AA:2837:G:H21	13:A0:45:ARG:NH2	1.97	0.62
8:AK:128:LEU:O	8:AK:138:ILE:HG22	1.98	0.62
12:AP:19:GLY:CA	12:AP:98:LYS:NZ	2.58	0.62
31:BA:68:G:N2	31:BA:69:G:H1'	2.14	0.62
31:BA:129(A):G:C2	31:BA:188:U:O2'	2.51	0.62
31:BA:280:C:H3'	31:BA:281:G:H5'	1.82	0.62
31:BA:353:A:H2'	31:BA:354:G:OP2	1.99	0.62
31:BA:629:G:N1	31:BA:630:G:O6	2.32	0.62
43:BP:25:ILE:HD11	43:BP:66:LEU:HD11	1.81	0.62
48:BU:54:ARG:HD2	48:BU:55:ARG:HH21	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BD:11:C:C2'	52:BD:12:C:H5'	2.22	0.62
1:CA:1187:U:H4'	1:CA:1189:A:O4'	1.99	0.62
1:CA:1304:C:H4'	5:CF:83:PHE:CD2	2.33	0.62
1:CA:2233:G:O6	56:CA:3275:OHX:N6	2.32	0.62
1:CA:2324:A:OP1	1:CA:2324:A:C4'	2.44	0.62
2:CB:33:C:C2'	2:CB:34:C:H5'	2.29	0.62
3:CD:206:LEU:HD22	3:CD:211:ARG:HG2	1.81	0.62
4:CE:60:ASN:O	4:CE:61:ARG:HB2	1.99	0.62
20:CU:81:LYS:HG2	20:CU:97:ARG:NE	2.15	0.62
21:CV:157:LEU:HA	21:CV:161:VAL:HG11	1.82	0.62
31:DA:28:G:O2'	31:DA:296:U:OP1	2.18	0.62
31:DA:78:G:H2'	31:DA:79:G:O4'	2.00	0.62
31:DA:145:G:H2'	31:DA:146:G:O4'	1.99	0.62
31:DA:345:C:O2	31:DA:346:G:N2	2.32	0.62
42:DO:29:PHE:HB3	42:DO:82:ILE:O	1.99	0.62
43:DP:91:ARG:HB2	43:DP:98:VAL:HG12	1.82	0.62
49:DV:80:TYR:CZ	49:DV:82:GLY:HA2	2.34	0.62
1:AA:654(S):G:H1'	1:AA:654(T):A:N7	2.15	0.62
1:AA:776:G:OP1	56:AA:3438:OHX:N2	2.32	0.62
1:AA:1408:C:C2	1:AA:1595:G:N2	2.68	0.62
1:AA:1593:G:H2'	1:AA:1594:G:C8	2.35	0.62
1:AA:1678:G:H22	1:AA:1989:G:H22	1.46	0.62
5:AF:136:THR:O	5:AF:140:LEU:HB2	1.99	0.62
11:AO:147:LEU:O	11:AO:148:LEU:HG	2.00	0.62
33:BF:12:LEU:O	33:BF:14:ILE:N	2.33	0.62
45:BR:82:ILE:O	45:BR:86:GLY:N	2.32	0.62
1:CA:67:G:H2'	1:CA:68:C:C6	2.35	0.62
1:CA:948:A:N3	1:CA:948:A:H2'	2.14	0.62
1:CA:1147:C:H2'	1:CA:1148:U:O4'	1.99	0.62
7:CH:69:ARG:NH1	7:CH:73:ALA:HB2	2.14	0.62
11:CO:16:ARG:HG3	11:CO:16:ARG:NH1	2.15	0.62
15:CR:118:ARG:NH1	31:DA:1446:A:N7	2.47	0.62
31:DA:421:U:H2'	31:DA:421:U:O2	1.99	0.62
31:DA:873:A:H4'	31:DA:874:G:OP2	2.00	0.62
50:DW:44:ALA:HB3	50:DW:91:LEU:HD12	1.82	0.62
53:DC:48:U:H1'	53:DC:49:C:O5'	2.00	0.62
1:AA:361:G:O2'	1:AA:362:U:H5'	1.99	0.62
1:AA:1045:A:H1'	1:AA:1047:G:N3	2.13	0.62
1:AA:1606:G:H5"	1:AA:1607:C:OP1	1.99	0.62
31:BA:201:C:N3	31:BA:216:G:N2	2.46	0.62
31:BA:437:U:H2'	31:BA:438:G:O4'	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:618:C:H5”	31:BA:619:U:H5”	1.82	0.62
49:BV:36:ARG:NH1	49:BV:52:TYR:O	2.32	0.62
1:CA:161:G:H2’	1:CA:162:C:C6	2.34	0.62
1:CA:612:U:H2’	1:CA:613:C:C6	2.34	0.62
1:CA:1071:G:C3’	1:CA:1072:G:H5”	2.29	0.62
1:CA:2141:U:C4	1:CA:2171:G:H4’	2.34	0.62
1:CA:2154:G:H5’	1:CA:2155:U:OP1	1.99	0.62
1:CA:2854:G:C2’	1:CA:2855:G:H5”	2.29	0.62
31:DA:17:U:H2’	31:DA:18:C:C6	2.34	0.62
31:DA:67:C:H2’	31:DA:68:G:C8	2.35	0.62
31:DA:509:A:H2’	31:DA:510:A:C8	2.34	0.62
44:DQ:45:ARG:O	44:DQ:49:HIS:HD2	1.83	0.62
50:DW:69:GLY:O	50:DW:73:HIS:HD2	1.82	0.62
1:AA:2316:C:H2’	1:AA:2317:C:H6	1.65	0.62
1:AA:2751:G:O2’	1:AA:2752:C:OP1	2.17	0.62
7:AH:151:ILE:O	7:AH:153:LYS:HD2	1.99	0.62
17:A2:47:VAL:O	17:A2:48:GLY:O	2.18	0.62
30:A8:29:LYS:HZ2	30:A8:44:LYS:HB2	1.64	0.62
31:BA:21:G:H2’	31:BA:22:G:C8	2.35	0.62
31:BA:438:G:H2’	31:BA:494:U:O4	2.00	0.62
31:BA:1124:G:H1	31:BA:1149:C:H42	1.47	0.62
44:BQ:59:ALA:O	44:BQ:60:SER:HB2	2.00	0.62
1:CA:724:A:N1	1:CA:850:A:N1	2.47	0.62
1:CA:2229:G:H3’	1:CA:2230:A:N3	2.13	0.62
1:CA:2407:C:OP1	11:CO:63:PRO:HD2	2.00	0.62
37:DJ:57:GLU:CD	37:DJ:57:GLU:H	2.07	0.62
38:DK:64:LYS:HG2	38:DK:79:VAL:HG21	1.82	0.62
52:DB:49:A:C2	52:DB:50:U:H5”	2.34	0.62
1:AA:306:U:O2	1:AA:312:G:N2	2.33	0.62
1:AA:1050:A:H2’	1:AA:1051:G:O4’	2.00	0.62
1:AA:2638:G:P	4:AE:82:ARG:NH2	2.73	0.62
3:AD:64:ILE:O	3:AD:64:ILE:HG12	1.99	0.62
21:AV:97:GLU:HA	21:AV:126:VAL:O	1.99	0.62
21:AV:105:VAL:HG13	21:AV:140:ASP:HB3	1.81	0.62
24:AW:15:LYS:HD3	24:AW:67:LYS:HZ3	1.63	0.62
31:BA:1022:G:H2’	31:BA:1023:G:O4’	1.99	0.62
31:BA:1347:G:N2	31:BA:1373:G:H2’	2.14	0.62
37:BJ:115:ARG:O	37:BJ:118:VAL:HG12	1.99	0.62
41:BN:59:TYR:CE2	41:BN:63:LEU:HD11	2.35	0.62
42:BO:44:LYS:HE3	54:B1:21:C:OP1	1.99	0.62
1:CA:155:C:N4	1:CA:161:G:N1	2.43	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:878:G:H4'	1:CA:879:G:OP2	1.99	0.62
1:CA:991:A:OP2	1:CA:991:A:H4'	1.98	0.62
3:CD:271:ILE:O	3:CD:272:ALA:HB2	2.00	0.62
4:CE:41:LYS:HG3	4:CE:42:ASP:H	1.65	0.62
8:CK:77:LEU:HD12	8:CK:78:THR:H	1.64	0.62
14:CQ:77:ALA:HB1	14:CQ:82:ILE:HD12	1.79	0.62
18:CS:51:LEU:HD22	18:CS:51:LEU:O	2.00	0.62
21:CV:14:LYS:H	21:CV:14:LYS:HZ3	1.47	0.62
26:C4:34:GLU:HG2	26:C4:35:VAL:N	2.14	0.62
31:DA:1033:G:H2'	31:DA:1034:G:O4'	1.99	0.62
31:DA:1306:A:H1'	31:DA:1332:A:C2	2.34	0.62
32:DE:155:LEU:HD12	32:DE:157:ARG:H	1.65	0.62
32:DE:178:ARG:HB2	32:DE:178:ARG:HH11	1.64	0.62
32:DE:237:ALA:H	32:DE:239:VAL:HG23	1.63	0.62
37:DJ:144:MET:HE1	52:DD:31:G:N2	2.09	0.62
45:DR:68:ARG:HH11	45:DR:68:ARG:CG	2.07	0.62
1:AA:270(T):G:OP1	23:AZ:97:LEU:HD22	2.00	0.62
1:AA:1309:G:N7	56:AA:3449:OHX:N2	2.48	0.62
1:AA:2857:G:N2	1:AA:2860:A:OP2	2.30	0.62
31:BA:87:A:H4'	31:BA:87:A:OP1	2.00	0.62
31:BA:147:G:C2	31:BA:176:C:O2	2.53	0.62
31:BA:659:U:H2'	31:BA:660:G:H8	1.64	0.62
31:BA:976:G:OP1	44:BQ:32:SER:N	2.33	0.62
31:BA:1296:C:H4'	31:BA:1302:U:C5	2.35	0.62
40:BM:46:ARG:HG2	40:BM:64:GLU:HB3	1.82	0.62
52:BB:49:A:C2	52:BB:50:U:H5"	2.34	0.62
1:CA:1890:G:N7	56:CA:3487:OHX:N4	2.48	0.62
1:CA:2320:G:O2'	1:CA:2321:G:C8	2.53	0.62
1:CA:2440:C:H5"	1:CA:2441:G:OP1	1.99	0.62
1:CA:2847:U:H2'	1:CA:2848:G:C8	2.34	0.62
6:CG:60:LEU:HD21	6:CG:92:VAL:HG11	1.82	0.62
12:CP:56:ARG:NH2	52:DB:62:G:H4'	2.14	0.62
16:C1:91:ASP:O	16:C1:92:ARG:HG3	2.00	0.62
16:C1:98:LEU:C	16:C1:100:VAL:N	2.53	0.62
37:DJ:43:PHE:CD1	37:DJ:47:CYS:HB2	2.35	0.62
49:DV:78:ARG:HD3	49:DV:78:ARG:N	2.14	0.62
1:AA:1061:U:O3'	1:AA:1070:A:H4'	2.00	0.62
1:AA:1579:A:H2'	1:AA:1580:A:C8	2.35	0.62
1:AA:1728:G:C2	1:AA:1730:U:OP2	2.53	0.62
3:AD:77:ALA:HB2	3:AD:97:TYR:CD2	2.35	0.62
6:AG:97:ASP:O	6:AG:100:TRP:N	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1026:G:C5	31:BA:1036:G:N2	2.68	0.62
31:BA:1403:C:H1'	31:BA:1500:A:N1	2.15	0.62
33:BF:189:ALA:HB3	33:BF:196:LEU:HB2	1.80	0.62
47:BT:67:LYS:O	47:BT:68:ARG:HB3	1.98	0.62
48:BU:88:LYS:NZ	48:BU:88:LYS:HB3	2.13	0.62
52:BD:21:A:H4'	52:BD:22:A:OP1	1.99	0.62
52:BD:25:G:H2'	52:BD:26:G:O4'	2.00	0.62
1:CA:1271:C:O3'	17:C2:85:LYS:HD3	2.00	0.62
1:CA:1701:G:C6	13:C0:9:LYS:HG3	2.35	0.62
2:CB:107:A:H2'	2:CB:108:G:O4'	2.00	0.62
6:CG:36:LYS:HD2	6:CG:95:ARG:HH12	1.65	0.62
6:CG:128:ARG:HG3	6:CG:128:ARG:HH21	1.65	0.62
12:CP:103:MET:HE1	12:CP:125:LEU:HD13	1.80	0.62
31:DA:1226:C:H4'	49:DV:80:TYR:OH	2.00	0.62
33:DF:18:TRP:NE1	44:DQ:55:GLY:H	1.98	0.62
34:DG:31:CYS:C	34:DG:33:MET:N	2.54	0.62
39:DL:99:LEU:HB3	39:DL:101:PHE:HE1	1.65	0.62
49:DV:12:ASP:HB3	49:DV:38:SER:HB3	1.81	0.62
1:AA:1313:U:H2'	1:AA:1610:A:N1	2.14	0.61
1:AA:1417:C:H42	1:AA:1581:G:H1	1.48	0.61
1:AA:1858:G:O6	56:AA:3559:OHX:N6	2.33	0.61
1:AA:1991:U:H2'	1:AA:1992:G:H5"	1.82	0.61
1:AA:2154:G:H2'	1:AA:2155:G:C8	2.34	0.61
9:AM:22:THR:HG22	9:AM:23:LEU:H	1.62	0.61
10:AN:43:VAL:HG12	10:AN:54:GLU:HA	1.81	0.61
14:AQ:37:ALA:HB2	14:AQ:101:LEU:HD21	1.82	0.61
1:CA:355:A:C2	1:CA:1256:A:O2'	2.47	0.61
1:CA:895:U:O4	1:CA:979:A:C6	2.53	0.61
1:CA:1132:A:C4'	1:CA:1133:A:OP1	2.48	0.61
1:CA:2433:C:OP2	30:C8:33:ASN:HB2	1.99	0.61
2:CB:34:C:H42	2:CB:52:G:H1	1.47	0.61
7:CH:166:GLY:O	7:CH:167:GLU:HG2	2.01	0.61
11:CO:105:LEU:O	11:CO:106:LEU:HB3	2.00	0.61
17:C2:85:LYS:CG	17:C2:87:HIS:H	2.02	0.61
20:CU:50:ARG:HB3	20:CU:53:PRO:HG3	1.81	0.61
21:CV:52:SER:C	21:CV:54:HIS:H	2.07	0.61
26:C4:34:GLU:CD	26:C4:34:GLU:H	2.08	0.61
31:DA:1027:C:N3	31:DA:1035:A:N6	2.48	0.61
35:DH:8:GLU:HG2	35:DH:34:VAL:HG23	1.82	0.61
40:DM:37:PRO:HA	40:DM:72:VAL:HG22	1.82	0.61
48:DU:22:VAL:O	48:DU:23:LYS:HB3	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DD:46:G:H2'	52:DD:47:U:C6	2.35	0.61
1:AA:2344:U:O2'	28:A6:37:ARG:HG2	1.99	0.61
4:AE:117:MET:CE	4:AE:136:ARG:HA	2.29	0.61
15:AR:62:THR:HG22	15:AR:75:ILE:HG12	1.82	0.61
31:BA:73:G:C6	31:BA:97:U:O2	2.53	0.61
31:BA:192:U:O3'	50:BW:57:ARG:HD2	2.00	0.61
36:BI:39:LYS:HB3	36:BI:62:TRP:HZ3	1.65	0.61
43:BP:81:LEU:O	43:BP:84:ILE:HG22	1.99	0.61
52:BB:23:A:H2'	52:BB:24:G:C5'	2.30	0.61
1:CA:1102:G:O6	1:CA:1151:C:N3	2.33	0.61
1:CA:1200:C:H2'	1:CA:1201:G:O4'	2.00	0.61
1:CA:2358:G:N3	1:CA:2394:C:H2'	2.15	0.61
1:CA:2452:A:H3'	1:CA:2452:A:P	2.40	0.61
1:CA:2524:U:OP1	56:CA:3399:OHX:N2	2.33	0.61
5:CF:167:ALA:HB1	5:CF:173:VAL:HG11	1.82	0.61
14:CQ:110:LEU:HD22	14:CQ:111:GLU:N	2.15	0.61
15:CR:107:ASP:OD2	15:CR:109:GLU:HB2	2.01	0.61
20:CU:62:GLU:CD	20:CU:63:LYS:H	2.08	0.61
27:C5:41:PRO:O	27:C5:44:THR:OG1	2.18	0.61
31:DA:1095:U:H5"	31:DA:1109:C:O2	1.99	0.61
31:DA:1118:C:OP1	39:DL:104:ARG:NH1	2.33	0.61
31:DA:1149:C:H2'	31:DA:1150:U:O4'	2.00	0.61
1:AA:507:A:C5'	1:AA:508:G:H5'	2.30	0.61
1:AA:539:G:H2'	1:AA:540:G:H5"	1.82	0.61
1:AA:2124:G:H1	1:AA:2174:C:N4	1.98	0.61
8:AK:133:HIS:O	8:AK:134:PRO:C	2.42	0.61
9:AM:56:ASN:N	9:AM:125:GLY:O	2.30	0.61
18:AS:28:SER:OG	18:AS:31:GLU:HG2	2.00	0.61
31:BA:1116:C:H2'	31:BA:1117:G:H5'	1.81	0.61
31:BA:1124:G:O2'	40:BM:38:ILE:HD12	1.99	0.61
49:BV:51:VAL:HG12	49:BV:52:TYR:N	2.15	0.61
52:BD:14:A:C3'	52:BD:15:G:H5"	2.25	0.61
52:BD:19:C:H3'	52:BD:19:C:H6	1.66	0.61
1:CA:660:C:H2'	1:CA:661:C:H6	1.64	0.61
1:CA:1767:G:N7	1:CA:1770:G:N2	2.47	0.61
1:CA:2891:C:H1'	13:C0:92:GLY:HA3	1.81	0.61
4:CE:66:HIS:C	4:CE:68:ALA:H	2.07	0.61
18:CS:64:MET:HE3	18:CS:109:GLU:HG3	1.81	0.61
20:CU:84:ARG:HH21	20:CU:97:ARG:HB2	1.65	0.61
22:C3:66:VAL:HG12	22:C3:67:VAL:N	2.15	0.61
24:CW:48:HIS:CD2	24:CW:48:HIS:C	2.78	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:C8:60:LEU:C	30:C8:61:LEU:HG	2.24	0.61
31:DA:243:A:H1'	31:DA:244:U:OP2	2.00	0.61
43:DP:3:ARG:HG2	43:DP:9:ILE:CG1	2.30	0.61
1:AA:1291:C:C5'	1:AA:1536:A:H5'	2.31	0.61
1:AA:1794:U:H2'	1:AA:1795:C:H6	1.63	0.61
1:AA:2162:G:H2'	1:AA:2163:C:O4'	2.00	0.61
6:AG:145:THR:O	6:AG:146:TYR:HB3	1.99	0.61
18:AS:40:ASN:O	18:AS:41:LYS:HG2	2.00	0.61
31:BA:95:G:H3'	31:BA:96:G:C8	2.35	0.61
32:BE:22:LYS:HZ3	32:BE:22:LYS:HA	1.66	0.61
52:BB:26:G:H5'	52:BB:27:A:OP2	2.00	0.61
1:CA:9:U:C4	1:CA:2642:A:C6	2.88	0.61
1:CA:33:U:H4'	1:CA:34:C:OP1	2.00	0.61
1:CA:1110:G:H2'	1:CA:1111:C:O4'	2.00	0.61
3:CD:31:LYS:HE2	3:CD:94:LEU:HD11	1.81	0.61
11:CO:59:LEU:O	11:CO:59:LEU:HD23	1.99	0.61
11:CO:61:ARG:CA	11:CO:62:LEU:HD22	2.30	0.61
19:CT:12:VAL:HG12	19:CT:28:PHE:HA	1.83	0.61
31:DA:7:G:H5'	31:DA:298:A:O4'	1.99	0.61
52:DB:55:U:H2'	52:DB:56:U:O4'	2.00	0.61
1:AA:481:G:H1'	1:AA:507:A:N1	2.14	0.61
1:AA:1496:A:H5'	1:AA:1497:U:OP1	2.00	0.61
1:AA:1932:A:OP2	56:AA:3154:OHX:N3	2.34	0.61
1:AA:2317:C:H2'	1:AA:2318:G:C5'	2.27	0.61
1:AA:2865:U:C4	1:AA:2866:U:C4	2.88	0.61
7:AH:149:ARG:HG3	7:AH:162:ILE:O	2.01	0.61
14:AQ:48:LEU:HD23	14:AQ:82:ILE:HD11	1.81	0.61
16:A1:69:CYS:O	16:A1:74:LEU:HD12	2.00	0.61
16:A1:79:PHE:HD2	16:A1:79:PHE:C	2.08	0.61
31:BA:377:G:H5'	46:BS:5:ARG:HH12	1.66	0.61
31:BA:827:U:H5'	31:BA:828:A:OP2	2.01	0.61
52:BD:57:C:H4'	52:BD:58:G:O5'	1.99	0.61
54:B1:11:U:H2'	54:B1:12:A:C4	2.36	0.61
1:CA:985:G:O6	56:CA:3351:OHX:N3	2.33	0.61
1:CA:2417:C:C1'	11:CO:67:MET:HE1	2.22	0.61
1:CA:2525:C:H2'	1:CA:2526:G:O4'	2.01	0.61
1:CA:2550:U:H2'	1:CA:2551:C:C6	2.35	0.61
3:CD:186:HIS:HD2	3:CD:188:GLU:H	1.48	0.61
4:CE:9:VAL:HG23	4:CE:10:GLY:H	1.66	0.61
10:CN:35:VAL:HG11	10:CN:103:ALA:HB3	1.80	0.61
18:CS:15:ARG:O	18:CS:19:LEU:HD22	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:CW:16:LEU:HD12	24:CW:16:LEU:O	2.00	0.61
31:DA:993:G:O6	31:DA:1045:C:N3	2.33	0.61
31:DA:1446:A:OP1	31:DA:1446:A:H4'	2.00	0.61
31:DA:1460:A:H2'	31:DA:1461:G:O4'	2.00	0.61
32:DE:97:TRP:HZ3	32:DE:99:GLY:HA2	1.65	0.61
34:DG:7:PRO:HB2	34:DG:10:ARG:HD2	1.82	0.61
37:DJ:97:GLN:O	37:DJ:101:LEU:HG	2.01	0.61
38:DK:109:ILE:HG12	38:DK:110:ALA:N	2.16	0.61
39:DL:28:VAL:HA	39:DL:63:ILE:O	2.01	0.61
52:DB:23:A:H2'	52:DB:24:G:C5'	2.29	0.61
1:AA:654(R):C:N4	1:AA:654(S):G:O6	2.34	0.61
1:AA:896:A:O2'	1:AA:897:C:OP2	2.15	0.61
1:AA:910:A:C8	12:AP:13:GLN:HG3	2.35	0.61
1:AA:1534:G:N2	1:AA:1537:C:H42	1.98	0.61
9:AM:57:ALA:O	9:AM:58:ASP:HB3	1.99	0.61
15:AR:27:THR:HG23	15:AR:90:GLN:HB3	1.81	0.61
17:A2:38:LEU:HD23	17:A2:39:LEU:N	2.15	0.61
28:A6:47:THR:HG22	28:A6:48:VAL:H	1.66	0.61
31:BA:405:U:H3'	31:BA:406:G:H5'	1.83	0.61
33:BF:184:TYR:HD1	33:BF:201:TYR:CE2	2.18	0.61
34:BG:19:LEU:H	34:BG:19:LEU:CD2	2.10	0.61
37:BJ:56:GLN:HE21	37:BJ:56:GLN:HA	1.65	0.61
38:BK:82:HIS:C	38:BK:82:HIS:CD2	2.78	0.61
1:CA:400:G:O2'	1:CA:401:U:OP2	2.17	0.61
1:CA:2214:G:H2'	1:CA:2215:G:O4'	2.00	0.61
6:CG:18:GLU:O	6:CG:22:ARG:HG2	2.01	0.61
7:CH:15:VAL:HG12	7:CH:29:PRO:HD2	1.81	0.61
18:CS:12:ILE:HD13	18:CS:17:VAL:HG23	1.81	0.61
20:CU:30:VAL:O	20:CU:31:LEU:HG	2.01	0.61
31:DA:656:C:H42	31:DA:750:G:H1	1.47	0.61
31:DA:838:G:N1	31:DA:842:C:H1'	2.15	0.61
31:DA:1310:G:H5'	43:DP:77:ASN:ND2	2.14	0.61
32:DE:12:GLU:HB3	32:DE:213:LEU:HD13	1.81	0.61
34:DG:126:ILE:HG22	34:DG:127:THR:N	2.15	0.61
36:DI:45:LEU:HD21	36:DI:57:GLN:NE2	2.15	0.61
39:DL:26:VAL:HG22	39:DL:61:ALA:HB3	1.82	0.61
49:DV:66:MET:HA	49:DV:67:VAL:C	2.22	0.61
53:DC:48:U:O2'	53:DC:49:C:P	2.59	0.61
1:AA:15:G:O2'	1:AA:16:G:H5'	2.00	0.61
1:AA:205:G:O2'	1:AA:206:U:OP2	2.17	0.61
1:AA:654(D):G:N1	1:AA:654(Q):C:N4	2.23	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1899:G:H21	1:AA:1902:C:H5	1.46	0.61
1:AA:2701:C:C3'	1:AA:2702:U:H5"	2.27	0.61
21:AV:7:ALA:HB2	21:AV:59:LEU:HD22	1.83	0.61
31:BA:960:U:H2'	31:BA:960:U:O2	1.99	0.61
31:BA:1023:G:H3'	31:BA:1024:G:C5'	2.30	0.61
31:BA:1306:A:N6	31:BA:1331:G:H1'	2.16	0.61
37:BJ:150:ALA:HB2	41:BN:50:TYR:HE1	1.65	0.61
40:BM:9:ARG:NH2	40:BM:97:GLU:HG3	2.16	0.61
53:BC:47:G:H5"	53:BC:48:U:OP1	2.00	0.61
1:CA:299:G:H2'	1:CA:300:G:C8	2.35	0.61
1:CA:514:C:C2'	1:CA:515:G:H5'	2.31	0.61
1:CA:2085:A:C6	1:CA:2516:A:N6	2.67	0.61
1:CA:2415:C:H41	1:CA:2429:C:H1'	1.65	0.61
1:CA:2765:G:H5'	1:CA:2766:C:OP2	2.01	0.61
31:DA:827:U:H3	31:DA:872:A:H62	1.49	0.61
32:DE:190:THR:O	32:DE:191:ASP:HB3	2.00	0.61
43:DP:92:HIS:CE1	43:DP:98:VAL:HG11	2.34	0.61
49:DV:66:MET:N	49:DV:67:VAL:HB	2.15	0.61
1:AA:121:G:N7	56:AA:3513:OHX:N3	2.49	0.61
1:AA:414:C:H1'	1:AA:1864:U:H1'	1.83	0.61
1:AA:513:A:OP1	56:AA:3430:OHX:N4	2.33	0.61
1:AA:546:C:H5'	1:AA:547:A:OP2	2.01	0.61
1:AA:1057:A:H2'	1:AA:1058:U:C6	2.36	0.61
1:AA:2015:A:C4'	27:A5:2:ALA:CB	2.78	0.61
1:AA:2126:A:N6	1:AA:2163:C:O2'	2.34	0.61
1:AA:2140:C:N4	1:AA:2151:G:H1	1.98	0.61
1:AA:2292:C:O2'	1:AA:2293:C:H5'	2.01	0.61
1:AA:2875:C:O2'	15:AR:5:ALA:HB3	2.01	0.61
9:AM:47:ALA:HB2	9:AM:112:LEU:HD11	1.83	0.61
26:A4:63:TYR:OH	49:BV:41:VAL:O	2.09	0.61
31:BA:510:A:OP2	34:BG:49:ARG:NH2	2.33	0.61
33:BF:95:THR:HG22	33:BF:97:LYS:H	1.65	0.61
33:BF:130:VAL:O	33:BF:134:ILE:HG12	2.01	0.61
38:BK:102:ARG:HG2	38:BK:102:ARG:O	2.00	0.61
53:BC:48:U:H1'	53:BC:49:C:O5'	2.00	0.61
6:CG:83:ARG:HB2	6:CG:86:MET:HE3	1.83	0.61
8:CK:5:LEU:HD21	8:CK:12:LEU:HD23	1.82	0.61
11:CO:71:VAL:CG1	11:CO:72:PRO:CD	2.57	0.61
31:DA:177:C:H2'	31:DA:178:C:H6	1.64	0.61
31:DA:1004:A:C2	31:DA:1024:G:C8	2.89	0.61
53:DC:16:C:O2	53:DC:61:U:H4'	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DD:57:C:H4'	52:DD:58:G:O5'	1.99	0.61
1:AA:302:C:H2'	1:AA:303:U:C6	2.34	0.61
1:AA:1060:U:H5'	1:AA:1061:U:H5	1.64	0.61
1:AA:1382:G:C2'	1:AA:1383:C:H5'	2.31	0.61
1:AA:1478:G:H2'	1:AA:1479:G:H8	1.66	0.61
1:AA:2168:G:N2	1:AA:2170:A:N6	2.48	0.61
1:AA:2402:C:OP1	1:AA:2402:C:H4'	2.01	0.61
1:AA:2688:U:H5	1:AA:2720:U:OP2	1.82	0.61
21:AV:127:LYS:O	21:AV:161:VAL:HG21	1.99	0.61
24:AW:22:GLU:OE2	24:AW:68:ARG:NH2	2.34	0.61
31:BA:950:U:H2'	31:BA:951:G:H8	1.66	0.61
50:BW:26:ASN:N	50:BW:26:ASN:HD22	1.98	0.61
52:BD:1:G:C2	52:BD:82:A:C2	2.88	0.61
52:BD:51:C:C4	52:BD:52:G:H1'	2.36	0.61
1:CA:347:A:OP2	5:CF:169:ASN:HB2	2.00	0.61
1:CA:470:A:OP2	1:CA:640:G:N2	2.30	0.61
1:CA:722:G:P	5:CF:54:ARG:HH22	2.22	0.61
1:CA:1389:A:N6	1:CA:1649:U:N3	2.48	0.61
1:CA:2166:C:N4	1:CA:2171:G:N1	2.23	0.61
9:CM:35:ARG:HB2	9:CM:42:TRP:CH2	2.36	0.61
16:C1:92:ARG:C	16:C1:94:ASN:H	2.07	0.61
21:CV:16:SER:O	21:CV:20:ARG:HG3	2.01	0.61
23:CZ:91:LYS:O	23:CZ:93:GLU:HG2	2.01	0.61
26:C4:49:PHE:C	26:C4:51:ASP:H	2.08	0.61
31:DA:186(E):C:H42	31:DA:191(B):G:H1	1.47	0.61
31:DA:359:U:H2'	31:DA:360:A:C8	2.35	0.61
31:DA:913:A:H1'	31:DA:914:A:OP2	2.00	0.61
31:DA:1160:G:H1	31:DA:1177:G:H21	1.45	0.61
1:AA:637:A:H4'	1:AA:638:G:O5'	1.99	0.61
1:AA:989:G:N7	25:AX:13:ILE:HD11	2.16	0.61
1:AA:1545(A):A:H2'	1:AA:1546:C:C5'	2.31	0.61
10:AN:87:ILE:HD12	10:AN:91:LEU:HA	1.83	0.61
11:AO:50:ARG:HD3	30:A8:7:HIS:CD2	2.36	0.61
31:BA:792:A:N3	31:BA:794:A:N6	2.48	0.61
31:BA:1149:C:H2'	31:BA:1150:U:C6	2.35	0.61
1:CA:10:G:C6	1:CA:2642:A:N6	2.69	0.61
1:CA:218:A:H2'	1:CA:220:U:O4'	2.01	0.61
1:CA:729:G:OP2	56:CA:3300:OHX:N5	2.33	0.61
1:CA:2103:G:O2'	1:CA:2104:C:H5'	2.01	0.61
1:CA:2152:C:C4	1:CA:2153:U:C4	2.88	0.61
3:CD:65:ILE:HD11	3:CD:67:PHE:CE2	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CE:41:LYS:HG3	4:CE:42:ASP:N	2.14	0.61
4:CE:197:ILE:HD11	4:CE:199:ARG:HG3	1.81	0.61
9:CM:134:ARG:HG2	9:CM:134:ARG:O	1.98	0.61
15:CR:60:THR:HG22	15:CR:77:PRO:HA	1.83	0.61
19:CT:12:VAL:CG1	19:CT:28:PHE:HA	2.31	0.61
31:DA:861:G:H2'	31:DA:862:C:H6	1.66	0.61
47:DT:68:ARG:H	47:DT:70:ARG:HH11	1.48	0.61
1:AA:558:G:OP1	9:AM:111:PRO:HD2	2.00	0.60
1:AA:2199:A:H3'	1:AA:2205:C:H6	1.64	0.60
1:AA:2680:C:H5'	4:AE:189:PRO:HA	1.83	0.60
1:AA:2788:C:O2'	1:AA:2809:A:N3	2.32	0.60
2:AB:50:G:OP1	14:AQ:63:THR:HG23	2.02	0.60
11:AO:19:VAL:HG23	11:AO:27:HIS:HB3	0.69	0.60
13:A0:44:LEU:O	13:A0:45:ARG:C	2.43	0.60
19:AT:15:GLU:CD	19:AT:15:GLU:H	2.08	0.60
31:BA:411:A:C6	31:BA:429:U:C4	2.88	0.60
31:BA:615:C:C2	31:BA:616:G:C8	2.89	0.60
33:BF:12:LEU:C	33:BF:14:ILE:N	2.59	0.60
33:BF:35:GLU:O	33:BF:39:ILE:HG13	2.01	0.60
37:BJ:107:ALA:HB3	37:BJ:134:ALA:HB2	1.82	0.60
1:CA:992:G:O2'	1:CA:993:G:H5'	2.00	0.60
1:CA:1339:U:H2'	1:CA:1340:C:H6	1.66	0.60
1:CA:2800:U:H4'	4:CE:64:LYS:C	2.26	0.60
12:CP:78:PRO:O	12:CP:79:LEU:O	2.19	0.60
31:DA:77:C:H2'	31:DA:78:G:H5'	1.83	0.60
31:DA:129(A):G:C6	31:DA:188:U:H4'	2.36	0.60
31:DA:455:C:N4	31:DA:477:G:H1	1.99	0.60
31:DA:1499:A:H1'	31:DA:1520:G:H5'	1.83	0.60
39:DL:43:ALA:HA	39:DL:74:ILE:HG21	1.82	0.60
1:AA:943:U:OP2	11:AO:36:LYS:HG3	2.00	0.60
1:AA:1026:U:C4'	1:AA:1027:A:OP1	2.49	0.60
1:AA:1084:A:H8	1:AA:1105:U:O2'	1.83	0.60
1:AA:1474:C:H2'	1:AA:1475:G:H8	1.66	0.60
1:AA:2199:A:H5'	23:AZ:50:ARG:HH21	1.65	0.60
7:AH:25:LYS:HG2	7:AH:34:GLU:HG2	1.82	0.60
9:AM:1:MET:HE2	17:A2:13:ARG:H	1.65	0.60
12:AP:51:ARG:O	12:AP:55:VAL:HG12	2.01	0.60
27:A5:58:LEU:HD22	27:A5:60:VAL:HG12	1.82	0.60
31:BA:978:A:OP2	31:BA:1362(A):C:N4	2.32	0.60
31:BA:1004:A:C5'	31:BA:1025:U:N3	2.62	0.60
38:BK:87:SER:HB2	38:BK:93:VAL:HB	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BW:26:ASN:HD22	50:BW:26:ASN:H	1.49	0.60
1:CA:656:G:OP2	30:C8:15:LYS:NZ	2.29	0.60
1:CA:908:U:H2'	1:CA:909:A:H8	1.65	0.60
1:CA:1089:G:H2'	1:CA:1090:C:C6	2.36	0.60
1:CA:1132:A:H4'	1:CA:1133:A:OP1	2.01	0.60
3:CD:30:GLU:HG3	3:CD:63:ARG:CZ	2.32	0.60
20:CU:76:CYS:CB	20:CU:96:ILE:HD11	2.30	0.60
21:CV:94:GLU:O	21:CV:130:PRO:HD3	2.01	0.60
26:C4:22:ILE:H	26:C4:22:ILE:HD13	1.67	0.60
31:DA:384:G:H2'	31:DA:385:C:C6	2.35	0.60
31:DA:1503:A:N6	54:D1:12:A:C4	2.69	0.60
42:DO:79:VAL:HB	42:DO:102:TYR:HB3	1.83	0.60
52:DB:46:G:C2'	52:DB:47:U:H5'	2.31	0.60
1:AA:271(B):G:H4'	1:AA:271(C):U:C5'	2.32	0.60
1:AA:654:A:N3	1:AA:654:A:H2'	2.16	0.60
1:AA:1043:C:H2'	1:AA:1044:G:H5'	1.83	0.60
1:AA:1111:A:H4'	7:AH:3:ARG:HH11	1.66	0.60
1:AA:1312:U:H1'	1:AA:1313:U:OP2	2.00	0.60
1:AA:1945:G:OP1	56:AA:3368:OHX:N2	2.34	0.60
8:AK:78:THR:HG22	8:AK:141:LYS:HB3	1.82	0.60
11:AO:9:ASN:O	11:AO:10:PRO:C	2.43	0.60
21:AV:9:TYR:CE1	21:AV:35:ARG:HD3	2.36	0.60
30:A8:34:TRP:C	30:A8:34:TRP:CD1	2.80	0.60
31:BA:792:A:N3	31:BA:792:A:H2'	2.16	0.60
39:BL:59:PHE:HZ	39:BL:88:TYR:HE1	1.49	0.60
1:CA:1626:U:H2'	1:CA:1627:A:H5'	1.82	0.60
1:CA:2872:G:N7	56:CA:3236:OHX:N6	2.49	0.60
13:C0:13:HIS:CE1	13:C0:15:SER:HB3	2.35	0.60
13:C0:21:TYR:CZ	13:C0:43:GLU:HG2	2.36	0.60
20:CU:14:LEU:HD11	20:CU:22:GLY:HA2	1.82	0.60
21:CV:107:THR:H	21:CV:108:PRO:HD2	1.67	0.60
31:DA:972:C:H4'	40:DM:57:LYS:HB2	1.83	0.60
31:DA:1064:G:N2	31:DA:1190:G:H2'	2.17	0.60
31:DA:1337:G:H5"	31:DA:1338:G:OP1	2.01	0.60
42:DO:38:ARG:HH12	42:DO:40:VAL:HG22	1.67	0.60
52:DD:23:A:H3'	52:DD:24:G:C8	2.31	0.60
1:AA:1359:A:C2	1:AA:1372:U:O4	2.55	0.60
1:AA:2257:U:O2'	1:AA:2258:C:H5'	2.02	0.60
12:AP:37:LEU:HD21	12:AP:130:LYS:HE3	1.82	0.60
16:A1:92:ARG:HB3	17:A2:11:GLN:NE2	2.16	0.60
27:A5:51:TYR:C	27:A5:56:LYS:HE2	2.26	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1281:U:H4'	31:BA:1282:C:OP2	2.02	0.60
41:BN:91:ARG:NH2	48:BU:88:LYS:HE3	2.17	0.60
53:BC:54:G:H2'	53:BC:55:U:H6	1.66	0.60
1:CA:1107:U:C2	1:CA:1135:A:H8	2.20	0.60
1:CA:2251:G:N3	1:CA:2251:G:H2'	2.16	0.60
1:CA:2701:U:H3'	1:CA:2701:U:O2	2.00	0.60
1:CA:2787:C:OP1	4:CE:166:THR:OG1	2.20	0.60
2:CB:15:A:H5"	2:CB:17:A:N6	2.16	0.60
2:CB:42:U:H1'	2:CB:47:A:N6	2.17	0.60
3:CD:35:LYS:HE3	3:CD:64:ILE:O	2.00	0.60
31:DA:1003:G:H1	31:DA:1037:C:H42	1.48	0.60
33:DF:130:VAL:O	33:DF:134:ILE:HG12	2.01	0.60
41:DN:93:GLN:HA	41:DN:93:GLN:HE21	1.66	0.60
44:DQ:21:TYR:HE2	44:DQ:23:ARG:HH21	1.49	0.60
1:AA:628:G:H2'	1:AA:629:G:H8	1.66	0.60
1:AA:1060:U:H5'	1:AA:1061:U:C5	2.37	0.60
1:AA:1210:A:H4'	1:AA:1211:U:O5'	2.01	0.60
3:AD:6:PHE:HE1	3:AD:18:VAL:HG23	1.67	0.60
5:AF:123:LEU:HD12	5:AF:124:LEU:N	2.15	0.60
15:AR:54:ARG:HA	15:AR:59:THR:HG22	1.83	0.60
28:A6:30:THR:HA	28:A6:31:PRO:C	2.26	0.60
31:BA:324:G:N7	56:BA:1795:OHX:N3	2.49	0.60
31:BA:871:U:H1'	31:BA:872:A:OP1	2.01	0.60
31:BA:983:A:H5"	31:BA:984:C:OP2	2.01	0.60
32:BE:163:PHE:CD2	32:BE:185:ILE:HG13	2.36	0.60
41:BN:21:ILE:HG12	41:BN:30:VAL:HG12	1.82	0.60
46:BS:38:TYR:CD2	46:BS:38:TYR:N	2.69	0.60
52:BD:47:U:C2	52:BD:48:C:C5	2.90	0.60
1:CA:1173:A:OP1	1:CA:1173:A:H8	1.83	0.60
1:CA:2402:G:H5"	1:CA:2403:U:H5'	1.82	0.60
1:CA:2725:U:H1'	1:CA:2726:A:C8	2.35	0.60
1:CA:2765:G:C6	7:CH:2:SER:HB3	2.35	0.60
18:CS:59:VAL:HG23	18:CS:65:LEU:H	1.66	0.60
26:C4:60:GLN:HE22	49:DV:66:MET:HE1	1.67	0.60
31:DA:128:G:H4'	47:DT:3:LYS:HG2	1.83	0.60
31:DA:502:G:OP1	42:DO:115:SER:HB3	2.02	0.60
31:DA:577:G:C8	31:DA:816:A:C6	2.90	0.60
31:DA:781:A:C3'	31:DA:782:A:H5'	2.31	0.60
31:DA:836:G:C6	31:DA:851:G:C6	2.90	0.60
31:DA:1054:C:O2'	31:DA:1055:A:O5'	2.14	0.60
31:DA:1151:A:H5'	40:DM:41:PRO:HA	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1411:C:H2'	31:DA:1412:C:H6	1.64	0.60
36:DI:76:ALA:HB1	36:DI:80:ARG:HH21	1.65	0.60
40:DM:38:ILE:HB	40:DM:71:LEU:O	2.01	0.60
1:AA:528:A:H2	1:AA:2043:C:H4'	1.66	0.60
1:AA:2629:A:N6	1:AA:2895:U:C2	2.69	0.60
4:AE:68:ALA:C	4:AE:70:ALA:H	2.09	0.60
6:AG:99:MET:HG3	6:AG:100:TRP:N	2.16	0.60
11:AO:66:GLY:HA2	11:AO:68:GLN:HE22	1.65	0.60
15:AR:102:ILE:HB	15:AR:110:ILE:HD13	1.82	0.60
15:AR:108:ARG:HA	15:AR:111:ARG:HE	1.67	0.60
21:AV:6:LYS:O	21:AV:7:ALA:HB2	2.01	0.60
31:BA:22:G:H2'	31:BA:23:C:C6	2.37	0.60
31:BA:966:G:O2'	39:BL:127:LYS:O	2.18	0.60
31:BA:991:U:O2	31:BA:991:U:H2'	2.01	0.60
32:BE:32:ILE:HD11	32:BE:40:HIS:CG	2.37	0.60
32:BE:185:ILE:CG2	32:BE:199:TYR:HB2	2.30	0.60
32:BE:233:SER:OG	32:BE:234:PRO:HD2	2.02	0.60
33:BF:95:THR:HG22	33:BF:96:GLY:N	2.16	0.60
42:BO:43:LYS:HG2	42:BO:44:LYS:N	2.14	0.60
43:BP:105:THR:OG1	43:BP:106:ASN:N	2.32	0.60
50:BW:22:ARG:O	50:BW:26:ASN:ND2	2.34	0.60
1:CA:2762:A:N7	1:CA:2768:U:O4	2.34	0.60
3:CD:35:LYS:CD	3:CD:104:TYR:CD1	2.80	0.60
5:CF:28:ILE:HA	5:CF:112:MET:HE3	1.83	0.60
8:CK:75:LEU:HD23	8:CK:76:THR:N	2.17	0.60
12:CP:116:GLU:O	12:CP:117:ALA:CB	2.50	0.60
30:C8:35:GLN:HE21	30:C8:36:LYS:H	1.48	0.60
31:DA:31:G:H1'	31:DA:32:A:OP1	2.02	0.60
31:DA:539:A:H2'	31:DA:540:G:C8	2.36	0.60
31:DA:793:U:H5'	31:DA:794:A:O5'	2.01	0.60
32:DE:17:PHE:HZ	32:DE:47:THR:HG21	1.67	0.60
32:DE:28:PHE:CZ	32:DE:189:ASP:HA	2.36	0.60
1:AA:222:A:H1'	1:AA:223:A:OP1	2.02	0.60
1:AA:304:G:H2'	1:AA:305:U:C6	2.37	0.60
2:AB:29:A:OP2	14:AQ:32:LEU:HD12	2.01	0.60
3:AD:31:LYS:HE2	3:AD:102:LYS:HD2	1.81	0.60
3:AD:35:LYS:HE3	3:AD:63:ARG:C	2.26	0.60
7:AH:86:GLU:O	7:AH:87:LEU:HB2	2.00	0.60
7:AH:92:ILE:HG22	7:AH:93:GLY:N	2.16	0.60
28:A6:23:THR:O	56:A6:101:OHX:N3	2.35	0.60
31:BA:35:G:H2'	31:BA:36:C:C6	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BE:90:MET:HE2	32:BE:90:MET:HA	1.82	0.60
37:BJ:44:TYR:HA	37:BJ:47:CYS:HB2	1.82	0.60
41:BN:34:ASP:HB2	41:BN:35:PRO:HD2	1.82	0.60
44:BQ:23:ARG:NH1	44:BQ:30:ALA:HB2	2.17	0.60
1:CA:15:G:H1	1:CA:551:U:H3	1.49	0.60
1:CA:1123:C:H2'	1:CA:1124:A:H5'	1.83	0.60
1:CA:1640:G:H2'	1:CA:1641:G:C8	2.37	0.60
1:CA:2452:A:O2'	1:CA:2453:C:OP2	2.17	0.60
3:CD:35:LYS:CG	3:CD:64:ILE:HG12	2.31	0.60
11:CO:57:THR:O	11:CO:59:LEU:N	2.34	0.60
15:CR:34:VAL:HG12	15:CR:36:GLU:H	1.67	0.60
27:C5:36:CYS:SG	27:C5:49:CYS:HB3	2.42	0.60
31:DA:182:U:O4	31:DA:223:U:H1'	2.01	0.60
31:DA:1129:C:H4'	31:DA:1130:A:O5'	2.00	0.60
31:DA:1206:G:H4'	33:DF:192:THR:C	2.26	0.60
31:DA:1316:G:H22	31:DA:1319:A:P	2.25	0.60
31:DA:1488:G:H2'	31:DA:1489:G:C8	2.37	0.60
32:DE:7:VAL:O	32:DE:8:LYS:HB2	2.01	0.60
48:DU:29:PHE:HD1	48:DU:39:VAL:HG11	1.67	0.60
54:D1:13:A:C2'	54:D1:14:A:OP1	2.49	0.60
1:AA:227:A:H5'	11:AO:76:LYS:HE2	1.82	0.60
1:AA:885:C:C2	1:AA:890:A:N6	2.67	0.60
1:AA:1264:G:H5'	27:A5:11:THR:HG21	1.83	0.60
1:AA:2272:U:H5'	1:AA:2273:A:OP1	2.02	0.60
1:AA:2636:U:OP1	4:AE:79:ARG:HG3	2.02	0.60
3:AD:12:SER:O	3:AD:16:MET:HB2	2.01	0.60
8:AK:33:ARG:HB3	8:AK:35:LEU:HD22	1.81	0.60
9:AM:22:THR:CG2	9:AM:23:LEU:N	2.65	0.60
20:AU:95:LYS:HE2	20:AU:96:ILE:O	2.02	0.60
31:BA:316:G:C2	31:BA:338:A:C2	2.89	0.60
31:BA:1402:C:H2'	31:BA:1403:C:O4'	2.00	0.60
32:BE:229:VAL:HG12	32:BE:230:VAL:N	2.17	0.60
33:BF:83:ARG:O	33:BF:86:VAL:HG22	2.02	0.60
37:BJ:84:ASN:O	52:BD:38:MIA:H151	2.01	0.60
39:BL:50:LEU:HB3	39:BL:55:ALA:O	2.02	0.60
40:BM:90:LEU:N	40:BM:91:PRO:HD3	2.16	0.60
50:BW:71:THR:HG22	50:BW:72:LEU:N	2.14	0.60
52:BB:23:A:C6	52:BB:24:G:N7	2.70	0.60
53:BC:24:C:H2'	53:BC:25:U:H6	1.67	0.60
1:CA:482:C:N3	1:CA:499:A:H2'	2.16	0.60
1:CA:604:C:H2'	1:CA:605:C:H6	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:715:U:O2	30:C8:2:PRO:HD2	2.02	0.60
1:CA:1528:G:C2	1:CA:1529:U:O2	2.54	0.60
1:CA:2734:U:N3	1:CA:2884:A:C6	2.69	0.60
4:CE:169:ASN:OD1	4:CE:203:LYS:HB3	2.01	0.60
6:CG:99:MET:O	6:CG:103:LEU:HB2	2.02	0.60
9:CM:28:THR:HA	9:CM:106:MET:HE1	1.84	0.60
11:CO:105:LEU:O	11:CO:106:LEU:HB2	2.02	0.60
15:CR:27:THR:CG2	15:CR:90:GLN:HB3	2.32	0.60
16:C1:92:ARG:HD2	16:C1:95:LEU:HD12	1.83	0.60
31:DA:1002:G:H1	31:DA:1038:C:N4	1.97	0.60
40:DM:99:LYS:HD3	40:DM:100:THR:N	2.15	0.60
3:AD:145:VAL:HG12	3:AD:146:GLU:O	2.02	0.60
4:AE:13:ARG:HH11	4:AE:21:VAL:HG11	1.65	0.60
22:A3:49:LYS:N	22:A3:80:HIS:HB3	2.17	0.60
28:A6:41:PRO:HB2	28:A6:44:ARG:NH1	2.16	0.60
31:BA:51:A:OP2	31:BA:52:G:H8	1.85	0.60
31:BA:1199:U:H5"	31:BA:1200:C:OP2	2.02	0.60
31:BA:1513:A:H2'	31:BA:1514:C:C6	2.37	0.60
32:BE:75:LYS:O	32:BE:75:LYS:HE3	2.02	0.60
32:BE:212:GLN:CD	32:BE:235:SER:HB2	2.27	0.60
35:BH:50:GLU:OE2	35:BH:50:GLU:HA	2.02	0.60
39:BL:59:PHE:HZ	39:BL:88:TYR:CE1	2.19	0.60
52:BB:83:C:H2'	52:BB:84:C:C5'	2.30	0.60
1:CA:73:A:H5'	1:CA:74:G:O4'	2.01	0.60
1:CA:558:A:O2'	1:CA:559:G:OP1	2.19	0.60
1:CA:790:G:H2'	1:CA:791:G:H8	1.66	0.60
1:CA:2168:C:H2'	1:CA:2170:G:N2	2.17	0.60
1:CA:2176:G:H2'	1:CA:2177:G:H8	1.67	0.60
1:CA:2323:A:N6	6:CG:80:PHE:CE2	2.70	0.60
2:CB:61:A:H2'	2:CB:62:C:O4'	2.02	0.60
3:CD:32:SER:HA	3:CD:36:PRO:HD2	1.84	0.60
5:CF:178:PRO:HB2	5:CF:201:VAL:HG11	1.84	0.60
10:CN:7:TYR:HE1	10:CN:20:MET:HE2	1.66	0.60
18:CS:92:ARG:O	18:CS:93:ALA:HB3	2.02	0.60
21:CV:99:TYR:HD1	21:CV:123:ASP:HB3	1.65	0.60
31:DA:337:C:H2'	31:DA:338:A:H8	1.66	0.60
31:DA:1178:G:C8	31:DA:1180:A:OP2	2.55	0.60
31:DA:1226:C:H4'	49:DV:80:TYR:CZ	2.37	0.60
31:DA:1518:A:OP1	56:DA:1751:OHX:N2	2.34	0.60
34:DG:59:ARG:HH22	34:DG:66:ARG:NH1	2.00	0.60
34:DG:101:LEU:HB2	34:DG:138:TYR:HB3	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DL:119:ALA:O	39:DL:120:ARG:HB2	2.01	0.60
42:DO:99:ARG:HB3	42:DO:106:GLY:HA2	1.84	0.60
43:DP:94:ARG:O	43:DP:96:LEU:N	2.35	0.60
54:D1:11:U:H2'	54:D1:12:A:C4	2.36	0.60
1:AA:529:A:H8	1:AA:530:G:C6	2.20	0.60
1:AA:1093:G:H5'	7:AH:170:ARG:HH21	1.67	0.60
1:AA:1385:G:H4'	1:AA:1386:C:OP1	2.01	0.60
1:AA:2219:G:H2'	1:AA:2224:G:H5'	1.84	0.60
1:AA:2348:U:H4'	28:A6:42:TRP:CD1	2.36	0.60
1:AA:2468:G:N7	1:AA:2481:G:N3	2.49	0.60
1:AA:2712:U:O2'	1:AA:2712(A):A:P	2.60	0.60
2:AB:43:C:OP1	6:AG:67:LYS:NZ	2.35	0.60
2:AB:104:A:H5'	21:AV:72:ARG:HD3	1.82	0.60
3:AD:127:VAL:HA	3:AD:193:VAL:HG23	1.83	0.60
21:AV:117:LEU:HD13	21:AV:117:LEU:H	1.67	0.60
31:BA:142:G:H2'	31:BA:143:A:C8	2.37	0.60
31:BA:173:U:H4'	31:BA:174:C:OP2	2.02	0.60
31:BA:963:G:N3	40:BM:55:LYS:NZ	2.49	0.60
31:BA:1007:C:C2'	31:BA:1008:C:H5"	2.31	0.60
31:BA:1160:G:O6	31:BA:1181:G:C6	2.52	0.60
52:BD:30:A:H61	52:BD:42:U:H3	1.48	0.60
1:CA:1584:C:H2'	1:CA:1585:G:C8	2.36	0.60
5:CF:79:GLY:HA2	5:CF:86:GLY:HA2	1.83	0.60
21:CV:120:ILE:HG13	21:CV:170:THR:HG23	1.84	0.60
30:C8:22:VAL:H	30:C8:50:LEU:HD13	1.67	0.60
31:DA:1028:C:N3	31:DA:1034:G:N2	2.50	0.60
37:DJ:16:LEU:HD12	39:DL:42:ARG:HA	1.83	0.60
37:DJ:69:VAL:HG22	37:DJ:135:VAL:HG23	1.83	0.60
1:AA:1178:C:O2'	1:AA:1179:C:C6	2.52	0.59
1:AA:1959:G:OP1	56:AA:3292:OHX:N5	2.35	0.59
1:AA:2016:U:OP1	56:AA:3452:OHX:N5	2.35	0.59
1:AA:2105:C:H2'	1:AA:2106:G:H8	1.66	0.59
1:AA:2480:C:H2'	1:AA:2481:G:H5'	1.83	0.59
1:AA:2756:U:H1'	1:AA:2757:A:H5"	1.84	0.59
8:AK:73:GLU:CD	8:AK:137:PRO:HD2	2.26	0.59
11:AO:16:ARG:HG3	11:AO:16:ARG:NH1	2.15	0.59
16:A1:69:CYS:SG	16:A1:79:PHE:HD1	2.25	0.59
18:AS:13:SER:HB3	18:AS:16:LYS:HD2	1.84	0.59
21:AV:151:HIS:HD2	21:AV:168:GLU:HA	1.66	0.59
31:BA:518:C:H4'	31:BA:519:C:O5'	2.02	0.59
31:BA:652:U:C4	31:BA:752:G:N3	2.69	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:687:A:H1'	31:BA:688:G:OP2	2.02	0.59
32:BE:16:HIS:CE1	32:BE:213:LEU:HD22	2.37	0.59
35:BH:113:ALA:O	35:BH:115:VAL:HG23	2.01	0.59
35:BH:147:ASP:HA	35:BH:150:ARG:NH1	2.17	0.59
52:BD:69:U:O2'	52:BD:70:C:H5'	2.02	0.59
1:CA:491:U:H4'	29:C7:5:TRP:CZ3	2.36	0.59
1:CA:611:C:H4'	1:CA:612:U:O5'	2.02	0.59
1:CA:954:U:O2'	12:CP:101:ARG:NH2	2.35	0.59
1:CA:1158:A:H5'	7:CH:3:ARG:NH1	2.17	0.59
1:CA:1365:C:C3'	1:CA:1366:G:H5"	2.32	0.59
1:CA:2110:G:O2'	1:CA:2111:G:H5'	2.02	0.59
2:CB:17:A:H1'	2:CB:112:G:N7	2.16	0.59
8:CK:72:LEU:O	8:CK:74:ASN:N	2.35	0.59
9:CM:95:PRO:O	9:CM:98:VAL:HG22	2.02	0.59
21:CV:15:PRO:HB2	21:CV:19:ARG:NH2	2.17	0.59
27:C5:4:HIS:CB	27:C5:5:PRO:HD3	2.21	0.59
30:C8:28:GLY:O	30:C8:30:ARG:N	2.30	0.59
31:DA:116:A:H61	31:DA:313:A:H1'	1.67	0.59
31:DA:1503:A:N6	54:D1:12:A:C5	2.70	0.59
33:DF:119:ARG:HH22	33:DF:140:ARG:HG2	1.67	0.59
39:DL:5:TYR:HA	39:DL:17:VAL:O	2.02	0.59
41:DN:61:ALA:CB	41:DN:90:GLY:HA3	2.32	0.59
42:DO:24:LEU:HD21	42:DO:57:LEU:HG	1.84	0.59
52:DB:67:A:N6	52:DB:70:C:H1'	2.17	0.59
1:AA:270(P):C:H2'	1:AA:270(Q):C:C6	2.37	0.59
1:AA:755:C:H2'	1:AA:756:C:C6	2.37	0.59
1:AA:951:C:O2'	1:AA:952:G:H5'	2.01	0.59
1:AA:2371:G:H21	28:A6:46:HIS:HE1	1.48	0.59
1:AA:2468:G:C8	1:AA:2469:A:C2	2.90	0.59
3:AD:25:THR:O	3:AD:26:LYS:C	2.45	0.59
3:AD:35:LYS:CG	3:AD:64:ILE:N	2.62	0.59
3:AD:69:ARG:HH11	3:AD:105:ILE:HG12	1.67	0.59
11:AO:58:THR:HG22	11:AO:61:ARG:HG3	1.83	0.59
20:AU:78:ALA:HB3	20:AU:81:LYS:NZ	2.17	0.59
26:A4:38:LYS:N	26:A4:38:LYS:HD2	2.16	0.59
31:BA:703:G:H1'	31:BA:704:A:OP2	2.02	0.59
33:BF:113:ALA:HB3	33:BF:114:PRO:HD3	1.83	0.59
35:BH:12:LEU:HB3	35:BH:31:LEU:HB2	1.84	0.59
44:BQ:15:LYS:HG2	44:BQ:16:PHE:CD2	2.37	0.59
50:BW:43:LEU:HD13	50:BW:51:GLU:HB3	1.82	0.59
52:BB:21:A:C8	52:BB:46:G:C8	2.90	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:895:U:C2	1:CA:979:A:N6	2.70	0.59
1:CA:1761:U:O2'	1:CA:1762:G:H5'	2.02	0.59
1:CA:2174:G:H2'	1:CA:2175:G:C8	2.37	0.59
1:CA:2368:C:H5'	22:C3:36:ILE:HD11	1.83	0.59
3:CD:35:LYS:HD3	3:CD:63:ARG:CB	2.32	0.59
14:CQ:17:ARG:HH11	14:CQ:17:ARG:HG2	1.65	0.59
15:CR:3:ARG:NE	15:CR:6:LEU:HD13	2.16	0.59
31:DA:182:U:C5	31:DA:183:G:H1'	2.37	0.59
31:DA:485:G:N7	56:DA:1731:OHX:N1	2.49	0.59
31:DA:993:G:H2'	31:DA:995:C:N4	2.09	0.59
31:DA:1074:G:O2'	31:DA:1101:A:N1	2.34	0.59
31:DA:1182:G:H4'	31:DA:1183:A:H5"	1.84	0.59
31:DA:1305:G:N2	31:DA:1331:G:H2'	2.15	0.59
31:DA:1474:G:O6	56:DA:1762:OHX:N1	2.35	0.59
34:DG:19:LEU:HD12	34:DG:19:LEU:N	2.16	0.59
40:DM:47:PHE:CZ	44:DQ:37:PHE:HE2	2.20	0.59
42:DO:5:ASN:HD22	47:DT:34:LYS:HE2	1.67	0.59
52:DD:69:U:O2'	52:DD:70:C:H5'	2.02	0.59
1:AA:880:G:N1	1:AA:897:C:N4	2.25	0.59
1:AA:2140:C:N3	1:AA:2151:G:N2	2.51	0.59
4:AE:119:ARG:HG2	4:AE:160:TYR:HB2	1.85	0.59
10:AN:8:LEU:HD23	10:AN:8:LEU:N	2.17	0.59
31:BA:240:C:H2'	31:BA:241:C:C6	2.37	0.59
38:BK:102:ARG:HE	38:BK:102:ARG:H	1.50	0.59
1:CA:272:U:O2'	1:CA:273:U:OP1	2.20	0.59
1:CA:303:A:C4'	1:CA:304:C:OP1	2.50	0.59
1:CA:952:U:H2'	1:CA:953:G:H5'	1.84	0.59
1:CA:1043:A:H61	1:CA:1206:U:H3	1.49	0.59
1:CA:1044:G:O2'	1:CA:1045:C:H5'	2.02	0.59
1:CA:1068:A:H61	1:CA:1189:A:N6	1.84	0.59
1:CA:1875:C:H5'	3:CD:253:GLN:NE2	2.18	0.59
1:CA:2699:G:C2	1:CA:2738:C:O2	2.55	0.59
12:CP:19:GLY:HA3	12:CP:98:LYS:NZ	2.17	0.59
31:DA:468:A:H5"	46:DS:80:PHE:HB3	1.84	0.59
31:DA:1160:G:H2'	31:DA:1160:G:N3	2.18	0.59
31:DA:1267:C:H2'	31:DA:1267:C:O2	2.03	0.59
33:DF:23:TYR:CD2	33:DF:23:TYR:C	2.80	0.59
33:DF:23:TYR:CD1	40:DM:10:GLY:HA2	2.38	0.59
40:DM:5:ARG:HG3	40:DM:73:ASP:OD2	2.02	0.59
42:DO:56:ARG:HH11	42:DO:60:GLY:HA2	1.67	0.59
44:DQ:27:CYS:O	44:DQ:28:GLY:C	2.46	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DT:67:LYS:HA	47:DT:70:ARG:HH12	1.66	0.59
50:DW:26:ASN:CB	50:DW:71:THR:HG23	2.32	0.59
52:DD:54:C:H2'	52:DD:55:U:O4'	2.02	0.59
1:AA:58:G:N2	1:AA:70:G:C4	2.70	0.59
1:AA:2340:G:C2'	1:AA:2341:G:H5'	2.31	0.59
1:AA:2681:C:C1'	1:AA:2682:U:OP2	2.50	0.59
3:AD:112:GLN:N	3:AD:115:GLN:OE1	2.28	0.59
20:AU:56:PRO:C	20:AU:57:GLN:HG3	2.26	0.59
25:AX:54:VAL:HG22	25:AX:55:ARG:H	1.68	0.59
27:A5:4:HIS:O	27:A5:5:PRO:C	2.43	0.59
31:BA:531:U:O2	56:BA:1673:OHX:N4	2.36	0.59
31:BA:589:C:H2'	31:BA:590:C:H6	1.67	0.59
35:BH:43:LEU:HD21	35:BH:132:ALA:HB1	1.84	0.59
37:BJ:26:PHE:CE2	37:BJ:30:ILE:HD11	2.36	0.59
40:BM:49:VAL:CG2	44:BQ:41:ARG:HB2	2.32	0.59
52:BD:28:G:H2'	52:BD:29:C:C6	2.38	0.59
1:CA:387:U:H5'	1:CA:388:G:OP2	2.03	0.59
1:CA:722:G:OP1	5:CF:54:ARG:NH2	2.31	0.59
1:CA:1069:G:H1'	1:CA:1070:U:OP2	2.02	0.59
1:CA:1525:A:H2'	1:CA:1526:G:O4'	2.02	0.59
1:CA:2148:G:H22	1:CA:2195:U:P	2.25	0.59
1:CA:2290:G:OP1	12:CP:86:GLY:HA2	2.03	0.59
1:CA:2734:U:C2	1:CA:2884:A:C2	2.90	0.59
3:CD:35:LYS:HE2	3:CD:104:TYR:HD1	1.67	0.59
3:CD:121:PRO:HB3	3:CD:135:PHE:CE1	2.38	0.59
30:C8:28:GLY:C	30:C8:30:ARG:H	2.10	0.59
30:C8:31:HIS:HE1	52:DD:85:A:C2	2.11	0.59
31:DA:266:G:H5"	31:DA:267:C:C5	2.38	0.59
31:DA:1004:A:H2	31:DA:1024:G:C8	2.20	0.59
54:D1:11:U:H2'	54:D1:12:A:C6	2.36	0.59
1:AA:244:A:H4'	11:AO:74:GLU:HB2	1.85	0.59
1:AA:654(I):C:H3'	1:AA:654(I):C:O2	2.02	0.59
1:AA:910:A:C4	12:AP:13:GLN:NE2	2.66	0.59
1:AA:1095:A:N3	1:AA:1095:A:H2'	2.17	0.59
1:AA:1729:A:H8	1:AA:1730:U:C5	2.17	0.59
2:AB:71:C:C4	2:AB:72:G:N7	2.70	0.59
7:AH:153:LYS:CB	7:AH:154:PRO:HD2	2.32	0.59
31:BA:1004:A:H8	31:BA:1036:G:N2	2.00	0.59
34:BG:153:ARG:HB3	34:BG:181:MET:SD	2.43	0.59
38:BK:91:ARG:HH11	38:BK:91:ARG:HG2	1.64	0.59
1:CA:514:C:H2'	1:CA:515:G:H5'	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1096:C:H42	7:CH:2:SER:HB2	1.67	0.59
1:CA:1444:U:O2'	1:CA:1445:C:OP1	2.19	0.59
1:CA:1512:C:O2'	1:CA:1575:A:C8	2.55	0.59
1:CA:1816:A:H4'	1:CA:1817:A:O5'	2.03	0.59
1:CA:2883:G:C4	1:CA:2884:A:C2	2.91	0.59
31:DA:1399:C:H4'	31:DA:1400:C:O5'	2.02	0.59
32:DE:47:THR:O	32:DE:51:LEU:HB2	2.03	0.59
42:DO:23:ALA:O	42:DO:24:LEU:HD22	2.02	0.59
1:AA:443:A:H3'	5:AF:45:ARG:NH1	2.18	0.59
1:AA:654(G):C:C2	1:AA:654(N):G:N1	2.66	0.59
1:AA:1113:U:H2'	1:AA:1114:G:H8	1.67	0.59
1:AA:2191:G:H2'	1:AA:2192:G:H5"	1.84	0.59
5:AF:185:ASP:OD1	5:AF:188:ARG:NH1	2.31	0.59
9:AM:128:HIS:NE2	9:AM:134:ARG:HD2	2.17	0.59
10:AN:71:ARG:HH21	10:AN:77:ILE:HG21	1.67	0.59
11:AO:78:PRO:HB3	11:AO:111:ARG:HH21	1.68	0.59
31:BA:877:C:OP1	38:BK:88:LYS:NZ	2.28	0.59
31:BA:942:G:OP2	56:BA:1775:OHX:N3	2.35	0.59
31:BA:990:C:H2'	31:BA:991:U:H6	1.67	0.59
31:BA:999:U:O2'	1:CA:2160:C:H5'	2.01	0.59
38:BK:60:ARG:HG3	38:BK:60:ARG:NH1	2.02	0.59
43:BP:70:LEU:O	43:BP:74:VAL:HG23	2.02	0.59
54:B1:11:U:H2'	54:B1:12:A:C6	2.38	0.59
1:CA:646:G:H4'	1:CA:647:A:H5"	1.83	0.59
1:CA:683:G:H1	1:CA:698:C:H42	1.49	0.59
1:CA:1118:G:H1'	1:CA:1136:G:H3'	1.84	0.59
1:CA:1939:A:OP2	56:CA:3293:OHX:N3	2.35	0.59
1:CA:2192:A:H3'	1:CA:2192:A:N3	2.18	0.59
1:CA:2214:G:O2'	1:CA:2215:G:P	2.61	0.59
4:CE:81:ILE:O	4:CE:82:ARG:HB2	2.02	0.59
11:CO:97:PRO:HG3	11:CO:112:LEU:CG	2.33	0.59
14:CQ:54:LEU:O	14:CQ:55:ALA:HB2	2.02	0.59
31:DA:383:A:H8	31:DA:383:A:O5'	1.84	0.59
31:DA:412:A:H1'	31:DA:413:G:OP2	2.01	0.59
31:DA:447:G:O6	31:DA:485:G:C8	2.55	0.59
31:DA:1442:G:N7	31:DA:1446:A:N1	2.50	0.59
44:DQ:24:CYS:SG	44:DQ:29:ARG:HG3	2.42	0.59
1:AA:50:U:H3'	1:AA:51:G:H5'	1.83	0.59
1:AA:1022:G:H4'	1:AA:1023:U:O5'	2.03	0.59
1:AA:2310:A:C5'	1:AA:2311:A:OP2	2.50	0.59
1:AA:2537:U:H2'	1:AA:2538:C:C6	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:98:GLU:O	11:AO:101:VAL:HG12	2.03	0.59
16:A1:34:LYS:HA	16:A1:34:LYS:HE3	1.85	0.59
17:A2:1:MET:HE2	17:A2:43:GLU:HG2	1.85	0.59
24:AW:50:ILE:HD12	24:AW:51:ARG:H	1.67	0.59
27:A5:39:MET:C	27:A5:40:LYS:HD2	2.27	0.59
31:BA:57:G:H2'	31:BA:58:C:C6	2.37	0.59
31:BA:1148:U:H2'	31:BA:1149:C:O4'	2.02	0.59
31:BA:1211:U:H4'	31:BA:1212:U:O5'	2.02	0.59
37:BJ:20:ASP:HB3	37:BJ:23:VAL:HG23	1.84	0.59
53:BC:24:C:H2'	53:BC:25:U:C6	2.37	0.59
1:CA:682:C:H2'	1:CA:683:G:C8	2.37	0.59
1:CA:1492:A:H2'	1:CA:1492:A:N3	2.17	0.59
2:CB:26:G:H8	2:CB:26:G:OP2	1.86	0.59
3:CD:94:LEU:HG	3:CD:104:TYR:CE2	2.38	0.59
9:CM:137:LYS:HA	9:CM:137:LYS:HZ2	1.66	0.59
31:DA:404:U:H2'	31:DA:405:U:H6	1.68	0.59
31:DA:485:G:N7	56:DA:1731:OHX:N6	2.50	0.59
31:DA:1072:G:H2'	31:DA:1073:U:O4'	2.03	0.59
31:DA:1239:A:O2'	31:DA:1298:C:N4	2.34	0.59
31:DA:1306:A:N6	31:DA:1331:G:O2'	2.36	0.59
32:DE:233:SER:HB2	32:DE:234:PRO:CD	2.33	0.59
34:DG:156:GLU:HA	34:DG:159:ARG:HD2	1.83	0.59
39:DL:4:TYR:O	39:DL:18:PHE:HA	2.03	0.59
39:DL:26:VAL:HG13	39:DL:61:ALA:HB3	1.82	0.59
42:DO:48:ALA:O	42:DO:49:LEU:HD23	2.02	0.59
45:DR:82:ILE:HG12	45:DR:87:ILE:HB	1.83	0.59
52:DB:73:U:C2'	52:DB:74:C:H5'	2.32	0.59
1:AA:845:G:H8	1:AA:845:G:OP2	1.85	0.59
1:AA:1056:G:H21	1:AA:1103:A:H62	0.67	0.59
1:AA:1084:A:N6	1:AA:1085:A:H62	2.00	0.59
1:AA:2397:G:H5"	23:AZ:28:GLY:HA2	1.85	0.59
1:AA:2689:U:C4'	1:AA:2690:C:OP2	2.51	0.59
3:AD:182:LEU:H	3:AD:272:ALA:HB3	1.68	0.59
4:AE:117:MET:HE2	4:AE:124:GLY:CA	2.33	0.59
10:AN:47:ILE:CG1	10:AN:48:PRO:HD2	2.33	0.59
11:AO:144:GLU:N	11:AO:144:GLU:OE2	2.33	0.59
21:AV:143:GLY:HA2	21:AV:144:LEU:O	2.02	0.59
24:AW:50:ILE:HD12	24:AW:51:ARG:N	2.17	0.59
31:BA:284:G:H2'	31:BA:285:G:H8	1.67	0.59
31:BA:328:C:H4'	31:BA:329:A:H5'	1.84	0.59
36:BI:41:GLU:O	36:BI:43:LEU:N	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BN:34:ASP:HB2	41:BN:35:PRO:CD	2.32	0.59
42:BO:45:PRO:O	42:BO:46:ASN:CG	2.46	0.59
46:BS:50:LYS:HD3	46:BS:51:VAL:N	2.17	0.59
1:CA:237:G:H4'	1:CA:414:G:C5	2.38	0.59
1:CA:1944:G:N7	56:CA:3234:OHX:N2	2.51	0.59
5:CF:174:VAL:HG11	5:CF:188:ARG:HH22	1.67	0.59
10:CN:49:ARG:NH1	31:DA:1422:G:O3'	2.35	0.59
11:CO:15:ARG:O	11:CO:16:ARG:O	2.21	0.59
16:C1:92:ARG:O	16:C1:94:ASN:N	2.35	0.59
20:CU:52:SER:N	20:CU:53:PRO:HD3	2.18	0.59
30:C8:52:LYS:N	30:C8:52:LYS:HD2	2.18	0.59
31:DA:1190:G:H5'	33:DF:176:HIS:NE2	2.18	0.59
31:DA:1206:G:O2'	33:DF:193:TYR:HA	2.03	0.59
31:DA:1330:U:H4'	43:DP:23:TYR:CE2	2.38	0.59
32:DE:87:ARG:NH1	32:DE:220:ASP:OD1	2.35	0.59
35:DH:91:LEU:HG	35:DH:118:ILE:HD11	1.84	0.59
35:DH:122:GLU:HB3	35:DH:126:ARG:HG2	1.85	0.59
37:DJ:50:ILE:HB	37:DJ:58:PRO:HG3	1.82	0.59
37:DJ:81:GLY:C	37:DJ:83:ALA:H	2.11	0.59
42:DO:79:VAL:HG23	42:DO:103:ASP:OD1	2.02	0.59
48:DU:29:PHE:HD2	48:DU:29:PHE:N	2.01	0.59
54:D1:11:U:H4'	54:D1:12:A:OP2	2.03	0.59
1:AA:274:G:H2'	1:AA:275:G:C1'	2.33	0.59
1:AA:654(G):C:O2	1:AA:654(N):G:N1	2.23	0.59
1:AA:918:A:N3	2:AB:80:U:O2'	2.32	0.59
1:AA:2086:U:H2'	1:AA:2087:G:C8	2.38	0.59
1:AA:2849:U:H4'	1:AA:2868:A:C2	2.38	0.59
3:AD:33:LEU:HD13	3:AD:34:VAL:N	2.16	0.59
4:AE:119:ARG:HH11	4:AE:119:ARG:CG	2.16	0.59
9:AM:15:LEU:HD12	9:AM:136:GLU:HG2	1.84	0.59
13:A0:12:ARG:HB3	13:A0:16:HIS:HD2	1.67	0.59
18:AS:82:LEU:HB2	18:AS:98:LYS:HB2	1.84	0.59
21:AV:37:VAL:HG23	21:AV:38:TYR:N	2.18	0.59
30:A8:41:ILE:HG13	30:A8:42:ARG:N	2.17	0.59
31:BA:233:C:H2'	31:BA:234:C:H6	1.68	0.59
40:BM:32:ALA:CB	40:BM:76:ASN:HB2	2.33	0.59
43:BP:97:PRO:HB3	43:BP:101:GLN:NE2	2.17	0.59
49:BV:40:ILE:HG12	49:BV:41:VAL:N	2.18	0.59
1:CA:314:A:H5'	1:CA:315:G:OP2	2.02	0.59
1:CA:336:A:C6	1:CA:353:U:C4	2.91	0.59
1:CA:560:U:O2'	16:C1:49:HIS:HD2	1.86	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:612:U:H1'	5:CF:90:PHE:HB3	1.84	0.59
1:CA:1389:A:C8	1:CA:1392:C:C4	2.91	0.59
1:CA:1737:A:N7	1:CA:1746:A:N1	2.51	0.59
1:CA:1826:U:H2'	1:CA:1827:C:H6	1.67	0.59
1:CA:2529:G:O6	1:CA:2530:C:N4	2.35	0.59
4:CE:9:VAL:CG2	4:CE:25:VAL:HB	2.32	0.59
31:DA:422:C:O2'	31:DA:423:G:C2	2.56	0.59
31:DA:554:C:H2'	31:DA:555:C:C6	2.37	0.59
31:DA:1125:U:O4	40:DM:5:ARG:NH1	2.36	0.59
31:DA:1133:G:H2'	31:DA:1134:G:H8	1.68	0.59
31:DA:1352:C:OP1	51:DX:3:LYS:NZ	2.36	0.59
31:DA:1435:G:H2'	31:DA:1436:U:C6	2.38	0.59
39:DL:4:TYR:HB2	39:DL:19:LEU:O	2.02	0.59
1:AA:185:U:H4'	1:AA:218:A:H4'	1.85	0.59
1:AA:883:G:N2	1:AA:894:C:N3	2.50	0.59
1:AA:1024:G:H3'	1:AA:1025:G:H5"	1.84	0.59
5:AF:9:ILE:HG22	5:AF:20:LEU:O	2.03	0.59
12:AP:19:GLY:CA	12:AP:98:LYS:HD3	2.32	0.59
16:A1:79:PHE:C	16:A1:79:PHE:CD2	2.79	0.59
27:A5:45:VAL:HG13	27:A5:50:GLY:HA3	1.85	0.59
31:BA:1005:A:H3'	31:BA:1006:C:C5'	2.33	0.59
38:BK:104:ARG:O	38:BK:107:LEU:HB2	2.02	0.59
42:BO:55:VAL:O	42:BO:62:GLU:HA	2.02	0.59
1:CA:965:A:N3	2:CB:82:U:O2'	2.35	0.59
5:CF:2:LYS:HD3	5:CF:2:LYS:H	1.67	0.59
5:CF:202:PHE:O	5:CF:205:ARG:HB3	2.03	0.59
6:CG:96:ARG:O	6:CG:98:ARG:N	2.30	0.59
15:CR:80:SER:HB3	15:CR:83:ILE:HG13	1.84	0.59
21:CV:15:PRO:HB2	21:CV:19:ARG:HH21	1.68	0.59
23:CZ:91:LYS:CG	23:CZ:92:LYS:H	2.16	0.59
28:C6:24:GLU:HA	56:C6:101:OHX:N6	2.18	0.59
30:C8:49:VAL:CG1	30:C8:50:LEU:H	2.15	0.59
32:DE:96:ARG:HD2	32:DE:96:ARG:N	2.18	0.59
34:DG:22:LYS:O	34:DG:113:SER:HB3	2.03	0.59
1:AA:385:C:O2	11:AO:71:VAL:HG21	2.02	0.58
1:AA:1728:G:N1	1:AA:1730:U:OP2	2.36	0.58
1:AA:2014:A:O2'	27:A5:2:ALA:N	2.33	0.58
1:AA:2507:C:H5'	1:AA:2573:C:N4	2.18	0.58
4:AE:75:VAL:HB	4:AE:76:ARG:HD2	1.84	0.58
5:AF:157:VAL:HB	5:AF:194:MET:HG2	1.85	0.58
6:AG:178:PHE:HB3	6:AG:180:PHE:CE1	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:21:ARG:O	11:AO:28:GLY:HA2	2.02	0.58
23:AZ:86:SER:N	23:AZ:87:PRO:HD2	2.18	0.58
23:AZ:90:ILE:HA	23:AZ:94:LEU:HD12	1.83	0.58
31:BA:402:G:OP1	34:BG:74:GLN:NE2	2.35	0.58
31:BA:1225:A:H2'	31:BA:1225:A:N3	2.17	0.58
31:BA:1305:G:OP2	31:BA:1305:G:C8	2.56	0.58
34:BG:28:SER:HB2	34:BG:29:PRO:CD	2.31	0.58
41:BN:21:ILE:HD12	41:BN:84:VAL:HG12	1.85	0.58
52:BD:43:G:O2'	52:BD:44:C:H5'	2.03	0.58
1:CA:1111:C:H42	1:CA:1121:G:H1	1.51	0.58
1:CA:1826:U:O2'	1:CA:1827:C:H5'	2.02	0.58
1:CA:2147:G:H2'	1:CA:2148:G:H5'	1.84	0.58
3:CD:166:GLN:HA	3:CD:166:GLN:HE21	1.67	0.58
7:CH:7:LEU:N	7:CH:8:PRO:CD	2.66	0.58
7:CH:83:TYR:O	7:CH:84:SER:OG	2.18	0.58
13:C0:45:ARG:HA	13:C0:95:THR:HG21	1.83	0.58
26:C4:21:VAL:HG22	26:C4:22:ILE:HD13	1.83	0.58
31:DA:619:U:C2	34:DG:135:LEU:HD22	2.38	0.58
31:DA:1015:A:N3	31:DA:1218:C:O2'	2.36	0.58
34:DG:11:LEU:C	34:DG:13:ARG:N	2.58	0.58
50:DW:48:LYS:O	50:DW:50:GLU:N	2.36	0.58
52:DB:16:C:H5'	52:DB:17:G:OP2	2.03	0.58
1:AA:881:G:O6	1:AA:895:U:C2	2.55	0.58
1:AA:1220:A:C3'	1:AA:1221:C:H5'	2.32	0.58
1:AA:1291:C:H2'	1:AA:1292:U:C6	2.37	0.58
1:AA:1359:A:H2'	1:AA:1360:A:H5'	1.83	0.58
1:AA:2356:C:O3'	22:A3:20:ARG:HD3	2.03	0.58
2:AB:77:U:OP1	21:AV:19:ARG:NH2	2.35	0.58
6:AG:104:GLU:OE1	26:A4:23:GLU:HG3	2.02	0.58
11:AO:96:THR:HG22	11:AO:126:VAL:HG21	1.83	0.58
31:BA:254:G:H21	47:BT:16:GLN:NE2	1.96	0.58
31:BA:1331:G:O2'	31:BA:1332:A:H8	1.85	0.58
35:BH:110:LEU:HD13	35:BH:118:ILE:HG12	1.85	0.58
40:BM:78:ASN:HB2	40:BM:81:THR:HG23	1.85	0.58
50:BW:96:GLY:O	50:BW:97:ALA:HB3	2.04	0.58
1:CA:1912:A:H2'	1:CA:1913:A:C8	2.38	0.58
1:CA:2404:G:O6	1:CA:2438:A:H8	1.86	0.58
5:CF:164:ARG:HG3	5:CF:175:THR:OG1	2.03	0.58
10:CN:63:VAL:HG12	10:CN:106:LEU:HD11	1.85	0.58
14:CQ:3:ARG:HG3	14:CQ:4:LEU:N	2.17	0.58
17:C2:7:THR:HG23	17:C2:22:VAL:HG21	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:686:U:H1'	41:DN:42:TRP:HE1	1.68	0.58
32:DE:128:GLU:HG3	32:DE:129:GLU:CD	2.28	0.58
44:DQ:12:ARG:HB3	44:DQ:14:PRO:HD3	1.85	0.58
51:DX:9:ARG:HG3	51:DX:10:ARG:H	1.67	0.58
1:AA:252:G:OP2	11:AO:50:ARG:NH1	2.30	0.58
1:AA:507:A:H5"	1:AA:508:G:H5'	1.84	0.58
1:AA:780:G:N2	1:AA:783:A:N6	2.37	0.58
1:AA:821:A:O2'	1:AA:945:A:H3'	2.03	0.58
1:AA:1021:A:H62	1:AA:1141:U:H3	1.50	0.58
1:AA:1689:A:N6	1:AA:1698:A:C2	2.55	0.58
1:AA:2168:G:N2	1:AA:2170:A:H62	2.01	0.58
1:AA:2702:U:C6	1:AA:2702:U:OP1	2.57	0.58
3:AD:130:ALA:C	3:AD:131:LEU:HD12	2.29	0.58
12:AP:76:LYS:HD3	12:AP:77:LYS:O	2.03	0.58
28:A6:17:LYS:HA	28:A6:17:LYS:CE	2.33	0.58
31:BA:509:A:O2'	31:BA:510:A:OP1	2.18	0.58
31:BA:1160:G:N1	31:BA:1177:G:C2	2.71	0.58
32:BE:178:ARG:HH21	38:BK:74:PRO:HB3	1.68	0.58
34:BG:139:ARG:HG3	34:BG:139:ARG:NH1	2.17	0.58
35:BH:101:ILE:HG13	35:BH:119:LEU:HD23	1.84	0.58
36:BI:69:GLU:N	36:BI:69:GLU:OE1	2.36	0.58
43:BP:20:THR:C	43:BP:22:ILE:H	2.12	0.58
52:BB:44:C:H2'	52:BB:45:C:O4'	2.02	0.58
54:B1:12:A:O2'	54:B1:13:A:OP1	2.20	0.58
1:CA:1187:U:H1'	1:CA:1189:A:C6	2.37	0.58
1:CA:1501:A:C6	1:CA:2715:U:H1'	2.38	0.58
1:CA:1729:G:N2	56:CA:3435:OHX:N5	2.50	0.58
1:CA:2367:G:O2'	22:C3:36:ILE:HD12	2.03	0.58
1:CA:2488:C:H5'	1:CA:2489:A:OP2	2.02	0.58
3:CD:35:LYS:HD3	3:CD:63:ARG:CA	2.33	0.58
11:CO:81:GLN:CD	11:CO:106:LEU:O	2.46	0.58
17:C2:1:MET:SD	17:C2:43:GLU:HG2	2.44	0.58
20:CU:83:THR:HG22	20:CU:85:VAL:HG23	1.83	0.58
23:CZ:6:GLU:O	23:CZ:91:LYS:HE3	2.03	0.58
31:DA:56:U:H2'	31:DA:57:G:H8	1.65	0.58
31:DA:182:U:H5	31:DA:183:G:H1'	1.68	0.58
31:DA:255:G:O6	31:DA:270:A:N6	2.36	0.58
31:DA:409:G:H5"	34:DG:24:GLU:HG3	1.84	0.58
31:DA:426:G:P	34:DG:36:ARG:HH21	2.26	0.58
31:DA:920:U:H2'	31:DA:921:U:C6	2.37	0.58
31:DA:1129:C:C4	31:DA:1142:G:O6	2.56	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1145:C:O2'	31:DA:1146:A:N7	2.33	0.58
31:DA:1528:U:H4'	31:DA:1529:G:N2	2.17	0.58
34:DG:8:VAL:O	34:DG:10:ARG:N	2.37	0.58
1:AA:286:C:H2'	1:AA:287:C:H6	1.69	0.58
1:AA:1025:G:OP1	1:AA:1025:G:H8	1.85	0.58
1:AA:1551:C:H2'	1:AA:1552:G:H5'	1.86	0.58
1:AA:1932:A:H2'	1:AA:1933:G:O4'	2.04	0.58
1:AA:2077:A:H2'	1:AA:2078:C:H6	1.68	0.58
1:AA:2378:A:H4'	14:AQ:23:ARG:HH11	1.68	0.58
1:AA:2475:C:H3'	1:AA:2476:A:H5"	1.84	0.58
1:AA:2688:U:C5	1:AA:2720:U:OP2	2.56	0.58
4:AE:82:ARG:O	4:AE:83:ASP:C	2.46	0.58
11:AO:15:ARG:O	11:AO:16:ARG:O	2.21	0.58
18:AS:18:ARG:HD3	18:AS:76:VAL:HG13	1.85	0.58
23:AZ:86:SER:N	23:AZ:87:PRO:CD	2.66	0.58
26:A4:49:PHE:O	26:A4:50:VAL:HB	2.02	0.58
31:BA:756:C:H2'	31:BA:757:U:O4'	2.03	0.58
31:BA:1034:G:N2	31:BA:1035:A:C6	2.71	0.58
31:BA:1139:G:H1	31:BA:1144:G:N2	1.86	0.58
31:BA:1325:C:H4'	51:BX:17:THR:HG21	1.84	0.58
32:BE:8:LYS:CD	32:BE:8:LYS:H	2.15	0.58
40:BM:48:THR:HA	40:BM:62:HIS:CB	2.32	0.58
1:CA:508:G:OP2	20:CU:47:LYS:HB2	2.03	0.58
1:CA:1180:U:O2	1:CA:1183:G:H5'	2.02	0.58
1:CA:1271:C:H4'	17:C2:85:LYS:HD3	1.85	0.58
1:CA:1513:G:H5'	1:CA:1575:A:H1'	1.84	0.58
1:CA:1768:A:C6	1:CA:1770:G:N7	2.71	0.58
1:CA:1922:G:N2	1:CA:1925:C:C4	2.70	0.58
9:CM:17:ASP:O	9:CM:18:ALA:HB3	2.03	0.58
9:CM:126:PRO:O	9:CM:127:ASP:HB2	2.03	0.58
11:CO:64:LYS:CG	11:CO:65:ARG:H	2.15	0.58
12:CP:3:MET:SD	12:CP:93:TYR:CD1	2.96	0.58
16:C1:48:ALA:O	16:C1:52:ARG:HG3	2.03	0.58
23:CZ:91:LYS:HG2	23:CZ:92:LYS:H	1.67	0.58
30:C8:14:VAL:HG12	30:C8:15:LYS:N	2.16	0.58
31:DA:260:G:O6	56:DA:1767:OHX:N6	2.36	0.58
31:DA:942:G:H21	39:DL:124:GLN:NE2	2.02	0.58
31:DA:961:U:O2	31:DA:1201:A:N1	2.36	0.58
31:DA:1211:U:H1'	31:DA:1213:A:C2	2.39	0.58
31:DA:1300:G:O2'	31:DA:1301:U:P	2.62	0.58
49:DV:66:MET:HE3	49:DV:66:MET:N	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DD:50:U:H2'	52:DD:51:C:O4'	2.03	0.58
1:AA:524:U:H4'	1:AA:554:U:H4'	1.85	0.58
1:AA:880:G:HO2'	1:AA:881:G:P	2.21	0.58
1:AA:945:A:H2'	1:AA:945:A:N3	2.18	0.58
1:AA:1510:A:O2'	1:AA:1511:A:N7	2.37	0.58
1:AA:2353:G:O2'	22:A3:35:ASN:ND2	2.37	0.58
2:AB:7:G:H1	2:AB:113:C:H42	1.51	0.58
3:AD:6:PHE:CE1	3:AD:18:VAL:HG23	2.38	0.58
10:AN:122:LEU:HD13	15:AR:72:VAL:HG11	1.86	0.58
31:BA:438:G:OP1	34:BG:125:HIS:CE1	2.56	0.58
31:BA:671:G:N2	31:BA:672:U:H1'	2.18	0.58
31:BA:1015:A:H2'	31:BA:1016:A:C8	2.38	0.58
31:BA:1023:G:C3'	31:BA:1024:G:H5"	2.33	0.58
31:BA:1032:A:H3'	31:BA:1032(A):G:C5'	2.33	0.58
33:BF:18:TRP:CZ2	44:BQ:55:GLY:HA2	2.38	0.58
35:BH:45:PHE:CE2	35:BH:47:LYS:HD2	2.39	0.58
1:CA:63:A:C4	19:CT:66:LEU:HD12	2.38	0.58
1:CA:186:A:H2'	1:CA:186:A:N3	2.19	0.58
1:CA:485:G:O2'	29:C7:39:ARG:HD3	2.03	0.58
1:CA:642:G:OP1	5:CF:40:GLN:HG3	2.04	0.58
1:CA:1146:G:H2'	1:CA:1147:C:C6	2.39	0.58
2:CB:68:A:C2	2:CB:111:C:C4	2.92	0.58
4:CE:66:HIS:C	4:CE:68:ALA:N	2.61	0.58
6:CG:55:LYS:HD2	6:CG:58:GLN:NE2	2.18	0.58
6:CG:126:ASP:OD2	6:CG:130:ASN:HB2	2.04	0.58
8:CK:54:GLN:HE21	8:CK:57:ARG:HH22	1.50	0.58
11:CO:57:THR:C	11:CO:59:LEU:N	2.61	0.58
27:C5:6:VAL:HG13	27:C5:7:PRO:HD2	1.86	0.58
39:DL:54:ASP:C	39:DL:56:LEU:H	2.10	0.58
40:DM:33:GLN:O	40:DM:75:ILE:HG12	2.04	0.58
44:DQ:45:ARG:O	44:DQ:49:HIS:CD2	2.57	0.58
45:DR:11:VAL:HG21	45:DR:34:LEU:HD22	1.85	0.58
50:DW:72:LEU:O	50:DW:73:HIS:CB	2.51	0.58
52:DB:47:U:O2'	52:DB:48:C:O4'	2.21	0.58
52:DD:14:A:C3'	52:DD:15:G:H5"	2.24	0.58
1:AA:481:G:H4'	1:AA:482:A:O5'	2.04	0.58
1:AA:1081:U:HO2'	1:AA:1082:U:P	2.18	0.58
1:AA:1870:C:O2	1:AA:1870:C:C2'	2.47	0.58
1:AA:2114:A:C6	1:AA:2115:G:C6	2.91	0.58
4:AE:38:THR:CG2	4:AE:41:LYS:H	2.16	0.58
7:AH:152:ARG:HG3	7:AH:153:LYS:N	2.14	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AT:53:LYS:NZ	19:AT:55:ASN:HD21	2.02	0.58
20:AU:15:VAL:HA	20:AU:72:VAL:HG12	1.84	0.58
20:AU:101:LYS:HB3	20:AU:101:LYS:NZ	2.19	0.58
31:BA:501:C:H2'	31:BA:502:G:C8	2.37	0.58
31:BA:677:U:OP1	56:BA:1661:OHX:N3	2.37	0.58
31:BA:1128:C:H5'	39:BL:16:ARG:HH12	1.68	0.58
31:BA:1453:G:H8	50:BW:39:LYS:HE2	1.69	0.58
35:BH:41:VAL:HG13	35:BH:113:ALA:HB2	1.86	0.58
38:BK:16:ALA:HB2	38:BK:24:THR:HG21	1.86	0.58
1:CA:1871:G:C8	1:CA:1950:A:H1'	2.39	0.58
1:CA:2014:U:C2'	1:CA:2015:G:H5"	2.33	0.58
4:CE:52:LEU:HB3	4:CE:75:VAL:HG23	1.86	0.58
5:CF:24:LEU:HB3	5:CF:25:PRO:HD2	1.84	0.58
5:CF:178:PRO:HG2	5:CF:179:GLU:OE1	2.04	0.58
9:CM:19:GLU:HA	9:CM:59:LYS:O	2.04	0.58
22:C3:21:LEU:HD21	22:C3:41:ARG:NH1	2.19	0.58
30:C8:31:HIS:CE1	52:DD:85:A:C2	2.83	0.58
31:DA:979:C:H3'	31:DA:980:C:H5"	1.83	0.58
31:DA:1129:C:H5	31:DA:1141:C:H42	1.52	0.58
31:DA:1141:C:O2'	31:DA:1142:G:H5'	2.03	0.58
31:DA:1305:G:H5'	51:DX:4:GLY:HA3	1.86	0.58
32:DE:82:ARG:HA	32:DE:92:TYR:CE1	2.38	0.58
52:DB:47:U:C2'	52:DB:48:C:O4'	2.52	0.58
53:DC:54:G:H2'	53:DC:55:U:H6	1.69	0.58
1:AA:344:G:O6	56:AA:3447:OHX:N5	2.37	0.58
1:AA:860:U:C5	1:AA:917:A:C2	2.92	0.58
1:AA:1441:G:H2'	1:AA:1442:G:H8	1.68	0.58
1:AA:1793:C:O2	1:AA:1900:A:H2	1.86	0.58
1:AA:1900:A:O2'	1:AA:1901:A:OP1	2.20	0.58
1:AA:2298:A:H2'	1:AA:2299:G:O4'	2.04	0.58
1:AA:2875:C:C4'	15:AR:5:ALA:HB2	2.34	0.58
5:AF:152:GLU:OE1	5:AF:191:ARG:HD2	2.04	0.58
21:AV:150:LEU:HD21	21:AV:154:ASP:HB2	1.86	0.58
25:AX:9:VAL:HG21	25:AX:55:ARG:HB2	1.86	0.58
28:A6:51:GLU:HG2	28:A6:52:VAL:N	2.18	0.58
31:BA:359:U:OP1	8:CK:87:LYS:HD2	2.04	0.58
31:BA:826:C:H2'	31:BA:827:U:O2	2.03	0.58
31:BA:939:G:H5"	37:BJ:102:ARG:NH2	2.18	0.58
38:BK:91:ARG:HH11	38:BK:91:ARG:HG3	1.69	0.58
40:BM:8:LEU:HD22	40:BM:96:ILE:HG22	1.85	0.58
1:CA:793:G:H2'	1:CA:794:A:H5'	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1144:U:H2'	1:CA:1145:A:O4'	2.03	0.58
1:CA:1590:A:H1'	1:CA:1592:A:C1'	2.34	0.58
1:CA:2039:U:O2	27:C5:7:PRO:HG2	2.03	0.58
1:CA:2826:C:H5'	27:C5:29:THR:HG21	1.86	0.58
4:CE:7:VAL:HG21	15:CR:1:MET:CE	2.33	0.58
4:CE:32:PRO:O	4:CE:49:LEU:HA	2.04	0.58
4:CE:116:VAL:O	4:CE:117:MET:HB3	2.03	0.58
7:CH:136:ILE:H	7:CH:136:ILE:HD12	1.69	0.58
11:CO:107:LYS:C	11:CO:109:GLY:N	2.61	0.58
12:CP:132:VAL:HG21	21:CV:81:ARG:HH12	1.68	0.58
21:CV:53:ILE:HG22	21:CV:71:VAL:O	2.04	0.58
31:DA:266:G:H5'	31:DA:268:C:H41	1.68	0.58
31:DA:278:G:OP2	47:DT:41:LYS:NZ	2.29	0.58
31:DA:408:A:H2'	31:DA:409:G:O4'	2.04	0.58
31:DA:890:G:O2'	31:DA:891:U:OP2	2.21	0.58
34:DG:39:PRO:O	34:DG:44:GLY:HA3	2.04	0.58
40:DM:69:ASN:O	40:DM:70:ARG:HG3	2.04	0.58
42:DO:80:VAL:HG12	42:DO:81:LEU:N	2.19	0.58
52:DB:47:U:H2'	52:DB:48:C:C6	2.38	0.58
52:DD:44:C:H2'	52:DD:45:C:O4'	2.04	0.58
1:AA:996:A:OP2	16:A1:92:ARG:NH2	2.35	0.58
1:AA:1695:G:N7	3:AD:14:ARG:NH2	2.52	0.58
1:AA:1918:A:O2'	1:AA:1920:C:N4	2.36	0.58
1:AA:2032:G:N2	4:AE:146:THR:HG23	2.12	0.58
1:AA:2378:A:H5"	14:AQ:23:ARG:NH1	2.18	0.58
1:AA:2635:C:H5"	4:AE:78:LEU:HA	1.86	0.58
3:AD:146:GLU:HB2	3:AD:189:CYS:HB3	1.86	0.58
5:AF:129:PHE:O	5:AF:130:ALA:HB3	2.04	0.58
7:AH:67:LEU:O	7:AH:71:LEU:HB2	2.03	0.58
15:AR:29:ARG:NH1	15:AR:46:GLU:OE1	2.36	0.58
16:A1:66:ASN:ND2	16:A1:70:ARG:HE	2.00	0.58
31:BA:28:G:O2'	31:BA:296:U:OP1	2.22	0.58
31:BA:433:C:H2'	31:BA:434:U:C6	2.39	0.58
31:BA:663:A:H5"	48:BU:61:LYS:NZ	2.19	0.58
31:BA:1305:G:OP2	31:BA:1305:G:H8	1.87	0.58
54:B1:13:A:C2'	54:B1:14:A:OP1	2.52	0.58
1:CA:9:U:C2	1:CA:2642:A:N6	2.72	0.58
1:CA:1557:A:H8	1:CA:1557:A:OP2	1.86	0.58
1:CA:2030:C:H2'	1:CA:2031:C:H6	1.67	0.58
1:CA:2229:G:H3'	1:CA:2230:A:C2	2.38	0.58
1:CA:2333:A:C6	1:CA:2346:A:C8	2.92	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CD:35:LYS:CE	3:CD:104:TYR:HB2	2.33	0.58
5:CF:8:GLN:HG3	5:CF:126:VAL:HG12	1.86	0.58
5:CF:89:VAL:HG12	5:CF:90:PHE:N	2.16	0.58
12:CP:43:THR:HB	12:CP:45:GLN:HE21	1.68	0.58
15:CR:21:GLU:O	15:CR:91:ARG:NH2	2.36	0.58
17:C2:85:LYS:HD2	17:C2:86:GLY:N	2.17	0.58
31:DA:97:U:C2'	31:DA:99:C:H5'	2.34	0.58
31:DA:191:G:H1'	50:DW:104:LEU:O	2.02	0.58
31:DA:673:G:H2'	31:DA:674:G:C8	2.38	0.58
31:DA:1106:G:H5"	33:DF:172:ARG:HG2	1.85	0.58
31:DA:1442:G:HO2'	31:DA:1443:G:P	2.26	0.58
32:DE:54:THR:O	32:DE:58:ILE:HG12	2.02	0.58
42:DO:86:ARG:HG2	42:DO:87:VAL:N	2.18	0.58
50:DW:100:ILE:HD12	50:DW:100:ILE:H	1.68	0.58
52:DB:75:C:H2'	52:DB:76:C:C6	2.38	0.58
1:AA:271(B):G:H4'	1:AA:271(C):U:O5'	2.04	0.58
1:AA:917:A:H2'	1:AA:918:A:O5'	2.04	0.58
1:AA:1394:U:C4	1:AA:1395:A:C6	2.92	0.58
1:AA:2134:A:N6	1:AA:2157:G:H1'	2.19	0.58
1:AA:2168:G:O2'	1:AA:2169:A:H5'	2.04	0.58
1:AA:2284:C:H41	28:A6:25:LYS:HZ1	1.52	0.58
3:AD:31:LYS:O	3:AD:31:LYS:HG3	2.03	0.58
3:AD:134:ARG:HG3	3:AD:135:PHE:CD2	2.39	0.58
8:AK:126:TYR:HB2	8:AK:140:LEU:HD21	1.86	0.58
18:AS:7:ALA:HB2	18:AS:50:VAL:HG22	1.86	0.58
19:AT:57:LEU:HD11	19:AT:78:LYS:NZ	2.19	0.58
31:BA:49:U:H1'	31:BA:50:A:OP1	2.03	0.58
31:BA:870:U:H4'	31:BA:871:U:H3'	1.84	0.58
31:BA:871:U:C1'	31:BA:872:A:OP1	2.52	0.58
31:BA:975:A:H5'	31:BA:1363:A:N6	2.18	0.58
31:BA:1465:C:H2'	31:BA:1466:C:O4'	2.03	0.58
33:BF:78:GLY:HA3	33:BF:83:ARG:HB3	1.85	0.58
33:BF:122:GLU:O	33:BF:126:ARG:HG3	2.03	0.58
38:BK:122:ARG:NH1	38:BK:122:ARG:HB2	2.18	0.58
52:BB:75:C:HO2'	52:BB:76:C:P	2.22	0.58
1:CA:604:C:H2'	1:CA:605:C:C6	2.38	0.58
15:CR:11:GLU:OE1	15:CR:11:GLU:N	2.32	0.58
15:CR:19:LEU:HD23	15:CR:86:ILE:HG21	1.86	0.58
18:CS:38:TYR:CE1	27:C5:41:PRO:HD3	2.38	0.58
26:C4:63:TYR:HB3	49:DV:42:PRO:HD2	1.86	0.58
30:C8:50:LEU:O	30:C8:51:ALA:HB3	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1129:C:N4	31:DA:1139:G:N2	2.52	0.58
32:DE:178:ARG:HH21	38:DK:68:ARG:HH22	1.52	0.58
33:DF:125:GLU:HG2	33:DF:190:ARG:H	1.69	0.58
47:DT:67:LYS:O	47:DT:68:ARG:CB	2.52	0.58
52:DB:46:G:H2'	52:DB:47:U:C6	2.39	0.58
52:DD:55:U:H4'	52:DD:55:U:OP1	2.03	0.58
54:D1:12:A:O2'	54:D1:13:A:O5'	2.22	0.58
1:AA:1126:A:H4'	1:AA:1127:A:O5'	2.04	0.58
1:AA:1317:A:H2'	1:AA:1318:C:C6	2.38	0.58
1:AA:2186:G:H2'	1:AA:2187:G:H8	1.69	0.58
1:AA:2469:A:H61	1:AA:2481:G:H1'	1.69	0.58
2:AB:75:G:N7	56:AB:217:OHX:N3	2.52	0.58
3:AD:35:LYS:HD3	3:AD:63:ARG:CA	2.32	0.58
4:AE:116:VAL:HG13	4:AE:122:PHE:HB2	1.85	0.58
5:AF:192:LEU:HD23	5:AF:193:VAL:N	2.17	0.58
6:AG:83:ARG:HB2	6:AG:86:MET:CE	2.34	0.58
13:A0:37:THR:OG1	13:A0:40:LYS:HG3	2.03	0.58
14:AQ:59:LYS:HG2	14:AQ:60:GLY:N	2.19	0.58
23:AZ:75:GLU:O	23:AZ:76:ARG:C	2.46	0.58
25:AX:4:LEU:O	25:AX:36:VAL:HA	2.04	0.58
31:BA:1128:C:C5'	39:BL:16:ARG:HH22	2.17	0.58
31:BA:1288:A:H1'	31:BA:1352:C:O2'	2.03	0.58
31:BA:1363:A:H1'	31:BA:1365:G:N7	2.19	0.58
32:BE:22:LYS:HA	32:BE:22:LYS:NZ	2.18	0.58
32:BE:25:ASN:O	32:BE:27:LYS:N	2.37	0.58
38:BK:25:ASP:OD2	38:BK:60:ARG:HG2	2.04	0.58
38:BK:39:LEU:HB3	38:BK:45:ILE:HD11	1.86	0.58
39:BL:22:GLY:HA3	39:BL:60:ASP:OD2	2.04	0.58
46:BS:1:MET:HG3	46:BS:65:GLN:HG3	1.86	0.58
52:BD:53:A:C2'	52:BD:54:C:H5'	2.34	0.58
1:CA:859:U:C4	11:CO:21:ARG:NH2	2.72	0.58
1:CA:1006:A:H5"	1:CA:1007:C:OP1	2.04	0.58
1:CA:1094:G:H2'	1:CA:1157:G:H1	1.69	0.58
1:CA:1286:G:H2'	1:CA:1287:U:O4'	2.03	0.58
1:CA:1371:G:C5	1:CA:1375:G:O6	2.56	0.58
4:CE:52:LEU:O	4:CE:74:PRO:HA	2.04	0.58
16:C1:90:VAL:HG11	17:C2:40:LEU:HD13	1.84	0.58
17:C2:37:VAL:HG21	17:C2:57:VAL:CG1	2.33	0.58
18:CS:73:ALA:O	18:CS:106:ILE:HG12	2.04	0.58
30:C8:50:LEU:O	30:C8:51:ALA:CB	2.51	0.58
31:DA:1203:C:H2'	31:DA:1204:A:O4'	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DT:63:ARG:HG2	47:DT:64:PRO:HD2	1.85	0.58
1:AA:857:C:H4'	22:A3:23:VAL:HG21	1.86	0.57
1:AA:971:C:H2'	1:AA:972:G:H5'	1.86	0.57
1:AA:1178:C:O2'	1:AA:1179:C:O5'	2.22	0.57
1:AA:1276:A:OP2	56:AA:3538:OHX:N3	2.37	0.57
1:AA:2351:G:H1'	1:AA:2366:A:H61	1.68	0.57
2:AB:41:U:O4	6:AG:70:VAL:O	2.22	0.57
2:AB:89(A):A:H8	2:AB:89(A):A:O5'	1.87	0.57
4:AE:38:THR:HG23	4:AE:40:GLU:H	1.69	0.57
15:AR:20:PRO:HD2	15:AR:86:ILE:HG23	1.85	0.57
16:A1:92:ARG:HD2	17:A2:11:GLN:HB2	1.86	0.57
20:AU:81:LYS:HB3	20:AU:97:ARG:HD3	1.85	0.57
24:AW:59:ARG:O	24:AW:62:THR:HG23	2.04	0.57
31:BA:105:G:H2'	31:BA:106:C:C6	2.40	0.57
31:BA:1028(A):C:N4	31:BA:1028(B):C:N4	2.51	0.57
31:BA:1047:G:H5"	44:BQ:4:LYS:NZ	2.19	0.57
31:BA:1386:G:N2	31:BA:1387:G:C4	2.72	0.57
39:BL:24:GLY:HA2	39:BL:59:PHE:O	2.03	0.57
41:BN:116:HIS:O	41:BN:117:ASN:HB2	2.04	0.57
1:CA:905:C:N4	1:CA:906:U:O4	2.37	0.57
1:CA:1879:A:H3'	1:CA:1880:A:H5'	1.85	0.57
1:CA:2208:C:H2'	1:CA:2209:G:H8	1.69	0.57
1:CA:2804:A:H4'	1:CA:2805:C:OP2	2.04	0.57
3:CD:34:VAL:O	3:CD:34:VAL:HG13	2.04	0.57
3:CD:125:ILE:CG1	36:DI:81:ILE:HD11	2.34	0.57
7:CH:102:ALA:HB1	7:CH:115:VAL:O	2.04	0.57
14:CQ:29:PHE:O	14:CQ:35:ILE:HD12	2.04	0.57
16:C1:52:ARG:HB3	16:C1:52:ARG:NH1	2.18	0.57
31:DA:750:G:OP2	56:DA:1800:OHX:N5	2.37	0.57
31:DA:1004:A:OP1	31:DA:1025:U:O4	2.22	0.57
32:DE:71:VAL:HG12	32:DE:72:GLY:N	2.19	0.57
39:DL:48:GLU:N	39:DL:49:PRO:HD2	2.18	0.57
52:DB:57:C:H4'	52:DB:58:G:O5'	2.03	0.57
52:DB:78:C:O2'	52:DB:79:A:P	2.62	0.57
52:DB:78:C:H2'	52:DB:79:A:C8	2.36	0.57
1:AA:1069:A:H5"	1:AA:1070:A:O5'	2.03	0.57
1:AA:1188:U:H4'	17:A2:79:VAL:HG22	1.86	0.57
1:AA:1331:A:HO2'	1:AA:1332:G:H8	1.50	0.57
1:AA:1359:A:H2	1:AA:1372:U:O4	1.87	0.57
1:AA:1373:A:H2'	1:AA:1374:G:O4'	2.03	0.57
1:AA:2349:G:OP2	30:A8:42:ARG:HD3	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:77:ALA:HB1	3:AD:96:HIS:O	2.04	0.57
8:AK:10:GLU:O	8:AK:11:ASN:HB3	2.04	0.57
11:AO:114:ILE:C	11:AO:114:ILE:HD12	2.29	0.57
24:AW:32:LEU:HD12	24:AW:57:ILE:HD12	1.85	0.57
28:A6:15:GLU:O	28:A6:16:CYS:HB2	2.04	0.57
31:BA:75:C:N3	31:BA:95:G:O6	2.37	0.57
31:BA:186:C:H2'	31:BA:186(A):C:H6	1.69	0.57
31:BA:1090:U:H2'	31:BA:1091:U:H6	1.69	0.57
31:BA:1211:U:H5"	31:BA:1212:U:OP1	2.04	0.57
31:BA:1240:U:O2'	37:BJ:38:LEU:HG	2.03	0.57
52:BB:51:C:H6	52:BB:51:C:OP2	1.87	0.57
1:CA:249:G:H21	1:CA:647:A:H8	1.51	0.57
1:CA:295:C:N4	1:CA:391:G:N1	2.23	0.57
1:CA:378:G:C2'	1:CA:379:G:H5'	2.34	0.57
1:CA:920:A:H2'	1:CA:921:G:C8	2.39	0.57
1:CA:1272:G:H5'	17:C2:85:LYS:N	2.16	0.57
1:CA:1618:A:C4'	3:CD:38:LYS:HE2	2.34	0.57
1:CA:1890:G:O2'	1:CA:1907:A:N6	2.36	0.57
3:CD:25:THR:HG23	3:CD:26:LYS:N	2.19	0.57
3:CD:28:GLU:N	3:CD:29:PRO:HD2	2.18	0.57
5:CF:59:TYR:CD2	5:CF:59:TYR:N	2.69	0.57
16:C1:50:ARG:HH11	17:C2:70:ILE:CG2	2.17	0.57
30:C8:34:TRP:CD1	30:C8:35:GLN:H	2.19	0.57
31:DA:134:A:H61	46:DS:25:ARG:NH1	2.02	0.57
31:DA:466:C:H5"	31:DA:467:G:OP2	2.04	0.57
31:DA:520:A:N1	31:DA:536:C:H1'	2.19	0.57
31:DA:656:C:N4	31:DA:750:G:H1	2.02	0.57
31:DA:1327:C:H2'	31:DA:1328:C:C6	2.39	0.57
36:DI:15:ASP:O	36:DI:19:LEU:HB2	2.03	0.57
36:DI:45:LEU:HD21	36:DI:57:GLN:HB3	1.85	0.57
40:DM:30:SER:OG	40:DM:81:THR:HG22	2.03	0.57
43:DP:16:ASP:OD1	43:DP:31:LYS:HE2	2.04	0.57
48:DU:29:PHE:N	48:DU:29:PHE:CD2	2.72	0.57
51:DX:25:LYS:O	51:DX:26:LYS:HB2	2.04	0.57
1:AA:10:G:H2'	1:AA:11:G:C8	2.40	0.57
1:AA:51:G:O6	56:AA:3567:OHX:N3	2.37	0.57
1:AA:84:A:N1	1:AA:98:G:O2'	2.31	0.57
1:AA:270(Y):G:C2	1:AA:270(Z):U:O4	2.57	0.57
1:AA:805:G:O4'	11:AO:38:GLN:NE2	2.37	0.57
1:AA:836:G:H2'	1:AA:837:C:C6	2.38	0.57
1:AA:1062:G:H1'	1:AA:1088:A:C5	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1082:U:C4	1:AA:1083:U:C2	2.93	0.57
1:AA:2118:U:H5"	1:AA:2119:A:OP1	2.04	0.57
4:AE:70:ALA:O	4:AE:71:GLY:C	2.47	0.57
15:AR:11:GLU:N	15:AR:11:GLU:OE1	2.37	0.57
16:A1:91:ASP:O	16:A1:92:ARG:C	2.47	0.57
31:BA:8:A:N6	34:BG:205:GLU:O	2.37	0.57
31:BA:254:G:OP1	47:BT:67:LYS:O	2.22	0.57
31:BA:538:G:OP2	42:BO:112:LYS:HG3	2.04	0.57
34:BG:107:ARG:NH2	34:BG:194:LEU:HD11	2.19	0.57
42:BO:87:VAL:O	42:BO:88:LYS:HB3	2.03	0.57
1:CA:91:G:H2'	1:CA:92:C:O4'	2.03	0.57
1:CA:486:U:H5"	29:C7:40:TRP:CE2	2.38	0.57
1:CA:842:G:H2'	1:CA:843:C:H6	1.69	0.57
1:CA:2192:A:H2'	1:CA:2193:A:H5'	1.86	0.57
1:CA:2208:C:H2'	1:CA:2209:G:C8	2.38	0.57
1:CA:2482:A:H4'	1:CA:2482:A:OP1	2.04	0.57
1:CA:2861:A:C2	1:CA:2862:A:C4	2.93	0.57
3:CD:145:VAL:HG13	3:CD:191:ALA:HB2	1.86	0.57
5:CF:132:VAL:HG22	5:CF:133:ASN:N	2.13	0.57
26:C4:37:SER:OG	26:C4:38:LYS:N	2.25	0.57
31:DA:952:U:H2'	31:DA:953:G:H8	1.68	0.57
31:DA:1298:C:C5	37:DJ:114:ARG:HD2	2.39	0.57
39:DL:17:VAL:HG13	39:DL:63:ILE:HD11	1.86	0.57
40:DM:78:ASN:C	40:DM:80:LYS:H	2.12	0.57
50:DW:10:LEU:HD13	50:DW:12:ALA:H	1.68	0.57
52:DD:60:A:H2'	52:DD:61:G:O4'	2.02	0.57
1:AA:752:A:H4'	1:AA:753:C:H5'	1.87	0.57
1:AA:851:U:O2'	25:AX:45:GLY:HA3	2.04	0.57
1:AA:883:G:N1	1:AA:893:C:N4	2.09	0.57
6:AG:72:ARG:HH21	6:AG:87:PRO:HG3	1.70	0.57
7:AH:28:GLY:HA3	7:AH:79:VAL:HB	1.86	0.57
31:BA:1178:G:H8	39:BL:97:LYS:HZ1	1.46	0.57
52:BB:12:C:N3	52:BB:24:G:O6	2.37	0.57
52:BB:46:G:H4'	52:BB:47:U:OP1	2.04	0.57
52:BB:48:C:H2'	52:BB:49:A:C8	2.39	0.57
52:BD:21:A:H1'	52:BD:22:A:O5'	2.04	0.57
1:CA:851:U:H2'	1:CA:852:A:H5'	1.86	0.57
1:CA:1058:G:H2'	1:CA:1060:C:O4'	2.04	0.57
1:CA:2529:G:C6	1:CA:2530:C:C4	2.92	0.57
1:CA:2623:C:C4'	1:CA:2624:U:OP2	2.47	0.57
3:CD:60:ARG:CD	3:CD:86:PRO:HB2	2.21	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CF:124:LEU:HG	5:CF:126:VAL:CG1	2.34	0.57
6:CG:32:PRO:HB2	6:CG:172:LEU:HD22	1.87	0.57
6:CG:124:SER:HB2	6:CG:131:TYR:CE1	2.40	0.57
10:CN:47:ILE:CG1	10:CN:48:PRO:HD2	2.34	0.57
14:CQ:54:LEU:O	14:CQ:55:ALA:CB	2.51	0.57
21:CV:59:LEU:O	21:CV:60:GLU:CB	2.50	0.57
22:C3:49:LYS:HG3	22:C3:80:HIS:ND1	2.19	0.57
26:C4:36:CYS:HB3	26:C4:41:PRO:HG3	1.85	0.57
31:DA:200:G:H1	31:DA:217:C:N4	2.02	0.57
31:DA:652:U:O2'	31:DA:653:A:N3	2.28	0.57
31:DA:1219:U:O2'	49:DV:34:TRP:HB3	2.05	0.57
31:DA:1502:A:H2	31:DA:1505:G:H1	1.52	0.57
34:DG:152:SER:O	34:DG:154:ASN:N	2.38	0.57
39:DL:24:GLY:HA2	39:DL:59:PHE:O	2.04	0.57
40:DM:78:ASN:HD21	40:DM:81:THR:HG23	1.70	0.57
40:DM:80:LYS:HB2	40:DM:80:LYS:NZ	2.19	0.57
41:DN:101:SER:HB2	41:DN:103:LEU:HD23	1.85	0.57
42:DO:97:ILE:HG22	42:DO:98:VAL:N	2.19	0.57
1:AA:297:C:H5"	20:AU:85:VAL:HG21	1.85	0.57
1:AA:1018:C:H2'	1:AA:1018:C:O2	2.03	0.57
1:AA:1385:G:H1'	1:AA:1386:C:C6	2.40	0.57
1:AA:1525:G:H2'	1:AA:1526:G:C8	2.39	0.57
1:AA:1985:G:OP2	56:AA:3299:OHX:N2	2.38	0.57
1:AA:2308:G:O6	1:AA:2311:A:N6	2.38	0.57
1:AA:2419:U:O4	30:A8:30:ARG:NH2	2.37	0.57
1:AA:2472:G:O6	1:AA:2476:A:H4'	2.04	0.57
1:AA:2837:G:H21	13:A0:45:ARG:HH21	1.50	0.57
2:AB:1:U:H2'	2:AB:2:C:C6	2.40	0.57
4:AE:51:PHE:CD1	4:AE:52:LEU:HG	2.39	0.57
4:AE:82:ARG:O	4:AE:84:PHE:N	2.37	0.57
5:AF:29:ASN:H	5:AF:112:MET:HE2	1.67	0.57
10:AN:98:VAL:HG13	10:AN:117:LEU:HB3	1.87	0.57
17:A2:24:LYS:HA	17:A2:92:THR:OG1	2.04	0.57
20:AU:91:GLU:HG3	20:AU:92:ASN:N	2.16	0.57
26:A4:61:ARG:HA	26:A4:61:ARG:HE	1.68	0.57
31:BA:209:U:H5'	31:BA:210:U:OP2	2.05	0.57
31:BA:626:U:H2'	31:BA:627:G:C8	2.39	0.57
31:BA:939:G:H5"	37:BJ:102:ARG:CZ	2.34	0.57
31:BA:1305:G:N2	31:BA:1331:G:H2'	2.10	0.57
32:BE:5:ILE:HG13	32:BE:6:THR:N	2.20	0.57
32:BE:71:VAL:HG12	32:BE:93:VAL:HB	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BL:99:LEU:HB3	39:BL:101:PHE:CE1	2.39	0.57
52:BB:55:U:H2'	52:BB:56:U:O4'	2.05	0.57
1:CA:2180:G:H2'	1:CA:2181:A:H8	1.68	0.57
2:CB:17:A:C3'	2:CB:18:G:H5'	2.29	0.57
4:CE:61:ARG:C	4:CE:63:LEU:H	2.12	0.57
11:CO:46:LYS:HD3	11:CO:51:PHE:CE1	2.36	0.57
21:CV:100:VAL:O	21:CV:124:ILE:HG22	2.04	0.57
23:CZ:60:PHE:HE2	23:CZ:91:LYS:HZ1	1.52	0.57
31:DA:15:G:H1'	35:DH:19:MET:HE3	1.86	0.57
31:DA:277:C:H5'	47:DT:68:ARG:HH12	1.69	0.57
31:DA:485:G:O2'	31:DA:486:U:H6	1.85	0.57
31:DA:940:C:H2'	31:DA:941:G:H8	1.68	0.57
31:DA:992:U:H3	31:DA:1044:A:N6	1.95	0.57
31:DA:1004:A:C5'	31:DA:1025:U:O4	2.52	0.57
31:DA:1129:C:C4	31:DA:1139:G:N1	2.72	0.57
31:DA:1269:A:H5"	31:DA:1270:C:OP2	2.03	0.57
32:DE:16:HIS:NE2	32:DE:209:ARG:HG2	2.20	0.57
32:DE:231:GLU:HB3	32:DE:232:PRO:HD2	1.87	0.57
34:DG:29:PRO:HD2	34:DG:30:LYS:HD2	1.87	0.57
35:DH:11:ILE:HD12	35:DH:31:LEU:HD12	1.86	0.57
36:DI:33:TYR:HE1	36:DI:78:GLU:HG3	1.67	0.57
37:DJ:69:VAL:HG12	37:DJ:69:VAL:O	2.04	0.57
37:DJ:73:MET:HG2	37:DJ:90:GLU:HA	1.86	0.57
39:DL:53:VAL:O	39:DL:55:ALA:N	2.38	0.57
53:DC:54:G:H2'	53:DC:55:U:C6	2.40	0.57
1:AA:273(F):C:H3'	1:AA:274:G:H5"	1.87	0.57
1:AA:438:G:H2'	1:AA:439:G:H8	1.70	0.57
2:AB:13:A:O2'	2:AB:15:A:O5'	2.23	0.57
3:AD:241:PRO:O	3:AD:242:ARG:C	2.48	0.57
4:AE:12:THR:O	4:AE:23:VAL:HG22	2.04	0.57
5:AF:29:ASN:N	5:AF:112:MET:HE1	2.18	0.57
5:AF:39:TRP:HB2	5:AF:101:LEU:HD23	1.86	0.57
7:AH:116:GLU:HG3	7:AH:117:PRO:HD2	1.87	0.57
15:AR:81:PRO:HG2	15:AR:82:LEU:HD12	1.87	0.57
17:A2:47:VAL:CG2	17:A2:48:GLY:N	2.66	0.57
31:BA:97:U:H2'	31:BA:99:C:C6	2.40	0.57
31:BA:191(A):G:OP2	56:BA:1798:OHX:N6	2.38	0.57
31:BA:345:C:O2'	31:BA:346:G:N2	2.37	0.57
31:BA:429:U:H1'	31:BA:430:A:H5"	1.87	0.57
31:BA:578:C:O2'	31:BA:728:A:N3	2.35	0.57
31:BA:688:G:H2'	31:BA:689:C:H6	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:827:U:C5	31:BA:870:U:C4	2.93	0.57
31:BA:1004:A:H5"	31:BA:1025:U:N3	2.20	0.57
37:BJ:49:ILE:O	37:BJ:53:LYS:HB2	2.05	0.57
52:BD:17:G:C1'	52:BD:18:G:OP1	2.48	0.57
54:B1:12:A:O2'	54:B1:13:A:O5'	2.22	0.57
1:CA:56:C:H2'	1:CA:57:G:O4'	2.04	0.57
1:CA:486:U:H4'	29:C7:40:TRP:CH2	2.39	0.57
1:CA:1074:A:N6	1:CA:1173:A:C4	2.72	0.57
3:CD:33:LEU:HD23	3:CD:34:VAL:N	2.19	0.57
3:CD:166:GLN:HE21	3:CD:166:GLN:CA	2.18	0.57
6:CG:102:PHE:HE2	6:CG:141:PHE:HE1	1.52	0.57
11:CO:85:LEU:HA	11:CO:88:LEU:HB3	1.86	0.57
30:C8:8:LYS:HB3	30:C8:12:LYS:HE3	1.85	0.57
31:DA:15:G:H1'	35:DH:19:MET:CE	2.35	0.57
31:DA:179:A:H2'	31:DA:180:U:H6	1.69	0.57
31:DA:963:G:N2	40:DM:55:LYS:HG2	2.20	0.57
31:DA:1250:A:H5'	39:DL:67:GLY:HA2	1.87	0.57
52:DB:3:U:O2'	52:DB:4:G:H8	1.78	0.57
52:DB:17:G:C6	52:DB:67:A:C6	2.93	0.57
52:DB:83:C:H2'	52:DB:84:C:C5'	2.31	0.57
52:DD:51:C:C5	52:DD:52:G:H1'	2.40	0.57
1:AA:795:C:H2'	1:AA:796:C:H6	1.68	0.57
1:AA:907:U:O2'	12:AP:101:ARG:NH2	2.36	0.57
4:AE:64:LYS:O	4:AE:70:ALA:HB2	2.05	0.57
8:AK:101:LEU:HD21	8:AK:107:VAL:HB	1.85	0.57
11:AO:66:GLY:O	11:AO:67:MET:CB	2.52	0.57
16:A1:79:PHE:HE1	16:A1:106:PHE:CZ	2.22	0.57
20:AU:95:LYS:O	20:AU:95:LYS:HG3	2.05	0.57
22:A3:53:MET:HA	22:A3:58:THR:O	2.04	0.57
31:BA:149:A:C2	31:BA:150:C:N3	2.72	0.57
31:BA:963:G:H21	40:BM:55:LYS:CE	2.17	0.57
35:BH:12:LEU:HD23	35:BH:13:ILE:N	2.20	0.57
40:BM:58:ASP:O	40:BM:59:SER:HB3	2.04	0.57
41:BN:126:ARG:HG3	41:BN:126:ARG:HH11	1.70	0.57
1:CA:1637:U:H2'	1:CA:1638:G:H8	1.69	0.57
1:CA:1767:G:C5	1:CA:1769:U:OP2	2.58	0.57
1:CA:2069:G:H5'	27:C5:19:ARG:HG3	1.86	0.57
3:CD:242:ARG:HD3	3:CD:242:ARG:N	2.18	0.57
4:CE:51:PHE:CD2	4:CE:52:LEU:HG	2.39	0.57
12:CP:79:LEU:CD1	12:CP:80:GLU:HB2	2.35	0.57
30:C8:30:ARG:HH11	30:C8:30:ARG:HG2	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:97:U:O2'	31:DA:99:C:H5'	2.05	0.57
31:DA:191(E):G:H2'	31:DA:191(F):U:C6	2.40	0.57
31:DA:1131:G:H2'	31:DA:1132:C:C6	2.39	0.57
31:DA:1157:A:O2'	31:DA:1158:C:P	2.62	0.57
46:DS:18:ARG:HD2	46:DS:35:LYS:HD2	1.86	0.57
53:DC:65:G:H2'	53:DC:66:C:O4'	2.05	0.57
1:AA:864:G:C6	1:AA:865:C:N4	2.73	0.57
1:AA:1528:A:N1	1:AA:1543:A:N1	2.53	0.57
1:AA:1652:A:OP1	13:A0:8:ARG:NH1	2.38	0.57
1:AA:2140:C:C2	1:AA:2151:G:N2	2.72	0.57
1:AA:2219:G:C2'	1:AA:2224:G:H5'	2.34	0.57
17:A2:64:HIS:ND1	17:A2:92:THR:HG22	2.20	0.57
20:AU:78:ALA:HB3	20:AU:81:LYS:HZ1	1.70	0.57
31:BA:5:U:O2'	31:BA:6:G:C4	2.56	0.57
31:BA:131:C:O2	31:BA:131:C:H2'	2.04	0.57
31:BA:160:A:H2'	31:BA:161:A:O4'	2.04	0.57
31:BA:1004:A:O4'	31:BA:1036:G:C6	2.58	0.57
31:BA:1525:G:OP1	41:BN:120:ARG:NH2	2.38	0.57
41:BN:127:LYS:NZ	41:BN:127:LYS:HA	2.20	0.57
47:BT:11:VAL:HG23	47:BT:20:THR:HB	1.86	0.57
47:BT:67:LYS:O	47:BT:68:ARG:CB	2.52	0.57
1:CA:83:A:H61	1:CA:100:G:C2'	2.16	0.57
1:CA:332:G:H21	1:CA:355:A:H62	1.51	0.57
1:CA:506:A:H4'	1:CA:507:A:OP1	2.02	0.57
1:CA:693:C:O2'	1:CA:694:G:OP1	2.22	0.57
1:CA:1347:U:C2	1:CA:1673:G:C6	2.92	0.57
1:CA:1847:A:OP1	1:CA:1847:A:H8	1.88	0.57
1:CA:2794:G:H3'	1:CA:2795:A:H5'	1.87	0.57
11:CO:107:LYS:HB3	11:CO:110:TYR:HD2	1.70	0.57
31:DA:243:A:H2	31:DA:245:C:H2'	1.69	0.57
31:DA:1010:G:H2'	31:DA:1011:G:O4'	2.05	0.57
31:DA:1198:G:H2'	31:DA:1199:U:C6	2.40	0.57
31:DA:1513:A:H2'	31:DA:1514:C:C6	2.39	0.57
42:DO:55:VAL:O	42:DO:62:GLU:HA	2.03	0.57
52:DB:51:C:OP2	52:DB:51:C:C6	2.57	0.57
1:AA:654(B):C:H42	1:AA:654(S):G:H1	1.51	0.57
1:AA:890:A:H3'	1:AA:892:G:H8	1.68	0.57
1:AA:1188:U:O2'	1:AA:1189:A:H5'	2.04	0.57
1:AA:2498:C:O2'	1:AA:2499:C:H5'	2.05	0.57
1:AA:2861:G:N7	56:AA:3294:OHX:N3	2.53	0.57
1:AA:2898:U:H2'	1:AA:2899:G:C8	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:9:ILE:HB	7:AH:49:VAL:HB	1.85	0.57
8:AK:25:TYR:CE2	8:AK:29:TYR:CD2	2.91	0.57
11:AO:100:LEU:HB3	11:AO:106:LEU:HD12	1.86	0.57
13:A0:38:VAL:HB	13:A0:39:PRO:HD3	1.85	0.57
20:AU:90:LEU:HD12	20:AU:90:LEU:N	2.19	0.57
21:AV:141:VAL:O	21:AV:144:LEU:HD12	2.04	0.57
31:BA:827:U:C5	31:BA:870:U:C5	2.92	0.57
31:BA:1112:C:O2	33:BF:179:ARG:HG2	2.04	0.57
31:BA:1129:C:N3	31:BA:1143:G:N2	2.44	0.57
33:BF:94:LEU:H	33:BF:94:LEU:HD23	1.70	0.57
41:BN:59:TYR:CZ	41:BN:63:LEU:HD11	2.40	0.57
52:BD:23:A:H2'	52:BD:24:G:O4'	2.05	0.57
1:CA:520:G:H21	18:CS:57:ASN:HD21	1.51	0.57
1:CA:1526:G:H2'	1:CA:1527:G:H8	1.70	0.57
1:CA:2405:A:H2	1:CA:2437:C:H42	1.51	0.57
2:CB:10:U:O2'	14:CQ:40:ILE:HD13	2.05	0.57
2:CB:46:G:C2	2:CB:50:A:C2	2.93	0.57
3:CD:28:GLU:N	3:CD:29:PRO:CD	2.68	0.57
4:CE:12:THR:O	4:CE:23:VAL:HG22	2.04	0.57
10:CN:45:GLU:HA	10:CN:54:GLU:HG2	1.87	0.57
11:CO:52:GLU:HG3	11:CO:57:THR:CG2	2.34	0.57
12:CP:3:MET:CB	12:CP:93:TYR:CD1	2.87	0.57
31:DA:925:G:O6	56:DA:1783:OHX:N3	2.38	0.57
31:DA:1023:G:C6	31:DA:1024:G:N7	2.73	0.57
31:DA:1049:U:H4'	31:DA:1050:G:H5"	1.85	0.57
52:DB:70:C:H2'	52:DB:70:C:O2	2.04	0.57
1:AA:229:A:C4'	1:AA:230:U:OP2	2.53	0.57
1:AA:566:U:O4	17:A2:78:LYS:HD3	2.05	0.57
1:AA:581:C:H2'	1:AA:582:G:C8	2.40	0.57
1:AA:748:G:OP2	18:AS:88:ARG:HG3	2.05	0.57
1:AA:850:C:O2'	25:AX:46:ASN:ND2	2.37	0.57
1:AA:1175:U:O3'	1:AA:1176:G:H4'	2.04	0.57
1:AA:1291:C:H2'	1:AA:1292:U:H6	1.70	0.57
1:AA:1983:C:O2'	1:AA:1984:G:H5'	2.05	0.57
1:AA:2015:A:C1'	27:A5:2:ALA:CB	2.81	0.57
1:AA:2286:A:H4'	1:AA:2287:A:O4'	2.04	0.57
2:AB:7:G:H4'	14:AQ:29:PHE:HD1	1.69	0.57
11:AO:47:ASP:OD2	11:AO:49:ARG:HG2	2.04	0.57
12:AP:32:TYR:CE1	12:AP:133:ARG:HG3	2.40	0.57
24:AW:42:GLY:C	24:AW:44:LEU:H	2.13	0.57
31:BA:39:G:N7	31:BA:547:A:C8	2.72	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:438:G:H4'	34:BG:123:HIS:ND1	2.19	0.57
31:BA:1004:A:O4'	31:BA:1036:G:O6	2.22	0.57
31:BA:1169:A:N6	31:BA:1170:A:N1	2.53	0.57
46:BS:12:LYS:C	46:BS:14:ASN:H	2.13	0.57
49:BV:18:LYS:O	49:BV:22:LEU:HD13	2.05	0.57
1:CA:2316:G:C2'	1:CA:2317:G:H5'	2.35	0.57
8:CK:60:GLU:HG3	8:CK:61:ARG:N	2.19	0.57
8:CK:72:LEU:C	8:CK:74:ASN:H	2.12	0.57
8:CK:114:LEU:O	8:CK:115:ALA:HB3	2.05	0.57
8:CK:143:SER:O	8:CK:144:VAL:HB	2.05	0.57
9:CM:98:VAL:HG23	9:CM:99:LEU:H	1.69	0.57
11:CO:52:GLU:HG3	11:CO:57:THR:HG22	1.87	0.57
13:C0:21:TYR:OH	13:C0:43:GLU:HG2	2.05	0.57
30:C8:24:ALA:H	30:C8:49:VAL:HG23	1.68	0.57
32:DE:83:MET:SD	32:DE:234:PRO:HB2	2.45	0.57
37:DJ:69:VAL:HG12	37:DJ:103:TRP:HE3	1.69	0.57
45:DR:78:TYR:O	45:DR:82:ILE:HG22	2.04	0.57
52:DD:11:C:C2'	52:DD:12:C:H5'	2.26	0.57
1:AA:900:A:H5'	1:AA:901:A:OP2	2.05	0.56
1:AA:974(A):C:H4'	1:AA:975:G:C5'	2.35	0.56
1:AA:1332:G:H21	1:AA:1610:A:H8	1.52	0.56
1:AA:1536:A:H2'	1:AA:1537:C:OP1	2.04	0.56
1:AA:1582:C:HO2'	1:AA:1586:A:H8	1.52	0.56
1:AA:2016:U:O2'	27:A5:6:VAL:CG1	2.52	0.56
1:AA:2481:G:O2'	1:AA:2482:G:P	2.63	0.56
4:AE:37:ARG:NH1	4:AE:42:ASP:OD2	2.38	0.56
5:AF:8:GLN:CD	5:AF:8:GLN:H	2.12	0.56
9:AM:94:HIS:CG	9:AM:97:ARG:HH21	2.23	0.56
11:AO:68:GLN:HG2	30:A8:12:LYS:HD3	1.87	0.56
28:A6:24:GLU:HA	56:A6:101:OHX:N3	2.20	0.56
30:A8:34:TRP:CE3	30:A8:35:GLN:HB2	2.40	0.56
31:BA:192:U:H2'	31:BA:193:C:C6	2.40	0.56
31:BA:243:A:H4'	31:BA:244:U:H3'	1.87	0.56
31:BA:353:A:C2'	31:BA:354:G:OP2	2.52	0.56
31:BA:439:A:OP2	31:BA:493:G:N2	2.37	0.56
31:BA:1159:U:O4'	31:BA:1182:G:N2	2.38	0.56
31:BA:1227:A:OP2	43:BP:111:LYS:HE3	2.05	0.56
37:BJ:15:ASP:O	37:BJ:19:GLY:HA2	2.05	0.56
39:BL:9:ARG:HB3	39:BL:14:VAL:HG22	1.87	0.56
51:BX:5:ASP:O	51:BX:11:GLY:HA3	2.05	0.56
1:CA:895:U:C5	1:CA:979:A:N6	2.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1102:G:N1	1:CA:1151:C:O2	2.34	0.56
1:CA:1256:A:H4'	1:CA:1257:U:O5'	2.04	0.56
1:CA:2428:G:H4'	11:CO:67:MET:N	2.18	0.56
1:CA:2883:G:C2	1:CA:2884:A:N6	2.73	0.56
5:CF:124:LEU:O	5:CF:125:LEU:C	2.47	0.56
5:CF:157:VAL:O	5:CF:194:MET:HA	2.05	0.56
5:CF:161:GLU:HG2	5:CF:164:ARG:HH12	1.70	0.56
12:CP:26:TYR:HE1	12:CP:139:GLU:HB2	1.67	0.56
14:CQ:34:HIS:CG	14:CQ:54:LEU:HB2	2.40	0.56
23:CZ:82:LEU:H	23:CZ:82:LEU:CD2	2.16	0.56
31:DA:13:U:OP2	56:DA:1730:OHX:N3	2.37	0.56
31:DA:186(C):G:H1	31:DA:191(D):U:H3	1.53	0.56
31:DA:963:G:H21	40:DM:55:LYS:HE2	1.70	0.56
31:DA:1178:G:N2	31:DA:1181:G:N7	2.53	0.56
51:DX:6:ARG:HG2	51:DX:15:ARG:HH21	1.67	0.56
1:AA:265:A:H1'	1:AA:266:G:O4'	2.05	0.56
1:AA:458:G:O2'	1:AA:469:G:O6	2.19	0.56
1:AA:602:G:N2	1:AA:655:A:C8	2.72	0.56
1:AA:1550:C:H2'	1:AA:1551:C:H6	1.69	0.56
4:AE:117:MET:O	4:AE:118:LYS:CB	2.52	0.56
8:AK:93:THR:HG22	8:AK:119:PRO:HB3	1.88	0.56
31:BA:145:G:N7	56:BA:1812:OHX:N1	2.53	0.56
31:BA:950:U:H2'	31:BA:951:G:C8	2.41	0.56
34:BG:9:CYS:O	34:BG:13:ARG:HG2	2.05	0.56
38:BK:87:SER:HA	38:BK:93:VAL:HG23	1.86	0.56
39:BL:3:GLN:HB3	39:BL:20:ARG:NH1	2.20	0.56
1:CA:29:U:H2'	1:CA:30:G:C8	2.40	0.56
1:CA:646:G:H4'	1:CA:647:A:C5'	2.36	0.56
1:CA:659:A:H8	1:CA:659:A:O5'	1.87	0.56
1:CA:853:G:O4'	11:CO:38:GLN:NE2	2.38	0.56
1:CA:1587:G:H2'	1:CA:1588:U:O4'	2.05	0.56
1:CA:2191:G:H2'	1:CA:2191:G:N3	2.19	0.56
1:CA:2831:A:C5	13:C0:4:LEU:HD11	2.40	0.56
2:CB:45:C:OP1	26:C4:6:HIS:CE1	2.59	0.56
11:CO:52:GLU:CD	11:CO:57:THR:HA	2.28	0.56
11:CO:55:ARG:O	11:CO:57:THR:N	2.38	0.56
28:C6:34:LEU:H	28:C6:34:LEU:HD23	1.70	0.56
31:DA:1025:U:HO2'	31:DA:1026:G:P	2.28	0.56
31:DA:1321:C:N4	31:DA:1322:C:N4	2.53	0.56
39:DL:17:VAL:HG21	39:DL:80:GLY:CA	2.36	0.56
42:DO:44:LYS:CB	42:DO:45:PRO:CD	2.80	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DR:39:LEU:HD22	45:DR:39:LEU:O	2.05	0.56
52:DB:77:C:C4	52:DB:78:C:N4	2.73	0.56
1:AA:229:A:C1'	1:AA:230:U:OP2	2.53	0.56
1:AA:587:C:H4'	1:AA:588:U:O5'	2.04	0.56
1:AA:860:U:C5	1:AA:917:A:H2	2.23	0.56
1:AA:1057:A:N7	1:AA:1086:A:C4	2.73	0.56
1:AA:1678:G:N2	1:AA:1989:G:N2	2.44	0.56
1:AA:1786:A:H1'	1:AA:1938:A:N6	2.19	0.56
1:AA:1798:U:H5"	3:AD:259:THR:CG2	2.35	0.56
1:AA:2105:C:H2'	1:AA:2106:G:C8	2.40	0.56
1:AA:2393:A:H2'	1:AA:2394:C:O4'	2.05	0.56
1:AA:2428:G:H21	11:AO:60:MET:CE	2.17	0.56
1:AA:2553:G:H5"	1:AA:2554:U:OP2	2.04	0.56
1:AA:2802:G:H8	1:AA:2802:G:OP2	1.88	0.56
2:AB:77:U:P	21:AV:19:ARG:HH22	2.28	0.56
4:AE:116:VAL:O	4:AE:117:MET:CB	2.52	0.56
15:AR:26:ASP:HB2	15:AR:90:GLN:O	2.06	0.56
21:AV:23:LYS:HD3	21:AV:40:ASP:HA	1.86	0.56
27:A5:40:LYS:CG	27:A5:47:PRO:HD2	2.35	0.56
31:BA:79:G:H1	31:BA:90:C:H42	1.52	0.56
31:BA:84:U:H2'	31:BA:84:U:O2	2.05	0.56
31:BA:939:G:H2'	31:BA:940:C:C6	2.40	0.56
31:BA:1130:A:C2	31:BA:1146:A:C4	2.94	0.56
32:BE:32:ILE:HD11	32:BE:40:HIS:HB3	1.86	0.56
32:BE:71:VAL:HG23	32:BE:164:VAL:HA	1.86	0.56
33:BF:58:GLU:HB2	33:BF:65:ALA:HB3	1.86	0.56
34:BG:108:LEU:HB3	34:BG:110:PHE:HE1	1.68	0.56
37:BJ:23:VAL:O	37:BJ:27:ILE:HG13	2.04	0.56
37:BJ:126:ASP:HB3	37:BJ:132:GLY:HA2	1.86	0.56
41:BN:54:ARG:NH1	52:BD:40:U:O3'	2.38	0.56
53:BC:6:G:H1	53:BC:68:C:H42	1.54	0.56
52:BD:18:G:H4'	52:BD:19:C:O5'	2.05	0.56
1:CA:70:A:H5"	1:CA:72:A:C8	2.39	0.56
1:CA:105:C:H2'	1:CA:106:U:C6	2.35	0.56
1:CA:646:G:N3	1:CA:646:G:H5'	2.20	0.56
1:CA:898:C:O2'	25:CX:46:ASN:ND2	2.38	0.56
1:CA:2131:C:N4	1:CA:2204:G:H1	2.01	0.56
1:CA:2390:A:H4'	14:CQ:111:GLU:O	2.04	0.56
1:CA:2675:A:H8	1:CA:2675:A:O5'	1.89	0.56
5:CF:161:GLU:HA	5:CF:164:ARG:NH1	2.19	0.56
7:CH:7:LEU:HD12	7:CH:8:PRO:N	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CM:7:LYS:O	9:CM:9:VAL:HG13	2.05	0.56
10:CN:22:ILE:HG12	10:CN:41:ALA:HA	1.87	0.56
12:CP:26:TYR:HD1	12:CP:139:GLU:HG3	1.69	0.56
14:CQ:29:PHE:CD2	14:CQ:30:ARG:N	2.70	0.56
15:CR:16:ARG:HB3	15:CR:18:ASP:OD1	2.05	0.56
17:C2:14:VAL:HB	17:C2:96:ILE:HG13	1.87	0.56
18:CS:95:ILE:H	18:CS:95:ILE:HD13	1.69	0.56
23:CZ:53:VAL:HG22	23:CZ:74:VAL:HG22	1.86	0.56
24:CW:12:GLU:O	24:CW:16:LEU:HD23	2.06	0.56
30:C8:51:ALA:HB1	30:C8:52:LYS:HD2	1.86	0.56
31:DA:600:C:H2'	31:DA:601:C:H6	1.71	0.56
31:DA:719:C:O2'	48:DU:49:LYS:HB3	2.06	0.56
31:DA:838:G:N2	31:DA:849:C:C2	2.74	0.56
31:DA:1190:G:OP1	33:DF:5:ILE:HG23	2.03	0.56
31:DA:1213:A:N6	31:DA:1215:G:N3	2.53	0.56
32:DE:187:LEU:HA	32:DE:201:ILE:HB	1.87	0.56
33:DF:23:TYR:C	33:DF:23:TYR:HD2	2.13	0.56
35:DH:51:VAL:O	35:DH:55:VAL:HG23	2.05	0.56
40:DM:13:HIS:CE1	40:DM:14:LYS:HG3	2.40	0.56
49:DV:7:LYS:HG2	49:DV:8:GLY:H	1.69	0.56
1:AA:494:G:H4'	18:AS:6:ILE:HB	1.87	0.56
1:AA:527:C:H4'	1:AA:528:A:H5'	1.86	0.56
1:AA:1021:A:H3'	1:AA:1022:G:H5"	1.87	0.56
1:AA:1275:A:C4	13:A0:16:HIS:ND1	2.73	0.56
1:AA:2284:C:H41	28:A6:25:LYS:NZ	2.03	0.56
3:AD:264:LYS:HG2	3:AD:266:SER:HB3	1.87	0.56
8:AK:7:GLU:O	8:AK:9:LEU:HD13	2.05	0.56
11:AO:19:VAL:CG2	11:AO:27:HIS:CB	2.39	0.56
27:A5:33:CYS:HB2	27:A5:40:LYS:CD	2.32	0.56
30:A8:61:LEU:HD12	30:A8:61:LEU:O	2.05	0.56
31:BA:105:G:H2'	31:BA:106:C:H6	1.71	0.56
31:BA:659:U:H2'	31:BA:660:G:C8	2.39	0.56
31:BA:745:C:OP1	31:BA:851:G:O2'	2.22	0.56
34:BG:138:TYR:CD2	34:BG:138:TYR:C	2.83	0.56
35:BH:147:ASP:N	35:BH:147:ASP:OD2	2.35	0.56
50:BW:76:ALA:O	50:BW:80:ARG:HG2	2.05	0.56
52:BB:51:C:OP2	52:BB:51:C:C6	2.59	0.56
52:BD:16:C:H2'	52:BD:18:G:OP2	2.05	0.56
1:CA:66:U:O4	1:CA:73:A:N1	2.38	0.56
1:CA:172:A:N6	1:CA:204:G:O6	2.38	0.56
1:CA:1410:C:H2'	1:CA:1411:G:H8	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1730:G:H4'	1:CA:1794:A:C2	2.40	0.56
1:CA:1829:C:H4'	3:CD:257:LEU:O	2.06	0.56
1:CA:2432:U:P	30:C8:33:ASN:ND2	2.79	0.56
1:CA:2694:C:N4	1:CA:2739:A:H62	2.00	0.56
7:CH:16:SER:O	7:CH:17:VAL:HG23	2.05	0.56
12:CP:31:ASP:H	12:CP:107:ALA:HB2	1.70	0.56
17:C2:35:LEU:O	17:C2:37:VAL:HG22	2.06	0.56
20:CU:76:CYS:HB3	20:CU:96:ILE:HD11	1.86	0.56
31:DA:458:C:H2'	31:DA:464:G:H8	1.69	0.56
31:DA:882:C:H41	42:DO:2:PRO:HB3	1.71	0.56
31:DA:1177:G:H2'	31:DA:1178:G:C5	2.41	0.56
42:DO:44:LYS:O	42:DO:46:ASN:N	2.39	0.56
43:DP:76:ALA:O	43:DP:80:ARG:HG3	2.06	0.56
47:DT:29:HIS:CD2	47:DT:30:PRO:HD2	2.39	0.56
50:DW:58:LYS:HD2	50:DW:62:LEU:HD12	1.86	0.56
52:DB:50:U:H2'	52:DB:51:C:C6	2.40	0.56
1:AA:618(A):C:O2	1:AA:618(A):C:H2'	2.03	0.56
1:AA:654(P):G:H2'	1:AA:654(Q):C:C6	2.39	0.56
1:AA:1952:A:C6	1:AA:1953:A:C6	2.93	0.56
1:AA:2163:C:C2'	1:AA:2164:C:H5'	2.34	0.56
24:AW:42:GLY:O	24:AW:44:LEU:N	2.39	0.56
25:AX:12:PRO:HB2	25:AX:20:LYS:HG2	1.86	0.56
31:BA:299:G:H2'	31:BA:300:A:C8	2.40	0.56
31:BA:655:A:H61	31:BA:751:U:H3	1.54	0.56
31:BA:1026:G:N7	31:BA:1036:G:N2	2.54	0.56
38:BK:86:ILE:O	38:BK:87:SER:C	2.49	0.56
39:BL:48:GLU:N	39:BL:49:PRO:CD	2.63	0.56
1:CA:553:C:H5	56:CA:3331:OHX:N5	2.03	0.56
1:CA:1294:A:O2'	1:CA:1295:G:H5"	2.05	0.56
1:CA:1304:C:H4'	5:CF:83:PHE:CE2	2.41	0.56
1:CA:1908:A:H3'	1:CA:1909:C:H6	1.71	0.56
1:CA:2189:G:N2	1:CA:2194:A:N7	2.54	0.56
1:CA:2205:G:H2'	1:CA:2206:C:C6	2.41	0.56
5:CF:25:PRO:CB	5:CF:28:ILE:HG23	2.36	0.56
5:CF:128:ALA:C	5:CF:142:TRP:HE1	2.14	0.56
6:CG:114:ILE:HG22	6:CG:117:PHE:HB2	1.86	0.56
13:C0:34:ILE:CG2	13:C0:114:VAL:HB	2.33	0.56
21:CV:146:ILE:HG13	21:CV:147:GLY:H	1.69	0.56
31:DA:743:U:H2'	31:DA:744:C:H6	1.70	0.56
31:DA:1269:A:H2	31:DA:1312:G:N3	2.03	0.56
31:DA:1343:G:H1'	39:DL:121:ARG:HH11	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1381:U:H2'	31:DA:1381:U:O2	2.05	0.56
31:DA:1392:G:N2	31:DA:1502:A:C8	2.71	0.56
37:DJ:43:PHE:CD1	37:DJ:43:PHE:C	2.82	0.56
41:DN:111:ASP:OD1	48:DU:84:LYS:HD3	2.05	0.56
42:DO:21:VAL:C	42:DO:23:ALA:H	2.14	0.56
1:AA:34:C:HO2'	1:AA:35:G:P	2.28	0.56
1:AA:49:A:C8	1:AA:120:U:H5	2.23	0.56
1:AA:1159:U:P	25:AX:30:ARG:HH12	2.29	0.56
1:AA:2690:C:OP2	1:AA:2690:C:H6	1.89	0.56
3:AD:35:LYS:HZ2	3:AD:64:ILE:C	2.07	0.56
3:AD:137:PRO:O	3:AD:140:THR:OG1	2.22	0.56
4:AE:13:ARG:HB2	4:AE:21:VAL:HG12	1.88	0.56
4:AE:105:THR:O	4:AE:196:VAL:HB	2.06	0.56
9:AM:47:ALA:HB2	9:AM:112:LEU:CD1	2.36	0.56
16:A1:88:ILE:C	16:A1:90:VAL:N	2.63	0.56
22:A3:14:ARG:O	22:A3:15:ASP:HB2	2.06	0.56
24:AW:29:LYS:HG2	24:AW:57:ILE:HD13	1.88	0.56
31:BA:415:A:OP2	56:BA:1666:OHX:N5	2.38	0.56
52:BD:21:A:C1'	52:BD:22:A:O5'	2.53	0.56
54:B1:11:U:H4'	54:B1:12:A:OP2	2.06	0.56
1:CA:340:G:H2'	1:CA:341:C:C6	2.41	0.56
1:CA:1163:C:H2'	1:CA:1164:G:H8	1.70	0.56
1:CA:2669:U:H3	1:CA:2678:A:H2	1.54	0.56
3:CD:71:ASP:OD2	3:CD:103:ARG:NH2	2.39	0.56
15:CR:107:ASP:H	15:CR:110:ILE:HG12	1.69	0.56
20:CU:95:LYS:HB2	20:CU:95:LYS:NZ	2.19	0.56
23:CZ:92:LYS:HB2	23:CZ:93:GLU:OE1	2.06	0.56
31:DA:1049:U:H4'	31:DA:1050:G:O5'	2.03	0.56
31:DA:1200:C:H5'	31:DA:1201:A:C5'	2.35	0.56
43:DP:6:GLY:O	43:DP:7:VAL:HG13	2.05	0.56
52:DB:78:C:O2'	52:DB:79:A:O4'	2.21	0.56
1:AA:286:C:O2	1:AA:356:G:C2	2.59	0.56
1:AA:370:G:H4'	1:AA:371:A:OP2	2.04	0.56
1:AA:673:C:H5"	5:AF:81:PRO:HD2	1.87	0.56
1:AA:1551:C:H2'	1:AA:1552:G:C5'	2.36	0.56
1:AA:2119:A:H62	1:AA:2168:G:N2	2.03	0.56
2:AB:0:A:C2'	2:AB:1:U:H5'	2.36	0.56
3:AD:122:ASP:CG	3:AD:123:ALA:H	2.12	0.56
5:AF:40:GLN:OE1	5:AF:184:TYR:HB3	2.06	0.56
17:A2:65:GLY:HA3	17:A2:91:TYR:CZ	2.40	0.56
26:A4:50:VAL:CG1	43:BP:65:LYS:HB3	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:A6:36:LEU:HB3	28:A6:50:ARG:HG2	1.87	0.56
29:A7:43:THR:HG23	29:A7:44:PRO:HD2	1.88	0.56
31:BA:142:G:H2'	31:BA:143:A:H8	1.71	0.56
31:BA:313:A:H2'	31:BA:314:C:C6	2.41	0.56
31:BA:909:A:H2'	31:BA:910:C:O4'	2.05	0.56
31:BA:1025:U:O2'	31:BA:1026:G:O5'	2.20	0.56
32:BE:212:GLN:NE2	32:BE:216:SER:HB2	2.20	0.56
33:BF:6:HIS:HD2	33:BF:7:PRO:HD2	1.71	0.56
37:BJ:24:THR:HA	37:BJ:27:ILE:HD12	1.88	0.56
52:BB:59:A:C6	52:BB:60:A:C5	2.93	0.56
52:BB:73:U:C2'	52:BB:74:C:H5'	2.36	0.56
1:CA:17:G:H2'	1:CA:18:C:H6	1.71	0.56
1:CA:723:A:OP1	5:CF:63:LYS:NZ	2.31	0.56
1:CA:918:A:C2	1:CA:955:C:C2	2.94	0.56
3:CD:26:LYS:H	3:CD:26:LYS:HD2	1.70	0.56
4:CE:107:THR:O	4:CE:190:GLY:HA2	2.05	0.56
5:CF:37:VAL:HG13	5:CF:184:TYR:HD1	1.70	0.56
20:CU:97:ARG:HD3	20:CU:97:ARG:H	1.70	0.56
26:C4:56:VAL:O	26:C4:57:GLU:HB2	2.05	0.56
31:DA:559:A:C4'	31:DA:560:U:H3'	2.33	0.56
31:DA:750:G:N3	45:DR:23:GLY:HA3	2.20	0.56
31:DA:1387:G:H2'	31:DA:1388:C:C6	2.41	0.56
32:DE:92:TYR:CE2	32:DE:151:GLY:HA3	2.41	0.56
34:DG:26:CYS:HA	34:DG:31:CYS:CB	2.35	0.56
36:DI:100:ASN:H	48:DU:23:LYS:NZ	2.03	0.56
42:DO:30:ARG:H	42:DO:82:ILE:HG22	1.69	0.56
52:DB:12:C:N3	52:DB:24:G:O6	2.39	0.56
52:DD:13:G:H1'	52:DD:23:A:H61	1.70	0.56
1:AA:621:A:H2'	1:AA:622:G:H5'	1.88	0.56
1:AA:880:G:OP1	1:AA:880:G:H4'	2.06	0.56
1:AA:905:U:C2'	1:AA:906:G:H5"	2.35	0.56
1:AA:1420:U:O2'	1:AA:1421:G:OP1	2.20	0.56
1:AA:1448:G:N3	1:AA:1529:A:H2	2.04	0.56
1:AA:2267:A:OP2	56:AA:3458:OHX:N5	2.39	0.56
1:AA:2310:A:H5'	1:AA:2311:A:OP2	2.04	0.56
4:AE:152:LYS:HG2	9:AM:78:TYR:CE1	2.41	0.56
7:AH:58:GLU:O	7:AH:59:ARG:C	2.49	0.56
11:AO:97:PRO:HD3	11:AO:126:VAL:O	2.06	0.56
21:AV:52:SER:C	21:AV:54:HIS:H	2.12	0.56
27:A5:4:HIS:CD2	27:A5:5:PRO:HD3	2.38	0.56
30:A8:29:LYS:NZ	30:A8:44:LYS:HB2	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:632:A:C8	31:BA:633:G:C8	2.94	0.56
31:BA:792:A:OP1	31:BA:792:A:H4'	2.06	0.56
31:BA:880:C:P	42:BO:5:ASN:HD22	2.29	0.56
34:BG:138:TYR:C	34:BG:138:TYR:HD2	2.14	0.56
44:BQ:15:LYS:HG2	44:BQ:16:PHE:CE2	2.41	0.56
46:BS:5:ARG:HE	46:BS:22:THR:HG21	1.71	0.56
50:BW:13:LEU:C	50:BW:13:LEU:HD12	2.30	0.56
52:BD:60:A:H2'	52:BD:61:G:O4'	2.06	0.56
1:CA:90:A:C2'	1:CA:91:G:H5'	2.35	0.56
1:CA:554:A:H2	1:CA:2066:C:C5'	2.18	0.56
1:CA:842:G:H2'	1:CA:843:C:C6	2.41	0.56
1:CA:844:C:H2'	1:CA:845:C:C6	2.41	0.56
1:CA:2156:G:H2'	1:CA:2180:G:H22	1.69	0.56
2:CB:9:G:H4'	14:CQ:29:PHE:HD1	1.71	0.56
3:CD:109:ASP:HB2	3:CD:197:GLY:HA2	1.87	0.56
17:C2:24:LYS:HA	17:C2:92:THR:HG1	1.67	0.56
28:C6:27:LYS:HB2	28:C6:27:LYS:NZ	2.21	0.56
31:DA:116:A:OP2	31:DA:116:A:H8	1.87	0.56
31:DA:585:G:H4'	42:DO:5:ASN:HD21	1.70	0.56
31:DA:1024:G:H3'	31:DA:1024:G:N3	2.21	0.56
31:DA:1190:G:H8	31:DA:1190:G:H3'	1.71	0.56
31:DA:1240:U:H1'	37:DJ:38:LEU:HD21	1.87	0.56
31:DA:1298:C:O2'	31:DA:1299:A:C2	2.59	0.56
52:DD:30:A:H61	52:DD:42:U:H3	1.53	0.56
1:AA:165:U:H2'	1:AA:171:G:O4'	2.05	0.56
1:AA:899:A:OP2	1:AA:899:A:H8	1.89	0.56
1:AA:1813:G:H1'	3:AD:50:THR:OG1	2.06	0.56
1:AA:1869:G:H5'	1:AA:1870:C:OP2	2.05	0.56
1:AA:2197:U:OP2	56:AA:3419:OHX:N4	2.39	0.56
2:AB:7:G:H4'	14:AQ:29:PHE:CD1	2.40	0.56
3:AD:36:PRO:HB3	3:AD:61:LEU:HB3	1.88	0.56
8:AK:76:THR:HG23	8:AK:139:GLN:O	2.05	0.56
8:AK:94:ALA:O	8:AK:111:PRO:HG3	2.05	0.56
31:BA:129(A):G:C2	31:BA:191(A):G:C8	2.93	0.56
31:BA:284:G:H2'	31:BA:285:G:C8	2.41	0.56
31:BA:1010:G:N2	31:BA:1020:U:H1'	2.21	0.56
31:BA:1178:G:H22	31:BA:1181:G:H8	1.49	0.56
31:BA:1299:A:H5'	31:BA:1300:G:OP1	2.06	0.56
31:BA:1322:C:HO2'	31:BA:1323:G:C5'	2.15	0.56
34:BG:53:ASP:OD2	34:BG:57:ARG:NH2	2.39	0.56
35:BH:31:LEU:HD23	35:BH:45:PHE:HD1	1.68	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BN:29:ILE:HG13	41:BN:44:SER:HB3	1.88	0.56
42:BO:4:ILE:CD1	47:BT:32:TYR:HB3	2.36	0.56
46:BS:1:MET:O	46:BS:1:MET:HG2	2.06	0.56
1:CA:469:G:C6	1:CA:471:C:N4	2.74	0.56
1:CA:479:G:H5'	5:CF:59:TYR:CE2	2.37	0.56
5:CF:18:ARG:NH2	5:CF:20:LEU:HD12	2.20	0.56
6:CG:104:GLU:HG2	26:C4:23:GLU:CG	2.24	0.56
12:CP:116:GLU:O	12:CP:117:ALA:HB2	2.06	0.56
21:CV:115:GLY:CA	21:CV:177:PRO:HG2	2.36	0.56
23:CZ:86:SER:H	23:CZ:87:PRO:HD2	1.65	0.56
31:DA:404:U:H2'	31:DA:405:U:C6	2.41	0.56
31:DA:1255:G:OP1	40:DM:45:ARG:NH1	2.36	0.56
32:DE:77:ALA:HB2	32:DE:211:ILE:HD13	1.86	0.56
34:DG:30:LYS:HG2	34:DG:30:LYS:O	2.05	0.56
34:DG:64:LEU:HD13	34:DG:198:VAL:HG21	1.87	0.56
41:DN:54:ARG:HG2	41:DN:54:ARG:NH1	1.98	0.56
1:AA:297:C:H5"	20:AU:85:VAL:CG2	2.36	0.56
1:AA:409:C:OP2	56:AA:3312:OHX:N1	2.39	0.56
1:AA:883:G:H2'	1:AA:884:C:C4'	2.35	0.56
1:AA:956:G:H5"	12:AP:77:LYS:HE2	1.88	0.56
1:AA:1236:G:O6	56:AA:3499:OHX:N4	2.38	0.56
1:AA:1420:U:HO2'	1:AA:1421:G:P	2.29	0.56
1:AA:1540:G:H2'	1:AA:1541:U:O4'	2.06	0.56
1:AA:1786:A:C2	1:AA:2606:C:H1'	2.40	0.56
1:AA:1889:A:N1	1:AA:2234:G:H1'	2.21	0.56
1:AA:2010:G:N7	56:AA:3557:OHX:N1	2.54	0.56
1:AA:2024:G:H2'	1:AA:2025:C:H6	1.71	0.56
1:AA:2135:A:N6	1:AA:2156:G:O2'	2.39	0.56
1:AA:2346:A:H5"	1:AA:2383:G:C1'	2.36	0.56
1:AA:2823:A:OP1	4:AE:113:PHE:HB2	2.06	0.56
15:AR:26:ASP:O	15:AR:49:VAL:HG13	2.05	0.56
15:AR:121:ILE:O	15:AR:124:ASP:HB2	2.05	0.56
31:BA:8:A:H4'	31:BA:9:G:OP1	2.06	0.56
31:BA:792:A:O2'	31:BA:794:A:C8	2.58	0.56
31:BA:1346:A:C5	37:BJ:10:ARG:NH1	2.74	0.56
34:BG:11:LEU:C	34:BG:13:ARG:N	2.61	0.56
34:BG:85:LYS:O	56:BG:302:OHX:N2	2.39	0.56
37:BJ:62:PHE:HA	37:BJ:124:LEU:HD21	1.87	0.56
1:CA:218:A:H3'	1:CA:218:A:H8	1.71	0.56
1:CA:1059:U:H2'	1:CA:1059:U:O2	2.06	0.56
1:CA:1516:C:H2'	1:CA:1517:A:H8	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1851:A:H4'	1:CA:1852:U:O5'	2.06	0.56
1:CA:1926:G:OP1	3:CD:241:PRO:HB2	2.06	0.56
1:CA:1959:A:C8	1:CA:1963:U:O2	2.59	0.56
2:CB:26:G:H4'	2:CB:27:A:C8	2.40	0.56
5:CF:18:ARG:HH21	5:CF:20:LEU:HD12	1.71	0.56
5:CF:89:VAL:O	5:CF:90:PHE:C	2.48	0.56
19:CT:5:TYR:HB3	24:CW:33:MET:HB2	1.88	0.56
20:CU:84:ARG:O	20:CU:85:VAL:HB	2.06	0.56
31:DA:909:A:H2'	31:DA:910:C:O4'	2.06	0.56
31:DA:1056:U:O2	31:DA:1056:U:C2'	2.53	0.56
35:DH:99:GLY:O	35:DH:117:ASP:HA	2.05	0.56
39:DL:17:VAL:HG21	39:DL:80:GLY:HA3	1.87	0.56
40:DM:79:ARG:HD3	40:DM:79:ARG:H	1.71	0.56
43:DP:14:ARG:HD2	43:DP:42:ALA:HA	1.88	0.56
51:DX:9:ARG:HG3	51:DX:10:ARG:N	2.21	0.56
1:AA:64:A:C4	19:AT:66:LEU:HD23	2.40	0.55
1:AA:222:A:C1'	1:AA:223:A:OP1	2.54	0.55
1:AA:755:C:H2'	1:AA:756:C:H6	1.71	0.55
1:AA:1130:U:HO2'	1:AA:1131:G:P	2.29	0.55
1:AA:1364:G:C8	23:AZ:2:SER:HB3	2.41	0.55
1:AA:1858:G:H1'	1:AA:1884:A:N6	2.21	0.55
1:AA:2564:A:C2	1:AA:2647:U:H4'	2.42	0.55
1:AA:2818:G:O2'	1:AA:2819:G:H5'	2.05	0.55
8:AK:69:LYS:HG3	8:AK:73:GLU:OE2	2.06	0.55
11:AO:138:LEU:CD1	11:AO:144:GLU:HG3	2.35	0.55
13:A0:42:LYS:O	13:A0:45:ARG:HD3	2.06	0.55
14:AQ:111:GLU:O	14:AQ:112:PHE:HB3	2.06	0.55
16:A1:27:LEU:CD1	16:A1:31:SER:HB3	2.34	0.55
21:AV:5:LEU:HD21	21:AV:44:PHE:HA	1.87	0.55
31:BA:88:C:O2	31:BA:88:C:C2'	2.54	0.55
31:BA:444:C:N3	31:BA:490:G:N2	2.42	0.55
31:BA:450:G:N7	31:BA:481:G:C6	2.74	0.55
31:BA:665:A:H2'	31:BA:732:C:O2	2.07	0.55
31:BA:977:A:C8	31:BA:1223:C:C4	2.94	0.55
50:BW:29:LYS:O	50:BW:33:ILE:HG12	2.05	0.55
52:BD:67:A:O2'	52:BD:69:U:OP2	2.23	0.55
1:CA:495:G:N7	29:C7:39:ARG:NH2	2.50	0.55
1:CA:873:C:O2'	1:CA:874:U:H5'	2.06	0.55
1:CA:1218:G:H1	1:CA:1224:C:N4	2.04	0.55
1:CA:1389:A:N1	1:CA:1444:U:C4	2.75	0.55
2:CB:96:C:O2'	2:CB:97:C:H5'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CD:137:PRO:O	3:CD:140:THR:HG23	2.05	0.55
12:CP:4:PRO:CG	12:CP:71:ASP:HA	2.36	0.55
14:CQ:110:LEU:HD23	14:CQ:112:PHE:CE1	2.42	0.55
16:C1:50:ARG:NH2	17:C2:72:VAL:HG21	2.20	0.55
17:C2:64:HIS:CD2	17:C2:92:THR:HG23	2.41	0.55
21:CV:48:PHE:CE2	21:CV:52:SER:HA	2.41	0.55
23:CZ:91:LYS:HZ3	23:CZ:91:LYS:HB2	1.71	0.55
31:DA:235:C:H5'	47:DT:70:ARG:HG2	1.87	0.55
31:DA:694:A:H4'	52:DD:38:MIA:H111	1.88	0.55
31:DA:1145:C:C4'	31:DA:1146:A:OP1	2.49	0.55
31:DA:1502:A:H4'	31:DA:1503:A:OP2	2.06	0.55
46:DS:58:TYR:O	46:DS:61:SER:N	2.39	0.55
1:AA:26:G:H1'	1:AA:514:A:N6	2.21	0.55
1:AA:172:C:H2'	1:AA:173:G:C8	2.42	0.55
1:AA:2378:A:H8	1:AA:2378:A:O5'	1.89	0.55
1:AA:2797:U:H2'	1:AA:2797:U:O2	2.06	0.55
1:AA:2881:C:C2	1:AA:2882:A:C8	2.93	0.55
14:AQ:108:GLY:N	14:AQ:110:LEU:HD21	2.20	0.55
15:AR:50:ILE:O	15:AR:99:LEU:HD12	2.06	0.55
16:A1:90:VAL:HA	17:A2:39:LEU:HD23	1.89	0.55
16:A1:108:GLU:OE2	16:A1:112:ARG:NH1	2.38	0.55
21:AV:98:MET:O	21:AV:125:LEU:HD12	2.06	0.55
31:BA:221:C:C2'	31:BA:222:U:H5'	2.36	0.55
31:BA:380:G:N2	31:BA:384:G:C4	2.75	0.55
31:BA:390:C:O3'	46:BS:28:ARG:NH2	2.37	0.55
31:BA:719:C:O2'	48:BU:49:LYS:HB3	2.06	0.55
31:BA:954:G:O6	31:BA:1225:A:N6	2.40	0.55
31:BA:1132:C:H42	31:BA:1143:G:H21	1.54	0.55
31:BA:1325:C:C2'	31:BA:1326:C:H5'	2.35	0.55
37:BJ:69:VAL:HG12	37:BJ:69:VAL:O	2.07	0.55
39:BL:53:VAL:HG21	39:BL:92:TYR:CG	2.41	0.55
1:CA:1653:G:H5"	1:CA:1654:C:OP1	2.06	0.55
1:CA:2271:C:H4'	1:CA:2272:G:OP2	2.06	0.55
1:CA:2406:A:OP1	30:C8:30:ARG:HB2	2.05	0.55
3:CD:24:ILE:CD1	3:CD:84:TYR:HB2	2.36	0.55
7:CH:6:ARG:CZ	7:CH:54:ARG:HH12	2.19	0.55
7:CH:11:VAL:HB	7:CH:13:LYS:HD2	1.89	0.55
7:CH:86:GLU:CD	7:CH:86:GLU:H	2.14	0.55
8:CK:144:VAL:O	8:CK:145:VAL:HG22	2.07	0.55
11:CO:107:LYS:C	11:CO:109:GLY:H	2.13	0.55
16:C1:95:LEU:C	16:C1:97:ASP:N	2.64	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CS:47:VAL:O	18:CS:50:VAL:HG12	2.06	0.55
21:CV:157:LEU:CA	21:CV:161:VAL:HG11	2.35	0.55
30:C8:20:GLY:O	30:C8:57:ARG:HD3	2.06	0.55
30:C8:49:VAL:CG1	30:C8:50:LEU:N	2.65	0.55
31:DA:197:A:H1'	31:DA:198:G:OP2	2.06	0.55
31:DA:586:C:O2	31:DA:755:G:N1	2.34	0.55
31:DA:993:G:C5	31:DA:1046:A:C2	2.95	0.55
31:DA:1052:U:H6	31:DA:1052:U:O5'	1.89	0.55
31:DA:1384:C:H2'	31:DA:1385:G:C8	2.42	0.55
32:DE:137:ARG:NH2	32:DE:140:HIS:HB3	2.20	0.55
33:DF:17:ASP:OD2	33:DF:18:TRP:N	2.38	0.55
1:AA:1165:U:H2'	1:AA:1166:C:C6	2.41	0.55
1:AA:1899:G:O2'	1:AA:1900:A:OP2	2.16	0.55
1:AA:2116:G:OP1	1:AA:2165:G:N2	2.34	0.55
1:AA:2135:A:HO2'	1:AA:2136:C:P	2.28	0.55
5:AF:93:LYS:HB3	5:AF:94:PRO:HD2	1.88	0.55
8:AK:131:LYS:HD2	8:AK:131:LYS:N	2.22	0.55
9:AM:57:ALA:O	9:AM:58:ASP:CB	2.54	0.55
10:AN:7:TYR:CZ	10:AN:44:LYS:HG3	2.41	0.55
14:AQ:27:SER:HA	14:AQ:88:ASP:CB	2.36	0.55
19:AT:67:GLY:C	19:AT:69:TYR:H	2.13	0.55
31:BA:595:G:H22	31:BA:643:C:H41	1.52	0.55
31:BA:1285:A:H1'	31:BA:1286:A:OP2	2.06	0.55
45:BR:11:VAL:HG21	45:BR:34:LEU:HD22	1.87	0.55
52:BB:13:G:H1'	52:BB:24:G:N1	2.21	0.55
52:BB:16:C:H5'	52:BB:17:G:OP2	2.06	0.55
52:BB:31:G:H1	52:BB:41:C:N4	2.03	0.55
52:BD:43:G:H2'	52:BD:44:C:C6	2.42	0.55
1:CA:1018:G:H3'	1:CA:1019:A:H2'	1.88	0.55
1:CA:2359:A:H5"	1:CA:2396:G:H1'	1.87	0.55
2:CB:42:U:O2'	2:CB:47:A:N6	2.38	0.55
5:CF:64:ILE:HG13	5:CF:65:TRP:CD1	2.41	0.55
6:CG:101:ILE:HD12	6:CG:102:PHE:N	2.22	0.55
21:CV:18:LEU:HB3	21:CV:23:LYS:O	2.06	0.55
21:CV:28:MET:HE1	21:CV:67:LEU:HD13	1.88	0.55
31:DA:266:G:N1	31:DA:270:A:N6	2.34	0.55
31:DA:1042:G:H2'	31:DA:1043:C:O4'	2.07	0.55
31:DA:1161:C:O2'	31:DA:1162:C:H5'	2.06	0.55
32:DE:142:LEU:O	32:DE:146:GLN:HB2	2.06	0.55
39:DL:95:LYS:HD3	39:DL:96:LEU:H	1.70	0.55
40:DM:48:THR:HA	40:DM:62:HIS:CB	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DS:22:THR:HA	46:DS:33:ILE:HG12	1.88	0.55
49:DV:31:ILE:HG23	49:DV:49:ILE:HG23	1.87	0.55
1:AA:474:G:O6	56:AA:3518:OHX:N1	2.39	0.55
1:AA:1019:U:O2	1:AA:1144:G:N2	2.40	0.55
1:AA:1379:A:H1'	1:AA:1380:G:OP1	2.07	0.55
1:AA:1971:A:N3	3:AD:241:PRO:HD3	2.21	0.55
1:AA:2661:G:H8	1:AA:2661:G:OP2	1.90	0.55
3:AD:34:VAL:O	3:AD:34:VAL:HG13	2.07	0.55
4:AE:21:VAL:HG23	4:AE:22:PRO:CD	2.37	0.55
6:AG:10:LYS:HD3	6:AG:15:VAL:HG23	1.88	0.55
12:AP:133:ARG:O	12:AP:134:ARG:HB2	2.06	0.55
15:AR:37:GLY:O	15:AR:38:ASN:HB2	2.06	0.55
17:A2:35:LEU:HD21	17:A2:57:VAL:HG13	1.88	0.55
30:A8:48:PHE:CE2	30:A8:50:LEU:HD13	2.36	0.55
31:BA:992:U:H4'	31:BA:993:G:O5'	2.07	0.55
31:BA:1226:C:H4'	49:BV:80:TYR:OH	2.05	0.55
31:BA:1453:G:C8	50:BW:39:LYS:HE2	2.42	0.55
33:BF:11:ARG:HB3	33:BF:15:THR:HB	1.86	0.55
41:BN:57:THR:CG2	41:BN:60:ALA:H	2.17	0.55
42:BO:45:PRO:C	42:BO:46:ASN:HD22	2.15	0.55
52:BB:68:A:H3'	52:BB:69:U:H6	1.71	0.55
52:BD:48:C:N3	52:BD:52:G:N2	2.44	0.55
1:CA:843:C:O2'	1:CA:844:C:H5'	2.07	0.55
1:CA:2360:C:H4'	28:C6:39:TYR:CE2	2.37	0.55
1:CA:2496:C:H5'	1:CA:2497:G:OP2	2.06	0.55
1:CA:2643:G:H1'	1:CA:2904:G:C8	2.41	0.55
1:CA:2883:G:C6	1:CA:2884:A:N1	2.74	0.55
4:CE:51:PHE:O	4:CE:52:LEU:HB2	2.04	0.55
5:CF:164:ARG:HH21	5:CF:177:ALA:HB2	1.71	0.55
11:CO:64:LYS:HB3	30:C8:25:MET:CG	2.34	0.55
13:C0:33:ARG:HG3	13:C0:115:GLU:HG3	1.89	0.55
17:C2:80:GLN:HA	17:C2:80:GLN:NE2	2.17	0.55
27:C5:36:CYS:HG	27:C5:49:CYS:HB3	1.71	0.55
28:C6:34:LEU:O	28:C6:36:LEU:HG	2.06	0.55
31:DA:89:U:HO2'	31:DA:90:C:H6	1.55	0.55
31:DA:601:C:N4	31:DA:637:G:H1	2.04	0.55
31:DA:1436:U:H2'	31:DA:1437:C:C6	2.41	0.55
45:DR:82:ILE:HD13	45:DR:82:ILE:C	2.32	0.55
1:AA:580:C:H2'	1:AA:581:C:C6	2.41	0.55
1:AA:1206:G:C6	1:AA:1207:C:C4	2.94	0.55
1:AA:1817:G:H2'	1:AA:1818:U:H5'	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1955:U:O3'	1:AA:1956:U:H6	1.89	0.55
1:AA:2490:G:N2	56:AA:3421:OHX:N3	2.54	0.55
4:AE:78:LEU:O	4:AE:79:ARG:CB	2.49	0.55
9:AM:41:ASP:C	16:A1:64:ARG:HD2	2.31	0.55
13:A0:12:ARG:HE	13:A0:16:HIS:CD2	2.24	0.55
14:AQ:83:LYS:C	14:AQ:109:GLY:HA2	2.32	0.55
21:AV:143:GLY:HA2	21:AV:144:LEU:C	2.30	0.55
24:AW:32:LEU:HA	24:AW:35:LEU:HD23	1.89	0.55
31:BA:791:G:O6	31:BA:792:A:N6	2.39	0.55
31:BA:1120:G:N7	56:BA:1768:OHX:N1	2.55	0.55
52:BD:13:G:H1'	52:BD:23:A:H61	1.71	0.55
1:CA:2141:U:H3	1:CA:2170:G:HO2'	1.54	0.55
1:CA:2694:C:O2	1:CA:2694:C:H2'	2.07	0.55
1:CA:2850:G:C5'	13:C0:46:GLY:HA2	2.36	0.55
2:CB:52:G:OP1	14:CQ:63:THR:HG23	2.06	0.55
2:CB:85:G:H1	2:CB:96:C:H42	1.54	0.55
6:CG:55:LYS:NZ	6:CG:58:GLN:HE22	2.05	0.55
14:CQ:86:ALA:O	14:CQ:87:PHE:CB	2.54	0.55
31:DA:818:G:O2'	31:DA:819:A:H5'	2.07	0.55
31:DA:1207:G:O2'	31:DA:1208:C:H5'	2.06	0.55
32:DE:20:GLU:HG3	32:DE:190:THR:O	2.06	0.55
36:DI:2:ARG:HH11	36:DI:92:LYS:NZ	2.05	0.55
40:DM:78:ASN:ND2	40:DM:81:THR:HG23	2.22	0.55
43:DP:83:ASP:OD2	43:DP:83:ASP:N	2.38	0.55
48:DU:22:VAL:HG22	48:DU:23:LYS:N	2.21	0.55
1:AA:55:G:O2'	1:AA:127:A:N1	2.38	0.55
1:AA:1026:U:O2	1:AA:1027:A:H3'	2.06	0.55
1:AA:1324:G:C4	1:AA:1328:G:O6	2.60	0.55
1:AA:1547:C:H2'	1:AA:1548:C:C6	2.42	0.55
1:AA:2371:G:H4'	28:A6:45:LYS:HG3	1.88	0.55
3:AD:69:ARG:HH21	3:AD:130:ALA:N	2.04	0.55
13:A0:91:GLN:CD	13:A0:91:GLN:H	2.15	0.55
31:BA:630:G:H2'	31:BA:631:G:O4'	2.06	0.55
31:BA:1387:G:H2'	31:BA:1388:C:C6	2.42	0.55
32:BE:166:ASP:C	32:BE:168:THR:H	2.14	0.55
32:BE:200:ILE:HD12	32:BE:200:ILE:H	1.72	0.55
32:BE:231:GLU:HG2	32:BE:232:PRO:N	2.21	0.55
47:BT:6:LEU:HD22	47:BT:23:VAL:HG11	1.87	0.55
53:BC:14:A:C2	53:BC:15:G:H1'	2.42	0.55
1:CA:533:A:H5"	1:CA:534:G:H2'	1.88	0.55
1:CA:937:C:H2'	1:CA:938:A:H4'	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1036:G:O6	56:CA:3274:OHX:N3	2.40	0.55
1:CA:1108:U:H4'	1:CA:1117:A:H1'	1.88	0.55
1:CA:1145:A:C2'	1:CA:1146:G:H5'	2.36	0.55
1:CA:2039:U:C2'	1:CA:2040:U:O5'	2.55	0.55
1:CA:2659:C:H2'	1:CA:2660:U:O4'	2.06	0.55
1:CA:2734:U:H2'	1:CA:2735:A:C8	2.42	0.55
5:CF:4:VAL:HA	5:CF:19:GLU:CB	2.34	0.55
5:CF:21:ALA:C	5:CF:23:ASP:N	2.60	0.55
5:CF:132:VAL:HG13	5:CF:133:ASN:OD1	2.07	0.55
7:CH:149:ARG:HD3	7:CH:164:TYR:HE1	1.71	0.55
8:CK:77:LEU:HG	8:CK:78:THR:N	2.21	0.55
12:CP:132:VAL:HG22	12:CP:133:ARG:N	2.19	0.55
21:CV:6:LYS:HG3	21:CV:7:ALA:N	2.14	0.55
22:C3:51:VAL:N	22:C3:62:LEU:HD12	2.22	0.55
26:C4:37:SER:C	26:C4:39:CYS:H	2.14	0.55
31:DA:197:A:H3'	31:DA:197:A:OP2	2.05	0.55
31:DA:272:C:H2'	31:DA:273:A:H8	1.72	0.55
31:DA:833:U:O2'	31:DA:834:C:H5'	2.05	0.55
31:DA:952:U:H2'	31:DA:953:G:C8	2.42	0.55
31:DA:998:G:N2	31:DA:1044:A:H1'	2.21	0.55
31:DA:1286:A:H3'	31:DA:1287:A:C5'	2.35	0.55
31:DA:1298:C:H5	37:DJ:114:ARG:HD2	1.72	0.55
35:DH:41:VAL:HG13	35:DH:113:ALA:HA	1.88	0.55
35:DH:67:VAL:HG21	35:DH:140:ARG:HA	1.89	0.55
52:DD:25:G:H2'	52:DD:26:G:O4'	2.06	0.55
1:AA:271(B):G:H4'	1:AA:271(C):U:H5'	1.89	0.55
1:AA:321:G:H4'	5:AF:165:ARG:O	2.06	0.55
1:AA:443:A:H3'	5:AF:45:ARG:HH12	1.71	0.55
1:AA:996:A:H4'	16:A1:92:ARG:NE	2.20	0.55
1:AA:1053:C:H42	1:AA:1106:G:H1	1.54	0.55
1:AA:2458:G:OP2	56:AA:3421:OHX:N4	2.40	0.55
1:AA:2766:G:N3	1:AA:2766:G:H2'	2.22	0.55
31:BA:156:G:N1	31:BA:165:C:N4	2.36	0.55
31:BA:209:U:O2'	31:BA:216:G:C4	2.60	0.55
31:BA:439:A:H2'	31:BA:440:A:O5'	2.07	0.55
31:BA:723:U:O2	31:BA:723:U:C2'	2.55	0.55
31:BA:1151:A:N6	31:BA:1152:A:N6	2.54	0.55
32:BE:94:ASN:OD1	32:BE:95:GLN:HG2	2.07	0.55
34:BG:141:ARG:HB3	34:BG:142:PRO:HD2	1.89	0.55
43:BP:23:TYR:HD1	43:BP:67:GLU:HA	1.71	0.55
44:BQ:12:ARG:C	44:BQ:14:PRO:HD2	2.31	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BB:51:C:N3	52:BB:52:G:H1'	2.22	0.55
52:BD:1:G:H1	52:BD:81:C:H42	1.54	0.55
1:CA:1325:A:H4'	13:C0:34:ILE:HD11	1.89	0.55
1:CA:2177:G:H2'	1:CA:2178:G:H8	1.72	0.55
1:CA:2323:A:N6	6:CG:80:PHE:HE2	2.04	0.55
1:CA:2589:G:O2'	1:CA:2592:C:OP2	2.23	0.55
1:CA:2870:G:HO2'	1:CA:2871:A:C5'	2.19	0.55
4:CE:26:ILE:HG22	4:CE:27:LEU:N	2.22	0.55
7:CH:92:ILE:H	7:CH:92:ILE:HD12	1.72	0.55
10:CN:4:PRO:O	10:CN:5:GLN:HB2	2.05	0.55
15:CR:24:PRO:HD3	15:CR:52:ILE:HD12	1.89	0.55
17:C2:79:VAL:O	17:C2:80:GLN:CB	2.54	0.55
21:CV:80:ARG:HD3	21:CV:82:ARG:NH2	2.19	0.55
21:CV:104:PHE:O	21:CV:105:VAL:CB	2.55	0.55
26:C4:15:ILE:O	26:C4:33:VAL:HG13	2.07	0.55
31:DA:5:U:H1'	56:DG:302:OHX:N1	2.21	0.55
31:DA:1510:U:H2'	31:DA:1511:G:C8	2.41	0.55
32:DE:74:LYS:O	32:DE:75:LYS:HB2	2.06	0.55
38:DK:14:ARG:O	38:DK:18:ARG:HD3	2.06	0.55
39:DL:18:PHE:O	39:DL:62:TYR:N	2.36	0.55
41:DN:34:ASP:OD1	41:DN:38:ASN:HB2	2.06	0.55
41:DN:105:VAL:HG22	41:DN:105:VAL:O	2.07	0.55
42:DO:92:GLY:O	42:DO:93:VAL:C	2.50	0.55
52:DB:31:G:H2'	52:DB:32:A:O4'	2.07	0.55
52:DB:75:C:HO2'	52:DB:76:C:P	2.29	0.55
1:AA:85:G:OP2	20:AU:9:LYS:HB2	2.06	0.55
1:AA:598:G:H1'	11:AO:12:ALA:CB	2.36	0.55
1:AA:882:G:C2	1:AA:894:C:N3	2.74	0.55
1:AA:954:G:H5"	12:AP:13:GLN:OE1	2.06	0.55
1:AA:957:A:H5'	12:AP:76:LYS:HG2	1.88	0.55
1:AA:2055:C:H5'	1:AA:2056:G:H5"	1.89	0.55
1:AA:2115:G:O6	1:AA:2117:A:H3'	2.04	0.55
1:AA:2334:G:H5'	14:AQ:9:ARG:HG2	1.88	0.55
3:AD:36:PRO:HA	3:AD:62:TYR:O	2.07	0.55
8:AK:93:THR:O	8:AK:97:ILE:HG12	2.06	0.55
12:AP:137:TYR:CE2	21:AV:83:PRO:HG3	2.42	0.55
17:A2:29:PRO:HA	17:A2:61:VAL:HG23	1.89	0.55
21:AV:107:THR:C	21:AV:109:ALA:N	2.65	0.55
27:A5:40:LYS:HZ3	27:A5:46:CYS:HB3	1.69	0.55
31:BA:8:A:H62	34:BG:208:SER:HB2	1.72	0.55
31:BA:530:G:H3'	31:BA:530:G:P	2.47	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:790:A:H2'	31:BA:791:G:O4'	2.06	0.55
34:BG:9:CYS:HA	34:BG:12:CYS:HB2	1.88	0.55
39:BL:4:TYR:CD1	39:BL:88:TYR:HB2	2.41	0.55
43:BP:48:LEU:HD11	43:BP:53:VAL:HG22	1.89	0.55
1:CA:19:C:H2'	1:CA:20:C:C6	2.42	0.55
1:CA:405:C:H2'	1:CA:406:C:H6	1.72	0.55
1:CA:1217:G:H2'	1:CA:1217:G:N3	2.20	0.55
1:CA:1514:G:H5'	1:CA:1515:C:OP1	2.07	0.55
1:CA:1803:C:HO2'	1:CA:1818:A:C1'	2.19	0.55
3:CD:35:LYS:CE	3:CD:104:TYR:CD1	2.89	0.55
4:CE:27:LEU:HG	15:CR:1:MET:HE1	1.88	0.55
11:CO:37:GLY:O	11:CO:40:SER:N	2.31	0.55
12:CP:2:LEU:O	12:CP:70:PRO:HG3	2.07	0.55
18:CS:47:VAL:HA	18:CS:50:VAL:HG12	1.87	0.55
21:CV:69:THR:HG22	21:CV:90:VAL:HA	1.89	0.55
26:C4:39:CYS:O	26:C4:40:HIS:HB2	2.06	0.55
31:DA:947:G:H2'	31:DA:948:C:C6	2.41	0.55
31:DA:1096:C:H2'	31:DA:1097:C:H6	1.71	0.55
31:DA:1101:A:N6	32:DE:176:GLU:OE2	2.39	0.55
31:DA:1134:G:C2'	31:DA:1135:U:H5'	2.37	0.55
31:DA:1226:C:N4	43:DP:104:ARG:HD2	2.22	0.55
32:DE:6:THR:O	32:DE:7:VAL:HB	2.06	0.55
32:DE:178:ARG:HH11	32:DE:178:ARG:CG	2.20	0.55
33:DF:152:ILE:HG23	33:DF:167:TRP:HB2	1.87	0.55
40:DM:46:ARG:HG2	40:DM:47:PHE:N	2.21	0.55
41:DN:33:THR:HG22	41:DN:39:PRO:HA	1.89	0.55
44:DQ:37:PHE:HE1	44:DQ:53:LEU:HD22	1.71	0.55
45:DR:28:GLN:O	45:DR:32:LEU:HG	2.06	0.55
52:DB:51:C:OP2	52:DB:51:C:H6	1.88	0.55
1:AA:322:A:H5'	1:AA:340:A:O4'	2.06	0.55
1:AA:511:U:C5	1:AA:512:G:C5	2.94	0.55
1:AA:2246:G:H2'	1:AA:2247:A:C8	2.41	0.55
1:AA:2439:A:H3'	1:AA:2439:A:P	2.47	0.55
1:AA:2480:C:C2'	1:AA:2481:G:H5'	2.36	0.55
1:AA:2712:U:O2'	1:AA:2712(A):A:OP2	2.22	0.55
7:AH:127:GLU:HG2	7:AH:128:PRO:HD2	1.89	0.55
10:AN:35:VAL:HG21	10:AN:69:ILE:HG12	1.89	0.55
10:AN:64:ARG:HG2	10:AN:79:PHE:CG	2.42	0.55
13:A0:107:ASP:OD2	13:A0:108:GLY:N	2.40	0.55
26:A4:14:ILE:CG2	26:A4:21:VAL:HB	2.36	0.55
31:BA:404:U:H2'	31:BA:405:U:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:406:G:H2'	31:BA:407:G:C8	2.38	0.55
31:BA:829:G:H2'	31:BA:830:G:H8	1.72	0.55
31:BA:942:G:H21	39:BL:124:GLN:NE2	2.04	0.55
32:BE:20:GLU:HB2	32:BE:190:THR:OG1	2.07	0.55
32:BE:237:ALA:O	32:BE:238:LEU:C	2.50	0.55
37:BJ:13:GLN:O	37:BJ:24:THR:HG21	2.07	0.55
43:BP:57:ARG:HH11	43:BP:57:ARG:HB2	1.72	0.55
43:BP:108:ARG:NH1	43:BP:112:GLY:O	2.39	0.55
47:BT:91:ARG:NH1	47:BT:92:ARG:HH21	2.05	0.55
52:BB:52:G:C2	52:BB:53:A:C5	2.95	0.55
1:CA:717:G:O2'	1:CA:718:A:P	2.65	0.55
1:CA:1108:U:H4'	1:CA:1117:A:C1'	2.37	0.55
1:CA:1137:U:O4	1:CA:1148:U:C2	2.59	0.55
1:CA:1803:C:O2'	1:CA:1818:A:H8	1.89	0.55
1:CA:2079:G:H2'	1:CA:2079:G:N3	2.21	0.55
1:CA:2481:G:H3'	1:CA:2489:A:N1	2.21	0.55
1:CA:2544:A:H4'	7:CH:157:TYR:CE2	2.42	0.55
2:CB:17:A:OP2	2:CB:110:U:O2'	2.25	0.55
3:CD:246:PRO:HG2	3:CD:255:LYS:CG	2.37	0.55
5:CF:63:LYS:CE	5:CF:67:GLN:HB2	2.28	0.55
5:CF:118:ALA:HB2	5:CF:123:LEU:HD23	1.89	0.55
11:CO:62:LEU:HD21	30:C8:25:MET:O	2.07	0.55
14:CQ:110:LEU:HB2	14:CQ:112:PHE:CE1	2.42	0.55
15:CR:6:LEU:HD12	15:CR:9:LEU:HD12	1.89	0.55
31:DA:79:G:N2	31:DA:90:C:N3	2.49	0.55
31:DA:688:G:H2'	31:DA:689:C:H6	1.71	0.55
31:DA:940:C:H2'	31:DA:941:G:C8	2.42	0.55
31:DA:962:C:H42	31:DA:973:G:H1	1.55	0.55
31:DA:1072:G:O6	31:DA:1102:A:N6	2.40	0.55
31:DA:1109:C:OP2	33:DF:176:HIS:ND1	2.38	0.55
31:DA:1318:A:HO2'	49:DV:37:ARG:HB3	1.71	0.55
31:DA:1332:A:H8	31:DA:1332:A:O5'	1.90	0.55
31:DA:1346:A:C5	37:DJ:10:ARG:NH2	2.75	0.55
1:AA:59:U:O2'	1:AA:73:A:H2'	2.08	0.55
1:AA:270(M):U:HO2'	1:AA:270(N):G:P	2.30	0.55
1:AA:628:G:H2'	1:AA:629:G:C8	2.42	0.55
1:AA:1164:G:H2'	1:AA:1165:U:H6	1.72	0.55
1:AA:1210:A:H5"	1:AA:1212:G:H5'	1.89	0.55
1:AA:2212:A:H1'	1:AA:2215:G:C4	2.42	0.55
1:AA:2881:C:N3	1:AA:2882:A:C5	2.75	0.55
8:AK:31:LEU:HB2	8:AK:32:PRO:HD3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AP:138:ASP:OD1	12:AP:138:ASP:N	2.39	0.55
15:AR:20:PRO:HG2	15:AR:86:ILE:O	2.07	0.55
31:BA:148:G:O2'	31:BA:149:A:H5'	2.07	0.55
31:BA:724:G:C2	31:BA:725:G:C8	2.94	0.55
31:BA:868:C:H2'	31:BA:869:G:O4'	2.06	0.55
31:BA:1034:G:H2'	31:BA:1035:A:H8	1.72	0.55
34:BG:155:LEU:HD12	34:BG:158:ILE:HD11	1.89	0.55
52:BB:56:U:O2	52:BB:56:U:C2'	2.53	0.55
52:BB:57:C:H4'	52:BB:58:G:O5'	2.07	0.55
52:BB:77:C:C4	52:BB:78:C:N4	2.75	0.55
1:CA:64:C:H4'	19:CT:69:TYR:HD1	1.72	0.55
1:CA:116:A:OP2	1:CA:117:A:H2'	2.07	0.55
1:CA:1044:G:H2'	1:CA:1045:C:H6	1.72	0.55
1:CA:1048:A:C8	1:CA:1049:G:C8	2.94	0.55
1:CA:2351:G:N7	56:CA:3468:OHX:N6	2.55	0.55
1:CA:2705:C:C2	1:CA:2706:A:C8	2.95	0.55
2:CB:17:A:C2'	2:CB:18:G:OP1	2.55	0.55
2:CB:17:A:H5"	2:CB:18:G:C8	2.42	0.55
3:CD:149:PRO:O	3:CD:150:LYS:HB2	2.07	0.55
8:CK:38:LEU:H	8:CK:38:LEU:HD12	1.72	0.55
12:CP:134:ARG:O	12:CP:135:ASP:C	2.50	0.55
30:C8:36:LYS:HB2	30:C8:41:ILE:HG13	1.89	0.55
33:DF:20:SER:HB2	33:DF:40:ARG:HH22	1.71	0.55
39:DL:53:VAL:C	39:DL:55:ALA:H	2.14	0.55
52:DB:55:U:C2	52:DB:56:U:C6	2.95	0.55
52:DD:42:U:H2'	52:DD:43:G:H8	1.71	0.55
1:AA:273(D):C:H2'	1:AA:273(E):U:C6	2.42	0.54
1:AA:1204:A:C8	56:AA:3325:OHX:N2	2.75	0.54
1:AA:1486:A:H2'	1:AA:1487:G:H8	1.72	0.54
1:AA:1606:G:C5'	1:AA:1607:C:OP1	2.55	0.54
1:AA:2475:C:H5'	1:AA:2476:A:OP2	2.07	0.54
1:AA:2846:G:P	15:AR:54:ARG:HB2	2.48	0.54
56:AA:3305:OHX:N1	3:AD:202:LYS:O	2.40	0.54
4:AE:26:ILE:HD12	4:AE:196:VAL:CG2	2.37	0.54
11:AO:49:ARG:HD2	30:A8:58:ILE:CG2	2.37	0.54
16:A1:83:LEU:HG	16:A1:88:ILE:HB	1.89	0.54
21:AV:116:VAL:O	21:AV:174:VAL:HG22	2.06	0.54
31:BA:35:G:H2'	31:BA:36:C:H6	1.71	0.54
31:BA:56:U:H2'	31:BA:57:G:H8	1.69	0.54
31:BA:192:U:C4'	50:BW:103:GLY:HA2	2.37	0.54
31:BA:377:G:H5'	46:BS:5:ARG:NH1	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:690:G:H22	41:BN:55:LYS:HE2	1.73	0.54
31:BA:1186:G:H21	44:BQ:61:TRP:C	2.15	0.54
31:BA:1315:U:H2'	31:BA:1316:G:O4'	2.07	0.54
31:BA:1501:C:OP2	31:BA:1504:G:H2'	2.06	0.54
47:BT:64:PRO:HB3	47:BT:70:ARG:NH1	2.22	0.54
52:BB:46:G:O2'	52:BB:47:U:OP1	2.22	0.54
53:BC:67:C:H2'	53:BC:68:C:O4'	2.07	0.54
1:CA:303:A:HO2'	1:CA:304:C:H6	1.54	0.54
1:CA:961:C:C3'	1:CA:962:C:H5"	2.36	0.54
1:CA:1451:C:H2'	1:CA:1451:C:O2	2.06	0.54
1:CA:1908:A:H3'	1:CA:1909:C:C6	2.42	0.54
1:CA:2407:C:N3	52:DD:85:A:O2'	2.34	0.54
1:CA:2762:A:H2'	1:CA:2763:A:H8	1.72	0.54
4:CE:8:LYS:HB3	4:CE:193:GLY:H	1.70	0.54
7:CH:22:GLY:O	7:CH:37:VAL:HG12	2.07	0.54
12:CP:27:VAL:CG2	12:CP:132:VAL:HG11	2.37	0.54
17:C2:3:ALA:O	17:C2:14:VAL:HG22	2.08	0.54
20:CU:17:SER:HB2	20:CU:71:LYS:HD2	1.89	0.54
21:CV:128:VAL:HG22	21:CV:129:SER:N	2.14	0.54
31:DA:353:A:H2'	31:DA:354:G:OP2	2.07	0.54
31:DA:918:A:H2'	31:DA:919:A:O4'	2.07	0.54
31:DA:1126:U:O2'	31:DA:1127:G:OP2	2.21	0.54
34:DG:176:LEU:HG	34:DG:178:VAL:HG22	1.88	0.54
38:DK:86:ILE:HG12	38:DK:135:CYS:HA	1.88	0.54
41:DN:20:TYR:CZ	41:DN:83:ILE:HD12	2.43	0.54
49:DV:32:LYS:HG2	49:DV:50:ALA:HB3	1.89	0.54
52:DB:23:A:C6	52:DB:24:G:N7	2.75	0.54
1:AA:216:A:OP2	56:AA:3426:OHX:N1	2.41	0.54
1:AA:999:U:C5	1:AA:1154:G:C5	2.94	0.54
1:AA:1060:U:H1'	1:AA:1061:U:OP2	2.06	0.54
1:AA:1416:G:HO2'	1:AA:1417:C:H6	1.54	0.54
1:AA:2168:G:OP1	1:AA:2168:G:H4'	2.07	0.54
1:AA:2320:A:H2'	1:AA:2320:A:N3	2.21	0.54
9:AM:133:GLN:O	9:AM:134:ARG:HG3	2.07	0.54
9:AM:137:LYS:HD2	9:AM:138:LEU:H	1.72	0.54
11:AO:11:GLY:C	11:AO:13:ASN:N	2.66	0.54
11:AO:38:GLN:HG2	11:AO:45:LEU:CD1	2.34	0.54
12:AP:78:PRO:O	12:AP:79:LEU:C	2.50	0.54
18:AS:29:LEU:O	18:AS:33:ARG:HG3	2.06	0.54
19:AT:84:ALA:HB3	19:AT:87:GLN:NE2	2.23	0.54
25:AX:7:LYS:HE2	25:AX:32:GLN:HG3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:A4:52:THR:O	26:A4:53:GLU:HB2	2.07	0.54
31:BA:282:A:H2'	31:BA:282:A:N3	2.21	0.54
31:BA:356:A:H1'	31:BA:368:U:O2'	2.08	0.54
31:BA:433:C:H2'	31:BA:434:U:H6	1.73	0.54
31:BA:438:G:N2	31:BA:495:A:C8	2.75	0.54
31:BA:793:U:H3'	31:BA:794:A:H5"	1.90	0.54
31:BA:814:A:N7	31:BA:816:A:C4	2.75	0.54
31:BA:1132:C:H2'	31:BA:1133:G:H8	1.72	0.54
31:BA:1368:G:OP2	39:BL:112:LYS:HD2	2.07	0.54
32:BE:19:HIS:CE1	32:BE:206:ASP:HB2	2.43	0.54
32:BE:165:VAL:HG23	32:BE:166:ASP:N	2.20	0.54
32:BE:178:ARG:HH22	32:BE:196:LEU:HA	1.73	0.54
35:BH:35:GLY:HA3	35:BH:112:LEU:O	2.07	0.54
52:BB:24:G:H8	52:BB:24:G:H5'	1.72	0.54
52:BB:73:U:O2'	52:BB:74:C:H5'	2.07	0.54
52:BD:39:A:H2'	52:BD:40:U:O4'	2.08	0.54
1:CA:126:C:H2'	1:CA:127:C:H6	1.72	0.54
1:CA:916:U:N3	1:CA:917:G:N7	2.55	0.54
1:CA:1105:U:H2'	1:CA:1106:G:H8	1.70	0.54
1:CA:1152:U:H2'	1:CA:1153:G:H8	1.72	0.54
1:CA:1250:A:HO2'	1:CA:1251:U:P	2.29	0.54
1:CA:1726:G:H22	1:CA:2012:G:N2	2.05	0.54
1:CA:2316:G:O2'	6:CG:132:ASN:HB2	2.08	0.54
1:CA:2323:A:H3'	1:CA:2323:A:N3	2.22	0.54
1:CA:2529:G:C5	1:CA:2530:C:C4	2.95	0.54
3:CD:69:ARG:NE	3:CD:105:ILE:HD11	2.23	0.54
6:CG:75:LYS:HE3	6:CG:77:ILE:HD11	1.89	0.54
25:CX:12:PRO:HB2	25:CX:20:LYS:HG2	1.88	0.54
30:C8:52:LYS:HD2	30:C8:52:LYS:H	1.73	0.54
31:DA:142:G:H2'	31:DA:143:A:C8	2.41	0.54
31:DA:382:A:H2'	31:DA:383:A:H8	1.72	0.54
31:DA:1028(B):C:N3	31:DA:1032(A):G:N2	2.55	0.54
31:DA:1145:C:O2	31:DA:1145:C:H2'	2.07	0.54
31:DA:1366:C:H2'	31:DA:1367:C:H6	1.72	0.54
32:DE:19:HIS:CE1	32:DE:204:ASN:HB3	2.42	0.54
32:DE:77:ALA:O	32:DE:81:VAL:HG23	2.08	0.54
33:DF:52:LEU:HD12	33:DF:55:VAL:HG22	1.88	0.54
38:DK:109:ILE:HG12	38:DK:110:ALA:H	1.70	0.54
49:DV:47:HIS:O	49:DV:62:ILE:HD13	2.08	0.54
53:DC:67:C:H2'	53:DC:68:C:O4'	2.07	0.54
1:AA:831:G:N2	11:AO:53:GLY:O	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1071:G:H8	1:AA:1071:G:O5'	1.90	0.54
1:AA:1101:U:OP2	56:AA:3491:OHX:N1	2.40	0.54
1:AA:1169:G:H2'	1:AA:1170:G:H5"	1.89	0.54
1:AA:1519:G:O2'	1:AA:1520:U:H5'	2.07	0.54
1:AA:1781:C:O2'	56:AA:3425:OHX:N3	2.40	0.54
1:AA:2015:A:C4'	27:A5:2:ALA:HB1	2.37	0.54
4:AE:47:VAL:O	4:AE:80:GLU:HA	2.07	0.54
9:AM:17:ASP:O	9:AM:18:ALA:HB3	2.07	0.54
9:AM:71:ILE:HD13	9:AM:86:PRO:HA	1.88	0.54
11:AO:50:ARG:HG3	11:AO:50:ARG:NH2	2.08	0.54
12:AP:19:GLY:H	12:AP:98:LYS:HZ3	1.55	0.54
17:A2:61:VAL:HG23	17:A2:61:VAL:O	2.08	0.54
21:AV:30:ASN:OD1	21:AV:90:VAL:HB	2.08	0.54
26:A4:55:ARG:HG2	26:A4:56:VAL:H	1.70	0.54
31:BA:78:G:N1	31:BA:91:C:N4	2.45	0.54
31:BA:210:U:C2'	31:BA:216:G:OP2	2.56	0.54
31:BA:410:G:H5'	31:BA:411:A:OP1	2.07	0.54
31:BA:426:G:O6	56:BA:1666:OHX:N4	2.41	0.54
31:BA:466:C:H5"	31:BA:467:G:OP2	2.07	0.54
31:BA:953:G:H2'	31:BA:954:G:O4'	2.08	0.54
31:BA:1035:A:C6	31:BA:1036:G:H1'	2.42	0.54
31:BA:1366:C:H2'	31:BA:1367:C:H6	1.71	0.54
32:BE:16:HIS:CD2	32:BE:210:SER:HA	2.42	0.54
33:BF:153:VAL:HG22	33:BF:198:VAL:HG22	1.88	0.54
35:BH:106:PRO:O	35:BH:110:LEU:HG	2.07	0.54
43:BP:13:LYS:HA	43:BP:13:LYS:NZ	2.21	0.54
52:BB:49:A:H2	52:BB:51:C:H5	1.54	0.54
1:CA:67:G:H2'	1:CA:68:C:H6	1.71	0.54
1:CA:312:C:N3	1:CA:379:G:O6	2.40	0.54
1:CA:348:G:O2'	1:CA:1251:U:N3	2.38	0.54
1:CA:767:C:C2'	1:CA:768:C:H5'	2.38	0.54
1:CA:1107:U:C1'	1:CA:1109:G:H5'	2.38	0.54
1:CA:1518:G:O2'	1:CA:1569:G:O6	2.21	0.54
1:CA:1632:C:H3'	1:CA:1632:C:O2	2.08	0.54
1:CA:2236:G:H2'	1:CA:2237:G:H5'	1.90	0.54
4:CE:60:ASN:O	4:CE:62:PRO:HD2	2.07	0.54
5:CF:161:GLU:O	5:CF:165:ARG:N	2.41	0.54
9:CM:39:ARG:C	9:CM:41:ASP:H	2.14	0.54
12:CP:75:THR:CG2	12:CP:89:ASN:H	2.20	0.54
13:C0:103:ARG:HD2	13:C0:108:GLY:O	2.07	0.54
14:CQ:42:ASP:C	14:CQ:44:LYS:H	2.15	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CU:96:ILE:HG12	20:CU:101:LYS:HD3	1.89	0.54
21:CV:29:TYR:CE2	21:CV:87:ASP:HB2	2.42	0.54
31:DA:452:A:O2'	31:DA:453:A:O5'	2.25	0.54
31:DA:989:C:HO2'	31:DA:1017:G:HO2'	1.46	0.54
32:DE:224:GLN:HG3	32:DE:225:ALA:N	2.23	0.54
35:DH:90:VAL:O	35:DH:120:THR:HA	2.07	0.54
36:DI:69:GLU:CD	36:DI:69:GLU:H	2.16	0.54
40:DM:26:ALA:O	40:DM:84:GLN:NE2	2.39	0.54
41:DN:57:THR:HG23	41:DN:58:PRO:HD2	1.89	0.54
43:DP:28:ALA:C	43:DP:30:ALA:H	2.15	0.54
52:DB:49:A:C2	52:DB:50:U:H3'	2.43	0.54
52:DD:49:A:H2'	52:DD:50:U:O5'	2.08	0.54
1:AA:50:U:H3'	1:AA:51:G:C5'	2.38	0.54
1:AA:1728:G:C6	1:AA:1730:U:OP2	2.60	0.54
1:AA:2022:U:O2'	1:AA:2617:C:H5'	2.07	0.54
1:AA:2162:G:H4'	1:AA:2173:A:OP2	2.08	0.54
1:AA:2481:G:HO2'	1:AA:2482:G:P	2.31	0.54
1:AA:2893:G:H4'	1:AA:2894:G:H5"	1.90	0.54
2:AB:29:A:P	14:AQ:32:LEU:HD12	2.48	0.54
3:AD:32:SER:C	3:AD:35:LYS:O	2.51	0.54
11:AO:96:THR:C	11:AO:98:GLU:H	2.16	0.54
16:A1:66:ASN:HD21	16:A1:70:ARG:NE	2.06	0.54
28:A6:40:CYS:HB2	28:A6:46:HIS:CE1	2.42	0.54
30:A8:23:VAL:CG1	30:A8:46:ARG:HB3	2.38	0.54
31:BA:430:A:OP1	34:BG:9:CYS:HB2	2.07	0.54
31:BA:1298:C:H4'	31:BA:1299:A:O4'	2.07	0.54
32:BE:212:GLN:CG	32:BE:235:SER:HB2	2.37	0.54
33:BF:20:SER:HB2	33:BF:40:ARG:NH2	2.08	0.54
33:BF:121:ALA:HB1	33:BF:188:LEU:O	2.07	0.54
34:BG:19:LEU:HD22	34:BG:19:LEU:N	2.11	0.54
36:BI:12:PRO:HG3	36:BI:57:GLN:O	2.07	0.54
1:CA:933:C:N3	1:CA:938:A:C6	2.76	0.54
1:CA:1072:G:C4	1:CA:1181:C:H1'	2.42	0.54
2:CB:46:G:H1'	2:CB:49:C:N4	2.22	0.54
6:CG:125:PHE:CB	6:CG:166:ASP:HB2	2.33	0.54
7:CH:117:PRO:HB3	7:CH:123:PHE:CZ	2.43	0.54
16:C1:91:ASP:OD2	16:C1:96:ALA:HB2	2.08	0.54
21:CV:130:PRO:C	21:CV:133:ILE:HD11	2.33	0.54
30:C8:37:SER:O	30:C8:39:LYS:O	2.25	0.54
31:DA:606:G:N7	56:DA:1775:OHX:N5	2.56	0.54
31:DA:1143:G:H2'	31:DA:1144:G:C8	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1184:G:O2'	31:DA:1185:G:H5'	2.07	0.54
34:DG:11:LEU:O	34:DG:12:CYS:C	2.49	0.54
52:DB:73:U:O2'	52:DB:74:C:H5'	2.07	0.54
52:DD:1:G:H1	52:DD:81:C:H42	1.55	0.54
1:AA:600:G:N2	1:AA:605:C:O3'	2.41	0.54
1:AA:1049:C:H2'	1:AA:1050:A:C5'	2.38	0.54
1:AA:1084:A:C8	1:AA:1105:U:O2'	2.60	0.54
1:AA:1578:U:H2'	1:AA:1579:A:H5'	1.90	0.54
27:A5:6:VAL:O	27:A5:6:VAL:HG12	2.07	0.54
31:BA:181:G:N2	31:BA:195:A:C4	2.75	0.54
31:BA:186(E):C:N4	31:BA:191(B):G:H1	2.05	0.54
31:BA:192:U:H2'	31:BA:193:C:H6	1.72	0.54
31:BA:376:G:OP1	46:BS:5:ARG:HB2	2.08	0.54
31:BA:544:G:C6	31:BA:545:C:C4	2.95	0.54
31:BA:624:C:H2'	31:BA:625:G:C8	2.39	0.54
31:BA:1194:U:H2'	31:BA:1195:C:C6	2.43	0.54
31:BA:1399:C:H4'	31:BA:1400:C:O5'	2.08	0.54
39:BL:8:GLY:HA2	39:BL:79:LEU:HD12	1.88	0.54
53:BC:50:G:N2	53:BC:67:C:C2	2.76	0.54
1:CA:312:C:H2'	1:CA:313:C:C6	2.43	0.54
1:CA:312:C:H2'	1:CA:313:C:H6	1.71	0.54
1:CA:1580:C:H3'	1:CA:1581:G:O4'	2.08	0.54
1:CA:1772:G:C2'	1:CA:1773:C:H5'	2.38	0.54
1:CA:2856:G:H5"	15:CR:54:ARG:O	2.08	0.54
7:CH:89:ILE:H	7:CH:89:ILE:HD13	1.73	0.54
11:CO:65:ARG:NH1	11:CO:65:ARG:CG	2.53	0.54
19:CT:31:HIS:ND1	19:CT:32:PRO:HD2	2.22	0.54
31:DA:1220:G:H2'	31:DA:1221:G:H8	1.72	0.54
31:DA:1399:C:C2	31:DA:1401:G:C5	2.96	0.54
32:DE:75:LYS:HA	32:DE:78:GLN:CB	2.31	0.54
35:DH:8:GLU:OE2	35:DH:63:ARG:NH2	2.40	0.54
35:DH:59:GLY:O	35:DH:63:ARG:HG2	2.07	0.54
39:DL:4:TYR:HB2	39:DL:19:LEU:HB2	1.89	0.54
39:DL:104:ARG:HG2	39:DL:104:ARG:O	2.08	0.54
43:DP:94:ARG:O	43:DP:95:GLY:C	2.51	0.54
43:DP:97:PRO:HA	43:DP:110:ARG:HD3	1.89	0.54
52:DB:28:G:N2	52:DB:45:C:H1'	2.23	0.54
53:DC:47:G:H5"	53:DC:48:U:OP1	2.07	0.54
52:DD:12:C:C2'	52:DD:13:G:O4'	2.52	0.54
52:DD:28:G:H2'	52:DD:29:C:C6	2.43	0.54
1:AA:654(B):C:N4	1:AA:654(S):G:N1	2.49	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1312:U:H4'	1:AA:1313:U:O5'	2.08	0.54
1:AA:2054:A:H5"	1:AA:2055:C:O5'	2.06	0.54
1:AA:2584:U:H2'	1:AA:2585:U:H2'	1.89	0.54
1:AA:2892:A:H2'	1:AA:2893:G:O4'	2.07	0.54
2:AB:75:G:H21	21:AV:85:HIS:CE1	2.26	0.54
9:AM:96:GLU:O	9:AM:98:VAL:N	2.37	0.54
22:A3:35:ASN:H	22:A3:35:ASN:ND2	1.97	0.54
31:BA:390:C:H2'	31:BA:391:G:H8	1.73	0.54
31:BA:1024:G:H2'	31:BA:1025:U:C6	2.43	0.54
31:BA:1028:C:C2	31:BA:1034:G:N3	2.76	0.54
31:BA:1092:A:C2	31:BA:1183:A:C2	2.96	0.54
31:BA:1104:G:H4'	32:BE:111:ARG:NH1	2.22	0.54
31:BA:1336:C:H2'	31:BA:1336:C:O2	2.06	0.54
31:BA:1374:A:C2'	31:BA:1375:A:H5'	2.34	0.54
31:BA:1378:C:O2	31:BA:1378:C:C2'	2.55	0.54
35:BH:139:LEU:O	35:BH:142:LEU:N	2.35	0.54
52:BB:70:C:O2	52:BB:70:C:H2'	2.06	0.54
1:CA:1987:G:H4'	1:CA:1988:C:OP2	2.07	0.54
1:CA:2040:U:H5"	1:CA:2041:G:OP2	2.07	0.54
1:CA:2539:G:H2'	1:CA:2540:C:O4'	2.07	0.54
4:CE:33:VAL:CG2	4:CE:36:ARG:HE	2.18	0.54
9:CM:45:ASN:HD22	9:CM:45:ASN:H	1.54	0.54
9:CM:65:LYS:O	9:CM:69:GLN:HB3	2.07	0.54
9:CM:134:ARG:O	9:CM:134:ARG:CG	2.54	0.54
12:CP:2:LEU:O	12:CP:70:PRO:CG	2.55	0.54
14:CQ:99:LYS:HG2	14:CQ:103:GLU:HG3	1.89	0.54
16:C1:59:ARG:O	16:C1:63:VAL:HG23	2.07	0.54
17:C2:44:LYS:O	17:C2:46:VAL:N	2.30	0.54
22:C3:23:VAL:HG12	22:C3:25:ARG:O	2.08	0.54
31:DA:102:G:C6	31:DA:103:C:C4	2.96	0.54
31:DA:406:G:N3	31:DA:407:G:C8	2.75	0.54
31:DA:410:G:OP2	34:DG:25:ARG:HG2	2.08	0.54
31:DA:1106:G:H4'	33:DF:171:GLY:O	2.08	0.54
31:DA:1361:G:OP1	56:DA:1768:OHX:N3	2.41	0.54
32:DE:7:VAL:HG22	32:DE:8:LYS:N	2.15	0.54
35:DH:81:GLU:HG2	35:DH:90:VAL:HG22	1.90	0.54
36:DI:67:MET:HB2	36:DI:68:PRO:HD2	1.89	0.54
1:AA:645:C:O2	1:AA:645:C:H2'	2.07	0.54
1:AA:1525:G:O2'	1:AA:1526:G:O5'	2.22	0.54
1:AA:1586:A:H3'	1:AA:1587:A:C8	2.43	0.54
1:AA:2346:A:C4'	1:AA:2347:C:OP2	2.46	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2564:A:OP1	1:AA:2648:C:H4'	2.08	0.54
1:AA:2808:U:H5	1:AA:2891:G:C5	2.25	0.54
4:AE:116:VAL:O	4:AE:117:MET:HB2	2.07	0.54
12:AP:59:ARG:O	12:AP:61:GLY:N	2.41	0.54
20:AU:29:GLU:HB3	20:AU:38:ILE:CG2	2.38	0.54
20:AU:81:LYS:HD3	20:AU:97:ARG:NE	2.22	0.54
21:AV:62:PRO:O	21:AV:63:ASP:CB	2.55	0.54
27:A5:6:VAL:O	27:A5:7:PRO:C	2.51	0.54
31:BA:344:A:H4'	31:BA:345:C:OP2	2.06	0.54
31:BA:812:C:H1'	31:BA:813:U:OP2	2.08	0.54
34:BG:119:GLN:HG3	34:BG:123:HIS:CD2	2.42	0.54
42:BO:45:PRO:O	42:BO:46:ASN:CB	2.56	0.54
52:BB:48:C:C4	52:BB:49:A:C5	2.95	0.54
1:CA:955:C:OP1	12:CP:22:LYS:HB2	2.08	0.54
1:CA:1034:G:O2'	1:CA:1047:A:N3	2.37	0.54
1:CA:1075:A:N6	1:CA:1172:G:H2'	2.23	0.54
1:CA:2124:G:H2'	1:CA:2125:U:O4'	2.07	0.54
1:CA:2678:A:H2'	1:CA:2679:C:O4'	2.08	0.54
6:CG:34:LEU:O	6:CG:35:GLU:HB3	2.08	0.54
13:C0:96:ARG:NH2	13:C0:117:VAL:HG23	2.23	0.54
29:C7:12:ARG:HH21	29:C7:44:PRO:HB3	1.73	0.54
31:DA:129(A):G:C2	31:DA:191(A):G:C8	2.96	0.54
31:DA:522:C:OP2	42:DO:66:TYR:OH	2.25	0.54
31:DA:1014:A:H2'	31:DA:1015:A:C8	2.42	0.54
31:DA:1158:C:N3	31:DA:1160:G:N7	2.55	0.54
31:DA:1321:C:H4'	43:DP:87:TYR:CZ	2.43	0.54
33:DF:26:LYS:HA	44:DQ:36:PHE:HE2	1.73	0.54
39:DL:3:GLN:HG2	39:DL:20:ARG:HD2	1.90	0.54
46:DS:9:PHE:CD2	46:DS:18:ARG:HG3	2.41	0.54
48:DU:26:LEU:N	48:DU:26:LEU:HD13	2.22	0.54
52:DB:55:U:C2	52:DB:56:U:H6	2.24	0.54
1:AA:7:G:H2'	1:AA:8:A:O4'	2.08	0.54
1:AA:337:C:H2'	1:AA:338:G:O5'	2.08	0.54
1:AA:2211:G:H1'	1:AA:2212:A:OP1	2.08	0.54
1:AA:2897:U:H2'	1:AA:2898:U:O4'	2.07	0.54
3:AD:3:VAL:HG13	3:AD:17:THR:HG23	1.90	0.54
3:AD:32:SER:HA	3:AD:35:LYS:O	2.08	0.54
3:AD:35:LYS:NZ	3:AD:65:ILE:HA	2.20	0.54
3:AD:35:LYS:HA	3:AD:36:PRO:O	2.07	0.54
6:AG:97:ASP:H	6:AG:100:TRP:HD1	1.56	0.54
11:AO:88:LEU:HD12	11:AO:95:VAL:HG11	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AQ:80:LEU:HD13	14:AQ:80:LEU:O	2.08	0.54
18:AS:110:LYS:HE3	18:AS:111:HIS:CE1	2.42	0.54
21:AV:63:ASP:N	21:AV:64:GLY:HA2	2.21	0.54
31:BA:515:G:N2	31:BA:537:G:C4	2.76	0.54
31:BA:1028:C:N4	31:BA:1028(A):C:N4	2.56	0.54
31:BA:1288:A:H2'	31:BA:1289:A:C8	2.42	0.54
34:BG:126:ILE:HD11	34:BG:146:ILE:HG22	1.90	0.54
45:BR:18:PHE:CE1	45:BR:21:ASP:HB2	2.43	0.54
1:CA:1526:G:N7	56:CA:3350:OHX:N3	2.56	0.54
3:CD:34:VAL:O	3:CD:34:VAL:CG1	2.56	0.54
4:CE:203:LYS:O	4:CE:204:ALA:CB	2.55	0.54
5:CF:25:PRO:HB3	5:CF:28:ILE:HG23	1.90	0.54
12:CP:63:LYS:HB2	12:CP:63:LYS:NZ	2.22	0.54
12:CP:126:PRO:O	12:CP:127:ILE:HG23	2.07	0.54
13:C0:72:ASP:OD1	13:C0:75:LEU:HB2	2.08	0.54
20:CU:95:LYS:NZ	20:CU:99:CYS:O	2.31	0.54
22:C3:36:ILE:HD13	22:C3:36:ILE:O	2.08	0.54
23:CZ:95:LEU:C	23:CZ:96:LYS:HD3	2.33	0.54
31:DA:1137:C:H4'	31:DA:1138:G:C5	2.43	0.54
31:DA:1153:C:H2'	31:DA:1154:G:O4'	2.08	0.54
31:DA:1300:G:HO2'	31:DA:1301:U:P	2.31	0.54
31:DA:1498:U:H1'	31:DA:1499:A:OP2	2.08	0.54
34:DG:111:ALA:HB2	34:DG:120:LEU:HD12	1.90	0.54
36:DI:69:GLU:O	36:DI:72:VAL:HG12	2.08	0.54
41:DN:48:ILE:HD11	41:DN:64:ALA:HA	1.88	0.54
52:DB:56:U:O2	52:DB:56:U:C2'	2.56	0.54
1:AA:304:G:H2'	1:AA:305:U:H6	1.72	0.54
1:AA:389:G:H22	11:AO:72:PRO:HG3	1.73	0.54
1:AA:1348:G:H2'	1:AA:1349:A:H5"	1.89	0.54
1:AA:1912:A:OP2	56:AA:3362:OHX:N1	2.41	0.54
1:AA:2056:G:H2'	1:AA:2056:G:N3	2.22	0.54
1:AA:2068:U:N3	1:AA:2430:A:C2	2.59	0.54
1:AA:2345:G:N3	1:AA:2381:C:H2'	2.23	0.54
2:AB:42:C:O2'	6:AG:67:LYS:HE3	2.07	0.54
4:AE:36:ARG:NH1	4:AE:85:ASN:OD1	2.41	0.54
5:AF:129:PHE:O	5:AF:130:ALA:CB	2.55	0.54
6:AG:16:ARG:N	6:AG:17:PRO:HD2	2.22	0.54
7:AH:83:TYR:CB	7:AH:135:GLY:H	2.21	0.54
12:AP:32:TYR:HD1	12:AP:133:ARG:HA	1.73	0.54
13:A0:3:HIS:C	13:A0:5:LYS:H	2.08	0.54
14:AQ:30:ARG:HG3	14:AQ:30:ARG:NH1	2.20	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AQ:88:ASP:O	14:AQ:89:ARG:HB3	2.08	0.54
15:AR:120:ARG:HA	15:AR:123:GLN:HG2	1.88	0.54
18:AS:37:ARG:HD3	18:AS:38:TYR:CE2	2.43	0.54
22:A3:83:PRO:O	22:A3:84:LEU:CB	2.55	0.54
30:A8:23:VAL:HG12	30:A8:46:ARG:HB3	1.90	0.54
31:BA:181:G:O2'	31:BA:182:U:O5'	2.26	0.54
31:BA:210:U:H2'	31:BA:216:G:OP2	2.08	0.54
31:BA:422:C:O2'	31:BA:423:G:C4	2.61	0.54
31:BA:886:G:OP2	56:BA:1805:OHX:N2	2.41	0.54
39:BL:79:LEU:O	39:BL:83:ARG:HG3	2.08	0.54
41:BN:41:THR:HG21	41:BN:71:LYS:HD3	1.90	0.54
45:BR:74:ASP:CG	45:BR:77:ARG:HG2	2.33	0.54
1:CA:1538:G:O4'	3:CD:99:ASP:HB3	2.08	0.54
1:CA:1890:G:C6	1:CA:1906:G:C6	2.96	0.54
1:CA:2153:U:H2'	1:CA:2181:A:C2	2.42	0.54
1:CA:2157:A:C2	1:CA:2182:G:H1'	2.42	0.54
1:CA:2668:G:H1'	1:CA:2669:U:H5	1.72	0.54
2:CB:17:A:H1'	2:CB:112:G:C4	2.42	0.54
4:CE:12:THR:HG22	15:CR:58:ASN:HD21	1.73	0.54
5:CF:202:PHE:C	5:CF:202:PHE:CD1	2.86	0.54
8:CK:68:LEU:HA	8:CK:71:ILE:HG22	1.88	0.54
20:CU:19:LYS:HE3	20:CU:71:LYS:HE2	1.90	0.54
21:CV:44:PHE:CE1	21:CV:48:PHE:HB2	2.43	0.54
31:DA:690:G:N2	41:DN:55:LYS:HE2	2.17	0.54
31:DA:882:C:N4	42:DO:2:PRO:HB3	2.23	0.54
39:DL:33:PHE:CE1	39:DL:37:PHE:HD1	2.25	0.54
49:DV:9:VAL:HG13	49:DV:10:PHE:H	1.72	0.54
1:AA:2474:C:H3'	1:AA:2475:C:H6	1.72	0.54
1:AA:2481:G:O2'	1:AA:2482:G:O5'	2.26	0.54
3:AD:79:VAL:HG21	3:AD:111:LEU:HD11	1.89	0.54
8:AK:74:ASN:OD1	8:AK:75:LEU:HD13	2.08	0.54
10:AN:35:VAL:CG2	10:AN:69:ILE:HG12	2.37	0.54
21:AV:75:ASN:O	21:AV:84:GLU:HG2	2.07	0.54
31:BA:355:C:C4	31:BA:356:A:N7	2.76	0.54
31:BA:452:A:O2'	31:BA:453:A:O5'	2.25	0.54
33:BF:15:THR:CG2	33:BF:181:ASN:HA	2.38	0.54
33:BF:150:LYS:HB3	33:BF:201:TYR:HB2	1.88	0.54
48:BU:70:ILE:O	48:BU:74:ARG:HG3	2.08	0.54
49:BV:40:ILE:HA	49:BV:44:MET:SD	2.48	0.54
54:B1:11:U:O2'	54:B1:12:A:C4	2.61	0.54
1:CA:516:G:C2	1:CA:517:G:H1'	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:822:A:H2	1:CA:835:U:O2'	1.88	0.54
1:CA:936:C:H4'	1:CA:937:C:OP2	2.08	0.54
1:CA:1002:G:H4'	12:CP:83:MET:HE3	1.90	0.54
1:CA:1100:C:H3'	1:CA:1101:A:H5"	1.90	0.54
1:CA:1138:G:C6	1:CA:1139:C:N4	2.76	0.54
1:CA:1561:U:O2'	1:CA:1562:C:H5'	2.08	0.54
1:CA:2481:G:H5"	1:CA:2482:A:OP2	2.07	0.54
1:CA:2486:U:O2	1:CA:2486:U:C2'	2.55	0.54
1:CA:2496:C:H2'	1:CA:2496:C:O2	2.08	0.54
1:CA:2857:G:H2'	1:CA:2858:U:O4'	2.08	0.54
4:CE:38:THR:CG2	4:CE:40:GLU:H	2.16	0.54
13:C0:97:VAL:HA	13:C0:113:LEU:O	2.08	0.54
15:CR:78:LEU:HD23	15:CR:78:LEU:O	2.07	0.54
23:CZ:60:PHE:HE2	23:CZ:91:LYS:NZ	2.05	0.54
31:DA:109:A:H5'	31:DA:110:C:C5	2.43	0.54
31:DA:468:A:C2'	31:DA:474:G:H5'	2.37	0.54
31:DA:536:C:O2	31:DA:536:C:H2'	2.07	0.54
31:DA:870:U:H4'	31:DA:871:U:H5"	1.87	0.54
31:DA:992:U:H1'	31:DA:993:G:OP2	2.08	0.54
31:DA:1012:U:H2'	31:DA:1013:G:C8	2.43	0.54
34:DG:146:ILE:HD12	34:DG:146:ILE:N	2.23	0.54
35:DH:88:LYS:HB2	35:DH:123:LEU:HB2	1.90	0.54
49:DV:17:GLU:O	49:DV:21:GLU:HG2	2.08	0.54
1:AA:15:G:C2'	1:AA:16:G:H5'	2.38	0.53
1:AA:542:C:H42	1:AA:551:G:H1	1.56	0.53
1:AA:654(B):C:N4	1:AA:654(S):G:H1	2.06	0.53
1:AA:1109:C:O2'	1:AA:1110:G:C4'	2.56	0.53
1:AA:1458:C:H4'	1:AA:1459:G:O4'	2.09	0.53
1:AA:2067:G:O2'	1:AA:2069:G:H5"	2.08	0.53
1:AA:2469:A:H2	1:AA:2481:G:H21	1.53	0.53
1:AA:2686:G:C2	1:AA:2724:C:O2	2.61	0.53
2:AB:1(M):A:H2'	2:AB:1(M):A:N3	2.22	0.53
6:AG:139:LEU:HD13	43:BP:3:ARG:HH12	1.74	0.53
7:AH:10:PRO:HD2	7:AH:50:VAL:H	1.73	0.53
7:AH:137:ASP:HB3	7:AH:140:LYS:HB3	1.89	0.53
8:AK:35:LEU:O	8:AK:36:ALA:HB2	2.07	0.53
9:AM:22:THR:O	9:AM:23:LEU:HB2	2.08	0.53
9:AM:127:ASP:O	9:AM:128:HIS:HB3	2.08	0.53
28:A6:36:LEU:HD23	28:A6:36:LEU:H	1.73	0.53
31:BA:435:C:H2'	31:BA:436:C:H6	1.73	0.53
42:BO:3:THR:H	42:BO:6:GLN:NE2	2.02	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BB:67:A:N6	52:BB:70:C:H1'	2.23	0.53
1:CA:1719:U:H2'	1:CA:1721:U:OP2	2.08	0.53
1:CA:2290:G:H5"	12:CP:87:LYS:HB3	1.91	0.53
1:CA:2320:G:C4	1:CA:2324:A:C6	2.92	0.53
1:CA:2597:U:H5'	1:CA:2598:U:OP2	2.08	0.53
1:CA:2634:A:P	4:CE:119:ARG:HH22	2.31	0.53
1:CA:2702:U:P	1:CA:2733:G:H22	2.31	0.53
3:CD:35:LYS:NZ	3:CD:104:TYR:HB2	2.24	0.53
4:CE:64:LYS:C	4:CE:66:HIS:H	2.16	0.53
5:CF:132:VAL:C	5:CF:134:GLY:H	2.17	0.53
9:CM:28:THR:HA	9:CM:106:MET:CE	2.37	0.53
11:CO:121:LYS:HG3	11:CO:122:PRO:HD2	1.89	0.53
31:DA:865:A:H1'	31:DA:918:A:O2'	2.07	0.53
31:DA:1015:A:C5	31:DA:1016:A:C5	2.95	0.53
31:DA:1133:G:H2'	31:DA:1134:G:C8	2.42	0.53
35:DH:87:SER:HB3	35:DH:125:SER:O	2.07	0.53
37:DJ:50:ILE:HG21	37:DJ:58:PRO:HA	1.91	0.53
37:DJ:126:ASP:HB3	37:DJ:131:LYS:O	2.07	0.53
37:DJ:131:LYS:O	37:DJ:131:LYS:HD2	2.08	0.53
44:DQ:24:CYS:SG	44:DQ:40:CYS:HB3	2.48	0.53
46:DS:55:ARG:HH21	46:DS:58:TYR:HD1	1.56	0.53
47:DT:53:LEU:H	47:DT:53:LEU:HD12	1.72	0.53
1:AA:322:A:P	5:AF:168:ARG:HH21	2.31	0.53
1:AA:811:U:C4	11:AO:21:ARG:NH2	2.76	0.53
1:AA:860:U:H5	1:AA:917:A:C2	2.26	0.53
1:AA:1314:C:OP1	1:AA:1332:G:H5"	2.08	0.53
1:AA:1332:G:N2	1:AA:1610:A:C8	2.77	0.53
1:AA:1544:C:O2	1:AA:1544:C:H2'	2.07	0.53
1:AA:1754:C:H5	15:AR:96:ARG:NH2	2.06	0.53
1:AA:2015:A:C4	27:A5:6:VAL:HG22	2.43	0.53
1:AA:2303:G:O2'	6:AG:132:ASN:HB2	2.09	0.53
1:AA:2692:C:H2'	1:AA:2693:A:H8	1.73	0.53
4:AE:67:PHE:O	4:AE:69:LYS:N	2.35	0.53
8:AK:71:ILE:HG12	8:AK:72:LEU:HD12	1.90	0.53
10:AN:35:VAL:HG11	10:AN:103:ALA:HB3	1.88	0.53
11:AO:65:ARG:O	11:AO:66:GLY:C	2.51	0.53
14:AQ:29:PHE:CD2	14:AQ:29:PHE:C	2.83	0.53
15:AR:55:ASN:O	15:AR:57:PHE:O	2.26	0.53
18:AS:24:ILE:HD12	18:AS:24:ILE:O	2.08	0.53
20:AU:41:GLY:O	20:AU:42:VAL:C	2.51	0.53
21:AV:27:VAL:HG22	21:AV:28:MET:H	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:A8:34:TRP:CB	30:A8:35:GLN:HB2	2.37	0.53
31:BA:397:A:H5'	31:BA:398:C:OP1	2.08	0.53
31:BA:723:U:H5'	31:BA:724:G:OP2	2.07	0.53
31:BA:1031:G:O6	31:BA:1032:A:N6	2.42	0.53
36:BI:23:LYS:O	36:BI:27:GLN:HG3	2.07	0.53
41:BN:17:GLY:HA3	41:BN:77:MET:SD	2.47	0.53
44:BQ:4:LYS:C	44:BQ:6:LEU:H	2.14	0.53
45:BR:56:LEU:O	45:BR:60:VAL:HG23	2.08	0.53
52:BB:48:C:C4	52:BB:49:A:C6	2.95	0.53
1:CA:66:U:C2	1:CA:73:A:H2	2.24	0.53
1:CA:235:G:O6	30:C8:8:LYS:HE3	2.09	0.53
1:CA:757:U:H2'	1:CA:758:G:H8	1.73	0.53
1:CA:1005:A:C6	1:CA:1006:A:N1	2.77	0.53
1:CA:1116:A:H5'	1:CA:1143:A:O2'	2.08	0.53
1:CA:1507:G:C6	1:CA:1509:G:C5	2.96	0.53
1:CA:2136:U:C5	1:CA:2137:A:H1'	2.43	0.53
1:CA:2319:C:H3'	1:CA:2320:G:C5'	2.29	0.53
4:CE:197:ILE:CD1	4:CE:199:ARG:HG3	2.38	0.53
6:CG:113:ARG:HD3	6:CG:140:ILE:O	2.08	0.53
16:C1:47:TYR:HD1	17:C2:72:VAL:HG11	1.73	0.53
23:CZ:87:PRO:O	23:CZ:88:LYS:C	2.51	0.53
26:C4:10:VAL:O	26:C4:10:VAL:HG13	2.08	0.53
31:DA:510:A:H5"	31:DA:511:C:OP2	2.08	0.53
31:DA:848:C:H2'	31:DA:849:C:C6	2.43	0.53
31:DA:1116:C:H42	31:DA:1184:G:H1	1.56	0.53
31:DA:1270:C:H2'	31:DA:1271:G:H8	1.73	0.53
31:DA:1319:A:P	49:DV:10:PHE:HB3	2.48	0.53
43:DP:4:ILE:HG23	43:DP:5:ALA:H	1.74	0.53
50:DW:40:ALA:HB2	50:DW:55:ILE:HG22	1.89	0.53
52:DB:55:U:N3	52:DB:56:U:C6	2.77	0.53
1:AA:494:G:H21	18:AS:57:ASN:ND2	2.04	0.53
1:AA:654(A):A:H2	1:AA:654(T):A:H61	1.54	0.53
1:AA:1076:C:C3'	1:AA:1077:A:H5"	2.38	0.53
1:AA:2035:G:H4'	1:AA:2036:C:OP2	2.07	0.53
1:AA:2319:G:N7	14:AQ:3:ARG:HD3	2.24	0.53
1:AA:2351:G:H1'	1:AA:2366:A:N6	2.24	0.53
1:AA:2746:U:OP2	56:AA:3311:OHX:N1	2.42	0.53
3:AD:35:LYS:HD3	3:AD:63:ARG:HB3	1.89	0.53
4:AE:69:LYS:HD3	4:AE:89:ASP:OD2	2.08	0.53
4:AE:101:ARG:CZ	4:AE:171:GLU:HB3	2.37	0.53
6:AG:84:LYS:HG2	6:AG:84:LYS:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AU:77:PRO:O	20:AU:78:ALA:HB2	2.09	0.53
27:A5:49:CYS:SG	27:A5:60:VAL:HB	2.48	0.53
28:A6:25:LYS:HE2	28:A6:27:LYS:HE2	1.89	0.53
28:A6:30:THR:HA	28:A6:32:ASN:N	2.23	0.53
31:BA:22:G:H2'	31:BA:23:C:H6	1.70	0.53
31:BA:148:G:C2	31:BA:149:A:C8	2.96	0.53
31:BA:515:G:H1	31:BA:536:C:H42	1.57	0.53
31:BA:1450:U:O2	31:BA:1452:C:H5"	2.08	0.53
35:BH:145:LYS:O	35:BH:149:GLU:HB2	2.09	0.53
46:BS:43:LYS:HA	46:BS:48:TRP:HB2	1.90	0.53
47:BT:55:ASP:HA	47:BT:79:SER:HA	1.89	0.53
49:BV:41:VAL:HG21	49:BV:67:VAL:HG13	1.90	0.53
1:CA:99:G:H2'	1:CA:100:G:OP1	2.08	0.53
1:CA:744:G:H2'	1:CA:745:C:H6	1.73	0.53
1:CA:782:A:O2'	1:CA:1683:G:H5'	2.09	0.53
1:CA:1031:A:OP1	56:CA:3270:OHX:N6	2.42	0.53
1:CA:1356:G:H4'	29:C7:7:PRO:HB2	1.90	0.53
1:CA:1883:U:H4'	52:DD:80:C:H4'	1.91	0.53
1:CA:2185:G:H2'	1:CA:2186:C:H6	1.73	0.53
1:CA:2205:G:C2	1:CA:2206:C:C4	2.97	0.53
11:CO:112:LEU:HB3	11:CO:128:HIS:HD2	1.73	0.53
12:CP:110:THR:OG1	12:CP:113:GLN:HG2	2.08	0.53
27:C5:57:VAL:HG12	27:C5:58:LEU:N	2.14	0.53
31:DA:384:G:H2'	31:DA:385:C:H6	1.73	0.53
31:DA:1106:G:H2'	31:DA:1107:C:H6	1.74	0.53
31:DA:1128:C:N4	31:DA:1139:G:C2	2.76	0.53
32:DE:8:LYS:HE2	32:DE:217:ARG:HE	1.73	0.53
49:DV:9:VAL:CG1	49:DV:10:PHE:N	2.71	0.53
1:AA:163:U:C2'	1:AA:164:U:H5'	2.37	0.53
1:AA:548:A:C2	1:AA:549:G:H1'	2.44	0.53
1:AA:1177:A:H4'	1:AA:1178:C:H5"	1.90	0.53
1:AA:1423:G:H2'	1:AA:1424:G:C8	2.40	0.53
1:AA:2113:U:H5	1:AA:2167:U:O2	1.90	0.53
1:AA:2572:A:N7	4:AE:145:LYS:HB2	2.22	0.53
5:AF:29:ASN:N	5:AF:112:MET:CE	2.67	0.53
6:AG:121:ASN:HD21	6:AG:123:ASN:HB2	1.73	0.53
8:AK:35:LEU:HD23	8:AK:35:LEU:H	1.72	0.53
9:AM:120:LEU:HD22	9:AM:121:LYS:N	2.23	0.53
15:AR:118:ARG:NH1	31:BA:1446:A:C6	2.77	0.53
26:A4:52:THR:O	26:A4:53:GLU:CB	2.56	0.53
31:BA:201:C:N4	31:BA:216:G:H1	2.04	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1053:G:N7	31:BA:1199:U:H3'	2.23	0.53
31:BA:1199:U:H4'	40:BM:54:PHE:CE2	2.44	0.53
31:BA:1433:A:C4	31:BA:1468:A:C2	2.97	0.53
34:BG:84:LYS:HD2	34:BG:84:LYS:N	2.23	0.53
52:BB:13:G:N2	52:BB:23:A:C6	2.76	0.53
53:BC:65:G:H2'	53:BC:66:C:O4'	2.09	0.53
1:CA:8:A:H2'	1:CA:9:U:H6	1.73	0.53
1:CA:324:A:N1	1:CA:347:A:O2'	2.32	0.53
1:CA:895:U:O4	1:CA:979:A:N1	2.42	0.53
1:CA:1086:G:H1	1:CA:1163:C:H42	1.57	0.53
1:CA:1894:G:H2'	1:CA:1895:G:H8	1.73	0.53
1:CA:2503:G:N1	56:CA:3279:OHX:N4	2.56	0.53
1:CA:2847:U:C4	1:CA:2894:A:N6	2.77	0.53
3:CD:255:LYS:H	3:CD:255:LYS:CE	2.10	0.53
5:CF:28:ILE:C	5:CF:112:MET:HE3	2.33	0.53
11:CO:61:ARG:HB3	11:CO:62:LEU:HD22	1.91	0.53
11:CO:86:LYS:HG3	11:CO:87:ASP:H	1.71	0.53
12:CP:135:ASP:O	12:CP:137:TYR:N	2.41	0.53
19:CT:65:ARG:HB3	19:CT:70:LEU:HA	1.90	0.53
26:C4:49:PHE:CD1	26:C4:50:VAL:HG22	2.43	0.53
31:DA:270:A:C5	31:DA:271:C:C4	2.96	0.53
31:DA:328:C:O2'	31:DA:329:A:P	2.67	0.53
32:DE:238:LEU:O	32:DE:238:LEU:HD12	2.09	0.53
34:DG:29:PRO:HD2	34:DG:30:LYS:CD	2.38	0.53
47:DT:59:ILE:HG22	47:DT:71:PHE:CD1	2.43	0.53
52:DD:43:G:H2'	52:DD:44:C:C6	2.43	0.53
1:AA:49:A:C5	1:AA:120:U:O4	2.61	0.53
1:AA:901:A:N3	1:AA:901:A:H2'	2.23	0.53
1:AA:2212:A:N3	1:AA:2215:G:N1	2.56	0.53
2:AB:48:A:H4'	14:AQ:95:HIS:HD2	1.73	0.53
5:AF:10:PRO:O	5:AF:124:LEU:HD12	2.09	0.53
7:AH:151:ILE:C	7:AH:153:LYS:HD2	2.33	0.53
7:AH:153:LYS:O	7:AH:154:PRO:C	2.51	0.53
13:A0:87:TYR:HE1	13:A0:117:VAL:HG12	1.73	0.53
14:AQ:14:VAL:O	14:AQ:18:ILE:HG13	2.08	0.53
25:AX:54:VAL:HG22	25:AX:55:ARG:N	2.23	0.53
31:BA:78:G:H1	31:BA:91:C:N4	2.02	0.53
31:BA:99:C:H2'	31:BA:101:A:C8	2.43	0.53
31:BA:255:G:P	47:BT:69:LYS:HZ1	2.32	0.53
31:BA:1028(B):C:N4	31:BA:1032(A):G:C6	2.75	0.53
31:BA:1224:G:N1	31:BA:1322:C:H1'	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BA:1782:OHX:N4	49:BV:17:GLU:OE2	2.42	0.53
38:BK:83:ILE:HG13	38:BK:137:VAL:HG22	1.89	0.53
40:BM:8:LEU:HB3	40:BM:16:LEU:HD21	1.90	0.53
43:BP:108:ARG:HH11	43:BP:108:ARG:HG3	1.74	0.53
44:BQ:4:LYS:C	44:BQ:6:LEU:N	2.66	0.53
1:CA:17:G:H4'	16:C1:25:TRP:CZ3	2.44	0.53
1:CA:1162:G:C6	1:CA:1163:C:C4	2.96	0.53
1:CA:1425:A:OP1	29:C7:10:ARG:NH2	2.42	0.53
1:CA:2122:U:H2'	1:CA:2122:U:O2	2.08	0.53
1:CA:2864:C:H2'	1:CA:2865:G:H8	1.72	0.53
9:CM:128:HIS:HB2	9:CM:129:PRO:CD	2.38	0.53
16:C1:94:ASN:C	16:C1:96:ALA:H	2.16	0.53
21:CV:115:GLY:H	21:CV:177:PRO:HG2	1.73	0.53
21:CV:121:HIS:HB2	21:CV:169:GLU:OE2	2.09	0.53
26:C4:62:ARG:N	26:C4:62:ARG:HD2	2.22	0.53
31:DA:468:A:H2'	31:DA:474:G:C5'	2.38	0.53
31:DA:631:G:H3'	31:DA:632:A:N7	2.23	0.53
31:DA:892:A:O2'	31:DA:1415:G:H4'	2.08	0.53
34:DG:98:GLU:OE2	34:DG:103:ASN:ND2	2.41	0.53
39:DL:3:GLN:HE21	39:DL:20:ARG:HH11	1.56	0.53
40:DM:6:ILE:O	40:DM:6:ILE:HD12	2.09	0.53
43:DP:28:ALA:O	43:DP:30:ALA:N	2.41	0.53
44:DQ:24:CYS:SG	44:DQ:24:CYS:O	2.67	0.53
1:AA:273(E):U:C2'	1:AA:273(F):C:H5'	2.38	0.53
1:AA:581:C:OP1	16:A1:33:ARG:HG3	2.09	0.53
1:AA:725:G:C6	1:AA:726:G:N1	2.76	0.53
1:AA:784:A:C8	1:AA:792:G:C5	2.96	0.53
1:AA:997:G:OP1	16:A1:93:LYS:HG3	2.09	0.53
1:AA:1064:C:H42	1:AA:1074:G:H1	1.57	0.53
1:AA:1101:U:H2'	1:AA:1102:C:O4'	2.08	0.53
1:AA:1568:G:P	3:AD:63:ARG:HH12	2.31	0.53
1:AA:1971:A:C2	3:AD:241:PRO:HD3	2.44	0.53
1:AA:2315:G:H2'	1:AA:2316:C:C6	2.43	0.53
1:AA:2490:G:N3	1:AA:2490:G:H2'	2.23	0.53
1:AA:2554:U:H2'	1:AA:2555:U:C6	2.44	0.53
3:AD:132:PRO:HD3	3:AD:190:TYR:CE2	2.44	0.53
3:AD:238:GLY:O	3:AD:239:ARG:HG3	2.09	0.53
5:AF:195:ASP:O	5:AF:197:ASP:O	2.27	0.53
6:AG:35:GLU:OE1	6:AG:36:LYS:N	2.42	0.53
6:AG:77:ILE:O	6:AG:81:LYS:O	2.26	0.53
7:AH:86:GLU:CD	7:AH:86:GLU:N	2.67	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AV:4:ARG:HA	21:AV:58:VAL:HG22	1.90	0.53
30:A8:35:GLN:HA	30:A8:35:GLN:OE1	2.07	0.53
31:BA:1330:U:O4	31:BA:1331:G:N1	2.41	0.53
37:BJ:147:ALA:C	37:BJ:149:ARG:H	2.17	0.53
39:BL:43:ALA:HA	39:BL:74:ILE:HD13	1.91	0.53
43:BP:82:MET:C	43:BP:84:ILE:N	2.66	0.53
45:BR:17:ARG:HH11	45:BR:17:ARG:HG3	1.73	0.53
46:BS:28:ARG:HG3	46:BS:29:ASP:OD2	2.08	0.53
52:BB:51:C:C5	52:BB:52:G:N3	2.76	0.53
52:BD:19:C:C2'	52:BD:20:C:H4'	2.36	0.53
1:CA:4:C:H42	1:CA:2909:G:H1	1.57	0.53
1:CA:1058:G:N2	1:CA:1198:G:C4	2.77	0.53
1:CA:2480:C:H2'	1:CA:2481:G:O4'	2.09	0.53
1:CA:2480:C:N4	1:CA:2481:G:C2	2.76	0.53
1:CA:2760:U:H2'	1:CA:2761:G:H5'	1.90	0.53
1:CA:2790:A:H1'	1:CA:2791:G:OP2	2.08	0.53
5:CF:186:ILE:HD13	5:CF:192:LEU:HD21	1.91	0.53
7:CH:30:LYS:HB3	7:CH:79:VAL:C	2.33	0.53
7:CH:109:PHE:CE1	7:CH:152:ARG:HD3	2.42	0.53
11:CO:52:GLU:HB3	11:CO:55:ARG:HG3	1.90	0.53
11:CO:55:ARG:O	11:CO:56:SER:C	2.51	0.53
15:CR:50:ILE:HD11	15:CR:102:ILE:CD1	2.35	0.53
19:CT:26:TYR:OH	19:CT:88:LYS:HB2	2.08	0.53
31:DA:75:C:H2'	31:DA:76:G:O4'	2.09	0.53
31:DA:337:C:H2'	31:DA:338:A:C8	2.42	0.53
31:DA:946:A:C6	31:DA:947:G:C6	2.97	0.53
31:DA:1019:C:H2'	31:DA:1020:U:O4'	2.09	0.53
31:DA:1074:G:O3'	32:DE:103:THR:HG22	2.08	0.53
31:DA:1287:A:H2'	31:DA:1288:A:C8	2.43	0.53
39:DL:114:TYR:HD1	40:DM:60:ARG:HG2	1.74	0.53
1:AA:355:G:N7	56:AA:3508:OHX:N1	2.57	0.53
1:AA:649:G:O6	56:AA:3485:OHX:N1	2.41	0.53
1:AA:1027:A:C2	1:AA:2488:A:H5'	2.44	0.53
1:AA:1537:C:H2'	1:AA:1538:G:O5'	2.08	0.53
1:AA:2468:G:C5	1:AA:2481:G:C2	2.97	0.53
2:AB:37:C:H2'	2:AB:38:C:H5'	1.91	0.53
4:AE:61:ARG:O	4:AE:63:LEU:HD22	2.09	0.53
4:AE:119:ARG:NH1	4:AE:119:ARG:HG3	2.24	0.53
8:AK:41:GLU:O	8:AK:45:LYS:HG3	2.08	0.53
8:AK:86:THR:HA	8:AK:123:LEU:HD13	1.89	0.53
31:BA:31:G:H1'	31:BA:32:A:OP1	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:486:U:H2'	31:BA:487:A:H8	1.72	0.53
31:BA:973:G:O6	31:BA:974:A:N6	2.42	0.53
31:BA:1028:C:C6	31:BA:1034:G:N2	2.77	0.53
31:BA:1246:C:H42	31:BA:1291:G:H1	1.56	0.53
31:BA:1288:A:H2'	31:BA:1289:A:H8	1.74	0.53
32:BE:98:LEU:HG	32:BE:101:MET:HE3	1.88	0.53
39:BL:26:VAL:HG13	39:BL:61:ALA:HB3	1.90	0.53
43:BP:4:ILE:CG2	43:BP:5:ALA:H	2.12	0.53
1:CA:29:U:H2'	1:CA:30:G:H8	1.74	0.53
1:CA:354:G:C6	20:CU:19:LYS:HG2	2.44	0.53
1:CA:795:U:C2	27:C5:2:ALA:N	2.76	0.53
1:CA:905:C:H4'	22:C3:23:VAL:HG21	1.89	0.53
1:CA:1005:A:N1	1:CA:1006:A:C2	2.77	0.53
1:CA:1313:G:O2'	1:CA:2035:G:O6	2.24	0.53
1:CA:1575:A:C2	1:CA:1590:A:H2	2.27	0.53
1:CA:2328:G:H2'	1:CA:2329:C:H6	1.73	0.53
1:CA:2887:G:H1'	15:CR:3:ARG:NH1	2.24	0.53
5:CF:112:MET:O	5:CF:115:ALA:HB3	2.08	0.53
8:CK:77:LEU:CD1	8:CK:78:THR:H	2.21	0.53
12:CP:27:VAL:HG21	12:CP:132:VAL:HG11	1.89	0.53
18:CS:44:ALA:O	18:CS:45:TYR:C	2.51	0.53
21:CV:103:ARG:O	21:CV:104:PHE:HB2	2.09	0.53
31:DA:552:U:H1'	42:DO:29:PHE:CE1	2.43	0.53
31:DA:605:U:H3	31:DA:633:G:H1	1.57	0.53
31:DA:1163:C:H2'	31:DA:1164:G:C8	2.44	0.53
31:DA:1190:G:C6	56:DA:1760:OHX:N3	2.77	0.53
34:DG:18:LYS:HE3	34:DG:33:MET:HB2	1.88	0.53
34:DG:139:ARG:HH11	34:DG:139:ARG:CG	2.08	0.53
35:DH:9:LYS:HB2	35:DH:112:LEU:HD11	1.91	0.53
39:DL:113:LYS:HD2	39:DL:113:LYS:N	2.23	0.53
40:DM:54:PHE:CE2	40:DM:55:LYS:HD3	2.43	0.53
52:DB:40:U:H2'	52:DB:41:C:O4'	2.09	0.53
52:DD:20:C:H5'	52:DD:68:A:H62	1.73	0.53
1:AA:389:G:H22	11:AO:72:PRO:HD3	1.73	0.53
1:AA:469:G:C2'	1:AA:470:A:H5"	2.39	0.53
1:AA:957:A:N1	1:AA:2458:G:H4'	2.24	0.53
1:AA:1288:U:C2	1:AA:1327:C:O2	2.62	0.53
1:AA:1401:G:H2'	1:AA:1402:C:C6	2.44	0.53
1:AA:1509:C:H2'	1:AA:1511:A:C8	2.43	0.53
1:AA:1812:A:O2'	3:AD:45:ASN:HB2	2.08	0.53
1:AA:2127:G:H3'	1:AA:2128:C:H5"	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AF:191:ARG:HB3	5:AF:191:ARG:NH1	2.24	0.53
6:AG:2:PRO:HB3	26:A4:25:TYR:CZ	2.43	0.53
7:AH:154:PRO:O	7:AH:155:SER:C	2.51	0.53
25:AX:10:LYS:HD3	25:AX:53:LEU:HD23	1.91	0.53
31:BA:95:G:H5'	31:BA:96:G:OP2	2.08	0.53
31:BA:320:C:H2'	31:BA:321:A:C8	2.43	0.53
31:BA:352:C:O2	31:BA:352:C:H2'	2.09	0.53
31:BA:567:G:H2'	31:BA:568:G:O4'	2.09	0.53
31:BA:692:U:H2'	31:BA:694:A:OP2	2.09	0.53
31:BA:1367:C:H5'	40:BM:60:ARG:NH2	2.23	0.53
34:BG:98:GLU:OE1	34:BG:194:LEU:HD21	2.08	0.53
36:BI:97:PHE:O	48:BU:31:LEU:HD23	2.09	0.53
38:BK:86:ILE:HG22	38:BK:87:SER:N	2.23	0.53
52:BB:15:G:O2'	52:BB:20:C:N4	2.42	0.53
1:CA:851:U:C2'	1:CA:852:A:H5'	2.39	0.53
1:CA:1181:C:O2	56:CA:3415:OHX:N6	2.42	0.53
1:CA:1400:A:H5"	3:CD:38:LYS:HE3	1.89	0.53
1:CA:2328:G:H2'	1:CA:2329:C:C6	2.44	0.53
1:CA:2485:G:H5"	1:CA:2486:U:H5"	1.91	0.53
1:CA:2524:U:O4	1:CA:2588:C:N3	2.41	0.53
1:CA:2532:U:H4'	1:CA:2533:C:OP1	2.08	0.53
1:CA:2765:G:H4'	1:CA:2766:C:OP1	2.07	0.53
3:CD:70:TRP:CZ3	3:CD:146:GLU:OE2	2.62	0.53
4:CE:31:CYS:HB3	4:CE:49:LEU:HB3	1.90	0.53
5:CF:197:ASP:OD1	5:CF:197:ASP:C	2.52	0.53
6:CG:56:ALA:HB2	6:CG:153:ARG:HE	1.74	0.53
11:CO:61:ARG:HB3	11:CO:62:LEU:CD2	2.39	0.53
12:CP:109:VAL:HB	12:CP:113:GLN:CB	2.38	0.53
12:CP:132:VAL:HG21	21:CV:81:ARG:HH22	1.72	0.53
21:CV:105:VAL:HG22	21:CV:106:GLY:H	1.73	0.53
30:C8:49:VAL:O	30:C8:50:LEU:CB	2.55	0.53
31:DA:362:G:H4'	42:DO:30:ARG:HH21	1.74	0.53
31:DA:1177:G:O2'	31:DA:1178:G:C4	2.58	0.53
31:DA:1267:C:O2	31:DA:1267:C:C2'	2.57	0.53
33:DF:59:ARG:HH12	33:DF:97:LYS:CD	2.21	0.53
34:DG:70:ILE:HD11	34:DG:100:ARG:NH1	2.23	0.53
39:DL:97:LYS:O	39:DL:97:LYS:HE2	2.08	0.53
43:DP:16:ASP:HB2	43:DP:31:LYS:HG2	1.90	0.53
45:DR:39:LEU:C	45:DR:39:LEU:HD13	2.34	0.53
1:AA:205:G:HO2'	1:AA:206:U:P	2.31	0.53
1:AA:991:C:H2'	1:AA:992:C:H6	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1329:U:H5”	1:AA:1330:C:H5	1.74	0.53
1:AA:1668:A:H4’	1:AA:1669:A:O5’	2.08	0.53
1:AA:2367:G:H2’	1:AA:2368:C:H6	1.73	0.53
4:AE:60:ASN:OD1	4:AE:62:PRO:HD2	2.09	0.53
4:AE:144:ARG:HH11	4:AE:144:ARG:HG3	1.74	0.53
7:AH:151:ILE:O	7:AH:153:LYS:CD	2.57	0.53
7:AH:153:LYS:HD2	7:AH:153:LYS:N	2.23	0.53
12:AP:23:GLY:HA2	12:AP:25:ASP:HB3	1.85	0.53
15:AR:34:VAL:HG23	15:AR:41:ARG:HB2	1.89	0.53
20:AU:42:VAL:HB	20:AU:67:LEU:CD1	2.25	0.53
23:AZ:91:LYS:O	23:AZ:93:GLU:N	2.41	0.53
24:AW:16:LEU:O	24:AW:16:LEU:CG	2.57	0.53
31:BA:1004:A:C4	31:BA:1025:U:C2	2.96	0.53
42:BO:3:THR:N	42:BO:6:GLN:HE21	2.02	0.53
42:BO:59:SER:HB2	42:BO:61:TYR:CD1	2.43	0.53
46:BS:20:VAL:HG13	46:BS:32:TYR:CB	2.39	0.53
47:BT:100:LYS:O	47:BT:101:ARG:HG3	2.09	0.53
53:BC:14:A:H2’	53:BC:15:G:O4’	2.09	0.53
52:BD:22:A:C5	52:BD:57:C:N4	2.77	0.53
1:CA:1302:U:H5”	1:CA:1303:G:H5”	1.91	0.53
1:CA:2230:A:H4’	1:CA:2231:U:C4	2.44	0.53
1:CA:2651:G:OP1	4:CE:82:ARG:NH2	2.42	0.53
4:CE:29:GLY:HA2	4:CE:180:ASN:HB3	1.91	0.53
5:CF:124:LEU:C	5:CF:125:LEU:HD23	2.33	0.53
8:CK:131:LYS:N	8:CK:131:LYS:HD2	2.24	0.53
11:CO:86:LYS:HG3	11:CO:87:ASP:N	2.24	0.53
31:DA:387:U:OP1	56:DA:1721:OHX:N1	2.42	0.53
31:DA:600:C:H2’	31:DA:601:C:C6	2.44	0.53
31:DA:718:G:H5’	41:DN:117:ASN:ND2	2.23	0.53
32:DE:17:PHE:HE2	32:DE:44:LEU:HA	1.74	0.53
32:DE:67:THR:HG21	32:DE:155:LEU:HG	1.89	0.53
32:DE:78:GLN:O	32:DE:81:VAL:HB	2.09	0.53
32:DE:124:SER:O	32:DE:126:GLU:N	2.35	0.53
40:DM:33:GLN:HB3	40:DM:75:ILE:HD11	1.91	0.53
40:DM:55:LYS:O	40:DM:56:HIS:CG	2.62	0.53
1:AA:71:A:H4’	1:AA:72:U:H5”	1.90	0.53
1:AA:444:C:H4’	5:AF:49:ALA:HB2	1.91	0.53
1:AA:1581:G:H2’	1:AA:1582:C:O4’	2.10	0.53
1:AA:1607:C:H4’	1:AA:1608:A:C5’	2.39	0.53
1:AA:1705:G:C6	1:AA:1706:U:C4	2.97	0.53
1:AA:2402:C:OP1	1:AA:2402:C:C4’	2.57	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2745:C:C4	1:AA:2746:U:C4	2.96	0.53
17:A2:18:LEU:HD22	17:A2:19:LYS:N	2.24	0.53
23:AZ:82:LEU:HD22	23:AZ:82:LEU:N	2.24	0.53
31:BA:116:A:H61	31:BA:313:A:H1'	1.74	0.53
31:BA:149:A:C2	31:BA:150:C:C4	2.97	0.53
31:BA:1133:G:H1	31:BA:1141:C:H42	1.57	0.53
32:BE:60:ASP:HB3	32:BE:64:ARG:HH12	1.73	0.53
32:BE:166:ASP:O	32:BE:168:THR:N	2.40	0.53
38:BK:69:ARG:HD3	38:BK:75:ARG:O	2.09	0.53
53:BC:1:C:C2'	53:BC:2:G:H5'	2.39	0.53
1:CA:70:A:H4'	1:CA:71:U:O5'	2.08	0.53
1:CA:653:A:H4'	1:CA:654:G:OP1	2.08	0.53
1:CA:821:U:H4'	3:CD:47:GLY:HA3	1.91	0.53
1:CA:844:C:H2'	1:CA:845:C:H6	1.75	0.53
1:CA:1003:A:N6	1:CA:1005:A:C2	2.77	0.53
1:CA:1994:A:C4	3:CD:241:PRO:HD3	2.44	0.53
1:CA:2030:C:H2'	1:CA:2031:C:C6	2.44	0.53
1:CA:2156:G:H1'	1:CA:2181:A:H62	1.71	0.53
1:CA:2342:G:H2'	1:CA:2343:G:C8	2.44	0.53
1:CA:2705:C:O2'	1:CA:2706:A:H5'	2.09	0.53
5:CF:74:ARG:HG2	5:CF:74:ARG:O	2.09	0.53
6:CG:55:LYS:HZ2	6:CG:58:GLN:HE22	1.57	0.53
8:CK:112:LYS:O	8:CK:113:ARG:HG2	2.09	0.53
10:CN:2:ILE:HG13	10:CN:8:LEU:HD11	1.90	0.53
19:CT:28:PHE:HD1	19:CT:28:PHE:H	1.58	0.53
28:C6:31:PRO:C	28:C6:33:LYS:H	2.17	0.53
31:DA:77:C:C2'	31:DA:78:G:H5'	2.39	0.53
31:DA:250:A:C4'	31:DA:251:G:O5'	2.57	0.53
31:DA:381:C:H2'	31:DA:382:A:O4'	2.09	0.53
31:DA:406:G:C2	31:DA:407:G:C8	2.97	0.53
31:DA:537:G:H5"	42:DO:110:ARG:NH1	2.24	0.53
31:DA:606:G:N2	31:DA:631:G:O2'	2.41	0.53
31:DA:1417:G:C6	31:DA:1482:G:C6	2.97	0.53
32:DE:74:LYS:HE2	32:DE:76:GLN:HB2	1.90	0.53
33:DF:164:ARG:HG2	33:DF:165:THR:N	2.24	0.53
45:DR:75:PRO:O	45:DR:79:ARG:HG3	2.09	0.53
1:AA:229:A:H1'	1:AA:230:U:OP2	2.09	0.52
1:AA:2060:A:H1'	1:AA:2061:G:OP2	2.08	0.52
3:AD:30:GLU:CG	3:AD:63:ARG:HH21	2.14	0.52
5:AF:172:TRP:CE3	5:AF:173:VAL:HG23	2.43	0.52
9:AM:95:PRO:O	9:AM:96:GLU:CG	2.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AN:112:MET:O	10:AN:115:VAL:HG22	2.09	0.52
11:AO:11:GLY:O	11:AO:13:ASN:N	2.42	0.52
12:AP:27:VAL:HG23	12:AP:102:VAL:HG11	1.90	0.52
13:A0:28:LEU:HD21	13:A0:114:VAL:O	2.09	0.52
14:AQ:36:TYR:N	14:AQ:36:TYR:HD1	2.04	0.52
15:AR:88:ILE:O	15:AR:88:ILE:HG13	2.09	0.52
21:AV:30:ASN:ND2	21:AV:32:HIS:H	2.05	0.52
25:AX:6:VAL:HB	25:AX:54:VAL:HG21	1.91	0.52
31:BA:998:G:O2'	31:BA:998(A):C:H5'	2.09	0.52
31:BA:1452:C:C2'	31:BA:1453:G:OP2	2.57	0.52
34:BG:31:CYS:C	34:BG:33:MET:N	2.67	0.52
46:BS:36:ILE:O	46:BS:36:ILE:HG13	2.09	0.52
47:BT:12:SER:O	47:BT:19:VAL:HA	2.08	0.52
48:BU:70:ILE:HG23	48:BU:79:LEU:HD13	1.91	0.52
52:BB:51:C:C4	52:BB:52:G:H1'	2.44	0.52
52:BD:9:U:O2	52:BD:9:U:C2'	2.57	0.52
1:CA:146:G:H2'	1:CA:147:U:O4'	2.09	0.52
1:CA:178:G:OP2	56:CA:3403:OHX:N1	2.42	0.52
1:CA:287:C:H2'	1:CA:287:C:O2	2.08	0.52
1:CA:823:G:C5	1:CA:842:G:C8	2.97	0.52
1:CA:873:C:C2'	1:CA:874:U:H5'	2.39	0.52
1:CA:1054:C:H5"	9:CM:35:ARG:HH11	1.75	0.52
1:CA:1206:U:O2'	1:CA:1207:G:H5'	2.09	0.52
1:CA:1225:C:H2'	1:CA:1226:C:C6	2.44	0.52
1:CA:1236:G:H2'	1:CA:1237:G:H8	1.74	0.52
1:CA:1310:U:H1'	27:C5:10:LYS:HG3	1.89	0.52
1:CA:1577:G:H2'	1:CA:1578:C:C6	2.44	0.52
1:CA:1623:C:H2'	1:CA:1624:U:H6	1.73	0.52
1:CA:1754:U:O2	1:CA:1789:U:H5'	2.09	0.52
1:CA:2150:G:N2	1:CA:2184:C:N3	2.45	0.52
1:CA:2166:C:H2'	1:CA:2167:U:O4'	2.09	0.52
1:CA:2740:U:O2'	1:CA:2741:G:H8	1.92	0.52
2:CB:34:C:N4	2:CB:52:G:H1	2.05	0.52
5:CF:16:GLY:O	5:CF:17:ARG:C	2.52	0.52
5:CF:116:ASP:OD1	11:CO:1:MET:N	2.32	0.52
6:CG:104:GLU:CG	26:C4:23:GLU:HG2	2.26	0.52
6:CG:173:LEU:O	6:CG:178:PHE:HB2	2.09	0.52
15:CR:91:ARG:O	15:CR:116:ALA:HA	2.09	0.52
16:C1:90:VAL:O	16:C1:92:ARG:N	2.42	0.52
20:CU:61:ILE:HG22	20:CU:62:GLU:N	2.23	0.52
26:C4:61:ARG:C	26:C4:62:ARG:HD2	2.35	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:109:A:C6	31:DA:326:G:C6	2.97	0.52
31:DA:677:U:H1'	41:DN:119:CYS:SG	2.50	0.52
31:DA:687:A:C1'	31:DA:688:G:OP2	2.56	0.52
31:DA:707:C:H2'	31:DA:708:C:H6	1.74	0.52
31:DA:922:G:O2'	31:DA:1398:A:N1	2.31	0.52
31:DA:1027:C:O2'	31:DA:1027:C:O2	2.27	0.52
31:DA:1128:C:HO2'	31:DA:1129:C:P	2.32	0.52
32:DE:71:VAL:HG12	32:DE:72:GLY:H	1.75	0.52
33:DF:150:LYS:HE3	33:DF:152:ILE:HD11	1.90	0.52
36:DI:48:LEU:HD13	36:DI:52:ILE:HG13	1.89	0.52
39:DL:114:TYR:CD1	40:DM:60:ARG:HG2	2.44	0.52
43:DP:80:ARG:O	43:DP:83:ASP:O	2.27	0.52
47:DT:67:LYS:HA	47:DT:70:ARG:NH1	2.25	0.52
52:DB:21:A:N7	52:DB:46:G:C8	2.78	0.52
1:AA:581:C:H2'	1:AA:582:G:H8	1.74	0.52
1:AA:1019:U:O2'	1:AA:1021:A:H2	1.70	0.52
1:AA:1133:U:O4	1:AA:2026:C:H1'	2.10	0.52
1:AA:1317:A:H2'	1:AA:1318:C:H6	1.74	0.52
4:AE:101:ARG:NE	4:AE:171:GLU:HB3	2.24	0.52
12:AP:43:THR:HB	12:AP:45:GLN:HG2	1.91	0.52
17:A2:3:ALA:HA	17:A2:40:LEU:O	2.10	0.52
28:A6:17:LYS:O	28:A6:44:ARG:NH2	2.31	0.52
31:BA:128:G:H4'	47:BT:3:LYS:HG2	1.91	0.52
31:BA:243:A:H5"	31:BA:244:U:H3'	1.91	0.52
31:BA:359:U:H2'	31:BA:360:A:H8	1.73	0.52
31:BA:531:U:C2	56:BA:1673:OHX:N1	2.78	0.52
31:BA:1009:G:C2	31:BA:1010:G:C8	2.97	0.52
31:BA:1132:C:H2'	31:BA:1133:G:C8	2.44	0.52
31:BA:1277:C:HO2'	31:BA:1279:A:C1'	2.22	0.52
31:BA:1505:G:H4'	54:B1:13:A:N6	2.23	0.52
33:BF:138:VAL:O	33:BF:142:MET:HG2	2.08	0.52
34:BG:110:PHE:CE2	34:BG:148:VAL:HG23	2.44	0.52
40:BM:35:SER:OG	40:BM:73:ASP:HB2	2.09	0.52
54:B1:11:U:C2'	54:B1:12:A:C4	2.93	0.52
1:CA:286:U:H1'	1:CA:287:C:H5	1.74	0.52
1:CA:610:A:H5'	5:CF:89:VAL:HG21	1.91	0.52
1:CA:671:C:O2	1:CA:671:C:C2'	2.53	0.52
1:CA:1256:A:H5'	1:CA:1258:G:O4'	2.10	0.52
1:CA:1816:A:H4'	1:CA:1817:A:C5'	2.39	0.52
1:CA:2146:G:N2	1:CA:2198:C:N3	2.53	0.52
1:CA:2335:A:H2'	1:CA:2336:G:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:2378:G:H2'	1:CA:2379:A:C8	2.45	0.52
1:CA:2413:G:H2'	1:CA:2414:U:C6	2.44	0.52
24:CW:43:GLN:HG2	24:CW:43:GLN:O	2.08	0.52
31:DA:757:U:H2'	31:DA:758:G:O4'	2.10	0.52
31:DA:875:C:O2'	38:DK:14:ARG:HD2	2.09	0.52
35:DH:110:LEU:HD13	35:DH:118:ILE:HD13	1.91	0.52
38:DK:13:ILE:O	38:DK:17:THR:OG1	2.26	0.52
38:DK:20:TYR:HA	38:DK:65:TYR:CZ	2.43	0.52
38:DK:82:HIS:CD2	38:DK:138:TRP:CE2	2.97	0.52
45:DR:55:GLY:O	45:DR:59:MET:HG3	2.09	0.52
52:DB:13:G:H1'	52:DB:24:G:H1	1.73	0.52
1:AA:372:G:O2'	1:AA:373:U:OP2	2.27	0.52
1:AA:389:G:H22	11:AO:72:PRO:CD	2.22	0.52
1:AA:531:C:OP1	1:AA:561:G:N2	2.42	0.52
1:AA:1080:A:H2'	1:AA:1081:U:C1'	2.38	0.52
1:AA:1488:G:C5	1:AA:1489:U:C5	2.97	0.52
1:AA:1662:C:OP1	56:AA:3487:OHX:N2	2.42	0.52
1:AA:1833:U:H2'	1:AA:1834:U:C6	2.41	0.52
1:AA:2733:A:H3'	1:AA:2734:A:H5"	1.91	0.52
2:AB:73:A:C3'	2:AB:74:U:H5'	2.39	0.52
2:AB:74:U:H2'	2:AB:75:G:O4'	2.09	0.52
3:AD:25:THR:O	3:AD:27:THR:N	2.43	0.52
3:AD:65:ILE:HD11	3:AD:67:PHE:CE2	2.44	0.52
3:AD:70:TRP:C	3:AD:70:TRP:CD1	2.87	0.52
5:AF:46:ARG:HG2	5:AF:46:ARG:NH1	2.01	0.52
7:AH:151:ILE:O	7:AH:151:ILE:HG22	2.09	0.52
14:AQ:39:ILE:HG13	14:AQ:73:LEU:HD11	1.90	0.52
14:AQ:41:ASP:OD2	14:AQ:44:LYS:HD2	2.09	0.52
16:A1:72:HIS:CE1	16:A1:107:ALA:HA	2.45	0.52
22:A3:34:GLY:O	22:A3:35:ASN:C	2.52	0.52
24:AW:63:VAL:O	24:AW:66:GLU:HB3	2.10	0.52
28:A6:38:LYS:HE2	28:A6:46:HIS:CD2	2.44	0.52
31:BA:115:G:H4'	31:BA:116:A:O5'	2.09	0.52
31:BA:540:G:H2'	31:BA:541:G:O4'	2.09	0.52
31:BA:594:G:OP2	56:BA:1772:OHX:N1	2.42	0.52
31:BA:1287:A:C2	31:BA:1353:G:H1'	2.41	0.52
31:BA:1378:C:O2	31:BA:1379:G:O4'	2.27	0.52
41:BN:126:ARG:HH11	41:BN:126:ARG:CG	2.21	0.52
42:BO:34:CYS:O	42:BO:76:GLU:O	2.27	0.52
43:BP:108:ARG:NH1	43:BP:108:ARG:HG3	2.24	0.52
49:BV:63:THR:CG2	49:BV:65:ASN:HD21	2.20	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BB:23:A:C2'	52:BB:24:G:H5"	2.33	0.52
1:CA:65:C:H2'	1:CA:66:U:O4'	2.09	0.52
1:CA:197:A:H2'	1:CA:198:C:O4'	2.09	0.52
1:CA:354:G:H4'	1:CA:355:A:OP2	2.09	0.52
1:CA:551:U:O2	1:CA:551:U:H2'	2.07	0.52
1:CA:1333:A:H1'	1:CA:1335:U:OP2	2.09	0.52
2:CB:42:U:C6	26:C4:1:MET:HE2	2.44	0.52
3:CD:208:LYS:HG3	3:CD:210:GLY:N	2.23	0.52
5:CF:25:PRO:O	5:CF:26:ALA:HB3	2.09	0.52
5:CF:143:ALA:O	5:CF:148:LEU:HB2	2.10	0.52
6:CG:111:LEU:HB2	6:CG:112:PRO:HD3	1.90	0.52
7:CH:16:SER:OG	7:CH:17:VAL:N	2.42	0.52
11:CO:62:LEU:N	11:CO:62:LEU:HD23	2.19	0.52
11:CO:64:LYS:O	11:CO:66:GLY:N	2.42	0.52
14:CQ:88:ASP:O	14:CQ:89:ARG:HB3	2.09	0.52
20:CU:92:ASN:OD1	20:CU:92:ASN:N	2.41	0.52
21:CV:24:LEU:HD22	21:CV:83:PRO:HB2	1.89	0.52
31:DA:23:C:H5	31:DA:561:U:O4	1.92	0.52
31:DA:1190:G:N1	56:DA:1760:OHX:N3	2.57	0.52
46:DS:14:ASN:N	46:DS:15:PRO:HD3	2.24	0.52
47:DT:68:ARG:H	47:DT:70:ARG:NH1	2.07	0.52
52:DB:59:A:C6	52:DB:60:A:C5	2.98	0.52
52:DD:17:G:HO2'	52:DD:66:G:H22	1.44	0.52
1:AA:273(F):C:O2	1:AA:273(F):C:H2'	2.08	0.52
1:AA:568:U:O2	1:AA:570:G:C8	2.61	0.52
1:AA:588:U:C2	5:AF:90:PHE:CE1	2.97	0.52
1:AA:780:G:C2	1:AA:783:A:N6	2.78	0.52
1:AA:795:C:H2'	1:AA:796:C:C6	2.45	0.52
1:AA:2439:A:O2'	1:AA:2440:C:OP2	2.18	0.52
3:AD:35:LYS:HZ3	3:AD:104:TYR:HD1	1.58	0.52
4:AE:120:TRP:CD1	4:AE:155:LYS:HB3	2.44	0.52
5:AF:122:LYS:HD2	5:AF:191:ARG:HG2	1.91	0.52
5:AF:164:ARG:HG3	5:AF:175:THR:OG1	2.09	0.52
6:AG:171:ALA:O	6:AG:175:LEU:HG	2.10	0.52
7:AH:102:ALA:HA	7:AH:117:PRO:HD3	1.90	0.52
7:AH:124:GLU:C	7:AH:126:PRO:HD3	2.35	0.52
11:AO:15:ARG:O	11:AO:16:ARG:C	2.53	0.52
17:A2:72:VAL:HG13	17:A2:85:LYS:HG2	1.92	0.52
18:AS:84:ARG:HB2	18:AS:96:ILE:HD11	1.91	0.52
25:AX:59:VAL:CG1	25:AX:60:GLU:N	2.72	0.52
31:BA:280:C:O2	47:BT:38:ARG:HG3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:509:A:H2'	31:BA:510:A:C8	2.44	0.52
31:BA:1000:A:H2'	31:BA:1001:G:C8	2.45	0.52
31:BA:1234:C:H4'	31:BA:1364:U:O2'	2.08	0.52
32:BE:8:LYS:H	32:BE:8:LYS:CE	2.22	0.52
33:BF:114:PRO:O	33:BF:118:GLN:HG3	2.10	0.52
35:BH:144:THR:OG1	35:BH:147:ASP:OD2	2.26	0.52
37:BJ:43:PHE:C	37:BJ:43:PHE:CD1	2.86	0.52
42:BO:72:HIS:HD2	42:BO:74:LEU:H	1.57	0.52
1:CA:234:A:C2	1:CA:245:A:C4	2.96	0.52
1:CA:235:G:O3'	11:CO:70:GLN:O	2.26	0.52
1:CA:717:G:O2'	1:CA:718:A:C8	2.60	0.52
1:CA:942:U:O2'	1:CA:943:A:H5"	2.10	0.52
1:CA:985:G:C2'	1:CA:986:G:H5'	2.39	0.52
1:CA:1493:C:OP2	1:CA:1494:C:OP2	2.27	0.52
1:CA:1617:A:H5'	3:CD:61:LEU:HD21	1.91	0.52
1:CA:2321:G:H2'	1:CA:2322:A:OP1	2.08	0.52
1:CA:2763:A:H5"	7:CH:6:ARG:HH12	1.73	0.52
3:CD:35:LYS:CB	3:CD:63:ARG:HA	2.39	0.52
4:CE:65:GLY:O	4:CE:66:HIS:C	2.52	0.52
5:CF:39:TRP:O	5:CF:43:LYS:HG2	2.10	0.52
7:CH:12:PRO:HD2	7:CH:48:GLY:O	2.09	0.52
11:CO:9:ASN:O	11:CO:10:PRO:C	2.52	0.52
11:CO:15:ARG:O	11:CO:16:ARG:C	2.53	0.52
11:CO:62:LEU:HG	30:C8:25:MET:CB	2.09	0.52
20:CU:76:CYS:O	20:CU:77:PRO:C	2.52	0.52
31:DA:458:C:H2'	31:DA:464:G:C8	2.45	0.52
31:DA:504:C:C2	31:DA:542:G:C2	2.98	0.52
31:DA:1036:G:H5'	31:DA:1037:C:OP2	2.09	0.52
31:DA:1055:A:N7	31:DA:1206:G:C2	2.78	0.52
31:DA:1261:A:H2'	31:DA:1262:C:H5'	1.91	0.52
33:DF:47:LEU:HD11	33:DF:76:VAL:HB	1.91	0.52
34:DG:70:ILE:HD11	34:DG:100:ARG:CD	2.38	0.52
38:DK:38:ILE:HD12	38:DK:118:VAL:HG12	1.92	0.52
40:DM:49:VAL:O	40:DM:60:ARG:HB2	2.09	0.52
43:DP:22:ILE:HB	43:DP:25:ILE:HG13	1.92	0.52
52:DD:19:C:C2'	52:DD:20:C:H4'	2.36	0.52
1:AA:438:G:H2'	1:AA:439:G:C8	2.45	0.52
1:AA:479:A:O2'	1:AA:481:G:H2'	2.09	0.52
1:AA:973:A:O4'	1:AA:1188:U:C6	2.63	0.52
1:AA:1021:A:H8	1:AA:1022:G:H5"	1.75	0.52
1:AA:1625:C:H2'	1:AA:1626:G:O4'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1797:C:C2'	1:AA:1798:U:H5'	2.40	0.52
1:AA:2294:C:C4	1:AA:2295:C:C5	2.98	0.52
1:AA:2476:A:H2'	1:AA:2476:A:N3	2.25	0.52
1:AA:2846:G:OP2	15:AR:54:ARG:HB2	2.08	0.52
5:AF:128:ALA:O	5:AF:129:PHE:HB2	2.10	0.52
6:AG:61:ALA:O	26:A4:7:PRO:HG3	2.09	0.52
21:AV:68:PRO:O	21:AV:91:LEU:HB2	2.09	0.52
31:BA:186:C:H2'	31:BA:186(A):C:C6	2.44	0.52
31:BA:539:A:OP1	42:BO:111:LYS:HE2	2.09	0.52
31:BA:575:G:O2'	31:BA:821:G:OP2	2.27	0.52
31:BA:811:C:H4'	31:BA:900:A:H61	1.72	0.52
31:BA:1460:A:H2'	31:BA:1461:G:O4'	2.10	0.52
32:BE:187:LEU:HD11	32:BE:204:ASN:O	2.08	0.52
52:BB:46:G:C2'	52:BB:47:U:H5'	2.39	0.52
1:CA:16:G:H5"	27:C5:17:ASP:HB2	1.91	0.52
1:CA:550:U:H2'	1:CA:551:U:C6	2.36	0.52
1:CA:561:C:C2'	1:CA:562:A:H5'	2.38	0.52
1:CA:1086:G:H1	1:CA:1163:C:N4	2.06	0.52
1:CA:2252:G:P	3:CD:244:ARG:HH22	2.32	0.52
4:CE:111:ARG:CG	13:C0:2:ARG:HH22	2.20	0.52
7:CH:92:ILE:HD13	7:CH:160:LYS:HG3	1.91	0.52
8:CK:128:LEU:O	8:CK:138:ILE:HG22	2.10	0.52
12:CP:67:ARG:HD2	12:CP:105:GLU:OE1	2.09	0.52
16:C1:11:ARG:HG3	16:C1:11:ARG:HH11	1.75	0.52
20:CU:89:PHE:O	20:CU:90:LEU:C	2.52	0.52
26:C4:48:ARG:NH1	26:C4:51:ASP:HA	2.25	0.52
26:C4:56:VAL:HA	26:C4:60:GLN:NE2	2.25	0.52
28:C6:35:GLU:O	28:C6:36:LEU:CB	2.58	0.52
29:C7:8:ASN:C	29:C7:8:ASN:ND2	2.68	0.52
31:DA:134:A:N6	46:DS:25:ARG:NH1	2.58	0.52
31:DA:324:G:N7	56:DA:1764:OHX:N4	2.57	0.52
31:DA:350:G:H5'	31:DA:351:G:OP2	2.09	0.52
31:DA:363:A:C2	42:DO:28:PRO:HG2	2.45	0.52
31:DA:851:G:H2'	31:DA:852:G:C8	2.45	0.52
31:DA:946:A:H2'	31:DA:947:G:C8	2.45	0.52
31:DA:1272:G:H2'	31:DA:1273:G:O4'	2.10	0.52
33:DF:15:THR:HG22	33:DF:16:ARG:NH1	2.24	0.52
33:DF:108:ASN:C	33:DF:110:ASN:H	2.18	0.52
34:DG:178:VAL:C	34:DG:180:GLY:H	2.18	0.52
35:DH:7:GLU:OE1	35:DH:37:ARG:NE	2.42	0.52
35:DH:76:ILE:O	35:DH:93:PRO:HB3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DB:10:C:N4	52:DB:26:G:H1	2.03	0.52
52:DD:52:G:H2'	52:DD:53:A:O4'	2.10	0.52
1:AA:278:A:H2'	1:AA:279:C:C6	2.45	0.52
1:AA:354:G:H2'	1:AA:355:G:O4'	2.09	0.52
1:AA:588:U:H2'	1:AA:589:C:C6	2.45	0.52
1:AA:606:U:H4'	1:AA:658:C:H4'	1.91	0.52
1:AA:880:G:N2	1:AA:898:C:C2	2.78	0.52
1:AA:956:G:H4'	12:AP:83:MET:HE3	1.92	0.52
1:AA:1171:G:C6	1:AA:1174:A:N6	2.77	0.52
1:AA:1694:C:H4'	1:AA:1695:G:O5'	2.10	0.52
1:AA:2789:C:H3'	1:AA:2790:A:H5"	1.92	0.52
4:AE:105:THR:HG22	4:AE:106:GLY:N	2.22	0.52
7:AH:89:ILE:CG2	7:AH:162:ILE:HG12	2.40	0.52
7:AH:150:ALA:C	7:AH:152:ARG:H	2.15	0.52
26:A4:43:TYR:CD1	26:A4:44:THR:N	2.78	0.52
30:A8:14:VAL:HG13	30:A8:22:VAL:HG13	1.91	0.52
31:BA:678:U:H2'	31:BA:679:C:C6	2.44	0.52
31:BA:954:G:H21	31:BA:1227:A:H62	1.55	0.52
31:BA:1029:G:O2'	31:BA:1032(A):G:N2	2.42	0.52
31:BA:1124:G:H1	31:BA:1149:C:N4	2.08	0.52
34:BG:11:LEU:C	34:BG:13:ARG:H	2.17	0.52
36:BI:27:GLN:HA	36:BI:30:LEU:HD12	1.90	0.52
40:BM:32:ALA:HB2	40:BM:76:ASN:HB2	1.90	0.52
43:BP:26:GLY:O	43:BP:28:ALA:N	2.43	0.52
48:BU:36:ASN:HD22	48:BU:39:VAL:HG21	1.74	0.52
52:BD:8:U:H3	52:BD:14:A:H62	1.58	0.52
1:CA:728:G:C4	1:CA:846:G:N2	2.78	0.52
1:CA:739:C:C1'	3:CD:43:ARG:HH21	2.22	0.52
1:CA:1299:G:N3	16:C1:33:ARG:HD2	2.25	0.52
1:CA:1468:G:C2	1:CA:1469:G:C8	2.98	0.52
1:CA:1701:G:H1'	1:CA:1702:A:OP2	2.10	0.52
1:CA:2661:C:H2'	1:CA:2662:U:C6	2.45	0.52
1:CA:2706:A:H2'	1:CA:2707:G:C8	2.43	0.52
1:CA:2800:U:H4'	4:CE:64:LYS:HA	1.91	0.52
3:CD:44:ASN:OD1	3:CD:44:ASN:N	2.42	0.52
4:CE:81:ILE:O	4:CE:82:ARG:CB	2.58	0.52
6:CG:130:ASN:OD1	6:CG:160:VAL:HA	2.09	0.52
6:CG:171:ALA:O	6:CG:175:LEU:HG	2.09	0.52
12:CP:75:THR:HA	12:CP:90:VAL:H	1.75	0.52
14:CQ:29:PHE:CD2	14:CQ:29:PHE:C	2.86	0.52
14:CQ:52:SER:O	14:CQ:56:LEU:HG	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:509:A:O2'	31:DA:510:A:P	2.68	0.52
31:DA:534:U:H5'	31:DA:535:A:OP2	2.10	0.52
31:DA:552:U:O2'	42:DO:83:ARG:O	2.26	0.52
31:DA:1224:G:C2	31:DA:1322:C:H4'	2.45	0.52
31:DA:1394:A:C6	31:DA:1501:C:H4'	2.44	0.52
32:DE:95:GLN:O	32:DE:96:ARG:C	2.53	0.52
53:DC:17:C:OP1	53:DC:62:C:H5'	2.10	0.52
52:DD:42:U:H2'	52:DD:43:G:C8	2.44	0.52
54:D1:12:A:O2'	54:D1:13:A:OP1	2.17	0.52
1:AA:270(X):G:OP2	56:AA:3424:OHX:N1	2.43	0.52
1:AA:811:U:OP2	11:AO:21:ARG:O	2.27	0.52
1:AA:2145:C:H2'	1:AA:2147:G:N1	2.24	0.52
1:AA:2309:A:H2'	1:AA:2310:A:O4'	2.10	0.52
3:AD:236:GLY:O	3:AD:237:GLU:HB2	2.09	0.52
5:AF:65:TRP:HB3	5:AF:66:PRO:HD2	1.90	0.52
5:AF:133:ASN:HA	5:AF:162:LEU:HD22	1.91	0.52
7:AH:50:VAL:HG22	7:AH:50:VAL:O	2.10	0.52
14:AQ:106:ARG:HB2	14:AQ:106:ARG:NH1	2.25	0.52
17:A2:44:LYS:C	17:A2:46:VAL:H	2.15	0.52
19:AT:53:LYS:HZ2	19:AT:55:ASN:HD21	1.57	0.52
19:AT:65:ARG:HB2	19:AT:70:LEU:HB3	1.91	0.52
19:AT:67:GLY:O	19:AT:68:ARG:HB3	2.10	0.52
31:BA:183:G:H2'	31:BA:184:G:C8	2.44	0.52
31:BA:509:A:O2'	31:BA:510:A:P	2.68	0.52
31:BA:587:G:N2	31:BA:755:G:C5	2.78	0.52
31:BA:877:C:H5"	38:BK:88:LYS:HD3	1.92	0.52
31:BA:1099:G:H2'	31:BA:1100:C:O4'	2.10	0.52
32:BE:8:LYS:HE3	32:BE:11:LEU:HB2	1.92	0.52
33:BF:15:THR:HG23	33:BF:181:ASN:HB2	1.92	0.52
34:BG:89:THR:OG1	56:BG:302:OHX:N6	2.42	0.52
38:BK:17:THR:HG21	38:BK:80:ILE:HD11	1.90	0.52
38:BK:51:VAL:HG11	38:BK:60:ARG:HH11	1.75	0.52
40:BM:34:VAL:HG13	40:BM:73:ASP:O	2.09	0.52
44:BQ:22:THR:O	44:BQ:23:ARG:HD2	2.10	0.52
45:BR:25:THR:HG21	45:BR:70:LEU:HD22	1.91	0.52
52:BB:11:C:H2'	52:BB:12:C:H6	1.75	0.52
52:BB:21:A:OP2	52:BB:56:U:O4	2.28	0.52
52:BD:52:G:H2'	52:BD:53:A:O4'	2.09	0.52
1:CA:372:A:H2'	1:CA:373:G:C8	2.45	0.52
1:CA:908:U:C2	1:CA:2281:A:C8	2.97	0.52
1:CA:1057:A:H5'	16:C1:62:ILE:HG21	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1432:G:H4'	1:CA:1433:C:OP1	2.08	0.52
1:CA:2428:G:OP1	56:CA:3490:OHX:N5	2.43	0.52
1:CA:2748:A:H2'	1:CA:2749:G:O4'	2.10	0.52
1:CA:2903:G:H8	1:CA:2903:G:OP2	1.93	0.52
3:CD:120:GLY:HA2	3:CD:190:TYR:OH	2.09	0.52
4:CE:54:GLN:O	4:CE:75:VAL:HG22	2.09	0.52
5:CF:9:ILE:HG12	5:CF:13:SER:O	2.09	0.52
5:CF:88:VAL:HG22	5:CF:89:VAL:O	2.10	0.52
9:CM:35:ARG:O	9:CM:37:LYS:N	2.34	0.52
11:CO:85:LEU:HD23	11:CO:86:LYS:N	2.24	0.52
11:CO:121:LYS:HA	11:CO:121:LYS:HE3	1.92	0.52
15:CR:98:LYS:HB3	15:CR:100:TYR:CE1	2.45	0.52
21:CV:15:PRO:HA	21:CV:18:LEU:HD23	1.90	0.52
21:CV:30:ASN:O	21:CV:31:ARG:C	2.53	0.52
21:CV:75:ASN:O	21:CV:84:GLU:HG2	2.10	0.52
24:CW:65:ASN:HD22	24:CW:69:ARG:NH2	2.06	0.52
31:DA:66:G:C6	31:DA:67:C:C5	2.97	0.52
32:DE:92:TYR:HD2	32:DE:151:GLY:HA3	1.74	0.52
33:DF:154:SER:O	33:DF:196:LEU:HD13	2.09	0.52
37:DJ:75:VAL:HG21	37:DJ:144:MET:HB2	1.91	0.52
1:AA:67:U:C4	1:AA:74:A:N1	2.77	0.52
1:AA:315:G:H2'	1:AA:316:C:C6	2.45	0.52
1:AA:1086:A:H4'	1:AA:1103:A:C2	2.44	0.52
1:AA:1570:A:H2'	1:AA:1571:A:C8	2.45	0.52
1:AA:1593:G:H2'	1:AA:1594:G:H8	1.73	0.52
1:AA:2651:C:O2'	1:AA:2652:C:H5'	2.10	0.52
4:AE:37:ARG:HA	4:AE:37:ARG:HH11	1.74	0.52
4:AE:38:THR:HG23	4:AE:41:LYS:H	1.74	0.52
6:AG:127:GLY:HA2	6:AG:166:ASP:OD1	2.08	0.52
10:AN:76:ALA:HB3	15:AR:75:ILE:HD12	1.92	0.52
17:A2:98:GLU:OE2	17:A2:100:ARG:NH1	2.43	0.52
19:AT:55:ASN:HB2	19:AT:80:ILE:HG13	1.92	0.52
20:AU:96:ILE:HG23	20:AU:101:LYS:HG2	1.92	0.52
20:AU:96:ILE:C	20:AU:98:VAL:H	2.18	0.52
21:AV:140:ASP:CG	21:AV:141:VAL:H	2.17	0.52
29:A7:16:HIS:HB2	29:A7:44:PRO:HG2	1.92	0.52
31:BA:782:A:H4'	31:BA:1514:C:O2'	2.10	0.52
31:BA:791:G:H5'	31:BA:792:A:O5'	2.09	0.52
31:BA:836:G:OP1	48:BU:61:LYS:NZ	2.41	0.52
31:BA:940:C:H2'	31:BA:941:G:H8	1.74	0.52
31:BA:1002:G:N3	31:BA:1003:G:C8	2.78	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1145:C:H4'	31:BA:1146:A:H8	1.75	0.52
32:BE:210:SER:O	32:BE:214:ILE:HG12	2.09	0.52
44:BQ:45:ARG:NH1	44:BQ:49:HIS:HE1	2.08	0.52
52:BB:15:G:H21	52:BB:20:C:H6	1.58	0.52
1:CA:21:A:O2'	1:CA:22:C:H5'	2.09	0.52
1:CA:947:A:H2'	1:CA:947:A:N3	2.23	0.52
1:CA:959:C:H2'	1:CA:959:C:O2	2.08	0.52
1:CA:1177:U:O2	4:CE:149:ARG:NH2	2.43	0.52
1:CA:1256:A:C5'	1:CA:1257:U:H3'	2.40	0.52
1:CA:1463:G:O6	56:CA:3428:OHX:N1	2.42	0.52
1:CA:2148:G:N2	1:CA:2195:U:O5'	2.42	0.52
1:CA:2152:C:N3	1:CA:2182:G:O6	2.42	0.52
1:CA:2180:G:H2'	1:CA:2181:A:C8	2.44	0.52
1:CA:2213:G:H2'	1:CA:2214:G:H5"	1.92	0.52
2:CB:9:G:O5'	14:CQ:29:PHE:CE1	2.63	0.52
4:CE:112:GLY:O	4:CE:159:HIS:HA	2.10	0.52
11:CO:97:PRO:O	11:CO:98:GLU:CB	2.53	0.52
13:C0:118:GLU:HA	13:C0:118:GLU:OE1	2.09	0.52
14:CQ:60:GLY:O	14:CQ:61:ASN:HB2	2.09	0.52
31:DA:89:U:O2'	31:DA:90:C:H6	1.93	0.52
31:DA:804:U:H5"	31:DA:805:C:OP2	2.10	0.52
32:DE:200:ILE:HD12	32:DE:200:ILE:N	2.25	0.52
32:DE:214:ILE:HG22	32:DE:215:LEU:HD22	1.92	0.52
34:DG:22:LYS:HD2	34:DG:26:CYS:SG	2.50	0.52
36:DI:100:ASN:H	48:DU:23:LYS:HZ2	1.57	0.52
42:DO:5:ASN:ND2	47:DT:34:LYS:HE2	2.25	0.52
48:DU:67:ALA:O	48:DU:71:LYS:HG3	2.09	0.52
50:DW:33:ILE:HD13	50:DW:63:ILE:HA	1.91	0.52
52:DB:26:G:H5'	52:DB:27:A:OP2	2.10	0.52
1:AA:1071:G:N2	1:AA:1090:U:C5	2.77	0.52
1:AA:1139:G:O2'	1:AA:1143:A:N1	2.41	0.52
1:AA:1406:U:H2'	1:AA:1407:C:C6	2.44	0.52
1:AA:2015:A:C4'	27:A5:2:ALA:HB2	2.40	0.52
1:AA:2645:G:C3'	1:AA:2646:C:H5'	2.36	0.52
1:AA:2700:C:O2'	1:AA:2701:C:H5'	2.10	0.52
4:AE:14:ILE:O	4:AE:15:PHE:CB	2.57	0.52
10:AN:4:PRO:O	10:AN:5:GLN:CB	2.57	0.52
10:AN:7:TYR:HE1	10:AN:20:MET:HE3	1.75	0.52
13:A0:72:ASP:O	13:A0:76:VAL:HG23	2.10	0.52
31:BA:153:C:H42	31:BA:168:G:H1	1.58	0.52
31:BA:437:U:O3'	34:BG:125:HIS:NE2	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:878:G:H5'	38:BK:89:PRO:HG2	1.91	0.52
31:BA:1034:G:N2	31:BA:1035:A:N6	2.58	0.52
31:BA:1521:G:H2'	31:BA:1522:U:C6	2.45	0.52
35:BH:150:ARG:HG2	35:BH:150:ARG:O	2.10	0.52
39:BL:97:LYS:HA	39:BL:102:LEU:HD12	1.91	0.52
43:BP:8:GLU:O	43:BP:10:PRO:HD3	2.10	0.52
1:CA:562:A:H2'	1:CA:563:C:O4'	2.09	0.52
1:CA:605:C:OP1	16:C1:31:SER:HB2	2.09	0.52
1:CA:992:G:O6	1:CA:1018:G:N2	2.43	0.52
1:CA:1104:A:N1	1:CA:1128:U:C4	2.77	0.52
1:CA:1803:C:H1'	1:CA:1818:A:C8	2.45	0.52
1:CA:1869:C:OP1	31:DA:784:C:H4'	2.09	0.52
1:CA:2323:A:N3	1:CA:2323:A:C5'	2.73	0.52
1:CA:2762:A:C8	1:CA:2768:U:O4	2.63	0.52
1:CA:2857:G:H2'	1:CA:2858:U:H6	1.75	0.52
1:CA:2864:C:H2'	1:CA:2865:G:C8	2.45	0.52
3:CD:5:LYS:HG2	3:CD:6:PHE:H	1.75	0.52
5:CF:83:PHE:O	5:CF:84:VAL:HB	2.10	0.52
6:CG:13:GLU:O	6:CG:14:GLU:HB2	2.09	0.52
10:CN:4:PRO:O	10:CN:5:GLN:CB	2.58	0.52
12:CP:19:GLY:CA	12:CP:98:LYS:HD3	2.40	0.52
12:CP:21:THR:HB	12:CP:99:PRO:O	2.10	0.52
27:C5:24:ALA:O	56:C5:102:OHX:N5	2.43	0.52
31:DA:32:A:C2	31:DA:33:A:C4	2.98	0.52
31:DA:363:A:OP1	42:DO:30:ARG:HG3	2.10	0.52
31:DA:412:A:H4'	31:DA:413:G:H5'	1.92	0.52
31:DA:559:A:H5"	31:DA:560:U:H3'	1.92	0.52
31:DA:743:U:H2'	31:DA:744:C:C6	2.45	0.52
31:DA:748:C:C1'	31:DA:749:C:OP2	2.57	0.52
31:DA:973:G:H1'	40:DM:55:LYS:NZ	2.25	0.52
31:DA:1028(B):C:H3'	31:DA:1029:G:H5"	1.91	0.52
31:DA:1128:C:C4	31:DA:1139:G:C2	2.98	0.52
35:DH:11:ILE:HG21	35:DH:105:VAL:HG22	1.92	0.52
35:DH:79:GLU:HG2	35:DH:92:LYS:HG2	1.90	0.52
50:DW:23:ARG:O	50:DW:27:LYS:HB2	2.09	0.52
52:DB:11:C:H2'	52:DB:12:C:H6	1.74	0.52
52:DB:51:C:C5	52:DB:52:G:N3	2.78	0.52
1:AA:49:A:C8	1:AA:51:G:C2	2.98	0.52
1:AA:607:U:N3	1:AA:621:A:C2	2.75	0.52
1:AA:1198:U:H3	1:AA:1247:A:H61	1.57	0.52
1:AA:1519:G:C2'	1:AA:1520:U:H5'	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1805:U:O2	3:AD:50:THR:HB	2.10	0.52
1:AA:2631:G:H1	1:AA:2787:C:N4	2.06	0.52
1:AA:2690:C:H5"	1:AA:2872:G:H21	1.74	0.52
4:AE:17:ASP:C	4:AE:19:ARG:H	2.18	0.52
5:AF:46:ARG:CG	5:AF:46:ARG:NH1	2.65	0.52
5:AF:63:LYS:CE	5:AF:67:GLN:HB2	2.40	0.52
7:AH:129:THR:O	7:AH:129:THR:OG1	2.28	0.52
9:AM:65:LYS:HB3	9:AM:69:GLN:CG	2.38	0.52
10:AN:104:ARG:HD3	15:AR:36:GLU:OE2	2.10	0.52
15:AR:34:VAL:CG2	15:AR:41:ARG:HB2	2.39	0.52
16:A1:92:ARG:NH1	17:A2:11:GLN:O	2.42	0.52
20:AU:49:VAL:C	20:AU:51:VAL:H	2.13	0.52
22:A3:24:LYS:HG3	22:A3:36:ILE:HD11	1.92	0.52
22:A3:56:ASP:O	22:A3:57:PHE:HB2	2.10	0.52
31:BA:196:A:H5"	31:BA:197:A:OP1	2.09	0.52
31:BA:516:U:C4	31:BA:517:G:C6	2.97	0.52
31:BA:605:U:C2	31:BA:606:G:C8	2.98	0.52
31:BA:1129:C:H4'	31:BA:1130:A:H5'	1.92	0.52
31:BA:1239:A:H62	31:BA:1299:A:H62	1.56	0.52
31:BA:1397:C:H3'	31:BA:1397:C:C6	2.41	0.52
31:BA:1525:G:P	41:BN:120:ARG:HH22	2.32	0.52
32:BE:217:ARG:HA	32:BE:220:ASP:OD2	2.10	0.52
39:BL:53:VAL:HG21	39:BL:92:TYR:CD1	2.45	0.52
50:BW:84:LEU:HD23	50:BW:84:LEU:C	2.35	0.52
53:BC:18:C:O2	56:BC:106:OHX:N1	2.42	0.52
1:CA:393:U:H5'	1:CA:394:A:OP2	2.09	0.52
1:CA:433:U:H3'	1:CA:433:U:O2	2.10	0.52
1:CA:510:A:H4'	20:CU:49:VAL:HA	1.92	0.52
1:CA:865:C:C5	1:CA:866:G:N7	2.78	0.52
1:CA:1132:A:H1'	1:CA:1133:A:O5'	2.10	0.52
1:CA:1391:G:O2'	1:CA:1432:G:H2'	2.10	0.52
1:CA:1434:C:H5'	1:CA:1517:A:H4'	1.91	0.52
1:CA:2794:G:C3'	1:CA:2795:A:H5'	2.39	0.52
5:CF:78:ILE:HA	5:CF:83:PHE:CD1	2.45	0.52
5:CF:119:ARG:CG	5:CF:119:ARG:NH1	2.67	0.52
5:CF:123:LEU:O	5:CF:125:LEU:N	2.41	0.52
6:CG:135:LEU:O	6:CG:154:GLY:HA3	2.10	0.52
12:CP:19:GLY:N	12:CP:98:LYS:NZ	2.53	0.52
18:CS:73:ALA:HB3	18:CS:106:ILE:CD1	2.33	0.52
21:CV:115:GLY:HA2	21:CV:177:PRO:CG	2.40	0.52
22:C3:68:GLU:CG	22:C3:80:HIS:HB2	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:C6:48:VAL:HG21	28:C6:50:ARG:NH2	2.25	0.52
31:DA:60:A:H4'	31:DA:61:G:O5'	2.10	0.52
31:DA:340:U:H3	31:DA:349:A:N6	2.05	0.52
31:DA:1190:G:P	33:DF:5:ILE:HG23	2.49	0.52
31:DA:1306:A:H61	31:DA:1331:G:H1'	1.74	0.52
34:DG:115:ARG:O	34:DG:118:ARG:HG2	2.10	0.52
37:DJ:43:PHE:CE1	37:DJ:47:CYS:HB2	2.45	0.52
46:DS:58:TYR:O	46:DS:61:SER:OG	2.19	0.52
52:DD:7:G:OP1	56:DD:101:OHX:N2	2.43	0.52
52:DD:18:G:N2	52:DD:65:C:N3	2.56	0.52
1:AA:878:A:N1	1:AA:879:G:C2	2.78	0.51
1:AA:883:G:C6	1:AA:884:C:O2	2.63	0.51
1:AA:1062:G:OP1	1:AA:1070:A:H4'	2.10	0.51
1:AA:1068:G:O2'	1:AA:1069:A:H5'	2.10	0.51
1:AA:1332:G:N2	1:AA:1610:A:H8	2.08	0.51
1:AA:1615:C:C6	1:AA:1617:C:C5	2.99	0.51
1:AA:1637:A:H4'	1:AA:2711:A:O2'	2.10	0.51
1:AA:1735:C:H2'	1:AA:1741:C:O4'	2.10	0.51
1:AA:2313:C:H2'	1:AA:2314:C:C6	2.44	0.51
10:AN:7:TYR:CD1	10:AN:20:MET:HG3	2.46	0.51
11:AO:19:VAL:CG2	11:AO:27:HIS:CA	2.88	0.51
15:AR:60:THR:HG22	15:AR:77:PRO:HA	1.91	0.51
18:AS:29:LEU:HD22	18:AS:69:LEU:HD11	1.92	0.51
20:AU:90:LEU:HD12	20:AU:90:LEU:H	1.74	0.51
26:A4:37:SER:OG	26:A4:42:PHE:CD1	2.61	0.51
31:BA:91:C:H2'	31:BA:92:G:O4'	2.09	0.51
32:BE:6:THR:OG1	32:BE:7:VAL:N	2.43	0.51
33:BF:91:LEU:CB	33:BF:99:VAL:HG21	2.39	0.51
47:BT:52:LYS:HG2	47:BT:53:LEU:N	2.25	0.51
47:BT:76:LEU:HD12	47:BT:77:VAL:H	1.74	0.51
50:BW:38:LYS:O	50:BW:41:ILE:HG13	2.10	0.51
52:BB:21:A:O4'	52:BB:22:A:C8	2.63	0.51
1:CA:1122:C:H2'	1:CA:1123:C:C6	2.45	0.51
1:CA:1378:A:O2'	1:CA:1379:G:H8	1.92	0.51
1:CA:1579:C:N3	1:CA:1586:G:N2	2.53	0.51
1:CA:1590:A:C4'	1:CA:1590:A:OP1	2.58	0.51
1:CA:1865:U:O2'	1:CA:1992:A:N1	2.31	0.51
3:CD:9:TYR:CD2	3:CD:10:THR:HG23	2.45	0.51
4:CE:204:ALA:O	4:CE:205:ALA:HB3	2.10	0.51
6:CG:102:PHE:HE2	6:CG:141:PHE:CE1	2.28	0.51
8:CK:111:PRO:O	8:CK:112:LYS:C	2.54	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CN:1:MET:H1	10:CN:67:LYS:HB3	1.75	0.51
12:CP:56:ARG:HB2	12:CP:56:ARG:NH1	2.25	0.51
17:C2:43:GLU:C	17:C2:44:LYS:HD3	2.36	0.51
21:CV:87:ASP:OD2	21:CV:87:ASP:N	2.43	0.51
28:C6:15:GLU:HG2	28:C6:47:THR:HG21	1.92	0.51
32:DE:167:PRO:O	32:DE:171:ALA:N	2.43	0.51
33:DF:126:ARG:HB2	33:DF:128:PHE:CE1	2.46	0.51
37:DJ:84:ASN:HB2	52:DD:38:MIA:C15	2.39	0.51
43:DP:86:CYS:O	43:DP:89:GLY:N	2.34	0.51
45:DR:68:ARG:NH1	45:DR:68:ARG:CG	2.70	0.51
48:DU:23:LYS:H	48:DU:26:LEU:HD11	1.74	0.51
50:DW:50:GLU:CB	50:DW:100:ILE:HG12	2.39	0.51
50:DW:100:ILE:HD12	50:DW:100:ILE:N	2.25	0.51
1:AA:10:G:C2	1:AA:2629:A:C2	2.99	0.51
1:AA:762:U:O4	56:AA:3446:OHX:N2	2.44	0.51
1:AA:1474:C:H2'	1:AA:1475:G:C8	2.45	0.51
1:AA:1586:A:H3'	1:AA:1587:A:H8	1.74	0.51
1:AA:1799:G:H5'	1:AA:1819:A:N6	2.25	0.51
1:AA:2331:G:O3'	22:A3:43:THR:HG22	2.09	0.51
1:AA:2572:A:C4	4:AE:144:ARG:NH1	2.79	0.51
1:AA:2577:A:H5"	1:AA:2578:G:H5'	1.92	0.51
1:AA:2599:G:OP2	3:AD:236:GLY:N	2.43	0.51
1:AA:2661:G:H2'	1:AA:2662:A:O4'	2.10	0.51
1:AA:2848:G:H1'	1:AA:2867:G:N2	2.25	0.51
3:AD:35:LYS:HG2	3:AD:64:ILE:CG2	2.40	0.51
3:AD:172:TYR:HD1	3:AD:185:VAL:C	2.19	0.51
3:AD:218:ARG:HB3	3:AD:219:PRO:HD2	1.92	0.51
4:AE:105:THR:HG21	4:AE:164:ARG:HE	1.75	0.51
6:AG:67:LYS:CE	26:A4:6:HIS:CE1	2.93	0.51
7:AH:137:ASP:O	7:AH:138:LYS:HB2	2.10	0.51
11:AO:119:GLU:HA	11:AO:119:GLU:OE2	2.10	0.51
12:AP:79:LEU:N	12:AP:79:LEU:CD1	2.67	0.51
20:AU:38:ILE:HD11	20:AU:64:GLU:HG3	1.92	0.51
20:AU:76:CYS:O	20:AU:77:PRO:C	2.52	0.51
21:AV:100:VAL:HG11	21:AV:137:ILE:HG13	1.92	0.51
28:A6:11:LEU:HD11	28:A6:51:GLU:HG3	1.90	0.51
29:A7:1:MET:SD	29:A7:1:MET:N	2.83	0.51
31:BA:389:A:H2'	31:BA:390:C:H5'	1.92	0.51
31:BA:605:U:C2	31:BA:606:G:H8	2.27	0.51
33:BF:62:ASP:HA	33:BF:97:LYS:HD2	1.91	0.51
43:BP:49:THR:C	43:BP:51:ALA:H	2.17	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BS:72:ARG:O	46:BS:75:ARG:HB3	2.10	0.51
1:CA:869:A:H2'	1:CA:992:G:H5"	1.90	0.51
1:CA:1017:C:OP1	1:CA:1020:G:C8	2.63	0.51
1:CA:1055:C:N4	1:CA:1182:G:C6	2.78	0.51
1:CA:1118:G:H22	1:CA:1137:U:H5	1.56	0.51
1:CA:1429:G:C2'	1:CA:1430:C:H5'	2.40	0.51
1:CA:2229:G:H1'	1:CA:2230:A:P	2.50	0.51
3:CD:255:LYS:O	3:CD:255:LYS:HD2	2.10	0.51
5:CF:28:ILE:CA	5:CF:112:MET:HE3	2.39	0.51
7:CH:67:LEU:O	7:CH:71:LEU:HB2	2.10	0.51
11:CO:41:ARG:H	11:CO:41:ARG:HD2	1.75	0.51
13:C0:81:ASP:O	13:C0:82:GLU:HB3	2.09	0.51
15:CR:91:ARG:HD2	15:CR:124:ASP:OD1	2.10	0.51
18:CS:59:VAL:HG23	18:CS:64:MET:H	1.75	0.51
19:CT:11:PRO:HB3	19:CT:92:LEU:HD21	1.91	0.51
20:CU:11:ASP:O	20:CU:27:VAL:HG22	2.10	0.51
31:DA:108:G:H5'	31:DA:109:A:H5"	1.92	0.51
31:DA:622:A:C8	31:DA:623:C:C6	2.99	0.51
31:DA:1137:C:H4'	31:DA:1138:G:C4	2.45	0.51
32:DE:97:TRP:HH2	32:DE:176:GLU:CD	2.19	0.51
37:DJ:44:TYR:O	37:DJ:48:LYS:N	2.43	0.51
42:DO:52:VAL:HG23	42:DO:66:TYR:HA	1.92	0.51
44:DQ:41:ARG:HG3	44:DQ:42:ILE:HD13	1.91	0.51
46:DS:56:ALA:O	46:DS:60:LEU:HG	2.10	0.51
50:DW:45:GLN:HB2	50:DW:91:LEU:HD13	1.92	0.51
1:AA:259:G:H21	1:AA:621:A:H8	1.57	0.51
1:AA:847:U:O4	1:AA:933:A:C6	2.63	0.51
1:AA:917:A:H8	2:AB:97:G:H21	1.58	0.51
1:AA:1066:U:O2	1:AA:1066:U:H3'	2.11	0.51
1:AA:1379:A:C1'	1:AA:1380:G:OP1	2.58	0.51
1:AA:1919:A:N3	1:AA:1919:A:H2'	2.25	0.51
1:AA:2113:U:H3	1:AA:2168:G:H8	1.57	0.51
1:AA:2302:G:O2'	1:AA:2303:G:H5'	2.10	0.51
1:AA:2591:C:H2'	1:AA:2592:G:H8	1.74	0.51
1:AA:2779:U:OP1	56:AA:3318:OHX:N5	2.43	0.51
3:AD:39:LYS:HB2	3:AD:62:TYR:HB2	1.93	0.51
6:AG:131:TYR:HB3	6:AG:159:VAL:HG23	1.92	0.51
12:AP:109:VAL:HG22	12:AP:110:THR:N	2.24	0.51
14:AQ:25:ARG:NH1	14:AQ:42:ASP:OD2	2.43	0.51
18:AS:111:HIS:O	18:AS:113:LYS:N	2.43	0.51
25:AX:8:LEU:HB2	25:AX:28:LEU:HD22	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1014:A:H4'	49:BV:14:HIS:CG	2.45	0.51
31:BA:1128:C:H1'	31:BA:1146:A:H61	1.75	0.51
31:BA:1315:U:O2'	31:BA:1360:A:N3	2.42	0.51
34:BG:19:LEU:CD2	34:BG:21:LEU:HG	2.39	0.51
34:BG:108:LEU:CD1	34:BG:174:LEU:HD13	2.39	0.51
43:BP:66:LEU:O	43:BP:70:LEU:HB2	2.10	0.51
52:BB:84:C:H2'	52:BB:85:A:C4	2.46	0.51
1:CA:354:G:OP2	20:CU:71:LYS:HD3	2.10	0.51
1:CA:1035:A:OP2	25:CX:11:SER:OG	2.28	0.51
1:CA:1516:C:H2'	1:CA:1517:A:C8	2.44	0.51
1:CA:1584:C:H2'	1:CA:1585:G:H8	1.74	0.51
1:CA:2054:A:C6	1:CA:2511:C:H1'	2.45	0.51
1:CA:2159:C:C4	1:CA:2178:G:N1	2.75	0.51
1:CA:2374:A:OP1	30:C8:27:THR:HG23	2.10	0.51
1:CA:2762:A:O2'	7:CH:66:GLY:HA3	2.10	0.51
2:CB:6:C:H42	2:CB:119:G:H1	1.57	0.51
7:CH:26:VAL:HG13	7:CH:79:VAL:HG11	1.92	0.51
15:CR:119:LYS:HB2	31:DA:1443:G:N2	2.26	0.51
17:C2:80:GLN:CA	17:C2:80:GLN:NE2	2.74	0.51
21:CV:105:VAL:HG12	21:CV:140:ASP:OD2	2.11	0.51
25:CX:15:TYR:O	25:CX:20:LYS:HE3	2.11	0.51
28:C6:52:VAL:HG22	28:C6:53:LYS:N	2.18	0.51
31:DA:1028(B):C:C2	31:DA:1032(A):G:N2	2.79	0.51
32:DE:27:LYS:HD3	32:DE:195:ASP:OD1	2.10	0.51
32:DE:72:GLY:C	32:DE:74:LYS:H	2.18	0.51
32:DE:145:LEU:HD13	32:DE:145:LEU:O	2.10	0.51
32:DE:217:ARG:NH1	32:DE:217:ARG:HB2	2.26	0.51
35:DH:102:ALA:HB1	35:DH:106:PRO:HG2	1.93	0.51
38:DK:82:HIS:CD2	38:DK:82:HIS:C	2.88	0.51
44:DQ:27:CYS:O	44:DQ:27:CYS:SG	2.68	0.51
53:DC:1:C:O2	53:DC:1:C:C2'	2.54	0.51
1:AA:143:C:H4'	19:AT:38:GLU:OE2	2.09	0.51
1:AA:192:C:O2'	1:AA:802:A:N3	2.43	0.51
1:AA:958:U:O2	2:AB:89(A):A:H4'	2.10	0.51
1:AA:1088:A:O2'	56:AA:3556:OHX:N3	2.44	0.51
1:AA:1205:U:H4'	1:AA:1206:G:OP2	2.10	0.51
1:AA:1219:G:OP2	16:A1:19:LYS:NZ	2.43	0.51
1:AA:2127:G:O2'	1:AA:2173:A:N1	2.35	0.51
1:AA:2262:U:H4'	1:AA:2328:A:C2	2.45	0.51
1:AA:2881:C:N3	1:AA:2882:A:N7	2.59	0.51
3:AD:176:ARG:HH11	3:AD:176:ARG:HG2	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AF:36:VAL:HG11	5:AF:183:VAL:HG11	1.92	0.51
8:AK:8:PRO:HG3	8:AK:14:ASP:CB	2.39	0.51
11:AO:39:LYS:HG3	11:AO:45:LEU:HD22	1.93	0.51
12:AP:77:LYS:CD	12:AP:81:VAL:CG2	2.85	0.51
14:AQ:28:VAL:HG11	14:AQ:98:VAL:HG13	1.93	0.51
15:AR:57:PHE:CD2	15:AR:58:ASN:N	2.76	0.51
21:AV:1:MET:HE2	21:AV:1:MET:HA	1.91	0.51
21:AV:117:LEU:H	21:AV:117:LEU:CD1	2.24	0.51
26:A4:18:CYS:HB3	26:A4:41:PRO:HD3	1.93	0.51
31:BA:530:G:H3'	31:BA:530:G:OP1	2.10	0.51
31:BA:1292:U:H2'	31:BA:1293:G:O4'	2.11	0.51
31:BA:1325:C:O2'	31:BA:1326:C:H5'	2.10	0.51
31:BA:1498:U:C1'	31:BA:1499:A:OP2	2.59	0.51
31:BA:1503:A:O2'	54:B1:13:A:N1	2.44	0.51
32:BE:75:LYS:HE3	32:BE:75:LYS:C	2.36	0.51
34:BG:155:LEU:O	34:BG:156:GLU:C	2.53	0.51
52:BB:40:U:H2'	52:BB:41:C:C6	2.45	0.51
1:CA:7:G:H2'	1:CA:8:A:O4'	2.09	0.51
1:CA:54:G:C2	1:CA:114:C:C2	2.99	0.51
1:CA:89:U:H3'	1:CA:89:U:O2	2.11	0.51
1:CA:1444:U:O2'	1:CA:1445:C:O5'	2.27	0.51
1:CA:2321:G:HO2'	1:CA:2322:A:P	2.33	0.51
1:CA:2323:A:C6	6:CG:80:PHE:CE2	2.98	0.51
1:CA:2772:A:C2	1:CA:2773:G:H1'	2.46	0.51
3:CD:5:LYS:NZ	3:CD:5:LYS:HB2	2.25	0.51
3:CD:35:LYS:HD3	3:CD:63:ARG:HB3	1.92	0.51
3:CD:36:PRO:HA	3:CD:62:TYR:O	2.11	0.51
3:CD:106:ILE:O	3:CD:108:PRO:HD3	2.11	0.51
14:CQ:102:ALA:C	14:CQ:104:GLY:N	2.68	0.51
21:CV:29:TYR:HB3	21:CV:34:ASN:ND2	2.24	0.51
29:C7:24:THR:O	29:C7:28:ARG:HG3	2.11	0.51
31:DA:160:A:H1'	31:DA:344:A:C5	2.45	0.51
31:DA:407:G:H2'	31:DA:408:A:C8	2.46	0.51
31:DA:625:G:C4	31:DA:626:U:C5	2.99	0.51
31:DA:662:G:H2'	31:DA:663:A:C8	2.45	0.51
31:DA:979:C:C5	31:DA:980:C:C6	2.99	0.51
31:DA:1044:A:C6	31:DA:1045:C:H1'	2.46	0.51
31:DA:1226:C:H42	43:DP:104:ARG:HD2	1.76	0.51
31:DA:1297:C:H4'	31:DA:1298:C:O5'	2.10	0.51
31:DA:1465:C:H2'	31:DA:1466:C:O4'	2.11	0.51
32:DE:118:LEU:HB2	32:DE:142:LEU:HD12	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DF:72:LYS:HZ2	33:DF:74:GLY:HA3	1.74	0.51
39:DL:97:LYS:HB3	39:DL:98:PRO:HD3	1.92	0.51
39:DL:102:LEU:O	39:DL:103:THR:OG1	2.25	0.51
43:DP:54:VAL:O	43:DP:58:GLU:HG2	2.09	0.51
52:DB:17:G:H4'	52:DB:18:G:OP1	2.09	0.51
1:AA:40:C:OP1	56:AA:3338:OHX:N5	2.43	0.51
1:AA:602:G:O2'	1:AA:604:G:O2'	1.93	0.51
1:AA:1071:G:C2	1:AA:1091:G:N7	2.77	0.51
1:AA:1164:G:H2'	1:AA:1165:U:C6	2.45	0.51
1:AA:1264:G:OP1	27:A5:19:ARG:NH2	2.38	0.51
1:AA:1319:G:O2'	1:AA:1320:C:H5'	2.11	0.51
1:AA:1480:G:C6	1:AA:1482:U:N3	2.79	0.51
1:AA:2583:G:N2	52:BB:85:A:C8	2.66	0.51
1:AA:2690:C:OP2	1:AA:2690:C:C6	2.62	0.51
1:AA:2744:G:N2	7:AH:143:GLN:HE22	2.08	0.51
1:AA:2795:G:H3'	1:AA:2797:U:H5"	1.90	0.51
2:AB:25:A:C2'	2:AB:26:A:H5'	2.40	0.51
3:AD:132:PRO:HD3	3:AD:190:TYR:CZ	2.46	0.51
5:AF:123:LEU:HD21	5:AF:199:TRP:CZ3	2.46	0.51
7:AH:20:ALA:HB3	7:AH:23:ARG:O	2.11	0.51
12:AP:109:VAL:HG13	12:AP:114:ALA:HB2	1.92	0.51
15:AR:107:ASP:O	15:AR:108:ARG:C	2.52	0.51
15:AR:123:GLN:O	15:AR:127:ALA:HB3	2.10	0.51
15:AR:125:ARG:O	15:AR:128:GLU:N	2.39	0.51
17:A2:38:LEU:H	17:A2:51:VAL:HG13	1.75	0.51
20:AU:51:VAL:HA	20:AU:56:PRO:HA	1.93	0.51
25:AX:59:VAL:HG13	25:AX:60:GLU:N	2.25	0.51
31:BA:76:G:C4	31:BA:95:G:C2	2.98	0.51
31:BA:255:G:O6	31:BA:271:C:N3	2.43	0.51
31:BA:408:A:O2'	31:BA:409:G:H5'	2.11	0.51
31:BA:789:U:H5	31:BA:792:A:C5'	2.08	0.51
31:BA:1069:C:H2'	31:BA:1070:U:O5'	2.10	0.51
31:BA:1333:A:H2'	31:BA:1334:G:O4'	2.10	0.51
42:BO:86:ARG:HD3	42:BO:88:LYS:HB2	1.93	0.51
53:BC:54:G:H2'	53:BC:55:U:C6	2.45	0.51
52:BD:20:C:O2'	52:BD:21:A:OP2	2.27	0.51
52:BD:29:C:O2'	52:BD:30:A:H5'	2.09	0.51
1:CA:73:A:H4'	1:CA:74:G:O5'	2.11	0.51
1:CA:1004:U:OP2	12:CP:14:ARG:NH1	2.43	0.51
1:CA:1047:A:C6	1:CA:1048:A:N1	2.78	0.51
1:CA:1368:A:H2'	1:CA:1369:A:O4'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:2236:G:C2'	1:CA:2237:G:H5'	2.39	0.51
2:CB:50:A:H4'	14:CQ:95:HIS:CD2	2.45	0.51
3:CD:16:MET:HG3	3:CD:206:LEU:O	2.10	0.51
3:CD:127:VAL:HA	3:CD:193:VAL:HG23	1.92	0.51
4:CE:176:ILE:HB	4:CE:181:LEU:HB2	1.92	0.51
5:CF:102:PRO:O	5:CF:105:VAL:N	2.44	0.51
7:CH:130:ARG:O	7:CH:131:VAL:HG23	2.10	0.51
15:CR:26:ASP:HB3	15:CR:90:GLN:O	2.11	0.51
16:C1:100:VAL:C	16:C1:102:GLU:H	2.19	0.51
21:CV:178:GLU:O	21:CV:179:ASP:CB	2.58	0.51
23:CZ:87:PRO:O	23:CZ:89:GLU:N	2.44	0.51
26:C4:49:PHE:CG	26:C4:50:VAL:N	2.75	0.51
31:DA:8:A:H8	35:DH:101:ILE:HB	1.75	0.51
31:DA:86:U:C2'	31:DA:87:A:OP1	2.58	0.51
31:DA:328:C:C2'	31:DA:328:C:O2	2.58	0.51
31:DA:544:G:C5	31:DA:545:C:C5	2.99	0.51
31:DA:690:G:O2'	31:DA:691:G:H5'	2.10	0.51
31:DA:939:G:C6	31:DA:940:C:N4	2.79	0.51
31:DA:1120:G:N7	56:DA:1733:OHX:N6	2.58	0.51
31:DA:1247:U:H2'	31:DA:1248:A:O4'	2.11	0.51
33:DF:5:ILE:H	33:DF:5:ILE:CD1	2.23	0.51
33:DF:14:ILE:HG12	33:DF:15:THR:N	2.09	0.51
33:DF:18:TRP:H	33:DF:18:TRP:HE3	1.58	0.51
37:DJ:147:ALA:HB1	52:DD:41:C:O3'	2.11	0.51
39:DL:3:GLN:HA	39:DL:20:ARG:HG3	1.93	0.51
39:DL:95:LYS:C	39:DL:98:PRO:HD2	2.36	0.51
46:DS:36:ILE:O	46:DS:36:ILE:HD12	2.11	0.51
52:DD:48:C:H2'	52:DD:49:A:C1'	2.40	0.51
1:AA:139:G:N3	1:AA:141:A:N1	2.59	0.51
1:AA:320:A:H2'	5:AF:136:THR:CG2	2.40	0.51
1:AA:943:U:OP2	11:AO:36:LYS:CG	2.58	0.51
1:AA:1079:C:H3'	1:AA:1080:A:C8	2.45	0.51
1:AA:1130:U:H1'	1:AA:1131:G:OP1	2.10	0.51
1:AA:2110:G:C2	1:AA:2120:G:H1'	2.46	0.51
1:AA:2308:G:H2'	1:AA:2308:G:N3	2.26	0.51
7:AH:7:LEU:N	7:AH:8:PRO:HD3	2.26	0.51
9:AM:43:THR:HB	9:AM:46:VAL:CG1	2.41	0.51
12:AP:59:ARG:C	12:AP:61:GLY:H	2.19	0.51
13:A0:28:LEU:C	13:A0:30:THR:H	2.18	0.51
31:BA:198:G:OP1	56:BA:1812:OHX:N2	2.43	0.51
31:BA:1245:A:C2	31:BA:1293:G:C2	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BH:33:VAL:HG11	35:BH:109:ILE:HA	1.93	0.51
37:BJ:56:GLN:HA	37:BJ:56:GLN:NE2	2.25	0.51
38:BK:8:ASP:O	38:BK:12:ARG:HG3	2.10	0.51
53:BC:73:A:C6	53:BC:74:A:C6	2.98	0.51
1:CA:303:A:H4'	1:CA:304:C:OP1	2.09	0.51
1:CA:1108:U:H5'	1:CA:1117:A:O2'	2.10	0.51
1:CA:1519:A:H2'	1:CA:1519:A:N3	2.26	0.51
1:CA:1900:A:H5'	1:CA:1901:G:OP2	2.11	0.51
1:CA:2419:U:N3	11:CO:73:GLY:O	2.31	0.51
1:CA:2595:G:C2'	1:CA:2596:G:H5'	2.40	0.51
7:CH:70:THR:HG22	7:CH:74:ASN:HD21	1.76	0.51
8:CK:76:THR:HG23	8:CK:77:LEU:N	2.24	0.51
12:CP:57:HIS:CD2	12:CP:117:ALA:HB2	2.45	0.51
14:CQ:110:LEU:HD23	14:CQ:112:PHE:CZ	2.46	0.51
19:CT:80:ILE:O	19:CT:80:ILE:HG13	2.09	0.51
28:C6:16:CYS:O	28:C6:17:LYS:CB	2.58	0.51
31:DA:86:U:H2'	31:DA:87:A:OP1	2.11	0.51
31:DA:529:G:O2'	31:DA:533:A:C6	2.62	0.51
31:DA:872:A:C4	31:DA:874:G:C8	2.99	0.51
31:DA:1000:A:O2'	31:DA:1001:G:H5'	2.10	0.51
31:DA:1213:A:N1	31:DA:1215:G:H1'	2.25	0.51
31:DA:1285:A:C1'	31:DA:1286:A:OP2	2.57	0.51
32:DE:82:ARG:HD2	32:DE:92:TYR:CE1	2.46	0.51
37:DJ:26:PHE:O	37:DJ:30:ILE:HG13	2.11	0.51
37:DJ:53:LYS:NZ	37:DJ:53:LYS:HB3	2.25	0.51
37:DJ:146:GLU:O	37:DJ:149:ARG:HB2	2.11	0.51
49:DV:61:TYR:CE2	49:DV:63:THR:HA	2.46	0.51
51:DX:2:GLY:O	51:DX:4:GLY:N	2.44	0.51
1:AA:314:A:H2'	1:AA:315:G:H8	1.75	0.51
1:AA:442:G:O4'	5:AF:46:ARG:HD3	2.10	0.51
1:AA:1030:G:OP2	12:AP:128:LYS:NZ	2.28	0.51
1:AA:1932:A:OP2	56:AA:3154:OHX:N1	2.44	0.51
1:AA:2884:U:H2'	1:AA:2885:C:H5'	1.92	0.51
2:AB:81:G:O6	2:AB:95:U:C2	2.64	0.51
4:AE:120:TRP:CE3	4:AE:155:LYS:HD3	2.46	0.51
6:AG:21:ARG:HH11	6:AG:21:ARG:CG	2.17	0.51
6:AG:78:SER:O	6:AG:80:PHE:N	2.43	0.51
7:AH:43:VAL:HG12	7:AH:52:VAL:HG22	1.93	0.51
8:AK:144:VAL:HG22	8:AK:145:VAL:HG13	1.93	0.51
15:AR:91:ARG:HB2	15:AR:121:ILE:CG1	2.41	0.51
21:AV:27:VAL:HG12	21:AV:87:ASP:CB	2.30	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AZ:82:LEU:HD22	23:AZ:82:LEU:H	1.75	0.51
31:BA:960:U:O2	31:BA:960:U:C2'	2.58	0.51
31:BA:1316:G:N2	31:BA:1318:A:H3'	2.26	0.51
31:BA:1329:A:P	43:BP:28:ALA:HB3	2.50	0.51
34:BG:158:ILE:HG22	34:BG:162:LEU:CD1	2.41	0.51
46:BS:71:ARG:O	46:BS:75:ARG:N	2.44	0.51
52:BB:40:U:H2'	52:BB:41:C:O4'	2.11	0.51
52:BD:18:G:N2	52:BD:65:C:N3	2.57	0.51
1:CA:518:A:C2'	1:CA:519:G:H5'	2.41	0.51
1:CA:796:G:C8	18:CS:89:ALA:HB1	2.46	0.51
1:CA:1089:G:N2	1:CA:1160:U:O2	2.39	0.51
1:CA:1358:G:O6	56:CA:3332:OHX:N5	2.44	0.51
1:CA:2257:U:H2'	1:CA:2258:U:O4'	2.10	0.51
1:CA:2272:G:C2	1:CA:2295:G:N1	2.78	0.51
1:CA:2287:A:C2	1:CA:2289:G:H1'	2.45	0.51
1:CA:2482:A:N7	1:CA:2495:G:C4	2.79	0.51
2:CB:44:C:O2'	6:CG:67:LYS:O	2.23	0.51
3:CD:62:TYR:CE1	3:CD:64:ILE:HG22	2.45	0.51
5:CF:130:ALA:H	5:CF:142:TRP:CD1	2.28	0.51
10:CN:49:ARG:HH12	31:DA:1423:G:H5'	1.76	0.51
23:CZ:92:LYS:O	23:CZ:93:GLU:C	2.53	0.51
24:CW:25:VAL:HG12	24:CW:60:LEU:HD23	1.92	0.51
31:DA:880:C:H2'	31:DA:881:G:H8	1.76	0.51
31:DA:1286:A:H8	31:DA:1287:A:H5"	1.76	0.51
31:DA:1413:A:H2'	31:DA:1414:U:O4'	2.11	0.51
37:DJ:43:PHE:C	37:DJ:43:PHE:HD1	2.17	0.51
39:DL:96:LEU:HG	39:DL:101:PHE:HB2	1.92	0.51
53:DC:16:C:N4	56:DC:107:OHX:N3	2.58	0.51
1:AA:151:C:H2'	1:AA:152:G:H8	1.76	0.51
1:AA:654(G):C:N3	1:AA:654(N):G:C6	2.79	0.51
1:AA:1107:G:H2'	1:AA:1108:U:H6	1.76	0.51
1:AA:1153:C:N4	1:AA:1154:G:C6	2.79	0.51
1:AA:1419:A:H4'	1:AA:1420:U:OP1	2.09	0.51
1:AA:1903:G:OP1	3:AD:241:PRO:HB2	2.09	0.51
1:AA:1973:G:H2'	1:AA:1974:C:C6	2.46	0.51
5:AF:34:TRP:CE2	11:AO:8:PRO:HD3	2.45	0.51
5:AF:63:LYS:NZ	5:AF:67:GLN:HE21	2.09	0.51
13:A0:55:ALA:HA	13:A0:80:PHE:CZ	2.46	0.51
21:AV:52:SER:C	21:AV:54:HIS:N	2.66	0.51
27:A5:16:ARG:O	27:A5:20:ARG:HG3	2.11	0.51
31:BA:58:C:O2'	31:BA:59:A:H5'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:75:C:H2'	31:BA:76:G:O4'	2.10	0.51
31:BA:76:G:C6	31:BA:77:C:C2	2.99	0.51
31:BA:447:G:C6	31:BA:485:G:H1'	2.45	0.51
31:BA:606:G:N2	31:BA:631:G:C8	2.79	0.51
31:BA:726:C:O2'	31:BA:727:G:H5'	2.11	0.51
31:BA:791:G:C3'	31:BA:792:A:C5'	2.68	0.51
31:BA:1149:C:O2'	31:BA:1150:U:H5'	2.10	0.51
31:BA:1362(A):C:H5'	31:BA:1363:A:O5'	2.10	0.51
32:BE:102:LEU:HB3	32:BE:180:LEU:HD12	1.93	0.51
32:BE:131:PRO:O	32:BE:135:GLN:HG3	2.11	0.51
33:BF:150:LYS:HD3	33:BF:201:TYR:HD1	1.75	0.51
34:BG:173:TRP:HB3	34:BG:187:ARG:HG2	1.92	0.51
39:BL:19:LEU:HD23	39:BL:60:ASP:O	2.10	0.51
47:BT:65:ILE:HG21	47:BT:69:LYS:HE3	1.93	0.51
1:CA:116:A:H5'	1:CA:117:A:H8	1.76	0.51
1:CA:708:G:N2	11:CO:12:ALA:HA	2.26	0.51
1:CA:1112:U:C2	1:CA:1121:G:N2	2.78	0.51
1:CA:1163:C:H2'	1:CA:1164:G:C8	2.46	0.51
1:CA:1365:C:H2'	1:CA:1366:G:H5"	1.91	0.51
1:CA:1371:G:C4	1:CA:1375:G:O6	2.64	0.51
1:CA:1561:U:C2'	1:CA:1562:C:H5'	2.41	0.51
1:CA:1922:G:N2	1:CA:1925:C:H5	2.08	0.51
1:CA:2110:G:C2'	1:CA:2111:G:H5'	2.41	0.51
1:CA:2150:G:O2'	1:CA:2196:A:N6	2.43	0.51
1:CA:2226:U:O2'	1:CA:2227:C:H5'	2.11	0.51
1:CA:2632:C:OP1	4:CE:152:LYS:HE2	2.11	0.51
1:CA:2806:G:O6	1:CA:2816:C:N3	2.44	0.51
2:CB:112:G:H2'	2:CB:113:G:C8	2.45	0.51
16:C1:19:LYS:HA	16:C1:22:LYS:HG3	1.93	0.51
21:CV:120:ILE:HB	21:CV:169:GLU:OE2	2.11	0.51
26:C4:15:ILE:HD12	26:C4:15:ILE:N	2.26	0.51
30:C8:37:SER:C	30:C8:39:LYS:N	2.56	0.51
31:DA:1441:G:H4'	31:DA:1442:G:C5	2.45	0.51
32:DE:214:ILE:O	32:DE:218:ALA:HB2	2.10	0.51
33:DF:9:GLY:HA3	44:DQ:49:HIS:HA	1.93	0.51
33:DF:79:ARG:H	33:DF:79:ARG:NE	2.09	0.51
36:DI:35:ALA:HB1	36:DI:65:VAL:CG1	2.41	0.51
42:DO:67:ILE:HG12	42:DO:97:ILE:HG13	1.93	0.51
52:DD:21:A:C1'	52:DD:22:A:O5'	2.58	0.51
1:AA:67:U:H1'	1:AA:88:G:N2	2.26	0.51
1:AA:637:A:O5'	11:AO:116:GLY:HA3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1174:A:H2'	1:AA:1176:G:OP1	2.11	0.51
1:AA:1207:C:H2'	1:AA:1208:C:H6	1.76	0.51
1:AA:1930:G:H22	1:AA:1969:A:H5"	1.76	0.51
1:AA:2031:A:O2'	1:AA:2454:G:N2	2.44	0.51
1:AA:2157:G:O2'	1:AA:2158:A:O5'	2.29	0.51
1:AA:2699:C:H2'	1:AA:2700:C:O4'	2.10	0.51
3:AD:10:THR:HG23	3:AD:13:ARG:CB	2.40	0.51
3:AD:32:SER:HA	3:AD:36:PRO:HD2	1.92	0.51
3:AD:35:LYS:CB	3:AD:63:ARG:HA	2.39	0.51
4:AE:167:VAL:HG11	4:AE:187:ALA:O	2.10	0.51
9:AM:6:PRO:HG3	9:AM:41:ASP:HB2	1.91	0.51
11:AO:78:PRO:HB2	11:AO:111:ARG:HD2	1.93	0.51
12:AP:32:TYR:CD1	12:AP:133:ARG:HA	2.46	0.51
12:AP:52:VAL:HA	12:AP:55:VAL:HG13	1.92	0.51
12:AP:57:HIS:NE2	12:AP:116:GLU:HG3	2.26	0.51
16:A1:44:ASN:HD21	17:A2:75:PHE:H	1.58	0.51
22:A3:41:ARG:HE	22:A3:41:ARG:HA	1.76	0.51
30:A8:51:ALA:O	30:A8:52:LYS:HB3	2.10	0.51
31:BA:79:G:C2	31:BA:90:C:N3	2.78	0.51
31:BA:191:G:C4	50:BW:105:SER:HB2	2.46	0.51
31:BA:664:G:N2	31:BA:741:G:H1	2.04	0.51
31:BA:963:G:N2	40:BM:55:LYS:NZ	2.58	0.51
31:BA:1028(B):C:C4	31:BA:1032(A):G:N1	2.77	0.51
31:BA:1108:G:H5'	33:BF:176:HIS:CD2	2.46	0.51
31:BA:1152:A:C6	31:BA:1153:C:C4	2.98	0.51
31:BA:1170:A:H2'	31:BA:1171:G:O4'	2.11	0.51
32:BE:8:LYS:HE2	32:BE:8:LYS:H	1.74	0.51
32:BE:77:ALA:HB1	32:BE:165:VAL:HG11	1.93	0.51
35:BH:74:GLY:O	35:BH:115:VAL:HA	2.10	0.51
35:BH:111:GLU:C	35:BH:113:ALA:H	2.19	0.51
38:BK:63:LEU:HD23	38:BK:65:TYR:OH	2.10	0.51
52:BB:26:G:N3	52:BB:26:G:H2'	2.26	0.51
1:CA:71:U:N3	24:CW:62:THR:HG22	2.26	0.51
1:CA:663:A:H2'	11:CO:117:GLU:OE2	2.10	0.51
1:CA:896:G:C1'	1:CA:979:A:C8	2.94	0.51
1:CA:1100:C:H2'	1:CA:1101:A:O4'	2.11	0.51
1:CA:1158:A:O3'	7:CH:3:ARG:HB3	2.11	0.51
1:CA:1272:G:C6	1:CA:1273:A:N6	2.79	0.51
1:CA:1741:U:H4'	1:CA:1742:C:OP2	2.11	0.51
1:CA:1899:A:H2'	1:CA:1900:A:C8	2.46	0.51
1:CA:2154:G:O4'	1:CA:2181:A:N1	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:2786:C:H5'	4:CE:168:MET:HE1	1.92	0.51
6:CG:7:LEU:HD12	6:CG:104:GLU:HB2	1.91	0.51
6:CG:7:LEU:HD22	6:CG:100:TRP:HE3	1.76	0.51
8:CK:1:MET:N	8:CK:20:ASP:OD1	2.40	0.51
15:CR:58:ASN:OD1	15:CR:58:ASN:N	2.44	0.51
21:CV:19:ARG:NH1	21:CV:84:GLU:HB2	2.26	0.51
24:CW:33:MET:O	24:CW:37:PHE:HD1	1.94	0.51
31:DA:969:A:H2'	31:DA:970:C:O4'	2.11	0.51
31:DA:1004:A:O4'	31:DA:1036:G:C6	2.64	0.51
31:DA:1124:G:O2'	31:DA:1145:C:C4	2.63	0.51
31:DA:1149:C:OP1	39:DL:9:ARG:HD3	2.10	0.51
31:DA:1293:G:H2'	31:DA:1294:G:O4'	2.11	0.51
31:DA:1394:A:C5	31:DA:1501:C:H4'	2.46	0.51
32:DE:84:GLU:O	32:DE:219:VAL:HG21	2.10	0.51
38:DK:136:GLU:O	38:DK:136:GLU:HG3	2.11	0.51
52:DB:34:U:H2'	52:DB:36:U:OP2	2.11	0.51
54:D1:11:U:C2'	54:D1:12:A:C4	2.94	0.51
1:AA:635:C:H2'	1:AA:636:G:O4'	2.10	0.51
1:AA:749:C:C4	1:AA:1618:A:C2	2.99	0.51
1:AA:886:C:H2'	1:AA:887:A:O4'	2.11	0.51
1:AA:1930:G:O2'	1:AA:1968:G:O6	2.22	0.51
1:AA:2275:C:O2	12:AP:85:LYS:CG	2.59	0.51
1:AA:2376:A:C2	14:AQ:112:PHE:HB2	2.46	0.51
1:AA:2579:C:H2'	1:AA:2580:U:O4'	2.11	0.51
1:AA:2698:U:H2'	1:AA:2699:C:C6	2.45	0.51
3:AD:16:MET:HE3	3:AD:211:ARG:CD	2.38	0.51
4:AE:146:THR:HA	4:AE:147:PRO:C	2.36	0.51
6:AG:131:TYR:HB3	6:AG:159:VAL:CG2	2.41	0.51
8:AK:140:LEU:HD23	8:AK:140:LEU:H	1.75	0.51
14:AQ:42:ASP:O	14:AQ:43:GLU:HB2	2.10	0.51
15:AR:108:ARG:HD3	31:BA:1464:G:OP1	2.11	0.51
19:AT:11:PRO:HB3	19:AT:92:LEU:HD21	1.92	0.51
21:AV:62:PRO:O	21:AV:64:GLY:HA2	2.10	0.51
27:A5:42:PRO:HB2	27:A5:43:HIS:HD2	1.74	0.51
27:A5:56:LYS:H	27:A5:56:LYS:CD	2.21	0.51
31:BA:678:U:H2'	31:BA:679:C:H6	1.76	0.51
31:BA:750:G:N3	45:BR:23:GLY:HA3	2.25	0.51
32:BE:139:LYS:O	32:BE:143:GLU:HG3	2.11	0.51
35:BH:31:LEU:HD13	35:BH:43:LEU:HD11	1.92	0.51
37:BJ:23:VAL:HG12	37:BJ:27:ILE:HD11	1.93	0.51
39:BL:118:LYS:O	39:BL:119:ALA:HB3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BR:3:ILE:O	45:BR:3:ILE:HG13	2.11	0.51
48:BU:25:THR:HG22	48:BU:25:THR:O	2.11	0.51
1:CA:631:U:OP1	5:CF:102:PRO:HA	2.11	0.51
1:CA:903:G:H2'	1:CA:904:C:H6	1.76	0.51
1:CA:978:G:H4'	1:CA:979:A:O5'	2.11	0.51
1:CA:1024:G:C4	1:CA:1025:G:C8	2.99	0.51
1:CA:1046:U:H3'	1:CA:1201:G:O6	2.11	0.51
1:CA:1073:U:O2	1:CA:1073:U:C2'	2.56	0.51
1:CA:1591:C:O2	1:CA:1591:C:H2'	2.11	0.51
1:CA:1626:U:C2'	1:CA:1627:A:H5'	2.41	0.51
1:CA:2312:G:N1	1:CA:2331:G:H8	2.09	0.51
2:CB:41:A:C2	26:C4:1:MET:SD	3.04	0.51
2:CB:41:A:C2	2:CB:46:G:C2	2.99	0.51
8:CK:110:ASP:O	8:CK:111:PRO:O	2.29	0.51
14:CQ:41:ASP:OD2	14:CQ:44:LYS:HE3	2.10	0.51
14:CQ:59:LYS:HD2	14:CQ:60:GLY:H	1.76	0.51
14:CQ:100:ALA:HA	14:CQ:103:GLU:HB2	1.92	0.51
15:CR:3:ARG:HG2	15:CR:6:LEU:H	1.76	0.51
18:CS:26:GLY:HA2	18:CS:71:VAL:O	2.11	0.51
23:CZ:91:LYS:O	23:CZ:92:LYS:C	2.54	0.51
28:C6:16:CYS:O	28:C6:17:LYS:HB2	2.11	0.51
31:DA:24:U:H2'	31:DA:25:C:C6	2.44	0.51
31:DA:139:G:H2'	31:DA:140:A:H8	1.75	0.51
31:DA:402:G:C6	31:DA:403:C:C4	2.99	0.51
31:DA:631:G:OP1	31:DA:632:A:N6	2.39	0.51
31:DA:1094:G:C2'	31:DA:1095:U:OP2	2.59	0.51
31:DA:1105:A:H2'	31:DA:1106:G:H8	1.75	0.51
31:DA:1194:U:H4'	35:DH:22:GLY:O	2.10	0.51
31:DA:1316:G:H4'	44:DQ:18:VAL:HG11	1.93	0.51
32:DE:131:PRO:HG2	32:DE:134:GLU:HB2	1.93	0.51
34:DG:79:PHE:HE1	34:DG:204:ILE:HD13	1.75	0.51
36:DI:53:ALA:O	36:DI:54:LYS:HB2	2.10	0.51
42:DO:80:VAL:HG11	42:DO:97:ILE:HD12	1.93	0.51
49:DV:9:VAL:HG13	49:DV:10:PHE:N	2.26	0.51
52:DB:33:C:O2'	52:DB:38:MIA:H152	2.11	0.51
52:DD:9:U:O2	52:DD:9:U:C2'	2.59	0.51
52:DD:19:C:H3'	52:DD:19:C:C6	2.44	0.51
52:DD:24:G:C2	52:DD:25:G:C5	2.98	0.51
1:AA:30:G:H2'	1:AA:31:C:C6	2.46	0.50
1:AA:2219:G:OP1	3:AD:172:TYR:OH	2.28	0.50
1:AA:2880:C:H2'	1:AA:2881:C:H6	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:30:PRO:HD3	4:AE:180:ASN:ND2	2.25	0.50
5:AF:164:ARG:HG2	5:AF:164:ARG:NH1	2.21	0.50
9:AM:25:ARG:O	9:AM:29:LYS:HE2	2.11	0.50
12:AP:65:PHE:O	12:AP:67:ARG:N	2.43	0.50
16:A1:27:LEU:HD12	16:A1:34:LYS:HG3	1.93	0.50
23:AZ:41:ARG:HG3	23:AZ:43:TYR:CE2	2.45	0.50
24:AW:10:LEU:HD22	24:AW:14:ARG:NH2	2.27	0.50
26:A4:12:ALA:C	26:A4:24:THR:HG21	2.37	0.50
31:BA:56:U:H4'	8:CK:82:ARG:HH21	1.75	0.50
31:BA:606:G:N3	31:BA:606:G:H2'	2.24	0.50
31:BA:693:G:C6	31:BA:694:A:C6	2.98	0.50
31:BA:992:U:C1'	31:BA:993:G:OP2	2.56	0.50
31:BA:1033:G:H8	31:BA:1033:G:OP2	1.94	0.50
31:BA:1091:U:H2'	31:BA:1093:A:OP2	2.09	0.50
31:BA:1160:G:H8	31:BA:1160:G:O5'	1.93	0.50
40:BM:61:GLU:OE1	44:BQ:58:LYS:HD2	2.12	0.50
40:BM:81:THR:O	40:BM:85:LEU:HG	2.11	0.50
41:BN:54:ARG:O	41:BN:57:THR:HB	2.11	0.50
51:BX:2:GLY:O	51:BX:4:GLY:N	2.44	0.50
52:BD:17:G:C6	52:BD:67:A:N6	2.78	0.50
1:CA:124:A:O5'	29:C7:19:ARG:HG3	2.10	0.50
1:CA:126:C:O2'	1:CA:127:C:P	2.69	0.50
1:CA:650:C:C2'	1:CA:651:G:H5'	2.42	0.50
1:CA:967:G:H2'	1:CA:968:G:H8	1.76	0.50
1:CA:988:G:C6	1:CA:989:U:N3	2.79	0.50
1:CA:1765:G:H2'	1:CA:1766:U:C6	2.46	0.50
1:CA:1953:G:O2'	1:CA:1954:U:OP2	2.27	0.50
1:CA:2054:A:N3	1:CA:2468:G:O2'	2.37	0.50
1:CA:2334:G:H2'	1:CA:2334:G:N3	2.26	0.50
1:CA:2730:U:O2'	1:CA:2731:G:H5'	2.10	0.50
5:CF:57:VAL:HG12	5:CF:59:TYR:H	1.76	0.50
5:CF:172:TRP:CE3	5:CF:173:VAL:HG23	2.47	0.50
16:C1:95:LEU:HD21	17:C2:12:TYR:C	2.36	0.50
31:DA:741:G:H2'	31:DA:742:G:O4'	2.11	0.50
31:DA:763:G:H2'	31:DA:764:C:H6	1.75	0.50
31:DA:1191:A:H8	31:DA:1191:A:OP2	1.93	0.50
31:DA:1348:U:H5	31:DA:1373:G:N2	2.10	0.50
32:DE:12:GLU:HB3	32:DE:213:LEU:CD1	2.40	0.50
34:DG:14:ARG:HH11	34:DG:14:ARG:CG	1.93	0.50
37:DJ:16:LEU:CD1	39:DL:45:ALA:HB2	2.40	0.50
39:DL:14:VAL:O	39:DL:65:VAL:HG23	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DP:14:ARG:HB3	43:DP:16:ASP:OD2	2.11	0.50
44:DQ:52:GLN:O	44:DQ:53:LEU:HD23	2.12	0.50
1:AA:142:G:H1'	19:AT:37:THR:HG21	1.93	0.50
1:AA:442:G:H1'	5:AF:48:THR:HG21	1.93	0.50
1:AA:847:U:C5	1:AA:933:A:C2	3.00	0.50
1:AA:911:A:H2'	12:AP:9:TYR:OH	2.10	0.50
1:AA:1049:C:H2'	1:AA:1050:A:H5"	1.93	0.50
1:AA:1079:C:H5	1:AA:1088:A:P	2.34	0.50
1:AA:1607:C:C2	56:AA:3473:OHX:N5	2.80	0.50
1:AA:1675:C:H2'	1:AA:1676:A:O4'	2.10	0.50
1:AA:2135:A:H2'	1:AA:2135:A:N3	2.26	0.50
4:AE:147:PRO:HB2	4:AE:149:ARG:HG2	1.93	0.50
5:AF:66:PRO:O	5:AF:67:GLN:CB	2.53	0.50
12:AP:26:TYR:CD2	12:AP:26:TYR:C	2.88	0.50
15:AR:88:ILE:HD12	15:AR:90:GLN:N	2.25	0.50
16:A1:104:GLN:CD	16:A1:104:GLN:H	2.19	0.50
26:A4:37:SER:O	26:A4:40:HIS:N	2.35	0.50
31:BA:324:G:N7	56:BA:1795:OHX:N5	2.59	0.50
31:BA:411:A:N7	31:BA:413:G:N3	2.58	0.50
31:BA:789:U:C6	31:BA:791:G:C5'	2.94	0.50
31:BA:1029:G:HO2'	31:BA:1032(A):G:N2	2.09	0.50
31:BA:1296:C:H4'	31:BA:1302:U:H5	1.74	0.50
34:BG:141:ARG:NH1	34:BG:141:ARG:HB2	2.25	0.50
38:BK:60:ARG:CG	38:BK:60:ARG:NH1	2.68	0.50
38:BK:64:LYS:C	38:BK:65:TYR:HD1	2.19	0.50
44:BQ:13:THR:N	44:BQ:14:PRO:HD2	2.26	0.50
47:BT:56:VAL:O	47:BT:77:VAL:HB	2.12	0.50
52:BB:59:A:N6	52:BB:60:A:C6	2.80	0.50
52:BB:80:C:H2'	52:BB:81:C:O4'	2.12	0.50
1:CA:947:A:H3'	1:CA:948:A:C8	2.40	0.50
1:CA:1109:G:C8	1:CA:1135:A:H2'	2.46	0.50
1:CA:1364:A:H2'	1:CA:1365:C:C6	2.47	0.50
1:CA:1488:G:H2'	1:CA:1489:G:C8	2.46	0.50
1:CA:1794:A:H4'	1:CA:1795:G:OP2	2.11	0.50
1:CA:2658:G:O6	56:CA:3384:OHX:N3	2.45	0.50
4:CE:101:ARG:O	4:CE:201:THR:OG1	2.28	0.50
4:CE:119:ARG:HG2	4:CE:160:TYR:CB	2.42	0.50
6:CG:115:ARG:NH1	43:DP:7:VAL:HG21	2.26	0.50
7:CH:19:VAL:HG12	7:CH:20:ALA:N	2.19	0.50
11:CO:81:GLN:NE2	11:CO:106:LEU:O	2.44	0.50
12:CP:54:MET:HG2	12:CP:117:ALA:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CU:76:CYS:HB2	20:CU:96:ILE:HD11	1.93	0.50
21:CV:80:ARG:O	21:CV:81:ARG:HB3	2.11	0.50
22:C3:50:ASN:O	22:C3:62:LEU:HB2	2.12	0.50
30:C8:22:VAL:H	30:C8:50:LEU:CD1	2.23	0.50
30:C8:22:VAL:O	30:C8:49:VAL:HB	2.11	0.50
31:DA:664:G:H2'	31:DA:666:G:OP1	2.11	0.50
31:DA:807:A:C5	31:DA:808:C:C4	2.99	0.50
31:DA:1320:C:O2	49:DV:72:GLY:HA3	2.10	0.50
33:DF:134:ILE:HG23	33:DF:151:VAL:HB	1.92	0.50
34:DG:70:ILE:HD11	34:DG:100:ARG:CZ	2.42	0.50
37:DJ:75:VAL:CG2	37:DJ:144:MET:HB2	2.42	0.50
45:DR:8:LYS:O	45:DR:12:ILE:HG13	2.11	0.50
52:DB:19:C:O2'	52:DB:20:C:OP1	2.26	0.50
52:DB:42:U:H2'	52:DB:42:U:O2	2.11	0.50
1:AA:896:A:HO2'	1:AA:897:C:P	2.34	0.50
1:AA:1080:A:H2'	1:AA:1081:U:O4'	2.12	0.50
1:AA:1685:C:H2'	1:AA:1686:C:H6	1.76	0.50
1:AA:1921:G:N7	56:AA:3291:OHX:N2	2.59	0.50
1:AA:2312:U:O5'	1:AA:2312:U:H6	1.93	0.50
3:AD:11:PRO:C	3:AD:13:ARG:H	2.18	0.50
3:AD:119:ALA:HA	3:AD:130:ALA:O	2.11	0.50
3:AD:228:PRO:HG3	3:AD:234:GLY:O	2.10	0.50
4:AE:66:HIS:C	4:AE:66:HIS:ND1	2.68	0.50
6:AG:9:ARG:O	6:AG:13:GLU:HG2	2.12	0.50
9:AM:32:THR:HG23	9:AM:37:LYS:HB2	1.94	0.50
31:BA:1199:U:H5'	40:BM:54:PHE:CE2	2.46	0.50
31:BA:1252:A:H61	31:BA:1285:A:H61	1.59	0.50
38:BK:86:ILE:HG22	38:BK:93:VAL:HG21	1.92	0.50
39:BL:16:ARG:O	39:BL:63:ILE:HG23	2.10	0.50
40:BM:6:ILE:O	40:BM:6:ILE:HG13	2.10	0.50
45:BR:36:ILE:HA	45:BR:59:MET:HE1	1.93	0.50
52:BB:49:A:H2'	52:BB:49:A:N3	2.24	0.50
1:CA:605:C:H2'	1:CA:606:G:H8	1.77	0.50
1:CA:1234:U:O2'	1:CA:1235:A:H5'	2.12	0.50
1:CA:2138:G:H2'	1:CA:2139:G:N7	2.26	0.50
2:CB:9:G:O5'	14:CQ:29:PHE:HE1	1.94	0.50
4:CE:2:LYS:HD3	4:CE:95:ILE:HG22	1.93	0.50
6:CG:7:LEU:HD22	6:CG:100:TRP:CE3	2.46	0.50
6:CG:37:VAL:O	6:CG:94:LEU:HD23	2.10	0.50
7:CH:149:ARG:HA	7:CH:162:ILE:HG21	1.94	0.50
13:C0:28:LEU:O	13:C0:28:LEU:HD22	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C1:50:ARG:HH22	17:C2:72:VAL:HG21	1.76	0.50
19:CT:5:TYR:CE2	24:CW:30:ARG:HG3	2.46	0.50
20:CU:43:ASN:HA	20:CU:64:GLU:HA	1.92	0.50
29:C7:43:THR:HG23	29:C7:44:PRO:HD2	1.93	0.50
31:DA:127:G:O3'	47:DT:2:PRO:HD2	2.11	0.50
31:DA:421:U:O2	31:DA:421:U:C2'	2.59	0.50
31:DA:547:A:H4'	31:DA:548:G:O5'	2.11	0.50
31:DA:571:U:H5"	31:DA:572:A:OP2	2.12	0.50
31:DA:1052:U:H5"	31:DA:1053:G:OP2	2.12	0.50
31:DA:1159:U:O2'	31:DA:1160:G:C5	2.64	0.50
31:DA:1190:G:H3'	31:DA:1190:G:C8	2.45	0.50
31:DA:1524:C:H2'	31:DA:1525:G:C8	2.46	0.50
32:DE:178:ARG:HH11	32:DE:178:ARG:CB	2.23	0.50
34:DG:4:TYR:CE2	34:DG:11:LEU:HD11	2.43	0.50
52:DB:48:C:C2'	52:DB:49:A:C8	2.93	0.50
52:DD:51:C:C4	52:DD:52:G:H1'	2.46	0.50
1:AA:250:G:C6	1:AA:251:A:C6	3.00	0.50
1:AA:492:A:H8	1:AA:492:A:O5'	1.94	0.50
1:AA:1085:A:O2'	1:AA:1086:A:N1	2.42	0.50
1:AA:1547:C:H2'	1:AA:1548:C:H6	1.75	0.50
1:AA:2406:U:OP2	1:AA:2406:U:H2'	2.10	0.50
1:AA:2481:G:C2'	1:AA:2482:G:OP2	2.58	0.50
6:AG:73:ALA:HB2	6:AG:82:LEU:HD21	1.93	0.50
6:AG:99:MET:HG3	6:AG:100:TRP:H	1.76	0.50
13:A0:100:LEU:HD13	13:A0:100:LEU:N	2.26	0.50
20:AU:97:ARG:NH2	20:AU:98:VAL:HB	2.21	0.50
22:A3:43:THR:O	22:A3:45:PHE:N	2.44	0.50
31:BA:171:A:H2'	31:BA:172:A:H8	1.75	0.50
31:BA:192:U:O4'	50:BW:103:GLY:HA2	2.11	0.50
31:BA:236:G:H5"	47:BT:42:TYR:OH	2.12	0.50
31:BA:413:G:C2'	31:BA:414:A:OP2	2.59	0.50
31:BA:869:G:N7	56:BA:1684:OHX:N5	2.60	0.50
31:BA:1154:G:O2'	31:BA:1155:G:H5'	2.11	0.50
31:BA:1306:A:H61	31:BA:1331:G:H1'	1.77	0.50
31:BA:1336:C:O2	56:BA:1775:OHX:N4	2.44	0.50
35:BH:20:GLN:C	35:BH:22:GLY:N	2.69	0.50
35:BH:147:ASP:HA	35:BH:150:ARG:HH12	1.74	0.50
41:BN:91:ARG:HH21	48:BU:88:LYS:HZ1	1.60	0.50
49:BV:15:LEU:O	49:BV:18:LYS:N	2.45	0.50
1:CA:775:A:C6	1:CA:776:G:C6	3.00	0.50
1:CA:821:U:O2'	3:CD:48:ARG:HD3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1050:G:N2	1:CA:1200:C:C2	2.80	0.50
1:CA:1094:G:H2'	1:CA:1157:G:N1	2.26	0.50
1:CA:2210:G:H2'	1:CA:2211:C:O4'	2.11	0.50
1:CA:2229:G:O2'	1:CA:2230:A:OP1	2.28	0.50
1:CA:2300:A:C2	1:CA:2359:A:N1	2.77	0.50
1:CA:2312:G:N1	1:CA:2331:G:C8	2.80	0.50
1:CA:2702:U:C4'	1:CA:2703:C:OP2	2.59	0.50
1:CA:2831:A:O5'	13:C0:4:LEU:HD23	2.11	0.50
2:CB:109:G:H2'	2:CB:110:U:H5'	1.94	0.50
4:CE:33:VAL:HG11	4:CE:88:GLY:CA	2.41	0.50
4:CE:79:ARG:HD2	4:CE:79:ARG:N	2.26	0.50
7:CH:103:LEU:HD23	7:CH:103:LEU:N	2.26	0.50
8:CK:107:VAL:HG12	8:CK:108:THR:N	2.26	0.50
11:CO:82:GLY:HA2	11:CO:113:LYS:O	2.11	0.50
11:CO:127:ALA:O	11:CO:147:LEU:N	2.44	0.50
26:C4:34:GLU:CG	26:C4:35:VAL:H	2.19	0.50
31:DA:109:A:H2'	31:DA:326:G:N2	2.27	0.50
31:DA:191(F):U:H3	50:DW:105:SER:HB2	1.77	0.50
31:DA:262:A:C6	31:DA:263:A:C6	3.00	0.50
31:DA:585:G:H4'	42:DO:5:ASN:ND2	2.27	0.50
31:DA:686:U:O4	31:DA:703:G:H1'	2.10	0.50
31:DA:812:C:C1'	31:DA:813:U:OP2	2.55	0.50
31:DA:978:A:O2'	31:DA:1322:C:C4	2.64	0.50
31:DA:1060:C:H5"	40:DM:51:ARG:HG2	1.93	0.50
31:DA:1161:C:N3	31:DA:1176:A:N6	2.59	0.50
32:DE:84:GLU:HB3	32:DE:219:VAL:HG11	1.93	0.50
36:DI:23:LYS:O	36:DI:27:GLN:HB2	2.10	0.50
38:DK:26:VAL:HG22	38:DK:59:LEU:O	2.12	0.50
40:DM:16:LEU:O	40:DM:20:ALA:HB3	2.12	0.50
43:DP:23:TYR:HB3	43:DP:67:GLU:OE2	2.11	0.50
52:DD:24:G:C2	52:DD:25:G:N7	2.79	0.50
1:AA:5:A:H61	1:AA:2898:U:H3	1.59	0.50
1:AA:678:C:H2'	1:AA:679:C:C6	2.47	0.50
1:AA:760:G:H2'	1:AA:761:A:O4'	2.10	0.50
1:AA:1394:U:C5	1:AA:1395:A:C5	3.00	0.50
1:AA:2124:G:H2'	1:AA:2125:G:H5'	1.93	0.50
1:AA:2566:A:H1'	1:AA:2567:G:OP2	2.11	0.50
1:AA:2712(A):A:H5"	1:AA:2713:A:OP2	2.11	0.50
5:AF:125:LEU:HD21	5:AF:199:TRP:CE3	2.46	0.50
6:AG:95:ARG:O	6:AG:96:ARG:C	2.54	0.50
25:AX:40:THR:HG23	25:AX:43:ILE:HD12	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:A6:34:LEU:HD22	28:A6:34:LEU:H	1.76	0.50
31:BA:376:G:H2'	31:BA:377:G:H8	1.76	0.50
31:BA:598:U:H4'	38:BK:94:TYR:CD2	2.46	0.50
31:BA:620:C:C5	34:BG:135:LEU:HD23	2.46	0.50
31:BA:1065:U:C1'	31:BA:1066:C:OP2	2.59	0.50
37:BJ:150:ALA:HB2	41:BN:50:TYR:CE1	2.46	0.50
43:BP:34:LEU:HD12	43:BP:41:PRO:HG3	1.93	0.50
44:BQ:23:ARG:HG3	44:BQ:29:ARG:O	2.11	0.50
52:BB:10:C:H2'	52:BB:11:C:C6	2.47	0.50
52:BD:12:C:C2'	52:BD:13:G:O4'	2.55	0.50
52:BD:47:U:C2'	52:BD:48:C:H6	2.08	0.50
1:CA:1635:C:O2	1:CA:1635:C:H2'	2.10	0.50
1:CA:1762:G:H2'	1:CA:1763:G:O4'	2.12	0.50
1:CA:2133:G:H2'	1:CA:2143:G:OP1	2.11	0.50
1:CA:2288:C:O2	12:CP:85:LYS:HG3	2.11	0.50
1:CA:2402:G:H5"	1:CA:2403:U:C5'	2.41	0.50
1:CA:2472:A:H2'	1:CA:2472:A:N3	2.26	0.50
1:CA:2779:A:H3'	1:CA:2779:A:N3	2.27	0.50
11:CO:64:LYS:HB3	30:C8:25:MET:HG2	1.94	0.50
11:CO:71:VAL:N	11:CO:72:PRO:CD	2.74	0.50
12:CP:4:PRO:HG3	12:CP:71:ASP:HA	1.93	0.50
20:CU:86:ARG:HB2	20:CU:95:LYS:HD2	1.92	0.50
22:C3:35:ASN:OD1	22:C3:35:ASN:N	2.45	0.50
31:DA:209:U:H1'	31:DA:210:U:P	2.52	0.50
31:DA:980:C:H3'	31:DA:981:U:C6	2.47	0.50
31:DA:995:C:H1'	44:DQ:4:LYS:HE3	1.93	0.50
31:DA:1286:A:H2	51:DX:18:TYR:OH	1.94	0.50
31:DA:1306:A:N6	31:DA:1331:G:H1'	2.27	0.50
38:DK:35:ILE:O	38:DK:39:LEU:HB2	2.12	0.50
39:DL:78:LYS:HB2	39:DL:78:LYS:NZ	2.27	0.50
52:DD:21:A:H1'	52:DD:22:A:O5'	2.11	0.50
1:AA:321:G:C4	5:AF:165:ARG:NH1	2.80	0.50
1:AA:663:G:H2'	1:AA:664:C:O4'	2.11	0.50
1:AA:796:C:H2'	1:AA:797:C:H6	1.75	0.50
1:AA:910:A:H62	12:AP:12:GLN:HA	1.77	0.50
1:AA:1514:U:H2'	1:AA:1515:C:C6	2.47	0.50
1:AA:2427:C:C5'	1:AA:2428:G:OP1	2.55	0.50
1:AA:2470:G:H5'	12:AP:56:ARG:NH2	2.26	0.50
1:AA:2651:C:H42	1:AA:2669:G:H1	1.60	0.50
1:AA:2712:U:H1'	1:AA:2712(A):A:C8	2.47	0.50
3:AD:71:ASP:CB	3:AD:103:ARG:HH22	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:24:THR:HG21	4:AE:188:VAL:HG13	1.94	0.50
11:AO:62:LEU:O	11:AO:62:LEU:HG	2.08	0.50
16:A1:72:HIS:HE1	16:A1:107:ALA:HA	1.77	0.50
21:AV:135:GLU:O	21:AV:136:PHE:HB3	2.11	0.50
22:A3:23:VAL:HG13	22:A3:38:VAL:HG23	1.93	0.50
31:BA:502:G:H2'	31:BA:503:C:O4'	2.11	0.50
31:BA:1245:A:OP2	51:BX:9:ARG:NH2	2.45	0.50
31:BA:1331:G:OP2	43:BP:23:TYR:HD2	1.94	0.50
31:BA:1493:A:H5"	31:BA:1494:G:OP2	2.12	0.50
39:BL:95:LYS:O	39:BL:95:LYS:HD3	2.11	0.50
42:BO:90:LEU:HB2	42:BO:93:VAL:CG1	2.41	0.50
52:BD:43:G:H2'	52:BD:44:C:H6	1.76	0.50
1:CA:194:A:O2'	1:CA:195:G:OP2	2.24	0.50
1:CA:435:G:H2'	1:CA:436:G:C8	2.46	0.50
1:CA:553:C:OP2	1:CA:2793:U:C5	2.62	0.50
1:CA:1014:G:H2'	1:CA:1015:U:O4'	2.12	0.50
1:CA:1187:U:H1'	1:CA:1189:A:C5	2.46	0.50
1:CA:1309:A:OP1	18:CS:99:ARG:NH1	2.43	0.50
1:CA:1958:G:OP1	56:CA:3233:OHX:N2	2.45	0.50
1:CA:2142:A:N6	1:CA:2193:A:N6	2.60	0.50
1:CA:2246:U:H2'	1:CA:2247:G:H8	1.76	0.50
1:CA:2580:G:H2'	1:CA:2581:C:C6	2.47	0.50
1:CA:2829:G:O2'	1:CA:2830:G:H5'	2.11	0.50
1:CA:2905:U:H2'	1:CA:2906:C:O4'	2.12	0.50
4:CE:13:ARG:HH21	15:CR:77:PRO:HB3	1.75	0.50
4:CE:84:PHE:CZ	4:CE:86:PRO:HG3	2.47	0.50
5:CF:22:ALA:C	5:CF:24:LEU:N	2.70	0.50
6:CG:129:GLY:HA3	6:CG:163:ALA:O	2.12	0.50
7:CH:12:PRO:HD2	7:CH:48:GLY:C	2.37	0.50
9:CM:18:ALA:HA	9:CM:21:LYS:HG3	1.94	0.50
12:CP:2:LEU:HD11	12:CP:69:PHE:HE1	1.76	0.50
22:C3:43:THR:C	22:C3:45:PHE:N	2.69	0.50
26:C4:12:ALA:O	26:C4:24:THR:OG1	2.28	0.50
31:DA:892:A:C2	31:DA:907:A:C4	2.99	0.50
31:DA:1014:A:H4'	49:DV:14:HIS:CE1	2.47	0.50
31:DA:1055:A:N7	31:DA:1206:G:N1	2.60	0.50
31:DA:1320:C:H2'	31:DA:1321:C:C6	2.47	0.50
31:DA:1508:G:H2'	31:DA:1509:C:O4'	2.12	0.50
42:DO:20:LYS:CD	42:DO:20:LYS:H	2.24	0.50
42:DO:57:LEU:H	42:DO:62:GLU:H	1.59	0.50
43:DP:90:LEU:HD21	43:DP:93:ARG:HH21	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DQ:53:LEU:HB3	44:DQ:56:VAL:HG21	1.93	0.50
49:DV:28:LYS:HD3	49:DV:29:ARG:N	2.27	0.50
52:DB:23:A:C2'	52:DB:24:G:H5"	2.39	0.50
52:DD:17:G:C6	52:DD:67:A:N6	2.80	0.50
1:AA:729:G:O2'	1:AA:763:G:H4'	2.12	0.50
1:AA:746:A:C5	1:AA:2611:U:H5"	2.46	0.50
1:AA:900:A:H3'	1:AA:901:A:C8	2.42	0.50
1:AA:1060:U:C4'	1:AA:1061:U:O5'	2.59	0.50
1:AA:1063:G:H1	1:AA:1075:C:N4	2.09	0.50
1:AA:1657:C:H2'	1:AA:1658:C:C6	2.47	0.50
1:AA:1680:U:O2	1:AA:1763:G:H3'	2.11	0.50
1:AA:2543:G:H1'	1:AA:2766:G:H5'	1.93	0.50
1:AA:2751:G:O2'	1:AA:2752:C:O5'	2.29	0.50
3:AD:35:LYS:CE	3:AD:104:TYR:HB2	2.41	0.50
11:AO:31:ALA:O	11:AO:32:THR:HG22	2.11	0.50
12:AP:26:TYR:C	12:AP:26:TYR:HD2	2.20	0.50
27:A5:16:ARG:HG3	27:A5:17:ASP:N	2.26	0.50
31:BA:10:A:H2'	31:BA:11:G:H8	1.76	0.50
31:BA:134:A:H61	46:BS:25:ARG:NH1	2.09	0.50
31:BA:171:A:H2'	31:BA:172:A:C8	2.47	0.50
31:BA:266:G:H4'	31:BA:267:C:O5'	2.12	0.50
31:BA:428:G:O4'	31:BA:430:A:C8	2.65	0.50
31:BA:489:C:H2'	31:BA:490:G:C8	2.47	0.50
31:BA:1178:G:O2'	31:BA:1179:A:P	2.69	0.50
35:BH:41:VAL:HG13	35:BH:112:LEU:O	2.12	0.50
49:BV:40:ILE:HD11	49:BV:62:ILE:HG23	1.94	0.50
52:BB:66:G:H2'	52:BB:67:A:H5'	1.92	0.50
52:BD:30:A:N6	52:BD:42:U:H3	2.09	0.50
1:CA:94:G:O2'	24:CW:48:HIS:HB3	2.12	0.50
1:CA:190:U:OP1	56:CA:3481:OHX:N4	2.44	0.50
1:CA:1271:C:C4'	17:C2:85:LYS:HD3	2.42	0.50
1:CA:2153:U:O2'	1:CA:2157:A:C8	2.63	0.50
6:CG:50:ALA:HA	6:CG:53:LEU:HD22	1.92	0.50
7:CH:26:VAL:CG1	7:CH:33:LEU:HB2	2.42	0.50
7:CH:92:ILE:HD12	7:CH:92:ILE:N	2.27	0.50
7:CH:105:LEU:H	7:CH:105:LEU:HD23	1.77	0.50
8:CK:104:GLN:HG2	8:CK:105:HIS:CD2	2.44	0.50
10:CN:24:VAL:HG23	10:CN:33:ALA:HB2	1.92	0.50
11:CO:50:ARG:O	11:CO:51:PHE:O	2.30	0.50
13:C0:28:LEU:HD12	13:C0:48:VAL:HG21	1.92	0.50
20:CU:19:LYS:HD2	20:CU:67:LEU:HD11	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CU:76:CYS:CB	20:CU:77:PRO:HD2	2.42	0.50
31:DA:260:G:O6	56:DA:1767:OHX:N3	2.45	0.50
31:DA:618:C:H5'	31:DA:619:U:H5"	1.93	0.50
31:DA:781:A:H5'	31:DA:782:A:OP2	2.11	0.50
31:DA:799:G:O6	31:DA:800:G:C2	2.65	0.50
31:DA:1139:G:N2	31:DA:1143:G:H1	2.09	0.50
31:DA:1289:A:H5"	51:DX:10:ARG:NH2	2.26	0.50
32:DE:5:ILE:O	32:DE:6:THR:C	2.55	0.50
32:DE:68:ILE:O	32:DE:90:MET:HB2	2.12	0.50
33:DF:18:TRP:HE1	44:DQ:55:GLY:N	2.10	0.50
33:DF:23:TYR:CD2	33:DF:24:ALA:N	2.79	0.50
33:DF:70:VAL:HG12	33:DF:72:LYS:N	2.26	0.50
45:DR:53:HIS:O	45:DR:56:LEU:HB3	2.11	0.50
52:DD:27:A:H2'	52:DD:28:G:H8	1.77	0.50
1:AA:18:C:H2'	1:AA:19:C:C6	2.47	0.50
1:AA:200:U:OP1	56:AA:3461:OHX:N2	2.45	0.50
1:AA:2098:U:H3	1:AA:2191:G:H1	1.60	0.50
1:AA:2208:U:H4'	3:AD:151:LYS:HG2	1.92	0.50
1:AA:2307:G:H1'	1:AA:2308:G:N2	2.26	0.50
1:AA:2439:A:H4'	1:AA:2440:C:O5'	2.12	0.50
1:AA:2836:U:H2'	1:AA:2837:G:C8	2.47	0.50
4:AE:27:LEU:O	4:AE:27:LEU:HD23	2.12	0.50
4:AE:29:GLY:H	4:AE:51:PHE:HE2	1.60	0.50
21:AV:130:PRO:HA	21:AV:133:ILE:HD11	1.94	0.50
25:AX:43:ILE:O	25:AX:47:VAL:HG23	2.12	0.50
26:A4:43:TYR:HD1	26:A4:44:THR:N	2.10	0.50
31:BA:60:A:N6	31:BA:110:C:N3	2.60	0.50
31:BA:695:A:H2'	31:BA:696:A:C8	2.46	0.50
31:BA:892:A:H2'	31:BA:893:C:C6	2.46	0.50
31:BA:968:A:H4'	31:BA:969:A:OP2	2.11	0.50
31:BA:1034:G:C2	31:BA:1035:A:N6	2.79	0.50
31:BA:1101:A:H4'	31:BA:1102:A:O5'	2.11	0.50
32:BE:187:LEU:HD23	32:BE:201:ILE:HG22	1.93	0.50
34:BG:153:ARG:HH22	34:BG:180:GLY:C	2.16	0.50
37:BJ:22:LEU:HG	37:BJ:97:GLN:HE22	1.77	0.50
37:BJ:155:ARG:HD3	37:BJ:155:ARG:O	2.12	0.50
41:BN:110:ASP:HB2	48:BU:88:LYS:HD2	1.94	0.50
50:BW:89:ARG:HH21	50:BW:104:LEU:HD11	1.76	0.50
52:BB:42:U:O2	52:BB:42:U:H2'	2.12	0.50
1:CA:1209:G:O3'	17:C2:24:LYS:NZ	2.45	0.50
1:CA:1528:G:N2	1:CA:1561:U:C2	2.79	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1903:C:O2'	1:CA:1904:C:H5'	2.11	0.50
1:CA:2344:G:H4'	22:C3:43:THR:H	1.75	0.50
1:CA:2800:U:H4'	4:CE:64:LYS:CA	2.42	0.50
1:CA:2857:G:H2'	1:CA:2858:U:C6	2.47	0.50
7:CH:153:LYS:N	7:CH:154:PRO:HD3	2.26	0.50
8:CK:7:GLU:HG3	8:CK:8:PRO:HD2	1.93	0.50
16:C1:26:GLY:O	16:C1:30:LYS:HG2	2.12	0.50
20:CU:76:CYS:O	20:CU:78:ALA:N	2.44	0.50
21:CV:28:MET:HE1	21:CV:67:LEU:CD1	2.42	0.50
21:CV:158:PRO:HB2	21:CV:159:PRO:CD	2.38	0.50
25:CX:59:VAL:HG12	25:CX:60:GLU:N	2.15	0.50
26:C4:40:HIS:N	26:C4:41:PRO:HD3	2.27	0.50
31:DA:485:G:O2'	31:DA:486:U:O5'	2.29	0.50
31:DA:677:U:OP1	56:DA:1808:OHX:N3	2.45	0.50
31:DA:858:G:O6	31:DA:869:G:H3'	2.12	0.50
31:DA:914:A:C2'	31:DA:915:A:H5'	2.41	0.50
31:DA:1097:C:H2'	31:DA:1097:C:O2	2.12	0.50
31:DA:1305:G:O2'	31:DA:1306:A:P	2.70	0.50
32:DE:74:LYS:NZ	32:DE:205:ASP:O	2.44	0.50
32:DE:112:VAL:HG22	32:DE:149:LEU:HD13	1.94	0.50
34:DG:161:ASN:O	34:DG:165:MET:HB2	2.11	0.50
39:DL:70:LYS:O	39:DL:74:ILE:HG13	2.11	0.50
39:DL:79:LEU:HD13	39:DL:79:LEU:O	2.11	0.50
53:DC:19:G:H4'	53:DC:20:G:OP1	2.12	0.50
52:DD:30:A:N6	52:DD:42:U:H3	2.10	0.50
1:AA:21:A:O2'	1:AA:22:C:H5'	2.12	0.50
1:AA:46:C:OP2	1:AA:215:G:H2'	2.11	0.50
1:AA:207:A:H2'	1:AA:208:C:O4'	2.11	0.50
1:AA:1055:G:C2	1:AA:1104:C:N3	2.80	0.50
1:AA:1728:G:H5'	1:AA:1729:A:OP2	2.12	0.50
1:AA:1786:A:H2	1:AA:2606:C:H1'	1.77	0.50
1:AA:1803:A:HO2'	3:AD:259:THR:HG21	1.75	0.50
1:AA:2124:G:N2	1:AA:2174:C:N3	2.50	0.50
1:AA:2600:A:H2'	1:AA:2601:C:C6	2.47	0.50
2:AB:45:A:H2'	2:AB:45:A:N3	2.26	0.50
6:AG:83:ARG:HB2	6:AG:86:MET:HE3	1.93	0.50
16:A1:79:PHE:HD2	16:A1:79:PHE:O	1.95	0.50
17:A2:48:GLY:O	17:A2:49:THR:O	2.30	0.50
31:BA:174:C:H2'	31:BA:175:C:H6	1.77	0.50
31:BA:776:G:O6	56:BA:1797:OHX:N6	2.45	0.50
31:BA:789:U:C6	31:BA:791:G:H5"	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:789:U:O2	31:BA:789:U:O5'	2.30	0.50
31:BA:936:C:H2'	31:BA:937:A:O4'	2.11	0.50
31:BA:1084:G:C5	31:BA:1085:U:C4	3.00	0.50
31:BA:1286:A:C8	31:BA:1287:A:H4'	2.47	0.50
31:BA:1378:C:O2	31:BA:1378:C:H2'	2.11	0.50
32:BE:100:GLY:O	32:BE:101:MET:C	2.54	0.50
34:BG:11:LEU:O	34:BG:13:ARG:N	2.45	0.50
36:BI:36:ARG:HH21	36:BI:38:GLU:HG2	1.76	0.50
40:BM:39:PRO:HB3	40:BM:70:ARG:NH1	2.26	0.50
1:CA:659:A:H2'	1:CA:660:C:H5'	1.94	0.50
1:CA:717:G:O2'	1:CA:718:A:O5'	2.28	0.50
1:CA:859:U:OP2	11:CO:21:ARG:O	2.30	0.50
1:CA:875:U:O2	1:CA:2259:G:H4'	2.12	0.50
1:CA:1005:A:C6	1:CA:1006:A:C2	3.00	0.50
1:CA:1017:C:H2'	1:CA:1018:G:O4'	2.12	0.50
1:CA:1172:G:C6	1:CA:1173:A:N6	2.80	0.50
1:CA:1365:C:H3'	1:CA:1366:G:H5"	1.93	0.50
1:CA:1791:A:H4'	1:CA:2729:C:O4'	2.12	0.50
1:CA:2353:G:O2'	1:CA:2354:G:H5'	2.12	0.50
5:CF:80:ALA:O	5:CF:82:ILE:N	2.45	0.50
11:CO:112:LEU:HD13	11:CO:127:ALA:CB	2.42	0.50
12:CP:12:GLN:NE2	12:CP:73:PRO:HD2	2.21	0.50
14:CQ:66:ALA:HA	14:CQ:69:VAL:HG12	1.92	0.50
14:CQ:109:GLY:C	14:CQ:110:LEU:HD13	2.36	0.50
15:CR:92:GLY:HA2	15:CR:116:ALA:HA	1.93	0.50
17:C2:31:ALA:O	17:C2:61:VAL:HG23	2.12	0.50
20:CU:43:ASN:HB3	20:CU:64:GLU:HA	1.92	0.50
22:C3:55:ARG:HG2	22:C3:55:ARG:O	2.12	0.50
31:DA:382:A:C6	31:DA:383:A:C6	3.00	0.50
31:DA:984:C:H2'	31:DA:985:C:C6	2.47	0.50
31:DA:1055:A:C8	31:DA:1206:G:C2	3.00	0.50
31:DA:1268:A:O2'	51:DX:19:GLY:HA2	2.12	0.50
32:DE:42:ILE:HD13	32:DE:43:ASP:N	2.27	0.50
32:DE:224:GLN:HA	32:DE:229:VAL:HG22	1.94	0.50
33:DF:63:ASN:O	33:DF:64:VAL:HG23	2.11	0.50
37:DJ:76:ARG:O	37:DJ:87:VAL:HG12	2.10	0.50
47:DT:22:LEU:HD11	47:DT:39:SER:HB2	1.94	0.50
47:DT:86:GLU:O	47:DT:90:ILE:HG12	2.11	0.50
49:DV:51:VAL:HG12	49:DV:52:TYR:H	1.76	0.50
50:DW:100:ILE:CG2	50:DW:101:GLY:N	2.74	0.50
53:DC:14:A:H2'	53:DC:15:G:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DD:61:G:N2	52:DD:71:C:N3	2.47	0.50
1:AA:881:G:N7	1:AA:882:G:C4	2.80	0.49
1:AA:1081:U:C2'	1:AA:1082:U:OP1	2.59	0.49
1:AA:2431:U:O2	1:AA:2433:A:C8	2.64	0.49
1:AA:2881:C:H42	1:AA:2882:A:N6	2.10	0.49
2:AB:116:G:H5"	14:AQ:55:ALA:HB2	1.93	0.49
3:AD:239:ARG:O	3:AD:240:ALA:HB2	2.11	0.49
4:AE:81:ILE:HG22	4:AE:81:ILE:O	2.12	0.49
8:AK:102:SER:HA	8:AK:107:VAL:O	2.12	0.49
10:AN:93:PRO:HG3	10:AN:114:ILE:HG12	1.94	0.49
14:AQ:30:ARG:HG3	14:AQ:30:ARG:O	2.12	0.49
16:A1:76:TYR:CZ	16:A1:80:ILE:HG13	2.47	0.49
19:AT:5:TYR:CE2	24:AW:30:ARG:HG3	2.47	0.49
21:AV:8:TYR:HB2	21:AV:38:TYR:CE2	2.47	0.49
31:BA:32:A:H2'	31:BA:33:A:C8	2.47	0.49
31:BA:439:A:OP2	31:BA:493:G:N1	2.42	0.49
31:BA:1061:G:H1'	40:BM:56:HIS:CE1	2.46	0.49
31:BA:1125:U:P	31:BA:1145:C:N4	2.84	0.49
31:BA:1336:C:O2'	31:BA:1337:G:C4	2.61	0.49
34:BG:114:ARG:CG	34:BG:114:ARG:NH1	2.59	0.49
36:BI:39:LYS:HB2	36:BI:64:GLN:HB2	1.93	0.49
53:BC:2:G:C6	53:BC:3:C:C4	3.00	0.49
1:CA:136:G:H2'	1:CA:138:G:N7	2.28	0.49
1:CA:176:G:H2'	1:CA:177:G:H8	1.76	0.49
1:CA:925:U:O4	1:CA:946:A:N6	2.45	0.49
1:CA:1066:U:O2'	1:CA:1068:A:C2	2.58	0.49
1:CA:1118:G:P	1:CA:1144:U:H5'	2.52	0.49
1:CA:1142:A:H2'	1:CA:1142:A:N3	2.27	0.49
1:CA:1220:A:C6	1:CA:1221:U:O2'	2.65	0.49
1:CA:1590:A:OP1	1:CA:1590:A:H4'	2.12	0.49
1:CA:2214:G:H2'	1:CA:2215:G:H8	1.75	0.49
1:CA:2769:C:O2'	1:CA:2770:U:H6	1.95	0.49
2:CB:7:C:O2'	2:CB:29:C:O2	2.29	0.49
3:CD:102:LYS:O	3:CD:103:ARG:HG2	2.11	0.49
4:CE:111:ARG:HG2	13:C0:2:ARG:NH2	2.27	0.49
5:CF:59:TYR:HD1	5:CF:78:ILE:HG13	1.76	0.49
6:CG:114:ILE:HD13	6:CG:140:ILE:HG21	1.93	0.49
10:CN:68:GLU:HB3	10:CN:78:ARG:NH1	2.27	0.49
11:CO:37:GLY:O	11:CO:39:LYS:N	2.44	0.49
11:CO:39:LYS:HA	11:CO:45:LEU:HD13	1.94	0.49
14:CQ:88:ASP:OD2	14:CQ:90:GLY:N	2.33	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CQ:109:GLY:C	14:CQ:111:GLU:N	2.69	0.49
21:CV:62:PRO:C	21:CV:64:GLY:H	2.20	0.49
21:CV:161:VAL:HG23	21:CV:162:GLU:N	2.27	0.49
27:C5:4:HIS:O	27:C5:6:VAL:HG23	2.12	0.49
31:DA:243:A:H4'	31:DA:244:U:O5'	2.11	0.49
31:DA:963:G:N2	40:DM:55:LYS:HE2	2.27	0.49
31:DA:1256:A:N6	31:DA:1277:C:H3'	2.27	0.49
31:DA:1331:G:OP1	31:DA:1331:G:C4'	2.59	0.49
32:DE:6:THR:OG1	32:DE:7:VAL:N	2.42	0.49
34:DG:63:LYS:HD2	34:DG:198:VAL:HG12	1.93	0.49
42:DO:52:VAL:HG22	42:DO:53:ALA:N	2.26	0.49
43:DP:116:THR:O	43:DP:117:VAL:C	2.53	0.49
44:DQ:15:LYS:HG3	44:DQ:16:PHE:CD2	2.46	0.49
53:DC:19:G:C4'	53:DC:20:G:OP1	2.59	0.49
1:AA:198:C:H4'	1:AA:2243:U:O2'	2.12	0.49
1:AA:270(M):U:O2'	1:AA:270(N):G:P	2.69	0.49
1:AA:270(Z):U:O3'	1:AA:271(A):C:H6	1.95	0.49
1:AA:529:A:C8	1:AA:530:G:C6	2.99	0.49
1:AA:785:G:C5	1:AA:786:C:C5	3.00	0.49
1:AA:857:C:H1'	22:A3:26:TYR:CE2	2.47	0.49
1:AA:1771:C:H1'	1:AA:1786:A:C8	2.47	0.49
1:AA:2050:C:H1'	4:AE:156:MET:HE2	1.94	0.49
1:AA:2428:G:H21	11:AO:60:MET:HE2	1.76	0.49
1:AA:2475:C:O2	1:AA:2475:C:C2'	2.59	0.49
2:AB:116:G:C5'	14:AQ:55:ALA:HB2	2.41	0.49
3:AD:17:THR:HG21	3:AD:204:ILE:HA	1.94	0.49
3:AD:147:LEU:HD13	3:AD:155:LEU:HD21	1.95	0.49
6:AG:11:TYR:HA	6:AG:15:VAL:HB	1.94	0.49
6:AG:66:GLN:OE1	6:AG:98:ARG:NH1	2.45	0.49
8:AK:74:ASN:N	8:AK:74:ASN:HD22	2.08	0.49
10:AN:90:GLN:O	10:AN:91:LEU:HB2	2.10	0.49
19:AT:57:LEU:HD11	19:AT:78:LYS:HZ1	1.75	0.49
21:AV:28:MET:O	21:AV:34:ASN:HA	2.13	0.49
29:A7:43:THR:HG22	29:A7:44:PRO:O	2.12	0.49
31:BA:81:G:N2	31:BA:88:C:C4	2.77	0.49
31:BA:142:G:H1	31:BA:221:C:N4	2.06	0.49
31:BA:533:A:C2	31:BA:536:C:C5	3.00	0.49
34:BG:146:ILE:H	34:BG:146:ILE:HD12	1.77	0.49
39:BL:7:THR:O	39:BL:83:ARG:HD3	2.12	0.49
41:BN:83:ILE:HG12	41:BN:109:VAL:CG2	2.43	0.49
43:BP:57:ARG:O	43:BP:61:GLU:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BT:60:ILE:HG21	47:BT:74:LEU:HD23	1.93	0.49
49:BV:51:VAL:O	49:BV:57:HIS:HA	2.12	0.49
52:BB:19:C:H3'	52:BB:19:C:OP2	2.12	0.49
52:BB:68:A:H3'	52:BB:69:U:C6	2.47	0.49
53:BC:1:C:H2'	53:BC:2:G:H5'	1.94	0.49
1:CA:71:U:H3	24:CW:62:THR:HG22	1.77	0.49
1:CA:77:A:H2'	1:CA:78:G:H8	1.77	0.49
1:CA:790:G:H2'	1:CA:791:G:C8	2.47	0.49
1:CA:1059:U:H5	9:CM:28:THR:HG21	1.77	0.49
1:CA:1410:C:H2'	1:CA:1411:G:C8	2.47	0.49
1:CA:1496:G:H1'	1:CA:1575:A:H62	1.77	0.49
1:CA:1605:C:H5"	1:CA:1606:A:OP2	2.12	0.49
1:CA:1879:A:C3'	1:CA:1880:A:H5'	2.41	0.49
1:CA:2135:G:O2'	1:CA:2136:U:H5"	2.12	0.49
1:CA:2185:G:O2'	1:CA:2196:A:OP2	2.24	0.49
1:CA:2348:A:HO2'	1:CA:2349:A:P	2.32	0.49
1:CA:2725:U:O2'	1:CA:2726:A:OP2	2.25	0.49
1:CA:2819:U:H5'	1:CA:2901:G:O6	2.12	0.49
2:CB:90:C:H4'	2:CB:91:G:OP1	2.12	0.49
4:CE:23:VAL:HG23	4:CE:24:THR:H	1.77	0.49
5:CF:153:SER:HB2	5:CF:190:GLU:N	2.27	0.49
6:CG:23:PHE:HB2	6:CG:25:TYR:CE2	2.46	0.49
7:CH:152:ARG:C	7:CH:154:PRO:HD3	2.37	0.49
8:CK:77:LEU:CG	8:CK:78:THR:N	2.75	0.49
10:CN:25:LEU:O	10:CN:26:LYS:HG3	2.12	0.49
12:CP:11:LYS:HD3	12:CP:87:LYS:CG	2.35	0.49
18:CS:110:LYS:HG3	18:CS:111:HIS:CD2	2.47	0.49
21:CV:145:GLU:HA	21:CV:174:VAL:CG1	2.42	0.49
26:C4:21:VAL:HG22	26:C4:22:ILE:N	2.24	0.49
31:DA:200:G:OP1	56:DA:1770:OHX:N4	2.45	0.49
31:DA:495:A:H4'	31:DA:496:A:OP1	2.10	0.49
31:DA:625:G:H2'	31:DA:626:U:H6	1.76	0.49
31:DA:892:A:H2'	31:DA:893:C:C6	2.46	0.49
31:DA:1255:G:H2'	31:DA:1258:G:H21	1.76	0.49
31:DA:1302:U:C5	43:DP:17:VAL:HG21	2.47	0.49
32:DE:147:LYS:HB2	32:DE:147:LYS:NZ	2.27	0.49
41:DN:30:VAL:HG21	41:DN:65:ALA:HA	1.93	0.49
49:DV:60:VAL:HG21	49:DV:74:PHE:HB3	1.92	0.49
1:AA:81:G:HO2'	1:AA:295:G:HO2'	1.59	0.49
1:AA:405:U:O2	1:AA:405:U:H2'	2.10	0.49
1:AA:1212:G:O2'	1:AA:1213:A:OP2	2.29	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1991:U:C2'	1:AA:1992:G:H5"	2.43	0.49
1:AA:2086:U:H2'	1:AA:2087:G:H8	1.78	0.49
1:AA:2119:A:N6	1:AA:2168:G:N2	2.60	0.49
1:AA:2212:A:O2'	1:AA:2215:G:C8	2.58	0.49
1:AA:2250:G:C2	12:AP:83:MET:HB2	2.48	0.49
1:AA:2287:A:N1	1:AA:2346:A:C2	2.80	0.49
1:AA:2688:U:H1'	1:AA:2721:A:H61	1.76	0.49
3:AD:270:ILE:C	3:AD:271:ILE:HG12	2.37	0.49
5:AF:6:VAL:HG21	5:AF:119:ARG:HB2	1.94	0.49
5:AF:114:VAL:HG21	5:AF:202:PHE:CE1	2.47	0.49
6:AG:94:LEU:N	6:AG:94:LEU:HD23	2.27	0.49
7:AH:98:LEU:HD13	7:AH:125:VAL:CG2	2.43	0.49
10:AN:105:GLU:O	10:AN:109:LYS:HG2	2.12	0.49
11:AO:94:GLU:O	11:AO:95:VAL:HB	2.12	0.49
12:AP:137:TYR:HE1	21:AV:49:ARG:HE	1.59	0.49
17:A2:49:THR:HB	17:A2:50:PRO:HD2	1.95	0.49
20:AU:42:VAL:O	20:AU:42:VAL:HG12	2.12	0.49
21:AV:107:THR:HB	21:AV:108:PRO:CD	2.42	0.49
23:AZ:83:GLU:C	23:AZ:85:LEU:H	2.20	0.49
31:BA:547:A:OP1	34:BG:73:ARG:NH2	2.42	0.49
31:BA:690:G:N2	41:BN:55:LYS:HE2	2.26	0.49
31:BA:1128:C:N3	31:BA:1144:G:N2	2.61	0.49
31:BA:1503:A:H61	54:B1:12:A:C2'	2.25	0.49
34:BG:96:LEU:HD12	34:BG:139:ARG:CZ	2.43	0.49
35:BH:20:GLN:C	35:BH:22:GLY:H	2.20	0.49
36:BI:72:VAL:CG2	36:BI:90:VAL:HG11	2.42	0.49
37:BJ:44:TYR:O	37:BJ:48:LYS:N	2.44	0.49
51:BX:2:GLY:C	51:BX:4:GLY:H	2.20	0.49
53:BC:26:C:H2'	53:BC:27:G:O4'	2.11	0.49
52:BD:19:C:H3'	52:BD:19:C:C6	2.46	0.49
52:BD:49:A:C2'	52:BD:50:U:O5'	2.58	0.49
1:CA:185:A:H61	1:CA:188:C:H3'	1.78	0.49
1:CA:210:G:H2'	1:CA:455:U:O4	2.12	0.49
1:CA:333:G:C8	1:CA:527:A:H1'	2.48	0.49
1:CA:611:C:C2	11:CO:33:ARG:NH1	2.81	0.49
1:CA:875:U:H2'	1:CA:2443:A:C2	2.48	0.49
1:CA:980:G:H2'	1:CA:981:C:C6	2.47	0.49
1:CA:1097:A:H2'	1:CA:1098:G:O4'	2.12	0.49
1:CA:1098:G:N3	1:CA:1098:G:H2'	2.26	0.49
1:CA:1826:U:H2'	1:CA:1827:C:C6	2.47	0.49
1:CA:2178:G:C5	1:CA:2179:G:C5	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:31:A:H2'	2:CB:32:C:O4'	2.12	0.49
3:CD:35:LYS:HG2	3:CD:64:ILE:CA	2.41	0.49
3:CD:35:LYS:HE2	3:CD:104:TYR:CD1	2.45	0.49
3:CD:236:GLY:O	3:CD:237:GLU:O	2.30	0.49
5:CF:39:TRP:HD1	5:CF:99:TYR:CE2	2.29	0.49
6:CG:61:ALA:HB2	6:CG:68:PRO:HD3	1.94	0.49
7:CH:20:ALA:O	7:CH:22:GLY:N	2.41	0.49
8:CK:66:GLU:HA	8:CK:69:LYS:HB2	1.94	0.49
11:CO:52:GLU:CG	11:CO:57:THR:HG22	2.42	0.49
12:CP:26:TYR:HE2	12:CP:28:ALA:HB2	1.77	0.49
19:CT:32:PRO:HA	19:CT:77:LYS:HB2	1.94	0.49
21:CV:10:ARG:HH21	21:CV:26:GLY:H	1.60	0.49
22:C3:50:ASN:C	22:C3:62:LEU:HD12	2.37	0.49
26:C4:49:PHE:CE2	43:DP:62:ASN:O	2.64	0.49
31:DA:175:C:H4'	50:DW:25:ARG:NH1	2.27	0.49
31:DA:436:C:H2'	31:DA:437:U:H6	1.76	0.49
31:DA:691:G:O6	41:DN:52:GLY:HA2	2.12	0.49
31:DA:974:A:OP2	44:DQ:41:ARG:NH1	2.46	0.49
31:DA:993:G:C2'	31:DA:995:C:H41	2.15	0.49
31:DA:1227:A:O3'	43:DP:115:LYS:HE2	2.12	0.49
32:DE:137:ARG:HD3	32:DE:137:ARG:C	2.37	0.49
35:DH:101:ILE:H	35:DH:101:ILE:CD1	2.24	0.49
48:DU:73:ALA:HB1	48:DU:79:LEU:HG	1.94	0.49
53:DC:16:C:N4	56:DC:107:OHX:N5	2.56	0.49
1:AA:270(O):U:O2	1:AA:270(O):U:C2'	2.60	0.49
1:AA:531:C:H4'	1:AA:532:A:H5"	1.95	0.49
1:AA:835:A:OP2	56:AA:3320:OHX:N6	2.45	0.49
1:AA:1026:U:C1'	1:AA:1027:A:O5'	2.55	0.49
1:AA:1292:U:H2'	1:AA:1293:C:H6	1.75	0.49
1:AA:1442:G:C2	1:AA:1550:C:O2	2.65	0.49
1:AA:1710:C:H42	1:AA:1748:G:H1	1.58	0.49
1:AA:2065:C:H2'	1:AA:2066:C:C6	2.47	0.49
1:AA:2468:G:H8	1:AA:2469:A:C2	2.28	0.49
1:AA:2712:U:O2'	1:AA:2713:A:H5'	2.12	0.49
6:AG:16:ARG:HG3	6:AG:16:ARG:HH11	1.76	0.49
11:AO:24:GLY:O	11:AO:25:SER:CB	2.59	0.49
13:A0:118:GLU:OE1	13:A0:118:GLU:HA	2.12	0.49
20:AU:75:ILE:HG22	20:AU:80:GLY:HA2	1.94	0.49
20:AU:76:CYS:CB	20:AU:96:ILE:HD13	2.41	0.49
31:BA:79:G:N1	31:BA:90:C:N4	2.51	0.49
31:BA:453:A:C6	31:BA:454:C:C4	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:533:A:C2	31:BA:536:C:C6	3.01	0.49
31:BA:924:C:O2'	31:BA:1502:A:N6	2.45	0.49
31:BA:1054:C:H42	52:BB:35:G:H1'	1.77	0.49
32:BE:44:LEU:O	32:BE:47:THR:HB	2.13	0.49
36:BI:16:GLN:CD	36:BI:16:GLN:H	2.20	0.49
38:BK:116:LYS:CG	38:BK:129:VAL:HG11	2.41	0.49
48:BU:74:ARG:HA	48:BU:79:LEU:O	2.12	0.49
1:CA:7:G:H1	1:CA:2906:C:N4	2.08	0.49
1:CA:674:G:C2'	1:CA:675:G:H5'	2.42	0.49
1:CA:912:G:C6	1:CA:913:C:N4	2.80	0.49
1:CA:931:G:H2'	1:CA:932:C:C5	2.47	0.49
1:CA:2356:C:HO2'	1:CA:2386:G:HO2'	1.54	0.49
1:CA:2628:U:C2	27:C5:7:PRO:HA	2.47	0.49
4:CE:197:ILE:HD11	4:CE:199:ARG:CZ	2.41	0.49
7:CH:54:ARG:HB2	7:CH:55:PRO:HD2	1.94	0.49
9:CM:98:VAL:HG23	9:CM:99:LEU:N	2.26	0.49
15:CR:131:ALA:O	15:CR:133:GLU:N	2.45	0.49
16:C1:94:ASN:C	16:C1:96:ALA:N	2.70	0.49
16:C1:105:VAL:HG23	16:C1:106:PHE:H	1.76	0.49
17:C2:39:LEU:O	17:C2:40:LEU:HD12	2.12	0.49
21:CV:29:TYR:CB	21:CV:34:ASN:HD22	2.25	0.49
25:CX:12:PRO:O	25:CX:15:TYR:HB2	2.12	0.49
25:CX:35:ARG:HB3	25:CX:37:LEU:HD21	1.95	0.49
31:DA:31:G:C1'	31:DA:32:A:OP1	2.60	0.49
31:DA:115:G:C2	31:DA:289:G:N7	2.80	0.49
31:DA:620:C:H2'	31:DA:621:A:O4'	2.13	0.49
31:DA:659:U:C2'	31:DA:660:G:H5'	2.42	0.49
31:DA:819:A:H4'	31:DA:820:U:OP2	2.11	0.49
31:DA:984:C:H2'	31:DA:985:C:H6	1.77	0.49
31:DA:1009:G:C2	31:DA:1010:G:C8	3.00	0.49
31:DA:1055:A:C6	31:DA:1056:U:C6	3.01	0.49
31:DA:1218:C:H2'	31:DA:1219:U:C6	2.47	0.49
31:DA:1278:U:O2	31:DA:1278:U:H2'	2.11	0.49
31:DA:1347:G:H8	39:DL:107:ARG:HB3	1.76	0.49
33:DF:87:LEU:O	33:DF:91:LEU:HG	2.13	0.49
39:DL:92:TYR:CA	39:DL:95:LYS:HD2	2.42	0.49
41:DN:54:ARG:CG	41:DN:54:ARG:NH1	2.62	0.49
49:DV:66:MET:H	49:DV:67:VAL:HB	1.78	0.49
50:DW:32:ALA:O	50:DW:36:LEU:HD23	2.12	0.49
50:DW:97:ALA:O	50:DW:99:LEU:HD12	2.13	0.49
52:DB:10:C:H2'	52:DB:11:C:C6	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:D1:20:G:C5	54:D1:21:C:C5	3.01	0.49
1:AA:184:C:H2'	1:AA:185:U:C6	2.47	0.49
1:AA:764:A:N3	3:AD:213:ARG:HD2	2.28	0.49
1:AA:839:U:H1'	1:AA:1191:G:H1'	1.93	0.49
1:AA:1130:U:O2'	1:AA:1131:G:P	2.69	0.49
1:AA:1257:C:H4'	5:AF:83:PHE:CE2	2.47	0.49
1:AA:1326:U:O4	1:AA:1647:G:H1'	2.12	0.49
1:AA:1536:A:C2'	1:AA:1537:C:OP1	2.61	0.49
1:AA:1582:C:O2'	1:AA:1586:A:H8	1.95	0.49
1:AA:1678:G:H21	1:AA:1989:G:H22	1.55	0.49
1:AA:2114:A:N1	1:AA:2168:G:N2	2.60	0.49
3:AD:35:LYS:HG2	3:AD:64:ILE:HG23	1.95	0.49
8:AK:76:THR:OG1	8:AK:139:GLN:NE2	2.45	0.49
11:AO:6:LEU:O	11:AO:7:ARG:HG2	2.12	0.49
11:AO:114:ILE:HD12	11:AO:114:ILE:O	2.11	0.49
11:AO:126:VAL:HG12	11:AO:147:LEU:HD21	1.94	0.49
14:AQ:34:HIS:CE1	14:AQ:54:LEU:HD23	2.47	0.49
15:AR:113:LYS:O	15:AR:114:LEU:HD23	2.12	0.49
18:AS:64:MET:O	18:AS:65:LEU:HB2	2.11	0.49
23:AZ:58:ILE:HD12	23:AZ:58:ILE:N	2.28	0.49
29:A7:8:ASN:HD22	29:A7:11:LYS:N	2.03	0.49
31:BA:253:U:H2'	31:BA:254:G:H8	1.77	0.49
31:BA:331:G:OP1	31:BA:332:G:H8	1.96	0.49
31:BA:380:G:N1	31:BA:384:G:C6	2.81	0.49
31:BA:464:G:O6	31:BA:466:C:H5'	2.12	0.49
31:BA:963:G:H21	40:BM:55:LYS:HZ1	1.60	0.49
31:BA:1234:C:O2'	31:BA:1235:U:H5'	2.12	0.49
35:BH:32:VAL:O	35:BH:43:LEU:HD12	2.13	0.49
41:BN:99:GLN:HA	41:BN:105:VAL:HG11	1.94	0.49
1:CA:26:G:C6	1:CA:27:G:C6	2.99	0.49
1:CA:729:G:N7	56:CA:3300:OHX:N3	2.60	0.49
1:CA:899:U:O2	1:CA:974:G:N2	2.45	0.49
1:CA:946:A:H5'	1:CA:947:A:OP2	2.12	0.49
1:CA:1137:U:C5	1:CA:1138:G:C5	3.01	0.49
1:CA:1351:C:O2	1:CA:1351:C:H2'	2.12	0.49
1:CA:1793:C:H5"	1:CA:1794:A:OP2	2.12	0.49
1:CA:2321:G:O2'	1:CA:2322:A:OP1	2.30	0.49
1:CA:2405:A:C8	11:CO:60:MET:CB	2.71	0.49
7:CH:4:ILE:HB	7:CH:6:ARG:CD	2.42	0.49
8:CK:129:THR:HA	8:CK:137:PRO:HA	1.93	0.49
12:CP:66:ILE:HG13	12:CP:67:ARG:N	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:CW:32:LEU:HA	24:CW:53:LEU:HD13	1.94	0.49
31:DA:65:U:OP2	56:DA:1770:OHX:N2	2.46	0.49
31:DA:973:G:C1'	40:DM:55:LYS:HE3	2.41	0.49
31:DA:1301:U:O4	31:DA:1303:C:H1'	2.13	0.49
31:DA:1442:G:O2'	31:DA:1443:G:P	2.69	0.49
32:DE:144:ARG:HG3	32:DE:145:LEU:N	2.26	0.49
39:DL:14:VAL:HB	39:DL:66:ARG:O	2.12	0.49
43:DP:73:GLU:O	43:DP:77:ASN:HB2	2.11	0.49
52:DB:40:U:C4	52:DB:41:C:C4	3.00	0.49
1:AA:654(A):A:H2	1:AA:654(T):A:N1	2.10	0.49
1:AA:1019:U:H3	1:AA:1142(A):A:H62	1.59	0.49
1:AA:1060:U:C4	1:AA:1062:G:H4'	2.48	0.49
1:AA:1063:G:N2	1:AA:1076:C:H1'	2.27	0.49
1:AA:1380:G:N2	1:AA:1570:A:C2	2.81	0.49
1:AA:1429:G:H2'	1:AA:1430:C:C6	2.48	0.49
1:AA:2110:G:O2'	1:AA:2120:G:OP2	2.28	0.49
1:AA:2143:C:H2'	1:AA:2144:U:O4'	2.12	0.49
1:AA:2401:U:O2	1:AA:2402:C:C5	2.66	0.49
1:AA:2533:A:H2'	1:AA:2534:A:O4'	2.13	0.49
1:AA:2563:U:H1'	1:AA:2566:A:N6	2.28	0.49
1:AA:2807:G:H3'	1:AA:2808:U:H5"	1.95	0.49
2:AB:42:C:O2	6:AG:93:THR:N	2.29	0.49
3:AD:77:ALA:O	3:AD:117:VAL:N	2.39	0.49
5:AF:198:ALA:HA	5:AF:201:VAL:HG13	1.95	0.49
7:AH:46:GLU:HB2	7:AH:49:VAL:HG22	1.93	0.49
14:AQ:50:SER:O	14:AQ:76:LYS:HE2	2.13	0.49
18:AS:96:ILE:H	18:AS:96:ILE:HD13	1.76	0.49
25:AX:28:LEU:HA	25:AX:33:GLN:OE1	2.11	0.49
31:BA:262:A:H2'	31:BA:263:A:C8	2.47	0.49
31:BA:310:G:P	46:BS:27:LYS:HZ1	2.36	0.49
31:BA:811:C:C4'	31:BA:900:A:H61	2.26	0.49
31:BA:901:A:C5	31:BA:902:G:H1'	2.48	0.49
31:BA:964:A:N3	31:BA:969:A:O2'	2.42	0.49
31:BA:1005:A:H5"	31:BA:1006:C:C5	2.47	0.49
31:BA:1005:A:C2	31:BA:1006:C:C2	3.00	0.49
32:BE:163:PHE:HD2	32:BE:185:ILE:HG13	1.76	0.49
43:BP:73:GLU:HA	43:BP:76:ALA:HB3	1.94	0.49
51:BX:3:LYS:HB3	51:BX:14:TRP:CD1	2.48	0.49
52:BB:42:U:H3'	52:BB:43:G:H8	1.77	0.49
52:BB:81:C:H6	52:BB:81:C:OP2	1.96	0.49
1:CA:690:A:H3'	1:CA:690:A:N3	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:773:G:C6	1:CA:774:G:N1	2.80	0.49
1:CA:1117:A:H5'	1:CA:1118:G:H5"	1.94	0.49
1:CA:1158:A:H5'	7:CH:3:ARG:HD3	1.94	0.49
1:CA:1360:U:H2'	1:CA:1657:A:N1	2.27	0.49
1:CA:1528:G:C6	1:CA:1529:U:N3	2.80	0.49
1:CA:1738:A:H2'	1:CA:1739:C:O4'	2.13	0.49
1:CA:2174:G:C4	1:CA:2175:G:C8	3.01	0.49
1:CA:2299:A:C8	1:CA:2300:A:C6	3.01	0.49
1:CA:2326:C:H3'	1:CA:2326:C:H6	1.76	0.49
1:CA:2503:G:N2	56:CA:3279:OHX:N1	2.60	0.49
1:CA:2538:G:C2	1:CA:2552:C:C2	3.01	0.49
1:CA:2585:A:N7	4:CE:145:LYS:HB2	2.28	0.49
1:CA:2597:U:H2'	1:CA:2598:U:O2	2.13	0.49
1:CA:2604:C:C2'	1:CA:2605:G:H5'	2.43	0.49
1:CA:2720:G:H2'	1:CA:2721:G:H8	1.78	0.49
2:CB:92:A:C8	2:CB:93:C:H1'	2.48	0.49
4:CE:60:ASN:ND2	4:CE:60:ASN:H	2.09	0.49
11:CO:46:LYS:HB2	11:CO:51:PHE:CE2	2.48	0.49
12:CP:3:MET:O	12:CP:4:PRO:O	2.30	0.49
21:CV:103:ARG:HG3	21:CV:104:PHE:O	2.11	0.49
21:CV:107:THR:N	21:CV:108:PRO:CD	2.76	0.49
30:C8:34:TRP:O	30:C8:35:GLN:O	2.30	0.49
31:DA:167:G:O2'	31:DA:168:G:H5'	2.11	0.49
31:DA:197:A:O2'	31:DA:198:G:OP2	2.25	0.49
31:DA:397:A:H5"	31:DA:397:A:N3	2.27	0.49
31:DA:502:G:H2'	31:DA:503:C:O4'	2.12	0.49
31:DA:623:C:C4	31:DA:624:C:C5	3.00	0.49
31:DA:1251:A:O2'	31:DA:1252:A:H5'	2.12	0.49
31:DA:1348:U:C5	31:DA:1349:A:N7	2.80	0.49
31:DA:1484:C:H2'	31:DA:1485:U:O4'	2.12	0.49
32:DE:236:TYR:CB	32:DE:239:VAL:HB	2.41	0.49
37:DJ:21:VAL:HG23	37:DJ:22:LEU:HD12	1.94	0.49
49:DV:42:PRO:HA	49:DV:45:VAL:HG13	1.93	0.49
1:AA:7:G:H1	1:AA:2896:C:H42	1.61	0.49
1:AA:67:U:C4	1:AA:74:A:C2	3.00	0.49
1:AA:83:G:O6	56:AA:3460:OHX:N5	2.46	0.49
1:AA:250:G:H2'	1:AA:251:A:C8	2.48	0.49
1:AA:1192:G:O2'	1:AA:1193:G:H5'	2.13	0.49
1:AA:1517:G:H4'	1:AA:1556:C:O2'	2.13	0.49
1:AA:1534:G:N2	1:AA:1537:C:N4	2.61	0.49
1:AA:1578:U:C2'	1:AA:1579:A:H5'	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1794:U:H2'	1:AA:1795:C:C6	2.46	0.49
1:AA:2700:C:C2'	1:AA:2701:C:H5'	2.43	0.49
1:AA:2807:G:C3'	1:AA:2808:U:H5"	2.42	0.49
3:AD:33:LEU:CD1	3:AD:34:VAL:H	2.25	0.49
3:AD:62:TYR:CE1	3:AD:64:ILE:HA	2.48	0.49
8:AK:127:VAL:CG1	8:AK:137:PRO:HB2	2.42	0.49
12:AP:1:MET:O	12:AP:2:LEU:HB2	2.11	0.49
14:AQ:11:LYS:HD3	14:AQ:91:PRO:HD3	1.95	0.49
16:A1:28:ARG:HG2	16:A1:38:THR:OG1	2.12	0.49
19:AT:50:LYS:HB3	19:AT:87:GLN:HE22	1.76	0.49
24:AW:10:LEU:O	24:AW:14:ARG:HB2	2.13	0.49
25:AX:5:LYS:HE3	25:AX:34:GLU:CD	2.37	0.49
31:BA:186(C):G:C6	31:BA:191(E):G:N1	2.81	0.49
31:BA:660:G:OP1	45:BR:5:LYS:HD3	2.13	0.49
32:BE:24:TRP:CZ3	32:BE:26:PRO:HA	2.47	0.49
33:BF:6:HIS:CD2	33:BF:7:PRO:HD2	2.48	0.49
34:BG:62:GLN:O	34:BG:66:ARG:HD3	2.11	0.49
38:BK:84:ARG:O	38:BK:135:CYS:HB2	2.12	0.49
1:CA:9:U:C4	1:CA:2642:A:N6	2.80	0.49
1:CA:490:G:N2	1:CA:493:A:OP2	2.44	0.49
1:CA:556:G:H3'	1:CA:556:G:H8	1.77	0.49
1:CA:597:G:O2'	1:CA:598:C:H3'	2.12	0.49
1:CA:933:C:N3	1:CA:938:A:C5	2.80	0.49
1:CA:1069:G:C2'	1:CA:1070:U:OP2	2.60	0.49
1:CA:1178:G:HO2'	1:CA:1179:A:H8	1.61	0.49
1:CA:1853:A:H2'	1:CA:1854:G:H8	1.78	0.49
1:CA:2214:G:C4	1:CA:2215:G:C8	3.00	0.49
1:CA:2413:G:H2'	1:CA:2414:U:H6	1.77	0.49
1:CA:2694:C:N4	1:CA:2741:G:N1	2.61	0.49
1:CA:2802:C:H5"	1:CA:2803:C:OP2	2.13	0.49
2:CB:42:U:C2'	2:CB:43:U:OP1	2.61	0.49
5:CF:164:ARG:CG	5:CF:164:ARG:NH1	2.75	0.49
7:CH:69:ARG:HH12	7:CH:73:ALA:HB2	1.76	0.49
11:CO:2:LYS:HB2	11:CO:5:ASP:OD2	2.13	0.49
12:CP:68:ILE:HD13	12:CP:103:MET:HB3	1.94	0.49
21:CV:142:SER:O	21:CV:143:GLY:C	2.54	0.49
21:CV:145:GLU:HA	21:CV:174:VAL:HG11	1.94	0.49
21:CV:161:VAL:HG23	21:CV:162:GLU:H	1.78	0.49
31:DA:186(F):C:H2'	31:DA:187:C:O4'	2.12	0.49
31:DA:264:U:OP1	56:DA:1767:OHX:N6	2.46	0.49
31:DA:775:G:H2'	31:DA:776:G:O4'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1503:A:C5	54:D1:13:A:C2	3.01	0.49
36:DI:78:GLU:O	36:DI:81:ILE:HG22	2.13	0.49
39:DL:16:ARG:O	39:DL:63:ILE:HG23	2.12	0.49
40:DM:6:ILE:HG22	40:DM:98:ILE:HA	1.95	0.49
42:DO:43:LYS:NZ	42:DO:44:LYS:HE3	2.27	0.49
43:DP:28:ALA:C	43:DP:30:ALA:N	2.70	0.49
50:DW:67:ALA:HA	50:DW:73:HIS:HA	1.94	0.49
52:DB:48:C:C4	52:DB:49:A:C6	3.00	0.49
52:DB:49:A:H2'	52:DB:49:A:N3	2.27	0.49
52:DD:53:A:C2'	52:DD:54:C:H5'	2.43	0.49
1:AA:91:A:C4	1:AA:92:G:C8	3.01	0.49
1:AA:240:G:O6	56:AA:3560:OHX:N6	2.46	0.49
1:AA:534:U:H5'	16:A1:42:ALA:HB1	1.93	0.49
1:AA:1063:G:H2'	1:AA:1064:C:O4'	2.13	0.49
1:AA:1204:A:O2'	1:AA:1205:U:OP2	2.30	0.49
1:AA:2064:C:H2'	1:AA:2065:C:C6	2.47	0.49
1:AA:2142:C:H42	1:AA:2149:G:H1	1.59	0.49
1:AA:2326:C:OP1	56:AA:3407:OHX:N5	2.46	0.49
2:AB:48:A:H4'	14:AQ:95:HIS:CD2	2.46	0.49
10:AN:120:GLU:OE2	10:AN:122:LEU:HD21	2.12	0.49
11:AO:96:THR:HG22	11:AO:126:VAL:CG2	2.43	0.49
31:BA:637:G:O2'	31:BA:638:G:H5'	2.13	0.49
31:BA:788:U:C4	31:BA:789:U:C4	3.01	0.49
31:BA:1076:C:C2	31:BA:1082:G:C2	3.01	0.49
31:BA:1397:C:C6	31:BA:1397:C:C3'	2.95	0.49
39:BL:17:VAL:HG21	39:BL:80:GLY:HA3	1.93	0.49
41:BN:59:TYR:O	41:BN:63:LEU:HD12	2.13	0.49
48:BU:21:LYS:HG2	48:BU:57:GLY:HA3	1.94	0.49
52:BB:7:G:H3'	52:BB:8:U:C5'	2.42	0.49
52:BD:62:G:H1	52:BD:70:C:N4	2.05	0.49
1:CA:176:G:N7	56:CA:3324:OHX:N1	2.60	0.49
1:CA:190:U:O4	1:CA:240:G:N2	2.45	0.49
1:CA:989:U:OP2	11:CO:36:LYS:HE3	2.12	0.49
1:CA:1317:C:H5"	1:CA:1318:G:O5'	2.13	0.49
1:CA:1803:C:O2'	1:CA:1818:A:C8	2.65	0.49
1:CA:2093:G:H2'	1:CA:2094:A:O4'	2.13	0.49
1:CA:2456:C:O2'	1:CA:2457:G:H5'	2.12	0.49
1:CA:2798:C:H1'	4:CE:37:ARG:NH2	2.28	0.49
4:CE:174:ASP:O	4:CE:183:LEU:HB2	2.12	0.49
7:CH:107:VAL:HG23	7:CH:109:PHE:CD1	2.48	0.49
7:CH:123:PHE:CE2	7:CH:133:VAL:HG22	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CK:133:HIS:ND1	8:CK:134:PRO:HD3	2.28	0.49
12:CP:19:GLY:CA	12:CP:98:LYS:NZ	2.76	0.49
12:CP:29:PHE:O	12:CP:30:GLY:O	2.30	0.49
31:DA:438:G:H4'	34:DG:123:HIS:HD1	1.78	0.49
31:DA:926:G:C6	31:DA:1505:G:C6	3.00	0.49
31:DA:977:A:C8	31:DA:1223:C:C4	3.00	0.49
31:DA:1191:A:OP2	31:DA:1191:A:C8	2.66	0.49
31:DA:1310:G:C5'	43:DP:77:ASN:HD21	2.24	0.49
32:DE:68:ILE:HD12	32:DE:68:ILE:N	2.28	0.49
32:DE:179:LYS:HD3	32:DE:180:LEU:HD23	1.94	0.49
40:DM:20:ALA:HA	40:DM:23:ILE:HD12	1.95	0.49
43:DP:97:PRO:HB2	43:DP:101:GLN:CG	2.41	0.49
50:DW:77:ALA:O	50:DW:81:LYS:HB2	2.12	0.49
52:DB:7:G:H3'	52:DB:8:U:C5'	2.42	0.49
52:DB:36:U:H3	54:D1:20:G:H1	1.60	0.49
1:AA:164:U:O2	1:AA:164:U:H2'	2.13	0.49
1:AA:225:A:H2'	1:AA:226:G:H5'	1.94	0.49
1:AA:363(B):G:H2'	1:AA:363(C):G:H8	1.77	0.49
1:AA:664:C:H4'	1:AA:941:A:OP1	2.13	0.49
1:AA:1086:A:H4'	1:AA:1103:A:N1	2.27	0.49
1:AA:1173:G:H4'	1:AA:1174:A:C2	2.48	0.49
1:AA:1394:U:C4	1:AA:1395:A:C5	3.01	0.49
1:AA:1657:C:O2'	1:AA:1658:C:H5'	2.13	0.49
1:AA:2886:G:H2'	1:AA:2887:U:H6	1.78	0.49
4:AE:7:VAL:HG21	15:AR:1:MET:HE3	1.95	0.49
14:AQ:101:LEU:HD12	14:AQ:101:LEU:O	2.13	0.49
18:AS:45:TYR:CZ	18:AS:49:LYS:HD2	2.48	0.49
23:AZ:91:LYS:HZ3	23:AZ:91:LYS:HA	1.78	0.49
24:AW:42:GLY:C	24:AW:44:LEU:N	2.71	0.49
28:A6:25:LYS:HE2	28:A6:27:LYS:CE	2.43	0.49
31:BA:86:U:O2'	31:BA:87:A:O4'	2.24	0.49
31:BA:149:A:C2	31:BA:150:C:C2	3.01	0.49
31:BA:789:U:H6	31:BA:792:A:C5'	2.26	0.49
31:BA:818:G:O2'	31:BA:819:A:H5'	2.13	0.49
31:BA:1025:U:O2'	31:BA:1026:G:O4'	2.30	0.49
31:BA:1038:C:C2'	31:BA:1039:C:H5'	2.42	0.49
31:BA:1143:G:N1	31:BA:1144:G:N2	2.61	0.49
31:BA:1165:C:H2'	31:BA:1166:G:C8	2.47	0.49
31:BA:1258:G:O2'	31:BA:1259:C:H5'	2.13	0.49
32:BE:60:ASP:OD1	32:BE:64:ARG:NH2	2.43	0.49
52:BB:19:C:O2'	52:BB:20:C:OP1	2.24	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BC:20:G:H4'	53:BC:21:U:OP2	2.12	0.49
1:CA:801:C:H2'	1:CA:802:C:H6	1.78	0.49
1:CA:905:C:C4	1:CA:906:U:O4	2.66	0.49
1:CA:1004:U:C5'	12:CP:14:ARG:HD3	2.41	0.49
1:CA:1562:C:H2'	1:CA:1563:U:C6	2.47	0.49
1:CA:1575:A:C2	1:CA:1589:G:C2	3.01	0.49
1:CA:1599:C:H2'	1:CA:1600:G:O4'	2.13	0.49
1:CA:1828:U:H2'	1:CA:1829:C:C6	2.47	0.49
1:CA:2015:G:C1'	1:CA:2016:U:OP2	2.60	0.49
3:CD:31:LYS:CE	3:CD:94:LEU:HD11	2.42	0.49
3:CD:231:HIS:CG	3:CD:232:PRO:HD2	2.47	0.49
3:CD:238:GLY:O	3:CD:239:ARG:O	2.30	0.49
9:CM:111:PRO:HA	9:CM:114:ARG:CZ	2.42	0.49
12:CP:8:LYS:O	12:CP:9:TYR:CD1	2.66	0.49
13:C0:104:ARG:HD2	13:C0:111:LEU:HD21	1.94	0.49
26:C4:29:PRO:C	26:C4:30:GLU:HG3	2.38	0.49
31:DA:423:G:N2	31:DA:424:G:C8	2.81	0.49
31:DA:522:C:N4	31:DA:527:G:H1	2.06	0.49
31:DA:562:C:H4'	31:DA:563:A:O5'	2.13	0.49
31:DA:652:U:O2'	31:DA:653:A:H5"	2.12	0.49
31:DA:793:U:O4	31:DA:1517:G:H8	1.95	0.49
31:DA:922:G:H4'	35:DH:20:GLN:HA	1.94	0.49
31:DA:1170:A:O5'	31:DA:1170:A:H8	1.94	0.49
34:DG:19:LEU:HD12	34:DG:19:LEU:H	1.77	0.49
39:DL:118:LYS:HB3	39:DL:121:ARG:HB3	1.94	0.49
49:DV:78:ARG:O	49:DV:79:THR:OG1	2.25	0.49
52:DD:17:G:N1	52:DD:67:A:C6	2.81	0.49
1:AA:186:G:N7	56:AA:3456:OHX:N1	2.61	0.49
1:AA:468:G:N7	29:A7:39:ARG:NH2	2.59	0.49
1:AA:546:C:H3'	1:AA:547:A:C8	2.48	0.49
1:AA:654(T):A:H2'	1:AA:654(U):A:O4'	2.13	0.49
1:AA:676:A:C2	1:AA:677:A:C8	3.01	0.49
1:AA:830:G:H4'	1:AA:831:G:OP2	2.13	0.49
1:AA:996:A:H4'	16:A1:92:ARG:CG	2.42	0.49
1:AA:1028:A:N3	1:AA:2486:G:O2'	2.38	0.49
1:AA:1062:G:P	1:AA:1070:A:H4'	2.53	0.49
1:AA:2287:A:C2	1:AA:2346:A:N1	2.81	0.49
1:AA:2556:C:H2'	1:AA:2557:G:O4'	2.13	0.49
3:AD:33:LEU:HD13	3:AD:34:VAL:H	1.77	0.49
3:AD:35:LYS:HE3	3:AD:64:ILE:C	2.38	0.49
5:AF:198:ALA:O	5:AF:201:VAL:HG13	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:75:ILE:HG13	11:AO:77:ARG:NH1	2.28	0.49
15:AR:108:ARG:HA	15:AR:111:ARG:NE	2.27	0.49
19:AT:3:THR:HG22	19:AT:6:ASP:OD2	2.13	0.49
24:AW:5:GLU:CD	24:AW:5:GLU:H	2.20	0.49
26:A4:38:LYS:HD2	26:A4:38:LYS:H	1.78	0.49
31:BA:95:G:C6	31:BA:96:G:C6	3.01	0.49
31:BA:190:G:O6	31:BA:264:U:H5"	2.12	0.49
31:BA:255:G:N1	31:BA:271:C:O2	2.41	0.49
31:BA:501:C:H2'	31:BA:502:G:H8	1.76	0.49
31:BA:1026:G:C6	31:BA:1036:G:N2	2.81	0.49
31:BA:1213:A:C5	31:BA:1215:G:C4	3.00	0.49
31:BA:1299:A:H2'	31:BA:1301:U:C1'	2.24	0.49
32:BE:200:ILE:HD12	32:BE:200:ILE:N	2.28	0.49
33:BF:124:ILE:HD11	33:BF:153:VAL:HG21	1.95	0.49
33:BF:181:ASN:O	33:BF:181:ASN:CG	2.56	0.49
34:BG:114:ARG:HG3	34:BG:114:ARG:NH1	2.00	0.49
35:BH:33:VAL:HB	35:BH:112:LEU:HD12	1.93	0.49
35:BH:42:GLY:HA3	35:BH:65:ASN:O	2.13	0.49
42:BO:87:VAL:O	42:BO:88:LYS:CB	2.61	0.49
47:BT:13:ASP:H	47:BT:14:LYS:HZ2	1.61	0.49
53:BC:17:C:O2'	53:BC:18:C:C6	2.65	0.49
1:CA:337:G:OP2	1:CA:337:G:C8	2.66	0.49
1:CA:620:G:C5	1:CA:621:U:C5	3.01	0.49
1:CA:682:C:H2'	1:CA:683:G:H8	1.77	0.49
1:CA:887:U:H2'	1:CA:888:C:C6	2.48	0.49
1:CA:952:U:C2'	1:CA:953:G:H5'	2.42	0.49
1:CA:1061:U:H2'	1:CA:1062:G:O4'	2.13	0.49
1:CA:2154:G:OP1	1:CA:2156:G:H4'	2.13	0.49
1:CA:2192:A:N7	52:DD:65:C:C6	2.81	0.49
1:CA:2238:A:OP1	56:CA:3304:OHX:N1	2.46	0.49
1:CA:2275:U:OP2	22:C3:19:LYS:NZ	2.28	0.49
1:CA:2324:A:OP2	1:CA:2325:U:OP2	2.30	0.49
1:CA:2758:G:N2	7:CH:143:GLN:OE1	2.45	0.49
2:CB:50:A:H2'	2:CB:51:C:C6	2.48	0.49
3:CD:125:ILE:HG12	36:DI:81:ILE:HD11	1.95	0.49
4:CE:62:PRO:C	4:CE:64:LYS:N	2.66	0.49
5:CF:36:VAL:HG11	5:CF:183:VAL:HG11	1.95	0.49
6:CG:128:ARG:HH21	6:CG:128:ARG:CG	2.26	0.49
10:CN:1:MET:HB2	10:CN:32:TYR:HD2	1.78	0.49
10:CN:103:ALA:C	10:CN:105:GLU:H	2.20	0.49
12:CP:87:LYS:O	12:CP:88:GLY:O	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CQ:29:PHE:HD2	14:CQ:29:PHE:C	2.21	0.49
15:CR:24:PRO:HA	15:CR:49:VAL:CG2	2.38	0.49
24:CW:46:GLN:N	24:CW:49:LYS:HZ2	1.99	0.49
26:C4:63:TYR:CD2	49:DV:41:VAL:HG22	2.48	0.49
26:C4:63:TYR:OH	49:DV:11:VAL:HB	2.12	0.49
29:C7:5:TRP:NE1	29:C7:7:PRO:HG3	2.28	0.49
31:DA:179:A:H2'	31:DA:180:U:C6	2.46	0.49
31:DA:300:A:H2'	31:DA:301:G:O4'	2.12	0.49
31:DA:528:C:H41	42:DO:46:ASN:CG	2.21	0.49
31:DA:668:G:O2'	31:DA:669:U:H5'	2.13	0.49
31:DA:854:G:H5"	31:DA:871:U:H3	1.77	0.49
31:DA:1114:C:H2'	31:DA:1115:C:H6	1.76	0.49
31:DA:1384:C:H2'	31:DA:1385:G:H8	1.75	0.49
34:DG:60:GLU:HG2	34:DG:202:LEU:HB2	1.95	0.49
34:DG:88:VAL:O	34:DG:92:VAL:HG23	2.11	0.49
35:DH:83:GLU:HA	35:DH:87:SER:O	2.13	0.49
45:DR:4:THR:HB	45:DR:7:GLU:H	1.77	0.49
50:DW:29:LYS:HG3	50:DW:71:THR:HG21	1.95	0.49
52:DB:48:C:C3'	52:DB:49:A:H8	2.25	0.49
52:DD:21:A:C5	52:DD:46:G:C8	3.01	0.49
52:DD:65:C:H2'	52:DD:66:G:H5'	1.95	0.49
1:AA:142:G:H1'	19:AT:37:THR:CG2	2.42	0.48
1:AA:204:A:H4'	1:AA:205:G:OP1	2.12	0.48
1:AA:273(E):U:H2'	1:AA:273(F):C:H5'	1.95	0.48
1:AA:881:G:O6	1:AA:882:G:C2	2.66	0.48
1:AA:2287:A:C4	1:AA:2289:G:C8	3.01	0.48
1:AA:2404:C:H1'	11:AO:67:MET:HE1	1.95	0.48
1:AA:2461:C:H2'	1:AA:2462:U:C6	2.48	0.48
1:AA:2613:U:H1'	1:AA:2614:A:OP1	2.12	0.48
6:AG:70:VAL:O	6:AG:70:VAL:HG22	2.13	0.48
6:AG:107:LEU:HD21	6:AG:178:PHE:CD1	2.48	0.48
8:AK:73:GLU:HB2	8:AK:136:VAL:HG23	1.95	0.48
11:AO:22:GLY:O	11:AO:23:PRO:O	2.31	0.48
11:AO:37:GLY:O	11:AO:38:GLN:C	2.55	0.48
12:AP:21:THR:CG2	21:AV:78:LYS:CD	2.91	0.48
12:AP:43:THR:HA	12:AP:94:VAL:HG12	1.94	0.48
13:A0:18:LEU:C	13:A0:18:LEU:HD13	2.38	0.48
13:A0:78:LYS:O	13:A0:83:ILE:HG13	2.13	0.48
20:AU:35:TYR:CD1	20:AU:69:ALA:HB3	2.48	0.48
28:A6:25:LYS:HE2	28:A6:27:LYS:CD	2.41	0.48
31:BA:135:C:H2'	31:BA:136:C:C5'	2.40	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:438:G:OP2	56:BA:1804:OHX:N4	2.46	0.48
31:BA:792:A:O2'	31:BA:793:U:OP2	2.31	0.48
31:BA:1103:C:H2'	31:BA:1104:G:O4'	2.12	0.48
31:BA:1176:A:N6	31:BA:1177:G:N7	2.61	0.48
31:BA:1346:A:OP1	39:BL:120:ARG:NH1	2.46	0.48
35:BH:145:LYS:HA	38:BK:107:LEU:HD21	1.95	0.48
39:BL:3:GLN:HB3	39:BL:20:ARG:HH11	1.77	0.48
40:BM:50:ILE:HB	44:BQ:41:ARG:HE	1.78	0.48
1:CA:126:C:H4'	1:CA:127:C:OP1	2.13	0.48
1:CA:211:A:C8	1:CA:256:G:C6	3.01	0.48
1:CA:304:C:N4	1:CA:386:G:H1	2.10	0.48
1:CA:627:A:H1'	1:CA:628:G:O4'	2.12	0.48
1:CA:1068:A:C2	1:CA:1070:U:C2	3.01	0.48
1:CA:1081:G:OP1	1:CA:1081:G:H8	1.95	0.48
1:CA:1699:G:C2	1:CA:2030:C:C2	3.01	0.48
1:CA:2085:A:C5	1:CA:2516:A:N6	2.75	0.48
2:CB:25:G:C2	2:CB:26:G:O6	2.66	0.48
3:CD:63:ARG:HD3	3:CD:63:ARG:N	2.28	0.48
3:CD:228:PRO:HD3	3:CD:234:GLY:C	2.38	0.48
4:CE:119:ARG:CG	4:CE:160:TYR:HB2	2.43	0.48
8:CK:109:ILE:H	8:CK:109:ILE:HD13	1.77	0.48
13:C0:88:ARG:HD2	13:C0:89:ASP:OD2	2.13	0.48
15:CR:123:GLN:O	15:CR:127:ALA:N	2.43	0.48
17:C2:99:ILE:HG22	17:C2:99:ILE:O	2.11	0.48
19:CT:63:LYS:HA	19:CT:72:LYS:HA	1.94	0.48
20:CU:31:LEU:O	20:CU:31:LEU:HD12	2.12	0.48
21:CV:113:ALA:O	21:CV:114:GLY:C	2.56	0.48
22:C3:74:ARG:HB2	22:C3:74:ARG:NH1	2.28	0.48
25:CX:9:VAL:HG22	25:CX:53:LEU:O	2.13	0.48
31:DA:93:U:H2'	31:DA:95:G:O4'	2.12	0.48
31:DA:173:U:H5"	31:DA:197:A:O4'	2.13	0.48
31:DA:706:A:C4'	41:DN:29:ILE:HD11	2.43	0.48
31:DA:1127:G:C2	31:DA:1145:C:C2	3.01	0.48
31:DA:1159:U:C4	31:DA:1182:G:C6	3.00	0.48
35:DH:100:VAL:O	35:DH:100:VAL:HG13	2.12	0.48
39:DL:22:GLY:HA3	39:DL:60:ASP:OD2	2.13	0.48
40:DM:48:THR:CG2	40:DM:60:ARG:HD2	2.42	0.48
42:DO:25:LYS:HE3	42:DO:30:ARG:HH12	1.77	0.48
48:DU:22:VAL:C	48:DU:24:ALA:H	2.20	0.48
50:DW:39:LYS:O	50:DW:43:LEU:HG	2.13	0.48
1:AA:39:C:H2'	1:AA:40:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:174:C:H2'	1:AA:175:G:O4'	2.13	0.48
1:AA:613:U:O4'	1:AA:613:U:O2	2.29	0.48
1:AA:899:A:O2'	1:AA:900:A:H5"	2.13	0.48
1:AA:938:G:O6	56:AA:3475:OHX:N5	2.46	0.48
1:AA:1298:C:H5"	1:AA:1299:G:OP2	2.13	0.48
1:AA:1999:C:O2'	1:AA:2000:G:H5'	2.13	0.48
2:AB:15:A:H1'	2:AB:109:G:C4	2.49	0.48
4:AE:182:LEU:HD12	4:AE:183:LEU:N	2.27	0.48
8:AK:8:PRO:HD3	8:AK:15:VAL:HG23	1.94	0.48
9:AM:12:ARG:HD3	9:AM:50:ASP:CG	2.37	0.48
9:AM:35:ARG:O	9:AM:42:TRP:HZ3	1.91	0.48
10:AN:96:THR:O	10:AN:97:ARG:O	2.30	0.48
11:AO:42:SER:O	11:AO:43:GLY:C	2.56	0.48
12:AP:87:LYS:O	12:AP:88:GLY:O	2.30	0.48
21:AV:164:ALA:O	21:AV:165:VAL:HG22	2.13	0.48
23:AZ:64:ALA:HA	23:AZ:67:ILE:HG13	1.95	0.48
25:AX:9:VAL:HG23	25:AX:53:LEU:O	2.12	0.48
26:A4:16:CYS:HB2	26:A4:36:CYS:N	2.12	0.48
31:BA:532:A:N6	31:BA:1206:G:O2'	2.46	0.48
31:BA:1336:C:O2	31:BA:1336:C:C2'	2.60	0.48
33:BF:114:PRO:HA	33:BF:185:GLY:HA3	1.94	0.48
1:CA:560:U:O2'	16:C1:49:HIS:CD2	2.65	0.48
1:CA:795:U:O2	1:CA:2037:A:H1'	2.13	0.48
1:CA:923:G:H2'	1:CA:924:C:O4'	2.13	0.48
1:CA:1102:G:C6	1:CA:1151:C:N3	2.82	0.48
1:CA:1168:C:H2'	1:CA:1169:G:O4'	2.13	0.48
1:CA:1278:G:H2'	1:CA:1279:G:C8	2.48	0.48
1:CA:1513:G:C5'	1:CA:1575:A:H1'	2.43	0.48
1:CA:1687:U:C2'	1:CA:1688:C:H5'	2.43	0.48
1:CA:1922:G:N2	1:CA:1924:A:C6	2.81	0.48
1:CA:1935:A:N3	31:DA:1494:G:N2	2.61	0.48
1:CA:2038:A:H1'	27:C5:2:ALA:HA	1.95	0.48
2:CB:42:U:O4	2:CB:45:C:OP1	2.31	0.48
2:CB:58:G:H4'	2:CB:59:A:C8	2.49	0.48
2:CB:85:G:H1	2:CB:96:C:N4	2.11	0.48
3:CD:146:GLU:HG2	3:CD:152:GLY:C	2.39	0.48
10:CN:11:ALA:HB1	10:CN:99:PHE:O	2.13	0.48
21:CV:52:SER:O	21:CV:53:ILE:HG13	2.12	0.48
31:DA:145:G:N7	56:DA:1779:OHX:N1	2.61	0.48
31:DA:687:A:H4'	31:DA:688:G:O5'	2.13	0.48
31:DA:737:A:O2'	36:DI:73:ASN:ND2	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:960:U:O2	31:DA:960:U:C2'	2.60	0.48
31:DA:973:G:C6	31:DA:974:A:N6	2.81	0.48
31:DA:1028:C:C2	31:DA:1034:G:N2	2.81	0.48
31:DA:1124:G:O2'	31:DA:1145:C:C2	2.66	0.48
31:DA:1178:G:N2	31:DA:1181:G:C8	2.81	0.48
31:DA:1243:C:OP1	51:DX:8:THR:HG21	2.13	0.48
37:DJ:139:GLU:HB3	37:DJ:143:ARG:NH2	2.28	0.48
38:DK:23:SER:OG	38:DK:24:THR:N	2.46	0.48
43:DP:52:GLU:CD	43:DP:52:GLU:H	2.21	0.48
46:DS:13:HIS:C	46:DS:15:PRO:HD3	2.38	0.48
52:DB:52:G:H8	52:DB:52:G:OP2	1.97	0.48
53:DC:24:C:C2	53:DC:25:U:C5	3.01	0.48
52:DD:22:A:C5	52:DD:57:C:N4	2.81	0.48
1:AA:18:C:H5"	16:A1:24:TYR:O	2.12	0.48
1:AA:612:G:H2'	1:AA:613:U:O2	2.13	0.48
1:AA:1081:U:O3'	1:AA:1082:U:O4'	2.31	0.48
1:AA:1345:C:H2'	1:AA:1346:G:H8	1.78	0.48
1:AA:2015:A:H4'	27:A5:2:ALA:HB1	1.96	0.48
1:AA:2261:C:C5	22:A3:16:SER:HB3	2.48	0.48
1:AA:2428:G:N2	11:AO:60:MET:HE1	2.28	0.48
1:AA:2729:G:H2'	1:AA:2730:C:C6	2.48	0.48
3:AD:231:HIS:HD2	3:AD:249:PRO:HG3	1.79	0.48
4:AE:67:PHE:C	4:AE:69:LYS:H	2.21	0.48
17:A2:35:LEU:HD22	17:A2:35:LEU:H	1.78	0.48
27:A5:58:LEU:HD22	27:A5:60:VAL:CG1	2.42	0.48
30:A8:34:TRP:CA	30:A8:35:GLN:CB	2.92	0.48
31:BA:58:C:H2'	31:BA:59:A:H8	1.77	0.48
31:BA:87:A:C4	31:BA:88:C:H5	2.31	0.48
31:BA:197:A:H4'	31:BA:198:G:O5'	2.13	0.48
31:BA:388:G:OP1	56:BA:1760:OHX:N6	2.46	0.48
31:BA:1279:A:O2'	31:BA:1281:U:OP2	2.25	0.48
31:BA:1285:A:C4'	31:BA:1286:A:O5'	2.54	0.48
31:BA:1476:G:H2'	31:BA:1477:C:C6	2.48	0.48
35:BH:37:ARG:HA	35:BH:114:GLY:H	1.78	0.48
36:BI:18:GLN:O	36:BI:21:LEU:HB2	2.13	0.48
40:BM:29:ARG:HH22	40:BM:84:GLN:NE2	2.12	0.48
40:BM:54:PHE:CZ	40:BM:55:LYS:NZ	2.78	0.48
43:BP:108:ARG:HH11	43:BP:108:ARG:CG	2.27	0.48
50:BW:59:ALA:HA	50:BW:62:LEU:HD12	1.94	0.48
52:BB:49:A:C2	52:BB:52:G:C2	3.02	0.48
1:CA:175:U:H4'	1:CA:208:A:H4'	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:314:A:H3'	1:CA:315:G:H8	1.78	0.48
1:CA:337:G:N3	1:CA:337:G:H2'	2.28	0.48
1:CA:463:C:H2'	1:CA:464:C:H5'	1.95	0.48
1:CA:914:A:C6	1:CA:961:C:N3	2.81	0.48
1:CA:1079:A:N1	1:CA:1169:G:O6	2.46	0.48
1:CA:1109:G:C5	1:CA:1110:G:N7	2.81	0.48
1:CA:1370:U:H2'	1:CA:1371:G:H5'	1.95	0.48
1:CA:1535:G:H5'	1:CA:1536:U:OP2	2.14	0.48
1:CA:1728:U:O2'	1:CA:1795:G:N7	2.36	0.48
1:CA:2074:A:H5'	1:CA:2591:G:O4'	2.13	0.48
1:CA:2229:G:N3	1:CA:2229:G:H2'	2.28	0.48
1:CA:2384:G:O2'	28:C6:46:HIS:HD2	1.96	0.48
1:CA:2565:U:C2	1:CA:2567:U:H5'	2.48	0.48
2:CB:94:C:OP2	56:CB:217:OHX:N6	2.47	0.48
3:CD:35:LYS:NZ	3:CD:104:TYR:H	2.12	0.48
3:CD:267:SER:C	3:CD:269:PHE:H	2.21	0.48
4:CE:120:TRP:O	4:CE:121:ASN:HB2	2.13	0.48
5:CF:125:LEU:O	5:CF:125:LEU:HG	2.13	0.48
6:CG:146:TYR:O	6:CG:149:VAL:HG22	2.13	0.48
6:CG:165:THR:C	6:CG:167:GLU:H	2.20	0.48
7:CH:6:ARG:H	7:CH:6:ARG:CD	2.26	0.48
7:CH:20:ALA:C	7:CH:22:GLY:H	2.21	0.48
8:CK:133:HIS:CD2	8:CK:133:HIS:C	2.91	0.48
11:CO:21:ARG:HE	11:CO:21:ARG:HA	1.79	0.48
11:CO:56:SER:O	11:CO:57:THR:O	2.30	0.48
12:CP:79:LEU:HD13	12:CP:80:GLU:OE2	2.13	0.48
13:C0:44:LEU:O	13:C0:45:ARG:C	2.56	0.48
14:CQ:28:VAL:HG11	14:CQ:98:VAL:HG13	1.94	0.48
31:DA:438:G:O2'	31:DA:494:U:O4	2.24	0.48
31:DA:799:G:C6	31:DA:800:G:C4	3.01	0.48
34:DG:108:LEU:HB3	34:DG:110:PHE:CD1	2.48	0.48
38:DK:11:THR:HA	38:DK:14:ARG:NH1	2.29	0.48
38:DK:19:VAL:HG23	38:DK:21:LYS:HB2	1.94	0.48
41:DN:108:ILE:O	48:DU:87:ARG:N	2.41	0.48
42:DO:20:LYS:H	42:DO:20:LYS:HD3	1.78	0.48
45:DR:82:ILE:HD11	45:DR:87:ILE:O	2.14	0.48
52:DB:42:U:H3'	52:DB:43:G:H8	1.77	0.48
53:DC:18:C:O2	56:DC:110:OHX:N5	2.46	0.48
1:AA:817:C:O2'	1:AA:839:U:H5"	2.14	0.48
1:AA:1047:G:C8	1:AA:1110:G:O6	2.67	0.48
1:AA:1171:G:C2	1:AA:1179:C:O2	2.66	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1188:U:C2'	1:AA:1189:A:H5'	2.44	0.48
1:AA:1263:U:O2'	27:A5:11:THR:HG23	2.13	0.48
1:AA:2121:G:O6	1:AA:2176:A:N6	2.47	0.48
1:AA:2135:A:N6	1:AA:2156:G:H1'	2.29	0.48
1:AA:2138:C:H42	1:AA:2153:G:H1	1.62	0.48
3:AD:71:ASP:HB3	3:AD:103:ARG:NH2	2.26	0.48
3:AD:154:LYS:C	3:AD:155:LEU:HD12	2.38	0.48
3:AD:240:ALA:O	3:AD:241:PRO:C	2.57	0.48
4:AE:63:LEU:O	4:AE:63:LEU:HD23	2.12	0.48
4:AE:119:ARG:HH11	4:AE:119:ARG:HG3	1.75	0.48
6:AG:7:LEU:HB2	6:AG:104:GLU:CD	2.38	0.48
7:AH:4:ILE:N	7:AH:4:ILE:HD13	2.28	0.48
18:AS:29:LEU:HD21	18:AS:33:ARG:NH2	2.28	0.48
21:AV:59:LEU:O	21:AV:60:GLU:CB	2.62	0.48
21:AV:60:GLU:C	21:AV:61:LEU:HD13	2.38	0.48
31:BA:7:G:H4'	31:BA:298:A:OP1	2.13	0.48
31:BA:762:C:H2'	31:BA:763:G:H8	1.79	0.48
31:BA:1199:U:H4'	40:BM:54:PHE:CZ	2.49	0.48
31:BA:1213:A:C6	31:BA:1215:G:H1'	2.49	0.48
31:BA:1349:A:C2'	31:BA:1350:A:O5'	2.62	0.48
32:BE:78:GLN:O	32:BE:81:VAL:HG12	2.13	0.48
35:BH:68:GLU:HG3	35:BH:70:PRO:HD3	1.95	0.48
37:BJ:57:GLU:CD	37:BJ:57:GLU:N	2.71	0.48
38:BK:126:LYS:HB3	38:BK:126:LYS:NZ	2.28	0.48
40:BM:24:VAL:HG23	40:BM:34:VAL:HG11	1.94	0.48
44:BQ:6:LEU:HB3	44:BQ:23:ARG:NH2	2.28	0.48
45:BR:74:ASP:OD1	45:BR:77:ARG:HG2	2.13	0.48
47:BT:86:GLU:O	47:BT:90:ILE:HG12	2.14	0.48
52:BD:61:G:N2	52:BD:71:C:N3	2.49	0.48
1:CA:297:U:O2'	1:CA:298:C:H5'	2.13	0.48
1:CA:303:A:H1'	1:CA:304:C:O5'	2.13	0.48
1:CA:400:G:O2'	1:CA:401:U:P	2.72	0.48
1:CA:518:A:H2'	1:CA:519:G:H5'	1.94	0.48
1:CA:955:C:OP2	12:CP:22:LYS:HD3	2.13	0.48
1:CA:965:A:H1'	2:CB:82:U:O2'	2.13	0.48
1:CA:1585:G:H2'	1:CA:1586:G:H8	1.79	0.48
1:CA:1720:C:H5"	1:CA:2567:U:OP1	2.13	0.48
1:CA:2008:G:OP2	56:CA:3240:OHX:N2	2.47	0.48
1:CA:2022:C:H4'	1:CA:2737:C:O2	2.14	0.48
1:CA:2164:G:O2'	1:CA:2165:C:H5'	2.14	0.48
1:CA:2304:U:OP1	1:CA:2394:C:H5'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:2460:G:C1'	1:CA:2461:A:OP2	2.59	0.48
1:CA:2482:A:H2	1:CA:2494:G:N2	2.11	0.48
1:CA:2742:U:O2'	1:CA:2743:G:H5'	2.13	0.48
1:CA:2898:U:O2'	1:CA:2899:C:H5'	2.14	0.48
3:CD:106:ILE:O	3:CD:106:ILE:HG23	2.14	0.48
4:CE:103:ASP:OD1	4:CE:201:THR:HG23	2.13	0.48
6:CG:131:TYR:HB3	6:CG:159:VAL:CG2	2.43	0.48
8:CK:115:ALA:HB3	8:CK:129:THR:O	2.13	0.48
11:CO:39:LYS:HD2	11:CO:45:LEU:HD22	1.94	0.48
29:C7:8:ASN:HB3	29:C7:11:LYS:HB3	1.94	0.48
31:DA:186(E):C:C2	31:DA:191(C):G:N2	2.82	0.48
31:DA:209:U:H1'	31:DA:210:U:OP1	2.13	0.48
31:DA:433:C:H2'	31:DA:434:U:H6	1.77	0.48
31:DA:973:G:C6	31:DA:974:A:C6	3.01	0.48
31:DA:1132:C:C2'	31:DA:1133:G:H5'	2.43	0.48
31:DA:1321:C:H41	31:DA:1322:C:H41	1.54	0.48
32:DE:102:LEU:H	32:DE:102:LEU:HD12	1.78	0.48
37:DJ:65:ALA:O	37:DJ:69:VAL:HG23	2.13	0.48
44:DQ:25:VAL:O	44:DQ:26:ARG:HB3	2.13	0.48
44:DQ:28:GLY:O	44:DQ:29:ARG:HB2	2.13	0.48
52:DB:46:G:C5	52:DB:47:U:C4	3.01	0.48
1:AA:99:U:OP1	1:AA:102:G:H5'	2.13	0.48
1:AA:299:A:H5'	1:AA:300:A:OP2	2.14	0.48
1:AA:1055:G:N7	1:AA:1056:G:C5	2.82	0.48
1:AA:1181:C:O2'	1:AA:1182:A:H5'	2.13	0.48
1:AA:1786:A:H4'	1:AA:1787:A:OP2	2.14	0.48
1:AA:2400:G:O2'	1:AA:2401:U:H5'	2.13	0.48
10:AN:25:LEU:HB2	10:AN:38:VAL:HG13	1.95	0.48
14:AQ:89:ARG:O	14:AQ:90:GLY:C	2.56	0.48
15:AR:5:ALA:HA	15:AR:8:LYS:HG2	1.95	0.48
18:AS:24:ILE:HG21	18:AS:36:LEU:HD21	1.95	0.48
22:A3:41:ARG:HA	22:A3:41:ARG:NE	2.27	0.48
31:BA:191:G:N3	50:BW:105:SER:HB2	2.28	0.48
31:BA:323:U:H5'	50:BW:23:ARG:HB2	1.95	0.48
31:BA:328:C:H4'	31:BA:329:A:C5'	2.43	0.48
31:BA:580:U:P	56:BA:1755:OHX:N4	2.86	0.48
31:BA:687:A:N3	31:BA:688:G:H1'	2.28	0.48
31:BA:1110:A:H8	31:BA:1110:A:O5'	1.97	0.48
31:BA:1504:G:C4'	31:BA:1505:G:OP2	2.62	0.48
34:BG:88:VAL:O	34:BG:88:VAL:HG12	2.13	0.48
41:BN:102:GLY:O	41:BN:103:LEU:C	2.55	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BB:48:C:C2'	52:BB:49:A:C8	2.96	0.48
53:BC:16:C:O2'	53:BC:62:C:OP1	2.31	0.48
52:BD:21:A:C5	52:BD:46:G:C8	3.02	0.48
52:BD:27:A:H2'	52:BD:28:G:C8	2.48	0.48
1:CA:646:G:N3	1:CA:646:G:H2'	2.28	0.48
1:CA:1364:A:H2'	1:CA:1365:C:H6	1.78	0.48
1:CA:1958:G:H1'	1:CA:1987:G:N2	2.29	0.48
1:CA:2180:G:C2'	1:CA:2181:A:H8	2.27	0.48
1:CA:2331:G:H5'	1:CA:2332:G:OP2	2.14	0.48
1:CA:2405:A:C8	11:CO:60:MET:SD	3.06	0.48
1:CA:2415:C:N4	1:CA:2429:C:H1'	2.28	0.48
1:CA:2575:U:H1'	10:CN:23:ARG:NH1	2.27	0.48
1:CA:2883:G:N7	1:CA:2884:A:C2	2.82	0.48
4:CE:120:TRP:HB3	4:CE:155:LYS:HD3	1.95	0.48
8:CK:109:ILE:HB	8:CK:130:TYR:OH	2.13	0.48
8:CK:143:SER:OG	8:CK:144:VAL:N	2.46	0.48
9:CM:71:ILE:O	9:CM:71:ILE:HD12	2.13	0.48
18:CS:95:ILE:HG12	18:CS:95:ILE:O	2.13	0.48
20:CU:52:SER:HB2	20:CU:56:PRO:HA	1.95	0.48
24:CW:65:ASN:ND2	24:CW:69:ARG:HE	2.11	0.48
30:C8:21:LYS:HA	30:C8:50:LEU:HD11	1.96	0.48
30:C8:54:GLU:HG3	30:C8:57:ARG:HE	1.78	0.48
31:DA:89:U:C1'	31:DA:90:C:OP1	2.62	0.48
31:DA:516:U:C4	31:DA:517:G:C6	3.02	0.48
31:DA:826:C:H5'	38:DK:12:ARG:HH21	1.77	0.48
31:DA:949:A:C4	31:DA:1233:G:C2	3.02	0.48
31:DA:1022:G:C2	31:DA:1023:G:H1'	2.48	0.48
31:DA:1053:G:C6	31:DA:1199:U:C2	3.01	0.48
31:DA:1240:U:H1'	37:DJ:38:LEU:CD2	2.43	0.48
32:DE:172:ILE:H	32:DE:172:ILE:CD1	2.19	0.48
35:DH:96:PRO:HA	35:DH:117:ASP:OD2	2.13	0.48
40:DM:3:LYS:HG3	40:DM:75:ILE:O	2.13	0.48
40:DM:46:ARG:CZ	44:DQ:61:TRP:CH2	2.95	0.48
52:DB:22:A:C5	52:DB:57:C:C4	3.01	0.48
1:AA:270(S):G:OP1	23:AZ:76:ARG:NH1	2.47	0.48
1:AA:484:C:H2'	1:AA:485:C:C6	2.49	0.48
1:AA:607:U:O2	1:AA:621:A:N1	2.46	0.48
1:AA:654:A:N3	1:AA:654:A:C2'	2.77	0.48
1:AA:732:C:C2'	1:AA:733:G:H5'	2.44	0.48
1:AA:971:C:H2'	1:AA:972:G:C5'	2.43	0.48
1:AA:2033:A:H4'	1:AA:2034:U:OP1	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2316:C:H2'	1:AA:2317:C:C6	2.46	0.48
1:AA:2566:A:H4'	1:AA:2567:G:O5'	2.13	0.48
1:AA:2692:C:H2'	1:AA:2693:A:C8	2.49	0.48
2:AB:80:U:O2'	2:AB:81:G:H5'	2.14	0.48
6:AG:107:LEU:HD11	6:AG:178:PHE:CE1	2.48	0.48
7:AH:7:LEU:N	7:AH:8:PRO:CD	2.76	0.48
8:AK:54:GLN:O	8:AK:58:LEU:HB2	2.13	0.48
11:AO:71:VAL:N	11:AO:72:PRO:HD2	2.28	0.48
11:AO:91:PHE:HD1	11:AO:99:LEU:HD21	1.77	0.48
11:AO:96:THR:O	11:AO:98:GLU:N	2.44	0.48
16:A1:24:TYR:HB2	16:A1:29:SER:HB3	1.95	0.48
20:AU:30:VAL:HG22	20:AU:37:VAL:HG12	1.96	0.48
21:AV:13:GLU:O	21:AV:14:LYS:C	2.57	0.48
31:BA:49:U:C4	31:BA:364:A:C6	3.02	0.48
31:BA:177:C:OP1	50:BW:65:LYS:NZ	2.37	0.48
31:BA:439:A:H2'	31:BA:440:A:C5'	2.44	0.48
31:BA:446:G:H1	31:BA:488:C:H42	1.60	0.48
31:BA:872:A:C4	31:BA:874:G:N7	2.81	0.48
31:BA:1157:A:H62	31:BA:1178:G:H21	1.61	0.48
31:BA:1379:G:O2'	31:BA:1380:U:H5'	2.13	0.48
36:BI:39:LYS:HB3	36:BI:62:TRP:CZ3	2.45	0.48
36:BI:63:TYR:HB3	36:BI:65:VAL:HG12	1.95	0.48
42:BO:24:LEU:HD21	42:BO:82:ILE:HG22	1.96	0.48
45:BR:70:LEU:HB3	45:BR:78:TYR:HB2	1.96	0.48
49:BV:63:THR:CG2	49:BV:66:MET:HE3	2.40	0.48
1:CA:518:A:H2'	1:CA:519:G:O4'	2.13	0.48
1:CA:900:G:H2'	1:CA:901:G:C8	2.48	0.48
1:CA:911:A:O2'	1:CA:912:G:H5'	2.14	0.48
1:CA:2117:G:H5'	8:CK:25:TYR:CD2	2.48	0.48
1:CA:2196:A:N3	1:CA:2196:A:H2'	2.27	0.48
2:CB:5:C:N3	2:CB:120:G:N2	2.52	0.48
4:CE:130:GLY:O	4:CE:131:ALA:C	2.57	0.48
8:CK:47:LEU:O	8:CK:51:ILE:HG13	2.14	0.48
8:CK:123:LEU:HA	8:CK:142:VAL:HG13	1.96	0.48
14:CQ:17:ARG:HG3	14:CQ:17:ARG:NH1	2.22	0.48
14:CQ:38:GLN:HG2	14:CQ:40:ILE:HG12	1.94	0.48
15:CR:106:SER:HA	15:CR:110:ILE:HD11	1.94	0.48
21:CV:45:ASP:O	21:CV:49:ARG:HG2	2.14	0.48
21:CV:121:HIS:HB3	21:CV:123:ASP:O	2.14	0.48
26:C4:56:VAL:HG23	26:C4:60:GLN:OE1	2.13	0.48
31:DA:85:U:O4'	31:DA:85:U:O2	2.30	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:123:C:OP1	31:DA:312:C:H5'	2.14	0.48
31:DA:137:C:H42	31:DA:226:G:H1	1.59	0.48
31:DA:224:C:H2'	31:DA:225:C:H6	1.77	0.48
31:DA:424:G:H2'	31:DA:425:G:H8	1.78	0.48
31:DA:678:U:H2'	31:DA:679:C:C6	2.49	0.48
31:DA:730:G:OP1	56:DA:1752:OHX:N5	2.46	0.48
31:DA:765:G:N2	31:DA:813:U:OP2	2.43	0.48
31:DA:1015:A:N6	31:DA:1016:A:C6	2.82	0.48
31:DA:1238:A:H62	31:DA:1301:U:H3	1.62	0.48
31:DA:1391:U:H2'	31:DA:1392:G:C8	2.47	0.48
32:DE:82:ARG:HD2	32:DE:92:TYR:HE1	1.78	0.48
33:DF:184:TYR:HA	33:DF:200:ALA:O	2.13	0.48
40:DM:64:GLU:HG2	44:DQ:59:ALA:HB2	1.96	0.48
45:DR:29:VAL:O	45:DR:30:ALA:C	2.57	0.48
48:DU:22:VAL:HG12	48:DU:56:THR:HA	1.94	0.48
52:DB:15:G:O2'	52:DB:20:C:N4	2.46	0.48
52:DD:17:G:C1'	52:DD:18:G:OP1	2.57	0.48
52:DD:21:A:C4'	52:DD:22:A:O5'	2.62	0.48
1:AA:573:G:OP2	17:A2:78:LYS:NZ	2.47	0.48
1:AA:673:C:OP1	5:AF:54:ARG:NH1	2.42	0.48
1:AA:1651:G:N2	1:AA:2007:C:C2	2.82	0.48
1:AA:1771:C:O2'	1:AA:1786:A:H8	1.97	0.48
1:AA:2689:U:C5'	1:AA:2690:C:H5'	2.43	0.48
1:AA:2845:G:O2'	1:AA:2846:G:H5'	2.14	0.48
3:AD:2:ALA:O	3:AD:3:VAL:HB	2.12	0.48
6:AG:112:PRO:HB3	26:A4:37:SER:CB	2.42	0.48
7:AH:83:TYR:HD1	7:AH:134:SER:CB	2.24	0.48
7:AH:153:LYS:HA	7:AH:153:LYS:NZ	2.29	0.48
10:AN:4:PRO:O	10:AN:5:GLN:HB2	2.13	0.48
23:AZ:60:PHE:HB3	23:AZ:62:VAL:HG13	1.96	0.48
31:BA:753:A:H4'	31:BA:754:C:O5'	2.14	0.48
32:BE:162:ILE:N	32:BE:162:ILE:HD13	2.29	0.48
40:BM:96:ILE:N	40:BM:96:ILE:HD13	2.29	0.48
48:BU:48:GLY:O	48:BU:74:ARG:NH2	2.47	0.48
52:BB:47:U:C2'	52:BB:48:C:O4'	2.62	0.48
52:BD:22:A:N7	52:BD:57:C:N4	2.62	0.48
1:CA:224:C:H2'	1:CA:225:U:H6	1.78	0.48
1:CA:300:G:C8	1:CA:300:G:OP2	2.66	0.48
1:CA:305:C:C2'	1:CA:306:G:H5'	2.43	0.48
1:CA:874:U:OP1	1:CA:2441:G:H3'	2.14	0.48
1:CA:884:G:C5	1:CA:885:C:C4	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:892:C:N4	1:CA:980:G:H1	2.12	0.48
1:CA:958:A:H2'	12:CP:9:TYR:OH	2.13	0.48
1:CA:1299:G:O2'	1:CA:1300:A:C8	2.67	0.48
1:CA:1654:C:H1'	56:CA:3425:OHX:N5	2.28	0.48
1:CA:2029:C:O5'	1:CA:2029:C:H6	1.97	0.48
1:CA:2178:G:C6	1:CA:2179:G:C4	3.01	0.48
1:CA:2802:C:O2'	1:CA:2820:A:N3	2.46	0.48
1:CA:2804:A:H1'	1:CA:2805:C:P	2.54	0.48
2:CB:42:U:H1'	2:CB:47:A:H61	1.78	0.48
4:CE:131:ALA:O	4:CE:132:HIS:HB3	2.14	0.48
6:CG:56:ALA:HB2	6:CG:153:ARG:NE	2.28	0.48
10:CN:88:ASN:HB3	10:CN:94:ARG:HD3	1.95	0.48
14:CQ:99:LYS:HG2	14:CQ:103:GLU:CG	2.43	0.48
19:CT:41:ASN:ND2	19:CT:41:ASN:H	2.10	0.48
21:CV:54:HIS:HB3	21:CV:101:PRO:HG3	1.96	0.48
23:CZ:92:LYS:O	23:CZ:95:LEU:N	2.39	0.48
25:CX:23:LEU:HB3	25:CX:28:LEU:HB2	1.96	0.48
28:C6:26:ASN:O	28:C6:28:ARG:HG2	2.14	0.48
31:DA:82:U:N3	31:DA:87:A:N6	2.46	0.48
31:DA:177:C:H2'	31:DA:178:C:C6	2.46	0.48
31:DA:300:A:O5'	31:DA:300:A:H8	1.96	0.48
31:DA:532:A:H5'	33:DF:161:GLU:OE2	2.14	0.48
31:DA:1054:C:N4	52:DB:35:G:N9	2.62	0.48
31:DA:1278:U:O2	31:DA:1278:U:C2'	2.61	0.48
35:DH:76:ILE:HG23	35:DH:77:PRO:HD2	1.95	0.48
37:DJ:15:ASP:O	37:DJ:19:GLY:HA2	2.14	0.48
39:DL:48:GLU:HA	39:DL:51:ARG:HH11	1.79	0.48
42:DO:38:ARG:HH11	42:DO:38:ARG:HB3	1.78	0.48
43:DP:54:VAL:O	43:DP:57:ARG:HB3	2.14	0.48
44:DQ:24:CYS:HB2	44:DQ:39:LEU:C	2.39	0.48
47:DT:37:LYS:O	47:DT:38:ARG:NE	2.41	0.48
51:DX:2:GLY:C	51:DX:4:GLY:H	2.22	0.48
53:DC:29:C:H2'	53:DC:30:G:H8	1.79	0.48
1:AA:27:G:O6	56:AA:3450:OHX:N4	2.46	0.48
1:AA:33:U:H4'	1:AA:34:C:OP1	2.14	0.48
1:AA:1294:U:O2	13:A0:23:ASN:ND2	2.46	0.48
1:AA:1459:G:C2'	1:AA:1460:A:H5'	2.43	0.48
1:AA:1914:C:H2'	1:AA:1915:U:O4'	2.14	0.48
1:AA:2133:G:C1'	1:AA:2158:A:H61	2.16	0.48
1:AA:2355:C:O4'	22:A3:36:ILE:HD12	2.13	0.48
1:AA:2466:C:O2'	1:AA:2467:C:H5'	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2472:G:C4	1:AA:2475:C:N4	2.81	0.48
1:AA:2473:U:O2	1:AA:2473:U:C2'	2.59	0.48
14:AQ:3:ARG:HG2	14:AQ:4:LEU:H	1.78	0.48
14:AQ:74:ALA:HB1	14:AQ:107:GLU:O	2.14	0.48
20:AU:49:VAL:HB	20:AU:50:ARG:NH2	2.28	0.48
20:AU:76:CYS:CB	20:AU:77:PRO:HD2	2.42	0.48
21:AV:37:VAL:CG2	21:AV:38:TYR:N	2.76	0.48
31:BA:87:A:C4	31:BA:88:C:C5	3.02	0.48
31:BA:370:C:C2	31:BA:392:G:N2	2.81	0.48
31:BA:827:U:C4	31:BA:870:U:C4	3.02	0.48
31:BA:1211:U:H1'	31:BA:1213:A:C2	2.49	0.48
31:BA:1442:G:C6	31:BA:1446:A:N6	2.81	0.48
32:BE:204:ASN:HD22	32:BE:204:ASN:C	2.22	0.48
32:BE:236:TYR:HA	32:BE:239:VAL:HG21	1.94	0.48
33:BF:161:GLU:CD	33:BF:161:GLU:C	2.80	0.48
34:BG:139:ARG:HH11	34:BG:139:ARG:CG	2.18	0.48
35:BH:48:ALA:HB2	35:BH:57:LYS:HD3	1.96	0.48
42:BO:123:LYS:HG3	42:BO:124:GLU:N	2.29	0.48
44:BQ:51:GLY:C	44:BQ:53:LEU:H	2.22	0.48
47:BT:48:GLU:O	47:BT:50:LYS:N	2.47	0.48
49:BV:40:ILE:HG23	49:BV:41:VAL:HG13	1.96	0.48
52:BD:17:G:N1	52:BD:67:A:C6	2.81	0.48
1:CA:218:A:H3'	1:CA:218:A:C8	2.48	0.48
1:CA:756:C:H42	1:CA:771:G:H1	1.61	0.48
1:CA:875:U:H2'	1:CA:2443:A:H2	1.79	0.48
1:CA:974:G:H2'	1:CA:975:G:O4'	2.14	0.48
1:CA:1463:G:H2'	1:CA:1464:C:C6	2.49	0.48
1:CA:1488:G:H2'	1:CA:1489:G:H8	1.78	0.48
1:CA:1573:G:C6	1:CA:1574:G:C2	3.02	0.48
1:CA:1937:C:O2	1:CA:1937:C:O4'	2.31	0.48
1:CA:2025:G:O6	56:CA:3305:OHX:N4	2.47	0.48
1:CA:2150:G:O2'	1:CA:2196:A:C6	2.64	0.48
1:CA:2428:G:H4'	11:CO:66:GLY:CA	2.44	0.48
1:CA:2694:C:C5	1:CA:2741:G:C2	3.01	0.48
2:CB:42:U:N3	26:C4:1:MET:SD	2.87	0.48
3:CD:158:ALA:O	3:CD:159:ALA:C	2.56	0.48
7:CH:3:ARG:CG	7:CH:4:ILE:H	2.12	0.48
11:CO:19:VAL:HG22	11:CO:20:GLY:H	1.78	0.48
11:CO:139:LYS:C	11:CO:141:ALA:H	2.22	0.48
15:CR:64:ARG:HA	15:CR:72:VAL:O	2.14	0.48
15:CR:91:ARG:HH11	15:CR:124:ASP:CG	2.22	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C2:76:LYS:HD2	17:C2:80:GLN:O	2.14	0.48
30:C8:52:LYS:C	30:C8:54:GLU:H	2.17	0.48
31:DA:38:G:C2	31:DA:397:A:C2	3.02	0.48
31:DA:967:C:H5"	31:DA:968:A:OP2	2.14	0.48
31:DA:1369:C:H2'	31:DA:1370:G:O4'	2.13	0.48
31:DA:1502:A:H5"	31:DA:1504:G:N7	2.28	0.48
31:DA:1503:A:C4	54:D1:13:A:C2	3.02	0.48
32:DE:121:LEU:HD22	32:DE:127:ILE:HD13	1.94	0.48
33:DF:51:GLY:O	33:DF:70:VAL:HG13	2.14	0.48
34:DG:141:ARG:N	34:DG:144:ASP:OD2	2.38	0.48
46:DS:14:ASN:OD1	46:DS:16:HIS:CE1	2.67	0.48
50:DW:100:ILE:HG22	50:DW:101:GLY:N	2.29	0.48
1:AA:544:C:H42	1:AA:549:G:H1	1.61	0.48
1:AA:893:C:N4	1:AA:894:C:N4	2.62	0.48
1:AA:1047:G:O2'	1:AA:1111:A:N6	2.47	0.48
1:AA:1425:G:H2'	1:AA:1426:G:C8	2.49	0.48
1:AA:1580:A:H8	1:AA:1580:A:OP2	1.96	0.48
1:AA:1641:A:H2'	1:AA:1642:G:O4'	2.13	0.48
1:AA:2024:G:H2'	1:AA:2025:C:C6	2.48	0.48
1:AA:2511:U:O4	1:AA:2575:C:N3	2.47	0.48
2:AB:30:C:H2'	2:AB:31:C:C5'	2.41	0.48
2:AB:37:C:C2'	2:AB:38:C:H5'	2.44	0.48
4:AE:111:ARG:HB3	13:A0:1:MET:SD	2.53	0.48
5:AF:29:ASN:CB	5:AF:112:MET:HE1	2.44	0.48
7:AH:135:GLY:HA3	7:AH:141:VAL:HG22	1.94	0.48
8:AK:1:MET:O	8:AK:20:ASP:HA	2.14	0.48
8:AK:21:VAL:HG22	8:AK:22:LYS:N	2.28	0.48
8:AK:88:ILE:HD11	8:AK:122:GLU:O	2.14	0.48
14:AQ:39:ILE:HG22	14:AQ:39:ILE:O	2.12	0.48
26:A4:5:ILE:HG22	26:A4:5:ILE:O	2.14	0.48
31:BA:271:C:H2'	31:BA:272:C:C6	2.49	0.48
31:BA:1181:G:O2'	31:BA:1184:G:H5'	2.13	0.48
31:BA:1238:A:N7	31:BA:1301:U:O4	2.47	0.48
31:BA:1346:A:N1	37:BJ:10:ARG:HD3	2.29	0.48
33:BF:3:ASN:OD1	33:BF:3:ASN:N	2.46	0.48
35:BH:151:LEU:O	38:BK:64:LYS:HE2	2.14	0.48
36:BI:19:LEU:HD11	36:BI:59:TYR:CD1	2.48	0.48
52:BB:48:C:H42	52:BB:52:G:H1	0.66	0.48
52:BB:78:C:O2'	52:BB:79:A:O4'	2.25	0.48
1:CA:93:G:H2'	1:CA:94:G:O4'	2.13	0.48
1:CA:394:A:H1'	1:CA:395:C:H5	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:896:G:H2'	1:CA:897:A:H8	1.77	0.48
1:CA:1216:G:H2'	1:CA:1217:G:C1'	2.43	0.48
1:CA:2202:C:O2'	1:CA:2203:U:H5'	2.14	0.48
1:CA:2387:C:H2'	1:CA:2388:G:H5'	1.96	0.48
3:CD:79:VAL:CG1	3:CD:113:VAL:HA	2.44	0.48
4:CE:33:VAL:HG11	4:CE:88:GLY:HA3	1.96	0.48
5:CF:29:ASN:O	5:CF:112:MET:HE1	2.14	0.48
9:CM:45:ASN:H	9:CM:45:ASN:ND2	2.12	0.48
9:CM:99:LEU:O	9:CM:103:VAL:HG23	2.13	0.48
13:C0:70:LEU:HD13	13:C0:75:LEU:HD12	1.95	0.48
15:CR:33:LYS:NZ	15:CR:84:GLN:HG3	2.29	0.48
21:CV:10:ARG:HG2	21:CV:11:GLU:N	2.23	0.48
23:CZ:12:PRO:HG3	23:CZ:43:TYR:HD2	1.79	0.48
24:CW:58:ALA:O	24:CW:62:THR:HG23	2.13	0.48
30:C8:31:HIS:O	30:C8:32:LEU:O	2.31	0.48
31:DA:1374:A:H2'	31:DA:1375:A:C5'	2.43	0.48
31:DA:1505:G:H4'	54:D1:13:A:N6	2.27	0.48
52:DD:28:G:H2'	52:DD:29:C:H6	1.77	0.48
1:AA:27:G:C4	1:AA:512:G:N2	2.82	0.48
1:AA:155:C:C5'	1:AA:155:C:H6	2.27	0.48
1:AA:307:G:N2	1:AA:309:G:H3'	2.29	0.48
1:AA:483:A:O2'	20:AU:59:GLY:HA2	2.14	0.48
1:AA:531:C:C5	1:AA:2035:G:C2	3.02	0.48
1:AA:654(S):G:H1'	1:AA:654(T):A:C8	2.49	0.48
1:AA:654(S):G:H4'	1:AA:654(T):A:OP1	2.10	0.48
1:AA:752:A:H3'	29:A7:1:MET:SD	2.54	0.48
1:AA:1230:C:H2'	1:AA:1231:G:C8	2.49	0.48
1:AA:1771:C:HO2'	1:AA:1786:A:H8	1.60	0.48
1:AA:2134:A:C4	1:AA:2158:A:H2	2.32	0.48
1:AA:2723:C:H5"	13:A0:1:MET:HG2	1.96	0.48
3:AD:34:VAL:HG22	3:AD:35:LYS:HG3	1.96	0.48
4:AE:92:THR:HG22	4:AE:93:VAL:N	2.28	0.48
6:AG:46:ALA:HB1	6:AG:49:ASP:O	2.14	0.48
6:AG:107:LEU:HD21	6:AG:178:PHE:CE1	2.49	0.48
7:AH:86:GLU:O	7:AH:87:LEU:CB	2.62	0.48
7:AH:167:GLU:HA	7:AH:168:PRO:HD3	1.62	0.48
10:AN:64:ARG:HG2	10:AN:79:PHE:CD2	2.49	0.48
11:AO:19:VAL:HG21	11:AO:32:THR:HB	1.95	0.48
12:AP:116:GLU:O	12:AP:120:ILE:HG12	2.13	0.48
16:A1:25:TRP:O	16:A1:28:ARG:HB2	2.13	0.48
19:AT:24:GLY:O	19:AT:83:VAL:HG22	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AU:40:GLU:OE1	20:AU:40:GLU:HA	2.11	0.48
21:AV:160:GLY:C	21:AV:161:VAL:HG22	2.39	0.48
26:A4:37:SER:HB3	26:A4:42:PHE:HD1	1.78	0.48
31:BA:253:U:H2'	31:BA:254:G:C8	2.48	0.48
31:BA:585:G:O6	56:BA:1774:OHX:N5	2.47	0.48
31:BA:1169:A:C6	31:BA:1170:A:C2	3.01	0.48
33:BF:67:THR:HG23	33:BF:102:ASN:HB2	1.95	0.48
35:BH:20:GLN:HE21	35:BH:20:GLN:HB3	1.52	0.48
48:BU:57:GLY:C	48:BU:58:LEU:HD12	2.39	0.48
52:BB:28:G:N2	52:BB:45:C:H1'	2.29	0.48
1:CA:155:C:C2	1:CA:161:G:N2	2.82	0.48
1:CA:626:G:H8	1:CA:626:G:OP2	1.97	0.48
1:CA:734:G:H21	1:CA:836:A:H61	1.60	0.48
1:CA:1025:G:O6	56:CA:3270:OHX:N3	2.46	0.48
1:CA:1049:G:C2	1:CA:1050:G:H1'	2.49	0.48
1:CA:1193:C:O2'	1:CA:1194:C:H5'	2.14	0.48
1:CA:1532:G:H2'	1:CA:1533:A:H8	1.79	0.48
1:CA:1557:A:OP2	1:CA:1557:A:C8	2.66	0.48
1:CA:1596:C:H2'	1:CA:1597:C:H6	1.78	0.48
1:CA:1922:G:H21	1:CA:1925:C:H5	1.60	0.48
1:CA:2725:U:OP1	1:CA:2728:G:H4'	2.14	0.48
5:CF:175:THR:O	5:CF:176:LEU:HB2	2.13	0.48
8:CK:139:GLN:O	8:CK:140:LEU:HB2	2.14	0.48
9:CM:38:HIS:CE1	9:CM:39:ARG:HG3	2.49	0.48
14:CQ:39:ILE:HG21	14:CQ:82:ILE:HD13	1.95	0.48
15:CR:8:LYS:HB2	15:CR:8:LYS:HZ2	1.78	0.48
15:CR:91:ARG:HD3	15:CR:120:ARG:NH1	2.29	0.48
23:CZ:85:LEU:HD12	23:CZ:85:LEU:O	2.14	0.48
24:CW:63:VAL:O	24:CW:66:GLU:HG2	2.14	0.48
30:C8:37:SER:C	30:C8:39:LYS:H	2.19	0.48
31:DA:410:G:C2	31:DA:429:U:C2	3.02	0.48
31:DA:436:C:H2'	31:DA:437:U:C6	2.48	0.48
31:DA:588:G:H1	31:DA:651:C:H42	1.62	0.48
31:DA:599:C:OP1	56:DK:201:OHX:N4	2.47	0.48
31:DA:982:U:O2	31:DA:1222:G:N2	2.41	0.48
31:DA:1004:A:H5"	31:DA:1025:U:C4	2.47	0.48
31:DA:1004:A:H1'	31:DA:1036:G:C6	2.49	0.48
31:DA:1081:G:N7	35:DH:47:LYS:HE3	2.28	0.48
32:DE:32:ILE:HD12	32:DE:41:ILE:O	2.13	0.48
33:DF:91:LEU:HD11	33:DF:101:LEU:HD12	1.96	0.48
34:DG:148:VAL:HG12	34:DG:152:SER:HB2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DL:5:TYR:CE2	39:DL:16:ARG:HG2	2.46	0.48
44:DQ:23:ARG:HD3	44:DQ:29:ARG:O	2.14	0.48
52:DB:48:C:C4	52:DB:49:A:C5	3.02	0.48
52:DD:8:U:H3	52:DD:14:A:H62	1.61	0.48
52:DD:21:A:H4'	52:DD:21:A:OP2	2.14	0.48
52:DD:27:A:H2'	52:DD:28:G:C8	2.49	0.48
1:AA:511:U:O4	1:AA:512:G:N1	2.46	0.47
1:AA:633:A:H3'	1:AA:633:A:C8	2.49	0.47
1:AA:813:U:H2'	1:AA:814:C:C6	2.49	0.47
1:AA:881:G:H3'	1:AA:882:G:O4'	2.14	0.47
1:AA:1799:G:O2'	1:AA:1800:C:OP2	2.27	0.47
1:AA:2141:G:H2'	1:AA:2142:C:O4'	2.13	0.47
1:AA:2360:A:H2'	1:AA:2361:A:O4'	2.14	0.47
1:AA:2396:G:C2'	1:AA:2397:G:H5'	2.44	0.47
1:AA:2694:G:C5	1:AA:2695:C:C5	3.02	0.47
3:AD:44:ASN:CB	3:AD:49:ILE:HA	2.35	0.47
10:AN:88:ASN:H	10:AN:88:ASN:HD22	1.60	0.47
11:AO:19:VAL:HG23	11:AO:27:HIS:CA	2.35	0.47
15:AR:74:ARG:HB3	15:AR:76:PHE:CZ	2.49	0.47
31:BA:209:U:O2	31:BA:209:U:H2'	2.14	0.47
31:BA:511:C:O3'	34:BG:43:HIS:CE1	2.66	0.47
31:BA:842:C:H4'	31:BA:843:U:OP1	2.12	0.47
31:BA:1027:C:O2'	31:BA:1028:C:H3'	2.13	0.47
31:BA:1394:A:C5	31:BA:1501:C:H4'	2.49	0.47
31:BA:1505:G:H4'	54:B1:13:A:H62	1.77	0.47
45:BR:42:HIS:CD2	45:BR:43:LEU:HD23	2.49	0.47
46:BS:5:ARG:NE	46:BS:22:THR:HG21	2.28	0.47
48:BU:29:PHE:CE1	48:BU:31:LEU:HB3	2.49	0.47
1:CA:38:A:H1'	5:CF:48:THR:HB	1.96	0.47
1:CA:126:C:O2'	1:CA:127:C:O5'	2.29	0.47
1:CA:162:C:H2'	1:CA:163:G:C8	2.49	0.47
1:CA:502:U:OP1	56:CA:3383:OHX:N6	2.47	0.47
1:CA:937:C:C5	1:CA:938:A:H1'	2.49	0.47
1:CA:979:A:N7	1:CA:980:G:H1'	2.29	0.47
1:CA:1803:C:C1'	1:CA:1818:A:C8	2.97	0.47
1:CA:2228:G:C4'	1:CA:2229:G:OP2	2.62	0.47
1:CA:2400:U:C5'	1:CA:2401:A:OP2	2.62	0.47
1:CA:2715:U:H3'	1:CA:2715:U:O2	2.14	0.47
4:CE:170:LEU:HD12	4:CE:185:LYS:H	1.78	0.47
5:CF:31:HIS:HB2	11:CO:9:ASN:ND2	2.28	0.47
6:CG:83:ARG:H	6:CG:86:MET:HE3	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CH:26:VAL:HG22	7:CH:26:VAL:O	2.14	0.47
7:CH:92:ILE:HD13	7:CH:160:LYS:CG	2.44	0.47
11:CO:90:ARG:HG3	11:CO:91:PHE:H	1.78	0.47
12:CP:21:THR:O	12:CP:21:THR:HG23	2.10	0.47
20:CU:95:LYS:HB2	20:CU:95:LYS:HZ2	1.79	0.47
21:CV:44:PHE:CD1	21:CV:44:PHE:C	2.92	0.47
23:CZ:95:LEU:O	23:CZ:97:LEU:N	2.47	0.47
25:CX:5:LYS:HE3	25:CX:59:VAL:HG21	1.96	0.47
28:C6:26:ASN:O	28:C6:28:ARG:NH1	2.47	0.47
30:C8:21:LYS:HG2	30:C8:50:LEU:HD21	1.96	0.47
31:DA:325:A:H2'	31:DA:326:G:O4'	2.13	0.47
31:DA:751:U:H4'	45:DR:24:SER:HA	1.95	0.47
31:DA:773:G:C2	31:DA:807:A:C2	3.02	0.47
31:DA:789:U:O4	56:DA:1792:OHX:N6	2.47	0.47
31:DA:991:U:O2	31:DA:993:G:H8	1.97	0.47
31:DA:1013:G:O2'	31:DA:1014:A:N7	2.46	0.47
31:DA:1320:C:C4	31:DA:1321:C:N4	2.82	0.47
32:DE:8:LYS:O	32:DE:9:GLU:HB3	2.14	0.47
32:DE:30:ARG:HH21	32:DE:194:PRO:HG2	1.79	0.47
33:DF:127:ARG:HH21	33:DF:191:THR:HG22	1.79	0.47
34:DG:155:LEU:O	34:DG:159:ARG:HG3	2.14	0.47
35:DH:101:ILE:HD11	35:DH:119:LEU:HA	1.95	0.47
39:DL:19:LEU:HA	39:DL:61:ALA:HA	1.95	0.47
39:DL:33:PHE:HE1	39:DL:37:PHE:HD1	1.61	0.47
39:DL:90:PRO:C	39:DL:92:TYR:H	2.21	0.47
40:DM:47:PHE:CZ	44:DQ:37:PHE:CE2	3.01	0.47
48:DU:22:VAL:CG1	48:DU:56:THR:HA	2.44	0.47
52:DB:26:G:H2'	52:DB:26:G:N3	2.29	0.47
1:AA:270(A):A:N3	1:AA:365:C:O2'	2.43	0.47
1:AA:460:A:C2	1:AA:470:A:C4	3.02	0.47
1:AA:546:C:H3'	1:AA:547:A:H8	1.77	0.47
1:AA:635:C:O2'	1:AA:639:U:OP1	2.32	0.47
1:AA:1181:C:H2'	1:AA:1182:A:C8	2.48	0.47
1:AA:1477:A:H2	1:AA:1557:C:O2'	1.97	0.47
1:AA:1528:A:C2	1:AA:1542:G:C2	3.02	0.47
1:AA:1687:G:O2'	1:AA:1688:U:H5'	2.14	0.47
1:AA:2014:A:O2'	27:A5:2:ALA:CB	2.60	0.47
1:AA:2469:A:O2'	12:AP:56:ARG:HG2	2.14	0.47
1:AA:2477:C:O2	56:AA:3370:OHX:N3	2.47	0.47
2:AB:88:C:H2'	2:AB:89:G:O4'	2.14	0.47
4:AE:38:THR:HG23	4:AE:40:GLU:N	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:101:ILE:HD11	26:A4:9:LEU:HD11	1.96	0.47
7:AH:98:LEU:HD12	7:AH:103:LEU:HA	1.96	0.47
8:AK:21:VAL:HG21	8:AK:25:TYR:CD1	2.45	0.47
8:AK:123:LEU:HA	8:AK:142:VAL:HG23	1.95	0.47
10:AN:75:SER:CB	15:AR:74:ARG:HH12	2.27	0.47
11:AO:49:ARG:HG3	30:A8:59:LYS:HD3	1.95	0.47
12:AP:87:LYS:HG3	12:AP:88:GLY:N	2.28	0.47
15:AR:109:GLU:O	15:AR:113:LYS:HB2	2.13	0.47
29:A7:8:ASN:HD22	29:A7:11:LYS:CB	2.27	0.47
31:BA:1290:G:H2'	31:BA:1290:G:N3	2.29	0.47
31:BA:1350:A:C6	31:BA:1351:U:N3	2.82	0.47
31:BA:1366:C:H2'	31:BA:1367:C:C6	2.48	0.47
31:BA:1429:C:H2'	31:BA:1430:C:C6	2.49	0.47
32:BE:229:VAL:HG12	32:BE:230:VAL:H	1.77	0.47
35:BH:139:LEU:O	35:BH:141:GLN:N	2.47	0.47
38:BK:6:ILE:HB	38:BK:85:ARG:HH12	1.79	0.47
40:BM:29:ARG:HH12	40:BM:84:GLN:HE22	1.62	0.47
52:BD:28:G:H2'	52:BD:29:C:H6	1.79	0.47
1:CA:999:A:H2'	1:CA:1000:G:H8	1.79	0.47
1:CA:1103:G:H4'	1:CA:1133:A:H1'	1.95	0.47
1:CA:1187:U:C2'	1:CA:1188:U:OP2	2.62	0.47
1:CA:1532:G:H1	1:CA:1551:C:N4	2.12	0.47
1:CA:2075:G:C8	4:CE:141:ILE:HD11	2.48	0.47
1:CA:2311:A:N3	1:CA:2334:G:C2	2.82	0.47
3:CD:30:GLU:CD	3:CD:63:ARG:NH2	2.72	0.47
5:CF:123:LEU:HA	5:CF:192:LEU:HB2	1.95	0.47
5:CF:187:VAL:HG12	11:CO:3:LEU:HG	1.96	0.47
9:CM:31:ALA:O	9:CM:35:ARG:HG2	2.14	0.47
11:CO:109:GLY:C	11:CO:110:TYR:CD2	2.92	0.47
12:CP:24:GLY:CA	12:CP:25:ASP:HB2	2.14	0.47
19:CT:41:ASN:ND2	19:CT:41:ASN:N	2.60	0.47
21:CV:97:GLU:HB3	21:CV:125:LEU:HD11	1.94	0.47
23:CZ:65:SER:OG	23:CZ:66:HIS:HD2	1.97	0.47
23:CZ:87:PRO:C	23:CZ:89:GLU:N	2.67	0.47
26:C4:63:TYR:HB3	49:DV:41:VAL:HG13	1.95	0.47
28:C6:44:ARG:O	28:C6:45:LYS:CB	2.58	0.47
31:DA:81:G:N2	31:DA:88:C:C2	2.76	0.47
31:DA:157:G:C2	31:DA:165:C:C2	3.01	0.47
31:DA:597:G:H2'	31:DA:598:U:H5'	1.96	0.47
31:DA:868:C:H2'	31:DA:869:G:O4'	2.13	0.47
31:DA:950:U:H3	31:DA:1231:G:H1	1.61	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:962:C:N4	31:DA:974:A:H61	2.12	0.47
31:DA:1004:A:H2	31:DA:1024:G:N7	2.11	0.47
31:DA:1213:A:C5	31:DA:1215:G:C4	3.02	0.47
32:DE:24:TRP:C	32:DE:24:TRP:CD1	2.92	0.47
35:DH:41:VAL:O	35:DH:66:MET:HA	2.14	0.47
37:DJ:35:LYS:HZ1	37:DJ:38:LEU:HD22	1.78	0.47
37:DJ:73:MET:HA	37:DJ:91:VAL:HG23	1.96	0.47
53:DC:52:C:H2'	53:DC:53:G:O4'	2.14	0.47
52:DD:27:A:C4	52:DD:28:G:C8	3.02	0.47
1:AA:270(M):U:H1'	1:AA:270(N):G:N7	2.29	0.47
1:AA:270(R):G:H2'	1:AA:270(S):G:C8	2.48	0.47
1:AA:527:C:H4'	1:AA:528:A:C5'	2.43	0.47
1:AA:671:C:OP1	11:AO:42:SER:O	2.31	0.47
1:AA:773:U:H5'	3:AD:47:GLY:HA2	1.96	0.47
1:AA:1024:G:C3'	1:AA:1025:G:H5"	2.44	0.47
1:AA:1535:U:C2	1:AA:1536:A:H3'	2.50	0.47
1:AA:1820:U:C2	3:AD:202:LYS:HB3	2.49	0.47
2:AB:15:A:O2'	2:AB:109:G:C8	2.56	0.47
3:AD:74:GLY:O	3:AD:76:PRO:HD3	2.15	0.47
7:AH:4:ILE:O	7:AH:6:ARG:N	2.47	0.47
7:AH:130:ARG:HH11	7:AH:130:ARG:HB3	1.78	0.47
7:AH:131:VAL:HG13	7:AH:132:ARG:N	2.28	0.47
11:AO:2:LYS:HE3	11:AO:4:SER:OG	2.13	0.47
13:A0:44:LEU:CD2	13:A0:48:VAL:HG13	2.44	0.47
13:A0:104:ARG:HB3	13:A0:107:ASP:OD2	2.14	0.47
13:A0:107:ASP:OD2	13:A0:107:ASP:C	2.57	0.47
25:AX:7:LYS:O	25:AX:9:VAL:HG22	2.13	0.47
31:BA:152:A:N6	31:BA:170:U:C2	2.81	0.47
31:BA:438:G:O6	31:BA:494:U:OP2	2.32	0.47
31:BA:475:G:N7	56:BA:1672:OHX:N3	2.61	0.47
31:BA:475:G:H2'	31:BA:476:G:O4'	2.15	0.47
31:BA:1020:U:H2'	31:BA:1021:G:C8	2.49	0.47
31:BA:1375:A:H2'	31:BA:1376:U:O4'	2.14	0.47
32:BE:187:LEU:HD13	32:BE:187:LEU:O	2.13	0.47
33:BF:77:ILE:HA	33:BF:84:ILE:HB	1.96	0.47
37:BJ:54:THR:C	37:BJ:56:GLN:H	2.23	0.47
48:BU:31:LEU:HD23	48:BU:31:LEU:H	1.78	0.47
53:BC:18:C:O2	56:BC:106:OHX:N4	2.48	0.47
52:BD:51:C:C6	52:BD:52:G:H1'	2.48	0.47
1:CA:27:G:O2'	1:CA:28:A:OP2	2.28	0.47
1:CA:166:G:O2'	1:CA:167:G:H5'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:255:A:C6	1:CA:456:A:C4	3.02	0.47
1:CA:380:G:C6	1:CA:381:G:C5	3.02	0.47
1:CA:402:A:C2	1:CA:429:A:C4	3.02	0.47
1:CA:1406:A:H2'	1:CA:1407:A:H5'	1.96	0.47
1:CA:1589:G:H3'	1:CA:1590:A:C5'	2.42	0.47
1:CA:1734:C:H2'	1:CA:1735:G:O4'	2.15	0.47
1:CA:1948:C:C2'	1:CA:1949:U:H5'	2.44	0.47
1:CA:2061:G:H2'	1:CA:2062:C:C6	2.50	0.47
1:CA:2091:U:H3	1:CA:2443:A:H2	1.62	0.47
1:CA:2230:A:H4'	1:CA:2231:U:C5	2.49	0.47
1:CA:2805:C:H2'	1:CA:2806:G:C8	2.49	0.47
2:CB:112:G:C4	2:CB:113:G:C8	3.02	0.47
7:CH:76:VAL:O	7:CH:79:VAL:HG22	2.14	0.47
8:CK:77:LEU:CG	8:CK:78:THR:H	2.27	0.47
11:CO:146:VAL:HG13	11:CO:147:LEU:HD13	1.97	0.47
12:CP:19:GLY:C	12:CP:98:LYS:HD3	2.40	0.47
12:CP:66:ILE:HG13	12:CP:67:ARG:H	1.80	0.47
14:CQ:106:ARG:O	14:CQ:107:GLU:HB2	2.14	0.47
22:C3:53:MET:HG3	22:C3:59:LEU:HD23	1.96	0.47
26:C4:14:ILE:HB	26:C4:24:THR:HG23	1.97	0.47
31:DA:332:G:C2	31:DA:333:G:C8	3.02	0.47
31:DA:464:G:C5	31:DA:466:C:OP2	2.67	0.47
31:DA:848:C:H2'	31:DA:849:C:H6	1.79	0.47
31:DA:954:G:H21	31:DA:1227:A:N6	2.12	0.47
31:DA:1084:G:H5'	31:DA:1102:A:OP2	2.13	0.47
31:DA:1196:U:O2	54:D1:23:A:N7	2.47	0.47
32:DE:178:ARG:HH22	32:DE:196:LEU:CA	2.26	0.47
33:DF:148:GLY:O	33:DF:203:PHE:HB3	2.14	0.47
35:DH:24:ARG:HG3	35:DH:26:PHE:CZ	2.49	0.47
35:DH:40:ARG:NH2	35:DH:66:MET:HG2	2.30	0.47
39:DL:48:GLU:HA	39:DL:51:ARG:NH1	2.28	0.47
43:DP:84:ILE:C	43:DP:86:CYS:N	2.72	0.47
1:AA:638:G:H2'	1:AA:639:U:O4'	2.15	0.47
1:AA:670:A:O2'	56:AA:3514:OHX:N3	2.48	0.47
1:AA:945:A:O4'	1:AA:946:G:OP1	2.32	0.47
1:AA:995:C:C2	16:A1:57:PHE:CE2	3.03	0.47
1:AA:1153:C:C4	1:AA:1154:G:C6	3.03	0.47
1:AA:1396:U:H2'	1:AA:1396:U:O2	2.13	0.47
1:AA:1992:G:C1'	1:AA:1993:U:OP2	2.63	0.47
1:AA:2250:G:N1	12:AP:83:MET:HB2	2.30	0.47
1:AA:2364:C:O2'	1:AA:2365:G:H5'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2415:G:H4'	11:AO:67:MET:N	2.30	0.47
1:AA:2432:A:C5	23:AZ:33:LYS:HG2	2.49	0.47
3:AD:182:LEU:N	3:AD:272:ALA:HB3	2.28	0.47
4:AE:59:VAL:HG22	4:AE:59:VAL:O	2.14	0.47
11:AO:9:ASN:CB	11:AO:10:PRO:CD	2.83	0.47
23:AZ:67:ILE:N	23:AZ:68:PRO:CD	2.78	0.47
31:BA:519:C:N4	31:BA:520:A:C6	2.82	0.47
31:BA:798:G:H2'	31:BA:799:G:O5'	2.14	0.47
31:BA:1162:C:C2	31:BA:1175:G:N2	2.82	0.47
32:BE:178:ARG:O	38:BK:71:GLY:HA2	2.13	0.47
53:BC:20:G:C2	53:BC:58:A:N3	2.82	0.47
52:BD:50:U:O5'	52:BD:50:U:H6	1.97	0.47
1:CA:367:G:O2'	1:CA:368:C:H5'	2.14	0.47
1:CA:577:G:H2'	1:CA:578:U:H6	1.79	0.47
1:CA:831:A:H2'	1:CA:832:A:O3'	2.14	0.47
1:CA:894:C:C2	1:CA:895:U:C5	3.02	0.47
1:CA:1558:A:H2'	1:CA:1559:G:H8	1.79	0.47
1:CA:1824:G:H2'	1:CA:1825:C:H6	1.79	0.47
2:CB:41:A:C4	26:C4:1:MET:HE3	2.50	0.47
3:CD:172:TYR:CZ	3:CD:269:PHE:HE2	2.32	0.47
4:CE:23:VAL:HG23	4:CE:24:THR:N	2.29	0.47
4:CE:38:THR:HG22	4:CE:41:LYS:HG2	1.97	0.47
8:CK:41:GLU:O	8:CK:45:LYS:HG2	2.14	0.47
8:CK:47:LEU:HA	8:CK:50:ARG:HG2	1.96	0.47
9:CM:16:ILE:HB	9:CM:54:VAL:HG22	1.96	0.47
11:CO:9:ASN:CB	11:CO:10:PRO:CD	2.81	0.47
11:CO:77:ARG:HB2	11:CO:78:PRO:HD2	1.96	0.47
12:CP:58:PHE:O	12:CP:59:ARG:C	2.56	0.47
12:CP:76:LYS:O	12:CP:77:LYS:C	2.56	0.47
16:C1:92:ARG:C	16:C1:94:ASN:N	2.73	0.47
18:CS:1:MET:HE2	18:CS:62:HIS:CD2	2.50	0.47
18:CS:96:ILE:HD13	18:CS:96:ILE:O	2.15	0.47
21:CV:4:ARG:HG2	21:CV:58:VAL:HG11	1.96	0.47
22:C3:29:GLN:O	22:C3:67:VAL:HG23	2.14	0.47
26:C4:34:GLU:HG3	43:DP:3:ARG:CB	2.44	0.47
28:C6:18:ARG:CB	28:C6:44:ARG:HH22	2.27	0.47
31:DA:103:C:P	50:DW:17:ARG:HH21	2.38	0.47
31:DA:415:A:H2'	31:DA:416:G:O4'	2.14	0.47
31:DA:1206:G:C6	31:DA:1207:G:C6	3.02	0.47
31:DA:1358:U:H3'	31:DA:1359:C:C6	2.48	0.47
33:DF:77:ILE:O	33:DF:83:ARG:HB3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DF:121:ALA:O	33:DF:125:GLU:HG3	2.14	0.47
34:DG:191:ARG:HD2	34:DG:200:GLU:OE1	2.15	0.47
40:DM:9:ARG:HG2	40:DM:69:ASN:OD1	2.14	0.47
40:DM:75:ILE:HG13	40:DM:76:ASN:N	2.30	0.47
43:DP:60:VAL:HG13	43:DP:64:TRP:HE1	1.79	0.47
43:DP:62:ASN:O	43:DP:63:THR:C	2.56	0.47
52:DB:21:A:C2	52:DB:56:U:C2	3.03	0.47
52:DD:53:A:O2'	52:DD:54:C:H5'	2.13	0.47
1:AA:480:A:H2'	1:AA:481:G:OP1	2.14	0.47
1:AA:969:U:O4	56:AA:3568:OHX:N1	2.47	0.47
1:AA:1057:A:C8	1:AA:1086:A:H2'	2.50	0.47
1:AA:1091:G:N2	1:AA:1101:U:H1'	2.29	0.47
1:AA:1159:U:O2'	1:AA:1160:G:H5'	2.15	0.47
1:AA:1162:G:O4'	17:A2:23:GLU:HG3	2.14	0.47
1:AA:1280:G:O2'	1:AA:1281:G:H5'	2.14	0.47
1:AA:1331:A:OP1	56:AA:3536:OHX:N2	2.47	0.47
1:AA:1627:G:OP1	56:AA:3455:OHX:N5	2.47	0.47
1:AA:1729:A:N6	1:AA:1731:G:C2	2.82	0.47
1:AA:1887:C:C3'	1:AA:1888:G:H5"	2.44	0.47
1:AA:2404:C:C2'	1:AA:2405:G:H5'	2.44	0.47
2:AB:15:A:H1'	2:AB:109:G:N9	2.29	0.47
3:AD:35:LYS:NZ	3:AD:64:ILE:C	2.69	0.47
4:AE:27:LEU:HD22	15:AR:1:MET:HE1	1.95	0.47
6:AG:161:THR:HG22	6:AG:163:ALA:N	2.09	0.47
8:AK:131:LYS:CB	8:AK:132:PRO:HA	2.19	0.47
9:AM:73:THR:HG22	9:AM:84:LYS:HG2	1.96	0.47
11:AO:91:PHE:HZ	11:AO:103:ALA:CB	2.27	0.47
12:AP:75:THR:HG22	12:AP:90:VAL:H	1.79	0.47
21:AV:4:ARG:HG2	21:AV:58:VAL:CG2	2.44	0.47
21:AV:74:VAL:HG22	21:AV:86:VAL:HG12	1.97	0.47
21:AV:103:ARG:HG3	21:AV:136:PHE:CD1	2.50	0.47
21:AV:113:ALA:N	21:AV:114:GLY:HA2	2.29	0.47
23:AZ:18:ILE:HG12	23:AZ:37:ILE:HG23	1.96	0.47
31:BA:109:A:C6	31:BA:326:G:C6	3.03	0.47
31:BA:181:G:O2'	31:BA:182:U:C6	2.67	0.47
31:BA:429:U:H4'	31:BA:430:A:OP1	2.12	0.47
31:BA:722:A:C6	31:BA:724:G:C5	3.02	0.47
31:BA:1014:A:H4'	49:BV:14:HIS:CD2	2.49	0.47
31:BA:1027:C:C4'	31:BA:1028:C:OP1	2.62	0.47
31:BA:1133:G:C6	31:BA:1142:G:C6	3.03	0.47
31:BA:1137:C:O2'	31:BA:1138:G:C2	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1346:A:C6	37:BJ:10:ARG:HD3	2.49	0.47
31:BA:1373:G:H5'	37:BJ:36:LYS:HB2	1.97	0.47
35:BH:45:PHE:CD2	35:BH:47:LYS:HD2	2.49	0.47
43:BP:27:LYS:HA	43:BP:31:LYS:HE3	1.96	0.47
52:BB:17:G:N3	52:BB:66:G:C2	2.83	0.47
52:BB:68:A:H2'	52:BB:68:A:N3	2.29	0.47
1:CA:637:G:C2	1:CA:642:G:C6	3.03	0.47
1:CA:675:G:C5	1:CA:676:C:C4	3.02	0.47
1:CA:679:A:H5"	1:CA:680:A:OP2	2.14	0.47
1:CA:1041:C:H1'	17:C2:10:LYS:HE2	1.95	0.47
1:CA:1365:C:C2'	1:CA:1366:G:H5"	2.44	0.47
1:CA:1554:A:C2	1:CA:1555:A:H1'	2.50	0.47
1:CA:1572:G:N2	1:CA:1573:G:H1'	2.29	0.47
1:CA:1633:A:H3'	1:CA:1634:A:H8	1.78	0.47
1:CA:2010:G:OP2	56:CA:3232:OHX:N6	2.48	0.47
1:CA:2214:G:O2'	1:CA:2215:G:O5'	2.30	0.47
1:CA:2726:A:H5"	1:CA:2727:A:OP2	2.14	0.47
3:CD:44:ASN:HB3	3:CD:48:ARG:O	2.13	0.47
5:CF:123:LEU:C	5:CF:125:LEU:H	2.21	0.47
5:CF:167:ALA:O	5:CF:168:ARG:C	2.58	0.47
7:CH:117:PRO:HB3	7:CH:123:PHE:HZ	1.79	0.47
11:CO:90:ARG:HG3	11:CO:91:PHE:N	2.29	0.47
11:CO:147:LEU:HD22	11:CO:148:LEU:N	2.29	0.47
14:CQ:14:VAL:HG21	14:CQ:89:ARG:HG2	1.97	0.47
15:CR:125:ARG:HB3	15:CR:129:ARG:CZ	2.44	0.47
17:C2:35:LEU:O	17:C2:37:VAL:HG13	2.14	0.47
18:CS:12:ILE:HD13	18:CS:17:VAL:CG2	2.44	0.47
19:CT:55:ASN:HB2	19:CT:80:ILE:HG12	1.97	0.47
21:CV:65:GLN:HE22	21:CV:67:LEU:HD21	1.79	0.47
21:CV:116:VAL:HG12	21:CV:117:LEU:N	2.29	0.47
21:CV:149:SER:HA	21:CV:172:ALA:O	2.14	0.47
24:CW:12:GLU:O	24:CW:13:ALA:C	2.58	0.47
31:DA:66:G:C5	31:DA:67:C:C5	3.02	0.47
31:DA:246:A:C4	31:DA:279:A:N6	2.83	0.47
31:DA:526:C:OP2	42:DO:88:LYS:HE2	2.14	0.47
31:DA:724:G:O2'	31:DA:725:G:H5'	2.14	0.47
31:DA:740:U:H4'	45:DR:42:HIS:CD2	2.50	0.47
31:DA:977:A:H3'	31:DA:977:A:N3	2.30	0.47
31:DA:994:A:N7	31:DA:1216:G:H4'	2.28	0.47
31:DA:1118:C:OP1	39:DL:104:ARG:HD2	2.14	0.47
31:DA:1507:A:C2	31:DA:1508:G:C4	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DF:23:TYR:HD2	33:DF:24:ALA:N	2.13	0.47
34:DG:31:CYS:O	34:DG:32:ALA:HB3	2.13	0.47
35:DH:60:TYR:HA	35:DH:63:ARG:CG	2.45	0.47
46:DS:45:THR:OG1	46:DS:47:ASP:OD1	2.31	0.47
47:DT:62:SER:OG	47:DT:72:ARG:HB2	2.14	0.47
49:DV:69:HIS:HB3	49:DV:73:GLU:OE1	2.14	0.47
52:DD:80:C:H2'	52:DD:81:C:C6	2.49	0.47
1:AA:376:C:H2'	1:AA:377:C:C6	2.50	0.47
1:AA:833:U:H2'	1:AA:834:C:H6	1.78	0.47
1:AA:1169:G:H1	1:AA:1180:C:H42	1.62	0.47
1:AA:1204:A:C2	1:AA:1241:A:N1	2.83	0.47
1:AA:1486:A:H2'	1:AA:1487:G:C8	2.49	0.47
1:AA:1968:G:O2'	1:AA:1969:A:O4'	2.28	0.47
1:AA:2077:A:H2'	1:AA:2078:C:C6	2.50	0.47
1:AA:2211:G:C4'	1:AA:2212:A:OP2	2.62	0.47
1:AA:2364:C:H2'	1:AA:2365:G:O4'	2.14	0.47
1:AA:2695:C:H2'	1:AA:2696:U:C6	2.50	0.47
4:AE:21:VAL:HB	4:AE:22:PRO:HB3	1.95	0.47
5:AF:102:PRO:HB2	5:AF:105:VAL:HG23	1.97	0.47
8:AK:72:LEU:HD11	8:AK:107:VAL:HG11	1.96	0.47
8:AK:74:ASN:N	8:AK:74:ASN:ND2	2.63	0.47
8:AK:114:LEU:HD13	8:AK:130:TYR:HD1	1.79	0.47
10:AN:64:ARG:O	10:AN:82:ASN:HA	2.14	0.47
11:AO:85:LEU:C	11:AO:87:ASP:N	2.73	0.47
11:AO:95:VAL:HA	11:AO:99:LEU:HD23	1.97	0.47
15:AR:23:ARG:HB3	15:AR:24:PRO:HD2	1.96	0.47
20:AU:63:LYS:HZ3	20:AU:64:GLU:HG2	1.79	0.47
21:AV:25:PRO:O	21:AV:85:HIS:HA	2.14	0.47
26:A4:42:PHE:CD1	26:A4:42:PHE:C	2.91	0.47
31:BA:243:A:H4'	31:BA:244:U:C5'	2.44	0.47
31:BA:243:A:C5'	31:BA:244:U:H3'	2.44	0.47
31:BA:751:U:H4'	45:BR:24:SER:HA	1.97	0.47
31:BA:1176:A:H8	31:BA:1176:A:O5'	1.97	0.47
31:BA:1277:C:O2'	31:BA:1279:A:C8	2.65	0.47
31:BA:1516:G:H2'	31:BA:1518:A:OP2	2.15	0.47
41:BN:40:ILE:HG13	41:BN:77:MET:HE1	1.95	0.47
43:BP:4:ILE:O	43:BP:5:ALA:C	2.57	0.47
46:BS:26:ARG:HH21	46:BS:31:LYS:HD3	1.80	0.47
1:CA:9:U:O4	1:CA:2642:A:C6	2.68	0.47
1:CA:435:G:H2'	1:CA:436:G:H8	1.79	0.47
1:CA:853:G:N2	1:CA:877:A:OP1	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1315:A:H2'	1:CA:1316:A:O4'	2.14	0.47
1:CA:1858:G:H4'	3:CD:242:ARG:NH2	2.29	0.47
1:CA:1922:G:C2'	1:CA:1923:A:OP2	2.62	0.47
1:CA:2592:C:H4'	4:CE:134:ILE:HG12	1.96	0.47
1:CA:2694:C:N4	1:CA:2741:G:C6	2.83	0.47
1:CA:2860:U:O2'	1:CA:2877:U:O2	2.30	0.47
2:CB:26:G:N2	2:CB:30:C:C2	2.83	0.47
4:CE:119:ARG:CD	4:CE:160:TYR:HB2	2.42	0.47
6:CG:5:VAL:HG13	26:C4:23:GLU:OE1	2.15	0.47
14:CQ:17:ARG:CG	14:CQ:17:ARG:NH1	2.57	0.47
14:CQ:106:ARG:O	14:CQ:106:ARG:NH1	2.48	0.47
15:CR:91:ARG:HD3	15:CR:120:ARG:HH11	1.80	0.47
17:C2:5:VAL:HB	17:C2:37:VAL:HB	1.97	0.47
17:C2:62:LEU:HD22	17:C2:95:LEU:HB2	1.96	0.47
17:C2:75:PHE:CE2	17:C2:81:TYR:CE1	3.03	0.47
19:CT:57:LEU:HD23	19:CT:57:LEU:N	2.29	0.47
20:CU:96:ILE:HG22	20:CU:97:ARG:H	1.79	0.47
21:CV:6:LYS:O	21:CV:7:ALA:HB3	2.14	0.47
26:C4:34:GLU:HG2	26:C4:35:VAL:HG22	1.96	0.47
31:DA:1274:G:N2	31:DA:1275:A:H62	2.12	0.47
33:DF:18:TRP:HB2	33:DF:21:ARG:HG2	1.96	0.47
33:DF:184:TYR:HD1	33:DF:201:TYR:CE2	2.32	0.47
36:DI:22:GLU:OE1	36:DI:84:ASN:ND2	2.41	0.47
36:DI:60:PHE:C	36:DI:61:LEU:HD12	2.39	0.47
37:DJ:63:LYS:HG3	37:DJ:64:GLN:N	2.29	0.47
42:DO:72:HIS:C	42:DO:72:HIS:CD2	2.92	0.47
50:DW:87:LYS:HD2	50:DW:87:LYS:HA	1.71	0.47
1:AA:71:A:OP2	1:AA:112:U:O2'	2.27	0.47
1:AA:654(J):A:C2	1:AA:654(K):C:H5	2.33	0.47
1:AA:819:A:C4	1:AA:1189:A:C2	3.03	0.47
1:AA:879:G:OP2	1:AA:879:G:C8	2.68	0.47
1:AA:984:A:H5"	1:AA:985:C:H5	1.78	0.47
1:AA:1005:C:O2'	9:AM:28:THR:HG21	2.15	0.47
1:AA:1331:A:O2'	1:AA:1332:G:C8	2.61	0.47
1:AA:1417:C:N4	1:AA:1581:G:H1	2.12	0.47
1:AA:1654:A:OP1	13:A0:1:MET:O	2.32	0.47
1:AA:1681:G:OP1	56:AA:3300:OHX:N4	2.47	0.47
1:AA:1774:C:H6	1:AA:1774:C:O5'	1.98	0.47
1:AA:1858:G:H1'	1:AA:1884:A:H61	1.79	0.47
1:AA:2157:G:H2'	1:AA:2158:A:OP2	2.15	0.47
1:AA:2277:G:OP1	12:AP:86:GLY:C	2.57	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2371:G:C4'	28:A6:45:LYS:HG3	2.44	0.47
1:AA:2863:C:O2'	1:AA:2864:G:H5'	2.15	0.47
56:AA:3478:OHX:N3	56:AA:3568:OHX:N5	2.63	0.47
2:AB:73:A:C4	2:AB:104:A:C2	3.03	0.47
3:AD:223:GLY:O	3:AD:226:MET:N	2.45	0.47
5:AF:60:SER:OG	5:AF:61:GLY:N	2.46	0.47
5:AF:183:VAL:O	5:AF:187:VAL:HG23	2.13	0.47
6:AG:6:ALA:HB3	26:A4:23:GLU:HB2	1.97	0.47
6:AG:95:ARG:O	6:AG:96:ARG:O	2.32	0.47
6:AG:178:PHE:CB	6:AG:180:PHE:HE1	2.27	0.47
7:AH:44:VAL:HG22	7:AH:51:ARG:HG3	1.95	0.47
8:AK:33:ARG:CB	8:AK:35:LEU:HD22	2.45	0.47
10:AN:31:LYS:HB3	10:AN:32:TYR:CD1	2.49	0.47
11:AO:66:GLY:HA2	11:AO:68:GLN:NE2	2.28	0.47
12:AP:77:LYS:HD2	12:AP:81:VAL:HG21	1.94	0.47
13:A0:100:LEU:HD11	13:A0:113:LEU:CD1	2.45	0.47
15:AR:36:GLU:CG	15:AR:41:ARG:HD3	2.32	0.47
16:A1:75:ASN:HB2	16:A1:78:THR:OG1	2.15	0.47
20:AU:5:MET:HE1	20:AU:32:PRO:CA	2.43	0.47
20:AU:5:MET:HE2	20:AU:5:MET:HB2	1.79	0.47
21:AV:143:GLY:HA2	21:AV:144:LEU:CB	2.45	0.47
26:A4:15:ILE:HG22	26:A4:20:ASN:OD1	2.14	0.47
26:A4:43:TYR:O	26:A4:46:GLN:HA	2.14	0.47
31:BA:31:G:C1'	31:BA:32:A:OP1	2.62	0.47
31:BA:89:U:C2	31:BA:90:C:C2	3.03	0.47
31:BA:138:G:H2'	31:BA:139:G:O4'	2.15	0.47
31:BA:272:C:H2'	31:BA:273:A:H8	1.79	0.47
31:BA:857:C:OP2	56:BA:1684:OHX:N4	2.48	0.47
31:BA:945:G:C2	31:BA:1337:G:C2	3.02	0.47
31:BA:1019:C:H2'	31:BA:1020:U:O4'	2.15	0.47
31:BA:1020:U:H2'	31:BA:1021:G:H8	1.79	0.47
31:BA:1118:C:H1'	31:BA:1179:A:C4	2.50	0.47
31:BA:1316:G:H22	31:BA:1319:A:P	2.38	0.47
31:BA:1322:C:O2	31:BA:1322:C:C2'	2.61	0.47
31:BA:1386:G:O2'	31:BA:1387:G:H5'	2.15	0.47
34:BG:138:TYR:HD2	34:BG:139:ARG:N	2.12	0.47
36:BI:48:LEU:HG	36:BI:57:GLN:HA	1.96	0.47
39:BL:9:ARG:HB2	39:BL:104:ARG:NH1	2.30	0.47
39:BL:17:VAL:HG11	39:BL:81:ILE:HD13	1.97	0.47
39:BL:43:ALA:O	39:BL:45:ALA:N	2.48	0.47
39:BL:99:LEU:HB3	39:BL:101:PHE:HE1	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BN:108:ILE:HG22	48:BU:88:LYS:HB2	1.97	0.47
45:BR:66:LEU:O	45:BR:69:TYR:HB3	2.15	0.47
50:BW:36:LEU:HD12	50:BW:55:ILE:HG23	1.97	0.47
52:BD:49:A:HO2'	52:BD:50:U:H5	1.62	0.47
1:CA:47:G:N2	1:CA:167:G:H21	2.12	0.47
1:CA:114:C:H2'	1:CA:115:G:O4'	2.14	0.47
1:CA:328:U:H2'	1:CA:329:G:O4'	2.15	0.47
1:CA:520:G:N2	18:CS:57:ASN:HD21	2.13	0.47
1:CA:554:A:H2	1:CA:2066:C:C4'	2.28	0.47
1:CA:558:A:C8	1:CA:2044:C:C5	3.03	0.47
1:CA:611:C:O2	11:CO:33:ARG:NH1	2.48	0.47
1:CA:763:G:C2	45:DR:56:LEU:HD21	2.50	0.47
1:CA:932:C:H41	1:CA:933:C:N4	2.11	0.47
1:CA:1234:U:H2'	1:CA:1235:A:H8	1.80	0.47
1:CA:1646:C:H5"	19:CT:35:THR:HG22	1.96	0.47
1:CA:1815:A:C2	1:CA:2600:A:C4	3.02	0.47
1:CA:2055:G:H21	4:CE:146:THR:HG23	1.80	0.47
1:CA:2083:A:OP1	5:CF:68:LYS:O	2.33	0.47
1:CA:2131:C:N3	1:CA:2204:G:N2	2.51	0.47
1:CA:2134:C:H2'	1:CA:2141:U:H4'	1.97	0.47
1:CA:2228:G:H2'	1:CA:2228:G:N3	2.30	0.47
1:CA:2228:G:H4'	1:CA:2229:G:OP2	2.15	0.47
1:CA:2355:C:O2'	1:CA:2387:C:H5"	2.15	0.47
1:CA:2615:A:H4'	1:CA:2616:G:C5'	2.44	0.47
1:CA:2639:C:H42	1:CA:2791:G:H1	1.63	0.47
1:CA:2741:G:H4'	10:CN:70:LYS:HE3	1.97	0.47
1:CA:2769:C:H2'	1:CA:2769:C:O2	2.15	0.47
1:CA:2780:G:H2'	1:CA:2780:G:N3	2.29	0.47
1:CA:2828:G:OP1	13:C0:99:LYS:NZ	2.47	0.47
1:CA:2883:G:N7	1:CA:2884:A:H2	2.12	0.47
2:CB:45:C:OP1	26:C4:6:HIS:HE1	1.95	0.47
4:CE:89:ASP:O	4:CE:90:THR:CG2	2.61	0.47
5:CF:36:VAL:CG1	5:CF:183:VAL:HG11	2.45	0.47
5:CF:40:GLN:NE2	5:CF:182:ASN:HB2	2.29	0.47
6:CG:47:LYS:HD3	6:CG:81:LYS:CG	2.36	0.47
7:CH:105:LEU:HD23	7:CH:105:LEU:N	2.30	0.47
9:CM:35:ARG:HB2	9:CM:42:TRP:CZ3	2.49	0.47
10:CN:104:ARG:O	10:CN:108:GLU:HG3	2.14	0.47
11:CO:34:GLY:O	11:CO:35:HIS:C	2.57	0.47
11:CO:97:PRO:HD3	11:CO:126:VAL:O	2.15	0.47
12:CP:23:GLY:HA2	12:CP:24:GLY:HA3	1.69	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C0:37:THR:OG1	13:C0:40:LYS:HB2	2.15	0.47
14:CQ:14:VAL:O	14:CQ:18:ILE:HG13	2.15	0.47
14:CQ:29:PHE:HD2	14:CQ:30:ARG:H	1.57	0.47
15:CR:63:VAL:O	15:CR:73:GLU:HA	2.14	0.47
15:CR:64:ARG:CB	15:CR:73:GLU:HG2	2.41	0.47
15:CR:122:ASP:O	15:CR:126:ALA:HB3	2.15	0.47
15:CR:131:ALA:C	15:CR:133:GLU:H	2.22	0.47
17:C2:38:LEU:HD23	17:C2:40:LEU:O	2.14	0.47
20:CU:39:VAL:O	20:CU:40:GLU:CB	2.59	0.47
21:CV:170:THR:C	21:CV:172:ALA:H	2.22	0.47
25:CX:7:LYS:HE2	25:CX:32:GLN:HA	1.96	0.47
26:C4:32:TYR:HB3	26:C4:33:VAL:H	1.44	0.47
27:C5:36:CYS:HG	27:C5:49:CYS:CB	2.28	0.47
28:C6:14:THR:HB	28:C6:21:TYR:CD2	2.48	0.47
28:C6:45:LYS:HA	28:C6:45:LYS:HD2	1.72	0.47
29:C7:43:THR:HG22	29:C7:44:PRO:O	2.15	0.47
31:DA:397:A:H5'	31:DA:398:C:OP1	2.15	0.47
31:DA:540:G:H2'	31:DA:541:G:O4'	2.15	0.47
31:DA:557:G:H2'	31:DA:558:G:O4'	2.15	0.47
31:DA:785:G:H2'	31:DA:786:G:H8	1.79	0.47
31:DA:886:G:O6	56:DA:1787:OHX:N4	2.47	0.47
31:DA:949:A:O2'	31:DA:971:G:O6	2.31	0.47
31:DA:966:G:O2'	39:DL:127:LYS:O	2.33	0.47
31:DA:1048:G:H1	31:DA:1209:C:H42	1.63	0.47
31:DA:1158:C:C4	31:DA:1160:G:C5	3.03	0.47
31:DA:1160:G:C6	31:DA:1181:G:O6	2.64	0.47
32:DE:91:PRO:HA	32:DE:154:LEU:HD12	1.97	0.47
32:DE:172:ILE:HD12	32:DE:172:ILE:N	2.20	0.47
33:DF:112:SER:O	33:DF:116:VAL:HG23	2.15	0.47
34:DG:173:TRP:HB3	34:DG:187:ARG:HH11	1.80	0.47
36:DI:21:LEU:C	36:DI:21:LEU:HD13	2.40	0.47
37:DJ:131:LYS:NZ	37:DJ:131:LYS:HB3	2.30	0.47
38:DK:39:LEU:HB3	38:DK:45:ILE:HD11	1.95	0.47
38:DK:112:LEU:HB3	38:DK:133:LEU:HA	1.96	0.47
39:DL:29:ASN:ND2	39:DL:29:ASN:O	2.47	0.47
39:DL:94:ALA:O	39:DL:98:PRO:HG2	2.14	0.47
41:DN:100:ALA:C	41:DN:102:GLY:H	2.10	0.47
42:DO:123:LYS:HG2	42:DO:124:GLU:N	2.29	0.47
44:DQ:40:CYS:O	44:DQ:44:LEU:HB3	2.15	0.47
45:DR:18:PHE:HB2	45:DR:19:PRO:HD2	1.97	0.47
49:DV:28:LYS:CD	49:DV:29:ARG:H	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DB:49:A:H2	52:DB:51:C:H5	1.63	0.47
52:DD:50:U:H2'	52:DD:51:C:H6	1.73	0.47
52:DD:54:C:C6	52:DD:54:C:OP2	2.67	0.47
1:AA:69:C:H2'	1:AA:70:G:C8	2.50	0.47
1:AA:106:C:H2'	1:AA:107:C:C6	2.50	0.47
1:AA:213:A:H2'	1:AA:214:G:O4'	2.14	0.47
1:AA:229:A:O4'	1:AA:230:U:OP2	2.32	0.47
1:AA:882:G:C2'	1:AA:883:G:C8	2.94	0.47
1:AA:1796:U:H2'	1:AA:1797:C:H6	1.76	0.47
1:AA:2184:G:C6	1:AA:2185:C:N4	2.83	0.47
1:AA:2285:C:OP1	28:A6:28:ARG:HD3	2.15	0.47
1:AA:2688:U:O2	1:AA:2688:U:O5'	2.32	0.47
9:AM:38:HIS:CD2	9:AM:39:ARG:HG3	2.49	0.47
13:A0:91:GLN:H	13:A0:91:GLN:NE2	2.13	0.47
14:AQ:83:LYS:O	14:AQ:109:GLY:HA2	2.15	0.47
16:A1:88:ILE:O	16:A1:88:ILE:HG22	2.15	0.47
21:AV:113:ALA:N	21:AV:114:GLY:CA	2.78	0.47
21:AV:150:LEU:CD2	21:AV:154:ASP:HB2	2.45	0.47
27:A5:45:VAL:CG1	27:A5:57:VAL:HG12	2.45	0.47
27:A5:56:LYS:HD2	27:A5:56:LYS:N	2.21	0.47
31:BA:142:G:C2	31:BA:143:A:C5	3.03	0.47
31:BA:489:C:H2'	31:BA:490:G:H8	1.79	0.47
31:BA:637:G:C6	31:BA:638:G:C5	3.03	0.47
31:BA:974:A:OP1	44:BQ:31:ARG:HD3	2.14	0.47
31:BA:1047:G:H5"	44:BQ:4:LYS:HZ1	1.79	0.47
31:BA:1160:G:C6	31:BA:1181:G:O6	2.61	0.47
31:BA:1262:C:H2'	31:BA:1263:C:C6	2.49	0.47
31:BA:1324:A:O4'	31:BA:1362:C:H4'	2.15	0.47
33:BF:137:ALA:HA	33:BF:140:ARG:HD2	1.96	0.47
34:BG:65:ARG:NH1	34:BG:65:ARG:HG2	2.29	0.47
39:BL:46:ALA:HB3	39:BL:47:LEU:HD13	1.97	0.47
41:BN:18:ARG:NH2	41:BN:35:PRO:O	2.47	0.47
43:BP:27:LYS:O	43:BP:31:LYS:HG3	2.15	0.47
45:BR:4:THR:OG1	45:BR:7:GLU:HB2	2.15	0.47
46:BS:12:LYS:C	46:BS:14:ASN:N	2.71	0.47
48:BU:17:SER:C	48:BU:18:ARG:HD2	2.39	0.47
52:BB:21:A:H2	52:BB:56:U:C2	2.32	0.47
1:CA:303:A:O2'	1:CA:304:C:H6	1.97	0.47
1:CA:867:A:OP2	1:CA:1233:G:N2	2.40	0.47
1:CA:925:U:H4'	1:CA:926:A:OP2	2.12	0.47
1:CA:1006:A:N7	1:CA:1008:G:C4	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1042:C:O2	9:CM:3:THR:OG1	2.33	0.47
1:CA:1208:C:H1'	17:C2:8:GLY:O	2.14	0.47
1:CA:1459:A:H2'	1:CA:1460:G:C8	2.50	0.47
1:CA:2320:G:C1'	1:CA:2324:A:C2	2.96	0.47
1:CA:2337:C:O2'	1:CA:2350:G:H5'	2.14	0.47
1:CA:2734:U:N3	1:CA:2735:A:C5	2.83	0.47
1:CA:2870:G:O2'	1:CA:2871:A:O5'	2.31	0.47
6:CG:110:ALA:HA	6:CG:140:ILE:O	2.15	0.47
12:CP:59:ARG:O	12:CP:60:ARG:C	2.58	0.47
14:CQ:67:ARG:HG3	14:CQ:104:GLY:HA3	1.97	0.47
16:C1:72:HIS:CE1	16:C1:107:ALA:HA	2.42	0.47
17:C2:89:GLN:HA	17:C2:90:PRO:HD3	1.81	0.47
23:CZ:92:LYS:HB3	23:CZ:92:LYS:NZ	2.29	0.47
26:C4:51:ASP:O	26:C4:52:THR:C	2.57	0.47
30:C8:32:LEU:CD1	30:C8:32:LEU:N	2.30	0.47
31:DA:54:C:C5	31:DA:352:C:C5	3.02	0.47
31:DA:306:G:H8	31:DA:306:G:O5'	1.97	0.47
31:DA:510:A:H5"	31:DA:511:C:P	2.54	0.47
31:DA:528:C:H41	42:DO:46:ASN:ND2	2.12	0.47
31:DA:564:C:O2'	38:DK:91:ARG:NH2	2.48	0.47
31:DA:992:U:C4'	31:DA:993:G:O5'	2.62	0.47
31:DA:1025:U:O2'	31:DA:1026:G:H8	1.98	0.47
31:DA:1343:G:H4'	39:DL:122:ALA:HB3	1.97	0.47
31:DA:1403:C:H1'	31:DA:1500:A:N1	2.30	0.47
32:DE:7:VAL:CG2	32:DE:8:LYS:H	2.16	0.47
32:DE:74:LYS:O	32:DE:75:LYS:CB	2.62	0.47
34:DG:30:LYS:HB2	34:DG:35:ARG:HD2	1.97	0.47
34:DG:162:LEU:HD13	34:DG:181:MET:HG2	1.97	0.47
37:DJ:50:ILE:HG22	37:DJ:50:ILE:O	2.15	0.47
40:DM:33:GLN:HB3	40:DM:75:ILE:CD1	2.43	0.47
43:DP:5:ALA:O	43:DP:6:GLY:C	2.57	0.47
49:DV:66:MET:CA	49:DV:67:VAL:HB	2.45	0.47
52:DB:21:A:OP2	52:DB:56:U:O4	2.33	0.47
53:DC:14:A:C2	53:DC:15:G:H1'	2.50	0.47
52:DD:20:C:H5'	52:DD:68:A:N6	2.30	0.47
52:DD:34:U:H2'	52:DD:36:U:OP2	2.15	0.47
1:AA:2:G:O2'	1:AA:3:U:H5'	2.15	0.47
1:AA:10:G:H2'	1:AA:11:G:H8	1.78	0.47
1:AA:265:A:C2	1:AA:428:A:C2	3.03	0.47
1:AA:273(D):C:H2'	1:AA:273(E):U:H6	1.80	0.47
1:AA:627:A:H4'	1:AA:628:G:H5'	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:764:A:O4'	3:AD:213:ARG:HD3	2.15	0.47
1:AA:999:U:C5	1:AA:1154:G:C6	3.03	0.47
1:AA:1077:A:H2'	1:AA:1077:A:N3	2.29	0.47
1:AA:1130:U:O2	4:AE:149:ARG:NH2	2.30	0.47
1:AA:1144:G:C6	1:AA:1145:C:C4	3.03	0.47
1:AA:1198:U:H2'	1:AA:1199:U:C6	2.50	0.47
1:AA:1319:G:C6	1:AA:1320:C:N4	2.83	0.47
1:AA:2094:G:OP1	8:AK:22:LYS:HG3	2.13	0.47
1:AA:2147:G:N7	1:AA:2148:G:H1'	2.30	0.47
1:AA:2181:G:H2'	1:AA:2182:G:H8	1.80	0.47
1:AA:2295:C:O2'	1:AA:2296:U:H5'	2.15	0.47
1:AA:2688:U:H1'	1:AA:2721:A:N6	2.30	0.47
3:AD:69:ARG:C	3:AD:71:ASP:N	2.71	0.47
3:AD:177:LEU:HB3	3:AD:178:PRO:HD2	1.96	0.47
6:AG:16:ARG:HH22	6:AG:31:VAL:HG13	1.79	0.47
11:AO:70:GLN:C	11:AO:72:PRO:HD2	2.40	0.47
13:A0:77:ARG:C	13:A0:79:LEU:N	2.72	0.47
15:AR:94:ALA:O	15:AR:95:ARG:CB	2.63	0.47
16:A1:69:CYS:HB2	16:A1:74:LEU:CD1	2.45	0.47
31:BA:87:A:C5	31:BA:88:C:H5	2.32	0.47
31:BA:663:A:H5'	31:BA:836:G:OP1	2.15	0.47
31:BA:689:C:C2'	31:BA:690:G:H5'	2.45	0.47
31:BA:709:G:H2'	31:BA:710:G:H8	1.80	0.47
31:BA:811:C:N4	31:BA:812:C:H42	2.13	0.47
31:BA:942:G:C2	31:BA:943:U:C6	3.03	0.47
31:BA:1196:U:N3	54:B1:23:A:C8	2.83	0.47
31:BA:1240:U:P	37:BJ:116:ALA:HB2	2.54	0.47
31:BA:1452:C:O2'	31:BA:1453:G:H4'	2.14	0.47
34:BG:65:ARG:HG2	34:BG:65:ARG:HH11	1.80	0.47
36:BI:41:GLU:O	36:BI:42:GLU:C	2.56	0.47
37:BJ:50:ILE:HG22	37:BJ:50:ILE:O	2.15	0.47
41:BN:57:THR:HG23	41:BN:59:TYR:H	1.79	0.47
42:BO:67:ILE:CD1	42:BO:74:LEU:HD12	2.45	0.47
43:BP:66:LEU:O	43:BP:67:GLU:C	2.58	0.47
50:BW:96:GLY:O	50:BW:97:ALA:CB	2.63	0.47
53:BC:48:U:H6	53:BC:48:U:OP2	1.98	0.47
1:CA:993:G:H2'	1:CA:994:G:C8	2.50	0.47
1:CA:1446:C:O2'	1:CA:1447:G:H5'	2.15	0.47
1:CA:1513:G:C4	1:CA:1514:G:C8	3.03	0.47
1:CA:1933:G:H1	1:CA:1943:C:H42	1.62	0.47
1:CA:2304:U:H2'	1:CA:2305:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:2362:G:OP2	30:C8:42:ARG:NE	2.36	0.47
1:CA:2648:C:H5"	4:CE:77:ILE:O	2.15	0.47
1:CA:2817:G:H2'	1:CA:2818:G:C8	2.50	0.47
1:CA:2822:G:N2	1:CA:2901:G:H1'	2.30	0.47
1:CA:2827:C:O2	1:CA:2894:A:O2'	2.31	0.47
5:CF:25:PRO:HB2	5:CF:27:GLU:C	2.40	0.47
6:CG:121:ASN:HD22	6:CG:181:ARG:HH21	1.63	0.47
8:CK:54:GLN:NE2	8:CK:57:ARG:HH22	2.13	0.47
9:CM:15:LEU:HD13	9:CM:16:ILE:N	2.30	0.47
11:CO:55:ARG:O	11:CO:55:ARG:HG3	2.13	0.47
11:CO:128:HIS:HA	11:CO:147:LEU:HA	1.96	0.47
13:C0:97:VAL:HG12	13:C0:114:VAL:HG22	1.96	0.47
14:CQ:93:LYS:HB2	14:CQ:93:LYS:NZ	2.29	0.47
16:C1:14:HIS:HA	16:C1:32:PHE:CE2	2.50	0.47
17:C2:37:VAL:CG2	17:C2:57:VAL:HG12	2.42	0.47
25:CX:10:LYS:O	25:CX:31:LEU:HD11	2.15	0.47
26:C4:18:CYS:SG	26:C4:20:ASN:ND2	2.88	0.47
26:C4:60:GLN:NE2	49:DV:66:MET:HE1	2.30	0.47
31:DA:518:C:C5	31:DA:530:G:C8	3.02	0.47
31:DA:833:U:H2'	31:DA:834:C:H6	1.80	0.47
31:DA:1024:G:N3	31:DA:1025:U:H5	2.12	0.47
31:DA:1175:G:N1	31:DA:1176:A:N6	2.62	0.47
31:DA:1401:G:C2	31:DA:1402:C:H1'	2.50	0.47
31:DA:1527:C:O2'	31:DA:1528:U:H5'	2.15	0.47
33:DF:77:ILE:HG23	33:DF:84:ILE:HG21	1.97	0.47
34:DG:38:TYR:CG	34:DG:45:GLN:HB3	2.49	0.47
34:DG:57:ARG:NH2	35:DH:107:ARG:HD3	2.30	0.47
34:DG:189:PRO:HB2	34:DG:194:LEU:HD21	1.96	0.47
40:DM:3:LYS:N	40:DM:74:ILE:O	2.48	0.47
1:AA:245:G:H2'	1:AA:246:C:H6	1.79	0.47
1:AA:333:G:C4	1:AA:334:C:C5	3.03	0.47
1:AA:372:G:OP2	23:AZ:69:LYS:HE3	2.14	0.47
1:AA:469:G:H2'	1:AA:470:A:H5"	1.96	0.47
1:AA:642:G:N2	1:AA:645:C:OP2	2.48	0.47
1:AA:848:G:H2'	1:AA:849:A:C8	2.50	0.47
1:AA:1509:C:H3'	1:AA:1510:A:C5'	2.40	0.47
1:AA:1689:A:N7	1:AA:1698:A:N1	2.63	0.47
1:AA:1778:U:C4	1:AA:1784:A:C4	3.02	0.47
1:AA:2298:A:H62	1:AA:2318:G:H8	1.63	0.47
5:AF:28:ILE:H	5:AF:28:ILE:HD12	1.79	0.47
6:AG:2:PRO:HB3	26:A4:25:TYR:CE1	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:16:ARG:HG3	6:AG:16:ARG:NH1	2.30	0.47
7:AH:4:ILE:HG13	7:AH:6:ARG:NH1	2.27	0.47
10:AN:66:LYS:HA	10:AN:79:PHE:O	2.15	0.47
10:AN:69:ILE:HD12	10:AN:69:ILE:N	2.30	0.47
11:AO:131:SER:N	11:AO:134:ALA:HB3	2.28	0.47
13:A0:13:HIS:CE1	13:A0:16:HIS:HB2	2.50	0.47
16:A1:47:TYR:CD2	16:A1:47:TYR:C	2.93	0.47
16:A1:90:VAL:O	16:A1:91:ASP:C	2.57	0.47
19:AT:49:VAL:HG13	19:AT:50:LYS:N	2.29	0.47
20:AU:95:LYS:HB2	20:AU:100:ALA:HA	1.97	0.47
20:AU:96:ILE:N	20:AU:99:CYS:O	2.47	0.47
25:AX:36:VAL:O	25:AX:36:VAL:HG23	2.15	0.47
28:A6:44:ARG:O	28:A6:45:LYS:HG2	2.15	0.47
31:BA:160:A:H61	31:BA:347:G:H1'	1.80	0.47
31:BA:254:G:N2	47:BT:16:GLN:HE21	1.98	0.47
31:BA:784:C:H2'	31:BA:785:G:H8	1.80	0.47
31:BA:1054:C:N4	52:BB:35:G:H1'	2.30	0.47
31:BA:1277:C:O2'	31:BA:1279:A:H1'	2.14	0.47
31:BA:1278:U:H3'	31:BA:1278:U:H6	1.80	0.47
31:BA:1297:C:H1'	37:BJ:114:ARG:NH1	2.30	0.47
32:BE:28:PHE:CD1	32:BE:190:THR:HA	2.50	0.47
39:BL:5:TYR:HA	39:BL:17:VAL:O	2.14	0.47
42:BO:21:VAL:HB	42:BO:24:LEU:HD12	1.97	0.47
44:BQ:6:LEU:HB3	44:BQ:23:ARG:HH21	1.79	0.47
49:BV:41:VAL:CB	49:BV:42:PRO:HA	2.35	0.47
49:BV:63:THR:OG1	49:BV:64:GLU:N	2.48	0.47
52:BB:81:C:O2	52:BB:81:C:H2'	2.13	0.47
53:BC:48:U:C2'	53:BC:49:C:OP2	2.56	0.47
52:BD:21:A:H4'	52:BD:21:A:OP2	2.15	0.47
52:BD:21:A:C6	52:BD:55:U:O4	2.67	0.47
1:CA:6:A:N3	9:CM:131:GLN:HG3	2.30	0.47
1:CA:255:A:H1'	1:CA:256:G:O4'	2.15	0.47
1:CA:631:U:OP1	5:CF:103:LYS:N	2.42	0.47
1:CA:838:C:H1'	1:CA:839:C:OP1	2.14	0.47
1:CA:1022:G:H1'	1:CA:1037:A:C2	2.50	0.47
1:CA:1232:G:H2'	1:CA:1233:G:O4'	2.15	0.47
1:CA:1433:C:OP2	1:CA:1443:U:H5	1.98	0.47
1:CA:2146:G:N2	1:CA:2147:G:H1'	2.30	0.47
1:CA:2428:G:O3'	11:CO:66:GLY:HA3	2.16	0.47
1:CA:2763:A:H5"	7:CH:6:ARG:NH1	2.30	0.47
3:CD:238:GLY:O	3:CD:239:ARG:C	2.58	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CF:46:ARG:HG2	5:CF:46:ARG:NH1	2.06	0.47
5:CF:53:THR:O	5:CF:54:ARG:C	2.58	0.47
7:CH:129:THR:HG22	7:CH:130:ARG:N	2.30	0.47
12:CP:2:LEU:CD1	12:CP:69:PHE:HE1	2.29	0.47
15:CR:134:GLU:O	15:CR:136:GLN:N	2.48	0.47
17:C2:76:LYS:HB2	17:C2:79:VAL:HG23	1.96	0.47
19:CT:40:LYS:O	19:CT:42:ALA:N	2.44	0.47
20:CU:61:ILE:CG2	20:CU:62:GLU:N	2.77	0.47
21:CV:30:ASN:N	21:CV:33:LEU:O	2.49	0.47
21:CV:115:GLY:N	21:CV:177:PRO:HG2	2.29	0.47
22:C3:50:ASN:HB3	22:C3:63:VAL:HG22	1.97	0.47
31:DA:82:U:C2	31:DA:87:A:N1	2.82	0.47
31:DA:412:A:O2'	31:DA:413:G:OP2	2.24	0.47
31:DA:631:G:H3'	31:DA:632:A:C5	2.50	0.47
31:DA:763:G:H2'	31:DA:764:C:C6	2.49	0.47
31:DA:950:U:H1'	31:DA:971:G:N7	2.30	0.47
31:DA:1002:G:C2'	31:DA:1003:G:C8	2.96	0.47
31:DA:1319:A:P	49:DV:10:PHE:CB	3.02	0.47
34:DG:24:GLU:OE1	34:DG:112:VAL:HG21	2.14	0.47
36:DI:100:ASN:N	48:DU:23:LYS:HZ2	2.12	0.47
40:DM:10:GLY:N	40:DM:16:LEU:HD11	2.30	0.47
43:DP:22:ILE:HB	43:DP:25:ILE:CG1	2.44	0.47
43:DP:84:ILE:HG23	49:DV:74:PHE:CE2	2.50	0.47
48:DU:58:LEU:H	48:DU:58:LEU:HD12	1.78	0.47
49:DV:40:ILE:HG13	49:DV:69:HIS:O	2.14	0.47
50:DW:48:LYS:O	50:DW:49:ALA:C	2.57	0.47
53:DC:51:U:O4	56:DC:109:OHX:N6	2.48	0.47
52:DD:68:A:H5"	52:DD:69:U:OP2	2.15	0.47
1:AA:130:C:O3'	1:AA:1349:A:H1'	2.15	0.46
1:AA:299:A:C5'	1:AA:300:A:OP2	2.63	0.46
1:AA:547:A:H2'	1:AA:548:A:H8	1.72	0.46
1:AA:849:A:C8	1:AA:850:C:C5	3.03	0.46
1:AA:1556:C:H2'	1:AA:1557:C:H6	1.79	0.46
1:AA:2173:A:H2'	1:AA:2173:A:N3	2.31	0.46
1:AA:2287:A:H2	1:AA:2346:A:N1	2.13	0.46
4:AE:110:GLY:HA3	4:AE:162:ALA:HB2	1.97	0.46
4:AE:114:ALA:HB3	4:AE:160:TYR:HB3	1.95	0.46
11:AO:62:LEU:O	30:A8:13:ARG:HB3	2.15	0.46
12:AP:58:PHE:O	12:AP:59:ARG:C	2.59	0.46
14:AQ:93:LYS:O	14:AQ:95:HIS:N	2.47	0.46
16:A1:97:ASP:OD1	16:A1:98:LEU:N	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AV:74:VAL:HG13	21:AV:86:VAL:HG12	1.97	0.46
22:A3:17:GLN:O	22:A3:19:LYS:HE3	2.15	0.46
31:BA:49:U:O2'	31:BA:50:A:C3'	2.56	0.46
31:BA:131:C:H2'	31:BA:132:C:C6	2.50	0.46
31:BA:243:A:C2	31:BA:246:A:C8	3.02	0.46
31:BA:310:G:P	46:BS:27:LYS:NZ	2.88	0.46
31:BA:1401:G:C2	31:BA:1402:C:H1'	2.50	0.46
32:BE:69:LEU:HD12	32:BE:70:PHE:N	2.30	0.46
37:BJ:57:GLU:HA	37:BJ:58:PRO:HD2	1.78	0.46
41:BN:126:ARG:CG	41:BN:126:ARG:NH1	2.78	0.46
42:BO:117:TYR:O	42:BO:118:GLY:C	2.58	0.46
45:BR:70:LEU:HD13	45:BR:70:LEU:HA	1.80	0.46
50:BW:72:LEU:HD23	50:BW:73:HIS:N	2.31	0.46
52:BD:48:C:H2'	52:BD:49:A:C1'	2.45	0.46
1:CA:638:U:O2	1:CA:638:U:O4'	2.32	0.46
1:CA:767:C:O2'	1:CA:768:C:H5'	2.15	0.46
1:CA:854:C:OP2	11:CO:41:ARG:HD3	2.16	0.46
1:CA:1044:G:C2	1:CA:1206:U:C2	3.03	0.46
1:CA:2045:U:O2'	1:CA:2630:C:H5'	2.15	0.46
1:CA:2263:G:N1	12:CP:83:MET:HB2	2.31	0.46
1:CA:2284:G:H5"	22:C3:20:ARG:NE	2.30	0.46
1:CA:2391:A:O5'	1:CA:2391:A:H8	1.99	0.46
1:CA:2565:U:O2	1:CA:2567:U:H5'	2.14	0.46
2:CB:114:U:O4	56:CB:211:OHX:N3	2.49	0.46
3:CD:2:ALA:O	3:CD:3:VAL:HB	2.15	0.46
3:CD:37:LEU:HG	3:CD:64:ILE:CG2	2.44	0.46
3:CD:186:HIS:HD2	3:CD:188:GLU:HB2	1.80	0.46
4:CE:25:VAL:HG12	4:CE:26:ILE:N	2.25	0.46
6:CG:7:LEU:HD12	6:CG:104:GLU:CA	2.45	0.46
12:CP:42:ILE:HD13	12:CP:97:VAL:CG2	2.45	0.46
13:C0:54:LEU:HG	13:C0:62:ALA:HB1	1.97	0.46
21:CV:110:GLY:HA2	21:CV:143:GLY:HA2	1.97	0.46
26:C4:12:ALA:HB1	26:C4:29:PRO:O	2.15	0.46
26:C4:38:LYS:CA	26:C4:44:THR:HG21	2.45	0.46
31:DA:186(F):C:N3	31:DA:191(B):G:C2	2.83	0.46
31:DA:323:U:H2'	31:DA:324:G:O4'	2.15	0.46
31:DA:834:C:H2'	31:DA:835:U:O4'	2.15	0.46
31:DA:1128:C:H4'	39:DL:16:ARG:NH1	2.27	0.46
31:DA:1359:C:O2'	31:DA:1361:G:N7	2.49	0.46
41:DN:32:ILE:CD1	41:DN:68:ALA:HB1	2.45	0.46
43:DP:116:THR:O	43:DP:116:THR:HG22	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DT:29:HIS:CG	47:DT:30:PRO:HD2	2.50	0.46
48:DU:25:THR:HG22	48:DU:25:THR:O	2.14	0.46
50:DW:88:VAL:O	50:DW:92:LEU:HG	2.15	0.46
1:AA:26:G:H1'	1:AA:514:A:H61	1.80	0.46
1:AA:864:G:OP2	12:AP:22:LYS:HG2	2.16	0.46
1:AA:960:A:C8	1:AA:962:G:C8	3.03	0.46
1:AA:1163:G:O2'	1:AA:1164:G:H5'	2.15	0.46
1:AA:1387:C:H2'	1:AA:1388:G:C8	2.50	0.46
1:AA:1575:C:H2'	1:AA:1576:U:C6	2.50	0.46
1:AA:1675:C:C4	1:AA:1676:A:C5	3.03	0.46
1:AA:2113:U:N3	1:AA:2168:G:C8	2.83	0.46
1:AA:2146:C:H4'	1:AA:2147:G:N7	2.30	0.46
1:AA:2292:C:C2'	1:AA:2293:C:H5'	2.45	0.46
1:AA:2418:A:OP2	30:A8:29:LYS:HE3	2.16	0.46
5:AF:64:ILE:HG23	5:AF:65:TRP:NE1	2.30	0.46
5:AF:123:LEU:HD21	5:AF:199:TRP:HZ3	1.79	0.46
5:AF:185:ASP:OD1	5:AF:188:ARG:HD3	2.15	0.46
6:AG:165:THR:OG1	6:AG:168:GLU:HG3	2.15	0.46
8:AK:29:TYR:HD1	8:AK:33:ARG:HE	1.61	0.46
8:AK:132:PRO:O	8:AK:133:HIS:ND1	2.48	0.46
11:AO:85:LEU:HA	11:AO:88:LEU:CD2	2.41	0.46
15:AR:117:ASP:O	15:AR:121:ILE:HG13	2.15	0.46
16:A1:66:ASN:CB	16:A1:76:TYR:HB2	2.43	0.46
27:A5:4:HIS:O	27:A5:5:PRO:O	2.32	0.46
31:BA:57:G:C5	31:BA:58:C:C4	3.03	0.46
31:BA:74:C:H2'	31:BA:75:C:O4'	2.15	0.46
31:BA:189:U:C2	47:BT:72:ARG:NH1	2.84	0.46
31:BA:788:U:O2'	31:BA:789:U:C5'	2.55	0.46
31:BA:986:A:H2'	31:BA:987:G:C8	2.50	0.46
31:BA:999:U:H2'	31:BA:1000:A:C8	2.51	0.46
31:BA:1026:G:C6	31:BA:1027:C:O2	2.69	0.46
31:BA:1055:A:O2'	33:BF:161:GLU:OE2	2.24	0.46
31:BA:1125:U:H5	40:BM:73:ASP:OD1	1.97	0.46
31:BA:1222:G:O2'	31:BA:1223:C:H5'	2.15	0.46
31:BA:1302:U:H3'	31:BA:1303:C:H5'	1.96	0.46
32:BE:214:ILE:O	32:BE:218:ALA:HB2	2.15	0.46
39:BL:85:LEU:HB3	39:BL:92:TYR:HD1	1.80	0.46
45:BR:42:HIS:HD2	45:BR:43:LEU:HD23	1.81	0.46
50:BW:10:LEU:HD21	50:BW:12:ALA:HB3	1.95	0.46
52:BD:11:C:H42	52:BD:25:G:H1	1.62	0.46
52:BD:52:G:H2'	52:BD:53:A:H8	1.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:66:U:C4	1:CA:73:A:N1	2.84	0.46
1:CA:532:G:O3'	1:CA:533:A:H8	1.98	0.46
1:CA:645:G:H5"	1:CA:646:G:OP2	2.14	0.46
1:CA:1345:C:H5"	1:CA:1346:G:OP2	2.15	0.46
1:CA:1363:U:H2'	1:CA:1364:A:C8	2.50	0.46
1:CA:2134:C:H41	1:CA:2170:G:N2	2.13	0.46
1:CA:2135:G:C1'	52:DD:18:G:O2'	2.63	0.46
1:CA:2595:G:H2'	1:CA:2596:G:H5'	1.97	0.46
1:CA:2639:C:H2'	1:CA:2640:G:O4'	2.15	0.46
2:CB:51:C:H2'	2:CB:52:G:C8	2.50	0.46
3:CD:58:HIS:HD2	3:CD:59:LYS:O	1.98	0.46
4:CE:8:LYS:O	4:CE:9:VAL:CG2	2.63	0.46
4:CE:64:LYS:HB2	4:CE:66:HIS:HD2	1.79	0.46
4:CE:134:ILE:HD12	4:CE:134:ILE:O	2.15	0.46
5:CF:59:TYR:N	5:CF:59:TYR:HD2	2.11	0.46
7:CH:125:VAL:CG2	7:CH:126:PRO:HB3	2.40	0.46
9:CM:59:LYS:HE3	9:CM:59:LYS:HB3	1.82	0.46
9:CM:93:THR:O	9:CM:94:HIS:C	2.58	0.46
10:CN:64:ARG:NH2	10:CN:99:PHE:O	2.49	0.46
12:CP:19:GLY:HA3	12:CP:98:LYS:CD	2.46	0.46
12:CP:27:VAL:O	12:CP:27:VAL:HG12	2.15	0.46
12:CP:87:LYS:HG3	12:CP:88:GLY:N	2.27	0.46
15:CR:41:ARG:HD2	31:DA:345:C:OP2	2.15	0.46
31:DA:629:G:H2'	31:DA:630:G:C8	2.51	0.46
31:DA:689:C:OP1	41:DN:27:ASN:ND2	2.47	0.46
31:DA:690:G:H2'	31:DA:691:G:O4'	2.16	0.46
31:DA:715:A:H2'	31:DA:716:A:C8	2.50	0.46
31:DA:941:G:N2	31:DA:942:G:H1'	2.31	0.46
31:DA:980:C:O2	44:DQ:21:TYR:HD1	1.98	0.46
31:DA:1119:C:H2'	31:DA:1120:G:C8	2.50	0.46
31:DA:1176:A:N6	31:DA:1177:G:C6	2.83	0.46
31:DA:1240:U:O3'	37:DJ:38:LEU:HD21	2.15	0.46
31:DA:1301:U:O2'	31:DA:1302:U:OP1	2.33	0.46
31:DA:1385:G:C2	31:DA:1386:G:C8	3.03	0.46
31:DA:1418:A:H5"	31:DA:1419:G:OP2	2.16	0.46
33:DF:62:ASP:O	33:DF:97:LYS:HB2	2.15	0.46
33:DF:119:ARG:NH2	33:DF:140:ARG:HG2	2.29	0.46
45:DR:29:VAL:O	45:DR:32:LEU:N	2.48	0.46
52:DD:20:C:O2'	52:DD:21:A:OP2	2.32	0.46
1:AA:34:C:O2'	1:AA:35:G:OP2	2.23	0.46
1:AA:194:G:H2'	1:AA:195:A:O4'	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:475:U:C4	1:AA:481:G:O6	2.69	0.46
1:AA:798:G:OP1	56:AF:303:OHX:N2	2.48	0.46
1:AA:1001:A:OP2	56:AA:3480:OHX:N1	2.48	0.46
1:AA:1175:U:C2'	1:AA:1175:U:O2	2.62	0.46
1:AA:1344:G:O2'	1:AA:1385:G:H2'	2.14	0.46
1:AA:1799:G:H3'	1:AA:1799:G:P	2.55	0.46
1:AA:1858:G:O2'	1:AA:1884:A:N6	2.48	0.46
1:AA:1878:G:H2'	1:AA:1879:C:C6	2.50	0.46
1:AA:2038:G:H2'	1:AA:2039:C:C6	2.50	0.46
1:AA:2102:U:H3	1:AA:2187:G:H1	1.63	0.46
1:AA:2396:G:O2'	1:AA:2397:G:H5'	2.15	0.46
1:AA:2533:A:OP1	1:AA:2665:A:H1'	2.16	0.46
1:AA:2602:A:N6	53:BC:77:A:H4'	2.30	0.46
1:AA:2646:C:H2'	1:AA:2647:U:O4'	2.16	0.46
1:AA:2733:A:H3'	1:AA:2734:A:C5'	2.45	0.46
1:AA:2882:A:OP1	13:A0:96:ARG:NH1	2.42	0.46
3:AD:77:ALA:O	3:AD:116:GLN:HA	2.15	0.46
6:AG:115:ARG:HH12	43:BP:7:VAL:HB	1.79	0.46
11:AO:131:SER:O	11:AO:132:LYS:C	2.58	0.46
12:AP:141:GLN:HA	21:AV:99:TYR:OH	2.16	0.46
16:A1:92:ARG:C	16:A1:94:ASN:N	2.73	0.46
20:AU:56:PRO:O	20:AU:58:GLY:N	2.47	0.46
26:A4:37:SER:HB3	26:A4:42:PHE:CD1	2.50	0.46
31:BA:142:G:H2'	31:BA:142:G:N3	2.30	0.46
31:BA:343:U:O2	31:BA:347:G:C2	2.68	0.46
31:BA:544:G:C5	31:BA:545:C:C5	3.03	0.46
31:BA:654:G:H2'	31:BA:655:A:H5'	1.97	0.46
31:BA:689:C:P	41:BN:46:GLY:HA3	2.54	0.46
31:BA:807:A:H2'	31:BA:808:C:C6	2.49	0.46
31:BA:1265:G:C2	31:BA:1271:G:C2	3.04	0.46
31:BA:1307:U:H2'	31:BA:1308:U:O4'	2.15	0.46
31:BA:1333:A:C8	31:BA:1334:G:C8	3.03	0.46
32:BE:207:ALA:O	32:BE:208:ILE:C	2.58	0.46
33:BF:29:TYR:OH	44:BQ:54:PRO:HD2	2.14	0.46
37:BJ:79:ARG:HD3	37:BJ:79:ARG:C	2.41	0.46
44:BQ:29:ARG:HG2	44:BQ:30:ALA:H	1.79	0.46
45:BR:8:LYS:O	45:BR:12:ILE:HG12	2.16	0.46
53:BC:73:A:N6	53:BC:74:A:C6	2.83	0.46
1:CA:77:A:H2'	1:CA:78:G:C8	2.50	0.46
1:CA:232:G:C8	30:C8:5:LYS:HG2	2.51	0.46
1:CA:642:G:H5'	5:CF:40:GLN:HE21	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:734:G:N2	1:CA:836:A:H61	2.12	0.46
1:CA:812:A:N1	1:CA:1821:A:O2'	2.45	0.46
1:CA:860:C:H5"	1:CA:1297:G:O2'	2.14	0.46
1:CA:1158:A:C5'	7:CH:3:ARG:HD3	2.46	0.46
1:CA:1615:A:H5'	3:CD:58:HIS:CD2	2.50	0.46
1:CA:1929:G:C8	1:CA:1952:G:H2'	2.50	0.46
1:CA:2140:A:N6	1:CA:2195:U:O4	2.48	0.46
1:CA:2186:C:H5"	1:CA:2195:U:OP2	2.14	0.46
1:CA:2274:C:O2'	1:CA:2275:U:H5'	2.15	0.46
3:CD:177:LEU:HB3	3:CD:178:PRO:HD2	1.97	0.46
3:CD:211:ARG:O	3:CD:215:LEU:HG	2.15	0.46
6:CG:145:THR:O	6:CG:146:TYR:HB3	2.15	0.46
11:CO:109:GLY:O	11:CO:110:TYR:CD2	2.69	0.46
15:CR:51:ARG:HB3	15:CR:62:THR:HG23	1.98	0.46
20:CU:27:VAL:HG12	20:CU:39:VAL:HG12	1.97	0.46
21:CV:14:LYS:HG2	21:CV:14:LYS:O	2.15	0.46
26:C4:10:VAL:HA	26:C4:11:PRO:HD2	1.78	0.46
31:DA:54:C:C4	31:DA:352:C:C5	3.03	0.46
31:DA:528:C:H4'	31:DA:535:A:C5	2.50	0.46
31:DA:1169:A:H2'	31:DA:1170:A:C8	2.49	0.46
31:DA:1190:G:C8	33:DF:3:ASN:ND2	2.83	0.46
32:DE:8:LYS:HB2	32:DE:217:ARG:HE	1.80	0.46
32:DE:17:PHE:CZ	32:DE:47:THR:HG21	2.48	0.46
33:DF:85:ARG:HG3	33:DF:88:ARG:HH21	1.80	0.46
34:DG:15:GLU:HG3	34:DG:63:LYS:HE2	1.98	0.46
34:DG:97:LEU:O	34:DG:100:ARG:HB2	2.15	0.46
37:DJ:79:ARG:HA	37:DJ:84:ASN:HA	1.96	0.46
39:DL:77:ILE:O	39:DL:81:ILE:HG12	2.15	0.46
40:DM:6:ILE:HG13	40:DM:72:VAL:O	2.14	0.46
40:DM:54:PHE:CE1	40:DM:55:LYS:NZ	2.80	0.46
43:DP:39:ILE:HG22	43:DP:40:ASN:N	2.23	0.46
43:DP:46:LYS:HG2	43:DP:47:ASP:N	2.30	0.46
43:DP:80:ARG:HB3	43:DP:80:ARG:CZ	2.45	0.46
43:DP:105:THR:O	43:DP:106:ASN:C	2.58	0.46
49:DV:41:VAL:HG12	49:DV:43:GLU:H	1.80	0.46
54:D1:11:U:O2'	54:D1:12:A:C4	2.68	0.46
1:AA:125:G:H4'	1:AA:126:A:OP2	2.15	0.46
1:AA:440:G:H2'	1:AA:441:U:C6	2.49	0.46
1:AA:463:G:N2	1:AA:466:A:OP2	2.41	0.46
1:AA:908:C:OP1	12:AP:22:LYS:CB	2.63	0.46
1:AA:1053:C:N4	1:AA:1106:G:H1	2.13	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2016:U:O2'	27:A5:6:VAL:HG12	2.15	0.46
1:AA:2111:C:O3'	1:AA:2112:G:C8	2.69	0.46
1:AA:2749:A:C4	1:AA:2750:A:N7	2.83	0.46
1:AA:2849:U:OP2	15:AR:95:ARG:NH1	2.48	0.46
3:AD:9:TYR:CD2	3:AD:10:THR:HG22	2.51	0.46
4:AE:7:VAL:HG13	4:AE:51:PHE:HE1	1.80	0.46
5:AF:196:LEU:HD23	5:AF:196:LEU:HA	1.72	0.46
6:AG:96:ARG:O	6:AG:97:ASP:HB2	2.16	0.46
7:AH:153:LYS:H	7:AH:153:LYS:HZ3	1.62	0.46
8:AK:40:THR:C	8:AK:42:SER:N	2.72	0.46
10:AN:2:ILE:N	10:AN:2:ILE:HD13	2.30	0.46
14:AQ:54:LEU:O	14:AQ:57:LYS:HD3	2.16	0.46
16:A1:59:ARG:O	16:A1:63:VAL:HG23	2.16	0.46
17:A2:44:LYS:HB3	17:A2:45:THR:H	1.42	0.46
22:A3:51:VAL:HG21	22:A3:80:HIS:HA	1.97	0.46
24:AW:23:LYS:O	24:AW:27:GLU:HG3	2.15	0.46
25:AX:10:LYS:HB3	25:AX:53:LEU:HD23	1.97	0.46
31:BA:93:U:H2'	31:BA:95:G:C4'	2.44	0.46
31:BA:270:A:C5	31:BA:271:C:C4	3.04	0.46
31:BA:375:U:OP1	46:BS:69:THR:HG21	2.15	0.46
31:BA:376:G:H5"	46:BS:5:ARG:HB2	1.98	0.46
31:BA:376:G:H2'	31:BA:377:G:C8	2.50	0.46
31:BA:377:G:P	46:BS:5:ARG:HH11	2.37	0.46
31:BA:789:U:O2	31:BA:789:U:C4'	2.63	0.46
31:BA:1032:A:H3'	31:BA:1032(A):G:H5"	1.98	0.46
31:BA:1054:C:O2	31:BA:1054:C:C2'	2.61	0.46
33:BF:50:ALA:O	33:BF:72:LYS:HB2	2.15	0.46
37:BJ:56:GLN:OE1	37:BJ:60:LYS:HD3	2.16	0.46
52:BD:18:G:H1	52:BD:65:C:H42	1.62	0.46
52:BD:53:A:O2'	52:BD:54:C:H5'	2.15	0.46
1:CA:89:U:HO2'	1:CA:90:A:H8	1.51	0.46
1:CA:248:G:H2'	1:CA:249:G:H8	1.80	0.46
1:CA:840:G:O2'	1:CA:2453:C:N3	2.42	0.46
1:CA:873:C:O2	11:CO:55:ARG:NH2	2.48	0.46
1:CA:1005:A:N6	1:CA:1006:A:N1	2.63	0.46
1:CA:1184:G:H5"	1:CA:1185:G:OP2	2.16	0.46
1:CA:1229:G:N7	56:CA:3362:OHX:N4	2.63	0.46
1:CA:1465:G:OP1	1:CA:1635:C:O2'	2.34	0.46
1:CA:1562:C:H2'	1:CA:1563:U:H6	1.81	0.46
1:CA:1585:G:O2'	1:CA:1586:G:H5'	2.16	0.46
1:CA:2179:G:H2'	1:CA:2180:G:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:2215:G:C2	1:CA:2216:G:C8	3.03	0.46
1:CA:2435:A:N6	30:C8:31:HIS:HE2	2.13	0.46
3:CD:267:SER:O	3:CD:269:PHE:HD1	1.98	0.46
5:CF:53:THR:O	5:CF:56:GLU:N	2.37	0.46
10:CN:80:ASP:OD1	15:CR:64:ARG:NH2	2.48	0.46
16:C1:16:LYS:O	16:C1:20:LEU:HD23	2.14	0.46
21:CV:93:ASP:N	21:CV:130:PRO:HG2	2.30	0.46
31:DA:409:G:C2'	31:DA:410:G:H5'	2.45	0.46
31:DA:449:C:O4'	31:DA:449:C:O2	2.33	0.46
31:DA:828:A:H4'	31:DA:828:A:OP1	2.16	0.46
31:DA:1055:A:C5	31:DA:1056:U:H6	2.33	0.46
31:DA:1329:A:C2'	31:DA:1330:U:H5'	2.45	0.46
32:DE:77:ALA:HB2	32:DE:211:ILE:CD1	2.46	0.46
32:DE:97:TRP:CE2	32:DE:101:MET:HG3	2.50	0.46
34:DG:8:VAL:C	34:DG:10:ARG:H	2.24	0.46
36:DI:11:ASN:O	36:DI:14:LEU:HD22	2.15	0.46
41:DN:59:TYR:O	41:DN:62:GLN:HB3	2.16	0.46
47:DT:94:ASN:O	47:DT:98:LEU:HG	2.15	0.46
52:DB:46:G:H4'	52:DB:47:U:OP1	2.15	0.46
52:DD:15:G:H4'	52:DD:15:G:OP1	2.14	0.46
52:DD:51:C:H2'	52:DD:52:G:O4'	2.15	0.46
1:AA:292:C:H2'	1:AA:293:U:C6	2.51	0.46
1:AA:745:G:H2'	1:AA:746:A:H5'	1.97	0.46
1:AA:889:C:H5"	1:AA:890:A:OP2	2.16	0.46
1:AA:1038:C:O2'	1:AA:1039:G:H5'	2.15	0.46
1:AA:1092:C:N4	1:AA:1100:C:N3	2.63	0.46
1:AA:1964:G:H4'	1:AA:1965:C:OP2	2.16	0.46
1:AA:1980:G:O2'	1:AA:1982:C:OP2	2.25	0.46
1:AA:2157:G:HO2'	1:AA:2158:A:P	2.38	0.46
1:AA:2266:A:H4'	1:AA:2267:A:N3	2.31	0.46
1:AA:2572:A:C8	4:AE:144:ARG:HD2	2.50	0.46
1:AA:2895:U:H2'	1:AA:2896:C:O4'	2.15	0.46
2:AB:0:A:H2'	2:AB:1:U:O4'	2.14	0.46
3:AD:11:PRO:O	3:AD:12:SER:OG	2.22	0.46
7:AH:12:PRO:O	7:AH:13:LYS:HB2	2.16	0.46
11:AO:15:ARG:NH1	11:AO:15:ARG:CB	2.75	0.46
18:AS:38:TYR:OH	27:A5:47:PRO:HG3	2.16	0.46
21:AV:6:LYS:N	21:AV:59:LEU:O	2.49	0.46
21:AV:120:ILE:HG22	21:AV:120:ILE:O	2.15	0.46
22:A3:70:GLN:NE2	22:A3:80:HIS:CE1	2.83	0.46
24:AW:31:GLU:O	24:AW:35:LEU:HD22	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:A6:44:ARG:N	28:A6:44:ARG:HD3	2.31	0.46
31:BA:686:U:O2'	31:BA:687:A:OP2	2.28	0.46
31:BA:836:G:C6	31:BA:851:G:C6	3.03	0.46
31:BA:958:A:C6	31:BA:959:A:C6	3.04	0.46
31:BA:1007:C:C3'	31:BA:1008:C:H5"	2.45	0.46
31:BA:1405:G:O4'	31:BA:1519:A:H4'	2.15	0.46
31:BA:1447:G:N2	31:BA:1460:A:H1'	2.30	0.46
32:BE:20:GLU:HG2	32:BE:189:ASP:OD2	2.15	0.46
32:BE:187:LEU:CD1	32:BE:205:ASP:HA	2.45	0.46
34:BG:170:VAL:HG22	34:BG:171:GLY:H	1.80	0.46
47:BT:63:ARG:O	47:BT:65:ILE:HD12	2.14	0.46
52:BB:21:A:C2	52:BB:56:U:C2	3.03	0.46
1:CA:278:G:H2'	1:CA:279:G:H8	1.79	0.46
1:CA:298:C:H3'	1:CA:299:G:H5"	1.97	0.46
1:CA:349:A:H2'	1:CA:350:G:O4'	2.15	0.46
1:CA:364:U:O5'	1:CA:364:U:H6	1.99	0.46
1:CA:476:A:OP1	5:CF:84:VAL:O	2.34	0.46
1:CA:714:G:H5"	11:CO:47:ASP:O	2.15	0.46
1:CA:949:C:O2'	1:CA:950:C:H5'	2.15	0.46
1:CA:1069:G:C6	1:CA:1186:C:C4	3.04	0.46
1:CA:1299:G:N2	16:C1:37:GLU:OE2	2.41	0.46
1:CA:1467:U:HO2'	1:CA:1468:G:P	2.31	0.46
1:CA:1640:G:H2'	1:CA:1641:G:H8	1.81	0.46
1:CA:1968:G:P	56:CA:3377:OHX:N6	2.88	0.46
1:CA:1974:U:H2'	1:CA:1976:A:OP2	2.15	0.46
1:CA:2192:A:N6	52:DD:65:C:C4	2.81	0.46
1:CA:2365:A:C2	22:C3:33:ALA:O	2.68	0.46
1:CA:2646:G:H1'	4:CE:62:PRO:HG2	1.96	0.46
1:CA:2711:U:H2'	1:CA:2712:C:C6	2.50	0.46
6:CG:114:ILE:CG2	6:CG:117:PHE:HB2	2.45	0.46
7:CH:158:HIS:ND1	7:CH:158:HIS:N	2.62	0.46
14:CQ:109:GLY:O	14:CQ:110:LEU:HD13	2.15	0.46
24:CW:51:ARG:HG3	24:CW:52:ASP:N	2.31	0.46
26:C4:13:ARG:O	26:C4:30:GLU:HB3	2.16	0.46
26:C4:24:THR:O	26:C4:25:TYR:HB2	2.16	0.46
26:C4:34:GLU:O	43:DP:57:ARG:NH1	2.48	0.46
29:C7:34:ARG:NH1	29:C7:39:ARG:HG3	2.31	0.46
31:DA:224:C:H2'	31:DA:225:C:C6	2.51	0.46
31:DA:266:G:C1'	31:DA:267:C:OP2	2.62	0.46
31:DA:467:G:N2	46:DS:82:GLN:OE1	2.48	0.46
31:DA:485:G:C8	56:DA:1731:OHX:N4	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:738:C:H5"	36:DI:69:GLU:HB2	1.98	0.46
31:DA:1015:A:H2'	31:DA:1016:A:C8	2.51	0.46
31:DA:1025:U:O2	31:DA:1025:U:H2'	2.16	0.46
31:DA:1127:G:N2	31:DA:1144:G:H22	2.13	0.46
31:DA:1212:U:O2'	31:DA:1213:A:C8	2.68	0.46
33:DF:37:GLN:HE21	44:DQ:26:ARG:HH11	1.63	0.46
33:DF:83:ARG:O	33:DF:86:VAL:HG22	2.16	0.46
34:DG:54:TYR:CE1	34:DG:206:PHE:HE1	2.32	0.46
40:DM:7:LYS:NZ	40:DM:71:LEU:HD13	2.31	0.46
49:DV:11:VAL:HG22	49:DV:12:ASP:N	2.29	0.46
49:DV:51:VAL:HG12	49:DV:52:TYR:N	2.30	0.46
52:DD:16:C:H2'	52:DD:17:G:H4'	1.97	0.46
52:DD:29:C:O2'	52:DD:30:A:H5'	2.16	0.46
1:AA:18:C:O3'	16:A1:23:GLY:HA2	2.16	0.46
1:AA:69:C:H2'	1:AA:70:G:H8	1.80	0.46
1:AA:547:A:H2'	1:AA:548:A:O4'	2.15	0.46
1:AA:827:U:O2	1:AA:2246:G:H4'	2.16	0.46
1:AA:1064:C:C4	1:AA:1065:U:C2	3.03	0.46
1:AA:1864:U:H5"	1:AA:2410:G:O2'	2.16	0.46
1:AA:2099:U:O2	1:AA:2190:G:O6	2.34	0.46
1:AA:2205:C:H2'	1:AA:2205:C:O2	2.15	0.46
1:AA:2283:C:C2	1:AA:2389:G:C2	3.03	0.46
1:AA:2286:A:OP1	28:A6:28:ARG:HG3	2.15	0.46
1:AA:2721:A:H2'	1:AA:2722:G:O4'	2.15	0.46
1:AA:2808:U:O2'	1:AA:2809:A:H5'	2.16	0.46
3:AD:39:LYS:NZ	3:AD:60:ARG:HD3	2.30	0.46
4:AE:102:VAL:N	4:AE:170:LEU:O	2.46	0.46
5:AF:149:ASP:OD2	5:AF:151:SER:HB3	2.16	0.46
7:AH:27:LYS:HG3	7:AH:27:LYS:O	2.15	0.46
19:AT:29:TRP:CE3	19:AT:78:LYS:HB3	2.51	0.46
21:AV:44:PHE:CE2	21:AV:86:VAL:HG21	2.51	0.46
23:AZ:45:ASN:O	23:AZ:63:ALA:HA	2.16	0.46
27:A5:3:LYS:O	27:A5:4:HIS:CB	2.64	0.46
29:A7:23:ARG:O	29:A7:28:ARG:NH1	2.39	0.46
30:A8:7:HIS:CB	30:A8:59:LYS:HE2	2.45	0.46
31:BA:49:U:C1'	31:BA:50:A:OP1	2.63	0.46
31:BA:192:U:H4'	50:BW:103:GLY:HA2	1.97	0.46
31:BA:246:A:C2	31:BA:282:A:C5	3.03	0.46
31:BA:368:U:P	8:CK:91:SER:OG	2.74	0.46
31:BA:869:G:C8	56:BA:1684:OHX:N5	2.84	0.46
31:BA:1128:C:N3	31:BA:1144:G:C2	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1152:A:OP1	40:BM:13:HIS:HB2	2.15	0.46
31:BA:1176:A:N1	31:BA:1177:G:C4	2.84	0.46
32:BE:5:ILE:HG13	32:BE:6:THR:H	1.79	0.46
32:BE:21:ARG:C	32:BE:23:ARG:H	2.22	0.46
32:BE:81:VAL:O	32:BE:85:ALA:HB2	2.16	0.46
33:BF:21:ARG:HD3	33:BF:21:ARG:N	2.30	0.46
33:BF:107:GLN:CD	33:BF:107:GLN:H	2.22	0.46
43:BP:89:GLY:O	43:BP:92:HIS:HB2	2.14	0.46
50:BW:37:SER:O	50:BW:41:ILE:HG12	2.16	0.46
52:BD:51:C:H2'	52:BD:52:G:O4'	2.15	0.46
1:CA:1017:C:H2'	1:CA:1018:G:C5'	2.45	0.46
1:CA:1757:U:O2'	1:CA:2870:G:H1'	2.15	0.46
1:CA:2115:U:H4'	1:CA:2116:G:O5'	2.16	0.46
1:CA:2566:G:H3'	1:CA:2567:U:H5"	1.97	0.46
9:CM:104:LYS:HA	9:CM:107:LEU:HD12	1.96	0.46
20:CU:17:SER:CB	20:CU:71:LYS:HD2	2.46	0.46
24:CW:47:ASN:C	24:CW:49:LYS:H	2.20	0.46
27:C5:57:VAL:CG1	27:C5:58:LEU:H	2.14	0.46
31:DA:82:U:O2	31:DA:87:A:C2	2.68	0.46
31:DA:147:G:O2'	31:DA:148:G:H5'	2.16	0.46
31:DA:273:A:H1'	47:DT:16:GLN:NE2	2.29	0.46
31:DA:511:C:O3'	34:DG:43:HIS:CE1	2.69	0.46
31:DA:520:A:OP1	42:DO:49:LEU:HB2	2.16	0.46
31:DA:976:G:H8	31:DA:1358:U:H2'	1.79	0.46
31:DA:1051:C:C4	31:DA:1052:U:C4	3.03	0.46
31:DA:1495:U:O4	56:DA:1737:OHX:N2	2.49	0.46
39:DL:5:TYR:CD2	39:DL:18:PHE:CE2	3.04	0.46
49:DV:80:TYR:CE1	49:DV:82:GLY:HA2	2.51	0.46
53:DC:20:G:H4'	53:DC:21:U:OP2	2.15	0.46
1:AA:952:G:C6	1:AA:953:A:N7	2.84	0.46
1:AA:1214:A:H61	1:AA:1235:G:H1'	1.80	0.46
1:AA:1257:C:H4'	5:AF:83:PHE:CD2	2.51	0.46
1:AA:1299:G:H3'	1:AA:1639:U:O4	2.15	0.46
1:AA:1483:G:C2	1:AA:1507:A:C8	3.03	0.46
1:AA:1761:C:H42	1:AA:1762:A:H62	1.62	0.46
1:AA:1820:U:O2	3:AD:202:LYS:HB3	2.16	0.46
1:AA:2157:G:C2'	1:AA:2158:A:OP2	2.63	0.46
1:AA:2815:C:H2'	1:AA:2816:C:O4'	2.15	0.46
1:AA:2887:U:H2'	1:AA:2888:C:O4'	2.16	0.46
3:AD:35:LYS:HA	3:AD:36:PRO:C	2.41	0.46
5:AF:177:ALA:HB1	5:AF:178:PRO:HD2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AP:19:GLY:C	12:AP:98:LYS:CD	2.85	0.46
14:AQ:48:LEU:CD2	14:AQ:82:ILE:HD11	2.46	0.46
14:AQ:106:ARG:H	14:AQ:106:ARG:HG3	1.45	0.46
15:AR:3:ARG:HB2	15:AR:6:LEU:HB3	1.98	0.46
21:AV:19:ARG:NH1	21:AV:84:GLU:O	2.48	0.46
26:A4:12:ALA:N	26:A4:24:THR:OG1	2.40	0.46
29:A7:35:ARG:HG3	29:A7:42:LEU:HD11	1.98	0.46
30:A8:41:ILE:HD12	30:A8:41:ILE:C	2.41	0.46
31:BA:142:G:N2	31:BA:221:C:N3	2.58	0.46
31:BA:475:G:C4	31:BA:476:G:C8	3.04	0.46
31:BA:510:A:N3	31:BA:543:C:H1'	2.31	0.46
31:BA:557:G:N1	31:BA:558:G:C2	2.84	0.46
31:BA:1083:U:C5	31:BA:1084:G:C6	3.03	0.46
31:BA:1132:C:H42	31:BA:1143:G:N2	2.14	0.46
31:BA:1195:C:H2'	31:BA:1197:G:O4'	2.16	0.46
33:BF:8:ILE:C	33:BF:10:PHE:N	2.74	0.46
34:BG:157:LEU:O	34:BG:161:ASN:ND2	2.49	0.46
40:BM:53:PRO:HA	44:BQ:42:ILE:HD12	1.96	0.46
43:BP:47:ASP:O	43:BP:48:LEU:HB3	2.15	0.46
52:BB:41:C:O2	52:BB:41:C:H2'	2.16	0.46
53:BC:1:C:O2	53:BC:1:C:C2'	2.61	0.46
1:CA:50:G:N3	1:CA:117:A:C2	2.84	0.46
1:CA:142:G:H2'	1:CA:143:C:C6	2.50	0.46
1:CA:274:G:O2'	1:CA:276:C:H5'	2.16	0.46
1:CA:874:U:H2'	1:CA:876:U:O4'	2.16	0.46
1:CA:1035:A:C6	25:CX:13:ILE:HG21	2.50	0.46
1:CA:1178:G:O6	1:CA:2063:C:H1'	2.15	0.46
1:CA:1455:C:C2	1:CA:1642:G:N2	2.84	0.46
1:CA:1811:U:C6	1:CA:1815:A:N7	2.83	0.46
1:CA:1965:C:OP2	1:CA:1966:U:O2'	2.25	0.46
1:CA:1977:G:N2	1:CA:2564:C:H5"	2.30	0.46
1:CA:1996:G:H2'	1:CA:1997:C:C6	2.50	0.46
1:CA:2452:A:H5'	1:CA:2452:A:H8	1.78	0.46
2:CB:17:A:H2'	2:CB:18:G:OP1	2.16	0.46
4:CE:44:TYR:O	4:CE:45:THR:HB	2.15	0.46
6:CG:23:PHE:HB2	6:CG:25:TYR:CZ	2.49	0.46
8:CK:78:THR:HB	8:CK:104:GLN:HE22	1.80	0.46
9:CM:56:ASN:N	9:CM:125:GLY:H	2.14	0.46
11:CO:46:LYS:HD3	11:CO:51:PHE:CE2	2.46	0.46
13:C0:10:LEU:O	13:C0:12:ARG:HG3	2.15	0.46
13:C0:37:THR:HB	13:C0:39:PRO:HD2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CQ:99:LYS:O	14:CQ:103:GLU:HG2	2.16	0.46
16:C1:83:LEU:HG	16:C1:88:ILE:HD11	1.97	0.46
17:C2:7:THR:CG2	17:C2:22:VAL:HG21	2.45	0.46
17:C2:24:LYS:NZ	17:C2:24:LYS:HB3	2.31	0.46
20:CU:30:VAL:O	20:CU:36:ALA:O	2.34	0.46
20:CU:67:LEU:HG	20:CU:71:LYS:HZ2	1.79	0.46
29:C7:19:ARG:HH11	29:C7:19:ARG:HG2	1.80	0.46
31:DA:148:G:O6	56:DA:1759:OHX:N4	2.48	0.46
31:DA:1053:G:N7	31:DA:1199:U:H3'	2.30	0.46
31:DA:1209:C:H2'	31:DA:1209:C:O2	2.14	0.46
32:DE:72:GLY:HA3	32:DE:165:VAL:HG22	1.98	0.46
34:DG:21:LEU:HD12	34:DG:21:LEU:N	2.31	0.46
47:DT:10:VAL:HA	47:DT:20:THR:O	2.15	0.46
49:DV:61:TYR:CZ	49:DV:63:THR:HA	2.51	0.46
50:DW:36:LEU:HD13	50:DW:39:LYS:HE2	1.98	0.46
52:DB:7:G:H3'	52:DB:8:U:H5'	1.97	0.46
52:DD:11:C:C4	52:DD:12:C:C5	3.04	0.46
1:AA:471:A:H8	1:AA:471:A:OP2	1.99	0.46
1:AA:868:U:O2'	12:AP:8:LYS:HE2	2.16	0.46
1:AA:1038:C:H2'	1:AA:1039:G:O4'	2.15	0.46
1:AA:1591:G:H2'	1:AA:1592:C:C6	2.51	0.46
1:AA:2502:G:H5"	1:AA:2503:A:C5'	2.45	0.46
1:AA:2543:G:H5"	1:AA:2543:G:H8	1.81	0.46
2:AB:80:U:OP2	56:AB:219:OHX:N4	2.49	0.46
3:AD:39:LYS:HZ3	3:AD:60:ARG:HD3	1.79	0.46
3:AD:149:PRO:O	3:AD:150:LYS:HB2	2.16	0.46
5:AF:11:VAL:HB	5:AF:18:ARG:O	2.15	0.46
9:AM:7:LYS:H	9:AM:7:LYS:HD2	1.81	0.46
11:AO:66:GLY:O	11:AO:67:MET:HB3	2.16	0.46
13:A0:28:LEU:HD11	13:A0:114:VAL:HG12	1.98	0.46
20:AU:57:GLN:O	20:AU:58:GLY:C	2.58	0.46
28:A6:40:CYS:HA	28:A6:46:HIS:HA	1.97	0.46
31:BA:187:C:O2	31:BA:191(A):G:C6	2.69	0.46
31:BA:267:C:OP2	31:BA:268:C:OP2	2.34	0.46
31:BA:510:A:H5"	31:BA:511:C:P	2.56	0.46
31:BA:516:U:C5	31:BA:517:G:C6	3.03	0.46
31:BA:799:G:H2'	31:BA:800:G:H5'	1.97	0.46
31:BA:1158:C:H3'	31:BA:1158:C:O2	2.15	0.46
31:BA:1176:A:C2'	31:BA:1177:G:H5"	2.35	0.46
31:BA:1213:A:N1	31:BA:1215:G:H1'	2.31	0.46
31:BA:1226:C:H4'	49:BV:80:TYR:CZ	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1253:G:O2'	31:BA:1254:C:H5'	2.15	0.46
31:BA:1267:C:C5	31:BA:1268:A:C5	3.04	0.46
32:BE:24:TRP:CE3	32:BE:26:PRO:HA	2.50	0.46
35:BH:99:GLY:O	35:BH:117:ASP:HA	2.16	0.46
40:BM:5:ARG:HB2	40:BM:73:ASP:OD2	2.16	0.46
43:BP:3:ARG:HG2	43:BP:9:ILE:CD1	2.42	0.46
46:BS:18:ARG:NH1	46:BS:32:TYR:OH	2.49	0.46
52:BB:55:U:C2	52:BB:56:U:C6	3.04	0.46
1:CA:792:G:H2'	1:CA:793:G:O4'	2.16	0.46
1:CA:1047:A:N6	1:CA:1048:A:N1	2.63	0.46
1:CA:1249:G:H3'	1:CA:1250:A:C5'	2.42	0.46
1:CA:1355:A:OP2	56:CA:3332:OHX:N6	2.48	0.46
1:CA:1818:A:C2	1:CA:2619:C:H1'	2.51	0.46
1:CA:2043:A:O2'	1:CA:2044:C:H5'	2.15	0.46
1:CA:2073:C:H1'	4:CE:156:MET:HE2	1.97	0.46
1:CA:2456:C:OP1	5:CF:68:LYS:HG3	2.15	0.46
2:CB:31:A:C2	2:CB:58:G:C2	3.03	0.46
5:CF:34:TRP:CE3	11:CO:8:PRO:HB3	2.51	0.46
7:CH:151:ILE:HG22	7:CH:151:ILE:O	2.15	0.46
11:CO:61:ARG:CB	11:CO:62:LEU:CD2	2.93	0.46
11:CO:114:ILE:HD12	11:CO:115:LEU:N	2.31	0.46
22:C3:36:ILE:HD13	22:C3:36:ILE:N	2.31	0.46
28:C6:21:TYR:N	28:C6:21:TYR:HD2	2.08	0.46
30:C8:35:GLN:C	30:C8:36:LYS:HG2	2.39	0.46
31:DA:89:U:O2'	31:DA:90:C:H5"	2.16	0.46
31:DA:346:G:N2	31:DA:347:G:C8	2.84	0.46
31:DA:353:A:C2'	31:DA:354:G:OP2	2.62	0.46
31:DA:881:G:C2	31:DA:882:C:C2	3.04	0.46
31:DA:1034:G:H8	31:DA:1034:G:O5'	1.99	0.46
31:DA:1200:C:O2	31:DA:1200:C:C2'	2.63	0.46
31:DA:1292:U:H2'	31:DA:1293:G:H8	1.81	0.46
31:DA:1325:C:C4'	51:DX:17:THR:HG21	2.39	0.46
31:DA:1402:C:H2'	31:DA:1403:C:H6	1.79	0.46
33:DF:52:LEU:HD23	33:DF:52:LEU:H	1.81	0.46
40:DM:83:GLU:O	40:DM:86:MET:HB2	2.15	0.46
43:DP:25:ILE:O	43:DP:29:ARG:HB2	2.16	0.46
45:DR:3:ILE:HD13	45:DR:3:ILE:H	1.80	0.46
52:DB:46:G:C2	52:DB:55:U:C4	3.04	0.46
52:DB:68:A:H2'	52:DB:68:A:N3	2.30	0.46
1:AA:106:C:H2'	1:AA:107:C:H6	1.81	0.46
1:AA:660:G:N2	11:AO:12:ALA:HA	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:754:C:H2'	1:AA:755:C:C6	2.51	0.46
1:AA:1110:G:H2'	1:AA:1111:A:C8	2.51	0.46
1:AA:1407:C:C2	1:AA:1596:A:C2	3.04	0.46
1:AA:1517:G:H4'	1:AA:1556:C:HO2'	1.79	0.46
1:AA:1556:C:H2'	1:AA:1557:C:C6	2.51	0.46
1:AA:2287:A:N6	1:AA:2344:U:C2	2.84	0.46
1:AA:2294:C:C5	1:AA:2295:C:H5	2.34	0.46
1:AA:2667:C:H1'	7:AH:109:PHE:CD2	2.51	0.46
2:AB:89(A):A:C5	2:AB:90:C:H1'	2.51	0.46
3:AD:3:VAL:HG13	3:AD:17:THR:CG2	2.45	0.46
4:AE:195:LEU:HD23	4:AE:195:LEU:C	2.40	0.46
5:AF:32:LEU:HD21	5:AF:105:VAL:HG13	1.98	0.46
5:AF:165:ARG:HA	5:AF:168:ARG:HB2	1.98	0.46
6:AG:116:ASP:HB3	6:AG:117:PHE:H	1.49	0.46
6:AG:126:ASP:OD2	6:AG:130:ASN:HB2	2.16	0.46
7:AH:154:PRO:HB3	7:AH:163:TYR:CE2	2.51	0.46
8:AK:26:ALA:O	8:AK:31:LEU:HD13	2.16	0.46
10:AN:31:LYS:HB3	10:AN:32:TYR:CE1	2.51	0.46
10:AN:104:ARG:HD3	15:AR:36:GLU:CD	2.41	0.46
11:AO:29:LYS:HG2	11:AO:30:THR:N	2.31	0.46
11:AO:126:VAL:HG12	11:AO:147:LEU:CD2	2.45	0.46
12:AP:104:PHE:O	12:AP:105:GLU:HB2	2.15	0.46
12:AP:136:ALA:CB	21:AV:52:SER:HB2	2.46	0.46
13:A0:100:LEU:HD11	13:A0:113:LEU:HD13	1.98	0.46
15:AR:27:THR:CG2	15:AR:90:GLN:HB3	2.46	0.46
18:AS:68:ARG:O	18:AS:110:LYS:N	2.37	0.46
21:AV:48:PHE:HA	21:AV:51:ALA:HB3	1.98	0.46
21:AV:107:THR:C	21:AV:109:ALA:H	2.24	0.46
31:BA:19:C:H2'	31:BA:20:U:H6	1.81	0.46
31:BA:1272:G:H2'	31:BA:1273:G:O4'	2.16	0.46
39:BL:26:VAL:O	39:BL:33:PHE:HB2	2.16	0.46
40:BM:24:VAL:HG21	40:BM:37:PRO:HD3	1.97	0.46
42:BO:61:TYR:O	42:BO:62:GLU:HB3	2.16	0.46
43:BP:7:VAL:O	43:BP:8:GLU:C	2.59	0.46
50:BW:73:HIS:HB3	50:BW:74:LYS:HG3	1.98	0.46
50:BW:98:PRO:C	50:BW:100:ILE:H	2.24	0.46
52:BD:21:A:C4'	52:BD:22:A:O5'	2.64	0.46
1:CA:417:G:H22	11:CO:72:PRO:CG	2.28	0.46
1:CA:510:A:H5'	20:CU:49:VAL:HG22	1.98	0.46
1:CA:606:G:H2'	1:CA:607:G:C8	2.51	0.46
1:CA:606:G:H2'	1:CA:607:G:H8	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:881:U:H1'	11:CO:55:ARG:NH1	2.31	0.46
1:CA:902:G:H2'	1:CA:903:G:H8	1.81	0.46
1:CA:1035:A:N6	25:CX:13:ILE:HG21	2.31	0.46
1:CA:1135:A:H3'	1:CA:1135:A:N3	2.31	0.46
1:CA:1422:C:H2'	1:CA:1423:C:H6	1.79	0.46
1:CA:1542:A:O2'	1:CA:1543:A:H5'	2.15	0.46
2:CB:109:G:C2'	2:CB:110:U:H5'	2.45	0.46
3:CD:61:LEU:HD13	3:CD:61:LEU:HA	1.68	0.46
4:CE:14:ILE:HB	15:CR:14:TYR:CZ	2.51	0.46
5:CF:148:LEU:HD21	5:CF:191:ARG:NH1	2.31	0.46
6:CG:165:THR:OG1	6:CG:168:GLU:HG3	2.16	0.46
7:CH:35:VAL:HG21	7:CH:75:ALA:HB2	1.96	0.46
7:CH:77:LYS:HE2	7:CH:81:GLU:HB3	1.97	0.46
10:CN:35:VAL:HA	10:CN:62:VAL:HB	1.96	0.46
11:CO:23:PRO:C	11:CO:25:SER:H	2.23	0.46
12:CP:77:LYS:C	12:CP:79:LEU:H	2.24	0.46
14:CQ:24:LEU:H	14:CQ:24:LEU:HD22	1.81	0.46
16:C1:105:VAL:HG23	16:C1:106:PHE:N	2.31	0.46
17:C2:38:LEU:HD13	17:C2:55:ALA:C	2.40	0.46
17:C2:41:GLY:HA3	17:C2:46:VAL:CG1	2.46	0.46
19:CT:63:LYS:O	19:CT:64:LYS:HD3	2.15	0.46
23:CZ:4:VAL:HG12	23:CZ:11:ARG:CB	2.46	0.46
26:C4:38:LYS:HB2	26:C4:38:LYS:NZ	2.31	0.46
31:DA:115:G:C2	31:DA:289:G:C5	3.04	0.46
31:DA:160:A:H2'	31:DA:161:A:O4'	2.16	0.46
31:DA:281:G:H8	31:DA:281:G:OP2	1.99	0.46
31:DA:860:A:H2'	31:DA:861:G:O4'	2.16	0.46
31:DA:948:C:O2'	31:DA:949:A:H5'	2.15	0.46
31:DA:962:C:N4	31:DA:974:A:N6	2.64	0.46
31:DA:1372:U:H5"	39:DL:71:SER:HB2	1.98	0.46
33:DF:37:GLN:HE21	44:DQ:26:ARG:NH1	2.14	0.46
41:DN:95:ILE:O	41:DN:99:GLN:HG3	2.15	0.46
42:DO:14:LYS:O	42:DO:15:VAL:C	2.58	0.46
44:DQ:12:ARG:C	44:DQ:14:PRO:HD3	2.41	0.46
53:DC:41:C:O2'	53:DC:42:C:H5'	2.15	0.46
1:AA:529:A:H4'	1:AA:530:G:H5'	1.98	0.46
1:AA:1154:G:H8	1:AA:1154:G:O5'	1.99	0.46
1:AA:1239:G:H2'	1:AA:1240:U:O4'	2.16	0.46
1:AA:1416:G:H1	1:AA:1582:C:H42	1.63	0.46
1:AA:1426:G:H8	1:AA:1426:G:O5'	1.99	0.46
1:AA:1491:G:H5'	3:AD:99:ASP:OD1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1494:A:C2'	1:AA:1495:A:H5'	2.44	0.46
1:AA:1530:G:C5	1:AA:1531:C:C4	3.03	0.46
1:AA:1825:A:O4'	3:AD:254:THR:HG21	2.16	0.46
1:AA:2104:G:H1	1:AA:2185:C:H42	1.64	0.46
1:AA:2114:A:C6	1:AA:2168:G:C2	3.04	0.46
1:AA:2846:G:H2'	1:AA:2847:U:C6	2.51	0.46
2:AB:1:U:H2'	2:AB:2:C:H6	1.78	0.46
3:AD:35:LYS:CE	3:AD:104:TYR:CD1	2.99	0.46
3:AD:54:ARG:C	3:AD:218:ARG:HG3	2.41	0.46
12:AP:86:GLY:N	22:A3:10:THR:HB	2.31	0.46
13:A0:99:LYS:HA	13:A0:112:ALA:HB2	1.97	0.46
21:AV:136:PHE:CD1	21:AV:136:PHE:C	2.94	0.46
23:AZ:40:ARG:O	23:AZ:40:ARG:HG3	2.15	0.46
26:A4:36:CYS:O	26:A4:41:PRO:HD2	2.16	0.46
27:A5:33:CYS:CB	27:A5:40:LYS:HD3	2.41	0.46
31:BA:56:U:H4'	8:CK:82:ARG:NH2	2.31	0.46
31:BA:187:C:H2'	31:BA:188:U:O4'	2.15	0.46
31:BA:230:G:H2'	31:BA:231:G:O4'	2.16	0.46
31:BA:412:A:H4'	31:BA:413:G:O5'	2.16	0.46
31:BA:872:A:C5	31:BA:874:G:C8	3.04	0.46
31:BA:960:U:O2'	31:BA:1223:C:H4'	2.16	0.46
31:BA:982:U:H4'	31:BA:983:A:OP1	2.15	0.46
31:BA:999:U:H2'	31:BA:1000:A:H8	1.80	0.46
31:BA:1076:C:C2	31:BA:1082:G:N2	2.83	0.46
31:BA:1139:G:N2	31:BA:1144:G:H1	2.00	0.46
31:BA:1157:A:O2'	31:BA:1158:C:O4'	2.34	0.46
31:BA:1211:U:C5'	31:BA:1212:U:OP1	2.64	0.46
31:BA:1263:C:H2'	31:BA:1264:C:C6	2.51	0.46
31:BA:1352:C:H2'	31:BA:1353:G:C8	2.51	0.46
35:BH:31:LEU:HD22	35:BH:31:LEU:HA	1.81	0.46
35:BH:110:LEU:HB3	35:BH:115:VAL:HG11	1.98	0.46
44:BQ:4:LYS:O	44:BQ:6:LEU:N	2.49	0.46
49:BV:42:PRO:O	49:BV:45:VAL:HG22	2.15	0.46
1:CA:637:G:N2	1:CA:642:G:C5	2.83	0.46
1:CA:866:G:H4'	1:CA:886:C:O3'	2.15	0.46
1:CA:1018:G:H2'	1:CA:1019:A:C8	2.51	0.46
1:CA:1853:A:H2'	1:CA:1854:G:C8	2.51	0.46
1:CA:2152:C:C5	1:CA:2153:U:C4	3.04	0.46
1:CA:2156:G:HO2'	1:CA:2157:A:H8	1.64	0.46
1:CA:2265:G:H2'	1:CA:2266:G:O4'	2.16	0.46
1:CA:2526:G:N2	4:CE:143:ASN:HD21	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:2667:A:OP1	1:CA:2667:A:H8	1.98	0.46
1:CA:2766:C:OP2	1:CA:2766:C:O4'	2.34	0.46
11:CO:112:LEU:HB2	11:CO:128:HIS:HD2	1.78	0.46
16:C1:66:ASN:CG	16:C1:70:ARG:HE	2.24	0.46
16:C1:92:ARG:HG2	17:C2:11:GLN:NE2	2.30	0.46
16:C1:99:ALA:HB2	16:C1:106:PHE:CD1	2.51	0.46
17:C2:22:VAL:HG22	17:C2:23:GLU:N	2.32	0.46
18:CS:56:ALA:O	18:CS:60:ASN:HB2	2.16	0.46
28:C6:16:CYS:O	28:C6:17:LYS:HG3	2.16	0.46
31:DA:152:A:C8	31:DA:153:C:C5	3.03	0.46
31:DA:186(C):G:C2	31:DA:191(E):G:C2	3.04	0.46
31:DA:259:G:C6	31:DA:260:G:C5	3.04	0.46
31:DA:422:C:O2'	31:DA:423:G:N3	2.41	0.46
31:DA:452:A:H2'	31:DA:453:A:C8	2.50	0.46
31:DA:1011:G:C6	31:DA:1012:U:C4	3.03	0.46
31:DA:1124:G:O2'	31:DA:1145:C:N3	2.49	0.46
31:DA:1127:G:N2	31:DA:1145:C:C2	2.83	0.46
31:DA:1176:A:N6	31:DA:1177:G:C5	2.84	0.46
31:DA:1285:A:H4'	31:DA:1286:A:O5'	2.15	0.46
31:DA:1327:C:H2'	31:DA:1328:C:H6	1.81	0.46
32:DE:182:ILE:H	32:DE:182:ILE:HD12	1.81	0.46
35:DH:60:TYR:HA	35:DH:63:ARG:HB2	1.98	0.46
36:DI:96:PRO:HB3	48:DU:30:ASP:OD1	2.15	0.46
46:DS:55:ARG:NH2	46:DS:58:TYR:HD1	2.14	0.46
53:DC:65:G:C2	53:DC:66:C:C2	3.03	0.46
52:DD:36:U:H2'	52:DD:37:A:O4'	2.16	0.46
1:AA:301:G:C6	1:AA:317:G:C6	3.04	0.45
1:AA:480:A:C2'	1:AA:481:G:OP1	2.65	0.45
1:AA:1063:G:C6	1:AA:1064:C:C4	3.04	0.45
1:AA:1152:C:H4'	16:A1:77:SER:HA	1.98	0.45
1:AA:1210:A:H5"	1:AA:1212:G:O4'	2.16	0.45
1:AA:1266:G:O6	18:AS:13:SER:OG	2.16	0.45
1:AA:1530:G:H2'	1:AA:1531:C:C6	2.50	0.45
1:AA:1799:G:H5'	1:AA:1819:A:H61	1.81	0.45
1:AA:1987:G:H2'	1:AA:1988:C:H6	1.80	0.45
1:AA:2242:G:H2'	1:AA:2243:U:O5'	2.16	0.45
1:AA:2307:G:H1'	1:AA:2308:G:C2	2.51	0.45
1:AA:2432:A:N9	23:AZ:33:LYS:HD3	2.30	0.45
1:AA:2667:C:H2'	1:AA:2668:G:O4'	2.16	0.45
3:AD:43:ARG:HD2	3:AD:44:ASN:OD1	2.15	0.45
3:AD:206:LEU:HA	3:AD:211:ARG:NH1	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:223:GLY:HA3	3:AD:231:HIS:CE1	2.50	0.45
4:AE:37:ARG:HH11	4:AE:42:ASP:CG	2.24	0.45
4:AE:68:ALA:C	4:AE:70:ALA:N	2.74	0.45
6:AG:83:ARG:HB2	6:AG:86:MET:HE1	1.97	0.45
7:AH:89:ILE:HG13	7:AH:129:THR:HA	1.98	0.45
9:AM:46:VAL:O	9:AM:47:ALA:CB	2.63	0.45
11:AO:50:ARG:CG	11:AO:50:ARG:NH2	2.67	0.45
27:A5:2:ALA:O	27:A5:3:LYS:CB	2.59	0.45
31:BA:857:C:C5	56:BA:1684:OHX:N1	2.84	0.45
31:BA:1087:G:H2'	31:BA:1088:G:C8	2.51	0.45
31:BA:1238:A:H62	31:BA:1299:A:N6	2.14	0.45
33:BF:52:LEU:HA	33:BF:70:VAL:HG22	1.97	0.45
34:BG:5:ILE:CG2	34:BG:6:GLY:N	2.79	0.45
34:BG:177:ASP:O	34:BG:181:MET:N	2.49	0.45
37:BJ:148:ASN:N	37:BJ:148:ASN:HD22	2.13	0.45
42:BO:107:VAL:CG2	42:BO:117:TYR:HB3	2.45	0.45
45:BR:76:GLU:C	45:BR:78:TYR:H	2.24	0.45
48:BU:73:ALA:HB3	48:BU:79:LEU:HD12	1.97	0.45
52:BB:42:U:H3'	52:BB:43:G:C8	2.51	0.45
52:BB:55:U:C2	52:BB:56:U:H6	2.33	0.45
52:BD:46:G:C2	52:BD:55:U:C4	3.03	0.45
1:CA:325:A:H2'	1:CA:359:C:O2'	2.17	0.45
1:CA:559:G:H5'	16:C1:24:TYR:CD2	2.51	0.45
1:CA:1041:C:OP1	16:C1:53:ARG:NH2	2.50	0.45
1:CA:1227:C:O2'	1:CA:1228:A:H5'	2.17	0.45
1:CA:2080:A:H2'	1:CA:2081:A:O4'	2.16	0.45
1:CA:2333:A:C6	1:CA:2346:A:N7	2.85	0.45
4:CE:11:MET:SD	4:CE:24:THR:HG22	2.56	0.45
4:CE:120:TRP:CE3	4:CE:155:LYS:HD3	2.51	0.45
6:CG:135:LEU:HD23	6:CG:140:ILE:HD11	1.97	0.45
12:CP:24:GLY:O	12:CP:67:ARG:NH2	2.50	0.45
12:CP:43:THR:OG1	12:CP:45:GLN:HG2	2.17	0.45
13:C0:25:ALA:C	13:C0:27:SER:N	2.75	0.45
15:CR:54:ARG:HA	15:CR:59:THR:HG22	1.96	0.45
15:CR:85:LYS:HD2	15:CR:87:ASP:OD2	2.16	0.45
16:C1:70:ARG:NH2	16:C1:75:ASN:HB3	2.31	0.45
20:CU:80:GLY:C	20:CU:81:LYS:HD2	2.41	0.45
22:C3:16:SER:O	22:C3:17:GLN:C	2.58	0.45
22:C3:36:ILE:N	22:C3:36:ILE:CD1	2.79	0.45
24:CW:15:LYS:O	24:CW:16:LEU:HB3	2.15	0.45
31:DA:115:G:OP2	56:DA:1734:OHX:N5	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:279:A:OP1	31:DA:280:C:O2'	2.22	0.45
31:DA:365:U:H5'	31:DA:366:C:OP1	2.16	0.45
31:DA:389:A:H2'	31:DA:389:A:N3	2.29	0.45
31:DA:408:A:H2	31:DA:434:U:H3	1.60	0.45
31:DA:861:G:C4	31:DA:862:C:C5	3.04	0.45
31:DA:927:G:OP2	31:DA:927:G:H4'	2.15	0.45
31:DA:1004:A:C1'	31:DA:1036:G:C6	2.99	0.45
31:DA:1028:C:C4	31:DA:1034:G:N2	2.84	0.45
31:DA:1309:G:O6	31:DA:1329:A:C6	2.70	0.45
32:DE:8:LYS:HB3	32:DE:9:GLU:H	1.57	0.45
32:DE:16:HIS:HE2	32:DE:209:ARG:HG2	1.79	0.45
33:DF:79:ARG:C	33:DF:81:GLY:H	2.24	0.45
37:DJ:63:LYS:NZ	37:DJ:64:GLN:OE1	2.49	0.45
40:DM:42:THR:HG23	40:DM:68:HIS:HA	1.98	0.45
41:DN:32:ILE:HD13	41:DN:68:ALA:O	2.17	0.45
41:DN:54:ARG:O	41:DN:56:GLY:N	2.49	0.45
43:DP:49:THR:HG22	43:DP:51:ALA:H	1.81	0.45
43:DP:97:PRO:CB	43:DP:101:GLN:HG3	2.44	0.45
52:DB:24:G:H5'	52:DB:24:G:H8	1.80	0.45
52:DD:17:G:N2	52:DD:66:G:H2'	2.31	0.45
1:AA:163:U:H2'	1:AA:164:U:C5'	2.46	0.45
1:AA:1776:G:H2'	1:AA:1776:G:N3	2.32	0.45
1:AA:1800:C:OP1	3:AD:264:LYS:NZ	2.49	0.45
1:AA:2015:A:H2'	27:A5:6:VAL:HG21	1.96	0.45
1:AA:2341:G:H2'	1:AA:2342:C:C6	2.51	0.45
1:AA:2685:G:O2'	1:AA:2726:U:H5	1.98	0.45
2:AB:60:C:C2	2:AB:61:G:C8	3.04	0.45
2:AB:66:A:H61	2:AB:107:U:H2'	1.81	0.45
4:AE:39:PRO:HA	4:AE:43:GLY:CA	2.47	0.45
4:AE:197:ILE:HD11	4:AE:199:ARG:HD3	1.98	0.45
7:AH:127:GLU:CG	7:AH:128:PRO:HD2	2.46	0.45
10:AN:104:ARG:HD3	15:AR:36:GLU:OE1	2.16	0.45
11:AO:144:GLU:N	11:AO:144:GLU:CD	2.73	0.45
13:A0:52:ILE:O	13:A0:55:ALA:N	2.48	0.45
21:AV:101:PRO:O	21:AV:102:LEU:HD23	2.16	0.45
24:AW:35:LEU:HD22	24:AW:35:LEU:H	1.80	0.45
30:A8:56:GLU:O	30:A8:57:ARG:C	2.58	0.45
31:BA:373:A:H2'	31:BA:374:A:H8	1.81	0.45
31:BA:583:A:H61	31:BA:758:G:H1'	1.80	0.45
31:BA:782:A:O3'	31:BA:1515:C:H4'	2.16	0.45
31:BA:1004:A:H2'	31:BA:1005:A:C4'	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1174:G:H2'	31:BA:1175:G:C8	2.52	0.45
31:BA:1196:U:N3	54:B1:23:A:N7	2.64	0.45
31:BA:1468:A:H2'	31:BA:1469:G:O4'	2.16	0.45
32:BE:8:LYS:HE3	32:BE:11:LEU:HD13	1.98	0.45
37:BJ:25:ALA:O	37:BJ:29:LYS:HG2	2.16	0.45
37:BJ:140:ASP:HA	37:BJ:143:ARG:NH1	2.31	0.45
45:BR:9:GLN:O	45:BR:12:ILE:HG13	2.16	0.45
47:BT:20:THR:HA	47:BT:42:TYR:O	2.15	0.45
50:BW:56:MET:HG3	50:BW:88:VAL:HG21	1.98	0.45
53:BC:2:G:C5	53:BC:3:C:C5	3.05	0.45
1:CA:198:C:H2'	1:CA:199:C:C6	2.52	0.45
1:CA:511:C:H2'	1:CA:512:C:H6	1.80	0.45
1:CA:721:C:OP1	5:CF:54:ARG:NH1	2.46	0.45
1:CA:826:G:C5	1:CA:827:U:C4	3.04	0.45
1:CA:912:G:N2	1:CA:914:A:H61	2.15	0.45
1:CA:936:C:C4'	1:CA:937:C:OP2	2.63	0.45
1:CA:989:U:OP2	11:CO:36:LYS:CE	2.65	0.45
1:CA:1101:A:H2'	1:CA:1102:G:O4'	2.16	0.45
1:CA:1187:U:OP2	9:CM:63:THR:OG1	2.22	0.45
1:CA:1265:G:OP2	16:C1:19:LYS:HE2	2.16	0.45
1:CA:1444:U:C2'	1:CA:1445:C:OP1	2.64	0.45
1:CA:1459:A:H2'	1:CA:1460:G:H8	1.81	0.45
1:CA:2040:U:H5"	1:CA:2041:G:P	2.56	0.45
1:CA:2182:G:H8	1:CA:2182:G:OP2	1.99	0.45
1:CA:2642:A:O2'	1:CA:2905:U:H5	1.99	0.45
2:CB:119:G:H2'	2:CB:120:G:O4'	2.15	0.45
3:CD:83:GLU:OE1	3:CD:104:TYR:OH	2.26	0.45
5:CF:22:ALA:C	5:CF:24:LEU:H	2.23	0.45
31:DA:113:G:H2'	31:DA:114:U:C6	2.50	0.45
31:DA:197:A:H1'	31:DA:198:G:P	2.57	0.45
31:DA:485:G:N7	56:DA:1731:OHX:N4	2.65	0.45
31:DA:562:C:O4'	31:DA:563:A:C2	2.68	0.45
31:DA:624:C:O3'	46:DS:10:GLY:HA2	2.16	0.45
31:DA:1099:G:C6	31:DA:1100:C:N3	2.85	0.45
37:DJ:26:PHE:CD2	37:DJ:30:ILE:HD11	2.51	0.45
38:DK:83:ILE:HG13	38:DK:137:VAL:HG22	1.98	0.45
41:DN:34:ASP:HB2	41:DN:35:PRO:HD2	1.98	0.45
43:DP:69:GLU:O	43:DP:72:ALA:HB3	2.16	0.45
52:DB:77:C:H2'	52:DB:78:C:C6	2.52	0.45
52:DB:81:C:OP2	52:DB:81:C:H6	1.98	0.45
52:DD:43:G:C2'	52:DD:44:C:H5'	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:32:C:O2'	1:AA:33:U:H5'	2.16	0.45
1:AA:41:C:H2'	1:AA:43:G:O4'	2.16	0.45
1:AA:469:G:O6	29:A7:37:LYS:HE2	2.16	0.45
1:AA:558:G:P	9:AM:111:PRO:HD2	2.57	0.45
1:AA:654(B):C:H2'	1:AA:654(C):G:O4'	2.17	0.45
1:AA:917:A:C2'	1:AA:918:A:H5'	2.40	0.45
1:AA:1050:A:C8	1:AA:2751:G:N7	2.84	0.45
1:AA:1066:U:C6	1:AA:1069:A:OP2	2.69	0.45
1:AA:1174:A:C5	1:AA:1178:C:N4	2.85	0.45
1:AA:1309:G:OP1	29:A7:9:ARG:HB2	2.16	0.45
1:AA:1697:G:OP2	1:AA:1698:A:O2'	2.33	0.45
1:AA:1711:C:H2'	1:AA:1712:C:H6	1.81	0.45
1:AA:1831:G:H2'	1:AA:1832:C:C6	2.52	0.45
1:AA:2068:U:C2	1:AA:2430:A:H2	2.33	0.45
1:AA:2112:G:N2	52:BD:18:G:C2	2.84	0.45
1:AA:2392:A:H2	1:AA:2424:C:N4	2.14	0.45
1:AA:2701:C:H3'	1:AA:2702:U:C5'	2.30	0.45
1:AA:2861:G:O6	56:AA:3294:OHX:N3	2.49	0.45
4:AE:57:LYS:HD3	4:AE:59:VAL:HG12	1.97	0.45
4:AE:188:VAL:HA	4:AE:189:PRO:HD3	1.67	0.45
10:AN:12:ASP:CG	10:AN:14:THR:HG23	2.41	0.45
10:AN:49:ARG:NH2	31:BA:1423:G:OP1	2.49	0.45
12:AP:110:THR:HG23	12:AP:113:GLN:OE1	2.17	0.45
14:AQ:3:ARG:HG2	14:AQ:4:LEU:N	2.31	0.45
19:AT:49:VAL:HG11	19:AT:83:VAL:HG12	1.97	0.45
21:AV:81:ARG:O	21:AV:81:ARG:HG3	2.16	0.45
21:AV:117:LEU:HD13	21:AV:117:LEU:N	2.31	0.45
24:AW:52:ASP:O	24:AW:56:GLN:HB2	2.17	0.45
27:A5:51:TYR:HB3	27:A5:52:TYR:H	1.45	0.45
31:BA:8:A:OP1	56:BA:1778:OHX:N6	2.50	0.45
31:BA:222:U:C2	31:BA:223:U:C5	3.04	0.45
31:BA:389:A:H2'	31:BA:390:C:C5'	2.46	0.45
31:BA:396:G:O2'	31:BA:398:C:OP1	2.28	0.45
31:BA:407:G:O2'	34:BG:116:GLN:HG3	2.16	0.45
31:BA:439:A:C2'	31:BA:440:A:O5'	2.64	0.45
31:BA:517:G:N1	31:BA:533:A:OP2	2.41	0.45
31:BA:739:C:C4	31:BA:740:U:C5	3.04	0.45
31:BA:972:C:OP2	40:BM:57:LYS:HG2	2.16	0.45
31:BA:1130:A:O5'	31:BA:1131:G:P	2.74	0.45
31:BA:1392:G:H21	31:BA:1502:A:H8	1.59	0.45
35:BH:152:ARG:H	35:BH:152:ARG:HG2	1.58	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BB:9:U:O2	52:BB:9:U:C2'	2.61	0.45
53:BC:52:C:H2'	53:BC:53:G:O4'	2.16	0.45
1:CA:577:G:H2'	1:CA:578:U:C6	2.51	0.45
1:CA:708:G:H21	11:CO:12:ALA:HA	1.81	0.45
1:CA:827:U:P	3:CD:49:ILE:HG22	2.56	0.45
1:CA:1104:A:OP2	1:CA:1136:G:N2	2.49	0.45
1:CA:1110:G:C2	1:CA:1123:C:C2	3.04	0.45
1:CA:1271:C:H4'	17:C2:85:LYS:CD	2.46	0.45
1:CA:1434:C:H2'	1:CA:1435:G:C8	2.51	0.45
1:CA:1577:G:H2'	1:CA:1578:C:H6	1.81	0.45
1:CA:2299:A:H4'	1:CA:2300:A:O4'	2.16	0.45
1:CA:2886:C:O2'	15:CR:3:ARG:HG3	2.16	0.45
3:CD:24:ILE:HD13	3:CD:84:TYR:HB2	1.99	0.45
4:CE:51:PHE:C	4:CE:74:PRO:HB3	2.41	0.45
5:CF:148:LEU:HD21	5:CF:191:ARG:HH11	1.80	0.45
11:CO:84:ASN:ND2	11:CO:117:GLU:HB3	2.30	0.45
23:CZ:93:GLU:HA	23:CZ:97:LEU:HB3	1.98	0.45
28:C6:30:THR:HA	28:C6:31:PRO:C	2.42	0.45
28:C6:38:LYS:HG3	28:C6:47:THR:O	2.16	0.45
31:DA:186:C:H2'	50:DW:85:MET:SD	2.56	0.45
31:DA:464:G:C6	31:DA:466:C:H5'	2.52	0.45
31:DA:485:G:H1'	31:DA:486:U:C5	2.39	0.45
31:DA:757:U:O2'	31:DA:879:C:H1'	2.15	0.45
31:DA:861:G:H2'	31:DA:862:C:C6	2.49	0.45
31:DA:1129:C:H5	31:DA:1141:C:N4	2.14	0.45
31:DA:1190:G:OP1	33:DF:5:ILE:HD12	2.16	0.45
32:DE:178:ARG:CG	32:DE:178:ARG:NH1	2.79	0.45
33:DF:18:TRP:HE1	44:DQ:55:GLY:H	1.61	0.45
34:DG:9:CYS:HA	34:DG:12:CYS:CB	2.45	0.45
34:DG:104:VAL:HG21	34:DG:140:VAL:HG11	1.99	0.45
34:DG:194:LEU:N	34:DG:194:LEU:HD22	2.32	0.45
45:DR:24:SER:O	45:DR:28:GLN:HG3	2.16	0.45
47:DT:20:THR:HG21	47:DT:41:LYS:HD2	1.97	0.45
49:DV:42:PRO:O	49:DV:45:VAL:HG22	2.17	0.45
53:DC:66:C:O2'	53:DC:67:C:H5'	2.16	0.45
1:AA:95:G:O2'	24:AW:48:HIS:ND1	2.44	0.45
1:AA:765:G:H2'	1:AA:766:C:C6	2.51	0.45
1:AA:1017:G:C5	1:AA:1018:C:C5	3.04	0.45
1:AA:1869:G:N2	1:AA:1872:A:C8	2.85	0.45
1:AA:2108:C:H2'	1:AA:2109:U:O4'	2.16	0.45
1:AA:2136:C:N4	1:AA:2155:G:N1	2.13	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2376:A:H2	14:AQ:112:PHE:HB2	1.80	0.45
1:AA:2690:C:H4'	1:AA:2872:G:N2	2.31	0.45
1:AA:2872:G:C2	1:AA:2873:A:N6	2.84	0.45
3:AD:32:SER:O	3:AD:33:LEU:CB	2.64	0.45
3:AD:34:VAL:C	3:AD:35:LYS:O	2.60	0.45
4:AE:21:VAL:HG23	4:AE:22:PRO:CG	2.46	0.45
9:AM:134:ARG:N	9:AM:135:PRO:HD3	2.32	0.45
15:AR:42:ILE:HD12	15:AR:42:ILE:O	2.15	0.45
15:AR:118:ARG:HE	15:AR:118:ARG:CA	2.18	0.45
31:BA:33:A:H2'	31:BA:34:C:C6	2.51	0.45
31:BA:392:G:H2'	31:BA:393:A:C8	2.52	0.45
31:BA:575:G:C4	31:BA:881:G:C2	3.04	0.45
31:BA:730:G:O2'	31:BA:766:A:H5'	2.17	0.45
31:BA:804:U:H5"	31:BA:805:C:OP2	2.16	0.45
31:BA:957:U:H2'	31:BA:959:A:OP2	2.17	0.45
31:BA:1331:G:OP2	43:BP:23:TYR:CD2	2.68	0.45
31:BA:1396:A:H2	35:BH:19:MET:HG3	1.81	0.45
34:BG:26:CYS:HA	34:BG:31:CYS:HB2	1.97	0.45
38:BK:103:VAL:CG2	38:BK:110:ALA:HB2	2.47	0.45
40:BM:49:VAL:HG12	40:BM:61:GLU:O	2.16	0.45
49:BV:7:LYS:O	49:BV:7:LYS:HG2	2.17	0.45
51:BX:2:GLY:C	51:BX:4:GLY:N	2.74	0.45
52:BB:47:U:H2'	52:BB:48:C:H6	1.82	0.45
1:CA:14:A:N7	1:CA:15:G:C8	2.85	0.45
1:CA:79:G:C2'	1:CA:80:G:H5'	2.47	0.45
1:CA:291:G:H2'	1:CA:292:G:O4'	2.16	0.45
1:CA:365:A:H2'	1:CA:366:G:O4'	2.16	0.45
1:CA:561:C:O2	1:CA:583:G:C2	2.70	0.45
1:CA:896:G:C4	1:CA:979:A:C8	3.04	0.45
1:CA:1017:C:C2'	1:CA:1018:G:H5'	2.46	0.45
1:CA:1043:A:H1'	16:C1:92:ARG:NH2	2.31	0.45
1:CA:1703:A:C6	1:CA:1704:C:C2	3.04	0.45
1:CA:1730:G:H4'	1:CA:1794:A:N3	2.32	0.45
1:CA:1946:U:O2'	53:DC:12:G:H1'	2.16	0.45
1:CA:2084:G:H5"	1:CA:2516:A:C2	2.51	0.45
1:CA:2455:C:H2'	1:CA:2456:C:H6	1.82	0.45
1:CA:2831:A:C6	13:C0:4:LEU:HD11	2.51	0.45
2:CB:44:C:O2	6:CG:92:VAL:HA	2.16	0.45
2:CB:80:A:C2	2:CB:102:A:C4	3.04	0.45
4:CE:67:PHE:CE2	4:CE:69:LYS:HB2	2.51	0.45
5:CF:166:ALA:O	5:CF:167:ALA:C	2.59	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CG:37:VAL:HG23	6:CG:99:MET:CE	2.47	0.45
8:CK:77:LEU:HA	8:CK:141:LYS:HB3	1.98	0.45
11:CO:15:ARG:NH1	11:CO:15:ARG:CB	2.75	0.45
14:CQ:41:ASP:OD2	14:CQ:44:LYS:HB2	2.17	0.45
15:CR:131:ALA:C	15:CR:133:GLU:N	2.74	0.45
17:C2:1:MET:HG2	17:C2:42:GLY:HA3	1.98	0.45
17:C2:35:LEU:HD23	17:C2:35:LEU:N	2.27	0.45
18:CS:24:ILE:C	18:CS:27:LYS:HG3	2.42	0.45
21:CV:58:VAL:O	21:CV:67:LEU:O	2.33	0.45
22:C3:32:ARG:HB3	22:C3:33:ALA:H	1.59	0.45
31:DA:299:G:H2'	31:DA:300:A:C8	2.51	0.45
31:DA:407:G:H2'	31:DA:408:A:H8	1.79	0.45
31:DA:447:G:C6	31:DA:485:G:C8	3.04	0.45
31:DA:684:A:N6	31:DA:685:G:C6	2.84	0.45
31:DA:691:G:H1'	31:DA:696:A:N6	2.31	0.45
31:DA:1069:C:O2'	31:DA:1192:C:H1'	2.16	0.45
31:DA:1114:C:H2'	31:DA:1115:C:C6	2.51	0.45
31:DA:1238:A:N7	31:DA:1301:U:O4	2.50	0.45
31:DA:1245:A:C6	31:DA:1293:G:C6	3.04	0.45
34:DG:8:VAL:C	34:DG:10:ARG:N	2.75	0.45
34:DG:16:GLY:O	34:DG:17:VAL:C	2.59	0.45
34:DG:55:ALA:O	34:DG:59:ARG:HG2	2.16	0.45
38:DK:82:HIS:CD2	38:DK:82:HIS:O	2.69	0.45
42:DO:43:LYS:HZ3	42:DO:44:LYS:HE3	1.81	0.45
52:DB:29:C:O2	52:DB:43:G:N1	2.48	0.45
1:AA:152:G:C4	1:AA:175:G:N2	2.84	0.45
1:AA:311:A:C6	1:AA:328:U:C4	3.05	0.45
1:AA:566:U:H5"	11:AO:29:LYS:HE3	1.97	0.45
1:AA:619:G:H5"	1:AA:620:G:OP2	2.17	0.45
1:AA:633:A:H8	1:AA:633:A:O5'	2.00	0.45
1:AA:1388:G:H2'	1:AA:1389:G:C8	2.51	0.45
1:AA:1817:G:C2'	1:AA:1818:U:H5'	2.46	0.45
1:AA:2092:U:O2	56:AA:3322:OHX:N1	2.49	0.45
1:AA:2295:C:H2'	1:AA:2295:C:O2	2.16	0.45
1:AA:2880:C:H1'	13:A0:92:GLY:O	2.17	0.45
7:AH:30:LYS:NZ	7:AH:81:GLU:HA	2.32	0.45
9:AM:22:THR:O	9:AM:61:ARG:O	2.34	0.45
17:A2:31:ALA:O	17:A2:61:VAL:HG22	2.15	0.45
18:AS:92:ARG:CZ	18:AS:94:ASP:OD2	2.64	0.45
20:AU:49:VAL:O	20:AU:51:VAL:HG12	2.16	0.45
21:AV:128:VAL:HA	21:AV:161:VAL:CG2	2.43	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AW:28:LYS:O	24:AW:31:GLU:HB3	2.16	0.45
26:A4:13:ARG:O	26:A4:14:ILE:HB	2.15	0.45
26:A4:16:CYS:C	26:A4:18:CYS:N	2.69	0.45
31:BA:19:C:H2'	31:BA:20:U:C6	2.52	0.45
31:BA:24:U:H2'	31:BA:25:C:C6	2.51	0.45
31:BA:113:G:H2'	31:BA:114:U:C6	2.48	0.45
31:BA:701:C:OP1	31:BA:702:A:O2'	2.24	0.45
31:BA:789:U:C6	31:BA:791:G:H5'	2.51	0.45
31:BA:1213:A:N7	31:BA:1215:G:C5	2.85	0.45
31:BA:1238:A:C8	31:BA:1301:U:O4	2.69	0.45
31:BA:1303:C:C2'	31:BA:1304:G:H5'	2.44	0.45
31:BA:1346:A:C4	37:BJ:10:ARG:NH1	2.85	0.45
32:BE:25:ASN:C	32:BE:27:LYS:H	2.24	0.45
34:BG:30:LYS:C	34:BG:32:ALA:H	2.23	0.45
35:BH:59:GLY:O	35:BH:63:ARG:HG2	2.16	0.45
43:BP:23:TYR:CD1	43:BP:67:GLU:HA	2.50	0.45
47:BT:16:GLN:O	47:BT:17:LYS:HB2	2.16	0.45
47:BT:29:HIS:CE1	47:BT:32:TYR:HD1	2.35	0.45
52:BB:7:G:H3'	52:BB:8:U:H5'	1.97	0.45
52:BB:41:C:C4	52:BB:42:U:C5	3.05	0.45
53:BC:19:G:C4'	53:BC:20:G:OP1	2.63	0.45
52:BD:81:C:H2'	52:BD:82:A:O4'	2.16	0.45
1:CA:556:G:H3'	1:CA:556:G:C8	2.51	0.45
1:CA:1070:U:OP2	1:CA:1071:G:N7	2.49	0.45
1:CA:1268:C:C2	1:CA:1276:G:C2	3.03	0.45
1:CA:1295:G:N7	5:CF:92:PRO:HG3	2.31	0.45
1:CA:1501:A:N6	1:CA:2715:U:H1'	2.32	0.45
1:CA:1767:G:C6	1:CA:1769:U:OP2	2.69	0.45
1:CA:1841:A:N6	1:CA:1842:A:N1	2.65	0.45
1:CA:2305:C:H4'	1:CA:2388:G:H4'	1.98	0.45
1:CA:2307:C:H2'	1:CA:2308:C:H6	1.80	0.45
1:CA:2820:A:N6	1:CA:2901:G:H2'	2.31	0.45
1:CA:2864:C:O2'	1:CA:2865:G:H5'	2.17	0.45
3:CD:35:LYS:HZ1	3:CD:104:TYR:H	1.62	0.45
4:CE:6:GLY:HA2	4:CE:51:PHE:CZ	2.51	0.45
4:CE:120:TRP:CG	4:CE:155:LYS:HB3	2.52	0.45
5:CF:6:VAL:O	5:CF:7:TYR:C	2.58	0.45
5:CF:78:ILE:HG22	5:CF:83:PHE:CD1	2.51	0.45
7:CH:89:ILE:O	7:CH:90:LYS:C	2.59	0.45
8:CK:124:GLY:H	8:CK:142:VAL:CG1	2.29	0.45
12:CP:135:ASP:O	12:CP:136:ALA:C	2.59	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CQ:35:ILE:HG12	14:CQ:101:LEU:HD23	1.99	0.45
30:C8:14:VAL:CG1	30:C8:15:LYS:N	2.79	0.45
31:DA:31:G:O2'	31:DA:48:C:N4	2.50	0.45
31:DA:89:U:H1'	31:DA:90:C:OP1	2.17	0.45
31:DA:129(A):G:O6	31:DA:188:U:H4'	2.17	0.45
31:DA:413:G:O2'	31:DA:428:G:N2	2.50	0.45
31:DA:570:G:O6	31:DA:865:A:N6	2.49	0.45
31:DA:646:U:H2'	31:DA:647:C:C6	2.51	0.45
31:DA:1281:U:H3'	31:DA:1282:C:C5	2.52	0.45
34:DG:30:LYS:N	34:DG:30:LYS:HD3	2.32	0.45
34:DG:126:ILE:HG22	34:DG:127:THR:H	1.80	0.45
39:DL:33:PHE:HD1	39:DL:33:PHE:O	2.00	0.45
44:DQ:23:ARG:HD3	44:DQ:28:GLY:C	2.41	0.45
47:DT:23:VAL:O	47:DT:39:SER:HA	2.17	0.45
49:DV:12:ASP:O	49:DV:16:LEU:HD13	2.16	0.45
50:DW:100:ILE:H	50:DW:100:ILE:CD1	2.30	0.45
52:DB:13:G:N2	52:DB:23:A:N1	2.63	0.45
1:AA:529:A:C8	1:AA:530:G:O6	2.70	0.45
1:AA:633:A:C8	1:AA:633:A:C3'	2.99	0.45
1:AA:705:A:C2	1:AA:727:A:H1'	2.52	0.45
1:AA:848:G:O6	1:AA:929:G:H2'	2.17	0.45
1:AA:960:A:O3'	1:AA:961:C:H3'	2.17	0.45
1:AA:967:C:C2	1:AA:968:G:C8	3.04	0.45
1:AA:1043:C:C2'	1:AA:1044:G:H5'	2.46	0.45
1:AA:1545(A):A:C2'	1:AA:1546:C:H5'	2.45	0.45
1:AA:1771:C:C1'	1:AA:1786:A:C8	2.99	0.45
1:AA:1824:G:H1'	3:AD:254:THR:OG1	2.16	0.45
1:AA:1855:G:H1	1:AA:1887:C:H42	1.65	0.45
1:AA:1878:G:H2'	1:AA:1879:C:H6	1.82	0.45
1:AA:2853:C:H2'	1:AA:2854:G:C8	2.52	0.45
1:AA:2895:U:H2'	1:AA:2896:C:H6	1.82	0.45
2:AB:78:A:C2	2:AB:99:A:C4	3.04	0.45
5:AF:7:TYR:O	5:AF:21:ALA:HA	2.16	0.45
8:AK:135:GLU:HB2	8:AK:136:VAL:H	1.53	0.45
9:AM:7:LYS:O	9:AM:8:GLN:C	2.58	0.45
9:AM:28:THR:N	9:AM:106:MET:HE1	2.31	0.45
14:AQ:38:GLN:HG3	14:AQ:47:THR:HG21	1.99	0.45
15:AR:74:ARG:HD3	15:AR:76:PHE:HE2	1.81	0.45
16:A1:19:LYS:O	16:A1:22:LYS:HB2	2.17	0.45
21:AV:80:ARG:O	21:AV:81:ARG:C	2.59	0.45
21:AV:158:PRO:HB3	21:AV:159:PRO:HD2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:197:A:N7	31:BA:221:C:H4'	2.31	0.45
31:BA:468:A:C8	31:BA:474:G:C8	3.05	0.45
31:BA:515:G:C2	31:BA:537:G:C2	3.05	0.45
31:BA:976:G:P	44:BQ:32:SER:H	2.39	0.45
31:BA:1004:A:OP1	31:BA:1025:U:N3	2.50	0.45
31:BA:1133:G:C4	31:BA:1134:G:C8	3.04	0.45
31:BA:1524:C:OP1	41:BN:120:ARG:NH1	2.49	0.45
33:BF:162:GLN:NE2	54:B1:23:A:H8	2.15	0.45
34:BG:60:GLU:O	34:BG:63:LYS:HB3	2.17	0.45
35:BH:28:PHE:CD2	35:BH:51:VAL:HG22	2.51	0.45
41:BN:127:LYS:HA	41:BN:127:LYS:HZ2	1.81	0.45
43:BP:49:THR:C	43:BP:51:ALA:N	2.72	0.45
49:BV:49:ILE:O	49:BV:60:VAL:HG12	2.16	0.45
52:BB:22:A:C5	52:BB:57:C:C4	3.05	0.45
52:BD:68:A:H5"	52:BD:69:U:OP2	2.17	0.45
1:CA:126:C:H2'	1:CA:127:C:C6	2.51	0.45
1:CA:417:G:H22	11:CO:72:PRO:HD3	1.80	0.45
1:CA:595:A:O2'	17:C2:78:LYS:NZ	2.49	0.45
1:CA:684:G:H1	1:CA:697:C:N4	2.14	0.45
1:CA:894:C:C2	1:CA:895:U:C4	3.05	0.45
1:CA:1102:G:O2'	1:CA:1132:A:N1	2.39	0.45
1:CA:1122:C:C4	1:CA:1123:C:N4	2.84	0.45
1:CA:1369:A:C5	1:CA:1370:U:C5	3.04	0.45
1:CA:1815:A:C2	1:CA:2600:A:C5	3.04	0.45
1:CA:2325:U:H6	1:CA:2325:U:H3'	1.81	0.45
1:CA:2387:C:C2'	1:CA:2388:G:H5'	2.46	0.45
1:CA:2487:C:O2	1:CA:2487:C:H2'	2.15	0.45
1:CA:2760:U:OP2	56:CA:3365:OHX:N1	2.50	0.45
2:CB:74:G:OP1	56:CB:212:OHX:N2	2.49	0.45
3:CD:176:ARG:HH11	3:CD:176:ARG:CG	2.28	0.45
5:CF:57:VAL:CG1	5:CF:58:ALA:N	2.79	0.45
10:CN:38:VAL:HA	10:CN:60:ALA:O	2.16	0.45
10:CN:103:ALA:C	10:CN:105:GLU:N	2.75	0.45
26:C4:40:HIS:N	26:C4:41:PRO:CD	2.79	0.45
30:C8:48:PHE:CD2	30:C8:49:VAL:N	2.73	0.45
31:DA:35:G:N2	31:DA:550:G:H1'	2.32	0.45
31:DA:658:G:H2'	31:DA:659:U:C6	2.51	0.45
31:DA:1008:C:H2'	31:DA:1009:G:O4'	2.16	0.45
31:DA:1243:C:O2	31:DA:1295:G:C2	2.70	0.45
33:DF:150:LYS:HD2	33:DF:167:TRP:HD1	1.80	0.45
35:DH:79:GLU:HG3	35:DH:93:PRO:HD2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DH:101:ILE:HG12	35:DH:101:ILE:O	2.16	0.45
36:DI:76:ALA:O	36:DI:80:ARG:HG3	2.17	0.45
39:DL:4:TYR:CB	39:DL:19:LEU:HB2	2.46	0.45
41:DN:84:VAL:CG1	41:DN:95:ILE:HD11	2.46	0.45
47:DT:45:HIS:CD2	47:DT:47:PRO:HD3	2.51	0.45
48:DU:22:VAL:HG12	48:DU:55:ARG:O	2.16	0.45
52:DB:1:G:H2'	52:DB:2:G:C8	2.52	0.45
52:DB:24:G:H3'	52:DB:24:G:C8	2.52	0.45
52:DD:40:U:C2'	52:DD:41:C:H5'	2.47	0.45
1:AA:64:A:C4	19:AT:66:LEU:CD2	3.00	0.45
1:AA:218:A:C2	1:AA:235:U:H4'	2.47	0.45
1:AA:231:C:O2	1:AA:231:C:H2'	2.17	0.45
1:AA:394:A:C2'	1:AA:395:U:H5'	2.47	0.45
1:AA:404:C:C1'	1:AA:405:U:OP2	2.63	0.45
1:AA:484:C:OP1	20:AU:51:VAL:HG11	2.17	0.45
1:AA:1067:A:C8	1:AA:1068:G:C5	3.05	0.45
1:AA:1093:G:H4'	7:AH:170:ARG:HH21	1.82	0.45
1:AA:1240:U:O2'	1:AA:1241:A:H5'	2.17	0.45
1:AA:2016:U:H4'	27:A5:6:VAL:HG11	1.95	0.45
1:AA:2302:G:C6	1:AA:2315:G:C6	3.04	0.45
1:AA:2638:G:P	4:AE:82:ARG:HH21	2.36	0.45
1:AA:2749:A:N1	1:AA:2750:A:N6	2.64	0.45
1:AA:2894:G:H2'	1:AA:2895:U:OP2	2.17	0.45
3:AD:35:LYS:HG2	3:AD:64:ILE:CA	2.46	0.45
3:AD:65:ILE:HG12	3:AD:67:PHE:CE1	2.52	0.45
4:AE:31:CYS:HB2	4:AE:91:VAL:HG23	1.99	0.45
7:AH:95:ARG:HB3	7:AH:95:ARG:NH1	2.31	0.45
7:AH:150:ALA:C	7:AH:152:ARG:N	2.72	0.45
12:AP:77:LYS:CD	12:AP:81:VAL:HG21	2.47	0.45
12:AP:92:GLY:C	12:AP:93:TYR:CG	2.95	0.45
18:AS:14:PRO:HG2	18:AS:78:GLU:CB	2.44	0.45
21:AV:61:LEU:HB2	21:AV:62:PRO:CD	2.40	0.45
22:A3:36:ILE:HD13	22:A3:36:ILE:C	2.41	0.45
27:A5:51:TYR:H	27:A5:56:LYS:CG	2.28	0.45
28:A6:40:CYS:HB2	28:A6:46:HIS:ND1	2.31	0.45
30:A8:34:TRP:N	30:A8:35:GLN:CB	2.72	0.45
31:BA:134:A:H61	46:BS:25:ARG:HH12	1.63	0.45
31:BA:919:A:C5	31:BA:920:U:C5	3.05	0.45
31:BA:1329:A:OP1	43:BP:28:ALA:HB3	2.16	0.45
31:BA:1366:C:O2'	40:BM:60:ARG:NH2	2.49	0.45
31:BA:1386:G:C2	31:BA:1387:G:C5	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BF:184:TYR:CD1	33:BF:201:TYR:HE2	2.31	0.45
34:BG:111:ALA:HB2	34:BG:120:LEU:CD1	2.46	0.45
34:BG:172:PRO:C	34:BG:174:LEU:H	2.24	0.45
35:BH:43:LEU:CD2	35:BH:132:ALA:HB1	2.46	0.45
40:BM:75:ILE:O	40:BM:77:PRO:HD3	2.17	0.45
47:BT:6:LEU:CD2	47:BT:23:VAL:HG11	2.47	0.45
49:BV:40:ILE:HG12	49:BV:41:VAL:H	1.81	0.45
52:BB:31:G:H2'	52:BB:32:A:O4'	2.16	0.45
52:BD:19:C:C6	52:BD:19:C:C3'	2.99	0.45
1:CA:663:A:OP1	11:CO:133:SER:HB2	2.16	0.45
1:CA:801:C:O5'	1:CA:801:C:H6	1.99	0.45
1:CA:1186:C:O4'	1:CA:1190:A:C2	2.70	0.45
1:CA:1196:G:C2	1:CA:1197:C:C2	3.05	0.45
1:CA:1363:U:O2'	1:CA:1364:A:H5'	2.17	0.45
1:CA:1700:A:N7	1:CA:1701:G:C6	2.85	0.45
1:CA:2657:G:OP2	56:CA:3418:OHX:N1	2.49	0.45
1:CA:2805:C:C2	1:CA:2903:G:C6	3.05	0.45
2:CB:16:U:O2'	2:CB:17:A:OP2	2.34	0.45
2:CB:42:U:C4	26:C4:1:MET:SD	3.10	0.45
2:CB:116:C:H2'	2:CB:117:G:C8	2.51	0.45
9:CM:48:MET:O	9:CM:48:MET:SD	2.75	0.45
11:CO:47:ASP:OD1	11:CO:50:ARG:CZ	2.64	0.45
11:CO:52:GLU:HB2	11:CO:57:THR:HG22	1.98	0.45
11:CO:97:PRO:HD3	11:CO:112:LEU:HD12	1.97	0.45
11:CO:104:GLY:C	11:CO:105:LEU:HG	2.42	0.45
15:CR:8:LYS:C	15:CR:10:VAL:N	2.74	0.45
16:C1:8:VAL:O	16:C1:12:ARG:HG2	2.17	0.45
28:C6:29:ASN:C	28:C6:32:ASN:HB2	2.42	0.45
31:DA:230:G:H2'	31:DA:231:G:O4'	2.16	0.45
31:DA:270:A:C6	31:DA:271:C:C4	3.05	0.45
31:DA:340:U:H2'	31:DA:341:C:C6	2.51	0.45
31:DA:362:G:O2'	42:DO:30:ARG:NH2	2.50	0.45
31:DA:1008:C:O2	31:DA:1021:G:N1	2.38	0.45
31:DA:1300:G:C6	31:DA:1334:G:C5	3.05	0.45
34:DG:15:GLU:HB2	34:DG:63:LYS:HE2	1.99	0.45
37:DJ:38:LEU:O	37:DJ:42:ILE:HG13	2.17	0.45
39:DL:55:ALA:HB1	39:DL:59:PHE:CD1	2.51	0.45
41:DN:105:VAL:O	41:DN:105:VAL:CG2	2.65	0.45
41:DN:108:ILE:HB	48:DU:87:ARG:HD2	1.98	0.45
43:DP:84:ILE:HG23	49:DV:74:PHE:CZ	2.51	0.45
49:DV:36:ARG:NH2	49:DV:72:GLY:HA3	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DB:20:C:O2	52:DB:20:C:H2'	2.17	0.45
1:AA:24:G:H1'	18:AS:77:ASP:HB3	1.99	0.45
1:AA:105:C:C4'	20:AU:2:ARG:HH21	2.27	0.45
1:AA:141(A):C:H2'	1:AA:142:G:O4'	2.16	0.45
1:AA:208:C:H2'	1:AA:209:C:C6	2.52	0.45
1:AA:611:C:C2	1:AA:612:G:C8	3.04	0.45
1:AA:653:A:H3'	1:AA:654:A:C5'	2.47	0.45
1:AA:1063:G:C5	1:AA:1064:C:C5	3.05	0.45
1:AA:1266:G:O5'	18:AS:15:ARG:NH2	2.49	0.45
1:AA:2277:G:OP1	12:AP:86:GLY:CA	2.63	0.45
1:AA:2461:C:H2'	1:AA:2462:U:H6	1.82	0.45
4:AE:37:ARG:NH1	4:AE:42:ASP:CG	2.74	0.45
5:AF:167:ALA:HB1	5:AF:173:VAL:HG11	1.99	0.45
7:AH:98:LEU:HD13	7:AH:125:VAL:HG21	1.99	0.45
8:AK:92:VAL:HG13	8:AK:120:ILE:HG23	1.99	0.45
10:AN:47:ILE:HG12	10:AN:48:PRO:HD2	1.98	0.45
11:AO:61:ARG:O	11:AO:62:LEU:HD23	2.16	0.45
12:AP:59:ARG:HD2	12:AP:59:ARG:N	2.30	0.45
12:AP:106:VAL:HG21	12:AP:114:ALA:HB1	1.98	0.45
14:AQ:10:ARG:O	14:AQ:14:VAL:HG12	2.17	0.45
22:A3:18:ALA:O	22:A3:20:ARG:NH1	2.49	0.45
22:A3:32:ARG:HB2	22:A3:35:ASN:HD21	1.82	0.45
31:BA:371:G:O2'	31:BA:373:A:N7	2.49	0.45
31:BA:428:G:H4'	31:BA:429:U:OP1	2.17	0.45
31:BA:442:C:H2'	31:BA:443:C:H6	1.80	0.45
31:BA:492:G:OP2	56:BA:1804:OHX:N3	2.50	0.45
31:BA:1004:A:C5'	31:BA:1025:U:C4	2.92	0.45
31:BA:1124:G:C8	31:BA:1145:C:C5	3.05	0.45
31:BA:1234:C:C4'	31:BA:1364:U:O2'	2.64	0.45
31:BA:1486:G:H2'	31:BA:1487:G:O4'	2.17	0.45
32:BE:95:GLN:O	32:BE:96:ARG:O	2.34	0.45
34:BG:12:CYS:HA	34:BG:19:LEU:CD2	2.47	0.45
39:BL:47:LEU:HD13	39:BL:47:LEU:N	2.31	0.45
48:BU:46:GLU:O	48:BU:46:GLU:HG3	2.17	0.45
51:BX:12:LYS:HG3	51:BX:17:THR:O	2.16	0.45
52:BD:11:C:C4	52:BD:12:C:C5	3.05	0.45
52:BD:48:C:H2'	52:BD:49:A:O4'	2.16	0.45
1:CA:14:A:C8	1:CA:15:G:C8	3.05	0.45
1:CA:180:A:OP2	23:CZ:39:LYS:NZ	2.46	0.45
1:CA:265:G:H2'	1:CA:266:U:C6	2.52	0.45
1:CA:719:C:OP1	11:CO:42:SER:O	2.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1158:A:O3'	1:CA:1159:G:H4'	2.16	0.45
1:CA:1436:G:C2	1:CA:1437:U:C2	3.04	0.45
1:CA:1858:G:H4'	3:CD:242:ARG:NE	2.31	0.45
1:CA:1871:G:H2'	1:CA:1871:G:N3	2.31	0.45
1:CA:1978:U:H4'	1:CA:1979:U:OP2	2.14	0.45
1:CA:2230:A:H1'	1:CA:2232:G:C4	2.52	0.45
1:CA:2533:C:H2'	1:CA:2534:C:H6	1.82	0.45
4:CE:114:ALA:HB3	4:CE:160:TYR:HB3	1.99	0.45
7:CH:59:ARG:HA	7:CH:62:LYS:HE3	1.99	0.45
10:CN:107:ARG:NH1	10:CN:115:VAL:HG11	2.32	0.45
11:CO:124:LYS:HA	11:CO:143:GLY:O	2.17	0.45
12:CP:10:ARG:HE	12:CP:10:ARG:HA	1.82	0.45
12:CP:43:THR:OG1	12:CP:46:GLN:HG3	2.17	0.45
13:C0:54:LEU:O	13:C0:57:ARG:HB2	2.17	0.45
15:CR:51:ARG:HE	15:CR:62:THR:CG2	2.30	0.45
18:CS:9:TYR:HA	18:CS:100:THR:CG2	2.46	0.45
31:DA:48:C:OP1	56:DA:1734:OHX:N2	2.50	0.45
31:DA:157:G:O6	56:DA:1740:OHX:N5	2.49	0.45
31:DA:440:A:H8	31:DA:440:A:OP2	2.00	0.45
31:DA:1178:G:H2'	31:DA:1179:A:O5'	2.16	0.45
31:DA:1194:U:H2'	31:DA:1195:C:H6	1.79	0.45
31:DA:1386:G:H2'	31:DA:1387:G:H8	1.81	0.45
33:DF:72:LYS:NZ	33:DF:74:GLY:HA3	2.31	0.45
35:DH:78:HIS:CG	38:DK:104:ARG:HE	2.34	0.45
37:DJ:23:VAL:HG13	37:DJ:43:PHE:HE2	1.82	0.45
41:DN:27:ASN:ND2	41:DN:55:LYS:HD2	2.32	0.45
42:DO:72:HIS:CD2	42:DO:74:LEU:H	2.35	0.45
47:DT:59:ILE:CG2	47:DT:71:PHE:HB3	2.47	0.45
52:DB:49:A:C2	52:DB:52:G:C2	3.04	0.45
52:DD:19:C:C6	52:DD:19:C:C3'	2.99	0.45
52:DD:48:C:C2'	52:DD:49:A:C8	3.00	0.45
1:AA:225:A:C2'	1:AA:226:G:H5'	2.47	0.45
1:AA:776:G:C8	1:AA:793:A:C2	3.05	0.45
1:AA:883:G:H2'	1:AA:884:C:H4'	1.98	0.45
1:AA:917:A:C2'	1:AA:918:A:O5'	2.65	0.45
1:AA:1378:A:OP1	29:A7:10:ARG:NH2	2.45	0.45
1:AA:1416:G:H2'	1:AA:1417:C:C6	2.52	0.45
1:AA:1479:G:N7	1:AA:1510:A:N6	2.63	0.45
1:AA:1558:A:H1'	1:AA:1559:G:P	2.57	0.45
1:AA:1558:A:C2'	1:AA:1559:G:OP2	2.65	0.45
1:AA:1650:G:N7	56:AA:3429:OHX:N1	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2112:G:H2'	1:AA:2168:G:O6	2.17	0.45
1:AA:2168:G:H22	1:AA:2170:A:N6	2.12	0.45
1:AA:2415:G:H2'	1:AA:2416:C:C6	2.52	0.45
1:AA:2877:G:O6	56:AA:3313:OHX:N5	2.50	0.45
2:AB:44:G:C2	2:AB:48:A:C2	3.05	0.45
3:AD:70:TRP:CZ3	3:AD:150:LYS:HA	2.51	0.45
5:AF:7:TYR:CE2	5:AF:23:ASP:HA	2.52	0.45
8:AK:49:ALA:O	8:AK:52:ARG:N	2.50	0.45
9:AM:19:GLU:HA	9:AM:59:LYS:HB2	1.99	0.45
10:AN:47:ILE:HG13	10:AN:48:PRO:HD2	1.99	0.45
11:AO:3:LEU:HD23	11:AO:6:LEU:HD23	1.98	0.45
12:AP:137:TYR:C	12:AP:139:GLU:H	2.25	0.45
13:A0:104:ARG:HD2	13:A0:107:ASP:OD1	2.16	0.45
15:AR:78:LEU:HD22	15:AR:78:LEU:O	2.16	0.45
18:AS:8:ARG:O	18:AS:9:TYR:HB2	2.15	0.45
19:AT:21:PHE:CE2	19:AT:26:TYR:HD2	2.35	0.45
28:A6:42:TRP:N	28:A6:42:TRP:HD1	2.15	0.45
31:BA:266:G:N2	31:BA:269:C:C5	2.85	0.45
31:BA:632:A:H8	31:BA:633:G:C8	2.35	0.45
31:BA:776:G:N7	56:BA:1797:OHX:N6	2.64	0.45
31:BA:932:C:OP1	37:BJ:4:ARG:HG3	2.15	0.45
31:BA:1213:A:N6	31:BA:1215:G:N3	2.65	0.45
31:BA:1305:G:C2	31:BA:1331:G:N3	2.84	0.45
31:BA:1323:G:H2'	31:BA:1324:A:C8	2.52	0.45
31:BA:1381:U:H3'	31:BA:1381:U:O2	2.17	0.45
31:BA:1455:G:H5"	50:BW:32:ALA:HB2	1.99	0.45
32:BE:32:ILE:HD11	32:BE:40:HIS:CB	2.46	0.45
35:BH:90:VAL:HG12	35:BH:121:LYS:O	2.17	0.45
39:BL:46:ALA:HB2	39:BL:74:ILE:HG23	1.97	0.45
45:BR:6:GLU:H	45:BR:6:GLU:CD	2.13	0.45
48:BU:50:ILE:N	48:BU:50:ILE:HD13	2.32	0.45
1:CA:600:U:O5'	1:CA:600:U:H6	2.00	0.45
1:CA:876:U:O2	1:CA:876:U:O5'	2.35	0.45
1:CA:969:U:H2'	1:CA:970:C:C6	2.51	0.45
1:CA:1043:A:N6	1:CA:1206:U:H3	2.13	0.45
1:CA:1157:G:O2'	1:CA:1158:A:O4'	2.11	0.45
1:CA:1647:C:O2'	1:CA:1648:G:H5'	2.16	0.45
1:CA:1697:G:C6	1:CA:2032:G:O6	2.70	0.45
1:CA:1858:G:H4'	3:CD:242:ARG:HH21	1.82	0.45
1:CA:2342:G:H21	22:C3:41:ARG:HB3	1.82	0.45
1:CA:2434:G:C6	52:DD:85:A:C2	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:2520:C:O2'	52:DB:83:C:N4	2.50	0.45
1:CA:2804:A:C4'	1:CA:2805:C:OP2	2.64	0.45
2:CB:17:A:H5"	2:CB:18:G:H8	1.81	0.45
2:CB:42:U:C5	26:C4:1:MET:HE2	2.52	0.45
4:CE:58:ARG:O	4:CE:60:ASN:N	2.50	0.45
6:CG:6:ALA:O	6:CG:9:ARG:N	2.49	0.45
8:CK:72:LEU:C	8:CK:74:ASN:N	2.75	0.45
11:CO:58:THR:O	11:CO:58:THR:CG2	2.62	0.45
19:CT:8:ILE:HD12	19:CT:8:ILE:H	1.82	0.45
19:CT:53:LYS:NZ	19:CT:55:ASN:HD21	2.15	0.45
20:CU:63:LYS:HA	20:CU:63:LYS:NZ	2.32	0.45
31:DA:57:G:C5	31:DA:58:C:C4	3.05	0.45
31:DA:57:G:H2'	31:DA:58:C:C6	2.52	0.45
31:DA:243:A:C1'	31:DA:244:U:OP2	2.64	0.45
31:DA:280:C:H4'	31:DA:281:G:OP2	2.16	0.45
31:DA:383:A:H2'	31:DA:384:G:H5'	1.99	0.45
31:DA:467:G:C6	31:DA:468:A:C6	3.05	0.45
31:DA:539:A:OP2	42:DO:112:LYS:NZ	2.48	0.45
31:DA:953:G:C6	31:DA:954:G:C5	3.05	0.45
31:DA:1086:U:H2'	31:DA:1087:G:H8	1.80	0.45
31:DA:1200:C:O2	31:DA:1200:C:H2'	2.17	0.45
31:DA:1321:C:H4'	43:DP:87:TYR:CE2	2.51	0.45
31:DA:1338:G:C6	31:DA:1339:A:C6	3.05	0.45
32:DE:7:VAL:CG1	32:DE:8:LYS:HD3	2.36	0.45
32:DE:97:TRP:CZ3	32:DE:99:GLY:HA2	2.49	0.45
38:DK:100:ILE:HA	38:DK:101:PRO:HD3	1.74	0.45
38:DK:104:ARG:NH1	38:DK:138:TRP:CE2	2.85	0.45
42:DO:19:SER:C	42:DO:21:VAL:H	2.25	0.45
43:DP:5:ALA:HB2	43:DP:22:ILE:CD1	2.47	0.45
49:DV:7:LYS:HG2	49:DV:8:GLY:N	2.31	0.45
52:DB:51:C:C2	52:DB:52:G:H1'	2.51	0.45
1:AA:24:G:H2'	1:AA:25:U:O4'	2.17	0.45
1:AA:143:C:H2'	1:AA:144:C:C6	2.52	0.45
1:AA:466:A:OP1	29:A7:34:ARG:NH1	2.50	0.45
1:AA:607:U:H5	1:AA:619:G:C5	2.35	0.45
1:AA:654(J):A:H3'	1:AA:654(J):A:N3	2.32	0.45
1:AA:654(S):G:C4'	1:AA:654(T):A:OP1	2.65	0.45
1:AA:1050:A:C8	1:AA:2751:G:C5	3.05	0.45
1:AA:1506:C:O2	1:AA:1506:C:H2'	2.16	0.45
1:AA:1801:G:O6	1:AA:2206:C:O2'	2.29	0.45
1:AA:2038:G:H2'	1:AA:2039:C:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2053:G:H5'	4:AE:144:ARG:O	2.17	0.45
1:AA:2272:U:C5'	1:AA:2273:A:OP1	2.65	0.45
1:AA:2656:U:H2'	1:AA:2656:U:O2	2.17	0.45
1:AA:2811:G:H8	1:AA:2811:G:OP2	1.99	0.45
1:AA:2822:G:O2'	1:AA:2824:C:OP2	2.30	0.45
3:AD:231:HIS:CG	3:AD:232:PRO:HD2	2.52	0.45
6:AG:38:VAL:HG22	6:AG:93:THR:HG23	1.99	0.45
6:AG:83:ARG:HH22	53:BC:57:C:N4	2.14	0.45
7:AH:7:LEU:H	7:AH:7:LEU:HD12	1.81	0.45
7:AH:74:ASN:HA	7:AH:77:LYS:HD3	1.98	0.45
7:AH:83:TYR:HB2	7:AH:134:SER:CA	2.43	0.45
8:AK:111:PRO:O	8:AK:112:LYS:C	2.60	0.45
11:AO:38:GLN:O	11:AO:41:ARG:HB2	2.17	0.45
11:AO:96:THR:HB	11:AO:97:PRO:HD2	1.98	0.45
12:AP:136:ALA:HB2	21:AV:52:SER:HB2	1.99	0.45
15:AR:36:GLU:OE2	15:AR:36:GLU:N	2.50	0.45
15:AR:51:ARG:HB2	15:AR:98:LYS:CD	2.39	0.45
15:AR:108:ARG:HG3	15:AR:112:ARG:HD2	1.99	0.45
17:A2:35:LEU:O	17:A2:35:LEU:HD23	2.16	0.45
17:A2:91:TYR:C	17:A2:91:TYR:CD1	2.95	0.45
20:AU:20:TYR:CZ	20:AU:42:VAL:HA	2.52	0.45
21:AV:69:THR:HG22	21:AV:90:VAL:HA	1.98	0.45
23:AZ:8:SER:OG	23:AZ:10:LYS:HG3	2.17	0.45
24:AW:47:ASN:O	24:AW:49:LYS:HG3	2.17	0.45
31:BA:69:G:C2'	31:BA:73:G:H5'	2.46	0.45
31:BA:777:A:C2'	31:BA:778:G:O5'	2.65	0.45
31:BA:827:U:H6	31:BA:859:A:H61	1.65	0.45
31:BA:926:G:C6	31:BA:1505:G:C6	3.05	0.45
31:BA:972:C:H4'	40:BM:57:LYS:HB2	1.97	0.45
31:BA:1004:A:C8	31:BA:1036:G:N2	2.82	0.45
31:BA:1044:A:H2'	31:BA:1045:C:O4'	2.17	0.45
34:BG:146:ILE:HD12	34:BG:146:ILE:N	2.32	0.45
37:BJ:57:GLU:CD	37:BJ:57:GLU:H	2.25	0.45
38:BK:38:ILE:HG21	38:BK:120:THR:HG22	1.97	0.45
38:BK:97:VAL:HG13	38:BK:98:LYS:N	2.32	0.45
47:BT:74:LEU:CD1	47:BT:75:ARG:HG2	2.47	0.45
49:BV:65:ASN:H	49:BV:65:ASN:ND2	1.97	0.45
1:CA:48:A:H5"	1:CA:50:G:O4'	2.17	0.45
1:CA:56:C:H2'	1:CA:57:G:O5'	2.17	0.45
1:CA:313:C:H3'	1:CA:314:A:H8	1.81	0.45
1:CA:352:G:H1	1:CA:360:C:H42	1.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:413:C:O2'	1:CA:418:A:N1	2.43	0.45
1:CA:680:A:N3	1:CA:680:A:C2'	2.80	0.45
1:CA:684:G:H1	1:CA:697:C:H42	1.65	0.45
1:CA:1037:A:OP2	1:CA:1038:C:OP2	2.35	0.45
1:CA:1716:A:C8	1:CA:1722:G:C6	3.05	0.45
1:CA:1731:C:H2'	1:CA:1732:C:C6	2.52	0.45
1:CA:1968:G:C4	1:CA:1969:U:C5	3.05	0.45
1:CA:2308:C:OP2	14:CQ:10:ARG:HD3	2.16	0.45
1:CA:2577:A:OP1	1:CA:2661:C:H4'	2.17	0.45
2:CB:6:C:H2'	2:CB:7:C:O4'	2.17	0.45
4:CE:179:GLU:O	4:CE:180:ASN:HB2	2.17	0.45
4:CE:197:ILE:O	4:CE:197:ILE:HG13	2.16	0.45
12:CP:132:VAL:HG21	21:CV:81:ARG:NH1	2.31	0.45
16:C1:14:HIS:ND1	16:C1:32:PHE:CG	2.85	0.45
21:CV:60:GLU:O	21:CV:65:GLN:O	2.35	0.45
21:CV:99:TYR:CD1	21:CV:123:ASP:HB3	2.48	0.45
21:CV:128:VAL:CG2	21:CV:129:SER:H	2.15	0.45
21:CV:178:GLU:HG3	21:CV:179:ASP:N	2.32	0.45
23:CZ:91:LYS:CG	23:CZ:92:LYS:N	2.77	0.45
31:DA:32:A:C2	31:DA:33:A:C5	3.05	0.45
31:DA:197:A:C6	31:DA:221:C:H4'	2.52	0.45
31:DA:624:C:H4'	46:DS:10:GLY:C	2.42	0.45
31:DA:728:A:H2'	31:DA:729:A:C8	2.52	0.45
31:DA:1298:C:H41	37:DJ:114:ARG:HB3	1.81	0.45
31:DA:1317:C:N1	44:DQ:16:PHE:HE1	2.15	0.45
32:DE:114:ARG:HA	32:DE:117:GLU:HB2	1.99	0.45
35:DH:39:GLY:O	35:DH:69:VAL:HG23	2.17	0.45
35:DH:150:ARG:O	35:DH:154:GLY:HA3	2.16	0.45
40:DM:4:ILE:HG12	40:DM:100:THR:CG2	2.46	0.45
44:DQ:53:LEU:HB3	44:DQ:56:VAL:CG2	2.47	0.45
52:DB:17:G:N3	52:DB:66:G:C2	2.85	0.45
52:DB:80:C:H2'	52:DB:81:C:O4'	2.17	0.45
53:DC:1:C:C2'	53:DC:2:G:H5'	2.47	0.45
1:AA:165:U:O2	1:AA:165:U:C3'	2.64	0.44
1:AA:322:A:H3'	5:AF:169:ASN:ND2	2.31	0.44
1:AA:654(S):G:N3	1:AA:654(T):A:N7	2.66	0.44
1:AA:882:G:N1	1:AA:894:C:C4	2.81	0.44
1:AA:889:C:H5"	1:AA:890:A:P	2.57	0.44
1:AA:998:C:H2'	1:AA:999:U:O4'	2.17	0.44
1:AA:1060:U:H4'	1:AA:1061:U:O5'	2.17	0.44
1:AA:1528:A:H2'	1:AA:1529:A:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1905:C:OP2	56:AA:3399:OHX:N2	2.50	0.44
1:AA:1983:C:C2'	1:AA:1984:G:H5'	2.47	0.44
1:AA:2115:G:N2	1:AA:2172:U:C2	2.81	0.44
1:AA:2393:A:H2'	1:AA:2394:C:C6	2.53	0.44
1:AA:2695:C:H2'	1:AA:2696:U:H6	1.81	0.44
2:AB:116:G:H4'	14:AQ:54:LEU:HD13	1.99	0.44
3:AD:118:VAL:HG22	3:AD:119:ALA:N	2.32	0.44
6:AG:107:LEU:HD11	6:AG:178:PHE:CD1	2.52	0.44
7:AH:60:ARG:CZ	7:AH:60:ARG:HB3	2.46	0.44
8:AK:63:ALA:O	8:AK:67:ARG:HB3	2.17	0.44
10:AN:107:ARG:HH11	15:AR:36:GLU:HA	1.81	0.44
12:AP:78:PRO:O	12:AP:81:VAL:CG1	2.56	0.44
19:AT:59:VAL:O	19:AT:59:VAL:HG12	2.18	0.44
20:AU:43:ASN:HB2	20:AU:63:LYS:O	2.17	0.44
27:A5:3:LYS:O	27:A5:4:HIS:HB2	2.17	0.44
31:BA:276:G:O3'	47:BT:68:ARG:NH1	2.49	0.44
31:BA:373:A:C2	31:BA:482:A:C6	3.05	0.44
31:BA:857:C:H2'	31:BA:858:G:O4'	2.17	0.44
31:BA:1007:C:H42	31:BA:1022:G:H1	1.64	0.44
34:BG:54:TYR:CE2	34:BG:58:LEU:HD12	2.52	0.44
38:BK:4:ASP:HB2	38:BK:89:PRO:HG3	1.97	0.44
38:BK:8:ASP:OD2	38:BK:12:ARG:HD2	2.17	0.44
39:BL:125:TYR:HD2	39:BL:126:SER:N	2.15	0.44
40:BM:54:PHE:CE1	40:BM:55:LYS:HE3	2.52	0.44
1:CA:75:C:H1'	24:CW:62:THR:HG21	1.99	0.44
1:CA:313:C:H2'	1:CA:314:A:C8	2.51	0.44
1:CA:603:G:H2'	1:CA:604:C:C6	2.53	0.44
1:CA:646:G:H4'	1:CA:647:A:O5'	2.17	0.44
1:CA:826:G:C6	1:CA:827:U:N3	2.86	0.44
1:CA:906:U:O2	1:CA:2281:A:H2'	2.17	0.44
1:CA:1035:A:C2'	1:CA:1036:G:O5'	2.65	0.44
1:CA:1444:U:C1'	1:CA:1445:C:OP1	2.63	0.44
1:CA:1936:A:H4'	1:CA:1937:C:C5'	2.46	0.44
1:CA:1937:C:H2'	1:CA:1938:U:O4'	2.17	0.44
1:CA:1955:A:H2'	1:CA:1956:G:O4'	2.17	0.44
1:CA:2214:G:H2'	1:CA:2215:G:C8	2.52	0.44
1:CA:2214:G:O2'	1:CA:2215:G:OP1	2.35	0.44
1:CA:2708:C:H2'	1:CA:2709:U:H6	1.82	0.44
2:CB:90:C:C3'	2:CB:91:G:H8	2.29	0.44
3:CD:259:THR:O	3:CD:260:ARG:C	2.60	0.44
11:CO:62:LEU:HD11	30:C8:26:LYS:C	2.42	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C0:84:ALA:N	13:C0:85:PRO:CD	2.80	0.44
15:CR:88:ILE:HD12	15:CR:89:VAL:N	2.32	0.44
21:CV:4:ARG:HA	21:CV:58:VAL:HB	1.97	0.44
31:DA:6:G:O2'	31:DA:7:G:O5'	2.34	0.44
31:DA:316:G:OP2	31:DA:351:G:O2'	2.31	0.44
31:DA:431:A:H2'	31:DA:432:A:O4'	2.17	0.44
31:DA:769:G:H4'	31:DA:1513:A:H4'	1.99	0.44
31:DA:814:A:H2'	31:DA:816:A:H5"	1.99	0.44
31:DA:1003:G:N1	31:DA:1037:C:N4	2.54	0.44
31:DA:1504:G:OP1	31:DA:1507:A:H4'	2.17	0.44
31:DA:1505:G:H5"	31:DA:1506:U:O5'	2.17	0.44
32:DE:78:GLN:NE2	32:DE:95:GLN:OE1	2.50	0.44
34:DG:92:VAL:O	34:DG:96:LEU:HD23	2.17	0.44
34:DG:140:VAL:HG11	34:DG:185:PHE:CD1	2.52	0.44
35:DH:72:GLN:O	35:DH:75:THR:HG22	2.16	0.44
39:DL:3:GLN:O	39:DL:88:TYR:CE1	2.70	0.44
39:DL:4:TYR:HB2	39:DL:19:LEU:CB	2.47	0.44
39:DL:28:VAL:HG22	39:DL:63:ILE:HB	1.99	0.44
42:DO:72:HIS:HD2	42:DO:74:LEU:H	1.65	0.44
43:DP:79:LYS:O	43:DP:82:MET:HB3	2.17	0.44
44:DQ:23:ARG:O	44:DQ:25:VAL:N	2.51	0.44
52:DD:65:C:C2'	52:DD:66:G:H5'	2.48	0.44
1:AA:196:A:C4	1:AA:805:G:C6	3.05	0.44
1:AA:304:G:C4	1:AA:314:A:C2	3.06	0.44
1:AA:495:G:H1'	18:AS:57:ASN:HD21	1.81	0.44
1:AA:577:G:C6	1:AA:578:A:N6	2.86	0.44
1:AA:882:G:C6	1:AA:894:C:N4	2.83	0.44
1:AA:1162:G:H21	17:A2:89:GLN:HE22	1.64	0.44
1:AA:1473:G:C2'	1:AA:1474:C:H5'	2.47	0.44
1:AA:1642:G:C2'	1:AA:1643:G:H5'	2.47	0.44
1:AA:1669:A:N3	1:AA:1669:A:H2'	2.32	0.44
1:AA:1677:A:H2'	1:AA:1678:G:C8	2.51	0.44
1:AA:1848:A:C6	31:BA:702:A:C6	3.05	0.44
1:AA:2114:A:C5	1:AA:2168:G:N1	2.85	0.44
1:AA:2392:A:H2	1:AA:2424:C:H42	1.64	0.44
1:AA:2594:C:H2'	1:AA:2595:G:C8	2.52	0.44
1:AA:2615:U:H2'	1:AA:2616:C:H6	1.82	0.44
1:AA:2784:C:O2'	4:AE:37:ARG:NH2	2.49	0.44
56:AA:3330:OHX:N5	56:AA:3533:OHX:N5	2.65	0.44
2:AB:81:G:O6	2:AB:95:U:O2	2.35	0.44
3:AD:3:VAL:O	3:AD:3:VAL:HG12	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:19:ALA:HB3	3:AD:21:PHE:CZ	2.51	0.44
3:AD:96:HIS:ND1	3:AD:102:LYS:HD3	2.32	0.44
3:AD:142:VAL:CG2	3:AD:191:ALA:HB1	2.47	0.44
7:AH:88:LEU:HB3	7:AH:130:ARG:HG2	1.97	0.44
14:AQ:87:PHE:CZ	14:AQ:102:ALA:HB2	2.52	0.44
19:AT:34:ALA:HA	19:AT:38:GLU:OE1	2.17	0.44
21:AV:108:PRO:HB2	21:AV:112:ARG:HA	1.99	0.44
21:AV:159:PRO:O	21:AV:160:GLY:C	2.60	0.44
26:A4:61:ARG:HA	26:A4:61:ARG:NE	2.31	0.44
31:BA:78:G:O6	31:BA:90:C:N4	2.50	0.44
31:BA:186(C):G:H2'	31:BA:186(D):C:C6	2.52	0.44
31:BA:223:U:H2'	31:BA:224:C:H6	1.81	0.44
31:BA:272:C:H2'	31:BA:273:A:C8	2.52	0.44
31:BA:510:A:H5"	31:BA:511:C:OP2	2.16	0.44
31:BA:683:G:N2	31:BA:708:C:C2	2.85	0.44
31:BA:1130:A:C5	31:BA:1131:G:O6	2.70	0.44
31:BA:1329:A:OP1	43:BP:26:GLY:O	2.36	0.44
31:BA:1435:G:H2'	31:BA:1436:U:C6	2.53	0.44
32:BE:132:LYS:O	32:BE:135:GLN:HB2	2.17	0.44
32:BE:204:ASN:HD22	32:BE:206:ASP:N	2.05	0.44
32:BE:204:ASN:ND2	32:BE:206:ASP:O	2.50	0.44
34:BG:11:LEU:O	34:BG:12:CYS:C	2.60	0.44
36:BI:61:LEU:O	36:BI:62:TRP:HB2	2.17	0.44
37:BJ:22:LEU:HG	37:BJ:97:GLN:NE2	2.32	0.44
38:BK:94:TYR:HE1	38:BK:132:GLU:HB2	1.82	0.44
39:BL:11:LYS:C	39:BL:13:ALA:H	2.25	0.44
42:BO:123:LYS:HG3	42:BO:124:GLU:H	1.82	0.44
43:BP:16:ASP:N	43:BP:16:ASP:OD2	2.50	0.44
46:BS:59:TRP:HB3	46:BS:64:ALA:HB2	1.99	0.44
47:BT:48:GLU:O	47:BT:49:GLU:C	2.60	0.44
1:CA:376:G:O6	56:CA:3316:OHX:N2	2.50	0.44
1:CA:510:A:C5'	20:CU:49:VAL:HG22	2.48	0.44
1:CA:729:G:H2'	1:CA:730:G:O4'	2.16	0.44
1:CA:838:C:C1'	1:CA:839:C:OP1	2.66	0.44
1:CA:979:A:C6	1:CA:980:G:C4	3.06	0.44
1:CA:1558:A:H2'	1:CA:1559:G:C8	2.52	0.44
1:CA:1573:G:H2'	1:CA:1574:G:O4'	2.17	0.44
1:CA:1584:C:O2'	1:CA:1585:G:O4'	2.33	0.44
1:CA:1717:A:O4'	10:CN:5:GLN:OE1	2.36	0.44
1:CA:1783:C:H2'	1:CA:1784:C:C6	2.52	0.44
1:CA:2268:G:C2	12:CP:85:LYS:HE2	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:2590:A:H2'	1:CA:2627:A:N6	2.32	0.44
3:CD:35:LYS:HE2	3:CD:65:ILE:HG22	2.00	0.44
4:CE:58:ARG:O	4:CE:59:VAL:C	2.59	0.44
5:CF:46:ARG:CG	5:CF:46:ARG:NH1	2.68	0.44
5:CF:172:TRP:H	5:CF:172:TRP:CD1	2.35	0.44
6:CG:53:LEU:O	6:CG:57:ALA:HB2	2.16	0.44
10:CN:115:VAL:CG1	10:CN:121:VAL:HG21	2.44	0.44
12:CP:34:LEU:HB2	12:CP:118:LEU:HD22	1.99	0.44
13:C0:14:SER:HA	13:C0:17:ARG:NH1	2.32	0.44
13:C0:84:ALA:HB3	13:C0:85:PRO:HD3	1.99	0.44
16:C1:94:ASN:O	16:C1:96:ALA:N	2.50	0.44
18:CS:56:ALA:O	18:CS:57:ASN:C	2.60	0.44
24:CW:22:GLU:O	24:CW:25:VAL:HG22	2.17	0.44
31:DA:89:U:C4'	31:DA:90:C:OP1	2.65	0.44
31:DA:262:A:N6	31:DA:263:A:N6	2.65	0.44
31:DA:465:A:N6	31:DA:467:G:N1	2.65	0.44
31:DA:787:A:C2	31:DA:795:C:N4	2.85	0.44
31:DA:989:C:O2'	31:DA:1017:G:O2'	2.18	0.44
31:DA:1028(B):C:N4	31:DA:1032(A):G:N1	2.65	0.44
31:DA:1128:C:H5'	39:DL:16:ARG:HH22	1.82	0.44
31:DA:1190:G:C8	31:DA:1190:G:C3'	3.00	0.44
31:DA:1277:C:H1'	31:DA:1282:C:O2	2.18	0.44
31:DA:1343:G:H2'	31:DA:1344:C:C6	2.52	0.44
31:DA:1480:G:C5	31:DA:1481:U:C5	3.05	0.44
35:DH:60:TYR:HD2	35:DH:64:ARG:NH2	2.14	0.44
39:DL:17:VAL:HG21	39:DL:80:GLY:C	2.42	0.44
42:DO:15:VAL:HG23	42:DO:16:ARG:N	2.32	0.44
45:DR:35:ARG:O	45:DR:39:LEU:HB3	2.17	0.44
46:DS:48:TRP:CE3	46:DS:49:LEU:HB2	2.52	0.44
48:DU:87:ARG:O	48:DU:88:LYS:HG3	2.17	0.44
49:DV:30:LEU:HD13	49:DV:30:LEU:O	2.17	0.44
53:DC:69:C:O2'	53:DC:70:C:H5'	2.17	0.44
52:DD:51:C:OP2	52:DD:52:G:C2	2.70	0.44
1:AA:234:C:H2'	1:AA:235:U:C6	2.52	0.44
1:AA:553:U:O2'	1:AA:554:U:H5'	2.17	0.44
1:AA:729:G:O5'	3:AD:208:LYS:NZ	2.43	0.44
1:AA:765:G:H2'	1:AA:766:C:H6	1.83	0.44
1:AA:811:U:H3'	11:AO:22:GLY:CA	2.48	0.44
1:AA:1168:G:C2	1:AA:1182:A:C2	3.05	0.44
1:AA:1576:U:N3	1:AA:1577:C:C5	2.85	0.44
1:AA:1578:U:H2'	1:AA:1578:U:O2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1653:G:H1'	1:AA:1654:A:OP2	2.18	0.44
1:AA:1930:G:N2	1:AA:1968:G:H2'	2.33	0.44
1:AA:2017:U:O2	27:A5:10:LYS:HB2	2.17	0.44
1:AA:2023:G:H5'	1:AA:2617:C:H4'	2.00	0.44
1:AA:2100:G:N3	1:AA:2100:G:H2'	2.31	0.44
1:AA:2270:G:C2'	1:AA:2271:G:H5'	2.47	0.44
2:AB:110:G:H2'	2:AB:111:U:H6	1.82	0.44
3:AD:30:GLU:OE1	3:AD:83:GLU:HB2	2.17	0.44
3:AD:31:LYS:HB2	3:AD:31:LYS:NZ	2.33	0.44
6:AG:114:ILE:CD1	6:AG:140:ILE:HD12	2.45	0.44
7:AH:3:ARG:HA	7:AH:3:ARG:HE	1.79	0.44
9:AM:97:ARG:H	9:AM:100:GLU:HG3	1.82	0.44
9:AM:128:HIS:NE2	9:AM:134:ARG:CD	2.80	0.44
11:AO:61:ARG:HH12	30:A8:14:VAL:HG23	1.82	0.44
12:AP:21:THR:O	12:AP:21:THR:HG23	2.12	0.44
12:AP:103:MET:O	12:AP:104:PHE:HB2	2.18	0.44
17:A2:35:LEU:HD22	17:A2:57:VAL:O	2.16	0.44
20:AU:17:SER:OG	20:AU:71:LYS:HD3	2.17	0.44
20:AU:97:ARG:HH21	20:AU:98:VAL:CB	2.22	0.44
31:BA:242:C:H2'	31:BA:243:A:H5'	1.99	0.44
31:BA:428:G:C5	31:BA:430:A:C6	3.05	0.44
31:BA:444:C:H2'	31:BA:445:G:H8	1.82	0.44
31:BA:942:G:C2	31:BA:1342:C:C2	3.06	0.44
31:BA:946:A:C6	31:BA:947:G:C6	3.05	0.44
31:BA:963:G:H21	40:BM:55:LYS:HE2	1.82	0.44
31:BA:1090:U:H2'	31:BA:1091:U:C6	2.50	0.44
31:BA:1140:C:H2'	31:BA:1141:C:H6	1.81	0.44
31:BA:1286:A:H5"	51:BX:26:LYS:HD3	1.99	0.44
31:BA:1516:G:N1	31:BA:1519:A:OP2	2.50	0.44
32:BE:4:GLU:HG2	32:BE:5:ILE:HG12	2.00	0.44
35:BH:118:ILE:HG13	35:BH:119:LEU:N	2.32	0.44
40:BM:78:ASN:O	40:BM:81:THR:OG1	2.25	0.44
41:BN:109:VAL:HG12	48:BU:86:VAL:HA	1.99	0.44
50:BW:82:SER:O	50:BW:86:ARG:HB2	2.16	0.44
53:BC:14:A:C6	53:BC:23:G:C5	3.05	0.44
53:BC:50:G:C2	53:BC:67:C:C2	3.05	0.44
52:BD:34:U:H2'	52:BD:36:U:OP2	2.17	0.44
52:BD:79:A:O2'	52:BD:80:C:H5'	2.17	0.44
1:CA:19:C:H2'	1:CA:20:C:H6	1.81	0.44
1:CA:99:G:C2'	1:CA:100:G:OP1	2.65	0.44
1:CA:707:C:H2'	1:CA:708:G:H8	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1046:U:O2	1:CA:1046:U:H2'	2.17	0.44
1:CA:1062:G:C6	1:CA:1063:G:C5	3.05	0.44
1:CA:1090:C:H2'	1:CA:1091:G:H5'	1.99	0.44
1:CA:1111:C:N4	1:CA:1121:G:H1	2.15	0.44
1:CA:1256:A:H5'	1:CA:1258:G:C5'	2.47	0.44
1:CA:1328:G:H2'	1:CA:1329:U:O4'	2.17	0.44
1:CA:1542:A:C2'	1:CA:1543:A:H5'	2.47	0.44
1:CA:1953:G:HO2'	1:CA:1954:U:P	2.38	0.44
1:CA:2091:U:N3	1:CA:2443:A:H2	2.15	0.44
1:CA:2148:G:N1	1:CA:2195:U:OP1	2.46	0.44
1:CA:2229:G:N3	1:CA:2229:G:C2'	2.80	0.44
1:CA:2386:G:H2'	1:CA:2387:C:C6	2.52	0.44
1:CA:2389:A:N1	14:CQ:87:PHE:HD2	2.15	0.44
1:CA:2720:G:H2'	1:CA:2721:G:C8	2.52	0.44
1:CA:2737:C:OP1	13:C0:3:HIS:CD2	2.62	0.44
1:CA:2858:U:C2'	1:CA:2859:G:H5'	2.48	0.44
4:CE:9:VAL:HG23	4:CE:10:GLY:N	2.33	0.44
5:CF:24:LEU:CD1	5:CF:25:PRO:HD3	2.48	0.44
5:CF:27:GLU:O	5:CF:28:ILE:CG1	2.56	0.44
6:CG:95:ARG:O	6:CG:99:MET:N	2.45	0.44
9:CM:55:VAL:O	9:CM:56:ASN:C	2.61	0.44
21:CV:54:HIS:CD2	21:CV:101:PRO:HB3	2.53	0.44
21:CV:60:GLU:HA	21:CV:66:SER:HA	1.98	0.44
21:CV:105:VAL:HG13	21:CV:106:GLY:N	2.32	0.44
21:CV:115:GLY:CA	21:CV:174:VAL:HG13	2.41	0.44
26:C4:15:ILE:O	26:C4:15:ILE:HG22	2.17	0.44
28:C6:14:THR:OG1	28:C6:15:GLU:N	2.50	0.44
31:DA:284:G:H2'	31:DA:285:G:H8	1.83	0.44
31:DA:547:A:OP2	34:DG:2:GLY:N	2.50	0.44
31:DA:718:G:N2	48:DU:82:THR:HG22	2.31	0.44
31:DA:865:A:H2'	31:DA:866:C:O4'	2.18	0.44
31:DA:1004:A:H2'	31:DA:1005:A:O4'	2.16	0.44
31:DA:1024:G:C4	31:DA:1025:U:H5	2.36	0.44
31:DA:1056:U:H5'	33:DF:163:ALA:CB	2.45	0.44
31:DA:1057:G:H2'	31:DA:1058:G:O4'	2.18	0.44
31:DA:1240:U:HO2'	31:DA:1241:G:P	2.41	0.44
31:DA:1379:G:C6	31:DA:1380:U:C4	3.05	0.44
31:DA:1403:C:H1'	31:DA:1500:A:C2	2.52	0.44
33:DF:70:VAL:HG21	33:DF:76:VAL:HG11	1.99	0.44
34:DG:153:ARG:C	34:DG:155:LEU:H	2.25	0.44
40:DM:19:SER:O	40:DM:23:ILE:HG13	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DM:98:ILE:HD12	40:DM:98:ILE:N	2.32	0.44
42:DO:57:LEU:O	42:DO:58:THR:C	2.60	0.44
47:DT:45:HIS:HB2	47:DT:69:LYS:HE2	1.99	0.44
49:DV:29:ARG:O	49:DV:30:LEU:HB3	2.18	0.44
1:AA:248:G:H5"	1:AA:386:G:N2	2.31	0.44
1:AA:481:G:C4	1:AA:507:A:C2	3.05	0.44
1:AA:547:A:C2'	1:AA:548:A:C8	2.99	0.44
1:AA:603:A:C5	1:AA:655:A:C2	3.05	0.44
1:AA:1064:C:H3'	1:AA:1065:U:C6	2.52	0.44
1:AA:1071:G:C8	1:AA:1089:G:N7	2.85	0.44
1:AA:1359:A:C2	1:AA:1360:A:C8	3.06	0.44
1:AA:1433:U:O2	1:AA:1561:G:C2	2.70	0.44
1:AA:1538:G:H2'	1:AA:1539:G:H8	1.82	0.44
1:AA:1871:A:O2'	1:AA:1872:A:H5'	2.17	0.44
1:AA:1968:G:H2'	1:AA:1969:A:H5"	1.99	0.44
1:AA:2145:C:H2'	1:AA:2147:G:C2	2.52	0.44
1:AA:2337:G:N3	1:AA:2337:G:H2'	2.33	0.44
1:AA:2428:G:N2	11:AO:60:MET:CE	2.80	0.44
1:AA:2605:U:H2'	1:AA:2606:C:C6	2.53	0.44
1:AA:2895:U:H2'	1:AA:2896:C:C6	2.52	0.44
6:AG:27:ASN:HB3	6:AG:30:GLU:HG3	1.98	0.44
7:AH:83:TYR:HD2	7:AH:83:TYR:N	2.05	0.44
7:AH:152:ARG:CG	7:AH:153:LYS:N	2.71	0.44
15:AR:36:GLU:O	15:AR:37:GLY:C	2.60	0.44
21:AV:60:GLU:O	21:AV:61:LEU:HD22	2.18	0.44
21:AV:165:VAL:HB	21:AV:166:SER:CA	2.46	0.44
23:AZ:63:ALA:C	23:AZ:65:SER:N	2.73	0.44
26:A4:15:ILE:O	26:A4:33:VAL:HB	2.17	0.44
26:A4:55:ARG:CG	26:A4:56:VAL:N	2.80	0.44
31:BA:69:G:H2'	31:BA:73:G:H5'	2.00	0.44
31:BA:245:C:C2	31:BA:284:G:C2	3.05	0.44
31:BA:377:G:C5'	46:BS:5:ARG:HH12	2.30	0.44
31:BA:581:G:N2	31:BA:760:G:N7	2.65	0.44
31:BA:595:G:N2	31:BA:643:C:H41	2.15	0.44
31:BA:722:A:O2'	31:BA:723:U:C2	2.71	0.44
31:BA:978:A:C6	31:BA:1318:A:C6	3.06	0.44
31:BA:1065:U:O2'	31:BA:1066:C:P	2.73	0.44
32:BE:48:MET:HA	32:BE:51:LEU:HB2	1.99	0.44
32:BE:111:ARG:HH11	32:BE:111:ARG:CG	2.25	0.44
32:BE:144:ARG:HG3	32:BE:145:LEU:N	2.31	0.44
33:BF:173:VAL:N	33:BF:174:PRO:HD3	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BF:184:TYR:CD2	33:BF:184:TYR:C	2.94	0.44
34:BG:118:ARG:HE	34:BG:118:ARG:HB3	1.66	0.44
42:BO:56:ARG:HA	42:BO:62:GLU:HA	1.99	0.44
52:BD:29:C:H2'	52:BD:30:A:H5'	1.99	0.44
1:CA:68:C:O2'	1:CA:69:G:H5'	2.17	0.44
1:CA:795:U:C4	1:CA:2626:U:C4	3.05	0.44
1:CA:932:C:N4	1:CA:933:C:C4	2.85	0.44
1:CA:1389:A:N1	1:CA:1444:U:N3	2.66	0.44
1:CA:1481:A:H61	1:CA:1606:A:H61	1.61	0.44
1:CA:2138:G:O6	1:CA:2141:U:OP2	2.36	0.44
1:CA:2143:G:C2	1:CA:2144:G:N7	2.85	0.44
1:CA:2342:G:N2	22:C3:41:ARG:HD3	2.31	0.44
1:CA:2708:C:H2'	1:CA:2709:U:C6	2.53	0.44
2:CB:8:C:HO2'	14:CQ:29:PHE:HE1	1.64	0.44
2:CB:34:C:H2'	2:CB:35:G:O5'	2.17	0.44
4:CE:29:GLY:H	4:CE:51:PHE:HE1	1.66	0.44
7:CH:9:ILE:HD12	7:CH:49:VAL:CG1	2.47	0.44
9:CM:65:LYS:C	9:CM:67:LEU:H	2.24	0.44
14:CQ:111:GLU:O	14:CQ:112:PHE:HB3	2.17	0.44
15:CR:61:PHE:CD2	15:CR:61:PHE:N	2.76	0.44
15:CR:126:ALA:HB2	15:CR:129:ARG:HH21	1.83	0.44
16:C1:98:LEU:O	16:C1:99:ALA:HB3	2.18	0.44
19:CT:83:VAL:O	19:CT:84:ALA:C	2.60	0.44
20:CU:102:CYS:HB3	20:CU:103:GLY:H	1.66	0.44
28:C6:34:LEU:O	28:C6:35:GLU:C	2.61	0.44
31:DA:134:A:H61	46:DS:25:ARG:HH12	1.64	0.44
31:DA:245:C:O2	31:DA:283:C:N3	2.50	0.44
31:DA:397:A:N6	31:DA:548:G:C8	2.85	0.44
31:DA:688:G:H1	31:DA:699:C:N4	2.12	0.44
31:DA:737:A:H2'	31:DA:738:C:C6	2.52	0.44
31:DA:1414:U:H2'	31:DA:1415:G:C8	2.53	0.44
35:DH:63:ARG:O	35:DH:66:MET:HE2	2.18	0.44
35:DH:83:GLU:HB3	35:DH:88:LYS:CG	2.37	0.44
37:DJ:81:GLY:C	37:DJ:83:ALA:N	2.75	0.44
39:DL:23:ASN:HD22	39:DL:23:ASN:H	1.66	0.44
39:DL:105:ASP:OD2	39:DL:107:ARG:HD3	2.17	0.44
41:DN:91:ARG:O	41:DN:95:ILE:HG12	2.17	0.44
45:DR:87:ILE:HG22	45:DR:88:ARG:N	2.24	0.44
46:DS:53:VAL:HG13	46:DS:79:VAL:HG22	2.00	0.44
52:DD:46:G:H2'	52:DD:47:U:H6	1.83	0.44
1:AA:643:A:N1	1:AA:2369:A:O2'	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1094:U:O2	1:AA:1096:A:H5'	2.17	0.44
1:AA:1188:U:C4'	17:A2:79:VAL:HG22	2.48	0.44
1:AA:1192:G:C2'	1:AA:1193:G:H5'	2.47	0.44
1:AA:1210:A:H5"	1:AA:1212:G:C5'	2.47	0.44
1:AA:1348:G:C2'	1:AA:1349:A:H5"	2.48	0.44
1:AA:1379:A:C4'	1:AA:1380:G:OP1	2.65	0.44
1:AA:1591:G:H2'	1:AA:1592:C:H6	1.83	0.44
1:AA:1700:A:H5'	1:AA:1701:A:OP2	2.17	0.44
1:AA:2373:G:H1	1:AA:2380:C:H42	1.65	0.44
1:AA:2465:C:H2'	1:AA:2466:C:H6	1.81	0.44
1:AA:2790:A:H2	1:AA:2894:G:H5'	1.82	0.44
2:AB:42:C:O2	6:AG:92:VAL:HA	2.18	0.44
2:AB:105:G:N7	56:AB:212:OHX:N5	2.65	0.44
10:AN:104:ARG:HG3	10:AN:121:VAL:HG12	1.98	0.44
12:AP:19:GLY:HA3	12:AP:98:LYS:CD	2.48	0.44
14:AQ:106:ARG:HB2	14:AQ:106:ARG:HH11	1.81	0.44
22:A3:66:VAL:O	22:A3:81:VAL:HA	2.16	0.44
24:AW:41:ILE:O	24:AW:41:ILE:HG12	2.17	0.44
31:BA:468:A:H2'	31:BA:474:G:C5'	2.38	0.44
31:BA:684:A:N6	31:BA:685:G:C6	2.86	0.44
31:BA:788:U:C3'	31:BA:789:U:H5'	2.43	0.44
31:BA:963:G:N2	40:BM:55:LYS:HZ1	2.16	0.44
31:BA:1022:G:C4	31:BA:1023:G:C8	3.05	0.44
31:BA:1178:G:HO2'	31:BA:1179:A:P	2.40	0.44
31:BA:1366:C:O3'	40:BM:60:ARG:NH2	2.50	0.44
32:BE:155:LEU:C	32:BE:157:ARG:H	2.26	0.44
34:BG:8:VAL:HG21	34:BG:115:ARG:CZ	2.48	0.44
34:BG:207:TYR:C	34:BG:209:ARG:H	2.25	0.44
38:BK:100:ILE:HA	38:BK:101:PRO:HD3	1.75	0.44
39:BL:17:VAL:HA	39:BL:63:ILE:HG12	1.98	0.44
41:BN:52:GLY:H	41:BN:55:LYS:HG3	1.82	0.44
44:BQ:23:ARG:HH12	44:BQ:30:ALA:HB2	1.83	0.44
1:CA:47:G:N2	1:CA:167:G:N2	2.65	0.44
1:CA:83:A:H61	1:CA:100:G:HO2'	1.56	0.44
1:CA:568:C:H2'	1:CA:568:C:O2	2.16	0.44
1:CA:683:G:H2'	1:CA:684:G:C8	2.52	0.44
1:CA:953:G:OP1	12:CP:141:GLN:NE2	2.51	0.44
1:CA:1109:G:C4	1:CA:1110:G:C8	3.06	0.44
1:CA:1117:A:H5"	1:CA:1118:G:OP1	2.18	0.44
1:CA:1417:C:OP1	56:CA:3354:OHX:N4	2.51	0.44
1:CA:1589:G:C6	1:CA:1590:A:N1	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1889:G:N1	1:CA:1890:G:C2	2.85	0.44
1:CA:1927:G:H2'	1:CA:1928:C:O4'	2.17	0.44
1:CA:2482:A:H2	1:CA:2494:G:H21	1.65	0.44
5:CF:149:ASP:OD2	5:CF:151:SER:OG	2.36	0.44
6:CG:131:TYR:HB3	6:CG:159:VAL:HG23	2.00	0.44
7:CH:151:ILE:O	7:CH:152:ARG:HB2	2.17	0.44
14:CQ:110:LEU:HD23	14:CQ:112:PHE:CD1	2.53	0.44
21:CV:27:VAL:HG23	21:CV:36:LYS:HA	1.98	0.44
22:C3:21:LEU:HD21	22:C3:41:ARG:HH12	1.83	0.44
22:C3:43:THR:C	22:C3:45:PHE:H	2.26	0.44
26:C4:49:PHE:C	26:C4:51:ASP:N	2.75	0.44
31:DA:8:A:OP2	56:DA:1745:OHX:N4	2.51	0.44
31:DA:52:G:H2'	31:DA:53:A:O4'	2.17	0.44
31:DA:686:U:O2'	31:DA:687:A:O5'	2.35	0.44
31:DA:881:G:H2'	31:DA:882:C:O4'	2.18	0.44
31:DA:971:G:N2	31:DA:1363:A:OP2	2.49	0.44
31:DA:1109:C:H2'	31:DA:1110:A:O4'	2.18	0.44
34:DG:21:LEU:HD12	34:DG:21:LEU:H	1.83	0.44
35:DH:69:VAL:O	35:DH:71:LEU:N	2.51	0.44
40:DM:55:LYS:C	40:DM:56:HIS:CG	2.96	0.44
41:DN:82:VAL:HG12	41:DN:107:SER:O	2.18	0.44
42:DO:76:GLU:HG3	42:DO:77:HIS:CG	2.52	0.44
47:DT:17:LYS:HA	47:DT:46:ASP:O	2.17	0.44
52:DB:21:A:O4'	52:DB:22:A:C8	2.70	0.44
1:AA:205:G:O2'	1:AA:206:U:P	2.76	0.44
1:AA:444:C:C4'	5:AF:49:ALA:HB2	2.48	0.44
1:AA:880:G:C2	1:AA:881:G:C8	3.05	0.44
1:AA:971:C:C2'	1:AA:972:G:H5'	2.47	0.44
1:AA:1043:C:N4	1:AA:1112:G:H1	2.12	0.44
1:AA:1047:G:C6	1:AA:1110:G:N7	2.85	0.44
1:AA:1310:G:OP2	29:A7:9:ARG:NH1	2.37	0.44
1:AA:1316:U:H2'	1:AA:1317:A:C8	2.52	0.44
1:AA:1693:U:O2'	3:AD:14:ARG:NH2	2.51	0.44
1:AA:2014:A:H2'	1:AA:2015:A:C8	2.53	0.44
1:AA:2017:U:H5"	1:AA:2018:G:P	2.57	0.44
1:AA:2378:A:H4'	14:AQ:23:ARG:NH1	2.31	0.44
2:AB:40:U:C2'	2:AB:45:A:H61	2.30	0.44
4:AE:152:LYS:C	4:AE:154:LYS:H	2.26	0.44
6:AG:77:ILE:HD12	6:AG:77:ILE:HA	1.93	0.44
6:AG:114:ILE:CG2	6:AG:117:PHE:HB2	2.47	0.44
7:AH:10:PRO:CD	7:AH:50:VAL:H	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:67:ARG:NH2	8:AK:68:LEU:HB2	2.22	0.44
10:AN:2:ILE:HG22	10:AN:3:GLN:N	2.31	0.44
10:AN:36:GLY:HA2	10:AN:106:LEU:HD23	2.00	0.44
18:AS:28:SER:C	18:AS:30:GLU:N	2.75	0.44
24:AW:13:ALA:HA	24:AW:16:LEU:HD23	2.00	0.44
28:A6:18:ARG:HG3	28:A6:43:CYS:SG	2.58	0.44
31:BA:186(B):C:H2'	31:BA:186(C):G:H8	1.82	0.44
31:BA:323:U:H2'	31:BA:324:G:O4'	2.18	0.44
31:BA:483:C:OP2	31:BA:484:G:O2'	2.35	0.44
31:BA:1028:C:C4	31:BA:1028(A):C:C4	3.05	0.44
31:BA:1032(B):G:H2'	31:BA:1033:G:C1'	2.48	0.44
31:BA:1157:A:N6	31:BA:1180:A:C5	2.86	0.44
31:BA:1164:G:C6	31:BA:1165:C:N4	2.86	0.44
31:BA:1305:G:N2	31:BA:1331:G:N3	2.66	0.44
31:BA:1454:G:OP1	50:BW:39:LYS:HD2	2.17	0.44
31:BA:1507:A:C2	31:BA:1508:G:C4	3.06	0.44
35:BH:26:PHE:CD1	35:BH:26:PHE:N	2.86	0.44
36:BI:99:ALA:O	36:BI:100:ASN:HB2	2.17	0.44
41:BN:51:LYS:O	41:BN:51:LYS:HG2	2.13	0.44
53:BC:44:A:H2'	53:BC:45:A:C8	2.52	0.44
1:CA:572:A:H3'	1:CA:573:A:C8	2.53	0.44
1:CA:650:C:H2'	1:CA:651:G:H5'	1.99	0.44
1:CA:877:A:N7	1:CA:2261:C:H5'	2.33	0.44
1:CA:936:C:H1'	1:CA:937:C:P	2.57	0.44
1:CA:1096:C:H2'	1:CA:1097:A:H5'	1.99	0.44
1:CA:1325:A:HO2'	1:CA:1326:G:H5'	1.81	0.44
1:CA:1348:A:N3	1:CA:1348:A:H2'	2.33	0.44
1:CA:1532:G:N2	1:CA:1552:C:C2	2.86	0.44
1:CA:1623:C:H2'	1:CA:1624:U:C6	2.53	0.44
1:CA:1758:C:O2'	1:CA:1759:C:H5'	2.17	0.44
1:CA:2086:C:C5	1:CA:2087:C:C5	3.06	0.44
1:CA:2392:G:H2'	1:CA:2393:C:C6	2.53	0.44
1:CA:2423:G:C2	1:CA:2424:A:H1'	2.52	0.44
1:CA:2794:G:H4'	1:CA:2795:A:OP2	2.17	0.44
2:CB:42:U:C4	2:CB:45:C:P	3.10	0.44
4:CE:61:ARG:C	4:CE:63:LEU:N	2.74	0.44
5:CF:59:TYR:CD1	5:CF:78:ILE:HG13	2.53	0.44
5:CF:155:LEU:HB2	5:CF:189:THR:OG1	2.17	0.44
7:CH:65:HIS:CD2	7:CH:65:HIS:C	2.96	0.44
7:CH:86:GLU:CD	7:CH:86:GLU:N	2.75	0.44
9:CM:17:ASP:O	9:CM:18:ALA:CB	2.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CP:54:MET:HE3	12:CP:121:ALA:HB2	1.99	0.44
12:CP:76:LYS:O	12:CP:77:LYS:O	2.35	0.44
13:C0:55:ALA:C	13:C0:57:ARG:H	2.25	0.44
16:C1:47:TYR:HB2	17:C2:72:VAL:CG1	2.48	0.44
18:CS:4:LYS:HB2	18:CS:106:ILE:HG22	1.98	0.44
20:CU:80:GLY:O	20:CU:81:LYS:HD2	2.17	0.44
22:C3:42:GLY:O	22:C3:57:PHE:HB3	2.18	0.44
23:CZ:95:LEU:O	23:CZ:96:LYS:C	2.60	0.44
31:DA:110:C:H2'	31:DA:111:G:O4'	2.18	0.44
31:DA:658:G:H2'	31:DA:659:U:H6	1.82	0.44
31:DA:1028(B):C:H3'	31:DA:1029:G:C5'	2.46	0.44
31:DA:1071:C:O2'	31:DA:1072:G:H5'	2.18	0.44
31:DA:1072:G:C6	31:DA:1073:U:N3	2.85	0.44
31:DA:1151:A:C2'	31:DA:1152:A:O5'	2.65	0.44
36:DI:45:LEU:HD23	36:DI:46:ARG:N	2.33	0.44
36:DI:61:LEU:HB3	36:DI:63:TYR:HE2	1.83	0.44
37:DJ:69:VAL:CG1	37:DJ:134:ALA:HB1	2.45	0.44
39:DL:104:ARG:O	39:DL:105:ASP:CB	2.65	0.44
50:DW:97:ALA:HA	50:DW:98:PRO:HD3	1.80	0.44
52:DB:81:C:H2'	52:DB:81:C:O2	2.17	0.44
54:D1:20:G:C6	54:D1:21:C:C4	3.05	0.44
1:AA:17:G:H2'	1:AA:18:C:C6	2.53	0.44
1:AA:267:C:O2'	1:AA:268:C:H5'	2.18	0.44
1:AA:270(E):G:C6	1:AA:270(F):U:C4	3.06	0.44
1:AA:621:A:H2'	1:AA:622:G:C5'	2.48	0.44
1:AA:872:A:C5	1:AA:906:G:C2	3.06	0.44
1:AA:1006:C:O2	9:AM:106:MET:HG2	2.18	0.44
1:AA:1074:G:C6	1:AA:1075:C:N4	2.86	0.44
1:AA:1108:U:O4	1:AA:1109:C:N4	2.50	0.44
1:AA:1266:G:O4'	18:AS:15:ARG:NH2	2.50	0.44
1:AA:1296:G:H2'	1:AA:1297:C:H6	1.82	0.44
1:AA:1451:C:H4'	1:AA:1453:A:C8	2.53	0.44
1:AA:1473:G:O2'	1:AA:1474:C:H5'	2.17	0.44
1:AA:1536:A:C2	56:AA:3536:OHX:N1	2.85	0.44
1:AA:1903:G:OP2	3:AD:241:PRO:HB3	2.18	0.44
1:AA:2018:G:H2'	1:AA:2019:A:O4'	2.18	0.44
1:AA:2156:G:C5	1:AA:2157:G:N2	2.86	0.44
1:AA:2199:A:H3'	1:AA:2205:C:C6	2.48	0.44
1:AA:2199:A:C5'	23:AZ:50:ARG:HH21	2.28	0.44
1:AA:2278:A:OP1	12:AP:11:LYS:HD2	2.18	0.44
1:AA:2331:G:H4'	22:A3:43:THR:H	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2678:C:H2'	1:AA:2679:A:O4'	2.18	0.44
3:AD:27:THR:CG2	3:AD:83:GLU:HB3	2.28	0.44
3:AD:69:ARG:C	3:AD:71:ASP:H	2.26	0.44
3:AD:238:GLY:C	3:AD:239:ARG:CG	2.88	0.44
4:AE:115:GLY:HA2	4:AE:157:ALA:CB	2.48	0.44
5:AF:107:LYS:HE3	5:AF:207:GLY:H	1.83	0.44
6:AG:146:TYR:C	6:AG:146:TYR:CD2	2.96	0.44
7:AH:109:PHE:C	7:AH:111:HIS:H	2.24	0.44
8:AK:11:ASN:O	8:AK:12:LEU:CB	2.62	0.44
8:AK:92:VAL:HG22	8:AK:120:ILE:HG22	1.99	0.44
27:A5:45:VAL:HG11	27:A5:57:VAL:HG12	1.98	0.44
27:A5:57:VAL:O	27:A5:57:VAL:HG13	2.17	0.44
29:A7:25:PRO:HA	29:A7:28:ARG:CZ	2.47	0.44
30:A8:22:VAL:HB	30:A8:53:PRO:CB	2.48	0.44
31:BA:342:C:H2'	31:BA:343:U:C6	2.52	0.44
31:BA:355:C:H5'	31:BA:389:A:OP2	2.18	0.44
31:BA:730:G:C5	31:BA:731:G:H1'	2.53	0.44
31:BA:1025:U:O2'	31:BA:1026:G:C5'	2.66	0.44
31:BA:1133:G:H2'	31:BA:1134:G:O4'	2.17	0.44
36:BI:86:ARG:O	36:BI:87:ARG:HG2	2.17	0.44
37:BJ:31:MET:SD	37:BJ:34:GLY:HA2	2.58	0.44
37:BJ:131:LYS:HB2	37:BJ:131:LYS:NZ	2.33	0.44
39:BL:9:ARG:HA	39:BL:13:ALA:O	2.17	0.44
45:BR:76:GLU:C	45:BR:78:TYR:N	2.76	0.44
52:BB:48:C:C3'	52:BB:49:A:H8	2.27	0.44
52:BB:51:C:C2	52:BB:52:G:H1'	2.52	0.44
1:CA:299:G:OP1	1:CA:299:G:O4'	2.35	0.44
1:CA:321:C:H2'	1:CA:322:C:H6	1.83	0.44
1:CA:605:C:H2'	1:CA:606:G:C8	2.52	0.44
1:CA:881:U:C4	1:CA:882:C:N4	2.86	0.44
1:CA:934:C:H2'	1:CA:936:C:N3	2.32	0.44
1:CA:977:G:C6	1:CA:979:A:C2	3.06	0.44
1:CA:1118:G:N3	1:CA:1118:G:H2'	2.33	0.44
1:CA:1271:C:HO2'	17:C2:85:LYS:HB2	1.82	0.44
1:CA:1357:G:OP2	29:C7:9:ARG:NH1	2.51	0.44
1:CA:1386:G:H5"	19:CT:16:LYS:HD3	1.99	0.44
1:CA:1856:G:OP1	3:CD:52:ARG:NH1	2.49	0.44
1:CA:2015:G:H1'	1:CA:2016:U:OP2	2.18	0.44
1:CA:2038:A:H2'	1:CA:2039:U:H5'	1.98	0.44
1:CA:2391:A:C4'	14:CQ:23:ARG:HH11	2.26	0.44
1:CA:2750:G:H2'	1:CA:2751:G:C8	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CG:83:ARG:N	6:CG:86:MET:HE3	2.33	0.44
7:CH:149:ARG:HG3	7:CH:162:ILE:O	2.17	0.44
8:CK:143:SER:O	8:CK:144:VAL:CB	2.65	0.44
10:CN:120:GLU:OE1	10:CN:122:LEU:HD21	2.18	0.44
11:CO:146:VAL:C	11:CO:147:LEU:HD13	2.43	0.44
12:CP:76:LYS:O	12:CP:76:LYS:CG	2.65	0.44
12:CP:133:ARG:O	12:CP:134:ARG:CB	2.62	0.44
15:CR:27:THR:O	15:CR:89:VAL:HG13	2.17	0.44
18:CS:70:TYR:HD2	18:CS:108:GLY:O	2.00	0.44
21:CV:59:LEU:HB3	21:CV:60:GLU:H	1.65	0.44
26:C4:49:PHE:HZ	43:DP:64:TRP:HA	1.82	0.44
28:C6:51:GLU:HG2	28:C6:52:VAL:H	1.82	0.44
31:DA:236:G:H2'	31:DA:237:C:O4'	2.18	0.44
31:DA:243:A:C8	31:DA:281:G:N2	2.86	0.44
31:DA:595:G:H22	31:DA:643:C:H41	1.66	0.44
31:DA:750:G:H8	31:DA:750:G:O5'	2.01	0.44
31:DA:1138:G:H3'	31:DA:1138:G:N3	2.33	0.44
31:DA:1305:G:O2'	31:DA:1306:A:C8	2.53	0.44
31:DA:1329:A:H2'	31:DA:1330:U:O4'	2.17	0.44
31:DA:1387:G:H2'	31:DA:1388:C:H6	1.81	0.44
32:DE:212:GLN:HG3	32:DE:235:SER:HB2	1.99	0.44
34:DG:13:ARG:O	34:DG:14:ARG:HB3	2.18	0.44
37:DJ:32:ARG:O	37:DJ:34:GLY:N	2.51	0.44
37:DJ:114:ARG:H	37:DJ:114:ARG:HG2	1.63	0.44
40:DM:81:THR:C	40:DM:83:GLU:N	2.75	0.44
52:DB:53:A:H8	52:DB:53:A:OP2	2.00	0.44
52:DD:21:A:C6	52:DD:55:U:O4	2.70	0.44
52:DD:54:C:OP2	52:DD:54:C:H6	2.01	0.44
1:AA:95:G:N7	56:AA:3333:OHX:N6	2.66	0.44
1:AA:1204:A:C8	1:AA:1206:G:C6	3.06	0.44
1:AA:1515:C:H2'	1:AA:1516:U:C6	2.53	0.44
1:AA:1526:G:C6	1:AA:1527:G:C2	3.05	0.44
1:AA:1771:C:HO2'	1:AA:1786:A:C1'	2.30	0.44
1:AA:2001:A:H4'	1:AA:2689:U:H2'	1.99	0.44
1:AA:2257:U:C4	1:AA:2258:C:N4	2.86	0.44
1:AA:2475:C:H3'	1:AA:2476:A:C5'	2.48	0.44
1:AA:2480:C:C3'	1:AA:2481:G:H5'	2.47	0.44
4:AE:144:ARG:HG3	4:AE:144:ARG:NH1	2.33	0.44
6:AG:145:THR:C	6:AG:147:ASP:H	2.25	0.44
8:AK:110:ASP:OD1	8:AK:130:TYR:OH	2.36	0.44
10:AN:113:LYS:HD3	10:AN:113:LYS:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:46:LYS:O	11:AO:47:ASP:CB	2.64	0.44
12:AP:112:GLU:CD	12:AP:112:GLU:H	2.26	0.44
15:AR:41:ARG:CG	15:AR:41:ARG:NH1	2.73	0.44
18:AS:111:HIS:O	18:AS:112:GLY:C	2.61	0.44
21:AV:107:THR:O	21:AV:109:ALA:N	2.50	0.44
31:BA:11:G:C6	31:BA:12:U:C4	3.05	0.44
31:BA:1028(B):C:C4	31:BA:1032(A):G:N2	2.85	0.44
31:BA:1053:G:C6	31:BA:1199:U:C2	3.06	0.44
31:BA:1210:C:O2'	31:BA:1213:A:O2'	2.34	0.44
31:BA:1243:C:H2'	31:BA:1244:C:O4'	2.17	0.44
32:BE:126:GLU:HG2	32:BE:126:GLU:O	2.18	0.44
37:BJ:23:VAL:CG1	37:BJ:43:PHE:HE2	2.31	0.44
38:BK:86:ILE:HG21	38:BK:133:LEU:HD13	2.00	0.44
46:BS:7:ALA:O	46:BS:9:PHE:HD2	2.01	0.44
46:BS:45:THR:C	46:BS:47:ASP:H	2.25	0.44
48:BU:18:ARG:HD2	48:BU:18:ARG:N	2.33	0.44
52:BB:48:C:N4	52:BB:49:A:C6	2.86	0.44
1:CA:536:C:H2'	1:CA:537:U:O4'	2.17	0.44
1:CA:1463:G:HO2'	1:CA:1464:C:P	2.37	0.44
1:CA:1513:G:C2	1:CA:1514:G:C4	3.06	0.44
1:CA:1543:A:C8	1:CA:1625:C:O2'	2.63	0.44
1:CA:1709:G:C6	1:CA:2023:G:C6	3.06	0.44
1:CA:1925:C:N4	1:CA:1926:G:C4	2.86	0.44
1:CA:1930:G:O2'	1:CA:1931:C:H5'	2.17	0.44
1:CA:2342:G:N2	22:C3:41:ARG:HB3	2.33	0.44
1:CA:2472:A:C4	1:CA:2473:U:C6	3.06	0.44
2:CB:92:A:N7	2:CB:93:C:H1'	2.32	0.44
3:CD:37:LEU:O	3:CD:61:LEU:HD12	2.18	0.44
4:CE:98:PRO:HG3	4:CE:174:ASP:HA	2.00	0.44
5:CF:41:LEU:HD21	5:CF:184:TYR:CE1	2.52	0.44
7:CH:123:PHE:CD2	7:CH:133:VAL:HG22	2.53	0.44
9:CM:43:THR:HG22	9:CM:45:ASN:ND2	2.33	0.44
11:CO:102:ARG:O	11:CO:102:ARG:HD2	2.18	0.44
15:CR:51:ARG:NH1	15:CR:100:TYR:OH	2.51	0.44
22:C3:32:ARG:O	22:C3:34:GLY:N	2.45	0.44
24:CW:14:ARG:O	24:CW:15:LYS:HB3	2.18	0.44
26:C4:11:PRO:HA	26:C4:25:TYR:CD1	2.52	0.44
27:C5:42:PRO:HB2	27:C5:43:HIS:HD2	1.83	0.44
31:DA:360:A:C6	31:DA:361:G:C6	3.06	0.44
31:DA:391:G:C6	31:DA:392:G:C5	3.06	0.44
31:DA:426:G:OP1	34:DG:38:TYR:OH	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:485:G:O2'	31:DA:486:U:P	2.75	0.44
31:DA:1133:G:C4	31:DA:1134:G:C8	3.06	0.44
31:DA:1155:G:OP2	56:DA:1756:OHX:N6	2.51	0.44
31:DA:1187:G:H3'	31:DA:1188:A:H8	1.82	0.44
31:DA:1224:G:C6	31:DA:1322:C:H1'	2.52	0.44
33:DF:113:ALA:HB1	33:DF:185:GLY:N	2.33	0.44
34:DG:13:ARG:NH1	34:DG:38:TYR:O	2.49	0.44
34:DG:25:ARG:O	34:DG:27:TYR:N	2.48	0.44
34:DG:112:VAL:HG12	34:DG:116:GLN:CD	2.42	0.44
35:DH:33:VAL:HG12	35:DH:34:VAL:N	2.33	0.44
39:DL:118:LYS:HG2	39:DL:118:LYS:O	2.18	0.44
45:DR:12:ILE:HG12	45:DR:31:LEU:HD11	1.99	0.44
1:AA:296:C:H2'	1:AA:297:C:H6	1.81	0.44
1:AA:329:G:H4'	1:AA:330:A:OP2	2.18	0.44
1:AA:456:C:C5	19:AT:69:TYR:CE1	3.06	0.44
1:AA:566:U:H2'	1:AA:567:A:O4'	2.18	0.44
1:AA:753:C:OP2	1:AA:753:C:C6	2.71	0.44
1:AA:868:U:C4	1:AA:869:G:N7	2.86	0.44
1:AA:907:U:C5'	12:AP:23:GLY:O	2.59	0.44
1:AA:1022:G:H1'	1:AA:1023:U:OP2	2.17	0.44
1:AA:1024:G:O5'	1:AA:1024:G:H8	2.01	0.44
1:AA:1069:A:C5	1:AA:1073:A:N7	2.86	0.44
1:AA:1301:A:H2'	1:AA:1301:A:N3	2.33	0.44
1:AA:1423:G:N3	1:AA:1424:G:C8	2.86	0.44
1:AA:1629:U:H2'	1:AA:1630:G:O4'	2.18	0.44
1:AA:1931:U:O2	1:AA:1931:U:O4'	2.35	0.44
1:AA:2270:G:H2'	1:AA:2271:G:H5'	2.00	0.44
1:AA:2461:C:H42	1:AA:2489:G:H1	1.64	0.44
1:AA:2490:G:N2	56:AA:3421:OHX:N6	2.64	0.44
4:AE:170:LEU:HD22	4:AE:185:LYS:H	1.83	0.44
5:AF:24:LEU:HA	5:AF:25:PRO:HD2	1.64	0.44
7:AH:10:PRO:CG	7:AH:50:VAL:HG13	2.48	0.44
7:AH:169:VAL:HG13	7:AH:170:ARG:N	2.31	0.44
8:AK:118:LYS:O	8:AK:119:PRO:C	2.60	0.44
8:AK:121:LYS:O	8:AK:121:LYS:HG3	2.18	0.44
9:AM:95:PRO:O	9:AM:96:GLU:HG2	2.18	0.44
12:AP:27:VAL:HG13	12:AP:105:GLU:OE2	2.17	0.44
15:AR:107:ASP:OD2	15:AR:109:GLU:HG2	2.17	0.44
19:AT:65:ARG:NH1	19:AT:65:ARG:HB3	2.33	0.44
21:AV:82:ARG:HG3	21:AV:83:PRO:HD2	2.00	0.44
26:A4:35:VAL:HG23	43:BP:57:ARG:HE	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:A8:22:VAL:CG2	30:A8:53:PRO:HB2	2.48	0.44
31:BA:50:A:H4'	31:BA:51:A:O5'	2.17	0.44
31:BA:371:G:H2'	31:BA:372:C:O4'	2.17	0.44
31:BA:374:A:C6	31:BA:375:U:C4	3.06	0.44
31:BA:509:A:HO2'	31:BA:510:A:P	2.38	0.44
31:BA:811:C:C5	31:BA:812:C:N4	2.86	0.44
31:BA:1004:A:O5'	31:BA:1025:U:N3	2.49	0.44
31:BA:1051:C:O2'	31:BA:1052:U:H5'	2.17	0.44
31:BA:1238:A:N6	31:BA:1299:A:N6	2.66	0.44
39:BL:49:PRO:HA	39:BL:52:ALA:HB3	2.00	0.44
41:BN:108:ILE:CG2	48:BU:88:LYS:HB2	2.47	0.44
47:BT:11:VAL:HG12	47:BT:85:VAL:HG13	2.00	0.44
50:BW:23:ARG:HA	50:BW:26:ASN:ND2	2.29	0.44
52:BD:30:A:C6	52:BD:43:G:C6	3.06	0.44
1:CA:8:A:C5	1:CA:9:U:C5	3.05	0.44
1:CA:478:C:N4	1:CA:481:A:H5'	2.33	0.44
1:CA:717:G:H2'	1:CA:717:G:OP1	2.18	0.44
1:CA:851:U:H2'	1:CA:852:A:C5'	2.47	0.44
1:CA:1018:G:C6	1:CA:1019:A:C6	3.05	0.44
1:CA:1110:G:C2	1:CA:1111:C:C2	3.06	0.44
1:CA:1332:G:O6	56:CA:3310:OHX:N6	2.51	0.44
1:CA:1701:G:C1'	1:CA:1702:A:OP2	2.65	0.44
1:CA:1713:A:H2'	1:CA:1714:G:O4'	2.17	0.44
1:CA:1767:G:N1	1:CA:1769:U:OP1	2.51	0.44
1:CA:1949:U:H2'	1:CA:1951:A:OP2	2.18	0.44
1:CA:2146:G:C2	1:CA:2199:A:C6	3.05	0.44
1:CA:2323:A:C6	6:CG:80:PHE:CZ	3.06	0.44
1:CA:2576:U:H4'	10:CN:28:SER:HA	2.00	0.44
1:CA:2746:G:H3'	1:CA:2747:A:O4'	2.18	0.44
2:CB:16:U:H5'	2:CB:73:C:H1'	2.00	0.44
4:CE:3:GLY:HA3	4:CE:81:ILE:HD12	1.99	0.44
4:CE:5:LEU:HD11	4:CE:79:ARG:HB2	2.00	0.44
4:CE:68:ALA:C	4:CE:70:ALA:N	2.71	0.44
4:CE:170:LEU:HD13	4:CE:170:LEU:HA	1.82	0.44
6:CG:109:VAL:O	6:CG:113:ARG:HG3	2.18	0.44
8:CK:114:LEU:O	8:CK:114:LEU:HD13	2.18	0.44
8:CK:125:GLU:CD	8:CK:141:LYS:HZ3	2.25	0.44
9:CM:29:LYS:H	9:CM:29:LYS:HG2	1.60	0.44
11:CO:6:LEU:HD13	11:CO:6:LEU:HA	1.78	0.44
12:CP:57:HIS:CD2	12:CP:116:GLU:O	2.71	0.44
12:CP:69:PHE:CD1	12:CP:70:PRO:HD2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CP:134:ARG:O	12:CP:136:ALA:N	2.51	0.44
14:CQ:39:ILE:HG12	14:CQ:73:LEU:HD11	2.00	0.44
14:CQ:59:LYS:CD	14:CQ:60:GLY:H	2.30	0.44
17:C2:51:VAL:HG12	17:C2:52:VAL:N	2.31	0.44
18:CS:2:GLU:HG2	18:CS:72:LYS:HZ1	1.80	0.44
19:CT:40:LYS:C	19:CT:42:ALA:H	2.25	0.44
31:DA:332:G:OP2	50:DW:10:LEU:HD12	2.18	0.44
31:DA:374:A:C6	31:DA:375:U:C4	3.05	0.44
31:DA:592:G:N7	56:DA:1727:OHX:N5	2.66	0.44
31:DA:945:G:H2'	31:DA:945:G:N3	2.33	0.44
31:DA:1008:C:H1'	31:DA:1022:G:N2	2.32	0.44
31:DA:1100:C:H2'	31:DA:1102:A:O5'	2.18	0.44
31:DA:1106:G:H2'	31:DA:1107:C:C6	2.51	0.44
31:DA:1129:C:C5	31:DA:1133:G:O6	2.71	0.44
31:DA:1158:C:H3'	31:DA:1158:C:O2	2.18	0.44
31:DA:1314:C:O2'	31:DA:1315:U:H5'	2.18	0.44
31:DA:1328:C:HO2'	43:DP:29:ARG:HE	1.66	0.44
31:DA:1528:U:H4'	31:DA:1529:G:C2	2.52	0.44
32:DE:19:HIS:NE2	32:DE:206:ASP:HB2	2.33	0.44
32:DE:98:LEU:HB2	32:DE:101:MET:HE3	2.00	0.44
32:DE:204:ASN:HB2	32:DE:210:SER:CB	2.48	0.44
34:DG:117:ALA:O	34:DG:121:VAL:HG23	2.18	0.44
35:DH:110:LEU:O	35:DH:115:VAL:HG23	2.17	0.44
36:DI:97:PHE:O	48:DU:31:LEU:HD23	2.17	0.44
37:DJ:26:PHE:CE2	37:DJ:30:ILE:HD11	2.53	0.44
37:DJ:113:GLU:CB	37:DJ:119:ARG:HG2	2.26	0.44
39:DL:3:GLN:O	39:DL:88:TYR:HE1	2.00	0.44
52:DB:9:U:O2	52:DB:9:U:C2'	2.65	0.44
52:DB:57:C:O2'	52:DB:68:A:C4'	2.56	0.44
52:DB:59:A:N6	52:DB:60:A:C6	2.85	0.44
1:AA:270(J):G:H2'	1:AA:270(K):C:O4'	2.18	0.43
1:AA:455:C:N3	1:AA:473:G:H5'	2.33	0.43
1:AA:463:G:N1	1:AA:467:G:C6	2.86	0.43
1:AA:466:A:N3	1:AA:683:C:H1'	2.33	0.43
1:AA:908:C:O2'	1:AA:909:A:H5'	2.18	0.43
1:AA:2134:A:N6	1:AA:2157:G:C1'	2.81	0.43
1:AA:2312:U:O2'	6:AG:40:ASN:ND2	2.42	0.43
1:AA:2512:C:H4'	4:AE:122:PHE:CE2	2.53	0.43
1:AA:2867:G:OP2	15:AR:119:LYS:HE3	2.18	0.43
5:AF:178:PRO:HG2	5:AF:179:GLU:CD	2.43	0.43
9:AM:133:GLN:HG2	9:AM:134:ARG:H	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AR:99:LEU:HD12	15:AR:99:LEU:H	1.83	0.43
17:A2:76:LYS:O	17:A2:79:VAL:HG12	2.18	0.43
18:AS:107:LEU:HD12	18:AS:107:LEU:HA	1.72	0.43
21:AV:103:ARG:HG3	21:AV:136:PHE:CE1	2.53	0.43
23:AZ:75:GLU:O	23:AZ:77:ALA:N	2.51	0.43
30:A8:19:SER:OG	30:A8:21:LYS:HD2	2.18	0.43
31:BA:46:G:O2'	31:BA:365:U:H1'	2.18	0.43
31:BA:343:U:H2'	31:BA:345:C:O2	2.18	0.43
31:BA:345:C:HO2'	31:BA:346:G:N2	2.13	0.43
31:BA:352:C:O2'	31:BA:354:G:OP1	2.28	0.43
31:BA:812:C:C1'	31:BA:813:U:OP2	2.66	0.43
31:BA:945:G:N1	31:BA:1337:G:C2	2.86	0.43
31:BA:1152:A:H5'	40:BM:13:HIS:ND1	2.32	0.43
33:BF:18:TRP:HZ2	44:BQ:57:ARG:HD3	1.83	0.43
36:BI:33:TYR:HE1	36:BI:78:GLU:HG2	1.83	0.43
37:BJ:32:ARG:HG2	37:BJ:33:ASP:OD2	2.18	0.43
39:BL:53:VAL:HG21	39:BL:92:TYR:CD2	2.53	0.43
43:BP:53:VAL:HG12	43:BP:57:ARG:NH1	2.33	0.43
45:BR:9:GLN:HA	45:BR:12:ILE:HG13	2.00	0.43
48:BU:52:PRO:O	48:BU:56:THR:HG23	2.18	0.43
50:BW:61:SER:O	50:BW:65:LYS:HB2	2.17	0.43
1:CA:5:A:C2	1:CA:2909:G:C2	3.06	0.43
1:CA:400:G:HO2'	1:CA:401:U:P	2.40	0.43
1:CA:411:U:H2'	1:CA:413:C:H5	1.82	0.43
1:CA:747:A:H2'	1:CA:748:G:O4'	2.18	0.43
1:CA:1105:U:H3	1:CA:1127:A:N6	2.11	0.43
1:CA:1260:A:OP2	56:CA:3416:OHX:N5	2.51	0.43
1:CA:1405:G:N2	1:CA:1419:U:C5	2.86	0.43
1:CA:1452:U:H2'	1:CA:1453:U:C6	2.53	0.43
1:CA:1518:G:OP2	56:CA:3278:OHX:N5	2.51	0.43
1:CA:1554:A:N3	1:CA:1555:A:H1'	2.33	0.43
1:CA:1637:U:H2'	1:CA:1638:G:C8	2.51	0.43
1:CA:1723:C:O5'	1:CA:1723:C:H6	2.01	0.43
1:CA:2090:G:O2'	1:CA:2092:G:H5"	2.18	0.43
1:CA:2286:A:H2'	1:CA:2287:A:C8	2.53	0.43
1:CA:2377:C:H4'	22:C3:56:ASP:OD2	2.18	0.43
2:CB:42:U:H2'	2:CB:43:U:OP1	2.18	0.43
2:CB:58:G:H4'	2:CB:59:A:H8	1.83	0.43
3:CD:76:PRO:HB2	3:CD:116:GLN:OE1	2.18	0.43
12:CP:79:LEU:O	12:CP:81:VAL:HG13	2.18	0.43
18:CS:62:HIS:O	18:CS:63:ASP:C	2.61	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CU:8:LYS:O	20:CU:27:VAL:HG21	2.18	0.43
21:CV:170:THR:O	21:CV:172:ALA:N	2.49	0.43
24:CW:10:LEU:O	24:CW:14:ARG:HB2	2.18	0.43
24:CW:65:ASN:HD22	24:CW:69:ARG:HE	1.66	0.43
31:DA:160:A:O2'	31:DA:344:A:N6	2.51	0.43
31:DA:409:G:H2'	31:DA:410:G:H5'	1.99	0.43
31:DA:545:C:O2	31:DA:545:C:H2'	2.18	0.43
31:DA:659:U:O2'	31:DA:660:G:H5'	2.18	0.43
31:DA:683:G:H2'	31:DA:684:A:C8	2.53	0.43
31:DA:692:U:O2	31:DA:694:A:C8	2.70	0.43
31:DA:994:A:C2	44:DQ:5:ALA:HB2	2.53	0.43
31:DA:1014:A:H5'	49:DV:14:HIS:CD2	2.53	0.43
32:DE:39:ILE:O	32:DE:41:ILE:HD12	2.18	0.43
34:DG:162:LEU:HD13	34:DG:181:MET:HE2	2.00	0.43
34:DG:200:GLU:O	34:DG:204:ILE:HG12	2.18	0.43
37:DJ:23:VAL:HG13	37:DJ:43:PHE:CE2	2.53	0.43
37:DJ:40:ALA:O	37:DJ:44:TYR:HD1	2.00	0.43
39:DL:53:VAL:HG13	39:DL:95:LYS:HE3	2.00	0.43
39:DL:86:VAL:HG13	39:DL:87:GLN:N	2.33	0.43
39:DL:92:TYR:HB3	39:DL:95:LYS:NZ	2.33	0.43
41:DN:32:ILE:HD12	41:DN:68:ALA:HB1	1.99	0.43
52:DB:21:A:P	52:DB:56:U:O4	2.76	0.43
52:DB:59:A:C2	52:DB:74:C:C2	3.06	0.43
52:DD:1:G:C2	52:DD:82:A:C2	3.06	0.43
1:AA:66:C:H2'	1:AA:67:U:H6	1.83	0.43
1:AA:120:U:C5	1:AA:149:A:N6	2.86	0.43
1:AA:633:A:H2'	1:AA:634:C:C5'	2.46	0.43
1:AA:900:A:H2'	1:AA:900:A:N3	2.33	0.43
1:AA:1509:C:H2'	1:AA:1510:A:OP1	2.18	0.43
1:AA:1586:A:C2	1:AA:1587:A:C5	3.05	0.43
1:AA:2262:U:H4'	1:AA:2328:A:H2	1.83	0.43
1:AA:2275:C:O2	12:AP:85:LYS:CE	2.66	0.43
1:AA:2789:C:C3'	1:AA:2790:A:H5"	2.48	0.43
6:AG:67:LYS:HG2	26:A4:5:ILE:O	2.18	0.43
6:AG:107:LEU:O	26:A4:38:LYS:HD3	2.18	0.43
7:AH:13:LYS:HA	7:AH:13:LYS:CE	2.43	0.43
8:AK:104:GLN:O	8:AK:105:HIS:CB	2.55	0.43
11:AO:85:LEU:C	11:AO:87:ASP:H	2.26	0.43
13:A0:12:ARG:HB2	13:A0:16:HIS:HD2	1.82	0.43
14:AQ:95:HIS:ND1	14:AQ:96:GLY:N	2.65	0.43
16:A1:5:LYS:H	16:A1:5:LYS:HG3	1.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:A1:79:PHE:CE2	16:A1:83:LEU:HD22	2.52	0.43
20:AU:46:LYS:HE3	20:AU:63:LYS:HB3	2.00	0.43
21:AV:58:VAL:O	21:AV:60:GLU:N	2.50	0.43
21:AV:79:ARG:HD2	21:AV:80:ARG:HH22	1.81	0.43
21:AV:111:VAL:HG21	21:AV:146:ILE:HD11	2.00	0.43
24:AW:32:LEU:HG	24:AW:53:LEU:HD12	2.01	0.43
31:BA:186(F):C:N3	31:BA:191(B):G:C2	2.86	0.43
31:BA:392:G:H2'	31:BA:393:A:O4'	2.18	0.43
31:BA:1129:C:C4	31:BA:1139:G:C6	3.05	0.43
31:BA:1379:G:C5	31:BA:1380:U:C5	3.06	0.43
31:BA:1448:C:H42	31:BA:1455:G:H1	1.66	0.43
32:BE:24:TRP:O	32:BE:26:PRO:HD3	2.18	0.43
33:BF:106:VAL:O	33:BF:107:GLN:C	2.61	0.43
33:BF:150:LYS:HD3	33:BF:201:TYR:CD1	2.53	0.43
37:BJ:84:ASN:HB3	52:BD:38:MIA:C15	2.47	0.43
38:BK:65:TYR:N	38:BK:65:TYR:CD1	2.86	0.43
49:BV:39:THR:HG22	49:BV:40:ILE:N	2.23	0.43
1:CA:467:G:H2'	1:CA:468:U:C6	2.53	0.43
1:CA:487:A:H5"	1:CA:488:C:OP2	2.19	0.43
1:CA:654:G:C6	1:CA:655:G:C6	3.06	0.43
1:CA:728:G:C2	1:CA:846:G:N3	2.86	0.43
1:CA:799:A:C5'	18:CS:90:ARG:HA	2.45	0.43
1:CA:942:U:O2'	1:CA:943:A:C8	2.71	0.43
1:CA:1019:A:OP1	1:CA:1019:A:H8	2.00	0.43
1:CA:1066:U:H3	1:CA:1189:A:H62	1.64	0.43
1:CA:1389:A:H8	1:CA:1392:C:C4	2.34	0.43
1:CA:1625:C:H2'	1:CA:1626:U:O4'	2.18	0.43
1:CA:1714:G:N2	1:CA:2018:U:C2	2.85	0.43
1:CA:2079:G:C2	1:CA:2080:A:C8	3.06	0.43
1:CA:2213:G:C3'	1:CA:2214:G:H5"	2.48	0.43
3:CD:35:LYS:HD3	3:CD:63:ARG:HA	1.98	0.43
3:CD:70:TRP:HZ3	3:CD:146:GLU:CD	2.26	0.43
3:CD:202:LYS:HG3	3:CD:203:ASN:OD1	2.17	0.43
10:CN:107:ARG:CZ	10:CN:115:VAL:HG11	2.48	0.43
12:CP:114:ALA:O	12:CP:115:MET:C	2.61	0.43
15:CR:19:LEU:HA	15:CR:20:PRO:HD3	1.86	0.43
16:C1:50:ARG:HH12	17:C2:72:VAL:CB	2.28	0.43
16:C1:66:ASN:O	16:C1:70:ARG:HG3	2.18	0.43
16:C1:111:GLU:C	16:C1:113:ALA:N	2.75	0.43
20:CU:27:VAL:CG1	20:CU:39:VAL:HG12	2.48	0.43
22:C3:72:ARG:HB2	22:C3:75:LEU:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:CW:10:LEU:HD13	24:CW:59:ARG:HD2	1.99	0.43
24:CW:40:SER:C	24:CW:42:GLY:H	2.25	0.43
27:C5:51:TYR:HB3	27:C5:54:GLY:N	2.30	0.43
31:DA:135:C:H2'	31:DA:136:C:H5'	2.00	0.43
31:DA:209:U:C1'	31:DA:210:U:P	3.06	0.43
31:DA:897:C:C4	31:DA:898:G:N7	2.86	0.43
31:DA:1127:G:H22	31:DA:1144:G:N2	2.16	0.43
31:DA:1239:A:H4'	31:DA:1240:U:H5'	1.99	0.43
32:DE:5:ILE:O	32:DE:5:ILE:HG12	2.18	0.43
32:DE:28:PHE:CE1	32:DE:31:TYR:HB2	2.52	0.43
33:DF:81:GLY:O	33:DF:82:GLU:HB2	2.19	0.43
34:DG:4:TYR:C	34:DG:4:TYR:CD1	2.94	0.43
35:DH:10:MET:HG2	35:DH:11:ILE:H	1.80	0.43
37:DJ:143:ARG:NH1	52:DD:43:G:H5'	2.31	0.43
38:DK:97:VAL:O	38:DK:99:GLU:N	2.51	0.43
41:DN:82:VAL:CG1	41:DN:108:ILE:HG12	2.48	0.43
48:DU:37:VAL:HB	48:DU:79:LEU:HD21	2.00	0.43
49:DV:36:ARG:HD2	49:DV:52:TYR:O	2.18	0.43
52:DB:19:C:H3'	52:DB:19:C:OP2	2.19	0.43
52:DB:31:G:H2'	52:DB:32:A:C8	2.53	0.43
52:DD:79:A:O2'	52:DD:80:C:H5'	2.18	0.43
1:AA:181:A:C2	1:AA:435:C:C5	3.06	0.43
1:AA:372:G:O2'	1:AA:400:G:O6	2.36	0.43
1:AA:951:C:C2'	1:AA:952:G:H5'	2.48	0.43
1:AA:1098:A:H8	1:AA:1098:A:O5'	2.02	0.43
1:AA:1515:C:H2'	1:AA:1516:U:H6	1.83	0.43
1:AA:2075:U:C4	1:AA:2238:G:C6	3.05	0.43
1:AA:2119:A:H2	1:AA:2171:A:H1'	1.81	0.43
1:AA:2780:G:H4'	1:AA:2781:A:OP2	2.17	0.43
1:AA:2807:G:H2'	1:AA:2808:U:H5"	1.99	0.43
3:AD:45:ASN:HB2	3:AD:46:GLN:OE1	2.18	0.43
4:AE:199:ARG:HH12	4:AE:202:LYS:NZ	2.16	0.43
8:AK:62:LYS:O	8:AK:66:GLU:HG2	2.17	0.43
11:AO:49:ARG:HG3	30:A8:59:LYS:CD	2.49	0.43
11:AO:49:ARG:NE	30:A8:59:LYS:HG2	2.33	0.43
13:A0:55:ALA:HB2	13:A0:79:LEU:HD13	2.00	0.43
13:A0:92:GLY:N	13:A0:94:TYR:CE2	2.86	0.43
15:AR:91:ARG:HB2	15:AR:121:ILE:HG12	2.00	0.43
17:A2:19:LYS:HG3	17:A2:95:LEU:HD23	1.99	0.43
19:AT:8:ILE:O	24:AW:36:ARG:NH2	2.50	0.43
20:AU:43:ASN:CB	20:AU:64:GLU:HA	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:A4:63:TYR:HE2	49:BV:42:PRO:CD	2.22	0.43
31:BA:250:A:H4'	31:BA:251:G:C5'	2.48	0.43
31:BA:444:C:H2'	31:BA:445:G:C8	2.54	0.43
31:BA:599:C:H2'	31:BA:600:C:H6	1.83	0.43
31:BA:685:G:C2	31:BA:686:U:C4	3.06	0.43
31:BA:827:U:C5'	31:BA:828:A:OP2	2.65	0.43
31:BA:854:G:C6	31:BA:855:G:N7	2.87	0.43
31:BA:872:A:N3	31:BA:872:A:H2'	2.33	0.43
31:BA:874:G:C6	31:BA:875:C:C4	3.06	0.43
31:BA:1167:A:H2'	31:BA:1169:A:O4'	2.19	0.43
31:BA:1226:C:O2	49:BV:83:HIS:HE1	2.00	0.43
31:BA:1480:G:C6	31:BA:1481:U:N3	2.87	0.43
32:BE:98:LEU:CG	32:BE:101:MET:HE3	2.48	0.43
33:BF:162:GLN:HB3	54:B1:24:A:H1'	2.00	0.43
33:BF:186:PHE:CD1	33:BF:198:VAL:O	2.71	0.43
34:BG:110:PHE:HE2	34:BG:148:VAL:HG23	1.83	0.43
51:BX:10:ARG:H	51:BX:10:ARG:HG2	1.65	0.43
52:BB:12:C:H1'	52:BB:25:G:N2	2.33	0.43
1:CA:55:A:C2	1:CA:113:C:O2	2.72	0.43
1:CA:218:A:C8	1:CA:218:A:C3'	3.01	0.43
1:CA:496:G:C6	29:C7:39:ARG:NH1	2.87	0.43
1:CA:556:G:HO2'	1:CA:558:A:H8	1.45	0.43
1:CA:679:A:H4'	1:CA:680:A:OP1	2.18	0.43
1:CA:792:G:OP2	56:CA:3283:OHX:N6	2.51	0.43
1:CA:887:U:H2'	1:CA:888:C:H6	1.82	0.43
1:CA:1017:C:O2'	1:CA:1018:G:H5'	2.17	0.43
1:CA:1018:G:OP2	1:CA:1019:A:O2'	2.30	0.43
1:CA:1148:U:C4	1:CA:1149:C:N4	2.86	0.43
1:CA:1429:G:OP1	56:CA:3375:OHX:N2	2.51	0.43
1:CA:1683:G:C2	1:CA:1684:C:C2	3.06	0.43
1:CA:2178:G:C6	1:CA:2179:G:C5	3.06	0.43
1:CA:2409:G:H4'	23:CZ:30:VAL:H	1.82	0.43
2:CB:15:A:H5"	2:CB:17:A:C6	2.53	0.43
3:CD:35:LYS:HB3	3:CD:36:PRO:HA	1.99	0.43
3:CD:35:LYS:CB	3:CD:36:PRO:HA	2.48	0.43
5:CF:10:PRO:HB3	5:CF:127:GLU:HG2	2.00	0.43
6:CG:42:GLY:O	6:CG:43:LEU:HD13	2.18	0.43
7:CH:136:ILE:HG22	7:CH:136:ILE:O	2.18	0.43
11:CO:80:TYR:CD1	11:CO:111:ARG:HB2	2.49	0.43
12:CP:17:LEU:HD23	12:CP:17:LEU:N	2.33	0.43
12:CP:132:VAL:CG2	21:CV:81:ARG:HH12	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C0:35:THR:HG23	13:C0:112:ALA:O	2.17	0.43
13:C0:55:ALA:C	13:C0:57:ARG:N	2.76	0.43
14:CQ:102:ALA:O	14:CQ:105:ALA:N	2.51	0.43
21:CV:158:PRO:CB	21:CV:159:PRO:CD	2.95	0.43
23:CZ:4:VAL:HG12	23:CZ:11:ARG:HB3	1.99	0.43
23:CZ:91:LYS:HG2	23:CZ:92:LYS:N	2.30	0.43
25:CX:59:VAL:CG1	25:CX:60:GLU:H	2.16	0.43
30:C8:14:VAL:CG1	30:C8:22:VAL:HG13	2.48	0.43
31:DA:35:G:H2'	31:DA:36:C:C6	2.53	0.43
31:DA:324:G:N7	56:DA:1764:OHX:N6	2.65	0.43
31:DA:403:C:O2'	31:DA:404:U:H5'	2.19	0.43
31:DA:406:G:H2'	31:DA:407:G:H8	1.82	0.43
31:DA:408:A:N1	31:DA:434:U:O4	2.51	0.43
31:DA:440:A:C8	31:DA:442:C:C6	3.06	0.43
31:DA:539:A:H2'	31:DA:540:G:H8	1.83	0.43
31:DA:668:G:C2'	31:DA:669:U:H5'	2.48	0.43
31:DA:837:G:C2	31:DA:850:U:O2	2.70	0.43
31:DA:973:G:O6	31:DA:974:A:N6	2.52	0.43
31:DA:1052:U:C4	31:DA:1200:C:N3	2.86	0.43
31:DA:1129:C:C4'	31:DA:1130:A:H5'	2.40	0.43
31:DA:1330:U:O4	31:DA:1331:G:C2	2.71	0.43
31:DA:1347:G:H22	31:DA:1373:G:H2'	1.81	0.43
33:DF:75:VAL:HG12	33:DF:75:VAL:O	2.18	0.43
33:DF:82:GLU:O	33:DF:83:ARG:C	2.61	0.43
34:DG:22:LYS:HD3	34:DG:25:ARG:HB2	2.01	0.43
34:DG:108:LEU:HD23	34:DG:110:PHE:CE1	2.52	0.43
36:DI:2:ARG:HH11	36:DI:92:LYS:HZ1	1.65	0.43
37:DJ:75:VAL:HG21	37:DJ:144:MET:CB	2.48	0.43
39:DL:54:ASP:C	39:DL:56:LEU:N	2.76	0.43
41:DN:38:ASN:HA	41:DN:39:PRO:HD3	1.84	0.43
41:DN:124:LYS:H	41:DN:124:LYS:HG3	1.54	0.43
47:DT:65:ILE:HD12	47:DT:65:ILE:N	2.34	0.43
49:DV:62:ILE:N	49:DV:62:ILE:CD1	2.81	0.43
52:DB:53:A:C8	52:DB:53:A:OP2	2.70	0.43
52:DD:46:G:C2	52:DD:47:U:C2	3.07	0.43
52:DD:48:C:H2'	52:DD:49:A:O4'	2.17	0.43
1:AA:117:G:C6	1:AA:119:A:C6	3.07	0.43
1:AA:139:G:N2	1:AA:141:A:N1	2.60	0.43
1:AA:389:G:H22	11:AO:72:PRO:CG	2.31	0.43
1:AA:478:A:N6	1:AA:480:A:C6	2.86	0.43
1:AA:888:C:O2'	1:AA:889:C:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:889:C:C3’	1:AA:890:A:H4’	2.18	0.43
1:AA:1085:A:C4’	1:AA:1086:A:OP1	2.66	0.43
1:AA:1102:C:C2’	1:AA:1103:A:H8	2.27	0.43
1:AA:1773:A:H2’	1:AA:1774:C:H5’	2.01	0.43
1:AA:1797:C:H2’	1:AA:1798:U:H5’	2.00	0.43
1:AA:2078:C:H1’	1:AA:2434:A:H1’	2.00	0.43
1:AA:2182:G:H2’	1:AA:2183:C:C6	2.53	0.43
1:AA:2355:C:H4’	22:A3:36:ILE:HD11	2.00	0.43
1:AA:2383:G:O2’	1:AA:2384:G:H5’	2.18	0.43
1:AA:2505:G:O2’	1:AA:2506:U:H5’	2.19	0.43
1:AA:2615:U:H2’	1:AA:2616:C:C6	2.53	0.43
1:AA:2847:U:OP2	1:AA:2847:U:H6	2.01	0.43
1:AA:2852:G:C6	1:AA:2853:C:C4	3.06	0.43
6:AG:97:ASP:O	6:AG:101:ILE:HG23	2.17	0.43
14:AQ:69:VAL:O	14:AQ:69:VAL:HG22	2.18	0.43
15:AR:114:LEU:O	15:AR:115:ARG:C	2.61	0.43
16:A1:90:VAL:HG22	17:A2:39:LEU:HB3	1.99	0.43
16:A1:92:ARG:HH11	16:A1:95:LEU:HD11	1.83	0.43
19:AT:21:PHE:CD2	19:AT:26:TYR:CD2	3.06	0.43
24:AW:4:SER:HB3	24:AW:5:GLU:H	1.64	0.43
31:BA:174:C:H2’	31:BA:175:C:C6	2.52	0.43
31:BA:403:C:H4’	34:BG:122:ARG:HH11	1.82	0.43
31:BA:419:C:H42	31:BA:424:G:H1	1.66	0.43
31:BA:438:G:H5’	34:BG:123:HIS:HB3	2.00	0.43
31:BA:580:U:H2’	31:BA:581:G:O4’	2.18	0.43
31:BA:604:G:H2’	31:BA:605:U:O4’	2.19	0.43
31:BA:613:C:H2’	31:BA:614:A:O4’	2.18	0.43
31:BA:686:U:O4	31:BA:703:G:H1’	2.18	0.43
31:BA:791:G:O6	31:BA:792:A:C6	2.71	0.43
31:BA:977:A:C8	31:BA:1223:C:N3	2.86	0.43
31:BA:1009:G:O2’	31:BA:1010:G:H5’	2.18	0.43
31:BA:1134:G:H2’	31:BA:1134:G:N3	2.33	0.43
31:BA:1492:A:H1’	54:B1:20:G:O2’	2.19	0.43
32:BE:70:PHE:CE2	32:BE:163:PHE:HD1	2.36	0.43
32:BE:217:ARG:HE	32:BE:217:ARG:HB2	1.43	0.43
38:BK:7:ALA:HB2	38:BK:85:ARG:HH11	1.84	0.43
39:BL:47:LEU:H	39:BL:47:LEU:HD22	1.83	0.43
40:BM:38:ILE:HG23	40:BM:71:LEU:HB3	2.00	0.43
44:BQ:21:TYR:HE2	44:BQ:23:ARG:CZ	2.31	0.43
46:BS:17:TYR:HE1	46:BS:41:PRO:HG3	1.83	0.43
52:BB:53:A:H2’	52:BB:54:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:27:G:N1	1:CA:538:G:O2'	2.50	0.43
1:CA:417:G:H1	11:CO:71:VAL:CG1	2.07	0.43
1:CA:549:C:O2'	1:CA:550:U:H5'	2.17	0.43
1:CA:876:U:C5	1:CA:877:A:N6	2.86	0.43
1:CA:911:A:H2'	1:CA:912:G:C8	2.54	0.43
1:CA:1089:G:H2'	1:CA:1090:C:H6	1.83	0.43
1:CA:1431:A:N3	1:CA:1452:U:H1'	2.33	0.43
1:CA:1489:G:C2	1:CA:1598:C:O2	2.72	0.43
1:CA:1631:A:H5'	1:CA:1632:C:O5'	2.18	0.43
1:CA:2138:G:N2	1:CA:2142:A:C5	2.86	0.43
1:CA:2150:G:HO2'	1:CA:2196:A:N6	2.14	0.43
2:CB:3:U:H2'	2:CB:4:C:C6	2.53	0.43
2:CB:76:U:H2'	2:CB:77:G:H5"	1.99	0.43
3:CD:220:HIS:CD2	3:CD:220:HIS:C	2.95	0.43
4:CE:3:GLY:O	4:CE:4:ILE:HG23	2.19	0.43
5:CF:123:LEU:O	5:CF:193:VAL:HA	2.18	0.43
5:CF:128:ALA:O	5:CF:130:ALA:N	2.51	0.43
6:CG:114:ILE:CD1	6:CG:140:ILE:HG21	2.49	0.43
8:CK:29:TYR:C	8:CK:32:PRO:HD2	2.43	0.43
10:CN:64:ARG:NH1	10:CN:83:ALA:HB2	2.33	0.43
11:CO:47:ASP:HB3	11:CO:49:ARG:N	2.33	0.43
17:C2:46:VAL:O	17:C2:46:VAL:HG13	2.18	0.43
20:CU:52:SER:CB	20:CU:56:PRO:HA	2.49	0.43
23:CZ:67:ILE:N	23:CZ:68:PRO:CD	2.79	0.43
31:DA:718:G:O6	48:DU:74:ARG:NH1	2.50	0.43
31:DA:1094:G:H2'	31:DA:1095:U:OP2	2.19	0.43
31:DA:1292:U:H2'	31:DA:1293:G:C8	2.53	0.43
32:DE:59:GLU:HB2	32:DE:221:LEU:HD21	2.00	0.43
37:DJ:87:VAL:HG22	37:DJ:88:PRO:HD2	2.01	0.43
38:DK:17:THR:HG22	38:DK:78:GLN:NE2	2.33	0.43
38:DK:20:TYR:HA	38:DK:65:TYR:CE2	2.52	0.43
38:DK:74:PRO:O	38:DK:75:ARG:C	2.61	0.43
39:DL:75:ASP:O	39:DL:78:LYS:HB3	2.17	0.43
44:DQ:33:VAL:HA	44:DQ:39:LEU:O	2.17	0.43
52:DB:57:C:C4'	52:DB:58:G:OP2	2.67	0.43
52:DB:77:C:N3	52:DB:78:C:N4	2.66	0.43
52:DD:50:U:C2'	52:DD:51:C:O4'	2.66	0.43
1:AA:15:G:C2	1:AA:16:G:C8	3.06	0.43
1:AA:115:C:O2'	1:AA:116:C:H5'	2.18	0.43
1:AA:271(B):G:H1'	1:AA:271(C):U:OP2	2.19	0.43
1:AA:273(E):U:O2'	1:AA:273(F):C:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:870:A:OP1	12:AP:6:ARG:CZ	2.67	0.43
1:AA:1021:A:C6	1:AA:1023:U:C4	3.06	0.43
1:AA:1368:G:C2	1:AA:1369:G:C8	3.06	0.43
1:AA:1683:C:H2'	1:AA:1684:C:H6	1.84	0.43
1:AA:2095:C:H2'	1:AA:2096:U:O4'	2.19	0.43
3:AD:226:MET:HB3	3:AD:230:ASP:OD2	2.19	0.43
4:AE:7:VAL:HG23	4:AE:7:VAL:O	2.18	0.43
5:AF:31:HIS:NE2	5:AF:35:GLU:OE2	2.52	0.43
8:AK:86:THR:HG22	8:AK:86:THR:O	2.18	0.43
11:AO:25:SER:O	11:AO:27:HIS:CD2	2.72	0.43
11:AO:86:LYS:HB3	11:AO:118:GLY:HA2	2.00	0.43
11:AO:112:LEU:HD22	11:AO:113:LYS:N	2.34	0.43
14:AQ:27:SER:HA	14:AQ:88:ASP:HB2	2.00	0.43
14:AQ:58:LEU:HD23	14:AQ:58:LEU:N	2.33	0.43
16:A1:92:ARG:O	16:A1:93:LYS:C	2.60	0.43
20:AU:63:LYS:NZ	20:AU:64:GLU:HG2	2.34	0.43
24:AW:47:ASN:C	24:AW:49:LYS:N	2.60	0.43
26:A4:39:CYS:SG	26:A4:41:PRO:HD3	2.59	0.43
27:A5:56:LYS:O	27:A5:58:LEU:HG	2.19	0.43
30:A8:4:MET:HB2	30:A8:4:MET:HE3	1.56	0.43
31:BA:115:G:C2	31:BA:289:G:N7	2.86	0.43
31:BA:298:A:C6	31:BA:299:G:C2	3.06	0.43
31:BA:467:G:N1	31:BA:468:A:C2	2.86	0.43
31:BA:506:G:H2'	31:BA:507:C:O4'	2.19	0.43
31:BA:1046:A:H3'	31:BA:1047:G:H8	1.82	0.43
31:BA:1165:C:N4	31:BA:1166:G:C6	2.86	0.43
31:BA:1179:A:C6	31:BA:1180:A:C2	3.06	0.43
31:BA:1199:U:C4'	40:BM:54:PHE:CE2	3.01	0.43
31:BA:1246:C:N4	31:BA:1291:G:H1	2.17	0.43
31:BA:1256:A:N3	31:BA:1277:C:N4	2.66	0.43
31:BA:1378:C:O2	31:BA:1378:C:H3'	2.18	0.43
31:BA:1498:U:C2'	31:BA:1499:A:OP2	2.66	0.43
34:BG:154:ASN:OD1	34:BG:154:ASN:N	2.51	0.43
34:BG:173:TRP:CB	34:BG:187:ARG:HG2	2.48	0.43
38:BK:81:HIS:HB2	38:BK:138:TRP:CZ3	2.53	0.43
38:BK:82:HIS:HE1	38:BK:84:ARG:HD3	1.84	0.43
43:BP:92:HIS:CE1	43:BP:98:VAL:HG21	2.53	0.43
44:BQ:7:ILE:C	44:BQ:7:ILE:HD12	2.44	0.43
46:BS:1:MET:O	46:BS:2:VAL:C	2.59	0.43
46:BS:74:LEU:HD22	46:BS:79:VAL:HG21	2.00	0.43
52:BD:12:C:H2'	52:BD:13:G:C1'	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BD:48:C:C2’	52:BD:49:A:C8	3.01	0.43
1:CA:19:C:O2’	1:CA:20:C:H5’	2.18	0.43
1:CA:227:C:O2’	1:CA:228:C:H5’	2.18	0.43
1:CA:306:G:O2’	1:CA:307:A:O4’	2.32	0.43
1:CA:442:C:H1’	1:CA:1896:U:O2’	2.19	0.43
1:CA:905:C:OP1	22:C3:77:ARG:NH2	2.49	0.43
1:CA:992:G:H2’	1:CA:993:G:H8	1.84	0.43
1:CA:1063:G:H2’	1:CA:1064:G:O4’	2.18	0.43
1:CA:1210:G:C2	1:CA:1211:G:C8	3.06	0.43
1:CA:1466:A:N6	1:CA:1468:G:C2	2.86	0.43
1:CA:1858:G:H4’	3:CD:242:ARG:HE	1.83	0.43
1:CA:2024:A:H2’	1:CA:2025:G:C8	2.54	0.43
1:CA:2203:U:C4	1:CA:2204:G:C5	3.07	0.43
1:CA:2263:G:N1	12:CP:83:MET:CB	2.82	0.43
1:CA:2476:C:O2	1:CA:2501:A:C2	2.71	0.43
1:CA:2712:C:H2’	1:CA:2713:C:O4’	2.18	0.43
1:CA:2831:A:HO2’	1:CA:2832:A:P	2.37	0.43
5:CF:38:ARG:HD3	5:CF:99:TYR:OH	2.18	0.43
5:CF:203:GLN:HE21	5:CF:203:GLN:CA	2.18	0.43
10:CN:52:VAL:HG12	10:CN:53:LYS:N	2.32	0.43
16:C1:86:ALA:O	17:C2:49:THR:HG22	2.19	0.43
18:CS:17:VAL:O	18:CS:20:VAL:HG22	2.18	0.43
23:CZ:19:GLN:O	23:CZ:35:THR:O	2.37	0.43
23:CZ:83:GLU:CD	23:CZ:83:GLU:C	2.86	0.43
30:C8:7:HIS:CD2	30:C8:59:LYS:HE2	2.54	0.43
30:C8:33:ASN:O	30:C8:34:TRP:CG	2.70	0.43
31:DA:12:U:O4	56:DA:1719:OHX:N2	2.52	0.43
31:DA:29:G:C5	31:DA:30:U:C5	3.07	0.43
31:DA:303:A:H2’	31:DA:304:U:C6	2.53	0.43
31:DA:820:U:C4’	31:DA:821:G:OP2	2.53	0.43
31:DA:1006:C:H2’	31:DA:1007:C:C6	2.53	0.43
31:DA:1011:G:C5	31:DA:1012:U:C4	3.06	0.43
31:DA:1015:A:C6	31:DA:1016:A:C6	3.06	0.43
31:DA:1023:G:H2’	31:DA:1023:G:N3	2.34	0.43
31:DA:1086:U:O5’	31:DA:1086:U:H6	2.01	0.43
31:DA:1123:A:H4’	40:DM:36:GLY:HA3	2.00	0.43
31:DA:1274:G:O2’	31:DA:1275:A:H5’	2.18	0.43
31:DA:1288:A:O2’	31:DA:1289:A:H5’	2.18	0.43
31:DA:1429:C:H2’	31:DA:1430:C:C6	2.53	0.43
31:DA:1486:G:H2’	31:DA:1487:G:O4’	2.18	0.43
34:DG:114:ARG:O	34:DG:117:ALA:HB3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DG:173:TRP:O	34:DG:186:LEU:HB2	2.17	0.43
39:DL:92:TYR:HB3	39:DL:95:LYS:HZ3	1.82	0.43
40:DM:78:ASN:C	40:DM:80:LYS:N	2.75	0.43
51:DX:9:ARG:O	51:DX:13:ILE:HG13	2.18	0.43
52:DB:40:U:H2'	52:DB:41:C:C1'	2.49	0.43
53:DC:29:C:H2'	53:DC:30:G:C8	2.53	0.43
52:DD:57:C:N3	52:DD:68:A:H1'	2.33	0.43
52:DD:65:C:C4	52:DD:66:G:N7	2.86	0.43
1:AA:18:C:H2'	1:AA:19:C:H6	1.83	0.43
1:AA:154:G:C3'	1:AA:155:C:H5"	2.49	0.43
1:AA:754:C:H2'	1:AA:755:C:H6	1.84	0.43
1:AA:821:A:O2'	1:AA:945:A:C3'	2.66	0.43
1:AA:867:C:C5	1:AA:868:U:C5	3.07	0.43
1:AA:978:G:C2	1:AA:986:C:C2	3.07	0.43
1:AA:1011:G:OP1	16:A1:75:ASN:HB3	2.19	0.43
1:AA:1091:G:N1	1:AA:1101:U:C2	2.87	0.43
1:AA:1215:G:C4	1:AA:1216:G:C8	3.06	0.43
1:AA:1728:G:O6	1:AA:1730:U:H5"	2.19	0.43
1:AA:2001:A:H2'	1:AA:2002:G:C8	2.54	0.43
1:AA:2127:G:H2'	1:AA:2128:C:O4'	2.19	0.43
1:AA:2146:C:C5'	1:AA:2147:G:OP1	2.65	0.43
1:AA:2252:G:H2'	1:AA:2253:G:O4'	2.18	0.43
1:AA:2334:G:C6	22:A3:75:LEU:HD21	2.54	0.43
1:AA:2419:U:O4	30:A8:30:ARG:NE	2.52	0.43
1:AA:2651:C:N4	1:AA:2669:G:H1	2.15	0.43
2:AB:7:G:C5'	2:AB:7:G:H8	2.32	0.43
2:AB:76:G:O6	56:AB:217:OHX:N1	2.52	0.43
3:AD:248:SER:O	3:AD:250:TRP:N	2.52	0.43
4:AE:39:PRO:HA	4:AE:43:GLY:HA2	2.01	0.43
4:AE:203:LYS:HE3	4:AE:204:ALA:HB2	2.01	0.43
5:AF:39:TRP:CD1	5:AF:101:LEU:HB2	2.53	0.43
6:AG:13:GLU:O	6:AG:13:GLU:HG3	2.18	0.43
7:AH:26:VAL:O	7:AH:27:LYS:O	2.36	0.43
9:AM:93:THR:HG22	9:AM:94:HIS:CE1	2.54	0.43
11:AO:2:LYS:HG2	11:AO:4:SER:H	1.83	0.43
11:AO:37:GLY:O	11:AO:40:SER:N	2.49	0.43
12:AP:19:GLY:CA	12:AP:98:LYS:CD	2.97	0.43
18:AS:76:VAL:HG21	18:AS:101:SER:HB3	2.01	0.43
19:AT:12:VAL:HG13	19:AT:27:THR:O	2.19	0.43
21:AV:77:ASP:OD2	21:AV:80:ARG:HG2	2.19	0.43
23:AZ:56:GLN:HA	23:AZ:56:GLN:NE2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:A4:24:THR:OG1	26:A4:25:TYR:N	2.50	0.43
28:A6:24:GLU:HB3	28:A6:25:LYS:H	1.60	0.43
29:A7:10:ARG:O	29:A7:14:LYS:HB2	2.18	0.43
31:BA:582:U:H2'	31:BA:583:A:O4'	2.19	0.43
31:BA:626:U:H2'	31:BA:627:G:H8	1.82	0.43
31:BA:637:G:C2'	31:BA:638:G:H5'	2.49	0.43
31:BA:680:C:H2'	31:BA:681:C:H6	1.84	0.43
31:BA:914:A:O2'	31:BA:915:A:H5'	2.18	0.43
31:BA:922:G:H2'	31:BA:923:A:C8	2.53	0.43
31:BA:942:G:C2	31:BA:1342:C:O2	2.72	0.43
31:BA:1004:A:C2	31:BA:1005:A:C2	3.06	0.43
31:BA:1254:C:N3	31:BA:1283:G:N2	2.61	0.43
32:BE:67:THR:C	32:BE:68:ILE:HD12	2.44	0.43
32:BE:124:SER:HB2	32:BE:125:PRO:CD	2.43	0.43
33:BF:56:ASP:OD1	33:BF:69:HIS:NE2	2.52	0.43
35:BH:152:ARG:C	35:BH:153:LYS:HG3	2.42	0.43
38:BK:64:LYS:C	38:BK:65:TYR:CD1	2.96	0.43
52:BB:31:G:H2'	52:BB:32:A:C8	2.54	0.43
52:BD:27:A:H2'	52:BD:28:G:H8	1.83	0.43
1:CA:36:G:N3	1:CA:477:G:O2'	2.50	0.43
1:CA:231:A:H4'	1:CA:232:G:OP1	2.19	0.43
1:CA:387:U:H3'	1:CA:387:U:H6	1.84	0.43
1:CA:511:C:H2'	1:CA:512:C:C6	2.54	0.43
1:CA:657:A:N6	1:CA:658:A:N1	2.65	0.43
1:CA:812:A:O4'	3:CD:213:ARG:HG3	2.19	0.43
1:CA:876:U:H4'	1:CA:879:G:N1	2.34	0.43
1:CA:997:C:O2'	1:CA:998:G:H5'	2.17	0.43
1:CA:1175:A:O4'	1:CA:2529:G:O2'	2.37	0.43
1:CA:1306:G:H2'	1:CA:1307:G:C8	2.53	0.43
1:CA:1315:A:C2	1:CA:2036:A:C4	3.06	0.43
1:CA:1829:C:O2'	3:CD:259:THR:OG1	2.15	0.43
1:CA:2458:G:C2'	1:CA:2459:G:H5'	2.48	0.43
1:CA:2654:G:O3'	9:CM:76:SER:OG	2.33	0.43
1:CA:2883:G:N9	1:CA:2884:A:C2	2.87	0.43
2:CB:22:C:C2'	2:CB:23:G:H5'	2.47	0.43
2:CB:46:G:C2	2:CB:50:A:N3	2.87	0.43
3:CD:10:THR:OG1	3:CD:13:ARG:HB2	2.18	0.43
4:CE:38:THR:HG22	4:CE:41:LYS:N	2.34	0.43
4:CE:57:LYS:HA	4:CE:57:LYS:HD3	1.93	0.43
7:CH:9:ILE:HG22	7:CH:51:ARG:HG2	2.00	0.43
8:CK:75:LEU:HG	8:CK:139:GLN:OE1	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CK:123:LEU:HA	8:CK:142:VAL:CG1	2.48	0.43
9:CM:42:TRP:HA	9:CM:48:MET:HE1	2.00	0.43
9:CM:87:LEU:C	9:CM:89:LYS:N	2.76	0.43
10:CN:22:ILE:HB	10:CN:40:VAL:HG12	2.00	0.43
21:CV:157:LEU:HD21	21:CV:163:LEU:HD22	2.01	0.43
26:C4:18:CYS:CB	26:C4:19:GLY:HA2	2.49	0.43
31:DA:54:C:C5	31:DA:352:C:H5	2.37	0.43
31:DA:306:G:O3'	56:DA:1734:OHX:N1	2.50	0.43
31:DA:620:C:C6	34:DG:135:LEU:HD23	2.53	0.43
31:DA:636:U:H2'	31:DA:637:G:C8	2.54	0.43
31:DA:914:A:O2'	31:DA:915:A:H5'	2.18	0.43
31:DA:993:G:C6	31:DA:1045:C:N3	2.86	0.43
31:DA:1030:C:N3	31:DA:1031:G:C2	2.86	0.43
31:DA:1186:G:N7	56:DA:1812:OHX:N1	2.67	0.43
32:DE:32:ILE:HG13	32:DE:33:TYR:N	2.33	0.43
32:DE:158:LEU:HA	32:DE:159:PRO:HD2	1.64	0.43
33:DF:37:GLN:HA	33:DF:37:GLN:OE1	2.19	0.43
33:DF:106:VAL:O	33:DF:109:PRO:HD3	2.18	0.43
37:DJ:125:MET:O	37:DJ:128:ALA:HB3	2.19	0.43
53:DC:73:A:C6	53:DC:74:A:C6	3.07	0.43
52:DD:62:G:H1	52:DD:70:C:N4	2.12	0.43
1:AA:99:U:O4	20:AU:8:LYS:NZ	2.48	0.43
1:AA:503:A:C5	1:AA:506:G:C6	3.06	0.43
1:AA:508:G:O2'	56:AA:3450:OHX:N1	2.51	0.43
1:AA:618(A):C:O2	1:AA:618(A):C:C2'	2.67	0.43
1:AA:667:U:H2'	1:AA:668:G:O4'	2.19	0.43
1:AA:827:U:H5'	1:AA:828:U:O5'	2.19	0.43
1:AA:908:C:OP2	12:AP:22:LYS:HD3	2.19	0.43
1:AA:1049:C:H2'	1:AA:1050:A:H5'	2.00	0.43
1:AA:1470:G:O2'	1:AA:1522:G:O6	2.35	0.43
1:AA:1495:A:H1'	1:AA:1579:A:H5"	2.01	0.43
1:AA:1516:U:C2	1:AA:1517:G:C8	3.06	0.43
1:AA:1568:G:H5"	3:AD:61:LEU:HD22	2.01	0.43
1:AA:1680:U:C4	1:AA:1681:G:C6	3.07	0.43
1:AA:2168:G:H3'	1:AA:2168:G:N3	2.34	0.43
1:AA:2259:G:C2	1:AA:2282:G:C6	3.06	0.43
1:AA:2281:C:O2'	1:AA:2282:G:H5'	2.19	0.43
1:AA:2307:G:C4	1:AA:2311:A:C6	3.06	0.43
1:AA:2307:G:N9	1:AA:2311:A:N1	2.67	0.43
1:AA:2820:A:O2'	4:AE:191:PRO:HG3	2.19	0.43
2:AB:50:G:OP2	14:AQ:62:LYS:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:35:LYS:CG	3:AD:64:ILE:H	2.25	0.43
5:AF:42:ALA:O	5:AF:45:ARG:HB2	2.18	0.43
12:AP:106:VAL:CG2	12:AP:114:ALA:HB1	2.48	0.43
13:A0:85:PRO:C	13:A0:87:TYR:H	2.26	0.43
15:AR:78:LEU:HD13	15:AR:79:HIS:CD2	2.54	0.43
20:AU:78:ALA:HB3	20:AU:81:LYS:CE	2.49	0.43
24:AW:46:GLN:O	24:AW:47:ASN:O	2.37	0.43
27:A5:36:CYS:SG	27:A5:48:GLU:O	2.71	0.43
28:A6:17:LYS:C	28:A6:19:ARG:H	2.26	0.43
31:BA:24:U:H2'	31:BA:25:C:H6	1.83	0.43
31:BA:112:G:OP1	46:BS:27:LYS:HD2	2.19	0.43
31:BA:990:C:C2	31:BA:1216:G:C2	3.06	0.43
31:BA:1000:A:O2'	31:BA:1001:G:H5'	2.18	0.43
31:BA:1025:U:HO2'	31:BA:1026:G:P	2.39	0.43
31:BA:1076:C:N3	31:BA:1082:G:C2	2.87	0.43
31:BA:1133:G:H2'	31:BA:1134:G:H8	1.83	0.43
31:BA:1247:U:C2	31:BA:1291:G:N2	2.87	0.43
31:BA:1326:C:H2'	31:BA:1327:C:C6	2.54	0.43
31:BA:1504:G:H4'	31:BA:1505:G:OP2	2.18	0.43
31:BA:1504:G:P	31:BA:1504:G:H3'	2.59	0.43
32:BE:76:GLN:CD	32:BE:76:GLN:H	2.27	0.43
38:BK:20:TYR:HA	38:BK:65:TYR:CE2	2.54	0.43
38:BK:123:GLU:O	38:BK:127:LEU:HG	2.18	0.43
39:BL:24:GLY:O	39:BL:26:VAL:HG23	2.19	0.43
45:BR:21:ASP:OD1	45:BR:24:SER:HB3	2.18	0.43
53:BC:73:A:N6	53:BC:74:A:N6	2.67	0.43
1:CA:336:A:C8	1:CA:357:A:N7	2.87	0.43
1:CA:411:U:O2	1:CA:413:C:N4	2.51	0.43
1:CA:985:G:H2'	1:CA:986:G:H5'	1.99	0.43
1:CA:1186:C:O3'	9:CM:25:ARG:NH2	2.50	0.43
1:CA:1325:A:O2'	13:C0:34:ILE:HD11	2.19	0.43
1:CA:1330:G:N2	1:CA:1333:A:H5'	2.33	0.43
1:CA:1356:G:P	29:C7:9:ARG:HD2	2.59	0.43
1:CA:1531:G:C6	1:CA:1532:G:C5	3.06	0.43
1:CA:1953:G:O2'	1:CA:1954:U:P	2.77	0.43
1:CA:2061:G:H2'	1:CA:2062:C:O4'	2.18	0.43
1:CA:2069:G:O5'	27:C5:19:ARG:HA	2.19	0.43
1:CA:2279:A:H4'	1:CA:2280:A:C4	2.53	0.43
1:CA:2463:A:C2	1:CA:2464:A:C4	3.07	0.43
1:CA:2497:G:C2	1:CA:2498:G:C8	3.07	0.43
1:CA:2886:C:O2'	15:CR:5:ALA:HB3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:42:U:C4	2:CB:45:C:OP2	2.72	0.43
2:CB:77:G:N3	21:CV:85:HIS:CE1	2.86	0.43
2:CB:90:C:H5"	2:CB:91:G:N7	2.33	0.43
3:CD:43:ARG:NH1	3:CD:49:ILE:HB	2.27	0.43
4:CE:101:ARG:C	4:CE:201:THR:OG1	2.62	0.43
6:CG:55:LYS:NZ	6:CG:148:MET:HE3	2.29	0.43
6:CG:126:ASP:OD1	6:CG:126:ASP:C	2.61	0.43
7:CH:136:ILE:HD12	7:CH:136:ILE:N	2.32	0.43
9:CM:23:LEU:O	9:CM:24:GLY:C	2.61	0.43
12:CP:18:LYS:O	12:CP:19:GLY:O	2.37	0.43
18:CS:2:GLU:HG2	18:CS:72:LYS:HZ2	1.81	0.43
25:CX:19:GLN:HE22	25:CX:52:HIS:CE1	2.20	0.43
25:CX:19:GLN:O	25:CX:23:LEU:HD12	2.18	0.43
31:DA:35:G:C2	31:DA:550:G:N3	2.86	0.43
31:DA:80:G:O6	31:DA:89:U:O4	2.36	0.43
31:DA:251:G:C6	31:DA:266:G:C6	3.07	0.43
31:DA:391:G:O3'	46:DS:8:ARG:NH2	2.52	0.43
31:DA:392:G:P	46:DS:8:ARG:HH22	2.41	0.43
31:DA:501:C:H2'	31:DA:502:G:C8	2.54	0.43
31:DA:973:G:C4	40:DM:55:LYS:HE3	2.53	0.43
31:DA:1256:A:H4'	31:DA:1257:U:OP1	2.17	0.43
31:DA:1415:G:H2'	31:DA:1416:G:O4'	2.19	0.43
36:DI:10:LEU:HD13	36:DI:61:LEU:HD13	2.00	0.43
39:DL:53:VAL:C	39:DL:55:ALA:N	2.77	0.43
40:DM:22:LYS:O	40:DM:22:LYS:HD2	2.18	0.43
47:DT:25:ARG:O	47:DT:25:ARG:HG3	2.18	0.43
48:DU:87:ARG:HB3	48:DU:88:LYS:H	1.53	0.43
50:DW:72:LEU:HB3	50:DW:73:HIS:H	1.62	0.43
1:AA:67:U:C2	1:AA:74:A:H2	2.31	0.43
1:AA:69:C:O2'	1:AA:70:G:H5'	2.19	0.43
1:AA:71:A:C2	19:AT:31:HIS:CE1	3.06	0.43
1:AA:228:A:N3	1:AA:228:A:C2'	2.82	0.43
1:AA:741:G:H2'	1:AA:742:G:O4'	2.19	0.43
1:AA:898:C:H5'	1:AA:899:A:OP2	2.18	0.43
1:AA:1027:A:N6	1:AA:1126:A:C4	2.87	0.43
1:AA:1065:U:C4	1:AA:1066:U:C6	3.07	0.43
1:AA:1534:G:H2'	1:AA:1535:U:H4'	2.01	0.43
1:AA:1893:C:H2'	1:AA:1894:C:O4'	2.19	0.43
1:AA:2098:U:H2'	1:AA:2099:U:O4'	2.19	0.43
1:AA:2258:C:H4'	1:AA:2259:G:OP2	2.19	0.43
1:AA:2335:A:O3'	1:AA:2336:A:H8	2.02	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2516:G:C6	1:AA:2517:C:N4	2.87	0.43
1:AA:2562:U:C1'	10:AN:23:ARG:HH11	2.20	0.43
5:AF:65:TRP:CZ2	5:AF:72:ARG:CZ	3.02	0.43
6:AG:67:LYS:NZ	26:A4:6:HIS:CE1	2.87	0.43
7:AH:6:ARG:HH21	7:AH:54:ARG:HH22	1.67	0.43
10:AN:8:LEU:N	10:AN:8:LEU:CD2	2.82	0.43
10:AN:12:ASP:OD2	10:AN:12:ASP:C	2.61	0.43
13:A0:26:LYS:HE2	13:A0:70:LEU:O	2.17	0.43
18:AS:84:ARG:CB	18:AS:96:ILE:HD11	2.48	0.43
20:AU:96:ILE:CG1	20:AU:99:CYS:H	2.32	0.43
22:A3:11:ARG:HB2	22:A3:11:ARG:NH1	2.32	0.43
22:A3:75:LEU:O	22:A3:78:TYR:HE1	2.02	0.43
26:A4:37:SER:CB	26:A4:42:PHE:CD1	3.02	0.43
31:BA:96:G:C6	31:BA:97:U:N3	2.87	0.43
31:BA:102:G:C6	31:BA:103:C:C4	3.06	0.43
31:BA:191(E):G:C6	31:BA:191(F):U:O4	2.72	0.43
31:BA:255:G:H2'	31:BA:256:U:C6	2.54	0.43
31:BA:565:U:H3'	31:BA:566:G:H2'	1.99	0.43
31:BA:703:G:C1'	31:BA:704:A:OP2	2.66	0.43
31:BA:1025:U:HO2'	31:BA:1026:G:C5'	2.29	0.43
32:BE:92:TYR:HE1	32:BE:94:ASN:ND2	2.10	0.43
33:BF:159:GLY:O	33:BF:160:ALA:C	2.61	0.43
34:BG:108:LEU:HD12	34:BG:174:LEU:HD13	2.01	0.43
34:BG:154:ASN:HB2	34:BG:155:LEU:H	1.55	0.43
37:BJ:121:ALA:O	37:BJ:125:MET:HG3	2.18	0.43
45:BR:18:PHE:HB2	45:BR:19:PRO:HD2	2.00	0.43
51:BX:9:ARG:O	51:BX:13:ILE:HG13	2.18	0.43
52:BD:65:C:H2'	52:BD:66:G:H5'	2.01	0.43
1:CA:195:G:C1'	1:CA:196:U:OP2	2.63	0.43
1:CA:405:C:H2'	1:CA:406:C:C6	2.53	0.43
1:CA:653:A:N7	11:CO:84:ASN:ND2	2.65	0.43
1:CA:787:G:H4'	1:CA:788:U:OP1	2.19	0.43
1:CA:835:U:H5"	1:CA:836:A:H5'	2.00	0.43
1:CA:874:U:H4'	11:CO:55:ARG:HB3	2.01	0.43
1:CA:1001:C:N4	1:CA:1002:G:C6	2.87	0.43
1:CA:1310:U:C1'	27:C5:10:LYS:HG3	2.48	0.43
1:CA:2015:G:O5'	1:CA:2015:G:C8	2.71	0.43
1:CA:2311:A:H61	1:CA:2331:G:C2'	2.30	0.43
1:CA:2390:A:O2'	1:CA:2391:A:H5'	2.19	0.43
3:CD:33:LEU:HD23	3:CD:34:VAL:H	1.82	0.43
6:CG:18:GLU:O	6:CG:18:GLU:HG3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CG:80:PHE:O	6:CG:81:LYS:C	2.61	0.43
6:CG:97:ASP:H	6:CG:100:TRP:HD1	1.66	0.43
6:CG:146:TYR:C	6:CG:148:MET:H	2.27	0.43
7:CH:159:GLU:O	7:CH:160:LYS:C	2.61	0.43
13:C0:24:GLN:HB3	13:C0:44:LEU:HD11	2.01	0.43
15:CR:51:ARG:HE	15:CR:62:THR:HG21	1.83	0.43
20:CU:76:CYS:HB3	20:CU:77:PRO:HD2	2.00	0.43
21:CV:44:PHE:C	21:CV:44:PHE:HD1	2.26	0.43
21:CV:116:VAL:CG1	21:CV:117:LEU:H	2.28	0.43
30:C8:37:SER:O	30:C8:39:LYS:CA	2.64	0.43
31:DA:279:A:N3	31:DA:279:A:H2'	2.34	0.43
31:DA:533:A:O2'	31:DA:534:U:H5'	2.18	0.43
31:DA:1491:G:H5"	42:DO:43:LYS:HG3	1.99	0.43
32:DE:74:LYS:HE2	32:DE:74:LYS:HB3	1.83	0.43
32:DE:141:GLU:O	32:DE:145:LEU:HB2	2.18	0.43
32:DE:237:ALA:C	32:DE:239:VAL:H	2.27	0.43
33:DF:23:TYR:HD1	40:DM:10:GLY:HA2	1.82	0.43
33:DF:126:ARG:HB2	33:DF:128:PHE:HE1	1.83	0.43
36:DI:7:ASN:O	36:DI:88:VAL:HA	2.18	0.43
36:DI:60:PHE:O	36:DI:61:LEU:HD12	2.19	0.43
38:DK:109:ILE:CG2	38:DK:137:VAL:HB	2.49	0.43
39:DL:95:LYS:HZ1	39:DL:96:LEU:CD1	2.22	0.43
39:DL:114:TYR:N	39:DL:114:TYR:CD2	2.83	0.43
40:DM:8:LEU:HG	40:DM:96:ILE:HG22	2.01	0.43
41:DN:17:GLY:HA3	41:DN:77:MET:SD	2.59	0.43
42:DO:89:ASP:O	42:DO:90:LEU:HD23	2.19	0.43
49:DV:51:VAL:HG23	49:DV:60:VAL:CG1	2.49	0.43
52:DB:67:A:H61	52:DB:70:C:H1'	1.82	0.43
52:DD:11:C:N4	52:DD:25:G:H1	2.14	0.43
1:AA:531:C:C5	1:AA:2035:G:N3	2.86	0.43
1:AA:978:G:O6	56:AA:3418:OHX:N3	2.52	0.43
1:AA:1460:A:H3'	1:AA:1461:G:C5'	2.49	0.43
1:AA:1735:C:O2'	1:AA:1741:C:H5'	2.18	0.43
1:AA:1856:G:H2'	1:AA:1857:G:O4'	2.18	0.43
1:AA:1952:A:N1	1:AA:1953:A:C2	2.87	0.43
1:AA:2032:G:H21	4:AE:146:THR:CG2	2.17	0.43
1:AA:2532:G:O2'	1:AA:2657:A:N1	2.50	0.43
1:AA:2677:G:H2'	1:AA:2678:C:C6	2.54	0.43
1:AA:2784:C:O2'	4:AE:37:ARG:CZ	2.67	0.43
1:AA:2854:G:H2'	1:AA:2855:C:C6	2.54	0.43
3:AD:62:TYR:HA	3:AD:87:ASN:HD21	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:121:PRO:HB3	3:AD:135:PHE:CE1	2.54	0.43
6:AG:101:ILE:HD12	26:A4:25:TYR:O	2.19	0.43
6:AG:125:PHE:HB3	6:AG:166:ASP:OD2	2.19	0.43
9:AM:27:ALA:O	9:AM:28:THR:C	2.62	0.43
14:AQ:14:VAL:HG21	14:AQ:89:ARG:HD3	2.01	0.43
17:A2:35:LEU:HB2	17:A2:37:VAL:HG22	2.01	0.43
18:AS:9:TYR:N	18:AS:102:HIS:CD2	2.79	0.43
21:AV:39:VAL:HG21	21:AV:44:PHE:HB2	2.01	0.43
22:A3:19:LYS:O	22:A3:20:ARG:C	2.62	0.43
24:AW:65:ASN:HD21	24:AW:69:ARG:HE	1.67	0.43
27:A5:56:LYS:CD	27:A5:56:LYS:N	2.81	0.43
31:BA:68:G:C2	31:BA:69:G:H1'	2.54	0.43
31:BA:90:C:H5"	31:BA:91:C:OP2	2.19	0.43
31:BA:115:G:H1'	31:BA:116:A:OP2	2.18	0.43
31:BA:173:U:C4	31:BA:197:A:C2	3.07	0.43
31:BA:277:C:P	47:BT:68:ARG:HH12	2.42	0.43
31:BA:355:C:C2'	31:BA:356:A:H5'	2.48	0.43
31:BA:376:G:O3'	46:BS:5:ARG:NH1	2.48	0.43
31:BA:587:G:N2	31:BA:755:G:C4	2.87	0.43
31:BA:627:G:H2'	31:BA:628:G:C8	2.48	0.43
31:BA:765:G:H5"	31:BA:766:A:OP1	2.19	0.43
31:BA:1027:C:H1'	31:BA:1028:C:P	2.59	0.43
31:BA:1243:C:C2	31:BA:1295:G:N2	2.87	0.43
31:BA:1399:C:C2	31:BA:1502:A:N6	2.87	0.43
32:BE:8:LYS:NZ	32:BE:11:LEU:HD22	2.34	0.43
32:BE:74:LYS:O	32:BE:78:GLN:HB2	2.18	0.43
37:BJ:144:MET:CE	52:BD:31:G:H21	2.27	0.43
39:BL:79:LEU:CD1	39:BL:83:ARG:HD2	2.48	0.43
40:BM:7:LYS:HD2	40:BM:9:ARG:HH12	1.84	0.43
40:BM:9:ARG:HH22	40:BM:97:GLU:HG3	1.84	0.43
41:BN:61:ALA:O	41:BN:64:ALA:HB3	2.19	0.43
43:BP:49:THR:HG22	43:BP:51:ALA:H	1.84	0.43
46:BS:20:VAL:HG13	46:BS:32:TYR:HB3	2.01	0.43
47:BT:9:VAL:HG12	47:BT:10:VAL:H	1.84	0.43
49:BV:42:PRO:C	49:BV:44:MET:H	2.26	0.43
50:BW:42:GLN:O	50:BW:46:GLU:HG2	2.18	0.43
52:BB:57:C:O2'	52:BB:68:A:C4'	2.57	0.43
1:CA:299:G:C5	1:CA:300:G:C6	3.07	0.43
1:CA:344:C:H2'	1:CA:345:A:O4'	2.19	0.43
1:CA:403:C:H2'	1:CA:404:C:C6	2.54	0.43
1:CA:545:U:H2'	1:CA:546:G:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:598:C:H1'	1:CA:2078:C:C6	2.53	0.43
1:CA:683:G:H2'	1:CA:684:G:H8	1.84	0.43
1:CA:706:C:N4	1:CA:707:C:N4	2.67	0.43
1:CA:863:C:OP2	17:C2:82:ARG:HD3	2.19	0.43
1:CA:1028:A:N1	1:CA:2050:G:O2'	2.41	0.43
1:CA:1429:G:H2'	1:CA:1430:C:H5'	2.00	0.43
1:CA:1535:G:C6	1:CA:1536:U:N3	2.87	0.43
1:CA:1655:A:H1'	1:CA:1657:A:OP2	2.19	0.43
1:CA:1876:C:C2	1:CA:1920:G:C2	3.07	0.43
1:CA:2477:C:C2	1:CA:2500:G:C2	3.06	0.43
1:CA:2828:G:P	13:C0:99:LYS:HZ1	2.41	0.43
2:CB:46:G:N2	2:CB:50:A:C4	2.87	0.43
3:CD:239:ARG:O	3:CD:240:ALA:CB	2.59	0.43
3:CD:271:ILE:O	3:CD:272:ALA:CB	2.65	0.43
4:CE:170:LEU:CD1	4:CE:185:LYS:HB2	2.49	0.43
5:CF:65:TRP:CZ3	5:CF:75:HIS:HD2	2.37	0.43
5:CF:132:VAL:O	5:CF:134:GLY:N	2.52	0.43
6:CG:37:VAL:HA	6:CG:158:ALA:O	2.18	0.43
7:CH:9:ILE:HD12	7:CH:49:VAL:HG12	2.01	0.43
8:CK:3:VAL:HB	8:CK:37:VAL:O	2.18	0.43
10:CN:102:VAL:CG2	10:CN:121:VAL:HG22	2.48	0.43
12:CP:2:LEU:O	12:CP:70:PRO:HG2	2.19	0.43
15:CR:88:ILE:HG21	15:CR:91:ARG:NH2	2.34	0.43
21:CV:150:LEU:CD2	21:CV:154:ASP:HB2	2.48	0.43
25:CX:19:GLN:O	25:CX:22:ALA:HB3	2.18	0.43
25:CX:31:LEU:C	25:CX:33:GLN:H	2.27	0.43
26:C4:48:ARG:HH11	26:C4:51:ASP:HA	1.84	0.43
31:DA:155:C:H2'	31:DA:156:G:O4'	2.19	0.43
31:DA:192:U:H2'	31:DA:193:C:C6	2.54	0.43
31:DA:259:G:H2'	31:DA:260:G:O4'	2.19	0.43
31:DA:652:U:C5	31:DA:752:G:C4	3.07	0.43
31:DA:655:A:C2	31:DA:754:C:N4	2.86	0.43
31:DA:803:G:C6	31:DA:804:U:N3	2.87	0.43
31:DA:1004:A:P	31:DA:1025:U:O4	2.76	0.43
31:DA:1129:C:N4	31:DA:1139:G:C2	2.86	0.43
31:DA:1288:A:H1'	31:DA:1352:C:O2'	2.18	0.43
32:DE:78:GLN:O	32:DE:94:ASN:ND2	2.51	0.43
32:DE:168:THR:HA	32:DE:171:ALA:HB2	2.01	0.43
36:DI:61:LEU:HB3	36:DI:63:TYR:CE2	2.54	0.43
42:DO:47:SER:O	42:DO:48:ALA:HB2	2.17	0.43
48:DU:29:PHE:HD1	48:DU:39:VAL:CG1	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DB:17:G:C6	52:DB:67:A:C5	3.06	0.43
52:DB:38:MIA:C2	54:D1:19:U:N3	2.82	0.43
1:AA:197:A:H62	1:AA:2430:A:H2'	1.83	0.43
1:AA:528:A:H2	1:AA:2043:C:C5'	2.32	0.43
1:AA:654(H):G:N3	1:AA:654(H):G:C2'	2.81	0.43
1:AA:890:A:H3'	1:AA:892:G:C8	2.52	0.43
1:AA:1093:G:H21	1:AA:1098:A:H62	1.67	0.43
1:AA:1345:C:H2'	1:AA:1346:G:C8	2.53	0.43
1:AA:1418:G:H8	1:AA:1418:G:O5'	2.02	0.43
1:AA:1551:C:C2'	1:AA:1552:G:H5'	2.48	0.43
1:AA:2275:C:H5'	1:AA:2275:C:H6	1.84	0.43
1:AA:2596:U:H2'	1:AA:2597:G:O4'	2.19	0.43
2:AB:83:G:H1	2:AB:93:C:H42	1.65	0.43
3:AD:242:ARG:HG2	3:AD:246:PRO:HG3	2.01	0.43
4:AE:49:LEU:HD12	4:AE:49:LEU:HA	1.64	0.43
5:AF:13:SER:OG	5:AF:14:PRO:HD2	2.18	0.43
5:AF:108:LYS:O	5:AF:112:MET:HG3	2.18	0.43
8:AK:107:VAL:HG12	8:AK:108:THR:N	2.33	0.43
8:AK:133:HIS:HB2	8:AK:134:PRO:CD	2.38	0.43
9:AM:126:PRO:O	9:AM:127:ASP:HB2	2.19	0.43
10:AN:63:VAL:HB	10:AN:102:VAL:HG12	2.01	0.43
12:AP:51:ARG:HH11	12:AP:51:ARG:CB	2.32	0.43
14:AQ:56:LEU:O	14:AQ:57:LYS:C	2.62	0.43
14:AQ:106:ARG:O	14:AQ:107:GLU:CB	2.67	0.43
18:AS:64:MET:O	18:AS:65:LEU:CB	2.67	0.43
22:A3:19:LYS:HD3	22:A3:19:LYS:HA	1.69	0.43
31:BA:186(C):G:H2'	31:BA:186(D):C:H6	1.84	0.43
31:BA:479:C:H2'	31:BA:480:U:O4'	2.19	0.43
31:BA:832:C:H2'	31:BA:833:U:C6	2.54	0.43
31:BA:1069:C:C2'	31:BA:1070:U:O5'	2.67	0.43
31:BA:1129:C:N4	31:BA:1143:G:H1	2.14	0.43
31:BA:1288:A:H2'	31:BA:1289:A:O4'	2.19	0.43
31:BA:1288:A:N1	31:BA:1371:G:H1'	2.34	0.43
32:BE:22:LYS:C	32:BE:24:TRP:H	2.27	0.43
33:BF:123:GLN:O	33:BF:128:PHE:HB2	2.19	0.43
33:BF:165:THR:O	33:BF:165:THR:HG23	2.19	0.43
39:BL:42:ARG:HE	39:BL:42:ARG:HB2	1.72	0.43
40:BM:8:LEU:CD2	40:BM:96:ILE:HG22	2.48	0.43
42:BO:80:VAL:CG1	42:BO:81:LEU:N	2.81	0.43
44:BQ:6:LEU:C	44:BQ:8:GLU:N	2.75	0.43
1:CA:237:G:H4'	1:CA:414:G:C4	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:282:G:H2'	1:CA:283:G:O4'	2.19	0.43
1:CA:555:A:C2	1:CA:2046:G:C6	3.06	0.43
1:CA:557:C:C5	1:CA:2058:G:C2	3.07	0.43
1:CA:793:G:C2'	1:CA:794:A:H5'	2.48	0.43
1:CA:886:C:O2'	1:CA:887:U:H5'	2.18	0.43
1:CA:933:C:N4	1:CA:938:A:C6	2.72	0.43
1:CA:1059:U:O2	1:CA:1059:U:C2'	2.67	0.43
1:CA:1108:U:H4'	1:CA:1117:A:O4'	2.18	0.43
1:CA:1389:A:N6	1:CA:1444:U:C4	2.87	0.43
1:CA:1699:G:N2	1:CA:2030:C:C2	2.87	0.43
1:CA:1849:G:C6	1:CA:1850:U:C4	3.06	0.43
1:CA:1944:G:O6	56:CA:3234:OHX:N2	2.52	0.43
1:CA:2180:G:H8	1:CA:2180:G:O5'	2.02	0.43
1:CA:2192:A:H2	1:CA:2193:A:C8	2.37	0.43
1:CA:2592:C:H2'	1:CA:2593:U:O4'	2.19	0.43
3:CD:209:ALA:O	3:CD:212:SER:HB2	2.19	0.43
5:CF:68:LYS:HD3	5:CF:68:LYS:HA	1.65	0.43
6:CG:82:LEU:HD23	6:CG:82:LEU:HA	1.77	0.43
7:CH:122:THR:C	7:CH:123:PHE:CG	2.97	0.43
9:CM:90:MET:O	9:CM:95:PRO:HA	2.18	0.43
10:CN:98:VAL:CG1	10:CN:117:LEU:HB2	2.48	0.43
16:C1:50:ARG:HE	17:C2:70:ILE:HG21	1.83	0.43
19:CT:50:LYS:O	19:CT:51:VAL:HB	2.19	0.43
31:DA:21:G:H2'	31:DA:22:G:H8	1.82	0.43
31:DA:76:G:C6	31:DA:77:C:C4	3.06	0.43
31:DA:166:G:O2'	31:DA:167:G:H5'	2.19	0.43
31:DA:345:C:O2'	31:DA:346:G:P	2.76	0.43
31:DA:518:C:H5"	31:DA:519:C:C6	2.54	0.43
31:DA:576:G:OP1	56:DA:1748:OHX:N4	2.51	0.43
31:DA:791:G:H2'	31:DA:792:A:H5'	2.01	0.43
31:DA:987:G:N2	31:DA:1219:U:N3	2.66	0.43
31:DA:1129:C:N3	31:DA:1132:C:N4	2.66	0.43
31:DA:1244:C:O2	31:DA:1294:G:N2	2.52	0.43
31:DA:1372:U:H2'	31:DA:1373:G:O4'	2.18	0.43
33:DF:9:GLY:N	44:DQ:49:HIS:O	2.52	0.43
33:DF:164:ARG:NH1	33:DF:166:GLU:OE1	2.52	0.43
34:DG:33:MET:O	34:DG:34:GLU:HB2	2.19	0.43
34:DG:126:ILE:CG2	34:DG:127:THR:N	2.81	0.43
34:DG:173:TRP:CD1	34:DG:174:LEU:HG	2.54	0.43
36:DI:95:GLU:HA	36:DI:96:PRO:HD3	1.92	0.43
49:DV:65:ASN:HB2	49:DV:66:MET:SD	2.59	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:247:G:H4'	1:AA:386:G:C6	2.53	0.42
1:AA:363(A):A:O2'	1:AA:363(B):G:H5'	2.18	0.42
1:AA:654(M):C:C3'	1:AA:654(N):G:C8	3.01	0.42
1:AA:1112:G:O2'	7:AH:2:SER:HB2	2.19	0.42
1:AA:1163:G:C2	1:AA:1164:G:C8	3.07	0.42
1:AA:1171:G:N2	1:AA:1179:C:C2	2.87	0.42
1:AA:1174:A:N7	1:AA:1178:C:N4	2.66	0.42
1:AA:1359:A:N1	1:AA:1372:U:C4	2.86	0.42
1:AA:1554:A:H3'	1:AA:1555:G:H8	1.84	0.42
1:AA:1632:A:N6	1:AA:1633:G:N1	2.67	0.42
1:AA:2082:A:H2'	1:AA:2083:G:O4'	2.18	0.42
1:AA:2409:G:H2'	1:AA:2410:G:O4'	2.19	0.42
1:AA:2592:G:C6	1:AA:2593:U:C4	3.07	0.42
1:AA:2665:A:H2'	1:AA:2666:C:O4'	2.18	0.42
2:AB:42:C:O2'	6:AG:67:LYS:O	2.22	0.42
2:AB:71:C:C2	2:AB:72:G:C8	3.07	0.42
5:AF:89:VAL:HG12	5:AF:90:PHE:CD2	2.53	0.42
6:AG:16:ARG:NH2	6:AG:31:VAL:HG13	2.34	0.42
6:AG:49:ASP:OD1	6:AG:51:ARG:HB2	2.19	0.42
6:AG:115:ARG:CZ	43:BP:7:VAL:HB	2.49	0.42
8:AK:122:GLU:C	8:AK:123:LEU:HD12	2.44	0.42
9:AM:120:LEU:HD11	9:AM:122:VAL:HG23	2.00	0.42
11:AO:75:ILE:HG13	11:AO:77:ARG:HH12	1.84	0.42
12:AP:33:GLY:HA2	12:AP:105:GLU:HA	2.01	0.42
13:A0:41:ALA:HB1	13:A0:114:VAL:HG22	2.01	0.42
14:AQ:30:ARG:NH1	14:AQ:30:ARG:CG	2.80	0.42
16:A1:95:LEU:HD22	17:A2:4:ILE:HD13	2.00	0.42
18:AS:111:HIS:CD2	18:AS:112:GLY:N	2.87	0.42
19:AT:47:PHE:O	19:AT:48:LYS:C	2.62	0.42
21:AV:30:ASN:O	21:AV:31:ARG:C	2.62	0.42
31:BA:5:U:O2'	31:BA:6:G:N3	2.52	0.42
31:BA:200:G:N2	31:BA:218:C:C2	2.87	0.42
31:BA:310:G:OP2	46:BS:27:LYS:NZ	2.43	0.42
31:BA:448:A:O2'	31:BA:449:C:H5'	2.19	0.42
31:BA:807:A:C5	31:BA:808:C:C4	3.07	0.42
31:BA:955:U:H1'	31:BA:1227:A:H61	1.83	0.42
31:BA:1080:A:H5'	35:BH:14:ARG:NH2	2.34	0.42
31:BA:1106:G:C4	31:BA:1107:C:C5	3.07	0.42
31:BA:1314:C:O2'	31:BA:1315:U:H5'	2.19	0.42
31:BA:1486:G:H2'	31:BA:1487:G:C8	2.53	0.42
31:BA:1498:U:O2'	31:BA:1499:A:OP2	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BE:69:LEU:HB2	32:BE:159:PRO:HG3	2.00	0.42
32:BE:92:TYR:CD2	32:BE:151:GLY:HA3	2.54	0.42
32:BE:130:ARG:H	32:BE:130:ARG:HG2	1.52	0.42
32:BE:189:ASP:OD2	32:BE:190:THR:N	2.52	0.42
32:BE:213:LEU:HG	32:BE:217:ARG:NH1	2.34	0.42
32:BE:238:LEU:O	32:BE:239:VAL:C	2.62	0.42
33:BF:6:HIS:ND1	44:BQ:49:HIS:HB3	2.34	0.42
33:BF:79:ARG:O	33:BF:82:GLU:HG3	2.18	0.42
34:BG:141:ARG:HB2	34:BG:141:ARG:CZ	2.48	0.42
35:BH:82:VAL:HG21	35:BH:138:ALA:HA	2.01	0.42
38:BK:56:LYS:O	38:BK:58:TYR:HD1	2.01	0.42
38:BK:87:SER:CB	38:BK:93:VAL:H	2.32	0.42
38:BK:107:LEU:HD23	38:BK:107:LEU:HA	1.79	0.42
41:BN:48:ILE:HD12	41:BN:48:ILE:HA	1.83	0.42
44:BQ:51:GLY:C	44:BQ:53:LEU:N	2.77	0.42
45:BR:55:GLY:HA2	45:BR:58:MET:HE3	2.00	0.42
47:BT:91:ARG:HH12	47:BT:92:ARG:NH2	2.17	0.42
48:BU:88:LYS:HB3	48:BU:88:LYS:HZ3	1.83	0.42
52:BB:20:C:O2	52:BB:20:C:H2'	2.19	0.42
52:BD:42:U:H2'	52:BD:43:G:C8	2.54	0.42
1:CA:95:G:H4'	24:CW:48:HIS:CE1	2.54	0.42
1:CA:334:G:O3'	20:CU:18:GLY:HA3	2.19	0.42
1:CA:557:C:H4'	1:CA:558:A:H5"	2.00	0.42
1:CA:559:G:H5'	16:C1:24:TYR:CE2	2.54	0.42
1:CA:825:A:C2	1:CA:826:G:C4	3.07	0.42
1:CA:848:A:H4'	1:CA:849:G:O5'	2.19	0.42
1:CA:1000:G:C6	1:CA:1001:C:C4	3.06	0.42
1:CA:1194:C:H2'	1:CA:1195:A:O4'	2.19	0.42
1:CA:1337:C:H2'	1:CA:1338:C:H6	1.83	0.42
1:CA:1786:C:O2'	1:CA:1787:A:H5'	2.19	0.42
1:CA:1917:C:C2'	1:CA:1918:C:H5'	2.49	0.42
5:CF:107:LYS:H	5:CF:107:LYS:HE3	1.84	0.42
5:CF:145:GLU:O	5:CF:146:ALA:HB2	2.19	0.42
5:CF:180:GLY:O	5:CF:181:LEU:C	2.61	0.42
6:CG:38:VAL:HG22	6:CG:93:THR:HG23	2.01	0.42
12:CP:103:MET:H	12:CP:103:MET:HG3	1.40	0.42
13:C0:79:LEU:HA	13:C0:83:ILE:HB	2.00	0.42
17:C2:84:LYS:O	17:C2:85:LYS:O	2.37	0.42
21:CV:24:LEU:HA	21:CV:25:PRO:HD3	1.82	0.42
21:CV:74:VAL:HG13	21:CV:86:VAL:HG22	2.00	0.42
21:CV:108:PRO:HB2	21:CV:142:SER:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:C4:29:PRO:O	26:C4:30:GLU:HG3	2.19	0.42
31:DA:8:A:C5	34:DG:209:ARG:HA	2.53	0.42
31:DA:329:A:C5	31:DA:332:G:C6	3.07	0.42
31:DA:559:A:C5'	31:DA:560:U:H3'	2.49	0.42
31:DA:778:G:H8	31:DA:778:G:O5'	2.02	0.42
31:DA:1065:U:C5	31:DA:1190:G:N3	2.87	0.42
31:DA:1129:C:OP2	39:DL:62:TYR:OH	2.27	0.42
31:DA:1375:A:C2	31:DA:1376:U:C2	3.07	0.42
31:DA:1442:G:C5	31:DA:1446:A:N1	2.87	0.42
33:DF:150:LYS:HD2	33:DF:167:TRP:CD1	2.53	0.42
35:DH:33:VAL:HG11	35:DH:109:ILE:HA	2.01	0.42
35:DH:78:HIS:CD2	38:DK:104:ARG:HE	2.37	0.42
36:DI:10:LEU:HD12	36:DI:10:LEU:N	2.34	0.42
39:DL:18:PHE:HD1	39:DL:62:TYR:CD2	2.36	0.42
39:DL:125:TYR:HD2	39:DL:126:SER:H	1.65	0.42
42:DO:72:HIS:HD2	42:DO:74:LEU:N	2.17	0.42
45:DR:33:THR:HG22	45:DR:33:THR:O	2.19	0.42
50:DW:9:ASN:HD22	50:DW:9:ASN:HA	1.60	0.42
52:DB:21:A:H2	52:DB:56:U:C2	2.36	0.42
52:DD:23:A:C5	52:DD:24:G:C4	3.08	0.42
1:AA:143:C:H2'	1:AA:144:C:H6	1.84	0.42
1:AA:753:C:OP2	1:AA:753:C:H6	2.02	0.42
1:AA:1079:C:C4	1:AA:1080:A:C6	3.07	0.42
1:AA:1380:G:H2'	1:AA:1380:G:N3	2.33	0.42
1:AA:1464:C:O2'	1:AA:1528:A:H8	1.99	0.42
1:AA:2331:G:O2'	22:A3:43:THR:HG22	2.18	0.42
7:AH:83:TYR:O	7:AH:84:SER:OG	2.25	0.42
7:AH:101:ARG:HB3	7:AH:117:PRO:HG3	2.01	0.42
9:AM:42:TRP:N	16:A1:64:ARG:HD2	2.34	0.42
10:AN:75:SER:HB2	15:AR:75:ILE:O	2.19	0.42
12:AP:43:THR:HG22	12:AP:94:VAL:HG12	2.01	0.42
17:A2:38:LEU:HD23	17:A2:38:LEU:C	2.42	0.42
20:AU:14:LEU:HD12	20:AU:15:VAL:N	2.34	0.42
20:AU:96:ILE:HG12	20:AU:99:CYS:O	2.19	0.42
21:AV:63:ASP:CB	21:AV:65:GLN:HG3	2.49	0.42
23:AZ:51:VAL:HG21	23:AZ:74:VAL:HG21	2.01	0.42
31:BA:66:G:C5	31:BA:67:C:C5	3.07	0.42
31:BA:600:C:O2	31:BA:600:C:H2'	2.18	0.42
31:BA:940:C:H2'	31:BA:941:G:C8	2.54	0.42
31:BA:1240:U:HO2'	37:BJ:38:LEU:HG	1.84	0.42
31:BA:1316:G:H4'	44:BQ:18:VAL:HG11	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1331:G:O2'	31:BA:1332:A:P	2.76	0.42
31:BA:1455:G:C5'	50:BW:32:ALA:HB2	2.50	0.42
32:BE:54:THR:HG21	32:BE:201:ILE:HD11	2.01	0.42
32:BE:183:PRO:HA	32:BE:198:ASP:OD1	2.19	0.42
32:BE:223:ILE:O	32:BE:226:ARG:HG2	2.19	0.42
33:BF:101:LEU:HD23	33:BF:102:ASN:N	2.33	0.42
34:BG:107:ARG:HH21	34:BG:194:LEU:HD11	1.83	0.42
34:BG:112:VAL:HG12	34:BG:116:GLN:OE1	2.19	0.42
35:BH:57:LYS:H	35:BH:57:LYS:HG2	1.50	0.42
37:BJ:78:ARG:HG3	37:BJ:79:ARG:N	2.34	0.42
44:BQ:24:CYS:C	44:BQ:26:ARG:H	2.26	0.42
46:BS:67:THR:HG22	46:BS:68:ASP:H	1.84	0.42
50:BW:69:GLY:O	50:BW:73:HIS:CD2	2.71	0.42
52:BB:18:G:H3'	52:BB:19:C:C2	2.54	0.42
52:BD:15:G:OP1	52:BD:15:G:H4'	2.20	0.42
1:CA:224:C:H2'	1:CA:225:U:C6	2.54	0.42
1:CA:249:G:N2	1:CA:647:A:H8	2.15	0.42
1:CA:391:G:O6	56:CA:3320:OHX:N5	2.53	0.42
1:CA:679:A:H5"	1:CA:680:A:P	2.59	0.42
1:CA:699:G:H1'	1:CA:700:A:C8	2.54	0.42
1:CA:905:C:C4	1:CA:906:U:C4	3.07	0.42
1:CA:919:U:H5'	12:CP:69:PHE:CE2	2.54	0.42
1:CA:1026:G:H5"	1:CA:1027:A:OP2	2.19	0.42
1:CA:1497:A:N6	1:CA:1498:G:C4	2.87	0.42
1:CA:1716:A:N3	1:CA:1718:C:C4	2.87	0.42
1:CA:1912:A:C6	1:CA:1913:A:C6	3.07	0.42
1:CA:2159:C:N3	1:CA:2178:G:C2	2.87	0.42
1:CA:2192:A:C2'	1:CA:2193:A:H5'	2.48	0.42
1:CA:2329:C:O2'	1:CA:2330:C:H5'	2.19	0.42
1:CA:2435:A:N7	30:C8:31:HIS:NE2	2.67	0.42
1:CA:2821:A:H61	1:CA:2901:G:C2'	2.32	0.42
2:CB:72:C:H2'	2:CB:73:C:H6	1.83	0.42
3:CD:133:LEU:HD13	3:CD:173:VAL:HG21	2.01	0.42
4:CE:10:GLY:O	4:CE:24:THR:O	2.36	0.42
4:CE:90:THR:O	4:CE:90:THR:HG23	2.19	0.42
11:CO:62:LEU:CD1	30:C8:26:LYS:C	2.92	0.42
14:CQ:36:TYR:CD2	14:CQ:52:SER:HB3	2.54	0.42
14:CQ:110:LEU:HD22	14:CQ:110:LEU:C	2.45	0.42
21:CV:5:LEU:O	21:CV:59:LEU:O	2.37	0.42
21:CV:110:GLY:HA2	21:CV:144:LEU:H	1.84	0.42
21:CV:111:VAL:HG22	21:CV:112:ARG:HG2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:CW:53:LEU:O	24:CW:57:ILE:HD12	2.19	0.42
27:C5:45:VAL:HG22	27:C5:51:TYR:CD1	2.54	0.42
31:DA:631:G:OP1	31:DA:632:A:N7	2.53	0.42
31:DA:991:U:C4	31:DA:1212:U:H1'	2.53	0.42
31:DA:1127:G:N2	31:DA:1144:G:N2	2.66	0.42
31:DA:1128:C:C2'	31:DA:1129:C:O5'	2.66	0.42
31:DA:1129:C:C5	31:DA:1141:C:N4	2.87	0.42
31:DA:1147:C:O2	39:DL:16:ARG:NH1	2.52	0.42
33:DF:15:THR:HG21	33:DF:181:ASN:HA	2.00	0.42
33:DF:127:ARG:N	33:DF:127:ARG:HD2	2.33	0.42
37:DJ:115:ARG:HB3	37:DJ:118:VAL:CG1	2.46	0.42
37:DJ:150:ALA:O	41:DN:57:THR:HG21	2.19	0.42
40:DM:27:ALA:C	40:DM:29:ARG:H	2.27	0.42
48:DU:34:TYR:HA	48:DU:40:LEU:HD11	2.01	0.42
49:DV:41:VAL:CG1	49:DV:42:PRO:HD2	2.49	0.42
49:DV:83:HIS:ND1	49:DV:83:HIS:O	2.52	0.42
50:DW:53:LEU:HD11	50:DW:104:LEU:HD11	2.01	0.42
53:DC:48:U:C2'	53:DC:49:C:OP2	2.59	0.42
52:DD:53:A:C6	52:DD:54:C:C4	3.07	0.42
1:AA:58:G:N2	1:AA:70:G:C5	2.87	0.42
1:AA:337:C:C2'	1:AA:338:G:O5'	2.67	0.42
1:AA:880:G:N1	1:AA:881:G:C5	2.87	0.42
1:AA:910:A:C6	1:AA:911:A:C6	3.08	0.42
1:AA:1204:A:N1	1:AA:1241:A:C2	2.88	0.42
1:AA:1510:A:OP1	1:AA:1510:A:O3'	2.37	0.42
1:AA:1600:C:O2'	1:AA:1601:G:H5'	2.19	0.42
1:AA:1643:G:N2	1:AA:1644:C:H1'	2.34	0.42
1:AA:1692:U:O2'	1:AA:1693:U:H2'	2.19	0.42
1:AA:1711:C:H2'	1:AA:1712:C:C6	2.54	0.42
1:AA:1825:A:H2'	1:AA:1826:G:C8	2.55	0.42
1:AA:1900:A:C8	1:AA:1900:A:C5'	2.97	0.42
1:AA:2338:G:H2'	1:AA:2339:G:H8	1.83	0.42
1:AA:2482:G:H2'	1:AA:2483:C:H6	1.83	0.42
4:AE:117:MET:HG3	4:AE:122:PHE:O	2.20	0.42
5:AF:167:ALA:HA	5:AF:170:LEU:CD2	2.49	0.42
7:AH:169:VAL:HG22	7:AH:170:ARG:H	1.84	0.42
8:AK:123:LEU:HD12	8:AK:123:LEU:N	2.34	0.42
9:AM:95:PRO:O	9:AM:96:GLU:CD	2.62	0.42
11:AO:144:GLU:HA	11:AO:145:PRO:HD3	1.70	0.42
12:AP:2:LEU:HA	12:AP:2:LEU:HD12	1.74	0.42
12:AP:17:LEU:HD22	12:AP:96:VAL:HG13	1.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:A0:3:HIS:HB3	13:A0:4:LEU:H	1.56	0.42
14:AQ:26:LEU:HD22	14:AQ:87:PHE:CD1	2.54	0.42
15:AR:129:ARG:O	15:AR:132:LYS:HB3	2.19	0.42
16:A1:79:PHE:HE2	16:A1:83:LEU:HD22	1.84	0.42
19:AT:27:THR:HB	19:AT:80:ILE:HG22	2.00	0.42
21:AV:98:MET:HE3	21:AV:98:MET:HB2	1.93	0.42
23:AZ:85:LEU:N	23:AZ:85:LEU:HD22	2.34	0.42
25:AX:10:LYS:HB3	25:AX:53:LEU:CD2	2.49	0.42
27:A5:40:LYS:HZ3	27:A5:46:CYS:C	2.28	0.42
31:BA:61:G:H2'	31:BA:62:U:C6	2.54	0.42
31:BA:181:G:HO2'	31:BA:182:U:H6	1.57	0.42
31:BA:517:G:N7	56:BA:1673:OHX:N1	2.68	0.42
31:BA:554:C:O2'	31:BA:555:C:H5'	2.19	0.42
31:BA:888:G:H1'	31:BA:909:A:H61	1.84	0.42
31:BA:965:A:H4'	31:BA:966:G:OP1	2.17	0.42
31:BA:1132:C:C2'	31:BA:1133:G:H5'	2.49	0.42
31:BA:1424:C:H2'	31:BA:1425:U:O4'	2.19	0.42
32:BE:42:ILE:HD13	32:BE:203:GLY:HA2	2.01	0.42
33:BF:59:ARG:HA	33:BF:63:ASN:O	2.20	0.42
33:BF:93:LYS:C	33:BF:93:LYS:HD3	2.45	0.42
36:BI:10:LEU:HD13	36:BI:61:LEU:HD13	2.01	0.42
43:BP:20:THR:C	43:BP:22:ILE:N	2.77	0.42
46:BS:2:VAL:O	46:BS:64:ALA:HA	2.20	0.42
52:BD:14:A:H5"	56:BD:102:OHX:N3	2.34	0.42
1:CA:28:A:C5	1:CA:539:A:N7	2.87	0.42
1:CA:231:A:H5'	1:CA:233:U:O4'	2.19	0.42
1:CA:260:A:C2	1:CA:397:C:H4'	2.53	0.42
1:CA:329:G:H2'	1:CA:330:U:C6	2.54	0.42
1:CA:478:C:H41	1:CA:481:A:H5'	1.85	0.42
1:CA:610:A:N1	1:CA:857:G:O2'	2.48	0.42
1:CA:656:G:N2	1:CA:659:A:OP2	2.49	0.42
1:CA:912:G:H21	1:CA:914:A:H61	1.66	0.42
1:CA:1272:G:C6	1:CA:1273:A:C6	3.08	0.42
1:CA:1596:C:H2'	1:CA:1597:C:C6	2.54	0.42
1:CA:1798:U:H2'	1:CA:1799:C:H6	1.82	0.42
1:CA:2034:U:H2'	1:CA:2035:G:O4'	2.20	0.42
1:CA:2117:G:P	8:CK:22:LYS:HD2	2.60	0.42
1:CA:2229:G:C1'	1:CA:2230:A:P	3.06	0.42
1:CA:2323:A:N3	1:CA:2323:A:H5"	2.34	0.42
1:CA:2333:A:O2'	1:CA:2334:G:C4	2.72	0.42
1:CA:2438:A:H4'	1:CA:2439:A:H5"	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:2811:C:N4	1:CA:2812:A:N6	2.67	0.42
2:CB:8:C:H2'	2:CB:9:G:O4'	2.19	0.42
3:CD:11:PRO:O	3:CD:12:SER:OG	2.30	0.42
3:CD:70:TRP:CH2	3:CD:150:LYS:HA	2.55	0.42
4:CE:188:VAL:HA	4:CE:189:PRO:HD3	1.95	0.42
6:CG:41:GLN:HB3	6:CG:43:LEU:HD21	2.01	0.42
6:CG:60:LEU:HD21	6:CG:92:VAL:CG1	2.48	0.42
6:CG:71:THR:OG1	6:CG:89:GLY:HA3	2.19	0.42
8:CK:131:LYS:N	8:CK:131:LYS:CD	2.81	0.42
10:CN:103:ALA:O	10:CN:105:GLU:N	2.52	0.42
10:CN:113:LYS:H	10:CN:113:LYS:HG2	1.38	0.42
12:CP:76:LYS:O	12:CP:76:LYS:HG2	2.19	0.42
19:CT:18:TYR:C	19:CT:20:GLY:N	2.76	0.42
26:C4:40:HIS:CD2	26:C4:44:THR:HG22	2.54	0.42
30:C8:30:ARG:HH11	30:C8:30:ARG:CG	2.30	0.42
31:DA:182:U:C5	31:DA:183:G:C1'	3.03	0.42
31:DA:467:G:N3	31:DA:467:G:H2'	2.34	0.42
31:DA:555:C:N3	31:DA:556:C:C4	2.87	0.42
31:DA:1066:C:H2'	31:DA:1067:A:C8	2.55	0.42
31:DA:1118:C:H1'	31:DA:1179:A:C4	2.54	0.42
34:DG:59:ARG:HH22	34:DG:66:ARG:HH12	1.67	0.42
37:DJ:49:ILE:HG22	37:DJ:49:ILE:O	2.19	0.42
42:DO:15:VAL:HG23	42:DO:16:ARG:H	1.83	0.42
50:DW:41:ILE:C	50:DW:43:LEU:N	2.78	0.42
50:DW:100:ILE:O	50:DW:101:GLY:C	2.62	0.42
52:DD:17:G:C6	52:DD:67:A:C6	3.07	0.42
52:DD:30:A:C6	52:DD:43:G:C6	3.07	0.42
1:AA:55:G:O2'	1:AA:127:A:C2	2.72	0.42
1:AA:222:A:H5"	1:AA:421:U:OP1	2.20	0.42
1:AA:270(B):A:N7	1:AA:270(X):G:N2	2.66	0.42
1:AA:762:U:H4'	1:AA:763:G:O5'	2.20	0.42
1:AA:919:G:N7	56:AA:3512:OHX:N5	2.66	0.42
1:AA:1091:G:C2'	1:AA:1092:C:H5'	2.49	0.42
1:AA:1389:G:N2	1:AA:1399:C:O2	2.52	0.42
1:AA:1471:A:H3'	1:AA:1472:A:H8	1.84	0.42
1:AA:1505:C:H2'	1:AA:1506:C:O4'	2.19	0.42
1:AA:1799:G:OP1	3:AD:260:ARG:NE	2.45	0.42
1:AA:2462:U:H1'	1:AA:2491:U:O4	2.19	0.42
1:AA:2638:G:OP2	4:AE:82:ARG:NH2	2.44	0.42
1:AA:2661:G:H2'	1:AA:2662:A:C8	2.55	0.42
1:AA:2786:U:OP1	4:AE:66:HIS:CD2	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2805:G:H2'	1:AA:2807:G:C8	2.54	0.42
1:AA:2810:A:H61	1:AA:2891:G:C2'	2.32	0.42
2:AB:42:C:O3'	6:AG:67:LYS:NZ	2.47	0.42
3:AD:35:LYS:HD3	3:AD:63:ARG:CG	2.49	0.42
3:AD:177:LEU:HB3	3:AD:178:PRO:CD	2.49	0.42
3:AD:238:GLY:O	3:AD:239:ARG:O	2.37	0.42
5:AF:73:ALA:HB3	5:AF:75:HIS:HE1	1.85	0.42
5:AF:170:LEU:C	5:AF:172:TRP:H	2.26	0.42
7:AH:33:LEU:HD23	7:AH:33:LEU:HA	1.86	0.42
9:AM:15:LEU:HD13	9:AM:15:LEU:C	2.45	0.42
11:AO:83:VAL:HG11	11:AO:112:LEU:HD21	2.00	0.42
14:AQ:107:GLU:N	14:AQ:110:LEU:HD21	2.35	0.42
15:AR:88:ILE:HD12	15:AR:88:ILE:C	2.45	0.42
23:AZ:13:ILE:HD11	23:AZ:42:GLN:OE1	2.19	0.42
23:AZ:83:GLU:C	23:AZ:85:LEU:N	2.77	0.42
28:A6:14:THR:OG1	28:A6:15:GLU:N	2.45	0.42
31:BA:167:G:O2'	31:BA:168:G:H5'	2.19	0.42
31:BA:209:U:O2'	31:BA:216:G:C2	2.72	0.42
31:BA:279:A:C8	47:BT:98:LEU:HD13	2.55	0.42
31:BA:417:C:N4	56:BA:1666:OHX:N4	2.68	0.42
31:BA:858:G:C8	56:BA:1684:OHX:N3	2.87	0.42
31:BA:947:G:C6	31:BA:948:C:N3	2.87	0.42
31:BA:1017:G:H2'	31:BA:1018:C:C6	2.54	0.42
31:BA:1145:C:O2'	31:BA:1146:A:N7	2.25	0.42
34:BG:187:ARG:O	34:BG:189:PRO:HD3	2.19	0.42
36:BI:62:TRP:C	36:BI:63:TYR:CD2	2.97	0.42
37:BJ:74:GLU:HG2	37:BJ:91:VAL:HG22	2.01	0.42
38:BK:39:LEU:HB3	38:BK:45:ILE:CD1	2.49	0.42
45:BR:36:ILE:HG12	45:BR:59:MET:CE	2.49	0.42
46:BS:53:VAL:HG13	46:BS:79:VAL:HG22	2.02	0.42
48:BU:53:ARG:HH21	48:BU:59:SER:C	2.26	0.42
48:BU:53:ARG:HH21	48:BU:59:SER:HA	1.84	0.42
50:BW:57:ARG:NH1	50:BW:102:GLY:HA2	2.34	0.42
52:BB:13:G:H1'	52:BB:24:G:H1	1.84	0.42
52:BB:57:C:C4'	52:BB:58:G:OP2	2.67	0.42
53:BC:6:G:H1	53:BC:68:C:N4	2.14	0.42
52:BD:43:G:C2'	52:BD:44:C:H5'	2.50	0.42
1:CA:98:U:O5'	1:CA:99:G:H5'	2.20	0.42
1:CA:182:C:O2'	1:CA:850:A:N3	2.52	0.42
1:CA:184:G:H2'	1:CA:185:A:O4'	2.20	0.42
1:CA:185:A:H4'	1:CA:241:A:O2'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:496:G:O6	29:C7:37:LYS:HE3	2.20	0.42
1:CA:770:A:H3'	1:CA:771:G:H8	1.83	0.42
1:CA:933:C:C4	1:CA:938:A:C5	3.05	0.42
1:CA:1201:G:OP1	16:C1:58:ARG:NH1	2.52	0.42
1:CA:1601:A:N7	1:CA:1603:G:C5	2.87	0.42
1:CA:1978:U:O3'	1:CA:1979:U:C6	2.65	0.42
1:CA:2039:U:H2'	1:CA:2040:U:O5'	2.18	0.42
1:CA:2177:G:H2'	1:CA:2178:G:C8	2.54	0.42
1:CA:2331:G:H22	14:CQ:2:ALA:HA	1.83	0.42
1:CA:2360:C:H2'	1:CA:2361:U:C6	2.54	0.42
1:CA:2636:G:OP1	1:CA:2837:A:O2'	2.36	0.42
1:CA:2814:G:H8	1:CA:2814:G:OP2	2.02	0.42
1:CA:2906:C:C4	1:CA:2907:U:C4	3.07	0.42
3:CD:45:ASN:C	3:CD:46:GLN:OE1	2.63	0.42
3:CD:246:PRO:HG2	3:CD:255:LYS:CD	2.50	0.42
4:CE:90:THR:CG2	4:CE:90:THR:O	2.67	0.42
5:CF:24:LEU:CB	5:CF:25:PRO:CD	2.94	0.42
5:CF:174:VAL:HG11	5:CF:188:ARG:NH2	2.32	0.42
6:CG:36:LYS:HD2	6:CG:95:ARG:NH1	2.33	0.42
7:CH:139:GLN:HG3	7:CH:140:LYS:N	2.34	0.42
11:CO:15:ARG:C	11:CO:16:ARG:O	2.63	0.42
11:CO:107:LYS:O	11:CO:108:LYS:C	2.62	0.42
17:C2:35:LEU:HA	17:C2:36:PRO:HD2	1.83	0.42
17:C2:69:LYS:HB2	17:C2:86:GLY:HA3	2.01	0.42
19:CT:67:GLY:O	19:CT:69:TYR:N	2.45	0.42
21:CV:40:ASP:HB3	21:CV:43:GLU:HG3	2.00	0.42
21:CV:175:VAL:HA	21:CV:176:PRO:HA	1.85	0.42
28:C6:52:VAL:HG13	28:C6:53:LYS:N	2.33	0.42
30:C8:40:GLU:H	30:C8:43:GLN:HG3	1.84	0.42
31:DA:582:U:C2	31:DA:760:G:C6	3.08	0.42
31:DA:588:G:H1	31:DA:651:C:N4	2.17	0.42
31:DA:833:U:O2	31:DA:854:G:C2	2.72	0.42
31:DA:983:A:H2'	31:DA:1201:A:N6	2.34	0.42
31:DA:1095:U:P	31:DA:1108:G:H1	2.41	0.42
31:DA:1131:G:H2'	31:DA:1132:C:H6	1.83	0.42
31:DA:1205:U:O2'	33:DF:194:GLY:HA2	2.20	0.42
31:DA:1220:G:H2'	31:DA:1221:G:C8	2.54	0.42
31:DA:1276:G:C6	31:DA:1277:C:C4	3.07	0.42
31:DA:1298:C:H41	37:DJ:114:ARG:HA	1.84	0.42
31:DA:1392:G:O2'	31:DA:1393:U:H5'	2.19	0.42
33:DF:36:ASP:OD2	33:DF:57:ILE:HD13	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DF:66:VAL:HB	33:DF:101:LEU:HA	2.02	0.42
33:DF:95:THR:HG22	33:DF:97:LYS:HG2	2.01	0.42
33:DF:186:PHE:HA	33:DF:198:VAL:O	2.19	0.42
35:DH:51:VAL:CG2	35:DH:52:PRO:HD3	2.45	0.42
38:DK:12:ARG:HH12	38:DK:27:PRO:HD3	1.74	0.42
50:DW:33:ILE:CD1	50:DW:63:ILE:HA	2.50	0.42
1:AA:6:A:O2'	1:AA:7:G:H5'	2.20	0.42
1:AA:383:U:O2	1:AA:385:C:N4	2.53	0.42
1:AA:385:C:O2	1:AA:390:A:C2	2.73	0.42
1:AA:610:C:H2'	1:AA:611:C:H6	1.85	0.42
1:AA:690:G:H2'	1:AA:691:C:C6	2.54	0.42
1:AA:905:U:C3'	1:AA:906:G:H5"	2.49	0.42
1:AA:1171:G:H2'	1:AA:1173:G:H5'	2.00	0.42
1:AA:1203:G:H5'	11:AO:3:LEU:HD13	2.02	0.42
1:AA:1255:U:O2'	56:AA:3452:OHX:N6	2.53	0.42
1:AA:1913:A:C6	52:BB:39:A:H5'	2.55	0.42
1:AA:2172:U:H5'	1:AA:2173:A:OP2	2.18	0.42
1:AA:2392:A:N1	1:AA:2424:C:N3	2.67	0.42
1:AA:2646:C:OP1	1:AA:2733:A:OP1	2.38	0.42
2:AB:29:A:H2'	2:AB:30:C:O4'	2.18	0.42
4:AE:14:ILE:HG22	4:AE:15:PHE:N	2.34	0.42
5:AF:181:LEU:HD23	5:AF:181:LEU:HA	1.86	0.42
6:AG:110:ALA:C	6:AG:112:PRO:HD2	2.45	0.42
14:AQ:97:ARG:HA	14:AQ:100:ALA:HB3	2.02	0.42
15:AR:111:ARG:HD3	15:AR:111:ARG:N	2.28	0.42
16:A1:102:GLU:OE1	17:A2:13:ARG:NH2	2.45	0.42
17:A2:28:GLU:HA	17:A2:29:PRO:HD3	1.89	0.42
18:AS:82:LEU:CB	18:AS:98:LYS:HB2	2.48	0.42
21:AV:82:ARG:HA	21:AV:83:PRO:HD3	1.90	0.42
21:AV:158:PRO:C	21:AV:160:GLY:N	2.77	0.42
26:A4:39:CYS:SG	26:A4:41:PRO:CD	3.08	0.42
27:A5:52:TYR:CD1	27:A5:53:ALA:N	2.87	0.42
31:BA:44:G:C6	31:BA:45:U:C2	3.08	0.42
31:BA:186:C:H5'	50:BW:78:ALA:HB1	2.01	0.42
31:BA:255:G:O3'	47:BT:17:LYS:HD2	2.19	0.42
31:BA:273:A:N6	31:BA:274:A:C6	2.87	0.42
31:BA:273:A:N6	31:BA:274:A:N6	2.67	0.42
31:BA:834:C:O2'	31:BA:835:U:H5'	2.19	0.42
31:BA:1019:C:O2'	31:BA:1020:U:H5'	2.19	0.42
31:BA:1118:C:O5'	31:BA:1118:C:H6	2.01	0.42
31:BA:1161:C:C2	31:BA:1177:G:N2	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1305:G:C5'	51:BX:4:GLY:HA3	2.49	0.42
31:BA:1328:C:H2'	31:BA:1329:A:O4'	2.18	0.42
31:BA:1347:G:H22	31:BA:1374:A:P	2.42	0.42
31:BA:1390:U:O4	56:BA:1693:OHX:N2	2.52	0.42
31:BA:1429:C:H2'	31:BA:1430:C:H6	1.84	0.42
32:BE:60:ASP:HB3	32:BE:64:ARG:NH1	2.34	0.42
36:BI:21:LEU:HD13	36:BI:21:LEU:HA	1.85	0.42
40:BM:8:LEU:HD12	40:BM:20:ALA:CB	2.41	0.42
52:BB:21:A:N7	52:BB:46:G:C8	2.87	0.42
53:BC:14:A:C4	53:BC:23:G:C2	3.07	0.42
1:CA:170:G:N2	1:CA:205:G:O6	2.53	0.42
1:CA:211:A:C8	1:CA:256:G:O6	2.72	0.42
1:CA:1044:G:H2'	1:CA:1045:C:C6	2.54	0.42
1:CA:1176:A:H1'	1:CA:2529:G:H1'	2.02	0.42
1:CA:1242:C:O4'	1:CA:1273:A:C2	2.72	0.42
1:CA:1432:G:H1'	1:CA:1433:C:C6	2.55	0.42
1:CA:2268:G:H22	12:CP:85:LYS:HE2	1.71	0.42
1:CA:2790:A:C1'	1:CA:2791:G:OP2	2.68	0.42
5:CF:51:THR:HB	5:CF:88:VAL:CG1	2.48	0.42
6:CG:165:THR:C	6:CG:167:GLU:N	2.75	0.42
7:CH:20:ALA:HB1	7:CH:21:PRO:HD2	2.01	0.42
11:CO:56:SER:O	11:CO:57:THR:C	2.62	0.42
12:CP:26:TYR:C	12:CP:26:TYR:CD2	2.98	0.42
26:C4:23:GLU:C	26:C4:24:THR:OG1	2.63	0.42
30:C8:52:LYS:C	30:C8:54:GLU:N	2.76	0.42
31:DA:122:G:C2	31:DA:123:C:C2	3.08	0.42
31:DA:189:U:C4	47:DT:72:ARG:NH2	2.88	0.42
31:DA:260:G:O6	56:DA:1767:OHX:N2	2.52	0.42
31:DA:338:A:C6	31:DA:339:C:C4	3.07	0.42
31:DA:352:C:O2'	31:DA:354:G:OP1	2.31	0.42
31:DA:409:G:H1	31:DA:433:C:N4	2.17	0.42
31:DA:580:U:P	56:DA:1718:OHX:N5	2.92	0.42
31:DA:652:U:C4	31:DA:752:G:N3	2.88	0.42
31:DA:765:G:C6	31:DA:812:C:C2	3.07	0.42
31:DA:965:A:OP1	31:DA:1198:G:H5"	2.19	0.42
31:DA:1085:U:H3'	31:DA:1086:U:C5	2.54	0.42
31:DA:1139:G:N2	31:DA:1143:G:N1	2.65	0.42
31:DA:1176:A:N6	31:DA:1177:G:C2	2.87	0.42
31:DA:1241:G:H2'	31:DA:1242:C:C6	2.54	0.42
31:DA:1451:A:H5"	31:DA:1452:C:C6	2.53	0.42
34:DG:9:CYS:HA	34:DG:12:CYS:HB2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DH:80:ILE:HD11	35:DH:138:ALA:HB1	2.02	0.42
38:DK:17:THR:O	38:DK:78:GLN:NE2	2.52	0.42
38:DK:38:ILE:HD11	38:DK:118:VAL:O	2.20	0.42
39:DL:71:SER:HA	39:DL:74:ILE:HD12	2.00	0.42
41:DN:29:ILE:CG2	41:DN:44:SER:HB2	2.49	0.42
46:DS:55:ARG:NH2	46:DS:58:TYR:CD1	2.87	0.42
49:DV:17:GLU:OE1	56:DV:101:OHX:N5	2.52	0.42
51:DX:24:ARG:O	51:DX:25:LYS:C	2.63	0.42
53:DC:1:C:H2'	53:DC:2:G:H5'	2.00	0.42
1:AA:300:A:H2'	1:AA:334:C:O2'	2.19	0.42
1:AA:320:A:C8	5:AF:136:THR:OG1	2.71	0.42
1:AA:675:A:OP1	5:AF:63:LYS:HD2	2.19	0.42
1:AA:792:G:H5"	1:AA:793:A:H5'	2.00	0.42
1:AA:836:G:C5	1:AA:837:C:C4	3.07	0.42
1:AA:1356:G:OP1	56:AA:3489:OHX:N1	2.53	0.42
1:AA:1965:C:O2	56:AA:3402:OHX:N3	2.53	0.42
1:AA:2121:G:H1	1:AA:2177:C:H42	1.67	0.42
1:AA:2309:A:C6	1:AA:2310:A:N7	2.87	0.42
1:AA:2348:U:C2'	1:AA:2349:G:H5'	2.50	0.42
1:AA:2474:C:H3'	1:AA:2475:C:C6	2.54	0.42
1:AA:2757:A:N1	7:AH:67:LEU:HD22	2.35	0.42
1:AA:2841:C:O2	1:AA:2877:G:C2	2.72	0.42
4:AE:111:ARG:HG3	4:AE:160:TYR:CD1	2.55	0.42
4:AE:116:VAL:HG11	4:AE:138:PRO:HB3	2.00	0.42
5:AF:198:ALA:HA	5:AF:201:VAL:CG1	2.50	0.42
9:AM:38:HIS:O	16:A1:67:ALA:HB1	2.20	0.42
9:AM:39:ARG:NH1	9:AM:41:ASP:OD2	2.51	0.42
11:AO:114:ILE:CD1	11:AO:134:ALA:HB1	2.50	0.42
12:AP:21:THR:CG2	21:AV:78:LYS:HD3	2.50	0.42
12:AP:35:VAL:CG1	12:AP:130:LYS:HB3	2.48	0.42
12:AP:80:GLU:OE2	12:AP:80:GLU:N	2.51	0.42
21:AV:6:LYS:O	21:AV:7:ALA:CB	2.66	0.42
21:AV:27:VAL:HG22	21:AV:28:MET:N	2.35	0.42
31:BA:438:G:O2'	31:BA:439:A:C5'	2.67	0.42
31:BA:663:A:H5"	48:BU:61:LYS:HZ2	1.84	0.42
31:BA:665:A:H1'	31:BA:733:A:O4'	2.19	0.42
31:BA:998(A):C:O2'	31:BA:999:U:H5'	2.19	0.42
31:BA:1235:U:H2'	31:BA:1236:A:O4'	2.19	0.42
31:BA:1260:C:H4'	31:BA:1284:C:H5'	2.01	0.42
33:BF:37:GLN:HE21	33:BF:37:GLN:HB3	1.70	0.42
40:BM:57:LYS:CE	40:BM:60:ARG:HH12	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BP:84:ILE:HG23	43:BP:86:CYS:H	1.84	0.42
45:BR:37:ASN:O	45:BR:41:GLU:HB2	2.20	0.42
50:BW:32:ALA:C	50:BW:34:LYS:N	2.77	0.42
52:BB:22:A:O3'	52:BB:23:A:O4'	2.37	0.42
52:BB:55:U:C4	52:BB:56:U:H1'	2.54	0.42
52:BD:70:C:O2'	52:BD:71:C:H5'	2.20	0.42
1:CA:8:A:H2'	1:CA:9:U:C6	2.54	0.42
1:CA:85:C:OP1	20:CU:32:PRO:HD2	2.19	0.42
1:CA:641:A:H8	5:CF:176:LEU:HD11	1.81	0.42
1:CA:895:U:H5'	1:CA:896:G:OP2	2.20	0.42
1:CA:1237:G:OP2	11:CO:32:THR:HG22	2.20	0.42
1:CA:1335:U:C2	1:CA:1374:C:O2	2.72	0.42
1:CA:1360:U:C2	1:CA:1657:A:H2	2.36	0.42
1:CA:1439:A:N6	1:CA:1440:A:N6	2.67	0.42
1:CA:1535:G:N2	1:CA:1549:C:O2	2.53	0.42
1:CA:1618:A:H2'	1:CA:1619:A:C8	2.54	0.42
1:CA:1925:C:C5	1:CA:1926:G:C8	3.08	0.42
1:CA:1968:G:H2'	1:CA:1969:U:C6	2.55	0.42
1:CA:2153:U:OP1	1:CA:2155:U:C4	2.73	0.42
1:CA:2735:A:H1'	1:CA:2884:A:O2'	2.20	0.42
1:CA:2768:U:H2'	1:CA:2770:U:OP1	2.20	0.42
1:CA:2771:A:N1	7:CH:67:LEU:HD22	2.34	0.42
1:CA:2860:U:OP2	15:CR:95:ARG:NH1	2.52	0.42
3:CD:25:THR:CG2	3:CD:81:ALA:HB1	2.50	0.42
3:CD:34:VAL:HG22	3:CD:35:LYS:HZ2	1.83	0.42
4:CE:52:LEU:HD23	4:CE:52:LEU:HA	1.90	0.42
5:CF:164:ARG:HH11	5:CF:164:ARG:HG2	1.84	0.42
6:CG:35:GLU:O	6:CG:36:LYS:HB3	2.20	0.42
11:CO:5:ASP:O	11:CO:6:LEU:C	2.62	0.42
11:CO:84:ASN:HD22	11:CO:117:GLU:HB3	1.84	0.42
12:CP:31:ASP:N	12:CP:107:ALA:HB2	2.34	0.42
12:CP:32:TYR:O	12:CP:106:VAL:N	2.49	0.42
12:CP:132:VAL:HG21	21:CV:81:ARG:NH2	2.34	0.42
13:C0:25:ALA:C	13:C0:27:SER:H	2.27	0.42
17:C2:18:LEU:C	17:C2:18:LEU:HD23	2.44	0.42
17:C2:72:VAL:O	17:C2:72:VAL:HG12	2.19	0.42
22:C3:23:VAL:HG13	22:C3:38:VAL:HG22	2.00	0.42
24:CW:60:LEU:HD12	24:CW:60:LEU:HA	1.80	0.42
28:C6:25:LYS:CE	30:C8:34:TRP:HZ3	2.33	0.42
31:DA:266:G:H2'	31:DA:266:G:N3	2.34	0.42
31:DA:345:C:H1'	31:DA:346:G:N1	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:375:U:C4	31:DA:376:G:N7	2.88	0.42
31:DA:545:C:O2'	31:DA:549:C:H5"	2.18	0.42
31:DA:622:A:H2'	31:DA:623:C:O4'	2.19	0.42
31:DA:1054:C:H5"	31:DA:1196:U:H2'	2.01	0.42
31:DA:1138:G:C6	31:DA:1140:C:C2	3.07	0.42
31:DA:1363:A:H1'	31:DA:1365:G:N7	2.34	0.42
32:DE:185:ILE:N	32:DE:185:ILE:HD13	2.35	0.42
34:DG:39:PRO:HA	34:DG:40:PRO:HD3	1.90	0.42
37:DJ:135:VAL:O	37:DJ:139:GLU:HG3	2.19	0.42
39:DL:55:ALA:HA	39:DL:58:HIS:CD2	2.54	0.42
44:DQ:37:PHE:CE1	44:DQ:53:LEU:HD13	2.55	0.42
46:DS:1:MET:HE3	46:DS:1:MET:HB2	1.88	0.42
46:DS:21:VAL:O	46:DS:33:ILE:HG12	2.20	0.42
50:DW:53:LEU:HD11	50:DW:104:LEU:CD1	2.50	0.42
52:DD:12:C:O2	52:DD:24:G:C2	2.70	0.42
1:AA:162:U:H6	1:AA:162:U:OP1	2.02	0.42
1:AA:610:C:O5'	1:AA:610:C:H6	2.02	0.42
1:AA:1057:A:H2'	1:AA:1058:U:C5	2.55	0.42
1:AA:1385:G:O2'	1:AA:1396:U:C6	2.66	0.42
1:AA:1651:G:H2'	1:AA:1652:A:O4'	2.20	0.42
1:AA:2025:C:H2'	1:AA:2026:C:C6	2.55	0.42
1:AA:2069:G:N2	1:AA:2070:G:H1'	2.35	0.42
1:AA:2392:A:H2'	1:AA:2393:A:O4'	2.20	0.42
1:AA:2564:A:C6	1:AA:2565:A:C6	3.07	0.42
1:AA:2599:G:C8	3:AD:236:GLY:CA	2.90	0.42
1:AA:2733:A:C3'	1:AA:2734:A:C5'	2.97	0.42
3:AD:230:ASP:O	3:AD:231:HIS:HB2	2.18	0.42
3:AD:233:HIS:CD2	3:AD:233:HIS:N	2.88	0.42
4:AE:5:LEU:HB2	4:AE:51:PHE:HB2	2.00	0.42
4:AE:167:VAL:HG21	4:AE:187:ALA:HB3	2.02	0.42
9:AM:42:TRP:CD1	16:A1:63:VAL:HG11	2.55	0.42
9:AM:97:ARG:HA	9:AM:100:GLU:HB2	2.02	0.42
10:AN:43:VAL:HG21	10:AN:52:VAL:CG1	2.50	0.42
13:A0:44:LEU:HD21	13:A0:48:VAL:HG13	2.01	0.42
14:AQ:109:GLY:C	14:AQ:110:LEU:HG	2.45	0.42
15:AR:33:LYS:HG2	15:AR:82:LEU:O	2.20	0.42
19:AT:54:VAL:O	19:AT:55:ASN:ND2	2.52	0.42
21:AV:69:THR:HG22	21:AV:90:VAL:HG22	2.01	0.42
30:A8:44:LYS:HD2	30:A8:44:LYS:N	2.34	0.42
31:BA:115:G:H8	31:BA:115:G:O5'	2.02	0.42
31:BA:394:G:H2'	31:BA:395:C:H6	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:630:G:N2	31:BA:631:G:C4	2.87	0.42
31:BA:654:G:C2'	31:BA:655:A:H5'	2.50	0.42
31:BA:690:G:O2'	31:BA:691:G:H5'	2.20	0.42
31:BA:1180:A:OP1	39:BL:103:THR:OG1	2.26	0.42
31:BA:1301:U:C3'	31:BA:1302:U:H5'	2.48	0.42
31:BA:1450:U:O2'	31:BA:1451:A:C8	2.73	0.42
32:BE:36:ARG:C	32:BE:38:GLY:H	2.26	0.42
32:BE:103:THR:HA	32:BE:180:LEU:HD11	2.02	0.42
32:BE:221:LEU:HD13	32:BE:221:LEU:C	2.45	0.42
34:BG:155:LEU:O	34:BG:157:LEU:N	2.53	0.42
40:BM:21:GLN:O	40:BM:24:VAL:HG12	2.19	0.42
40:BM:48:THR:HG23	40:BM:62:HIS:ND1	2.35	0.42
41:BN:18:ARG:HH21	41:BN:37:GLY:N	2.18	0.42
46:BS:76:GLN:HE21	46:BS:76:GLN:HB3	1.62	0.42
53:BC:15:G:N2	53:BC:22:A:N3	2.68	0.42
52:BD:53:A:C6	52:BD:54:C:C4	3.08	0.42
1:CA:28:A:C2	1:CA:539:A:C8	3.07	0.42
1:CA:63:A:H1'	19:CT:66:LEU:HB2	2.01	0.42
1:CA:195:G:H4'	1:CA:196:U:O5'	2.20	0.42
1:CA:423:U:H2'	1:CA:424:G:N7	2.34	0.42
1:CA:611:C:N4	1:CA:719:C:C2	2.87	0.42
1:CA:720:C:O2'	1:CA:721:C:H5'	2.20	0.42
1:CA:777:G:H2'	1:CA:1807:U:H1'	2.02	0.42
1:CA:855:U:C2	1:CA:856:G:C8	3.07	0.42
1:CA:1019:A:H5'	1:CA:1234:U:H1'	2.01	0.42
1:CA:1071:G:H5"	1:CA:1072:G:C5'	2.46	0.42
1:CA:1120:A:H2'	1:CA:1121:G:O4'	2.20	0.42
1:CA:1132:A:H2	1:CA:1133:A:C4	2.37	0.42
1:CA:1302:U:H5"	1:CA:1303:G:C5'	2.49	0.42
1:CA:1585:G:C2'	1:CA:1586:G:H5'	2.49	0.42
1:CA:1842:A:H2'	1:CA:1843:G:O4'	2.19	0.42
1:CA:1908:A:C5'	1:CA:1909:C:OP2	2.67	0.42
1:CA:1939:A:H2'	1:CA:1940:U:O4'	2.19	0.42
1:CA:2325:U:C3'	1:CA:2326:C:H5'	2.47	0.42
1:CA:2348:A:O2'	1:CA:2349:A:H8	2.02	0.42
1:CA:2515:G:H5"	1:CA:2516:A:C5'	2.48	0.42
1:CA:2776:G:H5'	1:CA:2777:G:OP2	2.20	0.42
3:CD:132:PRO:HG3	3:CD:190:TYR:CE1	2.55	0.42
5:CF:178:PRO:HB2	5:CF:201:VAL:CG1	2.48	0.42
7:CH:85:LYS:NZ	7:CH:142:GLY:HA2	2.35	0.42
8:CK:84:GLY:O	8:CK:85:GLU:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CO:21:ARG:HB3	11:CO:22:GLY:H	1.55	0.42
11:CO:41:ARG:HD2	11:CO:41:ARG:N	2.34	0.42
11:CO:147:LEU:CD2	11:CO:148:LEU:N	2.82	0.42
12:CP:78:PRO:O	12:CP:79:LEU:CG	2.67	0.42
13:C0:13:HIS:CE1	13:C0:16:HIS:HB2	2.54	0.42
13:C0:103:ARG:HB3	13:C0:108:GLY:HA2	2.01	0.42
14:CQ:93:LYS:HG2	14:CQ:95:HIS:HB3	2.01	0.42
20:CU:40:GLU:N	20:CU:40:GLU:OE2	2.53	0.42
21:CV:110:GLY:CA	21:CV:143:GLY:HA2	2.49	0.42
24:CW:37:PHE:O	24:CW:41:ILE:HG12	2.20	0.42
24:CW:54:LYS:HA	24:CW:57:ILE:HD12	2.00	0.42
27:C5:16:ARG:HG3	27:C5:17:ASP:N	2.34	0.42
31:DA:152:A:N6	31:DA:170:U:C2	2.88	0.42
31:DA:716:A:C6	31:DA:717:C:C4	3.07	0.42
31:DA:753:A:H4'	31:DA:754:C:C5'	2.50	0.42
31:DA:865:A:H5'	31:DA:1078:U:O4	2.20	0.42
31:DA:988:G:C6	31:DA:989:C:C4	3.07	0.42
56:DA:1760:OHX:N5	40:DM:59:SER:OG	2.52	0.42
33:DF:29:TYR:HD1	44:DQ:36:PHE:CZ	2.38	0.42
34:DG:137:SER:O	34:DG:138:TYR:C	2.63	0.42
46:DS:45:THR:OG1	46:DS:46:PRO:HD2	2.20	0.42
47:DT:62:SER:CB	47:DT:72:ARG:HE	2.33	0.42
50:DW:33:ILE:HG12	50:DW:62:LEU:HB3	2.01	0.42
52:DD:12:C:N3	52:DD:24:G:N1	2.61	0.42
52:DD:18:G:C4	52:DD:66:G:N2	2.88	0.42
1:AA:71:A:H2	19:AT:31:HIS:CE1	2.38	0.42
1:AA:216:A:C4	1:AA:432:A:C2	3.08	0.42
1:AA:271(C):U:H2'	1:AA:271:G:OP1	2.20	0.42
1:AA:299:A:N7	1:AA:300:A:N6	2.67	0.42
1:AA:492:A:H2'	1:AA:493:G:O4'	2.20	0.42
1:AA:559:G:N2	16:A1:49:HIS:CD2	2.82	0.42
1:AA:653:A:H3'	1:AA:654:A:H5'	2.01	0.42
1:AA:1131:G:N2	1:AA:1132:A:N3	2.68	0.42
1:AA:1416:G:O2'	1:AA:1417:C:P	2.77	0.42
1:AA:1537:C:C2'	1:AA:1538:G:O5'	2.67	0.42
1:AA:1711:C:O2'	1:AA:1712:C:H5'	2.20	0.42
1:AA:2219:G:H2'	1:AA:2224:G:C5'	2.48	0.42
1:AA:2231:C:H2'	1:AA:2232:U:O4'	2.19	0.42
1:AA:2291:U:O2'	1:AA:2374:C:H1'	2.20	0.42
1:AA:2354:G:O2'	22:A3:36:ILE:HG23	2.19	0.42
1:AA:2507:C:H1'	52:BB:85:A:C8	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2802:G:C6	1:AA:2803:C:C4	3.08	0.42
1:AA:2877:G:H2'	1:AA:2878:U:O4'	2.20	0.42
3:AD:17:THR:CG2	3:AD:204:ILE:HA	2.50	0.42
3:AD:123:ALA:HA	3:AD:124:PRO:HD2	1.80	0.42
5:AF:152:GLU:CD	5:AF:191:ARG:HD2	2.45	0.42
7:AH:4:ILE:HG13	7:AH:6:ARG:CD	2.50	0.42
7:AH:54:ARG:HA	7:AH:55:PRO:HD3	1.87	0.42
7:AH:170:ARG:HB3	7:AH:171:LEU:H	1.58	0.42
10:AN:88:ASN:HD21	10:AN:92:GLU:CG	2.31	0.42
11:AO:113:LYS:HA	11:AO:129:ALA:O	2.20	0.42
13:A0:28:LEU:HD23	13:A0:28:LEU:HA	1.82	0.42
18:AS:70:TYR:O	18:AS:107:LEU:HD12	2.19	0.42
23:AZ:81:LYS:N	23:AZ:82:LEU:HD22	2.34	0.42
26:A4:12:ALA:CB	26:A4:29:PRO:HA	2.46	0.42
26:A4:39:CYS:O	26:A4:40:HIS:HB2	2.20	0.42
30:A8:17:THR:OG1	30:A8:21:LYS:HB2	2.20	0.42
31:BA:266:G:C5'	31:BA:267:C:C5	2.97	0.42
31:BA:273:A:C6	31:BA:274:A:C5	3.08	0.42
31:BA:477:G:N7	56:BA:1695:OHX:N3	2.67	0.42
31:BA:502:G:C5	31:BA:503:C:C5	3.08	0.42
31:BA:978:A:C6	31:BA:1318:A:N6	2.88	0.42
31:BA:994:A:H2'	31:BA:994:A:N3	2.34	0.42
31:BA:1003:G:C3'	31:BA:1004:A:H5'	2.49	0.42
31:BA:1093:A:N3	31:BA:1095:U:H5'	2.34	0.42
31:BA:1161:C:H2'	31:BA:1162:C:C6	2.54	0.42
31:BA:1371:G:C6	31:BA:1372:U:C4	3.08	0.42
32:BE:145:LEU:HD12	32:BE:149:LEU:HD12	2.01	0.42
33:BF:6:HIS:NE2	33:BF:184:TYR:CE2	2.87	0.42
33:BF:15:THR:HG22	33:BF:16:ARG:N	2.34	0.42
34:BG:31:CYS:HB3	34:BG:33:MET:HB2	2.01	0.42
37:BJ:40:ALA:HB1	37:BJ:44:TYR:HE1	1.85	0.42
46:BS:43:LYS:HG3	46:BS:48:TRP:HE3	1.85	0.42
52:BD:12:C:O2	52:BD:24:G:C2	2.69	0.42
52:BD:36:U:H2'	52:BD:37:A:O4'	2.20	0.42
1:CA:17:G:C4	1:CA:18:C:C5	3.08	0.42
1:CA:63:A:C6	1:CA:64:C:C4	3.07	0.42
1:CA:482:C:N3	1:CA:500:G:H5'	2.35	0.42
1:CA:1002:G:H2'	1:CA:1003:A:H2'	2.01	0.42
1:CA:1047:A:C6	1:CA:1048:A:C2	3.07	0.42
1:CA:1058:G:C6	1:CA:1060:C:C4	3.08	0.42
1:CA:1060:C:H2'	1:CA:1061:U:H6	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1068:A:C6	1:CA:1070:U:C4	3.08	0.42
1:CA:1095:A:H5'	1:CA:1096:C:OP2	2.19	0.42
1:CA:1158:A:H4'	7:CH:3:ARG:HG2	2.00	0.42
1:CA:1293:A:H2'	1:CA:1294:A:O5'	2.20	0.42
1:CA:1528:G:N1	1:CA:1529:U:O2	2.52	0.42
1:CA:1554:A:H5"	1:CA:1555:A:OP2	2.19	0.42
1:CA:1880:A:C6	31:DA:702:A:C6	3.08	0.42
1:CA:1886:A:H62	1:CA:1911:G:H8	1.66	0.42
1:CA:2315:G:N1	1:CA:2328:G:C6	2.88	0.42
1:CA:2701:U:H5	1:CA:2734:U:OP2	2.03	0.42
1:CA:2795:A:OP2	56:CA:3396:OHX:N4	2.53	0.42
2:CB:72:C:H42	2:CB:109:G:H1	1.68	0.42
3:CD:106:ILE:O	3:CD:106:ILE:CG2	2.68	0.42
4:CE:137:HIS:HB3	4:CE:138:PRO:HD2	2.02	0.42
6:CG:33:ARG:HE	6:CG:33:ARG:HB2	1.67	0.42
6:CG:128:ARG:CG	6:CG:128:ARG:NH2	2.82	0.42
7:CH:6:ARG:NE	7:CH:54:ARG:HH12	2.18	0.42
7:CH:97:ARG:HG2	7:CH:98:LEU:H	1.85	0.42
7:CH:143:GLN:O	7:CH:147:ASN:HB2	2.20	0.42
9:CM:87:LEU:C	9:CM:89:LYS:H	2.28	0.42
12:CP:75:THR:HG22	12:CP:90:VAL:N	2.35	0.42
15:CR:99:LEU:C	15:CR:101:PHE:N	2.77	0.42
16:C1:83:LEU:CD2	16:C1:88:ILE:HG13	2.50	0.42
17:C2:34:GLU:OE1	17:C2:56:SER:HB2	2.19	0.42
18:CS:70:TYR:CD2	18:CS:108:GLY:O	2.73	0.42
29:C7:26:GLY:O	29:C7:30:VAL:HG23	2.20	0.42
31:DA:9:G:H5'	35:DH:122:GLU:CD	2.45	0.42
31:DA:86:U:O2'	31:DA:87:A:P	2.77	0.42
31:DA:296:U:H2'	31:DA:297:G:C8	2.54	0.42
31:DA:363:A:O4'	42:DO:29:PHE:O	2.37	0.42
31:DA:386:C:O2'	31:DA:387:U:H5'	2.19	0.42
31:DA:409:G:C5'	34:DG:24:GLU:HG3	2.46	0.42
31:DA:485:G:C2'	31:DA:486:U:OP2	2.67	0.42
31:DA:625:G:C5	31:DA:626:U:C5	3.07	0.42
31:DA:652:U:C2'	31:DA:653:A:H5"	2.50	0.42
31:DA:954:G:H2'	31:DA:955:U:C6	2.54	0.42
31:DA:1054:C:N4	52:DB:35:G:C1'	2.83	0.42
31:DA:1095:U:OP1	31:DA:1108:G:N2	2.49	0.42
31:DA:1162:C:N3	31:DA:1175:G:C2	2.88	0.42
31:DA:1200:C:H1'	31:DA:1204:A:N6	2.35	0.42
31:DA:1226:C:OP1	43:DP:91:ARG:NH1	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:1317:C:C2	44:DQ:16:PHE:HE1	2.37	0.42
32:DE:130:ARG:CA	32:DE:130:ARG:HE	2.32	0.42
32:DE:207:ALA:O	32:DE:211:ILE:HG13	2.19	0.42
34:DG:138:TYR:C	34:DG:138:TYR:CD2	2.97	0.42
35:DH:89:ILE:O	35:DH:89:ILE:HG23	2.20	0.42
40:DM:98:ILE:HD12	40:DM:98:ILE:H	1.83	0.42
41:DN:52:GLY:C	41:DN:54:ARG:H	2.28	0.42
45:DR:27:VAL:O	45:DR:31:LEU:HD13	2.19	0.42
49:DV:18:LYS:HG2	49:DV:31:ILE:HD13	2.02	0.42
52:DB:13:G:N2	52:DB:23:A:C6	2.88	0.42
52:DB:46:G:O2'	52:DB:47:U:P	2.77	0.42
52:DD:39:A:H2'	52:DD:40:U:O4'	2.19	0.42
52:DD:40:U:O2'	52:DD:41:C:H5'	2.20	0.42
1:AA:38:A:H2'	1:AA:39:C:C6	2.55	0.42
1:AA:196:A:N3	1:AA:196:A:H2'	2.35	0.42
1:AA:775:G:C4	1:AA:794:G:C8	3.08	0.42
1:AA:1047:G:H2'	1:AA:1110:G:C6	2.54	0.42
1:AA:1313:U:H4'	1:AA:1332:G:H4'	2.02	0.42
1:AA:1663:C:O2'	1:AA:2686:G:H4'	2.20	0.42
1:AA:2393:A:H5"	11:AO:62:LEU:HB2	2.00	0.42
3:AD:273:ARG:O	3:AD:273:ARG:HG3	2.18	0.42
5:AF:67:GLN:HB2	5:AF:67:GLN:HE21	1.56	0.42
7:AH:166:GLY:O	7:AH:167:GLU:O	2.37	0.42
8:AK:93:THR:H	8:AK:96:ASP:HB2	1.85	0.42
8:AK:125:GLU:HA	8:AK:125:GLU:OE1	2.20	0.42
9:AM:39:ARG:HH11	9:AM:39:ARG:HB3	1.84	0.42
11:AO:15:ARG:C	11:AO:16:ARG:O	2.62	0.42
11:AO:19:VAL:HG22	11:AO:20:GLY:H	1.84	0.42
11:AO:50:ARG:HG3	30:A8:59:LYS:HD3	2.01	0.42
14:AQ:24:LEU:HD12	14:AQ:24:LEU:HA	1.71	0.42
14:AQ:60:GLY:O	14:AQ:65:VAL:HG23	2.20	0.42
16:A1:90:VAL:HG12	16:A1:91:ASP:N	2.35	0.42
26:A4:59:PHE:O	26:A4:63:TYR:CB	2.64	0.42
28:A6:27:LYS:HB2	28:A6:27:LYS:NZ	2.26	0.42
31:BA:91:C:C2'	31:BA:92:G:H5'	2.49	0.42
31:BA:128:G:O3'	47:BT:3:LYS:HE2	2.20	0.42
31:BA:142:G:C2	31:BA:143:A:N7	2.88	0.42
31:BA:182:U:O2	31:BA:182:U:H2'	2.20	0.42
31:BA:326:G:H2'	31:BA:327:A:H5'	2.02	0.42
31:BA:339:C:H2'	31:BA:340:U:C6	2.55	0.42
31:BA:815:A:OP2	31:BA:816:A:H5"	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:918:A:H2'	31:BA:919:A:O4'	2.19	0.42
31:BA:990:C:N3	31:BA:1216:G:C2	2.87	0.42
31:BA:1038:C:H2'	31:BA:1039:C:H5'	2.00	0.42
31:BA:1092:A:C2	31:BA:1183:A:H2	2.37	0.42
31:BA:1226:C:H5'	49:BV:80:TYR:CE1	2.55	0.42
31:BA:1315:U:O2	31:BA:1360:A:H2	2.02	0.42
32:BE:5:ILE:HG23	32:BE:224:GLN:OE1	2.20	0.42
34:BG:138:TYR:CD2	34:BG:139:ARG:N	2.88	0.42
39:BL:53:VAL:O	39:BL:54:ASP:CB	2.68	0.42
41:BN:91:ARG:HH22	48:BU:88:LYS:HE3	1.83	0.42
44:BQ:13:THR:O	44:BQ:14:PRO:O	2.38	0.42
47:BT:91:ARG:HH12	47:BT:92:ARG:HH21	1.67	0.42
52:BB:17:G:H4'	52:BB:18:G:OP1	2.18	0.42
52:BD:12:C:H2'	52:BD:13:G:C8	2.55	0.42
1:CA:35:G:C4	1:CA:481:A:C2	3.07	0.42
1:CA:312:C:O2	1:CA:379:G:N1	2.41	0.42
1:CA:587:G:C6	1:CA:588:C:C4	3.08	0.42
1:CA:643:G:H2'	1:CA:644:C:O4'	2.20	0.42
1:CA:908:U:H1'	1:CA:2281:A:H5'	2.02	0.42
1:CA:928:G:C2	1:CA:945:C:N3	2.88	0.42
1:CA:962:C:H2'	1:CA:963:G:O5'	2.20	0.42
1:CA:1091:G:H1'	1:CA:1158:A:N1	2.35	0.42
1:CA:1096:C:H1'	1:CA:1160:U:O2'	2.18	0.42
1:CA:1147:C:O2'	1:CA:1148:U:H5'	2.19	0.42
1:CA:1196:G:H2'	1:CA:1197:C:C6	2.54	0.42
1:CA:1497:A:N6	1:CA:1498:G:C2	2.88	0.42
1:CA:1674:G:OP1	56:CA:3296:OHX:N1	2.52	0.42
1:CA:1680:A:N6	1:CA:1681:G:N1	2.67	0.42
1:CA:2092:G:C2'	1:CA:2093:G:H5'	2.50	0.42
1:CA:2109:U:H2'	1:CA:2110:G:C8	2.54	0.42
1:CA:2228:G:N3	1:CA:2228:G:C2'	2.82	0.42
1:CA:2485:G:C4	1:CA:2488:C:N4	2.88	0.42
1:CA:2536:G:H5'	1:CA:2536:G:C8	2.46	0.42
1:CA:2545:G:H2'	1:CA:2546:A:O4'	2.19	0.42
1:CA:2576:U:O2	1:CA:2578:A:C8	2.73	0.42
1:CA:2588:C:H4'	4:CE:143:ASN:O	2.20	0.42
1:CA:2880:G:H2'	1:CA:2881:C:O4'	2.18	0.42
2:CB:45:C:OP1	6:CG:67:LYS:HE2	2.20	0.42
2:CB:45:C:O2	6:CG:95:ARG:NH2	2.53	0.42
3:CD:108:PRO:HG2	3:CD:111:LEU:HB2	2.01	0.42
4:CE:53:PRO:O	4:CE:54:GLN:C	2.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CE:204:ALA:O	4:CE:205:ALA:CB	2.67	0.42
5:CF:78:ILE:H	5:CF:78:ILE:HG12	1.61	0.42
5:CF:195:ASP:O	5:CF:196:LEU:C	2.63	0.42
6:CG:16:ARG:N	6:CG:17:PRO:HD2	2.35	0.42
9:CM:1:MET:HB2	9:CM:2:LYS:H	1.45	0.42
12:CP:103:MET:O	12:CP:104:PHE:HB2	2.20	0.42
13:C0:44:LEU:HD23	13:C0:44:LEU:HA	1.82	0.42
13:C0:74:LYS:HD2	13:C0:77:ARG:HH21	1.85	0.42
15:CR:133:GLU:O	15:CR:133:GLU:HG3	2.20	0.42
20:CU:43:ASN:CB	20:CU:64:GLU:HA	2.49	0.42
31:DA:272:C:H2'	31:DA:273:A:C8	2.52	0.42
31:DA:328:C:O2	31:DA:328:C:H2'	2.20	0.42
31:DA:350:G:C6	31:DA:351:G:O6	2.73	0.42
31:DA:429:U:H1'	31:DA:430:A:H5"	2.01	0.42
31:DA:451:A:C2	31:DA:480:U:C4	3.08	0.42
31:DA:631:G:H1'	31:DA:632:A:P	2.60	0.42
31:DA:670:G:H2'	31:DA:671:G:O4'	2.20	0.42
31:DA:879:C:O2'	31:DA:880:C:H5'	2.20	0.42
31:DA:957:U:H1'	31:DA:960:U:C5	2.54	0.42
31:DA:958:A:N3	31:DA:985:C:O2'	2.51	0.42
31:DA:1002:G:C6	31:DA:1003:G:C6	3.08	0.42
31:DA:1056:U:O2	31:DA:1057:G:C8	2.73	0.42
32:DE:19:HIS:CD2	32:DE:205:ASP:H	2.37	0.42
32:DE:124:SER:C	32:DE:126:GLU:H	2.23	0.42
32:DE:178:ARG:NH1	32:DE:178:ARG:HG2	2.34	0.42
35:DH:78:HIS:ND1	38:DK:107:LEU:HD12	2.35	0.42
36:DI:63:TYR:CD2	36:DI:63:TYR:N	2.87	0.42
40:DM:22:LYS:HD2	40:DM:22:LYS:C	2.44	0.42
40:DM:27:ALA:C	40:DM:29:ARG:N	2.78	0.42
40:DM:81:THR:OG1	40:DM:82:ILE:N	2.53	0.42
51:DX:2:GLY:C	51:DX:4:GLY:N	2.78	0.42
52:DB:21:A:H4'	52:DB:22:A:O5'	2.20	0.42
52:DD:19:C:OP1	52:DD:19:C:O4'	2.38	0.42
1:AA:45:G:N7	56:AA:3426:OHX:N5	2.68	0.42
1:AA:1064:C:N4	1:AA:1070:A:P	2.92	0.42
1:AA:1144:G:C6	1:AA:1145:C:N4	2.88	0.42
1:AA:1162:G:H2'	1:AA:1163:G:H8	1.85	0.42
1:AA:1388:G:H2'	1:AA:1389:G:H8	1.85	0.42
1:AA:1389:G:C2	1:AA:1399:C:O2	2.72	0.42
1:AA:1537:C:N4	1:AA:1538:G:C5	2.88	0.42
1:AA:1649:G:N1	1:AA:2009:G:C6	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1921:G:O6	56:AA:3291:OHX:N2	2.53	0.42
1:AA:1973:G:H2'	1:AA:1974:C:H6	1.85	0.42
1:AA:2097:C:O2'	1:AA:2098:U:H5'	2.19	0.42
1:AA:2272:U:O4	56:AA:3458:OHX:N1	2.53	0.42
1:AA:2837:G:N2	13:A0:45:ARG:HH21	2.17	0.42
3:AD:68:LYS:HB2	3:AD:70:TRP:CZ3	2.54	0.42
3:AD:142:VAL:HG21	3:AD:191:ALA:HB1	2.02	0.42
11:AO:16:ARG:NH1	11:AO:16:ARG:CG	2.80	0.42
13:A0:84:ALA:HB3	13:A0:85:PRO:HD3	2.02	0.42
16:A1:57:PHE:O	16:A1:58:ARG:C	2.63	0.42
17:A2:16:PRO:HA	17:A2:96:ILE:CG2	2.40	0.42
19:AT:28:PHE:CZ	19:AT:92:LEU:HD11	2.54	0.42
23:AZ:78:LYS:NZ	23:AZ:94:LEU:HD21	2.35	0.42
23:AZ:87:PRO:O	23:AZ:88:LYS:C	2.61	0.42
31:BA:329:A:C2	31:BA:332:G:N9	2.88	0.42
31:BA:619:U:C2	34:BG:135:LEU:HD22	2.55	0.42
31:BA:652:U:O4	31:BA:752:G:N3	2.53	0.42
31:BA:950:U:OP2	43:BP:102:ARG:HD2	2.20	0.42
31:BA:1028(B):C:C4	31:BA:1032(A):G:C2	3.07	0.42
31:BA:1115:C:C2	31:BA:1116:C:C6	3.08	0.42
31:BA:1234:C:H5'	31:BA:1364:U:O2'	2.20	0.42
31:BA:1304:G:C6	31:BA:1305:G:N1	2.88	0.42
31:BA:1351:U:O4'	37:BJ:33:ASP:HB3	2.20	0.42
33:BF:101:LEU:HD23	33:BF:101:LEU:C	2.45	0.42
37:BJ:111:ARG:NH1	37:BJ:113:GLU:OE2	2.52	0.42
40:BM:5:ARG:HG2	40:BM:71:LEU:HD11	2.02	0.42
40:BM:80:LYS:HZ2	40:BM:80:LYS:HA	1.85	0.42
43:BP:90:LEU:C	43:BP:90:LEU:HD12	2.45	0.42
46:BS:83:GLU:HB3	46:BS:84:ALA:H	1.54	0.42
52:BD:16:C:H2'	52:BD:17:G:H4'	2.01	0.42
1:CA:750:G:C2	1:CA:779:C:C2	3.07	0.42
1:CA:999:A:C4	1:CA:1000:G:C8	3.08	0.42
1:CA:1054:C:H5"	9:CM:35:ARG:NH1	2.34	0.42
1:CA:1081:G:OP1	1:CA:1081:G:C8	2.73	0.42
1:CA:1127:A:H2'	1:CA:1128:U:C6	2.54	0.42
1:CA:1363:U:H2'	1:CA:1364:A:H8	1.85	0.42
1:CA:2041:G:OP1	27:C5:9:LYS:NZ	2.49	0.42
1:CA:2050:G:H2'	1:CA:2051:U:O4'	2.20	0.42
1:CA:2299:A:C8	1:CA:2300:A:N6	2.88	0.42
1:CA:2300:A:C4	1:CA:2302:G:C8	3.08	0.42
1:CA:2734:U:N3	1:CA:2884:A:C2	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:2804:A:C1'	1:CA:2805:C:P	3.08	0.42
1:CA:2858:U:H2'	1:CA:2859:G:H5'	2.02	0.42
2:CB:12:C:N3	2:CB:13:C:C5	2.87	0.42
2:CB:116:C:H2'	2:CB:117:G:H8	1.85	0.42
3:CD:79:VAL:HB	3:CD:114:GLY:H	1.85	0.42
6:CG:161:THR:HG22	6:CG:162:THR:N	2.35	0.42
8:CK:136:VAL:O	8:CK:136:VAL:HG13	2.20	0.42
11:CO:39:LYS:HD2	11:CO:45:LEU:CD2	2.50	0.42
11:CO:120:ALA:HB2	11:CO:137:LYS:HB3	2.02	0.42
17:C2:69:LYS:HB2	17:C2:86:GLY:C	2.45	0.42
21:CV:38:TYR:CD1	21:CV:38:TYR:C	2.97	0.42
21:CV:133:ILE:HD12	21:CV:133:ILE:N	2.34	0.42
21:CV:163:LEU:CD2	21:CV:163:LEU:H	2.33	0.42
23:CZ:21:ARG:HD3	23:CZ:35:THR:HG21	2.01	0.42
23:CZ:27:GLU:O	23:CZ:28:GLY:C	2.62	0.42
24:CW:22:GLU:O	24:CW:26:ARG:HG2	2.20	0.42
26:C4:16:CYS:HB3	26:C4:19:GLY:CA	2.50	0.42
31:DA:21:G:O2'	31:DA:22:G:O4'	2.24	0.42
31:DA:629:G:H2'	31:DA:630:G:H8	1.85	0.42
31:DA:686:U:C1'	41:DN:42:TRP:HE1	2.31	0.42
31:DA:742:G:P	45:DR:35:ARG:HH22	2.43	0.42
31:DA:974:A:H1'	44:DQ:31:ARG:NE	2.35	0.42
31:DA:1126:U:O4	31:DA:1281:U:C6	2.73	0.42
31:DA:1162:C:H2'	31:DA:1163:C:O4'	2.20	0.42
32:DE:162:ILE:O	32:DE:162:ILE:HG13	2.19	0.42
34:DG:36:ARG:O	34:DG:36:ARG:HD3	2.20	0.42
38:DK:102:ARG:H	38:DK:102:ARG:HG2	1.64	0.42
45:DR:18:PHE:CD1	45:DR:18:PHE:C	2.98	0.42
49:DV:49:ILE:HG13	49:DV:62:ILE:CD1	2.40	0.42
52:DB:18:G:H4'	52:DB:19:C:OP1	2.17	0.42
52:DB:47:U:HO2'	52:DB:48:C:C1'	2.29	0.42
52:DD:22:A:N7	52:DD:57:C:N4	2.67	0.42
1:AA:2:G:H1	1:AA:2901:C:H42	1.68	0.41
1:AA:361:G:OP1	56:AA:3424:OHX:N4	2.53	0.41
1:AA:637:A:OP1	11:AO:133:SER:HB3	2.19	0.41
1:AA:784:A:N7	1:AA:792:G:C4	2.88	0.41
1:AA:831:G:C2	1:AA:832:G:H1'	2.55	0.41
1:AA:1185:C:H5"	1:AA:1186:G:OP1	2.20	0.41
1:AA:1198:U:O2	1:AA:1249:U:H1'	2.20	0.41
1:AA:1312:U:C1'	1:AA:1313:U:OP2	2.67	0.41
1:AA:1499:C:O2'	1:AA:1500:G:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1530:G:O6	1:AA:1542:G:N2	2.52	0.41
1:AA:1557:C:OP2	1:AA:1558:A:O2'	2.38	0.41
1:AA:1786:A:C1'	1:AA:1938:A:N6	2.83	0.41
1:AA:1812:A:O2'	3:AD:45:ASN:CB	2.68	0.41
1:AA:1963:U:H6	1:AA:1963:U:OP1	2.03	0.41
1:AA:2126:A:C4	1:AA:2162:G:N2	2.88	0.41
6:AG:35:GLU:O	6:AG:36:LYS:HB3	2.20	0.41
6:AG:77:ILE:HG22	6:AG:82:LEU:HB3	2.00	0.41
6:AG:142:PRO:HG2	6:AG:143:GLU:CD	2.44	0.41
8:AK:114:LEU:HD13	8:AK:130:TYR:CD1	2.55	0.41
10:AN:24:VAL:CG2	10:AN:33:ALA:HB2	2.50	0.41
18:AS:17:VAL:O	18:AS:20:VAL:HG22	2.20	0.41
18:AS:46:PHE:O	18:AS:50:VAL:HG23	2.20	0.41
31:BA:51:A:OP2	31:BA:52:G:C8	2.70	0.41
31:BA:136:C:N3	31:BA:227:G:N2	2.56	0.41
31:BA:233:C:C2	31:BA:234:C:C5	3.08	0.41
31:BA:383:A:H8	31:BA:383:A:O5'	2.03	0.41
31:BA:392:G:C4	31:BA:393:A:C8	3.07	0.41
31:BA:515:G:N3	31:BA:537:G:C2	2.87	0.41
31:BA:654:G:C6	31:BA:655:A:C5	3.07	0.41
31:BA:858:G:O2'	31:BA:859:A:H5"	2.21	0.41
31:BA:1021:G:C2	31:BA:1022:G:C8	3.08	0.41
31:BA:1030:C:H6	31:BA:1030:C:O5'	2.02	0.41
31:BA:1055:A:C5	31:BA:1206:G:C2	3.08	0.41
31:BA:1143:G:N1	31:BA:1144:G:C2	2.88	0.41
31:BA:1165:C:C4	31:BA:1166:G:C6	3.07	0.41
31:BA:1350:A:C5	31:BA:1351:U:C4	3.08	0.41
32:BE:19:HIS:O	32:BE:39:ILE:HG23	2.20	0.41
32:BE:100:GLY:O	32:BE:104:ASN:N	2.53	0.41
33:BF:159:GLY:HA2	33:BF:193:TYR:CG	2.55	0.41
34:BG:3:ARG:HG2	34:BG:118:ARG:CZ	2.49	0.41
34:BG:61:LYS:HD2	34:BG:207:TYR:OH	2.19	0.41
36:BI:100:ASN:O	48:BU:28:GLU:HG2	2.20	0.41
43:BP:5:ALA:CB	43:BP:66:LEU:HD12	2.50	0.41
44:BQ:24:CYS:HB3	44:BQ:28:GLY:H	1.85	0.41
46:BS:43:LYS:HG3	46:BS:48:TRP:CE3	2.54	0.41
50:BW:73:HIS:O	50:BW:76:ALA:HB3	2.19	0.41
52:BD:54:C:OP2	52:BD:54:C:C6	2.73	0.41
1:CA:107:G:H2'	1:CA:108:G:O4'	2.19	0.41
1:CA:235:G:O2'	1:CA:412:U:O2	2.28	0.41
1:CA:496:G:O6	29:C7:39:ARG:NH1	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:582:G:P	9:CM:111:PRO:HD2	2.60	0.41
1:CA:718:A:O2'	56:CA:3363:OHX:N1	2.54	0.41
1:CA:798:A:C2	1:CA:801:C:C6	3.08	0.41
1:CA:937:C:C4	1:CA:938:A:H1'	2.55	0.41
1:CA:1699:G:H2'	1:CA:1700:A:O4'	2.19	0.41
1:CA:1966:U:N3	1:CA:1968:G:O4'	2.52	0.41
1:CA:2113:G:C5	1:CA:2114:U:C4	3.08	0.41
1:CA:2391:A:C5	1:CA:2392:G:H1'	2.55	0.41
1:CA:2401:A:N7	1:CA:2402:G:C6	2.88	0.41
1:CA:2597:U:O2	1:CA:2597:U:O4'	2.38	0.41
1:CA:2701:U:O2	1:CA:2701:U:C3'	2.67	0.41
6:CG:39:ILE:HD11	6:CG:102:PHE:CZ	2.55	0.41
6:CG:67:LYS:HG3	26:C4:5:ILE:HG22	2.02	0.41
11:CO:120:ALA:O	11:CO:121:LYS:HE3	2.20	0.41
19:CT:12:VAL:HG13	19:CT:27:THR:O	2.20	0.41
20:CU:84:ARG:CZ	20:CU:97:ARG:HB2	2.48	0.41
21:CV:6:LYS:HE3	21:CV:43:GLU:CD	2.45	0.41
21:CV:72:ARG:HA	21:CV:72:ARG:HD2	1.89	0.41
21:CV:126:VAL:HA	21:CV:163:LEU:HA	2.01	0.41
21:CV:150:LEU:HD23	21:CV:150:LEU:C	2.45	0.41
23:CZ:96:LYS:HG2	23:CZ:96:LYS:O	2.19	0.41
31:DA:131:C:H2'	31:DA:132:C:C6	2.55	0.41
31:DA:153:C:H2'	31:DA:154:C:O4'	2.19	0.41
31:DA:457:C:N3	31:DA:476:G:C2	2.88	0.41
31:DA:585:G:C6	31:DA:586:C:C4	3.08	0.41
31:DA:643:C:H2'	31:DA:644:G:H8	1.85	0.41
31:DA:730:G:O6	45:DR:51:HIS:NE2	2.40	0.41
31:DA:943:U:C2'	31:DA:944:G:H5'	2.49	0.41
31:DA:1057:G:H4'	33:DF:196:LEU:O	2.20	0.41
31:DA:1176:A:C3'	31:DA:1177:G:H5'	2.50	0.41
32:DE:142:LEU:O	32:DE:142:LEU:HD23	2.19	0.41
32:DE:204:ASN:HB2	32:DE:210:SER:OG	2.20	0.41
37:DJ:87:VAL:CG2	37:DJ:88:PRO:HD2	2.50	0.41
42:DO:97:ILE:HG22	42:DO:98:VAL:H	1.85	0.41
44:DQ:37:PHE:CE1	44:DQ:53:LEU:HD22	2.53	0.41
52:DB:24:G:C8	52:DB:24:G:C3'	3.03	0.41
1:AA:82:G:O2'	1:AA:83:G:H5'	2.19	0.41
1:AA:486:C:H4'	18:AS:60:ASN:HD22	1.85	0.41
1:AA:654(K):C:O2'	1:AA:654(L):G:H5'	2.20	0.41
1:AA:847:U:C4	1:AA:933:A:C2	3.05	0.41
1:AA:1064:C:H2'	1:AA:1065:U:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1091:G:H2'	1:AA:1092:C:H5'	2.02	0.41
1:AA:1491:G:N2	1:AA:1500:G:H1'	2.34	0.41
1:AA:1729:A:C5	1:AA:1731:G:C5	3.08	0.41
1:AA:2155:G:O6	1:AA:2156:G:C2	2.73	0.41
1:AA:2469:A:H5"	1:AA:2469:A:N3	2.34	0.41
1:AA:2629:A:O2'	1:AA:2630:G:C5'	2.62	0.41
1:AA:2853:C:H2'	1:AA:2854:G:H8	1.85	0.41
3:AD:132:PRO:HG3	3:AD:190:TYR:CE1	2.55	0.41
3:AD:240:ALA:O	3:AD:241:PRO:O	2.37	0.41
4:AE:177:PRO:HD2	4:AE:178:GLU:OE1	2.20	0.41
5:AF:23:ASP:O	5:AF:24:LEU:O	2.38	0.41
7:AH:12:PRO:HB2	7:AH:13:LYS:H	1.58	0.41
16:A1:44:ASN:HD21	17:A2:75:PHE:N	2.17	0.41
18:AS:70:TYR:N	18:AS:70:TYR:CD2	2.87	0.41
20:AU:84:ARG:HH12	20:AU:97:ARG:HB2	1.85	0.41
22:A3:48:GLY:HA3	22:A3:80:HIS:ND1	2.34	0.41
24:AW:35:LEU:HB3	24:AW:50:ILE:HG23	2.03	0.41
31:BA:261:U:OP2	50:BW:79:ARG:NH2	2.54	0.41
31:BA:468:A:H4'	46:BS:80:PHE:O	2.20	0.41
31:BA:468:A:C2'	31:BA:474:G:H5'	2.40	0.41
31:BA:977:A:H8	31:BA:1223:C:N3	2.18	0.41
31:BA:1124:G:N2	31:BA:1149:C:N3	2.54	0.41
33:BF:119:ARG:HD3	33:BF:140:ARG:NH2	2.32	0.41
39:BL:79:LEU:HD11	39:BL:83:ARG:HD2	2.02	0.41
48:BU:58:LEU:HD23	48:BU:62:GLU:HB3	2.01	0.41
1:CA:94:G:O2'	24:CW:46:GLN:O	2.34	0.41
1:CA:321:C:O2'	1:CA:322:C:H5'	2.20	0.41
1:CA:466:G:H2'	1:CA:467:G:C8	2.55	0.41
1:CA:474:A:C6	1:CA:481:A:C8	3.08	0.41
1:CA:565:G:C5	1:CA:566:C:C5	3.08	0.41
1:CA:813:G:H2'	1:CA:814:C:C6	2.55	0.41
1:CA:908:U:N3	1:CA:2281:A:C8	2.88	0.41
1:CA:1160:U:H2'	1:CA:1161:G:C8	2.55	0.41
1:CA:2356:C:O2'	1:CA:2386:G:O2'	2.27	0.41
1:CA:2383:G:H21	28:C6:45:LYS:HE3	1.85	0.41
1:CA:2740:U:H4'	10:CN:1:MET:HE1	2.01	0.41
1:CA:2762:A:H2'	1:CA:2763:A:C8	2.54	0.41
2:CB:45:C:H1'	6:CG:93:THR:O	2.21	0.41
5:CF:50:SER:O	5:CF:51:THR:HG23	2.20	0.41
6:CG:16:ARG:NH2	6:CG:28:VAL:HG12	2.34	0.41
8:CK:117:GLU:CD	8:CK:117:GLU:N	2.77	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CO:139:LYS:HB3	11:CO:139:LYS:HE2	1.87	0.41
13:C0:54:LEU:HD12	13:C0:54:LEU:HA	1.90	0.41
16:C1:95:LEU:O	16:C1:98:LEU:HG	2.20	0.41
17:C2:70:ILE:N	17:C2:86:GLY:O	2.29	0.41
21:CV:73:GLN:HB3	21:CV:87:ASP:OD2	2.20	0.41
31:DA:37:U:O2'	31:DA:38:G:H5'	2.20	0.41
31:DA:523:A:H61	42:DO:89:ASP:HB2	1.85	0.41
31:DA:688:G:OP2	31:DA:688:G:O4'	2.38	0.41
31:DA:983:A:H3'	31:DA:983:A:N3	2.35	0.41
31:DA:1130:A:O3'	39:DL:3:GLN:NE2	2.52	0.41
31:DA:1286:A:C2	51:DX:18:TYR:OH	2.73	0.41
31:DA:1298:C:N4	37:DJ:114:ARG:HA	2.35	0.41
31:DA:1319:A:OP2	49:DV:10:PHE:HB3	2.21	0.41
31:DA:1328:C:O2'	31:DA:1329:A:H5'	2.20	0.41
31:DA:1501:C:H5"	31:DA:1502:A:OP2	2.19	0.41
35:DH:13:ILE:H	35:DH:13:ILE:HD12	1.84	0.41
38:DK:82:HIS:NE2	38:DK:138:TRP:NE1	2.68	0.41
38:DK:138:TRP:C	38:DK:138:TRP:CE3	2.98	0.41
42:DO:51:LYS:HE3	42:DO:51:LYS:N	2.34	0.41
49:DV:35:SER:O	49:DV:71:LEU:HD12	2.21	0.41
1:AA:150:C:H2'	1:AA:151:C:H6	1.85	0.41
1:AA:404:C:O2'	1:AA:405:U:OP2	2.33	0.41
1:AA:624:C:O2	1:AA:657:U:H4'	2.21	0.41
1:AA:870:A:C2	1:AA:908:C:C2	3.08	0.41
1:AA:899:A:O2'	1:AA:900:A:O4'	2.38	0.41
1:AA:996:A:H1'	17:A2:9:GLY:O	2.20	0.41
1:AA:1141:U:H4'	1:AA:1142(A):A:O4'	2.20	0.41
1:AA:1261:C:C2'	1:AA:1262:A:O5'	2.67	0.41
1:AA:1313:U:H5"	1:AA:1314:C:OP2	2.20	0.41
1:AA:1386:C:N4	1:AA:1387:C:N4	2.68	0.41
1:AA:1464:C:O2'	1:AA:1528:A:C8	2.66	0.41
1:AA:1504:C:O2'	1:AA:1505:C:H5'	2.20	0.41
1:AA:1729:A:C8	1:AA:1730:U:H5	2.26	0.41
1:AA:1953:A:C2	1:AA:2550:G:O4'	2.74	0.41
1:AA:2060:A:C1'	1:AA:2061:G:OP2	2.68	0.41
1:AA:2345:G:H1'	1:AA:2382:G:H5'	2.03	0.41
1:AA:2822:G:H2'	1:AA:2823:A:H5"	2.03	0.41
1:AA:2864:G:O2'	1:AA:2865:U:H5'	2.20	0.41
2:AB:48:A:H2'	2:AB:49:C:C6	2.55	0.41
3:AD:28:GLU:CB	3:AD:29:PRO:CD	2.74	0.41
7:AH:136:ILE:HD12	7:AH:136:ILE:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:17:LYS:HE2	11:AO:27:HIS:CE1	2.55	0.41
12:AP:21:THR:OG1	12:AP:101:ARG:N	2.52	0.41
15:AR:16:ARG:NH2	15:AR:83:ILE:O	2.53	0.41
22:A3:49:LYS:O	22:A3:80:HIS:HB2	2.21	0.41
22:A3:83:PRO:O	22:A3:84:LEU:HB3	2.19	0.41
31:BA:255:G:O6	31:BA:270:A:N6	2.53	0.41
31:BA:413:G:H2'	31:BA:414:A:OP2	2.20	0.41
31:BA:890:G:N2	31:BA:906:G:H2'	2.35	0.41
31:BA:1236:A:O2'	31:BA:1304:G:H4'	2.20	0.41
31:BA:1302:U:OP2	31:BA:1302:U:H4'	2.20	0.41
31:BA:1392:G:N2	31:BA:1502:A:C8	2.83	0.41
31:BA:1501:C:C5	31:BA:1504:G:C5	3.08	0.41
33:BF:71:ALA:HB2	33:BF:106:VAL:HB	2.01	0.41
38:BK:7:ALA:H	38:BK:85:ARG:NH1	2.17	0.41
38:BK:9:MET:HG3	38:BK:26:VAL:HG21	2.01	0.41
40:BM:98:ILE:HD12	40:BM:98:ILE:N	2.35	0.41
41:BN:111:ASP:O	41:BN:112:THR:C	2.64	0.41
45:BR:86:GLY:O	45:BR:87:ILE:HD13	2.20	0.41
46:BS:13:HIS:C	46:BS:15:PRO:HD3	2.45	0.41
46:BS:50:LYS:O	46:BS:51:VAL:HG23	2.21	0.41
50:BW:56:MET:HG2	50:BW:84:LEU:HD21	2.02	0.41
52:BD:1:G:N3	52:BD:82:A:C2	2.88	0.41
52:BD:21:A:C2	52:BD:56:U:C4	3.09	0.41
1:CA:48:A:C4'	1:CA:49:U:OP2	2.69	0.41
1:CA:260:A:N1	1:CA:397:C:O2'	2.49	0.41
1:CA:303:A:O2'	1:CA:304:C:H5"	2.20	0.41
1:CA:376:G:O2'	1:CA:378:G:N7	2.50	0.41
1:CA:853:G:O5'	11:CO:41:ARG:HG2	2.21	0.41
1:CA:1035:A:H2'	1:CA:1036:G:O5'	2.21	0.41
1:CA:1132:A:C2	1:CA:1133:A:C4	3.08	0.41
1:CA:1360:U:C2	1:CA:1657:A:C2	3.08	0.41
1:CA:1593:A:N7	1:CA:1594:C:O2	2.53	0.41
1:CA:1714:G:H2'	1:CA:1715:G:H5'	2.01	0.41
1:CA:2082:A:C5'	1:CA:2083:A:OP2	2.65	0.41
1:CA:2161:C:C2	1:CA:2177:G:N2	2.88	0.41
1:CA:2186:C:H5'	1:CA:2195:U:H5"	2.02	0.41
1:CA:2244:C:H2'	1:CA:2245:U:O4'	2.19	0.41
1:CA:2304:U:O2'	1:CA:2387:C:O2	2.34	0.41
1:CA:2560:U:O2'	1:CA:2561:G:H5'	2.20	0.41
2:CB:34:C:C2'	2:CB:35:G:O5'	2.68	0.41
2:CB:48:A:C5	2:CB:49:C:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CE:37:ARG:HD2	4:CE:80:GLU:OE2	2.20	0.41
4:CE:101:ARG:CG	4:CE:203:LYS:HE3	2.44	0.41
5:CF:25:PRO:HG2	5:CF:26:ALA:H	1.85	0.41
5:CF:122:LYS:HD2	5:CF:191:ARG:HE	1.84	0.41
6:CG:5:VAL:HG22	26:C4:25:TYR:CE2	2.54	0.41
6:CG:29:TRP:O	6:CG:30:GLU:C	2.63	0.41
6:CG:31:VAL:HA	6:CG:32:PRO:HD3	1.94	0.41
6:CG:60:LEU:O	6:CG:64:THR:HG22	2.20	0.41
8:CK:133:HIS:CG	8:CK:134:PRO:HD3	2.55	0.41
11:CO:62:LEU:HD23	11:CO:62:LEU:O	2.20	0.41
12:CP:110:THR:H	12:CP:113:GLN:HG3	1.85	0.41
14:CQ:84:GLN:HB3	14:CQ:109:GLY:HA3	2.03	0.41
15:CR:27:THR:HG23	15:CR:89:VAL:HG22	2.02	0.41
18:CS:24:ILE:HA	18:CS:27:LYS:HG3	2.02	0.41
21:CV:116:VAL:C	21:CV:117:LEU:HD22	2.45	0.41
21:CV:124:ILE:HD11	21:CV:165:VAL:HG21	2.01	0.41
25:CX:6:VAL:HG12	25:CX:56:VAL:HB	2.01	0.41
31:DA:22:G:H2'	31:DA:23:C:C6	2.55	0.41
31:DA:199:G:H2'	31:DA:200:G:H8	1.85	0.41
31:DA:616:G:C2	31:DA:617:G:C8	3.08	0.41
31:DA:686:U:HO2'	31:DA:687:A:C5'	2.34	0.41
31:DA:782:A:H4'	31:DA:1514:C:O2'	2.20	0.41
31:DA:807:A:H2'	31:DA:808:C:O4'	2.20	0.41
31:DA:1187:G:N3	31:DA:1187:G:H2'	2.35	0.41
31:DA:1291:G:H2'	31:DA:1292:U:C6	2.55	0.41
32:DE:200:ILE:HG22	32:DE:202:PRO:HD3	2.01	0.41
34:DG:79:PHE:CE1	34:DG:204:ILE:HD13	2.56	0.41
35:DH:100:VAL:HG23	35:DH:118:ILE:HG23	2.02	0.41
40:DM:6:ILE:CD1	40:DM:72:VAL:HB	2.46	0.41
41:DN:124:LYS:HE3	41:DN:124:LYS:HB2	1.77	0.41
42:DO:15:VAL:O	42:DO:16:ARG:CB	2.61	0.41
43:DP:52:GLU:OE1	43:DP:52:GLU:N	2.49	0.41
45:DR:3:ILE:HD13	45:DR:3:ILE:N	2.35	0.41
52:DD:38:MIA:H2'	52:DD:39:A:O4'	2.20	0.41
1:AA:39:C:H2'	1:AA:40:C:H6	1.84	0.41
1:AA:548:A:H2'	1:AA:549:G:O4'	2.20	0.41
1:AA:577:G:C6	1:AA:578:A:C6	3.08	0.41
1:AA:607:U:O4	1:AA:619:G:H2'	2.20	0.41
1:AA:1130:U:C1'	1:AA:1131:G:OP1	2.68	0.41
1:AA:1170:G:N2	1:AA:1180:C:C2	2.89	0.41
1:AA:1992:G:H1'	1:AA:1993:U:OP2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2167:U:O2'	1:AA:2168:G:P	2.67	0.41
1:AA:2224:G:OP1	3:AD:268:ARG:HD2	2.20	0.41
1:AA:2335:A:C8	1:AA:2337:G:C5	3.08	0.41
2:AB:91:C:H2'	2:AB:92:G:H8	1.85	0.41
4:AE:101:ARG:C	4:AE:201:THR:OG1	2.63	0.41
5:AF:167:ALA:O	5:AF:169:ASN:N	2.53	0.41
10:AN:49:ARG:HH22	31:BA:1423:G:P	2.43	0.41
11:AO:91:PHE:CD2	11:AO:91:PHE:N	2.88	0.41
11:AO:96:THR:C	11:AO:98:GLU:N	2.79	0.41
14:AQ:101:LEU:HD12	14:AQ:101:LEU:C	2.45	0.41
18:AS:75:TYR:CZ	18:AS:104:THR:HG21	2.55	0.41
21:AV:53:ILE:HG22	21:AV:71:VAL:HG13	2.03	0.41
21:AV:54:HIS:CE1	21:AV:123:ASP:OD2	2.73	0.41
21:AV:120:ILE:O	21:AV:121:HIS:CG	2.73	0.41
30:A8:22:VAL:HB	30:A8:53:PRO:HB2	2.02	0.41
31:BA:412:A:C1'	31:BA:413:G:OP2	2.65	0.41
31:BA:591:U:H2'	31:BA:592:G:H8	1.85	0.41
31:BA:901:A:H8	31:BA:901:A:O5'	2.02	0.41
31:BA:1158:C:N4	31:BA:1160:G:C4	2.89	0.41
31:BA:1338:G:C6	31:BA:1339:A:C6	3.09	0.41
32:BE:229:VAL:CG1	32:BE:230:VAL:N	2.81	0.41
33:BF:28:GLN:O	33:BF:29:TYR:C	2.63	0.41
37:BJ:38:LEU:O	37:BJ:42:ILE:HG13	2.20	0.41
38:BK:10:LEU:HD11	38:BK:135:CYS:SG	2.61	0.41
39:BL:5:TYR:CG	39:BL:6:GLY:N	2.87	0.41
39:BL:33:PHE:CZ	39:BL:47:LEU:HD11	2.56	0.41
41:BN:79:SER:HB2	41:BN:106:LYS:HD2	2.02	0.41
46:BS:6:LEU:HD12	46:BS:6:LEU:N	2.34	0.41
47:BT:18:THR:HG22	47:BT:19:VAL:N	2.35	0.41
53:BC:1:C:N4	53:BC:74:A:C2	2.88	0.41
52:BD:21:A:O4'	52:BD:22:A:O5'	2.38	0.41
1:CA:79:G:N2	1:CA:80:G:H1'	2.34	0.41
1:CA:140:A:H1'	1:CA:1455:C:O4'	2.20	0.41
1:CA:255:A:N6	1:CA:456:A:H1'	2.35	0.41
1:CA:300:G:OP2	1:CA:300:G:H8	2.03	0.41
1:CA:422:A:C2	1:CA:423:U:O2	2.73	0.41
1:CA:979:A:N7	1:CA:980:G:C1'	2.84	0.41
1:CA:1071:G:OP2	1:CA:1072:G:H3'	2.19	0.41
1:CA:1415:G:C2	1:CA:1416:G:C8	3.09	0.41
1:CA:1634:A:H3'	1:CA:1635:C:H6	1.84	0.41
1:CA:1851:A:H2'	3:CD:178:PRO:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1871:G:N7	1:CA:1950:A:H1'	2.35	0.41
1:CA:1900:A:H3'	1:CA:1901:G:O4'	2.20	0.41
1:CA:2033:G:P	18:CS:41:LYS:HD3	2.60	0.41
1:CA:2091:U:N3	1:CA:2443:A:C2	2.83	0.41
1:CA:2163:C:C2	1:CA:2175:G:C2	3.09	0.41
1:CA:2417:C:O3'	11:CO:77:ARG:NH2	2.53	0.41
1:CA:2817:G:O2'	1:CA:2818:G:O4'	2.37	0.41
3:CD:267:SER:HA	3:CD:270:ILE:HD11	2.02	0.41
4:CE:122:PHE:HZ	4:CE:155:LYS:HB2	1.85	0.41
4:CE:171:GLU:O	4:CE:184:VAL:HA	2.21	0.41
5:CF:132:VAL:CG2	5:CF:133:ASN:H	2.14	0.41
5:CF:185:ASP:CG	5:CF:188:ARG:HH21	2.27	0.41
7:CH:86:GLU:O	7:CH:87:LEU:HD23	2.21	0.41
9:CM:99:LEU:HA	9:CM:99:LEU:HD23	1.85	0.41
12:CP:103:MET:HE2	12:CP:103:MET:HB2	1.93	0.41
12:CP:112:GLU:HG2	12:CP:113:GLN:N	2.34	0.41
14:CQ:99:LYS:HE2	14:CQ:103:GLU:OE2	2.19	0.41
15:CR:23:ARG:HD3	15:CR:120:ARG:CD	2.50	0.41
21:CV:156:LYS:O	21:CV:157:LEU:HB2	2.20	0.41
24:CW:31:GLU:O	24:CW:35:LEU:HD23	2.20	0.41
25:CX:4:LEU:O	25:CX:36:VAL:HA	2.19	0.41
26:C4:9:LEU:H	26:C4:9:LEU:HD22	1.85	0.41
29:C7:36:GLN:HE21	29:C7:36:GLN:HB3	1.53	0.41
31:DA:39:G:N7	31:DA:547:A:C8	2.89	0.41
31:DA:52:G:C6	31:DA:53:A:C5	3.09	0.41
31:DA:865:A:C2	31:DA:918:A:H4'	2.56	0.41
31:DA:1415:G:C2'	31:DA:1416:G:H5'	2.50	0.41
36:DI:62:TRP:C	36:DI:63:TYR:CD2	2.98	0.41
36:DI:70:ASP:OD1	36:DI:71:ARG:HG3	2.20	0.41
37:DJ:99:LEU:HD22	37:DJ:103:TRP:CZ2	2.56	0.41
38:DK:72:PRO:O	38:DK:73:ASP:HB3	2.21	0.41
42:DO:21:VAL:C	42:DO:23:ALA:N	2.76	0.41
42:DO:59:SER:O	42:DO:61:TYR:N	2.54	0.41
42:DO:80:VAL:CG1	42:DO:81:LEU:N	2.81	0.41
47:DT:58:GLU:O	47:DT:59:ILE:HD13	2.20	0.41
1:AA:576:U:H2'	1:AA:577:G:C8	2.55	0.41
1:AA:577:G:O6	1:AA:578:A:N6	2.53	0.41
1:AA:1153:C:C4	1:AA:1154:G:C5	3.09	0.41
1:AA:1153:C:H5'	16:A1:76:TYR:HE2	1.85	0.41
1:AA:1509:C:C2'	1:AA:1510:A:OP1	2.69	0.41
1:AA:1551:C:H2'	1:AA:1552:G:O5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1803:A:H4'	3:AD:259:THR:HG23	2.03	0.41
1:AA:2032:G:O2'	4:AE:145:LYS:NZ	2.54	0.41
1:AA:2339:G:H2'	1:AA:2340:G:C8	2.54	0.41
1:AA:2392:A:H8	11:AO:60:MET:CB	2.24	0.41
1:AA:2626:C:H2'	1:AA:2627:G:O4'	2.21	0.41
3:AD:155:LEU:HD23	3:AD:177:LEU:HD22	1.96	0.41
4:AE:41:LYS:HA	4:AE:41:LYS:CE	2.35	0.41
5:AF:37:VAL:HG12	5:AF:38:ARG:N	2.34	0.41
6:AG:105:LYS:O	6:AG:109:VAL:HB	2.20	0.41
6:AG:172:LEU:O	6:AG:176:LEU:HB2	2.20	0.41
7:AH:71:LEU:HD12	7:AH:71:LEU:HA	1.97	0.41
8:AK:92:VAL:O	8:AK:120:ILE:HG22	2.20	0.41
16:A1:115:ALA:O	16:A1:116:ALA:HB2	2.20	0.41
21:AV:125:LEU:HG	21:AV:164:ALA:CB	2.51	0.41
24:AW:41:ILE:HD13	24:AW:44:LEU:HG	2.02	0.41
26:A4:50:VAL:CG1	26:A4:50:VAL:O	2.69	0.41
27:A5:41:PRO:HA	27:A5:42:PRO:HD3	1.90	0.41
30:A8:14:VAL:CG1	30:A8:22:VAL:HG13	2.50	0.41
31:BA:200:G:N2	31:BA:218:C:N3	2.69	0.41
31:BA:255:G:H5'	47:BT:16:GLN:O	2.20	0.41
31:BA:297:G:H4'	31:BA:557:G:H4'	2.01	0.41
31:BA:954:G:H21	31:BA:1227:A:N6	2.16	0.41
31:BA:1206:G:C6	31:BA:1207:G:C5	3.08	0.41
31:BA:1256:A:OP2	33:BF:26:LYS:HE2	2.20	0.41
31:BA:1450:U:O2'	31:BA:1451:A:H3'	2.20	0.41
34:BG:70:ILE:HG23	34:BG:75:PHE:HB2	2.02	0.41
34:BG:162:LEU:HD13	34:BG:181:MET:HG2	2.01	0.41
40:BM:55:LYS:O	40:BM:56:HIS:CG	2.73	0.41
43:BP:13:LYS:HA	43:BP:13:LYS:HZ2	1.85	0.41
43:BP:20:THR:O	43:BP:22:ILE:N	2.52	0.41
45:BR:57:LEU:HD23	45:BR:57:LEU:HA	1.86	0.41
45:BR:78:TYR:CD2	45:BR:79:ARG:N	2.88	0.41
50:BW:30:LYS:HE2	50:BW:72:LEU:HD12	2.01	0.41
50:BW:34:LYS:HE3	50:BW:34:LYS:HB2	1.81	0.41
52:BB:17:G:C6	52:BB:67:A:C6	3.08	0.41
52:BD:50:U:C2'	52:BD:51:C:O4'	2.64	0.41
1:CA:45:C:OP2	1:CA:205:G:H2'	2.21	0.41
1:CA:135:C:OP2	56:CA:3326:OHX:N2	2.54	0.41
1:CA:332:G:N2	1:CA:334:G:H3'	2.35	0.41
1:CA:403:C:O5'	1:CA:403:C:H6	2.04	0.41
1:CA:409:G:C5	1:CA:422:A:N1	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:584:C:O2	16:C1:49:HIS:CE1	2.74	0.41
1:CA:631:U:N3	1:CA:647:A:C2	2.86	0.41
1:CA:796:G:H5'	1:CA:2625:C:N4	2.34	0.41
1:CA:916:U:C2	1:CA:917:G:C8	3.09	0.41
1:CA:955:C:O2'	1:CA:956:A:H5'	2.21	0.41
1:CA:1233:G:O5'	1:CA:1233:G:H8	2.04	0.41
1:CA:1439:A:C6	1:CA:1440:A:C6	3.08	0.41
1:CA:1803:C:O2'	1:CA:1818:A:O4'	2.34	0.41
1:CA:1822:C:O2'	3:CD:209:ALA:HB2	2.21	0.41
1:CA:1858:G:H2'	1:CA:1859:C:O4'	2.21	0.41
1:CA:2078:C:H5'	1:CA:2079:G:O5'	2.21	0.41
1:CA:2134:C:C2	1:CA:2141:U:O2'	2.64	0.41
1:CA:2230:A:O2'	1:CA:2232:G:C8	2.68	0.41
1:CA:2249:C:H2'	1:CA:2250:G:H5'	2.02	0.41
1:CA:2274:C:C2	1:CA:2293:G:C2	3.08	0.41
1:CA:2406:A:H2'	1:CA:2407:C:O4'	2.20	0.41
1:CA:2477:C:C2	1:CA:2500:G:N2	2.88	0.41
1:CA:2799:C:C2'	1:CA:2800:U:H5'	2.50	0.41
1:CA:2884:A:N3	1:CA:2884:A:C2'	2.81	0.41
5:CF:89:VAL:CG1	5:CF:90:PHE:H	2.23	0.41
6:CG:76:SER:OG	6:CG:84:LYS:N	2.54	0.41
9:CM:123:TYR:CZ	9:CM:129:PRO:HD3	2.56	0.41
12:CP:16:ARG:O	12:CP:17:LEU:HD23	2.20	0.41
12:CP:27:VAL:HG21	12:CP:132:VAL:CG1	2.49	0.41
12:CP:28:ALA:O	12:CP:105:GLU:CD	2.59	0.41
25:CX:19:GLN:NE2	25:CX:52:HIS:CE1	2.80	0.41
31:DA:39:G:N7	31:DA:547:A:H8	2.18	0.41
31:DA:247:G:C6	31:DA:278:G:C2	3.08	0.41
31:DA:360:A:N6	31:DA:361:G:C6	2.89	0.41
31:DA:377:G:O2'	31:DA:378:G:H5'	2.21	0.41
31:DA:411:A:C2	31:DA:431:A:N6	2.89	0.41
31:DA:601:C:N3	31:DA:637:G:N2	2.62	0.41
31:DA:681:C:C2	31:DA:710:G:N2	2.88	0.41
31:DA:1116:C:N4	31:DA:1184:G:H1	2.19	0.41
31:DA:1329:A:O2'	31:DA:1330:U:H5'	2.19	0.41
33:DF:184:TYR:CD1	33:DF:201:TYR:CE2	3.08	0.41
34:DG:159:ARG:HG3	34:DG:159:ARG:H	1.49	0.41
41:DN:99:GLN:HA	41:DN:105:VAL:HG11	2.03	0.41
41:DN:100:ALA:C	41:DN:102:GLY:N	2.74	0.41
47:DT:58:GLU:HB2	47:DT:74:LEU:HB3	2.03	0.41
48:DU:37:VAL:HB	48:DU:79:LEU:CD2	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DD:35:G:C2	54:D1:14:A:C2	3.08	0.41
1:AA:57:C:H2'	1:AA:58:G:O4'	2.21	0.41
1:AA:301:G:H1'	1:AA:302:C:C6	2.55	0.41
1:AA:586:A:N1	1:AA:809:G:O2'	2.43	0.41
1:AA:654(D):G:C6	1:AA:654(E):C:N4	2.89	0.41
1:AA:662:G:O2'	1:AA:663:G:H5'	2.20	0.41
1:AA:695:G:OP1	1:AA:1380:G:O2'	2.34	0.41
1:AA:812:C:H5"	1:AA:1250:G:O2'	2.20	0.41
1:AA:1068:G:H1'	1:AA:1096:A:N3	2.35	0.41
1:AA:1156:A:C8	16:A1:51:LYS:HD3	2.56	0.41
1:AA:1230:C:H2'	1:AA:1231:G:H8	1.85	0.41
1:AA:2781:A:OP2	56:AA:3534:OHX:N3	2.54	0.41
1:AA:2861:G:C4	1:AA:2862:G:C8	3.08	0.41
2:AB:30:C:C2'	2:AB:31:C:H5'	2.43	0.41
2:AB:43:C:P	6:AG:67:LYS:NZ	2.86	0.41
3:AD:11:PRO:C	3:AD:13:ARG:N	2.77	0.41
3:AD:65:ILE:CG1	3:AD:67:PHE:CE1	3.03	0.41
4:AE:76:ARG:HD2	4:AE:76:ARG:N	2.35	0.41
7:AH:20:ALA:O	7:AH:21:PRO:C	2.63	0.41
7:AH:26:VAL:HG21	7:AH:75:ALA:HB1	2.02	0.41
7:AH:40:GLU:O	7:AH:41:MET:HB2	2.20	0.41
9:AM:120:LEU:HD22	9:AM:120:LEU:C	2.46	0.41
12:AP:31:ASP:O	12:AP:133:ARG:O	2.39	0.41
14:AQ:49:VAL:HG21	14:AQ:77:ALA:HA	2.03	0.41
17:A2:35:LEU:H	17:A2:35:LEU:CD2	2.33	0.41
17:A2:46:VAL:O	17:A2:46:VAL:HG13	2.21	0.41
19:AT:8:ILE:N	19:AT:8:ILE:HD12	2.35	0.41
21:AV:128:VAL:CA	21:AV:161:VAL:HG21	2.46	0.41
31:BA:49:U:H3	31:BA:362:G:H1'	1.85	0.41
31:BA:79:G:N2	31:BA:90:C:C2	2.86	0.41
31:BA:172:A:N3	31:BA:172:A:H2'	2.35	0.41
31:BA:568:G:H2'	31:BA:568:G:N3	2.36	0.41
31:BA:638:G:H2'	31:BA:639:G:O5'	2.20	0.41
31:BA:1055:A:H2'	31:BA:1056:U:O5'	2.20	0.41
31:BA:1060:C:H5"	40:BM:51:ARG:HG2	2.02	0.41
31:BA:1115:C:N3	31:BA:1116:C:C5	2.89	0.41
31:BA:1125:U:O2	31:BA:1125:U:H2'	2.19	0.41
31:BA:1234:C:C1'	31:BA:1364:U:O2	2.67	0.41
32:BE:223:ILE:HG22	32:BE:228:GLY:O	2.21	0.41
33:BF:35:GLU:OE1	33:BF:95:THR:HG23	2.20	0.41
36:BI:18:GLN:O	36:BI:21:LEU:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BK:58:TYR:O	38:BK:59:LEU:HD23	2.21	0.41
39:BL:125:TYR:HD2	39:BL:126:SER:H	1.66	0.41
40:BM:63:PHE:CD2	40:BM:63:PHE:N	2.88	0.41
40:BM:75:ILE:HG13	40:BM:76:ASN:H	1.84	0.41
48:BU:21:LYS:O	48:BU:22:VAL:HB	2.20	0.41
52:BB:18:G:H3'	52:BB:19:C:N3	2.36	0.41
53:BC:49:C:C2	53:BC:60:A:H1'	2.56	0.41
1:CA:75:C:O2'	24:CW:62:THR:HG21	2.21	0.41
1:CA:192:U:H2'	1:CA:193:C:O4'	2.21	0.41
1:CA:262:A:N1	1:CA:292:G:O2'	2.44	0.41
1:CA:539:A:C2	1:CA:540:A:C4	3.08	0.41
1:CA:657:A:H2'	1:CA:658:A:O4'	2.20	0.41
1:CA:956:A:C4	1:CA:959:C:C5	3.08	0.41
1:CA:1063:G:C2	1:CA:1194:C:C2	3.09	0.41
1:CA:1069:G:C6	1:CA:1186:C:N3	2.88	0.41
1:CA:1195:A:N6	1:CA:1196:G:O6	2.54	0.41
1:CA:1444:U:O2'	1:CA:1445:C:H6	2.04	0.41
1:CA:2230:A:H1'	1:CA:2232:G:C6	2.55	0.41
1:CA:2250:G:O6	56:CA:3486:OHX:N5	2.53	0.41
1:CA:2263:G:O2'	1:CA:2509:C:OP1	2.23	0.41
1:CA:2269:G:O2'	1:CA:2270:U:H5'	2.21	0.41
1:CA:2312:G:C6	1:CA:2331:G:C8	3.09	0.41
1:CA:2339:C:OP1	56:DC:108:OHX:N5	2.53	0.41
1:CA:2366:G:H2'	1:CA:2367:G:O4'	2.21	0.41
1:CA:2803:C:C2'	1:CA:2804:A:H5"	2.50	0.41
1:CA:2805:C:H2'	1:CA:2806:G:H8	1.85	0.41
1:CA:2866:C:H2'	1:CA:2867:C:C6	2.56	0.41
2:CB:11:G:C6	2:CB:115:G:C6	3.08	0.41
3:CD:210:GLY:O	3:CD:213:ARG:N	2.52	0.41
3:CD:237:GLU:CG	3:CD:238:GLY:H	2.33	0.41
4:CE:72:VAL:O	4:CE:73:GLU:C	2.63	0.41
6:CG:173:LEU:HD13	6:CG:178:PHE:CE1	2.56	0.41
7:CH:20:ALA:HB3	7:CH:23:ARG:HG3	2.02	0.41
9:CM:47:ALA:HB2	9:CM:112:LEU:HD21	2.02	0.41
11:CO:61:ARG:NH2	11:CO:61:ARG:HB3	2.24	0.41
13:C0:25:ALA:O	13:C0:27:SER:N	2.53	0.41
14:CQ:10:ARG:O	14:CQ:14:VAL:CG1	2.68	0.41
14:CQ:88:ASP:O	14:CQ:89:ARG:CB	2.68	0.41
16:C1:98:LEU:HD13	16:C1:106:PHE:HB2	2.03	0.41
17:C2:5:VAL:HB	17:C2:37:VAL:CG1	2.50	0.41
19:CT:65:ARG:C	19:CT:67:GLY:H	2.29	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CU:81:LYS:HZ2	20:CU:97:ARG:NH2	2.18	0.41
21:CV:161:VAL:CG2	21:CV:162:GLU:H	2.33	0.41
22:C3:60:PHE:CD2	22:C3:60:PHE:N	2.88	0.41
24:CW:32:LEU:HD22	24:CW:57:ILE:CD1	2.50	0.41
28:C6:26:ASN:ND2	28:C6:51:GLU:OE2	2.54	0.41
31:DA:136:C:O2'	46:DS:65:GLN:NE2	2.52	0.41
31:DA:491:G:O2'	31:DA:492:G:H5'	2.19	0.41
31:DA:501:C:H2'	31:DA:502:G:H8	1.85	0.41
31:DA:1058:G:C6	31:DA:1059:C:N3	2.89	0.41
31:DA:1357:A:N7	31:DA:1358:U:C4	2.88	0.41
31:DA:1502:A:N3	31:DA:1502:A:C2'	2.84	0.41
32:DE:63:MET:CG	32:DE:225:ALA:HB1	2.48	0.41
32:DE:164:VAL:HG11	32:DE:167:PRO:HA	2.02	0.41
34:DG:205:GLU:OE1	35:DH:100:VAL:HG12	2.20	0.41
35:DH:15:ARG:NH1	54:D1:25:A:H8	2.19	0.41
37:DJ:72:ARG:HA	37:DJ:72:ARG:HD2	1.88	0.41
42:DO:4:ILE:O	42:DO:7:LEU:HB2	2.21	0.41
47:DT:32:TYR:O	47:DT:34:LYS:N	2.51	0.41
52:DB:42:U:H2'	52:DB:43:G:C8	2.55	0.41
53:DC:18:C:O2'	53:DC:18:C:O2	2.31	0.41
1:AA:414:C:O2	1:AA:1864:U:O2'	2.36	0.41
1:AA:731:C:O2	1:AA:731:C:H2'	2.21	0.41
1:AA:1084:A:C5	1:AA:1085:A:N7	2.89	0.41
1:AA:1166:C:H6	1:AA:1166:C:O5'	2.04	0.41
1:AA:1287:A:OP1	13:A0:105:ARG:O	2.39	0.41
1:AA:1471:A:H2'	1:AA:1471:A:N3	2.34	0.41
1:AA:1567:A:C5'	3:AD:58:HIS:CD2	3.04	0.41
1:AA:2157:G:O2'	1:AA:2158:A:P	2.78	0.41
1:AA:2594:C:H2'	1:AA:2595:G:H8	1.86	0.41
1:AA:2720:U:H2'	1:AA:2721:A:H8	1.86	0.41
1:AA:2837:G:C5	1:AA:2838:G:N7	2.88	0.41
2:AB:11:C:OP2	2:AB:12:C:H5	2.04	0.41
2:AB:45:A:OP1	6:AG:96:ARG:HD2	2.21	0.41
3:AD:18:VAL:HG12	3:AD:19:ALA:N	2.36	0.41
3:AD:134:ARG:HG3	3:AD:135:PHE:CE2	2.55	0.41
3:AD:198:ASN:O	3:AD:198:ASN:CG	2.63	0.41
4:AE:1:MET:HB2	4:AE:200:GLU:OE1	2.21	0.41
4:AE:167:VAL:HG21	4:AE:187:ALA:CB	2.50	0.41
5:AF:196:LEU:C	5:AF:197:ASP:O	2.62	0.41
6:AG:99:MET:HE3	6:AG:99:MET:HB2	1.86	0.41
7:AH:111:HIS:HB2	7:AH:112:PRO:HD2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:95:LYS:O	8:AK:95:LYS:HD2	2.21	0.41
9:AM:39:ARG:HB3	9:AM:41:ASP:OD1	2.20	0.41
9:AM:48:MET:O	9:AM:48:MET:SD	2.79	0.41
11:AO:24:GLY:O	11:AO:25:SER:HB3	2.19	0.41
16:A1:66:ASN:HB2	16:A1:76:TYR:CB	2.47	0.41
21:AV:51:ALA:O	21:AV:52:SER:HB3	2.19	0.41
21:AV:52:SER:O	21:AV:52:SER:OG	2.37	0.41
23:AZ:86:SER:O	23:AZ:89:GLU:N	2.50	0.41
25:AX:19:GLN:NE2	25:AX:52:HIS:HE1	2.18	0.41
28:A6:19:ARG:HG3	28:A6:21:TYR:CE2	2.56	0.41
30:A8:28:GLY:O	30:A8:36:LYS:NZ	2.53	0.41
30:A8:31:HIS:O	30:A8:31:HIS:CD2	2.74	0.41
31:BA:92:G:H3'	31:BA:93:U:C6	2.55	0.41
31:BA:96:G:N1	31:BA:97:U:C2	2.89	0.41
31:BA:317:G:C6	31:BA:318:G:C5	3.09	0.41
31:BA:629:G:C2	31:BA:630:G:C6	3.09	0.41
31:BA:989:C:N3	31:BA:1216:G:N2	2.59	0.41
31:BA:1050:G:N3	31:BA:1050:G:H2'	2.35	0.41
31:BA:1124:G:H5'	40:BM:35:SER:HB2	2.02	0.41
31:BA:1141:C:O2'	31:BA:1142:G:H5'	2.21	0.41
32:BE:158:LEU:H	32:BE:158:LEU:HD12	1.85	0.41
32:BE:189:ASP:CG	32:BE:190:THR:N	2.78	0.41
34:BG:62:GLN:HB3	34:BG:66:ARG:NH1	2.36	0.41
34:BG:72:GLU:O	34:BG:73:ARG:C	2.64	0.41
47:BT:37:LYS:HB2	47:BT:37:LYS:HE3	1.87	0.41
47:BT:66:SER:O	47:BT:67:LYS:C	2.62	0.41
52:BB:41:C:C4	52:BB:42:U:C4	3.09	0.41
52:BB:50:U:C5	52:BB:51:C:C4	3.09	0.41
1:CA:63:A:O3'	19:CT:71:GLY:HA3	2.20	0.41
1:CA:493:A:H5'	29:C7:21:ARG:NH2	2.35	0.41
1:CA:622:G:C6	1:CA:623:G:C5	3.08	0.41
1:CA:831:A:C4	1:CA:833:G:H1'	2.55	0.41
1:CA:940:C:C4'	1:CA:941:C:OP1	2.66	0.41
1:CA:1054:C:OP1	9:CM:37:LYS:NZ	2.45	0.41
1:CA:1069:G:C1'	1:CA:1070:U:OP2	2.67	0.41
1:CA:1072:G:OP1	1:CA:1072:G:C8	2.63	0.41
1:CA:1108:U:C4'	1:CA:1117:A:H1'	2.50	0.41
1:CA:1188:U:O2	1:CA:1188:U:C2'	2.65	0.41
1:CA:1366:G:C6	1:CA:1367:C:N4	2.89	0.41
1:CA:1924:A:H2'	1:CA:1924:A:N3	2.36	0.41
1:CA:1944:G:C5	56:CA:3234:OHX:N2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:2321:G:C8	1:CA:2323:A:C2	3.09	0.41
1:CA:2373:A:H2'	1:CA:2374:A:O4'	2.20	0.41
1:CA:2404:G:N2	1:CA:2442:G:O4'	2.54	0.41
1:CA:2441:G:H5"	1:CA:2442:G:O5'	2.20	0.41
1:CA:2549:G:C5	1:CA:2550:U:C5	3.09	0.41
2:CB:17:A:H3'	2:CB:18:G:C5'	2.40	0.41
2:CB:26:G:N2	2:CB:30:C:O2	2.53	0.41
3:CD:35:LYS:CB	3:CD:64:ILE:H	2.34	0.41
4:CE:8:LYS:C	4:CE:9:VAL:HG22	2.46	0.41
5:CF:126:VAL:HB	5:CF:127:GLU:H	1.60	0.41
6:CG:7:LEU:O	6:CG:7:LEU:HD23	2.20	0.41
8:CK:54:GLN:HE21	8:CK:54:GLN:HB2	1.56	0.41
9:CM:71:ILE:HD12	9:CM:71:ILE:C	2.46	0.41
11:CO:144:GLU:HA	11:CO:145:PRO:HD3	1.89	0.41
14:CQ:9:ARG:O	14:CQ:10:ARG:C	2.64	0.41
14:CQ:19:LYS:HE3	14:CQ:42:ASP:OD2	2.21	0.41
15:CR:6:LEU:CD1	15:CR:9:LEU:HD12	2.50	0.41
16:C1:112:ARG:HH11	17:C2:47:VAL:CG1	2.34	0.41
17:C2:79:VAL:C	17:C2:80:GLN:NE2	2.78	0.41
17:C2:98:GLU:O	17:C2:99:ILE:HB	2.20	0.41
26:C4:2:LYS:HD2	26:C4:6:HIS:CG	2.56	0.41
26:C4:14:ILE:HG12	26:C4:33:VAL:HG11	2.03	0.41
26:C4:16:CYS:O	26:C4:19:GLY:HA3	2.20	0.41
29:C7:12:ARG:NH2	29:C7:44:PRO:HB3	2.36	0.41
29:C7:29:LYS:O	29:C7:33:ARG:HG2	2.21	0.41
31:DA:109:A:C4	31:DA:327:A:C2	3.08	0.41
31:DA:682:G:O2'	31:DA:683:G:H5'	2.21	0.41
31:DA:1221:G:OP1	31:DA:1321:C:N4	2.48	0.41
31:DA:1265:G:H2'	31:DA:1266:G:O4'	2.21	0.41
31:DA:1315:U:H2'	31:DA:1316:G:O4'	2.21	0.41
37:DJ:102:ARG:O	37:DJ:106:GLN:HG3	2.20	0.41
43:DP:13:LYS:NZ	43:DP:21:TYR:OH	2.54	0.41
43:DP:66:LEU:HA	43:DP:70:LEU:HB2	2.03	0.41
43:DP:97:PRO:CA	43:DP:110:ARG:HD3	2.50	0.41
48:DU:63:GLN:O	48:DU:66:LEU:HB3	2.21	0.41
50:DW:72:LEU:HD11	50:DW:80:ARG:CD	2.48	0.41
52:DB:40:U:H2'	52:DB:41:C:C6	2.56	0.41
53:DC:16:C:C5	56:DC:107:OHX:N5	2.89	0.41
52:DD:26:G:H2'	52:DD:27:A:O4'	2.20	0.41
1:AA:237:C:C2	1:AA:261:G:N2	2.89	0.41
1:AA:628:G:C6	1:AA:636:G:C2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:723:G:H2'	1:AA:724:U:O4'	2.20	0.41
1:AA:994:C:OP1	16:A1:53:ARG:NH2	2.53	0.41
1:AA:1060:U:H1'	1:AA:1061:U:P	2.60	0.41
1:AA:1079:C:N4	1:AA:1080:A:N6	2.69	0.41
1:AA:1197:G:N7	56:AA:3562:OHX:N2	2.68	0.41
1:AA:1382:G:O2'	1:AA:1383:C:H5'	2.20	0.41
1:AA:1679:U:C5	1:AA:1680:U:C5	3.09	0.41
1:AA:1749:A:H2'	1:AA:1750:G:O4'	2.20	0.41
1:AA:1784:A:H4'	1:AA:1785:A:O5'	2.21	0.41
1:AA:1962:C:H4'	1:AA:1963:U:C5	2.56	0.41
1:AA:2059:A:H4'	5:AF:69:HIS:HA	2.03	0.41
1:AA:2302:G:C2	1:AA:2303:G:C8	3.09	0.41
1:AA:2629:A:HO2'	1:AA:2630:G:H5"	1.83	0.41
1:AA:2751:G:H3'	1:AA:2752:C:C6	2.56	0.41
2:AB:59:A:H2'	2:AB:60:C:O4'	2.20	0.41
2:AB:102:G:O2'	2:AB:103:U:H5'	2.21	0.41
3:AD:35:LYS:HD3	3:AD:63:ARG:HG3	2.02	0.41
4:AE:48:GLN:HE21	4:AE:48:GLN:HB3	1.62	0.41
5:AF:130:ALA:C	5:AF:132:VAL:H	2.29	0.41
5:AF:158:THR:OG1	5:AF:159:GLY:N	2.54	0.41
8:AK:71:ILE:HG23	8:AK:72:LEU:HD13	2.03	0.41
10:AN:120:GLU:HG2	10:AN:122:LEU:HG	2.02	0.41
11:AO:50:ARG:HD3	30:A8:7:HIS:NE2	2.35	0.41
12:AP:138:ASP:O	12:AP:139:GLU:C	2.63	0.41
13:A0:65:LEU:HD12	13:A0:65:LEU:HA	1.85	0.41
14:AQ:106:ARG:HA	14:AQ:110:LEU:HD22	2.03	0.41
14:AQ:111:GLU:O	14:AQ:112:PHE:CB	2.69	0.41
15:AR:106:SER:O	15:AR:111:ARG:NH1	2.54	0.41
15:AR:125:ARG:HH12	31:BA:1446:A:H1'	1.85	0.41
18:AS:59:VAL:C	18:AS:61:ASN:H	2.29	0.41
26:A4:33:VAL:O	26:A4:34:GLU:C	2.63	0.41
28:A6:38:LYS:HG2	28:A6:46:HIS:HD2	1.85	0.41
30:A8:34:TRP:CA	30:A8:35:GLN:HB3	2.51	0.41
31:BA:84:U:H2'	31:BA:85:U:OP1	2.20	0.41
31:BA:95:G:N3	31:BA:95:G:H2'	2.36	0.41
31:BA:104:G:C2	31:BA:105:G:C8	3.09	0.41
31:BA:448:A:OP2	31:BA:485:G:N2	2.46	0.41
31:BA:645:C:H2'	31:BA:646:U:O4'	2.21	0.41
31:BA:1067:A:H4'	31:BA:1068:G:O5'	2.21	0.41
31:BA:1091:U:H1'	31:BA:1095:U:O2	2.20	0.41
31:BA:1118:C:O2'	31:BA:1119:C:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1318:A:H5"	49:BV:10:PHE:CD2	2.55	0.41
32:BE:125:PRO:O	32:BE:126:GLU:HB3	2.21	0.41
35:BH:139:LEU:C	35:BH:141:GLN:N	2.77	0.41
42:BO:35:THR:HG22	42:BO:36:VAL:HG23	2.03	0.41
42:BO:58:THR:C	42:BO:60:GLY:H	2.29	0.41
44:BQ:12:ARG:O	44:BQ:12:ARG:HG3	2.19	0.41
44:BQ:13:THR:O	44:BQ:14:PRO:C	2.63	0.41
46:BS:4:ILE:HA	46:BS:20:VAL:O	2.20	0.41
49:BV:30:LEU:H	49:BV:30:LEU:CD1	2.18	0.41
50:BW:10:LEU:O	50:BW:10:LEU:HD23	2.20	0.41
1:CA:143:C:H2'	1:CA:144:C:H6	1.86	0.41
1:CA:206:A:OP2	56:CA:3276:OHX:N1	2.53	0.41
1:CA:390:G:O2'	1:CA:391:G:H5'	2.21	0.41
1:CA:554:A:H3'	1:CA:554:A:H8	1.86	0.41
1:CA:653:A:C6	1:CA:663:A:C8	3.09	0.41
1:CA:675:G:H2'	1:CA:676:C:C6	2.55	0.41
1:CA:911:A:H2'	1:CA:912:G:H8	1.85	0.41
1:CA:936:C:C1'	1:CA:937:C:P	3.09	0.41
1:CA:1097:A:C6	1:CA:2765:G:C6	3.08	0.41
1:CA:1502:U:OP1	13:C0:77:ARG:HD3	2.20	0.41
1:CA:1736:U:H1'	1:CA:1749:A:C6	2.55	0.41
1:CA:2220:U:H1'	1:CA:2221:A:C8	2.55	0.41
1:CA:2325:U:C3'	1:CA:2325:U:C6	3.04	0.41
1:CA:2432:U:P	30:C8:33:ASN:CG	3.04	0.41
1:CA:2451:U:H5"	1:CA:2613:A:OP1	2.21	0.41
1:CA:2481:G:C6	1:CA:2494:G:C4	3.09	0.41
3:CD:43:ARG:CD	3:CD:44:ASN:OD1	2.65	0.41
5:CF:8:GLN:O	5:CF:9:ILE:C	2.63	0.41
10:CN:63:VAL:HG23	10:CN:64:ARG:HG3	2.03	0.41
11:CO:109:GLY:O	11:CO:110:TYR:CG	2.73	0.41
11:CO:126:VAL:HG22	11:CO:145:PRO:HG2	2.03	0.41
12:CP:11:LYS:HE2	12:CP:89:ASN:HA	2.02	0.41
12:CP:78:PRO:C	12:CP:79:LEU:O	2.63	0.41
15:CR:24:PRO:HB2	15:CR:99:LEU:HD11	2.03	0.41
19:CT:63:LYS:O	19:CT:63:LYS:HD2	2.20	0.41
25:CX:7:LYS:CE	25:CX:32:GLN:HG3	2.51	0.41
31:DA:1159:U:C4'	31:DA:1181:G:H22	2.33	0.41
32:DE:31:TYR:O	32:DE:32:ILE:HB	2.21	0.41
34:DG:59:ARG:NE	34:DG:59:ARG:HA	2.35	0.41
41:DN:58:PRO:HB2	41:DN:93:GLN:HG3	2.03	0.41
42:DO:20:LYS:HE2	42:DO:20:LYS:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DO:78:SER:HB3	42:DO:103:ASP:HB2	2.01	0.41
46:DS:43:LYS:HG3	46:DS:48:TRP:CG	2.56	0.41
50:DW:50:GLU:CA	50:DW:100:ILE:HG12	2.50	0.41
52:DB:15:G:OP2	56:DB:103:OHX:N2	2.54	0.41
52:DB:17:G:H1'	52:DB:66:G:H22	1.86	0.41
52:DB:66:G:H2'	52:DB:67:A:H5'	2.02	0.41
1:AA:35:G:H1'	1:AA:454:A:C4	2.55	0.41
1:AA:546:C:C5	1:AA:547:A:C5	3.08	0.41
1:AA:579:G:N2	1:AA:1262:A:C4	2.89	0.41
1:AA:654(J):A:C2	1:AA:654(M):C:N4	2.89	0.41
1:AA:751:A:C6	1:AA:789:A:C5	3.09	0.41
1:AA:882:G:N2	1:AA:895:U:C2	2.89	0.41
1:AA:897:C:H2'	1:AA:898:C:O4'	2.21	0.41
1:AA:996:A:C4'	16:A1:92:ARG:HE	2.28	0.41
1:AA:1042:G:H2'	1:AA:1043:C:H6	1.84	0.41
1:AA:1079:C:H5	1:AA:1088:A:OP1	2.02	0.41
1:AA:1299:G:H5"	1:AA:1300:U:P	2.61	0.41
1:AA:1336:A:C2	1:AA:1337:G:C4	3.09	0.41
1:AA:1344:G:C6	1:AA:1404:C:N3	2.89	0.41
1:AA:1365:A:OP2	23:AZ:2:SER:N	2.53	0.41
1:AA:1510:A:OP1	1:AA:1511:A:H8	2.04	0.41
1:AA:1694:C:H1'	1:AA:1695:G:OP2	2.21	0.41
1:AA:1701:A:H2'	1:AA:1702:G:H5'	2.03	0.41
1:AA:1818:U:H4'	1:AA:1821:A:H1'	2.02	0.41
1:AA:1854:A:N6	1:AA:1888:G:C8	2.80	0.41
1:AA:1888:G:N3	1:AA:1888:G:C5'	2.81	0.41
1:AA:1930:G:O6	56:AA:3399:OHX:N2	2.54	0.41
1:AA:1968:G:C2'	1:AA:1969:A:H5"	2.50	0.41
1:AA:1992:G:C2'	1:AA:1993:U:OP2	2.68	0.41
1:AA:2212:A:C4	1:AA:2215:G:C6	3.09	0.41
1:AA:2243:U:H2'	1:AA:2244:U:C6	2.56	0.41
1:AA:2355:C:H4'	22:A3:36:ILE:CD1	2.50	0.41
1:AA:2358:G:H2'	1:AA:2359:C:O5'	2.21	0.41
1:AA:2399:G:H1	1:AA:2417:C:H42	1.68	0.41
1:AA:2612:C:H2'	1:AA:2613:U:O5'	2.19	0.41
1:AA:2721:A:H1'	1:AA:2873:A:O2'	2.20	0.41
1:AA:2736:G:H2'	1:AA:2737:G:H8	1.86	0.41
1:AA:2751:G:C4	7:AH:3:ARG:O	2.74	0.41
3:AD:32:SER:CA	3:AD:35:LYS:O	2.69	0.41
3:AD:182:LEU:HD23	3:AD:182:LEU:HA	1.86	0.41
4:AE:13:ARG:CB	4:AE:21:VAL:HG12	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:108:SER:HA	4:AE:190:GLY:H	1.86	0.41
5:AF:107:LYS:O	5:AF:108:LYS:C	2.64	0.41
5:AF:160:ASN:OD1	5:AF:163:VAL:HG23	2.21	0.41
6:AG:104:GLU:CD	26:A4:23:GLU:HG3	2.46	0.41
6:AG:142:PRO:HG2	6:AG:143:GLU:OE2	2.21	0.41
7:AH:109:PHE:CZ	7:AH:152:ARG:NH1	2.87	0.41
7:AH:153:LYS:HB3	7:AH:154:PRO:HD3	1.96	0.41
8:AK:20:ASP:OD2	8:AK:20:ASP:C	2.63	0.41
8:AK:38:LEU:H	8:AK:38:LEU:HG	1.72	0.41
8:AK:56:LYS:C	8:AK:58:LEU:H	2.29	0.41
8:AK:144:VAL:HG22	8:AK:145:VAL:N	2.36	0.41
11:AO:63:PRO:HB3	30:A8:13:ARG:HG2	2.03	0.41
11:AO:81:GLN:HE21	11:AO:81:GLN:HB2	1.65	0.41
12:AP:25:ASP:O	12:AP:25:ASP:CG	2.62	0.41
14:AQ:102:ALA:C	14:AQ:104:GLY:H	2.29	0.41
15:AR:6:LEU:O	15:AR:10:VAL:HG23	2.20	0.41
19:AT:67:GLY:C	19:AT:69:TYR:N	2.78	0.41
20:AU:9:LYS:O	20:AU:27:VAL:HG22	2.21	0.41
21:AV:110:GLY:O	21:AV:111:VAL:C	2.63	0.41
23:AZ:91:LYS:O	23:AZ:92:LYS:C	2.64	0.41
24:AW:40:SER:C	24:AW:42:GLY:N	2.76	0.41
26:A4:34:GLU:OE2	43:BP:7:VAL:HA	2.21	0.41
26:A4:55:ARG:CG	26:A4:56:VAL:H	2.34	0.41
28:A6:20:ASN:C	28:A6:21:TYR:CG	2.97	0.41
31:BA:55:A:OP2	56:BA:1678:OHX:N6	2.54	0.41
31:BA:96:G:N1	31:BA:97:U:O2	2.53	0.41
31:BA:108:G:H5'	31:BA:109:A:H5"	2.02	0.41
31:BA:218:C:C2'	31:BA:219:C:H5'	2.51	0.41
31:BA:331:G:OP1	31:BA:332:G:C8	2.74	0.41
31:BA:342:C:C2	31:BA:348:G:C2	3.09	0.41
31:BA:344:A:HO2'	31:BA:345:C:P	2.40	0.41
31:BA:671:G:C2	31:BA:672:U:H1'	2.56	0.41
31:BA:746:A:C2'	31:BA:747:C:H5'	2.50	0.41
31:BA:811:C:N4	31:BA:812:C:N4	2.69	0.41
31:BA:948:C:H2'	31:BA:949:A:H8	1.86	0.41
31:BA:971:G:N2	31:BA:1363:A:OP2	2.48	0.41
31:BA:1024:G:H4'	31:BA:1024:G:OP1	2.21	0.41
31:BA:1092:A:C6	31:BA:1093:A:C6	3.09	0.41
31:BA:1117:G:OP1	56:BA:1670:OHX:N1	2.54	0.41
31:BA:1126:U:O2'	31:BA:1127:G:OP1	2.28	0.41
31:BA:1249:C:H4'	39:BL:36:TYR:OH	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1250:A:H2'	31:BA:1251:A:O4'	2.21	0.41
31:BA:1414:U:H2'	31:BA:1415:G:C8	2.52	0.41
31:BA:1440:C:H2'	31:BA:1441:G:O4'	2.21	0.41
31:BA:1472:U:O2'	31:BA:1473:A:H5'	2.21	0.41
32:BE:15:VAL:HG23	32:BE:16:HIS:CD2	2.56	0.41
32:BE:100:GLY:O	32:BE:102:LEU:N	2.54	0.41
33:BF:8:ILE:O	33:BF:10:PHE:N	2.54	0.41
35:BH:110:LEU:O	35:BH:115:VAL:HB	2.21	0.41
37:BJ:8:GLU:CD	37:BJ:8:GLU:H	2.26	0.41
37:BJ:40:ALA:HB1	37:BJ:44:TYR:CE1	2.56	0.41
40:BM:50:ILE:HD13	40:BM:60:ARG:HD3	2.02	0.41
41:BN:21:ILE:HB	41:BN:84:VAL:HA	2.03	0.41
41:BN:31:THR:HA	41:BN:42:TRP:HA	2.01	0.41
42:BO:44:LYS:N	42:BO:45:PRO:HD2	2.36	0.41
43:BP:66:LEU:HD23	43:BP:66:LEU:HA	1.92	0.41
43:BP:84:ILE:HD13	49:BV:65:ASN:OD1	2.21	0.41
49:BV:62:ILE:HA	49:BV:66:MET:SD	2.61	0.41
50:BW:20:LEU:O	50:BW:23:ARG:HB3	2.21	0.41
52:BB:10:C:N3	52:BB:26:G:N2	2.57	0.41
53:BC:19:G:C6	53:BC:59:A:C6	3.09	0.41
52:BD:51:C:OP2	52:BD:52:G:C2	2.73	0.41
1:CA:5:A:N6	1:CA:6:A:C6	2.89	0.41
1:CA:79:G:O2'	1:CA:80:G:H5'	2.21	0.41
1:CA:239:C:H4'	1:CA:240:G:O5'	2.21	0.41
1:CA:259:U:OP1	56:CA:3281:OHX:N6	2.54	0.41
1:CA:270:G:H2'	1:CA:270:G:N3	2.36	0.41
1:CA:274:G:H1'	1:CA:276:C:O4'	2.21	0.41
1:CA:325:A:H2'	1:CA:359:C:H1'	2.03	0.41
1:CA:361:C:O2'	1:CA:362:C:H5'	2.20	0.41
1:CA:380:G:C6	1:CA:381:G:C6	3.08	0.41
1:CA:472:C:OP1	16:C1:2:PRO:HA	2.21	0.41
1:CA:912:G:OP2	12:CP:22:LYS:HE2	2.21	0.41
1:CA:957:A:H2	1:CA:2277:C:O2	2.04	0.41
1:CA:991:A:C4	1:CA:2461:A:C2	3.08	0.41
1:CA:998:G:C6	1:CA:1012:G:C6	3.09	0.41
1:CA:1089:G:H2'	1:CA:1090:C:O4'	2.20	0.41
1:CA:1123:C:C2'	1:CA:1124:A:H5'	2.51	0.41
1:CA:1148:U:N3	1:CA:1149:C:C4	2.89	0.41
1:CA:1317:C:O2'	1:CA:1372:G:H2'	2.21	0.41
1:CA:1362:C:O2'	1:CA:1363:U:H5'	2.21	0.41
1:CA:1374:C:H2'	1:CA:1375:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1467:U:O2	1:CA:1467:U:O5'	2.39	0.41
1:CA:1529:U:H5'	1:CA:1530:G:P	2.60	0.41
1:CA:1616:G:H4'	3:CD:59:LYS:HD2	2.03	0.41
1:CA:1774:C:H2'	1:CA:1775:C:H5'	2.03	0.41
1:CA:1783:C:H2'	1:CA:1784:C:H6	1.86	0.41
1:CA:1837:U:O2	3:CD:50:THR:HB	2.20	0.41
1:CA:2138:G:H2'	1:CA:2139:G:C8	2.56	0.41
1:CA:2138:G:C6	1:CA:2140:A:C8	3.09	0.41
1:CA:2164:G:C6	1:CA:2173:U:O2	2.74	0.41
1:CA:2288:C:O2'	12:CP:84:GLY:HA2	2.15	0.41
1:CA:2299:A:OP2	28:C6:28:ARG:NH1	2.54	0.41
1:CA:2333:A:H4'	1:CA:2334:G:N7	2.35	0.41
1:CA:2377:C:C2'	1:CA:2378:G:H5'	2.51	0.41
1:CA:2481:G:H3'	1:CA:2489:A:H2	1.78	0.41
1:CA:2490:C:O2	1:CA:2490:C:O4'	2.38	0.41
1:CA:2556:G:H2'	1:CA:2557:G:C8	2.56	0.41
1:CA:2609:U:H2'	1:CA:2610:G:O4'	2.21	0.41
3:CD:107:ALA:HA	3:CD:108:PRO:HD2	1.89	0.41
3:CD:132:PRO:O	3:CD:133:LEU:C	2.64	0.41
4:CE:170:LEU:HG	4:CE:184:VAL:HB	2.02	0.41
5:CF:20:LEU:O	5:CF:21:ALA:O	2.39	0.41
5:CF:102:PRO:O	5:CF:103:LYS:C	2.64	0.41
5:CF:117:ARG:HD2	5:CF:117:ARG:HA	1.81	0.41
5:CF:187:VAL:HG13	11:CO:1:MET:O	2.20	0.41
6:CG:95:ARG:O	6:CG:96:ARG:C	2.64	0.41
7:CH:99:VAL:HG13	7:CH:100:GLY:N	2.36	0.41
8:CK:1:MET:HB3	8:CK:1:MET:HE3	1.84	0.41
8:CK:56:LYS:HG3	8:CK:57:ARG:N	2.36	0.41
9:CM:7:LYS:O	9:CM:8:GLN:C	2.64	0.41
10:CN:117:LEU:CD1	10:CN:117:LEU:N	2.84	0.41
11:CO:31:ALA:O	11:CO:32:THR:OG1	2.35	0.41
11:CO:143:GLY:C	11:CO:144:GLU:HG3	2.46	0.41
12:CP:26:TYR:C	12:CP:26:TYR:HD2	2.28	0.41
12:CP:35:VAL:HA	12:CP:101:ARG:O	2.21	0.41
18:CS:47:VAL:O	18:CS:48:ALA:C	2.61	0.41
18:CS:59:VAL:HA	18:CS:64:MET:H	1.86	0.41
20:CU:43:ASN:N	20:CU:43:ASN:ND2	2.54	0.41
20:CU:94:LYS:HB3	20:CU:94:LYS:HE3	1.85	0.41
21:CV:5:LEU:O	21:CV:6:LYS:C	2.63	0.41
24:CW:17:SER:CB	24:CW:18:PRO:CA	2.78	0.41
24:CW:38:GLN:O	24:CW:44:LEU:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:C4:42:PHE:O	26:C4:43:TYR:HB3	2.21	0.41
26:C4:63:TYR:OH	49:DV:9:VAL:HG13	2.21	0.41
28:C6:15:GLU:HB3	28:C6:16:CYS:H	1.62	0.41
30:C8:34:TRP:CZ2	30:C8:35:GLN:HB2	2.55	0.41
30:C8:35:GLN:NE2	30:C8:36:LYS:N	2.54	0.41
31:DA:5:U:O2	31:DA:5:U:O2'	2.37	0.41
31:DA:12:U:H4'	31:DA:526:C:H4'	2.03	0.41
31:DA:134:A:C5	31:DA:135:C:C4	3.09	0.41
31:DA:197:A:H8	31:DA:198:G:N9	2.19	0.41
31:DA:345:C:HO2'	31:DA:346:G:P	2.42	0.41
31:DA:411:A:C2	31:DA:413:G:O2'	2.72	0.41
31:DA:544:G:OP1	34:DG:59:ARG:NH1	2.50	0.41
31:DA:583:A:H2'	31:DA:584:G:O4'	2.21	0.41
31:DA:604:G:C6	31:DA:635:G:C6	3.09	0.41
31:DA:624:C:H2'	31:DA:625:G:C8	2.56	0.41
31:DA:628:G:O2'	31:DA:629:G:H5'	2.20	0.41
31:DA:778:G:H2'	31:DA:779:C:O4'	2.21	0.41
31:DA:812:C:H4'	31:DA:813:U:O5'	2.20	0.41
31:DA:956:U:H2'	31:DA:957:U:O4'	2.20	0.41
31:DA:983:A:H2	31:DA:984:C:C6	2.39	0.41
31:DA:1002:G:C2	31:DA:1003:G:C4	3.09	0.41
31:DA:1086:U:H3	31:DA:1099:G:H22	1.68	0.41
31:DA:1111:A:H2'	31:DA:1112:C:C6	2.56	0.41
31:DA:1111:A:C8	31:DA:1112:C:C5	3.09	0.41
31:DA:1152:A:H2'	31:DA:1153:C:O4'	2.21	0.41
31:DA:1177:G:H2'	31:DA:1178:G:C4	2.56	0.41
31:DA:1248:A:C6	31:DA:1249:C:C4	3.09	0.41
31:DA:1336:C:O2	56:DA:1742:OHX:N2	2.54	0.41
31:DA:1401:G:N2	31:DA:1402:C:H1'	2.35	0.41
33:DF:61:ALA:C	33:DF:63:ASN:H	2.29	0.41
34:DG:105:VAL:HG13	34:DG:110:PHE:HB2	2.03	0.41
34:DG:199:ASN:O	34:DG:200:GLU:HG2	2.21	0.41
35:DH:40:ARG:HH11	35:DH:40:ARG:HG2	1.85	0.41
35:DH:51:VAL:CB	35:DH:52:PRO:HD3	2.50	0.41
36:DI:15:ASP:OD1	36:DI:15:ASP:C	2.64	0.41
37:DJ:32:ARG:HH11	37:DJ:32:ARG:HB3	1.85	0.41
37:DJ:113:GLU:HB3	37:DJ:118:VAL:CG2	2.50	0.41
38:DK:37:ARG:HH21	38:DK:38:ILE:HG13	1.85	0.41
40:DM:25:GLU:HA	40:DM:25:GLU:OE1	2.21	0.41
42:DO:14:LYS:HD2	42:DO:14:LYS:HA	1.94	0.41
42:DO:106:GLY:HA3	42:DO:118:GLY:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DP:57:ARG:O	43:DP:61:GLU:HB2	2.21	0.41
43:DP:115:LYS:O	43:DP:117:VAL:N	2.54	0.41
44:DQ:4:LYS:HB3	44:DQ:5:ALA:H	1.73	0.41
48:DU:44:LEU:HD12	48:DU:44:LEU:HA	1.89	0.41
48:DU:56:THR:O	48:DU:58:LEU:HG	2.21	0.41
49:DV:32:LYS:HB3	49:DV:57:HIS:ND1	2.36	0.41
52:DB:21:A:H4'	52:DB:22:A:H8	1.85	0.41
52:DB:58:G:C2	52:DB:59:A:C8	3.08	0.41
53:DC:16:C:C5	56:DC:107:OHX:N2	2.89	0.41
53:DC:25:U:C4	53:DC:26:C:C4	3.09	0.41
52:DD:21:A:O4'	52:DD:22:A:O5'	2.39	0.41
52:DD:23:A:C5	52:DD:24:G:C5	3.09	0.41
52:DD:26:G:C2	52:DD:27:A:H1'	2.56	0.41
54:D1:16:A:C2	54:D1:17:U:C2	3.09	0.41
1:AA:150:C:H2'	1:AA:151:C:C6	2.56	0.41
1:AA:223:A:O4'	1:AA:422:A:H5'	2.21	0.41
1:AA:270(G):C:H2'	1:AA:270(H):C:O4'	2.21	0.41
1:AA:481:G:OP2	20:AU:47:LYS:HD2	2.20	0.41
1:AA:1036:G:H2'	1:AA:1037:G:O4'	2.21	0.41
1:AA:1044:G:H2'	1:AA:1045:A:O5'	2.21	0.41
1:AA:1048:A:N3	1:AA:1048:A:H2'	2.36	0.41
1:AA:1575:C:H2'	1:AA:1576:U:H6	1.86	0.41
1:AA:1863:G:O6	56:AA:3531:OHX:N5	2.53	0.41
1:AA:2029:G:H2'	1:AA:2031:A:OP1	2.21	0.41
1:AA:2078:C:H2'	1:AA:2079:U:C6	2.56	0.41
1:AA:2095:C:C4	1:AA:2096:U:C5	3.09	0.41
1:AA:2125:G:O2'	1:AA:2173:A:N6	2.54	0.41
1:AA:2255:G:H21	12:AP:85:LYS:HE2	1.62	0.41
1:AA:2613:U:C1'	1:AA:2614:A:OP1	2.68	0.41
1:AA:2835:A:C5	1:AA:2878:U:C5	3.09	0.41
3:AD:35:LYS:HD3	3:AD:63:ARG:HA	2.02	0.41
3:AD:35:LYS:CE	3:AD:64:ILE:C	2.94	0.41
3:AD:147:LEU:HD13	3:AD:155:LEU:HD11	2.03	0.41
4:AE:1:MET:CB	4:AE:200:GLU:OE1	2.70	0.41
8:AK:144:VAL:CG2	8:AK:145:VAL:N	2.83	0.41
9:AM:73:THR:HA	9:AM:83:LYS:O	2.20	0.41
16:A1:96:ALA:O	16:A1:100:VAL:HG23	2.21	0.41
19:AT:41:ASN:N	19:AT:41:ASN:HD22	2.17	0.41
20:AU:81:LYS:HB3	20:AU:97:ARG:CD	2.51	0.41
21:AV:48:PHE:CE2	21:AV:71:VAL:HG11	2.56	0.41
21:AV:72:ARG:NH1	21:AV:72:ARG:HG3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AV:127:LYS:C	21:AV:161:VAL:HG21	2.46	0.41
22:A3:47:PRO:HB2	22:A3:51:VAL:O	2.21	0.41
24:AW:17:SER:CB	24:AW:67:LYS:HE3	2.51	0.41
25:AX:15:TYR:CE1	25:AX:53:LEU:HD21	2.56	0.41
31:BA:153:C:N4	31:BA:168:G:H1	2.18	0.41
31:BA:180:U:O2'	31:BA:181:G:H5'	2.21	0.41
31:BA:562:C:H4'	31:BA:563:A:O5'	2.21	0.41
31:BA:583:A:N6	31:BA:758:G:H1'	2.36	0.41
31:BA:627:G:C4	31:BA:628:G:C8	3.09	0.41
31:BA:674:G:C2'	31:BA:675:A:H5'	2.49	0.41
31:BA:758:G:H2'	31:BA:759:A:OP2	2.21	0.41
31:BA:825:G:H2'	31:BA:826:C:O4'	2.20	0.41
31:BA:1154:G:C4	31:BA:1155:G:C8	3.09	0.41
31:BA:1446:A:OP1	31:BA:1446:A:H4'	2.21	0.41
33:BF:34:LEU:HD23	33:BF:34:LEU:C	2.46	0.41
33:BF:162:GLN:CB	54:B1:24:A:H1'	2.51	0.41
34:BG:52:SER:O	34:BG:55:ALA:HB3	2.20	0.41
38:BK:6:ILE:HG22	38:BK:7:ALA:N	2.36	0.41
40:BM:89:ASP:C	40:BM:91:PRO:HD3	2.45	0.41
52:BB:46:G:C5	52:BB:47:U:C4	3.08	0.41
1:CA:384:A:H2'	1:CA:385:G:O4'	2.21	0.41
1:CA:408:U:H2'	1:CA:409:G:H8	1.86	0.41
1:CA:469:G:O4'	5:CF:46:ARG:HD3	2.21	0.41
1:CA:575:G:O2'	1:CA:1266:A:N3	2.45	0.41
1:CA:905:C:O2'	1:CA:906:U:H5'	2.21	0.41
1:CA:1202:A:O2'	1:CA:1203:A:H2'	2.20	0.41
1:CA:1753:G:O6	56:CA:3244:OHX:N5	2.54	0.41
1:CA:1876:C:C2	1:CA:1920:G:N2	2.89	0.41
1:CA:2120:C:H2'	1:CA:2121:U:O4'	2.20	0.41
1:CA:2156:G:H2'	1:CA:2157:A:OP2	2.21	0.41
1:CA:2249:C:OP2	56:CA:3486:OHX:N4	2.53	0.41
1:CA:2333:A:C5	1:CA:2346:A:N7	2.89	0.41
1:CA:2481:G:C5	1:CA:2494:G:C2	3.09	0.41
1:CA:2770:U:H4'	1:CA:2771:A:OP1	2.21	0.41
1:CA:2790:A:H4'	1:CA:2791:G:O5'	2.20	0.41
4:CE:60:ASN:HB2	4:CE:61:ARG:H	1.64	0.41
4:CE:200:GLU:CD	4:CE:200:GLU:H	2.29	0.41
6:CG:83:ARG:CB	6:CG:86:MET:HE3	2.50	0.41
8:CK:14:ASP:OD1	8:CK:15:VAL:N	2.53	0.41
10:CN:8:LEU:N	10:CN:8:LEU:HD22	2.36	0.41
11:CO:22:GLY:HA2	11:CO:23:PRO:HD3	1.95	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CR:45:PHE:CE1	15:CR:74:ARG:HD3	2.56	0.41
15:CR:95:ARG:HD2	15:CR:95:ARG:HA	1.92	0.41
19:CT:57:LEU:HD23	19:CT:57:LEU:H	1.86	0.41
21:CV:76:LEU:H	21:CV:76:LEU:CD2	2.33	0.41
21:CV:161:VAL:O	21:CV:162:GLU:HB2	2.21	0.41
23:CZ:25:LYS:HE2	23:CZ:25:LYS:HB3	1.80	0.41
26:C4:16:CYS:HB3	26:C4:19:GLY:HA2	2.02	0.41
26:C4:56:VAL:HG22	26:C4:57:GLU:N	2.36	0.41
31:DA:448:A:H2'	31:DA:449:C:O2	2.20	0.41
31:DA:697:U:H2'	31:DA:698:G:H5'	2.02	0.41
31:DA:707:C:O2'	31:DA:708:C:H5'	2.21	0.41
31:DA:972:C:O3'	40:DM:57:LYS:CG	2.69	0.41
31:DA:1054:C:N4	52:DB:35:G:C4	2.89	0.41
31:DA:1127:G:O2'	31:DA:1128:C:H5'	2.21	0.41
31:DA:1135:U:H2'	31:DA:1137:C:O2	2.21	0.41
31:DA:1175:G:C2	31:DA:1176:A:C6	3.08	0.41
31:DA:1222:G:OP1	49:DV:77:THR:OG1	2.39	0.41
31:DA:1225:A:H5"	31:DA:1226:C:OP2	2.21	0.41
31:DA:1416:G:C2	31:DA:1485:U:O2	2.74	0.41
33:DF:150:LYS:HG3	33:DF:169:ALA:HB2	2.03	0.41
35:DH:78:HIS:CD2	35:DH:78:HIS:C	2.98	0.41
37:DJ:62:PHE:HA	37:DJ:124:LEU:CD2	2.51	0.41
37:DJ:79:ARG:HD3	37:DJ:84:ASN:CG	2.46	0.41
38:DK:88:LYS:HB3	38:DK:89:PRO:HD2	2.02	0.41
38:DK:114:THR:HB	38:DK:130:GLY:O	2.21	0.41
38:DK:118:VAL:O	38:DK:119:LEU:HD23	2.21	0.41
52:DB:47:U:C2	52:DB:48:C:C5	3.09	0.41
52:DB:48:C:H3'	52:DB:49:A:C8	2.47	0.41
1:AA:247:G:H4'	1:AA:386:G:C4	2.56	0.40
1:AA:460:A:OP1	29:A7:41:ARG:NH2	2.53	0.40
1:AA:528:A:O2'	1:AA:529:A:H5'	2.21	0.40
1:AA:610:C:H2'	1:AA:611:C:C6	2.55	0.40
1:AA:654(E):C:N3	1:AA:654(P):G:N2	2.60	0.40
1:AA:805:G:OP2	11:AO:41:ARG:HG2	2.21	0.40
1:AA:846:C:C2	1:AA:847:U:O4	2.74	0.40
1:AA:857:C:N4	1:AA:858:U:O4	2.55	0.40
1:AA:883:G:H2'	1:AA:884:C:O4'	2.21	0.40
1:AA:1001:A:H2'	1:AA:1002:G:O4'	2.21	0.40
1:AA:1125:G:C6	1:AA:1126:A:N6	2.89	0.40
1:AA:1364:G:C8	23:AZ:2:SER:CB	3.04	0.40
1:AA:1516:U:O2'	1:AA:1517:G:H5'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1530:G:C6	1:AA:1531:C:C4	3.09	0.40
1:AA:1826:G:H2'	1:AA:1827:C:O4'	2.22	0.40
1:AA:2011:U:H2'	1:AA:2012:G:O4'	2.21	0.40
1:AA:2015:A:C4	27:A5:6:VAL:CG2	3.04	0.40
1:AA:2318:G:H1	14:AQ:2:ALA:HA	1.86	0.40
2:AB:14:U:H5'	2:AB:71:C:O4'	2.22	0.40
3:AD:28:GLU:O	3:AD:30:GLU:N	2.54	0.40
3:AD:34:VAL:O	3:AD:35:LYS:HG3	2.21	0.40
3:AD:182:LEU:O	3:AD:271:ILE:N	2.53	0.40
3:AD:186:HIS:CD2	3:AD:187:GLY:N	2.89	0.40
4:AE:15:PHE:HA	4:AE:20:ALA:HA	2.03	0.40
4:AE:61:ARG:CB	4:AE:62:PRO:HD3	2.43	0.40
11:AO:100:LEU:HD12	11:AO:100:LEU:HA	1.72	0.40
16:A1:76:TYR:CD2	16:A1:76:TYR:C	2.98	0.40
19:AT:88:LYS:NZ	19:AT:88:LYS:HB3	2.36	0.40
21:AV:23:LYS:HD3	21:AV:23:LYS:HA	1.96	0.40
26:A4:34:GLU:CG	43:BP:3:ARG:HB2	2.43	0.40
27:A5:54:GLY:O	27:A5:55:ARG:C	2.64	0.40
28:A6:33:LYS:HG3	28:A6:34:LEU:H	1.86	0.40
31:BA:66:G:C2	31:BA:104:G:H1'	2.55	0.40
31:BA:108:G:C5'	31:BA:109:A:H5"	2.51	0.40
31:BA:195:A:N7	31:BA:196:A:C6	2.89	0.40
31:BA:411:A:C2	31:BA:413:G:O2'	2.74	0.40
31:BA:447:G:N1	31:BA:485:G:H1'	2.35	0.40
31:BA:788:U:H2'	31:BA:789:U:C5'	2.31	0.40
31:BA:862:C:C2'	31:BA:863:U:H5'	2.51	0.40
31:BA:1130:A:C2	31:BA:1146:A:C5	3.09	0.40
31:BA:1202:G:C2	44:BQ:42:ILE:HG21	2.56	0.40
31:BA:1211:U:H1'	31:BA:1213:A:N3	2.35	0.40
31:BA:1262:C:H2'	31:BA:1263:C:H6	1.86	0.40
33:BF:18:TRP:CH2	44:BQ:55:GLY:HA2	2.55	0.40
33:BF:141:VAL:O	33:BF:141:VAL:HG12	2.21	0.40
35:BH:63:ARG:HG2	35:BH:63:ARG:H	1.53	0.40
38:BK:110:ALA:HB3	38:BK:121:ASP:HB3	2.04	0.40
41:BN:98:LEU:O	41:BN:101:SER:OG	2.34	0.40
45:BR:5:LYS:O	45:BR:9:GLN:HG2	2.20	0.40
47:BT:53:LEU:H	47:BT:53:LEU:CD1	2.32	0.40
48:BU:43:PHE:C	48:BU:44:LEU:HD12	2.47	0.40
1:CA:152:G:C6	1:CA:153:C:N4	2.89	0.40
1:CA:185:A:C2	1:CA:191:C:N4	2.89	0.40
1:CA:433:U:C2'	1:CA:434:G:OP1	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:590:U:OP1	11:CO:29:LYS:HD2	2.22	0.40
1:CA:605:C:O2'	1:CA:606:G:H5'	2.21	0.40
1:CA:627:A:H2'	1:CA:627:A:N3	2.36	0.40
1:CA:681:A:C2	1:CA:701:A:N3	2.89	0.40
1:CA:699:G:O4'	1:CA:700:A:OP1	2.39	0.40
1:CA:875:U:H4'	1:CA:876:U:O2	2.20	0.40
1:CA:996:G:C2	1:CA:1014:G:C2	3.09	0.40
1:CA:1037:A:H5'	1:CA:1037:A:H8	1.87	0.40
1:CA:1060:C:H2'	1:CA:1061:U:C6	2.56	0.40
1:CA:1086:G:C6	1:CA:1087:C:N4	2.89	0.40
1:CA:1121:G:H2'	1:CA:1122:C:C6	2.56	0.40
1:CA:1136:G:C4'	1:CA:1137:U:OP1	2.68	0.40
1:CA:1226:C:O2'	1:CA:1227:C:H5'	2.21	0.40
1:CA:1387:U:H4'	1:CA:1388:U:OP2	2.21	0.40
1:CA:1472:G:H2'	1:CA:1473:G:C8	2.56	0.40
1:CA:1693:G:C5'	1:CA:1694:C:H5'	2.43	0.40
1:CA:1716:A:H4'	1:CA:1717:A:O5'	2.21	0.40
1:CA:1908:A:H5'	1:CA:1909:C:OP2	2.20	0.40
1:CA:2380:G:H2'	1:CA:2381:C:H6	1.86	0.40
1:CA:2768:U:H5'	1:CA:2769:C:OP2	2.21	0.40
3:CD:176:ARG:HG2	3:CD:176:ARG:NH1	2.33	0.40
3:CD:263:ARG:CZ	3:CD:263:ARG:HB2	2.49	0.40
4:CE:30:PRO:HD3	4:CE:180:ASN:ND2	2.35	0.40
5:CF:25:PRO:HB3	5:CF:28:ILE:CG2	2.50	0.40
5:CF:25:PRO:C	5:CF:27:GLU:N	2.79	0.40
7:CH:20:ALA:HB1	7:CH:21:PRO:CD	2.51	0.40
9:CM:132:ALA:O	9:CM:133:GLN:C	2.64	0.40
9:CM:137:LYS:HA	9:CM:137:LYS:HZ3	1.85	0.40
17:C2:44:LYS:HG2	17:C2:45:THR:OG1	2.21	0.40
18:CS:21:VAL:C	18:CS:23:LEU:H	2.29	0.40
18:CS:88:ARG:HD2	18:CS:88:ARG:HA	1.89	0.40
20:CU:26:LYS:HE3	20:CU:26:LYS:HB2	1.94	0.40
21:CV:6:LYS:HE3	21:CV:43:GLU:HG3	2.03	0.40
25:CX:39:ASP:O	25:CX:40:THR:C	2.64	0.40
28:C6:15:GLU:OE1	28:C6:44:ARG:NE	2.45	0.40
28:C6:23:THR:O	56:C6:101:OHX:N6	2.54	0.40
28:C6:51:GLU:HG2	28:C6:52:VAL:N	2.35	0.40
56:C6:101:OHX:N3	30:C8:34:TRP:O	2.54	0.40
31:DA:381:C:N4	31:DA:382:A:C6	2.89	0.40
31:DA:854:G:C6	31:DA:855:G:N7	2.89	0.40
31:DA:862:C:H1'	31:DA:874:G:H5"	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:923:A:OP1	35:DH:21:ALA:HB2	2.21	0.40
31:DA:1014:A:H2'	31:DA:1015:A:N9	2.36	0.40
31:DA:1064:G:H21	31:DA:1190:G:H2'	1.84	0.40
31:DA:1176:A:N6	31:DA:1177:G:C4	2.89	0.40
31:DA:1203:C:H2'	31:DA:1204:A:H8	1.85	0.40
31:DA:1207:G:H2'	31:DA:1208:C:C6	2.56	0.40
31:DA:1216:G:H2'	31:DA:1217:C:C6	2.56	0.40
31:DA:1246:C:O2'	31:DA:1247:U:H5'	2.21	0.40
31:DA:1390:U:O4	56:DA:1783:OHX:N1	2.54	0.40
31:DA:1480:G:C6	31:DA:1481:U:C4	3.09	0.40
32:DE:189:ASP:HB3	32:DE:203:GLY:O	2.20	0.40
33:DF:47:LEU:C	33:DF:49:SER:N	2.77	0.40
33:DF:82:GLU:O	33:DF:85:ARG:N	2.54	0.40
34:DG:108:LEU:HD12	34:DG:108:LEU:HA	1.87	0.40
52:DB:15:G:H1'	52:DB:20:C:C5	2.45	0.40
53:DC:14:A:OP2	56:DC:107:OHX:N1	2.54	0.40
1:AA:270(E):G:C5	1:AA:270(F):U:C4	3.09	0.40
1:AA:270(P):C:H2'	1:AA:270(Q):C:H6	1.84	0.40
1:AA:296:C:O2'	1:AA:297:C:H5'	2.21	0.40
1:AA:331:A:N3	1:AA:1209:G:C6	2.89	0.40
1:AA:333:G:C5	1:AA:334:C:C5	3.09	0.40
1:AA:465:G:C6	1:AA:466:A:N6	2.89	0.40
1:AA:603:A:H4'	1:AA:604:G:O5'	2.21	0.40
1:AA:618:G:H2'	1:AA:618(A):C:O4'	2.21	0.40
1:AA:1012:U:O4	9:AM:25:ARG:HA	2.20	0.40
1:AA:1021:A:OP2	9:AM:65:LYS:NZ	2.54	0.40
1:AA:1138:G:H21	9:AM:106:MET:CE	2.33	0.40
1:AA:1214:A:N6	1:AA:1235:G:H1'	2.36	0.40
1:AA:1299:G:H5"	1:AA:1300:U:OP1	2.21	0.40
1:AA:1553:A:C6	1:AA:1555:G:H1'	2.56	0.40
1:AA:2002:G:H2'	1:AA:2003:G:H8	1.86	0.40
1:AA:2364:C:C2'	1:AA:2365:G:H5'	2.51	0.40
1:AA:2452:C:OP1	56:AA:3373:OHX:N1	2.54	0.40
1:AA:2493:U:C4	1:AA:2494:G:C8	3.09	0.40
3:AD:11:PRO:O	3:AD:13:ARG:N	2.49	0.40
5:AF:36:VAL:HG11	5:AF:183:VAL:CG1	2.51	0.40
5:AF:37:VAL:HG22	5:AF:184:TYR:HD1	1.86	0.40
6:AG:114:ILE:HG22	6:AG:117:PHE:HB2	2.04	0.40
12:AP:72:LYS:HA	12:AP:73:PRO:HD3	1.77	0.40
13:A0:94:TYR:CD2	13:A0:94:TYR:N	2.87	0.40
15:AR:1:MET:O	15:AR:1:MET:SD	2.79	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AR:77:PRO:HG2	15:AR:80:SER:CB	2.42	0.40
17:A2:44:LYS:HB3	17:A2:44:LYS:HE2	1.92	0.40
21:AV:31:ARG:HE	21:AV:31:ARG:HB2	1.76	0.40
21:AV:158:PRO:C	21:AV:160:GLY:H	2.29	0.40
21:AV:169:GLU:OE1	21:AV:170:THR:N	2.55	0.40
21:AV:171:ILE:HD13	21:AV:171:ILE:HA	1.92	0.40
23:AZ:58:ILE:HG22	23:AZ:59:THR:N	2.36	0.40
31:BA:81:G:C2	31:BA:88:C:C4	3.09	0.40
31:BA:869:G:N7	56:BA:1684:OHX:N3	2.69	0.40
31:BA:1288:A:O4'	31:BA:1353:G:H4'	2.21	0.40
31:BA:1420:C:O5'	31:BA:1420:C:H6	2.04	0.40
33:BF:108:ASN:HB3	33:BF:111:LEU:HG	2.03	0.40
37:BJ:42:ILE:O	37:BJ:43:PHE:C	2.63	0.40
38:BK:25:ASP:C	38:BK:26:VAL:HG12	2.47	0.40
43:BP:101:GLN:HE21	43:BP:101:GLN:HB2	1.77	0.40
47:BT:52:LYS:HE3	47:BT:52:LYS:HB3	1.90	0.40
52:BB:8:U:H5'	52:BB:58:G:H5'	2.03	0.40
52:BB:21:A:H4'	52:BB:22:A:H8	1.86	0.40
52:BB:52:G:N1	52:BB:53:A:C6	2.89	0.40
1:CA:63:A:C5	19:CT:66:LEU:HD12	2.56	0.40
1:CA:93:G:N3	24:CW:47:ASN:OD1	2.55	0.40
1:CA:152:G:H2'	1:CA:153:C:C6	2.56	0.40
1:CA:280:G:C6	1:CA:281:C:C4	3.10	0.40
1:CA:307:A:C6	1:CA:309:U:C2	3.09	0.40
1:CA:675:G:C6	1:CA:676:C:C4	3.09	0.40
1:CA:1043:A:H4'	16:C1:92:ARG:CZ	2.51	0.40
1:CA:1071:G:C6	1:CA:1072:G:C6	3.09	0.40
1:CA:1097:A:C5	1:CA:2765:G:N1	2.89	0.40
1:CA:1155:U:C4	1:CA:1156:C:N3	2.89	0.40
1:CA:1355:A:N6	1:CA:1653:G:H1'	2.37	0.40
1:CA:1601:A:C8	1:CA:1603:G:C6	3.09	0.40
1:CA:1815:A:H5'	1:CA:2621:G:H4'	2.02	0.40
1:CA:2290:G:OP1	12:CP:86:GLY:C	2.64	0.40
1:CA:2472:A:C5	1:CA:2473:U:C5	3.09	0.40
1:CA:2480:C:C4	1:CA:2481:G:C2	3.09	0.40
2:CB:18:G:H2'	2:CB:19:C:H6	1.86	0.40
2:CB:91:G:C8	2:CB:91:G:OP2	2.74	0.40
3:CD:70:TRP:HZ3	3:CD:146:GLU:OE2	2.02	0.40
3:CD:78:LYS:HA	3:CD:115:GLN:O	2.21	0.40
3:CD:132:PRO:HD3	3:CD:190:TYR:CZ	2.57	0.40
4:CE:7:VAL:HA	4:CE:194:GLY:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CE:8:LYS:O	4:CE:9:VAL:HG22	2.21	0.40
4:CE:52:LEU:O	4:CE:74:PRO:CA	2.70	0.40
7:CH:111:HIS:HA	7:CH:112:PRO:HD2	1.79	0.40
8:CK:51:ILE:HG22	8:CK:52:ARG:N	2.37	0.40
8:CK:80:PRO:HA	8:CK:143:SER:HA	2.03	0.40
11:CO:47:ASP:OD1	11:CO:50:ARG:HG2	2.21	0.40
13:C0:38:VAL:N	13:C0:39:PRO:CD	2.83	0.40
14:CQ:53:SER:OG	14:CQ:54:LEU:N	2.54	0.40
16:C1:88:ILE:HG13	16:C1:88:ILE:O	2.21	0.40
17:C2:28:GLU:HA	17:C2:29:PRO:HD3	1.93	0.40
20:CU:43:ASN:CA	20:CU:64:GLU:HA	2.51	0.40
21:CV:163:LEU:H	21:CV:163:LEU:HD23	1.86	0.40
31:DA:375:U:OP1	46:DS:69:THR:HG21	2.21	0.40
31:DA:678:U:H1'	31:DA:777:A:O2'	2.21	0.40
31:DA:758:G:H2'	31:DA:759:A:OP2	2.21	0.40
31:DA:993:G:C6	31:DA:1046:A:C4	3.08	0.40
31:DA:993:G:O2'	31:DA:994:A:N7	2.53	0.40
31:DA:1158:C:C4	31:DA:1160:G:N7	2.88	0.40
31:DA:1346:A:C2'	31:DA:1347:G:OP2	2.69	0.40
31:DA:1362(A):C:H3'	31:DA:1362(A):C:H6	1.87	0.40
31:DA:1382:C:H1'	37:DJ:79:ARG:NE	2.37	0.40
31:DA:1468:A:H8	31:DA:1468:A:O5'	2.04	0.40
31:DA:1501:C:N4	31:DA:1504:G:C2	2.89	0.40
33:DF:12:LEU:C	33:DF:14:ILE:N	2.79	0.40
36:DI:55:ASP:HA	36:DI:56:PRO:HD3	1.77	0.40
37:DJ:62:PHE:HA	37:DJ:124:LEU:HD21	2.04	0.40
37:DJ:104:LEU:HD13	37:DJ:104:LEU:HA	1.87	0.40
38:DK:83:ILE:HG23	38:DK:83:ILE:O	2.20	0.40
42:DO:86:ARG:CG	42:DO:87:VAL:N	2.84	0.40
46:DS:6:LEU:N	46:DS:6:LEU:HD12	2.35	0.40
52:DD:12:C:H2'	52:DD:13:G:C1'	2.48	0.40
52:DD:16:C:C2'	52:DD:18:G:OP2	2.68	0.40
1:AA:30:G:C5	1:AA:31:C:C4	3.09	0.40
1:AA:724:U:H2'	1:AA:725:G:O4'	2.21	0.40
1:AA:752:A:C4'	1:AA:753:C:OP2	2.69	0.40
1:AA:862:G:H2'	1:AA:863:A:O4'	2.20	0.40
1:AA:881:G:C8	1:AA:882:G:C8	3.09	0.40
1:AA:960:A:H61	12:AP:83:MET:HE2	1.86	0.40
1:AA:1002:G:H2'	1:AA:1003:G:O4'	2.22	0.40
1:AA:1021:A:N6	1:AA:1142(A):A:H61	2.04	0.40
1:AA:1178:C:C4'	1:AA:1179:C:OP1	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1324:G:C5	1:AA:1328:G:O6	2.74	0.40
1:AA:1387:C:H2'	1:AA:1388:G:H8	1.85	0.40
1:AA:1533:C:H5"	1:AA:1534:G:P	2.62	0.40
1:AA:1680:U:H2'	1:AA:1681:G:O4'	2.21	0.40
1:AA:2019:A:H2'	1:AA:2020:A:O5'	2.21	0.40
1:AA:2212:A:H1'	1:AA:2215:G:C6	2.55	0.40
1:AA:2308:G:C6	1:AA:2311:A:N1	2.71	0.40
1:AA:2413:G:H2'	1:AA:2414:G:O4'	2.21	0.40
1:AA:2512:C:H2'	1:AA:2513:G:O4'	2.22	0.40
1:AA:2563:U:H2'	1:AA:2565:A:OP2	2.20	0.40
1:AA:2751:G:H3'	1:AA:2752:C:C5	2.55	0.40
1:AA:2781:A:H5"	1:AA:2782:G:H5'	2.04	0.40
1:AA:2789:C:H1'	1:AA:2892:A:C2	2.44	0.40
3:AD:155:LEU:HD12	3:AD:155:LEU:N	2.37	0.40
3:AD:248:SER:C	3:AD:250:TRP:N	2.78	0.40
4:AE:34:VAL:O	4:AE:34:VAL:HG23	2.21	0.40
6:AG:37:VAL:O	6:AG:94:LEU:HD23	2.21	0.40
6:AG:110:ALA:O	6:AG:113:ARG:N	2.49	0.40
7:AH:158:HIS:O	7:AH:159:GLU:C	2.64	0.40
8:AK:25:TYR:CZ	8:AK:29:TYR:HD2	2.39	0.40
10:AN:65:THR:OG1	10:AN:69:ILE:HD11	2.21	0.40
12:AP:25:ASP:CA	12:AP:102:VAL:HG22	2.51	0.40
12:AP:104:PHE:CE1	12:AP:125:LEU:HD11	2.56	0.40
21:AV:53:ILE:HA	21:AV:71:VAL:HG13	2.04	0.40
28:A6:11:LEU:HD22	28:A6:26:ASN:HD22	1.86	0.40
30:A8:16:ILE:O	30:A8:16:ILE:HG23	2.21	0.40
31:BA:188:U:C2'	31:BA:189:U:H5'	2.52	0.40
31:BA:273:A:O2'	31:BA:274:A:H5'	2.20	0.40
31:BA:295:C:H2'	31:BA:296:U:C6	2.56	0.40
31:BA:429:U:P	34:BG:13:ARG:HH21	2.44	0.40
31:BA:683:G:C2	31:BA:708:C:N3	2.89	0.40
31:BA:691:G:H1'	31:BA:696:A:N6	2.37	0.40
31:BA:1080:A:C5'	35:BH:16:THR:HG21	2.52	0.40
31:BA:1152:A:O3'	40:BM:13:HIS:HE1	2.04	0.40
31:BA:1462:G:C6	31:BA:1463:C:C4	3.10	0.40
33:BF:14:ILE:O	33:BF:15:THR:HB	2.20	0.40
36:BI:30:LEU:HB3	36:BI:35:ALA:HB3	2.03	0.40
36:BI:63:TYR:CD2	36:BI:63:TYR:N	2.90	0.40
40:BM:30:SER:OG	40:BM:81:THR:HG22	2.21	0.40
42:BO:86:ARG:HH11	42:BO:86:ARG:CG	2.34	0.40
48:BU:58:LEU:HB3	48:BU:62:GLU:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BW:26:ASN:N	50:BW:26:ASN:ND2	2.68	0.40
52:BB:34:U:H2'	52:BB:36:U:H5	1.85	0.40
52:BB:51:C:H2'	52:BB:52:G:O4'	2.22	0.40
52:BB:52:G:H8	52:BB:52:G:OP2	2.04	0.40
53:BC:66:C:O2'	53:BC:67:C:H5'	2.21	0.40
52:BD:49:A:H2	52:BD:51:C:OP1	2.05	0.40
1:CA:194:A:H1'	1:CA:195:G:OP2	2.21	0.40
1:CA:211:A:N1	1:CA:255:A:O2'	2.52	0.40
1:CA:268:C:H42	1:CA:278:G:H1	1.70	0.40
1:CA:309:U:O2'	1:CA:310:C:H5'	2.21	0.40
1:CA:344:C:O2'	1:CA:345:A:H5'	2.21	0.40
1:CA:562:A:C2	1:CA:582:G:C2	3.09	0.40
1:CA:896:G:N9	1:CA:979:A:C8	2.90	0.40
1:CA:905:C:H1'	22:C3:26:TYR:HE2	1.87	0.40
1:CA:905:C:H1'	22:C3:26:TYR:CE2	2.57	0.40
1:CA:1108:U:O2	1:CA:1108:U:H2'	2.21	0.40
1:CA:1216:G:C4	1:CA:1217:G:H1'	2.57	0.40
1:CA:1256:A:N6	1:CA:1284:A:C4	2.89	0.40
1:CA:1514:G:C5'	1:CA:1515:C:OP1	2.68	0.40
1:CA:1749:A:OP2	56:CA:3247:OHX:N4	2.55	0.40
1:CA:1809:U:H3	1:CA:1819:A:H61	1.69	0.40
1:CA:2039:U:H2'	1:CA:2040:U:C6	2.56	0.40
1:CA:2079:G:N2	1:CA:2080:A:C1'	2.84	0.40
1:CA:2092:G:H2'	1:CA:2093:G:H5'	2.04	0.40
1:CA:2493:C:H2'	1:CA:2494:G:H5'	2.04	0.40
1:CA:2828:G:P	13:C0:99:LYS:NZ	2.94	0.40
4:CE:16:ARG:O	4:CE:16:ARG:HD2	2.22	0.40
6:CG:41:GLN:N	6:CG:90:LEU:O	2.37	0.40
12:CP:11:LYS:HG2	12:CP:75:THR:CG2	2.51	0.40
13:C0:57:ARG:HH21	13:C0:62:ALA:HB2	1.86	0.40
13:C0:117:VAL:HG22	13:C0:118:GLU:N	2.36	0.40
14:CQ:84:GLN:HA	14:CQ:110:LEU:H	1.86	0.40
19:CT:18:TYR:O	19:CT:20:GLY:N	2.54	0.40
20:CU:63:LYS:HA	20:CU:63:LYS:HZ1	1.86	0.40
30:C8:33:ASN:C	30:C8:34:TRP:CD1	2.97	0.40
30:C8:35:GLN:O	30:C8:36:LYS:C	2.64	0.40
31:DA:68:G:H22	31:DA:101:A:H2	1.67	0.40
31:DA:148:G:H2'	31:DA:149:A:H8	1.86	0.40
31:DA:474:G:N1	31:DA:475:G:C5	2.89	0.40
31:DA:604:G:C5	31:DA:605:U:C5	3.09	0.40
31:DA:835:U:OP1	48:DU:61:LYS:HB2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:883:C:N4	31:DA:884:U:O4	2.55	0.40
31:DA:1207:G:H2'	31:DA:1208:C:H6	1.86	0.40
31:DA:1238:A:H62	31:DA:1299:A:N6	2.19	0.40
31:DA:1464:G:O2'	31:DA:1465:C:H5'	2.21	0.40
32:DE:88:ALA:O	32:DE:226:ARG:NH1	2.53	0.40
33:DF:21:ARG:HB3	33:DF:21:ARG:NH1	2.36	0.40
38:DK:4:ASP:HB2	38:DK:89:PRO:HG3	2.03	0.40
44:DQ:15:LYS:HG3	44:DQ:16:PHE:HD2	1.85	0.40
45:DR:35:ARG:NH2	45:DR:59:MET:HE2	2.36	0.40
1:AA:28:A:C5	1:AA:29:U:C5	3.09	0.40
1:AA:102:G:OP1	24:AW:7:ARG:NH2	2.47	0.40
1:AA:277:C:H3'	1:AA:278:A:C4'	2.52	0.40
1:AA:338:G:N2	1:AA:339:U:H1'	2.36	0.40
1:AA:678:C:H2'	1:AA:679:C:H6	1.85	0.40
1:AA:864:G:O2'	1:AA:865:C:H5'	2.21	0.40
1:AA:980:A:C6	1:AA:981:A:C2	3.10	0.40
1:AA:1104:C:O2	1:AA:1104:C:H2'	2.21	0.40
1:AA:1296:G:O2'	1:AA:1297:C:H5'	2.21	0.40
1:AA:1298:C:N4	1:AA:1299:G:C6	2.90	0.40
1:AA:1301:A:C8	1:AA:1303:G:C8	3.10	0.40
1:AA:1323:U:H2'	1:AA:1324:G:H5'	2.04	0.40
1:AA:1403:C:C5'	1:AA:1471:A:H1'	2.52	0.40
1:AA:1423:G:N7	56:AA:3433:OHX:N3	2.69	0.40
1:AA:1558:A:C1'	1:AA:1559:G:OP2	2.65	0.40
1:AA:1591:G:C6	1:AA:1592:C:C4	3.09	0.40
1:AA:2133:G:C5	1:AA:2157:G:O6	2.74	0.40
1:AA:2134:A:H2'	1:AA:2135:A:C8	2.45	0.40
1:AA:2233:U:OP1	56:AA:3510:OHX:N1	2.55	0.40
1:AA:2474:C:C2	1:AA:2475:C:H1'	2.56	0.40
3:AD:35:LYS:N	3:AD:64:ILE:CG2	2.85	0.40
5:AF:29:ASN:HB3	5:AF:112:MET:HE1	2.03	0.40
13:A0:24:GLN:NE2	13:A0:36:THR:HG21	2.28	0.40
13:A0:107:ASP:OD2	13:A0:109:ALA:N	2.40	0.40
16:A1:44:ASN:HD21	17:A2:74:LYS:HA	1.86	0.40
18:AS:18:ARG:NH1	18:AS:76:VAL:O	2.50	0.40
22:A3:37:LEU:HD22	22:A3:67:VAL:HG11	2.03	0.40
23:AZ:91:LYS:C	23:AZ:93:GLU:N	2.80	0.40
28:A6:48:VAL:O	28:A6:49:HIS:HB2	2.21	0.40
31:BA:12:U:O4	56:BA:1756:OHX:N4	2.54	0.40
31:BA:125:U:O3'	31:BA:633:G:N2	2.55	0.40
31:BA:142:G:N3	31:BA:143:A:C8	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:218:C:O2'	31:BA:219:C:H5'	2.21	0.40
31:BA:328:C:O2	31:BA:328:C:H2'	2.22	0.40
31:BA:354:G:C2	31:BA:355:C:C5	3.10	0.40
31:BA:402:G:C6	31:BA:403:C:C4	3.09	0.40
31:BA:1029:G:H1'	31:BA:1032(A):G:H1	1.85	0.40
31:BA:1080:A:H5"	31:BA:1081:G:OP2	2.22	0.40
31:BA:1287:A:C6	31:BA:1288:A:C6	3.09	0.40
31:BA:1321:C:C3'	31:BA:1322:C:H5"	2.47	0.40
32:BE:167:PRO:HG3	32:BE:188:ALA:HB2	2.04	0.40
32:BE:178:ARG:NH1	32:BE:196:LEU:O	2.21	0.40
32:BE:204:ASN:ND2	32:BE:206:ASP:N	2.61	0.40
33:BF:64:VAL:HG12	33:BF:66:VAL:HG23	2.03	0.40
37:BJ:84:ASN:C	37:BJ:84:ASN:HD22	2.30	0.40
39:BL:112:LYS:HA	39:BL:119:ALA:HB2	2.03	0.40
50:BW:38:LYS:HE2	50:BW:38:LYS:HB3	1.86	0.40
50:BW:87:LYS:O	50:BW:91:LEU:HG	2.21	0.40
1:CA:101:A:H2'	1:CA:102:U:O4'	2.21	0.40
1:CA:216:G:H21	1:CA:218:A:H61	0.48	0.40
1:CA:314:A:N3	1:CA:314:A:H2'	2.36	0.40
1:CA:755:G:H2'	1:CA:756:C:O4'	2.22	0.40
1:CA:832:A:C8	1:CA:840:G:C5	3.10	0.40
1:CA:916:U:N3	1:CA:917:G:C5	2.89	0.40
1:CA:1047:A:C2	1:CA:1202:A:C4	3.09	0.40
1:CA:1049:G:N7	56:CA:3376:OHX:N1	2.69	0.40
1:CA:1209:G:N7	56:CA:3432:OHX:N3	2.69	0.40
1:CA:2185:G:H5"	1:CA:2195:U:H5	1.87	0.40
1:CA:2444:U:O2'	1:CA:2446:A:N7	2.45	0.40
1:CA:2502:G:C2'	1:CA:2503:G:H5'	2.51	0.40
1:CA:2803:C:H3'	1:CA:2804:A:C5'	2.42	0.40
2:CB:66:C:N4	2:CB:111:C:O2'	2.54	0.40
6:CG:55:LYS:C	6:CG:57:ALA:N	2.77	0.40
7:CH:47:GLU:O	7:CH:49:VAL:HG22	2.22	0.40
8:CK:59:ALA:HA	8:CK:62:LYS:HB3	2.03	0.40
8:CK:145:VAL:HG23	8:CK:146:ALA:N	2.36	0.40
11:CO:107:LYS:O	11:CO:110:TYR:N	2.54	0.40
11:CO:111:ARG:HB3	11:CO:112:LEU:H	1.67	0.40
12:CP:35:VAL:CG1	12:CP:36:ALA:N	2.83	0.40
24:CW:32:LEU:HD22	24:CW:57:ILE:HD13	2.03	0.40
31:DA:502:G:OP1	42:DO:113:SER:HA	2.22	0.40
31:DA:583:A:H61	31:DA:758:G:H1'	1.86	0.40
31:DA:718:G:C8	41:DN:116:HIS:HB3	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DA:776:G:O6	56:DA:1749:OHX:N6	2.55	0.40
31:DA:890:G:O2'	31:DA:891:U:P	2.78	0.40
31:DA:955:U:O2'	49:DV:83:HIS:HD2	2.05	0.40
31:DA:963:G:N2	40:DM:55:LYS:CE	2.84	0.40
31:DA:1038:C:O2'	31:DA:1039:C:H5'	2.22	0.40
31:DA:1075:C:H5'	32:DE:103:THR:HG21	2.04	0.40
31:DA:1155:G:C6	31:DA:1156:G:C6	3.09	0.40
31:DA:1207:G:C6	31:DA:1208:C:C4	3.09	0.40
31:DA:1220:G:O3'	49:DV:36:ARG:HD3	2.21	0.40
32:DE:61:LEU:HD21	32:DE:68:ILE:HD11	2.02	0.40
32:DE:90:MET:HA	32:DE:91:PRO:HD3	1.87	0.40
32:DE:168:THR:HG21	32:DE:191:ASP:O	2.21	0.40
32:DE:184:VAL:O	32:DE:198:ASP:HB2	2.22	0.40
32:DE:220:ASP:O	32:DE:224:GLN:HB3	2.22	0.40
33:DF:8:ILE:C	33:DF:10:PHE:N	2.79	0.40
33:DF:29:TYR:OH	44:DQ:54:PRO:HD2	2.22	0.40
34:DG:25:ARG:NH1	34:DG:25:ARG:HB3	2.36	0.40
35:DH:36:ASP:OD1	35:DH:38:GLN:HB2	2.21	0.40
36:DI:50:TYR:CE1	48:DU:77:GLY:HA2	2.57	0.40
37:DJ:32:ARG:C	37:DJ:34:GLY:N	2.79	0.40
38:DK:9:MET:O	38:DK:13:ILE:HG13	2.22	0.40
38:DK:29:SER:HB3	38:DK:32:LYS:CG	2.52	0.40
39:DL:94:ALA:C	39:DL:98:PRO:HG2	2.46	0.40
48:DU:76:LEU:HD23	48:DU:76:LEU:HA	1.89	0.40
1:AA:172:C:H2'	1:AA:173:G:H8	1.86	0.40
1:AA:198:C:O2'	1:AA:199:A:H5'	2.21	0.40
1:AA:471:A:OP2	1:AA:471:A:C8	2.75	0.40
1:AA:536:A:H2'	1:AA:537:C:C6	2.57	0.40
1:AA:648:G:H2'	1:AA:649:G:H8	1.85	0.40
1:AA:652:C:N4	1:AA:653:A:N6	2.70	0.40
1:AA:667:U:O2	30:A8:2:PRO:HD2	2.22	0.40
1:AA:783:A:C8	1:AA:783:A:H3'	2.57	0.40
1:AA:990:A:OP2	1:AA:991:C:OP2	2.40	0.40
1:AA:1268:A:C2'	1:AA:1269:A:O5'	2.70	0.40
1:AA:1287:A:C5	1:AA:1288:U:C4	3.10	0.40
1:AA:1329:U:H3'	1:AA:1330:C:H6	1.87	0.40
1:AA:2094:G:C2'	1:AA:2095:C:H5'	2.51	0.40
1:AA:2459:A:C6	1:AA:2460:U:C2	3.10	0.40
4:AE:94:GLU:OE2	4:AE:177:PRO:HB3	2.22	0.40
4:AE:116:VAL:HG13	4:AE:122:PHE:CB	2.52	0.40
4:AE:134:ILE:HD12	4:AE:134:ILE:C	2.47	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:34:LEU:HA	6:AG:34:LEU:HD23	1.89	0.40
7:AH:153:LYS:CG	7:AH:162:ILE:HB	2.45	0.40
8:AK:109:ILE:HB	8:AK:130:TYR:CZ	2.56	0.40
9:AM:34:LEU:HA	9:AM:34:LEU:HD12	1.72	0.40
13:A0:85:PRO:O	13:A0:87:TYR:N	2.54	0.40
14:AQ:27:SER:HA	14:AQ:88:ASP:HB3	2.01	0.40
14:AQ:92:TYR:HB3	14:AQ:98:VAL:HG21	2.02	0.40
17:A2:60:GLU:O	17:A2:62:LEU:HD13	2.20	0.40
21:AV:6:LYS:NZ	21:AV:43:GLU:HG3	2.36	0.40
21:AV:150:LEU:HD23	21:AV:151:HIS:N	2.36	0.40
23:AZ:46:LEU:HD12	23:AZ:46:LEU:HA	1.84	0.40
27:A5:16:ARG:O	27:A5:19:ARG:HB3	2.21	0.40
31:BA:392:G:H2'	31:BA:393:A:H8	1.86	0.40
31:BA:602:A:C2	31:BA:637:G:C4	3.09	0.40
31:BA:707:C:O2'	31:BA:708:C:H5'	2.22	0.40
31:BA:771:G:O2'	31:BA:772:U:H5'	2.20	0.40
31:BA:927:G:OP2	31:BA:927:G:H4'	2.20	0.40
31:BA:1129:C:H4'	31:BA:1130:A:C5'	2.51	0.40
31:BA:1138:G:N3	31:BA:1138:G:H3'	2.37	0.40
31:BA:1152:A:N6	31:BA:1153:C:N4	2.68	0.40
31:BA:1357:A:N7	31:BA:1358:U:C4	2.89	0.40
31:BA:1387:G:C6	31:BA:1388:C:N4	2.89	0.40
31:BA:1434:A:H2'	31:BA:1435:G:O4'	2.20	0.40
32:BE:177:ALA:HB1	32:BE:182:ILE:HB	2.04	0.40
34:BG:20:TYR:CZ	36:DI:15:ASP:HB3	2.56	0.40
35:BH:35:GLY:HA2	35:BH:40:ARG:O	2.21	0.40
35:BH:100:VAL:HG13	35:BH:118:ILE:CG2	2.51	0.40
35:BH:144:THR:C	35:BH:146:ALA:H	2.28	0.40
38:BK:25:ASP:HA	38:BK:59:LEU:O	2.22	0.40
42:BO:67:ILE:HA	42:BO:68:PRO:HD3	1.89	0.40
47:BT:44:ALA:HA	47:BT:71:PHE:O	2.20	0.40
52:BB:52:G:C6	52:BB:53:A:N6	2.88	0.40
52:BD:22:A:N3	52:BD:22:A:C2'	2.82	0.40
52:BD:26:G:C5	52:BD:27:A:C8	3.09	0.40
1:CA:56:C:C2'	1:CA:57:G:O5'	2.70	0.40
1:CA:152:G:H1	1:CA:164:C:H42	1.69	0.40
1:CA:255:A:H61	1:CA:456:A:H1'	1.87	0.40
1:CA:352:G:H2'	1:CA:353:U:O4'	2.22	0.40
1:CA:582:G:H2'	1:CA:583:G:H8	1.86	0.40
1:CA:664:G:C5	1:CA:677:G:C2	3.10	0.40
1:CA:717:G:C1'	1:CA:718:A:OP1	2.70	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:732:G:C6	1:CA:822:A:C4	3.09	0.40
1:CA:1106:G:H2'	1:CA:1107:U:C5	2.56	0.40
1:CA:1551:C:O2'	1:CA:1552:C:H5'	2.21	0.40
1:CA:1606:A:C1'	1:CA:1607:G:OP2	2.60	0.40
1:CA:1824:G:H2'	1:CA:1825:C:C6	2.57	0.40
1:CA:1836:C:O5'	1:CA:1836:C:H6	2.04	0.40
1:CA:2180:G:O2'	1:CA:2181:A:O4'	2.29	0.40
1:CA:2285:U:H5"	1:CA:2286:A:OP1	2.22	0.40
1:CA:2300:A:N6	1:CA:2357:U:C2	2.88	0.40
1:CA:2380:G:H2'	1:CA:2381:C:C6	2.57	0.40
1:CA:2482:A:O5'	1:CA:2489:A:H2	2.04	0.40
1:CA:2734:U:C4	1:CA:2735:A:C5	3.10	0.40
1:CA:2878:G:C5	15:CR:23:ARG:NH2	2.89	0.40
2:CB:47:A:OP2	6:CG:96:ARG:NH1	2.54	0.40
3:CD:35:LYS:HG2	3:CD:64:ILE:CG1	2.48	0.40
3:CD:70:TRP:CD1	3:CD:70:TRP:C	3.00	0.40
4:CE:47:VAL:O	4:CE:80:GLU:HA	2.22	0.40
5:CF:25:PRO:C	5:CF:27:GLU:H	2.29	0.40
6:CG:55:LYS:C	6:CG:57:ALA:H	2.30	0.40
8:CK:77:LEU:HD13	8:CK:141:LYS:CD	2.42	0.40
9:CM:67:LEU:O	9:CM:88:GLU:HG3	2.21	0.40
10:CN:69:ILE:H	10:CN:69:ILE:HD12	1.86	0.40
11:CO:28:GLY:O	11:CO:29:LYS:C	2.65	0.40
12:CP:72:LYS:NZ	12:CP:72:LYS:HB2	2.37	0.40
13:C0:78:LYS:HE2	13:C0:83:ILE:HD11	2.03	0.40
14:CQ:35:ILE:O	14:CQ:35:ILE:HG23	2.21	0.40
15:CR:118:ARG:HH22	31:DA:1446:A:N6	2.19	0.40
16:C1:74:LEU:HB2	16:C1:78:THR:OG1	2.21	0.40
18:CS:43:GLY:O	18:CS:44:ALA:C	2.64	0.40
18:CS:66:GLU:HA	18:CS:69:LEU:HG	2.04	0.40
20:CU:52:SER:HA	20:CU:55:TYR:O	2.22	0.40
24:CW:41:ILE:CD1	24:CW:44:LEU:HD12	2.51	0.40
28:C6:39:TYR:CG	28:C6:40:CYS:N	2.89	0.40
30:C8:28:GLY:C	30:C8:30:ARG:N	2.72	0.40
31:DA:397:A:N6	31:DA:548:G:C5	2.90	0.40
31:DA:797:C:OP1	41:DN:124:LYS:HD2	2.21	0.40
31:DA:1028(B):C:N3	31:DA:1032(A):G:C2	2.90	0.40
31:DA:1031:G:C6	31:DA:1032:A:N6	2.90	0.40
31:DA:1054:C:C5	31:DA:1196:U:C4	3.10	0.40
33:DF:37:GLN:C	33:DF:39:ILE:N	2.78	0.40
33:DF:179:ARG:HG3	33:DF:206:GLU:OE2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DG:151:LYS:HB3	34:DG:151:LYS:HE2	1.85	0.40
39:DL:34:ASN:OD1	39:DL:34:ASN:N	2.52	0.40
41:DN:127:LYS:O	41:DN:128:ALA:HB3	2.20	0.40
42:DO:22:PRO:O	42:DO:23:ALA:O	2.40	0.40
51:DX:3:LYS:O	51:DX:14:TRP:CE3	2.75	0.40
51:DX:12:LYS:HD2	51:DX:17:THR:O	2.20	0.40
53:DC:28:U:O2	53:DC:45:A:C2	2.75	0.40
52:DD:81:C:H2'	52:DD:82:A:O4'	2.20	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:85:U:O2'	7:CH:100:GLY:O[3_555]	1.93	0.27

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
3	AD	270/276 (98%)	218 (81%)	35 (13%)	17 (6%)	1 8
3	CD	270/276 (98%)	218 (81%)	40 (15%)	12 (4%)	2 13
4	AE	203/206 (98%)	141 (70%)	39 (19%)	23 (11%)	0 2
4	CE	203/206 (98%)	131 (64%)	46 (23%)	26 (13%)	0 1
5	AF	200/210 (95%)	168 (84%)	23 (12%)	9 (4%)	2 13
5	CF	206/210 (98%)	144 (70%)	35 (17%)	27 (13%)	0 1
6	AG	179/182 (98%)	147 (82%)	25 (14%)	7 (4%)	2 16
6	CG	179/182 (98%)	144 (80%)	27 (15%)	8 (4%)	2 13
7	AH	168/180 (93%)	123 (73%)	20 (12%)	25 (15%)	0 1
7	CH	168/180 (93%)	111 (66%)	41 (24%)	16 (10%)	0 3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
8	AK	144/148 (97%)	99 (69%)	31 (22%)	14 (10%)	0 3
8	CK	144/148 (97%)	104 (72%)	32 (22%)	8 (6%)	1 9
9	AM	136/140 (97%)	108 (79%)	17 (12%)	11 (8%)	1 5
9	CM	136/140 (97%)	106 (78%)	23 (17%)	7 (5%)	1 11
10	AN	120/122 (98%)	108 (90%)	10 (8%)	2 (2%)	7 30
10	CN	120/122 (98%)	107 (89%)	9 (8%)	4 (3%)	3 19
11	AO	148/150 (99%)	93 (63%)	35 (24%)	20 (14%)	0 1
11	CO	148/150 (99%)	91 (62%)	32 (22%)	25 (17%)	0 1
12	AP	139/141 (99%)	101 (73%)	21 (15%)	17 (12%)	0 1
12	CP	139/141 (99%)	95 (68%)	24 (17%)	20 (14%)	0 1
13	A0	116/118 (98%)	96 (83%)	15 (13%)	5 (4%)	2 14
13	C0	115/118 (98%)	97 (84%)	12 (10%)	6 (5%)	1 11
14	AQ	109/112 (97%)	86 (79%)	14 (13%)	9 (8%)	0 5
14	CQ	109/112 (97%)	72 (66%)	24 (22%)	13 (12%)	0 1
15	AR	135/146 (92%)	107 (79%)	22 (16%)	6 (4%)	2 13
15	CR	135/146 (92%)	112 (83%)	15 (11%)	8 (6%)	1 9
16	A1	115/118 (98%)	96 (84%)	13 (11%)	6 (5%)	1 11
16	C1	115/118 (98%)	89 (77%)	16 (14%)	10 (9%)	0 4
17	A2	99/101 (98%)	85 (86%)	9 (9%)	5 (5%)	1 11
17	C2	99/101 (98%)	73 (74%)	14 (14%)	12 (12%)	0 1
18	AS	111/113 (98%)	97 (87%)	13 (12%)	1 (1%)	14 43
18	CS	111/113 (98%)	99 (89%)	9 (8%)	3 (3%)	4 22
19	AT	90/96 (94%)	84 (93%)	5 (6%)	1 (1%)	11 39
19	CT	90/96 (94%)	73 (81%)	14 (16%)	3 (3%)	3 19
20	AU	100/110 (91%)	76 (76%)	13 (13%)	11 (11%)	0 2
20	CU	100/110 (91%)	62 (62%)	27 (27%)	11 (11%)	0 2
21	AV	173/206 (84%)	113 (65%)	40 (23%)	20 (12%)	0 2
21	CV	177/206 (86%)	112 (63%)	40 (23%)	25 (14%)	0 1
22	A3	74/85 (87%)	62 (84%)	7 (10%)	5 (7%)	1 7
22	C3	75/85 (88%)	59 (79%)	13 (17%)	3 (4%)	2 15
23	AZ	95/98 (97%)	76 (80%)	13 (14%)	6 (6%)	1 8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
23	CZ	95/98 (97%)	76 (80%)	9 (10%)	10 (10%)	0 2
24	AW	64/72 (89%)	57 (89%)	4 (6%)	3 (5%)	2 12
24	CW	64/72 (89%)	52 (81%)	7 (11%)	5 (8%)	1 5
25	AX	57/60 (95%)	52 (91%)	5 (9%)	0	100 100
25	CX	57/60 (95%)	52 (91%)	5 (9%)	0	100 100
26	A4	64/71 (90%)	39 (61%)	13 (20%)	12 (19%)	0 0
26	C4	61/71 (86%)	23 (38%)	20 (33%)	18 (30%)	0 0
27	A5	57/60 (95%)	42 (74%)	9 (16%)	6 (10%)	0 2
27	C5	57/60 (95%)	47 (82%)	8 (14%)	2 (4%)	3 18
28	A6	43/54 (80%)	23 (54%)	13 (30%)	7 (16%)	0 1
28	C6	43/54 (80%)	23 (54%)	11 (26%)	9 (21%)	0 0
29	A7	43/49 (88%)	41 (95%)	2 (5%)	0	100 100
29	C7	43/49 (88%)	40 (93%)	3 (7%)	0	100 100
30	A8	58/65 (89%)	47 (81%)	8 (14%)	3 (5%)	1 11
30	C8	58/65 (89%)	41 (71%)	6 (10%)	11 (19%)	0 0
32	BE	235/256 (92%)	181 (77%)	38 (16%)	16 (7%)	1 7
32	DE	235/256 (92%)	177 (75%)	40 (17%)	18 (8%)	1 5
33	BF	203/239 (85%)	161 (79%)	36 (18%)	6 (3%)	3 20
33	DF	204/239 (85%)	163 (80%)	35 (17%)	6 (3%)	3 21
34	BG	206/208 (99%)	179 (87%)	19 (9%)	8 (4%)	2 16
34	DG	206/208 (99%)	159 (77%)	35 (17%)	12 (6%)	1 9
35	BH	149/162 (92%)	127 (85%)	16 (11%)	6 (4%)	2 15
35	DH	149/162 (92%)	132 (89%)	15 (10%)	2 (1%)	9 35
36	BI	99/101 (98%)	89 (90%)	7 (7%)	3 (3%)	3 20
36	DI	99/101 (98%)	89 (90%)	8 (8%)	2 (2%)	6 27
37	BJ	153/156 (98%)	128 (84%)	21 (14%)	4 (3%)	4 23
37	DJ	153/156 (98%)	135 (88%)	16 (10%)	2 (1%)	9 35
38	BK	136/138 (99%)	116 (85%)	16 (12%)	4 (3%)	3 21
38	DK	136/138 (99%)	116 (85%)	15 (11%)	5 (4%)	2 17
39	BL	125/128 (98%)	95 (76%)	25 (20%)	5 (4%)	2 15
39	DL	125/128 (98%)	97 (78%)	21 (17%)	7 (6%)	1 9

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
40	BM	97/105 (92%)	83 (86%)	13 (13%)	1 (1%)	12 40
40	DM	97/105 (92%)	82 (84%)	14 (14%)	1 (1%)	12 40
41	BN	117/129 (91%)	99 (85%)	12 (10%)	6 (5%)	1 11
41	DN	117/129 (91%)	103 (88%)	8 (7%)	6 (5%)	1 11
42	BO	123/132 (93%)	100 (81%)	17 (14%)	6 (5%)	1 12
42	DO	123/132 (93%)	94 (76%)	17 (14%)	12 (10%)	0 3
43	BP	114/126 (90%)	82 (72%)	22 (19%)	10 (9%)	0 4
43	DP	115/126 (91%)	85 (74%)	18 (16%)	12 (10%)	0 2
44	BQ	56/61 (92%)	40 (71%)	10 (18%)	6 (11%)	0 2
44	DQ	56/61 (92%)	41 (73%)	8 (14%)	7 (12%)	0 1
45	BR	86/89 (97%)	76 (88%)	8 (9%)	2 (2%)	5 25
45	DR	86/89 (97%)	77 (90%)	8 (9%)	1 (1%)	10 37
46	BS	82/88 (93%)	60 (73%)	20 (24%)	2 (2%)	4 24
46	DS	82/88 (93%)	70 (85%)	11 (13%)	1 (1%)	10 37
47	BT	98/105 (93%)	82 (84%)	13 (13%)	3 (3%)	3 20
47	DT	98/105 (93%)	91 (93%)	5 (5%)	2 (2%)	6 27
48	BU	70/88 (80%)	59 (84%)	10 (14%)	1 (1%)	9 33
48	DU	70/88 (80%)	57 (81%)	12 (17%)	1 (1%)	9 33
49	BV	76/93 (82%)	59 (78%)	14 (18%)	3 (4%)	2 16
49	DV	76/93 (82%)	55 (72%)	17 (22%)	4 (5%)	1 10
50	BW	97/106 (92%)	78 (80%)	16 (16%)	3 (3%)	3 20
50	DW	97/106 (92%)	82 (84%)	9 (9%)	6 (6%)	1 9
51	BX	23/27 (85%)	19 (83%)	3 (13%)	1 (4%)	2 14
51	DX	23/27 (85%)	21 (91%)	0	2 (9%)	0 4
All	All	11319/12052 (94%)	8877 (78%)	1684 (15%)	758 (7%)	1 7

All (758) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	AD	28	GLU
3	AD	32	SER
3	AD	122	ASP
3	AD	123	ALA
3	AD	238	GLY

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Mol	Chain	Res	Type
4	AE	2	LYS
4	AE	78	LEU
4	AE	79	ARG
4	AE	83	ASP
4	AE	90	THR
4	AE	118	LYS
5	AF	24	LEU
5	AF	134	GLY
6	AG	96	ARG
7	AH	10	PRO
7	AH	12	PRO
7	AH	27	LYS
7	AH	84	SER
7	AH	137	ASP
7	AH	151	ILE
7	AH	153	LYS
7	AH	154	PRO
7	AH	155	SER
7	AH	159	GLU
7	AH	167	GLU
7	AH	169	VAL
8	AK	134	PRO
8	AK	145	VAL
9	AM	22	THR
9	AM	23	LEU
9	AM	58	ASP
10	AN	97	ARG
11	AO	6	LEU
11	AO	16	ARG
11	AO	23	PRO
11	AO	25	SER
11	AO	42	SER
11	AO	65	ARG
11	AO	67	MET
12	AP	25	ASP
12	AP	28	ALA
12	AP	66	ILE
12	AP	80	GLU
12	AP	89	ASN
13	A0	4	LEU
13	A0	45	ARG
15	AR	106	SER

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Mol	Chain	Res	Type
15	AR	112	ARG
16	A1	89	GLU
16	A1	91	ASP
16	A1	93	LYS
17	A2	36	PRO
17	A2	45	THR
17	A2	48	GLY
17	A2	49	THR
18	AS	112	GLY
20	AU	42	VAL
20	AU	50	ARG
20	AU	77	PRO
20	AU	78	ALA
21	AV	6	LYS
21	AV	51	ALA
21	AV	60	GLU
21	AV	63	ASP
21	AV	109	ALA
21	AV	161	VAL
21	AV	165	VAL
22	A3	44	ARG
22	A3	84	LEU
23	AZ	76	ARG
24	AW	43	GLN
24	AW	47	ASN
24	AW	48	HIS
26	A4	40	HIS
26	A4	50	VAL
26	A4	53	GLU
27	A5	3	LYS
27	A5	4	HIS
28	A6	16	CYS
28	A6	17	LYS
30	A8	52	LYS
32	BE	96	ARG
32	BE	239	VAL
33	BF	4	LYS
34	BG	26	CYS
34	BG	155	LEU
35	BH	21	ALA
36	BI	40	VAL
36	BI	42	GLU

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Mol	Chain	Res	Type
38	BK	2	LEU
38	BK	86	ILE
39	BL	111	ARG
41	BN	82	VAL
41	BN	103	LEU
42	BO	13	GLU
43	BP	27	LYS
43	BP	83	ASP
44	BQ	14	PRO
3	CD	26	LYS
3	CD	237	GLU
3	CD	239	ARG
3	CD	271	ILE
4	CE	25	VAL
4	CE	26	ILE
4	CE	60	ASN
4	CE	61	ARG
4	CE	78	LEU
4	CE	82	ARG
4	CE	204	ALA
5	CF	21	ALA
5	CF	22	ALA
5	CF	25	PRO
5	CF	28	ILE
5	CF	90	PHE
5	CF	129	PHE
5	CF	167	ALA
5	CF	168	ARG
6	CG	35	GLU
7	CH	126	PRO
7	CH	131	VAL
7	CH	168	PRO
8	CK	73	GLU
8	CK	111	PRO
8	CK	113	ARG
8	CK	117	GLU
8	CK	119	PRO
9	CM	23	LEU
11	CO	6	LEU
11	CO	16	ARG
11	CO	35	HIS
11	CO	51	PHE

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Mol	Chain	Res	Type
11	CO	56	SER
11	CO	57	THR
11	CO	58	THR
11	CO	64	LYS
11	CO	65	ARG
11	CO	106	LEU
11	CO	111	ARG
11	CO	147	LEU
12	CP	13	GLN
12	CP	25	ASP
12	CP	79	LEU
12	CP	89	ASN
12	CP	117	ALA
12	CP	134	ARG
12	CP	135	ASP
12	CP	136	ALA
13	C0	107	ASP
14	CQ	55	ALA
14	CQ	87	PHE
14	CQ	89	ARG
14	CQ	110	LEU
15	CR	107	ASP
17	C2	44	LYS
17	C2	79	VAL
17	C2	85	LYS
18	CS	63	ASP
20	CU	3	VAL
20	CU	17	SER
20	CU	77	PRO
21	CV	6	LYS
21	CV	53	ILE
21	CV	105	VAL
21	CV	114	GLY
21	CV	175	VAL
22	C3	44	ARG
23	CZ	36	GLY
23	CZ	93	GLU
23	CZ	96	LYS
24	CW	47	ASN
26	C4	5	ILE
26	C4	29	PRO
26	C4	31	ILE

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Mol	Chain	Res	Type
26	C4	32	TYR
26	C4	36	CYS
26	C4	37	SER
27	C5	4	HIS
27	C5	57	VAL
28	C6	17	LYS
28	C6	45	LYS
28	C6	52	VAL
30	C8	34	TRP
30	C8	35	GLN
30	C8	38	GLY
30	C8	49	VAL
30	C8	50	LEU
30	C8	51	ALA
32	DE	6	THR
32	DE	7	VAL
32	DE	191	ASP
34	DG	153	ARG
39	DL	54	ASP
39	DL	111	ARG
39	DL	118	LYS
41	DN	100	ALA
42	DO	15	VAL
42	DO	16	ARG
42	DO	23	ALA
42	DO	93	VAL
43	DP	7	VAL
43	DP	95	GLY
44	DQ	24	CYS
44	DQ	28	GLY
49	DV	9	VAL
49	DV	11	VAL
50	DW	49	ALA
50	DW	71	THR
50	DW	73	HIS
3	AD	26	LYS
3	AD	33	LEU
3	AD	46	GLN
3	AD	196	VAL
3	AD	239	ARG
4	AE	54	GLN
4	AE	60	ASN

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Mol	Chain	Res	Type
4	AE	71	GLY
4	AE	88	GLY
4	AE	132	HIS
5	AF	168	ARG
6	AG	14	GLU
6	AG	79	ASN
7	AH	3	ARG
7	AH	81	GLU
7	AH	85	LYS
7	AH	87	LEU
7	AH	127	GLU
7	AH	138	LYS
8	AK	10	GLU
8	AK	133	HIS
9	AM	47	ALA
9	AM	76	SER
11	AO	24	GLY
11	AO	66	GLY
11	AO	106	LEU
11	AO	148	LEU
12	AP	2	LEU
12	AP	6	ARG
12	AP	27	VAL
12	AP	59	ARG
12	AP	88	GLY
12	AP	104	PHE
13	A0	3	HIS
14	AQ	4	LEU
14	AQ	88	ASP
14	AQ	94	TYR
15	AR	2	ASN
15	AR	37	GLY
16	A1	90	VAL
16	A1	116	ALA
17	A2	47	VAL
19	AT	40	LYS
20	AU	57	GLN
20	AU	58	GLY
21	AV	53	ILE
21	AV	81	ARG
21	AV	160	GLY
22	A3	83	PRO

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Mol	Chain	Res	Type
23	AZ	75	GLU
23	AZ	79	GLY
23	AZ	92	LYS
26	A4	14	ILE
26	A4	30	GLU
26	A4	34	GLU
26	A4	39	CYS
26	A4	42	PHE
26	A4	46	GLN
26	A4	51	ASP
27	A5	5	PRO
28	A6	33	LYS
28	A6	46	HIS
30	A8	35	GLN
32	BE	155	LEU
32	BE	208	ILE
32	BE	216	SER
32	BE	237	ALA
33	BF	12	LEU
33	BF	13	GLY
34	BG	12	CYS
34	BG	154	ASN
35	BH	140	ARG
36	BI	62	TRP
37	BJ	7	ALA
38	BK	87	SER
39	BL	96	LEU
41	BN	91	ARG
41	BN	107	SER
42	BO	16	ARG
42	BO	46	ASN
42	BO	88	LYS
43	BP	108	ARG
44	BQ	29	ARG
44	BQ	60	SER
45	BR	86	GLY
47	BT	49	GLU
47	BT	68	ARG
50	BW	96	GLY
3	CD	267	SER
4	CE	2	LYS
4	CE	74	PRO

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Mol	Chain	Res	Type
4	CE	117	MET
5	CF	17	ARG
5	CF	62	ARG
5	CF	73	ALA
5	CF	125	LEU
5	CF	146	ALA
5	CF	166	ALA
5	CF	193	VAL
6	CG	14	GLU
6	CG	47	LYS
7	CH	17	VAL
7	CH	92	ILE
7	CH	160	LYS
7	CH	169	VAL
8	CK	115	ALA
8	CK	144	VAL
8	CK	145	VAL
9	CM	56	ASN
11	CO	10	PRO
11	CO	12	ALA
11	CO	34	GLY
11	CO	66	GLY
11	CO	67	MET
11	CO	98	GLU
11	CO	107	LYS
11	CO	108	LYS
12	CP	4	PRO
12	CP	7	MET
12	CP	19	GLY
12	CP	29	PHE
12	CP	30	GLY
12	CP	88	GLY
13	C0	3	HIS
13	C0	82	GLU
14	CQ	13	ARG
14	CQ	19	LYS
14	CQ	57	LYS
14	CQ	107	GLU
14	CQ	111	GLU
15	CR	86	ILE
15	CR	135	ALA
16	C1	90	VAL

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Mol	Chain	Res	Type
16	C1	91	ASP
16	C1	93	LYS
16	C1	95	LEU
17	C2	49	THR
17	C2	72	VAL
17	C2	80	GLN
19	CT	40	LYS
20	CU	29	GLU
20	CU	63	LYS
20	CU	90	LEU
21	CV	108	PRO
21	CV	143	GLY
21	CV	145	GLU
21	CV	171	ILE
23	CZ	28	GLY
23	CZ	84	GLY
24	CW	16	LEU
24	CW	41	ILE
26	C4	33	VAL
26	C4	50	VAL
28	C6	35	GLU
28	C6	46	HIS
30	C8	29	LYS
30	C8	32	LEU
30	C8	36	LYS
32	DE	8	LYS
32	DE	20	GLU
32	DE	32	ILE
32	DE	75	LYS
32	DE	96	ARG
32	DE	226	ARG
34	DG	9	CYS
34	DG	26	CYS
34	DG	151	LYS
34	DG	178	VAL
41	DN	55	LYS
41	DN	101	SER
41	DN	117	ASN
42	DO	44	LYS
42	DO	58	THR
42	DO	60	GLY
42	DO	62	GLU

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Mol	Chain	Res	Type
43	DP	85	GLY
43	DP	106	ASN
43	DP	117	VAL
44	DQ	26	ARG
50	DW	10	LEU
50	DW	102	GLY
3	AD	29	PRO
3	AD	241	PRO
4	AE	56	PRO
5	AF	25	PRO
5	AF	73	ALA
5	AF	129	PHE
5	AF	198	ALA
6	AG	24	GLY
7	AH	5	GLY
7	AH	83	TYR
7	AH	152	ARG
7	AH	168	PRO
9	AM	8	GLN
11	AO	10	PRO
11	AO	12	ALA
11	AO	59	LEU
12	AP	60	ARG
12	AP	134	ARG
12	AP	139	GLU
13	A0	86	ARG
14	AQ	13	ARG
14	AQ	107	GLU
14	AQ	110	LEU
20	AU	11	ASP
20	AU	40	GLU
20	AU	97	ARG
21	AV	7	ALA
21	AV	118	GLN
22	A3	15	ASP
23	AZ	91	LYS
28	A6	19	ARG
28	A6	21	TYR
32	BE	8	LYS
32	BE	26	PRO
32	BE	101	MET
32	BE	238	LEU

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Mol	Chain	Res	Type
34	BG	30	LYS
34	BG	89	THR
37	BJ	148	ASN
43	BP	5	ALA
43	BP	21	TYR
43	BP	67	GLU
44	BQ	5	ALA
44	BQ	16	PHE
46	BS	77	ALA
48	BU	87	ARG
51	BX	3	LYS
3	CD	240	ALA
3	CD	272	ALA
4	CE	54	GLN
4	CE	66	HIS
4	CE	200	GLU
5	CF	127	GLU
6	CG	5	VAL
6	CG	96	ARG
7	CH	5	GLY
7	CH	83	TYR
9	CM	133	GLN
10	CN	5	GLN
10	CN	48	PRO
11	CO	38	GLN
11	CO	52	GLU
13	C0	45	ARG
14	CQ	4	LEU
14	CQ	97	ARG
15	CR	117	ASP
15	CR	132	LYS
17	C2	84	LYS
17	C2	87	HIS
18	CS	44	ALA
18	CS	58	ALA
20	CU	89	PHE
20	CU	94	LYS
21	CV	60	GLU
21	CV	61	LEU
21	CV	116	VAL
21	CV	119	GLU
21	CV	158	PRO

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Mol	Chain	Res	Type
21	CV	161	VAL
21	CV	169	GLU
22	C3	33	ALA
26	C4	20	ASN
26	C4	42	PHE
26	C4	48	ARG
26	C4	52	THR
26	C4	57	GLU
28	C6	36	LEU
28	C6	49	HIS
30	C8	48	PHE
32	DE	83	MET
33	DF	15	THR
33	DF	48	TYR
34	DG	14	ARG
34	DG	171	GLY
35	DH	59	GLY
36	DI	79	LEU
38	DK	2	LEU
38	DK	100	ILE
39	DL	119	ALA
40	DM	79	ARG
42	DO	76	GLU
43	DP	5	ALA
43	DP	29	ARG
43	DP	63	THR
43	DP	82	MET
44	DQ	15	LYS
44	DQ	30	ALA
46	DS	83	GLU
47	DT	68	ARG
48	DU	36	ASN
51	DX	3	LYS
51	DX	25	LYS
3	AD	224	ALA
4	AE	18	ASP
4	AE	22	PRO
4	AE	55	ASN
4	AE	69	LYS
4	AE	72	VAL
4	AE	117	MET
5	AF	67	GLN

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Mol	Chain	Res	Type
6	AG	5	VAL
6	AG	97	ASP
6	AG	116	ASP
8	AK	36	ALA
8	AK	82	ARG
8	AK	83	ALA
8	AK	105	HIS
8	AK	131	LYS
9	AM	128	HIS
11	AO	29	LYS
11	AO	47	ASP
11	AO	90	ARG
12	AP	11	LYS
13	A0	2	ARG
14	AQ	57	LYS
14	AQ	61	ASN
15	AR	38	ASN
15	AR	136	GLN
21	AV	62	PRO
21	AV	141	VAL
23	AZ	40	ARG
26	A4	24	THR
27	A5	49	CYS
28	A6	22	ALA
30	A8	36	LYS
32	BE	22	LYS
32	BE	194	PRO
33	BF	15	THR
33	BF	61	ALA
34	BG	156	GLU
41	BN	117	ASN
43	BP	8	GLU
43	BP	106	ASN
46	BS	43	LYS
47	BT	99	SER
3	CD	31	LYS
4	CE	9	VAL
4	CE	51	PHE
4	CE	63	LEU
4	CE	81	ILE
4	CE	131	ALA
5	CF	3	GLU

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Mol	Chain	Res	Type
5	CF	19	GLU
5	CF	27	GLU
5	CF	61	GLY
6	CG	81	LYS
7	CH	8	PRO
7	CH	84	SER
7	CH	167	GLU
9	CM	36	GLY
9	CM	130	HIS
11	CO	47	ASP
12	CP	27	VAL
12	CP	59	ARG
12	CP	110	THR
15	CR	116	ALA
16	C1	33	ARG
17	C2	62	LEU
17	C2	71	LEU
17	C2	99	ILE
19	CT	19	ALA
20	CU	78	ALA
21	CV	31	ARG
21	CV	51	ALA
21	CV	141	VAL
21	CV	176	PRO
22	C3	84	LEU
23	CZ	30	VAL
23	CZ	88	LYS
24	CW	15	LYS
24	CW	43	GLN
26	C4	21	VAL
26	C4	56	VAL
30	C8	53	PRO
32	DE	128	GLU
34	DG	12	CYS
34	DG	17	VAL
34	DG	27	TYR
34	DG	154	ASN
35	DH	70	PRO
37	DJ	33	ASP
38	DK	73	ASP
41	DN	49	GLY
43	DP	57	ARG

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Mol	Chain	Res	Type
44	DQ	16	PHE
3	AD	3	VAL
4	AE	15	PHE
4	AE	21	VAL
5	AF	130	ALA
7	AH	13	LYS
8	AK	11	ASN
9	AM	18	ALA
9	AM	56	ASN
10	AN	5	GLN
11	AO	95	VAL
12	AP	90	VAL
20	AU	3	VAL
21	AV	121	HIS
21	AV	168	GLU
21	AV	171	ILE
22	A3	35	ASN
32	BE	150	SER
35	BH	70	PRO
35	BH	153	LYS
37	BJ	58	PRO
39	BL	70	LYS
42	BO	62	GLU
43	BP	28	ALA
43	BP	68	GLY
3	CD	159	ALA
4	CE	37	ARG
4	CE	52	LEU
4	CE	57	LYS
4	CE	187	ALA
5	CF	24	LEU
5	CF	54	ARG
5	CF	81	PRO
5	CF	124	LEU
6	CG	110	ALA
6	CG	116	ASP
7	CH	99	VAL
7	CH	118	PRO
9	CM	18	ALA
10	CN	104	ARG
12	CP	90	VAL
13	C0	26	LYS

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Mol	Chain	Res	Type
13	C0	42	LYS
14	CQ	61	ASN
15	CR	113	LYS
16	C1	9	VAL
16	C1	22	LYS
16	C1	98	LEU
16	C1	101	ARG
19	CT	51	VAL
20	CU	85	VAL
21	CV	52	SER
23	CZ	79	GLY
23	CZ	87	PRO
26	C4	10	VAL
26	C4	40	HIS
28	C6	44	ARG
32	DE	9	GLU
32	DE	39	ILE
32	DE	130	ARG
32	DE	232	PRO
33	DF	82	GLU
38	DK	98	LYS
39	DL	55	ALA
41	DN	48	ILE
43	DP	116	THR
44	DQ	14	PRO
47	DT	33	GLY
49	DV	66	MET
8	AK	12	LEU
8	AK	118	LYS
11	AO	7	ARG
11	AO	62	LEU
12	AP	105	GLU
16	A1	88	ILE
27	A5	7	PRO
32	BE	14	GLY
35	BH	112	LEU
39	BL	56	LEU
40	BM	36	GLY
41	BN	101	SER
42	BO	118	GLY
49	BV	8	GLY
49	BV	41	VAL

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Mol	Chain	Res	Type
3	CD	3	VAL
4	CE	90	THR
7	CH	152	ARG
9	CM	128	HIS
12	CP	77	LYS
17	C2	36	PRO
21	CV	62	PRO
26	C4	41	PRO
28	C6	15	GLU
32	DE	72	GLY
32	DE	73	THR
34	DG	7	PRO
42	DO	28	PRO
42	DO	45	PRO
49	DV	67	VAL
3	AD	35	LYS
21	AV	158	PRO
32	BE	5	ILE
34	BG	28	SER
35	BH	115	VAL
3	CD	35	LYS
4	CE	77	ILE
4	CE	186	GLY
12	CP	55	VAL
33	DF	14	ILE
37	DJ	82	GLY
43	DP	84	ILE
50	DW	101	GLY
3	AD	114	GLY
3	AD	271	ILE
4	AE	33	VAL
9	AM	60	ILE
14	AQ	90	GLY
21	AV	61	LEU
21	AV	108	PRO
27	A5	47	PRO
33	BF	145	GLY
4	CE	59	VAL
5	CF	126	VAL
5	CF	132	VAL
11	CO	62	LEU
15	CR	20	PRO

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Mol	Chain	Res	Type
16	C1	73	GLY
20	CU	31	LEU
21	CV	157	LEU
23	CZ	55	GLY
39	DL	108	VAL
4	AE	4	ILE
7	AH	92	ILE
8	AK	15	VAL
9	AM	64	GLY
20	AU	56	PRO
26	A4	35	VAL
37	BJ	81	GLY
50	BW	63	ILE
50	BW	97	ALA
3	CD	28	GLU
5	CF	89	VAL
7	CH	4	ILE
10	CN	115	VAL
14	CQ	96	GLY
21	CV	160	GLY
42	DO	52	VAL
45	DR	86	GLY
4	AE	62	PRO
7	AH	21	PRO
38	BK	129	VAL
39	BL	44	VAL
44	BQ	13	THR
45	BR	87	ILE
49	BV	9	VAL
21	CV	165	VAL
32	DE	125	PRO
33	DF	64	VAL
36	DI	40	VAL
39	DL	109	VAL
8	AK	13	GLY
32	BE	167	PRO
11	CO	11	GLY
33	DF	109	PRO
38	DK	134	ILE

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
3	AD	214/218 (98%)	169 (79%)	45 (21%)	1 5
3	CD	214/218 (98%)	182 (85%)	32 (15%)	3 13
4	AE	165/166 (99%)	129 (78%)	36 (22%)	1 5
4	CE	165/166 (99%)	127 (77%)	38 (23%)	1 4
5	AF	161/166 (97%)	135 (84%)	26 (16%)	2 12
5	CF	165/166 (99%)	139 (84%)	26 (16%)	2 12
6	AG	155/156 (99%)	132 (85%)	23 (15%)	3 13
6	CG	155/156 (99%)	140 (90%)	15 (10%)	8 28
7	AH	142/148 (96%)	111 (78%)	31 (22%)	1 5
7	CH	142/148 (96%)	122 (86%)	20 (14%)	3 14
8	AK	122/124 (98%)	101 (83%)	21 (17%)	2 10
8	CK	122/124 (98%)	103 (84%)	19 (16%)	2 12
9	AM	117/119 (98%)	97 (83%)	20 (17%)	2 10
9	CM	117/119 (98%)	95 (81%)	22 (19%)	1 7
10	AN	100/100 (100%)	88 (88%)	12 (12%)	5 20
10	CN	100/100 (100%)	86 (86%)	14 (14%)	3 15
11	AO	116/116 (100%)	84 (72%)	32 (28%)	0 2
11	CO	116/116 (100%)	79 (68%)	37 (32%)	0 1
12	AP	111/111 (100%)	88 (79%)	23 (21%)	1 6
12	CP	111/111 (100%)	84 (76%)	27 (24%)	1 3
13	A0	101/101 (100%)	82 (81%)	19 (19%)	1 7
13	C0	100/101 (99%)	84 (84%)	16 (16%)	2 11
14	AQ	87/88 (99%)	71 (82%)	16 (18%)	1 7
14	CQ	87/88 (99%)	73 (84%)	14 (16%)	2 12
15	AR	120/127 (94%)	99 (82%)	21 (18%)	2 9
15	CR	120/127 (94%)	104 (87%)	16 (13%)	4 17

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
16	A1	93/94 (99%)	78 (84%)	15 (16%)	2 12
16	C1	93/94 (99%)	81 (87%)	12 (13%)	4 17
17	A2	82/82 (100%)	64 (78%)	18 (22%)	1 5
17	C2	82/82 (100%)	62 (76%)	20 (24%)	1 3
18	AS	92/92 (100%)	72 (78%)	20 (22%)	1 5
18	CS	92/92 (100%)	79 (86%)	13 (14%)	3 14
19	AT	74/78 (95%)	65 (88%)	9 (12%)	5 19
19	CT	74/78 (95%)	63 (85%)	11 (15%)	3 13
20	AU	85/91 (93%)	68 (80%)	17 (20%)	1 6
20	CU	85/91 (93%)	60 (71%)	25 (29%)	0 2
21	AV	154/179 (86%)	126 (82%)	28 (18%)	2 8
21	CV	158/179 (88%)	138 (87%)	20 (13%)	4 18
22	A3	61/67 (91%)	52 (85%)	9 (15%)	3 13
22	C3	62/67 (92%)	56 (90%)	6 (10%)	8 28
23	AZ	82/83 (99%)	70 (85%)	12 (15%)	3 14
23	CZ	82/83 (99%)	65 (79%)	17 (21%)	1 6
24	AW	62/67 (92%)	47 (76%)	15 (24%)	1 3
24	CW	62/67 (92%)	52 (84%)	10 (16%)	2 12
25	AX	51/52 (98%)	43 (84%)	8 (16%)	2 12
25	CX	51/52 (98%)	43 (84%)	8 (16%)	2 12
26	A4	59/63 (94%)	51 (86%)	8 (14%)	3 16
26	C4	57/63 (90%)	43 (75%)	14 (25%)	1 3
27	A5	51/52 (98%)	41 (80%)	10 (20%)	1 6
27	C5	51/52 (98%)	42 (82%)	9 (18%)	2 9
28	A6	44/52 (85%)	31 (70%)	13 (30%)	0 2
28	C6	44/52 (85%)	38 (86%)	6 (14%)	3 16
29	A7	38/42 (90%)	32 (84%)	6 (16%)	2 12
29	C7	38/42 (90%)	31 (82%)	7 (18%)	1 7
30	A8	50/55 (91%)	39 (78%)	11 (22%)	1 5
30	C8	50/55 (91%)	37 (74%)	13 (26%)	0 2
32	BE	205/220 (93%)	171 (83%)	34 (17%)	2 11

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
32	DE	205/220 (93%)	174 (85%)	31 (15%)	3 13
33	BF	159/188 (85%)	130 (82%)	29 (18%)	2 8
33	DF	160/188 (85%)	141 (88%)	19 (12%)	5 20
34	BG	180/180 (100%)	155 (86%)	25 (14%)	3 15
34	DG	180/180 (100%)	153 (85%)	27 (15%)	3 13
35	BH	116/123 (94%)	96 (83%)	20 (17%)	2 10
35	DH	116/123 (94%)	96 (83%)	20 (17%)	2 10
36	BI	90/90 (100%)	81 (90%)	9 (10%)	7 27
36	DI	90/90 (100%)	81 (90%)	9 (10%)	7 27
37	BJ	126/127 (99%)	106 (84%)	20 (16%)	2 12
37	DJ	126/127 (99%)	107 (85%)	19 (15%)	3 13
38	BK	119/119 (100%)	98 (82%)	21 (18%)	2 9
38	DK	119/119 (100%)	105 (88%)	14 (12%)	5 20
39	BL	98/99 (99%)	86 (88%)	12 (12%)	5 19
39	DL	98/99 (99%)	84 (86%)	14 (14%)	3 14
40	BM	89/92 (97%)	74 (83%)	15 (17%)	2 10
40	DM	89/92 (97%)	78 (88%)	11 (12%)	4 19
41	BN	90/99 (91%)	78 (87%)	12 (13%)	4 17
41	DN	90/99 (91%)	80 (89%)	10 (11%)	6 22
42	BO	104/109 (95%)	89 (86%)	15 (14%)	3 14
42	DO	104/109 (95%)	85 (82%)	19 (18%)	2 7
43	BP	94/101 (93%)	81 (86%)	13 (14%)	3 15
43	DP	94/101 (93%)	82 (87%)	12 (13%)	4 18
44	BQ	48/50 (96%)	44 (92%)	4 (8%)	10 34
44	DQ	48/50 (96%)	44 (92%)	4 (8%)	10 34
45	BR	79/80 (99%)	70 (89%)	9 (11%)	5 21
45	DR	79/80 (99%)	70 (89%)	9 (11%)	5 21
46	BS	72/74 (97%)	61 (85%)	11 (15%)	3 13
46	DS	72/74 (97%)	65 (90%)	7 (10%)	8 28
47	BT	95/97 (98%)	80 (84%)	15 (16%)	2 12
47	DT	95/97 (98%)	90 (95%)	5 (5%)	20 49

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
48	BU	63/77 (82%)	57 (90%)	6 (10%)	8 29
48	DU	63/77 (82%)	54 (86%)	9 (14%)	3 14
49	BV	67/80 (84%)	53 (79%)	14 (21%)	1 5
49	DV	67/80 (84%)	55 (82%)	12 (18%)	2 8
50	BW	76/82 (93%)	66 (87%)	10 (13%)	4 17
50	DW	76/82 (93%)	65 (86%)	11 (14%)	3 14
51	BX	20/22 (91%)	19 (95%)	1 (5%)	22 50
51	DX	20/22 (91%)	19 (95%)	1 (5%)	22 50
All	All	9565/9996 (96%)	7996 (84%)	1569 (16%)	2 11

All (1569) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	AD	10	THR
3	AD	17	THR
3	AD	25	THR
3	AD	26	LYS
3	AD	27	THR
3	AD	28	GLU
3	AD	30	GLU
3	AD	31	LYS
3	AD	35	LYS
3	AD	37	LEU
3	AD	44	ASN
3	AD	60	ARG
3	AD	61	LEU
3	AD	64	ILE
3	AD	65	ILE
3	AD	71	ASP
3	AD	72	LYS
3	AD	73	VAL
3	AD	83	GLU
3	AD	94	LEU
3	AD	99	ASP
3	AD	103	ARG
3	AD	105	ILE
3	AD	106	ILE
3	AD	112	GLN
3	AD	113	VAL

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Mol	Chain	Res	Type
3	AD	116	GLN
3	AD	138	VAL
3	AD	140	THR
3	AD	141	VAL
3	AD	162	SER
3	AD	169	GLU
3	AD	192	THR
3	AD	193	VAL
3	AD	204	ILE
3	AD	212	SER
3	AD	217	ARG
3	AD	221	VAL
3	AD	233	HIS
3	AD	239	ARG
3	AD	242	ARG
3	AD	259	THR
3	AD	262	ARG
3	AD	268	ARG
3	AD	271	ILE
4	AE	13	ARG
4	AE	16	ARG
4	AE	21	VAL
4	AE	26	ILE
4	AE	33	VAL
4	AE	34	VAL
4	AE	37	ARG
4	AE	41	LYS
4	AE	47	VAL
4	AE	48	GLN
4	AE	49	LEU
4	AE	57	LYS
4	AE	63	LEU
4	AE	66	HIS
4	AE	67	PHE
4	AE	77	ILE
4	AE	78	LEU
4	AE	91	VAL
4	AE	101	ARG
4	AE	102	VAL
4	AE	111	ARG
4	AE	116	VAL
4	AE	119	ARG

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Mol	Chain	Res	Type
4	AE	140	SER
4	AE	144	ARG
4	AE	146	THR
4	AE	167	VAL
4	AE	171	GLU
4	AE	175	VAL
4	AE	181	LEU
4	AE	182	LEU
4	AE	188	VAL
4	AE	196	VAL
4	AE	197	ILE
4	AE	200	GLU
4	AE	203	LYS
5	AF	8	GLN
5	AF	28	ILE
5	AF	32	LEU
5	AF	37	VAL
5	AF	45	ARG
5	AF	46	ARG
5	AF	57	VAL
5	AF	64	ILE
5	AF	67	GLN
5	AF	70	THR
5	AF	72	ARG
5	AF	82	ILE
5	AF	101	LEU
5	AF	127	GLU
5	AF	132	VAL
5	AF	158	THR
5	AF	161	GLU
5	AF	164	ARG
5	AF	170	LEU
5	AF	174	VAL
5	AF	176	LEU
5	AF	183	VAL
5	AF	200	GLU
5	AF	201	VAL
5	AF	203	GLN
5	AF	206	ILE
6	AG	19	LEU
6	AG	26	GLN
6	AG	28	VAL

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Mol	Chain	Res	Type
6	AG	31	VAL
6	AG	43	LEU
6	AG	45	GLU
6	AG	51	ARG
6	AG	52	ILE
6	AG	67	LYS
6	AG	72	ARG
6	AG	76	SER
6	AG	80	PHE
6	AG	82	LEU
6	AG	86	MET
6	AG	90	LEU
6	AG	94	LEU
6	AG	101	ILE
6	AG	116	ASP
6	AG	118	ARG
6	AG	133	LEU
6	AG	139	LEU
6	AG	165	THR
6	AG	176	LEU
7	AH	3	ARG
7	AH	4	ILE
7	AH	7	LEU
7	AH	11	VAL
7	AH	13	LYS
7	AH	24	VAL
7	AH	27	LYS
7	AH	34	GLU
7	AH	41	MET
7	AH	43	VAL
7	AH	44	VAL
7	AH	49	VAL
7	AH	50	VAL
7	AH	67	LEU
7	AH	77	LYS
7	AH	81	GLU
7	AH	83	TYR
7	AH	86	GLU
7	AH	88	LEU
7	AH	89	ILE
7	AH	107	VAL
7	AH	116	GLU

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Mol	Chain	Res	Type
7	AH	122	THR
7	AH	129	THR
7	AH	131	VAL
7	AH	132	ARG
7	AH	134	SER
7	AH	149	ARG
7	AH	153	LYS
7	AH	158	HIS
7	AH	169	VAL
8	AK	2	LYS
8	AK	9	LEU
8	AK	11	ASN
8	AK	20	ASP
8	AK	25	TYR
8	AK	38	LEU
8	AK	41	GLU
8	AK	44	LEU
8	AK	67	ARG
8	AK	71	ILE
8	AK	74	ASN
8	AK	77	LEU
8	AK	82	ARG
8	AK	85	GLU
8	AK	92	VAL
8	AK	95	LYS
8	AK	110	ASP
8	AK	122	GLU
8	AK	135	GLU
8	AK	136	VAL
8	AK	139	GLN
9	AM	7	LYS
9	AM	10	GLU
9	AM	22	THR
9	AM	33	LEU
9	AM	34	LEU
9	AM	43	THR
9	AM	45	ASN
9	AM	48	MET
9	AM	55	VAL
9	AM	60	ILE
9	AM	67	LEU
9	AM	85	ILE

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Mol	Chain	Res	Type
9	AM	87	LEU
9	AM	90	MET
9	AM	96	GLU
9	AM	99	LEU
9	AM	103	VAL
9	AM	120	LEU
9	AM	131	GLN
9	AM	133	GLN
10	AN	8	LEU
10	AN	9	GLU
10	AN	20	MET
10	AN	22	ILE
10	AN	23	ARG
10	AN	24	VAL
10	AN	35	VAL
10	AN	43	VAL
10	AN	66	LYS
10	AN	94	ARG
10	AN	98	VAL
10	AN	113	LYS
11	AO	3	LEU
11	AO	4	SER
11	AO	14	LYS
11	AO	15	ARG
11	AO	16	ARG
11	AO	21	ARG
11	AO	30	THR
11	AO	32	THR
11	AO	36	LYS
11	AO	41	ARG
11	AO	45	LEU
11	AO	49	ARG
11	AO	50	ARG
11	AO	59	LEU
11	AO	61	ARG
11	AO	62	LEU
11	AO	65	ARG
11	AO	68	GLN
11	AO	75	ILE
11	AO	81	GLN
11	AO	88	LEU
11	AO	100	LEU

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Mol	Chain	Res	Type
11	AO	105	LEU
11	AO	106	LEU
11	AO	108	LYS
11	AO	112	LEU
11	AO	115	LEU
11	AO	126	VAL
11	AO	132	LYS
11	AO	138	LEU
11	AO	144	GLU
11	AO	146	VAL
12	AP	3	MET
12	AP	8	LYS
12	AP	16	ARG
12	AP	17	LEU
12	AP	18	LYS
12	AP	21	THR
12	AP	25	ASP
12	AP	26	TYR
12	AP	45	GLN
12	AP	51	ARG
12	AP	55	VAL
12	AP	72	LYS
12	AP	79	LEU
12	AP	81	VAL
12	AP	82	ARG
12	AP	83	MET
12	AP	87	LYS
12	AP	90	VAL
12	AP	102	VAL
12	AP	110	THR
12	AP	112	GLU
12	AP	138	ASP
12	AP	139	GLU
13	A0	9	LYS
13	A0	28	LEU
13	A0	29	LEU
13	A0	30	THR
13	A0	36	THR
13	A0	44	LEU
13	A0	57	ARG
13	A0	59	ASP
13	A0	65	LEU

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Mol	Chain	Res	Type
13	A0	75	LEU
13	A0	79	LEU
13	A0	88	ARG
13	A0	100	LEU
13	A0	104	ARG
13	A0	105	ARG
13	A0	111	LEU
13	A0	113	LEU
13	A0	117	VAL
13	A0	118	GLU
14	AQ	8	GLU
14	AQ	14	VAL
14	AQ	24	LEU
14	AQ	36	TYR
14	AQ	42	ASP
14	AQ	43	GLU
14	AQ	46	VAL
14	AQ	50	SER
14	AQ	54	LEU
14	AQ	73	LEU
14	AQ	80	LEU
14	AQ	83	LYS
14	AQ	89	ARG
14	AQ	101	LEU
14	AQ	106	ARG
14	AQ	107	GLU
15	AR	3	ARG
15	AR	11	GLU
15	AR	16	ARG
15	AR	27	THR
15	AR	30	VAL
15	AR	36	GLU
15	AR	38	ASN
15	AR	41	ARG
15	AR	42	ILE
15	AR	49	VAL
15	AR	74	ARG
15	AR	78	LEU
15	AR	86	ILE
15	AR	88	ILE
15	AR	89	VAL
15	AR	98	LYS

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Mol	Chain	Res	Type
15	AR	99	LEU
15	AR	105	LEU
15	AR	108	ARG
15	AR	118	ARG
15	AR	128	GLU
16	A1	5	LYS
16	A1	17	ILE
16	A1	22	LYS
16	A1	27	LEU
16	A1	28	ARG
16	A1	31	SER
16	A1	34	LYS
16	A1	58	ARG
16	A1	60	LEU
16	A1	64	ARG
16	A1	74	LEU
16	A1	104	GLN
16	A1	108	GLU
16	A1	110	VAL
16	A1	111	GLU
17	A2	1	MET
17	A2	14	VAL
17	A2	18	LEU
17	A2	21	ARG
17	A2	24	LYS
17	A2	25	LEU
17	A2	35	LEU
17	A2	40	LEU
17	A2	44	LYS
17	A2	45	THR
17	A2	47	VAL
17	A2	52	VAL
17	A2	57	VAL
17	A2	70	ILE
17	A2	72	VAL
17	A2	73	SER
17	A2	85	LYS
17	A2	89	GLN
18	AS	11	ARG
18	AS	19	LEU
18	AS	24	ILE
18	AS	27	LYS

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Mol	Chain	Res	Type
18	AS	51	LEU
18	AS	52	GLU
18	AS	57	ASN
18	AS	65	LEU
18	AS	67	ASP
18	AS	68	ARG
18	AS	69	LEU
18	AS	70	TYR
18	AS	76	VAL
18	AS	78	GLU
18	AS	82	LEU
18	AS	83	LYS
18	AS	88	ARG
18	AS	96	ILE
18	AS	100	THR
18	AS	107	LEU
19	AT	12	VAL
19	AT	15	GLU
19	AT	27	THR
19	AT	45	THR
19	AT	49	VAL
19	AT	76	ARG
19	AT	80	ILE
19	AT	87	GLN
19	AT	88	LYS
20	AU	5	MET
20	AU	14	LEU
20	AU	19	LYS
20	AU	26	LYS
20	AU	27	VAL
20	AU	33	LYS
20	AU	34	LYS
20	AU	38	ILE
20	AU	39	VAL
20	AU	45	VAL
20	AU	57	GLN
20	AU	61	ILE
20	AU	64	GLU
20	AU	76	CYS
20	AU	90	LEU
20	AU	97	ARG
20	AU	101	LYS

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Mol	Chain	Res	Type
21	AV	1	MET
21	AV	5	LEU
21	AV	18	LEU
21	AV	19	ARG
21	AV	20	ARG
21	AV	32	HIS
21	AV	36	LYS
21	AV	37	VAL
21	AV	56	VAL
21	AV	61	LEU
21	AV	71	VAL
21	AV	72	ARG
21	AV	73	GLN
21	AV	76	LEU
21	AV	77	ASP
21	AV	87	ASP
21	AV	91	LEU
21	AV	117	LEU
21	AV	119	GLU
21	AV	121	HIS
21	AV	122	ARG
21	AV	135	GLU
21	AV	161	VAL
21	AV	162	GLU
21	AV	163	LEU
21	AV	169	GLU
21	AV	170	THR
21	AV	171	ILE
22	A3	11	ARG
22	A3	35	ASN
22	A3	36	ILE
22	A3	38	VAL
22	A3	46	LYS
22	A3	63	VAL
22	A3	66	VAL
22	A3	67	VAL
22	A3	80	HIS
23	AZ	4	VAL
23	AZ	19	GLN
23	AZ	26	ARG
23	AZ	33	LYS
23	AZ	37	ILE

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Mol	Chain	Res	Type
23	AZ	46	LEU
23	AZ	78	LYS
23	AZ	80	LEU
23	AZ	81	LYS
23	AZ	82	LEU
23	AZ	83	GLU
23	AZ	91	LYS
24	AW	5	GLU
24	AW	11	GLU
24	AW	16	LEU
24	AW	24	LEU
24	AW	30	ARG
24	AW	34	GLU
24	AW	41	ILE
24	AW	44	LEU
24	AW	50	ILE
24	AW	51	ARG
24	AW	55	ARG
24	AW	59	ARG
24	AW	62	THR
24	AW	64	LEU
24	AW	65	ASN
25	AX	8	LEU
25	AX	9	VAL
25	AX	13	ILE
25	AX	31	LEU
25	AX	32	GLN
25	AX	38	GLU
25	AX	40	THR
25	AX	59	VAL
26	A4	16	CYS
26	A4	27	THR
26	A4	42	PHE
26	A4	50	VAL
26	A4	55	ARG
26	A4	61	ARG
26	A4	65	ASP
26	A4	66	SER
27	A5	3	LYS
27	A5	4	HIS
27	A5	6	VAL
27	A5	11	THR

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Mol	Chain	Res	Type
27	A5	16	ARG
27	A5	29	THR
27	A5	31	VAL
27	A5	35	GLU
27	A5	40	LYS
27	A5	56	LYS
28	A6	10	LEU
28	A6	12	GLU
28	A6	17	LYS
28	A6	20	ASN
28	A6	27	LYS
28	A6	33	LYS
28	A6	34	LEU
28	A6	36	LEU
28	A6	37	ARG
28	A6	39	TYR
28	A6	42	TRP
28	A6	44	ARG
28	A6	46	HIS
29	A7	1	MET
29	A7	4	THR
29	A7	9	ARG
29	A7	14	LYS
29	A7	23	ARG
29	A7	43	THR
30	A8	6	THR
30	A8	15	LYS
30	A8	21	LYS
30	A8	29	LYS
30	A8	34	TRP
30	A8	41	ILE
30	A8	47	LYS
30	A8	52	LYS
30	A8	58	ILE
30	A8	59	LYS
30	A8	61	LEU
32	BE	7	VAL
32	BE	8	LYS
32	BE	9	GLU
32	BE	15	VAL
32	BE	16	HIS
32	BE	22	LYS

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Mol	Chain	Res	Type
32	BE	37	ASN
32	BE	45	GLN
32	BE	60	ASP
32	BE	69	LEU
32	BE	71	VAL
32	BE	74	LYS
32	BE	75	LYS
32	BE	96	ARG
32	BE	97	TRP
32	BE	108	ILE
32	BE	111	ARG
32	BE	121	LEU
32	BE	130	ARG
32	BE	145	LEU
32	BE	154	LEU
32	BE	155	LEU
32	BE	158	LEU
32	BE	162	ILE
32	BE	164	VAL
32	BE	172	ILE
32	BE	178	ARG
32	BE	187	LEU
32	BE	189	ASP
32	BE	200	ILE
32	BE	204	ASN
32	BE	208	ILE
32	BE	217	ARG
32	BE	231	GLU
33	BF	3	ASN
33	BF	4	LYS
33	BF	5	ILE
33	BF	17	ASP
33	BF	21	ARG
33	BF	27	LYS
33	BF	37	GLN
33	BF	45	LYS
33	BF	54	ARG
33	BF	58	GLU
33	BF	63	ASN
33	BF	64	VAL
33	BF	76	VAL
33	BF	86	VAL

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Mol	Chain	Res	Type
33	BF	89	GLU
33	BF	93	LYS
33	BF	94	LEU
33	BF	107	GLN
33	BF	116	VAL
33	BF	138	VAL
33	BF	140	ARG
33	BF	162	GLN
33	BF	181	ASN
33	BF	184	TYR
33	BF	188	LEU
33	BF	191	THR
33	BF	196	LEU
33	BF	202	ILE
33	BF	206	GLU
34	BG	3	ARG
34	BG	5	ILE
34	BG	12	CYS
34	BG	15	GLU
34	BG	17	VAL
34	BG	19	LEU
34	BG	26	CYS
34	BG	33	MET
34	BG	45	GLN
34	BG	49	ARG
34	BG	58	LEU
34	BG	74	GLN
34	BG	86	LYS
34	BG	104	VAL
34	BG	114	ARG
34	BG	119	GLN
34	BG	122	ARG
34	BG	126	ILE
34	BG	135	LEU
34	BG	138	TYR
34	BG	139	ARG
34	BG	141	ARG
34	BG	146	ILE
34	BG	154	ASN
34	BG	177	ASP
35	BH	5	ASP
35	BH	9	LYS

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Mol	Chain	Res	Type
35	BH	11	ILE
35	BH	13	ILE
35	BH	20	GLN
35	BH	25	ARG
35	BH	31	LEU
35	BH	33	VAL
35	BH	41	VAL
35	BH	50	GLU
35	BH	57	LYS
35	BH	68	GLU
35	BH	75	THR
35	BH	79	GLU
35	BH	91	LEU
35	BH	101	ILE
35	BH	131	ILE
35	BH	147	ASP
35	BH	152	ARG
35	BH	153	LYS
36	BI	21	LEU
36	BI	37	VAL
36	BI	43	LEU
36	BI	64	GLN
36	BI	65	VAL
36	BI	71	ARG
36	BI	75	LEU
36	BI	89	MET
36	BI	92	LYS
37	BJ	6	ARG
37	BJ	8	GLU
37	BJ	12	LEU
37	BJ	21	VAL
37	BJ	36	LYS
37	BJ	38	LEU
37	BJ	45	ASP
37	BJ	47	CYS
37	BJ	57	GLU
37	BJ	78	ARG
37	BJ	84	ASN
37	BJ	86	GLN
37	BJ	89	MET
37	BJ	90	GLU
37	BJ	104	LEU

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Mol	Chain	Res	Type
37	BJ	113	GLU
37	BJ	124	LEU
37	BJ	131	LYS
37	BJ	136	LYS
37	BJ	141	VAL
38	BK	10	LEU
38	BK	19	VAL
38	BK	24	THR
38	BK	26	VAL
38	BK	39	LEU
38	BK	41	ARG
38	BK	45	ILE
38	BK	49	GLU
38	BK	52	ASP
38	BK	60	ARG
38	BK	63	LEU
38	BK	68	ARG
38	BK	77	GLU
38	BK	80	ILE
38	BK	82	HIS
38	BK	91	ARG
38	BK	95	VAL
38	BK	102	ARG
38	BK	105	ARG
38	BK	109	ILE
38	BK	133	LEU
39	BL	9	ARG
39	BL	41	VAL
39	BL	44	VAL
39	BL	47	LEU
39	BL	58	HIS
39	BL	65	VAL
39	BL	79	LEU
39	BL	86	VAL
39	BL	89	ASN
39	BL	95	LYS
39	BL	114	TYR
39	BL	124	GLN
40	BM	5	ARG
40	BM	8	LEU
40	BM	16	LEU
40	BM	17	ASP

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Mol	Chain	Res	Type
40	BM	38	ILE
40	BM	60	ARG
40	BM	63	PHE
40	BM	66	ARG
40	BM	80	LYS
40	BM	84	GLN
40	BM	92	THR
40	BM	94	VAL
40	BM	96	ILE
40	BM	99	LYS
40	BM	100	THR
41	BN	14	VAL
41	BN	48	ILE
41	BN	51	LYS
41	BN	57	THR
41	BN	85	ARG
41	BN	92	GLU
41	BN	93	GLN
41	BN	96	ARG
41	BN	114	VAL
41	BN	116	HIS
41	BN	126	ARG
41	BN	127	LYS
42	BO	4	ILE
42	BO	8	VAL
42	BO	15	VAL
42	BO	30	ARG
42	BO	37	VAL
42	BO	46	ASN
42	BO	56	ARG
42	BO	64	THR
42	BO	78	SER
42	BO	80	VAL
42	BO	82	ILE
42	BO	86	ARG
42	BO	93	VAL
42	BO	96	HIS
42	BO	101	VAL
43	BP	13	LYS
43	BP	32	GLU
43	BP	34	LEU
43	BP	48	LEU

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Mol	Chain	Res	Type
43	BP	57	ARG
43	BP	70	LEU
43	BP	83	ASP
43	BP	88	ARG
43	BP	102	ARG
43	BP	105	THR
43	BP	106	ASN
43	BP	108	ARG
43	BP	114	ARG
44	BQ	27	CYS
44	BQ	33	VAL
44	BQ	43	CYS
44	BQ	58	LYS
45	BR	12	ILE
45	BR	26	GLU
45	BR	39	LEU
45	BR	47	LYS
45	BR	65	ARG
45	BR	66	LEU
45	BR	67	LEU
45	BR	70	LEU
45	BR	76	GLU
46	BS	2	VAL
46	BS	28	ARG
46	BS	32	TYR
46	BS	33	ILE
46	BS	38	TYR
46	BS	53	VAL
46	BS	67	THR
46	BS	69	THR
46	BS	75	ARG
46	BS	76	GLN
46	BS	83	GLU
47	BT	9	VAL
47	BT	14	LYS
47	BT	19	VAL
47	BT	25	ARG
47	BT	35	VAL
47	BT	38	ARG
47	BT	48	GLU
47	BT	49	GLU
47	BT	52	LYS

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Mol	Chain	Res	Type
47	BT	60	ILE
47	BT	62	SER
47	BT	68	ARG
47	BT	74	LEU
47	BT	79	SER
47	BT	89	LEU
48	BU	21	LYS
48	BU	22	VAL
48	BU	32	ARG
48	BU	47	THR
48	BU	50	ILE
48	BU	88	LYS
49	BV	7	LYS
49	BV	11	VAL
49	BV	28	LYS
49	BV	29	ARG
49	BV	30	LEU
49	BV	37	ARG
49	BV	41	VAL
49	BV	43	GLU
49	BV	58	VAL
49	BV	61	TYR
49	BV	63	THR
49	BV	65	ASN
49	BV	78	ARG
49	BV	83	HIS
50	BW	10	LEU
50	BW	18	GLN
50	BW	24	LEU
50	BW	26	ASN
50	BW	36	LEU
50	BW	41	ILE
50	BW	42	GLN
50	BW	56	MET
50	BW	62	LEU
50	BW	87	LYS
51	BX	15	ARG
3	CD	5	LYS
3	CD	18	VAL
3	CD	25	THR
3	CD	26	LYS
3	CD	35	LYS

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Mol	Chain	Res	Type
3	CD	44	ASN
3	CD	46	GLN
3	CD	49	ILE
3	CD	61	LEU
3	CD	69	ARG
3	CD	94	LEU
3	CD	103	ARG
3	CD	105	ILE
3	CD	106	ILE
3	CD	111	LEU
3	CD	112	GLN
3	CD	116	GLN
3	CD	138	VAL
3	CD	147	LEU
3	CD	155	LEU
3	CD	157	ARG
3	CD	166	GLN
3	CD	192	THR
3	CD	200	ASP
3	CD	211	ARG
3	CD	237	GLU
3	CD	244	ARG
3	CD	255	LYS
3	CD	257	LEU
3	CD	259	THR
3	CD	270	ILE
3	CD	271	ILE
4	CE	4	ILE
4	CE	7	VAL
4	CE	12	THR
4	CE	26	ILE
4	CE	33	VAL
4	CE	36	ARG
4	CE	37	ARG
4	CE	38	THR
4	CE	42	ASP
4	CE	48	GLN
4	CE	54	GLN
4	CE	58	ARG
4	CE	60	ASN
4	CE	72	VAL
4	CE	75	VAL

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Mol	Chain	Res	Type
4	CE	78	LEU
4	CE	79	ARG
4	CE	90	THR
4	CE	93	VAL
4	CE	107	THR
4	CE	116	VAL
4	CE	119	ARG
4	CE	134	ILE
4	CE	144	ARG
4	CE	146	THR
4	CE	154	LYS
4	CE	168	MET
4	CE	169	ASN
4	CE	170	LEU
4	CE	175	VAL
4	CE	179	GLU
4	CE	181	LEU
4	CE	188	VAL
4	CE	197	ILE
4	CE	199	ARG
4	CE	200	GLU
4	CE	201	THR
4	CE	203	LYS
5	CF	7	TYR
5	CF	20	LEU
5	CF	33	LEU
5	CF	46	ARG
5	CF	59	TYR
5	CF	62	ARG
5	CF	67	GLN
5	CF	68	LYS
5	CF	74	ARG
5	CF	78	ILE
5	CF	82	ILE
5	CF	83	PHE
5	CF	88	VAL
5	CF	100	THR
5	CF	107	LYS
5	CF	114	VAL
5	CF	119	ARG
5	CF	153	SER
5	CF	158	THR

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Mol	Chain	Res	Type
5	CF	164	ARG
5	CF	181	LEU
5	CF	183	VAL
5	CF	193	VAL
5	CF	196	LEU
5	CF	201	VAL
5	CF	203	GLN
6	CG	27	ASN
6	CG	28	VAL
6	CG	33	ARG
6	CG	45	GLU
6	CG	52	ILE
6	CG	53	LEU
6	CG	67	LYS
6	CG	74	LYS
6	CG	91	ARG
6	CG	103	LEU
6	CG	109	VAL
6	CG	147	ASP
6	CG	162	THR
6	CG	167	GLU
6	CG	173	LEU
7	CH	6	ARG
7	CH	17	VAL
7	CH	32	GLU
7	CH	59	ARG
7	CH	71	LEU
7	CH	85	LYS
7	CH	89	ILE
7	CH	101	ARG
7	CH	103	LEU
7	CH	105	LEU
7	CH	116	GLU
7	CH	123	PHE
7	CH	124	GLU
7	CH	131	VAL
7	CH	136	ILE
7	CH	137	ASP
7	CH	139	GLN
7	CH	143	GLN
7	CH	147	ASN
7	CH	158	HIS

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Mol	Chain	Res	Type
8	CK	1	MET
8	CK	6	LEU
8	CK	9	LEU
8	CK	12	LEU
8	CK	37	VAL
8	CK	52	ARG
8	CK	54	GLN
8	CK	56	LYS
8	CK	60	GLU
8	CK	69	LYS
8	CK	75	LEU
8	CK	76	THR
8	CK	95	LYS
8	CK	109	ILE
8	CK	112	LYS
8	CK	117	GLU
8	CK	122	GLU
8	CK	125	GLU
8	CK	133	HIS
9	CM	1	MET
9	CM	23	LEU
9	CM	28	THR
9	CM	29	LYS
9	CM	32	THR
9	CM	33	LEU
9	CM	34	LEU
9	CM	45	ASN
9	CM	48	MET
9	CM	60	ILE
9	CM	69	GLN
9	CM	85	ILE
9	CM	93	THR
9	CM	94	HIS
9	CM	96	GLU
9	CM	99	LEU
9	CM	106	MET
9	CM	120	LEU
9	CM	130	HIS
9	CM	131	GLN
9	CM	134	ARG
9	CM	137	LYS
10	CN	1	MET

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Mol	Chain	Res	Type
10	CN	5	GLN
10	CN	10	VAL
10	CN	24	VAL
10	CN	47	ILE
10	CN	49	ARG
10	CN	53	LYS
10	CN	62	VAL
10	CN	70	LYS
10	CN	82	ASN
10	CN	87	ILE
10	CN	98	VAL
10	CN	113	LYS
10	CN	117	LEU
11	CO	6	LEU
11	CO	14	LYS
11	CO	15	ARG
11	CO	16	ARG
11	CO	21	ARG
11	CO	30	THR
11	CO	36	LYS
11	CO	41	ARG
11	CO	45	LEU
11	CO	49	ARG
11	CO	50	ARG
11	CO	51	PHE
11	CO	61	ARG
11	CO	62	LEU
11	CO	64	LYS
11	CO	65	ARG
11	CO	68	GLN
11	CO	71	VAL
11	CO	75	ILE
11	CO	83	VAL
11	CO	85	LEU
11	CO	86	LYS
11	CO	87	ASP
11	CO	98	GLU
11	CO	100	LEU
11	CO	105	LEU
11	CO	107	LYS
11	CO	108	LYS
11	CO	111	ARG

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Mol	Chain	Res	Type
11	CO	112	LEU
11	CO	114	ILE
11	CO	121	LYS
11	CO	124	LYS
11	CO	135	LEU
11	CO	144	GLU
11	CO	147	LEU
11	CO	148	LEU
12	CP	18	LYS
12	CP	21	THR
12	CP	25	ASP
12	CP	26	TYR
12	CP	45	GLN
12	CP	52	VAL
12	CP	56	ARG
12	CP	58	PHE
12	CP	63	LYS
12	CP	72	LYS
12	CP	76	LYS
12	CP	79	LEU
12	CP	80	GLU
12	CP	82	ARG
12	CP	83	MET
12	CP	87	LYS
12	CP	90	VAL
12	CP	103	MET
12	CP	106	VAL
12	CP	109	VAL
12	CP	110	THR
12	CP	112	GLU
12	CP	127	ILE
12	CP	133	ARG
12	CP	134	ARG
12	CP	135	ASP
12	CP	141	GLN
13	C0	6	SER
13	C0	18	LEU
13	C0	28	LEU
13	C0	29	LEU
13	C0	38	VAL
13	C0	40	LYS
13	C0	48	VAL

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Mol	Chain	Res	Type
13	C0	57	ARG
13	C0	65	LEU
13	C0	71	GLN
13	C0	73	VAL
13	C0	79	LEU
13	C0	81	ASP
13	C0	97	VAL
13	C0	104	ARG
13	C0	105	ARG
14	CQ	14	VAL
14	CQ	17	ARG
14	CQ	21	THR
14	CQ	50	SER
14	CQ	52	SER
14	CQ	61	ASN
14	CQ	78	LEU
14	CQ	80	LEU
14	CQ	93	LYS
14	CQ	98	VAL
14	CQ	101	LEU
14	CQ	106	ARG
14	CQ	107	GLU
14	CQ	110	LEU
15	CR	8	LYS
15	CR	15	VAL
15	CR	23	ARG
15	CR	29	ARG
15	CR	30	VAL
15	CR	38	ASN
15	CR	58	ASN
15	CR	61	PHE
15	CR	62	THR
15	CR	64	ARG
15	CR	88	ILE
15	CR	89	VAL
15	CR	91	ARG
15	CR	93	ARG
15	CR	112	ARG
15	CR	136	GLN
16	C1	5	LYS
16	C1	16	LYS
16	C1	17	ILE

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Mol	Chain	Res	Type
16	C1	25	TRP
16	C1	52	ARG
16	C1	55	ARG
16	C1	64	ARG
16	C1	74	LEU
16	C1	75	ASN
16	C1	78	THR
16	C1	80	ILE
16	C1	97	ASP
17	C2	7	THR
17	C2	19	LYS
17	C2	24	LYS
17	C2	35	LEU
17	C2	38	LEU
17	C2	39	LEU
17	C2	40	LEU
17	C2	47	VAL
17	C2	49	THR
17	C2	56	SER
17	C2	66	ARG
17	C2	70	ILE
17	C2	71	LEU
17	C2	72	VAL
17	C2	79	VAL
17	C2	80	GLN
17	C2	84	LYS
17	C2	91	TYR
17	C2	95	LEU
17	C2	99	ILE
18	CS	11	ARG
18	CS	17	VAL
18	CS	19	LEU
18	CS	27	LYS
18	CS	37	ARG
18	CS	39	THR
18	CS	51	LEU
18	CS	59	VAL
18	CS	60	ASN
18	CS	83	LYS
18	CS	95	ILE
18	CS	96	ILE
18	CS	107	LEU

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Mol	Chain	Res	Type
19	CT	12	VAL
19	CT	28	PHE
19	CT	30	VAL
19	CT	39	ILE
19	CT	41	ASN
19	CT	52	VAL
19	CT	55	ASN
19	CT	63	LYS
19	CT	66	LEU
19	CT	69	TYR
19	CT	80	ILE
20	CU	3	VAL
20	CU	26	LYS
20	CU	27	VAL
20	CU	30	VAL
20	CU	38	ILE
20	CU	40	GLU
20	CU	43	ASN
20	CU	51	VAL
20	CU	55	TYR
20	CU	57	GLN
20	CU	62	GLU
20	CU	63	LYS
20	CU	64	GLU
20	CU	71	LYS
20	CU	75	ILE
20	CU	76	CYS
20	CU	79	CYS
20	CU	86	ARG
20	CU	91	GLU
20	CU	92	ASN
20	CU	95	LYS
20	CU	96	ILE
20	CU	97	ARG
20	CU	98	VAL
20	CU	101	LYS
21	CV	14	LYS
21	CV	18	LEU
21	CV	24	LEU
21	CV	30	ASN
21	CV	32	HIS
21	CV	50	GLN

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Mol	Chain	Res	Type
21	CV	53	ILE
21	CV	59	LEU
21	CV	63	ASP
21	CV	71	VAL
21	CV	74	VAL
21	CV	82	ARG
21	CV	87	ASP
21	CV	90	VAL
21	CV	94	GLU
21	CV	105	VAL
21	CV	119	GLU
21	CV	121	HIS
21	CV	170	THR
21	CV	175	VAL
22	C3	16	SER
22	C3	23	VAL
22	C3	35	ASN
22	C3	36	ILE
22	C3	74	ARG
22	C3	84	LEU
23	CZ	6	GLU
23	CZ	13	ILE
23	CZ	30	VAL
23	CZ	35	THR
23	CZ	37	ILE
23	CZ	46	LEU
23	CZ	56	GLN
23	CZ	59	THR
23	CZ	74	VAL
23	CZ	76	ARG
23	CZ	78	LYS
23	CZ	80	LEU
23	CZ	82	LEU
23	CZ	83	GLU
23	CZ	85	LEU
23	CZ	91	LYS
23	CZ	93	GLU
24	CW	5	GLU
24	CW	15	LYS
24	CW	22	GLU
24	CW	26	ARG
24	CW	47	ASN

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Mol	Chain	Res	Type
24	CW	48	HIS
24	CW	53	LEU
24	CW	60	LEU
24	CW	64	LEU
24	CW	67	LYS
25	CX	8	LEU
25	CX	18	ASP
25	CX	24	LYS
25	CX	31	LEU
25	CX	32	GLN
25	CX	37	LEU
25	CX	38	GLU
25	CX	58	VAL
26	C4	1	MET
26	C4	5	ILE
26	C4	18	CYS
26	C4	22	ILE
26	C4	24	THR
26	C4	30	GLU
26	C4	31	ILE
26	C4	32	TYR
26	C4	33	VAL
26	C4	35	VAL
26	C4	38	LYS
26	C4	46	GLN
26	C4	60	GLN
26	C4	61	ARG
27	C5	3	LYS
27	C5	4	HIS
27	C5	9	LYS
27	C5	29	THR
27	C5	35	GLU
27	C5	51	TYR
27	C5	55	ARG
27	C5	57	VAL
27	C5	58	LEU
28	C6	11	LEU
28	C6	21	TYR
28	C6	26	ASN
28	C6	27	LYS
28	C6	37	ARG
28	C6	53	LYS

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Mol	Chain	Res	Type
29	C7	1	MET
29	C7	4	THR
29	C7	8	ASN
29	C7	9	ARG
29	C7	36	GLN
29	C7	41	ARG
29	C7	43	THR
30	C8	22	VAL
30	C8	29	LYS
30	C8	30	ARG
30	C8	31	HIS
30	C8	32	LEU
30	C8	33	ASN
30	C8	35	GLN
30	C8	36	LYS
30	C8	40	GLU
30	C8	41	ILE
30	C8	46	ARG
30	C8	58	ILE
30	C8	61	LEU
32	DE	5	ILE
32	DE	19	HIS
32	DE	20	GLU
32	DE	22	LYS
32	DE	23	ARG
32	DE	42	ILE
32	DE	44	LEU
32	DE	48	MET
32	DE	51	LEU
32	DE	56	ARG
32	DE	75	LYS
32	DE	83	MET
32	DE	92	TYR
32	DE	107	THR
32	DE	108	ILE
32	DE	111	ARG
32	DE	121	LEU
32	DE	130	ARG
32	DE	137	ARG
32	DE	140	HIS
32	DE	145	LEU
32	DE	147	LYS

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Mol	Chain	Res	Type
32	DE	153	ARG
32	DE	155	LEU
32	DE	170	GLU
32	DE	178	ARG
32	DE	184	VAL
32	DE	185	ILE
32	DE	196	LEU
32	DE	224	GLN
32	DE	238	LEU
33	DF	5	ILE
33	DF	6	HIS
33	DF	23	TYR
33	DF	43	LEU
33	DF	64	VAL
33	DF	76	VAL
33	DF	79	ARG
33	DF	84	ILE
33	DF	89	GLU
33	DF	94	LEU
33	DF	119	ARG
33	DF	131	ARG
33	DF	140	ARG
33	DF	167	TRP
33	DF	182	ILE
33	DF	184	TYR
33	DF	188	LEU
33	DF	195	VAL
33	DF	196	LEU
34	DG	5	ILE
34	DG	14	ARG
34	DG	15	GLU
34	DG	19	LEU
34	DG	24	GLU
34	DG	30	LYS
34	DG	36	ARG
34	DG	50	ARG
34	DG	58	LEU
34	DG	70	ILE
34	DG	81	GLU
34	DG	105	VAL
34	DG	119	GLN
34	DG	122	ARG

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Mol	Chain	Res	Type
34	DG	127	THR
34	DG	135	LEU
34	DG	139	ARG
34	DG	140	VAL
34	DG	141	ARG
34	DG	145	GLU
34	DG	151	LYS
34	DG	159	ARG
34	DG	170	VAL
34	DG	187	ARG
34	DG	191	ARG
34	DG	194	LEU
34	DG	200	GLU
35	DH	8	GLU
35	DH	13	ILE
35	DH	18	ARG
35	DH	25	ARG
35	DH	31	LEU
35	DH	41	VAL
35	DH	47	LYS
35	DH	51	VAL
35	DH	60	TYR
35	DH	65	ASN
35	DH	69	VAL
35	DH	72	GLN
35	DH	82	VAL
35	DH	87	SER
35	DH	101	ILE
35	DH	111	GLU
35	DH	115	VAL
35	DH	127	ASN
35	DH	144	THR
35	DH	155	GLU
36	DI	14	LEU
36	DI	21	LEU
36	DI	24	GLU
36	DI	25	ILE
36	DI	31	GLU
36	DI	63	TYR
36	DI	65	VAL
36	DI	72	VAL
36	DI	98	LEU

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Mol	Chain	Res	Type
37	DJ	8	GLU
37	DJ	27	ILE
37	DJ	37	ASN
37	DJ	57	GLU
37	DJ	60	LYS
37	DJ	63	LYS
37	DJ	75	VAL
37	DJ	78	ARG
37	DJ	79	ARG
37	DJ	84	ASN
37	DJ	87	VAL
37	DJ	89	MET
37	DJ	104	LEU
37	DJ	118	VAL
37	DJ	124	LEU
37	DJ	131	LYS
37	DJ	137	LYS
37	DJ	141	VAL
37	DJ	153	HIS
38	DK	1	MET
38	DK	17	THR
38	DK	24	THR
38	DK	38	ILE
38	DK	39	LEU
38	DK	53	VAL
38	DK	63	LEU
38	DK	82	HIS
38	DK	85	ARG
38	DK	109	ILE
38	DK	112	LEU
38	DK	114	THR
38	DK	120	THR
38	DK	133	LEU
39	DL	10	ARG
39	DL	34	ASN
39	DL	75	ASP
39	DL	78	LYS
39	DL	79	LEU
39	DL	88	TYR
39	DL	95	LYS
39	DL	97	LYS
39	DL	99	LEU

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Mol	Chain	Res	Type
39	DL	104	ARG
39	DL	112	LYS
39	DL	113	LYS
39	DL	114	TYR
39	DL	128	ARG
40	DM	6	ILE
40	DM	16	LEU
40	DM	30	SER
40	DM	47	PHE
40	DM	57	LYS
40	DM	62	HIS
40	DM	79	ARG
40	DM	80	LYS
40	DM	86	MET
40	DM	96	ILE
40	DM	98	ILE
41	DN	14	VAL
41	DN	21	ILE
41	DN	29	ILE
41	DN	54	ARG
41	DN	80	VAL
41	DN	93	GLN
41	DN	98	LEU
41	DN	105	VAL
41	DN	114	VAL
41	DN	124	LYS
42	DO	3	THR
42	DO	4	ILE
42	DO	16	ARG
42	DO	20	LYS
42	DO	21	VAL
42	DO	29	PHE
42	DO	31	ARG
42	DO	34	CYS
42	DO	35	THR
42	DO	38	ARG
42	DO	41	THR
42	DO	43	LYS
42	DO	44	LYS
42	DO	51	LYS
42	DO	54	LYS
42	DO	57	LEU

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Mol	Chain	Res	Type
42	DO	81	LEU
42	DO	101	VAL
42	DO	109	ASP
43	DP	4	ILE
43	DP	7	VAL
43	DP	32	GLU
43	DP	64	TRP
43	DP	66	LEU
43	DP	67	GLU
43	DP	70	LEU
43	DP	82	MET
43	DP	83	ASP
43	DP	101	GLN
43	DP	103	THR
43	DP	108	ARG
44	DQ	7	ILE
44	DQ	15	LYS
44	DQ	23	ARG
44	DQ	44	LEU
45	DR	3	ILE
45	DR	4	THR
45	DR	39	LEU
45	DR	41	GLU
45	DR	48	LYS
45	DR	60	VAL
45	DR	66	LEU
45	DR	68	ARG
45	DR	82	ILE
46	DS	2	VAL
46	DS	18	ARG
46	DS	21	VAL
46	DS	36	ILE
46	DS	45	THR
46	DS	65	GLN
46	DS	76	GLN
47	DT	7	THR
47	DT	10	VAL
47	DT	60	ILE
47	DT	72	ARG
47	DT	74	LEU
48	DU	26	LEU
48	DU	29	PHE

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Mol	Chain	Res	Type
48	DU	37	VAL
48	DU	44	LEU
48	DU	47	THR
48	DU	58	LEU
48	DU	84	LYS
48	DU	86	VAL
48	DU	87	ARG
49	DV	9	VAL
49	DV	22	LEU
49	DV	23	ASN
49	DV	25	LYS
49	DV	30	LEU
49	DV	33	THR
49	DV	60	VAL
49	DV	62	ILE
49	DV	63	THR
49	DV	69	HIS
49	DV	81	ARG
49	DV	83	HIS
50	DW	9	ASN
50	DW	10	LEU
50	DW	26	ASN
50	DW	60	GLU
50	DW	62	LEU
50	DW	74	LYS
50	DW	80	ARG
50	DW	83	ARG
50	DW	84	LEU
50	DW	88	VAL
50	DW	93	GLU
51	DX	25	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (306) such sidechains are listed below:

Mol	Chain	Res	Type
3	AD	58	HIS
3	AD	112	GLN
3	AD	116	GLN
3	AD	166	GLN
3	AD	186	HIS
3	AD	198	ASN
3	AD	227	ASN

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Mol	Chain	Res	Type
4	AE	54	GLN
4	AE	180	ASN
4	AE	192	ASN
5	AF	8	GLN
5	AF	40	GLN
5	AF	67	GLN
5	AF	69	HIS
5	AF	169	ASN
6	AG	40	ASN
7	AH	143	GLN
7	AH	147	ASN
8	AK	74	ASN
8	AK	104	GLN
8	AK	139	GLN
9	AM	38	HIS
9	AM	45	ASN
9	AM	56	ASN
9	AM	69	GLN
9	AM	130	HIS
9	AM	131	GLN
9	AM	133	GLN
10	AN	82	ASN
10	AN	88	ASN
11	AO	9	ASN
11	AO	27	HIS
11	AO	68	GLN
11	AO	81	GLN
11	AO	128	HIS
13	A0	3	HIS
13	A0	13	HIS
13	A0	23	ASN
13	A0	24	GLN
13	A0	31	HIS
13	A0	50	HIS
13	A0	61	HIS
13	A0	71	GLN
14	AQ	68	GLN
15	AR	43	GLN
15	AR	79	HIS
15	AR	136	GLN
16	A1	44	ASN
16	A1	49	HIS

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Mol	Chain	Res	Type
16	A1	71	GLN
16	A1	72	HIS
16	A1	81	HIS
16	A1	94	ASN
17	A2	11	GLN
17	A2	89	GLN
18	AS	34	ASN
18	AS	62	HIS
18	AS	102	HIS
18	AS	111	HIS
19	AT	41	ASN
19	AT	55	ASN
19	AT	87	GLN
21	AV	34	ASN
21	AV	75	ASN
21	AV	85	HIS
21	AV	151	HIS
22	A3	17	GLN
22	A3	29	GLN
22	A3	35	ASN
22	A3	50	ASN
22	A3	70	GLN
23	AZ	19	GLN
23	AZ	56	GLN
23	AZ	66	HIS
24	AW	56	GLN
25	AX	19	GLN
25	AX	32	GLN
25	AX	46	ASN
25	AX	52	HIS
26	A4	47	GLN
27	A5	4	HIS
27	A5	23	HIS
27	A5	43	HIS
28	A6	26	ASN
28	A6	46	HIS
29	A7	8	ASN
29	A7	36	GLN
30	A8	43	GLN
32	BE	40	HIS
32	BE	45	GLN
32	BE	76	GLN

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Mol	Chain	Res	Type
32	BE	78	GLN
32	BE	95	GLN
32	BE	146	GLN
32	BE	204	ASN
32	BE	212	GLN
33	BF	28	GLN
33	BF	37	GLN
33	BF	63	ASN
33	BF	108	ASN
33	BF	110	ASN
33	BF	136	GLN
33	BF	162	GLN
33	BF	170	GLN
33	BF	176	HIS
33	BF	181	ASN
34	BG	42	GLN
34	BG	43	HIS
34	BG	74	GLN
34	BG	160	GLN
34	BG	161	ASN
34	BG	201	GLN
35	BH	20	GLN
35	BH	78	HIS
36	BI	18	GLN
36	BI	27	GLN
36	BI	57	GLN
36	BI	73	ASN
36	BI	100	ASN
37	BJ	13	GLN
37	BJ	37	ASN
37	BJ	56	GLN
37	BJ	86	GLN
37	BJ	148	ASN
38	BK	82	HIS
39	BL	23	ASN
39	BL	124	GLN
40	BM	33	GLN
40	BM	56	HIS
40	BM	84	GLN
41	BN	26	ASN
41	BN	38	ASN
41	BN	93	GLN

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Mol	Chain	Res	Type
42	BO	5	ASN
42	BO	6	GLN
42	BO	72	HIS
43	BP	62	ASN
43	BP	77	ASN
43	BP	101	GLN
43	BP	106	ASN
45	BR	46	HIS
45	BR	50	HIS
46	BS	76	GLN
46	BS	82	GLN
47	BT	16	GLN
47	BT	94	ASN
49	BV	65	ASN
49	BV	83	HIS
50	BW	16	HIS
50	BW	26	ASN
50	BW	42	GLN
3	CD	58	HIS
3	CD	96	HIS
3	CD	112	GLN
3	CD	166	GLN
3	CD	186	HIS
3	CD	198	ASN
4	CE	35	GLN
4	CE	48	GLN
4	CE	60	ASN
4	CE	66	HIS
4	CE	143	ASN
4	CE	159	HIS
4	CE	180	ASN
4	CE	192	ASN
5	CF	75	HIS
5	CF	169	ASN
5	CF	203	GLN
6	CG	40	ASN
6	CG	58	GLN
6	CG	108	ASN
7	CH	74	ASN
7	CH	147	ASN
8	CK	43	ASN
8	CK	54	GLN

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Mol	Chain	Res	Type
8	CK	104	GLN
8	CK	105	HIS
9	CM	45	ASN
9	CM	131	GLN
10	CN	90	GLN
11	CO	9	ASN
11	CO	68	GLN
11	CO	84	ASN
11	CO	128	HIS
12	CP	12	GLN
12	CP	45	GLN
12	CP	57	HIS
12	CP	123	HIS
13	C0	3	HIS
13	C0	11	ASN
13	C0	16	HIS
13	C0	23	ASN
13	C0	53	HIS
14	CQ	68	GLN
15	CR	38	ASN
15	CR	43	GLN
15	CR	84	GLN
15	CR	90	GLN
15	CR	136	GLN
16	C1	49	HIS
16	C1	72	HIS
16	C1	75	ASN
16	C1	81	HIS
16	C1	104	GLN
16	C1	117	GLN
17	C2	11	GLN
17	C2	64	HIS
17	C2	80	GLN
17	C2	87	HIS
18	CS	57	ASN
18	CS	62	HIS
18	CS	102	HIS
18	CS	111	HIS
19	CT	55	ASN
19	CT	87	GLN
20	CU	43	ASN
20	CU	57	GLN

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Mol	Chain	Res	Type
21	CV	30	ASN
21	CV	32	HIS
21	CV	34	ASN
21	CV	50	GLN
21	CV	65	GLN
22	C3	12	ASN
22	C3	70	GLN
23	CZ	56	GLN
23	CZ	66	HIS
24	CW	38	GLN
24	CW	47	ASN
24	CW	48	HIS
24	CW	65	ASN
25	CX	19	GLN
25	CX	46	ASN
25	CX	52	HIS
26	C4	6	HIS
26	C4	40	HIS
26	C4	46	GLN
26	C4	47	GLN
26	C4	60	GLN
27	C5	4	HIS
27	C5	22	HIS
27	C5	43	HIS
28	C6	26	ASN
28	C6	32	ASN
28	C6	46	HIS
29	C7	8	ASN
29	C7	36	GLN
30	C8	7	HIS
30	C8	31	HIS
30	C8	35	GLN
32	DE	40	HIS
32	DE	135	GLN
33	DF	3	ASN
33	DF	28	GLN
33	DF	98	ASN
33	DF	123	GLN
33	DF	170	GLN
34	DG	42	GLN
34	DG	62	GLN
34	DG	201	GLN

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Mol	Chain	Res	Type
35	DH	141	GLN
36	DI	57	GLN
36	DI	73	ASN
36	DI	94	GLN
36	DI	100	ASN
37	DJ	13	GLN
37	DJ	109	ASN
38	DK	82	HIS
39	DL	3	GLN
39	DL	23	ASN
39	DL	29	ASN
39	DL	58	HIS
39	DL	73	GLN
39	DL	89	ASN
39	DL	117	HIS
39	DL	124	GLN
40	DM	13	HIS
40	DM	56	HIS
40	DM	78	ASN
41	DN	22	HIS
41	DN	26	ASN
41	DN	93	GLN
41	DN	99	GLN
41	DN	104	GLN
41	DN	117	ASN
42	DO	5	ASN
42	DO	46	ASN
42	DO	72	HIS
43	DP	62	ASN
43	DP	77	ASN
43	DP	92	HIS
43	DP	106	ASN
44	DQ	49	HIS
45	DR	13	GLN
45	DR	37	ASN
45	DR	42	HIS
45	DR	50	HIS
45	DR	53	HIS
46	DS	13	HIS
46	DS	16	HIS
46	DS	65	GLN
46	DS	76	GLN

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Mol	Chain	Res	Type
47	DT	16	GLN
49	DV	14	HIS
49	DV	83	HIS
50	DW	9	ASN
50	DW	26	ASN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	2911/2912 (99%)	616 (21%)	54 (1%)
1	CA	2905/2912 (99%)	632 (21%)	51 (1%)
2	AB	121/122 (99%)	16 (13%)	0
2	CB	121/122 (99%)	29 (23%)	2 (1%)
31	BA	1501/1506 (99%)	318 (21%)	42 (2%)
31	DA	1501/1506 (99%)	326 (21%)	46 (3%)
52	BB	84/85 (98%)	47 (55%)	10 (11%)
52	BD	84/85 (98%)	32 (38%)	5 (5%)
52	DB	84/85 (98%)	49 (58%)	9 (10%)
52	DD	84/85 (98%)	31 (36%)	5 (5%)
53	BC	76/77 (98%)	16 (21%)	2 (2%)
53	DC	76/77 (98%)	15 (19%)	2 (2%)
54	B1	15/16 (93%)	5 (33%)	3 (20%)
54	D1	15/16 (93%)	5 (33%)	3 (20%)
All	All	9578/9606 (99%)	2137 (22%)	234 (2%)

All (2137) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	9	U
1	AA	12	U
1	AA	17	G
1	AA	18	C
1	AA	27	G
1	AA	34	C
1	AA	35	G
1	AA	46	C
1	AA	51	G
1	AA	56	A
1	AA	63	U
1	AA	71	A
1	AA	72	U

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Mol	Chain	Res	Type
1	AA	74	A
1	AA	75	G
1	AA	85	G
1	AA	93	C
1	AA	95	G
1	AA	102	G
1	AA	118	A
1	AA	119	A
1	AA	120	U
1	AA	121	G
1	AA	125	G
1	AA	131	G
1	AA	135	G
1	AA	155	C
1	AA	163	U
1	AA	165	U
1	AA	181	A
1	AA	188	G
1	AA	196	A
1	AA	199	A
1	AA	215	G
1	AA	216	A
1	AA	218	A
1	AA	222	A
1	AA	223	A
1	AA	227	A
1	AA	228	A
1	AA	229	A
1	AA	230	U
1	AA	233	A
1	AA	248	G
1	AA	249	C
1	AA	252	G
1	AA	269	U
1	AA	270(I)	G
1	AA	270(L)	U
1	AA	270(M)	U
1	AA	270(N)	G
1	AA	270(O)	U
1	AA	270(P)	C
1	AA	271(C)	U
1	AA	271	G

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Mol	Chain	Res	Type
1	AA	273(A)	G
1	AA	274	G
1	AA	275	G
1	AA	278	A
1	AA	279	C
1	AA	299	A
1	AA	311	A
1	AA	322	A
1	AA	323	G
1	AA	324	A
1	AA	329	G
1	AA	330	A
1	AA	338	G
1	AA	352	G
1	AA	356	G
1	AA	362	U
1	AA	364	C
1	AA	372	G
1	AA	386	G
1	AA	388	G
1	AA	396	G
1	AA	405	U
1	AA	406	G
1	AA	411	G
1	AA	412	A
1	AA	421	U
1	AA	428	A
1	AA	444	C
1	AA	448	U
1	AA	457	A
1	AA	463	G
1	AA	470	A
1	AA	471	A
1	AA	480	A
1	AA	481	G
1	AA	482	A
1	AA	505	A
1	AA	509	C
1	AA	529	A
1	AA	530	G
1	AA	531	C
1	AA	532	A

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Mol	Chain	Res	Type
1	AA	533	G
1	AA	540	G
1	AA	546	C
1	AA	550	G
1	AA	556	G
1	AA	563	G
1	AA	565	C
1	AA	573	G
1	AA	575	A
1	AA	586	A
1	AA	587	C
1	AA	588	U
1	AA	603	A
1	AA	607	U
1	AA	614	U
1	AA	617	G
1	AA	618	G
1	AA	622	G
1	AA	627	A
1	AA	628	G
1	AA	629	G
1	AA	634	C
1	AA	637	A
1	AA	646	A
1	AA	647	G
1	AA	653	A
1	AA	654(A)	A
1	AA	654(G)	C
1	AA	654(I)	C
1	AA	654(J)	A
1	AA	654(K)	C
1	AA	654(M)	C
1	AA	654(T)	A
1	AA	686	G
1	AA	717	G
1	AA	730	C
1	AA	731	C
1	AA	753	C
1	AA	765	G
1	AA	775	G
1	AA	776	G
1	AA	782	A

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Mol	Chain	Res	Type
1	AA	784	A
1	AA	785	G
1	AA	789	A
1	AA	790	C
1	AA	792	G
1	AA	802	A
1	AA	805	G
1	AA	812	C
1	AA	819	A
1	AA	820	A
1	AA	827	U
1	AA	828	U
1	AA	829	A
1	AA	831	G
1	AA	845	G
1	AA	859	G
1	AA	866	A
1	AA	869	G
1	AA	877	U
1	AA	879	G
1	AA	880	G
1	AA	881	G
1	AA	882	G
1	AA	883	G
1	AA	884	C
1	AA	885	C
1	AA	886	C
1	AA	887	A
1	AA	888	C
1	AA	890	A
1	AA	893	C
1	AA	894	C
1	AA	895	U
1	AA	896	A
1	AA	897	C
1	AA	898	C
1	AA	899	A
1	AA	900	A
1	AA	901	A
1	AA	902	C
1	AA	904	C
1	AA	906	G

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Mol	Chain	Res	Type
1	AA	910	A
1	AA	917	A
1	AA	918	A
1	AA	919	G
1	AA	928	G
1	AA	932	G
1	AA	938	G
1	AA	941	A
1	AA	945	A
1	AA	946	G
1	AA	961	C
1	AA	962	G
1	AA	974	G
1	AA	974(A)	C
1	AA	975	G
1	AA	983	A
1	AA	995	C
1	AA	996	A
1	AA	999	U
1	AA	1003	G
1	AA	1005	C
1	AA	1011	G
1	AA	1012	U
1	AA	1013	C
1	AA	1015	G
1	AA	1023	U
1	AA	1025	G
1	AA	1026	U
1	AA	1027	A
1	AA	1033	U
1	AA	1037	G
1	AA	1044	G
1	AA	1045	A
1	AA	1046	A
1	AA	1047	G
1	AA	1050	A
1	AA	1060	U
1	AA	1061	U
1	AA	1062	G
1	AA	1065	U
1	AA	1066	U
1	AA	1067	A

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Mol	Chain	Res	Type
1	AA	1068	G
1	AA	1070	A
1	AA	1071	G
1	AA	1076	C
1	AA	1077	A
1	AA	1078	U
1	AA	1079	C
1	AA	1081	U
1	AA	1082	U
1	AA	1083	U
1	AA	1084	A
1	AA	1085	A
1	AA	1086	A
1	AA	1087	G
1	AA	1088	A
1	AA	1089	G
1	AA	1090	U
1	AA	1092	C
1	AA	1093	G
1	AA	1095	A
1	AA	1096	A
1	AA	1097	U
1	AA	1110	G
1	AA	1111	A
1	AA	1112	G
1	AA	1122	G
1	AA	1130	U
1	AA	1131	G
1	AA	1135	C
1	AA	1136	G
1	AA	1139	G
1	AA	1142	U
1	AA	1142(A)	A
1	AA	1149	G
1	AA	1155	A
1	AA	1156	A
1	AA	1170	G
1	AA	1175	U
1	AA	1176	G
1	AA	1178	C
1	AA	1179	C
1	AA	1182	A

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Mol	Chain	Res	Type
1	AA	1195	G
1	AA	1204	A
1	AA	1205	U
1	AA	1211	U
1	AA	1220	A
1	AA	1221	C
1	AA	1222	C
1	AA	1230	C
1	AA	1236	G
1	AA	1241	A
1	AA	1244	G
1	AA	1248	G
1	AA	1250	G
1	AA	1253	A
1	AA	1256	G
1	AA	1265	A
1	AA	1269	A
1	AA	1271	G
1	AA	1272	A
1	AA	1273	U
1	AA	1298	C
1	AA	1300	U
1	AA	1301	A
1	AA	1302	A
1	AA	1313	U
1	AA	1314	C
1	AA	1329	U
1	AA	1332	G
1	AA	1338	G
1	AA	1345	C
1	AA	1349	A
1	AA	1352	U
1	AA	1359	A
1	AA	1360	A
1	AA	1365	A
1	AA	1368	G
1	AA	1378	A
1	AA	1380	G
1	AA	1383	C
1	AA	1384	A
1	AA	1385	G
1	AA	1386	C

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Mol	Chain	Res	Type
1	AA	1395	A
1	AA	1416	G
1	AA	1417	C
1	AA	1420	U
1	AA	1421	G
1	AA	1424	G
1	AA	1428	C
1	AA	1444(A)	A
1	AA	1449	A
1	AA	1449(A)	G
1	AA	1455	G
1	AA	1458	C
1	AA	1459	G
1	AA	1460	A
1	AA	1461	G
1	AA	1467	C
1	AA	1471	A
1	AA	1473	G
1	AA	1483	G
1	AA	1493	C
1	AA	1495	A
1	AA	1497	U
1	AA	1508	A
1	AA	1509	C
1	AA	1510	A
1	AA	1511	A
1	AA	1526	G
1	AA	1533	C
1	AA	1534	G
1	AA	1535	U
1	AA	1536	A
1	AA	1537	C
1	AA	1538	G
1	AA	1543	A
1	AA	1545	A
1	AA	1545(A)	A
1	AA	1546	C
1	AA	1548	C
1	AA	1554	A
1	AA	1558	A
1	AA	1559	G
1	AA	1560	G

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Mol	Chain	Res	Type
1	AA	1566	A
1	AA	1569	A
1	AA	1578	U
1	AA	1579	A
1	AA	1585	C
1	AA	1586	A
1	AA	1587	A
1	AA	1605	C
1	AA	1606	G
1	AA	1608	A
1	AA	1609	A
1	AA	1617	C
1	AA	1618	A
1	AA	1631	A
1	AA	1632	A
1	AA	1639	U
1	AA	1648	C
1	AA	1651	G
1	AA	1654	A
1	AA	1663	C
1	AA	1674	G
1	AA	1675	C
1	AA	1678	G
1	AA	1695	G
1	AA	1729	A
1	AA	1731	G
1	AA	1734	C
1	AA	1743	G
1	AA	1756	G
1	AA	1763	G
1	AA	1764	G
1	AA	1769	G
1	AA	1773	A
1	AA	1780	A
1	AA	1782	C
1	AA	1787	A
1	AA	1791	A
1	AA	1798	U
1	AA	1799	G
1	AA	1800	C
1	AA	1801	G
1	AA	1816	G

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Mol	Chain	Res	Type
1	AA	1819	A
1	AA	1829	A
1	AA	1835	G
1	AA	1836	C
1	AA	1847	A
1	AA	1858	G
1	AA	1860	G
1	AA	1869	G
1	AA	1870	C
1	AA	1878	G
1	AA	1881	C
1	AA	1882	C
1	AA	1888	G
1	AA	1889	A
1	AA	1896	G
1	AA	1900	A
1	AA	1901	A
1	AA	1903	G
1	AA	1906	G
1	AA	1913	A
1	AA	1914	C
1	AA	1929	G
1	AA	1930	G
1	AA	1931	U
1	AA	1932	A
1	AA	1937	A
1	AA	1938	A
1	AA	1955	U
1	AA	1956	U
1	AA	1963	U
1	AA	1967	C
1	AA	1969	A
1	AA	1970	A
1	AA	1971	A
1	AA	1972	A
1	AA	1982	C
1	AA	1985	G
1	AA	1993	U
1	AA	2020	A
1	AA	2023	G
1	AA	2031	A
1	AA	2032	G

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Mol	Chain	Res	Type
1	AA	2033	A
1	AA	2043	C
1	AA	2054	A
1	AA	2055	C
1	AA	2056	G
1	AA	2060	A
1	AA	2061	G
1	AA	2063	C
1	AA	2069	G
1	AA	2070	G
1	AA	2080	G
1	AA	2111	C
1	AA	2112	G
1	AA	2113	U
1	AA	2114	A
1	AA	2115	G
1	AA	2122	U
1	AA	2126	A
1	AA	2128	C
1	AA	2132	U
1	AA	2133	G
1	AA	2136	C
1	AA	2138	C
1	AA	2139	C
1	AA	2146	C
1	AA	2147	G
1	AA	2148	G
1	AA	2157	G
1	AA	2158	A
1	AA	2164	C
1	AA	2166	G
1	AA	2167	U
1	AA	2168	G
1	AA	2170	A
1	AA	2171	A
1	AA	2173	A
1	AA	2181	G
1	AA	2190	G
1	AA	2192	G
1	AA	2194	G
1	AA	2198	A
1	AA	2199	A

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Mol	Chain	Res	Type
1	AA	2205	C
1	AA	2206	C
1	AA	2210	G
1	AA	2211	G
1	AA	2212	A
1	AA	2215	G
1	AA	2225	A
1	AA	2226	C
1	AA	2238	G
1	AA	2239	G
1	AA	2243	U
1	AA	2272	U
1	AA	2273	A
1	AA	2275	C
1	AA	2283	C
1	AA	2287	A
1	AA	2307	G
1	AA	2308	G
1	AA	2310	A
1	AA	2311	A
1	AA	2314	C
1	AA	2319	G
1	AA	2320	A
1	AA	2321	G
1	AA	2325	G
1	AA	2336	A
1	AA	2341	G
1	AA	2346	A
1	AA	2347	C
1	AA	2350	C
1	AA	2352	A
1	AA	2383	G
1	AA	2385	C
1	AA	2392	A
1	AA	2393	A
1	AA	2394	C
1	AA	2395	C
1	AA	2396	G
1	AA	2402	C
1	AA	2403	C
1	AA	2405	G
1	AA	2406	U

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Mol	Chain	Res	Type
1	AA	2410	G
1	AA	2424	C
1	AA	2425	A
1	AA	2428	G
1	AA	2429	G
1	AA	2430	A
1	AA	2434	A
1	AA	2435	A
1	AA	2439	A
1	AA	2440	C
1	AA	2441	C
1	AA	2448	A
1	AA	2467	C
1	AA	2469	A
1	AA	2474	C
1	AA	2476	A
1	AA	2478	A
1	AA	2481	G
1	AA	2482	G
1	AA	2487	G
1	AA	2491	U
1	AA	2494	G
1	AA	2499	C
1	AA	2502	G
1	AA	2504	U
1	AA	2505	G
1	AA	2506	U
1	AA	2507	C
1	AA	2518	A
1	AA	2529	G
1	AA	2553	G
1	AA	2554	U
1	AA	2566	A
1	AA	2567	G
1	AA	2568	C
1	AA	2573	C
1	AA	2601	C
1	AA	2602	A
1	AA	2609	U
1	AA	2611	U
1	AA	2612	C
1	AA	2613	U

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Mol	Chain	Res	Type
1	AA	2614	A
1	AA	2629	A
1	AA	2632	A
1	AA	2646	C
1	AA	2661	G
1	AA	2663	G
1	AA	2665	A
1	AA	2673	G
1	AA	2679	A
1	AA	2682	U
1	AA	2683	C
1	AA	2689	U
1	AA	2690	C
1	AA	2691	C
1	AA	2702	U
1	AA	2707	G
1	AA	2712	U
1	AA	2712(A)	A
1	AA	2713	A
1	AA	2714	G
1	AA	2726	U
1	AA	2733	A
1	AA	2734	A
1	AA	2739	U
1	AA	2748	A
1	AA	2752	C
1	AA	2757	A
1	AA	2758	A
1	AA	2764	A
1	AA	2765	A
1	AA	2766	G
1	AA	2778	A
1	AA	2779	U
1	AA	2787	C
1	AA	2789	C
1	AA	2791	C
1	AA	2793	G
1	AA	2797	U
1	AA	2798	C
1	AA	2799	A
1	AA	2801	A
1	AA	2807	G

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Mol	Chain	Res	Type
1	AA	2808	U
1	AA	2813	A
1	AA	2818	G
1	AA	2820	A
1	AA	2821	A
1	AA	2823	A
1	AA	2830	G
1	AA	2833	G
1	AA	2834	G
1	AA	2835	A
1	AA	2836	U
1	AA	2872	G
1	AA	2891	G
1	AA	2892	A
1	AA	2894	G
2	AB	1	U
2	AB	7	G
2	AB	12	C
2	AB	13	A
2	AB	15	A
2	AB	40	U
2	AB	41	U
2	AB	45	A
2	AB	52	A
2	AB	56	G
2	AB	58	A
2	AB	73	A
2	AB	74	U
2	AB	81	G
2	AB	85	G
2	AB	109	G
31	BA	6	G
31	BA	7	G
31	BA	8	A
31	BA	9	G
31	BA	32	A
31	BA	39	G
31	BA	44	G
31	BA	48	C
31	BA	49	U
31	BA	50	A
31	BA	51	A

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Mol	Chain	Res	Type
31	BA	54	C
31	BA	61	G
31	BA	65	U
31	BA	66	G
31	BA	73	G
31	BA	76	G
31	BA	78	G
31	BA	80	G
31	BA	81	G
31	BA	84	U
31	BA	85	U
31	BA	86	U
31	BA	87	A
31	BA	89	U
31	BA	90	C
31	BA	91	C
31	BA	95	G
31	BA	99	C
31	BA	108	G
31	BA	116	A
31	BA	120	A
31	BA	121	C
31	BA	131	C
31	BA	137	C
31	BA	144	G
31	BA	157	G
31	BA	161	A
31	BA	163	C
31	BA	171	A
31	BA	172	A
31	BA	173	U
31	BA	174	C
31	BA	180	U
31	BA	182	U
31	BA	189	U
31	BA	190	G
31	BA	195	A
31	BA	197	A
31	BA	201	C
31	BA	209	U
31	BA	210	U
31	BA	216	G

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Mol	Chain	Res	Type
31	BA	222	U
31	BA	231	G
31	BA	245	C
31	BA	247	G
31	BA	251	G
31	BA	262	A
31	BA	267	C
31	BA	281	G
31	BA	289	G
31	BA	306	G
31	BA	308	C
31	BA	321	A
31	BA	328	C
31	BA	332	G
31	BA	344	A
31	BA	345	C
31	BA	346	G
31	BA	352	C
31	BA	353	A
31	BA	354	G
31	BA	357	G
31	BA	367	U
31	BA	372	C
31	BA	373	A
31	BA	381	C
31	BA	384	G
31	BA	390	C
31	BA	397	A
31	BA	398	C
31	BA	411	A
31	BA	412	A
31	BA	413	G
31	BA	422	C
31	BA	423	G
31	BA	424	G
31	BA	429	U
31	BA	430	A
31	BA	431	A
31	BA	439	A
31	BA	440	A
31	BA	442	C
31	BA	465	A

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Mol	Chain	Res	Type
31	BA	466	C
31	BA	483	C
31	BA	485	G
31	BA	496	A
31	BA	497	U
31	BA	505	G
31	BA	509	A
31	BA	510	A
31	BA	511	C
31	BA	513	C
31	BA	518	C
31	BA	519	C
31	BA	527	G
31	BA	530	G
31	BA	531	U
31	BA	533	A
31	BA	536	C
31	BA	545	C
31	BA	547	A
31	BA	560	U
31	BA	561	U
31	BA	564	C
31	BA	572	A
31	BA	573	A
31	BA	576	G
31	BA	577	G
31	BA	630	G
31	BA	631	G
31	BA	632	A
31	BA	642	A
31	BA	650	G
31	BA	653	A
31	BA	659	U
31	BA	665	A
31	BA	675	A
31	BA	687	A
31	BA	688	G
31	BA	701	C
31	BA	704	A
31	BA	723	U
31	BA	724	G
31	BA	749	C

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Mol	Chain	Res	Type
31	BA	755	G
31	BA	759	A
31	BA	766	A
31	BA	767	A
31	BA	774	G
31	BA	776	G
31	BA	777	A
31	BA	778	G
31	BA	789	U
31	BA	790	A
31	BA	791	G
31	BA	792	A
31	BA	793	U
31	BA	794	A
31	BA	798	G
31	BA	813	U
31	BA	815	A
31	BA	817	C
31	BA	820	U
31	BA	821	G
31	BA	828	A
31	BA	841	U
31	BA	843	U
31	BA	848	C
31	BA	859	A
31	BA	872	A
31	BA	873	A
31	BA	876	G
31	BA	902	G
31	BA	914	A
31	BA	922	G
31	BA	926	G
31	BA	927	G
31	BA	934	C
31	BA	935	A
31	BA	942	G
31	BA	960	U
31	BA	966	G
31	BA	968	A
31	BA	969	A
31	BA	971	G
31	BA	972	C

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Mol	Chain	Res	Type
31	BA	974	A
31	BA	976	G
31	BA	977	A
31	BA	978	A
31	BA	982	U
31	BA	983	A
31	BA	991	U
31	BA	992	U
31	BA	993	G
31	BA	1004	A
31	BA	1006	C
31	BA	1008	C
31	BA	1021	G
31	BA	1024	G
31	BA	1025	U
31	BA	1026	G
31	BA	1027	C
31	BA	1028	C
31	BA	1029	G
31	BA	1032(A)	G
31	BA	1033	G
31	BA	1036	G
31	BA	1054	C
31	BA	1055	A
31	BA	1056	U
31	BA	1066	C
31	BA	1070	U
31	BA	1081	G
31	BA	1094	G
31	BA	1095	U
31	BA	1101	A
31	BA	1108	G
31	BA	1117	G
31	BA	1124	G
31	BA	1125	U
31	BA	1126	U
31	BA	1127	G
31	BA	1129	C
31	BA	1130	A
31	BA	1131	G
31	BA	1133	G
31	BA	1136	U

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Mol	Chain	Res	Type
31	BA	1137	C
31	BA	1138	G
31	BA	1139	G
31	BA	1140	C
31	BA	1146	A
31	BA	1151	A
31	BA	1157	A
31	BA	1158	C
31	BA	1159	U
31	BA	1160	G
31	BA	1171	G
31	BA	1177	G
31	BA	1178	G
31	BA	1179	A
31	BA	1181	G
31	BA	1182	G
31	BA	1187	G
31	BA	1193	G
31	BA	1195	C
31	BA	1196	U
31	BA	1197	G
31	BA	1200	C
31	BA	1201	A
31	BA	1202	G
31	BA	1211	U
31	BA	1212	U
31	BA	1218	C
31	BA	1225	A
31	BA	1226	C
31	BA	1227	A
31	BA	1228	C
31	BA	1238	A
31	BA	1240	U
31	BA	1241	G
31	BA	1253	G
31	BA	1256	A
31	BA	1257	U
31	BA	1258	G
31	BA	1270	C
31	BA	1272	G
31	BA	1278	U
31	BA	1280	A

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Mol	Chain	Res	Type
31	BA	1281	U
31	BA	1282	C
31	BA	1286	A
31	BA	1287	A
31	BA	1290	G
31	BA	1291	G
31	BA	1294	G
31	BA	1300	G
31	BA	1301	U
31	BA	1302	U
31	BA	1303	C
31	BA	1320	C
31	BA	1322	C
31	BA	1323	G
31	BA	1326	C
31	BA	1331	G
31	BA	1332	A
31	BA	1335	C
31	BA	1336	C
31	BA	1337	G
31	BA	1338	G
31	BA	1346	A
31	BA	1347	G
31	BA	1350	A
31	BA	1353	G
31	BA	1362(A)	C
31	BA	1363	A
31	BA	1364	U
31	BA	1365	G
31	BA	1370	G
31	BA	1373	G
31	BA	1375	A
31	BA	1397	C
31	BA	1401	G
31	BA	1406	U
31	BA	1419	G
31	BA	1442	G
31	BA	1443	G
31	BA	1446	A
31	BA	1451	A
31	BA	1452	C
31	BA	1453	G

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Mol	Chain	Res	Type
31	BA	1487	G
31	BA	1492	A
31	BA	1494	G
31	BA	1497	G
31	BA	1499	A
31	BA	1502	A
31	BA	1503	A
31	BA	1504	G
31	BA	1505	G
31	BA	1506	U
31	BA	1507	A
31	BA	1517	G
31	BA	1529	G
52	BB	2	G
52	BB	4	G
52	BB	7	G
52	BB	8	U
52	BB	9	U
52	BB	10	C
52	BB	11	C
52	BB	14	A
52	BB	16	C
52	BB	17	G
52	BB	18	G
52	BB	19	C
52	BB	20	C
52	BB	21	A
52	BB	22	A
52	BB	24	G
52	BB	26	G
52	BB	27	A
52	BB	35	G
52	BB	41	C
52	BB	42	U
52	BB	43	G
52	BB	46	G
52	BB	47	U
52	BB	48	C
52	BB	49	A
52	BB	50	U
52	BB	52	G
52	BB	53	A

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Mol	Chain	Res	Type
52	BB	55	U
52	BB	57	C
52	BB	58	G
52	BB	62	G
52	BB	68	A
52	BB	69	U
52	BB	70	C
52	BB	72	U
52	BB	74	C
52	BB	75	C
52	BB	76	C
52	BB	78	C
52	BB	79	A
52	BB	80	C
52	BB	81	C
52	BB	82	A
52	BB	83	C
52	BB	84	C
53	BC	2	G
53	BC	9	G
53	BC	16	C
53	BC	17	C
53	BC	18	C
53	BC	19	G
53	BC	20	G
53	BC	21	U
53	BC	22	A
53	BC	32	G
53	BC	48	U
53	BC	49	C
53	BC	50	G
53	BC	51	U
53	BC	53	G
53	BC	68	C
52	BD	6	G
52	BD	8	U
52	BD	9	U
52	BD	10	C
52	BD	12	C
52	BD	14	A
52	BD	15	G
52	BD	16	C

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Mol	Chain	Res	Type
52	BD	17	G
52	BD	18	G
52	BD	19	C
52	BD	20	C
52	BD	21	A
52	BD	22	A
52	BD	23	A
52	BD	30	A
52	BD	44	C
52	BD	46	G
52	BD	48	C
52	BD	50	U
52	BD	52	G
52	BD	54	C
52	BD	55	U
52	BD	56	U
52	BD	57	C
52	BD	58	G
52	BD	64	U
52	BD	67	A
52	BD	68	A
52	BD	69	U
52	BD	70	C
52	BD	85	A
54	B1	11	U
54	B1	12	A
54	B1	13	A
54	B1	14	A
54	B1	23	A
1	CA	5	A
1	CA	10	G
1	CA	34	C
1	CA	36	G
1	CA	41	C
1	CA	45	C
1	CA	49	U
1	CA	50	G
1	CA	54	G
1	CA	57	G
1	CA	59	G
1	CA	60	G
1	CA	70	A

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Mol	Chain	Res	Type
1	CA	71	U
1	CA	73	A
1	CA	74	G
1	CA	81	G
1	CA	89	U
1	CA	90	A
1	CA	92	C
1	CA	94	G
1	CA	98	U
1	CA	100	G
1	CA	116	A
1	CA	117	A
1	CA	118	U
1	CA	119	G
1	CA	127	C
1	CA	137	G
1	CA	138	G
1	CA	140	A
1	CA	151	C
1	CA	153	C
1	CA	154	G
1	CA	155	C
1	CA	162	C
1	CA	163	G
1	CA	164	C
1	CA	165	G
1	CA	172	A
1	CA	186	A
1	CA	189	A
1	CA	195	G
1	CA	196	U
1	CA	204	G
1	CA	205	G
1	CA	206	A
1	CA	211	A
1	CA	212	A
1	CA	218	A
1	CA	219	A
1	CA	223	A
1	CA	238	G
1	CA	239	C
1	CA	242	G

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Mol	Chain	Res	Type
1	CA	254	C
1	CA	271	C
1	CA	272	U
1	CA	273	U
1	CA	275	U
1	CA	290	G
1	CA	296	C
1	CA	299	G
1	CA	300	G
1	CA	301	A
1	CA	303	A
1	CA	304	C
1	CA	308	A
1	CA	312	C
1	CA	314	A
1	CA	336	A
1	CA	337	G
1	CA	349	A
1	CA	354	G
1	CA	355	A
1	CA	357	A
1	CA	358	G
1	CA	377	G
1	CA	379	G
1	CA	381	G
1	CA	382	A
1	CA	388	G
1	CA	393	U
1	CA	394	A
1	CA	395	C
1	CA	400	G
1	CA	413	C
1	CA	414	G
1	CA	416	G
1	CA	423	U
1	CA	433	U
1	CA	434	G
1	CA	439	G
1	CA	440	A
1	CA	441	C
1	CA	456	A
1	CA	470	A

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Mol	Chain	Res	Type
1	CA	471	C
1	CA	475	U
1	CA	481	A
1	CA	484	A
1	CA	486	U
1	CA	487	A
1	CA	497	A
1	CA	498	A
1	CA	508	G
1	CA	509	A
1	CA	515	G
1	CA	516	G
1	CA	531	A
1	CA	534	G
1	CA	535	C
1	CA	538	G
1	CA	540	A
1	CA	553	C
1	CA	556	G
1	CA	557	C
1	CA	558	A
1	CA	559	G
1	CA	572	A
1	CA	580	G
1	CA	587	G
1	CA	597	G
1	CA	599	A
1	CA	612	U
1	CA	617	G
1	CA	627	A
1	CA	628	G
1	CA	631	U
1	CA	634	G
1	CA	639	U
1	CA	640	G
1	CA	642	G
1	CA	645	G
1	CA	647	A
1	CA	648	G
1	CA	653	A
1	CA	663	A
1	CA	671	C

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Mol	Chain	Res	Type
1	CA	672	A
1	CA	675	G
1	CA	677	G
1	CA	680	A
1	CA	681	A
1	CA	687	C
1	CA	689	C
1	CA	691	C
1	CA	692	G
1	CA	694	G
1	CA	700	A
1	CA	716	G
1	CA	717	G
1	CA	718	A
1	CA	730	G
1	CA	734	G
1	CA	763	G
1	CA	768	C
1	CA	770	A
1	CA	778	C
1	CA	796	G
1	CA	801	C
1	CA	810	U
1	CA	812	A
1	CA	823	G
1	CA	824	G
1	CA	825	A
1	CA	827	U
1	CA	830	A
1	CA	832	A
1	CA	833	G
1	CA	837	A
1	CA	839	C
1	CA	840	G
1	CA	841	A
1	CA	845	C
1	CA	849	G
1	CA	853	G
1	CA	860	C
1	CA	867	A
1	CA	875	U
1	CA	880	G

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Mol	Chain	Res	Type
1	CA	894	C
1	CA	907	G
1	CA	926	A
1	CA	928	G
1	CA	929	G
1	CA	934	C
1	CA	935	A
1	CA	936	C
1	CA	937	C
1	CA	938	A
1	CA	941	C
1	CA	943	A
1	CA	944	C
1	CA	946	A
1	CA	947	A
1	CA	948	A
1	CA	949	C
1	CA	951	C
1	CA	953	G
1	CA	957	A
1	CA	962	C
1	CA	963	G
1	CA	964	A
1	CA	971	C
1	CA	973	A
1	CA	978	G
1	CA	979	A
1	CA	980	G
1	CA	981	C
1	CA	984	G
1	CA	987	A
1	CA	990	G
1	CA	991	A
1	CA	992	G
1	CA	1004	U
1	CA	1005	A
1	CA	1007	C
1	CA	1014	G
1	CA	1020	G
1	CA	1027	A
1	CA	1030	A
1	CA	1037	A

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Mol	Chain	Res	Type
1	CA	1038	C
1	CA	1043	A
1	CA	1044	G
1	CA	1045	C
1	CA	1046	U
1	CA	1052	C
1	CA	1059	U
1	CA	1060	C
1	CA	1063	G
1	CA	1069	G
1	CA	1070	U
1	CA	1071	G
1	CA	1072	G
1	CA	1073	U
1	CA	1075	A
1	CA	1076	A
1	CA	1091	G
1	CA	1092	A
1	CA	1095	A
1	CA	1098	G
1	CA	1101	A
1	CA	1108	U
1	CA	1114	A
1	CA	1115	G
1	CA	1117	A
1	CA	1118	G
1	CA	1123	C
1	CA	1132	A
1	CA	1133	A
1	CA	1134	G
1	CA	1135	A
1	CA	1136	G
1	CA	1137	U
1	CA	1138	G
1	CA	1142	A
1	CA	1143	A
1	CA	1144	U
1	CA	1146	G
1	CA	1158	A
1	CA	1159	G
1	CA	1169	G
1	CA	1175	A

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Mol	Chain	Res	Type
1	CA	1176	A
1	CA	1177	U
1	CA	1181	C
1	CA	1182	G
1	CA	1183	G
1	CA	1185	G
1	CA	1188	U
1	CA	1189	A
1	CA	1190	A
1	CA	1195	A
1	CA	1217	G
1	CA	1218	G
1	CA	1219	G
1	CA	1221	U
1	CA	1222	G
1	CA	1223	A
1	CA	1224	C
1	CA	1243	G
1	CA	1250	A
1	CA	1251	U
1	CA	1257	U
1	CA	1266	A
1	CA	1277	C
1	CA	1281	U
1	CA	1283	G
1	CA	1295	G
1	CA	1297	G
1	CA	1299	G
1	CA	1300	A
1	CA	1302	U
1	CA	1303	G
1	CA	1318	G
1	CA	1319	A
1	CA	1320	U
1	CA	1333	A
1	CA	1345	C
1	CA	1347	U
1	CA	1348	A
1	CA	1361	C
1	CA	1365	C
1	CA	1366	G
1	CA	1372	G

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Mol	Chain	Res	Type
1	CA	1376	U
1	CA	1379	G
1	CA	1392	C
1	CA	1396	A
1	CA	1399	U
1	CA	1406	A
1	CA	1407	A
1	CA	1412	A
1	CA	1415	G
1	CA	1427	G
1	CA	1431	A
1	CA	1432	G
1	CA	1433	C
1	CA	1445	C
1	CA	1451	C
1	CA	1452	U
1	CA	1454	C
1	CA	1463	G
1	CA	1464	C
1	CA	1466	A
1	CA	1467	U
1	CA	1468	G
1	CA	1474	A
1	CA	1475	C
1	CA	1484	C
1	CA	1490	G
1	CA	1492	A
1	CA	1493	C
1	CA	1497	A
1	CA	1498	G
1	CA	1500	C
1	CA	1503	G
1	CA	1506	C
1	CA	1508	A
1	CA	1509	G
1	CA	1515	C
1	CA	1519	A
1	CA	1523	G
1	CA	1529	U
1	CA	1530	G
1	CA	1535	G
1	CA	1537	A

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Mol	Chain	Res	Type
1	CA	1540	C
1	CA	1543	A
1	CA	1555	A
1	CA	1556	C
1	CA	1557	A
1	CA	1562	C
1	CA	1563	U
1	CA	1575	A
1	CA	1581	G
1	CA	1582	U
1	CA	1586	G
1	CA	1590	A
1	CA	1591	C
1	CA	1595	C
1	CA	1602	A
1	CA	1606	A
1	CA	1607	G
1	CA	1614	A
1	CA	1617	A
1	CA	1626	U
1	CA	1627	A
1	CA	1632	C
1	CA	1633	A
1	CA	1635	C
1	CA	1645	C
1	CA	1646	C
1	CA	1655	A
1	CA	1656	A
1	CA	1657	A
1	CA	1663	A
1	CA	1665	A
1	CA	1672	C
1	CA	1683	G
1	CA	1687	U
1	CA	1688	C
1	CA	1696	C
1	CA	1699	G
1	CA	1702	A
1	CA	1712	A
1	CA	1722	G
1	CA	1744	G
1	CA	1748	A

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Mol	Chain	Res	Type
1	CA	1749	A
1	CA	1768	A
1	CA	1770	G
1	CA	1771	A
1	CA	1773	C
1	CA	1788	G
1	CA	1790	G
1	CA	1794	A
1	CA	1795	G
1	CA	1796	G
1	CA	1805	A
1	CA	1812	A
1	CA	1814	C
1	CA	1819	A
1	CA	1823	A
1	CA	1832	C
1	CA	1833	G
1	CA	1834	A
1	CA	1848	G
1	CA	1852	U
1	CA	1861	A
1	CA	1867	G
1	CA	1871	G
1	CA	1879	A
1	CA	1880	A
1	CA	1890	G
1	CA	1896	U
1	CA	1899	A
1	CA	1901	G
1	CA	1906	G
1	CA	1911	G
1	CA	1918	C
1	CA	1923	A
1	CA	1929	G
1	CA	1936	A
1	CA	1952	G
1	CA	1953	G
1	CA	1959	A
1	CA	1960	A
1	CA	1978	U
1	CA	1979	U
1	CA	1986	U

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Mol	Chain	Res	Type
1	CA	1990	C
1	CA	1993	A
1	CA	1994	A
1	CA	1995	A
1	CA	2014	U
1	CA	2015	G
1	CA	2016	U
1	CA	2019	C
1	CA	2040	U
1	CA	2043	A
1	CA	2046	G
1	CA	2054	A
1	CA	2056	A
1	CA	2062	C
1	CA	2066	C
1	CA	2078	C
1	CA	2079	G
1	CA	2082	A
1	CA	2083	A
1	CA	2084	G
1	CA	2085	A
1	CA	2092	G
1	CA	2123	G
1	CA	2130	C
1	CA	2131	C
1	CA	2134	C
1	CA	2135	G
1	CA	2136	U
1	CA	2137	A
1	CA	2138	G
1	CA	2143	G
1	CA	2149	A
1	CA	2150	G
1	CA	2151	C
1	CA	2153	U
1	CA	2155	U
1	CA	2156	G
1	CA	2159	C
1	CA	2168	C
1	CA	2169	C
1	CA	2170	G
1	CA	2171	G

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Mol	Chain	Res	Type
1	CA	2174	G
1	CA	2182	G
1	CA	2187	C
1	CA	2189	G
1	CA	2194	A
1	CA	2195	U
1	CA	2196	A
1	CA	2197	C
1	CA	2214	G
1	CA	2215	G
1	CA	2221	A
1	CA	2222	A
1	CA	2228	G
1	CA	2229	G
1	CA	2230	A
1	CA	2231	U
1	CA	2232	G
1	CA	2238	A
1	CA	2239	C
1	CA	2252	G
1	CA	2271	C
1	CA	2288	C
1	CA	2289	G
1	CA	2293	G
1	CA	2296	C
1	CA	2300	A
1	CA	2301	A
1	CA	2302	G
1	CA	2316	G
1	CA	2320	G
1	CA	2321	G
1	CA	2322	A
1	CA	2323	A
1	CA	2324	A
1	CA	2326	C
1	CA	2332	G
1	CA	2334	G
1	CA	2338	G
1	CA	2346	A
1	CA	2347	G
1	CA	2348	A
1	CA	2356	C

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Mol	Chain	Res	Type
1	CA	2359	A
1	CA	2360	C
1	CA	2363	C
1	CA	2379	A
1	CA	2396	G
1	CA	2398	C
1	CA	2400	U
1	CA	2401	A
1	CA	2402	G
1	CA	2403	U
1	CA	2405	A
1	CA	2407	C
1	CA	2409	G
1	CA	2411	U
1	CA	2415	C
1	CA	2419	U
1	CA	2427	G
1	CA	2429	C
1	CA	2435	A
1	CA	2436	U
1	CA	2438	A
1	CA	2441	G
1	CA	2442	G
1	CA	2443	A
1	CA	2448	A
1	CA	2452	A
1	CA	2453	C
1	CA	2454	C
1	CA	2461	A
1	CA	2478	C
1	CA	2481	G
1	CA	2482	A
1	CA	2483	G
1	CA	2485	G
1	CA	2489	A
1	CA	2496	C
1	CA	2497	G
1	CA	2507	G
1	CA	2515	G
1	CA	2518	G
1	CA	2519	U
1	CA	2520	C

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Mol	Chain	Res	Type
1	CA	2531	A
1	CA	2536	G
1	CA	2542	G
1	CA	2555	A
1	CA	2556	G
1	CA	2567	U
1	CA	2579	A
1	CA	2580	G
1	CA	2582	G
1	CA	2598	U
1	CA	2605	G
1	CA	2615	A
1	CA	2616	G
1	CA	2622	U
1	CA	2624	U
1	CA	2625	C
1	CA	2642	A
1	CA	2643	G
1	CA	2649	U
1	CA	2659	C
1	CA	2678	A
1	CA	2682	G
1	CA	2686	G
1	CA	2702	U
1	CA	2703	C
1	CA	2715	U
1	CA	2716	C
1	CA	2720	G
1	CA	2726	A
1	CA	2727	A
1	CA	2728	G
1	CA	2740	U
1	CA	2746	G
1	CA	2747	A
1	CA	2758	G
1	CA	2764	A
1	CA	2765	G
1	CA	2766	C
1	CA	2771	A
1	CA	2772	A
1	CA	2775	G
1	CA	2776	G

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Mol	Chain	Res	Type
1	CA	2777	G
1	CA	2780	G
1	CA	2783	C
1	CA	2791	G
1	CA	2792	A
1	CA	2793	U
1	CA	2794	G
1	CA	2795	A
1	CA	2803	C
1	CA	2804	A
1	CA	2805	C
1	CA	2810	U
1	CA	2811	C
1	CA	2812	A
1	CA	2813	A
1	CA	2819	U
1	CA	2831	A
1	CA	2832	A
1	CA	2844	G
1	CA	2845	G
1	CA	2846	A
1	CA	2855	G
1	CA	2860	U
1	CA	2871	A
1	CA	2883	G
1	CA	2884	A
1	CA	2902	A
1	CA	2903	G
1	CA	2904	G
1	CA	2906	C
1	CA	2907	U
2	CB	2	A
2	CB	10	U
2	CB	15	A
2	CB	17	A
2	CB	18	G
2	CB	26	G
2	CB	27	A
2	CB	29	C
2	CB	30	C
2	CB	33	C
2	CB	34	C

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Mol	Chain	Res	Type
2	CB	42	U
2	CB	43	U
2	CB	44	C
2	CB	47	A
2	CB	49	C
2	CB	55	A
2	CB	75	A
2	CB	77	G
2	CB	78	G
2	CB	82	U
2	CB	83	G
2	CB	84	G
2	CB	90	C
2	CB	91	G
2	CB	92	A
2	CB	108	G
2	CB	112	G
2	CB	113	G
31	DA	7	G
31	DA	9	G
31	DA	32	A
31	DA	39	G
31	DA	48	C
31	DA	50	A
31	DA	51	A
31	DA	53	A
31	DA	65	U
31	DA	76	G
31	DA	78	G
31	DA	81	G
31	DA	84	U
31	DA	85	U
31	DA	86	U
31	DA	87	A
31	DA	90	C
31	DA	91	C
31	DA	95	G
31	DA	99	C
31	DA	116	A
31	DA	121	C
31	DA	131	C
31	DA	146	G

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Mol	Chain	Res	Type
31	DA	154	C
31	DA	174	C
31	DA	182	U
31	DA	186(E)	C
31	DA	188	U
31	DA	189	U
31	DA	190	G
31	DA	191(D)	U
31	DA	195	A
31	DA	197	A
31	DA	198	G
31	DA	208	U
31	DA	209	U
31	DA	210	U
31	DA	216	G
31	DA	231	G
31	DA	244	U
31	DA	247	G
31	DA	251	G
31	DA	266	G
31	DA	267	C
31	DA	268	C
31	DA	280	C
31	DA	281	G
31	DA	289	G
31	DA	321	A
31	DA	328	C
31	DA	329	A
31	DA	332	G
31	DA	345	C
31	DA	346	G
31	DA	350	G
31	DA	351	G
31	DA	352	C
31	DA	353	A
31	DA	354	G
31	DA	355	C
31	DA	367	U
31	DA	372	C
31	DA	373	A
31	DA	397	A
31	DA	398	C

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Mol	Chain	Res	Type
31	DA	406	G
31	DA	411	A
31	DA	412	A
31	DA	413	G
31	DA	421	U
31	DA	422	C
31	DA	423	G
31	DA	429	U
31	DA	430	A
31	DA	435	C
31	DA	439	A
31	DA	442	C
31	DA	452	A
31	DA	458	C
31	DA	466	C
31	DA	467	G
31	DA	478	A
31	DA	484	G
31	DA	485	G
31	DA	486	U
31	DA	493	G
31	DA	496	A
31	DA	497	U
31	DA	505	G
31	DA	508	C
31	DA	509	A
31	DA	510	A
31	DA	511	C
31	DA	517	G
31	DA	519	C
31	DA	521	G
31	DA	527	G
31	DA	530	G
31	DA	531	U
31	DA	532	A
31	DA	533	A
31	DA	544	G
31	DA	547	A
31	DA	559	A
31	DA	561	U
31	DA	562	C
31	DA	564	C

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Mol	Chain	Res	Type
31	DA	572	A
31	DA	573	A
31	DA	575	G
31	DA	576	G
31	DA	577	G
31	DA	607	A
31	DA	615	C
31	DA	618	C
31	DA	629	G
31	DA	632	A
31	DA	633	G
31	DA	653	A
31	DA	665	A
31	DA	688	G
31	DA	691	G
31	DA	692	U
31	DA	704	A
31	DA	721	G
31	DA	725	G
31	DA	726	C
31	DA	731	G
31	DA	733	A
31	DA	734	G
31	DA	749	C
31	DA	755	G
31	DA	776	G
31	DA	777	A
31	DA	782	A
31	DA	792	A
31	DA	794	A
31	DA	812	C
31	DA	813	U
31	DA	816	A
31	DA	817	C
31	DA	818	G
31	DA	828	A
31	DA	842	C
31	DA	843	U
31	DA	848	C
31	DA	854	G
31	DA	855	G
31	DA	859	A

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Mol	Chain	Res	Type
31	DA	871	U
31	DA	874	G
31	DA	885	G
31	DA	902	G
31	DA	913	A
31	DA	914	A
31	DA	919	A
31	DA	926	G
31	DA	927	G
31	DA	934	C
31	DA	935	A
31	DA	951	G
31	DA	958	A
31	DA	960	U
31	DA	961	U
31	DA	962	C
31	DA	966	G
31	DA	968	A
31	DA	969	A
31	DA	974	A
31	DA	975	A
31	DA	976	G
31	DA	977	A
31	DA	978	A
31	DA	980	C
31	DA	982	U
31	DA	983	A
31	DA	991	U
31	DA	992	U
31	DA	993	G
31	DA	994	A
31	DA	995	C
31	DA	1004	A
31	DA	1006	C
31	DA	1009	G
31	DA	1016	A
31	DA	1020	U
31	DA	1021	G
31	DA	1023	G
31	DA	1024	G
31	DA	1025	U
31	DA	1026	G

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Mol	Chain	Res	Type
31	DA	1027	C
31	DA	1028	C
31	DA	1029	G
31	DA	1030	C
31	DA	1033	G
31	DA	1035	A
31	DA	1036	G
31	DA	1037	C
31	DA	1040	U
31	DA	1045	C
31	DA	1050	G
31	DA	1053	G
31	DA	1054	C
31	DA	1055	A
31	DA	1056	U
31	DA	1066	C
31	DA	1067	A
31	DA	1073	U
31	DA	1081	G
31	DA	1082	G
31	DA	1086	U
31	DA	1087	G
31	DA	1092	A
31	DA	1094	G
31	DA	1095	U
31	DA	1097	C
31	DA	1101	A
31	DA	1110	A
31	DA	1113	C
31	DA	1117	G
31	DA	1124	G
31	DA	1125	U
31	DA	1127	G
31	DA	1129	C
31	DA	1130	A
31	DA	1131	G
31	DA	1136	U
31	DA	1137	C
31	DA	1138	G
31	DA	1139	G
31	DA	1140	C
31	DA	1146	A

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Mol	Chain	Res	Type
31	DA	1157	A
31	DA	1158	C
31	DA	1159	U
31	DA	1160	G
31	DA	1177	G
31	DA	1178	G
31	DA	1179	A
31	DA	1181	G
31	DA	1182	G
31	DA	1183	A
31	DA	1184	G
31	DA	1187	G
31	DA	1190	G
31	DA	1191	A
31	DA	1196	U
31	DA	1197	G
31	DA	1198	G
31	DA	1200	C
31	DA	1201	A
31	DA	1202	G
31	DA	1212	U
31	DA	1213	A
31	DA	1214	C
31	DA	1225	A
31	DA	1227	A
31	DA	1238	A
31	DA	1240	U
31	DA	1241	G
31	DA	1256	A
31	DA	1257	U
31	DA	1258	G
31	DA	1260	C
31	DA	1263	C
31	DA	1269	A
31	DA	1270	C
31	DA	1278	U
31	DA	1280	A
31	DA	1281	U
31	DA	1286	A
31	DA	1287	A
31	DA	1288	A
31	DA	1290	G

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Mol	Chain	Res	Type
31	DA	1297	C
31	DA	1298	C
31	DA	1299	A
31	DA	1300	G
31	DA	1301	U
31	DA	1303	C
31	DA	1305	G
31	DA	1306	A
31	DA	1317	C
31	DA	1319	A
31	DA	1320	C
31	DA	1322	C
31	DA	1323	G
31	DA	1331	G
31	DA	1335	C
31	DA	1338	G
31	DA	1346	A
31	DA	1347	G
31	DA	1353	G
31	DA	1363	A
31	DA	1364	U
31	DA	1368	G
31	DA	1370	G
31	DA	1379	G
31	DA	1397	C
31	DA	1400	C
31	DA	1404	C
31	DA	1416	G
31	DA	1419	G
31	DA	1442	G
31	DA	1443	G
31	DA	1446	A
31	DA	1447	G
31	DA	1450	U
31	DA	1451	A
31	DA	1452	C
31	DA	1453	G
31	DA	1492	A
31	DA	1494	G
31	DA	1499	A
31	DA	1502	A
31	DA	1503	A

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Mol	Chain	Res	Type
31	DA	1504	G
31	DA	1506	U
31	DA	1507	A
31	DA	1517	G
31	DA	1518	A
31	DA	1519	A
31	DA	1520	G
31	DA	1529	G
52	DB	2	G
52	DB	4	G
52	DB	6	G
52	DB	7	G
52	DB	8	U
52	DB	9	U
52	DB	11	C
52	DB	14	A
52	DB	16	C
52	DB	17	G
52	DB	18	G
52	DB	19	C
52	DB	20	C
52	DB	21	A
52	DB	22	A
52	DB	24	G
52	DB	26	G
52	DB	27	A
52	DB	33	C
52	DB	41	C
52	DB	42	U
52	DB	43	G
52	DB	45	C
52	DB	46	G
52	DB	47	U
52	DB	48	C
52	DB	49	A
52	DB	50	U
52	DB	51	C
52	DB	52	G
52	DB	53	A
52	DB	55	U
52	DB	57	C
52	DB	58	G

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Mol	Chain	Res	Type
52	DB	62	G
52	DB	68	A
52	DB	69	U
52	DB	70	C
52	DB	72	U
52	DB	74	C
52	DB	75	C
52	DB	76	C
52	DB	78	C
52	DB	79	A
52	DB	80	C
52	DB	81	C
52	DB	82	A
52	DB	83	C
52	DB	84	C
53	DC	2	G
53	DC	9	G
53	DC	16	C
53	DC	17	C
53	DC	18	C
53	DC	19	G
53	DC	20	G
53	DC	21	U
53	DC	32	G
53	DC	48	U
53	DC	49	C
53	DC	50	G
53	DC	51	U
53	DC	53	G
53	DC	68	C
52	DD	6	G
52	DD	8	U
52	DD	9	U
52	DD	10	C
52	DD	12	C
52	DD	14	A
52	DD	15	G
52	DD	16	C
52	DD	17	G
52	DD	18	G
52	DD	19	C
52	DD	20	C

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Mol	Chain	Res	Type
52	DD	21	A
52	DD	22	A
52	DD	23	A
52	DD	30	A
52	DD	44	C
52	DD	46	G
52	DD	48	C
52	DD	50	U
52	DD	52	G
52	DD	54	C
52	DD	55	U
52	DD	56	U
52	DD	58	G
52	DD	64	U
52	DD	67	A
52	DD	68	A
52	DD	69	U
52	DD	70	C
52	DD	85	A
54	D1	11	U
54	D1	12	A
54	D1	13	A
54	D1	14	A
54	D1	23	A

All (234) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	196	A
1	AA	222	A
1	AA	229	A
1	AA	270(M)	U
1	AA	270(O)	U
1	AA	271(B)	G
1	AA	322	A
1	AA	404	C
1	AA	481	G
1	AA	587	C
1	AA	654(S)	G
1	AA	752	A
1	AA	880	G
1	AA	945	A

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Mol	Chain	Res	Type
1	AA	974(A)	C
1	AA	998	C
1	AA	1022	G
1	AA	1026	U
1	AA	1060	U
1	AA	1081	U
1	AA	1085	A
1	AA	1130	U
1	AA	1178	C
1	AA	1210	A
1	AA	1312	U
1	AA	1379	A
1	AA	1416	G
1	AA	1420	U
1	AA	1427	A
1	AA	1558	A
1	AA	1653	G
1	AA	1694	C
1	AA	1786	A
1	AA	1799	G
1	AA	1955	U
1	AA	1992	G
1	AA	2060	A
1	AA	2110	G
1	AA	2135	A
1	AA	2157	G
1	AA	2167	U
1	AA	2211	G
1	AA	2346	A
1	AA	2351	G
1	AA	2439	A
1	AA	2481	G
1	AA	2490	G
1	AA	2566	A
1	AA	2610	C
1	AA	2613	U
1	AA	2681	C
1	AA	2689	U
1	AA	2751	G
1	AA	2756	U
31	BA	31	G
31	BA	49	U

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Mol	Chain	Res	Type
31	BA	50	A
31	BA	79	G
31	BA	115	G
31	BA	119	A
31	BA	173	U
31	BA	181	G
31	BA	210	U
31	BA	244	U
31	BA	266	G
31	BA	344	A
31	BA	353	A
31	BA	412	A
31	BA	428	G
31	BA	429	U
31	BA	484	G
31	BA	509	A
31	BA	530	G
31	BA	560	U
31	BA	687	A
31	BA	703	G
31	BA	748	C
31	BA	758	G
31	BA	812	C
31	BA	820	U
31	BA	871	U
31	BA	913	A
31	BA	992	U
31	BA	1025	U
31	BA	1027	C
31	BA	1065	U
31	BA	1126	U
31	BA	1178	G
31	BA	1211	U
31	BA	1285	A
31	BA	1331	G
31	BA	1364	U
31	BA	1452	C
31	BA	1498	U
31	BA	1502	A
31	BA	1504	G
52	BB	3	U
52	BB	6	G

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Mol	Chain	Res	Type
52	BB	17	G
52	BB	18	G
52	BB	19	C
52	BB	46	G
52	BB	52	G
52	BB	57	C
52	BB	75	C
52	BB	78	C
53	BC	19	G
53	BC	48	U
52	BD	17	G
52	BD	18	G
52	BD	21	A
52	BD	57	C
52	BD	67	A
54	B1	11	U
54	B1	12	A
54	B1	13	A
1	CA	48	A
1	CA	70	A
1	CA	126	C
1	CA	194	A
1	CA	195	G
1	CA	303	A
1	CA	611	C
1	CA	679	A
1	CA	699	G
1	CA	717	G
1	CA	800	A
1	CA	838	C
1	CA	848	A
1	CA	925	U
1	CA	936	C
1	CA	940	C
1	CA	1069	G
1	CA	1132	A
1	CA	1136	G
1	CA	1218	G
1	CA	1256	A
1	CA	1426	A
1	CA	1444	U
1	CA	1463	G

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Mol	Chain	Res	Type
1	CA	1467	U
1	CA	1474	A
1	CA	1508	A
1	CA	1606	A
1	CA	1701	G
1	CA	1851	A
1	CA	1978	U
1	CA	2015	G
1	CA	2158	A
1	CA	2214	G
1	CA	2228	G
1	CA	2229	G
1	CA	2238	A
1	CA	2288	C
1	CA	2321	G
1	CA	2452	A
1	CA	2460	G
1	CA	2615	A
1	CA	2623	C
1	CA	2642	A
1	CA	2702	U
1	CA	2765	G
1	CA	2770	U
1	CA	2790	A
1	CA	2804	A
1	CA	2870	G
1	CA	2903	G
2	CB	16	U
2	CB	90	C
31	DA	31	G
31	DA	64	G
31	DA	86	U
31	DA	89	U
31	DA	115	G
31	DA	197	A
31	DA	201	C
31	DA	209	U
31	DA	243	A
31	DA	250	A
31	DA	266	G
31	DA	328	C
31	DA	345	C

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Mol	Chain	Res	Type
31	DA	353	A
31	DA	412	A
31	DA	429	U
31	DA	485	G
31	DA	509	A
31	DA	560	U
31	DA	631	G
31	DA	632	A
31	DA	687	A
31	DA	748	C
31	DA	812	C
31	DA	873	A
31	DA	913	A
31	DA	982	U
31	DA	991	U
31	DA	992	U
31	DA	1025	U
31	DA	1049	U
31	DA	1054	C
31	DA	1126	U
31	DA	1128	C
31	DA	1145	C
31	DA	1157	A
31	DA	1177	G
31	DA	1285	A
31	DA	1297	C
31	DA	1300	G
31	DA	1305	G
31	DA	1346	A
31	DA	1442	G
31	DA	1449	C
31	DA	1498	U
31	DA	1503	A
52	DB	3	U
52	DB	6	G
52	DB	17	G
52	DB	18	G
52	DB	19	C
52	DB	46	G
52	DB	57	C
52	DB	75	C
52	DB	78	C

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Mol	Chain	Res	Type
53	DC	19	G
53	DC	48	U
52	DD	17	G
52	DD	18	G
52	DD	21	A
52	DD	57	C
52	DD	67	A
54	D1	11	U
54	D1	12	A
54	D1	13	A

5.4 Non-standard residues in protein, DNA, RNA chains (i)

4 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
52	MIA	BB	38	52	28,31,32	1.95	3 (10%)	38,44,47	2.53	13 (34%)
52	MIA	DB	38	52	28,31,32	2.02	2 (7%)	38,44,47	2.70	13 (34%)
52	MIA	BD	38	52	28,31,32	1.90	3 (10%)	38,44,47	2.80	12 (31%)
52	MIA	DD	38	52	28,31,32	1.94	3 (10%)	38,44,47	2.58	12 (31%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
52	MIA	BB	38	52	-	3/15/33/34	0/3/3/3
52	MIA	DB	38	52	-	4/15/33/34	0/3/3/3
52	MIA	BD	38	52	-	8/15/33/34	0/3/3/3
52	MIA	DD	38	52	-	8/15/33/34	0/3/3/3

All (11) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
52	DB	38	MIA	C6-N6	7.70	1.46	1.34
52	BB	38	MIA	C6-N6	7.41	1.46	1.34
52	DD	38	MIA	C6-N6	7.37	1.45	1.34
52	BD	38	MIA	C6-N6	7.22	1.45	1.34
52	DB	38	MIA	C13-C14	6.06	1.50	1.32
52	BB	38	MIA	C13-C14	5.90	1.50	1.32
52	DD	38	MIA	C13-C14	5.86	1.50	1.32
52	BD	38	MIA	C13-C14	5.77	1.49	1.32
52	BB	38	MIA	C5-N7	-2.09	1.35	1.39
52	DD	38	MIA	C5-N7	-2.03	1.35	1.39
52	BD	38	MIA	C5-N7	-2.03	1.35	1.39

All (50) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
52	BD	38	MIA	C11-S10-C2	9.55	109.41	102.25
52	DB	38	MIA	C11-S10-C2	9.07	109.06	102.25
52	BB	38	MIA	C5-C4-N3	-7.68	119.09	127.18
52	BD	38	MIA	C5-C4-N3	-7.57	119.20	127.18
52	DB	38	MIA	C5-C4-N3	-7.45	119.33	127.18
52	DD	38	MIA	C11-S10-C2	7.40	107.80	102.25
52	DD	38	MIA	C5-C4-N3	-7.34	119.44	127.18
52	BB	38	MIA	C11-S10-C2	6.23	106.93	102.25
52	BD	38	MIA	C12-C13-C14	-5.72	116.73	127.01
52	DD	38	MIA	C12-C13-C14	-5.30	117.49	127.01
52	BB	38	MIA	C12-C13-C14	-5.16	117.74	127.01
52	BD	38	MIA	N3-C4-N9	4.76	133.03	126.99
52	DD	38	MIA	N3-C4-N9	4.63	132.86	126.99
52	DB	38	MIA	C12-C13-C14	-4.37	119.16	127.01
52	BB	38	MIA	N3-C4-N9	4.31	132.47	126.99
52	DB	38	MIA	N3-C4-N9	4.18	132.29	126.99
52	BB	38	MIA	C4-C5-C6	4.16	120.24	116.78
52	DB	38	MIA	C4-C5-C6	3.95	120.06	116.78
52	DD	38	MIA	C4-C5-C6	3.92	120.04	116.78
52	BB	38	MIA	C4-C5-N7	-3.75	106.29	110.58
52	DB	38	MIA	C4-C5-N7	-3.72	106.33	110.58
52	BD	38	MIA	C4-C5-C6	3.70	119.86	116.78
52	BB	38	MIA	C5-N7-C8	3.37	108.74	103.45
52	BD	38	MIA	N9-C8-N7	-3.36	109.17	113.94
52	BB	38	MIA	N9-C8-N7	-3.34	109.20	113.94
52	DB	38	MIA	N9-C8-N7	-3.34	109.20	113.94
52	DB	38	MIA	C5-N7-C8	3.33	108.68	103.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
52	DD	38	MIA	N9-C8-N7	-3.32	109.22	113.94
52	BD	38	MIA	C4-C5-N7	-3.22	106.90	110.58
52	BD	38	MIA	C15-C14-C13	-3.18	113.12	122.66
52	DD	38	MIA	C4-C5-N7	-3.16	106.97	110.58
52	BD	38	MIA	C5-N7-C8	3.15	108.41	103.45
52	DD	38	MIA	C5-N7-C8	3.09	108.30	103.45
52	DD	38	MIA	C15-C14-C13	-2.99	113.69	122.66
52	BB	38	MIA	C15-C14-C13	-2.90	113.95	122.66
52	DB	38	MIA	C2-N3-C4	2.87	119.81	112.29
52	DB	38	MIA	N3-C2-N1	-2.87	121.76	127.00
52	BD	38	MIA	C2-N3-C4	2.79	119.59	112.29
52	BD	38	MIA	C16-C14-C13	-2.78	114.31	122.66
52	DB	38	MIA	C15-C14-C13	-2.76	114.36	122.66
52	BB	38	MIA	C16-C14-C13	-2.75	114.41	122.66
52	DD	38	MIA	C16-C14-C13	-2.71	114.54	122.66
52	BD	38	MIA	N3-C2-N1	-2.70	122.08	127.00
52	BB	38	MIA	C2-N3-C4	2.66	119.27	112.29
52	DD	38	MIA	C2-N3-C4	2.64	119.21	112.29
52	DD	38	MIA	N3-C2-N1	-2.61	122.24	127.00
52	DB	38	MIA	C16-C14-C13	-2.52	115.09	122.66
52	BB	38	MIA	N3-C2-N1	-2.43	122.57	127.00
52	BB	38	MIA	C5-C4-N9	2.41	108.44	105.81
52	DB	38	MIA	C5-C4-N9	2.36	108.38	105.81

There are no chirality outliers.

All (23) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
52	BB	38	MIA	N1-C2-S10-C11
52	BB	38	MIA	N3-C2-S10-C11
52	BB	38	MIA	C12-C13-C14-C16
52	BD	38	MIA	N1-C2-S10-C11
52	BD	38	MIA	N3-C2-S10-C11
52	BD	38	MIA	C12-C13-C14-C15
52	BD	38	MIA	C12-C13-C14-C16
52	DB	38	MIA	N1-C2-S10-C11
52	DB	38	MIA	N3-C2-S10-C11
52	DB	38	MIA	C12-C13-C14-C15
52	DB	38	MIA	C12-C13-C14-C16
52	DD	38	MIA	N1-C2-S10-C11
52	DD	38	MIA	N3-C2-S10-C11
52	DD	38	MIA	C12-C13-C14-C15

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Mol	Chain	Res	Type	Atoms
52	DD	38	MIA	C12-C13-C14-C16
52	BD	38	MIA	C3'-C4'-C5'-O5'
52	BD	38	MIA	O4'-C4'-C5'-O5'
52	DD	38	MIA	O4'-C4'-C5'-O5'
52	DD	38	MIA	C3'-C4'-C5'-O5'
52	BD	38	MIA	C5-C6-N6-C12
52	BD	38	MIA	N1-C6-N6-C12
52	DD	38	MIA	C5-C6-N6-C12
52	DD	38	MIA	N1-C6-N6-C12

There are no ring outliers.

3 monomers are involved in 10 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
52	DB	38	MIA	2	0
52	BD	38	MIA	3	0
52	DD	38	MIA	5	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1610 ligands modelled in this entry, 898 are monoatomic - leaving 712 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
56	OHX	AA	3523	-	0,6,6	-	-	-		
56	OHX	AA	3138	-	0,6,6	-	-	-		
56	OHX	CA	3291	-	0,6,6	-	-	-		
56	OHX	BA	1668	-	0,6,6	-	-	-		
56	OHX	BA	1682	-	0,6,6	-	-	-		
56	OHX	CB	215	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
56	OHX	AA	3437	-	0,6,6	-	-	-		
56	OHX	BA	1662	-	0,6,6	-	-	-		
56	OHX	BA	1790	-	0,6,6	-	-	-		
56	OHX	AA	3506	-	0,6,6	-	-	-		
56	OHX	DA	1766	-	0,6,6	-	-	-		
56	OHX	CA	3342	-	0,6,6	-	-	-		
56	OHX	AA	3468	-	0,6,6	-	-	-		
56	OHX	CA	3335	-	0,6,6	-	-	-		
56	OHX	AB	212	-	0,6,6	-	-	-		
56	OHX	CA	3244	-	0,6,6	-	-	-		
56	OHX	DA	1776	-	0,6,6	-	-	-		
56	OHX	AB	216	-	0,6,6	-	-	-		
56	OHX	BA	1775	-	0,6,6	-	-	-		
56	OHX	BA	1771	-	0,6,6	-	-	-		
56	OHX	AA	3561	-	0,6,6	-	-	-		
56	OHX	CA	3273	-	0,6,6	-	-	-		
56	OHX	DA	1731	-	0,6,6	-	-	-		
56	OHX	AA	3490	-	0,6,6	-	-	-		
56	OHX	DA	1719	-	0,6,6	-	-	-		
56	OHX	CA	3302	-	0,6,6	-	-	-		
56	OHX	AB	218	-	0,6,6	-	-	-		
56	OHX	CA	3280	-	0,6,6	-	-	-		
56	OHX	DA	1768	-	0,6,6	-	-	-		
56	OHX	AA	3434	-	0,6,6	-	-	-		
56	OHX	CA	3348	-	0,6,6	-	-	-		
56	OHX	AA	3312	-	0,6,6	-	-	-		
56	OHX	AA	3494	-	0,6,6	-	-	-		
56	OHX	AA	3497	-	0,6,6	-	-	-		
56	OHX	AA	3517	-	0,6,6	-	-	-		
56	OHX	CA	3467	55	0,6,6	-	-	-		
56	OHX	AW	101	-	0,6,6	-	-	-		
56	OHX	AF	303	-	0,6,6	-	-	-		
56	OHX	DA	1777	-	0,6,6	-	-	-		
56	OHX	BA	1688	-	0,6,6	-	-	-		
56	OHX	CA	3421	-	0,6,6	-	-	-		
56	OHX	CA	3390	-	0,6,6	-	-	-		
56	OHX	BA	1761	-	0,6,6	-	-	-		
56	OHX	DA	1757	-	0,6,6	-	-	-		
56	OHX	AA	3518	-	0,6,6	-	-	-		
56	OHX	CA	3491	-	0,6,6	-	-	-		
56	OHX	BA	1776	-	0,6,6	-	-	-		
56	OHX	AA	3535	-	0,6,6	-	-	-		
56	OHX	CA	3429	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
56	OHX	DA	1791	-	0,6,6	-	-	-		
56	OHX	CA	3316	-	0,6,6	-	-	-		
56	OHX	AA	3560	-	0,6,6	-	-	-		
56	OHX	BA	1669	-	0,6,6	-	-	-		
56	OHX	CA	3321	-	0,6,6	-	-	-		
56	OHX	BA	1816	-	0,6,6	-	-	-		
56	OHX	BA	1767	-	0,6,6	-	-	-		
56	OHX	CB	208	-	0,6,6	-	-	-		
56	OHX	AA	3324	-	0,6,6	-	-	-		
56	OHX	CA	3345	-	0,6,6	-	-	-		
56	OHX	DA	1744	-	0,6,6	-	-	-		
56	OHX	CA	3481	-	0,6,6	-	-	-		
56	OHX	CA	3418	-	0,6,6	-	-	-		
56	OHX	AA	3310	-	0,6,6	-	-	-		
56	OHX	CA	3424	-	0,6,6	-	-	-		
56	OHX	DA	1793	-	0,6,6	-	-	-		
56	OHX	CA	3279	-	0,6,6	-	-	-		
56	OHX	DA	1780	-	0,6,6	-	-	-		
56	OHX	DA	1812	-	0,6,6	-	-	-		
56	OHX	AA	3428	-	0,6,6	-	-	-		
56	OHX	AA	3424	-	0,6,6	-	-	-		
56	OHX	AA	3367	-	0,6,6	-	-	-		
56	OHX	CA	3306	-	0,6,6	-	-	-		
56	OHX	CA	3436	-	0,6,6	-	-	-		
56	OHX	AA	3370	-	0,6,6	-	-	-		
56	OHX	AA	3307	-	0,6,6	-	-	-		
56	OHX	CB	214	-	0,6,6	-	-	-		
56	OHX	AA	3432	-	0,6,6	-	-	-		
56	OHX	CA	3336	-	0,6,6	-	-	-		
56	OHX	CB	216	-	0,6,6	-	-	-		
56	OHX	DA	1781	-	0,6,6	-	-	-		
56	OHX	AA	3557	-	0,6,6	-	-	-		
56	OHX	CA	3238	-	0,6,6	-	-	-		
56	OHX	DA	1795	-	0,6,6	-	-	-		
56	OHX	BA	1674	55	0,6,6	-	-	-		
56	OHX	CA	3344	-	0,6,6	-	-	-		
56	OHX	CA	3403	-	0,6,6	-	-	-		
56	OHX	AA	3361	-	0,6,6	-	-	-		
56	OHX	AA	3474	-	0,6,6	-	-	-		
56	OHX	CA	3368	-	0,6,6	-	-	-		
56	OHX	AA	3365	-	0,6,6	-	-	-		
56	OHX	AA	3499	-	0,6,6	-	-	-		
56	OHX	AA	3462	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
56	OHX	CA	3256	-	0,6,6	-	-	-		
56	OHX	CA	3242	-	0,6,6	-	-	-		
56	OHX	AB	210	55	0,6,6	-	-	-		
56	OHX	DA	1735	-	0,6,6	-	-	-		
56	OHX	DA	1759	-	0,6,6	-	-	-		
56	OHX	AA	3470	-	0,6,6	-	-	-		
56	OHX	BA	1789	-	0,6,6	-	-	-		
56	OHX	CA	3247	-	0,6,6	-	-	-		
56	OHX	CF	301	-	0,6,6	-	-	-		
56	OHX	CA	3369	-	0,6,6	-	-	-		
56	OHX	DA	1770	-	0,6,6	-	-	-		
56	OHX	DA	1782	-	0,6,6	-	-	-		
56	OHX	BA	1667	-	0,6,6	-	-	-		
56	OHX	BA	1755	-	0,6,6	-	-	-		
56	OHX	BR	101	-	0,6,6	-	-	-		
56	OHX	BA	1695	-	0,6,6	-	-	-		
56	OHX	CA	3393	-	0,6,6	-	-	-		
56	OHX	AA	3315	-	0,6,6	-	-	-		
56	OHX	CA	3326	-	0,6,6	-	-	-		
56	OHX	CA	3438	-	0,6,6	-	-	-		
56	OHX	AA	3473	-	0,6,6	-	-	-		
56	OHX	BA	1797	-	0,6,6	-	-	-		
56	OHX	CA	3416	-	0,6,6	-	-	-		
56	OHX	AA	3504	-	0,6,6	-	-	-		
56	OHX	BA	1768	-	0,6,6	-	-	-		
56	OHX	CA	3489	-	0,6,6	-	-	-		
56	OHX	AA	3322	-	0,6,6	-	-	-		
56	OHX	CA	3236	-	0,6,6	-	-	-		
56	OHX	DA	1761	-	0,6,6	-	-	-		
56	OHX	BA	1678	-	0,6,6	-	-	-		
56	OHX	AA	3516	-	0,6,6	-	-	-		
56	OHX	AA	3496	-	0,6,6	-	-	-		
56	OHX	AA	3292	-	0,6,6	-	-	-		
56	OHX	AA	3426	-	0,6,6	-	-	-		
56	OHX	CA	3322	-	0,6,6	-	-	-		
56	OHX	DA	1756	-	0,6,6	-	-	-		
56	OHX	CA	3355	-	0,6,6	-	-	-		
56	OHX	BA	1759	-	0,6,6	-	-	-		
56	OHX	BA	1783	-	0,6,6	-	-	-		
56	OHX	BA	1659	-	0,6,6	-	-	-		
56	OHX	AA	3550	-	0,6,6	-	-	-		
56	OHX	AA	3419	-	0,6,6	-	-	-		
56	OHX	AA	3449	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	BA	1758	-	0,6,6	-	-	-		
56	OHX	CA	3299	-	0,6,6	-	-	-		
56	OHX	BC	106	-	0,6,6	-	-	-		
56	OHX	AA	3534	-	0,6,6	-	-	-		
56	OHX	CA	3240	-	0,6,6	-	-	-		
56	OHX	CA	3337	-	0,6,6	-	-	-		
56	OHX	DB	103	-	0,6,6	-	-	-		
56	OHX	AA	3459	-	0,6,6	-	-	-		
56	OHX	CA	3372	-	0,6,6	-	-	-		
56	OHX	AA	3501	-	0,6,6	-	-	-		
56	OHX	AA	3301	-	0,6,6	-	-	-		
56	OHX	AA	3359	-	0,6,6	-	-	-		
56	OHX	C1	201	-	0,6,6	-	-	-		
56	OHX	AA	3425	-	0,6,6	-	-	-		
56	OHX	CA	3391	-	0,6,6	-	-	-		
56	OHX	AA	3469	-	0,6,6	-	-	-		
56	OHX	CA	3371	-	0,6,6	-	-	-		
56	OHX	BA	1766	-	0,6,6	-	-	-		
56	OHX	DA	1809	-	0,6,6	-	-	-		
56	OHX	AA	3407	-	0,6,6	-	-	-		
56	OHX	CA	3329	-	0,6,6	-	-	-		
56	OHX	CA	3237	-	0,6,6	-	-	-		
56	OHX	CA	3303	-	0,6,6	-	-	-		
56	OHX	BA	1756	-	0,6,6	-	-	-		
56	OHX	BA	1815	-	0,6,6	-	-	-		
56	OHX	AA	3334	-	0,6,6	-	-	-		
56	OHX	CA	3485	-	0,6,6	-	-	-		
56	OHX	DA	1811	-	0,6,6	-	-	-		
56	OHX	AA	3545	-	0,6,6	-	-	-		
56	OHX	BA	1675	-	0,6,6	-	-	-		
56	OHX	CA	3435	-	0,6,6	-	-	-		
56	OHX	CA	3341	-	0,6,6	-	-	-		
56	OHX	CA	3354	-	0,6,6	-	-	-		
56	OHX	AA	3460	-	0,6,6	-	-	-		
56	OHX	BC	107	-	0,6,6	-	-	-		
56	OHX	DA	1802	-	0,6,6	-	-	-		
56	OHX	CA	3332	-	0,6,6	-	-	-		
56	OHX	DA	1810	-	0,6,6	-	-	-		
56	OHX	CA	3362	-	0,6,6	-	-	-		
56	OHX	CA	3283	-	0,6,6	-	-	-		
56	OHX	CA	3269	-	0,6,6	-	-	-		
56	OHX	AA	3363	-	0,6,6	-	-	-		
56	OHX	DC	110	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	CA	3382	-	0,6,6	-	-	-		
56	OHX	CA	3308	-	0,6,6	-	-	-		
56	OHX	CA	3300	-	0,6,6	-	-	-		
56	OHX	DA	1758	-	0,6,6	-	-	-		
56	OHX	DA	1788	-	0,6,6	-	-	-		
56	OHX	CB	212	-	0,6,6	-	-	-		
56	OHX	AA	3309	-	0,6,6	-	-	-		
56	OHX	BA	1802	-	0,6,6	-	-	-		
56	OHX	CA	3398	-	0,6,6	-	-	-		
56	OHX	CA	3425	-	0,6,6	-	-	-		
56	OHX	AA	3368	-	0,6,6	-	-	-		
56	OHX	BA	1798	-	0,6,6	-	-	-		
56	OHX	CA	3340	-	0,6,6	-	-	-		
56	OHX	DA	1765	-	0,6,6	-	-	-		
56	OHX	BA	1696	-	0,6,6	-	-	-		
56	OHX	AA	3491	-	0,6,6	-	-	-		
56	OHX	BA	1760	-	0,6,6	-	-	-		
56	OHX	CA	3293	-	0,6,6	-	-	-		
56	OHX	CA	3378	-	0,6,6	-	-	-		
56	OHX	BA	1801	-	0,6,6	-	-	-		
56	OHX	BA	1811	-	0,6,6	-	-	-		
56	OHX	AA	3540	-	0,6,6	-	-	-		
56	OHX	CB	218	-	0,6,6	-	-	-		
56	OHX	DA	1808	-	0,6,6	-	-	-		
56	OHX	CA	3252	-	0,6,6	-	-	-		
56	OHX	BA	1814	-	0,6,6	-	-	-		
56	OHX	AA	3327	-	0,6,6	-	-	-		
56	OHX	AA	3330	-	0,6,6	-	-	-		
56	OHX	BA	1685	-	0,6,6	-	-	-		
56	OHX	DA	1728	-	0,6,6	-	-	-		
56	OHX	DB	105	-	0,6,6	-	-	-		
56	OHX	AA	3302	-	0,6,6	-	-	-		
56	OHX	DA	1784	-	0,6,6	-	-	-		
56	OHX	AA	3531	-	0,6,6	-	-	-		
56	OHX	BA	1806	-	0,6,6	-	-	-		
56	OHX	BA	1774	-	0,6,6	-	-	-		
56	OHX	CA	3248	-	0,6,6	-	-	-		
56	OHX	AA	3364	-	0,6,6	-	-	-		
56	OHX	AA	3436	55	0,6,6	-	-	-		
56	OHX	BA	1677	-	0,6,6	-	-	-		
56	OHX	CA	3254	-	0,6,6	-	-	-		
56	OHX	AA	3448	-	0,6,6	-	-	-		
56	OHX	CA	3408	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	AA	3332	-	0,6,6	-	-	-		
56	OHX	CA	3349	-	0,6,6	-	-	-		
56	OHX	AA	3304	-	0,6,6	-	-	-		
56	OHX	A3	102	-	0,6,6	-	-	-		
56	OHX	DA	1794	-	0,6,6	-	-	-		
56	OHX	AA	3482	-	0,6,6	-	-	-		
56	OHX	BA	1809	-	0,6,6	-	-	-		
56	OHX	AA	3372	-	0,6,6	-	-	-		
56	OHX	BA	1681	-	0,6,6	-	-	-		
56	OHX	CA	3434	-	0,6,6	-	-	-		
56	OHX	CA	3488	-	0,6,6	-	-	-		
56	OHX	AA	3299	-	0,6,6	-	-	-		
56	OHX	BA	1808	-	0,6,6	-	-	-		
56	OHX	CA	3310	-	0,6,6	-	-	-		
56	OHX	CA	3411	-	0,6,6	-	-	-		
56	OHX	CA	3466	-	0,6,6	-	-	-		
56	OHX	CA	3392	-	0,6,6	-	-	-		
56	OHX	CA	3292	-	0,6,6	-	-	-		
56	OHX	BA	1683	-	0,6,6	-	-	-		
56	OHX	AA	3486	-	0,6,6	-	-	-		
56	OHX	BA	1803	-	0,6,6	-	-	-		
56	OHX	CA	3274	-	0,6,6	-	-	-		
56	OHX	CA	3307	-	0,6,6	-	-	-		
56	OHX	AA	3405	-	0,6,6	-	-	-		
56	OHX	AA	3433	-	0,6,6	-	-	-		
56	OHX	CA	3325	-	0,6,6	-	-	-		
56	OHX	DG	302	-	0,6,6	-	-	-		
56	OHX	CA	3358	-	0,6,6	-	-	-		
56	OHX	CA	3395	-	0,6,6	-	-	-		
56	OHX	CA	3353	-	0,6,6	-	-	-		
56	OHX	DR	101	-	0,6,6	-	-	-		
56	OHX	C3	101	-	0,6,6	-	-	-		
56	OHX	DA	1718	-	0,6,6	-	-	-		
56	OHX	BA	1813	-	0,6,6	-	-	-		
56	OHX	BA	1800	-	0,6,6	-	-	-		
56	OHX	AA	3287	-	0,6,6	-	-	-		
56	OHX	AA	3530	-	0,6,6	-	-	-		
56	OHX	CA	3484	-	0,6,6	-	-	-		
56	OHX	AA	3342	-	0,6,6	-	-	-		
56	OHX	CA	3461	-	0,6,6	-	-	-		
56	OHX	AA	3542	-	0,6,6	-	-	-		
56	OHX	CA	3311	-	0,6,6	-	-	-		
56	OHX	DA	1721	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
56	OHX	AA	3263	-	0,6,6	-	-	-		
56	OHX	AA	3366	-	0,6,6	-	-	-		
56	OHX	AA	3519	-	0,6,6	-	-	-		
56	OHX	CA	3251	-	0,6,6	-	-	-		
56	OHX	BA	1661	-	0,6,6	-	-	-		
56	OHX	DA	1801	-	0,6,6	-	-	-		
56	OHX	CA	3249	55	0,6,6	-	-	-		
56	OHX	DA	1751	-	0,6,6	-	-	-		
56	OHX	CA	3414	-	0,6,6	-	-	-		
56	OHX	CA	3284	-	0,6,6	-	-	-		
56	OHX	AA	3360	-	0,6,6	-	-	-		
56	OHX	AA	3538	-	0,6,6	-	-	-		
56	OHX	BB	106	-	0,6,6	-	-	-		
56	OHX	AA	3521	-	0,6,6	-	-	-		
56	OHX	CA	3360	-	0,6,6	-	-	-		
56	OHX	CA	3423	-	0,6,6	-	-	-		
56	OHX	CA	3323	-	0,6,6	-	-	-		
56	OHX	CA	3359	-	0,6,6	-	-	-		
56	OHX	BA	1656	-	0,6,6	-	-	-		
56	OHX	CA	3365	-	0,6,6	-	-	-		
56	OHX	DA	1729	-	0,6,6	-	-	-		
56	OHX	AA	3562	-	0,6,6	-	-	-		
56	OHX	CA	3298	-	0,6,6	-	-	-		
56	OHX	AA	3524	-	0,6,6	-	-	-		
56	OHX	CA	3318	-	0,6,6	-	-	-		
56	OHX	AA	3547	-	0,6,6	-	-	-		
56	OHX	AA	3323	-	0,6,6	-	-	-		
56	OHX	DA	1755	-	0,6,6	-	-	-		
56	OHX	AB	215	-	0,6,6	-	-	-		
56	OHX	DA	1743	-	0,6,6	-	-	-		
56	OHX	AA	3404	-	0,6,6	-	-	-		
56	OHX	AA	3328	-	0,6,6	-	-	-		
56	OHX	CA	3379	-	0,6,6	-	-	-		
56	OHX	CA	3410	-	0,6,6	-	-	-		
56	OHX	AA	3295	-	0,6,6	-	-	-		
56	OHX	BA	1691	-	0,6,6	-	-	-		
56	OHX	CA	3343	-	0,6,6	-	-	-		
56	OHX	BA	1794	-	0,6,6	-	-	-		
56	OHX	CA	3394	-	0,6,6	-	-	-		
56	OHX	DA	1797	-	0,6,6	-	-	-		
56	OHX	AA	3321	-	0,6,6	-	-	-		
56	OHX	AA	3447	-	0,6,6	-	-	-		
56	OHX	BA	1778	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
56	OHX	AA	3485	-	0,6,6	-	-	-		
56	OHX	DA	1796	-	0,6,6	-	-	-		
56	OHX	AA	3406	-	0,6,6	-	-	-		
56	OHX	AA	3559	-	0,6,6	-	-	-		
56	OHX	CA	3386	-	0,6,6	-	-	-		
56	OHX	BB	107	-	0,6,6	-	-	-		
56	OHX	AA	3288	-	0,6,6	-	-	-		
56	OHX	AA	3466	-	0,6,6	-	-	-		
56	OHX	AA	3548	-	0,6,6	-	-	-		
56	OHX	DA	1779	-	0,6,6	-	-	-		
56	OHX	AA	3297	-	0,6,6	-	-	-		
56	OHX	AA	3509	-	0,6,6	-	-	-		
56	OHX	CA	3364	-	0,6,6	-	-	-		
56	OHX	CA	3287	-	0,6,6	-	-	-		
56	OHX	DA	1764	-	0,6,6	-	-	-		
56	OHX	BA	1763	-	0,6,6	-	-	-		
56	OHX	DA	1785	-	0,6,6	-	-	-		
56	OHX	AA	3450	-	0,6,6	-	-	-		
56	OHX	CA	3333	-	0,6,6	-	-	-		
56	OHX	AA	3160	-	0,6,6	-	-	-		
56	OHX	AA	3431	-	0,6,6	-	-	-		
56	OHX	AO	204	-	0,6,6	-	-	-		
56	OHX	CA	3492	-	0,6,6	-	-	-		
56	OHX	AA	3300	-	0,6,6	-	-	-		
56	OHX	AA	3508	55	0,6,6	-	-	-		
56	OHX	AB	207	-	0,6,6	-	-	-		
56	OHX	CA	3427	-	0,6,6	-	-	-		
56	OHX	BA	1692	-	0,6,6	-	-	-		
56	OHX	CA	3350	-	0,6,6	-	-	-		
56	OHX	CA	3470	-	0,6,6	-	-	-		
56	OHX	AA	3427	-	0,6,6	-	-	-		
56	OHX	CB	219	-	0,6,6	-	-	-		
56	OHX	DA	1724	-	0,6,6	-	-	-		
56	OHX	CA	3377	-	0,6,6	-	-	-		
56	OHX	AA	3296	-	0,6,6	-	-	-		
56	OHX	AA	3453	-	0,6,6	-	-	-		
56	OHX	AA	3498	-	0,6,6	-	-	-		
56	OHX	CA	3363	-	0,6,6	-	-	-		
56	OHX	CA	3415	-	0,6,6	-	-	-		
56	OHX	AB	211	-	0,6,6	-	-	-		
56	OHX	DA	1763	-	0,6,6	-	-	-		
56	OHX	BA	1793	-	0,6,6	-	-	-		
56	OHX	CA	3276	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
56	OHX	BA	1780	-	0,6,6	-	-	-		
56	OHX	CB	220	-	0,6,6	-	-	-		
56	OHX	AA	3336	-	0,6,6	-	-	-		
56	OHX	CA	3331	-	0,6,6	-	-	-		
56	OHX	AA	3539	-	0,6,6	-	-	-		
56	OHX	CA	3419	-	0,6,6	-	-	-		
56	OHX	BA	1785	-	0,6,6	-	-	-		
56	OHX	AA	3339	-	0,6,6	-	-	-		
56	OHX	CA	3367	-	0,6,6	-	-	-		
56	OHX	DA	1726	-	0,6,6	-	-	-		
56	OHX	CA	3426	-	0,6,6	-	-	-		
56	OHX	AA	3511	-	0,6,6	-	-	-		
56	OHX	AA	3326	-	0,6,6	-	-	-		
56	OHX	AA	3438	-	0,6,6	-	-	-		
56	OHX	AA	3565	-	0,6,6	-	-	-		
56	OHX	AA	3489	-	0,6,6	-	-	-		
56	OHX	DC	108	-	0,6,6	-	-	-		
56	OHX	DV	101	-	0,6,6	-	-	-		
56	OHX	BA	1676	-	0,6,6	-	-	-		
56	OHX	CA	3243	-	0,6,6	-	-	-		
56	OHX	AA	3507	-	0,6,6	-	-	-		
56	OHX	CA	3420	-	0,6,6	-	-	-		
56	OHX	AA	3476	-	0,6,6	-	-	-		
56	OHX	AA	3429	-	0,6,6	-	-	-		
56	OHX	CA	3304	-	0,6,6	-	-	-		
56	OHX	DA	1749	-	0,6,6	-	-	-		
56	OHX	AA	3316	-	0,6,6	-	-	-		
56	OHX	AA	3446	-	0,6,6	-	-	-		
56	OHX	CA	3375	-	0,6,6	-	-	-		
56	OHX	BA	1791	-	0,6,6	-	-	-		
56	OHX	CA	3431	-	0,6,6	-	-	-		
56	OHX	DA	1727	-	0,6,6	-	-	-		
56	OHX	CA	3255	-	0,6,6	-	-	-		
56	OHX	AA	3541	-	0,6,6	-	-	-		
56	OHX	DA	1787	-	0,6,6	-	-	-		
56	OHX	CA	3234	-	0,6,6	-	-	-		
56	OHX	CA	3278	-	0,6,6	-	-	-		
56	OHX	CA	3245	-	0,6,6	-	-	-		
56	OHX	AA	3454	-	0,6,6	-	-	-		
56	OHX	AA	3527	-	0,6,6	-	-	-		
56	OHX	CA	3433	-	0,6,6	-	-	-		
56	OHX	AA	3484	-	0,6,6	-	-	-		
56	OHX	AA	3401	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
56	OHX	CA	3246	-	0,6,6	-	-	-		
56	OHX	AA	3313	-	0,6,6	-	-	-		
56	OHX	DA	1739	-	0,6,6	-	-	-		
56	OHX	BA	1665	-	0,6,6	-	-	-		
56	OHX	BA	1670	-	0,6,6	-	-	-		
56	OHX	CA	3397	-	0,6,6	-	-	-		
56	OHX	BA	1795	-	0,6,6	-	-	-		
56	OHX	CA	3486	-	0,6,6	-	-	-		
56	OHX	AA	3329	-	0,6,6	-	-	-		
56	OHX	DA	1807	-	0,6,6	-	-	-		
56	OHX	CA	3400	-	0,6,6	-	-	-		
56	OHX	AA	3502	-	0,6,6	-	-	-		
56	OHX	CA	3357	-	0,6,6	-	-	-		
56	OHX	AA	3311	-	0,6,6	-	-	-		
56	OHX	BA	1777	-	0,6,6	-	-	-		
56	OHX	CA	3272	-	0,6,6	-	-	-		
56	OHX	AA	3566	-	0,6,6	-	-	-		
56	OHX	AA	3317	-	0,6,6	-	-	-		
56	OHX	AA	3417	-	0,6,6	-	-	-		
56	OHX	AA	3505	-	0,6,6	-	-	-		
56	OHX	BA	1757	-	0,6,6	-	-	-		
56	OHX	CA	3428	-	0,6,6	-	-	-		
56	OHX	DA	1790	-	0,6,6	-	-	-		
56	OHX	BA	1787	-	0,6,6	-	-	-		
56	OHX	CA	3235	-	0,6,6	-	-	-		
56	OHX	CA	3490	-	0,6,6	-	-	-		
56	OHX	DA	1771	-	0,6,6	-	-	-		
56	OHX	BA	1684	-	0,6,6	-	-	-		
56	OHX	AA	3555	-	0,6,6	-	-	-		
56	OHX	CA	3463	-	0,6,6	-	-	-		
56	OHX	AA	3455	-	0,6,6	-	-	-		
56	OHX	AA	3503	-	0,6,6	-	-	-		
56	OHX	AA	3333	55	0,6,6	-	-	-		
56	OHX	AA	3495	-	0,6,6	-	-	-		
56	OHX	AA	3546	-	0,6,6	-	-	-		
56	OHX	AA	3522	-	0,6,6	-	-	-		
56	OHX	CA	3380	-	0,6,6	-	-	-		
56	OHX	DC	107	-	0,6,6	-	-	-		
56	OHX	CA	3399	-	0,6,6	-	-	-		
56	OHX	AA	3493	-	0,6,6	-	-	-		
56	OHX	AA	3471	-	0,6,6	-	-	-		
56	OHX	DA	1745	-	0,6,6	-	-	-		
56	OHX	CA	3389	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
56	OHX	BA	1657	-	0,6,6	-	-	-		
56	OHX	CA	3384	-	0,6,6	-	-	-		
56	OHX	DA	1762	-	0,6,6	-	-	-		
56	OHX	AA	3481	-	0,6,6	-	-	-		
56	OHX	AA	3418	-	0,6,6	-	-	-		
56	OHX	BA	1807	-	0,6,6	-	-	-		
56	OHX	BD	103	-	0,6,6	-	-	-		
56	OHX	CA	3327	-	0,6,6	-	-	-		
56	OHX	CA	3385	-	0,6,6	-	-	-		
56	OHX	AA	3154	-	0,6,6	-	-	-		
56	OHX	CA	3338	-	0,6,6	-	-	-		
56	OHX	AA	3563	-	0,6,6	-	-	-		
56	OHX	AA	3294	-	0,6,6	-	-	-		
56	OHX	AA	3293	-	0,6,6	-	-	-		
56	OHX	DA	1767	-	0,6,6	-	-	-		
56	OHX	AA	3305	-	0,6,6	-	-	-		
56	OHX	BA	1773	-	0,6,6	-	-	-		
56	OHX	AA	3472	-	0,6,6	-	-	-		
56	OHX	CA	3430	-	0,6,6	-	-	-		
56	OHX	CA	3324	-	0,6,6	-	-	-		
56	OHX	CA	3374	-	0,6,6	-	-	-		
56	OHX	BG	302	-	0,6,6	-	-	-		
56	OHX	AA	3564	-	0,6,6	-	-	-		
56	OHX	DA	1734	-	0,6,6	-	-	-		
56	OHX	DA	1760	-	0,6,6	-	-	-		
56	OHX	AE	304	-	0,6,6	-	-	-		
56	OHX	CA	3297	-	0,6,6	-	-	-		
56	OHX	CA	3253	-	0,6,6	-	-	-		
56	OHX	AA	3337	-	0,6,6	-	-	-		
56	OHX	DA	1774	-	0,6,6	-	-	-		
56	OHX	BA	1762	-	0,6,6	-	-	-		
56	OHX	AA	3445	-	0,6,6	-	-	-		
56	OHX	CA	3290	55	0,6,6	-	-	-		
56	OHX	CA	3432	-	0,6,6	-	-	-		
56	OHX	AA	3458	-	0,6,6	-	-	-		
56	OHX	AO	205	-	0,6,6	-	-	-		
56	OHX	AA	3452	-	0,6,6	-	-	-		
56	OHX	AA	3526	55	0,6,6	-	-	-		
56	OHX	CA	3413	-	0,6,6	-	-	-		
56	OHX	AA	3556	-	0,6,6	-	-	-		
56	OHX	BD	102	-	0,6,6	-	-	-		
56	OHX	DA	1792	-	0,6,6	-	-	-		
56	OHX	DA	1732	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	DA	1737	-	0,6,6	-	-	-		
56	OHX	AA	3399	-	0,6,6	-	-	-		
56	OHX	CA	3361	-	0,6,6	-	-	-		
56	OHX	BA	1772	-	0,6,6	-	-	-		
56	OHX	AA	3303	-	0,6,6	-	-	-		
56	OHX	BD	104	-	0,6,6	-	-	-		
56	OHX	DA	1804	-	0,6,6	-	-	-		
56	OHX	CA	3402	-	0,6,6	-	-	-		
56	OHX	AA	3500	-	0,6,6	-	-	-		
56	OHX	AA	3537	-	0,6,6	-	-	-		
56	OHX	AA	3536	-	0,6,6	-	-	-		
56	OHX	AA	3544	-	0,6,6	-	-	-		
56	OHX	CA	3412	-	0,6,6	-	-	-		
56	OHX	DA	1741	-	0,6,6	-	-	-		
56	OHX	CA	3296	-	0,6,6	-	-	-		
56	OHX	AA	3552	-	0,6,6	-	-	-		
56	OHX	CA	3401	-	0,6,6	-	-	-		
56	OHX	CA	3315	-	0,6,6	-	-	-		
56	OHX	CA	3404	-	0,6,6	-	-	-		
56	OHX	AA	3478	-	0,6,6	-	-	-		
56	OHX	AB	219	-	0,6,6	-	-	-		
56	OHX	A1	202	-	0,6,6	-	-	-		
56	OHX	AA	3463	-	0,6,6	-	-	-		
56	OHX	BA	1810	-	0,6,6	-	-	-		
56	OHX	CA	3352	-	0,6,6	-	-	-		
56	OHX	CA	3450	-	0,6,6	-	-	-		
56	OHX	CA	3285	-	0,6,6	-	-	-		
56	OHX	DA	1769	-	0,6,6	-	-	-		
56	OHX	DA	1789	-	0,6,6	-	-	-		
56	OHX	AA	3440	-	0,6,6	-	-	-		
56	OHX	CA	3396	-	0,6,6	-	-	-		
56	OHX	AA	3549	-	0,6,6	-	-	-		
56	OHX	CA	3465	-	0,6,6	-	-	-		
56	OHX	AA	3457	-	0,6,6	-	-	-		
56	OHX	AA	3439	-	0,6,6	-	-	-		
56	OHX	CA	3232	-	0,6,6	-	-	-		
56	OHX	DA	1805	-	0,6,6	-	-	-		
56	OHX	AA	3520	-	0,6,6	-	-	-		
56	OHX	AA	3475	-	0,6,6	-	-	-		
56	OHX	AA	3558	-	0,6,6	-	-	-		
56	OHX	BA	1666	-	0,6,6	-	-	-		
56	OHX	DA	1806	-	0,6,6	-	-	-		
56	OHX	BA	1779	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	AA	3403	-	0,6,6	-	-	-		
56	OHX	BA	1765	-	0,6,6	-	-	-		
56	OHX	DA	1750	-	0,6,6	-	-	-		
56	OHX	CA	3351	-	0,6,6	-	-	-		
56	OHX	DA	1773	-	0,6,6	-	-	-		
56	OHX	CA	3356	-	0,6,6	-	-	-		
56	OHX	AA	3314	-	0,6,6	-	-	-		
56	OHX	AA	3529	-	0,6,6	-	-	-		
56	OHX	CB	211	-	0,6,6	-	-	-		
56	OHX	DK	201	-	0,6,6	-	-	-		
56	OHX	DA	1733	-	0,6,6	-	-	-		
56	OHX	BA	1686	-	0,6,6	-	-	-		
56	OHX	AA	3554	-	0,6,6	-	-	-		
56	OHX	AA	3318	-	0,6,6	-	-	-		
56	OHX	BA	1689	-	0,6,6	-	-	-		
56	OHX	BA	1769	-	0,6,6	-	-	-		
56	OHX	BA	1799	-	0,6,6	-	-	-		
56	OHX	AA	3430	-	0,6,6	-	-	-		
56	OHX	C6	101	-	0,6,6	-	-	-		
56	OHX	DA	1783	-	0,6,6	-	-	-		
56	OHX	AA	3442	-	0,6,6	-	-	-		
56	OHX	BA	1784	-	0,6,6	-	-	-		
56	OHX	CA	3277	-	0,6,6	-	-	-		
56	OHX	DA	1748	-	0,6,6	-	-	-		
56	OHX	CA	3319	-	0,6,6	-	-	-		
56	OHX	CA	3328	-	0,6,6	-	-	-		
56	OHX	A1	203	-	0,6,6	-	-	-		
56	OHX	BA	1694	-	0,6,6	-	-	-		
56	OHX	CA	3281	-	0,6,6	-	-	-		
56	OHX	DA	1753	-	0,6,6	-	-	-		
56	OHX	CA	3469	-	0,6,6	-	-	-		
56	OHX	CB	217	-	0,6,6	-	-	-		
56	OHX	AA	3362	-	0,6,6	-	-	-		
56	OHX	CA	3294	-	0,6,6	-	-	-		
56	OHX	CA	3388	-	0,6,6	-	-	-		
56	OHX	AA	3289	-	0,6,6	-	-	-		
56	OHX	BA	1680	55	0,6,6	-	-	-		
56	OHX	CA	3464	-	0,6,6	-	-	-		
56	OHX	DA	1772	-	0,6,6	-	-	-		
56	OHX	AA	3567	-	0,6,6	-	-	-		
56	OHX	AA	3477	-	0,6,6	-	-	-		
56	OHX	CA	3366	-	0,6,6	-	-	-		
56	OHX	BA	1671	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	CA	3334	-	0,6,6	-	-	-		
56	OHX	AA	3444	-	0,6,6	-	-	-		
56	OHX	CA	3233	-	0,6,6	-	-	-		
56	OHX	BA	1792	-	0,6,6	-	-	-		
56	OHX	CA	3487	-	0,6,6	-	-	-		
56	OHX	AA	3290	-	0,6,6	-	-	-		
56	OHX	AA	3488	-	0,6,6	-	-	-		
56	OHX	CO	201	-	0,6,6	-	-	-		
56	OHX	AA	3568	-	0,6,6	-	-	-		
56	OHX	AA	3402	-	0,6,6	-	-	-		
56	OHX	BA	1804	-	0,6,6	-	-	-		
56	OHX	CA	3381	-	0,6,6	-	-	-		
56	OHX	A6	101	-	0,6,6	-	-	-		
56	OHX	CA	3320	55	0,6,6	-	-	-		
56	OHX	CA	3286	-	0,6,6	-	-	-		
56	OHX	DA	1722	-	0,6,6	-	-	-		
56	OHX	CA	3387	-	0,6,6	-	-	-		
56	OHX	AA	3291	-	0,6,6	-	-	-		
56	OHX	CA	3309	-	0,6,6	-	-	-		
56	OHX	CA	3317	-	0,6,6	-	-	-		
56	OHX	AA	3569	-	0,6,6	-	-	-		
56	OHX	AA	3543	55	0,6,6	-	-	-		
56	OHX	AA	3480	-	0,6,6	-	-	-		
56	OHX	BA	1664	-	0,6,6	-	-	-		
56	OHX	AA	3320	-	0,6,6	-	-	-		
56	OHX	AA	3461	-	0,6,6	-	-	-		
56	OHX	AA	3335	-	0,6,6	-	-	-		
56	OHX	AA	3479	-	0,6,6	-	-	-		
56	OHX	DA	1803	-	0,6,6	-	-	-		
56	OHX	AA	3319	-	0,6,6	-	-	-		
56	OHX	BA	1672	-	0,6,6	-	-	-		
56	OHX	AA	3525	55	0,6,6	-	-	-		
56	OHX	CA	3295	-	0,6,6	-	-	-		
56	OHX	AA	3513	-	0,6,6	-	-	-		
56	OHX	CA	3339	-	0,6,6	-	-	-		
56	OHX	DA	1746	-	0,6,6	-	-	-		
56	OHX	AA	3435	-	0,6,6	-	-	-		
56	OHX	AA	3341	-	0,6,6	-	-	-		
56	OHX	BA	1690	-	0,6,6	-	-	-		
56	OHX	CA	3383	-	0,6,6	-	-	-		
56	OHX	BA	1764	-	0,6,6	-	-	-		
56	OHX	CA	3288	-	0,6,6	-	-	-		
56	OHX	AA	3528	55	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	CA	3239	-	0,6,6	-	-	-		
56	OHX	CA	3312	-	0,6,6	-	-	-		
56	OHX	DA	1800	-	0,6,6	-	-	-		
56	OHX	AB	208	-	0,6,6	-	-	-		
56	OHX	AA	3422	55	0,6,6	-	-	-		
56	OHX	AA	3456	-	0,6,6	-	-	-		
56	OHX	AA	3423	-	0,6,6	-	-	-		
56	OHX	AA	3551	-	0,6,6	-	-	-		
56	OHX	BA	1679	-	0,6,6	-	-	-		
56	OHX	BA	1693	-	0,6,6	-	-	-		
56	OHX	CA	3409	-	0,6,6	-	-	-		
56	OHX	DA	1730	-	0,6,6	-	-	-		
56	OHX	DA	1742	-	0,6,6	-	-	-		
56	OHX	AA	3421	-	0,6,6	-	-	-		
56	OHX	CA	3482	-	0,6,6	-	-	-		
56	OHX	AB	214	-	0,6,6	-	-	-		
56	OHX	BA	1663	-	0,6,6	-	-	-		
56	OHX	CA	3407	-	0,6,6	-	-	-		
56	OHX	AA	3306	-	0,6,6	-	-	-		
56	OHX	DA	1752	-	0,6,6	-	-	-		
56	OHX	DA	1786	-	0,6,6	-	-	-		
56	OHX	AA	3483	-	0,6,6	-	-	-		
56	OHX	CA	3483	-	0,6,6	-	-	-		
56	OHX	DA	1740	-	0,6,6	-	-	-		
56	OHX	AB	209	-	0,6,6	-	-	-		
56	OHX	BA	1805	-	0,6,6	-	-	-		
56	OHX	CA	3282	-	0,6,6	-	-	-		
56	OHX	BA	1812	-	0,6,6	-	-	-		
56	OHX	CA	3250	-	0,6,6	-	-	-		
56	OHX	CA	3271	-	0,6,6	-	-	-		
56	OHX	BA	1687	-	0,6,6	-	-	-		
56	OHX	CA	3346	-	0,6,6	-	-	-		
56	OHX	CA	3313	-	0,6,6	-	-	-		
56	OHX	AA	3371	-	0,6,6	-	-	-		
56	OHX	AA	3514	-	0,6,6	-	-	-		
56	OHX	AB	213	-	0,6,6	-	-	-		
56	OHX	DA	1736	-	0,6,6	-	-	-		
56	OHX	AA	3451	-	0,6,6	-	-	-		
56	OHX	CA	3468	-	0,6,6	-	-	-		
56	OHX	AA	3441	-	0,6,6	-	-	-		
56	OHX	AA	3443	-	0,6,6	-	-	-		
56	OHX	CA	3437	-	0,6,6	-	-	-		
56	OHX	DA	1723	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	CA	3370	-	0,6,6	-	-	-		
56	OHX	CB	210	-	0,6,6	-	-	-		
56	OHX	CA	3241	-	0,6,6	-	-	-		
56	OHX	AA	3147	-	0,6,6	-	-	-		
56	OHX	AA	3308	-	0,6,6	-	-	-		
56	OHX	BA	1781	-	0,6,6	-	-	-		
56	OHX	AA	3369	-	0,6,6	-	-	-		
56	OHX	CA	3275	-	0,6,6	-	-	-		
56	OHX	CA	3373	-	0,6,6	-	-	-		
56	OHX	BA	1788	55	0,6,6	-	-	-		
56	OHX	AA	3465	-	0,6,6	-	-	-		
56	OHX	AA	3492	-	0,6,6	-	-	-		
56	OHX	AA	3467	-	0,6,6	-	-	-		
56	OHX	AB	217	-	0,6,6	-	-	-		
56	OHX	AA	3400	-	0,6,6	-	-	-		
56	OHX	AA	3510	-	0,6,6	-	-	-		
56	OHX	AA	3373	-	0,6,6	-	-	-		
56	OHX	DA	1754	-	0,6,6	-	-	-		
56	OHX	AA	3298	-	0,6,6	-	-	-		
56	OHX	C5	102	-	0,6,6	-	-	-		
56	OHX	CA	3405	-	0,6,6	-	-	-		
56	OHX	AA	3325	-	0,6,6	-	-	-		
56	OHX	AA	3340	-	0,6,6	-	-	-		
56	OHX	CA	3376	-	0,6,6	-	-	-		
56	OHX	AA	3512	-	0,6,6	-	-	-		
56	OHX	BA	1770	-	0,6,6	-	-	-		
56	OHX	AA	3532	-	0,6,6	-	-	-		
56	OHX	BA	1782	-	0,6,6	-	-	-		
56	OHX	AA	3331	-	0,6,6	-	-	-		
56	OHX	BA	1796	-	0,6,6	-	-	-		
56	OHX	DA	1799	-	0,6,6	-	-	-		
56	OHX	AA	3553	-	0,6,6	-	-	-		
56	OHX	CA	3330	-	0,6,6	-	-	-		
56	OHX	CA	3305	-	0,6,6	-	-	-		
56	OHX	CB	209	-	0,6,6	-	-	-		
56	OHX	CA	3314	-	0,6,6	-	-	-		
56	OHX	DA	1738	-	0,6,6	-	-	-		
56	OHX	AA	3338	-	0,6,6	-	-	-		
56	OHX	BA	1786	-	0,6,6	-	-	-		
56	OHX	AA	3420	-	0,6,6	-	-	-		
56	OHX	CA	3270	-	0,6,6	-	-	-		
56	OHX	AA	3464	55	0,6,6	-	-	-		
56	OHX	DC	109	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
56	OHX	DD	101	-	0,6,6	-	-	-		
56	OHX	DA	1747	-	0,6,6	-	-	-		
56	OHX	DB	104	-	0,6,6	-	-	-		
56	OHX	CA	3289	-	0,6,6	-	-	-		
56	OHX	CA	3417	-	0,6,6	-	-	-		
56	OHX	CA	3406	-	0,6,6	-	-	-		
56	OHX	DA	1775	55	0,6,6	-	-	-		
56	OHX	CA	3347	-	0,6,6	-	-	-		
56	OHX	BA	1673	-	0,6,6	-	-	-		
56	OHX	AA	3487	-	0,6,6	-	-	-		
56	OHX	CB	213	-	0,6,6	-	-	-		
56	OHX	CA	3462	-	0,6,6	-	-	-		
56	OHX	CA	3422	-	0,6,6	-	-	-		
56	OHX	AA	3515	-	0,6,6	-	-	-		
56	OHX	DA	1798	-	0,6,6	-	-	-		
56	OHX	AA	3533	-	0,6,6	-	-	-		
56	OHX	DA	1778	-	0,6,6	-	-	-		
56	OHX	CA	3301	-	0,6,6	-	-	-		

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.

233 monomers are involved in 316 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	AB	212	OHX	1	0
56	CA	3244	OHX	1	0
56	BA	1775	OHX	2	0
56	DA	1731	OHX	4	0
56	DA	1719	OHX	1	0
56	DA	1768	OHX	1	0
56	AA	3434	OHX	1	0
56	AA	3312	OHX	1	0
56	AF	303	OHX	1	0
56	BA	1688	OHX	1	0
56	AA	3518	OHX	1	0
56	CA	3316	OHX	1	0
56	AA	3560	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	CA	3321	OHX	1	0
56	CA	3481	OHX	1	0
56	CA	3418	OHX	1	0
56	CA	3279	OHX	2	0
56	DA	1812	OHX	1	0
56	AA	3424	OHX	2	0
56	AA	3370	OHX	1	0
56	AA	3557	OHX	1	0
56	DA	1795	OHX	1	0
56	CA	3403	OHX	1	0
56	AA	3499	OHX	1	0
56	DA	1759	OHX	1	0
56	CA	3247	OHX	1	0
56	DA	1770	OHX	2	0
56	BA	1755	OHX	1	0
56	BA	1695	OHX	1	0
56	CA	3326	OHX	1	0
56	AA	3473	OHX	2	0
56	BA	1797	OHX	2	0
56	CA	3416	OHX	1	0
56	BA	1768	OHX	1	0
56	AA	3322	OHX	1	0
56	CA	3236	OHX	1	0
56	BA	1678	OHX	1	0
56	AA	3292	OHX	1	0
56	AA	3426	OHX	2	0
56	DA	1756	OHX	1	0
56	BA	1783	OHX	1	0
56	AA	3419	OHX	1	0
56	AA	3449	OHX	1	0
56	BC	106	OHX	2	0
56	AA	3534	OHX	1	0
56	CA	3240	OHX	1	0
56	DB	103	OHX	1	0
56	AA	3425	OHX	1	0
56	AA	3407	OHX	1	0
56	BA	1756	OHX	1	0
56	BA	1675	OHX	1	0
56	CA	3435	OHX	1	0
56	CA	3354	OHX	1	0
56	AA	3460	OHX	1	0
56	CA	3332	OHX	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	CA	3362	OHX	1	0
56	CA	3283	OHX	1	0
56	CA	3269	OHX	1	0
56	DC	110	OHX	2	0
56	CA	3300	OHX	2	0
56	CB	212	OHX	1	0
56	CA	3425	OHX	1	0
56	AA	3368	OHX	1	0
56	BA	1798	OHX	1	0
56	AA	3491	OHX	1	0
56	BA	1760	OHX	2	0
56	CA	3293	OHX	1	0
56	DA	1808	OHX	1	0
56	AA	3330	OHX	1	0
56	AA	3531	OHX	2	0
56	BA	1774	OHX	1	0
56	AA	3299	OHX	1	0
56	CA	3310	OHX	1	0
56	CA	3411	OHX	1	0
56	BA	1683	OHX	1	0
56	CA	3274	OHX	1	0
56	AA	3433	OHX	1	0
56	DG	302	OHX	2	0
56	DA	1718	OHX	1	0
56	BA	1813	OHX	1	0
56	BA	1800	OHX	1	0
56	CA	3484	OHX	1	0
56	DA	1721	OHX	2	0
56	BA	1661	OHX	1	0
56	DA	1751	OHX	1	0
56	AA	3538	OHX	1	0
56	BB	106	OHX	1	0
56	CA	3365	OHX	1	0
56	AA	3562	OHX	1	0
56	DA	1755	OHX	1	0
56	AA	3447	OHX	1	0
56	BA	1778	OHX	1	0
56	AA	3485	OHX	1	0
56	AA	3559	OHX	1	0
56	DA	1779	OHX	1	0
56	DA	1764	OHX	2	0
56	AA	3450	OHX	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	CA	3333	OHX	1	0
56	AA	3431	OHX	1	0
56	CA	3492	OHX	1	0
56	AA	3300	OHX	1	0
56	AA	3508	OHX	1	0
56	CA	3350	OHX	1	0
56	DA	1724	OHX	1	0
56	CA	3377	OHX	2	0
56	CA	3363	OHX	1	0
56	CA	3415	OHX	1	0
56	CA	3276	OHX	1	0
56	CA	3331	OHX	1	0
56	AA	3438	OHX	2	0
56	AA	3489	OHX	1	0
56	DC	108	OHX	1	0
56	DV	101	OHX	1	0
56	AA	3429	OHX	1	0
56	CA	3304	OHX	1	0
56	DA	1749	OHX	1	0
56	AA	3446	OHX	1	0
56	CA	3375	OHX	1	0
56	DA	1727	OHX	1	0
56	DA	1787	OHX	2	0
56	CA	3234	OHX	3	0
56	CA	3278	OHX	2	0
56	AA	3313	OHX	1	0
56	BA	1670	OHX	1	0
56	BA	1795	OHX	2	0
56	CA	3486	OHX	2	0
56	AA	3329	OHX	1	0
56	AA	3311	OHX	1	0
56	CA	3272	OHX	1	0
56	AA	3566	OHX	1	0
56	CA	3428	OHX	1	0
56	CA	3490	OHX	1	0
56	BA	1684	OHX	7	0
56	AA	3455	OHX	1	0
56	AA	3333	OHX	1	0
56	DC	107	OHX	6	0
56	CA	3399	OHX	1	0
56	DA	1745	OHX	1	0
56	CA	3384	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	DA	1762	OHX	1	0
56	AA	3418	OHX	1	0
56	CA	3327	OHX	1	0
56	AA	3154	OHX	2	0
56	AA	3294	OHX	2	0
56	DA	1767	OHX	4	0
56	AA	3305	OHX	1	0
56	CA	3324	OHX	1	0
56	BG	302	OHX	2	0
56	DA	1734	OHX	3	0
56	DA	1760	OHX	7	0
56	BA	1762	OHX	1	0
56	CA	3432	OHX	1	0
56	AA	3458	OHX	3	0
56	AO	205	OHX	1	0
56	AA	3452	OHX	2	0
56	AA	3526	OHX	1	0
56	AA	3556	OHX	1	0
56	BD	102	OHX	1	0
56	DA	1792	OHX	1	0
56	DA	1737	OHX	1	0
56	AA	3399	OHX	2	0
56	BA	1772	OHX	1	0
56	AA	3536	OHX	2	0
56	CA	3296	OHX	1	0
56	AA	3478	OHX	1	0
56	AB	219	OHX	1	0
56	CA	3396	OHX	1	0
56	CA	3232	OHX	1	0
56	AA	3475	OHX	1	0
56	BA	1666	OHX	3	0
56	CA	3351	OHX	1	0
56	CB	211	OHX	1	0
56	DK	201	OHX	1	0
56	DA	1733	OHX	1	0
56	AA	3318	OHX	1	0
56	AA	3430	OHX	1	0
56	C6	101	OHX	4	0
56	DA	1783	OHX	2	0
56	DA	1748	OHX	1	0
56	CA	3281	OHX	1	0
56	CB	217	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	AA	3362	OHX	1	0
56	AA	3567	OHX	1	0
56	BA	1671	OHX	1	0
56	CA	3233	OHX	1	0
56	CA	3487	OHX	1	0
56	AA	3568	OHX	5	0
56	AA	3402	OHX	1	0
56	BA	1804	OHX	2	0
56	A6	101	OHX	3	0
56	CA	3320	OHX	1	0
56	AA	3291	OHX	2	0
56	AA	3480	OHX	1	0
56	AA	3320	OHX	1	0
56	AA	3461	OHX	1	0
56	BA	1672	OHX	1	0
56	AA	3513	OHX	1	0
56	CA	3383	OHX	1	0
56	DA	1800	OHX	1	0
56	AA	3456	OHX	1	0
56	BA	1693	OHX	1	0
56	DA	1730	OHX	1	0
56	DA	1742	OHX	1	0
56	AA	3421	OHX	3	0
56	DA	1752	OHX	1	0
56	DA	1740	OHX	1	0
56	BA	1805	OHX	1	0
56	BA	1812	OHX	2	0
56	AA	3514	OHX	1	0
56	CA	3468	OHX	1	0
56	CA	3275	OHX	1	0
56	AB	217	OHX	2	0
56	AA	3510	OHX	1	0
56	AA	3373	OHX	1	0
56	DA	1754	OHX	1	0
56	C5	102	OHX	1	0
56	AA	3325	OHX	1	0
56	CA	3376	OHX	1	0
56	AA	3512	OHX	1	0
56	BA	1782	OHX	1	0
56	CA	3305	OHX	1	0
56	CB	209	OHX	1	0
56	AA	3338	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	BA	1786	OHX	1	0
56	AA	3420	OHX	1	0
56	CA	3270	OHX	2	0
56	DC	109	OHX	1	0
56	DD	101	OHX	1	0
56	DA	1775	OHX	1	0
56	BA	1673	OHX	5	0
56	AA	3487	OHX	1	0
56	CA	3462	OHX	1	0
56	AA	3533	OHX	2	0

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	2912/2912 (100%)	-0.73	7 (0%) 91 86	45, 76, 209, 243	0
1	CA	2907/2912 (99%)	-0.49	10 (0%) 90 82	58, 92, 230, 245	0
2	AB	122/122 (100%)	-0.68	0 100 100	73, 95, 116, 177	0
2	CB	122/122 (100%)	-0.42	1 (0%) 82 68	92, 126, 146, 198	0
3	AD	272/276 (98%)	0.10	7 (2%) 57 38	39, 66, 84, 105	0
3	CD	272/276 (98%)	0.39	15 (5%) 30 21	55, 78, 96, 128	0
4	AE	205/206 (99%)	0.40	17 (8%) 17 13	51, 86, 130, 142	0
4	CE	205/206 (99%)	0.30	9 (4%) 39 25	64, 100, 148, 165	0
5	AF	202/210 (96%)	-0.22	3 (1%) 72 53	47, 81, 118, 130	0
5	CF	208/210 (99%)	0.26	6 (2%) 53 35	62, 106, 160, 184	0
6	AG	181/182 (99%)	0.15	6 (3%) 49 33	84, 107, 138, 149	0
6	CG	181/182 (99%)	0.70	14 (7%) 19 14	120, 141, 164, 171	0
7	AH	170/180 (94%)	0.43	10 (5%) 28 19	86, 112, 130, 157	0
7	CH	170/180 (94%)	0.76	20 (11%) 9 8	155, 198, 220, 229	0
8	AK	146/148 (98%)	0.30	10 (6%) 23 16	79, 131, 147, 150	0
8	CK	146/148 (98%)	0.25	2 (1%) 73 55	84, 130, 152, 158	0
9	AM	138/140 (98%)	0.40	8 (5%) 29 19	66, 87, 124, 136	0
9	CM	138/140 (98%)	0.53	4 (2%) 53 35	83, 114, 140, 156	0
10	AN	122/122 (100%)	0.06	1 (0%) 82 68	57, 78, 93, 101	0
10	CN	122/122 (100%)	0.31	1 (0%) 82 68	75, 95, 111, 124	0
11	AO	150/150 (100%)	-0.07	1 (0%) 84 70	48, 88, 117, 160	0
11	CO	150/150 (100%)	0.36	9 (6%) 27 19	45, 108, 146, 178	0
12	AP	141/141 (100%)	0.88	20 (14%) 6 5	58, 83, 105, 127	0
12	CP	141/141 (100%)	1.21	29 (20%) 2 2	58, 109, 140, 159	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	A0	118/118 (100%)	-0.22	0 100 100	61, 81, 103, 113	0
13	C0	117/118 (99%)	-0.32	0 100 100	69, 87, 106, 121	0
14	AQ	111/112 (99%)	-0.06	2 (1%) 67 49	70, 92, 117, 131	0
14	CQ	111/112 (99%)	0.13	5 (4%) 38 25	86, 123, 147, 162	0
15	AR	137/146 (93%)	0.10	4 (2%) 53 35	73, 93, 143, 170	0
15	CR	137/146 (93%)	0.12	6 (4%) 39 25	84, 104, 163, 183	0
16	A1	117/118 (99%)	-0.07	0 100 100	52, 75, 108, 139	0
16	C1	117/118 (99%)	0.22	1 (0%) 81 65	67, 106, 143, 162	0
17	A2	101/101 (100%)	0.51	7 (6%) 23 16	53, 98, 122, 141	0
17	C2	101/101 (100%)	0.97	9 (8%) 15 12	67, 129, 142, 151	0
18	AS	113/113 (100%)	-0.08	1 (0%) 81 65	54, 73, 104, 156	0
18	CS	113/113 (100%)	0.03	1 (0%) 81 65	64, 80, 114, 158	0
19	AT	92/96 (95%)	-0.02	2 (2%) 62 43	57, 71, 95, 107	0
19	CT	92/96 (95%)	0.46	6 (6%) 25 17	74, 88, 113, 127	0
20	AU	102/110 (92%)	0.38	6 (5%) 28 19	74, 101, 152, 162	0
20	CU	102/110 (92%)	0.85	15 (14%) 6 5	95, 118, 166, 181	0
21	AV	175/206 (84%)	0.75	15 (8%) 16 12	87, 126, 188, 191	0
21	CV	179/206 (86%)	0.73	9 (5%) 34 23	122, 160, 208, 216	0
22	A3	76/85 (89%)	-0.16	1 (1%) 75 56	59, 77, 91, 132	0
22	C3	77/85 (90%)	0.12	3 (3%) 43 29	83, 95, 117, 147	0
23	AZ	97/98 (98%)	0.01	5 (5%) 33 22	58, 78, 126, 156	0
23	CZ	97/98 (98%)	0.51	5 (5%) 33 22	68, 86, 132, 155	0
24	AW	66/72 (91%)	0.05	2 (3%) 52 35	63, 84, 98, 125	0
24	CW	66/72 (91%)	0.28	3 (4%) 38 25	84, 107, 130, 139	0
25	AX	59/60 (98%)	-0.02	1 (1%) 69 50	63, 83, 112, 130	0
25	CX	59/60 (98%)	0.34	2 (3%) 48 32	80, 110, 141, 162	0
26	A4	66/71 (92%)	0.48	2 (3%) 52 35	120, 156, 173, 179	0
26	C4	63/71 (88%)	1.11	9 (14%) 6 5	146, 185, 194, 199	0
27	A5	59/60 (98%)	0.67	9 (15%) 5 5	49, 88, 168, 171	0
27	C5	59/60 (98%)	0.33	2 (3%) 48 32	65, 92, 173, 187	0
28	A6	45/54 (83%)	1.00	8 (17%) 4 3	124, 151, 168, 177	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	C6	45/54 (83%)	1.36	11 (24%) 2 1	141, 169, 183, 186	0
29	A7	45/49 (91%)	-0.22	3 (6%) 24 16	47, 55, 69, 78	0
29	C7	45/49 (91%)	0.02	1 (2%) 62 43	56, 66, 77, 100	0
30	A8	60/65 (92%)	-0.04	0 100 100	55, 73, 90, 114	0
30	C8	60/65 (92%)	0.61	8 (13%) 7 6	78, 90, 112, 137	0
31	BA	1502/1506 (99%)	-0.57	10 (0%) 84 70	58, 107, 187, 244	0
31	DA	1502/1506 (99%)	-0.65	2 (0%) 92 90	71, 119, 189, 244	0
32	BE	237/256 (92%)	0.46	8 (3%) 48 32	111, 144, 182, 193	0
32	DE	237/256 (92%)	0.20	1 (0%) 88 79	126, 161, 196, 211	0
33	BF	205/239 (85%)	0.36	5 (2%) 59 40	96, 119, 152, 160	0
33	DF	206/239 (86%)	0.29	5 (2%) 59 40	127, 147, 175, 180	0
34	BG	208/208 (100%)	0.55	10 (4%) 35 24	92, 116, 136, 147	0
34	DG	208/208 (100%)	0.25	5 (2%) 59 40	93, 111, 132, 145	0
35	BH	151/162 (93%)	0.31	2 (1%) 75 56	81, 105, 127, 161	0
35	DH	151/162 (93%)	0.18	3 (1%) 65 46	104, 121, 142, 165	0
36	BI	101/101 (100%)	0.12	0 100 100	81, 108, 122, 145	0
36	DI	101/101 (100%)	0.39	0 100 100	81, 106, 124, 149	0
37	BJ	155/156 (99%)	0.20	5 (3%) 50 34	106, 121, 149, 158	0
37	DJ	155/156 (99%)	0.10	2 (1%) 75 56	113, 131, 153, 164	0
38	BK	138/138 (100%)	-0.05	1 (0%) 84 70	89, 110, 123, 129	0
38	DK	138/138 (100%)	-0.24	0 100 100	104, 125, 136, 146	0
39	BL	127/128 (99%)	-0.12	0 100 100	87, 142, 160, 169	0
39	DL	127/128 (99%)	-0.16	1 (0%) 82 68	117, 155, 168, 174	0
40	BM	99/105 (94%)	0.10	2 (2%) 65 46	91, 142, 170, 174	0
40	DM	99/105 (94%)	0.17	1 (1%) 79 63	124, 159, 175, 179	0
41	BN	119/129 (92%)	0.27	5 (4%) 40 26	72, 104, 133, 161	0
41	DN	119/129 (92%)	0.46	6 (5%) 34 23	91, 112, 139, 167	0
42	BO	125/132 (94%)	0.45	7 (5%) 30 20	69, 83, 112, 158	0
42	DO	125/132 (94%)	0.57	9 (7%) 21 15	93, 110, 134, 166	0
43	BP	116/126 (92%)	0.13	3 (2%) 57 38	92, 128, 145, 153	0
43	DP	117/126 (92%)	0.38	7 (5%) 27 19	106, 156, 169, 171	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	BQ	58/61 (95%)	0.06	1 (1%) 69 50	91, 108, 122, 129	0
44	DQ	58/61 (95%)	-0.14	0 100 100	126, 140, 157, 160	0
45	BR	88/89 (98%)	-0.18	0 100 100	80, 100, 121, 125	0
45	DR	88/89 (98%)	0.01	0 100 100	85, 112, 133, 140	0
46	BS	84/88 (95%)	0.09	0 100 100	100, 118, 139, 175	0
46	DS	84/88 (95%)	-0.04	0 100 100	96, 107, 127, 158	0
47	BT	100/105 (95%)	0.01	4 (4%) 42 28	93, 112, 125, 133	0
47	DT	100/105 (95%)	0.05	3 (3%) 52 35	94, 114, 135, 143	0
48	BU	72/88 (81%)	0.29	1 (1%) 73 55	88, 106, 139, 164	0
48	DU	72/88 (81%)	0.43	4 (5%) 30 20	97, 114, 155, 169	0
49	BV	78/93 (83%)	0.38	4 (5%) 33 22	109, 130, 147, 152	0
49	DV	78/93 (83%)	0.36	2 (2%) 57 38	145, 163, 182, 185	0
50	BW	99/106 (93%)	-0.07	0 100 100	105, 124, 155, 160	0
50	DW	99/106 (93%)	-0.25	0 100 100	95, 117, 153, 163	0
51	BX	25/27 (92%)	-0.34	0 100 100	102, 117, 137, 154	0
51	DX	25/27 (92%)	-0.05	1 (4%) 42 28	122, 143, 158, 168	0
52	BB	84/85 (98%)	1.23	25 (29%) 1 1	82, 123, 154, 169	0
52	BD	84/85 (98%)	0.20	7 (8%) 17 13	75, 137, 217, 227	0
52	DB	84/85 (98%)	1.23	17 (20%) 3 2	93, 128, 156, 171	0
52	DD	84/85 (98%)	0.53	9 (10%) 11 9	84, 137, 217, 225	0
53	BC	77/77 (100%)	0.23	5 (6%) 25 17	77, 114, 139, 153	0
53	DC	77/77 (100%)	0.17	2 (2%) 57 38	88, 122, 150, 157	0
54	B1	16/16 (100%)	0.82	3 (18%) 3 3	76, 104, 156, 163	0
54	D1	16/16 (100%)	0.36	2 (12%) 8 6	85, 109, 157, 165	0
All	All	21100/21658 (97%)	-0.10	564 (2%) 56 37	39, 105, 182, 245	0

All (564) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
24	CW	41	ILE	7.6
27	A5	2	ALA	7.3
11	CO	61	ARG	7.2
12	AP	86	GLY	7.1
27	C5	2	ALA	6.9

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Mol	Chain	Res	Type	RSRZ
12	CP	1	MET	6.8
3	CD	237	GLU	6.7
52	DB	52	G	6.5
32	BE	107	THR	6.5
24	CW	43	GLN	6.3
29	C7	45	ALA	6.1
12	AP	17	LEU	6.0
52	DB	51	C	5.8
21	AV	175	VAL	5.8
54	B1	10	G	5.5
3	AD	236	GLY	5.4
12	CP	86	GLY	5.3
7	CH	171	LEU	5.2
30	C8	56	GLU	5.1
42	DO	61	TYR	5.1
7	CH	144	VAL	5.0
22	C3	9	SER	5.0
31	BA	792	A	5.0
17	C2	45	THR	5.0
52	DD	52	G	4.9
42	DO	58	THR	4.9
54	D1	10	G	4.9
20	CU	103	GLY	4.9
52	DB	53	A	4.9
1	CA	2909	G	4.9
17	C2	36	PRO	4.9
41	BN	128	ALA	4.9
42	BO	44	LYS	4.8
31	BA	791	G	4.8
15	AR	1	MET	4.7
9	AM	134	ARG	4.6
12	AP	91	GLU	4.6
17	C2	91	TYR	4.5
12	AP	85	LYS	4.5
26	C4	24	THR	4.4
7	AH	171	LEU	4.4
4	AE	200	GLU	4.4
20	AU	52	SER	4.3
3	CD	236	GLY	4.3
12	AP	92	GLY	4.3
20	AU	50	ARG	4.3
6	CG	2	PRO	4.3

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Mol	Chain	Res	Type	RSRZ
28	C6	34	LEU	4.3
4	CE	204	ALA	4.2
11	CO	51	PHE	4.2
12	AP	83	MET	4.2
12	AP	90	VAL	4.1
12	AP	87	LYS	4.1
34	BG	21	LEU	4.1
12	AP	19	GLY	4.1
12	CP	87	LYS	4.0
11	CO	57	THR	4.0
4	AE	205	ALA	4.0
53	DC	1	C	4.0
17	A2	36	PRO	4.0
26	C4	9	LEU	4.0
7	AH	155	SER	4.0
12	CP	88	GLY	4.0
23	CZ	85	LEU	4.0
34	BG	12	CYS	4.0
1	CA	2911	C	4.0
21	CV	107	THR	3.9
52	BB	52	G	3.9
4	AE	193	GLY	3.9
11	CO	62	LEU	3.9
28	C6	9	LEU	3.9
27	A5	3	LYS	3.9
41	BN	129	SER	3.9
34	BG	31	CYS	3.8
52	DB	49	A	3.8
52	DB	48	C	3.8
1	CA	161	G	3.8
41	DN	127	LYS	3.8
19	CT	94	GLY	3.8
12	CP	89	ASN	3.8
12	AP	66	ILE	3.7
28	A6	9	LEU	3.7
1	CA	2910	A	3.7
5	CF	131	GLY	3.7
21	AV	113	ALA	3.7
53	BC	72	C	3.6
12	AP	82	ARG	3.6
12	AP	80	GLU	3.6
29	A7	1	MET	3.6

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Mol	Chain	Res	Type	RSRZ
52	BB	82	A	3.6
3	AD	240	ALA	3.6
52	BB	51	C	3.5
6	CG	152	LEU	3.5
19	AT	92	LEU	3.5
15	CR	2	ASN	3.5
32	BE	160	ASP	3.5
48	DU	38	GLU	3.5
20	CU	46	LYS	3.5
12	CP	83	MET	3.5
12	CP	85	LYS	3.5
12	CP	80	GLU	3.4
34	DG	23	GLY	3.4
37	BJ	81	GLY	3.4
43	DP	4	ILE	3.4
17	C2	73	SER	3.4
8	AK	116	LEU	3.4
9	AM	138	LEU	3.4
31	BA	1397	C	3.4
52	BD	51	C	3.4
7	CH	98	LEU	3.4
28	A6	34	LEU	3.4
1	AA	654(J)	A	3.4
53	BC	1	C	3.4
52	DB	50	U	3.4
5	CF	6	VAL	3.4
12	CP	37	LEU	3.4
14	AQ	111	GLU	3.4
52	BB	46	G	3.4
52	BD	52	G	3.4
3	CD	51	VAL	3.3
11	CO	52	GLU	3.3
12	CP	77	LYS	3.3
37	BJ	82	GLY	3.3
41	DN	128	ALA	3.3
5	AF	69	HIS	3.3
42	BO	45	PRO	3.3
25	AX	60	GLU	3.3
12	AP	1	MET	3.3
12	AP	20	ALA	3.3
47	DT	101	ARG	3.3
12	AP	89	ASN	3.3

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Mol	Chain	Res	Type	RSRZ
34	BG	26	CYS	3.3
52	BB	47	U	3.3
21	AV	165	VAL	3.3
27	A5	5	PRO	3.3
52	BB	53	A	3.3
43	DP	5	ALA	3.3
7	CH	71	LEU	3.2
34	BG	102	ASP	3.2
6	AG	80	PHE	3.2
28	A6	10	LEU	3.2
12	CP	23	GLY	3.2
52	DB	47	U	3.2
4	AE	74	PRO	3.2
43	DP	10	PRO	3.2
52	DB	79	A	3.2
41	BN	127	LYS	3.2
20	AU	49	VAL	3.2
12	CP	10	ARG	3.2
7	CH	150	ALA	3.2
15	AR	11	GLU	3.2
37	BJ	74	GLU	3.2
52	BB	81	C	3.2
26	C4	31	ILE	3.1
4	AE	203	LYS	3.1
20	AU	103	GLY	3.1
5	CF	139	PHE	3.1
17	A2	45	THR	3.1
52	DB	80	C	3.1
12	CP	92	GLY	3.1
6	CG	28	VAL	3.1
42	DO	29	PHE	3.1
6	AG	2	PRO	3.1
26	A4	5	ILE	3.1
31	BA	789	U	3.1
21	AV	153	SER	3.1
9	CM	46	VAL	3.1
52	DB	81	C	3.1
42	BO	43	LYS	3.1
43	DP	6	GLY	3.1
48	DU	46	GLU	3.1
12	CP	3	MET	3.1
8	AK	65	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
1	CA	1	G	3.0
9	AM	136	GLU	3.0
20	CU	77	PRO	3.0
20	CU	96	ILE	3.0
43	DP	8	GLU	3.0
29	A7	3	ARG	3.0
5	CF	133	ASN	3.0
49	BV	84	GLY	3.0
32	BE	172	ILE	3.0
37	BJ	154	TYR	3.0
30	C8	40	GLU	3.0
7	CH	155	SER	3.0
48	BU	88	LYS	3.0
8	CK	144	VAL	3.0
37	DJ	81	GLY	3.0
42	DO	15	VAL	3.0
4	AE	51	PHE	3.0
7	AH	42	ARG	2.9
11	AO	61	ARG	2.9
34	BG	35	ARG	2.9
42	BO	89	ASP	2.9
52	BB	80	C	2.9
52	DD	48	C	2.9
3	AD	239	ARG	2.9
4	AE	79	ARG	2.9
9	AM	15	LEU	2.9
29	A7	45	ALA	2.9
3	CD	196	VAL	2.9
21	AV	105	VAL	2.9
53	BC	71	G	2.9
52	DD	51	C	2.9
11	CO	50	ARG	2.9
42	DO	24	LEU	2.9
52	DB	82	A	2.9
52	BB	48	C	2.9
54	D1	11	U	2.9
47	BT	101	ARG	2.9
22	C3	12	ASN	2.9
47	BT	36	ILE	2.9
6	AG	137	GLU	2.8
7	CH	115	VAL	2.8
28	C6	17	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
30	C8	31	HIS	2.8
1	AA	1963	U	2.8
10	CN	42	SER	2.8
26	C4	29	PRO	2.8
7	CH	169	VAL	2.8
12	AP	21	THR	2.8
52	BB	23	A	2.8
52	DD	50	U	2.8
26	C4	40	HIS	2.8
23	AZ	98	LEU	2.8
26	A4	59	PHE	2.8
4	CE	205	ALA	2.8
42	DO	23	ALA	2.8
6	CG	6	ALA	2.7
19	CT	4	ALA	2.7
28	A6	36	LEU	2.7
28	C6	10	LEU	2.7
12	CP	66	ILE	2.7
30	C8	58	ILE	2.7
21	AV	115	GLY	2.7
52	BB	24	G	2.7
11	CO	36	LYS	2.7
23	AZ	77	ALA	2.7
6	AG	3	LEU	2.7
7	CH	72	ILE	2.7
20	CU	61	ILE	2.7
5	CF	62	ARG	2.7
4	AE	204	ALA	2.7
19	CT	91	ALA	2.7
12	AP	81	VAL	2.7
32	BE	118	LEU	2.7
52	DB	46	G	2.7
41	DN	125	PHE	2.7
3	AD	237	GLU	2.7
3	AD	238	GLY	2.7
3	CD	5	LYS	2.7
52	BD	49	A	2.7
12	CP	74	TYR	2.7
49	BV	61	TYR	2.7
4	CE	75	VAL	2.7
21	AV	163	LEU	2.7
24	AW	43	GLN	2.7

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Mol	Chain	Res	Type	RSRZ
14	CQ	108	GLY	2.7
28	C6	53	LYS	2.7
42	BO	125	ALA	2.7
3	CD	109	ASP	2.7
27	A5	4	HIS	2.7
1	AA	1536	A	2.6
7	CH	168	PRO	2.6
20	CU	89	PHE	2.6
6	CG	3	LEU	2.6
12	CP	90	VAL	2.6
27	A5	57	VAL	2.6
19	CT	69	TYR	2.6
12	CP	104	PHE	2.6
14	CQ	60	GLY	2.6
7	AH	18	GLU	2.6
20	CU	98	VAL	2.6
26	C4	10	VAL	2.6
34	DG	5	ILE	2.6
39	DL	115	GLY	2.6
49	DV	82	GLY	2.6
48	DU	24	ALA	2.6
33	DF	7	PRO	2.6
9	CM	69	GLN	2.6
12	AP	23	GLY	2.6
12	CP	81	VAL	2.6
33	DF	198	VAL	2.6
21	CV	53	ILE	2.6
21	CV	163	LEU	2.6
19	CT	3	THR	2.6
49	DV	80	TYR	2.5
52	BB	3	U	2.5
52	DD	8	U	2.5
54	B1	11	U	2.5
5	AF	66	PRO	2.5
21	AV	117	LEU	2.5
52	DB	54	C	2.5
11	CO	63	PRO	2.5
4	AE	54	GLN	2.5
31	BA	86	U	2.5
52	BB	50	U	2.5
3	CD	26	LYS	2.5
23	CZ	92	LYS	2.5

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Mol	Chain	Res	Type	RSRZ
27	A5	6	VAL	2.5
22	A3	85	ALA	2.5
43	DP	2	ALA	2.5
30	C8	34	TRP	2.5
52	DD	49	A	2.5
7	AH	21	PRO	2.5
7	CH	126	PRO	2.5
21	CV	24	LEU	2.5
52	BB	19	C	2.5
9	AM	10	GLU	2.5
31	BA	793	U	2.5
31	BA	1498	U	2.5
9	AM	129	PRO	2.5
42	BO	42	PRO	2.5
27	C5	58	LEU	2.5
6	CG	50	ALA	2.5
23	CZ	2	SER	2.5
17	C2	74	LYS	2.5
4	AE	53	PRO	2.5
9	CM	138	LEU	2.5
30	C8	32	LEU	2.5
40	DM	85	LEU	2.5
4	AE	151	TYR	2.5
4	CE	66	HIS	2.5
5	AF	207	GLY	2.5
26	C4	19	GLY	2.5
15	CR	11	GLU	2.4
35	BH	155	GLU	2.4
3	CD	273	ARG	2.4
10	AN	53	LYS	2.4
6	CG	161	THR	2.4
23	AZ	85	LEU	2.4
14	AQ	2	ALA	2.4
23	CZ	77	ALA	2.4
49	BV	78	ARG	2.4
17	C2	35	LEU	2.4
8	AK	145	VAL	2.4
21	AV	116	VAL	2.4
32	BE	15	VAL	2.4
1	CA	639	U	2.4
52	BB	2	G	2.4
52	BD	34	U	2.4

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Mol	Chain	Res	Type	RSRZ
52	BD	50	U	2.4
12	CP	2	LEU	2.4
7	AH	118	PRO	2.4
20	AU	53	PRO	2.4
21	AV	167	PRO	2.4
8	CK	145	VAL	2.4
18	CS	17	VAL	2.4
28	A6	22	ALA	2.4
47	DT	82	MET	2.4
17	A2	94	LEU	2.4
21	CV	155	LEU	2.4
52	BB	1	G	2.4
52	BB	25	G	2.4
52	DB	1	G	2.4
7	CH	99	VAL	2.4
12	CP	109	VAL	2.4
34	DG	29	PRO	2.4
42	DO	41	THR	2.4
37	DJ	153	HIS	2.4
17	C2	70	ILE	2.4
33	BF	201	TYR	2.4
22	C3	84	LEU	2.4
30	C8	49	VAL	2.4
31	BA	85	U	2.4
47	DT	11	VAL	2.4
2	CB	90	C	2.3
7	AH	5	GLY	2.3
6	CG	75	LYS	2.3
42	DO	65	ALA	2.3
15	CR	105	LEU	2.3
17	C2	38	LEU	2.3
34	BG	24	GLU	2.3
6	CG	5	VAL	2.3
17	A2	37	VAL	2.3
23	AZ	53	VAL	2.3
43	DP	7	VAL	2.3
28	C6	31	PRO	2.3
54	B1	25	A	2.3
27	A5	53	ALA	2.3
42	BO	126	ALA	2.3
1	CA	34	C	2.3
28	A6	31	PRO	2.3

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Mol	Chain	Res	Type	RSRZ
3	CD	55	GLY	2.3
7	CH	151	ILE	2.3
37	BJ	153	HIS	2.3
28	C6	11	LEU	2.3
52	BB	49	A	2.3
41	DN	36	ASP	2.3
4	CE	69	LYS	2.3
12	CP	27	VAL	2.3
20	CU	49	VAL	2.3
28	A6	53	LYS	2.3
52	BB	54	C	2.3
19	CT	68	ARG	2.3
41	DN	18	ARG	2.3
31	DA	1529	G	2.3
41	BN	25	TYR	2.3
52	DB	2	G	2.3
53	BC	4	G	2.3
28	C6	13	CYS	2.3
6	CG	45	GLU	2.3
3	CD	64	ILE	2.3
3	AD	235	GLY	2.3
35	BH	44	GLY	2.3
1	AA	2474	C	2.3
15	CR	1	MET	2.3
4	AE	195	LEU	2.3
43	BP	103	THR	2.3
34	DG	26	CYS	2.3
33	BF	190	ARG	2.3
4	AE	72	VAL	2.3
9	AM	53	VAL	2.3
12	CP	91	GLU	2.2
4	CE	187	ALA	2.2
19	AT	94	GLY	2.2
21	AV	134	PRO	2.2
20	CU	65	ALA	2.2
4	AE	78	LEU	2.2
30	C8	61	LEU	2.2
8	AK	143	SER	2.2
47	BT	100	LYS	2.2
33	DF	68	VAL	2.2
33	DF	207	VAL	2.2
40	BM	61	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
3	CD	216	GLY	2.2
14	CQ	54	LEU	2.2
24	CW	42	GLY	2.2
3	AD	26	LYS	2.2
17	A2	6	LYS	2.2
28	C6	33	LYS	2.2
48	DU	88	LYS	2.2
52	DB	3	U	2.2
26	C4	56	VAL	2.2
7	AH	9	ILE	2.2
15	CR	7	ILE	2.2
52	BB	78	C	2.2
8	AK	68	LEU	2.2
21	CV	176	PRO	2.2
6	AG	75	LYS	2.2
18	AS	111	HIS	2.2
7	CH	131	VAL	2.2
42	DO	36	VAL	2.2
52	BB	9	U	2.2
52	DD	55	U	2.2
9	CM	71	ILE	2.2
8	AK	74	ASN	2.2
1	AA	896	A	2.2
1	CA	2085	A	2.2
3	CD	238	GLY	2.2
14	CQ	55	ALA	2.2
20	CU	76	CYS	2.2
8	AK	141	LYS	2.2
32	BE	157	ARG	2.2
31	BA	417	C	2.2
53	BC	68	C	2.2
27	A5	51	TYR	2.2
33	BF	193	TYR	2.2
16	C1	104	GLN	2.2
8	AK	140	LEU	2.2
23	AZ	97	LEU	2.2
7	CH	145	ALA	2.2
8	AK	125	GLU	2.2
12	AP	88	GLY	2.2
23	CZ	3	LYS	2.2
51	DX	2	GLY	2.2
5	CF	72	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
4	AE	67	PHE	2.2
1	CA	991	A	2.2
52	BB	4	G	2.2
52	BB	17	G	2.2
28	C6	30	THR	2.1
3	CD	270	ILE	2.1
4	CE	81	ILE	2.1
6	CG	138	GLN	2.1
15	AR	6	LEU	2.1
21	CV	33	LEU	2.1
32	BE	238	LEU	2.1
3	CD	30	GLU	2.1
12	CP	28	ALA	2.1
6	CG	136	ARG	2.1
12	CP	48	GLU	2.1
15	AR	21	GLU	2.1
27	A5	54	GLY	2.1
34	BG	29	PRO	2.1
21	CV	179	ASP	2.1
53	DC	48	U	2.1
4	AE	90	THR	2.1
52	BD	53	A	2.1
3	CD	31	LYS	2.1
41	DN	71	LYS	2.1
47	BT	98	LEU	2.1
32	BE	96	ARG	2.1
43	BP	114	ARG	2.1
7	CH	116	GLU	2.1
21	AV	108	PRO	2.1
25	CX	2	PRO	2.1
32	DE	52	GLU	2.1
33	DF	144	SER	2.1
38	BK	72	PRO	2.1
52	BB	16	C	2.1
52	DB	83	C	2.1
26	C4	59	PHE	2.1
7	CH	113	VAL	2.1
20	CU	45	VAL	2.1
12	CP	68	ILE	2.1
40	BM	48	THR	2.1
7	CH	143	GLN	2.1
9	AM	124	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
12	CP	140	ALA	2.1
1	AA	1077	A	2.1
20	CU	59	GLY	2.1
34	BG	179	GLU	2.1
52	DD	53	A	2.1
21	AV	52	SER	2.1
33	BF	128	PHE	2.1
6	CG	108	ASN	2.1
1	CA	927	G	2.1
7	CH	76	VAL	2.1
31	BA	1497	G	2.1
35	DH	33	VAL	2.1
11	CO	108	LYS	2.1
4	CE	76	ARG	2.1
6	CG	142	PRO	2.1
34	BG	150	GLU	2.1
24	AW	4	SER	2.1
35	DH	55	VAL	2.1
43	BP	117	VAL	2.1
52	BB	79	A	2.1
6	AG	135	LEU	2.1
21	AV	70	LEU	2.1
35	DH	12	LEU	2.1
52	BD	48	C	2.1
52	DD	54	C	2.1
17	A2	98	GLU	2.1
7	AH	3	ARG	2.0
34	DG	168	ARG	2.0
7	AH	150	ALA	2.0
31	DA	412	A	2.0
33	BF	184	TYR	2.0
20	AU	102	CYS	2.0
41	BN	60	ALA	2.0
44	BQ	52	GLN	2.0
12	AP	18	LYS	2.0
7	CH	24	VAL	2.0
21	CV	58	VAL	2.0
25	CX	58	VAL	2.0
12	CP	82	ARG	2.0
21	AV	59	LEU	2.0
15	CR	67	SER	2.0
14	CQ	2	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
17	C2	81	TYR	2.0
4	CE	67	PHE	2.0
12	CP	33	GLY	2.0
20	CU	58	GLY	2.0
20	CU	79	CYS	2.0
8	AK	139	GLN	2.0
17	A2	5	VAL	2.0
20	CU	86	ARG	2.0
28	A6	52	VAL	2.0
4	AE	52	LEU	2.0
28	C6	36	LEU	2.0
49	BV	71	LEU	2.0
1	AA	2803	C	2.0

6.2 Non-standard residues in protein, DNA, RNA chains (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. 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	B-factors(Å^2)	Q<0.9
52	MIA	DB	38	29/30	0.79	0.12	84,93,111,126	0
52	MIA	BD	38	29/30	0.87	0.15	116,135,182,198	0
52	MIA	DD	38	29/30	0.88	0.12	120,140,186,205	0
52	MIA	BB	38	29/30	0.93	0.12	68,83,97,106	0

6.3 Carbohydrates (i)

There are no oligosaccharides 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. 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	B-factors(Å^2)	Q<0.9
55	MG	CA	3213	1/1	0.26	0.15	121,121,121,121	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3095	1/1	0.40	0.24	89,89,89,89	0
55	MG	AA	3086	1/1	0.43	0.31	95,95,95,95	0
55	MG	DA	1631	1/1	0.43	0.28	111,111,111,111	0
55	MG	DA	1619	1/1	0.48	0.31	98,98,98,98	0
55	MG	CA	3455	1/1	0.52	0.61	97,97,97,97	0
55	MG	BA	1699	1/1	0.54	0.37	79,79,79,79	0
55	MG	DA	1681	1/1	0.54	0.18	100,100,100,100	0
55	MG	DA	1622	1/1	0.57	0.21	122,122,122,122	0
55	MG	BA	1648	1/1	0.58	0.25	99,99,99,99	0
55	MG	AA	3100	1/1	0.58	0.23	108,108,108,108	0
55	MG	BB	104	1/1	0.58	0.44	87,87,87,87	0
55	MG	BA	1632	1/1	0.59	0.21	108,108,108,108	0
55	MG	AA	3247	1/1	0.60	0.26	81,81,81,81	0
55	MG	DA	1714	1/1	0.60	0.20	97,97,97,97	0
55	MG	DA	1618	1/1	0.61	0.25	105,105,105,105	0
55	MG	AA	3137	1/1	0.62	0.38	51,51,51,51	0
55	MG	AA	3067	1/1	0.62	0.19	97,97,97,97	0
55	MG	DA	1673	1/1	0.62	0.20	80,80,80,80	0
55	MG	CA	3034	1/1	0.62	0.25	91,91,91,91	0
55	MG	CA	3209	1/1	0.62	0.33	85,85,85,85	0
56	OHX	AA	3526	7/7	0.62	0.12	120,129,136,176	1
55	MG	BA	1629	1/1	0.63	0.18	112,112,112,112	0
55	MG	BC	102	1/1	0.63	0.18	68,68,68,68	0
55	MG	CA	3220	1/1	0.63	0.35	85,85,85,85	0
55	MG	AA	3245	1/1	0.63	0.26	68,68,68,68	0
56	OHX	DB	104	7/7	0.63	0.09	129,133,143,205	2
55	MG	BA	1634	1/1	0.64	0.34	74,74,74,74	0
55	MG	AA	3087	1/1	0.64	0.29	83,83,83,83	0
55	MG	DA	1642	1/1	0.64	0.21	112,112,112,112	0
56	OHX	DA	1794	7/7	0.64	0.09	124,130,139,205	1
55	MG	CA	3198	1/1	0.64	0.23	118,118,118,118	0
55	MG	DA	1659	1/1	0.65	0.22	89,89,89,89	0
55	MG	DA	1641	1/1	0.65	0.27	130,130,130,130	0
55	MG	DA	1643	1/1	0.65	0.24	136,136,136,136	0
55	MG	DA	1682	1/1	0.65	0.35	87,87,87,87	0
55	MG	AA	3248	1/1	0.66	0.25	86,86,86,86	0
55	MG	CA	3085	1/1	0.66	0.28	102,102,102,102	0
55	MG	CA	3107	1/1	0.66	0.25	82,82,82,82	0
55	MG	DB	102	1/1	0.66	0.21	102,102,102,102	0
55	MG	CA	3197	1/1	0.66	0.32	79,79,79,79	0
55	MG	BA	1749	1/1	0.66	0.27	88,88,88,88	0
55	MG	BC	105	1/1	0.66	0.40	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	CA	3264	1/1	0.67	0.40	49,49,49,49	0
56	OHX	CB	218	7/7	0.67	0.10	141,159,166,235	1
55	MG	DA	1720	1/1	0.67	0.25	105,105,105,105	0
55	MG	DA	1688	1/1	0.67	0.30	101,101,101,101	0
55	MG	AA	3009	1/1	0.68	0.16	89,89,89,89	0
55	MG	DA	1717	1/1	0.68	0.20	100,100,100,100	0
55	MG	BA	1746	1/1	0.68	0.28	82,82,82,82	0
55	MG	AA	3108	1/1	0.68	0.19	82,82,82,82	0
55	MG	AA	3347	1/1	0.68	0.32	70,70,70,70	0
55	MG	CA	3141	1/1	0.68	0.32	77,77,77,77	0
55	MG	BA	1622	1/1	0.68	0.16	123,123,123,123	0
55	MG	DA	1705	1/1	0.68	0.24	108,108,108,108	0
55	MG	DA	1649	1/1	0.69	0.27	87,87,87,87	0
55	MG	CA	3458	1/1	0.69	0.20	82,82,82,82	0
55	MG	DA	1668	1/1	0.69	0.22	86,86,86,86	0
55	MG	BA	1607	1/1	0.69	0.24	93,93,93,93	0
55	MG	DA	1623	1/1	0.70	0.24	124,124,124,124	0
55	MG	AA	3280	1/1	0.70	0.24	77,77,77,77	0
55	MG	CE	301	1/1	0.70	0.39	56,56,56,56	0
55	MG	DA	1617	1/1	0.70	0.20	115,115,115,115	0
56	OHX	BD	104	7/7	0.70	0.12	82,85,90,147	2
55	MG	CA	3146	1/1	0.70	0.29	77,77,77,77	0
55	MG	CA	3062	1/1	0.70	0.14	78,78,78,78	0
55	MG	CA	3457	1/1	0.70	0.20	66,66,66,66	0
56	OHX	DB	105	7/7	0.70	0.14	88,91,103,175	5
55	MG	BA	1611	1/1	0.71	0.34	84,84,84,84	0
55	MG	DC	103	1/1	0.71	0.34	96,96,96,96	0
55	MG	AA	3131	1/1	0.71	0.20	94,94,94,94	0
55	MG	CA	3448	1/1	0.71	0.25	63,63,63,63	0
55	MG	AA	3144	1/1	0.72	0.45	71,71,71,71	0
55	MG	CA	3079	1/1	0.72	0.28	73,73,73,73	0
55	MG	BA	1602	1/1	0.72	0.29	75,75,75,75	0
55	MG	AA	3232	1/1	0.72	0.23	75,75,75,75	0
55	MG	CA	3215	1/1	0.72	0.15	137,137,137,137	0
55	MG	CA	3023	1/1	0.72	0.30	85,85,85,85	0
55	MG	AA	3065	1/1	0.72	0.40	49,49,49,49	0
55	MG	CA	3172	1/1	0.72	0.22	86,86,86,86	0
55	MG	BA	1615	1/1	0.73	0.21	113,113,113,113	0
56	OHX	AA	3536	7/7	0.73	0.10	116,124,157,192	1
55	MG	CA	3196	1/1	0.73	0.36	92,92,92,92	0
56	OHX	CA	3429	7/7	0.73	0.10	127,129,142,209	1
55	MG	DA	1678	1/1	0.73	0.13	118,118,118,118	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3141	1/1	0.73	0.32	44,44,44,44	0
55	MG	AA	3098	1/1	0.73	0.23	77,77,77,77	0
55	MG	AA	3218	1/1	0.73	0.27	82,82,82,82	0
55	MG	BA	1712	1/1	0.74	0.29	95,95,95,95	0
56	OHX	AA	3555	7/7	0.74	0.10	112,114,124,192	1
56	OHX	BA	1669	7/7	0.74	0.14	124,127,142,200	1
55	MG	BA	1745	1/1	0.74	0.44	83,83,83,83	0
55	MG	AA	3282	1/1	0.74	0.18	69,69,69,69	0
55	MG	AA	3037	1/1	0.74	0.30	63,63,63,63	0
55	MG	DA	1630	1/1	0.74	0.20	95,95,95,95	0
55	MG	AA	3045	1/1	0.74	0.28	65,65,65,65	0
56	OHX	AA	3534	7/7	0.74	0.10	136,141,145,222	1
55	MG	CA	3086	1/1	0.75	0.29	68,68,68,68	0
55	MG	BA	1722	1/1	0.75	0.34	91,91,91,91	0
55	MG	CA	3136	1/1	0.75	0.19	91,91,91,91	0
55	MG	BA	1704	1/1	0.75	0.13	88,88,88,88	0
55	MG	AA	3268	1/1	0.75	0.30	73,73,73,73	0
55	MG	BA	1720	1/1	0.75	0.30	58,58,58,58	0
55	MG	DA	1634	1/1	0.75	0.09	118,118,118,118	0
55	MG	DA	1637	1/1	0.75	0.23	106,106,106,106	0
55	MG	CA	3193	1/1	0.75	0.25	80,80,80,80	0
55	MG	AA	3273	1/1	0.76	0.31	66,66,66,66	0
55	MG	BA	1601	1/1	0.76	0.11	81,81,81,81	0
55	MG	CA	3183	1/1	0.76	0.29	93,93,93,93	0
55	MG	CA	3187	1/1	0.76	0.36	86,86,86,86	0
56	OHX	AA	3562	7/7	0.76	0.10	98,105,127,189	1
55	MG	BA	1747	1/1	0.76	0.28	74,74,74,74	0
55	MG	AA	3125	1/1	0.76	0.20	92,92,92,92	0
56	OHX	CA	3421	7/7	0.76	0.10	113,126,135,198	1
55	MG	BA	1605	1/1	0.76	0.16	104,104,104,104	0
55	MG	AA	3209	1/1	0.76	0.26	57,57,57,57	0
55	MG	CA	3117	1/1	0.76	0.17	69,69,69,69	0
55	MG	BA	1609	1/1	0.76	0.22	73,73,73,73	0
55	MG	BA	1744	1/1	0.76	0.16	90,90,90,90	0
55	MG	AA	3058	1/1	0.77	0.20	73,73,73,73	0
55	MG	AA	3150	1/1	0.77	0.27	68,68,68,68	0
55	MG	AA	3397	1/1	0.77	0.14	80,80,80,80	0
55	MG	DC	104	1/1	0.77	0.28	77,77,77,77	0
56	OHX	AA	3523	7/7	0.77	0.12	109,114,123,180	1
55	MG	CA	3460	1/1	0.77	0.36	72,72,72,72	0
55	MG	BA	1718	1/1	0.77	0.20	78,78,78,78	0
55	MG	BA	1633	1/1	0.77	0.18	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	CA	3201	1/1	0.77	0.29	79,79,79,79	0
55	MG	CA	3129	1/1	0.77	0.39	81,81,81,81	0
55	MG	AA	3190	1/1	0.77	0.32	69,69,69,69	0
55	MG	BA	1729	1/1	0.77	0.33	73,73,73,73	0
55	MG	BA	1640	1/1	0.77	0.26	73,73,73,73	0
55	MG	DA	1694	1/1	0.77	0.20	104,104,104,104	0
55	MG	CA	3045	1/1	0.77	0.41	91,91,91,91	0
55	MG	CA	3266	1/1	0.77	0.30	64,64,64,64	0
55	MG	DA	1715	1/1	0.77	0.22	89,89,89,89	0
55	MG	AA	3076	1/1	0.77	0.37	72,72,72,72	0
55	MG	CA	3046	1/1	0.78	0.18	76,76,76,76	0
55	MG	DA	1675	1/1	0.78	0.19	92,92,92,92	0
55	MG	DA	1676	1/1	0.78	0.29	83,83,83,83	0
55	MG	BA	1706	1/1	0.78	0.32	79,79,79,79	0
56	OHX	AA	3535	7/7	0.78	0.10	104,112,123,191	1
55	MG	DA	1627	1/1	0.78	0.32	77,77,77,77	0
56	OHX	AA	3545	7/7	0.78	0.14	90,96,105,167	2
55	MG	BA	1631	1/1	0.78	0.15	78,78,78,78	0
55	MG	CA	3200	1/1	0.78	0.24	56,56,56,56	0
56	OHX	BA	1657	7/7	0.78	0.15	116,125,141,215	1
56	OHX	BA	1667	7/7	0.78	0.12	118,130,146,200	1
55	MG	AA	3159	1/1	0.78	0.19	65,65,65,65	0
56	OHX	BA	1686	7/7	0.78	0.09	141,143,153,230	1
56	OHX	BA	1692	7/7	0.78	0.10	126,131,140,209	1
55	MG	CA	3202	1/1	0.78	0.33	79,79,79,79	0
56	OHX	CA	3396	7/7	0.78	0.08	135,136,150,198	1
55	MG	AA	3164	1/1	0.78	0.17	70,70,70,70	0
55	MG	CA	3095	1/1	0.78	0.16	54,54,54,54	0
55	MG	DA	1609	1/1	0.78	0.25	91,91,91,91	0
55	MG	AA	3074	1/1	0.78	0.24	73,73,73,73	0
55	MG	CA	3216	1/1	0.78	0.28	91,91,91,91	0
55	MG	BA	1728	1/1	0.78	0.28	90,90,90,90	0
55	MG	AA	3391	1/1	0.79	0.27	59,59,59,59	0
55	MG	CA	3170	1/1	0.79	0.12	65,65,65,65	0
55	MG	CA	3217	1/1	0.79	0.28	58,58,58,58	0
55	MG	BA	1612	1/1	0.79	0.28	81,81,81,81	0
55	MG	CA	3053	1/1	0.79	0.12	99,99,99,99	0
55	MG	AA	3187	1/1	0.79	0.32	86,86,86,86	0
55	MG	AO	201	1/1	0.79	0.23	80,80,80,80	0
55	MG	DA	1635	1/1	0.79	0.36	96,96,96,96	0
56	OHX	BA	1677	7/7	0.79	0.10	141,145,154,220	1
55	MG	AA	3035	1/1	0.79	0.31	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	1751	1/1	0.79	0.35	95,95,95,95	0
55	MG	AA	3258	1/1	0.79	0.25	65,65,65,65	0
55	MG	AA	3176	1/1	0.79	0.17	60,60,60,60	0
56	OHX	CA	3420	7/7	0.79	0.09	131,141,152,216	1
55	MG	DA	1647	1/1	0.79	0.30	90,90,90,90	0
55	MG	BA	1606	1/1	0.79	0.24	92,92,92,92	0
56	OHX	CA	3470	7/7	0.79	0.10	113,126,137,181	1
55	MG	AA	3350	1/1	0.79	0.32	80,80,80,80	0
55	MG	DA	1660	1/1	0.79	0.33	88,88,88,88	0
55	MG	AA	3378	1/1	0.79	0.25	47,47,47,47	0
55	MG	CA	3035	1/1	0.79	0.18	92,92,92,92	0
55	MG	DA	1662	1/1	0.80	0.29	73,73,73,73	0
55	MG	BA	1610	1/1	0.80	0.19	92,92,92,92	0
55	MG	CA	3207	1/1	0.80	0.23	68,68,68,68	0
55	MG	CA	3042	1/1	0.80	0.24	67,67,67,67	0
56	OHX	AA	3552	7/7	0.80	0.13	105,122,135,199	1
55	MG	CA	3044	1/1	0.80	0.20	74,74,74,74	0
55	MG	AA	3231	1/1	0.80	0.30	66,66,66,66	0
55	MG	AA	3169	1/1	0.80	0.30	76,76,76,76	0
55	MG	DA	1629	1/1	0.80	0.15	93,93,93,93	0
55	MG	CA	3164	1/1	0.80	0.26	97,97,97,97	0
55	MG	AA	3062	1/1	0.80	0.34	73,73,73,73	0
55	MG	DA	1696	1/1	0.80	0.16	112,112,112,112	0
55	MG	CA	3223	1/1	0.80	0.29	88,88,88,88	0
55	MG	DA	1708	1/1	0.80	0.27	87,87,87,87	0
55	MG	BA	1724	1/1	0.80	0.24	59,59,59,59	0
55	MG	CA	3072	1/1	0.80	0.36	43,43,43,43	0
55	MG	CA	3076	1/1	0.80	0.37	64,64,64,64	0
55	MG	AA	3217	1/1	0.80	0.23	60,60,60,60	0
55	MG	BA	1625	1/1	0.80	0.32	65,65,65,65	0
55	MG	AA	3132	1/1	0.80	0.34	81,81,81,81	0
56	OHX	DA	1753	7/7	0.80	0.13	120,124,134,196	1
55	MG	CA	3088	1/1	0.80	0.30	86,86,86,86	0
55	MG	CA	3028	1/1	0.80	0.19	73,73,73,73	0
55	MG	AA	3285	1/1	0.80	0.32	80,80,80,80	0
55	MG	DA	1657	1/1	0.81	0.33	70,70,70,70	0
55	MG	AA	3235	1/1	0.81	0.21	50,50,50,50	0
55	MG	CA	3225	1/1	0.81	0.18	48,48,48,48	0
55	MG	BA	1725	1/1	0.81	0.35	69,69,69,69	0
55	MG	AB	201	1/1	0.81	0.27	73,73,73,73	0
55	MG	CA	3267	1/1	0.81	0.22	65,65,65,65	0
55	MG	CA	3440	1/1	0.81	0.31	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	CA	3060	1/1	0.81	0.16	75,75,75,75	0
55	MG	CA	3206	1/1	0.81	0.30	90,90,90,90	0
55	MG	AB	206	1/1	0.81	0.37	83,83,83,83	0
55	MG	BQ	101	1/1	0.81	0.41	96,96,96,96	0
55	MG	CA	3191	1/1	0.81	0.28	72,72,72,72	0
55	MG	CA	3192	1/1	0.81	0.23	87,87,87,87	0
55	MG	BA	1703	1/1	0.81	0.27	108,108,108,108	0
55	MG	BA	1635	1/1	0.81	0.23	96,96,96,96	0
55	MG	CA	3081	1/1	0.81	0.34	63,63,63,63	0
56	OHX	AA	3565	7/7	0.81	0.09	117,122,134,195	1
56	OHX	DC	108	7/7	0.81	0.10	120,132,142,180	1
55	MG	CA	3221	1/1	0.82	0.29	69,69,69,69	0
55	MG	CA	3171	1/1	0.82	0.20	82,82,82,82	0
55	MG	AA	3019	1/1	0.82	0.31	72,72,72,72	0
56	OHX	AA	3522	7/7	0.82	0.10	118,131,145,201	1
55	MG	CA	3262	1/1	0.82	0.41	74,74,74,74	0
55	MG	CA	3178	1/1	0.82	0.19	52,52,52,52	0
55	MG	CA	3064	1/1	0.82	0.12	89,89,89,89	0
55	MG	AA	3130	1/1	0.82	0.17	75,75,75,75	0
55	MG	AA	3354	1/1	0.82	0.33	57,57,57,57	0
55	MG	CA	3441	1/1	0.82	0.33	99,99,99,99	0
55	MG	AA	3165	1/1	0.82	0.24	84,84,84,84	0
55	MG	CA	3449	1/1	0.82	0.32	54,54,54,54	0
55	MG	AA	3066	1/1	0.82	0.26	83,83,83,83	0
55	MG	BA	1709	1/1	0.82	0.24	100,100,100,100	0
55	MG	DA	1672	1/1	0.82	0.26	83,83,83,83	0
55	MG	AA	3096	1/1	0.82	0.27	71,71,71,71	0
55	MG	DA	1674	1/1	0.82	0.22	99,99,99,99	0
55	MG	AA	3080	1/1	0.82	0.31	55,55,55,55	0
55	MG	AB	203	1/1	0.82	0.29	71,71,71,71	0
55	MG	AA	3083	1/1	0.82	0.15	88,88,88,88	0
55	MG	AA	3014	1/1	0.82	0.34	44,44,44,44	0
55	MG	AA	3276	1/1	0.82	0.21	69,69,69,69	0
56	OHX	CA	3419	7/7	0.82	0.08	153,156,164,238	1
55	MG	AA	3145	1/1	0.82	0.32	56,56,56,56	0
55	MG	BA	1604	1/1	0.82	0.22	72,72,72,72	0
56	OHX	CA	3427	7/7	0.82	0.08	114,126,136,203	1
55	MG	CA	3144	1/1	0.82	0.30	54,54,54,54	0
55	MG	DA	1626	1/1	0.82	0.33	84,84,84,84	0
55	MG	CA	3145	1/1	0.82	0.42	74,74,74,74	0
55	MG	DA	1710	1/1	0.82	0.15	103,103,103,103	0
56	OHX	DA	1765	7/7	0.82	0.15	117,133,141,227	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3119	1/1	0.82	0.28	64,64,64,64	0
55	MG	AA	3156	1/1	0.82	0.27	45,45,45,45	0
55	MG	BA	1646	1/1	0.82	0.24	95,95,95,95	0
55	MG	DA	1633	1/1	0.82	0.32	74,74,74,74	0
55	MG	CA	3477	1/1	0.83	0.27	60,60,60,60	0
55	MG	CB	206	1/1	0.83	0.23	83,83,83,83	0
55	MG	AA	3021	1/1	0.83	0.30	80,80,80,80	0
55	MG	AA	3129	1/1	0.83	0.20	83,83,83,83	0
55	MG	CA	3163	1/1	0.83	0.28	80,80,80,80	0
55	MG	BA	1710	1/1	0.83	0.25	97,97,97,97	0
55	MG	CA	3065	1/1	0.83	0.29	55,55,55,55	0
55	MG	AA	3091	1/1	0.83	0.20	77,77,77,77	0
55	MG	AA	3072	1/1	0.83	0.22	65,65,65,65	0
55	MG	AA	3166	1/1	0.83	0.25	66,66,66,66	0
55	MG	AA	3351	1/1	0.83	0.30	53,53,53,53	0
55	MG	CA	3227	1/1	0.83	0.32	79,79,79,79	0
55	MG	CA	3230	1/1	0.83	0.27	79,79,79,79	0
56	OHX	BB	107	7/7	0.83	0.12	71,92,103,147	3
55	MG	DA	1703	1/1	0.83	0.30	73,73,73,73	0
55	MG	AA	3052	1/1	0.83	0.24	85,85,85,85	0
55	MG	AA	3024	1/1	0.83	0.27	63,63,63,63	0
55	MG	BA	1644	1/1	0.83	0.49	94,94,94,94	0
55	MG	CA	3091	1/1	0.83	0.29	74,74,74,74	0
55	MG	CA	3268	1/1	0.83	0.16	52,52,52,52	0
55	MG	CA	3040	1/1	0.83	0.31	70,70,70,70	0
56	OHX	CA	3432	7/7	0.83	0.08	119,135,143,173	1
56	OHX	CA	3435	7/7	0.83	0.13	105,108,131,192	1
55	MG	AA	3252	1/1	0.83	0.32	47,47,47,47	0
55	MG	AA	3034	1/1	0.83	0.27	56,56,56,56	0
56	OHX	C3	101	7/7	0.83	0.10	119,129,151,179	2
55	MG	DA	1644	1/1	0.83	0.10	149,149,149,149	0
55	MG	AA	3017	1/1	0.83	0.23	100,100,100,100	0
56	OHX	DA	1774	7/7	0.83	0.12	131,135,155,208	1
56	OHX	DA	1782	7/7	0.83	0.08	117,128,138,207	1
55	MG	AA	3110	1/1	0.83	0.38	48,48,48,48	0
55	MG	AA	3005	1/1	0.83	0.29	43,43,43,43	0
55	MG	CA	3142	1/1	0.83	0.27	71,71,71,71	0
55	MG	CA	3054	1/1	0.83	0.19	54,54,54,54	0
55	MG	BA	1723	1/1	0.84	0.20	82,82,82,82	0
55	MG	DA	1624	1/1	0.84	0.07	73,73,73,73	0
56	OHX	AA	3564	7/7	0.84	0.07	102,105,128,167	1
55	MG	AB	205	1/1	0.84	0.17	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3026	1/1	0.84	0.26	92,92,92,92	0
55	MG	CA	3039	1/1	0.84	0.28	65,65,65,65	0
55	MG	BA	1647	1/1	0.84	0.18	112,112,112,112	0
55	MG	AE	301	1/1	0.84	0.32	52,52,52,52	0
55	MG	DA	1698	1/1	0.84	0.31	95,95,95,95	0
55	MG	DA	1701	1/1	0.84	0.36	90,90,90,90	0
55	MG	AA	3220	1/1	0.84	0.26	64,64,64,64	0
55	MG	AA	3139	1/1	0.84	0.30	48,48,48,48	0
56	OHX	CA	3250	7/7	0.84	0.13	106,109,126,164	1
55	MG	DA	1706	1/1	0.84	0.09	100,100,100,100	0
56	OHX	CA	3399	7/7	0.84	0.13	97,104,115,165	2
55	MG	CA	3134	1/1	0.84	0.25	65,65,65,65	0
55	MG	AA	3015	1/1	0.84	0.26	76,76,76,76	0
55	MG	AA	3038	1/1	0.84	0.15	46,46,46,46	0
55	MG	AA	3208	1/1	0.84	0.23	65,65,65,65	0
55	MG	AA	3281	1/1	0.84	0.38	70,70,70,70	0
55	MG	BA	1753	1/1	0.84	0.24	67,67,67,67	0
55	MG	AA	3059	1/1	0.84	0.26	85,85,85,85	0
55	MG	DC	101	1/1	0.84	0.34	85,85,85,85	0
56	OHX	CA	3486	7/7	0.84	0.13	87,109,129,181	2
56	OHX	CB	216	7/7	0.84	0.10	117,132,146,206	1
55	MG	CA	3214	1/1	0.84	0.22	65,65,65,65	0
55	MG	CB	204	1/1	0.84	0.24	73,73,73,73	0
55	MG	BA	1715	1/1	0.84	0.26	74,74,74,74	0
55	MG	AB	202	1/1	0.84	0.13	72,72,72,72	0
55	MG	BA	1639	1/1	0.84	0.10	102,102,102,102	0
55	MG	DA	1613	1/1	0.84	0.20	87,87,87,87	0
55	MG	CA	3078	1/1	0.84	0.37	76,76,76,76	0
55	MG	AA	3148	1/1	0.84	0.23	65,65,65,65	0
55	MG	CA	3175	1/1	0.84	0.43	64,64,64,64	0
55	MG	CA	3027	1/1	0.84	0.26	81,81,81,81	0
55	MG	DA	1712	1/1	0.85	0.33	98,98,98,98	0
55	MG	DA	1670	1/1	0.85	0.24	64,64,64,64	0
55	MG	CA	3037	1/1	0.85	0.23	89,89,89,89	0
56	OHX	BA	1695	7/7	0.85	0.07	129,147,158,217	1
56	OHX	BA	1806	7/7	0.85	0.14	97,127,142,180	2
55	MG	DA	1632	1/1	0.85	0.20	83,83,83,83	0
55	MG	CA	3057	1/1	0.85	0.26	95,95,95,95	0
55	MG	DA	1601	1/1	0.85	0.25	87,87,87,87	0
55	MG	DA	1603	1/1	0.85	0.39	71,71,71,71	0
55	MG	CA	3189	1/1	0.85	0.31	67,67,67,67	0
56	OHX	CA	3413	7/7	0.85	0.10	121,130,144,215	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	CA	3414	7/7	0.85	0.09	155,156,163,215	1
55	MG	BA	1608	1/1	0.85	0.23	55,55,55,55	0
56	OHX	AA	3333	7/7	0.85	0.12	91,114,128,179	2
56	OHX	AA	3369	7/7	0.85	0.14	80,102,119,165	1
56	OHX	CA	3422	7/7	0.85	0.09	126,137,143,193	1
56	OHX	AA	3513	7/7	0.85	0.09	80,88,116,153	1
55	MG	AA	3216	1/1	0.85	0.28	71,71,71,71	0
55	MG	DA	1686	1/1	0.85	0.14	73,73,73,73	0
55	MG	BA	1660	1/1	0.85	0.20	97,97,97,97	0
56	OHX	AA	3530	7/7	0.85	0.12	101,121,143,206	1
55	MG	CA	3195	1/1	0.85	0.17	68,68,68,68	0
56	OHX	CA	3491	7/7	0.85	0.11	92,108,117,175	1
55	MG	AA	3107	1/1	0.85	0.11	79,79,79,79	0
55	MG	DA	1697	1/1	0.85	0.25	72,72,72,72	0
56	OHX	CB	219	7/7	0.85	0.08	145,151,161,232	1
55	MG	CA	3071	1/1	0.85	0.26	51,51,51,51	0
55	MG	DA	1656	1/1	0.85	0.28	68,68,68,68	0
55	MG	DA	1702	1/1	0.85	0.11	122,122,122,122	0
55	MG	CA	3114	1/1	0.85	0.32	57,57,57,57	0
55	MG	AA	3126	1/1	0.85	0.21	85,85,85,85	0
56	OHX	DA	1783	7/7	0.85	0.09	123,123,145,185	1
55	MG	AA	3105	1/1	0.85	0.23	124,124,124,124	0
56	OHX	DA	1805	7/7	0.85	0.07	155,158,165,245	1
56	OHX	DA	1809	7/7	0.85	0.07	124,126,139,221	1
56	OHX	DR	101	7/7	0.85	0.07	135,141,146,189	1
55	MG	DA	1707	1/1	0.85	0.26	85,85,85,85	0
55	MG	CA	3051	1/1	0.85	0.31	69,69,69,69	0
55	MG	AA	3379	1/1	0.85	0.35	55,55,55,55	0
55	MG	AA	3079	1/1	0.86	0.26	88,88,88,88	0
56	OHX	BA	1674	7/7	0.86	0.09	117,122,137,199	1
56	OHX	BA	1675	7/7	0.86	0.09	120,128,140,197	1
55	MG	BA	1714	1/1	0.86	0.18	56,56,56,56	0
55	MG	CA	3109	1/1	0.86	0.23	56,56,56,56	0
55	MG	AA	3046	1/1	0.86	0.24	68,68,68,68	0
55	MG	BB	102	1/1	0.86	0.19	85,85,85,85	0
56	OHX	BA	1790	7/7	0.86	0.11	96,123,133,185	1
55	MG	DA	1640	1/1	0.86	0.20	83,83,83,83	0
55	MG	CA	3118	1/1	0.86	0.26	69,69,69,69	0
55	MG	DA	1709	1/1	0.86	0.36	80,80,80,80	0
55	MG	CA	3124	1/1	0.86	0.29	44,44,44,44	0
56	OHX	CA	3252	7/7	0.86	0.13	108,118,136,203	1
56	OHX	CA	3371	7/7	0.86	0.14	67,90,123,162	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AO	203	1/1	0.86	0.19	56,56,56,56	0
55	MG	DA	1713	1/1	0.86	0.30	79,79,79,79	0
56	OHX	CA	3409	7/7	0.86	0.11	97,100,119,183	1
55	MG	BA	1641	1/1	0.86	0.16	85,85,85,85	0
55	MG	BA	1721	1/1	0.86	0.25	70,70,70,70	0
56	OHX	CA	3415	7/7	0.86	0.10	134,135,143,187	1
55	MG	DA	1716	1/1	0.86	0.26	85,85,85,85	0
55	MG	CA	3014	1/1	0.86	0.22	76,76,76,76	0
55	MG	CA	3479	1/1	0.86	0.33	64,64,64,64	0
55	MG	DA	1725	1/1	0.86	0.32	87,87,87,87	0
55	MG	AA	3382	1/1	0.86	0.27	36,36,36,36	0
55	MG	BA	1617	1/1	0.86	0.25	71,71,71,71	0
55	MG	BA	1618	1/1	0.86	0.27	63,63,63,63	0
55	MG	AA	3157	1/1	0.86	0.35	49,49,49,49	0
55	MG	CA	3151	1/1	0.86	0.22	76,76,76,76	0
55	MG	DA	1607	1/1	0.86	0.23	82,82,82,82	0
56	OHX	CA	3487	7/7	0.86	0.08	135,139,147,210	1
55	MG	CA	3156	1/1	0.86	0.38	84,84,84,84	0
55	MG	AA	3256	1/1	0.86	0.33	53,53,53,53	0
55	MG	DA	1614	1/1	0.86	0.17	91,91,91,91	0
55	MG	BA	1628	1/1	0.86	0.28	80,80,80,80	0
55	MG	CA	3218	1/1	0.86	0.26	83,83,83,83	0
55	MG	AA	3211	1/1	0.86	0.36	62,62,62,62	0
55	MG	CA	3082	1/1	0.86	0.34	62,62,62,62	0
55	MG	CA	3084	1/1	0.86	0.39	60,60,60,60	0
55	MG	DA	1684	1/1	0.86	0.29	79,79,79,79	0
55	MG	AA	3048	1/1	0.86	0.34	94,94,94,94	0
55	MG	DA	1687	1/1	0.86	0.15	63,63,63,63	0
55	MG	CA	3177	1/1	0.86	0.21	57,57,57,57	0
55	MG	AA	3270	1/1	0.86	0.09	94,94,94,94	0
55	MG	AA	3084	1/1	0.86	0.23	58,58,58,58	0
55	MG	AA	3275	1/1	0.86	0.28	64,64,64,64	0
56	OHX	BA	1666	7/7	0.86	0.09	117,122,134,158	2
55	MG	CA	3188	1/1	0.86	0.33	60,60,60,60	0
55	MG	BA	1649	1/1	0.87	0.14	74,74,74,74	0
55	MG	AA	3392	1/1	0.87	0.35	64,64,64,64	0
55	MG	CA	3056	1/1	0.87	0.28	79,79,79,79	0
55	MG	BA	1698	1/1	0.87	0.30	62,62,62,62	0
55	MG	AA	3040	1/1	0.87	0.27	47,47,47,47	0
55	MG	CA	3125	1/1	0.87	0.16	52,52,52,52	0
55	MG	CA	3446	1/1	0.87	0.33	47,47,47,47	0
55	MG	A1	201	1/1	0.87	0.30	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	A3	101	1/1	0.87	0.31	60,60,60,60	0
55	MG	AA	3171	1/1	0.87	0.20	48,48,48,48	0
55	MG	CA	3456	1/1	0.87	0.23	66,66,66,66	0
55	MG	CA	3066	1/1	0.87	0.38	56,56,56,56	0
55	MG	BA	1734	1/1	0.87	0.32	70,70,70,70	0
55	MG	CA	3029	1/1	0.87	0.19	76,76,76,76	0
56	OHX	CA	3348	7/7	0.87	0.15	104,111,132,178	1
55	MG	CA	3471	1/1	0.87	0.30	57,57,57,57	0
56	OHX	CA	3379	7/7	0.87	0.07	134,137,155,207	1
55	MG	DA	1655	1/1	0.87	0.24	78,78,78,78	0
56	OHX	CA	3397	7/7	0.87	0.07	128,138,154,219	1
55	MG	BA	1741	1/1	0.87	0.38	73,73,73,73	0
55	MG	CA	3478	1/1	0.87	0.29	82,82,82,82	0
55	MG	BA	1708	1/1	0.87	0.28	77,77,77,77	0
55	MG	CA	3036	1/1	0.87	0.22	87,87,87,87	0
55	MG	AA	3106	1/1	0.87	0.24	70,70,70,70	0
55	MG	DA	1665	1/1	0.87	0.27	70,70,70,70	0
56	OHX	AA	3331	7/7	0.87	0.14	72,87,130,163	3
55	MG	AA	3267	1/1	0.87	0.30	80,80,80,80	0
55	MG	AA	3068	1/1	0.87	0.20	61,61,61,61	0
56	OHX	AA	3403	7/7	0.87	0.10	109,110,128,178	1
56	OHX	AA	3488	7/7	0.87	0.10	86,101,105,150	1
56	OHX	AA	3510	7/7	0.87	0.12	92,103,113,152	2
56	OHX	CA	3434	7/7	0.87	0.10	96,110,126,177	1
56	OHX	AA	3512	7/7	0.87	0.11	99,114,126,166	2
56	OHX	CA	3436	7/7	0.87	0.08	115,121,137,192	1
55	MG	CA	3041	1/1	0.87	0.14	73,73,73,73	0
55	MG	AA	3053	1/1	0.87	0.26	60,60,60,60	0
55	MG	DA	1608	1/1	0.87	0.19	78,78,78,78	0
55	MG	BA	1626	1/1	0.87	0.14	81,81,81,81	0
55	MG	CA	3219	1/1	0.87	0.44	79,79,79,79	0
56	OHX	CB	217	7/7	0.87	0.08	128,135,146,182	1
56	OHX	AA	3532	7/7	0.87	0.08	89,105,116,172	1
55	MG	AA	3061	1/1	0.87	0.22	49,49,49,49	0
55	MG	CA	3176	1/1	0.87	0.40	67,67,67,67	0
55	MG	CA	3222	1/1	0.87	0.20	81,81,81,81	0
55	MG	DA	1683	1/1	0.87	0.37	71,71,71,71	0
55	MG	AF	302	1/1	0.87	0.23	81,81,81,81	0
55	MG	DA	1620	1/1	0.87	0.32	79,79,79,79	0
55	MG	CA	3101	1/1	0.87	0.31	59,59,59,59	0
55	MG	CA	3102	1/1	0.87	0.31	67,67,67,67	0
56	OHX	DA	1801	7/7	0.87	0.08	141,143,154,216	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	CA	3184	1/1	0.87	0.35	60,60,60,60	0
56	OHX	DA	1808	7/7	0.87	0.10	119,124,131,178	1
56	OHX	AA	3566	7/7	0.87	0.09	92,97,126,175	2
56	OHX	DK	201	7/7	0.87	0.08	137,138,149,200	1
56	OHX	AB	216	7/7	0.87	0.12	88,124,141,184	1
55	MG	CA	3231	1/1	0.87	0.27	89,89,89,89	0
56	OHX	BA	1661	7/7	0.87	0.09	108,124,128,170	1
55	MG	BS	101	1/1	0.87	0.20	93,93,93,93	0
55	MG	AA	3381	1/1	0.88	0.27	59,59,59,59	0
55	MG	CA	3258	1/1	0.88	0.33	56,56,56,56	0
55	MG	CA	3050	1/1	0.88	0.24	65,65,65,65	0
55	MG	AA	3226	1/1	0.88	0.28	42,42,42,42	0
55	MG	CA	3052	1/1	0.88	0.28	66,66,66,66	0
55	MG	BA	1603	1/1	0.88	0.20	63,63,63,63	0
55	MG	BA	1711	1/1	0.88	0.29	94,94,94,94	0
56	OHX	AA	3524	7/7	0.88	0.07	111,120,128,172	1
55	MG	AA	3013	1/1	0.88	0.22	41,41,41,41	0
55	MG	AA	3143	1/1	0.88	0.30	46,46,46,46	0
56	OHX	CA	3417	7/7	0.88	0.07	151,167,187,222	1
55	MG	AA	3396	1/1	0.88	0.40	71,71,71,71	0
55	MG	AA	3279	1/1	0.88	0.25	81,81,81,81	0
55	MG	CA	3140	1/1	0.88	0.27	59,59,59,59	0
55	MG	CA	3003	1/1	0.88	0.22	51,51,51,51	0
56	OHX	CA	3426	7/7	0.88	0.06	142,146,155,215	1
55	MG	CA	3008	1/1	0.88	0.23	52,52,52,52	0
55	MG	CA	3204	1/1	0.88	0.29	73,73,73,73	0
56	OHX	CA	3431	7/7	0.88	0.08	105,117,132,179	1
56	OHX	AA	3554	7/7	0.88	0.07	116,128,150,205	1
55	MG	AA	3193	1/1	0.88	0.08	58,58,58,58	0
55	MG	AA	3206	1/1	0.88	0.34	64,64,64,64	0
55	MG	CA	3208	1/1	0.88	0.29	70,70,70,70	0
55	MG	BA	1643	1/1	0.88	0.10	78,78,78,78	0
55	MG	AA	3163	1/1	0.88	0.20	61,61,61,61	0
56	OHX	AA	3567	7/7	0.88	0.08	103,106,118,172	1
55	MG	AA	3115	1/1	0.88	0.20	51,51,51,51	0
56	OHX	A1	203	7/7	0.88	0.11	100,107,140,182	3
55	MG	CA	3480	1/1	0.88	0.17	72,72,72,72	0
55	MG	DA	1650	1/1	0.88	0.23	67,67,67,67	0
55	MG	CB	201	1/1	0.88	0.12	77,77,77,77	0
55	MG	CA	3033	1/1	0.88	0.15	71,71,71,71	0
55	MG	AA	3057	1/1	0.88	0.29	72,72,72,72	0
55	MG	AA	3123	1/1	0.88	0.18	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AE	302	1/1	0.88	0.22	71,71,71,71	0
55	MG	BA	1652	1/1	0.88	0.20	63,63,63,63	0
55	MG	DA	1663	1/1	0.88	0.19	66,66,66,66	0
55	MG	AA	3049	1/1	0.88	0.25	64,64,64,64	0
55	MG	AA	3353	1/1	0.88	0.21	39,39,39,39	0
55	MG	AA	3151	1/1	0.88	0.21	62,62,62,62	0
55	MG	AA	3044	1/1	0.88	0.33	72,72,72,72	0
56	OHX	BA	1816	7/7	0.88	0.09	127,130,142,194	1
56	OHX	DA	1810	7/7	0.88	0.05	134,135,143,197	1
56	OHX	DG	302	7/7	0.88	0.07	133,142,147,197	1
55	MG	D1	101	1/1	0.88	0.28	78,78,78,78	0
55	MG	CA	3179	1/1	0.88	0.09	73,73,73,73	0
55	MG	BA	1627	1/1	0.88	0.29	80,80,80,80	0
55	MG	AA	3224	1/1	0.88	0.22	68,68,68,68	0
56	OHX	CA	3284	7/7	0.88	0.09	136,147,155,216	1
55	MG	BA	1650	1/1	0.89	0.36	72,72,72,72	0
55	MG	CA	3018	1/1	0.89	0.34	55,55,55,55	0
55	MG	BA	1651	1/1	0.89	0.10	90,90,90,90	0
55	MG	CA	3211	1/1	0.89	0.12	116,116,116,116	0
55	MG	CA	3026	1/1	0.89	0.10	58,58,58,58	0
55	MG	CA	3157	1/1	0.89	0.31	76,76,76,76	0
55	MG	AA	3234	1/1	0.89	0.13	56,56,56,56	0
55	MG	BA	1727	1/1	0.89	0.28	70,70,70,70	0
55	MG	CB	202	1/1	0.89	0.14	99,99,99,99	0
56	OHX	CA	3269	7/7	0.89	0.14	98,100,123,153	2
55	MG	AA	3063	1/1	0.89	0.20	76,76,76,76	0
55	MG	DC	106	1/1	0.89	0.41	91,91,91,91	0
56	OHX	CA	3358	7/7	0.89	0.07	128,130,147,230	1
55	MG	CB	205	1/1	0.89	0.33	74,74,74,74	0
56	OHX	CA	3378	7/7	0.89	0.09	128,141,148,178	1
56	OHX	AA	3138	7/7	0.89	0.12	88,92,127,173	1
56	OHX	AA	3302	7/7	0.89	0.10	88,114,124,193	1
56	OHX	AA	3306	7/7	0.89	0.08	134,139,151,214	1
55	MG	CA	3030	1/1	0.89	0.22	89,89,89,89	0
56	OHX	CA	3407	7/7	0.89	0.08	142,149,155,227	1
55	MG	AA	3244	1/1	0.89	0.21	49,49,49,49	0
56	OHX	AA	3366	7/7	0.89	0.13	85,90,106,173	1
55	MG	BA	1730	1/1	0.89	0.30	73,73,73,73	0
56	OHX	AA	3370	7/7	0.89	0.10	115,126,140,200	1
55	MG	DA	1667	1/1	0.89	0.32	68,68,68,68	0
55	MG	AA	3102	1/1	0.89	0.25	79,79,79,79	0
56	OHX	AA	3490	7/7	0.89	0.07	94,113,129,158	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	1669	1/1	0.89	0.31	64,64,64,64	0
55	MG	BA	1702	1/1	0.89	0.17	62,62,62,62	0
55	MG	AA	3167	1/1	0.89	0.32	53,53,53,53	0
55	MG	AA	3155	1/1	0.89	0.10	85,85,85,85	0
55	MG	AA	3212	1/1	0.89	0.24	35,35,35,35	0
55	MG	AA	3128	1/1	0.89	0.23	54,54,54,54	0
55	MG	DA	1615	1/1	0.89	0.15	98,98,98,98	0
55	MG	DA	1677	1/1	0.89	0.23	76,76,76,76	0
55	MG	DA	1616	1/1	0.89	0.24	88,88,88,88	0
55	MG	AA	3175	1/1	0.89	0.25	39,39,39,39	0
55	MG	CA	3257	1/1	0.89	0.21	60,60,60,60	0
55	MG	AA	3023	1/1	0.89	0.24	52,52,52,52	0
56	OHX	AA	3539	7/7	0.89	0.07	116,125,136,193	1
56	OHX	AA	3540	7/7	0.89	0.08	109,134,164,188	2
56	OHX	CB	214	7/7	0.89	0.09	129,139,146,186	1
55	MG	CA	3260	1/1	0.89	0.22	71,71,71,71	0
55	MG	AA	3117	1/1	0.89	0.19	48,48,48,48	0
55	MG	BA	1613	1/1	0.89	0.17	65,65,65,65	0
55	MG	BA	1713	1/1	0.89	0.15	59,59,59,59	0
55	MG	DA	1625	1/1	0.89	0.12	97,97,97,97	0
55	MG	DA	1695	1/1	0.89	0.30	76,76,76,76	0
55	MG	BB	101	1/1	0.89	0.34	70,70,70,70	0
55	MG	BA	1614	1/1	0.89	0.25	73,73,73,73	0
56	OHX	DA	1775	7/7	0.89	0.08	133,145,148,215	1
55	MG	DA	1628	1/1	0.89	0.31	78,78,78,78	0
55	MG	CA	3439	1/1	0.89	0.32	63,63,63,63	0
56	OHX	DA	1786	7/7	0.89	0.08	143,151,161,223	1
56	OHX	DA	1787	7/7	0.89	0.09	95,113,121,162	2
56	OHX	AB	218	7/7	0.89	0.07	128,132,146,199	1
56	OHX	DA	1796	7/7	0.89	0.07	134,139,149,195	1
55	MG	AA	3070	1/1	0.89	0.13	52,52,52,52	0
56	OHX	DA	1803	7/7	0.89	0.07	135,141,144,207	1
55	MG	AA	3041	1/1	0.89	0.15	49,49,49,49	0
55	MG	CA	3443	1/1	0.89	0.36	49,49,49,49	0
55	MG	AA	3199	1/1	0.89	0.33	76,76,76,76	0
55	MG	BD	101	1/1	0.89	0.24	93,93,93,93	0
56	OHX	DA	1812	7/7	0.89	0.08	149,158,168,252	1
55	MG	CA	3059	1/1	0.89	0.32	63,63,63,63	0
55	MG	DA	1636	1/1	0.89	0.21	75,75,75,75	0
55	MG	AA	3390	1/1	0.89	0.28	46,46,46,46	0
55	MG	CA	3005	1/1	0.89	0.15	48,48,48,48	0
55	MG	AA	3201	1/1	0.89	0.22	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	BA	1690	7/7	0.89	0.08	118,127,134,188	1
55	MG	CA	3476	1/1	0.90	0.26	52,52,52,52	0
55	MG	BA	1623	1/1	0.90	0.20	67,67,67,67	0
55	MG	AA	3221	1/1	0.90	0.13	68,68,68,68	0
55	MG	DA	1658	1/1	0.90	0.31	64,64,64,64	0
55	MG	AA	3127	1/1	0.90	0.27	57,57,57,57	0
55	MG	CA	3119	1/1	0.90	0.19	61,61,61,61	0
56	OHX	CA	3306	7/7	0.90	0.09	98,106,119,148	1
55	MG	AA	3261	1/1	0.90	0.36	64,64,64,64	0
56	OHX	AA	3365	7/7	0.90	0.14	90,106,114,161	2
55	MG	AA	3109	1/1	0.90	0.34	47,47,47,47	0
55	MG	CB	203	1/1	0.90	0.11	111,111,111,111	0
55	MG	AA	3229	1/1	0.90	0.28	59,59,59,59	0
56	OHX	CA	3380	7/7	0.90	0.07	106,119,130,170	1
55	MG	CA	3131	1/1	0.90	0.27	65,65,65,65	0
56	OHX	AA	3407	7/7	0.90	0.10	108,117,126,165	1
56	OHX	AA	3484	7/7	0.90	0.11	76,100,111,147	2
55	MG	AA	3380	1/1	0.90	0.21	66,66,66,66	0
55	MG	CA	3212	1/1	0.90	0.29	75,75,75,75	0
56	OHX	CA	3411	7/7	0.90	0.07	117,123,138,184	1
56	OHX	AA	3505	7/7	0.90	0.12	86,108,110,156	1
55	MG	AA	3060	1/1	0.90	0.13	70,70,70,70	0
55	MG	AA	3114	1/1	0.90	0.22	47,47,47,47	0
55	MG	DA	1604	1/1	0.90	0.28	82,82,82,82	0
56	OHX	AA	3519	7/7	0.90	0.08	140,146,150,214	1
55	MG	BB	103	1/1	0.90	0.27	91,91,91,91	0
55	MG	CA	3055	1/1	0.90	0.17	66,66,66,66	0
55	MG	AA	3386	1/1	0.90	0.14	42,42,42,42	0
55	MG	DA	1611	1/1	0.90	0.18	92,92,92,92	0
55	MG	DA	1679	1/1	0.90	0.17	69,69,69,69	0
55	MG	BB	105	1/1	0.90	0.39	63,63,63,63	0
55	MG	AA	3274	1/1	0.90	0.28	89,89,89,89	0
55	MG	AA	3078	1/1	0.90	0.24	59,59,59,59	0
56	OHX	CA	3433	7/7	0.90	0.07	121,129,144,183	1
55	MG	CA	3153	1/1	0.90	0.23	56,56,56,56	0
56	OHX	AA	3537	7/7	0.90	0.07	171,189,202,242	1
55	MG	AA	3103	1/1	0.90	0.08	97,97,97,97	0
56	OHX	CA	3437	7/7	0.90	0.10	98,105,117,166	2
56	OHX	CA	3466	7/7	0.90	0.12	96,98,116,157	1
56	OHX	CA	3467	7/7	0.90	0.11	131,146,152,199	1
55	MG	CA	3002	1/1	0.90	0.29	50,50,50,50	0
55	MG	BA	1716	1/1	0.90	0.21	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3243	1/1	0.90	0.30	51,51,51,51	0
55	MG	CA	3229	1/1	0.90	0.27	80,80,80,80	0
56	OHX	CB	213	7/7	0.90	0.08	131,144,166,188	1
55	MG	CA	3165	1/1	0.90	0.25	57,57,57,57	0
56	OHX	CB	215	7/7	0.90	0.08	108,133,144,220	1
56	OHX	AA	3560	7/7	0.90	0.07	102,104,127,184	1
55	MG	CA	3166	1/1	0.90	0.35	58,58,58,58	0
55	MG	CA	3067	1/1	0.90	0.26	49,49,49,49	0
55	MG	BA	1642	1/1	0.90	0.10	102,102,102,102	0
55	MG	AA	3071	1/1	0.90	0.33	68,68,68,68	0
55	MG	AA	3409	1/1	0.90	0.30	56,56,56,56	0
56	OHX	AA	3568	7/7	0.90	0.09	78,93,100,118	1
56	OHX	AB	210	7/7	0.90	0.10	83,107,129,146	3
55	MG	CA	3021	1/1	0.90	0.12	60,60,60,60	0
55	MG	BA	1645	1/1	0.90	0.33	51,51,51,51	0
55	MG	AA	3020	1/1	0.90	0.39	44,44,44,44	0
56	OHX	DA	1785	7/7	0.90	0.09	110,114,129,164	1
55	MG	AA	3158	1/1	0.90	0.26	50,50,50,50	0
55	MG	CA	3083	1/1	0.90	0.27	44,44,44,44	0
55	MG	AA	3284	1/1	0.90	0.11	66,66,66,66	0
55	MG	CA	3185	1/1	0.90	0.39	75,75,75,75	0
55	MG	AA	3073	1/1	0.90	0.18	69,69,69,69	0
55	MG	AA	3250	1/1	0.90	0.35	56,56,56,56	0
55	MG	AA	3348	1/1	0.90	0.36	46,46,46,46	0
56	OHX	DA	1807	7/7	0.90	0.07	117,126,135,195	1
55	MG	AA	3069	1/1	0.90	0.26	62,62,62,62	0
55	MG	BA	1735	1/1	0.90	0.15	48,48,48,48	0
55	MG	CA	3096	1/1	0.90	0.18	64,64,64,64	0
55	MG	BA	1739	1/1	0.90	0.32	70,70,70,70	0
55	MG	DA	1645	1/1	0.90	0.26	91,91,91,91	0
56	OHX	BA	1783	7/7	0.90	0.14	77,87,125,141	2
55	MG	BA	1658	1/1	0.90	0.25	71,71,71,71	0
56	OHX	BA	1805	7/7	0.90	0.11	90,105,122,143	3
55	MG	BA	1621	1/1	0.90	0.27	55,55,55,55	0
55	MG	AF	301	1/1	0.90	0.23	83,83,83,83	0
55	MG	AA	3077	1/1	0.91	0.22	73,73,73,73	0
56	OHX	AA	3487	7/7	0.91	0.07	95,110,116,167	1
55	MG	AA	3124	1/1	0.91	0.24	70,70,70,70	0
56	OHX	CA	3375	7/7	0.91	0.10	103,118,131,145	1
55	MG	CA	3143	1/1	0.91	0.24	60,60,60,60	0
55	MG	DA	1605	1/1	0.91	0.23	63,63,63,63	0
55	MG	AA	3101	1/1	0.91	0.22	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	CA	3390	7/7	0.91	0.07	117,128,152,209	1
56	OHX	CA	3393	7/7	0.91	0.12	93,114,121,181	1
55	MG	CA	3025	1/1	0.91	0.12	83,83,83,83	0
55	MG	AA	3249	1/1	0.91	0.31	58,58,58,58	0
56	OHX	AA	3515	7/7	0.91	0.08	100,121,139,211	1
56	OHX	CA	3404	7/7	0.91	0.09	149,155,166,217	1
55	MG	CA	3148	1/1	0.91	0.21	57,57,57,57	0
55	MG	BA	1742	1/1	0.91	0.37	86,86,86,86	0
55	MG	AA	3036	1/1	0.91	0.26	36,36,36,36	0
55	MG	CA	3154	1/1	0.91	0.26	46,46,46,46	0
55	MG	CA	3155	1/1	0.91	0.20	58,58,58,58	0
55	MG	AA	3162	1/1	0.91	0.33	38,38,38,38	0
55	MG	AA	3398	1/1	0.91	0.23	51,51,51,51	0
55	MG	CA	3224	1/1	0.91	0.25	77,77,77,77	0
55	MG	CA	3159	1/1	0.91	0.28	75,75,75,75	0
55	MG	CA	3031	1/1	0.91	0.08	53,53,53,53	0
55	MG	CA	3032	1/1	0.91	0.33	70,70,70,70	0
55	MG	AA	3012	1/1	0.91	0.20	46,46,46,46	0
55	MG	AA	3414	1/1	0.91	0.24	57,57,57,57	0
56	OHX	AA	3542	7/7	0.91	0.08	118,127,135,189	1
55	MG	CA	3167	1/1	0.91	0.29	75,75,75,75	0
55	MG	BA	1750	1/1	0.91	0.24	72,72,72,72	0
55	MG	AA	3416	1/1	0.91	0.25	74,74,74,74	0
55	MG	AA	3227	1/1	0.91	0.26	63,63,63,63	0
55	MG	DA	1704	1/1	0.91	0.31	73,73,73,73	0
55	MG	CA	3087	1/1	0.91	0.06	70,70,70,70	0
55	MG	CA	3038	1/1	0.91	0.15	74,74,74,74	0
55	MG	AA	3349	1/1	0.91	0.32	61,61,61,61	0
55	MG	AA	3033	1/1	0.91	0.18	48,48,48,48	0
55	MG	AA	3266	1/1	0.91	0.12	78,78,78,78	0
55	MG	CA	3099	1/1	0.91	0.24	51,51,51,51	0
56	OHX	AA	3569	7/7	0.91	0.07	116,117,125,191	1
55	MG	CA	3100	1/1	0.91	0.36	63,63,63,63	0
55	MG	BA	1717	1/1	0.91	0.26	51,51,51,51	0
55	MG	CA	3186	1/1	0.91	0.17	75,75,75,75	0
55	MG	AA	3064	1/1	0.91	0.11	66,66,66,66	0
55	MG	CA	3103	1/1	0.91	0.23	70,70,70,70	0
55	MG	AA	3149	1/1	0.91	0.15	74,74,74,74	0
56	OHX	BA	1662	7/7	0.91	0.08	105,117,141,193	1
56	OHX	BA	1664	7/7	0.91	0.07	108,126,142,197	1
55	MG	AA	3356	1/1	0.91	0.34	58,58,58,58	0
55	MG	AA	3118	1/1	0.91	0.20	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DB	101	1/1	0.91	0.33	78,78,78,78	0
56	OHX	BA	1673	7/7	0.91	0.08	117,123,127,191	1
55	MG	CA	3116	1/1	0.91	0.24	69,69,69,69	0
55	MG	AA	3056	1/1	0.91	0.16	36,36,36,36	0
55	MG	DC	102	1/1	0.91	0.41	69,69,69,69	0
56	OHX	DA	1784	7/7	0.91	0.07	150,153,166,225	1
56	OHX	BA	1680	7/7	0.91	0.07	120,125,145,238	1
55	MG	AA	3241	1/1	0.91	0.22	60,60,60,60	0
55	MG	DA	1654	1/1	0.91	0.26	61,61,61,61	0
55	MG	BA	1624	1/1	0.91	0.20	70,70,70,70	0
55	MG	CA	3121	1/1	0.91	0.28	55,55,55,55	0
56	OHX	DA	1798	7/7	0.91	0.07	128,133,140,212	1
55	MG	BA	1653	1/1	0.91	0.17	63,63,63,63	0
55	MG	AA	3122	1/1	0.91	0.22	62,62,62,62	0
55	MG	AA	3174	1/1	0.91	0.29	76,76,76,76	0
55	MG	CA	3203	1/1	0.91	0.21	47,47,47,47	0
55	MG	DA	1661	1/1	0.91	0.39	76,76,76,76	0
55	MG	CA	3009	1/1	0.91	0.24	39,39,39,39	0
55	MG	CA	3013	1/1	0.91	0.15	47,47,47,47	0
56	OHX	CA	3245	7/7	0.91	0.09	99,120,129,189	1
55	MG	AA	3383	1/1	0.91	0.22	46,46,46,46	0
55	MG	CA	3138	1/1	0.91	0.43	53,53,53,53	0
55	MG	CA	3061	1/1	0.91	0.30	64,64,64,64	0
56	OHX	AA	3406	7/7	0.91	0.13	84,92,109,162	1
56	OHX	CA	3304	7/7	0.91	0.09	113,122,141,181	2
55	MG	CA	3210	1/1	0.91	0.34	74,74,74,74	0
56	OHX	CA	3340	7/7	0.92	0.09	115,122,140,168	1
55	MG	CA	3068	1/1	0.92	0.29	44,44,44,44	0
55	MG	CA	3069	1/1	0.92	0.36	69,69,69,69	0
56	OHX	CA	3359	7/7	0.92	0.07	115,123,136,171	2
55	MG	AA	3152	1/1	0.92	0.23	56,56,56,56	0
56	OHX	CA	3373	7/7	0.92	0.09	113,122,129,160	1
56	OHX	AA	3525	7/7	0.92	0.09	100,109,122,187	1
55	MG	CA	3139	1/1	0.92	0.21	56,56,56,56	0
56	OHX	AA	3527	7/7	0.92	0.06	130,134,147,188	1
55	MG	AA	3255	1/1	0.92	0.16	64,64,64,64	0
56	OHX	CA	3383	7/7	0.92	0.07	111,116,132,194	1
56	OHX	CA	3386	7/7	0.92	0.08	110,116,134,181	1
55	MG	CA	3452	1/1	0.92	0.13	51,51,51,51	0
56	OHX	CA	3392	7/7	0.92	0.08	126,132,142,192	1
56	OHX	AA	3533	7/7	0.92	0.10	98,103,114,150	2
56	OHX	CA	3395	7/7	0.92	0.09	106,111,125,156	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	CA	3454	1/1	0.92	0.30	51,51,51,51	0
55	MG	CA	3074	1/1	0.92	0.35	64,64,64,64	0
55	MG	BA	1754	1/1	0.92	0.29	61,61,61,61	0
56	OHX	CA	3400	7/7	0.92	0.08	116,133,145,220	1
56	OHX	CA	3402	7/7	0.92	0.07	159,162,170,218	1
55	MG	CA	3077	1/1	0.92	0.16	57,57,57,57	0
55	MG	AA	3153	1/1	0.92	0.36	64,64,64,64	0
56	OHX	CA	3408	7/7	0.92	0.05	136,139,143,209	1
55	MG	CA	3459	1/1	0.92	0.17	56,56,56,56	0
56	OHX	AA	3541	7/7	0.92	0.09	102,114,134,158	2
55	MG	AA	3135	1/1	0.92	0.20	67,67,67,67	0
55	MG	AA	3177	1/1	0.92	0.23	37,37,37,37	0
56	OHX	AA	3546	7/7	0.92	0.09	98,103,119,179	1
56	OHX	AA	3551	7/7	0.92	0.06	141,143,149,194	1
56	OHX	CA	3418	7/7	0.92	0.08	115,119,129,166	1
55	MG	CA	3473	1/1	0.92	0.22	50,50,50,50	0
55	MG	CA	3475	1/1	0.92	0.18	55,55,55,55	0
55	MG	AA	3136	1/1	0.92	0.15	57,57,57,57	0
56	OHX	AA	3559	7/7	0.92	0.05	124,133,143,186	1
56	OHX	CA	3424	7/7	0.92	0.06	141,145,151,214	1
56	OHX	CA	3425	7/7	0.92	0.06	101,110,125,187	1
55	MG	AA	3055	1/1	0.92	0.26	65,65,65,65	0
55	MG	AA	3081	1/1	0.92	0.39	56,56,56,56	0
56	OHX	CA	3428	7/7	0.92	0.07	123,134,138,182	1
55	MG	AA	3357	1/1	0.92	0.36	73,73,73,73	0
55	MG	BC	101	1/1	0.92	0.37	69,69,69,69	0
55	MG	AA	3097	1/1	0.92	0.11	59,59,59,59	0
55	MG	AA	3271	1/1	0.92	0.12	39,39,39,39	0
55	MG	AA	3272	1/1	0.92	0.27	50,50,50,50	0
55	MG	CA	3093	1/1	0.92	0.32	81,81,81,81	0
55	MG	CA	3001	1/1	0.92	0.18	46,46,46,46	0
55	MG	AO	202	1/1	0.92	0.24	55,55,55,55	0
55	MG	AA	3161	1/1	0.92	0.19	50,50,50,50	0
56	OHX	AO	205	7/7	0.92	0.08	83,89,107,180	1
56	OHX	CA	3468	7/7	0.92	0.08	115,126,133,180	1
55	MG	C0	201	1/1	0.92	0.16	61,61,61,61	0
55	MG	DC	105	1/1	0.92	0.36	54,54,54,54	0
55	MG	AA	3142	1/1	0.92	0.40	45,45,45,45	0
55	MG	CA	3007	1/1	0.92	0.16	45,45,45,45	0
55	MG	AA	3028	1/1	0.92	0.24	66,66,66,66	0
55	MG	AA	3384	1/1	0.92	0.31	59,59,59,59	0
55	MG	CA	3106	1/1	0.92	0.24	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	CA	3011	1/1	0.92	0.24	46,46,46,46	0
55	MG	BA	1630	1/1	0.92	0.11	90,90,90,90	0
55	MG	CA	3228	1/1	0.92	0.10	65,65,65,65	0
55	MG	CA	3110	1/1	0.92	0.37	85,85,85,85	0
56	OHX	BA	1676	7/7	0.92	0.07	143,151,156,210	1
56	OHX	C5	102	7/7	0.92	0.07	114,118,133,165	1
55	MG	AA	3006	1/1	0.92	0.36	45,45,45,45	0
56	OHX	DA	1755	7/7	0.92	0.10	103,120,143,191	1
56	OHX	DA	1757	7/7	0.92	0.10	123,127,134,157	1
56	OHX	BA	1678	7/7	0.92	0.07	115,118,134,165	1
55	MG	CA	3182	1/1	0.92	0.34	59,59,59,59	0
56	OHX	AA	3371	7/7	0.92	0.10	93,107,117,177	1
56	OHX	DA	1781	7/7	0.92	0.08	107,126,135,195	1
55	MG	CA	3115	1/1	0.92	0.23	63,63,63,63	0
56	OHX	AA	3404	7/7	0.92	0.10	74,98,116,164	1
55	MG	CA	3015	1/1	0.92	0.21	54,54,54,54	0
55	MG	AA	3051	1/1	0.92	0.17	49,49,49,49	0
56	OHX	BA	1784	7/7	0.92	0.09	122,129,148,203	0
56	OHX	BA	1787	7/7	0.92	0.09	107,117,138,149	2
55	MG	AA	3027	1/1	0.92	0.21	42,42,42,42	0
56	OHX	BA	1803	7/7	0.92	0.09	101,126,136,190	1
56	OHX	BA	1804	7/7	0.92	0.09	134,142,150,227	1
56	OHX	DA	1799	7/7	0.92	0.06	122,127,139,209	1
56	OHX	AA	3485	7/7	0.92	0.07	104,114,127,171	1
55	MG	CA	3022	1/1	0.92	0.20	55,55,55,55	0
55	MG	AA	3215	1/1	0.92	0.36	50,50,50,50	0
55	MG	AA	3090	1/1	0.92	0.14	85,85,85,85	0
56	OHX	AA	3493	7/7	0.92	0.07	109,111,123,166	1
55	MG	AA	3283	1/1	0.92	0.25	55,55,55,55	0
56	OHX	CA	3247	7/7	0.92	0.11	95,104,117,152	1
56	OHX	AA	3509	7/7	0.92	0.07	92,96,122,175	1
55	MG	AA	3047	1/1	0.92	0.26	54,54,54,54	0
55	MG	AA	3092	1/1	0.92	0.04	73,73,73,73	0
55	MG	DA	1689	1/1	0.92	0.17	87,87,87,87	0
56	OHX	DB	103	7/7	0.92	0.09	166,171,179,191	1
56	OHX	CA	3302	7/7	0.92	0.10	79,86,104,139	1
55	MG	DA	1690	1/1	0.92	0.27	63,63,63,63	0
55	MG	DA	1692	1/1	0.92	0.30	70,70,70,70	0
55	MG	DA	1711	1/1	0.93	0.15	107,107,107,107	0
55	MG	CA	3147	1/1	0.93	0.27	51,51,51,51	0
56	OHX	CA	3382	7/7	0.93	0.07	129,131,148,199	1
55	MG	AA	3387	1/1	0.93	0.22	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	CA	3384	7/7	0.93	0.07	118,124,135,184	1
55	MG	CA	3090	1/1	0.93	0.19	55,55,55,55	0
56	OHX	CA	3387	7/7	0.93	0.07	111,127,150,170	2
56	OHX	CA	3388	7/7	0.93	0.11	112,116,127,180	1
56	OHX	AA	3544	7/7	0.93	0.06	103,105,124,176	1
55	MG	DA	1648	1/1	0.93	0.07	91,91,91,91	0
55	MG	CA	3152	1/1	0.93	0.35	54,54,54,54	0
56	OHX	AA	3547	7/7	0.93	0.07	69,84,101,157	2
55	MG	CA	3048	1/1	0.93	0.29	44,44,44,44	0
55	MG	DA	1653	1/1	0.93	0.37	73,73,73,73	0
56	OHX	AA	3553	7/7	0.93	0.06	113,118,133,183	1
55	MG	AA	3259	1/1	0.93	0.20	35,35,35,35	0
55	MG	DL	201	1/1	0.93	0.28	92,92,92,92	0
55	MG	BA	1736	1/1	0.93	0.41	64,64,64,64	0
55	MG	CA	3010	1/1	0.93	0.13	47,47,47,47	0
56	OHX	AA	3561	7/7	0.93	0.07	152,158,173,226	1
55	MG	CA	3097	1/1	0.93	0.25	67,67,67,67	0
56	OHX	AA	3563	7/7	0.93	0.06	124,125,134,183	1
56	OHX	CA	3412	7/7	0.93	0.11	99,116,129,164	2
55	MG	AA	3260	1/1	0.93	0.37	58,58,58,58	0
55	MG	CA	3162	1/1	0.93	0.32	65,65,65,65	0
55	MG	BA	1740	1/1	0.93	0.34	61,61,61,61	0
56	OHX	CA	3416	7/7	0.93	0.07	114,117,128,182	1
55	MG	CB	207	1/1	0.93	0.33	76,76,76,76	0
55	MG	AA	3286	1/1	0.93	0.33	68,68,68,68	0
55	MG	AA	3395	1/1	0.93	0.13	40,40,40,40	0
55	MG	CA	3016	1/1	0.93	0.20	55,55,55,55	0
56	OHX	AB	215	7/7	0.93	0.10	105,114,120,153	1
55	MG	DA	1602	1/1	0.93	0.23	68,68,68,68	0
56	OHX	AB	217	7/7	0.93	0.09	85,105,116,146	1
55	MG	CA	3104	1/1	0.93	0.32	41,41,41,41	0
56	OHX	AB	219	7/7	0.93	0.08	104,111,125,162	1
55	MG	CA	3169	1/1	0.93	0.18	71,71,71,71	0
55	MG	BA	1707	1/1	0.93	0.21	70,70,70,70	0
55	MG	DA	1671	1/1	0.93	0.12	64,64,64,64	0
56	OHX	CA	3430	7/7	0.93	0.08	96,106,114,197	1
55	MG	AA	3344	1/1	0.93	0.24	48,48,48,48	0
55	MG	AA	3032	1/1	0.93	0.23	41,41,41,41	0
55	MG	AA	3264	1/1	0.93	0.27	76,76,76,76	0
55	MG	CA	3112	1/1	0.93	0.28	41,41,41,41	0
55	MG	AA	3408	1/1	0.93	0.30	47,47,47,47	0
55	MG	AA	3184	1/1	0.93	0.16	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	BA	1672	7/7	0.93	0.07	156,159,170,224	1
56	OHX	CA	3464	7/7	0.93	0.12	78,109,122,137	3
55	MG	AA	3413	1/1	0.93	0.20	57,57,57,57	0
55	MG	CA	3259	1/1	0.93	0.28	65,65,65,65	0
56	OHX	AA	3476	7/7	0.93	0.10	102,122,137,175	1
56	OHX	AA	3482	7/7	0.93	0.07	105,118,127,177	1
56	OHX	AA	3483	7/7	0.93	0.07	124,141,146,196	1
55	MG	AA	3113	1/1	0.93	0.20	32,32,32,32	0
55	MG	AA	3188	1/1	0.93	0.16	40,40,40,40	0
56	OHX	CB	211	7/7	0.93	0.07	122,128,152,168	1
55	MG	AA	3189	1/1	0.93	0.27	42,42,42,42	0
55	MG	AA	3134	1/1	0.93	0.15	82,82,82,82	0
55	MG	DA	1685	1/1	0.93	0.10	59,59,59,59	0
56	OHX	BA	1694	7/7	0.93	0.06	159,161,173,226	1
56	OHX	AA	3491	7/7	0.93	0.08	162,182,190,220	1
56	OHX	AA	3492	7/7	0.93	0.09	79,89,95,107	3
55	MG	DA	1621	1/1	0.93	0.17	98,98,98,98	0
56	OHX	AA	3495	7/7	0.93	0.09	86,93,120,158	1
55	MG	CA	3123	1/1	0.93	0.14	36,36,36,36	0
56	OHX	BA	1797	7/7	0.93	0.13	71,104,132,136	3
56	OHX	AA	3506	7/7	0.93	0.06	97,110,123,157	1
56	OHX	DA	1756	7/7	0.93	0.06	145,145,160,212	1
56	OHX	AA	3507	7/7	0.93	0.07	101,111,128,158	1
55	MG	AA	3120	1/1	0.93	0.15	71,71,71,71	0
56	OHX	DA	1769	7/7	0.93	0.07	133,140,147,188	1
56	OHX	DA	1772	7/7	0.93	0.07	131,135,143,214	1
55	MG	BA	1719	1/1	0.93	0.31	51,51,51,51	0
55	MG	CA	3075	1/1	0.93	0.21	45,45,45,45	0
56	OHX	DA	1777	7/7	0.93	0.06	150,152,155,232	1
56	OHX	BR	101	7/7	0.93	0.06	117,129,143,169	1
55	MG	AB	204	1/1	0.93	0.33	68,68,68,68	0
56	OHX	AA	3514	7/7	0.93	0.08	84,93,104,149	1
55	MG	CA	3133	1/1	0.93	0.23	48,48,48,48	0
55	MG	AA	3197	1/1	0.93	0.27	50,50,50,50	0
56	OHX	CA	3248	7/7	0.93	0.06	116,128,134,203	1
55	MG	AA	3198	1/1	0.93	0.22	54,54,54,54	0
55	MG	CA	3137	1/1	0.93	0.33	74,74,74,74	0
55	MG	CA	3451	1/1	0.93	0.22	46,46,46,46	0
55	MG	AA	3004	1/1	0.93	0.23	37,37,37,37	0
55	MG	CA	3080	1/1	0.93	0.10	57,57,57,57	0
55	MG	AA	3008	1/1	0.93	0.27	42,42,42,42	0
56	OHX	AA	3529	7/7	0.93	0.08	90,106,115,167	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	DA	1804	7/7	0.93	0.07	107,115,128,173	1
55	MG	AA	3203	1/1	0.93	0.18	50,50,50,50	0
56	OHX	DA	1806	7/7	0.93	0.05	142,150,160,228	1
56	OHX	CA	3342	7/7	0.93	0.07	116,123,130,201	1
56	OHX	CA	3343	7/7	0.93	0.09	109,118,132,184	1
56	OHX	CA	3344	7/7	0.93	0.10	96,110,117,162	1
56	OHX	AA	3531	7/7	0.93	0.06	119,124,135,185	1
56	OHX	CA	3350	7/7	0.93	0.08	112,134,144,175	1
55	MG	AA	3204	1/1	0.93	0.12	61,61,61,61	0
55	MG	AA	3228	1/1	0.93	0.18	67,67,67,67	0
55	MG	AA	3089	1/1	0.93	0.47	84,84,84,84	0
55	MG	CA	3205	1/1	0.93	0.15	63,63,63,63	0
55	MG	AA	3230	1/1	0.93	0.19	66,66,66,66	0
56	OHX	CA	3376	7/7	0.93	0.07	113,130,136,172	1
56	OHX	DC	107	7/7	0.93	0.09	131,132,141,177	1
55	MG	BA	1731	1/1	0.93	0.33	57,57,57,57	0
57	ZN	DG	301	1/1	0.93	0.20	122,122,122,122	0
55	MG	AA	3093	1/1	0.94	0.26	91,91,91,91	0
55	MG	AA	3003	1/1	0.94	0.17	39,39,39,39	0
56	OHX	AA	3452	7/7	0.94	0.11	61,75,91,137	2
55	MG	AA	3233	1/1	0.94	0.16	59,59,59,59	0
56	OHX	AA	3477	7/7	0.94	0.06	108,119,125,208	1
56	OHX	A1	202	7/7	0.94	0.08	85,95,114,146	1
56	OHX	CA	3403	7/7	0.94	0.08	88,108,114,167	1
55	MG	AA	3210	1/1	0.94	0.33	41,41,41,41	0
56	OHX	CA	3405	7/7	0.94	0.06	112,116,119,187	1
56	OHX	BA	1656	7/7	0.94	0.07	160,162,176,267	0
55	MG	AA	3082	1/1	0.94	0.12	50,50,50,50	0
55	MG	CA	3181	1/1	0.94	0.21	62,62,62,62	0
55	MG	CA	3017	1/1	0.94	0.15	92,92,92,92	0
56	OHX	AA	3486	7/7	0.94	0.07	127,135,138,199	1
55	MG	AA	3236	1/1	0.94	0.26	40,40,40,40	0
55	MG	CA	3122	1/1	0.94	0.19	40,40,40,40	0
55	MG	CA	3020	1/1	0.94	0.21	70,70,70,70	0
55	MG	AA	3237	1/1	0.94	0.23	45,45,45,45	0
55	MG	BA	1737	1/1	0.94	0.18	46,46,46,46	0
55	MG	CA	3126	1/1	0.94	0.20	54,54,54,54	0
56	OHX	AA	3494	7/7	0.94	0.08	59,86,128,185	1
55	MG	AA	3238	1/1	0.94	0.29	50,50,50,50	0
56	OHX	AA	3504	7/7	0.94	0.06	112,118,129,179	1
55	MG	CA	3445	1/1	0.94	0.19	38,38,38,38	0
55	MG	AA	3191	1/1	0.94	0.19	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	BA	1681	7/7	0.94	0.06	153,163,173,229	1
55	MG	AA	3278	1/1	0.94	0.24	35,35,35,35	0
56	OHX	BA	1688	7/7	0.94	0.09	107,112,123,154	1
56	OHX	BA	1689	7/7	0.94	0.07	113,130,139,190	1
56	OHX	AA	3508	7/7	0.94	0.07	122,129,136,204	1
56	OHX	BA	1691	7/7	0.94	0.06	148,150,156,215	1
55	MG	AA	3214	1/1	0.94	0.21	46,46,46,46	0
56	OHX	BA	1693	7/7	0.94	0.08	112,112,134,152	1
55	MG	DA	1699	1/1	0.94	0.21	78,78,78,78	0
55	MG	AA	3192	1/1	0.94	0.27	48,48,48,48	0
56	OHX	BA	1771	7/7	0.94	0.11	77,100,122,150	1
55	MG	AA	3104	1/1	0.94	0.31	68,68,68,68	0
55	MG	BA	1616	1/1	0.94	0.15	61,61,61,61	0
56	OHX	BA	1785	7/7	0.94	0.08	109,122,129,170	1
55	MG	AA	3246	1/1	0.94	0.21	36,36,36,36	0
55	MG	CA	3199	1/1	0.94	0.23	62,62,62,62	0
56	OHX	BA	1791	7/7	0.94	0.10	82,106,122,150	2
56	OHX	BA	1793	7/7	0.94	0.07	95,105,117,163	1
56	OHX	CA	3482	7/7	0.94	0.07	84,120,131,181	0
55	MG	AA	3195	1/1	0.94	0.25	43,43,43,43	0
55	MG	DA	1639	1/1	0.94	0.24	70,70,70,70	0
56	OHX	CA	3489	7/7	0.94	0.09	91,101,112,140	1
55	MG	AA	3030	1/1	0.94	0.18	44,44,44,44	0
56	OHX	CB	209	7/7	0.94	0.09	117,133,147,190	1
56	OHX	CB	210	7/7	0.94	0.08	104,124,140,171	1
55	MG	BA	1705	1/1	0.94	0.18	63,63,63,63	0
55	MG	AA	3011	1/1	0.94	0.21	49,49,49,49	0
56	OHX	BA	1811	7/7	0.94	0.09	88,104,115,154	1
55	MG	AA	3180	1/1	0.94	0.19	65,65,65,65	0
55	MG	CA	3472	1/1	0.94	0.10	59,59,59,59	0
56	OHX	BB	106	7/7	0.94	0.12	164,167,173,198	1
55	MG	AA	3251	1/1	0.94	0.28	49,49,49,49	0
56	OHX	BD	102	7/7	0.94	0.07	153,174,197,228	0
55	MG	AA	3345	1/1	0.94	0.48	47,47,47,47	0
56	OHX	CA	3244	7/7	0.94	0.07	94,113,121,172	1
56	OHX	DA	1747	7/7	0.94	0.09	109,122,155,200	1
56	OHX	DA	1749	7/7	0.94	0.10	91,120,126,173	1
56	OHX	DA	1752	7/7	0.94	0.06	107,121,128,186	1
55	MG	AA	3222	1/1	0.94	0.28	64,64,64,64	0
55	MG	CA	3089	1/1	0.94	0.15	60,60,60,60	0
55	MG	AA	3254	1/1	0.94	0.20	42,42,42,42	0
55	MG	AA	3223	1/1	0.94	0.21	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	DA	1760	7/7	0.94	0.07	142,145,152,204	1
55	MG	CA	3092	1/1	0.94	0.35	52,52,52,52	0
55	MG	AA	3182	1/1	0.94	0.29	45,45,45,45	0
55	MG	AA	3257	1/1	0.94	0.22	57,57,57,57	0
56	OHX	DA	1773	7/7	0.94	0.06	122,126,137,197	1
55	MG	AA	3225	1/1	0.94	0.16	63,63,63,63	0
55	MG	AA	3183	1/1	0.94	0.24	88,88,88,88	0
56	OHX	DA	1776	7/7	0.94	0.07	114,116,125,160	1
55	MG	AA	3039	1/1	0.94	0.21	40,40,40,40	0
56	OHX	DA	1778	7/7	0.94	0.07	142,148,154,267	0
56	OHX	CA	3318	7/7	0.94	0.11	34,112,130,183	1
55	MG	CA	3161	1/1	0.94	0.20	71,71,71,71	0
55	MG	CA	3049	1/1	0.94	0.19	62,62,62,62	0
55	MG	AA	3205	1/1	0.94	0.18	40,40,40,40	0
55	MG	AA	3358	1/1	0.94	0.24	51,51,51,51	0
56	OHX	CA	3346	7/7	0.94	0.09	99,104,119,151	1
56	OHX	AA	3548	7/7	0.94	0.06	113,118,133,172	1
56	OHX	DA	1790	7/7	0.94	0.06	135,136,148,199	1
56	OHX	CA	3349	7/7	0.94	0.07	115,117,131,178	1
56	OHX	AA	3550	7/7	0.94	0.07	111,121,131,187	1
56	OHX	CA	3355	7/7	0.94	0.09	108,110,119,149	1
55	MG	BA	1636	1/1	0.94	0.14	61,61,61,61	0
55	MG	DA	1666	1/1	0.94	0.30	62,62,62,62	0
56	OHX	CA	3365	7/7	0.94	0.07	164,171,176,213	1
56	OHX	AA	3147	7/7	0.94	0.09	89,98,103,163	1
56	OHX	AA	3160	7/7	0.94	0.06	116,121,130,182	1
55	MG	BA	1638	1/1	0.94	0.20	57,57,57,57	0
55	MG	AA	3374	1/1	0.94	0.22	29,29,29,29	0
56	OHX	CA	3377	7/7	0.94	0.10	90,95,111,135	2
56	OHX	AA	3312	7/7	0.94	0.08	64,87,123,173	1
56	OHX	AA	3324	7/7	0.94	0.09	92,110,118,165	1
55	MG	CA	3168	1/1	0.94	0.24	72,72,72,72	0
55	MG	AA	3377	1/1	0.94	0.23	51,51,51,51	0
55	MG	DA	1606	1/1	0.94	0.13	84,84,84,84	0
55	MG	CA	3226	1/1	0.94	0.41	65,65,65,65	0
56	OHX	DV	101	7/7	0.94	0.07	162,169,185,231	1
55	MG	AA	3168	1/1	0.94	0.26	89,89,89,89	0
55	MG	AA	3265	1/1	0.94	0.30	85,85,85,85	0
55	MG	AA	3207	1/1	0.94	0.31	57,57,57,57	0
56	OHX	AA	3402	7/7	0.94	0.14	87,110,129,141	3
55	MG	DA	1612	1/1	0.94	0.21	86,86,86,86	0
56	OHX	DD	101	7/7	0.94	0.08	155,165,187,227	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	ZN	BQ	102	1/1	0.94	0.12	130,130,130,130	0
55	MG	CA	3173	1/1	0.94	0.16	53,53,53,53	0
55	MG	AA	3240	1/1	0.95	0.17	43,43,43,43	0
55	MG	CA	3174	1/1	0.95	0.32	52,52,52,52	0
55	MG	BA	1619	1/1	0.95	0.18	50,50,50,50	0
55	MG	AA	3173	1/1	0.95	0.19	52,52,52,52	0
55	MG	AA	3242	1/1	0.95	0.21	37,37,37,37	0
55	MG	BA	1726	1/1	0.95	0.27	61,61,61,61	0
56	OHX	AA	3528	7/7	0.95	0.07	112,118,137,160	2
56	OHX	BA	1778	7/7	0.95	0.08	99,120,131,182	0
55	MG	AA	3262	1/1	0.95	0.28	52,52,52,52	0
55	MG	CA	3130	1/1	0.95	0.41	58,58,58,58	0
55	MG	BA	1654	1/1	0.95	0.24	47,47,47,47	0
55	MG	AA	3002	1/1	0.95	0.28	41,41,41,41	0
55	MG	AA	3010	1/1	0.95	0.17	40,40,40,40	0
55	MG	DA	1610	1/1	0.95	0.14	96,96,96,96	0
55	MG	CA	3135	1/1	0.95	0.29	45,45,45,45	0
56	OHX	BA	1794	7/7	0.95	0.06	118,138,149,184	1
55	MG	CA	3043	1/1	0.95	0.11	82,82,82,82	0
56	OHX	BA	1798	7/7	0.95	0.06	140,143,151,221	1
56	OHX	BA	1800	7/7	0.95	0.08	106,107,118,143	1
56	OHX	BA	1801	7/7	0.95	0.06	118,138,142,207	1
55	MG	CA	3263	1/1	0.95	0.25	69,69,69,69	0
56	OHX	AA	3304	7/7	0.95	0.06	109,115,135,200	1
55	MG	CA	3004	1/1	0.95	0.13	49,49,49,49	0
55	MG	BA	1697	1/1	0.95	0.26	37,37,37,37	0
56	OHX	BA	1807	7/7	0.95	0.06	135,141,150,224	0
56	OHX	AA	3313	7/7	0.95	0.08	96,112,122,174	0
56	OHX	BA	1813	7/7	0.95	0.07	128,130,137,174	1
56	OHX	BA	1814	7/7	0.95	0.06	101,109,125,174	1
56	OHX	BA	1815	7/7	0.95	0.07	110,125,133,172	1
56	OHX	AA	3543	7/7	0.95	0.05	113,117,131,189	1
56	OHX	AA	3319	7/7	0.95	0.08	87,95,122,151	1
55	MG	CA	3006	1/1	0.95	0.19	47,47,47,47	0
56	OHX	AA	3330	7/7	0.95	0.07	102,112,122,166	1
55	MG	CA	3190	1/1	0.95	0.11	60,60,60,60	0
56	OHX	CA	3488	7/7	0.95	0.06	113,123,127,179	1
55	MG	AA	3343	1/1	0.95	0.28	34,34,34,34	0
55	MG	AA	3099	1/1	0.95	0.18	65,65,65,65	0
55	MG	AA	3389	1/1	0.95	0.29	44,44,44,44	0
55	MG	CA	3442	1/1	0.95	0.18	61,61,61,61	0
55	MG	CA	3194	1/1	0.95	0.26	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	CB	212	7/7	0.95	0.07	101,120,135,155	1
55	MG	AA	3029	1/1	0.95	0.24	38,38,38,38	0
56	OHX	AA	3373	7/7	0.95	0.08	75,103,110,155	1
56	OHX	AA	3557	7/7	0.95	0.09	75,87,101,114	1
55	MG	CA	3094	1/1	0.95	0.35	79,79,79,79	0
56	OHX	CA	3285	7/7	0.95	0.12	94,107,126,147	1
55	MG	A5	101	1/1	0.95	0.19	41,41,41,41	0
55	MG	AA	3178	1/1	0.95	0.31	39,39,39,39	0
56	OHX	CB	220	7/7	0.95	0.07	133,142,154,201	0
56	OHX	C1	201	7/7	0.95	0.08	102,111,123,165	1
55	MG	AA	3269	1/1	0.95	0.23	72,72,72,72	0
55	MG	AA	3179	1/1	0.95	0.32	60,60,60,60	0
56	OHX	DA	1730	7/7	0.95	0.09	102,111,123,157	0
56	OHX	DA	1731	7/7	0.95	0.07	129,139,145,172	1
56	OHX	DA	1741	7/7	0.95	0.08	97,116,128,170	1
56	OHX	DA	1745	7/7	0.95	0.07	115,123,143,223	0
56	OHX	CA	3325	7/7	0.95	0.13	108,122,148,156	1
56	OHX	CA	3334	7/7	0.95	0.07	110,115,136,183	0
56	OHX	DA	1751	7/7	0.95	0.13	66,109,137,183	2
55	MG	CA	3149	1/1	0.95	0.27	55,55,55,55	0
56	OHX	AA	3474	7/7	0.95	0.09	51,85,127,151	2
56	OHX	DA	1754	7/7	0.95	0.07	98,102,118,156	1
56	OHX	AA	3475	7/7	0.95	0.07	67,93,111,167	1
55	MG	CA	3150	1/1	0.95	0.23	55,55,55,55	0
55	MG	DA	1691	1/1	0.95	0.22	54,54,54,54	0
56	OHX	AA	3479	7/7	0.95	0.07	106,122,142,174	1
56	OHX	DA	1762	7/7	0.95	0.08	107,112,122,180	1
56	OHX	AB	209	7/7	0.95	0.08	63,88,125,152	2
55	MG	BA	1743	1/1	0.95	0.26	69,69,69,69	0
56	OHX	DA	1771	7/7	0.95	0.10	97,105,129,152	1
55	MG	AA	3025	1/1	0.95	0.20	59,59,59,59	0
55	MG	AA	3146	1/1	0.95	0.20	41,41,41,41	0
55	MG	CA	3019	1/1	0.95	0.13	46,46,46,46	0
56	OHX	CA	3362	7/7	0.95	0.05	129,136,141,186	1
56	OHX	CA	3364	7/7	0.95	0.07	117,120,133,182	1
55	MG	AA	3352	1/1	0.95	0.13	41,41,41,41	0
56	OHX	CA	3368	7/7	0.95	0.07	108,126,135,177	1
56	OHX	DA	1780	7/7	0.95	0.07	127,131,138,167	1
56	OHX	CA	3370	7/7	0.95	0.07	116,120,142,180	1
55	MG	AA	3088	1/1	0.95	0.09	60,60,60,60	0
55	MG	AA	3202	1/1	0.95	0.27	45,45,45,45	0
56	OHX	CA	3374	7/7	0.95	0.08	106,124,128,169	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	CA	3158	1/1	0.95	0.21	56,56,56,56	0
55	MG	CA	3474	1/1	0.95	0.16	70,70,70,70	0
56	OHX	AW	101	7/7	0.95	0.09	103,112,128,156	1
56	OHX	DA	1788	7/7	0.95	0.08	96,113,128,168	1
55	MG	CA	3108	1/1	0.95	0.22	52,52,52,52	0
56	OHX	DA	1791	7/7	0.95	0.09	103,104,121,153	1
56	OHX	DA	1792	7/7	0.95	0.07	110,118,129,172	1
55	MG	AA	3412	1/1	0.95	0.23	39,39,39,39	0
56	OHX	DA	1795	7/7	0.95	0.06	112,118,132,167	1
56	OHX	BA	1659	7/7	0.95	0.07	114,130,135,179	1
56	OHX	DA	1797	7/7	0.95	0.05	149,152,159,218	1
56	OHX	CA	3381	7/7	0.95	0.07	102,112,121,159	1
55	MG	AA	3018	1/1	0.95	0.20	43,43,43,43	0
55	MG	BA	1752	1/1	0.95	0.31	53,53,53,53	0
56	OHX	AA	3497	7/7	0.95	0.08	94,106,111,138	2
56	OHX	AA	3500	7/7	0.95	0.07	94,114,122,159	1
55	MG	CA	3113	1/1	0.95	0.21	61,61,61,61	0
56	OHX	BA	1668	7/7	0.95	0.07	116,121,137,182	1
55	MG	DA	1646	1/1	0.95	0.16	64,64,64,64	0
56	OHX	CA	3391	7/7	0.95	0.06	140,144,157,182	1
56	OHX	BA	1670	7/7	0.95	0.06	135,143,147,201	1
55	MG	AA	3186	1/1	0.95	0.21	49,49,49,49	0
55	MG	AA	3277	1/1	0.95	0.27	46,46,46,46	0
55	MG	AA	3170	1/1	0.95	0.14	50,50,50,50	0
55	MG	AA	3375	1/1	0.95	0.25	31,31,31,31	0
56	OHX	CA	3398	7/7	0.95	0.06	129,132,142,192	1
55	MG	DA	1651	1/1	0.95	0.38	62,62,62,62	0
55	MG	DA	1652	1/1	0.95	0.33	52,52,52,52	0
55	MG	AA	3376	1/1	0.95	0.25	33,33,33,33	0
55	MG	AA	3121	1/1	0.95	0.30	53,53,53,53	0
55	MG	CA	3120	1/1	0.95	0.25	48,48,48,48	0
56	OHX	BA	1683	7/7	0.95	0.06	124,130,146,183	1
56	OHX	AA	3516	7/7	0.95	0.06	101,109,121,183	1
56	OHX	AA	3517	7/7	0.95	0.10	88,111,115,145	1
55	MG	AA	3239	1/1	0.95	0.15	44,44,44,44	0
55	MG	AA	3043	1/1	0.96	0.23	46,46,46,46	0
55	MG	AA	3050	1/1	0.96	0.20	60,60,60,60	0
56	OHX	AA	3558	7/7	0.96	0.06	95,121,125,156	1
55	MG	CA	3012	1/1	0.96	0.18	53,53,53,53	0
55	MG	CA	3047	1/1	0.96	0.33	41,41,41,41	0
56	OHX	CA	3423	7/7	0.96	0.04	123,126,136,189	1
56	OHX	BA	1810	7/7	0.96	0.07	106,108,121,152	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	1748	1/1	0.96	0.20	66,66,66,66	0
56	OHX	BA	1812	7/7	0.96	0.06	151,164,170,231	1
55	MG	AA	3415	1/1	0.96	0.12	52,52,52,52	0
55	MG	AA	3007	1/1	0.96	0.11	31,31,31,31	0
55	MG	BA	1655	1/1	0.96	0.19	60,60,60,60	0
55	MG	AA	3133	1/1	0.96	0.15	54,54,54,54	0
55	MG	AA	3385	1/1	0.96	0.29	34,34,34,34	0
55	MG	AA	3111	1/1	0.96	0.22	35,35,35,35	0
55	MG	BN	201	1/1	0.96	0.11	80,80,80,80	0
55	MG	AA	3112	1/1	0.96	0.13	47,47,47,47	0
56	OHX	BD	103	7/7	0.96	0.06	86,95,103,174	1
56	OHX	AB	207	7/7	0.96	0.07	89,99,126,152	1
56	OHX	AB	208	7/7	0.96	0.07	113,119,131,170	1
56	OHX	CA	3463	7/7	0.96	0.10	107,129,139,156	1
55	MG	CA	3180	1/1	0.96	0.17	75,75,75,75	0
56	OHX	CA	3465	7/7	0.96	0.07	131,136,147,181	1
55	MG	AA	3022	1/1	0.96	0.12	15,15,15,15	0
56	OHX	AB	212	7/7	0.96	0.08	81,99,131,153	1
56	OHX	AB	213	7/7	0.96	0.10	85,93,130,132	3
56	OHX	CA	3469	7/7	0.96	0.07	89,110,121,162	1
56	OHX	AB	214	7/7	0.96	0.07	110,118,132,162	1
56	OHX	CA	3253	7/7	0.96	0.08	107,120,133,155	1
55	MG	BA	1701	1/1	0.96	0.20	57,57,57,57	0
56	OHX	AA	3496	7/7	0.96	0.06	117,124,142,215	0
55	MG	CA	3024	1/1	0.96	0.11	48,48,48,48	0
55	MG	AA	3181	1/1	0.96	0.25	61,61,61,61	0
56	OHX	CA	3490	7/7	0.96	0.07	102,105,118,156	1
56	OHX	AA	3501	7/7	0.96	0.08	101,109,129,149	1
56	OHX	AA	3503	7/7	0.96	0.06	99,121,138,179	1
56	OHX	CA	3314	7/7	0.96	0.10	84,93,97,114	1
55	MG	DA	1680	1/1	0.96	0.18	72,72,72,72	0
55	MG	BA	1637	1/1	0.96	0.06	83,83,83,83	0
56	OHX	CA	3328	7/7	0.96	0.07	50,117,131,206	0
56	OHX	CA	3331	7/7	0.96	0.09	101,112,120,147	1
56	OHX	CA	3333	7/7	0.96	0.07	104,127,133,184	1
56	OHX	A3	102	7/7	0.96	0.10	90,98,113,134	2
56	OHX	CA	3335	7/7	0.96	0.07	96,110,125,200	0
56	OHX	CA	3337	7/7	0.96	0.08	109,124,136,185	0
56	OHX	CA	3339	7/7	0.96	0.08	100,105,127,171	1
55	MG	CA	3063	1/1	0.96	0.15	70,70,70,70	0
56	OHX	A6	101	7/7	0.96	0.07	113,122,137,155	1
55	MG	AA	3016	1/1	0.96	0.20	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3200	1/1	0.96	0.27	45,45,45,45	0
56	OHX	C6	101	7/7	0.96	0.07	132,145,157,184	1
55	MG	CA	3105	1/1	0.96	0.41	68,68,68,68	0
55	MG	BA	1732	1/1	0.96	0.27	52,52,52,52	0
56	OHX	DA	1732	7/7	0.96	0.07	134,143,157,195	0
56	OHX	DA	1733	7/7	0.96	0.07	146,151,163,202	0
56	OHX	DA	1735	7/7	0.96	0.07	110,115,118,170	1
56	OHX	DA	1736	7/7	0.96	0.07	130,135,157,193	0
56	OHX	DA	1737	7/7	0.96	0.08	87,110,131,158	1
56	OHX	AA	3305	7/7	0.96	0.10	83,97,103,135	1
55	MG	AE	303	1/1	0.96	0.15	32,32,32,32	0
56	OHX	CA	3351	7/7	0.96	0.07	102,107,134,173	1
56	OHX	CA	3352	7/7	0.96	0.05	133,145,147,191	1
56	OHX	DA	1750	7/7	0.96	0.07	127,137,146,202	1
56	OHX	CA	3353	7/7	0.96	0.07	81,96,110,140	1
56	OHX	BA	1665	7/7	0.96	0.08	82,92,111,128	1
56	OHX	CA	3356	7/7	0.96	0.06	96,109,118,157	1
55	MG	BC	103	1/1	0.96	0.31	62,62,62,62	0
55	MG	BC	104	1/1	0.96	0.34	57,57,57,57	0
56	OHX	CA	3360	7/7	0.96	0.06	116,124,135,193	1
56	OHX	CA	3361	7/7	0.96	0.06	113,119,132,166	1
56	OHX	AA	3317	7/7	0.96	0.07	79,88,118,156	1
56	OHX	CA	3363	7/7	0.96	0.08	94,99,114,167	1
56	OHX	DA	1763	7/7	0.96	0.05	154,159,173,250	0
55	MG	CA	3070	1/1	0.96	0.14	44,44,44,44	0
56	OHX	DA	1768	7/7	0.96	0.06	121,132,163,218	0
55	MG	CA	3261	1/1	0.96	0.36	48,48,48,48	0
56	OHX	DA	1770	7/7	0.96	0.05	136,142,156,217	1
56	OHX	CA	3366	7/7	0.96	0.07	140,148,168,207	0
56	OHX	CA	3367	7/7	0.96	0.05	129,137,147,194	1
56	OHX	AA	3327	7/7	0.96	0.06	107,115,135,188	1
56	OHX	CA	3369	7/7	0.96	0.08	97,113,121,158	1
56	OHX	AA	3328	7/7	0.96	0.09	89,97,114,142	1
55	MG	AA	3393	1/1	0.96	0.13	56,56,56,56	0
55	MG	DA	1693	1/1	0.96	0.32	54,54,54,54	0
55	MG	C5	101	1/1	0.96	0.24	50,50,50,50	0
56	OHX	AA	3334	7/7	0.96	0.09	66,79,94,105	1
56	OHX	AA	3336	7/7	0.96	0.07	146,153,168,218	0
56	OHX	BA	1679	7/7	0.96	0.05	116,125,129,189	1
55	MG	AA	3394	1/1	0.96	0.23	43,43,43,43	0
55	MG	CA	3073	1/1	0.96	0.18	54,54,54,54	0
56	OHX	BA	1682	7/7	0.96	0.06	119,124,130,186	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	AA	3368	7/7	0.96	0.10	76,83,98,126	1
55	MG	AA	3054	1/1	0.96	0.13	49,49,49,49	0
56	OHX	BA	1687	7/7	0.96	0.08	94,99,108,140	1
55	MG	BA	1738	1/1	0.96	0.09	41,41,41,41	0
56	OHX	CA	3385	7/7	0.96	0.06	115,124,135,193	1
55	MG	AA	3140	1/1	0.96	0.09	41,41,41,41	0
56	OHX	AA	3372	7/7	0.96	0.07	93,103,121,167	1
55	MG	CA	3160	1/1	0.96	0.28	49,49,49,49	0
55	MG	AA	3185	1/1	0.96	0.26	36,36,36,36	0
56	OHX	AA	3538	7/7	0.96	0.09	88,94,114,159	1
55	MG	AA	3116	1/1	0.96	0.17	45,45,45,45	0
55	MG	AA	3001	1/1	0.96	0.25	28,28,28,28	0
56	OHX	DA	1800	7/7	0.96	0.05	137,140,150,220	1
56	OHX	AA	3405	7/7	0.96	0.06	103,111,138,161	1
56	OHX	BA	1772	7/7	0.96	0.07	106,118,144,175	0
56	OHX	BA	1777	7/7	0.96	0.07	114,118,140,171	1
55	MG	AA	3346	1/1	0.96	0.16	42,42,42,42	0
55	MG	CA	3444	1/1	0.96	0.21	52,52,52,52	0
56	OHX	AA	3447	7/7	0.96	0.07	91,102,120,163	1
56	OHX	CA	3401	7/7	0.96	0.06	136,149,158,185	1
55	MG	AA	3410	1/1	0.96	0.23	61,61,61,61	0
56	OHX	AA	3458	7/7	0.96	0.10	34,48,113,148	3
56	OHX	BA	1788	7/7	0.96	0.07	118,118,132,157	1
56	OHX	BA	1789	7/7	0.96	0.07	108,112,133,182	1
56	OHX	AA	3464	7/7	0.96	0.07	117,125,139,188	0
56	OHX	AA	3465	7/7	0.96	0.08	85,99,124,159	1
56	OHX	AA	3549	7/7	0.96	0.08	97,102,111,165	1
56	OHX	CA	3410	7/7	0.96	0.06	114,125,132,190	1
56	OHX	AA	3466	7/7	0.96	0.07	89,94,108,128	1
56	OHX	BA	1796	7/7	0.96	0.06	143,156,164,225	0
56	OHX	AA	3470	7/7	0.96	0.07	107,109,130,160	1
56	OHX	AA	3473	7/7	0.96	0.08	66,95,102,124	1
55	MG	AA	3042	1/1	0.96	0.17	43,43,43,43	0
55	MG	CA	3447	1/1	0.96	0.43	58,58,58,58	0
56	OHX	BA	1802	7/7	0.96	0.06	107,121,133,185	1
55	MG	CA	3127	1/1	0.97	0.18	53,53,53,53	0
56	OHX	AA	3480	7/7	0.97	0.07	90,100,124,135	1
56	OHX	AA	3481	7/7	0.97	0.06	95,108,126,156	2
56	OHX	CA	3372	7/7	0.97	0.07	112,137,145,182	0
56	OHX	AA	3332	7/7	0.97	0.08	77,106,123,134	1
55	MG	CA	3128	1/1	0.97	0.07	72,72,72,72	0
55	MG	AA	3075	1/1	0.97	0.34	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	BA	1663	7/7	0.97	0.05	132,137,143,190	1
56	OHX	BA	1808	7/7	0.97	0.11	84,90,96,110	2
56	OHX	BA	1809	7/7	0.97	0.05	141,153,160,232	0
56	OHX	AA	3335	7/7	0.97	0.06	94,101,113,136	1
56	OHX	CO	201	7/7	0.97	0.06	104,109,121,141	1
55	MG	AA	3085	1/1	0.97	0.12	58,58,58,58	0
56	OHX	AA	3337	7/7	0.97	0.06	97,106,127,177	1
56	OHX	AA	3339	7/7	0.97	0.06	151,155,164,211	1
56	OHX	AA	3489	7/7	0.97	0.07	72,78,92,128	1
56	OHX	DA	1728	7/7	0.97	0.07	78,116,123,162	0
56	OHX	AA	3363	7/7	0.97	0.09	90,99,133,145	1
55	MG	AA	3196	1/1	0.97	0.20	36,36,36,36	0
56	OHX	BG	302	7/7	0.97	0.06	128,137,145,186	1
56	OHX	BA	1671	7/7	0.97	0.04	127,131,133,210	1
55	MG	C7	101	1/1	0.97	0.28	54,54,54,54	0
56	OHX	CA	3389	7/7	0.97	0.06	101,110,123,155	1
56	OHX	AA	3367	7/7	0.97	0.06	121,129,147,173	1
55	MG	CA	3132	1/1	0.97	0.14	80,80,80,80	0
55	MG	AA	3253	1/1	0.97	0.20	53,53,53,53	0
56	OHX	AA	3263	7/7	0.97	0.06	76,102,114,143	1
56	OHX	DA	1748	7/7	0.97	0.06	95,111,122,149	1
56	OHX	CA	3394	7/7	0.97	0.07	97,100,116,155	1
56	OHX	AA	3288	7/7	0.97	0.08	76,85,101,127	1
56	OHX	AA	3498	7/7	0.97	0.07	92,94,127,136	1
56	OHX	CA	3246	7/7	0.97	0.10	113,116,120,151	1
56	OHX	AA	3298	7/7	0.97	0.11	71,88,99,110	1
56	OHX	AA	3299	7/7	0.97	0.07	54,81,94,118	1
56	OHX	AA	3556	7/7	0.97	0.05	212,217,223,266	1
56	OHX	AA	3502	7/7	0.97	0.07	97,102,112,146	1
56	OHX	AA	3401	7/7	0.97	0.05	93,112,116,173	1
56	OHX	CA	3254	7/7	0.97	0.06	167,174,181,211	0
56	OHX	DA	1761	7/7	0.97	0.05	130,132,145,205	0
56	OHX	BA	1685	7/7	0.97	0.05	198,199,207,267	1
55	MG	AA	3094	1/1	0.97	0.31	39,39,39,39	0
56	OHX	CA	3406	7/7	0.97	0.06	151,161,169,211	1
56	OHX	DA	1766	7/7	0.97	0.06	118,124,133,175	1
56	OHX	DA	1767	7/7	0.97	0.05	120,124,135,184	1
56	OHX	AA	3303	7/7	0.97	0.07	93,102,117,145	1
56	OHX	CA	3293	7/7	0.97	0.09	100,117,128,163	0
56	OHX	CA	3295	7/7	0.97	0.08	102,105,117,137	1
55	MG	DA	1638	1/1	0.97	0.11	89,89,89,89	0
55	MG	AA	3411	1/1	0.97	0.17	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	CA	3453	1/1	0.97	0.24	58,58,58,58	0
56	OHX	CA	3308	7/7	0.97	0.07	88,90,121,161	0
56	OHX	CA	3309	7/7	0.97	0.07	92,108,125,150	1
56	OHX	AA	3307	7/7	0.97	0.07	85,90,103,127	1
56	OHX	CA	3317	7/7	0.97	0.07	116,126,142,180	1
55	MG	CA	3098	1/1	0.97	0.13	63,63,63,63	0
56	OHX	AA	3448	7/7	0.97	0.08	87,90,112,131	1
56	OHX	AA	3450	7/7	0.97	0.07	65,94,112,113	3
55	MG	CA	3058	1/1	0.97	0.29	50,50,50,50	0
56	OHX	BA	1764	7/7	0.97	0.08	88,94,120,157	0
56	OHX	BA	1768	7/7	0.97	0.07	128,139,147,175	0
56	OHX	BA	1770	7/7	0.97	0.07	102,113,126,149	1
56	OHX	CA	3336	7/7	0.97	0.06	114,127,138,191	0
55	MG	CA	3111	1/1	0.97	0.28	30,30,30,30	0
56	OHX	CA	3338	7/7	0.97	0.08	95,103,117,121	1
56	OHX	DA	1789	7/7	0.97	0.04	176,179,184,242	1
56	OHX	AA	3318	7/7	0.97	0.08	92,102,113,133	1
56	OHX	BA	1773	7/7	0.97	0.08	101,102,110,142	1
56	OHX	CA	3341	7/7	0.97	0.08	74,100,107,145	2
56	OHX	DA	1793	7/7	0.97	0.06	146,150,161,207	1
55	MG	DA	1700	1/1	0.97	0.35	70,70,70,70	0
56	OHX	AA	3322	7/7	0.97	0.06	89,98,107,146	1
56	OHX	BA	1780	7/7	0.97	0.09	94,102,115,117	1
56	OHX	BA	1781	7/7	0.97	0.06	91,111,121,156	1
56	OHX	BA	1782	7/7	0.97	0.07	133,144,159,198	0
56	OHX	AA	3520	7/7	0.97	0.05	127,132,145,185	1
56	OHX	AA	3521	7/7	0.97	0.06	87,94,107,160	1
56	OHX	AA	3467	7/7	0.97	0.06	100,105,117,133	1
56	OHX	DA	1802	7/7	0.97	0.07	120,122,140,196	1
56	OHX	CA	3438	7/7	0.97	0.05	97,104,116,167	1
56	OHX	CA	3450	7/7	0.97	0.06	112,125,137,206	0
56	OHX	CA	3462	7/7	0.97	0.09	71,82,94,110	1
56	OHX	BA	1786	7/7	0.97	0.07	93,97,101,149	1
56	OHX	AA	3468	7/7	0.97	0.06	99,111,119,167	1
56	OHX	AA	3469	7/7	0.97	0.08	79,91,98,161	1
55	MG	AA	3388	1/1	0.97	0.25	41,41,41,41	0
56	OHX	CA	3357	7/7	0.97	0.07	86,98,106,151	1
56	OHX	DA	1811	7/7	0.97	0.04	137,141,149,222	1
56	OHX	AA	3471	7/7	0.97	0.05	98,107,114,163	1
56	OHX	AA	3472	7/7	0.97	0.07	120,126,137,153	1
56	OHX	BA	1792	7/7	0.97	0.06	150,163,168,209	1
56	OHX	CA	3481	7/7	0.97	0.08	35,87,114,138	2

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	AA	3325	7/7	0.97	0.07	91,103,115,154	1
56	OHX	CA	3484	7/7	0.97	0.06	104,113,129,146	1
56	OHX	AA	3326	7/7	0.97	0.09	83,94,100,118	1
56	OHX	BA	1795	7/7	0.97	0.06	109,127,134,173	1
55	MG	BA	1700	1/1	0.97	0.34	61,61,61,61	0
55	MG	DA	1664	1/1	0.97	0.32	31,31,31,31	0
55	MG	AA	3219	1/1	0.97	0.15	48,48,48,48	0
56	OHX	BA	1799	7/7	0.97	0.06	158,163,176,213	1
56	OHX	AA	3478	7/7	0.97	0.06	77,90,100,131	1
55	MG	AA	3172	1/1	0.98	0.32	38,38,38,38	0
56	OHX	AA	3323	7/7	0.98	0.07	72,87,96,117	1
56	OHX	DA	1719	7/7	0.98	0.07	79,99,112,124	0
56	OHX	DA	1724	7/7	0.98	0.07	84,106,133,148	1
56	OHX	DA	1726	7/7	0.98	0.08	87,101,123,159	0
56	OHX	CA	3307	7/7	0.98	0.06	92,104,131,164	0
56	OHX	DA	1729	7/7	0.98	0.06	104,108,118,152	1
55	MG	BA	1620	1/1	0.98	0.37	70,70,70,70	0
56	OHX	AA	3518	7/7	0.98	0.06	67,73,103,130	1
56	OHX	CA	3310	7/7	0.98	0.06	74,88,107,129	1
56	OHX	CA	3311	7/7	0.98	0.07	79,95,105,127	1
56	OHX	CA	3312	7/7	0.98	0.07	85,101,114,134	1
56	OHX	CA	3313	7/7	0.98	0.05	103,112,124,157	0
56	OHX	AA	3300	7/7	0.98	0.06	67,91,120,167	1
56	OHX	DA	1738	7/7	0.98	0.05	115,122,137,171	1
56	OHX	DA	1739	7/7	0.98	0.04	98,110,124,155	1
56	OHX	CA	3315	7/7	0.98	0.07	90,101,110,160	1
56	OHX	DA	1742	7/7	0.98	0.05	117,127,141,176	1
56	OHX	DA	1743	7/7	0.98	0.06	109,113,118,148	1
56	OHX	DA	1744	7/7	0.98	0.06	103,108,120,148	1
55	MG	AA	3031	1/1	0.98	0.20	35,35,35,35	0
56	OHX	DA	1746	7/7	0.98	0.05	126,134,146,189	1
56	OHX	AA	3400	7/7	0.98	0.08	69,80,83,116	1
56	OHX	CA	3319	7/7	0.98	0.06	87,97,106,138	1
56	OHX	CA	3320	7/7	0.98	0.06	140,142,153,174	0
56	OHX	CA	3321	7/7	0.98	0.06	111,119,144,156	0
56	OHX	CA	3322	7/7	0.98	0.06	104,117,127,154	1
56	OHX	CA	3323	7/7	0.98	0.05	107,111,118,169	0
55	MG	DN	201	1/1	0.98	0.10	80,80,80,80	0
56	OHX	CA	3326	7/7	0.98	0.06	97,110,130,136	2
55	MG	BA	1733	1/1	0.98	0.35	60,60,60,60	0
56	OHX	CA	3329	7/7	0.98	0.06	102,103,123,146	1
56	OHX	AA	3329	7/7	0.98	0.06	85,90,103,133	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	DA	1758	7/7	0.98	0.04	132,137,143,204	0
56	OHX	DA	1759	7/7	0.98	0.05	120,137,147,190	0
56	OHX	CA	3332	7/7	0.98	0.07	70,82,93,103	1
55	MG	AA	3213	1/1	0.98	0.10	49,49,49,49	0
56	OHX	AA	3154	7/7	0.98	0.08	76,89,110,133	1
55	MG	CA	3265	1/1	0.98	0.14	55,55,55,55	0
56	OHX	DA	1764	7/7	0.98	0.05	115,121,127,171	1
56	OHX	AA	3308	7/7	0.98	0.06	66,73,104,120	2
56	OHX	AA	3440	7/7	0.98	0.07	59,88,102,124	0
56	OHX	BA	1684	7/7	0.98	0.05	109,118,126,149	1
56	OHX	AA	3441	7/7	0.98	0.07	84,93,115,140	0
56	OHX	AA	3443	7/7	0.98	0.06	69,76,84,127	1
56	OHX	AB	211	7/7	0.98	0.07	74,85,113,121	0
56	OHX	AA	3309	7/7	0.98	0.07	64,84,90,112	1
55	MG	A0	201	1/1	0.98	0.14	48,48,48,48	0
56	OHX	AA	3287	7/7	0.98	0.06	75,88,103,129	2
56	OHX	CA	3345	7/7	0.98	0.05	91,108,114,146	1
56	OHX	AA	3451	7/7	0.98	0.07	75,85,92,125	1
56	OHX	CA	3347	7/7	0.98	0.06	86,102,110,148	1
56	OHX	AA	3314	7/7	0.98	0.07	81,93,123,149	1
56	OHX	AA	3454	7/7	0.98	0.07	68,93,112,112	1
56	OHX	DA	1779	7/7	0.98	0.04	144,146,155,215	1
56	OHX	AA	3455	7/7	0.98	0.06	56,75,100,119	2
56	OHX	AA	3456	7/7	0.98	0.07	59,75,90,132	2
56	OHX	BA	1761	7/7	0.98	0.06	102,104,115,161	0
56	OHX	AA	3338	7/7	0.98	0.07	82,93,108,126	1
56	OHX	CA	3354	7/7	0.98	0.08	78,88,98,105	1
56	OHX	BA	1765	7/7	0.98	0.07	111,119,130,164	0
56	OHX	BA	1766	7/7	0.98	0.08	89,96,106,129	1
56	OHX	BA	1767	7/7	0.98	0.06	92,119,140,142	0
56	OHX	BC	106	7/7	0.98	0.07	110,133,144,147	1
56	OHX	BC	107	7/7	0.98	0.06	105,124,134,145	1
56	OHX	AA	3499	7/7	0.98	0.05	101,113,131,183	1
56	OHX	BA	1769	7/7	0.98	0.07	102,107,127,145	0
56	OHX	AA	3459	7/7	0.98	0.07	71,92,105,129	1
56	OHX	CA	3235	7/7	0.98	0.06	43,79,99,118	0
56	OHX	CA	3237	7/7	0.98	0.06	109,109,122,166	0
56	OHX	CA	3240	7/7	0.98	0.07	96,99,103,148	1
56	OHX	CA	3241	7/7	0.98	0.08	90,96,101,122	1
56	OHX	CA	3242	7/7	0.98	0.07	95,107,117,129	1
56	OHX	AA	3460	7/7	0.98	0.06	87,98,107,140	0
56	OHX	CA	3483	7/7	0.98	0.07	84,93,103,136	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	AA	3461	7/7	0.98	0.06	60,78,98,143	1
56	OHX	CA	3485	7/7	0.98	0.07	88,102,109,144	1
56	OHX	AA	3463	7/7	0.98	0.07	77,89,96,134	1
56	OHX	BA	1774	7/7	0.98	0.06	80,98,111,147	1
56	OHX	AA	3315	7/7	0.98	0.09	89,99,111,137	1
56	OHX	CA	3249	7/7	0.98	0.08	86,90,104,128	1
56	OHX	AA	3340	7/7	0.98	0.05	159,167,171,209	0
56	OHX	CA	3251	7/7	0.98	0.06	88,107,125,141	1
56	OHX	CA	3492	7/7	0.98	0.06	97,102,115,126	1
56	OHX	CB	208	7/7	0.98	0.06	105,109,142,147	0
56	OHX	AA	3341	7/7	0.98	0.06	75,103,114,126	1
56	OHX	AA	3342	7/7	0.98	0.06	78,85,104,123	1
55	MG	AA	3355	1/1	0.98	0.29	36,36,36,36	0
56	OHX	AA	3364	7/7	0.98	0.07	92,103,108,119	1
56	OHX	AA	3295	7/7	0.98	0.07	84,98,116,152	0
56	OHX	AA	3511	7/7	0.98	0.05	133,145,154,207	0
56	OHX	CA	3288	7/7	0.98	0.07	87,95,104,133	0
56	OHX	AA	3297	7/7	0.98	0.10	87,98,102,106	1
56	OHX	CA	3294	7/7	0.98	0.08	91,93,107,125	1
56	OHX	AA	3320	7/7	0.98	0.09	69,81,96,121	1
56	OHX	CA	3297	7/7	0.98	0.05	84,94,129,142	1
56	OHX	CA	3298	7/7	0.98	0.05	90,98,134,148	0
56	OHX	DC	109	7/7	0.98	0.05	88,92,104,159	3
56	OHX	DC	110	7/7	0.98	0.07	78,91,106,144	4
56	OHX	CA	3299	7/7	0.98	0.06	99,105,124,141	1
57	ZN	BG	301	1/1	0.98	0.18	79,79,79,79	0
56	OHX	CA	3301	7/7	0.98	0.07	55,85,123,136	3
56	OHX	AA	3321	7/7	0.98	0.04	97,109,121,173	1
56	OHX	AA	3433	7/7	0.99	0.04	63,65,104,122	1
56	OHX	AA	3434	7/7	0.99	0.06	62,71,94,101	1
56	OHX	CA	3303	7/7	0.99	0.04	92,96,123,138	0
56	OHX	AA	3435	7/7	0.99	0.07	61,70,93,100	3
56	OHX	CA	3305	7/7	0.99	0.06	70,83,99,129	1
56	OHX	AA	3436	7/7	0.99	0.05	78,91,117,117	0
56	OHX	AA	3437	7/7	0.99	0.05	81,95,107,131	0
56	OHX	AA	3438	7/7	0.99	0.06	51,64,72,96	2
56	OHX	AA	3439	7/7	0.99	0.04	69,82,92,115	1
56	OHX	AA	3310	7/7	0.99	0.04	94,104,125,156	0
56	OHX	DA	1740	7/7	0.99	0.05	139,153,162,184	0
56	OHX	AA	3311	7/7	0.99	0.06	97,106,117,155	1
56	OHX	AA	3442	7/7	0.99	0.05	70,87,119,140	0
56	OHX	AA	3301	7/7	0.99	0.06	88,89,93,110	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	AA	3444	7/7	0.99	0.05	80,103,116,131	1
56	OHX	AA	3445	7/7	0.99	0.05	75,87,109,120	1
56	OHX	CA	3316	7/7	0.99	0.05	119,122,129,158	0
56	OHX	AA	3446	7/7	0.99	0.07	68,90,101,115	2
56	OHX	AA	3293	7/7	0.99	0.07	54,82,88,102	2
56	OHX	AA	3294	7/7	0.99	0.05	94,100,117,120	0
56	OHX	AA	3449	7/7	0.99	0.04	64,74,89,112	2
55	MG	B1	101	1/1	0.99	0.33	26,26,26,26	0
56	OHX	BA	1696	7/7	0.99	0.04	47,75,99,113	0
56	OHX	BA	1755	7/7	0.99	0.06	72,74,97,109	0
56	OHX	CA	3324	7/7	0.99	0.07	65,83,94,110	2
56	OHX	BA	1756	7/7	0.99	0.08	59,79,107,108	0
56	OHX	BA	1757	7/7	0.99	0.07	57,66,87,98	2
56	OHX	CA	3327	7/7	0.99	0.05	76,83,103,129	1
56	OHX	BA	1758	7/7	0.99	0.07	69,88,100,119	0
56	OHX	BA	1759	7/7	0.99	0.07	78,93,120,156	0
56	OHX	CA	3330	7/7	0.99	0.04	102,106,115,169	0
56	OHX	BA	1760	7/7	0.99	0.06	71,106,126,148	0
56	OHX	AE	304	7/7	0.99	0.06	74,87,107,110	1
56	OHX	BA	1762	7/7	0.99	0.07	72,94,107,136	0
56	OHX	BA	1763	7/7	0.99	0.05	94,115,123,136	0
56	OHX	AO	204	7/7	0.99	0.05	83,94,106,121	1
56	OHX	AA	3316	7/7	0.99	0.05	80,95,97,136	0
56	OHX	AA	3296	7/7	0.99	0.05	115,120,123,158	0
56	OHX	AA	3453	7/7	0.99	0.06	95,106,114,148	0
56	OHX	CA	3232	7/7	0.99	0.10	72,77,83,137	0
56	OHX	CA	3233	7/7	0.99	0.08	74,85,95,121	0
56	OHX	CA	3234	7/7	0.99	0.06	77,91,119,122	2
56	OHX	AA	3399	7/7	0.99	0.10	42,51,73,98	0
56	OHX	CA	3236	7/7	0.99	0.06	81,104,120,146	0
56	OHX	AA	3289	7/7	0.99	0.07	53,58,81,93	0
56	OHX	CA	3238	7/7	0.99	0.08	80,102,103,125	1
56	OHX	CA	3239	7/7	0.99	0.06	66,92,107,113	1
56	OHX	AA	3359	7/7	0.99	0.05	61,75,93,113	0
56	OHX	AA	3457	7/7	0.99	0.04	73,83,101,131	1
56	OHX	CA	3461	7/7	0.99	0.08	38,55,94,109	0
56	OHX	AA	3360	7/7	0.99	0.07	58,67,70,97	1
56	OHX	CA	3243	7/7	0.99	0.05	121,128,140,172	0
56	OHX	AA	3361	7/7	0.99	0.06	51,71,83,107	0
56	OHX	AA	3362	7/7	0.99	0.08	40,81,119,136	1
56	OHX	BA	1775	7/7	0.99	0.04	111,114,129,169	1
56	OHX	BA	1776	7/7	0.99	0.05	102,114,119,153	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	AA	3290	7/7	0.99	0.06	10,72,91,128	0
56	OHX	AA	3462	7/7	0.99	0.06	75,85,103,106	1
56	OHX	BA	1779	7/7	0.99	0.05	102,112,125,152	1
56	OHX	AA	3291	7/7	0.99	0.07	68,75,102,108	3
56	OHX	AA	3292	7/7	0.99	0.06	50,75,88,112	0
56	OHX	AA	3420	7/7	0.99	0.08	63,69,102,115	0
56	OHX	AA	3421	7/7	0.99	0.07	50,71,87,114	0
56	OHX	CA	3255	7/7	0.99	0.05	103,107,122,145	1
56	OHX	CA	3256	7/7	0.99	0.06	88,101,112,126	1
56	OHX	AA	3422	7/7	0.99	0.07	74,81,107,116	0
56	OHX	CA	3270	7/7	0.99	0.05	73,87,105,117	0
56	OHX	CA	3272	7/7	0.99	0.08	54,70,84,85	1
56	OHX	CA	3273	7/7	0.99	0.06	58,69,86,110	0
56	OHX	CA	3274	7/7	0.99	0.07	67,83,114,118	0
56	OHX	CA	3276	7/7	0.99	0.06	81,100,117,133	0
56	OHX	CA	3277	7/7	0.99	0.06	73,81,99,107	1
56	OHX	CA	3278	7/7	0.99	0.05	81,96,114,120	0
56	OHX	CA	3279	7/7	0.99	0.07	80,89,109,118	0
56	OHX	CA	3280	7/7	0.99	0.07	82,87,100,129	0
56	OHX	CA	3283	7/7	0.99	0.07	81,83,86,120	1
56	OHX	AA	3423	7/7	0.99	0.08	44,66,84,86	1
56	OHX	AA	3424	7/7	0.99	0.06	92,97,108,112	0
56	OHX	CA	3286	7/7	0.99	0.04	87,94,108,115	0
56	OHX	CA	3287	7/7	0.99	0.08	69,74,104,109	3
56	OHX	AA	3426	7/7	0.99	0.08	70,84,89,118	0
56	OHX	CA	3289	7/7	0.99	0.04	69,83,106,125	0
56	OHX	CA	3290	7/7	0.99	0.05	94,101,123,130	0
56	OHX	CA	3291	7/7	0.99	0.07	86,105,118,139	0
56	OHX	CA	3292	7/7	0.99	0.08	69,105,113,146	0
56	OHX	AA	3427	7/7	0.99	0.05	29,70,88,108	0
56	OHX	AA	3428	7/7	0.99	0.07	67,79,86,113	0
56	OHX	AA	3429	7/7	0.99	0.06	69,73,84,102	1
56	OHX	CA	3296	7/7	0.99	0.06	65,90,108,135	2
56	OHX	DA	1718	7/7	0.99	0.08	73,98,100,135	0
56	OHX	AA	3430	7/7	0.99	0.06	63,78,92,111	1
56	OHX	DA	1721	7/7	0.99	0.04	94,108,116,135	0
56	OHX	DA	1722	7/7	0.99	0.06	84,90,106,116	0
56	OHX	DA	1723	7/7	0.99	0.06	107,111,116,151	0
56	OHX	AA	3431	7/7	0.99	0.05	74,81,100,115	0
56	OHX	AA	3432	7/7	0.99	0.05	72,98,103,107	0
56	OHX	DA	1727	7/7	0.99	0.05	114,126,131,160	0
56	OHX	CA	3300	7/7	0.99	0.07	66,75,91,101	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	ZN	DQ	101	1/1	0.99	0.04	123,123,123,123	0
56	OHX	CA	3282	7/7	1.00	0.03	79,83,97,109	0
56	OHX	DA	1734	7/7	1.00	0.03	102,105,122,149	1
56	OHX	AA	3425	7/7	1.00	0.04	45,61,75,79	0
56	OHX	AA	3417	7/7	1.00	0.06	68,72,82,103	0
56	OHX	CF	301	7/7	1.00	0.07	54,58,79,92	0
56	OHX	CA	3275	7/7	1.00	0.04	56,80,112,114	1
56	OHX	AA	3418	7/7	1.00	0.06	39,61,82,95	0
56	OHX	AA	3419	7/7	1.00	0.05	67,75,91,95	0
56	OHX	AF	303	7/7	1.00	0.07	45,52,58,77	0
56	OHX	CA	3271	7/7	1.00	0.09	67,82,101,115	0
55	MG	AA	3194	1/1	1.00	0.04	26,26,26,26	0
56	OHX	CA	3281	7/7	1.00	0.06	101,105,126,132	0

6.5 Other polymers (i)

There are no such residues in this entry.