Full wwPDB X-ray Structure Validation Report ⓘ

Mar 6, 2026 – 09:33 PM UTC

PDB ID	:	4V87 / pdb_00004v87
Title	:	Crystal structure analysis of ribosomal decoding.
Authors	:	Demeshkina, N.; Jenner, L.; Yusupov, M.; Yusupova, G.
Deposited on	:	2011-09-20
Resolution	:	3.10 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 ⓘ 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 ⓘ) were used in the production of this report:

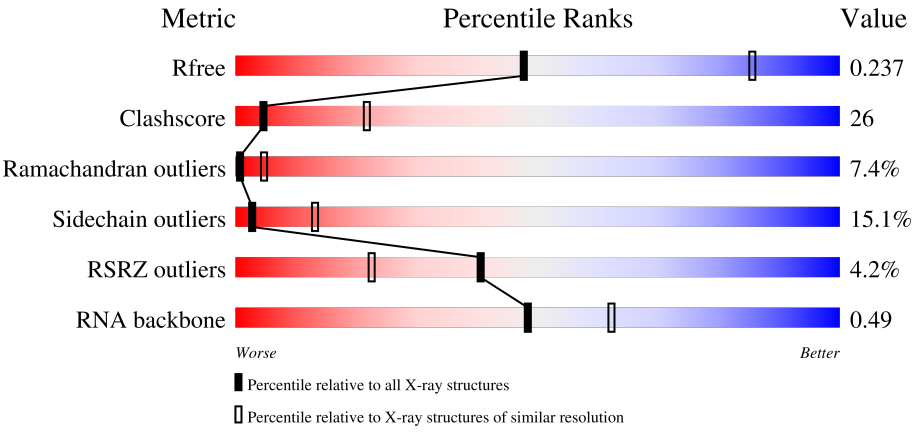
MolProbity	:	4-5-2 with Phenix2.0
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

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 3.10 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	1456 (3.10-3.10)
Clashscore	190562	1539 (3.10-3.10)
Ramachandran outliers	187476	1467 (3.10-3.10)
Sidechain outliers	187428	1467 (3.10-3.10)
RSRZ outliers	180081	1456 (3.10-3.10)
RNA backbone	3983	1022 (3.32-2.88)

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	2% 41% 45% 14%
1	DA	2912	2% 40% 44% 16%
2	AB	122	% 38% 44% 18%
2	DB	122	2% 33% 48% 20%

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Mol	Chain	Length	Quality of chain
3	AD	272	46% 42% 11%
3	DD	272	47% 42% 10%
4	AE	205	3% 33% 48% 17%
4	DE	205	8% 29% 44% 21% 5%
5	AF	208	46% 40% 11%
5	DF	208	4% 40% 42% 17%
6	AG	181	2% 42% 44% 13%
6	DG	181	6% 41% 49% 10%
7	AH	170	6% 37% 42% 18%
7	DH	170	14% 40% 42% 18%
8	AK	146	5% 33% 50% 14%
8	DK	146	9% 38% 43% 17%
9	AM	138	4% 33% 51% 15%
9	DM	138	4% 38% 50% 12%
10	AN	122	61% 30% 9%
10	DN	122	55% 41%
11	AO	150	7% 32% 43% 24%
11	DO	150	5% 32% 38% 21% 9%
12	AP	141	7% 30% 46% 19% 5%
12	DP	141	13% 28% 39% 27% 6%
13	A0	118	41% 44% 13%
13	D0	118	42% 48% 9%
14	AQ	111	5% 33% 48% 19%
14	DQ	111	7% 32% 55% 10%
15	AR	137	4% 31% 50% 18%

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Mol	Chain	Length	Quality of chain
15	DR	137	4% 31% 50% 18%
16	A1	117	4% 50% 43% 7%
16	D1	117	2% 50% 39% 10%
17	A2	101	5% 44% 40% 16%
17	D2	101	6% 38% 41% 18%
18	AS	113	41% 44% 15%
18	DS	113	2% 49% 44% 6%
19	AT	92	2% 47% 41% 12%
19	DT	92	4% 39% 47% 14%
20	AU	102	10% 34% 40% 24%
20	DU	102	16% 27% 49% 21%
21	AV	179	7% 27% 53% 16%
21	DV	179	9% 36% 46% 17%
22	A3	77	49% 44% 5%
22	D3	77	3% 51% 45%
23	AZ	97	4% 52% 39% 6%
23	DZ	97	5% 54% 28% 16%
24	AW	69	3% 41% 41% 12%
24	DW	69	4% 43% 42% 12%
25	AX	59	54% 41% 5%
25	DX	59	2% 56% 41%
26	A4	66	8% 29% 42% 26%
26	D4	66	18% 20% 50% 24% 5%
27	A5	59	8% 39% 32% 25%
27	D5	59	3% 41% 46% 12%

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Mol	Chain	Length	Quality of chain
28	A6	45	27% 7% 67% 22%
28	D6	45	24% 22% 44% 29%
29	A7	49	51% 41% 8%
29	D7	49	47% 41% 12%
30	A8	61	28% 52% 18%
30	D8	61	13% 33% 41% 21% 5%
31	BA	1506	4% 38% 46% 16%
31	CA	1506	6% 38% 46% 16%
32	BE	256	8% 30% 47% 14% 7%
32	CE	256	13% 35% 39% 16% 7%
33	BF	239	2% 31% 43% 11% 14%
33	CF	239	11% 33% 45% 8% 14%
34	BG	208	5% 46% 44% 9%
34	CG	208	9% 55% 30% 14%
35	BH	162	45% 41% 6% 7%
35	CH	162	3% 37% 49% 7% 7%
36	BI	101	2% 51% 42% 7%
36	CI	101	2% 59% 34% 7%
37	BJ	156	3% 52% 42% 6%
37	CJ	156	4% 55% 38% 5%
38	BK	138	41% 50% 9%
38	CK	138	2% 49% 42% 8%
39	BL	128	10% 37% 53% 9%
39	CL	128	5% 38% 53% 8%
40	BM	105	4% 37% 48% 10% 6%

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Mol	Chain	Length	Quality of chain
40	CM	105	6% 22% 58% 13% 6%
41	BN	129	2% 42% 43% 7% 8%
41	CN	129	4% 53% 36% 8%
42	BO	132	% 50% 35% 9% 5%
42	CO	132	5% 47% 35% 11% 5%
43	BP	126	5% 40% 43% 8% 8%
43	CP	126	6% 31% 50% 12% 7%
44	BQ	61	5% 28% 52% 18%
44	CQ	61	11% 48% 38% 13%
45	BR	89	% 55% 38% 6%
45	CR	89	2% 55% 38% 6%
46	BS	88	3% 39% 47% 10% 5%
46	CS	88	2% 56% 33% 7% 5%
47	BT	105	46% 44% 6% 5%
47	CT	105	2% 62% 30% 5%
48	BU	88	49% 27% 6% 18%
48	CU	88	56% 23% 18%
49	BV	93	10% 34% 42% 12% 11%
49	CV	93	3% 29% 40% 13% 16%
50	BW	106	7% 43% 38% 12% 7%
50	CW	106	7% 39% 39% 15% 7%
51	BX	27	41% 48% 7%
51	CX	27	4% 22% 59% 7% 7%
52	BB	87	8% 36% 44% 21%
52	CB	87	9% 31% 41% 28%

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Mol	Chain	Length	Quality of chain
53	BC	77	4% 55% 34% 12%
53	BD	77	14% 22% 52% 26%
53	CC	77	4% 45% 43% 12%
53	CD	77	14% 21% 60% 19%
54	B1	10	10% 20% 70% 10%
54	C1	10	10% 60% 30% 10%

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	3058	-	-	-	X
55	MG	AA	3077	-	-	-	X
55	MG	AA	3108	-	-	-	X
55	MG	AA	3132	-	-	-	X
55	MG	AA	3236	-	-	-	X
55	MG	AA	3317	-	-	-	X
55	MG	AA	3326	-	-	-	X
55	MG	AA	3353	-	-	-	X
55	MG	AA	3431	-	-	-	X
55	MG	AA	3509	-	-	-	X
55	MG	AA	3518	-	-	-	X
55	MG	AA	3521	-	-	-	X
55	MG	AA	3558	-	-	-	X
55	MG	AE	304	-	-	-	X
55	MG	BA	1628	-	-	-	X
55	MG	BA	1636	-	-	-	X
55	MG	BA	1678	-	-	-	X
55	MG	BA	1709	-	-	-	X
55	MG	BA	1712	-	-	-	X
55	MG	BA	1751	-	-	-	X
55	MG	BA	1778	-	-	-	X
55	MG	BA	1784	-	-	-	X
55	MG	BA	1831	-	-	-	X
55	MG	BA	1838	-	-	-	X
55	MG	CA	1634	-	-	-	X
55	MG	CA	1747	-	-	-	X
55	MG	CA	1777	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	DA	3004	-	-	-	X
55	MG	DA	3060	-	-	-	X
55	MG	DA	3272	-	-	-	X
55	MG	DA	3324	-	-	-	X
55	MG	DA	3332	-	-	-	X
55	MG	DA	3357	-	-	-	X
55	MG	DA	3372	-	-	-	X
55	MG	DA	3397	-	-	-	X
55	MG	DA	3404	-	-	-	X
55	MG	DA	3438	-	-	-	X
55	MG	DA	3447	-	-	-	X

2 Entry composition

There are 56 unique types of molecules in this entry. The entry contains 299628 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 (2909-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	DA	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
DA	166	U	-	expression tag	GB AP008226.1
DA	654A	A	G	conflict	GB AP008226.1
DA	654E	C	G	conflict	GB AP008226.1
DA	654P	G	C	conflict	GB AP008226.1
DA	654T	A	C	conflict	GB AP008226.1
DA	1058	U	G	conflict	GB AP008226.1
DA	1080	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	DB	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
			2116	1335	420	358	3			
3	DD	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
			1569	991	300	272	6			
4	DE	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	203	Total	C	N	O	S	0	0	1
			1586	1011	298	275	2			
5	DF	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	DG	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
			1308	829	245	233	1			
7	DH	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
			1137	726	201	209	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	DK	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
			1105	712	206	183	4			
9	DM	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	DN	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	DO	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	DP	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	D0	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	DQ	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
			1142	710	234	197	1			
15	DR	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	D1	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	D2	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	DS	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 726	C 471	N 131	O 124	0	0	0
19	DT	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 786	C 505	N 150	O 126	S 5	0	0	0
20	DU	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	DV	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	D3	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	DZ	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	DW	69	Total	C	N	O	S	0	0	0
			581	358	118	104	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	DX	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	D4	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	D5	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
			390	241	79	66	4			
28	D6	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	49	Total	C	N	O	S	0	0	0
			430	263	108	57	2			
29	D7	49	Total	C	N	O	S	0	0	0
			430	263	108	57	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	A8	61	Total	C	N	O	S	0	0	0
			488	312	99	75	2			
30	D8	61	Total	C	N	O	S	0	0	0
			488	312	99	75	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BA	1506	Total	C	N	O	P	0	0	0
			32369	14408	5997	10459	1505			
31	CA	1506	Total	C	N	O	P	0	0	0
			32372	14408	5997	10461	1506			

- 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	CE	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	CF	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	CG	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	CH	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	CI	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	CJ	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	CK	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	CL	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	CM	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	CN	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	CO	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	CP	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	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
44	CQ	60	Total	C	N	O	S	0	0	0
			492	312	104	72	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	CR	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	CS	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	CT	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	CU	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	83	Total	C	N	O	S	0	0	0
			665	424	124	115	2			
49	CV	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	CW	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	CX	25	Total	C	N	O	0	0	0
			217	134	52	31			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	BB	87	Total	C	N	O	P	0	0	0
			1861	829	333	612	87			
52	CB	87	Total	C	N	O	P	0	0	0
			1861	829	333	612	87			

- 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	BD	77	Total	C	N	O	P	0	0	0
			1643	732	298	536	77			
53	CC	77	Total	C	N	O	P	0	0	0
			1643	732	298	536	77			
53	CD	77	Total	C	N	O	P	0	0	0
			1643	732	298	536	77			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BC	18	C	U	conflict	GB AP012306.1
BD	18	C	U	conflict	GB AP012306.1
CC	18	C	U	conflict	GB AP012306.1
CD	18	C	U	conflict	GB AP012306.1

- Molecule 54 is a RNA chain called MRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	B1	10	Total	C	N	O	P	0	0	0
			205	92	28	75	10			
54	C1	10	Total	C	N	O	P	0	0	0
			205	92	28	75	10			

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

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	AA	630	Total Mg 630 630	0	0
55	AB	17	Total Mg 17 17	0	0
55	AD	2	Total Mg 2 2	0	0
55	AE	4	Total Mg 4 4	0	0
55	AF	3	Total Mg 3 3	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	A2	1	Total Mg 1 1	0	0
55	AU	1	Total Mg 1 1	0	0
55	A3	1	Total Mg 1 1	0	0
55	A5	2	Total Mg 2 2	0	0
55	A6	1	Total Mg 1 1	0	0
55	A7	1	Total Mg 1 1	0	0
55	BA	244	Total Mg 244 244	0	0
55	BG	1	Total Mg 1 1	0	0
55	BN	2	Total Mg 2 2	0	0
55	BQ	2	Total Mg 2 2	0	0
55	BB	8	Total Mg 8 8	0	0
55	BC	9	Total Mg 9 9	0	0
55	BD	1	Total Mg 1 1	0	0
55	B1	2	Total Mg 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	CA	209	Total Mg 209 209	0	0
55	CG	3	Total Mg 3 3	0	0
55	CH	1	Total Mg 1 1	0	0
55	CS	1	Total Mg 1 1	0	0
55	CB	5	Total Mg 5 5	0	0
55	CC	8	Total Mg 8 8	0	0
55	DA	528	Total Mg 528 528	0	0
55	DB	14	Total Mg 14 14	0	0
55	DE	3	Total Mg 3 3	0	0
55	DP	1	Total Mg 1 1	0	0
55	D0	1	Total Mg 1 1	0	0
55	D1	2	Total Mg 2 2	0	0
55	DU	1	Total Mg 1 1	0	0
55	D3	1	Total Mg 1 1	0	0
55	D5	1	Total Mg 1 1	0	0

- Molecule 56 is ZINC ION (CCD ID: ZN) (formula: Zn).

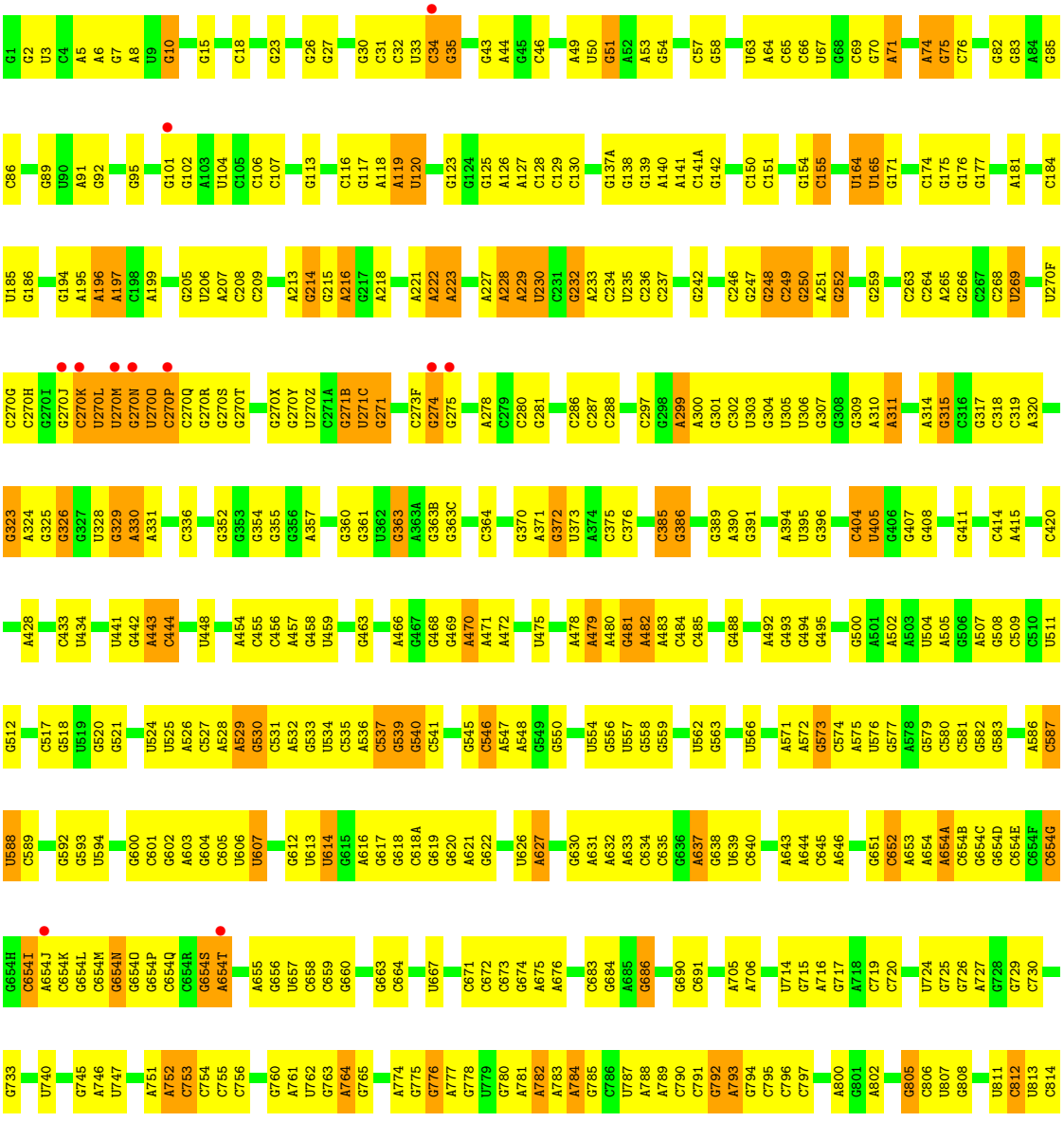
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	BG	1	Total Zn 1 1	0	0
56	BQ	1	Total Zn 1 1	0	0
56	CG	1	Total Zn 1 1	0	0
56	CQ	1	Total Zn 1 1	0	0

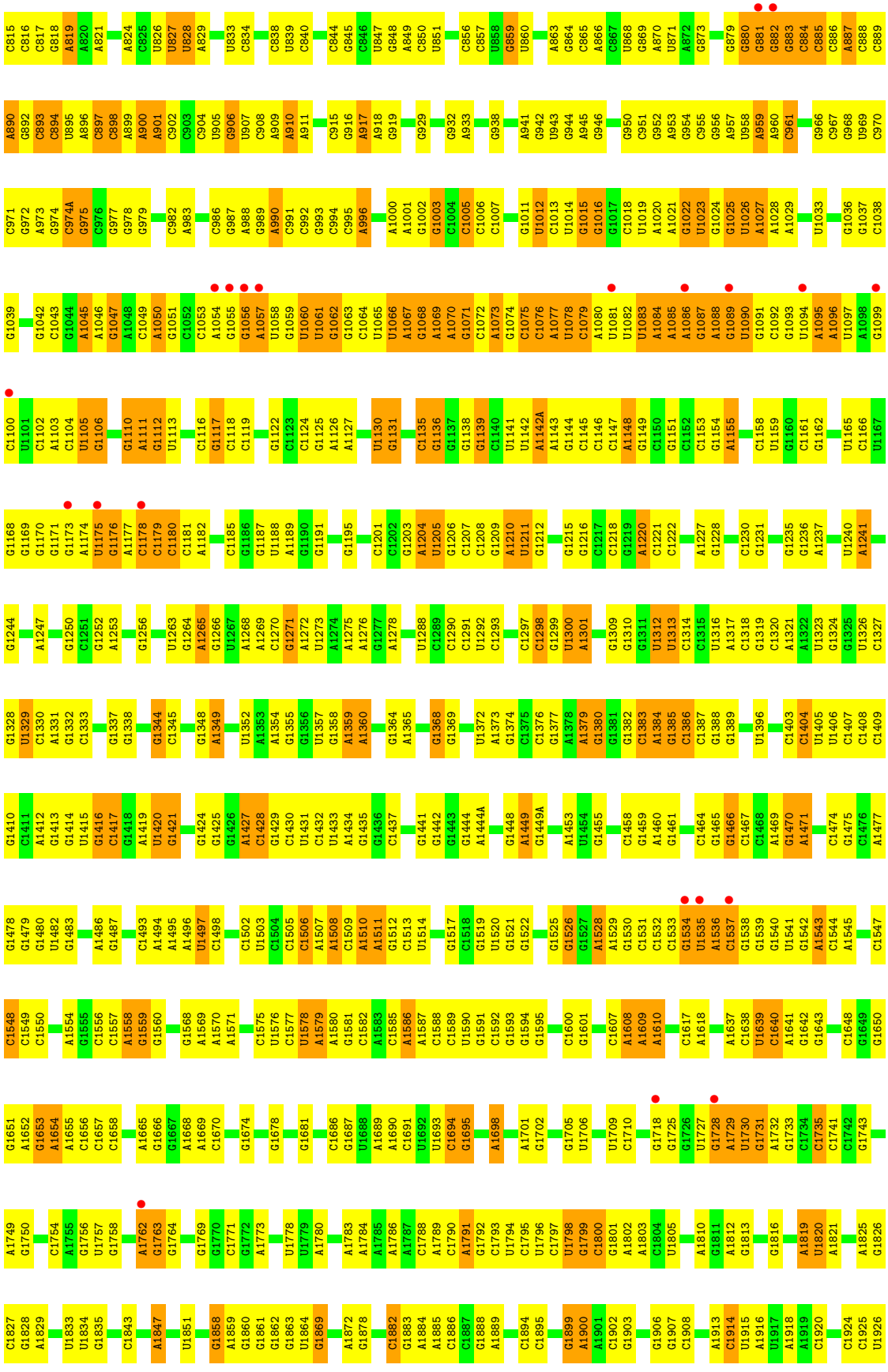
3 Residue-property plots (i)

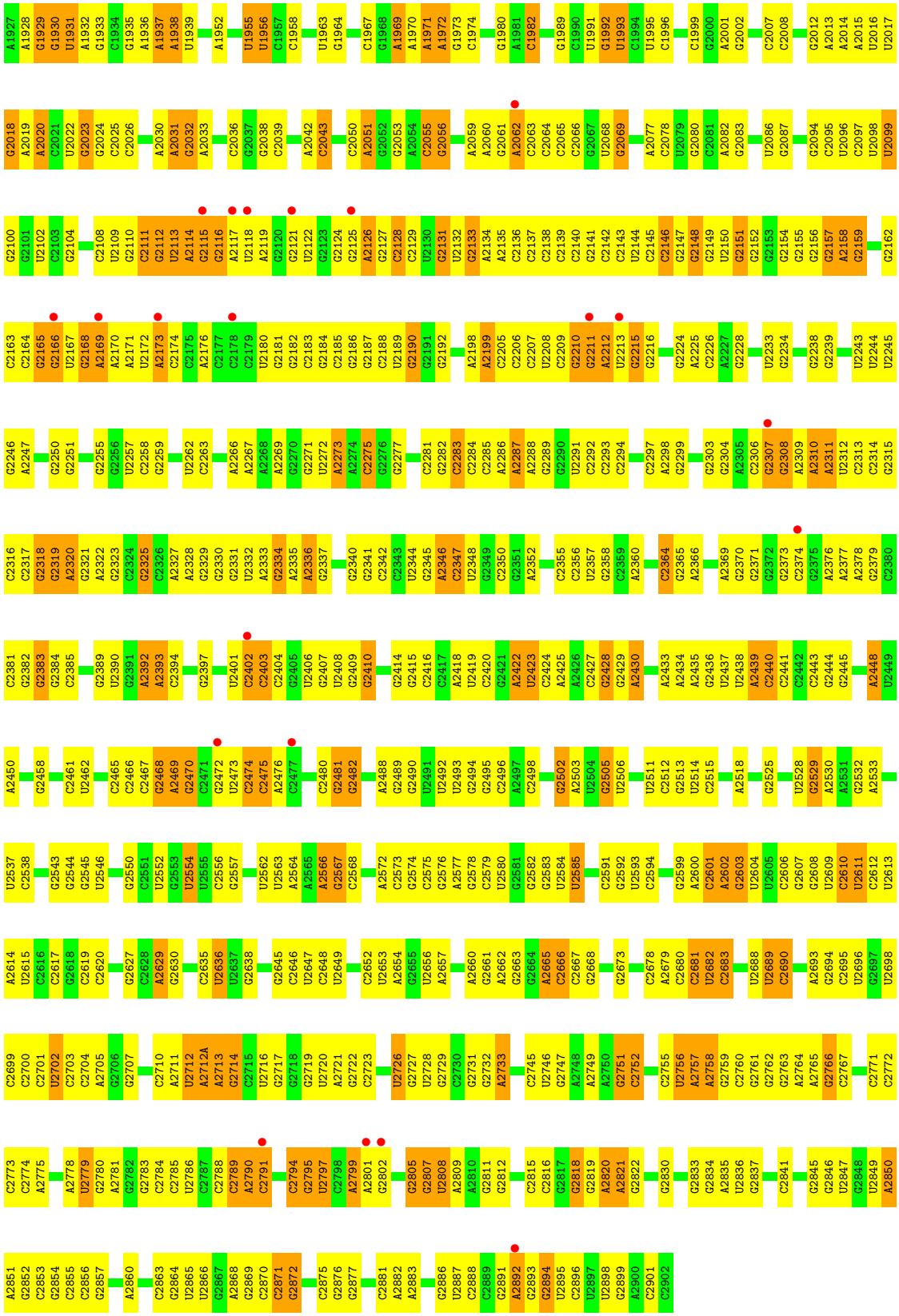
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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 (2909-MER)

Chain AA:

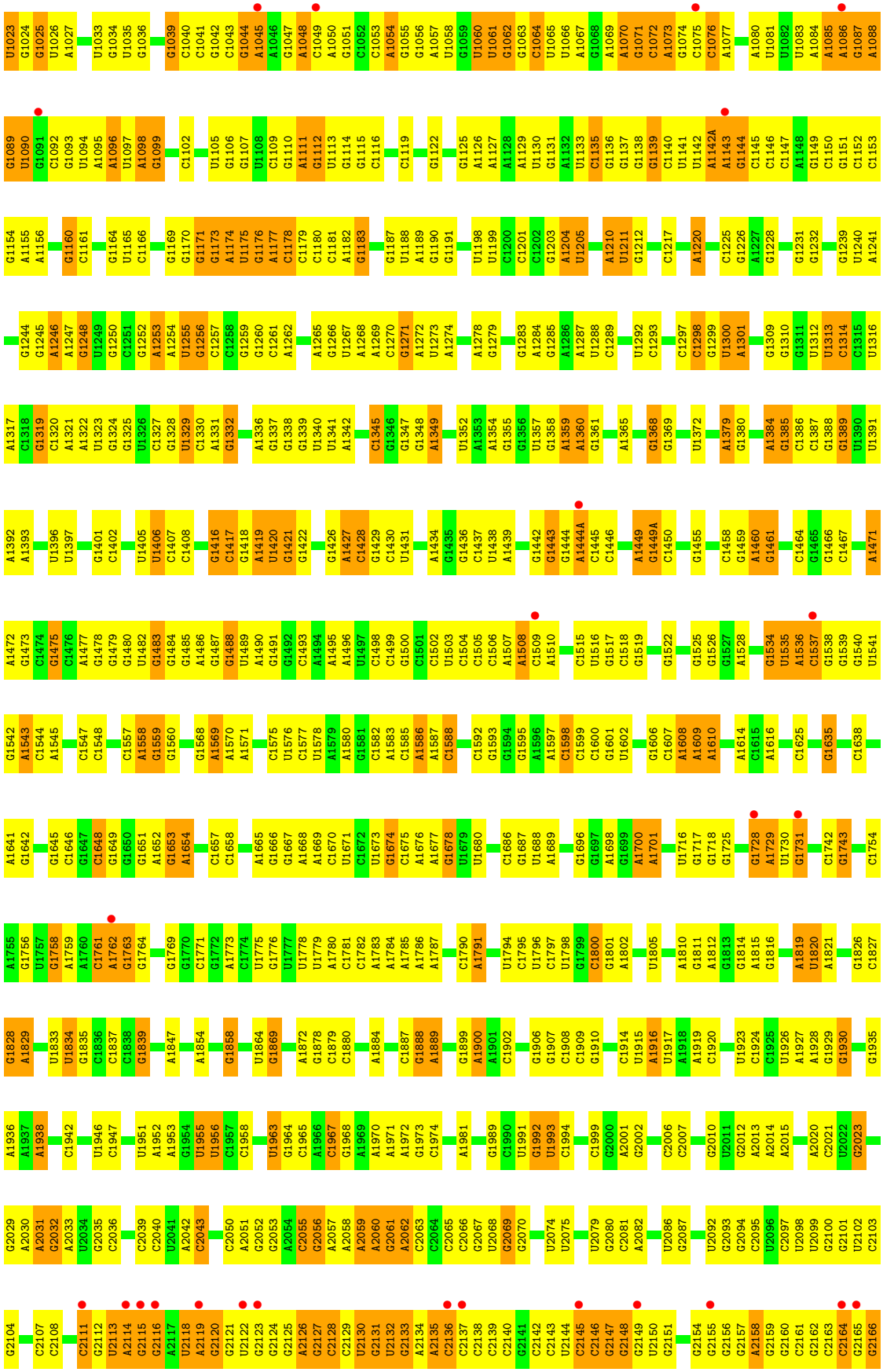


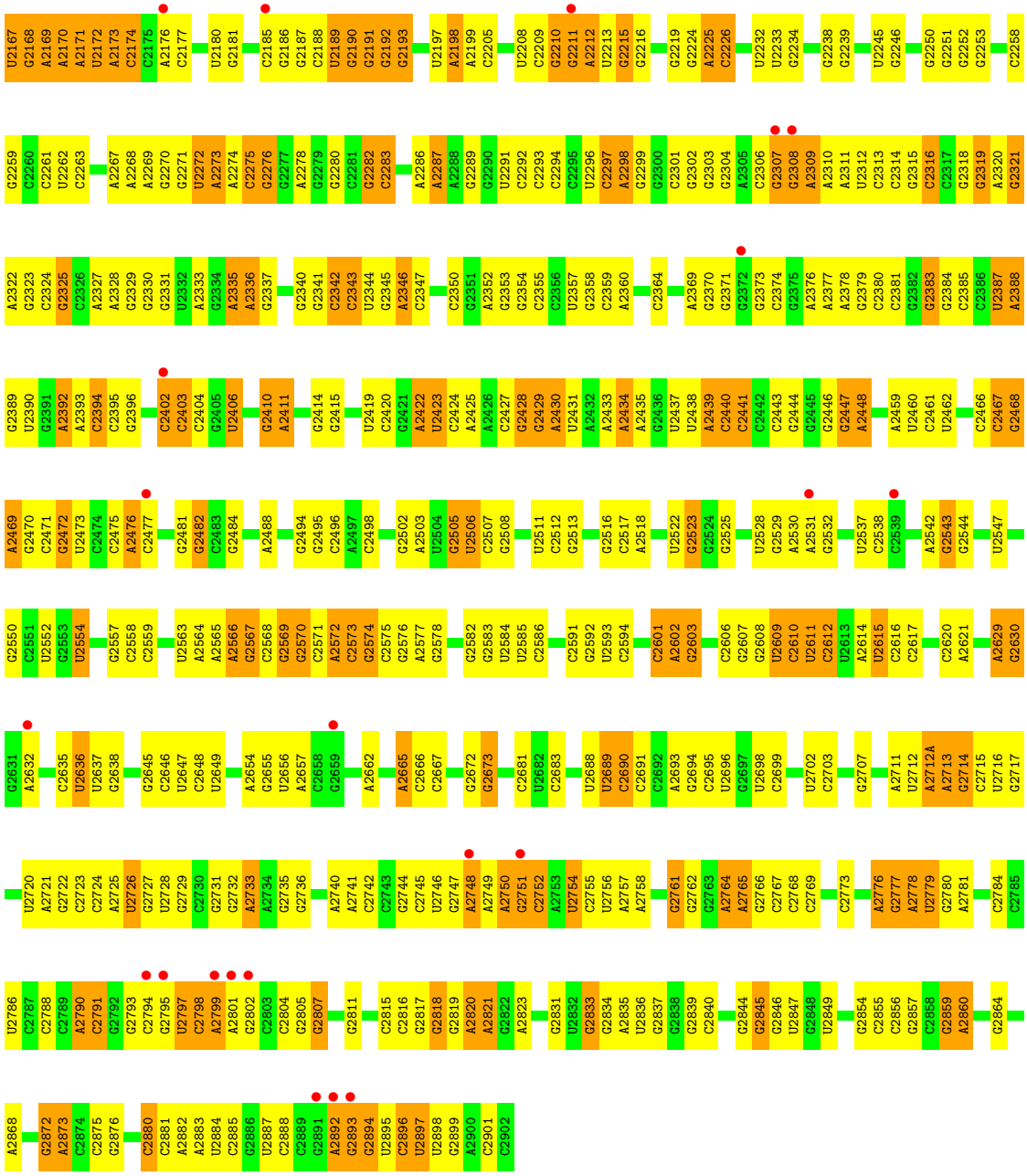




• Molecule 1: RNA (2909-MER)

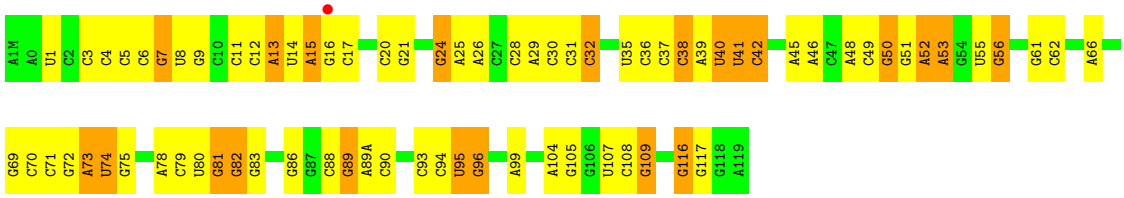
Chain DA:





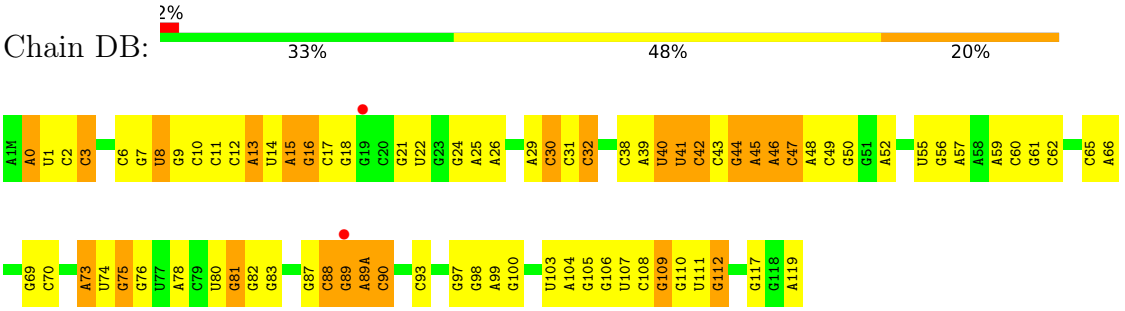
• Molecule 2: 5S RIBOSOMAL RNA

Chain AB:



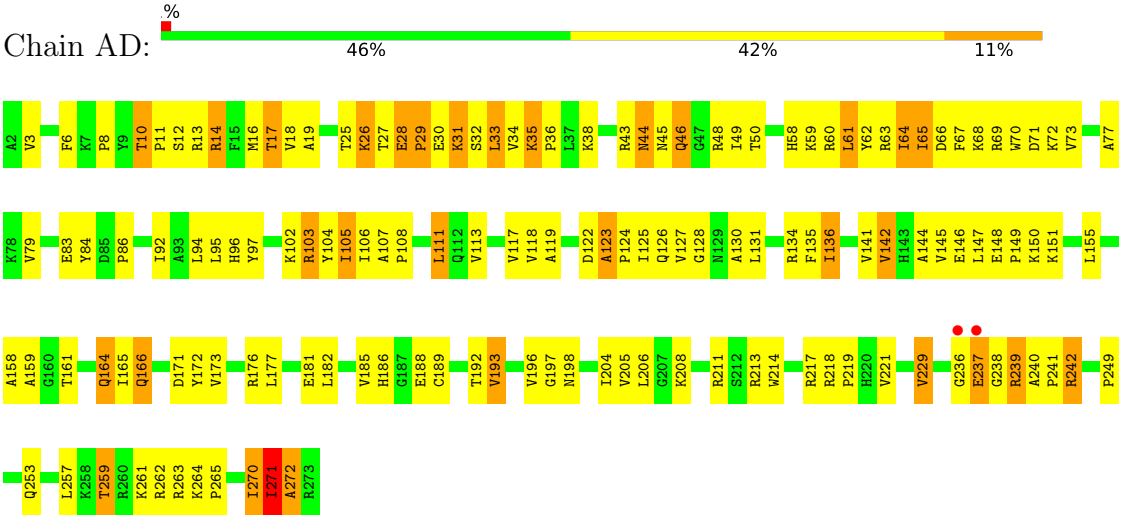
• Molecule 2: 5S RIBOSOMAL RNA

Chain DB:



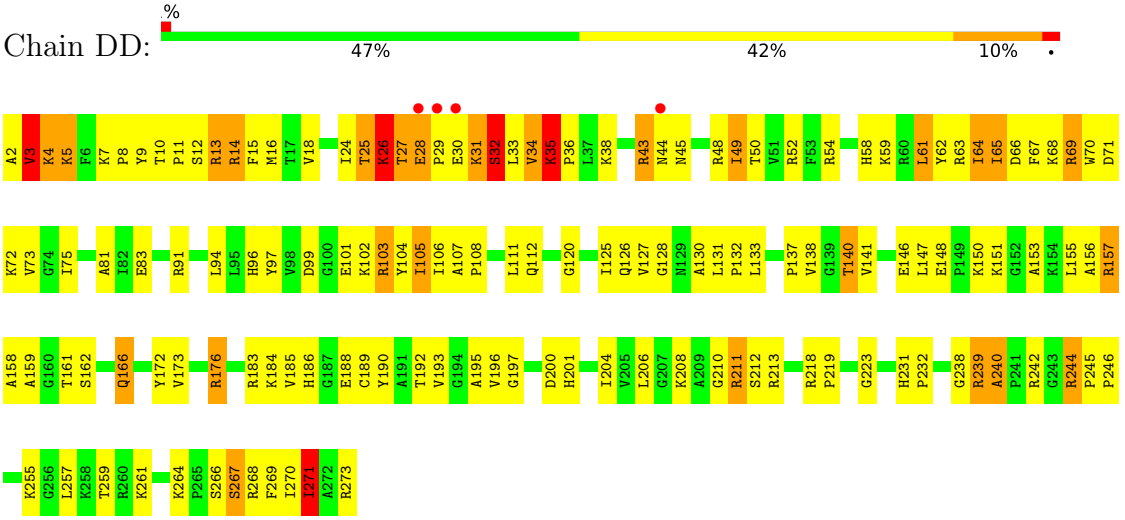
• Molecule 3: 50S ribosomal protein L2

Chain AD:



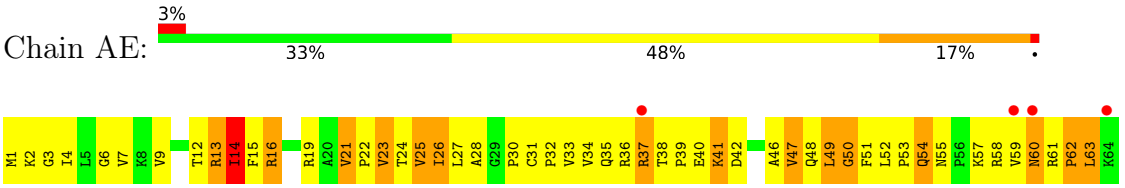
• Molecule 3: 50S ribosomal protein L2

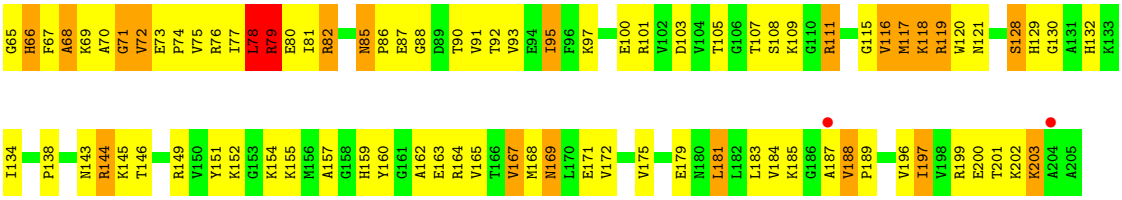
Chain DD:



• Molecule 4: 50S ribosomal protein L3

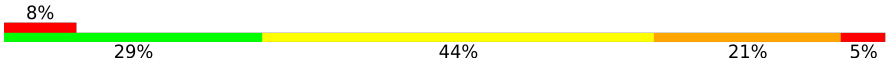
Chain AE:

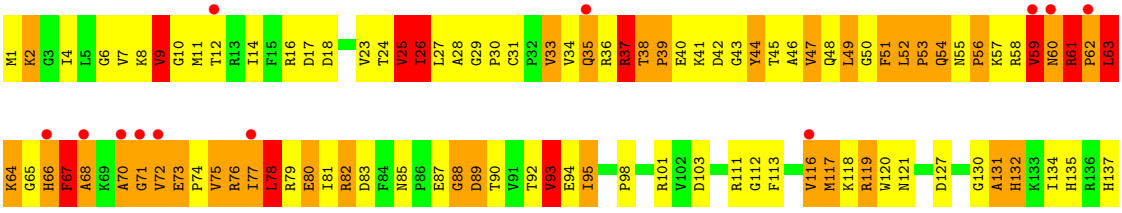


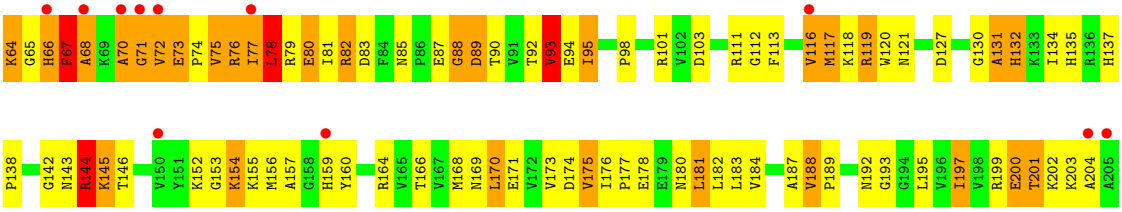


• Molecule 4: 50S ribosomal protein L3

Chain DE:

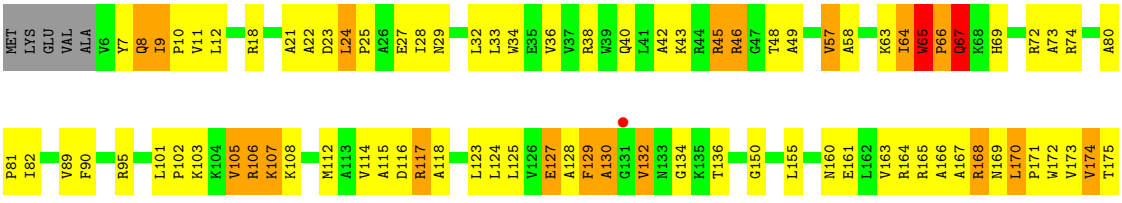


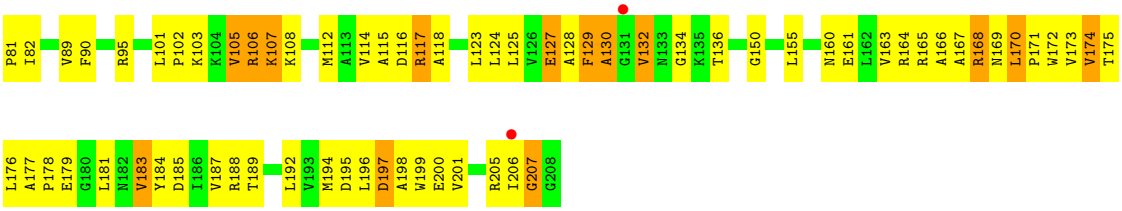




• Molecule 5: 50S ribosomal protein L4

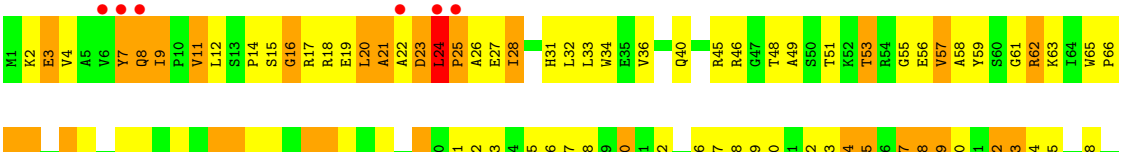
Chain AF:

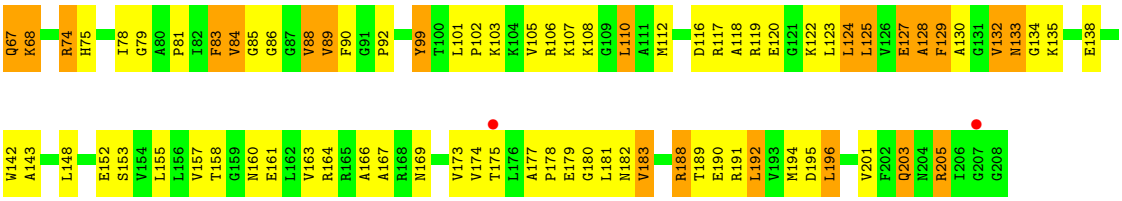




• Molecule 5: 50S ribosomal protein L4

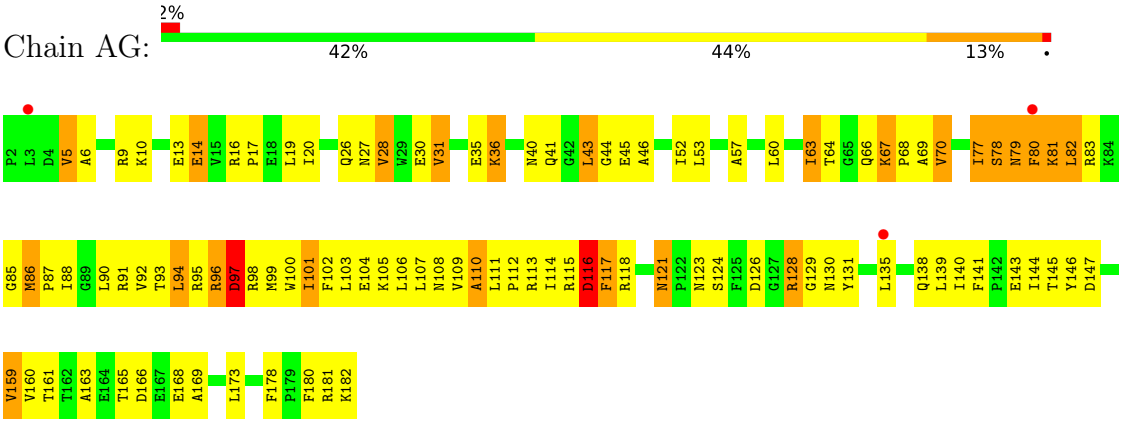
Chain DF:





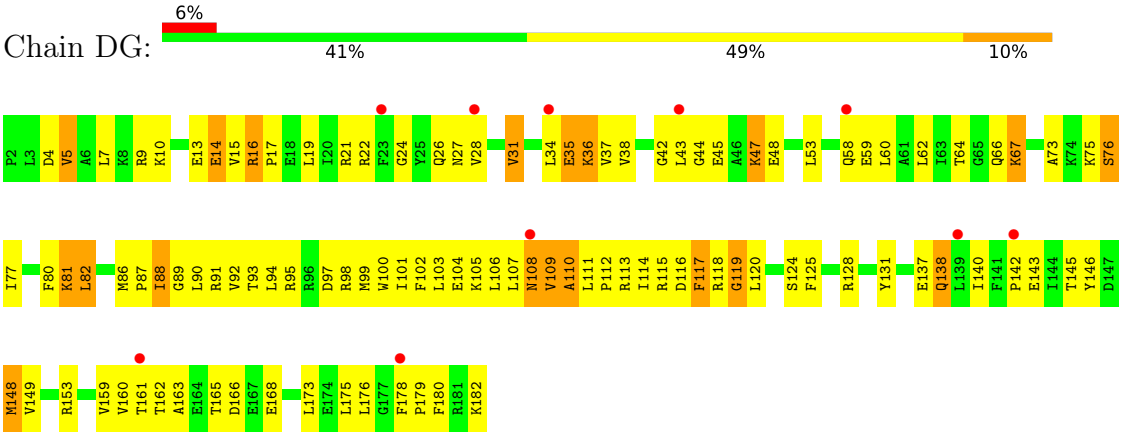
• Molecule 6: 50S ribosomal protein L5

Chain AG:



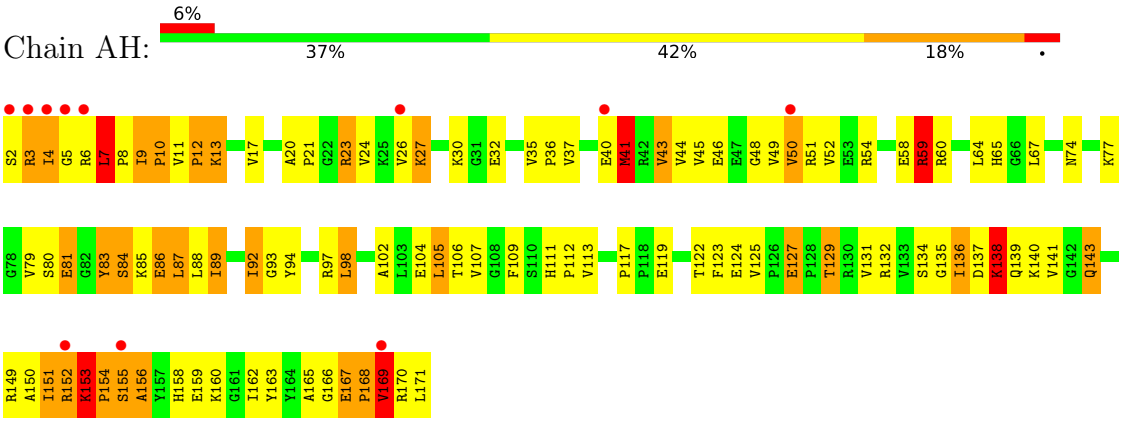
• Molecule 6: 50S ribosomal protein L5

Chain DG:



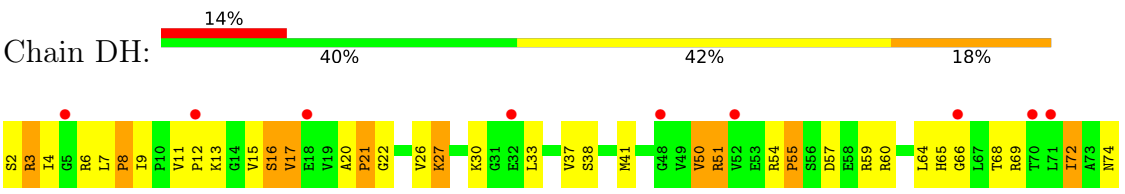
• Molecule 7: 50S ribosomal protein L6

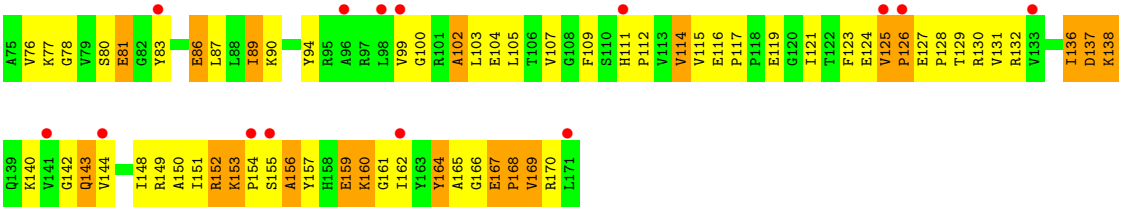
Chain AH:



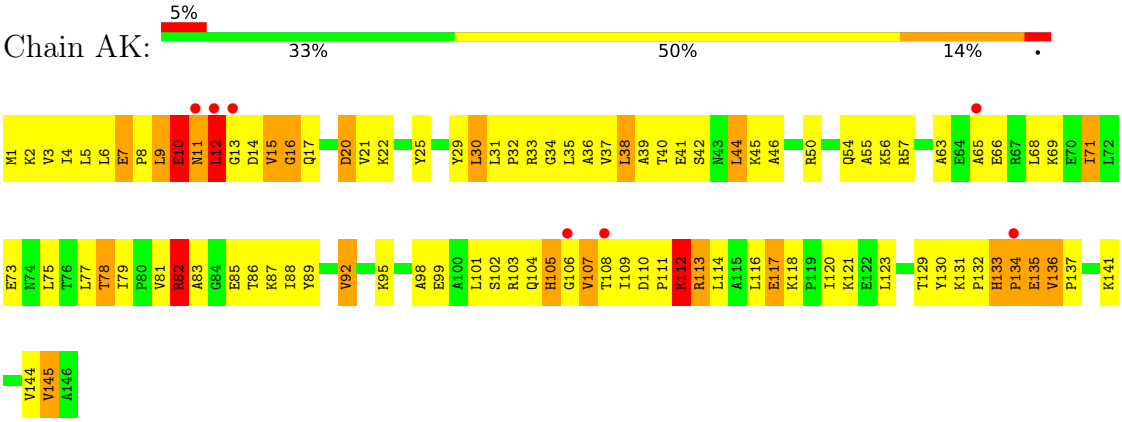
• Molecule 7: 50S ribosomal protein L6

Chain DH:

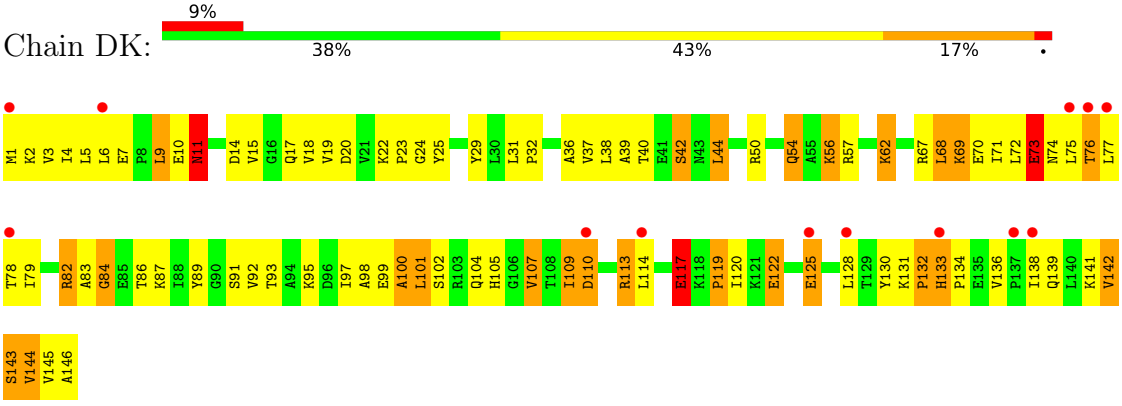




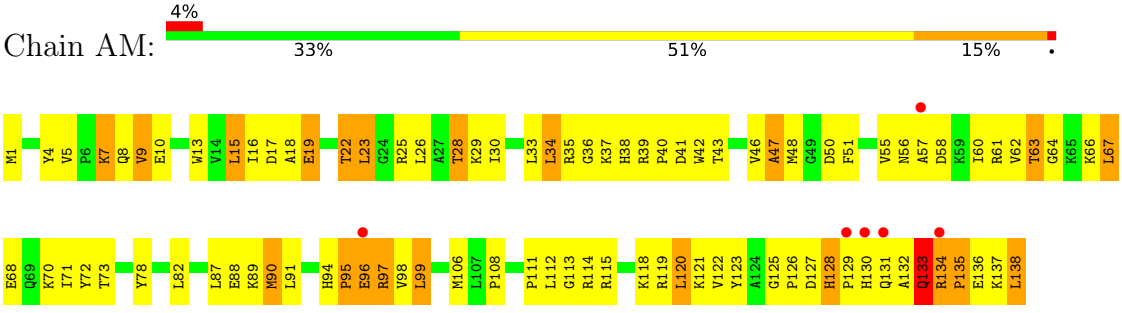
• Molecule 8: 50S ribosomal protein L9



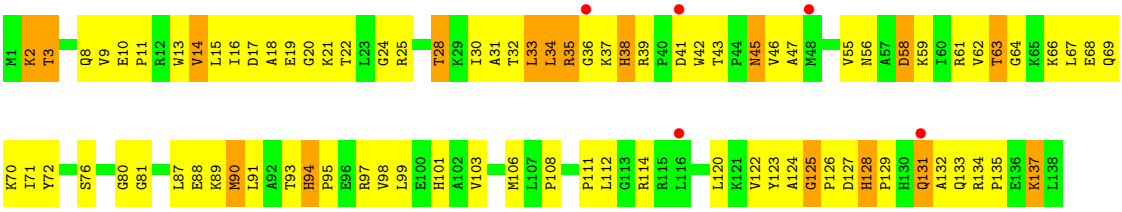
• Molecule 8: 50S ribosomal protein L9



• Molecule 9: 50S ribosomal protein L13

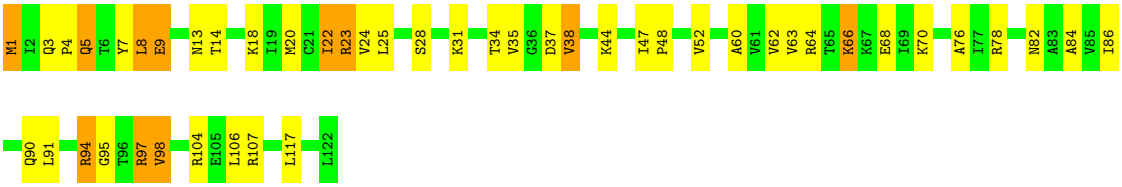


• Molecule 9: 50S ribosomal protein L13



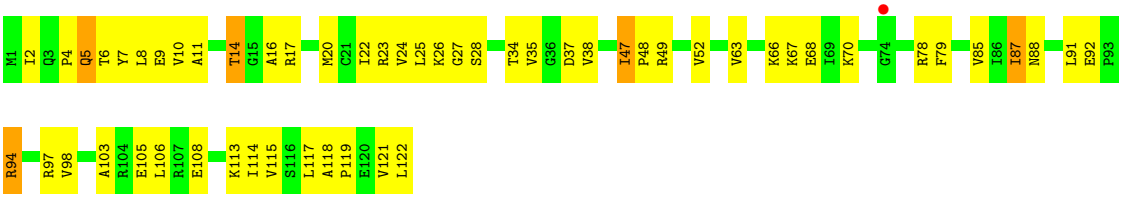
• Molecule 10: 50S ribosomal protein L14

Chain AN:



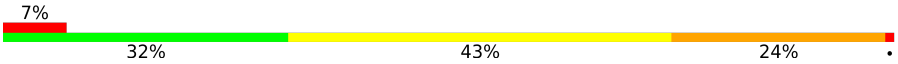
• Molecule 10: 50S ribosomal protein L14

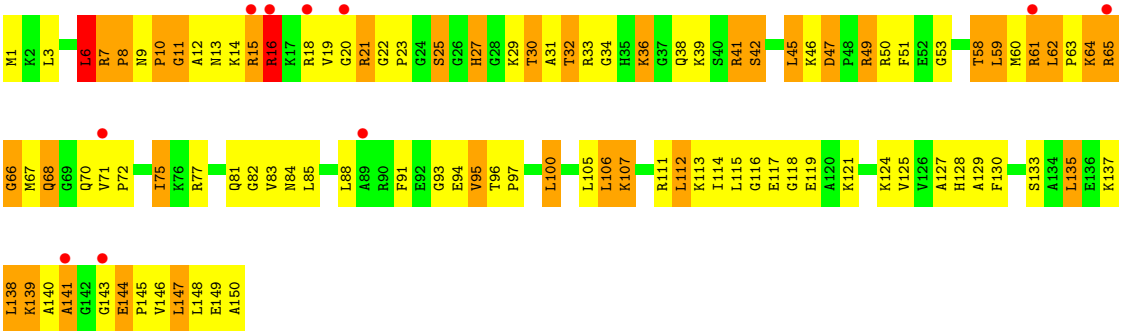
Chain DN:



• Molecule 11: 50S ribosomal protein L15

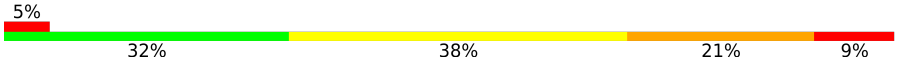
Chain AO:

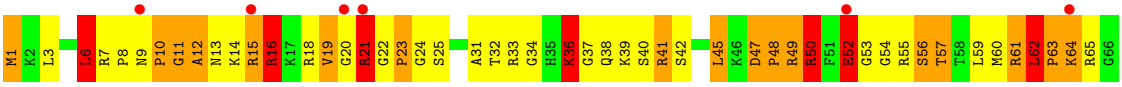


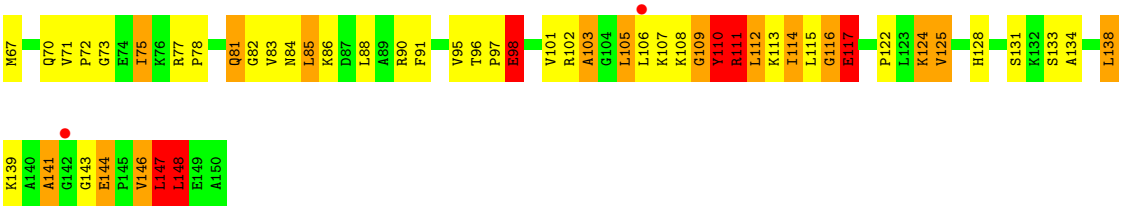


• Molecule 11: 50S ribosomal protein L15

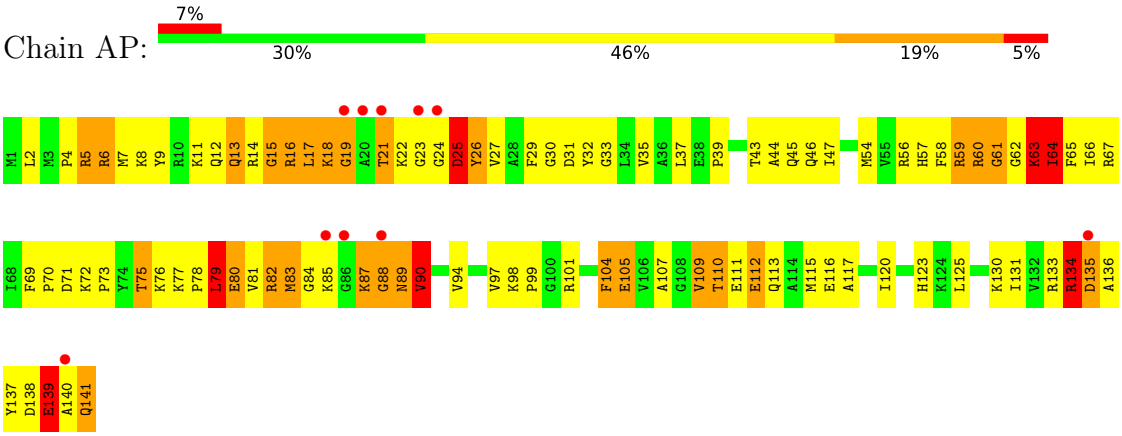
Chain DO:



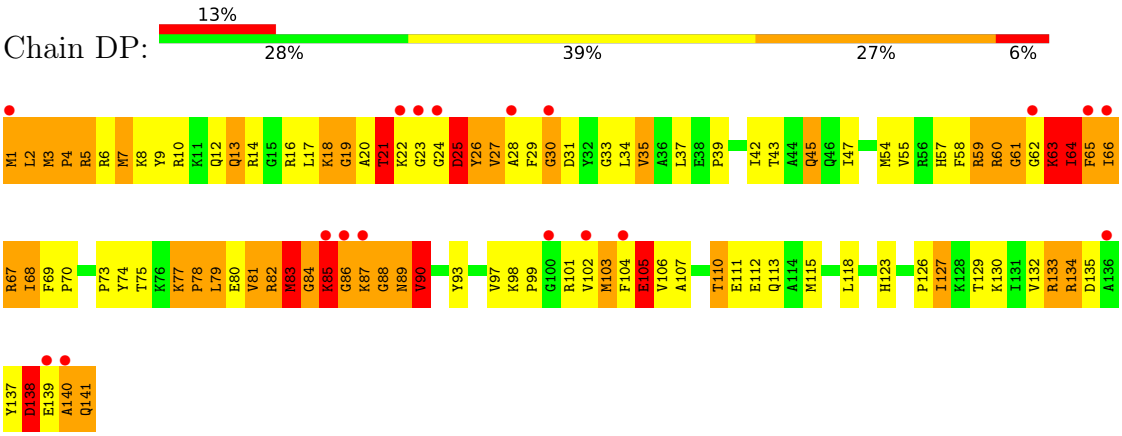




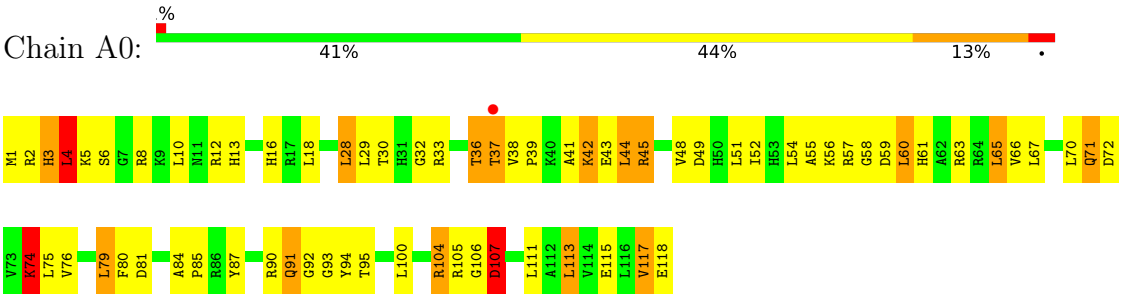
• Molecule 12: 50S ribosomal protein L16



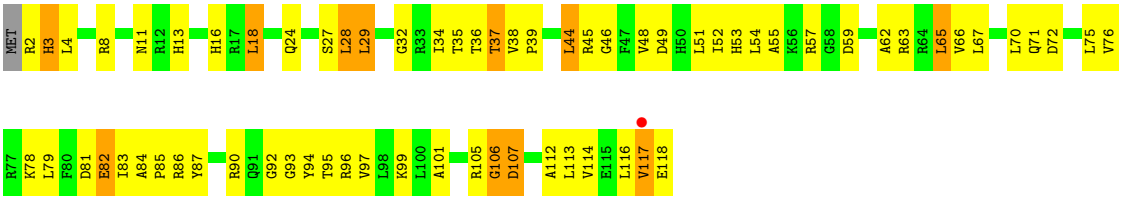
• Molecule 12: 50S ribosomal protein L16



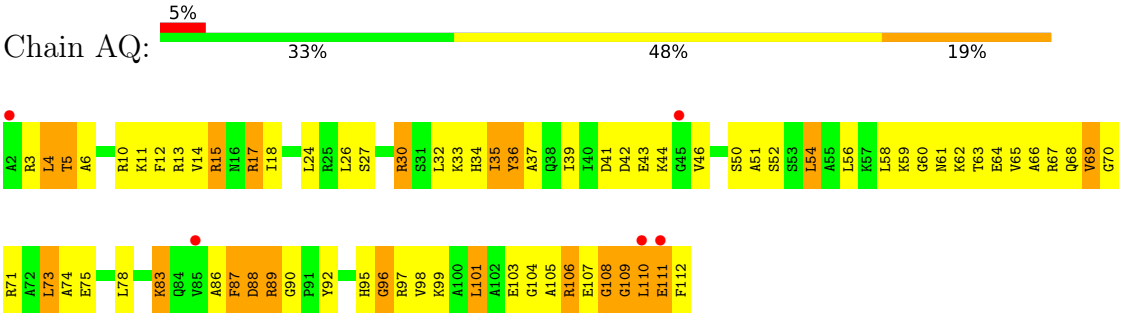
• Molecule 13: 50S ribosomal protein L17



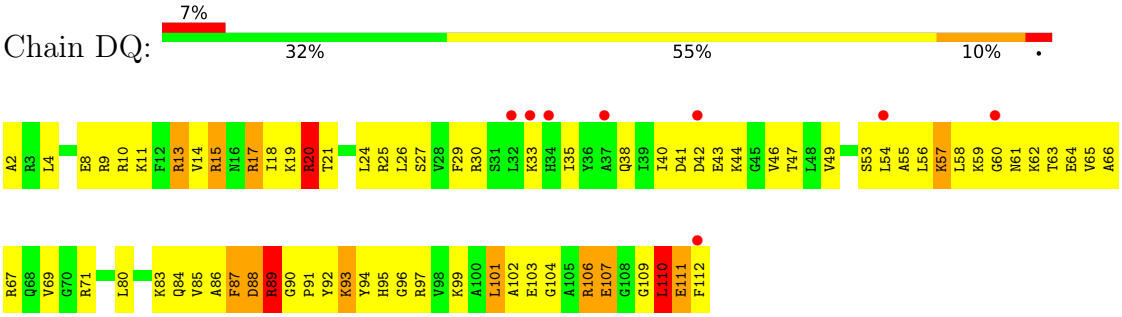
• Molecule 13: 50S ribosomal protein L17



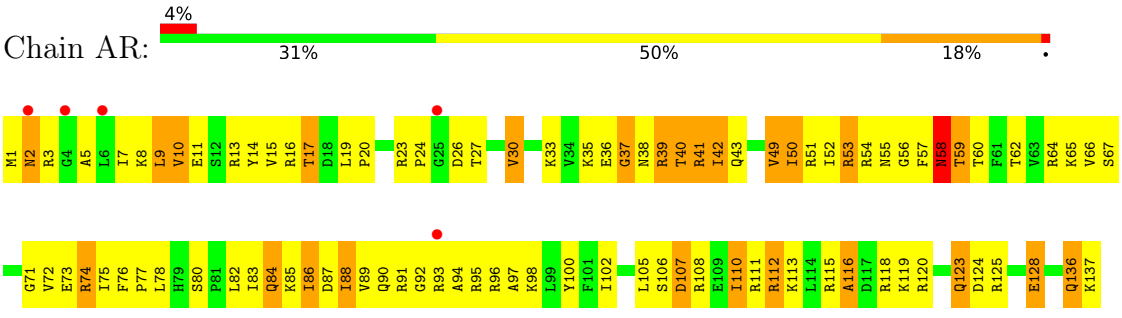
• Molecule 14: 50S ribosomal protein L18



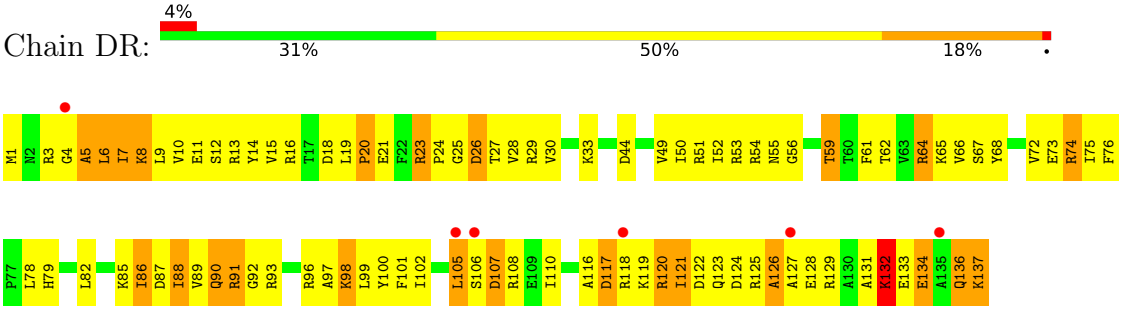
• Molecule 14: 50S ribosomal protein L18



• Molecule 15: 50S ribosomal protein L19

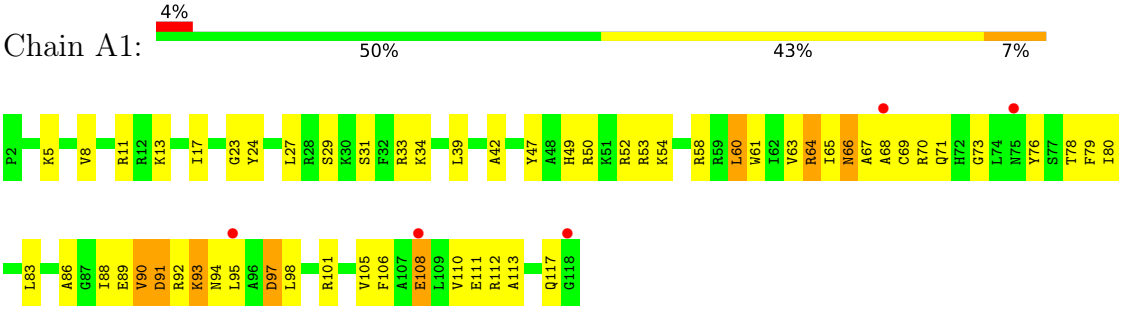


• Molecule 15: 50S ribosomal protein L19



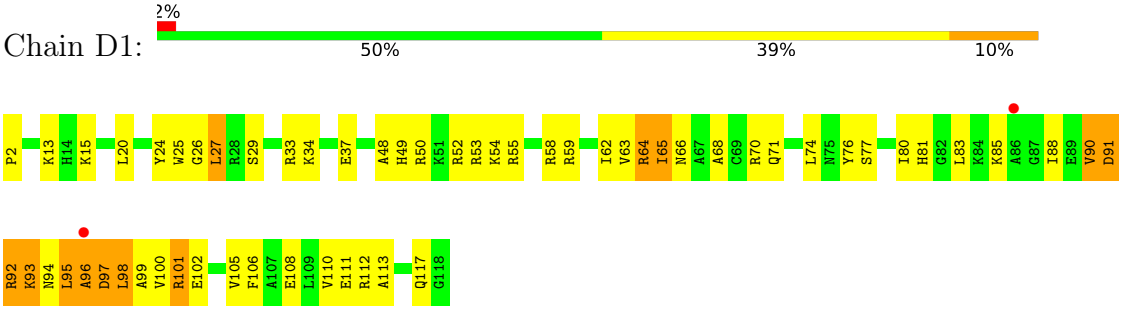
• Molecule 16: 50S ribosomal protein L20

Chain A1:



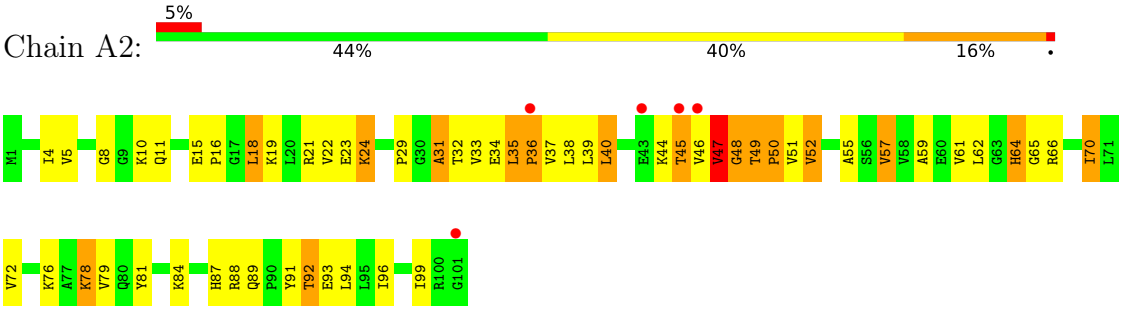
• Molecule 16: 50S ribosomal protein L20

Chain D1:



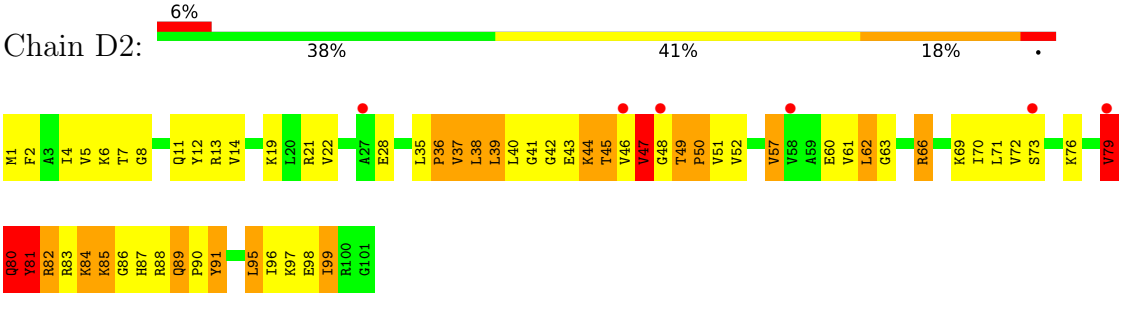
• Molecule 17: 50S ribosomal protein L21

Chain A2:



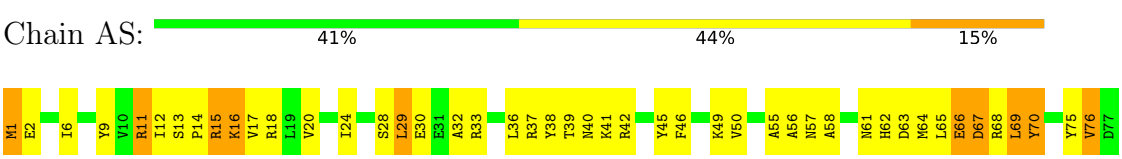
• Molecule 17: 50S ribosomal protein L21

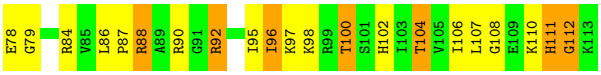
Chain D2:



• Molecule 18: 50S ribosomal protein L22

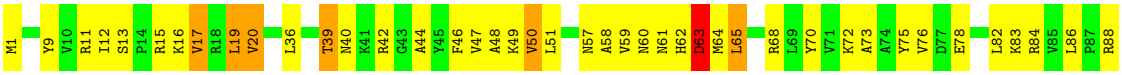
Chain AS:





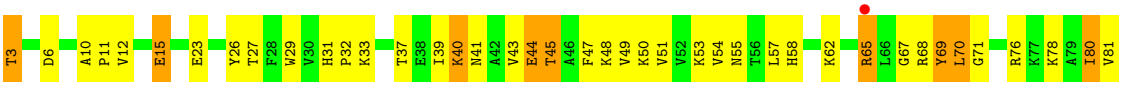
• Molecule 18: 50S ribosomal protein L22

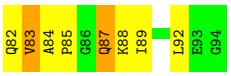
Chain DS:



• Molecule 19: 50S ribosomal protein L23

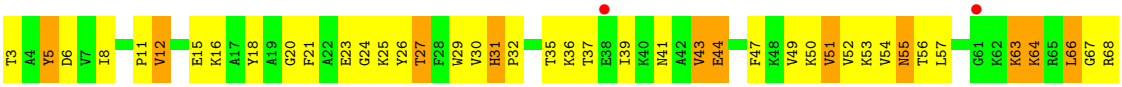
Chain AT:

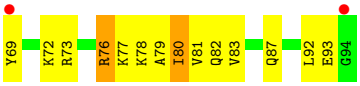




• Molecule 19: 50S ribosomal protein L23

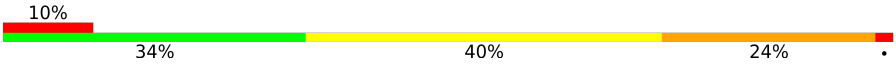
Chain DT:

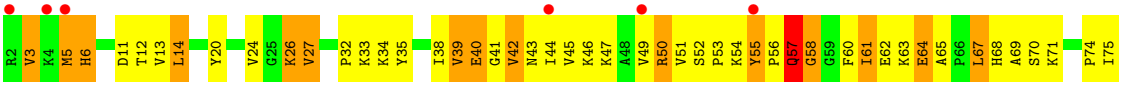


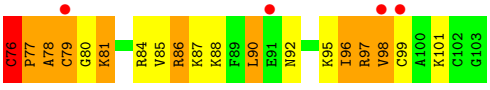


• Molecule 20: 50S ribosomal protein L24

Chain AU:

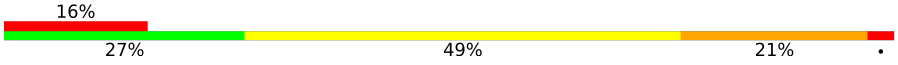


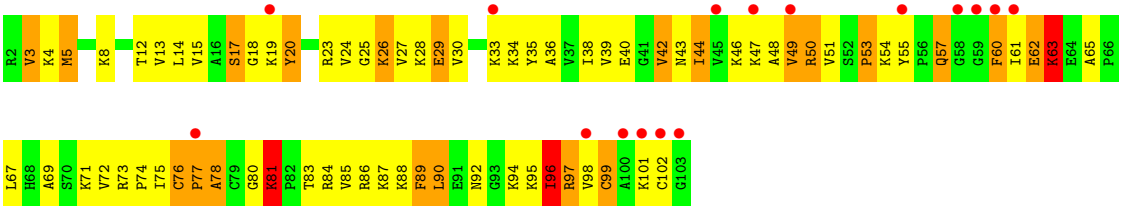


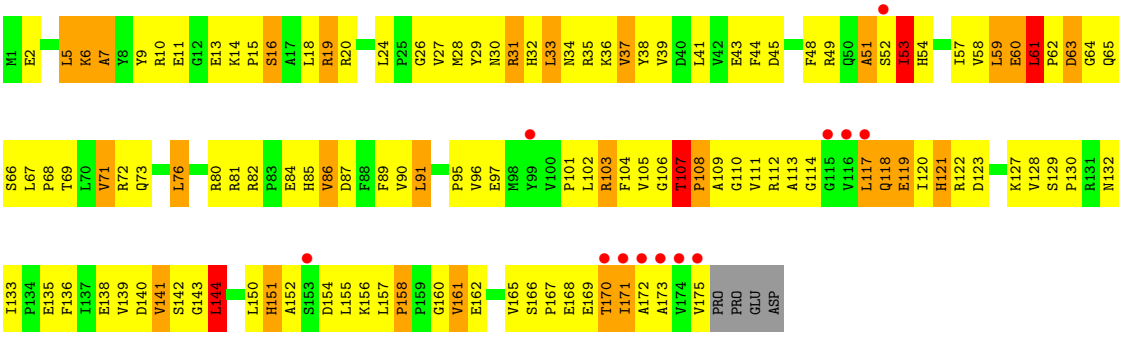


• Molecule 20: 50S ribosomal protein L24

Chain DU:

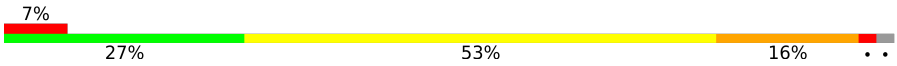






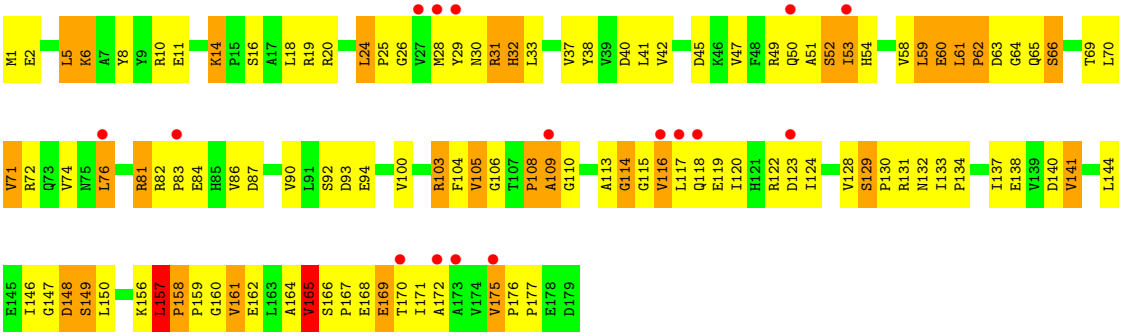
• Molecule 21: 50S ribosomal protein L25

Chain AV:



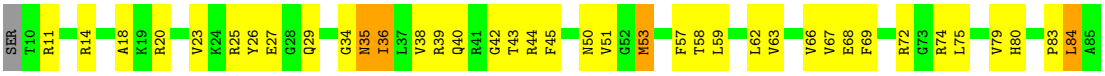
• Molecule 21: 50S ribosomal protein L25

Chain DV:



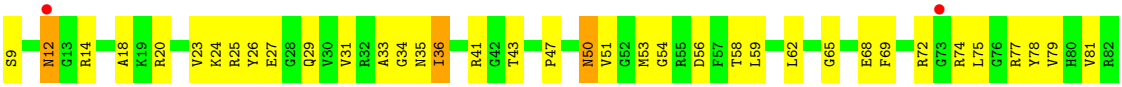
• Molecule 22: 50S ribosomal protein L27

Chain A3:



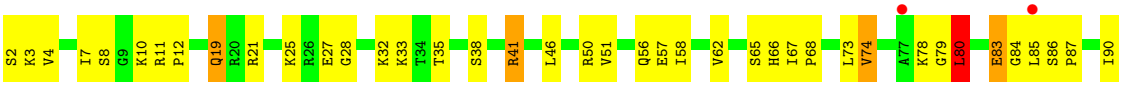
• Molecule 22: 50S ribosomal protein L27

Chain D3:



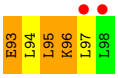
• Molecule 23: 50S ribosomal protein L28

Chain AZ:



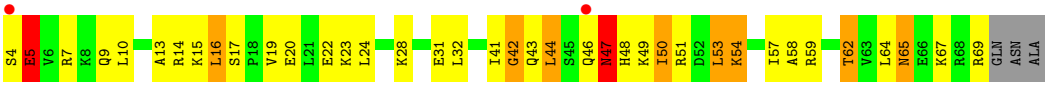
• Molecule 23: 50S ribosomal protein L28

Chain DZ:



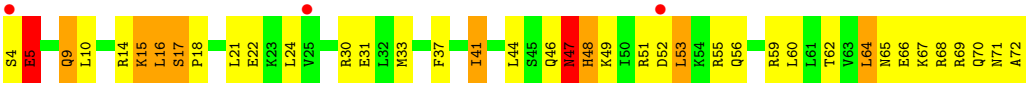
• Molecule 24: 50S ribosomal protein L29

Chain AW:



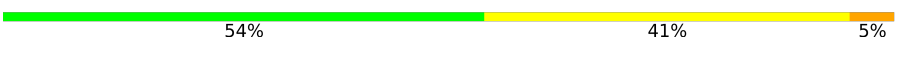
• Molecule 24: 50S ribosomal protein L29

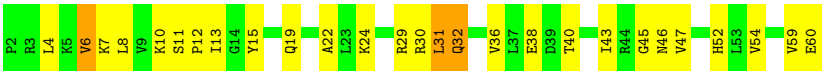
Chain DW:



• Molecule 25: 50S ribosomal protein L30

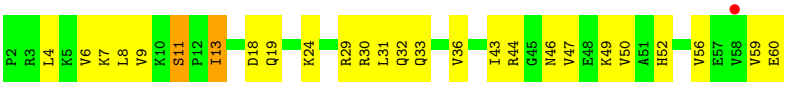
Chain AX:





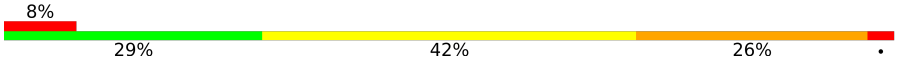
• Molecule 25: 50S ribosomal protein L30

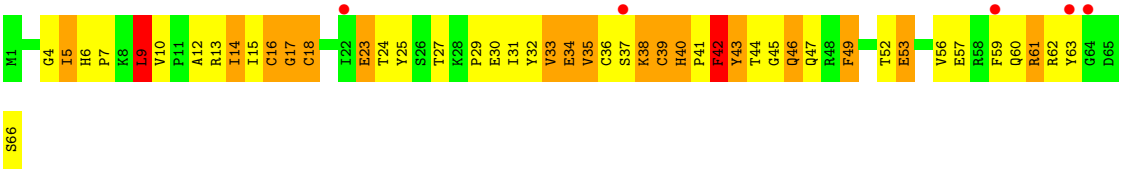
Chain DX:



• Molecule 26: 50S ribosomal protein L31

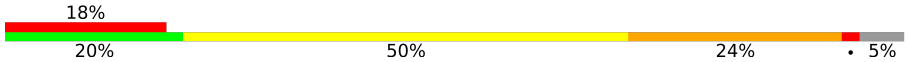
Chain A4:

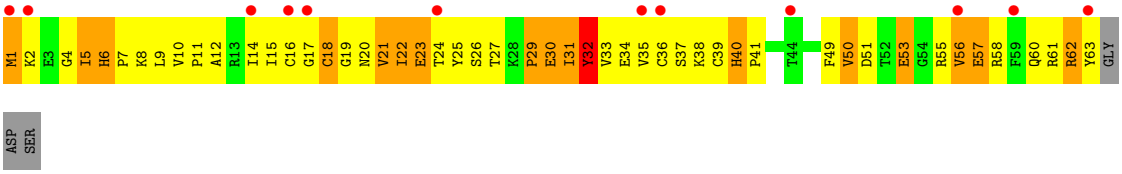




• Molecule 26: 50S ribosomal protein L31

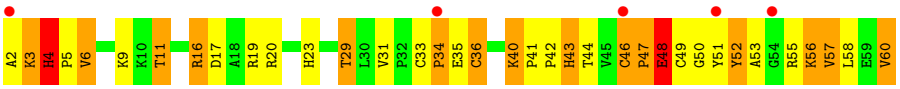
Chain D4:





• Molecule 27: 50S ribosomal protein L32

Chain A5:

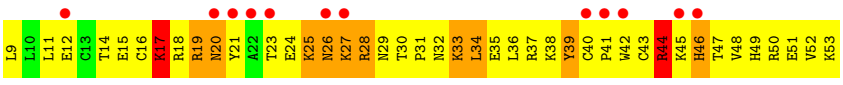


• Molecule 27: 50S ribosomal protein L32

Chain D5:

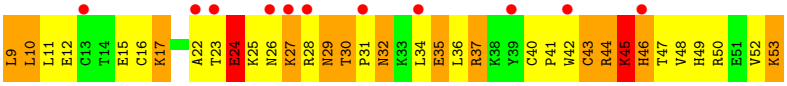
• Molecule 28: 50S ribosomal protein L33

Chain A6:



• Molecule 28: 50S ribosomal protein L33

Chain D6:



• Molecule 29: 50S ribosomal protein L34

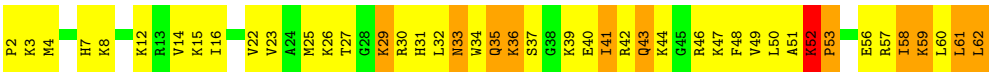
Chain A7:

• Molecule 29: 50S ribosomal protein L34

Chain D7:

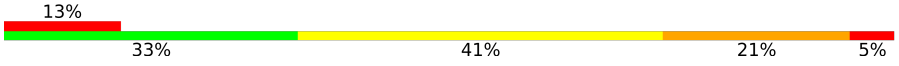
• Molecule 30: 50S ribosomal protein L35

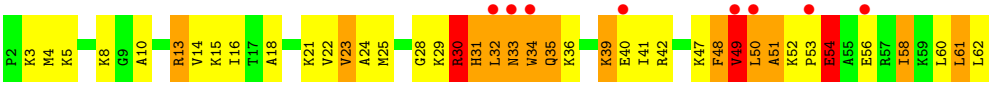
Chain A8:



• Molecule 30: 50S ribosomal protein L35

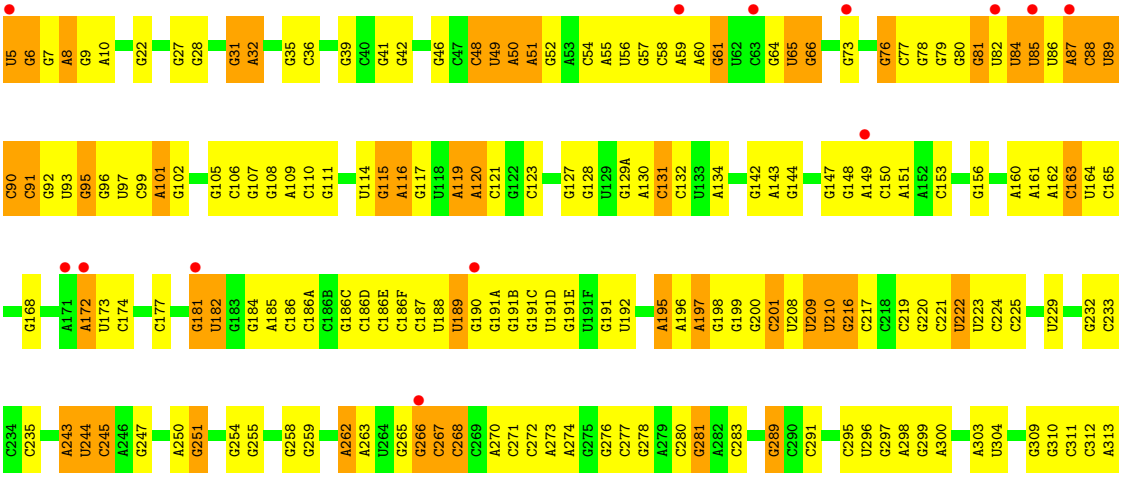
Chain D8:

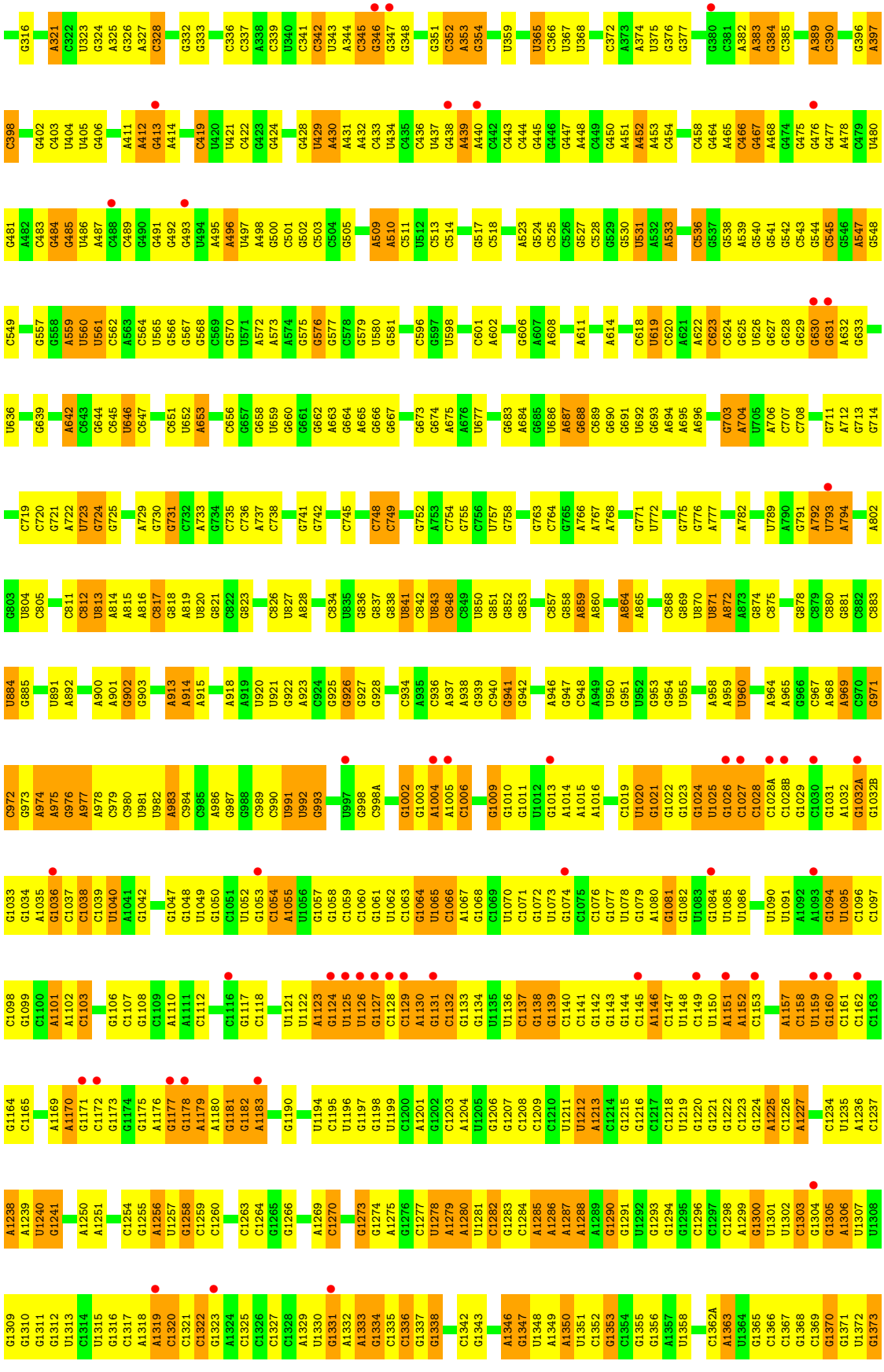


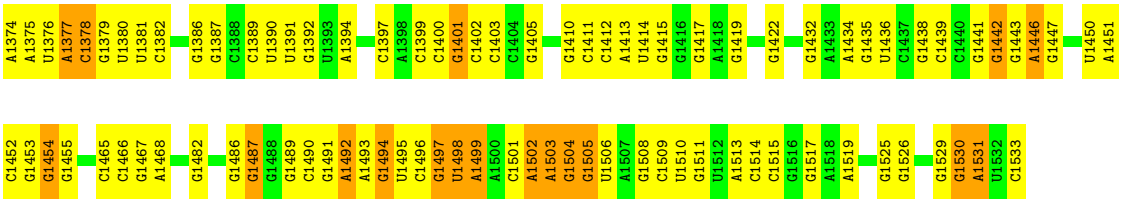


• Molecule 31: 16S ribosomal RNA

Chain BA:

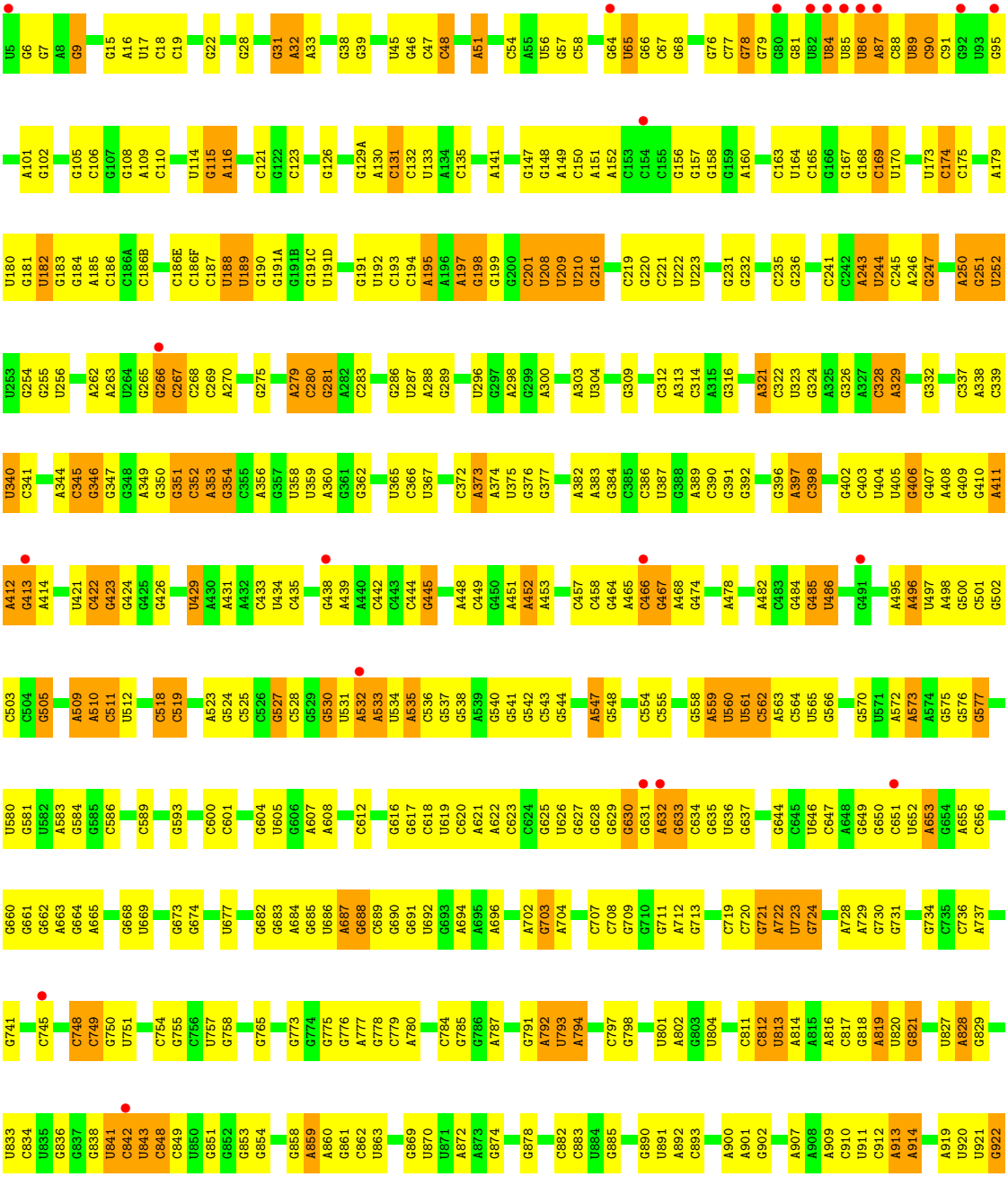


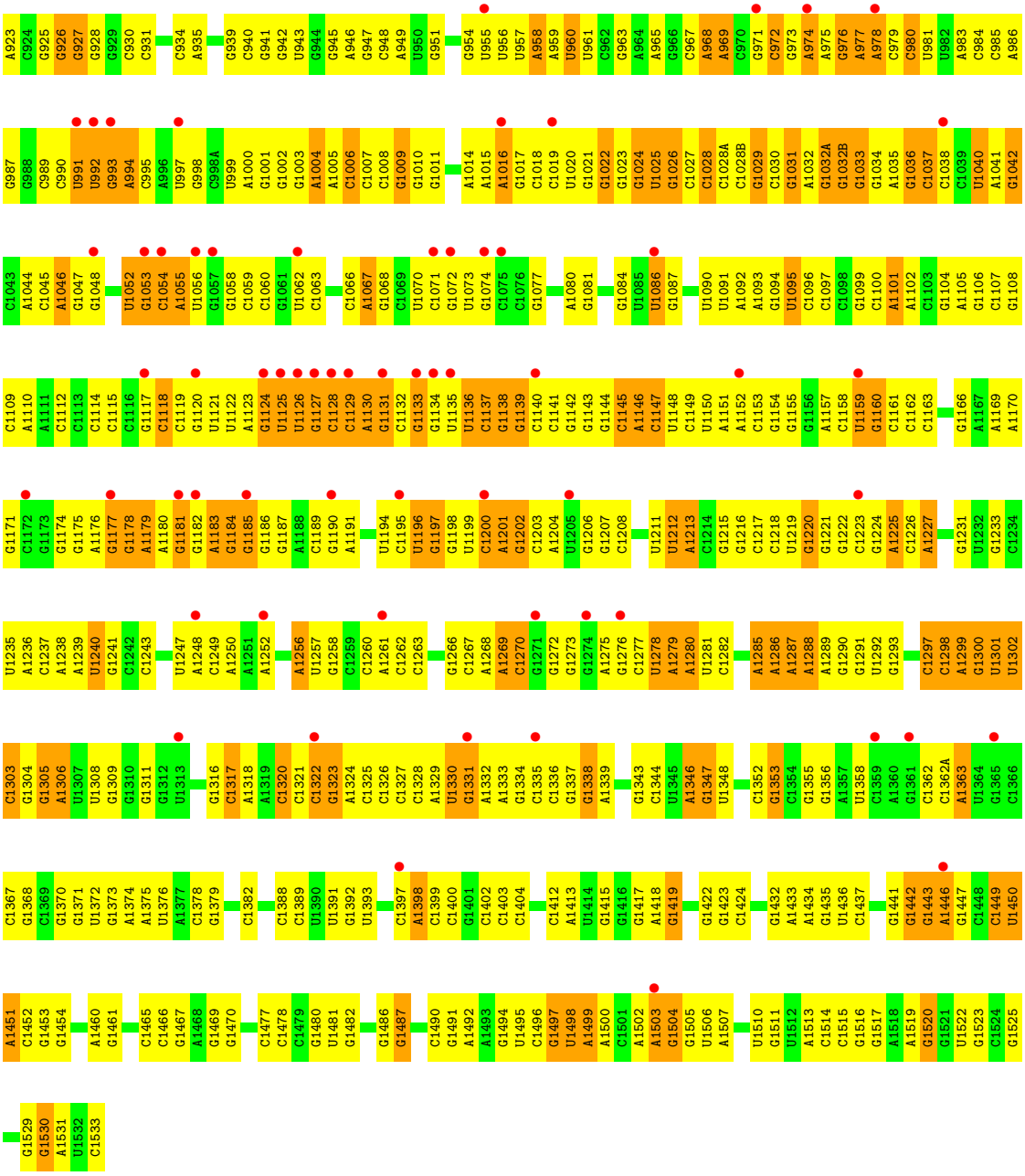




• Molecule 31: 16S ribosomal RNA

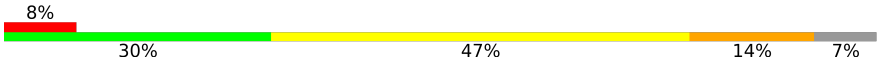
Chain CA:

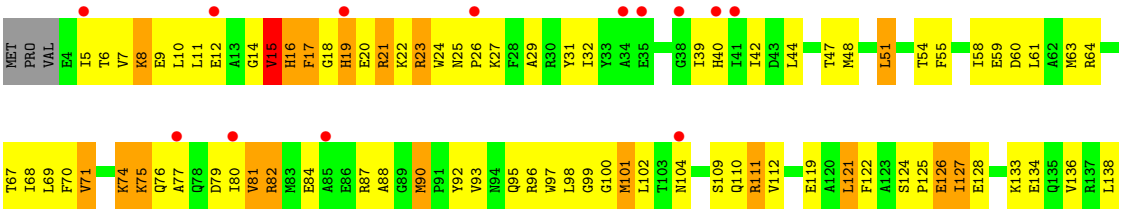


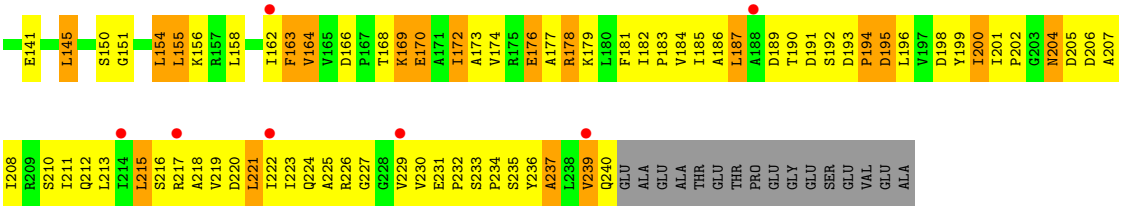


• Molecule 32: 30S RIBOSOMAL PROTEIN S2

Chain BE:

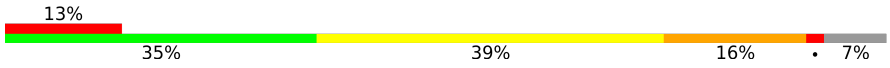


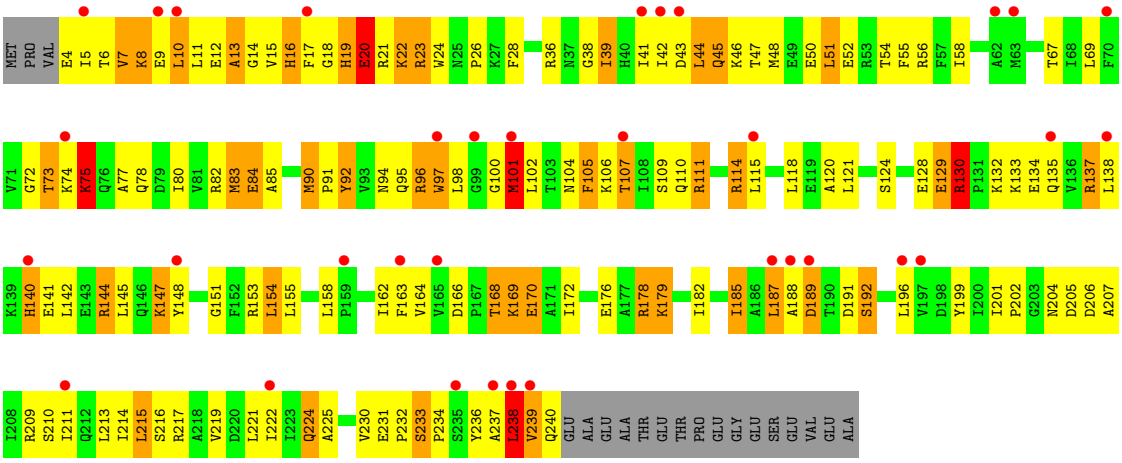




• Molecule 32: 30S RIBOSOMAL PROTEIN S2

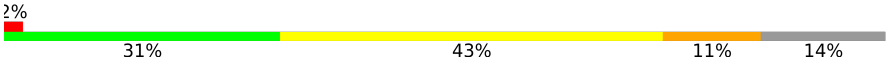
Chain CE:

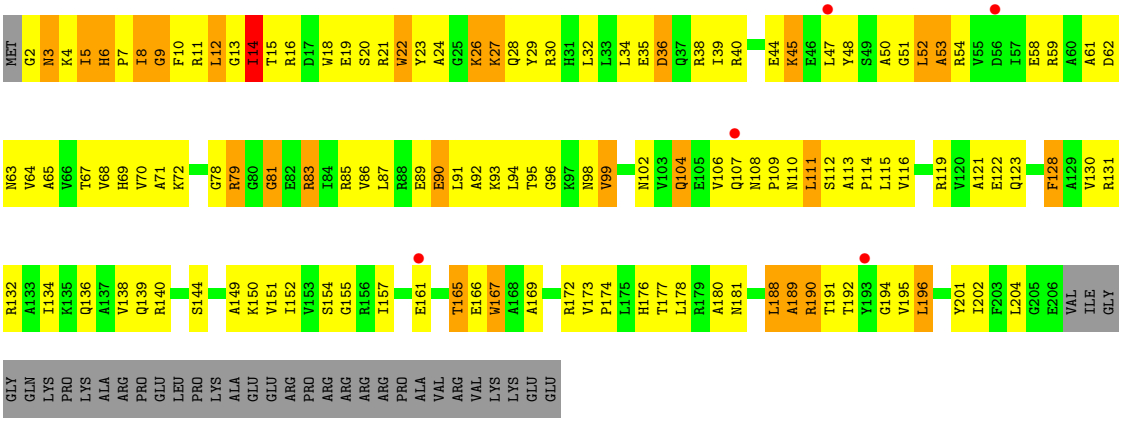




• Molecule 33: 30S RIBOSOMAL PROTEIN S3

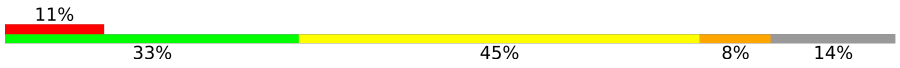
Chain BF:

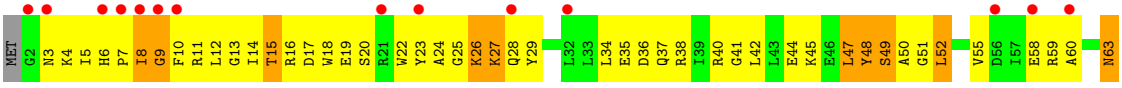


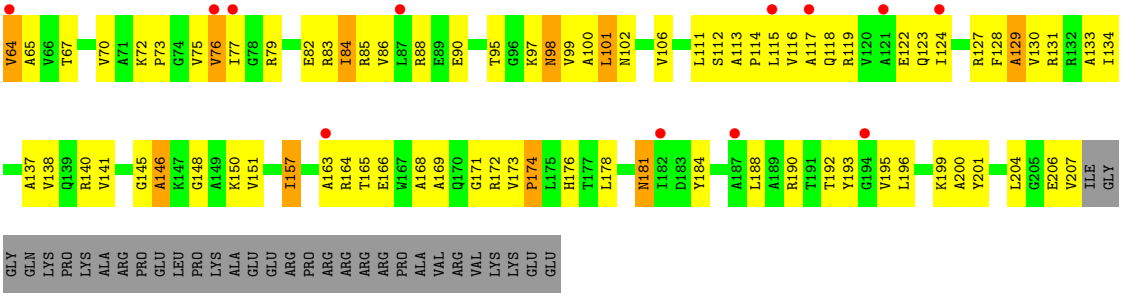


• Molecule 33: 30S RIBOSOMAL PROTEIN S3

Chain CF:

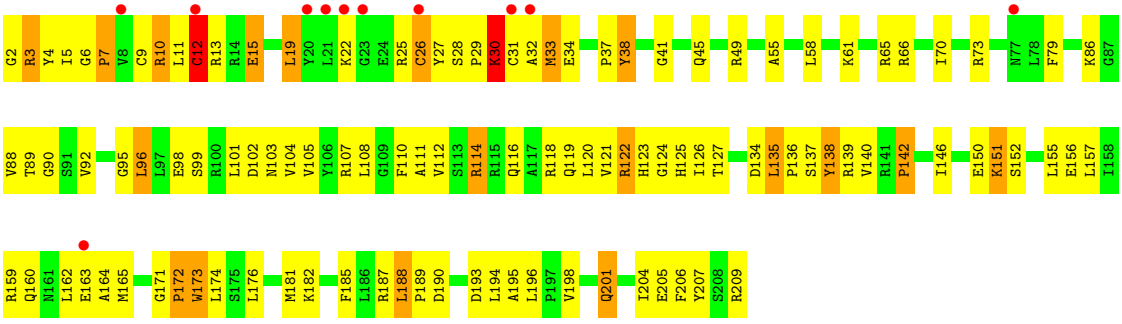






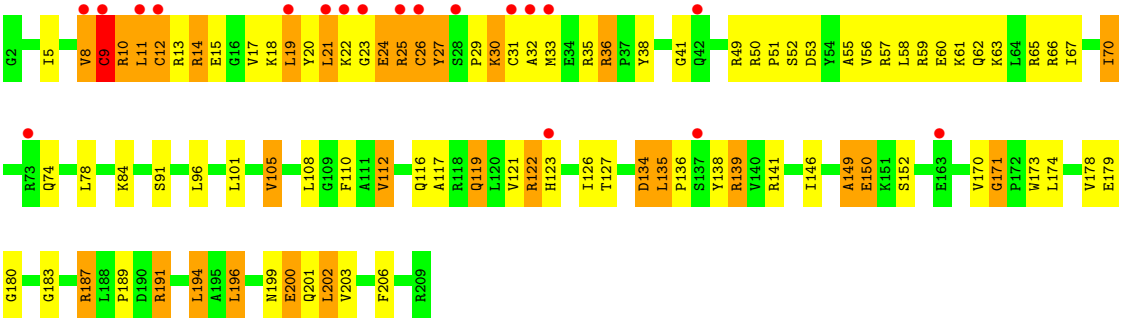
• Molecule 34: 30S RIBOSOMAL PROTEIN S4

Chain BG:



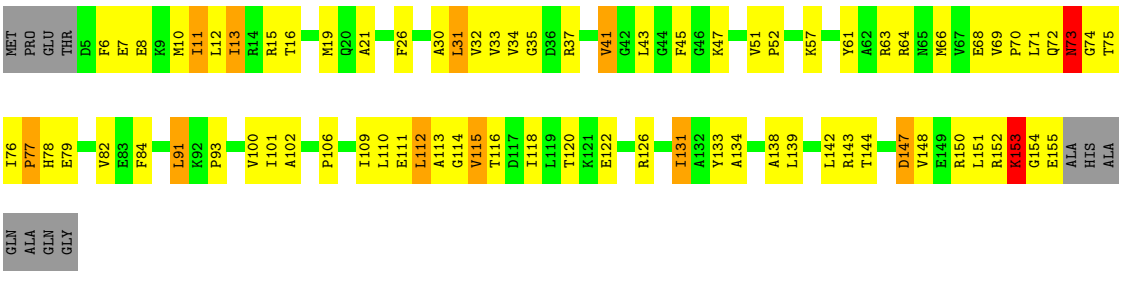
• Molecule 34: 30S RIBOSOMAL PROTEIN S4

Chain CG:



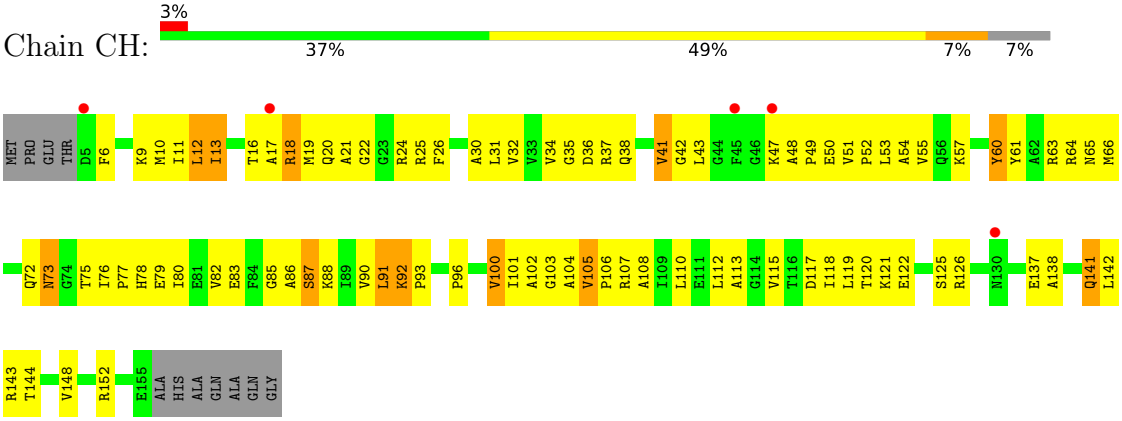
• Molecule 35: 30S RIBOSOMAL PROTEIN S5

Chain BH:



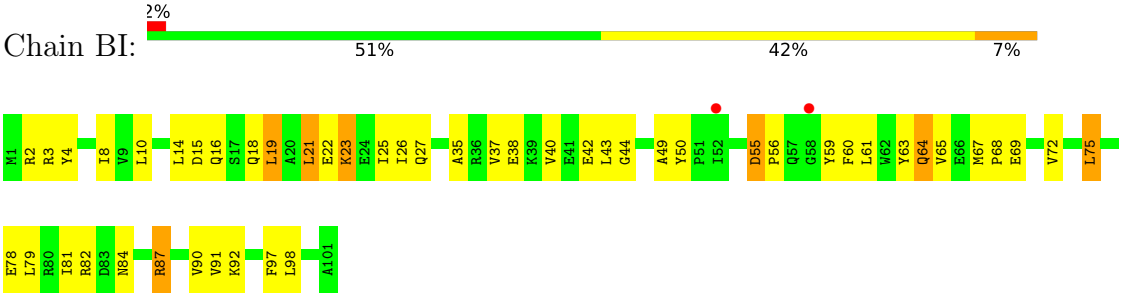
• Molecule 35: 30S RIBOSOMAL PROTEIN S5

Chain CH:



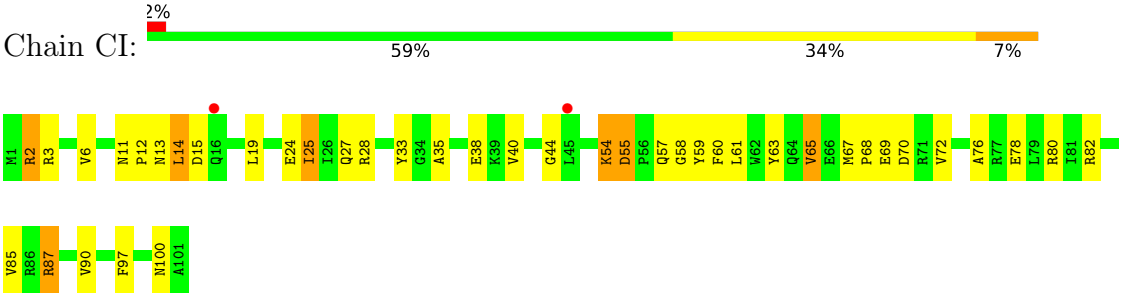
• Molecule 36: 30S RIBOSOMAL PROTEIN S6

Chain BI:



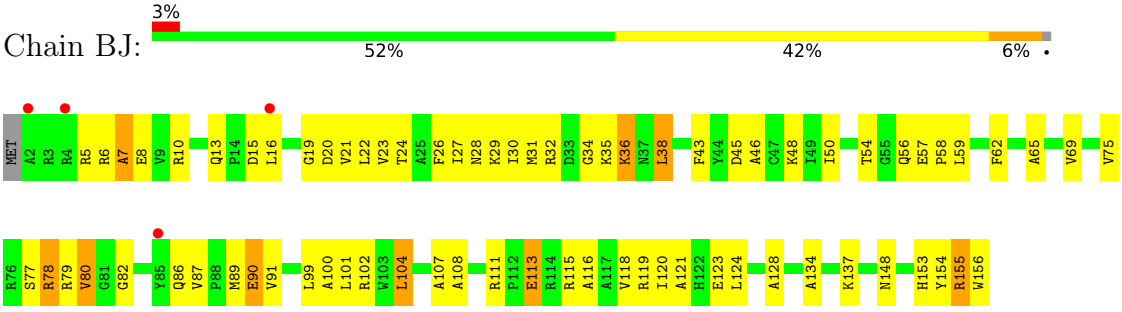
• Molecule 36: 30S RIBOSOMAL PROTEIN S6

Chain CI:



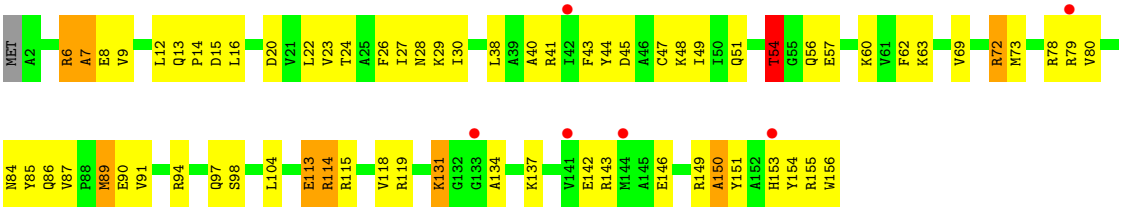
• Molecule 37: 30S RIBOSOMAL PROTEIN S7

Chain BJ:



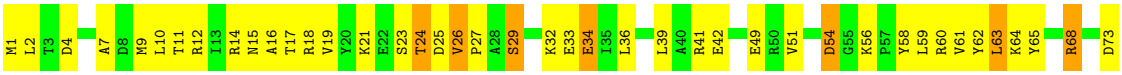
• Molecule 37: 30S RIBOSOMAL PROTEIN S7

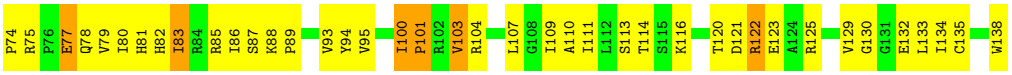
Chain CJ:



• Molecule 38: 30S RIBOSOMAL PROTEIN S8

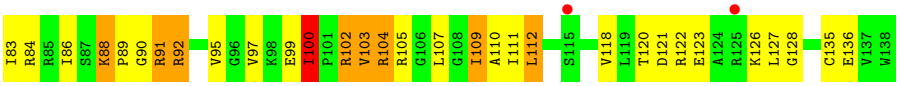
Chain BK:





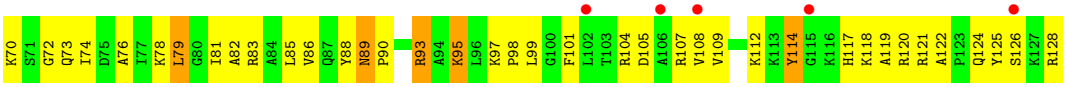
• Molecule 38: 30S RIBOSOMAL PROTEIN S8

Chain CK:



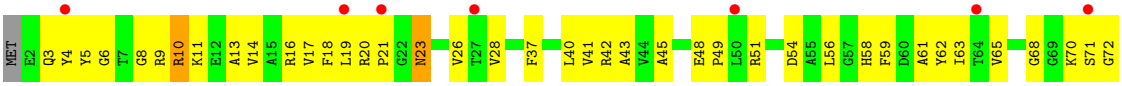
• Molecule 39: 30S RIBOSOMAL PROTEIN S9

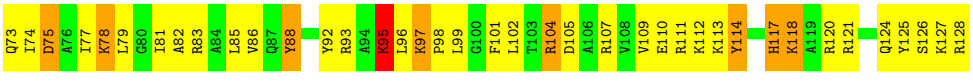
Chain BL:



• Molecule 39: 30S RIBOSOMAL PROTEIN S9

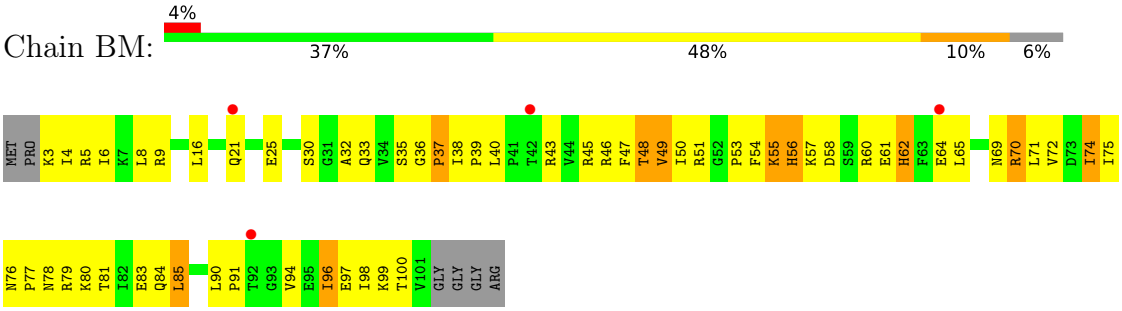
Chain CL:





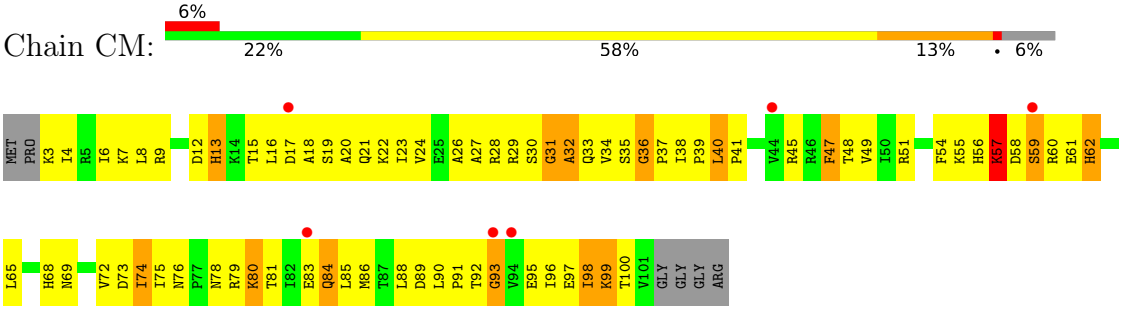
• Molecule 40: 30S RIBOSOMAL PROTEIN S10

Chain BM:



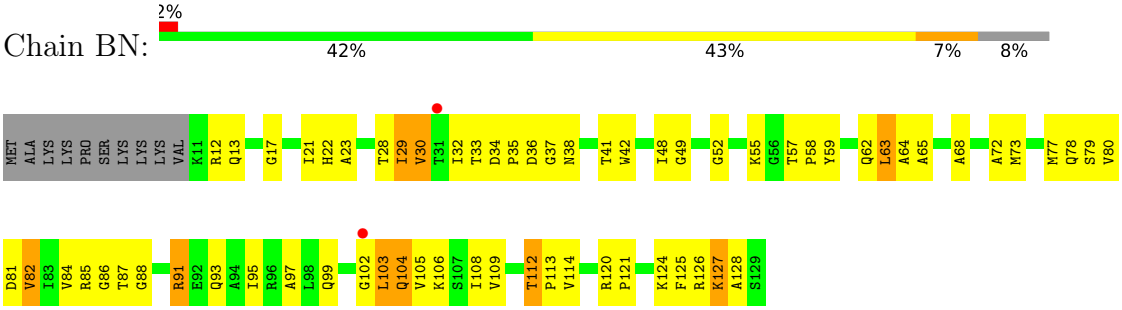
• Molecule 40: 30S RIBOSOMAL PROTEIN S10

Chain CM:



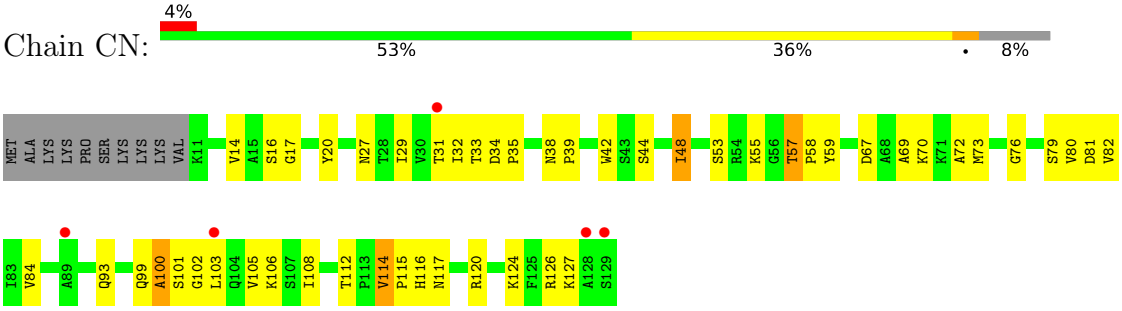
• Molecule 41: 30S RIBOSOMAL PROTEIN S11

Chain BN:



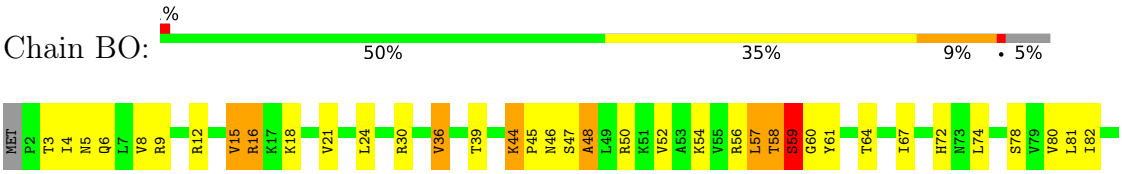
• Molecule 41: 30S RIBOSOMAL PROTEIN S11

Chain CN:



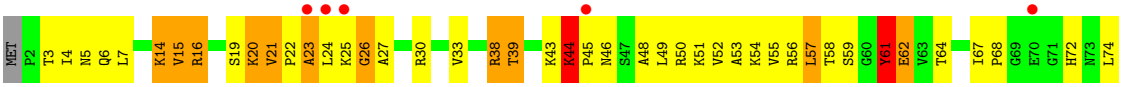
• Molecule 42: 30S RIBOSOMAL PROTEIN S12

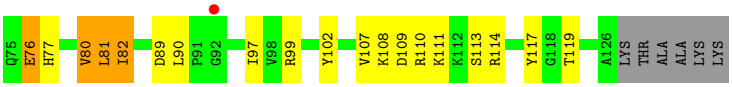
Chain BO:



• Molecule 42: 30S RIBOSOMAL PROTEIN S12

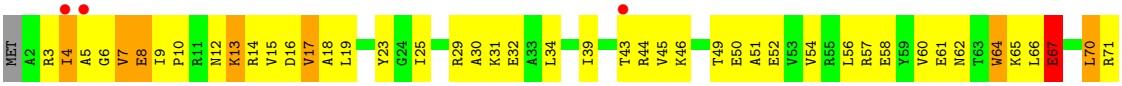
Chain CO:

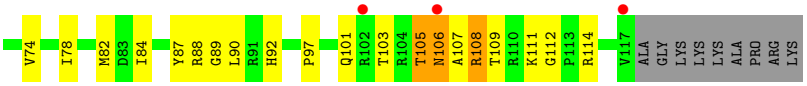




• Molecule 43: 30S RIBOSOMAL PROTEIN S13

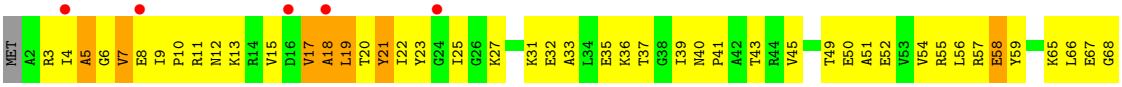
Chain BP:





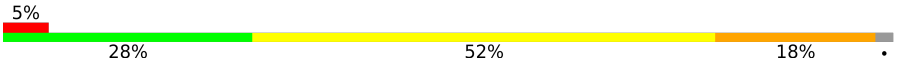
• Molecule 43: 30S RIBOSOMAL PROTEIN S13

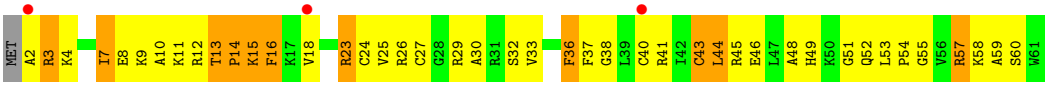
Chain CP:



• Molecule 44: 30S RIBOSOMAL PROTEIN S14

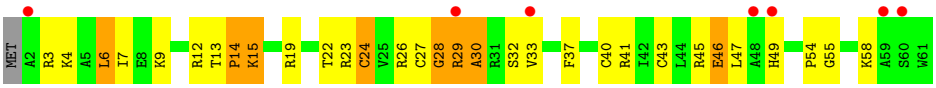
Chain BQ:





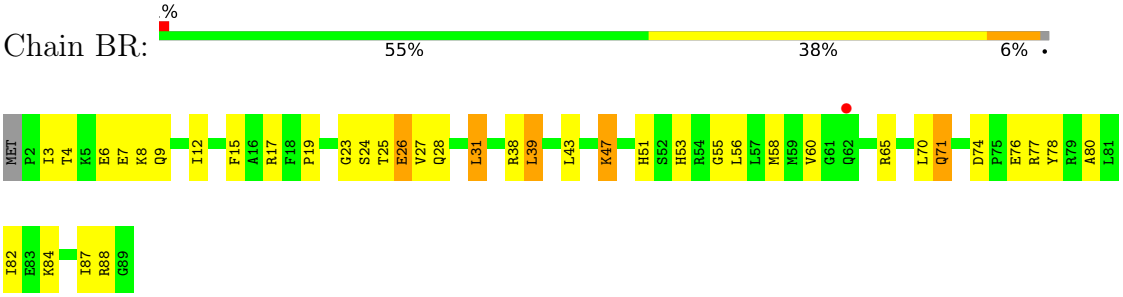
• Molecule 44: 30S RIBOSOMAL PROTEIN S14

Chain CQ:



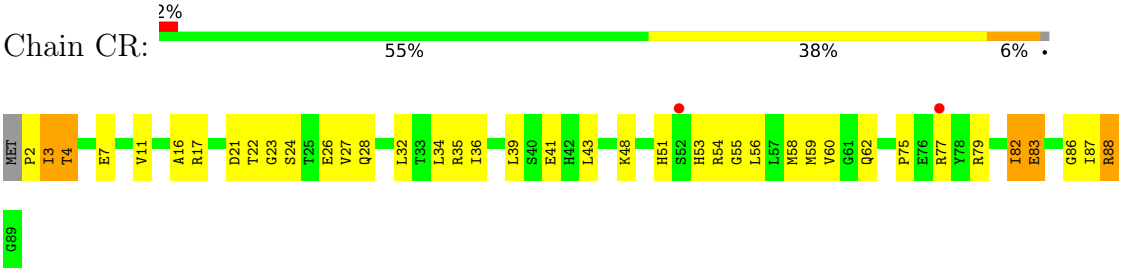
• Molecule 45: 30S RIBOSOMAL PROTEIN S15

Chain BR:



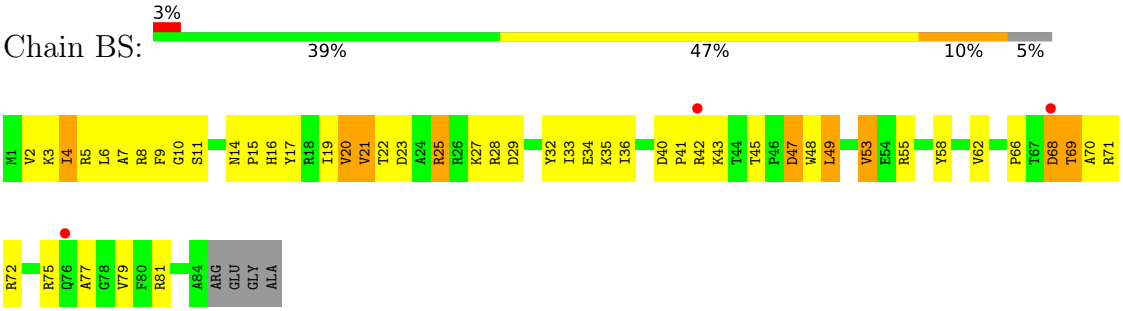
• Molecule 45: 30S RIBOSOMAL PROTEIN S15

Chain CR:



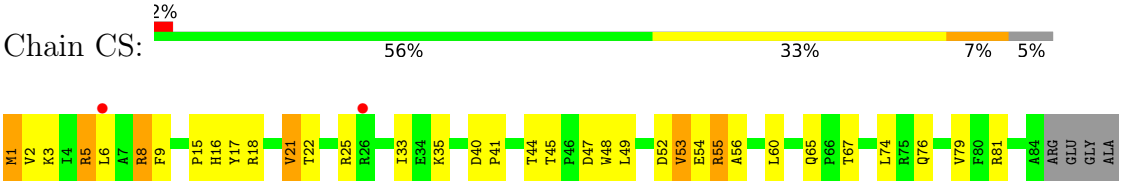
• Molecule 46: 30S RIBOSOMAL PROTEIN S16

Chain BS:



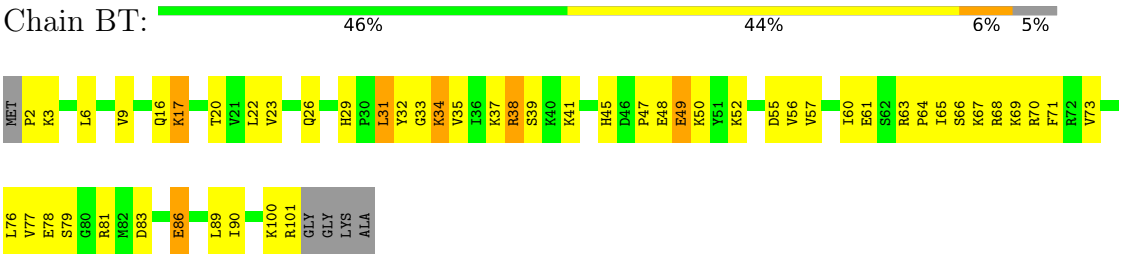
• Molecule 46: 30S RIBOSOMAL PROTEIN S16

Chain CS:



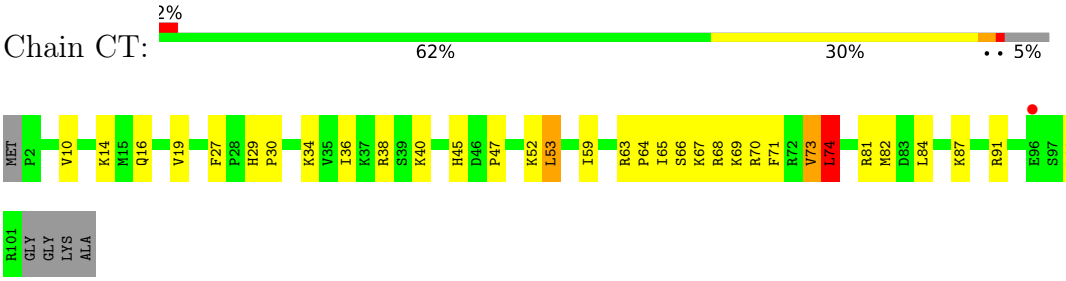
• Molecule 47: 30S RIBOSOMAL PROTEIN S17

Chain BT:



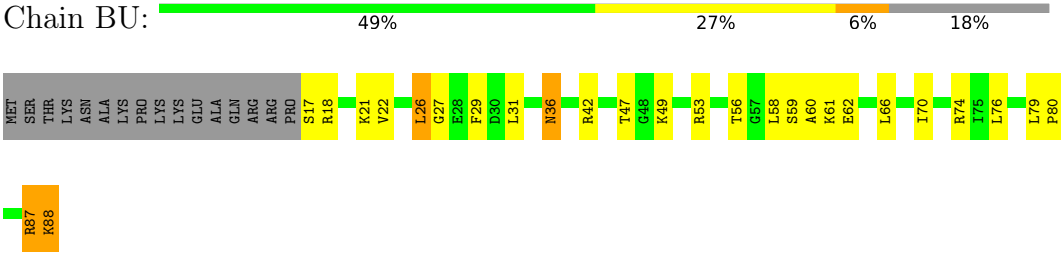
• Molecule 47: 30S RIBOSOMAL PROTEIN S17

Chain CT:



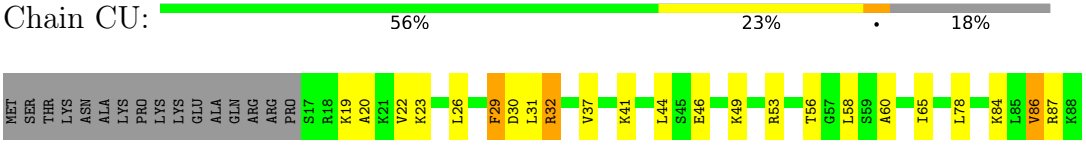
• Molecule 48: 30S RIBOSOMAL PROTEIN S18

Chain BU:



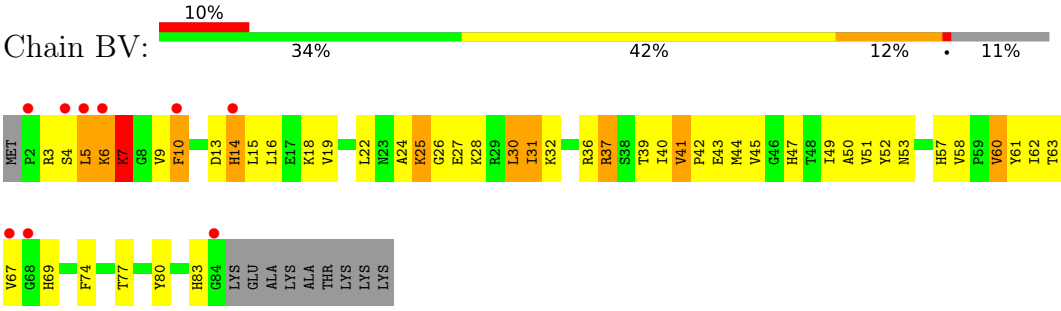
• Molecule 48: 30S RIBOSOMAL PROTEIN S18

Chain CU:



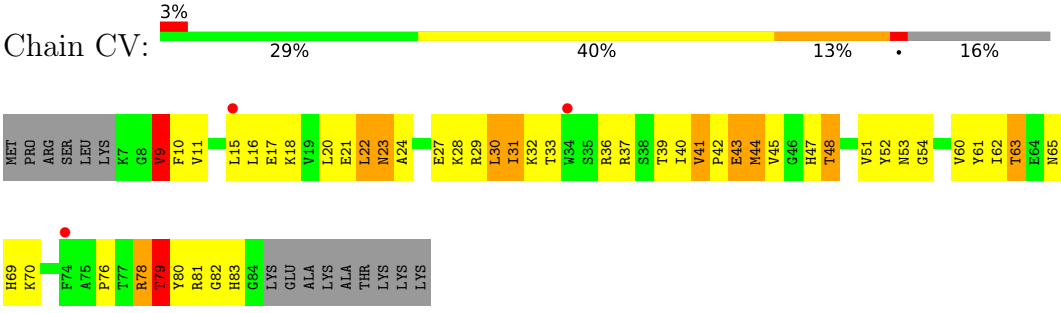
• Molecule 49: 30S RIBOSOMAL PROTEIN S19

Chain BV:



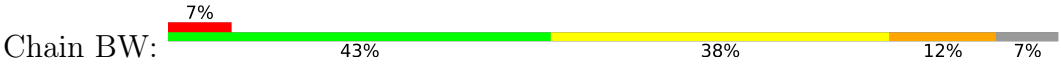
• Molecule 49: 30S RIBOSOMAL PROTEIN S19

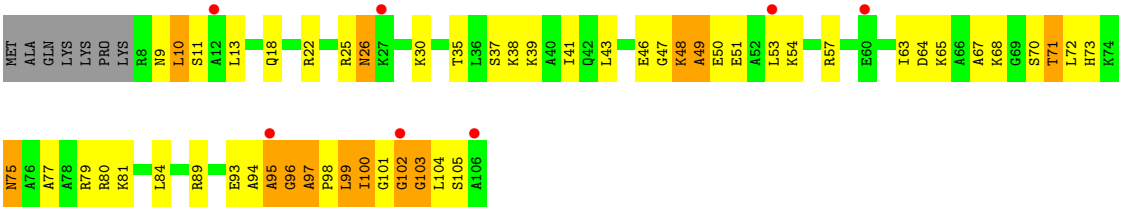
Chain CV:



• Molecule 50: 30S RIBOSOMAL PROTEIN S20

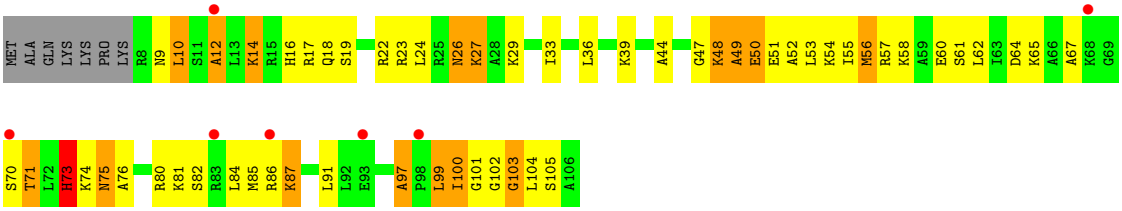
Chain BW:





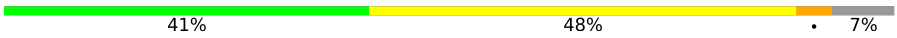
• Molecule 50: 30S RIBOSOMAL PROTEIN S20

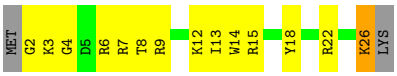
Chain CW:



• Molecule 51: 30S RIBOSOMAL PROTEIN THX

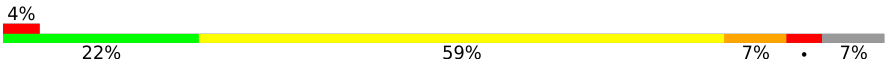
Chain BX:





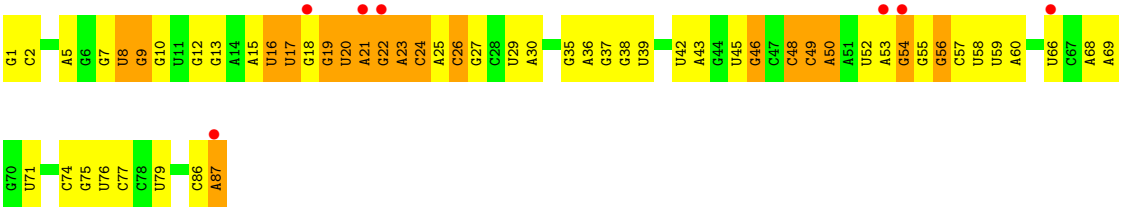
• Molecule 51: 30S RIBOSOMAL PROTEIN THX

Chain CX:



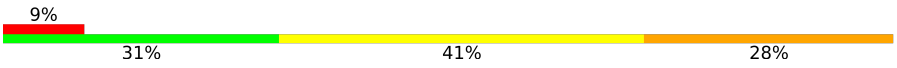
• Molecule 52: TRNA-LEU

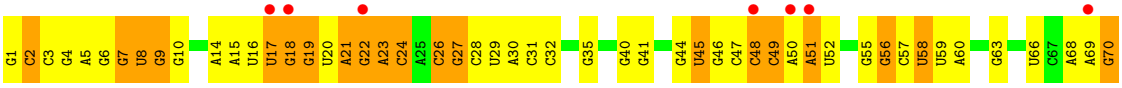
Chain BB:

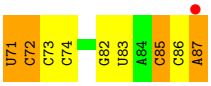


• Molecule 52: TRNA-LEU

Chain CB:

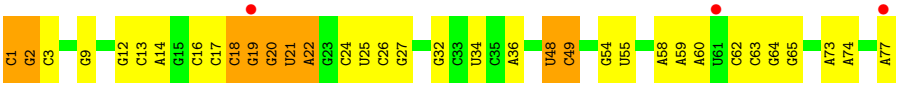






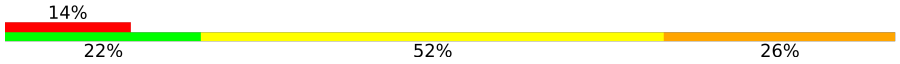
• Molecule 53: TRNA-FMET

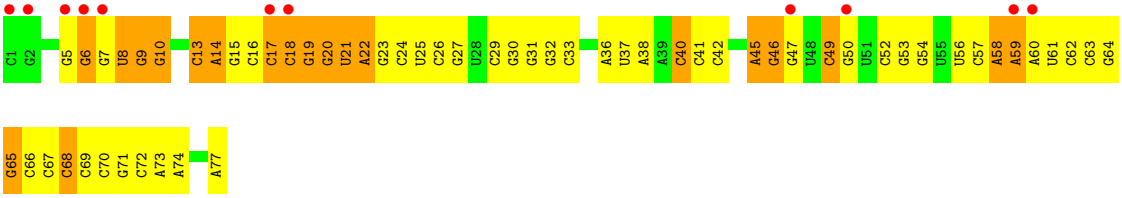
Chain BC:



• Molecule 53: TRNA-FMET

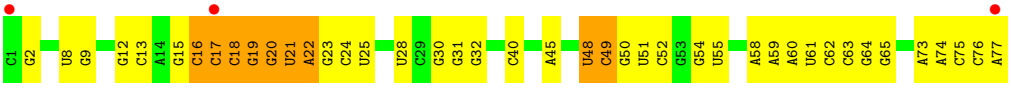
Chain BD:





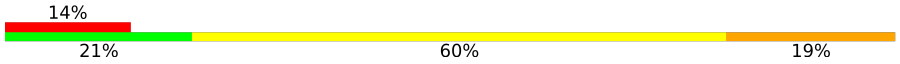
• Molecule 53: TRNA-FMET

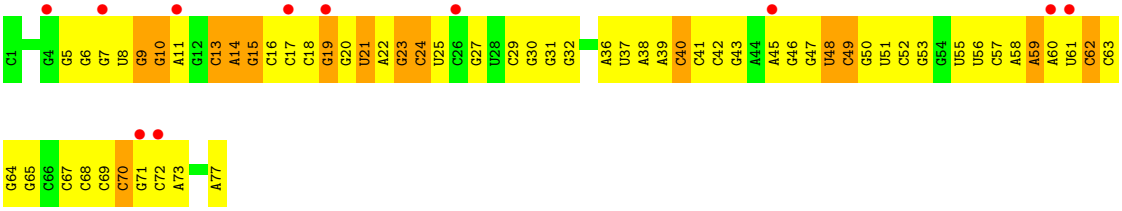
Chain CC:



• Molecule 53: TRNA-FMET

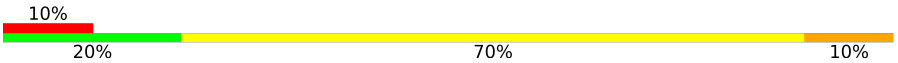
Chain CD:





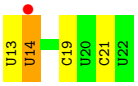
• Molecule 54: MRNA

Chain B1:



• Molecule 54: MRNA

Chain C1:


U13
U14
C19
U20
C21
U22

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	210.19Å 451.05Å 621.99Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	153.76 – 3.10 153.76 – 3.10	Depositor EDS
% Data completeness (in resolution range)	100.0 (153.76-3.10) 93.2 (153.76-3.10)	Depositor EDS
R_{merge}	0.33	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.90 (at 3.01Å)	Xtriage
Refinement program	PHENIX (phenix.refine: dev_810)	Depositor
R, R_{free}	0.201 , 0.240 0.202 , 0.237	Depositor DCC
R_{free} test set	2000 reflections (0.17%)	wwPDB-VP
Wilson B-factor (Å^2)	76.3	Xtriage
Anisotropy	0.156	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.30 , 99.1	EDS
L-test for twinning[2]	$< \|L\| > = 0.47$, $< L^2 > = 0.30$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.92	EDS
Total number of atoms	299628	wwPDB-VP
Average B, all atoms (Å^2)	104.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.45% 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

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	0.21	0/70233	0.36	0/109643
1	DA	0.19	0/70122	0.35	2/109469 (0.0%)
2	AB	0.17	0/2928	0.33	0/4568
2	DB	0.15	0/2928	0.32	0/4568
3	AD	0.40	0/2166	0.88	3/2919 (0.1%)
3	DD	0.37	0/2165	0.85	3/2919 (0.1%)
4	AE	0.34	0/1602	0.89	5/2160 (0.2%)
4	DE	0.37	0/1601	0.90	9/2160 (0.4%)
5	AF	0.42	1/1621 (0.1%)	0.87	2/2196 (0.1%)
5	DF	0.32	0/1662	0.86	4/2249 (0.2%)
6	AG	0.30	0/1499	0.74	1/2016 (0.0%)
6	DG	0.28	0/1499	0.74	2/2016 (0.1%)
7	AH	0.34	0/1333	0.84	0/1802
7	DH	0.33	0/1332	0.96	3/1802 (0.2%)
8	AK	0.34	0/1152	0.76	1/1558 (0.1%)
8	DK	0.32	0/1151	0.77	1/1558 (0.1%)
9	AM	0.33	0/1132	0.78	0/1525
9	DM	0.29	0/1131	0.79	0/1525
10	AN	0.33	0/943	0.79	0/1269
10	DN	0.32	0/943	0.77	0/1269
11	AO	0.37	0/1162	0.90	3/1544 (0.2%)
11	DO	0.35	0/1162	0.87	3/1544 (0.2%)
12	AP	0.32	0/1143	0.70	2/1527 (0.1%)
12	DP	0.57	1/1143 (0.1%)	0.67	0/1527
13	A0	0.33	0/982	0.75	0/1312
13	D0	0.33	0/974	0.75	0/1302
14	AQ	0.32	0/892	0.76	0/1187
14	DQ	0.29	0/892	0.72	0/1187
15	AR	0.34	0/1156	0.85	2/1542 (0.1%)
15	DR	0.31	0/1155	0.76	1/1542 (0.1%)
16	A1	0.35	0/982	0.83	2/1306 (0.2%)
16	D1	0.32	0/982	0.76	1/1306 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	A2	0.32	0/790	0.81	0/1057
17	D2	0.39	0/790	0.81	2/1057 (0.2%)
18	AS	0.34	0/911	0.75	1/1220 (0.1%)
18	DS	0.35	0/911	0.76	0/1220
19	AT	0.38	0/740	0.76	0/993
19	DT	0.34	0/739	0.82	3/993 (0.3%)
20	AU	0.38	0/799	0.84	0/1064
20	DU	0.37	0/798	0.81	2/1064 (0.2%)
21	AV	0.28	0/1427	0.77	0/1935
21	DV	0.28	0/1460	0.79	4/1982 (0.2%)
22	A3	0.31	0/615	0.73	1/819 (0.1%)
22	D3	0.30	0/621	0.78	0/827
23	AZ	0.34	0/770	0.73	0/1022
23	DZ	0.31	0/770	0.81	0/1022
24	AW	0.35	0/560	0.89	1/741 (0.1%)
24	DW	0.29	0/583	0.78	1/771 (0.1%)
25	AX	0.32	0/474	0.78	0/635
25	DX	0.29	0/474	0.81	2/635 (0.3%)
26	A4	0.30	0/545	0.76	1/733 (0.1%)
26	D4	0.32	0/527	0.81	0/709
27	A5	0.39	0/473	1.00	4/639 (0.6%)
27	D5	0.34	0/473	0.84	2/639 (0.3%)
28	A6	0.36	0/397	0.90	2/529 (0.4%)
28	D6	0.35	0/396	0.84	0/529
29	A7	0.39	0/438	0.75	2/575 (0.3%)
29	D7	0.34	0/438	0.82	2/575 (0.3%)
30	A8	0.41	0/494	0.98	2/649 (0.3%)
30	D8	0.42	0/494	1.01	4/649 (0.6%)
31	BA	0.16	0/36234	0.32	0/56554
31	CA	0.16	0/36237	0.32	0/56558
32	BE	0.28	0/1959	0.74	2/2642 (0.1%)
32	CE	0.28	0/1959	0.79	2/2642 (0.1%)
33	BF	0.28	0/1629	0.69	1/2195 (0.0%)
33	CF	0.28	0/1636	0.71	0/2205
34	BG	0.33	0/1733	0.77	4/2318 (0.2%)
34	CG	0.31	0/1733	0.77	2/2318 (0.1%)
35	BH	0.30	0/1171	0.76	0/1576
35	CH	0.30	0/1171	0.82	2/1576 (0.1%)
36	BI	0.29	0/856	0.72	0/1154
36	CI	0.29	0/856	0.73	2/1154 (0.2%)
37	BJ	0.29	0/1276	0.73	0/1709
37	CJ	0.28	0/1276	0.74	0/1709
38	BK	0.30	0/1136	0.79	2/1527 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	CK	0.28	0/1136	0.78	2/1527 (0.1%)
39	BL	0.27	0/1029	0.72	0/1379
39	CL	0.26	0/1029	0.73	0/1379
40	BM	0.30	0/814	0.79	0/1095
40	CM	0.28	0/814	0.78	0/1095
41	BN	0.31	0/900	0.78	2/1213 (0.2%)
41	CN	0.30	0/900	0.77	2/1213 (0.2%)
42	BO	0.33	0/991	0.78	0/1327
42	CO	0.32	0/991	0.75	1/1327 (0.1%)
43	BP	0.29	0/938	0.79	0/1258
43	CP	0.29	0/943	0.73	0/1265
44	BQ	0.31	0/501	0.83	2/664 (0.3%)
44	CQ	0.27	0/501	0.75	1/664 (0.2%)
45	BR	0.31	0/745	0.69	0/992
45	CR	0.29	0/745	0.68	0/992
46	BS	0.27	0/721	0.73	0/970
46	CS	0.29	0/721	0.67	0/970
47	BT	0.27	0/847	0.74	0/1131
47	CT	0.27	0/847	0.75	0/1131
48	BU	0.30	0/596	0.74	0/790
48	CU	0.29	0/596	0.71	0/790
49	BV	0.29	0/680	0.81	0/915
49	CV	0.27	0/638	0.75	1/860 (0.1%)
50	BW	0.28	0/765	0.71	0/1007
50	CW	0.31	0/765	0.78	1/1007 (0.1%)
51	BX	0.27	0/221	0.74	0/288
51	CX	0.26	0/221	0.71	0/288
52	BB	0.12	0/2080	0.26	0/3242
52	CB	0.12	0/2080	0.26	0/3242
53	BC	0.15	0/1835	0.30	0/2859
53	BD	0.09	0/1835	0.25	0/2859
53	CC	0.14	0/1835	0.29	0/2859
53	CD	0.09	0/1835	0.25	0/2859
54	B1	0.17	0/226	0.28	0/348
54	C1	0.24	0/226	0.32	0/348
All	All	0.23	2/324084 (0.0%)	0.50	115/485290 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
7	AH	0	1
42	BO	0	1
All	All	0	2

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	DP	141	GLN	C-OXT	16.97	1.57	1.23
5	AF	207	GLY	C-N	-6.80	1.23	1.33

All (115) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	DH	125	VAL	CA-C-N	12.88	135.94	119.84
7	DH	125	VAL	C-N-CA	12.88	135.94	119.84
4	DE	67	PHE	N-CA-C	-9.29	101.86	113.01
16	A1	97	ASP	N-CA-C	-8.71	101.92	112.54
24	AW	5	GLU	N-CA-C	-8.26	103.20	113.28
11	AO	59	LEU	N-CA-C	-8.13	101.53	112.26
4	AE	58	ARG	N-CA-C	-7.72	103.85	112.57
50	CW	12	ALA	N-CA-C	-7.62	103.04	112.88
44	BQ	13	THR	CA-C-N	7.49	129.20	119.84
44	BQ	13	THR	C-N-CA	7.49	129.20	119.84
27	A5	4	HIS	CA-C-N	-7.18	112.38	119.78
27	A5	4	HIS	C-N-CA	-7.18	112.38	119.78
29	D7	6	GLN	CA-C-N	7.00	127.42	119.93
29	D7	6	GLN	C-N-CA	7.00	127.42	119.93
33	BF	99	VAL	N-CA-C	6.98	113.68	106.21
3	AD	272	ALA	N-CA-C	6.80	117.62	108.23
5	DF	65	TRP	CA-C-N	6.80	127.36	119.47
5	DF	65	TRP	C-N-CA	6.80	127.36	119.47
8	DK	113	ARG	N-CA-C	-6.72	102.40	111.87
21	DV	157	LEU	CA-C-N	6.63	127.21	120.38
21	DV	157	LEU	C-N-CA	6.63	127.21	120.38
32	CE	23	ARG	N-CA-C	-6.59	104.37	112.88
30	D8	54	GLU	N-CA-C	-6.50	104.92	112.92
16	D1	96	ALA	N-CA-C	-6.48	106.10	112.97
19	DT	31	HIS	CA-C-N	6.47	126.70	119.32
19	DT	31	HIS	C-N-CA	6.47	126.70	119.32
11	DO	111	ARG	N-CA-C	6.45	118.88	110.43
27	A5	46	CYS	CA-C-N	6.43	127.88	119.84
27	A5	46	CYS	C-N-CA	6.43	127.88	119.84
6	DG	31	VAL	CA-C-N	6.34	127.76	119.84

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	DG	31	VAL	C-N-CA	6.34	127.76	119.84
5	AF	65	TRP	CA-C-N	6.30	127.72	119.84
5	AF	65	TRP	C-N-CA	6.30	127.72	119.84
11	AO	25	SER	N-CA-C	-6.29	104.86	112.54
24	DW	5	GLU	N-CA-C	-6.23	104.59	111.82
4	AE	14	ILE	N-CA-C	6.12	116.83	111.56
1	DA	933	A	C4-N9-C1'	6.02	144.35	126.30
15	AR	14	TYR	N-CA-C	-5.97	105.96	113.72
4	DE	38	THR	CA-C-N	5.95	127.28	119.84
4	DE	38	THR	C-N-CA	5.95	127.28	119.84
28	A6	28	ARG	N-CA-C	5.93	118.90	109.65
19	DT	5	TYR	N-CA-C	-5.92	106.30	112.93
15	DR	13	ARG	N-CA-C	-5.80	104.91	113.61
4	DE	80	GLU	N-CA-C	5.74	120.01	112.89
41	CN	38	ASN	CA-C-N	5.73	126.02	119.83
41	CN	38	ASN	C-N-CA	5.73	126.02	119.83
4	DE	63	LEU	N-CA-C	-5.70	106.55	112.93
30	D8	49	VAL	N-CA-C	5.69	121.17	109.34
34	CG	171	GLY	CA-C-N	5.66	125.37	119.82
34	CG	171	GLY	C-N-CA	5.66	125.37	119.82
1	DA	933	A	C8-N9-C1'	-5.66	110.72	127.70
17	D2	81	TYR	N-CA-C	5.64	118.76	109.85
7	DH	159	GLU	CB-CA-C	-5.57	110.17	116.63
25	DX	11	SER	CA-C-N	5.56	125.17	119.56
25	DX	11	SER	C-N-CA	5.56	125.17	119.56
36	CI	55	ASP	CA-C-N	5.54	125.21	119.56
36	CI	55	ASP	C-N-CA	5.54	125.21	119.56
3	DD	13	ARG	N-CA-C	-5.54	106.52	113.28
11	DO	56	SER	N-CA-C	5.54	117.39	111.36
30	D8	39	LYS	N-CA-C	-5.52	103.62	110.41
4	AE	65	GLY	N-CA-C	-5.51	106.97	115.73
4	DE	70	ALA	N-CA-C	-5.43	108.43	114.62
30	A8	53	PRO	N-CA-C	-5.40	106.67	114.18
29	A7	6	GLN	CA-C-N	5.37	125.38	119.90
29	A7	6	GLN	C-N-CA	5.37	125.38	119.90
30	A8	36	LYS	N-CA-C	-5.32	102.17	110.42
8	AK	15	VAL	N-CA-C	5.32	120.41	109.34
4	DE	61	ARG	CA-C-N	-5.32	113.19	119.84
4	DE	61	ARG	C-N-CA	-5.32	113.19	119.84
34	BG	171	GLY	CA-C-N	5.29	126.45	119.84
34	BG	171	GLY	C-N-CA	5.29	126.45	119.84
4	DE	2	LYS	N-CA-C	5.28	117.10	110.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	BK	100	ILE	CA-C-N	5.26	126.42	119.84
38	BK	100	ILE	C-N-CA	5.26	126.42	119.84
30	D8	42	ARG	N-CA-C	-5.25	105.56	111.28
22	A3	84	LEU	N-CA-C	-5.24	99.63	110.80
11	AO	64	LYS	N-CA-C	-5.22	106.60	113.12
32	BE	23	ARG	N-CA-C	-5.21	106.24	112.59
44	CQ	9	LYS	N-CA-C	-5.20	106.94	113.28
6	AG	81	LYS	CB-CA-C	-5.18	110.62	116.63
3	AD	10	THR	CA-C-N	-5.17	114.92	120.03
3	AD	10	THR	C-N-CA	-5.17	114.92	120.03
12	AP	125	LEU	CA-C-N	5.17	125.24	119.87
12	AP	125	LEU	C-N-CA	5.17	125.24	119.87
16	A1	70	ARG	N-CA-C	-5.17	106.48	112.89
32	CE	10	LEU	N-CA-C	-5.16	106.24	112.54
17	D2	39	LEU	N-CA-C	-5.16	106.96	113.20
32	BE	127	ILE	N-CA-C	5.16	115.30	110.30
3	DD	107	ALA	CA-C-N	5.16	125.06	119.85
3	DD	107	ALA	C-N-CA	5.16	125.06	119.85
5	DF	24	LEU	CA-C-N	-5.15	113.40	119.84
5	DF	24	LEU	C-N-CA	-5.15	113.40	119.84
4	AE	85	ASN	CA-C-N	5.15	126.28	119.84
4	AE	85	ASN	C-N-CA	5.15	126.28	119.84
41	BN	112	THR	CA-C-N	5.13	125.37	119.83
41	BN	112	THR	C-N-CA	5.13	125.37	119.83
38	CK	56	LYS	CA-C-N	5.11	125.26	119.90
38	CK	56	LYS	C-N-CA	5.11	125.26	119.90
49	CV	44	MET	N-CA-C	-5.10	106.90	113.23
26	A4	17	GLY	N-CA-C	-5.10	107.46	113.99
42	CO	102	TYR	CB-CA-C	-5.09	110.31	117.23
18	AS	92	ARG	N-CA-C	5.08	116.67	111.03
34	BG	38	TYR	CA-C-N	5.07	123.36	119.66
34	BG	38	TYR	C-N-CA	5.07	123.36	119.66
20	DU	81	LYS	CA-C-N	5.06	125.05	119.89
20	DU	81	LYS	C-N-CA	5.06	125.05	119.89
28	A6	19	ARG	CB-CA-C	-5.06	110.72	116.54
35	CH	92	LYS	CA-C-N	5.05	124.81	119.76
35	CH	92	LYS	C-N-CA	5.05	124.81	119.76
15	AR	13	ARG	N-CA-C	-5.04	105.86	112.41
11	DO	52	GLU	CB-CA-C	-5.04	109.81	117.07
21	DV	129	SER	CA-C-N	5.04	124.70	119.56
21	DV	129	SER	C-N-CA	5.04	124.70	119.56
27	D5	4	HIS	CA-C-N	-5.00	114.75	119.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	D5	4	HIS	C-N-CA	-5.00	114.75	119.76

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
7	AH	153	LYS	Peptide
42	BO	44	LYS	Peptide

5.2 Too-close contacts (i)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	62707	0	31614	1926	1
1	DA	62607	0	31565	1983	1
2	AB	2617	0	1328	92	0
2	DB	2617	0	1328	98	0
3	AD	2116	0	2195	200	0
3	DD	2115	0	2195	189	0
4	AE	1569	0	1634	167	0
4	DE	1568	0	1634	185	0
5	AF	1586	0	1632	117	0
5	DF	1627	0	1680	131	0
6	AG	1474	0	1535	129	0
6	DG	1474	0	1535	106	0
7	AH	1308	0	1382	146	0
7	DH	1307	0	1382	109	1
8	AK	1137	0	1223	96	0
8	DK	1136	0	1223	97	0
9	AM	1105	0	1180	104	0
9	DM	1104	0	1180	88	0
10	AN	933	0	996	39	0
10	DN	933	0	996	39	0
11	AO	1145	0	1228	160	0
11	DO	1145	0	1228	184	0
12	AP	1122	0	1179	188	0
12	DP	1122	0	1179	209	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
13	A0	968	0	1033	71	0
13	D0	960	0	1021	72	0
14	AQ	882	0	943	94	0
14	DQ	882	0	943	75	0
15	AR	1142	0	1202	96	0
15	DR	1141	0	1202	103	0
16	A1	964	0	1022	84	0
16	D1	964	0	1022	91	0
17	A2	779	0	852	76	0
17	D2	779	0	852	119	0
18	AS	900	0	964	63	0
18	DS	900	0	964	43	0
19	AT	726	0	778	54	0
19	DT	725	0	778	58	0
20	AU	786	0	878	79	0
20	DU	785	0	878	103	0
21	AV	1397	0	1430	124	0
21	DV	1428	0	1454	102	0
22	A3	607	0	628	42	0
22	D3	613	0	633	45	0
23	AZ	763	0	848	44	0
23	DZ	763	0	848	53	0
24	AW	558	0	610	31	0
24	DW	581	0	629	49	0
25	AX	469	0	518	23	0
25	DX	469	0	518	24	0
26	A4	533	0	522	79	0
26	D4	515	0	510	82	0
27	A5	459	0	480	54	0
27	D5	459	0	480	43	0
28	A6	390	0	404	66	0
28	D6	389	0	404	51	0
29	A7	430	0	480	19	0
29	D7	430	0	480	29	0
30	A8	488	0	560	83	0
30	D8	488	0	560	89	0
31	BA	32369	0	16339	1085	1
31	CA	32372	0	16338	1080	2
32	BE	1924	0	1975	167	0
32	CE	1924	0	1975	177	0
33	BF	1605	0	1668	121	0
33	CF	1612	0	1677	122	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
34	BG	1703	0	1764	127	0
34	CG	1703	0	1763	98	1
35	BH	1155	0	1213	66	0
35	CH	1155	0	1213	81	0
36	BI	843	0	857	43	1
36	CI	843	0	857	38	0
37	BJ	1257	0	1296	68	0
37	CJ	1257	0	1296	65	0
38	BK	1116	0	1177	72	0
38	CK	1116	0	1177	54	0
39	BL	1010	0	1037	91	0
39	CL	1010	0	1037	97	0
40	BM	801	0	849	75	0
40	CM	801	0	849	74	0
41	BN	885	0	904	61	0
41	CN	885	0	904	35	0
42	BO	975	0	1062	53	0
42	CO	975	0	1062	69	0
43	BP	928	0	987	67	0
43	CP	933	0	992	74	0
44	BQ	492	0	529	48	0
44	CQ	492	0	530	40	0
45	BR	734	0	771	35	0
45	CR	734	0	771	36	0
46	BS	705	0	725	44	0
46	CS	705	0	725	35	0
47	BT	834	0	904	49	0
47	CT	834	0	904	32	0
48	BU	591	0	662	25	0
48	CU	591	0	662	20	0
49	BV	665	0	686	69	0
49	CV	624	0	636	66	0
50	BW	763	0	861	62	0
50	CW	763	0	861	51	0
51	BX	217	0	234	17	0
51	CX	217	0	234	21	0
52	BB	1861	0	938	50	0
52	CB	1861	0	938	63	0
53	BC	1643	0	837	47	0
53	BD	1643	0	837	65	0
53	CC	1643	0	837	51	0
53	CD	1643	0	837	77	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	B1	205	0	105	7	0
54	C1	205	0	105	5	0
55	A0	1	0	0	0	0
55	A1	1	0	0	0	0
55	A2	1	0	0	0	0
55	A3	1	0	0	0	0
55	A5	2	0	0	0	0
55	A6	1	0	0	0	0
55	A7	1	0	0	0	0
55	AA	630	0	0	0	0
55	AB	17	0	0	0	0
55	AD	2	0	0	0	0
55	AE	4	0	0	0	0
55	AF	3	0	0	0	0
55	AO	3	0	0	0	0
55	AU	1	0	0	0	0
55	B1	2	0	0	0	0
55	BA	244	0	0	0	0
55	BB	8	0	0	0	0
55	BC	9	0	0	0	0
55	BD	1	0	0	0	0
55	BG	1	0	0	0	0
55	BN	2	0	0	0	0
55	BQ	2	0	0	0	0
55	CA	209	0	0	0	0
55	CB	5	0	0	0	0
55	CC	8	0	0	0	0
55	CG	3	0	0	0	0
55	CH	1	0	0	0	0
55	CS	1	0	0	0	0
55	D0	1	0	0	0	0
55	D1	2	0	0	0	0
55	D3	1	0	0	0	0
55	D5	1	0	0	0	0
55	DA	528	0	0	0	0
55	DB	14	0	0	0	0
55	DE	3	0	0	0	0
55	DP	1	0	0	0	0
55	DU	1	0	0	0	0
56	BG	1	0	0	0	0
56	BQ	1	0	0	0	0
56	CG	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	CQ	1	0	0	0	0
All	All	299628	0	200976	12914	4

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 26.

All (12914) 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)
6:AG:108:ASN:HA	26:A4:38:LYS:CG	1.41	1.51
6:AG:108:ASN:CA	26:A4:38:LYS:HG2	1.46	1.45
1:AA:1056:G:H21	1:AA:1103:A:N6	1.13	1.45
1:DA:226:G:H21	1:DA:228:A:N6	0.93	1.41
1:DA:226:G:N2	1:DA:228:A:H61	1.15	1.40
11:AO:19:VAL:CG2	11:AO:27:HIS:HB2	1.52	1.40
1:AA:2467:C:C2'	1:AA:2468:G:H5'	1.55	1.36
12:AP:24:GLY:HA3	12:AP:25:ASP:CB	1.42	1.35
12:DP:24:GLY:HA3	12:DP:25:ASP:CB	1.41	1.35
1:DA:847:U:C4	1:DA:933:A:N6	1.94	1.35
1:AA:882:G:H1	1:AA:894:C:N4	1.32	1.27
12:DP:2:LEU:O	12:DP:70:PRO:HG2	1.11	1.27
4:AE:23:VAL:HG12	4:AE:184:VAL:C	1.60	1.26
1:AA:49:A:N7	1:AA:120:U:C5	2.03	1.26
1:AA:1056:G:N2	1:AA:1103:A:H62	1.34	1.24
1:DA:226:G:N2	1:DA:228:A:N6	1.75	1.24
12:DP:26:TYR:O	12:DP:138:ASP:CB	1.85	1.23
4:AE:23:VAL:CG1	4:AE:184:VAL:O	1.84	1.23
1:DA:2681:C:C5	1:DA:2725:A:N6	2.05	1.23
1:AA:953:A:OP2	12:AP:16:ARG:HD3	1.38	1.23
11:AO:19:VAL:HG23	11:AO:27:HIS:CB	1.69	1.23
1:AA:910:A:C5	12:AP:13:GLN:OE1	1.94	1.22
1:AA:49:A:N7	1:AA:120:U:H5	1.37	1.21
12:DP:6:ARG:O	12:DP:7:MET:HG2	1.37	1.21
12:AP:16:ARG:O	12:AP:17:LEU:HD23	1.42	1.20
12:DP:2:LEU:O	12:DP:70:PRO:CG	1.87	1.20
12:DP:65:PHE:O	12:DP:66:ILE:HG12	1.39	1.20
1:AA:155:C:N4	1:AA:171:G:H1	1.38	1.19
11:AO:15:ARG:HH11	11:AO:15:ARG:HG2	1.06	1.19
12:AP:134:ARG:HA	12:AP:138:ASP:OD2	1.41	1.19
1:AA:1056:G:N2	1:AA:1103:A:N6	1.91	1.18
1:DA:2777:G:H5"	1:DA:2778:A:H5'	1.22	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:847:U:C5	1:DA:933:A:N6	2.11	1.18
12:AP:136:ALA:O	12:AP:139:GLU:HG2	1.40	1.18
12:DP:66:ILE:CG1	12:DP:67:ARG:H	1.57	1.18
11:AO:64:LYS:O	11:AO:66:GLY:N	1.77	1.17
31:BA:1028(B):C:N4	31:BA:1032(A):G:H1	1.40	1.17
31:BA:1053:G:H5'	31:BA:1054:C:H5'	1.24	1.17
1:AA:910:A:C8	12:AP:13:GLN:OE1	1.96	1.16
1:AA:2317:C:H2'	1:AA:2318:G:H5'	1.26	1.16
3:AD:43:ARG:NH1	3:AD:44:ASN:OD1	1.79	1.16
2:DB:74:U:H2'	2:DB:75:G:H5"	1.28	1.16
1:AA:2310:A:N3	6:AG:77:ILE:HD11	1.61	1.15
1:DA:882:G:H1	1:DA:894:C:N4	1.44	1.15
1:AA:631:A:OP2	30:A8:46:ARG:NH2	1.80	1.14
12:AP:133:ARG:O	12:AP:134:ARG:HB3	1.45	1.14
3:AD:35:LYS:HD2	3:AD:104:TYR:CD1	1.83	1.13
3:DD:43:ARG:HH11	3:DD:44:ASN:ND2	1.45	1.13
1:DA:1899:G:H22	1:DA:1902:C:N4	1.47	1.12
11:DO:21:ARG:HA	11:DO:21:ARG:HE	1.02	1.12
1:AA:1798:U:H5"	3:AD:259:THR:HG22	1.29	1.12
53:CC:17:C:H3'	53:CC:18:C:H5"	1.28	1.12
1:AA:954:G:H5"	12:AP:13:GLN:HG2	1.33	1.11
27:A5:4:HIS:HB3	27:A5:5:PRO:HD3	1.30	1.11
1:DA:2466:C:C2'	1:DA:2467:C:H5'	1.79	1.11
1:DA:2466:C:H2'	1:DA:2467:C:H5'	1.14	1.11
1:AA:2211:G:H4'	1:AA:2212:A:OP2	1.45	1.11
53:BC:17:C:H3'	53:BC:18:C:H5"	1.17	1.10
32:CE:111:ARG:HG2	32:CE:111:ARG:HH11	0.96	1.10
1:DA:2420:C:H41	30:D8:31:HIS:HB3	1.14	1.10
3:DD:267:SER:O	3:DD:269:PHE:N	1.83	1.10
32:CE:233:SER:HB3	32:CE:234:PRO:HD2	1.32	1.10
1:DA:885:C:N4	1:DA:890:A:N6	2.00	1.10
4:AE:14:ILE:HB	4:AE:21:VAL:HG23	1.27	1.10
1:DA:9:U:N3	1:DA:2629:A:N6	2.00	1.09
4:AE:23:VAL:HG12	4:AE:184:VAL:O	0.91	1.09
31:CA:1160:G:O6	31:CA:1181:G:O6	1.71	1.09
7:AH:86:GLU:HG3	7:AH:165:ALA:H	1.02	1.08
12:AP:24:GLY:CA	12:AP:25:ASP:CB	2.30	1.08
31:CA:1028:C:N4	31:CA:1033:G:H1	1.50	1.08
36:CI:87:ARG:HG3	36:CI:87:ARG:HH11	1.04	1.08
16:A1:92:ARG:O	16:A1:94:ASN:N	1.86	1.08
31:CA:448:A:OP2	31:CA:485:G:N2	1.86	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CO:44:LYS:HB3	42:CO:45:PRO:HD3	1.22	1.08
11:DO:11:GLY:O	11:DO:13:ASN:N	1.84	1.08
20:DU:50:ARG:HB3	20:DU:53:PRO:HG3	1.36	1.08
1:AA:2287:A:N6	1:AA:2344:U:H3	1.49	1.08
17:D2:85:LYS:HG3	17:D2:87:HIS:H	1.08	1.08
7:AH:83:TYR:HB3	7:AH:135:GLY:H	1.16	1.08
1:DA:1062:G:H1	1:DA:1076:C:N4	1.49	1.08
1:DA:1332:G:N2	1:DA:1609:A:O2'	1.84	1.08
11:DO:15:ARG:CG	11:DO:15:ARG:HH11	1.67	1.08
31:CA:1027:C:O2	31:CA:1035:A:N6	1.86	1.07
1:AA:620:G:H4'	1:AA:621:A:H5"	1.36	1.07
20:AU:81:LYS:HZ3	20:AU:96:ILE:HD12	1.17	1.07
31:CA:975:A:H4'	31:CA:976:G:H5"	1.27	1.07
42:CO:44:LYS:HB3	42:CO:45:PRO:CD	1.83	1.07
34:BG:22:LYS:HB2	34:BG:26:CYS:HB2	1.37	1.07
12:DP:24:GLY:CA	12:DP:25:ASP:CB	2.30	1.07
15:DR:26:ASP:HB3	15:DR:91:ARG:HA	1.31	1.07
12:DP:66:ILE:HG13	12:DP:67:ARG:N	1.63	1.07
34:BG:122:ARG:HG2	34:BG:122:ARG:HH11	1.09	1.06
49:BV:41:VAL:HB	49:BV:42:PRO:HA	1.36	1.06
31:BA:1182:G:H4'	31:BA:1183:A:H5'	1.31	1.06
1:DA:885:C:N4	1:DA:890:A:H62	1.50	1.06
11:AO:15:ARG:HH11	11:AO:15:ARG:CG	1.66	1.06
1:AA:1533:C:N4	1:AA:1538:G:H1	1.52	1.06
1:AA:1864:U:H2'	1:AA:1869:G:H5"	1.38	1.06
12:DP:26:TYR:O	12:DP:138:ASP:HB3	0.88	1.06
1:AA:1359:A:N1	1:AA:1372:U:N3	2.04	1.05
21:DV:60:GLU:HA	21:DV:66:SER:HA	1.36	1.05
15:DR:55:ASN:H	15:DR:59:THR:HG22	1.19	1.05
4:AE:50:GLY:HA2	4:AE:77:ILE:HA	1.33	1.05
11:DO:62:LEU:HD11	30:D8:25:MET:HB2	1.37	1.05
12:AP:65:PHE:O	12:AP:66:ILE:HG13	1.57	1.05
13:A0:74:LYS:O	13:A0:76:VAL:N	1.89	1.04
1:DA:1864:U:H2'	1:DA:1869:G:H5"	1.39	1.04
35:CH:101:ILE:HD11	35:CH:119:LEU:HD23	1.38	1.04
1:DA:1826:G:H4'	3:DD:242:ARG:HH21	1.17	1.04
11:DO:52:GLU:OE1	11:DO:54:GLY:N	1.90	1.04
11:DO:21:ARG:HE	11:DO:21:ARG:CA	1.70	1.04
1:AA:1728:G:H3'	1:AA:1729:A:H5'	1.36	1.04
1:DA:1899:G:N2	1:DA:1902:C:H41	1.52	1.04
11:DO:107:LYS:O	11:DO:109:GLY:N	1.90	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:23:VAL:CG1	4:AE:184:VAL:C	2.29	1.04
4:AE:119:ARG:HH11	4:AE:119:ARG:HG3	1.22	1.04
1:DA:2394:C:OP1	11:DO:63:PRO:HD2	1.57	1.04
11:DO:15:ARG:HH11	11:DO:15:ARG:HG2	1.10	1.04
1:AA:910:A:C4	12:AP:13:GLN:OE1	2.11	1.03
12:AP:21:THR:HB	12:AP:99:PRO:O	1.56	1.03
12:AP:24:GLY:HA3	12:AP:25:ASP:HB3	1.37	1.03
5:DF:24:LEU:HB3	5:DF:25:PRO:HD3	1.37	1.03
12:DP:24:GLY:HA3	12:DP:25:ASP:HB2	1.04	1.03
1:AA:882:G:N2	1:AA:894:C:N3	2.07	1.03
5:AF:101:LEU:HD12	5:AF:102:PRO:HD2	1.37	1.03
1:DA:2306:C:H3'	1:DA:2307:G:H5"	1.40	1.03
12:AP:24:GLY:HA3	12:AP:25:ASP:HB2	1.04	1.03
3:AD:28:GLU:HB3	3:AD:29:PRO:HD2	1.37	1.02
26:A4:16:CYS:HB2	26:A4:36:CYS:H	1.20	1.02
44:BQ:13:THR:N	44:BQ:14:PRO:HD2	1.73	1.02
34:CG:22:LYS:HB2	34:CG:26:CYS:HB2	1.37	1.02
20:AU:79:CYS:SG	20:AU:80:GLY:N	2.17	1.02
12:DP:64:ILE:O	12:DP:65:PHE:CD2	2.12	1.02
17:D2:69:LYS:HG3	17:D2:86:GLY:HA3	1.40	1.02
1:AA:49:A:C8	1:AA:120:U:H5	1.77	1.02
1:AA:910:A:N7	12:AP:13:GLN:OE1	1.90	1.02
1:AA:2309:A:C2'	1:AA:2310:A:H5'	1.90	1.02
12:AP:138:ASP:OD1	21:AV:81:ARG:NH2	1.93	1.02
1:AA:1026:U:H1'	1:AA:1027:A:O5'	1.58	1.02
12:AP:141:GLN:HE21	12:AP:141:GLN:C	1.66	1.01
31:BA:1160:G:O6	31:BA:1181:G:O6	1.78	1.01
31:BA:201:C:N4	31:BA:216:G:H1	1.58	1.01
12:DP:63:LYS:CE	12:DP:65:PHE:CZ	2.44	1.01
34:CG:139:ARG:HH11	34:CG:139:ARG:HG3	1.21	1.01
1:DA:1070:A:H5'	1:DA:1071:G:H5"	1.43	1.01
1:DA:2872:G:C5	1:DA:2873:A:N1	2.28	1.01
12:DP:24:GLY:HA3	12:DP:25:ASP:HB3	1.37	1.01
1:AA:1689:A:N6	1:AA:1698:A:H2	1.58	1.01
1:AA:2467:C:H2'	1:AA:2468:G:H5'	1.04	1.01
20:AU:49:VAL:O	20:AU:51:VAL:N	1.93	1.01
1:DA:528:A:H2	1:DA:2043:C:H5'	1.25	1.01
19:AT:49:VAL:HG11	19:AT:83:VAL:HG22	1.39	1.00
31:BA:975:A:H4'	31:BA:976:G:H5"	1.42	1.00
1:AA:1899:G:H22	1:AA:1902:C:N4	1.59	1.00
31:CA:1133:G:H1	31:CA:1141:C:N4	1.57	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:946:G:O2'	1:DA:947:G:H5'	1.60	1.00
1:DA:882:G:N2	1:DA:894:C:N3	2.08	1.00
1:DA:960:A:H61	12:DP:83:MET:HE2	1.21	1.00
11:DO:48:PRO:O	11:DO:50:ARG:N	1.95	1.00
5:DF:132:VAL:HG22	5:DF:133:ASN:H	1.27	1.00
5:AF:45:ARG:HG2	5:AF:45:ARG:HH11	1.23	1.00
3:DD:35:LYS:HD2	3:DD:104:TYR:CD1	1.95	1.00
1:DA:1652:A:H62	13:D0:11:ASN:HD21	1.03	1.00
27:D5:3:LYS:HA	27:D5:3:LYS:HE3	1.40	1.00
11:DO:47:ASP:HB3	11:DO:48:PRO:O	1.62	0.99
17:A2:49:THR:HB	17:A2:50:PRO:HD2	1.41	0.99
36:BI:87:ARG:HH11	36:BI:87:ARG:HG3	1.24	0.99
1:AA:847:U:O4	1:AA:933:A:N1	1.94	0.99
12:AP:16:ARG:C	12:AP:17:LEU:HD23	1.86	0.99
1:AA:594:U:H5'	30:A8:61:LEU:HD13	1.45	0.99
31:CA:1127:G:N3	31:CA:1147:C:N4	2.10	0.99
1:DA:2468:G:N2	1:DA:2481:G:O2'	1.94	0.99
1:DA:2748:A:N7	1:DA:2754:U:O4	1.96	0.99
1:AA:860:U:H5	1:AA:917:A:C2	1.80	0.99
1:DA:528:A:C2	1:DA:2043:C:H5'	1.97	0.98
12:DP:1:MET:HE2	12:DP:1:MET:N	1.76	0.98
27:D5:4:HIS:HB3	27:D5:5:PRO:HD3	1.43	0.98
31:CA:686:U:H1'	41:CN:42:TRP:HE1	1.29	0.98
12:AP:12:GLN:O	12:AP:13:GLN:O	1.82	0.98
23:DZ:92:LYS:O	23:DZ:95:LEU:N	1.95	0.98
17:D2:85:LYS:HG3	17:D2:87:HIS:N	1.78	0.98
1:AA:1332:G:N2	1:AA:1609:A:O2'	1.97	0.98
30:D8:29:LYS:HA	30:D8:32:LEU:HD23	1.45	0.98
2:AB:15:A:H5'	2:AB:16:G:C8	1.99	0.97
12:DP:63:LYS:HE2	12:DP:65:PHE:CZ	2.00	0.97
26:A4:16:CYS:SG	26:A4:18:CYS:N	2.33	0.97
1:AA:2139:C:H42	1:AA:2152:G:H1	1.13	0.97
3:DD:28:GLU:HB3	3:DD:29:PRO:HD3	1.43	0.97
18:AS:1:MET:HG3	18:AS:64:MET:HE2	1.44	0.97
1:AA:2610:C:H4'	1:AA:2611:U:OP2	1.60	0.97
24:AW:47:ASN:O	24:AW:49:LYS:N	1.98	0.97
7:DH:152:ARG:HE	7:DH:153:LYS:HG2	1.26	0.97
31:BA:560:U:O2'	31:BA:561:U:OP2	1.83	0.97
31:BA:1124:G:H3'	31:BA:1145:C:H41	1.27	0.97
12:DP:66:ILE:HG13	12:DP:67:ARG:H	0.81	0.97
1:DA:2068:U:H3	1:DA:2430:A:H2	1.08	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1250:G:N7	11:AO:18:ARG:NH2	2.12	0.96
33:BF:20:SER:HB2	33:BF:40:ARG:HH22	1.28	0.96
12:AP:78:PRO:O	12:AP:79:LEU:HD12	1.64	0.96
14:DQ:88:ASP:O	14:DQ:89:ARG:HB3	1.64	0.96
31:BA:1028(B):C:N3	31:BA:1032(A):G:N2	2.12	0.96
53:BC:17:C:H3'	53:BC:18:C:C5'	1.95	0.96
3:AD:8:PRO:HB3	3:AD:14:ARG:HB2	1.48	0.96
31:CA:503:C:OP2	42:CO:113:SER:HB3	1.63	0.96
31:CA:1002:G:H1	31:CA:1038:C:H42	1.14	0.96
27:D5:16:ARG:HG2	27:D5:16:ARG:HH11	1.26	0.96
1:DA:1300:U:H4'	1:DA:1301:A:C5'	1.95	0.96
1:DA:67:U:N3	1:DA:74:A:C2	2.32	0.96
11:AO:64:LYS:C	11:AO:66:GLY:H	1.73	0.95
1:DA:676:A:H8	1:DA:2069:G:H21	1.03	0.95
17:D2:71:LEU:H	17:D2:86:GLY:CA	1.79	0.95
31:BA:1027:C:H4'	31:BA:1028:C:OP1	1.66	0.95
32:BE:21:ARG:HB2	32:BE:39:ILE:HA	1.48	0.95
4:AE:14:ILE:CB	4:AE:21:VAL:HG23	1.94	0.95
15:AR:74:ARG:HG2	15:AR:74:ARG:HH11	1.28	0.95
1:DA:1332:G:N2	1:DA:1609:A:HO2'	1.58	0.95
1:DA:1496:A:H8	1:DA:1577:C:HO2'	0.99	0.95
1:AA:1479:G:N7	1:AA:1510:A:N6	2.12	0.95
31:CA:560:U:O2'	31:CA:561:U:OP2	1.83	0.95
1:DA:273(D):C:H42	1:DA:363(B):G:H1	1.05	0.95
1:AA:2467:C:H2'	1:AA:2468:G:C5'	1.95	0.95
2:DB:3:C:N4	2:DB:117:G:H1	1.63	0.95
1:AA:883:G:H1	1:AA:893:C:N4	1.64	0.95
1:AA:2317:C:C2'	1:AA:2318:G:H5'	1.95	0.95
1:AA:2689:U:H4'	1:AA:2690:C:H5'	1.46	0.95
1:AA:2032:G:H21	4:AE:146:THR:HG23	1.32	0.95
31:BA:1178:G:H5'	39:BL:93:ARG:HH21	1.31	0.95
1:DA:654(D):G:H1	1:DA:654(Q):C:N4	1.65	0.95
13:D0:38:VAL:HG22	13:D0:112:ALA:HB2	1.49	0.95
24:DW:70:GLN:HG2	24:DW:71:ASN:H	1.29	0.95
1:AA:1899:G:H22	1:AA:1902:C:H41	0.99	0.95
12:AP:79:LEU:HD12	12:AP:79:LEU:O	1.67	0.95
8:AK:131:LYS:HB3	8:AK:132:PRO:HA	1.46	0.95
39:CL:4:TYR:HB2	39:CL:19:LEU:HB2	1.47	0.95
30:A8:59:LYS:HB2	30:A8:59:LYS:HZ2	1.31	0.94
3:AD:28:GLU:HB3	3:AD:29:PRO:CD	1.96	0.94
21:DV:128:VAL:HG22	21:DV:129:SER:H	1.31	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:161:THR:HG22	6:AG:163:ALA:H	1.32	0.94
50:BW:71:THR:HG22	50:BW:72:LEU:H	1.32	0.94
1:DA:155:C:H42	1:DA:171:G:H1	1.12	0.94
1:AA:993:G:OP1	16:A1:50:ARG:NH2	2.00	0.94
5:AF:46:ARG:HG2	5:AF:46:ARG:HH11	1.33	0.94
31:BA:1128:C:HO2'	31:BA:1130:A:H8	1.12	0.94
31:BA:1321:C:H3'	31:BA:1322:C:H5"	1.46	0.94
31:BA:992:U:H4'	31:BA:993:G:O5'	1.66	0.94
41:CN:29:ILE:HG22	41:CN:44:SER:HB2	1.49	0.94
53:CD:5:G:N2	53:CD:70:C:N3	2.15	0.94
42:CO:24:LEU:HD23	42:CO:30:ARG:HG2	1.49	0.94
1:AA:2469:A:H61	1:AA:2481:G:H1'	1.29	0.94
1:DA:1689:A:N6	1:DA:1698:A:H2	1.65	0.94
7:AH:59:ARG:HH11	7:AH:59:ARG:HG3	1.33	0.94
1:AA:1077:A:H3'	1:AA:1078:U:C5'	1.97	0.94
18:AS:13:SER:HB3	18:AS:16:LYS:HD3	1.50	0.94
1:DA:259:G:H21	1:DA:621:A:H8	1.08	0.94
2:DB:39:A:N6	26:D4:1:MET:HB3	1.83	0.94
11:DO:21:ARG:HA	11:DO:21:ARG:NE	1.79	0.94
1:AA:2636:U:OP1	4:AE:79:ARG:HA	1.68	0.93
53:BD:6:G:N2	53:BD:69:C:N3	2.17	0.93
3:AD:35:LYS:HD2	3:AD:104:TYR:HD1	1.29	0.93
1:DA:2467:C:H2'	1:DA:2468:G:O4'	1.66	0.93
53:BC:17:C:C3'	53:BC:18:C:H5"	1.98	0.93
1:DA:252:G:OP2	11:DO:50:ARG:NH2	2.01	0.93
1:AA:2467:C:C2'	1:AA:2468:G:C5'	2.47	0.93
7:AH:86:GLU:HG3	7:AH:165:ALA:N	1.83	0.93
15:AR:1:MET:O	15:AR:3:ARG:N	2.01	0.93
32:BE:233:SER:HB2	32:BE:234:PRO:HD2	1.49	0.93
1:DA:84:A:N6	1:DA:102:G:O2'	2.02	0.93
1:DA:9:U:C2	1:DA:2629:A:N6	2.34	0.93
1:DA:1464:C:HO2'	1:DA:1528:A:H8	0.93	0.93
17:D2:71:LEU:H	17:D2:86:GLY:HA2	1.32	0.93
1:AA:2210:G:H3'	1:AA:2211:G:C8	2.04	0.93
1:DA:67:U:H3	1:DA:74:A:H2	1.04	0.93
20:DU:47:LYS:H	20:DU:60:PHE:HB3	1.34	0.93
34:BG:114:ARG:HG3	34:BG:114:ARG:HH11	1.33	0.93
34:CG:30:LYS:HB2	34:CG:35:ARG:HD2	1.50	0.93
12:AP:24:GLY:CA	12:AP:25:ASP:HB2	1.97	0.93
1:AA:2137:C:H42	1:AA:2154:G:H1	0.99	0.93
1:AA:2583:G:H21	52:BB:87:A:H8	1.10	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:15:ARG:HG2	11:AO:15:ARG:NH1	1.74	0.93
31:BA:686:U:H1'	41:BN:42:TRP:HE1	1.34	0.93
7:AH:13:LYS:HE2	7:AH:13:LYS:HA	1.51	0.93
14:AQ:88:ASP:O	14:AQ:89:ARG:HB3	1.68	0.92
31:BA:1004:A:N1	31:BA:1024:G:H2'	1.85	0.92
31:CA:266:G:H1	31:CA:270:A:H62	1.03	0.92
31:BA:119:A:H4'	31:BA:120:A:O5'	1.68	0.92
37:CJ:16:LEU:HD12	39:CL:42:ARG:HA	1.49	0.92
11:AO:19:VAL:HG23	11:AO:27:HIS:HB2	0.93	0.92
1:DA:330:A:H2	1:DA:1210:A:O2'	1.52	0.92
2:DB:74:U:C2'	2:DB:75:G:H5"	2.00	0.92
1:DA:1689:A:H62	1:DA:1698:A:H2	0.95	0.92
1:AA:1138:G:H21	9:AM:106:MET:HE3	1.33	0.92
31:CA:1160:G:H1	31:CA:1177:G:N2	1.67	0.92
7:DH:117:PRO:HB3	7:DH:123:PHE:HE1	1.32	0.92
31:CA:1443:G:H3'	31:CA:1446:A:H5"	1.50	0.92
34:CG:30:LYS:O	34:CG:30:LYS:HG2	1.70	0.92
1:DA:654(D):G:H1	1:DA:654(Q):C:H42	0.94	0.92
1:AA:518:G:H4'	18:AS:18:ARG:HH11	1.34	0.92
3:AD:186:HIS:HD2	3:AD:188:GLU:H	1.13	0.92
53:BD:5:G:N2	53:BD:70:C:N3	2.18	0.91
3:DD:25:THR:O	3:DD:27:THR:N	2.02	0.91
17:D2:49:THR:HB	17:D2:50:PRO:HD2	1.52	0.91
21:DV:105:VAL:HG22	21:DV:106:GLY:H	1.36	0.91
31:CA:992:U:H3	31:CA:1044:A:H62	1.11	0.91
33:CF:58:GLU:HB2	33:CF:65:ALA:HB3	1.52	0.91
1:AA:676:A:H8	1:AA:2069:G:H21	0.93	0.91
31:BA:686:U:O2'	31:BA:687:A:O5'	1.86	0.91
31:BA:1025:U:O2'	31:BA:1026:G:O5'	1.87	0.91
7:DH:127:GLU:HG2	7:DH:128:PRO:HD2	1.52	0.91
12:DP:63:LYS:HE3	12:DP:65:PHE:CZ	2.04	0.91
1:AA:2470:G:OP1	12:AP:56:ARG:NH2	2.03	0.91
16:A1:64:ARG:HG2	16:A1:64:ARG:HH21	1.35	0.91
33:CF:20:SER:HB2	33:CF:40:ARG:HH22	1.35	0.91
11:DO:15:ARG:HG2	11:DO:15:ARG:NH1	1.76	0.91
11:AO:9:ASN:HB3	11:AO:10:PRO:HD2	1.53	0.91
31:BA:1285:A:H4'	31:BA:1286:A:O5'	1.69	0.91
5:DF:24:LEU:HB3	5:DF:25:PRO:CD	2.00	0.91
1:AA:1021:A:H61	1:AA:1142(A):A:H61	1.17	0.91
31:CA:1133:G:H1	31:CA:1141:C:H42	1.15	0.91
1:DA:2420:C:N4	30:D8:31:HIS:HB3	1.84	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:A1:8:VAL:HG23	16:A1:11:ARG:HH21	1.35	0.91
1:DA:2795:G:H3'	1:DA:2797:U:H5"	1.51	0.91
1:AA:2751:G:O2'	1:AA:2752:C:O5'	1.89	0.91
52:CB:87:A:H8	1:DA:2583:G:H21	1.12	0.91
1:DA:1021:A:H61	1:DA:1142(A):A:H61	0.91	0.91
11:DO:11:GLY:C	11:DO:13:ASN:H	1.74	0.91
1:AA:155:C:N3	1:AA:171:G:N2	2.18	0.91
7:AH:153:LYS:HG3	7:AH:162:ILE:H	1.34	0.91
42:BO:15:VAL:HG23	42:BO:16:ARG:H	1.34	0.90
1:DA:147:U:H2'	1:DA:148:C:H5"	1.51	0.90
3:DD:35:LYS:HD2	3:DD:104:TYR:HD1	1.33	0.90
1:AA:2701:C:H3'	1:AA:2702:U:C5'	2.01	0.90
15:DR:93:ARG:HG2	15:DR:117:ASP:HB3	1.50	0.90
1:AA:74:A:H4'	1:AA:75:G:O5'	1.71	0.90
1:AA:1496:A:H8	1:AA:1577:C:HO2'	0.98	0.90
31:BA:530:G:H4'	31:BA:531:U:OP2	1.66	0.90
31:BA:1446:A:OP1	31:BA:1446:A:H4'	1.70	0.90
49:BV:40:ILE:HG12	49:BV:41:VAL:HG13	1.50	0.90
1:DA:1332:G:N2	1:DA:1610:A:H8	1.69	0.90
12:DP:79:LEU:HD12	12:DP:79:LEU:O	1.70	0.90
2:AB:6:C:H2'	2:AB:7:G:H5"	1.51	0.90
1:AA:1533:C:H42	1:AA:1538:G:H1	0.90	0.90
1:DA:2807:G:N1	1:DA:2893:G:O6	2.04	0.90
31:BA:1176:A:H2'	31:BA:1177:G:H5'	1.52	0.90
31:BA:1305:G:H22	31:BA:1331:G:H2'	1.36	0.90
35:CH:18:ARG:HD3	35:CH:25:ARG:HB3	1.53	0.90
1:DA:34:C:O2'	1:DA:35:G:OP2	1.90	0.90
1:AA:905:U:H2'	1:AA:906:G:H5"	1.54	0.90
1:DA:779:U:OP1	3:DD:49:ILE:HG22	1.72	0.90
1:AA:1024:G:H3'	1:AA:1025:G:H5"	1.54	0.90
1:AA:1864:U:C2'	1:AA:1869:G:H5"	2.01	0.90
3:AD:35:LYS:NZ	3:AD:104:TYR:HB2	1.87	0.90
16:A1:108:GLU:OE1	16:A1:112:ARG:NH1	2.05	0.90
31:CA:31:G:O2'	31:CA:48:C:N4	2.04	0.90
11:DO:64:LYS:HB2	30:D8:25:MET:HG3	1.53	0.90
1:AA:847:U:C4	1:AA:933:A:N1	2.40	0.89
1:DA:2127:G:H1	1:DA:2161:C:H42	1.18	0.89
3:DD:44:ASN:HB3	3:DD:49:ILE:HA	1.54	0.89
6:DG:80:PHE:O	6:DG:81:LYS:HB2	1.72	0.89
31:CA:1352:C:OP1	51:CX:3:LYS:NZ	2.05	0.89
1:AA:885:C:C2	1:AA:890:A:N6	2.40	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2469:A:H2'	1:AA:2470:G:O5'	1.71	0.89
1:AA:297:C:H5"	20:AU:85:VAL:HG21	1.54	0.89
21:AV:142:SER:HB3	21:AV:143:GLY:HA2	1.53	0.89
31:CA:266:G:H1	31:CA:270:A:N6	1.71	0.89
11:AO:50:ARG:HD3	30:A8:7:HIS:CD2	2.07	0.89
20:AU:81:LYS:NZ	20:AU:96:ILE:HD12	1.87	0.89
31:CA:1321:C:N4	31:CA:1322:C:H41	1.69	0.89
31:BA:56:U:H4'	8:DK:82:ARG:HH21	1.37	0.89
32:BE:96:ARG:H	32:BE:96:ARG:HD2	1.36	0.89
1:DA:1342:A:C6	1:DA:1602:U:N3	2.39	0.89
5:DF:178:PRO:HB2	5:DF:201:VAL:HG11	1.55	0.89
54:C1:14:U:OP1	54:C1:14:U:H4'	1.73	0.89
1:DA:974:G:O2'	1:DA:975:G:N7	2.06	0.89
1:DA:1021:A:H61	1:DA:1142(A):A:N6	1.71	0.89
1:DA:2210:G:H4'	1:DA:2211:G:OP2	1.73	0.89
24:DW:65:ASN:HD22	24:DW:69:ARG:HH21	1.18	0.89
30:D8:34:TRP:CG	30:D8:35:GLN:H	1.91	0.89
17:A2:15:GLU:HG3	17:A2:16:PRO:HD2	1.55	0.89
26:A4:37:SER:HB3	26:A4:42:PHE:CD1	2.08	0.89
34:BG:122:ARG:HG2	34:BG:122:ARG:NH1	1.83	0.89
1:DA:1310:G:OP2	29:D7:9:ARG:NH1	2.06	0.89
4:DE:70:ALA:O	4:DE:72:VAL:N	2.05	0.89
12:DP:1:MET:HE2	12:DP:1:MET:CA	2.02	0.88
7:AH:137:ASP:O	7:AH:138:LYS:HB3	1.73	0.88
20:AU:76:CYS:SG	20:AU:77:PRO:HD2	2.12	0.88
27:A5:4:HIS:HB3	27:A5:5:PRO:CD	2.02	0.88
20:DU:13:VAL:HG21	20:DU:72:VAL:HB	1.54	0.88
42:BO:87:VAL:O	42:BO:88:LYS:HB3	1.73	0.88
2:DB:40:U:O2	2:DB:45:A:N6	2.07	0.88
1:AA:49:A:C8	1:AA:120:U:C5	2.56	0.88
34:CG:13:ARG:NH1	34:CG:38:TYR:O	2.07	0.88
1:DA:774:A:H2	1:DA:787:U:HO2'	0.89	0.88
1:AA:2309:A:O2'	1:AA:2310:A:H5'	1.73	0.88
40:CM:8:LEU:HD22	40:CM:20:ALA:HB2	1.54	0.88
3:DD:30:GLU:HG3	3:DD:63:ARG:NH2	1.89	0.88
30:D8:32:LEU:HB2	30:D8:36:LYS:HE3	1.56	0.88
2:AB:12:C:O2	22:A3:74:ARG:NH1	2.07	0.88
38:BK:10:LEU:HD22	38:BK:83:ILE:HD11	1.55	0.88
16:A1:90:VAL:O	16:A1:92:ARG:N	2.06	0.88
31:BA:1139:G:N2	31:BA:1143:G:O6	2.06	0.88
31:CA:632:A:H1'	31:CA:633:G:OP2	1.74	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:847:U:C4	1:DA:933:A:C6	2.62	0.88
3:DD:35:LYS:HG2	3:DD:64:ILE:H	1.38	0.88
15:DR:92:GLY:HA2	15:DR:116:ALA:HA	1.55	0.88
21:AV:6:LYS:HA	21:AV:60:GLU:HB2	1.56	0.88
31:BA:200:G:H1	31:BA:217:C:H42	1.21	0.88
2:AB:52:A:H62	14:AQ:33:LYS:HG3	1.39	0.88
15:AR:39:ARG:HG2	15:AR:40:THR:H	1.36	0.88
33:CF:190:ARG:H	33:CF:190:ARG:HD2	1.37	0.88
5:DF:22:ALA:C	5:DF:24:LEU:H	1.82	0.88
12:DP:66:ILE:O	12:DP:67:ARG:HB2	1.74	0.88
1:AA:1899:G:N2	1:AA:1902:C:H41	1.71	0.87
1:AA:2635:C:H5"	4:AE:78:LEU:HA	1.56	0.87
33:BF:58:GLU:HB2	33:BF:65:ALA:HB3	1.55	0.87
31:BA:748:C:H4'	31:BA:749:C:O5'	1.69	0.87
32:BE:12:GLU:HA	32:BE:16:HIS:HD2	1.37	0.87
40:BM:48:THR:HA	40:BM:62:HIS:HB3	1.56	0.87
31:CA:922:G:H4'	35:CH:20:GLN:HA	1.57	0.87
11:AO:39:LYS:HG3	11:AO:45:LEU:HD22	1.56	0.87
24:AW:15:LYS:H	24:AW:67:LYS:HZ1	1.19	0.87
1:AA:1022:G:N2	1:AA:1023:U:O4	2.07	0.87
32:CE:111:ARG:HG2	32:CE:111:ARG:NH1	1.75	0.87
3:DD:206:LEU:HD22	3:DD:211:ARG:HG2	1.54	0.87
30:A8:52:LYS:N	30:A8:53:PRO:HD2	1.90	0.87
47:BT:26:GLN:HG2	47:BT:37:LYS:HG2	1.56	0.87
31:CA:1305:G:H22	31:CA:1331:G:H2'	1.39	0.87
1:DA:1012:U:O4	9:DM:25:ARG:HA	1.75	0.87
1:AA:2068:U:H3	1:AA:2430:A:H2	1.18	0.87
1:AA:2392:A:H8	11:AO:60:MET:HB2	1.39	0.87
16:A1:92:ARG:NH1	17:A2:11:GLN:O	2.08	0.87
1:AA:654(G):C:N3	1:AA:654(N):G:O6	2.07	0.87
15:AR:74:ARG:HH11	15:AR:74:ARG:CG	1.86	0.87
31:CA:1002:G:H2'	31:CA:1003:G:H8	1.38	0.87
1:AA:2346:A:H4'	1:AA:2347:C:OP2	1.74	0.86
31:BA:1023:G:H3'	31:BA:1024:G:H5"	1.56	0.86
31:CA:1133:G:N2	31:CA:1141:C:N3	2.22	0.86
31:CA:1183:A:O2'	31:CA:1184:G:OP1	1.93	0.86
31:CA:1256:A:OP2	33:CF:26:LYS:NZ	2.06	0.86
2:DB:3:C:H42	2:DB:117:G:H1	0.87	0.86
18:DS:88:ARG:NH1	18:DS:94:ASP:OD1	2.08	0.86
6:AG:112:PRO:HB3	26:A4:37:SER:HB2	1.57	0.86
8:AK:92:VAL:HG13	8:AK:120:ILE:HG23	1.57	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:310:G:OP2	46:BS:27:LYS:NZ	2.07	0.86
12:DP:59:ARG:O	12:DP:60:ARG:HB2	1.75	0.86
6:AG:67:LYS:HE2	26:A4:6:HIS:CE1	2.10	0.86
9:AM:42:TRP:O	16:A1:64:ARG:NH2	2.07	0.86
19:AT:67:GLY:O	19:AT:69:TYR:N	2.09	0.86
47:BT:48:GLU:O	47:BT:50:LYS:N	2.08	0.86
1:DA:205:G:H1'	1:DA:206:U:OP2	1.74	0.86
1:DA:958:U:OP2	12:DP:14:ARG:NH1	2.07	0.86
11:AO:61:ARG:HB2	11:AO:61:ARG:NH2	1.90	0.86
31:BA:1175:G:H2'	31:BA:1176:A:C8	2.11	0.86
3:DD:69:ARG:NH2	3:DD:128:GLY:O	2.08	0.86
24:DW:47:ASN:O	24:DW:49:LYS:N	2.08	0.86
3:AD:35:LYS:HG2	3:AD:64:ILE:N	1.90	0.86
29:A7:8:ASN:ND2	29:A7:11:LYS:H	1.73	0.86
37:BJ:62:PHE:HA	37:BJ:124:LEU:HD21	1.57	0.86
31:CA:1321:C:H41	31:CA:1322:C:H41	1.18	0.86
36:CI:87:ARG:HG3	36:CI:87:ARG:NH1	1.82	0.86
28:D6:11:LEU:HD23	28:D6:26:ASN:HB3	1.57	0.86
1:AA:1689:A:N6	1:AA:1698:A:C2	2.38	0.86
14:AQ:78:LEU:HD12	14:AQ:108:GLY:HA2	1.58	0.86
12:DP:30:GLY:CA	12:DP:107:ALA:HB2	2.06	0.86
17:D2:44:LYS:O	17:D2:46:VAL:N	2.09	0.86
1:AA:140:A:H8	1:AA:1408:C:HO2'	1.16	0.86
1:AA:2688:U:H5	1:AA:2720:U:OP2	1.57	0.86
4:AE:38:THR:HB	4:AE:39:PRO:HD2	1.58	0.86
12:AP:134:ARG:HG2	12:AP:134:ARG:O	1.76	0.86
31:CA:1025:U:O2'	31:CA:1026:G:O4'	1.92	0.86
1:DA:2287:A:H62	1:DA:2344:U:H3	1.22	0.86
1:AA:1113:U:H5'	7:AH:2:SER:HB2	1.55	0.86
1:AA:1797:C:H2'	1:AA:1798:U:H5'	1.55	0.86
32:CE:137:ARG:NH1	32:CE:137:ARG:O	2.09	0.86
37:CJ:113:GLU:HB2	37:CJ:119:ARG:HG2	1.55	0.86
1:AA:956:G:OP1	12:AP:88:GLY:N	2.09	0.86
1:AA:2404:C:H1'	11:AO:67:MET:HE1	1.57	0.86
2:AB:90:C:H5'	12:AP:18:LYS:HA	1.54	0.86
1:AA:2137:C:N4	1:AA:2154:G:H1	1.74	0.85
31:BA:974:A:OP2	44:BQ:41:ARG:NH1	2.07	0.85
1:DA:1138:G:H21	9:DM:106:MET:HE3	1.40	0.85
1:AA:1798:U:H5"	3:AD:259:THR:CG2	2.05	0.85
24:AW:15:LYS:H	24:AW:67:LYS:NZ	1.74	0.85
50:CW:10:LEU:HD23	50:CW:12:ALA:H	1.40	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2610:C:H4'	1:DA:2611:U:OP2	1.76	0.85
12:DP:24:GLY:CA	12:DP:25:ASP:HB2	1.97	0.85
1:AA:860:U:H5	1:AA:917:A:H2	1.22	0.85
1:AA:1385:G:HO2'	1:AA:1396:U:H6	1.22	0.85
31:CA:957:U:O2'	31:CA:959:A:N7	2.10	0.85
4:DE:76:ARG:HG2	4:DE:195:LEU:HD13	1.56	0.85
5:DF:132:VAL:O	5:DF:134:GLY:N	2.09	0.85
1:AA:883:G:H1	1:AA:893:C:H42	0.89	0.85
1:AA:2015:A:H1'	27:A5:2:ALA:HA	1.58	0.85
3:AD:35:LYS:HD3	3:AD:63:ARG:HB3	1.58	0.85
7:AH:153:LYS:HB3	7:AH:154:PRO:CD	2.06	0.85
33:CF:14:ILE:HG12	33:CF:15:THR:H	1.41	0.85
16:D1:90:VAL:O	16:D1:92:ARG:N	2.08	0.85
6:AG:121:ASN:HD22	6:AG:123:ASN:H	1.22	0.85
31:BA:611:A:H61	31:BA:629:G:H1	1.20	0.85
31:BA:1260:C:O2	31:BA:1275:A:N6	2.10	0.85
11:AO:19:VAL:CG2	11:AO:27:HIS:CB	2.37	0.85
1:AA:273(F):C:H3'	1:AA:274:G:H5"	1.59	0.85
1:AA:607:U:H3	1:AA:621:A:H2	1.19	0.85
1:AA:1210:A:H8	1:AA:1210:A:H5'	1.41	0.85
4:AE:23:VAL:HG13	4:AE:185:LYS:CA	2.06	0.85
12:AP:79:LEU:HD12	12:AP:79:LEU:C	2.02	0.85
52:CB:55:G:H2'	52:CB:56:G:H8	1.40	0.85
1:DA:1761:C:H3'	1:DA:1762:A:H5"	1.57	0.85
20:AU:52:SER:HB2	20:AU:53:PRO:HD3	1.57	0.85
28:A6:14:THR:HG21	28:A6:19:ARG:HH21	1.41	0.85
31:BA:538:G:H5"	42:BO:111:LYS:HB2	1.56	0.85
31:BA:791:G:H2'	31:BA:792:A:H5'	1.58	0.85
42:BO:72:HIS:HD2	42:BO:74:LEU:H	1.25	0.85
2:DB:83:G:H1	2:DB:93:C:H42	1.20	0.85
20:DU:96:ILE:HG12	20:DU:101:LYS:HG3	1.58	0.85
1:DA:1899:G:O2'	1:DA:1900:A:H5"	1.77	0.85
27:A5:40:LYS:HG2	27:A5:47:PRO:HD2	1.59	0.85
34:BG:122:ARG:HH11	34:BG:122:ARG:CG	1.88	0.85
31:CA:1346:A:H1'	31:CA:1347:G:OP2	1.77	0.85
18:DS:9:TYR:H	18:DS:102:HIS:HD2	1.21	0.85
15:AR:26:ASP:HB3	15:AR:92:GLY:H	1.41	0.84
27:A5:56:LYS:H	27:A5:56:LYS:HD2	1.41	0.84
1:DA:1864:U:C2'	1:DA:1869:G:H5"	2.06	0.84
1:AA:71:A:C2	19:AT:31:HIS:HE1	1.95	0.84
1:AA:2112:G:N2	53:BD:57:C:N3	2.25	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:A4:40:HIS:N	26:A4:41:PRO:CD	2.40	0.84
26:D4:21:VAL:HG22	26:D4:22:ILE:H	1.40	0.84
1:AA:1803:A:O2'	3:AD:259:THR:HG21	1.77	0.84
21:AV:19:ARG:NH1	21:AV:84:GLU:O	2.09	0.84
31:BA:1004:A:H5"	31:BA:1025:U:O4	1.77	0.84
1:DA:2748:A:H62	1:DA:2754:U:H3	1.25	0.84
27:A5:20:ARG:HG3	27:A5:23:HIS:HD2	1.42	0.84
39:CL:28:VAL:HG22	39:CL:63:ILE:HB	1.58	0.84
3:DD:242:ARG:H	3:DD:242:ARG:HD2	1.42	0.84
4:DE:8:LYS:O	4:DE:9:VAL:HG22	1.76	0.84
1:AA:631:A:P	30:A8:46:ARG:HH21	2.01	0.84
13:A0:104:ARG:HG2	13:A0:104:ARG:HH11	1.43	0.84
16:A1:64:ARG:HH21	16:A1:64:ARG:CG	1.89	0.84
31:CA:632:A:H4'	31:CA:633:G:O5'	1.77	0.84
1:DA:1141:U:OP2	9:DM:63:THR:OG1	1.94	0.84
1:DA:2849:U:O4	15:DR:23:ARG:NH2	2.10	0.84
1:AA:953:A:OP2	12:AP:16:ARG:CD	2.24	0.84
4:AE:14:ILE:HB	4:AE:21:VAL:CG2	2.08	0.84
34:CG:24:GLU:N	34:CG:24:GLU:OE2	2.11	0.84
21:DV:52:SER:O	21:DV:54:HIS:N	2.10	0.84
1:AA:2168:G:N2	1:AA:2170:A:OP2	2.11	0.84
12:AP:59:ARG:O	12:AP:60:ARG:HB2	1.75	0.84
12:DP:78:PRO:O	12:DP:79:LEU:HD12	1.77	0.84
15:AR:123:GLN:O	15:AR:125:ARG:N	2.11	0.84
23:AZ:41:ARG:HH11	23:AZ:41:ARG:HG3	1.43	0.84
28:A6:44:ARG:H	28:A6:44:ARG:HD3	1.43	0.84
32:BE:124:SER:HB2	32:BE:125:PRO:HD2	1.60	0.84
33:BF:12:LEU:O	33:BF:14:ILE:N	2.09	0.84
31:CA:1002:G:H2'	31:CA:1003:G:C8	2.13	0.84
1:DA:1057:A:N1	1:DA:1081:U:O4	2.11	0.84
3:DD:35:LYS:CG	3:DD:64:ILE:H	1.90	0.84
3:DD:35:LYS:HE3	3:DD:64:ILE:C	2.03	0.84
1:AA:330:A:HO2'	1:AA:331:A:H8	1.24	0.84
1:AA:2562:U:H1'	10:AN:23:ARG:HH11	1.41	0.84
42:CO:38:ARG:HB3	42:CO:38:ARG:HH11	1.42	0.84
49:CV:31:ILE:HG13	49:CV:32:LYS:H	1.40	0.84
1:DA:71:A:H3'	1:DA:71:A:OP2	1.77	0.84
1:DA:870:A:OP1	12:DP:6:ARG:HD2	1.76	0.84
1:DA:2129:C:H2'	1:DA:2130:U:H5'	1.60	0.84
5:DF:66:PRO:O	5:DF:67:GLN:HB3	1.76	0.84
1:AA:1310:G:OP2	29:A7:9:ARG:NH1	2.11	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:107:LEU:O	26:A4:38:LYS:HE2	1.78	0.83
31:BA:201:C:H42	31:BA:216:G:H1	0.84	0.83
1:DA:885:C:C4	1:DA:890:A:N6	2.46	0.83
1:AA:1937:A:O2'	1:AA:1938:A:OP1	1.97	0.83
1:AA:2701:C:H3'	1:AA:2702:U:H5"	1.57	0.83
31:CA:631:G:H3'	31:CA:632:A:C8	2.12	0.83
3:DD:186:HIS:HD2	3:DD:188:GLU:H	1.26	0.83
1:AA:76:C:O2'	24:AW:62:THR:HG21	1.78	0.83
1:AA:2470:G:O6	1:AA:2476:A:H1'	1.78	0.83
5:AF:66:PRO:O	5:AF:67:GLN:HB3	1.77	0.83
1:AA:1434:A:H61	1:AA:1558:A:H62	1.26	0.83
1:AA:2392:A:H2	1:AA:2424:C:H42	1.24	0.83
30:A8:61:LEU:O	30:A8:62:LEU:HB2	1.78	0.83
3:DD:255:LYS:HD2	3:DD:255:LYS:O	1.78	0.83
1:AA:2310:A:N3	6:AG:77:ILE:CD1	2.42	0.83
5:AF:178:PRO:HB2	5:AF:201:VAL:HG11	1.59	0.83
4:AE:23:VAL:HA	4:AE:185:LYS:HA	1.61	0.83
31:BA:1211:U:H5'	31:BA:1212:U:OP1	1.78	0.83
31:CA:1298:C:OP2	37:CJ:114:ARG:NH2	2.12	0.83
52:CB:2:C:N4	52:CB:82:G:O6	2.09	0.83
1:DA:322:A:H3'	5:DF:169:ASN:ND2	1.93	0.83
3:AD:69:ARG:NH2	3:AD:128:GLY:O	2.12	0.83
33:BF:53:ALA:HB2	33:BF:115:LEU:HD11	1.60	0.83
1:DA:1332:G:N2	1:DA:1610:A:C8	2.47	0.83
1:DA:2068:U:N3	1:DA:2430:A:H2	1.76	0.83
1:AA:654(G):C:O2	1:AA:654(N):G:N1	2.09	0.83
1:AA:2599:G:C8	3:AD:236:GLY:O	2.32	0.83
3:AD:236:GLY:O	3:AD:237:GLU:HB2	1.76	0.83
20:AU:56:PRO:O	20:AU:58:GLY:N	2.10	0.83
31:BA:1149:C:H2'	31:BA:1150:U:H6	1.44	0.83
41:BN:17:GLY:HA3	41:BN:77:MET:HE1	1.59	0.83
31:CA:1177:G:OP2	39:CL:97:LYS:NZ	2.11	0.83
45:CR:17:ARG:HH11	45:CR:17:ARG:HG3	1.42	0.83
15:AR:84:GLN:HG3	15:AR:85:LYS:HG3	1.61	0.83
1:DA:654(D):G:N2	1:DA:654(Q):C:N3	2.26	0.83
1:DA:1062:G:H1	1:DA:1076:C:H42	0.85	0.83
4:AE:23:VAL:HG13	4:AE:185:LYS:HA	1.60	0.83
30:A8:52:LYS:H	30:A8:53:PRO:HD2	1.43	0.83
31:CA:963:G:N3	40:CM:55:LYS:NZ	2.27	0.83
26:D4:61:ARG:HG3	26:D4:62:ARG:HH21	1.43	0.83
1:AA:2438:U:O3'	1:AA:2439:A:H3'	1.79	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DD:35:LYS:HG2	3:DD:64:ILE:N	1.93	0.82
3:DD:267:SER:C	3:DD:269:PHE:H	1.87	0.82
1:AA:1026:U:H4'	1:AA:1027:A:OP1	1.77	0.82
3:DD:43:ARG:HH11	3:DD:44:ASN:HD21	1.25	0.82
3:DD:43:ARG:NH1	3:DD:44:ASN:ND2	2.27	0.82
19:DT:53:LYS:HB3	19:DT:82:GLN:HB3	1.61	0.82
12:DP:134:ARG:HA	12:DP:138:ASP:OD2	1.79	0.82
32:BE:32:ILE:HD11	32:BE:40:HIS:HB3	1.60	0.82
47:BT:67:LYS:HA	47:BT:70:ARG:HH12	1.45	0.82
31:CA:1028(B):C:H3'	31:CA:1029:G:H5"	1.62	0.82
31:CA:1131:G:H2'	31:CA:1132:C:H6	1.44	0.82
31:CA:1322:C:O2'	31:CA:1323:G:H5'	1.80	0.82
1:DA:1062:G:N2	1:DA:1076:C:N3	2.27	0.82
16:D1:50:ARG:HH12	17:D2:72:VAL:HG11	1.43	0.82
24:DW:15:LYS:HA	24:DW:67:LYS:HZ1	1.45	0.82
50:CW:57:ARG:HH21	50:CW:102:GLY:HA2	1.43	0.82
15:DR:64:ARG:HB2	15:DR:73:GLU:HG2	1.60	0.82
1:AA:1980:G:O2'	1:AA:1982:C:OP2	1.97	0.82
31:BA:789:U:H5	31:BA:792:A:OP2	1.61	0.82
3:AD:71:ASP:HB3	3:AD:103:ARG:HH22	1.43	0.82
17:A2:35:LEU:C	17:A2:37:VAL:H	1.86	0.82
37:CJ:23:VAL:HG13	37:CJ:43:PHE:HE2	1.44	0.82
50:CW:67:ALA:O	50:CW:73:HIS:ND1	2.12	0.82
1:DA:483:A:H4'	20:DU:49:VAL:HA	1.62	0.82
1:DA:1420:U:O2'	1:DA:1421:G:OP1	1.97	0.82
53:CC:17:C:H3'	53:CC:18:C:C5'	2.09	0.82
1:DA:1537:C:H2'	1:DA:1538:G:C8	2.14	0.82
3:AD:27:THR:O	3:AD:28:GLU:HB2	1.78	0.82
8:AK:133:HIS:HB2	8:AK:134:PRO:HD2	1.60	0.82
53:BD:17:C:N4	53:BD:20:G:OP1	2.13	0.82
31:CA:1139:G:H22	31:CA:1143:G:H1	1.23	0.82
29:D7:8:ASN:ND2	29:D7:11:LYS:H	1.76	0.82
4:AE:116:VAL:O	4:AE:117:MET:HB3	1.79	0.82
12:AP:62:GLY:O	12:AP:63:LYS:HB2	1.79	0.82
11:DO:19:VAL:CG2	11:DO:20:GLY:N	2.42	0.82
13:D0:37:THR:CG2	13:D0:39:PRO:HD2	2.10	0.82
21:DV:128:VAL:HG23	21:DV:160:GLY:HA3	1.62	0.82
28:D6:52:VAL:HG22	28:D6:53:LYS:H	1.45	0.82
15:AR:11:GLU:OE1	15:AR:11:GLU:N	2.12	0.81
23:AZ:86:SER:N	23:AZ:87:PRO:HD2	1.94	0.81
31:BA:1077:G:N2	31:BA:1080:A:OP2	2.11	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:CE:82:ARG:HA	32:CE:92:TYR:HE1	1.44	0.81
7:DH:117:PRO:HB3	7:DH:123:PHE:CE1	2.14	0.81
12:AP:59:ARG:HG2	12:AP:59:ARG:HH21	1.46	0.81
31:BA:382:A:H2'	31:BA:383:A:C8	2.15	0.81
31:BA:1034:G:H2'	31:BA:1035:A:C8	2.15	0.81
35:BH:110:LEU:HD13	35:BH:118:ILE:HD13	1.61	0.81
49:CV:66:MET:HA	49:CV:67:VAL:HB	1.62	0.81
1:AA:654(D):G:H1	1:AA:654(Q):C:H42	1.26	0.81
1:AA:2602:A:C6	53:BC:77:A:H4'	2.15	0.81
4:AE:119:ARG:HH11	4:AE:119:ARG:CG	1.92	0.81
31:BA:201:C:N3	31:BA:216:G:N2	2.29	0.81
32:BE:8:LYS:H	32:BE:8:LYS:HE2	1.45	0.81
31:CA:250:A:H4'	31:CA:251:G:O5'	1.81	0.81
31:CA:612:C:O2	31:CA:629:G:N2	2.13	0.81
1:DA:593:G:H1'	30:D8:4:MET:HE1	1.60	0.81
1:DA:654(C):G:H2'	1:DA:654(D):G:O4'	1.78	0.81
1:DA:1858:G:O2'	1:DA:1884:A:N6	2.13	0.81
5:DF:9:ILE:HG12	5:DF:14:PRO:HA	1.62	0.81
5:DF:22:ALA:O	5:DF:24:LEU:N	2.13	0.81
16:D1:100:VAL:O	16:D1:101:ARG:HG2	1.81	0.81
24:DW:17:SER:HB2	24:DW:18:PRO:C	2.04	0.81
1:AA:2591:C:P	3:AD:239:ARG:HG3	2.20	0.81
4:AE:119:ARG:HG3	4:AE:119:ARG:NH1	1.93	0.81
5:AF:45:ARG:HH11	5:AF:45:ARG:CG	1.93	0.81
32:BE:77:ALA:HB2	32:BE:211:ILE:HD13	1.63	0.81
1:DA:708:C:H42	1:DA:723:G:H1	1.28	0.81
1:DA:811:U:OP2	11:DO:21:ARG:O	1.97	0.81
1:DA:1826:G:H4'	3:DD:242:ARG:NH2	1.96	0.81
7:DH:152:ARG:NE	7:DH:153:LYS:HG2	1.96	0.81
1:AA:1105:U:H2'	1:AA:1106:G:H8	1.44	0.81
13:A0:100:LEU:HD11	13:A0:113:LEU:HD13	1.61	0.81
28:A6:15:GLU:OE1	28:A6:44:ARG:NH2	2.11	0.81
53:BD:10:G:O6	53:BD:46:G:N2	2.14	0.81
31:CA:243:A:H4'	31:CA:244:U:O5'	1.79	0.81
32:CE:42:ILE:HD11	32:CE:202:PRO:HB2	1.62	0.81
33:CF:164:ARG:NH1	33:CF:166:GLU:OE1	2.13	0.81
42:CO:72:HIS:HD2	42:CO:74:LEU:H	1.28	0.81
1:DA:1729:A:O2'	1:DA:1731:G:N2	2.12	0.81
12:DP:24:GLY:CA	12:DP:25:ASP:HB3	2.05	0.81
30:D8:49:VAL:O	30:D8:50:LEU:HB2	1.80	0.81
1:AA:1533:C:N3	1:AA:1538:G:N2	2.26	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AM:7:LYS:HD2	9:AM:7:LYS:H	1.44	0.81
16:A1:8:VAL:HG23	16:A1:11:ARG:NH2	1.96	0.81
49:BV:41:VAL:HB	49:BV:42:PRO:CA	2.10	0.81
50:BW:22:ARG:O	50:BW:26:ASN:ND2	2.14	0.81
1:AA:2790:A:H1'	1:AA:2893:G:O2'	1.81	0.81
4:AE:78:LEU:HG	4:AE:79:ARG:HD2	1.63	0.81
33:BF:70:VAL:HG12	33:BF:72:LYS:H	1.46	0.81
1:DA:1459:G:H2'	1:DA:1460:A:H5'	1.63	0.81
12:DP:30:GLY:HA2	12:DP:107:ALA:HB2	1.61	0.81
1:AA:880:G:O2'	1:AA:881:G:OP1	1.97	0.81
40:CM:3:LYS:N	40:CM:74:ILE:O	2.14	0.81
10:DN:4:PRO:O	10:DN:5:GLN:HB2	1.81	0.81
23:DZ:91:LYS:HG3	23:DZ:92:LYS:N	1.96	0.81
5:AF:28:ILE:HG22	5:AF:112:MET:HB3	1.62	0.81
31:CA:345:C:H1'	31:CA:346:G:C2	2.16	0.81
43:CP:80:ARG:NH1	49:CV:66:MET:SD	2.54	0.81
31:CA:1145:C:O2'	31:CA:1146:A:N7	2.12	0.80
1:DA:273(D):C:N4	1:DA:363(B):G:H1	1.78	0.80
8:DK:131:LYS:HB3	8:DK:132:PRO:HA	1.62	0.80
28:D6:15:GLU:HG2	28:D6:16:CYS:H	1.43	0.80
1:AA:1689:A:H62	1:AA:1698:A:H2	0.89	0.80
6:AG:112:PRO:HB3	26:A4:37:SER:CB	2.11	0.80
31:BA:1492:A:OP1	42:BO:44:LYS:HB3	1.79	0.80
52:CB:47:C:N3	52:CB:56:G:N2	2.29	0.80
1:DA:2438:U:O3'	1:DA:2439:A:H3'	1.81	0.80
11:AO:19:VAL:HG23	11:AO:27:HIS:CG	2.15	0.80
12:AP:79:LEU:C	12:AP:79:LEU:CD1	2.54	0.80
31:BA:156:G:H1	31:BA:165:C:H42	1.29	0.80
33:BF:12:LEU:C	33:BF:14:ILE:H	1.89	0.80
35:BH:10:MET:HB3	35:BH:32:VAL:HG22	1.62	0.80
31:CA:1028:C:N3	31:CA:1033:G:N2	2.29	0.80
1:DA:152:G:H1	1:DA:174:C:H42	1.28	0.80
1:DA:1012:U:N3	1:DA:1143:A:C6	2.49	0.80
1:AA:900:A:H5'	1:AA:901:A:OP2	1.80	0.80
1:DA:155:C:N4	1:DA:171:G:H1	1.80	0.80
1:DA:2137:C:H42	1:DA:2154:G:H1	1.27	0.80
12:DP:59:ARG:HH21	12:DP:59:ARG:HG2	1.45	0.80
23:DZ:82:LEU:HD23	23:DZ:82:LEU:H	1.46	0.80
17:A2:35:LEU:O	17:A2:37:VAL:N	2.14	0.80
35:BH:72:GLN:O	35:BH:73:ASN:HB2	1.81	0.80
37:BJ:78:ARG:HD2	37:BJ:80:VAL:HG22	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BL:16:ARG:HB2	39:BL:64:THR:HG22	1.64	0.80
26:A4:41:PRO:O	26:A4:42:PHE:HB3	1.82	0.80
41:CN:99:GLN:HG2	41:CN:105:VAL:HG21	1.64	0.80
1:DA:67:U:N3	1:DA:74:A:H2	1.72	0.80
5:DF:8:GLN:HG2	5:DF:124:LEU:HD11	1.62	0.80
12:AP:21:THR:CG2	12:AP:21:THR:O	2.30	0.80
31:BA:128:G:O2'	47:BT:3:LYS:NZ	2.15	0.80
31:BA:1346:A:H5"	39:BL:120:ARG:HH12	1.47	0.80
33:BF:40:ARG:O	33:BF:44:GLU:HG2	1.82	0.80
31:CA:1189:C:OP1	40:CM:51:ARG:NH2	2.14	0.80
1:DA:997:G:OP1	16:D1:93:LYS:HD3	1.79	0.80
1:AA:1416:G:O2'	1:AA:1417:C:O5'	1.98	0.80
1:AA:2139:C:H2'	1:AA:2140:C:H5'	1.61	0.80
1:AA:2636:U:OP2	4:AE:79:ARG:NE	2.12	0.80
32:CE:5:ILE:HD11	32:CE:55:PHE:HB3	1.64	0.80
1:DA:273(C):C:H42	1:DA:363(C):G:H1	1.30	0.80
1:DA:2210:G:H3'	1:DA:2211:G:C4	2.16	0.80
1:DA:2777:G:H5"	1:DA:2778:A:C5'	2.10	0.80
3:DD:35:LYS:HE2	3:DD:104:TYR:HB2	1.63	0.80
17:D2:71:LEU:N	17:D2:86:GLY:HA2	1.97	0.80
1:AA:676:A:H8	1:AA:2069:G:N2	1.77	0.80
1:AA:1179:C:H2'	1:AA:1180:C:H5"	1.64	0.80
31:BA:1178:G:N2	31:BA:1181:G:N7	2.30	0.80
53:CC:18:C:H2'	53:CC:18:C:O2	1.81	0.80
8:DK:98:ALA:HA	8:DK:109:ILE:HD11	1.64	0.80
12:DP:31:ASP:H	12:DP:107:ALA:HB2	1.47	0.80
12:DP:31:ASP:N	12:DP:107:ALA:HB2	1.97	0.80
6:AG:77:ILE:HG22	6:AG:82:LEU:HD12	1.63	0.80
17:A2:35:LEU:HD22	17:A2:35:LEU:H	1.45	0.80
43:CP:91:ARG:HB2	43:CP:98:VAL:HG13	1.63	0.80
12:DP:63:LYS:HE2	12:DP:65:PHE:HZ	1.43	0.80
19:DT:63:LYS:HE3	19:DT:63:LYS:H	1.47	0.80
24:AW:58:ALA:O	24:AW:62:THR:HG22	1.82	0.79
31:BA:1346:A:H5"	39:BL:120:ARG:NH1	1.97	0.79
35:BH:15:ARG:HD2	35:BH:26:PHE:CD2	2.17	0.79
11:DO:97:PRO:O	11:DO:98:GLU:HB3	1.82	0.79
12:DP:90:VAL:O	12:DP:90:VAL:CG1	2.30	0.79
16:D1:50:ARG:NH1	17:D2:72:VAL:HG21	1.95	0.79
1:AA:860:U:C5	1:AA:917:A:H2	2.00	0.79
1:AA:1165:U:H2'	1:AA:1166:C:C6	2.17	0.79
1:AA:2801:A:OP1	1:AA:2895:U:O2'	2.00	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:4:ILE:HG13	7:AH:6:ARG:NE	1.98	0.79
35:BH:153:LYS:HD3	35:BH:154:GLY:H	1.48	0.79
12:DP:78:PRO:O	12:DP:79:LEU:CD1	2.30	0.79
14:AQ:26:LEU:HD23	14:AQ:87:PHE:HD1	1.48	0.79
28:A6:47:THR:HG22	28:A6:48:VAL:H	1.45	0.79
32:CE:50:GLU:O	32:CE:54:THR:OG1	2.00	0.79
1:DA:2754:U:H5'	1:DA:2755:C:OP2	1.83	0.79
15:DR:90:GLN:HA	15:DR:90:GLN:HE21	1.46	0.79
18:DS:9:TYR:H	18:DS:102:HIS:CD2	2.00	0.79
1:AA:910:A:N9	12:AP:13:GLN:OE1	2.15	0.79
32:BE:194:PRO:O	32:BE:196:LEU:N	2.15	0.79
11:DO:55:ARG:HG2	11:DO:56:SER:H	1.44	0.79
1:AA:259:G:O2'	1:AA:621:A:O2'	1.98	0.79
31:BA:1124:G:H3'	31:BA:1145:C:N4	1.98	0.79
34:BG:28:SER:HB3	34:BG:29:PRO:HD2	1.65	0.79
43:BP:49:THR:HG22	43:BP:51:ALA:H	1.48	0.79
1:DA:511:U:H3'	1:DA:512:G:H5"	1.64	0.79
1:AA:888:C:O2'	1:AA:889:C:O4'	2.00	0.79
17:A2:44:LYS:O	17:A2:46:VAL:N	2.12	0.79
21:AV:76:LEU:HD23	21:AV:76:LEU:H	1.48	0.79
52:CB:7:G:H3'	52:CB:8:U:H5'	1.63	0.79
1:AA:1778:U:H2'	1:AA:1784:A:N6	1.97	0.79
2:AB:31:C:O2	2:AB:53:A:N6	2.16	0.79
3:AD:35:LYS:CD	3:AD:104:TYR:CD1	2.66	0.79
24:AW:42:GLY:O	24:AW:44:LEU:N	2.15	0.79
31:BA:1053:G:C5'	31:BA:1054:C:H5'	2.09	0.79
40:CM:48:THR:HA	40:CM:62:HIS:HB3	1.64	0.79
1:AA:10:G:N2	1:AA:2802:G:OP1	2.16	0.79
1:AA:314:A:C2'	1:AA:315:G:H5'	2.13	0.79
31:CA:84:U:H2'	31:CA:84:U:O2	1.83	0.79
31:CA:255:G:O6	31:CA:270:A:N6	2.16	0.79
32:CE:185:ILE:HG22	32:CE:199:TYR:HB2	1.65	0.79
1:DA:242:G:H5"	30:D8:62:LEU:HD13	1.61	0.79
1:DA:654(B):C:H2'	1:DA:654(C):G:C8	2.17	0.79
1:AA:34:C:O2'	1:AA:35:G:OP2	1.99	0.79
2:AB:17:C:N4	2:AB:108:C:O2	2.14	0.79
31:BA:7:G:H5'	31:BA:298:A:O4'	1.82	0.79
32:CE:74:LYS:NZ	32:CE:205:ASP:O	2.14	0.79
53:CD:77:A:O2'	1:DA:2394:C:N3	2.15	0.79
1:DA:2059:A:H5'	1:DA:2060:A:OP2	1.82	0.79
1:DA:2119:A:N6	1:DA:2170:A:N7	2.31	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:DE:61:ARG:O	4:DE:63:LEU:N	2.15	0.79
1:AA:1412:A:H2'	1:AA:1413:G:H8	1.46	0.79
48:BU:36:ASN:H	48:BU:36:ASN:HD22	1.30	0.79
31:CA:250:A:H1'	31:CA:251:G:OP2	1.83	0.79
1:DA:819:A:OP2	1:DA:1187:G:N2	2.16	0.79
1:AA:2599:G:N7	3:AD:236:GLY:O	2.16	0.78
50:BW:26:ASN:HD22	50:BW:26:ASN:H	1.29	0.78
48:CU:22:VAL:O	48:CU:23:LYS:HB3	1.82	0.78
1:DA:877:U:O4	1:DA:899:A:N6	2.16	0.78
3:DD:246:PRO:HD2	3:DD:255:LYS:HE2	1.65	0.78
8:DK:78:THR:HB	8:DK:104:GLN:HE22	1.47	0.78
11:DO:55:ARG:HG2	11:DO:56:SER:N	1.95	0.78
15:DR:93:ARG:HG2	15:DR:117:ASP:CB	2.13	0.78
27:D5:16:ARG:HH11	27:D5:16:ARG:CG	1.95	0.78
26:A4:42:PHE:O	26:A4:44:THR:N	2.16	0.78
31:BA:1028(B):C:H42	31:BA:1032(A):G:H1	0.81	0.78
32:BE:141:GLU:O	32:BE:145:LEU:HB2	1.83	0.78
12:DP:66:ILE:O	12:DP:67:ARG:CB	2.31	0.78
1:AA:1470:G:H5"	1:AA:1471:A:OP1	1.84	0.78
6:AG:78:SER:O	6:AG:80:PHE:N	2.15	0.78
31:BA:820:U:H4'	31:BA:821:G:OP2	1.83	0.78
31:CA:975:A:C4'	31:CA:976:G:H5"	2.12	0.78
31:CA:1004:A:H5"	31:CA:1025:U:O4	1.82	0.78
31:CA:1297:C:H1'	31:CA:1298:C:OP2	1.84	0.78
42:CO:68:PRO:O	42:CO:99:ARG:NH1	2.16	0.78
1:DA:2777:G:C5'	1:DA:2778:A:H5'	2.08	0.78
3:DD:49:ILE:HD11	3:DD:52:ARG:HA	1.65	0.78
24:DW:17:SER:HB2	24:DW:18:PRO:CA	2.14	0.78
6:AG:107:LEU:O	26:A4:38:LYS:CD	2.32	0.78
7:AH:86:GLU:CG	7:AH:165:ALA:H	1.92	0.78
8:AK:40:THR:HG22	8:AK:42:SER:H	1.46	0.78
11:AO:61:ARG:HB2	11:AO:61:ARG:HH21	1.49	0.78
1:DA:2:G:H1	1:DA:2901:C:H42	1.32	0.78
1:DA:1826:G:C4'	3:DD:242:ARG:HH21	1.95	0.78
9:AM:35:ARG:O	9:AM:37:LYS:N	2.17	0.78
9:AM:47:ALA:HB2	9:AM:112:LEU:HD11	1.66	0.78
18:AS:9:TYR:H	18:AS:102:HIS:HD2	1.31	0.78
31:BA:547:A:OP1	34:BG:73:ARG:NH2	2.16	0.78
43:BP:15:VAL:O	43:BP:19:LEU:HD23	1.84	0.78
31:CA:1422:G:O3'	10:DN:49:ARG:NH1	2.17	0.78
46:CS:8:ARG:CG	46:CS:8:ARG:HH11	1.97	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:DQ:88:ASP:OD2	14:DQ:90:GLY:N	2.17	0.78
11:AO:6:LEU:O	11:AO:7:ARG:HG2	1.84	0.78
41:BN:57:THR:HG22	41:BN:59:TYR:H	1.49	0.78
53:CD:18:C:O2	53:CD:18:C:H2'	1.81	0.78
11:DO:19:VAL:HG22	11:DO:20:GLY:N	1.97	0.78
12:DP:31:ASP:OD1	12:DP:134:ARG:NH1	2.16	0.78
13:A0:3:HIS:O	13:A0:5:LYS:N	2.17	0.78
46:CS:1:MET:HE1	46:CS:65:GLN:HG2	1.66	0.78
1:AA:2422:A:H4'	1:AA:2423:U:OP1	1.81	0.78
3:AD:35:LYS:HE3	3:AD:64:ILE:C	2.09	0.78
3:AD:236:GLY:O	3:AD:237:GLU:CB	2.31	0.78
12:AP:78:PRO:O	12:AP:79:LEU:CD1	2.31	0.78
20:AU:96:ILE:HD11	20:AU:99:CYS:SG	2.23	0.78
31:BA:510:A:OP2	34:BG:49:ARG:NH2	2.17	0.78
31:BA:1004:A:H1'	31:BA:1036:G:C6	2.19	0.78
2:DB:42:C:O2	6:DG:93:THR:N	2.14	0.78
8:AK:77:LEU:HD23	8:AK:101:LEU:HD12	1.66	0.78
49:BV:39:THR:HG22	49:BV:40:ILE:H	1.48	0.78
1:DA:1005:C:H2'	1:DA:1006:C:H6	1.49	0.78
1:AA:2309:A:H2'	1:AA:2310:A:H5'	1.64	0.78
5:AF:29:ASN:H	5:AF:112:MET:CE	1.96	0.78
9:AM:56:ASN:N	9:AM:125:GLY:O	2.16	0.78
9:AM:137:LYS:HG3	9:AM:138:LEU:H	1.49	0.78
41:BN:77:MET:HG3	41:BN:103:LEU:HD11	1.66	0.78
31:CA:1443:G:H3'	31:CA:1446:A:C5'	2.14	0.78
53:CC:65:G:H4'	12:DP:10:ARG:NH1	1.99	0.78
1:DA:12:U:O2	1:DA:12:U:H2'	1.82	0.78
1:DA:2689:U:H4'	1:DA:2690:C:OP2	1.83	0.78
1:AA:1533:C:H2'	1:AA:1534:G:C8	2.18	0.77
31:BA:8:A:N6	34:BG:205:GLU:O	2.18	0.77
33:BF:19:GLU:HA	33:BF:54:ARG:HH12	1.49	0.77
1:DA:329:G:O6	20:DU:19:LYS:HG2	1.83	0.77
1:DA:2392:A:H2	1:DA:2424:C:H42	1.32	0.77
3:DD:242:ARG:HD2	3:DD:242:ARG:N	2.00	0.77
16:D1:91:ASP:OD2	16:D1:96:ALA:HB2	1.85	0.77
12:AP:4:PRO:HD3	12:AP:70:PRO:O	1.84	0.77
31:BA:201:C:N4	31:BA:209:U:O2	2.17	0.77
42:BO:59:SER:O	42:BO:61:TYR:N	2.18	0.77
43:CP:49:THR:HG22	43:CP:51:ALA:H	1.49	0.77
12:DP:59:ARG:O	12:DP:60:ARG:CB	2.33	0.77
1:AA:2115:G:H2'	1:AA:2116:G:H8	1.48	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:35:LYS:HB3	3:AD:63:ARG:HA	1.65	0.77
26:A4:16:CYS:HB2	26:A4:36:CYS:N	1.99	0.77
27:A5:20:ARG:HG3	27:A5:23:HIS:CD2	2.18	0.77
53:BD:15:G:N2	53:BD:49:C:O2	2.17	0.77
32:CE:92:TYR:CE2	32:CE:151:GLY:HA3	2.19	0.77
34:CG:8:VAL:HG12	34:CG:21:LEU:HD13	1.64	0.77
1:DA:6:A:H4'	9:DM:129:PRO:HB3	1.67	0.77
1:AA:1093:G:OP1	7:AH:170:ARG:NH1	2.17	0.77
1:AA:1332:G:H21	1:AA:1610:A:H8	1.33	0.77
11:AO:50:ARG:HH21	11:AO:50:ARG:HG3	1.50	0.77
14:AQ:34:HIS:HB2	14:AQ:36:TYR:HE1	1.47	0.77
31:BA:1027:C:C4'	31:BA:1028:C:OP1	2.33	0.77
35:BH:8:GLU:OE1	35:BH:63:ARG:NH2	2.17	0.77
1:DA:2125:G:N2	1:DA:2172:U:O5'	2.18	0.77
1:DA:2210:G:H3'	1:DA:2211:G:C5	2.18	0.77
4:DE:154:LYS:HE3	4:DE:154:LYS:HA	1.66	0.77
32:CE:12:GLU:O	32:CE:14:GLY:N	2.17	0.77
42:CO:114:ARG:HB3	42:CO:119:THR:HB	1.63	0.77
12:DP:140:ALA:O	12:DP:141:GLN:HB2	1.84	0.77
4:AE:36:ARG:NH2	4:AE:88:GLY:O	2.17	0.77
6:AG:83:ARG:HG2	6:AG:86:MET:HE2	1.66	0.77
31:BA:1454:G:OP1	50:BW:39:LYS:NZ	2.18	0.77
53:BC:19:G:H4'	53:BC:20:G:OP1	1.82	0.77
31:CA:976:G:H5'	31:CA:1358:U:O2'	1.84	0.77
33:CF:7:PRO:O	33:CF:11:ARG:NH1	2.17	0.77
14:DQ:110:LEU:HD13	14:DQ:111:GLU:H	1.48	0.77
25:DX:29:ARG:H	25:DX:33:GLN:HE22	1.32	0.77
5:AF:185:ASP:OD1	5:AF:188:ARG:NH1	2.16	0.77
21:AV:11:GLU:HA	21:AV:36:LYS:HE3	1.66	0.77
6:DG:104:GLU:HG2	26:D4:23:GLU:HG2	1.67	0.77
11:DO:16:ARG:HG3	11:DO:16:ARG:HH11	1.49	0.77
1:AA:958:U:OP2	12:AP:14:ARG:NH1	2.17	0.77
31:BA:1378:C:O2	31:BA:1378:C:H2'	1.84	0.77
35:BH:63:ARG:HA	35:BH:66:MET:HE2	1.65	0.77
31:CA:1118:C:OP1	39:CL:104:ARG:NH1	2.17	0.77
35:CH:51:VAL:HB	35:CH:52:PRO:HD3	1.64	0.77
3:DD:44:ASN:CB	3:DD:49:ILE:HA	2.15	0.77
12:DP:62:GLY:O	12:DP:63:LYS:HB2	1.85	0.77
1:AA:1061:U:O2'	1:AA:1070:A:N3	2.16	0.77
1:AA:2139:C:N4	1:AA:2152:G:H1	1.83	0.77
9:AM:133:GLN:HE21	9:AM:133:GLN:H	1.28	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BD:27:G:O6	53:BD:45:A:N6	2.17	0.77
1:AA:654(M):C:H2'	1:AA:654(N):G:C8	2.21	0.77
1:AA:959:A:H62	12:AP:83:MET:HE1	1.49	0.77
12:AP:141:GLN:OXT	12:AP:141:GLN:NE2	2.17	0.77
31:BA:1145:C:H4'	31:BA:1146:A:C8	2.19	0.77
41:BN:85:ARG:HD3	41:BN:113:PRO:HD3	1.65	0.77
33:CF:150:LYS:HG3	33:CF:169:ALA:HB2	1.67	0.77
35:CH:91:LEU:HD12	35:CH:120:THR:HG22	1.66	0.77
1:DA:1761:C:H5"	1:DA:1762:A:OP2	1.85	0.77
13:D0:54:LEU:HD23	13:D0:66:VAL:HG23	1.64	0.77
20:DU:39:VAL:HG23	20:DU:40:GLU:H	1.49	0.77
1:AA:1403:C:H5"	1:AA:1471:A:H1'	1.65	0.76
31:BA:1003:G:N2	31:BA:1004:A:O2'	2.18	0.76
41:BN:79:SER:HB2	41:BN:106:LYS:HD2	1.67	0.76
31:CA:652:U:H1'	31:CA:653:A:H2	1.48	0.76
37:CJ:16:LEU:HD11	39:CL:45:ALA:HB2	1.67	0.76
40:CM:24:VAL:HG13	40:CM:28:ARG:HH21	1.50	0.76
52:CB:59:U:O2'	52:CB:70:G:H4'	1.85	0.76
53:CD:27:G:O6	53:CD:45:A:N6	2.18	0.76
3:DD:43:ARG:HH11	3:DD:44:ASN:HD22	1.32	0.76
30:D8:34:TRP:O	30:D8:36:LYS:N	2.18	0.76
31:BA:677:U:H3	31:BA:713:G:H22	1.33	0.76
1:DA:84:A:H61	1:DA:102:G:HO2'	1.32	0.76
1:DA:2747:G:O6	1:DA:2755:C:H5"	1.85	0.76
17:D2:5:VAL:HB	17:D2:37:VAL:HG11	1.65	0.76
1:AA:860:U:C5	1:AA:917:A:C2	2.70	0.76
1:AA:2580:U:H4'	4:AE:130:GLY:HA3	1.66	0.76
31:BA:976:G:H5'	31:BA:1358:U:O2'	1.85	0.76
50:BW:89:ARG:HH21	50:BW:104:LEU:HD11	1.48	0.76
31:CA:992:U:H1'	31:CA:993:G:OP2	1.86	0.76
1:DA:1062:G:O6	1:DA:1075:C:N4	2.18	0.76
1:DA:1342:A:C2	1:DA:1397:U:C2	2.73	0.76
11:DO:9:ASN:HB3	11:DO:10:PRO:HD2	1.66	0.76
1:AA:71:A:H2	19:AT:31:HIS:HE1	1.34	0.76
1:AA:1021:A:H3'	1:AA:1022:G:H5"	1.68	0.76
5:AF:107:LYS:HE3	5:AF:207:GLY:H	1.51	0.76
7:AH:150:ALA:O	7:AH:152:ARG:N	2.18	0.76
12:AP:16:ARG:O	12:AP:17:LEU:CD2	2.30	0.76
12:AP:136:ALA:C	12:AP:139:GLU:HG2	2.11	0.76
31:BA:618:C:H5"	31:BA:619:U:H5"	1.68	0.76
43:BP:3:ARG:HD3	43:BP:7:VAL:HG13	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:CE:204:ASN:HB2	32:CE:210:SER:HB3	1.67	0.76
1:DA:140:A:H8	1:DA:1408:C:HO2'	1.34	0.76
1:DA:1012:U:C2	1:DA:1143:A:N1	2.53	0.76
1:DA:1089:G:H4'	1:DA:1090:U:OP1	1.85	0.76
3:DD:28:GLU:HB3	3:DD:29:PRO:CD	2.15	0.76
1:AA:270(L):U:O2	1:AA:270(L):U:H2'	1.84	0.76
12:AP:134:ARG:CA	12:AP:138:ASP:OD2	2.30	0.76
13:A0:33:ARG:HG3	13:A0:115:GLU:HB3	1.67	0.76
31:BA:523:A:H61	42:BO:89:ASP:HB2	1.49	0.76
1:DA:1761:C:C5'	1:DA:1762:A:OP2	2.34	0.76
1:DA:2135:A:N6	1:DA:2156:G:H21	1.83	0.76
5:DF:203:GLN:HA	5:DF:203:GLN:HE21	1.51	0.76
12:DP:98:LYS:HB3	12:DP:99:PRO:HD2	1.68	0.76
1:AA:2820:A:O2'	1:AA:2821:A:OP1	2.04	0.76
43:BP:82:MET:HE2	43:BP:92:HIS:HB3	1.67	0.76
1:DA:2128:C:H2'	1:DA:2129:C:C6	2.21	0.76
1:DA:2795:G:H3'	1:DA:2797:U:C5'	2.16	0.76
1:AA:780:G:H21	1:AA:783:A:H62	1.33	0.76
1:AA:2394:C:OP1	11:AO:63:PRO:HD2	1.85	0.76
4:AE:27:LEU:HD13	15:AR:1:MET:HE1	1.67	0.76
31:BA:1305:G:N2	31:BA:1331:G:H2'	1.99	0.76
31:CA:376:G:H5"	46:CS:5:ARG:HD3	1.68	0.76
45:CR:26:GLU:OE2	45:CR:77:ARG:NH1	2.19	0.76
1:DA:147:U:C2'	1:DA:148:C:H5"	2.15	0.76
1:DA:654(R):C:N4	1:DA:654(S):G:O6	2.17	0.76
5:DF:53:THR:HG22	5:DF:56:GLU:HG3	1.68	0.76
10:DN:47:ILE:HG13	10:DN:48:PRO:HD2	1.67	0.76
14:DQ:109:GLY:O	14:DQ:111:GLU:N	2.19	0.76
21:DV:92:SER:O	21:DV:94:GLU:N	2.18	0.76
23:DZ:92:LYS:O	23:DZ:94:LEU:N	2.18	0.76
12:AP:4:PRO:HG3	12:AP:71:ASP:HA	1.66	0.76
52:BB:10:G:N2	52:BB:26:C:O2	2.19	0.76
1:DA:627:A:N7	11:DO:84:ASN:ND2	2.33	0.76
1:DA:1203:G:H3'	1:DA:1204:A:H5"	1.67	0.76
11:DO:47:ASP:HB3	11:DO:48:PRO:C	2.10	0.76
1:AA:1203:G:H3'	1:AA:1204:A:H5"	1.67	0.76
1:AA:1729:A:O2'	1:AA:1730:U:H5"	1.86	0.76
1:AA:2306:C:H3'	1:AA:2307:G:C5'	2.16	0.76
12:AP:75:THR:HB	12:AP:89:ASN:H	1.51	0.76
34:CG:108:LEU:HD21	34:CG:183:GLY:HA3	1.68	0.76
1:DA:141:A:H8	1:DA:1595:G:H21	1.31	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2571:C:H5'	1:DA:2572:A:H5"	1.67	0.76
1:AA:2712:U:H5'	1:AA:2712:U:O2	1.86	0.76
3:AD:35:LYS:HZ1	3:AD:65:ILE:HA	1.51	0.76
31:CA:631:G:H3'	31:CA:632:A:H8	1.49	0.76
1:AA:1045:A:N3	1:AA:1111:A:N6	2.34	0.75
18:AS:9:TYR:H	18:AS:102:HIS:CD2	2.03	0.75
18:AS:68:ARG:O	18:AS:110:LYS:N	2.13	0.75
38:BK:42:GLU:HG3	38:BK:109:ILE:HD12	1.69	0.75
1:DA:259:G:N2	1:DA:621:A:H8	1.84	0.75
1:DA:2287:A:H2	1:DA:2346:A:N1	1.83	0.75
1:DA:2872:G:C2	1:DA:2873:A:N6	2.53	0.75
1:AA:559:G:H22	16:A1:49:HIS:CD2	2.04	0.75
1:AA:2469:A:C2'	1:AA:2470:G:O5'	2.34	0.75
3:AD:35:LYS:HD3	3:AD:63:ARG:CB	2.16	0.75
6:AG:27:ASN:HB3	6:AG:30:GLU:HG3	1.67	0.75
11:AO:16:ARG:HH11	11:AO:16:ARG:HG3	1.49	0.75
52:CB:7:G:H3'	52:CB:8:U:C5'	2.17	0.75
8:AK:11:ASN:O	8:AK:12:LEU:HB2	1.84	0.75
31:CA:1004:A:H1'	31:CA:1036:G:N1	2.00	0.75
49:CV:9:VAL:HG12	49:CV:10:PHE:H	1.51	0.75
3:DD:35:LYS:NZ	3:DD:64:ILE:O	2.18	0.75
1:AA:1797:C:C2'	1:AA:1798:U:H5'	2.15	0.75
1:AA:2111:C:H41	1:AA:2147:G:N2	1.85	0.75
31:BA:87:A:H2'	31:BA:88:C:C6	2.21	0.75
34:BG:30:LYS:C	34:BG:32:ALA:H	1.95	0.75
31:CA:995:C:O2	44:CQ:4:LYS:NZ	2.15	0.75
31:CA:1002:G:H1	31:CA:1038:C:N4	1.84	0.75
31:CA:1298:C:H4'	31:CA:1299:A:C8	2.21	0.75
37:CJ:79:ARG:HG2	37:CJ:84:ASN:HD21	1.49	0.75
38:CK:17:THR:O	38:CK:78:GLN:NE2	2.19	0.75
1:DA:2111:C:H41	1:DA:2147:G:N2	1.84	0.75
4:AE:128:SER:OG	4:AE:129:HIS:N	2.17	0.75
9:AM:67:LEU:O	9:AM:88:GLU:HG3	1.86	0.75
11:AO:64:LYS:HD2	30:A8:25:MET:SD	2.27	0.75
26:A4:34:GLU:HG2	26:A4:35:VAL:N	2.02	0.75
31:BA:244:U:H4'	31:BA:245:C:O5'	1.85	0.75
31:BA:1497:G:H2'	31:BA:1498:U:H5'	1.67	0.75
31:CA:1502:A:H2	31:CA:1505:G:H1	1.34	0.75
47:CT:45:HIS:CD2	47:CT:47:PRO:HG3	2.21	0.75
1:DA:138:G:N2	19:DT:44:GLU:OE2	2.20	0.75
1:DA:1021:A:N6	1:DA:1142(A):A:H61	1.77	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1460:A:H4'	1:DA:1461:G:OP2	1.85	0.75
14:DQ:18:ILE:O	14:DQ:21:THR:HG22	1.87	0.75
27:D5:4:HIS:HB3	27:D5:5:PRO:CD	2.16	0.75
31:CA:765:G:N2	31:CA:813:U:OP2	2.16	0.75
31:CA:842:C:H4'	31:CA:848:C:O2	1.87	0.75
31:CA:1285:A:H4'	31:CA:1286:A:O5'	1.85	0.75
31:CA:1325:C:H4'	51:CX:17:THR:HG21	1.67	0.75
47:CT:45:HIS:NE2	47:CT:47:PRO:HG3	2.02	0.75
1:DA:752:A:H4'	1:DA:753:C:O5'	1.85	0.75
1:DA:2872:G:C8	1:DA:2873:A:C2	2.74	0.75
10:DN:115:VAL:HG13	10:DN:121:VAL:HG21	1.67	0.75
1:AA:1847:A:H8	1:AA:1847:A:OP1	1.70	0.75
1:AA:2162:G:H2'	1:AA:2163:C:H6	1.51	0.75
12:AP:59:ARG:O	12:AP:60:ARG:CB	2.33	0.75
31:BA:1065:U:H1'	31:BA:1066:C:OP2	1.87	0.75
52:BB:7:G:H3'	52:BB:8:U:H5'	1.68	0.75
42:CO:72:HIS:CD2	42:CO:74:LEU:H	2.05	0.75
52:CB:21:A:H1'	52:CB:22:G:O5'	1.87	0.75
1:DA:943:U:OP2	11:DO:36:LYS:HE3	1.86	0.75
4:DE:4:ILE:HD11	4:DE:28:ALA:HB1	1.67	0.75
26:D4:1:MET:C	26:D4:2:LYS:HD3	2.12	0.75
1:AA:1060:U:H5'	1:AA:1061:U:C5	2.21	0.75
1:AA:2062:A:H2'	1:AA:2062:A:N3	2.00	0.75
30:A8:59:LYS:HB2	30:A8:59:LYS:NZ	2.01	0.75
31:BA:1286:A:H5"	51:BX:26:LYS:HD2	1.66	0.75
34:BG:31:CYS:C	34:BG:33:MET:H	1.95	0.75
31:CA:141:A:H1'	31:CA:182:U:O2	1.86	0.75
31:CA:345:C:O2'	31:CA:346:G:O5'	2.05	0.75
7:DH:151:ILE:O	7:DH:152:ARG:HG3	1.87	0.75
17:D2:85:LYS:HD2	17:D2:86:GLY:H	1.52	0.75
1:AA:155:C:H42	1:AA:171:G:H1	0.76	0.75
3:AD:181:GLU:HA	3:AD:272:ALA:HB3	1.69	0.75
7:AH:92:ILE:HD12	7:AH:92:ILE:H	1.52	0.75
37:CJ:73:MET:HE2	37:CJ:90:GLU:HG3	1.68	0.75
38:CK:42:GLU:OE2	38:CK:122:ARG:NH2	2.20	0.75
39:CL:21:PRO:HA	39:CL:59:PHE:HA	1.69	0.75
1:DA:1405:U:H2'	1:DA:1406:U:C6	2.22	0.75
1:DA:2191:G:O2'	1:DA:2192:G:OP1	2.03	0.75
1:AA:2286:A:OP1	28:A6:28:ARG:NH2	2.20	0.74
1:AA:2467:C:C3'	1:AA:2468:G:H5'	2.15	0.74
5:AF:103:LYS:HA	5:AF:106:ARG:HG3	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:4:ILE:HG13	7:AH:6:ARG:CZ	2.17	0.74
31:CA:421:U:H5"	31:CA:422:C:OP2	1.87	0.74
53:CC:48:U:O2'	53:CC:49:C:OP2	2.04	0.74
3:DD:44:ASN:HB2	3:DD:48:ARG:O	1.86	0.74
7:DH:153:LYS:HB3	7:DH:161:GLY:HA2	1.66	0.74
1:AA:1021:A:H61	1:AA:1142(A):A:N6	1.83	0.74
1:AA:1681:G:O2'	1:AA:1762:A:O2'	2.03	0.74
2:AB:37:C:C2'	2:AB:38:C:H5'	2.17	0.74
9:AM:134:ARG:H	9:AM:135:PRO:HD3	1.52	0.74
14:AQ:83:LYS:O	14:AQ:109:GLY:HA3	1.86	0.74
19:AT:84:ALA:HB1	19:AT:85:PRO:HD2	1.67	0.74
20:AU:76:CYS:O	20:AU:81:LYS:NZ	2.18	0.74
21:AV:96:VAL:HG22	21:AV:97:GLU:H	1.51	0.74
31:BA:1391:U:H2'	31:BA:1392:G:C8	2.22	0.74
50:BW:35:THR:HA	50:BW:38:LYS:HD3	1.70	0.74
31:CA:353:A:H5'	31:CA:353:A:H8	1.52	0.74
42:CO:55:VAL:O	42:CO:62:GLU:HA	1.88	0.74
1:DA:1204:A:O2'	1:DA:1205:U:OP2	2.04	0.74
10:DN:68:GLU:HA	10:DN:78:ARG:HB3	1.68	0.74
12:DP:90:VAL:O	12:DP:90:VAL:HG13	1.85	0.74
1:AA:138:G:N2	19:AT:44:GLU:OE2	2.14	0.74
12:AP:133:ARG:O	12:AP:134:ARG:CB	2.31	0.74
18:AS:14:PRO:CB	18:AS:18:ARG:HH21	1.99	0.74
53:CD:8:U:H1'	53:CD:49:C:O4'	1.86	0.74
1:DA:2287:A:C2	1:DA:2346:A:N1	2.55	0.74
6:DG:111:LEU:HB3	6:DG:117:PHE:HE2	1.52	0.74
22:D3:36:ILE:HD13	22:D3:36:ILE:O	1.86	0.74
1:AA:483:A:H4'	20:AU:49:VAL:HA	1.70	0.74
1:AA:654:A:H2'	1:AA:654:A:N3	2.01	0.74
1:AA:2154:G:H2'	1:AA:2155:G:H8	1.50	0.74
31:BA:1036:G:H5'	31:BA:1037:C:OP2	1.87	0.74
41:BN:87:THR:HG22	41:BN:88:GLY:H	1.51	0.74
1:DA:2318:G:H1	14:DQ:2:ALA:HA	1.51	0.74
1:DA:2632:A:HO2'	1:DA:2811:G:HO2'	1.29	0.74
4:DE:66:HIS:HB3	4:DE:68:ALA:HB2	1.68	0.74
15:DR:24:PRO:HA	15:DR:49:VAL:HG13	1.68	0.74
17:D2:49:THR:O	17:D2:51:VAL:N	2.21	0.74
1:AA:155:C:N4	1:AA:171:G:N1	2.13	0.74
36:BI:69:GLU:O	36:BI:72:VAL:HG12	1.88	0.74
42:BO:30:ARG:HG2	42:BO:57:LEU:HD13	1.68	0.74
33:CF:19:GLU:O	33:CF:40:ARG:NH2	2.18	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CO:20:LYS:H	42:CO:20:LYS:HE2	1.52	0.74
1:DA:574:C:N3	4:DE:145:LYS:NZ	2.30	0.74
1:DA:888:C:H4'	1:DA:889:C:C5'	2.18	0.74
12:DP:63:LYS:HE3	12:DP:65:PHE:CE2	2.22	0.74
1:AA:1991:U:H2'	1:AA:1992:G:H5"	1.70	0.74
1:AA:2102:U:H3	1:AA:2187:G:H1	1.35	0.74
1:AA:2233:U:H2'	1:AA:2234:G:C8	2.22	0.74
31:CA:748:C:H4'	31:CA:749:C:O5'	1.85	0.74
1:DA:2681:C:H5	1:DA:2725:A:N6	1.78	0.74
8:DK:6:LEU:HD13	8:DK:36:ALA:HA	1.69	0.74
15:DR:16:ARG:HH21	15:DR:19:LEU:HD21	1.52	0.74
22:D3:12:ASN:HA	22:D3:14:ARG:HH21	1.50	0.74
1:AA:1525:G:H2'	1:AA:1526:G:H8	1.52	0.74
1:AA:2115:G:H2'	1:AA:2116:G:C8	2.22	0.74
39:CL:65:VAL:HG21	39:CL:73:GLN:HB3	1.69	0.74
1:DA:90:U:HO2'	1:DA:91:A:H8	1.35	0.74
1:DA:776:G:H4'	1:DA:777:A:O5'	1.86	0.74
1:DA:2015:A:H1'	27:D5:2:ALA:HA	1.68	0.74
31:BA:1128:C:O2'	31:BA:1130:A:H8	1.69	0.74
31:BA:1145:C:H5"	31:BA:1146:A:OP1	1.86	0.74
40:BM:55:LYS:O	40:BM:56:HIS:CG	2.41	0.74
1:DA:1053:C:H3'	1:DA:1054:A:H5"	1.70	0.74
1:DA:1255:U:H5"	1:DA:1256:G:H5"	1.69	0.74
1:DA:1652:A:H62	13:D0:11:ASN:ND2	1.85	0.74
11:DO:15:ARG:HH11	11:DO:15:ARG:CB	2.01	0.74
23:DZ:95:LEU:O	23:DZ:97:LEU:N	2.18	0.74
2:AB:15:A:OP1	2:AB:15:A:H4'	1.87	0.74
5:AF:45:ARG:HG2	5:AF:45:ARG:NH1	1.96	0.74
16:A1:34:LYS:HE2	16:A1:34:LYS:HA	1.69	0.74
29:A7:8:ASN:HD22	29:A7:11:LYS:H	1.34	0.74
53:BC:62:C:H2'	53:BC:63:C:H6	1.53	0.74
17:D2:35:LEU:O	17:D2:37:VAL:HG22	1.87	0.74
20:DU:75:ILE:HA	20:DU:80:GLY:HA2	1.69	0.74
1:AA:2680:C:O2'	1:AA:2681:C:H5'	1.87	0.74
7:AH:83:TYR:HB3	7:AH:135:GLY:N	2.00	0.74
12:AP:54:MET:HE3	12:AP:64:ILE:HD12	1.70	0.74
22:A3:53:MET:HB2	22:A3:59:LEU:HD23	1.70	0.74
25:AX:10:LYS:NZ	25:AX:15:TYR:OH	2.18	0.74
31:BA:1132:C:H2'	31:BA:1133:G:C8	2.22	0.74
11:DO:62:LEU:CD1	30:D8:25:MET:HB2	2.18	0.74
12:DP:43:THR:HB	12:DP:45:GLN:HE21	1.53	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:524:U:H4'	1:AA:554:U:H4'	1.70	0.73
7:AH:4:ILE:HD13	7:AH:4:ILE:H	1.53	0.73
9:AM:96:GLU:HB2	9:AM:122:VAL:HG12	1.70	0.73
14:AQ:106:ARG:HA	14:AQ:110:LEU:HD11	1.70	0.73
31:BA:611:A:N6	31:BA:629:G:H1	1.86	0.73
34:CG:191:ARG:NH1	34:CG:200:GLU:OE1	2.21	0.73
52:CB:55:G:H2'	52:CB:56:G:C8	2.21	0.73
1:DA:900:A:H3'	1:DA:901:A:H8	1.52	0.73
1:DA:1110:G:O2'	1:DA:1111:A:O4'	2.05	0.73
28:D6:16:CYS:O	28:D6:17:LYS:HB2	1.88	0.73
1:AA:2591:C:OP1	3:AD:239:ARG:HG3	1.88	0.73
50:BW:47:GLY:O	50:BW:49:ALA:N	2.20	0.73
32:CE:74:LYS:O	32:CE:75:LYS:HB2	1.88	0.73
1:DA:960:A:H61	12:DP:83:MET:CE	1.99	0.73
1:DA:1058:U:H3	1:DA:1080:A:H61	1.35	0.73
16:D1:98:LEU:C	16:D1:100:VAL:H	1.93	0.73
27:D5:16:ARG:HG2	27:D5:16:ARG:NH1	2.01	0.73
1:AA:1141:U:H6	9:AM:63:THR:OG1	1.71	0.73
1:AA:2285:C:OP1	28:A6:28:ARG:HD3	1.88	0.73
1:AA:2419:U:O4	30:A8:30:ARG:NE	2.22	0.73
1:AA:2681:C:O2'	1:AA:2682:U:OP2	2.05	0.73
4:AE:4:ILE:HD13	4:AE:28:ALA:HB1	1.70	0.73
32:BE:223:ILE:HA	32:BE:226:ARG:HB3	1.70	0.73
34:BG:65:ARG:NH1	34:BG:70:ILE:O	2.21	0.73
35:BH:142:LEU:O	35:BH:143:ARG:NH1	2.20	0.73
44:BQ:3:ARG:HD3	44:BQ:3:ARG:C	2.11	0.73
32:CE:233:SER:HB3	32:CE:234:PRO:CD	2.15	0.73
20:DU:13:VAL:CG2	20:DU:72:VAL:HB	2.17	0.73
1:AA:528:A:N1	1:AA:2042:A:H2'	2.04	0.73
26:A4:15:ILE:HD12	26:A4:32:TYR:HD1	1.54	0.73
31:BA:1024:G:OP1	31:BA:1024:G:H4'	1.85	0.73
33:BF:95:THR:HG22	33:BF:96:GLY:H	1.53	0.73
1:DA:2387:U:H5"	1:DA:2388:A:OP2	1.89	0.73
2:DB:39:A:C6	26:D4:1:MET:HB3	2.24	0.73
9:DM:45:ASN:H	9:DM:45:ASN:HD22	1.37	0.73
11:DO:64:LYS:HG3	30:D8:30:ARG:NH1	2.03	0.73
11:DO:75:ILE:HD13	11:DO:75:ILE:H	1.52	0.73
15:DR:56:GLY:O	15:DR:59:THR:HG23	1.87	0.73
1:AA:1265:A:H8	1:AA:1265:A:OP1	1.72	0.73
3:AD:25:THR:O	3:AD:27:THR:N	2.21	0.73
7:AH:153:LYS:CG	7:AH:162:ILE:H	2.02	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:27:G:H4'	34:BG:209:ARG:HG3	1.69	0.73
31:BA:1139:G:H1	31:BA:1143:G:H1	1.35	0.73
31:BA:1226:C:O2'	43:BP:111:LYS:NZ	2.22	0.73
42:CO:56:ARG:NH2	42:CO:62:GLU:OE1	2.21	0.73
52:CB:21:A:H1'	52:CB:22:G:C5'	2.18	0.73
1:DA:881:G:O6	1:DA:895:U:O2	2.06	0.73
1:DA:885:C:C4	1:DA:890:A:C6	2.77	0.73
1:DA:1342:A:N1	1:DA:1397:U:C2	2.56	0.73
23:DZ:86:SER:N	23:DZ:87:PRO:HD2	2.04	0.73
46:CS:53:VAL:HG12	46:CS:79:VAL:HG22	1.70	0.73
21:AV:72:ARG:NH2	21:AV:97:GLU:O	2.21	0.73
41:BN:80:VAL:HG13	41:BN:103:LEU:HD12	1.70	0.73
1:AA:811:U:O5'	11:AO:21:ARG:O	2.05	0.73
19:AT:15:GLU:CD	19:AT:15:GLU:H	1.96	0.73
1:DA:882:G:N1	1:DA:894:C:N4	2.18	0.73
1:DA:1005:C:H2'	1:DA:1006:C:C6	2.23	0.73
1:AA:242:G:H5'	30:A8:62:LEU:HD22	1.71	0.73
1:AA:674:G:H1'	5:AF:74:ARG:HD3	1.68	0.73
1:AA:1728:G:H3'	1:AA:1729:A:C5'	2.15	0.73
8:AK:69:LYS:HG3	8:AK:136:VAL:HB	1.68	0.73
8:AK:110:ASP:HB3	8:AK:111:PRO:C	2.14	0.73
15:AR:64:ARG:HB2	15:AR:73:GLU:HG2	1.69	0.73
31:BA:656:C:O2'	45:BR:28:GLN:OE1	2.04	0.73
31:CA:411:A:C5	31:CA:413:G:H1'	2.23	0.73
42:CO:14:LYS:HD3	42:CO:15:VAL:H	1.54	0.73
1:DA:1012:U:C4	1:DA:1143:A:N6	2.57	0.73
1:DA:1142:U:H2'	1:DA:1142:U:O2	1.87	0.73
1:DA:2872:G:C4	1:DA:2873:A:N1	2.56	0.73
26:D4:18:CYS:H	26:D4:19:GLY:HA2	1.52	0.73
1:AA:404:C:H1'	1:AA:405:U:OP2	1.88	0.73
1:AA:1533:C:H3'	1:AA:1534:G:H5"	1.69	0.73
1:AA:1899:G:O2'	1:AA:1900:A:P	2.46	0.73
20:AU:44:ILE:HG13	20:AU:45:VAL:H	1.54	0.73
31:BA:87:A:H4'	31:BA:87:A:OP1	1.89	0.73
53:BD:19:G:H1'	53:BD:59:A:C2	2.24	0.73
31:CA:1300:G:O2'	31:CA:1301:U:O5'	2.06	0.73
32:CE:137:ARG:HH12	32:CE:140:HIS:HB2	1.54	0.73
50:CW:14:LYS:HB2	50:CW:17:ARG:NH2	2.04	0.73
50:CW:67:ALA:HA	50:CW:73:HIS:H	1.52	0.73
1:DA:1022:G:O2'	1:DA:1023:U:OP2	2.06	0.73
1:DA:1024:G:H3'	1:DA:1025:G:H5"	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2131:G:OP1	1:DA:2132:U:H3'	1.89	0.73
12:DP:21:THR:CG2	12:DP:21:THR:O	2.36	0.73
15:DR:29:ARG:HH11	15:DR:29:ARG:HG3	1.53	0.73
1:AA:593:G:H1'	30:A8:4:MET:HE1	1.71	0.72
8:AK:10:GLU:O	8:AK:11:ASN:HB2	1.88	0.72
33:BF:181:ASN:HD22	33:BF:204:LEU:HB2	1.52	0.72
31:CA:1326:C:OP1	51:CX:17:THR:OG1	2.07	0.72
53:CD:20:G:H2'	53:CD:20:G:N3	2.02	0.72
1:DA:1005:C:C1'	1:DA:1143:A:N1	2.53	0.72
2:DB:75:G:H5'	2:DB:75:G:H8	1.54	0.72
3:DD:27:THR:HG21	3:DD:83:GLU:HG2	1.68	0.72
7:DH:7:LEU:N	7:DH:8:PRO:HD2	2.03	0.72
1:AA:944:G:H5"	1:AA:945:A:C5'	2.19	0.72
7:AH:152:ARG:C	7:AH:153:LYS:HD2	2.14	0.72
12:AP:21:THR:O	12:AP:21:THR:HG22	1.89	0.72
12:AP:140:ALA:O	12:AP:141:GLN:HB2	1.89	0.72
22:A3:40:GLN:HE22	22:A3:45:PHE:H	1.37	0.72
1:DA:9:U:C4	1:DA:2629:A:N6	2.57	0.72
7:DH:68:THR:HG22	7:DH:72:ILE:HD11	1.70	0.72
12:DP:30:GLY:HA2	12:DP:107:ALA:CB	2.19	0.72
12:DP:66:ILE:O	12:DP:104:PHE:N	2.21	0.72
1:AA:1071:G:O6	1:AA:1091:G:O6	2.05	0.72
1:AA:1678:G:N2	1:AA:1989:G:H22	1.88	0.72
1:AA:2427:C:H5"	1:AA:2428:G:OP1	1.89	0.72
15:AR:50:ILE:HD11	15:AR:102:ILE:HD11	1.71	0.72
31:BA:73:G:O6	31:BA:97:U:O2	2.07	0.72
40:CM:9:ARG:HH21	40:CM:95:GLU:HG2	1.53	0.72
1:DA:2602:A:H4'	1:DA:2603:G:O5'	1.89	0.72
5:DF:108:LYS:O	5:DF:112:MET:HG3	1.90	0.72
6:DG:161:THR:HG22	6:DG:163:ALA:H	1.55	0.72
1:AA:49:A:N7	1:AA:120:U:C4	2.57	0.72
1:AA:1412:A:H2'	1:AA:1413:G:C8	2.24	0.72
2:AB:15:A:H5'	2:AB:16:G:H8	1.52	0.72
31:BA:1145:C:H4'	31:BA:1146:A:H8	1.53	0.72
31:CA:664:G:H22	31:CA:741:G:H1	1.35	0.72
31:CA:1301:U:O2'	31:CA:1302:U:OP1	2.06	0.72
33:CF:70:VAL:O	33:CF:106:VAL:N	2.17	0.72
1:DA:994:C:OP1	16:D1:53:ARG:NH2	2.22	0.72
1:AA:2157:G:O2'	1:AA:2158:A:O5'	2.08	0.72
1:AA:2799:A:H5"	1:AA:2801:A:OP2	1.89	0.72
13:A0:104:ARG:HH11	13:A0:104:ARG:CG	2.01	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BO:59:SER:C	42:BO:61:TYR:H	1.97	0.72
32:CE:111:ARG:HH11	32:CE:111:ARG:CG	1.88	0.72
33:CF:84:ILE:HD11	33:CF:88:ARG:HH21	1.54	0.72
1:DA:832:G:H5'	11:DO:45:LEU:HD11	1.72	0.72
1:DA:1011:G:H2'	1:DA:1013:C:O4'	1.88	0.72
17:D2:80:GLN:CA	17:D2:80:GLN:HE21	2.03	0.72
24:DW:4:SER:OG	24:DW:5:GLU:OE2	2.06	0.72
29:D7:8:ASN:HD22	29:D7:11:LYS:H	1.34	0.72
11:AO:65:ARG:HH21	30:A8:15:LYS:HB2	1.53	0.72
31:BA:1368:G:H5"	39:BL:112:LYS:HB3	1.71	0.72
31:CA:1275:A:H2'	31:CA:1276:G:O4'	1.89	0.72
45:CR:17:ARG:HD3	45:CR:26:GLU:HG3	1.70	0.72
1:DA:463:G:N2	1:DA:466:A:OP2	2.22	0.72
4:DE:56:PRO:HD2	4:DE:58:ARG:NH2	2.05	0.72
11:DO:19:VAL:CG2	11:DO:20:GLY:H	2.03	0.72
21:DV:157:LEU:HB3	21:DV:161:VAL:HG12	1.71	0.72
1:AA:620:G:H4'	1:AA:621:A:C5'	2.17	0.72
1:AA:1049:C:H2'	1:AA:1050:A:H5"	1.71	0.72
1:AA:1113:U:OP1	7:AH:2:SER:N	2.22	0.72
10:AN:97:ARG:NH1	31:BA:339:C:OP2	2.23	0.72
33:BF:152:ILE:HG13	33:BF:167:TRP:HB2	1.70	0.72
49:BV:63:THR:OG1	49:BV:65:ASN:ND2	2.22	0.72
31:CA:736:C:H2'	31:CA:737:A:C8	2.24	0.72
40:CM:4:ILE:HA	40:CM:100:THR:HG22	1.71	0.72
53:CD:13:C:O2'	53:CD:14:A:P	2.48	0.72
1:DA:2157:G:H2'	1:DA:2158:A:H8	1.54	0.72
14:AQ:26:LEU:HB3	14:AQ:87:PHE:HA	1.72	0.72
31:BA:64:G:H4'	31:BA:65:U:H5'	1.72	0.72
31:CA:942:G:H21	39:CL:124:GLN:NE2	1.88	0.72
47:CT:67:LYS:HA	47:CT:70:ARG:HH12	1.55	0.72
1:DA:885:C:N3	1:DA:890:A:C5	2.57	0.72
1:DA:2415:G:H4'	11:DO:67:MET:H	1.55	0.72
1:DA:2511:U:O4	1:DA:2575:C:N3	2.23	0.72
15:DR:26:ASP:O	15:DR:49:VAL:HG12	1.89	0.72
15:DR:65:LYS:HE2	15:DR:67:SER:HB3	1.70	0.72
1:AA:527:C:OP2	1:AA:2779:U:H5	1.72	0.72
36:BI:38:GLU:OE1	36:BI:64:GLN:NE2	2.23	0.72
33:CF:44:GLU:HG2	33:CF:52:LEU:HD11	1.72	0.72
1:DA:250:G:P	11:DO:60:MET:HE1	2.30	0.72
1:DA:1800:C:OP2	3:DD:183:ARG:NH2	2.23	0.72
1:DA:2062:A:H62	1:DA:2503:A:H62	1.36	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1147:C:H2'	1:AA:1148:A:H5"	1.72	0.72
1:AA:1728:G:H8	1:AA:1732:A:H62	1.36	0.72
1:AA:2723:C:OP1	13:A0:3:HIS:HD2	1.73	0.72
5:AF:101:LEU:HD12	5:AF:102:PRO:CD	2.19	0.72
6:AG:40:ASN:HD22	6:AG:91:ARG:HB2	1.55	0.72
14:AQ:103:GLU:O	14:AQ:106:ARG:HG2	1.89	0.72
32:BE:204:ASN:ND2	32:BE:206:ASP:H	1.88	0.72
49:BV:65:ASN:HD22	49:BV:65:ASN:H	1.38	0.72
32:CE:95:GLN:HB3	32:CE:148:TYR:HD1	1.54	0.72
32:CE:168:THR:HG23	32:CE:192:SER:HB3	1.72	0.72
5:DF:24:LEU:CB	5:DF:25:PRO:HD3	2.19	0.72
6:DG:111:LEU:HB2	6:DG:112:PRO:HD3	1.72	0.72
8:DK:104:GLN:HG2	8:DK:105:HIS:CD2	2.25	0.72
13:D0:97:VAL:HG22	13:D0:114:VAL:HG22	1.72	0.72
21:DV:81:ARG:HG3	21:DV:81:ARG:O	1.90	0.72
1:AA:774:A:H2	1:AA:787:U:HO2'	1.38	0.71
1:AA:1652:A:OP1	13:A0:8:ARG:NH1	2.23	0.71
3:AD:182:LEU:H	3:AD:272:ALA:HB3	1.53	0.71
12:AP:83:MET:N	12:AP:83:MET:SD	2.63	0.71
44:BQ:13:THR:N	44:BQ:14:PRO:CD	2.52	0.71
1:DA:1427:A:H4'	1:DA:1428:C:O5'	1.89	0.71
2:DB:15:A:H5'	2:DB:16:G:C8	2.24	0.71
12:DP:34:LEU:HD11	12:DP:129:THR:HB	1.70	0.71
23:DZ:87:PRO:O	23:DZ:91:LYS:N	2.22	0.71
1:AA:297:C:H5"	20:AU:85:VAL:CG2	2.20	0.71
6:AG:107:LEU:HD21	6:AG:178:PHE:CD1	2.25	0.71
15:AR:16:ARG:NH2	15:AR:83:ILE:O	2.22	0.71
31:BA:1004:A:C5'	31:BA:1025:U:O4	2.38	0.71
31:BA:1347:G:N2	31:BA:1373:G:H2'	2.04	0.71
33:BF:52:LEU:HD23	33:BF:52:LEU:H	1.54	0.71
31:CA:1004:A:C2	31:CA:1024:G:C8	2.78	0.71
32:CE:91:PRO:HG3	32:CE:154:LEU:HB3	1.73	0.71
1:DA:1005:C:O4'	1:DA:1143:A:C2	2.43	0.71
1:DA:2394:C:OP1	30:D8:30:ARG:NH2	2.23	0.71
3:DD:2:ALA:O	3:DD:3:VAL:HB	1.91	0.71
17:D2:6:LYS:H	17:D2:37:VAL:HG12	1.55	0.71
1:AA:1174:A:H3'	1:AA:1175:U:H5"	1.72	0.71
1:AA:1427:A:H4'	1:AA:1428:C:O5'	1.89	0.71
1:AA:2133:G:N3	1:AA:2158:A:N6	2.38	0.71
1:AA:2864:G:OP1	15:AR:119:LYS:HD2	1.90	0.71
7:AH:83:TYR:HB2	7:AH:134:SER:HA	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AQ:36:TYR:N	14:AQ:36:TYR:HD1	1.88	0.71
17:A2:47:VAL:HG22	17:A2:48:GLY:N	2.05	0.71
31:CA:266:G:O6	31:CA:270:A:N7	2.23	0.71
43:CP:5:ALA:HB2	43:CP:22:ILE:HD13	1.72	0.71
1:DA:864:G:N7	12:DP:22:LYS:NZ	2.31	0.71
1:DA:2150:U:H2'	1:DA:2151:G:H8	1.53	0.71
1:DA:2473:U:O2	1:DA:2473:U:H2'	1.89	0.71
5:DF:3:GLU:HG2	5:DF:3:GLU:O	1.89	0.71
1:AA:1105:U:H2'	1:AA:1106:G:C8	2.25	0.71
1:AA:1496:A:H5'	1:AA:1497:U:OP1	1.90	0.71
1:AA:2065:C:H2'	1:AA:2066:C:C6	2.26	0.71
1:AA:2068:U:N3	1:AA:2430:A:H2	1.88	0.71
1:AA:2701:C:C3'	1:AA:2702:U:H5"	2.21	0.71
3:AD:34:VAL:C	3:AD:35:LYS:HG3	2.15	0.71
4:AE:23:VAL:CG1	4:AE:185:LYS:HA	2.20	0.71
24:AW:50:ILE:HD12	24:AW:51:ARG:H	1.54	0.71
31:BA:812:C:H4'	31:BA:813:U:O5'	1.89	0.71
1:DA:847:U:O4	1:DA:933:A:N1	2.23	0.71
12:DP:64:ILE:HD13	12:DP:64:ILE:N	2.04	0.71
1:AA:1903:G:OP1	3:AD:241:PRO:HB2	1.90	0.71
1:AA:2211:G:C4'	1:AA:2212:A:OP2	2.34	0.71
14:AQ:10:ARG:O	14:AQ:14:VAL:HG12	1.90	0.71
31:BA:652:U:H1'	31:BA:653:A:C2	2.25	0.71
31:BA:1226:C:OP2	43:BP:103:THR:OG1	2.08	0.71
32:BE:84:GLU:HB3	32:BE:219:VAL:HG21	1.72	0.71
1:DA:2420:C:H41	30:D8:31:HIS:CB	1.99	0.71
20:DU:61:ILE:HG22	20:DU:62:GLU:H	1.55	0.71
24:DW:46:GLN:H	24:DW:49:LYS:HZ2	1.37	0.71
1:AA:1729:A:H2'	1:AA:1731:G:N7	2.05	0.71
6:AG:107:LEU:O	26:A4:38:LYS:CE	2.39	0.71
32:BE:42:ILE:HD11	32:BE:202:PRO:HB2	1.70	0.71
31:CA:1028:C:H42	31:CA:1033:G:H1	0.76	0.71
32:CE:104:ASN:OD1	32:CE:107:THR:OG1	2.08	0.71
35:CH:6:PHE:HB2	35:CH:34:VAL:HG22	1.72	0.71
12:DP:78:PRO:O	12:DP:79:LEU:HG	1.90	0.71
20:DU:17:SER:HB3	20:DU:71:LYS:HB3	1.72	0.71
21:DV:134:PRO:HG3	21:DV:158:PRO:HG3	1.72	0.71
1:AA:885:C:H2'	1:AA:890:A:H61	1.55	0.71
3:AD:148:GLU:HB2	3:AD:151:LYS:HD2	1.72	0.71
31:CA:382:A:H2'	31:CA:383:A:C8	2.26	0.71
31:CA:818:G:O2'	31:CA:819:A:H5'	1.90	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:DG:67:LYS:HE2	26:D4:5:ILE:HG22	1.73	0.71
21:DV:62:PRO:C	21:DV:64:GLY:H	1.99	0.71
6:AG:135:LEU:HD23	6:AG:140:ILE:HD11	1.70	0.71
12:AP:64:ILE:HG22	12:AP:65:PHE:H	1.55	0.71
13:A0:104:ARG:HG2	13:A0:104:ARG:NH1	2.02	0.71
14:AQ:59:LYS:HG2	14:AQ:60:GLY:H	1.56	0.71
53:BC:17:C:O2'	53:BC:18:C:OP1	2.09	0.71
31:CA:1128:C:O2'	31:CA:1129:C:OP1	2.07	0.71
1:DA:2148:G:H2'	1:DA:2149:G:H8	1.54	0.71
1:DA:2839:G:H5'	13:D0:46:GLY:HA2	1.71	0.71
1:AA:1359:A:H2'	1:AA:1360:A:H5'	1.73	0.71
1:AA:1803:A:H4'	3:AD:259:THR:HG23	1.72	0.71
1:AA:2756:U:H4'	1:AA:2757:A:OP1	1.90	0.71
4:AE:1:MET:HB3	4:AE:200:GLU:OE1	1.91	0.71
8:AK:98:ALA:HB2	8:AK:111:PRO:HB3	1.73	0.71
9:AM:1:MET:HE1	16:A1:95:LEU:HD21	1.73	0.71
16:A1:69:CYS:HG	16:A1:79:PHE:HD1	1.38	0.71
30:A8:49:VAL:HG12	30:A8:53:PRO:HD3	1.72	0.71
31:BA:973:G:H3'	31:BA:974:A:H5"	1.71	0.71
31:CA:1200:C:H5'	31:CA:1201:A:H5'	1.72	0.71
40:CM:79:ARG:O	40:CM:83:GLU:HB2	1.91	0.71
1:DA:2032:G:H21	4:DE:146:THR:HG23	1.54	0.71
11:DO:88:LEU:HD11	11:DO:95:VAL:HG21	1.72	0.71
12:DP:23:GLY:HA2	12:DP:25:ASP:HB2	1.73	0.71
1:AA:142:G:H1'	19:AT:37:THR:HG21	1.71	0.71
1:AA:517:C:OP1	27:A5:16:ARG:NH2	2.24	0.71
1:AA:774:A:H2	1:AA:787:U:O2'	1.74	0.71
1:AA:1385:G:O2'	1:AA:1396:U:H6	1.73	0.71
11:AO:64:LYS:HB2	30:A8:25:MET:HG3	1.73	0.71
11:AO:125:VAL:HG13	11:AO:144:GLU:HB3	1.71	0.71
17:A2:34:GLU:O	17:A2:36:PRO:HD3	1.89	0.71
31:CA:1277:C:HO2'	31:CA:1279:A:H8	1.33	0.71
1:DA:848:G:H2'	1:DA:849:A:C8	2.26	0.71
1:DA:1250:G:N7	11:DO:18:ARG:NH2	2.38	0.71
1:DA:2471:C:H2'	1:DA:2472:G:H8	1.56	0.71
1:DA:2823:A:OP1	4:DE:113:PHE:HB2	1.91	0.71
4:DE:39:PRO:HA	4:DE:43:GLY:HA2	1.73	0.71
7:DH:137:ASP:OD1	7:DH:138:LYS:N	2.24	0.71
12:DP:65:PHE:O	12:DP:66:ILE:CG1	2.30	0.71
18:DS:65:LEU:HD13	18:DS:68:ARG:HD2	1.71	0.71
8:AK:83:ALA:HB1	8:AK:123:LEU:HD11	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AP:30:GLY:HA2	12:AP:107:ALA:HB2	1.72	0.70
39:BL:52:ALA:C	39:BL:95:LYS:HZ1	1.98	0.70
47:CT:67:LYS:O	47:CT:69:LYS:N	2.23	0.70
1:DA:322:A:H3'	5:DF:169:ASN:HD21	1.56	0.70
1:DA:1570:A:O4'	3:DD:38:LYS:HE2	1.90	0.70
1:DA:2620:C:O2'	4:DE:157:ALA:O	2.08	0.70
7:DH:137:ASP:HB2	7:DH:140:LYS:HE2	1.71	0.70
11:DO:15:ARG:CG	11:DO:15:ARG:NH1	2.39	0.70
11:DO:64:LYS:HG3	30:D8:30:ARG:HH12	1.55	0.70
1:AA:919:G:N2	1:AA:2269:A:OP2	2.24	0.70
1:AA:1057:A:O2'	1:AA:1058:U:O4'	2.08	0.70
7:AH:86:GLU:CD	7:AH:86:GLU:H	1.97	0.70
7:AH:153:LYS:HD2	7:AH:153:LYS:N	2.06	0.70
12:AP:35:VAL:HG13	12:AP:130:LYS:HB3	1.73	0.70
31:BA:664:G:H22	31:BA:741:G:H1	1.38	0.70
32:CE:16:HIS:CD2	32:CE:209:ARG:HB3	2.26	0.70
1:DA:2346:A:H5"	1:DA:2383:G:H1'	1.73	0.70
1:DA:2355:C:H5'	22:D3:36:ILE:HD11	1.72	0.70
10:DN:119:PRO:HB2	15:DR:68:TYR:CE2	2.24	0.70
3:AD:28:GLU:O	3:AD:29:PRO:C	2.34	0.70
7:AH:7:LEU:N	7:AH:8:PRO:HD2	2.05	0.70
14:AQ:106:ARG:HA	14:AQ:110:LEU:HD21	1.72	0.70
26:A4:63:TYR:CE1	49:BV:42:PRO:HD3	2.26	0.70
31:BA:976:G:N2	31:BA:1362(A):C:OP2	2.24	0.70
31:BA:1002:G:H2'	31:BA:1003:G:H8	1.56	0.70
31:CA:15:G:H1'	35:CH:19:MET:HE3	1.74	0.70
1:DA:1313:U:H4'	1:DA:1332:G:H4'	1.73	0.70
4:DE:11:MET:SD	4:DE:24:THR:HG22	2.32	0.70
4:DE:60:ASN:O	4:DE:62:PRO:HD2	1.91	0.70
1:AA:1076:C:H2'	1:AA:1076:C:O2	1.91	0.70
31:BA:498:A:H4'	31:BA:500:G:OP1	1.91	0.70
32:BE:8:LYS:HE3	32:BE:11:LEU:HB2	1.73	0.70
41:BN:99:GLN:HE21	41:BN:105:VAL:HG21	1.54	0.70
51:CX:25:LYS:HE2	51:CX:26:LYS:HE2	1.73	0.70
1:DA:2357:U:OP1	22:D3:20:ARG:NH1	2.23	0.70
4:DE:64:LYS:HB3	4:DE:66:HIS:CD2	2.26	0.70
9:DM:56:ASN:H	9:DM:125:GLY:HA3	1.56	0.70
10:DN:25:LEU:HB2	10:DN:38:VAL:HG23	1.72	0.70
16:D1:95:LEU:HD13	17:D2:4:ILE:HG23	1.72	0.70
1:AA:1329:U:H5"	1:AA:1330:C:H5	1.56	0.70
1:AA:2688:U:C5	1:AA:2720:U:OP2	2.44	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:6:PHE:HE1	3:AD:18:VAL:HG23	1.56	0.70
3:AD:17:THR:HG22	3:AD:205:VAL:H	1.57	0.70
7:AH:4:ILE:HG21	7:AH:6:ARG:NH1	2.06	0.70
11:AO:15:ARG:HH11	11:AO:15:ARG:CB	2.04	0.70
14:AQ:15:ARG:HD3	14:AQ:88:ASP:OD2	1.91	0.70
36:BI:10:LEU:HD13	36:BI:61:LEU:HD13	1.74	0.70
53:BD:5:G:H1	53:BD:69:C:H42	1.40	0.70
31:CA:1211:U:H5'	31:CA:1212:U:OP1	1.91	0.70
34:CG:8:VAL:C	34:CG:10:ARG:H	2.00	0.70
1:DA:1087:G:H1	1:DA:1102:C:H42	1.39	0.70
12:DP:75:THR:HG21	12:DP:87:LYS:HE2	1.73	0.70
1:AA:751:A:H5'	18:AS:90:ARG:HA	1.72	0.70
1:AA:1063:G:H1	1:AA:1075:C:H42	1.39	0.70
1:AA:1178:C:H2'	1:AA:1179:C:C6	2.26	0.70
1:AA:2562:U:H1'	10:AN:23:ARG:NH1	2.07	0.70
31:BA:186(E):C:N4	31:BA:191(B):G:H1	1.89	0.70
31:BA:414:A:OP2	31:BA:428:G:N2	2.21	0.70
31:BA:686:U:HO2'	31:BA:687:A:C5'	2.02	0.70
31:CA:554:C:H2'	31:CA:555:C:H6	1.55	0.70
31:CA:812:C:H1'	31:CA:813:U:OP2	1.91	0.70
31:CA:827:U:H3	31:CA:872:A:H62	1.38	0.70
31:CA:1131:G:H2'	31:CA:1132:C:C6	2.24	0.70
31:CA:1442:G:O2'	31:CA:1443:G:OP1	2.09	0.70
1:DA:1955:U:O3'	1:DA:1956:U:H6	1.74	0.70
1:DA:2776:A:H4'	1:DA:2777:G:O5'	1.91	0.70
3:DD:28:GLU:CB	3:DD:29:PRO:HD3	2.21	0.70
7:DH:168:PRO:O	7:DH:169:VAL:HB	1.89	0.70
10:DN:63:VAL:HG12	10:DN:106:LEU:HD11	1.73	0.70
21:DV:146:ILE:HG13	21:DV:147:GLY:H	1.56	0.70
1:AA:1332:G:N2	1:AA:1609:A:HO2'	1.87	0.70
31:BA:737:A:H2'	31:BA:738:C:C6	2.27	0.70
32:BE:7:VAL:HB	32:BE:217:ARG:HH21	1.55	0.70
43:CP:15:VAL:HG12	43:CP:45:VAL:HG22	1.73	0.70
52:CB:3:C:H2'	52:CB:4:G:C8	2.27	0.70
1:DA:2127:G:H1	1:DA:2161:C:N4	1.88	0.70
4:DE:36:ARG:HH21	4:DE:88:GLY:CA	2.03	0.70
12:DP:134:ARG:HH22	21:DV:122:ARG:HD2	1.56	0.70
1:AA:550:G:O2'	1:AA:1220:A:N3	2.23	0.70
6:AG:112:PRO:HB3	26:A4:37:SER:H	1.56	0.70
33:BF:26:LYS:H	33:BF:26:LYS:HD3	1.55	0.70
35:BH:148:VAL:HG21	38:BK:107:LEU:HD22	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1337:G:H5"	31:CA:1338:G:OP1	1.92	0.70
1:DA:2331:G:H4'	22:D3:43:THR:H	1.56	0.70
3:DD:68:LYS:HD3	3:DD:70:TRP:CZ2	2.27	0.70
13:D0:37:THR:HG23	13:D0:39:PRO:HD2	1.74	0.70
24:DW:14:ARG:HG3	24:DW:15:LYS:HE2	1.74	0.70
14:AQ:58:LEU:HD23	14:AQ:58:LEU:H	1.57	0.70
31:BA:200:G:H1	31:BA:217:C:N4	1.89	0.70
1:DA:1225:C:H4'	17:D2:85:LYS:HB2	1.74	0.70
1:DA:2720:U:N3	1:DA:2873:A:C6	2.60	0.70
3:DD:35:LYS:CD	3:DD:104:TYR:CD1	2.74	0.70
4:DE:25:VAL:HG12	4:DE:26:ILE:H	1.57	0.70
12:DP:68:ILE:HD13	12:DP:103:MET:HB3	1.72	0.70
15:DR:50:ILE:HD11	15:DR:102:ILE:HD11	1.73	0.70
1:AA:314:A:H2'	1:AA:315:G:H5'	1.72	0.70
1:AA:882:G:H2'	1:AA:883:G:C8	2.26	0.70
1:AA:1080:A:H2'	1:AA:1081:U:C6	2.27	0.70
11:AO:22:GLY:O	11:AO:25:SER:HB3	1.92	0.70
16:A1:92:ARG:HD3	16:A1:94:ASN:HB3	1.73	0.70
17:A2:47:VAL:HG22	17:A2:48:GLY:H	1.57	0.70
31:BA:789:U:C5	31:BA:792:A:OP2	2.43	0.70
39:BL:48:GLU:N	39:BL:49:PRO:HD2	2.07	0.70
31:CA:1322:C:O2	31:CA:1322:C:H2'	1.90	0.70
1:DA:906:G:OP1	12:DP:141:GLN:HG2	1.92	0.70
1:DA:2134:A:O2'	1:DA:2159:G:N2	2.25	0.70
1:DA:2880:C:H1'	13:D0:92:GLY:HA3	1.73	0.70
14:DQ:26:LEU:HB3	14:DQ:87:PHE:HA	1.73	0.70
17:D2:44:LYS:C	17:D2:46:VAL:H	2.00	0.70
1:AA:287:C:H2'	1:AA:288:C:H6	1.57	0.69
1:AA:1165:U:H2'	1:AA:1166:C:H6	1.55	0.69
1:AA:1525:G:H2'	1:AA:1526:G:C8	2.27	0.69
1:AA:2563:U:H1'	1:AA:2566:A:N6	2.07	0.69
3:AD:44:ASN:HB3	3:AD:49:ILE:HA	1.74	0.69
4:AE:37:ARG:HH11	4:AE:41:LYS:HD2	1.57	0.69
15:AR:26:ASP:HB3	15:AR:92:GLY:N	2.04	0.69
20:AU:5:MET:HE3	20:AU:32:PRO:HA	1.74	0.69
23:AZ:96:LYS:O	23:AZ:98:LEU:N	2.25	0.69
31:BA:182:U:O2	31:BA:182:U:H2'	1.91	0.69
31:BA:974:A:O2'	31:BA:975:A:OP2	2.10	0.69
31:BA:975:A:C4'	31:BA:976:G:H5"	2.21	0.69
32:BE:61:LEU:HD23	32:BE:68:ILE:HD11	1.73	0.69
35:BH:51:VAL:HB	35:BH:52:PRO:HD3	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1133:G:H2'	31:CA:1134:G:H8	1.55	0.69
33:CF:111:LEU:HD21	33:CF:146:ALA:H	1.57	0.69
1:DA:38:A:H2'	1:DA:39:C:C6	2.27	0.69
19:DT:8:ILE:HD11	19:DT:43:VAL:HG12	1.74	0.69
20:DU:62:GLU:CD	20:DU:63:LYS:H	2.00	0.69
1:AA:270(M):U:H1'	1:AA:270(N):G:C6	2.27	0.69
1:AA:943:U:OP2	11:AO:36:LYS:NZ	2.22	0.69
1:AA:1056:G:N2	1:AA:1103:A:C6	2.57	0.69
2:AB:73:A:H2'	2:AB:74:U:H5'	1.74	0.69
5:AF:32:LEU:HD21	5:AF:108:LYS:HB3	1.74	0.69
21:AV:30:ASN:ND2	21:AV:90:VAL:HB	2.07	0.69
27:A5:16:ARG:HG3	27:A5:17:ASP:N	2.06	0.69
31:BA:115:G:H4'	31:BA:116:A:O5'	1.90	0.69
33:BF:130:VAL:O	33:BF:134:ILE:HG12	1.92	0.69
45:BR:87:ILE:HG22	45:BR:88:ARG:H	1.57	0.69
1:DA:1887:C:H2'	1:DA:1888:G:H5"	1.75	0.69
23:DZ:95:LEU:C	23:DZ:97:LEU:H	2.00	0.69
1:AA:1858:G:H2'	1:AA:1883:G:H22	1.56	0.69
1:AA:2392:A:C8	11:AO:60:MET:HB2	2.27	0.69
15:AR:136:GLN:HG3	15:AR:137:LYS:H	1.57	0.69
19:AT:57:LEU:HD11	19:AT:78:LYS:NZ	2.07	0.69
31:BA:1002:G:H2'	31:BA:1003:G:C8	2.27	0.69
41:BN:17:GLY:HA3	41:BN:77:MET:CE	2.22	0.69
50:BW:65:LYS:HG3	50:BW:68:LYS:HE2	1.73	0.69
31:CA:1129:C:N4	31:CA:1141:C:H41	1.90	0.69
53:CD:64:G:H2'	53:CD:65:G:C8	2.28	0.69
1:DA:2689:U:C4'	1:DA:2690:C:H5'	2.23	0.69
3:DD:34:VAL:C	3:DD:35:LYS:HG3	2.15	0.69
10:DN:2:ILE:HD12	10:DN:6:THR:HG21	1.74	0.69
17:D2:5:VAL:HA	17:D2:37:VAL:HB	1.74	0.69
17:D2:49:THR:HB	17:D2:50:PRO:CD	2.22	0.69
6:AG:57:ALA:HB2	6:AG:90:LEU:HD21	1.74	0.69
8:AK:131:LYS:HB3	8:AK:132:PRO:CA	2.21	0.69
19:AT:41:ASN:O	19:AT:45:THR:HG23	1.93	0.69
22:A3:27:GLU:HG3	22:A3:68:GLU:HA	1.75	0.69
30:A8:48:PHE:HE2	30:A8:50:LEU:HD13	1.56	0.69
31:BA:673:G:H2'	31:BA:674:G:C8	2.27	0.69
31:CA:1330:U:H4'	43:CP:23:TYR:CE2	2.27	0.69
41:CN:69:ALA:HB1	41:CN:103:LEU:HD21	1.72	0.69
6:DG:47:LYS:HG2	6:DG:48:GLU:N	2.06	0.69
1:AA:2137:C:N3	1:AA:2154:G:N2	2.36	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:254:G:OP1	47:BT:67:LYS:O	2.10	0.69
31:BA:411:A:C5	31:BA:413:G:H1'	2.27	0.69
31:BA:1349:A:OP2	39:BL:118:LYS:NZ	2.26	0.69
31:CA:422:C:O2'	31:CA:423:G:C2	2.45	0.69
31:CA:1004:A:H1'	31:CA:1036:G:C6	2.28	0.69
42:CO:21:VAL:C	42:CO:23:ALA:H	2.00	0.69
1:DA:854:G:H2'	1:DA:855:G:H8	1.57	0.69
2:DB:1:U:O4	2:DB:119:A:N1	2.26	0.69
2:DB:1:U:H3	2:DB:119:A:H2	1.37	0.69
17:D2:79:VAL:C	17:D2:80:GLN:NE2	2.50	0.69
5:AF:29:ASN:H	5:AF:112:MET:HE1	1.57	0.69
12:AP:66:ILE:HA	12:AP:104:PHE:HA	1.74	0.69
31:BA:31:G:O2'	31:BA:48:C:N4	2.26	0.69
31:BA:1096:C:H2'	31:BA:1097:C:H6	1.58	0.69
38:BK:41:ARG:NH2	38:BK:123:GLU:OE1	2.24	0.69
49:CV:18:LYS:HA	49:CV:21:GLU:HG2	1.75	0.69
1:DA:527:C:OP2	1:DA:2779:U:H5	1.74	0.69
1:DA:1278:A:H5"	13:D0:36:THR:HG22	1.74	0.69
1:DA:1678:G:N2	1:DA:1989:G:H22	1.90	0.69
1:AA:1102:C:H2'	1:AA:1103:A:H8	1.56	0.69
7:AH:59:ARG:HH11	7:AH:59:ARG:CG	2.06	0.69
21:AV:161:VAL:HG12	21:AV:162:GLU:HG2	1.74	0.69
32:BE:97:TRP:CH2	32:BE:176:GLU:HG3	2.28	0.69
34:BG:201:GLN:HA	34:BG:201:GLN:HE21	1.57	0.69
31:CA:1191:A:P	33:CF:3:ASN:HD21	2.15	0.69
1:DA:528:A:H2	1:DA:2043:C:C5'	2.02	0.69
1:DA:2303:G:C2'	1:DA:2304:G:H5'	2.22	0.69
1:DA:2343:C:O2'	1:DA:2373:G:O2'	2.08	0.69
2:DB:83:G:H1	2:DB:93:C:N4	1.91	0.69
12:DP:75:THR:HB	12:DP:88:GLY:HA3	1.74	0.69
12:DP:78:PRO:O	12:DP:79:LEU:CG	2.40	0.69
14:DQ:62:LYS:HB3	14:DQ:97:ARG:HD3	1.74	0.69
15:DR:8:LYS:HB3	15:DR:8:LYS:NZ	2.07	0.69
1:AA:2602:A:H4'	1:AA:2603:G:O5'	1.91	0.69
1:AA:2849:U:H4'	1:AA:2868:A:C2	2.28	0.69
9:AM:95:PRO:C	9:AM:97:ARG:H	1.99	0.69
10:AN:107:ARG:NH1	15:AR:36:GLU:OE2	2.26	0.69
26:A4:4:GLY:O	26:A4:5:ILE:HG22	1.92	0.69
26:A4:62:ARG:O	26:A4:66:SER:HA	1.93	0.69
31:BA:129(A):G:C2	31:BA:188:U:O2'	2.46	0.69
31:BA:412:A:H4'	31:BA:413:G:O5'	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:979:C:H3'	31:CA:980:C:H5"	1.73	0.69
31:CA:1122:U:O4	31:CA:1123:A:N6	2.26	0.69
37:CJ:78:ARG:HB2	37:CJ:156:TRP:HZ3	1.56	0.69
42:CO:52:VAL:HG22	42:CO:53:ALA:H	1.58	0.69
51:CX:2:GLY:O	51:CX:4:GLY:N	2.26	0.69
52:CB:44:G:H2'	52:CB:45:U:O4'	1.91	0.69
1:DA:2065:C:H2'	1:DA:2066:C:H6	1.57	0.69
1:DA:2173:A:N3	1:DA:2173:A:H2'	2.07	0.69
4:DE:55:ASN:C	4:DE:57:LYS:H	2.01	0.69
4:DE:101:ARG:CZ	4:DE:171:GLU:HB2	2.23	0.69
5:DF:127:GLU:O	5:DF:129:PHE:N	2.23	0.69
12:DP:20:ALA:O	12:DP:21:THR:HB	1.91	0.69
14:DQ:19:LYS:O	14:DQ:20:ARG:HB3	1.92	0.69
20:DU:48:ALA:O	20:DU:50:ARG:N	2.25	0.69
1:AA:960:A:H61	12:AP:83:MET:HE2	1.58	0.69
1:AA:1130:U:H1'	1:AA:1131:G:OP1	1.92	0.69
1:AA:2146:C:H4'	1:AA:2147:G:C8	2.28	0.69
21:AV:139:VAL:HG13	21:AV:155:LEU:HD21	1.74	0.69
26:A4:42:PHE:CE1	26:A4:43:TYR:HB3	2.28	0.69
31:BA:173:U:H5"	31:BA:197:A:O4'	1.93	0.69
31:BA:412:A:H1'	31:BA:413:G:OP2	1.92	0.69
31:CA:1023:G:H3'	31:CA:1024:G:H5"	1.72	0.69
31:CA:1123:A:H4'	40:CM:36:GLY:HA3	1.74	0.69
1:DA:593:G:C1'	30:D8:4:MET:HE1	2.23	0.69
15:DR:51:ARG:HG3	15:DR:98:LYS:HG3	1.74	0.69
30:D8:50:LEU:HG	30:D8:51:ALA:H	1.56	0.69
1:AA:594:U:H5'	30:A8:61:LEU:CD1	2.22	0.69
3:AD:35:LYS:HZ1	3:AD:104:TYR:HB2	1.57	0.69
8:AK:102:SER:O	8:AK:106:GLY:HA2	1.92	0.69
12:AP:23:GLY:HA2	12:AP:25:ASP:HB2	1.73	0.69
12:AP:24:GLY:CA	12:AP:25:ASP:HB3	2.05	0.69
31:BA:827:U:H5	31:BA:872:A:N1	1.91	0.69
35:BH:11:ILE:HD13	35:BH:11:ILE:H	1.56	0.69
50:BW:89:ARG:HD2	50:BW:104:LEU:HD21	1.74	0.69
31:CA:976:G:OP1	44:CQ:32:SER:N	2.21	0.69
40:CM:16:LEU:C	40:CM:18:ALA:H	2.01	0.69
1:DA:2447:G:H1'	1:DA:2448:A:OP2	1.92	0.69
3:DD:65:ILE:HD11	3:DD:67:PHE:CE2	2.26	0.69
15:DR:3:ARG:O	15:DR:7:ILE:HB	1.92	0.69
28:D6:23:THR:HG22	28:D6:24:GLU:H	1.56	0.69
31:BA:1502:A:H2	31:BA:1505:G:H1	1.40	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BJ:23:VAL:O	37:BJ:27:ILE:HG13	1.93	0.68
31:CA:1503:A:H1'	31:CA:1504:G:OP1	1.92	0.68
41:CN:100:ALA:O	41:CN:102:GLY:N	2.21	0.68
1:DA:654(I):C:H42	1:DA:654(M):C:H42	1.38	0.68
1:DA:907:U:O2'	12:DP:101:ARG:NH2	2.26	0.68
21:DV:69:THR:HG22	21:DV:90:VAL:HA	1.74	0.68
1:AA:2162:G:H2'	1:AA:2163:C:C6	2.28	0.68
3:AD:27:THR:OG1	3:AD:83:GLU:HA	1.94	0.68
19:AT:84:ALA:HB3	19:AT:87:GLN:NE2	2.08	0.68
52:BB:7:G:H3'	52:BB:8:U:C5'	2.23	0.68
1:DA:1266:G:O5'	18:DS:15:ARG:NH2	2.26	0.68
1:DA:2121:G:H1	1:DA:2177:C:H42	1.41	0.68
1:DA:2784:C:H1'	4:DE:37:ARG:HH21	1.58	0.68
11:DO:64:LYS:CB	30:D8:25:MET:HG3	2.24	0.68
27:D5:4:HIS:CB	27:D5:5:PRO:HD3	2.21	0.68
3:AD:35:LYS:NZ	3:AD:65:ILE:HA	2.08	0.68
31:BA:977:A:H8	31:BA:1223:C:N3	1.91	0.68
31:BA:1037:C:H2'	31:BA:1038:C:C6	2.28	0.68
31:BA:1278:U:H5'	31:BA:1279:A:O4'	1.94	0.68
33:CF:113:ALA:HB3	33:CF:114:PRO:HD3	1.74	0.68
1:DA:4:C:H2'	1:DA:5:A:O4'	1.93	0.68
1:DA:855:G:O2'	22:D3:27:GLU:OE2	2.12	0.68
1:DA:2306:C:H3'	1:DA:2307:G:C5'	2.22	0.68
1:DA:2471:C:N4	1:DA:2476:A:O2'	2.26	0.68
1:DA:2873:A:H2'	1:DA:2873:A:N3	2.08	0.68
6:DG:111:LEU:HB3	6:DG:117:PHE:CE2	2.29	0.68
11:DO:112:LEU:H	11:DO:128:HIS:CD2	2.12	0.68
11:DO:146:VAL:HG13	11:DO:147:LEU:HD13	1.75	0.68
20:DU:94:LYS:O	20:DU:101:LYS:HB2	1.93	0.68
3:AD:34:VAL:HG21	3:AD:103:ARG:HA	1.75	0.68
4:AE:14:ILE:CG2	4:AE:21:VAL:CG2	2.72	0.68
8:AK:85:GLU:OE1	8:AK:86:THR:OG1	2.11	0.68
13:A0:56:LYS:NZ	13:A0:90:ARG:O	2.27	0.68
31:BA:974:A:O2'	31:BA:975:A:P	2.51	0.68
31:CA:1328:C:OP1	51:CX:21:TYR:OH	2.11	0.68
32:CE:185:ILE:CG2	32:CE:199:TYR:HB2	2.23	0.68
33:CF:164:ARG:HG2	33:CF:165:THR:H	1.57	0.68
1:DA:2135:A:O2'	1:DA:2136:C:OP1	2.12	0.68
6:DG:67:LYS:HB3	26:D4:6:HIS:CD2	2.28	0.68
11:DO:9:ASN:CB	11:DO:10:PRO:HD2	2.23	0.68
25:DX:19:GLN:HE22	25:DX:52:HIS:CE1	2.11	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:882:G:H3'	1:AA:883:G:H5"	1.74	0.68
1:AA:905:U:C2'	1:AA:906:G:H5"	2.22	0.68
1:AA:2116:G:P	1:AA:2165:G:H22	2.15	0.68
6:AG:166:ASP:HA	6:AG:169:ALA:HB3	1.75	0.68
14:AQ:56:LEU:HB2	14:AQ:58:LEU:HD22	1.74	0.68
20:AU:96:ILE:HG13	20:AU:99:CYS:H	1.57	0.68
21:AV:105:VAL:HG13	21:AV:140:ASP:HB3	1.76	0.68
23:AZ:65:SER:OG	23:AZ:66:HIS:HD2	1.77	0.68
26:A4:52:THR:OG1	26:A4:53:GLU:N	2.18	0.68
38:BK:9:MET:SD	38:BK:32:LYS:HG2	2.33	0.68
40:BM:48:THR:HG23	40:BM:62:HIS:HB3	1.75	0.68
31:CA:687:A:H1'	31:CA:688:G:OP2	1.93	0.68
37:CJ:87:VAL:HG11	37:CJ:154:TYR:HB2	1.75	0.68
8:DK:69:LYS:O	8:DK:73:GLU:HB2	1.92	0.68
17:D2:79:VAL:O	17:D2:80:GLN:HB2	1.92	0.68
1:AA:270(G):C:H2'	1:AA:270(H):C:O4'	1.94	0.68
1:AA:2168:G:O6	1:AA:2171:A:N6	2.26	0.68
1:AA:2583:G:N2	52:BB:87:A:H8	1.89	0.68
4:AE:13:ARG:HD2	15:AR:58:ASN:HB3	1.74	0.68
18:AS:79:GLY:HA3	18:AS:100:THR:HG22	1.74	0.68
36:BI:97:PHE:O	48:BU:31:LEU:HD23	1.94	0.68
39:BL:18:PHE:HD1	39:BL:62:TYR:HD2	1.41	0.68
31:CA:1004:A:C5'	31:CA:1025:U:O4	2.41	0.68
31:CA:1250:A:H4'	39:CL:68:GLY:H	1.58	0.68
53:CD:20:G:H8	53:CD:58:A:H61	1.39	0.68
7:DH:102:ALA:HB1	7:DH:115:VAL:O	1.94	0.68
27:D5:20:ARG:HG2	27:D5:23:HIS:CD2	2.29	0.68
1:AA:271(B):G:H4'	1:AA:271(C):U:O5'	1.94	0.68
2:AB:42:C:O3'	6:AG:67:LYS:NZ	2.27	0.68
7:AH:4:ILE:HB	7:AH:6:ARG:HG3	1.75	0.68
9:AM:34:LEU:HD11	9:AM:119:ARG:O	1.93	0.68
30:A8:52:LYS:N	30:A8:53:PRO:CD	2.57	0.68
33:BF:7:PRO:O	33:BF:11:ARG:HG2	1.93	0.68
36:BI:19:LEU:HD23	36:BI:23:LYS:HZ1	1.59	0.68
40:BM:38:ILE:HD11	40:BM:71:LEU:HD23	1.76	0.68
34:CG:31:CYS:O	34:CG:33:MET:N	2.25	0.68
45:CR:48:LYS:HE2	45:CR:48:LYS:HA	1.74	0.68
46:CS:15:PRO:O	46:CS:16:HIS:ND1	2.27	0.68
53:CD:59:A:H1'	53:CD:61:U:C5	2.29	0.68
6:DG:112:PRO:HB2	26:D4:37:SER:HA	1.75	0.68
1:AA:1486:A:H2'	1:AA:1487:G:H8	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AP:90:VAL:O	12:AP:90:VAL:CG1	2.42	0.68
19:AT:47:PHE:O	19:AT:49:VAL:HG23	1.94	0.68
20:AU:81:LYS:HG2	20:AU:96:ILE:HB	1.75	0.68
21:AV:62:PRO:O	21:AV:63:ASP:HB2	1.91	0.68
21:AV:113:ALA:N	21:AV:114:GLY:HA2	2.09	0.68
53:BC:18:C:O2'	53:BC:19:G:OP1	2.12	0.68
31:CA:1004:A:H8	31:CA:1036:G:H1	1.41	0.68
44:CQ:26:ARG:NH1	44:CQ:47:LEU:HD21	2.08	0.68
1:DA:660:G:H21	11:DO:12:ALA:HA	1.59	0.68
1:DA:2816:C:O3'	13:D0:99:LYS:NZ	2.26	0.68
5:DF:188:ARG:HA	11:DO:3:LEU:HD11	1.76	0.68
21:DV:76:LEU:HD23	21:DV:76:LEU:H	1.57	0.68
28:D6:25:LYS:HE2	28:D6:27:LYS:HZ2	1.59	0.68
1:AA:141:A:H8	1:AA:1595:G:H21	1.41	0.68
1:AA:774:A:C2	1:AA:787:U:O2'	2.47	0.68
6:AG:109:VAL:O	6:AG:113:ARG:HG3	1.94	0.68
14:AQ:26:LEU:HD11	14:AQ:73:LEU:HD13	1.76	0.68
31:CA:1446:A:H4'	31:CA:1446:A:OP1	1.92	0.68
40:CM:54:PHE:CD2	40:CM:55:LYS:HD2	2.29	0.68
1:DA:2233:U:H2'	1:DA:2234:G:C8	2.29	0.68
1:DA:2392:A:H8	11:DO:61:ARG:HD2	1.57	0.68
1:DA:2611:U:O2	27:D5:3:LYS:HE2	1.94	0.68
1:DA:2688:U:H5	1:DA:2720:U:OP2	1.75	0.68
6:DG:120:LEU:N	6:DG:179:PRO:O	2.24	0.68
15:DR:20:PRO:HD2	15:DR:86:ILE:HG23	1.76	0.68
24:DW:70:GLN:HG2	24:DW:71:ASN:N	2.07	0.68
1:AA:1535:U:H3'	1:AA:1536:A:H5"	1.74	0.68
1:AA:2154:G:H2'	1:AA:2155:G:C8	2.29	0.68
1:AA:2698:U:H2'	1:AA:2699:C:C6	2.29	0.68
31:BA:1316:G:N2	31:BA:1318:A:H3'	2.08	0.68
31:BA:1374:A:H2'	31:BA:1375:A:H5'	1.76	0.68
34:CG:96:LEU:HD12	34:CG:139:ARG:CZ	2.23	0.68
26:D4:56:VAL:HA	26:D4:60:GLN:HE21	1.59	0.68
1:AA:2415:G:O3'	11:AO:66:GLY:HA3	1.94	0.67
21:AV:7:ALA:HB2	21:AV:59:LEU:HD13	1.76	0.67
30:A8:43:GLN:C	30:A8:44:LYS:HD2	2.19	0.67
45:BR:87:ILE:HG22	45:BR:88:ARG:N	2.09	0.67
34:CG:178:VAL:HG12	34:CG:179:GLU:H	1.59	0.67
1:DA:660:G:N2	11:DO:12:ALA:HA	2.09	0.67
1:DA:1899:G:H22	1:DA:1902:C:H41	0.76	0.67
9:DM:128:HIS:CE1	9:DM:134:ARG:HH11	2.11	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:25:LYS:HB3	30:D8:34:TRP:CZ3	2.29	0.67
1:AA:2099:U:H3	1:AA:2190:G:H1	1.40	0.67
3:AD:25:THR:HG23	3:AD:26:LYS:HD2	1.77	0.67
7:AH:83:TYR:CB	7:AH:135:GLY:H	2.00	0.67
28:A6:18:ARG:HD2	28:A6:18:ARG:O	1.92	0.67
34:BG:111:ALA:HB2	34:BG:120:LEU:HD12	1.75	0.67
37:BJ:62:PHE:HD1	37:BJ:124:LEU:HD11	1.58	0.67
31:CA:509:A:O2'	31:CA:510:A:OP1	2.11	0.67
31:CA:1298:C:H41	37:CJ:114:ARG:HB3	1.59	0.67
32:CE:21:ARG:O	32:CE:23:ARG:N	2.27	0.67
33:CF:111:LEU:HD11	33:CF:145:GLY:HA3	1.75	0.67
42:CO:43:LYS:HZ1	42:CO:44:LYS:HD3	1.56	0.67
43:CP:54:VAL:O	43:CP:58:GLU:HG2	1.95	0.67
1:DA:635:C:O2'	1:DA:639:U:OP1	2.13	0.67
1:DA:1056:G:H5"	1:DA:1057:A:H5'	1.76	0.67
17:D2:35:LEU:HG	17:D2:37:VAL:HG11	1.76	0.67
24:DW:17:SER:CB	24:DW:18:PRO:CA	2.72	0.67
1:AA:2164:C:H2'	1:AA:2165:G:H8	1.57	0.67
3:AD:34:VAL:O	3:AD:34:VAL:HG13	1.93	0.67
7:AH:86:GLU:O	7:AH:87:LEU:HB2	1.93	0.67
31:BA:1348:U:H4'	39:BL:120:ARG:HD2	1.77	0.67
34:BG:88:VAL:O	34:BG:90:GLY:N	2.26	0.67
34:CG:139:ARG:HG3	34:CG:139:ARG:NH1	2.00	0.67
53:CD:20:G:H22	1:DA:2112:G:H5'	1.59	0.67
1:DA:1300:U:H4'	1:DA:1301:A:H5"	1.74	0.67
18:DS:12:ILE:HD13	18:DS:17:VAL:HG13	1.77	0.67
3:AD:131:LEU:HB2	3:AD:136:ILE:HD11	1.77	0.67
6:AG:114:ILE:HD13	6:AG:140:ILE:HG21	1.76	0.67
13:A0:55:ALA:HA	13:A0:80:PHE:CE2	2.29	0.67
33:BF:50:ALA:HB1	33:BF:70:VAL:HG11	1.77	0.67
38:BK:11:THR:O	38:BK:15:ASN:ND2	2.27	0.67
53:BD:13:C:O2'	53:BD:14:A:P	2.52	0.67
31:CA:192:U:H2'	31:CA:193:C:H6	1.60	0.67
1:DA:1359:A:H2'	1:DA:1360:A:H5'	1.75	0.67
11:DO:9:ASN:O	11:DO:10:PRO:C	2.36	0.67
12:DP:63:LYS:HG3	12:DP:65:PHE:HE2	1.60	0.67
21:DV:19:ARG:NH1	21:DV:84:GLU:HB2	2.10	0.67
1:AA:309:G:N3	1:AA:329:G:O2'	2.28	0.67
1:AA:1537:C:H2'	1:AA:1538:G:O4'	1.95	0.67
1:AA:1769:G:O2'	1:AA:1958:C:OP1	2.12	0.67
1:AA:1805:U:O2	3:AD:50:THR:HB	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1899:G:N2	1:AA:1902:C:C5	2.63	0.67
1:AA:2134:A:N6	1:AA:2157:G:H1'	2.09	0.67
1:AA:2402:C:O2'	1:AA:2403:C:OP1	2.11	0.67
7:AH:154:PRO:O	7:AH:156:ALA:N	2.27	0.67
14:AQ:14:VAL:O	14:AQ:18:ILE:HD13	1.95	0.67
31:BA:687:A:H1'	31:BA:688:G:OP2	1.95	0.67
37:BJ:54:THR:OG1	37:BJ:56:GLN:HG2	1.94	0.67
39:BL:43:ALA:HA	39:BL:74:ILE:HD13	1.76	0.67
49:BV:31:ILE:HG23	49:BV:49:ILE:HA	1.76	0.67
53:BD:19:G:H1'	53:BD:59:A:H2	1.59	0.67
54:B1:14:U:O2'	54:B1:15:U:O4'	2.10	0.67
31:CA:1219:U:OP1	44:CQ:19:ARG:NH1	2.25	0.67
17:D2:76:LYS:HD2	17:D2:80:GLN:O	1.94	0.67
20:DU:87:LYS:HB3	20:DU:92:ASN:HB3	1.74	0.67
1:AA:910:A:H62	12:AP:12:GLN:HA	1.60	0.67
1:AA:1007:C:OP1	9:AM:35:ARG:NH1	2.27	0.67
1:AA:1060:U:H5'	1:AA:1061:U:H5	1.57	0.67
2:AB:37:C:H2'	2:AB:38:C:H5'	1.75	0.67
4:AE:46:ALA:HB1	4:AE:80:GLU:HB3	1.76	0.67
5:AF:32:LEU:CD1	5:AF:105:VAL:HG13	2.25	0.67
7:AH:4:ILE:O	7:AH:6:ARG:N	2.27	0.67
15:AR:24:PRO:O	15:AR:94:ALA:HB2	1.95	0.67
31:BA:130:A:C8	47:BT:63:ARG:HD3	2.30	0.67
34:BG:15:GLU:OE1	34:BG:66:ARG:NH1	2.28	0.67
37:BJ:78:ARG:HH21	37:BJ:156:TRP:HB3	1.59	0.67
33:CF:8:ILE:O	33:CF:11:ARG:N	2.24	0.67
1:AA:1535:U:C2	1:AA:1536:A:H3'	2.30	0.67
8:AK:33:ARG:C	8:AK:35:LEU:H	2.01	0.67
9:AM:95:PRO:O	9:AM:97:ARG:N	2.28	0.67
11:AO:9:ASN:O	11:AO:10:PRO:C	2.37	0.67
28:A6:44:ARG:O	28:A6:45:LYS:HG2	1.94	0.67
32:BE:63:MET:HB3	32:BE:225:ALA:HB1	1.77	0.67
34:BG:12:CYS:HA	34:BG:19:LEU:HD22	1.76	0.67
40:BM:37:PRO:HA	40:BM:72:VAL:HG22	1.77	0.67
31:CA:1129:C:C4	31:CA:1139:G:C2	2.82	0.67
31:CA:1321:C:H3'	31:CA:1322:C:H5"	1.77	0.67
32:CE:21:ARG:HB3	32:CE:39:ILE:HA	1.76	0.67
42:CO:57:LEU:C	42:CO:59:SER:H	2.02	0.67
53:CD:52:C:O2	53:CD:65:G:N1	2.28	0.67
1:DA:1174:A:N6	1:DA:1176:G:O2'	2.27	0.67
1:DA:2469:A:H2'	1:DA:2470:G:O4'	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:D0:78:LYS:O	13:D0:82:GLU:HB3	1.95	0.67
17:D2:49:THR:O	17:D2:50:PRO:C	2.38	0.67
1:AA:270(M):U:O2'	1:AA:270(N):G:O5'	2.10	0.67
1:AA:2583:G:N2	52:BB:87:A:C8	2.55	0.67
4:AE:14:ILE:HG22	4:AE:21:VAL:CG2	2.25	0.67
4:AE:120:TRP:CE3	4:AE:155:LYS:HD3	2.28	0.67
14:AQ:111:GLU:OE1	14:AQ:111:GLU:HA	1.94	0.67
17:A2:38:LEU:HD23	17:A2:39:LEU:N	2.09	0.67
31:BA:791:G:C2'	31:BA:792:A:H5'	2.24	0.67
32:BE:204:ASN:HD22	32:BE:206:ASP:H	1.43	0.67
37:BJ:78:ARG:NH2	37:BJ:156:TRP:HB3	2.09	0.67
1:DA:653:A:H5"	1:DA:654:A:OP2	1.95	0.67
1:DA:1048:A:H2	1:DA:1112:G:H21	1.41	0.67
1:DA:2287:A:N6	1:DA:2344:U:H3	1.91	0.67
1:DA:2287:A:N6	1:DA:2344:U:N3	2.43	0.67
2:DB:38:C:H42	2:DB:44:G:H1	1.43	0.67
27:D5:36:CYS:SG	27:D5:49:CYS:HB3	2.35	0.67
1:AA:518:G:H4'	18:AS:18:ARG:NH1	2.07	0.67
2:AB:13:A:N1	2:AB:69:G:O2'	2.24	0.67
6:AG:104:GLU:CD	26:A4:23:GLU:HG3	2.20	0.67
31:BA:437:U:H2'	31:BA:438:G:O4'	1.95	0.67
33:BF:113:ALA:HB3	33:BF:114:PRO:HD3	1.75	0.67
35:BH:102:ALA:HB1	35:BH:106:PRO:HG2	1.77	0.67
31:CA:689:C:H2'	31:CA:690:G:H5'	1.77	0.67
31:CA:1149:C:O2'	31:CA:1280:A:N1	2.27	0.67
32:CE:5:ILE:HG23	32:CE:5:ILE:O	1.93	0.67
35:CH:9:LYS:HB2	35:CH:112:LEU:HD11	1.76	0.67
1:DA:602:G:N2	1:DA:655:A:N7	2.40	0.67
1:DA:1252:G:N3	16:D1:33:ARG:HD2	2.10	0.67
4:DE:116:VAL:O	4:DE:117:MET:CB	2.43	0.67
6:DG:37:VAL:HG23	6:DG:99:MET:HE3	1.77	0.67
6:DG:67:LYS:H	26:D4:6:HIS:CD2	2.12	0.67
26:D4:39:CYS:C	26:D4:41:PRO:HD3	2.20	0.67
27:D5:36:CYS:HG	27:D5:49:CYS:HB3	1.59	0.67
30:D8:60:LEU:C	30:D8:61:LEU:HG	2.18	0.67
1:AA:1434:A:H61	1:AA:1558:A:N6	1.91	0.67
1:AA:2469:A:H2'	1:AA:2470:G:C5'	2.25	0.67
17:A2:44:LYS:C	17:A2:46:VAL:H	2.03	0.67
18:AS:95:ILE:O	18:AS:95:ILE:HG13	1.94	0.67
31:BA:1227:A:OP2	43:BP:111:LYS:HE3	1.94	0.67
32:BE:67:THR:HG21	32:BE:155:LEU:HG	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:957:U:H1'	31:CA:960:U:C5	2.30	0.67
31:CA:1435:G:H2'	31:CA:1436:U:C6	2.29	0.67
1:DA:8:A:N1	1:DA:2895:U:O4	2.28	0.67
1:DA:1464:C:O2'	1:DA:1528:A:H8	1.71	0.67
1:DA:2310:A:H5'	1:DA:2311:A:OP2	1.94	0.67
2:DB:3:C:N3	2:DB:117:G:N2	2.39	0.67
12:DP:79:LEU:HD12	12:DP:79:LEU:C	2.20	0.67
15:DR:11:GLU:OE1	15:DR:11:GLU:N	2.28	0.67
1:AA:752:A:H4'	1:AA:753:C:O5'	1.95	0.66
1:AA:1095:A:N3	1:AA:1095:A:H2'	2.08	0.66
1:AA:2150:U:H2'	1:AA:2151:G:C8	2.30	0.66
1:AA:2780:G:OP2	9:AM:118:LYS:HD3	1.93	0.66
4:AE:48:GLN:HE22	4:AE:77:ILE:HD12	1.60	0.66
11:AO:68:GLN:HG2	30:A8:12:LYS:HD3	1.76	0.66
12:AP:87:LYS:O	12:AP:88:GLY:C	2.37	0.66
14:AQ:88:ASP:OD1	14:AQ:90:GLY:N	2.27	0.66
31:BA:826:C:H2'	31:BA:827:U:O2	1.95	0.66
31:BA:1256:A:N6	31:BA:1278:U:OP2	2.28	0.66
31:BA:1306:A:N6	31:BA:1331:G:H1'	2.10	0.66
31:CA:1117:G:O3'	39:CL:104:ARG:HD2	1.95	0.66
35:CH:83:GLU:HB3	35:CH:88:LYS:HG3	1.76	0.66
1:DA:2439:A:O2'	1:DA:2440:C:OP2	2.11	0.66
28:D6:44:ARG:O	28:D6:45:LYS:HB2	1.94	0.66
1:AA:574:C:N3	4:AE:145:LYS:NZ	2.40	0.66
1:AA:581:C:H2'	1:AA:582:G:H8	1.60	0.66
1:AA:944:G:H5"	1:AA:945:A:H5"	1.76	0.66
1:AA:1014:U:H2'	1:AA:1015:G:H5"	1.77	0.66
18:AS:29:LEU:HD21	18:AS:33:ARG:CZ	2.24	0.66
38:BK:51:VAL:HG11	38:BK:60:ARG:HG3	1.76	0.66
32:CE:75:LYS:HA	32:CE:78:GLN:HE21	1.57	0.66
1:DA:148:C:H6	1:DA:148:C:H5'	1.60	0.66
1:DA:1060:U:H5"	1:DA:1061:U:C5	2.31	0.66
1:DA:1169:G:H2'	1:DA:1170:G:O4'	1.94	0.66
3:DD:130:ALA:C	3:DD:131:LEU:HD12	2.19	0.66
21:DV:30:ASN:O	21:DV:32:HIS:N	2.29	0.66
1:AA:660:G:H21	11:AO:12:ALA:HA	1.60	0.66
3:AD:25:THR:CG2	3:AD:26:LYS:HD2	2.26	0.66
7:AH:3:ARG:NE	7:AH:3:ARG:HA	2.11	0.66
10:AN:98:VAL:HG13	10:AN:117:LEU:HB3	1.76	0.66
19:AT:27:THR:HG22	19:AT:80:ILE:HB	1.77	0.66
19:AT:65:ARG:HB3	19:AT:70:LEU:HB3	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:A8:59:LYS:NZ	30:A8:59:LYS:CB	2.57	0.66
32:BE:109:SER:O	32:BE:112:VAL:N	2.22	0.66
31:CA:1142:G:H2'	31:CA:1143:G:O4'	1.96	0.66
31:CA:1285:A:H1'	31:CA:1286:A:OP2	1.96	0.66
36:CI:2:ARG:HH21	36:CI:69:GLU:HG3	1.61	0.66
1:DA:960:A:N6	12:DP:83:MET:HE2	2.04	0.66
3:DD:8:PRO:HB3	3:DD:14:ARG:HB2	1.76	0.66
11:DO:62:LEU:HD22	11:DO:62:LEU:C	2.19	0.66
1:AA:2656:U:H3	1:AA:2665:A:H2	1.44	0.66
2:AB:48:A:H4'	14:AQ:95:HIS:HD2	1.60	0.66
5:AF:177:ALA:HB1	5:AF:178:PRO:HD2	1.76	0.66
12:AP:88:GLY:O	12:AP:89:ASN:HB2	1.95	0.66
12:AP:90:VAL:O	12:AP:90:VAL:HG12	1.93	0.66
43:BP:5:ALA:O	43:BP:7:VAL:N	2.29	0.66
1:DA:811:U:P	11:DO:21:ARG:O	2.53	0.66
6:DG:35:GLU:HG3	6:DG:35:GLU:O	1.95	0.66
23:DZ:87:PRO:O	23:DZ:90:ILE:N	2.27	0.66
27:D5:16:ARG:NH1	27:D5:17:ASP:OD1	2.29	0.66
30:D8:48:PHE:CG	30:D8:49:VAL:N	2.63	0.66
1:AA:5:A:H61	1:AA:2898:U:H3	1.43	0.66
1:AA:654(D):G:H1	1:AA:654(Q):C:N4	1.92	0.66
1:AA:1937:A:O2'	1:AA:1938:A:P	2.54	0.66
2:AB:86:G:H1	2:AB:90:C:H42	1.43	0.66
4:AE:52:LEU:HB2	4:AE:75:VAL:HG22	1.78	0.66
4:AE:200:GLU:N	4:AE:200:GLU:OE2	2.28	0.66
19:AT:57:LEU:HD11	19:AT:78:LYS:HZ1	1.60	0.66
33:CF:14:ILE:HG12	33:CF:15:THR:N	2.09	0.66
1:DA:898:C:H3'	1:DA:899:A:H5"	1.77	0.66
1:DA:2415:G:H4'	11:DO:67:MET:N	2.10	0.66
3:DD:35:LYS:CE	3:DD:104:TYR:HB2	2.24	0.66
4:DE:201:THR:HG22	4:DE:202:LYS:H	1.60	0.66
6:DG:64:THR:HG23	6:DG:66:GLN:H	1.59	0.66
17:D2:80:GLN:HE21	17:D2:80:GLN:N	1.92	0.66
18:DS:59:VAL:HA	18:DS:64:MET:H	1.60	0.66
1:AA:2646:C:OP2	1:AA:2732:G:O2'	2.11	0.66
1:AA:2712:U:OP1	1:AA:2714:G:H4'	1.95	0.66
14:AQ:51:ALA:HB3	14:AQ:73:LEU:HG	1.78	0.66
20:AU:42:VAL:HG12	20:AU:42:VAL:O	1.94	0.66
26:A4:16:CYS:SG	26:A4:17:GLY:N	2.67	0.66
31:BA:352:C:O2'	31:BA:354:G:OP1	2.12	0.66
31:CA:600:C:H2'	31:CA:601:C:H6	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:674:G:O2'	5:DF:74:ARG:HG3	1.96	0.66
8:DK:110:ASP:OD1	8:DK:130:TYR:OH	2.13	0.66
20:DU:76:CYS:SG	20:DU:77:PRO:HD2	2.35	0.66
1:AA:1111:A:O2'	1:AA:1112:G:H4'	1.96	0.66
1:AA:2306:C:H3'	1:AA:2307:G:H5'	1.78	0.66
3:AD:35:LYS:HD2	3:AD:104:TYR:CE1	2.29	0.66
4:AE:167:VAL:HG11	4:AE:187:ALA:O	1.94	0.66
12:AP:79:LEU:HD13	12:AP:80:GLU:HB2	1.76	0.66
28:A6:25:LYS:HD2	30:A8:34:TRP:HE1	1.61	0.66
31:BA:1149:C:H2'	31:BA:1150:U:C6	2.27	0.66
34:BG:187:ARG:NH1	34:BG:193:ASP:OD2	2.28	0.66
38:BK:129:VAL:HG23	38:BK:130:GLY:H	1.61	0.66
53:BC:19:G:C4'	53:BC:20:G:OP1	2.44	0.66
34:CG:13:ARG:O	34:CG:15:GLU:N	2.25	0.66
1:DA:946:G:O2'	1:DA:947:G:C5'	2.41	0.66
1:DA:1005:C:H1'	1:DA:1143:A:N1	2.10	0.66
12:DP:137:TYR:CE1	21:DV:83:PRO:HG3	2.30	0.66
24:DW:17:SER:CB	24:DW:18:PRO:HA	2.25	0.66
30:D8:30:ARG:O	30:D8:32:LEU:N	2.29	0.66
1:AA:811:U:P	11:AO:21:ARG:O	2.53	0.66
1:AA:1557:C:OP2	1:AA:1558:A:O2'	2.09	0.66
3:AD:31:LYS:HZ3	3:AD:33:LEU:HB3	1.61	0.66
15:AR:74:ARG:HG2	15:AR:74:ARG:NH1	2.02	0.66
31:CA:1305:G:O2'	31:CA:1306:A:O5'	2.10	0.66
53:CD:29:C:H2'	53:CD:30:G:H8	1.60	0.66
1:DA:545:G:H21	1:DA:548:A:H62	1.41	0.66
1:DA:848:G:C4	1:DA:933:A:C8	2.84	0.66
1:DA:1013:C:H42	1:DA:1149:G:H1	1.44	0.66
3:DD:35:LYS:CG	3:DD:64:ILE:N	2.54	0.66
4:DE:36:ARG:HH21	4:DE:88:GLY:HA3	1.59	0.66
18:DS:72:LYS:HB3	18:DS:106:ILE:HG13	1.76	0.66
21:DV:30:ASN:OD1	21:DV:33:LEU:HB3	1.96	0.66
1:AA:164:U:O2	1:AA:164:U:H2'	1.96	0.66
1:AA:320:A:H2'	5:AF:136:THR:HG21	1.78	0.66
1:AA:1102:C:H2'	1:AA:1103:A:C8	2.30	0.66
16:A1:69:CYS:SG	16:A1:79:PHE:HD1	2.19	0.66
40:BM:49:VAL:CG2	44:BQ:41:ARG:HB2	2.25	0.66
53:BD:53:G:H1	53:BD:63:C:H42	1.44	0.66
31:CA:537:G:H5"	42:CO:110:ARG:NH1	2.10	0.66
31:CA:992:U:H3	31:CA:1044:A:N6	1.91	0.66
33:CF:52:LEU:HD23	33:CF:52:LEU:H	1.61	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:90:U:H2'	1:DA:91:A:H5"	1.78	0.66
1:DA:2557:G:H2'	1:DA:2558:C:C6	2.31	0.66
9:DM:19:GLU:HG3	9:DM:59:LYS:HB3	1.78	0.66
11:DO:47:ASP:OD2	11:DO:49:ARG:HB3	1.96	0.66
12:DP:85:LYS:O	12:DP:86:GLY:O	2.14	0.66
14:AQ:36:TYR:N	14:AQ:36:TYR:CD1	2.60	0.66
14:AQ:83:LYS:CE	14:AQ:109:GLY:HA2	2.25	0.66
15:AR:23:ARG:HG3	15:AR:120:ARG:NH1	2.11	0.66
31:BA:486:U:H2'	31:BA:487:A:C8	2.31	0.66
31:BA:1123:A:H4'	40:BM:36:GLY:HA3	1.77	0.66
38:BK:121:ASP:HB2	38:BK:125:ARG:NH2	2.11	0.66
39:BL:5:TYR:HE2	39:BL:16:ARG:HG2	1.60	0.66
31:CA:412:A:H1'	31:CA:413:G:OP2	1.96	0.66
31:CA:991:U:O2	31:CA:993:G:H8	1.79	0.66
31:CA:1126:U:H4'	31:CA:1127:G:C8	2.30	0.66
36:CI:13:ASN:ND2	36:CI:55:ASP:OD2	2.29	0.66
49:CV:41:VAL:HG12	49:CV:42:PRO:HD2	1.77	0.66
1:DA:2340:G:O2'	1:DA:2341:G:H5'	1.95	0.66
3:DD:24:ILE:HD11	3:DD:91:ARG:HD2	1.78	0.66
6:DG:94:LEU:HD23	6:DG:94:LEU:H	1.60	0.66
21:DV:116:VAL:HG12	21:DV:117:LEU:H	1.61	0.66
1:AA:164:U:H5"	1:AA:165:U:C2	2.30	0.65
1:AA:959:A:N6	12:AP:83:MET:HE1	2.10	0.65
3:AD:35:LYS:HG2	3:AD:64:ILE:CG2	2.25	0.65
14:AQ:34:HIS:HB2	14:AQ:36:TYR:CE1	2.31	0.65
31:BA:1028:C:H42	31:BA:1033:G:H1	1.44	0.65
31:BA:1160:G:N1	31:BA:1177:G:N2	2.42	0.65
53:BD:21:U:H3'	53:BD:22:A:C5'	2.26	0.65
31:CA:1346:A:C1'	31:CA:1347:G:OP2	2.44	0.65
33:CF:131:ARG:NH1	35:CH:50:GLU:HG3	2.11	0.65
53:CD:31:G:H2'	53:CD:32:G:C8	2.31	0.65
53:CD:37:U:O4	53:CD:38:A:N6	2.29	0.65
1:DA:1048:A:OP2	1:DA:1109:C:N4	2.28	0.65
1:DA:2168:G:N2	1:DA:2170:A:O5'	2.29	0.65
11:DO:19:VAL:HG23	11:DO:20:GLY:H	1.60	0.65
1:AA:1079:C:H3'	1:AA:1080:A:C8	2.31	0.65
1:AA:1538:G:H2'	1:AA:1539:G:H8	1.61	0.65
1:AA:2712:U:H1'	1:AA:2712(A):A:C8	2.31	0.65
3:AD:35:LYS:CD	3:AD:104:TYR:HD1	2.04	0.65
11:AO:112:LEU:H	11:AO:128:HIS:CD2	2.14	0.65
13:A0:117:VAL:HG22	13:A0:118:GLU:H	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:A2:24:LYS:HA	17:A2:92:THR:OG1	1.95	0.65
37:BJ:87:VAL:HG11	37:BJ:155:ARG:HA	1.78	0.65
49:BV:41:VAL:HG12	49:BV:44:MET:HB2	1.77	0.65
31:CA:1263:C:H42	31:CA:1272:G:H1	1.43	0.65
1:DA:1688:U:O2	1:DA:1700:A:H5'	1.96	0.65
1:DA:2776:A:OP1	1:DA:2776:A:H3'	1.96	0.65
4:DE:63:LEU:HD23	4:DE:66:HIS:CE1	2.32	0.65
11:DO:63:PRO:HB3	30:D8:13:ARG:HG3	1.78	0.65
23:DZ:86:SER:N	23:DZ:87:PRO:CD	2.59	0.65
1:AA:287:C:H2'	1:AA:288:C:C6	2.32	0.65
1:AA:1067:A:H2'	1:AA:1067:A:N3	2.10	0.65
1:AA:1359:A:C2	1:AA:1372:U:O4	2.50	0.65
4:AE:105:THR:OG1	4:AE:199:ARG:NH2	2.30	0.65
4:AE:111:ARG:HD2	4:AE:160:TYR:CE1	2.31	0.65
31:BA:1132:C:H2'	31:BA:1133:G:H8	1.61	0.65
31:CA:452:A:O2'	31:CA:453:A:O4'	2.10	0.65
53:CD:13:C:O2'	53:CD:14:A:OP1	2.15	0.65
1:DA:443:A:H1'	1:DA:1201:C:O4'	1.96	0.65
1:DA:1171:G:H1	1:DA:1178:C:H42	1.41	0.65
1:DA:2282:G:H4'	1:DA:2283:C:O5'	1.95	0.65
1:DA:2875:C:HO2'	15:DR:3:ARG:HG3	1.62	0.65
4:DE:116:VAL:O	4:DE:117:MET:HB3	1.96	0.65
14:DQ:87:PHE:CE1	14:DQ:102:ALA:HB2	2.32	0.65
28:D6:29:ASN:ND2	28:D6:29:ASN:H	1.91	0.65
1:AA:881:G:H3'	1:AA:882:G:O4'	1.95	0.65
1:AA:1060:U:H1'	1:AA:1061:U:OP2	1.95	0.65
1:AA:2321:G:H5"	1:AA:2322:A:OP2	1.96	0.65
13:A0:84:ALA:HB3	13:A0:85:PRO:HD3	1.79	0.65
30:A8:52:LYS:H	30:A8:53:PRO:CD	2.06	0.65
31:BA:143:A:H2	31:BA:220:G:H1	1.41	0.65
31:BA:1502:A:H2	31:BA:1505:G:H22	1.42	0.65
32:BE:8:LYS:H	32:BE:8:LYS:CE	2.08	0.65
31:CA:1305:G:N2	31:CA:1331:G:H2'	2.08	0.65
53:CD:29:C:H2'	53:CD:30:G:C8	2.32	0.65
1:DA:459:U:H5"	29:D7:40:TRP:CD2	2.31	0.65
1:DA:1012:U:C2	1:DA:1143:A:C2	2.84	0.65
1:DA:2773:C:OP1	4:DE:166:THR:OG1	2.13	0.65
4:DE:103:ASP:OD1	4:DE:201:THR:HG23	1.97	0.65
5:DF:132:VAL:HG22	5:DF:133:ASN:N	2.06	0.65
6:DG:42:GLY:HA2	6:DG:89:GLY:HA2	1.79	0.65
11:DO:21:ARG:CA	11:DO:21:ARG:NE	2.47	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D1:98:LEU:C	16:D1:100:VAL:N	2.53	0.65
28:D6:40:CYS:SG	28:D6:45:LYS:HE2	2.37	0.65
1:AA:1079:C:H5'	1:AA:1080:A:OP2	1.97	0.65
1:AA:1141:U:H6	9:AM:63:THR:HG1	1.44	0.65
31:BA:186(E):C:H42	31:BA:191(B):G:H1	1.44	0.65
53:BD:5:G:H1	53:BD:69:C:N4	1.95	0.65
31:CA:892:A:H2'	31:CA:893:C:C6	2.31	0.65
1:DA:9:U:N3	1:DA:2629:A:C6	2.64	0.65
1:DA:2591:C:P	3:DD:239:ARG:HG3	2.36	0.65
1:DA:2656:U:H3	1:DA:2665:A:H2	1.45	0.65
2:DB:15:A:H5'	2:DB:16:G:H8	1.61	0.65
2:DB:44:G:H5"	2:DB:45:A:OP1	1.97	0.65
22:D3:25:ARG:HD2	22:D3:29:GLN:HE21	1.61	0.65
22:D3:72:ARG:HB2	22:D3:75:LEU:HB2	1.77	0.65
23:DZ:87:PRO:O	23:DZ:89:GLU:N	2.29	0.65
1:AA:2133:G:H1'	1:AA:2158:A:H61	1.60	0.65
13:A0:36:THR:HG22	13:A0:37:THR:H	1.62	0.65
31:BA:10:A:OP2	35:BH:126:ARG:HD3	1.97	0.65
52:CB:1:G:H2'	52:CB:1:G:N3	2.11	0.65
4:DE:68:ALA:HB1	4:DE:71:GLY:H	1.59	0.65
1:AA:2111:C:N3	1:AA:2118:U:O2'	2.27	0.65
3:AD:35:LYS:HG2	3:AD:64:ILE:H	1.60	0.65
4:AE:24:THR:HG21	4:AE:188:VAL:HG22	1.77	0.65
14:AQ:86:ALA:O	14:AQ:87:PHE:HB3	1.95	0.65
22:A3:40:GLN:HE22	22:A3:45:PHE:N	1.95	0.65
31:BA:1009:G:O6	31:BA:1020:U:O2	2.15	0.65
35:BH:126:ARG:HH11	35:BH:126:ARG:HG3	1.61	0.65
37:BJ:111:ARG:NH1	37:BJ:113:GLU:OE2	2.28	0.65
33:CF:48:TYR:O	33:CF:51:GLY:N	2.28	0.65
1:DA:998:C:H2'	1:DA:999:U:O5'	1.97	0.65
1:DA:1689:A:N7	1:DA:1698:A:N1	2.45	0.65
1:DA:2689:U:H4'	1:DA:2690:C:H5'	1.79	0.65
11:DO:23:PRO:O	11:DO:25:SER:N	2.30	0.65
12:DP:140:ALA:O	12:DP:141:GLN:CB	2.45	0.65
14:DQ:11:LYS:O	14:DQ:15:ARG:HB2	1.96	0.65
30:D8:39:LYS:HG2	30:D8:40:GLU:N	2.10	0.65
1:AA:71:A:H2	19:AT:31:HIS:CE1	2.15	0.65
1:AA:1278:A:OP1	13:A0:36:THR:HG23	1.96	0.65
1:AA:2393:A:H5'	11:AO:62:LEU:HB2	1.78	0.65
28:A6:11:LEU:HD11	28:A6:51:GLU:CG	2.26	0.65
31:BA:814:A:N7	31:BA:816:A:C4	2.65	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2191:G:O2'	1:DA:2192:G:P	2.55	0.65
5:DF:143:ALA:HB1	5:DF:148:LEU:HB2	1.77	0.65
7:DH:20:ALA:O	7:DH:22:GLY:N	2.30	0.65
11:DO:62:LEU:O	11:DO:62:LEU:HD13	1.97	0.65
17:D2:79:VAL:C	17:D2:80:GLN:HE21	2.05	0.65
21:DV:158:PRO:HB2	21:DV:159:PRO:HD2	1.79	0.65
30:D8:51:ALA:HB1	30:D8:52:LYS:HD2	1.78	0.65
1:AA:2327:A:H2'	1:AA:2328:A:C8	2.31	0.65
1:AA:2577:A:H5"	1:AA:2578:G:H5'	1.77	0.65
9:AM:133:GLN:H	9:AM:133:GLN:NE2	1.95	0.65
16:A1:8:VAL:CG2	16:A1:11:ARG:HH21	2.10	0.65
31:BA:80:G:O6	31:BA:89:U:O2	2.15	0.65
33:BF:34:LEU:HD21	33:BF:38:ARG:HH11	1.62	0.65
33:BF:107:GLN:N	33:BF:107:GLN:OE1	2.27	0.65
34:BG:7:PRO:HB2	34:BG:10:ARG:HD2	1.79	0.65
49:BV:13:ASP:O	49:BV:15:LEU:N	2.30	0.65
31:CA:186(F):C:H2'	31:CA:187:C:O4'	1.97	0.65
31:CA:187:C:H2'	31:CA:188:U:O4'	1.97	0.65
45:CR:87:ILE:HG22	45:CR:88:ARG:N	2.11	0.65
53:CC:21:U:O2'	53:CC:22:A:H5'	1.96	0.65
1:DA:708:C:N4	1:DA:723:G:H1	1.95	0.65
1:DA:2133:G:H1'	1:DA:2158:A:N6	2.12	0.65
1:DA:2728:U:O2'	1:DA:2729:G:H5'	1.96	0.65
29:A7:5:TRP:NE1	29:A7:7:PRO:HG3	2.12	0.65
39:BL:97:LYS:HB3	39:BL:98:PRO:HD3	1.79	0.65
31:CA:1237:C:O2'	31:CA:1300:G:N2	2.26	0.65
39:CL:63:ILE:HD11	39:CL:81:ILE:HD11	1.79	0.65
3:DD:35:LYS:CD	3:DD:104:TYR:HD1	2.07	0.65
6:DG:59:GLU:CD	6:DG:153:ARG:HH21	2.05	0.65
11:DO:63:PRO:C	11:DO:65:ARG:H	2.03	0.65
1:AA:479:A:H4'	1:AA:480:A:OP1	1.97	0.64
1:AA:2100:G:H1	1:AA:2189:U:H3	1.43	0.64
1:AA:2117:A:H62	1:AA:2172:U:H3	1.45	0.64
4:AE:3:GLY:HA3	4:AE:81:ILE:HD12	1.78	0.64
8:AK:144:VAL:HG22	8:AK:145:VAL:HG13	1.80	0.64
31:BA:160:A:H2'	31:BA:161:A:O4'	1.97	0.64
43:BP:15:VAL:HG23	43:BP:43:THR:O	1.97	0.64
45:BR:26:GLU:OE2	45:BR:77:ARG:NH1	2.31	0.64
53:BC:26:C:H2'	53:BC:27:G:O4'	1.97	0.64
31:CA:328:C:H4'	31:CA:329:A:H5'	1.78	0.64
31:CA:452:A:O2'	31:CA:453:A:O5'	2.15	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CF:70:VAL:HG12	33:CF:72:LYS:H	1.62	0.64
42:CO:5:ASN:HD22	47:CT:34:LYS:HE2	1.61	0.64
3:DD:5:LYS:HB2	3:DD:5:LYS:NZ	2.12	0.64
5:DF:31:HIS:HB2	11:DO:9:ASN:OD1	1.96	0.64
7:DH:89:ILE:HG23	7:DH:90:LYS:H	1.61	0.64
19:DT:57:LEU:HD21	19:DT:78:LYS:HB2	1.79	0.64
1:AA:754:C:H2'	1:AA:755:C:H6	1.62	0.64
3:AD:35:LYS:CE	3:AD:104:TYR:HB2	2.27	0.64
4:AE:51:PHE:CD1	4:AE:52:LEU:HG	2.33	0.64
7:AH:153:LYS:HB3	7:AH:154:PRO:HD3	1.79	0.64
13:A0:63:ARG:HB2	13:A0:80:PHE:HE1	1.62	0.64
23:AZ:83:GLU:C	23:AZ:85:LEU:H	2.05	0.64
27:A5:40:LYS:HB2	27:A5:46:CYS:SG	2.37	0.64
30:A8:57:ARG:O	30:A8:61:LEU:HG	1.97	0.64
31:BA:397:A:H5'	31:BA:398:C:OP1	1.97	0.64
52:BB:22:G:N2	52:BB:59:U:O4'	2.29	0.64
31:CA:1372:U:OP1	39:CL:72:GLY:N	2.30	0.64
1:DA:885:C:N3	1:DA:890:A:C6	2.65	0.64
13:D0:38:VAL:HB	13:D0:39:PRO:HD3	1.78	0.64
16:D1:90:VAL:HG22	17:D2:39:LEU:HB3	1.79	0.64
22:D3:12:ASN:ND2	22:D3:12:ASN:O	2.29	0.64
1:AA:535:C:O3'	16:A1:53:ARG:NH1	2.29	0.64
1:AA:2272:U:H5"	1:AA:2273:A:OP1	1.98	0.64
2:AB:6:C:C2'	2:AB:7:G:H5"	2.27	0.64
15:AR:54:ARG:HA	15:AR:59:THR:HB	1.80	0.64
15:AR:107:ASP:HB2	31:BA:1432:G:OP1	1.97	0.64
18:AS:2:GLU:C	18:AS:64:MET:HE1	2.22	0.64
21:AV:29:TYR:HE2	21:AV:87:ASP:HB2	1.62	0.64
31:BA:1004:A:C8	31:BA:1036:G:N1	2.65	0.64
31:BA:1099:G:OP1	32:BE:96:ARG:NH1	2.25	0.64
41:BN:73:MET:HA	41:BN:77:MET:H	1.62	0.64
43:BP:3:ARG:HG2	43:BP:9:ILE:CG1	2.28	0.64
31:CA:690:G:H22	41:CN:55:LYS:HE2	1.62	0.64
40:CM:6:ILE:HG22	40:CM:98:ILE:HG23	1.79	0.64
43:CP:70:LEU:HD13	43:CP:71:ARG:N	2.12	0.64
1:DA:247:G:H4'	1:DA:386:G:C5	2.33	0.64
1:DA:1065:U:H3	1:DA:1073:A:H61	1.45	0.64
1:DA:2681:C:H6	1:DA:2683:C:H41	1.44	0.64
2:DB:50:G:OP1	14:DQ:63:THR:HG23	1.97	0.64
13:D0:118:GLU:OE1	13:D0:118:GLU:HA	1.97	0.64
15:DR:126:ALA:O	15:DR:128:GLU:N	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:34:LEU:O	28:D6:35:GLU:HB2	1.95	0.64
4:AE:201:THR:HG22	4:AE:203:LYS:H	1.61	0.64
13:A0:38:VAL:HB	13:A0:39:PRO:HD3	1.78	0.64
31:BA:93:U:H2'	31:BA:95:G:O4'	1.97	0.64
31:BA:1053:G:O3'	31:BA:1054:C:H4'	1.96	0.64
31:BA:1530:G:H2'	31:BA:1531:A:C8	2.31	0.64
31:CA:913:A:H1'	31:CA:914:A:OP2	1.97	0.64
31:CA:1321:C:H41	31:CA:1322:C:N4	1.92	0.64
31:CA:1443:G:O2'	15:DR:122:ASP:OD2	2.16	0.64
34:CG:26:CYS:HA	34:CG:31:CYS:HB2	1.80	0.64
51:CX:2:GLY:C	51:CX:4:GLY:H	2.05	0.64
53:CC:16:C:O2'	53:CC:62:C:OP1	2.14	0.64
1:DA:1047:G:C2'	1:DA:1110:G:H22	2.11	0.64
1:DA:1323:U:H2'	1:DA:1324:G:H5'	1.80	0.64
1:DA:2135:A:O2'	1:DA:2160:G:H4'	1.97	0.64
1:DA:2335:A:O2'	1:DA:2336:A:OP2	2.09	0.64
1:DA:2805:G:H2'	1:DA:2807:G:C8	2.33	0.64
3:DD:64:ILE:O	3:DD:64:ILE:CG1	2.44	0.64
4:DE:8:LYS:HG2	4:DE:192:ASN:HD22	1.63	0.64
12:DP:63:LYS:CE	12:DP:65:PHE:CE2	2.80	0.64
30:D8:14:VAL:HG21	30:D8:56:GLU:OE2	1.97	0.64
1:AA:602:G:HO2'	1:AA:604:G:HO2'	1.45	0.64
1:AA:1858:G:O2'	1:AA:1884:A:N6	2.30	0.64
3:AD:102:LYS:C	3:AD:103:ARG:HG2	2.22	0.64
6:AG:115:ARG:O	6:AG:116:ASP:HB2	1.96	0.64
11:AO:19:VAL:HG22	11:AO:27:HIS:HB2	1.69	0.64
12:AP:37:LEU:HD21	12:AP:130:LYS:HE3	1.80	0.64
12:AP:66:ILE:HD12	12:AP:67:ARG:N	2.13	0.64
12:AP:135:ASP:N	12:AP:135:ASP:OD1	2.30	0.64
31:CA:328:C:H2'	31:CA:328:C:O2	1.98	0.64
31:CA:1003:G:N2	31:CA:1004:A:O2'	2.31	0.64
31:CA:1053:G:O2'	31:CA:1054:C:O5'	2.16	0.64
31:CA:1465:C:H2'	31:CA:1466:C:O4'	1.98	0.64
12:DP:19:GLY:H	12:DP:98:LYS:HZ3	1.44	0.64
12:DP:64:ILE:O	12:DP:65:PHE:CG	2.50	0.64
1:AA:588:U:H2'	1:AA:589:C:C6	2.32	0.64
1:AA:2212:A:H1'	1:AA:2215:G:C5	2.33	0.64
6:AG:165:THR:OG1	6:AG:168:GLU:HG3	1.98	0.64
31:BA:405:U:O4	34:BG:2:GLY:N	2.30	0.64
37:BJ:79:ARG:CZ	37:BJ:82:GLY:HA2	2.28	0.64
49:BV:24:ALA:O	49:BV:25:LYS:HB3	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BC:48:U:O2'	53:BC:49:C:OP2	2.10	0.64
31:CA:974:A:OP2	44:CQ:41:ARG:NH1	2.30	0.64
31:CA:1160:G:H1	31:CA:1177:G:H22	1.43	0.64
44:CQ:13:THR:N	44:CQ:14:PRO:HD3	2.13	0.64
53:CD:22:A:N1	53:CD:47:G:H2'	2.12	0.64
1:DA:1309:G:H4'	29:D7:7:PRO:HB2	1.80	0.64
1:DA:2820:A:O2'	1:DA:2821:A:OP1	2.15	0.64
3:DD:35:LYS:HB3	3:DD:63:ARG:HA	1.79	0.64
7:DH:153:LYS:N	7:DH:154:PRO:CD	2.61	0.64
12:DP:1:MET:CA	12:DP:1:MET:CE	2.76	0.64
14:DQ:99:LYS:HE2	14:DQ:103:GLU:OE1	1.98	0.64
16:D1:92:ARG:NE	17:D2:11:GLN:HB2	2.13	0.64
29:D7:5:TRP:NE1	29:D7:7:PRO:HG3	2.12	0.64
1:AA:796:C:H2'	1:AA:797:C:C6	2.33	0.64
1:AA:881:G:H3'	1:AA:882:G:C4'	2.27	0.64
2:AB:73:A:C2'	2:AB:74:U:H5'	2.27	0.64
5:AF:127:GLU:HA	5:AF:127:GLU:OE2	1.92	0.64
6:AG:112:PRO:CB	26:A4:37:SER:HB2	2.27	0.64
31:BA:983:A:H5"	31:BA:984:C:OP2	1.98	0.64
31:CA:689:C:C2'	31:CA:690:G:H5'	2.27	0.64
31:CA:1301:U:O2	31:CA:1301:U:H2'	1.98	0.64
37:CJ:26:PHE:O	37:CJ:30:ILE:HG13	1.98	0.64
42:CO:76:GLU:HG3	42:CO:77:HIS:CD2	2.33	0.64
1:DA:1420:U:O2'	1:DA:1421:G:P	2.56	0.64
1:DA:2162:G:H2'	1:DA:2163:C:H6	1.61	0.64
1:DA:2211:G:H2'	1:DA:2211:G:N3	2.10	0.64
3:DD:239:ARG:O	3:DD:240:ALA:HB2	1.98	0.64
8:DK:114:LEU:HD23	8:DK:114:LEU:O	1.98	0.64
12:DP:84:GLY:O	12:DP:85:LYS:HB2	1.96	0.64
16:D1:88:ILE:HG22	17:D2:49:THR:HA	1.80	0.64
21:DV:114:GLY:C	21:DV:116:VAL:H	2.05	0.64
28:D6:23:THR:HG22	28:D6:24:GLU:N	2.12	0.64
1:AA:653:A:H3'	1:AA:654:A:H5'	1.80	0.64
1:AA:654(B):C:H2'	1:AA:654(C):G:C8	2.32	0.64
1:AA:2681:C:O2'	1:AA:2682:U:P	2.56	0.64
6:AG:67:LYS:CE	26:A4:6:HIS:CE1	2.80	0.64
14:AQ:106:ARG:CA	14:AQ:110:LEU:HD21	2.27	0.64
16:A1:79:PHE:HE1	16:A1:106:PHE:CZ	2.16	0.64
17:A2:44:LYS:O	17:A2:46:VAL:HG12	1.97	0.64
31:BA:156:G:H1	31:BA:165:C:N4	1.94	0.64
31:BA:1399:C:C2	31:BA:1502:A:N6	2.66	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CG:31:CYS:C	34:CG:33:MET:N	2.56	0.64
52:CB:27:G:H5'	52:CB:28:C:OP2	1.98	0.64
1:DA:887:A:H3'	1:DA:888:C:H5'	1.79	0.64
1:DA:1434:A:H61	1:DA:1558:A:H62	1.46	0.64
1:DA:2470:G:O2'	1:DA:2471:C:H5'	1.98	0.64
11:DO:48:PRO:C	11:DO:50:ARG:H	2.04	0.64
12:DP:139:GLU:O	12:DP:141:GLN:N	2.30	0.64
13:D0:37:THR:HG22	13:D0:39:PRO:HD2	1.78	0.64
1:AA:259:G:H21	1:AA:621:A:H8	1.44	0.64
1:AA:1019:U:O2'	1:AA:1021:A:C2	2.50	0.64
1:AA:1359:A:H2	1:AA:1372:U:O4	1.81	0.64
3:AD:16:MET:HE3	3:AD:211:ARG:HD3	1.79	0.64
6:AG:138:GLN:OE1	6:AG:138:GLN:N	2.24	0.64
8:AK:133:HIS:O	8:AK:134:PRO:C	2.40	0.64
14:AQ:35:ILE:C	14:AQ:36:TYR:HD1	2.05	0.64
28:A6:14:THR:HG21	28:A6:19:ARG:NH2	2.11	0.64
31:BA:688:G:H2'	31:BA:689:C:H6	1.62	0.64
31:BA:1412:C:H2'	31:BA:1413:A:C8	2.33	0.64
31:CA:1160:G:O6	31:CA:1181:G:C6	2.49	0.64
31:CA:1200:C:H1'	31:CA:1204:A:N6	2.13	0.64
34:CG:31:CYS:C	34:CG:33:MET:H	2.06	0.64
1:DA:140:A:C8	1:DA:1408:C:O2'	2.48	0.64
1:DA:155:C:N3	1:DA:171:G:N2	2.42	0.64
1:DA:752:A:H3'	29:D7:1:MET:SD	2.37	0.64
1:DA:1342:A:N6	1:DA:1602:U:C2	2.66	0.64
1:DA:2531:A:H5'	7:DH:157:TYR:HE2	1.62	0.64
12:DP:137:TYR:C	12:DP:139:GLU:H	2.04	0.64
14:DQ:107:GLU:H	14:DQ:110:LEU:HG	1.62	0.64
19:DT:67:GLY:O	19:DT:69:TYR:N	2.25	0.64
1:AA:242:G:H5'	30:A8:62:LEU:CD2	2.27	0.64
1:AA:1087:G:C5	1:AA:1089:G:H1'	2.33	0.64
1:AA:1533:C:H2'	1:AA:1534:G:H8	1.60	0.64
1:AA:1796:U:H2'	1:AA:1797:C:C6	2.32	0.64
1:AA:1971:A:C4	3:AD:241:PRO:HD3	2.32	0.64
3:AD:6:PHE:CE1	3:AD:18:VAL:HG23	2.32	0.64
8:AK:37:VAL:HG22	8:AK:38:LEU:HD12	1.78	0.64
18:AS:88:ARG:HB3	18:AS:92:ARG:HB3	1.80	0.64
31:BA:538:G:OP2	42:BO:112:LYS:HD2	1.98	0.64
31:BA:953:G:H2'	31:BA:954:G:O4'	1.97	0.64
32:BE:5:ILE:HB	32:BE:221:LEU:HD23	1.80	0.64
38:BK:88:LYS:HB3	38:BK:89:PRO:HD2	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:CE:12:GLU:O	32:CE:15:VAL:N	2.25	0.64
32:CE:231:GLU:HB3	32:CE:232:PRO:HD2	1.80	0.64
43:CP:84:ILE:HD13	49:CV:63:THR:HG21	1.80	0.64
1:DA:90:U:H2'	1:DA:90:U:O2	1.97	0.64
1:DA:138:G:H22	19:DT:44:GLU:CD	2.06	0.64
1:DA:907:U:H5'	12:DP:23:GLY:O	1.98	0.64
1:DA:2129:C:C2'	1:DA:2130:U:H5'	2.26	0.64
1:DA:2378:A:H8	1:DA:2378:A:O5'	1.81	0.64
5:DF:31:HIS:CG	11:DO:9:ASN:OD1	2.51	0.64
10:DN:68:GLU:HB3	10:DN:78:ARG:HH11	1.62	0.64
19:DT:63:LYS:H	19:DT:63:LYS:CE	2.11	0.64
1:AA:1266:G:O2'	1:AA:2012:G:O6	2.10	0.63
1:AA:2287:A:N6	1:AA:2344:U:N3	2.25	0.63
1:AA:2789:C:H1'	1:AA:2892:A:H2	1.63	0.63
11:AO:11:GLY:C	11:AO:13:ASN:H	2.05	0.63
16:A1:90:VAL:HG12	16:A1:91:ASP:N	2.11	0.63
17:A2:38:LEU:HD23	17:A2:39:LEU:H	1.63	0.63
26:A4:39:CYS:O	26:A4:40:HIS:CG	2.51	0.63
31:BA:1160:G:O6	31:BA:1181:G:C6	2.51	0.63
34:CG:60:GLU:OE2	34:CG:199:ASN:N	2.30	0.63
1:DA:1525:G:H2'	1:DA:1526:G:H8	1.62	0.63
3:DD:32:SER:HA	3:DD:36:PRO:HD2	1.80	0.63
16:D1:34:LYS:HE2	16:D1:34:LYS:HA	1.80	0.63
1:AA:1077:A:H3'	1:AA:1078:U:H5"	1.80	0.63
1:AA:1478:G:H2'	1:AA:1479:G:H8	1.62	0.63
24:AW:50:ILE:HD12	24:AW:51:ARG:N	2.14	0.63
31:BA:438:G:H4'	34:BG:123:HIS:CG	2.34	0.63
31:BA:737:A:H2'	31:BA:738:C:H6	1.64	0.63
31:BA:1060:C:O2'	40:BM:56:HIS:HD2	1.81	0.63
31:BA:1125:U:OP2	31:BA:1145:C:N4	2.32	0.63
31:BA:1299:A:H2'	31:BA:1301:U:O4'	1.98	0.63
33:BF:123:GLN:O	33:BF:128:PHE:HB2	1.98	0.63
34:BG:114:ARG:HG3	34:BG:114:ARG:NH1	2.11	0.63
40:BM:33:GLN:HB2	40:BM:75:ILE:HD11	1.79	0.63
43:BP:105:THR:OG1	43:BP:106:ASN:N	2.30	0.63
31:CA:406:G:H21	34:CG:119:GLN:HE22	1.46	0.63
31:CA:1279:A:O2'	31:CA:1281:U:OP2	2.14	0.63
31:CA:1306:A:N6	31:CA:1331:G:O2'	2.31	0.63
39:CL:95:LYS:HD3	39:CL:96:LEU:N	2.14	0.63
1:DA:1045:A:O2'	1:DA:1047:G:O4'	2.16	0.63
8:DK:38:LEU:H	8:DK:38:LEU:HD12	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:DM:47:ALA:HB2	9:DM:112:LEU:HD11	1.78	0.63
11:DO:82:GLY:HA2	11:DO:113:LYS:O	1.98	0.63
16:D1:95:LEU:HD21	17:D2:13:ARG:HB2	1.80	0.63
1:AA:1480:G:C2	1:AA:1482:U:O2	2.51	0.63
11:AO:75:ILE:HD13	11:AO:75:ILE:H	1.63	0.63
16:A1:92:ARG:HB2	17:A2:11:GLN:NE2	2.14	0.63
18:AS:32:ALA:O	18:AS:36:LEU:HG	1.99	0.63
21:AV:169:GLU:CD	21:AV:170:THR:H	2.06	0.63
26:A4:39:CYS:O	26:A4:40:HIS:CB	2.46	0.63
28:A6:16:CYS:O	28:A6:17:LYS:HB2	1.97	0.63
31:BA:1101:A:H4'	31:BA:1102:A:O5'	1.98	0.63
31:BA:1118:C:OP1	39:BL:9:ARG:HD3	1.98	0.63
36:BI:97:PHE:HD2	48:BU:31:LEU:HD21	1.64	0.63
40:BM:75:ILE:HG13	40:BM:76:ASN:H	1.61	0.63
33:CF:15:THR:HG21	33:CF:181:ASN:HA	1.80	0.63
35:CH:80:ILE:HD11	35:CH:138:ALA:HB1	1.79	0.63
1:DA:90:U:O2'	1:DA:91:A:C8	2.51	0.63
1:DA:288:C:H2'	1:DA:289:A:C8	2.34	0.63
1:DA:959:A:H62	12:DP:83:MET:HE1	1.63	0.63
1:DA:2571:C:C5'	1:DA:2572:A:H5"	2.27	0.63
7:DH:169:VAL:HG22	7:DH:170:ARG:H	1.62	0.63
16:D1:59:ARG:O	16:D1:63:VAL:HG23	1.99	0.63
1:AA:1188:U:H4'	17:A2:79:VAL:HG22	1.81	0.63
1:AA:2126:A:N6	1:AA:2163:C:H1'	2.13	0.63
1:AA:2402:C:H2'	1:AA:2403:C:H5'	1.78	0.63
4:AE:7:VAL:HG21	15:AR:1:MET:HE3	1.81	0.63
4:AE:51:PHE:HD1	4:AE:52:LEU:HG	1.63	0.63
7:AH:17:VAL:HG11	7:AH:50:VAL:HG11	1.81	0.63
31:BA:517:G:N1	31:BA:533:A:OP2	2.30	0.63
31:BA:1176:A:N6	31:BA:1177:G:C6	2.67	0.63
32:BE:97:TRP:HH2	32:BE:176:GLU:HG3	1.61	0.63
39:BL:53:VAL:HG23	39:BL:95:LYS:HD2	1.80	0.63
47:BT:81:ARG:NH2	47:BT:83:ASP:OD2	2.23	0.63
33:CF:47:LEU:O	33:CF:49:SER:N	2.32	0.63
33:CF:118:GLN:O	33:CF:122:GLU:HB2	1.98	0.63
37:CJ:78:ARG:CZ	37:CJ:80:VAL:HB	2.29	0.63
1:DA:443:A:H5"	1:DA:444:C:OP1	1.98	0.63
1:DA:1225:C:O2'	17:D2:85:LYS:N	2.31	0.63
17:D2:2:PHE:H	17:D2:42:GLY:HA3	1.61	0.63
1:AA:18:C:O3'	16:A1:23:GLY:HA2	1.98	0.63
1:AA:443:A:H5"	1:AA:444:C:OP1	1.97	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2262:U:O2'	1:AA:2263:C:H5'	1.99	0.63
15:AR:3:ARG:HB3	15:AR:7:ILE:HG13	1.79	0.63
43:BP:14:ARG:HB3	43:BP:17:VAL:HG23	1.79	0.63
53:BC:1:C:H4'	53:BC:2:G:H5'	1.79	0.63
31:CA:509:A:N3	31:CA:543:C:O2'	2.32	0.63
31:CA:1202:G:N2	44:CQ:43:CYS:SG	2.70	0.63
31:CA:1221:G:OP1	31:CA:1321:C:N4	2.30	0.63
31:CA:1382:C:H1'	37:CJ:79:ARG:NH1	2.13	0.63
31:CA:1392:G:H21	31:CA:1502:A:H8	1.45	0.63
1:DA:1582:C:HO2'	1:DA:1586:A:H8	1.47	0.63
1:DA:1899:G:H21	1:DA:1902:C:H5	1.47	0.63
1:DA:2144:U:O2	1:DA:2148:G:N2	2.32	0.63
1:DA:2748:A:C8	1:DA:2754:U:O4	2.52	0.63
4:AE:37:ARG:NH1	4:AE:41:LYS:HD2	2.12	0.63
4:AE:60:ASN:OD1	4:AE:62:PRO:HD2	1.97	0.63
11:AO:91:PHE:O	11:AO:121:LYS:NZ	2.31	0.63
21:AV:127:LYS:O	21:AV:161:VAL:HB	1.98	0.63
25:AX:43:ILE:O	25:AX:47:VAL:HG23	1.98	0.63
28:A6:11:LEU:HD21	28:A6:51:GLU:HG3	1.81	0.63
31:BA:267:C:OP1	47:BT:67:LYS:HD2	1.99	0.63
31:BA:960:U:O2	31:BA:960:U:H2'	1.97	0.63
32:BE:80:ILE:HD11	32:BE:208:ILE:HG23	1.80	0.63
31:CA:921:U:O2'	35:CH:19:MET:O	2.17	0.63
1:DA:1060:U:N3	1:DA:1088:A:H8	1.96	0.63
5:DF:148:LEU:HD23	5:DF:191:ARG:HH12	1.64	0.63
1:AA:2898:U:H2'	1:AA:2899:G:C8	2.34	0.63
5:AF:123:LEU:HD12	5:AF:124:LEU:H	1.64	0.63
13:A0:74:LYS:C	13:A0:76:VAL:N	2.56	0.63
15:AR:20:PRO:HG2	15:AR:86:ILE:O	1.99	0.63
15:AR:51:ARG:HG3	15:AR:98:LYS:HE3	1.80	0.63
18:AS:14:PRO:HB2	18:AS:18:ARG:HH21	1.62	0.63
31:BA:188:U:H2'	31:BA:189:U:H5"	1.79	0.63
31:BA:1336:C:H4'	31:BA:1336:C:OP1	1.98	0.63
35:BH:154:GLY:O	35:BH:155:GLU:HB3	1.97	0.63
37:BJ:65:ALA:HB2	37:BJ:128:ALA:HB2	1.80	0.63
47:BT:76:LEU:HD11	47:BT:79:SER:HB3	1.78	0.63
52:BB:52:U:H2'	52:BB:53:A:H5'	1.81	0.63
31:CA:322:C:H5	31:CA:328:C:H5	1.46	0.63
31:CA:1226:C:H4'	49:CV:80:TYR:OH	1.98	0.63
31:CA:1300:G:O2'	31:CA:1301:U:P	2.56	0.63
40:CM:83:GLU:HA	40:CM:86:MET:HE2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CD:31:G:H2'	53:CD:32:G:H8	1.62	0.63
1:DA:89:G:H3'	1:DA:90:U:H5"	1.81	0.63
1:DA:152:G:H1	1:DA:174:C:N4	1.95	0.63
1:DA:602:G:N2	1:DA:655:A:C8	2.66	0.63
1:DA:1543:A:H2'	1:DA:1544:C:H3'	1.79	0.63
1:DA:2364:C:H4'	22:D3:56:ASP:OD2	1.99	0.63
1:DA:2471:C:H2'	1:DA:2472:G:C8	2.33	0.63
9:DM:128:HIS:HE1	9:DM:134:ARG:HH11	1.46	0.63
12:DP:104:PHE:O	12:DP:105:GLU:HB3	1.98	0.63
21:DV:114:GLY:O	21:DV:116:VAL:N	2.32	0.63
23:DZ:78:LYS:O	23:DZ:78:LYS:HD2	1.99	0.63
1:AA:1171:G:C5	1:AA:1174:A:N6	2.67	0.63
1:AA:1869:G:H8	1:AA:1869:G:H5'	1.64	0.63
5:AF:66:PRO:O	5:AF:67:GLN:CB	2.46	0.63
11:AO:106:LEU:O	11:AO:107:LYS:HB2	1.99	0.63
12:AP:59:ARG:HH21	12:AP:59:ARG:CG	2.12	0.63
12:AP:84:GLY:O	12:AP:85:LYS:HB2	1.98	0.63
16:A1:110:VAL:O	16:A1:113:ALA:HB3	1.98	0.63
34:BG:33:MET:HE2	34:BG:37:PRO:HA	1.80	0.63
53:BC:1:C:O2'	53:BC:2:G:P	2.56	0.63
40:CM:56:HIS:O	40:CM:58:ASP:N	2.32	0.63
1:DA:2:G:H1	1:DA:2901:C:N4	1.96	0.63
1:DA:27:G:N2	1:DA:512:G:H1'	2.14	0.63
1:DA:669:G:O2'	1:DA:670:A:P	2.56	0.63
16:D1:66:ASN:HD21	16:D1:70:ARG:HE	1.46	0.63
22:D3:51:VAL:N	22:D3:62:LEU:HD12	2.13	0.63
27:D5:46:CYS:HB3	27:D5:49:CYS:SG	2.39	0.63
1:AA:495:G:H1'	18:AS:57:ASN:ND2	2.13	0.63
1:AA:557:U:H2'	1:AA:558:G:H8	1.64	0.63
1:AA:1024:G:C3'	1:AA:1025:G:H5"	2.29	0.63
1:AA:1062:G:N3	1:AA:1077:A:N6	2.46	0.63
1:AA:2104:G:C2	1:AA:2186:G:C2	2.87	0.63
2:AB:15:A:O2'	2:AB:109:G:C8	2.50	0.63
27:A5:52:TYR:HD1	27:A5:53:ALA:H	1.47	0.63
31:BA:1366:C:H2'	31:BA:1367:C:H6	1.63	0.63
32:BE:178:ARG:HH22	32:BE:196:LEU:HA	1.64	0.63
34:BG:114:ARG:HH11	34:BG:114:ARG:CG	2.09	0.63
41:CN:29:ILE:HG22	41:CN:44:SER:CB	2.25	0.63
43:CP:84:ILE:HG21	49:CV:63:THR:HG21	1.80	0.63
53:CC:30:G:O2'	53:CC:31:G:H5'	1.99	0.63
1:DA:993:G:H1'	17:D2:87:HIS:CE1	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1899:G:N2	1:DA:1902:C:C5	2.67	0.63
9:DM:62:VAL:HG22	9:DM:66:LYS:HD2	1.79	0.63
20:DU:97:ARG:NH2	20:DU:98:VAL:HB	2.13	0.63
1:AA:1533:C:N4	1:AA:1538:G:N1	2.34	0.62
1:AA:1932:A:H2'	1:AA:1933:G:O4'	1.99	0.62
3:AD:32:SER:HA	3:AD:36:PRO:HD2	1.80	0.62
9:AM:73:THR:HB	9:AM:82:LEU:HD11	1.80	0.62
24:AW:42:GLY:C	24:AW:44:LEU:H	2.06	0.62
31:BA:580:U:H2'	31:BA:581:G:O4'	1.98	0.62
31:BA:1128:C:H5'	39:BL:16:ARG:HH22	1.64	0.62
33:BF:79:ARG:HH21	41:CN:99:GLN:NE2	1.97	0.62
33:BF:150:LYS:HG3	33:BF:169:ALA:HB2	1.79	0.62
35:BH:76:ILE:HG13	35:BH:93:PRO:HB3	1.79	0.62
38:BK:11:THR:HG23	38:BK:14:ARG:HH12	1.62	0.62
38:BK:64:LYS:HB3	38:BK:79:VAL:HG21	1.81	0.62
41:BN:48:ILE:HD11	41:BN:64:ALA:HA	1.80	0.62
41:BN:86:GLY:N	41:BN:112:THR:OG1	2.21	0.62
42:BO:15:VAL:HG23	42:BO:16:ARG:N	2.11	0.62
49:BV:30:LEU:O	49:BV:30:LEU:HD22	1.99	0.62
31:CA:1124:G:O2'	31:CA:1145:C:C4	2.52	0.62
31:CA:1347:G:N2	31:CA:1373:G:H2'	2.13	0.62
49:CV:18:LYS:O	49:CV:22:LEU:HB2	1.98	0.62
1:DA:2272:U:H5"	1:DA:2273:A:OP1	1.99	0.62
1:DA:2517:C:C2	1:DA:2542:A:N6	2.66	0.62
11:DO:52:GLU:OE1	11:DO:53:GLY:N	2.31	0.62
11:DO:59:LEU:O	11:DO:59:LEU:HD22	1.98	0.62
11:DO:85:LEU:HB3	11:DO:114:ILE:CD1	2.29	0.62
26:D4:14:ILE:HD11	26:D4:33:VAL:HG11	1.81	0.62
1:AA:959:A:H62	12:AP:83:MET:CE	2.10	0.62
1:AA:2148:G:H2'	1:AA:2149:G:H8	1.64	0.62
1:AA:2298:A:H62	1:AA:2318:G:H8	1.46	0.62
1:AA:2506:U:O2	1:AA:2506:U:H2'	2.00	0.62
4:AE:14:ILE:CG2	4:AE:21:VAL:HG21	2.29	0.62
5:AF:24:LEU:HD23	5:AF:115:ALA:HA	1.81	0.62
6:AG:111:LEU:HB3	6:AG:117:PHE:CE2	2.34	0.62
16:A1:92:ARG:HD2	17:A2:11:GLN:HB2	1.81	0.62
31:BA:255:G:H1'	47:BT:16:GLN:NE2	2.14	0.62
47:BT:22:LEU:HD11	47:BT:39:SER:HB3	1.81	0.62
31:CA:1451:A:OP2	31:CA:1452:C:N4	2.32	0.62
33:CF:8:ILE:O	33:CF:10:PHE:N	2.33	0.62
1:DA:851:U:OP1	25:DX:49:LYS:HE2	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:993:G:OP1	16:D1:50:ARG:NH2	2.31	0.62
1:DA:1036:G:H1	1:DA:1119:C:H42	1.47	0.62
1:DA:2840:C:H5"	13:D0:53:HIS:CD2	2.35	0.62
19:DT:23:GLU:HG3	19:DT:24:GLY:H	1.62	0.62
21:DV:16:SER:O	21:DV:20:ARG:HG3	1.98	0.62
28:D6:27:LYS:HB3	28:D6:27:LYS:NZ	2.14	0.62
8:AK:46:ALA:O	8:AK:50:ARG:HD3	2.00	0.62
11:AO:15:ARG:CG	11:AO:15:ARG:NH1	2.38	0.62
21:AV:142:SER:CB	21:AV:143:GLY:HA2	2.23	0.62
30:A8:52:LYS:O	30:A8:52:LYS:HG3	1.98	0.62
53:BD:19:G:H2'	53:BD:58:A:H62	1.64	0.62
42:CO:38:ARG:HB3	42:CO:38:ARG:NH1	2.14	0.62
45:CR:82:ILE:HB	45:CR:87:ILE:HB	1.81	0.62
1:DA:84:A:H61	1:DA:102:G:C2'	2.10	0.62
11:DO:56:SER:O	11:DO:57:THR:HB	1.97	0.62
1:AA:2015:A:C1'	27:A5:2:ALA:HA	2.28	0.62
31:BA:1218:C:OP2	44:BQ:9:LYS:NZ	2.32	0.62
31:CA:235:C:H5'	47:CT:70:ARG:HG2	1.79	0.62
31:CA:266:G:H1'	31:CA:267:C:OP2	2.00	0.62
31:CA:583:A:H2'	31:CA:584:G:O4'	2.00	0.62
38:CK:110:ALA:HB3	38:CK:121:ASP:HB3	1.81	0.62
40:CM:27:ALA:HB2	40:CM:85:LEU:HD11	1.81	0.62
50:CW:56:MET:HE1	50:CW:85:MET:HA	1.81	0.62
1:DA:1225:C:O3'	17:D2:85:LYS:HA	1.99	0.62
1:DA:2023:G:OP2	1:DA:2617:C:H4'	1.99	0.62
1:DA:2173:A:C2	1:DA:2174:C:H4'	2.34	0.62
3:DD:43:ARG:NH1	3:DD:44:ASN:HD21	1.93	0.62
12:DP:59:ARG:HH21	12:DP:59:ARG:CG	2.12	0.62
1:AA:140:A:C8	1:AA:1408:C:O2'	2.48	0.62
1:AA:507:A:C5'	1:AA:508:G:H5'	2.29	0.62
1:AA:873:G:H1	1:AA:904:C:H42	1.47	0.62
4:AE:36:ARG:NH1	4:AE:85:ASN:OD1	2.32	0.62
12:AP:78:PRO:HG2	12:AP:81:VAL:HG11	1.82	0.62
16:A1:92:ARG:HB2	17:A2:11:GLN:CD	2.24	0.62
31:BA:542:G:H5'	34:BG:41:GLY:HA3	1.81	0.62
32:CE:67:THR:HA	32:CE:90:MET:HE1	1.80	0.62
37:CJ:16:LEU:CD1	39:CL:42:ARG:HA	2.27	0.62
49:CV:80:TYR:CE1	49:CV:82:GLY:HA2	2.34	0.62
1:DA:906:G:OP1	12:DP:141:GLN:CG	2.47	0.62
1:DA:1688:U:H1'	1:DA:1701:A:C6	2.34	0.62
11:DO:62:LEU:HD11	30:D8:25:MET:CB	2.23	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DO:65:ARG:HH11	11:DO:65:ARG:HB2	1.64	0.62
12:DP:77:LYS:C	12:DP:79:LEU:H	2.07	0.62
1:AA:372:G:O2'	1:AA:373:U:OP2	2.18	0.62
1:AA:900:A:H2'	1:AA:900:A:N3	2.13	0.62
1:AA:955:C:OP1	12:AP:87:LYS:NZ	2.31	0.62
1:AA:1069:A:H5"	1:AA:1070:A:OP1	2.00	0.62
3:AD:71:ASP:HB3	3:AD:103:ARG:NH2	2.11	0.62
17:A2:49:THR:HB	17:A2:50:PRO:CD	2.22	0.62
24:AW:13:ALA:O	24:AW:16:LEU:HB3	1.99	0.62
31:BA:1086:U:H3	31:BA:1099:G:H22	1.46	0.62
41:BN:121:PRO:HG2	41:BN:126:ARG:HG3	1.82	0.62
43:BP:23:TYR:HB3	43:BP:67:GLU:HA	1.82	0.62
52:BB:15:A:N1	52:BB:21:A:N6	2.46	0.62
31:CA:1032:A:H3'	31:CA:1032(A):G:C5'	2.29	0.62
31:CA:1213:A:N1	31:CA:1215:G:H1'	2.13	0.62
31:CA:1308:U:H5"	43:CP:98:VAL:CG2	2.30	0.62
31:CA:1442:G:HO2'	31:CA:1443:G:P	2.23	0.62
34:CG:189:PRO:HB2	34:CG:194:LEU:HD21	1.81	0.62
47:CT:53:LEU:HD23	47:CT:82:MET:HE1	1.80	0.62
1:DA:1336:A:H2'	1:DA:1337:G:H8	1.63	0.62
1:DA:2404:C:H1'	11:DO:67:MET:HE1	1.82	0.62
1:DA:2517:C:N3	1:DA:2542:A:N6	2.47	0.62
2:DB:44:G:H1'	2:DB:47:C:H42	1.65	0.62
4:DE:35:GLN:HE21	4:DE:36:ARG:H	1.47	0.62
14:DQ:110:LEU:HB2	14:DQ:112:PHE:CZ	2.35	0.62
21:DV:144:LEU:HD12	21:DV:144:LEU:O	1.99	0.62
1:AA:2287:A:N1	1:AA:2346:A:C2	2.68	0.62
3:AD:25:THR:O	3:AD:26:LYS:C	2.40	0.62
7:AH:30:LYS:CD	7:AH:81:GLU:H	2.13	0.62
18:AS:45:TYR:CE2	18:AS:49:LYS:HD2	2.35	0.62
20:AU:35:TYR:CE1	20:AU:69:ALA:HB3	2.34	0.62
31:BA:880:C:OP1	42:BO:5:ASN:ND2	2.33	0.62
31:BA:1313:U:OP2	49:BV:6:LYS:HG3	1.98	0.62
31:CA:7:G:H5'	31:CA:298:A:O4'	1.99	0.62
31:CA:963:G:H21	40:CM:55:LYS:CE	2.13	0.62
1:DA:672:C:O2'	1:DA:673:C:H5'	2.00	0.62
1:DA:1607:C:H5"	1:DA:1608:A:H5'	1.80	0.62
9:DM:42:TRP:O	16:D1:64:ARG:NH2	2.33	0.62
11:DO:16:ARG:HG3	11:DO:16:ARG:NH1	2.15	0.62
11:DO:134:ALA:O	11:DO:138:LEU:HD12	1.99	0.62
15:DR:16:ARG:NH2	15:DR:19:LEU:HD21	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:D2:35:LEU:HG	17:D2:37:VAL:CG1	2.28	0.62
17:D2:85:LYS:CD	17:D2:86:GLY:H	2.12	0.62
1:AA:32:C:O2'	1:AA:33:U:H5'	1.99	0.62
1:AA:1065:U:C5	1:AA:1066:U:H6	2.18	0.62
16:A1:65:ILE:C	16:A1:67:ALA:H	2.07	0.62
28:A6:30:THR:HA	28:A6:31:PRO:C	2.25	0.62
32:BE:189:ASP:OD1	32:BE:191:ASP:HB2	1.99	0.62
34:BG:108:LEU:HB3	34:BG:110:PHE:CE1	2.35	0.62
35:BH:11:ILE:HD11	35:BH:31:LEU:HB3	1.81	0.62
41:BN:127:LYS:HE2	41:BN:127:LYS:HA	1.81	0.62
31:CA:673:G:H2'	31:CA:674:G:C8	2.34	0.62
31:CA:954:G:H2'	31:CA:955:U:C6	2.34	0.62
1:DA:274:G:C5	1:DA:275:G:C6	2.87	0.62
1:DA:1542:G:H3'	1:DA:1543:A:H5"	1.82	0.62
1:DA:2689:U:C4'	1:DA:2690:C:OP2	2.46	0.62
1:DA:2784:C:H1'	4:DE:37:ARG:NH2	2.14	0.62
4:DE:9:VAL:CG2	4:DE:25:VAL:HB	2.29	0.62
1:AA:1103:A:H2'	1:AA:1104:C:H5'	1.80	0.62
7:AH:117:PRO:HB3	7:AH:123:PHE:CE1	2.35	0.62
16:A1:65:ILE:O	16:A1:67:ALA:N	2.33	0.62
18:AS:65:LEU:C	18:AS:67:ASP:H	2.08	0.62
27:A5:40:LYS:NZ	27:A5:46:CYS:HB3	2.15	0.62
31:BA:1240:U:OP2	37:BJ:116:ALA:N	2.28	0.62
41:BN:30:VAL:HG21	41:BN:65:ALA:HA	1.80	0.62
42:BO:86:ARG:HH21	42:BO:88:LYS:HE3	1.63	0.62
31:CA:173:U:H5"	31:CA:197:A:O4'	1.99	0.62
1:DA:885:C:H42	1:DA:890:A:H62	1.41	0.62
1:DA:1649:G:O2'	13:D0:107:ASP:OD1	2.09	0.62
1:DA:1810:A:H2'	1:DA:1811:G:O4'	1.99	0.62
1:DA:2422:A:H4'	1:DA:2423:U:OP1	1.99	0.62
4:DE:4:ILE:CD1	4:DE:28:ALA:HB1	2.30	0.62
4:DE:9:VAL:HG21	4:DE:25:VAL:HB	1.81	0.62
9:DM:30:ILE:HG22	9:DM:34:LEU:HD22	1.81	0.62
11:DO:65:ARG:HB2	11:DO:65:ARG:NH1	2.14	0.62
17:D2:48:GLY:HA3	17:D2:52:VAL:HG22	1.82	0.62
21:DV:19:ARG:HH11	21:DV:84:GLU:HB2	1.64	0.62
1:AA:534:U:H5'	16:A1:42:ALA:HB1	1.82	0.62
1:AA:887:A:H5'	1:AA:888:C:OP1	2.00	0.62
1:AA:1210:A:H5'	1:AA:1210:A:C8	2.31	0.62
1:AA:2712:U:O2'	1:AA:2713:A:H5'	2.00	0.62
9:AM:43:THR:HB	9:AM:46:VAL:HG12	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1020:U:H2'	31:BA:1021:G:C8	2.35	0.62
32:BE:88:ALA:HB2	32:BE:219:VAL:HG13	1.82	0.62
50:BW:13:LEU:C	50:BW:13:LEU:HD12	2.24	0.62
31:CA:1119:C:OP2	39:CL:9:ARG:NH2	2.33	0.62
31:CA:1392:G:N2	31:CA:1502:A:H8	1.97	0.62
35:CH:76:ILE:HG23	35:CH:77:PRO:HD2	1.82	0.62
35:CH:110:LEU:O	35:CH:115:VAL:HG22	2.00	0.62
43:CP:20:THR:C	43:CP:22:ILE:H	2.07	0.62
53:CC:60:A:H2'	53:CC:61:U:H5'	1.81	0.62
53:CC:62:C:H2'	53:CC:63:C:H6	1.65	0.62
12:DP:6:ARG:O	12:DP:7:MET:CG	2.30	0.62
1:AA:1055:G:H1	1:AA:1104:C:H42	1.47	0.61
1:AA:1209:G:H21	1:AA:1210:A:H62	1.48	0.61
1:AA:2788:C:O2'	1:AA:2809:A:N3	2.31	0.61
3:AD:270:ILE:C	3:AD:271:ILE:HG12	2.25	0.61
12:AP:77:LYS:HB3	12:AP:78:PRO:HD2	1.82	0.61
14:AQ:70:GLY:HA2	14:AQ:101:LEU:HD13	1.80	0.61
19:AT:84:ALA:HB3	19:AT:87:GLN:HE22	1.65	0.61
24:AW:15:LYS:N	24:AW:67:LYS:HZ1	1.95	0.61
44:BQ:13:THR:O	44:BQ:14:PRO:O	2.18	0.61
31:CA:179:A:H2'	31:CA:180:U:C6	2.35	0.61
31:CA:1199:U:H4'	40:CM:54:PHE:CZ	2.34	0.61
34:CG:178:VAL:HG12	34:CG:179:GLU:N	2.15	0.61
49:CV:80:TYR:CZ	49:CV:82:GLY:HA2	2.34	0.61
1:DA:1300:U:H5"	1:DA:1301:A:H5"	1.82	0.61
1:DA:2165:G:H2'	1:DA:2165:G:N3	2.15	0.61
14:DQ:14:VAL:HG21	14:DQ:89:ARG:HD3	1.80	0.61
19:DT:63:LYS:O	19:DT:63:LYS:HD2	1.99	0.61
20:DU:42:VAL:HG22	20:DU:65:ALA:HB3	1.82	0.61
21:DV:158:PRO:O	21:DV:161:VAL:HG13	2.00	0.61
22:D3:27:GLU:HG3	22:D3:68:GLU:HA	1.81	0.61
1:AA:813:U:H2'	1:AA:814:C:C6	2.35	0.61
1:AA:1069:A:H4'	1:AA:1070:A:C5'	2.30	0.61
1:AA:1833:U:O2'	1:AA:1969:A:N1	2.32	0.61
1:AA:2857:G:N2	1:AA:2860:A:OP2	2.33	0.61
2:AB:94:C:H2'	2:AB:95:U:H6	1.65	0.61
17:A2:47:VAL:CG2	17:A2:48:GLY:N	2.62	0.61
34:BG:22:LYS:HB2	34:BG:26:CYS:CB	2.23	0.61
40:BM:50:ILE:HD11	40:BM:57:LYS:HD2	1.82	0.61
43:BP:10:PRO:HB2	43:BP:18:ALA:HB1	1.82	0.61
1:DA:886:C:O2'	1:DA:887:A:O5'	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1156:A:OP1	16:D1:55:ARG:NH1	2.33	0.61
8:DK:77:LEU:HG	8:DK:78:THR:N	2.15	0.61
12:DP:66:ILE:CG1	12:DP:67:ARG:N	2.30	0.61
17:D2:2:PHE:O	17:D2:42:GLY:N	2.33	0.61
1:AA:1026:U:H1'	1:AA:1027:A:C5'	2.29	0.61
1:AA:1537:C:H2'	1:AA:1538:G:C8	2.34	0.61
5:AF:132:VAL:HG12	5:AF:163:VAL:HG22	1.81	0.61
31:BA:189:U:O2	47:BT:63:ARG:NH2	2.33	0.61
34:BG:9:CYS:O	34:BG:13:ARG:HG2	2.00	0.61
31:CA:750:G:N3	45:CR:23:GLY:HA3	2.14	0.61
1:DA:1786:A:C2	1:DA:2606:C:H1'	2.35	0.61
1:DA:2880:C:O2	13:D0:93:GLY:N	2.29	0.61
6:DG:67:LYS:H	26:D4:6:HIS:HE2	1.47	0.61
11:DO:138:LEU:HD21	11:DO:144:GLU:HG2	1.82	0.61
15:DR:5:ALA:O	15:DR:7:ILE:N	2.32	0.61
1:AA:249:C:O2	30:A8:12:LYS:HE3	1.99	0.61
1:AA:1139:G:O2'	1:AA:1143:A:N1	2.30	0.61
1:AA:2836:U:H2'	1:AA:2837:G:C8	2.35	0.61
12:AP:136:ALA:CB	21:AV:48:PHE:CE1	2.83	0.61
25:AX:6:VAL:HG12	25:AX:54:VAL:HG21	1.81	0.61
31:BA:321:A:N7	31:BA:328:C:O2'	2.33	0.61
40:BM:61:GLU:OE1	44:BQ:58:LYS:HE2	2.00	0.61
49:BV:41:VAL:CB	49:BV:42:PRO:HA	2.22	0.61
33:CF:22:TRP:HB3	33:CF:59:ARG:HB2	1.82	0.61
44:CQ:12:ARG:C	44:CQ:14:PRO:HD3	2.25	0.61
1:DA:9:U:C4	1:DA:2629:A:C6	2.89	0.61
1:DA:598:G:C1'	11:DO:12:ALA:HB2	2.29	0.61
1:DA:2125:G:H22	1:DA:2172:U:P	2.22	0.61
1:DA:2420:C:OP2	30:D8:33:ASN:HA	1.99	0.61
2:DB:104:A:H2'	2:DB:105:G:O4'	2.00	0.61
12:DP:64:ILE:HG22	12:DP:65:PHE:H	1.64	0.61
14:DQ:88:ASP:O	14:DQ:89:ARG:CB	2.45	0.61
26:D4:56:VAL:O	26:D4:57:GLU:HB2	2.00	0.61
1:AA:1021:A:H62	1:AA:1141:U:H3	1.47	0.61
11:AO:9:ASN:HB3	11:AO:10:PRO:CD	2.30	0.61
31:BA:598:U:H4'	38:BK:94:TYR:CD2	2.35	0.61
31:BA:630:G:H2'	31:BA:631:G:O4'	2.00	0.61
31:BA:1053:G:O6	31:BA:1199:U:H2'	2.00	0.61
31:BA:1194:U:H2'	31:BA:1195:C:C6	2.36	0.61
39:BL:47:LEU:H	39:BL:47:LEU:HD13	1.65	0.61
31:CA:15:G:H1'	35:CH:19:MET:CE	2.29	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:560:U:HO2'	31:CA:561:U:P	2.22	0.61
31:CA:1053:G:HO2'	31:CA:1054:C:P	2.22	0.61
31:CA:1367:C:H5'	40:CM:60:ARG:HH21	1.65	0.61
34:CG:24:GLU:O	34:CG:27:TYR:HB2	2.01	0.61
1:DA:528:A:H8	1:DA:528:A:H3'	1.66	0.61
1:DA:528:A:O2'	1:DA:529:A:H5'	2.00	0.61
1:DA:1092:C:O2'	7:DH:170:ARG:NH2	2.33	0.61
1:DA:1342:A:N6	1:DA:1397:U:C5	2.68	0.61
7:DH:124:GLU:OE1	7:DH:124:GLU:N	2.34	0.61
20:DU:19:LYS:HD2	20:DU:67:LEU:HD11	1.83	0.61
21:DV:158:PRO:HB2	21:DV:159:PRO:CD	2.30	0.61
1:AA:883:G:N2	1:AA:893:C:N3	2.44	0.61
1:AA:1931:U:H5	1:AA:1969:A:N7	1.99	0.61
1:AA:2346:A:H5"	1:AA:2383:G:O4'	2.00	0.61
11:AO:66:GLY:O	11:AO:67:MET:HB2	1.99	0.61
31:BA:1112:C:C4	33:BF:178:LEU:HD23	2.35	0.61
31:CA:133:U:OP1	50:CW:74:LYS:NZ	2.33	0.61
31:CA:197:A:H1'	31:CA:198:G:OP2	2.00	0.61
31:CA:1095:U:P	31:CA:1108:G:H1	2.24	0.61
31:CA:1177:G:H2'	31:CA:1178:G:N3	2.15	0.61
44:CQ:24:CYS:HB3	44:CQ:29:ARG:HB2	1.83	0.61
1:DA:1536:A:H5"	1:DA:1537:C:OP2	2.01	0.61
1:DA:2307:G:O2'	1:DA:2308:G:N7	2.32	0.61
4:DE:2:LYS:HD2	4:DE:95:ILE:HG22	1.81	0.61
15:DR:54:ARG:HA	15:DR:59:THR:HB	1.81	0.61
17:D2:1:MET:SD	17:D2:43:GLU:HB2	2.41	0.61
1:AA:270(O):U:H5"	1:AA:270(P):C:OP2	1.99	0.61
1:AA:545:G:H2'	1:AA:546:C:H5"	1.82	0.61
1:AA:1882:C:H5'	1:AA:1883:G:OP2	2.00	0.61
1:AA:2257:U:O2'	1:AA:2258:C:H5'	2.00	0.61
6:AG:112:PRO:HG3	26:A4:38:LYS:HD3	1.82	0.61
7:AH:129:THR:O	7:AH:129:THR:OG1	2.18	0.61
7:AH:153:LYS:HG2	7:AH:162:ILE:HB	1.81	0.61
17:A2:38:LEU:HD23	17:A2:40:LEU:H	1.66	0.61
23:AZ:41:ARG:HG3	23:AZ:41:ARG:NH1	2.14	0.61
37:BJ:57:GLU:N	37:BJ:57:GLU:OE1	2.33	0.61
38:BK:21:LYS:O	38:BK:65:TYR:OH	2.14	0.61
38:BK:120:THR:H	38:BK:123:GLU:HB3	1.64	0.61
32:CE:7:VAL:O	32:CE:8:LYS:HB2	2.01	0.61
37:CJ:43:PHE:O	37:CJ:47:CYS:N	2.34	0.61
53:CD:9:G:O2'	53:CD:10:G:C8	2.54	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1329:U:H5"	1:DA:1330:C:H5	1.66	0.61
1:DA:2126:A:H1'	1:DA:2127:G:H5"	1.83	0.61
4:DE:47:VAL:CG1	4:DE:48:GLN:N	2.64	0.61
4:DE:51:PHE:CE2	4:DE:52:LEU:HG	2.34	0.61
5:DF:18:ARG:HG2	5:DF:19:GLU:H	1.64	0.61
12:DP:89:ASN:O	12:DP:90:VAL:HG12	1.99	0.61
20:DU:60:PHE:H	20:DU:60:PHE:HD2	1.46	0.61
25:DX:52:HIS:H	25:DX:52:HIS:CD2	2.16	0.61
1:AA:71:A:C2	19:AT:31:HIS:CE1	2.84	0.61
1:AA:1899:G:O2'	1:AA:1900:A:OP2	2.19	0.61
1:AA:2467:C:O2'	1:AA:2468:G:H5'	2.01	0.61
5:AF:63:LYS:HE2	5:AF:67:GLN:HB2	1.83	0.61
6:AG:101:ILE:HG13	26:A4:25:TYR:O	2.00	0.61
9:AM:35:ARG:O	9:AM:37:LYS:HG3	2.00	0.61
12:AP:21:THR:CB	12:AP:99:PRO:O	2.41	0.61
23:AZ:91:LYS:O	23:AZ:93:GLU:N	2.34	0.61
31:BA:503:C:OP2	42:BO:113:SER:OG	2.17	0.61
33:BF:119:ARG:HE	33:BF:140:ARG:NH2	1.98	0.61
38:CK:10:LEU:HD22	38:CK:83:ILE:HD11	1.83	0.61
53:CD:52:C:H2'	53:CD:53:G:H8	1.66	0.61
1:DA:1171:G:O2'	1:DA:1173:G:O5'	2.17	0.61
4:DE:37:ARG:HD3	4:DE:44:TYR:OH	2.00	0.61
5:DF:83:PHE:O	5:DF:85:GLY:N	2.30	0.61
28:D6:9:LEU:HD13	28:D6:11:LEU:HD21	1.82	0.61
1:AA:2377:A:H2'	1:AA:2378:A:C8	2.36	0.61
9:AM:7:LYS:H	9:AM:7:LYS:CD	2.11	0.61
12:AP:66:ILE:O	12:AP:104:PHE:N	2.30	0.61
20:AU:79:CYS:HG	20:AU:80:GLY:N	1.95	0.61
31:BA:1118:C:H1'	31:BA:1179:A:C4	2.36	0.61
34:BG:13:ARG:HB3	34:BG:33:MET:HG2	1.83	0.61
46:BS:4:ILE:HD13	46:BS:21:VAL:HG13	1.81	0.61
50:BW:26:ASN:HB2	50:BW:71:THR:HG23	1.80	0.61
31:CA:135:C:O2	46:CS:1:MET:HB3	2.00	0.61
31:CA:1206:G:O2'	33:CF:193:TYR:HA	2.01	0.61
38:CK:12:ARG:HD2	38:CK:26:VAL:HG12	1.82	0.61
43:CP:4:ILE:HG13	43:CP:5:ALA:N	2.15	0.61
53:CD:6:G:H1	53:CD:68:C:H42	1.48	0.61
53:CD:36:A:H61	54:C1:13:U:H3	1.47	0.61
1:DA:888:C:H4'	1:DA:889:C:O5'	1.98	0.61
1:DA:946:G:H2'	1:DA:947:G:H8	1.65	0.61
3:DD:34:VAL:O	3:DD:34:VAL:HG13	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DK:101:LEU:H	8:DK:101:LEU:HD23	1.65	0.61
10:DN:7:TYR:HE1	10:DN:20:MET:HE3	1.65	0.61
15:DR:107:ASP:N	15:DR:107:ASP:OD1	2.32	0.61
28:D6:25:LYS:HD2	30:D8:34:TRP:HZ3	1.64	0.61
1:AA:330:A:H2	1:AA:1210:A:HO2'	1.49	0.61
1:AA:1069:A:H4'	1:AA:1070:A:H5"	1.82	0.61
1:AA:1218:C:H42	1:AA:1231:G:H1	1.48	0.61
1:AA:1771:C:H1'	1:AA:1786:A:C8	2.36	0.61
1:AA:2347:C:O5'	28:A6:39:TYR:OH	2.16	0.61
1:AA:2468:G:H22	1:AA:2481:G:H2'	1.65	0.61
1:AA:2492:U:H2'	1:AA:2493:U:C6	2.35	0.61
1:AA:2690:C:H5"	1:AA:2872:G:H21	1.66	0.61
3:AD:35:LYS:CG	3:AD:64:ILE:N	2.61	0.61
8:AK:112:LYS:O	8:AK:113:ARG:C	2.44	0.61
44:BQ:12:ARG:C	44:BQ:14:PRO:HD2	2.26	0.61
31:CA:1454:G:OP1	50:CW:39:LYS:NZ	2.31	0.61
38:CK:88:LYS:HB2	38:CK:89:PRO:HD2	1.81	0.61
43:CP:20:THR:O	43:CP:22:ILE:N	2.31	0.61
1:DA:2466:C:H2'	1:DA:2467:C:C5'	2.09	0.61
3:DD:28:GLU:CB	3:DD:29:PRO:CD	2.78	0.61
3:DD:35:LYS:CB	3:DD:64:ILE:H	2.13	0.61
5:DF:32:LEU:O	5:DF:36:VAL:HG23	2.00	0.61
8:DK:131:LYS:HB3	8:DK:132:PRO:CA	2.31	0.61
15:DR:126:ALA:C	15:DR:128:GLU:H	2.08	0.61
17:D2:80:GLN:HE21	17:D2:80:GLN:HA	1.65	0.61
20:DU:47:LYS:N	20:DU:60:PHE:HB3	2.12	0.61
1:AA:323:G:H5'	5:AF:169:ASN:HD21	1.65	0.60
1:AA:1049:C:H2'	1:AA:1050:A:C5'	2.30	0.60
1:AA:1266:G:O4'	18:AS:15:ARG:NH2	2.34	0.60
1:AA:2726:U:H4'	10:AN:1:MET:HE1	1.82	0.60
6:AG:129:GLY:HA2	6:AG:166:ASP:HB3	1.82	0.60
11:AO:15:ARG:O	11:AO:16:ARG:O	2.18	0.60
15:AR:64:ARG:CB	15:AR:73:GLU:HG2	2.29	0.60
18:AS:70:TYR:H	18:AS:70:TYR:HD2	1.48	0.60
21:AV:5:LEU:O	21:AV:6:LYS:HB2	2.00	0.60
21:AV:61:LEU:HD12	21:AV:62:PRO:O	2.01	0.60
31:BA:96:G:H2'	31:BA:97:U:H5'	1.83	0.60
31:BA:1128:C:C2	31:BA:1144:G:N2	2.69	0.60
46:BS:17:TYR:HE1	46:BS:41:PRO:HG3	1.66	0.60
32:CE:92:TYR:CD2	32:CE:151:GLY:HA3	2.36	0.60
1:DA:796:C:H2'	1:DA:797:C:C6	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:DF:11:VAL:HG23	5:DF:12:LEU:H	1.66	0.60
7:DH:152:ARG:O	7:DH:153:LYS:HB2	2.01	0.60
12:DP:20:ALA:O	12:DP:21:THR:CB	2.48	0.60
24:DW:17:SER:HB2	24:DW:18:PRO:HA	1.80	0.60
1:AA:974(A):C:H4'	1:AA:975:G:O5'	2.00	0.60
1:AA:1062:G:H2'	1:AA:1063:G:C8	2.36	0.60
1:AA:1693:U:O2'	3:AD:14:ARG:NH2	2.34	0.60
1:AA:2702:U:OP1	1:AA:2702:U:H6	1.82	0.60
1:AA:2751:G:O2'	1:AA:2752:C:P	2.58	0.60
9:AM:46:VAL:O	9:AM:47:ALA:HB3	2.01	0.60
14:AQ:99:LYS:HE2	14:AQ:103:GLU:OE1	2.01	0.60
15:AR:26:ASP:O	15:AR:49:VAL:HG13	2.01	0.60
23:AZ:92:LYS:HA	23:AZ:95:LEU:HB2	1.81	0.60
31:BA:186(C):G:H2'	31:BA:186(D):C:H6	1.66	0.60
31:BA:365:U:H5"	31:BA:366:C:OP1	2.01	0.60
31:BA:1106:G:H2'	31:BA:1107:C:H6	1.66	0.60
49:BV:40:ILE:CG1	49:BV:41:VAL:HG13	2.27	0.60
31:CA:843:U:H3'	31:CA:848:C:O4'	2.01	0.60
31:CA:1305:G:O2'	31:CA:1306:A:H8	1.84	0.60
37:CJ:20:ASP:HB3	37:CJ:23:VAL:HG23	1.83	0.60
1:DA:483:A:H5'	20:DU:49:VAL:HG22	1.81	0.60
1:DA:1597:A:H5'	1:DA:1598:C:OP1	2.02	0.60
1:DA:2168:G:H2'	1:DA:2168:G:N3	2.16	0.60
17:D2:46:VAL:O	17:D2:46:VAL:HG22	2.01	0.60
1:AA:1069:A:O2'	1:AA:1072:C:OP1	2.18	0.60
1:AA:2572:A:N7	4:AE:145:LYS:HB2	2.16	0.60
3:AD:33:LEU:HD13	3:AD:34:VAL:N	2.17	0.60
8:AK:133:HIS:CB	8:AK:134:PRO:HD2	2.30	0.60
24:AW:65:ASN:HD22	24:AW:69:ARG:HE	1.50	0.60
41:BN:21:ILE:HB	41:BN:84:VAL:HG12	1.83	0.60
52:BB:45:U:C2'	52:BB:46:G:H5"	2.31	0.60
31:CA:1176:A:H2'	31:CA:1177:G:H5'	1.82	0.60
50:CW:75:ASN:N	50:CW:75:ASN:OD1	2.33	0.60
53:CD:31:G:N2	53:CD:41:C:O2	2.34	0.60
8:DK:125:GLU:CB	8:DK:141:LYS:HD3	2.31	0.60
1:AA:746:A:C5	1:AA:2611:U:H5"	2.37	0.60
1:AA:1240:U:O2'	1:AA:1241:A:H5'	2.01	0.60
1:AA:2807:G:H3'	1:AA:2808:U:H5"	1.82	0.60
4:AE:100:GLU:O	4:AE:172:VAL:HG23	2.01	0.60
6:AG:107:LEU:O	26:A4:38:LYS:HD3	2.01	0.60
8:AK:110:ASP:HB3	8:AK:112:LYS:N	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:A0:63:ARG:HB2	13:A0:80:PHE:CE1	2.37	0.60
17:A2:76:LYS:HG3	17:A2:81:TYR:CD1	2.36	0.60
21:AV:45:ASP:OD2	21:AV:49:ARG:NE	2.34	0.60
25:AX:59:VAL:HG22	25:AX:60:GLU:H	1.66	0.60
32:BE:231:GLU:HB2	32:BE:232:PRO:HD2	1.84	0.60
33:BF:32:LEU:HD12	33:BF:59:ARG:HD3	1.81	0.60
43:BP:108:ARG:N	43:BP:108:ARG:HD2	2.17	0.60
31:CA:677:U:H3	31:CA:713:G:H22	1.50	0.60
1:DA:1336:A:H2'	1:DA:1337:G:C8	2.36	0.60
1:DA:2143:C:N4	1:DA:2148:G:H1	1.99	0.60
1:DA:2225:A:H4'	1:DA:2226:C:O5'	2.02	0.60
1:DA:2610:C:C4'	1:DA:2611:U:OP2	2.48	0.60
2:DB:44:G:H1'	2:DB:47:C:N4	2.16	0.60
9:DM:90:MET:HE2	9:DM:90:MET:HA	1.83	0.60
12:DP:110:THR:OG1	12:DP:112:GLU:HG2	2.01	0.60
1:AA:581:C:H2'	1:AA:582:G:C8	2.37	0.60
1:AA:1689:A:N7	1:AA:1698:A:N1	2.49	0.60
8:AK:33:ARG:HB3	8:AK:35:LEU:HD23	1.83	0.60
27:A5:50:GLY:N	27:A5:56:LYS:HB2	2.17	0.60
31:BA:791:G:C6	31:BA:792:A:N6	2.69	0.60
31:BA:953:G:H5'	31:BA:965:A:H61	1.65	0.60
33:BF:195:VAL:HG12	33:BF:196:LEU:N	2.15	0.60
36:BI:8:ILE:HD11	36:BI:79:LEU:HD13	1.82	0.60
31:CA:589:C:H42	31:CA:650:G:H1	1.49	0.60
34:CG:150:GLU:O	34:CG:152:SER:N	2.29	0.60
39:CL:40:LEU:HD11	39:CL:70:LYS:HG2	1.84	0.60
50:CW:53:LEU:HA	50:CW:56:MET:HG2	1.83	0.60
1:DA:846:C:C2	1:DA:847:U:C5	2.89	0.60
1:DA:871:U:OP1	12:DP:5:ARG:HG3	2.01	0.60
1:DA:1771:C:H1'	1:DA:1786:A:C8	2.37	0.60
1:DA:2185:C:H2'	1:DA:2186:G:C8	2.36	0.60
8:DK:109:ILE:HD13	8:DK:109:ILE:H	1.67	0.60
9:DM:15:LEU:HB2	9:DM:134:ARG:HG2	1.84	0.60
1:AA:130:C:O3'	1:AA:1349:A:H1'	2.01	0.60
1:AA:1084:A:N6	1:AA:1085:A:N6	2.50	0.60
1:AA:2566:A:H4'	1:AA:2567:G:O5'	2.01	0.60
7:AH:153:LYS:CB	7:AH:154:PRO:CD	2.79	0.60
10:AN:4:PRO:O	10:AN:5:GLN:CB	2.50	0.60
10:AN:9:GLU:OE1	10:AN:18:LYS:HE3	2.02	0.60
31:BA:243:A:H4'	31:BA:244:U:H3'	1.83	0.60
32:BE:237:ALA:C	32:BE:239:VAL:H	2.10	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1250:A:H4'	39:CL:68:GLY:N	2.15	0.60
32:CE:56:ARG:HA	32:CE:56:ARG:HH11	1.67	0.60
33:CF:75:VAL:O	33:CF:83:ARG:NE	2.35	0.60
35:CH:48:ALA:HB3	35:CH:54:ALA:HB2	1.84	0.60
40:CM:31:GLY:O	40:CM:32:ALA:HB2	2.01	0.60
45:CR:39:LEU:HD12	45:CR:56:LEU:HB2	1.82	0.60
1:DA:71:A:H2	19:DT:31:HIS:CE1	2.20	0.60
1:DA:2128:C:O2'	1:DA:2173:A:C2	2.54	0.60
1:DA:2219:G:H2'	1:DA:2224:G:H5'	1.84	0.60
1:DA:2880:C:O2'	13:D0:90:ARG:NH1	2.33	0.60
3:DD:33:LEU:HD23	3:DD:34:VAL:H	1.66	0.60
7:DH:152:ARG:C	7:DH:154:PRO:HD3	2.27	0.60
15:DR:4:GLY:O	15:DR:7:ILE:HG22	2.01	0.60
1:AA:907:U:H5'	12:AP:23:GLY:O	2.01	0.60
1:AA:1026:U:C4'	1:AA:1027:A:OP1	2.49	0.60
21:AV:62:PRO:O	21:AV:63:ASP:CB	2.49	0.60
27:A5:41:PRO:O	27:A5:44:THR:OG1	2.19	0.60
31:CA:179:A:H2'	31:CA:180:U:H6	1.67	0.60
31:CA:554:C:H2'	31:CA:555:C:C6	2.36	0.60
31:CA:1200:C:H5'	31:CA:1201:A:C5'	2.31	0.60
32:CE:55:PHE:HD1	32:CE:58:ILE:HD12	1.66	0.60
37:CJ:115:ARG:O	37:CJ:118:VAL:HG12	2.02	0.60
39:CL:43:ALA:HA	39:CL:74:ILE:HD13	1.82	0.60
41:CN:32:ILE:HD13	41:CN:72:ALA:HB2	1.82	0.60
49:CV:41:VAL:O	49:CV:44:MET:HB2	2.02	0.60
1:DA:1177:A:H5'	1:DA:1178:C:OP1	2.00	0.60
4:DE:52:LEU:O	4:DE:74:PRO:HA	2.02	0.60
11:DO:128:HIS:HA	11:DO:147:LEU:HA	1.83	0.60
20:DU:81:LYS:HZ2	20:DU:97:ARG:HH12	1.50	0.60
1:AA:247:G:H4'	1:AA:386:G:C5	2.37	0.60
1:AA:652:C:H5'	1:AA:653:A:OP2	2.02	0.60
1:AA:1025:G:C4	1:AA:1135:C:H1'	2.36	0.60
4:AE:52:LEU:HB2	4:AE:75:VAL:CG2	2.32	0.60
4:AE:78:LEU:CG	4:AE:79:ARG:HD2	2.30	0.60
5:AF:160:ASN:OD1	5:AF:163:VAL:HG23	2.01	0.60
12:AP:75:THR:OG1	12:AP:88:GLY:HA3	2.02	0.60
12:AP:136:ALA:HB1	21:AV:48:PHE:CE1	2.36	0.60
14:AQ:106:ARG:N	14:AQ:110:LEU:HD21	2.17	0.60
15:AR:108:ARG:O	15:AR:111:ARG:HB2	2.02	0.60
21:AV:69:THR:HG22	21:AV:90:VAL:HG22	1.82	0.60
22:A3:35:ASN:HD22	22:A3:35:ASN:N	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:652:U:C4	31:BA:752:G:N3	2.69	0.60
31:BA:1190:G:H5'	33:BF:176:HIS:CE1	2.37	0.60
31:BA:1331:G:OP2	43:BP:23:TYR:HD2	1.85	0.60
31:BA:1504:G:H3'	31:BA:1504:G:OP2	2.01	0.60
33:BF:19:GLU:O	33:BF:40:ARG:NH2	2.35	0.60
50:BW:30:LYS:NZ	50:BW:80:ARG:HH12	2.00	0.60
31:CA:45:U:H2'	31:CA:46:G:C8	2.37	0.60
31:CA:1249:C:O2'	39:CL:73:GLN:OE1	2.18	0.60
31:CA:1302:U:C6	43:CP:17:VAL:HG21	2.37	0.60
39:CL:111:ARG:HG2	39:CL:112:LYS:N	2.16	0.60
1:DA:671:C:OP1	11:DO:42:SER:O	2.20	0.60
1:DA:860:U:C2	1:DA:2268:A:C8	2.89	0.60
1:DA:1025:G:OP1	1:DA:1025:G:H8	1.85	0.60
1:DA:1058:U:H3	1:DA:1080:A:N6	2.00	0.60
1:DA:1652:A:OP1	13:D0:8:ARG:HD3	2.01	0.60
1:DA:2137:C:N4	1:DA:2154:G:H1	1.98	0.60
9:DM:94:HIS:HB2	9:DM:97:ARG:HD3	1.83	0.60
30:D8:23:VAL:HG22	30:D8:47:LYS:HB3	1.82	0.60
1:AA:619:G:H5"	1:AA:620:G:OP2	2.01	0.60
1:AA:844:C:H2'	1:AA:845:G:O4'	2.01	0.60
1:AA:1221:C:H2'	1:AA:1222:C:H6	1.67	0.60
1:AA:1694:C:H4'	1:AA:1695:G:O5'	2.01	0.60
1:AA:2116:G:P	1:AA:2165:G:N2	2.75	0.60
9:AM:23:LEU:HD12	9:AM:99:LEU:HD23	1.84	0.60
11:AO:16:ARG:HG3	11:AO:16:ARG:NH1	2.15	0.60
18:AS:14:PRO:HB3	18:AS:18:ARG:HH21	1.63	0.60
26:A4:40:HIS:H	26:A4:41:PRO:CD	2.14	0.60
31:BA:626:U:C2	31:BA:627:G:C8	2.89	0.60
31:BA:1003:G:H2'	31:BA:1004:A:H5'	1.83	0.60
31:BA:1498:U:H1'	31:BA:1499:A:OP2	2.02	0.60
33:BF:8:ILE:HG23	33:BF:16:ARG:HG2	1.82	0.60
35:BH:12:LEU:HB3	35:BH:31:LEU:HB2	1.83	0.60
31:CA:452:A:H2'	31:CA:453:A:C8	2.37	0.60
31:CA:629:G:H2'	31:CA:630:G:H8	1.65	0.60
31:CA:859:A:OP2	31:CA:869:G:N1	2.32	0.60
31:CA:1016:A:H2'	31:CA:1017:G:O4'	2.02	0.60
35:CH:6:PHE:HB3	35:CH:35:GLY:C	2.27	0.60
36:CI:61:LEU:HD23	36:CI:63:TYR:OH	2.01	0.60
1:DA:2135:A:H62	1:DA:2156:G:N2	2.00	0.60
1:DA:2427:C:H5"	1:DA:2428:G:OP1	2.02	0.60
2:DB:111:U:H2'	2:DB:112:G:C8	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DD:43:ARG:HD2	3:DD:44:ASN:ND2	2.16	0.60
13:D0:117:VAL:O	13:D0:118:GLU:HB2	2.00	0.60
14:DQ:25:ARG:NH1	14:DQ:42:ASP:OD2	2.35	0.60
1:AA:811:U:OP2	11:AO:21:ARG:O	2.20	0.60
1:AA:1380:G:N2	1:AA:1570:A:C2	2.70	0.60
1:AA:2212:A:H1'	1:AA:2215:G:C4	2.37	0.60
4:AE:13:ARG:CB	4:AE:13:ARG:HH11	2.15	0.60
9:AM:132:ALA:HB1	9:AM:133:GLN:HE21	1.67	0.60
15:AR:60:THR:HG22	15:AR:77:PRO:HA	1.84	0.60
18:AS:110:LYS:O	18:AS:112:GLY:N	2.35	0.60
19:AT:49:VAL:CG1	19:AT:83:VAL:HG22	2.26	0.60
31:BA:191:G:O2'	50:BW:101:GLY:O	2.19	0.60
31:BA:827:U:C5	31:BA:872:A:N1	2.70	0.60
43:BP:108:ARG:HH11	43:BP:108:ARG:HA	1.66	0.60
47:BT:100:LYS:O	47:BT:101:ARG:HD3	2.01	0.60
43:CP:73:GLU:O	43:CP:77:ASN:HB2	2.01	0.60
49:CV:31:ILE:CG1	49:CV:32:LYS:H	2.11	0.60
49:CV:78:ARG:HD3	49:CV:79:THR:H	1.67	0.60
1:DA:582:G:H2'	1:DA:583:G:C8	2.36	0.60
1:DA:987:G:O2'	1:DA:1000:A:N3	2.33	0.60
1:DA:1087:G:N2	1:DA:1102:C:N3	2.48	0.60
1:DA:1547:C:H2'	1:DA:1548:C:C6	2.37	0.60
17:D2:35:LEU:HD23	17:D2:35:LEU:H	1.67	0.60
19:DT:15:GLU:CD	19:DT:15:GLU:H	2.08	0.60
21:DV:175:VAL:HG22	21:DV:176:PRO:HD2	1.83	0.60
28:D6:26:ASN:O	28:D6:28:ARG:HG2	2.01	0.60
1:AA:1803:A:H4'	3:AD:259:THR:CG2	2.32	0.59
1:AA:1899:G:O2'	1:AA:1900:A:O5'	2.20	0.59
1:AA:2144:U:O2	1:AA:2148:G:N2	2.35	0.59
1:AA:2149:G:N1	1:AA:2150:U:O2	2.35	0.59
1:AA:2875:C:H4'	15:AR:5:ALA:HB2	1.84	0.59
18:AS:1:MET:HA	18:AS:1:MET:HE3	1.83	0.59
28:A6:36:LEU:HD23	28:A6:36:LEU:H	1.67	0.59
31:BA:883:C:C2'	31:BA:884:U:H5'	2.32	0.59
52:BB:19:G:H1'	52:BB:20:U:OP1	2.02	0.59
53:BD:19:G:H2'	53:BD:58:A:N6	2.16	0.59
31:CA:340:U:H3	31:CA:349:A:H61	1.50	0.59
31:CA:1160:G:N1	31:CA:1177:G:N2	2.43	0.59
34:CG:11:LEU:C	34:CG:13:ARG:N	2.58	0.59
1:DA:30:G:H2'	1:DA:31:C:C6	2.36	0.59
1:DA:535:C:O2'	1:DA:536:A:H5'	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:886:C:H1'	1:DA:890:A:H2	1.67	0.59
1:DA:2537:U:H2'	1:DA:2538:C:C6	2.37	0.59
1:DA:2654:A:H8	1:DA:2654:A:OP1	1.85	0.59
6:DG:77:ILE:HG22	6:DG:80:PHE:H	1.66	0.59
13:D0:24:GLN:HE22	13:D0:36:THR:HG21	1.67	0.59
1:AA:273(F):C:H3'	1:AA:274:G:C5'	2.31	0.59
1:AA:1227:A:OP1	17:A2:84:LYS:HE2	2.02	0.59
3:AD:35:LYS:NZ	3:AD:64:ILE:O	2.31	0.59
3:AD:65:ILE:HD11	3:AD:67:PHE:CE2	2.37	0.59
8:AK:88:ILE:O	8:AK:121:LYS:HE3	2.02	0.59
15:AR:50:ILE:HD11	15:AR:102:ILE:CD1	2.31	0.59
31:BA:601:C:H2'	31:BA:602:A:H8	1.66	0.59
31:BA:606:G:H22	31:BA:631:G:H8	1.49	0.59
32:BE:59:GLU:HB2	32:BE:221:LEU:HD11	1.84	0.59
43:BP:39:ILE:HD13	43:BP:52:GLU:HB3	1.82	0.59
45:BR:39:LEU:HD13	45:BR:56:LEU:HB2	1.83	0.59
31:CA:377:G:OP1	46:CS:3:LYS:HD2	2.01	0.59
31:CA:690:G:H2'	31:CA:691:G:O4'	2.01	0.59
31:CA:811:C:H4'	31:CA:900:A:N6	2.17	0.59
31:CA:972:C:O3'	40:CM:57:LYS:HG3	2.03	0.59
31:CA:1178:G:H5'	39:CL:93:ARG:HH21	1.66	0.59
42:CO:80:VAL:HG21	42:CO:97:ILE:HD13	1.84	0.59
1:DA:847:U:O4	1:DA:933:A:C6	2.55	0.59
1:DA:994:C:OP2	16:D1:54:LYS:NZ	2.28	0.59
1:DA:1794:U:H2'	1:DA:1795:C:H6	1.67	0.59
1:DA:1899:G:C2'	1:DA:1900:A:OP2	2.50	0.59
2:DB:104:A:OP1	21:DV:72:ARG:NH2	2.35	0.59
4:DE:8:LYS:HB3	4:DE:193:GLY:H	1.68	0.59
27:D5:3:LYS:HG3	27:D5:4:HIS:H	1.67	0.59
1:AA:370:G:H4'	1:AA:371:A:OP2	2.01	0.59
1:AA:906:G:OP1	12:AP:141:GLN:HB3	2.02	0.59
1:AA:1069:A:H4'	1:AA:1070:A:O5'	2.02	0.59
1:AA:1354:A:OP1	3:AD:38:LYS:NZ	2.34	0.59
5:AF:46:ARG:HH11	5:AF:46:ARG:CG	2.11	0.59
7:AH:9:ILE:HD12	7:AH:9:ILE:N	2.18	0.59
7:AH:23:ARG:HB3	7:AH:36:PRO:HA	1.83	0.59
11:AO:23:PRO:C	11:AO:25:SER:H	2.09	0.59
18:AS:65:LEU:O	18:AS:67:ASP:N	2.35	0.59
31:BA:87:A:H2'	31:BA:88:C:H6	1.66	0.59
31:BA:881:G:P	42:BO:9:ARG:HH22	2.24	0.59
32:BE:204:ASN:HD22	32:BE:205:ASP:N	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BG:12:CYS:HA	34:BG:19:LEU:CD2	2.32	0.59
53:BD:15:G:H2'	53:BD:60:A:C2	2.37	0.59
31:CA:339:C:C2'	31:CA:340:U:H5'	2.31	0.59
31:CA:721:G:H4'	31:CA:722:A:O5'	2.01	0.59
31:CA:1002:G:N2	31:CA:1038:C:N3	2.44	0.59
31:CA:1003:G:C2'	31:CA:1004:A:H5'	2.32	0.59
31:CA:1212:U:HO2'	31:CA:1213:A:H8	1.50	0.59
31:CA:1442:G:O2'	31:CA:1443:G:P	2.60	0.59
34:CG:134:ASP:O	34:CG:136:PRO:HD3	2.02	0.59
39:CL:18:PHE:HD1	39:CL:62:TYR:HD2	1.50	0.59
45:CR:24:SER:HB3	45:CR:27:VAL:HG23	1.85	0.59
50:CW:61:SER:OG	50:CW:65:LYS:NZ	2.34	0.59
1:DA:1569:A:O2'	3:DD:38:LYS:HG2	2.01	0.59
1:DA:1689:A:N6	1:DA:1698:A:C2	2.45	0.59
1:DA:2702:U:H4'	1:DA:2703:C:OP1	2.03	0.59
3:DD:120:GLY:HA2	3:DD:190:TYR:OH	2.03	0.59
4:DE:4:ILE:HD11	4:DE:28:ALA:CB	2.32	0.59
11:DO:62:LEU:HD22	11:DO:63:PRO:N	2.16	0.59
17:D2:84:LYS:HB2	17:D2:84:LYS:NZ	2.17	0.59
21:DV:33:LEU:HD23	21:DV:90:VAL:HG21	1.84	0.59
24:DW:15:LYS:HA	24:DW:67:LYS:NZ	2.15	0.59
1:AA:265:A:H1'	1:AA:266:G:O4'	2.01	0.59
1:AA:805:G:OP2	11:AO:41:ARG:HG2	2.02	0.59
1:AA:2298:A:N6	1:AA:2318:G:H1'	2.17	0.59
9:AM:115:ARG:HA	9:AM:118:LYS:HE3	1.84	0.59
11:AO:19:VAL:HG22	11:AO:20:GLY:H	1.68	0.59
11:AO:61:ARG:O	11:AO:62:LEU:HB3	2.02	0.59
16:A1:66:ASN:HB2	16:A1:76:TYR:HB2	1.84	0.59
26:A4:40:HIS:N	26:A4:41:PRO:HD2	2.18	0.59
26:A4:59:PHE:O	26:A4:63:TYR:HB2	2.02	0.59
30:A8:59:LYS:HZ2	30:A8:59:LYS:CB	2.09	0.59
31:BA:345:C:O2'	31:BA:346:G:N2	2.35	0.59
31:BA:1036:G:H3'	31:BA:1037:C:C6	2.37	0.59
31:BA:1318:A:H1'	49:BV:37:ARG:HH21	1.66	0.59
35:BH:35:GLY:HA3	35:BH:112:LEU:O	2.01	0.59
46:BS:21:VAL:HG23	46:BS:34:GLU:O	2.01	0.59
31:CA:407:G:H1	31:CA:435:C:H42	1.50	0.59
31:CA:957:U:H2'	31:CA:959:A:OP2	2.01	0.59
31:CA:1077:G:N2	31:CA:1080:A:OP2	2.34	0.59
31:CA:1133:G:N1	31:CA:1141:C:N4	2.38	0.59
32:CE:82:ARG:HD2	32:CE:92:TYR:OH	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CG:105:VAL:HG21	34:CG:126:ILE:HG13	1.84	0.59
42:CO:67:ILE:HD13	42:CO:74:LEU:HD12	1.84	0.59
1:DA:71:A:C2	19:DT:31:HIS:HE1	2.20	0.59
1:DA:1298:C:H5"	1:DA:1299:G:OP2	2.02	0.59
1:DA:1790:C:H5"	1:DA:1791:A:OP1	2.03	0.59
1:DA:1820:U:H4'	1:DA:1821:A:OP2	2.01	0.59
1:DA:2693:A:H2'	1:DA:2694:G:H8	1.67	0.59
1:DA:2712(A):A:H5"	1:DA:2713:A:OP2	2.03	0.59
2:DB:66:A:H61	2:DB:108:C:H5"	1.65	0.59
3:DD:35:LYS:HD3	3:DD:63:ARG:CA	2.31	0.59
3:DD:65:ILE:HD11	3:DD:67:PHE:CD2	2.37	0.59
4:DE:28:ALA:O	4:DE:93:VAL:HG22	2.02	0.59
6:DG:109:VAL:HG13	26:D4:33:VAL:HG12	1.84	0.59
12:DP:3:MET:O	12:DP:4:PRO:O	2.20	0.59
12:DP:28:ALA:C	12:DP:29:PHE:CD1	2.81	0.59
15:DR:26:ASP:CB	15:DR:91:ARG:HA	2.21	0.59
1:AA:529:A:H8	1:AA:530:G:C6	2.20	0.59
1:AA:1270:C:H5"	1:AA:1271:G:O5'	2.03	0.59
1:AA:2116:G:OP1	1:AA:2165:G:N2	2.36	0.59
10:AN:68:GLU:OE2	10:AN:78:ARG:NH1	2.34	0.59
11:AO:38:GLN:O	11:AO:41:ARG:HB2	2.03	0.59
11:AO:50:ARG:HD3	30:A8:7:HIS:NE2	2.17	0.59
21:AV:45:ASP:O	21:AV:49:ARG:HG2	2.03	0.59
31:BA:383:A:H8	31:BA:383:A:O5'	1.85	0.59
31:BA:1002:G:C4	31:BA:1003:G:C8	2.91	0.59
31:BA:1023:G:H3'	31:BA:1024:G:C5'	2.30	0.59
50:BW:98:PRO:C	50:BW:100:ILE:H	2.10	0.59
31:CA:321:A:N6	31:CA:329:A:OP2	2.35	0.59
31:CA:580:U:H2'	31:CA:581:G:O4'	2.01	0.59
31:CA:1139:G:N2	31:CA:1143:G:H1	1.99	0.59
53:CD:36:A:N6	54:C1:13:U:H3	2.00	0.59
1:DA:6:A:H4'	9:DM:129:PRO:CB	2.32	0.59
1:DA:91:A:H2'	1:DA:92:G:O4'	2.02	0.59
26:D4:12:ALA:H	26:D4:24:THR:HB	1.67	0.59
1:AA:654(B):C:H2'	1:AA:654(C):G:H8	1.66	0.59
1:AA:2287:A:C2	1:AA:2346:A:N1	2.71	0.59
1:AA:2728:U:H2'	1:AA:2729:G:C8	2.38	0.59
3:AD:35:LYS:HD3	3:AD:63:ARG:CA	2.33	0.59
3:AD:35:LYS:HB3	3:AD:36:PRO:HA	1.85	0.59
19:AT:3:THR:HA	19:AT:6:ASP:OD2	2.03	0.59
31:CA:365:U:H5"	31:CA:366:C:OP1	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:CE:54:THR:HG23	32:CE:199:TYR:HB3	1.83	0.59
38:CK:97:VAL:HA	38:CK:100:ILE:HD11	1.83	0.59
39:CL:112:LYS:HG2	39:CL:118:LYS:HA	1.84	0.59
1:DA:289:A:H5'	1:DA:290:G:OP2	2.03	0.59
1:DA:592:G:N3	30:D8:4:MET:HE2	2.18	0.59
1:DA:747:U:OP2	27:D5:3:LYS:HD2	2.03	0.59
1:DA:1300:U:H4'	1:DA:1301:A:H5'	1.78	0.59
11:DO:15:ARG:O	11:DO:16:ARG:O	2.21	0.59
16:D1:108:GLU:OE1	17:D2:45:THR:HA	2.02	0.59
20:DU:89:PHE:HD1	20:DU:90:LEU:HG	1.66	0.59
24:DW:46:GLN:N	24:DW:49:LYS:HZ2	2.01	0.59
30:D8:49:VAL:HG12	30:D8:50:LEU:N	2.18	0.59
1:AA:2199:A:H3'	1:AA:2205:C:H6	1.67	0.59
1:AA:2579:C:H2'	1:AA:2580:U:O4'	2.03	0.59
5:AF:118:ALA:HB2	5:AF:123:LEU:HD23	1.85	0.59
5:AF:164:ARG:O	5:AF:168:ARG:HG3	2.03	0.59
7:AH:94:TYR:CE2	7:AH:160:LYS:HG2	2.37	0.59
27:A5:56:LYS:H	27:A5:56:LYS:CD	2.14	0.59
31:BA:483:C:OP2	31:BA:484:G:O2'	2.21	0.59
38:BK:87:SER:HB2	38:BK:93:VAL:HB	1.85	0.59
39:BL:5:TYR:CE2	39:BL:16:ARG:HG2	2.36	0.59
31:CA:625:G:H2'	31:CA:626:U:H6	1.67	0.59
31:CA:1330:U:H3'	31:CA:1331:G:O4'	2.01	0.59
33:CF:70:VAL:HG21	33:CF:76:VAL:HG11	1.84	0.59
34:CG:150:GLU:N	34:CG:150:GLU:OE2	2.36	0.59
45:CR:75:PRO:O	45:CR:79:ARG:HG3	2.03	0.59
49:CV:30:LEU:HD12	49:CV:31:ILE:N	2.17	0.59
49:CV:45:VAL:HA	49:CV:62:ILE:HG22	1.83	0.59
1:DA:74:A:H5'	1:DA:75:G:O4'	2.02	0.59
1:DA:806:C:OP2	11:DO:41:ARG:HD3	2.03	0.59
1:DA:873:G:N2	1:DA:905:U:O2	2.36	0.59
1:DA:1485:G:O2'	1:DA:1486:A:H5'	2.03	0.59
3:DD:33:LEU:HD23	3:DD:34:VAL:N	2.17	0.59
3:DD:35:LYS:NZ	3:DD:104:TYR:HB2	2.17	0.59
4:DE:181:LEU:HD23	15:DR:11:GLU:OE2	2.02	0.59
5:DF:123:LEU:O	5:DF:124:LEU:C	2.44	0.59
12:DP:2:LEU:HB3	12:DP:70:PRO:CD	2.33	0.59
22:D3:26:TYR:O	22:D3:29:GLN:HB2	2.03	0.59
25:DX:7:LYS:HE2	25:DX:32:GLN:O	2.03	0.59
26:D4:1:MET:O	26:D4:2:LYS:HD3	2.03	0.59
1:AA:780:G:N2	1:AA:783:A:H62	1.99	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1929:G:H4'	1:AA:1930:G:OP1	2.03	0.59
1:AA:2065:C:H2'	1:AA:2066:C:H6	1.65	0.59
1:AA:2629:A:N6	1:AA:2895:U:C2	2.71	0.59
7:AH:4:ILE:O	7:AH:4:ILE:HG12	2.03	0.59
8:AK:21:VAL:HG21	8:AK:25:TYR:HD1	1.66	0.59
10:AN:90:GLN:O	10:AN:91:LEU:HB2	2.03	0.59
16:A1:92:ARG:HH21	17:A2:10:LYS:HG2	1.67	0.59
21:AV:7:ALA:HB3	21:AV:61:LEU:HB3	1.84	0.59
31:BA:1070:U:H2'	31:BA:1071:C:H6	1.67	0.59
31:BA:1090:U:H2'	31:BA:1091:U:H6	1.68	0.59
31:BA:1313:U:P	49:BV:6:LYS:HE3	2.42	0.59
38:BK:14:ARG:O	38:BK:18:ARG:HD3	2.02	0.59
45:BR:74:ASP:CG	45:BR:77:ARG:HG2	2.27	0.59
50:BW:75:ASN:OD1	50:BW:75:ASN:N	2.29	0.59
31:CA:1299:A:C6	31:CA:1301:U:C2	2.91	0.59
39:CL:23:ASN:H	39:CL:23:ASN:HD22	1.51	0.59
1:DA:271(C):U:H5'	1:DA:271:G:OP2	2.02	0.59
1:DA:587:C:O2	11:DO:33:ARG:NH1	2.35	0.59
1:DA:1069:A:H4'	1:DA:1070:A:H5"	1.84	0.59
2:DB:59:A:H2'	2:DB:60:C:O4'	2.02	0.59
3:DD:35:LYS:HB3	3:DD:64:ILE:H	1.67	0.59
5:DF:164:ARG:HG2	5:DF:175:THR:OG1	2.03	0.59
6:DG:124:SER:HB2	6:DG:131:TYR:CE1	2.37	0.59
11:DO:85:LEU:HA	11:DO:88:LEU:HB3	1.84	0.59
30:D8:33:ASN:N	30:D8:33:ASN:OD1	2.36	0.59
1:AA:50:U:H3'	1:AA:51:G:H5'	1.83	0.59
1:AA:1130:U:O2	4:AE:149:ARG:NH2	2.33	0.59
1:AA:1590:U:H2'	1:AA:1591:G:C8	2.38	0.59
1:AA:1899:G:N2	1:AA:1902:C:H5	2.00	0.59
1:AA:1955:U:O3'	1:AA:1956:U:H6	1.86	0.59
7:AH:9:ILE:CG2	7:AH:49:VAL:HB	2.32	0.59
7:AH:9:ILE:HG22	7:AH:49:VAL:HB	1.85	0.59
12:AP:4:PRO:HB3	12:AP:69:PHE:HE2	1.68	0.59
14:AQ:70:GLY:HA2	14:AQ:101:LEU:CD1	2.32	0.59
37:BJ:99:LEU:HD23	37:BJ:102:ARG:NH1	2.17	0.59
31:CA:186:C:H1'	50:CW:81:LYS:HZ3	1.68	0.59
31:CA:792:A:H1'	31:CA:794:A:N7	2.17	0.59
31:CA:974:A:P	44:CQ:41:ARG:HH12	2.25	0.59
31:CA:1003:G:H2'	31:CA:1004:A:H5'	1.84	0.59
31:CA:1127:G:H22	31:CA:1145:C:H1'	1.68	0.59
31:CA:1442:G:N7	31:CA:1446:A:N1	2.51	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CF:8:ILE:HG23	33:CF:16:ARG:HG2	1.83	0.59
37:CJ:86:GLN:HE22	53:CD:32:G:H21	1.51	0.59
42:CO:24:LEU:CD2	42:CO:30:ARG:HG2	2.29	0.59
1:DA:228:A:H8	1:DA:228:A:H3'	1.68	0.59
1:DA:893:C:H4'	1:DA:894:C:OP1	2.00	0.59
1:DA:975:G:H1'	1:DA:990:A:C2	2.37	0.59
1:DA:1011:G:H1	1:DA:1150:C:H42	1.50	0.59
1:DA:2745:C:H4'	7:DH:142:GLY:O	2.03	0.59
3:DD:71:ASP:CG	3:DD:103:ARG:HH22	2.11	0.59
12:DP:21:THR:O	12:DP:21:THR:HG22	2.01	0.59
16:D1:92:ARG:O	16:D1:94:ASN:N	2.32	0.59
17:D2:62:LEU:HD21	17:D2:95:LEU:HB2	1.84	0.59
1:AA:1058:U:H2'	1:AA:1059:G:C8	2.38	0.59
1:AA:1145:C:H2'	1:AA:1146:C:H6	1.68	0.59
1:AA:2068:U:N3	1:AA:2430:A:C2	2.56	0.59
16:A1:97:ASP:O	16:A1:101:ARG:N	2.26	0.59
18:AS:57:ASN:O	18:AS:61:ASN:HB2	2.03	0.59
20:AU:47:LYS:HG3	20:AU:60:PHE:CE1	2.38	0.59
31:BA:1405:G:O4'	31:BA:1519:A:H4'	2.03	0.59
52:BB:16:U:OP1	52:BB:17:U:N3	2.36	0.59
46:CS:48:TRP:HH2	46:CS:76:GLN:HE22	1.50	0.59
1:DA:2162:G:H2'	1:DA:2163:C:C6	2.37	0.59
1:DA:2185:C:H2'	1:DA:2186:G:H8	1.68	0.59
3:DD:75:ILE:HG21	3:DD:99:ASP:HB2	1.85	0.59
5:DF:36:VAL:HG11	5:DF:183:VAL:HG11	1.85	0.59
9:DM:95:PRO:O	9:DM:98:VAL:HG22	2.03	0.59
11:DO:124:LYS:HA	11:DO:143:GLY:O	2.03	0.59
11:DO:125:VAL:HG13	11:DO:144:GLU:HB3	1.85	0.59
23:DZ:65:SER:OG	23:DZ:66:HIS:HD2	1.85	0.59
23:DZ:92:LYS:O	23:DZ:93:GLU:C	2.45	0.59
24:DW:47:ASN:C	24:DW:49:LYS:H	2.10	0.59
1:AA:246:C:C2'	1:AA:247:G:H5'	2.33	0.58
1:AA:753:C:O5'	1:AA:753:C:H6	1.85	0.58
1:AA:957:A:N1	1:AA:2458:G:H4'	2.18	0.58
1:AA:2439:A:H4'	1:AA:2440:C:O5'	2.03	0.58
5:AF:42:ALA:O	5:AF:45:ARG:HB2	2.02	0.58
9:AM:137:LYS:CG	9:AM:138:LEU:H	2.16	0.58
31:BA:130:A:O2'	31:BA:131:C:O5'	2.18	0.58
31:BA:539:A:H2'	31:BA:540:G:C8	2.37	0.58
31:BA:731:G:OP1	31:BA:766:A:H1'	2.03	0.58
31:BA:1510:U:H2'	31:BA:1511:G:C8	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BE:187:LEU:HD23	32:BE:201:ILE:O	2.03	0.58
33:BF:45:LYS:HB2	33:BF:45:LYS:NZ	2.16	0.58
33:BF:109:PRO:C	33:BF:111:LEU:H	2.10	0.58
34:BG:11:LEU:C	34:BG:13:ARG:N	2.60	0.58
40:BM:30:SER:OG	40:BM:84:GLN:NE2	2.35	0.58
53:BD:37:U:O4	53:BD:38:A:N6	2.36	0.58
31:CA:1145:C:O2	31:CA:1145:C:H2'	2.03	0.58
31:CA:1378:C:H5	31:CA:1379:G:C4	2.20	0.58
37:CJ:22:LEU:HG	37:CJ:62:PHE:HE2	1.67	0.58
43:CP:40:ASN:HB3	43:CP:43:THR:HG23	1.85	0.58
49:CV:41:VAL:HG13	26:D4:63:TYR:CZ	2.38	0.58
1:DA:2298:A:H1'	1:DA:2321:G:N2	2.18	0.58
2:DB:8:U:H3	2:DB:112:G:H1	1.51	0.58
6:DG:145:THR:O	6:DG:146:TYR:HB3	2.03	0.58
8:DK:142:VAL:O	8:DK:143:SER:CB	2.51	0.58
12:DP:1:MET:HE2	12:DP:1:MET:H1	1.62	0.58
16:D1:66:ASN:HB2	16:D1:76:TYR:HB2	1.84	0.58
21:DV:128:VAL:HG22	21:DV:129:SER:N	2.11	0.58
21:DV:170:THR:O	21:DV:172:ALA:N	2.32	0.58
1:AA:1021:A:N6	1:AA:1142(A):A:H61	1.95	0.58
1:AA:1094:U:O2'	1:AA:1096:A:OP1	2.21	0.58
1:AA:1404:C:O2'	1:AA:1405:U:H5'	2.03	0.58
1:AA:1535:U:OP2	1:AA:1537:C:N4	2.35	0.58
1:AA:2690:C:H5"	1:AA:2872:G:N2	2.17	0.58
5:AF:22:ALA:HB1	5:AF:24:LEU:HD13	1.85	0.58
6:AG:121:ASN:HD22	6:AG:123:ASN:N	1.98	0.58
20:AU:42:VAL:HG12	20:AU:65:ALA:HB3	1.86	0.58
21:AV:10:ARG:HD3	21:AV:18:LEU:HD21	1.85	0.58
31:BA:255:G:H1'	47:BT:16:GLN:HE21	1.68	0.58
31:BA:501:C:H2'	31:BA:502:G:C8	2.38	0.58
31:BA:560:U:HO2'	31:BA:561:U:P	2.22	0.58
31:BA:1025:U:HO2'	31:BA:1026:G:H8	1.50	0.58
33:BF:83:ARG:O	33:BF:86:VAL:HG22	2.03	0.58
35:BH:71:LEU:C	35:BH:72:GLN:HG2	2.28	0.58
48:BU:53:ARG:HH21	48:BU:60:ALA:N	2.01	0.58
50:BW:49:ALA:HB3	50:BW:99:LEU:HD22	1.83	0.58
31:CA:426:G:P	34:CG:36:ARG:HH21	2.25	0.58
31:CA:1004:A:C2	31:CA:1024:G:H8	2.21	0.58
34:CG:146:ILE:HD12	34:CG:146:ILE:N	2.17	0.58
53:CC:20:G:C2	53:CC:58:A:N3	2.71	0.58
1:DA:90:U:C2'	1:DA:91:A:H5"	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:185:U:H4'	1:DA:218:A:H4'	1.84	0.58
1:DA:1005:C:C1'	1:DA:1143:A:C2	2.86	0.58
1:DA:1278:A:O2'	13:D0:34:ILE:HD11	2.03	0.58
1:DA:2346:A:H5"	1:DA:2383:G:C1'	2.33	0.58
1:DA:2572:A:OP1	1:DA:2574:G:O2'	2.19	0.58
1:DA:2591:C:OP1	3:DD:239:ARG:HG3	2.03	0.58
4:DE:11:MET:HA	4:DE:24:THR:HA	1.84	0.58
7:DH:54:ARG:HB2	7:DH:55:PRO:HD2	1.85	0.58
20:DU:84:ARG:HH21	20:DU:97:ARG:HB2	1.68	0.58
1:AA:643:A:N1	1:AA:2369:A:O2'	2.36	0.58
1:AA:1588:C:H2'	1:AA:1589:C:H6	1.68	0.58
1:AA:2311:A:C2	6:AG:88:ILE:HD11	2.39	0.58
1:AA:2747:G:O6	1:AA:2755:C:H5"	2.02	0.58
5:AF:185:ASP:HA	5:AF:188:ARG:HD3	1.83	0.58
6:AG:16:ARG:O	6:AG:20:ILE:HG13	2.04	0.58
10:AN:76:ALA:HB3	15:AR:75:ILE:HD12	1.84	0.58
11:AO:9:ASN:CB	11:AO:10:PRO:HD2	2.30	0.58
31:BA:244:U:H4'	31:BA:245:C:C5'	2.33	0.58
31:BA:1036:G:H3'	31:BA:1037:C:C5	2.38	0.58
31:BA:1170:A:H2'	31:BA:1171:G:O4'	2.02	0.58
31:BA:1181:G:C2	31:BA:1182:G:N2	2.71	0.58
31:BA:1277:C:O2'	31:BA:1279:A:H1'	2.02	0.58
31:BA:1346:A:OP1	39:BL:120:ARG:NH1	2.36	0.58
34:BG:138:TYR:HD2	34:BG:138:TYR:C	2.11	0.58
53:BC:21:U:O2'	53:BC:22:A:H5'	2.03	0.58
31:CA:64:G:H4'	31:CA:65:U:O5'	2.03	0.58
31:CA:186:C:H1'	50:CW:81:LYS:NZ	2.18	0.58
31:CA:534:U:H5'	31:CA:535:A:OP2	2.03	0.58
33:CF:84:ILE:HD11	33:CF:88:ARG:NH2	2.16	0.58
40:CM:75:ILE:HG13	40:CM:76:ASN:N	2.17	0.58
53:CC:19:G:C4'	53:CC:20:G:OP1	2.52	0.58
1:DA:751:A:H5'	18:DS:90:ARG:HA	1.85	0.58
1:DA:1047:G:O2'	1:DA:1110:G:N2	2.31	0.58
4:DE:127:ASP:HA	4:DE:135:HIS:HD2	1.69	0.58
12:DP:6:ARG:C	12:DP:7:MET:HG2	2.22	0.58
17:D2:61:VAL:O	17:D2:63:GLY:N	2.35	0.58
23:DZ:95:LEU:O	23:DZ:96:LYS:HG2	2.03	0.58
1:AA:488:G:H1'	1:AA:492:A:N6	2.18	0.58
1:AA:1050:A:H2'	1:AA:1051:G:O4'	2.02	0.58
1:AA:2772:C:H2'	1:AA:2773:C:C6	2.38	0.58
10:AN:4:PRO:O	10:AN:5:GLN:HB2	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AU:63:LYS:HD2	20:AU:64:GLU:H	1.69	0.58
21:AV:53:ILE:HG22	21:AV:71:VAL:HG13	1.86	0.58
25:AX:7:LYS:HE2	25:AX:32:GLN:O	2.02	0.58
26:A4:7:PRO:HB2	26:A4:27:THR:HG21	1.84	0.58
31:BA:390:C:O3'	46:BS:28:ARG:NH2	2.35	0.58
31:BA:703:G:H4'	31:BA:704:A:O5'	2.03	0.58
31:BA:1004:A:C2	31:BA:1024:G:C8	2.91	0.58
31:BA:1048:G:OP1	44:BQ:3:ARG:HB3	2.02	0.58
49:BV:32:LYS:HD2	49:BV:57:HIS:CD2	2.38	0.58
31:CA:279:A:H5"	31:CA:281:G:H5'	1.84	0.58
31:CA:538:G:H5"	42:CO:111:LYS:HB2	1.85	0.58
31:CA:1119:C:OP1	39:CL:83:ARG:NH1	2.33	0.58
31:CA:1132:C:H2'	31:CA:1133:G:C8	2.39	0.58
42:CO:38:ARG:HD2	42:CO:39:THR:H	1.67	0.58
1:DA:835:A:OP1	30:D8:52:LYS:HG2	2.03	0.58
1:DA:2211:G:H3'	1:DA:2212:A:N3	2.18	0.58
1:DA:2468:G:C2	1:DA:2481:G:N3	2.71	0.58
1:DA:2564:A:C2	1:DA:2647:U:H4'	2.38	0.58
1:DA:2646:C:H2'	1:DA:2647:U:O4'	2.04	0.58
2:DB:87:G:H3'	2:DB:88:C:C5'	2.34	0.58
4:DE:33:VAL:HG11	4:DE:88:GLY:HA2	1.85	0.58
4:DE:51:PHE:CD2	4:DE:52:LEU:HG	2.38	0.58
5:DF:7:TYR:CE2	5:DF:16:GLY:HA3	2.38	0.58
8:DK:75:LEU:HD21	8:DK:77:LEU:CB	2.33	0.58
9:DM:127:ASP:O	9:DM:128:HIS:HB3	2.02	0.58
1:AA:1178:C:O2'	1:AA:1179:C:P	2.61	0.58
1:AA:2467:C:N4	1:AA:2468:G:C6	2.72	0.58
8:AK:10:GLU:O	8:AK:11:ASN:CB	2.50	0.58
14:AQ:83:LYS:HE3	14:AQ:109:GLY:HA2	1.84	0.58
24:AW:46:GLN:OE1	24:AW:46:GLN:HA	2.03	0.58
31:BA:89:U:O2'	31:BA:90:C:O4'	2.21	0.58
31:BA:1277:C:HO2'	31:BA:1279:A:H1'	1.69	0.58
32:BE:80:ILE:HD11	32:BE:208:ILE:HG12	1.84	0.58
40:BM:6:ILE:HG22	40:BM:98:ILE:HG13	1.86	0.58
40:BM:40:LEU:HB2	40:BM:69:ASN:HB3	1.83	0.58
50:BW:37:SER:O	50:BW:41:ILE:HG12	2.04	0.58
31:CA:652:U:O2'	31:CA:653:A:N3	2.34	0.58
31:CA:1138:G:N1	31:CA:1140:C:O2	2.36	0.58
49:CV:31:ILE:HG13	49:CV:32:LYS:N	2.16	0.58
1:DA:176:G:O2'	1:DA:177:G:H5'	2.04	0.58
1:DA:747:U:O2	1:DA:2014:A:H1'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1557:C:H5”	1:DA:1558:A:OP2	2.02	0.58
1:DA:2031:A:C6	1:DA:2498:C:H1’	2.39	0.58
1:DA:2872:G:C4	1:DA:2873:A:C6	2.92	0.58
2:DB:45:A:H2’	2:DB:45:A:N3	2.18	0.58
4:DE:47:VAL:HG13	4:DE:48:GLN:N	2.18	0.58
5:DF:53:THR:HG23	5:DF:55:GLY:H	1.66	0.58
20:DU:20:TYR:N	20:DU:20:TYR:HD1	2.02	0.58
21:DV:148:ASP:O	21:DV:149:SER:HB3	2.04	0.58
24:DW:41:ILE:HD11	24:DW:44:LEU:HD12	1.85	0.58
27:D5:36:CYS:HG	27:D5:49:CYS:CB	2.16	0.58
1:AA:637:A:H4’	1:AA:638:G:O5’	2.02	0.58
1:AA:784:A:C5	3:AD:229:VAL:HG21	2.38	0.58
1:AA:897:C:H2’	1:AA:898:C:O4’	2.03	0.58
1:AA:1006:C:H1’	9:AM:106:MET:HE3	1.85	0.58
1:AA:1162:G:H21	17:A2:89:GLN:HE22	1.50	0.58
1:AA:2474:C:H5’	1:AA:2475:C:C5	2.38	0.58
4:AE:92:THR:O	4:AE:95:ILE:HG12	2.03	0.58
4:AE:197:ILE:HD11	4:AE:199:ARG:HE	1.68	0.58
7:AH:151:ILE:O	7:AH:151:ILE:HG22	2.02	0.58
21:AV:51:ALA:HB1	21:AV:57:ILE:HD11	1.85	0.58
30:A8:60:LEU:O	30:A8:61:LEU:C	2.44	0.58
31:BA:5:U:O2’	31:BA:6:G:O5’	2.21	0.58
31:BA:376:G:OP1	46:BS:5:ARG:HB2	2.02	0.58
39:BL:43:ALA:C	39:BL:45:ALA:H	2.11	0.58
39:BL:46:ALA:HA	39:BL:78:LYS:HB2	1.86	0.58
42:BO:21:VAL:HG13	42:BO:95:TYR:CE2	2.38	0.58
31:CA:362:G:H4’	42:CO:30:ARG:HH21	1.68	0.58
31:CA:791:G:C6	31:CA:792:A:N7	2.71	0.58
36:CI:87:ARG:HH11	36:CI:87:ARG:CG	1.95	0.58
49:CV:66:MET:HE1	26:D4:55:ARG:HB2	1.84	0.58
1:DA:277:C:O2	1:DA:277:C:H2’	2.04	0.58
1:DA:1204:A:N1	1:DA:1241:A:N1	2.52	0.58
1:DA:2166:G:O2’	1:DA:2167:U:OP1	2.15	0.58
1:DA:2790:A:H4’	1:DA:2791:C:O5’	2.03	0.58
8:DK:93:THR:HG22	8:DK:119:PRO:HG3	1.85	0.58
12:DP:64:ILE:C	12:DP:65:PHE:CD2	2.81	0.58
23:DZ:87:PRO:O	23:DZ:88:LYS:C	2.46	0.58
1:AA:2689:U:OP2	1:AA:2719:G:N2	2.32	0.58
7:AH:27:LYS:HA	7:AH:32:GLU:HA	1.84	0.58
8:AK:78:THR:HG23	8:AK:141:LYS:HG3	1.86	0.58
9:AM:28:THR:HG22	9:AM:29:LYS:N	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AM:43:THR:HB	9:AM:46:VAL:CG1	2.33	0.58
15:AR:3:ARG:CB	15:AR:7:ILE:HG13	2.33	0.58
21:AV:10:ARG:HD3	21:AV:18:LEU:CD2	2.33	0.58
31:BA:1004:A:C4	31:BA:1025:U:C2	2.92	0.58
34:BG:172:PRO:O	34:BG:174:LEU:N	2.36	0.58
41:BN:78:GLN:O	41:BN:103:LEU:HA	2.03	0.58
39:CL:8:GLY:HA2	39:CL:79:LEU:HD12	1.85	0.58
44:CQ:4:LYS:HA	44:CQ:7:ILE:HG12	1.85	0.58
1:DA:755:C:H2'	1:DA:756:C:C6	2.37	0.58
1:DA:1025:G:C4	1:DA:1135:C:H1'	2.39	0.58
1:DA:2801:A:H2'	1:DA:2802:G:O4'	2.04	0.58
1:DA:2854:G:C2	1:DA:2864:G:C2	2.91	0.58
2:DB:8:U:O2'	14:DQ:40:ILE:HD13	2.03	0.58
3:DD:34:VAL:HG21	3:DD:103:ARG:HA	1.85	0.58
12:DP:33:GLY:O	12:DP:118:LEU:HD13	2.03	0.58
17:D2:84:LYS:O	17:D2:85:LYS:O	2.22	0.58
20:DU:84:ARG:NH2	20:DU:97:ARG:HB2	2.18	0.58
25:DX:29:ARG:H	25:DX:33:GLN:NE2	2.01	0.58
27:D5:55:ARG:HD3	27:D5:56:LYS:N	2.19	0.58
28:D6:36:LEU:HD23	28:D6:50:ARG:HB3	1.85	0.58
29:D7:48:LYS:HG3	29:D7:49:ARG:H	1.69	0.58
1:AA:479:A:N3	1:AA:481:G:H5"	2.18	0.58
1:AA:1056:G:O2'	1:AA:1057:A:OP2	2.21	0.58
1:AA:2293:C:OP1	14:AQ:89:ARG:NH1	2.30	0.58
1:AA:2348:U:H4'	28:A6:42:TRP:CD1	2.38	0.58
1:AA:2415:G:H4'	11:AO:67:MET:N	2.19	0.58
5:AF:127:GLU:O	5:AF:129:PHE:N	2.36	0.58
7:AH:30:LYS:HD3	7:AH:81:GLU:H	1.67	0.58
11:AO:140:ALA:O	11:AO:141:ALA:HB2	2.03	0.58
12:AP:57:HIS:CG	12:AP:57:HIS:O	2.56	0.58
34:BG:30:LYS:C	34:BG:32:ALA:N	2.62	0.58
36:BI:87:ARG:HG3	36:BI:87:ARG:NH1	2.02	0.58
37:BJ:69:VAL:O	37:BJ:69:VAL:HG12	2.04	0.58
40:BM:96:ILE:H	40:BM:96:ILE:HD13	1.68	0.58
31:CA:632:A:H4'	31:CA:633:G:C5'	2.34	0.58
32:CE:8:LYS:HD2	32:CE:11:LEU:HD22	1.85	0.58
42:CO:44:LYS:CB	42:CO:45:PRO:HD3	2.15	0.58
49:CV:22:LEU:C	49:CV:24:ALA:H	2.10	0.58
53:CC:22:A:H5"	53:CC:23:G:OP1	2.04	0.58
1:DA:1430:C:H2'	1:DA:1431:U:C6	2.39	0.58
1:DA:2062:A:H62	1:DA:2503:A:N6	2.01	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2466:C:C2'	1:DA:2467:C:C5'	2.68	0.58
1:DA:2688:U:C5	1:DA:2720:U:OP2	2.57	0.58
2:DB:31:C:C2'	2:DB:32:C:H5'	2.33	0.58
4:DE:68:ALA:C	4:DE:70:ALA:H	2.10	0.58
4:DE:188:VAL:HG23	4:DE:189:PRO:HD2	1.85	0.58
9:DM:137:LYS:HA	9:DM:137:LYS:NZ	2.18	0.58
12:DP:2:LEU:O	12:DP:70:PRO:HG3	1.95	0.58
20:DU:98:VAL:HG13	20:DU:99:CYS:H	1.68	0.58
28:D6:10:LEU:C	28:D6:11:LEU:HD22	2.29	0.58
1:AA:270(R):G:H2'	1:AA:270(S):G:C8	2.39	0.58
1:AA:389:G:H22	11:AO:72:PRO:CG	2.16	0.58
1:AA:943:U:OP2	11:AO:36:LYS:HG2	2.03	0.58
1:AA:1054:A:H2'	1:AA:1055:G:C8	2.39	0.58
1:AA:1077:A:H3'	1:AA:1078:U:H5'	1.82	0.58
1:AA:1111:A:H5'	7:AH:3:ARG:NH1	2.18	0.58
20:AU:87:LYS:HD2	20:AU:92:ASN:HB3	1.85	0.58
30:A8:35:GLN:NE2	30:A8:36:LYS:O	2.36	0.58
31:BA:56:U:H2'	31:BA:57:G:C8	2.39	0.58
31:BA:1004:A:H8	31:BA:1036:G:N1	2.02	0.58
31:BA:1025:U:O2'	31:BA:1026:G:C8	2.56	0.58
34:BG:9:CYS:HA	34:BG:12:CYS:HB2	1.84	0.58
40:BM:40:LEU:HB2	40:BM:69:ASN:CB	2.34	0.58
31:CA:1115:C:N3	31:CA:1185:G:O6	2.37	0.58
34:CG:196:LEU:H	34:CG:196:LEU:HD12	1.68	0.58
50:CW:22:ARG:O	50:CW:26:ASN:ND2	2.37	0.58
51:CX:6:ARG:HE	51:CX:15:ARG:NH2	2.01	0.58
1:DA:205:G:C1'	1:DA:206:U:OP2	2.49	0.58
1:DA:1761:C:C3'	1:DA:1762:A:H5"	2.28	0.58
1:DA:2143:C:H2'	1:DA:2144:U:O4'	2.03	0.58
6:DG:117:PHE:CD1	6:DG:117:PHE:C	2.80	0.58
21:DV:10:ARG:HH21	21:DV:26:GLY:H	1.52	0.58
1:AA:1575:C:H2'	1:AA:1576:U:C6	2.38	0.58
1:AA:1899:G:H21	1:AA:1902:C:H5	1.52	0.58
1:AA:2118:U:H5"	1:AA:2119:A:OP1	2.04	0.58
1:AA:2206:C:H2'	1:AA:2207:C:H6	1.68	0.58
1:AA:2620:C:OP1	4:AE:152:LYS:O	2.22	0.58
31:BA:108:G:OP2	31:BA:108:G:N2	2.36	0.58
31:BA:501:C:H2'	31:BA:502:G:H8	1.68	0.58
31:BA:1118:C:P	39:BL:104:ARG:HH11	2.27	0.58
32:BE:54:THR:HG21	32:BE:201:ILE:HD11	1.85	0.58
31:CA:686:U:O4	31:CA:703:G:H1'	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CG:8:VAL:O	34:CG:10:ARG:N	2.36	0.58
39:CL:26:VAL:HG22	39:CL:61:ALA:HB3	1.85	0.58
40:CM:16:LEU:O	40:CM:18:ALA:N	2.37	0.58
43:CP:57:ARG:NH1	26:D4:34:GLU:O	2.37	0.58
46:CS:8:ARG:HH11	46:CS:8:ARG:HG3	1.66	0.58
46:CS:18:ARG:HD3	46:CS:35:LYS:HE3	1.86	0.58
1:DA:71:A:C2	19:DT:31:HIS:CE1	2.92	0.58
1:DA:329:G:C6	20:DU:19:LYS:HG2	2.38	0.58
1:DA:2014:A:HO2'	27:D5:2:ALA:N	2.02	0.58
1:DA:2210:G:C4'	1:DA:2211:G:OP2	2.47	0.58
1:DA:2309:A:H2'	1:DA:2310:A:O4'	2.04	0.58
10:DN:68:GLU:CA	10:DN:78:ARG:HB3	2.33	0.58
12:DP:33:GLY:HA2	12:DP:105:GLU:HB2	1.85	0.58
1:AA:784:A:C8	1:AA:792:G:C5	2.92	0.57
1:AA:1138:G:H21	9:AM:106:MET:CE	2.14	0.57
1:AA:2118:U:H3	1:AA:2148:G:H4'	1.69	0.57
3:AD:130:ALA:C	3:AD:131:LEU:HD12	2.28	0.57
5:AF:129:PHE:O	5:AF:130:ALA:CB	2.51	0.57
8:AK:110:ASP:N	8:AK:130:TYR:OH	2.37	0.57
9:AM:68:GLU:HG3	9:AM:88:GLU:OE1	2.04	0.57
21:AV:117:LEU:HD13	21:AV:118:GLN:N	2.18	0.57
26:A4:57:GLU:O	26:A4:60:GLN:HB2	2.04	0.57
30:A8:29:LYS:HB3	30:A8:44:LYS:HG2	1.86	0.57
31:BA:280:C:H3'	31:BA:281:G:H5'	1.85	0.57
31:BA:687:A:N3	31:BA:688:G:H1'	2.18	0.57
31:BA:1025:U:O2'	31:BA:1026:G:P	2.61	0.57
32:BE:21:ARG:O	32:BE:23:ARG:N	2.36	0.57
33:BF:116:VAL:HG21	33:BF:202:ILE:HD11	1.85	0.57
37:BJ:50:ILE:HB	37:BJ:58:PRO:HG3	1.86	0.57
50:BW:43:LEU:HA	50:BW:46:GLU:HG2	1.85	0.57
31:CA:634:C:H2'	31:CA:635:G:H8	1.69	0.57
31:CA:923:A:OP1	35:CH:21:ALA:HB2	2.03	0.57
31:CA:1034:G:N2	31:CA:1035:A:N6	2.52	0.57
31:CA:1321:C:H4'	43:CP:87:TYR:CE2	2.39	0.57
1:DA:140:A:H8	1:DA:1408:C:O2'	1.84	0.57
1:DA:1012:U:O4	9:DM:25:ARG:HD3	2.04	0.57
8:DK:82:ARG:HB3	8:DK:89:TYR:HD2	1.69	0.57
23:DZ:21:ARG:HD3	23:DZ:35:THR:HG21	1.86	0.57
1:AA:959:A:N6	12:AP:83:MET:CE	2.67	0.57
1:AA:1019:U:O2'	1:AA:1021:A:H2	1.87	0.57
1:AA:1063:G:H22	1:AA:1076:C:H1'	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1728:G:N1	1:AA:1730:U:OP2	2.37	0.57
1:AA:1843:C:H5'	3:AD:253:GLN:OE1	2.03	0.57
8:AK:11:ASN:O	8:AK:12:LEU:CB	2.52	0.57
11:AO:82:GLY:HA2	11:AO:113:LYS:O	2.04	0.57
21:AV:95:PRO:HA	21:AV:130:PRO:HD3	1.87	0.57
31:BA:659:U:C2	31:BA:660:G:C8	2.91	0.57
31:BA:870:U:H4'	31:BA:871:U:O5'	2.04	0.57
34:BG:150:GLU:C	34:BG:152:SER:H	2.13	0.57
46:BS:68:ASP:C	46:BS:70:ALA:H	2.10	0.57
31:CA:1032:A:H3'	31:CA:1032(A):G:H5"	1.85	0.57
1:DA:195:A:H5"	1:DA:196:A:O5'	2.04	0.57
1:DA:287:C:H2'	1:DA:288:C:H6	1.68	0.57
1:DA:389:G:N1	11:DO:71:VAL:HG12	2.19	0.57
1:DA:932:G:H4'	1:DA:933:A:O5'	2.04	0.57
17:D2:61:VAL:O	17:D2:61:VAL:HG13	2.03	0.57
21:DV:108:PRO:C	21:DV:110:GLY:H	2.11	0.57
30:D8:14:VAL:HG22	30:D8:24:ALA:HB2	1.84	0.57
1:AA:176:G:O2'	1:AA:177:G:H5'	2.05	0.57
1:AA:607:U:N3	1:AA:621:A:C2	2.70	0.57
1:AA:2505:G:O6	1:AA:2576:G:H2'	2.04	0.57
6:AG:107:LEU:HD21	6:AG:178:PHE:CE1	2.39	0.57
9:AM:13:TRP:O	9:AM:135:PRO:HD2	2.04	0.57
12:AP:134:ARG:O	12:AP:134:ARG:CG	2.52	0.57
21:AV:107:THR:HB	21:AV:108:PRO:HD2	1.86	0.57
31:BA:686:U:H1'	41:BN:42:TRP:NE1	2.14	0.57
31:BA:1054:C:O2	31:BA:1054:C:H2'	2.05	0.57
31:BA:1386:G:O2'	31:BA:1387:G:H5'	2.04	0.57
33:BF:52:LEU:H	33:BF:52:LEU:CD2	2.17	0.57
31:CA:192:U:O2'	50:CW:60:GLU:OE2	2.15	0.57
31:CA:1213:A:C6	31:CA:1215:G:H1'	2.39	0.57
32:CE:92:TYR:HE2	32:CE:151:GLY:HA3	1.67	0.57
34:CG:5:ILE:O	34:CG:5:ILE:HG22	2.04	0.57
43:CP:115:LYS:O	43:CP:117:VAL:N	2.37	0.57
1:DA:1071:G:OP2	1:DA:1097:U:H5'	2.03	0.57
1:DA:2531:A:C5'	7:DH:157:TYR:HE2	2.17	0.57
1:DA:2712:U:H1'	1:DA:2712(A):A:C8	2.40	0.57
5:DF:155:LEU:HB2	5:DF:189:THR:HG21	1.86	0.57
30:D8:30:ARG:C	30:D8:32:LEU:H	2.12	0.57
1:AA:27:G:N2	1:AA:512:G:H1'	2.19	0.57
1:AA:86:C:H4'	1:AA:104:U:H1'	1.85	0.57
1:AA:526:A:H5"	1:AA:527:C:OP1	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:754:C:H2'	1:AA:755:C:C6	2.39	0.57
1:AA:880:G:HO2'	1:AA:881:G:P	2.25	0.57
1:AA:1638:C:H4'	1:AA:2710:C:O2	2.03	0.57
2:AB:89:G:H8	2:AB:89:G:OP2	1.86	0.57
22:A3:35:ASN:HD22	22:A3:35:ASN:H	1.51	0.57
22:A3:50:ASN:HB3	22:A3:63:VAL:HG22	1.85	0.57
23:AZ:83:GLU:HG2	23:AZ:85:LEU:H	1.68	0.57
27:A5:51:TYR:H	27:A5:56:LYS:HB3	1.69	0.57
31:BA:49:U:O2'	31:BA:50:A:H2'	2.05	0.57
31:BA:977:A:C8	31:BA:1223:C:C4	2.93	0.57
32:BE:5:ILE:HG22	32:BE:224:GLN:OE1	2.04	0.57
32:BE:11:LEU:HB3	32:BE:213:LEU:HD11	1.86	0.57
45:BR:78:TYR:CZ	45:BR:82:ILE:HD11	2.40	0.57
47:BT:63:ARG:HG3	47:BT:64:PRO:HD2	1.85	0.57
31:CA:1297:C:C1'	31:CA:1298:C:OP2	2.51	0.57
1:DA:148:C:H6	1:DA:148:C:C5'	2.17	0.57
1:DA:273(C):C:N4	1:DA:363(C):G:H1	1.99	0.57
1:DA:764:A:H5'	3:DD:210:GLY:HA2	1.87	0.57
1:DA:1341:U:H3'	1:DA:1342:A:H2	1.68	0.57
1:DA:1384:A:N3	1:DA:1405:U:H1'	2.20	0.57
1:DA:1444(A):A:N3	1:DA:1444(A):A:H2'	2.18	0.57
1:DA:1797:C:HO2'	3:DD:259:THR:HG1	1.53	0.57
1:DA:1999:C:H4'	1:DA:2723:C:O2	2.04	0.57
4:DE:1:MET:N	4:DE:83:ASP:O	2.37	0.57
6:DG:37:VAL:O	6:DG:94:LEU:HD23	2.05	0.57
17:D2:71:LEU:H	17:D2:86:GLY:HA3	1.64	0.57
17:D2:98:GLU:O	17:D2:99:ILE:HB	2.04	0.57
19:DT:50:LYS:N	19:DT:87:GLN:HE22	2.02	0.57
21:DV:62:PRO:O	21:DV:64:GLY:N	2.36	0.57
1:AA:142:G:H1'	19:AT:37:THR:CG2	2.34	0.57
4:AE:101:ARG:CZ	4:AE:171:GLU:HB2	2.35	0.57
4:AE:181:LEU:HD21	15:AR:7:ILE:HG23	1.86	0.57
5:AF:167:ALA:HB1	5:AF:173:VAL:HG11	1.84	0.57
11:AO:63:PRO:HB3	30:A8:12:LYS:O	2.05	0.57
31:BA:1234:C:O2'	31:BA:1235:U:H5'	2.04	0.57
31:BA:1450:U:O2'	31:BA:1451:A:H8	1.87	0.57
34:BG:138:TYR:C	34:BG:138:TYR:CD2	2.83	0.57
34:BG:194:LEU:HD12	34:BG:195:ALA:H	1.69	0.57
37:BJ:120:ILE:O	37:BJ:124:LEU:HB2	2.04	0.57
31:CA:114:U:O2'	31:CA:115:G:H5'	2.05	0.57
31:CA:1298:C:P	37:CJ:114:ARG:HH22	2.27	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:CH:17:ALA:HB2	35:CH:26:PHE:CD2	2.40	0.57
43:CP:87:TYR:O	43:CP:91:ARG:HG2	2.03	0.57
1:DA:274:G:OP1	1:DA:274:G:C8	2.58	0.57
1:DA:900:A:H2'	1:DA:900:A:N3	2.20	0.57
1:DA:2068:U:N3	1:DA:2430:A:C2	2.55	0.57
1:DA:2310:A:C5'	1:DA:2311:A:OP2	2.53	0.57
1:DA:2329:G:H2'	1:DA:2330:G:C8	2.40	0.57
1:DA:2513:G:N2	4:DE:143:ASN:HD21	2.01	0.57
2:DB:39:A:H61	26:D4:1:MET:HB3	1.67	0.57
2:DB:73:A:C4	2:DB:104:A:C2	2.93	0.57
2:DB:103:U:O2'	21:DV:72:ARG:HG2	2.05	0.57
20:DU:61:ILE:HG22	20:DU:62:GLU:N	2.19	0.57
21:DV:76:LEU:HD23	21:DV:76:LEU:N	2.20	0.57
22:D3:47:PRO:HG3	22:D3:53:MET:HB2	1.86	0.57
26:D4:21:VAL:HG22	26:D4:22:ILE:HG12	1.86	0.57
26:D4:22:ILE:O	26:D4:23:GLU:HB3	2.04	0.57
1:AA:302:C:H2'	1:AA:303:U:C6	2.40	0.57
1:AA:557:U:H2'	1:AA:558:G:C8	2.39	0.57
1:AA:660:G:N2	11:AO:12:ALA:HA	2.19	0.57
1:AA:826:U:H2'	1:AA:828:U:O4'	2.04	0.57
1:AA:1786:A:C2	1:AA:2606:C:H1'	2.40	0.57
1:AA:1786:A:H1'	1:AA:1938:A:N6	2.20	0.57
1:AA:1858:G:H2'	1:AA:1883:G:N2	2.20	0.57
1:AA:2511:U:O4	1:AA:2575:C:N3	2.37	0.57
6:AG:138:GLN:O	6:AG:144:ILE:HG13	2.05	0.57
11:AO:50:ARG:HG3	30:A8:59:LYS:HD3	1.86	0.57
12:AP:116:GLU:O	12:AP:120:ILE:HG12	2.03	0.57
20:AU:75:ILE:O	20:AU:76:CYS:HB2	2.05	0.57
20:AU:79:CYS:O	20:AU:81:LYS:HE3	2.03	0.57
21:AV:7:ALA:HB2	21:AV:59:LEU:CD1	2.33	0.57
21:AV:107:THR:C	21:AV:109:ALA:H	2.12	0.57
23:AZ:86:SER:N	23:AZ:87:PRO:CD	2.63	0.57
26:A4:40:HIS:H	26:A4:41:PRO:HD2	1.69	0.57
28:A6:27:LYS:HB2	28:A6:27:LYS:NZ	2.19	0.57
32:BE:14:GLY:O	32:BE:15:VAL:HG13	2.05	0.57
33:BF:34:LEU:HD21	33:BF:38:ARG:NH1	2.19	0.57
34:BG:172:PRO:C	34:BG:174:LEU:H	2.13	0.57
34:BG:196:LEU:C	34:BG:198:VAL:H	2.12	0.57
39:BL:118:LYS:O	39:BL:119:ALA:HB3	2.03	0.57
42:BO:123:LYS:HE3	42:BO:125:ALA:HB3	1.86	0.57
52:BB:29:U:H2'	52:BB:30:A:C8	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:87:A:H2'	31:CA:87:A:N3	2.20	0.57
31:CA:485:G:O2'	31:CA:486:U:O5'	2.23	0.57
31:CA:1014:A:H2'	31:CA:1015:A:C8	2.40	0.57
33:CF:134:ILE:HG22	33:CF:168:ALA:HB3	1.87	0.57
35:CH:51:VAL:O	35:CH:55:VAL:HG23	2.05	0.57
1:DA:26:G:C6	1:DA:27:G:N1	2.72	0.57
3:DD:35:LYS:HD3	3:DD:63:ARG:HB3	1.86	0.57
7:DH:7:LEU:N	7:DH:8:PRO:CD	2.66	0.57
12:DP:78:PRO:C	12:DP:79:LEU:HG	2.29	0.57
14:DQ:42:ASP:O	14:DQ:43:GLU:HB2	2.04	0.57
14:DQ:66:ALA:HA	14:DQ:69:VAL:HG12	1.87	0.57
24:DW:9:GLN:NE2	24:DW:56:GLN:HG3	2.20	0.57
1:AA:1783:A:H5'	1:AA:2608:G:H4'	1.86	0.57
1:AA:2113:U:H5'	1:AA:2114:A:H8	1.69	0.57
1:AA:2383:G:O2'	1:AA:2384:G:H5'	2.04	0.57
1:AA:2789:C:H3'	1:AA:2790:A:H5"	1.85	0.57
2:AB:66:A:H61	2:AB:107:U:H2'	1.69	0.57
8:AK:103:ARG:N	8:AK:103:ARG:HD2	2.20	0.57
11:AO:124:LYS:HA	11:AO:143:GLY:O	2.05	0.57
15:AR:62:THR:HG22	15:AR:75:ILE:HG12	1.87	0.57
31:BA:975:A:H62	40:BM:60:ARG:HH12	1.53	0.57
31:BA:1225:A:H2'	31:BA:1225:A:N3	2.18	0.57
31:BA:1285:A:C4'	31:BA:1286:A:O5'	2.50	0.57
32:BE:236:TYR:HA	32:BE:239:VAL:HG21	1.85	0.57
52:BB:86:C:H2'	52:BB:87:A:C4	2.39	0.57
31:CA:547:A:H4'	31:CA:548:G:O5'	2.04	0.57
31:CA:997:U:H2'	31:CA:998:G:C8	2.39	0.57
31:CA:1132:C:O2'	31:CA:1133:G:H5'	2.04	0.57
34:CG:9:CYS:HA	34:CG:12:CYS:HB2	1.86	0.57
37:CJ:78:ARG:HB2	37:CJ:156:TRP:CZ3	2.38	0.57
38:CK:12:ARG:NH1	38:CK:27:PRO:HD3	2.19	0.57
53:CD:57:C:H2'	53:CD:58:A:O4'	2.04	0.57
1:DA:1678:G:H22	1:DA:1989:G:H22	1.50	0.57
3:DD:137:PRO:O	3:DD:140:THR:HG23	2.05	0.57
7:DH:12:PRO:O	7:DH:15:VAL:HG22	2.04	0.57
11:DO:38:GLN:HG2	11:DO:45:LEU:HD13	1.85	0.57
11:DO:97:PRO:HG3	11:DO:112:LEU:HD12	1.86	0.57
12:DP:63:LYS:HG3	12:DP:65:PHE:CE2	2.40	0.57
14:DQ:106:ARG:NH2	14:DQ:107:GLU:OE1	2.38	0.57
15:DR:29:ARG:HD3	15:DR:44:ASP:OD1	2.04	0.57
16:D1:85:LYS:NZ	16:D1:117:GLN:O	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:34:C:O2'	1:AA:35:G:P	2.63	0.57
1:AA:1188:U:O2'	1:AA:1189:A:H5'	2.04	0.57
1:AA:1332:G:N2	1:AA:1610:A:H8	2.01	0.57
1:AA:1505:C:H2'	1:AA:1506:C:C6	2.40	0.57
1:AA:1991:U:C2'	1:AA:1992:G:H5"	2.35	0.57
1:AA:2125:G:N1	1:AA:2172:U:OP1	2.37	0.57
7:AH:154:PRO:C	7:AH:156:ALA:H	2.11	0.57
12:AP:12:GLN:HG2	12:AP:73:PRO:HD2	1.87	0.57
16:A1:47:TYR:C	16:A1:47:TYR:CD2	2.82	0.57
21:AV:7:ALA:HB3	21:AV:61:LEU:CB	2.35	0.57
21:AV:109:ALA:HB1	21:AV:144:LEU:HB2	1.87	0.57
31:BA:439:A:OP2	31:BA:493:G:N1	2.38	0.57
31:BA:793:U:H3'	31:BA:794:A:H5"	1.87	0.57
31:BA:1060:C:C5	33:BF:2:GLY:HA2	2.40	0.57
37:BJ:26:PHE:CE2	37:BJ:30:ILE:HD11	2.40	0.57
43:BP:84:ILE:CG1	49:BV:66:MET:HG2	2.34	0.57
31:CA:411:A:N7	31:CA:413:G:N3	2.52	0.57
35:CH:42:GLY:HA2	35:CH:65:ASN:O	2.05	0.57
37:CJ:40:ALA:HB3	39:CL:41:VAL:HG21	1.85	0.57
38:CK:86:ILE:HG12	38:CK:135:CYS:HA	1.87	0.57
40:CM:78:ASN:C	40:CM:80:LYS:H	2.12	0.57
1:DA:1416:G:H2'	1:DA:1417:C:C6	2.39	0.57
1:DA:1607:C:H4'	1:DA:1608:A:H5'	1.86	0.57
1:DA:1964:G:H4'	1:DA:1965:C:OP2	2.04	0.57
1:DA:2074:U:H2'	1:DA:2075:U:C6	2.39	0.57
3:DD:30:GLU:HG3	3:DD:63:ARG:CZ	2.35	0.57
3:DD:34:VAL:HG22	3:DD:35:LYS:HG3	1.86	0.57
5:DF:122:LYS:O	5:DF:123:LEU:HB3	2.03	0.57
6:DG:75:LYS:HE3	6:DG:77:ILE:HD11	1.85	0.57
9:DM:55:VAL:HB	9:DM:126:PRO:HA	1.87	0.57
11:DO:112:LEU:H	11:DO:128:HIS:HD2	1.52	0.57
12:DP:30:GLY:C	12:DP:107:ALA:HB2	2.30	0.57
26:D4:39:CYS:O	26:D4:40:HIS:HB2	2.03	0.57
30:D8:30:ARG:C	30:D8:32:LEU:N	2.63	0.57
1:AA:654(M):C:H3'	1:AA:654(N):G:H8	1.70	0.57
1:AA:1494:A:O2'	1:AA:1495:A:H5'	2.05	0.57
1:AA:2080:G:H5'	23:AZ:19:GLN:HG2	1.86	0.57
1:AA:2320:A:H2'	1:AA:2320:A:N3	2.20	0.57
1:AA:2415:G:H4'	11:AO:66:GLY:C	2.30	0.57
1:AA:2467:C:O2'	1:AA:2468:G:C5'	2.53	0.57
20:AU:97:ARG:O	20:AU:97:ARG:HG2	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:A3:11:ARG:O	22:A3:14:ARG:NH2	2.38	0.57
31:BA:411:A:N7	31:BA:413:G:N3	2.52	0.57
31:BA:452:A:OP2	46:BS:43:LYS:NZ	2.37	0.57
31:BA:524:G:H2'	31:BA:525:C:C6	2.39	0.57
31:BA:920:U:H2'	31:BA:921:U:C6	2.39	0.57
31:BA:1236:A:O2'	31:BA:1304:G:H4'	2.04	0.57
31:BA:1399:C:C2	31:BA:1401:G:C5	2.93	0.57
32:BE:21:ARG:C	32:BE:23:ARG:H	2.13	0.57
33:BF:8:ILE:O	33:BF:11:ARG:N	2.31	0.57
46:BS:53:VAL:HG13	46:BS:79:VAL:HG22	1.85	0.57
48:BU:66:LEU:O	48:BU:70:ILE:HG13	2.05	0.57
31:CA:629:G:H2'	31:CA:630:G:C8	2.39	0.57
31:CA:820:U:H4'	31:CA:821:G:OP2	2.05	0.57
31:CA:1133:G:N2	31:CA:1141:C:C2	2.71	0.57
33:CF:35:GLU:HA	33:CF:38:ARG:HE	1.69	0.57
35:CH:148:VAL:HG21	38:CK:107:LEU:HD23	1.87	0.57
1:DA:491:G:H2'	1:DA:492:A:C8	2.40	0.57
7:DH:127:GLU:HG2	7:DH:128:PRO:CD	2.32	0.57
1:AA:26:G:C6	1:AA:27:G:N1	2.73	0.57
1:AA:674:G:O2'	5:AF:74:ARG:HD3	2.05	0.57
1:AA:1247:A:OP1	5:AF:95:ARG:NH2	2.36	0.57
1:AA:1252:G:N3	16:A1:33:ARG:HD2	2.19	0.57
2:AB:13:A:O2'	2:AB:14:U:H3'	2.05	0.57
4:AE:4:ILE:CD1	4:AE:28:ALA:HB1	2.34	0.57
13:A0:92:GLY:N	13:A0:94:TYR:CE2	2.73	0.57
15:AR:91:ARG:O	15:AR:116:ALA:HA	2.05	0.57
25:AX:4:LEU:O	25:AX:36:VAL:HA	2.04	0.57
31:BA:404:U:H2'	31:BA:405:U:C6	2.40	0.57
31:BA:811:C:H4'	31:BA:900:A:N6	2.20	0.57
31:BA:977:A:H1'	31:BA:982:U:O4	2.05	0.57
31:BA:1312:G:H5'	49:BV:6:LYS:HD3	1.86	0.57
32:BE:184:VAL:N	32:BE:198:ASP:OD1	2.29	0.57
44:BQ:3:ARG:HA	44:BQ:3:ARG:HH11	1.70	0.57
50:BW:71:THR:HG22	50:BW:72:LEU:N	2.11	0.57
51:BX:6:ARG:HE	51:BX:15:ARG:HD2	1.70	0.57
53:BD:64:G:H2'	53:BD:65:G:C8	2.40	0.57
31:CA:1277:C:O2'	31:CA:1279:A:H8	1.87	0.57
32:CE:19:HIS:CE1	32:CE:204:ASN:HB3	2.40	0.57
32:CE:67:THR:HG21	32:CE:155:LEU:HG	1.87	0.57
32:CE:101:MET:HE2	32:CE:101:MET:HA	1.87	0.57
36:CI:67:MET:HB2	36:CI:68:PRO:HD2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CW:64:ASP:OD1	50:CW:81:LYS:HD2	2.03	0.57
1:DA:91:A:C2'	1:DA:92:G:H5'	2.35	0.57
1:DA:528:A:H3'	1:DA:528:A:C8	2.40	0.57
1:DA:910:A:C5	12:DP:13:GLN:HG3	2.40	0.57
1:DA:1496:A:C8	1:DA:1577:C:O2'	2.57	0.57
1:DA:2303:G:O2'	1:DA:2304:G:H5'	2.05	0.57
1:DA:2629:A:O2'	1:DA:2630:G:H5'	2.05	0.57
5:DF:25:PRO:C	5:DF:27:GLU:H	2.12	0.57
5:DF:79:GLY:HA2	5:DF:86:GLY:HA2	1.86	0.57
9:DM:99:LEU:O	9:DM:103:VAL:HG23	2.05	0.57
10:DN:4:PRO:O	10:DN:5:GLN:CB	2.51	0.57
10:DN:10:VAL:HG21	10:DN:16:ALA:O	2.05	0.57
30:D8:50:LEU:O	30:D8:51:ALA:CB	2.53	0.57
1:AA:2310:A:C2	6:AG:77:ILE:HD11	2.38	0.56
1:AA:2346:A:H5"	1:AA:2383:G:C1'	2.35	0.56
4:AE:50:GLY:CA	4:AE:77:ILE:HA	2.22	0.56
7:AH:46:GLU:OE1	7:AH:51:ARG:NH1	2.38	0.56
12:AP:79:LEU:CD1	12:AP:80:GLU:HB2	2.35	0.56
27:A5:42:PRO:O	27:A5:44:THR:N	2.38	0.56
39:BL:121:ARG:NH1	39:BL:122:ALA:O	2.38	0.56
31:CA:1432:G:OP1	15:DR:107:ASP:HB2	2.05	0.56
32:CE:129:GLU:O	32:CE:130:ARG:C	2.48	0.56
48:CU:53:ARG:HA	48:CU:56:THR:OG1	2.05	0.56
52:CB:23:A:O2'	52:CB:24:C:OP1	2.20	0.56
53:CD:15:G:N3	53:CD:15:G:H2'	2.20	0.56
1:DA:84:A:P	20:DU:8:LYS:HD3	2.45	0.56
1:DA:1341:U:H3'	1:DA:1342:A:C2	2.40	0.56
1:DA:2080:G:O2'	1:DA:2081:C:H5'	2.05	0.56
1:DA:2419:U:O4	30:D8:31:HIS:CE1	2.58	0.56
1:DA:2855:C:H2'	1:DA:2856:C:H6	1.70	0.56
11:DO:101:VAL:HG23	11:DO:106:LEU:HD23	1.86	0.56
20:DU:17:SER:OG	20:DU:18:GLY:N	2.32	0.56
1:AA:654(S):G:C4'	1:AA:654(T):A:OP1	2.52	0.56
1:AA:1469:A:H2'	1:AA:1470:G:H8	1.70	0.56
1:AA:2680:C:H5'	4:AE:189:PRO:HA	1.87	0.56
1:AA:2723:C:OP1	13:A0:3:HIS:CD2	2.58	0.56
1:AA:2870:C:H5"	13:A0:65:LEU:HD21	1.86	0.56
2:AB:52:A:N6	14:AQ:33:LYS:HG3	2.15	0.56
6:AG:67:LYS:HG2	26:A4:5:ILE:HG23	1.86	0.56
6:AG:139:LEU:HD21	6:AG:146:TYR:HA	1.86	0.56
12:AP:139:GLU:OE2	21:AV:122:ARG:NH2	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:250:A:H4'	31:BA:251:G:C5'	2.35	0.56
31:BA:429:U:H1'	31:BA:430:A:H5"	1.87	0.56
32:BE:100:GLY:O	32:BE:104:ASN:N	2.26	0.56
32:BE:187:LEU:HA	32:BE:201:ILE:HB	1.87	0.56
39:BL:3:GLN:OE1	39:BL:20:ARG:NH1	2.38	0.56
39:BL:125:TYR:HD2	39:BL:126:SER:H	1.52	0.56
44:BQ:48:ALA:HB2	44:BQ:53:LEU:HD12	1.86	0.56
31:CA:620:C:H2'	31:CA:621:A:O4'	2.05	0.56
31:CA:980:C:H5'	31:CA:981:U:C5	2.40	0.56
31:CA:1142:G:H3'	31:CA:1143:G:H8	1.69	0.56
31:CA:1252:A:H61	31:CA:1285:A:H61	1.53	0.56
31:CA:1382:C:H1'	37:CJ:79:ARG:HH11	1.70	0.56
49:CV:39:THR:HG22	49:CV:40:ILE:H	1.70	0.56
53:CC:15:G:H5"	53:CC:16:C:OP2	2.04	0.56
1:DA:363(F):A:H8	1:DA:363(F):A:OP2	1.88	0.56
1:DA:1039:G:H1	1:DA:1116:C:H42	1.53	0.56
1:DA:1385:G:O2'	1:DA:1396:U:H6	1.88	0.56
1:DA:1570:A:H5'	3:DD:38:LYS:HG3	1.86	0.56
1:DA:2208:U:O2'	1:DA:2209:C:H5'	2.05	0.56
2:DB:15:A:H3'	2:DB:16:G:H5'	1.86	0.56
3:DD:64:ILE:O	3:DD:64:ILE:HG13	2.05	0.56
4:DE:9:VAL:HG23	4:DE:10:GLY:N	2.20	0.56
16:D1:92:ARG:CD	17:D2:11:GLN:HB2	2.35	0.56
1:AA:102:G:OP1	24:AW:7:ARG:NH2	2.39	0.56
1:AA:443:A:H1'	1:AA:1201:C:O4'	2.06	0.56
1:AA:587:C:N3	11:AO:33:ARG:NH1	2.52	0.56
1:AA:635:C:O2'	1:AA:639:U:OP1	2.22	0.56
1:AA:654(D):G:N2	1:AA:654(Q):C:N3	2.48	0.56
1:AA:658:C:H2'	1:AA:659:C:C6	2.41	0.56
1:AA:676:A:N1	1:AA:802:A:N1	2.53	0.56
1:AA:918:A:N3	2:AB:80:U:O2'	2.36	0.56
1:AA:1348:G:H2'	1:AA:1349:A:H5"	1.86	0.56
1:AA:1568:G:H4'	3:AD:59:LYS:HG2	1.87	0.56
1:AA:1826:G:H4'	3:AD:242:ARG:CZ	2.35	0.56
1:AA:2749:A:H5"	7:AH:6:ARG:HD3	1.87	0.56
1:AA:2795:G:H3'	1:AA:2797:U:C5'	2.34	0.56
4:AE:152:LYS:HG2	9:AM:78:TYR:CE1	2.40	0.56
5:AF:46:ARG:HG2	5:AF:46:ARG:NH1	2.10	0.56
6:AG:66:GLN:OE1	6:AG:98:ARG:NH1	2.38	0.56
8:AK:92:VAL:O	8:AK:120:ILE:HG22	2.05	0.56
8:AK:104:GLN:O	8:AK:105:HIS:HB2	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:47:ASP:OD1	11:AO:50:ARG:NH2	2.38	0.56
15:AR:24:PRO:HA	15:AR:49:VAL:HG22	1.86	0.56
20:AU:34:LYS:O	20:AU:34:LYS:HG2	2.06	0.56
22:A3:42:GLY:O	22:A3:57:PHE:HD1	1.88	0.56
31:BA:353:A:H2'	31:BA:354:G:OP2	2.05	0.56
31:BA:1148:U:OP1	39:BL:7:THR:HG21	2.05	0.56
36:BI:19:LEU:HD23	36:BI:23:LYS:NZ	2.20	0.56
39:BL:114:TYR:HD2	39:BL:114:TYR:O	1.88	0.56
45:BR:77:ARG:HA	45:BR:80:ALA:HB3	1.87	0.56
47:BT:67:LYS:HA	47:BT:70:ARG:NH1	2.18	0.56
48:BU:58:LEU:HD22	48:BU:62:GLU:HB3	1.87	0.56
49:BV:65:ASN:HD22	49:BV:65:ASN:N	2.02	0.56
31:CA:131:C:H2'	31:CA:132:C:C6	2.40	0.56
31:CA:181:G:H4'	31:CA:182:U:H5'	1.88	0.56
31:CA:426:G:OP1	34:CG:36:ARG:NH2	2.37	0.56
31:CA:527:G:O2'	31:CA:535:A:N1	2.38	0.56
31:CA:600:C:H2'	31:CA:601:C:C6	2.39	0.56
31:CA:1053:G:O2'	31:CA:1054:C:P	2.62	0.56
32:CE:55:PHE:CD1	32:CE:58:ILE:HD12	2.40	0.56
33:CF:157:ILE:CD1	33:CF:166:GLU:HB2	2.36	0.56
35:CH:92:LYS:HB3	35:CH:119:LEU:HB2	1.88	0.56
41:CN:57:THR:HG22	41:CN:58:PRO:HD2	1.87	0.56
52:CB:3:C:H2'	52:CB:4:G:H8	1.68	0.56
53:CD:38:A:H2'	53:CD:39:A:O4'	2.05	0.56
53:CD:64:G:H2'	53:CD:65:G:H8	1.68	0.56
1:DA:278:A:O2'	1:DA:279:C:P	2.62	0.56
1:DA:286:C:O2'	1:DA:287:C:H5'	2.05	0.56
1:DA:529:A:H4'	1:DA:530:G:H5'	1.86	0.56
1:DA:673:C:H5"	5:DF:81:PRO:HD2	1.86	0.56
1:DA:1056:G:H4'	1:DA:1086:A:H1'	1.85	0.56
1:DA:2059:A:C5'	1:DA:2060:A:OP2	2.51	0.56
1:DA:2067:G:O2'	1:DA:2069:G:H5"	2.05	0.56
1:DA:2296:U:OP2	14:DQ:9:ARG:NH1	2.38	0.56
8:DK:77:LEU:HG	8:DK:78:THR:H	1.70	0.56
9:DM:71:ILE:HD12	9:DM:71:ILE:O	2.05	0.56
17:D2:85:LYS:CG	17:D2:87:HIS:H	1.99	0.56
22:D3:25:ARG:HD2	22:D3:29:GLN:NE2	2.20	0.56
1:AA:500:G:N2	1:AA:502:A:H3'	2.21	0.56
1:AA:626:U:O4	11:AO:107:LYS:HE2	2.05	0.56
1:AA:890:A:H2'	1:AA:892:G:O4'	2.06	0.56
1:AA:1126:A:H4'	1:AA:1127:A:O5'	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1786:A:H2	1:AA:2606:C:H1'	1.70	0.56
3:AD:11:PRO:O	3:AD:12:SER:OG	2.18	0.56
3:AD:70:TRP:CD1	3:AD:70:TRP:C	2.82	0.56
3:AD:70:TRP:HZ3	3:AD:146:GLU:OE2	1.87	0.56
7:AH:20:ALA:HB3	7:AH:23:ARG:HD2	1.86	0.56
9:AM:127:ASP:O	9:AM:128:HIS:HB3	2.06	0.56
11:AO:112:LEU:H	11:AO:128:HIS:HD2	1.51	0.56
12:AP:35:VAL:CG1	12:AP:130:LYS:HB3	2.34	0.56
15:AR:5:ALA:O	15:AR:8:LYS:HG2	2.05	0.56
17:A2:22:VAL:HG12	17:A2:23:GLU:N	2.21	0.56
18:AS:84:ARG:HB2	18:AS:96:ILE:HD13	1.87	0.56
21:AV:106:GLY:O	21:AV:107:THR:HG23	2.05	0.56
31:BA:96:G:C6	31:BA:97:U:C2	2.94	0.56
31:BA:1305:G:OP2	31:BA:1305:G:H8	1.87	0.56
31:BA:1321:C:C3'	31:BA:1322:C:H5"	2.28	0.56
37:BJ:36:LYS:HB2	37:BJ:36:LYS:HZ2	1.70	0.56
31:CA:977:A:H2'	31:CA:978:A:H5'	1.86	0.56
32:CE:43:ASP:O	32:CE:47:THR:OG1	2.24	0.56
35:CH:83:GLU:HB3	35:CH:88:LYS:CG	2.34	0.56
37:CJ:79:ARG:HG2	37:CJ:84:ASN:ND2	2.19	0.56
42:CO:20:LYS:HE2	42:CO:20:LYS:N	2.20	0.56
49:CV:42:PRO:HA	49:CV:45:VAL:HG13	1.87	0.56
53:CC:24:C:H2'	53:CC:25:U:H6	1.71	0.56
53:CD:22:A:C2	53:CD:47:G:H2'	2.41	0.56
1:DA:2786:U:H4'	4:DE:65:GLY:N	2.20	0.56
2:DB:30:C:H2'	2:DB:31:C:H5'	1.87	0.56
4:DE:8:LYS:HE3	4:DE:188:VAL:HG13	1.87	0.56
4:DE:203:LYS:O	4:DE:204:ALA:HB3	2.05	0.56
6:DG:105:LYS:HE3	26:D4:26:SER:HB3	1.88	0.56
7:DH:78:GLY:O	7:DH:136:ILE:HG22	2.05	0.56
7:DH:137:ASP:OD2	7:DH:140:LYS:HG3	2.05	0.56
8:DK:125:GLU:HB3	8:DK:141:LYS:HD3	1.86	0.56
12:DP:3:MET:HB2	12:DP:93:TYR:CD1	2.41	0.56
1:AA:330:A:H2	1:AA:1210:A:O2'	1.88	0.56
3:AD:166:GLN:HE21	3:AD:166:GLN:CA	2.18	0.56
4:AE:66:HIS:C	4:AE:66:HIS:ND1	2.63	0.56
14:AQ:106:ARG:O	14:AQ:107:GLU:HB3	2.05	0.56
26:A4:36:CYS:O	26:A4:39:CYS:SG	2.64	0.56
26:A4:61:ARG:C	26:A4:63:TYR:H	2.14	0.56
27:A5:4:HIS:CB	27:A5:5:PRO:HD3	2.21	0.56
29:A7:8:ASN:HD22	29:A7:8:ASN:C	2.13	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:80:G:C6	31:BA:89:U:O2	2.58	0.56
31:BA:542:G:OP1	34:BG:10:ARG:NH2	2.38	0.56
38:BK:25:ASP:OD2	38:BK:60:ARG:HG2	2.06	0.56
38:BK:54:ASP:O	38:BK:56:LYS:HD2	2.05	0.56
44:BQ:4:LYS:HA	44:BQ:7:ILE:HG23	1.87	0.56
31:CA:1266:G:N2	31:CA:1269:A:OP2	2.38	0.56
52:CB:31:C:H2'	52:CB:32:C:H6	1.70	0.56
53:CD:59:A:H1'	53:CD:61:U:H5	1.69	0.56
1:DA:1651:G:OP1	13:D0:37:THR:HG21	2.06	0.56
1:DA:1786:A:H1'	1:DA:1938:A:N6	2.20	0.56
1:DA:2543:G:H2'	1:DA:2544:G:C8	2.41	0.56
4:DE:36:ARG:NH1	4:DE:85:ASN:OD1	2.38	0.56
5:DF:31:HIS:CB	11:DO:9:ASN:OD1	2.54	0.56
7:DH:153:LYS:CB	7:DH:161:GLY:HA2	2.33	0.56
11:DO:59:LEU:HD21	30:D8:10:ALA:HA	1.87	0.56
12:DP:26:TYR:HB2	12:DP:138:ASP:HA	1.87	0.56
12:DP:132:VAL:HG13	21:DV:81:ARG:NH1	2.21	0.56
26:D4:18:CYS:N	26:D4:19:GLY:HA2	2.14	0.56
1:AA:1509:C:C2'	1:AA:1510:A:OP1	2.54	0.56
1:AA:2050:C:H2'	1:AA:2051:A:O4'	2.06	0.56
9:AM:47:ALA:HB2	9:AM:112:LEU:CD1	2.35	0.56
11:AO:75:ILE:HD13	11:AO:75:ILE:N	2.20	0.56
12:AP:136:ALA:HA	12:AP:139:GLU:CG	2.35	0.56
17:A2:18:LEU:HD22	17:A2:19:LYS:N	2.20	0.56
30:A8:32:LEU:O	30:A8:36:LYS:HE3	2.05	0.56
31:BA:345:C:HO2'	31:BA:346:G:N2	2.04	0.56
31:BA:575:G:H4'	31:BA:576:G:OP1	2.06	0.56
31:BA:791:G:C5	31:BA:792:A:N7	2.74	0.56
33:BF:64:VAL:HG23	33:BF:99:VAL:HA	1.88	0.56
49:BV:32:LYS:HA	49:BV:50:ALA:HB3	1.88	0.56
53:BC:24:C:H2'	53:BC:25:U:C6	2.41	0.56
53:BD:8:U:H1'	53:BD:49:C:O2'	2.05	0.56
31:CA:694:A:OP1	41:CN:53:SER:OG	2.23	0.56
31:CA:828:A:H5"	31:CA:859:A:C2	2.41	0.56
31:CA:1067:A:N1	31:CA:1108:G:O2'	2.33	0.56
31:CA:1286:A:C8	31:CA:1287:A:H4'	2.40	0.56
31:CA:1306:A:N6	31:CA:1331:G:H1'	2.21	0.56
32:CE:95:GLN:HB3	32:CE:148:TYR:CD1	2.40	0.56
35:CH:100:VAL:HG11	35:CH:107:ARG:HG3	1.88	0.56
1:DA:1151:G:H5"	16:D1:81:HIS:CE1	2.41	0.56
2:DB:44:G:O2'	2:DB:47:C:N4	2.34	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:DF:118:ALA:HB2	5:DF:123:LEU:CD2	2.34	0.56
11:DO:90:ARG:HG3	11:DO:91:PHE:H	1.71	0.56
20:DU:30:VAL:O	20:DU:36:ALA:O	2.24	0.56
25:DX:29:ARG:N	25:DX:33:GLN:HE22	2.03	0.56
30:D8:48:PHE:CD2	30:D8:49:VAL:N	2.73	0.56
1:AA:270(F):U:H2'	1:AA:270(G):C:C6	2.40	0.56
1:AA:1291:C:H5'	1:AA:1536:A:H5'	1.87	0.56
1:AA:1509:C:H3'	1:AA:1510:A:H5"	1.88	0.56
1:AA:1538:G:H2'	1:AA:1539:G:C8	2.40	0.56
1:AA:2168:G:N2	1:AA:2170:A:P	2.78	0.56
1:AA:2199:A:H5'	23:AZ:50:ARG:HH21	1.69	0.56
2:AB:75:G:H21	21:AV:85:HIS:CE1	2.23	0.56
8:AK:102:SER:HA	8:AK:107:VAL:O	2.05	0.56
9:AM:95:PRO:C	9:AM:97:ARG:N	2.64	0.56
12:AP:58:PHE:C	12:AP:60:ARG:H	2.13	0.56
49:BV:13:ASP:O	49:BV:16:LEU:N	2.38	0.56
49:BV:41:VAL:HG21	49:BV:67:VAL:HG22	1.87	0.56
31:CA:723:U:C2'	31:CA:724:G:OP1	2.53	0.56
31:CA:828:A:H2'	31:CA:829:G:O4'	2.06	0.56
31:CA:920:U:H2'	31:CA:921:U:C6	2.40	0.56
31:CA:1145:C:H5'	31:CA:1146:A:OP1	2.05	0.56
31:CA:1305:G:HO2'	31:CA:1306:A:P	2.29	0.56
31:CA:1367:C:H5'	40:CM:60:ARG:NH2	2.21	0.56
31:CA:1499:A:H1'	31:CA:1520:G:H5'	1.88	0.56
41:CN:34:ASP:HB2	41:CN:35:PRO:CD	2.35	0.56
49:CV:76:PRO:HB2	49:CV:78:ARG:HD2	1.88	0.56
50:CW:82:SER:OG	50:CW:86:ARG:NH2	2.38	0.56
53:CC:24:C:H2'	53:CC:25:U:C6	2.39	0.56
1:DA:1600:C:O2'	29:D7:49:ARG:HD3	2.05	0.56
1:DA:2065:C:H2'	1:DA:2066:C:C6	2.39	0.56
1:DA:2212:A:H1'	1:DA:2215:G:C5	2.41	0.56
1:DA:2765:A:H2	1:DA:2766:G:O4'	1.89	0.56
4:DE:7:VAL:HG21	15:DR:1:MET:HE3	1.87	0.56
4:DE:119:ARG:CG	4:DE:160:TYR:HB2	2.36	0.56
5:DF:128:ALA:C	5:DF:142:TRP:HE1	2.14	0.56
5:DF:167:ALA:HB1	5:DF:173:VAL:HG11	1.86	0.56
10:DN:98:VAL:HG11	10:DN:114:ILE:HG23	1.88	0.56
12:DP:141:GLN:O	12:DP:141:GLN:HG3	2.05	0.56
13:D0:81:ASP:O	13:D0:82:GLU:HB2	2.05	0.56
28:D6:25:LYS:HB3	30:D8:34:TRP:HZ3	1.71	0.56
30:D8:50:LEU:CG	30:D8:51:ALA:H	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:5:A:N6	1:AA:2898:U:H3	2.03	0.56
1:AA:442:G:O4'	5:AF:46:ARG:HD3	2.06	0.56
1:AA:995:C:OP2	16:A1:54:LYS:NZ	2.39	0.56
1:AA:1179:C:C2'	1:AA:1180:C:H5"	2.33	0.56
7:AH:106:THR:HG22	7:AH:112:PRO:HB3	1.88	0.56
11:AO:85:LEU:O	11:AO:88:LEU:HD23	2.06	0.56
23:AZ:73:LEU:HD13	23:AZ:90:ILE:HG22	1.86	0.56
27:A5:51:TYR:H	27:A5:56:LYS:CB	2.19	0.56
31:BA:687:A:H4'	31:BA:688:G:O5'	2.06	0.56
32:BE:17:PHE:H	32:BE:17:PHE:HD1	1.54	0.56
32:BE:173:ALA:HA	32:BE:176:GLU:HB2	1.87	0.56
34:BG:92:VAL:O	34:BG:96:LEU:HD22	2.06	0.56
53:BC:1:C:O2'	53:BC:2:G:OP2	2.23	0.56
31:CA:498:A:H4'	31:CA:500:G:OP1	2.04	0.56
31:CA:928:G:O2'	31:CA:1533:C:OP1	2.24	0.56
31:CA:1158:C:C2	31:CA:1160:G:N7	2.74	0.56
36:CI:11:ASN:O	36:CI:14:LEU:HD22	2.05	0.56
53:CD:39:A:H2'	53:CD:40:C:H5'	1.87	0.56
1:DA:603:A:H8	1:DA:604:G:H1'	1.71	0.56
1:DA:901:A:H2'	1:DA:901:A:N3	2.19	0.56
1:DA:1022:G:H1'	1:DA:1023:U:OP2	2.06	0.56
1:DA:1085:A:C4'	1:DA:1086:A:OP1	2.54	0.56
1:DA:2103:C:H2'	1:DA:2104:G:C8	2.41	0.56
1:DA:2473:U:O2	1:DA:2473:U:C2'	2.53	0.56
1:DA:2681:C:O2	1:DA:2681:C:H2'	2.06	0.56
2:DB:15:A:H1'	2:DB:109:G:C8	2.41	0.56
3:DD:72:LYS:HE2	3:DD:101:GLU:OE2	2.05	0.56
4:DE:52:LEU:O	4:DE:75:VAL:N	2.33	0.56
4:DE:119:ARG:HG2	4:DE:160:TYR:HB2	1.86	0.56
4:DE:197:ILE:HD11	4:DE:199:ARG:HE	1.71	0.56
7:DH:150:ALA:C	7:DH:152:ARG:N	2.62	0.56
30:D8:25:MET:O	30:D8:48:PHE:HE1	1.87	0.56
1:AA:246:C:H2'	1:AA:247:G:H5'	1.88	0.56
1:AA:1049:C:C2'	1:AA:1050:A:H5"	2.36	0.56
1:AA:1332:G:N2	1:AA:1610:A:C8	2.73	0.56
1:AA:2156:G:H2'	1:AA:2157:G:N3	2.20	0.56
1:AA:2543:G:H2'	1:AA:2544:G:C8	2.41	0.56
3:AD:65:ILE:HD11	3:AD:67:PHE:CD2	2.41	0.56
5:AF:67:GLN:HG3	5:AF:67:GLN:O	2.05	0.56
7:AH:92:ILE:HD12	7:AH:92:ILE:N	2.20	0.56
12:AP:12:GLN:C	12:AP:13:GLN:O	2.47	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AU:80:GLY:C	20:AU:81:LYS:HD2	2.31	0.56
31:BA:82:U:H5'	31:BA:84:U:OP2	2.06	0.56
31:BA:162:A:H3'	31:BA:163:C:C5'	2.35	0.56
31:BA:1004:A:H8	31:BA:1036:G:C2	2.24	0.56
31:BA:1009:G:C2	31:BA:1010:G:C8	2.94	0.56
31:BA:1176:A:N6	31:BA:1177:G:C5	2.74	0.56
31:BA:1285:A:H1'	31:BA:1286:A:OP2	2.06	0.56
31:BA:1330:U:H5"	31:BA:1331:G:OP2	2.06	0.56
32:BE:80:ILE:HG21	32:BE:212:GLN:HA	1.86	0.56
38:BK:134:ILE:HG22	38:BK:135:CYS:SG	2.46	0.56
52:BB:23:A:O2'	52:BB:24:C:OP1	2.22	0.56
42:CO:57:LEU:O	42:CO:59:SER:N	2.38	0.56
53:CD:9:G:O2'	53:CD:10:G:H8	1.89	0.56
1:DA:1140:C:C1'	1:DA:1143:A:H8	2.19	0.56
1:DA:1270:C:H5"	1:DA:1271:G:O5'	2.06	0.56
1:DA:1487:G:H1	1:DA:1502:C:H42	1.53	0.56
1:DA:1607:C:H4'	1:DA:1608:A:C5'	2.36	0.56
1:DA:1754:C:OP1	15:DR:96:ARG:NH1	2.38	0.56
1:DA:1839:G:C8	1:DA:1927:A:H1'	2.41	0.56
11:AO:21:ARG:HA	11:AO:21:ARG:HE	1.70	0.56
15:AR:125:ARG:NH1	31:BA:1446:A:O2'	2.39	0.56
26:A4:37:SER:HB3	26:A4:42:PHE:HD1	1.69	0.56
28:A6:19:ARG:O	28:A6:20:ASN:HB2	2.06	0.56
31:BA:57:G:H2'	31:BA:58:C:C6	2.41	0.56
31:BA:736:C:H2'	31:BA:737:A:C8	2.40	0.56
33:BF:121:ALA:HB1	33:BF:188:LEU:O	2.05	0.56
34:BG:102:ASP:HB2	34:BG:118:ARG:HG2	1.87	0.56
50:BW:67:ALA:HA	50:BW:72:LEU:O	2.06	0.56
44:CQ:23:ARG:HG3	44:CQ:23:ARG:O	2.06	0.56
1:DA:363(B):G:H2'	1:DA:363(C):G:C8	2.41	0.56
1:DA:1049:C:N3	7:DH:2:SER:N	2.54	0.56
1:DA:1069:A:O2'	1:DA:1072:C:OP2	2.24	0.56
1:DA:1255:U:H5"	1:DA:1256:G:C5'	2.35	0.56
1:DA:1257:C:H4'	5:DF:83:PHE:CE2	2.41	0.56
1:DA:1342:A:C6	1:DA:1397:U:C5	2.94	0.56
1:DA:1419:A:N6	1:DA:1421:G:C2	2.74	0.56
1:DA:1678:G:N2	1:DA:1989:G:N2	2.54	0.56
1:DA:2188:C:H2'	1:DA:2189:U:O4'	2.05	0.56
1:DA:2689:U:H5"	1:DA:2690:C:H5'	1.88	0.56
7:DH:104:GLU:HB2	7:DH:114:VAL:HG13	1.87	0.56
11:DO:64:LYS:HB2	30:D8:25:MET:CG	2.32	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DO:85:LEU:HB3	11:DO:114:ILE:HD11	1.88	0.56
15:DR:8:LYS:HA	15:DR:11:GLU:OE1	2.05	0.56
19:DT:66:LEU:HD13	19:DT:66:LEU:O	2.06	0.56
28:D6:15:GLU:HG2	28:D6:16:CYS:N	2.18	0.56
1:AA:1077:A:N3	1:AA:1078:U:H5"	2.21	0.55
1:AA:2246:G:H2'	1:AA:2247:A:C8	2.40	0.55
16:A1:79:PHE:HD2	16:A1:79:PHE:O	1.89	0.55
21:AV:107:THR:C	21:AV:109:ALA:N	2.62	0.55
22:A3:23:VAL:HA	22:A3:38:VAL:HG22	1.88	0.55
31:BA:163:C:H2'	31:BA:164:U:C6	2.42	0.55
31:CA:184:G:O2'	31:CA:185:A:H5'	2.07	0.55
31:CA:1320:C:H2'	31:CA:1321:C:C6	2.41	0.55
32:CE:102:LEU:HD12	32:CE:102:LEU:H	1.71	0.55
42:CO:25:LYS:O	42:CO:26:GLY:C	2.49	0.55
53:CC:51:U:H2'	53:CC:52:C:C6	2.41	0.55
1:DA:507:A:H5"	1:DA:508:G:H3'	1.88	0.55
1:DA:545:G:H21	1:DA:548:A:N6	2.03	0.55
1:DA:882:G:H1	1:DA:894:C:H42	0.62	0.55
1:DA:885:C:N4	1:DA:890:A:C6	2.73	0.55
1:DA:1061:U:O2	1:DA:1061:U:H2'	2.06	0.55
12:DP:35:VAL:CG2	12:DP:130:LYS:HE2	2.36	0.55
12:DP:58:PHE:C	12:DP:60:ARG:H	2.13	0.55
23:DZ:91:LYS:HA	23:DZ:91:LYS:HZ1	1.70	0.55
27:D5:31:VAL:HG13	27:D5:42:PRO:HG3	1.88	0.55
1:AA:478:A:C6	1:AA:480:A:C6	2.95	0.55
1:AA:883:G:C6	1:AA:884:C:O2	2.60	0.55
1:AA:2319:G:OP2	1:AA:2319:G:H4'	2.06	0.55
3:AD:30:GLU:HG3	3:AD:63:ARG:NH2	2.22	0.55
4:AE:37:ARG:HB3	4:AE:42:ASP:CG	2.31	0.55
6:AG:94:LEU:HD23	6:AG:94:LEU:H	1.72	0.55
6:AG:112:PRO:CG	26:A4:38:LYS:HD3	2.37	0.55
12:AP:8:LYS:HG2	12:AP:9:TYR:CE1	2.42	0.55
17:A2:38:LEU:HD12	17:A2:57:VAL:HG12	1.88	0.55
19:AT:80:ILE:HG13	19:AT:80:ILE:O	2.07	0.55
25:AX:11:SER:OG	25:AX:13:ILE:HG12	2.06	0.55
28:A6:15:GLU:OE2	28:A6:44:ARG:NH1	2.40	0.55
31:BA:60:A:H4'	31:BA:61:G:H5'	1.88	0.55
34:BG:96:LEU:HD12	34:BG:139:ARG:NH1	2.21	0.55
38:BK:12:ARG:NH1	38:BK:27:PRO:HD2	2.21	0.55
39:BL:9:ARG:HB2	39:BL:13:ALA:O	2.05	0.55
39:BL:22:GLY:HA3	39:BL:60:ASP:OD2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BP:12:ASN:OD1	43:BP:13:LYS:N	2.39	0.55
39:CL:85:LEU:HD12	39:CL:86:VAL:N	2.21	0.55
50:CW:51:GLU:HA	50:CW:54:LYS:HE3	1.87	0.55
1:DA:362:U:H3'	1:DA:362:U:H6	1.70	0.55
1:DA:660:G:H5'	5:DF:99:TYR:CE2	2.42	0.55
1:DA:708:C:H5'	1:DA:709:U:OP2	2.06	0.55
1:DA:1342:A:C6	1:DA:1397:U:C6	2.94	0.55
1:DA:2816:C:O2	1:DA:2883:A:O2'	2.23	0.55
12:DP:138:ASP:OD1	12:DP:138:ASP:N	2.38	0.55
15:DR:53:ARG:HG3	15:DR:53:ARG:O	2.05	0.55
15:DR:132:LYS:HB2	15:DR:132:LYS:NZ	2.21	0.55
21:DV:156:LYS:O	21:DV:157:LEU:HB2	2.07	0.55
1:AA:654(A):A:C2	1:AA:654(T):A:N1	2.75	0.55
1:AA:890:A:H3'	1:AA:892:G:H8	1.71	0.55
1:AA:2311:A:H2	6:AG:88:ILE:HD11	1.70	0.55
3:AD:166:GLN:HE21	3:AD:166:GLN:HA	1.71	0.55
4:AE:116:VAL:O	4:AE:117:MET:CB	2.49	0.55
6:AG:67:LYS:HE2	6:AG:67:LYS:H	1.70	0.55
6:AG:83:ARG:H	6:AG:86:MET:CE	2.18	0.55
6:AG:94:LEU:HD23	6:AG:94:LEU:N	2.21	0.55
8:AK:69:LYS:O	8:AK:73:GLU:HB2	2.05	0.55
8:AK:73:GLU:HG3	8:AK:137:PRO:HD2	1.89	0.55
12:AP:65:PHE:C	12:AP:66:ILE:HG13	2.30	0.55
28:A6:41:PRO:HD2	28:A6:46:HIS:N	2.21	0.55
31:BA:625:G:H4'	46:BS:16:HIS:CD2	2.41	0.55
37:BJ:15:ASP:O	37:BJ:19:GLY:HA2	2.05	0.55
39:BL:29:ASN:OD1	39:BL:64:THR:HA	2.06	0.55
50:BW:99:LEU:O	50:BW:100:ILE:HB	2.06	0.55
53:BD:8:U:H3	53:BD:14:A:H62	1.54	0.55
53:BD:69:C:H2'	53:BD:70:C:O4'	2.05	0.55
31:CA:6:G:H4'	31:CA:298:A:H4'	1.89	0.55
31:CA:909:A:H2'	31:CA:910:C:O4'	2.05	0.55
31:CA:1170:A:O5'	31:CA:1170:A:H8	1.89	0.55
31:CA:1449:C:O3'	31:CA:1450:U:H4'	2.04	0.55
32:CE:95:GLN:O	32:CE:97:TRP:N	2.40	0.55
32:CE:237:ALA:O	32:CE:238:LEU:HB3	2.06	0.55
34:CG:25:ARG:HG3	34:CG:26:CYS:N	2.21	0.55
35:CH:31:LEU:HD22	35:CH:43:LEU:HD11	1.88	0.55
43:CP:92:HIS:CE1	43:CP:98:VAL:HG11	2.42	0.55
52:CB:6:G:H2'	52:CB:7:G:C8	2.40	0.55
53:CC:18:C:O2	53:CC:18:C:C2'	2.54	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:405:U:O2	1:DA:405:U:H3'	2.07	0.55
1:DA:483:A:C4'	20:DU:49:VAL:HA	2.35	0.55
1:DA:734:A:O2'	1:DA:1635:G:H5'	2.07	0.55
1:DA:845:G:OP2	1:DA:845:G:H8	1.88	0.55
1:DA:1048:A:H5'	1:DA:1049:C:OP2	2.07	0.55
1:DA:1070:A:H5'	1:DA:1071:G:C5'	2.28	0.55
13:D0:53:HIS:O	13:D0:53:HIS:ND1	2.37	0.55
20:DU:83:THR:HG21	20:DU:94:LYS:HG2	1.87	0.55
1:AA:232:G:H8	1:AA:232:G:OP2	1.90	0.55
1:AA:405:U:H2'	1:AA:405:U:O2	2.07	0.55
1:AA:2082:A:H2'	1:AA:2083:G:O4'	2.07	0.55
11:AO:11:GLY:O	11:AO:13:ASN:N	2.38	0.55
15:AR:33:LYS:O	15:AR:82:LEU:HD23	2.06	0.55
31:BA:254:G:OP1	47:BT:68:ARG:HB3	2.07	0.55
31:BA:254:G:O2'	47:BT:16:GLN:O	2.25	0.55
31:BA:923:A:OP1	35:BH:21:ALA:HB2	2.07	0.55
32:BE:239:VAL:O	32:BE:240:GLN:HG2	2.06	0.55
34:BG:121:VAL:O	34:BG:134:ASP:HA	2.06	0.55
35:BH:91:LEU:HD12	35:BH:120:THR:HG22	1.87	0.55
53:BD:16:C:H5"	53:BD:17:C:C5	2.41	0.55
53:BD:50:G:N2	53:BD:66:C:O2	2.37	0.55
31:CA:130:A:C8	47:CT:63:ARG:HG3	2.41	0.55
31:CA:723:U:O2'	31:CA:724:G:OP1	2.23	0.55
31:CA:1327:C:H2'	31:CA:1328:C:C6	2.41	0.55
31:CA:1399:C:C2	31:CA:1502:A:N6	2.74	0.55
1:DA:242:G:O5'	30:D8:3:LYS:HE3	2.07	0.55
1:DA:1005:C:O2'	1:DA:1006:C:H5'	2.07	0.55
1:DA:2197:U:H1'	1:DA:2198:A:C8	2.42	0.55
1:DA:2327:A:H2'	1:DA:2328:A:C8	2.41	0.55
11:DO:49:ARG:HG2	11:DO:49:ARG:O	2.05	0.55
11:DO:61:ARG:O	11:DO:62:LEU:HB3	2.05	0.55
21:DV:24:LEU:HD12	21:DV:25:PRO:O	2.07	0.55
24:DW:17:SER:OG	24:DW:18:PRO:HA	2.06	0.55
26:D4:61:ARG:O	26:D4:62:ARG:NH2	2.40	0.55
1:AA:139:G:N2	1:AA:141:A:N1	2.52	0.55
1:AA:639:U:H2'	1:AA:640:C:C6	2.42	0.55
1:AA:2820:A:HO2'	1:AA:2821:A:P	2.28	0.55
8:AK:65:ALA:O	8:AK:69:LYS:N	2.39	0.55
9:AM:35:ARG:HB2	9:AM:42:TRP:CH2	2.41	0.55
15:AR:24:PRO:HD3	15:AR:52:ILE:HD12	1.88	0.55
21:AV:80:ARG:HG3	21:AV:82:ARG:HG2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:95:G:C6	31:BA:96:G:C6	2.94	0.55
31:BA:389:A:H2'	31:BA:390:C:C5'	2.36	0.55
31:BA:695:A:OP1	41:BN:52:GLY:HA3	2.06	0.55
31:BA:1220:G:O3'	49:BV:36:ARG:HD3	2.06	0.55
31:BA:1281:U:H5"	31:BA:1282:C:OP2	2.07	0.55
32:BE:17:PHE:CD1	32:BE:17:PHE:N	2.72	0.55
46:BS:19:ILE:HG22	46:BS:36:ILE:HG13	1.88	0.55
49:BV:36:ARG:NH1	49:BV:52:TYR:O	2.40	0.55
53:BD:22:A:H2	53:BD:47:G:H2'	1.72	0.55
31:CA:115:G:H4'	31:CA:116:A:O5'	2.06	0.55
31:CA:1015:A:N3	31:CA:1218:C:O2'	2.36	0.55
31:CA:1435:G:H2'	31:CA:1436:U:H6	1.71	0.55
40:CM:54:PHE:CZ	40:CM:55:LYS:NZ	2.63	0.55
43:CP:35:GLU:HG3	43:CP:36:LYS:N	2.20	0.55
49:CV:22:LEU:O	49:CV:27:GLU:HA	2.06	0.55
50:CW:87:LYS:O	50:CW:91:LEU:HG	2.07	0.55
52:CB:48:C:O2'	52:CB:49:C:OP1	2.21	0.55
53:CD:15:G:N2	53:CD:60:A:H1'	2.22	0.55
1:DA:270(F):U:H2'	1:DA:270(G):C:C6	2.41	0.55
1:DA:910:A:H62	12:DP:12:GLN:HA	1.72	0.55
1:DA:1047:G:H2'	1:DA:1110:G:H1	1.71	0.55
1:DA:2303:G:H2'	1:DA:2304:G:H5'	1.88	0.55
1:DA:2316:C:O2'	6:DG:128:ARG:NH2	2.37	0.55
1:DA:2335:A:C8	1:DA:2337:G:C5	2.95	0.55
1:DA:2872:G:N7	1:DA:2873:A:N1	2.54	0.55
4:DE:58:ARG:O	4:DE:60:ASN:N	2.39	0.55
12:DP:111:GLU:C	12:DP:113:GLN:H	2.15	0.55
1:AA:899:A:O2'	1:AA:900:A:H8	1.89	0.55
1:AA:2173:A:H8	1:AA:2173:A:OP1	1.90	0.55
1:AA:2287:A:C2	1:AA:2346:A:C2	2.95	0.55
1:AA:2815:C:H5'	27:A5:29:THR:HG21	1.89	0.55
12:AP:75:THR:HG21	12:AP:87:LYS:HE2	1.87	0.55
14:AQ:30:ARG:CG	14:AQ:30:ARG:HH11	2.19	0.55
24:AW:28:LYS:HB3	24:AW:53:LEU:HD21	1.87	0.55
31:BA:1329:A:H5'	43:BP:29:ARG:HD2	1.89	0.55
37:BJ:111:ARG:HD2	37:BJ:123:GLU:HB2	1.88	0.55
39:BL:65:VAL:HG21	39:BL:73:GLN:HB3	1.88	0.55
42:BO:44:LYS:HE3	54:B1:21:C:OP1	2.06	0.55
53:BC:24:C:H2'	53:BC:25:U:H6	1.71	0.55
32:CE:45:GLN:O	32:CE:47:THR:N	2.40	0.55
33:CF:47:LEU:O	33:CF:48:TYR:C	2.50	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CR:16:ALA:HB1	45:CR:21:ASP:HB3	1.87	0.55
47:CT:59:ILE:CG2	47:CT:71:PHE:HB3	2.36	0.55
1:DA:250:G:OP2	30:D8:13:ARG:NH2	2.38	0.55
1:DA:1012:U:C4	9:DM:25:ARG:HD3	2.42	0.55
1:DA:1210:A:H4'	1:DA:1211:U:O5'	2.05	0.55
1:DA:1858:G:H1'	1:DA:1884:A:N6	2.22	0.55
1:DA:2211:G:H3'	1:DA:2212:A:C2	2.42	0.55
2:DB:70:C:H42	2:DB:106:G:H1	1.54	0.55
2:DB:83:G:N2	2:DB:93:C:N3	2.49	0.55
3:DD:70:TRP:CD1	3:DD:70:TRP:C	2.84	0.55
6:DG:53:LEU:HD21	6:DG:90:LEU:HD11	1.88	0.55
7:DH:116:GLU:HG2	7:DH:117:PRO:HD2	1.89	0.55
23:DZ:78:LYS:O	23:DZ:80:LEU:HD22	2.07	0.55
23:DZ:81:LYS:H	23:DZ:82:LEU:HD23	1.72	0.55
30:D8:14:VAL:HG11	30:D8:22:VAL:HG13	1.88	0.55
1:AA:573:G:O2'	1:AA:574:C:H3'	2.06	0.55
1:AA:815:C:H2'	1:AA:816:C:H6	1.70	0.55
1:AA:1709:U:H2'	1:AA:1710:C:C6	2.42	0.55
1:AA:1771:C:C1'	1:AA:1786:A:H8	2.19	0.55
1:AA:2119:A:C5	1:AA:2171:A:H2	2.24	0.55
1:AA:2496:C:OP1	12:AP:82:ARG:HB3	2.06	0.55
6:AG:110:ALA:HA	6:AG:140:ILE:O	2.06	0.55
8:AK:33:ARG:O	8:AK:35:LEU:N	2.40	0.55
16:A1:92:ARG:HD2	16:A1:95:LEU:HD12	1.88	0.55
22:A3:25:ARG:HD3	22:A3:29:GLN:NE2	2.22	0.55
27:A5:56:LYS:O	27:A5:57:VAL:C	2.50	0.55
32:BE:29:ALA:O	32:BE:32:ILE:HG22	2.06	0.55
33:BF:61:ALA:O	33:BF:62:ASP:HB2	2.07	0.55
35:BH:106:PRO:O	35:BH:110:LEU:HG	2.07	0.55
35:BH:147:ASP:N	35:BH:147:ASP:OD2	2.40	0.55
49:BV:24:ALA:C	49:BV:26:GLY:H	2.15	0.55
31:CA:255:G:H1'	47:CT:16:GLN:NE2	2.22	0.55
31:CA:316:G:OP2	31:CA:351:G:O2'	2.23	0.55
31:CA:1124:G:O2'	31:CA:1145:C:N4	2.40	0.55
31:CA:1297:C:H4'	31:CA:1298:C:O5'	2.07	0.55
32:CE:8:LYS:HG2	32:CE:11:LEU:HB2	1.88	0.55
32:CE:179:LYS:HA	38:CK:72:PRO:HG3	1.89	0.55
32:CE:238:LEU:HD12	32:CE:238:LEU:O	2.07	0.55
42:CO:21:VAL:HG12	42:CO:23:ALA:HB2	1.88	0.55
43:CP:37:THR:O	43:CP:55:ARG:NH2	2.38	0.55
1:DA:598:G:H1'	11:DO:12:ALA:HB2	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1204:A:C2	1:DA:1241:A:N1	2.75	0.55
1:DA:1314:C:OP1	1:DA:1332:G:H5"	2.07	0.55
1:DA:1416:G:O2'	1:DA:1417:C:O5'	2.22	0.55
1:DA:2820:A:C6	13:D0:4:LEU:HD11	2.41	0.55
3:DD:43:ARG:CB	3:DD:54:ARG:HB2	2.36	0.55
4:DE:112:GLY:O	4:DE:159:HIS:HA	2.07	0.55
15:DR:25:GLY:H	15:DR:49:VAL:HG13	1.72	0.55
20:DU:20:TYR:N	20:DU:20:TYR:CD1	2.73	0.55
23:DZ:51:VAL:HG23	23:DZ:58:ILE:HB	1.87	0.55
1:AA:475:U:C4	1:AA:481:G:O6	2.59	0.55
1:AA:654(C):G:H2'	1:AA:654(D):G:O4'	2.07	0.55
1:AA:1118:C:H2'	1:AA:1119:C:C6	2.42	0.55
1:AA:2165:G:H2'	1:AA:2165:G:N3	2.22	0.55
1:AA:2168:G:N2	1:AA:2170:A:C8	2.75	0.55
1:AA:2199:A:H3'	1:AA:2205:C:C6	2.42	0.55
1:AA:2619:C:H4'	4:AE:151:TYR:O	2.07	0.55
1:AA:2869:G:H2'	1:AA:2870:C:H6	1.71	0.55
4:AE:14:ILE:O	4:AE:15:PHE:HB2	2.07	0.55
4:AE:107:THR:HG23	4:AE:107:THR:O	2.07	0.55
7:AH:152:ARG:O	7:AH:153:LYS:HB2	2.04	0.55
8:AK:21:VAL:HG22	8:AK:22:LYS:N	2.21	0.55
16:A1:79:PHE:C	16:A1:79:PHE:CD2	2.84	0.55
21:AV:33:LEU:HG	21:AV:34:ASN:N	2.22	0.55
30:A8:22:VAL:HB	30:A8:53:PRO:HB3	1.89	0.55
31:BA:49:U:O2'	31:BA:50:A:P	2.65	0.55
31:BA:1054:C:H42	52:BB:35:G:H1'	1.71	0.55
31:BA:1366:C:O2'	40:BM:60:ARG:NH2	2.30	0.55
32:BE:90:MET:HE2	32:BE:90:MET:HA	1.88	0.55
37:BJ:20:ASP:HB3	37:BJ:23:VAL:HG23	1.88	0.55
41:BN:91:ARG:O	41:BN:95:ILE:HG13	2.06	0.55
42:BO:86:ARG:HH21	42:BO:88:LYS:CE	2.20	0.55
51:BX:14:TRP:HE3	51:BX:15:ARG:HG2	1.70	0.55
31:CA:191:G:O2'	50:CW:103:GLY:HA2	2.07	0.55
1:DA:1525:G:H2'	1:DA:1526:G:C8	2.41	0.55
2:DB:12:C:O2'	22:D3:74:ARG:HG2	2.06	0.55
5:DF:18:ARG:HG2	5:DF:19:GLU:N	2.21	0.55
5:DF:101:LEU:O	5:DF:106:ARG:NH1	2.40	0.55
6:DG:43:LEU:O	6:DG:88:ILE:HG12	2.06	0.55
11:DO:122:PRO:HB3	11:DO:141:ALA:HB1	1.89	0.55
30:D8:30:ARG:O	30:D8:31:HIS:C	2.49	0.55
1:AA:587:C:C4'	1:AA:588:U:OP2	2.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2331:G:O2'	1:AA:2336:A:N1	2.34	0.55
11:AO:46:LYS:O	11:AO:47:ASP:HB2	2.07	0.55
24:AW:41:ILE:HD11	24:AW:44:LEU:HD12	1.89	0.55
28:A6:34:LEU:H	28:A6:34:LEU:HD22	1.71	0.55
30:A8:51:ALA:N	30:A8:53:PRO:HD2	2.22	0.55
31:BA:673:G:H5"	36:BI:87:ARG:NH1	2.22	0.55
31:BA:818:G:O2'	31:BA:819:A:H5'	2.06	0.55
32:BE:200:ILE:HD12	32:BE:200:ILE:H	1.72	0.55
32:BE:212:GLN:CD	32:BE:235:SER:HB2	2.31	0.55
31:CA:32:A:C2	31:CA:33:A:C4	2.95	0.55
31:CA:1040:U:H2'	31:CA:1041:A:C8	2.41	0.55
32:CE:8:LYS:C	32:CE:10:LEU:H	2.15	0.55
50:CW:47:GLY:C	50:CW:49:ALA:H	2.14	0.55
53:CD:50:G:H22	53:CD:67:C:H1'	1.71	0.55
1:DA:99:U:H4'	1:DA:102:G:H1'	1.89	0.55
1:DA:479:A:H4'	1:DA:480:A:OP1	2.05	0.55
1:DA:572:A:H5"	1:DA:573:G:OP2	2.07	0.55
1:DA:887:A:H3'	1:DA:888:C:C5'	2.36	0.55
1:DA:1278:A:H2'	1:DA:1279:G:C8	2.42	0.55
1:DA:2127:G:H21	1:DA:2173:A:H8	1.53	0.55
1:DA:2128:C:H4'	1:DA:2173:A:N6	2.21	0.55
1:DA:2267:A:H5"	1:DA:2268:A:H5'	1.89	0.55
3:DD:58:HIS:CD2	3:DD:59:LYS:N	2.75	0.55
5:DF:8:GLN:HA	5:DF:15:SER:HA	1.88	0.55
5:DF:32:LEU:HD22	5:DF:112:MET:HE2	1.89	0.55
6:DG:146:TYR:O	6:DG:149:VAL:HG22	2.07	0.55
16:D1:91:ASP:O	16:D1:92:ARG:HG2	2.07	0.55
17:D2:79:VAL:O	17:D2:80:GLN:NE2	2.40	0.55
18:DS:75:TYR:CZ	18:DS:104:THR:HG21	2.42	0.55
19:DT:57:LEU:CD2	19:DT:78:LYS:HB2	2.36	0.55
30:D8:32:LEU:HD22	30:D8:36:LYS:HG3	1.89	0.55
1:AA:1130:U:C1'	1:AA:1131:G:OP1	2.55	0.55
1:AA:1728:G:C2	1:AA:1730:U:OP2	2.60	0.55
1:AA:2472:G:O6	1:AA:2476:A:H4'	2.07	0.55
2:AB:15:A:OP1	2:AB:15:A:C4'	2.54	0.55
3:AD:182:LEU:H	3:AD:272:ALA:CB	2.20	0.55
4:AE:67:PHE:O	4:AE:68:ALA:C	2.50	0.55
12:AP:141:GLN:C	12:AP:141:GLN:NE2	2.50	0.55
19:AT:3:THR:O	19:AT:6:ASP:HB2	2.07	0.55
26:A4:40:HIS:N	26:A4:41:PRO:HD3	2.20	0.55
31:BA:411:A:C4	31:BA:413:G:H1'	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:438:G:OP1	34:BG:125:HIS:HE1	1.90	0.55
31:BA:1025:U:H1'	31:BA:1026:G:H8	1.72	0.55
31:BA:1059:C:O2'	40:BM:53:PRO:HD3	2.06	0.55
34:BG:162:LEU:HD13	34:BG:181:MET:HG2	1.89	0.55
41:BN:124:LYS:HE3	41:BN:125:PHE:CE1	2.42	0.55
42:BO:67:ILE:HG12	42:BO:97:ILE:HD12	1.88	0.55
51:BX:2:GLY:C	51:BX:4:GLY:H	2.15	0.55
53:BC:18:C:O2'	53:BC:18:C:O2	2.22	0.55
31:CA:757:U:H2'	31:CA:758:G:O4'	2.06	0.55
31:CA:1128:C:N4	31:CA:1139:G:C2	2.74	0.55
31:CA:1320:C:OP1	49:CV:70:LYS:HE3	2.06	0.55
32:CE:7:VAL:HG22	32:CE:8:LYS:N	2.21	0.55
35:CH:13:ILE:H	35:CH:13:ILE:HD13	1.71	0.55
53:CD:72:C:H2'	53:CD:73:A:C8	2.42	0.55
1:DA:764:A:O4'	3:DD:213:ARG:HG3	2.07	0.55
1:DA:998:C:C2'	1:DA:999:U:O5'	2.54	0.55
1:DA:1858:G:H1'	1:DA:1884:A:H61	1.71	0.55
1:DA:2057:A:H2'	1:DA:2058:A:O4'	2.06	0.55
1:DA:2572:A:OP1	4:DE:144:ARG:HB2	2.07	0.55
3:DD:35:LYS:HD3	3:DD:63:ARG:CB	2.37	0.55
8:DK:75:LEU:HD21	8:DK:77:LEU:HB2	1.87	0.55
16:D1:98:LEU:O	16:D1:99:ALA:HB3	2.07	0.55
1:AA:592:G:N3	30:A8:4:MET:HE2	2.22	0.54
1:AA:1297:C:OP1	1:AA:2710:C:H4'	2.07	0.54
1:AA:1409:C:O2'	1:AA:1410:G:H5'	2.07	0.54
1:AA:2869:G:H2'	1:AA:2870:C:C6	2.42	0.54
12:AP:32:TYR:CE1	12:AP:133:ARG:HG3	2.43	0.54
31:BA:127:G:N2	47:BT:61:GLU:OE1	2.32	0.54
31:BA:229:U:O2'	46:BS:23:ASP:OD2	2.23	0.54
31:BA:871:U:H1'	31:BA:872:A:OP1	2.08	0.54
31:BA:1004:A:O4'	31:BA:1025:U:N3	2.40	0.54
31:BA:1336:C:OP1	31:BA:1336:C:C4'	2.55	0.54
32:BE:211:ILE:O	32:BE:215:LEU:HB2	2.07	0.54
52:BB:52:U:H2'	52:BB:53:A:C5'	2.37	0.54
31:CA:57:G:H2'	31:CA:58:C:C6	2.42	0.54
31:CA:1133:G:H2'	31:CA:1134:G:C8	2.41	0.54
31:CA:1160:G:H2'	31:CA:1160:G:N3	2.22	0.54
33:CF:52:LEU:H	33:CF:52:LEU:CD2	2.20	0.54
38:CK:103:VAL:CG2	38:CK:110:ALA:HB2	2.37	0.54
40:CM:58:ASP:O	40:CM:59:SER:C	2.49	0.54
1:DA:116:C:H2'	1:DA:117:G:O4'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:242:G:H5'	30:D8:62:LEU:HB3	1.88	0.54
1:DA:270(L):U:H3	8:DK:50:ARG:NH1	2.04	0.54
1:DA:1070:A:H8	1:DA:1096:A:HO2'	1.52	0.54
1:DA:1181:C:O2'	1:DA:1182:A:H5'	2.07	0.54
1:DA:2469:A:N1	1:DA:2482:G:C8	2.75	0.54
2:DB:13:A:N1	2:DB:69:G:O2'	2.33	0.54
3:DD:231:HIS:ND1	3:DD:232:PRO:HD2	2.22	0.54
4:DE:58:ARG:O	4:DE:59:VAL:C	2.50	0.54
8:DK:120:ILE:HG22	8:DK:122:GLU:H	1.71	0.54
9:DM:128:HIS:HB2	9:DM:129:PRO:HD2	1.89	0.54
21:DV:1:MET:HG2	21:DV:2:GLU:H	1.72	0.54
21:DV:108:PRO:O	21:DV:110:GLY:N	2.40	0.54
26:D4:20:ASN:CG	26:D4:21:VAL:N	2.65	0.54
1:AA:593:G:C1'	30:A8:4:MET:HE1	2.37	0.54
1:AA:671:C:OP1	11:AO:42:SER:O	2.24	0.54
1:AA:2015:A:H1'	27:A5:2:ALA:CA	2.34	0.54
9:AM:70:LYS:HE3	9:AM:72:TYR:CE1	2.43	0.54
13:A0:55:ALA:HB2	13:A0:79:LEU:HD13	1.88	0.54
16:A1:79:PHE:HD2	16:A1:79:PHE:C	2.15	0.54
31:BA:50:A:H4'	31:BA:51:A:O5'	2.08	0.54
31:BA:601:C:H2'	31:BA:602:A:C8	2.42	0.54
31:BA:1143:G:N1	31:BA:1144:G:C2	2.76	0.54
31:BA:1198:G:HO2'	40:BM:54:PHE:HD2	1.55	0.54
34:BG:209:ARG:HA	34:BG:209:ARG:NE	2.22	0.54
47:BT:55:ASP:HA	47:BT:79:SER:HA	1.89	0.54
49:BV:53:ASN:O	49:BV:77:THR:HG22	2.07	0.54
50:BW:72:LEU:HD21	50:BW:77:ALA:N	2.21	0.54
31:CA:457:C:H2'	31:CA:458:C:C6	2.42	0.54
31:CA:625:G:H2'	31:CA:626:U:C6	2.41	0.54
33:CF:77:ILE:O	33:CF:83:ARG:HB3	2.07	0.54
34:CG:139:ARG:HH11	34:CG:139:ARG:CG	2.06	0.54
34:CG:173:TRP:HB3	34:CG:187:ARG:HH11	1.72	0.54
35:CH:144:THR:O	35:CH:148:VAL:HG23	2.07	0.54
38:CK:5:PRO:O	38:CK:8:ASP:HB3	2.07	0.54
1:DA:67:U:C2	1:DA:74:A:H2	2.25	0.54
1:DA:483:A:C5'	20:DU:49:VAL:HA	2.37	0.54
1:DA:1143:A:O4'	1:DA:1143:A:N3	2.38	0.54
1:DA:1266:G:O6	18:DS:13:SER:OG	2.17	0.54
1:DA:1826:G:O2'	3:DD:242:ARG:NH2	2.41	0.54
1:DA:2115:G:H1'	1:DA:2171:A:N1	2.22	0.54
4:DE:119:ARG:HG2	4:DE:160:TYR:CG	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:DF:118:ALA:HB2	5:DF:123:LEU:HD23	1.90	0.54
8:DK:10:GLU:OE1	8:DK:11:ASN:HB2	2.07	0.54
12:DP:1:MET:HE2	12:DP:1:MET:H3	1.66	0.54
24:DW:17:SER:HB3	24:DW:21:LEU:H	1.73	0.54
1:AA:234:C:H2'	1:AA:235:U:H6	1.72	0.54
1:AA:2210:G:H2'	1:AA:2211:G:N7	2.21	0.54
1:AA:2773:C:H5"	4:AE:164:ARG:HG2	1.88	0.54
4:AE:2:LYS:HD3	4:AE:95:ILE:HG22	1.89	0.54
5:AF:125:LEU:HD21	5:AF:199:TRP:CE3	2.42	0.54
12:AP:110:THR:HG23	12:AP:113:GLN:OE1	2.07	0.54
13:A0:107:ASP:C	13:A0:107:ASP:OD2	2.50	0.54
21:AV:76:LEU:HD23	21:AV:76:LEU:N	2.18	0.54
31:BA:324:G:N1	31:BA:327:A:OP2	2.38	0.54
31:BA:368:U:P	8:DK:91:SER:HG	2.29	0.54
31:BA:624:C:O3'	46:BS:10:GLY:HA2	2.06	0.54
31:BA:652:U:H1'	31:BA:653:A:H2	1.69	0.54
31:BA:1513:A:H2'	31:BA:1514:C:C6	2.42	0.54
32:BE:75:LYS:O	32:BE:75:LYS:HD3	2.07	0.54
33:BF:112:SER:HB3	33:BF:115:LEU:HD13	1.89	0.54
34:BG:95:GLY:HA3	34:BG:188:LEU:HD11	1.88	0.54
34:BG:173:TRP:CD1	34:BG:174:LEU:HG	2.43	0.54
36:BI:23:LYS:HD3	36:BI:61:LEU:HD21	1.90	0.54
36:BI:23:LYS:O	36:BI:27:GLN:HG3	2.08	0.54
31:CA:345:C:H1'	31:CA:346:G:N1	2.23	0.54
31:CA:564:C:O2'	38:CK:91:ARG:NH2	2.35	0.54
31:CA:1149:C:OP2	39:CL:9:ARG:NH1	2.40	0.54
32:CE:97:TRP:HH2	32:CE:176:GLU:CD	2.15	0.54
35:CH:11:ILE:HG21	35:CH:105:VAL:HG22	1.90	0.54
37:CJ:6:ARG:O	37:CJ:7:ALA:C	2.51	0.54
38:CK:103:VAL:HG21	38:CK:110:ALA:HB2	1.89	0.54
44:CQ:27:CYS:O	44:CQ:28:GLY:C	2.50	0.54
1:DA:912:C:O2	1:DA:912:C:H2'	2.06	0.54
1:DA:1340:U:H4'	1:DA:1341:U:OP2	2.06	0.54
1:DA:1570:A:C4'	3:DD:38:LYS:HE2	2.37	0.54
1:DA:1899:G:N2	1:DA:1902:C:N4	2.28	0.54
1:DA:2271:G:H5"	22:D3:20:ARG:CD	2.37	0.54
3:DD:35:LYS:CB	3:DD:63:ARG:HA	2.38	0.54
6:DG:60:LEU:O	6:DG:64:THR:HG22	2.07	0.54
8:DK:25:TYR:HE2	8:DK:29:TYR:CD2	2.24	0.54
15:DR:3:ARG:HG2	15:DR:6:LEU:HB2	1.89	0.54
17:D2:49:THR:CB	17:D2:50:PRO:HD2	2.33	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:DT:56:THR:HB	19:DT:77:LYS:HE2	1.89	0.54
1:AA:787:U:H5"	1:AA:788:A:H5'	1.90	0.54
1:AA:1432:C:H2'	1:AA:1433:U:O4'	2.07	0.54
1:AA:1464:C:HO2'	1:AA:1528:A:H8	1.54	0.54
1:AA:1794:U:H2'	1:AA:1795:C:H6	1.71	0.54
1:AA:2705:A:O2'	1:AA:2852:G:OP1	2.23	0.54
2:AB:52:A:H62	14:AQ:33:LYS:CG	2.17	0.54
2:AB:80:U:O2'	2:AB:81:G:H5"	2.07	0.54
4:AE:201:THR:HG22	4:AE:202:LYS:N	2.23	0.54
8:AK:104:GLN:O	8:AK:105:HIS:CB	2.55	0.54
9:AM:35:ARG:HG3	9:AM:37:LYS:HG3	1.88	0.54
12:AP:30:GLY:CA	12:AP:107:ALA:HB2	2.38	0.54
18:AS:66:GLU:O	18:AS:66:GLU:HG2	2.08	0.54
18:AS:79:GLY:CA	18:AS:100:THR:HG22	2.38	0.54
25:AX:31:LEU:O	25:AX:32:GLN:HB2	2.06	0.54
26:A4:13:ARG:HB2	26:A4:30:GLU:HA	1.90	0.54
26:A4:45:GLY:O	26:A4:47:GLN:N	2.41	0.54
31:BA:771:G:O2'	31:BA:772:U:H5'	2.08	0.54
31:BA:1073:U:H2'	31:BA:1074:G:C8	2.43	0.54
31:BA:1497:G:C2'	31:BA:1498:U:H5'	2.35	0.54
32:BE:97:TRP:CZ3	32:BE:99:GLY:HA2	2.43	0.54
35:BH:84:PHE:HB3	35:BH:134:ALA:HB2	1.89	0.54
36:BI:75:LEU:HD22	36:BI:79:LEU:HG	1.89	0.54
37:BJ:22:LEU:HD23	37:BJ:62:PHE:CE2	2.42	0.54
31:CA:558:G:H2'	31:CA:559:A:H2	1.72	0.54
31:CA:632:A:H8	31:CA:632:A:OP2	1.90	0.54
31:CA:1004:A:C8	31:CA:1025:U:C2	2.96	0.54
31:CA:1006:C:H2'	31:CA:1007:C:C6	2.43	0.54
31:CA:1129:C:N3	31:CA:1139:G:N1	2.55	0.54
31:CA:1176:A:N6	31:CA:1177:G:C6	2.76	0.54
31:CA:1486:G:H2'	31:CA:1487:G:O4'	2.07	0.54
1:DA:84:A:OP2	20:DU:8:LYS:HD3	2.06	0.54
1:DA:946:G:H2'	1:DA:947:G:C8	2.43	0.54
1:DA:1225:C:H5"	17:D2:85:LYS:HD3	1.90	0.54
1:DA:1869:G:H8	1:DA:1869:G:H5'	1.73	0.54
1:DA:2345:G:N3	1:DA:2381:C:H2'	2.22	0.54
6:DG:80:PHE:O	6:DG:81:LYS:CB	2.52	0.54
7:DH:26:VAL:O	7:DH:27:LYS:C	2.50	0.54
11:DO:131:SER:HB3	11:DO:134:ALA:HB2	1.89	0.54
13:D0:53:HIS:HB2	13:D0:94:TYR:HE1	1.72	0.54
13:D0:87:TYR:HD1	13:D0:90:ARG:HD2	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:DQ:86:ALA:O	14:DQ:87:PHE:HB3	2.07	0.54
22:D3:56:ASP:OD1	22:D3:58:THR:OG1	2.26	0.54
1:AA:67:U:H3	1:AA:74:A:H2	1.49	0.54
1:AA:329:G:H4'	1:AA:330:A:OP2	2.05	0.54
1:AA:483:A:H5"	20:AU:49:VAL:HG22	1.89	0.54
1:AA:654(G):C:N3	1:AA:654(N):G:C6	2.75	0.54
1:AA:1053:C:H42	1:AA:1106:G:H1	1.54	0.54
1:AA:1429:G:H2'	1:AA:1430:C:C6	2.43	0.54
1:AA:1607:C:H4'	1:AA:1608:A:O5'	2.08	0.54
1:AA:2788:C:P	4:AE:61:ARG:HH12	2.29	0.54
21:AV:19:ARG:NH1	21:AV:84:GLU:HB2	2.23	0.54
21:AV:151:HIS:HD2	21:AV:168:GLU:HG3	1.73	0.54
31:BA:881:G:OP2	42:BO:9:ARG:NH2	2.40	0.54
32:BE:170:GLU:O	32:BE:174:VAL:HG23	2.07	0.54
43:BP:105:THR:O	43:BP:107:ALA:N	2.41	0.54
50:BW:10:LEU:O	50:BW:10:LEU:HD23	2.06	0.54
31:CA:1460:A:H2'	31:CA:1461:G:O4'	2.08	0.54
32:CE:236:TYR:CB	32:CE:239:VAL:HB	2.38	0.54
34:CG:17:VAL:HG12	34:CG:18:LYS:H	1.73	0.54
44:CQ:29:ARG:HG3	44:CQ:40:CYS:HB3	1.88	0.54
1:DA:153:C:OP1	23:DZ:88:LYS:HE3	2.08	0.54
1:DA:654(D):G:N2	1:DA:654(R):C:N3	2.56	0.54
1:DA:1088:A:H4'	1:DA:1089:G:C8	2.42	0.54
1:DA:1671:U:O2'	1:DA:1673:U:H5	1.91	0.54
1:DA:2142:C:H2'	1:DA:2143:C:C6	2.42	0.54
4:DE:67:PHE:CD1	4:DE:67:PHE:C	2.84	0.54
8:DK:97:ILE:O	8:DK:100:ALA:HB3	2.08	0.54
11:DO:81:GLN:HB3	11:DO:106:LEU:HD12	1.90	0.54
12:DP:2:LEU:HB3	12:DP:70:PRO:HD2	1.90	0.54
12:DP:35:VAL:HG12	12:DP:102:VAL:HG22	1.88	0.54
14:DQ:24:LEU:H	14:DQ:24:LEU:HD22	1.72	0.54
25:DX:6:VAL:HG12	25:DX:56:VAL:HB	1.90	0.54
26:D4:12:ALA:HB3	26:D4:24:THR:HG21	1.88	0.54
1:AA:271(C):U:H2'	1:AA:271:G:OP1	2.07	0.54
1:AA:1469:A:H2'	1:AA:1470:G:C8	2.42	0.54
1:AA:1486:A:H2'	1:AA:1487:G:C8	2.41	0.54
1:AA:1972:A:H2'	1:AA:1973:G:H8	1.73	0.54
1:AA:2298:A:H2'	1:AA:2299:G:O4'	2.08	0.54
1:AA:2502:G:H5"	1:AA:2503:A:H5"	1.89	0.54
2:AB:29:A:H2'	2:AB:30:C:O4'	2.07	0.54
2:AB:86:G:H1	2:AB:90:C:N4	2.04	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:27:THR:HG22	3:AD:28:GLU:N	2.22	0.54
4:AE:169:ASN:O	4:AE:169:ASN:ND2	2.32	0.54
11:AO:94:GLU:O	11:AO:95:VAL:HB	2.07	0.54
15:AR:55:ASN:H	15:AR:59:THR:HB	1.73	0.54
18:AS:14:PRO:HB3	18:AS:18:ARG:NH2	2.22	0.54
31:BA:344:A:H5"	31:BA:345:C:OP2	2.07	0.54
33:BF:181:ASN:ND2	33:BF:204:LEU:HB2	2.21	0.54
42:BO:85:GLY:H	42:BO:95:TYR:HA	1.73	0.54
43:BP:58:GLU:O	43:BP:62:ASN:HB2	2.08	0.54
44:BQ:45:ARG:NH1	44:BQ:49:HIS:HE1	2.06	0.54
31:CA:1513:A:H2'	31:CA:1514:C:C6	2.42	0.54
32:CE:178:ARG:HB2	32:CE:178:ARG:HH11	1.72	0.54
33:CF:63:ASN:O	33:CF:64:VAL:HB	2.08	0.54
49:CV:67:VAL:HG12	49:CV:68:GLY:N	2.23	0.54
52:CB:48:C:H4'	52:CB:49:C:OP1	2.08	0.54
1:DA:445:C:OP1	16:D1:2:PRO:HA	2.07	0.54
1:DA:633:A:H8	1:DA:633:A:O5'	1.91	0.54
1:DA:1075:C:H2'	1:DA:1076:C:H6	1.73	0.54
1:DA:1165:U:H2'	1:DA:1166:C:C6	2.42	0.54
1:DA:1794:U:H2'	1:DA:1795:C:C6	2.42	0.54
1:DA:1887:C:C2'	1:DA:1888:G:H5"	2.37	0.54
1:DA:2116:G:OP1	1:DA:2165:G:N2	2.35	0.54
1:DA:2124:G:H2'	1:DA:2125:G:H5'	1.88	0.54
1:DA:2135:A:H62	1:DA:2156:G:H21	1.51	0.54
1:DA:2859:G:H2'	1:DA:2860:A:C8	2.43	0.54
1:DA:2875:C:H4'	15:DR:5:ALA:HB2	1.89	0.54
3:DD:35:LYS:HG2	3:DD:64:ILE:CA	2.37	0.54
12:DP:1:MET:HE2	12:DP:1:MET:HA	1.84	0.54
15:DR:118:ARG:HA	15:DR:121:ILE:HB	1.89	0.54
17:D2:79:VAL:O	17:D2:80:GLN:CB	2.54	0.54
18:DS:95:ILE:O	18:DS:95:ILE:HG13	2.08	0.54
1:AA:330:A:O2'	1:AA:331:A:H8	1.86	0.54
1:AA:1309:G:H4'	29:A7:7:PRO:HB2	1.89	0.54
1:AA:2562:U:C1'	10:AN:23:ARG:HH11	2.15	0.54
3:AD:270:ILE:HG22	3:AD:271:ILE:N	2.23	0.54
5:AF:10:PRO:O	5:AF:124:LEU:HD12	2.08	0.54
6:AG:13:GLU:O	6:AG:14:GLU:HB2	2.07	0.54
14:AQ:110:LEU:HA	14:AQ:112:PHE:CE1	2.42	0.54
17:A2:44:LYS:CG	17:A2:45:THR:H	2.21	0.54
17:A2:59:ALA:HB2	17:A2:96:ILE:HD13	1.90	0.54
19:AT:57:LEU:HD12	19:AT:57:LEU:O	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AU:57:GLN:O	20:AU:58:GLY:C	2.49	0.54
31:BA:940:C:H2'	31:BA:941:G:H8	1.73	0.54
31:BA:1003:G:C2'	31:BA:1004:A:H5'	2.37	0.54
31:BA:1299:A:H2'	31:BA:1301:U:C1'	2.38	0.54
31:BA:1305:G:H5'	51:BX:4:GLY:HA3	1.90	0.54
33:BF:18:TRP:HZ2	44:BQ:57:ARG:HD2	1.72	0.54
34:BG:98:GLU:OE2	34:BG:103:ASN:ND2	2.39	0.54
40:BM:16:LEU:HD11	40:BM:70:ARG:HB2	1.89	0.54
31:CA:1211:U:H1'	31:CA:1213:A:C2	2.43	0.54
35:CH:57:LYS:HG2	35:CH:61:TYR:HE2	1.73	0.54
37:CJ:26:PHE:CD2	37:CJ:30:ILE:HD11	2.43	0.54
54:C1:13:U:O2	54:C1:13:U:H2'	2.07	0.54
1:DA:5:A:N6	1:DA:2897:U:O4	2.40	0.54
1:DA:196:A:H2'	1:DA:196:A:N3	2.23	0.54
1:DA:868:U:C4	1:DA:869:G:N7	2.76	0.54
1:DA:879:G:C2	1:DA:880:G:H1'	2.43	0.54
1:DA:1075:C:H2'	1:DA:1076:C:C6	2.43	0.54
1:DA:1268:A:H2'	1:DA:1269:A:O4'	2.07	0.54
1:DA:2292:C:OP1	14:DQ:17:ARG:NH2	2.41	0.54
1:DA:2475:C:H5'	1:DA:2476:A:OP2	2.06	0.54
1:DA:2672:G:H2'	1:DA:2673:G:H5"	1.90	0.54
2:DB:80:U:O2'	2:DB:81:G:H5"	2.07	0.54
4:DE:8:LYS:HB3	4:DE:192:ASN:HA	1.90	0.54
7:DH:125:VAL:HG13	7:DH:126:PRO:HD2	1.90	0.54
1:AA:847:U:C5	1:AA:933:A:C2	2.95	0.54
1:AA:1230:C:H2'	1:AA:1231:G:C8	2.42	0.54
1:AA:1558:A:H1'	1:AA:1559:G:OP2	2.08	0.54
1:AA:1869:G:N2	1:AA:1872:A:OP2	2.37	0.54
1:AA:2023:G:H5'	1:AA:2617:C:H4'	1.90	0.54
3:AD:236:GLY:O	3:AD:237:GLU:CG	2.56	0.54
9:AM:17:ASP:O	9:AM:18:ALA:HB3	2.08	0.54
9:AM:112:LEU:O	9:AM:114:ARG:O	2.26	0.54
31:BA:445:G:H1	31:BA:489:C:H42	1.55	0.54
31:BA:1004:A:OP1	31:BA:1025:U:O4	2.26	0.54
31:BA:1157:A:O2'	31:BA:1158:C:O4'	2.26	0.54
32:BE:168:THR:OG1	32:BE:192:SER:HB2	2.08	0.54
37:BJ:86:GLN:HB2	37:BJ:148:ASN:ND2	2.22	0.54
31:CA:250:A:C4'	31:CA:251:G:O5'	2.54	0.54
31:CA:983:A:H2	31:CA:984:C:C6	2.25	0.54
31:CA:1127:G:O2'	31:CA:1128:C:H5'	2.07	0.54
31:CA:1292:U:H2'	31:CA:1293:G:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:CP:22:ILE:HD12	43:CP:25:ILE:HG13	1.90	0.54
43:CP:57:ARG:NH2	26:D4:34:GLU:HB2	2.23	0.54
1:DA:128:C:H2'	1:DA:129:C:H6	1.72	0.54
1:DA:298:G:OP1	20:DU:84:ARG:O	2.26	0.54
1:DA:524:U:H2'	1:DA:525:U:C6	2.43	0.54
1:DA:620:G:H2'	1:DA:620:G:N3	2.23	0.54
1:DA:745:G:H2'	1:DA:746:A:H5'	1.90	0.54
1:DA:1140:C:H1'	1:DA:1143:A:H8	1.73	0.54
1:DA:1316:U:H2'	1:DA:1317:A:C8	2.43	0.54
2:DB:14:U:O3'	2:DB:107:U:O2'	2.22	0.54
2:DB:89(A):A:C8	2:DB:90:C:H1'	2.43	0.54
4:DE:182:LEU:C	4:DE:183:LEU:HD12	2.33	0.54
5:DF:57:VAL:HG11	5:DF:59:TYR:CD1	2.43	0.54
12:DP:1:MET:N	12:DP:1:MET:CE	2.62	0.54
25:DX:59:VAL:HG12	25:DX:60:GLU:N	2.22	0.54
1:AA:860:U:H5	1:AA:917:A:N1	2.03	0.54
1:AA:2135:A:N6	1:AA:2156:G:O2'	2.40	0.54
3:AD:33:LEU:N	3:AD:35:LYS:O	2.24	0.54
3:AD:35:LYS:HE2	3:AD:104:TYR:HB2	1.89	0.54
7:AH:74:ASN:O	7:AH:77:LYS:HG2	2.08	0.54
21:AV:48:PHE:HE2	21:AV:71:VAL:HG11	1.72	0.54
28:A6:29:ASN:O	28:A6:32:ASN:HB3	2.07	0.54
31:BA:35:G:O2'	42:BO:115:SER:O	2.15	0.54
31:BA:97:U:H2'	31:BA:99:C:C6	2.43	0.54
31:BA:438:G:H4'	34:BG:123:HIS:ND1	2.23	0.54
31:BA:955:U:H1'	31:BA:1227:A:N6	2.23	0.54
32:BE:172:ILE:O	32:BE:176:GLU:HB2	2.08	0.54
43:BP:3:ARG:HG2	43:BP:9:ILE:HG12	1.88	0.54
47:BT:6:LEU:HD22	47:BT:23:VAL:HG11	1.90	0.54
53:BD:13:C:HO2'	53:BD:14:A:P	2.30	0.54
31:CA:792:A:H4'	31:CA:793:U:O5'	2.08	0.54
32:CE:142:LEU:HD23	32:CE:142:LEU:O	2.07	0.54
45:CR:39:LEU:CD1	45:CR:56:LEU:HB2	2.37	0.54
53:CC:48:U:H1'	53:CC:49:C:O5'	2.08	0.54
1:DA:198:C:O2'	1:DA:199:A:H5'	2.07	0.54
1:DA:265:A:H1'	1:DA:266:G:O4'	2.08	0.54
1:DA:830:G:H4'	1:DA:831:G:OP2	2.08	0.54
1:DA:880:G:H2'	1:DA:880:G:N3	2.23	0.54
1:DA:2469:A:N6	1:DA:2481:G:H1'	2.23	0.54
1:DA:2564:A:OP1	1:DA:2648:C:H4'	2.08	0.54
1:DA:2681:C:C5	1:DA:2727:G:C2	2.95	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2777:G:OP2	1:DA:2781:A:O2'	2.21	0.54
5:DF:78:ILE:HA	5:DF:83:PHE:CD1	2.43	0.54
10:DN:122:LEU:HD13	15:DR:72:VAL:HG11	1.88	0.54
17:D2:61:VAL:O	17:D2:62:LEU:C	2.51	0.54
17:D2:73:SER:HB2	17:D2:82:ARG:O	2.08	0.54
1:AA:2394:C:OP1	11:AO:63:PRO:CD	2.54	0.54
15:AR:66:VAL:HA	15:AR:71:GLY:HA2	1.90	0.54
19:AT:55:ASN:HB2	19:AT:80:ILE:HG13	1.90	0.54
31:BA:134:A:H1'	31:BA:325:A:C5	2.43	0.54
31:BA:719:C:O2'	48:BU:49:LYS:HB3	2.07	0.54
49:BV:30:LEU:CD1	49:BV:30:LEU:H	2.21	0.54
49:BV:30:LEU:H	49:BV:30:LEU:HD13	1.71	0.54
32:CE:5:ILE:HD13	32:CE:56:ARG:HH12	1.72	0.54
36:CI:3:ARG:NH1	36:CI:38:GLU:OE1	2.40	0.54
43:CP:22:ILE:HB	43:CP:25:ILE:CG1	2.37	0.54
49:CV:66:MET:CA	49:CV:67:VAL:HB	2.36	0.54
53:CC:18:C:O2'	53:CC:19:G:H5"	2.07	0.54
53:CD:20:G:H8	53:CD:58:A:N6	2.06	0.54
1:DA:1310:G:OP2	29:D7:9:ARG:HD2	2.07	0.54
1:DA:1444:G:N2	1:DA:1548:C:C2	2.76	0.54
1:DA:2015:A:H1'	27:D5:2:ALA:CA	2.38	0.54
1:DA:2512:C:H2'	1:DA:2513:G:O4'	2.06	0.54
1:DA:2552:U:H2'	1:DA:2554:U:OP2	2.08	0.54
11:DO:84:ASN:OD1	11:DO:117:GLU:HB3	2.08	0.54
14:DQ:61:ASN:HB3	14:DQ:64:GLU:HB3	1.90	0.54
16:D1:50:ARG:HH12	17:D2:72:VAL:CG1	2.18	0.54
17:D2:89:GLN:HE21	17:D2:90:PRO:HD2	1.72	0.54
30:D8:28:GLY:O	30:D8:32:LEU:HB3	2.09	0.54
1:AA:139:G:N3	1:AA:141:A:N1	2.55	0.53
1:AA:236:C:H2'	1:AA:237:C:C6	2.43	0.53
1:AA:850:C:O2'	25:AX:46:ASN:ND2	2.40	0.53
1:AA:1077:A:N3	1:AA:1077:A:H2'	2.23	0.53
5:AF:127:GLU:C	5:AF:129:PHE:H	2.15	0.53
5:AF:184:TYR:O	5:AF:188:ARG:HG3	2.08	0.53
6:AG:63:ILE:HD12	6:AG:141:PHE:CG	2.43	0.53
21:AV:142:SER:HB3	21:AV:143:GLY:CA	2.31	0.53
31:BA:129(A):G:N2	31:BA:191(A):G:N7	2.56	0.53
31:BA:723:U:O2	31:BA:723:U:H2'	2.07	0.53
31:BA:1057:G:H2'	31:BA:1058:G:O4'	2.08	0.53
36:BI:60:PHE:C	36:BI:61:LEU:HD12	2.33	0.53
37:BJ:113:GLU:CG	37:BJ:119:ARG:HG2	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BL:43:ALA:O	39:BL:45:ALA:N	2.41	0.53
40:BM:48:THR:HG23	40:BM:62:HIS:ND1	2.23	0.53
49:BV:41:VAL:CG1	49:BV:44:MET:HB2	2.39	0.53
31:CA:518:C:H4'	31:CA:519:C:O5'	2.08	0.53
32:CE:166:ASP:OD2	32:CE:169:LYS:HB2	2.06	0.53
35:CH:75:THR:OG1	35:CH:76:ILE:N	2.41	0.53
38:CK:64:LYS:HG2	38:CK:79:VAL:HG21	1.88	0.53
45:CR:17:ARG:HG3	45:CR:17:ARG:NH1	2.14	0.53
46:CS:48:TRP:CE3	46:CS:49:LEU:HB2	2.43	0.53
49:CV:41:VAL:HG13	26:D4:63:TYR:CE1	2.43	0.53
1:DA:90:U:O2	1:DA:90:U:C2'	2.55	0.53
1:DA:669:G:O2'	1:DA:670:A:OP1	2.26	0.53
1:DA:1060:U:H3	1:DA:1088:A:H8	1.54	0.53
1:DA:1252:G:O4'	16:D1:33:ARG:HD3	2.08	0.53
1:DA:2831:G:P	4:DE:58:ARG:HH11	2.31	0.53
1:DA:2864:G:OP1	15:DR:119:LYS:HD3	2.08	0.53
3:DD:137:PRO:O	3:DD:140:THR:CG2	2.56	0.53
6:DG:109:VAL:O	6:DG:113:ARG:HG3	2.08	0.53
6:DG:145:THR:OG1	6:DG:148:MET:HB2	2.08	0.53
7:DH:137:ASP:CG	7:DH:138:LYS:H	2.14	0.53
14:DQ:59:LYS:CD	14:DQ:60:GLY:H	2.19	0.53
1:AA:528:A:N1	1:AA:2043:C:O5'	2.42	0.53
1:AA:882:G:N1	1:AA:894:C:N4	2.14	0.53
1:AA:1162:G:O4'	17:A2:23:GLU:HG3	2.08	0.53
1:AA:1858:G:H1'	1:AA:1884:A:N6	2.23	0.53
1:AA:2397:G:H5"	23:AZ:28:GLY:HA2	1.89	0.53
3:AD:61:LEU:O	3:AD:63:ARG:NH1	2.40	0.53
7:AH:6:ARG:C	7:AH:8:PRO:HD2	2.32	0.53
7:AH:98:LEU:HD12	7:AH:102:ALA:O	2.08	0.53
16:A1:50:ARG:HG2	16:A1:53:ARG:NH2	2.23	0.53
21:AV:117:LEU:HD13	21:AV:118:GLN:H	1.73	0.53
26:A4:13:ARG:H	26:A4:30:GLU:H	1.56	0.53
31:BA:614:A:OP1	34:BG:86:LYS:NZ	2.40	0.53
31:BA:958:A:C6	31:BA:959:A:C6	2.96	0.53
31:BA:1129:C:H41	31:BA:1141:C:H41	1.56	0.53
31:BA:1240:U:C4	37:BJ:32:ARG:HD3	2.43	0.53
39:BL:53:VAL:O	39:BL:54:ASP:HB2	2.08	0.53
45:BR:39:LEU:HD22	45:BR:43:LEU:HG	1.90	0.53
31:CA:201:C:H4'	31:CA:208:U:OP1	2.07	0.53
31:CA:1324:A:H4'	31:CA:1362:C:H4'	1.90	0.53
31:CA:1347:G:O2'	31:CA:1373:G:O6	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:CE:47:THR:HA	32:CE:202:PRO:HG2	1.89	0.53
32:CE:102:LEU:HD23	32:CE:182:ILE:HD12	1.89	0.53
32:CE:224:GLN:HG3	32:CE:225:ALA:N	2.23	0.53
33:CF:100:ALA:O	33:CF:101:LEU:HB2	2.09	0.53
37:CJ:149:ARG:HD2	41:CN:59:TYR:CZ	2.43	0.53
40:CM:33:GLN:HB2	40:CM:75:ILE:CD1	2.38	0.53
42:CO:21:VAL:C	42:CO:23:ALA:N	2.63	0.53
42:CO:25:LYS:O	42:CO:25:LYS:HG2	2.08	0.53
47:CT:63:ARG:HG2	47:CT:64:PRO:HD2	1.90	0.53
1:DA:128:C:H2'	1:DA:129:C:C6	2.43	0.53
1:DA:128:C:O2'	1:DA:129:C:P	2.66	0.53
1:DA:607:U:H3	1:DA:621:A:H2	1.53	0.53
1:DA:996:A:H4'	16:D1:92:ARG:CZ	2.38	0.53
1:DA:996:A:H4'	16:D1:92:ARG:NH1	2.22	0.53
1:DA:1019:U:O2'	1:DA:1021:A:C2	2.61	0.53
1:DA:1358:G:N2	1:DA:1372:U:C5	2.76	0.53
1:DA:1505:C:H2'	1:DA:1506:C:C6	2.43	0.53
1:DA:2210:G:H5'	1:DA:2211:G:C2	2.43	0.53
1:DA:2748:A:N7	1:DA:2754:U:C4	2.75	0.53
9:DM:10:GLU:HG3	9:DM:11:PRO:HD2	1.89	0.53
12:DP:35:VAL:HG22	12:DP:130:LYS:HB3	1.90	0.53
16:D1:81:HIS:CE1	16:D1:85:LYS:HD2	2.43	0.53
1:AA:883:G:H2'	1:AA:884:C:C4'	2.38	0.53
1:AA:1028:A:N6	1:AA:1125:G:H2'	2.23	0.53
1:AA:1079:C:H3'	1:AA:1080:A:H8	1.70	0.53
1:AA:2335:A:C8	1:AA:2337:G:C5	2.96	0.53
3:AD:134:ARG:HG3	3:AD:135:PHE:CD2	2.43	0.53
4:AE:23:VAL:HG13	4:AE:185:LYS:N	2.23	0.53
4:AE:134:ILE:C	4:AE:134:ILE:HD12	2.32	0.53
6:AG:16:ARG:NH2	6:AG:31:VAL:HG13	2.24	0.53
12:AP:39:PRO:HA	12:AP:97:VAL:O	2.07	0.53
30:A8:23:VAL:CG1	30:A8:46:ARG:HD3	2.38	0.53
31:BA:232:G:H1'	31:BA:262:A:N1	2.23	0.53
31:BA:1025:U:H4'	31:BA:1026:G:H5'	1.91	0.53
33:BF:70:VAL:HG12	33:BF:71:ALA:N	2.23	0.53
36:BI:4:TYR:HD1	36:BI:92:LYS:HA	1.73	0.53
40:BM:9:ARG:HH22	40:BM:97:GLU:HG3	1.73	0.53
31:CA:352:C:O2'	31:CA:354:G:OP1	2.21	0.53
33:CF:199:LYS:HB3	33:CF:201:TYR:HE1	1.72	0.53
38:CK:84:ARG:O	38:CK:135:CYS:HB2	2.09	0.53
47:CT:67:LYS:C	47:CT:69:LYS:H	2.15	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:125:G:H4'	1:DA:126:A:OP2	2.08	0.53
1:DA:218:A:H2	1:DA:235:U:H4'	1.72	0.53
1:DA:1007:C:OP1	9:DM:37:LYS:NZ	2.35	0.53
1:DA:2209:C:O2	1:DA:2216:G:C2	2.61	0.53
1:DA:2321:G:H2'	1:DA:2321:G:N3	2.22	0.53
1:DA:2468:G:N1	1:DA:2481:G:C4	2.77	0.53
1:DA:2794:C:H2'	1:DA:2795:G:O4'	2.08	0.53
2:DB:89:G:H8	2:DB:89:G:OP2	1.91	0.53
6:DG:34:LEU:HB3	6:DG:99:MET:HE1	1.90	0.53
6:DG:138:GLN:NE2	6:DG:153:ARG:HB2	2.24	0.53
7:DH:4:ILE:HD11	7:DH:7:LEU:HD23	1.90	0.53
7:DH:89:ILE:HD11	7:DH:94:TYR:HB2	1.89	0.53
15:DR:91:ARG:NH1	15:DR:124:ASP:OD1	2.30	0.53
18:DS:46:PHE:O	18:DS:50:VAL:HG12	2.09	0.53
20:DU:17:SER:HB2	20:DU:71:LYS:CE	2.38	0.53
1:AA:482:A:H5"	1:AA:483:A:OP1	2.08	0.53
1:AA:764:A:O4'	3:AD:213:ARG:HG3	2.08	0.53
1:AA:1582:C:O2'	1:AA:1586:A:C8	2.57	0.53
1:AA:1899:G:HO2'	1:AA:1900:A:P	2.29	0.53
1:AA:2439:A:H3'	1:AA:2439:A:P	2.48	0.53
1:AA:2584:U:H2'	1:AA:2585:U:H2'	1.90	0.53
1:AA:2746:U:O4	1:AA:2755:C:H4'	2.08	0.53
3:AD:142:VAL:HG23	3:AD:193:VAL:HA	1.89	0.53
6:AG:27:ASN:OD1	6:AG:28:VAL:N	2.41	0.53
7:AH:58:GLU:O	7:AH:60:ARG:N	2.41	0.53
7:AH:152:ARG:HG2	7:AH:153:LYS:H	1.74	0.53
17:A2:34:GLU:HA	17:A2:57:VAL:O	2.09	0.53
27:A5:33:CYS:HB2	27:A5:40:LYS:HD3	1.90	0.53
28:A6:15:GLU:HG2	28:A6:16:CYS:H	1.73	0.53
30:A8:58:ILE:HA	30:A8:61:LEU:CD1	2.39	0.53
31:BA:464:G:C6	31:BA:466:C:H5'	2.42	0.53
31:BA:1287:A:H2'	31:BA:1288:A:C8	2.43	0.53
32:BE:158:LEU:HD12	32:BE:158:LEU:O	2.07	0.53
32:BE:194:PRO:HG2	32:BE:195:ASP:OD1	2.07	0.53
36:BI:50:TYR:OH	48:BU:74:ARG:O	2.25	0.53
36:BI:67:MET:HB2	36:BI:68:PRO:HD2	1.89	0.53
50:BW:26:ASN:HD22	50:BW:26:ASN:N	2.00	0.53
53:BD:20:G:H5"	53:BD:60:A:H61	1.73	0.53
31:CA:197:A:H8	31:CA:198:G:N9	2.07	0.53
31:CA:422:C:O2'	31:CA:423:G:N2	2.41	0.53
31:CA:464:G:C5	31:CA:466:C:OP2	2.61	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1446:A:OP1	31:CA:1446:A:C4'	2.56	0.53
1:DA:270(N):G:H1'	1:DA:270(P):C:O4'	2.07	0.53
1:DA:458:G:C8	29:D7:37:LYS:HG2	2.44	0.53
1:DA:959:A:H62	12:DP:83:MET:CE	2.21	0.53
1:DA:1011:G:H1	1:DA:1150:C:N4	2.07	0.53
1:DA:1819:A:H5"	3:DD:158:ALA:HB3	1.90	0.53
7:DH:152:ARG:HA	7:DH:154:PRO:HD3	1.89	0.53
12:DP:133:ARG:O	12:DP:134:ARG:HB3	2.09	0.53
14:DQ:59:LYS:HD2	14:DQ:60:GLY:H	1.73	0.53
19:DT:50:LYS:H	19:DT:87:GLN:HE22	1.57	0.53
20:DU:60:PHE:N	20:DU:60:PHE:CD2	2.59	0.53
23:DZ:41:ARG:HG3	23:DZ:43:TYR:CZ	2.43	0.53
1:AA:864:G:C6	1:AA:865:C:N4	2.76	0.53
1:AA:1177:A:H4'	1:AA:1178:C:H5"	1.90	0.53
1:AA:1416:G:HO2'	1:AA:1417:C:P	2.32	0.53
1:AA:2287:A:N6	1:AA:2344:U:C2	2.77	0.53
1:AA:2335:A:C8	1:AA:2337:G:N7	2.77	0.53
6:AG:107:LEU:O	26:A4:38:LYS:CG	2.56	0.53
17:A2:66:ARG:CZ	17:A2:88:ARG:HD3	2.38	0.53
21:AV:6:LYS:O	21:AV:7:ALA:HB2	2.08	0.53
31:BA:659:U:H2'	31:BA:660:G:H8	1.74	0.53
31:BA:1337:G:H5"	31:BA:1338:G:OP1	2.09	0.53
34:BG:61:LYS:HD3	34:BG:206:PHE:CE2	2.43	0.53
34:BG:135:LEU:C	34:BG:137:SER:H	2.17	0.53
42:BO:15:VAL:CG2	42:BO:16:ARG:H	2.16	0.53
45:BR:56:LEU:O	45:BR:60:VAL:HG23	2.07	0.53
31:CA:321:A:H62	31:CA:328:C:H1'	1.74	0.53
31:CA:537:G:H5"	42:CO:110:ARG:HH12	1.73	0.53
31:CA:965:A:C2	31:CA:969:A:C2	2.97	0.53
31:CA:1129:C:N4	31:CA:1139:G:C2	2.77	0.53
34:CG:13:ARG:HB3	34:CG:33:MET:SD	2.49	0.53
39:CL:85:LEU:HD13	39:CL:92:TYR:CD2	2.44	0.53
40:CM:84:GLN:O	40:CM:88:LEU:HB3	2.09	0.53
42:CO:72:HIS:HD2	42:CO:74:LEU:N	2.04	0.53
43:CP:116:THR:O	43:CP:117:VAL:C	2.50	0.53
44:CQ:3:ARG:O	44:CQ:7:ILE:HG23	2.09	0.53
45:CR:2:PRO:HB2	45:CR:3:ILE:HD13	1.91	0.53
50:CW:49:ALA:O	50:CW:50:GLU:C	2.51	0.53
1:DA:110:G:C2	1:DA:111:A:C8	2.96	0.53
1:DA:453:C:H4'	1:DA:472:A:N6	2.23	0.53
1:DA:1066:U:N3	1:DA:1069:A:OP2	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1226:G:H5'	17:D2:85:LYS:H	1.73	0.53
1:DA:2299:G:N1	1:DA:2318:G:H8	2.06	0.53
1:DA:2648:C:H2'	1:DA:2649:U:C6	2.43	0.53
3:DD:5:LYS:HB2	3:DD:5:LYS:HZ2	1.72	0.53
4:DE:6:GLY:HA2	4:DE:51:PHE:CZ	2.44	0.53
4:DE:61:ARG:C	4:DE:63:LEU:N	2.67	0.53
7:DH:168:PRO:HG2	7:DH:169:VAL:H	1.74	0.53
12:DP:57:HIS:CG	12:DP:57:HIS:O	2.61	0.53
17:D2:48:GLY:HA3	17:D2:52:VAL:CG2	2.38	0.53
21:DV:29:TYR:CE2	21:DV:87:ASP:HB3	2.43	0.53
1:AA:141:A:C8	1:AA:1408:C:H1'	2.43	0.53
1:AA:164:U:H5"	1:AA:165:U:N3	2.24	0.53
1:AA:1018:C:O2	1:AA:1018:C:H2'	2.08	0.53
1:AA:1519:G:C2'	1:AA:1520:U:H5'	2.39	0.53
1:AA:1530:G:O6	1:AA:1542:G:N2	2.42	0.53
1:AA:1727:U:H2'	1:AA:1728:G:O4'	2.08	0.53
1:AA:1728:G:C3'	1:AA:1729:A:H5'	2.25	0.53
1:AA:2157:G:HO2'	1:AA:2158:A:P	2.31	0.53
1:AA:2199:A:C5'	1:AA:2205:C:OP2	2.56	0.53
1:AA:2466:C:C2'	1:AA:2467:C:H5'	2.38	0.53
1:AA:2688:U:O5'	1:AA:2688:U:O2	2.26	0.53
6:AG:83:ARG:H	6:AG:86:MET:HE2	1.74	0.53
8:AK:130:TYR:C	8:AK:131:LYS:HD2	2.34	0.53
17:A2:35:LEU:C	17:A2:37:VAL:N	2.58	0.53
30:A8:29:LYS:CB	30:A8:44:LYS:HG2	2.39	0.53
31:BA:1251:A:H4'	39:BL:12:GLU:OE1	2.08	0.53
32:BE:125:PRO:O	32:BE:126:GLU:HB2	2.07	0.53
32:BE:233:SER:HB2	32:BE:234:PRO:CD	2.32	0.53
37:BJ:22:LEU:HD23	37:BJ:62:PHE:HE2	1.71	0.53
45:BR:87:ILE:CG2	45:BR:88:ARG:H	2.21	0.53
31:CA:406:G:N2	34:CG:119:GLN:HE22	2.07	0.53
31:CA:690:G:H22	41:CN:55:LYS:CE	2.22	0.53
31:CA:1028(B):C:H3'	31:CA:1029:G:C5'	2.34	0.53
35:CH:87:SER:HB3	35:CH:125:SER:O	2.08	0.53
1:DA:363(B):G:H2'	1:DA:363(C):G:H8	1.74	0.53
1:DA:517:C:OP1	27:D5:16:ARG:NH2	2.42	0.53
1:DA:877:U:H4'	1:DA:878:A:OP2	2.07	0.53
1:DA:1434:A:H61	1:DA:1558:A:N6	2.07	0.53
1:DA:1495:A:O2'	1:DA:1496:A:H5'	2.09	0.53
1:DA:2143:C:H42	1:DA:2148:G:H1	1.55	0.53
1:DA:2733:A:H61	4:DE:202:LYS:HB3	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DD:68:LYS:O	3:DD:68:LYS:HG3	2.09	0.53
3:DD:218:ARG:HB3	3:DD:219:PRO:HD2	1.91	0.53
4:DE:88:GLY:O	4:DE:89:ASP:HB3	2.08	0.53
5:DF:63:LYS:HE3	5:DF:75:HIS:O	2.08	0.53
5:DF:152:GLU:HA	5:DF:190:GLU:OE2	2.09	0.53
21:DV:62:PRO:C	21:DV:64:GLY:N	2.65	0.53
1:AA:302:C:H2'	1:AA:303:U:H6	1.73	0.53
1:AA:566:U:O4	17:A2:78:LYS:HD3	2.08	0.53
1:AA:675:A:N3	1:AA:2443:C:O2'	2.37	0.53
1:AA:889:C:H3'	1:AA:890:A:H4'	1.91	0.53
1:AA:1062:G:H1'	1:AA:1088:A:C5	2.43	0.53
1:AA:2164:C:OP2	1:AA:2166:G:N2	2.40	0.53
1:AA:2376:A:H2'	1:AA:2377:A:O4'	2.09	0.53
1:AA:2712:U:O2'	1:AA:2712(A):A:P	2.66	0.53
4:AE:48:GLN:NE2	4:AE:77:ILE:HD12	2.23	0.53
7:AH:7:LEU:N	7:AH:8:PRO:CD	2.70	0.53
11:AO:29:LYS:HG2	11:AO:30:THR:N	2.24	0.53
12:AP:78:PRO:O	12:AP:79:LEU:CG	2.57	0.53
21:AV:48:PHE:CE2	21:AV:71:VAL:HG11	2.43	0.53
23:AZ:92:LYS:HB2	23:AZ:92:LYS:NZ	2.23	0.53
29:A7:9:ARG:HE	29:A7:48:LYS:HD3	1.73	0.53
31:BA:162:A:H3'	31:BA:163:C:H5"	1.90	0.53
31:BA:1025:U:O2'	31:BA:1026:G:H8	1.91	0.53
49:BV:5:LEU:HD13	49:BV:10:PHE:CD1	2.44	0.53
31:CA:77:C:C3'	31:CA:78:G:H5"	2.38	0.53
31:CA:1005:A:C2	31:CA:1006:C:H1'	2.42	0.53
31:CA:1045:C:H2'	31:CA:1046:A:O4'	2.08	0.53
31:CA:1149:C:H2'	31:CA:1150:U:C6	2.43	0.53
31:CA:1175:G:C2	31:CA:1176:A:C5	2.96	0.53
33:CF:73:PRO:O	33:CF:76:VAL:HG22	2.07	0.53
41:CN:34:ASP:HB2	41:CN:35:PRO:HD2	1.91	0.53
50:CW:50:GLU:HA	50:CW:100:ILE:HG12	1.90	0.53
1:DA:38:A:H2'	1:DA:39:C:H6	1.72	0.53
1:DA:96:G:H4'	24:DW:48:HIS:CD2	2.44	0.53
1:DA:234:C:H2'	1:DA:235:U:H6	1.73	0.53
1:DA:943:U:OP2	11:DO:36:LYS:HG3	2.08	0.53
1:DA:1126:A:H4'	1:DA:1127:A:O5'	2.09	0.53
1:DA:2157:G:H2'	1:DA:2158:A:C8	2.41	0.53
2:DB:43:C:H1'	6:DG:93:THR:O	2.09	0.53
2:DB:110:G:H2'	2:DB:111:U:O4'	2.09	0.53
3:DD:96:HIS:CE1	3:DD:102:LYS:HE2	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:DQ:49:VAL:HG22	14:DQ:80:LEU:HD12	1.91	0.53
20:DU:39:VAL:HG23	20:DU:40:GLU:N	2.22	0.53
20:DU:88:LYS:O	20:DU:90:LEU:N	2.41	0.53
1:AA:248:G:H5'	1:AA:250:G:N7	2.23	0.53
1:AA:631:A:H2'	1:AA:632:A:O4'	2.07	0.53
1:AA:654(S):G:H4'	1:AA:654(T):A:OP1	2.07	0.53
1:AA:1027:A:C2	1:AA:2488:A:H5'	2.44	0.53
1:AA:1138:G:N2	9:AM:106:MET:HE3	2.14	0.53
1:AA:1204:A:N1	1:AA:1241:A:C2	2.77	0.53
1:AA:1578:U:H2'	1:AA:1579:A:H5'	1.89	0.53
5:AF:40:GLN:NE2	5:AF:183:VAL:HG13	2.24	0.53
6:AG:9:ARG:O	6:AG:13:GLU:HG2	2.09	0.53
15:AR:112:ARG:HA	15:AR:115:ARG:HD2	1.90	0.53
17:A2:8:GLY:O	17:A2:10:LYS:HE3	2.08	0.53
23:AZ:83:GLU:C	23:AZ:85:LEU:N	2.66	0.53
28:A6:48:VAL:O	28:A6:49:HIS:HB2	2.08	0.53
31:BA:377:G:OP1	46:BS:3:LYS:HD2	2.08	0.53
31:BA:606:G:N2	31:BA:631:G:H8	2.07	0.53
31:BA:1126:U:OP2	31:BA:1281:U:H1'	2.09	0.53
33:BF:107:GLN:H	33:BF:107:GLN:CD	2.08	0.53
37:BJ:28:ASN:HA	37:BJ:31:MET:HE3	1.90	0.53
38:BK:4:ASP:CG	38:BK:85:ARG:HH11	2.17	0.53
49:BV:50:ALA:HB1	49:BV:57:HIS:HB3	1.90	0.53
31:CA:77:C:H2'	31:CA:78:G:H5"	1.89	0.53
32:CE:45:GLN:C	32:CE:47:THR:H	2.17	0.53
38:CK:29:SER:HB3	38:CK:32:LYS:HD2	1.91	0.53
39:CL:77:ILE:O	39:CL:81:ILE:HG12	2.08	0.53
40:CM:16:LEU:C	40:CM:18:ALA:N	2.66	0.53
43:CP:17:VAL:C	43:CP:19:LEU:H	2.16	0.53
53:CC:20:G:HO2'	53:CC:21:U:H5	1.54	0.53
53:CD:6:G:O2'	53:CD:7:G:H5'	2.09	0.53
1:DA:5:A:H2'	1:DA:6:A:C8	2.44	0.53
1:DA:864:G:C6	1:DA:865:C:N4	2.76	0.53
1:DA:1430:C:H2'	1:DA:1431:U:H6	1.73	0.53
1:DA:1641:A:H2'	1:DA:1642:G:O4'	2.09	0.53
1:DA:1769:G:O2'	1:DA:1958:C:OP1	2.24	0.53
1:DA:2150:U:H2'	1:DA:2151:G:C8	2.40	0.53
2:DB:89(A):A:N7	2:DB:90:C:H1'	2.24	0.53
4:DE:171:GLU:O	4:DE:184:VAL:HA	2.09	0.53
12:DP:54:MET:CE	12:DP:118:LEU:HD23	2.38	0.53
15:DR:74:ARG:HD3	15:DR:76:PHE:CZ	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:DU:47:LYS:HG2	20:DU:60:PHE:CD1	2.43	0.53
20:DU:81:LYS:HD3	20:DU:97:ARG:NH2	2.24	0.53
26:D4:38:LYS:C	26:D4:40:HIS:H	2.16	0.53
1:AA:82:G:O2'	1:AA:83:G:H5'	2.08	0.53
1:AA:307:G:N2	1:AA:310:A:C8	2.77	0.53
1:AA:463:G:N2	1:AA:466:A:OP2	2.39	0.53
2:AB:35:U:H2'	2:AB:36:C:C6	2.44	0.53
4:AE:167:VAL:HG12	4:AE:189:PRO:HD3	1.89	0.53
12:AP:62:GLY:O	12:AP:63:LYS:CB	2.52	0.53
13:A0:81:ASP:O	13:A0:85:PRO:HG2	2.08	0.53
21:AV:130:PRO:HA	21:AV:133:ILE:HD11	1.90	0.53
22:A3:27:GLU:HB2	22:A3:69:PHE:HD1	1.73	0.53
31:BA:465:A:N6	31:BA:467:G:C2	2.77	0.53
31:BA:662:G:H2'	31:BA:663:A:C8	2.43	0.53
31:BA:1279:A:H5"	31:BA:1280:A:OP2	2.09	0.53
31:BA:1310:G:O2'	31:BA:1311:G:H5'	2.09	0.53
38:BK:103:VAL:HG23	38:BK:110:ALA:HB2	1.90	0.53
31:CA:19:C:H5"	35:CH:86:ALA:HB1	1.91	0.53
31:CA:673:G:O3'	36:CI:87:ARG:NH2	2.42	0.53
31:CA:991:U:H1'	31:CA:993:G:H1'	1.90	0.53
31:CA:1137:C:H4'	31:CA:1138:G:C2	2.43	0.53
31:CA:1177:G:H4'	31:CA:1178:G:OP1	2.08	0.53
31:CA:1224:G:C6	31:CA:1322:C:H1'	2.44	0.53
33:CF:64:VAL:HG12	33:CF:99:VAL:HA	1.91	0.53
34:CG:60:GLU:HG2	34:CG:202:LEU:HB2	1.90	0.53
45:CR:55:GLY:O	45:CR:59:MET:HG3	2.09	0.53
50:CW:36:LEU:HD12	50:CW:55:ILE:HG23	1.91	0.53
1:DA:528:A:C2	1:DA:2042:A:H2'	2.44	0.53
1:DA:706:A:H2'	1:DA:707:G:O4'	2.09	0.53
1:DA:1043:C:H42	1:DA:1112:G:H1	1.57	0.53
1:DA:2745:C:H4'	7:DH:142:GLY:C	2.33	0.53
4:DE:111:ARG:HD2	4:DE:160:TYR:CE1	2.44	0.53
6:DG:97:ASP:H	6:DG:100:TRP:HD1	1.56	0.53
8:DK:77:LEU:CG	8:DK:78:THR:H	2.22	0.53
12:DP:16:ARG:O	12:DP:17:LEU:HD23	2.09	0.53
30:D8:49:VAL:O	30:D8:50:LEU:CB	2.55	0.53
1:AA:827:U:H5'	1:AA:828:U:O5'	2.09	0.53
1:AA:883:G:H2'	1:AA:884:C:H4'	1.91	0.53
1:AA:994:C:OP1	16:A1:53:ARG:NH2	2.42	0.53
1:AA:1141:U:C6	9:AM:63:THR:OG1	2.56	0.53
1:AA:1329:U:H5"	1:AA:1330:C:C5	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2688:U:H1'	1:AA:2721:A:N6	2.23	0.53
3:AD:270:ILE:O	3:AD:271:ILE:HG23	2.09	0.53
9:AM:137:LYS:HG3	9:AM:138:LEU:N	2.20	0.53
31:BA:1022:G:H2'	31:BA:1023:G:O4'	2.08	0.53
31:BA:1240:U:P	37:BJ:116:ALA:HB2	2.48	0.53
40:BM:21:GLN:O	40:BM:25:GLU:HG2	2.09	0.53
49:BV:40:ILE:HG22	49:BV:69:HIS:O	2.09	0.53
53:BD:18:C:H5"	53:BD:19:G:P	2.49	0.53
31:CA:188:U:O2'	31:CA:189:U:H5'	2.09	0.53
31:CA:501:C:H2'	31:CA:502:G:C8	2.44	0.53
31:CA:994:A:N7	31:CA:1216:G:H4'	2.24	0.53
31:CA:999:U:H2'	31:CA:1000:A:C8	2.44	0.53
31:CA:1127:G:H1'	31:CA:1147:C:N4	2.24	0.53
31:CA:1510:U:H2'	31:CA:1511:G:C8	2.44	0.53
32:CE:95:GLN:CB	32:CE:148:TYR:HD1	2.21	0.53
35:CH:57:LYS:O	35:CH:60:TYR:HB2	2.08	0.53
48:CU:30:ASP:C	48:CU:32:ARG:H	2.17	0.53
53:CC:30:G:C2'	53:CC:31:G:H5'	2.39	0.53
1:DA:534:U:O2'	16:D1:49:HIS:HD2	1.92	0.53
1:DA:1342:A:C8	1:DA:1345:C:C4	2.97	0.53
1:DA:1910:G:H1	1:DA:1920:C:H42	1.56	0.53
1:DA:1926:U:H2'	1:DA:1928:A:OP2	2.09	0.53
1:DA:2854:G:N2	1:DA:2864:G:C4	2.77	0.53
3:DD:83:GLU:OE1	3:DD:104:TYR:OH	2.26	0.53
9:DM:2:LYS:O	9:DM:3:THR:O	2.27	0.53
9:DM:31:ALA:O	9:DM:35:ARG:HG3	2.08	0.53
14:DQ:29:PHE:CD2	14:DQ:30:ARG:N	2.77	0.53
15:DR:62:THR:HG22	15:DR:75:ILE:HG12	1.90	0.53
16:D1:48:ALA:O	16:D1:52:ARG:HG3	2.09	0.53
21:DV:105:VAL:HG22	21:DV:106:GLY:N	2.15	0.53
21:DV:120:ILE:HB	21:DV:169:GLU:OE2	2.09	0.53
26:D4:53:GLU:CD	26:D4:58:ARG:HB2	2.34	0.53
28:D6:43:CYS:O	28:D6:44:ARG:HB2	2.09	0.53
30:D8:35:GLN:HG3	30:D8:35:GLN:O	2.09	0.53
1:AA:1534:G:O2'	1:AA:1535:U:H4'	2.09	0.52
1:AA:1690:A:H2'	1:AA:1691:C:O4'	2.09	0.52
1:AA:2419:U:H4'	28:A6:23:THR:HG21	1.91	0.52
4:AE:24:THR:HG21	4:AE:188:VAL:CG2	2.39	0.52
4:AE:203:LYS:HD2	4:AE:203:LYS:O	2.09	0.52
5:AF:34:TRP:NE1	11:AO:8:PRO:HD3	2.24	0.52
6:AG:53:LEU:HD22	6:AG:87:PRO:HB2	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:15:ARG:O	11:AO:16:ARG:C	2.52	0.52
12:AP:136:ALA:HA	12:AP:139:GLU:HG2	1.91	0.52
31:BA:1140:C:H2'	31:BA:1141:C:H6	1.73	0.52
35:BH:76:ILE:CG1	35:BH:93:PRO:HB3	2.39	0.52
44:BQ:12:ARG:HD3	44:BQ:14:PRO:HG2	1.92	0.52
49:BV:15:LEU:O	49:BV:19:VAL:HG23	2.09	0.52
31:CA:951:G:OP2	43:CP:102:ARG:NH2	2.42	0.52
31:CA:1162:C:C2	31:CA:1175:G:C2	2.97	0.52
31:CA:1306:A:H61	31:CA:1331:G:H1'	1.73	0.52
35:CH:10:MET:HB2	35:CH:32:VAL:HG22	1.91	0.52
42:CO:14:LYS:HD3	42:CO:15:VAL:N	2.22	0.52
53:CC:20:G:C2	53:CC:58:A:C2	2.97	0.52
1:DA:1665:A:H4'	10:DN:67:LYS:HB2	1.92	0.52
1:DA:2212:A:H1'	1:DA:2215:G:C4	2.44	0.52
1:DA:2294:C:P	14:DQ:89:ARG:HH22	2.32	0.52
3:DD:71:ASP:OD2	3:DD:103:ARG:NH2	2.42	0.52
5:DF:103:LYS:HA	5:DF:106:ARG:HG3	1.90	0.52
20:DU:5:MET:HE1	20:DU:69:ALA:CB	2.39	0.52
26:D4:16:CYS:SG	26:D4:17:GLY:N	2.83	0.52
1:AA:1081:U:H2'	1:AA:1082:U:O4'	2.09	0.52
1:AA:1575:C:H2'	1:AA:1576:U:H6	1.74	0.52
1:AA:2001:A:H2'	1:AA:2002:G:C8	2.44	0.52
6:AG:97:ASP:H	6:AG:100:TRP:CD1	2.27	0.52
20:AU:5:MET:CE	20:AU:32:PRO:HA	2.39	0.52
20:AU:20:TYR:CE1	20:AU:42:VAL:HA	2.44	0.52
20:AU:41:GLY:O	20:AU:42:VAL:C	2.52	0.52
24:AW:22:GLU:HG2	24:AW:64:LEU:HD11	1.91	0.52
28:A6:11:LEU:HD11	28:A6:51:GLU:HG2	1.90	0.52
31:BA:667:G:H4'	45:BR:51:HIS:CE1	2.43	0.52
45:BR:7:GLU:OE1	45:BR:38:ARG:NH2	2.39	0.52
49:BV:5:LEU:HD13	49:BV:10:PHE:CE1	2.44	0.52
31:CA:719:C:O2'	48:CU:49:LYS:HB3	2.08	0.52
31:CA:1206:G:C6	31:CA:1207:G:C5	2.97	0.52
31:CA:1446:A:H3'	31:CA:1446:A:N3	2.24	0.52
32:CE:16:HIS:HD2	32:CE:209:ARG:HB3	1.73	0.52
32:CE:109:SER:C	32:CE:111:ARG:H	2.17	0.52
34:CG:21:LEU:H	34:CG:21:LEU:HD12	1.75	0.52
37:CJ:69:VAL:O	37:CJ:69:VAL:HG12	2.08	0.52
39:CL:10:ARG:HD3	39:CL:75:ASP:HB3	1.91	0.52
1:DA:372:G:O2'	1:DA:373:U:OP2	2.27	0.52
1:DA:1027:A:N6	1:DA:1126:A:C4	2.77	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1341:U:H2'	1:DA:1397:U:O2	2.10	0.52
1:DA:1427:A:H8	1:DA:1427:A:OP1	1.92	0.52
8:DK:5:LEU:HD11	8:DK:19:VAL:CG1	2.39	0.52
10:DN:98:VAL:CG2	10:DN:118:ALA:HA	2.39	0.52
12:DP:19:GLY:H	12:DP:98:LYS:NZ	2.08	0.52
20:DU:49:VAL:O	20:DU:50:ARG:C	2.53	0.52
21:DV:103:ARG:HB2	21:DV:137:ILE:O	2.08	0.52
21:DV:128:VAL:CG2	21:DV:129:SER:H	2.13	0.52
21:DV:169:GLU:O	21:DV:171:ILE:HG13	2.09	0.52
30:D8:22:VAL:H	30:D8:50:LEU:HD22	1.74	0.52
1:AA:218:A:C2	1:AA:235:U:H4'	2.45	0.52
1:AA:265:A:C8	1:AA:266:G:H1'	2.45	0.52
1:AA:363(B):G:H2'	1:AA:363(C):G:H8	1.75	0.52
1:AA:1338:G:N7	19:AT:62:LYS:NZ	2.47	0.52
1:AA:1359:A:N1	1:AA:1372:U:C4	2.78	0.52
1:AA:1510:A:H2'	1:AA:1510:A:N3	2.25	0.52
1:AA:2131:G:H1'	1:AA:2158:A:H62	1.73	0.52
3:AD:12:SER:O	3:AD:16:MET:HB2	2.09	0.52
3:AD:35:LYS:CG	3:AD:64:ILE:H	2.22	0.52
5:AF:123:LEU:HD12	5:AF:124:LEU:N	2.24	0.52
7:AH:4:ILE:HD13	7:AH:4:ILE:N	2.24	0.52
7:AH:92:ILE:C	7:AH:94:TYR:H	2.17	0.52
9:AM:22:THR:HG22	9:AM:23:LEU:N	2.23	0.52
12:AP:136:ALA:O	12:AP:139:GLU:CG	2.33	0.52
13:A0:54:LEU:HD21	13:A0:65:LEU:HD23	1.91	0.52
15:AR:56:GLY:O	15:AR:59:THR:HG22	2.10	0.52
21:AV:5:LEU:O	21:AV:6:LYS:CB	2.57	0.52
26:A4:39:CYS:O	26:A4:40:HIS:HB2	2.08	0.52
29:A7:8:ASN:ND2	29:A7:8:ASN:C	2.67	0.52
31:BA:66:G:N2	31:BA:172:A:C2	2.77	0.52
31:BA:73:G:O6	31:BA:97:U:C2	2.62	0.52
31:BA:1002:G:H2'	31:BA:1003:G:O4'	2.09	0.52
31:BA:1374:A:C2'	31:BA:1375:A:H5'	2.40	0.52
31:BA:1502:A:H2	31:BA:1505:G:N1	2.06	0.52
31:CA:328:C:H4'	31:CA:329:A:C5'	2.38	0.52
31:CA:501:C:H2'	31:CA:502:G:H8	1.73	0.52
31:CA:963:G:H21	40:CM:55:LYS:CD	2.23	0.52
31:CA:1100:C:OP2	32:CE:96:ARG:HG2	2.09	0.52
31:CA:1128:C:H5"	39:CL:16:ARG:HH22	1.74	0.52
31:CA:1263:C:N4	31:CA:1272:G:H1	2.08	0.52
31:CA:1348:U:N3	31:CA:1374:A:H2	2.06	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:CH:105:VAL:HB	35:CH:106:PRO:HD3	1.91	0.52
38:CK:14:ARG:O	38:CK:18:ARG:HD3	2.09	0.52
52:CB:87:A:C8	1:DA:2583:G:N2	2.61	0.52
1:DA:128:C:O2'	1:DA:129:C:O5'	2.25	0.52
1:DA:298:G:H5"	1:DA:299:A:OP1	2.09	0.52
1:DA:323:G:H5'	5:DF:169:ASN:HD21	1.74	0.52
1:DA:602:G:O2'	1:DA:604:G:O2'	2.25	0.52
1:DA:748:G:C8	18:DS:89:ALA:HB1	2.45	0.52
1:DA:922:U:H2'	1:DA:923:C:C6	2.43	0.52
1:DA:1244:G:H4'	11:DO:7:ARG:HB2	1.91	0.52
1:DA:1486:A:H2'	1:DA:1487:G:H8	1.74	0.52
1:DA:1786:A:H2	1:DA:2606:C:H1'	1.74	0.52
1:DA:1991:U:H2'	1:DA:1992:G:H5"	1.91	0.52
1:DA:2815:C:O2'	27:D5:43:HIS:HD2	1.93	0.52
9:DM:137:LYS:HA	9:DM:137:LYS:HZ3	1.74	0.52
16:D1:24:TYR:O	16:D1:29:SER:HB3	2.08	0.52
17:D2:14:VAL:HB	17:D2:96:ILE:HG13	1.92	0.52
1:AA:67:U:N3	1:AA:74:A:C2	2.65	0.52
1:AA:259:G:N2	1:AA:621:A:H8	2.06	0.52
1:AA:442:G:C4'	5:AF:46:ARG:HD3	2.39	0.52
1:AA:1063:G:H1	1:AA:1075:C:N4	2.07	0.52
1:AA:1204:A:C2	1:AA:1241:A:N1	2.77	0.52
1:AA:2055:C:H5'	1:AA:2056:G:O5'	2.10	0.52
1:AA:2602:A:H4'	1:AA:2603:G:C5'	2.39	0.52
1:AA:2665:A:H2'	1:AA:2666:C:O4'	2.08	0.52
8:AK:38:LEU:HD12	8:AK:38:LEU:H	1.75	0.52
8:AK:40:THR:O	8:AK:44:LEU:HB2	2.10	0.52
8:AK:71:ILE:O	8:AK:71:ILE:HG12	2.08	0.52
9:AM:15:LEU:HD13	9:AM:16:ILE:N	2.24	0.52
16:A1:76:TYR:CZ	16:A1:80:ILE:HG13	2.44	0.52
26:A4:23:GLU:OE1	26:A4:24:THR:N	2.42	0.52
31:BA:606:G:H1	31:BA:631:G:H5"	1.74	0.52
31:BA:1175:G:C2	31:BA:1176:A:C6	2.97	0.52
32:BE:12:GLU:HA	32:BE:16:HIS:CD2	2.29	0.52
32:BE:47:THR:O	32:BE:51:LEU:HB2	2.09	0.52
33:BF:8:ILE:O	33:BF:10:PHE:N	2.43	0.52
33:BF:19:GLU:HA	33:BF:54:ARG:NH1	2.19	0.52
34:BG:79:PHE:HE1	34:BG:204:ILE:HG12	1.74	0.52
36:BI:15:ASP:H	36:BI:18:GLN:NE2	2.08	0.52
40:BM:47:PHE:CZ	44:BQ:37:PHE:HE2	2.28	0.52
45:BR:3:ILE:HG13	45:BR:3:ILE:O	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BX:6:ARG:HE	51:BX:15:ARG:CD	2.23	0.52
31:CA:300:A:O5'	31:CA:300:A:H8	1.92	0.52
31:CA:1025:U:O2'	31:CA:1026:G:O5'	2.26	0.52
31:CA:1196:U:HO2'	31:CA:1197:G:P	2.33	0.52
32:CE:26:PRO:C	32:CE:28:PHE:H	2.17	0.52
32:CE:231:GLU:OE1	32:CE:232:PRO:HD2	2.10	0.52
32:CE:239:VAL:HG12	32:CE:240:GLN:HG3	1.92	0.52
38:CK:1:MET:HE2	38:CK:1:MET:H2	1.74	0.52
38:CK:35:ILE:O	38:CK:39:LEU:HB2	2.10	0.52
1:DA:141:A:C8	1:DA:1408:C:H1'	2.45	0.52
1:DA:531:C:OP1	1:DA:561:G:N2	2.43	0.52
1:DA:988:A:H3'	25:DX:11:SER:OG	2.08	0.52
1:DA:1170:G:O6	1:DA:1179:C:N3	2.42	0.52
1:DA:1259:G:H2'	1:DA:1260:G:C8	2.45	0.52
1:DA:1827:C:C2'	1:DA:1828:G:H5'	2.40	0.52
3:DD:69:ARG:HD3	3:DD:105:ILE:HD11	1.91	0.52
9:DM:123:TYR:O	9:DM:125:GLY:N	2.41	0.52
12:DP:3:MET:O	12:DP:3:MET:HG2	2.07	0.52
17:D2:40:LEU:HD23	17:D2:41:GLY:N	2.25	0.52
27:D5:52:TYR:O	27:D5:53:ALA:HB3	2.10	0.52
1:AA:908:C:OP1	12:AP:22:LYS:HB3	2.08	0.52
1:AA:1586:A:H3'	1:AA:1587:A:H8	1.75	0.52
1:AA:1858:G:H1'	1:AA:1884:A:H61	1.75	0.52
1:AA:2169:A:N6	1:AA:2170:A:N1	2.57	0.52
1:AA:2347:C:H2'	1:AA:2348:U:C6	2.45	0.52
1:AA:2389:G:H5"	1:AA:2390:U:O4'	2.08	0.52
1:AA:2529:G:H5"	1:AA:2530:A:H5"	1.91	0.52
1:AA:2564:A:C2	1:AA:2647:U:H4'	2.45	0.52
1:AA:2667:C:H2'	1:AA:2668:G:O4'	2.10	0.52
3:AD:35:LYS:CB	3:AD:36:PRO:HA	2.39	0.52
5:AF:36:VAL:HG11	5:AF:183:VAL:HG11	1.92	0.52
6:AG:77:ILE:HG23	6:AG:77:ILE:O	2.10	0.52
8:AK:29:TYR:HD2	8:AK:30:LEU:HD23	1.75	0.52
31:BA:711:G:O2'	31:BA:712:A:H5'	2.10	0.52
31:BA:974:A:C2'	31:BA:975:A:OP2	2.57	0.52
31:BA:1053:G:H5'	31:BA:1054:C:C5'	2.17	0.52
31:BA:1334:G:H5"	31:BA:1335:C:OP2	2.10	0.52
32:BE:60:ASP:O	32:BE:64:ARG:HG2	2.08	0.52
40:BM:75:ILE:O	40:BM:77:PRO:HD3	2.09	0.52
31:CA:28:G:O2'	31:CA:296:U:OP1	2.18	0.52
31:CA:577:G:C8	31:CA:816:A:C6	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:973:G:H3'	31:CA:974:A:C5'	2.39	0.52
31:CA:1052:U:H5'	31:CA:1053:G:OP2	2.10	0.52
31:CA:1152:A:H2'	31:CA:1153:C:H6	1.74	0.52
31:CA:1160:G:N2	31:CA:1161:C:C6	2.78	0.52
31:CA:1378:C:H5	31:CA:1379:G:N9	2.07	0.52
38:CK:51:VAL:HG11	38:CK:60:ARG:HH11	1.73	0.52
1:DA:200:U:O4	1:DA:250:G:N2	2.43	0.52
1:DA:228:A:H3'	1:DA:228:A:C8	2.44	0.52
1:DA:1161:C:H1'	17:D2:8:GLY:O	2.08	0.52
1:DA:2189:U:H2'	1:DA:2190:G:H5'	1.91	0.52
3:DD:148:GLU:HB2	3:DD:151:LYS:HD2	1.90	0.52
12:DP:137:TYR:O	12:DP:139:GLU:N	2.43	0.52
15:DR:64:ARG:CB	15:DR:73:GLU:HG2	2.36	0.52
18:DS:78:GLU:OE1	18:DS:99:ARG:HD2	2.09	0.52
19:DT:55:ASN:O	19:DT:79:ALA:HA	2.10	0.52
21:DV:105:VAL:O	21:DV:140:ASP:HA	2.09	0.52
25:DX:19:GLN:HE22	25:DX:52:HIS:HE1	1.57	0.52
29:D7:24:THR:O	29:D7:28:ARG:HG3	2.10	0.52
1:AA:1570:A:H2'	1:AA:1571:A:C8	2.45	0.52
1:AA:2610:C:C4'	1:AA:2611:U:OP2	2.47	0.52
2:AB:42:C:O2'	6:AG:67:LYS:HE3	2.09	0.52
3:AD:17:THR:CG2	3:AD:204:ILE:HA	2.38	0.52
3:AD:27:THR:HG22	3:AD:28:GLU:H	1.73	0.52
3:AD:106:ILE:HD11	3:AD:144:ALA:HB2	1.92	0.52
5:AF:65:TRP:HB3	5:AF:66:PRO:HD2	1.91	0.52
19:AT:82:GLN:HE21	19:AT:83:VAL:N	2.08	0.52
30:A8:33:ASN:O	30:A8:34:TRP:C	2.52	0.52
31:BA:66:G:O4'	31:BA:173:U:C4	2.63	0.52
31:BA:129(A):G:C2	31:BA:191(A):G:C8	2.98	0.52
31:BA:1060:C:C4	33:BF:2:GLY:HA2	2.44	0.52
32:BE:8:LYS:HG2	32:BE:10:LEU:HB2	1.90	0.52
32:BE:216:SER:C	32:BE:218:ALA:H	2.18	0.52
34:BG:25:ARG:C	34:BG:27:TYR:H	2.18	0.52
34:BG:138:TYR:HD2	34:BG:139:ARG:N	2.08	0.52
53:BC:48:U:H4'	53:BC:49:C:H5'	1.91	0.52
31:CA:390:C:H2'	31:CA:391:G:C8	2.44	0.52
31:CA:922:G:O2'	31:CA:1398:A:N1	2.38	0.52
31:CA:1105:A:H2'	31:CA:1106:G:H8	1.75	0.52
31:CA:1137:C:H5"	31:CA:1138:G:OP1	2.09	0.52
33:CF:119:ARG:HH22	33:CF:140:ARG:HD2	1.74	0.52
35:CH:90:VAL:O	35:CH:120:THR:HA	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:CJ:113:GLU:CB	37:CJ:119:ARG:HG2	2.34	0.52
46:CS:40:ASP:OD2	46:CS:44:THR:OG1	2.23	0.52
52:CB:47:C:C2	52:CB:56:G:N2	2.78	0.52
53:CD:57:C:H42	1:DA:2112:G:H22	1.58	0.52
1:DA:919:G:N2	1:DA:2269:A:OP2	2.43	0.52
1:DA:1045:A:H1'	1:DA:1111:A:H61	1.75	0.52
1:DA:1190:G:H2'	1:DA:1191:G:H8	1.74	0.52
1:DA:1405:U:H2'	1:DA:1406:U:H6	1.73	0.52
1:DA:1575:C:H2'	1:DA:1576:U:C6	2.44	0.52
1:DA:1889:A:N1	1:DA:2234:G:H1'	2.25	0.52
1:DA:2307:G:O2'	1:DA:2308:G:C8	2.63	0.52
1:DA:2716:U:O2'	1:DA:2717:G:H5'	2.08	0.52
3:DD:35:LYS:HZ1	3:DD:104:TYR:HB2	1.74	0.52
4:DE:33:VAL:HA	4:DE:49:LEU:HA	1.90	0.52
5:DF:127:GLU:C	5:DF:129:PHE:H	2.16	0.52
8:DK:131:LYS:HA	8:DK:132:PRO:O	2.09	0.52
1:AA:32:C:C2'	1:AA:33:U:H5'	2.40	0.52
1:AA:975:G:H1'	1:AA:990:A:C2	2.45	0.52
1:AA:1053:C:N4	1:AA:1106:G:H1	2.07	0.52
1:AA:1535:U:N3	1:AA:1537:C:O4'	2.41	0.52
1:AA:2155:G:H2'	1:AA:2156:G:H5'	1.92	0.52
1:AA:2286:A:H4'	1:AA:2287:A:O4'	2.09	0.52
1:AA:2348:U:H4'	28:A6:42:TRP:HD1	1.74	0.52
2:AB:79:C:H2'	2:AB:80:U:O4'	2.09	0.52
6:AG:78:SER:O	6:AG:79:ASN:C	2.53	0.52
8:AK:14:ASP:O	8:AK:16:GLY:N	2.43	0.52
12:AP:141:GLN:HE21	12:AP:141:GLN:CA	2.15	0.52
24:AW:47:ASN:C	24:AW:49:LYS:H	2.13	0.52
24:AW:50:ILE:O	24:AW:54:LYS:HB2	2.10	0.52
31:BA:1096:C:H2'	31:BA:1097:C:C6	2.43	0.52
31:BA:1157:A:H1'	31:BA:1158:C:N3	2.25	0.52
31:BA:1305:G:OP2	31:BA:1305:G:C8	2.63	0.52
43:BP:13:LYS:O	43:BP:44:ARG:NH1	2.43	0.52
46:BS:22:THR:HA	46:BS:33:ILE:HG13	1.92	0.52
46:BS:36:ILE:HG13	46:BS:36:ILE:O	2.10	0.52
31:CA:109:A:C6	31:CA:326:G:C6	2.98	0.52
31:CA:892:A:O2'	31:CA:1415:G:H4'	2.10	0.52
31:CA:1142:G:H3'	31:CA:1143:G:C8	2.44	0.52
31:CA:1272:G:H2'	31:CA:1273:G:O4'	2.10	0.52
31:CA:1277:C:O2'	31:CA:1279:A:C8	2.56	0.52
35:CH:60:TYR:O	35:CH:64:ARG:HG2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CM:31:GLY:O	40:CM:32:ALA:CB	2.58	0.52
43:CP:102:ARG:HG2	43:CP:103:THR:N	2.24	0.52
53:CD:6:G:H1	53:CD:68:C:N4	2.08	0.52
53:CD:42:C:H2'	53:CD:43:G:C8	2.45	0.52
1:DA:1019:U:HO2'	1:DA:1021:A:H2	1.54	0.52
1:DA:1053:C:C3'	1:DA:1054:A:H5"	2.39	0.52
1:DA:1057:A:N1	1:DA:1081:U:C4	2.78	0.52
1:DA:1188:U:H4'	17:D2:79:VAL:HG12	1.91	0.52
1:DA:2056:G:N2	27:D5:4:HIS:O	2.42	0.52
1:DA:2746:U:H4'	7:DH:138:LYS:HG3	1.92	0.52
7:DH:102:ALA:HB1	7:DH:115:VAL:C	2.34	0.52
11:DO:15:ARG:O	11:DO:16:ARG:C	2.53	0.52
12:DP:87:LYS:O	12:DP:88:GLY:C	2.52	0.52
20:DU:96:ILE:HG12	20:DU:101:LYS:CG	2.36	0.52
1:AA:207:A:H2'	1:AA:208:C:O4'	2.09	0.52
1:AA:654(G):C:C2	1:AA:654(N):G:N1	2.75	0.52
1:AA:1005:C:O2'	9:AM:28:THR:HG21	2.10	0.52
1:AA:1061:U:H4'	1:AA:1070:A:C1'	2.39	0.52
1:AA:1358:G:N2	1:AA:1372:U:C5	2.78	0.52
1:AA:1653:G:H1'	1:AA:1654:A:OP2	2.10	0.52
1:AA:2115:G:O3'	1:AA:2165:G:N2	2.42	0.52
7:AH:59:ARG:HG3	7:AH:59:ARG:NH1	2.12	0.52
15:AR:74:ARG:HD3	15:AR:76:PHE:CZ	2.45	0.52
18:AS:110:LYS:C	18:AS:112:GLY:H	2.18	0.52
31:BA:164:U:H2'	31:BA:165:C:C6	2.45	0.52
31:BA:928:G:C2	31:BA:1390:U:O2	2.63	0.52
31:BA:1015:A:H2'	31:BA:1016:A:C8	2.45	0.52
33:BF:20:SER:OG	33:BF:36:ASP:OD1	2.23	0.52
40:BM:32:ALA:N	40:BM:78:ASN:OD1	2.40	0.52
40:BM:61:GLU:OE2	44:BQ:45:ARG:HD2	2.10	0.52
46:BS:7:ALA:O	46:BS:9:PHE:HD2	1.93	0.52
31:CA:323:U:O3'	50:CW:22:ARG:HD3	2.09	0.52
31:CA:775:G:N2	31:CA:804:U:O4	2.42	0.52
31:CA:1158:C:C6	31:CA:1160:G:C8	2.98	0.52
32:CE:137:ARG:C	32:CE:137:ARG:HD3	2.35	0.52
35:CH:48:ALA:HB1	35:CH:49:PRO:HD2	1.92	0.52
37:CJ:94:ARG:O	37:CJ:97:GLN:HB3	2.09	0.52
40:CM:8:LEU:HG	40:CM:96:ILE:HG23	1.91	0.52
42:CO:25:LYS:O	42:CO:27:ALA:N	2.43	0.52
43:CP:3:ARG:O	26:D4:34:GLU:HG3	2.09	0.52
47:CT:66:SER:O	47:CT:70:ARG:NH1	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CW:58:LYS:O	50:CW:58:LYS:HD3	2.10	0.52
1:DA:270(H):C:H2'	1:DA:270(I):G:C8	2.44	0.52
1:DA:592:G:O2'	30:D8:4:MET:HB2	2.10	0.52
1:DA:807:U:H2'	1:DA:808:G:H8	1.75	0.52
1:DA:812:C:H5"	1:DA:1250:G:O2'	2.09	0.52
1:DA:847:U:C6	1:DA:933:A:N6	2.70	0.52
1:DA:1084:A:H3'	1:DA:1085:A:C8	2.45	0.52
1:DA:2342:C:O2'	1:DA:2374:C:H5"	2.10	0.52
4:DE:68:ALA:C	4:DE:70:ALA:N	2.67	0.52
7:DH:86:GLU:H	7:DH:86:GLU:CD	2.18	0.52
14:DQ:110:LEU:HD22	14:DQ:111:GLU:N	2.24	0.52
1:AA:1076:C:HO2'	1:AA:1077:A:H8	1.58	0.52
1:AA:1188:U:C2'	1:AA:1189:A:H5'	2.40	0.52
1:AA:1408:C:C2	1:AA:1595:G:N2	2.78	0.52
1:AA:1888:G:N3	1:AA:1888:G:H5"	2.25	0.52
1:AA:2473:U:H2'	1:AA:2474:C:H5"	1.91	0.52
4:AE:26:ILE:C	4:AE:26:ILE:HD13	2.34	0.52
6:AG:118:ARG:O	6:AG:181:ARG:HG3	2.10	0.52
7:AH:6:ARG:N	7:AH:8:PRO:HD2	2.25	0.52
7:AH:149:ARG:NH1	7:AH:167:GLU:OE1	2.43	0.52
8:AK:133:HIS:HB2	8:AK:134:PRO:CD	2.35	0.52
9:AM:46:VAL:HG13	9:AM:48:MET:HG3	1.92	0.52
10:AN:13:ASN:ND2	10:AN:97:ARG:HB3	2.25	0.52
20:AU:54:LYS:O	20:AU:55:TYR:HB2	2.09	0.52
21:AV:6:LYS:NZ	21:AV:43:GLU:HG3	2.25	0.52
21:AV:54:HIS:NE2	21:AV:123:ASP:OD2	2.42	0.52
26:A4:12:ALA:CB	26:A4:29:PRO:HA	2.40	0.52
31:BA:254:G:H21	47:BT:16:GLN:NE2	2.07	0.52
31:BA:280:C:O2	47:BT:38:ARG:HG3	2.10	0.52
31:BA:528:C:H41	42:BO:46:ASN:ND2	2.08	0.52
31:BA:757:U:H2'	31:BA:758:G:O4'	2.10	0.52
31:BA:901:A:C5	31:BA:902:G:H1'	2.45	0.52
31:BA:1347:G:OP2	39:BL:107:ARG:HG2	2.10	0.52
34:BG:162:LEU:O	34:BG:165:MET:HB2	2.09	0.52
39:BL:9:ARG:HA	39:BL:76:ALA:HB1	1.92	0.52
53:BD:22:A:C2	53:BD:47:G:H2'	2.45	0.52
31:CA:409:G:H1	31:CA:433:C:H42	1.58	0.52
31:CA:980:C:H3'	31:CA:981:U:H6	1.74	0.52
31:CA:1200:C:O2	31:CA:1200:C:H2'	2.09	0.52
31:CA:1248:A:H2'	39:CL:70:LYS:HZ1	1.75	0.52
36:CI:35:ALA:HB1	36:CI:65:VAL:HG11	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:CJ:143:ARG:NH1	53:CD:42:C:O2'	2.42	0.52
46:CS:17:TYR:HE1	46:CS:41:PRO:HG3	1.74	0.52
1:DA:747:U:C2	27:D5:2:ALA:N	2.77	0.52
3:DD:58:HIS:HD2	3:DD:59:LYS:N	2.08	0.52
6:DG:67:LYS:HB3	26:D4:6:HIS:HD2	1.72	0.52
6:DG:91:ARG:HD2	6:DG:92:VAL:N	2.25	0.52
6:DG:180:PHE:C	6:DG:182:LYS:H	2.18	0.52
9:DM:38:HIS:CE1	9:DM:39:ARG:HG3	2.45	0.52
11:DO:9:ASN:HB3	11:DO:10:PRO:CD	2.37	0.52
12:DP:65:PHE:C	12:DP:66:ILE:HG12	2.26	0.52
15:DR:88:ILE:HD11	15:DR:91:ARG:HG2	1.92	0.52
17:D2:35:LEU:H	17:D2:35:LEU:CD2	2.23	0.52
18:DS:1:MET:HE3	18:DS:62:HIS:CD2	2.45	0.52
26:D4:23:GLU:HG3	26:D4:24:THR:N	2.25	0.52
1:AA:184:C:H2'	1:AA:185:U:C6	2.45	0.52
1:AA:800:A:H8	1:AA:800:A:OP1	1.93	0.52
1:AA:1319:G:C6	1:AA:1320:C:N4	2.78	0.52
1:AA:1382:G:C2'	1:AA:1383:C:H5'	2.40	0.52
1:AA:2262:U:H4'	1:AA:2328:A:C2	2.45	0.52
8:AK:21:VAL:HG22	8:AK:22:LYS:H	1.74	0.52
16:A1:61:TRP:CD2	16:A1:94:ASN:HA	2.45	0.52
16:A1:65:ILE:C	16:A1:67:ALA:N	2.66	0.52
19:AT:49:VAL:CG1	19:AT:50:LYS:N	2.73	0.52
31:BA:1410:G:H2'	31:BA:1411:C:C6	2.45	0.52
31:BA:1486:G:H2'	31:BA:1487:G:O4'	2.10	0.52
33:BF:151:VAL:C	33:BF:152:ILE:HD12	2.36	0.52
34:BG:25:ARG:C	34:BG:27:TYR:N	2.67	0.52
48:BU:31:LEU:HD23	48:BU:31:LEU:H	1.75	0.52
48:BU:56:THR:HB	48:BU:58:LEU:HD12	1.91	0.52
50:BW:101:GLY:O	50:BW:103:GLY:N	2.43	0.52
31:CA:736:C:H2'	31:CA:737:A:H8	1.74	0.52
31:CA:1139:G:N2	31:CA:1143:G:N1	2.52	0.52
31:CA:1152:A:OP1	40:CM:68:HIS:CE1	2.63	0.52
31:CA:1391:U:H2'	31:CA:1392:G:C8	2.45	0.52
31:CA:1495:U:O2'	1:DA:1919:A:N1	2.35	0.52
31:CA:1503:A:C1'	31:CA:1504:G:OP1	2.57	0.52
34:CG:15:GLU:OE1	34:CG:66:ARG:NH1	2.43	0.52
43:CP:13:LYS:NZ	43:CP:21:TYR:OH	2.43	0.52
1:DA:39:C:O2	5:DF:46:ARG:NH2	2.43	0.52
1:DA:288:C:H3'	1:DA:289:A:H8	1.74	0.52
1:DA:320:A:H4'	1:DA:322:A:C8	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:876:C:N4	1:DA:877:U:O4	2.43	0.52
1:DA:893:C:HO2'	1:DA:894:C:H5	1.56	0.52
1:DA:989:G:OP2	25:DX:11:SER:OG	2.24	0.52
1:DA:1062:G:N1	1:DA:1076:C:N4	2.34	0.52
1:DA:1358:G:O2'	1:DA:1359:A:H5"	2.09	0.52
1:DA:2113:U:H5	1:DA:2114:A:HO2'	1.57	0.52
1:DA:2180:U:H2'	1:DA:2181:G:O4'	2.10	0.52
1:DA:2419:U:O4	30:D8:31:HIS:CG	2.63	0.52
2:DB:24:G:C2	2:DB:56:G:C2	2.97	0.52
2:DB:61:G:C6	2:DB:62:C:C4	2.97	0.52
2:DB:88:C:C5	2:DB:89:G:C4	2.98	0.52
5:DF:25:PRO:O	5:DF:26:ALA:HB3	2.10	0.52
5:DF:102:PRO:O	5:DF:105:VAL:N	2.43	0.52
7:DH:86:GLU:OE2	7:DH:165:ALA:HB2	2.09	0.52
12:DP:79:LEU:CD1	12:DP:79:LEU:C	2.83	0.52
17:D2:69:LYS:CG	17:D2:86:GLY:HA3	2.28	0.52
20:DU:35:TYR:CE1	20:DU:69:ALA:HB3	2.45	0.52
21:DV:45:ASP:O	21:DV:49:ARG:HG2	2.09	0.52
26:D4:49:PHE:O	26:D4:51:ASP:N	2.42	0.52
1:AA:1026:U:C1'	1:AA:1027:A:O5'	2.47	0.51
1:AA:1416:G:H2'	1:AA:1417:C:C6	2.44	0.51
1:AA:1517:G:H4'	1:AA:1556:C:O2'	2.10	0.51
1:AA:2169:A:C6	1:AA:2170:A:N1	2.78	0.51
1:AA:2344:U:O2'	28:A6:37:ARG:HG2	2.10	0.51
4:AE:31:CYS:HB3	4:AE:49:LEU:HG	1.92	0.51
9:AM:114:ARG:O	9:AM:115:ARG:HB3	2.10	0.51
28:A6:14:THR:OG1	28:A6:15:GLU:N	2.43	0.51
30:A8:39:LYS:HA	30:A8:42:ARG:NH2	2.25	0.51
31:BA:443:C:H2'	31:BA:444:C:H6	1.75	0.51
31:BA:1014:A:C2	31:BA:1219:U:H1'	2.46	0.51
31:BA:1263:C:H2'	31:BA:1264:C:C6	2.45	0.51
32:BE:55:PHE:HD1	32:BE:58:ILE:HD12	1.75	0.51
34:BG:163:GLU:C	34:BG:165:MET:H	2.18	0.51
35:BH:75:THR:OG1	35:BH:76:ILE:N	2.37	0.51
42:BO:81:LEU:HD22	42:BO:101:VAL:HG11	1.91	0.51
45:BR:25:THR:HG21	45:BR:70:LEU:HB2	1.91	0.51
50:BW:35:THR:O	50:BW:38:LYS:HB2	2.10	0.51
52:BB:48:C:N3	52:BB:56:G:N2	2.57	0.51
41:CN:100:ALA:C	41:CN:102:GLY:H	2.15	0.51
45:CR:79:ARG:O	45:CR:83:GLU:HB3	2.10	0.51
45:CR:87:ILE:CG2	45:CR:88:ARG:N	2.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CV:22:LEU:O	49:CV:24:ALA:N	2.42	0.51
53:CD:14:A:OP1	53:CD:14:A:O4'	2.28	0.51
1:DA:242:G:C5'	30:D8:62:LEU:HD13	2.38	0.51
1:DA:1019:U:H2'	1:DA:1020:A:H8	1.75	0.51
1:DA:2015:A:C1'	27:D5:2:ALA:HA	2.38	0.51
1:DA:2291:U:OP1	1:DA:2380:C:O2'	2.23	0.51
1:DA:2320:A:H1'	1:DA:2321:G:C6	2.45	0.51
1:DA:2667:C:H1'	7:DH:109:PHE:CD2	2.45	0.51
1:DA:2761:G:H1'	7:DH:143:GLN:OE1	2.09	0.51
1:DA:2875:C:O2'	15:DR:3:ARG:HG3	2.08	0.51
2:DB:17:C:H2'	2:DB:18:G:O4'	2.10	0.51
3:DD:43:ARG:HB2	3:DD:54:ARG:HB2	1.92	0.51
4:DE:2:LYS:NZ	4:DE:95:ILE:O	2.34	0.51
4:DE:61:ARG:HB3	4:DE:62:PRO:HD3	1.92	0.51
8:DK:72:LEU:HD21	8:DK:107:VAL:HG11	1.92	0.51
11:DO:83:VAL:CG1	11:DO:112:LEU:HD21	2.40	0.51
23:DZ:85:LEU:C	23:DZ:87:PRO:HD2	2.35	0.51
30:D8:16:ILE:HD11	30:D8:60:LEU:HD12	1.93	0.51
1:AA:389:G:H22	11:AO:72:PRO:CD	2.24	0.51
1:AA:588:U:C2	5:AF:90:PHE:CE1	2.99	0.51
1:AA:613:U:O2	1:AA:613:U:O5'	2.28	0.51
1:AA:1065:U:H1'	1:AA:1074:G:N2	2.26	0.51
1:AA:1509:C:H2'	1:AA:1510:A:OP1	2.10	0.51
1:AA:1894:C:O2'	1:AA:1895:C:H5'	2.10	0.51
3:AD:27:THR:HG21	3:AD:84:TYR:H	1.75	0.51
5:AF:65:TRP:HZ2	5:AF:72:ARG:HH21	1.58	0.51
6:AG:108:ASN:C	26:A4:38:LYS:HG2	2.29	0.51
7:AH:26:VAL:O	7:AH:27:LYS:HB3	2.09	0.51
11:AO:125:VAL:CG1	11:AO:144:GLU:HB3	2.39	0.51
12:AP:109:VAL:CG1	12:AP:113:GLN:HB3	2.41	0.51
15:AR:26:ASP:HB2	15:AR:90:GLN:O	2.09	0.51
17:A2:34:GLU:O	17:A2:34:GLU:HG3	2.11	0.51
27:A5:40:LYS:HZ3	27:A5:46:CYS:C	2.18	0.51
28:A6:34:LEU:HB2	28:A6:36:LEU:HD22	1.92	0.51
31:BA:81:G:C2	31:BA:82:U:O2	2.63	0.51
31:BA:971:G:N2	31:BA:1363:A:OP2	2.37	0.51
32:BE:25:ASN:O	32:BE:27:LYS:N	2.43	0.51
32:BE:69:LEU:HB3	32:BE:162:ILE:HG22	1.92	0.51
33:BF:6:HIS:ND1	44:BQ:49:HIS:HB3	2.25	0.51
33:BF:15:THR:HG21	33:BF:181:ASN:HA	1.93	0.51
37:BJ:16:LEU:HD12	39:BL:42:ARG:HA	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BJ:107:ALA:HB3	37:BJ:134:ALA:HB2	1.91	0.51
38:BK:33:GLU:O	38:BK:36:LEU:N	2.43	0.51
50:BW:96:GLY:O	50:BW:97:ALA:HB3	2.10	0.51
31:CA:426:G:P	34:CG:36:ARG:NH2	2.83	0.51
31:CA:1159:U:O2'	31:CA:1160:G:C5	2.63	0.51
32:CE:215:LEU:O	32:CE:219:VAL:HG12	2.10	0.51
40:CM:8:LEU:HD22	40:CM:20:ALA:CB	2.35	0.51
49:CV:41:VAL:HG22	26:D4:63:TYR:OH	2.10	0.51
1:DA:244:A:C2	1:DA:255:A:C4	2.99	0.51
1:DA:781:A:H2	1:DA:1776:G:N3	2.09	0.51
1:DA:1024:G:C3'	1:DA:1025:G:H5"	2.39	0.51
1:DA:2156:G:C6	1:DA:2157:G:C2	2.99	0.51
1:DA:2320:A:C6	1:DA:2333:A:C8	2.99	0.51
1:DA:2547:U:O2	10:DN:23:ARG:NH2	2.44	0.51
3:DD:32:SER:C	3:DD:35:LYS:O	2.53	0.51
4:DE:175:VAL:HG23	4:DE:177:PRO:HD3	1.92	0.51
5:DF:24:LEU:CB	5:DF:25:PRO:CD	2.82	0.51
5:DF:116:ASP:OD1	5:DF:119:ARG:NH2	2.41	0.51
6:DG:4:ASP:OD2	6:DG:9:ARG:NH1	2.29	0.51
7:DH:136:ILE:O	7:DH:137:ASP:HB2	2.09	0.51
21:DV:160:GLY:O	21:DV:161:VAL:C	2.53	0.51
30:D8:32:LEU:HB2	30:D8:36:LYS:CE	2.35	0.51
30:D8:34:TRP:CG	30:D8:35:GLN:N	2.64	0.51
1:AA:385:C:O2	11:AO:71:VAL:HG21	2.10	0.51
1:AA:813:U:OP2	11:AO:23:PRO:O	2.27	0.51
1:AA:1063:G:H2'	1:AA:1064:C:H6	1.76	0.51
1:AA:1479:G:O2'	1:AA:1558:A:H5'	2.10	0.51
1:AA:1931:U:O2	1:AA:1931:U:O4'	2.29	0.51
1:AA:2114:A:H2'	1:AA:2168:G:C8	2.45	0.51
1:AA:2394:C:OP1	11:AO:62:LEU:HA	2.10	0.51
1:AA:2772:C:H2'	1:AA:2773:C:H6	1.75	0.51
1:AA:2815:C:H2'	1:AA:2816:C:H6	1.75	0.51
2:AB:73:A:C3'	2:AB:74:U:H5'	2.41	0.51
6:AG:97:ASP:H	6:AG:100:TRP:HD1	1.57	0.51
13:A0:67:LEU:HD22	13:A0:76:VAL:HG21	1.92	0.51
18:AS:111:HIS:O	18:AS:112:GLY:C	2.53	0.51
26:A4:56:VAL:O	26:A4:60:GLN:HG2	2.10	0.51
31:BA:191:G:N3	50:BW:105:SER:HB2	2.26	0.51
31:BA:468:A:O2'	46:BS:81:ARG:HA	2.11	0.51
31:BA:939:G:H2'	31:BA:940:C:C6	2.46	0.51
31:BA:1015:A:H2'	31:BA:1016:A:H8	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1077:G:N1	31:BA:1081:G:C6	2.78	0.51
31:BA:1277:C:HO2'	31:BA:1279:A:C1'	2.24	0.51
31:BA:1306:A:H61	31:BA:1331:G:H1'	1.73	0.51
32:BE:55:PHE:CD1	32:BE:58:ILE:HD12	2.44	0.51
32:BE:87:ARG:NH1	32:BE:220:ASP:OD1	2.30	0.51
37:BJ:23:VAL:CG1	37:BJ:43:PHE:HE2	2.22	0.51
50:BW:38:LYS:O	50:BW:39:LYS:C	2.54	0.51
31:CA:197:A:O2'	31:CA:198:G:OP2	2.20	0.51
31:CA:509:A:O2'	31:CA:510:A:P	2.68	0.51
32:CE:102:LEU:HD12	32:CE:102:LEU:N	2.25	0.51
40:CM:47:PHE:CZ	44:CQ:37:PHE:HE2	2.28	0.51
41:CN:105:VAL:HG23	41:CN:105:VAL:O	2.10	0.51
42:CO:4:ILE:HD13	42:CO:7:LEU:HD12	1.91	0.51
44:CQ:23:ARG:NH1	44:CQ:29:ARG:O	2.43	0.51
53:CD:20:G:N2	1:DA:2112:G:H5'	2.26	0.51
1:DA:486:C:H4'	18:DS:60:ASN:HD21	1.75	0.51
1:DA:753:C:H2'	1:DA:754:C:H6	1.75	0.51
1:DA:764:A:H5'	3:DD:210:GLY:CA	2.41	0.51
1:DA:872:A:C4	1:DA:906:G:C2	2.99	0.51
1:DA:898:C:H3'	1:DA:899:A:C5'	2.39	0.51
1:DA:928:G:H2'	1:DA:929:G:O4'	2.10	0.51
1:DA:2638:G:OP1	4:DE:82:ARG:NH2	2.37	0.51
1:DA:2712:U:O2'	1:DA:2712(A):A:P	2.68	0.51
1:DA:2726:U:O2'	1:DA:2727:G:H8	1.92	0.51
1:DA:2875:C:O2'	15:DR:5:ALA:HB3	2.10	0.51
2:DB:78:A:C2	2:DB:99:A:C4	2.98	0.51
3:DD:35:LYS:HD2	3:DD:104:TYR:CE1	2.42	0.51
11:DO:59:LEU:HD23	30:D8:56:GLU:OE2	2.09	0.51
12:DP:137:TYR:C	12:DP:139:GLU:N	2.65	0.51
14:DQ:10:ARG:O	14:DQ:14:VAL:HG12	2.10	0.51
14:DQ:88:ASP:OD2	14:DQ:89:ARG:N	2.43	0.51
16:D1:68:ALA:O	16:D1:71:GLN:HB2	2.10	0.51
21:DV:164:ALA:O	21:DV:165:VAL:HG13	2.09	0.51
1:AA:336:C:H5"	20:AU:6:HIS:CD2	2.45	0.51
1:AA:806:C:OP2	11:AO:41:ARG:HD3	2.11	0.51
1:AA:890:A:C8	1:AA:892:G:C8	2.99	0.51
1:AA:1300:U:H4'	1:AA:1301:A:H5'	1.92	0.51
1:AA:1799:G:O2'	1:AA:1800:C:OP2	2.22	0.51
1:AA:1827:C:C2'	1:AA:1828:G:H5'	2.41	0.51
1:AA:2636:U:P	4:AE:79:ARG:HA	2.51	0.51
1:AA:2795:G:H3'	1:AA:2797:U:H5"	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:35:LYS:HG2	3:AD:64:ILE:CA	2.39	0.51
7:AH:80:SER:O	7:AH:81:GLU:HG3	2.10	0.51
14:AQ:95:HIS:CG	14:AQ:96:GLY:H	2.29	0.51
16:A1:58:ARG:HA	16:A1:61:TRP:CE3	2.46	0.51
20:AU:96:ILE:HG23	20:AU:101:LYS:HG2	1.93	0.51
29:A7:16:HIS:HB2	29:A7:44:PRO:HG2	1.93	0.51
31:BA:41:G:H2'	31:BA:42:G:C8	2.45	0.51
31:BA:64:G:C4'	31:BA:65:U:H5'	2.40	0.51
31:BA:658:G:H2'	31:BA:659:U:H6	1.76	0.51
31:BA:1091:U:H1'	31:BA:1095:U:O2	2.11	0.51
31:BA:1161:C:N3	31:BA:1177:G:N2	2.58	0.51
31:BA:1250:A:H4'	39:BL:68:GLY:N	2.24	0.51
31:BA:1285:A:H4'	31:BA:1286:A:C5'	2.41	0.51
31:BA:1392:G:H21	31:BA:1502:A:H8	1.57	0.51
34:BG:11:LEU:C	34:BG:13:ARG:H	2.17	0.51
37:BJ:21:VAL:HG23	37:BJ:22:LEU:H	1.75	0.51
42:BO:21:VAL:HG12	42:BO:24:LEU:HG	1.92	0.51
42:BO:44:LYS:HG3	42:BO:44:LYS:O	2.08	0.51
43:BP:25:ILE:HD11	43:BP:60:VAL:HG11	1.92	0.51
46:BS:45:THR:HG22	46:BS:47:ASP:H	1.73	0.51
50:BW:53:LEU:HD12	50:BW:100:ILE:HG23	1.93	0.51
50:BW:57:ARG:HD3	50:BW:102:GLY:O	2.11	0.51
51:BX:7:ARG:O	51:BX:8:THR:HG23	2.10	0.51
31:CA:619:U:O2	34:CG:135:LEU:HD22	2.11	0.51
31:CA:827:U:H3	31:CA:872:A:N6	2.05	0.51
31:CA:882:C:O2'	31:CA:883:C:H5'	2.10	0.51
31:CA:1129:C:H5	31:CA:1140:C:H41	1.57	0.51
32:CE:4:GLU:N	32:CE:4:GLU:OE2	2.44	0.51
52:CB:21:A:C4'	52:CB:22:G:OP1	2.58	0.51
52:CB:29:U:H2'	52:CB:30:A:C8	2.45	0.51
53:CC:76:C:H2'	53:CC:77:A:N7	2.25	0.51
53:CD:18:C:O2	53:CD:18:C:C2'	2.56	0.51
1:DA:274:G:H2'	1:DA:275:G:C8	2.45	0.51
1:DA:654(S):G:C4'	1:DA:654(T):A:OP1	2.58	0.51
1:DA:886:C:H1'	1:DA:890:A:C2	2.45	0.51
1:DA:1005:C:O4'	1:DA:1143:A:H2	1.91	0.51
1:DA:1006:C:C2	1:DA:1138:G:N2	2.78	0.51
1:DA:1142(A):A:C8	1:DA:1144:G:N7	2.79	0.51
1:DA:1677:A:H2'	1:DA:1678:G:O4'	2.10	0.51
1:DA:2324:C:H5"	1:DA:2325:G:H5'	1.91	0.51
1:DA:2724:C:OP1	4:DE:118:LYS:HE3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DD:10:THR:OG1	3:DD:13:ARG:HB2	2.10	0.51
3:DD:186:HIS:CD2	3:DD:188:GLU:H	2.17	0.51
4:DE:68:ALA:HB1	4:DE:71:GLY:N	2.25	0.51
5:DF:178:PRO:HG2	5:DF:179:GLU:OE1	2.11	0.51
9:DM:38:HIS:ND1	9:DM:39:ARG:HG3	2.26	0.51
11:DO:9:ASN:CB	11:DO:10:PRO:CD	2.89	0.51
15:DR:125:ARG:HB3	15:DR:129:ARG:NH2	2.26	0.51
18:DS:36:LEU:HD13	18:DS:48:ALA:HA	1.92	0.51
28:D6:28:ARG:HB3	28:D6:30:THR:C	2.35	0.51
1:AA:511:U:C5	1:AA:512:G:C5	2.99	0.51
1:AA:871:U:OP1	12:AP:5:ARG:HG2	2.11	0.51
1:AA:1187:G:H5”	17:A2:81:TYR:CE2	2.45	0.51
1:AA:1416:G:H1	1:AA:1582:C:H42	1.56	0.51
1:AA:1590:U:H2’	1:AA:1591:G:H8	1.73	0.51
1:AA:1798:U:C5’	3:AD:259:THR:HG22	2.21	0.51
1:AA:2108:C:H2’	1:AA:2109:U:O4’	2.10	0.51
1:AA:2401:U:H2’	1:AA:2402:C:C6	2.46	0.51
2:AB:40:U:O2’	2:AB:45:A:N6	2.38	0.51
2:AB:78:A:C2	2:AB:99:A:C4	2.98	0.51
4:AE:23:VAL:CG1	4:AE:185:LYS:N	2.72	0.51
5:AF:101:LEU:O	5:AF:106:ARG:NH1	2.42	0.51
8:AK:33:ARG:C	8:AK:35:LEU:N	2.62	0.51
8:AK:114:LEU:HG	8:AK:114:LEU:O	2.09	0.51
14:AQ:106:ARG:HA	14:AQ:110:LEU:CD1	2.39	0.51
16:A1:108:GLU:HG3	17:A2:44:LYS:CD	2.40	0.51
18:AS:75:TYR:CZ	18:AS:104:THR:HG21	2.46	0.51
31:BA:620:C:C6	34:BG:135:LEU:HD23	2.45	0.51
31:BA:955:U:H1’	31:BA:1227:A:H61	1.76	0.51
31:BA:1194:U:H2’	31:BA:1195:C:H6	1.74	0.51
33:BF:68:VAL:HG12	33:BF:70:VAL:HG23	1.92	0.51
34:BG:173:TRP:HA	34:BG:187:ARG:HG2	1.92	0.51
39:BL:23:ASN:ND2	39:BL:23:ASN:H	2.09	0.51
39:BL:32:ASP:O	39:BL:35:GLU:N	2.31	0.51
39:BL:48:GLU:H	39:BL:49:PRO:HD2	1.76	0.51
40:BM:4:ILE:HB	40:BM:74:ILE:HG13	1.91	0.51
40:BM:55:LYS:O	40:BM:56:HIS:CB	2.58	0.51
41:BN:22:HIS:HB3	41:BN:29:ILE:HG23	1.91	0.51
31:CA:266:G:H4’	31:CA:267:C:O5’	2.10	0.51
31:CA:309:G:H1’	31:CA:608:A:C2	2.45	0.51
31:CA:940:C:H2’	31:CA:941:G:C8	2.46	0.51
31:CA:1236:A:O2’	31:CA:1304:G:H4’	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:CE:178:ARG:NH2	38:CK:74:PRO:HG2	2.26	0.51
35:CH:76:ILE:HG22	35:CH:78:HIS:H	1.76	0.51
37:CJ:16:LEU:CD1	39:CL:45:ALA:HB2	2.39	0.51
39:CL:17:VAL:HG21	39:CL:81:ILE:N	2.26	0.51
1:DA:214:G:H1'	1:DA:216:A:O2'	2.11	0.51
1:DA:906:G:P	12:DP:141:GLN:HG2	2.51	0.51
1:DA:954:G:O2'	1:DA:2274:A:N1	2.36	0.51
1:DA:1188:U:O2'	1:DA:1189:A:H5'	2.10	0.51
1:DA:1327:C:H2'	1:DA:1328:G:O4'	2.11	0.51
1:DA:1418:G:OP1	1:DA:1588:C:O2'	2.29	0.51
1:DA:2056:G:H2'	1:DA:2056:G:N3	2.25	0.51
1:DA:2355:C:H5'	22:D3:36:ILE:CD1	2.40	0.51
4:DE:134:ILE:C	4:DE:134:ILE:HD12	2.35	0.51
6:DG:95:ARG:O	6:DG:99:MET:HG2	2.10	0.51
8:DK:125:GLU:O	8:DK:125:GLU:HG3	2.11	0.51
11:DO:85:LEU:HD22	11:DO:116:GLY:O	2.10	0.51
14:DQ:69:VAL:HG13	14:DQ:101:LEU:HD22	1.91	0.51
18:DS:92:ARG:O	18:DS:93:ALA:HB3	2.10	0.51
21:DV:53:ILE:H	21:DV:71:VAL:CG1	2.24	0.51
24:DW:46:GLN:HB2	24:DW:49:LYS:HE3	1.91	0.51
24:DW:65:ASN:HD22	24:DW:69:ARG:NH2	1.97	0.51
26:D4:4:GLY:C	26:D4:5:ILE:HG13	2.36	0.51
26:D4:20:ASN:CG	26:D4:21:VAL:H	2.19	0.51
1:AA:527:C:OP2	1:AA:2779:U:C5	2.60	0.51
1:AA:600:G:N2	1:AA:605:C:O3'	2.43	0.51
1:AA:1669:A:H5"	1:AA:2550:G:OP1	2.10	0.51
1:AA:1935:G:H1'	1:AA:1964:G:N2	2.25	0.51
1:AA:2141:G:H2'	1:AA:2142:C:C6	2.46	0.51
1:AA:2311:A:C2	6:AG:44:GLY:HA3	2.46	0.51
1:AA:2364:C:H2'	1:AA:2365:G:O4'	2.11	0.51
1:AA:2556:C:H2'	1:AA:2557:G:O4'	2.11	0.51
3:AD:35:LYS:HE3	3:AD:65:ILE:N	2.25	0.51
4:AE:15:PHE:HA	4:AE:19:ARG:O	2.10	0.51
4:AE:152:LYS:HG2	9:AM:78:TYR:CD1	2.46	0.51
12:AP:7:MET:HE1	12:AP:73:PRO:HG3	1.92	0.51
17:A2:35:LEU:HD22	17:A2:35:LEU:N	2.22	0.51
19:AT:49:VAL:HG12	19:AT:50:LYS:N	2.24	0.51
31:BA:344:A:H5"	31:BA:345:C:P	2.51	0.51
31:BA:724:G:O2'	31:BA:725:G:H5'	2.10	0.51
31:BA:1327:C:OP2	51:BX:12:LYS:NZ	2.43	0.51
31:BA:1347:G:H22	31:BA:1373:G:H2'	1.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1399:C:H4'	31:BA:1400:C:O5'	2.10	0.51
31:BA:1502:A:H2	31:BA:1505:G:N2	2.06	0.51
33:BF:27:LYS:NZ	33:BF:27:LYS:HA	2.25	0.51
41:BN:87:THR:HG22	41:BN:88:GLY:N	2.22	0.51
42:BO:44:LYS:O	42:BO:44:LYS:CG	2.58	0.51
43:BP:74:VAL:O	43:BP:78:ILE:HG12	2.11	0.51
49:BV:10:PHE:CD1	49:BV:10:PHE:N	2.78	0.51
53:BD:49:C:C5	53:BD:60:A:H5'	2.46	0.51
31:CA:939:G:C6	31:CA:940:C:N4	2.79	0.51
31:CA:1052:U:C2	31:CA:1200:C:N4	2.79	0.51
31:CA:1053:G:C2'	31:CA:1054:C:OP2	2.58	0.51
32:CE:8:LYS:O	32:CE:9:GLU:HB3	2.09	0.51
41:CN:33:THR:HG22	41:CN:39:PRO:HA	1.93	0.51
42:CO:3:THR:OG1	42:CO:6:GLN:HG3	2.09	0.51
46:CS:5:ARG:NH1	46:CS:22:THR:HG21	2.25	0.51
1:DA:278:A:O2'	1:DA:279:C:OP1	2.25	0.51
1:DA:389:G:H1	11:DO:71:VAL:HG12	1.76	0.51
1:DA:449:A:OP1	5:DF:84:VAL:O	2.28	0.51
1:DA:1342:A:C6	1:DA:1602:U:C2	2.99	0.51
1:DA:1491:G:O4'	3:DD:99:ASP:OD2	2.27	0.51
8:DK:4:ILE:HG12	8:DK:18:VAL:HG22	1.92	0.51
9:DM:67:LEU:O	9:DM:88:GLU:HG3	2.11	0.51
11:DO:37:GLY:O	11:DO:40:SER:N	2.41	0.51
11:DO:48:PRO:HG2	11:DO:49:ARG:H	1.75	0.51
17:D2:70:ILE:HG22	17:D2:72:VAL:HG23	1.93	0.51
20:DU:40:GLU:HA	20:DU:40:GLU:OE2	2.11	0.51
21:DV:49:ARG:HB2	21:DV:50:GLN:HE21	1.76	0.51
28:D6:27:LYS:HZ3	28:D6:28:ARG:HH12	1.56	0.51
1:AA:782:A:H5'	1:AA:783:A:C2	2.45	0.51
1:AA:1298:C:H5"	1:AA:1299:G:OP2	2.10	0.51
1:AA:1323:U:H2'	1:AA:1324:G:H5'	1.93	0.51
1:AA:2168:G:H2'	1:AA:2168:G:N3	2.25	0.51
7:AH:98:LEU:HD22	7:AH:125:VAL:HG23	1.93	0.51
7:AH:131:VAL:HG12	7:AH:132:ARG:N	2.25	0.51
9:AM:91:LEU:O	9:AM:95:PRO:HD3	2.11	0.51
9:AM:133:GLN:O	9:AM:134:ARG:HB3	2.10	0.51
14:AQ:101:LEU:HD12	14:AQ:101:LEU:O	2.11	0.51
15:AR:7:ILE:O	15:AR:10:VAL:HB	2.11	0.51
17:A2:52:VAL:HG22	17:A2:55:ALA:H	1.76	0.51
18:AS:37:ARG:HG2	18:AS:38:TYR:CE2	2.46	0.51
19:AT:57:LEU:CD1	19:AT:78:LYS:HB2	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:A6:24:GLU:OE1	30:A8:35:GLN:HG3	2.11	0.51
31:BA:922:G:C6	31:BA:923:A:C6	2.99	0.51
31:BA:1450:U:O2'	31:BA:1451:A:C8	2.62	0.51
48:BU:53:ARG:HE	48:BU:59:SER:C	2.19	0.51
50:BW:100:ILE:HG13	50:BW:102:GLY:H	1.76	0.51
53:BC:20:G:C4	53:BC:58:A:C2	2.99	0.51
31:CA:197:A:H1'	31:CA:198:G:O4'	2.11	0.51
31:CA:219:C:H2'	31:CA:220:G:O4'	2.11	0.51
31:CA:406:G:N3	34:CG:119:GLN:NE2	2.58	0.51
31:CA:544:G:OP1	34:CG:59:ARG:NH2	2.34	0.51
31:CA:971:G:N2	31:CA:1363:A:OP2	2.38	0.51
31:CA:983:A:N1	31:CA:1222:G:N2	2.59	0.51
31:CA:1019:C:O2'	31:CA:1020:U:H5'	2.11	0.51
31:CA:1346:A:H3'	31:CA:1346:A:OP2	2.11	0.51
50:CW:44:ALA:HB1	50:CW:91:LEU:HB2	1.92	0.51
1:DA:51:G:N3	1:DA:119:A:C2	2.79	0.51
1:DA:225:A:N6	1:DA:226:G:N1	2.58	0.51
1:DA:228:A:H2'	1:DA:230:U:O4'	2.11	0.51
1:DA:330:A:H2	1:DA:1210:A:HO2'	0.69	0.51
1:DA:856:C:HO2'	1:DA:857:C:P	2.32	0.51
1:DA:2439:A:H5'	1:DA:2439:A:C8	2.45	0.51
3:DD:4:LYS:HB3	3:DD:18:VAL:HG13	1.93	0.51
3:DD:35:LYS:CE	3:DD:64:ILE:C	2.78	0.51
5:DF:22:ALA:C	5:DF:24:LEU:N	2.52	0.51
8:DK:76:THR:HG22	8:DK:139:GLN:O	2.11	0.51
8:DK:143:SER:O	8:DK:144:VAL:HB	2.10	0.51
13:D0:92:GLY:O	13:D0:94:TYR:CE2	2.64	0.51
22:D3:18:ALA:HB3	22:D3:20:ARG:HE	1.75	0.51
23:DZ:91:LYS:HG3	23:DZ:92:LYS:H	1.71	0.51
28:D6:25:LYS:HD2	30:D8:34:TRP:CZ3	2.44	0.51
30:D8:52:LYS:HD2	30:D8:52:LYS:N	2.26	0.51
1:AA:654(M):C:C2'	1:AA:654(N):G:C8	2.93	0.51
1:AA:1430:C:H2'	1:AA:1431:U:C6	2.46	0.51
1:AA:2053:G:H5'	4:AE:144:ARG:O	2.10	0.51
1:AA:2593:U:H2'	1:AA:2594:C:C6	2.45	0.51
1:AA:2791:C:O2	1:AA:2807:G:N2	2.44	0.51
4:AE:30:PRO:O	4:AE:32:PRO:HD3	2.11	0.51
12:AP:136:ALA:O	12:AP:139:GLU:N	2.39	0.51
13:A0:10:LEU:O	13:A0:12:ARG:NH1	2.44	0.51
20:AU:95:LYS:HB2	20:AU:99:CYS:O	2.11	0.51
31:BA:66:G:N2	31:BA:172:A:H2	2.08	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1097:C:O2'	31:BA:1169:A:N3	2.34	0.51
31:BA:1503:A:H1'	31:BA:1504:G:OP1	2.11	0.51
33:BF:70:VAL:HG12	33:BF:72:LYS:N	2.20	0.51
38:BK:16:ALA:HB2	38:BK:24:THR:HG21	1.92	0.51
40:BM:81:THR:O	40:BM:84:GLN:HB2	2.10	0.51
47:BT:17:LYS:HG3	47:BT:47:PRO:HA	1.93	0.51
50:BW:100:ILE:HG13	50:BW:102:GLY:N	2.26	0.51
52:BB:68:A:H2'	52:BB:69:A:H5'	1.92	0.51
53:BD:45:A:H5"	53:BD:46:G:OP2	2.11	0.51
31:CA:509:A:H2'	31:CA:510:A:C8	2.46	0.51
31:CA:1036:G:H5'	31:CA:1037:C:OP2	2.11	0.51
31:CA:1278:U:O2	31:CA:1278:U:H2'	2.10	0.51
32:CE:7:VAL:HG22	32:CE:8:LYS:H	1.75	0.51
37:CJ:150:ALA:O	41:CN:57:THR:HG21	2.11	0.51
39:CL:45:ALA:O	39:CL:48:GLU:HB2	2.10	0.51
1:DA:93:C:H5'	20:DU:54:LYS:HE3	1.93	0.51
1:DA:242:G:C8	30:D8:5:LYS:HG2	2.46	0.51
1:DA:373:U:H2'	1:DA:374:A:C8	2.46	0.51
1:DA:854:G:H2'	1:DA:855:G:C8	2.41	0.51
1:DA:1575:C:H2'	1:DA:1576:U:H6	1.75	0.51
1:DA:2145:C:H2'	1:DA:2147:G:N2	2.26	0.51
1:DA:2720:U:N3	1:DA:2721:A:C5	2.79	0.51
4:DE:23:VAL:HA	4:DE:184:VAL:O	2.11	0.51
6:DG:107:LEU:HD11	6:DG:178:PHE:CE1	2.46	0.51
7:DH:68:THR:O	7:DH:72:ILE:HG13	2.11	0.51
8:DK:91:SER:HB3	8:DK:119:PRO:HB3	1.93	0.51
10:DN:92:GLU:OE1	10:DN:113:LYS:NZ	2.40	0.51
11:DO:90:ARG:HG3	11:DO:91:PHE:N	2.25	0.51
12:DP:66:ILE:O	12:DP:67:ARG:HG3	2.10	0.51
13:D0:87:TYR:HE1	13:D0:117:VAL:HG12	1.76	0.51
18:DS:62:HIS:O	18:DS:63:ASP:C	2.54	0.51
1:AA:760:G:H2'	1:AA:761:A:O4'	2.11	0.51
1:AA:847:U:O4	1:AA:933:A:C6	2.64	0.51
1:AA:1056:G:O4'	1:AA:1086:A:C8	2.64	0.51
1:AA:2164:C:H2'	1:AA:2165:G:C8	2.44	0.51
1:AA:2404:C:O3'	11:AO:77:ARG:NH2	2.44	0.51
1:AA:2636:U:P	4:AE:79:ARG:HE	2.32	0.51
1:AA:2679:A:H4'	4:AE:165:VAL:HG11	1.93	0.51
5:AF:192:LEU:HD21	5:AF:194:MET:HE2	1.93	0.51
8:AK:5:LEU:HD21	8:AK:12:LEU:HD23	1.92	0.51
9:AM:1:MET:HE1	16:A1:95:LEU:CD2	2.39	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AN:25:LEU:HD12	10:AN:38:VAL:HG22	1.91	0.51
13:A0:3:HIS:O	13:A0:5:LYS:HG3	2.11	0.51
16:A1:92:ARG:NE	17:A2:11:GLN:H	2.09	0.51
31:BA:544:G:C6	31:BA:545:C:C4	2.99	0.51
31:BA:1149:C:P	39:BL:9:ARG:HH21	2.34	0.51
31:BA:1293:G:H2'	31:BA:1294:G:O4'	2.11	0.51
33:BF:189:ALA:O	33:BF:191:THR:HG23	2.11	0.51
39:BL:50:LEU:HD22	39:BL:55:ALA:HB3	1.92	0.51
40:BM:3:LYS:HD2	40:BM:75:ILE:O	2.11	0.51
40:BM:75:ILE:HG13	40:BM:76:ASN:N	2.26	0.51
45:BR:55:GLY:HA2	45:BR:58:MET:HE2	1.92	0.51
31:CA:123:C:OP1	31:CA:312:C:H5'	2.11	0.51
31:CA:1126:U:H1'	31:CA:1127:G:P	2.51	0.51
32:CE:6:THR:O	32:CE:7:VAL:HB	2.11	0.51
37:CJ:89:MET:HE3	37:CJ:155:ARG:HB2	1.92	0.51
39:CL:127:LYS:C	39:CL:128:ARG:HG2	2.36	0.51
1:DA:870:A:OP1	12:DP:6:ARG:CD	2.55	0.51
1:DA:890:A:H2'	1:DA:892:G:C8	2.46	0.51
1:DA:1093:G:H2'	1:DA:1094:U:H5'	1.92	0.51
1:DA:1331:A:O2'	1:DA:1332:G:H8	1.93	0.51
1:DA:1597:A:C5'	1:DA:1598:C:OP1	2.59	0.51
3:DD:35:LYS:HG2	3:DD:64:ILE:HG12	1.93	0.51
9:DM:56:ASN:H	9:DM:125:GLY:CA	2.22	0.51
10:DN:113:LYS:O	10:DN:117:LEU:HD23	2.10	0.51
11:DO:39:LYS:HB2	11:DO:45:LEU:HD21	1.93	0.51
26:D4:61:ARG:HA	26:D4:61:ARG:HH11	1.74	0.51
1:AA:165:U:H2'	1:AA:171:G:O4'	2.10	0.51
1:AA:280:C:C2	1:AA:361:G:N2	2.79	0.51
1:AA:616:A:C8	5:AF:176:LEU:HD11	2.46	0.51
1:AA:889:C:H3'	1:AA:890:A:C4'	2.41	0.51
1:AA:2370:G:H21	28:A6:45:LYS:HE2	1.76	0.51
1:AA:2419:U:O4	30:A8:30:ARG:CZ	2.59	0.51
2:AB:42:C:O2	6:AG:93:THR:N	2.33	0.51
4:AE:14:ILE:CB	4:AE:21:VAL:CG2	2.73	0.51
4:AE:167:VAL:CG1	4:AE:189:PRO:HD3	2.41	0.51
9:AM:38:HIS:O	16:A1:67:ALA:HB1	2.11	0.51
12:AP:135:ASP:O	12:AP:136:ALA:C	2.53	0.51
20:AU:39:VAL:O	20:AU:40:GLU:CD	2.53	0.51
22:A3:68:GLU:HG3	22:A3:80:HIS:HB2	1.93	0.51
25:AX:52:HIS:H	25:AX:52:HIS:CD2	2.27	0.51
31:BA:567:G:H2'	31:BA:568:G:O4'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:913:A:H4'	31:BA:914:A:O5'	2.11	0.51
31:BA:1147:C:O2	39:BL:16:ARG:NH1	2.44	0.51
31:BA:1348:U:N3	31:BA:1374:A:C2	2.75	0.51
31:BA:1504:G:C4'	31:BA:1505:G:OP2	2.59	0.51
32:BE:97:TRP:HZ3	32:BE:99:GLY:HA2	1.76	0.51
35:BH:111:GLU:C	35:BH:113:ALA:H	2.19	0.51
37:BJ:5:ARG:HG2	37:BJ:6:ARG:N	2.26	0.51
37:BJ:45:ASP:O	37:BJ:48:LYS:HB3	2.11	0.51
39:BL:48:GLU:N	39:BL:49:PRO:CD	2.74	0.51
43:BP:66:LEU:O	43:BP:67:GLU:C	2.54	0.51
53:BD:18:C:H5"	53:BD:19:G:OP2	2.11	0.51
31:CA:986:A:H1'	49:CV:54:GLY:O	2.11	0.51
33:CF:16:ARG:HA	33:CF:16:ARG:HH11	1.75	0.51
33:CF:29:TYR:OH	44:CQ:54:PRO:HD2	2.11	0.51
33:CF:82:GLU:HA	33:CF:85:ARG:HB2	1.92	0.51
43:CP:11:ARG:O	43:CP:13:LYS:N	2.44	0.51
53:CD:21:U:C3'	53:CD:22:A:H5"	2.41	0.51
1:DA:588:U:H2'	1:DA:589:C:C6	2.45	0.51
1:DA:848:G:H1'	1:DA:933:A:C8	2.45	0.51
1:DA:857:C:H4'	22:D3:23:VAL:HG21	1.92	0.51
1:DA:859:G:O2'	1:DA:916:G:O6	2.22	0.51
1:DA:1592:C:H2'	1:DA:1593:G:H8	1.76	0.51
1:DA:2061:G:H5"	1:DA:2503:A:C2	2.45	0.51
2:DB:38:C:O2	2:DB:48:A:H1'	2.11	0.51
2:DB:111:U:H2'	2:DB:112:G:H8	1.76	0.51
6:DG:131:TYR:O	6:DG:159:VAL:HG22	2.11	0.51
12:DP:2:LEU:HB3	12:DP:70:PRO:CG	2.42	0.51
12:DP:59:ARG:CG	12:DP:59:ARG:NH2	2.71	0.51
15:DR:29:ARG:HG3	15:DR:29:ARG:NH1	2.24	0.51
23:DZ:87:PRO:C	23:DZ:91:LYS:HB3	2.36	0.51
1:AA:539:G:N3	1:AA:539:G:H2'	2.25	0.50
1:AA:1161:C:H4'	17:A2:8:GLY:HA2	1.93	0.50
1:AA:1316:U:H2'	1:AA:1317:A:C8	2.46	0.50
1:AA:1364:G:OP2	23:AZ:2:SER:OG	2.28	0.50
1:AA:1725:G:H1	1:AA:1735:C:H42	1.58	0.50
1:AA:1819:A:H4'	1:AA:1820:U:O5'	2.10	0.50
1:AA:2378:A:H8	1:AA:2378:A:O5'	1.93	0.50
1:AA:2467:C:H4'	12:AP:123:HIS:CD2	2.46	0.50
2:AB:82:G:O2'	2:AB:83:G:H5'	2.11	0.50
6:AG:44:GLY:HA2	6:AG:88:ILE:CD1	2.41	0.50
7:AH:153:LYS:HB3	7:AH:154:PRO:HD2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AM:114:ARG:O	9:AM:115:ARG:CB	2.59	0.50
12:AP:57:HIS:O	12:AP:57:HIS:ND1	2.44	0.50
31:BA:495:A:H4'	31:BA:496:A:OP1	2.11	0.50
31:BA:1504:G:H4'	31:BA:1505:G:OP2	2.11	0.50
32:BE:220:ASP:O	32:BE:223:ILE:HG12	2.10	0.50
39:BL:70:LYS:O	39:BL:74:ILE:HG13	2.10	0.50
41:BN:99:GLN:HG2	41:BN:105:VAL:HG21	1.92	0.50
50:BW:89:ARG:NH2	50:BW:104:LEU:HD11	2.22	0.50
52:BB:1:G:H2'	52:BB:1:G:N3	2.24	0.50
31:CA:339:C:H2'	31:CA:340:U:H5'	1.92	0.50
31:CA:1118:C:H1'	31:CA:1179:A:C4	2.47	0.50
31:CA:1305:G:H1'	31:CA:1332:A:N6	2.26	0.50
33:CF:35:GLU:HG3	33:CF:38:ARG:HH21	1.76	0.50
41:CN:48:ILE:HD11	41:CN:67:ASP:HB3	1.92	0.50
45:CR:24:SER:O	45:CR:28:GLN:HG3	2.10	0.50
49:CV:23:ASN:HA	49:CV:27:GLU:CD	2.36	0.50
1:DA:635:C:H2'	1:DA:636:G:O4'	2.11	0.50
1:DA:842:G:H2'	1:DA:843:G:O4'	2.11	0.50
1:DA:881:G:C6	1:DA:895:U:O2	2.64	0.50
1:DA:1000:A:C6	1:DA:1001:A:N1	2.79	0.50
1:DA:1085:A:H4'	1:DA:1086:A:OP1	2.10	0.50
1:DA:2211:G:H1'	1:DA:2212:A:P	2.51	0.50
2:DB:56:G:H4'	2:DB:57:A:H8	1.75	0.50
3:DD:166:GLN:CA	3:DD:166:GLN:HE21	2.22	0.50
4:DE:10:GLY:O	4:DE:24:THR:O	2.29	0.50
6:DG:76:SER:C	6:DG:77:ILE:HD12	2.36	0.50
15:DR:8:LYS:C	15:DR:10:VAL:N	2.68	0.50
28:D6:22:ALA:HB2	28:D6:42:TRP:CH2	2.46	0.50
1:AA:492:A:H2'	1:AA:493:G:O4'	2.10	0.50
1:AA:507:A:H5"	1:AA:508:G:H5'	1.93	0.50
1:AA:725:G:C6	1:AA:726:G:N1	2.78	0.50
1:AA:815:C:H2'	1:AA:816:C:C6	2.46	0.50
1:AA:1177:A:H5"	1:AA:1178:C:O5'	2.11	0.50
1:AA:1477:A:C2	1:AA:1517:G:C2	2.99	0.50
1:AA:2758:A:C2	1:AA:2759:G:H1'	2.46	0.50
2:AB:32:C:C2	2:AB:51:G:N2	2.79	0.50
2:AB:73:A:C4	2:AB:104:A:C2	2.99	0.50
4:AE:13:ARG:HH11	4:AE:13:ARG:CG	2.24	0.50
8:AK:5:LEU:HD11	8:AK:12:LEU:HB3	1.92	0.50
8:AK:77:LEU:C	8:AK:77:LEU:HD12	2.37	0.50
16:A1:17:ILE:HG23	16:A1:39:LEU:HD12	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AU:90:LEU:H	20:AU:90:LEU:HD22	1.75	0.50
21:AV:105:VAL:HG11	21:AV:138:GLU:OE1	2.11	0.50
23:AZ:86:SER:H	23:AZ:87:PRO:HD2	1.73	0.50
27:A5:58:LEU:HD13	27:A5:60:VAL:OXT	2.11	0.50
31:BA:1131:G:C2'	31:BA:1132:C:H5'	2.41	0.50
31:BA:1176:A:H2'	31:BA:1177:G:C5'	2.34	0.50
31:BA:1410:G:H2'	31:BA:1411:C:H6	1.77	0.50
32:BE:60:ASP:HB3	32:BE:64:ARG:NH1	2.26	0.50
34:BG:27:TYR:OH	36:CI:15:ASP:OD2	2.27	0.50
38:BK:87:SER:HA	38:BK:93:VAL:HG23	1.94	0.50
47:BT:45:HIS:NE2	47:BT:47:PRO:HG3	2.26	0.50
31:CA:404:U:H2'	31:CA:405:U:C6	2.46	0.50
31:CA:719:C:OP2	31:CA:720:C:N4	2.35	0.50
31:CA:1316:G:H2'	31:CA:1317:C:H5"	1.93	0.50
32:CE:114:ARG:O	32:CE:118:LEU:HG	2.10	0.50
32:CE:166:ASP:CG	32:CE:169:LYS:HB2	2.36	0.50
49:CV:47:HIS:O	49:CV:48:THR:C	2.54	0.50
50:CW:49:ALA:O	50:CW:52:ALA:N	2.41	0.50
1:DA:26:G:C6	1:DA:27:G:C6	3.00	0.50
1:DA:444:C:H4'	5:DF:49:ALA:HB2	1.93	0.50
1:DA:839:U:H2'	1:DA:840:C:C6	2.46	0.50
1:DA:999:U:H5"	1:DA:1154:G:O6	2.12	0.50
1:DA:1043:C:H2'	1:DA:1044:G:H5'	1.93	0.50
1:DA:2804:C:O2'	1:DA:2805:G:H5'	2.11	0.50
4:DE:12:THR:O	4:DE:23:VAL:HG22	2.11	0.50
4:DE:101:ARG:HG3	4:DE:203:LYS:HD3	1.94	0.50
4:DE:111:ARG:HB2	4:DE:160:TYR:O	2.10	0.50
5:DF:164:ARG:NH1	5:DF:177:ALA:HB2	2.27	0.50
11:DO:56:SER:O	11:DO:57:THR:CB	2.59	0.50
12:DP:27:VAL:HG13	12:DP:105:GLU:OE2	2.10	0.50
12:DP:132:VAL:HG12	12:DP:133:ARG:N	2.27	0.50
22:D3:23:VAL:HG12	22:D3:25:ARG:O	2.12	0.50
27:D5:40:LYS:HE3	27:D5:46:CYS:HB2	1.93	0.50
1:AA:776:G:H4'	1:AA:777:A:O5'	2.11	0.50
1:AA:996:A:OP2	16:A1:92:ARG:NH2	2.44	0.50
1:AA:1066:U:H3'	1:AA:1066:U:O2	2.11	0.50
1:AA:1558:A:H3'	1:AA:1558:A:OP2	2.11	0.50
1:AA:2427:C:C5'	1:AA:2428:G:OP1	2.59	0.50
1:AA:2638:G:OP1	4:AE:82:ARG:NH2	2.44	0.50
1:AA:2762:G:C2'	1:AA:2763:G:H5'	2.41	0.50
4:AE:74:PRO:HG2	4:AE:77:ILE:HG22	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:78:SER:O	6:AG:81:LYS:N	2.45	0.50
8:AK:79:ILE:HG22	8:AK:81:VAL:HG13	1.94	0.50
9:AM:62:VAL:CG2	9:AM:66:LYS:HD2	2.42	0.50
14:AQ:89:ARG:O	14:AQ:89:ARG:HG2	2.10	0.50
17:A2:38:LEU:O	17:A2:51:VAL:HG13	2.12	0.50
31:BA:991:U:H2'	31:BA:1212:U:O2	2.10	0.50
31:BA:1032(B):G:H2'	31:BA:1033:G:C8	2.46	0.50
31:BA:1150:U:H5"	31:BA:1151:A:OP2	2.11	0.50
31:BA:1299:A:H5'	31:BA:1300:G:OP1	2.11	0.50
31:BA:1378:C:O2	31:BA:1378:C:C2'	2.59	0.50
31:BA:1441:G:H5"	31:BA:1442:G:OP1	2.12	0.50
32:BE:200:ILE:HD12	32:BE:200:ILE:N	2.26	0.50
33:BF:8:ILE:C	33:BF:10:PHE:N	2.69	0.50
34:BG:86:LYS:H	34:BG:86:LYS:HD3	1.76	0.50
35:BH:78:HIS:HB3	38:BK:107:LEU:HD12	1.93	0.50
41:BN:34:ASP:OD1	41:BN:37:GLY:N	2.44	0.50
45:BR:70:LEU:HD11	45:BR:77:ARG:HG3	1.93	0.50
31:CA:197:A:H3'	31:CA:197:A:OP2	2.11	0.50
32:CE:96:ARG:HD3	32:CE:96:ARG:H	1.77	0.50
45:CR:43:LEU:HD11	45:CR:53:HIS:HA	1.93	0.50
52:CB:18:G:O2'	52:CB:19:G:O5'	2.28	0.50
1:DA:226:G:H21	1:DA:228:A:H61	0.50	0.50
1:DA:286:C:C2'	1:DA:287:C:H5'	2.41	0.50
1:DA:717:G:H2'	1:DA:718:A:O4'	2.12	0.50
1:DA:911:A:H2'	12:DP:9:TYR:OH	2.11	0.50
1:DA:1174:A:N6	1:DA:1176:G:HO2'	2.09	0.50
1:DA:2131:G:H5'	1:DA:2132:U:OP1	2.12	0.50
1:DA:2134:A:H2'	1:DA:2134:A:N3	2.25	0.50
3:DD:26:LYS:H	3:DD:26:LYS:HD2	1.76	0.50
3:DD:70:TRP:CH2	3:DD:150:LYS:HA	2.47	0.50
4:DE:77:ILE:O	4:DE:78:LEU:O	2.30	0.50
16:D1:58:ARG:HG2	16:D1:62:ILE:HD13	1.94	0.50
16:D1:65:ILE:HD11	16:D1:93:LYS:HA	1.93	0.50
18:DS:73:ALA:O	18:DS:106:ILE:HG12	2.11	0.50
26:D4:26:SER:OG	26:D4:27:THR:N	2.44	0.50
27:D5:51:TYR:HB2	27:D5:54:GLY:HA3	1.93	0.50
1:AA:864:G:N7	12:AP:22:LYS:NZ	2.39	0.50
1:AA:1012:U:O4	9:AM:25:ARG:HA	2.12	0.50
1:AA:1581:G:C6	1:AA:1582:C:C4	3.00	0.50
5:AF:23:ASP:CG	5:AF:24:LEU:H	2.19	0.50
7:AH:83:TYR:O	7:AH:84:SER:OG	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:135:GLU:H	8:AK:135:GLU:CD	2.18	0.50
12:AP:5:ARG:O	12:AP:6:ARG:O	2.30	0.50
21:AV:63:ASP:C	21:AV:65:GLN:H	2.19	0.50
21:AV:117:LEU:HD21	21:AV:119:GLU:HB3	1.93	0.50
22:A3:42:GLY:C	22:A3:57:PHE:HD1	2.19	0.50
22:A3:69:PHE:CE2	22:A3:79:VAL:HG22	2.46	0.50
23:AZ:3:LYS:O	23:AZ:12:PRO:HD3	2.11	0.50
23:AZ:32:LYS:O	23:AZ:33:LYS:HD2	2.11	0.50
26:A4:42:PHE:CD1	26:A4:43:TYR:HB3	2.46	0.50
31:BA:195:A:C5	31:BA:196:A:N1	2.79	0.50
31:BA:559:A:OP1	35:BH:126:ARG:NH2	2.44	0.50
32:BE:21:ARG:C	32:BE:23:ARG:N	2.68	0.50
33:BF:32:LEU:CD1	33:BF:59:ARG:HD3	2.41	0.50
34:BG:176:LEU:HD12	34:BG:182:LYS:O	2.12	0.50
42:BO:39:THR:HA	42:BO:50:ARG:O	2.12	0.50
43:BP:4:ILE:HG22	43:BP:5:ALA:N	2.26	0.50
31:CA:328:C:H1'	31:CA:329:A:OP2	2.11	0.50
31:CA:505:G:OP2	31:CA:534:U:H2'	2.11	0.50
31:CA:1007:C:C2	31:CA:1023:G:N2	2.78	0.50
32:CE:19:HIS:NE2	32:CE:206:ASP:HB2	2.26	0.50
32:CE:100:GLY:N	32:CE:176:GLU:OE2	2.33	0.50
33:CF:48:TYR:O	33:CF:50:ALA:N	2.44	0.50
34:CG:8:VAL:C	34:CG:10:ARG:N	2.67	0.50
46:CS:25:ARG:HH11	46:CS:25:ARG:HG3	1.77	0.50
48:CU:19:LYS:HD3	48:CU:20:ALA:H	1.77	0.50
49:CV:9:VAL:HG21	26:D4:63:TYR:CD2	2.47	0.50
51:CX:2:GLY:C	51:CX:4:GLY:N	2.69	0.50
1:DA:872:A:H4'	12:DP:66:ILE:HD11	1.93	0.50
1:DA:892:G:N7	1:DA:893:C:C4	2.80	0.50
1:DA:1042:G:H2'	1:DA:1043:C:O4'	2.12	0.50
1:DA:1085:A:H1'	1:DA:1086:A:O5'	2.11	0.50
1:DA:1678:G:H22	1:DA:1989:G:H1	1.60	0.50
1:DA:2297:C:H2'	1:DA:2298:A:H8	1.75	0.50
1:DA:2420:C:OP1	30:D8:34:TRP:CD1	2.64	0.50
3:DD:146:GLU:HB2	3:DD:189:CYS:HB3	1.93	0.50
8:DK:76:THR:HG23	8:DK:77:LEU:H	1.76	0.50
9:DM:68:GLU:HG2	9:DM:88:GLU:OE1	2.12	0.50
12:DP:87:LYS:O	12:DP:88:GLY:O	2.30	0.50
16:D1:25:TRP:CD1	16:D1:25:TRP:C	2.89	0.50
23:DZ:91:LYS:O	23:DZ:92:LYS:C	2.54	0.50
28:D6:28:ARG:HD2	28:D6:30:THR:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:52:VAL:HG22	28:D6:53:LYS:N	2.21	0.50
1:AA:638:G:C5	1:AA:651:G:C2	2.99	0.50
1:AA:674:G:C1'	5:AF:74:ARG:HD3	2.39	0.50
1:AA:1085:A:O2'	1:AA:1086:A:N1	2.43	0.50
1:AA:1996:C:OP1	10:AN:31:LYS:HE2	2.12	0.50
1:AA:2250:G:C5	12:AP:83:MET:HB2	2.47	0.50
1:AA:2689:U:C4'	1:AA:2690:C:OP2	2.59	0.50
4:AE:6:GLY:HA2	4:AE:51:PHE:CZ	2.47	0.50
6:AG:116:ASP:O	6:AG:117:PHE:HB3	2.12	0.50
12:AP:14:ARG:O	12:AP:15:GLY:O	2.30	0.50
14:AQ:41:ASP:OD2	14:AQ:44:LYS:HB2	2.12	0.50
30:A8:16:ILE:HD13	30:A8:57:ARG:HG2	1.94	0.50
31:BA:359:U:OP1	8:DK:87:LYS:HG3	2.11	0.50
31:BA:928:G:O2'	31:BA:1533:C:OP1	2.29	0.50
31:BA:1025:U:O2'	31:BA:1026:G:C5'	2.59	0.50
31:BA:1028:C:N4	31:BA:1033:G:H1	2.08	0.50
31:BA:1036:G:C5'	31:BA:1037:C:OP2	2.58	0.50
31:BA:1131:G:H8	31:BA:1131:G:OP2	1.94	0.50
31:BA:1226:C:H4'	31:BA:1227:A:OP1	2.11	0.50
32:BE:79:ASP:C	32:BE:81:VAL:H	2.20	0.50
36:BI:42:GLU:OE1	36:BI:59:TYR:OH	2.25	0.50
38:BK:7:ALA:HB2	38:BK:85:ARG:CD	2.40	0.50
43:BP:60:VAL:HG13	43:BP:64:TRP:HE1	1.76	0.50
44:BQ:51:GLY:C	44:BQ:53:LEU:H	2.19	0.50
46:BS:23:ASP:OD1	46:BS:25:ARG:HD3	2.11	0.50
53:BD:40:C:H2'	53:BD:41:C:C6	2.46	0.50
31:CA:131:C:H2'	31:CA:132:C:H6	1.75	0.50
31:CA:157:G:C2	31:CA:165:C:C2	3.00	0.50
31:CA:266:G:N3	31:CA:266:G:H2'	2.25	0.50
31:CA:728:A:C5	45:CR:54:ARG:HD2	2.47	0.50
33:CF:35:GLU:CG	33:CF:38:ARG:HH21	2.24	0.50
33:CF:70:VAL:HG12	33:CF:72:LYS:N	2.26	0.50
39:CL:11:LYS:H	39:CL:104:ARG:HH21	1.59	0.50
42:CO:107:VAL:HG23	42:CO:117:TYR:HB3	1.93	0.50
1:DA:67:U:O4	1:DA:74:A:N1	2.44	0.50
1:DA:271(B):G:N7	1:DA:421:U:H2'	2.27	0.50
1:DA:1534:G:H5'	1:DA:1535:U:OP2	2.11	0.50
1:DA:2262:U:O2'	1:DA:2263:C:H5'	2.10	0.50
1:DA:2393:A:H62	1:DA:2422:A:H61	1.60	0.50
1:DA:2798:C:H5	1:DA:2799:A:H62	1.60	0.50
1:DA:2876:G:O5'	15:DR:3:ARG:HA	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DD:238:GLY:O	3:DD:239:ARG:O	2.30	0.50
4:DE:71:GLY:C	4:DE:73:GLU:N	2.69	0.50
4:DE:71:GLY:O	4:DE:73:GLU:HG2	2.11	0.50
7:DH:11:VAL:HB	7:DH:13:LYS:HG3	1.93	0.50
12:DP:25:ASP:OD1	12:DP:25:ASP:O	2.30	0.50
13:D0:63:ARG:O	13:D0:67:LEU:HB2	2.12	0.50
14:DQ:29:PHE:O	14:DQ:35:ILE:HD12	2.12	0.50
16:D1:66:ASN:ND2	16:D1:70:ARG:HE	2.09	0.50
20:DU:17:SER:HB2	20:DU:71:LYS:HE2	1.94	0.50
26:D4:61:ARG:HA	26:D4:61:ARG:NH1	2.26	0.50
27:D5:33:CYS:SG	27:D5:46:CYS:SG	3.10	0.50
1:AA:654(M):C:H5"	1:AA:654(N):G:N7	2.27	0.50
1:AA:672:C:O2'	1:AA:673:C:H5'	2.11	0.50
1:AA:824:A:O2'	1:AA:2358:G:O6	2.25	0.50
1:AA:900:A:H3'	1:AA:901:A:C8	2.47	0.50
1:AA:1006:C:H1'	9:AM:106:MET:CE	2.42	0.50
1:AA:1173:G:H4'	1:AA:1174:A:N1	2.26	0.50
1:AA:1228:G:OP1	16:A1:13:LYS:HE3	2.11	0.50
1:AA:1520:U:H2'	1:AA:1521:G:O4'	2.12	0.50
1:AA:1771:C:C1'	1:AA:1786:A:C8	2.95	0.50
6:AG:91:ARG:HD2	6:AG:91:ARG:C	2.37	0.50
7:AH:3:ARG:HH21	7:AH:7:LEU:HD11	1.77	0.50
12:AP:25:ASP:O	12:AP:25:ASP:OD1	2.30	0.50
19:AT:54:VAL:C	19:AT:55:ASN:HD22	2.18	0.50
20:AU:95:LYS:HE3	20:AU:99:CYS:O	2.11	0.50
23:AZ:7:ILE:HD12	23:AZ:62:VAL:HG11	1.92	0.50
31:BA:412:A:C4'	31:BA:413:G:O5'	2.60	0.50
31:BA:642:A:N3	38:BK:113:SER:OG	2.44	0.50
31:BA:690:G:H22	41:BN:55:LYS:NZ	2.08	0.50
32:BE:124:SER:HB2	32:BE:125:PRO:CD	2.39	0.50
33:BF:45:LYS:HB2	33:BF:45:LYS:HZ2	1.77	0.50
38:BK:100:ILE:HG23	38:BK:101:PRO:HD2	1.93	0.50
53:BC:48:U:H1'	53:BC:49:C:OP2	2.11	0.50
31:CA:1015:A:C5	31:CA:1016:A:C5	2.99	0.50
33:CF:72:LYS:HD2	33:CF:75:VAL:HG23	1.93	0.50
40:CM:37:PRO:HA	40:CM:72:VAL:HG22	1.92	0.50
1:DA:11:G:H2'	1:DA:12:U:H5'	1.92	0.50
1:DA:639:U:H2'	1:DA:640:C:C6	2.46	0.50
1:DA:861:A:C2	1:DA:917:A:C4	2.99	0.50
1:DA:1022:G:C2'	1:DA:1023:U:OP2	2.59	0.50
1:DA:1246:A:O2'	5:DF:45:ARG:NH2	2.36	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1380:G:N2	1:DA:1570:A:N1	2.52	0.50
1:DA:1416:G:H2'	1:DA:1417:C:H6	1.77	0.50
1:DA:1657:C:H2'	1:DA:1658:C:C6	2.47	0.50
1:DA:2557:G:H2'	1:DA:2558:C:H6	1.75	0.50
1:DA:2849:U:H4'	1:DA:2868:A:C2	2.46	0.50
2:DB:76:G:N2	2:DB:100:G:O6	2.31	0.50
3:DD:68:LYS:HB2	3:DD:70:TRP:CZ3	2.46	0.50
4:DE:50:GLY:O	4:DE:51:PHE:HB3	2.11	0.50
7:DH:125:VAL:HG13	7:DH:126:PRO:CD	2.41	0.50
11:DO:9:ASN:O	11:DO:10:PRO:O	2.30	0.50
12:DP:29:PHE:O	12:DP:30:GLY:O	2.30	0.50
12:DP:77:LYS:O	12:DP:79:LEU:N	2.45	0.50
20:DU:81:LYS:NZ	20:DU:97:ARG:HH12	2.10	0.50
1:AA:857:C:H1'	22:A3:26:TYR:CE2	2.47	0.50
1:AA:882:G:C2'	1:AA:883:G:C8	2.95	0.50
1:AA:2212:A:O2'	1:AA:2215:G:C8	2.61	0.50
1:AA:2312:U:H3'	1:AA:2312:U:C6	2.47	0.50
2:AB:3:C:H2'	2:AB:4:C:H6	1.76	0.50
3:AD:35:LYS:CE	3:AD:104:TYR:CD1	2.94	0.50
4:AE:22:PRO:O	4:AE:185:LYS:HB2	2.11	0.50
12:AP:18:LYS:O	12:AP:19:GLY:O	2.30	0.50
12:AP:139:GLU:N	12:AP:139:GLU:OE1	2.45	0.50
20:AU:3:VAL:HG12	20:AU:5:MET:HE2	1.94	0.50
20:AU:12:THR:OG1	20:AU:26:LYS:HE2	2.12	0.50
20:AU:49:VAL:HB	20:AU:50:ARG:HE	1.76	0.50
22:A3:27:GLU:HA	22:A3:67:VAL:HG12	1.94	0.50
31:BA:78:G:H2'	31:BA:79:G:O4'	2.11	0.50
31:BA:501:C:H1'	31:BA:549:C:H1'	1.93	0.50
31:BA:914:A:H2'	31:BA:915:A:H8	1.77	0.50
31:BA:1133:G:H1	31:BA:1141:C:H42	1.58	0.50
34:BG:119:GLN:HG2	34:BG:123:HIS:CD2	2.46	0.50
38:BK:58:TYR:O	38:BK:59:LEU:HD23	2.11	0.50
45:BR:4:THR:OG1	45:BR:7:GLU:HB2	2.11	0.50
52:BB:53:A:H5"	52:BB:54:G:OP2	2.11	0.50
53:BD:19:G:H5'	53:BD:20:G:P	2.51	0.50
31:CA:186(E):C:C2	31:CA:191(C):G:N2	2.80	0.50
31:CA:1070:U:H2'	31:CA:1071:C:H6	1.76	0.50
31:CA:1170:A:H2'	31:CA:1171:G:O4'	2.11	0.50
31:CA:1530:G:OP1	31:CA:1530:G:H4'	2.12	0.50
33:CF:25:GLY:C	33:CF:27:LYS:H	2.20	0.50
33:CF:119:ARG:HH22	33:CF:140:ARG:CD	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:CL:37:PHE:HB3	39:CL:43:ALA:CB	2.42	0.50
46:CS:8:ARG:HH11	46:CS:8:ARG:HG2	1.73	0.50
48:CU:29:PHE:CD2	48:CU:29:PHE:N	2.80	0.50
49:CV:45:VAL:HA	49:CV:62:ILE:CG2	2.41	0.50
1:DA:270(N):G:O2'	1:DA:270(P):C:H5'	2.12	0.50
1:DA:654(I):C:N4	1:DA:654(M):C:H42	2.08	0.50
1:DA:1012:U:C2	1:DA:1143:A:C6	2.99	0.50
1:DA:1718:G:H2'	1:DA:1718:G:N3	2.27	0.50
1:DA:2139:C:H2'	1:DA:2140:C:H5'	1.92	0.50
1:DA:2287:A:N6	1:DA:2344:U:C2	2.80	0.50
1:DA:2331:G:O3'	22:D3:43:THR:HG22	2.12	0.50
1:DA:2805:G:H2'	1:DA:2807:G:H8	1.76	0.50
1:DA:2844:G:H3'	1:DA:2845:G:H8	1.77	0.50
4:DE:92:THR:O	4:DE:95:ILE:HG13	2.12	0.50
5:DF:101:LEU:HD12	5:DF:102:PRO:HD2	1.93	0.50
11:DO:11:GLY:C	11:DO:13:ASN:N	2.40	0.50
11:DO:138:LEU:HD21	11:DO:144:GLU:CG	2.42	0.50
19:DT:43:VAL:HG22	19:DT:51:VAL:HG21	1.94	0.50
21:DV:52:SER:C	21:DV:54:HIS:H	2.11	0.50
1:AA:270(J):G:H2'	1:AA:270(K):C:O4'	2.12	0.50
1:AA:582:G:H2'	1:AA:583:G:C8	2.46	0.50
1:AA:1006:C:C2	1:AA:1138:G:N2	2.79	0.50
1:AA:2171:A:H2'	1:AA:2172:U:H6	1.75	0.50
1:AA:2392:A:H8	11:AO:60:MET:CB	2.20	0.50
1:AA:2779:U:O2	1:AA:2779:U:O4'	2.29	0.50
3:AD:35:LYS:CE	3:AD:64:ILE:C	2.81	0.50
3:AD:65:ILE:HD12	3:AD:66:ASP:N	2.27	0.50
3:AD:176:ARG:HG2	3:AD:176:ARG:HH11	1.77	0.50
6:AG:16:ARG:N	6:AG:17:PRO:HD2	2.26	0.50
6:AG:115:ARG:HB3	6:AG:115:ARG:NH1	2.26	0.50
7:AH:58:GLU:C	7:AH:60:ARG:H	2.19	0.50
8:AK:95:LYS:O	8:AK:95:LYS:HD3	2.11	0.50
11:AO:88:LEU:HD12	11:AO:95:VAL:HG11	1.92	0.50
12:AP:136:ALA:CA	12:AP:139:GLU:HG2	2.41	0.50
12:AP:136:ALA:HB3	21:AV:48:PHE:CE1	2.46	0.50
12:AP:138:ASP:CG	21:AV:81:ARG:HH22	2.15	0.50
25:AX:19:GLN:HE22	25:AX:52:HIS:HE1	1.60	0.50
28:A6:29:ASN:OD1	28:A6:30:THR:HG22	2.12	0.50
31:BA:109:A:C6	31:BA:326:G:C6	3.00	0.50
31:BA:812:C:OP1	31:BA:903:G:H1'	2.12	0.50
31:BA:972:C:OP2	40:BM:57:LYS:HE2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BH:11:ILE:CD1	35:BH:31:LEU:HB3	2.42	0.50
36:BI:15:ASP:H	36:BI:18:GLN:HE21	1.58	0.50
38:BK:11:THR:HG22	38:BK:15:ASN:HD21	1.77	0.50
38:BK:122:ARG:HH11	38:BK:122:ARG:HB2	1.76	0.50
40:BM:5:ARG:HH21	40:BM:99:LYS:HD2	1.77	0.50
40:BM:78:ASN:O	40:BM:81:THR:N	2.45	0.50
46:BS:11:SER:HB2	46:BS:14:ASN:HB3	1.93	0.50
50:BW:63:ILE:HG22	50:BW:77:ALA:HB1	1.94	0.50
53:BC:20:G:C5	53:BC:58:A:C2	3.00	0.50
31:CA:543:C:OP1	34:CG:14:ARG:NE	2.45	0.50
31:CA:632:A:C1'	31:CA:633:G:OP2	2.56	0.50
31:CA:861:G:C5	31:CA:862:C:C5	3.00	0.50
31:CA:1084:G:H5'	31:CA:1102:A:OP2	2.12	0.50
32:CE:128:GLU:O	32:CE:129:GLU:HB2	2.12	0.50
39:CL:9:ARG:HA	39:CL:13:ALA:O	2.12	0.50
41:CN:20:TYR:HB2	41:CN:31:THR:HG23	1.92	0.50
53:CC:65:G:H4'	12:DP:10:ARG:HH12	1.76	0.50
1:DA:627:A:H4'	1:DA:628:G:OP1	2.12	0.50
1:DA:666:G:OP1	11:DO:47:ASP:O	2.29	0.50
1:DA:684:G:OP1	29:D7:16:HIS:ND1	2.45	0.50
1:DA:820:A:H2'	1:DA:821:A:O4'	2.11	0.50
1:DA:848:G:C4	1:DA:933:A:H8	2.29	0.50
1:DA:959:A:N6	1:DA:960:A:N1	2.59	0.50
1:DA:1131:G:O6	1:DA:2040:C:H1'	2.11	0.50
1:DA:1796:U:H2'	1:DA:1797:C:C6	2.47	0.50
1:DA:2354:G:O2'	22:D3:36:ILE:HD12	2.11	0.50
1:DA:2395:C:H2'	1:DA:2396:G:O4'	2.12	0.50
1:DA:2567:G:H2'	1:DA:2568:C:C6	2.47	0.50
4:DE:47:VAL:HG11	4:DE:49:LEU:HD23	1.94	0.50
4:DE:98:PRO:HD3	4:DE:175:VAL:HG13	1.94	0.50
4:DE:120:TRP:O	4:DE:121:ASN:HB2	2.11	0.50
6:DG:67:LYS:HE3	26:D4:6:HIS:CD2	2.47	0.50
8:DK:7:GLU:HA	8:DK:15:VAL:HG22	1.93	0.50
8:DK:72:LEU:O	8:DK:74:ASN:N	2.41	0.50
12:DP:54:MET:HE1	12:DP:118:LEU:HD23	1.94	0.50
14:DQ:56:LEU:O	14:DQ:57:LYS:C	2.55	0.50
17:D2:62:LEU:HD22	17:D2:62:LEU:H	1.77	0.50
1:AA:468:G:N7	29:A7:39:ARG:NH2	2.53	0.50
1:AA:548:A:H8	1:AA:548:A:O5'	1.95	0.50
1:AA:833:U:H2'	1:AA:834:C:C6	2.47	0.50
1:AA:1465:G:H5'	1:AA:1528:A:H1'	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1639:U:H2'	1:AA:1640:C:H5'	1.94	0.50
1:AA:1813:G:H1'	3:AD:50:THR:OG1	2.12	0.50
1:AA:2024:G:H2'	1:AA:2025:C:H6	1.76	0.50
1:AA:2128:C:O2	1:AA:2128:C:H2'	2.12	0.50
1:AA:2552:U:H2'	1:AA:2554:U:OP2	2.11	0.50
1:AA:2574:G:O2'	4:AE:143:ASN:HB3	2.11	0.50
2:AB:95:U:N3	2:AB:96:G:N7	2.60	0.50
3:AD:17:THR:HG22	3:AD:204:ILE:HA	1.93	0.50
7:AH:89:ILE:O	7:AH:89:ILE:HG12	2.10	0.50
23:AZ:50:ARG:HD2	23:AZ:57:GLU:OE1	2.12	0.50
28:A6:25:LYS:HE2	28:A6:27:LYS:HE3	1.94	0.50
28:A6:44:ARG:HD3	28:A6:44:ARG:N	2.20	0.50
31:BA:1004:A:O5'	31:BA:1025:U:O4	2.30	0.50
31:BA:1218:C:H2'	31:BA:1219:U:C6	2.47	0.50
32:BE:6:THR:OG1	32:BE:7:VAL:N	2.45	0.50
32:BE:109:SER:O	32:BE:112:VAL:HG12	2.11	0.50
46:BS:8:ARG:HB3	46:BS:28:ARG:NH1	2.27	0.50
48:BU:47:THR:O	48:BU:83:GLU:HG2	2.11	0.50
31:CA:266:G:N1	31:CA:270:A:N6	2.42	0.50
31:CA:688:G:H2'	31:CA:689:C:H6	1.76	0.50
31:CA:930:C:C4	31:CA:931:C:C5	2.99	0.50
31:CA:1022:G:H3'	31:CA:1023:G:H8	1.77	0.50
31:CA:1239:A:O2'	31:CA:1298:C:N4	2.45	0.50
31:CA:1343:G:H2'	31:CA:1344:C:C6	2.47	0.50
31:CA:1417:G:C6	31:CA:1482:G:C6	3.00	0.50
33:CF:95:THR:HG22	33:CF:97:LYS:HG2	1.93	0.50
39:CL:63:ILE:HD13	39:CL:77:ILE:HG23	1.94	0.50
42:CO:52:VAL:HG22	42:CO:53:ALA:N	2.24	0.50
48:CU:53:ARG:HH21	48:CU:60:ALA:N	2.10	0.50
53:CD:20:G:N3	53:CD:20:G:C2'	2.74	0.50
1:DA:278:A:HO2'	1:DA:279:C:P	2.35	0.50
1:DA:476:G:H4'	1:DA:502:A:N1	2.27	0.50
1:DA:1225:C:O3'	17:D2:85:LYS:HD3	2.12	0.50
1:DA:1255:U:C5'	1:DA:1256:G:H5"	2.40	0.50
1:DA:1503:U:H2'	1:DA:1504:C:C6	2.47	0.50
1:DA:2093:G:O5'	8:DK:24:GLY:HA3	2.12	0.50
1:DA:2836:U:C4	1:DA:2883:A:N6	2.80	0.50
1:DA:2859:G:O2'	1:DA:2860:A:O5'	2.30	0.50
1:DA:2893:G:OP2	1:DA:2893:G:H8	1.95	0.50
4:DE:9:VAL:CG2	4:DE:10:GLY:N	2.75	0.50
5:DF:34:TRP:CZ3	11:DO:8:PRO:HB3	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:DH:111:HIS:ND1	7:DH:112:PRO:HD2	2.26	0.50
16:D1:25:TRP:CD1	16:D1:26:GLY:N	2.79	0.50
17:D2:85:LYS:CG	17:D2:86:GLY:N	2.74	0.50
19:DT:57:LEU:HD23	19:DT:57:LEU:N	2.27	0.50
23:DZ:67:ILE:N	23:DZ:68:PRO:HD2	2.27	0.50
29:D7:17:GLY:O	29:D7:21:ARG:HG2	2.12	0.50
30:D8:48:PHE:O	30:D8:49:VAL:O	2.29	0.50
1:AA:881:G:H5"	1:AA:882:G:O5'	2.12	0.49
1:AA:2182:G:H2'	1:AA:2183:C:C6	2.47	0.49
1:AA:2184:G:C6	1:AA:2185:C:N4	2.79	0.49
1:AA:2208:U:H4'	3:AD:151:LYS:HG2	1.93	0.49
7:AH:10:PRO:HD2	7:AH:50:VAL:O	2.12	0.49
7:AH:97:ARG:O	7:AH:125:VAL:HG21	2.12	0.49
14:AQ:37:ALA:HB2	14:AQ:101:LEU:HD21	1.94	0.49
17:A2:35:LEU:CD2	17:A2:57:VAL:HG13	2.42	0.49
17:A2:49:THR:CB	17:A2:50:PRO:HD2	2.28	0.49
22:A3:36:ILE:CD1	22:A3:39:ARG:HG2	2.42	0.49
26:A4:42:PHE:CD1	26:A4:42:PHE:C	2.90	0.49
31:BA:509:A:O2'	31:BA:510:A:P	2.70	0.49
31:BA:865:A:H2	31:BA:918:A:H4'	1.77	0.49
35:BH:126:ARG:HG3	35:BH:126:ARG:NH1	2.27	0.49
38:BK:113:SER:H	38:BK:134:ILE:HD13	1.77	0.49
43:BP:108:ARG:O	43:BP:111:LYS:N	2.43	0.49
46:BS:14:ASN:N	46:BS:15:PRO:HD3	2.27	0.49
47:BT:33:GLY:O	47:BT:34:LYS:C	2.55	0.49
31:CA:197:A:C8	31:CA:198:G:C1'	2.95	0.49
31:CA:353:A:H2'	31:CA:354:G:OP2	2.12	0.49
31:CA:457:C:H2'	31:CA:458:C:H6	1.76	0.49
31:CA:511:C:C2	31:CA:512:U:C5	3.00	0.49
31:CA:748:C:H1'	31:CA:749:C:OP2	2.12	0.49
31:CA:1015:A:N6	31:CA:1016:A:N1	2.60	0.49
31:CA:1018:C:H2'	31:CA:1019:C:O4'	2.11	0.49
31:CA:1433:A:C8	31:CA:1467:G:N2	2.80	0.49
33:CF:119:ARG:O	33:CF:123:GLN:HG3	2.11	0.49
38:CK:38:ILE:HD12	38:CK:118:VAL:HG12	1.92	0.49
1:DA:1063:G:C6	1:DA:1064:C:C2	2.99	0.49
1:DA:1070:A:H8	1:DA:1096:A:O2'	1.94	0.49
1:DA:1819:A:H4'	1:DA:1820:U:O5'	2.12	0.49
3:DD:61:LEU:O	3:DD:63:ARG:NH1	2.44	0.49
4:DE:55:ASN:O	4:DE:57:LYS:N	2.43	0.49
8:DK:105:HIS:C	8:DK:107:VAL:H	2.20	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DK:109:ILE:HD13	8:DK:109:ILE:N	2.27	0.49
9:DM:15:LEU:HD13	9:DM:16:ILE:N	2.27	0.49
12:DP:12:GLN:HE21	12:DP:73:PRO:HD3	1.76	0.49
13:D0:84:ALA:N	13:D0:85:PRO:CD	2.74	0.49
17:D2:85:LYS:CG	17:D2:86:GLY:H	2.24	0.49
24:DW:17:SER:CB	24:DW:21:LEU:H	2.24	0.49
26:D4:49:PHE:C	26:D4:51:ASP:H	2.20	0.49
28:D6:9:LEU:N	28:D6:27:LYS:HG3	2.27	0.49
30:D8:50:LEU:O	30:D8:51:ALA:HB3	2.11	0.49
30:D8:52:LYS:HD2	30:D8:52:LYS:H	1.76	0.49
1:AA:540:G:H5'	1:AA:541:C:OP2	2.12	0.49
1:AA:950:G:C5	1:AA:951:C:C4	3.00	0.49
1:AA:1264:G:H5'	27:A5:11:THR:CG2	2.42	0.49
1:AA:1290:C:H2'	1:AA:1291:C:C6	2.48	0.49
1:AA:1729:A:H2'	1:AA:1731:G:C8	2.47	0.49
1:AA:1992:G:C1'	1:AA:1993:U:OP2	2.60	0.49
1:AA:2077:A:H2'	1:AA:2078:C:H6	1.77	0.49
1:AA:2683:C:OP1	15:AR:53:ARG:NH2	2.45	0.49
1:AA:2689:U:C4'	1:AA:2690:C:H5'	2.32	0.49
2:AB:24:G:C2	2:AB:56:G:C2	3.00	0.49
3:AD:35:LYS:HG2	3:AD:64:ILE:HG23	1.93	0.49
3:AD:70:TRP:CH2	3:AD:150:LYS:HA	2.48	0.49
3:AD:172:TYR:HD1	3:AD:185:VAL:C	2.20	0.49
8:AK:81:VAL:O	8:AK:83:ALA:N	2.45	0.49
11:AO:149:GLU:HG2	11:AO:150:ALA:N	2.27	0.49
12:AP:33:GLY:HA2	12:AP:105:GLU:HA	1.94	0.49
12:AP:78:PRO:O	12:AP:79:LEU:O	2.30	0.49
14:AQ:56:LEU:HB2	14:AQ:58:LEU:CD2	2.42	0.49
31:BA:644:G:H2'	31:BA:645:C:O4'	2.12	0.49
31:BA:1002:G:C2'	31:BA:1003:G:H8	2.25	0.49
32:BE:31:TYR:O	32:BE:42:ILE:HG13	2.11	0.49
34:BG:11:LEU:O	34:BG:12:CYS:C	2.55	0.49
34:BG:11:LEU:O	34:BG:13:ARG:N	2.46	0.49
35:BH:100:VAL:HG22	35:BH:118:ILE:HG22	1.94	0.49
42:BO:15:VAL:O	42:BO:16:ARG:HB2	2.11	0.49
31:CA:9:G:OP2	35:CH:121:LYS:HD2	2.11	0.49
31:CA:254:G:OP1	47:CT:67:LYS:O	2.30	0.49
31:CA:943:U:H1'	39:CL:124:GLN:HE22	1.77	0.49
31:CA:1126:U:H1'	31:CA:1127:G:OP2	2.11	0.49
31:CA:1176:A:N6	31:CA:1177:G:C5	2.80	0.49
31:CA:1184:G:H2'	31:CA:1185:G:H5'	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1436:U:H2'	31:CA:1437:C:C6	2.48	0.49
35:CH:18:ARG:HD2	35:CH:25:ARG:O	2.11	0.49
35:CH:73:ASN:N	35:CH:73:ASN:OD1	2.44	0.49
45:CR:54:ARG:NH1	45:CR:58:MET:SD	2.85	0.49
50:CW:29:LYS:O	50:CW:33:ILE:HG12	2.12	0.49
51:CX:6:ARG:C	51:CX:8:THR:H	2.20	0.49
1:DA:85:G:OP1	20:DU:30:VAL:HG21	2.12	0.49
1:DA:881:G:H5'	1:DA:882:G:OP2	2.12	0.49
1:DA:1864:U:OP1	1:DA:2410:G:O2'	2.24	0.49
1:DA:2162:G:O2'	1:DA:2173:A:OP2	2.29	0.49
3:DD:30:GLU:CG	3:DD:63:ARG:NH2	2.71	0.49
4:DE:130:GLY:O	4:DE:131:ALA:C	2.54	0.49
7:DH:144:VAL:O	7:DH:148:ILE:HG12	2.11	0.49
8:DK:92:VAL:HB	8:DK:120:ILE:HB	1.92	0.49
12:DP:19:GLY:HA3	12:DP:98:LYS:HZ2	1.77	0.49
21:DV:116:VAL:HG12	21:DV:117:LEU:N	2.25	0.49
24:DW:15:LYS:HD3	24:DW:67:LYS:HE2	1.94	0.49
28:D6:11:LEU:HD23	28:D6:26:ASN:CB	2.37	0.49
1:AA:221:A:C4	1:AA:266:G:N7	2.80	0.49
1:AA:592:G:H21	30:A8:4:MET:CE	2.25	0.49
1:AA:988:A:C6	25:AX:13:ILE:HG21	2.47	0.49
1:AA:1479:G:C5	1:AA:1510:A:N6	2.79	0.49
1:AA:1641:A:H2'	1:AA:1642:G:O4'	2.13	0.49
1:AA:1939:U:OP1	1:AA:2604:U:O2'	2.29	0.49
15:AR:26:ASP:CB	15:AR:91:ARG:HA	2.42	0.49
15:AR:57:PHE:O	15:AR:58:ASN:C	2.53	0.49
15:AR:111:ARG:O	15:AR:112:ARG:HG3	2.12	0.49
20:AU:90:LEU:N	20:AU:90:LEU:HD13	2.27	0.49
31:BA:107:G:H2'	31:BA:108:G:O4'	2.12	0.49
31:BA:619:U:O2	34:BG:135:LEU:HD22	2.12	0.49
31:BA:674:G:H2'	31:BA:675:A:C8	2.47	0.49
31:BA:1175:G:N1	31:BA:1176:A:N6	2.60	0.49
31:BA:1203:C:H2'	31:BA:1204:A:O4'	2.12	0.49
32:BE:109:SER:C	32:BE:111:ARG:N	2.68	0.49
36:BI:19:LEU:HD21	36:BI:59:TYR:CZ	2.47	0.49
39:BL:16:ARG:CB	39:BL:64:THR:HG22	2.39	0.49
53:BC:1:C:C2'	53:BC:2:G:OP2	2.60	0.49
32:CE:120:ALA:O	32:CE:124:SER:OG	2.27	0.49
32:CE:178:ARG:HH22	32:CE:196:LEU:C	2.20	0.49
37:CJ:15:ASP:OD2	37:CJ:44:TYR:OH	2.30	0.49
37:CJ:23:VAL:HG13	37:CJ:43:PHE:CE2	2.35	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:CJ:87:VAL:CG1	37:CJ:154:TYR:HB2	2.40	0.49
47:CT:66:SER:OG	47:CT:69:LYS:HB2	2.12	0.49
1:DA:270(I):G:H1	1:DA:270(Q):C:H42	1.60	0.49
1:DA:996:A:C2	1:DA:997:G:C8	3.00	0.49
1:DA:1061:U:H4'	1:DA:1070:A:C1'	2.42	0.49
1:DA:1342:A:N1	1:DA:1397:U:N3	2.60	0.49
1:DA:2079:U:H2'	1:DA:2080:G:O4'	2.12	0.49
5:DF:57:VAL:CG1	5:DF:59:TYR:CD1	2.95	0.49
6:DG:16:ARG:N	6:DG:17:PRO:HD2	2.26	0.49
11:DO:31:ALA:O	11:DO:32:THR:OG1	2.27	0.49
12:DP:31:ASP:H	12:DP:107:ALA:CB	2.20	0.49
16:D1:92:ARG:CD	16:D1:95:LEU:HD12	2.42	0.49
19:DT:27:THR:HB	19:DT:80:ILE:HG22	1.93	0.49
28:D6:27:LYS:HZ3	28:D6:28:ARG:NH1	2.09	0.49
1:AA:627:A:H62	11:AO:84:ASN:HD21	1.60	0.49
1:AA:974(A):C:H4'	1:AA:975:G:C5'	2.41	0.49
1:AA:974(A):C:O2	1:AA:974(A):C:H2'	2.12	0.49
1:AA:1085:A:H3'	1:AA:1085:A:OP2	2.13	0.49
1:AA:1204:A:HO2'	1:AA:1205:U:P	2.34	0.49
1:AA:1600:C:O2'	1:AA:1601:G:H5'	2.12	0.49
1:AA:2292:C:P	14:AQ:17:ARG:HH22	2.36	0.49
3:AD:108:PRO:HD2	3:AD:111:LEU:HG	1.94	0.49
10:AN:14:THR:HG22	10:AN:95:GLY:N	2.27	0.49
13:A0:44:LEU:HD22	13:A0:48:VAL:HG23	1.95	0.49
15:AR:42:ILE:HG21	15:AR:84:GLN:NE2	2.27	0.49
18:AS:18:ARG:HG3	18:AS:76:VAL:HG13	1.94	0.49
27:A5:58:LEU:HD12	27:A5:58:LEU:O	2.12	0.49
31:BA:310:G:P	46:BS:27:LYS:HZ1	2.29	0.49
31:BA:389:A:H2'	31:BA:390:C:H5'	1.93	0.49
31:BA:1158:C:O2	31:BA:1158:C:H3'	2.12	0.49
31:BA:1298:C:H4'	31:BA:1299:A:C4	2.47	0.49
32:BE:17:PHE:HD1	32:BE:17:PHE:N	2.07	0.49
37:BJ:155:ARG:HG2	37:BJ:156:TRP:N	2.27	0.49
50:BW:94:ALA:O	50:BW:95:ALA:HB3	2.11	0.49
31:CA:523:A:H61	42:CO:89:ASP:HB2	1.78	0.49
31:CA:862:C:O2'	31:CA:863:U:H5'	2.12	0.49
33:CF:73:PRO:O	33:CF:76:VAL:N	2.36	0.49
44:CQ:23:ARG:O	44:CQ:24:CYS:C	2.55	0.49
52:CB:21:A:H4'	52:CB:22:G:OP1	2.12	0.49
53:CD:52:C:H2'	53:CD:53:G:C8	2.46	0.49
1:DA:71:A:H2	19:DT:31:HIS:HE1	1.56	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:654:A:H2'	1:DA:654:A:N3	2.26	0.49
1:DA:1060:U:O4'	1:DA:1062:G:H5'	2.12	0.49
1:DA:1991:U:C2'	1:DA:1992:G:H5"	2.43	0.49
1:DA:2507:C:H2'	1:DA:2508:G:O4'	2.12	0.49
1:DA:2712:U:OP1	1:DA:2714:G:H4'	2.13	0.49
1:DA:2788:C:OP1	4:DE:61:ARG:NH1	2.45	0.49
3:DD:108:PRO:HA	3:DD:196:VAL:O	2.12	0.49
4:DE:92:THR:C	4:DE:94:GLU:H	2.19	0.49
10:DN:14:THR:HG22	10:DN:52:VAL:HG22	1.94	0.49
20:DU:83:THR:CG2	20:DU:94:LYS:HG2	2.42	0.49
21:DV:132:ASN:C	21:DV:133:ILE:HD12	2.38	0.49
23:DZ:23:LYS:CD	23:DZ:28:GLY:HA3	2.43	0.49
23:DZ:62:VAL:HG12	23:DZ:63:ALA:O	2.13	0.49
28:D6:41:PRO:HG3	28:D6:47:THR:HG22	1.94	0.49
1:AA:494:G:H4'	18:AS:6:ILE:HB	1.94	0.49
1:AA:581:C:OP1	16:A1:33:ARG:HG3	2.12	0.49
1:AA:594:U:C5'	30:A8:61:LEU:HD13	2.32	0.49
1:AA:1077:A:OP1	1:AA:1077:A:H4'	2.11	0.49
1:AA:1858:G:O2'	1:AA:1859:A:C8	2.64	0.49
1:AA:2114:A:H61	1:AA:2119:A:H62	1.60	0.49
1:AA:2465:C:O2'	1:AA:2466:C:H5'	2.12	0.49
4:AE:111:ARG:HD2	4:AE:160:TYR:CD1	2.47	0.49
6:AG:145:THR:C	6:AG:147:ASP:H	2.19	0.49
7:AH:35:VAL:O	7:AH:37:VAL:HG23	2.13	0.49
11:AO:135:LEU:O	11:AO:139:LYS:HG3	2.11	0.49
31:BA:49:U:O2'	31:BA:50:A:H3'	2.12	0.49
31:BA:827:U:C5	31:BA:870:U:C4	3.00	0.49
31:BA:913:A:H1'	31:BA:914:A:OP2	2.12	0.49
31:BA:1070:U:H2'	31:BA:1071:C:C6	2.48	0.49
31:BA:1177:G:OP2	39:BL:97:LYS:NZ	2.43	0.49
31:BA:1177:G:H5"	31:BA:1178:G:OP1	2.13	0.49
31:BA:1374:A:O2'	37:BJ:28:ASN:HB3	2.13	0.49
31:BA:1455:G:OP1	50:BW:35:THR:OG1	2.27	0.49
39:BL:18:PHE:CD1	39:BL:62:TYR:HD2	2.27	0.49
31:CA:532:A:N6	31:CA:1206:G:O2'	2.45	0.49
31:CA:980:C:H5'	31:CA:981:U:H5	1.77	0.49
31:CA:1153:C:N3	31:CA:1154:G:C8	2.80	0.49
42:CO:21:VAL:O	42:CO:23:ALA:N	2.42	0.49
49:CV:22:LEU:C	49:CV:24:ALA:N	2.71	0.49
50:CW:48:LYS:O	50:CW:49:ALA:C	2.56	0.49
1:DA:52:A:O2'	1:DA:53:A:H5'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:155:C:O2	1:DA:155:C:H2'	2.12	0.49
1:DA:218:A:C2	1:DA:235:U:H4'	2.48	0.49
1:DA:1935:G:H1'	1:DA:1964:G:N2	2.27	0.49
1:DA:2262:U:H4'	1:DA:2328:A:C2	2.47	0.49
1:DA:2786:U:H4'	4:DE:64:LYS:C	2.38	0.49
3:DD:270:ILE:HG22	3:DD:271:ILE:N	2.28	0.49
8:DK:97:ILE:O	8:DK:101:LEU:HD23	2.13	0.49
9:DM:47:ALA:HB2	9:DM:112:LEU:CD1	2.42	0.49
10:DN:66:LYS:HA	10:DN:79:PHE:O	2.12	0.49
14:DQ:42:ASP:C	14:DQ:44:LYS:H	2.21	0.49
23:DZ:91:LYS:O	23:DZ:93:GLU:N	2.46	0.49
30:D8:29:LYS:O	30:D8:31:HIS:N	2.45	0.49
1:AA:2:G:H2'	1:AA:3:U:C6	2.47	0.49
1:AA:495:G:H1'	18:AS:57:ASN:HD21	1.77	0.49
1:AA:572:A:H5"	1:AA:573:G:OP2	2.12	0.49
1:AA:859:G:O2'	1:AA:916:G:O6	2.29	0.49
1:AA:1019:U:H3	1:AA:1142(A):A:H62	1.60	0.49
1:AA:1268:A:C2	1:AA:2013:A:C4	3.01	0.49
1:AA:1324:G:C4	1:AA:1328:G:O6	2.66	0.49
1:AA:1642:G:O2'	1:AA:1643:G:H5'	2.11	0.49
1:AA:1668:A:N3	1:AA:1670:C:C4	2.81	0.49
1:AA:1992:G:H1'	1:AA:1993:U:OP2	2.12	0.49
2:AB:94:C:C4	2:AB:95:U:C5	3.00	0.49
3:AD:186:HIS:CD2	3:AD:188:GLU:H	2.06	0.49
5:AF:34:TRP:CE2	11:AO:8:PRO:HD3	2.47	0.49
6:AG:112:PRO:HB3	26:A4:37:SER:N	2.27	0.49
8:AK:5:LEU:C	8:AK:6:LEU:HD12	2.37	0.49
13:A0:33:ARG:NH2	27:A5:55:ARG:HG2	2.27	0.49
31:BA:5:U:H1'	31:BA:6:G:C6	2.47	0.49
31:BA:191:G:C4	50:BW:105:SER:HB2	2.47	0.49
31:BA:277:C:H2'	31:BA:278:G:H8	1.77	0.49
31:BA:1106:G:H2'	31:BA:1107:C:C6	2.47	0.49
31:BA:1177:G:O6	31:BA:1182:G:O6	2.31	0.49
35:BH:153:LYS:HD3	35:BH:154:GLY:N	2.22	0.49
43:BP:23:TYR:CE1	43:BP:71:ARG:HG3	2.47	0.49
53:BC:54:G:O2'	53:BC:55:U:H5'	2.12	0.49
31:CA:1000:A:O2'	31:CA:1001:G:H5'	2.13	0.49
31:CA:1003:G:H1	31:CA:1037:C:H42	1.60	0.49
31:CA:1132:C:C2'	31:CA:1133:G:H5'	2.43	0.49
34:CG:8:VAL:CG1	34:CG:21:LEU:HD13	2.40	0.49
36:CI:14:LEU:O	36:CI:14:LEU:HD23	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CO:24:LEU:HD21	42:CO:59:SER:OG	2.12	0.49
44:CQ:12:ARG:HB3	44:CQ:14:PRO:HD3	1.95	0.49
48:CU:37:VAL:CG1	48:CU:78:LEU:HB3	2.43	0.49
53:CC:12:G:H1'	1:DA:1923:U:O2'	2.13	0.49
53:CD:9:G:O3'	53:CD:46:G:O2'	2.31	0.49
53:CD:61:U:O2'	53:CD:62:C:H5'	2.12	0.49
1:DA:49:A:H5"	1:DA:50:U:H3'	1.94	0.49
1:DA:1337:G:H2'	1:DA:1338:G:H8	1.77	0.49
1:DA:1442:G:H2'	1:DA:1443:G:H5"	1.93	0.49
1:DA:1728:G:C2	1:DA:1730:U:OP2	2.66	0.49
1:DA:2111:C:O2	1:DA:2118:U:O2'	2.31	0.49
1:DA:2292:C:O2'	1:DA:2293:C:H5'	2.11	0.49
1:DA:2319:G:H4'	1:DA:2320:A:O4'	2.13	0.49
1:DA:2410:G:C2	1:DA:2411:A:H1'	2.48	0.49
1:DA:2447:G:C1'	1:DA:2448:A:OP2	2.60	0.49
1:DA:2751:G:H5'	1:DA:2752:C:OP2	2.12	0.49
4:DE:29:GLY:HA2	4:DE:180:ASN:HB3	1.93	0.49
8:DK:95:LYS:O	8:DK:99:GLU:HG3	2.13	0.49
16:D1:100:VAL:C	16:D1:102:GLU:H	2.21	0.49
25:DX:52:HIS:H	25:DX:52:HIS:HD2	1.60	0.49
1:AA:218:A:H2	1:AA:235:U:H4'	1.76	0.49
1:AA:1082:U:N3	1:AA:1083:U:O2	2.45	0.49
1:AA:2086:U:H2'	1:AA:2087:G:C8	2.48	0.49
1:AA:2128:C:H5'	1:AA:2129:C:OP2	2.12	0.49
1:AA:2689:U:P	1:AA:2719:G:H22	2.35	0.49
2:AB:20:C:O2'	2:AB:21:G:H5'	2.13	0.49
2:AB:81:G:O6	2:AB:95:U:O2	2.31	0.49
8:AK:144:VAL:HG22	8:AK:145:VAL:N	2.28	0.49
14:AQ:86:ALA:O	14:AQ:87:PHE:CB	2.61	0.49
16:A1:92:ARG:HB3	16:A1:95:LEU:HD12	1.94	0.49
20:AU:52:SER:HB2	20:AU:53:PRO:CD	2.36	0.49
26:A4:9:LEU:H	26:A4:27:THR:CG2	2.25	0.49
31:BA:581:G:OP1	45:BR:65:ARG:NH1	2.44	0.49
31:BA:823:G:H21	38:BK:1:MET:HE1	1.78	0.49
31:BA:1392:G:N2	31:BA:1502:A:H8	2.09	0.49
31:BA:1442:G:C6	31:BA:1446:A:N6	2.81	0.49
44:BQ:26:ARG:HH11	44:BQ:43:CYS:HB3	1.77	0.49
31:CA:129(A):G:C6	31:CA:188:U:H4'	2.47	0.49
31:CA:745:C:OP1	31:CA:851:G:O2'	2.29	0.49
31:CA:1308:U:H5"	43:CP:98:VAL:HG23	1.93	0.49
31:CA:1504:G:H4'	31:CA:1505:G:O5'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CG:91:SER:OG	34:CG:191:ARG:HG3	2.12	0.49
36:CI:82:ARG:HB2	36:CI:85:VAL:HG23	1.94	0.49
1:DA:71:A:H5"	1:DA:73:A:C8	2.48	0.49
1:DA:298:G:O2'	1:DA:322:A:N1	2.36	0.49
1:DA:495:G:H1'	18:DS:57:ASN:ND2	2.25	0.49
1:DA:535:C:C2'	1:DA:536:A:H5'	2.42	0.49
1:DA:620:G:H4'	1:DA:621:A:H5"	1.94	0.49
1:DA:858:U:O2	1:DA:2268:A:H2'	2.13	0.49
1:DA:1139:G:O3'	9:DM:24:GLY:HA3	2.12	0.49
1:DA:1239:G:H2'	1:DA:1240:U:O4'	2.12	0.49
1:DA:1278:A:C5'	13:D0:36:THR:HG22	2.43	0.49
1:DA:1472:A:C2'	1:DA:1473:G:H5'	2.42	0.49
1:DA:1973:G:H2'	1:DA:1974:C:C6	2.47	0.49
1:DA:2050:C:H1'	4:DE:156:MET:HE2	1.95	0.49
1:DA:2461:C:H2'	1:DA:2462:U:C6	2.47	0.49
1:DA:2522:U:H2'	1:DA:2523:G:C5'	2.43	0.49
1:DA:2845:G:O2'	1:DA:2846:G:H5'	2.12	0.49
1:DA:2898:U:H2'	1:DA:2899:G:C8	2.47	0.49
2:DB:44:G:C2	2:DB:48:A:C2	3.01	0.49
4:DE:170:LEU:HD23	4:DE:184:VAL:HB	1.94	0.49
8:DK:83:ALA:O	8:DK:89:TYR:CE2	2.65	0.49
11:DO:39:LYS:HD2	11:DO:45:LEU:CD2	2.43	0.49
12:DP:18:LYS:O	12:DP:19:GLY:O	2.30	0.49
21:DV:59:LEU:O	21:DV:60:GLU:HB3	2.12	0.49
23:DZ:86:SER:O	23:DZ:87:PRO:C	2.56	0.49
1:AA:53:A:H2'	1:AA:54:G:O4'	2.12	0.49
1:AA:194:G:H2'	1:AA:195:A:O4'	2.12	0.49
1:AA:270(T):G:OP1	23:AZ:97:LEU:HD22	2.13	0.49
1:AA:868:U:C4	1:AA:869:G:N7	2.81	0.49
1:AA:988:A:H4'	1:AA:1155:A:N1	2.28	0.49
1:AA:1210:A:H8	1:AA:1210:A:C5'	2.20	0.49
1:AA:1210:A:C4'	1:AA:1211:U:OP2	2.60	0.49
1:AA:1729:A:H8	1:AA:1730:U:C5	2.31	0.49
1:AA:1794:U:H2'	1:AA:1795:C:C6	2.47	0.49
1:AA:2378:A:C5	1:AA:2379:G:H1'	2.47	0.49
1:AA:2439:A:O2'	1:AA:2440:C:OP2	2.23	0.49
2:AB:42:C:O2	6:AG:92:VAL:HA	2.13	0.49
4:AE:38:THR:HB	4:AE:39:PRO:CD	2.35	0.49
6:AG:124:SER:HB2	6:AG:131:TYR:CE1	2.48	0.49
8:AK:110:ASP:HB3	8:AK:111:PRO:CA	2.42	0.49
11:AO:66:GLY:O	11:AO:67:MET:CB	2.59	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AP:19:GLY:HA3	12:AP:98:LYS:HD3	1.94	0.49
12:AP:60:ARG:HG3	12:AP:60:ARG:O	2.13	0.49
15:AR:5:ALA:O	15:AR:9:LEU:HB2	2.12	0.49
16:A1:108:GLU:HG3	17:A2:44:LYS:HD3	1.95	0.49
31:BA:939:G:H5"	37:BJ:102:ARG:NH2	2.28	0.49
31:BA:1391:U:H2'	31:BA:1392:G:H8	1.72	0.49
41:BN:79:SER:CB	41:BN:106:LYS:HD2	2.39	0.49
43:BP:12:ASN:O	43:BP:14:ARG:N	2.46	0.49
45:BR:6:GLU:HA	45:BR:9:GLN:HB2	1.95	0.49
31:CA:407:G:H2'	31:CA:408:A:C8	2.47	0.49
31:CA:409:G:OP1	34:CG:25:ARG:HB3	2.12	0.49
31:CA:468:A:H2'	31:CA:474:G:H5'	1.95	0.49
31:CA:1292:U:H2'	31:CA:1293:G:H8	1.78	0.49
32:CE:109:SER:C	32:CE:111:ARG:N	2.69	0.49
32:CE:236:TYR:HA	32:CE:239:VAL:CG2	2.43	0.49
39:CL:70:LYS:O	39:CL:74:ILE:HG13	2.13	0.49
46:CS:3:LYS:O	46:CS:21:VAL:HA	2.13	0.49
49:CV:65:ASN:C	49:CV:66:MET:HE3	2.38	0.49
1:DA:288:C:C3'	1:DA:289:A:H8	2.26	0.49
1:DA:654(J):A:H2'	1:DA:654(J):A:N3	2.27	0.49
1:DA:669:G:H1'	1:DA:670:A:OP1	2.12	0.49
1:DA:836:G:C5	1:DA:837:C:C4	3.01	0.49
1:DA:856:C:O2'	1:DA:857:C:P	2.71	0.49
1:DA:889:C:H2'	1:DA:890:A:H4'	1.94	0.49
1:DA:1019:U:H3	1:DA:1142(A):A:H62	1.59	0.49
1:DA:1568:G:OP2	3:DD:63:ARG:NH2	2.43	0.49
1:DA:1798:U:H5'	3:DD:259:THR:OG1	2.13	0.49
1:DA:1914:C:O2	1:DA:1914:C:O4'	2.31	0.49
1:DA:2147:G:H2'	1:DA:2148:G:O4'	2.12	0.49
1:DA:2314:C:O2'	1:DA:2315:G:H5'	2.12	0.49
1:DA:2475:C:H2'	1:DA:2477:C:OP1	2.12	0.49
4:DE:89:ASP:O	4:DE:90:THR:HB	2.12	0.49
4:DE:98:PRO:HG3	4:DE:174:ASP:HA	1.95	0.49
15:DR:5:ALA:O	15:DR:8:LYS:N	2.31	0.49
20:DU:17:SER:HB2	20:DU:71:LYS:HD2	1.94	0.49
24:DW:10:LEU:O	24:DW:14:ARG:HB2	2.12	0.49
24:DW:71:ASN:O	24:DW:72:ALA:HB3	2.13	0.49
1:AA:137(A):G:H2'	1:AA:139:G:N7	2.27	0.49
1:AA:1568:G:H5"	3:AD:61:LEU:HD22	1.93	0.49
1:AA:2031:A:C6	1:AA:2498:C:H1'	2.47	0.49
1:AA:2173:A:H2'	1:AA:2174:C:O4'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2281:C:O2'	1:AA:2282:G:H5'	2.13	0.49
1:AA:2287:A:H2	1:AA:2346:A:N1	2.10	0.49
7:AH:80:SER:C	7:AH:81:GLU:HG3	2.38	0.49
9:AM:51:PHE:CE2	9:AM:119:ARG:HG2	2.47	0.49
17:A2:76:LYS:HG3	17:A2:81:TYR:HD1	1.77	0.49
31:BA:450:G:N7	31:BA:481:G:C6	2.81	0.49
31:BA:453:A:C6	31:BA:454:C:C4	3.01	0.49
31:BA:606:G:N2	31:BA:631:G:C8	2.81	0.49
31:BA:686:U:O4	31:BA:703:G:H1'	2.13	0.49
31:BA:998:G:H2'	31:BA:998(A):C:C6	2.48	0.49
42:BO:21:VAL:HG13	42:BO:95:TYR:HE2	1.75	0.49
53:BD:67:C:H2'	53:BD:68:C:C6	2.48	0.49
31:CA:168:G:H2'	31:CA:169:C:H5"	1.93	0.49
32:CE:96:ARG:H	32:CE:96:ARG:CD	2.25	0.49
32:CE:137:ARG:HH12	32:CE:140:HIS:CB	2.24	0.49
33:CF:8:ILE:C	33:CF:10:PHE:N	2.71	0.49
33:CF:130:VAL:O	33:CF:134:ILE:HG12	2.12	0.49
34:CG:9:CYS:HA	34:CG:12:CYS:CB	2.42	0.49
36:CI:60:PHE:C	36:CI:61:LEU:HD12	2.38	0.49
53:CC:48:U:H1'	53:CC:49:C:P	2.52	0.49
1:DA:5:A:H61	1:DA:2898:U:H3	1.60	0.49
1:DA:550:G:O2'	1:DA:1220:A:N3	2.41	0.49
1:DA:613:U:O2	1:DA:613:U:O4'	2.29	0.49
1:DA:690:G:H2'	1:DA:691:C:C6	2.48	0.49
1:DA:1087:G:H1	1:DA:1102:C:N4	2.10	0.49
1:DA:1614:A:N1	18:DS:91:GLY:HA2	2.26	0.49
1:DA:2148:G:H2'	1:DA:2149:G:C8	2.42	0.49
2:DB:15:A:H1'	2:DB:109:G:N9	2.28	0.49
4:DE:71:GLY:O	4:DE:73:GLU:N	2.46	0.49
5:DF:31:HIS:ND1	11:DO:9:ASN:OD1	2.46	0.49
7:DH:6:ARG:HE	7:DH:54:ARG:NH1	2.11	0.49
8:DK:72:LEU:C	8:DK:74:ASN:H	2.21	0.49
12:DP:26:TYR:HD2	12:DP:26:TYR:C	2.21	0.49
12:DP:60:ARG:HG3	12:DP:60:ARG:O	2.13	0.49
26:D4:38:LYS:C	26:D4:40:HIS:N	2.71	0.49
27:D5:45:VAL:HG13	27:D5:50:GLY:HA2	1.94	0.49
27:D5:56:LYS:O	27:D5:57:VAL:C	2.56	0.49
1:AA:129:C:H2'	1:AA:130:C:C6	2.48	0.49
1:AA:525:U:H5'	1:AA:556:G:OP1	2.12	0.49
1:AA:1079:C:N4	1:AA:1080:A:N6	2.61	0.49
1:AA:1085:A:N3	1:AA:1086:A:C5	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1819:A:H5"	3:AD:158:ALA:CB	2.43	0.49
1:AA:2310:A:C2	6:AG:77:ILE:HG12	2.47	0.49
1:AA:2340:G:H2'	1:AA:2341:G:H8	1.78	0.49
1:AA:2512:C:H2'	1:AA:2513:G:O4'	2.13	0.49
1:AA:2537:U:H2'	1:AA:2538:C:C6	2.48	0.49
1:AA:2699:C:H2'	1:AA:2700:C:O4'	2.12	0.49
2:AB:95:U:C2	2:AB:96:G:C8	3.01	0.49
3:AD:238:GLY:O	3:AD:239:ARG:O	2.30	0.49
4:AE:70:ALA:O	4:AE:71:GLY:C	2.56	0.49
7:AH:152:ARG:HE	7:AH:153:LYS:NZ	2.11	0.49
7:AH:154:PRO:HB3	7:AH:163:TYR:CE2	2.47	0.49
8:AK:4:ILE:HD11	8:AK:44:LEU:HD12	1.95	0.49
11:AO:50:ARG:HD3	30:A8:7:HIS:HD2	1.67	0.49
12:AP:87:LYS:O	12:AP:88:GLY:O	2.30	0.49
12:AP:138:ASP:C	12:AP:140:ALA:H	2.21	0.49
14:AQ:87:PHE:CE2	14:AQ:89:ARG:HB2	2.47	0.49
15:AR:5:ALA:HB1	15:AR:8:LYS:HE2	1.94	0.49
15:AR:24:PRO:HA	15:AR:49:VAL:CG2	2.43	0.49
19:AT:31:HIS:CD2	19:AT:33:LYS:H	2.31	0.49
23:AZ:51:VAL:HG21	23:AZ:74:VAL:HG21	1.95	0.49
23:AZ:58:ILE:HD11	23:AZ:86:SER:HB2	1.94	0.49
31:BA:258:G:H2'	31:BA:259:G:H8	1.78	0.49
31:BA:864:A:H5"	31:BA:865:A:OP2	2.13	0.49
31:BA:976:G:OP1	44:BQ:32:SER:N	2.46	0.49
31:BA:1073:U:H2'	31:BA:1074:G:H8	1.77	0.49
43:BP:7:VAL:HG12	43:BP:8:GLU:N	2.28	0.49
53:BD:5:G:N2	53:BD:70:C:C2	2.81	0.49
53:BD:31:G:H2'	53:BD:32:G:C8	2.48	0.49
31:CA:17:U:H2'	31:CA:18:C:C6	2.47	0.49
31:CA:201:C:C4'	31:CA:208:U:OP1	2.61	0.49
31:CA:540:G:H2'	31:CA:541:G:O4'	2.13	0.49
31:CA:1099:G:C6	31:CA:1100:C:N3	2.80	0.49
31:CA:1118:C:P	39:CL:104:ARG:HH11	2.35	0.49
33:CF:60:ALA:HA	40:CM:93:GLY:HA2	1.95	0.49
43:CP:4:ILE:HG13	43:CP:5:ALA:H	1.77	0.49
43:CP:94:ARG:O	43:CP:96:LEU:N	2.46	0.49
49:CV:39:THR:HG22	49:CV:40:ILE:N	2.28	0.49
49:CV:79:THR:O	49:CV:79:THR:OG1	2.26	0.49
50:CW:103:GLY:O	50:CW:104:LEU:HD12	2.12	0.49
1:DA:637:A:OP1	11:DO:133:SER:OG	2.30	0.49
1:DA:1204:A:HO2'	1:DA:1205:U:P	2.34	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1771:C:C1'	1:DA:1786:A:C8	2.96	0.49
1:DA:1784:A:H4'	1:DA:1785:A:C5'	2.43	0.49
1:DA:2881:C:C2	1:DA:2882:A:C8	3.01	0.49
3:DD:12:SER:HB2	3:DD:208:LYS:HB3	1.93	0.49
4:DE:56:PRO:HD2	4:DE:58:ARG:HH22	1.76	0.49
6:DG:114:ILE:HD13	6:DG:140:ILE:HG21	1.95	0.49
8:DK:68:LEU:O	8:DK:69:LYS:C	2.56	0.49
12:DP:39:PRO:HA	12:DP:97:VAL:O	2.13	0.49
12:DP:78:PRO:O	12:DP:79:LEU:O	2.30	0.49
14:DQ:15:ARG:HD2	14:DQ:88:ASP:OD1	2.12	0.49
16:D1:76:TYR:OH	16:D1:93:LYS:HE3	2.12	0.49
23:DZ:41:ARG:HG3	23:DZ:43:TYR:CE2	2.48	0.49
1:AA:116:C:O2'	1:AA:117:G:H5'	2.13	0.48
1:AA:606:U:H4'	1:AA:658:C:H4'	1.94	0.48
1:AA:607:U:OP1	5:AF:102:PRO:HA	2.13	0.48
1:AA:892:G:H5"	1:AA:893:C:OP1	2.13	0.48
1:AA:1050:A:H1'	1:AA:2751:G:C8	2.48	0.48
1:AA:1313:U:H2'	1:AA:1610:A:C2	2.47	0.48
1:AA:1557:C:H5"	1:AA:1558:A:OP2	2.12	0.48
1:AA:1937:A:C2'	1:AA:1938:A:OP1	2.59	0.48
1:AA:1995:U:H1'	10:AN:3:GLN:HE22	1.78	0.48
1:AA:2173:A:OP1	1:AA:2173:A:C8	2.66	0.48
1:AA:2312:U:H3'	1:AA:2312:U:H6	1.77	0.48
1:AA:2567:G:H2'	1:AA:2568:C:C6	2.48	0.48
2:AB:90:C:H5'	12:AP:18:LYS:CA	2.36	0.48
5:AF:178:PRO:HG2	5:AF:179:GLU:OE2	2.13	0.48
7:AH:4:ILE:C	7:AH:6:ARG:H	2.20	0.48
7:AH:86:GLU:OE1	7:AH:86:GLU:N	2.34	0.48
9:AM:57:ALA:HB3	9:AM:123:TYR:O	2.13	0.48
12:AP:2:LEU:HD11	12:AP:69:PHE:HE1	1.78	0.48
12:AP:72:LYS:HB3	12:AP:94:VAL:HG23	1.95	0.48
20:AU:74:PRO:O	20:AU:80:GLY:HA2	2.12	0.48
31:BA:484:G:H1'	31:BA:485:G:OP2	2.12	0.48
31:BA:1132:C:O2'	31:BA:1133:G:H5'	2.13	0.48
31:BA:1303:C:H2'	31:BA:1304:G:H5'	1.95	0.48
31:BA:1435:G:H2'	31:BA:1436:U:C6	2.48	0.48
32:BE:21:ARG:CB	32:BE:39:ILE:HA	2.33	0.48
35:BH:76:ILE:HB	35:BH:77:PRO:HD2	1.95	0.48
36:BI:4:TYR:CD1	36:BI:92:LYS:HA	2.48	0.48
39:BL:86:VAL:O	39:BL:90:PRO:HA	2.13	0.48
41:BN:99:GLN:NE2	41:BN:105:VAL:HG21	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BO:116:LYS:O	42:BO:117:TYR:HB2	2.13	0.48
43:BP:30:ALA:C	43:BP:32:GLU:H	2.21	0.48
31:CA:232:G:H1'	31:CA:262:A:N1	2.27	0.48
31:CA:495:A:H4'	31:CA:496:A:OP1	2.13	0.48
31:CA:630:G:H2'	31:CA:630:G:N3	2.28	0.48
31:CA:652:U:H1'	31:CA:653:A:C2	2.39	0.48
31:CA:940:C:H2'	31:CA:941:G:H8	1.77	0.48
31:CA:1129:C:C2	31:CA:1139:G:C6	3.01	0.48
32:CE:101:MET:HB2	32:CE:102:LEU:HD12	1.95	0.48
38:CK:111:ILE:C	38:CK:112:LEU:HD23	2.37	0.48
38:CK:120:THR:OG1	38:CK:123:GLU:HG2	2.12	0.48
51:CX:5:ASP:O	51:CX:11:GLY:HA3	2.13	0.48
1:DA:61:G:C8	24:DW:47:ASN:HB3	2.48	0.48
1:DA:370:G:H4'	1:DA:371:A:OP2	2.13	0.48
1:DA:385:C:H5"	1:DA:386:G:OP1	2.13	0.48
1:DA:534:U:O2'	16:D1:49:HIS:CD2	2.66	0.48
1:DA:547:A:C5	1:DA:548:A:C6	3.01	0.48
1:DA:607:U:O2	1:DA:621:A:N1	2.46	0.48
1:DA:811:U:H3'	11:DO:22:GLY:HA3	1.94	0.48
1:DA:1019:U:O2'	1:DA:1021:A:H2	1.95	0.48
1:DA:1342:A:N1	1:DA:1602:U:C4	2.81	0.48
1:DA:2272:U:C5'	1:DA:2273:A:OP1	2.60	0.48
1:DA:2402:C:H2'	1:DA:2403:C:O5'	2.13	0.48
1:DA:2695:C:H2'	1:DA:2696:U:C6	2.47	0.48
2:DB:15:A:H1'	2:DB:109:G:C4	2.48	0.48
8:DK:77:LEU:CG	8:DK:78:THR:N	2.75	0.48
12:DP:81:VAL:HG23	12:DP:82:ARG:O	2.12	0.48
14:DQ:38:GLN:OE1	14:DQ:47:THR:OG1	2.27	0.48
15:DR:26:ASP:HB3	15:DR:91:ARG:CA	2.24	0.48
17:D2:60:GLU:OE2	17:D2:97:LYS:HE3	2.12	0.48
21:DV:150:LEU:O	21:DV:171:ILE:HB	2.12	0.48
26:D4:2:LYS:HD2	26:D4:6:HIS:ND1	2.28	0.48
26:D4:40:HIS:N	26:D4:41:PRO:CD	2.76	0.48
1:AA:27:G:C2	1:AA:512:G:N3	2.81	0.48
1:AA:273(F):C:H42	1:AA:363:G:H1	1.61	0.48
1:AA:880:G:O2'	1:AA:881:G:P	2.71	0.48
1:AA:1252:G:O4'	16:A1:33:ARG:HD3	2.13	0.48
1:AA:1299:G:H3'	1:AA:1639:U:O4	2.13	0.48
1:AA:1387:C:H5'	1:AA:1469:A:H4'	1.95	0.48
1:AA:1512:G:H2'	1:AA:1513:C:C6	2.48	0.48
1:AA:1531:C:O2'	1:AA:1532:C:H5'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1728:G:C3'	1:AA:1729:A:C5'	2.87	0.48
1:AA:2266:A:H4'	1:AA:2267:A:N3	2.27	0.48
1:AA:2811:G:C2'	1:AA:2812:G:H5'	2.43	0.48
7:AH:150:ALA:C	7:AH:152:ARG:N	2.71	0.48
7:AH:154:PRO:HD3	7:AH:162:ILE:O	2.13	0.48
9:AM:128:HIS:HD2	9:AM:129:PRO:O	1.95	0.48
11:AO:65:ARG:HH21	30:A8:15:LYS:CB	2.23	0.48
15:AR:23:ARG:HG3	15:AR:120:ARG:HH12	1.78	0.48
23:AZ:67:ILE:N	23:AZ:68:PRO:HD2	2.27	0.48
27:A5:40:LYS:HZ2	27:A5:46:CYS:HB3	1.77	0.48
31:BA:160:A:H61	31:BA:347:G:H1'	1.77	0.48
31:BA:328:C:O2	31:BA:328:C:H2'	2.12	0.48
31:BA:458:C:H2'	31:BA:464:G:H8	1.78	0.48
31:BA:942:G:C2	31:BA:1342:C:C2	3.01	0.48
31:BA:967:C:O2'	39:BL:125:TYR:OH	2.16	0.48
33:BF:53:ALA:HB2	33:BF:115:LEU:CD1	2.40	0.48
36:BI:8:ILE:HG22	36:BI:10:LEU:CD1	2.42	0.48
39:BL:99:LEU:HB3	39:BL:101:PHE:CE1	2.48	0.48
41:BN:99:GLN:HG2	41:BN:105:VAL:CG2	2.42	0.48
31:CA:9:G:H5'	35:CH:122:GLU:OE2	2.13	0.48
31:CA:245:C:O2	31:CA:283:C:N3	2.47	0.48
31:CA:644:G:H4'	38:CK:92:ARG:NH1	2.28	0.48
31:CA:691:G:H1'	31:CA:696:A:N6	2.28	0.48
31:CA:973:G:C4	40:CM:55:LYS:HE2	2.48	0.48
31:CA:976:G:P	44:CQ:32:SER:H	2.34	0.48
31:CA:1132:C:H2'	31:CA:1133:G:H8	1.77	0.48
32:CE:74:LYS:O	32:CE:75:LYS:CB	2.57	0.48
35:CH:12:LEU:O	35:CH:30:ALA:HA	2.13	0.48
37:CJ:26:PHE:CE2	37:CJ:30:ILE:HD11	2.47	0.48
39:CL:85:LEU:HD13	39:CL:92:TYR:HD2	1.77	0.48
42:CO:15:VAL:O	42:CO:16:ARG:HB2	2.13	0.48
45:CR:48:LYS:HE2	45:CR:48:LYS:CA	2.42	0.48
49:CV:66:MET:HA	49:CV:67:VAL:CB	2.29	0.48
52:CB:15:A:OP2	52:CB:16:U:H5	1.96	0.48
53:CC:73:A:N6	53:CC:74:A:N6	2.61	0.48
1:DA:373:U:H2'	1:DA:374:A:H8	1.78	0.48
1:DA:975:G:N2	1:DA:990:A:O4'	2.47	0.48
1:DA:990:A:OP2	1:DA:991:C:OP2	2.31	0.48
1:DA:1169:G:N2	1:DA:1181:C:C2	2.81	0.48
1:DA:1265:A:H3'	27:D5:19:ARG:NH1	2.28	0.48
1:DA:1547:C:H2'	1:DA:1548:C:H6	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2468:G:C5	1:DA:2481:G:C2	3.02	0.48
4:DE:1:MET:HB2	4:DE:200:GLU:OE2	2.13	0.48
5:DF:128:ALA:O	5:DF:142:TRP:NE1	2.45	0.48
13:D0:72:ASP:HB3	13:D0:75:LEU:HB3	1.95	0.48
21:DV:5:LEU:O	21:DV:6:LYS:C	2.55	0.48
23:DZ:67:ILE:N	23:DZ:68:PRO:CD	2.76	0.48
23:DZ:87:PRO:HA	23:DZ:90:ILE:HG23	1.94	0.48
1:AA:483:A:C5'	20:AU:49:VAL:HG22	2.44	0.48
1:AA:1015:G:H2'	1:AA:1016:G:H5'	1.96	0.48
1:AA:1593:G:H2'	1:AA:1594:G:C8	2.48	0.48
1:AA:2134:A:H8	1:AA:2134:A:O5'	1.96	0.48
1:AA:2355:C:H1'	22:A3:39:ARG:HH21	1.78	0.48
3:AD:34:VAL:O	3:AD:34:VAL:CG1	2.62	0.48
3:AD:62:TYR:CE1	3:AD:64:ILE:HA	2.48	0.48
5:AF:9:ILE:O	5:AF:9:ILE:HD13	2.12	0.48
6:AG:105:LYS:HE3	6:AG:143:GLU:OE1	2.12	0.48
7:AH:12:PRO:HD3	7:AH:48:GLY:O	2.14	0.48
10:AN:86:ILE:HG22	10:AN:94:ARG:HG3	1.95	0.48
10:AN:104:ARG:HH22	15:AR:43:GLN:NE2	2.11	0.48
11:AO:58:THR:HG22	11:AO:61:ARG:HD3	1.95	0.48
12:AP:26:TYR:HD2	12:AP:26:TYR:C	2.21	0.48
12:AP:66:ILE:CA	12:AP:104:PHE:HA	2.41	0.48
14:AQ:35:ILE:HD11	14:AQ:101:LEU:HD23	1.94	0.48
19:AT:29:TRP:CZ3	19:AT:78:LYS:CG	2.97	0.48
20:AU:74:PRO:HB2	20:AU:101:LYS:NZ	2.28	0.48
21:AV:110:GLY:O	21:AV:111:VAL:C	2.56	0.48
26:A4:12:ALA:HB3	26:A4:24:THR:HB	1.94	0.48
31:BA:1058:G:C6	31:BA:1059:C:N3	2.82	0.48
31:BA:1498:U:C1'	31:BA:1499:A:OP2	2.61	0.48
34:BG:173:TRP:CD2	34:BG:189:PRO:HB3	2.48	0.48
49:BV:39:THR:HG22	49:BV:40:ILE:N	2.24	0.48
51:BX:2:GLY:O	51:BX:4:GLY:N	2.46	0.48
31:CA:1004:A:H8	31:CA:1036:G:H22	1.61	0.48
32:CE:91:PRO:HG3	32:CE:154:LEU:CB	2.41	0.48
33:CF:164:ARG:HG2	33:CF:165:THR:N	2.25	0.48
34:CG:149:ALA:HB1	34:CG:150:GLU:OE2	2.13	0.48
35:CH:80:ILE:HG22	38:CK:104:ARG:NH2	2.28	0.48
50:CW:82:SER:O	50:CW:86:ARG:HB2	2.13	0.48
1:DA:833:U:O2	11:DO:55:ARG:NH1	2.40	0.48
1:DA:971:C:H2'	1:DA:972:G:H5'	1.95	0.48
1:DA:986:C:C2'	1:DA:987:G:H5'	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1109:C:H5”	1:DA:1110:G:OP2	2.13	0.48
1:DA:1225:C:H4’	17:D2:85:LYS:CB	2.42	0.48
1:DA:1608:A:H1’	1:DA:1610:A:OP2	2.13	0.48
1:DA:1999:C:H5”	1:DA:2723:C:O2’	2.14	0.48
1:DA:2516:G:C6	1:DA:2517:C:N4	2.82	0.48
1:DA:2572:A:C8	4:DE:144:ARG:HD2	2.48	0.48
4:DE:51:PHE:O	4:DE:52:LEU:HB2	2.12	0.48
5:DF:4:VAL:HG22	5:DF:19:GLU:OE1	2.12	0.48
5:DF:161:GLU:HA	5:DF:164:ARG:HE	1.78	0.48
6:DG:138:GLN:HE21	6:DG:153:ARG:HB2	1.77	0.48
11:DO:22:GLY:O	11:DO:23:PRO:O	2.30	0.48
11:DO:78:PRO:HA	11:DO:110:TYR:CD2	2.49	0.48
12:DP:84:GLY:O	12:DP:85:LYS:CB	2.61	0.48
19:DT:63:LYS:HA	19:DT:72:LYS:HA	1.95	0.48
20:DU:75:ILE:O	20:DU:76:CYS:HB2	2.13	0.48
21:DV:14:LYS:HZ2	21:DV:14:LYS:HB3	1.77	0.48
21:DV:58:VAL:O	21:DV:59:LEU:HB2	2.12	0.48
25:DX:46:ASN:O	25:DX:50:VAL:HG22	2.13	0.48
28:D6:31:PRO:O	28:D6:32:ASN:CB	2.61	0.48
30:D8:34:TRP:C	30:D8:36:LYS:H	2.21	0.48
1:AA:602:G:O2’	1:AA:655:A:N6	2.47	0.48
1:AA:1063:G:H2’	1:AA:1064:C:C6	2.48	0.48
1:AA:1535:U:H2’	1:AA:1536:A:H8	1.78	0.48
1:AA:1812:A:O2’	3:AD:45:ASN:HB2	2.12	0.48
1:AA:1999:C:H4’	1:AA:2723:C:O2	2.13	0.48
9:AM:90:MET:O	9:AM:94:HIS:N	2.32	0.48
9:AM:121:LYS:HB3	9:AM:123:TYR:CE1	2.49	0.48
11:AO:65:ARG:O	11:AO:66:GLY:C	2.56	0.48
13:A0:52:ILE:O	13:A0:55:ALA:N	2.45	0.48
31:BA:51:A:OP2	31:BA:52:G:H8	1.95	0.48
31:BA:321:A:C2	31:BA:333:G:C2	3.01	0.48
31:BA:690:G:H2’	31:BA:691:G:O4’	2.13	0.48
31:BA:741:G:H2’	31:BA:742:G:O4’	2.13	0.48
31:BA:865:A:C2	31:BA:918:A:H4’	2.48	0.48
31:BA:1084:G:C5	31:BA:1085:U:C4	3.02	0.48
32:BE:204:ASN:ND2	32:BE:206:ASP:N	2.58	0.48
34:BG:30:LYS:HA	34:BG:34:GLU:HB2	1.94	0.48
34:BG:108:LEU:HB3	34:BG:110:PHE:HE1	1.77	0.48
44:BQ:24:CYS:HB2	44:BQ:40:CYS:HB3	1.78	0.48
47:BT:48:GLU:O	47:BT:50:LYS:HG2	2.14	0.48
31:CA:791:G:C5	31:CA:792:A:N7	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1072:G:C5	31:CA:1073:U:C4	3.02	0.48
31:CA:1348:U:C4	31:CA:1374:A:H2	2.31	0.48
34:CG:17:VAL:HG12	34:CG:18:LYS:N	2.27	0.48
35:CH:63:ARG:HA	35:CH:66:MET:HE1	1.95	0.48
35:CH:152:ARG:NH2	38:CK:107:LEU:O	2.46	0.48
40:CM:61:GLU:OE1	44:CQ:58:LYS:NZ	2.26	0.48
46:CS:22:THR:HA	46:CS:33:ILE:HG13	1.94	0.48
1:DA:311:A:C6	1:DA:328:U:C4	3.01	0.48
1:DA:329:G:H4'	1:DA:330:A:OP2	2.12	0.48
1:DA:888:C:H4'	1:DA:889:C:H5'	1.94	0.48
1:DA:890:A:H2'	1:DA:892:G:N7	2.29	0.48
1:DA:1005:C:N1	1:DA:1143:A:C2	2.81	0.48
1:DA:1342:A:N6	1:DA:1397:U:C4	2.82	0.48
1:DA:1483:G:C2	1:DA:1484:G:C8	3.01	0.48
1:DA:2154:G:C2	1:DA:2155:G:C5	3.02	0.48
3:DD:176:ARG:HG2	3:DD:176:ARG:HH11	1.79	0.48
11:DO:71:VAL:HG12	11:DO:72:PRO:HD3	1.96	0.48
11:DO:97:PRO:O	11:DO:98:GLU:CB	2.59	0.48
12:DP:66:ILE:O	12:DP:67:ARG:CG	2.61	0.48
15:DR:90:GLN:HE21	15:DR:90:GLN:CA	2.23	0.48
16:D1:33:ARG:O	16:D1:37:GLU:HG3	2.14	0.48
1:AA:71:A:OP2	1:AA:113:G:H5'	2.13	0.48
1:AA:654(N):G:H2'	1:AA:654(O):G:C8	2.47	0.48
1:AA:811:U:H2'	11:AO:21:ARG:C	2.37	0.48
1:AA:1057:A:H2'	1:AA:1058:U:C6	2.49	0.48
1:AA:1316:U:H2'	1:AA:1317:A:H8	1.78	0.48
1:AA:1505:C:H2'	1:AA:1506:C:H6	1.78	0.48
1:AA:2019:A:H2'	1:AA:2020:A:O5'	2.13	0.48
1:AA:2283:C:H2'	1:AA:2284:C:O4'	2.13	0.48
1:AA:2762:G:H2'	1:AA:2763:G:H5'	1.95	0.48
5:AF:107:LYS:O	5:AF:108:LYS:C	2.55	0.48
5:AF:184:TYR:CE2	5:AF:188:ARG:HD2	2.47	0.48
6:AG:35:GLU:HG3	6:AG:35:GLU:O	2.13	0.48
9:AM:39:ARG:NH2	9:AM:41:ASP:OD2	2.47	0.48
11:AO:116:GLY:O	11:AO:117:GLU:C	2.56	0.48
12:AP:79:LEU:HD13	12:AP:80:GLU:OE2	2.13	0.48
14:AQ:3:ARG:O	14:AQ:4:LEU:O	2.32	0.48
17:A2:31:ALA:O	17:A2:61:VAL:HG22	2.13	0.48
25:AX:59:VAL:HG22	25:AX:60:GLU:N	2.28	0.48
26:A4:42:PHE:CZ	26:A4:43:TYR:HB3	2.47	0.48
30:A8:2:PRO:O	30:A8:3:LYS:C	2.56	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:96:G:C2'	31:BA:97:U:H5'	2.43	0.48
31:BA:323:U:H2'	31:BA:324:G:O4'	2.12	0.48
31:BA:429:U:H4'	31:BA:430:A:OP1	2.13	0.48
31:BA:439:A:H2'	31:BA:440:A:O5'	2.14	0.48
31:BA:990:C:C2	31:BA:1216:G:C2	3.01	0.48
31:BA:1327:C:P	51:BX:12:LYS:HZ3	2.37	0.48
31:BA:1493:A:H5"	31:BA:1494:G:OP2	2.14	0.48
32:BE:8:LYS:C	32:BE:10:LEU:H	2.21	0.48
33:BF:132:ARG:O	33:BF:136:GLN:HG2	2.13	0.48
36:BI:3:ARG:NH1	36:BI:38:GLU:OE2	2.47	0.48
40:BM:50:ILE:HB	44:BQ:41:ARG:HE	1.78	0.48
49:BV:41:VAL:HG12	49:BV:45:VAL:N	2.28	0.48
31:CA:262:A:N6	31:CA:263:A:N6	2.62	0.48
31:CA:682:G:N2	31:CA:709:G:C4	2.81	0.48
31:CA:728:A:C6	45:CR:54:ARG:HD2	2.49	0.48
31:CA:785:G:H1	31:CA:797:C:H42	1.59	0.48
31:CA:1056:U:O2	31:CA:1056:U:H2'	2.13	0.48
31:CA:1497:G:C2'	31:CA:1498:U:H5'	2.44	0.48
32:CE:209:ARG:HG2	32:CE:240:GLN:HE21	1.79	0.48
45:CR:4:THR:OG1	45:CR:7:GLU:HB2	2.13	0.48
52:CB:83:U:OP2	1:DA:1942:C:H4'	2.14	0.48
1:DA:12:U:O2	1:DA:12:U:C2'	2.58	0.48
1:DA:39:C:H2'	1:DA:40:C:C6	2.49	0.48
1:DA:184:C:H2'	1:DA:185:U:C6	2.48	0.48
1:DA:310:A:OP1	20:DU:17:SER:O	2.31	0.48
1:DA:1050:A:H2'	1:DA:1051:G:O4'	2.13	0.48
1:DA:1368:G:O2'	1:DA:1369:G:H5'	2.13	0.48
1:DA:1379:A:H4'	1:DA:1380:G:OP2	2.13	0.48
1:DA:1540:G:H2'	1:DA:1541:U:O4'	2.14	0.48
1:DA:1544:C:O2	1:DA:1544:C:H2'	2.14	0.48
1:DA:2469:A:H61	1:DA:2481:G:H1'	1.78	0.48
1:DA:2531:A:H5'	7:DH:157:TYR:CE2	2.44	0.48
1:DA:2689:U:C5'	1:DA:2690:C:H5'	2.43	0.48
1:DA:2756:U:H4'	1:DA:2757:A:OP1	2.14	0.48
1:DA:2773:C:H5"	4:DE:164:ARG:HG2	1.94	0.48
4:DE:36:ARG:O	4:DE:37:ARG:C	2.56	0.48
4:DE:173:VAL:N	4:DE:183:LEU:O	2.42	0.48
7:DH:109:PHE:C	7:DH:111:HIS:H	2.22	0.48
7:DH:150:ALA:C	7:DH:152:ARG:H	2.21	0.48
9:DM:22:THR:HA	9:DM:61:ARG:O	2.13	0.48
1:AA:270(P):C:H2'	1:AA:270(Q):C:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:667:U:O2	30:A8:2:PRO:HD2	2.13	0.48
1:AA:1085:A:C2	1:AA:1086:A:N7	2.82	0.48
1:AA:1266:G:O5'	18:AS:15:ARG:NH2	2.46	0.48
1:AA:2291:U:O2'	1:AA:2374:C:O2	2.29	0.48
8:AK:37:VAL:HG22	8:AK:38:LEU:H	1.79	0.48
10:AN:66:LYS:H	10:AN:82:ASN:ND2	2.10	0.48
11:AO:84:ASN:ND2	11:AO:115:LEU:HB2	2.28	0.48
12:AP:26:TYR:C	12:AP:26:TYR:CD2	2.91	0.48
13:A0:70:LEU:O	13:A0:72:ASP:N	2.45	0.48
14:AQ:88:ASP:O	14:AQ:89:ARG:CB	2.49	0.48
15:AR:105:LEU:O	15:AR:107:ASP:OD1	2.32	0.48
30:A8:36:LYS:HD3	30:A8:40:GLU:OE2	2.13	0.48
31:BA:35:G:N2	42:BO:115:SER:OG	2.40	0.48
31:BA:1254:C:H41	40:BM:43:ARG:HH12	1.60	0.48
32:BE:77:ALA:CB	32:BE:211:ILE:HG21	2.44	0.48
33:BF:23:TYR:CD2	33:BF:24:ALA:N	2.81	0.48
38:BK:114:THR:C	38:BK:116:LYS:H	2.21	0.48
44:BQ:37:PHE:CE1	44:BQ:53:LEU:HD13	2.49	0.48
53:BC:17:C:O2'	53:BC:18:C:C6	2.66	0.48
53:BC:48:U:H1'	53:BC:49:C:P	2.54	0.48
53:BC:63:C:O2	53:BC:63:C:H2'	2.12	0.48
31:CA:485:G:O2'	31:CA:486:U:P	2.71	0.48
31:CA:838:G:H2'	31:CA:841:U:H5'	1.95	0.48
31:CA:976:G:N2	31:CA:1362(A):C:OP2	2.26	0.48
31:CA:1285:A:C1'	31:CA:1286:A:OP2	2.60	0.48
31:CA:1305:G:HO2'	31:CA:1306:A:H8	1.60	0.48
31:CA:1311:G:N2	31:CA:1327:C:C2	2.82	0.48
39:CL:23:ASN:H	39:CL:23:ASN:ND2	2.10	0.48
43:CP:84:ILE:HD12	49:CV:65:ASN:HD21	1.79	0.48
45:CR:32:LEU:O	45:CR:36:ILE:HG13	2.14	0.48
47:CT:59:ILE:HG22	47:CT:71:PHE:HD1	1.79	0.48
1:DA:249:C:H4'	1:DA:250:G:O5'	2.13	0.48
1:DA:609(A):G:N2	1:DA:619:G:H1'	2.29	0.48
1:DA:1003:G:N2	1:DA:1153:C:C2	2.81	0.48
1:DA:1445:C:H2'	1:DA:1446:C:H6	1.77	0.48
1:DA:2219:G:C2'	1:DA:2224:G:H5'	2.42	0.48
1:DA:2250:G:O2'	1:DA:2496:C:OP1	2.13	0.48
1:DA:2274:A:C5	1:DA:2276:G:C8	3.01	0.48
1:DA:2766:G:H2'	1:DA:2766:G:N3	2.28	0.48
1:DA:2815:C:O2'	27:D5:43:HIS:CD2	2.67	0.48
10:DN:10:VAL:O	10:DN:10:VAL:HG23	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DW:17:SER:HB3	24:DW:21:LEU:HG	1.95	0.48
26:D4:58:ARG:O	26:D4:61:ARG:HB3	2.13	0.48
28:D6:44:ARG:O	28:D6:45:LYS:CB	2.62	0.48
1:AA:299:A:H5'	20:AU:84:ARG:HH21	1.79	0.48
1:AA:330:A:H2	1:AA:1210:A:H2'	1.79	0.48
1:AA:1218:C:N4	1:AA:1231:G:H1	2.11	0.48
1:AA:2064:C:H2'	1:AA:2065:C:C6	2.48	0.48
1:AA:2169:A:O4'	53:BD:57:C:H5'	2.14	0.48
1:AA:2392:A:H2	1:AA:2424:C:N4	2.03	0.48
1:AA:2443:C:H2'	1:AA:2444:G:H8	1.78	0.48
1:AA:2468:G:O2'	1:AA:2469:A:OP2	2.30	0.48
1:AA:2572:A:C8	4:AE:144:ARG:HB3	2.48	0.48
2:AB:25:A:C2'	2:AB:26:A:H5'	2.43	0.48
4:AE:103:ASP:OD1	4:AE:201:THR:HA	2.14	0.48
7:AH:4:ILE:HD11	7:AH:7:LEU:HD21	1.96	0.48
11:AO:138:LEU:HD12	11:AO:139:LYS:N	2.28	0.48
15:AR:58:ASN:C	15:AR:58:ASN:HD22	2.20	0.48
21:AV:37:VAL:HG23	21:AV:38:TYR:N	2.29	0.48
25:AX:6:VAL:HG12	25:AX:54:VAL:CG2	2.43	0.48
31:BA:1054:C:O2'	31:BA:1055:A:H5"	2.14	0.48
31:BA:1106:G:C4	31:BA:1107:C:C5	3.02	0.48
32:BE:71:VAL:HG23	32:BE:164:VAL:HA	1.95	0.48
41:BN:126:ARG:O	41:BN:128:ALA:N	2.46	0.48
42:BO:107:VAL:HG23	42:BO:117:TYR:HB3	1.95	0.48
45:BR:87:ILE:CG2	45:BR:88:ARG:N	2.76	0.48
47:BT:76:LEU:HD12	47:BT:77:VAL:H	1.79	0.48
50:BW:100:ILE:HG13	50:BW:101:GLY:N	2.29	0.48
31:CA:57:G:C5	31:CA:58:C:C4	3.02	0.48
31:CA:160:A:H1'	31:CA:344:A:C5	2.49	0.48
31:CA:247:G:OP2	47:CT:100:LYS:HG2	2.13	0.48
31:CA:1127:G:N2	31:CA:1144:G:H22	2.11	0.48
31:CA:1301:U:C2'	31:CA:1302:U:OP1	2.60	0.48
31:CA:1502:A:H2	31:CA:1505:G:N1	2.05	0.48
31:CA:1502:A:H4'	31:CA:1503:A:OP2	2.14	0.48
32:CE:6:THR:OG1	32:CE:7:VAL:N	2.47	0.48
32:CE:210:SER:O	32:CE:214:ILE:HG12	2.14	0.48
39:CL:105:ASP:OD2	39:CL:107:ARG:HD3	2.14	0.48
1:DA:1174:A:C6	1:DA:1175:U:O2'	2.66	0.48
1:DA:1676:A:C2	1:DA:1993:U:H5'	2.48	0.48
1:DA:2052:G:O4'	4:DE:142:GLY:HA3	2.14	0.48
1:DA:2271:G:OP1	22:D3:18:ALA:HB1	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2542:A:O2'	1:DA:2544:G:N7	2.46	0.48
8:DK:125:GLU:HB2	8:DK:141:LYS:HD3	1.96	0.48
12:DP:21:THR:O	12:DP:21:THR:HG23	2.11	0.48
1:AA:1056:G:O4'	1:AA:1086:A:H8	1.96	0.48
1:AA:1147:C:C2'	1:AA:1148:A:H5"	2.40	0.48
1:AA:1357:U:H2'	1:AA:1358:G:O4'	2.13	0.48
1:AA:1637:A:H4'	1:AA:2711:A:O2'	2.14	0.48
1:AA:2056:G:H1	27:A5:4:HIS:CD2	2.31	0.48
1:AA:2125:G:N2	1:AA:2172:U:OP1	2.46	0.48
1:AA:2401:U:H2'	1:AA:2402:C:H6	1.77	0.48
1:AA:2693:A:H2'	1:AA:2694:G:H8	1.79	0.48
2:AB:45:A:O4'	6:AG:95:ARG:NH1	2.46	0.48
3:AD:64:ILE:O	3:AD:64:ILE:HG12	2.13	0.48
4:AE:201:THR:HG22	4:AE:202:LYS:H	1.79	0.48
5:AF:197:ASP:OD2	5:AF:197:ASP:N	2.46	0.48
6:AG:108:ASN:HD22	26:A4:38:LYS:HG3	1.78	0.48
8:AK:2:LYS:NZ	8:AK:20:ASP:OD1	2.36	0.48
8:AK:92:VAL:HG13	8:AK:120:ILE:CG2	2.37	0.48
16:A1:76:TYR:C	16:A1:76:TYR:CD2	2.90	0.48
19:AT:26:TYR:O	19:AT:81:VAL:HG12	2.13	0.48
31:BA:117:G:O5'	31:BA:117:G:H8	1.97	0.48
31:BA:376:G:H5"	46:BS:5:ARG:HD2	1.95	0.48
31:BA:872:A:H2'	31:BA:872:A:N3	2.29	0.48
31:BA:1131:G:O2'	31:BA:1132:C:H5'	2.13	0.48
31:BA:1142:G:H2'	31:BA:1143:G:O4'	2.13	0.48
31:BA:1238:A:N3	31:BA:1241:G:O2'	2.39	0.48
42:BO:107:VAL:CG2	42:BO:117:TYR:HB3	2.44	0.48
49:BV:18:LYS:O	49:BV:22:LEU:HD13	2.13	0.48
50:BW:89:ARG:HD2	50:BW:104:LEU:CD2	2.43	0.48
31:CA:182:U:C5	31:CA:183:G:C4	3.02	0.48
31:CA:1004:A:H8	31:CA:1036:G:N1	2.10	0.48
31:CA:1037:C:H2'	31:CA:1038:C:O4'	2.14	0.48
31:CA:1305:G:H5'	51:CX:4:GLY:HA3	1.96	0.48
32:CE:18:GLY:H	32:CE:42:ILE:HG22	1.78	0.48
46:CS:56:ALA:O	46:CS:60:LEU:HG	2.14	0.48
53:CD:59:A:O2'	53:CD:60:A:C8	2.67	0.48
1:DA:321:G:H5'	5:DF:134:GLY:O	2.14	0.48
1:DA:676:A:N1	1:DA:802:A:N1	2.61	0.48
1:DA:753:C:O2'	1:DA:754:C:H5'	2.14	0.48
1:DA:774:A:H2	1:DA:787:U:O2'	1.72	0.48
1:DA:889:C:C4	1:DA:890:A:H1'	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:953:A:O2'	1:DA:954:G:H5'	2.14	0.48
1:DA:997:G:O2'	1:DA:998:C:H5'	2.13	0.48
1:DA:1330:C:O2'	1:DA:1331:A:H5'	2.14	0.48
1:DA:1388:G:O2'	1:DA:1525:G:O2'	2.29	0.48
1:DA:1771:C:C1'	1:DA:1786:A:H8	2.26	0.48
1:DA:2836:U:H2'	1:DA:2837:G:C8	2.49	0.48
1:DA:2882:A:H5'	13:D0:96:ARG:HG3	1.96	0.48
3:DD:35:LYS:HD3	3:DD:63:ARG:HA	1.94	0.48
3:DD:196:VAL:HG12	3:DD:197:GLY:N	2.29	0.48
7:DH:9:ILE:HG22	7:DH:51:ARG:HA	1.96	0.48
7:DH:60:ARG:O	7:DH:64:LEU:HG	2.14	0.48
9:DM:46:VAL:O	9:DM:47:ALA:HB3	2.14	0.48
9:DM:66:LYS:O	9:DM:70:LYS:HB3	2.14	0.48
18:DS:36:LEU:HD13	18:DS:48:ALA:CA	2.44	0.48
1:AA:26:G:C6	1:AA:27:G:C6	3.02	0.48
1:AA:286:C:H2'	1:AA:287:C:H6	1.79	0.48
1:AA:325:G:O2'	1:AA:326:G:H5'	2.13	0.48
1:AA:889:C:H5"	1:AA:890:A:P	2.54	0.48
1:AA:1001:A:H2'	1:AA:1002:G:O4'	2.13	0.48
1:AA:1047:G:H2'	1:AA:1110:G:N1	2.29	0.48
1:AA:1292:U:H2'	1:AA:1293:C:C6	2.48	0.48
1:AA:1344:G:H4'	1:AA:1384:A:C5	2.48	0.48
1:AA:1494:A:H2'	1:AA:1495:A:C8	2.49	0.48
1:AA:2168:G:N2	1:AA:2170:A:O5'	2.47	0.48
1:AA:2313:C:H4'	6:AG:91:ARG:HG3	1.95	0.48
1:AA:2566:A:H1'	1:AA:2567:G:OP2	2.14	0.48
1:AA:2751:G:H1'	1:AA:2752:C:OP1	2.13	0.48
6:AG:112:PRO:CB	26:A4:37:SER:H	2.23	0.48
9:AM:95:PRO:O	9:AM:96:GLU:CD	2.56	0.48
9:AM:134:ARG:O	9:AM:136:GLU:N	2.47	0.48
11:AO:50:ARG:HH21	11:AO:50:ARG:CG	2.24	0.48
15:AR:57:PHE:C	15:AR:58:ASN:HD22	2.22	0.48
20:AU:13:VAL:HG22	20:AU:27:VAL:HG12	1.96	0.48
27:A5:50:GLY:H	27:A5:56:LYS:HB2	1.77	0.48
31:BA:235:C:H5'	47:BT:70:ARG:HG2	1.95	0.48
31:BA:723:U:O2	31:BA:723:U:C2'	2.61	0.48
31:BA:819:A:H4'	31:BA:820:U:OP2	2.14	0.48
31:BA:858:G:O6	31:BA:869:G:H3'	2.14	0.48
31:BA:871:U:C1'	31:BA:872:A:OP1	2.62	0.48
31:BA:1288:A:H1'	31:BA:1352:C:O2'	2.14	0.48
31:BA:1305:G:N2	31:BA:1331:G:C4	2.82	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1434:A:H2'	31:BA:1435:G:O4'	2.14	0.48
34:BG:146:ILE:HD12	34:BG:146:ILE:N	2.29	0.48
41:BN:12:ARG:HG2	41:BN:13:GLN:H	1.79	0.48
43:BP:4:ILE:HG23	43:BP:57:ARG:HA	1.94	0.48
43:BP:87:TYR:HA	43:BP:90:LEU:HG	1.95	0.48
47:BT:66:SER:OG	47:BT:69:LYS:HB2	2.13	0.48
50:BW:63:ILE:CG2	50:BW:77:ALA:HB1	2.44	0.48
31:CA:853:G:H2'	31:CA:854:G:H8	1.78	0.48
31:CA:911:U:H2'	31:CA:912:C:C6	2.49	0.48
31:CA:1109:C:H2'	31:CA:1110:A:O4'	2.14	0.48
31:CA:1226:C:N4	43:CP:104:ARG:HD2	2.28	0.48
31:CA:1278:U:O2	31:CA:1278:U:C2'	2.62	0.48
31:CA:1434:A:H2'	31:CA:1435:G:O4'	2.13	0.48
35:CH:103:GLY:O	35:CH:105:VAL:N	2.46	0.48
35:CH:110:LEU:HB3	35:CH:115:VAL:CG2	2.44	0.48
39:CL:48:GLU:HB3	39:CL:101:PHE:HE2	1.79	0.48
43:CP:49:THR:N	43:CP:52:GLU:OE1	2.46	0.48
46:CS:9:PHE:HB2	46:CS:16:HIS:O	2.14	0.48
53:CC:19:G:H4'	53:CC:20:G:OP1	2.13	0.48
53:CD:48:U:O2	53:CD:48:U:H2'	2.13	0.48
1:DA:740:U:O4'	1:DA:1981:A:C4	2.67	0.48
1:DA:857:C:C4	1:DA:858:U:O4	2.67	0.48
1:DA:945:A:C4	1:DA:2448:A:C2	3.02	0.48
1:DA:2192:G:H2'	1:DA:2193:G:H5'	1.95	0.48
6:DG:104:GLU:HG2	26:D4:23:GLU:CG	2.42	0.48
8:DK:6:LEU:HD11	8:DK:37:VAL:HG22	1.95	0.48
11:DO:83:VAL:HG12	11:DO:112:LEU:HD21	1.95	0.48
15:DR:3:ARG:NE	15:DR:6:LEU:HD13	2.28	0.48
15:DR:24:PRO:HD3	15:DR:52:ILE:HG13	1.94	0.48
21:DV:30:ASN:OD1	21:DV:90:VAL:HB	2.14	0.48
24:DW:44:LEU:HD23	24:DW:44:LEU:HA	1.75	0.48
26:D4:16:CYS:C	26:D4:18:CYS:H	2.22	0.48
1:AA:236:C:H2'	1:AA:237:C:H6	1.78	0.48
1:AA:655:A:H8	1:AA:656:G:O4'	1.97	0.48
1:AA:774:A:H2	1:AA:787:U:C2'	2.27	0.48
1:AA:1169:G:N2	1:AA:1181:C:O2	2.46	0.48
1:AA:1705:G:C6	1:AA:1706:U:C4	3.02	0.48
1:AA:1792:G:H5'	3:AD:205:VAL:HG13	1.96	0.48
1:AA:2139:C:C2'	1:AA:2140:C:H5'	2.37	0.48
1:AA:2210:G:H2'	1:AA:2210:G:N3	2.28	0.48
1:AA:2468:G:N2	1:AA:2481:G:H2'	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2731:G:C6	1:AA:2732:G:O6	2.67	0.48
1:AA:2774:C:H2'	1:AA:2775:A:O4'	2.14	0.48
3:AD:147:LEU:HD13	3:AD:155:LEU:HD21	1.96	0.48
5:AF:136:THR:HG22	5:AF:166:ALA:O	2.13	0.48
8:AK:144:VAL:O	8:AK:145:VAL:HG22	2.14	0.48
13:A0:12:ARG:HG2	13:A0:16:HIS:CD2	2.49	0.48
14:AQ:74:ALA:HB1	14:AQ:107:GLU:O	2.13	0.48
15:AR:39:ARG:HG2	15:AR:40:THR:N	2.18	0.48
21:AV:60:GLU:O	21:AV:61:LEU:HG	2.13	0.48
25:AX:12:PRO:HA	25:AX:15:TYR:CD1	2.49	0.48
31:BA:73:G:C6	31:BA:97:U:O2	2.67	0.48
31:BA:834:C:C2	31:BA:853:G:C2	3.01	0.48
31:BA:1162:C:C2	31:BA:1175:G:N2	2.82	0.48
31:BA:1278:U:H3'	31:BA:1278:U:H6	1.77	0.48
31:BA:1279:A:H5"	31:BA:1280:A:P	2.53	0.48
31:BA:1336:C:O2'	31:BA:1337:G:N3	2.43	0.48
32:BE:100:GLY:O	32:BE:102:LEU:N	2.46	0.48
33:BF:27:LYS:HA	33:BF:27:LYS:HZ3	1.78	0.48
34:BG:112:VAL:HG12	34:BG:116:GLN:OE1	2.14	0.48
37:BJ:153:HIS:CD2	37:BJ:154:TYR:CD1	3.01	0.48
40:BM:78:ASN:O	40:BM:81:THR:OG1	2.25	0.48
31:CA:1166:G:C2	31:CA:1171:G:C6	3.02	0.48
31:CA:1343:G:H1'	39:CL:121:ARG:HH11	1.78	0.48
33:CF:11:ARG:O	33:CF:14:ILE:O	2.32	0.48
33:CF:82:GLU:H	33:CF:85:ARG:HD3	1.78	0.48
39:CL:48:GLU:HB3	39:CL:101:PHE:CE2	2.49	0.48
40:CM:12:ASP:HB3	40:CM:15:THR:OG1	2.13	0.48
43:CP:50:GLU:O	43:CP:54:VAL:HG23	2.14	0.48
1:DA:197:A:N6	1:DA:2430:A:H2'	2.28	0.48
1:DA:207:A:H2'	1:DA:208:C:O4'	2.14	0.48
1:DA:581:C:H2'	1:DA:582:G:H8	1.78	0.48
1:DA:669:G:C2'	1:DA:670:A:OP1	2.62	0.48
1:DA:1342:A:N6	1:DA:1602:U:N3	2.62	0.48
1:DA:1558:A:H1'	1:DA:1559:G:OP2	2.13	0.48
1:DA:2131:G:N2	1:DA:2158:A:H2'	2.29	0.48
1:DA:2140:C:N3	1:DA:2151:G:O6	2.47	0.48
2:DB:6:C:HO2'	14:DQ:29:PHE:HE1	1.62	0.48
4:DE:31:CYS:SG	4:DE:51:PHE:HB2	2.54	0.48
7:DH:87:LEU:N	7:DH:131:VAL:O	2.27	0.48
7:DH:153:LYS:N	7:DH:154:PRO:HD3	2.29	0.48
23:DZ:82:LEU:HD23	23:DZ:82:LEU:N	2.23	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:390:A:H4'	1:AA:391:G:H5'	1.96	0.47
1:AA:724:U:H2'	1:AA:725:G:O4'	2.13	0.47
1:AA:762:U:H4'	1:AA:763:G:O5'	2.14	0.47
1:AA:839:U:H1'	1:AA:1191:G:H1'	1.96	0.47
1:AA:917:A:H2'	1:AA:918:A:O4'	2.14	0.47
1:AA:1080:A:O2'	1:AA:1081:U:O4'	2.14	0.47
1:AA:1125:G:C6	1:AA:1126:A:N6	2.82	0.47
1:AA:1444:G:N2	1:AA:1548:C:C2	2.82	0.47
1:AA:1510:A:OP1	1:AA:1510:A:O3'	2.30	0.47
1:AA:1820:U:H4'	1:AA:1821:A:OP2	2.14	0.47
1:AA:2805:G:C6	1:AA:2807:G:C6	3.01	0.47
12:AP:59:ARG:CG	12:AP:59:ARG:NH2	2.71	0.47
14:AQ:26:LEU:HD12	14:AQ:39:ILE:HG12	1.96	0.47
15:AR:36:GLU:HG3	15:AR:41:ARG:HD2	1.96	0.47
17:A2:47:VAL:O	17:A2:48:GLY:O	2.31	0.47
19:AT:57:LEU:HD11	19:AT:78:LYS:HB2	1.95	0.47
21:AV:105:VAL:HG22	21:AV:106:GLY:N	2.30	0.47
26:A4:37:SER:CB	26:A4:42:PHE:CD1	2.90	0.47
31:BA:838:G:H1	31:BA:848:C:H42	1.62	0.47
31:BA:959:A:C2	31:BA:1222:G:O4'	2.67	0.47
31:BA:1062:U:H2'	31:BA:1063:C:C6	2.49	0.47
31:BA:1076:C:C2	31:BA:1082:G:C2	3.02	0.47
31:BA:1402:C:H2'	31:BA:1403:C:O4'	2.14	0.47
37:BJ:26:PHE:O	37:BJ:30:ILE:HG13	2.14	0.47
41:BN:62:GLN:HG3	41:BN:97:ALA:HB2	1.96	0.47
41:BN:102:GLY:O	41:BN:103:LEU:C	2.55	0.47
44:BQ:43:CYS:HA	44:BQ:46:GLU:HG3	1.95	0.47
53:BD:67:C:N3	53:BD:68:C:N4	2.62	0.47
31:CA:1080:A:H4'	35:CH:16:THR:HB	1.96	0.47
31:CA:1190:G:H3'	33:CF:3:ASN:ND2	2.29	0.47
31:CA:1213:A:N6	31:CA:1215:G:N3	2.61	0.47
32:CE:8:LYS:HB2	32:CE:217:ARG:HE	1.79	0.47
36:CI:97:PHE:CD2	48:CU:65:ILE:HD11	2.48	0.47
44:CQ:29:ARG:O	44:CQ:30:ALA:HB2	2.13	0.47
1:DA:137(A):G:H2'	1:DA:139:G:N7	2.29	0.47
1:DA:270(H):C:H2'	1:DA:270(I):G:H8	1.79	0.47
1:DA:270(N):G:C2'	1:DA:270(O):U:H5'	2.44	0.47
1:DA:634:C:H2'	1:DA:635:C:C6	2.49	0.47
1:DA:869:G:C2'	1:DA:870:A:H5'	2.44	0.47
1:DA:1538:G:O2'	1:DA:1539:G:H5'	2.14	0.47
1:DA:2159:G:H2'	1:DA:2160:G:O4'	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2192:G:C2'	1:DA:2193:G:H5'	2.43	0.47
1:DA:2292:C:H2'	1:DA:2293:C:H6	1.79	0.47
1:DA:2340:G:HO2'	1:DA:2341:G:H5'	1.78	0.47
1:DA:2341:G:H2'	1:DA:2342:C:C6	2.49	0.47
1:DA:2681:C:C4	1:DA:2725:A:N6	2.59	0.47
1:DA:2887:U:O2'	1:DA:2888:C:H5'	2.13	0.47
2:DB:38:C:N4	2:DB:44:G:H1	2.11	0.47
16:D1:112:ARG:NH1	17:D2:47:VAL:HG13	2.29	0.47
21:DV:138:GLU:O	21:DV:156:LYS:HE3	2.14	0.47
29:D7:35:ARG:HG3	29:D7:42:LEU:HD11	1.95	0.47
1:AA:1210:A:H5"	1:AA:1212:G:O4'	2.14	0.47
1:AA:1578:U:C2'	1:AA:1579:A:H5'	2.44	0.47
1:AA:2297:C:C2'	1:AA:2298:A:H5'	2.44	0.47
1:AA:2822:G:OP1	4:AE:159:HIS:NE2	2.43	0.47
2:AB:49:C:C2'	2:AB:50:G:H5'	2.44	0.47
4:AE:101:ARG:C	4:AE:201:THR:OG1	2.57	0.47
5:AF:29:ASN:H	5:AF:112:MET:HE3	1.77	0.47
6:AG:67:LYS:HE3	6:AG:67:LYS:O	2.14	0.47
9:AM:108:PRO:O	9:AM:113:GLY:HA3	2.14	0.47
12:AP:110:THR:HG23	12:AP:113:GLN:HB2	1.96	0.47
13:A0:12:ARG:HG3	13:A0:12:ARG:HH11	1.78	0.47
17:A2:29:PRO:C	17:A2:61:VAL:HG23	2.39	0.47
18:AS:40:ASN:O	18:AS:41:LYS:HG2	2.14	0.47
20:AU:61:ILE:HG23	20:AU:62:GLU:N	2.28	0.47
23:AZ:87:PRO:O	23:AZ:91:LYS:HB2	2.13	0.47
30:A8:22:VAL:HB	30:A8:53:PRO:CB	2.45	0.47
31:BA:475:G:H2'	31:BA:476:G:H8	1.78	0.47
31:BA:872:A:C4	31:BA:874:G:N7	2.82	0.47
31:BA:939:G:C6	31:BA:940:C:N4	2.83	0.47
31:BA:989:C:N4	31:BA:1216:G:H1	2.13	0.47
31:BA:1274:G:H2'	31:BA:1275:A:H8	1.79	0.47
31:BA:1503:A:C1'	31:BA:1504:G:OP1	2.62	0.47
34:BG:31:CYS:SG	34:BG:31:CYS:O	2.71	0.47
34:BG:134:ASP:OD2	34:BG:134:ASP:N	2.45	0.47
39:BL:7:THR:O	39:BL:83:ARG:HD2	2.14	0.47
39:BL:53:VAL:HB	39:BL:95:LYS:HZ2	1.79	0.47
49:BV:6:LYS:O	49:BV:7:LYS:HB3	2.14	0.47
52:BB:12:G:H1	52:BB:24:C:N4	2.12	0.47
53:BD:6:G:H2'	53:BD:7:G:H8	1.78	0.47
31:CA:719:C:C5	31:CA:720:C:C4	3.02	0.47
31:CA:977:A:O2'	31:CA:981:U:N3	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1151:A:H5'	40:CM:41:PRO:HA	1.96	0.47
32:CE:8:LYS:CD	32:CE:11:LEU:HD22	2.44	0.47
32:CE:98:LEU:O	32:CE:101:MET:HG2	2.14	0.47
33:CF:141:VAL:HG12	33:CF:141:VAL:O	2.14	0.47
35:CH:17:ALA:HB2	35:CH:26:PHE:HD2	1.78	0.47
37:CJ:44:TYR:HA	37:CJ:47:CYS:HB2	1.95	0.47
38:CK:16:ALA:HB1	38:CK:21:LYS:HB3	1.96	0.47
45:CR:87:ILE:HG22	45:CR:88:ARG:H	1.79	0.47
1:DA:839:U:H2'	1:DA:840:C:H6	1.78	0.47
1:DA:1171:G:H1	1:DA:1178:C:N4	2.08	0.47
1:DA:1292:U:H2'	1:DA:1293:C:C6	2.49	0.47
1:DA:1421:G:C2	1:DA:1422:G:C8	3.02	0.47
1:DA:1570:A:H2'	1:DA:1571:A:C8	2.49	0.47
1:DA:1666:G:C2'	1:DA:1667:G:H5'	2.43	0.47
1:DA:1833:U:H2'	1:DA:1834:U:H6	1.78	0.47
1:DA:1887:C:C3'	1:DA:1888:G:H5"	2.44	0.47
1:DA:2010:G:H5"	18:DS:42:ARG:HB2	1.95	0.47
1:DA:2299:G:N1	1:DA:2318:G:C8	2.82	0.47
1:DA:2607:G:H2'	1:DA:2608:G:O4'	2.14	0.47
5:DF:123:LEU:HA	5:DF:192:LEU:HB3	1.96	0.47
6:DG:104:GLU:O	6:DG:108:ASN:HB2	2.14	0.47
7:DH:102:ALA:HA	7:DH:117:PRO:HD3	1.95	0.47
16:D1:27:LEU:N	16:D1:27:LEU:HD23	2.30	0.47
19:DT:63:LYS:H	19:DT:63:LYS:CD	2.28	0.47
20:DU:17:SER:CB	20:DU:71:LYS:HE2	2.44	0.47
1:AA:375:C:H2'	1:AA:376:C:C6	2.49	0.47
1:AA:1204:A:O2'	1:AA:1205:U:OP2	2.21	0.47
1:AA:2189:U:C3'	1:AA:2190:G:H5"	2.44	0.47
1:AA:2206:C:H2'	1:AA:2207:C:C6	2.49	0.47
1:AA:2607:G:H2'	1:AA:2608:G:O4'	2.14	0.47
1:AA:2789:C:C3'	1:AA:2790:A:H5"	2.44	0.47
3:AD:134:ARG:HG3	3:AD:135:PHE:CE2	2.49	0.47
7:AH:41:MET:HE3	7:AH:64:LEU:HB3	1.96	0.47
7:AH:43:VAL:HB	7:AH:52:VAL:HG22	1.96	0.47
8:AK:41:GLU:O	8:AK:45:LYS:HG3	2.14	0.47
16:A1:92:ARG:CZ	17:A2:11:GLN:H	2.26	0.47
21:AV:102:LEU:HD12	21:AV:121:HIS:O	2.14	0.47
28:A6:15:GLU:HG2	28:A6:16:CYS:N	2.29	0.47
31:BA:28:G:O2'	31:BA:296:U:OP1	2.28	0.47
31:BA:486:U:H2'	31:BA:487:A:H8	1.75	0.47
31:BA:775:G:O2'	31:BA:776:G:H5'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:960:U:N3	31:BA:1225:A:C4	2.82	0.47
31:BA:1128:C:H5'	39:BL:16:ARG:HH12	1.79	0.47
31:BA:1158:C:N4	31:BA:1160:G:C4	2.82	0.47
31:BA:1160:G:H1	31:BA:1177:G:N2	2.11	0.47
32:BE:70:PHE:HE1	32:BE:90:MET:HB2	1.79	0.47
32:BE:80:ILE:O	32:BE:80:ILE:HG22	2.15	0.47
33:BF:18:TRP:C	33:BF:20:SER:H	2.21	0.47
33:BF:34:LEU:CD2	33:BF:38:ARG:HH11	2.26	0.47
36:BI:8:ILE:HG22	36:BI:10:LEU:HD12	1.96	0.47
41:BN:105:VAL:HG23	41:BN:105:VAL:O	2.14	0.47
43:BP:97:PRO:HB3	43:BP:101:GLN:NE2	2.30	0.47
53:BD:53:G:H1	53:BD:63:C:N4	2.11	0.47
31:CA:38:G:C2	31:CA:397:A:C2	3.02	0.47
31:CA:77:C:H3'	31:CA:78:G:H5"	1.96	0.47
31:CA:269:C:H2'	31:CA:270:A:O4'	2.15	0.47
31:CA:408:A:H2'	31:CA:409:G:O4'	2.14	0.47
31:CA:728:A:H2'	31:CA:729:A:C8	2.49	0.47
31:CA:1053:G:H4'	31:CA:1054:C:H5'	1.95	0.47
31:CA:1073:U:H2'	31:CA:1074:G:H8	1.79	0.47
31:CA:1248:A:H2'	39:CL:70:LYS:NZ	2.29	0.47
32:CE:24:TRP:CD1	32:CE:24:TRP:C	2.90	0.47
32:CE:188:ALA:O	32:CE:189:ASP:HB3	2.15	0.47
33:CF:188:LEU:HD22	33:CF:188:LEU:N	2.30	0.47
37:CJ:44:TYR:HA	37:CJ:47:CYS:CB	2.44	0.47
37:CJ:146:GLU:O	37:CJ:149:ARG:HB2	2.14	0.47
38:CK:42:GLU:HG3	38:CK:109:ILE:HD12	1.96	0.47
39:CL:114:TYR:N	39:CL:114:TYR:CD2	2.82	0.47
46:CS:48:TRP:O	46:CS:48:TRP:HE3	1.97	0.47
47:CT:10:VAL:HG13	47:CT:19:VAL:HB	1.95	0.47
47:CT:81:ARG:NH2	47:CT:84:LEU:HD11	2.29	0.47
1:DA:818:G:H4'	1:DA:838:C:O3'	2.14	0.47
1:DA:971:C:H2'	1:DA:972:G:C5'	2.44	0.47
1:DA:1006:C:H1'	9:DM:106:MET:CE	2.44	0.47
1:DA:1436:G:O2'	1:DA:1477:A:H4'	2.14	0.47
1:DA:1471:A:H2'	1:DA:1471:A:N3	2.29	0.47
1:DA:2840:C:H5"	13:D0:53:HIS:HD2	1.79	0.47
4:DE:27:LEU:HD22	15:DR:1:MET:HE2	1.96	0.47
5:DF:122:LYS:HD2	5:DF:191:ARG:HG2	1.96	0.47
8:DK:56:LYS:HG3	8:DK:57:ARG:N	2.30	0.47
12:DP:2:LEU:HD13	12:DP:69:PHE:CD1	2.50	0.47
1:AA:229:A:C4'	1:AA:230:U:OP2	2.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:299:A:C5'	1:AA:300:A:OP2	2.63	0.47
1:AA:484:C:O2'	1:AA:485:C:H5'	2.14	0.47
1:AA:719:C:H2'	1:AA:720:C:H6	1.79	0.47
1:AA:1466:G:H2'	1:AA:1547:C:N4	2.30	0.47
1:AA:1498:C:O4'	1:AA:1577:C:H4'	2.14	0.47
1:AA:1885:A:H2'	1:AA:1886:C:O4'	2.14	0.47
1:AA:1914:C:H2'	1:AA:1915:U:O4'	2.14	0.47
1:AA:2109:U:H1'	1:AA:2181:G:N2	2.28	0.47
1:AA:2243:U:H2'	1:AA:2244:U:C6	2.49	0.47
1:AA:2313:C:H2'	1:AA:2314:C:H6	1.79	0.47
1:AA:2475:C:H3'	1:AA:2476:A:H5"	1.95	0.47
2:AB:41:U:O4	6:AG:70:VAL:O	2.32	0.47
4:AE:72:VAL:O	4:AE:73:GLU:C	2.58	0.47
5:AF:57:VAL:HG13	5:AF:58:ALA:N	2.29	0.47
9:AM:13:TRP:HB2	9:AM:133:GLN:HG2	1.95	0.47
9:AM:94:HIS:C	9:AM:95:PRO:O	2.54	0.47
9:AM:133:GLN:O	9:AM:134:ARG:CB	2.62	0.47
12:AP:87:LYS:HG3	12:AP:88:GLY:N	2.28	0.47
15:AR:84:GLN:HG3	15:AR:85:LYS:N	2.28	0.47
20:AU:76:CYS:O	20:AU:77:PRO:C	2.57	0.47
28:A6:16:CYS:O	28:A6:17:LYS:HD2	2.14	0.47
31:BA:458:C:H2'	31:BA:464:G:C8	2.48	0.47
31:BA:722:A:H3'	31:BA:722:A:N3	2.29	0.47
31:BA:1060:C:H5"	40:BM:51:ARG:HG2	1.95	0.47
32:BE:223:ILE:HG13	32:BE:229:VAL:HG22	1.96	0.47
34:BG:108:LEU:HB3	34:BG:110:PHE:CD1	2.50	0.47
37:BJ:113:GLU:HG3	37:BJ:119:ARG:HG2	1.96	0.47
40:BM:38:ILE:HG12	40:BM:71:LEU:O	2.13	0.47
42:BO:59:SER:C	42:BO:61:TYR:N	2.65	0.47
46:BS:4:ILE:HB	46:BS:66:PRO:HB3	1.96	0.47
50:BW:26:ASN:HB2	50:BW:71:THR:CG2	2.43	0.47
31:CA:646:U:H2'	31:CA:647:C:C6	2.49	0.47
31:CA:960:U:O2	31:CA:1225:A:C8	2.67	0.47
31:CA:984:C:H2'	31:CA:985:C:H6	1.80	0.47
31:CA:984:C:H2'	31:CA:985:C:C6	2.49	0.47
31:CA:1220:G:N2	49:CV:54:GLY:O	2.43	0.47
36:CI:12:PRO:HG3	36:CI:57:GLN:O	2.14	0.47
44:CQ:4:LYS:C	44:CQ:6:LEU:N	2.70	0.47
53:CD:49:C:C4	53:CD:60:A:C8	3.02	0.47
1:DA:362:U:H5'	1:DA:363:G:OP2	2.15	0.47
1:DA:372:G:O2'	1:DA:373:U:P	2.72	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:492:A:C2'	1:DA:493:G:H5'	2.44	0.47
1:DA:528:A:C2	1:DA:2043:C:H4'	2.49	0.47
1:DA:625:G:O6	11:DO:107:LYS:HD3	2.14	0.47
1:DA:769:G:H5'	1:DA:1379:A:N6	2.30	0.47
1:DA:2176:A:H2'	1:DA:2177:C:C6	2.50	0.47
1:DA:2292:C:H2'	1:DA:2293:C:C6	2.49	0.47
1:DA:2396:G:H4'	23:DZ:30:VAL:H	1.79	0.47
1:DA:2572:A:N7	4:DE:145:LYS:HB2	2.30	0.47
1:DA:2754:U:H6	1:DA:2754:U:H5"	1.79	0.47
3:DD:61:LEU:HD12	3:DD:61:LEU:HA	1.74	0.47
5:DF:188:ARG:HA	11:DO:3:LEU:CD1	2.43	0.47
6:DG:59:GLU:OE2	6:DG:153:ARG:NH2	2.47	0.47
9:DM:112:LEU:O	9:DM:112:LEU:HD12	2.14	0.47
14:DQ:53:SER:O	14:DQ:57:LYS:HA	2.14	0.47
15:DR:7:ILE:HD13	15:DR:7:ILE:O	2.14	0.47
16:D1:90:VAL:HG12	16:D1:91:ASP:N	2.29	0.47
16:D1:112:ARG:HD3	17:D2:47:VAL:HG11	1.97	0.47
18:DS:47:VAL:O	18:DS:50:VAL:HG13	2.13	0.47
26:D4:15:ILE:HD12	26:D4:15:ILE:N	2.29	0.47
1:AA:51:G:N3	1:AA:119:A:C2	2.82	0.47
1:AA:271(C):U:C2'	1:AA:271:G:OP1	2.62	0.47
1:AA:443:A:H3'	5:AF:45:ARG:NH1	2.28	0.47
1:AA:528:A:C2	1:AA:2043:C:H5'	2.49	0.47
1:AA:859:G:O3'	1:AA:860:U:O2	2.32	0.47
1:AA:1441:G:H2'	1:AA:1442:G:H8	1.79	0.47
1:AA:1496:A:H8	1:AA:1577:C:O2'	1.79	0.47
1:AA:2114:A:N6	1:AA:2119:A:H62	2.12	0.47
1:AA:2119:A:C6	1:AA:2171:A:C2	3.03	0.47
1:AA:2314:C:H2'	1:AA:2315:G:H8	1.79	0.47
1:AA:2469:A:C8	1:AA:2469:A:H3'	2.50	0.47
7:AH:59:ARG:CG	7:AH:59:ARG:NH1	2.69	0.47
7:AH:92:ILE:O	7:AH:94:TYR:N	2.48	0.47
13:A0:37:THR:HG22	13:A0:39:PRO:HD2	1.96	0.47
13:A0:63:ARG:O	13:A0:67:LEU:HD23	2.13	0.47
15:AR:106:SER:HA	15:AR:110:ILE:HG21	1.97	0.47
18:AS:24:ILE:HG21	18:AS:36:LEU:HD21	1.96	0.47
31:BA:674:G:H2'	31:BA:675:A:H8	1.80	0.47
31:BA:690:G:O2'	31:BA:691:G:H5'	2.15	0.47
31:BA:1162:C:C2	31:BA:1175:G:C2	3.02	0.47
31:BA:1279:A:O2'	31:BA:1281:U:OP2	2.21	0.47
31:BA:1342:C:H4'	39:BL:125:TYR:HB3	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BH:82:VAL:HG21	35:BH:138:ALA:HA	1.97	0.47
36:BI:3:ARG:HA	36:BI:65:VAL:O	2.14	0.47
39:BL:69:GLY:O	39:BL:70:LYS:C	2.57	0.47
41:BN:77:MET:HE3	41:BN:80:VAL:HG12	1.97	0.47
43:BP:67:GLU:HG2	43:BP:71:ARG:NH2	2.30	0.47
43:BP:84:ILE:HG12	49:BV:66:MET:HG2	1.96	0.47
44:BQ:29:ARG:HD3	44:BQ:40:CYS:HB2	1.97	0.47
53:BD:20:G:C5'	53:BD:60:A:H61	2.26	0.47
31:CA:339:C:O2'	31:CA:340:U:H5'	2.14	0.47
31:CA:413:G:C2'	31:CA:414:A:OP2	2.63	0.47
31:CA:711:G:O2'	31:CA:712:A:H5'	2.13	0.47
31:CA:1112:C:C2	33:CF:178:LEU:HB2	2.50	0.47
31:CA:1286:A:C2	51:CX:18:TYR:OH	2.67	0.47
33:CF:64:VAL:CG1	33:CF:99:VAL:HA	2.45	0.47
38:CK:30:ARG:O	38:CK:34:GLU:HG2	2.15	0.47
43:CP:67:GLU:HG3	43:CP:68:GLY:H	1.78	0.47
46:CS:8:ARG:HG2	46:CS:8:ARG:NH1	2.29	0.47
51:CX:9:ARG:HG3	51:CX:10:ARG:H	1.79	0.47
52:CB:72:C:H2'	52:CB:73:C:H5'	1.97	0.47
1:DA:1869:G:N2	1:DA:1872:A:OP2	2.47	0.47
1:DA:1952:A:C6	10:DN:22:ILE:HD12	2.49	0.47
1:DA:2286:A:H5'	28:D6:28:ARG:NE	2.28	0.47
1:DA:2307:G:O2'	1:DA:2308:G:C5	2.66	0.47
1:DA:2720:U:H2'	1:DA:2721:A:O4'	2.15	0.47
2:DB:45:A:H1'	6:DG:95:ARG:NH2	2.29	0.47
4:DE:48:GLN:O	4:DE:49:LEU:O	2.33	0.47
5:DF:57:VAL:CG1	5:DF:58:ALA:N	2.77	0.47
12:DP:115:MET:HE2	12:DP:115:MET:HA	1.97	0.47
12:DP:139:GLU:OE2	21:DV:123:ASP:OD1	2.33	0.47
17:D2:87:HIS:ND1	17:D2:87:HIS:O	2.48	0.47
1:AA:414:C:H2'	1:AA:415:A:C8	2.48	0.47
1:AA:957:A:C2	1:AA:959:A:H1'	2.49	0.47
1:AA:1056:G:N2	1:AA:1103:A:C5	2.82	0.47
1:AA:1063:G:N2	1:AA:1076:C:H1'	2.28	0.47
1:AA:1405:U:H2'	1:AA:1406:U:C6	2.50	0.47
1:AA:1502:C:C2'	1:AA:1503:U:H5'	2.44	0.47
1:AA:1544:C:H2'	1:AA:1544:C:O2	2.14	0.47
1:AA:1913:A:H4'	1:AA:1914:C:H5"	1.97	0.47
1:AA:2017:U:H5"	1:AA:2018:G:P	2.53	0.47
1:AA:2119:A:C6	1:AA:2171:A:H2	2.32	0.47
1:AA:2275:C:O2	12:AP:85:LYS:HG2	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2331:G:C4'	22:A3:42:GLY:HA3	2.45	0.47
1:AA:2345:G:H1'	1:AA:2382:G:H5'	1.95	0.47
1:AA:2393:A:C5'	11:AO:62:LEU:HB2	2.45	0.47
1:AA:2469:A:C5'	1:AA:2469:A:H8	2.28	0.47
3:AD:118:VAL:HG22	3:AD:119:ALA:N	2.29	0.47
4:AE:16:ARG:O	4:AE:16:ARG:HG3	2.13	0.47
11:AO:23:PRO:C	11:AO:25:SER:N	2.73	0.47
17:A2:76:LYS:O	17:A2:79:VAL:HG12	2.14	0.47
31:BA:31:G:H1'	31:BA:32:A:OP1	2.13	0.47
31:BA:342:C:N3	31:BA:348:G:C2	2.82	0.47
31:BA:509:A:H5"	34:BG:55:ALA:HB2	1.95	0.47
31:BA:1013:G:H1'	31:BA:1016:A:N6	2.30	0.47
31:BA:1346:A:C4	37:BJ:10:ARG:NH1	2.82	0.47
32:BE:174:VAL:HG11	32:BE:196:LEU:HD13	1.96	0.47
33:BF:131:ARG:HG3	33:BF:131:ARG:HH11	1.79	0.47
34:BG:104:VAL:HG11	34:BG:146:ILE:HG12	1.96	0.47
39:BL:114:TYR:O	39:BL:114:TYR:CD2	2.67	0.47
53:BD:41:C:H2'	53:BD:42:C:H6	1.79	0.47
31:CA:156:G:O2'	31:CA:157:G:H5'	2.14	0.47
31:CA:991:U:O2'	31:CA:992:U:O5'	2.31	0.47
31:CA:1190:G:OP1	33:CF:4:LYS:HA	2.15	0.47
31:CA:1323:G:H4'	31:CA:1362(A):C:N3	2.30	0.47
33:CF:9:GLY:HA3	44:CQ:49:HIS:HA	1.96	0.47
39:CL:9:ARG:HG2	39:CL:14:VAL:HG22	1.96	0.47
39:CL:117:HIS:O	39:CL:118:LYS:HB3	2.15	0.47
42:CO:48:ALA:O	42:CO:49:LEU:HD23	2.15	0.47
43:CP:20:THR:C	43:CP:22:ILE:N	2.73	0.47
49:CV:28:LYS:HD3	49:CV:29:ARG:O	2.14	0.47
1:DA:598:G:H1'	11:DO:12:ALA:CB	2.44	0.47
1:DA:686:G:N7	29:D7:5:TRP:CH2	2.83	0.47
1:DA:993:G:H1'	17:D2:87:HIS:HE1	1.78	0.47
1:DA:1348:G:H2'	1:DA:1349:A:H5"	1.95	0.47
1:DA:1380:G:N2	1:DA:1570:A:C2	2.83	0.47
1:DA:2884:U:H2'	1:DA:2885:C:H5'	1.96	0.47
3:DD:133:LEU:HB3	3:DD:173:VAL:HG21	1.97	0.47
4:DE:47:VAL:HG13	4:DE:48:GLN:H	1.79	0.47
8:DK:1:MET:N	8:DK:20:ASP:OD1	2.40	0.47
8:DK:100:ALA:C	8:DK:102:SER:H	2.22	0.47
13:D0:29:LEU:HB3	13:D0:75:LEU:HD21	1.96	0.47
14:DQ:55:ALA:C	14:DQ:57:LYS:H	2.23	0.47
15:DR:136:GLN:C	15:DR:137:LYS:HD2	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D1:62:ILE:HD12	16:D1:93:LYS:HG2	1.97	0.47
17:D2:81:TYR:CD1	17:D2:81:TYR:N	2.82	0.47
20:DU:98:VAL:HG13	20:DU:99:CYS:N	2.29	0.47
22:D3:69:PHE:CE2	22:D3:79:VAL:HG22	2.49	0.47
1:AA:223:A:O2'	1:AA:420:C:O2'	2.30	0.47
1:AA:271(B):G:H1'	1:AA:271(C):U:OP2	2.15	0.47
1:AA:719:C:H2'	1:AA:720:C:C6	2.50	0.47
1:AA:811:U:C4	11:AO:21:ARG:NH2	2.83	0.47
1:AA:826:U:OP1	1:AA:2428:G:H3'	2.15	0.47
1:AA:978:G:C2	1:AA:986:C:C2	3.03	0.47
1:AA:1060:U:C4'	1:AA:1061:U:O5'	2.62	0.47
1:AA:1062:G:H8	1:AA:1062:G:OP1	1.98	0.47
1:AA:1482:U:O4	1:AA:1510:A:C8	2.68	0.47
1:AA:1514:U:O2	1:AA:1514:U:H2'	2.13	0.47
1:AA:1657:C:H2'	1:AA:1658:C:C6	2.49	0.47
1:AA:1925:C:C2'	1:AA:1926:U:H5'	2.43	0.47
1:AA:2119:A:H61	1:AA:2170:A:N6	2.12	0.47
1:AA:2563:U:H4'	10:AN:28:SER:HA	1.97	0.47
1:AA:2865:U:C4	1:AA:2866:U:C4	3.03	0.47
2:AB:71:C:C2	2:AB:72:G:C8	3.02	0.47
3:AD:158:ALA:HB3	3:AD:161:THR:HG21	1.97	0.47
3:AD:263:ARG:HE	3:AD:263:ARG:HB2	1.38	0.47
5:AF:63:LYS:NZ	5:AF:67:GLN:HE21	2.13	0.47
6:AG:70:VAL:HA	6:AG:90:LEU:HD12	1.97	0.47
7:AH:153:LYS:CB	7:AH:154:PRO:HD2	2.45	0.47
9:AM:41:ASP:O	9:AM:48:MET:HE3	2.13	0.47
11:AO:11:GLY:C	11:AO:13:ASN:N	2.71	0.47
11:AO:49:ARG:HD2	30:A8:58:ILE:CG2	2.45	0.47
12:AP:16:ARG:HE	12:AP:16:ARG:HB3	1.41	0.47
12:AP:32:TYR:CZ	12:AP:111:GLU:HG3	2.49	0.47
13:A0:1:MET:HB3	13:A0:2:ARG:H	1.56	0.47
13:A0:13:HIS:CE1	13:A0:16:HIS:HB2	2.50	0.47
14:AQ:78:LEU:HD23	14:AQ:78:LEU:O	2.14	0.47
15:AR:56:GLY:O	15:AR:59:THR:CG2	2.62	0.47
16:A1:91:ASP:O	16:A1:95:LEU:HB2	2.13	0.47
21:AV:69:THR:HA	21:AV:89:PHE:O	2.15	0.47
21:AV:103:ARG:HG3	21:AV:136:PHE:CD1	2.50	0.47
21:AV:107:THR:HB	21:AV:108:PRO:CD	2.43	0.47
21:AV:150:LEU:H	21:AV:172:ALA:HB3	1.79	0.47
21:AV:151:HIS:HD2	21:AV:168:GLU:CG	2.28	0.47
24:AW:15:LYS:N	24:AW:67:LYS:NZ	2.53	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AW:17:SER:HB2	24:AW:20:GLU:HG3	1.96	0.47
28:A6:9:LEU:HB3	28:A6:26:ASN:O	2.15	0.47
28:A6:25:LYS:HE2	28:A6:27:LYS:CE	2.44	0.47
29:A7:35:ARG:HG3	29:A7:42:LEU:HD11	1.97	0.47
31:BA:84:U:H2'	31:BA:85:U:OP1	2.15	0.47
31:BA:186(C):G:H2'	31:BA:186(D):C:C6	2.46	0.47
31:BA:265:G:H5'	47:BT:64:PRO:O	2.14	0.47
31:BA:273:A:N6	31:BA:274:A:N6	2.63	0.47
31:BA:749:C:O2	31:BA:749:C:H2'	2.13	0.47
31:BA:1064:G:H4'	31:BA:1065:U:OP1	2.15	0.47
31:BA:1065:U:C1'	31:BA:1066:C:OP2	2.60	0.47
31:BA:1129:C:N3	31:BA:1139:G:O6	2.48	0.47
31:BA:1151:A:N6	31:BA:1152:A:N6	2.62	0.47
31:BA:1157:A:H1'	31:BA:1158:C:C4	2.49	0.47
31:BA:1159:U:C2	31:BA:1182:G:C2	3.03	0.47
31:BA:1211:U:C5'	31:BA:1212:U:OP1	2.56	0.47
31:BA:1352:C:H2'	31:BA:1353:G:C8	2.49	0.47
32:BE:100:GLY:O	32:BE:101:MET:C	2.58	0.47
33:BF:11:ARG:O	33:BF:12:LEU:C	2.55	0.47
34:BG:31:CYS:C	34:BG:33:MET:N	2.64	0.47
34:BG:107:ARG:NH2	34:BG:194:LEU:HD21	2.29	0.47
43:BP:60:VAL:HG12	43:BP:66:LEU:HD11	1.95	0.47
52:BB:56:G:H2'	52:BB:57:C:C6	2.49	0.47
31:CA:197:A:C8	31:CA:198:G:H1'	2.50	0.47
31:CA:345:C:O2	31:CA:346:G:N2	2.48	0.47
31:CA:510:A:H5"	31:CA:511:C:P	2.55	0.47
31:CA:901:A:H8	31:CA:901:A:O5'	1.98	0.47
31:CA:1004:A:H2	31:CA:1024:G:H8	1.61	0.47
31:CA:1022:G:H2'	31:CA:1023:G:O4'	2.13	0.47
31:CA:1127:G:H1'	31:CA:1147:C:H42	1.78	0.47
31:CA:1159:U:O2'	31:CA:1160:G:N7	2.47	0.47
31:CA:1212:U:O2'	31:CA:1213:A:H8	1.97	0.47
31:CA:1248:A:C2'	39:CL:70:LYS:HZ1	2.28	0.47
31:CA:1279:A:H5"	31:CA:1280:A:P	2.55	0.47
31:CA:1322:C:O2	31:CA:1322:C:C2'	2.62	0.47
31:CA:1333:A:H2'	31:CA:1334:G:O4'	2.15	0.47
35:CH:36:ASP:O	35:CH:38:GLN:HG2	2.15	0.47
38:CK:1:MET:HE3	38:CK:3:THR:HG23	1.95	0.47
38:CK:20:TYR:HD1	38:CK:65:TYR:CD2	2.32	0.47
39:CL:51:ARG:HG2	39:CL:56:LEU:HD13	1.97	0.47
39:CL:97:LYS:CB	39:CL:102:LEU:HD12	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CM:48:THR:HA	40:CM:62:HIS:CB	2.41	0.47
40:CM:89:ASP:C	40:CM:91:PRO:HD3	2.40	0.47
41:CN:17:GLY:O	41:CN:80:VAL:HA	2.15	0.47
43:CP:40:ASN:OD1	43:CP:41:PRO:HD2	2.14	0.47
43:CP:96:LEU:HB3	43:CP:97:PRO:HD2	1.97	0.47
1:DA:309:G:N3	1:DA:329:G:O2'	2.44	0.47
1:DA:343:C:O2'	1:DA:344:G:H5'	2.14	0.47
1:DA:529:A:N3	1:DA:529:A:H2'	2.29	0.47
1:DA:760:G:H2'	1:DA:761:A:O4'	2.15	0.47
1:DA:844:C:C5	1:DA:845:G:C6	3.03	0.47
1:DA:856:C:O2'	1:DA:857:C:OP1	2.28	0.47
1:DA:1019:U:OP1	1:DA:1035:U:O2'	2.23	0.47
1:DA:1347:G:H21	29:D7:49:ARG:HH22	1.63	0.47
1:DA:1657:C:H2'	1:DA:1658:C:H6	1.79	0.47
1:DA:1686:C:C2'	1:DA:1687:G:H5'	2.45	0.47
1:DA:1819:A:H5"	3:DD:161:THR:HG21	1.96	0.47
1:DA:1820:U:O2	3:DD:201:HIS:HB3	2.15	0.47
1:DA:1963:U:O2	1:DA:1963:U:H2'	2.13	0.47
1:DA:2103:C:O2	1:DA:2187:G:C2	2.68	0.47
1:DA:2116:G:P	1:DA:2165:G:H22	2.38	0.47
1:DA:2120:G:O2'	1:DA:2121:G:H5'	2.15	0.47
1:DA:2187:G:H2'	1:DA:2188:C:O4'	2.15	0.47
1:DA:2252:G:H2'	1:DA:2253:G:O4'	2.15	0.47
1:DA:2314:C:C2'	1:DA:2315:G:H5'	2.45	0.47
1:DA:2565:A:H5"	1:DA:2566:A:OP2	2.15	0.47
1:DA:2569:G:C2'	1:DA:2570:G:H5'	2.45	0.47
1:DA:2584:U:O4'	1:DA:2584:U:O2	2.33	0.47
1:DA:2896:C:H5'	1:DA:2897:U:OP2	2.14	0.47
3:DD:2:ALA:O	3:DD:3:VAL:CB	2.59	0.47
3:DD:58:HIS:HD2	3:DD:59:LYS:O	1.98	0.47
4:DE:34:VAL:HB	4:DE:48:GLN:HE21	1.78	0.47
5:DF:177:ALA:HB1	5:DF:178:PRO:HD2	1.95	0.47
7:DH:37:VAL:HG22	7:DH:38:SER:H	1.80	0.47
7:DH:80:SER:O	7:DH:81:GLU:HB2	2.15	0.47
8:DK:9:LEU:HD23	8:DK:9:LEU:H	1.79	0.47
9:DM:30:ILE:HG22	9:DM:34:LEU:CD2	2.45	0.47
11:DO:75:ILE:O	11:DO:75:ILE:HG12	2.14	0.47
11:DO:85:LEU:HD23	11:DO:86:LYS:N	2.29	0.47
12:DP:28:ALA:C	12:DP:29:PHE:HD1	2.22	0.47
12:DP:77:LYS:C	12:DP:79:LEU:N	2.71	0.47
14:DQ:86:ALA:O	14:DQ:87:PHE:CB	2.61	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:D2:84:LYS:HB2	17:D2:84:LYS:HZ3	1.78	0.47
18:DS:17:VAL:C	18:DS:19:LEU:N	2.73	0.47
19:DT:29:TRP:CZ3	19:DT:76:ARG:HB3	2.49	0.47
20:DU:28:LYS:O	20:DU:38:ILE:HB	2.15	0.47
20:DU:76:CYS:HB3	20:DU:96:ILE:HD11	1.97	0.47
22:D3:81:VAL:O	22:D3:83:PRO:HD3	2.14	0.47
27:D5:31:VAL:CG1	27:D5:42:PRO:HG3	2.45	0.47
1:AA:57:C:H2'	1:AA:58:G:O4'	2.15	0.47
1:AA:286:C:H2'	1:AA:287:C:C6	2.50	0.47
1:AA:856:C:O4'	22:A3:27:GLU:HB3	2.15	0.47
1:AA:910:A:N1	1:AA:2277:G:H1'	2.29	0.47
1:AA:1174:A:H3'	1:AA:1175:U:C5'	2.43	0.47
4:AE:61:ARG:C	4:AE:63:LEU:H	2.23	0.47
6:AG:67:LYS:CE	6:AG:67:LYS:H	2.27	0.47
7:AH:10:PRO:C	7:AH:11:VAL:HG13	2.40	0.47
7:AH:170:ARG:HB3	7:AH:171:LEU:H	1.52	0.47
11:AO:31:ALA:O	11:AO:32:THR:HG22	2.15	0.47
11:AO:51:PHE:CE2	11:AO:53:GLY:HA2	2.50	0.47
13:A0:41:ALA:O	13:A0:44:LEU:N	2.43	0.47
14:AQ:65:VAL:O	14:AQ:69:VAL:HG12	2.15	0.47
15:AR:128:GLU:O	15:AR:128:GLU:HG2	2.14	0.47
16:A1:64:ARG:HG2	16:A1:64:ARG:NH2	2.13	0.47
20:AU:77:PRO:O	20:AU:78:ALA:HB2	2.15	0.47
26:A4:5:ILE:HG23	26:A4:5:ILE:O	2.15	0.47
26:A4:61:ARG:NE	26:A4:61:ARG:HA	2.30	0.47
31:BA:439:A:OP2	31:BA:493:G:N2	2.47	0.47
31:BA:509:A:H2'	31:BA:510:A:C8	2.50	0.47
31:BA:914:A:O2'	31:BA:915:A:H5'	2.15	0.47
31:BA:926:G:C6	31:BA:1505:G:C5	3.03	0.47
31:BA:986:A:H2'	31:BA:987:G:O4'	2.14	0.47
31:BA:989:C:H42	31:BA:1216:G:H1	1.62	0.47
31:BA:1319:A:OP1	49:BV:5:LEU:HD22	2.15	0.47
32:BE:20:GLU:HB2	32:BE:190:THR:OG1	2.15	0.47
33:BF:3:ASN:OD1	33:BF:3:ASN:N	2.48	0.47
33:BF:69:HIS:HA	33:BF:104:GLN:O	2.14	0.47
34:BG:28:SER:HB3	34:BG:29:PRO:CD	2.40	0.47
34:BG:150:GLU:C	34:BG:152:SER:N	2.72	0.47
36:BI:37:VAL:HG12	36:BI:38:GLU:N	2.29	0.47
40:BM:8:LEU:HB3	40:BM:16:LEU:HD21	1.97	0.47
41:BN:33:THR:HB	41:BN:37:GLY:C	2.40	0.47
52:BB:49:C:H3'	52:BB:50:A:H5"	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:174:C:H2'	31:CA:175:C:H6	1.80	0.47
31:CA:632:A:C4'	31:CA:633:G:O5'	2.56	0.47
31:CA:1302:U:C5	43:CP:17:VAL:HG21	2.49	0.47
32:CE:147:LYS:O	32:CE:147:LYS:NZ	2.40	0.47
33:CF:22:TRP:CB	33:CF:59:ARG:HB2	2.45	0.47
33:CF:181:ASN:HD21	33:CF:204:LEU:HD12	1.79	0.47
34:CG:200:GLU:HG2	34:CG:201:GLN:N	2.30	0.47
45:CR:11:VAL:HG21	45:CR:34:LEU:HD22	1.96	0.47
52:CB:87:A:H8	1:DA:2583:G:N2	1.96	0.47
53:CD:5:G:H1	53:CD:69:C:H42	1.63	0.47
1:DA:11:G:C2'	1:DA:12:U:H5'	2.45	0.47
1:DA:270(Y):G:C2	1:DA:270(Z):U:O4	2.67	0.47
1:DA:571:A:C5	1:DA:575:A:C8	3.03	0.47
1:DA:865:C:H4'	1:DA:866:A:OP1	2.15	0.47
1:DA:1060:U:N3	1:DA:1088:A:C8	2.82	0.47
1:DA:1472:A:H2'	1:DA:1473:G:H5'	1.97	0.47
1:DA:1607:C:C4'	1:DA:1608:A:H5'	2.44	0.47
1:DA:1668:A:N3	1:DA:1670:C:C4	2.83	0.47
1:DA:2359:C:H2'	1:DA:2360:A:O4'	2.15	0.47
1:DA:2470:G:C2'	1:DA:2471:C:H5'	2.45	0.47
1:DA:2637:U:H2'	1:DA:2638:G:O4'	2.14	0.47
1:DA:2662:A:H8	1:DA:2662:A:O5'	1.98	0.47
2:DB:31:C:H2'	2:DB:32:C:H5'	1.97	0.47
3:DD:35:LYS:CE	3:DD:104:TYR:CD1	2.98	0.47
11:DO:52:GLU:CD	11:DO:52:GLU:H	2.22	0.47
15:DR:99:LEU:HD22	15:DR:101:PHE:HE1	1.80	0.47
17:D2:21:ARG:HD3	17:D2:91:TYR:HB3	1.97	0.47
21:DV:30:ASN:O	21:DV:31:ARG:C	2.58	0.47
21:DV:146:ILE:HG23	21:DV:147:GLY:N	2.30	0.47
26:D4:21:VAL:HG22	26:D4:22:ILE:N	2.19	0.47
28:D6:23:THR:O	28:D6:24:GLU:HB2	2.14	0.47
1:AA:221:A:N1	1:AA:265:A:O2'	2.46	0.47
1:AA:654(A):A:C2	1:AA:654(T):A:N6	2.82	0.47
1:AA:1021:A:H8	1:AA:1022:G:H5"	1.79	0.47
1:AA:1061:U:H4'	1:AA:1070:A:H1'	1.96	0.47
1:AA:1206:G:C6	1:AA:1207:C:C4	3.02	0.47
1:AA:1332:G:H5'	1:AA:1332:G:C8	2.49	0.47
1:AA:1509:C:N4	1:AA:1511:A:N6	2.63	0.47
1:AA:2285:C:OP1	28:A6:28:ARG:CD	2.62	0.47
1:AA:2492:U:H2'	1:AA:2493:U:H6	1.80	0.47
1:AA:2785:C:H2'	1:AA:2786:U:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2790:A:H2	1:AA:2894:G:H5'	1.80	0.47
1:AA:2853:C:H2'	1:AA:2854:G:C8	2.50	0.47
2:AB:81:G:O6	2:AB:95:U:C2	2.68	0.47
3:AD:35:LYS:CB	3:AD:63:ARG:HA	2.39	0.47
3:AD:97:TYR:CE1	3:AD:103:ARG:HG3	2.50	0.47
4:AE:185:LYS:HG3	4:AE:185:LYS:O	2.15	0.47
6:AG:111:LEU:HB2	6:AG:112:PRO:HD3	1.97	0.47
7:AH:109:PHE:C	7:AH:111:HIS:H	2.23	0.47
12:AP:69:PHE:HA	12:AP:70:PRO:HD3	1.75	0.47
12:AP:136:ALA:O	12:AP:137:TYR:C	2.56	0.47
12:AP:136:ALA:CB	21:AV:48:PHE:HE1	2.26	0.47
14:AQ:35:ILE:HD11	14:AQ:101:LEU:CD2	2.44	0.47
15:AR:50:ILE:HD13	15:AR:50:ILE:HA	1.73	0.47
18:AS:64:MET:O	18:AS:65:LEU:HB2	2.14	0.47
22:A3:53:MET:HA	22:A3:58:THR:O	2.15	0.47
26:A4:43:TYR:O	26:A4:46:GLN:HA	2.15	0.47
31:BA:116:A:H61	31:BA:313:A:H1'	1.79	0.47
31:BA:353:A:C2'	31:BA:354:G:OP2	2.62	0.47
33:BF:89:GLU:C	33:BF:91:LEU:H	2.23	0.47
44:BQ:13:THR:H	44:BQ:14:PRO:HD2	1.70	0.47
49:BV:15:LEU:HD23	49:BV:15:LEU:H	1.79	0.47
31:CA:687:A:C1'	31:CA:688:G:OP2	2.63	0.47
31:CA:1176:A:C2'	31:CA:1177:G:H5'	2.45	0.47
31:CA:1239:A:H4'	31:CA:1240:U:C5'	2.45	0.47
36:CI:15:ASP:C	36:CI:15:ASP:OD1	2.58	0.47
36:CI:24:GLU:HG2	36:CI:28:ARG:HD3	1.97	0.47
40:CM:45:ARG:HB3	40:CM:65:LEU:HB3	1.97	0.47
47:CT:45:HIS:HB2	47:CT:65:ILE:HD13	1.97	0.47
53:CD:21:U:H3'	53:CD:22:A:H5"	1.95	0.47
53:CD:52:C:N3	53:CD:64:G:N2	2.56	0.47
1:DA:1449(A):G:O2'	1:DA:1450:C:H5'	2.15	0.47
1:DA:2820:A:O5'	13:D0:4:LEU:HD23	2.14	0.47
4:DE:53:PRO:O	4:DE:54:GLN:C	2.58	0.47
5:DF:21:ALA:C	5:DF:23:ASP:H	2.21	0.47
6:DG:173:LEU:O	6:DG:178:PHE:HB2	2.15	0.47
7:DH:41:MET:CE	7:DH:64:LEU:HB2	2.44	0.47
14:DQ:58:LEU:HD23	14:DQ:58:LEU:N	2.30	0.47
14:DQ:110:LEU:HB2	14:DQ:112:PHE:CE1	2.50	0.47
15:DR:106:SER:HA	15:DR:110:ILE:HG13	1.96	0.47
17:D2:5:VAL:HB	17:D2:37:VAL:CG1	2.40	0.47
20:DU:76:CYS:CB	20:DU:77:PRO:HD2	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:49:PHE:CD1	26:D4:50:VAL:HG13	2.49	0.47
28:D6:31:PRO:O	28:D6:32:ASN:HB2	2.14	0.47
1:AA:69:C:O2'	1:AA:70:G:H5'	2.15	0.47
1:AA:363(B):G:H2'	1:AA:363(C):G:C8	2.49	0.47
1:AA:372:G:O2'	1:AA:373:U:P	2.72	0.47
1:AA:1055:G:H1'	1:AA:1085:A:H61	1.79	0.47
1:AA:1056:G:HO2'	1:AA:1057:A:P	2.38	0.47
1:AA:2166:G:C2'	1:AA:2167:U:OP1	2.63	0.47
1:AA:2224:G:H4'	1:AA:2226:C:C2	2.50	0.47
1:AA:2303:G:C2'	1:AA:2304:G:H5'	2.45	0.47
1:AA:2402:C:H2'	1:AA:2403:C:C5'	2.43	0.47
1:AA:2645:G:N2	1:AA:2767:C:OP2	2.48	0.47
1:AA:2721:A:H2'	1:AA:2722:G:O4'	2.15	0.47
3:AD:30:GLU:HG3	3:AD:63:ARG:CZ	2.44	0.47
3:AD:264:LYS:O	3:AD:265:PRO:C	2.57	0.47
5:AF:64:ILE:HG23	5:AF:65:TRP:CD1	2.50	0.47
7:AH:137:ASP:O	7:AH:138:LYS:CB	2.55	0.47
9:AM:15:LEU:HB2	9:AM:134:ARG:HB2	1.95	0.47
11:AO:112:LEU:HD13	11:AO:127:ALA:HB2	1.96	0.47
18:AS:65:LEU:C	18:AS:67:ASP:N	2.73	0.47
28:A6:11:LEU:HD11	28:A6:51:GLU:HG3	1.96	0.47
28:A6:28:ARG:HH12	28:A6:30:THR:HG23	1.80	0.47
28:A6:40:CYS:SG	28:A6:45:LYS:HD3	2.54	0.47
30:A8:29:LYS:CG	30:A8:44:LYS:HG2	2.45	0.47
31:BA:336:C:O2'	31:BA:337:C:H5'	2.14	0.47
31:BA:345:C:H5'	31:BA:346:G:OP1	2.15	0.47
31:BA:540:G:H2'	31:BA:541:G:O4'	2.15	0.47
31:BA:1152:A:C5	31:BA:1153:C:C5	3.03	0.47
35:BH:45:PHE:CE2	35:BH:47:LYS:HD2	2.49	0.47
37:BJ:6:ARG:O	37:BJ:7:ALA:C	2.58	0.47
38:BK:103:VAL:CG2	38:BK:110:ALA:HB2	2.44	0.47
39:BL:125:TYR:HD2	39:BL:126:SER:N	2.13	0.47
42:BO:89:ASP:O	42:BO:91:PRO:HD3	2.15	0.47
54:B1:20:U:H2'	54:B1:21:C:C6	2.49	0.47
31:CA:570:G:H1'	31:CA:820:U:C4	2.49	0.47
31:CA:575:G:O2'	31:CA:821:G:H5'	2.15	0.47
31:CA:1003:G:H2'	31:CA:1004:A:C5'	2.45	0.47
35:CH:105:VAL:HB	35:CH:106:PRO:CD	2.45	0.47
37:CJ:131:LYS:HG2	37:CJ:131:LYS:O	2.15	0.47
43:CP:85:GLY:O	43:CP:86:CYS:HB3	2.15	0.47
43:CP:105:THR:O	43:CP:106:ASN:C	2.58	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:28:A:C2	1:DA:513:A:C8	3.02	0.47
1:DA:614:U:H4'	1:DA:615:G:OP1	2.14	0.47
1:DA:623:G:H2'	1:DA:624:C:C6	2.50	0.47
1:DA:1040:C:H2'	1:DA:1041:C:C6	2.50	0.47
1:DA:1064:C:H2'	1:DA:1065:U:C6	2.50	0.47
1:DA:1257:C:H4'	5:DF:83:PHE:CD2	2.50	0.47
1:DA:1324:G:C4	1:DA:1328:G:O6	2.67	0.47
1:DA:1902:C:H5'	3:DD:246:PRO:HD3	1.97	0.47
1:DA:2101:G:H2'	1:DA:2102:U:O4'	2.15	0.47
1:DA:2406:U:C2	11:DO:75:ILE:HG22	2.50	0.47
1:DA:2819:G:H2'	1:DA:2821:A:N7	2.30	0.47
2:DB:74:U:C3'	2:DB:75:G:H5"	2.44	0.47
4:DE:8:LYS:CG	4:DE:192:ASN:HD22	2.28	0.47
4:DE:134:ILE:HA	4:DE:137:HIS:CD2	2.50	0.47
11:DO:63:PRO:C	11:DO:65:ARG:N	2.71	0.47
17:D2:57:VAL:HB	17:D2:99:ILE:HG12	1.97	0.47
21:DV:40:ASP:OD1	21:DV:42:VAL:HB	2.13	0.47
1:AA:456:C:C4	19:AT:69:TYR:CE1	3.02	0.46
1:AA:654(A):A:O2'	1:AA:654(B):C:H5'	2.15	0.46
1:AA:654(I):C:O2	1:AA:654(I):C:H3'	2.14	0.46
1:AA:714:U:O2'	1:AA:716:A:N7	2.44	0.46
1:AA:2022:U:O2'	1:AA:2617:C:H5'	2.15	0.46
1:AA:2121:G:H2'	1:AA:2122:U:O4'	2.15	0.46
1:AA:2139:C:N3	1:AA:2152:G:N2	2.52	0.46
1:AA:2330:G:H2'	1:AA:2331:G:O4'	2.15	0.46
1:AA:2689:U:H5"	1:AA:2713:A:C2	2.50	0.46
2:AB:24:G:N7	2:AB:56:G:H2'	2.31	0.46
3:AD:28:GLU:O	3:AD:29:PRO:O	2.33	0.46
4:AE:68:ALA:O	4:AE:70:ALA:N	2.49	0.46
7:AH:166:GLY:O	7:AH:167:GLU:HG3	2.14	0.46
9:AM:63:THR:OG1	9:AM:64:GLY:N	2.47	0.46
27:A5:42:PRO:HB2	27:A5:43:HIS:HD2	1.80	0.46
31:BA:396:G:O2'	31:BA:398:C:OP1	2.28	0.46
31:BA:878:G:H5'	38:BK:89:PRO:HG2	1.97	0.46
31:BA:1414:U:H2'	31:BA:1415:G:H8	1.80	0.46
36:BI:44:GLY:HA2	36:BI:59:TYR:CE1	2.49	0.46
40:BM:99:LYS:HG2	40:BM:100:THR:N	2.30	0.46
43:BP:50:GLU:O	43:BP:54:VAL:HG23	2.15	0.46
47:BT:52:LYS:H	47:BT:52:LYS:HD3	1.80	0.46
31:CA:358:U:H2'	31:CA:359:U:H6	1.80	0.46
31:CA:1095:U:H2'	31:CA:1096:C:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1217:C:H2'	31:CA:1218:C:O4'	2.14	0.46
31:CA:1477:C:H2'	31:CA:1478:C:C6	2.50	0.46
35:CH:17:ALA:HA	35:CH:26:PHE:HA	1.97	0.46
37:CJ:44:TYR:O	37:CJ:48:LYS:HG2	2.15	0.46
41:CN:57:THR:HG22	41:CN:58:PRO:CD	2.46	0.46
44:CQ:13:THR:N	44:CQ:14:PRO:CD	2.78	0.46
50:CW:10:LEU:HD23	50:CW:10:LEU:C	2.40	0.46
50:CW:16:HIS:O	50:CW:19:SER:OG	2.26	0.46
50:CW:23:ARG:O	50:CW:27:LYS:HB2	2.15	0.46
52:CB:15:A:OP2	52:CB:16:U:C5	2.69	0.46
1:DA:217:G:H2'	1:DA:218:A:O4'	2.15	0.46
1:DA:607:U:H5	1:DA:619:G:C5	2.34	0.46
1:DA:807:U:H2'	1:DA:808:G:C8	2.50	0.46
1:DA:953:A:H2'	1:DA:954:G:H8	1.81	0.46
1:DA:959:A:C6	1:DA:960:A:N1	2.83	0.46
1:DA:1152:C:H4'	16:D1:77:SER:HA	1.96	0.46
1:DA:1401:G:H2'	1:DA:1402:C:O4'	2.15	0.46
1:DA:1426:G:OP2	1:DA:1427:A:O2'	2.33	0.46
1:DA:1638:C:O2	1:DA:2698:U:O2'	2.30	0.46
1:DA:1902:C:OP1	3:DD:242:ARG:HD3	2.15	0.46
1:DA:1952:A:C5	10:DN:22:ILE:HD12	2.50	0.46
1:DA:2211:G:H1'	1:DA:2212:A:OP1	2.14	0.46
1:DA:2378:A:C5	1:DA:2379:G:H1'	2.49	0.46
1:DA:2531:A:H4'	7:DH:157:TYR:CD2	2.50	0.46
1:DA:2721:A:H2'	1:DA:2722:G:O4'	2.14	0.46
1:DA:2833:G:H8	1:DA:2833:G:OP1	1.98	0.46
1:DA:2872:G:C5	1:DA:2873:A:C6	3.02	0.46
1:DA:2872:G:N1	1:DA:2873:A:N6	2.48	0.46
5:DF:40:GLN:HE22	5:DF:182:ASN:HB2	1.80	0.46
5:DF:51:THR:HB	5:DF:88:VAL:HG11	1.97	0.46
5:DF:125:LEU:HD23	5:DF:125:LEU:H	1.80	0.46
9:DM:30:ILE:O	9:DM:34:LEU:HD22	2.15	0.46
9:DM:58:ASP:OD1	9:DM:58:ASP:N	2.40	0.46
17:D2:44:LYS:O	17:D2:46:VAL:HG12	2.15	0.46
19:DT:21:PHE:CZ	19:DT:92:LEU:HD22	2.50	0.46
19:DT:49:VAL:HB	19:DT:83:VAL:HG21	1.97	0.46
1:AA:270(M):U:H1'	1:AA:270(N):G:C5	2.49	0.46
1:AA:892:G:H2'	1:AA:892:G:N3	2.31	0.46
1:AA:1000:A:H62	1:AA:1154:G:H2'	1.79	0.46
1:AA:1036:G:OP1	7:AH:59:ARG:HB2	2.15	0.46
1:AA:2129:C:N3	1:AA:2159:G:O6	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2794:C:O2	1:AA:2794:C:H2'	2.15	0.46
1:AA:2881:C:C2	1:AA:2882:A:C8	3.03	0.46
3:AD:155:LEU:HD23	3:AD:177:LEU:HD22	1.97	0.46
3:AD:182:LEU:N	3:AD:272:ALA:HB3	2.26	0.46
4:AE:117:MET:O	4:AE:118:LYS:CB	2.64	0.46
5:AF:181:LEU:O	5:AF:205:ARG:NH2	2.48	0.46
6:AG:178:PHE:HB3	6:AG:180:PHE:CE1	2.50	0.46
7:AH:64:LEU:HD23	7:AH:67:LEU:HD23	1.97	0.46
7:AH:86:GLU:O	7:AH:131:VAL:O	2.34	0.46
8:AK:1:MET:O	8:AK:20:ASP:HA	2.15	0.46
10:AN:7:TYR:CZ	10:AN:44:LYS:HG3	2.51	0.46
10:AN:7:TYR:C	10:AN:8:LEU:HD22	2.40	0.46
12:AP:23:GLY:HA2	12:AP:24:GLY:HA3	1.74	0.46
14:AQ:106:ARG:HA	14:AQ:110:LEU:CD2	2.41	0.46
23:AZ:58:ILE:HD13	23:AZ:87:PRO:HD3	1.97	0.46
29:A7:29:LYS:HA	29:A7:32:LYS:HB2	1.97	0.46
31:BA:411:A:C2	31:BA:431:A:N6	2.83	0.46
31:BA:651:C:H2'	31:BA:652:U:C6	2.51	0.46
31:BA:731:G:H5'	31:BA:766:A:H4'	1.97	0.46
32:BE:96:ARG:HD2	32:BE:96:ARG:N	2.18	0.46
32:BE:111:ARG:HA	32:BE:111:ARG:HH11	1.80	0.46
33:BF:95:THR:HG22	33:BF:96:GLY:N	2.26	0.46
33:BF:111:LEU:HD23	33:BF:144:SER:OG	2.15	0.46
38:BK:110:ALA:HB3	38:BK:121:ASP:HB3	1.97	0.46
40:BM:35:SER:O	40:BM:36:GLY:C	2.59	0.46
43:BP:65:LYS:O	43:BP:66:LEU:HD23	2.16	0.46
31:CA:900:A:H2'	31:CA:901:A:C8	2.50	0.46
31:CA:983:A:H3'	31:CA:983:A:N3	2.31	0.46
31:CA:1225:A:C8	31:CA:1225:A:OP2	2.68	0.46
31:CA:1227:A:O3'	43:CP:115:LYS:HD2	2.16	0.46
31:CA:1379:G:OP1	37:CJ:6:ARG:NH1	2.48	0.46
32:CE:207:ALA:O	32:CE:211:ILE:HG13	2.15	0.46
48:CU:22:VAL:HG22	48:CU:23:LYS:N	2.29	0.46
1:DA:89:G:H3'	1:DA:90:U:C5'	2.42	0.46
1:DA:250:G:OP1	11:DO:60:MET:HE1	2.15	0.46
1:DA:491:G:O6	18:DS:49:LYS:HD3	2.15	0.46
1:DA:873:G:C2	1:DA:905:U:O2	2.68	0.46
1:DA:1093:G:H22	1:DA:1097:U:H5"	1.80	0.46
1:DA:2378:A:O2'	14:DQ:21:THR:HG21	2.15	0.46
1:DA:2752:C:OP2	1:DA:2752:C:O4'	2.33	0.46
2:DB:29:A:C2	2:DB:56:G:C2	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:DB:56:G:H4'	2:DB:57:A:C8	2.50	0.46
3:DD:48:ARG:NH1	3:DD:48:ARG:HG3	2.30	0.46
6:DG:109:VAL:HG11	6:DG:142:PRO:HD3	1.97	0.46
7:DH:149:ARG:HG3	7:DH:162:ILE:O	2.14	0.46
8:DK:74:ASN:O	8:DK:75:LEU:HB2	2.16	0.46
11:DO:20:GLY:O	11:DO:21:ARG:O	2.32	0.46
12:DP:26:TYR:C	12:DP:26:TYR:CD2	2.91	0.46
12:DP:85:LYS:O	12:DP:86:GLY:C	2.57	0.46
19:DT:18:TYR:C	19:DT:20:GLY:N	2.73	0.46
19:DT:25:LYS:HA	19:DT:81:VAL:O	2.14	0.46
20:DU:96:ILE:HD12	20:DU:98:VAL:CG1	2.45	0.46
22:D3:24:LYS:O	22:D3:25:ARG:HD3	2.15	0.46
30:D8:49:VAL:CG1	30:D8:50:LEU:N	2.78	0.46
1:AA:248:G:H5"	1:AA:386:G:N2	2.31	0.46
1:AA:613:U:O2	1:AA:613:U:O4'	2.34	0.46
1:AA:989:G:N7	25:AX:13:ILE:HD12	2.30	0.46
1:AA:1019:U:H2'	1:AA:1020:A:H8	1.80	0.46
1:AA:1494:A:C2'	1:AA:1495:A:H5'	2.45	0.46
1:AA:1651:G:N2	1:AA:2007:C:C2	2.83	0.46
1:AA:1790:C:H5"	1:AA:1791:A:OP1	2.15	0.46
1:AA:2766:G:H2'	1:AA:2766:G:N3	2.31	0.46
2:AB:3:C:H2'	2:AB:4:C:C6	2.50	0.46
4:AE:23:VAL:HG13	4:AE:185:LYS:CB	2.44	0.46
4:AE:78:LEU:CD2	4:AE:79:ARG:HD2	2.45	0.46
7:AH:151:ILE:O	7:AH:153:LYS:CD	2.64	0.46
9:AM:70:LYS:C	9:AM:71:ILE:HD12	2.41	0.46
11:AO:100:LEU:HD12	11:AO:100:LEU:HA	1.75	0.46
15:AR:111:ARG:O	15:AR:112:ARG:C	2.57	0.46
31:BA:658:G:O2'	31:BA:659:U:H5'	2.15	0.46
31:BA:686:U:HO2'	31:BA:687:A:P	2.28	0.46
31:BA:1298:C:H4'	31:BA:1299:A:N9	2.30	0.46
31:BA:1315:U:H2'	31:BA:1316:G:O4'	2.15	0.46
32:BE:60:ASP:HB3	32:BE:64:ARG:CZ	2.45	0.46
33:BF:94:LEU:C	33:BF:94:LEU:HD12	2.40	0.46
33:BF:195:VAL:CG1	33:BF:196:LEU:N	2.78	0.46
34:BG:114:ARG:NH1	34:BG:114:ARG:CG	2.72	0.46
39:BL:81:ILE:O	39:BL:85:LEU:HG	2.15	0.46
43:BP:108:ARG:O	43:BP:109:THR:C	2.58	0.46
31:CA:182:U:H5	31:CA:183:G:C4	2.32	0.46
31:CA:945:G:H2'	31:CA:945:G:N3	2.30	0.46
31:CA:946:A:H2'	31:CA:947:G:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1180:A:H5”	31:CA:1181:G:OP1	2.16	0.46
31:CA:1203:C:H2’	31:CA:1204:A:O4’	2.15	0.46
31:CA:1267:C:H3’	31:CA:1267:C:O2	2.16	0.46
32:CE:237:ALA:O	32:CE:238:LEU:CB	2.63	0.46
40:CM:22:LYS:HD2	40:CM:22:LYS:C	2.40	0.46
40:CM:28:ARG:NH2	40:CM:34:VAL:HB	2.30	0.46
44:CQ:15:LYS:NZ	44:CQ:15:LYS:HB3	2.30	0.46
44:CQ:26:ARG:HH12	44:CQ:47:LEU:HD21	1.76	0.46
53:CD:15:G:H2’	53:CD:60:A:C2	2.50	0.46
1:DA:1125:G:C6	1:DA:1126:A:N6	2.83	0.46
1:DA:1651:G:H2’	1:DA:1652:A:O4’	2.16	0.46
1:DA:1783:A:H5’	1:DA:2608:G:H4’	1.97	0.46
1:DA:1946:U:H2’	1:DA:1947:C:C6	2.49	0.46
1:DA:2168:G:N2	1:DA:2170:A:C8	2.83	0.46
1:DA:2224:G:H4’	1:DA:2226:C:C2	2.50	0.46
1:DA:2433:A:H5”	1:DA:2434:A:OP1	2.14	0.46
4:DE:14:ILE:HB	15:DR:14:TYR:CZ	2.51	0.46
4:DE:201:THR:C	4:DE:202:LYS:HD2	2.39	0.46
6:DG:88:ILE:C	6:DG:88:ILE:HD13	2.40	0.46
7:DH:77:LYS:HE2	7:DH:81:GLU:HB3	1.98	0.46
7:DH:159:GLU:O	7:DH:160:LYS:C	2.57	0.46
9:DM:35:ARG:HB3	9:DM:42:TRP:CH2	2.50	0.46
9:DM:91:LEU:O	9:DM:95:PRO:HB3	2.15	0.46
11:DO:10:PRO:O	11:DO:11:GLY:O	2.32	0.46
12:DP:67:ARG:HD3	12:DP:102:VAL:O	2.15	0.46
17:D2:44:LYS:C	17:D2:46:VAL:N	2.67	0.46
23:DZ:30:VAL:O	23:DZ:31:GLY:O	2.33	0.46
1:AA:305:U:H2’	1:AA:306:U:C6	2.50	0.46
1:AA:330:A:H2	1:AA:1210:A:C2’	2.28	0.46
1:AA:507:A:O5’	1:AA:508:G:H5’	2.16	0.46
1:AA:690:G:H2’	1:AA:691:C:C6	2.51	0.46
1:AA:971:C:H2’	1:AA:972:G:H5’	1.97	0.46
1:AA:1055:G:H1’	1:AA:1085:A:N6	2.30	0.46
1:AA:1060:U:H4’	1:AA:1061:U:O5’	2.15	0.46
1:AA:1071:G:C8	1:AA:1089:G:C5	3.03	0.46
1:AA:1073:A:C8	1:AA:1074:G:C8	3.04	0.46
1:AA:1178:C:O2’	1:AA:1179:C:O5’	2.33	0.46
1:AA:1819:A:H5”	3:AD:158:ALA:HB3	1.97	0.46
1:AA:1973:G:H2’	1:AA:1974:C:C6	2.50	0.46
1:AA:2807:G:H5’	1:AA:2808:U:OP2	2.15	0.46
2:AB:40:U:C2’	2:AB:45:A:H61	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:10:THR:OG1	3:AD:13:ARG:HB2	2.15	0.46
3:AD:35:LYS:CA	3:AD:64:ILE:HG22	2.45	0.46
3:AD:158:ALA:O	3:AD:159:ALA:C	2.58	0.46
3:AD:211:ARG:HD2	3:AD:214:TRP:CZ3	2.50	0.46
4:AE:49:LEU:O	4:AE:50:GLY:C	2.58	0.46
4:AE:55:ASN:O	4:AE:57:LYS:N	2.44	0.46
5:AF:8:GLN:CD	5:AF:8:GLN:H	2.23	0.46
6:AG:108:ASN:ND2	26:A4:38:LYS:HG3	2.30	0.46
7:AH:138:LYS:HA	7:AH:141:VAL:HB	1.97	0.46
12:AP:21:THR:O	12:AP:21:THR:HG23	2.12	0.46
12:AP:58:PHE:CE1	12:AP:117:ALA:HB2	2.51	0.46
18:AS:55:ALA:O	18:AS:58:ALA:N	2.46	0.46
21:AV:30:ASN:O	21:AV:32:HIS:N	2.49	0.46
27:A5:16:ARG:HD2	27:A5:20:ARG:NH1	2.30	0.46
30:A8:44:LYS:HD2	30:A8:44:LYS:N	2.28	0.46
31:BA:652:U:O4	31:BA:752:G:H1'	2.16	0.46
32:BE:98:LEU:HG	32:BE:101:MET:HE3	1.98	0.46
32:BE:150:SER:OG	32:BE:151:GLY:N	2.47	0.46
34:BG:150:GLU:O	34:BG:152:SER:N	2.49	0.46
35:BH:74:GLY:O	35:BH:115:VAL:HA	2.15	0.46
35:BH:152:ARG:C	35:BH:153:LYS:HG3	2.40	0.46
37:BJ:31:MET:SD	37:BJ:34:GLY:HA2	2.55	0.46
38:BK:11:THR:HG23	38:BK:14:ARG:NH1	2.27	0.46
38:BK:81:HIS:HB2	38:BK:138:TRP:CE3	2.50	0.46
38:BK:101:PRO:HG2	38:BK:133:LEU:HD11	1.96	0.46
39:BL:83:ARG:O	39:BL:86:VAL:HG12	2.14	0.46
41:BN:21:ILE:HG12	41:BN:30:VAL:HG12	1.96	0.46
44:BQ:8:GLU:OE2	44:BQ:11:LYS:HD2	2.15	0.46
48:BU:29:PHE:CE1	48:BU:31:LEU:HB3	2.49	0.46
31:CA:67:C:H2'	31:CA:68:G:C8	2.50	0.46
31:CA:147:G:O2'	31:CA:148:G:H5'	2.16	0.46
31:CA:236:G:OP1	47:CT:40:LYS:NZ	2.45	0.46
31:CA:373:A:C2	31:CA:374:A:C8	3.04	0.46
31:CA:449:C:O2	31:CA:449:C:O4'	2.33	0.46
31:CA:524:G:H2'	31:CA:525:C:C6	2.50	0.46
31:CA:958:A:H5"	31:CA:959:A:OP2	2.15	0.46
31:CA:980:C:H3'	31:CA:981:U:C6	2.49	0.46
31:CA:1126:U:C1'	31:CA:1127:G:OP2	2.64	0.46
31:CA:1320:C:O2	49:CV:36:ARG:NH2	2.48	0.46
32:CE:5:ILE:O	32:CE:5:ILE:CG2	2.62	0.46
39:CL:26:VAL:HG13	39:CL:61:ALA:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:CL:99:LEU:HB3	39:CL:101:PHE:CD1	2.50	0.46
40:CM:24:VAL:O	40:CM:28:ARG:HB2	2.16	0.46
43:CP:39:ILE:HD12	43:CP:56:LEU:HG	1.97	0.46
52:CB:21:A:H1'	52:CB:22:G:P	2.56	0.46
1:DA:271:G:H2'	1:DA:272:G:C8	2.50	0.46
1:DA:287:C:H2'	1:DA:288:C:C6	2.50	0.46
1:DA:492:A:H2'	1:DA:493:G:H5'	1.97	0.46
1:DA:826:U:H2'	1:DA:828:U:O4'	2.16	0.46
1:DA:856:C:H2'	1:DA:857:C:C6	2.50	0.46
1:DA:1057:A:H61	1:DA:1080:A:N6	2.14	0.46
1:DA:1171:G:H1'	1:DA:1173:G:O5'	2.15	0.46
1:DA:1225:C:H4'	17:D2:85:LYS:CG	2.46	0.46
1:DA:1244:G:C2'	1:DA:1245:G:H5'	2.45	0.46
1:DA:1266:G:O2'	1:DA:2012:G:O6	2.34	0.46
1:DA:1669:A:H5"	1:DA:2550:G:OP1	2.15	0.46
1:DA:2309:A:OP1	1:DA:2309:A:C8	2.68	0.46
1:DA:2688:U:H1'	1:DA:2721:A:N6	2.30	0.46
3:DD:36:PRO:HA	3:DD:62:TYR:O	2.15	0.46
5:DF:118:ALA:C	5:DF:120:GLU:H	2.23	0.46
5:DF:148:LEU:CD2	5:DF:191:ARG:HH12	2.27	0.46
7:DH:26:VAL:CG1	7:DH:33:LEU:HB2	2.45	0.46
12:DP:85:LYS:C	12:DP:86:GLY:O	2.58	0.46
13:D0:78:LYS:HE2	13:D0:83:ILE:HD11	1.98	0.46
14:DQ:44:LYS:O	14:DQ:46:VAL:HG23	2.16	0.46
19:DT:23:GLU:HG3	19:DT:24:GLY:N	2.29	0.46
20:DU:14:LEU:HD12	20:DU:15:VAL:N	2.29	0.46
26:D4:15:ILE:O	26:D4:15:ILE:HG22	2.15	0.46
1:AA:372:G:HO2'	1:AA:373:U:P	2.39	0.46
1:AA:745:G:H2'	1:AA:746:A:H5'	1.97	0.46
1:AA:851:U:H5'	25:AX:46:ASN:ND2	2.30	0.46
1:AA:1090:U:N3	1:AA:1102:C:O2	2.48	0.46
1:AA:1907:G:H2'	1:AA:1908:C:C6	2.50	0.46
1:AA:1971:A:C5	3:AD:241:PRO:HD3	2.50	0.46
1:AA:2059:A:O2'	5:AF:69:HIS:HD2	1.98	0.46
1:AA:2114:A:H2'	1:AA:2168:G:H8	1.79	0.46
1:AA:2148:G:H2'	1:AA:2149:G:C8	2.47	0.46
1:AA:2285:C:C5	28:A6:27:LYS:HE2	2.50	0.46
1:AA:2876:G:H5'	15:AR:2:ASN:HB3	1.97	0.46
3:AD:70:TRP:CZ3	3:AD:150:LYS:HA	2.51	0.46
5:AF:46:ARG:CG	5:AF:46:ARG:NH1	2.73	0.46
6:AG:67:LYS:CE	6:AG:67:LYS:N	2.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:131:TYR:O	6:AG:159:VAL:HG13	2.16	0.46
11:AO:114:ILE:HD11	11:AO:130:PHE:HD1	1.79	0.46
17:A2:65:GLY:HA3	17:A2:91:TYR:CZ	2.50	0.46
21:AV:27:VAL:HG22	21:AV:28:MET:N	2.31	0.46
21:AV:96:VAL:HG22	21:AV:97:GLU:N	2.27	0.46
27:A5:3:LYS:HA	27:A5:3:LYS:HE3	1.96	0.46
31:BA:91:C:H2'	31:BA:92:G:O4'	2.16	0.46
31:BA:105:G:H2'	31:BA:106:C:C6	2.50	0.46
31:BA:221:C:H2'	31:BA:222:U:H6	1.81	0.46
31:BA:437:U:O2'	34:BG:123:HIS:HD2	1.97	0.46
31:BA:937:A:C5	31:BA:938:A:N7	2.83	0.46
31:BA:942:G:H21	39:BL:124:GLN:NE2	2.13	0.46
31:BA:1049:U:H4'	31:BA:1050:G:C5'	2.45	0.46
31:BA:1090:U:H2'	31:BA:1091:U:C6	2.49	0.46
31:BA:1256:A:H4'	31:BA:1258:G:C4	2.50	0.46
31:BA:1347:G:HO2'	31:BA:1348:U:P	2.39	0.46
32:BE:163:PHE:HA	32:BE:185:ILE:O	2.15	0.46
32:BE:169:LYS:NZ	32:BE:169:LYS:HB3	2.30	0.46
34:BG:30:LYS:HD3	34:BG:30:LYS:N	2.31	0.46
34:BG:101:LEU:HD23	34:BG:121:VAL:HG11	1.98	0.46
34:BG:107:ARG:HH22	34:BG:194:LEU:HD11	1.81	0.46
34:BG:135:LEU:O	34:BG:137:SER:N	2.48	0.46
49:BV:58:VAL:O	49:BV:58:VAL:HG23	2.14	0.46
50:BW:65:LYS:HA	50:BW:68:LYS:HG3	1.97	0.46
53:BD:8:U:H5"	53:BD:9:G:OP2	2.15	0.46
31:CA:530:G:O6	54:C1:21:C:H1'	2.16	0.46
31:CA:967:C:H3'	31:CA:968:A:H2'	1.96	0.46
31:CA:1062:U:H2'	31:CA:1063:C:C6	2.51	0.46
32:CE:16:HIS:CE1	32:CE:213:LEU:HD13	2.50	0.46
32:CE:69:LEU:HD23	32:CE:69:LEU:C	2.40	0.46
32:CE:168:THR:CG2	32:CE:192:SER:HB3	2.43	0.46
35:CH:92:LYS:HA	35:CH:93:PRO:HD3	1.80	0.46
36:CI:19:LEU:HD11	36:CI:59:TYR:CE1	2.50	0.46
42:CO:54:LYS:HG3	42:CO:64:THR:HG22	1.97	0.46
52:CB:31:C:H2'	52:CB:32:C:C6	2.50	0.46
1:DA:234:C:H2'	1:DA:235:U:C6	2.50	0.46
1:DA:528:A:C8	1:DA:528:A:C3'	2.98	0.46
1:DA:705:A:H1'	3:DD:9:TYR:CE1	2.51	0.46
1:DA:1012:U:N3	1:DA:1143:A:N1	2.62	0.46
1:DA:1013:C:N4	1:DA:1149:G:H1	2.11	0.46
1:DA:1036:G:H1	1:DA:1119:C:N4	2.13	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2469:A:C6	1:DA:2482:G:C8	3.04	0.46
3:DD:31:LYS:HG3	3:DD:31:LYS:O	2.15	0.46
3:DD:97:TYR:HB2	3:DD:101:GLU:O	2.15	0.46
4:DE:87:GLU:HG3	4:DE:87:GLU:O	2.14	0.46
5:DF:67:GLN:O	5:DF:67:GLN:HG3	2.10	0.46
8:DK:40:THR:O	8:DK:44:LEU:HB2	2.16	0.46
8:DK:54:GLN:HE21	8:DK:54:GLN:HB2	1.57	0.46
21:DV:30:ASN:O	21:DV:33:LEU:N	2.46	0.46
22:D3:43:THR:HG23	22:D3:43:THR:O	2.15	0.46
23:DZ:6:GLU:O	23:DZ:91:LYS:HE2	2.15	0.46
26:D4:49:PHE:CE1	26:D4:50:VAL:HG13	2.50	0.46
28:D6:26:ASN:OD1	28:D6:28:ARG:HB2	2.15	0.46
29:D7:43:THR:HG23	29:D7:44:PRO:HD2	1.97	0.46
1:AA:234:C:H2'	1:AA:235:U:C6	2.50	0.46
1:AA:459:U:H5"	29:A7:40:TRP:CD2	2.50	0.46
1:AA:950:G:H2'	1:AA:951:C:C6	2.51	0.46
1:AA:1015:G:C2'	1:AA:1016:G:H5'	2.45	0.46
1:AA:1642:G:C2'	1:AA:1643:G:H5'	2.46	0.46
1:AA:2077:A:H2'	1:AA:2078:C:C6	2.51	0.46
1:AA:2168:G:H2'	1:AA:2169:A:OP1	2.16	0.46
1:AA:2286:A:H4'	1:AA:2287:A:O5'	2.15	0.46
1:AA:2420:C:OP1	30:A8:34:TRP:HB3	2.16	0.46
1:AA:2591:C:H2'	1:AA:2592:G:C8	2.50	0.46
3:AD:119:ALA:CB	3:AD:130:ALA:HB3	2.45	0.46
11:AO:114:ILE:HD11	11:AO:130:PHE:CD1	2.51	0.46
12:AP:135:ASP:O	12:AP:139:GLU:OE1	2.34	0.46
13:A0:57:ARG:O	13:A0:59:ASP:N	2.48	0.46
28:A6:19:ARG:O	28:A6:20:ASN:CB	2.63	0.46
31:BA:262:A:H2'	31:BA:263:A:C8	2.49	0.46
31:BA:652:U:O2'	31:BA:653:A:O5'	2.33	0.46
31:BA:977:A:C8	31:BA:1223:C:N3	2.77	0.46
31:BA:1053:G:N7	31:BA:1199:U:C6	2.84	0.46
31:BA:1223:C:P	31:BA:1224:G:H2'	2.56	0.46
31:BA:1306:A:H2'	31:BA:1307:U:O4'	2.16	0.46
31:BA:1376:U:H2'	31:BA:1377:A:C8	2.50	0.46
32:BE:80:ILE:HD13	32:BE:212:GLN:HB2	1.97	0.46
35:BH:139:LEU:HA	35:BH:142:LEU:HD12	1.97	0.46
38:BK:29:SER:OG	38:BK:32:LYS:HB2	2.15	0.46
42:BO:47:SER:O	42:BO:48:ALA:HB2	2.16	0.46
45:BR:55:GLY:HA2	45:BR:58:MET:CE	2.46	0.46
48:BU:17:SER:C	48:BU:18:ARG:HD2	2.41	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BU:29:PHE:HE1	48:BU:31:LEU:HB3	1.81	0.46
51:BX:9:ARG:O	51:BX:13:ILE:HG13	2.15	0.46
53:BC:64:G:H2'	53:BC:65:G:H8	1.80	0.46
53:BC:73:A:C6	53:BC:74:A:C6	3.04	0.46
31:CA:149:A:O2'	31:CA:150:C:H5'	2.15	0.46
31:CA:828:A:H61	31:CA:858:G:C2'	2.29	0.46
31:CA:920:U:H2'	31:CA:921:U:H6	1.81	0.46
31:CA:1126:U:O4	31:CA:1281:U:C6	2.67	0.46
31:CA:1163:C:C2	31:CA:1174:G:N2	2.84	0.46
31:CA:1183:A:HO2'	31:CA:1184:G:P	2.28	0.46
31:CA:1330:U:H5'	31:CA:1331:G:OP2	2.16	0.46
32:CE:236:TYR:HA	32:CE:239:VAL:HB	1.98	0.46
33:CF:40:ARG:HG2	33:CF:55:VAL:HG11	1.96	0.46
33:CF:184:TYR:HA	33:CF:200:ALA:O	2.16	0.46
35:CH:103:GLY:C	35:CH:105:VAL:N	2.73	0.46
37:CJ:12:LEU:HD21	37:CJ:28:ASN:HD21	1.79	0.46
49:CV:43:GLU:H	49:CV:45:VAL:HG22	1.80	0.46
52:CB:17:U:H5'	52:CB:18:G:OP2	2.15	0.46
1:DA:828:U:O2	1:DA:828:U:H3'	2.16	0.46
1:DA:857:C:OP2	22:D3:77:ARG:NH2	2.48	0.46
1:DA:908:C:OP1	12:DP:22:LYS:HB3	2.16	0.46
1:DA:1005:C:C2	1:DA:1143:A:C6	3.04	0.46
1:DA:1012:U:C2	9:DM:25:ARG:NH1	2.84	0.46
1:DA:1044:G:O3'	1:DA:1045:A:H4'	2.16	0.46
1:DA:1592:C:H2'	1:DA:1593:G:C8	2.49	0.46
1:DA:1742:C:H5'	1:DA:1743:G:OP2	2.15	0.46
1:DA:2275:C:O2'	12:DP:84:GLY:HA3	2.15	0.46
1:DA:2693:A:H2'	1:DA:2694:G:C8	2.50	0.46
1:DA:2791:C:C4	1:DA:2893:G:C5	3.03	0.46
2:DB:48:A:H4'	14:DQ:95:HIS:CD2	2.51	0.46
3:DD:30:GLU:HG3	3:DD:63:ARG:HH21	1.76	0.46
3:DD:43:ARG:HB3	3:DD:54:ARG:HB2	1.97	0.46
6:DG:64:THR:OG1	6:DG:94:LEU:HD13	2.16	0.46
9:DM:35:ARG:HD3	9:DM:37:LYS:HD3	1.98	0.46
10:DN:103:ALA:HB1	10:DN:105:GLU:OE1	2.15	0.46
22:D3:53:MET:HG3	22:D3:59:LEU:HD23	1.96	0.46
1:AA:91:A:C4	1:AA:92:G:C8	3.03	0.46
1:AA:795:C:H2'	1:AA:796:C:C6	2.50	0.46
1:AA:805:G:O4'	11:AO:38:GLN:NE2	2.49	0.46
1:AA:1449:A:OP2	1:AA:1449:A:H8	1.99	0.46
1:AA:1541:U:H2'	1:AA:1542:G:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2428:G:H21	11:AO:60:MET:CE	2.29	0.46
2:AB:8:U:H5"	14:AQ:15:ARG:HH12	1.80	0.46
3:AD:77:ALA:HB2	3:AD:97:TYR:CD2	2.50	0.46
3:AD:123:ALA:HA	3:AD:124:PRO:HD2	1.77	0.46
6:AG:44:GLY:HA2	6:AG:88:ILE:HD11	1.97	0.46
11:AO:140:ALA:O	11:AO:141:ALA:CB	2.64	0.46
12:AP:29:PHE:HB3	12:AP:65:PHE:CZ	2.51	0.46
21:AV:26:GLY:HA2	21:AV:85:HIS:CD2	2.51	0.46
21:AV:52:SER:C	21:AV:54:HIS:H	2.24	0.46
28:A6:19:ARG:HB3	28:A6:21:TYR:CE2	2.50	0.46
31:BA:221:C:C2'	31:BA:222:U:H5'	2.46	0.46
31:BA:736:C:H2'	31:BA:737:A:H8	1.80	0.46
31:BA:1004:A:N3	31:BA:1025:U:C4	2.83	0.46
31:BA:1078:U:C5	31:BA:1079:G:C5	3.03	0.46
32:BE:8:LYS:HE2	32:BE:8:LYS:N	2.24	0.46
32:BE:220:ASP:C	32:BE:222:ILE:N	2.73	0.46
39:BL:118:LYS:NZ	39:BL:118:LYS:HB3	2.30	0.46
40:BM:6:ILE:HD11	40:BM:72:VAL:HB	1.97	0.46
42:BO:36:VAL:HG23	42:BO:54:LYS:HB3	1.98	0.46
48:BU:36:ASN:H	48:BU:36:ASN:ND2	2.07	0.46
31:CA:838:G:H1	31:CA:848:C:H42	1.63	0.46
31:CA:1058:G:C6	31:CA:1059:C:N3	2.83	0.46
31:CA:1104:G:C4	31:CA:1105:A:C8	3.04	0.46
31:CA:1279:A:O2'	31:CA:1282:C:N4	2.48	0.46
31:CA:1300:G:HO2'	31:CA:1301:U:P	2.33	0.46
31:CA:1356:G:N2	31:CA:1367:C:O2	2.49	0.46
32:CE:45:GLN:C	32:CE:47:THR:N	2.72	0.46
33:CF:37:GLN:O	33:CF:41:GLY:N	2.44	0.46
33:CF:50:ALA:HB1	33:CF:70:VAL:HG11	1.98	0.46
38:CK:61:VAL:HG12	38:CK:63:LEU:HD13	1.97	0.46
39:CL:3:GLN:HG2	39:CL:20:ARG:CG	2.45	0.46
52:CB:1:G:H5"	52:CB:2:C:OP2	2.16	0.46
53:CC:17:C:H5'	53:CC:62:C:OP1	2.16	0.46
53:CC:21:U:O2'	53:CC:21:U:O2	2.33	0.46
1:DA:35:G:H2'	1:DA:36:G:O4'	2.15	0.46
1:DA:141:A:H1'	1:DA:1408:C:O4'	2.16	0.46
1:DA:657:U:H2'	1:DA:658:C:C6	2.51	0.46
1:DA:1034:G:H2'	1:DA:1035:U:O4'	2.16	0.46
1:DA:1217:C:P	16:D1:15:LYS:HE3	2.55	0.46
1:DA:1536:A:C8	1:DA:1537:C:H1'	2.50	0.46
1:DA:1778:U:H2'	1:DA:1784:A:N6	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:DE:120:TRP:CE3	4:DE:155:LYS:HD3	2.50	0.46
8:DK:82:ARG:HB3	8:DK:89:TYR:CD2	2.50	0.46
8:DK:128:LEU:O	8:DK:138:ILE:HG22	2.15	0.46
12:DP:74:TYR:O	12:DP:90:VAL:HA	2.16	0.46
13:D0:32:GLY:HA2	13:D0:116:LEU:HD12	1.98	0.46
15:DR:19:LEU:HD22	15:DR:86:ILE:HG22	1.97	0.46
1:AA:154:G:H2'	1:AA:155:C:O4'	2.15	0.46
1:AA:336:C:HO2'	20:AU:35:TYR:HH	1.59	0.46
1:AA:1065:U:C5	1:AA:1066:U:C6	3.02	0.46
1:AA:1406:U:H2'	1:AA:1407:C:C6	2.50	0.46
1:AA:1502:C:O2'	1:AA:1503:U:H5'	2.16	0.46
1:AA:2144:U:O2	1:AA:2148:G:C2	2.69	0.46
1:AA:2331:G:H4'	22:A3:43:THR:H	1.80	0.46
1:AA:2393:A:O3'	11:AO:62:LEU:HA	2.16	0.46
1:AA:2593:U:H2'	1:AA:2594:C:H6	1.79	0.46
1:AA:2751:G:N1	7:AH:3:ARG:HB3	2.30	0.46
1:AA:2841:C:C2	1:AA:2877:G:N2	2.84	0.46
2:AB:9:G:OP1	14:AQ:15:ARG:HD2	2.16	0.46
6:AG:128:ARG:NH2	6:AG:128:ARG:HB2	2.31	0.46
8:AK:82:ARG:O	8:AK:89:TYR:HD1	1.98	0.46
9:AM:4:TYR:HB2	16:A1:101:ARG:NH1	2.31	0.46
14:AQ:27:SER:HA	14:AQ:88:ASP:HB2	1.98	0.46
14:AQ:107:GLU:O	14:AQ:107:GLU:HG3	2.16	0.46
15:AR:64:ARG:HA	15:AR:72:VAL:O	2.16	0.46
18:AS:79:GLY:HA3	18:AS:100:THR:CG2	2.45	0.46
28:A6:15:GLU:CD	28:A6:44:ARG:NH2	2.73	0.46
31:BA:177:C:OP1	50:BW:65:LYS:NZ	2.42	0.46
31:BA:186(F):C:H2'	31:BA:187:C:O4'	2.16	0.46
31:BA:437:U:O2'	34:BG:123:HIS:CD2	2.69	0.46
31:BA:626:U:N3	31:BA:627:G:N7	2.64	0.46
31:BA:791:G:N1	31:BA:792:A:N6	2.64	0.46
31:BA:1074:G:N3	31:BA:1102:A:C2	2.84	0.46
31:BA:1206:G:C6	31:BA:1207:G:C5	3.04	0.46
31:BA:1372:U:OP1	39:BL:72:GLY:N	2.47	0.46
32:BE:80:ILE:CD1	32:BE:208:ILE:HG23	2.44	0.46
37:BJ:153:HIS:CE1	41:BN:57:THR:HG23	2.50	0.46
47:BT:45:HIS:O	47:BT:73:VAL:HG23	2.16	0.46
49:BV:65:ASN:ND2	49:BV:65:ASN:H	2.10	0.46
52:BB:59:U:H4'	52:BB:60:A:H5"	1.98	0.46
31:CA:374:A:C6	31:CA:375:U:C4	3.03	0.46
31:CA:509:A:H5"	34:CG:55:ALA:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:954:G:H2'	31:CA:955:U:H6	1.79	0.46
31:CA:1239:A:H4'	31:CA:1240:U:H5'	1.96	0.46
32:CE:82:ARG:HA	32:CE:92:TYR:CE1	2.36	0.46
38:CK:20:TYR:HE2	38:CK:75:ARG:HD2	1.80	0.46
42:CO:61:TYR:O	42:CO:62:GLU:CB	2.64	0.46
1:DA:1:G:H2'	1:DA:2:G:O4'	2.16	0.46
1:DA:95:G:H4'	24:DW:46:GLN:HB3	1.98	0.46
1:DA:747:U:C5	27:D5:3:LYS:HB2	2.51	0.46
1:DA:833:U:H2'	1:DA:834:C:C6	2.51	0.46
1:DA:1111:A:H4'	7:DH:3:ARG:HD3	1.97	0.46
1:DA:1198:U:H2'	1:DA:1199:U:C6	2.51	0.46
1:DA:1488:G:H5'	1:DA:1489:U:OP2	2.16	0.46
1:DA:1992:G:C1'	1:DA:1993:U:OP2	2.64	0.46
1:DA:2169:A:H2'	1:DA:2169:A:N3	2.31	0.46
1:DA:2467:C:H4'	12:DP:123:HIS:CG	2.51	0.46
1:DA:2542:A:H5'	1:DA:2543:G:OP1	2.16	0.46
1:DA:2683:C:OP1	15:DR:53:ARG:NH2	2.39	0.46
1:DA:2711:A:OP1	1:DA:2712(A):A:OP2	2.33	0.46
1:DA:2872:G:N7	1:DA:2873:A:C2	2.83	0.46
4:DE:27:LEU:HA	4:DE:181:LEU:HD12	1.97	0.46
5:DF:16:GLY:O	5:DF:17:ARG:C	2.57	0.46
7:DH:77:LYS:HA	7:DH:80:SER:HB2	1.97	0.46
9:DM:111:PRO:HA	9:DM:114:ARG:CZ	2.46	0.46
15:DR:132:LYS:O	15:DR:136:GLN:HB2	2.15	0.46
17:D2:41:GLY:H	17:D2:46:VAL:HG13	1.81	0.46
21:DV:5:LEU:HG	21:DV:47:VAL:HG21	1.97	0.46
25:DX:59:VAL:CG1	25:DX:60:GLU:N	2.77	0.46
26:D4:29:PRO:C	26:D4:30:GLU:HG3	2.41	0.46
1:AA:141(A):C:H2'	1:AA:142:G:O4'	2.15	0.46
1:AA:863:A:O2'	1:AA:864:G:H5'	2.16	0.46
1:AA:1175:U:H4'	1:AA:1176:G:OP1	2.15	0.46
1:AA:1412:A:C4	1:AA:1413:G:C8	3.04	0.46
1:AA:1701:A:H2'	1:AA:1702:G:H5'	1.98	0.46
1:AA:1851:U:O2'	53:BD:73:A:OP1	2.31	0.46
1:AA:1937:A:H1'	1:AA:1938:A:OP1	2.15	0.46
1:AA:2094:G:O2'	1:AA:2095:C:H5'	2.16	0.46
1:AA:2336:A:H61	22:A3:43:THR:CG2	2.28	0.46
1:AA:2662:A:H2'	1:AA:2663:G:O4'	2.16	0.46
4:AE:14:ILE:HG22	4:AE:21:VAL:HG21	1.92	0.46
4:AE:75:VAL:HG23	4:AE:76:ARG:HD2	1.98	0.46
4:AE:116:VAL:H	4:AE:157:ALA:HB2	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AF:195:ASP:C	5:AF:195:ASP:OD1	2.59	0.46
6:AG:111:LEU:HB3	6:AG:117:PHE:HE2	1.81	0.46
7:AH:58:GLU:C	7:AH:60:ARG:N	2.72	0.46
9:AM:40:PRO:HB3	16:A1:68:ALA:HB2	1.98	0.46
9:AM:126:PRO:O	9:AM:127:ASP:HB2	2.16	0.46
13:A0:12:ARG:NH1	13:A0:12:ARG:HG3	2.31	0.46
13:A0:42:LYS:O	13:A0:45:ARG:HD2	2.16	0.46
14:AQ:106:ARG:NH1	14:AQ:106:ARG:HB2	2.30	0.46
25:AX:32:GLN:HE21	25:AX:32:GLN:HA	1.80	0.46
30:A8:23:VAL:HG12	30:A8:46:ARG:HD3	1.97	0.46
31:BA:31:G:C1'	31:BA:32:A:OP1	2.63	0.46
31:BA:99:C:H2'	31:BA:101:A:C8	2.51	0.46
31:BA:219:C:H2'	31:BA:220:G:O4'	2.16	0.46
31:BA:451:A:N6	31:BA:480:U:H2'	2.31	0.46
31:BA:791:G:C6	31:BA:792:A:N7	2.84	0.46
31:BA:1350:A:C6	31:BA:1351:U:N3	2.84	0.46
32:BE:8:LYS:NZ	32:BE:11:LEU:HD22	2.31	0.46
32:BE:18:GLY:N	32:BE:42:ILE:HG22	2.30	0.46
34:BG:172:PRO:C	34:BG:174:LEU:N	2.73	0.46
52:BB:19:G:H4'	52:BB:20:U:OP2	2.16	0.46
53:BC:2:G:H2'	53:BC:3:C:C6	2.51	0.46
31:CA:255:G:H2'	31:CA:256:U:C6	2.51	0.46
31:CA:266:G:C1'	31:CA:267:C:OP2	2.63	0.46
31:CA:1009:G:C2	31:CA:1010:G:C8	3.03	0.46
31:CA:1086:U:OP2	31:CA:1086:U:H6	1.99	0.46
31:CA:1128:C:C5'	39:CL:16:ARG:HH22	2.28	0.46
31:CA:1269:A:H5"	31:CA:1270:C:OP2	2.16	0.46
31:CA:1321:C:N4	31:CA:1322:C:N4	2.51	0.46
32:CE:166:ASP:OD1	32:CE:205:ASP:OD2	2.34	0.46
33:CF:67:THR:HG23	33:CF:102:ASN:HB2	1.97	0.46
33:CF:206:GLU:O	33:CF:207:VAL:C	2.58	0.46
40:CM:29:ARG:C	40:CM:31:GLY:H	2.23	0.46
43:CP:23:TYR:CE1	43:CP:71:ARG:HB2	2.51	0.46
43:CP:70:LEU:O	43:CP:70:LEU:HD22	2.16	0.46
50:CW:103:GLY:C	50:CW:104:LEU:HD12	2.40	0.46
1:DA:49:A:H4'	1:DA:50:U:O5'	2.16	0.46
1:DA:142:G:H2'	1:DA:143:C:C6	2.51	0.46
1:DA:775:G:C4	1:DA:794:G:C8	3.04	0.46
1:DA:2261:C:O2'	1:DA:2262:U:H5'	2.16	0.46
1:DA:2274:A:N1	1:DA:2276:G:H1'	2.31	0.46
1:DA:2468:G:C4	1:DA:2481:G:N2	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2615:U:H2'	1:DA:2616:C:H6	1.81	0.46
1:DA:2695:C:H2'	1:DA:2696:U:H6	1.79	0.46
4:DE:78:LEU:N	4:DE:78:LEU:HD23	2.31	0.46
6:DG:81:LYS:HB3	6:DG:82:LEU:H	1.56	0.46
12:DP:62:GLY:O	12:DP:63:LYS:CB	2.60	0.46
17:D2:66:ARG:HB2	17:D2:88:ARG:HB3	1.97	0.46
20:DU:87:LYS:O	20:DU:88:LYS:HD3	2.16	0.46
25:DX:19:GLN:NE2	25:DX:52:HIS:CE1	2.83	0.46
1:AA:654(M):C:H2'	1:AA:654(N):G:N7	2.30	0.46
1:AA:1073:A:H3'	1:AA:1074:G:H8	1.81	0.46
1:AA:1266:G:C6	18:AS:16:LYS:HD2	2.51	0.46
1:AA:1478:G:H2'	1:AA:1479:G:C8	2.47	0.46
1:AA:2124:G:H2'	1:AA:2125:G:H5'	1.98	0.46
1:AA:2481:G:C2'	1:AA:2482:G:OP2	2.64	0.46
1:AA:2836:U:C4	1:AA:2883:A:N6	2.84	0.46
3:AD:36:PRO:HA	3:AD:62:TYR:O	2.16	0.46
3:AD:218:ARG:HB3	3:AD:219:PRO:HD2	1.96	0.46
7:AH:54:ARG:NH1	7:AH:65:HIS:ND1	2.63	0.46
13:A0:87:TYR:O	13:A0:90:ARG:N	2.37	0.46
14:AQ:27:SER:HA	14:AQ:88:ASP:CB	2.46	0.46
14:AQ:30:ARG:CG	14:AQ:30:ARG:NH1	2.78	0.46
16:A1:105:VAL:HG22	17:A2:44:LYS:HG3	1.98	0.46
21:AV:27:VAL:HG12	21:AV:87:ASP:HB3	1.97	0.46
21:AV:67:LEU:HA	21:AV:68:PRO:HD3	1.78	0.46
23:AZ:83:GLU:CD	23:AZ:83:GLU:H	2.24	0.46
31:BA:270:A:C5	31:BA:271:C:C4	3.03	0.46
31:BA:439:A:C4	31:BA:496:A:C2	3.04	0.46
31:BA:713:G:H2'	31:BA:714:G:C8	2.51	0.46
31:BA:1028:C:N4	31:BA:1028(A):C:C4	2.84	0.46
31:BA:1052:U:H2'	31:BA:1055:A:OP1	2.16	0.46
31:BA:1059:C:O2	40:BM:53:PRO:HG3	2.16	0.46
31:BA:1290:G:H2'	31:BA:1290:G:N3	2.31	0.46
32:BE:77:ALA:HB2	32:BE:211:ILE:HG21	1.97	0.46
37:BJ:99:LEU:HD23	37:BJ:102:ARG:HH12	1.80	0.46
49:BV:5:LEU:C	49:BV:5:LEU:HD12	2.41	0.46
54:B1:14:U:H4'	54:B1:14:U:OP1	2.15	0.46
31:CA:838:G:N2	31:CA:849:C:C2	2.84	0.46
31:CA:1054:C:N4	52:CB:35:G:C1'	2.79	0.46
31:CA:1056:U:H5'	33:CF:163:ALA:CB	2.46	0.46
31:CA:1152:A:H4'	40:CM:13:HIS:CD2	2.51	0.46
31:CA:1402:C:O2	31:CA:1500:A:N1	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:CE:16:HIS:HB2	32:CE:210:SER:HB2	1.97	0.46
32:CE:144:ARG:HG3	32:CE:145:LEU:N	2.30	0.46
34:CG:31:CYS:O	34:CG:31:CYS:SG	2.74	0.46
40:CM:78:ASN:HB2	40:CM:81:THR:HG23	1.98	0.46
43:CP:10:PRO:HB2	43:CP:18:ALA:HB1	1.98	0.46
45:CR:3:ILE:HD13	45:CR:3:ILE:H	1.81	0.46
49:CV:20:LEU:O	49:CV:23:ASN:HB3	2.16	0.46
53:CD:57:C:N3	1:DA:2112:G:N2	2.64	0.46
1:DA:24:G:O2'	18:DS:78:GLU:O	2.32	0.46
1:DA:99:U:C4'	1:DA:102:G:H1'	2.46	0.46
1:DA:128:C:H4'	1:DA:129:C:OP1	2.16	0.46
1:DA:654(B):C:C2	1:DA:654(T):A:H2	2.34	0.46
1:DA:1601:G:C6	1:DA:1602:U:C4	3.04	0.46
1:DA:2443:C:OP1	5:DF:68:LYS:HG2	2.15	0.46
1:DA:2749:A:N6	1:DA:2750:A:H62	2.13	0.46
2:DB:7:G:N2	14:DQ:38:GLN:OE1	2.33	0.46
4:DE:61:ARG:HB3	4:DE:62:PRO:CD	2.46	0.46
4:DE:77:ILE:C	4:DE:78:LEU:HG	2.41	0.46
8:DK:5:LEU:HD12	8:DK:5:LEU:H	1.80	0.46
19:DT:12:VAL:HG13	19:DT:27:THR:O	2.16	0.46
20:DU:4:LYS:HD3	20:DU:4:LYS:HA	1.68	0.46
20:DU:42:VAL:O	20:DU:65:ALA:N	2.35	0.46
25:DX:4:LEU:O	25:DX:36:VAL:HA	2.15	0.46
1:AA:7:G:H4'	9:AM:13:TRP:CH2	2.50	0.45
1:AA:196:A:H2'	1:AA:196:A:N3	2.31	0.45
1:AA:354:G:O2'	1:AA:355:G:H5'	2.16	0.45
1:AA:1171:G:C6	1:AA:1174:A:N6	2.84	0.45
1:AA:1204:A:N1	1:AA:1241:A:N1	2.64	0.45
1:AA:2162:G:H4'	1:AA:2173:A:OP2	2.16	0.45
1:AA:2244:U:O2'	1:AA:2245:U:H5'	2.16	0.45
1:AA:2328:A:H2'	1:AA:2329:G:C8	2.51	0.45
3:AD:79:VAL:HG21	3:AD:111:LEU:HD11	1.98	0.45
4:AE:35:GLN:HE21	4:AE:37:ARG:CD	2.29	0.45
5:AF:63:LYS:CE	5:AF:67:GLN:HB2	2.44	0.45
6:AG:6:ALA:HB3	6:AG:104:GLU:OE2	2.15	0.45
7:AH:150:ALA:C	7:AH:152:ARG:H	2.16	0.45
12:AP:66:ILE:HD12	12:AP:67:ARG:H	1.80	0.45
15:AR:39:ARG:CG	15:AR:40:THR:H	2.13	0.45
20:AU:75:ILE:HG22	20:AU:80:GLY:HA2	1.98	0.45
23:AZ:87:PRO:O	23:AZ:91:LYS:N	2.39	0.45
24:AW:47:ASN:ND2	24:AW:47:ASN:H	2.14	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:209:U:H5'	31:BA:210:U:OP2	2.16	0.45
31:BA:686:U:C2'	31:BA:687:A:O5'	2.63	0.45
31:BA:851:G:O2'	31:BA:852:G:H5'	2.16	0.45
31:BA:954:G:C2	31:BA:955:U:C2	3.04	0.45
31:BA:1260:C:O5'	31:BA:1284:C:H4'	2.15	0.45
31:BA:1363:A:H1'	31:BA:1365:G:N7	2.31	0.45
32:BE:19:HIS:HD2	32:BE:20:GLU:CD	2.24	0.45
32:BE:204:ASN:HD22	32:BE:206:ASP:N	2.11	0.45
34:BG:142:PRO:HA	34:BG:185:PHE:O	2.15	0.45
35:BH:68:GLU:O	35:BH:68:GLU:HG3	2.15	0.45
40:BM:56:HIS:O	40:BM:58:ASP:O	2.35	0.45
41:BN:34:ASP:HB2	41:BN:35:PRO:HD2	1.98	0.45
41:BN:34:ASP:OD2	41:BN:36:ASP:HB2	2.16	0.45
42:BO:112:LYS:O	42:BO:114:ARG:HG3	2.16	0.45
44:BQ:44:LEU:HD12	44:BQ:44:LEU:O	2.17	0.45
45:BR:71:GLN:HE21	45:BR:71:GLN:HB2	1.55	0.45
46:BS:71:ARG:O	46:BS:75:ARG:N	2.49	0.45
47:BT:45:HIS:CE1	47:BT:47:PRO:HG3	2.51	0.45
52:BB:25:A:H2'	52:BB:25:A:N3	2.32	0.45
31:CA:543:C:O2'	31:CA:544:G:H5'	2.16	0.45
31:CA:636:U:H2'	31:CA:637:G:H8	1.81	0.45
31:CA:1497:G:H2'	31:CA:1498:U:H5'	1.97	0.45
32:CE:19:HIS:HD2	32:CE:20:GLU:OE1	1.99	0.45
35:CH:142:LEU:O	35:CH:143:ARG:NE	2.40	0.45
37:CJ:149:ARG:O	37:CJ:149:ARG:HD3	2.16	0.45
41:CN:73:MET:O	41:CN:76:GLY:N	2.43	0.45
49:CV:78:ARG:HD3	49:CV:78:ARG:H	1.81	0.45
52:CB:49:C:H2'	52:CB:50:A:O4'	2.16	0.45
53:CD:5:G:H1	53:CD:69:C:N4	2.13	0.45
53:CD:71:G:C2'	53:CD:72:C:H5'	2.47	0.45
1:DA:228:A:C8	1:DA:228:A:C3'	2.98	0.45
1:DA:468:G:N7	29:D7:39:ARG:NH2	2.61	0.45
1:DA:586:A:H5'	5:DF:89:VAL:HG21	1.98	0.45
1:DA:702:G:C2	1:DA:731:C:C2	3.04	0.45
1:DA:794:G:H2'	1:DA:795:C:C6	2.51	0.45
1:DA:886:C:HO2'	1:DA:887:A:P	2.39	0.45
1:DA:960:A:C5'	1:DA:961:C:OP1	2.64	0.45
1:DA:1283:G:N2	1:DA:1285:G:H3'	2.30	0.45
1:DA:1543:A:OP1	1:DA:1543:A:C4'	2.64	0.45
1:DA:1668:A:H4'	1:DA:1669:A:O5'	2.15	0.45
1:DA:2516:G:C5	1:DA:2517:C:C4	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2748:A:N6	1:DA:2754:U:H3	2.03	0.45
4:DE:137:HIS:HB3	4:DE:138:PRO:CD	2.45	0.45
8:DK:4:ILE:HD11	8:DK:44:LEU:HD23	1.98	0.45
11:DO:71:VAL:CG1	11:DO:72:PRO:HD3	2.46	0.45
12:DP:57:HIS:O	12:DP:57:HIS:ND1	2.49	0.45
15:DR:119:LYS:O	15:DR:123:GLN:HG3	2.16	0.45
21:DV:28:MET:SD	21:DV:37:VAL:HG11	2.56	0.45
21:DV:167:PRO:O	21:DV:168:GLU:C	2.59	0.45
22:D3:50:ASN:C	22:D3:62:LEU:HD12	2.40	0.45
1:AA:1038:C:H2'	1:AA:1039:G:O4'	2.15	0.45
1:AA:1076:C:O2	1:AA:1076:C:C2'	2.64	0.45
1:AA:1650:G:N2	1:AA:2008:C:C2	2.85	0.45
1:AA:2019:A:OP2	27:A5:9:LYS:HE2	2.16	0.45
1:AA:2322:A:H2'	1:AA:2323:G:O4'	2.17	0.45
1:AA:2466:C:O2'	1:AA:2467:C:H5'	2.16	0.45
1:AA:2469:A:C8	1:AA:2469:A:C3'	2.99	0.45
1:AA:2701:C:C3'	1:AA:2702:U:C5'	2.82	0.45
3:AD:69:ARG:HH12	3:AD:117:VAL:HG12	1.80	0.45
3:AD:238:GLY:C	3:AD:239:ARG:O	2.59	0.45
4:AE:50:GLY:HA3	4:AE:74:PRO:HG2	1.98	0.45
5:AF:101:LEU:CD1	5:AF:102:PRO:HD2	2.27	0.45
7:AH:83:TYR:CB	7:AH:134:SER:HA	2.42	0.45
8:AK:6:LEU:O	8:AK:7:GLU:HB2	2.15	0.45
9:AM:120:LEU:HD22	9:AM:122:VAL:HG23	1.97	0.45
12:AP:97:VAL:O	12:AP:97:VAL:HG12	2.15	0.45
13:A0:117:VAL:O	13:A0:118:GLU:CB	2.65	0.45
16:A1:66:ASN:CB	16:A1:76:TYR:HB2	2.44	0.45
20:AU:44:ILE:HG13	20:AU:45:VAL:N	2.28	0.45
22:A3:40:GLN:NE2	22:A3:44:ARG:HB2	2.31	0.45
23:AZ:87:PRO:HA	23:AZ:90:ILE:HB	1.97	0.45
26:A4:12:ALA:HB1	26:A4:29:PRO:HA	1.98	0.45
31:BA:149:A:C2	31:BA:150:C:C2	3.04	0.45
31:BA:368:U:P	8:DK:91:SER:OG	2.74	0.45
31:BA:1206:G:O4'	33:BF:194:GLY:HA2	2.16	0.45
31:BA:1239:A:H62	31:BA:1299:A:H62	1.63	0.45
31:BA:1299:A:O3'	31:BA:1300:G:H4'	2.16	0.45
31:BA:1373:G:O3'	37:BJ:36:LYS:NZ	2.49	0.45
32:BE:17:PHE:C	32:BE:42:ILE:HG22	2.41	0.45
33:BF:12:LEU:C	33:BF:14:ILE:N	2.59	0.45
34:BG:29:PRO:C	34:BG:30:LYS:HD3	2.41	0.45
38:BK:19:VAL:HG23	38:BK:21:LYS:HG3	1.96	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BW:48:LYS:HD3	50:BW:51:GLU:OE2	2.16	0.45
52:BB:9:G:OP1	52:BB:22:G:N1	2.48	0.45
53:BD:71:G:O2'	53:BD:72:C:H5'	2.15	0.45
31:CA:56:U:H2'	31:CA:57:G:C8	2.51	0.45
31:CA:192:U:H2'	31:CA:193:C:C6	2.46	0.45
31:CA:300:A:H1'	31:CA:565:U:O2	2.16	0.45
31:CA:412:A:C1'	31:CA:413:G:OP2	2.64	0.45
31:CA:589:C:N4	31:CA:650:G:H1	2.14	0.45
31:CA:1023:G:H3'	31:CA:1024:G:C5'	2.45	0.45
31:CA:1477:C:H2'	31:CA:1478:C:H6	1.81	0.45
33:CF:124:ILE:O	33:CF:127:ARG:N	2.49	0.45
39:CL:127:LYS:O	39:CL:128:ARG:HG2	2.17	0.45
42:CO:24:LEU:HB3	42:CO:30:ARG:HG2	1.98	0.45
47:CT:29:HIS:CG	47:CT:30:PRO:HD2	2.50	0.45
52:CB:5:A:H2'	52:CB:6:G:O4'	2.16	0.45
52:CB:18:G:H1	52:CB:71:U:H3	1.64	0.45
1:DA:1062:G:C2	1:DA:1063:G:N7	2.84	0.45
1:DA:1259:G:H2'	1:DA:1260:G:H8	1.79	0.45
1:DA:2143:C:N3	1:DA:2148:G:N2	2.59	0.45
1:DA:2648:C:H2'	1:DA:2649:U:H6	1.79	0.45
1:DA:2720:U:C2	1:DA:2873:A:C2	3.04	0.45
2:DB:40:U:C4	2:DB:43:C:OP2	2.69	0.45
3:DD:108:PRO:HD2	3:DD:111:LEU:HG	1.99	0.45
6:DG:111:LEU:CB	6:DG:112:PRO:HD3	2.43	0.45
8:DK:75:LEU:HD21	8:DK:77:LEU:HB3	1.98	0.45
14:DQ:10:ARG:HH21	14:DQ:91:PRO:HB3	1.80	0.45
1:AA:614:U:O4	5:AF:175:THR:HG22	2.16	0.45
1:AA:993:G:H1'	17:A2:89:GLN:NE2	2.30	0.45
1:AA:1021:A:C3'	1:AA:1022:G:H5"	2.41	0.45
1:AA:2310:A:C2	6:AG:77:ILE:CG1	2.99	0.45
1:AA:2312:U:C6	1:AA:2312:U:C3'	2.99	0.45
1:AA:2315:G:OP1	6:AG:36:LYS:NZ	2.49	0.45
1:AA:2533:A:OP1	1:AA:2665:A:H1'	2.16	0.45
1:AA:2746:U:H2'	1:AA:2747:G:H5'	1.98	0.45
3:AD:30:GLU:CD	3:AD:63:ARG:HH21	2.24	0.45
6:AG:145:THR:O	6:AG:146:TYR:HB3	2.15	0.45
17:A2:66:ARG:NH1	17:A2:88:ARG:HD3	2.31	0.45
21:AV:140:ASP:O	21:AV:141:VAL:HB	2.16	0.45
29:A7:10:ARG:O	29:A7:14:LYS:HB2	2.17	0.45
31:BA:543:C:O2'	31:BA:544:G:H5'	2.16	0.45
31:BA:1157:A:N6	31:BA:1180:A:C5	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1525:G:OP1	41:BN:120:ARG:NH2	2.50	0.45
32:BE:236:TYR:HA	32:BE:239:VAL:CG2	2.46	0.45
35:BH:41:VAL:CG1	35:BH:113:ALA:HB2	2.46	0.45
37:BJ:15:ASP:OD2	37:BJ:16:LEU:N	2.50	0.45
39:BL:17:VAL:HG11	39:BL:81:ILE:HD13	1.97	0.45
41:BN:32:ILE:HG22	41:BN:77:MET:HE2	1.98	0.45
46:BS:68:ASP:O	46:BS:70:ALA:N	2.48	0.45
31:CA:561:U:O2'	31:CA:562:C:P	2.73	0.45
31:CA:635:G:C6	31:CA:636:U:C4	3.04	0.45
31:CA:1128:C:O2'	31:CA:1129:C:P	2.74	0.45
31:CA:1286:A:H2	51:CX:18:TYR:HH	1.58	0.45
31:CA:1469:G:H2'	31:CA:1470:G:C8	2.52	0.45
32:CE:21:ARG:C	32:CE:23:ARG:N	2.75	0.45
32:CE:97:TRP:CE2	32:CE:101:MET:HG3	2.51	0.45
37:CJ:149:ARG:O	37:CJ:150:ALA:C	2.58	0.45
39:CL:82:ALA:HB1	39:CL:96:LEU:HD21	1.98	0.45
40:CM:33:GLN:HB2	40:CM:75:ILE:HD13	1.97	0.45
52:CB:18:G:O2'	52:CB:19:G:P	2.75	0.45
53:CC:20:G:H4'	53:CC:21:U:OP2	2.15	0.45
1:DA:481:G:OP2	20:DU:47:LYS:HB2	2.17	0.45
1:DA:1000:A:C6	1:DA:1155:A:C8	3.05	0.45
1:DA:1176:G:H5'	1:DA:1177:A:OP1	2.17	0.45
1:DA:1786:A:H1'	1:DA:1938:A:H62	1.80	0.45
1:DA:2544:G:H8	1:DA:2544:G:O5'	1.99	0.45
3:DD:206:LEU:CD2	3:DD:211:ARG:HG2	2.35	0.45
8:DK:31:LEU:N	8:DK:32:PRO:HD2	2.32	0.45
10:DN:119:PRO:HB2	15:DR:68:TYR:CD2	2.51	0.45
12:DP:12:GLN:HG2	12:DP:73:PRO:HD2	1.98	0.45
1:AA:404:C:C1'	1:AA:405:U:OP2	2.60	0.45
1:AA:528:A:C2	1:AA:2043:C:H4'	2.51	0.45
1:AA:705:A:C2	1:AA:727:A:H1'	2.51	0.45
1:AA:1022:G:H4'	1:AA:1023:U:O5'	2.16	0.45
1:AA:1141:U:O2	1:AA:1142(A):A:C6	2.69	0.45
1:AA:1309:G:P	29:A7:9:ARG:HD3	2.57	0.45
1:AA:1508:A:O2'	1:AA:1509:C:O4'	2.29	0.45
1:AA:1558:A:O2'	1:AA:1559:G:OP2	2.34	0.45
1:AA:1908:C:O2	53:BC:12:G:H4'	2.16	0.45
1:AA:2168:G:N3	1:AA:2168:G:C2'	2.79	0.45
1:AA:2186:G:O2'	1:AA:2187:G:H5'	2.17	0.45
1:AA:2259:G:H1'	1:AA:2427:C:C2	2.51	0.45
1:AA:2496:C:P	12:AP:82:ARG:HB3	2.56	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2818:G:O2'	1:AA:2819:G:H5'	2.16	0.45
1:AA:2820:A:C8	4:AE:109:LYS:HE2	2.52	0.45
1:AA:2887:U:H2'	1:AA:2888:C:C6	2.51	0.45
3:AD:146:GLU:HB2	3:AD:189:CYS:HB3	1.99	0.45
5:AF:11:VAL:HG12	5:AF:12:LEU:N	2.31	0.45
7:AH:105:LEU:HD23	7:AH:105:LEU:H	1.81	0.45
8:AK:75:LEU:HB3	8:AK:105:HIS:CE1	2.51	0.45
9:AM:134:ARG:H	9:AM:135:PRO:CD	2.24	0.45
9:AM:134:ARG:N	9:AM:135:PRO:HD3	2.27	0.45
11:AO:50:ARG:HG3	30:A8:59:LYS:CD	2.46	0.45
15:AR:77:PRO:HB2	15:AR:80:SER:HB2	1.96	0.45
16:A1:105:VAL:HA	17:A2:44:LYS:HG3	1.98	0.45
18:AS:14:PRO:CB	18:AS:18:ARG:NH2	2.74	0.45
18:AS:46:PHE:O	18:AS:50:VAL:HG23	2.16	0.45
20:AU:46:LYS:HE2	20:AU:63:LYS:HB3	1.98	0.45
21:AV:128:VAL:HG22	21:AV:129:SER:N	2.32	0.45
25:AX:38:GLU:O	25:AX:43:ILE:HD12	2.17	0.45
31:BA:119:A:H5'	31:BA:120:A:C4	2.51	0.45
31:BA:263:A:OP2	50:BW:79:ARG:NH1	2.50	0.45
31:BA:413:G:H2'	31:BA:428:G:N2	2.32	0.45
31:BA:448:A:OP2	31:BA:485:G:N2	2.26	0.45
31:BA:667:G:H4'	45:BR:51:HIS:ND1	2.32	0.45
31:BA:1028(A):C:C2	31:BA:1028(B):C:C5	3.04	0.45
31:BA:1138:G:H3'	31:BA:1138:G:N3	2.31	0.45
31:BA:1160:G:C6	31:BA:1181:G:O6	2.63	0.45
31:BA:1178:G:O2'	31:BA:1179:A:OP1	2.34	0.45
31:BA:1349:A:P	39:BL:118:LYS:NZ	2.90	0.45
31:BA:1369:C:H2'	31:BA:1370:G:O4'	2.16	0.45
34:BG:111:ALA:HB2	34:BG:120:LEU:CD1	2.45	0.45
36:BI:78:GLU:O	36:BI:81:ILE:HG13	2.16	0.45
37:BJ:13:GLN:O	37:BJ:24:THR:HG21	2.16	0.45
44:BQ:59:ALA:O	44:BQ:60:SER:OG	2.29	0.45
31:CA:110:C:O2'	46:CS:25:ARG:O	2.31	0.45
31:CA:562:C:H4'	31:CA:563:A:O5'	2.16	0.45
36:CI:33:TYR:CE1	36:CI:78:GLU:HG3	2.52	0.45
38:CK:95:VAL:HB	38:CK:99:GLU:HB2	1.99	0.45
39:CL:97:LYS:HG3	39:CL:98:PRO:HD3	1.97	0.45
41:CN:69:ALA:HB1	41:CN:103:LEU:CD2	2.45	0.45
42:CO:20:LYS:H	42:CO:20:LYS:CE	2.25	0.45
43:CP:94:ARG:O	43:CP:95:GLY:C	2.58	0.45
44:CQ:43:CYS:O	44:CQ:46:GLU:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CB:63:G:N2	52:CB:73:C:O2	2.33	0.45
1:DA:1180:C:H2'	1:DA:1181:C:C6	2.51	0.45
1:DA:1899:G:N2	1:DA:1902:C:C4	2.82	0.45
1:DA:2006:C:H2'	1:DA:2007:C:H6	1.80	0.45
1:DA:2629:A:C2'	1:DA:2630:G:OP2	2.64	0.45
1:DA:2893:G:H4'	1:DA:2894:G:O5'	2.16	0.45
2:DB:10:C:C4	2:DB:11:C:C5	3.04	0.45
3:DD:35:LYS:CE	3:DD:64:ILE:O	2.64	0.45
6:DG:91:ARG:HD2	6:DG:91:ARG:C	2.41	0.45
9:DM:36:GLY:H	9:DM:42:TRP:HZ3	1.64	0.45
15:DR:29:ARG:HE	15:DR:85:LYS:HZ1	1.63	0.45
16:D1:50:ARG:NH1	17:D2:72:VAL:HG11	2.22	0.45
20:DU:14:LEU:HD12	20:DU:15:VAL:H	1.81	0.45
20:DU:87:LYS:HE3	20:DU:92:ASN:HB3	1.98	0.45
22:D3:34:GLY:O	22:D3:35:ASN:C	2.59	0.45
1:AA:845:G:H21	1:AA:933:A:N6	2.15	0.45
1:AA:882:G:H2'	1:AA:883:G:N7	2.31	0.45
1:AA:1205:U:H4'	1:AA:1206:G:OP2	2.16	0.45
1:AA:2209:C:O2	1:AA:2216:G:C2	2.70	0.45
2:AB:37:C:C3'	2:AB:38:C:H5'	2.46	0.45
5:AF:178:PRO:HG2	5:AF:179:GLU:CD	2.41	0.45
6:AG:41:GLN:HB3	6:AG:43:LEU:HD13	1.98	0.45
11:AO:10:PRO:HB2	11:AO:11:GLY:H	1.60	0.45
17:A2:5:VAL:O	17:A2:11:GLN:HA	2.17	0.45
18:AS:110:LYS:C	18:AS:112:GLY:N	2.75	0.45
20:AU:76:CYS:C	20:AU:81:LYS:HZ1	2.17	0.45
31:BA:153:C:H42	31:BA:168:G:H1	1.64	0.45
31:BA:836:G:OP1	48:BU:61:LYS:NZ	2.42	0.45
31:BA:843:U:H5'	31:BA:848:C:C5	2.52	0.45
32:BE:195:ASP:OD1	32:BE:195:ASP:N	2.49	0.45
33:BF:18:TRP:CZ2	44:BQ:57:ARG:HD2	2.51	0.45
36:BI:72:VAL:HG23	36:BI:90:VAL:HG11	1.99	0.45
40:BM:96:ILE:HD13	40:BM:96:ILE:N	2.31	0.45
45:BR:8:LYS:O	45:BR:12:ILE:HG13	2.16	0.45
46:BS:34:GLU:HG2	46:BS:35:LYS:N	2.32	0.45
47:BT:20:THR:HG21	47:BT:41:LYS:HD2	1.99	0.45
53:BC:17:C:OP1	53:BC:62:C:H5'	2.16	0.45
31:CA:77:C:C2'	31:CA:78:G:H5"	2.45	0.45
31:CA:532:A:H2'	31:CA:532:A:N3	2.32	0.45
31:CA:533:A:O2'	31:CA:534:U:H5'	2.16	0.45
31:CA:1004:A:C8	31:CA:1036:G:N1	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:CE:239:VAL:O	32:CE:240:GLN:HB2	2.17	0.45
33:CF:112:SER:O	33:CF:116:VAL:HG23	2.17	0.45
35:CH:9:LYS:CB	35:CH:112:LEU:HD11	2.46	0.45
35:CH:19:MET:HE1	35:CH:24:ARG:HB3	1.99	0.45
35:CH:37:ARG:HG2	35:CH:112:LEU:HA	1.97	0.45
36:CI:69:GLU:CD	36:CI:69:GLU:H	2.24	0.45
39:CL:81:ILE:O	39:CL:85:LEU:HG	2.16	0.45
43:CP:76:ALA:HA	43:CP:79:LYS:HB2	1.98	0.45
48:CU:41:LYS:O	48:CU:41:LYS:HD3	2.17	0.45
51:CX:25:LYS:C	51:CX:25:LYS:HD3	2.41	0.45
52:CB:31:C:O2	52:CB:41:G:N2	2.49	0.45
1:DA:298:G:H1'	1:DA:340:A:H61	1.81	0.45
1:DA:311:A:C8	1:DA:332:A:N7	2.84	0.45
1:DA:809:G:O4'	1:DA:1254:A:H1'	2.17	0.45
1:DA:993:G:C5	1:DA:994:C:C5	3.05	0.45
1:DA:1005:C:O2'	9:DM:28:THR:HG23	2.17	0.45
1:DA:1287:A:N7	13:D0:107:ASP:HB2	2.31	0.45
1:DA:1357:U:H2'	1:DA:1358:G:O4'	2.17	0.45
1:DA:1444(A):A:O2'	1:DA:1460:A:C2	2.70	0.45
1:DA:1645:G:H5"	1:DA:1646:C:H5'	1.97	0.45
1:DA:2191:G:HO2'	1:DA:2192:G:P	2.27	0.45
1:DA:2232:U:P	23:DZ:40:ARG:HH12	2.40	0.45
1:DA:2286:A:C8	1:DA:2287:A:N6	2.84	0.45
1:DA:2289:G:H1'	1:DA:2346:A:H2	1.82	0.45
1:DA:2297:C:H2'	1:DA:2298:A:C8	2.50	0.45
1:DA:2505:G:O6	1:DA:2576:G:H2'	2.17	0.45
1:DA:2749:A:C6	1:DA:2750:A:N6	2.84	0.45
1:DA:2839:G:H5'	13:D0:46:GLY:CA	2.41	0.45
6:DG:19:LEU:C	6:DG:21:ARG:H	2.25	0.45
8:DK:5:LEU:HD11	8:DK:19:VAL:HG12	1.96	0.45
21:DV:114:GLY:C	21:DV:116:VAL:N	2.72	0.45
21:DV:131:ARG:HD2	21:DV:131:ARG:N	2.32	0.45
24:DW:51:ARG:HH12	24:DW:55:ARG:NH2	2.14	0.45
26:D4:36:CYS:O	26:D4:37:SER:HB3	2.15	0.45
1:AA:35:G:H1'	1:AA:454:A:C4	2.51	0.45
1:AA:106:C:H2'	1:AA:107:C:H6	1.81	0.45
1:AA:1465:G:C4	1:AA:1466:G:C8	3.04	0.45
1:AA:2136:C:H6	1:AA:2136:C:O5'	1.99	0.45
1:AA:2418:A:OP2	30:A8:29:LYS:NZ	2.50	0.45
1:AA:2473:U:C3'	1:AA:2474:C:H5"	2.46	0.45
1:AA:2473:U:H3'	1:AA:2474:C:H5"	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2790:A:C2	1:AA:2894:G:H5'	2.52	0.45
3:AD:92:ILE:HD12	3:AD:104:TYR:CD2	2.52	0.45
4:AE:92:THR:H	4:AE:95:ILE:HD11	1.81	0.45
5:AF:23:ASP:CG	5:AF:24:LEU:N	2.74	0.45
8:AK:132:PRO:O	8:AK:133:HIS:CG	2.70	0.45
15:AR:1:MET:C	15:AR:3:ARG:N	2.75	0.45
21:AV:16:SER:O	21:AV:20:ARG:HD2	2.17	0.45
22:A3:53:MET:HB2	22:A3:59:LEU:CD2	2.42	0.45
27:A5:31:VAL:HG13	27:A5:42:PRO:HG3	1.98	0.45
31:BA:266:G:H5"	31:BA:268:C:C5	2.52	0.45
31:BA:940:C:C2	31:BA:941:G:C8	3.05	0.45
31:BA:973:G:OP1	40:BM:57:LYS:HD3	2.16	0.45
32:BE:204:ASN:HD22	32:BE:204:ASN:C	2.25	0.45
33:BF:139:GLN:HA	33:BF:139:GLN:OE1	2.17	0.45
41:BN:72:ALA:HB1	41:BN:77:MET:HG2	1.98	0.45
41:BN:103:LEU:HD22	41:BN:103:LEU:H	1.81	0.45
46:BS:72:ARG:C	46:BS:72:ARG:HD3	2.41	0.45
51:BX:2:GLY:C	51:BX:4:GLY:N	2.75	0.45
31:CA:328:C:O2	31:CA:328:C:C2'	2.62	0.45
31:CA:1004:A:OP1	31:CA:1025:U:O4	2.35	0.45
31:CA:1126:U:C1'	31:CA:1127:G:P	3.05	0.45
31:CA:1148:U:H2'	31:CA:1149:C:O4'	2.17	0.45
31:CA:1177:G:H5"	31:CA:1178:G:P	2.56	0.45
31:CA:1348:U:N3	31:CA:1374:A:C2	2.84	0.45
31:CA:1348:U:H3	31:CA:1374:A:H2	1.64	0.45
34:CG:96:LEU:HD12	34:CG:139:ARG:NH1	2.32	0.45
36:CI:97:PHE:HD2	48:CU:31:LEU:HD21	1.81	0.45
37:CJ:153:HIS:ND1	37:CJ:153:HIS:O	2.50	0.45
41:CN:103:LEU:N	41:CN:103:LEU:HD22	2.32	0.45
48:CU:22:VAL:HG13	48:CU:56:THR:HA	1.97	0.45
49:CV:78:ARG:NH2	49:CV:80:TYR:H	2.13	0.45
50:CW:14:LYS:HD2	50:CW:18:GLN:OE1	2.17	0.45
1:DA:315:G:H2'	1:DA:316:C:C6	2.51	0.45
1:DA:528:A:C2	1:DA:2043:C:C5'	2.82	0.45
1:DA:545:G:N2	1:DA:548:A:H62	2.13	0.45
1:DA:646:A:H2'	1:DA:647:G:O4'	2.16	0.45
1:DA:1146:C:O2'	1:DA:1147:C:H5'	2.17	0.45
1:DA:1188:U:C2'	1:DA:1189:A:H5'	2.47	0.45
1:DA:1420:U:HO2'	1:DA:1421:G:P	2.35	0.45
1:DA:2273:A:O2'	1:DA:2274:A:H5'	2.16	0.45
1:DA:2393:A:H2'	1:DA:2394:C:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2468:G:H22	1:DA:2481:G:C2'	2.16	0.45
8:DK:102:SER:HA	8:DK:107:VAL:O	2.16	0.45
9:DM:133:GLN:HG2	9:DM:135:PRO:HD3	1.98	0.45
10:DN:87:ILE:HG23	10:DN:91:LEU:HA	1.99	0.45
11:DO:3:LEU:H	11:DO:3:LEU:HD12	1.80	0.45
11:DO:101:VAL:HA	11:DO:105:LEU:O	2.16	0.45
13:D0:2:ARG:HG3	13:D0:3:HIS:H	1.81	0.45
13:D0:70:LEU:C	13:D0:72:ASP:H	2.24	0.45
14:DQ:41:ASP:OD2	14:DQ:44:LYS:HE3	2.16	0.45
15:DR:26:ASP:OD2	15:DR:120:ARG:NH1	2.48	0.45
1:AA:222:A:H1'	1:AA:223:A:OP1	2.16	0.45
1:AA:673:C:H5"	5:AF:81:PRO:HD2	1.97	0.45
1:AA:2360:A:H8	1:AA:2360:A:O5'	2.00	0.45
1:AA:2469:A:H8	1:AA:2469:A:H5'	1.81	0.45
1:AA:2760:C:O2'	1:AA:2761:G:H5'	2.16	0.45
5:AF:45:ARG:CG	5:AF:45:ARG:NH1	2.63	0.45
6:AG:81:LYS:HB3	6:AG:82:LEU:H	1.58	0.45
6:AG:108:ASN:HD22	26:A4:38:LYS:CG	2.30	0.45
6:AG:126:ASP:OD2	6:AG:130:ASN:HB2	2.17	0.45
11:AO:50:ARG:HG3	11:AO:50:ARG:NH2	2.24	0.45
12:AP:63:LYS:HD3	12:AP:63:LYS:HA	1.62	0.45
13:A0:51:LEU:HD22	13:A0:66:VAL:HG13	1.99	0.45
19:AT:70:LEU:N	19:AT:70:LEU:HD23	2.32	0.45
28:A6:40:CYS:SG	28:A6:45:LYS:HE2	2.56	0.45
31:BA:181:G:O2'	31:BA:182:U:O5'	2.31	0.45
31:BA:316:G:OP2	31:BA:351:G:O2'	2.33	0.45
31:BA:1255:G:C2	31:BA:1283:G:C2	3.05	0.45
31:BA:1466:C:H2'	31:BA:1467:G:O4'	2.16	0.45
32:BE:164:VAL:HB	32:BE:186:ALA:CB	2.46	0.45
32:BE:178:ARG:NH2	32:BE:196:LEU:HA	2.31	0.45
34:BG:30:LYS:O	34:BG:30:LYS:HG2	2.17	0.45
37:BJ:78:ARG:HH11	37:BJ:80:VAL:CG1	2.29	0.45
43:BP:105:THR:O	43:BP:106:ASN:C	2.59	0.45
45:BR:15:PHE:CE2	45:BR:84:LYS:HE3	2.51	0.45
50:BW:30:LYS:HZ3	50:BW:80:ARG:HH12	1.63	0.45
50:BW:64:ASP:OD1	50:BW:81:LYS:HD3	2.16	0.45
53:BC:59:A:H4'	53:BC:60:A:OP1	2.17	0.45
31:CA:468:A:O2'	46:CS:81:ARG:HA	2.16	0.45
31:CA:1177:G:H2'	31:CA:1178:G:C2	2.52	0.45
33:CF:129:ALA:O	33:CF:133:ALA:N	2.44	0.45
52:CB:22:G:N2	52:CB:59:U:H5'	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CB:48:C:O2'	52:CB:49:C:P	2.75	0.45
53:CC:12:G:H4'	1:DA:1908:C:O2	2.17	0.45
53:CD:48:U:H2'	53:CD:49:C:OP1	2.16	0.45
1:DA:548:A:H8	1:DA:548:A:O5'	2.00	0.45
1:DA:779:U:P	3:DD:49:ILE:HG22	2.57	0.45
1:DA:996:A:N3	1:DA:997:G:C8	2.84	0.45
1:DA:1328:G:H2'	1:DA:1330:C:C5	2.52	0.45
1:DA:1525:G:C2	1:DA:1526:G:C4	3.05	0.45
1:DA:1782:C:H1'	1:DA:2609:U:H5"	1.99	0.45
1:DA:1854:A:H62	1:DA:1888:G:H8	1.63	0.45
1:DA:2859:G:O2'	1:DA:2860:A:P	2.74	0.45
2:DB:29:A:H2'	2:DB:30:C:O4'	2.17	0.45
3:DD:223:GLY:HA3	3:DD:231:HIS:CD2	2.52	0.45
4:DE:17:ASP:O	4:DE:18:ASP:HB2	2.17	0.45
5:DF:34:TRP:CE3	11:DO:8:PRO:HB3	2.51	0.45
6:DG:4:ASP:O	6:DG:5:VAL:HB	2.16	0.45
7:DH:3:ARG:HG3	7:DH:4:ILE:N	2.30	0.45
7:DH:33:LEU:HD21	7:DH:136:ILE:O	2.15	0.45
11:DO:15:ARG:NH1	11:DO:15:ARG:CB	2.75	0.45
11:DO:41:ARG:HD2	11:DO:41:ARG:N	2.31	0.45
13:D0:106:GLY:O	13:D0:107:ASP:HB2	2.17	0.45
14:DQ:26:LEU:HD22	14:DQ:87:PHE:CD1	2.52	0.45
15:DR:5:ALA:O	15:DR:6:LEU:C	2.60	0.45
15:DR:6:LEU:O	15:DR:10:VAL:HG23	2.17	0.45
16:D1:76:TYR:CZ	16:D1:80:ILE:HG13	2.52	0.45
21:DV:24:LEU:HD23	21:DV:41:LEU:HG	1.98	0.45
1:AA:270(X):G:C6	1:AA:270(Y):G:N1	2.85	0.45
1:AA:360:G:O2'	1:AA:361:G:H5'	2.17	0.45
1:AA:484:C:OP1	20:AU:51:VAL:HG11	2.16	0.45
1:AA:530:G:C5	1:AA:2022:U:H5"	2.52	0.45
1:AA:956:G:OP2	12:AP:14:ARG:NH2	2.50	0.45
1:AA:1444:G:C2	1:AA:1548:C:N3	2.85	0.45
1:AA:1799:G:H5'	1:AA:1819:A:N6	2.32	0.45
1:AA:2345:G:N3	1:AA:2381:C:H2'	2.32	0.45
1:AA:2356:C:H2'	1:AA:2357:U:O4'	2.16	0.45
1:AA:2402:C:H4'	1:AA:2402:C:OP1	2.16	0.45
7:AH:92:ILE:H	7:AH:92:ILE:CD1	2.24	0.45
7:AH:124:GLU:HB2	7:AH:132:ARG:HG2	1.99	0.45
11:AO:97:PRO:HB3	11:AO:112:LEU:HB2	1.99	0.45
13:A0:28:LEU:C	13:A0:30:THR:H	2.23	0.45
13:A0:94:TYR:CD2	13:A0:94:TYR:N	2.83	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AQ:105:ALA:C	14:AQ:110:LEU:HD21	2.42	0.45
18:AS:69:LEU:HA	18:AS:108:GLY:O	2.17	0.45
20:AU:46:LYS:HB2	20:AU:61:ILE:HG22	1.98	0.45
22:A3:25:ARG:HA	22:A3:29:GLN:HE22	1.82	0.45
26:A4:61:ARG:HA	26:A4:61:ARG:HE	1.81	0.45
28:A6:33:LYS:O	28:A6:35:GLU:HG3	2.15	0.45
31:BA:404:U:H2'	31:BA:405:U:H6	1.82	0.45
31:BA:827:U:O2	31:BA:827:U:O5'	2.34	0.45
31:BA:980:C:H2'	31:BA:981:U:O4'	2.17	0.45
31:BA:1005:A:C2	31:BA:1006:C:C2	3.05	0.45
31:BA:1073:U:OP2	35:BH:57:LYS:NZ	2.50	0.45
31:BA:1157:A:O2'	31:BA:1158:C:H5"	2.17	0.45
31:BA:1358:U:H5"	44:BQ:33:VAL:O	2.16	0.45
33:BF:14:ILE:O	33:BF:15:THR:HB	2.15	0.45
37:BJ:90:GLU:OE2	37:BJ:90:GLU:N	2.48	0.45
38:BK:11:THR:HG22	38:BK:15:ASN:ND2	2.32	0.45
52:BB:42:U:H3'	52:BB:43:A:C8	2.52	0.45
52:BB:42:U:H3'	52:BB:43:A:H8	1.82	0.45
54:B1:16:A:H2'	54:B1:17:U:O4'	2.17	0.45
31:CA:210:U:O2'	31:CA:216:G:OP2	2.35	0.45
31:CA:287:U:O2'	31:CA:288:A:H5'	2.16	0.45
31:CA:324:G:OP1	50:CW:70:SER:HB2	2.17	0.45
31:CA:386:C:C2'	31:CA:387:U:H5'	2.46	0.45
31:CA:452:A:H2'	31:CA:453:A:H8	1.81	0.45
31:CA:542:G:H5'	34:CG:41:GLY:HA3	1.97	0.45
31:CA:616:G:C2	31:CA:617:G:C8	3.04	0.45
31:CA:1002:G:C4	31:CA:1003:G:C8	3.05	0.45
31:CA:1135:U:H4'	31:CA:1136:U:H5	1.82	0.45
31:CA:1141:C:H2'	31:CA:1142:G:H8	1.81	0.45
31:CA:1301:U:O4	31:CA:1303:C:H1'	2.17	0.45
31:CA:1306:A:C6	31:CA:1331:G:O2'	2.70	0.45
31:CA:1347:G:C6	39:CL:107:ARG:NH2	2.85	0.45
33:CF:173:VAL:N	33:CF:174:PRO:HD3	2.32	0.45
34:CG:62:GLN:HE22	34:CG:65:ARG:HE	1.65	0.45
38:CK:82:HIS:CD2	38:CK:82:HIS:C	2.93	0.45
39:CL:112:LYS:C	39:CL:112:LYS:HD3	2.41	0.45
44:CQ:27:CYS:SG	44:CQ:29:ARG:HG2	2.57	0.45
46:CS:1:MET:HB2	46:CS:1:MET:HE3	1.63	0.45
53:CC:21:U:O2	53:CC:21:U:C2'	2.65	0.45
1:DA:127:A:H5"	1:DA:128:C:C6	2.51	0.45
1:DA:171:G:H2'	1:DA:172:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:289:A:H3'	1:DA:290:G:H8	1.81	0.45
1:DA:300:A:H2'	1:DA:334:C:H1'	1.99	0.45
1:DA:337:C:H2'	1:DA:338:G:O4'	2.17	0.45
1:DA:669:G:C1'	1:DA:670:A:OP1	2.64	0.45
1:DA:843:G:N2	1:DA:936:C:C2	2.85	0.45
1:DA:873:G:N2	1:DA:905:U:C2	2.85	0.45
1:DA:1408:C:C2	1:DA:1595:G:N2	2.85	0.45
1:DA:1419:A:N6	1:DA:1421:G:N3	2.65	0.45
1:DA:1480:G:C6	1:DA:1482:U:N3	2.85	0.45
1:DA:1607:C:C5'	1:DA:1608:A:H5'	2.45	0.45
1:DA:2135:A:OP2	1:DA:2135:A:H8	2.00	0.45
1:DA:2420:C:O5'	1:DA:2420:C:H6	2.00	0.45
5:DF:160:ASN:OD1	5:DF:163:VAL:HG23	2.16	0.45
6:DG:7:LEU:HD23	6:DG:7:LEU:O	2.15	0.45
9:DM:17:ASP:O	9:DM:18:ALA:HB3	2.16	0.45
9:DM:76:SER:HB3	9:DM:81:GLY:HA3	1.98	0.45
10:DN:22:ILE:HD13	10:DN:22:ILE:HA	1.80	0.45
11:DO:116:GLY:O	11:DO:117:GLU:C	2.60	0.45
12:DP:42:ILE:CG2	12:DP:47:ILE:HG13	2.47	0.45
12:DP:126:PRO:O	12:DP:127:ILE:HG23	2.17	0.45
12:DP:133:ARG:O	12:DP:134:ARG:CB	2.65	0.45
15:DR:5:ALA:C	15:DR:7:ILE:N	2.72	0.45
18:DS:106:ILE:HG13	18:DS:106:ILE:O	2.17	0.45
1:AA:950:G:C6	1:AA:951:C:C4	3.05	0.45
1:AA:1069:A:H5"	1:AA:1070:A:P	2.57	0.45
1:AA:2125:G:C2	1:AA:2172:U:OP1	2.69	0.45
1:AA:2393:A:H5'	11:AO:62:LEU:CB	2.45	0.45
4:AE:73:GLU:HG3	4:AE:74:PRO:HD2	1.98	0.45
5:AF:164:ARG:HG2	5:AF:175:THR:OG1	2.17	0.45
10:AN:48:PRO:HB3	31:BA:1422:G:H5'	1.99	0.45
12:AP:141:GLN:NE2	12:AP:141:GLN:CA	2.80	0.45
26:A4:41:PRO:O	26:A4:42:PHE:CB	2.59	0.45
31:BA:41:G:H2'	31:BA:42:G:H8	1.80	0.45
31:BA:827:U:O2	31:BA:827:U:O4'	2.35	0.45
31:BA:858:G:N1	31:BA:870:U:OP2	2.48	0.45
31:BA:1026:G:H2'	31:BA:1026:G:N3	2.31	0.45
31:BA:1028(B):C:N4	31:BA:1032(A):G:N1	2.20	0.45
31:BA:1375:A:H4'	37:BJ:29:LYS:HE3	1.98	0.45
39:BL:125:TYR:CD2	39:BL:126:SER:N	2.85	0.45
45:BR:53:HIS:O	45:BR:56:LEU:HB3	2.17	0.45
31:CA:197:A:H8	31:CA:198:G:C1'	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:222:U:H2'	31:CA:223:U:C6	2.52	0.45
31:CA:707:C:O2'	31:CA:708:C:H5'	2.16	0.45
31:CA:836:G:C6	31:CA:851:G:C6	3.05	0.45
31:CA:960:U:H3	31:CA:1225:A:H1'	1.81	0.45
32:CE:12:GLU:HB2	32:CE:16:HIS:CE1	2.51	0.45
33:CF:15:THR:HG22	33:CF:16:ARG:N	2.31	0.45
39:CL:42:ARG:NH1	39:CL:71:SER:O	2.50	0.45
39:CL:125:TYR:CD2	39:CL:126:SER:N	2.85	0.45
53:CD:59:A:OP2	53:CD:59:A:H8	1.99	0.45
1:DA:270(R):G:OP1	8:DK:42:SER:OG	2.30	0.45
1:DA:631:A:O2'	11:DO:67:MET:HB2	2.17	0.45
1:DA:656:G:H2'	1:DA:657:U:O4'	2.17	0.45
1:DA:756:C:C2'	1:DA:757:U:H5'	2.47	0.45
1:DA:881:G:O6	1:DA:895:U:C2	2.69	0.45
1:DA:1543:A:H1'	1:DA:1545:A:H1'	1.99	0.45
1:DA:2138:C:C2	1:DA:2154:G:N2	2.85	0.45
1:DA:2393:A:H62	1:DA:2422:A:N6	2.15	0.45
1:DA:2419:U:O4	30:D8:31:HIS:ND1	2.50	0.45
1:DA:2428:G:H5"	1:DA:2429:G:O5'	2.16	0.45
1:DA:2801:A:H5'	1:DA:2895:U:O2'	2.17	0.45
5:DF:2:LYS:O	5:DF:3:GLU:HB3	2.17	0.45
5:DF:178:PRO:HB2	5:DF:201:VAL:CG1	2.38	0.45
16:D1:62:ILE:HG13	16:D1:76:TYR:CE1	2.52	0.45
19:DT:47:PHE:O	19:DT:49:VAL:HG13	2.17	0.45
20:DU:77:PRO:O	20:DU:78:ALA:HB2	2.17	0.45
23:DZ:67:ILE:HB	23:DZ:68:PRO:HD3	1.99	0.45
24:DW:70:GLN:CG	24:DW:71:ASN:H	2.13	0.45
26:D4:22:ILE:HG13	26:D4:23:GLU:H	1.81	0.45
27:D5:3:LYS:HA	27:D5:3:LYS:CE	2.27	0.45
30:D8:32:LEU:HD22	30:D8:36:LYS:CD	2.47	0.45
1:AA:70:G:H21	1:AA:71:A:H62	1.64	0.45
1:AA:638:G:H2'	1:AA:639:U:O4'	2.16	0.45
1:AA:905:U:C3'	1:AA:906:G:H5"	2.46	0.45
1:AA:1416:G:H2'	1:AA:1417:C:H6	1.81	0.45
1:AA:2189:U:H2'	1:AA:2190:G:H5"	1.99	0.45
1:AA:2433:A:C2	23:AZ:35:THR:HG22	2.52	0.45
1:AA:2481:G:O2'	1:AA:2482:G:O5'	2.35	0.45
3:AD:31:LYS:NZ	3:AD:33:LEU:HB3	2.29	0.45
3:AD:125:ILE:O	3:AD:125:ILE:HG22	2.17	0.45
4:AE:61:ARG:N	4:AE:62:PRO:CD	2.80	0.45
7:AH:30:LYS:NZ	7:AH:83:TYR:HE2	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:137:ASP:HB3	7:AH:140:LYS:HB3	1.99	0.45
8:AK:9:LEU:O	8:AK:10:GLU:HB3	2.15	0.45
13:A0:104:ARG:H	13:A0:111:LEU:HD11	1.82	0.45
16:A1:98:LEU:HD23	16:A1:98:LEU:C	2.42	0.45
16:A1:106:PHE:O	16:A1:110:VAL:HG23	2.17	0.45
21:AV:160:GLY:O	21:AV:161:VAL:HG23	2.17	0.45
22:A3:34:GLY:O	22:A3:35:ASN:C	2.59	0.45
22:A3:51:VAL:N	22:A3:62:LEU:HD12	2.32	0.45
22:A3:72:ARG:HB2	22:A3:75:LEU:HB2	1.99	0.45
24:AW:28:LYS:HB3	24:AW:53:LEU:CD2	2.47	0.45
27:A5:20:ARG:HA	27:A5:23:HIS:CD2	2.52	0.45
30:A8:33:ASN:C	30:A8:35:GLN:N	2.73	0.45
31:BA:477:G:H2'	31:BA:478:A:C8	2.52	0.45
31:BA:1237:C:O2	31:BA:1334:G:O2'	2.30	0.45
31:BA:1313:U:C5	49:BV:4:SER:HB3	2.52	0.45
32:BE:185:ILE:HG13	32:BE:199:TYR:O	2.16	0.45
33:BF:78:GLY:HA3	33:BF:83:ARG:HB3	1.98	0.45
33:BF:181:ASN:HD21	33:BF:204:LEU:HD12	1.82	0.45
35:BH:114:GLY:O	35:BH:115:VAL:O	2.35	0.45
38:BK:121:ASP:OD1	38:BK:121:ASP:N	2.50	0.45
40:BM:55:LYS:HE3	40:BM:56:HIS:CE1	2.52	0.45
41:BN:57:THR:HG23	41:BN:58:PRO:HD2	1.98	0.45
41:BN:77:MET:CG	41:BN:103:LEU:HD11	2.41	0.45
42:BO:21:VAL:CG1	42:BO:24:LEU:HG	2.47	0.45
43:BP:84:ILE:HD11	49:BV:66:MET:HE2	1.99	0.45
53:BD:21:U:H3'	53:BD:22:A:H5'	1.99	0.45
31:CA:197:A:C6	31:CA:221:C:H4'	2.52	0.45
31:CA:433:C:O2'	31:CA:434:U:H5'	2.16	0.45
31:CA:485:G:H1'	31:CA:486:U:H5	1.81	0.45
31:CA:992:U:C1'	31:CA:993:G:OP2	2.60	0.45
31:CA:1084:G:OP1	31:CA:1086:U:C2	2.70	0.45
31:CA:1178:G:C8	31:CA:1180:A:OP2	2.70	0.45
31:CA:1207:G:C6	31:CA:1208:C:C4	3.05	0.45
31:CA:1446:A:C5	15:DR:118:ARG:CZ	3.00	0.45
32:CE:185:ILE:O	32:CE:185:ILE:HG12	2.16	0.45
34:CG:119:GLN:HG2	34:CG:123:HIS:CD2	2.52	0.45
37:CJ:69:VAL:HG13	37:CJ:134:ALA:O	2.16	0.45
40:CM:35:SER:OG	40:CM:73:ASP:HB2	2.18	0.45
42:CO:24:LEU:O	42:CO:25:LYS:HB3	2.17	0.45
42:CO:48:ALA:C	42:CO:49:LEU:HD23	2.42	0.45
43:CP:65:LYS:HD2	43:CP:69:GLU:HG2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:CT:45:HIS:O	47:CT:73:VAL:HG12	2.15	0.45
47:CT:59:ILE:HG22	47:CT:71:PHE:CD1	2.51	0.45
52:CB:3:C:O5'	52:CB:3:C:H6	2.00	0.45
53:CC:59:A:H4'	53:CC:60:A:OP1	2.17	0.45
1:DA:529:A:N3	1:DA:529:A:C2'	2.79	0.45
1:DA:1392:A:N6	1:DA:1393:A:N6	2.64	0.45
1:DA:1568:G:H21	3:DD:58:HIS:CE1	2.35	0.45
1:DA:1653:G:H1'	1:DA:1654:A:OP2	2.16	0.45
1:DA:1967:C:H2'	1:DA:1968:G:H5'	1.98	0.45
1:DA:2392:A:H8	11:DO:61:ARG:CD	2.29	0.45
1:DA:2406:U:N3	11:DO:73:GLY:O	2.37	0.45
1:DA:2657:A:O2'	7:DH:160:LYS:HE3	2.17	0.45
4:DE:37:ARG:HG3	4:DE:46:ALA:O	2.17	0.45
5:DF:134:GLY:HA2	5:DF:166:ALA:HB2	1.99	0.45
9:DM:2:LYS:O	9:DM:3:THR:C	2.59	0.45
12:DP:111:GLU:C	12:DP:113:GLN:N	2.74	0.45
13:D0:18:LEU:HA	13:D0:18:LEU:HD23	1.71	0.45
13:D0:86:ARG:HD2	13:D0:118:GLU:OE2	2.17	0.45
19:DT:39:ILE:O	19:DT:43:VAL:HG13	2.17	0.45
20:DU:42:VAL:CG2	20:DU:65:ALA:HB3	2.46	0.45
20:DU:46:LYS:O	20:DU:47:LYS:C	2.60	0.45
20:DU:81:LYS:HD3	20:DU:97:ARG:CZ	2.47	0.45
20:DU:89:PHE:CD1	20:DU:90:LEU:HG	2.50	0.45
26:D4:31:ILE:HG22	26:D4:32:TYR:N	2.31	0.45
1:AA:7:G:H2'	1:AA:8:A:O4'	2.17	0.44
1:AA:129:C:H2'	1:AA:130:C:H6	1.82	0.44
1:AA:466:A:N3	1:AA:683:C:H1'	2.32	0.44
1:AA:558:G:P	9:AM:111:PRO:HG2	2.57	0.44
1:AA:821:A:O2'	1:AA:945:A:H3'	2.17	0.44
1:AA:857:C:H4'	22:A3:23:VAL:HG21	1.99	0.44
1:AA:873:G:H1	1:AA:904:C:N4	2.12	0.44
1:AA:907:U:O2'	12:AP:101:ARG:NH2	2.48	0.44
1:AA:1496:A:H2'	1:AA:1577:C:O2'	2.17	0.44
1:AA:1533:C:C5'	1:AA:1534:G:OP2	2.65	0.44
1:AA:1788:C:O2'	1:AA:1789:A:H5'	2.17	0.44
1:AA:2320:A:C8	1:AA:2333:A:N6	2.86	0.44
1:AA:2481:G:H2'	1:AA:2482:G:OP2	2.17	0.44
1:AA:2701:C:C2'	1:AA:2702:U:H5"	2.47	0.44
1:AA:2771:C:O3'	4:AE:168:MET:HE1	2.18	0.44
1:AA:2783:G:H2'	1:AA:2784:C:C6	2.52	0.44
7:AH:20:ALA:HB1	7:AH:21:PRO:HD2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:88:LEU:HD12	7:AH:129:THR:O	2.17	0.44
20:AU:14:LEU:HB2	20:AU:24:VAL:HG22	1.99	0.44
31:BA:224:C:H2'	31:BA:225:C:C6	2.52	0.44
31:BA:254:G:H21	47:BT:16:GLN:HE21	1.65	0.44
31:BA:271:C:H2'	31:BA:272:C:H6	1.82	0.44
31:BA:763:G:H2'	31:BA:764:C:H6	1.82	0.44
31:BA:838:G:H2'	31:BA:841:U:H5"	1.99	0.44
31:BA:947:G:O2'	31:BA:1306:A:H4'	2.17	0.44
31:BA:1175:G:C6	31:BA:1176:A:N6	2.85	0.44
31:BA:1266:G:N2	31:BA:1270:C:C2	2.85	0.44
31:BA:1323:G:H4'	31:BA:1362(A):C:N3	2.33	0.44
32:BE:24:TRP:CD1	32:BE:24:TRP:H	2.35	0.44
35:BH:12:LEU:O	35:BH:13:ILE:HD12	2.17	0.44
36:BI:72:VAL:CG2	36:BI:90:VAL:HG11	2.47	0.44
38:BK:7:ALA:HB2	38:BK:85:ARG:HD2	1.99	0.44
38:BK:33:GLU:O	38:BK:34:GLU:C	2.60	0.44
41:BN:12:ARG:HG2	41:BN:13:GLN:N	2.32	0.44
43:BP:30:ALA:C	43:BP:32:GLU:N	2.74	0.44
46:BS:21:VAL:O	46:BS:33:ILE:N	2.50	0.44
47:BT:78:GLU:O	47:BT:79:SER:C	2.60	0.44
53:BD:57:C:H2'	53:BD:58:A:O4'	2.16	0.44
31:CA:485:G:C2'	31:CA:486:U:OP2	2.64	0.44
31:CA:560:U:H4'	31:CA:561:U:O5'	2.16	0.44
31:CA:683:G:C6	31:CA:684:A:C6	3.05	0.44
31:CA:775:G:H2'	31:CA:776:G:O4'	2.16	0.44
31:CA:892:A:C2	31:CA:907:A:C4	3.05	0.44
31:CA:1112:C:C4	33:CF:178:LEU:HD23	2.52	0.44
31:CA:1287:A:H2	31:CA:1353:G:N3	2.14	0.44
31:CA:1288:A:N1	31:CA:1371:G:H1'	2.32	0.44
31:CA:1402:C:H2'	31:CA:1403:C:O4'	2.16	0.44
32:CE:36:ARG:HB3	32:CE:41:ILE:HD11	1.98	0.44
33:CF:18:TRP:NE1	44:CQ:55:GLY:H	2.15	0.44
35:CH:102:ALA:HB1	35:CH:106:PRO:HG2	1.99	0.44
36:CI:100:ASN:HB2	48:CU:23:LYS:HE2	1.99	0.44
37:CJ:41:ARG:O	37:CJ:45:ASP:HB2	2.17	0.44
1:DA:330:A:C2	1:DA:1210:A:O2'	2.40	0.44
1:DA:497:A:H2'	1:DA:498:G:O4'	2.16	0.44
1:DA:1061:U:H4'	1:DA:1070:A:H1'	1.99	0.44
1:DA:1113:U:H2'	1:DA:1114:G:C8	2.52	0.44
1:DA:1484:G:O2'	1:DA:1485:G:H5'	2.16	0.44
1:DA:1585:C:O2	1:DA:1585:C:C2'	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1599:C:C5'	19:DT:35:THR:HG22	2.47	0.44
1:DA:1951:U:O2'	1:DA:1953:A:N7	2.42	0.44
1:DA:2104:G:C2	1:DA:2186:G:C2	3.05	0.44
4:DE:8:LYS:C	4:DE:9:VAL:HG13	2.42	0.44
6:DG:125:PHE:HB3	6:DG:166:ASP:HB2	1.98	0.44
10:DN:47:ILE:CG1	10:DN:48:PRO:HD2	2.43	0.44
13:D0:24:GLN:NE2	13:D0:36:THR:HG21	2.32	0.44
14:DQ:67:ARG:HB2	14:DQ:67:ARG:CZ	2.48	0.44
16:D1:92:ARG:HD3	16:D1:95:LEU:HD12	1.98	0.44
21:DV:132:ASN:HD21	21:DV:159:PRO:HB2	1.81	0.44
30:D8:32:LEU:HB2	30:D8:33:ASN:H	1.42	0.44
1:AA:654:A:N3	1:AA:654:A:C2'	2.75	0.44
1:AA:655:A:C8	1:AA:656:G:O4'	2.70	0.44
1:AA:1095:A:N3	1:AA:1095:A:C2'	2.78	0.44
1:AA:1537:C:C2'	1:AA:1538:G:O4'	2.64	0.44
1:AA:2118:U:O2	1:AA:2148:G:O2'	2.31	0.44
1:AA:2255:G:N2	12:AP:85:LYS:HE2	2.32	0.44
1:AA:2855:C:H2'	1:AA:2856:C:H6	1.82	0.44
1:AA:2870:C:H2'	1:AA:2871:C:O5'	2.17	0.44
3:AD:95:LEU:HD12	3:AD:95:LEU:O	2.18	0.44
5:AF:29:ASN:HB3	5:AF:112:MET:HE1	1.99	0.44
7:AH:107:VAL:O	7:AH:152:ARG:NH2	2.50	0.44
17:A2:61:VAL:HA	17:A2:94:LEU:HD23	1.99	0.44
20:AU:12:THR:O	20:AU:75:ILE:HG12	2.18	0.44
20:AU:84:ARG:HH12	20:AU:97:ARG:CB	2.30	0.44
21:AV:57:ILE:N	21:AV:57:ILE:HD12	2.32	0.44
24:AW:46:GLN:O	24:AW:47:ASN:C	2.60	0.44
26:A4:9:LEU:H	26:A4:27:THR:HG23	1.82	0.44
31:BA:309:G:H1'	31:BA:608:A:C2	2.52	0.44
31:BA:658:G:C5	31:BA:659:U:C5	3.05	0.44
31:BA:1011:G:N2	31:BA:1019:C:O2	2.49	0.44
31:BA:1216:G:OP1	44:BQ:2:ALA:HA	2.18	0.44
31:BA:1355:G:H2'	31:BA:1356:G:C8	2.52	0.44
32:BE:74:LYS:HD2	32:BE:166:ASP:HB2	1.98	0.44
37:BJ:5:ARG:HG2	37:BJ:6:ARG:H	1.82	0.44
39:BL:105:ASP:C	39:BL:107:ARG:H	2.25	0.44
46:BS:9:PHE:HB2	46:BS:16:HIS:O	2.17	0.44
50:BW:49:ALA:HB3	50:BW:99:LEU:HB2	2.00	0.44
50:BW:72:LEU:HD23	50:BW:72:LEU:C	2.43	0.44
31:CA:340:U:H2'	31:CA:341:C:O4'	2.17	0.44
31:CA:438:G:H4'	34:CG:123:HIS:ND1	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1053:G:H2'	31:CA:1054:C:OP2	2.18	0.44
31:CA:1392:G:N2	31:CA:1502:A:C8	2.83	0.44
33:CF:134:ILE:HG23	33:CF:151:VAL:HB	1.99	0.44
34:CG:178:VAL:C	34:CG:180:GLY:H	2.23	0.44
39:CL:97:LYS:C	39:CL:99:LEU:H	2.26	0.44
40:CM:49:VAL:O	40:CM:60:ARG:HB2	2.17	0.44
41:CN:82:VAL:HB	41:CN:108:ILE:HG12	1.99	0.44
1:DA:476:G:N1	1:DA:479:A:OP2	2.49	0.44
1:DA:653:A:H5"	1:DA:654:A:P	2.57	0.44
1:DA:844:C:N4	1:DA:845:G:N1	2.65	0.44
1:DA:921:G:H4'	1:DA:2269:A:C5	2.52	0.44
1:DA:1265:A:O4'	1:DA:1267:U:C6	2.71	0.44
1:DA:2069:G:C2'	1:DA:2070:G:H5'	2.48	0.44
1:DA:2140:C:O2	1:DA:2151:G:N1	2.42	0.44
1:DA:2211:G:C1'	1:DA:2212:A:P	3.05	0.44
1:DA:2387:U:H1'	22:D3:41:ARG:HD2	2.00	0.44
1:DA:2731:G:C6	1:DA:2732:G:O6	2.70	0.44
2:DB:1:U:H2'	2:DB:2:C:O4'	2.17	0.44
7:DH:155:SER:O	7:DH:156:ALA:C	2.60	0.44
16:D1:83:LEU:HG	16:D1:88:ILE:HD11	1.99	0.44
17:D2:71:LEU:CA	17:D2:86:GLY:HA2	2.46	0.44
20:DU:39:VAL:O	20:DU:40:GLU:CD	2.60	0.44
26:D4:9:LEU:H	26:D4:9:LEU:HD22	1.83	0.44
30:D8:14:VAL:CG1	30:D8:15:LYS:N	2.80	0.44
1:AA:960:A:H5"	1:AA:961:C:OP1	2.17	0.44
1:AA:1003:G:N2	1:AA:1153:C:C2	2.85	0.44
1:AA:1209:G:N2	1:AA:1210:A:H62	2.14	0.44
1:AA:1385:G:O6	1:AA:1403:C:N4	2.51	0.44
1:AA:1435:G:H21	1:AA:1478:G:H5'	1.82	0.44
1:AA:1528:A:N1	1:AA:1543:A:N1	2.65	0.44
1:AA:1686:C:H2'	1:AA:1687:G:O4'	2.18	0.44
1:AA:2629:A:O2'	1:AA:2630:G:H5"	2.18	0.44
4:AE:9:VAL:HB	4:AE:25:VAL:O	2.18	0.44
7:AH:167:GLU:HA	7:AH:168:PRO:HD3	1.77	0.44
8:AK:75:LEU:HB3	8:AK:105:HIS:ND1	2.33	0.44
9:AM:120:LEU:C	9:AM:120:LEU:CD2	2.91	0.44
13:A0:1:MET:HE3	13:A0:1:MET:HB2	1.77	0.44
13:A0:91:GLN:OE1	13:A0:91:GLN:N	2.38	0.44
16:A1:91:ASP:O	16:A1:92:ARG:C	2.60	0.44
17:A2:38:LEU:C	17:A2:39:LEU:HD12	2.42	0.44
21:AV:29:TYR:CE2	21:AV:87:ASP:HB2	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AV:72:ARG:O	21:AV:73:GLN:HB2	2.17	0.44
21:AV:80:ARG:HD3	21:AV:82:ARG:HH11	1.82	0.44
21:AV:142:SER:CB	21:AV:143:GLY:CA	2.93	0.44
22:A3:43:THR:O	22:A3:43:THR:HG23	2.16	0.44
23:AZ:83:GLU:O	23:AZ:85:LEU:N	2.50	0.44
31:BA:114:U:O2'	31:BA:115:G:H5'	2.18	0.44
31:BA:184:G:H2'	31:BA:185:A:C8	2.53	0.44
31:BA:397:A:C6	31:BA:548:G:N7	2.85	0.44
31:BA:397:A:H3'	31:BA:397:A:N3	2.33	0.44
31:BA:464:G:C5	31:BA:466:C:OP2	2.69	0.44
31:BA:925:G:N2	31:BA:1503:A:OP1	2.50	0.44
31:BA:1129:C:H41	31:BA:1141:C:N4	2.16	0.44
31:BA:1179:A:H2'	31:BA:1180:A:O4'	2.18	0.44
31:BA:1181:G:N1	31:BA:1182:G:N2	2.65	0.44
32:BE:221:LEU:O	32:BE:221:LEU:HD13	2.17	0.44
32:BE:223:ILE:O	32:BE:227:GLY:N	2.33	0.44
32:BE:235:SER:OG	32:BE:236:TYR:N	2.51	0.44
42:BO:72:HIS:CD2	42:BO:74:LEU:H	2.17	0.44
45:BR:78:TYR:CE1	45:BR:82:ILE:HD11	2.52	0.44
46:BS:17:TYR:CE1	46:BS:41:PRO:HG3	2.50	0.44
49:BV:28:LYS:HG2	49:BV:47:HIS:HE1	1.82	0.44
53:BD:56:U:C4	53:BD:58:A:H5"	2.53	0.44
31:CA:102:G:O2'	31:CA:151:A:N3	2.46	0.44
31:CA:411:A:N7	31:CA:429:U:C5	2.86	0.44
31:CA:951:G:C6	31:CA:1231:G:C6	3.05	0.44
31:CA:994:A:C5	31:CA:1216:G:H4'	2.52	0.44
31:CA:1107:C:OP1	33:CF:172:ARG:HB3	2.18	0.44
31:CA:1346:A:C8	31:CA:1348:U:C2	3.05	0.44
31:CA:1374:A:H2'	31:CA:1375:A:H5'	1.99	0.44
32:CE:162:ILE:O	32:CE:162:ILE:HG13	2.16	0.44
33:CF:48:TYR:C	33:CF:48:TYR:CD1	2.95	0.44
38:CK:1:MET:HE2	38:CK:1:MET:N	2.31	0.44
42:CO:19:SER:HA	42:CO:20:LYS:HE2	1.99	0.44
43:CP:22:ILE:HB	43:CP:25:ILE:HG12	1.98	0.44
53:CD:51:U:H2'	53:CD:52:C:O4'	2.18	0.44
1:DA:866:A:H2'	1:DA:866:A:N3	2.32	0.44
1:DA:2155:G:H2'	1:DA:2156:G:O4'	2.17	0.44
1:DA:2294:C:OP2	14:DQ:13:ARG:NH1	2.51	0.44
1:DA:2855:C:H2'	1:DA:2856:C:C6	2.51	0.44
2:DB:55:U:O2'	2:DB:56:G:H5'	2.18	0.44
5:DF:155:LEU:HD12	5:DF:174:VAL:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:DM:126:PRO:O	9:DM:127:ASP:HB2	2.18	0.44
11:DO:110:TYR:HB3	11:DO:111:ARG:H	1.60	0.44
12:DP:141:GLN:CG	12:DP:141:GLN:O	2.66	0.44
22:D3:72:ARG:CB	22:D3:75:LEU:HB2	2.46	0.44
1:AA:870:A:H5"	12:AP:6:ARG:O	2.17	0.44
1:AA:1653:G:C1'	1:AA:1654:A:OP2	2.65	0.44
1:AA:1799:G:H5'	1:AA:1819:A:H61	1.81	0.44
1:AA:2210:G:C3'	1:AA:2211:G:C8	2.90	0.44
1:AA:2439:A:H5'	1:AA:2439:A:C8	2.52	0.44
1:AA:2611:U:OP1	1:AA:2611:U:H3'	2.17	0.44
2:AB:93:C:O2'	2:AB:94:C:H5'	2.17	0.44
2:AB:116:G:H4'	14:AQ:54:LEU:HD13	1.99	0.44
7:AH:4:ILE:C	7:AH:6:ARG:N	2.74	0.44
8:AK:37:VAL:HG22	8:AK:38:LEU:N	2.33	0.44
8:AK:112:LYS:H	8:AK:112:LYS:HG2	1.51	0.44
10:AN:34:THR:HG22	10:AN:37:ASP:OD2	2.18	0.44
13:A0:32:GLY:O	13:A0:115:GLU:HA	2.17	0.44
14:AQ:67:ARG:O	14:AQ:71:ARG:HG3	2.18	0.44
18:AS:86:LEU:HA	18:AS:87:PRO:HD2	1.90	0.44
21:AV:158:PRO:C	21:AV:160:GLY:H	2.26	0.44
31:BA:258:G:H2'	31:BA:259:G:C8	2.52	0.44
31:BA:683:G:H2'	31:BA:684:A:C8	2.52	0.44
31:BA:782:A:O3'	31:BA:1515:C:H4'	2.18	0.44
31:BA:875:C:O2'	38:BK:14:ARG:NH1	2.48	0.44
31:BA:1226:C:H4'	49:BV:80:TYR:OH	2.18	0.44
31:BA:1237:C:C5	31:BA:1336:C:C5	3.05	0.44
31:BA:1269:A:H2	31:BA:1312:G:N3	2.16	0.44
31:BA:1312:G:C5'	49:BV:6:LYS:HD3	2.47	0.44
31:BA:1389:C:H2'	31:BA:1390:U:O4'	2.17	0.44
31:BA:1392:G:N2	31:BA:1502:A:C8	2.85	0.44
31:BA:1508:G:H2'	31:BA:1509:C:O4'	2.18	0.44
33:BF:155:GLY:HA3	33:BF:196:LEU:HB3	1.98	0.44
35:BH:151:LEU:HD11	38:BK:77:GLU:OE2	2.17	0.44
40:BM:46:ARG:HG2	40:BM:64:GLU:HB3	1.99	0.44
48:BU:74:ARG:HA	48:BU:79:LEU:O	2.17	0.44
50:BW:25:ARG:HH11	50:BW:25:ARG:HG3	1.82	0.44
52:BB:9:G:O2'	52:BB:10:G:N7	2.45	0.44
53:BD:6:G:H2'	53:BD:7:G:C8	2.52	0.44
53:BD:19:G:H4'	53:BD:61:U:H3	1.82	0.44
53:BD:29:C:H2'	53:BD:30:G:H8	1.82	0.44
31:CA:448:A:H2'	31:CA:449:C:O2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1004:A:O5'	31:CA:1025:U:O4	2.35	0.44
31:CA:1243:C:OP1	51:CX:8:THR:HG21	2.18	0.44
34:CG:8:VAL:HG11	34:CG:21:LEU:HB2	1.99	0.44
37:CJ:73:MET:HA	37:CJ:91:VAL:HG23	1.98	0.44
40:CM:90:LEU:N	40:CM:90:LEU:HD12	2.32	0.44
45:CR:87:ILE:CG2	45:CR:88:ARG:H	2.30	0.44
49:CV:67:VAL:HG12	49:CV:68:GLY:H	1.81	0.44
53:CC:40:C:O5'	53:CC:40:C:H6	2.00	0.44
1:DA:239:U:H2'	1:DA:240:G:O4'	2.18	0.44
1:DA:289:A:H2'	1:DA:289:A:N3	2.32	0.44
1:DA:598:G:C6	1:DA:599:G:C5	3.05	0.44
1:DA:603:A:H1'	1:DA:604:G:O4'	2.18	0.44
1:DA:869:G:O2'	1:DA:870:A:H5'	2.17	0.44
1:DA:959:A:N6	12:DP:83:MET:HE1	2.32	0.44
1:DA:1144:G:C6	1:DA:1145:C:C4	3.06	0.44
1:DA:1478:G:N2	1:DA:1516:U:C2	2.85	0.44
1:DA:1930:G:N2	1:DA:1968:G:H2'	2.32	0.44
1:DA:2006:C:H2'	1:DA:2007:C:C6	2.53	0.44
1:DA:2376:A:H2'	1:DA:2377:A:O4'	2.18	0.44
1:DA:2815:C:H5'	27:D5:29:THR:HG21	1.99	0.44
5:DF:24:LEU:HD11	5:DF:119:ARG:HB2	1.98	0.44
8:DK:79:ILE:O	8:DK:79:ILE:HG22	2.17	0.44
8:DK:130:TYR:HB3	8:DK:136:VAL:HG13	2.00	0.44
12:DP:43:THR:OG1	12:DP:45:GLN:HG2	2.17	0.44
21:DV:61:LEU:HB3	21:DV:62:PRO:HD2	1.99	0.44
28:D6:22:ALA:HB2	28:D6:42:TRP:HH2	1.82	0.44
1:AA:106:C:H2'	1:AA:107:C:C6	2.53	0.44
1:AA:442:G:C6	1:AA:444:C:N4	2.85	0.44
1:AA:571:A:C8	1:AA:2030:A:N6	2.86	0.44
1:AA:812:C:H5"	1:AA:1250:G:O2'	2.17	0.44
1:AA:863:A:H2'	1:AA:864:G:H8	1.81	0.44
1:AA:1056:G:H21	1:AA:1103:A:H62	0.49	0.44
1:AA:1060:U:H1'	1:AA:1061:U:P	2.57	0.44
1:AA:1207:C:H2'	1:AA:1208:C:H6	1.83	0.44
1:AA:1264:G:H5'	27:A5:11:THR:HG23	1.99	0.44
1:AA:1312:U:H4'	1:AA:1313:U:O5'	2.18	0.44
1:AA:1379:A:H1'	1:AA:1380:G:OP1	2.17	0.44
1:AA:2113:U:H5'	1:AA:2114:A:C8	2.52	0.44
1:AA:2727:G:O3'	10:AN:70:LYS:HE2	2.18	0.44
4:AE:28:ALA:HB3	4:AE:93:VAL:CG1	2.48	0.44
4:AE:101:ARG:NH1	4:AE:171:GLU:HB2	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:119:ARG:HD3	4:AE:160:TYR:CD2	2.53	0.44
4:AE:134:ILE:C	4:AE:134:ILE:CD1	2.91	0.44
6:AG:91:ARG:HD2	6:AG:92:VAL:N	2.32	0.44
7:AH:41:MET:HE2	7:AH:41:MET:HB2	1.70	0.44
8:AK:40:THR:HG22	8:AK:41:GLU:N	2.32	0.44
12:AP:104:PHE:O	12:AP:105:GLU:HB3	2.16	0.44
12:AP:138:ASP:HB2	12:AP:139:GLU:OE1	2.17	0.44
13:A0:55:ALA:HB2	13:A0:79:LEU:CD1	2.48	0.44
16:A1:64:ARG:NH2	16:A1:64:ARG:CG	2.60	0.44
16:A1:68:ALA:O	16:A1:71:GLN:HB2	2.17	0.44
22:A3:36:ILE:HD11	22:A3:39:ARG:HG2	1.98	0.44
27:A5:42:PRO:C	27:A5:44:THR:H	2.25	0.44
30:A8:29:LYS:HG2	30:A8:44:LYS:HG2	2.00	0.44
30:A8:52:LYS:HB2	30:A8:52:LYS:HE3	1.76	0.44
31:BA:297:G:H4'	31:BA:557:G:H4'	1.99	0.44
31:BA:611:A:N1	31:BA:629:G:N2	2.56	0.44
31:BA:745:C:OP1	31:BA:851:G:O2'	2.35	0.44
31:BA:1004:A:H8	31:BA:1036:G:N2	2.16	0.44
31:BA:1047:G:C2'	31:BA:1048:G:H5'	2.47	0.44
31:BA:1068:G:N7	31:BA:1094:G:C8	2.85	0.44
31:BA:1098:C:H2'	31:BA:1099:G:O4'	2.17	0.44
31:BA:1179:A:C6	31:BA:1180:A:C2	3.05	0.44
32:BE:109:SER:O	32:BE:111:ARG:N	2.51	0.44
35:BH:147:ASP:HA	35:BH:150:ARG:NH1	2.32	0.44
36:BI:21:LEU:HD12	36:BI:21:LEU:HA	1.81	0.44
37:BJ:26:PHE:CD2	37:BJ:30:ILE:HD11	2.52	0.44
39:BL:17:VAL:CG1	39:BL:81:ILE:HD13	2.48	0.44
44:BQ:8:GLU:C	44:BQ:10:ALA:N	2.75	0.44
44:BQ:14:PRO:O	44:BQ:15:LYS:C	2.60	0.44
47:BT:86:GLU:O	47:BT:90:ILE:HG13	2.17	0.44
50:BW:50:GLU:HG3	50:BW:51:GLU:N	2.32	0.44
50:BW:71:THR:O	50:BW:72:LEU:C	2.61	0.44
53:BC:1:C:O2'	53:BC:2:G:O5'	2.34	0.44
31:CA:409:G:C2'	31:CA:410:G:H5'	2.48	0.44
31:CA:892:A:H2'	31:CA:893:C:H6	1.78	0.44
31:CA:976:G:N2	31:CA:1362:C:H2'	2.32	0.44
31:CA:1003:G:N2	31:CA:1037:C:N3	2.65	0.44
31:CA:1041:A:N6	31:CA:1042:G:C5	2.86	0.44
31:CA:1213:A:C6	31:CA:1215:G:C4	3.05	0.44
31:CA:1321:C:C5	31:CA:1322:C:C5	3.05	0.44
32:CE:17:PHE:CE2	32:CE:44:LEU:HA	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:CE:21:ARG:O	32:CE:22:LYS:C	2.61	0.44
34:CG:108:LEU:HD13	34:CG:174:LEU:HD13	1.99	0.44
35:CH:100:VAL:O	35:CH:100:VAL:HG12	2.16	0.44
37:CJ:57:GLU:OE1	37:CJ:57:GLU:N	2.30	0.44
39:CL:5:TYR:CD2	39:CL:18:PHE:CE2	3.05	0.44
40:CM:56:HIS:C	40:CM:58:ASP:N	2.76	0.44
40:CM:78:ASN:C	40:CM:80:LYS:N	2.76	0.44
42:CO:80:VAL:HG13	42:CO:81:LEU:N	2.32	0.44
52:CB:2:C:N3	52:CB:82:G:N1	2.63	0.44
52:CB:87:A:O3'	1:DA:2506:U:O2'	2.32	0.44
53:CC:62:C:H2'	53:CC:63:C:C6	2.50	0.44
53:CD:37:U:C4	53:CD:38:A:N6	2.85	0.44
53:CD:42:C:H2'	53:CD:43:G:H8	1.82	0.44
1:DA:612:G:H2'	1:DA:613:U:O2	2.17	0.44
1:DA:620:G:N3	1:DA:620:G:H5'	2.32	0.44
1:DA:946:G:O6	1:DA:972:G:N2	2.51	0.44
1:DA:1459:G:C2'	1:DA:1460:A:H5'	2.43	0.44
1:DA:1517:G:H2'	1:DA:1518:C:C6	2.52	0.44
1:DA:1543:A:H1'	1:DA:1545:A:C1'	2.48	0.44
1:DA:2111:C:C2	1:DA:2118:U:O2'	2.58	0.44
1:DA:2593:U:H2'	1:DA:2594:C:C6	2.52	0.44
1:DA:2795:G:N2	1:DA:2798:C:OP1	2.50	0.44
1:DA:2876:G:P	15:DR:4:GLY:H	2.40	0.44
5:DF:118:ALA:HB2	5:DF:123:LEU:HD22	2.00	0.44
6:DG:10:LYS:O	6:DG:10:LYS:HD3	2.17	0.44
7:DH:41:MET:HE1	7:DH:64:LEU:HB2	1.99	0.44
8:DK:110:ASP:CG	8:DK:130:TYR:HH	2.25	0.44
9:DM:20:GLY:HA2	9:DM:61:ARG:HG2	1.98	0.44
16:D1:98:LEU:HD13	16:D1:106:PHE:HB2	1.99	0.44
19:DT:18:TYR:C	19:DT:20:GLY:H	2.26	0.44
19:DT:36:LYS:HG2	19:DT:54:VAL:HB	2.00	0.44
21:DV:165:VAL:HB	21:DV:166:SER:H	1.51	0.44
27:D5:55:ARG:HD3	27:D5:56:LYS:H	1.82	0.44
1:AA:125:G:H4'	1:AA:126:A:OP2	2.18	0.44
1:AA:633:A:H8	1:AA:633:A:O5'	2.01	0.44
1:AA:778:G:H5'	3:AD:48:ARG:NH1	2.33	0.44
1:AA:893:C:N4	1:AA:894:C:N4	2.65	0.44
1:AA:1055:G:O2'	1:AA:1085:A:N1	2.39	0.44
1:AA:1479:G:H5'	1:AA:1558:A:H2	1.82	0.44
1:AA:1754:C:OP1	15:AR:96:ARG:NH1	2.51	0.44
1:AA:2173:A:H8	1:AA:2173:A:P	2.41	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2469:A:H61	1:AA:2481:G:C1'	2.15	0.44
1:AA:2474:C:H3'	1:AA:2475:C:C6	2.53	0.44
1:AA:2543:G:H21	1:AA:2646:C:H5"	1.83	0.44
1:AA:2881:C:N4	1:AA:2882:A:N6	2.64	0.44
3:AD:71:ASP:CB	3:AD:103:ARG:HH22	2.23	0.44
12:AP:78:PRO:O	12:AP:79:LEU:HG	2.18	0.44
14:AQ:67:ARG:CZ	14:AQ:67:ARG:HB2	2.47	0.44
14:AQ:95:HIS:CG	14:AQ:96:GLY:N	2.85	0.44
15:AR:56:GLY:C	15:AR:57:PHE:O	2.60	0.44
15:AR:110:ILE:O	15:AR:110:ILE:HD12	2.17	0.44
18:AS:95:ILE:O	18:AS:95:ILE:CG1	2.64	0.44
20:AU:54:LYS:O	20:AU:55:TYR:CB	2.65	0.44
23:AZ:56:GLN:HA	23:AZ:56:GLN:NE2	2.33	0.44
28:A6:52:VAL:HG22	28:A6:53:LYS:N	2.33	0.44
31:BA:186:C:H2'	31:BA:186(A):C:C6	2.53	0.44
31:BA:411:A:C2	31:BA:413:G:O2'	2.70	0.44
31:BA:804:U:H5"	31:BA:805:C:OP2	2.17	0.44
31:BA:921:U:O2	35:BH:19:MET:HB2	2.17	0.44
31:BA:960:U:O2	31:BA:960:U:C2'	2.66	0.44
31:BA:1027:C:H1'	31:BA:1028:C:O5'	2.18	0.44
32:BE:19:HIS:HD2	32:BE:20:GLU:OE1	2.00	0.44
32:BE:61:LEU:HD23	32:BE:68:ILE:CD1	2.45	0.44
32:BE:216:SER:C	32:BE:218:ALA:N	2.75	0.44
33:BF:5:ILE:H	33:BF:5:ILE:HD13	1.82	0.44
35:BH:69:VAL:O	35:BH:71:LEU:N	2.50	0.44
53:BC:2:G:H2'	53:BC:3:C:H6	1.82	0.44
31:CA:157:G:H2'	31:CA:158:G:H8	1.82	0.44
31:CA:186(B):C:H1'	50:CW:105:SER:OG	2.18	0.44
31:CA:243:A:C2	31:CA:246:A:C8	3.05	0.44
31:CA:505:G:C6	31:CA:535:A:C2	3.06	0.44
31:CA:604:G:H2'	31:CA:605:U:O4'	2.18	0.44
31:CA:1004:A:O4'	31:CA:1025:U:N3	2.49	0.44
31:CA:1058:G:H2'	31:CA:1059:C:O4'	2.18	0.44
31:CA:1128:C:C2	31:CA:1139:G:C6	3.05	0.44
31:CA:1194:U:H2'	31:CA:1195:C:C6	2.52	0.44
38:CK:112:LEU:HD23	38:CK:112:LEU:N	2.33	0.44
39:CL:4:TYR:CB	39:CL:19:LEU:HB2	2.33	0.44
43:CP:94:ARG:O	43:CP:96:LEU:HG	2.18	0.44
44:CQ:45:ARG:O	44:CQ:49:HIS:CD2	2.70	0.44
49:CV:42:PRO:O	49:CV:43:GLU:CB	2.64	0.44
1:DA:91:A:O2'	1:DA:92:G:H5'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:192:C:O2'	1:DA:802:A:N3	2.50	0.44
1:DA:383:U:H2'	1:DA:385:C:H5	1.83	0.44
1:DA:581:C:H2'	1:DA:582:G:C8	2.53	0.44
1:DA:637:A:H4'	1:DA:638:G:O5'	2.18	0.44
1:DA:1188:U:C4'	17:D2:79:VAL:HG12	2.47	0.44
1:DA:1226:G:H5'	17:D2:85:LYS:N	2.33	0.44
1:DA:1429:G:H2'	1:DA:1430:C:C6	2.52	0.44
1:DA:2014:A:H2'	1:DA:2015:A:C8	2.53	0.44
2:DB:0:A:H2'	2:DB:1:U:C6	2.53	0.44
3:DD:35:LYS:NZ	3:DD:65:ILE:HA	2.32	0.44
4:DE:55:ASN:C	4:DE:57:LYS:N	2.69	0.44
4:DE:62:PRO:C	4:DE:64:LYS:H	2.25	0.44
4:DE:66:HIS:C	4:DE:68:ALA:N	2.71	0.44
4:DE:176:ILE:HB	4:DE:181:LEU:HB2	2.00	0.44
5:DF:102:PRO:HB2	5:DF:105:VAL:HG23	2.00	0.44
9:DM:15:LEU:HB2	9:DM:134:ARG:CG	2.47	0.44
9:DM:91:LEU:HA	9:DM:95:PRO:HB3	2.00	0.44
15:DR:107:ASP:HB2	15:DR:108:ARG:H	1.59	0.44
16:D1:88:ILE:HG13	16:D1:88:ILE:O	2.17	0.44
19:DT:18:TYR:O	19:DT:20:GLY:N	2.51	0.44
19:DT:36:LYS:HG3	19:DT:56:THR:HG23	1.99	0.44
20:DU:12:THR:OG1	20:DU:26:LYS:HE2	2.17	0.44
21:DV:148:ASP:O	21:DV:149:SER:CB	2.65	0.44
30:D8:52:LYS:HB2	30:D8:53:PRO:HD3	2.00	0.44
1:AA:142:G:C1'	19:AT:37:THR:HG21	2.45	0.44
1:AA:371:A:O3'	1:AA:372:G:H4'	2.18	0.44
1:AA:407:G:H2'	1:AA:408:G:H8	1.82	0.44
1:AA:478:A:N6	1:AA:480:A:C6	2.86	0.44
1:AA:860:U:O2	1:AA:860:U:O4'	2.34	0.44
1:AA:1029:A:O5'	1:AA:1029:A:H8	2.00	0.44
1:AA:1326:U:C2'	1:AA:1327:C:H5'	2.47	0.44
1:AA:1796:U:H2'	1:AA:1797:C:H6	1.79	0.44
1:AA:2097:C:H2'	1:AA:2098:U:O4'	2.17	0.44
1:AA:2171:A:H2'	1:AA:2172:U:C6	2.53	0.44
1:AA:2212:A:N3	1:AA:2215:G:N1	2.66	0.44
1:AA:2283:C:C2	1:AA:2389:G:C2	3.05	0.44
1:AA:2288:A:C2	1:AA:2325:G:C8	3.06	0.44
1:AA:2331:G:O4'	22:A3:42:GLY:HA3	2.17	0.44
1:AA:2418:A:P	30:A8:29:LYS:NZ	2.91	0.44
1:AA:2443:C:H2'	1:AA:2444:G:C8	2.53	0.44
1:AA:2678:C:H2'	1:AA:2679:A:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2895:U:H2'	1:AA:2896:C:O4'	2.17	0.44
2:AB:61:G:C6	2:AB:62:C:C4	3.05	0.44
4:AE:105:THR:HG21	4:AE:164:ARG:CZ	2.47	0.44
5:AF:183:VAL:O	5:AF:187:VAL:HG23	2.18	0.44
7:AH:41:MET:CE	7:AH:64:LEU:HB3	2.48	0.44
7:AH:151:ILE:O	7:AH:152:ARG:CB	2.65	0.44
9:AM:7:LYS:O	9:AM:9:VAL:N	2.50	0.44
11:AO:71:VAL:HG12	11:AO:72:PRO:HD3	2.00	0.44
11:AO:118:GLY:O	11:AO:137:LYS:NZ	2.49	0.44
12:AP:43:THR:O	12:AP:46:GLN:N	2.42	0.44
15:AR:42:ILE:HD12	15:AR:42:ILE:H	1.81	0.44
22:A3:25:ARG:HA	22:A3:29:GLN:NE2	2.33	0.44
31:BA:84:U:C2'	31:BA:85:U:OP1	2.66	0.44
31:BA:210:U:O2'	31:BA:216:G:C8	2.65	0.44
31:BA:689:C:C2'	31:BA:690:G:H5'	2.47	0.44
31:BA:1034:G:N1	31:BA:1035:A:N6	2.66	0.44
31:BA:1286:A:C2	51:BX:18:TYR:OH	2.70	0.44
31:BA:1346:A:O3'	31:BA:1347:G:H4'	2.17	0.44
32:BE:44:LEU:O	32:BE:47:THR:HB	2.17	0.44
32:BE:74:LYS:NZ	32:BE:76:GLN:OE1	2.50	0.44
34:BG:38:TYR:OH	34:BG:45:GLN:NE2	2.51	0.44
39:BL:79:LEU:O	39:BL:82:ALA:HB3	2.18	0.44
42:BO:57:LEU:O	42:BO:58:THR:C	2.60	0.44
46:BS:40:ASP:C	46:BS:42:ARG:H	2.25	0.44
52:BB:19:G:H1'	52:BB:20:U:P	2.58	0.44
52:BB:49:C:H2'	52:BB:50:A:C4'	2.48	0.44
31:CA:116:A:C8	31:CA:116:A:OP2	2.71	0.44
31:CA:345:C:O2'	31:CA:346:G:P	2.75	0.44
31:CA:359:U:H2'	31:CA:360:A:C8	2.53	0.44
31:CA:411:A:C2	31:CA:431:A:N6	2.86	0.44
31:CA:655:A:C2	31:CA:754:C:N4	2.86	0.44
31:CA:1028:C:N4	31:CA:1028(A):C:C4	2.85	0.44
31:CA:1031:G:H2'	31:CA:1032:A:C8	2.53	0.44
31:CA:1073:U:H2'	31:CA:1074:G:C8	2.52	0.44
31:CA:1154:G:C2	31:CA:1155:G:C8	3.06	0.44
32:CE:132:LYS:O	32:CE:132:LYS:HD3	2.18	0.44
33:CF:47:LEU:C	33:CF:47:LEU:HD13	2.42	0.44
33:CF:64:VAL:HG12	33:CF:98:ASN:O	2.18	0.44
34:CG:70:ILE:HD11	34:CG:74:GLN:HB3	2.00	0.44
34:CG:121:VAL:O	34:CG:134:ASP:HA	2.18	0.44
35:CH:57:LYS:O	35:CH:61:TYR:HD2	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:CH:72:GLN:O	35:CH:75:THR:HG22	2.18	0.44
40:CM:7:LYS:HB3	40:CM:97:GLU:HB2	2.00	0.44
52:CB:57:C:H2'	52:CB:58:U:O4'	2.18	0.44
1:DA:17:G:H4'	16:D1:25:TRP:CH2	2.53	0.44
1:DA:460:A:H2'	1:DA:461:C:O4'	2.17	0.44
1:DA:486:C:H4'	18:DS:60:ASN:ND2	2.33	0.44
1:DA:646:A:N6	1:DA:647:G:C2	2.86	0.44
1:DA:864:G:O2'	1:DA:865:C:H5'	2.18	0.44
1:DA:1314:C:C2	1:DA:1339:G:N2	2.86	0.44
1:DA:1321:A:H2'	1:DA:1322:A:O4'	2.18	0.44
1:DA:1484:G:C6	1:DA:1485:G:C5	3.06	0.44
1:DA:1955:U:H1'	1:DA:1956:U:OP1	2.17	0.44
1:DA:1973:G:H2'	1:DA:1974:C:H6	1.83	0.44
1:DA:2271:G:H5"	22:D3:20:ARG:NE	2.32	0.44
1:DA:2340:G:H2'	1:DA:2341:G:H8	1.83	0.44
1:DA:2507:C:H5"	1:DA:2573:C:N4	2.31	0.44
3:DD:25:THR:HG21	3:DD:81:ALA:HA	1.99	0.44
3:DD:35:LYS:CE	3:DD:104:TYR:HD1	2.31	0.44
4:DE:50:GLY:HA3	4:DE:74:PRO:HG3	2.00	0.44
4:DE:127:ASP:HA	4:DE:135:HIS:CD2	2.51	0.44
15:DR:10:VAL:C	15:DR:12:SER:H	2.26	0.44
15:DR:136:GLN:HE21	15:DR:136:GLN:HB3	1.52	0.44
17:D2:98:GLU:O	17:D2:99:ILE:CB	2.65	0.44
20:DU:19:LYS:C	20:DU:20:TYR:HD1	2.26	0.44
21:DV:141:VAL:CG2	21:DV:150:LEU:HG	2.47	0.44
28:D6:16:CYS:O	28:D6:17:LYS:CB	2.63	0.44
28:D6:28:ARG:HB3	28:D6:30:THR:O	2.17	0.44
1:AA:971:C:C2'	1:AA:972:G:H5'	2.48	0.44
1:AA:1062:G:OP1	1:AA:1062:G:C8	2.70	0.44
1:AA:1070:A:C3'	1:AA:1071:G:H5"	2.48	0.44
1:AA:1142(A):A:C4	1:AA:1144:G:C8	3.06	0.44
1:AA:1268:A:H2'	1:AA:1269:A:O4'	2.18	0.44
1:AA:1331:A:H2'	1:AA:1333:C:C5	2.53	0.44
1:AA:1763:G:OP1	1:AA:1763:G:C4'	2.66	0.44
1:AA:2094:G:C2'	1:AA:2095:C:H5'	2.47	0.44
1:AA:2371:G:H21	28:A6:46:HIS:HE1	1.66	0.44
1:AA:2467:C:C3'	1:AA:2468:G:C5'	2.91	0.44
1:AA:2745:C:C4	1:AA:2746:U:C4	3.06	0.44
1:AA:2820:A:OP1	13:A0:4:LEU:HA	2.18	0.44
2:AB:31:C:C2'	2:AB:32:C:H5'	2.47	0.44
2:AB:39:A:O2'	2:AB:46:A:N1	2.39	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:13:ARG:HH11	4:AE:13:ARG:HB3	1.83	0.44
4:AE:77:ILE:O	4:AE:78:LEU:C	2.61	0.44
5:AF:23:ASP:O	5:AF:24:LEU:O	2.35	0.44
9:AM:55:VAL:HB	9:AM:126:PRO:HA	2.00	0.44
13:A0:104:ARG:HD3	13:A0:111:LEU:HD21	1.99	0.44
21:AV:110:GLY:O	21:AV:112:ARG:N	2.51	0.44
30:A8:8:LYS:O	30:A8:12:LYS:HG3	2.18	0.44
31:BA:1004:A:H2	31:BA:1024:G:C8	2.34	0.44
31:BA:1054:C:O2	31:BA:1054:C:C2'	2.65	0.44
31:BA:1102:A:C2'	31:BA:1103:C:H5'	2.48	0.44
31:BA:1301:U:C4	31:BA:1303:C:N1	2.86	0.44
31:BA:1394:A:C5	31:BA:1501:C:H4'	2.53	0.44
31:BA:1468:A:O5'	31:BA:1468:A:H8	2.01	0.44
31:BA:1490:C:O2'	31:BA:1491:G:H5'	2.17	0.44
32:BE:75:LYS:HD3	32:BE:75:LYS:C	2.42	0.44
32:BE:178:ARG:NH2	38:BK:74:PRO:HG3	2.33	0.44
37:BJ:115:ARG:O	37:BJ:118:VAL:HG12	2.18	0.44
38:BK:21:LYS:O	38:BK:63:LEU:HD23	2.17	0.44
40:BM:49:VAL:HG12	40:BM:61:GLU:O	2.18	0.44
45:BR:27:VAL:O	45:BR:31:LEU:HB2	2.18	0.44
47:BT:31:LEU:O	47:BT:31:LEU:HD23	2.18	0.44
48:BU:21:LYS:O	48:BU:22:VAL:HB	2.18	0.44
49:BV:4:SER:OG	49:BV:5:LEU:N	2.51	0.44
52:BB:7:G:O6	52:BB:60:A:N6	2.51	0.44
31:CA:262:A:C6	31:CA:263:A:C6	3.06	0.44
31:CA:622:A:C8	31:CA:623:C:C6	3.06	0.44
31:CA:963:G:H21	40:CM:55:LYS:HD3	1.83	0.44
31:CA:1128:C:HO2'	31:CA:1129:C:P	2.39	0.44
31:CA:1275:A:C2	31:CA:1276:G:H1'	2.52	0.44
33:CF:148:GLY:HA3	33:CF:172:ARG:O	2.18	0.44
34:CG:19:LEU:HB3	34:CG:67:ILE:HG12	1.98	0.44
34:CG:110:PHE:N	34:CG:110:PHE:CD1	2.86	0.44
35:CH:41:VAL:HG13	35:CH:113:ALA:HA	2.00	0.44
35:CH:51:VAL:HB	35:CH:52:PRO:CD	2.42	0.44
35:CH:107:ARG:HG2	35:CH:108:ALA:N	2.33	0.44
38:CK:25:ASP:N	38:CK:25:ASP:OD1	2.51	0.44
38:CK:102:ARG:O	38:CK:102:ARG:HD2	2.18	0.44
40:CM:99:LYS:HE2	40:CM:100:THR:H	1.82	0.44
43:CP:98:VAL:C	43:CP:100:GLY:H	2.26	0.44
1:DA:247:G:H4'	1:DA:386:G:C6	2.53	0.44
1:DA:259:G:O2'	1:DA:621:A:O2'	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:278:A:H4'	1:DA:279:C:OP1	2.17	0.44
1:DA:307:G:N2	1:DA:309:G:H3'	2.33	0.44
1:DA:320:A:H4'	1:DA:322:A:N7	2.32	0.44
1:DA:558:G:OP1	9:DM:111:PRO:HD2	2.18	0.44
1:DA:654(B):C:C2	1:DA:654(T):A:C2	3.06	0.44
1:DA:862:G:H2'	1:DA:863:A:O4'	2.18	0.44
1:DA:1043:C:N4	1:DA:1112:G:H1	2.16	0.44
1:DA:1133:U:H2'	1:DA:1137:G:OP1	2.17	0.44
1:DA:1183:G:H4'	25:DX:29:ARG:HH21	1.83	0.44
1:DA:1312:U:H4'	1:DA:1313:U:O5'	2.18	0.44
1:DA:1316:U:H2'	1:DA:1317:A:H8	1.82	0.44
1:DA:2379:G:O2'	14:DQ:17:ARG:NH1	2.50	0.44
1:DA:2437:U:H2'	1:DA:2438:U:C6	2.52	0.44
3:DD:7:LYS:NZ	3:DD:7:LYS:HB3	2.32	0.44
3:DD:33:LEU:CD2	3:DD:34:VAL:H	2.29	0.44
11:DO:6:LEU:HB3	11:DO:7:ARG:H	1.54	0.44
14:DQ:89:ARG:HG3	14:DQ:92:TYR:O	2.18	0.44
14:DQ:110:LEU:HD23	14:DQ:112:PHE:CE2	2.53	0.44
16:D1:105:VAL:HG11	17:D2:40:LEU:HD21	2.00	0.44
19:DT:26:TYR:O	19:DT:81:VAL:HG22	2.17	0.44
20:DU:54:LYS:HG2	20:DU:55:TYR:CE2	2.52	0.44
24:DW:47:ASN:ND2	24:DW:47:ASN:H	2.15	0.44
26:D4:32:TYR:HB3	26:D4:33:VAL:H	1.41	0.44
28:D6:27:LYS:NZ	28:D6:28:ARG:HH12	2.15	0.44
30:D8:34:TRP:CD2	30:D8:35:GLN:N	2.76	0.44
1:AA:299:A:H5'	1:AA:300:A:OP2	2.18	0.44
1:AA:314:A:O2'	1:AA:315:G:H5'	2.17	0.44
1:AA:607:U:O2	1:AA:621:A:N1	2.51	0.44
1:AA:684:G:OP1	29:A7:16:HIS:ND1	2.51	0.44
1:AA:880:G:H1	1:AA:897:C:H42	1.66	0.44
1:AA:986:C:O2'	1:AA:987:G:H5'	2.18	0.44
1:AA:1116:C:H2'	1:AA:1117:G:O4'	2.17	0.44
1:AA:1210:A:C8	1:AA:1210:A:C5'	2.99	0.44
1:AA:2157:G:O2'	1:AA:2158:A:P	2.74	0.44
1:AA:2470:G:N2	1:AA:2480:C:C2	2.76	0.44
2:AB:48:A:H4'	14:AQ:95:HIS:CD2	2.47	0.44
5:AF:36:VAL:HG11	5:AF:183:VAL:CG1	2.48	0.44
5:AF:67:GLN:HB2	5:AF:67:GLN:HE21	1.63	0.44
5:AF:116:ASP:OD2	11:AO:1:MET:HB2	2.17	0.44
7:AH:12:PRO:O	7:AH:13:LYS:HB2	2.17	0.44
20:AU:68:HIS:ND1	20:AU:70:SER:HB3	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AU:81:LYS:HD2	20:AU:81:LYS:N	2.33	0.44
28:A6:28:ARG:HH12	28:A6:30:THR:CG2	2.31	0.44
31:BA:46:G:H2'	31:BA:366:C:C5	2.52	0.44
31:BA:49:U:O2'	31:BA:50:A:OP1	2.35	0.44
31:BA:57:G:C5	31:BA:58:C:C4	3.06	0.44
31:BA:142:G:H2'	31:BA:143:A:C8	2.53	0.44
31:BA:184:G:H2'	31:BA:185:A:H8	1.83	0.44
31:BA:312:C:H2'	31:BA:313:A:C8	2.53	0.44
31:BA:975:A:N6	40:BM:60:ARG:HH12	2.16	0.44
31:BA:1137:C:O2'	31:BA:1138:G:N3	2.51	0.44
31:BA:1381:U:O2'	31:BA:1382:C:H5'	2.18	0.44
32:BE:17:PHE:HB3	32:BE:44:LEU:HD11	1.98	0.44
34:BG:102:ASP:CB	34:BG:118:ARG:HG2	2.48	0.44
38:BK:23:SER:HA	38:BK:63:LEU:HD22	2.00	0.44
38:BK:29:SER:HB3	38:BK:32:LYS:HE3	1.99	0.44
38:BK:73:ASP:OD2	38:BK:75:ARG:NE	2.50	0.44
39:BL:32:ASP:O	39:BL:33:PHE:C	2.60	0.44
40:BM:85:LEU:H	40:BM:85:LEU:HG	1.52	0.44
43:BP:13:LYS:O	43:BP:44:ARG:HD2	2.17	0.44
44:BQ:23:ARG:NH1	44:BQ:30:ALA:HB2	2.32	0.44
45:BR:24:SER:O	45:BR:28:GLN:HG3	2.18	0.44
46:BS:20:VAL:HG13	46:BS:32:TYR:HB2	1.99	0.44
48:BU:88:LYS:HB3	48:BU:88:LYS:NZ	2.32	0.44
51:BX:12:LYS:HB3	51:BX:22:ARG:HD2	2.00	0.44
52:BB:75:G:H2'	52:BB:76:U:H6	1.83	0.44
31:CA:321:A:N7	31:CA:328:C:C6	2.86	0.44
31:CA:434:U:H2'	31:CA:435:C:C6	2.53	0.44
31:CA:465:A:N6	31:CA:467:G:C2	2.86	0.44
31:CA:509:A:HO2'	31:CA:510:A:P	2.34	0.44
31:CA:1068:G:N3	31:CA:1191:A:C2	2.86	0.44
31:CA:1267:C:O2	31:CA:1267:C:C2'	2.66	0.44
34:CG:173:TRP:HB3	34:CG:187:ARG:NH1	2.33	0.44
37:CJ:23:VAL:O	37:CJ:27:ILE:HG13	2.18	0.44
39:CL:97:LYS:HG3	39:CL:98:PRO:CD	2.48	0.44
43:CP:3:ARG:HG2	43:CP:9:ILE:CG1	2.48	0.44
49:CV:66:MET:CA	49:CV:67:VAL:CB	2.96	0.44
53:CC:75:C:O2	1:DA:2252:G:N2	2.50	0.44
1:DA:273(E):U:O2'	1:DA:273(F):C:H5'	2.18	0.44
1:DA:322:A:C5	1:DA:340:A:C2	3.06	0.44
1:DA:469:G:C6	29:D7:39:ARG:NH1	2.86	0.44
1:DA:606:U:H4'	1:DA:658:C:H4'	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:608:A:H2'	1:DA:609:A:C8	2.52	0.44
1:DA:784:A:C8	1:DA:792:G:C5	3.06	0.44
1:DA:908:C:OP1	12:DP:22:LYS:CB	2.66	0.44
1:DA:947:G:H2'	1:DA:948:G:C8	2.53	0.44
1:DA:1018:C:O2'	1:DA:1019:U:H5'	2.18	0.44
1:DA:1019:U:H2'	1:DA:1020:A:C8	2.52	0.44
1:DA:1054:A:H2'	1:DA:1055:G:O4'	2.17	0.44
1:DA:1274:A:N3	1:DA:1297:C:H1'	2.33	0.44
1:DA:1479:G:O2'	1:DA:1558:A:H5'	2.18	0.44
1:DA:1487:G:H1	1:DA:1502:C:N4	2.15	0.44
1:DA:1794:U:H1'	1:DA:1900:A:C2	2.52	0.44
1:DA:2311:A:C2	6:DG:44:GLY:HA3	2.52	0.44
5:DF:116:ASP:OD2	11:DO:1:MET:N	2.48	0.44
5:DF:132:VAL:HG13	5:DF:133:ASN:N	2.32	0.44
7:DH:76:VAL:O	7:DH:80:SER:OG	2.30	0.44
7:DH:169:VAL:O	7:DH:170:ARG:HG2	2.18	0.44
9:DM:39:ARG:C	9:DM:41:ASP:H	2.25	0.44
12:DP:111:GLU:O	12:DP:115:MET:HG2	2.18	0.44
15:DR:91:ARG:HD2	15:DR:124:ASP:OD1	2.17	0.44
18:DS:13:SER:HA	18:DS:99:ARG:HB2	2.00	0.44
22:D3:72:ARG:HG3	22:D3:78:TYR:CD1	2.53	0.44
1:AA:592:G:H21	30:A8:4:MET:HE2	1.82	0.43
1:AA:602:G:N2	1:AA:655:A:C8	2.78	0.43
1:AA:654(A):A:H2	1:AA:654(T):A:N1	2.16	0.43
1:AA:795:C:H2'	1:AA:796:C:H6	1.83	0.43
1:AA:1170:G:C2	1:AA:1180:C:C2	3.05	0.43
2:AB:55:U:H2'	2:AB:56:G:O4'	2.18	0.43
3:AD:33:LEU:CD1	3:AD:34:VAL:N	2.81	0.43
3:AD:60:ARG:HD3	3:AD:86:PRO:HB2	2.00	0.43
4:AE:116:VAL:HG11	4:AE:138:PRO:HB3	2.00	0.43
7:AH:86:GLU:HG3	7:AH:165:ALA:CB	2.48	0.43
9:AM:46:VAL:O	9:AM:47:ALA:CB	2.65	0.43
12:AP:109:VAL:HG13	12:AP:113:GLN:HB3	1.99	0.43
15:AR:62:THR:HG22	15:AR:75:ILE:HG23	2.00	0.43
17:A2:4:ILE:O	17:A2:39:LEU:HB2	2.18	0.43
19:AT:40:LYS:HG3	19:AT:51:VAL:HB	2.00	0.43
19:AT:47:PHE:O	19:AT:48:LYS:C	2.61	0.43
22:A3:40:GLN:NE2	22:A3:45:PHE:H	2.12	0.43
26:A4:14:ILE:HA	26:A4:31:ILE:O	2.17	0.43
31:BA:90:C:C5	31:BA:91:C:C5	3.06	0.43
31:BA:262:A:C6	31:BA:263:A:C6	3.05	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:281:G:H8	31:BA:281:G:OP2	2.00	0.43
31:BA:693:G:C4	54:B1:13:U:H1'	2.52	0.43
31:BA:950:U:H2'	31:BA:951:G:C8	2.53	0.43
31:BA:964:A:N3	31:BA:969:A:O2'	2.42	0.43
31:BA:983:A:H3'	31:BA:983:A:N3	2.33	0.43
31:BA:1211:U:H1'	31:BA:1213:A:C2	2.53	0.43
31:BA:1305:G:C5'	51:BX:4:GLY:HA3	2.47	0.43
31:BA:1495:U:H2'	31:BA:1496:C:C6	2.53	0.43
32:BE:8:LYS:H	32:BE:8:LYS:CD	2.31	0.43
33:BF:149:ALA:HA	33:BF:201:TYR:O	2.18	0.43
34:BG:163:GLU:C	34:BG:165:MET:N	2.75	0.43
36:BI:87:ARG:NH1	36:BI:87:ARG:CG	2.73	0.43
37:BJ:38:LEU:HD12	37:BJ:38:LEU:O	2.18	0.43
43:BP:16:ASP:OD2	43:BP:16:ASP:N	2.49	0.43
43:BP:84:ILE:HD12	43:BP:84:ILE:HA	1.87	0.43
31:CA:78:G:H2'	31:CA:79:G:O4'	2.18	0.43
31:CA:340:U:H3	31:CA:349:A:N6	2.14	0.43
31:CA:423:G:N2	31:CA:424:G:C8	2.85	0.43
31:CA:1056:U:H5'	33:CF:163:ALA:HB2	2.00	0.43
31:CA:1159:U:O2	31:CA:1181:G:C6	2.71	0.43
31:CA:1183:A:C2'	31:CA:1184:G:OP1	2.66	0.43
31:CA:1412:C:H2'	31:CA:1413:A:C8	2.53	0.43
32:CE:105:PHE:O	32:CE:106:LYS:C	2.61	0.43
32:CE:158:LEU:HD12	32:CE:158:LEU:H	1.81	0.43
33:CF:8:ILE:C	33:CF:10:PHE:H	2.26	0.43
34:CG:78:LEU:HD22	34:CG:96:LEU:HB3	2.00	0.43
35:CH:105:VAL:C	35:CH:107:ARG:H	2.26	0.43
37:CJ:115:ARG:O	37:CJ:119:ARG:HG3	2.18	0.43
39:CL:37:PHE:HB3	39:CL:43:ALA:HB1	1.99	0.43
42:CO:22:PRO:O	42:CO:23:ALA:C	2.61	0.43
45:CR:3:ILE:HD13	45:CR:3:ILE:N	2.33	0.43
47:CT:45:HIS:CG	47:CT:65:ILE:HD13	2.53	0.43
53:CD:14:A:C8	53:CD:15:G:C8	3.05	0.43
1:DA:603:A:C2	1:DA:655:A:C2	3.05	0.43
1:DA:691:C:O4'	3:DD:43:ARG:NH2	2.51	0.43
1:DA:863:A:O2'	1:DA:864:G:H5'	2.18	0.43
1:DA:1045:A:H2'	1:DA:1045:A:N3	2.33	0.43
1:DA:1142(A):A:C8	1:DA:1144:G:C5	3.05	0.43
1:DA:1180:C:O2'	1:DA:1181:C:H5'	2.17	0.43
1:DA:1300:U:C4'	1:DA:1301:A:H5"	2.45	0.43
1:DA:1342:A:C2	1:DA:1602:U:C4	3.05	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1488:G:C6	1:DA:1489:U:N3	2.86	0.43
1:DA:2086:U:H2'	1:DA:2087:G:C8	2.53	0.43
1:DA:2517:C:C2	1:DA:2542:A:C6	3.05	0.43
1:DA:2558:C:H2'	1:DA:2559:C:O4'	2.19	0.43
3:DD:238:GLY:C	3:DD:239:ARG:O	2.60	0.43
6:DG:86:MET:HA	6:DG:87:PRO:HD3	1.90	0.43
7:DH:103:LEU:HD23	7:DH:115:VAL:O	2.18	0.43
7:DH:119:GLU:O	7:DH:121:ILE:HG12	2.18	0.43
8:DK:2:LYS:HB2	8:DK:39:ALA:HB3	2.00	0.43
8:DK:68:LEU:O	8:DK:71:ILE:N	2.48	0.43
9:DM:33:LEU:CD1	9:DM:38:HIS:CD2	3.01	0.43
9:DM:120:LEU:HD21	9:DM:122:VAL:HG23	1.99	0.43
11:DO:37:GLY:O	11:DO:38:GLN:C	2.61	0.43
12:DP:63:LYS:HB3	12:DP:107:ALA:O	2.18	0.43
15:DR:131:ALA:O	15:DR:134:GLU:HB2	2.18	0.43
16:D1:76:TYR:CD2	16:D1:76:TYR:C	2.96	0.43
17:D2:4:ILE:HA	17:D2:12:TYR:O	2.18	0.43
17:D2:28:GLU:O	17:D2:61:VAL:HG11	2.18	0.43
20:DU:47:LYS:HG2	20:DU:60:PHE:HD1	1.82	0.43
21:DV:103:ARG:O	21:DV:104:PHE:HB2	2.17	0.43
23:DZ:87:PRO:C	23:DZ:89:GLU:N	2.74	0.43
24:DW:17:SER:HB3	24:DW:21:LEU:N	2.33	0.43
25:DX:7:LYS:O	25:DX:9:VAL:HG13	2.17	0.43
28:D6:37:ARG:O	28:D6:49:HIS:HB2	2.18	0.43
1:AA:176:G:C2'	1:AA:177:G:H5'	2.48	0.43
1:AA:185:U:H4'	1:AA:218:A:H4'	2.00	0.43
1:AA:1265:A:H3'	27:A5:19:ARG:NH1	2.32	0.43
1:AA:1735:C:C2'	1:AA:1741:C:H5'	2.48	0.43
1:AA:1799:G:P	1:AA:1799:G:H3'	2.58	0.43
1:AA:2389:G:H5"	1:AA:2390:U:H5'	1.98	0.43
1:AA:2601:C:H2'	1:AA:2603:G:C8	2.53	0.43
1:AA:2751:G:C1'	1:AA:2752:C:OP1	2.67	0.43
1:AA:2819:G:H2'	1:AA:2821:A:N7	2.32	0.43
2:AB:88:C:H2'	2:AB:89:G:O4'	2.18	0.43
10:AN:63:VAL:HG12	10:AN:106:LEU:HD11	2.00	0.43
26:A4:63:TYR:OH	49:BV:41:VAL:O	2.17	0.43
27:A5:47:PRO:O	27:A5:48:GLU:HG3	2.18	0.43
28:A6:47:THR:HG22	28:A6:48:VAL:N	2.23	0.43
31:BA:50:A:H1'	31:BA:52:G:C8	2.53	0.43
31:BA:78:G:H1	31:BA:91:C:H42	1.67	0.43
31:BA:110:C:O2'	46:BS:25:ARG:O	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:273:A:N6	31:BA:274:A:C6	2.86	0.43
31:BA:940:C:H2'	31:BA:941:G:C8	2.52	0.43
31:BA:1273:G:C6	31:BA:1274:G:C4	3.06	0.43
31:BA:1285:A:OP1	31:BA:1285:A:C8	2.71	0.43
32:BE:237:ALA:C	32:BE:239:VAL:N	2.76	0.43
33:BF:32:LEU:HD13	33:BF:59:ARG:NH1	2.34	0.43
33:BF:67:THR:HG23	33:BF:102:ASN:HB2	2.00	0.43
35:BH:33:VAL:HG11	35:BH:109:ILE:HA	1.99	0.43
37:BJ:77:SER:OG	53:BD:33:C:H4'	2.17	0.43
39:BL:95:LYS:HB2	39:BL:95:LYS:HE2	1.69	0.43
39:BL:126:SER:C	39:BL:128:ARG:H	2.26	0.43
40:BM:48:THR:HA	40:BM:62:HIS:CB	2.39	0.43
42:BO:67:ILE:CD1	42:BO:74:LEU:HD12	2.49	0.43
43:BP:30:ALA:O	43:BP:32:GLU:N	2.51	0.43
44:BQ:23:ARG:O	44:BQ:24:CYS:C	2.60	0.43
31:CA:89:U:C4'	31:CA:90:C:OP1	2.66	0.43
31:CA:191:G:C6	31:CA:192:U:C4	3.06	0.43
31:CA:560:U:H5'	31:CA:566:G:N2	2.32	0.43
31:CA:797:C:O2'	31:CA:798:G:H5'	2.17	0.43
31:CA:946:A:C2	31:CA:1236:A:C2	3.06	0.43
32:CE:109:SER:O	32:CE:111:ARG:N	2.50	0.43
32:CE:115:LEU:HD21	32:CE:153:ARG:NH1	2.33	0.43
32:CE:239:VAL:CG1	32:CE:240:GLN:HG3	2.47	0.43
37:CJ:12:LEU:HD21	37:CJ:28:ASN:ND2	2.33	0.43
40:CM:23:ILE:HA	40:CM:26:ALA:HB3	2.00	0.43
42:CO:61:TYR:O	42:CO:62:GLU:HB3	2.19	0.43
43:CP:33:ALA:HA	43:CP:59:TYR:HE2	1.83	0.43
44:CQ:12:ARG:NH2	44:CQ:14:PRO:HG2	2.33	0.43
49:CV:65:ASN:O	49:CV:65:ASN:ND2	2.51	0.43
50:CW:97:ALA:O	50:CW:99:LEU:N	2.44	0.43
53:CC:17:C:O2	53:CC:17:C:C2'	2.66	0.43
53:CC:28:U:O2	53:CC:45:A:C2	2.71	0.43
1:DA:57:C:H2'	1:DA:58:G:O5'	2.18	0.43
1:DA:648:G:O2'	1:DA:649:G:H5'	2.18	0.43
1:DA:797:C:H2'	1:DA:798:G:O4'	2.18	0.43
1:DA:848:G:H1'	1:DA:933:A:H8	1.83	0.43
1:DA:1055:G:N3	1:DA:1085:A:C2	2.86	0.43
1:DA:1449:A:H5'	1:DA:1449(A):G:OP2	2.18	0.43
1:DA:1758:G:C2	1:DA:2696:U:H5'	2.53	0.43
1:DA:1879:C:H2'	1:DA:1880:C:O4'	2.17	0.43
1:DA:1963:U:O2	1:DA:1963:U:C2'	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2115:G:H2'	1:DA:2116:G:N7	2.34	0.43
1:DA:2126:A:C1'	1:DA:2127:G:H5"	2.47	0.43
1:DA:2522:U:H2'	1:DA:2523:G:H5'	1.99	0.43
4:DE:38:THR:O	4:DE:40:GLU:N	2.51	0.43
6:DG:88:ILE:HG23	6:DG:88:ILE:O	2.18	0.43
8:DK:68:LEU:O	8:DK:71:ILE:HG22	2.18	0.43
12:DP:1:MET:CE	12:DP:1:MET:H3	2.27	0.43
12:DP:133:ARG:O	12:DP:133:ARG:HD3	2.18	0.43
18:DS:20:VAL:HG22	18:DS:47:VAL:HG21	1.99	0.43
20:DU:74:PRO:HB2	20:DU:101:LYS:NZ	2.33	0.43
21:DV:105:VAL:CG2	21:DV:106:GLY:H	2.17	0.43
24:DW:62:THR:O	24:DW:66:GLU:HG3	2.18	0.43
25:DX:43:ILE:O	25:DX:47:VAL:HG23	2.18	0.43
26:D4:40:HIS:N	26:D4:41:PRO:HD3	2.32	0.43
28:D6:48:VAL:O	28:D6:49:HIS:ND1	2.50	0.43
1:AA:309:G:C5	1:AA:330:A:C6	3.06	0.43
1:AA:592:G:N3	30:A8:4:MET:CE	2.80	0.43
1:AA:618:G:H2'	1:AA:618(A):C:O4'	2.18	0.43
1:AA:654(E):C:H42	1:AA:654(P):G:H1	1.65	0.43
1:AA:1170:G:N2	1:AA:1180:C:C2	2.86	0.43
1:AA:1215:G:C4	1:AA:1216:G:C8	3.06	0.43
1:AA:1535:U:H3'	1:AA:1536:A:C5'	2.43	0.43
1:AA:1793:C:O2	1:AA:1900:A:H2	2.01	0.43
1:AA:2371:G:H1'	28:A6:45:LYS:HD2	2.01	0.43
1:AA:2636:U:OP1	4:AE:80:GLU:N	2.48	0.43
1:AA:2648:C:H2'	1:AA:2649:U:C6	2.53	0.43
2:AB:79:C:O5'	2:AB:79:C:H6	2.02	0.43
3:AD:70:TRP:O	3:AD:73:VAL:HG23	2.18	0.43
3:AD:96:HIS:CD2	3:AD:102:LYS:HE2	2.54	0.43
5:AF:155:LEU:HB2	5:AF:189:THR:HG21	2.00	0.43
8:AK:2:LYS:HA	8:AK:20:ASP:HA	1.99	0.43
8:AK:3:VAL:HG12	8:AK:38:LEU:HA	1.99	0.43
8:AK:133:HIS:CB	8:AK:134:PRO:CD	2.96	0.43
9:AM:42:TRP:CD1	16:A1:63:VAL:HG11	2.52	0.43
10:AN:7:TYR:OH	10:AN:44:LYS:HG3	2.18	0.43
11:AO:1:MET:HA	11:AO:1:MET:HE3	2.00	0.43
11:AO:10:PRO:O	11:AO:11:GLY:O	2.36	0.43
11:AO:15:ARG:NH1	11:AO:15:ARG:CB	2.77	0.43
11:AO:83:VAL:O	11:AO:114:ILE:HA	2.18	0.43
14:AQ:58:LEU:H	14:AQ:58:LEU:CD2	2.29	0.43
16:A1:27:LEU:C	16:A1:29:SER:N	2.75	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:A2:35:LEU:HB2	17:A2:37:VAL:CG2	2.48	0.43
19:AT:87:GLN:HE21	19:AT:87:GLN:HB2	1.59	0.43
28:A6:15:GLU:CG	28:A6:16:CYS:H	2.29	0.43
28:A6:30:THR:CA	28:A6:31:PRO:C	2.91	0.43
31:BA:438:G:O2'	31:BA:439:A:H5"	2.17	0.43
31:BA:817:C:H4'	31:BA:818:G:OP1	2.17	0.43
31:BA:892:A:O2'	31:BA:1415:G:H4'	2.18	0.43
31:BA:1061:G:OP2	33:BF:2:GLY:O	2.36	0.43
31:BA:1160:G:C6	31:BA:1177:G:N2	2.86	0.43
32:BE:48:MET:HE3	32:BE:48:MET:HB3	1.92	0.43
32:BE:239:VAL:C	32:BE:240:GLN:HG2	2.42	0.43
33:BF:22:TRP:CH2	33:BF:32:LEU:HB3	2.53	0.43
36:BI:22:GLU:O	36:BI:26:ILE:HG13	2.18	0.43
37:BJ:78:ARG:HH11	37:BJ:80:VAL:HG13	1.83	0.43
41:BN:32:ILE:HD11	41:BN:68:ALA:HB1	2.00	0.43
49:BV:41:VAL:HG12	49:BV:44:MET:CB	2.47	0.43
31:CA:186:C:H42	31:CA:191:G:H1	1.64	0.43
31:CA:926:G:C6	31:CA:1505:G:C5	3.06	0.43
31:CA:1028(A):C:N4	31:CA:1028(B):C:H41	2.16	0.43
31:CA:1129:C:N3	31:CA:1139:G:C2	2.86	0.43
31:CA:1330:U:O4	31:CA:1331:G:C2	2.71	0.43
35:CH:100:VAL:HG22	35:CH:118:ILE:HG22	2.00	0.43
43:CP:70:LEU:HD22	43:CP:70:LEU:C	2.43	0.43
1:DA:818:G:H5'	1:DA:839:U:OP1	2.19	0.43
1:DA:948:G:C2	1:DA:970:C:O2	2.71	0.43
1:DA:2126:A:H4'	1:DA:2127:G:OP1	2.18	0.43
1:DA:2154:G:H2'	1:DA:2155:G:H8	1.82	0.43
1:DA:2286:A:H4'	1:DA:2287:A:O4'	2.18	0.43
2:DB:65:C:H41	2:DB:108:C:HO2'	1.65	0.43
4:DE:201:THR:HG22	4:DE:202:LYS:N	2.30	0.43
5:DF:123:LEU:O	5:DF:123:LEU:HD12	2.18	0.43
7:DH:6:ARG:HE	7:DH:54:ARG:HH12	1.66	0.43
11:DO:143:GLY:C	11:DO:144:GLU:HG3	2.44	0.43
12:DP:63:LYS:HD2	12:DP:63:LYS:HA	1.66	0.43
16:D1:62:ILE:CD1	16:D1:93:LYS:HG2	2.48	0.43
17:D2:47:VAL:O	17:D2:47:VAL:HG22	2.18	0.43
17:D2:85:LYS:HD2	17:D2:86:GLY:N	2.28	0.43
20:DU:20:TYR:CE2	20:DU:42:VAL:N	2.86	0.43
21:DV:106:GLY:HA3	21:DV:140:ASP:HB3	2.00	0.43
23:DZ:88:LYS:O	23:DZ:93:GLU:HG3	2.18	0.43
24:DW:33:MET:O	24:DW:37:PHE:HD1	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DW:47:ASN:ND2	24:DW:47:ASN:N	2.65	0.43
25:DX:13:ILE:H	25:DX:13:ILE:HD12	1.84	0.43
26:D4:4:GLY:C	26:D4:6:HIS:H	2.26	0.43
28:D6:12:GLU:O	28:D6:52:VAL:HG12	2.18	0.43
1:AA:733:G:C8	1:AA:761:A:N6	2.87	0.43
1:AA:993:G:H4'	17:A2:70:ILE:HD11	2.01	0.43
1:AA:1077:A:N3	1:AA:1077:A:C2'	2.81	0.43
1:AA:1331:A:O2'	1:AA:1332:G:H8	2.01	0.43
1:AA:1442:G:C2	1:AA:1550:C:O2	2.72	0.43
1:AA:1920:C:O2	1:AA:1920:C:H2'	2.18	0.43
1:AA:2180:U:H2'	1:AA:2181:G:O4'	2.18	0.43
1:AA:2846:G:H2'	1:AA:2847:U:O4'	2.18	0.43
2:AB:11:C:H5"	2:AB:12:C:OP2	2.18	0.43
4:AE:38:THR:CB	4:AE:39:PRO:HD2	2.38	0.43
9:AM:26:LEU:O	9:AM:30:ILE:HG13	2.18	0.43
14:AQ:89:ARG:HG3	14:AQ:92:TYR:O	2.18	0.43
16:A1:83:LEU:HA	16:A1:86:ALA:HB3	1.99	0.43
18:AS:12:ILE:HG13	18:AS:42:ARG:NH1	2.33	0.43
24:AW:10:LEU:O	24:AW:14:ARG:HG3	2.17	0.43
24:AW:31:GLU:HB2	24:AW:53:LEU:HD11	2.00	0.43
31:BA:49:U:H1'	31:BA:50:A:OP1	2.19	0.43
31:BA:81:G:H2'	31:BA:82:U:O4'	2.19	0.43
31:BA:142:G:C6	31:BA:143:A:C6	3.07	0.43
31:BA:223:U:C4	31:BA:224:C:C5	3.06	0.43
31:BA:439:A:C2'	31:BA:440:A:O5'	2.66	0.43
31:BA:443:C:H2'	31:BA:444:C:C6	2.53	0.43
31:BA:939:G:H2'	31:BA:940:C:H6	1.83	0.43
31:BA:1129:C:C4	31:BA:1139:G:C6	3.06	0.43
31:BA:1282:C:OP2	31:BA:1282:C:H6	2.01	0.43
31:BA:1362(A):C:H5'	31:BA:1363:A:O5'	2.19	0.43
32:BE:170:GLU:HA	32:BE:172:ILE:HD12	1.99	0.43
33:BF:90:GLU:HA	33:BF:93:LYS:CB	2.49	0.43
34:BG:3:ARG:HG2	34:BG:118:ARG:CZ	2.48	0.43
34:BG:79:PHE:CE1	34:BG:204:ILE:HG12	2.52	0.43
39:BL:18:PHE:HB2	39:BL:62:TYR:O	2.18	0.43
40:BM:65:LEU:HD12	44:BQ:55:GLY:O	2.18	0.43
41:BN:32:ILE:HD12	41:BN:72:ALA:HB2	2.00	0.43
42:BO:50:ARG:CB	42:BO:90:LEU:HD11	2.48	0.43
43:BP:39:ILE:HD12	43:BP:56:LEU:HD21	1.99	0.43
43:BP:87:TYR:C	43:BP:89:GLY:N	2.76	0.43
53:BC:18:C:O2'	53:BC:19:G:H5"	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BD:52:C:N3	53:BD:64:G:N2	2.54	0.43
31:CA:149:A:H2'	31:CA:150:C:C6	2.54	0.43
31:CA:383:A:H8	31:CA:383:A:O5'	2.01	0.43
31:CA:947:G:H2'	31:CA:948:C:O4'	2.18	0.43
31:CA:960:U:O2	31:CA:960:U:C2'	2.65	0.43
31:CA:1106:G:H4'	33:CF:171:GLY:O	2.17	0.43
31:CA:1261:A:C6	31:CA:1262:C:C2	3.07	0.43
31:CA:1423:G:H2'	31:CA:1424:C:C6	2.54	0.43
32:CE:73:THR:HG23	32:CE:170:GLU:OE1	2.18	0.43
33:CF:164:ARG:CG	33:CF:165:THR:H	2.26	0.43
34:CG:13:ARG:C	34:CG:15:GLU:N	2.76	0.43
35:CH:61:TYR:HA	35:CH:64:ARG:HG3	1.99	0.43
39:CL:5:TYR:OH	39:CL:16:ARG:HG2	2.17	0.43
39:CL:17:VAL:HA	39:CL:63:ILE:HG12	2.00	0.43
1:DA:55:G:C2	1:DA:116:C:C2	3.06	0.43
1:DA:77:C:OP1	24:DW:59:ARG:HD3	2.19	0.43
1:DA:197:A:H62	1:DA:2430:A:H2'	1.83	0.43
1:DA:273(C):C:H5'	1:DA:273(D):C:OP2	2.18	0.43
1:DA:383:U:O2	1:DA:385:C:N4	2.52	0.43
1:DA:466:A:H2	1:DA:795:C:O2	2.01	0.43
1:DA:612:G:N2	1:DA:617:G:C5	2.87	0.43
1:DA:893:C:O2'	1:DA:894:C:H5	2.02	0.43
1:DA:977:G:C6	1:DA:987:G:C6	3.06	0.43
1:DA:1149:G:C2	1:DA:1150:C:N3	2.86	0.43
1:DA:1498:C:O4'	1:DA:1577:C:H4'	2.18	0.43
1:DA:2115:G:H2'	1:DA:2116:G:C5	2.53	0.43
1:DA:2377:A:H2'	1:DA:2378:A:C8	2.53	0.43
1:DA:2389:G:H5"	1:DA:2390:U:O4'	2.18	0.43
1:DA:2732:G:H3'	1:DA:2733:A:O4'	2.18	0.43
3:DD:27:THR:O	3:DD:28:GLU:C	2.61	0.43
4:DE:7:VAL:CG2	15:DR:1:MET:HE3	2.48	0.43
4:DE:31:CYS:HB3	4:DE:49:LEU:HB2	1.99	0.43
6:DG:82:LEU:HD21	6:DG:88:ILE:HG21	2.00	0.43
6:DG:143:GLU:H	6:DG:143:GLU:CD	2.25	0.43
8:DK:10:GLU:CD	8:DK:11:ASN:HB2	2.43	0.43
8:DK:68:LEU:O	8:DK:70:GLU:N	2.51	0.43
11:DO:36:LYS:NZ	11:DO:39:LYS:HB3	2.33	0.43
14:DQ:104:GLY:C	14:DQ:106:ARG:H	2.25	0.43
15:DR:82:LEU:H	15:DR:82:LEU:HD12	1.82	0.43
16:D1:90:VAL:HG12	16:D1:91:ASP:H	1.82	0.43
20:DU:49:VAL:O	20:DU:51:VAL:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:34:GLU:OE2	26:D4:35:VAL:HG23	2.19	0.43
30:D8:14:VAL:CG1	30:D8:22:VAL:HG13	2.47	0.43
1:AA:165:U:H3'	1:AA:165:U:O2	2.18	0.43
1:AA:222:A:C1'	1:AA:223:A:OP1	2.67	0.43
1:AA:318:C:H2'	1:AA:319:C:H6	1.83	0.43
1:AA:775:G:C4	1:AA:794:G:C8	3.07	0.43
1:AA:848:G:H2'	1:AA:849:A:C8	2.53	0.43
1:AA:856:C:H5'	22:A3:27:GLU:OE2	2.18	0.43
1:AA:991:C:H2'	1:AA:992:C:H6	1.83	0.43
1:AA:1014:U:C2'	1:AA:1015:G:H5"	2.44	0.43
1:AA:1055:G:H1	1:AA:1104:C:N4	2.14	0.43
1:AA:1090:U:C2	1:AA:1102:C:O2	2.72	0.43
1:AA:1354:A:H2'	1:AA:1355:G:O4'	2.19	0.43
1:AA:1654:A:OP1	13:A0:1:MET:N	2.36	0.43
1:AA:1665:A:H1'	10:AN:1:MET:HG3	2.00	0.43
1:AA:1797:C:C3'	1:AA:1798:U:H5'	2.48	0.43
1:AA:2282:G:H4'	1:AA:2389:G:O2'	2.18	0.43
1:AA:2419:U:P	30:A8:41:ILE:HD12	2.58	0.43
1:AA:2475:C:H5"	1:AA:2476:A:OP2	2.18	0.43
1:AA:2514:U:H2'	1:AA:2515:C:C6	2.53	0.43
1:AA:2811:G:OP1	4:AE:61:ARG:HG2	2.19	0.43
4:AE:120:TRP:CD2	4:AE:155:LYS:HD3	2.53	0.43
4:AE:144:ARG:HB3	4:AE:145:LYS:H	1.41	0.43
6:AG:130:ASN:OD1	6:AG:160:VAL:HG13	2.18	0.43
7:AH:169:VAL:HG13	7:AH:170:ARG:N	2.33	0.43
8:AK:99:GLU:OE2	8:AK:103:ARG:NH1	2.52	0.43
10:AN:22:ILE:HD12	10:AN:22:ILE:HA	1.82	0.43
11:AO:144:GLU:HA	11:AO:145:PRO:HD3	1.75	0.43
18:AS:29:LEU:HD13	18:AS:69:LEU:HD13	2.00	0.43
25:AX:22:ALA:C	25:AX:24:LYS:N	2.76	0.43
27:A5:40:LYS:CD	27:A5:46:CYS:HB3	2.49	0.43
31:BA:116:A:C8	31:BA:116:A:OP2	2.72	0.43
31:BA:147:G:C2	31:BA:148:G:C4	3.06	0.43
31:BA:475:G:C4	31:BA:476:G:C8	3.07	0.43
31:BA:691:G:H1'	31:BA:696:A:N6	2.33	0.43
31:BA:972:C:O2'	40:BM:55:LYS:HG2	2.18	0.43
31:BA:1032:A:H3'	31:BA:1032(A):G:C5'	2.47	0.43
31:BA:1032(B):G:C6	31:BA:1033:G:C6	3.07	0.43
31:BA:1176:A:N6	31:BA:1177:G:C4	2.87	0.43
33:BF:8:ILE:C	33:BF:10:PHE:H	2.25	0.43
41:BN:108:ILE:H	48:BU:87:ARG:HD2	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BO:90:LEU:O	42:BO:93:VAL:HG13	2.17	0.43
44:BQ:25:VAL:HG13	44:BQ:38:GLY:O	2.19	0.43
50:BW:54:LYS:HG3	50:BW:57:ARG:NH2	2.34	0.43
31:CA:963:G:C2	40:CM:55:LYS:NZ	2.86	0.43
31:CA:1002:G:N1	31:CA:1038:C:N4	2.51	0.43
31:CA:1179:A:OP2	39:CL:93:ARG:NH2	2.48	0.43
35:CH:96:PRO:HA	35:CH:117:ASP:OD2	2.18	0.43
50:CW:26:ASN:HB3	50:CW:71:THR:OG1	2.18	0.43
50:CW:33:ILE:HD13	50:CW:62:LEU:HB3	2.01	0.43
1:DA:946:G:C2'	1:DA:947:G:O5'	2.66	0.43
1:DA:1106:G:H2'	1:DA:1107:G:O4'	2.18	0.43
1:DA:1319:G:C6	1:DA:1320:C:N4	2.86	0.43
1:DA:1341:U:O4	19:DT:16:LYS:HE2	2.19	0.43
1:DA:2119:A:N6	1:DA:2170:A:C8	2.85	0.43
1:DA:2134:A:N6	1:DA:2157:G:H1'	2.34	0.43
1:DA:2494:G:H2'	1:DA:2495:G:H8	1.83	0.43
1:DA:2689:U:C3'	1:DA:2690:C:H5'	2.48	0.43
4:DE:30:PRO:HD3	4:DE:180:ASN:OD1	2.18	0.43
11:DO:147:LEU:HD23	11:DO:148:LEU:H	1.83	0.43
13:D0:75:LEU:C	13:D0:75:LEU:HD13	2.43	0.43
16:D1:92:ARG:HG3	16:D1:94:ASN:HB3	2.00	0.43
26:D4:8:LYS:HD2	26:D4:8:LYS:HA	1.86	0.43
26:D4:53:GLU:OE2	26:D4:58:ARG:HB2	2.18	0.43
28:D6:41:PRO:HD2	28:D6:46:HIS:N	2.34	0.43
1:AA:537:C:O2	1:AA:537:C:H2'	2.19	0.43
1:AA:663:G:H2'	1:AA:664:C:O4'	2.19	0.43
1:AA:1188:U:H4'	17:A2:79:VAL:CG2	2.47	0.43
1:AA:1420:U:H3'	1:AA:1420:U:H6	1.83	0.43
1:AA:1952:A:C6	10:AN:22:ILE:HD11	2.53	0.43
1:AA:2228:G:OP1	3:AD:261:LYS:NZ	2.38	0.43
1:AA:2329:G:H2'	1:AA:2330:G:C8	2.54	0.43
1:AA:2461:C:H2'	1:AA:2462:U:C6	2.54	0.43
1:AA:2528:U:H2'	1:AA:2530:A:O5'	2.18	0.43
1:AA:2532:G:O2'	1:AA:2657:A:N1	2.46	0.43
4:AE:35:GLN:HG2	4:AE:37:ARG:HG2	2.01	0.43
5:AF:24:LEU:HA	5:AF:25:PRO:HD2	1.74	0.43
5:AF:167:ALA:O	5:AF:168:ARG:C	2.61	0.43
6:AG:77:ILE:O	6:AG:81:LYS:O	2.36	0.43
9:AM:39:ARG:HA	9:AM:40:PRO:HD3	1.85	0.43
11:AO:9:ASN:CB	11:AO:10:PRO:CD	2.93	0.43
11:AO:61:ARG:HG3	30:A8:27:THR:CG2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:A0:48:VAL:O	13:A0:49:ASP:C	2.62	0.43
16:A1:24:TYR:HB2	16:A1:29:SER:HB3	2.01	0.43
18:AS:55:ALA:O	18:AS:56:ALA:C	2.62	0.43
18:AS:70:TYR:CD2	18:AS:70:TYR:N	2.85	0.43
26:A4:38:LYS:N	26:A4:38:LYS:HD2	2.27	0.43
31:BA:324:G:OP1	50:BW:70:SER:HB2	2.18	0.43
31:BA:411:A:C8	31:BA:413:G:H1'	2.54	0.43
31:BA:428:G:O4'	31:BA:430:A:C8	2.72	0.43
31:BA:792:A:O2'	31:BA:794:A:N7	2.47	0.43
34:BG:151:LYS:HG2	34:BG:151:LYS:O	2.18	0.43
37:BJ:59:LEU:C	37:BJ:59:LEU:HD23	2.44	0.43
37:BJ:108:ALA:HA	37:BJ:111:ARG:HD2	2.01	0.43
38:BK:94:TYR:HD1	38:BK:132:GLU:HA	1.83	0.43
43:BP:84:ILE:HG13	49:BV:74:PHE:HE1	1.82	0.43
47:BT:48:GLU:O	47:BT:49:GLU:C	2.61	0.43
52:BB:19:G:C4'	52:BB:20:U:OP2	2.67	0.43
52:BB:36:A:H2'	52:BB:37:G:O5'	2.18	0.43
31:CA:527:G:C2'	31:CA:528:C:H5'	2.49	0.43
31:CA:812:C:C1'	31:CA:813:U:OP2	2.64	0.43
31:CA:848:C:O2'	31:CA:849:C:H5'	2.18	0.43
31:CA:1097:C:O2'	31:CA:1169:A:N3	2.42	0.43
31:CA:1139:G:N2	31:CA:1143:G:C6	2.86	0.43
31:CA:1216:G:H2'	31:CA:1217:C:C6	2.53	0.43
31:CA:1235:U:H2'	31:CA:1236:A:O4'	2.19	0.43
31:CA:1309:G:C6	31:CA:1329:A:C2	3.07	0.43
31:CA:1321:C:H4'	43:CP:87:TYR:CZ	2.54	0.43
31:CA:1378:C:C5	31:CA:1379:G:N9	2.87	0.43
31:CA:1525:G:OP1	41:CN:120:ARG:NH2	2.52	0.43
32:CE:8:LYS:HB3	32:CE:9:GLU:H	1.56	0.43
32:CE:21:ARG:C	32:CE:23:ARG:H	2.26	0.43
32:CE:121:LEU:HD23	32:CE:121:LEU:O	2.19	0.43
43:CP:8:GLU:OE1	43:CP:22:ILE:HG12	2.19	0.43
43:CP:22:ILE:HB	43:CP:25:ILE:HG13	2.01	0.43
48:CU:29:PHE:N	48:CU:29:PHE:HD2	2.16	0.43
53:CD:18:C:H5"	53:CD:19:G:OP1	2.18	0.43
1:DA:269:U:O2	1:DA:269:U:H2'	2.18	0.43
1:DA:531:C:C5	1:DA:2035:G:C2	3.07	0.43
1:DA:997:G:N2	1:DA:998:C:C2	2.87	0.43
1:DA:1012:U:C4	1:DA:1143:A:C6	3.02	0.43
1:DA:1071:G:N2	1:DA:1090:U:C5	2.86	0.43
1:DA:1288:U:H4'	1:DA:1289:C:OP2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1438:U:O2'	1:DA:1439:A:H5'	2.19	0.43
1:DA:1907:G:O2'	1:DA:1908:C:H5'	2.18	0.43
1:DA:2157:G:C2'	1:DA:2158:A:H8	2.28	0.43
1:DA:2472:G:C4	1:DA:2475:C:N4	2.87	0.43
2:DB:97:G:H2'	2:DB:98:G:O4'	2.17	0.43
3:DD:105:ILE:HD13	3:DD:105:ILE:HA	1.67	0.43
4:DE:9:VAL:HG12	15:DR:1:MET:HE1	2.00	0.43
4:DE:51:PHE:O	4:DE:74:PRO:HB2	2.18	0.43
5:DF:66:PRO:O	5:DF:67:GLN:CB	2.53	0.43
6:DG:35:GLU:O	6:DG:35:GLU:CG	2.66	0.43
7:DH:16:SER:O	7:DH:17:VAL:HB	2.18	0.43
7:DH:54:ARG:HB3	7:DH:65:HIS:CD2	2.53	0.43
15:DR:90:GLN:NE2	15:DR:121:ILE:HD11	2.34	0.43
17:D2:85:LYS:HG3	17:D2:86:GLY:N	2.33	0.43
20:DU:81:LYS:NZ	20:DU:97:ARG:NH1	2.66	0.43
21:DV:108:PRO:HG2	21:DV:109:ALA:H	1.84	0.43
22:D3:31:VAL:HG22	22:D3:65:GLY:O	2.17	0.43
29:D7:11:LYS:O	29:D7:11:LYS:HD3	2.19	0.43
1:AA:91:A:H2'	1:AA:92:G:O4'	2.19	0.43
1:AA:889:C:H5"	1:AA:890:A:OP2	2.19	0.43
1:AA:1063:G:C6	1:AA:1064:C:C4	3.06	0.43
1:AA:1124:C:H2'	1:AA:1125:G:O4'	2.19	0.43
1:AA:2119:A:N6	1:AA:2170:A:N6	2.67	0.43
1:AA:2751:G:C8	1:AA:2751:G:O5'	2.72	0.43
1:AA:2854:G:H2'	1:AA:2855:C:C6	2.54	0.43
7:AH:98:LEU:HB2	7:AH:125:VAL:HG21	2.01	0.43
11:AO:100:LEU:HB3	11:AO:106:LEU:HB2	2.00	0.43
21:AV:73:GLN:HB3	21:AV:87:ASP:OD1	2.18	0.43
21:AV:101:PRO:HA	21:AV:122:ARG:O	2.18	0.43
21:AV:118:GLN:HG2	21:AV:173:ALA:HB3	2.00	0.43
25:AX:12:PRO:HA	25:AX:15:TYR:HD1	1.84	0.43
26:A4:14:ILE:HG23	26:A4:15:ILE:N	2.34	0.43
27:A5:36:CYS:SG	27:A5:48:GLU:O	2.76	0.43
28:A6:14:THR:N	28:A6:50:ARG:O	2.51	0.43
28:A6:29:ASN:C	28:A6:32:ASN:HB3	2.44	0.43
31:BA:55:A:C6	8:DK:89:TYR:CD1	3.06	0.43
31:BA:76:G:C6	31:BA:77:C:C2	3.06	0.43
31:BA:419:C:H42	31:BA:424:G:H1	1.67	0.43
31:BA:695:A:H2'	31:BA:696:A:C8	2.54	0.43
31:BA:947:G:H2'	31:BA:948:C:O4'	2.18	0.43
31:BA:1176:A:N6	31:BA:1177:G:C2	2.85	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1258:G:C6	31:BA:1259:C:N4	2.87	0.43
33:BF:92:ALA:HB2	33:BF:99:VAL:HG22	2.01	0.43
33:BF:154:SER:OG	33:BF:165:THR:HB	2.18	0.43
36:BI:22:GLU:OE1	36:BI:82:ARG:NH2	2.50	0.43
40:BM:6:ILE:HG12	40:BM:72:VAL:O	2.18	0.43
46:BS:75:ARG:C	46:BS:77:ALA:H	2.27	0.43
53:BD:8:U:H5"	53:BD:9:G:P	2.59	0.43
31:CA:16:A:N1	31:CA:919:A:H2	2.17	0.43
31:CA:265:G:H5'	47:CT:64:PRO:O	2.18	0.43
31:CA:303:A:H2'	31:CA:304:U:O4'	2.19	0.43
31:CA:940:C:C2	31:CA:941:G:C8	3.07	0.43
31:CA:967:C:H2'	31:CA:968:A:C8	2.53	0.43
31:CA:1011:G:C2	31:CA:1019:C:O2	2.72	0.43
31:CA:1053:G:O6	31:CA:1199:U:H2'	2.19	0.43
31:CA:1147:C:O2	39:CL:16:ARG:NE	2.52	0.43
31:CA:1392:G:O2'	31:CA:1393:U:H5'	2.19	0.43
32:CE:12:GLU:O	32:CE:13:ALA:C	2.62	0.43
33:CF:23:TYR:CD2	33:CF:24:ALA:N	2.86	0.43
38:CK:73:ASP:N	38:CK:74:PRO:HD3	2.34	0.43
40:CM:40:LEU:HG	40:CM:41:PRO:HD2	2.00	0.43
40:CM:55:LYS:O	40:CM:56:HIS:CG	2.71	0.43
44:CQ:23:ARG:HB2	44:CQ:28:GLY:O	2.18	0.43
45:CR:35:ARG:NH2	45:CR:59:MET:HE2	2.33	0.43
49:CV:48:THR:HG22	49:CV:61:TYR:HA	2.01	0.43
52:CB:26:C:C5	52:CB:27:G:N2	2.87	0.43
1:DA:340:A:H2'	1:DA:341:G:H5'	2.00	0.43
1:DA:392:C:H5"	1:DA:409:C:H5"	2.01	0.43
1:DA:581:C:C2	1:DA:582:G:C8	3.07	0.43
1:DA:1288:U:C2	1:DA:1327:C:O2	2.72	0.43
1:DA:1332:G:C2	1:DA:1609:A:O2'	2.55	0.43
1:DA:1337:G:H2'	1:DA:1338:G:C8	2.53	0.43
1:DA:2189:U:C2'	1:DA:2190:G:H5'	2.49	0.43
1:DA:2472:G:H5"	1:DA:2473:U:H5"	2.00	0.43
1:DA:2517:C:C6	1:DA:2542:A:N1	2.87	0.43
3:DD:30:GLU:CD	3:DD:63:ARG:HH21	2.26	0.43
3:DD:65:ILE:HD11	3:DD:67:PHE:CZ	2.54	0.43
4:DE:103:ASP:OD2	4:DE:168:MET:HE3	2.19	0.43
4:DE:169:ASN:HA	4:DE:201:THR:HG21	2.00	0.43
6:DG:101:ILE:HD12	6:DG:102:PHE:N	2.34	0.43
6:DG:165:THR:OG1	6:DG:168:GLU:HG3	2.19	0.43
9:DM:45:ASN:HD22	9:DM:45:ASN:N	2.08	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:DP:23:GLY:HA2	12:DP:24:GLY:HA3	1.74	0.43
12:DP:132:VAL:CG1	12:DP:133:ARG:N	2.81	0.43
14:DQ:27:SER:HA	14:DQ:88:ASP:CB	2.49	0.43
14:DQ:106:ARG:H	14:DQ:106:ARG:HG3	1.35	0.43
17:D2:66:ARG:H	17:D2:66:ARG:HG2	1.55	0.43
19:DT:35:THR:O	19:DT:39:ILE:HG13	2.18	0.43
25:DX:30:ARG:H	25:DX:33:GLN:NE2	2.16	0.43
30:D8:61:LEU:CD1	30:D8:62:LEU:H	2.32	0.43
1:AA:10:G:C2	1:AA:2629:A:C2	3.06	0.43
1:AA:205:G:O2'	1:AA:206:U:P	2.77	0.43
1:AA:458:G:O2'	1:AA:469:G:O6	2.26	0.43
1:AA:536:A:P	16:A1:53:ARG:HH11	2.41	0.43
1:AA:747:U:C2	27:A5:2:ALA:N	2.87	0.43
1:AA:817:C:O2'	1:AA:839:U:H5"	2.18	0.43
1:AA:818:G:H4'	1:AA:838:C:O3'	2.18	0.43
1:AA:819:A:C4	1:AA:1189:A:C2	3.06	0.43
1:AA:973:A:H8	1:AA:973:A:OP1	2.02	0.43
1:AA:1386:C:H2'	1:AA:1387:C:H6	1.83	0.43
1:AA:1419:A:O2'	1:AA:1421:G:N7	2.39	0.43
1:AA:1471:A:H2'	1:AA:1471:A:N3	2.33	0.43
1:AA:1535:U:C4	1:AA:1537:C:H1'	2.53	0.43
1:AA:2016:U:H1'	27:A5:6:VAL:HG13	2.01	0.43
1:AA:2146:C:H4'	1:AA:2147:G:C5	2.54	0.43
1:AA:2489:G:C2'	1:AA:2490:G:H5'	2.48	0.43
1:AA:2572:A:H8	4:AE:144:ARG:HB3	1.84	0.43
1:AA:2894:G:H2'	1:AA:2895:U:OP2	2.18	0.43
2:AB:94:C:H2'	2:AB:95:U:C6	2.49	0.43
3:AD:18:VAL:HG12	3:AD:19:ALA:N	2.34	0.43
3:AD:28:GLU:CB	3:AD:29:PRO:HD2	2.28	0.43
3:AD:35:LYS:HA	3:AD:64:ILE:HG22	2.01	0.43
6:AG:103:LEU:HD23	6:AG:106:LEU:HD23	2.00	0.43
7:AH:154:PRO:HB2	7:AH:155:SER:H	1.48	0.43
8:AK:44:LEU:HD12	8:AK:44:LEU:HA	1.83	0.43
11:AO:138:LEU:C	11:AO:140:ALA:N	2.75	0.43
12:AP:31:ASP:O	12:AP:133:ARG:O	2.37	0.43
12:AP:79:LEU:O	12:AP:81:VAL:HG13	2.19	0.43
12:AP:115:MET:HG2	12:AP:131:ILE:HG21	2.00	0.43
17:A2:22:VAL:CG1	17:A2:23:GLU:N	2.81	0.43
17:A2:91:TYR:CD1	17:A2:91:TYR:C	2.96	0.43
20:AU:88:LYS:HB2	20:AU:90:LEU:HD22	2.00	0.43
23:AZ:91:LYS:O	23:AZ:92:LYS:C	2.62	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:A5:49:CYS:SG	27:A5:60:VAL:HG23	2.59	0.43
31:BA:433:C:H2'	31:BA:434:U:H6	1.84	0.43
31:BA:533:A:C2	31:BA:536:C:C5	3.06	0.43
31:BA:686:U:C1'	41:BN:42:TRP:HE1	2.17	0.43
31:BA:864:A:H3'	31:BA:865:A:C8	2.53	0.43
31:BA:1309:G:C6	31:BA:1329:A:C2	3.07	0.43
31:BA:1450:U:HO2'	31:BA:1451:A:H8	1.59	0.43
37:BJ:26:PHE:HD1	37:BJ:101:LEU:HD22	1.84	0.43
31:CA:649:G:O2'	31:CA:650:G:H5'	2.17	0.43
31:CA:991:U:HO2'	31:CA:992:U:P	2.41	0.43
31:CA:1053:G:C4	31:CA:1199:U:C5	3.07	0.43
31:CA:1187:G:N3	31:CA:1187:G:H2'	2.34	0.43
32:CE:187:LEU:HD23	32:CE:201:ILE:O	2.19	0.43
33:CF:115:LEU:O	33:CF:119:ARG:N	2.51	0.43
34:CG:23:GLY:HA3	34:CG:112:VAL:HG22	2.01	0.43
37:CJ:43:PHE:C	37:CJ:43:PHE:CD1	2.96	0.43
37:CJ:45:ASP:O	37:CJ:49:ILE:HG13	2.19	0.43
39:CL:16:ARG:O	39:CL:63:ILE:HG23	2.18	0.43
42:CO:54:LYS:HD2	42:CO:54:LYS:N	2.34	0.43
45:CR:17:ARG:NH1	45:CR:17:ARG:CG	2.81	0.43
46:CS:17:TYR:CE1	46:CS:41:PRO:HG3	2.52	0.43
53:CC:48:U:C1'	53:CC:49:C:O5'	2.67	0.43
1:DA:296:C:O2'	1:DA:297:C:H5'	2.18	0.43
1:DA:699:A:C2'	1:DA:700:G:H5'	2.48	0.43
1:DA:1111:A:O2'	1:DA:1112:G:H4'	2.19	0.43
1:DA:1228:G:OP1	16:D1:13:LYS:HG2	2.18	0.43
1:DA:1387:C:C2	1:DA:1388:G:C8	3.06	0.43
1:DA:1915:U:H2'	1:DA:1916:A:O4'	2.18	0.43
1:DA:2013:A:N6	1:DA:2014:A:C6	2.87	0.43
1:DA:2655:G:N2	1:DA:2665:A:OP2	2.52	0.43
2:DB:56:G:H5'	6:DG:27:ASN:HD21	1.83	0.43
4:DE:35:GLN:O	4:DE:36:ARG:HG3	2.18	0.43
5:DF:51:THR:HG23	5:DF:92:PRO:HG2	2.01	0.43
7:DH:94:TYR:CD1	7:DH:107:VAL:HA	2.54	0.43
10:DN:10:VAL:HG22	10:DN:17:ARG:O	2.19	0.43
12:DP:31:ASP:HA	12:DP:134:ARG:HD2	2.00	0.43
14:DQ:27:SER:HA	14:DQ:88:ASP:HB3	2.01	0.43
15:DR:21:GLU:O	15:DR:91:ARG:NH2	2.52	0.43
17:D2:7:THR:HG23	17:D2:22:VAL:HG21	2.01	0.43
17:D2:71:LEU:N	17:D2:86:GLY:CA	2.60	0.43
20:DU:74:PRO:O	20:DU:80:GLY:HA2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:DV:108:PRO:C	21:DV:110:GLY:N	2.76	0.43
1:AA:184:C:H2'	1:AA:185:U:H6	1.83	0.43
1:AA:214:G:N3	1:AA:216:A:O2'	2.51	0.43
1:AA:633:A:C8	1:AA:633:A:H3'	2.54	0.43
1:AA:828:U:O2	1:AA:828:U:H3'	2.19	0.43
1:AA:1118:C:H2'	1:AA:1119:C:H6	1.82	0.43
1:AA:1373:A:H2'	1:AA:1374:G:O4'	2.19	0.43
1:AA:1578:U:H2'	1:AA:1578:U:O2	2.19	0.43
2:AB:24:G:N2	2:AB:28:C:O2	2.51	0.43
8:AK:29:TYR:C	8:AK:32:PRO:HD2	2.44	0.43
8:AK:110:ASP:HB2	8:AK:130:TYR:HE1	1.84	0.43
14:AQ:11:LYS:CD	14:AQ:15:ARG:HH21	2.32	0.43
14:AQ:109:GLY:O	14:AQ:110:LEU:HB2	2.19	0.43
16:A1:49:HIS:HA	16:A1:52:ARG:HG2	2.01	0.43
21:AV:68:PRO:O	21:AV:91:LEU:HD22	2.19	0.43
24:AW:5:GLU:CD	24:AW:5:GLU:H	2.13	0.43
31:BA:197:A:N6	31:BA:221:C:H5'	2.33	0.43
31:BA:295:C:H2'	31:BA:296:U:C6	2.54	0.43
31:BA:447:G:H2'	31:BA:485:G:N2	2.34	0.43
31:BA:811:C:C5	31:BA:812:C:N4	2.86	0.43
31:BA:978:A:H61	31:BA:1316:G:H1'	1.84	0.43
32:BE:109:SER:C	32:BE:111:ARG:H	2.26	0.43
33:BF:35:GLU:O	33:BF:39:ILE:HG13	2.19	0.43
33:BF:87:LEU:O	33:BF:91:LEU:HG	2.18	0.43
34:BG:99:SER:O	34:BG:140:VAL:HG22	2.19	0.43
34:BG:124:GLY:C	34:BG:126:ILE:H	2.27	0.43
40:BM:48:THR:CG2	40:BM:62:HIS:HB3	2.47	0.43
41:BN:32:ILE:CG2	41:BN:77:MET:HE2	2.49	0.43
47:BT:29:HIS:CE1	47:BT:32:TYR:CD1	3.07	0.43
53:BD:13:C:O2'	53:BD:14:A:OP2	2.36	0.43
31:CA:167:G:O2'	31:CA:168:G:H5'	2.19	0.43
31:CA:486:U:O2	31:CA:486:U:H2'	2.18	0.43
31:CA:784:C:H4'	1:DA:1837:C:OP1	2.18	0.43
31:CA:853:G:O2'	31:CA:854:G:H5'	2.18	0.43
31:CA:1004:A:C8	31:CA:1036:G:N2	2.87	0.43
31:CA:1022:G:C6	31:CA:1023:G:C5	3.07	0.43
31:CA:1194:U:H4'	35:CH:22:GLY:O	2.19	0.43
31:CA:1291:G:C6	31:CA:1292:U:C4	3.06	0.43
32:CE:5:ILE:O	32:CE:6:THR:C	2.61	0.43
34:CG:11:LEU:O	34:CG:12:CYS:C	2.62	0.43
37:CJ:54:THR:C	37:CJ:56:GLN:H	2.27	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CO:50:ARG:HH12	42:CO:89:ASP:CB	2.31	0.43
44:CQ:4:LYS:C	44:CQ:6:LEU:H	2.26	0.43
44:CQ:12:ARG:CB	44:CQ:14:PRO:HD3	2.49	0.43
52:CB:59:U:H4'	52:CB:60:A:H5"	2.01	0.43
1:DA:492:A:H2'	1:DA:493:G:O4'	2.19	0.43
1:DA:871:U:H4'	12:DP:69:PHE:CE2	2.53	0.43
1:DA:1012:U:N3	9:DM:25:ARG:HD3	2.34	0.43
1:DA:1899:G:HO2'	1:DA:1900:A:H5"	1.81	0.43
1:DA:2250:G:OP2	1:DA:2275:C:H2'	2.19	0.43
1:DA:2575:C:H5'	4:DE:143:ASN:O	2.19	0.43
1:DA:2740:A:C6	1:DA:2764:A:C8	3.07	0.43
1:DA:2745:C:O2'	7:DH:142:GLY:HA3	2.19	0.43
1:DA:2768:C:O2'	9:DM:89:LYS:HE2	2.17	0.43
2:DB:13:A:O2'	2:DB:15:A:O5'	2.36	0.43
2:DB:66:A:C2	2:DB:108:C:C4	3.07	0.43
6:DG:7:LEU:HD12	6:DG:104:GLU:HA	1.99	0.43
6:DG:97:ASP:O	6:DG:101:ILE:HG23	2.19	0.43
7:DH:68:THR:O	7:DH:69:ARG:C	2.62	0.43
8:DK:84:GLY:C	8:DK:86:THR:H	2.27	0.43
12:DP:139:GLU:O	12:DP:141:GLN:OXT	2.37	0.43
13:D0:44:LEU:HD22	13:D0:48:VAL:HG23	2.00	0.43
15:DR:90:GLN:HA	15:DR:90:GLN:NE2	2.24	0.43
20:DU:13:VAL:HG21	20:DU:72:VAL:CB	2.38	0.43
20:DU:76:CYS:O	20:DU:77:PRO:C	2.62	0.43
29:D7:48:LYS:HG3	29:D7:49:ARG:N	2.33	0.43
1:AA:259:G:N2	1:AA:621:A:C8	2.85	0.43
1:AA:889:C:O5'	1:AA:889:C:O2	2.37	0.43
1:AA:1045:A:C2	1:AA:1111:A:N6	2.86	0.43
1:AA:1410:G:H1	1:AA:1592:C:H42	1.66	0.43
1:AA:1952:A:C5	10:AN:22:ILE:HD11	2.54	0.43
1:AA:2059:A:O3'	5:AF:69:HIS:HA	2.19	0.43
2:AB:41:U:C5	6:AG:69:ALA:HB1	2.54	0.43
6:AG:90:LEU:HD12	6:AG:90:LEU:HA	1.90	0.43
6:AG:108:ASN:HD22	26:A4:38:LYS:HB3	1.83	0.43
9:AM:18:ALA:O	9:AM:19:GLU:C	2.62	0.43
12:AP:2:LEU:HD11	12:AP:69:PHE:CE1	2.54	0.43
15:AR:53:ARG:HB3	15:AR:53:ARG:CZ	2.47	0.43
16:A1:61:TRP:CE2	16:A1:94:ASN:HA	2.53	0.43
21:AV:30:ASN:O	21:AV:31:ARG:C	2.61	0.43
21:AV:150:LEU:HD23	21:AV:154:ASP:HB2	2.01	0.43
31:BA:491:G:H2'	31:BA:492:G:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1128:C:C6	31:BA:1139:G:N7	2.87	0.43
31:BA:1235:U:H2'	31:BA:1236:A:O4'	2.19	0.43
31:BA:1329:A:N7	51:BX:7:ARG:NH2	2.67	0.43
32:BE:16:HIS:HB3	32:BE:210:SER:OG	2.19	0.43
32:BE:134:GLU:HG2	32:BE:138:LEU:HG	2.01	0.43
32:BE:192:SER:OG	32:BE:193:ASP:N	2.49	0.43
33:BF:15:THR:O	33:BF:15:THR:HG22	2.18	0.43
34:BG:163:GLU:O	34:BG:165:MET:N	2.52	0.43
34:BG:194:LEU:HG	34:BG:196:LEU:HG	2.00	0.43
39:BL:85:LEU:C	39:BL:85:LEU:HD12	2.44	0.43
41:BN:21:ILE:HG12	41:BN:30:VAL:CG1	2.49	0.43
43:BP:30:ALA:O	43:BP:34:LEU:HD23	2.18	0.43
52:BB:5:A:H61	52:BB:79:U:H3	1.67	0.43
31:CA:244:U:H6	31:CA:244:U:H5'	1.83	0.43
31:CA:818:G:HO2'	31:CA:820:U:H6	1.63	0.43
31:CA:949:A:C2	31:CA:1233:G:N3	2.87	0.43
32:CE:118:LEU:HB3	32:CE:142:LEU:HD12	2.01	0.43
34:CG:15:GLU:HB3	34:CG:63:LYS:HE2	2.01	0.43
34:CG:122:ARG:HH21	34:CG:134:ASP:HB2	1.84	0.43
35:CH:10:MET:HE3	35:CH:10:MET:HB3	1.94	0.43
36:CI:6:VAL:HG22	36:CI:90:VAL:HG22	2.01	0.43
53:CD:55:U:C4	53:CD:56:U:C5	3.07	0.43
1:DA:64:A:H1'	19:DT:66:LEU:HB2	2.01	0.43
1:DA:84:A:H2'	1:DA:99:U:O4	2.19	0.43
1:DA:90:U:C3'	1:DA:91:A:H5"	2.48	0.43
1:DA:481:G:C4	1:DA:507:A:C2	3.07	0.43
1:DA:696:G:H2'	1:DA:697:C:H6	1.84	0.43
1:DA:748:G:OP2	18:DS:88:ARG:HG3	2.19	0.43
1:DA:867:C:C5	1:DA:868:U:C5	3.07	0.43
1:DA:957:A:N6	1:DA:2459:A:C8	2.87	0.43
1:DA:1475:G:C2	1:DA:1519:G:C2	3.07	0.43
1:DA:1537:C:O2'	1:DA:1538:G:O4'	2.28	0.43
1:DA:2121:G:H1	1:DA:2177:C:N4	2.11	0.43
1:DA:2187:G:C6	1:DA:2188:C:N3	2.86	0.43
1:DA:2321:G:H5"	1:DA:2322:A:OP2	2.19	0.43
3:DD:11:PRO:O	3:DD:12:SER:OG	2.23	0.43
3:DD:34:VAL:C	3:DD:35:LYS:O	2.60	0.43
3:DD:261:LYS:HB3	3:DD:264:LYS:HG3	2.01	0.43
4:DE:153:GLY:O	4:DE:154:LYS:C	2.61	0.43
6:DG:13:GLU:O	6:DG:14:GLU:HB2	2.18	0.43
6:DG:19:LEU:C	6:DG:21:ARG:N	2.76	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DO:75:ILE:H	11:DO:75:ILE:CD1	2.25	0.43
13:D0:37:THR:HG22	13:D0:39:PRO:CD	2.47	0.43
13:D0:101:ALA:HB2	27:D5:44:THR:CB	2.49	0.43
18:DS:82:LEU:HB2	18:DS:98:LYS:HB2	2.01	0.43
19:DT:5:TYR:HB3	24:DW:33:MET:HB2	2.01	0.43
19:DT:49:VAL:HB	19:DT:83:VAL:CG2	2.49	0.43
21:DV:70:LEU:HD23	21:DV:70:LEU:HA	1.85	0.43
23:DZ:91:LYS:HA	23:DZ:91:LYS:NZ	2.32	0.43
1:AA:540:G:H3'	1:AA:541:C:H6	1.82	0.42
1:AA:562:U:O4	1:AA:2036:C:H1'	2.19	0.42
1:AA:777:A:C2	1:AA:778:G:C4	3.08	0.42
1:AA:945:A:C4	1:AA:2448:A:C2	3.07	0.42
1:AA:1058:U:H2'	1:AA:1059:G:H8	1.82	0.42
1:AA:1063:G:C5	1:AA:1064:C:C5	3.07	0.42
1:AA:1085:A:N3	1:AA:1086:A:N7	2.67	0.42
1:AA:1221:C:H2'	1:AA:1222:C:C6	2.50	0.42
1:AA:1263:U:O2'	27:A5:11:THR:HG23	2.19	0.42
1:AA:1763:G:OP1	1:AA:1763:G:H4'	2.19	0.42
1:AA:1861:G:C2	1:AA:1862:G:C8	3.07	0.42
1:AA:2564:A:OP1	1:AA:2648:C:H4'	2.19	0.42
1:AA:2771:C:H2'	1:AA:2772:C:C6	2.53	0.42
8:AK:13:GLY:HA3	8:AK:17:GLN:OE1	2.18	0.42
11:AO:6:LEU:O	11:AO:7:ARG:O	2.36	0.42
14:AQ:5:THR:O	14:AQ:6:ALA:C	2.62	0.42
31:BA:110:C:H2'	31:BA:111:G:O4'	2.19	0.42
31:BA:123:C:OP1	31:BA:312:C:H5'	2.19	0.42
31:BA:232:G:C5	31:BA:233:C:C5	3.07	0.42
31:BA:438:G:H4'	34:BG:123:HIS:CE1	2.54	0.42
31:BA:509:A:O2'	31:BA:510:A:OP1	2.36	0.42
31:BA:562:C:H1'	42:BO:12:ARG:HB3	2.00	0.42
31:BA:946:A:C2	31:BA:1236:A:C2	3.07	0.42
31:BA:1039:C:H2'	31:BA:1040:U:O4'	2.18	0.42
31:BA:1095:U:P	31:BA:1108:G:H1	2.42	0.42
31:BA:1177:G:H2'	31:BA:1178:G:N3	2.34	0.42
31:BA:1325:C:P	51:BX:6:ARG:HH22	2.42	0.42
32:BE:218:ALA:O	32:BE:222:ILE:HG13	2.19	0.42
33:BF:78:GLY:C	33:BF:79:ARG:HG2	2.43	0.42
33:BF:92:ALA:HA	33:BF:95:THR:HB	2.01	0.42
36:BI:2:ARG:CZ	36:BI:69:GLU:HG3	2.48	0.42
36:BI:61:LEU:HB3	36:BI:63:TYR:HE2	1.83	0.42
37:BJ:43:PHE:O	37:BJ:46:ALA:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BL:4:TYR:CE2	39:BL:88:TYR:HD2	2.37	0.42
52:BB:27:G:O6	52:BB:45:U:C2	2.72	0.42
31:CA:126:G:H4'	31:CA:634:C:H1'	2.01	0.42
31:CA:407:G:H1	31:CA:435:C:N4	2.17	0.42
31:CA:692:U:O4	41:CN:53:SER:HA	2.19	0.42
31:CA:748:C:C1'	31:CA:749:C:OP2	2.67	0.42
31:CA:1024:G:H3'	31:CA:1024:G:N3	2.34	0.42
31:CA:1121:U:C4	31:CA:1122:U:C5	3.07	0.42
31:CA:1127:G:C2	31:CA:1145:C:C2	3.07	0.42
31:CA:1138:G:H3'	31:CA:1138:G:N3	2.34	0.42
31:CA:1185:G:H2'	31:CA:1186:G:O4'	2.19	0.42
31:CA:1200:C:H1'	31:CA:1204:A:H61	1.83	0.42
31:CA:1320:C:H2'	31:CA:1321:C:H6	1.79	0.42
32:CE:12:GLU:HB3	32:CE:213:LEU:CD1	2.48	0.42
33:CF:18:TRP:CD1	44:CQ:54:PRO:HA	2.54	0.42
36:CI:11:ASN:OD1	36:CI:12:PRO:HD2	2.19	0.42
36:CI:76:ALA:HB1	36:CI:80:ARG:HH21	1.84	0.42
37:CJ:72:ARG:HB2	37:CJ:142:GLU:OE2	2.19	0.42
43:CP:27:LYS:HE3	43:CP:31:LYS:HE3	2.01	0.42
45:CR:60:VAL:C	45:CR:62:GLN:H	2.26	0.42
46:CS:15:PRO:C	46:CS:16:HIS:HD1	2.27	0.42
53:CD:53:G:C6	53:CD:63:C:N4	2.87	0.42
1:DA:288:C:H2'	1:DA:288:C:O2	2.20	0.42
1:DA:547:A:N7	1:DA:548:A:N6	2.67	0.42
1:DA:746:A:H2'	1:DA:2612:C:H5"	2.01	0.42
1:DA:1505:C:H2'	1:DA:1506:C:H6	1.83	0.42
1:DA:1568:G:P	3:DD:63:ARG:HH22	2.42	0.42
1:DA:1814:G:C6	1:DA:1815:A:C6	3.06	0.42
1:DA:2582:G:C2	1:DA:2583:G:C8	3.07	0.42
1:DA:2854:G:N2	1:DA:2864:G:N3	2.67	0.42
3:DD:200:ASP:O	3:DD:201:HIS:C	2.61	0.42
5:DF:118:ALA:C	5:DF:120:GLU:N	2.76	0.42
6:DG:118:ARG:O	6:DG:119:GLY:C	2.62	0.42
9:DM:18:ALA:HA	9:DM:21:LYS:HD2	2.01	0.42
9:DM:72:TYR:HE1	9:DM:101:HIS:HD2	1.67	0.42
11:DO:59:LEU:HD23	30:D8:56:GLU:CD	2.44	0.42
14:DQ:84:GLN:HG2	14:DQ:109:GLY:HA3	2.00	0.42
14:DQ:93:LYS:HB2	14:DQ:93:LYS:HE3	1.74	0.42
21:DV:94:GLU:O	21:DV:130:PRO:HD3	2.18	0.42
22:D3:12:ASN:HA	22:D3:14:ARG:NH2	2.27	0.42
26:D4:56:VAL:O	26:D4:57:GLU:CB	2.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:56:VAL:HG22	26:D4:57:GLU:N	2.34	0.42
28:D6:23:THR:CG2	28:D6:24:GLU:N	2.82	0.42
1:AA:49:A:C8	1:AA:51:G:C2	3.06	0.42
1:AA:524:U:H2'	1:AA:525:U:C6	2.54	0.42
1:AA:559:G:N2	16:A1:49:HIS:CD2	2.79	0.42
1:AA:587:C:H4'	1:AA:588:U:OP2	2.19	0.42
1:AA:811:U:H2'	11:AO:21:ARG:O	2.18	0.42
1:AA:1019:U:H2'	1:AA:1020:A:C8	2.54	0.42
1:AA:1379:A:C1'	1:AA:1380:G:OP1	2.67	0.42
1:AA:1508:A:O2'	1:AA:1509:C:O5'	2.36	0.42
1:AA:1600:C:OP1	19:AT:58:HIS:NE2	2.33	0.42
1:AA:2063:C:O2	1:AA:2450:A:N1	2.51	0.42
1:AA:2119:A:N6	1:AA:2170:A:C6	2.86	0.42
1:AA:2208:U:O4'	3:AD:151:LYS:HE2	2.20	0.42
1:AA:2314:C:O2'	1:AA:2315:G:H5'	2.18	0.42
1:AA:2317:C:H2'	1:AA:2318:G:C5'	2.19	0.42
1:AA:2346:A:H5"	1:AA:2383:G:H1'	2.00	0.42
1:AA:2436:G:C5	1:AA:2437:U:C5	3.07	0.42
1:AA:2666:C:H42	7:AH:109:PHE:HA	1.84	0.42
1:AA:2870:C:C2'	1:AA:2871:C:O5'	2.67	0.42
2:AB:89:G:C6	2:AB:89(A):A:N1	2.87	0.42
6:AG:26:GLN:HG3	6:AG:30:GLU:OE2	2.19	0.42
7:AH:89:ILE:HD11	7:AH:94:TYR:C	2.44	0.42
7:AH:97:ARG:NH2	7:AH:104:GLU:OE1	2.52	0.42
14:AQ:41:ASP:OD2	14:AQ:44:LYS:HD2	2.18	0.42
26:A4:49:PHE:HE2	43:BP:61:GLU:O	2.02	0.42
31:BA:310:G:P	46:BS:27:LYS:NZ	2.92	0.42
31:BA:979:C:H2'	31:BA:980:C:H5'	2.00	0.42
31:BA:1151:A:O2'	40:BM:39:PRO:HB2	2.19	0.42
31:BA:1309:G:C6	31:BA:1329:A:N1	2.87	0.42
32:BE:154:LEU:HD23	32:BE:154:LEU:H	1.84	0.42
32:BE:219:VAL:HA	32:BE:222:ILE:HD12	2.01	0.42
33:BF:9:GLY:HA2	33:BF:12:LEU:HG	2.01	0.42
33:BF:10:PHE:HD2	33:BF:11:ARG:NH1	2.17	0.42
38:BK:49:GLU:HG2	38:BK:62:TYR:HE2	1.84	0.42
43:BP:4:ILE:HA	43:BP:57:ARG:HD3	2.00	0.42
45:BR:74:ASP:OD1	45:BR:76:GLU:HB3	2.18	0.42
49:BV:51:VAL:O	49:BV:57:HIS:HA	2.19	0.42
53:BC:64:G:H2'	53:BC:65:G:C8	2.54	0.42
31:CA:403:C:O2'	31:CA:404:U:H5'	2.19	0.42
31:CA:600:C:H5"	38:CK:97:VAL:HG23	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:619:U:C2	34:CG:135:LEU:HD22	2.54	0.42
31:CA:949:A:N7	43:CP:106:ASN:ND2	2.66	0.42
31:CA:956:U:C2	31:CA:1225:A:C2	3.07	0.42
33:CF:34:LEU:O	33:CF:38:ARG:HG2	2.19	0.42
33:CF:113:ALA:O	33:CF:115:LEU:N	2.52	0.42
33:CF:138:VAL:HG23	33:CF:151:VAL:HG23	2.01	0.42
36:CI:97:PHE:O	48:CU:31:LEU:HD23	2.19	0.42
38:CK:86:ILE:O	38:CK:88:LYS:HD2	2.18	0.42
39:CL:48:GLU:N	39:CL:49:PRO:CD	2.82	0.42
48:CU:30:ASP:C	48:CU:32:ARG:N	2.77	0.42
49:CV:48:THR:HG22	49:CV:61:TYR:CD1	2.54	0.42
1:DA:58:G:O2'	1:DA:73:A:N1	2.51	0.42
1:DA:212:G:O2'	1:DA:213:A:H5'	2.20	0.42
1:DA:389:G:H22	11:DO:72:PRO:HD3	1.83	0.42
1:DA:573:G:O6	1:DA:2029:G:H2'	2.18	0.42
1:DA:848:G:N9	1:DA:933:A:C8	2.87	0.42
1:DA:870:A:C2	1:DA:908:C:C2	3.07	0.42
1:DA:1354:A:H2'	1:DA:1355:G:O4'	2.19	0.42
1:DA:2371:G:O2'	28:D6:46:HIS:ND1	2.46	0.42
1:DA:2786:U:H5"	4:DE:65:GLY:HA3	2.01	0.42
5:DF:63:LYS:NZ	5:DF:67:GLN:HB2	2.35	0.42
12:DP:3:MET:HG2	12:DP:4:PRO:O	2.19	0.42
12:DP:61:GLY:HA2	12:DP:62:GLY:HA3	1.71	0.42
13:D0:48:VAL:O	13:D0:49:ASP:C	2.62	0.42
14:DQ:54:LEU:HG	14:DQ:54:LEU:O	2.20	0.42
19:DT:51:VAL:H	19:DT:83:VAL:HG23	1.84	0.42
23:DZ:83:GLU:O	23:DZ:84:GLY:C	2.62	0.42
25:DX:31:LEU:C	25:DX:33:GLN:H	2.27	0.42
1:AA:27:G:C4	1:AA:512:G:N2	2.86	0.42
1:AA:1087:G:N7	1:AA:1089:G:H1'	2.35	0.42
1:AA:1212:G:H1'	1:AA:1237:A:N6	2.33	0.42
1:AA:1414:G:O2'	1:AA:1415:U:H5'	2.19	0.42
1:AA:1694:C:H1'	1:AA:1695:G:OP2	2.20	0.42
1:AA:2335:A:N7	1:AA:2337:G:C5	2.88	0.42
5:AF:117:ARG:HD2	5:AF:117:ARG:HA	1.93	0.42
6:AG:121:ASN:ND2	6:AG:123:ASN:H	2.02	0.42
8:AK:63:ALA:HA	8:AK:66:GLU:CD	2.44	0.42
9:AM:15:LEU:O	9:AM:136:GLU:HA	2.18	0.42
11:AO:15:ARG:C	11:AO:16:ARG:O	2.62	0.42
13:A0:57:ARG:HB3	13:A0:59:ASP:OD1	2.19	0.42
15:AR:98:LYS:HB3	15:AR:100:TYR:CE1	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AV:58:VAL:HG12	21:AV:66:SER:HB3	2.02	0.42
31:BA:276:G:O2'	47:BT:68:ARG:NH1	2.52	0.42
31:BA:445:G:H1	31:BA:489:C:N4	2.16	0.42
31:BA:475:G:H2'	31:BA:476:G:O4'	2.19	0.42
31:BA:636:U:H5'	47:BT:2:PRO:HG3	2.01	0.42
31:BA:1049:U:H4'	31:BA:1050:G:H5"	2.00	0.42
31:BA:1305:G:N2	31:BA:1331:G:N3	2.67	0.42
31:BA:1335:C:H5"	31:BA:1336:C:OP1	2.19	0.42
31:BA:1492:A:H5"	42:BO:44:LYS:HB3	2.01	0.42
31:BA:1510:U:H1'	31:BA:1526:G:N2	2.34	0.42
34:BG:196:LEU:C	34:BG:198:VAL:N	2.77	0.42
37:BJ:21:VAL:HG23	37:BJ:22:LEU:N	2.34	0.42
40:BM:55:LYS:HD2	40:BM:56:HIS:ND1	2.35	0.42
40:BM:98:ILE:HD12	40:BM:98:ILE:N	2.34	0.42
31:CA:1015:A:N6	31:CA:1016:A:C6	2.88	0.42
31:CA:1279:A:H5"	31:CA:1280:A:OP1	2.18	0.42
31:CA:1348:U:H4'	39:CL:120:ARG:HD2	2.00	0.42
31:CA:1376:U:OP1	37:CJ:98:SER:OG	2.26	0.42
31:CA:1498:U:H1'	31:CA:1499:A:OP2	2.20	0.42
32:CE:92:TYR:CD2	32:CE:92:TYR:C	2.96	0.42
32:CE:100:GLY:O	32:CE:104:ASN:N	2.34	0.42
32:CE:111:ARG:NH1	32:CE:111:ARG:CG	2.59	0.42
32:CE:145:LEU:HD12	32:CE:145:LEU:HA	1.91	0.42
34:CG:9:CYS:CA	34:CG:12:CYS:HB2	2.47	0.42
34:CG:20:TYR:HD2	34:CG:26:CYS:O	2.02	0.42
41:CN:114:VAL:HA	41:CN:115:PRO:HD3	1.89	0.42
42:CO:82:ILE:HD12	42:CO:82:ILE:HA	1.69	0.42
43:CP:6:GLY:O	43:CP:7:VAL:HG13	2.19	0.42
43:CP:23:TYR:HB3	43:CP:67:GLU:HA	2.01	0.42
49:CV:78:ARG:HD3	49:CV:79:THR:N	2.34	0.42
1:DA:547:A:H3'	1:DA:548:A:C8	2.54	0.42
1:DA:649:G:C5	1:DA:650:C:C4	3.07	0.42
1:DA:679:C:H2'	1:DA:680:G:H8	1.84	0.42
1:DA:846:C:C4	1:DA:847:U:O4	2.73	0.42
1:DA:868:U:N3	1:DA:869:G:N7	2.67	0.42
1:DA:921:G:H2'	1:DA:922:U:C6	2.54	0.42
1:DA:963:U:H2'	1:DA:964:C:C6	2.54	0.42
1:DA:996:A:N6	1:DA:1160:G:C6	2.87	0.42
1:DA:1171:G:H1'	1:DA:1173:G:P	2.59	0.42
1:DA:1283:G:H2'	1:DA:1285:G:OP2	2.19	0.42
1:DA:1386:C:H2'	1:DA:1387:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1484:G:C4	1:DA:1485:G:C8	3.07	0.42
1:DA:1585:C:O2	1:DA:1585:C:H3'	2.20	0.42
1:DA:2055:C:OP1	1:DA:2056:G:H4'	2.19	0.42
1:DA:2251:G:OP1	12:DP:82:ARG:NH1	2.50	0.42
1:DA:2665:A:H2'	1:DA:2666:C:O4'	2.19	0.42
1:DA:2791:C:C4	1:DA:2893:G:C6	3.07	0.42
2:DB:43:C:H4'	6:DG:66:GLN:NE2	2.34	0.42
2:DB:73:A:H3'	2:DB:74:U:H6	1.84	0.42
3:DD:48:ARG:HG3	3:DD:48:ARG:HH11	1.82	0.42
3:DD:65:ILE:HD12	3:DD:66:ASP:N	2.34	0.42
4:DE:182:LEU:HD12	4:DE:183:LEU:H	1.83	0.42
4:DE:197:ILE:HD11	4:DE:199:ARG:HH21	1.83	0.42
6:DG:15:VAL:HG21	6:DG:176:LEU:HD23	2.01	0.42
7:DH:86:GLU:CD	7:DH:86:GLU:N	2.77	0.42
11:DO:77:ARG:HB2	11:DO:78:PRO:CD	2.49	0.42
13:D0:51:LEU:HD23	13:D0:51:LEU:HA	1.89	0.42
15:DR:78:LEU:HD22	15:DR:79:HIS:CD2	2.54	0.42
16:D1:90:VAL:CG1	16:D1:91:ASP:H	2.32	0.42
16:D1:110:VAL:O	16:D1:113:ALA:HB3	2.19	0.42
18:DS:57:ASN:O	18:DS:58:ALA:C	2.62	0.42
23:DZ:27:GLU:O	23:DZ:28:GLY:C	2.61	0.42
23:DZ:78:LYS:O	23:DZ:78:LYS:CD	2.67	0.42
28:D6:43:CYS:O	28:D6:44:ARG:CB	2.67	0.42
1:AA:66:C:C2	1:AA:89:G:N2	2.87	0.42
1:AA:164:U:O2	1:AA:164:U:C2'	2.67	0.42
1:AA:634:C:H2'	1:AA:635:C:C6	2.53	0.42
1:AA:674:G:H1'	5:AF:74:ARG:CD	2.45	0.42
1:AA:1530:G:C5	1:AA:1531:C:C4	3.07	0.42
1:AA:1771:C:O2'	1:AA:1786:A:O4'	2.34	0.42
1:AA:1833:U:H2'	1:AA:1834:U:H6	1.84	0.42
1:AA:2334:G:H4'	1:AA:2335:A:OP2	2.19	0.42
2:AB:75:G:N2	21:AV:85:HIS:CE1	2.87	0.42
3:AD:68:LYS:HB2	3:AD:70:TRP:CZ3	2.54	0.42
4:AE:54:GLN:O	4:AE:55:ASN:HB2	2.19	0.42
6:AG:63:ILE:HD12	6:AG:141:PHE:CD1	2.54	0.42
6:AG:99:MET:HG3	6:AG:100:TRP:N	2.33	0.42
6:AG:101:ILE:HD13	6:AG:102:PHE:N	2.34	0.42
7:AH:83:TYR:HB2	7:AH:84:SER:H	1.60	0.42
8:AK:54:GLN:O	8:AK:56:LYS:N	2.53	0.42
20:AU:76:CYS:O	20:AU:78:ALA:N	2.52	0.42
31:BA:58:C:O2'	31:BA:59:A:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:129(A):G:H5'	31:BA:191(A):G:H5'	2.01	0.42
31:BA:411:A:C6	31:BA:429:U:C4	3.07	0.42
31:BA:868:C:H2'	31:BA:869:G:O4'	2.18	0.42
31:BA:1079:G:C6	31:BA:1080:A:N6	2.88	0.42
31:BA:1221:G:H4'	49:BV:77:THR:HG21	2.01	0.42
31:BA:1379:G:C6	31:BA:1380:U:O4	2.72	0.42
33:BF:81:GLY:O	33:BF:85:ARG:HB2	2.18	0.42
47:BT:67:LYS:O	47:BT:68:ARG:HB3	2.19	0.42
31:CA:87:A:C2	31:CA:88:C:C6	3.06	0.42
31:CA:157:G:C4	31:CA:158:G:C8	3.07	0.42
31:CA:662:G:H2'	31:CA:663:A:C8	2.54	0.42
31:CA:941:G:H2'	31:CA:942:G:O5'	2.18	0.42
31:CA:979:C:C5	31:CA:980:C:C6	3.07	0.42
31:CA:1124:G:HO2'	31:CA:1145:C:N4	2.10	0.42
31:CA:1145:C:O2	31:CA:1145:C:C2'	2.67	0.42
31:CA:1442:G:H3'	31:CA:1442:G:H8	1.84	0.42
32:CE:134:GLU:O	32:CE:138:LEU:HG	2.19	0.42
35:CH:24:ARG:H	35:CH:24:ARG:HG2	1.67	0.42
38:CK:123:GLU:O	38:CK:127:LEU:HD23	2.20	0.42
39:CL:113:LYS:N	39:CL:113:LYS:HD2	2.34	0.42
42:CO:46:ASN:OD1	42:CO:89:ASP:OD2	2.36	0.42
49:CV:66:MET:HB3	49:CV:69:HIS:CD2	2.54	0.42
1:DA:90:U:O2'	1:DA:91:A:H8	1.92	0.42
1:DA:256:A:H2'	1:DA:257:A:C8	2.55	0.42
1:DA:631:A:N3	1:DA:2415:G:O2'	2.38	0.42
1:DA:654(D):G:N2	1:DA:654(Q):C:C2	2.84	0.42
1:DA:857:C:N4	1:DA:858:U:O4	2.52	0.42
1:DA:903:C:H1'	21:DV:168:GLU:OE1	2.19	0.42
1:DA:971:C:C2'	1:DA:972:G:H5'	2.50	0.42
1:DA:977:G:O2'	1:DA:978:G:H5'	2.19	0.42
1:DA:1005:C:O2	1:DA:1143:A:C6	2.71	0.42
1:DA:1111:A:H5'	7:DH:3:ARG:HD3	2.00	0.42
1:DA:1248:G:OP1	16:D1:2:PRO:HD2	2.20	0.42
1:DA:1388:G:C2'	1:DA:1389:G:H5'	2.49	0.42
1:DA:1406:U:O2	1:DA:1406:U:H2'	2.18	0.42
1:DA:1779:U:C6	1:DA:1783:A:N7	2.87	0.42
1:DA:2275:C:O2'	12:DP:84:GLY:CA	2.68	0.42
1:DA:2468:G:C4	1:DA:2481:G:C2	3.07	0.42
4:DE:52:LEU:HD12	4:DE:76:ARG:HD2	2.02	0.42
6:DG:15:VAL:HG13	6:DG:175:LEU:HB2	2.02	0.42
12:DP:2:LEU:HD22	12:DP:2:LEU:HA	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:D2:2:PHE:N	17:D2:42:GLY:HA3	2.32	0.42
18:DS:17:VAL:O	18:DS:19:LEU:N	2.52	0.42
19:DT:31:HIS:ND1	19:DT:32:PRO:HD2	2.34	0.42
19:DT:64:LYS:NZ	19:DT:73:ARG:HH21	2.18	0.42
20:DU:19:LYS:HE3	20:DU:71:LYS:NZ	2.35	0.42
26:D4:24:THR:O	26:D4:25:TYR:HB2	2.19	0.42
30:D8:54:GLU:C	30:D8:56:GLU:N	2.75	0.42
1:AA:528:A:N1	1:AA:2043:C:C5'	2.82	0.42
1:AA:594:U:OP1	30:A8:61:LEU:HD22	2.20	0.42
1:AA:897:C:H2'	1:AA:898:C:O5'	2.18	0.42
1:AA:988:A:H8	1:AA:988:A:O5'	2.01	0.42
1:AA:1188:U:C4'	17:A2:79:VAL:HG22	2.48	0.42
1:AA:1496:A:C8	1:AA:1577:C:O2'	2.56	0.42
1:AA:1862:G:H2'	1:AA:1863:G:H8	1.84	0.42
1:AA:2017:U:H5"	1:AA:2018:G:OP2	2.19	0.42
1:AA:2019:A:C2'	1:AA:2020:A:O5'	2.68	0.42
1:AA:2271:G:OP1	22:A3:18:ALA:HB1	2.19	0.42
1:AA:2470:G:O5'	1:AA:2470:G:H8	2.02	0.42
3:AD:35:LYS:HG2	3:AD:64:ILE:HG22	2.00	0.42
4:AE:101:ARG:O	4:AE:201:THR:OG1	2.37	0.42
5:AF:155:LEU:HD13	5:AF:174:VAL:HG22	2.00	0.42
8:AK:31:LEU:HB2	8:AK:32:PRO:HD3	2.01	0.42
11:AO:38:GLN:HG2	11:AO:45:LEU:HD12	2.02	0.42
12:AP:47:ILE:HD12	12:AP:70:PRO:HG3	2.00	0.42
14:AQ:64:GLU:O	14:AQ:68:GLN:HG3	2.19	0.42
31:BA:646:U:H2'	31:BA:647:C:C6	2.54	0.42
31:BA:883:C:H2'	31:BA:884:U:H5'	2.00	0.42
31:BA:1117:G:O3'	39:BL:104:ARG:NH1	2.52	0.42
31:BA:1213:A:N1	31:BA:1215:G:H1'	2.34	0.42
31:BA:1274:G:H2'	31:BA:1275:A:C8	2.55	0.42
31:BA:1296:C:OP1	43:BP:44:ARG:NH2	2.52	0.42
31:BA:1301:U:O4	31:BA:1303:C:H1'	2.19	0.42
31:BA:1438:G:H2'	31:BA:1439:C:C6	2.55	0.42
32:BE:204:ASN:ND2	32:BE:206:ASP:O	2.52	0.42
34:BG:105:VAL:HG13	34:BG:110:PHE:HB2	2.01	0.42
35:BH:153:LYS:H	38:BK:64:LYS:NZ	2.17	0.42
40:BM:57:LYS:HE3	40:BM:60:ARG:NH2	2.35	0.42
53:BD:18:C:H3'	53:BD:18:C:O2	2.20	0.42
31:CA:275:G:O5'	47:CT:14:LYS:HB3	2.19	0.42
31:CA:407:G:C6	31:CA:408:A:N6	2.87	0.42
31:CA:751:U:H4'	45:CR:24:SER:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:860:A:H2'	31:CA:861:G:O4'	2.20	0.42
31:CA:990:C:C2	31:CA:1216:G:C2	3.08	0.42
31:CA:1052:U:H2'	31:CA:1055:A:OP1	2.19	0.42
31:CA:1289:A:H2'	31:CA:1290:G:H5'	2.01	0.42
31:CA:1318:A:O2'	49:CV:37:ARG:HB3	2.20	0.42
31:CA:1329:A:H5"	43:CP:25:ILE:O	2.19	0.42
31:CA:1449:C:O2'	31:CA:1450:U:P	2.77	0.42
32:CE:47:THR:O	32:CE:51:LEU:HB2	2.20	0.42
34:CG:26:CYS:HA	34:CG:31:CYS:CB	2.48	0.42
36:CI:12:PRO:HB3	36:CI:58:GLY:HA2	2.02	0.42
42:CO:43:LYS:O	42:CO:44:LYS:C	2.62	0.42
42:CO:57:LEU:C	42:CO:59:SER:N	2.68	0.42
43:CP:36:LYS:HD3	43:CP:59:TYR:OH	2.20	0.42
43:CP:57:ARG:CZ	26:D4:34:GLU:HB2	2.49	0.42
53:CC:73:A:C6	53:CC:74:A:C6	3.08	0.42
53:CD:77:A:O2'	1:DA:2394:C:C2	2.65	0.42
1:DA:362:U:H3'	1:DA:362:U:C6	2.52	0.42
1:DA:1131:G:OP1	9:DM:80:GLY:N	2.47	0.42
1:DA:1270:C:O2'	1:DA:1648:C:OP2	2.29	0.42
1:DA:1657:C:H2'	1:DA:1658:C:O4'	2.20	0.42
1:DA:2353:G:H2'	1:DA:2354:G:O4'	2.19	0.42
1:DA:2369:A:O2'	1:DA:2370:G:H5'	2.19	0.42
1:DA:2393:A:H5'	11:DO:62:LEU:HB2	2.01	0.42
2:DB:15:A:H2'	2:DB:16:G:OP1	2.19	0.42
5:DF:117:ARG:HD3	5:DF:117:ARG:HA	1.88	0.42
7:DH:11:VAL:HA	7:DH:12:PRO:HD2	1.86	0.42
7:DH:107:VAL:O	7:DH:107:VAL:HG12	2.20	0.42
13:D0:87:TYR:CE1	13:D0:117:VAL:HG12	2.54	0.42
20:DU:33:LYS:NZ	20:DU:34:LYS:HE3	2.35	0.42
21:DV:72:ARG:HD2	21:DV:72:ARG:HA	1.83	0.42
26:D4:6:HIS:HA	26:D4:7:PRO:HD3	1.91	0.42
26:D4:11:PRO:HA	26:D4:25:TYR:H	1.84	0.42
1:AA:197:A:N6	1:AA:2430:A:H2'	2.35	0.42
1:AA:654(M):C:H3'	1:AA:654(N):G:C8	2.50	0.42
1:AA:851:U:O2'	25:AX:45:GLY:HA3	2.19	0.42
1:AA:898:C:C5	1:AA:899:A:C5	3.07	0.42
1:AA:1266:G:OP2	27:A5:19:ARG:NH1	2.50	0.42
1:AA:1337:G:H2'	1:AA:1338:G:O4'	2.19	0.42
1:AA:1480:G:C6	1:AA:1482:U:N3	2.85	0.42
1:AA:1533:C:H5'	1:AA:1534:G:OP2	2.20	0.42
1:AA:1580:A:OP2	1:AA:1580:A:H8	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1783:A:C5'	1:AA:2608:G:H4'	2.48	0.42
1:AA:2315:G:H2'	1:AA:2316:C:C6	2.54	0.42
2:AB:29:A:H2'	2:AB:30:C:C6	2.55	0.42
3:AD:43:ARG:HD2	3:AD:44:ASN:OD1	2.20	0.42
4:AE:108:SER:O	4:AE:162:ALA:HA	2.19	0.42
5:AF:127:GLU:C	5:AF:129:PHE:N	2.77	0.42
5:AF:129:PHE:O	5:AF:130:ALA:HB2	2.17	0.42
6:AG:114:ILE:HD11	6:AG:140:ILE:HD13	2.02	0.42
7:AH:30:LYS:HG3	7:AH:79:VAL:O	2.19	0.42
7:AH:92:ILE:C	7:AH:94:TYR:N	2.77	0.42
9:AM:128:HIS:CD2	9:AM:129:PRO:O	2.72	0.42
11:AO:119:GLU:HA	11:AO:119:GLU:OE2	2.19	0.42
12:AP:29:PHE:HB3	12:AP:65:PHE:CE1	2.54	0.42
15:AR:37:GLY:O	15:AR:38:ASN:HB3	2.20	0.42
18:AS:62:HIS:HB2	18:AS:64:MET:HE3	2.01	0.42
21:AV:166:SER:N	21:AV:167:PRO:HD3	2.34	0.42
21:AV:170:THR:O	21:AV:171:ILE:HB	2.20	0.42
24:AW:42:GLY:C	24:AW:44:LEU:N	2.65	0.42
28:A6:39:TYR:HB3	28:A6:49:HIS:CD2	2.55	0.42
31:BA:627:G:O2'	31:BA:628:G:H5'	2.19	0.42
31:BA:692:U:O2	31:BA:694:A:C8	2.72	0.42
31:BA:735:C:O2'	31:BA:736:C:H5'	2.20	0.42
31:BA:754:C:O2	31:BA:754:C:H3'	2.20	0.42
31:BA:968:A:H4'	31:BA:969:A:OP2	2.19	0.42
31:BA:1004:A:P	31:BA:1025:U:O4	2.77	0.42
31:BA:1164:G:C6	31:BA:1165:C:C4	3.08	0.42
33:BF:188:LEU:HD23	33:BF:188:LEU:HA	1.75	0.42
34:BG:61:LYS:HD2	34:BG:207:TYR:OH	2.20	0.42
38:BK:17:THR:O	38:BK:78:GLN:NE2	2.42	0.42
39:BL:93:ARG:HB2	39:BL:93:ARG:HH11	1.84	0.42
41:BN:81:ASP:O	41:BN:82:VAL:C	2.62	0.42
43:BP:3:ARG:HG2	43:BP:9:ILE:HD11	2.02	0.42
46:BS:28:ARG:NH1	46:BS:29:ASP:OD2	2.51	0.42
47:BT:65:ILE:HD12	47:BT:65:ILE:N	2.35	0.42
49:BV:19:VAL:HG11	49:BV:44:MET:HG2	2.02	0.42
49:BV:30:LEU:HD13	49:BV:30:LEU:N	2.33	0.42
50:BW:98:PRO:O	50:BW:100:ILE:N	2.52	0.42
53:BC:20:G:C2	53:BC:58:A:N3	2.87	0.42
53:BD:8:U:OP2	53:BD:13:C:H5	2.02	0.42
31:CA:45:U:H2'	31:CA:46:G:H8	1.84	0.42
31:CA:402:G:C6	31:CA:403:C:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:410:G:N1	31:CA:431:A:OP2	2.37	0.42
31:CA:421:U:O2	31:CA:421:U:H3'	2.19	0.42
31:CA:967:C:H5"	31:CA:968:A:OP2	2.20	0.42
31:CA:1060:C:C2	31:CA:1198:G:C2	3.08	0.42
31:CA:1125:U:H2'	31:CA:1126:U:C5	2.54	0.42
31:CA:1418:A:H5"	31:CA:1419:G:OP2	2.19	0.42
32:CE:12:GLU:HB2	32:CE:16:HIS:ND1	2.34	0.42
32:CE:19:HIS:O	32:CE:20:GLU:C	2.62	0.42
36:CI:68:PRO:HB2	36:CI:70:ASP:OD1	2.20	0.42
46:CS:55:ARG:HA	46:CS:55:ARG:HE	1.85	0.42
49:CV:22:LEU:HD12	49:CV:27:GLU:HA	2.01	0.42
50:CW:10:LEU:CD2	50:CW:12:ALA:H	2.21	0.42
53:CD:8:U:H5"	53:CD:9:G:P	2.60	0.42
53:CD:61:U:P	53:CD:62:C:H41	2.41	0.42
1:DA:223:A:O2'	1:DA:420:C:O2	2.36	0.42
1:DA:616:A:C4	5:DF:180:GLY:HA2	2.55	0.42
1:DA:1140:C:H4'	1:DA:1143:A:N7	2.35	0.42
1:DA:1153:C:H2'	1:DA:1154:G:O4'	2.19	0.42
1:DA:1324:G:N2	1:DA:1331:A:C4	2.88	0.42
1:DA:1728:G:N1	1:DA:1730:U:OP2	2.52	0.42
1:DA:1887:C:H3'	1:DA:1888:G:H5"	2.02	0.42
1:DA:1889:A:O2'	1:DA:2087:G:H5'	2.20	0.42
1:DA:2602:A:H4'	1:DA:2603:G:C5'	2.48	0.42
1:DA:2857:G:N2	1:DA:2859:G:H3'	2.34	0.42
4:DE:66:HIS:HE1	4:DE:73:GLU:HG2	1.85	0.42
5:DF:8:GLN:O	5:DF:9:ILE:C	2.62	0.42
5:DF:36:VAL:CG1	5:DF:183:VAL:HG11	2.47	0.42
6:DG:110:ALA:O	6:DG:111:LEU:C	2.62	0.42
8:DK:5:LEU:HD12	8:DK:5:LEU:N	2.35	0.42
11:DO:15:ARG:C	11:DO:16:ARG:O	2.63	0.42
11:DO:85:LEU:HB3	11:DO:114:ILE:HD13	2.02	0.42
13:D0:3:HIS:H	13:D0:3:HIS:CD2	2.38	0.42
14:DQ:19:LYS:O	14:DQ:20:ARG:CB	2.60	0.42
16:D1:92:ARG:CZ	17:D2:11:GLN:H	2.32	0.42
20:DU:5:MET:HE1	20:DU:69:ALA:HB1	2.01	0.42
20:DU:43:ASN:O	20:DU:44:ILE:O	2.37	0.42
27:D5:50:GLY:O	27:D5:51:TYR:HD1	2.03	0.42
30:D8:58:ILE:H	30:D8:58:ILE:HG12	1.65	0.42
1:AA:228:A:N3	1:AA:228:A:C2'	2.83	0.42
1:AA:268:C:H2'	1:AA:269:U:O4'	2.19	0.42
1:AA:747:U:O2	1:AA:2014:A:H1'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1299:G:H5"	1:AA:1300:U:OP1	2.19	0.42
1:AA:2188:C:H2'	1:AA:2189:U:O4'	2.20	0.42
1:AA:2409:G:H2'	1:AA:2410:G:O4'	2.19	0.42
1:AA:2660:A:C2	1:AA:2661:G:H1'	2.54	0.42
3:AD:164:GLN:HB3	3:AD:166:GLN:HE22	1.84	0.42
3:AD:240:ALA:HA	3:AD:241:PRO:HD2	1.91	0.42
4:AE:78:LEU:HD23	4:AE:79:ARG:HB2	2.02	0.42
4:AE:97:LYS:O	4:AE:100:GLU:HG3	2.20	0.42
8:AK:63:ALA:HA	8:AK:66:GLU:HG2	2.02	0.42
12:AP:43:THR:O	12:AP:44:ALA:C	2.63	0.42
12:AP:61:GLY:HA2	12:AP:62:GLY:HA3	1.71	0.42
18:AS:28:SER:O	18:AS:30:GLU:N	2.53	0.42
19:AT:31:HIS:HA	19:AT:32:PRO:HD3	1.83	0.42
20:AU:97:ARG:HD3	20:AU:97:ARG:H	1.85	0.42
23:AZ:11:ARG:HB2	23:AZ:12:PRO:HD2	2.00	0.42
23:AZ:56:GLN:HA	23:AZ:56:GLN:HE21	1.85	0.42
31:BA:245:C:O2	31:BA:283:C:N3	2.53	0.42
31:BA:265:G:H4'	47:BT:66:SER:HA	2.02	0.42
31:BA:402:G:C6	31:BA:403:C:C4	3.06	0.42
31:BA:433:C:H2'	31:BA:434:U:C6	2.55	0.42
31:BA:812:C:H1'	31:BA:813:U:OP2	2.19	0.42
31:BA:1026:G:C5	31:BA:1036:G:N2	2.88	0.42
31:BA:1502:A:C2	31:BA:1505:G:N2	2.79	0.42
32:BE:8:LYS:C	32:BE:10:LEU:N	2.76	0.42
33:BF:28:GLN:O	33:BF:29:TYR:C	2.63	0.42
34:BG:88:VAL:O	34:BG:88:VAL:HG12	2.19	0.42
34:BG:122:ARG:NH1	34:BG:122:ARG:CG	2.59	0.42
37:BJ:50:ILE:HG22	37:BJ:50:ILE:O	2.19	0.42
39:BL:89:ASN:N	39:BL:89:ASN:OD1	2.52	0.42
39:BL:118:LYS:O	39:BL:119:ALA:CB	2.68	0.42
42:BO:3:THR:H	42:BO:6:GLN:NE2	2.17	0.42
46:BS:48:TRP:O	46:BS:49:LEU:HB2	2.20	0.42
47:BT:63:ARG:O	47:BT:65:ILE:HD12	2.20	0.42
52:BB:49:C:H2'	52:BB:50:A:H4'	2.02	0.42
52:BB:56:G:H2'	52:BB:57:C:H6	1.84	0.42
53:BC:19:G:C6	53:BC:59:A:C6	3.08	0.42
31:CA:135:C:C2	46:CS:1:MET:HB3	2.55	0.42
31:CA:181:G:O2'	31:CA:183:G:O6	2.36	0.42
31:CA:409:G:H2'	31:CA:410:G:H5'	2.01	0.42
31:CA:412:A:O2'	31:CA:413:G:OP2	2.24	0.42
31:CA:627:G:O2'	31:CA:628:G:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1286:A:H5'	51:CX:25:LYS:HG3	2.00	0.42
31:CA:1309:G:C6	31:CA:1329:A:N1	2.88	0.42
32:CE:97:TRP:CH2	32:CE:176:GLU:CD	2.97	0.42
36:CI:54:LYS:HB2	36:CI:54:LYS:NZ	2.35	0.42
37:CJ:78:ARG:HD2	37:CJ:79:ARG:N	2.34	0.42
38:CK:136:GLU:O	38:CK:136:GLU:HG3	2.19	0.42
50:CW:55:ILE:O	50:CW:58:LYS:N	2.51	0.42
52:CB:66:U:O2	52:CB:68:A:N7	2.53	0.42
1:DA:5:A:C6	1:DA:6:A:C6	3.08	0.42
1:DA:244:A:H2'	1:DA:245:G:O4'	2.20	0.42
1:DA:686:G:O6	29:D7:12:ARG:HG3	2.20	0.42
1:DA:872:A:C4	1:DA:906:G:N2	2.87	0.42
1:DA:1063:G:O6	1:DA:1075:C:N3	2.52	0.42
1:DA:1174:A:H3'	1:DA:1175:U:C5'	2.50	0.42
1:DA:2163:C:C5	1:DA:2164:C:C4	3.07	0.42
1:DA:2258:C:H4'	1:DA:2259:G:OP2	2.19	0.42
1:DA:2402:C:C2'	1:DA:2403:C:O5'	2.68	0.42
1:DA:2577:A:H2'	1:DA:2614:A:N6	2.35	0.42
1:DA:2635:C:H5"	4:DE:77:ILE:O	2.20	0.42
1:DA:2645:G:N2	1:DA:2767:C:OP2	2.53	0.42
1:DA:2667:C:H1'	7:DH:109:PHE:HD2	1.84	0.42
1:DA:2698:U:H2'	1:DA:2699:C:C6	2.54	0.42
4:DE:111:ARG:HD2	4:DE:160:TYR:CD1	2.54	0.42
5:DF:57:VAL:HG13	5:DF:58:ALA:N	2.34	0.42
5:DF:119:ARG:HG2	5:DF:119:ARG:O	2.20	0.42
6:DG:15:VAL:HG13	6:DG:175:LEU:CB	2.50	0.42
7:DH:89:ILE:HG21	7:DH:129:THR:HG22	2.02	0.42
8:DK:14:ASP:N	8:DK:17:GLN:OE1	2.44	0.42
12:DP:64:ILE:HA	12:DP:106:VAL:HG12	2.00	0.42
15:DR:134:GLU:C	15:DR:136:GLN:H	2.28	0.42
16:D1:97:ASP:OD2	16:D1:98:LEU:N	2.53	0.42
18:DS:17:VAL:C	18:DS:19:LEU:H	2.28	0.42
21:DV:10:ARG:HG2	21:DV:11:GLU:N	2.34	0.42
21:DV:130:PRO:HA	21:DV:133:ILE:HD11	2.01	0.42
1:AA:127:A:H5"	1:AA:128:C:C6	2.54	0.42
1:AA:637:A:OP1	11:AO:133:SER:HB3	2.19	0.42
1:AA:1536:A:H2'	1:AA:1537:C:OP1	2.20	0.42
1:AA:2251:G:OP1	12:AP:82:ARG:NH1	2.52	0.42
1:AA:2308:G:H2'	1:AA:2308:G:N3	2.34	0.42
1:AA:2473:U:C2'	1:AA:2474:C:H5"	2.49	0.42
1:AA:2495:G:H5'	12:AP:81:VAL:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2712:U:O2'	1:AA:2712(A):A:OP2	2.36	0.42
1:AA:2716:U:O2'	1:AA:2717:G:H5'	2.19	0.42
1:AA:2850:A:H2	13:A0:61:HIS:CG	2.36	0.42
5:AF:150:GLY:HA2	5:AF:172:TRP:CD2	2.55	0.42
7:AH:97:ARG:O	7:AH:98:LEU:HB2	2.19	0.42
11:AO:16:ARG:NH1	11:AO:16:ARG:CG	2.80	0.42
16:A1:50:ARG:HG2	16:A1:53:ARG:HH22	1.84	0.42
22:A3:42:GLY:O	22:A3:57:PHE:CD1	2.71	0.42
23:AZ:8:SER:OG	23:AZ:10:LYS:HG3	2.20	0.42
31:BA:1054:C:H42	52:BB:35:G:C1'	2.33	0.42
31:BA:1072:G:H2'	31:BA:1073:U:C6	2.54	0.42
31:BA:1110:A:H5"	31:BA:1183:A:H2	1.83	0.42
31:BA:1190:G:C5'	33:BF:176:HIS:CE1	3.03	0.42
33:BF:30:ARG:HB2	44:BQ:36:PHE:O	2.19	0.42
33:BF:196:LEU:N	33:BF:196:LEU:HD23	2.35	0.42
37:BJ:31:MET:HE1	37:BJ:36:LYS:NZ	2.35	0.42
38:BK:64:LYS:CB	38:BK:79:VAL:HG21	2.47	0.42
45:BR:17:ARG:HD3	45:BR:26:GLU:CD	2.45	0.42
46:BS:58:TYR:O	46:BS:62:VAL:HG22	2.19	0.42
47:BT:56:VAL:O	47:BT:77:VAL:HB	2.20	0.42
49:BV:28:LYS:HG2	49:BV:47:HIS:CE1	2.54	0.42
31:CA:51:A:C2	31:CA:353:A:N1	2.88	0.42
31:CA:730:G:O6	45:CR:51:HIS:NE2	2.50	0.42
31:CA:927:G:N2	31:CA:1391:U:H1'	2.34	0.42
31:CA:1127:G:OP2	31:CA:1127:G:H8	2.03	0.42
31:CA:1141:C:O2'	31:CA:1142:G:H5'	2.20	0.42
31:CA:1158:C:H2'	31:CA:1160:G:C8	2.55	0.42
31:CA:1346:A:C8	31:CA:1348:U:O2	2.73	0.42
32:CE:83:MET:O	32:CE:85:ALA:N	2.53	0.42
34:CG:32:ALA:O	34:CG:36:ARG:HG3	2.20	0.42
36:CI:19:LEU:HD23	36:CI:19:LEU:O	2.20	0.42
37:CJ:131:LYS:HB2	37:CJ:131:LYS:NZ	2.35	0.42
37:CJ:149:ARG:HD2	41:CN:59:TYR:CE1	2.55	0.42
47:CT:74:LEU:HD23	47:CT:74:LEU:HA	1.91	0.42
1:DA:174:C:H2'	1:DA:174:C:O2	2.19	0.42
1:DA:813:U:H2'	1:DA:814:C:C6	2.55	0.42
1:DA:1003:G:O2'	1:DA:1010:A:N1	2.42	0.42
1:DA:1006:C:O2'	9:DM:106:MET:O	2.34	0.42
1:DA:1300:U:C5'	1:DA:1301:A:H5"	2.46	0.42
1:DA:1536:A:H3'	1:DA:1537:C:O4'	2.19	0.42
1:DA:2293:C:O3'	14:DQ:89:ARG:NH2	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2324:C:H5"	1:DA:2325:G:C5'	2.50	0.42
1:DA:2790:A:H1'	1:DA:2791:C:OP2	2.20	0.42
1:DA:2793:G:N2	1:DA:2804:C:C2	2.87	0.42
5:DF:74:ARG:O	5:DF:74:ARG:HG2	2.19	0.42
5:DF:134:GLY:C	5:DF:166:ALA:HB2	2.45	0.42
6:DG:142:PRO:HG2	6:DG:143:GLU:OE2	2.20	0.42
8:DK:7:GLU:O	8:DK:9:LEU:HD23	2.19	0.42
8:DK:62:LYS:O	8:DK:62:LYS:HD2	2.19	0.42
11:DO:11:GLY:O	11:DO:12:ALA:C	2.54	0.42
24:DW:41:ILE:CD1	24:DW:44:LEU:HD12	2.48	0.42
30:D8:34:TRP:C	30:D8:36:LYS:N	2.76	0.42
1:AA:65:C:H2'	1:AA:66:C:H6	1.84	0.42
1:AA:547:A:H3'	1:AA:548:A:C8	2.55	0.42
1:AA:600:G:H2'	1:AA:601:C:O4'	2.19	0.42
1:AA:845:G:OP2	1:AA:845:G:H8	2.02	0.42
1:AA:1042:G:H2'	1:AA:1043:C:O4'	2.20	0.42
1:AA:1348:G:C2'	1:AA:1349:A:H5"	2.48	0.42
1:AA:1376:C:H2'	1:AA:1377:G:O4'	2.19	0.42
1:AA:1416:G:O2'	1:AA:1417:C:O4'	2.38	0.42
1:AA:1918:A:O2'	1:AA:1920:C:N4	2.52	0.42
1:AA:2352:A:C4	1:AA:2366:A:C2	3.08	0.42
1:AA:2419:U:OP1	30:A8:41:ILE:HD12	2.20	0.42
4:AE:188:VAL:HA	4:AE:189:PRO:HD3	1.83	0.42
6:AG:60:LEU:HB3	6:AG:68:PRO:HG3	2.01	0.42
7:AH:119:GLU:HA	7:AH:119:GLU:OE2	2.19	0.42
11:AO:19:VAL:HG22	11:AO:20:GLY:N	2.32	0.42
11:AO:47:ASP:OD2	11:AO:49:ARG:HG2	2.19	0.42
11:AO:106:LEU:HD23	11:AO:106:LEU:HA	1.94	0.42
13:A0:55:ALA:HA	13:A0:80:PHE:HE2	1.82	0.42
15:AR:65:LYS:HE3	15:AR:67:SER:HB2	2.02	0.42
18:AS:57:ASN:HD22	18:AS:57:ASN:HA	1.63	0.42
19:AT:29:TRP:CZ3	19:AT:78:LYS:HG2	2.55	0.42
27:A5:48:GLU:O	27:A5:49:CYS:HB2	2.20	0.42
31:BA:195:A:N7	31:BA:196:A:C6	2.88	0.42
31:BA:659:U:O2'	31:BA:660:G:H5'	2.20	0.42
31:BA:684:A:O2'	41:BN:38:ASN:HB3	2.20	0.42
31:BA:766:A:C8	31:BA:814:A:C6	3.08	0.42
31:BA:965:A:C2	31:BA:969:A:C2	3.08	0.42
36:BI:14:LEU:HD11	36:BI:84:ASN:HB3	2.01	0.42
37:BJ:100:ALA:O	37:BJ:104:LEU:HD23	2.20	0.42
37:BJ:119:ARG:C	37:BJ:121:ALA:N	2.76	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BK:23:SER:HA	38:BK:61:VAL:O	2.19	0.42
39:BL:117:HIS:O	39:BL:118:LYS:HG3	2.19	0.42
43:BP:44:ARG:C	43:BP:46:LYS:N	2.78	0.42
43:BP:57:ARG:HH11	43:BP:57:ARG:HB2	1.85	0.42
49:BV:51:VAL:HG23	49:BV:60:VAL:CG1	2.50	0.42
31:CA:322:C:H5	31:CA:328:C:C5	2.31	0.42
31:CA:391:G:C6	31:CA:392:G:C5	3.08	0.42
31:CA:689:C:H2'	31:CA:690:G:C5'	2.46	0.42
31:CA:1021:G:H2'	31:CA:1022:G:O4'	2.19	0.42
31:CA:1190:G:H5'	33:CF:176:HIS:NE2	2.34	0.42
32:CE:8:LYS:C	32:CE:10:LEU:N	2.78	0.42
32:CE:83:MET:HE2	32:CE:234:PRO:CG	2.49	0.42
33:CF:41:GLY:O	33:CF:45:LYS:HB3	2.20	0.42
33:CF:48:TYR:O	33:CF:49:SER:C	2.63	0.42
35:CH:63:ARG:HA	35:CH:66:MET:CE	2.49	0.42
41:CN:27:ASN:OD1	41:CN:55:LYS:HB3	2.19	0.42
42:CO:50:ARG:HG3	42:CO:90:LEU:HD21	2.02	0.42
42:CO:59:SER:C	42:CO:61:TYR:H	2.28	0.42
49:CV:16:LEU:O	49:CV:17:GLU:C	2.63	0.42
52:CB:22:G:H22	52:CB:59:U:H5'	1.85	0.42
53:CC:54:G:H2'	53:CC:55:U:C6	2.54	0.42
1:DA:49:A:H5'	1:DA:51:G:O4'	2.19	0.42
1:DA:67:U:C4	1:DA:74:A:N1	2.87	0.42
1:DA:565:C:H2'	1:DA:566:U:O4'	2.20	0.42
1:DA:643:A:N1	1:DA:2369:A:O2'	2.49	0.42
1:DA:709:U:H2'	1:DA:710:G:C8	2.54	0.42
1:DA:1012:U:N3	1:DA:1143:A:N6	2.63	0.42
1:DA:1299:G:H5"	1:DA:1300:U:H5"	2.00	0.42
1:DA:1506:C:H2'	1:DA:1507:A:O4'	2.20	0.42
1:DA:1899:G:H2'	1:DA:1900:A:OP2	2.18	0.42
1:DA:2170:A:H5"	1:DA:2171:A:OP2	2.20	0.42
1:DA:2441:C:OP2	1:DA:2586:C:O2'	2.33	0.42
1:DA:2443:C:O2'	1:DA:2444:G:H5'	2.18	0.42
1:DA:2690:C:OP2	1:DA:2690:C:H6	2.02	0.42
2:DB:40:U:H1'	2:DB:46:A:C2	2.55	0.42
3:DD:83:GLU:CD	3:DD:104:TYR:HE2	2.28	0.42
4:DE:37:ARG:HA	4:DE:42:ASP:OD2	2.20	0.42
5:DF:124:LEU:O	5:DF:124:LEU:HG	2.19	0.42
7:DH:168:PRO:O	7:DH:169:VAL:CB	2.60	0.42
8:DK:76:THR:HG23	8:DK:77:LEU:N	2.34	0.42
8:DK:98:ALA:C	8:DK:100:ALA:N	2.77	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:DP:2:LEU:HD13	12:DP:69:PHE:CE1	2.54	0.42
14:DQ:106:ARG:CZ	14:DQ:106:ARG:O	2.67	0.42
15:DR:18:ASP:OD1	15:DR:18:ASP:N	2.36	0.42
16:D1:66:ASN:HD21	16:D1:70:ARG:NE	2.12	0.42
17:D2:99:ILE:O	17:D2:99:ILE:HG22	2.20	0.42
21:DV:69:THR:HG22	21:DV:90:VAL:HG22	2.02	0.42
23:DZ:78:LYS:HE2	23:DZ:80:LEU:HD21	2.02	0.42
30:D8:61:LEU:HD12	30:D8:62:LEU:H	1.85	0.42
1:AA:270(Y):G:C2	1:AA:270(Z):U:O4	2.73	0.42
1:AA:305:U:O5'	1:AA:305:U:H6	2.03	0.42
1:AA:469:G:H2'	1:AA:470:A:H5"	2.02	0.42
1:AA:529:A:C8	1:AA:530:G:C6	3.06	0.42
1:AA:576:U:H2'	1:AA:577:G:C8	2.54	0.42
1:AA:657:U:H2'	1:AA:658:C:C6	2.55	0.42
1:AA:705:A:H2'	1:AA:706:A:O4'	2.20	0.42
1:AA:906:G:HO2'	12:AP:67:ARG:HH21	1.61	0.42
1:AA:911:A:H2'	12:AP:9:TYR:OH	2.20	0.42
1:AA:969:U:H2'	1:AA:970:C:C6	2.55	0.42
1:AA:1005:C:O2'	9:AM:28:THR:CG2	2.68	0.42
1:AA:1317:A:H2'	1:AA:1318:C:C6	2.55	0.42
1:AA:2164:C:C6	1:AA:2165:G:N7	2.88	0.42
1:AA:2262:U:H4'	1:AA:2328:A:H2	1.84	0.42
1:AA:2467:C:N4	1:AA:2468:G:N1	2.68	0.42
1:AA:2666:C:H5"	1:AA:2667:C:OP2	2.20	0.42
2:AB:29:A:C2	2:AB:30:C:C2	3.08	0.42
2:AB:66:A:N6	2:AB:107:U:H2'	2.33	0.42
3:AD:58:HIS:HD2	3:AD:59:LYS:O	2.02	0.42
4:AE:183:LEU:HD12	4:AE:183:LEU:N	2.34	0.42
5:AF:29:ASN:N	5:AF:112:MET:HE1	2.29	0.42
6:AG:109:VAL:CG1	26:A4:33:VAL:HG21	2.50	0.42
7:AH:152:ARG:HE	7:AH:153:LYS:HZ3	1.67	0.42
8:AK:129:THR:HA	8:AK:137:PRO:HA	2.01	0.42
13:A0:70:LEU:C	13:A0:72:ASP:H	2.28	0.42
18:AS:29:LEU:HD21	18:AS:33:ARG:NH2	2.34	0.42
19:AT:29:TRP:CZ2	19:AT:76:ARG:NH2	2.88	0.42
21:AV:52:SER:C	21:AV:54:HIS:N	2.78	0.42
21:AV:150:LEU:CD2	21:AV:154:ASP:HB2	2.50	0.42
24:AW:59:ARG:O	24:AW:62:THR:HG23	2.19	0.42
28:A6:43:CYS:HB3	28:A6:44:ARG:HH11	1.85	0.42
31:BA:36:C:O2'	42:BO:114:ARG:NH2	2.52	0.42
31:BA:96:G:H2'	31:BA:97:U:C5'	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:250:A:H4'	31:BA:251:G:H5"	2.01	0.42
31:BA:384:G:C6	31:BA:385:C:N4	2.88	0.42
31:BA:404:U:H5'	34:BG:122:ARG:HD2	2.01	0.42
31:BA:439:A:H2'	31:BA:440:A:O4'	2.20	0.42
31:BA:920:U:O4'	31:BA:1080:A:C2	2.73	0.42
31:BA:1037:C:H3'	31:BA:1037:C:H6	1.85	0.42
31:BA:1206:G:C5	31:BA:1207:G:N7	2.88	0.42
31:BA:1306:A:C2	31:BA:1307:U:H1'	2.55	0.42
32:BE:70:PHE:O	32:BE:93:VAL:N	2.49	0.42
33:BF:78:GLY:HA3	33:BF:83:ARG:CB	2.50	0.42
34:BG:173:TRP:CZ3	34:BG:193:ASP:HB3	2.55	0.42
35:BH:43:LEU:HD23	35:BH:133:TYR:CD1	2.55	0.42
39:BL:22:GLY:HA3	39:BL:60:ASP:CG	2.44	0.42
41:BN:79:SER:HB2	41:BN:106:LYS:CD	2.44	0.42
43:BP:25:ILE:HD11	43:BP:60:VAL:CG1	2.49	0.42
44:BQ:58:LYS:NZ	44:BQ:58:LYS:HB3	2.35	0.42
50:BW:11:SER:C	50:BW:13:LEU:H	2.28	0.42
50:BW:11:SER:C	50:BW:13:LEU:N	2.77	0.42
53:BD:9:G:C6	53:BD:47:G:N1	2.88	0.42
31:CA:502:G:H2'	31:CA:503:C:O4'	2.20	0.42
31:CA:779:C:H2'	31:CA:780:A:O4'	2.19	0.42
31:CA:940:C:O2'	31:CA:941:G:H5'	2.20	0.42
31:CA:963:G:N2	40:CM:55:LYS:CE	2.83	0.42
31:CA:1095:U:H5"	31:CA:1109:C:O2	2.20	0.42
31:CA:1522:U:H2'	31:CA:1523:G:H8	1.85	0.42
32:CE:163:PHE:HA	32:CE:185:ILE:O	2.19	0.42
33:CF:86:VAL:O	33:CF:90:GLU:HG2	2.20	0.42
34:CG:178:VAL:CG1	34:CG:179:GLU:N	2.83	0.42
35:CH:78:HIS:HA	38:CK:105:ARG:HG3	2.02	0.42
38:CK:126:LYS:C	38:CK:128:GLY:H	2.27	0.42
40:CM:15:THR:HG21	40:CM:92:THR:HG21	2.01	0.42
42:CO:24:LEU:HD23	42:CO:30:ARG:CG	2.35	0.42
47:CT:27:PHE:CZ	47:CT:36:ILE:HD11	2.54	0.42
50:CW:14:LYS:HB2	50:CW:17:ARG:CZ	2.50	0.42
52:CB:40:G:O2'	52:CB:41:G:H5'	2.19	0.42
53:CD:57:C:O4'	1:DA:2169:A:H1'	2.20	0.42
1:DA:394:A:H5"	1:DA:395:U:OP2	2.20	0.42
1:DA:570:G:H2'	1:DA:2030:A:C5	2.55	0.42
1:DA:612:G:C2	1:DA:617:G:C6	3.07	0.42
1:DA:824:A:H1'	1:DA:2358:G:N7	2.35	0.42
1:DA:1006:C:H1'	9:DM:106:MET:HE3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1023:U:OP2	1:DA:1024:G:N7	2.53	0.42
1:DA:1266:G:C6	18:DS:16:LYS:HE3	2.55	0.42
1:DA:1507:A:H2'	1:DA:1508:A:O4'	2.19	0.42
1:DA:1858:G:OP2	1:DA:1858:G:H8	2.03	0.42
1:DA:2210:G:H5'	1:DA:2211:G:N1	2.35	0.42
1:DA:2335:A:C8	1:DA:2337:G:N7	2.88	0.42
1:DA:2689:U:H4'	1:DA:2690:C:C5'	2.47	0.42
4:DE:35:GLN:H	4:DE:48:GLN:HB3	1.84	0.42
7:DH:86:GLU:HA	7:DH:132:ARG:HB3	2.01	0.42
10:DN:11:ALA:O	10:DN:98:VAL:HA	2.20	0.42
11:DO:6:LEU:HD12	11:DO:6:LEU:HA	1.65	0.42
12:DP:17:LEU:HA	12:DP:98:LYS:HE2	2.02	0.42
13:D0:52:ILE:O	13:D0:55:ALA:N	2.53	0.42
15:DR:61:PHE:CE2	15:DR:76:PHE:HB2	2.55	0.42
16:D1:95:LEU:C	16:D1:97:ASP:H	2.27	0.42
18:DS:86:LEU:HB2	18:DS:96:ILE:HG23	2.01	0.42
19:DT:5:TYR:HD2	24:DW:33:MET:SD	2.42	0.42
19:DT:11:PRO:HD3	24:DW:37:PHE:CD2	2.54	0.42
20:DU:101:LYS:HE2	20:DU:101:LYS:HB3	1.80	0.42
29:D7:19:ARG:HG2	29:D7:19:ARG:HH11	1.85	0.42
1:AA:252:G:OP2	11:AO:50:ARG:NH1	2.52	0.41
1:AA:330:A:O2'	1:AA:331:A:C8	2.63	0.41
1:AA:1826:G:H2'	1:AA:1827:C:H6	1.85	0.41
1:AA:1926:U:H2'	1:AA:1928:A:OP2	2.19	0.41
1:AA:2163:C:H5'	1:AA:2172:U:OP2	2.19	0.41
1:AA:2348:U:O4	1:AA:2382:G:C2	2.73	0.41
1:AA:2656:U:O2	1:AA:2656:U:H2'	2.19	0.41
1:AA:2886:G:H2'	1:AA:2887:U:H6	1.85	0.41
3:AD:97:TYR:HE1	3:AD:103:ARG:HG3	1.85	0.41
4:AE:23:VAL:CG1	4:AE:185:LYS:CA	2.81	0.41
5:AF:81:PRO:HB3	5:AF:89:VAL:HG23	2.01	0.41
11:AO:46:LYS:HE2	11:AO:46:LYS:HB3	1.79	0.41
11:AO:58:THR:HG22	11:AO:61:ARG:NH2	2.35	0.41
12:AP:112:GLU:CD	12:AP:112:GLU:H	2.26	0.41
15:AR:118:ARG:NH1	31:BA:1446:A:C6	2.88	0.41
16:A1:60:LEU:C	16:A1:60:LEU:HD13	2.44	0.41
18:AS:29:LEU:O	18:AS:33:ARG:HG3	2.20	0.41
19:AT:57:LEU:HD11	19:AT:78:LYS:HZ2	1.84	0.41
20:AU:33:LYS:HB2	20:AU:33:LYS:HE3	1.73	0.41
21:AV:27:VAL:HG13	21:AV:29:TYR:HD2	1.84	0.41
21:AV:39:VAL:HG21	21:AV:44:PHE:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AV:156:LYS:O	21:AV:157:LEU:HB2	2.19	0.41
27:A5:33:CYS:HA	27:A5:34:PRO:HD2	1.83	0.41
31:BA:303:A:H2'	31:BA:304:U:O4'	2.20	0.41
31:BA:374:A:C6	31:BA:375:U:C4	3.07	0.41
31:BA:706:A:H2'	31:BA:707:C:H5'	2.02	0.41
31:BA:1028(A):C:N4	31:BA:1028(B):C:H41	2.18	0.41
31:BA:1072:G:C5	31:BA:1073:U:C4	3.07	0.41
31:BA:1086:U:H6	31:BA:1086:U:O5'	2.03	0.41
31:BA:1342:C:H2'	31:BA:1343:G:H8	1.84	0.41
31:BA:1503:A:H5'	31:BA:1531:A:H1'	2.02	0.41
31:BA:1504:G:H3'	31:BA:1504:G:P	2.59	0.41
33:BF:109:PRO:C	33:BF:111:LEU:N	2.76	0.41
34:BG:10:ARG:NH1	34:BG:10:ARG:HB2	2.35	0.41
39:BL:83:ARG:HA	39:BL:86:VAL:CG1	2.50	0.41
42:BO:18:LYS:HD2	42:BO:18:LYS:N	2.35	0.41
31:CA:88:C:O2	31:CA:88:C:H2'	2.19	0.41
31:CA:652:U:O2'	31:CA:653:A:C2	2.70	0.41
31:CA:977:A:H1'	31:CA:981:U:H3	1.85	0.41
31:CA:1007:C:H2'	31:CA:1008:C:O4'	2.20	0.41
31:CA:1158:C:O2'	32:CE:133:LYS:HD3	2.20	0.41
34:CG:139:ARG:NH1	34:CG:139:ARG:CG	2.71	0.41
35:CH:48:ALA:HB3	35:CH:54:ALA:CB	2.50	0.41
37:CJ:78:ARG:NH2	37:CJ:80:VAL:HB	2.35	0.41
39:CL:18:PHE:HB2	39:CL:62:TYR:O	2.20	0.41
43:CP:45:VAL:O	43:CP:45:VAL:HG12	2.20	0.41
49:CV:31:ILE:CG1	49:CV:32:LYS:N	2.77	0.41
1:DA:6:A:O2'	9:DM:129:PRO:HB2	2.19	0.41
1:DA:389:G:C6	11:DO:70:GLN:HB3	2.54	0.41
1:DA:952:G:C6	1:DA:966:G:C6	3.08	0.41
1:DA:979:G:H3'	1:DA:980:A:C5'	2.49	0.41
1:DA:1050:A:O2'	1:DA:2752:C:O2	2.37	0.41
1:DA:1261:C:C2'	1:DA:1262:A:O5'	2.68	0.41
1:DA:2169:A:H2	1:DA:2170:A:C5	2.38	0.41
1:DA:2531:A:H4'	7:DH:157:TYR:HD2	1.84	0.41
1:DA:2591:C:H2'	1:DA:2592:G:C8	2.55	0.41
1:DA:2629:A:H2'	1:DA:2630:G:OP2	2.20	0.41
1:DA:2720:U:C4	1:DA:2873:A:N6	2.88	0.41
1:DA:2892:A:N6	1:DA:2893:G:C2	2.88	0.41
4:DE:46:ALA:CB	4:DE:82:ARG:HA	2.50	0.41
11:DO:138:LEU:C	11:DO:138:LEU:HD13	2.45	0.41
12:DP:29:PHE:C	12:DP:30:GLY:O	2.62	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:DP:37:LEU:HD21	12:DP:130:LYS:HB2	2.01	0.41
13:D0:28:LEU:HD23	13:D0:28:LEU:HA	1.84	0.41
15:DR:88:ILE:O	15:DR:88:ILE:HG13	2.17	0.41
16:D1:50:ARG:HG3	16:D1:53:ARG:NH2	2.35	0.41
16:D1:52:ARG:NH1	16:D1:52:ARG:HB3	2.34	0.41
16:D1:92:ARG:HG2	16:D1:95:LEU:H	1.85	0.41
16:D1:92:ARG:HD2	16:D1:95:LEU:HD12	2.01	0.41
20:DU:87:LYS:HB3	20:DU:92:ASN:CB	2.45	0.41
21:DV:131:ARG:H	21:DV:131:ARG:CD	2.33	0.41
26:D4:23:GLU:HG3	26:D4:24:THR:H	1.83	0.41
1:AA:18:C:H4'	16:A1:23:GLY:O	2.20	0.41
1:AA:30:G:H2'	1:AA:31:C:C6	2.56	0.41
1:AA:729:G:O2'	1:AA:763:G:H4'	2.20	0.41
1:AA:1050:A:C8	1:AA:2751:G:C5	3.08	0.41
1:AA:1065:U:C4	1:AA:1066:U:H6	2.38	0.41
1:AA:1291:C:H2'	1:AA:1292:U:C6	2.55	0.41
1:AA:1448:G:O2'	1:AA:1529:A:N1	2.48	0.41
1:AA:1506:C:O2	1:AA:1506:C:H2'	2.19	0.41
1:AA:1757:U:C2'	1:AA:1758:G:OP1	2.68	0.41
1:AA:1969:A:O2'	1:AA:1972:A:N3	2.46	0.41
1:AA:2038:G:H2'	1:AA:2039:C:C6	2.55	0.41
1:AA:2332:U:H5'	1:AA:2336:A:N6	2.35	0.41
1:AA:2467:C:O2'	1:AA:2468:G:H5"	2.21	0.41
1:AA:2751:G:C2	7:AH:3:ARG:HB3	2.54	0.41
1:AA:2820:A:C5	13:A0:4:LEU:HD21	2.56	0.41
2:AB:13:A:H2'	2:AB:70:C:O2'	2.20	0.41
2:AB:25:A:H2'	2:AB:26:A:H5'	2.02	0.41
3:AD:149:PRO:O	3:AD:150:LYS:HB2	2.20	0.41
4:AE:115:GLY:HA2	4:AE:157:ALA:CB	2.50	0.41
5:AF:170:LEU:HA	5:AF:171:PRO:HD2	1.93	0.41
7:AH:3:ARG:HA	7:AH:3:ARG:HE	1.84	0.41
8:AK:29:TYR:CD2	8:AK:30:LEU:HD23	2.54	0.41
10:AN:60:ALA:HB1	10:AN:84:ALA:HB1	2.02	0.41
11:AO:32:THR:O	11:AO:32:THR:HG23	2.20	0.41
13:A0:60:LEU:HD23	13:A0:61:HIS:N	2.35	0.41
14:AQ:106:ARG:NH2	14:AQ:107:GLU:HB2	2.34	0.41
16:A1:92:ARG:CZ	17:A2:11:GLN:O	2.67	0.41
20:AU:67:LEU:HD12	20:AU:67:LEU:HA	1.87	0.41
20:AU:86:ARG:HD2	20:AU:86:ARG:HA	1.88	0.41
23:AZ:91:LYS:C	23:AZ:93:GLU:N	2.78	0.41
29:A7:46:VAL:HG12	29:A7:47:ARG:N	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:A8:34:TRP:O	30:A8:35:GLN:HG2	2.21	0.41
31:BA:123:C:OP1	31:BA:311:C:O2'	2.37	0.41
31:BA:192:U:H4'	50:BW:102:GLY:O	2.20	0.41
31:BA:748:C:H1'	31:BA:749:C:OP2	2.20	0.41
31:BA:789:U:O2	31:BA:789:U:O4'	2.38	0.41
31:BA:872:A:C4	31:BA:874:G:C8	3.08	0.41
31:BA:1021:G:H2'	31:BA:1022:G:O4'	2.20	0.41
31:BA:1126:U:C5	31:BA:1127:G:C4	3.09	0.41
31:BA:1331:G:O2'	31:BA:1332:A:H8	2.03	0.41
31:BA:1417:G:C6	31:BA:1482:G:C6	3.08	0.41
33:BF:95:THR:CG2	33:BF:96:GLY:H	2.23	0.41
34:BG:6:GLY:O	34:BG:7:PRO:C	2.62	0.41
35:BH:71:LEU:HD11	35:BH:114:GLY:HA3	2.02	0.41
35:BH:154:GLY:O	35:BH:155:GLU:CB	2.66	0.41
36:BI:49:ALA:HB1	48:BU:80:PRO:HB3	2.02	0.41
36:BI:55:ASP:HA	36:BI:56:PRO:HD2	1.85	0.41
40:BM:79:ARG:HD3	40:BM:79:ARG:HA	1.91	0.41
41:BN:23:ALA:O	41:BN:87:THR:O	2.38	0.41
43:BP:57:ARG:HB2	43:BP:57:ARG:NH1	2.35	0.41
45:BR:47:LYS:HE2	45:BR:47:LYS:HB3	1.84	0.41
49:BV:40:ILE:HG12	49:BV:41:VAL:N	2.34	0.41
31:CA:194:C:H2'	31:CA:195:A:H5"	2.02	0.41
31:CA:584:G:OP1	47:CT:87:LYS:HE2	2.19	0.41
31:CA:925:G:H1'	31:CA:1502:A:C4	2.55	0.41
31:CA:978:A:C5'	31:CA:979:C:OP2	2.68	0.41
31:CA:1091:U:C2	31:CA:1093:A:OP2	2.73	0.41
31:CA:1128:C:N3	31:CA:1139:G:C6	2.88	0.41
32:CE:141:GLU:O	32:CE:145:LEU:HB2	2.21	0.41
32:CE:231:GLU:CB	32:CE:232:PRO:HD2	2.47	0.41
33:CF:20:SER:HB2	33:CF:40:ARG:NH2	2.17	0.41
1:DA:30:G:H2'	1:DA:31:C:H6	1.81	0.41
1:DA:519:U:H2'	1:DA:520:G:C8	2.55	0.41
1:DA:607:U:C2	1:DA:621:A:N1	2.88	0.41
1:DA:908:C:O2'	1:DA:909:A:H5'	2.20	0.41
1:DA:979:G:H3'	1:DA:980:A:H5"	2.01	0.41
1:DA:1021:A:C6	1:DA:1023:U:C4	3.08	0.41
1:DA:1332:G:H21	1:DA:1610:A:H8	1.49	0.41
1:DA:1599:C:H5"	19:DT:35:THR:HG22	2.02	0.41
1:DA:1790:C:H2'	1:DA:1791:A:C4	2.55	0.41
1:DA:2128:C:O2'	1:DA:2173:A:N1	2.49	0.41
1:DA:2280:G:H4'	1:DA:2327:A:O4'	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2383:G:O2'	1:DA:2384:G:H5'	2.19	0.41
1:DA:2741:A:H2'	1:DA:2742:C:O4'	2.19	0.41
4:DE:35:GLN:HB2	4:DE:48:GLN:NE2	2.36	0.41
6:DG:110:ALA:HA	6:DG:140:ILE:O	2.20	0.41
13:D0:29:LEU:HD12	13:D0:29:LEU:HA	1.82	0.41
16:D1:111:GLU:C	16:D1:113:ALA:N	2.78	0.41
19:DT:80:ILE:O	19:DT:80:ILE:HG13	2.18	0.41
28:D6:10:LEU:H	28:D6:10:LEU:HD12	1.84	0.41
1:AA:208:C:H2'	1:AA:209:C:C6	2.55	0.41
1:AA:213:A:H2'	1:AA:214:G:O4'	2.19	0.41
1:AA:250:G:C6	1:AA:251:A:C6	3.08	0.41
1:AA:304:G:C2	1:AA:314:A:C2	3.08	0.41
1:AA:480:A:C2'	1:AA:481:G:OP1	2.68	0.41
1:AA:493:G:H2'	1:AA:494:G:O4'	2.20	0.41
1:AA:839:U:H2'	1:AA:840:C:C6	2.55	0.41
1:AA:1045:A:C8	1:AA:1047:G:C2	3.08	0.41
1:AA:1099:G:H2'	1:AA:1100:C:O4'	2.19	0.41
1:AA:1710:C:N3	1:AA:1749:A:C2	2.88	0.41
1:AA:1899:G:C2'	1:AA:1900:A:OP2	2.67	0.41
1:AA:2109:U:O2	1:AA:2181:G:C2	2.74	0.41
1:AA:2212:A:N3	1:AA:2215:G:C2	2.88	0.41
1:AA:2418:A:OP1	30:A8:29:LYS:NZ	2.53	0.41
3:AD:28:GLU:CB	3:AD:29:PRO:CD	2.81	0.41
4:AE:119:ARG:HB3	4:AE:120:TRP:CD1	2.56	0.41
5:AF:11:VAL:HB	5:AF:18:ARG:HG3	2.01	0.41
12:AP:29:PHE:N	12:AP:105:GLU:OE2	2.51	0.41
13:A0:44:LEU:HD22	13:A0:44:LEU:O	2.20	0.41
15:AR:30:VAL:HG23	15:AR:83:ILE:HG23	2.02	0.41
15:AR:94:ALA:O	15:AR:95:ARG:CB	2.68	0.41
16:A1:27:LEU:C	16:A1:29:SER:H	2.27	0.41
19:AT:39:ILE:O	19:AT:43:VAL:HG23	2.20	0.41
21:AV:26:GLY:CA	21:AV:86:VAL:O	2.68	0.41
21:AV:52:SER:O	21:AV:53:ILE:HG12	2.20	0.41
30:A8:58:ILE:O	30:A8:58:ILE:HG23	2.19	0.41
31:BA:277:C:H2'	31:BA:278:G:C8	2.55	0.41
31:BA:570:G:H1'	31:BA:820:U:C4	2.56	0.41
31:BA:1495:U:H2'	31:BA:1496:C:H6	1.85	0.41
32:BE:127:ILE:HG23	32:BE:128:GLU:H	1.84	0.41
33:BF:35:GLU:CD	33:BF:95:THR:HG23	2.46	0.41
33:BF:78:GLY:O	33:BF:79:ARG:C	2.63	0.41
35:BH:57:LYS:O	35:BH:61:TYR:CD2	2.72	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BH:78:HIS:HE1	35:BH:143:ARG:H	1.68	0.41
35:BH:144:THR:O	35:BH:148:VAL:HG23	2.20	0.41
39:BL:46:ALA:O	39:BL:49:PRO:HD2	2.20	0.41
40:BM:55:LYS:HG2	40:BM:56:HIS:N	2.35	0.41
41:BN:57:THR:CG2	41:BN:58:PRO:HD2	2.51	0.41
49:BV:62:ILE:HA	49:BV:66:MET:SD	2.60	0.41
53:BD:6:G:N2	53:BD:69:C:C4	2.87	0.41
53:BD:36:A:H2	54:B1:14:U:C5	2.38	0.41
31:CA:1072:G:C6	31:CA:1073:U:C4	3.08	0.41
31:CA:1134:G:H2'	31:CA:1135:U:H5'	2.03	0.41
31:CA:1226:C:H4'	31:CA:1227:A:OP1	2.20	0.41
31:CA:1515:C:O2'	31:CA:1516:G:H5'	2.20	0.41
33:CF:36:ASP:O	33:CF:40:ARG:HG3	2.21	0.41
36:CI:97:PHE:N	48:CU:30:ASP:OD2	2.50	0.41
38:CK:16:ALA:HB2	38:CK:24:THR:OG1	2.20	0.41
39:CL:99:LEU:HB3	39:CL:101:PHE:CE1	2.55	0.41
48:CU:84:LYS:HE2	48:CU:84:LYS:HA	2.02	0.41
50:CW:56:MET:HE1	50:CW:85:MET:CB	2.49	0.41
50:CW:67:ALA:O	50:CW:73:HIS:CE1	2.72	0.41
51:CX:6:ARG:O	51:CX:12:LYS:HG2	2.21	0.41
52:CB:69:A:H1'	52:CB:71:U:OP2	2.21	0.41
53:CC:48:U:C1'	53:CC:49:C:P	3.08	0.41
53:CC:76:C:H2'	53:CC:77:A:C8	2.55	0.41
1:DA:620:G:H4'	1:DA:621:A:C5'	2.50	0.41
1:DA:800:A:O4'	1:DA:801:G:H3'	2.20	0.41
1:DA:838:C:O2'	1:DA:839:U:H5'	2.20	0.41
1:DA:1062:G:N2	1:DA:1077:A:H1'	2.35	0.41
1:DA:1080:A:H2'	1:DA:1081:U:C6	2.55	0.41
1:DA:1786:A:C1'	1:DA:1938:A:N6	2.84	0.41
1:DA:2051:A:H5'	1:DA:2578:G:O4'	2.20	0.41
1:DA:2094:G:O2'	1:DA:2095:C:H5'	2.20	0.41
1:DA:2494:G:C4	1:DA:2495:G:C8	3.09	0.41
1:DA:2517:C:N3	1:DA:2542:A:C6	2.88	0.41
1:DA:2720:U:C4	1:DA:2873:A:C6	3.08	0.41
2:DB:49:C:H2'	2:DB:50:G:C8	2.56	0.41
3:DD:244:ARG:HB2	3:DD:245:PRO:CD	2.49	0.41
4:DE:16:ARG:O	4:DE:17:ASP:HB2	2.19	0.41
4:DE:26:ILE:HG22	4:DE:27:LEU:N	2.34	0.41
4:DE:36:ARG:O	4:DE:37:ARG:O	2.38	0.41
5:DF:28:ILE:O	5:DF:28:ILE:HG22	2.20	0.41
5:DF:63:LYS:HE3	5:DF:63:LYS:HB2	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:DG:42:GLY:HA2	6:DG:89:GLY:CA	2.49	0.41
7:DH:89:ILE:HG23	7:DH:90:LYS:N	2.30	0.41
8:DK:77:LEU:HD13	8:DK:141:LYS:HB3	2.02	0.41
13:D0:27:SER:HB3	13:D0:34:ILE:HD13	2.02	0.41
14:DQ:106:ARG:HA	14:DQ:110:LEU:HD21	2.01	0.41
16:D1:66:ASN:CB	16:D1:76:TYR:HB2	2.50	0.41
20:DU:5:MET:HE3	20:DU:35:TYR:CE2	2.55	0.41
21:DV:8:TYR:HB2	21:DV:38:TYR:CE2	2.55	0.41
21:DV:74:VAL:HG22	21:DV:86:VAL:HG23	2.01	0.41
24:DW:22:GLU:HG3	24:DW:64:LEU:HD11	2.01	0.41
26:D4:12:ALA:H	26:D4:24:THR:CB	2.30	0.41
1:AA:64:A:O3'	19:AT:71:GLY:HA3	2.20	0.41
1:AA:67:U:N3	1:AA:74:A:H2	2.14	0.41
1:AA:613:U:H5'	1:AA:616:A:N6	2.35	0.41
1:AA:764:A:OP1	3:AD:208:LYS:HE2	2.21	0.41
1:AA:1275:A:H4'	1:AA:1276:A:O5'	2.20	0.41
1:AA:2144:U:HO2'	1:AA:2145:C:H5	1.68	0.41
1:AA:2163:C:C5	1:AA:2164:C:C5	3.09	0.41
1:AA:2286:A:H2'	28:A6:31:PRO:CG	2.51	0.41
1:AA:2304:G:H22	1:AA:2312:U:H3	1.66	0.41
1:AA:2704:C:H2'	1:AA:2705:A:O4'	2.21	0.41
1:AA:2845:G:H2'	1:AA:2846:G:C8	2.54	0.41
2:AB:16:G:N2	2:AB:69:G:H1'	2.36	0.41
2:AB:116:G:O2'	2:AB:117:G:H5'	2.21	0.41
3:AD:65:ILE:CG1	3:AD:67:PHE:CE1	3.03	0.41
3:AD:69:ARG:HD3	3:AD:105:ILE:HD11	2.02	0.41
4:AE:47:VAL:HB	4:AE:49:LEU:HD13	2.03	0.41
4:AE:118:LYS:H	4:AE:121:ASN:H	1.68	0.41
6:AG:5:VAL:HG11	6:AG:100:TRP:HB3	2.02	0.41
6:AG:173:LEU:HD22	6:AG:178:PHE:CE2	2.56	0.41
7:AH:40:GLU:O	7:AH:41:MET:O	2.39	0.41
9:AM:120:LEU:CD2	9:AM:122:VAL:HG23	2.51	0.41
10:AN:3:GLN:HG3	10:AN:4:PRO:HD2	2.02	0.41
11:AO:147:LEU:HD12	11:AO:147:LEU:HA	1.78	0.41
14:AQ:67:ARG:HB2	14:AQ:67:ARG:NH1	2.35	0.41
16:A1:92:ARG:O	16:A1:93:LYS:C	2.59	0.41
18:AS:45:TYR:CD2	18:AS:45:TYR:C	2.98	0.41
20:AU:84:ARG:HH12	20:AU:97:ARG:HB2	1.86	0.41
21:AV:105:VAL:HG22	21:AV:106:GLY:H	1.84	0.41
21:AV:172:ALA:O	21:AV:173:ALA:HB2	2.20	0.41
28:A6:34:LEU:O	28:A6:51:GLU:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:115:G:C2	31:BA:289:G:N7	2.89	0.41
31:BA:397:A:N6	31:BA:548:G:C5	2.88	0.41
31:BA:509:A:H4'	31:BA:510:A:OP1	2.21	0.41
31:BA:1003:G:H2'	31:BA:1004:A:C5'	2.49	0.41
31:BA:1157:A:O2'	31:BA:1158:C:C2	2.64	0.41
31:BA:1164:G:C2	31:BA:1165:C:C2	3.08	0.41
31:BA:1164:G:N1	31:BA:1173:G:C6	2.88	0.41
31:BA:1298:C:O4'	31:BA:1299:A:C5	2.74	0.41
32:BE:177:ALA:HB1	32:BE:182:ILE:HB	2.03	0.41
33:BF:48:TYR:O	33:BF:51:GLY:N	2.53	0.41
33:BF:70:VAL:O	33:BF:106:VAL:N	2.53	0.41
35:BH:122:GLU:OE1	35:BH:131:ILE:HG13	2.20	0.41
38:BK:121:ASP:HB2	38:BK:125:ARG:HH22	1.85	0.41
40:BM:62:HIS:H	40:BM:62:HIS:CD2	2.38	0.41
45:BR:71:GLN:HB3	45:BR:78:TYR:CD1	2.55	0.41
53:BC:48:U:H4'	53:BC:49:C:C5'	2.50	0.41
31:CA:109:A:H2'	31:CA:326:G:N2	2.35	0.41
31:CA:152:A:N6	31:CA:170:U:C2	2.88	0.41
31:CA:164:U:H2'	31:CA:165:C:C6	2.55	0.41
31:CA:421:U:C5'	31:CA:422:C:OP2	2.63	0.41
31:CA:636:U:H2'	31:CA:637:G:C8	2.55	0.41
31:CA:720:C:H6	31:CA:720:C:O5'	2.03	0.41
31:CA:911:U:H2'	31:CA:912:C:H6	1.85	0.41
31:CA:1496:C:H2'	31:CA:1497:G:O4'	2.21	0.41
32:CE:84:GLU:O	32:CE:219:VAL:HG21	2.21	0.41
34:CG:122:ARG:HH21	34:CG:134:ASP:CB	2.33	0.41
48:CU:86:VAL:O	48:CU:87:ARG:C	2.63	0.41
49:CV:51:VAL:HG12	49:CV:52:TYR:N	2.35	0.41
50:CW:26:ASN:ND2	50:CW:26:ASN:H	2.18	0.41
1:DA:49:A:H5"	1:DA:51:G:H5'	2.02	0.41
1:DA:78:A:H2'	1:DA:79:G:C8	2.55	0.41
1:DA:139:G:C4'	1:DA:140:A:H2	2.32	0.41
1:DA:250:G:C6	1:DA:251:A:C6	3.08	0.41
1:DA:260:G:O4'	1:DA:621:A:H1'	2.21	0.41
1:DA:433:C:C4	1:DA:434:U:O4	2.74	0.41
1:DA:571:A:H5'	1:DA:2030:A:N7	2.35	0.41
1:DA:920:G:H2'	1:DA:921:G:H8	1.86	0.41
1:DA:1268:A:C2	1:DA:2013:A:C4	3.07	0.41
1:DA:1338:G:N3	1:DA:1393:A:H2	2.18	0.41
1:DA:1582:C:O2'	1:DA:1586:A:C8	2.64	0.41
1:DA:1759:A:H4'	1:DA:2715:C:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2092:U:H4'	1:DA:2093:G:O5'	2.20	0.41
1:DA:2313:C:O2'	1:DA:2314:C:H5'	2.21	0.41
1:DA:2322:A:H2'	1:DA:2323:G:O4'	2.21	0.41
1:DA:2459:A:C5	1:DA:2460:U:C5	3.08	0.41
1:DA:2728:U:C2'	1:DA:2729:G:H5'	2.50	0.41
3:DD:70:TRP:HZ3	3:DD:146:GLU:OE2	2.04	0.41
3:DD:132:PRO:HG3	3:DD:190:TYR:CE1	2.56	0.41
4:DE:101:ARG:NH1	4:DE:171:GLU:HB2	2.35	0.41
4:DE:131:ALA:O	4:DE:132:HIS:HB3	2.20	0.41
5:DF:110:LEU:CD1	5:DF:205:ARG:HG2	2.50	0.41
5:DF:135:LYS:HB3	5:DF:138:GLU:HG3	2.01	0.41
6:DG:106:LEU:HA	6:DG:110:ALA:HB3	2.02	0.41
19:DT:54:VAL:C	19:DT:55:ASN:HD22	2.28	0.41
20:DU:97:ARG:HH21	20:DU:98:VAL:HB	1.83	0.41
24:DW:9:GLN:HE22	24:DW:56:GLN:HG3	1.85	0.41
1:AA:74:A:H3'	24:AW:51:ARG:HH21	1.86	0.41
1:AA:263:C:H2'	1:AA:264:C:O4'	2.21	0.41
1:AA:977:G:C6	1:AA:987:G:C6	3.09	0.41
1:AA:979:G:C4	1:AA:982:C:N4	2.88	0.41
1:AA:1049:C:C4	1:AA:1050:A:C2	3.09	0.41
1:AA:1085:A:H4'	1:AA:1086:A:OP1	2.18	0.41
1:AA:1136:G:H2'	1:AA:1136:G:N3	2.35	0.41
1:AA:1158:C:O2'	1:AA:1159:U:H5'	2.20	0.41
1:AA:1209:G:H21	1:AA:1210:A:N6	2.18	0.41
1:AA:1512:G:H2'	1:AA:1513:C:H6	1.84	0.41
1:AA:2098:U:N3	1:AA:2099:U:C5	2.89	0.41
1:AA:2584:U:O2	1:AA:2584:U:O4'	2.36	0.41
1:AA:2764:A:N6	1:AA:2766:G:C2	2.88	0.41
1:AA:2893:G:H5"	1:AA:2894:G:OP1	2.21	0.41
2:AB:13:A:C5	2:AB:70:C:H4'	2.55	0.41
2:AB:81:G:C6	2:AB:82:G:C5	3.09	0.41
3:AD:72:LYS:HG3	3:AD:103:ARG:NH2	2.35	0.41
3:AD:83:GLU:HB2	3:AD:92:ILE:HG13	2.03	0.41
7:AH:9:ILE:HG21	7:AH:49:VAL:HB	2.03	0.41
10:AN:98:VAL:HG13	10:AN:117:LEU:CB	2.48	0.41
12:AP:13:GLN:HB3	12:AP:14:ARG:H	1.73	0.41
14:AQ:42:ASP:C	14:AQ:44:LYS:H	2.28	0.41
14:AQ:66:ALA:O	14:AQ:69:VAL:HG13	2.20	0.41
15:AR:26:ASP:HB3	15:AR:91:ARG:HA	2.02	0.41
16:A1:95:LEU:CD1	17:A2:11:GLN:HB2	2.49	0.41
19:AT:44:GLU:HG3	19:AT:49:VAL:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AU:74:PRO:HB2	20:AU:101:LYS:HZ2	1.86	0.41
21:AV:76:LEU:N	21:AV:76:LEU:CD2	2.84	0.41
29:A7:12:ARG:HD3	29:A7:46:VAL:HG22	2.02	0.41
31:BA:89:U:O2'	31:BA:90:C:O5'	2.39	0.41
31:BA:291:C:O2	31:BA:310:G:C2	2.74	0.41
31:BA:299:G:C6	31:BA:300:A:N1	2.88	0.41
31:BA:686:U:H2'	31:BA:687:A:C8	2.55	0.41
31:BA:914:A:H2'	31:BA:915:A:C8	2.55	0.41
31:BA:946:A:O2'	31:BA:1333:A:N3	2.49	0.41
31:BA:958:A:C6	31:BA:959:A:N1	2.88	0.41
31:BA:1053:G:C6	31:BA:1199:U:C2	3.08	0.41
31:BA:1106:G:C5	31:BA:1107:C:C5	3.09	0.41
31:BA:1489:G:H2'	31:BA:1490:C:O4'	2.20	0.41
31:BA:1490:C:C2'	31:BA:1491:G:H5'	2.50	0.41
32:BE:215:LEU:O	32:BE:219:VAL:HG23	2.21	0.41
38:BK:114:THR:C	38:BK:116:LYS:N	2.78	0.41
46:BS:4:ILE:O	46:BS:66:PRO:HA	2.21	0.41
48:BU:26:LEU:N	48:BU:26:LEU:HD23	2.35	0.41
53:BC:48:U:C1'	53:BC:49:C:P	3.09	0.41
31:CA:945:G:C2	31:CA:946:A:C8	3.08	0.41
31:CA:1054:C:C4	31:CA:1196:U:C4	3.09	0.41
31:CA:1090:U:H2'	31:CA:1091:U:H6	1.85	0.41
31:CA:1151:A:N6	31:CA:1152:A:N6	2.69	0.41
31:CA:1218:C:H2'	31:CA:1219:U:C6	2.56	0.41
31:CA:1247:U:H1'	31:CA:1291:G:N2	2.36	0.41
40:CM:56:HIS:C	40:CM:58:ASP:H	2.28	0.41
41:CN:16:SER:HA	41:CN:79:SER:O	2.21	0.41
45:CR:26:GLU:H	45:CR:26:GLU:HG2	1.60	0.41
46:CS:53:VAL:HG23	46:CS:54:GLU:OE1	2.20	0.41
53:CC:13:C:O2'	1:DA:1924:C:H4'	2.20	0.41
53:CC:64:G:H2'	53:CC:65:G:H8	1.84	0.41
1:DA:5:A:C2	1:DA:2899:G:C2	3.09	0.41
1:DA:510:C:H2'	1:DA:511:U:O4'	2.20	0.41
1:DA:1466:G:N3	1:DA:1466:G:H2'	2.35	0.41
1:DA:1598:C:H2'	1:DA:1599:C:H6	1.85	0.41
1:DA:1992:G:H1'	1:DA:1993:U:OP2	2.20	0.41
1:DA:2135:A:HO2'	1:DA:2136:C:P	2.37	0.41
1:DA:2144:U:H5	1:DA:2146:C:H42	1.68	0.41
1:DA:2154:G:H2'	1:DA:2155:G:C8	2.55	0.41
1:DA:2287:A:C4	1:DA:2289:G:C8	3.08	0.41
1:DA:2735:G:H2'	1:DA:2736:G:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:DB:44:G:C5'	2:DB:45:A:OP1	2.68	0.41
3:DD:64:ILE:O	3:DD:64:ILE:HG12	2.20	0.41
6:DG:98:ARG:O	6:DG:101:ILE:HG13	2.20	0.41
7:DH:86:GLU:CD	7:DH:165:ALA:HB2	2.45	0.41
11:DO:81:GLN:HG3	11:DO:106:LEU:O	2.20	0.41
13:D0:44:LEU:HD23	13:D0:44:LEU:HA	1.93	0.41
18:DS:83:LYS:O	18:DS:84:ARG:HD3	2.20	0.41
29:D7:12:ARG:NH2	29:D7:44:PRO:HB3	2.35	0.41
1:AA:280:C:H2'	1:AA:281:G:H5'	2.03	0.41
1:AA:442:G:H1'	5:AF:48:THR:HG21	2.03	0.41
1:AA:630:G:N2	1:AA:633:A:OP2	2.43	0.41
1:AA:633:A:C8	1:AA:633:A:C3'	3.03	0.41
1:AA:746:A:C6	1:AA:2611:U:H5"	2.56	0.41
1:AA:847:U:C5	1:AA:933:A:N1	2.86	0.41
1:AA:1364:G:OP1	23:AZ:3:LYS:HG3	2.21	0.41
1:AA:1668:A:H4'	1:AA:1669:A:O5'	2.20	0.41
1:AA:2407:G:N3	1:AA:2407:G:H2'	2.35	0.41
1:AA:2652:C:H2'	1:AA:2653:U:O4'	2.21	0.41
2:AB:89(A):A:O5'	2:AB:89(A):A:H8	2.04	0.41
3:AD:32:SER:O	3:AD:33:LEU:HB2	2.20	0.41
3:AD:107:ALA:O	3:AD:196:VAL:O	2.37	0.41
4:AE:35:GLN:HE21	4:AE:37:ARG:NE	2.19	0.41
4:AE:86:PRO:HB3	4:AE:91:VAL:HG22	2.02	0.41
5:AF:32:LEU:HD11	5:AF:105:VAL:HG13	2.02	0.41
10:AN:64:ARG:O	10:AN:82:ASN:HA	2.21	0.41
11:AO:85:LEU:HA	11:AO:88:LEU:CD2	2.50	0.41
11:AO:121:LYS:HE2	11:AO:121:LYS:HB3	1.86	0.41
15:AR:26:ASP:HB2	15:AR:91:ARG:HA	2.02	0.41
18:AS:11:ARG:CZ	18:AS:98:LYS:HB3	2.51	0.41
21:AV:9:TYR:CE2	21:AV:35:ARG:NH1	2.89	0.41
21:AV:53:ILE:O	21:AV:53:ILE:HG13	2.18	0.41
27:A5:42:PRO:CB	27:A5:43:HIS:HD2	2.34	0.41
31:BA:56:U:H2'	31:BA:57:G:H8	1.83	0.41
31:BA:342:C:H2'	31:BA:343:U:O4'	2.21	0.41
31:BA:601:C:O2'	31:BA:602:A:H5'	2.21	0.41
31:BA:857:C:H2'	31:BA:858:G:O4'	2.20	0.41
31:BA:1141:C:O2'	31:BA:1142:G:H5'	2.21	0.41
31:BA:1240:U:C5	37:BJ:32:ARG:HD3	2.56	0.41
31:BA:1320:C:N4	49:BV:36:ARG:HG3	2.36	0.41
31:BA:1503:A:O2'	31:BA:1504:G:C5'	2.69	0.41
36:BI:35:ALA:HA	36:BI:67:MET:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BK:51:VAL:CG1	38:BK:60:ARG:HG3	2.49	0.41
40:BM:38:ILE:CG1	40:BM:71:LEU:HB3	2.51	0.41
43:BP:108:ARG:NH1	43:BP:112:GLY:O	2.54	0.41
49:BV:41:VAL:CB	49:BV:42:PRO:CA	2.86	0.41
31:CA:250:A:H5'	31:CA:252:U:O4'	2.21	0.41
31:CA:353:A:C2'	31:CA:354:G:OP2	2.67	0.41
31:CA:396:G:O2'	31:CA:398:C:OP1	2.36	0.41
31:CA:408:A:C2	31:CA:409:G:C4	3.09	0.41
31:CA:412:A:C2'	31:CA:413:G:OP2	2.68	0.41
31:CA:528:C:H4'	31:CA:535:A:C5	2.55	0.41
31:CA:634:C:O2'	31:CA:635:G:H5'	2.21	0.41
31:CA:1034:G:H2'	31:CA:1035:A:C8	2.56	0.41
31:CA:1268:A:O2'	51:CX:19:GLY:HA2	2.21	0.41
32:CE:16:HIS:CB	32:CE:210:SER:HB2	2.51	0.41
32:CE:72:GLY:O	32:CE:94:ASN:HA	2.20	0.41
32:CE:77:ALA:HB2	32:CE:211:ILE:HD13	2.02	0.41
33:CF:14:ILE:CG1	33:CF:15:THR:H	2.21	0.41
34:CG:50:ARG:HA	34:CG:51:PRO:HD3	1.80	0.41
34:CG:57:ARG:HB3	34:CG:206:PHE:HB2	2.02	0.41
35:CH:103:GLY:C	35:CH:105:VAL:H	2.29	0.41
35:CH:141:GLN:HE21	35:CH:141:GLN:HB2	1.69	0.41
36:CI:14:LEU:H	36:CI:14:LEU:CD2	2.34	0.41
36:CI:25:ILE:HG21	36:CI:82:ARG:HD2	2.02	0.41
44:CQ:33:VAL:O	44:CQ:33:VAL:HG13	2.20	0.41
46:CS:1:MET:O	46:CS:1:MET:HG3	2.20	0.41
50:CW:74:LYS:C	50:CW:76:ALA:H	2.28	0.41
52:CB:9:G:O2'	52:CB:10:G:N7	2.47	0.41
52:CB:85:C:N4	1:DA:2507:C:O3'	2.54	0.41
53:CC:17:C:C3'	53:CC:18:C:H5"	2.21	0.41
53:CD:39:A:H2'	53:CD:40:C:C5'	2.49	0.41
1:DA:65:C:O2'	19:DT:69:TYR:CE2	2.73	0.41
1:DA:451:C:N4	1:DA:454:A:H5'	2.35	0.41
1:DA:469:G:O6	29:D7:39:ARG:NH1	2.53	0.41
1:DA:565:C:H4'	1:DA:1253:A:C6	2.54	0.41
1:DA:573:G:O2'	1:DA:574:C:H3'	2.20	0.41
1:DA:576:U:H2'	1:DA:577:G:C8	2.56	0.41
1:DA:1098:A:H2'	1:DA:1099:G:H5'	2.03	0.41
1:DA:1360:A:H2'	1:DA:1361:G:O4'	2.20	0.41
1:DA:1583:A:H5'	1:DA:1585:C:O5'	2.20	0.41
1:DA:1829:A:N3	3:DD:15:PHE:HE1	2.19	0.41
1:DA:2080:G:H2'	1:DA:2081:C:H6	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2154:G:O2'	1:DA:2155:G:H5'	2.21	0.41
1:DA:2199:A:C8	1:DA:2205:C:C5	3.08	0.41
1:DA:2301:C:H2'	1:DA:2302:G:H8	1.85	0.41
1:DA:2469:A:C2	1:DA:2482:G:N9	2.89	0.41
1:DA:2528:U:H2'	1:DA:2530:A:O5'	2.21	0.41
1:DA:2846:G:H2'	1:DA:2847:U:C6	2.56	0.41
2:DB:41:U:C2'	2:DB:42:C:OP1	2.69	0.41
3:DD:70:TRP:CZ3	3:DD:146:GLU:OE2	2.74	0.41
3:DD:158:ALA:O	3:DD:159:ALA:C	2.64	0.41
3:DD:267:SER:C	3:DD:269:PHE:N	2.53	0.41
4:DE:67:PHE:CD1	4:DE:68:ALA:N	2.88	0.41
5:DF:3:GLU:O	5:DF:19:GLU:HB2	2.21	0.41
6:DG:42:GLY:O	6:DG:43:LEU:HD13	2.20	0.41
8:DK:133:HIS:N	8:DK:134:PRO:HD2	2.36	0.41
9:DM:13:TRP:O	9:DM:14:VAL:HG23	2.20	0.41
17:D2:19:LYS:HE3	17:D2:19:LYS:HB2	1.93	0.41
17:D2:76:LYS:O	17:D2:79:VAL:HG23	2.20	0.41
21:DV:116:VAL:C	21:DV:117:LEU:HD22	2.46	0.41
22:D3:54:GLY:O	22:D3:56:ASP:N	2.54	0.41
23:DZ:4:VAL:HG11	23:DZ:11:ARG:NH1	2.35	0.41
23:DZ:11:ARG:HB2	23:DZ:12:PRO:HD2	2.02	0.41
23:DZ:62:VAL:HG21	23:DZ:70:VAL:HG21	2.02	0.41
23:DZ:92:LYS:HB3	23:DZ:93:GLU:H	1.69	0.41
26:D4:50:VAL:O	26:D4:51:ASP:C	2.62	0.41
1:AA:6:A:H2'	1:AA:7:G:O4'	2.21	0.41
1:AA:65:C:H2'	1:AA:66:C:C6	2.56	0.41
1:AA:141:A:H1'	1:AA:1408:C:O4'	2.19	0.41
1:AA:528:A:C2	1:AA:2042:A:H2'	2.56	0.41
1:AA:627:A:C6	1:AA:637:A:C8	3.09	0.41
1:AA:715:G:C2	45:BR:56:LEU:HD21	2.56	0.41
1:AA:1678:G:N2	1:AA:1989:G:H1	2.17	0.41
1:AA:1810:A:O5'	1:AA:1810:A:H8	2.04	0.41
1:AA:2032:G:H1'	4:AE:145:LYS:HD3	2.02	0.41
1:AA:2108:C:H42	1:AA:2181:G:H1	1.69	0.41
1:AA:2199:A:H5'	1:AA:2205:C:OP2	2.21	0.41
1:AA:2262:U:C2'	1:AA:2263:C:H5'	2.51	0.41
1:AA:2309:A:H8	1:AA:2309:A:O5'	2.03	0.41
3:AD:33:LEU:CD1	3:AD:34:VAL:H	2.33	0.41
3:AD:35:LYS:HB3	3:AD:64:ILE:H	1.85	0.41
3:AD:145:VAL:HG12	3:AD:146:GLU:O	2.21	0.41
7:AH:153:LYS:N	7:AH:153:LYS:CD	2.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:116:LEU:O	8:AK:117:GLU:C	2.63	0.41
11:AO:6:LEU:HA	11:AO:6:LEU:HD12	1.66	0.41
11:AO:64:LYS:C	11:AO:66:GLY:N	2.44	0.41
14:AQ:61:ASN:O	14:AQ:65:VAL:HG23	2.21	0.41
14:AQ:83:LYS:HE3	14:AQ:109:GLY:CA	2.51	0.41
14:AQ:104:GLY:C	14:AQ:106:ARG:H	2.26	0.41
18:AS:84:ARG:O	18:AS:95:ILE:HA	2.21	0.41
27:A5:33:CYS:HB2	27:A5:40:LYS:CD	2.51	0.41
30:A8:42:ARG:C	30:A8:44:LYS:H	2.28	0.41
31:BA:51:A:C2	31:BA:353:A:N1	2.89	0.41
31:BA:131:C:H2'	31:BA:132:C:C6	2.56	0.41
31:BA:513:C:H2'	31:BA:514:C:O4'	2.21	0.41
31:BA:859:A:H2'	31:BA:860:A:O4'	2.21	0.41
31:BA:1138:G:N1	31:BA:1140:C:C2	2.89	0.41
34:BG:13:ARG:HA	34:BG:33:MET:HE3	2.02	0.41
34:BG:116:GLN:NE2	34:BG:157:LEU:HD11	2.35	0.41
38:BK:104:ARG:HD2	38:BK:138:TRP:CG	2.56	0.41
39:BL:43:ALA:C	39:BL:45:ALA:N	2.75	0.41
52:BB:48:C:C2	52:BB:56:G:N2	2.89	0.41
53:BC:2:G:C4	53:BC:3:C:C5	3.09	0.41
53:BC:24:C:C2	53:BC:25:U:C5	3.09	0.41
31:CA:87:A:C2	31:CA:88:C:C5	3.09	0.41
31:CA:313:A:H2'	31:CA:314:C:C6	2.56	0.41
31:CA:376:G:C5'	46:CS:5:ARG:HD3	2.46	0.41
31:CA:619:U:C2	34:CG:135:LEU:CD2	3.04	0.41
31:CA:660:G:H2'	31:CA:661:G:O4'	2.20	0.41
31:CA:901:A:C5	31:CA:902:G:H1'	2.56	0.41
31:CA:1129:C:H4'	31:CA:1130:A:H5'	2.02	0.41
31:CA:1281:U:H3'	31:CA:1282:C:H5	1.86	0.41
31:CA:1287:A:C6	31:CA:1288:A:C6	3.09	0.41
31:CA:1355:G:H2'	31:CA:1356:G:C8	2.55	0.41
31:CA:1374:A:C2'	31:CA:1375:A:H5'	2.51	0.41
31:CA:1415:G:C6	31:CA:1486:G:C6	3.09	0.41
32:CE:5:ILE:HD11	32:CE:221:LEU:HD21	2.02	0.41
32:CE:132:LYS:HA	32:CE:135:GLN:NE2	2.36	0.41
37:CJ:13:GLN:HA	37:CJ:14:PRO:HD3	1.93	0.41
38:CK:63:LEU:H	38:CK:63:LEU:HD22	1.86	0.41
39:CL:5:TYR:CG	39:CL:6:GLY:N	2.89	0.41
39:CL:117:HIS:O	39:CL:118:LYS:CB	2.69	0.41
52:CB:21:A:H1'	52:CB:22:G:H5'	2.00	0.41
52:CB:21:A:C1'	52:CB:22:G:P	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:642:G:H21	1:DA:646:A:H2	1.64	0.41
1:DA:651:G:H4'	30:D8:18:ALA:HB3	2.02	0.41
1:DA:654(B):C:N3	1:DA:654(T):A:C2	2.88	0.41
1:DA:654(S):G:C1'	1:DA:654(T):A:OP1	2.69	0.41
1:DA:726:G:O2'	1:DA:727:A:OP2	2.35	0.41
1:DA:1025:G:C5	1:DA:1135:C:H1'	2.56	0.41
1:DA:1065:U:H1'	1:DA:1074:G:N2	2.36	0.41
1:DA:1607:C:H4'	1:DA:1608:A:O5'	2.21	0.41
1:DA:1674:G:H1'	1:DA:1676:A:N6	2.35	0.41
4:DE:169:ASN:OD1	4:DE:203:LYS:HB3	2.21	0.41
5:DF:63:LYS:HZ3	5:DF:67:GLN:HB2	1.85	0.41
5:DF:89:VAL:HG12	5:DF:90:PHE:N	2.34	0.41
8:DK:31:LEU:HD21	8:DK:38:LEU:HD11	2.01	0.41
9:DM:35:ARG:C	9:DM:37:LYS:H	2.29	0.41
9:DM:72:TYR:CE1	9:DM:101:HIS:HD2	2.39	0.41
11:DO:101:VAL:HG12	11:DO:102:ARG:N	2.35	0.41
11:DO:106:LEU:HD13	11:DO:112:LEU:HG	2.03	0.41
12:DP:85:LYS:HG2	22:D3:9:SER:HB2	2.02	0.41
13:D0:59:ASP:O	13:D0:62:ALA:N	2.54	0.41
13:D0:97:VAL:HA	13:D0:113:LEU:O	2.20	0.41
20:DU:13:VAL:HG23	20:DU:73:ARG:O	2.20	0.41
1:AA:484:C:H2'	1:AA:485:C:C6	2.56	0.41
1:AA:520:G:H2'	1:AA:521:G:H8	1.86	0.41
1:AA:885:C:N3	1:AA:892:G:C4	2.89	0.41
1:AA:978:G:C2'	1:AA:979:G:H5'	2.51	0.41
1:AA:1169:G:N2	1:AA:1181:C:C2	2.89	0.41
1:AA:1235:G:C6	1:AA:1236:G:N1	2.89	0.41
1:AA:1388:G:H2'	1:AA:1389:G:H8	1.86	0.41
1:AA:1665:A:H2'	1:AA:1666:G:O4'	2.21	0.41
1:AA:2156:G:H2'	1:AA:2157:G:C2	2.56	0.41
1:AA:2257:U:H2'	1:AA:2258:C:C6	2.56	0.41
1:AA:2545:G:H2'	1:AA:2546:U:O4'	2.20	0.41
1:AA:2689:U:H4'	1:AA:2690:C:OP2	2.20	0.41
1:AA:2690:C:OP2	1:AA:2690:C:H6	2.04	0.41
2:AB:89:G:C6	2:AB:89(A):A:C6	3.08	0.41
5:AF:40:GLN:HE22	5:AF:183:VAL:H	1.68	0.41
5:AF:80:ALA:HA	5:AF:81:PRO:HD3	1.90	0.41
5:AF:114:VAL:O	5:AF:115:ALA:C	2.62	0.41
5:AF:196:LEU:C	5:AF:198:ALA:H	2.28	0.41
6:AG:44:GLY:C	6:AG:46:ALA:N	2.77	0.41
6:AG:180:PHE:C	6:AG:182:LYS:H	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:89:ILE:HD11	7:AH:94:TYR:HB3	2.03	0.41
9:AM:38:HIS:CE1	9:AM:50:ASP:OD2	2.73	0.41
13:A0:93:GLY:C	13:A0:95:THR:H	2.29	0.41
21:AV:24:LEU:HD21	21:AV:86:VAL:CG2	2.51	0.41
21:AV:61:LEU:HG	21:AV:61:LEU:O	2.21	0.41
28:A6:14:THR:O	28:A6:50:ARG:N	2.54	0.41
30:A8:37:SER:O	30:A8:40:GLU:N	2.52	0.41
31:BA:148:G:C2	31:BA:149:A:N7	2.88	0.41
31:BA:250:A:H4'	31:BA:251:G:O5'	2.21	0.41
31:BA:299:G:H2'	31:BA:300:A:C8	2.56	0.41
31:BA:436:C:H2'	31:BA:437:U:O4'	2.21	0.41
31:BA:721:G:C6	31:BA:733:A:C2	3.08	0.41
31:BA:968:A:H8	31:BA:968:A:OP1	2.03	0.41
31:BA:1031:G:C5	31:BA:1032:A:N7	2.89	0.41
31:BA:1059:C:O3'	44:BQ:45:ARG:NH2	2.52	0.41
31:BA:1180:A:H8	31:BA:1180:A:O5'	2.03	0.41
31:BA:1208:C:H2'	31:BA:1209:C:O4'	2.21	0.41
31:BA:1255:G:OP1	40:BM:45:ARG:NH2	2.51	0.41
32:BE:82:ARG:HG2	32:BE:92:TYR:CZ	2.56	0.41
38:BK:39:LEU:CD1	38:BK:111:ILE:HD11	2.51	0.41
38:BK:114:THR:HG22	38:BK:130:GLY:C	2.45	0.41
40:BM:40:LEU:HB2	40:BM:69:ASN:HB2	2.02	0.41
49:BV:13:ASP:O	49:BV:14:HIS:C	2.63	0.41
52:BB:19:G:C1'	52:BB:20:U:P	3.09	0.41
52:BB:52:U:C5	52:BB:53:A:C8	3.08	0.41
31:CA:105:G:H2'	31:CA:106:C:C6	2.56	0.41
31:CA:198:G:OP2	31:CA:198:G:H8	2.04	0.41
31:CA:573:A:N3	31:CA:883:C:O2'	2.49	0.41
31:CA:586:C:O2'	31:CA:878:G:H4'	2.20	0.41
31:CA:785:G:H1	31:CA:797:C:N4	2.17	0.41
31:CA:814:A:H2'	31:CA:816:A:H5"	2.01	0.41
31:CA:1028:C:C4	31:CA:1034:G:N2	2.88	0.41
31:CA:1101:A:H4'	31:CA:1102:A:O5'	2.20	0.41
31:CA:1276:G:H2'	31:CA:1277:C:H6	1.86	0.41
31:CA:1449:C:H2'	31:CA:1450:U:OP1	2.21	0.41
32:CE:213:LEU:O	32:CE:213:LEU:HD23	2.21	0.41
35:CH:101:ILE:HG13	35:CH:101:ILE:O	2.21	0.41
39:CL:42:ARG:NH2	39:CL:75:ASP:OD2	2.54	0.41
42:CO:59:SER:C	42:CO:61:TYR:N	2.79	0.41
42:CO:108:LYS:O	42:CO:109:ASP:HB2	2.21	0.41
52:CB:72:C:C2'	52:CB:73:C:H5'	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CC:17:C:OP1	53:CC:62:C:H5'	2.21	0.41
1:DA:204:A:H4'	1:DA:205:G:OP1	2.20	0.41
1:DA:579:G:H2'	1:DA:580:C:C6	2.56	0.41
1:DA:937:U:H2'	1:DA:938:G:C8	2.55	0.41
1:DA:1250:G:OP2	11:DO:21:ARG:NH1	2.54	0.41
1:DA:1805:U:O2	3:DD:50:THR:HB	2.21	0.41
1:DA:2094:G:OP1	8:DK:22:LYS:HD2	2.20	0.41
1:DA:2097:C:H2'	1:DA:2098:U:O4'	2.21	0.41
2:DB:1:U:C4	2:DB:119:A:N1	2.88	0.41
2:DB:52:A:N6	14:DQ:33:LYS:HG2	2.35	0.41
5:DF:107:LYS:HE2	5:DF:205:ARG:HG3	2.03	0.41
6:DG:36:LYS:HB2	6:DG:95:ARG:HG2	2.03	0.41
11:DO:114:ILE:HD12	11:DO:115:LEU:N	2.35	0.41
12:DP:4:PRO:HD3	12:DP:70:PRO:O	2.21	0.41
13:D0:65:LEU:HD12	13:D0:65:LEU:HA	1.76	0.41
17:D2:86:GLY:O	17:D2:87:HIS:C	2.64	0.41
17:D2:89:GLN:HE21	17:D2:89:GLN:HA	1.86	0.41
20:DU:29:GLU:HB2	20:DU:38:ILE:HD12	2.02	0.41
23:DZ:87:PRO:CA	23:DZ:90:ILE:HG23	2.51	0.41
1:AA:43:G:H2'	1:AA:44:A:O4'	2.20	0.41
1:AA:185:U:C2	1:AA:186:G:C8	3.09	0.41
1:AA:301:G:C6	1:AA:317:G:C5	3.08	0.41
1:AA:433:C:C4	1:AA:434:U:O4	2.74	0.41
1:AA:579:G:H2'	1:AA:580:C:C6	2.56	0.41
1:AA:592:G:O2'	30:A8:4:MET:HB2	2.21	0.41
1:AA:686:G:O6	29:A7:12:ARG:HG3	2.20	0.41
1:AA:755:C:H2'	1:AA:756:C:C6	2.55	0.41
1:AA:889:C:H5"	1:AA:890:A:O5'	2.21	0.41
1:AA:973:A:O4'	1:AA:1188:U:C6	2.74	0.41
1:AA:1142(A):A:C8	1:AA:1144:G:C5	3.08	0.41
1:AA:1144:G:C6	1:AA:1145:C:N4	2.89	0.41
1:AA:1288:U:C2	1:AA:1327:C:O2	2.74	0.41
1:AA:1364:G:N7	23:AZ:2:SER:HB3	2.36	0.41
1:AA:1368:G:C2	1:AA:1369:G:C8	3.09	0.41
1:AA:1424:G:H2'	1:AA:1425:G:O4'	2.20	0.41
1:AA:1434:A:N6	1:AA:1558:A:H62	2.06	0.41
1:AA:1655:A:H3'	1:AA:1656:C:C6	2.56	0.41
1:AA:2024:G:H2'	1:AA:2025:C:C6	2.56	0.41
1:AA:2127:G:H2'	1:AA:2128:C:H1'	2.03	0.41
1:AA:2138:C:N3	1:AA:2154:G:N2	2.68	0.41
1:AA:2287:A:C4	1:AA:2289:G:C8	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2600:A:H2'	1:AA:2601:C:C6	2.55	0.41
1:AA:2761:G:H1'	7:AH:143:GLN:OE1	2.21	0.41
2:AB:5:C:OP1	2:AB:61:G:O2'	2.25	0.41
3:AD:35:LYS:CD	3:AD:63:ARG:HB3	2.41	0.41
3:AD:35:LYS:CE	3:AD:104:TYR:HD1	2.33	0.41
4:AE:81:ILE:O	4:AE:81:ILE:HG22	2.20	0.41
4:AE:103:ASP:OD2	4:AE:168:MET:HE2	2.21	0.41
4:AE:181:LEU:HD23	15:AR:11:GLU:OE2	2.20	0.41
4:AE:181:LEU:HD12	4:AE:181:LEU:HA	1.87	0.41
6:AG:85:GLY:O	6:AG:86:MET:O	2.38	0.41
8:AK:6:LEU:HD13	8:AK:36:ALA:HA	2.01	0.41
8:AK:35:LEU:O	8:AK:36:ALA:HB2	2.20	0.41
9:AM:121:LYS:HB3	9:AM:123:TYR:HE1	1.86	0.41
10:AN:35:VAL:HA	10:AN:62:VAL:O	2.21	0.41
10:AN:104:ARG:HH22	15:AR:43:GLN:HE22	1.68	0.41
11:AO:60:MET:HG3	11:AO:60:MET:O	2.20	0.41
11:AO:113:LYS:HA	11:AO:129:ALA:O	2.20	0.41
12:AP:37:LEU:HD21	12:AP:130:LYS:CE	2.50	0.41
12:AP:109:VAL:HG12	12:AP:110:THR:O	2.21	0.41
13:A0:57:ARG:C	13:A0:59:ASP:H	2.28	0.41
14:AQ:56:LEU:CB	14:AQ:58:LEU:HD22	2.48	0.41
14:AQ:106:ARG:O	14:AQ:107:GLU:CB	2.69	0.41
17:A2:64:HIS:ND1	17:A2:64:HIS:N	2.68	0.41
19:AT:15:GLU:CD	19:AT:15:GLU:N	2.72	0.41
20:AU:64:GLU:H	20:AU:64:GLU:HG2	1.67	0.41
21:AV:27:VAL:HG13	21:AV:29:TYR:CD2	2.56	0.41
23:AZ:25:LYS:C	23:AZ:27:GLU:H	2.29	0.41
31:BA:109:A:H2'	31:BA:326:G:N2	2.35	0.41
31:BA:186(C):G:C4	31:BA:191(E):G:N2	2.88	0.41
31:BA:198:G:C6	31:BA:220:G:C2	3.09	0.41
31:BA:341:C:O2'	31:BA:342:C:H5'	2.21	0.41
31:BA:692:U:O2'	31:BA:694:A:N7	2.48	0.41
31:BA:870:U:H5"	31:BA:871:U:H3'	2.03	0.41
31:BA:1053:G:C5	31:BA:1199:U:C5	3.09	0.41
31:BA:1057:G:C5	31:BA:1204:A:C2	3.08	0.41
31:BA:1058:G:C5	31:BA:1059:C:C4	3.09	0.41
31:BA:1176:A:H8	31:BA:1176:A:O5'	2.04	0.41
31:BA:1298:C:H4'	31:BA:1299:A:O4'	2.21	0.41
32:BE:82:ARG:HG2	32:BE:92:TYR:OH	2.21	0.41
32:BE:154:LEU:HD23	32:BE:154:LEU:N	2.36	0.41
32:BE:181:PHE:O	32:BE:183:PRO:HD3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BE:224:GLN:HB2	32:BE:229:VAL:CG2	2.50	0.41
33:BF:166:GLU:HG2	33:BF:167:TRP:N	2.35	0.41
35:BH:12:LEU:O	35:BH:30:ALA:HA	2.20	0.41
35:BH:91:LEU:HD12	35:BH:120:THR:CG2	2.49	0.41
38:BK:41:ARG:HD2	38:BK:41:ARG:O	2.21	0.41
40:BM:9:ARG:O	40:BM:94:VAL:HG13	2.20	0.41
43:BP:78:ILE:HG22	43:BP:82:MET:HE3	2.03	0.41
44:BQ:15:LYS:HB3	44:BQ:16:PHE:CE2	2.55	0.41
50:BW:30:LYS:HA	50:BW:30:LYS:HD2	1.95	0.41
53:BC:20:G:H4'	53:BC:21:U:OP1	2.20	0.41
53:BC:34:U:O2	53:BC:36:A:C8	2.73	0.41
53:BD:67:C:N3	53:BD:68:C:C4	2.89	0.41
31:CA:198:G:H2'	31:CA:199:G:C8	2.56	0.41
31:CA:209:U:H4'	31:CA:210:U:OP2	2.16	0.41
31:CA:241:C:C2	31:CA:286:G:C2	3.09	0.41
31:CA:279:A:N3	31:CA:279:A:H2'	2.36	0.41
31:CA:337:C:H2'	31:CA:338:A:C8	2.56	0.41
31:CA:444:C:H2'	31:CA:445:G:C8	2.55	0.41
31:CA:464:G:C6	31:CA:466:C:H5'	2.56	0.41
31:CA:485:G:H2'	31:CA:486:U:OP2	2.20	0.41
31:CA:559:A:H4'	31:CA:560:U:H5"	2.03	0.41
31:CA:593:G:C2	31:CA:647:C:O2	2.74	0.41
31:CA:754:C:O2	31:CA:754:C:H3'	2.21	0.41
31:CA:991:U:O2	31:CA:993:G:C8	2.66	0.41
31:CA:1023:G:N1	31:CA:1024:G:C8	2.89	0.41
31:CA:1028(B):C:N4	31:CA:1032(B):G:N1	2.69	0.41
31:CA:1091:U:O2	31:CA:1093:A:C8	2.74	0.41
31:CA:1191:A:OP1	33:CF:3:ASN:ND2	2.54	0.41
31:CA:1206:G:HO2'	33:CF:193:TYR:HA	1.84	0.41
31:CA:1207:G:O2'	31:CA:1208:C:H5'	2.21	0.41
31:CA:1286:A:H2'	31:CA:1287:A:O5'	2.21	0.41
31:CA:1338:G:C6	31:CA:1339:A:C6	3.08	0.41
31:CA:1441:G:H4'	31:CA:1442:G:C5	2.55	0.41
31:CA:1442:G:C2'	31:CA:1443:G:O5'	2.68	0.41
31:CA:1480:G:C5	31:CA:1481:U:C5	3.09	0.41
32:CE:36:ARG:H	32:CE:41:ILE:HD13	1.85	0.41
32:CE:44:LEU:H	32:CE:44:LEU:HD23	1.85	0.41
32:CE:137:ARG:NH1	32:CE:140:HIS:HB2	2.28	0.41
32:CE:163:PHE:HE1	32:CE:215:LEU:HD21	1.86	0.41
32:CE:172:ILE:HD12	32:CE:172:ILE:N	2.36	0.41
32:CE:219:VAL:O	32:CE:222:ILE:HB	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CF:82:GLU:CA	33:CF:85:ARG:HB2	2.51	0.41
33:CF:117:ALA:HB2	33:CF:200:ALA:HB2	2.02	0.41
34:CG:101:LEU:HB2	34:CG:138:TYR:HB3	2.02	0.41
38:CK:102:ARG:H	38:CK:102:ARG:HG3	1.74	0.41
39:CL:4:TYR:O	39:CL:18:PHE:HA	2.21	0.41
39:CL:28:VAL:HA	39:CL:63:ILE:O	2.21	0.41
39:CL:78:LYS:NZ	39:CL:78:LYS:HB2	2.36	0.41
39:CL:112:LYS:HD3	39:CL:113:LYS:N	2.36	0.41
41:CN:116:HIS:O	41:CN:117:ASN:HB2	2.20	0.41
47:CT:67:LYS:CA	47:CT:70:ARG:HH12	2.30	0.41
49:CV:67:VAL:O	49:CV:69:HIS:N	2.48	0.41
1:DA:33:U:H4'	1:DA:34:C:OP1	2.21	0.41
1:DA:586:A:N1	1:DA:809:G:O2'	2.38	0.41
1:DA:633:A:O5'	1:DA:633:A:C8	2.73	0.41
1:DA:729:G:H2'	1:DA:1775:U:H1'	2.03	0.41
1:DA:934:G:H2'	1:DA:935:C:H6	1.86	0.41
1:DA:1065:U:O2	1:DA:1073:A:N1	2.54	0.41
1:DA:1138:G:O2'	9:DM:106:MET:HG3	2.21	0.41
1:DA:1225:C:C4'	17:D2:85:LYS:HD3	2.51	0.41
1:DA:1300:U:H4'	1:DA:1301:A:OP2	2.19	0.41
1:DA:1717:G:C4	1:DA:1718:G:C8	3.09	0.41
1:DA:1834:U:O2	1:DA:1834:U:H2'	2.21	0.41
1:DA:2001:A:H2'	1:DA:2002:G:C8	2.56	0.41
1:DA:2020:A:O2'	1:DA:2021:C:H5'	2.21	0.41
1:DA:2211:G:N3	1:DA:2211:G:C2'	2.80	0.41
1:DA:2301:C:H2'	1:DA:2302:G:C8	2.56	0.41
1:DA:2563:U:O2	1:DA:2565:A:C8	2.74	0.41
1:DA:2601:C:H2'	1:DA:2603:G:C8	2.55	0.41
1:DA:2790:A:C1'	1:DA:2791:C:OP2	2.68	0.41
1:DA:2818:G:O2'	1:DA:2819:G:H5'	2.21	0.41
1:DA:2859:G:H4'	1:DA:2860:A:OP1	2.21	0.41
1:DA:2872:G:C8	1:DA:2873:A:N1	2.87	0.41
2:DB:6:C:O2'	14:DQ:29:PHE:HE1	2.04	0.41
2:DB:41:U:H2'	2:DB:42:C:OP1	2.21	0.41
2:DB:45:A:H1'	6:DG:95:ARG:CZ	2.50	0.41
3:DD:35:LYS:HE2	3:DD:104:TYR:CB	2.41	0.41
3:DD:125:ILE:O	3:DD:126:GLN:HG3	2.20	0.41
3:DD:162:SER:HB3	3:DD:195:ALA:HA	2.03	0.41
3:DD:172:TYR:HD1	3:DD:185:VAL:C	2.29	0.41
5:DF:195:ASP:OD1	5:DF:196:LEU:N	2.54	0.41
6:DG:60:LEU:O	6:DG:60:LEU:HD23	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:DG:120:LEU:HB2	6:DG:180:PHE:HD2	1.86	0.41
7:DH:54:ARG:HB3	7:DH:65:HIS:HD2	1.86	0.41
7:DH:74:ASN:ND2	7:DH:138:LYS:HG2	2.35	0.41
8:DK:3:VAL:O	8:DK:18:VAL:HA	2.20	0.41
9:DM:22:THR:HB	9:DM:25:ARG:HG3	2.02	0.41
10:DN:26:LYS:HB3	10:DN:27:GLY:H	1.74	0.41
10:DN:87:ILE:HG23	10:DN:88:ASN:O	2.20	0.41
10:DN:88:ASN:HB3	10:DN:94:ARG:HD3	2.02	0.41
11:DO:37:GLY:O	11:DO:40:SER:OG	2.36	0.41
11:DO:85:LEU:HD23	11:DO:85:LEU:C	2.46	0.41
11:DO:147:LEU:CD2	11:DO:148:LEU:H	2.33	0.41
12:DP:132:VAL:HG13	21:DV:81:ARG:HH12	1.85	0.41
13:D0:13:HIS:CE1	13:D0:16:HIS:HB2	2.55	0.41
13:D0:101:ALA:HB2	27:D5:44:THR:OG1	2.20	0.41
15:DR:78:LEU:C	15:DR:78:LEU:HD23	2.46	0.41
15:DR:126:ALA:C	15:DR:128:GLU:N	2.73	0.41
16:D1:92:ARG:HD2	17:D2:11:GLN:HB2	2.02	0.41
17:D2:83:ARG:HD2	17:D2:83:ARG:N	2.35	0.41
19:DT:41:ASN:N	19:DT:41:ASN:HD22	2.17	0.41
20:DU:50:ARG:HD3	20:DU:50:ARG:H	1.85	0.41
21:DV:37:VAL:O	21:DV:38:TYR:HB3	2.20	0.41
21:DV:146:ILE:HG13	21:DV:147:GLY:N	2.31	0.41
22:D3:36:ILE:CD1	22:D3:36:ILE:N	2.84	0.41
24:DW:31:GLU:HB2	24:DW:53:LEU:HD11	2.03	0.41
24:DW:68:ARG:HA	24:DW:72:ALA:HB2	2.02	0.41
25:DX:4:LEU:HD11	25:DX:44:ARG:HG3	2.01	0.41
26:D4:33:VAL:HG23	26:D4:33:VAL:O	2.21	0.41
29:D7:12:ARG:HD3	29:D7:46:VAL:HG13	2.03	0.41
1:AA:150:C:H2'	1:AA:151:C:C6	2.56	0.41
1:AA:174:C:H2'	1:AA:175:G:O4'	2.21	0.41
1:AA:329:G:P	20:AU:71:LYS:HE3	2.61	0.41
1:AA:528:A:H8	9:AM:114:ARG:HH12	1.68	0.41
1:AA:529:A:N3	1:AA:529:A:C2'	2.83	0.41
1:AA:587:C:H42	11:AO:33:ARG:HD2	1.85	0.41
1:AA:654(B):C:C2	1:AA:654(T):A:C2	3.08	0.41
1:AA:807:U:H2'	1:AA:808:G:H8	1.86	0.41
1:AA:952:G:OP1	12:AP:16:ARG:NH1	2.54	0.41
1:AA:1086:A:O5'	1:AA:1086:A:N3	2.54	0.41
1:AA:1548:C:H2'	1:AA:1549:C:C6	2.56	0.41
1:AA:1609:A:O2'	1:AA:1610:A:H5'	2.21	0.41
1:AA:1869:G:H8	1:AA:1869:G:C5'	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1882:C:O2	1:AA:1882:C:H2'	2.20	0.41
1:AA:2143:C:H2'	1:AA:2144:U:O4'	2.21	0.41
1:AA:2292:C:O2'	1:AA:2293:C:H5'	2.21	0.41
1:AA:2415:G:H2'	1:AA:2416:C:C6	2.56	0.41
1:AA:2701:C:H2'	1:AA:2702:U:H5"	2.03	0.41
1:AA:2850:A:H5'	1:AA:2868:A:C2	2.56	0.41
3:AD:35:LYS:CG	3:AD:64:ILE:CG2	2.98	0.41
3:AD:69:ARG:HH12	3:AD:117:VAL:CG1	2.34	0.41
4:AE:37:ARG:HD3	4:AE:37:ARG:HA	1.92	0.41
8:AK:85:GLU:OE2	8:AK:85:GLU:HA	2.20	0.41
8:AK:109:ILE:HB	8:AK:130:TYR:CZ	2.56	0.41
9:AM:134:ARG:N	9:AM:135:PRO:CD	2.84	0.41
14:AQ:104:GLY:C	14:AQ:106:ARG:N	2.78	0.41
17:A2:87:HIS:NE2	17:A2:89:GLN:NE2	2.69	0.41
20:AU:96:ILE:CG1	20:AU:99:CYS:H	2.30	0.41
21:AV:26:GLY:HA2	21:AV:85:HIS:NE2	2.36	0.41
23:AZ:32:LYS:C	23:AZ:33:LYS:HD2	2.46	0.41
24:AW:28:LYS:HB2	24:AW:57:ILE:HG12	2.02	0.41
31:BA:35:G:H2'	31:BA:36:C:C6	2.56	0.41
31:BA:191(C):G:C2	31:BA:191(D):U:C2	3.09	0.41
31:BA:1118:C:P	39:BL:104:ARG:NH1	2.92	0.41
31:BA:1299:A:H2'	31:BA:1301:U:H1'	2.02	0.41
31:BA:1304:G:N1	31:BA:1332:A:OP2	2.33	0.41
31:BA:1336:C:O2	31:BA:1336:C:C2'	2.69	0.41
32:BE:212:GLN:CD	32:BE:212:GLN:C	2.89	0.41
33:BF:177:THR:HB	33:BF:180:ALA:HB2	2.03	0.41
39:BL:11:LYS:C	39:BL:13:ALA:H	2.29	0.41
41:BN:48:ILE:HG13	41:BN:63:LEU:HB3	2.02	0.41
47:BT:70:ARG:O	47:BT:71:PHE:CD2	2.74	0.41
49:BV:40:ILE:C	49:BV:41:VAL:HG22	2.46	0.41
50:BW:26:ASN:ND2	50:BW:26:ASN:H	2.08	0.41
50:BW:98:PRO:C	50:BW:100:ILE:N	2.77	0.41
31:CA:197:A:H1'	31:CA:198:G:P	2.61	0.41
31:CA:890:G:O2'	31:CA:891:U:OP2	2.38	0.41
31:CA:999:U:H3	31:CA:1041:A:H61	1.69	0.41
31:CA:1206:G:C6	31:CA:1207:G:C6	3.08	0.41
31:CA:1215:G:C2	31:CA:1216:G:C8	3.08	0.41
31:CA:1329:A:OP2	51:CX:7:ARG:NH1	2.47	0.41
32:CE:38:GLY:O	32:CE:39:ILE:C	2.63	0.41
32:CE:69:LEU:HG	32:CE:91:PRO:HB2	2.02	0.41
32:CE:144:ARG:HD2	32:CE:148:TYR:CE2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:CI:33:TYR:OH	36:CI:78:GLU:HG3	2.20	0.41
36:CI:44:GLY:HA2	36:CI:59:TYR:CE1	2.56	0.41
46:CS:52:ASP:OD1	46:CS:55:ARG:HG3	2.21	0.41
1:DA:587:C:C2	11:DO:33:ARG:NH1	2.89	0.41
1:DA:810:U:H6	1:DA:810:U:O5'	2.03	0.41
1:DA:1716:U:O2'	1:DA:1717:G:H5'	2.21	0.41
1:DA:1899:G:O2'	1:DA:1900:A:OP2	2.39	0.41
1:DA:1927:A:C6	1:DA:1928:A:C6	3.09	0.41
1:DA:2135:A:N6	1:DA:2156:G:N2	2.55	0.41
1:DA:2270:G:C2'	1:DA:2271:G:H5'	2.50	0.41
1:DA:2466:C:O2'	1:DA:2467:C:H5'	2.16	0.41
1:DA:2468:G:H2'	1:DA:2481:G:H21	1.86	0.41
1:DA:2751:G:H5'	1:DA:2752:C:P	2.61	0.41
1:DA:2795:G:H1'	1:DA:2802:G:N2	2.36	0.41
2:DB:73:A:H5'	2:DB:74:U:OP2	2.21	0.41
3:DD:35:LYS:CB	3:DD:64:ILE:HG23	2.51	0.41
6:DG:35:GLU:O	6:DG:160:VAL:HB	2.20	0.41
6:DG:58:GLN:HG3	6:DG:59:GLU:N	2.36	0.41
7:DH:164:TYR:HB3	7:DH:165:ALA:H	1.69	0.41
8:DK:25:TYR:CE2	8:DK:29:TYR:CD2	3.08	0.41
9:DM:18:ALA:O	9:DM:19:GLU:C	2.63	0.41
11:DO:101:VAL:C	11:DO:103:ALA:N	2.78	0.41
12:DP:3:MET:C	12:DP:4:PRO:O	2.64	0.41
15:DR:19:LEU:HD22	15:DR:86:ILE:CG2	2.51	0.41
15:DR:98:LYS:HB3	15:DR:100:TYR:CE1	2.55	0.41
15:DR:131:ALA:O	15:DR:132:LYS:C	2.64	0.41
16:D1:80:ILE:HD13	16:D1:80:ILE:HA	1.97	0.41
17:D2:37:VAL:HG23	17:D2:38:LEU:N	2.35	0.41
21:DV:100:VAL:O	21:DV:124:ILE:HG22	2.20	0.41
1:AA:442:G:H4'	5:AF:46:ARG:HD3	2.03	0.40
1:AA:444:C:H4'	5:AF:49:ALA:HB2	2.01	0.40
1:AA:480:A:O4'	20:AU:44:ILE:HG12	2.21	0.40
1:AA:528:A:C2	1:AA:2043:C:C5'	3.03	0.40
1:AA:792:G:H5"	1:AA:793:A:H5'	2.02	0.40
1:AA:828:U:H2'	1:AA:829:A:C8	2.56	0.40
1:AA:960:A:H61	12:AP:83:MET:CE	2.28	0.40
1:AA:966:G:H2'	1:AA:967:C:C6	2.56	0.40
1:AA:991:C:C5	1:AA:1185:C:N4	2.89	0.40
1:AA:1474:C:H2'	1:AA:1475:G:C8	2.56	0.40
1:AA:1860:G:H1	1:AA:1882:C:H42	1.69	0.40
1:AA:2313:C:H2'	1:AA:2314:C:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2333:A:O4'	1:AA:2335:A:C5	2.74	0.40
2:AB:20:C:C2'	2:AB:21:G:H5'	2.51	0.40
14:AQ:89:ARG:O	14:AQ:90:GLY:C	2.63	0.40
15:AR:17:THR:C	15:AR:19:LEU:H	2.30	0.40
15:AR:93:ARG:HH11	15:AR:93:ARG:HG3	1.85	0.40
19:AT:53:LYS:NZ	19:AT:55:ASN:HD21	2.19	0.40
21:AV:26:GLY:HA3	21:AV:86:VAL:O	2.20	0.40
21:AV:63:ASP:C	21:AV:65:GLN:N	2.80	0.40
25:AX:29:ARG:C	25:AX:30:ARG:HG3	2.46	0.40
27:A5:51:TYR:HB3	27:A5:52:TYR:H	1.53	0.40
31:BA:102:G:O2'	31:BA:151:A:N3	2.45	0.40
31:BA:181:G:H2'	31:BA:182:U:OP2	2.21	0.40
31:BA:186:C:H2'	31:BA:186(A):C:H6	1.86	0.40
31:BA:659:U:H2'	31:BA:660:G:C8	2.55	0.40
31:BA:729:A:H2'	31:BA:730:G:H8	1.87	0.40
31:BA:813:U:OP2	31:BA:813:U:H6	2.05	0.40
31:BA:1171:G:H2'	31:BA:1172:C:C6	2.56	0.40
31:BA:1213:A:C5	31:BA:1215:G:C4	3.10	0.40
33:BF:29:TYR:OH	44:BQ:54:PRO:HD2	2.21	0.40
33:BF:98:ASN:OD1	33:BF:98:ASN:N	2.54	0.40
33:BF:173:VAL:N	33:BF:174:PRO:HD3	2.36	0.40
34:BG:162:LEU:HD23	34:BG:162:LEU:HA	1.93	0.40
35:BH:7:GLU:OE1	35:BH:37:ARG:NH2	2.51	0.40
35:BH:8:GLU:HG2	35:BH:34:VAL:HG22	2.02	0.40
38:BK:100:ILE:HA	38:BK:101:PRO:HD3	1.89	0.40
43:BP:70:LEU:O	43:BP:74:VAL:HG23	2.21	0.40
44:BQ:44:LEU:HD12	44:BQ:44:LEU:C	2.46	0.40
52:BB:52:U:C2'	52:BB:53:A:H5'	2.47	0.40
31:CA:668:G:O2'	31:CA:669:U:H5'	2.21	0.40
31:CA:973:G:O4'	40:CM:55:LYS:HG3	2.21	0.40
31:CA:1047:G:C2'	31:CA:1048:G:H5'	2.50	0.40
31:CA:1112:C:N4	33:CF:178:LEU:HD23	2.35	0.40
31:CA:1114:C:H2'	31:CA:1115:C:H6	1.85	0.40
31:CA:1128:C:N3	31:CA:1139:G:N1	2.70	0.40
31:CA:1154:G:N3	31:CA:1155:G:C8	2.89	0.40
31:CA:1162:C:C2	31:CA:1175:G:N2	2.89	0.40
31:CA:1199:U:H5'	40:CM:54:PHE:CE2	2.57	0.40
31:CA:1213:A:C5	31:CA:1215:G:C4	3.09	0.40
31:CA:1324:A:C6	31:CA:1325:C:C4	3.09	0.40
31:CA:1333:A:C8	31:CA:1334:G:C8	3.09	0.40
33:CF:27:LYS:NZ	33:CF:27:LYS:HB3	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CF:35:GLU:HA	33:CF:38:ARG:HG2	2.03	0.40
34:CG:30:LYS:CB	34:CG:35:ARG:HD2	2.36	0.40
34:CG:112:VAL:HG12	34:CG:116:GLN:OE1	2.21	0.40
40:CM:19:SER:C	40:CM:21:GLN:H	2.28	0.40
40:CM:54:PHE:CE1	40:CM:55:LYS:HE3	2.56	0.40
46:CS:74:LEU:HD23	46:CS:74:LEU:HA	1.89	0.40
49:CV:53:ASN:OD1	49:CV:54:GLY:N	2.54	0.40
52:CB:51:A:C8	52:CB:51:A:P	3.14	0.40
53:CD:11:A:H61	53:CD:25:U:H3	1.69	0.40
1:DA:10:G:C6	1:DA:2629:A:C4	3.09	0.40
1:DA:270(N):G:O2'	1:DA:270(O):U:H5'	2.21	0.40
1:DA:558:G:P	9:DM:111:PRO:HD2	2.62	0.40
1:DA:780:G:H21	1:DA:783:A:H62	1.68	0.40
1:DA:860:U:N3	1:DA:2268:A:C8	2.89	0.40
1:DA:1231:G:H2'	1:DA:1232:G:C8	2.55	0.40
1:DA:1313:U:H2'	1:DA:1610:A:C2	2.56	0.40
1:DA:1323:U:C2'	1:DA:1324:G:H5'	2.49	0.40
1:DA:1668:A:O2'	1:DA:1674:G:N7	2.52	0.40
1:DA:1680:U:O2	1:DA:1763:G:H3'	2.21	0.40
1:DA:1784:A:H4'	1:DA:1785:A:O5'	2.21	0.40
1:DA:1952:A:C2	10:DN:22:ILE:HG23	2.56	0.40
1:DA:2873:A:N3	1:DA:2873:A:C2'	2.80	0.40
3:DD:183:ARG:HG2	3:DD:184:LYS:N	2.35	0.40
4:DE:101:ARG:O	4:DE:201:THR:OG1	2.39	0.40
5:DF:157:VAL:O	5:DF:194:MET:HA	2.22	0.40
6:DG:38:VAL:HG22	6:DG:93:THR:HG23	2.04	0.40
6:DG:62:LEU:O	6:DG:143:GLU:HG2	2.21	0.40
7:DH:166:GLY:O	7:DH:167:GLU:O	2.40	0.40
8:DK:110:ASP:OD2	8:DK:113:ARG:HB3	2.22	0.40
8:DK:138:ILE:HG23	8:DK:138:ILE:O	2.21	0.40
9:DM:94:HIS:HB2	9:DM:97:ARG:CD	2.51	0.40
11:DO:138:LEU:HD13	11:DO:139:LYS:N	2.37	0.40
13:D0:70:LEU:O	13:D0:72:ASP:N	2.54	0.40
18:DS:39:THR:HG22	18:DS:44:ALA:HB2	2.02	0.40
20:DU:62:GLU:OE2	20:DU:63:LYS:N	2.40	0.40
1:AA:394:A:O2'	1:AA:395:U:H5'	2.20	0.40
1:AA:455:C:N3	1:AA:472:A:H2'	2.37	0.40
1:AA:480:A:H2'	1:AA:481:G:OP1	2.21	0.40
1:AA:612:G:H2'	1:AA:613:U:O2	2.20	0.40
1:AA:1087:G:C2	1:AA:1089:G:O2'	2.74	0.40
1:AA:1265:A:OP1	1:AA:1265:A:C8	2.62	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1368:G:O2'	1:AA:1369:G:H5'	2.21	0.40
1:AA:1593:G:H2'	1:AA:1594:G:H8	1.87	0.40
1:AA:2156:G:C4	1:AA:2157:G:N2	2.90	0.40
1:AA:2228:G:OP2	3:AD:263:ARG:NH2	2.54	0.40
1:AA:2881:C:C5'	13:A0:117:VAL:HG21	2.52	0.40
4:AE:111:ARG:CD	4:AE:160:TYR:CE1	3.02	0.40
5:AF:7:TYR:O	5:AF:21:ALA:HA	2.21	0.40
5:AF:102:PRO:O	5:AF:105:VAL:HB	2.20	0.40
7:AH:4:ILE:HG21	7:AH:6:ARG:CZ	2.51	0.40
7:AH:151:ILE:O	7:AH:152:ARG:HB3	2.21	0.40
9:AM:17:ASP:O	9:AM:56:ASN:HB2	2.21	0.40
9:AM:94:HIS:O	9:AM:97:ARG:HB2	2.20	0.40
12:AP:14:ARG:C	12:AP:15:GLY:O	2.64	0.40
13:A0:85:PRO:C	13:A0:87:TYR:H	2.28	0.40
14:AQ:30:ARG:HH11	14:AQ:30:ARG:HG3	1.84	0.40
15:AR:113:LYS:HD2	15:AR:113:LYS:HA	1.93	0.40
17:A2:61:VAL:HG23	17:A2:61:VAL:O	2.21	0.40
19:AT:82:GLN:HA	19:AT:82:GLN:NE2	2.37	0.40
21:AV:14:LYS:HA	21:AV:15:PRO:HD3	1.91	0.40
21:AV:27:VAL:HG12	21:AV:87:ASP:CB	2.51	0.40
21:AV:52:SER:O	21:AV:54:HIS:N	2.53	0.40
31:BA:8:A:H5'	35:BH:101:ILE:HG22	2.04	0.40
31:BA:156:G:N2	31:BA:165:C:N3	2.57	0.40
31:BA:186(F):C:N3	31:BA:191(B):G:C2	2.90	0.40
31:BA:375:U:O3'	46:BS:6:LEU:HB2	2.21	0.40
31:BA:448:A:C4	31:BA:487:A:C2	3.09	0.40
31:BA:565:U:H3'	31:BA:566:G:H2'	2.03	0.40
31:BA:1128:C:H5'	39:BL:16:ARG:NH2	2.32	0.40
31:BA:1170:A:O5'	31:BA:1170:A:H8	2.03	0.40
31:BA:1281:U:H5"	31:BA:1282:C:P	2.61	0.40
31:BA:1296:C:H5'	43:BP:14:ARG:NH1	2.37	0.40
31:BA:1342:C:H2'	31:BA:1343:G:C8	2.57	0.40
33:BF:108:ASN:ND2	33:BF:144:SER:OG	2.54	0.40
34:BG:156:GLU:O	34:BG:160:GLN:HB3	2.21	0.40
38:BK:68:ARG:HD2	38:BK:74:PRO:HB2	2.02	0.40
42:BO:82:ILE:HD13	42:BO:82:ILE:HA	1.83	0.40
44:BQ:9:LYS:HA	44:BQ:12:ARG:HG2	2.02	0.40
49:BV:41:VAL:HG23	49:BV:67:VAL:HG13	2.03	0.40
52:BB:7:G:C6	52:BB:60:A:C6	3.09	0.40
53:BD:25:U:H2'	53:BD:26:C:C6	2.55	0.40
31:CA:280:C:H3'	31:CA:281:G:H5'	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:382:A:C6	31:CA:383:A:C6	3.09	0.40
31:CA:878:G:OP1	38:CK:90:GLY:HA3	2.21	0.40
31:CA:1143:G:H2'	31:CA:1144:G:C8	2.57	0.40
31:CA:1162:C:H42	31:CA:1174:G:H1	1.69	0.40
31:CA:1204:A:OP1	44:CQ:3:ARG:NH1	2.41	0.40
31:CA:1226:C:H4'	49:CV:80:TYR:CZ	2.55	0.40
32:CE:48:MET:O	32:CE:52:GLU:N	2.32	0.40
33:CF:134:ILE:CG2	33:CF:168:ALA:HB3	2.49	0.40
34:CG:52:SER:O	34:CG:53:ASP:C	2.63	0.40
34:CG:117:ALA:O	34:CG:121:VAL:HG23	2.21	0.40
1:DA:52:A:C2'	1:DA:53:A:H5'	2.50	0.40
1:DA:69:C:O2	1:DA:73:A:O2'	2.36	0.40
1:DA:281:G:O2'	1:DA:282:A:O4'	2.31	0.40
1:DA:385:C:O2	11:DO:71:VAL:HG21	2.20	0.40
1:DA:488:G:H1'	1:DA:492:A:N6	2.35	0.40
1:DA:654(A):A:C2	1:DA:654(T):A:N1	2.89	0.40
1:DA:654(S):G:O2'	1:DA:654(T):A:C8	2.74	0.40
1:DA:1283:G:O2'	1:DA:1285:G:N7	2.52	0.40
1:DA:1464:C:O2'	1:DA:1528:A:C8	2.58	0.40
1:DA:1606:G:H5"	1:DA:1607:C:OP1	2.21	0.40
1:DA:2274:A:C6	1:DA:2276:G:C8	3.09	0.40
1:DA:2331:G:H4'	22:D3:43:THR:N	2.31	0.40
1:DA:2636:U:H4'	4:DE:80:GLU:CD	2.46	0.40
1:DA:2882:A:OP1	13:D0:96:ARG:NE	2.52	0.40
3:DD:153:ALA:O	3:DD:157:ARG:NH1	2.54	0.40
3:DD:270:ILE:C	3:DD:271:ILE:HG12	2.45	0.40
4:DE:8:LYS:O	4:DE:9:VAL:CG2	2.59	0.40
4:DE:119:ARG:HG2	4:DE:160:TYR:CB	2.49	0.40
5:DF:40:GLN:NE2	5:DF:182:ASN:HB2	2.36	0.40
6:DG:103:LEU:O	6:DG:107:LEU:HG	2.21	0.40
7:DH:153:LYS:HE3	7:DH:160:LYS:O	2.20	0.40
8:DK:82:ARG:NH1	8:DK:146:ALA:HA	2.36	0.40
12:DP:19:GLY:C	12:DP:98:LYS:HD3	2.46	0.40
12:DP:90:VAL:O	12:DP:90:VAL:HG12	2.16	0.40
13:D0:34:ILE:HG22	13:D0:114:VAL:HB	2.03	0.40
17:D2:80:GLN:CA	17:D2:80:GLN:NE2	2.76	0.40
19:DT:3:THR:HA	19:DT:6:ASP:OD2	2.21	0.40
20:DU:96:ILE:HD12	20:DU:98:VAL:HG13	2.03	0.40
27:D5:27:PRO:HA	27:D5:28:PRO:HD3	1.95	0.40
1:AA:311:A:C6	1:AA:328:U:C4	3.09	0.40
1:AA:633:A:H2'	1:AA:634:C:H5'	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:942:G:OP2	11:AO:39:LYS:HE2	2.21	0.40
1:AA:986:C:C2'	1:AA:987:G:H5'	2.51	0.40
1:AA:1320:C:H4'	1:AA:1321:A:OP1	2.21	0.40
1:AA:1538:G:H8	1:AA:1538:G:O5'	2.05	0.40
1:AA:1678:G:N2	1:AA:1989:G:N2	2.63	0.40
1:AA:1825:A:OP1	3:AD:249:PRO:HD3	2.21	0.40
1:AA:1924:C:H4'	53:BC:13:C:O2'	2.22	0.40
1:AA:2134:A:C5	1:AA:2158:A:C2	3.09	0.40
1:AA:2392:A:N1	1:AA:2424:C:N3	2.69	0.40
1:AA:2627:G:N3	1:AA:2781:A:H2	2.19	0.40
1:AA:2636:U:H1'	1:AA:2783:G:N2	2.37	0.40
1:AA:2657:A:H1'	1:AA:2665:A:N6	2.36	0.40
5:AF:174:VAL:HG22	5:AF:174:VAL:O	2.22	0.40
6:AG:95:ARG:O	6:AG:96:ARG:C	2.63	0.40
7:AH:46:GLU:HB2	7:AH:49:VAL:CG2	2.50	0.40
7:AH:136:ILE:H	7:AH:136:ILE:HG13	1.73	0.40
8:AK:8:PRO:O	8:AK:9:LEU:HD22	2.22	0.40
8:AK:12:LEU:HB3	8:AK:13:GLY:H	1.62	0.40
14:AQ:32:LEU:O	14:AQ:62:LYS:NZ	2.52	0.40
22:A3:36:ILE:O	22:A3:36:ILE:HG13	2.22	0.40
30:A8:32:LEU:C	30:A8:36:LYS:HE3	2.46	0.40
31:BA:49:U:C2'	31:BA:50:A:OP1	2.69	0.40
31:BA:659:U:N3	31:BA:660:G:N7	2.69	0.40
31:BA:767:A:H2'	31:BA:768:A:O4'	2.22	0.40
31:BA:775:G:C2'	31:BA:776:G:H5'	2.51	0.40
31:BA:1121:U:H2'	31:BA:1122:U:H6	1.84	0.40
31:BA:1158:C:C4	31:BA:1160:G:C4	3.10	0.40
31:BA:1465:C:H2'	31:BA:1466:C:O4'	2.21	0.40
32:BE:67:THR:C	32:BE:68:ILE:HD12	2.46	0.40
32:BE:95:GLN:HB3	32:BE:96:ARG:HD2	2.04	0.40
32:BE:166:ASP:HB3	32:BE:169:LYS:HB2	2.04	0.40
32:BE:220:ASP:O	32:BE:222:ILE:N	2.54	0.40
33:BF:44:GLU:OE1	33:BF:44:GLU:HA	2.21	0.40
34:BG:4:TYR:CG	34:BG:5:ILE:N	2.89	0.40
35:BH:47:LYS:HE2	35:BH:47:LYS:HB2	1.94	0.40
35:BH:72:GLN:O	35:BH:73:ASN:CB	2.58	0.40
35:BH:114:GLY:O	35:BH:115:VAL:C	2.64	0.40
39:BL:5:TYR:HA	39:BL:17:VAL:O	2.21	0.40
40:BM:90:LEU:N	40:BM:91:PRO:HD3	2.36	0.40
46:BS:68:ASP:C	46:BS:70:ALA:N	2.75	0.40
48:BU:47:THR:O	48:BU:83:GLU:N	2.48	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BB:45:U:H2'	52:BB:46:G:H5"	1.99	0.40
52:BB:66:U:H6	52:BB:66:U:O5'	2.04	0.40
31:CA:833:U:H2'	31:CA:834:C:C6	2.56	0.40
31:CA:986:A:H2'	31:CA:987:G:O4'	2.21	0.40
31:CA:1028(A):C:C2	31:CA:1028(B):C:H5	2.40	0.40
31:CA:1086:U:OP2	31:CA:1086:U:C6	2.74	0.40
31:CA:1123:A:H4'	40:CM:36:GLY:CA	2.49	0.40
31:CA:1147:C:O2'	39:CL:16:ARG:HD3	2.22	0.40
31:CA:1399:C:H4'	31:CA:1400:C:O5'	2.22	0.40
31:CA:1446:A:N6	15:DR:118:ARG:NH1	2.69	0.40
41:CN:81:ASP:OD1	41:CN:81:ASP:N	2.54	0.40
46:CS:8:ARG:CG	46:CS:8:ARG:NH1	2.64	0.40
50:CW:47:GLY:C	50:CW:49:ALA:N	2.80	0.40
50:CW:50:GLU:HA	50:CW:100:ILE:CG1	2.50	0.40
52:CB:51:A:H8	52:CB:51:A:OP2	2.03	0.40
53:CD:23:G:N2	53:CD:24:C:O2	2.54	0.40
1:DA:7:G:H1	1:DA:2896:C:H42	1.66	0.40
1:DA:21:A:O2'	1:DA:22:C:H5'	2.21	0.40
1:DA:43:G:H2'	1:DA:44:A:O4'	2.21	0.40
1:DA:288:C:H5'	1:DA:289:A:OP1	2.20	0.40
1:DA:669:G:O2'	1:DA:670:A:O5'	2.38	0.40
1:DA:1027:A:C2	1:DA:2488:A:H5'	2.56	0.40
1:DA:1089:G:H5"	1:DA:1090:U:OP2	2.21	0.40
1:DA:1142:U:O2	1:DA:1142:U:C2'	2.60	0.40
1:DA:1171:G:C1'	1:DA:1173:G:P	3.09	0.40
1:DA:1225:C:O3'	17:D2:85:LYS:CA	2.68	0.40
1:DA:2053:G:H5'	4:DE:144:ARG:O	2.21	0.40
1:DA:2162:G:O2'	1:DA:2163:C:H5'	2.22	0.40
1:DA:2164:C:C5	1:DA:2165:G:N7	2.89	0.40
1:DA:2271:G:C6	1:DA:2272:U:C4	3.09	0.40
1:DA:2872:G:C6	1:DA:2873:A:N1	2.86	0.40
3:DD:16:MET:HG3	3:DD:211:ARG:HH21	1.86	0.40
3:DD:35:LYS:HE3	3:DD:65:ILE:N	2.36	0.40
4:DE:41:LYS:HG3	4:DE:42:ASP:OD2	2.21	0.40
5:DF:32:LEU:O	5:DF:32:LEU:HD23	2.20	0.40
5:DF:128:ALA:O	5:DF:130:ALA:N	2.54	0.40
6:DG:88:ILE:HD13	6:DG:88:ILE:O	2.22	0.40
7:DH:6:ARG:HB2	7:DH:66:GLY:HA2	2.04	0.40
7:DH:20:ALA:HB1	7:DH:21:PRO:HD2	2.03	0.40
7:DH:117:PRO:CB	7:DH:123:PHE:HE1	2.18	0.40
8:DK:117:GLU:CD	8:DK:117:GLU:H	2.28	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:DM:90:MET:HB3	9:DM:98:VAL:CG1	2.51	0.40
10:DN:34:THR:O	10:DN:37:ASP:HB2	2.22	0.40
11:DO:63:PRO:HB3	30:D8:13:ARG:CG	2.48	0.40
13:D0:92:GLY:O	13:D0:94:TYR:CD2	2.74	0.40
15:DR:131:ALA:O	15:DR:133:GLU:N	2.54	0.40
18:DS:73:ALA:HB3	18:DS:106:ILE:HD11	2.04	0.40
20:DU:24:VAL:HG12	20:DU:25:GLY:N	2.36	0.40
1:AA:155:C:N4	1:AA:171:G:C6	2.81	0.40
1:AA:309:G:O2'	1:AA:329:G:C8	2.75	0.40
1:AA:540:G:H3'	1:AA:541:C:C6	2.57	0.40
1:AA:656:G:H2'	1:AA:657:U:O4'	2.21	0.40
1:AA:745:G:C2'	1:AA:746:A:H5'	2.52	0.40
1:AA:781:A:OP1	3:AD:218:ARG:NH2	2.53	0.40
1:AA:848:G:O6	1:AA:929:G:H2'	2.21	0.40
1:AA:1168:G:C2	1:AA:1182:A:C2	3.09	0.40
1:AA:1441:G:H2'	1:AA:1442:G:C8	2.56	0.40
1:AA:1478:G:O2'	1:AA:1558:A:H2	2.04	0.40
1:AA:1718:G:C2	1:AA:1725:G:C8	3.09	0.40
1:AA:2095:C:H2'	1:AA:2096:U:O4'	2.22	0.40
1:AA:2115:G:O6	1:AA:2117:A:H3'	2.22	0.40
1:AA:2291:U:O2'	1:AA:2374:C:H1'	2.21	0.40
1:AA:2373:G:H2'	1:AA:2374:C:C6	2.57	0.40
1:AA:2695:C:H2'	1:AA:2696:U:C6	2.57	0.40
1:AA:2732:G:H3'	1:AA:2733:A:O4'	2.22	0.40
1:AA:2808:U:C5	1:AA:2891:G:C5	3.09	0.40
1:AA:2811:G:H2'	1:AA:2812:G:H5'	2.03	0.40
1:AA:2863:C:O2'	1:AA:2864:G:H5'	2.21	0.40
2:AB:88:C:H2'	2:AB:89:G:C1'	2.52	0.40
3:AD:17:THR:HG22	3:AD:205:VAL:N	2.30	0.40
3:AD:127:VAL:HA	3:AD:193:VAL:HG22	2.03	0.40
5:AF:57:VAL:CG1	5:AF:58:ALA:N	2.84	0.40
6:AG:6:ALA:HB3	26:A4:23:GLU:HG3	2.04	0.40
9:AM:137:LYS:CG	9:AM:138:LEU:N	2.80	0.40
12:AP:64:ILE:H	12:AP:64:ILE:HG12	1.62	0.40
12:AP:109:VAL:CG1	12:AP:110:THR:N	2.83	0.40
13:A0:28:LEU:HD23	13:A0:28:LEU:HA	1.92	0.40
17:A2:46:VAL:HG13	17:A2:46:VAL:O	2.21	0.40
17:A2:62:LEU:HB2	17:A2:93:GLU:O	2.21	0.40
22:A3:25:ARG:HD3	22:A3:29:GLN:HE21	1.86	0.40
28:A6:43:CYS:HB3	28:A6:44:ARG:NH1	2.37	0.40
31:BA:76:G:C2	31:BA:95:G:N3	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:298:A:H2'	31:BA:299:G:O4'	2.21	0.40
31:BA:411:A:C5	31:BA:429:U:C5	3.10	0.40
31:BA:412:A:C1'	31:BA:413:G:OP2	2.66	0.40
31:BA:431:A:H2'	31:BA:432:A:O4'	2.21	0.40
31:BA:707:C:O2'	31:BA:708:C:H5'	2.21	0.40
31:BA:811:C:N4	31:BA:812:C:N4	2.70	0.40
31:BA:837:G:C2	31:BA:850:U:O2	2.75	0.40
31:BA:992:U:H3'	31:BA:992:U:OP1	2.21	0.40
31:BA:1102:A:C6	31:BA:1103:C:N4	2.89	0.40
31:BA:1133:G:H2'	31:BA:1134:G:H8	1.86	0.40
32:BE:213:LEU:HG	32:BE:217:ARG:HH12	1.86	0.40
32:BE:220:ASP:C	32:BE:222:ILE:H	2.29	0.40
34:BG:120:LEU:HA	34:BG:120:LEU:HD23	1.83	0.40
38:BK:26:VAL:O	38:BK:27:PRO:C	2.65	0.40
39:BL:53:VAL:O	39:BL:53:VAL:HG22	2.21	0.40
40:BM:55:LYS:HD2	40:BM:56:HIS:N	2.37	0.40
48:BU:82:THR:HG22	48:BU:83:GLU:N	2.36	0.40
53:BC:18:C:O2	53:BC:18:C:C2'	2.68	0.40
31:CA:398:C:OP1	31:CA:398:C:H6	2.04	0.40
31:CA:468:A:H2'	31:CA:474:G:C5'	2.50	0.40
31:CA:685:G:N2	31:CA:686:U:C4	2.89	0.40
31:CA:1028(A):C:C2	31:CA:1028(B):C:C5	3.10	0.40
31:CA:1054:C:N4	52:CB:35:G:N9	2.69	0.40
31:CA:1120:G:H2'	31:CA:1121:U:H6	1.87	0.40
31:CA:1158:C:H2'	31:CA:1160:G:H8	1.87	0.40
31:CA:1297:C:OP2	31:CA:1297:C:H6	2.05	0.40
31:CA:1388:C:H2'	31:CA:1389:C:H6	1.86	0.40
31:CA:1490:C:O2'	31:CA:1491:G:H5'	2.22	0.40
32:CE:95:GLN:O	32:CE:96:ARG:C	2.64	0.40
33:CF:12:LEU:O	33:CF:13:GLY:C	2.64	0.40
33:CF:113:ALA:C	33:CF:115:LEU:N	2.79	0.40
34:CG:56:VAL:HG12	34:CG:202:LEU:HD12	2.03	0.40
34:CG:61:LYS:HA	34:CG:203:VAL:HG22	2.02	0.40
34:CG:62:GLN:NE2	34:CG:62:GLN:HA	2.36	0.40
36:CI:87:ARG:NH1	36:CI:87:ARG:CG	2.63	0.40
42:CO:51:LYS:HE2	42:CO:72:HIS:CE1	2.56	0.40
44:CQ:27:CYS:O	44:CQ:29:ARG:N	2.54	0.40
49:CV:62:ILE:HD12	49:CV:62:ILE:N	2.37	0.40
52:CB:51:A:C8	52:CB:51:A:OP1	2.75	0.40
53:CC:76:C:OP1	1:DA:2602:A:OP1	2.39	0.40
1:DA:68:G:H2'	1:DA:69:C:C6	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:270(A):A:N6	1:DA:270(Y):G:H1'	2.37	0.40
1:DA:362:U:C6	1:DA:362:U:C3'	3.04	0.40
1:DA:991:C:O2	1:DA:1164:G:C2	2.75	0.40
1:DA:1499:C:O2'	1:DA:1500:G:H5'	2.21	0.40
1:DA:1543:A:H1'	1:DA:1545:A:O4'	2.21	0.40
1:DA:2103:C:H2'	1:DA:2104:G:H8	1.86	0.40
1:DA:2121:G:H2'	1:DA:2122:U:C6	2.57	0.40
1:DA:2275:C:H5'	1:DA:2275:C:C6	2.57	0.40
1:DA:2328:A:H2'	1:DA:2329:G:O4'	2.22	0.40
1:DA:2522:U:O2'	1:DA:2647:U:H5"	2.22	0.40
1:DA:2744:G:N2	7:DH:143:GLN:OE1	2.55	0.40
1:DA:2817:G:OP1	13:D0:99:LYS:NZ	2.55	0.40
2:DB:60:C:H2'	2:DB:61:G:C8	2.57	0.40
3:DD:201:HIS:O	3:DD:204:ILE:HG12	2.21	0.40
11:DO:107:LYS:C	11:DO:109:GLY:N	2.73	0.40
14:DQ:95:HIS:CG	14:DQ:96:GLY:N	2.90	0.40
15:DR:82:LEU:HD12	15:DR:82:LEU:N	2.37	0.40
16:D1:65:ILE:O	16:D1:68:ALA:N	2.51	0.40
16:D1:92:ARG:CG	16:D1:95:LEU:H	2.34	0.40
19:DT:53:LYS:HB3	19:DT:82:GLN:CB	2.41	0.40
22:D3:53:MET:HA	22:D3:58:THR:O	2.21	0.40
24:DW:10:LEU:HD13	24:DW:59:ARG:HD2	2.04	0.40
24:DW:41:ILE:O	24:DW:41:ILE:HG13	2.21	0.40
26:D4:16:CYS:HB3	26:D4:20:ASN:N	2.35	0.40
29:D7:8:ASN:HD22	29:D7:8:ASN:C	2.30	0.40
29:D7:31:LEU:HD23	29:D7:31:LEU:HA	1.93	0.40
30:D8:21:LYS:HA	30:D8:50:LEU:CD2	2.52	0.40
1:AA:654(S):G:N3	1:AA:654(T):A:C8	2.89	0.40
1:AA:908:C:O2'	1:AA:909:A:H5'	2.21	0.40
1:AA:1057:A:N7	1:AA:1086:A:C2	2.89	0.40
1:AA:1067:A:H5"	1:AA:1068:G:N7	2.37	0.40
1:AA:1204:A:C8	1:AA:1206:G:C6	3.09	0.40
1:AA:1416:G:C2'	1:AA:1417:C:C6	3.05	0.40
1:AA:1416:G:C2'	1:AA:1417:C:H6	2.34	0.40
1:AA:1591:G:H2'	1:AA:1592:C:C6	2.57	0.40
1:AA:2025:C:H2'	1:AA:2026:C:C6	2.57	0.40
1:AA:2147:G:H2'	1:AA:2148:G:O4'	2.22	0.40
1:AA:2728:U:H2'	1:AA:2729:G:H8	1.83	0.40
1:AA:2746:U:C2'	1:AA:2747:G:H5'	2.52	0.40
2:AB:75:G:H21	21:AV:85:HIS:HE1	1.69	0.40
3:AD:69:ARG:C	3:AD:71:ASP:N	2.79	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:105:ILE:HD12	3:AD:105:ILE:HA	1.83	0.40
3:AD:166:GLN:HA	3:AD:166:GLN:NE2	2.36	0.40
3:AD:197:GLY:O	3:AD:198:ASN:HB3	2.20	0.40
3:AD:239:ARG:O	3:AD:240:ALA:HB2	2.22	0.40
6:AG:67:LYS:HE2	6:AG:67:LYS:N	2.36	0.40
11:AO:3:LEU:HD23	11:AO:3:LEU:HA	1.85	0.40
13:A0:41:ALA:C	13:A0:43:GLU:N	2.77	0.40
13:A0:106:GLY:O	13:A0:107:ASP:CB	2.69	0.40
14:AQ:12:PHE:O	14:AQ:13:ARG:C	2.64	0.40
14:AQ:74:ALA:O	14:AQ:75:GLU:C	2.64	0.40
14:AQ:83:LYS:C	14:AQ:109:GLY:HA3	2.47	0.40
15:AR:24:PRO:HD3	15:AR:52:ILE:CD1	2.51	0.40
15:AR:88:ILE:HG13	15:AR:88:ILE:O	2.21	0.40
19:AT:10:ALA:HB1	19:AT:11:PRO:HD2	2.03	0.40
19:AT:29:TRP:CE3	19:AT:78:LYS:HG2	2.56	0.40
20:AU:43:ASN:HA	20:AU:64:GLU:HA	2.03	0.40
21:AV:51:ALA:O	21:AV:52:SER:HB3	2.20	0.40
23:AZ:80:LEU:HD23	23:AZ:80:LEU:N	2.37	0.40
28:A6:14:THR:O	28:A6:49:HIS:HA	2.22	0.40
30:A8:33:ASN:O	30:A8:35:GLN:N	2.55	0.40
30:A8:37:SER:O	30:A8:40:GLU:HB3	2.21	0.40
31:BA:22:G:H4'	31:BA:885:G:C8	2.56	0.40
31:BA:101:A:C4	31:BA:102:G:C8	3.10	0.40
31:BA:622:A:C8	31:BA:623:C:C6	3.10	0.40
31:BA:1107:C:C4	31:BA:1108:G:C8	3.10	0.40
31:BA:1315:U:C4	31:BA:1316:G:C6	3.10	0.40
31:BA:1371:G:C5	31:BA:1372:U:C5	3.10	0.40
32:BE:212:GLN:NE2	32:BE:216:SER:HB2	2.36	0.40
33:BF:70:VAL:CG1	33:BF:71:ALA:N	2.84	0.40
33:BF:111:LEU:CD1	33:BF:204:LEU:HD21	2.52	0.40
34:BG:28:SER:C	34:BG:30:LYS:H	2.29	0.40
34:BG:29:PRO:O	34:BG:30:LYS:HB3	2.21	0.40
36:BI:19:LEU:HD21	36:BI:59:TYR:CE2	2.57	0.40
38:BK:82:HIS:HB3	38:BK:138:TRP:CD2	2.56	0.40
40:BM:49:VAL:HG22	44:BQ:41:ARG:HB2	2.02	0.40
40:BM:55:LYS:CG	40:BM:56:HIS:N	2.85	0.40
41:BN:104:GLN:HE21	41:BN:104:GLN:HB2	1.63	0.40
52:BB:38:G:H2'	52:BB:39:U:O4'	2.22	0.40
53:BD:19:G:H22	53:BD:56:U:H1'	1.86	0.40
53:BD:68:C:H2'	53:BD:69:C:C6	2.56	0.40
31:CA:389:A:N3	31:CA:389:A:H2'	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:922:G:C6	31:CA:923:A:C6	3.09	0.40
31:CA:963:G:H21	40:CM:55:LYS:NZ	2.19	0.40
31:CA:1112:C:N3	33:CF:178:LEU:HD23	2.37	0.40
31:CA:1127:G:H2'	31:CA:1128:C:C6	2.56	0.40
31:CA:1127:G:C1'	31:CA:1147:C:H42	2.35	0.40
31:CA:1223:C:OP2	31:CA:1224:G:H2'	2.21	0.40
31:CA:1347:G:C5	39:CL:107:ARG:NH2	2.90	0.40
32:CE:39:ILE:O	32:CE:41:ILE:HD12	2.22	0.40
32:CE:115:LEU:HA	32:CE:145:LEU:HD23	2.03	0.40
33:CF:137:ALA:O	33:CF:141:VAL:HG23	2.22	0.40
34:CG:29:PRO:HD2	34:CG:30:LYS:HE2	2.04	0.40
38:CK:122:ARG:HE	38:CK:122:ARG:HB2	1.68	0.40
39:CL:4:TYR:CZ	39:CL:88:TYR:CG	3.10	0.40
40:CM:57:LYS:HD3	40:CM:57:LYS:O	2.21	0.40
43:CP:115:LYS:C	43:CP:117:VAL:N	2.80	0.40
47:CT:45:HIS:CB	47:CT:65:ILE:HD13	2.51	0.40
53:CC:60:A:C2'	53:CC:61:U:H5'	2.48	0.40
1:DA:26:G:C5	1:DA:27:G:C6	3.10	0.40
1:DA:251:A:H2'	1:DA:252:G:O4'	2.22	0.40
1:DA:265:A:H4'	1:DA:266:G:O5'	2.21	0.40
1:DA:533:G:H5'	16:D1:24:TYR:CD2	2.57	0.40
1:DA:598:G:O4'	11:DO:12:ALA:HB2	2.22	0.40
1:DA:883:G:C5	1:DA:884:C:N4	2.90	0.40
1:DA:1486:A:C4	1:DA:1487:G:C8	3.10	0.40
1:DA:2059:A:N6	1:DA:2503:A:H2'	2.37	0.40
1:DA:2352:A:C2	22:D3:33:ALA:O	2.75	0.40
1:DA:2468:G:N1	1:DA:2481:G:N3	2.70	0.40
2:DB:1:U:N3	2:DB:119:A:C2	2.73	0.40
2:DB:21:G:H2'	2:DB:22:U:O4'	2.22	0.40
2:DB:40:U:H5"	2:DB:41:U:H5'	2.03	0.40
4:DE:66:HIS:CB	4:DE:68:ALA:HB2	2.45	0.40
4:DE:71:GLY:C	4:DE:73:GLU:H	2.29	0.40
5:DF:20:LEU:HD23	5:DF:21:ALA:N	2.36	0.40
6:DG:9:ARG:HD3	6:DG:13:GLU:OE1	2.21	0.40
6:DG:36:LYS:HE2	6:DG:160:VAL:HG21	2.04	0.40
6:DG:73:ALA:HB2	6:DG:82:LEU:HD22	2.02	0.40
8:DK:22:LYS:HA	8:DK:23:PRO:HD3	1.99	0.40
9:DM:30:ILE:HG21	9:DM:120:LEU:HD12	2.02	0.40
9:DM:120:LEU:CD2	9:DM:122:VAL:HG23	2.52	0.40
9:DM:131:GLN:OE1	9:DM:132:ALA:HB2	2.22	0.40
10:DN:34:THR:O	10:DN:35:VAL:C	2.65	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:DQ:61:ASN:CG	14:DQ:62:LYS:H	2.30	0.40
14:DQ:66:ALA:O	14:DQ:69:VAL:HG12	2.21	0.40
16:D1:81:HIS:NE2	16:D1:85:LYS:HD2	2.36	0.40
16:D1:112:ARG:H	16:D1:112:ARG:HG2	1.66	0.40
17:D2:36:PRO:C	17:D2:37:VAL:HG13	2.47	0.40
20:DU:19:LYS:HB2	20:DU:20:TYR:H	1.48	0.40
28:D6:23:THR:CG2	28:D6:24:GLU:H	2.31	0.40
28:D6:45:LYS:HD2	28:D6:45:LYS:HA	1.82	0.40

All (4) 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:DH:100:GLY:O[3_555]	1.87	0.33
1:AA:2137:C:OP1	31:CA:999:U:O2'[4_555]	1.89	0.31
36:BI:15:ASP:OD2	34:CG:27:TYR:OH[4_555]	2.05	0.15
31:CA:86:U:O2'	1:DA:276:A:OP2[3_545]	2.15	0.05

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	270/272 (99%)	226 (84%)	31 (12%)	13 (5%)	2 11
3	DD	270/272 (99%)	231 (86%)	25 (9%)	14 (5%)	1 10
4	AE	203/205 (99%)	152 (75%)	33 (16%)	18 (9%)	0 3
4	DE	203/205 (99%)	128 (63%)	41 (20%)	34 (17%)	0 0
5	AF	201/208 (97%)	177 (88%)	13 (6%)	11 (6%)	1 9
5	DF	206/208 (99%)	162 (79%)	25 (12%)	19 (9%)	0 3
6	AG	179/181 (99%)	147 (82%)	21 (12%)	11 (6%)	1 7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
6	DG	179/181 (99%)	141 (79%)	27 (15%)	11 (6%)	1 7
7	AH	168/170 (99%)	116 (69%)	22 (13%)	30 (18%)	0 0
7	DH	168/170 (99%)	108 (64%)	37 (22%)	23 (14%)	0 1
8	AK	144/146 (99%)	97 (67%)	27 (19%)	20 (14%)	0 1
8	DK	144/146 (99%)	106 (74%)	26 (18%)	12 (8%)	0 4
9	AM	136/138 (99%)	105 (77%)	18 (13%)	13 (10%)	0 3
9	DM	136/138 (99%)	108 (79%)	20 (15%)	8 (6%)	1 8
10	AN	120/122 (98%)	111 (92%)	7 (6%)	2 (2%)	7 30
10	DN	120/122 (98%)	108 (90%)	11 (9%)	1 (1%)	16 47
11	AO	148/150 (99%)	106 (72%)	25 (17%)	17 (12%)	0 1
11	DO	148/150 (99%)	92 (62%)	28 (19%)	28 (19%)	0 0
12	AP	139/141 (99%)	95 (68%)	25 (18%)	19 (14%)	0 1
12	DP	139/141 (99%)	91 (66%)	20 (14%)	28 (20%)	0 0
13	A0	116/118 (98%)	93 (80%)	15 (13%)	8 (7%)	1 5
13	D0	115/118 (98%)	93 (81%)	17 (15%)	5 (4%)	2 12
14	AQ	109/111 (98%)	77 (71%)	24 (22%)	8 (7%)	1 5
14	DQ	109/111 (98%)	78 (72%)	21 (19%)	10 (9%)	0 3
15	AR	135/137 (98%)	100 (74%)	25 (18%)	10 (7%)	1 5
15	DR	135/137 (98%)	103 (76%)	23 (17%)	9 (7%)	1 6
16	A1	115/117 (98%)	101 (88%)	7 (6%)	7 (6%)	1 7
16	D1	115/117 (98%)	93 (81%)	15 (13%)	7 (6%)	1 7
17	A2	99/101 (98%)	83 (84%)	9 (9%)	7 (7%)	1 5
17	D2	99/101 (98%)	73 (74%)	14 (14%)	12 (12%)	0 1
18	AS	111/113 (98%)	92 (83%)	14 (13%)	5 (4%)	2 12
18	DS	111/113 (98%)	99 (89%)	10 (9%)	2 (2%)	6 28
19	AT	90/92 (98%)	83 (92%)	6 (7%)	1 (1%)	11 39
19	DT	90/92 (98%)	75 (83%)	12 (13%)	3 (3%)	3 17
20	AU	100/102 (98%)	68 (68%)	19 (19%)	13 (13%)	0 1
20	DU	100/102 (98%)	61 (61%)	22 (22%)	17 (17%)	0 0
21	AV	173/179 (97%)	112 (65%)	36 (21%)	25 (14%)	0 0
21	DV	177/179 (99%)	120 (68%)	27 (15%)	30 (17%)	0 0

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
22	A3	74/77 (96%)	57 (77%)	15 (20%)	2 (3%)	4 20
22	D3	75/77 (97%)	62 (83%)	13 (17%)	0	100 100
23	AZ	95/97 (98%)	78 (82%)	10 (10%)	7 (7%)	1 5
23	DZ	95/97 (98%)	77 (81%)	7 (7%)	11 (12%)	0 1
24	AW	64/69 (93%)	56 (88%)	3 (5%)	5 (8%)	1 4
24	DW	67/69 (97%)	56 (84%)	5 (8%)	6 (9%)	0 3
25	AX	57/59 (97%)	49 (86%)	8 (14%)	0	100 100
25	DX	57/59 (97%)	51 (90%)	5 (9%)	1 (2%)	6 28
26	A4	64/66 (97%)	38 (59%)	16 (25%)	10 (16%)	0 0
26	D4	61/66 (92%)	24 (39%)	25 (41%)	12 (20%)	0 0
27	A5	57/59 (97%)	40 (70%)	10 (18%)	7 (12%)	0 1
27	D5	57/59 (97%)	46 (81%)	7 (12%)	4 (7%)	1 5
28	A6	43/45 (96%)	25 (58%)	12 (28%)	6 (14%)	0 1
28	D6	43/45 (96%)	25 (58%)	12 (28%)	6 (14%)	0 1
29	A7	47/49 (96%)	43 (92%)	3 (6%)	1 (2%)	5 25
29	D7	47/49 (96%)	46 (98%)	1 (2%)	0	100 100
30	A8	59/61 (97%)	50 (85%)	5 (8%)	4 (7%)	1 5
30	D8	59/61 (97%)	39 (66%)	11 (19%)	9 (15%)	0 0
32	BE	235/256 (92%)	170 (72%)	47 (20%)	18 (8%)	1 4
32	CE	235/256 (92%)	188 (80%)	23 (10%)	24 (10%)	0 3
33	BF	203/239 (85%)	141 (70%)	46 (23%)	16 (8%)	1 4
33	CF	204/239 (85%)	152 (74%)	37 (18%)	15 (7%)	1 5
34	BG	206/208 (99%)	168 (82%)	27 (13%)	11 (5%)	1 10
34	CG	206/208 (99%)	171 (83%)	30 (15%)	5 (2%)	4 22
35	BH	149/162 (92%)	129 (87%)	14 (9%)	6 (4%)	2 13
35	CH	149/162 (92%)	134 (90%)	11 (7%)	4 (3%)	4 20
36	BI	99/101 (98%)	93 (94%)	4 (4%)	2 (2%)	6 25
36	CI	99/101 (98%)	94 (95%)	4 (4%)	1 (1%)	12 41
37	BJ	153/156 (98%)	137 (90%)	15 (10%)	1 (1%)	18 49
37	CJ	153/156 (98%)	137 (90%)	13 (8%)	3 (2%)	6 25
38	BK	136/138 (99%)	115 (85%)	14 (10%)	7 (5%)	1 10

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
38	CK	136/138 (99%)	122 (90%)	11 (8%)	3 (2%)	5 24
39	BL	125/128 (98%)	100 (80%)	22 (18%)	3 (2%)	4 22
39	CL	125/128 (98%)	102 (82%)	19 (15%)	4 (3%)	3 18
40	BM	97/105 (92%)	76 (78%)	19 (20%)	2 (2%)	5 25
40	CM	97/105 (92%)	75 (77%)	13 (13%)	9 (9%)	0 3
41	BN	117/129 (91%)	97 (83%)	15 (13%)	5 (4%)	2 12
41	CN	117/129 (91%)	100 (86%)	14 (12%)	3 (3%)	4 21
42	BO	123/132 (93%)	101 (82%)	13 (11%)	9 (7%)	1 5
42	CO	123/132 (93%)	96 (78%)	19 (15%)	8 (6%)	1 6
43	BP	114/126 (90%)	86 (75%)	20 (18%)	8 (7%)	1 5
43	CP	115/126 (91%)	83 (72%)	22 (19%)	10 (9%)	0 4
44	BQ	58/61 (95%)	42 (72%)	11 (19%)	5 (9%)	0 4
44	CQ	58/61 (95%)	41 (71%)	11 (19%)	6 (10%)	0 2
45	BR	86/89 (97%)	75 (87%)	9 (10%)	2 (2%)	5 23
45	CR	86/89 (97%)	76 (88%)	9 (10%)	1 (1%)	10 37
46	BS	82/88 (93%)	65 (79%)	14 (17%)	3 (4%)	2 15
46	CS	82/88 (93%)	69 (84%)	13 (16%)	0	100 100
47	BT	98/105 (93%)	85 (87%)	11 (11%)	2 (2%)	6 25
47	CT	98/105 (93%)	92 (94%)	4 (4%)	2 (2%)	6 25
48	BU	70/88 (80%)	60 (86%)	8 (11%)	2 (3%)	3 19
48	CU	70/88 (80%)	63 (90%)	7 (10%)	0	100 100
49	BV	81/93 (87%)	63 (78%)	11 (14%)	7 (9%)	0 4
49	CV	76/93 (82%)	53 (70%)	16 (21%)	7 (9%)	0 3
50	BW	97/106 (92%)	75 (77%)	12 (12%)	10 (10%)	0 2
50	CW	97/106 (92%)	73 (75%)	13 (13%)	11 (11%)	0 2
51	BX	23/27 (85%)	19 (83%)	3 (13%)	1 (4%)	2 12
51	CX	23/27 (85%)	19 (83%)	0	4 (17%)	0 0
All	All	11342/11844 (96%)	8910 (79%)	1590 (14%)	842 (7%)	1 5

All (842) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	AD	26	LYS

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Mol	Chain	Res	Type
3	AD	28	GLU
3	AD	33	LEU
3	AD	122	ASP
3	AD	237	GLU
3	AD	271	ILE
4	AE	54	GLN
4	AE	68	ALA
4	AE	78	LEU
4	AE	90	THR
4	AE	118	LYS
4	AE	132	HIS
5	AF	24	LEU
6	AG	78	SER
6	AG	79	ASN
7	AH	12	PRO
7	AH	81	GLU
7	AH	84	SER
7	AH	86	GLU
7	AH	87	LEU
7	AH	92	ILE
7	AH	151	ILE
7	AH	152	ARG
7	AH	153	LYS
7	AH	154	PRO
7	AH	155	SER
7	AH	156	ALA
7	AH	159	GLU
7	AH	169	VAL
8	AK	11	ASN
8	AK	12	LEU
8	AK	15	VAL
8	AK	117	GLU
9	AM	22	THR
9	AM	36	GLY
9	AM	58	ASP
9	AM	134	ARG
11	AO	6	LEU
11	AO	10	PRO
11	AO	16	ARG
11	AO	65	ARG
11	AO	141	ALA
11	AO	148	LEU

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Mol	Chain	Res	Type
12	AP	6	ARG
12	AP	13	GLN
12	AP	25	ASP
12	AP	60	ARG
12	AP	63	LYS
12	AP	79	LEU
12	AP	89	ASN
12	AP	134	ARG
13	A0	4	LEU
13	A0	75	LEU
13	A0	107	ASP
14	AQ	4	LEU
14	AQ	88	ASP
15	AR	2	ASN
15	AR	107	ASP
15	AR	124	ASP
16	A1	91	ASP
16	A1	93	LYS
17	A2	45	THR
17	A2	48	GLY
17	A2	49	THR
18	AS	66	GLU
19	AT	68	ARG
20	AU	11	ASP
20	AU	42	VAL
20	AU	50	ARG
20	AU	57	GLN
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	151	HIS
21	AV	165	VAL
21	AV	170	THR
22	A3	84	LEU
24	AW	43	GLN
24	AW	47	ASN
24	AW	48	HIS
26	A4	40	HIS
26	A4	43	TYR

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Mol	Chain	Res	Type
26	A4	46	GLN
27	A5	4	HIS
27	A5	35	GLU
28	A6	20	ASN
28	A6	44	ARG
28	A6	46	HIS
30	A8	52	LYS
32	BE	15	VAL
32	BE	22	LYS
32	BE	126	GLU
32	BE	194	PRO
32	BE	195	ASP
32	BE	237	ALA
33	BF	12	LEU
33	BF	13	GLY
35	BH	115	VAL
37	BJ	7	ALA
38	BK	2	LEU
40	BM	56	HIS
41	BN	82	VAL
41	BN	103	LEU
41	BN	127	LYS
42	BO	15	VAL
43	BP	106	ASN
44	BQ	14	PRO
47	BT	49	GLU
49	BV	5	LEU
49	BV	14	HIS
50	BW	48	LYS
50	BW	100	ILE
32	CE	13	ALA
32	CE	22	LYS
32	CE	39	ILE
32	CE	75	LYS
32	CE	96	ARG
32	CE	154	LEU
33	CF	48	TYR
34	CG	14	ARG
34	CG	150	GLU
39	CL	118	LYS
40	CM	17	ASP
40	CM	32	ALA

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Mol	Chain	Res	Type
40	CM	59	SER
41	CN	106	LYS
42	CO	23	ALA
42	CO	44	LYS
42	CO	61	TYR
42	CO	76	GLU
43	CP	12	ASN
43	CP	117	VAL
44	CQ	15	LYS
44	CQ	28	GLY
44	CQ	30	ALA
49	CV	9	VAL
49	CV	67	VAL
50	CW	49	ALA
50	CW	99	LEU
51	CX	3	LYS
3	DD	3	VAL
3	DD	26	LYS
3	DD	28	GLU
3	DD	32	SER
3	DD	267	SER
3	DD	268	ARG
4	DE	26	ILE
4	DE	37	ARG
4	DE	49	LEU
4	DE	54	GLN
4	DE	59	VAL
4	DE	61	ARG
4	DE	71	GLY
4	DE	78	LEU
4	DE	89	ASP
4	DE	131	ALA
4	DE	187	ALA
5	DF	23	ASP
5	DF	24	LEU
5	DF	25	PRO
5	DF	89	VAL
5	DF	128	ALA
5	DF	132	VAL
5	DF	133	ASN
6	DG	81	LYS
7	DH	16	SER

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Mol	Chain	Res	Type
7	DH	102	ALA
7	DH	153	LYS
7	DH	160	LYS
7	DH	167	GLU
7	DH	168	PRO
7	DH	169	VAL
8	DK	117	GLU
8	DK	143	SER
9	DM	3	THR
10	DN	5	GLN
11	DO	6	LEU
11	DO	10	PRO
11	DO	12	ALA
11	DO	16	ARG
11	DO	21	ARG
11	DO	23	PRO
11	DO	49	ARG
11	DO	63	PRO
11	DO	108	LYS
11	DO	117	GLU
11	DO	147	LEU
12	DP	4	PRO
12	DP	13	GLN
12	DP	25	ASP
12	DP	60	ARG
12	DP	63	LYS
12	DP	67	ARG
12	DP	140	ALA
13	D0	107	ASP
14	DQ	57	LYS
14	DQ	88	ASP
14	DQ	110	LEU
15	DR	6	LEU
15	DR	86	ILE
15	DR	127	ALA
16	D1	91	ASP
17	D2	44	LYS
17	D2	50	PRO
17	D2	62	LEU
17	D2	79	VAL
17	D2	80	GLN
17	D2	85	LYS

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Mol	Chain	Res	Type
20	DU	3	VAL
20	DU	17	SER
20	DU	42	VAL
20	DU	44	ILE
20	DU	50	ARG
20	DU	63	LYS
20	DU	77	PRO
20	DU	78	ALA
20	DU	89	PHE
20	DU	90	LEU
20	DU	96	ILE
21	DV	6	LYS
21	DV	31	ARG
21	DV	53	ILE
21	DV	93	ASP
21	DV	116	VAL
21	DV	149	SER
21	DV	161	VAL
21	DV	162	GLU
21	DV	165	VAL
23	DZ	84	GLY
23	DZ	93	GLU
23	DZ	96	LYS
24	DW	17	SER
24	DW	47	ASN
24	DW	48	HIS
26	D4	5	ILE
26	D4	22	ILE
26	D4	40	HIS
26	D4	50	VAL
27	D5	4	HIS
27	D5	49	CYS
27	D5	57	VAL
28	D6	44	ARG
30	D8	31	HIS
30	D8	32	LEU
30	D8	35	GLN
30	D8	49	VAL
30	D8	50	LEU
30	D8	51	ALA
3	AD	29	PRO
3	AD	239	ARG

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Mol	Chain	Res	Type
4	AE	50	GLY
4	AE	53	PRO
4	AE	60	ASN
4	AE	69	LYS
5	AF	67	GLN
5	AF	73	ALA
5	AF	128	ALA
5	AF	130	ALA
5	AF	134	GLY
6	AG	5	VAL
6	AG	14	GLU
6	AG	86	MET
6	AG	110	ALA
7	AH	10	PRO
7	AH	59	ARG
7	AH	83	TYR
7	AH	85	LYS
7	AH	138	LYS
8	AK	34	GLY
8	AK	82	ARG
8	AK	105	HIS
8	AK	112	LYS
8	AK	113	ARG
8	AK	133	HIS
8	AK	134	PRO
8	AK	145	VAL
9	AM	9	VAL
9	AM	23	LEU
9	AM	96	GLU
10	AN	5	GLN
10	AN	97	ARG
11	AO	11	GLY
11	AO	42	SER
11	AO	47	ASP
11	AO	66	GLY
12	AP	15	GLY
12	AP	19	GLY
12	AP	27	VAL
12	AP	88	GLY
13	A0	3	HIS
14	AQ	87	PHE
14	AQ	89	ARG

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Mol	Chain	Res	Type
15	AR	39	ARG
15	AR	58	ASN
16	A1	66	ASN
16	A1	90	VAL
17	A2	31	ALA
18	AS	111	HIS
18	AS	112	GLY
20	AU	3	VAL
20	AU	58	GLY
21	AV	103	ARG
21	AV	144	LEU
21	AV	161	VAL
21	AV	171	ILE
23	AZ	79	GLY
23	AZ	84	GLY
23	AZ	91	LYS
23	AZ	92	LYS
23	AZ	95	LEU
23	AZ	97	LEU
24	AW	16	LEU
26	A4	18	CYS
26	A4	23	GLU
27	A5	43	HIS
28	A6	17	LYS
30	A8	31	HIS
32	BE	101	MET
32	BE	122	PHE
33	BF	79	ARG
34	BG	30	LYS
34	BG	89	THR
34	BG	173	TRP
35	BH	73	ASN
35	BH	77	PRO
36	BI	40	VAL
39	BL	44	VAL
41	BN	91	ARG
42	BO	60	GLY
42	BO	88	LYS
43	BP	6	GLY
43	BP	7	VAL
43	BP	8	GLU
43	BP	67	GLU

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Mol	Chain	Res	Type
44	BQ	15	LYS
46	BS	68	ASP
46	BS	69	THR
47	BT	34	LYS
49	BV	9	VAL
49	BV	41	VAL
50	BW	102	GLY
32	CE	7	VAL
32	CE	8	LYS
32	CE	46	LYS
32	CE	97	TRP
32	CE	101	MET
33	CF	9	GLY
33	CF	49	SER
33	CF	64	VAL
33	CF	129	ALA
33	CF	146	ALA
34	CG	9	CYS
36	CI	40	VAL
37	CJ	7	ALA
39	CL	109	VAL
40	CM	57	LYS
41	CN	101	SER
42	CO	15	VAL
42	CO	26	GLY
42	CO	58	THR
42	CO	62	GLU
43	CP	21	TYR
43	CP	95	GLY
43	CP	116	THR
47	CT	99	SER
49	CV	23	ASN
49	CV	31	ILE
49	CV	48	THR
50	CW	101	GLY
50	CW	103	GLY
51	CX	25	LYS
3	DD	239	ARG
4	DE	25	VAL
4	DE	68	ALA
4	DE	117	MET
5	DF	3	GLU

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Mol	Chain	Res	Type
5	DF	21	ALA
5	DF	62	ARG
5	DF	124	LEU
5	DF	127	GLU
6	DG	14	GLU
6	DG	36	LYS
6	DG	82	LEU
6	DG	110	ALA
6	DG	119	GLY
7	DH	27	LYS
7	DH	137	ASP
8	DK	144	VAL
8	DK	145	VAL
9	DM	2	LYS
11	DO	11	GLY
11	DO	24	GLY
11	DO	34	GLY
11	DO	141	ALA
12	DP	7	MET
12	DP	19	GLY
12	DP	27	VAL
12	DP	30	GLY
12	DP	65	PHE
12	DP	66	ILE
12	DP	79	LEU
12	DP	86	GLY
12	DP	88	GLY
12	DP	105	GLU
12	DP	134	ARG
12	DP	138	ASP
13	D0	82	GLU
14	DQ	4	LEU
14	DQ	89	ARG
14	DQ	94	TYR
14	DQ	111	GLU
15	DR	5	ALA
15	DR	105	LEU
16	D1	90	VAL
17	D2	37	VAL
17	D2	45	THR
17	D2	99	ILE
18	DS	63	ASP

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Mol	Chain	Res	Type
20	DU	29	GLU
20	DU	49	VAL
20	DU	102	CYS
21	DV	51	ALA
21	DV	66	SER
21	DV	108	PRO
21	DV	148	ASP
23	DZ	28	GLY
23	DZ	31	GLY
23	DZ	55	GLY
23	DZ	87	PRO
23	DZ	88	LYS
23	DZ	92	LYS
26	D4	31	ILE
26	D4	32	TYR
26	D4	57	GLU
27	D5	56	LYS
28	D6	24	GLU
28	D6	46	HIS
30	D8	30	ARG
30	D8	34	TRP
4	AE	87	GLU
6	AG	96	ARG
6	AG	116	ASP
7	AH	3	ARG
7	AH	41	MET
7	AH	167	GLU
8	AK	10	GLU
8	AK	16	GLY
9	AM	47	ALA
9	AM	95	PRO
9	AM	133	GLN
11	AO	95	VAL
13	A0	42	LYS
13	A0	74	LYS
14	AQ	110	LEU
15	AR	116	ALA
15	AR	123	GLN
15	AR	136	GLN
16	A1	117	GLN
17	A2	36	PRO
17	A2	50	PRO

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Mol	Chain	Res	Type
21	AV	13	GLU
21	AV	31	ARG
21	AV	104	PHE
26	A4	53	GLU
27	A5	34	PRO
27	A5	48	GLU
28	A6	25	LYS
28	A6	33	LYS
32	BE	19	HIS
32	BE	110	GLN
32	BE	121	LEU
33	BF	4	LYS
33	BF	9	GLY
33	BF	90	GLU
34	BG	12	CYS
34	BG	136	PRO
34	BG	151	LYS
34	BG	155	LEU
35	BH	70	PRO
38	BK	101	PRO
39	BL	56	LEU
42	BO	45	PRO
42	BO	59	SER
43	BP	13	LYS
44	BQ	16	PHE
44	BQ	36	PHE
44	BQ	52	GLN
45	BR	23	GLY
46	BS	49	LEU
48	BU	87	ARG
50	BW	71	THR
50	BW	99	LEU
51	BX	3	LYS
32	CE	20	GLU
32	CE	130	ARG
32	CE	189	ASP
32	CE	191	ASP
35	CH	60	TYR
35	CH	104	ALA
39	CL	95	LYS
43	CP	5	ALA
43	CP	7	VAL

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Mol	Chain	Res	Type
43	CP	106	ASN
44	CQ	24	CYS
44	CQ	29	ARG
49	CV	79	THR
50	CW	10	LEU
50	CW	50	GLU
50	CW	71	THR
50	CW	73	HIS
51	CX	7	ARG
4	DE	39	PRO
4	DE	62	PRO
4	DE	66	HIS
4	DE	93	VAL
5	DF	129	PHE
6	DG	116	ASP
7	DH	3	ARG
7	DH	17	VAL
7	DH	55	PRO
7	DH	81	GLU
7	DH	83	TYR
7	DH	126	PRO
7	DH	130	ARG
7	DH	138	LYS
8	DK	69	LYS
8	DK	73	GLU
8	DK	84	GLY
9	DM	8	GLN
9	DM	124	ALA
11	DO	36	LYS
11	DO	47	ASP
11	DO	50	ARG
11	DO	57	THR
11	DO	62	LEU
11	DO	64	LYS
11	DO	110	TYR
12	DP	21	THR
13	D0	3	HIS
13	D0	45	ARG
14	DQ	13	ARG
14	DQ	87	PHE
16	D1	98	LEU
19	DT	68	ARG

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Mol	Chain	Res	Type
20	DU	57	GLN
20	DU	85	VAL
21	DV	52	SER
21	DV	62	PRO
21	DV	63	ASP
21	DV	109	ALA
21	DV	115	GLY
21	DV	118	GLN
21	DV	169	GLU
23	DZ	81	LYS
24	DW	16	LEU
24	DW	41	ILE
26	D4	23	GLU
28	D6	35	GLU
28	D6	45	LYS
30	D8	48	PHE
3	AD	111	LEU
3	AD	123	ALA
3	AD	262	ARG
4	AE	37	ARG
4	AE	72	VAL
4	AE	79	ARG
4	AE	82	ARG
4	AE	117	MET
5	AF	107	LYS
5	AF	129	PHE
5	AF	168	ARG
7	AH	5	GLY
7	AH	13	LYS
8	AK	39	ALA
8	AK	55	ALA
8	AK	87	LYS
8	AK	118	LYS
9	AM	8	GLN
9	AM	135	PRO
11	AO	62	LEU
11	AO	93	GLY
12	AP	11	LYS
12	AP	105	GLU
12	AP	139	GLU
13	A0	71	GLN
14	AQ	96	GLY

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Mol	Chain	Res	Type
14	AQ	109	GLY
16	A1	88	ILE
20	AU	5	MET
21	AV	7	ALA
21	AV	53	ILE
21	AV	61	LEU
23	AZ	80	LEU
26	A4	9	LEU
32	BE	74	LYS
33	BF	81	GLY
33	BF	110	ASN
33	BF	189	ALA
33	BF	190	ARG
34	BG	164	ALA
35	BH	153	LYS
36	BI	43	LEU
38	BK	34	GLU
38	BK	77	GLU
39	BL	54	ASP
42	BO	112	LYS
43	BP	31	LYS
49	BV	3	ARG
49	BV	61	TYR
50	BW	95	ALA
50	BW	96	GLY
50	BW	103	GLY
32	CE	45	GLN
32	CE	84	GLU
32	CE	110	GLN
32	CE	238	LEU
33	CF	26	LYS
33	CF	101	LEU
33	CF	181	ASN
34	CG	149	ALA
37	CJ	54	THR
40	CM	30	SER
49	CV	66	MET
50	CW	48	LYS
3	DD	156	ALA
4	DE	45	THR
4	DE	82	ARG
4	DE	132	HIS

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Mol	Chain	Res	Type
6	DG	5	VAL
7	DH	164	TYR
8	DK	11	ASN
9	DM	128	HIS
11	DO	48	PRO
11	DO	98	GLU
11	DO	109	GLY
11	DO	148	LEU
12	DP	78	PRO
12	DP	83	MET
12	DP	89	ASN
12	DP	90	VAL
15	DR	97	ALA
15	DR	126	ALA
15	DR	132	LYS
18	DS	93	ALA
20	DU	53	PRO
21	DV	59	LEU
21	DV	65	GLN
26	D4	56	VAL
28	D6	17	LYS
3	AD	46	GLN
6	AG	36	LYS
6	AG	97	ASP
7	AH	98	LEU
8	AK	30	LEU
11	AO	107	LYS
12	AP	90	VAL
12	AP	104	PHE
18	AS	29	LEU
18	AS	63	ASP
20	AU	55	TYR
21	AV	118	GLN
21	AV	121	HIS
21	AV	141	VAL
21	AV	152	ALA
29	A7	48	LYS
30	A8	61	LEU
32	BE	155	LEU
32	BE	207	ALA
32	BE	221	LEU
33	BF	22	TRP

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Mol	Chain	Res	Type
33	BF	53	ALA
35	BH	112	LEU
43	BP	4	ILE
49	BV	7	LYS
32	CE	83	MET
32	CE	129	GLU
33	CF	8	ILE
33	CF	15	THR
33	CF	47	LEU
33	CF	63	ASN
34	CG	171	GLY
38	CK	100	ILE
38	CK	103	VAL
39	CL	58	HIS
40	CM	36	GLY
41	CN	100	ALA
43	CP	18	ALA
47	CT	74	LEU
51	CX	24	ARG
3	DD	45	ASN
3	DD	240	ALA
4	DE	9	VAL
4	DE	44	TYR
4	DE	51	PHE
4	DE	52	LEU
4	DE	56	PRO
4	DE	88	GLY
4	DE	144	ARG
5	DF	99	TYR
7	DH	21	PRO
7	DH	99	VAL
7	DH	156	ALA
8	DK	101	LEU
9	DM	64	GLY
9	DM	125	GLY
12	DP	64	ILE
12	DP	85	LYS
16	D1	93	LYS
16	D1	101	ARG
17	D2	49	THR
19	DT	51	VAL
19	DT	93	GLU

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Mol	Chain	Res	Type
21	DV	61	LEU
21	DV	113	ALA
21	DV	141	VAL
21	DV	157	LEU
24	DW	15	LYS
26	D4	10	VAL
4	AE	62	PRO
6	AG	117	PHE
7	AH	27	LYS
9	AM	128	HIS
13	A0	58	GLY
15	AR	37	GLY
15	AR	97	ALA
16	A1	73	GLY
21	AV	64	GLY
22	A3	83	PRO
26	A4	42	PHE
30	A8	43	GLN
32	BE	26	PRO
33	BF	83	ARG
34	BG	172	PRO
38	BK	103	VAL
42	BO	16	ARG
42	BO	48	ALA
42	BO	58	THR
48	BU	27	GLY
50	BW	49	ALA
32	CE	216	SER
35	CH	85	GLY
35	CH	105	VAL
37	CJ	150	ALA
40	CM	93	GLY
3	DD	35	LYS
4	DE	53	PRO
4	DE	75	VAL
5	DF	9	ILE
5	DF	16	GLY
6	DG	24	GLY
6	DG	117	PHE
8	DK	100	ALA
8	DK	119	PRO
11	DO	103	ALA

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Mol	Chain	Res	Type
11	DO	116	GLY
12	DP	84	GLY
14	DQ	20	ARG
16	D1	92	ARG
17	D2	47	VAL
23	DZ	30	VAL
25	DX	13	ILE
26	D4	29	PRO
3	AD	35	LYS
7	AH	93	GLY
7	AH	168	PRO
11	AO	8	PRO
21	AV	107	THR
26	A4	5	ILE
32	BE	230	VAL
34	BG	7	PRO
38	BK	86	ILE
33	CF	157	ILE
50	CW	97	ALA
4	DE	73	GLU
4	DE	81	ILE
21	DV	177	PRO
5	AF	132	VAL
7	AH	127	GLU
11	AO	7	ARG
11	AO	34	GLY
17	A2	47	VAL
21	AV	108	PRO
27	A5	47	PRO
34	BG	142	PRO
32	CE	233	SER
32	CE	239	VAL
38	CK	51	VAL
40	CM	31	GLY
40	CM	39	PRO
43	CP	84	ILE
4	DE	72	VAL
7	DH	8	PRO
7	DH	50	VAL
13	D0	106	GLY
21	DV	105	VAL
4	AE	71	GLY

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Mol	Chain	Res	Type
7	AH	7	LEU
8	AK	7	GLU
12	AP	61	GLY
14	AQ	108	GLY
20	AU	98	VAL
21	AV	158	PRO
27	A5	57	VAL
32	BE	239	VAL
33	BF	14	ILE
33	BF	157	ILE
45	BR	19	PRO
33	CF	174	PRO
50	CW	100	ILE
3	DD	271	ILE
4	DE	77	ILE
5	DF	28	ILE
5	DF	61	GLY
5	DF	84	VAL
6	DG	109	VAL
8	DK	132	PRO
9	DM	108	PRO
12	DP	61	GLY
26	D4	21	VAL
12	AP	64	ILE
20	AU	39	VAL
20	AU	76	CYS
24	AW	42	GLY
33	BF	8	ILE
40	BM	37	PRO
50	BW	97	ALA
44	CQ	14	PRO
45	CR	86	GLY
3	DD	34	VAL
15	DR	20	PRO
16	D1	65	ILE
17	D2	36	PRO
21	DV	114	GLY
21	DV	158	PRO
5	AF	66	PRO
26	A4	35	VAL
38	BK	83	ILE
41	BN	49	GLY

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Mol	Chain	Res	Type
3	DD	127	VAL

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	214/214 (100%)	181 (85%)	33 (15%)	2 12
3	DD	214/214 (100%)	175 (82%)	39 (18%)	2 8
4	AE	165/165 (100%)	129 (78%)	36 (22%)	1 5
4	DE	165/165 (100%)	133 (81%)	32 (19%)	1 7
5	AF	161/165 (98%)	136 (84%)	25 (16%)	2 12
5	DF	165/165 (100%)	139 (84%)	26 (16%)	2 12
6	AG	155/155 (100%)	134 (86%)	21 (14%)	4 16
6	DG	155/155 (100%)	138 (89%)	17 (11%)	6 24
7	AH	142/142 (100%)	118 (83%)	24 (17%)	2 10
7	DH	142/142 (100%)	129 (91%)	13 (9%)	8 31
8	AK	122/122 (100%)	105 (86%)	17 (14%)	3 15
8	DK	122/122 (100%)	102 (84%)	20 (16%)	2 11
9	AM	117/117 (100%)	94 (80%)	23 (20%)	1 6
9	DM	117/117 (100%)	98 (84%)	19 (16%)	2 11
10	AN	100/100 (100%)	87 (87%)	13 (13%)	4 18
10	DN	100/100 (100%)	88 (88%)	12 (12%)	5 21
11	AO	116/116 (100%)	85 (73%)	31 (27%)	0 2
11	DO	116/116 (100%)	84 (72%)	32 (28%)	0 1
12	AP	111/111 (100%)	85 (77%)	26 (23%)	1 4
12	DP	111/111 (100%)	80 (72%)	31 (28%)	0 1
13	A0	101/101 (100%)	81 (80%)	20 (20%)	1 6
13	D0	100/101 (99%)	86 (86%)	14 (14%)	3 15
14	AQ	87/87 (100%)	66 (76%)	21 (24%)	1 3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
14	DQ	87/87 (100%)	73 (84%)	14 (16%)	2 11
15	AR	120/120 (100%)	95 (79%)	25 (21%)	1 5
15	DR	120/120 (100%)	91 (76%)	29 (24%)	1 3
16	A1	93/93 (100%)	85 (91%)	8 (9%)	10 34
16	D1	93/93 (100%)	87 (94%)	6 (6%)	15 44
17	A2	82/82 (100%)	66 (80%)	16 (20%)	1 6
17	D2	82/82 (100%)	70 (85%)	12 (15%)	3 14
18	AS	92/92 (100%)	73 (79%)	19 (21%)	1 5
18	DS	92/92 (100%)	76 (83%)	16 (17%)	2 9
19	AT	74/74 (100%)	58 (78%)	16 (22%)	1 5
19	DT	74/74 (100%)	61 (82%)	13 (18%)	2 9
20	AU	85/85 (100%)	67 (79%)	18 (21%)	1 5
20	DU	85/85 (100%)	68 (80%)	17 (20%)	1 6
21	AV	154/158 (98%)	132 (86%)	22 (14%)	3 14
21	DV	158/158 (100%)	144 (91%)	14 (9%)	9 33
22	A3	61/62 (98%)	56 (92%)	5 (8%)	10 36
22	D3	62/62 (100%)	59 (95%)	3 (5%)	23 54
23	AZ	82/82 (100%)	70 (85%)	12 (15%)	3 14
23	DZ	82/82 (100%)	70 (85%)	12 (15%)	3 14
24	AW	62/64 (97%)	48 (77%)	14 (23%)	1 4
24	DW	64/64 (100%)	54 (84%)	10 (16%)	2 12
25	AX	51/51 (100%)	46 (90%)	5 (10%)	7 29
25	DX	51/51 (100%)	48 (94%)	3 (6%)	18 48
26	A4	59/59 (100%)	48 (81%)	11 (19%)	1 8
26	D4	57/59 (97%)	50 (88%)	7 (12%)	4 20
27	A5	51/51 (100%)	39 (76%)	12 (24%)	1 3
27	D5	51/51 (100%)	41 (80%)	10 (20%)	1 6
28	A6	44/44 (100%)	36 (82%)	8 (18%)	2 8
28	D6	44/44 (100%)	33 (75%)	11 (25%)	0 2
29	A7	42/42 (100%)	35 (83%)	7 (17%)	2 10
29	D7	42/42 (100%)	35 (83%)	7 (17%)	2 10

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
30	A8	51/51 (100%)	39 (76%)	12 (24%)	1 3
30	D8	51/51 (100%)	42 (82%)	9 (18%)	2 9
32	BE	205/220 (93%)	173 (84%)	32 (16%)	2 12
32	CE	205/220 (93%)	172 (84%)	33 (16%)	2 11
33	BF	159/188 (85%)	134 (84%)	25 (16%)	2 12
33	CF	160/188 (85%)	145 (91%)	15 (9%)	8 31
34	BG	180/180 (100%)	161 (89%)	19 (11%)	6 26
34	CG	180/180 (100%)	147 (82%)	33 (18%)	2 8
35	BH	116/123 (94%)	102 (88%)	14 (12%)	5 20
35	CH	116/123 (94%)	101 (87%)	15 (13%)	4 18
36	BI	90/90 (100%)	79 (88%)	11 (12%)	5 20
36	CI	90/90 (100%)	82 (91%)	8 (9%)	9 33
37	BJ	126/127 (99%)	112 (89%)	14 (11%)	6 24
37	CJ	126/127 (99%)	107 (85%)	19 (15%)	3 13
38	BK	119/119 (100%)	110 (92%)	9 (8%)	12 39
38	CK	119/119 (100%)	108 (91%)	11 (9%)	8 31
39	BL	98/99 (99%)	81 (83%)	17 (17%)	2 9
39	CL	98/99 (99%)	86 (88%)	12 (12%)	5 20
40	BM	89/92 (97%)	79 (89%)	10 (11%)	6 24
40	CM	89/92 (97%)	77 (86%)	12 (14%)	4 16
41	BN	90/99 (91%)	81 (90%)	9 (10%)	7 29
41	CN	90/99 (91%)	79 (88%)	11 (12%)	5 20
42	BO	104/109 (95%)	90 (86%)	14 (14%)	4 16
42	CO	104/109 (95%)	91 (88%)	13 (12%)	4 19
43	BP	94/101 (93%)	85 (90%)	9 (10%)	8 30
43	CP	94/101 (93%)	82 (87%)	12 (13%)	4 18
44	BQ	49/50 (98%)	41 (84%)	8 (16%)	2 11
44	CQ	49/50 (98%)	46 (94%)	3 (6%)	17 46
45	BR	79/80 (99%)	74 (94%)	5 (6%)	16 45
45	CR	79/80 (99%)	72 (91%)	7 (9%)	9 33
46	BS	72/74 (97%)	63 (88%)	9 (12%)	4 19

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
46	CS	72/74 (97%)	61 (85%)	11 (15%)	3 12
47	BT	95/97 (98%)	86 (90%)	9 (10%)	8 30
47	CT	95/97 (98%)	87 (92%)	8 (8%)	10 35
48	BU	63/77 (82%)	57 (90%)	6 (10%)	8 30
48	CU	63/77 (82%)	56 (89%)	7 (11%)	6 24
49	BV	72/80 (90%)	60 (83%)	12 (17%)	2 10
49	CV	67/80 (84%)	53 (79%)	14 (21%)	1 5
50	BW	76/82 (93%)	68 (90%)	8 (10%)	6 26
50	CW	76/82 (93%)	65 (86%)	11 (14%)	3 14
51	BX	20/22 (91%)	19 (95%)	1 (5%)	22 53
51	CX	20/22 (91%)	19 (95%)	1 (5%)	22 53
All	All	9584/9828 (98%)	8139 (85%)	1445 (15%)	3 13

All (1445) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	AD	3	VAL
3	AD	14	ARG
3	AD	17	THR
3	AD	31	LYS
3	AD	44	ASN
3	AD	46	GLN
3	AD	61	LEU
3	AD	64	ILE
3	AD	65	ILE
3	AD	94	LEU
3	AD	103	ARG
3	AD	105	ILE
3	AD	113	VAL
3	AD	126	GLN
3	AD	136	ILE
3	AD	141	VAL
3	AD	142	VAL
3	AD	164	GLN
3	AD	165	ILE
3	AD	166	GLN
3	AD	171	ASP
3	AD	173	VAL

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Mol	Chain	Res	Type
3	AD	192	THR
3	AD	193	VAL
3	AD	206	LEU
3	AD	217	ARG
3	AD	221	VAL
3	AD	229	VAL
3	AD	242	ARG
3	AD	257	LEU
3	AD	259	THR
3	AD	270	ILE
3	AD	271	ILE
4	AE	12	THR
4	AE	13	ARG
4	AE	14	ILE
4	AE	16	ARG
4	AE	21	VAL
4	AE	23	VAL
4	AE	25	VAL
4	AE	26	ILE
4	AE	33	VAL
4	AE	34	VAL
4	AE	40	GLU
4	AE	41	LYS
4	AE	47	VAL
4	AE	49	LEU
4	AE	59	VAL
4	AE	63	LEU
4	AE	66	HIS
4	AE	78	LEU
4	AE	79	ARG
4	AE	95	ILE
4	AE	111	ARG
4	AE	116	VAL
4	AE	119	ARG
4	AE	128	SER
4	AE	144	ARG
4	AE	154	LYS
4	AE	163	GLU
4	AE	167	VAL
4	AE	169	ASN
4	AE	175	VAL
4	AE	179	GLU

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Mol	Chain	Res	Type
4	AE	181	LEU
4	AE	188	VAL
4	AE	196	VAL
4	AE	197	ILE
4	AE	203	LYS
5	AF	8	GLN
5	AF	9	ILE
5	AF	27	GLU
5	AF	33	LEU
5	AF	38	ARG
5	AF	43	LYS
5	AF	45	ARG
5	AF	46	ARG
5	AF	57	VAL
5	AF	64	ILE
5	AF	65	TRP
5	AF	67	GLN
5	AF	82	ILE
5	AF	105	VAL
5	AF	106	ARG
5	AF	117	ARG
5	AF	127	GLU
5	AF	161	GLU
5	AF	165	ARG
5	AF	170	LEU
5	AF	174	VAL
5	AF	183	VAL
5	AF	197	ASP
5	AF	200	GLU
5	AF	206	ILE
6	AG	10	LYS
6	AG	19	LEU
6	AG	28	VAL
6	AG	31	VAL
6	AG	43	LEU
6	AG	45	GLU
6	AG	52	ILE
6	AG	63	ILE
6	AG	64	THR
6	AG	67	LYS
6	AG	70	VAL
6	AG	77	ILE

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Mol	Chain	Res	Type
6	AG	80	PHE
6	AG	82	LEU
6	AG	94	LEU
6	AG	97	ASP
6	AG	101	ILE
6	AG	116	ASP
6	AG	121	ASN
6	AG	128	ARG
6	AG	159	VAL
7	AH	4	ILE
7	AH	7	LEU
7	AH	9	ILE
7	AH	23	ARG
7	AH	24	VAL
7	AH	41	MET
7	AH	43	VAL
7	AH	44	VAL
7	AH	45	VAL
7	AH	50	VAL
7	AH	59	ARG
7	AH	89	ILE
7	AH	105	LEU
7	AH	113	VAL
7	AH	122	THR
7	AH	127	GLU
7	AH	129	THR
7	AH	136	ILE
7	AH	138	LYS
7	AH	139	GLN
7	AH	143	GLN
7	AH	153	LYS
7	AH	158	HIS
7	AH	169	VAL
8	AK	9	LEU
8	AK	10	GLU
8	AK	12	LEU
8	AK	20	ASP
8	AK	38	LEU
8	AK	44	LEU
8	AK	57	ARG
8	AK	68	LEU
8	AK	71	ILE

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Mol	Chain	Res	Type
8	AK	78	THR
8	AK	82	ARG
8	AK	92	VAL
8	AK	107	VAL
8	AK	108	THR
8	AK	112	LYS
8	AK	135	GLU
8	AK	136	VAL
9	AM	5	VAL
9	AM	7	LYS
9	AM	10	GLU
9	AM	15	LEU
9	AM	19	GLU
9	AM	28	THR
9	AM	33	LEU
9	AM	34	LEU
9	AM	60	ILE
9	AM	61	ARG
9	AM	63	THR
9	AM	67	LEU
9	AM	87	LEU
9	AM	89	LYS
9	AM	90	MET
9	AM	97	ARG
9	AM	98	VAL
9	AM	99	LEU
9	AM	120	LEU
9	AM	130	HIS
9	AM	131	GLN
9	AM	133	GLN
9	AM	138	LEU
10	AN	1	MET
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	38	VAL
10	AN	47	ILE
10	AN	52	VAL
10	AN	66	LYS

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Mol	Chain	Res	Type
10	AN	94	ARG
10	AN	98	VAL
11	AO	6	LEU
11	AO	14	LYS
11	AO	15	ARG
11	AO	16	ARG
11	AO	21	ARG
11	AO	27	HIS
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	58	THR
11	AO	59	LEU
11	AO	61	ARG
11	AO	68	GLN
11	AO	70	GLN
11	AO	75	ILE
11	AO	81	GLN
11	AO	96	THR
11	AO	100	LEU
11	AO	105	LEU
11	AO	106	LEU
11	AO	111	ARG
11	AO	112	LEU
11	AO	135	LEU
11	AO	138	LEU
11	AO	139	LYS
11	AO	144	GLU
11	AO	146	VAL
11	AO	147	LEU
12	AP	5	ARG
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	59	ARG

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Mol	Chain	Res	Type
12	AP	63	LYS
12	AP	64	ILE
12	AP	75	THR
12	AP	76	LYS
12	AP	79	LEU
12	AP	80	GLU
12	AP	82	ARG
12	AP	83	MET
12	AP	87	LYS
12	AP	90	VAL
12	AP	109	VAL
12	AP	110	THR
12	AP	112	GLU
12	AP	134	ARG
12	AP	135	ASP
12	AP	139	GLU
12	AP	141	GLN
13	A0	4	LEU
13	A0	6	SER
13	A0	18	LEU
13	A0	28	LEU
13	A0	29	LEU
13	A0	36	THR
13	A0	37	THR
13	A0	44	LEU
13	A0	45	ARG
13	A0	60	LEU
13	A0	65	LEU
13	A0	71	GLN
13	A0	74	LYS
13	A0	79	LEU
13	A0	91	GLN
13	A0	104	ARG
13	A0	105	ARG
13	A0	107	ASP
13	A0	113	LEU
13	A0	117	VAL
14	AQ	5	THR
14	AQ	15	ARG
14	AQ	17	ARG
14	AQ	24	LEU
14	AQ	30	ARG

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Mol	Chain	Res	Type
14	AQ	35	ILE
14	AQ	36	TYR
14	AQ	43	GLU
14	AQ	46	VAL
14	AQ	50	SER
14	AQ	52	SER
14	AQ	54	LEU
14	AQ	63	THR
14	AQ	69	VAL
14	AQ	73	LEU
14	AQ	83	LYS
14	AQ	97	ARG
14	AQ	98	VAL
14	AQ	101	LEU
14	AQ	106	ARG
14	AQ	111	GLU
15	AR	9	LEU
15	AR	10	VAL
15	AR	15	VAL
15	AR	17	THR
15	AR	27	THR
15	AR	30	VAL
15	AR	35	LYS
15	AR	40	THR
15	AR	41	ARG
15	AR	42	ILE
15	AR	49	VAL
15	AR	50	ILE
15	AR	53	ARG
15	AR	58	ASN
15	AR	59	THR
15	AR	74	ARG
15	AR	78	LEU
15	AR	84	GLN
15	AR	86	ILE
15	AR	87	ASP
15	AR	88	ILE
15	AR	89	VAL
15	AR	110	ILE
15	AR	112	ARG
15	AR	128	GLU
16	A1	5	LYS

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Mol	Chain	Res	Type
16	A1	31	SER
16	A1	60	LEU
16	A1	64	ARG
16	A1	78	THR
16	A1	89	GLU
16	A1	108	GLU
16	A1	111	GLU
17	A2	18	LEU
17	A2	21	ARG
17	A2	24	LYS
17	A2	32	THR
17	A2	33	VAL
17	A2	35	LEU
17	A2	40	LEU
17	A2	47	VAL
17	A2	52	VAL
17	A2	57	VAL
17	A2	64	HIS
17	A2	70	ILE
17	A2	72	VAL
17	A2	78	LYS
17	A2	92	THR
17	A2	99	ILE
18	AS	1	MET
18	AS	11	ARG
18	AS	15	ARG
18	AS	16	LYS
18	AS	17	VAL
18	AS	20	VAL
18	AS	39	THR
18	AS	67	ASP
18	AS	69	LEU
18	AS	70	TYR
18	AS	76	VAL
18	AS	78	GLU
18	AS	88	ARG
18	AS	96	ILE
18	AS	97	LYS
18	AS	100	THR
18	AS	104	THR
18	AS	106	ILE
18	AS	107	LEU

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Mol	Chain	Res	Type
19	AT	3	THR
19	AT	12	VAL
19	AT	15	GLU
19	AT	23	GLU
19	AT	40	LYS
19	AT	44	GLU
19	AT	45	THR
19	AT	65	ARG
19	AT	69	TYR
19	AT	70	LEU
19	AT	80	ILE
19	AT	83	VAL
19	AT	87	GLN
19	AT	88	LYS
19	AT	89	ILE
19	AT	92	LEU
20	AU	6	HIS
20	AU	14	LEU
20	AU	26	LYS
20	AU	27	VAL
20	AU	38	ILE
20	AU	40	GLU
20	AU	57	GLN
20	AU	61	ILE
20	AU	64	GLU
20	AU	67	LEU
20	AU	76	CYS
20	AU	79	CYS
20	AU	81	LYS
20	AU	86	ARG
20	AU	90	LEU
20	AU	96	ILE
20	AU	97	ARG
20	AU	98	VAL
21	AV	2	GLU
21	AV	5	LEU
21	AV	16	SER
21	AV	19	ARG
21	AV	33	LEU
21	AV	37	VAL
21	AV	41	LEU
21	AV	53	ILE

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Mol	Chain	Res	Type
21	AV	59	LEU
21	AV	61	LEU
21	AV	71	VAL
21	AV	76	LEU
21	AV	86	VAL
21	AV	91	LEU
21	AV	107	THR
21	AV	117	LEU
21	AV	119	GLU
21	AV	120	ILE
21	AV	132	ASN
21	AV	135	GLU
21	AV	144	LEU
21	AV	175	VAL
22	A3	20	ARG
22	A3	35	ASN
22	A3	36	ILE
22	A3	53	MET
22	A3	66	VAL
23	AZ	4	VAL
23	AZ	19	GLN
23	AZ	21	ARG
23	AZ	38	SER
23	AZ	41	ARG
23	AZ	46	LEU
23	AZ	74	VAL
23	AZ	78	LYS
23	AZ	80	LEU
23	AZ	83	GLU
23	AZ	91	LYS
23	AZ	92	LYS
24	AW	4	SER
24	AW	5	GLU
24	AW	9	GLN
24	AW	19	VAL
24	AW	23	LYS
24	AW	24	LEU
24	AW	32	LEU
24	AW	44	LEU
24	AW	47	ASN
24	AW	50	ILE
24	AW	53	LEU

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Mol	Chain	Res	Type
24	AW	54	LYS
24	AW	62	THR
24	AW	65	ASN
25	AX	6	VAL
25	AX	8	LEU
25	AX	31	LEU
25	AX	32	GLN
25	AX	40	THR
26	A4	9	LEU
26	A4	10	VAL
26	A4	14	ILE
26	A4	16	CYS
26	A4	33	VAL
26	A4	34	GLU
26	A4	38	LYS
26	A4	39	CYS
26	A4	42	PHE
26	A4	49	PHE
26	A4	61	ARG
27	A5	3	LYS
27	A5	4	HIS
27	A5	6	VAL
27	A5	11	THR
27	A5	16	ARG
27	A5	29	THR
27	A5	36	CYS
27	A5	40	LYS
27	A5	48	GLU
27	A5	52	TYR
27	A5	56	LYS
27	A5	60	VAL
28	A6	12	GLU
28	A6	17	LYS
28	A6	26	ASN
28	A6	27	LYS
28	A6	34	LEU
28	A6	38	LYS
28	A6	39	TYR
28	A6	44	ARG
29	A7	4	THR
29	A7	8	ASN
29	A7	9	ARG

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Mol	Chain	Res	Type
29	A7	14	LYS
29	A7	24	THR
29	A7	43	THR
29	A7	49	ARG
30	A8	14	VAL
30	A8	26	LYS
30	A8	29	LYS
30	A8	33	ASN
30	A8	35	GLN
30	A8	41	ILE
30	A8	47	LYS
30	A8	52	LYS
30	A8	56	GLU
30	A8	58	ILE
30	A8	59	LYS
30	A8	62	LEU
32	BE	8	LYS
32	BE	9	GLU
32	BE	15	VAL
32	BE	16	HIS
32	BE	17	PHE
32	BE	21	ARG
32	BE	51	LEU
32	BE	71	VAL
32	BE	75	LYS
32	BE	81	VAL
32	BE	82	ARG
32	BE	90	MET
32	BE	111	ARG
32	BE	119	GLU
32	BE	121	LEU
32	BE	133	LYS
32	BE	136	VAL
32	BE	145	LEU
32	BE	154	LEU
32	BE	156	LYS
32	BE	163	PHE
32	BE	164	VAL
32	BE	169	LYS
32	BE	170	GLU
32	BE	172	ILE
32	BE	176	GLU

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Mol	Chain	Res	Type
32	BE	178	ARG
32	BE	179	LYS
32	BE	187	LEU
32	BE	200	ILE
32	BE	204	ASN
32	BE	215	LEU
33	BF	3	ASN
33	BF	5	ILE
33	BF	6	HIS
33	BF	14	ILE
33	BF	21	ARG
33	BF	26	LYS
33	BF	27	LYS
33	BF	36	ASP
33	BF	45	LYS
33	BF	47	LEU
33	BF	52	LEU
33	BF	63	ASN
33	BF	104	GLN
33	BF	111	LEU
33	BF	122	GLU
33	BF	128	PHE
33	BF	138	VAL
33	BF	161	GLU
33	BF	165	THR
33	BF	167	TRP
33	BF	172	ARG
33	BF	188	LEU
33	BF	190	ARG
33	BF	192	THR
33	BF	196	LEU
34	BG	3	ARG
34	BG	10	ARG
34	BG	12	CYS
34	BG	15	GLU
34	BG	19	LEU
34	BG	26	CYS
34	BG	30	LYS
34	BG	33	MET
34	BG	58	LEU
34	BG	96	LEU
34	BG	114	ARG

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Mol	Chain	Res	Type
34	BG	122	ARG
34	BG	127	THR
34	BG	135	LEU
34	BG	138	TYR
34	BG	159	ARG
34	BG	188	LEU
34	BG	190	ASP
34	BG	201	GLN
35	BH	6	PHE
35	BH	11	ILE
35	BH	13	ILE
35	BH	16	THR
35	BH	31	LEU
35	BH	41	VAL
35	BH	64	ARG
35	BH	73	ASN
35	BH	79	GLU
35	BH	91	LEU
35	BH	116	THR
35	BH	131	ILE
35	BH	147	ASP
35	BH	153	LYS
36	BI	16	GLN
36	BI	19	LEU
36	BI	21	LEU
36	BI	23	LYS
36	BI	25	ILE
36	BI	55	ASP
36	BI	64	GLN
36	BI	75	LEU
36	BI	87	ARG
36	BI	91	VAL
36	BI	98	LEU
37	BJ	8	GLU
37	BJ	35	LYS
37	BJ	36	LYS
37	BJ	38	LEU
37	BJ	75	VAL
37	BJ	78	ARG
37	BJ	80	VAL
37	BJ	89	MET
37	BJ	90	GLU

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Mol	Chain	Res	Type
37	BJ	91	VAL
37	BJ	104	LEU
37	BJ	113	GLU
37	BJ	137	LYS
37	BJ	155	ARG
38	BK	24	THR
38	BK	26	VAL
38	BK	29	SER
38	BK	54	ASP
38	BK	63	LEU
38	BK	68	ARG
38	BK	80	ILE
38	BK	95	VAL
38	BK	122	ARG
39	BL	2	GLU
39	BL	7	THR
39	BL	9	ARG
39	BL	14	VAL
39	BL	23	ASN
39	BL	25	LYS
39	BL	47	LEU
39	BL	58	HIS
39	BL	64	THR
39	BL	65	VAL
39	BL	79	LEU
39	BL	89	ASN
39	BL	93	ARG
39	BL	95	LYS
39	BL	108	VAL
39	BL	109	VAL
39	BL	114	TYR
40	BM	48	THR
40	BM	49	VAL
40	BM	55	LYS
40	BM	62	HIS
40	BM	70	ARG
40	BM	74	ILE
40	BM	80	LYS
40	BM	83	GLU
40	BM	85	LEU
40	BM	96	ILE
41	BN	28	THR

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Mol	Chain	Res	Type
41	BN	29	ILE
41	BN	30	VAL
41	BN	41	THR
41	BN	63	LEU
41	BN	93	GLN
41	BN	104	GLN
41	BN	109	VAL
41	BN	114	VAL
42	BO	4	ILE
42	BO	8	VAL
42	BO	36	VAL
42	BO	52	VAL
42	BO	56	ARG
42	BO	57	LEU
42	BO	59	SER
42	BO	64	THR
42	BO	78	SER
42	BO	80	VAL
42	BO	86	ARG
42	BO	93	VAL
42	BO	116	LYS
42	BO	124	GLU
43	BP	17	VAL
43	BP	45	VAL
43	BP	64	TRP
43	BP	67	GLU
43	BP	70	LEU
43	BP	88	ARG
43	BP	105	THR
43	BP	108	ARG
43	BP	114	ARG
44	BQ	3	ARG
44	BQ	7	ILE
44	BQ	18	VAL
44	BQ	23	ARG
44	BQ	27	CYS
44	BQ	43	CYS
44	BQ	44	LEU
44	BQ	57	ARG
45	BR	26	GLU
45	BR	31	LEU
45	BR	39	LEU

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Mol	Chain	Res	Type
45	BR	47	LYS
45	BR	71	GLN
46	BS	2	VAL
46	BS	4	ILE
46	BS	20	VAL
46	BS	21	VAL
46	BS	25	ARG
46	BS	47	ASP
46	BS	53	VAL
46	BS	55	ARG
46	BS	69	THR
47	BT	9	VAL
47	BT	17	LYS
47	BT	31	LEU
47	BT	35	VAL
47	BT	38	ARG
47	BT	57	VAL
47	BT	60	ILE
47	BT	86	GLU
47	BT	89	LEU
48	BU	26	LEU
48	BU	36	ASN
48	BU	42	ARG
48	BU	76	LEU
48	BU	83	GLU
48	BU	88	LYS
49	BV	6	LYS
49	BV	7	LYS
49	BV	10	PHE
49	BV	25	LYS
49	BV	27	GLU
49	BV	30	LEU
49	BV	31	ILE
49	BV	37	ARG
49	BV	43	GLU
49	BV	60	VAL
49	BV	65	ASN
49	BV	83	HIS
50	BW	9	ASN
50	BW	10	LEU
50	BW	18	GLN
50	BW	26	ASN

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Mol	Chain	Res	Type
50	BW	73	HIS
50	BW	75	ASN
50	BW	84	LEU
50	BW	93	GLU
51	BX	26	LYS
32	CE	16	HIS
32	CE	19	HIS
32	CE	20	GLU
32	CE	44	LEU
32	CE	51	LEU
32	CE	73	THR
32	CE	75	LYS
32	CE	80	ILE
32	CE	90	MET
32	CE	92	TYR
32	CE	101	MET
32	CE	105	PHE
32	CE	107	THR
32	CE	111	ARG
32	CE	114	ARG
32	CE	130	ARG
32	CE	137	ARG
32	CE	140	HIS
32	CE	144	ARG
32	CE	147	LYS
32	CE	164	VAL
32	CE	168	THR
32	CE	169	LYS
32	CE	170	GLU
32	CE	178	ARG
32	CE	179	LYS
32	CE	185	ILE
32	CE	187	LEU
32	CE	192	SER
32	CE	215	LEU
32	CE	224	GLN
32	CE	230	VAL
32	CE	238	LEU
33	CF	5	ILE
33	CF	6	HIS
33	CF	17	ASP
33	CF	27	LYS

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Mol	Chain	Res	Type
33	CF	28	GLN
33	CF	42	LEU
33	CF	52	LEU
33	CF	76	VAL
33	CF	79	ARG
33	CF	84	ILE
33	CF	98	ASN
33	CF	128	PHE
33	CF	192	THR
33	CF	195	VAL
33	CF	196	LEU
34	CG	8	VAL
34	CG	9	CYS
34	CG	10	ARG
34	CG	11	LEU
34	CG	12	CYS
34	CG	19	LEU
34	CG	21	LEU
34	CG	24	GLU
34	CG	25	ARG
34	CG	26	CYS
34	CG	27	TYR
34	CG	30	LYS
34	CG	36	ARG
34	CG	49	ARG
34	CG	58	LEU
34	CG	70	ILE
34	CG	84	LYS
34	CG	105	VAL
34	CG	112	VAL
34	CG	119	GLN
34	CG	122	ARG
34	CG	127	THR
34	CG	134	ASP
34	CG	135	LEU
34	CG	139	ARG
34	CG	141	ARG
34	CG	170	VAL
34	CG	187	ARG
34	CG	191	ARG
34	CG	194	LEU
34	CG	196	LEU

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Mol	Chain	Res	Type
34	CG	200	GLU
34	CG	202	LEU
35	CH	12	LEU
35	CH	13	ILE
35	CH	18	ARG
35	CH	41	VAL
35	CH	47	LYS
35	CH	53	LEU
35	CH	73	ASN
35	CH	79	GLU
35	CH	82	VAL
35	CH	87	SER
35	CH	91	LEU
35	CH	100	VAL
35	CH	126	ARG
35	CH	137	GLU
35	CH	141	GLN
36	CI	2	ARG
36	CI	14	LEU
36	CI	25	ILE
36	CI	27	GLN
36	CI	54	LYS
36	CI	65	VAL
36	CI	72	VAL
36	CI	87	ARG
37	CJ	6	ARG
37	CJ	8	GLU
37	CJ	9	VAL
37	CJ	24	THR
37	CJ	29	LYS
37	CJ	38	LEU
37	CJ	51	GLN
37	CJ	54	THR
37	CJ	60	LYS
37	CJ	63	LYS
37	CJ	72	ARG
37	CJ	85	TYR
37	CJ	89	MET
37	CJ	104	LEU
37	CJ	113	GLU
37	CJ	114	ARG
37	CJ	131	LYS

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Mol	Chain	Res	Type
37	CJ	137	LYS
37	CJ	151	TYR
38	CK	1	MET
38	CK	41	ARG
38	CK	82	HIS
38	CK	88	LYS
38	CK	91	ARG
38	CK	92	ARG
38	CK	100	ILE
38	CK	102	ARG
38	CK	104	ARG
38	CK	109	ILE
38	CK	112	LEU
39	CL	10	ARG
39	CL	23	ASN
39	CL	54	ASP
39	CL	75	ASP
39	CL	78	LYS
39	CL	88	TYR
39	CL	95	LYS
39	CL	97	LYS
39	CL	104	ARG
39	CL	110	GLU
39	CL	114	TYR
39	CL	117	HIS
40	CM	13	HIS
40	CM	38	ILE
40	CM	40	LEU
40	CM	47	PHE
40	CM	57	LYS
40	CM	62	HIS
40	CM	69	ASN
40	CM	74	ILE
40	CM	80	LYS
40	CM	84	GLN
40	CM	98	ILE
40	CM	99	LYS
41	CN	14	VAL
41	CN	48	ILE
41	CN	57	THR
41	CN	70	LYS
41	CN	84	VAL

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Mol	Chain	Res	Type
41	CN	93	GLN
41	CN	112	THR
41	CN	114	VAL
41	CN	124	LYS
41	CN	126	ARG
41	CN	127	LYS
42	CO	14	LYS
42	CO	16	ARG
42	CO	20	LYS
42	CO	21	VAL
42	CO	33	VAL
42	CO	38	ARG
42	CO	39	THR
42	CO	44	LYS
42	CO	57	LEU
42	CO	61	TYR
42	CO	80	VAL
42	CO	81	LEU
42	CO	82	ILE
43	CP	17	VAL
43	CP	19	LEU
43	CP	32	GLU
43	CP	58	GLU
43	CP	66	LEU
43	CP	70	LEU
43	CP	82	MET
43	CP	83	ASP
43	CP	98	VAL
43	CP	101	GLN
43	CP	103	THR
43	CP	108	ARG
44	CQ	6	LEU
44	CQ	22	THR
44	CQ	46	GLU
45	CR	3	ILE
45	CR	4	THR
45	CR	22	THR
45	CR	41	GLU
45	CR	82	ILE
45	CR	83	GLU
45	CR	88	ARG
46	CS	1	MET

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Mol	Chain	Res	Type
46	CS	2	VAL
46	CS	5	ARG
46	CS	6	LEU
46	CS	8	ARG
46	CS	21	VAL
46	CS	45	THR
46	CS	47	ASP
46	CS	53	VAL
46	CS	55	ARG
46	CS	67	THR
47	CT	38	ARG
47	CT	52	LYS
47	CT	53	LEU
47	CT	68	ARG
47	CT	73	VAL
47	CT	74	LEU
47	CT	91	ARG
47	CT	98	LEU
48	CU	26	LEU
48	CU	29	PHE
48	CU	32	ARG
48	CU	44	LEU
48	CU	46	GLU
48	CU	58	LEU
48	CU	86	VAL
49	CV	9	VAL
49	CV	11	VAL
49	CV	15	LEU
49	CV	22	LEU
49	CV	30	LEU
49	CV	33	THR
49	CV	41	VAL
49	CV	43	GLU
49	CV	60	VAL
49	CV	63	THR
49	CV	78	ARG
49	CV	79	THR
49	CV	81	ARG
49	CV	83	HIS
50	CW	9	ASN
50	CW	14	LYS
50	CW	24	LEU

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Mol	Chain	Res	Type
50	CW	26	ASN
50	CW	27	LYS
50	CW	56	MET
50	CW	73	HIS
50	CW	75	ASN
50	CW	80	ARG
50	CW	84	LEU
50	CW	87	LYS
51	CX	25	LYS
3	DD	3	VAL
3	DD	4	LYS
3	DD	5	LYS
3	DD	14	ARG
3	DD	25	THR
3	DD	26	LYS
3	DD	27	THR
3	DD	31	LYS
3	DD	32	SER
3	DD	35	LYS
3	DD	43	ARG
3	DD	49	ILE
3	DD	61	LEU
3	DD	64	ILE
3	DD	65	ILE
3	DD	69	ARG
3	DD	73	VAL
3	DD	94	LEU
3	DD	103	ARG
3	DD	105	ILE
3	DD	106	ILE
3	DD	112	GLN
3	DD	138	VAL
3	DD	140	THR
3	DD	141	VAL
3	DD	147	LEU
3	DD	155	LEU
3	DD	157	ARG
3	DD	166	GLN
3	DD	176	ARG
3	DD	192	THR
3	DD	193	VAL
3	DD	211	ARG

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Mol	Chain	Res	Type
3	DD	212	SER
3	DD	244	ARG
3	DD	257	LEU
3	DD	266	SER
3	DD	271	ILE
3	DD	273	ARG
4	DE	9	VAL
4	DE	25	VAL
4	DE	26	ILE
4	DE	33	VAL
4	DE	35	GLN
4	DE	37	ARG
4	DE	47	VAL
4	DE	59	VAL
4	DE	60	ASN
4	DE	61	ARG
4	DE	63	LEU
4	DE	64	LYS
4	DE	67	PHE
4	DE	76	ARG
4	DE	78	LEU
4	DE	79	ARG
4	DE	93	VAL
4	DE	95	ILE
4	DE	116	VAL
4	DE	119	ARG
4	DE	144	ARG
4	DE	145	LYS
4	DE	152	LYS
4	DE	154	LYS
4	DE	170	LEU
4	DE	175	VAL
4	DE	178	GLU
4	DE	181	LEU
4	DE	188	VAL
4	DE	197	ILE
4	DE	200	GLU
4	DE	201	THR
5	DF	7	TYR
5	DF	8	GLN
5	DF	11	VAL
5	DF	20	LEU

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Mol	Chain	Res	Type
5	DF	24	LEU
5	DF	33	LEU
5	DF	48	THR
5	DF	53	THR
5	DF	57	VAL
5	DF	62	ARG
5	DF	67	GLN
5	DF	68	LYS
5	DF	74	ARG
5	DF	83	PHE
5	DF	88	VAL
5	DF	110	LEU
5	DF	125	LEU
5	DF	153	SER
5	DF	158	THR
5	DF	181	LEU
5	DF	183	VAL
5	DF	188	ARG
5	DF	192	LEU
5	DF	196	LEU
5	DF	203	GLN
5	DF	205	ARG
6	DG	16	ARG
6	DG	22	ARG
6	DG	26	GLN
6	DG	28	VAL
6	DG	31	VAL
6	DG	35	GLU
6	DG	45	GLU
6	DG	47	LYS
6	DG	67	LYS
6	DG	76	SER
6	DG	88	ILE
6	DG	108	ASN
6	DG	115	ARG
6	DG	137	GLU
6	DG	138	GLN
6	DG	148	MET
6	DG	162	THR
7	DH	30	LYS
7	DH	50	VAL
7	DH	51	ARG

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Mol	Chain	Res	Type
7	DH	57	ASP
7	DH	59	ARG
7	DH	72	ILE
7	DH	86	GLU
7	DH	89	ILE
7	DH	105	LEU
7	DH	114	VAL
7	DH	136	ILE
7	DH	143	GLN
7	DH	152	ARG
8	DK	9	LEU
8	DK	11	ASN
8	DK	42	SER
8	DK	44	LEU
8	DK	54	GLN
8	DK	56	LYS
8	DK	62	LYS
8	DK	67	ARG
8	DK	68	LEU
8	DK	73	GLU
8	DK	76	THR
8	DK	82	ARG
8	DK	107	VAL
8	DK	109	ILE
8	DK	110	ASP
8	DK	117	GLU
8	DK	122	GLU
8	DK	125	GLU
8	DK	133	HIS
8	DK	142	VAL
9	DM	9	VAL
9	DM	14	VAL
9	DM	28	THR
9	DM	32	THR
9	DM	33	LEU
9	DM	34	LEU
9	DM	35	ARG
9	DM	38	HIS
9	DM	43	THR
9	DM	45	ASN
9	DM	58	ASP
9	DM	63	THR

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Mol	Chain	Res	Type
9	DM	69	GLN
9	DM	87	LEU
9	DM	90	MET
9	DM	93	THR
9	DM	94	HIS
9	DM	131	GLN
9	DM	137	LYS
10	DN	8	LEU
10	DN	9	GLU
10	DN	14	THR
10	DN	24	VAL
10	DN	28	SER
10	DN	47	ILE
10	DN	70	LYS
10	DN	85	VAL
10	DN	87	ILE
10	DN	94	ARG
10	DN	97	ARG
10	DN	108	GLU
11	DO	1	MET
11	DO	6	LEU
11	DO	14	LYS
11	DO	15	ARG
11	DO	16	ARG
11	DO	19	VAL
11	DO	21	ARG
11	DO	36	LYS
11	DO	41	ARG
11	DO	45	LEU
11	DO	50	ARG
11	DO	52	GLU
11	DO	61	ARG
11	DO	62	LEU
11	DO	75	ILE
11	DO	81	GLN
11	DO	85	LEU
11	DO	96	THR
11	DO	98	GLU
11	DO	105	LEU
11	DO	110	TYR
11	DO	111	ARG
11	DO	112	LEU

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Mol	Chain	Res	Type
11	DO	114	ILE
11	DO	117	GLU
11	DO	124	LYS
11	DO	125	VAL
11	DO	138	LEU
11	DO	144	GLU
11	DO	146	VAL
11	DO	147	LEU
11	DO	148	LEU
12	DP	1	MET
12	DP	2	LEU
12	DP	3	MET
12	DP	5	ARG
12	DP	8	LYS
12	DP	18	LYS
12	DP	21	THR
12	DP	25	ASP
12	DP	26	TYR
12	DP	35	VAL
12	DP	45	GLN
12	DP	55	VAL
12	DP	59	ARG
12	DP	63	LYS
12	DP	64	ILE
12	DP	68	ILE
12	DP	77	LYS
12	DP	80	GLU
12	DP	81	VAL
12	DP	82	ARG
12	DP	83	MET
12	DP	85	LYS
12	DP	87	LYS
12	DP	90	VAL
12	DP	103	MET
12	DP	105	GLU
12	DP	110	THR
12	DP	127	ILE
12	DP	133	ARG
12	DP	135	ASP
12	DP	138	ASP
13	D0	18	LEU
13	D0	28	LEU

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Mol	Chain	Res	Type
13	D0	29	LEU
13	D0	35	THR
13	D0	37	THR
13	D0	44	LEU
13	D0	57	ARG
13	D0	65	LEU
13	D0	71	GLN
13	D0	76	VAL
13	D0	79	LEU
13	D0	95	THR
13	D0	105	ARG
13	D0	117	VAL
14	DQ	8	GLU
14	DQ	15	ARG
14	DQ	17	ARG
14	DQ	20	ARG
14	DQ	65	VAL
14	DQ	71	ARG
14	DQ	83	LYS
14	DQ	85	VAL
14	DQ	89	ARG
14	DQ	93	LYS
14	DQ	101	LEU
14	DQ	106	ARG
14	DQ	107	GLU
14	DQ	110	LEU
15	DR	7	ILE
15	DR	8	LYS
15	DR	9	LEU
15	DR	15	VAL
15	DR	23	ARG
15	DR	26	ASP
15	DR	27	THR
15	DR	28	VAL
15	DR	30	VAL
15	DR	33	LYS
15	DR	59	THR
15	DR	64	ARG
15	DR	66	VAL
15	DR	74	ARG
15	DR	87	ASP
15	DR	88	ILE

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Mol	Chain	Res	Type
15	DR	89	VAL
15	DR	90	GLN
15	DR	91	ARG
15	DR	98	LYS
15	DR	105	LEU
15	DR	107	ASP
15	DR	117	ASP
15	DR	120	ARG
15	DR	121	ILE
15	DR	132	LYS
15	DR	134	GLU
15	DR	136	GLN
15	DR	137	LYS
16	D1	20	LEU
16	D1	27	LEU
16	D1	64	ARG
16	D1	74	LEU
16	D1	95	LEU
16	D1	97	ASP
17	D2	38	LEU
17	D2	47	VAL
17	D2	57	VAL
17	D2	66	ARG
17	D2	79	VAL
17	D2	80	GLN
17	D2	81	TYR
17	D2	82	ARG
17	D2	84	LYS
17	D2	89	GLN
17	D2	91	TYR
17	D2	95	LEU
18	DS	11	ARG
18	DS	17	VAL
18	DS	19	LEU
18	DS	20	VAL
18	DS	39	THR
18	DS	40	ASN
18	DS	50	VAL
18	DS	51	LEU
18	DS	61	ASN
18	DS	63	ASP
18	DS	65	LEU

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Mol	Chain	Res	Type
18	DS	70	TYR
18	DS	76	VAL
18	DS	100	THR
18	DS	107	LEU
18	DS	111	HIS
19	DT	12	VAL
19	DT	27	THR
19	DT	30	VAL
19	DT	37	THR
19	DT	43	VAL
19	DT	44	GLU
19	DT	52	VAL
19	DT	55	ASN
19	DT	63	LYS
19	DT	64	LYS
19	DT	66	LEU
19	DT	76	ARG
19	DT	80	ILE
20	DU	3	VAL
20	DU	5	MET
20	DU	20	TYR
20	DU	23	ARG
20	DU	26	LYS
20	DU	27	VAL
20	DU	57	GLN
20	DU	60	PHE
20	DU	62	GLU
20	DU	63	LYS
20	DU	76	CYS
20	DU	81	LYS
20	DU	86	ARG
20	DU	95	LYS
20	DU	96	ILE
20	DU	97	ARG
20	DU	99	CYS
21	DV	5	LEU
21	DV	14	LYS
21	DV	18	LEU
21	DV	24	LEU
21	DV	32	HIS
21	DV	60	GLU
21	DV	71	VAL

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Mol	Chain	Res	Type
21	DV	76	LEU
21	DV	81	ARG
21	DV	82	ARG
21	DV	103	ARG
21	DV	119	GLU
21	DV	165	VAL
21	DV	175	VAL
22	D3	12	ASN
22	D3	36	ILE
22	D3	50	ASN
23	DZ	4	VAL
23	DZ	41	ARG
23	DZ	56	GLN
23	DZ	76	ARG
23	DZ	78	LYS
23	DZ	81	LYS
23	DZ	82	LEU
23	DZ	83	GLU
23	DZ	90	ILE
23	DZ	91	LYS
23	DZ	92	LYS
23	DZ	95	LEU
24	DW	5	GLU
24	DW	9	GLN
24	DW	16	LEU
24	DW	24	LEU
24	DW	30	ARG
24	DW	47	ASN
24	DW	52	ASP
24	DW	53	LEU
24	DW	60	LEU
24	DW	64	LEU
25	DX	8	LEU
25	DX	18	ASP
25	DX	24	LYS
26	D4	1	MET
26	D4	6	HIS
26	D4	18	CYS
26	D4	30	GLU
26	D4	32	TYR
26	D4	53	GLU
26	D4	62	ARG

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Mol	Chain	Res	Type
27	D5	3	LYS
27	D5	4	HIS
27	D5	6	VAL
27	D5	16	ARG
27	D5	25	LEU
27	D5	26	THR
27	D5	29	THR
27	D5	35	GLU
27	D5	37	LYS
27	D5	52	TYR
28	D6	9	LEU
28	D6	10	LEU
28	D6	24	GLU
28	D6	27	LYS
28	D6	29	ASN
28	D6	30	THR
28	D6	32	ASN
28	D6	37	ARG
28	D6	43	CYS
28	D6	45	LYS
28	D6	53	LYS
29	D7	1	MET
29	D7	4	THR
29	D7	8	ASN
29	D7	9	ARG
29	D7	24	THR
29	D7	43	THR
29	D7	46	VAL
30	D8	8	LYS
30	D8	13	ARG
30	D8	23	VAL
30	D8	30	ARG
30	D8	33	ASN
30	D8	41	ILE
30	D8	54	GLU
30	D8	58	ILE
30	D8	61	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (291) such sidechains are listed below:

Mol	Chain	Res	Type
3	AD	58	HIS

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Mol	Chain	Res	Type
3	AD	166	GLN
3	AD	186	HIS
3	AD	198	ASN
3	AD	227	ASN
4	AE	35	GLN
4	AE	48	GLN
4	AE	54	GLN
4	AE	180	ASN
4	AE	192	ASN
5	AF	67	GLN
5	AF	69	HIS
5	AF	169	ASN
5	AF	203	GLN
5	AF	204	ASN
6	AG	40	ASN
6	AG	41	GLN
6	AG	108	ASN
6	AG	121	ASN
6	AG	123	ASN
8	AK	28	ASN
8	AK	139	GLN
9	AM	128	HIS
9	AM	131	GLN
9	AM	133	GLN
10	AN	3	GLN
10	AN	82	ASN
10	AN	89	ASN
11	AO	9	ASN
11	AO	27	HIS
11	AO	68	GLN
11	AO	70	GLN
11	AO	84	ASN
11	AO	128	HIS
12	AP	45	GLN
12	AP	141	GLN
13	A0	3	HIS
13	A0	16	HIS
13	A0	23	ASN
13	A0	71	GLN
15	AR	43	GLN
15	AR	84	GLN
16	A1	44	ASN

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Mol	Chain	Res	Type
16	A1	49	HIS
16	A1	71	GLN
16	A1	81	HIS
17	A2	11	GLN
17	A2	89	GLN
18	AS	34	ASN
18	AS	40	ASN
18	AS	57	ASN
18	AS	62	HIS
18	AS	102	HIS
19	AT	31	HIS
19	AT	41	ASN
19	AT	55	ASN
19	AT	82	GLN
19	AT	87	GLN
20	AU	57	GLN
21	AV	32	HIS
21	AV	65	GLN
21	AV	75	ASN
21	AV	85	HIS
21	AV	151	HIS
22	A3	17	GLN
22	A3	35	ASN
22	A3	40	GLN
22	A3	50	ASN
23	AZ	19	GLN
23	AZ	56	GLN
23	AZ	66	HIS
24	AW	9	GLN
24	AW	43	GLN
24	AW	47	ASN
24	AW	65	ASN
25	AX	19	GLN
25	AX	32	GLN
25	AX	46	ASN
25	AX	52	HIS
26	A4	20	ASN
26	A4	40	HIS
26	A4	47	GLN
26	A4	60	GLN
27	A5	4	HIS
27	A5	22	HIS

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Mol	Chain	Res	Type
27	A5	23	HIS
27	A5	43	HIS
28	A6	26	ASN
28	A6	49	HIS
29	A7	8	ASN
29	A7	36	GLN
30	A8	31	HIS
30	A8	35	GLN
30	A8	43	GLN
32	BE	19	HIS
32	BE	78	GLN
32	BE	204	ASN
32	BE	212	GLN
33	BF	37	GLN
33	BF	136	GLN
33	BF	170	GLN
33	BF	176	HIS
33	BF	181	ASN
34	BG	42	GLN
34	BG	45	GLN
34	BG	160	GLN
34	BG	201	GLN
35	BH	72	GLN
35	BH	78	HIS
36	BI	13	ASN
36	BI	18	GLN
36	BI	32	ASN
36	BI	57	GLN
36	BI	100	ASN
37	BJ	11	GLN
37	BJ	37	ASN
37	BJ	84	ASN
37	BJ	153	HIS
38	BK	70	GLN
39	BL	124	GLN
40	BM	33	GLN
40	BM	56	HIS
40	BM	62	HIS
41	BN	38	ASN
41	BN	99	GLN
41	BN	104	GLN
42	BO	6	GLN

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Mol	Chain	Res	Type
42	BO	46	ASN
42	BO	72	HIS
43	BP	101	GLN
43	BP	106	ASN
44	BQ	49	HIS
45	BR	37	ASN
45	BR	46	HIS
45	BR	50	HIS
45	BR	71	GLN
46	BS	76	GLN
46	BS	82	GLN
47	BT	16	GLN
47	BT	94	ASN
48	BU	36	ASN
49	BV	47	HIS
49	BV	56	GLN
49	BV	57	HIS
49	BV	65	ASN
49	BV	83	HIS
50	BW	9	ASN
50	BW	16	HIS
50	BW	26	ASN
32	CE	16	HIS
32	CE	40	HIS
32	CE	78	GLN
32	CE	240	GLN
33	CF	3	ASN
33	CF	28	GLN
33	CF	37	GLN
33	CF	98	ASN
33	CF	170	GLN
33	CF	181	ASN
34	CG	43	HIS
34	CG	45	GLN
34	CG	62	GLN
34	CG	77	ASN
34	CG	119	GLN
34	CG	160	GLN
34	CG	199	ASN
34	CG	201	GLN
35	CH	20	GLN
35	CH	141	GLN

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Mol	Chain	Res	Type
36	CI	32	ASN
36	CI	100	ASN
37	CJ	37	ASN
37	CJ	51	GLN
37	CJ	56	GLN
37	CJ	84	ASN
37	CJ	86	GLN
37	CJ	97	GLN
37	CJ	106	GLN
38	CK	82	HIS
39	CL	29	ASN
39	CL	34	ASN
39	CL	89	ASN
39	CL	124	GLN
40	CM	21	GLN
40	CM	84	GLN
41	CN	38	ASN
41	CN	78	GLN
41	CN	93	GLN
41	CN	99	GLN
41	CN	117	ASN
42	CO	5	ASN
42	CO	46	ASN
42	CO	72	HIS
44	CQ	49	HIS
45	CR	13	GLN
45	CR	37	ASN
45	CR	46	HIS
46	CS	82	GLN
47	CT	16	GLN
47	CT	26	GLN
49	CV	23	ASN
49	CV	56	GLN
49	CV	57	HIS
49	CV	69	HIS
50	CW	9	ASN
50	CW	26	ASN
3	DD	44	ASN
3	DD	58	HIS
3	DD	96	HIS
3	DD	126	GLN
3	DD	166	GLN

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Mol	Chain	Res	Type
3	DD	186	HIS
3	DD	198	ASN
4	DE	35	GLN
4	DE	48	GLN
4	DE	66	HIS
4	DE	132	HIS
4	DE	135	HIS
4	DE	192	ASN
5	DF	169	ASN
6	DG	27	ASN
6	DG	58	GLN
6	DG	79	ASN
6	DG	108	ASN
6	DG	123	ASN
6	DG	138	GLN
7	DH	147	ASN
8	DK	54	GLN
8	DK	104	GLN
9	DM	45	ASN
9	DM	69	GLN
9	DM	101	HIS
10	DN	82	ASN
11	DO	27	HIS
11	DO	81	GLN
11	DO	128	HIS
12	DP	12	GLN
12	DP	13	GLN
12	DP	45	GLN
12	DP	113	GLN
12	DP	123	HIS
13	D0	11	ASN
13	D0	13	HIS
13	D0	23	ASN
13	D0	24	GLN
13	D0	31	HIS
13	D0	71	GLN
15	DR	90	GLN
15	DR	136	GLN
16	D1	49	HIS
16	D1	75	ASN
16	D1	94	ASN
17	D2	64	HIS

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Mol	Chain	Res	Type
17	D2	80	GLN
17	D2	89	GLN
18	DS	34	ASN
18	DS	57	ASN
18	DS	60	ASN
18	DS	61	ASN
18	DS	62	HIS
18	DS	102	HIS
18	DS	111	HIS
19	DT	31	HIS
19	DT	41	ASN
19	DT	55	ASN
19	DT	87	GLN
20	DU	43	ASN
20	DU	57	GLN
21	DV	34	ASN
21	DV	50	GLN
21	DV	65	GLN
21	DV	75	ASN
21	DV	132	ASN
22	D3	17	GLN
22	D3	29	GLN
22	D3	50	ASN
22	D3	70	GLN
23	DZ	19	GLN
23	DZ	56	GLN
23	DZ	66	HIS
24	DW	56	GLN
24	DW	65	ASN
25	DX	19	GLN
25	DX	33	GLN
25	DX	52	HIS
26	D4	60	GLN
27	D5	4	HIS
27	D5	43	HIS
28	D6	29	ASN
29	D7	8	ASN
29	D7	36	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	2911/2912 (99%)	556 (19%)	51 (1%)
1	DA	2905/2912 (99%)	601 (20%)	50 (1%)
2	AB	121/122 (99%)	24 (19%)	0
2	DB	121/122 (99%)	28 (23%)	0
31	BA	1506/1506 (100%)	291 (19%)	32 (2%)
31	CA	1505/1506 (99%)	315 (20%)	42 (2%)
52	BB	86/87 (98%)	26 (30%)	4 (4%)
52	CB	86/87 (98%)	30 (34%)	3 (3%)
53	BC	77/77 (100%)	12 (15%)	3 (3%)
53	BD	76/77 (98%)	25 (32%)	2 (2%)
53	CC	76/77 (98%)	14 (18%)	3 (3%)
53	CD	76/77 (98%)	16 (21%)	2 (2%)
54	B1	9/10 (90%)	2 (22%)	0
54	C1	9/10 (90%)	2 (22%)	0
All	All	9564/9582 (99%)	1942 (20%)	192 (2%)

All (1942) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	10	G
1	AA	15	G
1	AA	23	G
1	AA	34	C
1	AA	35	G
1	AA	46	C
1	AA	51	G
1	AA	63	U
1	AA	71	A
1	AA	74	A
1	AA	75	G
1	AA	85	G
1	AA	95	G
1	AA	101	G
1	AA	118	A
1	AA	119	A
1	AA	120	U
1	AA	123	G
1	AA	155	C
1	AA	164	U
1	AA	165	U
1	AA	181	A
1	AA	196	A
1	AA	197	A

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Mol	Chain	Res	Type
1	AA	199	A
1	AA	214	G
1	AA	215	G
1	AA	216	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	232	G
1	AA	233	A
1	AA	248	G
1	AA	249	C
1	AA	250	G
1	AA	252	G
1	AA	269	U
1	AA	270(K)	C
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
1	AA	274	G
1	AA	275	G
1	AA	278	A
1	AA	299	A
1	AA	311	A
1	AA	315	G
1	AA	323	G
1	AA	324	A
1	AA	326	G
1	AA	329	G
1	AA	330	A
1	AA	352	G
1	AA	357	A
1	AA	363	G
1	AA	364	C
1	AA	372	G
1	AA	385	C

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Mol	Chain	Res	Type
1	AA	386	G
1	AA	396	G
1	AA	405	U
1	AA	411	G
1	AA	428	A
1	AA	441	U
1	AA	443	A
1	AA	444	C
1	AA	448	U
1	AA	457	A
1	AA	470	A
1	AA	471	A
1	AA	479	A
1	AA	481	G
1	AA	482	A
1	AA	504	U
1	AA	505	A
1	AA	509	C
1	AA	529	A
1	AA	530	G
1	AA	531	C
1	AA	532	A
1	AA	533	G
1	AA	537	C
1	AA	539	G
1	AA	540	G
1	AA	546	C
1	AA	563	G
1	AA	573	G
1	AA	575	A
1	AA	586	A
1	AA	588	U
1	AA	603	A
1	AA	607	U
1	AA	614	U
1	AA	617	G
1	AA	622	G
1	AA	627	A
1	AA	637	A
1	AA	644	A
1	AA	645	C
1	AA	646	A

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Mol	Chain	Res	Type
1	AA	652	C
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(L)	G
1	AA	654(N)	G
1	AA	654(T)	A
1	AA	686	G
1	AA	717	G
1	AA	730	C
1	AA	740	U
1	AA	753	C
1	AA	764	A
1	AA	765	G
1	AA	776	G
1	AA	782	A
1	AA	784	A
1	AA	785	G
1	AA	789	A
1	AA	790	C
1	AA	791	C
1	AA	792	G
1	AA	793	A
1	AA	805	G
1	AA	812	C
1	AA	819	A
1	AA	827	U
1	AA	828	U
1	AA	859	G
1	AA	866	A
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	890	A

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Mol	Chain	Res	Type
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	900	A
1	AA	901	A
1	AA	902	C
1	AA	906	G
1	AA	910	A
1	AA	915	C
1	AA	917	A
1	AA	932	G
1	AA	938	G
1	AA	941	A
1	AA	946	G
1	AA	959	A
1	AA	961	C
1	AA	968	G
1	AA	974	G
1	AA	974(A)	C
1	AA	975	G
1	AA	983	A
1	AA	990	A
1	AA	996	A
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	1016	G
1	AA	1022	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	1045	A
1	AA	1046	A

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Mol	Chain	Res	Type
1	AA	1047	G
1	AA	1050	A
1	AA	1056	G
1	AA	1057	A
1	AA	1060	U
1	AA	1061	U
1	AA	1062	G
1	AA	1066	U
1	AA	1067	A
1	AA	1068	G
1	AA	1070	A
1	AA	1071	G
1	AA	1073	A
1	AA	1075	C
1	AA	1076	C
1	AA	1077	A
1	AA	1078	U
1	AA	1079	C
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	1095	A
1	AA	1096	A
1	AA	1097	U
1	AA	1105	U
1	AA	1106	G
1	AA	1110	G
1	AA	1111	A
1	AA	1112	G
1	AA	1117	G
1	AA	1122	G
1	AA	1131	G
1	AA	1135	C
1	AA	1136	G
1	AA	1139	G
1	AA	1142	U

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Mol	Chain	Res	Type
1	AA	1142(A)	A
1	AA	1148	A
1	AA	1149	G
1	AA	1151	G
1	AA	1155	A
1	AA	1176	G
1	AA	1178	C
1	AA	1179	C
1	AA	1180	C
1	AA	1195	G
1	AA	1204	A
1	AA	1205	U
1	AA	1211	U
1	AA	1220	A
1	AA	1241	A
1	AA	1244	G
1	AA	1253	A
1	AA	1256	G
1	AA	1265	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	1312	U
1	AA	1313	U
1	AA	1314	C
1	AA	1329	U
1	AA	1344	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	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	1404	C
1	AA	1416	G
1	AA	1417	C
1	AA	1420	U
1	AA	1421	G
1	AA	1428	C
1	AA	1437	C
1	AA	1444(A)	A
1	AA	1449	A
1	AA	1449(A)	G
1	AA	1453	A
1	AA	1455	G
1	AA	1458	C
1	AA	1459	G
1	AA	1460	A
1	AA	1461	G
1	AA	1466	G
1	AA	1467	C
1	AA	1470	G
1	AA	1471	A
1	AA	1483	G
1	AA	1493	C
1	AA	1497	U
1	AA	1506	C
1	AA	1507	A
1	AA	1508	A
1	AA	1510	A
1	AA	1511	A
1	AA	1522	G
1	AA	1526	G
1	AA	1528	A
1	AA	1534	G
1	AA	1535	U
1	AA	1536	A
1	AA	1537	C
1	AA	1540	G
1	AA	1543	A
1	AA	1545	A
1	AA	1548	C
1	AA	1554	A
1	AA	1558	A
1	AA	1559	G

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Mol	Chain	Res	Type
1	AA	1560	G
1	AA	1569	A
1	AA	1578	U
1	AA	1579	A
1	AA	1585	C
1	AA	1586	A
1	AA	1608	A
1	AA	1609	A
1	AA	1610	A
1	AA	1617	C
1	AA	1618	A
1	AA	1639	U
1	AA	1640	C
1	AA	1648	C
1	AA	1654	A
1	AA	1674	G
1	AA	1695	G
1	AA	1698	A
1	AA	1728	G
1	AA	1729	A
1	AA	1730	U
1	AA	1731	G
1	AA	1733	G
1	AA	1735	C
1	AA	1743	G
1	AA	1750	G
1	AA	1756	G
1	AA	1762	A
1	AA	1763	G
1	AA	1764	G
1	AA	1773	A
1	AA	1780	A
1	AA	1791	A
1	AA	1798	U
1	AA	1799	G
1	AA	1800	C
1	AA	1801	G
1	AA	1802	A
1	AA	1816	G
1	AA	1819	A
1	AA	1820	U
1	AA	1829	A

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Mol	Chain	Res	Type
1	AA	1835	G
1	AA	1847	A
1	AA	1858	G
1	AA	1869	G
1	AA	1878	G
1	AA	1882	C
1	AA	1889	A
1	AA	1900	A
1	AA	1906	G
1	AA	1914	C
1	AA	1916	A
1	AA	1929	G
1	AA	1930	G
1	AA	1931	U
1	AA	1936	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	1993	U
1	AA	2018	G
1	AA	2020	A
1	AA	2023	G
1	AA	2031	A
1	AA	2032	G
1	AA	2033	A
1	AA	2043	C
1	AA	2051	A
1	AA	2055	C
1	AA	2056	G
1	AA	2060	A
1	AA	2061	G
1	AA	2062	A
1	AA	2069	G
1	AA	2099	U

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Mol	Chain	Res	Type
1	AA	2110	G
1	AA	2111	C
1	AA	2112	G
1	AA	2113	U
1	AA	2114	A
1	AA	2115	G
1	AA	2116	G
1	AA	2126	A
1	AA	2128	C
1	AA	2131	G
1	AA	2132	U
1	AA	2133	G
1	AA	2146	C
1	AA	2148	G
1	AA	2151	G
1	AA	2157	G
1	AA	2158	A
1	AA	2159	G
1	AA	2165	G
1	AA	2166	G
1	AA	2168	G
1	AA	2169	A
1	AA	2173	A
1	AA	2176	A
1	AA	2190	G
1	AA	2192	G
1	AA	2198	A
1	AA	2199	A
1	AA	2210	G
1	AA	2211	G
1	AA	2212	A
1	AA	2213	U
1	AA	2215	G
1	AA	2225	A
1	AA	2238	G
1	AA	2239	G
1	AA	2273	A
1	AA	2275	C
1	AA	2283	C
1	AA	2287	A
1	AA	2294	C
1	AA	2307	G

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Mol	Chain	Res	Type
1	AA	2308	G
1	AA	2310	A
1	AA	2311	A
1	AA	2319	G
1	AA	2320	A
1	AA	2325	G
1	AA	2334	G
1	AA	2336	A
1	AA	2342	C
1	AA	2346	A
1	AA	2347	C
1	AA	2350	C
1	AA	2364	C
1	AA	2383	G
1	AA	2385	C
1	AA	2392	A
1	AA	2393	A
1	AA	2402	C
1	AA	2403	C
1	AA	2406	U
1	AA	2408	U
1	AA	2410	G
1	AA	2414	G
1	AA	2423	U
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	2445	G
1	AA	2448	A
1	AA	2468	G
1	AA	2469	A
1	AA	2470	G
1	AA	2474	C
1	AA	2475	C
1	AA	2482	G
1	AA	2494	G

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Mol	Chain	Res	Type
1	AA	2502	G
1	AA	2505	G
1	AA	2518	A
1	AA	2525	G
1	AA	2529	G
1	AA	2554	U
1	AA	2566	A
1	AA	2567	G
1	AA	2573	C
1	AA	2582	G
1	AA	2585	U
1	AA	2601	C
1	AA	2602	A
1	AA	2603	G
1	AA	2609	U
1	AA	2611	U
1	AA	2612	C
1	AA	2613	U
1	AA	2614	A
1	AA	2615	U
1	AA	2629	A
1	AA	2636	U
1	AA	2654	A
1	AA	2665	A
1	AA	2666	C
1	AA	2673	G
1	AA	2682	U
1	AA	2683	C
1	AA	2689	U
1	AA	2690	C
1	AA	2702	U
1	AA	2703	C
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	2752	C
1	AA	2757	A
1	AA	2758	A

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Mol	Chain	Res	Type
1	AA	2765	A
1	AA	2766	G
1	AA	2778	A
1	AA	2779	U
1	AA	2789	C
1	AA	2790	A
1	AA	2791	C
1	AA	2794	C
1	AA	2795	G
1	AA	2797	U
1	AA	2799	A
1	AA	2805	G
1	AA	2807	G
1	AA	2808	U
1	AA	2818	G
1	AA	2820	A
1	AA	2821	A
1	AA	2830	G
1	AA	2833	G
1	AA	2834	G
1	AA	2835	A
1	AA	2850	A
1	AA	2851	A
1	AA	2871	C
1	AA	2872	G
1	AA	2892	A
1	AA	2894	G
1	AA	2901	C
2	AB	1	U
2	AB	7	G
2	AB	13	A
2	AB	15	A
2	AB	24	G
2	AB	32	C
2	AB	38	C
2	AB	40	U
2	AB	41	U
2	AB	42	C
2	AB	50	G
2	AB	52	A
2	AB	53	A
2	AB	56	G

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Mol	Chain	Res	Type
2	AB	73	A
2	AB	74	U
2	AB	81	G
2	AB	82	G
2	AB	89	G
2	AB	95	U
2	AB	96	G
2	AB	105	G
2	AB	109	G
2	AB	116	G
31	BA	6	G
31	BA	8	A
31	BA	9	G
31	BA	32	A
31	BA	39	G
31	BA	48	C
31	BA	49	U
31	BA	50	A
31	BA	51	A
31	BA	54	C
31	BA	61	G
31	BA	65	U
31	BA	66	G
31	BA	76	G
31	BA	81	G
31	BA	84	U
31	BA	85	U
31	BA	86	U
31	BA	87	A
31	BA	88	C
31	BA	89	U
31	BA	90	C
31	BA	91	C
31	BA	95	G
31	BA	101	A
31	BA	116	A
31	BA	120	A
31	BA	121	C
31	BA	131	C
31	BA	144	G
31	BA	163	C
31	BA	172	A

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Mol	Chain	Res	Type
31	BA	174	C
31	BA	182	U
31	BA	189	U
31	BA	190	G
31	BA	195	A
31	BA	197	A
31	BA	199	G
31	BA	201	C
31	BA	208	U
31	BA	209	U
31	BA	210	U
31	BA	216	G
31	BA	222	U
31	BA	243	A
31	BA	245	C
31	BA	247	G
31	BA	251	G
31	BA	262	A
31	BA	266	G
31	BA	267	C
31	BA	268	C
31	BA	281	G
31	BA	289	G
31	BA	321	A
31	BA	328	C
31	BA	332	G
31	BA	342	C
31	BA	345	C
31	BA	346	G
31	BA	352	C
31	BA	353	A
31	BA	354	G
31	BA	365	U
31	BA	367	U
31	BA	372	C
31	BA	383	A
31	BA	384	G
31	BA	390	C
31	BA	397	A
31	BA	398	C
31	BA	406	G
31	BA	412	A

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Mol	Chain	Res	Type
31	BA	413	G
31	BA	419	C
31	BA	421	U
31	BA	422	C
31	BA	429	U
31	BA	430	A
31	BA	439	A
31	BA	452	A
31	BA	466	C
31	BA	467	G
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	518	C
31	BA	527	G
31	BA	531	U
31	BA	533	A
31	BA	536	C
31	BA	545	C
31	BA	547	A
31	BA	559	A
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	579	G
31	BA	596	C
31	BA	619	U
31	BA	623	C
31	BA	630	G
31	BA	631	G
31	BA	632	A
31	BA	633	G
31	BA	639	G
31	BA	642	A
31	BA	646	U

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Mol	Chain	Res	Type
31	BA	653	A
31	BA	665	A
31	BA	666	G
31	BA	687	A
31	BA	688	G
31	BA	704	A
31	BA	720	C
31	BA	723	U
31	BA	724	G
31	BA	731	G
31	BA	748	C
31	BA	749	C
31	BA	755	G
31	BA	777	A
31	BA	792	A
31	BA	793	U
31	BA	794	A
31	BA	802	A
31	BA	813	U
31	BA	815	A
31	BA	817	C
31	BA	828	A
31	BA	841	U
31	BA	842	C
31	BA	843	U
31	BA	848	C
31	BA	859	A
31	BA	864	A
31	BA	871	U
31	BA	872	A
31	BA	884	U
31	BA	891	U
31	BA	902	G
31	BA	914	A
31	BA	926	G
31	BA	927	G
31	BA	934	C
31	BA	936	C
31	BA	941	G
31	BA	960	U
31	BA	969	A
31	BA	971	G

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Mol	Chain	Res	Type
31	BA	972	C
31	BA	974	A
31	BA	975	A
31	BA	976	G
31	BA	977	A
31	BA	983	A
31	BA	991	U
31	BA	992	U
31	BA	993	G
31	BA	1002	G
31	BA	1004	A
31	BA	1006	C
31	BA	1009	G
31	BA	1020	U
31	BA	1021	G
31	BA	1024	G
31	BA	1025	U
31	BA	1026	G
31	BA	1028	C
31	BA	1029	G
31	BA	1032(A)	G
31	BA	1036	G
31	BA	1038	C
31	BA	1040	U
31	BA	1042	G
31	BA	1054	C
31	BA	1055	A
31	BA	1064	G
31	BA	1065	U
31	BA	1066	C
31	BA	1067	A
31	BA	1081	G
31	BA	1094	G
31	BA	1095	U
31	BA	1101	A
31	BA	1103	C
31	BA	1123	A
31	BA	1124	G
31	BA	1125	U
31	BA	1126	U
31	BA	1127	G
31	BA	1129	C

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Mol	Chain	Res	Type
31	BA	1130	A
31	BA	1131	G
31	BA	1132	C
31	BA	1136	U
31	BA	1137	C
31	BA	1138	G
31	BA	1139	G
31	BA	1146	A
31	BA	1151	A
31	BA	1152	A
31	BA	1157	A
31	BA	1158	C
31	BA	1159	U
31	BA	1160	G
31	BA	1170	A
31	BA	1177	G
31	BA	1178	G
31	BA	1179	A
31	BA	1181	G
31	BA	1182	G
31	BA	1183	A
31	BA	1196	U
31	BA	1197	G
31	BA	1201	A
31	BA	1212	U
31	BA	1213	A
31	BA	1225	A
31	BA	1227	A
31	BA	1238	A
31	BA	1240	U
31	BA	1241	G
31	BA	1256	A
31	BA	1257	U
31	BA	1258	G
31	BA	1270	C
31	BA	1273	G
31	BA	1278	U
31	BA	1279	A
31	BA	1280	A
31	BA	1282	C
31	BA	1286	A
31	BA	1287	A

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Mol	Chain	Res	Type
31	BA	1288	A
31	BA	1290	G
31	BA	1291	G
31	BA	1300	G
31	BA	1302	U
31	BA	1303	C
31	BA	1305	G
31	BA	1306	A
31	BA	1317	C
31	BA	1319	A
31	BA	1320	C
31	BA	1322	C
31	BA	1331	G
31	BA	1333	A
31	BA	1334	G
31	BA	1336	C
31	BA	1338	G
31	BA	1346	A
31	BA	1347	G
31	BA	1350	A
31	BA	1353	G
31	BA	1363	A
31	BA	1370	G
31	BA	1373	G
31	BA	1377	A
31	BA	1378	C
31	BA	1397	C
31	BA	1401	G
31	BA	1419	G
31	BA	1442	G
31	BA	1443	G
31	BA	1446	A
31	BA	1447	G
31	BA	1452	C
31	BA	1453	G
31	BA	1454	G
31	BA	1487	G
31	BA	1492	A
31	BA	1494	G
31	BA	1497	G
31	BA	1499	A
31	BA	1502	A

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Mol	Chain	Res	Type
31	BA	1504	G
31	BA	1505	G
31	BA	1506	U
31	BA	1517	G
31	BA	1529	G
31	BA	1530	G
31	BA	1531	A
52	BB	2	C
52	BB	8	U
52	BB	9	G
52	BB	13	G
52	BB	16	U
52	BB	17	U
52	BB	18	G
52	BB	19	G
52	BB	20	U
52	BB	21	A
52	BB	22	G
52	BB	23	A
52	BB	24	C
52	BB	26	C
52	BB	46	G
52	BB	48	C
52	BB	49	C
52	BB	50	A
52	BB	54	G
52	BB	55	G
52	BB	56	G
52	BB	58	U
52	BB	71	U
52	BB	74	C
52	BB	77	C
52	BB	87	A
53	BC	2	G
53	BC	9	G
53	BC	14	A
53	BC	16	C
53	BC	18	C
53	BC	19	G
53	BC	20	G
53	BC	21	U
53	BC	22	A

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Mol	Chain	Res	Type
53	BC	32	G
53	BC	48	U
53	BC	49	C
53	BD	6	G
53	BD	8	U
53	BD	9	G
53	BD	10	G
53	BD	13	C
53	BD	14	A
53	BD	17	C
53	BD	19	G
53	BD	20	G
53	BD	21	U
53	BD	22	A
53	BD	23	G
53	BD	24	C
53	BD	40	C
53	BD	45	A
53	BD	46	G
53	BD	49	C
53	BD	54	G
53	BD	58	A
53	BD	59	A
53	BD	62	C
53	BD	65	G
53	BD	68	C
53	BD	74	A
53	BD	77	A
54	B1	14	U
54	B1	19	C
31	CA	9	G
31	CA	22	G
31	CA	32	A
31	CA	39	G
31	CA	47	C
31	CA	48	C
31	CA	51	A
31	CA	54	C
31	CA	65	U
31	CA	66	G
31	CA	76	G
31	CA	78	G

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Mol	Chain	Res	Type
31	CA	81	G
31	CA	84	U
31	CA	85	U
31	CA	86	U
31	CA	87	A
31	CA	90	C
31	CA	91	C
31	CA	95	G
31	CA	101	A
31	CA	108	G
31	CA	116	A
31	CA	121	C
31	CA	131	C
31	CA	163	C
31	CA	169	C
31	CA	174	C
31	CA	182	U
31	CA	188	U
31	CA	189	U
31	CA	190	G
31	CA	191(A)	G
31	CA	191(D)	U
31	CA	195	A
31	CA	197	A
31	CA	198	G
31	CA	208	U
31	CA	209	U
31	CA	210	U
31	CA	216	G
31	CA	231	G
31	CA	244	U
31	CA	247	G
31	CA	251	G
31	CA	252	U
31	CA	266	G
31	CA	267	C
31	CA	268	C
31	CA	279	A
31	CA	280	C
31	CA	281	G
31	CA	289	G
31	CA	321	A

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Mol	Chain	Res	Type
31	CA	328	C
31	CA	329	A
31	CA	332	G
31	CA	340	U
31	CA	345	C
31	CA	346	G
31	CA	347	G
31	CA	350	G
31	CA	351	G
31	CA	352	C
31	CA	353	A
31	CA	354	G
31	CA	356	A
31	CA	367	U
31	CA	372	C
31	CA	373	A
31	CA	384	G
31	CA	397	A
31	CA	398	C
31	CA	406	G
31	CA	411	A
31	CA	412	A
31	CA	413	G
31	CA	422	C
31	CA	423	G
31	CA	429	U
31	CA	439	A
31	CA	442	C
31	CA	445	G
31	CA	451	A
31	CA	452	A
31	CA	466	C
31	CA	467	G
31	CA	478	A
31	CA	482	A
31	CA	484	G
31	CA	485	G
31	CA	486	U
31	CA	496	A
31	CA	497	U
31	CA	505	G
31	CA	509	A

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Mol	Chain	Res	Type
31	CA	510	A
31	CA	511	C
31	CA	518	C
31	CA	519	C
31	CA	527	G
31	CA	530	G
31	CA	531	U
31	CA	532	A
31	CA	533	A
31	CA	535	A
31	CA	536	C
31	CA	547	A
31	CA	559	A
31	CA	561	U
31	CA	562	C
31	CA	572	A
31	CA	573	A
31	CA	576	G
31	CA	577	G
31	CA	607	A
31	CA	618	C
31	CA	630	G
31	CA	632	A
31	CA	633	G
31	CA	651	C
31	CA	653	A
31	CA	656	C
31	CA	665	A
31	CA	687	A
31	CA	688	G
31	CA	702	A
31	CA	703	G
31	CA	704	A
31	CA	721	G
31	CA	722	A
31	CA	723	U
31	CA	724	G
31	CA	731	G
31	CA	734	G
31	CA	749	C
31	CA	755	G
31	CA	773	G

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Mol	Chain	Res	Type
31	CA	777	A
31	CA	778	G
31	CA	787	A
31	CA	792	A
31	CA	793	U
31	CA	794	A
31	CA	801	U
31	CA	802	A
31	CA	812	C
31	CA	813	U
31	CA	817	C
31	CA	819	A
31	CA	821	G
31	CA	828	A
31	CA	841	U
31	CA	842	C
31	CA	843	U
31	CA	848	C
31	CA	859	A
31	CA	870	U
31	CA	874	G
31	CA	885	G
31	CA	913	A
31	CA	914	A
31	CA	922	G
31	CA	926	G
31	CA	927	G
31	CA	934	C
31	CA	935	A
31	CA	958	A
31	CA	960	U
31	CA	961	U
31	CA	968	A
31	CA	969	A
31	CA	972	C
31	CA	974	A
31	CA	976	G
31	CA	977	A
31	CA	978	A
31	CA	980	C
31	CA	989	C
31	CA	991	U

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Mol	Chain	Res	Type
31	CA	992	U
31	CA	993	G
31	CA	994	A
31	CA	1004	A
31	CA	1006	C
31	CA	1009	G
31	CA	1016	A
31	CA	1022	G
31	CA	1024	G
31	CA	1025	U
31	CA	1026	G
31	CA	1028	C
31	CA	1029	G
31	CA	1030	C
31	CA	1031	G
31	CA	1032(A)	G
31	CA	1032(B)	G
31	CA	1033	G
31	CA	1036	G
31	CA	1037	C
31	CA	1040	U
31	CA	1042	G
31	CA	1046	A
31	CA	1052	U
31	CA	1053	G
31	CA	1054	C
31	CA	1055	A
31	CA	1066	C
31	CA	1067	A
31	CA	1081	G
31	CA	1086	U
31	CA	1087	G
31	CA	1092	A
31	CA	1094	G
31	CA	1095	U
31	CA	1101	A
31	CA	1118	C
31	CA	1124	G
31	CA	1125	U
31	CA	1127	G
31	CA	1128	C
31	CA	1129	C

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Mol	Chain	Res	Type
31	CA	1130	A
31	CA	1131	G
31	CA	1133	G
31	CA	1136	U
31	CA	1137	C
31	CA	1138	G
31	CA	1139	G
31	CA	1145	C
31	CA	1146	A
31	CA	1147	C
31	CA	1157	A
31	CA	1159	U
31	CA	1160	G
31	CA	1178	G
31	CA	1179	A
31	CA	1181	G
31	CA	1182	G
31	CA	1183	A
31	CA	1184	G
31	CA	1185	G
31	CA	1196	U
31	CA	1197	G
31	CA	1200	C
31	CA	1201	A
31	CA	1202	G
31	CA	1212	U
31	CA	1213	A
31	CA	1220	G
31	CA	1225	A
31	CA	1227	A
31	CA	1238	A
31	CA	1240	U
31	CA	1241	G
31	CA	1256	A
31	CA	1257	U
31	CA	1258	G
31	CA	1260	C
31	CA	1269	A
31	CA	1270	C
31	CA	1278	U
31	CA	1279	A
31	CA	1280	A

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Mol	Chain	Res	Type
31	CA	1286	A
31	CA	1287	A
31	CA	1288	A
31	CA	1297	C
31	CA	1298	C
31	CA	1299	A
31	CA	1300	G
31	CA	1301	U
31	CA	1302	U
31	CA	1303	C
31	CA	1305	G
31	CA	1306	A
31	CA	1317	C
31	CA	1320	C
31	CA	1322	C
31	CA	1323	G
31	CA	1331	G
31	CA	1335	C
31	CA	1336	C
31	CA	1338	G
31	CA	1346	A
31	CA	1347	G
31	CA	1353	G
31	CA	1363	A
31	CA	1368	G
31	CA	1370	G
31	CA	1397	C
31	CA	1398	A
31	CA	1404	C
31	CA	1419	G
31	CA	1442	G
31	CA	1443	G
31	CA	1446	A
31	CA	1447	G
31	CA	1450	U
31	CA	1451	A
31	CA	1453	G
31	CA	1487	G
31	CA	1492	A
31	CA	1494	G
31	CA	1497	G
31	CA	1499	A

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Mol	Chain	Res	Type
31	CA	1504	G
31	CA	1506	U
31	CA	1507	A
31	CA	1517	G
31	CA	1519	A
31	CA	1520	G
31	CA	1529	G
31	CA	1530	G
31	CA	1531	A
52	CB	2	C
52	CB	7	G
52	CB	8	U
52	CB	9	G
52	CB	14	A
52	CB	17	U
52	CB	18	G
52	CB	19	G
52	CB	20	U
52	CB	21	A
52	CB	22	G
52	CB	23	A
52	CB	24	C
52	CB	26	C
52	CB	27	G
52	CB	45	U
52	CB	46	G
52	CB	48	C
52	CB	49	C
52	CB	51	A
52	CB	52	U
52	CB	56	G
52	CB	58	U
52	CB	70	G
52	CB	71	U
52	CB	72	C
52	CB	74	C
52	CB	85	C
52	CB	86	C
52	CB	87	A
53	CC	2	G
53	CC	8	U
53	CC	9	G

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Mol	Chain	Res	Type
53	CC	16	C
53	CC	17	C
53	CC	18	C
53	CC	19	G
53	CC	20	G
53	CC	21	U
53	CC	22	A
53	CC	32	G
53	CC	48	U
53	CC	49	C
53	CC	50	G
53	CD	9	G
53	CD	10	G
53	CD	14	A
53	CD	15	G
53	CD	16	C
53	CD	17	C
53	CD	19	G
53	CD	21	U
53	CD	23	G
53	CD	24	C
53	CD	40	C
53	CD	48	U
53	CD	49	C
53	CD	59	A
53	CD	62	C
53	CD	70	C
54	C1	14	U
54	C1	19	C
1	DA	10	G
1	DA	34	C
1	DA	46	C
1	DA	49	A
1	DA	50	U
1	DA	54	G
1	DA	55	G
1	DA	58	G
1	DA	69	C
1	DA	71	A
1	DA	72	U
1	DA	74	A
1	DA	75	G

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Mol	Chain	Res	Type
1	DA	90	U
1	DA	91	A
1	DA	95	G
1	DA	102	G
1	DA	118	A
1	DA	119	A
1	DA	120	U
1	DA	129	C
1	DA	138	G
1	DA	148	C
1	DA	154	G
1	DA	155	C
1	DA	173	G
1	DA	174	C
1	DA	175	G
1	DA	196	A
1	DA	199	A
1	DA	205	G
1	DA	206	U
1	DA	214	G
1	DA	215	G
1	DA	216	A
1	DA	222	A
1	DA	225	A
1	DA	228	A
1	DA	229	A
1	DA	233	A
1	DA	248	G
1	DA	249	C
1	DA	250	G
1	DA	252	G
1	DA	270(K)	C
1	DA	270(L)	U
1	DA	270(M)	U
1	DA	270(N)	G
1	DA	270(O)	U
1	DA	271(C)	U
1	DA	271	G
1	DA	273(D)	C
1	DA	274	G
1	DA	275	G
1	DA	276	A

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Mol	Chain	Res	Type
1	DA	278	A
1	DA	279	C
1	DA	287	C
1	DA	289	A
1	DA	311	A
1	DA	324	A
1	DA	329	G
1	DA	330	A
1	DA	331	A
1	DA	332	A
1	DA	342	G
1	DA	352	G
1	DA	354	G
1	DA	356	G
1	DA	363	G
1	DA	363(E)	U
1	DA	363(F)	A
1	DA	385	C
1	DA	386	G
1	DA	394	A
1	DA	395	U
1	DA	405	U
1	DA	406	G
1	DA	411	G
1	DA	412	A
1	DA	428	A
1	DA	443	A
1	DA	444	C
1	DA	448	U
1	DA	454	A
1	DA	455	C
1	DA	457	A
1	DA	459	U
1	DA	470	A
1	DA	471	A
1	DA	481	G
1	DA	482	A
1	DA	501	A
1	DA	504	U
1	DA	505	A
1	DA	509	C
1	DA	512	G

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Mol	Chain	Res	Type
1	DA	529	A
1	DA	530	G
1	DA	531	C
1	DA	532	A
1	DA	533	G
1	DA	543	C
1	DA	547	A
1	DA	556	G
1	DA	563	G
1	DA	573	G
1	DA	575	A
1	DA	586	A
1	DA	593	G
1	DA	603	A
1	DA	607	U
1	DA	614	U
1	DA	617	G
1	DA	619	G
1	DA	621	A
1	DA	622	G
1	DA	627	A
1	DA	637	A
1	DA	645	C
1	DA	646	A
1	DA	647	G
1	DA	651	G
1	DA	654	A
1	DA	654(A)	A
1	DA	654(G)	C
1	DA	654(I)	C
1	DA	654(K)	C
1	DA	654(L)	G
1	DA	654(N)	G
1	DA	654(R)	C
1	DA	654(T)	A
1	DA	669	G
1	DA	670	A
1	DA	676	A
1	DA	686	G
1	DA	706	A
1	DA	707	G
1	DA	708	C

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Mol	Chain	Res	Type
1	DA	717	G
1	DA	730	C
1	DA	753	C
1	DA	758	C
1	DA	765	G
1	DA	776	G
1	DA	779	U
1	DA	782	A
1	DA	784	A
1	DA	785	G
1	DA	789	A
1	DA	792	G
1	DA	793	A
1	DA	805	G
1	DA	812	C
1	DA	819	A
1	DA	827	U
1	DA	828	U
1	DA	832	G
1	DA	845	G
1	DA	846	C
1	DA	857	C
1	DA	859	G
1	DA	869	G
1	DA	878	A
1	DA	880	G
1	DA	881	G
1	DA	882	G
1	DA	885	C
1	DA	887	A
1	DA	888	C
1	DA	889	C
1	DA	890	A
1	DA	894	C
1	DA	896	A
1	DA	897	C
1	DA	899	A
1	DA	900	A
1	DA	901	A
1	DA	906	G
1	DA	910	A
1	DA	914	C

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Mol	Chain	Res	Type
1	DA	917	A
1	DA	932	G
1	DA	933	A
1	DA	934	G
1	DA	938	G
1	DA	941	A
1	DA	945	A
1	DA	946	G
1	DA	960	A
1	DA	961	C
1	DA	974	G
1	DA	983	A
1	DA	990	A
1	DA	991	C
1	DA	996	A
1	DA	999	U
1	DA	1005	C
1	DA	1012	U
1	DA	1013	C
1	DA	1016	G
1	DA	1022	G
1	DA	1023	U
1	DA	1025	G
1	DA	1026	U
1	DA	1033	U
1	DA	1039	G
1	DA	1044	G
1	DA	1045	A
1	DA	1048	A
1	DA	1054	A
1	DA	1060	U
1	DA	1061	U
1	DA	1062	G
1	DA	1064	C
1	DA	1067	A
1	DA	1070	A
1	DA	1071	G
1	DA	1072	C
1	DA	1073	A
1	DA	1076	C
1	DA	1083	U
1	DA	1085	A

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Mol	Chain	Res	Type
1	DA	1086	A
1	DA	1087	G
1	DA	1088	A
1	DA	1090	U
1	DA	1095	A
1	DA	1096	A
1	DA	1098	A
1	DA	1099	G
1	DA	1105	U
1	DA	1111	A
1	DA	1112	G
1	DA	1115	G
1	DA	1122	G
1	DA	1129	A
1	DA	1130	U
1	DA	1135	C
1	DA	1136	G
1	DA	1139	G
1	DA	1142(A)	A
1	DA	1143	A
1	DA	1144	G
1	DA	1160	G
1	DA	1171	G
1	DA	1173	G
1	DA	1174	A
1	DA	1175	U
1	DA	1176	G
1	DA	1177	A
1	DA	1178	C
1	DA	1183	G
1	DA	1204	A
1	DA	1205	U
1	DA	1210	A
1	DA	1211	U
1	DA	1212	G
1	DA	1220	A
1	DA	1246	A
1	DA	1247	A
1	DA	1248	G
1	DA	1253	A
1	DA	1255	U
1	DA	1256	G

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Mol	Chain	Res	Type
1	DA	1271	G
1	DA	1272	A
1	DA	1273	U
1	DA	1284	A
1	DA	1298	C
1	DA	1300	U
1	DA	1301	A
1	DA	1313	U
1	DA	1314	C
1	DA	1319	G
1	DA	1325	G
1	DA	1329	U
1	DA	1332	G
1	DA	1345	C
1	DA	1349	A
1	DA	1352	U
1	DA	1359	A
1	DA	1360	A
1	DA	1365	A
1	DA	1368	G
1	DA	1379	A
1	DA	1384	A
1	DA	1385	G
1	DA	1389	G
1	DA	1391	U
1	DA	1406	U
1	DA	1407	C
1	DA	1416	G
1	DA	1417	C
1	DA	1419	A
1	DA	1420	U
1	DA	1421	G
1	DA	1428	C
1	DA	1437	C
1	DA	1443	G
1	DA	1444(A)	A
1	DA	1449	A
1	DA	1449(A)	G
1	DA	1455	G
1	DA	1458	C
1	DA	1460	A
1	DA	1461	G

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Mol	Chain	Res	Type
1	DA	1467	C
1	DA	1471	A
1	DA	1475	G
1	DA	1483	G
1	DA	1488	G
1	DA	1490	A
1	DA	1493	C
1	DA	1508	A
1	DA	1509	C
1	DA	1510	A
1	DA	1515	C
1	DA	1522	G
1	DA	1534	G
1	DA	1535	U
1	DA	1536	A
1	DA	1537	C
1	DA	1543	A
1	DA	1558	A
1	DA	1559	G
1	DA	1560	G
1	DA	1569	A
1	DA	1578	U
1	DA	1580	A
1	DA	1586	A
1	DA	1587	A
1	DA	1588	C
1	DA	1598	C
1	DA	1608	A
1	DA	1609	A
1	DA	1610	A
1	DA	1616	A
1	DA	1625	C
1	DA	1635	G
1	DA	1648	C
1	DA	1654	A
1	DA	1674	G
1	DA	1675	C
1	DA	1678	G
1	DA	1696	G
1	DA	1700	A
1	DA	1701	A
1	DA	1725	G

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Mol	Chain	Res	Type
1	DA	1728	G
1	DA	1729	A
1	DA	1731	G
1	DA	1743	G
1	DA	1756	G
1	DA	1758	G
1	DA	1761	C
1	DA	1762	A
1	DA	1763	G
1	DA	1764	G
1	DA	1773	A
1	DA	1780	A
1	DA	1781	C
1	DA	1787	A
1	DA	1791	A
1	DA	1800	C
1	DA	1801	G
1	DA	1802	A
1	DA	1812	A
1	DA	1816	G
1	DA	1820	U
1	DA	1828	G
1	DA	1829	A
1	DA	1834	U
1	DA	1835	G
1	DA	1839	G
1	DA	1847	A
1	DA	1858	G
1	DA	1869	G
1	DA	1878	G
1	DA	1888	G
1	DA	1889	A
1	DA	1900	A
1	DA	1906	G
1	DA	1909	C
1	DA	1916	A
1	DA	1917	U
1	DA	1929	G
1	DA	1930	G
1	DA	1936	A
1	DA	1938	A
1	DA	1955	U

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Mol	Chain	Res	Type
1	DA	1956	U
1	DA	1963	U
1	DA	1967	C
1	DA	1970	A
1	DA	1971	A
1	DA	1972	A
1	DA	1993	U
1	DA	1994	C
1	DA	2023	G
1	DA	2031	A
1	DA	2032	G
1	DA	2033	A
1	DA	2036	C
1	DA	2039	C
1	DA	2043	C
1	DA	2055	C
1	DA	2056	G
1	DA	2059	A
1	DA	2060	A
1	DA	2061	G
1	DA	2062	A
1	DA	2063	C
1	DA	2069	G
1	DA	2082	A
1	DA	2099	U
1	DA	2100	G
1	DA	2107	C
1	DA	2108	C
1	DA	2111	C
1	DA	2113	U
1	DA	2114	A
1	DA	2115	G
1	DA	2116	G
1	DA	2118	U
1	DA	2119	A
1	DA	2120	G
1	DA	2123	G
1	DA	2126	A
1	DA	2127	G
1	DA	2128	C
1	DA	2130	U
1	DA	2131	G

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Mol	Chain	Res	Type
1	DA	2132	U
1	DA	2133	G
1	DA	2135	A
1	DA	2136	C
1	DA	2145	C
1	DA	2146	C
1	DA	2147	G
1	DA	2148	G
1	DA	2158	A
1	DA	2164	C
1	DA	2166	G
1	DA	2167	U
1	DA	2168	G
1	DA	2169	A
1	DA	2170	A
1	DA	2171	A
1	DA	2172	U
1	DA	2173	A
1	DA	2174	C
1	DA	2189	U
1	DA	2190	G
1	DA	2192	G
1	DA	2193	G
1	DA	2198	A
1	DA	2210	G
1	DA	2211	G
1	DA	2212	A
1	DA	2213	U
1	DA	2215	G
1	DA	2225	A
1	DA	2226	C
1	DA	2238	G
1	DA	2239	G
1	DA	2245	U
1	DA	2246	G
1	DA	2272	U
1	DA	2273	A
1	DA	2275	C
1	DA	2276	G
1	DA	2278	A
1	DA	2283	C
1	DA	2287	A

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Mol	Chain	Res	Type
1	DA	2297	C
1	DA	2298	A
1	DA	2307	G
1	DA	2308	G
1	DA	2309	A
1	DA	2312	U
1	DA	2316	C
1	DA	2319	G
1	DA	2321	G
1	DA	2325	G
1	DA	2335	A
1	DA	2336	A
1	DA	2342	C
1	DA	2343	C
1	DA	2346	A
1	DA	2347	C
1	DA	2350	C
1	DA	2383	G
1	DA	2385	C
1	DA	2387	U
1	DA	2388	A
1	DA	2392	A
1	DA	2394	C
1	DA	2402	C
1	DA	2403	C
1	DA	2406	U
1	DA	2410	G
1	DA	2411	A
1	DA	2414	G
1	DA	2422	A
1	DA	2423	U
1	DA	2425	A
1	DA	2428	G
1	DA	2429	G
1	DA	2430	A
1	DA	2431	U
1	DA	2434	A
1	DA	2435	A
1	DA	2439	A
1	DA	2440	C
1	DA	2441	C
1	DA	2446	G

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Mol	Chain	Res	Type
1	DA	2448	A
1	DA	2467	C
1	DA	2468	G
1	DA	2469	A
1	DA	2472	G
1	DA	2476	A
1	DA	2482	G
1	DA	2484	G
1	DA	2502	G
1	DA	2505	G
1	DA	2506	U
1	DA	2518	A
1	DA	2523	G
1	DA	2525	G
1	DA	2529	G
1	DA	2532	G
1	DA	2543	G
1	DA	2554	U
1	DA	2566	A
1	DA	2567	G
1	DA	2569	G
1	DA	2570	G
1	DA	2572	A
1	DA	2573	C
1	DA	2574	G
1	DA	2585	U
1	DA	2601	C
1	DA	2602	A
1	DA	2603	G
1	DA	2609	U
1	DA	2611	U
1	DA	2612	C
1	DA	2615	U
1	DA	2621	A
1	DA	2629	A
1	DA	2630	G
1	DA	2636	U
1	DA	2665	A
1	DA	2673	G
1	DA	2689	U
1	DA	2690	C
1	DA	2691	C

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Mol	Chain	Res	Type
1	DA	2707	G
1	DA	2712(A)	A
1	DA	2713	A
1	DA	2714	G
1	DA	2726	U
1	DA	2733	A
1	DA	2748	A
1	DA	2750	A
1	DA	2751	G
1	DA	2752	C
1	DA	2754	U
1	DA	2758	A
1	DA	2761	G
1	DA	2762	G
1	DA	2764	A
1	DA	2765	A
1	DA	2769	C
1	DA	2777	G
1	DA	2778	A
1	DA	2779	U
1	DA	2780	G
1	DA	2790	A
1	DA	2791	C
1	DA	2797	U
1	DA	2798	C
1	DA	2799	A
1	DA	2807	G
1	DA	2818	G
1	DA	2820	A
1	DA	2821	A
1	DA	2833	G
1	DA	2834	G
1	DA	2835	A
1	DA	2845	G
1	DA	2860	A
1	DA	2872	G
1	DA	2873	A
1	DA	2880	C
1	DA	2892	A
1	DA	2894	G
1	DA	2896	C
1	DA	2897	U

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Mol	Chain	Res	Type
2	DB	0	A
2	DB	3	C
2	DB	8	U
2	DB	9	G
2	DB	13	A
2	DB	15	A
2	DB	16	G
2	DB	25	A
2	DB	26	A
2	DB	30	C
2	DB	32	C
2	DB	40	U
2	DB	41	U
2	DB	42	C
2	DB	44	G
2	DB	45	A
2	DB	46	A
2	DB	47	C
2	DB	73	A
2	DB	75	G
2	DB	81	G
2	DB	82	G
2	DB	88	C
2	DB	89	G
2	DB	89(A)	A
2	DB	90	C
2	DB	109	G
2	DB	112	G

All (192) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	74	A
1	AA	196	A
1	AA	222	A
1	AA	229	A
1	AA	270(M)	U
1	AA	271(B)	G
1	AA	271(C)	U
1	AA	404	C
1	AA	587	C
1	AA	654(S)	G

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Mol	Chain	Res	Type
1	AA	752	A
1	AA	880	G
1	AA	974(A)	C
1	AA	1022	G
1	AA	1026	U
1	AA	1060	U
1	AA	1069	A
1	AA	1085	A
1	AA	1130	U
1	AA	1175	U
1	AA	1178	C
1	AA	1210	A
1	AA	1312	U
1	AA	1379	A
1	AA	1416	G
1	AA	1427	A
1	AA	1558	A
1	AA	1608	A
1	AA	1653	G
1	AA	1694	C
1	AA	1799	G
1	AA	1819	A
1	AA	1899	G
1	AA	1937	A
1	AA	1955	U
1	AA	1992	G
1	AA	2157	G
1	AA	2211	G
1	AA	2318	G
1	AA	2346	A
1	AA	2402	C
1	AA	2422	A
1	AA	2439	A
1	AA	2481	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	5	U

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Mol	Chain	Res	Type
31	BA	31	G
31	BA	49	U
31	BA	50	A
31	BA	115	G
31	BA	119	A
31	BA	181	G
31	BA	244	U
31	BA	266	G
31	BA	389	A
31	BA	412	A
31	BA	429	U
31	BA	484	G
31	BA	509	A
31	BA	560	U
31	BA	687	A
31	BA	703	G
31	BA	748	C
31	BA	812	C
31	BA	871	U
31	BA	913	A
31	BA	974	A
31	BA	992	U
31	BA	1025	U
31	BA	1027	C
31	BA	1065	U
31	BA	1178	G
31	BA	1279	A
31	BA	1285	A
31	BA	1498	U
31	BA	1503	A
31	BA	1504	G
52	BB	18	G
52	BB	19	G
52	BB	20	U
52	BB	23	A
53	BC	1	C
53	BC	19	G
53	BC	48	U
53	BD	13	C
53	BD	18	C
31	CA	31	G
31	CA	89	U

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Mol	Chain	Res	Type
31	CA	115	G
31	CA	197	A
31	CA	201	C
31	CA	209	U
31	CA	243	A
31	CA	250	A
31	CA	251	G
31	CA	266	G
31	CA	328	C
31	CA	345	C
31	CA	412	A
31	CA	485	G
31	CA	509	A
31	CA	560	U
31	CA	632	A
31	CA	687	A
31	CA	748	C
31	CA	812	C
31	CA	913	A
31	CA	991	U
31	CA	992	U
31	CA	993	G
31	CA	1025	U
31	CA	1053	G
31	CA	1126	U
31	CA	1128	C
31	CA	1177	G
31	CA	1183	A
31	CA	1196	U
31	CA	1285	A
31	CA	1297	C
31	CA	1300	G
31	CA	1301	U
31	CA	1305	G
31	CA	1330	U
31	CA	1346	A
31	CA	1442	G
31	CA	1449	C
31	CA	1498	U
31	CA	1503	A
52	CB	21	A
52	CB	23	A

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Mol	Chain	Res	Type
52	CB	48	C
53	CC	19	G
53	CC	20	G
53	CC	48	U
53	CD	13	C
53	CD	48	U
1	DA	49	A
1	DA	71	A
1	DA	128	C
1	DA	196	A
1	DA	204	A
1	DA	205	G
1	DA	278	A
1	DA	653	A
1	DA	654(S)	G
1	DA	669	G
1	DA	752	A
1	DA	856	C
1	DA	877	U
1	DA	886	C
1	DA	888	C
1	DA	893	C
1	DA	945	A
1	DA	1022	G
1	DA	1085	A
1	DA	1089	G
1	DA	1171	G
1	DA	1210	A
1	DA	1300	U
1	DA	1420	U
1	DA	1427	A
1	DA	1460	A
1	DA	1558	A
1	DA	1653	G
1	DA	1819	A
1	DA	1955	U
1	DA	1992	G
1	DA	2126	A
1	DA	2135	A
1	DA	2166	G
1	DA	2191	G
1	DA	2210	G

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Mol	Chain	Res	Type
1	DA	2211	G
1	DA	2225	A
1	DA	2275	C
1	DA	2282	G
1	DA	2422	A
1	DA	2439	A
1	DA	2447	G
1	DA	2602	A
1	DA	2610	C
1	DA	2689	U
1	DA	2776	A
1	DA	2790	A
1	DA	2859	G
1	DA	2893	G

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

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1720 ligands modelled in this entry, 1720 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

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%)	-0.04	53 (1%) 67 47	38, 71, 209, 243	0
1	DA	2907/2912 (99%)	0.14	58 (1%) 65 44	49, 82, 229, 246	0
2	AB	122/122 (100%)	0.41	1 (0%) 82 65	73, 98, 119, 180	0
2	DB	122/122 (100%)	0.80	2 (1%) 70 49	87, 121, 145, 200	0
3	AD	272/272 (100%)	-0.21	2 (0%) 84 68	38, 61, 83, 107	0
3	DD	272/272 (100%)	-0.01	4 (1%) 72 52	45, 69, 94, 125	0
4	AE	205/205 (100%)	0.25	6 (2%) 53 32	44, 82, 133, 147	0
4	DE	205/205 (100%)	0.36	16 (7%) 19 10	51, 90, 144, 167	0
5	AF	203/208 (97%)	-0.05	2 (0%) 79 61	40, 74, 116, 133	0
5	DF	208/208 (100%)	0.32	8 (3%) 44 25	54, 96, 161, 183	0
6	AG	181/181 (100%)	0.32	3 (1%) 69 48	91, 110, 140, 149	0
6	DG	181/181 (100%)	0.60	10 (5%) 30 16	112, 138, 161, 171	0
7	AH	170/170 (100%)	0.55	11 (6%) 25 13	80, 110, 129, 154	0
7	DH	170/170 (100%)	1.00	23 (13%) 7 4	150, 196, 217, 230	0
8	AK	146/146 (100%)	0.57	7 (4%) 35 19	75, 124, 142, 149	0
8	DK	146/146 (100%)	0.59	13 (8%) 15 8	76, 127, 150, 154	0
9	AM	138/138 (100%)	0.29	6 (4%) 40 22	63, 86, 124, 137	0
9	DM	138/138 (100%)	0.36	5 (3%) 46 26	74, 105, 136, 148	0
10	AN	122/122 (100%)	-0.19	0 100 100	54, 74, 92, 103	0
10	DN	122/122 (100%)	0.01	1 (0%) 82 65	62, 84, 106, 123	0
11	AO	150/150 (100%)	0.45	10 (6%) 24 13	45, 82, 112, 166	0
11	DO	150/150 (100%)	0.50	8 (5%) 32 17	50, 100, 140, 180	0
12	AP	141/141 (100%)	0.48	10 (7%) 22 12	58, 85, 110, 134	0
12	DP	141/141 (100%)	0.73	18 (12%) 7 4	58, 101, 131, 154	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	A0	118/118 (100%)	0.02	1 (0%) 82 65	55, 80, 102, 114	0
13	D0	117/118 (99%)	0.16	1 (0%) 81 63	58, 78, 100, 119	0
14	AQ	111/111 (100%)	0.37	5 (4%) 38 20	75, 96, 120, 136	0
14	DQ	111/111 (100%)	0.62	8 (7%) 21 11	80, 118, 143, 165	0
15	AR	137/137 (100%)	0.26	5 (3%) 46 26	69, 89, 140, 171	0
15	DR	137/137 (100%)	0.36	6 (4%) 39 21	70, 94, 158, 186	0
16	A1	117/117 (100%)	0.14	5 (4%) 40 22	46, 74, 108, 149	0
16	D1	117/117 (100%)	0.25	2 (1%) 69 48	59, 95, 138, 157	0
17	A2	101/101 (100%)	0.28	5 (4%) 34 18	47, 96, 125, 142	0
17	D2	101/101 (100%)	0.67	6 (5%) 28 15	57, 121, 140, 151	0
18	AS	113/113 (100%)	-0.24	0 100 100	46, 70, 106, 155	0
18	DS	113/113 (100%)	-0.04	1 (0%) 81 63	61, 74, 107, 155	0
19	AT	92/92 (100%)	-0.07	1 (1%) 78 59	54, 68, 98, 112	0
19	DT	92/92 (100%)	0.26	4 (4%) 40 22	64, 86, 112, 128	0
20	AU	102/102 (100%)	0.63	10 (9%) 13 7	70, 97, 148, 168	0
20	DU	102/102 (100%)	0.86	16 (15%) 5 2	85, 113, 163, 184	0
21	AV	175/179 (97%)	0.61	12 (6%) 23 12	87, 125, 190, 195	0
21	DV	179/179 (100%)	0.79	16 (8%) 15 8	112, 156, 209, 216	0
22	A3	76/77 (98%)	-0.03	0 100 100	56, 75, 95, 135	0
22	D3	77/77 (100%)	0.21	2 (2%) 57 36	66, 88, 113, 152	0
23	AZ	97/97 (100%)	0.09	4 (4%) 41 23	50, 69, 126, 161	0
23	DZ	97/97 (100%)	0.29	5 (5%) 33 17	52, 78, 131, 156	0
24	AW	66/69 (95%)	0.12	2 (3%) 52 31	60, 77, 97, 134	0
24	DW	69/69 (100%)	0.40	3 (4%) 40 22	79, 105, 134, 172	0
25	AX	59/59 (100%)	0.01	0 100 100	63, 80, 112, 127	0
25	DX	59/59 (100%)	0.17	1 (1%) 69 48	74, 100, 138, 162	0
26	A4	66/66 (100%)	1.08	5 (7%) 20 11	117, 153, 177, 184	0
26	D4	63/66 (95%)	1.03	12 (19%) 3 1	143, 184, 193, 201	0
27	A5	59/59 (100%)	0.62	5 (8%) 16 9	43, 85, 167, 172	0
27	D5	59/59 (100%)	0.31	2 (3%) 48 28	55, 83, 177, 186	0
28	A6	45/45 (100%)	1.49	12 (26%) 1 1	107, 136, 159, 163	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	D6	45/45 (100%)	1.55	11 (24%) 2 1	121, 158, 176, 182	0
29	A7	49/49 (100%)	-0.38	0 100 100	38, 47, 95, 123	0
29	D7	49/49 (100%)	-0.36	0 100 100	49, 58, 115, 133	0
30	A8	61/61 (100%)	0.21	0 100 100	55, 68, 85, 108	0
30	D8	61/61 (100%)	0.67	8 (13%) 7 4	65, 81, 103, 120	0
31	BA	1506/1506 (100%)	0.47	64 (4%) 40 22	54, 103, 187, 244	0
31	CA	1506/1506 (100%)	0.58	85 (5%) 30 16	59, 109, 187, 245	0
32	BE	237/256 (92%)	0.77	20 (8%) 17 9	107, 142, 181, 191	0
32	CE	237/256 (92%)	0.96	34 (14%) 6 3	117, 158, 190, 208	0
33	BF	205/239 (85%)	0.35	5 (2%) 59 38	88, 118, 150, 162	0
33	CF	206/239 (86%)	0.97	26 (12%) 8 4	119, 143, 172, 183	0
34	BG	208/208 (100%)	0.62	11 (5%) 32 17	84, 110, 135, 149	0
34	CG	208/208 (100%)	0.52	19 (9%) 15 8	74, 101, 128, 142	0
35	BH	151/162 (93%)	0.16	0 100 100	79, 101, 129, 159	0
35	CH	151/162 (93%)	0.58	5 (3%) 49 29	90, 114, 139, 162	0
36	BI	101/101 (100%)	0.27	2 (1%) 65 44	77, 102, 122, 143	0
36	CI	101/101 (100%)	0.20	2 (1%) 65 44	73, 98, 121, 149	0
37	BJ	155/156 (99%)	0.44	4 (2%) 57 36	101, 122, 156, 167	0
37	CJ	155/156 (99%)	0.63	6 (3%) 43 24	105, 127, 158, 166	0
38	BK	138/138 (100%)	0.39	0 100 100	84, 108, 123, 132	0
38	CK	138/138 (100%)	0.44	3 (2%) 62 41	93, 118, 131, 141	0
39	BL	127/128 (99%)	0.77	13 (10%) 12 6	91, 141, 160, 169	0
39	CL	127/128 (99%)	0.78	7 (5%) 30 16	107, 151, 168, 172	0
40	BM	99/105 (94%)	0.68	4 (4%) 42 23	87, 140, 171, 176	0
40	CM	99/105 (94%)	0.88	6 (6%) 27 15	113, 154, 173, 176	0
41	BN	119/129 (92%)	0.25	2 (1%) 69 48	63, 101, 133, 162	0
41	CN	119/129 (92%)	0.42	5 (4%) 40 22	77, 103, 141, 166	0
42	BO	125/132 (94%)	-0.07	1 (0%) 82 65	61, 78, 116, 162	0
42	CO	125/132 (94%)	0.38	6 (4%) 35 19	70, 97, 130, 168	0
43	BP	116/126 (92%)	0.51	6 (5%) 33 17	87, 124, 144, 158	0
43	CP	117/126 (92%)	0.81	7 (5%) 27 15	105, 152, 166, 174	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	BQ	60/61 (98%)	0.57	3 (5%) 34 18	84, 107, 124, 134	0
44	CQ	60/61 (98%)	0.96	7 (11%) 9 5	120, 136, 153, 161	0
45	BR	88/89 (98%)	0.22	1 (1%) 78 59	73, 97, 120, 126	0
45	CR	88/89 (98%)	0.35	2 (2%) 61 39	75, 105, 129, 135	0
46	BS	84/88 (95%)	0.42	3 (3%) 46 26	98, 113, 141, 173	0
46	CS	84/88 (95%)	0.25	2 (2%) 59 38	79, 96, 122, 161	0
47	BT	100/105 (95%)	0.19	0 100 100	85, 105, 123, 137	0
47	CT	100/105 (95%)	0.32	2 (2%) 65 44	81, 104, 126, 143	0
48	BU	72/88 (81%)	0.22	0 100 100	75, 102, 140, 169	0
48	CU	72/88 (81%)	0.19	0 100 100	86, 109, 150, 165	0
49	BV	83/93 (89%)	0.76	9 (10%) 11 6	103, 129, 145, 156	0
49	CV	78/93 (83%)	0.81	3 (3%) 44 25	137, 160, 180, 183	0
50	BW	99/106 (93%)	0.64	7 (7%) 22 12	101, 123, 152, 162	0
50	CW	99/106 (93%)	0.47	7 (7%) 22 12	79, 110, 149, 164	0
51	BX	25/27 (92%)	0.42	0 100 100	93, 114, 133, 155	0
51	CX	25/27 (92%)	0.96	1 (4%) 42 23	110, 134, 152, 170	0
52	BB	87/87 (100%)	0.96	7 (8%) 18 10	83, 164, 192, 209	0
52	CB	87/87 (100%)	1.08	8 (9%) 14 8	99, 167, 196, 209	0
53	BC	77/77 (100%)	0.36	3 (3%) 43 24	66, 101, 139, 152	0
53	BD	77/77 (100%)	1.17	11 (14%) 6 3	75, 226, 239, 242	0
53	CC	77/77 (100%)	0.64	3 (3%) 43 24	77, 110, 148, 162	0
53	CD	77/77 (100%)	1.38	11 (14%) 6 3	78, 227, 239, 242	0
54	B1	10/10 (100%)	0.10	1 (10%) 12 6	73, 80, 132, 141	0
54	C1	10/10 (100%)	0.42	1 (10%) 12 6	81, 98, 145, 150	0
All	All	21111/21426 (98%)	0.35	888 (4%) 40 22	38, 99, 184, 246	0

All (888) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
34	BG	12	CYS	8.0
31	BA	1129	C	7.7
27	A5	2	ALA	7.4
12	AP	23	GLY	7.1
34	BG	26	CYS	7.0

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Mol	Chain	Res	Type	RSRZ
34	BG	21	LEU	6.3
34	CG	26	CYS	6.3
34	BG	31	CYS	6.0
19	DT	69	TYR	5.9
28	A6	27	LYS	5.5
34	CG	25	ARG	5.1
12	DP	23	GLY	5.0
44	CQ	2	ALA	5.0
32	CE	99	GLY	4.9
7	AH	3	ARG	4.8
37	CJ	153	HIS	4.8
49	BV	2	PRO	4.7
34	CG	12	CYS	4.6
1	AA	654(J)	A	4.6
34	BG	22	LYS	4.6
28	A6	23	THR	4.3
50	BW	53	LEU	4.3
14	AQ	110	LEU	4.2
31	BA	181	G	4.2
50	BW	106	ALA	4.2
12	AP	85	LYS	4.2
12	DP	86	GLY	4.2
51	CX	2	GLY	4.2
1	DA	2116	G	4.1
32	CE	107	THR	4.1
12	DP	140	ALA	4.1
31	CA	1129	C	4.1
32	BE	214	ILE	4.1
32	BE	77	ALA	4.1
15	DR	106	SER	4.0
34	CG	31	CYS	4.0
39	CL	64	THR	4.0
1	DA	2802	G	4.0
20	DU	47	LYS	4.0
20	DU	45	VAL	3.9
17	A2	45	THR	3.9
44	BQ	2	ALA	3.9
11	DO	64	LYS	3.9
34	CG	123	HIS	3.9
23	AZ	97	LEU	3.9
32	BE	222	ILE	3.9
28	A6	42	TRP	3.9

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Mol	Chain	Res	Type	RSRZ
20	DU	102	CYS	3.8
7	DH	126	PRO	3.8
6	AG	80	PHE	3.8
21	DV	117	LEU	3.8
28	D6	13	CYS	3.8
23	DZ	28	GLY	3.8
7	AH	5	GLY	3.8
8	DK	76	THR	3.8
8	AK	11	ASN	3.8
28	D6	46	HIS	3.8
30	D8	49	VAL	3.8
31	CA	1126	U	3.8
4	DE	72	VAL	3.7
20	DU	59	GLY	3.7
39	BL	8	GLY	3.7
30	D8	56	GLU	3.7
8	DK	110	ASP	3.7
32	CE	165	VAL	3.7
1	AA	2169	A	3.7
33	CF	124	ILE	3.7
21	DV	28	MET	3.7
54	C1	14	U	3.6
28	D6	23	THR	3.6
49	BV	10	PHE	3.6
12	DP	24	GLY	3.6
3	DD	44	ASN	3.6
21	AV	173	ALA	3.6
33	BF	107	GLN	3.6
1	DA	362	U	3.6
14	DQ	60	GLY	3.6
7	DH	155	SER	3.6
7	DH	162	ILE	3.6
26	A4	22	ILE	3.6
40	CM	94	VAL	3.6
40	CM	83	GLU	3.6
21	AV	99	TYR	3.6
42	CO	23	ALA	3.5
26	D4	24	THR	3.5
31	BA	190	G	3.5
31	BA	266	G	3.5
50	CW	70	SER	3.5
32	BE	26	PRO	3.5

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Mol	Chain	Res	Type	RSRZ
3	DD	30	GLU	3.5
53	BD	60	A	3.5
12	AP	20	ALA	3.5
31	CA	997	U	3.5
12	DP	30	GLY	3.5
23	AZ	98	LEU	3.5
28	A6	22	ALA	3.5
43	BP	5	ALA	3.5
31	BA	1027	C	3.5
9	DM	41	ASP	3.5
31	CA	1124	G	3.5
31	BA	1125	U	3.5
31	CA	82	U	3.4
53	BD	50	G	3.4
53	CD	19	G	3.4
43	CP	88	ARG	3.4
34	CG	28	SER	3.4
30	D8	34	TRP	3.4
26	A4	59	PHE	3.4
31	CA	978	A	3.4
21	DV	116	VAL	3.4
21	DV	76	LEU	3.4
31	BA	346	G	3.4
26	D4	63	TYR	3.4
39	BL	106	ALA	3.4
4	DE	77	ILE	3.4
4	AE	60	ASN	3.4
4	DE	59	VAL	3.4
6	DG	139	LEU	3.4
24	AW	46	GLN	3.4
8	DK	114	LEU	3.3
20	AU	91	GLU	3.3
4	DE	71	GLY	3.3
43	CP	100	GLY	3.3
5	DF	175	THR	3.3
45	BR	62	GLN	3.3
1	AA	274	G	3.3
31	CA	1053	G	3.3
27	D5	2	ALA	3.3
32	CE	197	VAL	3.3
7	AH	4	ILE	3.3
7	DH	66	GLY	3.3

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Mol	Chain	Res	Type	RSRZ
31	CA	1057	G	3.3
31	CA	1074	G	3.3
33	CF	64	VAL	3.3
5	AF	131	GLY	3.3
37	BJ	85	TYR	3.2
26	D4	59	PHE	3.2
33	CF	60	ALA	3.2
33	CF	163	ALA	3.2
3	AD	236	GLY	3.2
31	CA	1159	U	3.2
20	AU	55	TYR	3.2
31	BA	63	C	3.2
11	AO	71	VAL	3.2
41	CN	31	THR	3.2
8	AK	13	GLY	3.2
28	A6	26	ASN	3.2
42	CO	70	GLU	3.2
15	DR	105	LEU	3.2
23	DZ	97	LEU	3.2
28	A6	21	TYR	3.2
31	BA	1159	U	3.2
52	CB	17	U	3.2
1	AA	270(N)	G	3.2
31	CA	842	C	3.2
31	CA	1359	C	3.2
40	CM	17	ASP	3.2
20	DU	49	VAL	3.2
16	A1	118	GLY	3.2
31	CA	1177	G	3.2
32	CE	97	TRP	3.2
41	CN	129	SER	3.2
7	DH	48	GLY	3.1
15	AR	6	LEU	3.1
49	CV	34	TRP	3.1
20	AU	49	VAL	3.1
31	BA	1028(B)	C	3.1
31	BA	1124	G	3.1
31	CA	1276	G	3.1
32	CE	140	HIS	3.1
33	CF	87	LEU	3.1
36	CI	45	LEU	3.1
8	AK	12	LEU	3.1

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Mol	Chain	Res	Type	RSRZ
11	DO	52	GLU	3.1
7	AH	26	VAL	3.1
1	DA	363	G	3.1
31	BA	1304	G	3.1
5	DF	22	ALA	3.1
21	DV	118	GLN	3.1
31	CA	85	U	3.1
19	DT	94	GLY	3.1
30	D8	40	GLU	3.1
1	DA	1086	A	3.1
17	A2	36	PRO	3.1
20	AU	44	ILE	3.1
27	A5	46	CYS	3.1
38	CK	15	ASN	3.0
52	CB	22	G	3.0
1	AA	2118	U	3.0
44	CQ	60	SER	3.0
32	CE	148	TYR	3.0
1	DA	2748	A	3.0
9	DM	36	GLY	3.0
15	AR	4	GLY	3.0
31	CA	413	G	3.0
23	DZ	85	LEU	3.0
28	D6	34	LEU	3.0
12	AP	140	ALA	3.0
20	AU	4	LYS	3.0
52	CB	50	A	3.0
1	AA	270(K)	C	3.0
21	DV	27	VAL	3.0
34	CG	9	CYS	3.0
28	D6	22	ALA	3.0
9	AM	131	GLN	3.0
38	CK	125	ARG	2.9
31	CA	64	G	2.9
52	BB	18	G	2.9
46	BS	68	ASP	2.9
6	DG	23	PHE	2.9
36	CI	16	GLN	2.9
31	CA	1200	C	2.9
31	BA	5	U	2.9
34	CG	32	ALA	2.9
39	CL	4	TYR	2.9

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Mol	Chain	Res	Type	RSRZ
34	CG	23	GLY	2.9
1	AA	2121	G	2.9
33	CF	6	HIS	2.9
1	AA	1057	A	2.9
34	CG	21	LEU	2.9
20	DU	98	VAL	2.9
49	BV	67	VAL	2.9
1	AA	1534	G	2.9
1	DA	2115	G	2.9
31	CA	1134	G	2.9
33	BF	47	LEU	2.9
14	AQ	2	ALA	2.9
20	DU	77	PRO	2.9
28	A6	40	CYS	2.9
27	D5	50	GLY	2.9
21	AV	171	ILE	2.9
31	BA	1177	G	2.9
9	DM	131	GLN	2.8
4	DE	62	PRO	2.8
8	DK	125	GLU	2.8
8	DK	75	LEU	2.8
14	AQ	45	GLY	2.8
26	D4	17	GLY	2.8
50	CW	68	LYS	2.8
32	CE	138	LEU	2.8
31	BA	172	A	2.8
31	CA	632	A	2.8
7	DH	12	PRO	2.8
31	BA	380	G	2.8
31	BA	630	G	2.8
31	CA	86	U	2.8
31	CA	1182	G	2.8
53	CD	71	G	2.8
31	BA	1145	C	2.8
31	CA	1128	C	2.8
50	CW	83	ARG	2.8
53	BD	18	C	2.8
6	DG	108	ASN	2.8
1	DA	2176	A	2.8
30	D8	50	LEU	2.8
43	BP	106	ASN	2.8
31	BA	1323	G	2.8

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Mol	Chain	Res	Type	RSRZ
31	CA	631	G	2.8
31	CA	1331	G	2.8
41	CN	89	ALA	2.8
4	AE	37	ARG	2.8
5	DF	25	PRO	2.8
7	DH	52	VAL	2.8
33	CF	76	VAL	2.8
23	DZ	98	LEU	2.8
5	AF	206	ILE	2.8
14	DQ	42	ASP	2.8
31	CA	1223	C	2.8
31	CA	491	G	2.8
53	CD	4	G	2.8
8	DK	77	LEU	2.8
43	CP	4	ILE	2.8
11	AO	61	ARG	2.7
21	DV	83	PRO	2.7
34	CG	19	LEU	2.7
1	DA	1049	C	2.7
7	AH	2	SER	2.7
39	BL	18	PHE	2.7
43	CP	8	GLU	2.7
20	DU	58	GLY	2.7
33	CF	9	GLY	2.7
31	BA	1026	G	2.7
53	BD	7	G	2.7
21	DV	29	TYR	2.7
22	D3	12	ASN	2.7
39	BL	4	TYR	2.7
14	DQ	37	ALA	2.7
21	DV	50	GLN	2.7
14	DQ	32	LEU	2.7
50	CW	98	PRO	2.7
12	DP	65	PHE	2.7
26	D4	14	ILE	2.7
7	DH	32	GLU	2.7
32	BE	12	GLU	2.7
34	CG	163	GLU	2.7
47	CT	96	GLU	2.7
24	AW	4	SER	2.7
24	DW	4	SER	2.7
49	BV	84	GLY	2.7

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Mol	Chain	Res	Type	RSRZ
1	DA	1509	C	2.7
24	DW	52	ASP	2.7
33	BF	56	ASP	2.7
53	CC	1	C	2.7
15	DR	135	ALA	2.7
33	CF	117	ALA	2.7
44	CQ	49	HIS	2.7
7	AH	169	VAL	2.7
11	DO	106	LEU	2.7
31	BA	1127	G	2.7
31	CA	1131	G	2.7
32	CE	70	PHE	2.7
7	AH	40	GLU	2.7
28	D6	28	ARG	2.7
21	AV	153	SER	2.7
26	D4	2	LYS	2.7
28	D6	39	TYR	2.7
9	AM	96	GLU	2.7
31	BA	1178	G	2.7
31	CA	1185	G	2.7
39	BL	126	SER	2.7
40	CM	59	SER	2.7
12	DP	136	ALA	2.7
4	DE	116	VAL	2.7
6	DG	28	VAL	2.7
23	AZ	85	LEU	2.7
1	AA	654(T)	A	2.6
8	AK	106	GLY	2.6
43	BP	43	THR	2.6
17	D2	58	VAL	2.6
28	D6	31	PRO	2.6
31	CA	1117	G	2.6
30	D8	33	ASN	2.6
31	BA	793	U	2.6
15	DR	4	GLY	2.6
1	AA	1054	A	2.6
12	DP	139	GLU	2.6
52	CB	87	A	2.6
4	AE	59	VAL	2.6
11	AO	89	ALA	2.6
1	DA	2477	C	2.6
31	BA	1149	C	2.6

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Mol	Chain	Res	Type	RSRZ
31	CA	745	C	2.6
31	CA	1322	C	2.6
53	CD	72	C	2.6
28	A6	46	HIS	2.6
49	CV	74	PHE	2.6
34	BG	163	GLU	2.6
1	DA	2893	G	2.6
39	CL	50	LEU	2.6
40	CM	44	VAL	2.6
26	A4	37	SER	2.6
17	A2	101	GLY	2.6
3	DD	28	GLU	2.6
31	BA	1126	U	2.6
32	BE	217	ARG	2.6
1	DA	1728	G	2.6
4	DE	66	HIS	2.6
14	DQ	34	HIS	2.6
31	CA	1120	G	2.6
8	AK	134	PRO	2.6
31	CA	87	A	2.6
1	AA	34	C	2.6
7	DH	125	VAL	2.6
24	DW	25	VAL	2.6
32	BE	229	VAL	2.6
37	CJ	144	MET	2.5
12	DP	104	PHE	2.5
1	AA	1081	U	2.5
12	AP	86	GLY	2.5
1	AA	881	G	2.5
1	DA	2307	G	2.5
31	BA	493	G	2.5
32	CE	9	GLU	2.5
21	DV	170	THR	2.5
5	DF	7	TYR	2.5
22	D3	73	GLY	2.5
39	BL	3	GLN	2.5
12	DP	22	LYS	2.5
28	D6	27	LYS	2.5
7	DH	96	ALA	2.5
11	DO	9	ASN	2.5
1	DA	1143	A	2.5
1	DA	2149	G	2.5

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Mol	Chain	Res	Type	RSRZ
1	DA	2795	G	2.5
31	BA	73	G	2.5
31	BA	1032(A)	G	2.5
31	CA	1133	G	2.5
31	CA	1181	G	2.5
31	CA	1190	G	2.5
9	AM	130	HIS	2.5
32	BE	40	HIS	2.5
31	CA	1140	C	2.5
31	CA	1172	C	2.5
7	AH	155	SER	2.5
13	D0	117	VAL	2.5
25	DX	58	VAL	2.5
53	CD	61	U	2.5
35	CH	5	ASP	2.5
6	DG	161	THR	2.5
26	D4	44	THR	2.5
30	D8	53	PRO	2.5
5	DF	24	LEU	2.5
1	AA	2892	A	2.5
1	DA	1762	A	2.5
1	DA	2119	A	2.5
34	CG	8	VAL	2.5
1	AA	270(J)	G	2.5
4	DE	204	ALA	2.5
31	CA	1271	G	2.5
34	BG	32	ALA	2.5
32	CE	41	ILE	2.5
1	AA	2402	C	2.5
9	DM	48	MET	2.5
12	AP	135	ASP	2.5
12	DP	85	LYS	2.5
6	AG	3	LEU	2.5
20	DU	55	TYR	2.5
34	BG	20	TYR	2.5
5	DF	8	GLN	2.5
21	DV	173	ALA	2.4
1	DA	1045	A	2.4
1	DA	2114	A	2.4
20	DU	60	PHE	2.4
32	CE	17	PHE	2.4
9	AM	134	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
11	AO	15	ARG	2.4
14	DQ	33	LYS	2.4
33	CF	56	ASP	2.4
1	AA	275	G	2.4
1	AA	2125	G	2.4
1	AA	2791	C	2.4
1	DA	2185	C	2.4
1	DA	2659	G	2.4
31	BA	413	G	2.4
31	BA	1030	C	2.4
31	CA	95	G	2.4
31	CA	266	G	2.4
31	CA	1054	C	2.4
31	CA	1072	G	2.4
41	BN	31	THR	2.4
46	CS	6	LEU	2.4
52	CB	18	G	2.4
7	DH	141	VAL	2.4
11	AO	20	GLY	2.4
11	AO	143	GLY	2.4
12	DP	102	VAL	2.4
33	CF	28	GLN	2.4
16	A1	108	GLU	2.4
20	AU	99	CYS	2.4
21	AV	52	SER	2.4
20	AU	2	ARG	2.4
1	AA	2173	A	2.4
40	BM	92	THR	2.4
12	AP	24	GLY	2.4
27	A5	51	TYR	2.4
1	AA	1056	G	2.4
1	AA	1089	G	2.4
1	AA	2115	G	2.4
31	CA	992	U	2.4
34	CG	22	LYS	2.4
7	DH	98	LEU	2.4
32	CE	238	LEU	2.4
12	AP	21	THR	2.4
12	AP	88	GLY	2.4
33	CF	2	GLY	2.4
40	CM	93	GLY	2.4
8	DK	138	ILE	2.4

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Mol	Chain	Res	Type	RSRZ
21	DV	172	ALA	2.4
32	CE	188	ALA	2.4
31	BA	1183	A	2.4
33	CF	182	ILE	2.4
52	CB	69	A	2.4
53	CC	77	A	2.4
53	CD	60	A	2.4
11	DO	15	ARG	2.4
15	DR	118	ARG	2.4
1	AA	1100	C	2.4
7	DH	18	GLU	2.4
39	CL	19	LEU	2.4
52	CB	48	C	2.4
1	DA	883	G	2.4
1	DA	1091	G	2.4
1	DA	2211	G	2.4
20	AU	79	CYS	2.4
31	BA	476	G	2.4
31	BA	1331	G	2.4
31	CA	993	G	2.4
21	AV	175	VAL	2.4
39	BL	7	THR	2.4
42	BO	118	GLY	2.4
43	CP	16	ASP	2.4
32	CE	237	ALA	2.4
35	CH	47	LYS	2.4
11	DO	21	ARG	2.4
33	CF	10	PHE	2.4
6	AG	135	LEU	2.4
32	CE	187	LEU	2.4
31	CA	1503	A	2.4
52	BB	53	A	2.4
1	AA	270(M)	U	2.4
31	BA	997	U	2.4
1	DA	2111	C	2.3
1	DA	2136	C	2.3
8	AK	108	THR	2.3
31	CA	651	C	2.3
31	CA	1038	C	2.3
53	CD	17	C	2.3
8	DK	133	HIS	2.3
20	DU	33	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
32	CE	42	ILE	2.3
49	BV	6	LYS	2.3
26	A4	63	TYR	2.3
1	AA	882	G	2.3
1	AA	1173	G	2.3
1	AA	1718	G	2.3
31	CA	92	G	2.3
31	CA	1365	G	2.3
53	CD	7	G	2.3
8	DK	6	LEU	2.3
1	AA	2062	A	2.3
1	AA	2117	A	2.3
1	DA	2531	A	2.3
1	DA	2799	A	2.3
31	BA	59	A	2.3
31	BA	1093	A	2.3
31	CA	1016	A	2.3
49	BV	4	SER	2.3
8	DK	78	THR	2.3
15	AR	25	GLY	2.3
42	CO	25	LYS	2.3
16	A1	68	ALA	2.3
23	DZ	77	ALA	2.3
32	BE	34	ALA	2.3
28	A6	20	ASN	2.3
31	BA	85	U	2.3
1	DA	2164	C	2.3
6	DG	43	LEU	2.3
31	BA	1172	C	2.3
49	CV	15	LEU	2.3
1	AA	1728	G	2.3
1	DA	1731	G	2.3
2	AB	16	G	2.3
7	DH	99	VAL	2.3
37	CJ	133	GLY	2.3
11	AO	141	ALA	2.3
32	BE	19	HIS	2.3
32	CE	101	MET	2.3
49	BV	14	HIS	2.3
1	AA	2801	A	2.3
1	DA	1444(A)	A	2.3
1	DA	2801	A	2.3

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Mol	Chain	Res	Type	RSRZ
31	CA	974	A	2.3
53	CD	11	A	2.3
52	BB	66	U	2.3
4	DE	150	VAL	2.3
21	DV	175	VAL	2.3
53	BD	1	C	2.3
53	CD	26	C	2.3
11	AO	18	ARG	2.3
7	DH	5	GLY	2.3
8	AK	65	ALA	2.3
7	DH	71	LEU	2.3
1	AA	2211	G	2.3
1	DA	1	G	2.3
35	CH	45	PHE	2.3
4	AE	64	LYS	2.3
20	AU	98	VAL	2.3
31	CA	532	A	2.3
31	CA	1446	A	2.3
53	BC	77	A	2.3
31	CA	955	U	2.3
54	B1	14	U	2.3
33	CF	7	PRO	2.3
9	AM	57	ALA	2.3
12	DP	100	GLY	2.3
17	D2	48	GLY	2.3
23	AZ	77	ALA	2.3
26	A4	64	GLY	2.3
32	BE	85	ALA	2.3
32	BE	188	ALA	2.3
31	CA	1075	C	2.3
34	CG	33	MET	2.3
20	DU	19	LYS	2.3
11	AO	16	ARG	2.3
15	AR	93	ARG	2.3
5	DF	6	VAL	2.3
17	D2	79	VAL	2.3
32	CE	189	ASP	2.3
39	BL	108	VAL	2.3
50	BW	60	GLU	2.2
1	AA	2472	G	2.2
1	AA	2802	G	2.2
1	DA	2891	G	2.2

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Mol	Chain	Res	Type	RSRZ
31	BA	438	G	2.2
31	BA	1074	G	2.2
6	DG	142	PRO	2.2
11	DO	20	GLY	2.2
21	DV	109	ALA	2.2
32	BE	38	GLY	2.2
42	CO	92	GLY	2.2
31	BA	1319	A	2.2
31	CA	1056	U	2.2
32	CE	10	LEU	2.2
53	BC	61	U	2.2
1	AA	2178	C	2.2
4	DE	60	ASN	2.2
14	AQ	85	VAL	2.2
32	BE	104	ASN	2.2
21	DV	123	ASP	2.2
32	CE	211	ILE	2.2
4	DE	68	ALA	2.2
6	DG	34	LEU	2.2
19	DT	61	GLY	2.2
32	CE	115	LEU	2.2
36	BI	58	GLY	2.2
4	DE	12	THR	2.2
7	DH	70	THR	2.2
31	BA	1053	G	2.2
31	BA	1160	G	2.2
31	CA	1048	G	2.2
52	BB	54	G	2.2
53	BD	5	G	2.2
31	CA	84	U	2.2
37	CJ	79	ARG	2.2
31	BA	1004	A	2.2
38	CK	115	SER	2.2
37	CJ	141	VAL	2.2
44	BQ	18	VAL	2.2
35	CH	130	ASN	2.2
3	AD	237	GLU	2.2
1	DA	2539	C	2.2
31	CA	154	C	2.2
31	CA	1071	C	2.2
43	CP	18	ALA	2.2
50	BW	102	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
6	DG	178	PHE	2.2
32	CE	163	PHE	2.2
13	A0	37	THR	2.2
7	AH	50	VAL	2.2
1	DA	2122	U	2.2
40	BM	21	GLN	2.2
1	AA	101	G	2.2
31	BA	1151	A	2.2
31	CA	1127	G	2.2
34	BG	77	ASN	2.2
40	BM	64	GLU	2.2
52	CB	51	A	2.2
53	BD	6	G	2.2
9	DM	116	LEU	2.2
4	DE	205	ALA	2.2
12	DP	1	MET	2.2
30	D8	32	LEU	2.2
53	BD	59	A	2.2
10	DN	74	GLY	2.2
12	AP	19	GLY	2.2
21	AV	172	ALA	2.2
26	D4	36	CYS	2.2
39	BL	61	ALA	2.2
41	BN	102	GLY	2.2
19	AT	65	ARG	2.2
45	CR	77	ARG	2.2
46	CS	26	ARG	2.2
1	AA	270(P)	C	2.2
1	DA	1075	C	2.2
1	DA	2794	C	2.2
31	CA	466	C	2.2
31	CA	1195	C	2.2
33	CF	23	TYR	2.2
34	BG	8	VAL	2.2
20	DU	61	ILE	2.2
32	CE	235	SER	2.2
34	CG	42	GLN	2.2
8	DK	128	LEU	2.2
16	A1	95	LEU	2.2
34	CG	11	LEU	2.2
33	CF	58	GLU	2.2
44	CQ	48	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
42	CO	45	PRO	2.2
47	CT	100	LYS	2.2
1	AA	1535	U	2.2
1	DA	2892	A	2.2
1	DA	2308	G	2.2
31	BA	631	G	2.2
31	BA	1171	G	2.2
53	BD	2	G	2.2
7	DH	111	HIS	2.2
39	CL	27	THR	2.1
1	DA	654(M)	C	2.1
31	BA	1028(A)	C	2.1
31	CA	1397	C	2.1
7	DH	171	LEU	2.1
4	AE	204	ALA	2.1
15	DR	127	ALA	2.1
3	DD	29	PRO	2.1
12	DP	62	GLY	2.1
20	DU	103	GLY	2.1
39	CL	21	PRO	2.1
43	CP	24	GLY	2.1
15	AR	2	ASN	2.1
14	DQ	112	PHE	2.1
1	AA	1175	U	2.1
26	D4	16	CYS	2.1
21	AV	174	VAL	2.1
43	BP	117	VAL	2.1
40	BM	42	THR	2.1
7	DH	83	TYR	2.1
12	DP	66	ILE	2.1
36	BI	52	ILE	2.1
52	BB	87	A	2.1
28	A6	45	LYS	2.1
1	DA	361	G	2.1
31	BA	347	G	2.1
31	CA	971	G	2.1
31	CA	1274	G	2.1
33	CF	121	ALA	2.1
33	CF	187	ALA	2.1
35	CH	17	ALA	2.1
50	CW	86	ARG	2.1
17	D2	73	SER	2.1

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Mol	Chain	Res	Type	RSRZ
28	A6	12	GLU	2.1
1	AA	2477	C	2.1
1	DA	2137	C	2.1
9	AM	129	PRO	2.1
31	CA	1019	C	2.1
53	CC	17	C	2.1
16	A1	75	ASN	2.1
28	D6	26	ASN	2.1
7	DH	133	VAL	2.1
7	DH	144	VAL	2.1
21	AV	116	VAL	2.1
28	D6	42	TRP	2.1
32	CE	43	ASP	2.1
44	BQ	40	CYS	2.1
1	AA	1094	U	2.1
33	BF	193	TYR	2.1
33	CF	32	LEU	2.1
33	CF	77	ILE	2.1
43	BP	4	ILE	2.1
32	CE	63	MET	2.1
6	DG	58	GLN	2.1
16	D1	86	ALA	2.1
32	CE	62	ALA	2.1
1	AA	1086	A	2.1
1	DA	2632	A	2.1
5	DF	207	GLY	2.1
19	DT	38	GLU	2.1
31	CA	1152	A	2.1
31	CA	1248	A	2.1
49	BV	68	GLY	2.1
39	CL	71	SER	2.1
33	CF	3	ASN	2.1
1	AA	1055	G	2.1
1	AA	1099	G	2.1
1	AA	2307	G	2.1
1	DA	2372	G	2.1
17	D2	46	VAL	2.1
31	BA	1084	G	2.1
31	CA	438	G	2.1
52	BB	22	G	2.1
53	BC	19	G	2.1
1	DA	1005	C	2.1

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Mol	Chain	Res	Type	RSRZ
4	DE	159	HIS	2.1
32	BE	5	ILE	2.1
32	BE	162	ILE	2.1
11	AO	65	ARG	2.1
33	CF	21	ARG	2.1
34	CG	73	ARG	2.1
39	BL	9	ARG	2.1
43	BP	102	ARG	2.1
46	BS	42	ARG	2.1
16	D1	96	ALA	2.1
20	DU	100	ALA	2.1
50	CW	12	ALA	2.1
31	CA	991	U	2.1
31	CA	1135	U	2.1
31	CA	1205	U	2.1
31	CA	1313	U	2.1
46	BS	76	GLN	2.1
7	DH	154	PRO	2.1
8	DK	137	PRO	2.1
27	A5	34	PRO	2.1
28	A6	41	PRO	2.1
32	BE	35	GLU	2.1
32	CE	159	PRO	2.1
34	CG	137	SER	2.1
44	CQ	33	VAL	2.1
1	AA	1762	A	2.1
20	DU	101	LYS	2.1
31	BA	149	A	2.1
31	BA	171	A	2.1
31	BA	1005	A	2.1
31	CA	1261	A	2.1
52	BB	21	A	2.1
53	CD	45	A	2.1
14	DQ	54	LEU	2.1
21	AV	117	LEU	2.1
32	BE	41	ILE	2.1
32	CE	222	ILE	2.1
49	BV	5	LEU	2.1
8	DK	1	MET	2.1
1	AA	1537	C	2.1
1	DA	1537	C	2.1
1	DA	2145	C	2.1

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Mol	Chain	Res	Type	RSRZ
31	BA	1116	C	2.1
1	AA	2166	G	2.1
1	DA	2155	G	2.1
1	DA	2751	G	2.1
31	BA	1013	G	2.1
31	BA	1036	G	2.1
31	CA	1361	G	2.1
37	BJ	2	ALA	2.1
50	BW	95	ALA	2.1
34	BG	23	GLY	2.1
39	BL	115	GLY	2.1
31	BA	82	U	2.0
31	CA	5	U	2.0
31	CA	1062	U	2.0
31	CA	1125	U	2.0
32	BE	239	VAL	2.0
32	CE	74	LYS	2.0
45	CR	52	SER	2.0
7	AH	6	ARG	2.0
7	AH	152	ARG	2.0
18	DS	106	ILE	2.0
21	DV	53	ILE	2.0
32	BE	80	ILE	2.0
32	CE	5	ILE	2.0
32	CE	196	LEU	2.0
33	CF	8	ILE	2.0
33	CF	115	LEU	2.0
37	BJ	16	LEU	2.0
42	CO	24	LEU	2.0
20	AU	5	MET	2.0
26	D4	1	MET	2.0
1	DA	654(V)	A	2.0
21	AV	170	THR	2.0
39	BL	64	THR	2.0
50	BW	12	ALA	2.0
11	DO	142	GLY	2.0
32	CE	135	GLN	2.0
17	A2	43	GLU	2.0
1	AA	2374	C	2.0
31	BA	488	C	2.0
31	BA	1128	C	2.0
31	BA	1153	C	2.0

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Mol	Chain	Res	Type	RSRZ
31	BA	1162	C	2.0
50	BW	27	LYS	2.0
26	D4	56	VAL	2.0
1	DA	2	G	2.0
1	DA	2123	G	2.0
1	DA	2165	G	2.0
2	DB	19	G	2.0
2	DB	89	G	2.0
31	BA	1131	G	2.0
31	CA	80	G	2.0
39	BL	102	LEU	2.0
53	BD	47	G	2.0
37	CJ	42	ILE	2.0
1	AA	2213	U	2.0
1	DA	90	U	2.0
31	CA	1086	U	2.0
4	AE	187	ALA	2.0
4	DE	70	ALA	2.0
12	DP	28	ALA	2.0
17	D2	27	ALA	2.0
41	CN	128	ALA	2.0
44	CQ	59	ALA	2.0
21	AV	115	GLY	2.0
27	A5	54	GLY	2.0
33	CF	194	GLY	2.0
4	DE	35	GLN	2.0
12	DP	87	LYS	2.0
14	AQ	111	GLU	2.0
17	A2	46	VAL	2.0
26	D4	35	VAL	2.0
31	BA	87	A	2.0
31	BA	440	A	2.0
31	CA	1252	A	2.0
32	CE	239	VAL	2.0
33	BF	161	GLU	2.0
50	CW	93	GLU	2.0
37	BJ	4	ARG	2.0
44	CQ	29	ARG	2.0
41	CN	103	LEU	2.0
1	AA	1178	C	2.0
1	DA	2402	C	2.0
31	CA	1335	C	2.0

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Mol	Chain	Res	Type	RSRZ
53	BD	17	C	2.0

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

There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates (i)

There are no 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	1667	1/1	-0.08	0.22	144,144,144,144	0
55	MG	BA	1692	1/1	0.19	0.21	132,132,132,132	0
55	MG	BA	1742	1/1	0.25	0.22	133,133,133,133	0
55	MG	DA	3124	1/1	0.26	0.23	111,111,111,111	0
55	MG	CA	1704	1/1	0.30	0.29	129,129,129,129	0
55	MG	BA	1638	1/1	0.32	0.36	123,123,123,123	0
55	MG	BA	1784	1/1	0.35	0.50	106,106,106,106	0
55	MG	CA	1753	1/1	0.38	0.26	129,129,129,129	0
55	MG	BA	1758	1/1	0.42	0.15	110,110,110,110	0
55	MG	CA	1730	1/1	0.42	0.35	118,118,118,118	0
55	MG	DA	3010	1/1	0.43	0.25	121,121,121,121	0
55	MG	CA	1719	1/1	0.47	0.32	157,157,157,157	0
55	MG	DA	3272	1/1	0.48	0.50	117,117,117,117	0
55	MG	BA	1714	1/1	0.49	0.17	127,127,127,127	0
55	MG	DA	3526	1/1	0.49	0.21	92,92,92,92	0
55	MG	CA	1748	1/1	0.51	0.38	91,91,91,91	0
55	MG	BA	1713	1/1	0.51	0.28	107,107,107,107	0
55	MG	CA	1626	1/1	0.52	0.28	103,103,103,103	0
55	MG	CA	1802	1/1	0.52	0.27	107,107,107,107	0
55	MG	BA	1712	1/1	0.54	0.44	125,125,125,125	0
55	MG	AA	3406	1/1	0.57	0.33	99,99,99,99	0
55	MG	DB	206	1/1	0.58	0.37	122,122,122,122	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3318	1/1	0.59	0.32	120,120,120,120	0
55	MG	BA	1787	1/1	0.59	0.38	107,107,107,107	0
55	MG	AA	3370	1/1	0.59	0.28	103,103,103,103	0
55	MG	CA	1800	1/1	0.60	0.14	102,102,102,102	0
55	MG	DA	3497	1/1	0.60	0.17	62,62,62,62	0
55	MG	BB	105	1/1	0.61	0.27	115,115,115,115	0
55	MG	CA	1759	1/1	0.61	0.40	100,100,100,100	0
55	MG	BD	101	1/1	0.61	0.15	108,108,108,108	0
55	MG	AA	3076	1/1	0.61	0.25	109,109,109,109	0
55	MG	BA	1831	1/1	0.61	0.42	116,116,116,116	0
55	MG	CA	1659	1/1	0.62	0.34	111,111,111,111	0
55	MG	CA	1789	1/1	0.62	0.26	117,117,117,117	0
55	MG	CB	101	1/1	0.62	0.23	102,102,102,102	0
55	MG	BA	1829	1/1	0.63	0.28	102,102,102,102	0
55	MG	DA	3433	1/1	0.64	0.21	110,110,110,110	0
55	MG	BA	1751	1/1	0.64	0.40	122,122,122,122	0
55	MG	CA	1699	1/1	0.64	0.10	106,106,106,106	0
55	MG	CB	104	1/1	0.64	0.21	114,114,114,114	0
55	MG	DB	214	1/1	0.64	0.11	99,99,99,99	0
55	MG	AA	3518	1/1	0.65	0.59	71,71,71,71	0
55	MG	DA	3444	1/1	0.65	0.22	82,82,82,82	0
55	MG	BA	1609	1/1	0.65	0.31	84,84,84,84	0
55	MG	AA	3431	1/1	0.65	0.46	197,197,197,197	0
55	MG	BA	1686	1/1	0.65	0.36	94,94,94,94	0
55	MG	AA	3443	1/1	0.65	0.29	95,95,95,95	0
55	MG	DA	3352	1/1	0.66	0.27	77,77,77,77	0
55	MG	DA	3412	1/1	0.66	0.26	97,97,97,97	0
55	MG	CA	1747	1/1	0.66	0.49	114,114,114,114	0
55	MG	AA	3419	1/1	0.66	0.28	102,102,102,102	0
55	MG	DA	3473	1/1	0.67	0.25	103,103,103,103	0
55	MG	CA	1795	1/1	0.67	0.34	110,110,110,110	0
55	MG	DA	3163	1/1	0.67	0.12	97,97,97,97	0
55	MG	BA	1834	1/1	0.67	0.24	86,86,86,86	0
55	MG	DA	3343	1/1	0.67	0.25	145,145,145,145	0
55	MG	DA	3060	1/1	0.68	0.44	85,85,85,85	0
55	MG	AA	3230	1/1	0.68	0.30	112,112,112,112	0
55	MG	AA	3521	1/1	0.68	0.47	87,87,87,87	0
55	MG	DA	3248	1/1	0.68	0.23	98,98,98,98	0
55	MG	BA	1828	1/1	0.68	0.37	85,85,85,85	0
55	MG	CA	1734	1/1	0.68	0.29	92,92,92,92	0
55	MG	BA	1778	1/1	0.68	0.74	93,93,93,93	0
55	MG	DA	3382	1/1	0.68	0.14	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	1678	1/1	0.69	0.61	75,75,75,75	0
55	MG	DA	3038	1/1	0.69	0.15	102,102,102,102	0
55	MG	DA	3498	1/1	0.69	0.26	90,90,90,90	0
55	MG	BG	301	1/1	0.69	0.27	110,110,110,110	0
55	MG	DA	3377	1/1	0.69	0.32	92,92,92,92	0
55	MG	DA	3447	1/1	0.69	0.58	86,86,86,86	0
55	MG	DA	3045	1/1	0.70	0.38	79,79,79,79	0
55	MG	DA	3065	1/1	0.70	0.29	95,95,95,95	0
55	MG	CA	1806	1/1	0.71	0.31	115,115,115,115	0
55	MG	BA	1647	1/1	0.71	0.21	93,93,93,93	0
55	MG	AA	3378	1/1	0.71	0.25	86,86,86,86	0
55	MG	CC	108	1/1	0.71	0.26	110,110,110,110	0
55	MG	DA	3004	1/1	0.71	0.47	91,91,91,91	0
55	MG	AA	3450	1/1	0.71	0.35	84,84,84,84	0
55	MG	AA	3236	1/1	0.71	0.60	93,93,93,93	0
55	MG	CA	1657	1/1	0.71	0.32	94,94,94,94	0
55	MG	AA	3055	1/1	0.71	0.30	100,100,100,100	0
55	MG	CA	1762	1/1	0.71	0.22	105,105,105,105	0
55	MG	AE	304	1/1	0.71	0.53	85,85,85,85	0
55	MG	AA	3426	1/1	0.71	0.29	123,123,123,123	0
55	MG	BA	1718	1/1	0.71	0.24	104,104,104,104	0
55	MG	AA	3058	1/1	0.71	0.52	85,85,85,85	0
55	MG	BA	1621	1/1	0.72	0.25	116,116,116,116	0
55	MG	BA	1636	1/1	0.72	0.42	92,92,92,92	0
55	MG	DA	3438	1/1	0.72	0.80	102,102,102,102	0
55	MG	BB	106	1/1	0.72	0.21	120,120,120,120	0
55	MG	AA	3241	1/1	0.72	0.15	101,101,101,101	0
55	MG	DA	3285	1/1	0.72	0.21	109,109,109,109	0
55	MG	AA	3451	1/1	0.72	0.27	85,85,85,85	0
55	MG	AA	3573	1/1	0.72	0.21	47,47,47,47	0
55	MG	DA	3357	1/1	0.72	0.76	89,89,89,89	0
55	MG	AA	3505	1/1	0.72	0.26	103,103,103,103	0
55	MG	AA	3508	1/1	0.72	0.29	96,96,96,96	0
55	MG	DA	3429	1/1	0.73	0.13	94,94,94,94	0
55	MG	DA	3299	1/1	0.73	0.20	92,92,92,92	0
55	MG	DA	3312	1/1	0.73	0.20	101,101,101,101	0
55	MG	DA	3332	1/1	0.73	0.68	90,90,90,90	0
55	MG	AA	3251	1/1	0.73	0.23	97,97,97,97	0
55	MG	DA	3472	1/1	0.73	0.19	85,85,85,85	0
55	MG	BC	102	1/1	0.73	0.20	100,100,100,100	0
55	MG	AA	3411	1/1	0.73	0.34	84,84,84,84	0
55	MG	AA	3460	1/1	0.73	0.38	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	1804	1/1	0.73	0.26	80,80,80,80	0
55	MG	AA	3353	1/1	0.73	0.41	105,105,105,105	0
55	MG	DA	3422	1/1	0.73	0.16	96,96,96,96	0
55	MG	CA	1720	1/1	0.74	0.22	108,108,108,108	0
55	MG	BA	1810	1/1	0.74	0.28	110,110,110,110	0
55	MG	BA	1823	1/1	0.74	0.15	93,93,93,93	0
55	MG	BA	1611	1/1	0.74	0.33	97,97,97,97	0
55	MG	CC	101	1/1	0.74	0.25	110,110,110,110	0
55	MG	BA	1765	1/1	0.74	0.31	99,99,99,99	0
55	MG	AA	3465	1/1	0.74	0.28	88,88,88,88	0
55	MG	DA	3455	1/1	0.74	0.29	95,95,95,95	0
55	MG	BA	1674	1/1	0.74	0.39	113,113,113,113	0
55	MG	BA	1749	1/1	0.74	0.25	95,95,95,95	0
55	MG	BA	1798	1/1	0.74	0.37	89,89,89,89	0
55	MG	CA	1713	1/1	0.74	0.17	109,109,109,109	0
55	MG	AA	3188	1/1	0.74	0.25	72,72,72,72	0
55	MG	DA	3066	1/1	0.74	0.16	83,83,83,83	0
55	MG	DA	3410	1/1	0.74	0.32	99,99,99,99	0
55	MG	BA	1838	1/1	0.75	0.45	101,101,101,101	0
55	MG	CA	1634	1/1	0.75	0.43	90,90,90,90	0
55	MG	CA	1723	1/1	0.75	0.22	93,93,93,93	0
55	MG	CA	1727	1/1	0.75	0.27	84,84,84,84	0
55	MG	DA	3059	1/1	0.75	0.30	104,104,104,104	0
55	MG	BA	1841	1/1	0.75	0.22	105,105,105,105	0
55	MG	DA	3063	1/1	0.75	0.18	86,86,86,86	0
55	MG	AF	303	1/1	0.75	0.21	77,77,77,77	0
55	MG	AA	3346	1/1	0.75	0.10	98,98,98,98	0
55	MG	AA	3262	1/1	0.75	0.20	71,71,71,71	0
55	MG	DA	3502	1/1	0.75	0.15	96,96,96,96	0
55	MG	BA	1732	1/1	0.75	0.14	94,94,94,94	0
55	MG	DA	3244	1/1	0.75	0.26	106,106,106,106	0
55	MG	AA	3430	1/1	0.75	0.14	88,88,88,88	0
55	MG	BA	1735	1/1	0.76	0.33	80,80,80,80	0
55	MG	BA	1649	1/1	0.76	0.23	85,85,85,85	0
55	MG	DA	3340	1/1	0.76	0.26	107,107,107,107	0
55	MG	AA	3317	1/1	0.76	0.43	95,95,95,95	0
55	MG	AA	3249	1/1	0.76	0.18	92,92,92,92	0
55	MG	BA	1753	1/1	0.76	0.13	91,91,91,91	0
55	MG	DA	3054	1/1	0.76	0.19	105,105,105,105	0
55	MG	DA	3477	1/1	0.76	0.28	125,125,125,125	0
55	MG	DA	3253	1/1	0.76	0.20	83,83,83,83	0
55	MG	DA	3398	1/1	0.76	0.31	107,107,107,107	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3263	1/1	0.76	0.26	88,88,88,88	0
55	MG	CA	1631	1/1	0.76	0.38	95,95,95,95	0
55	MG	AA	3495	1/1	0.76	0.26	98,98,98,98	0
55	MG	AA	3388	1/1	0.76	0.32	119,119,119,119	0
55	MG	AA	3102	1/1	0.77	0.21	108,108,108,108	0
55	MG	DA	3404	1/1	0.77	0.44	91,91,91,91	0
55	MG	CA	1661	1/1	0.77	0.28	105,105,105,105	0
55	MG	CA	1662	1/1	0.77	0.37	102,102,102,102	0
55	MG	DA	3261	1/1	0.77	0.23	89,89,89,89	0
55	MG	AA	3380	1/1	0.77	0.30	84,84,84,84	0
55	MG	BA	1723	1/1	0.77	0.28	95,95,95,95	0
55	MG	DA	3278	1/1	0.77	0.20	116,116,116,116	0
55	MG	AA	3288	1/1	0.77	0.21	73,73,73,73	0
55	MG	CA	1773	1/1	0.77	0.15	115,115,115,115	0
55	MG	CA	1710	1/1	0.77	0.24	105,105,105,105	0
55	MG	BA	1698	1/1	0.77	0.20	73,73,73,73	0
55	MG	AA	3326	1/1	0.77	0.57	81,81,81,81	0
55	MG	DA	3342	1/1	0.77	0.26	96,96,96,96	0
55	MG	BA	1785	1/1	0.77	0.32	91,91,91,91	0
55	MG	BA	1745	1/1	0.77	0.23	90,90,90,90	0
55	MG	DA	3109	1/1	0.77	0.35	97,97,97,97	0
55	MG	DA	3372	1/1	0.77	0.50	108,108,108,108	0
55	MG	CA	1635	1/1	0.77	0.24	87,87,87,87	0
55	MG	DB	208	1/1	0.77	0.17	114,114,114,114	0
55	MG	DB	212	1/1	0.77	0.12	94,94,94,94	0
55	MG	AD	301	1/1	0.77	0.12	100,100,100,100	0
55	MG	DA	3225	1/1	0.78	0.26	64,64,64,64	0
55	MG	AA	3108	1/1	0.78	0.49	79,79,79,79	0
55	MG	AA	3223	1/1	0.78	0.19	72,72,72,72	0
55	MG	DA	3249	1/1	0.78	0.21	87,87,87,87	0
55	MG	AA	3560	1/1	0.78	0.21	84,84,84,84	0
55	MG	AA	3120	1/1	0.78	0.11	92,92,92,92	0
55	MG	CA	1665	1/1	0.78	0.29	101,101,101,101	0
55	MG	BA	1746	1/1	0.78	0.38	95,95,95,95	0
55	MG	CA	1687	1/1	0.78	0.12	99,99,99,99	0
55	MG	BA	1709	1/1	0.78	0.45	101,101,101,101	0
55	MG	CA	1763	1/1	0.78	0.30	96,96,96,96	0
55	MG	BA	1637	1/1	0.78	0.19	93,93,93,93	0
55	MG	DA	3324	1/1	0.78	0.60	89,89,89,89	0
55	MG	CA	1777	1/1	0.78	0.43	95,95,95,95	0
55	MG	DA	3478	1/1	0.78	0.20	99,99,99,99	0
55	MG	AB	216	1/1	0.78	0.35	112,112,112,112	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	CA	1630	1/1	0.78	0.12	76,76,76,76	0
55	MG	AA	3145	1/1	0.78	0.27	98,98,98,98	0
55	MG	DA	3520	1/1	0.78	0.19	99,99,99,99	0
55	MG	DA	3068	1/1	0.78	0.34	100,100,100,100	0
55	MG	DB	204	1/1	0.78	0.28	102,102,102,102	0
55	MG	DA	3076	1/1	0.78	0.14	96,96,96,96	0
55	MG	AA	3333	1/1	0.78	0.28	80,80,80,80	0
55	MG	AA	3509	1/1	0.78	0.43	80,80,80,80	0
55	MG	CH	201	1/1	0.78	0.31	96,96,96,96	0
55	MG	AA	3393	1/1	0.79	0.23	91,91,91,91	0
55	MG	BQ	101	1/1	0.79	0.32	99,99,99,99	0
55	MG	DA	3301	1/1	0.79	0.38	91,91,91,91	0
55	MG	DA	3309	1/1	0.79	0.29	69,69,69,69	0
55	MG	AA	3131	1/1	0.79	0.12	88,88,88,88	0
55	MG	BA	1741	1/1	0.79	0.24	124,124,124,124	0
55	MG	CB	102	1/1	0.79	0.15	94,94,94,94	0
55	MG	AB	203	1/1	0.79	0.32	70,70,70,70	0
55	MG	DA	3132	1/1	0.79	0.28	56,56,56,56	0
55	MG	CA	1749	1/1	0.79	0.17	106,106,106,106	0
55	MG	BC	104	1/1	0.79	0.24	106,106,106,106	0
55	MG	AA	3164	1/1	0.79	0.18	102,102,102,102	0
55	MG	BA	1628	1/1	0.79	0.47	86,86,86,86	0
55	MG	DA	3500	1/1	0.79	0.17	100,100,100,100	0
55	MG	BA	1833	1/1	0.79	0.18	88,88,88,88	0
55	MG	DA	3504	1/1	0.79	0.33	119,119,119,119	0
55	MG	AA	3132	1/1	0.79	0.46	89,89,89,89	0
55	MG	DA	3393	1/1	0.79	0.18	93,93,93,93	0
55	MG	DA	3397	1/1	0.79	0.61	150,150,150,150	0
55	MG	BA	1788	1/1	0.79	0.29	108,108,108,108	0
55	MG	AA	3446	1/1	0.79	0.26	93,93,93,93	0
55	MG	CA	1637	1/1	0.79	0.20	97,97,97,97	0
55	MG	CA	1643	1/1	0.79	0.24	97,97,97,97	0
55	MG	AA	3077	1/1	0.80	0.43	94,94,94,94	0
55	MG	AA	3349	1/1	0.80	0.17	79,79,79,79	0
55	MG	BA	1747	1/1	0.80	0.14	97,97,97,97	0
55	MG	AA	3623	1/1	0.80	0.28	107,107,107,107	0
55	MG	AA	3629	1/1	0.80	0.18	107,107,107,107	0
55	MG	DA	3440	1/1	0.80	0.15	92,92,92,92	0
55	MG	BA	1752	1/1	0.80	0.23	116,116,116,116	0
55	MG	BB	107	1/1	0.80	0.18	97,97,97,97	0
55	MG	DA	3453	1/1	0.80	0.46	94,94,94,94	0
55	MG	DA	3315	1/1	0.80	0.18	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3077	1/1	0.80	0.37	82,82,82,82	0
55	MG	CA	1742	1/1	0.80	0.27	93,93,93,93	0
55	MG	DA	3116	1/1	0.80	0.37	96,96,96,96	0
55	MG	BA	1726	1/1	0.80	0.41	98,98,98,98	0
55	MG	DA	3128	1/1	0.80	0.29	66,66,66,66	0
55	MG	BA	1695	1/1	0.80	0.19	101,101,101,101	0
55	MG	AA	3435	1/1	0.80	0.18	137,137,137,137	0
55	MG	CA	1685	1/1	0.80	0.32	85,85,85,85	0
55	MG	CA	1612	1/1	0.80	0.20	91,91,91,91	0
55	MG	DA	3505	1/1	0.80	0.11	87,87,87,87	0
55	MG	DA	3247	1/1	0.80	0.35	71,71,71,71	0
55	MG	BA	1775	1/1	0.80	0.20	100,100,100,100	0
55	MG	DA	3023	1/1	0.80	0.57	107,107,107,107	0
55	MG	BA	1648	1/1	0.80	0.23	77,77,77,77	0
55	MG	CA	1769	1/1	0.80	0.28	109,109,109,109	0
55	MG	DA	3405	1/1	0.80	0.39	97,97,97,97	0
55	MG	AA	3558	1/1	0.80	0.40	110,110,110,110	0
55	MG	BA	1690	1/1	0.81	0.18	109,109,109,109	0
55	MG	AA	3005	1/1	0.81	0.31	38,38,38,38	0
55	MG	AA	3434	1/1	0.81	0.17	65,65,65,65	0
55	MG	CA	1761	1/1	0.81	0.29	96,96,96,96	0
55	MG	DA	3046	1/1	0.81	0.24	60,60,60,60	0
55	MG	AA	3355	1/1	0.81	0.39	87,87,87,87	0
55	MG	DA	3431	1/1	0.81	0.26	93,93,93,93	0
55	MG	DA	3432	1/1	0.81	0.24	89,89,89,89	0
55	MG	DA	3056	1/1	0.81	0.22	100,100,100,100	0
55	MG	DA	3283	1/1	0.81	0.49	78,78,78,78	0
55	MG	BA	1707	1/1	0.81	0.33	94,94,94,94	0
55	MG	BA	1639	1/1	0.81	0.43	94,94,94,94	0
55	MG	CA	1616	1/1	0.81	0.22	90,90,90,90	0
55	MG	DA	3449	1/1	0.81	0.27	96,96,96,96	0
55	MG	CA	1621	1/1	0.81	0.30	84,84,84,84	0
55	MG	AA	3366	1/1	0.81	0.34	78,78,78,78	0
55	MG	CA	1715	1/1	0.81	0.34	99,99,99,99	0
55	MG	DA	3318	1/1	0.81	0.50	93,93,93,93	0
55	MG	AA	3600	1/1	0.81	0.44	79,79,79,79	0
55	MG	AA	3420	1/1	0.81	0.28	107,107,107,107	0
55	MG	DA	3084	1/1	0.81	0.20	87,87,87,87	0
55	MG	BA	1669	1/1	0.81	0.35	76,76,76,76	0
55	MG	AA	3215	1/1	0.81	0.29	55,55,55,55	0
55	MG	BA	1624	1/1	0.81	0.23	92,92,92,92	0
55	MG	DA	3125	1/1	0.81	0.22	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3360	1/1	0.81	0.35	96,96,96,96	0
55	MG	BA	1681	1/1	0.81	0.23	79,79,79,79	0
55	MG	BA	1683	1/1	0.81	0.11	112,112,112,112	0
55	MG	CA	1745	1/1	0.81	0.20	87,87,87,87	0
55	MG	DA	3390	1/1	0.81	0.12	81,81,81,81	0
55	MG	BB	104	1/1	0.81	0.11	103,103,103,103	0
55	MG	DB	210	1/1	0.81	0.35	76,76,76,76	0
55	MG	AA	3394	1/1	0.81	0.16	85,85,85,85	0
55	MG	DA	3007	1/1	0.81	0.14	75,75,75,75	0
55	MG	DA	3185	1/1	0.82	0.24	64,64,64,64	0
55	MG	CA	1606	1/1	0.82	0.24	96,96,96,96	0
55	MG	AA	3458	1/1	0.82	0.58	105,105,105,105	0
55	MG	CA	1614	1/1	0.82	0.40	95,95,95,95	0
55	MG	AA	3391	1/1	0.82	0.16	90,90,90,90	0
55	MG	BA	1819	1/1	0.82	0.30	107,107,107,107	0
55	MG	AA	3591	1/1	0.82	0.48	80,80,80,80	0
55	MG	DA	3425	1/1	0.82	0.16	88,88,88,88	0
55	MG	CA	1627	1/1	0.82	0.28	102,102,102,102	0
55	MG	CA	1744	1/1	0.82	0.18	70,70,70,70	0
55	MG	DA	3271	1/1	0.82	0.23	76,76,76,76	0
55	MG	DA	3025	1/1	0.82	0.17	111,111,111,111	0
55	MG	BA	1625	1/1	0.82	0.20	61,61,61,61	0
55	MG	DA	3439	1/1	0.82	0.07	92,92,92,92	0
55	MG	AA	3277	1/1	0.82	0.34	98,98,98,98	0
55	MG	AA	3620	1/1	0.82	0.40	99,99,99,99	0
55	MG	DA	3446	1/1	0.82	0.38	98,98,98,98	0
55	MG	DA	3294	1/1	0.82	0.33	93,93,93,93	0
55	MG	AA	3478	1/1	0.82	0.15	93,93,93,93	0
55	MG	AA	3032	1/1	0.82	0.20	60,60,60,60	0
55	MG	BA	1710	1/1	0.82	0.40	99,99,99,99	0
55	MG	AA	3301	1/1	0.82	0.25	113,113,113,113	0
55	MG	BA	1844	1/1	0.82	0.16	95,95,95,95	0
55	MG	AB	207	1/1	0.82	0.13	97,97,97,97	0
55	MG	BN	202	1/1	0.82	0.16	104,104,104,104	0
55	MG	AB	215	1/1	0.82	0.17	92,92,92,92	0
55	MG	AA	3095	1/1	0.82	0.20	75,75,75,75	0
55	MG	AA	3444	1/1	0.82	0.21	87,87,87,87	0
55	MG	AA	3352	1/1	0.82	0.15	91,91,91,91	0
55	MG	CA	1797	1/1	0.82	0.21	94,94,94,94	0
55	MG	AA	3387	1/1	0.82	0.26	102,102,102,102	0
55	MG	DA	3123	1/1	0.82	0.36	73,73,73,73	0
55	MG	DA	3525	1/1	0.82	0.32	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3366	1/1	0.82	0.17	97,97,97,97	0
55	MG	AA	3224	1/1	0.82	0.29	77,77,77,77	0
55	MG	DA	3376	1/1	0.82	0.12	88,88,88,88	0
55	MG	BA	1791	1/1	0.82	0.22	89,89,89,89	0
55	MG	CA	1809	1/1	0.82	0.22	100,100,100,100	0
55	MG	BC	105	1/1	0.82	0.27	95,95,95,95	0
55	MG	BA	1739	1/1	0.82	0.20	79,79,79,79	0
55	MG	CA	1754	1/1	0.83	0.17	84,84,84,84	0
55	MG	DA	3267	1/1	0.83	0.36	74,74,74,74	0
55	MG	AA	3367	1/1	0.83	0.24	101,101,101,101	0
55	MG	AA	3192	1/1	0.83	0.26	90,90,90,90	0
55	MG	AA	3343	1/1	0.83	0.38	94,94,94,94	0
55	MG	AA	3422	1/1	0.83	0.48	73,73,73,73	0
55	MG	AA	3466	1/1	0.83	0.42	106,106,106,106	0
55	MG	AA	3193	1/1	0.83	0.21	94,94,94,94	0
55	MG	AA	3486	1/1	0.83	0.35	96,96,96,96	0
55	MG	CA	1786	1/1	0.83	0.28	97,97,97,97	0
55	MG	DA	3302	1/1	0.83	0.40	91,91,91,91	0
55	MG	AA	3148	1/1	0.83	0.25	70,70,70,70	0
55	MG	AA	3496	1/1	0.83	0.36	91,91,91,91	0
55	MG	AA	3103	1/1	0.83	0.20	75,75,75,75	0
55	MG	AA	3066	1/1	0.83	0.29	103,103,103,103	0
55	MG	BA	1800	1/1	0.83	0.17	101,101,101,101	0
55	MG	DA	3466	1/1	0.83	0.28	78,78,78,78	0
55	MG	BA	1736	1/1	0.83	0.23	89,89,89,89	0
55	MG	AA	3254	1/1	0.83	0.30	97,97,97,97	0
55	MG	BA	1814	1/1	0.83	0.25	86,86,86,86	0
55	MG	AA	3364	1/1	0.83	0.34	89,89,89,89	0
55	MG	DA	3480	1/1	0.83	0.29	56,56,56,56	0
55	MG	AO	202	1/1	0.83	0.25	74,74,74,74	0
55	MG	CA	1622	1/1	0.83	0.33	74,74,74,74	0
55	MG	DA	3135	1/1	0.83	0.20	64,64,64,64	0
55	MG	BA	1824	1/1	0.83	0.53	97,97,97,97	0
55	MG	DA	3176	1/1	0.83	0.15	78,78,78,78	0
55	MG	BA	1744	1/1	0.83	0.26	93,93,93,93	0
55	MG	DA	3518	1/1	0.83	0.18	63,63,63,63	0
55	MG	BA	1684	1/1	0.83	0.18	100,100,100,100	0
55	MG	DA	3521	1/1	0.83	0.22	89,89,89,89	0
55	MG	DA	3236	1/1	0.83	0.25	57,57,57,57	0
55	MG	DA	3241	1/1	0.83	0.30	85,85,85,85	0
55	MG	AA	3398	1/1	0.83	0.22	91,91,91,91	0
55	MG	AA	3556	1/1	0.83	0.37	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3021	1/1	0.83	0.23	61,61,61,61	0
55	MG	BA	1616	1/1	0.83	0.15	92,92,92,92	0
55	MG	AA	3399	1/1	0.83	0.13	71,71,71,71	0
55	MG	AA	3258	1/1	0.83	0.21	80,80,80,80	0
55	MG	AA	3500	1/1	0.84	0.22	32,32,32,32	0
55	MG	DA	3388	1/1	0.84	0.13	85,85,85,85	0
55	MG	BA	1750	1/1	0.84	0.29	79,79,79,79	0
55	MG	DA	3183	1/1	0.84	0.21	59,59,59,59	0
55	MG	AB	201	1/1	0.84	0.16	91,91,91,91	0
55	MG	DA	3215	1/1	0.84	0.28	50,50,50,50	0
55	MG	CA	1623	1/1	0.84	0.13	98,98,98,98	0
55	MG	CC	107	1/1	0.84	0.48	102,102,102,102	0
55	MG	DA	3239	1/1	0.84	0.44	75,75,75,75	0
55	MG	CA	1625	1/1	0.84	0.23	85,85,85,85	0
55	MG	AA	3297	1/1	0.84	0.24	63,63,63,63	0
55	MG	AA	3071	1/1	0.84	0.24	99,99,99,99	0
55	MG	BA	1754	1/1	0.84	0.15	80,80,80,80	0
55	MG	AA	3179	1/1	0.84	0.46	70,70,70,70	0
55	MG	BA	1763	1/1	0.84	0.15	93,93,93,93	0
55	MG	AA	3257	1/1	0.84	0.15	84,84,84,84	0
55	MG	DA	3437	1/1	0.84	0.27	140,140,140,140	0
55	MG	DA	3033	1/1	0.84	0.24	94,94,94,94	0
55	MG	AA	3231	1/1	0.84	0.37	120,120,120,120	0
55	MG	CA	1638	1/1	0.84	0.34	93,93,93,93	0
55	MG	AA	3523	1/1	0.84	0.19	87,87,87,87	0
55	MG	DA	3276	1/1	0.84	0.16	86,86,86,86	0
55	MG	CA	1655	1/1	0.84	0.47	87,87,87,87	0
55	MG	BA	1729	1/1	0.84	0.15	85,85,85,85	0
55	MG	AA	3534	1/1	0.84	0.15	100,100,100,100	0
55	MG	AA	3202	1/1	0.84	0.32	55,55,55,55	0
55	MG	AA	3468	1/1	0.84	0.16	92,92,92,92	0
55	MG	CA	1770	1/1	0.84	0.14	75,75,75,75	0
55	MG	AA	3184	1/1	0.84	0.45	90,90,90,90	0
55	MG	DA	3308	1/1	0.84	0.28	95,95,95,95	0
55	MG	AA	3374	1/1	0.84	0.32	96,96,96,96	0
55	MG	CA	1782	1/1	0.84	0.26	104,104,104,104	0
55	MG	AA	3490	1/1	0.84	0.16	88,88,88,88	0
55	MG	DA	3078	1/1	0.84	0.15	87,87,87,87	0
55	MG	BA	1802	1/1	0.84	0.24	69,69,69,69	0
55	MG	DA	3325	1/1	0.84	0.24	70,70,70,70	0
55	MG	DA	3326	1/1	0.84	0.31	63,63,63,63	0
55	MG	DA	3103	1/1	0.84	0.13	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3334	1/1	0.84	0.32	95,95,95,95	0
55	MG	CA	1689	1/1	0.84	0.17	87,87,87,87	0
55	MG	CA	1694	1/1	0.84	0.40	94,94,94,94	0
55	MG	AA	3047	1/1	0.84	0.22	87,87,87,87	0
55	MG	AA	3295	1/1	0.84	0.29	70,70,70,70	0
55	MG	CA	1803	1/1	0.84	0.24	87,87,87,87	0
55	MG	AA	3497	1/1	0.84	0.24	105,105,105,105	0
55	MG	AA	3624	1/1	0.84	0.20	80,80,80,80	0
55	MG	DA	3133	1/1	0.84	0.40	77,77,77,77	0
55	MG	BA	1822	1/1	0.84	0.21	107,107,107,107	0
55	MG	DA	3136	1/1	0.84	0.18	97,97,97,97	0
55	MG	AA	3506	1/1	0.85	0.18	73,73,73,73	0
55	MG	AB	202	1/1	0.85	0.26	86,86,86,86	0
55	MG	DA	3365	1/1	0.85	0.34	89,89,89,89	0
55	MG	CA	1664	1/1	0.85	0.28	97,97,97,97	0
55	MG	AA	3182	1/1	0.85	0.30	77,77,77,77	0
55	MG	AA	3461	1/1	0.85	0.27	78,78,78,78	0
55	MG	AA	3463	1/1	0.85	0.46	108,108,108,108	0
55	MG	AA	3165	1/1	0.85	0.34	71,71,71,71	0
55	MG	AA	3310	1/1	0.85	0.18	74,74,74,74	0
55	MG	AA	3532	1/1	0.85	0.12	89,89,89,89	0
55	MG	DA	3392	1/1	0.85	0.18	106,106,106,106	0
55	MG	DA	3213	1/1	0.85	0.21	94,94,94,94	0
55	MG	DA	3396	1/1	0.85	0.19	89,89,89,89	0
55	MG	AA	3259	1/1	0.85	0.10	91,91,91,91	0
55	MG	AA	3477	1/1	0.85	0.11	65,65,65,65	0
55	MG	DA	3403	1/1	0.85	0.13	78,78,78,78	0
55	MG	DA	3227	1/1	0.85	0.27	81,81,81,81	0
55	MG	BA	1605	1/1	0.85	0.33	69,69,69,69	0
55	MG	BA	1702	1/1	0.85	0.31	98,98,98,98	0
55	MG	DA	3240	1/1	0.85	0.42	80,80,80,80	0
55	MG	BA	1770	1/1	0.85	0.29	106,106,106,106	0
55	MG	CA	1717	1/1	0.85	0.22	106,106,106,106	0
55	MG	DA	3426	1/1	0.85	0.20	94,94,94,94	0
55	MG	AA	3186	1/1	0.85	0.17	77,77,77,77	0
55	MG	AA	3559	1/1	0.85	0.11	93,93,93,93	0
55	MG	DA	3018	1/1	0.85	0.18	85,85,85,85	0
55	MG	AA	3324	1/1	0.85	0.16	60,60,60,60	0
55	MG	AA	3488	1/1	0.85	0.18	94,94,94,94	0
55	MG	BA	1622	1/1	0.85	0.23	84,84,84,84	0
55	MG	CA	1731	1/1	0.85	0.41	85,85,85,85	0
55	MG	AA	3264	1/1	0.85	0.29	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3442	1/1	0.85	0.36	96,96,96,96	0
55	MG	BA	1790	1/1	0.85	0.15	83,83,83,83	0
55	MG	CA	1617	1/1	0.85	0.33	91,91,91,91	0
55	MG	AA	3599	1/1	0.85	0.28	84,84,84,84	0
55	MG	BA	1626	1/1	0.85	0.29	76,76,76,76	0
55	MG	BA	1724	1/1	0.85	0.21	100,100,100,100	0
55	MG	AA	3274	1/1	0.85	0.27	77,77,77,77	0
55	MG	BA	1727	1/1	0.85	0.32	125,125,125,125	0
55	MG	DA	3469	1/1	0.85	0.19	64,64,64,64	0
55	MG	BA	1806	1/1	0.85	0.20	75,75,75,75	0
55	MG	BA	1728	1/1	0.85	0.08	90,90,90,90	0
55	MG	AA	3604	1/1	0.85	0.15	84,84,84,84	0
55	MG	BA	1818	1/1	0.85	0.15	82,82,82,82	0
55	MG	DA	3311	1/1	0.85	0.12	80,80,80,80	0
55	MG	DA	3485	1/1	0.85	0.23	40,40,40,40	0
55	MG	DA	3496	1/1	0.85	0.31	85,85,85,85	0
55	MG	AA	3618	1/1	0.85	0.25	76,76,76,76	0
55	MG	AA	3619	1/1	0.85	0.26	94,94,94,94	0
55	MG	AA	3447	1/1	0.85	0.10	51,51,51,51	0
55	MG	DA	3085	1/1	0.85	0.12	89,89,89,89	0
55	MG	DA	3086	1/1	0.85	0.18	98,98,98,98	0
55	MG	CA	1640	1/1	0.85	0.25	78,78,78,78	0
55	MG	DA	3331	1/1	0.85	0.12	76,76,76,76	0
55	MG	AA	3176	1/1	0.85	0.32	38,38,38,38	0
55	MG	DA	3115	1/1	0.85	0.30	76,76,76,76	0
55	MG	CA	1780	1/1	0.85	0.18	124,124,124,124	0
55	MG	AA	3190	1/1	0.85	0.51	83,83,83,83	0
55	MG	AA	3091	1/1	0.85	0.30	69,69,69,69	0
55	MG	DA	3346	1/1	0.85	0.42	83,83,83,83	0
55	MG	DB	207	1/1	0.85	0.23	98,98,98,98	0
55	MG	DA	3349	1/1	0.85	0.25	83,83,83,83	0
55	MG	BA	1654	1/1	0.85	0.34	74,74,74,74	0
55	MG	DA	3353	1/1	0.85	0.34	70,70,70,70	0
55	MG	DA	3355	1/1	0.85	0.29	93,93,93,93	0
55	MG	DU	201	1/1	0.85	0.24	72,72,72,72	0
55	MG	D3	101	1/1	0.85	0.25	68,68,68,68	0
55	MG	AA	3302	1/1	0.86	0.23	84,84,84,84	0
55	MG	BA	1759	1/1	0.86	0.23	97,97,97,97	0
55	MG	DA	3137	1/1	0.86	0.17	78,78,78,78	0
55	MG	DA	3156	1/1	0.86	0.71	62,62,62,62	0
55	MG	AA	3529	1/1	0.86	0.28	78,78,78,78	0
55	MG	DA	3167	1/1	0.86	0.12	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	BA	1764	1/1	0.86	0.29	93,93,93,93	0
55	MG	CA	1680	1/1	0.86	0.30	68,68,68,68	0
55	MG	AA	3630	1/1	0.86	0.21	92,92,92,92	0
55	MG	DA	3192	1/1	0.86	0.22	51,51,51,51	0
55	MG	DA	3204	1/1	0.86	0.21	50,50,50,50	0
55	MG	BA	1766	1/1	0.86	0.20	116,116,116,116	0
55	MG	BB	101	1/1	0.86	0.12	88,88,88,88	0
55	MG	BA	1767	1/1	0.86	0.23	101,101,101,101	0
55	MG	AA	3307	1/1	0.86	0.47	75,75,75,75	0
55	MG	CA	1702	1/1	0.86	0.28	74,74,74,74	0
55	MG	CA	1703	1/1	0.86	0.10	88,88,88,88	0
55	MG	CC	106	1/1	0.86	0.27	115,115,115,115	0
55	MG	DA	3423	1/1	0.86	0.37	102,102,102,102	0
55	MG	AA	3272	1/1	0.86	0.23	86,86,86,86	0
55	MG	CA	1707	1/1	0.86	0.55	88,88,88,88	0
55	MG	DA	3427	1/1	0.86	0.20	78,78,78,78	0
55	MG	AA	3555	1/1	0.86	0.17	68,68,68,68	0
55	MG	DA	3430	1/1	0.86	0.26	102,102,102,102	0
55	MG	AA	3314	1/1	0.86	0.16	82,82,82,82	0
55	MG	AB	211	1/1	0.86	0.23	105,105,105,105	0
55	MG	AA	3363	1/1	0.86	0.17	80,80,80,80	0
55	MG	AA	3078	1/1	0.86	0.14	84,84,84,84	0
55	MG	BA	1665	1/1	0.86	0.28	66,66,66,66	0
55	MG	AA	3237	1/1	0.86	0.15	81,81,81,81	0
55	MG	CA	1724	1/1	0.86	0.31	88,88,88,88	0
55	MG	CA	1613	1/1	0.86	0.40	84,84,84,84	0
55	MG	DA	3274	1/1	0.86	0.57	80,80,80,80	0
55	MG	BA	1794	1/1	0.86	0.49	94,94,94,94	0
55	MG	BA	1672	1/1	0.86	0.25	104,104,104,104	0
55	MG	AA	3561	1/1	0.86	0.18	88,88,88,88	0
55	MG	DA	3055	1/1	0.86	0.39	80,80,80,80	0
55	MG	BA	1737	1/1	0.86	0.13	102,102,102,102	0
55	MG	DA	3057	1/1	0.86	0.31	81,81,81,81	0
55	MG	BA	1677	1/1	0.86	0.34	92,92,92,92	0
55	MG	AA	3323	1/1	0.86	0.55	93,93,93,93	0
55	MG	DA	3062	1/1	0.86	0.11	85,85,85,85	0
55	MG	BA	1808	1/1	0.86	0.29	69,69,69,69	0
55	MG	AA	3414	1/1	0.86	0.14	68,68,68,68	0
55	MG	BA	1604	1/1	0.86	0.32	77,77,77,77	0
55	MG	DA	3481	1/1	0.86	0.32	45,45,45,45	0
55	MG	AA	3452	1/1	0.86	0.33	95,95,95,95	0
55	MG	DA	3489	1/1	0.86	0.41	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3415	1/1	0.86	0.23	86,86,86,86	0
55	MG	CA	1755	1/1	0.86	0.53	94,94,94,94	0
55	MG	CA	1756	1/1	0.86	0.21	93,93,93,93	0
55	MG	AA	3017	1/1	0.86	0.24	59,59,59,59	0
55	MG	DA	3328	1/1	0.86	0.23	83,83,83,83	0
55	MG	BA	1615	1/1	0.86	0.27	104,104,104,104	0
55	MG	AA	3242	1/1	0.86	0.29	58,58,58,58	0
55	MG	DA	3516	1/1	0.86	0.18	60,60,60,60	0
55	MG	DA	3091	1/1	0.86	0.38	52,52,52,52	0
55	MG	BA	1825	1/1	0.86	0.22	104,104,104,104	0
55	MG	AA	3122	1/1	0.86	0.24	87,87,87,87	0
55	MG	DA	3522	1/1	0.86	0.36	85,85,85,85	0
55	MG	AA	3298	1/1	0.86	0.28	80,80,80,80	0
55	MG	DA	3344	1/1	0.86	0.46	93,93,93,93	0
55	MG	CA	1654	1/1	0.86	0.20	88,88,88,88	0
55	MG	AA	3621	1/1	0.86	0.16	100,100,100,100	0
55	MG	AA	3094	1/1	0.86	0.16	81,81,81,81	0
55	MG	BA	1755	1/1	0.86	0.14	106,106,106,106	0
55	MG	CA	1785	1/1	0.86	0.25	81,81,81,81	0
55	MG	DA	3131	1/1	0.86	0.17	93,93,93,93	0
55	MG	CA	1660	1/1	0.86	0.17	76,76,76,76	0
55	MG	DA	3362	1/1	0.86	0.18	86,86,86,86	0
55	MG	BA	1835	1/1	0.86	0.40	82,82,82,82	0
55	MG	CA	1609	1/1	0.87	0.25	108,108,108,108	0
55	MG	DA	3003	1/1	0.87	0.22	70,70,70,70	0
55	MG	BA	1731	1/1	0.87	0.29	67,67,67,67	0
55	MG	DA	3198	1/1	0.87	0.27	68,68,68,68	0
55	MG	AA	3181	1/1	0.87	0.21	92,92,92,92	0
55	MG	BA	1799	1/1	0.87	0.27	85,85,85,85	0
55	MG	DA	3391	1/1	0.87	0.24	86,86,86,86	0
55	MG	BA	1734	1/1	0.87	0.29	96,96,96,96	0
55	MG	DA	3218	1/1	0.87	0.46	75,75,75,75	0
55	MG	AA	3535	1/1	0.87	0.16	82,82,82,82	0
55	MG	AA	3541	1/1	0.87	0.12	94,94,94,94	0
55	MG	AA	3101	1/1	0.87	0.08	69,69,69,69	0
55	MG	AB	210	1/1	0.87	0.46	71,71,71,71	0
55	MG	DA	3036	1/1	0.87	0.49	87,87,87,87	0
55	MG	AA	3235	1/1	0.87	0.21	86,86,86,86	0
55	MG	DA	3408	1/1	0.87	0.16	61,61,61,61	0
55	MG	DA	3243	1/1	0.87	0.17	83,83,83,83	0
55	MG	DA	3043	1/1	0.87	0.21	81,81,81,81	0
55	MG	DA	3414	1/1	0.87	0.30	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3246	1/1	0.87	0.34	66,66,66,66	0
55	MG	AA	3046	1/1	0.87	0.21	54,54,54,54	0
55	MG	AA	3493	1/1	0.87	0.26	89,89,89,89	0
55	MG	AA	3208	1/1	0.87	0.18	66,66,66,66	0
55	MG	AA	3345	1/1	0.87	0.16	78,78,78,78	0
55	MG	DA	3256	1/1	0.87	0.30	82,82,82,82	0
55	MG	DA	3257	1/1	0.87	0.15	75,75,75,75	0
55	MG	AA	3568	1/1	0.87	0.24	29,29,29,29	0
55	MG	AA	3570	1/1	0.87	0.16	49,49,49,49	0
55	MG	BA	1601	1/1	0.87	0.48	65,65,65,65	0
55	MG	DA	3435	1/1	0.87	0.23	104,104,104,104	0
55	MG	AA	3418	1/1	0.87	0.50	85,85,85,85	0
55	MG	AA	3498	1/1	0.87	0.28	86,86,86,86	0
55	MG	DA	3273	1/1	0.87	0.11	108,108,108,108	0
55	MG	BA	1607	1/1	0.87	0.12	87,87,87,87	0
55	MG	DA	3275	1/1	0.87	0.35	81,81,81,81	0
55	MG	CA	1650	1/1	0.87	0.22	90,90,90,90	0
55	MG	CA	1653	1/1	0.87	0.33	73,73,73,73	0
55	MG	DA	3281	1/1	0.87	0.18	75,75,75,75	0
55	MG	AA	3593	1/1	0.87	0.29	90,90,90,90	0
55	MG	DA	3070	1/1	0.87	0.31	73,73,73,73	0
55	MG	DA	3288	1/1	0.87	0.21	82,82,82,82	0
55	MG	AA	3596	1/1	0.87	0.28	87,87,87,87	0
55	MG	BA	1700	1/1	0.87	0.26	97,97,97,97	0
55	MG	AA	3303	1/1	0.87	0.20	91,91,91,91	0
55	MG	DA	3082	1/1	0.87	0.24	83,83,83,83	0
55	MG	DA	3474	1/1	0.87	0.29	103,103,103,103	0
55	MG	BA	1762	1/1	0.87	0.23	85,85,85,85	0
55	MG	BA	1705	1/1	0.87	0.39	70,70,70,70	0
55	MG	AA	3171	1/1	0.87	0.14	81,81,81,81	0
55	MG	AA	3043	1/1	0.87	0.21	83,83,83,83	0
55	MG	AA	3424	1/1	0.87	0.26	77,77,77,77	0
55	MG	DA	3107	1/1	0.87	0.32	89,89,89,89	0
55	MG	DA	3321	1/1	0.87	0.24	81,81,81,81	0
55	MG	AA	3390	1/1	0.87	0.20	73,73,73,73	0
55	MG	DA	3111	1/1	0.87	0.38	67,67,67,67	0
55	MG	BB	102	1/1	0.87	0.18	86,86,86,86	0
55	MG	CA	1682	1/1	0.87	0.28	97,97,97,97	0
55	MG	DA	3120	1/1	0.87	0.30	78,78,78,78	0
55	MG	AA	3512	1/1	0.87	0.46	71,71,71,71	0
55	MG	DA	3507	1/1	0.87	0.25	88,88,88,88	0
55	MG	AA	3428	1/1	0.87	0.24	106,106,106,106	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3246	1/1	0.87	0.37	73,73,73,73	0
55	MG	DA	3519	1/1	0.87	0.29	114,114,114,114	0
55	MG	CA	1690	1/1	0.87	0.33	74,74,74,74	0
55	MG	CA	1691	1/1	0.87	0.23	69,69,69,69	0
55	MG	BA	1631	1/1	0.87	0.11	67,67,67,67	0
55	MG	CG	303	1/1	0.87	0.17	100,100,100,100	0
55	MG	DA	3348	1/1	0.87	0.23	77,77,77,77	0
55	MG	DA	3527	1/1	0.87	0.28	96,96,96,96	0
55	MG	BB	108	1/1	0.87	0.24	106,106,106,106	0
55	MG	AA	3126	1/1	0.87	0.17	63,63,63,63	0
55	MG	AA	3627	1/1	0.87	0.28	108,108,108,108	0
55	MG	DA	3142	1/1	0.87	0.27	51,51,51,51	0
55	MG	DA	3151	1/1	0.87	0.27	75,75,75,75	0
55	MG	AA	3471	1/1	0.87	0.16	69,69,69,69	0
55	MG	DB	213	1/1	0.87	0.13	90,90,90,90	0
55	MG	AA	3226	1/1	0.87	0.29	85,85,85,85	0
55	MG	CA	1601	1/1	0.87	0.27	95,95,95,95	0
55	MG	BA	1640	1/1	0.87	0.28	80,80,80,80	0
55	MG	DA	3268	1/1	0.88	0.20	82,82,82,82	0
55	MG	DA	3101	1/1	0.88	0.40	57,57,57,57	0
55	MG	DA	3407	1/1	0.88	0.12	80,80,80,80	0
55	MG	AA	3287	1/1	0.88	0.23	88,88,88,88	0
55	MG	CA	1714	1/1	0.88	0.16	115,115,115,115	0
55	MG	AA	3312	1/1	0.88	0.13	88,88,88,88	0
55	MG	AA	3233	1/1	0.88	0.10	74,74,74,74	0
55	MG	DA	3417	1/1	0.88	0.26	83,83,83,83	0
55	MG	DA	3114	1/1	0.88	0.53	70,70,70,70	0
55	MG	AA	3554	1/1	0.88	0.18	86,86,86,86	0
55	MG	AA	3360	1/1	0.88	0.27	89,89,89,89	0
55	MG	DA	3117	1/1	0.88	0.22	68,68,68,68	0
55	MG	DA	3284	1/1	0.88	0.18	81,81,81,81	0
55	MG	AA	3294	1/1	0.88	0.46	99,99,99,99	0
55	MG	DA	3121	1/1	0.88	0.20	99,99,99,99	0
55	MG	AA	3261	1/1	0.88	0.16	30,30,30,30	0
55	MG	AA	3013	1/1	0.88	0.21	49,49,49,49	0
55	MG	AA	3449	1/1	0.88	0.14	76,76,76,76	0
55	MG	AB	208	1/1	0.88	0.22	87,87,87,87	0
55	MG	DA	3304	1/1	0.88	0.24	106,106,106,106	0
55	MG	DA	3307	1/1	0.88	0.34	77,77,77,77	0
55	MG	AA	3049	1/1	0.88	0.20	106,106,106,106	0
55	MG	CA	1736	1/1	0.88	0.23	90,90,90,90	0
55	MG	AA	3369	1/1	0.88	0.25	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	CA	1647	1/1	0.88	0.32	65,65,65,65	0
55	MG	BA	1768	1/1	0.88	0.17	86,86,86,86	0
55	MG	BA	1769	1/1	0.88	0.34	86,86,86,86	0
55	MG	BA	1643	1/1	0.88	0.19	80,80,80,80	0
55	MG	DA	3451	1/1	0.88	0.23	65,65,65,65	0
55	MG	AB	214	1/1	0.88	0.05	88,88,88,88	0
55	MG	AA	3299	1/1	0.88	0.23	94,94,94,94	0
55	MG	AA	3453	1/1	0.88	0.20	47,47,47,47	0
55	MG	DA	3164	1/1	0.88	0.21	65,65,65,65	0
55	MG	DA	3329	1/1	0.88	0.27	80,80,80,80	0
55	MG	DA	3041	1/1	0.88	0.20	91,91,91,91	0
55	MG	DA	3042	1/1	0.88	0.09	84,84,84,84	0
55	MG	DA	3180	1/1	0.88	0.31	50,50,50,50	0
55	MG	DA	3339	1/1	0.88	0.36	77,77,77,77	0
55	MG	BA	1652	1/1	0.88	0.19	86,86,86,86	0
55	MG	AA	3372	1/1	0.88	0.22	77,77,77,77	0
55	MG	BA	1664	1/1	0.88	0.20	52,52,52,52	0
55	MG	AD	302	1/1	0.88	0.15	44,44,44,44	0
55	MG	DA	3494	1/1	0.88	0.42	81,81,81,81	0
55	MG	AA	3123	1/1	0.88	0.29	47,47,47,47	0
55	MG	DA	3207	1/1	0.88	0.19	61,61,61,61	0
55	MG	AA	3213	1/1	0.88	0.56	50,50,50,50	0
55	MG	CA	1766	1/1	0.88	0.23	75,75,75,75	0
55	MG	AA	3379	1/1	0.88	0.14	88,88,88,88	0
55	MG	DA	3221	1/1	0.88	0.41	66,66,66,66	0
55	MG	BA	1675	1/1	0.88	0.18	89,89,89,89	0
55	MG	BC	108	1/1	0.88	0.24	101,101,101,101	0
55	MG	AA	3061	1/1	0.88	0.17	75,75,75,75	0
55	MG	AA	3602	1/1	0.88	0.12	70,70,70,70	0
55	MG	AA	3384	1/1	0.88	0.38	79,79,79,79	0
55	MG	DA	3368	1/1	0.88	0.20	87,87,87,87	0
55	MG	AA	3613	1/1	0.88	0.10	104,104,104,104	0
55	MG	DA	3374	1/1	0.88	0.33	72,72,72,72	0
55	MG	AA	3306	1/1	0.88	0.32	63,63,63,63	0
55	MG	DA	3075	1/1	0.88	0.34	80,80,80,80	0
55	MG	CA	1788	1/1	0.88	0.30	68,68,68,68	0
55	MG	DB	201	1/1	0.88	0.20	77,77,77,77	0
55	MG	CA	1695	1/1	0.88	0.31	77,77,77,77	0
55	MG	AA	3285	1/1	0.88	0.26	77,77,77,77	0
55	MG	DA	3081	1/1	0.88	0.18	73,73,73,73	0
55	MG	BA	1811	1/1	0.88	0.26	86,86,86,86	0
55	MG	DB	209	1/1	0.88	0.24	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	1614	1/1	0.88	0.28	93,93,93,93	0
55	MG	BA	1815	1/1	0.88	0.48	81,81,81,81	0
55	MG	AA	3530	1/1	0.88	0.10	65,65,65,65	0
55	MG	AA	3475	1/1	0.88	0.23	67,67,67,67	0
55	MG	D1	202	1/1	0.88	0.18	102,102,102,102	0
55	MG	DA	3399	1/1	0.88	0.24	97,97,97,97	0
55	MG	DA	3096	1/1	0.88	0.22	47,47,47,47	0
55	MG	CA	1644	1/1	0.89	0.14	59,59,59,59	0
55	MG	DA	3354	1/1	0.89	0.38	92,92,92,92	0
55	MG	AB	209	1/1	0.89	0.22	103,103,103,103	0
55	MG	AA	3330	1/1	0.89	0.12	61,61,61,61	0
55	MG	DA	3358	1/1	0.89	0.23	90,90,90,90	0
55	MG	BA	1653	1/1	0.89	0.28	91,91,91,91	0
55	MG	AA	3037	1/1	0.89	0.17	50,50,50,50	0
55	MG	AA	3334	1/1	0.89	0.18	73,73,73,73	0
55	MG	AA	3479	1/1	0.89	0.20	97,97,97,97	0
55	MG	BA	1666	1/1	0.89	0.30	74,74,74,74	0
55	MG	DA	3370	1/1	0.89	0.28	85,85,85,85	0
55	MG	CA	1798	1/1	0.89	0.25	96,96,96,96	0
55	MG	BA	1830	1/1	0.89	0.24	96,96,96,96	0
55	MG	DA	3375	1/1	0.89	0.12	82,82,82,82	0
55	MG	AA	3480	1/1	0.89	0.13	77,77,77,77	0
55	MG	BA	1670	1/1	0.89	0.22	62,62,62,62	0
55	MG	DA	3379	1/1	0.89	0.52	99,99,99,99	0
55	MG	AA	3483	1/1	0.89	0.21	70,70,70,70	0
55	MG	DA	3170	1/1	0.89	0.30	66,66,66,66	0
55	MG	AA	3121	1/1	0.89	0.37	93,93,93,93	0
55	MG	BA	1837	1/1	0.89	0.27	88,88,88,88	0
55	MG	CA	1668	1/1	0.89	0.30	75,75,75,75	0
55	MG	DA	3184	1/1	0.89	0.22	71,71,71,71	0
55	MG	CA	1672	1/1	0.89	0.34	76,76,76,76	0
55	MG	DA	3190	1/1	0.89	0.16	46,46,46,46	0
55	MG	DA	3191	1/1	0.89	0.26	47,47,47,47	0
55	MG	CA	1675	1/1	0.89	0.30	65,65,65,65	0
55	MG	CB	103	1/1	0.89	0.20	110,110,110,110	0
55	MG	DA	3200	1/1	0.89	0.38	66,66,66,66	0
55	MG	AA	3147	1/1	0.89	0.36	77,77,77,77	0
55	MG	AA	3260	1/1	0.89	0.16	70,70,70,70	0
55	MG	BA	1843	1/1	0.89	0.14	87,87,87,87	0
55	MG	AA	3491	1/1	0.89	0.35	93,93,93,93	0
55	MG	A3	101	1/1	0.89	0.44	80,80,80,80	0
55	MG	A5	102	1/1	0.89	0.16	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3578	1/1	0.89	0.15	52,52,52,52	0
55	MG	AA	3437	1/1	0.89	0.19	105,105,105,105	0
55	MG	DA	3232	1/1	0.89	0.12	75,75,75,75	0
55	MG	BA	1689	1/1	0.89	0.17	110,110,110,110	0
55	MG	DA	3237	1/1	0.89	0.42	84,84,84,84	0
55	MG	DA	3012	1/1	0.89	0.14	64,64,64,64	0
55	MG	DA	3015	1/1	0.89	0.12	83,83,83,83	0
55	MG	DA	3017	1/1	0.89	0.25	88,88,88,88	0
55	MG	CA	1696	1/1	0.89	0.20	79,79,79,79	0
55	MG	DA	3019	1/1	0.89	0.31	66,66,66,66	0
55	MG	AA	3438	1/1	0.89	0.14	77,77,77,77	0
55	MG	AA	3441	1/1	0.89	0.07	76,76,76,76	0
55	MG	DA	3024	1/1	0.89	0.16	100,100,100,100	0
55	MG	BA	1608	1/1	0.89	0.31	63,63,63,63	0
55	MG	AA	3203	1/1	0.89	0.32	53,53,53,53	0
55	MG	DA	3035	1/1	0.89	0.24	102,102,102,102	0
55	MG	AA	3207	1/1	0.89	0.32	44,44,44,44	0
55	MG	CA	1708	1/1	0.89	0.22	91,91,91,91	0
55	MG	BA	1612	1/1	0.89	0.23	90,90,90,90	0
55	MG	CA	1711	1/1	0.89	0.26	88,88,88,88	0
55	MG	DA	3448	1/1	0.89	0.20	75,75,75,75	0
55	MG	BA	1771	1/1	0.89	0.16	100,100,100,100	0
55	MG	DA	3450	1/1	0.89	0.31	86,86,86,86	0
55	MG	AA	3069	1/1	0.89	0.36	64,64,64,64	0
55	MG	BC	106	1/1	0.89	0.18	80,80,80,80	0
55	MG	DA	3454	1/1	0.89	0.23	108,108,108,108	0
55	MG	DA	3051	1/1	0.89	0.24	81,81,81,81	0
55	MG	BA	1776	1/1	0.89	0.14	84,84,84,84	0
55	MG	AA	3354	1/1	0.89	0.35	79,79,79,79	0
55	MG	BA	1783	1/1	0.89	0.17	91,91,91,91	0
55	MG	CA	1721	1/1	0.89	0.16	94,94,94,94	0
55	MG	DA	3279	1/1	0.89	0.25	66,66,66,66	0
55	MG	CA	1604	1/1	0.89	0.19	78,78,78,78	0
55	MG	AA	3269	1/1	0.89	0.33	72,72,72,72	0
55	MG	CA	1725	1/1	0.89	0.23	75,75,75,75	0
55	MG	CA	1607	1/1	0.89	0.27	77,77,77,77	0
55	MG	BA	1618	1/1	0.89	0.29	94,94,94,94	0
55	MG	AA	3210	1/1	0.89	0.24	58,58,58,58	0
55	MG	CA	1732	1/1	0.89	0.18	93,93,93,93	0
55	MG	AA	3405	1/1	0.89	0.25	86,86,86,86	0
55	MG	AA	3048	1/1	0.89	0.18	63,63,63,63	0
55	MG	AA	3098	1/1	0.89	0.18	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	DA	3305	1/1	0.89	0.13	83,83,83,83	0
55	MG	CA	1743	1/1	0.89	0.40	71,71,71,71	0
55	MG	AA	3279	1/1	0.89	0.10	81,81,81,81	0
55	MG	AA	3219	1/1	0.89	0.30	60,60,60,60	0
55	MG	DA	3506	1/1	0.89	0.41	80,80,80,80	0
55	MG	DA	3310	1/1	0.89	0.22	80,80,80,80	0
55	MG	DA	3513	1/1	0.89	0.23	103,103,103,103	0
55	MG	BA	1630	1/1	0.89	0.15	105,105,105,105	0
55	MG	DA	3517	1/1	0.89	0.28	62,62,62,62	0
55	MG	AA	3526	1/1	0.89	0.20	57,57,57,57	0
55	MG	BA	1801	1/1	0.89	0.11	93,93,93,93	0
55	MG	CA	1752	1/1	0.89	0.09	70,70,70,70	0
55	MG	AA	3417	1/1	0.89	0.12	78,78,78,78	0
55	MG	AA	3221	1/1	0.89	0.24	51,51,51,51	0
55	MG	BA	1730	1/1	0.89	0.25	97,97,97,97	0
55	MG	AA	3113	1/1	0.89	0.33	55,55,55,55	0
55	MG	CA	1633	1/1	0.89	0.39	79,79,79,79	0
55	MG	DA	3108	1/1	0.89	0.23	69,69,69,69	0
55	MG	DB	202	1/1	0.89	0.25	101,101,101,101	0
55	MG	CA	1760	1/1	0.89	0.30	103,103,103,103	0
55	MG	AA	3533	1/1	0.89	0.14	89,89,89,89	0
55	MG	AA	3371	1/1	0.89	0.18	69,69,69,69	0
55	MG	CA	1636	1/1	0.89	0.26	80,80,80,80	0
55	MG	CA	1765	1/1	0.89	0.34	97,97,97,97	0
55	MG	AB	204	1/1	0.89	0.27	94,94,94,94	0
55	MG	DB	211	1/1	0.89	0.28	104,104,104,104	0
55	MG	DA	3118	1/1	0.89	0.55	72,72,72,72	0
55	MG	CA	1767	1/1	0.89	0.20	94,94,94,94	0
55	MG	AA	3292	1/1	0.89	0.22	80,80,80,80	0
55	MG	BA	1817	1/1	0.89	0.32	92,92,92,92	0
55	MG	CA	1642	1/1	0.89	0.22	78,78,78,78	0
55	MG	AA	3173	1/1	0.89	0.33	70,70,70,70	0
55	MG	AA	3511	1/1	0.90	0.22	51,51,51,51	0
55	MG	DA	3186	1/1	0.90	0.36	56,56,56,56	0
55	MG	DA	3188	1/1	0.90	0.32	48,48,48,48	0
55	MG	AA	3448	1/1	0.90	0.18	85,85,85,85	0
55	MG	DA	3373	1/1	0.90	0.17	90,90,90,90	0
55	MG	AA	3109	1/1	0.90	0.12	33,33,33,33	0
55	MG	AA	3520	1/1	0.90	0.39	97,97,97,97	0
55	MG	AA	3141	1/1	0.90	0.34	37,37,37,37	0
55	MG	AB	206	1/1	0.90	0.22	97,97,97,97	0
55	MG	AA	3044	1/1	0.90	0.43	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	DA	3206	1/1	0.90	0.23	65,65,65,65	0
55	MG	AA	3183	1/1	0.90	0.09	79,79,79,79	0
55	MG	BA	1668	1/1	0.90	0.37	73,73,73,73	0
55	MG	BA	1761	1/1	0.90	0.33	85,85,85,85	0
55	MG	AA	3222	1/1	0.90	0.16	59,59,59,59	0
55	MG	AA	3026	1/1	0.90	0.16	35,35,35,35	0
55	MG	AA	3410	1/1	0.90	0.12	99,99,99,99	0
55	MG	AB	212	1/1	0.90	0.23	76,76,76,76	0
55	MG	DA	3029	1/1	0.90	0.12	92,92,92,92	0
55	MG	BC	109	1/1	0.90	0.24	92,92,92,92	0
55	MG	AA	3100	1/1	0.90	0.14	79,79,79,79	0
55	MG	AA	3412	1/1	0.90	0.47	88,88,88,88	0
55	MG	AA	3162	1/1	0.90	0.27	45,45,45,45	0
55	MG	BA	1679	1/1	0.90	0.25	86,86,86,86	0
55	MG	AA	3362	1/1	0.90	0.26	86,86,86,86	0
55	MG	BA	1682	1/1	0.90	0.28	98,98,98,98	0
55	MG	AA	3543	1/1	0.90	0.28	61,61,61,61	0
55	MG	AA	3416	1/1	0.90	0.23	70,70,70,70	0
55	MG	DA	3415	1/1	0.90	0.14	84,84,84,84	0
55	MG	AA	3304	1/1	0.90	0.22	59,59,59,59	0
55	MG	CA	1615	1/1	0.90	0.18	92,92,92,92	0
55	MG	DA	3251	1/1	0.90	0.15	50,50,50,50	0
55	MG	BA	1687	1/1	0.90	0.32	74,74,74,74	0
55	MG	DA	3255	1/1	0.90	0.25	83,83,83,83	0
55	MG	AA	3263	1/1	0.90	0.18	56,56,56,56	0
55	MG	CA	1620	1/1	0.90	0.32	70,70,70,70	0
55	MG	CA	1741	1/1	0.90	0.16	83,83,83,83	0
55	MG	AA	3476	1/1	0.90	0.17	94,94,94,94	0
55	MG	AA	3079	1/1	0.90	0.20	100,100,100,100	0
55	MG	A6	101	1/1	0.90	0.27	121,121,121,121	0
55	MG	AA	3191	1/1	0.90	0.31	61,61,61,61	0
55	MG	BA	1699	1/1	0.90	0.20	58,58,58,58	0
55	MG	DA	3067	1/1	0.90	0.27	75,75,75,75	0
55	MG	AA	3270	1/1	0.90	0.19	96,96,96,96	0
55	MG	AA	3041	1/1	0.90	0.29	62,62,62,62	0
55	MG	BA	1703	1/1	0.90	0.24	118,118,118,118	0
55	MG	DA	3443	1/1	0.90	0.26	94,94,94,94	0
55	MG	BA	1704	1/1	0.90	0.21	87,87,87,87	0
55	MG	AA	3481	1/1	0.90	0.28	66,66,66,66	0
55	MG	AA	3167	1/1	0.90	0.26	51,51,51,51	0
55	MG	DA	3080	1/1	0.90	0.15	114,114,114,114	0
55	MG	AA	3195	1/1	0.90	0.22	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	1610	1/1	0.90	0.29	53,53,53,53	0
55	MG	DA	3286	1/1	0.90	0.11	86,86,86,86	0
55	MG	AA	3429	1/1	0.90	0.37	85,85,85,85	0
55	MG	AA	3489	1/1	0.90	0.16	93,93,93,93	0
55	MG	DA	3297	1/1	0.90	0.28	70,70,70,70	0
55	MG	DA	3458	1/1	0.90	0.22	88,88,88,88	0
55	MG	BA	1613	1/1	0.90	0.11	96,96,96,96	0
55	MG	AA	3594	1/1	0.90	0.22	97,97,97,97	0
55	MG	BA	1722	1/1	0.90	0.20	90,90,90,90	0
55	MG	DA	3097	1/1	0.90	0.25	42,42,42,42	0
55	MG	CA	1645	1/1	0.90	0.54	71,71,71,71	0
55	MG	AA	3373	1/1	0.90	0.25	71,71,71,71	0
55	MG	CA	1768	1/1	0.90	0.39	115,115,115,115	0
55	MG	CA	1648	1/1	0.90	0.20	65,65,65,65	0
55	MG	AA	3598	1/1	0.90	0.18	84,84,84,84	0
55	MG	CA	1772	1/1	0.90	0.17	76,76,76,76	0
55	MG	CA	1651	1/1	0.90	0.20	79,79,79,79	0
55	MG	DA	3314	1/1	0.90	0.15	78,78,78,78	0
55	MG	AA	3322	1/1	0.90	0.14	83,83,83,83	0
55	MG	DA	3317	1/1	0.90	0.17	87,87,87,87	0
55	MG	CA	1779	1/1	0.90	0.24	82,82,82,82	0
55	MG	DA	3319	1/1	0.90	0.31	68,68,68,68	0
55	MG	AA	3168	1/1	0.90	0.24	64,64,64,64	0
55	MG	DA	3323	1/1	0.90	0.37	85,85,85,85	0
55	MG	AA	3494	1/1	0.90	0.30	88,88,88,88	0
55	MG	CA	1656	1/1	0.90	0.17	87,87,87,87	0
55	MG	AA	3282	1/1	0.90	0.40	87,87,87,87	0
55	MG	CA	1787	1/1	0.90	0.27	84,84,84,84	0
55	MG	AA	3610	1/1	0.90	0.23	34,34,34,34	0
55	MG	AA	3611	1/1	0.90	0.29	54,54,54,54	0
55	MG	CA	1790	1/1	0.90	0.23	75,75,75,75	0
55	MG	AA	3284	1/1	0.90	0.47	80,80,80,80	0
55	MG	AA	3383	1/1	0.90	0.12	70,70,70,70	0
55	MG	AA	3439	1/1	0.90	0.08	93,93,93,93	0
55	MG	DA	3341	1/1	0.90	0.32	62,62,62,62	0
55	MG	BA	1633	1/1	0.90	0.30	75,75,75,75	0
55	MG	CA	1666	1/1	0.90	0.30	76,76,76,76	0
55	MG	BA	1635	1/1	0.90	0.18	87,87,87,87	0
55	MG	DA	3345	1/1	0.90	0.16	75,75,75,75	0
55	MG	DA	3140	1/1	0.90	0.31	49,49,49,49	0
55	MG	AA	3093	1/1	0.90	0.14	55,55,55,55	0
55	MG	DB	205	1/1	0.90	0.32	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3172	1/1	0.90	0.22	102,102,102,102	0
55	MG	DA	3350	1/1	0.90	0.21	79,79,79,79	0
55	MG	CA	1673	1/1	0.90	0.22	65,65,65,65	0
55	MG	AA	3129	1/1	0.90	0.31	75,75,75,75	0
55	MG	CA	1679	1/1	0.90	0.16	84,84,84,84	0
55	MG	BA	1839	1/1	0.90	0.23	61,61,61,61	0
55	MG	AA	3338	1/1	0.90	0.18	72,72,72,72	0
55	MG	AA	3004	1/1	0.90	0.16	37,37,37,37	0
55	MG	DA	3359	1/1	0.90	0.16	75,75,75,75	0
55	MG	AA	3628	1/1	0.90	0.14	89,89,89,89	0
55	MG	AA	3510	1/1	0.90	0.26	73,73,73,73	0
55	MG	BN	201	1/1	0.90	0.21	67,67,67,67	0
55	MG	BA	1826	1/1	0.91	0.25	73,73,73,73	0
55	MG	AA	3617	1/1	0.91	0.12	92,92,92,92	0
55	MG	DA	3195	1/1	0.91	0.14	73,73,73,73	0
55	MG	AA	3516	1/1	0.91	0.21	57,57,57,57	0
55	MG	DA	3199	1/1	0.91	0.17	49,49,49,49	0
55	MG	DA	3027	1/1	0.91	0.23	93,93,93,93	0
55	MG	AA	3245	1/1	0.91	0.24	81,81,81,81	0
55	MG	CA	1641	1/1	0.91	0.11	101,101,101,101	0
55	MG	AA	3467	1/1	0.91	0.17	83,83,83,83	0
55	MG	BA	1832	1/1	0.91	0.19	100,100,100,100	0
55	MG	DA	3037	1/1	0.91	0.10	84,84,84,84	0
55	MG	DA	3381	1/1	0.91	0.26	89,89,89,89	0
55	MG	AA	3283	1/1	0.91	0.29	74,74,74,74	0
55	MG	DA	3039	1/1	0.91	0.28	82,82,82,82	0
55	MG	DA	3389	1/1	0.91	0.30	85,85,85,85	0
55	MG	AA	3050	1/1	0.91	0.20	69,69,69,69	0
55	MG	AA	3472	1/1	0.91	0.13	81,81,81,81	0
55	MG	BA	1688	1/1	0.91	0.20	76,76,76,76	0
55	MG	DA	3234	1/1	0.91	0.36	55,55,55,55	0
55	MG	AA	3626	1/1	0.91	0.34	63,63,63,63	0
55	MG	AA	3051	1/1	0.91	0.20	51,51,51,51	0
55	MG	DA	3238	1/1	0.91	0.32	80,80,80,80	0
55	MG	DA	3047	1/1	0.91	0.22	84,84,84,84	0
55	MG	DA	3402	1/1	0.91	0.18	73,73,73,73	0
55	MG	DA	3050	1/1	0.91	0.50	78,78,78,78	0
55	MG	AA	3024	1/1	0.91	0.26	35,35,35,35	0
55	MG	DA	3053	1/1	0.91	0.14	86,86,86,86	0
55	MG	BA	1694	1/1	0.91	0.11	99,99,99,99	0
55	MG	AA	3220	1/1	0.91	0.16	44,44,44,44	0
55	MG	CA	1757	1/1	0.91	0.18	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	1696	1/1	0.91	0.38	90,90,90,90	0
55	MG	DA	3058	1/1	0.91	0.47	75,75,75,75	0
55	MG	AA	3289	1/1	0.91	0.29	62,62,62,62	0
55	MG	AA	3337	1/1	0.91	0.41	88,88,88,88	0
55	MG	DA	3254	1/1	0.91	0.32	84,84,84,84	0
55	MG	DA	3061	1/1	0.91	0.27	67,67,67,67	0
55	MG	AA	3256	1/1	0.91	0.15	65,65,65,65	0
55	MG	BA	1629	1/1	0.91	0.10	100,100,100,100	0
55	MG	DA	3260	1/1	0.91	0.16	82,82,82,82	0
55	MG	AA	3339	1/1	0.91	0.17	95,95,95,95	0
55	MG	AA	3482	1/1	0.91	0.17	82,82,82,82	0
55	MG	BA	1632	1/1	0.91	0.20	72,72,72,72	0
55	MG	AA	3111	1/1	0.91	0.32	43,43,43,43	0
55	MG	DA	3069	1/1	0.91	0.30	82,82,82,82	0
55	MG	DA	3434	1/1	0.91	0.09	75,75,75,75	0
55	MG	AA	3484	1/1	0.91	0.11	86,86,86,86	0
55	MG	BA	1781	1/1	0.91	0.41	57,57,57,57	0
55	MG	CA	1771	1/1	0.91	0.24	64,64,64,64	0
55	MG	CA	1669	1/1	0.91	0.17	67,67,67,67	0
55	MG	BA	1782	1/1	0.91	0.34	88,88,88,88	0
55	MG	DA	3441	1/1	0.91	0.18	67,67,67,67	0
55	MG	CA	1775	1/1	0.91	0.31	66,66,66,66	0
55	MG	CA	1776	1/1	0.91	0.13	91,91,91,91	0
55	MG	AA	3149	1/1	0.91	0.27	49,49,49,49	0
55	MG	DA	3445	1/1	0.91	0.18	72,72,72,72	0
55	MG	DA	3282	1/1	0.91	0.29	55,55,55,55	0
55	MG	AA	3151	1/1	0.91	0.33	61,61,61,61	0
55	MG	CA	1677	1/1	0.91	0.23	68,68,68,68	0
55	MG	AA	3086	1/1	0.91	0.31	70,70,70,70	0
55	MG	CA	1784	1/1	0.91	0.45	102,102,102,102	0
55	MG	BC	107	1/1	0.91	0.12	88,88,88,88	0
55	MG	BA	1786	1/1	0.91	0.24	72,72,72,72	0
55	MG	DA	3099	1/1	0.91	0.22	51,51,51,51	0
55	MG	DA	3298	1/1	0.91	0.13	95,95,95,95	0
55	MG	DA	3100	1/1	0.91	0.33	62,62,62,62	0
55	MG	DA	3462	1/1	0.91	0.24	67,67,67,67	0
55	MG	CA	1684	1/1	0.91	0.36	77,77,77,77	0
55	MG	AA	3012	1/1	0.91	0.28	45,45,45,45	0
55	MG	DA	3471	1/1	0.91	0.42	89,89,89,89	0
55	MG	AA	3029	1/1	0.91	0.24	50,50,50,50	0
55	MG	B1	102	1/1	0.91	0.09	69,69,69,69	0
55	MG	CA	1793	1/1	0.91	0.26	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3475	1/1	0.91	0.21	81,81,81,81	0
55	MG	AA	3062	1/1	0.91	0.11	73,73,73,73	0
55	MG	AA	3400	1/1	0.91	0.23	86,86,86,86	0
55	MG	CA	1605	1/1	0.91	0.35	72,72,72,72	0
55	MG	CA	1799	1/1	0.91	0.25	95,95,95,95	0
55	MG	AA	3404	1/1	0.91	0.12	89,89,89,89	0
55	MG	AA	3064	1/1	0.91	0.21	77,77,77,77	0
55	MG	DA	3490	1/1	0.91	0.12	49,49,49,49	0
55	MG	DA	3491	1/1	0.91	0.15	43,43,43,43	0
55	MG	AA	3030	1/1	0.91	0.21	51,51,51,51	0
55	MG	CA	1611	1/1	0.91	0.16	76,76,76,76	0
55	MG	CA	1807	1/1	0.91	0.32	121,121,121,121	0
55	MG	AA	3407	1/1	0.91	0.20	84,84,84,84	0
55	MG	DA	3499	1/1	0.91	0.29	78,78,78,78	0
55	MG	AA	3361	1/1	0.91	0.21	88,88,88,88	0
55	MG	CA	1705	1/1	0.91	0.21	86,86,86,86	0
55	MG	CS	101	1/1	0.91	0.17	84,84,84,84	0
55	MG	BA	1658	1/1	0.91	0.30	54,54,54,54	0
55	MG	AA	3504	1/1	0.91	0.37	103,103,103,103	0
55	MG	AA	3006	1/1	0.91	0.50	60,60,60,60	0
55	MG	DA	3512	1/1	0.91	0.35	70,70,70,70	0
55	MG	AA	3036	1/1	0.91	0.20	34,34,34,34	0
55	MG	BA	1667	1/1	0.91	0.33	78,78,78,78	0
55	MG	DA	3138	1/1	0.91	0.40	71,71,71,71	0
55	MG	CC	104	1/1	0.91	0.18	90,90,90,90	0
55	MG	DA	3335	1/1	0.91	0.27	72,72,72,72	0
55	MG	DA	3141	1/1	0.91	0.24	44,44,44,44	0
55	MG	CC	105	1/1	0.91	0.23	74,74,74,74	0
55	MG	AA	3507	1/1	0.91	0.15	62,62,62,62	0
55	MG	DA	3524	1/1	0.91	0.24	99,99,99,99	0
55	MG	AA	3273	1/1	0.91	0.22	63,63,63,63	0
55	MG	DA	3157	1/1	0.91	0.17	51,51,51,51	0
55	MG	DA	3158	1/1	0.91	0.18	77,77,77,77	0
55	MG	DA	3528	1/1	0.91	0.14	87,87,87,87	0
55	MG	DA	3159	1/1	0.91	0.23	52,52,52,52	0
55	MG	BA	1602	1/1	0.91	0.18	65,65,65,65	0
55	MG	CA	1624	1/1	0.91	0.26	83,83,83,83	0
55	MG	DA	3166	1/1	0.91	0.25	86,86,86,86	0
55	MG	AA	3603	1/1	0.91	0.18	65,65,65,65	0
55	MG	DA	3351	1/1	0.91	0.28	70,70,70,70	0
55	MG	AA	3010	1/1	0.91	0.37	52,52,52,52	0
55	MG	BA	1743	1/1	0.91	0.31	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	1820	1/1	0.91	0.31	97,97,97,97	0
55	MG	AA	3275	1/1	0.91	0.24	65,65,65,65	0
55	MG	DA	3356	1/1	0.91	0.10	80,80,80,80	0
55	MG	BA	1676	1/1	0.91	0.21	81,81,81,81	0
55	MG	CA	1729	1/1	0.91	0.33	81,81,81,81	0
55	MG	AA	3135	1/1	0.91	0.23	66,66,66,66	0
55	MG	AA	3244	1/1	0.91	0.20	69,69,69,69	0
55	MG	DA	3022	1/1	0.91	0.11	66,66,66,66	0
55	MG	BA	1673	1/1	0.92	0.33	80,80,80,80	0
55	MG	DA	3209	1/1	0.92	0.35	54,54,54,54	0
55	MG	DA	3210	1/1	0.92	0.25	51,51,51,51	0
55	MG	A0	201	1/1	0.92	0.22	46,46,46,46	0
55	MG	AA	3576	1/1	0.92	0.14	36,36,36,36	0
55	MG	CA	1658	1/1	0.92	0.28	78,78,78,78	0
55	MG	DA	3219	1/1	0.92	0.14	79,79,79,79	0
55	MG	CA	1764	1/1	0.92	0.31	67,67,67,67	0
55	MG	BA	1842	1/1	0.92	0.20	88,88,88,88	0
55	MG	DA	3226	1/1	0.92	0.24	57,57,57,57	0
55	MG	DA	3383	1/1	0.92	0.25	79,79,79,79	0
55	MG	DA	3385	1/1	0.92	0.16	90,90,90,90	0
55	MG	DA	3387	1/1	0.92	0.30	45,45,45,45	0
55	MG	AA	3577	1/1	0.92	0.23	42,42,42,42	0
55	MG	AA	3072	1/1	0.92	0.21	75,75,75,75	0
55	MG	AA	3588	1/1	0.92	0.28	63,63,63,63	0
55	MG	CA	1663	1/1	0.92	0.27	72,72,72,72	0
55	MG	BA	1757	1/1	0.92	0.23	88,88,88,88	0
55	MG	AA	3074	1/1	0.92	0.42	81,81,81,81	0
55	MG	DA	3394	1/1	0.92	0.19	70,70,70,70	0
55	MG	AA	3592	1/1	0.92	0.16	69,69,69,69	0
55	MG	AA	3319	1/1	0.92	0.16	61,61,61,61	0
55	MG	AA	3455	1/1	0.92	0.31	61,61,61,61	0
55	MG	DA	3242	1/1	0.92	0.42	61,61,61,61	0
55	MG	BB	103	1/1	0.92	0.33	87,87,87,87	0
55	MG	AA	3502	1/1	0.92	0.17	81,81,81,81	0
55	MG	AA	3075	1/1	0.92	0.07	71,71,71,71	0
55	MG	DA	3073	1/1	0.92	0.17	69,69,69,69	0
55	MG	DA	3406	1/1	0.92	0.14	72,72,72,72	0
55	MG	DA	3074	1/1	0.92	0.34	89,89,89,89	0
55	MG	AA	3459	1/1	0.92	0.22	110,110,110,110	0
55	MG	DA	3409	1/1	0.92	0.10	70,70,70,70	0
55	MG	CA	1781	1/1	0.92	0.30	92,92,92,92	0
55	MG	AA	3166	1/1	0.92	0.34	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	1783	1/1	0.92	0.19	72,72,72,72	0
55	MG	CA	1678	1/1	0.92	0.18	67,67,67,67	0
55	MG	DA	3416	1/1	0.92	0.18	75,75,75,75	0
55	MG	AA	3025	1/1	0.92	0.28	46,46,46,46	0
55	MG	DA	3421	1/1	0.92	0.09	76,76,76,76	0
55	MG	BC	101	1/1	0.92	0.23	58,58,58,58	0
55	MG	DA	3083	1/1	0.92	0.36	108,108,108,108	0
55	MG	AA	3204	1/1	0.92	0.37	56,56,56,56	0
55	MG	DA	3262	1/1	0.92	0.14	39,39,39,39	0
55	MG	BC	103	1/1	0.92	0.22	65,65,65,65	0
55	MG	DA	3266	1/1	0.92	0.28	97,97,97,97	0
55	MG	AA	3464	1/1	0.92	0.18	83,83,83,83	0
55	MG	DA	3087	1/1	0.92	0.33	48,48,48,48	0
55	MG	DA	3269	1/1	0.92	0.26	86,86,86,86	0
55	MG	AA	3606	1/1	0.92	0.13	77,77,77,77	0
55	MG	DA	3093	1/1	0.92	0.15	51,51,51,51	0
55	MG	CA	1792	1/1	0.92	0.32	91,91,91,91	0
55	MG	AA	3127	1/1	0.92	0.20	47,47,47,47	0
55	MG	CA	1794	1/1	0.92	0.24	72,72,72,72	0
55	MG	AA	3376	1/1	0.92	0.32	67,67,67,67	0
55	MG	DA	3277	1/1	0.92	0.19	77,77,77,77	0
55	MG	BA	1619	1/1	0.92	0.26	67,67,67,67	0
55	MG	DA	3102	1/1	0.92	0.33	72,72,72,72	0
55	MG	DA	3280	1/1	0.92	0.15	80,80,80,80	0
55	MG	CA	1693	1/1	0.92	0.28	73,73,73,73	0
55	MG	BA	1777	1/1	0.92	0.12	88,88,88,88	0
55	MG	AA	3421	1/1	0.92	0.37	64,64,64,64	0
55	MG	AA	3248	1/1	0.92	0.26	53,53,53,53	0
55	MG	DA	3110	1/1	0.92	0.21	84,84,84,84	0
55	MG	AA	3470	1/1	0.92	0.11	59,59,59,59	0
55	MG	CA	1700	1/1	0.92	0.27	60,60,60,60	0
55	MG	DA	3291	1/1	0.92	0.42	70,70,70,70	0
55	MG	DA	3452	1/1	0.92	0.21	91,91,91,91	0
55	MG	DA	3293	1/1	0.92	0.17	67,67,67,67	0
55	MG	AA	3423	1/1	0.92	0.24	69,69,69,69	0
55	MG	AA	3023	1/1	0.92	0.32	52,52,52,52	0
55	MG	CG	302	1/1	0.92	0.19	83,83,83,83	0
55	MG	BA	1627	1/1	0.92	0.19	62,62,62,62	0
55	MG	AA	3034	1/1	0.92	0.42	61,61,61,61	0
55	MG	DA	3468	1/1	0.92	0.15	53,53,53,53	0
55	MG	AA	3525	1/1	0.92	0.19	67,67,67,67	0
55	MG	DA	3303	1/1	0.92	0.37	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	AA	3382	1/1	0.92	0.22	83,83,83,83	0
55	MG	BA	1711	1/1	0.92	0.37	86,86,86,86	0
55	MG	AA	3625	1/1	0.92	0.29	70,70,70,70	0
55	MG	CA	1712	1/1	0.92	0.19	86,86,86,86	0
55	MG	DA	3476	1/1	0.92	0.15	76,76,76,76	0
55	MG	DA	3130	1/1	0.92	0.34	64,64,64,64	0
55	MG	AA	3027	1/1	0.92	0.28	49,49,49,49	0
55	MG	CC	102	1/1	0.92	0.22	69,69,69,69	0
55	MG	AA	3175	1/1	0.92	0.25	70,70,70,70	0
55	MG	BA	1716	1/1	0.92	0.16	90,90,90,90	0
55	MG	DA	3487	1/1	0.92	0.17	59,59,59,59	0
55	MG	BA	1717	1/1	0.92	0.19	79,79,79,79	0
55	MG	AA	3531	1/1	0.92	0.23	53,53,53,53	0
55	MG	BA	1720	1/1	0.92	0.37	71,71,71,71	0
55	MG	DA	3139	1/1	0.92	0.26	51,51,51,51	0
55	MG	DA	3320	1/1	0.92	0.21	73,73,73,73	0
55	MG	BA	1721	1/1	0.92	0.25	109,109,109,109	0
55	MG	DA	3322	1/1	0.92	0.31	83,83,83,83	0
55	MG	AA	3217	1/1	0.92	0.25	58,58,58,58	0
55	MG	AA	3133	1/1	0.92	0.19	38,38,38,38	0
55	MG	DA	3144	1/1	0.92	0.35	68,68,68,68	0
55	MG	AA	3178	1/1	0.92	0.25	49,49,49,49	0
55	MG	DA	3153	1/1	0.92	0.21	54,54,54,54	0
55	MG	AA	3347	1/1	0.92	0.12	92,92,92,92	0
55	MG	BA	1813	1/1	0.92	0.21	80,80,80,80	0
55	MG	DA	3508	1/1	0.92	0.29	77,77,77,77	0
55	MG	AA	3134	1/1	0.92	0.22	59,59,59,59	0
55	MG	AA	3085	1/1	0.92	0.27	62,62,62,62	0
55	MG	DA	3161	1/1	0.92	0.41	73,73,73,73	0
55	MG	DA	3162	1/1	0.92	0.39	70,70,70,70	0
55	MG	AA	3545	1/1	0.92	0.27	72,72,72,72	0
55	MG	AA	3546	1/1	0.92	0.13	33,33,33,33	0
55	MG	CA	1735	1/1	0.92	0.19	86,86,86,86	0
55	MG	AA	3547	1/1	0.92	0.20	45,45,45,45	0
55	MG	DA	3169	1/1	0.92	0.28	68,68,68,68	0
55	MG	CA	1737	1/1	0.92	0.19	109,109,109,109	0
55	MG	DA	3171	1/1	0.92	0.25	81,81,81,81	0
55	MG	DA	3347	1/1	0.92	0.37	66,66,66,66	0
55	MG	CA	1740	1/1	0.92	0.14	75,75,75,75	0
55	MG	BA	1650	1/1	0.92	0.28	78,78,78,78	0
55	MG	AA	3485	1/1	0.92	0.19	96,96,96,96	0
55	MG	AA	3053	1/1	0.92	0.27	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	AA	3487	1/1	0.92	0.07	78,78,78,78	0
55	MG	AA	3557	1/1	0.92	0.26	68,68,68,68	0
55	MG	BA	1661	1/1	0.92	0.21	49,49,49,49	0
55	MG	BA	1740	1/1	0.92	0.21	72,72,72,72	0
55	MG	AA	3087	1/1	0.92	0.17	45,45,45,45	0
55	MG	AA	3008	1/1	0.92	0.24	42,42,42,42	0
55	MG	AA	3114	1/1	0.92	0.24	41,41,41,41	0
55	MG	DA	3196	1/1	0.92	0.32	82,82,82,82	0
55	MG	AA	3117	1/1	0.92	0.27	62,62,62,62	0
55	MG	DA	3361	1/1	0.92	0.48	102,102,102,102	0
55	MG	AA	3562	1/1	0.92	0.11	96,96,96,96	0
55	MG	DE	303	1/1	0.92	0.24	52,52,52,52	0
55	MG	AA	3150	1/1	0.92	0.38	58,58,58,58	0
55	MG	AA	3234	1/1	0.92	0.16	83,83,83,83	0
55	MG	AA	3057	1/1	0.92	0.15	52,52,52,52	0
55	MG	CA	1739	1/1	0.93	0.34	69,69,69,69	0
55	MG	DA	3222	1/1	0.93	0.26	57,57,57,57	0
55	MG	AA	3115	1/1	0.93	0.29	56,56,56,56	0
55	MG	AA	3271	1/1	0.93	0.27	68,68,68,68	0
55	MG	AA	3325	1/1	0.93	0.22	78,78,78,78	0
55	MG	DA	3228	1/1	0.93	0.25	71,71,71,71	0
55	MG	AA	3389	1/1	0.93	0.22	89,89,89,89	0
55	MG	BA	1773	1/1	0.93	0.13	79,79,79,79	0
55	MG	AA	3001	1/1	0.93	0.30	49,49,49,49	0
55	MG	AA	3118	1/1	0.93	0.21	74,74,74,74	0
55	MG	AA	3392	1/1	0.93	0.25	94,94,94,94	0
55	MG	AA	3462	1/1	0.93	0.10	69,69,69,69	0
55	MG	CA	1750	1/1	0.93	0.27	91,91,91,91	0
55	MG	DA	3395	1/1	0.93	0.15	80,80,80,80	0
55	MG	BA	1779	1/1	0.93	0.09	105,105,105,105	0
55	MG	AA	3331	1/1	0.93	0.30	79,79,79,79	0
55	MG	AA	3539	1/1	0.93	0.50	54,54,54,54	0
55	MG	AA	3185	1/1	0.93	0.11	43,43,43,43	0
55	MG	DA	3401	1/1	0.93	0.25	75,75,75,75	0
55	MG	CA	1629	1/1	0.93	0.12	82,82,82,82	0
55	MG	AA	3542	1/1	0.93	0.26	40,40,40,40	0
55	MG	AA	3070	1/1	0.93	0.29	66,66,66,66	0
55	MG	AA	3276	1/1	0.93	0.23	59,59,59,59	0
55	MG	AE	303	1/1	0.93	0.13	91,91,91,91	0
55	MG	AA	3022	1/1	0.93	0.20	43,43,43,43	0
55	MG	BA	1789	1/1	0.93	0.19	69,69,69,69	0
55	MG	AF	301	1/1	0.93	0.19	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3402	1/1	0.93	0.53	94,94,94,94	0
55	MG	BA	1792	1/1	0.93	0.24	94,94,94,94	0
55	MG	DA	3413	1/1	0.93	0.13	96,96,96,96	0
55	MG	AA	3553	1/1	0.93	0.22	100,100,100,100	0
55	MG	BA	1796	1/1	0.93	0.23	78,78,78,78	0
55	MG	BA	1691	1/1	0.93	0.41	60,60,60,60	0
55	MG	AO	203	1/1	0.93	0.33	63,63,63,63	0
55	MG	DA	3419	1/1	0.93	0.28	90,90,90,90	0
55	MG	DA	3420	1/1	0.93	0.33	73,73,73,73	0
55	MG	DA	3264	1/1	0.93	0.17	76,76,76,76	0
55	MG	AA	3403	1/1	0.93	0.07	74,74,74,74	0
55	MG	AA	3155	1/1	0.93	0.26	61,61,61,61	0
55	MG	AA	3340	1/1	0.93	0.24	61,61,61,61	0
55	MG	AA	3342	1/1	0.93	0.38	65,65,65,65	0
55	MG	A7	101	1/1	0.93	0.17	69,69,69,69	0
55	MG	DA	3428	1/1	0.93	0.20	79,79,79,79	0
55	MG	AA	3054	1/1	0.93	0.18	52,52,52,52	0
55	MG	DA	3094	1/1	0.93	0.30	45,45,45,45	0
55	MG	AA	3011	1/1	0.93	0.28	38,38,38,38	0
55	MG	AA	3125	1/1	0.93	0.34	49,49,49,49	0
55	MG	BA	1812	1/1	0.93	0.46	76,76,76,76	0
55	MG	AA	3240	1/1	0.93	0.43	76,76,76,76	0
55	MG	AA	3413	1/1	0.93	0.21	82,82,82,82	0
55	MG	AA	3563	1/1	0.93	0.15	75,75,75,75	0
55	MG	BA	1708	1/1	0.93	0.20	78,78,78,78	0
55	MG	DA	3105	1/1	0.93	0.28	72,72,72,72	0
55	MG	DA	3106	1/1	0.93	0.24	46,46,46,46	0
55	MG	AA	3348	1/1	0.93	0.10	92,92,92,92	0
55	MG	AA	3045	1/1	0.93	0.17	50,50,50,50	0
55	MG	AA	3572	1/1	0.93	0.21	40,40,40,40	0
55	MG	AA	3351	1/1	0.93	0.30	84,84,84,84	0
55	MG	AA	3575	1/1	0.93	0.20	40,40,40,40	0
55	MG	DA	3113	1/1	0.93	0.19	44,44,44,44	0
55	MG	AA	3196	1/1	0.93	0.19	60,60,60,60	0
55	MG	AA	3035	1/1	0.93	0.15	46,46,46,46	0
55	MG	AA	3059	1/1	0.93	0.15	84,84,84,84	0
55	MG	BA	1617	1/1	0.93	0.29	64,64,64,64	0
55	MG	BA	1719	1/1	0.93	0.28	91,91,91,91	0
55	MG	AA	3583	1/1	0.93	0.22	44,44,44,44	0
55	MG	AA	3584	1/1	0.93	0.28	94,94,94,94	0
55	MG	BA	1620	1/1	0.93	0.22	58,58,58,58	0
55	MG	CA	1801	1/1	0.93	0.32	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	DA	3457	1/1	0.93	0.24	62,62,62,62	0
55	MG	AA	3587	1/1	0.93	0.09	28,28,28,28	0
55	MG	AA	3169	1/1	0.93	0.09	74,74,74,74	0
55	MG	CA	1805	1/1	0.93	0.22	81,81,81,81	0
55	MG	DA	3467	1/1	0.93	0.23	49,49,49,49	0
55	MG	AA	3357	1/1	0.93	0.27	61,61,61,61	0
55	MG	AA	3247	1/1	0.93	0.27	76,76,76,76	0
55	MG	CA	1808	1/1	0.93	0.25	73,73,73,73	0
55	MG	DA	3134	1/1	0.93	0.34	56,56,56,56	0
55	MG	DA	3313	1/1	0.93	0.39	75,75,75,75	0
55	MG	AA	3205	1/1	0.93	0.28	43,43,43,43	0
55	MG	CG	301	1/1	0.93	0.26	86,86,86,86	0
55	MG	DA	3316	1/1	0.93	0.14	87,87,87,87	0
55	MG	AA	3130	1/1	0.93	0.12	59,59,59,59	0
55	MG	CA	1686	1/1	0.93	0.41	68,68,68,68	0
55	MG	DA	3479	1/1	0.93	0.35	87,87,87,87	0
55	MG	AA	3250	1/1	0.93	0.19	73,73,73,73	0
55	MG	AA	3028	1/1	0.93	0.22	51,51,51,51	0
55	MG	AA	3252	1/1	0.93	0.23	68,68,68,68	0
55	MG	BA	1733	1/1	0.93	0.30	88,88,88,88	0
55	MG	DA	3143	1/1	0.93	0.32	69,69,69,69	0
55	MG	AA	3209	1/1	0.93	0.22	71,71,71,71	0
55	MG	AA	3368	1/1	0.93	0.25	83,83,83,83	0
55	MG	DA	3492	1/1	0.93	0.30	48,48,48,48	0
55	MG	CB	105	1/1	0.93	0.16	80,80,80,80	0
55	MG	DA	3327	1/1	0.93	0.36	85,85,85,85	0
55	MG	AA	3433	1/1	0.93	0.30	77,77,77,77	0
55	MG	BA	1634	1/1	0.93	0.23	68,68,68,68	0
55	MG	CA	1698	1/1	0.93	0.15	104,104,104,104	0
55	MG	AA	3015	1/1	0.93	0.21	30,30,30,30	0
55	MG	DA	3160	1/1	0.93	0.30	65,65,65,65	0
55	MG	DA	3503	1/1	0.93	0.09	52,52,52,52	0
55	MG	AA	3212	1/1	0.93	0.31	56,56,56,56	0
55	MG	AA	3608	1/1	0.93	0.34	69,69,69,69	0
55	MG	AA	3503	1/1	0.93	0.07	72,72,72,72	0
55	MG	AA	3080	1/1	0.93	0.35	52,52,52,52	0
55	MG	AA	3214	1/1	0.93	0.37	66,66,66,66	0
55	MG	DA	3509	1/1	0.93	0.34	65,65,65,65	0
55	MG	DA	3511	1/1	0.93	0.25	65,65,65,65	0
55	MG	BA	1641	1/1	0.93	0.21	62,62,62,62	0
55	MG	DA	3168	1/1	0.93	0.27	49,49,49,49	0
55	MG	DA	3514	1/1	0.93	0.34	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	1642	1/1	0.93	0.25	69,69,69,69	0
55	MG	AA	3311	1/1	0.93	0.29	58,58,58,58	0
55	MG	BA	1644	1/1	0.93	0.20	78,78,78,78	0
55	MG	AA	3081	1/1	0.93	0.24	41,41,41,41	0
55	MG	AA	3442	1/1	0.93	0.22	49,49,49,49	0
55	MG	AA	3177	1/1	0.93	0.15	45,45,45,45	0
55	MG	AA	3377	1/1	0.93	0.17	85,85,85,85	0
55	MG	BA	1651	1/1	0.93	0.48	73,73,73,73	0
55	MG	AA	3445	1/1	0.93	0.21	69,69,69,69	0
55	MG	BA	1756	1/1	0.93	0.21	96,96,96,96	0
55	MG	AA	3315	1/1	0.93	0.18	68,68,68,68	0
55	MG	DA	3026	1/1	0.93	0.22	82,82,82,82	0
55	MG	B1	101	1/1	0.93	0.29	64,64,64,64	0
55	MG	DA	3194	1/1	0.93	0.23	59,59,59,59	0
55	MG	DA	3028	1/1	0.93	0.14	71,71,71,71	0
55	MG	AA	3084	1/1	0.93	0.16	40,40,40,40	0
55	MG	AA	3038	1/1	0.93	0.29	70,70,70,70	0
55	MG	CA	1602	1/1	0.93	0.28	81,81,81,81	0
55	MG	CA	1728	1/1	0.93	0.23	58,58,58,58	0
55	MG	CA	1603	1/1	0.93	0.26	75,75,75,75	0
55	MG	AA	3519	1/1	0.93	0.14	91,91,91,91	0
55	MG	BA	1662	1/1	0.93	0.26	80,80,80,80	0
55	MG	DA	3371	1/1	0.93	0.66	82,82,82,82	0
55	MG	AA	3381	1/1	0.93	0.36	88,88,88,88	0
55	MG	CA	1733	1/1	0.93	0.44	66,66,66,66	0
55	MG	AA	3180	1/1	0.93	0.20	56,56,56,56	0
55	MG	D0	201	1/1	0.93	0.15	78,78,78,78	0
55	MG	D1	201	1/1	0.93	0.32	73,73,73,73	0
55	MG	AA	3522	1/1	0.93	0.15	67,67,67,67	0
55	MG	AA	3039	1/1	0.93	0.32	80,80,80,80	0
55	MG	AA	3524	1/1	0.93	0.08	72,72,72,72	0
55	MG	AA	3211	1/1	0.94	0.21	43,43,43,43	0
55	MG	DA	3287	1/1	0.94	0.18	62,62,62,62	0
55	MG	CA	1697	1/1	0.94	0.27	56,56,56,56	0
55	MG	AA	3007	1/1	0.94	0.12	33,33,33,33	0
55	MG	AA	3501	1/1	0.94	0.24	73,73,73,73	0
55	MG	AA	3128	1/1	0.94	0.31	54,54,54,54	0
55	MG	DA	3295	1/1	0.94	0.14	66,66,66,66	0
55	MG	AA	3056	1/1	0.94	0.25	64,64,64,64	0
55	MG	AA	3267	1/1	0.94	0.26	80,80,80,80	0
55	MG	AA	3300	1/1	0.94	0.13	77,77,77,77	0
55	MG	DA	3424	1/1	0.94	0.08	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	1693	1/1	0.94	0.10	80,80,80,80	0
55	MG	CA	1706	1/1	0.94	0.28	77,77,77,77	0
55	MG	AA	3009	1/1	0.94	0.31	48,48,48,48	0
55	MG	CA	1628	1/1	0.94	0.13	86,86,86,86	0
55	MG	DA	3064	1/1	0.94	0.26	54,54,54,54	0
55	MG	DA	3306	1/1	0.94	0.23	73,73,73,73	0
55	MG	AA	3216	1/1	0.94	0.34	56,56,56,56	0
55	MG	DA	3175	1/1	0.94	0.13	70,70,70,70	0
55	MG	AA	3105	1/1	0.94	0.31	64,64,64,64	0
55	MG	DA	3177	1/1	0.94	0.23	51,51,51,51	0
55	MG	DA	3178	1/1	0.94	0.22	45,45,45,45	0
55	MG	AA	3565	1/1	0.94	0.27	81,81,81,81	0
55	MG	AA	3344	1/1	0.94	0.10	71,71,71,71	0
55	MG	AA	3154	1/1	0.94	0.34	55,55,55,55	0
55	MG	AA	3083	1/1	0.94	0.17	47,47,47,47	0
55	MG	DA	3072	1/1	0.94	0.26	98,98,98,98	0
55	MG	CA	1716	1/1	0.94	0.24	78,78,78,78	0
55	MG	AA	3199	1/1	0.94	0.26	66,66,66,66	0
55	MG	CA	1718	1/1	0.94	0.14	78,78,78,78	0
55	MG	AA	3514	1/1	0.94	0.09	59,59,59,59	0
55	MG	DA	3193	1/1	0.94	0.16	49,49,49,49	0
55	MG	AA	3386	1/1	0.94	0.28	74,74,74,74	0
55	MG	AA	3161	1/1	0.94	0.24	41,41,41,41	0
55	MG	DA	3079	1/1	0.94	0.18	83,83,83,83	0
55	MG	AB	213	1/1	0.94	0.23	54,54,54,54	0
55	MG	AA	3473	1/1	0.94	0.22	70,70,70,70	0
55	MG	AA	3581	1/1	0.94	0.13	67,67,67,67	0
55	MG	BA	1772	1/1	0.94	0.10	89,89,89,89	0
55	MG	DA	3205	1/1	0.94	0.34	60,60,60,60	0
55	MG	AA	3582	1/1	0.94	0.20	33,33,33,33	0
55	MG	DA	3456	1/1	0.94	0.14	83,83,83,83	0
55	MG	CA	1646	1/1	0.94	0.28	56,56,56,56	0
55	MG	AB	217	1/1	0.94	0.26	109,109,109,109	0
55	MG	AA	3052	1/1	0.94	0.58	74,74,74,74	0
55	MG	DA	3465	1/1	0.94	0.35	51,51,51,51	0
55	MG	DA	3211	1/1	0.94	0.25	49,49,49,49	0
55	MG	DA	3088	1/1	0.94	0.35	49,49,49,49	0
55	MG	DA	3214	1/1	0.94	0.54	70,70,70,70	0
55	MG	DA	3089	1/1	0.94	0.18	46,46,46,46	0
55	MG	DA	3216	1/1	0.94	0.27	47,47,47,47	0
55	MG	DA	3090	1/1	0.94	0.16	47,47,47,47	0
55	MG	CA	1649	1/1	0.94	0.17	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3220	1/1	0.94	0.34	67,67,67,67	0
55	MG	AA	3097	1/1	0.94	0.18	65,65,65,65	0
55	MG	BQ	102	1/1	0.94	0.08	89,89,89,89	0
55	MG	DA	3095	1/1	0.94	0.35	45,45,45,45	0
55	MG	AE	301	1/1	0.94	0.13	52,52,52,52	0
55	MG	AA	3225	1/1	0.94	0.09	69,69,69,69	0
55	MG	BA	1780	1/1	0.94	0.29	58,58,58,58	0
55	MG	DA	3229	1/1	0.94	0.14	109,109,109,109	0
55	MG	DA	3231	1/1	0.94	0.23	55,55,55,55	0
55	MG	AA	3281	1/1	0.94	0.14	67,67,67,67	0
55	MG	DA	3233	1/1	0.94	0.49	84,84,84,84	0
55	MG	AA	3589	1/1	0.94	0.19	72,72,72,72	0
55	MG	AA	3316	1/1	0.94	0.28	87,87,87,87	0
55	MG	AA	3124	1/1	0.94	0.46	56,56,56,56	0
55	MG	AA	3356	1/1	0.94	0.08	72,72,72,72	0
55	MG	DA	3495	1/1	0.94	0.18	65,65,65,65	0
55	MG	AA	3527	1/1	0.94	0.21	77,77,77,77	0
55	MG	BA	1660	1/1	0.94	0.30	64,64,64,64	0
55	MG	DA	3363	1/1	0.94	0.26	73,73,73,73	0
55	MG	DA	3364	1/1	0.94	0.10	85,85,85,85	0
55	MG	BA	1725	1/1	0.94	0.27	82,82,82,82	0
55	MG	DA	3501	1/1	0.94	0.16	77,77,77,77	0
55	MG	AA	3395	1/1	0.94	0.07	57,57,57,57	0
55	MG	DA	3367	1/1	0.94	0.21	85,85,85,85	0
55	MG	DA	3005	1/1	0.94	0.33	83,83,83,83	0
55	MG	DA	3006	1/1	0.94	0.17	78,78,78,78	0
55	MG	AA	3228	1/1	0.94	0.14	89,89,89,89	0
55	MG	AA	3255	1/1	0.94	0.23	61,61,61,61	0
55	MG	CA	1751	1/1	0.94	0.19	102,102,102,102	0
55	MG	DA	3014	1/1	0.94	0.13	62,62,62,62	0
55	MG	DA	3510	1/1	0.94	0.24	67,67,67,67	0
55	MG	DA	3250	1/1	0.94	0.27	54,54,54,54	0
55	MG	AA	3320	1/1	0.94	0.28	70,70,70,70	0
55	MG	DA	3252	1/1	0.94	0.15	45,45,45,45	0
55	MG	AA	3321	1/1	0.94	0.34	68,68,68,68	0
55	MG	DA	3380	1/1	0.94	0.17	74,74,74,74	0
55	MG	AA	3033	1/1	0.94	0.26	46,46,46,46	0
55	MG	BA	1797	1/1	0.94	0.26	89,89,89,89	0
55	MG	DA	3122	1/1	0.94	0.11	71,71,71,71	0
55	MG	DA	3384	1/1	0.94	0.21	64,64,64,64	0
55	MG	AA	3142	1/1	0.94	0.13	61,61,61,61	0
55	MG	DA	3386	1/1	0.94	0.36	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3605	1/1	0.94	0.30	45,45,45,45	0
55	MG	CA	1676	1/1	0.94	0.35	55,55,55,55	0
55	MG	AA	3365	1/1	0.94	0.20	83,83,83,83	0
55	MG	AA	3232	1/1	0.94	0.13	47,47,47,47	0
55	MG	AA	3144	1/1	0.94	0.30	51,51,51,51	0
55	MG	AA	3409	1/1	0.94	0.21	98,98,98,98	0
55	MG	CA	1681	1/1	0.94	0.20	71,71,71,71	0
55	MG	AA	3544	1/1	0.94	0.22	67,67,67,67	0
55	MG	AA	3615	1/1	0.94	0.14	84,84,84,84	0
55	MG	BA	1809	1/1	0.94	0.29	88,88,88,88	0
55	MG	CA	1608	1/1	0.94	0.19	81,81,81,81	0
55	MG	AA	3291	1/1	0.94	0.24	70,70,70,70	0
55	MG	CA	1688	1/1	0.94	0.38	75,75,75,75	0
55	MG	AA	3327	1/1	0.94	0.13	82,82,82,82	0
55	MG	AA	3040	1/1	0.94	0.49	67,67,67,67	0
55	MG	AA	3551	1/1	0.94	0.25	73,73,73,73	0
55	MG	CA	1774	1/1	0.94	0.12	72,72,72,72	0
55	MG	AA	3552	1/1	0.94	0.32	75,75,75,75	0
55	MG	DE	301	1/1	0.94	0.17	43,43,43,43	0
55	MG	DE	302	1/1	0.94	0.24	75,75,75,75	0
55	MG	DA	3146	1/1	0.94	0.25	38,38,38,38	0
55	MG	DA	3149	1/1	0.94	0.23	60,60,60,60	0
55	MG	AA	3622	1/1	0.94	0.09	71,71,71,71	0
55	MG	AA	3454	1/1	0.94	0.15	78,78,78,78	0
55	MG	DA	3155	1/1	0.94	0.28	49,49,49,49	0
55	MG	CA	1778	1/1	0.94	0.11	69,69,69,69	0
56	ZN	BG	302	1/1	0.94	0.25	95,95,95,95	0
55	MG	AA	3090	1/1	0.95	0.27	68,68,68,68	0
55	MG	AA	3194	1/1	0.95	0.19	54,54,54,54	0
55	MG	DA	3119	1/1	0.95	0.31	80,80,80,80	0
55	MG	DA	3337	1/1	0.95	0.30	75,75,75,75	0
55	MG	DA	3338	1/1	0.95	0.30	75,75,75,75	0
55	MG	AA	3286	1/1	0.95	0.31	69,69,69,69	0
55	MG	AA	3063	1/1	0.95	0.11	64,64,64,64	0
55	MG	BA	1816	1/1	0.95	0.14	87,87,87,87	0
55	MG	AA	3092	1/1	0.95	0.28	59,59,59,59	0
55	MG	DA	3034	1/1	0.95	0.09	72,72,72,72	0
55	MG	AA	3198	1/1	0.95	0.30	57,57,57,57	0
55	MG	DA	3126	1/1	0.95	0.27	39,39,39,39	0
55	MG	DA	3127	1/1	0.95	0.27	44,44,44,44	0
55	MG	AA	3290	1/1	0.95	0.31	62,62,62,62	0
55	MG	DA	3129	1/1	0.95	0.34	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	BA	1685	1/1	0.95	0.09	82,82,82,82	0
55	MG	BA	1821	1/1	0.95	0.24	78,78,78,78	0
55	MG	AA	3106	1/1	0.95	0.23	65,65,65,65	0
55	MG	AA	3328	1/1	0.95	0.29	71,71,71,71	0
55	MG	AA	3227	1/1	0.95	0.35	66,66,66,66	0
55	MG	CA	1701	1/1	0.95	0.29	77,77,77,77	0
55	MG	DA	3044	1/1	0.95	0.15	66,66,66,66	0
55	MG	AA	3107	1/1	0.95	0.15	56,56,56,56	0
55	MG	AA	3332	1/1	0.95	0.40	82,82,82,82	0
55	MG	BA	1623	1/1	0.95	0.36	68,68,68,68	0
55	MG	AA	3003	1/1	0.95	0.21	43,43,43,43	0
55	MG	AA	3375	1/1	0.95	0.20	74,74,74,74	0
55	MG	AA	3566	1/1	0.95	0.33	73,73,73,73	0
55	MG	AA	3567	1/1	0.95	0.28	38,38,38,38	0
55	MG	CA	1709	1/1	0.95	0.39	81,81,81,81	0
55	MG	DA	3145	1/1	0.95	0.35	54,54,54,54	0
55	MG	DA	3258	1/1	0.95	0.22	56,56,56,56	0
55	MG	AA	3073	1/1	0.95	0.41	76,76,76,76	0
55	MG	BA	1697	1/1	0.95	0.12	84,84,84,84	0
55	MG	AA	3065	1/1	0.95	0.23	52,52,52,52	0
55	MG	BA	1836	1/1	0.95	0.19	73,73,73,73	0
55	MG	AA	3513	1/1	0.95	0.12	73,73,73,73	0
55	MG	AA	3206	1/1	0.95	0.30	53,53,53,53	0
55	MG	AA	3096	1/1	0.95	0.20	75,75,75,75	0
55	MG	DA	3482	1/1	0.95	0.18	56,56,56,56	0
55	MG	DA	3484	1/1	0.95	0.25	46,46,46,46	0
55	MG	BA	1840	1/1	0.95	0.25	80,80,80,80	0
55	MG	DA	3486	1/1	0.95	0.35	46,46,46,46	0
55	MG	CA	1796	1/1	0.95	0.20	81,81,81,81	0
55	MG	AA	3517	1/1	0.95	0.23	61,61,61,61	0
55	MG	AA	3266	1/1	0.95	0.14	47,47,47,47	0
55	MG	DA	3378	1/1	0.95	0.17	56,56,56,56	0
55	MG	AA	3341	1/1	0.95	0.16	63,63,63,63	0
55	MG	AA	3579	1/1	0.95	0.19	35,35,35,35	0
55	MG	AA	3580	1/1	0.95	0.21	44,44,44,44	0
55	MG	AA	3018	1/1	0.95	0.28	38,38,38,38	0
55	MG	AA	3427	1/1	0.95	0.26	78,78,78,78	0
55	MG	CA	1726	1/1	0.95	0.41	82,82,82,82	0
55	MG	AA	3160	1/1	0.95	0.21	31,31,31,31	0
55	MG	AA	3067	1/1	0.95	0.30	61,61,61,61	0
55	MG	CA	1652	1/1	0.95	0.27	70,70,70,70	0
55	MG	DA	3172	1/1	0.95	0.19	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	DA	3174	1/1	0.95	0.16	49,49,49,49	0
55	MG	AA	3586	1/1	0.95	0.23	80,80,80,80	0
55	MG	AA	3305	1/1	0.95	0.22	62,62,62,62	0
55	MG	AA	3239	1/1	0.95	0.13	70,70,70,70	0
55	MG	BA	1645	1/1	0.95	0.31	52,52,52,52	0
55	MG	AA	3116	1/1	0.95	0.25	43,43,43,43	0
55	MG	AA	3308	1/1	0.95	0.14	58,58,58,58	0
55	MG	DA	3292	1/1	0.95	0.30	56,56,56,56	0
55	MG	AA	3099	1/1	0.95	0.27	64,64,64,64	0
55	MG	AA	3436	1/1	0.95	0.18	82,82,82,82	0
55	MG	CA	1738	1/1	0.95	0.41	75,75,75,75	0
55	MG	DA	3400	1/1	0.95	0.11	82,82,82,82	0
55	MG	DA	3515	1/1	0.95	0.19	52,52,52,52	0
55	MG	AF	302	1/1	0.95	0.14	80,80,80,80	0
55	MG	DA	3189	1/1	0.95	0.20	43,43,43,43	0
55	MG	AA	3014	1/1	0.95	0.33	41,41,41,41	0
55	MG	AA	3187	1/1	0.95	0.63	65,65,65,65	0
55	MG	AA	3313	1/1	0.95	0.40	62,62,62,62	0
55	MG	AA	3440	1/1	0.95	0.14	83,83,83,83	0
55	MG	A2	201	1/1	0.95	0.26	81,81,81,81	0
55	MG	DA	3523	1/1	0.95	0.31	86,86,86,86	0
55	MG	DA	3092	1/1	0.95	0.31	47,47,47,47	0
55	MG	AA	3119	1/1	0.95	0.25	64,64,64,64	0
55	MG	DA	3197	1/1	0.95	0.32	52,52,52,52	0
55	MG	DA	3411	1/1	0.95	0.24	77,77,77,77	0
55	MG	AA	3601	1/1	0.95	0.32	79,79,79,79	0
55	MG	AA	3189	1/1	0.95	0.23	57,57,57,57	0
55	MG	DA	3001	1/1	0.95	0.18	58,58,58,58	0
55	MG	DB	203	1/1	0.95	0.21	71,71,71,71	0
55	MG	DA	3201	1/1	0.95	0.26	75,75,75,75	0
55	MG	DA	3203	1/1	0.95	0.40	52,52,52,52	0
55	MG	CA	1670	1/1	0.95	0.32	54,54,54,54	0
55	MG	AA	3139	1/1	0.95	0.24	42,42,42,42	0
55	MG	AA	3218	1/1	0.95	0.29	77,77,77,77	0
55	MG	AA	3359	1/1	0.95	0.17	60,60,60,60	0
55	MG	BA	1603	1/1	0.95	0.26	63,63,63,63	0
55	MG	DA	3009	1/1	0.95	0.14	88,88,88,88	0
55	MG	AA	3492	1/1	0.95	0.24	84,84,84,84	0
55	MG	AA	3401	1/1	0.95	0.10	98,98,98,98	0
55	MG	BA	1606	1/1	0.95	0.09	88,88,88,88	0
55	MG	BA	1807	1/1	0.95	0.18	70,70,70,70	0
55	MG	CA	1758	1/1	0.95	0.28	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	AA	3140	1/1	0.95	0.15	53,53,53,53	0
55	MG	AA	3002	1/1	0.95	0.26	40,40,40,40	0
55	MG	CA	1683	1/1	0.95	0.26	84,84,84,84	0
55	MG	AA	3612	1/1	0.95	0.09	38,38,38,38	0
55	MG	AA	3549	1/1	0.95	0.26	41,41,41,41	0
55	MG	DA	3223	1/1	0.95	0.09	83,83,83,83	0
55	MG	CA	1610	1/1	0.95	0.12	75,75,75,75	0
56	ZN	CG	304	1/1	0.95	0.22	112,112,112,112	0
55	MG	AA	3163	1/1	0.96	0.12	48,48,48,48	0
55	MG	DA	3179	1/1	0.96	0.27	56,56,56,56	0
55	MG	AA	3104	1/1	0.96	0.24	54,54,54,54	0
55	MG	DA	3181	1/1	0.96	0.22	48,48,48,48	0
55	MG	DA	3270	1/1	0.96	0.32	73,73,73,73	0
55	MG	DA	3182	1/1	0.96	0.30	72,72,72,72	0
55	MG	DA	3460	1/1	0.96	0.29	45,45,45,45	0
55	MG	AA	3595	1/1	0.96	0.10	90,90,90,90	0
55	MG	DA	3463	1/1	0.96	0.26	44,44,44,44	0
55	MG	DA	3464	1/1	0.96	0.25	55,55,55,55	0
55	MG	DA	3030	1/1	0.96	0.11	66,66,66,66	0
55	MG	DA	3104	1/1	0.96	0.23	38,38,38,38	0
55	MG	AA	3016	1/1	0.96	0.26	53,53,53,53	0
55	MG	DA	3187	1/1	0.96	0.21	40,40,40,40	0
55	MG	BA	1663	1/1	0.96	0.12	47,47,47,47	0
55	MG	DA	3470	1/1	0.96	0.15	75,75,75,75	0
55	MG	AA	3597	1/1	0.96	0.11	67,67,67,67	0
55	MG	CA	1791	1/1	0.96	0.25	70,70,70,70	0
55	MG	AA	3152	1/1	0.96	0.29	53,53,53,53	0
55	MG	BA	1715	1/1	0.96	0.24	69,69,69,69	0
55	MG	AA	3408	1/1	0.96	0.18	70,70,70,70	0
55	MG	DA	3040	1/1	0.96	0.26	92,92,92,92	0
55	MG	AA	3265	1/1	0.96	0.30	42,42,42,42	0
55	MG	BA	1827	1/1	0.96	0.19	85,85,85,85	0
55	MG	CA	1674	1/1	0.96	0.15	76,76,76,76	0
55	MG	AA	3385	1/1	0.96	0.19	75,75,75,75	0
55	MG	AA	3153	1/1	0.96	0.18	33,33,33,33	0
55	MG	DA	3289	1/1	0.96	0.07	47,47,47,47	0
55	MG	DA	3483	1/1	0.96	0.30	45,45,45,45	0
55	MG	AA	3138	1/1	0.96	0.27	41,41,41,41	0
55	MG	BA	1671	1/1	0.96	0.08	74,74,74,74	0
55	MG	DA	3202	1/1	0.96	0.23	65,65,65,65	0
55	MG	DA	3048	1/1	0.96	0.09	84,84,84,84	0
55	MG	DA	3488	1/1	0.96	0.17	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3049	1/1	0.96	0.27	72,72,72,72	0
55	MG	DA	3296	1/1	0.96	0.18	56,56,56,56	0
55	MG	CA	1618	1/1	0.96	0.22	89,89,89,89	0
55	MG	CA	1619	1/1	0.96	0.14	62,62,62,62	0
55	MG	DA	3493	1/1	0.96	0.29	46,46,46,46	0
55	MG	DA	3052	1/1	0.96	0.07	84,84,84,84	0
55	MG	DA	3208	1/1	0.96	0.24	40,40,40,40	0
55	MG	CA	1804	1/1	0.96	0.12	81,81,81,81	0
55	MG	AA	3564	1/1	0.96	0.20	54,54,54,54	0
55	MG	AA	3146	1/1	0.96	0.16	62,62,62,62	0
55	MG	AA	3469	1/1	0.96	0.47	76,76,76,76	0
55	MG	AA	3253	1/1	0.96	0.19	82,82,82,82	0
55	MG	AA	3609	1/1	0.96	0.14	39,39,39,39	0
55	MG	AE	302	1/1	0.96	0.23	38,38,38,38	0
55	MG	AA	3238	1/1	0.96	0.26	48,48,48,48	0
55	MG	AA	3156	1/1	0.96	0.14	87,87,87,87	0
55	MG	BA	1680	1/1	0.96	0.26	71,71,71,71	0
55	MG	AA	3571	1/1	0.96	0.19	48,48,48,48	0
55	MG	AA	3309	1/1	0.96	0.32	64,64,64,64	0
55	MG	AA	3614	1/1	0.96	0.22	91,91,91,91	0
55	MG	DA	3224	1/1	0.96	0.32	59,59,59,59	0
55	MG	AA	3474	1/1	0.96	0.29	93,93,93,93	0
55	MG	AA	3616	1/1	0.96	0.25	69,69,69,69	0
55	MG	AA	3536	1/1	0.96	0.12	102,102,102,102	0
55	MG	AA	3159	1/1	0.96	0.14	30,30,30,30	0
55	MG	AA	3540	1/1	0.96	0.18	44,44,44,44	0
55	MG	DA	3230	1/1	0.96	0.13	68,68,68,68	0
55	MG	A5	101	1/1	0.96	0.16	49,49,49,49	0
55	MG	CA	1639	1/1	0.96	0.22	64,64,64,64	0
55	MG	BA	1795	1/1	0.96	0.18	66,66,66,66	0
55	MG	DA	3418	1/1	0.96	0.29	81,81,81,81	0
55	MG	DA	3148	1/1	0.96	0.22	42,42,42,42	0
55	MG	DA	3235	1/1	0.96	0.17	53,53,53,53	0
55	MG	AA	3329	1/1	0.96	0.29	77,77,77,77	0
55	MG	DA	3150	1/1	0.96	0.24	76,76,76,76	0
55	MG	AA	3019	1/1	0.96	0.13	35,35,35,35	0
55	MG	DA	3330	1/1	0.96	0.10	74,74,74,74	0
55	MG	AA	3396	1/1	0.96	0.21	58,58,58,58	0
55	MG	AA	3397	1/1	0.96	0.22	40,40,40,40	0
55	MG	AA	3293	1/1	0.96	0.26	87,87,87,87	0
55	MG	AA	3200	1/1	0.96	0.09	80,80,80,80	0
55	MG	AA	3425	1/1	0.96	0.43	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	1803	1/1	0.96	0.07	81,81,81,81	0
55	MG	DA	3245	1/1	0.96	0.25	80,80,80,80	0
55	MG	AA	3585	1/1	0.96	0.10	46,46,46,46	0
55	MG	BA	1805	1/1	0.96	0.28	62,62,62,62	0
55	MG	AA	3548	1/1	0.96	0.10	31,31,31,31	0
55	MG	DA	3013	1/1	0.96	0.17	55,55,55,55	0
55	MG	AA	3112	1/1	0.96	0.30	48,48,48,48	0
55	MG	DA	3165	1/1	0.96	0.27	73,73,73,73	0
55	MG	AA	3021	1/1	0.96	0.28	38,38,38,38	0
55	MG	BA	1701	1/1	0.96	0.20	73,73,73,73	0
55	MG	AA	3335	1/1	0.96	0.29	90,90,90,90	0
55	MG	AA	3457	1/1	0.96	0.18	73,73,73,73	0
55	MG	DA	3020	1/1	0.96	0.24	51,51,51,51	0
55	MG	AA	3358	1/1	0.96	0.20	79,79,79,79	0
55	MG	BA	1655	1/1	0.96	0.31	89,89,89,89	0
55	MG	DP	201	1/1	0.96	0.11	63,63,63,63	0
55	MG	DA	3259	1/1	0.96	0.24	56,56,56,56	0
55	MG	DA	3173	1/1	0.96	0.44	59,59,59,59	0
55	MG	BA	1706	1/1	0.96	0.28	55,55,55,55	0
55	MG	BA	1657	1/1	0.96	0.24	44,44,44,44	0
55	MG	CA	1722	1/1	0.96	0.34	63,63,63,63	0
55	MG	BA	1760	1/1	0.96	0.26	67,67,67,67	0
56	ZN	BQ	103	1/1	0.96	0.08	129,129,129,129	0
55	MG	DA	3265	1/1	0.96	0.14	63,63,63,63	0
55	MG	AA	3528	1/1	0.97	0.34	88,88,88,88	0
55	MG	AA	3229	1/1	0.97	0.04	18,18,18,18	0
55	MG	AA	3068	1/1	0.97	0.11	49,49,49,49	0
55	MG	CA	1671	1/1	0.97	0.28	51,51,51,51	0
55	MG	DA	3459	1/1	0.97	0.16	49,49,49,49	0
55	MG	BA	1656	1/1	0.97	0.29	78,78,78,78	0
55	MG	DA	3461	1/1	0.97	0.19	50,50,50,50	0
55	MG	DA	3098	1/1	0.97	0.19	41,41,41,41	0
55	MG	AA	3020	1/1	0.97	0.19	31,31,31,31	0
55	MG	AA	3278	1/1	0.97	0.19	81,81,81,81	0
55	MG	BA	1659	1/1	0.97	0.26	70,70,70,70	0
55	MG	AA	3296	1/1	0.97	0.17	75,75,75,75	0
55	MG	AA	3170	1/1	0.97	0.19	34,34,34,34	0
55	MG	DA	3369	1/1	0.97	0.23	61,61,61,61	0
55	MG	AA	3280	1/1	0.97	0.23	65,65,65,65	0
55	MG	AA	3143	1/1	0.97	0.24	40,40,40,40	0
55	MG	AA	3537	1/1	0.97	0.25	39,39,39,39	0
55	MG	AA	3538	1/1	0.97	0.18	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3031	1/1	0.97	0.16	69,69,69,69	0
55	MG	AA	3432	1/1	0.97	0.31	41,41,41,41	0
55	MG	DA	3071	1/1	0.97	0.21	74,74,74,74	0
55	MG	DA	3152	1/1	0.97	0.13	44,44,44,44	0
55	MG	AA	3515	1/1	0.97	0.28	67,67,67,67	0
55	MG	DA	3154	1/1	0.97	0.25	59,59,59,59	0
55	MG	DA	3112	1/1	0.97	0.22	70,70,70,70	0
55	MG	AA	3336	1/1	0.97	0.19	48,48,48,48	0
55	MG	DA	3333	1/1	0.97	0.13	85,85,85,85	0
55	MG	AA	3082	1/1	0.97	0.20	39,39,39,39	0
55	MG	BA	1793	1/1	0.97	0.15	82,82,82,82	0
55	MG	AA	3569	1/1	0.97	0.29	40,40,40,40	0
55	MG	DA	3290	1/1	0.97	0.23	59,59,59,59	0
55	MG	AA	3137	1/1	0.97	0.12	43,43,43,43	0
55	MG	AA	3174	1/1	0.97	0.30	43,43,43,43	0
55	MG	AA	3197	1/1	0.97	0.30	63,63,63,63	0
55	MG	DA	3002	1/1	0.97	0.15	91,91,91,91	0
55	MG	AA	3499	1/1	0.97	0.23	79,79,79,79	0
55	MG	CA	1692	1/1	0.97	0.22	75,75,75,75	0
55	MG	AA	3042	1/1	0.97	0.15	67,67,67,67	0
55	MG	BA	1646	1/1	0.97	0.17	70,70,70,70	0
55	MG	AA	3088	1/1	0.97	0.26	60,60,60,60	0
55	MG	DA	3300	1/1	0.97	0.21	71,71,71,71	0
55	MG	AA	3089	1/1	0.97	0.19	44,44,44,44	0
55	MG	DA	3212	1/1	0.97	0.14	70,70,70,70	0
55	MG	AA	3201	1/1	0.97	0.16	42,42,42,42	0
55	MG	AA	3158	1/1	0.97	0.22	66,66,66,66	0
55	MG	AA	3243	1/1	0.97	0.25	52,52,52,52	0
55	MG	BA	1774	1/1	0.97	0.22	98,98,98,98	0
55	MG	DA	3217	1/1	0.97	0.29	51,51,51,51	0
55	MG	AB	205	1/1	0.97	0.18	75,75,75,75	0
55	MG	DA	3016	1/1	0.97	0.19	105,105,105,105	0
55	MG	AA	3157	1/1	0.98	0.27	41,41,41,41	0
55	MG	AA	3136	1/1	0.98	0.13	40,40,40,40	0
55	MG	CC	103	1/1	0.98	0.25	72,72,72,72	0
55	MG	AA	3110	1/1	0.98	0.08	39,39,39,39	0
55	MG	AA	3456	1/1	0.98	0.16	70,70,70,70	0
55	MG	AO	201	1/1	0.98	0.27	39,39,39,39	0
55	MG	AA	3607	1/1	0.98	0.17	54,54,54,54	0
55	MG	DA	3336	1/1	0.98	0.15	68,68,68,68	0
55	MG	BA	1748	1/1	0.98	0.27	61,61,61,61	0
55	MG	AA	3268	1/1	0.98	0.31	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3590	1/1	0.98	0.08	56,56,56,56	0
55	MG	CA	1632	1/1	0.98	0.13	77,77,77,77	0
55	MG	A1	201	1/1	0.98	0.20	49,49,49,49	0
55	MG	CA	1746	1/1	0.98	0.34	59,59,59,59	0
55	MG	AA	3060	1/1	0.98	0.05	57,57,57,57	0
55	MG	BA	1738	1/1	0.98	0.10	73,73,73,73	0
55	MG	DA	3008	1/1	0.98	0.20	76,76,76,76	0
55	MG	AU	201	1/1	0.98	0.17	74,74,74,74	0
55	MG	AA	3550	1/1	0.98	0.25	52,52,52,52	0
55	MG	DA	3436	1/1	0.98	0.07	69,69,69,69	0
55	MG	D5	101	1/1	0.98	0.17	50,50,50,50	0
55	MG	DA	3011	1/1	0.98	0.07	68,68,68,68	0
55	MG	DA	3032	1/1	0.98	0.19	73,73,73,73	0
55	MG	AA	3350	1/1	0.98	0.29	59,59,59,59	0
55	MG	AA	3031	1/1	0.99	0.27	44,44,44,44	0
55	MG	AA	3574	1/1	0.99	0.17	29,29,29,29	0
55	MG	DA	3147	1/1	0.99	0.05	16,16,16,16	0
56	ZN	CQ	101	1/1	0.99	0.09	113,113,113,113	0

6.5 Other polymers (i)

There are no such residues in this entry.