Full wwPDB X-ray Structure Validation Report ⓘ

Mar 6, 2026 – 12:34 AM UTC

PDB ID	:	4V83 / pdb_00004v83
Title	:	Crystal structure of a complex containing domain 3 from the PSIV IGR IRES RNA bound to the 70S ribosome.
Authors	:	Zhu, J.; Korostelev, A.; Costantino, D.; Noller, H.F.; Kieft, J.S.
Deposited on	:	2010-12-13
Resolution	:	3.50 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:

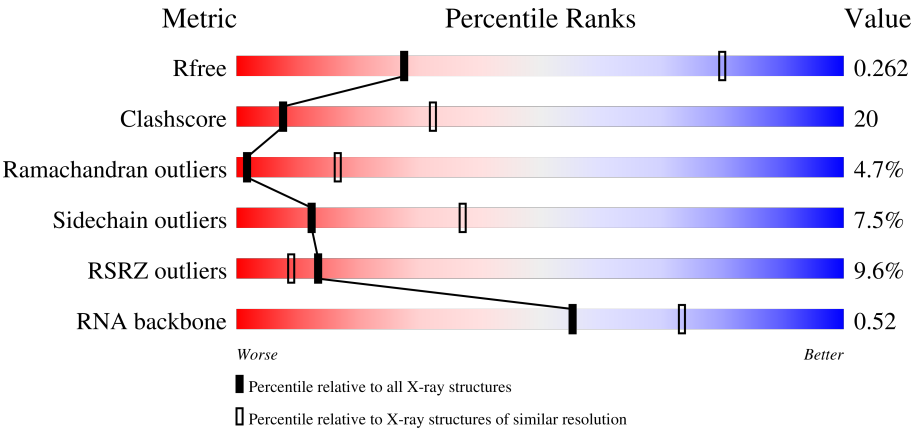
MolProbity	:	4-5-2 with Phenix2.0
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)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

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1085 (3.54-3.46)
Clashscore	190562	1140 (3.54-3.46)
Ramachandran outliers	187476	1113 (3.54-3.46)
Sidechain outliers	187428	1114 (3.54-3.46)
RSRZ outliers	180081	1084 (3.54-3.46)
RNA backbone	3983	1010 (3.98-3.02)

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	1506	5% 47% 45% 8%
1	CA	1506	10% 47% 44% 8%
2	AB	234	8% 46% 47% 7%
2	CB	234	11% 47% 46% 7%

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Mol	Chain	Length	Quality of chain
3	AC	206	7% 47% 48% 5%
3	CC	206	13% 49% 46% 5%
4	AD	208	11% 45% 50% 5%
4	CD	208	27% 47% 49%
5	AE	151	7% 52% 44% 5%
5	CE	151	10% 52% 44% 5%
6	AF	101	9% 45% 55%
6	CF	101	4% 42% 58%
7	AG	155	10% 54% 45%
7	CG	155	6% 53% 45%
8	AH	138	9% 46% 51%
8	CH	138	11% 48% 49%
9	AI	127	35% 45% 52%
9	CI	127	32% 46% 51%
10	AJ	98	16% 49% 40% 10%
10	CJ	98	24% 52% 36% 11%
11	AK	119	12% 48% 48%
11	CK	119	14% 50% 47%
12	AL	124	12% 52% 38% 10%
12	CL	124	28% 50% 39% 10%
13	AM	116	11% 40% 55%
13	CM	116	7% 37% 58%
14	AN	60	22% 52% 43%
14	CN	60	38% 58% 37%
15	AO	88	10% 61% 39%

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Mol	Chain	Length	Quality of chain
15	CO	88	15% 60% 39%
16	AP	83	13% 51% 46%
16	CP	83	35% 48% 46% 6%
17	AQ	99	7% 53% 45%
17	CQ	99	25% 51% 47%
18	AR	70	9% 56% 41%
18	CR	70	% 53% 44%
19	AS	78	10% 38% 47% 12%
19	CS	78	12% 40% 47% 10%
20	AT	99	15% 61% 34% 5%
20	CT	99	31% 60% 36%
21	AU	24	38% 50% 46%
21	CU	24	58% 46% 50%
22	AV	35	9% 51% 40% 9%
22	CV	35	17% 54% 37% 9%
23	BA	2879	2% 47% 40% 8%
23	DA	2879	2% 47% 40% 9%
24	BB	119	4% 44% 49% 8%
24	DB	119	12% 46% 46% 8%
25	BC	271	10% 40% 46% 13%
25	DC	271	10% 38% 49% 12%
26	BD	204	9% 45% 47% 8%
26	DD	204	13% 47% 45% 9%
27	BE	202	9% 44% 49% 7%
27	DE	202	4% 42% 50% 8%

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Mol	Chain	Length	Quality of chain
28	BF	181	7% 39% 54% 7%
28	DF	181	8% 39% 54% 7%
29	BG	159	12% 53% 40% 7%
29	DG	159	12% 52% 41% 7%
30	BH	145	39% 45% 47% 8%
30	DH	145	28% 46% 45% 9%
31	BI	65	3% 37% 12% 51%
31	DI	65	5% 37% 12% 51%
32	BJ	137	15% 34% 55% 12%
32	DJ	137	7% 36% 53% 12%
33	BK	122	4% 52% 39% 9%
33	DK	122	2% 52% 39% 10%
34	BL	146	14% 32% 46% 19%
34	DL	146	21% 31% 47% 19%
35	BM	136	12% 40% 43% 16%
35	DM	136	12% 38% 45% 17%
36	BN	117	10% 43% 50% 7%
36	DN	117	13% 43% 52% 5%
37	BO	98	17% 35% 52% 11%
37	DO	98	24% 34% 54% 10%
38	BP	137	7% 44% 49% 7%
38	DP	137	14% 43% 50% 7%
39	BQ	116	9% 50% 46%
39	DQ	116	13% 52% 45%
40	BR	101	9% 41% 50% 9%

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Mol	Chain	Length	Quality of chain
40	DR	101	13% 43% 49% 8%
41	BS	112	4% 50% 43% 7%
41	DS	112	8% 51% 42% 7%
42	BT	92	16% 39% 52% 9%
42	DT	92	10% 40% 51% 9%
43	BU	100	36% 38% 46% 16%
43	DU	100	24% 38% 46% 16%
44	BV	188	9% 47% 48% 5%
44	DV	188	11% 45% 51% 5%
45	BW	76	12% 55% 37% 8%
45	DW	76	11% 51% 39% 9%
46	BX	88	28% 35% 44% 18%
46	DX	88	17% 35% 47% 16%
47	BY	62	21% 35% 53% 11%
47	DY	62	13% 34% 55% 11%
48	BZ	59	3% 56% 41%
48	DZ	59	5% 51% 47%
49	B1	30	43% 50% 7%
49	D1	30	43% 50% 7%
50	B2	52	8% 58% 31% 12%
50	D2	52	8% 56% 31% 13%
51	B3	44	18% 39% 50% 11%
51	D3	44	14% 43% 45% 11%
52	B4	48	10% 42% 48% 10%
52	D4	48	15% 42% 48% 10%

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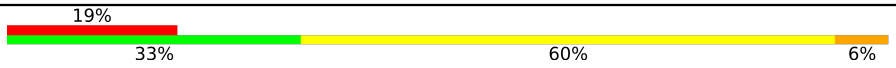
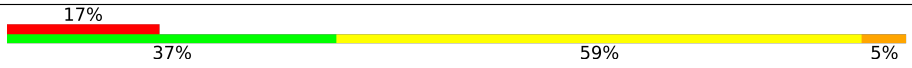
Mol	Chain	Length	Quality of chain
53	B5	63	
53	D5	63	

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
54	MG	AA	1687	-	-	-	X
54	MG	AA	1717	-	-	-	X
54	MG	BA	3002	-	-	-	X
54	MG	BA	3036	-	-	-	X
54	MG	BA	3040	-	-	-	X
54	MG	BA	3060	-	-	-	X
54	MG	BA	3195	-	-	-	X
54	MG	BA	3414	-	-	-	X
54	MG	BA	3501	-	-	-	X
54	MG	BA	3606	-	-	-	X
54	MG	BB	216	-	-	-	X
54	MG	CA	1627	-	-	-	X
54	MG	CA	1754	-	-	-	X
54	MG	DA	3063	-	-	-	X
54	MG	DA	3209	-	-	-	X
54	MG	DA	3367	-	-	-	X
54	MG	DA	3397	-	-	-	X
54	MG	DA	3574	-	-	-	X
54	MG	DA	3700	-	-	-	X
54	MG	DA	3786	-	-	-	X
54	MG	DL	202	-	-	-	X

2 Entry composition (i)

There are 55 unique types of molecules in this entry. The entry contains 283641 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 ribosomal RNA 16S.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1506	Total	C	N	O	P	0	0	0
			32372	14409	5999	10459	1505			
1	CA	1506	Total	C	N	O	P	0	0	0
			32372	14409	5999	10459	1505			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	234	Total	C	N	O	S	0	0	0
			1901	1213	341	342	5			
2	CB	234	Total	C	N	O	S	0	0	0
			1901	1213	341	342	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	206	Total	C	N	O	S	0	0	0
			1613	1016	314	282	1			
3	CC	206	Total	C	N	O	S	0	0	0
			1613	1016	314	282	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			
4	CD	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	151	Total	C	N	O	S	0	0	0
			1156	729	218	205	4			
5	CE	151	Total	C	N	O	S	0	0	0
			1156	729	218	205	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
6	CF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
7	CG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
8	CH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	AI	127	Total	C	N	O	0	0	0
			1011	639	198	174			
9	CI	127	Total	C	N	O	0	0	0
			1011	639	198	174			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AJ	98	Total	C	N	O	S	0	0	0
			795	499	156	139	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	CJ	98	Total	C	N	O	S	0	0	0
			795	499	156	139	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
11	CK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	124	Total	C	N	O	S	0	0	0
			971	611	195	164	1			
12	CL	124	Total	C	N	O	S	0	0	0
			971	611	195	164	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	116	Total	C	N	O	S	0	0	0
			929	574	191	162	2			
13	CM	116	Total	C	N	O	S	0	0	0
			929	574	191	162	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
14	CN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
15	CO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	83	Total	C	N	O	S	0	0	0
			701	443	139	118	1			
16	CP	83	Total	C	N	O	S	0	0	0
			701	443	139	118	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	99	Total	C	N	O	S	0	0	0
			824	528	152	142	2			
17	CQ	99	Total	C	N	O	S	0	0	0
			824	528	152	142	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	70	Total	C	N	O	0	0	0
			574	367	112	95			
18	CR	70	Total	C	N	O	0	0	0
			574	367	112	95			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	78	Total	C	N	O	S	0	0	0
			630	403	114	111	2			
19	CS	78	Total	C	N	O	S	0	0	0
			630	403	114	111	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	99	Total	C	N	O	S	0	0	0
			762	469	162	129	2			
20	CT	99	Total	C	N	O	S	0	0	0
			762	469	162	129	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AU	24	Total	C	N	O	0	0	0
			209	128	50	31			
21	CU	24	Total	C	N	O	0	0	0
			209	128	50	31			

- Molecule 22 is a RNA chain called domain 3 of PSIC IGR IRES RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	35	Total	C	N	O	P	0	0	0
			736	332	128	243	33			
22	CV	35	Total	C	N	O	P	0	0	0
			736	332	128	243	33			

- Molecule 23 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	BA	2760	Total	C	N	O	P	0	0	0
			59442	26456	11114	19113	2759			
23	DA	2760	Total	C	N	O	P	0	0	0
			59442	26456	11114	19113	2759			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BA	1142	U	C	SEE REMARK 999	GB AE017221.1
BA	2825	U	G	SEE REMARK 999	GB AE017221.1
DA	1142	U	C	SEE REMARK 999	GB AE017221.1
DA	2825	U	G	SEE REMARK 999	GB AE017221.1

- Molecule 24 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	BB	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			
24	DB	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			

- Molecule 25 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BC	271	Total	C	N	O	S	0	0	0
			2105	1329	416	357	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	DC	271	Total	C	N	O	S	0	0	0
			2105	1329	416	357	3			

- Molecule 26 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BD	204	Total	C	N	O	S	0	0	0
			1564	988	299	271	6			
26	DD	204	Total	C	N	O	S	0	0	0
			1564	988	299	271	6			

- Molecule 27 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BE	202	Total	C	N	O	S	0	0	0
			1587	1011	297	276	3			
27	DE	202	Total	C	N	O	S	0	0	0
			1587	1011	297	276	3			

- Molecule 28 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BF	181	Total	C	N	O	S	0	0	0
			1475	943	268	260	4			
28	DF	181	Total	C	N	O	S	0	0	0
			1475	943	268	260	4			

- Molecule 29 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BG	159	Total	C	N	O	S	0	0	0
			1223	773	228	221	1			
29	DG	159	Total	C	N	O	S	0	0	0
			1223	773	228	221	1			

- Molecule 30 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BH	145	Total	C	N	O	S	0	0	0
			1133	724	200	208	1			
30	DH	145	Total	C	N	O	S	0	0	0
			1133	724	200	208	1			

- Molecule 31 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
31	BI	32	Total	C	N	O	0	0	0
			254	157	49	48			
31	DI	32	Total	C	N	O	0	0	0
			254	157	49	48			

- Molecule 32 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BJ	137	Total	C	N	O	S	0	0	0
			1097	707	205	182	3			
32	DJ	137	Total	C	N	O	S	0	0	0
			1097	707	205	182	3			

- Molecule 33 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BK	122	Total	C	N	O	S	0	0	0
			932	587	171	170	4			
33	DK	122	Total	C	N	O	S	0	0	0
			932	587	171	170	4			

- Molecule 34 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BL	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			
34	DL	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			

- Molecule 35 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BM	136	Total	C	N	O	S	0	0	0
			1079	688	204	182	5			
35	DM	136	Total	C	N	O	S	0	0	0
			1079	688	204	182	5			

- Molecule 36 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
36	BN	117	Total 960	C 599	N 202	O 159	0	0	0
36	DN	117	Total 960	C 599	N 202	O 159	0	0	0

- Molecule 37 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
37	BO	98	Total 771	C 486	N 154	O 131	0	0	0
37	DO	98	Total 771	C 486	N 154	O 131	0	0	0

- Molecule 38 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BP	137	Total 1144	C 713	N 234	O 196	S 1	0	0	0
38	DP	137	Total 1144	C 713	N 234	O 196	S 1	0	0	0

- Molecule 39 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BQ	116	Total 953	C 601	N 201	O 150	S 1	0	0	0
39	DQ	116	Total 953	C 601	N 201	O 150	S 1	0	0	0

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BQ	?	-	PHE	deletion	UNP Q72L76
DQ	?	-	PHE	deletion	UNP Q72L76

- Molecule 40 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BR	101	Total 779	C 501	N 142	O 135	S 1	0	0	0
40	DR	101	Total 779	C 501	N 142	O 135	S 1	0	0	0

- Molecule 41 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BS	112	Total	C	N	O	S	0	0	0
			891	560	175	154	2			
41	DS	112	Total	C	N	O	S	0	0	0
			891	560	175	154	2			

- Molecule 42 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
42	BT	92	Total	C	N	O	0	0	0
			726	471	131	124			
42	DT	92	Total	C	N	O	0	0	0
			726	471	131	124			

- Molecule 43 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BU	100	Total	C	N	O	S	0	0	0
			776	500	148	124	4			
43	DU	100	Total	C	N	O	S	0	0	0
			776	500	148	124	4			

- Molecule 44 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BV	188	Total	C	N	O	S	0	0	0
			1492	950	265	275	2			
44	DV	188	Total	C	N	O	S	0	0	0
			1492	950	265	275	2			

- Molecule 45 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BW	76	Total	C	N	O	S	0	0	0
			605	376	126	102	1			
45	DW	76	Total	C	N	O	S	0	0	0
			605	376	126	102	1			

- Molecule 46 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
46	BX	88	Total 695	C 435	N 141	O 119	0	0	0
46	DX	88	Total 695	C 435	N 141	O 119	0	0	0

- Molecule 47 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BY	62	Total 521	C 325	N 102	O 92	S 2	0	0	0
47	DY	62	Total 521	C 325	N 102	O 92	S 2	0	0	0

- Molecule 48 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	BZ	59	Total 468	C 298	N 90	O 79	S 1	0	0	0
48	DZ	59	Total 468	C 298	N 90	O 79	S 1	0	0	0

- Molecule 49 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	B1	30	Total 226	C 142	N 36	O 44	S 4	0	0	0
49	D1	30	Total 226	C 142	N 36	O 44	S 4	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B2	52	Total 405	C 255	N 79	O 66	S 5	0	0	0
50	D2	52	Total 405	C 255	N 79	O 66	S 5	0	0	0

- Molecule 51 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B3	44	Total 381	C 235	N 77	O 65	S 4	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	D3	44	Total	C	N	O	S	0	0	0
			381	235	77	65	4			

- Molecule 52 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B4	48	Total	C	N	O	S	0	0	0
			419	257	104	56	2			
52	D4	48	Total	C	N	O	S	0	0	0
			419	257	104	56	2			

- Molecule 53 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B5	63	Total	C	N	O	S	0	0	0
			508	326	101	79	2			
53	D5	63	Total	C	N	O	S	0	0	0
			508	326	101	79	2			

- Molecule 54 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	AA	279	Total	Mg	0	0
			279	279		
54	AB	3	Total	Mg	0	0
			3	3		
54	AC	2	Total	Mg	0	0
			2	2		
54	AD	3	Total	Mg	0	0
			3	3		
54	AE	5	Total	Mg	0	0
			5	5		
54	AF	1	Total	Mg	0	0
			1	1		
54	AG	2	Total	Mg	0	0
			2	2		
54	AH	1	Total	Mg	0	0
			1	1		
54	AI	1	Total	Mg	0	0
			1	1		
54	AK	2	Total	Mg	0	0
			2	2		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	AL	2	Total Mg 2 2	0	0
54	AM	1	Total Mg 1 1	0	0
54	AN	1	Total Mg 1 1	0	0
54	AO	3	Total Mg 3 3	0	0
54	AQ	3	Total Mg 3 3	0	0
54	AS	1	Total Mg 1 1	0	0
54	AT	2	Total Mg 2 2	0	0
54	AV	8	Total Mg 8 8	0	0
54	BA	781	Total Mg 781 781	0	0
54	BB	27	Total Mg 27 27	0	0
54	BC	3	Total Mg 3 3	0	0
54	BE	2	Total Mg 2 2	0	0
54	BF	1	Total Mg 1 1	0	0
54	BH	1	Total Mg 1 1	0	0
54	BI	1	Total Mg 1 1	0	0
54	BJ	3	Total Mg 3 3	0	0
54	BK	1	Total Mg 1 1	0	0
54	BM	3	Total Mg 3 3	0	0
54	BN	2	Total Mg 2 2	0	0
54	BO	1	Total Mg 1 1	0	0
54	BP	2	Total Mg 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	BR	1	Total Mg 1 1	0	0
54	BS	1	Total Mg 1 1	0	0
54	BT	2	Total Mg 2 2	0	0
54	BU	2	Total Mg 2 2	0	0
54	BV	3	Total Mg 3 3	0	0
54	BW	1	Total Mg 1 1	0	0
54	BX	2	Total Mg 2 2	0	0
54	BY	3	Total Mg 3 3	0	0
54	B2	3	Total Mg 3 3	0	0
54	B3	1	Total Mg 1 1	0	0
54	B4	1	Total Mg 1 1	0	0
54	B5	1	Total Mg 1 1	0	0
54	CA	372	Total Mg 372 372	0	0
54	CB	3	Total Mg 3 3	0	0
54	CC	8	Total Mg 8 8	0	0
54	CD	3	Total Mg 3 3	0	0
54	CE	5	Total Mg 5 5	0	0
54	CF	2	Total Mg 2 2	0	0
54	CG	3	Total Mg 3 3	0	0
54	CK	1	Total Mg 1 1	0	0
54	CL	6	Total Mg 6 6	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	CM	2	Total Mg 2 2	0	0
54	CN	1	Total Mg 1 1	0	0
54	CO	4	Total Mg 4 4	0	0
54	CQ	2	Total Mg 2 2	0	0
54	CV	7	Total Mg 7 7	0	0
54	DA	964	Total Mg 964 964	0	0
54	DB	43	Total Mg 43 43	0	0
54	DC	3	Total Mg 3 3	0	0
54	DD	6	Total Mg 6 6	0	0
54	DE	3	Total Mg 3 3	0	0
54	DF	2	Total Mg 2 2	0	0
54	DG	3	Total Mg 3 3	0	0
54	DI	1	Total Mg 1 1	0	0
54	DJ	6	Total Mg 6 6	0	0
54	DK	3	Total Mg 3 3	0	0
54	DL	3	Total Mg 3 3	0	0
54	DM	1	Total Mg 1 1	0	0
54	DN	1	Total Mg 1 1	0	0
54	DO	1	Total Mg 1 1	0	0
54	DP	2	Total Mg 2 2	0	0
54	DQ	2	Total Mg 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	DS	2	Total Mg 2 2	0	0
54	DU	1	Total Mg 1 1	0	0
54	DV	4	Total Mg 4 4	0	0
54	DW	1	Total Mg 1 1	0	0
54	DX	3	Total Mg 3 3	0	0
54	DY	2	Total Mg 2 2	0	0
54	D1	1	Total Mg 1 1	0	0
54	D2	3	Total Mg 3 3	0	0
54	D3	1	Total Mg 1 1	0	0
54	D4	4	Total Mg 4 4	0	0
54	D5	3	Total Mg 3 3	0	0

- Molecule 55 is ZINC ION (CCD ID: ZN) (formula: Zn).

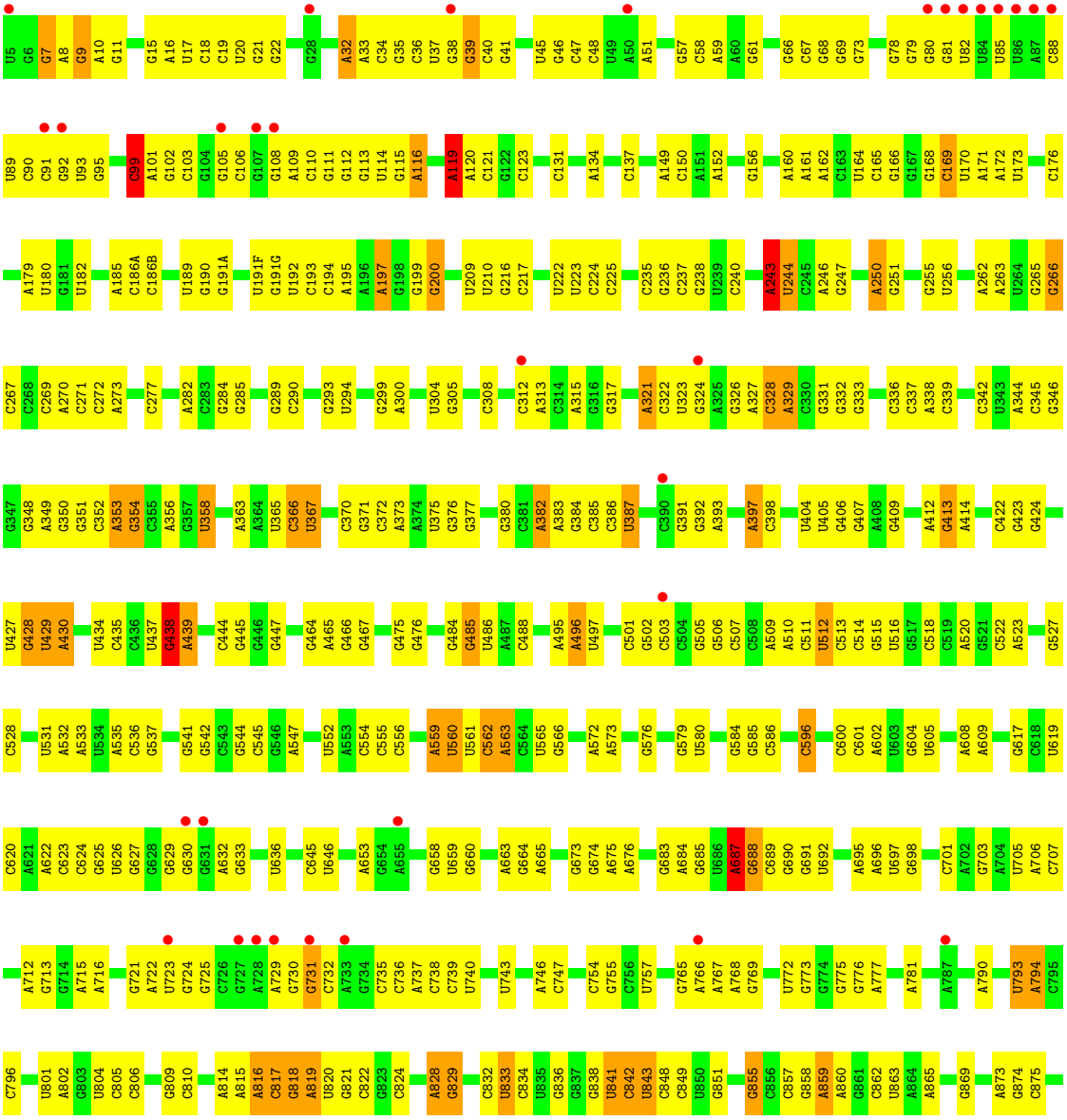
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	AD	1	Total Zn 1 1	0	0
55	AN	1	Total Zn 1 1	0	0
55	CD	1	Total Zn 1 1	0	0
55	CN	1	Total Zn 1 1	0	0

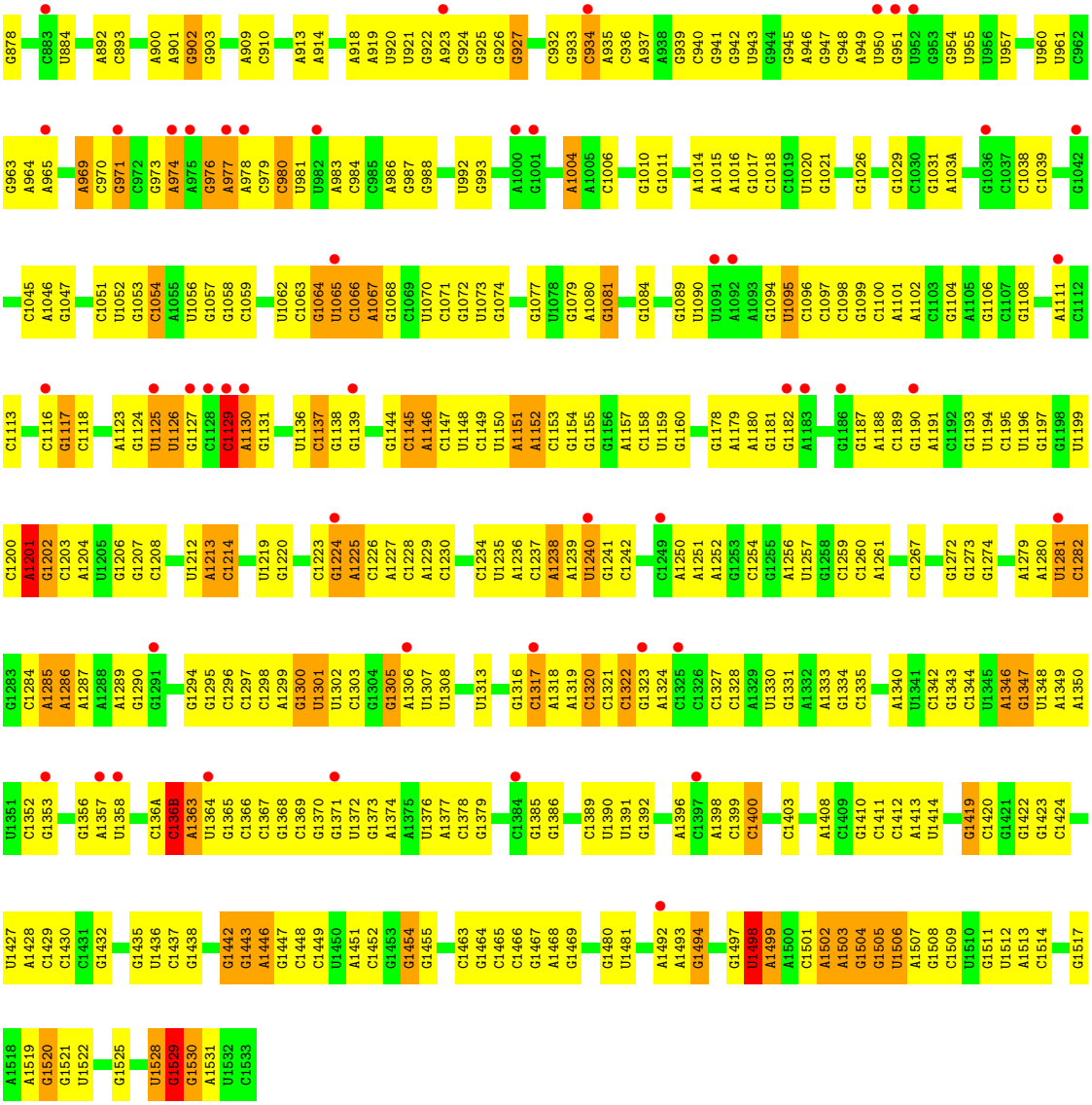
3 Residue-property plots (i)

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: ribosomal RNA 16S

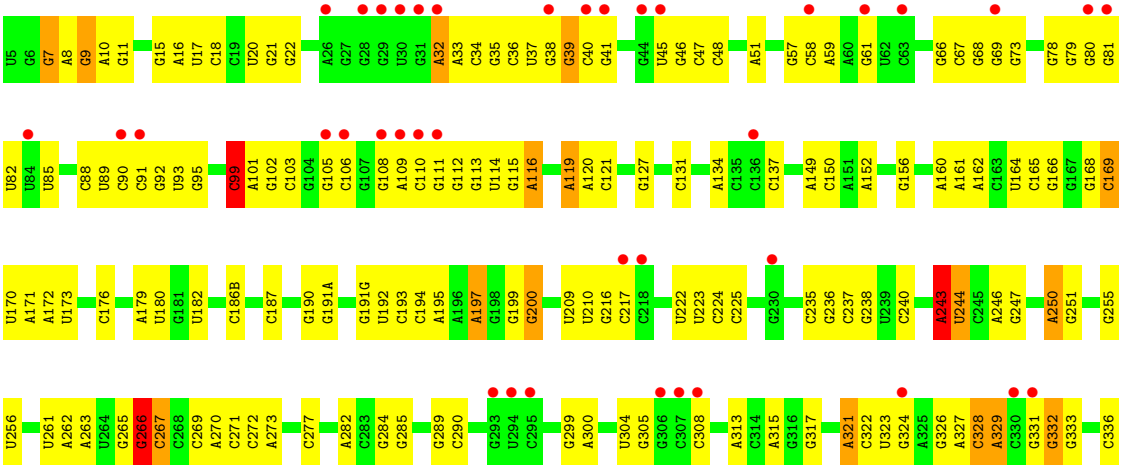
Chain AA:

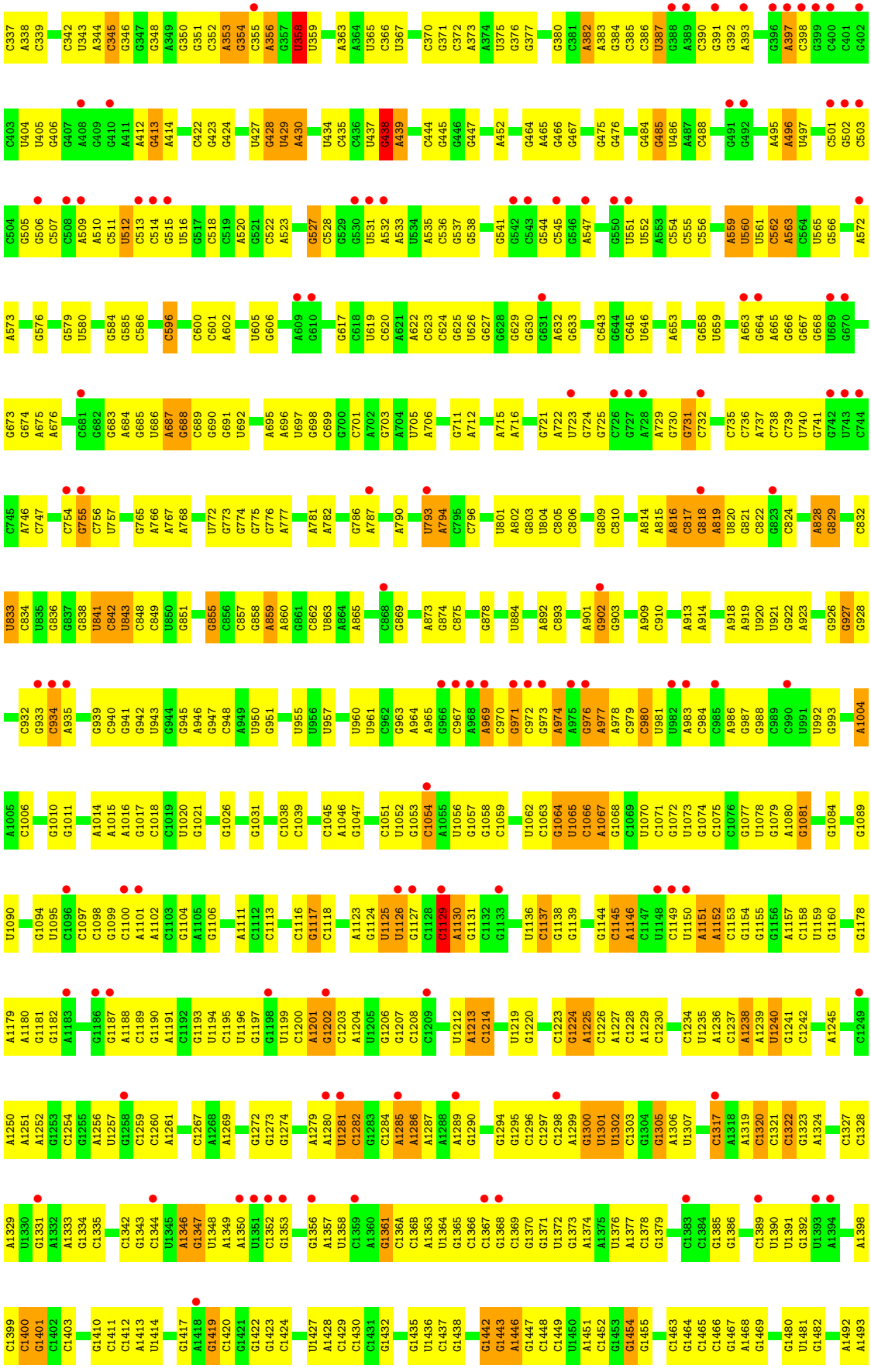


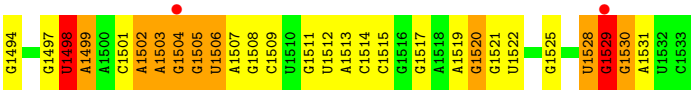


• Molecule 1: ribosomal RNA 16S

Chain CA:

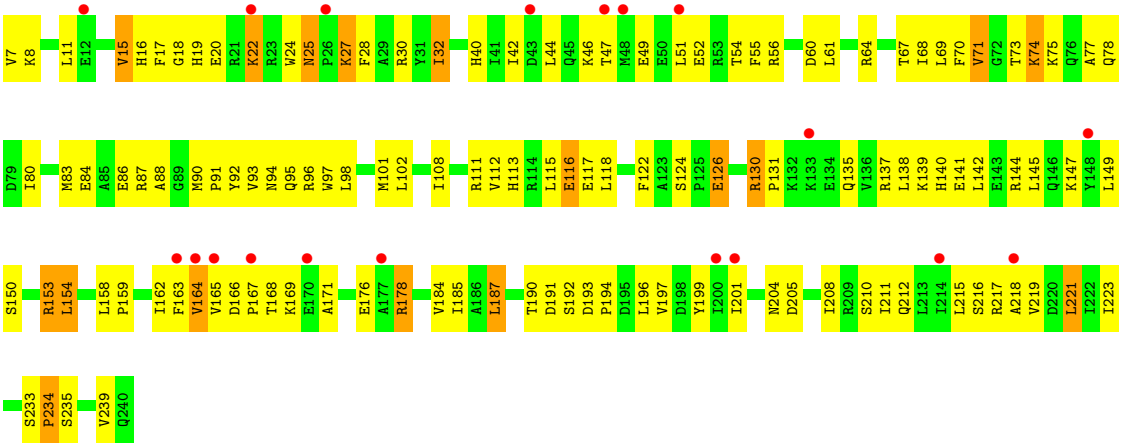






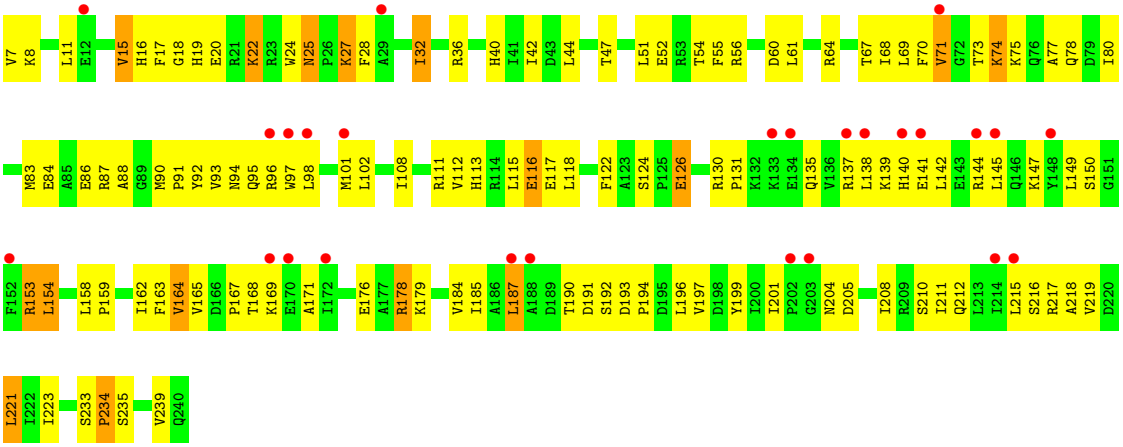
• Molecule 2: 30S ribosomal protein S2

Chain AB:



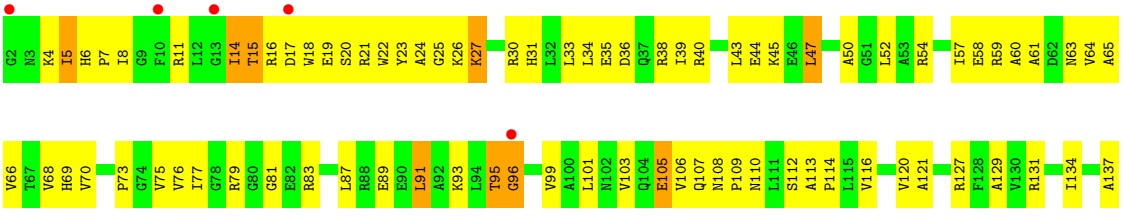
• Molecule 2: 30S ribosomal protein S2

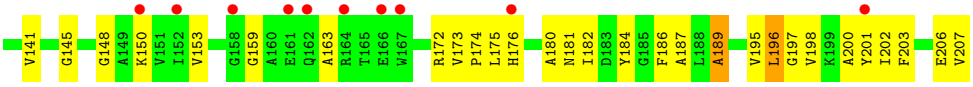
Chain CB:



• Molecule 3: 30S ribosomal protein S3

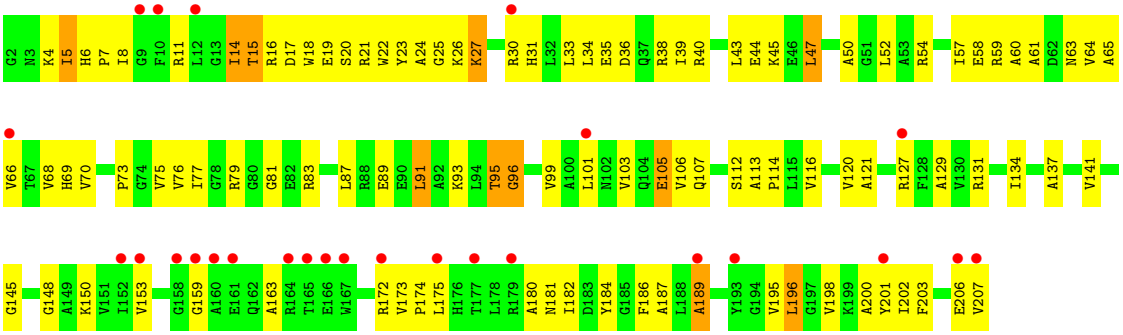
Chain AC:





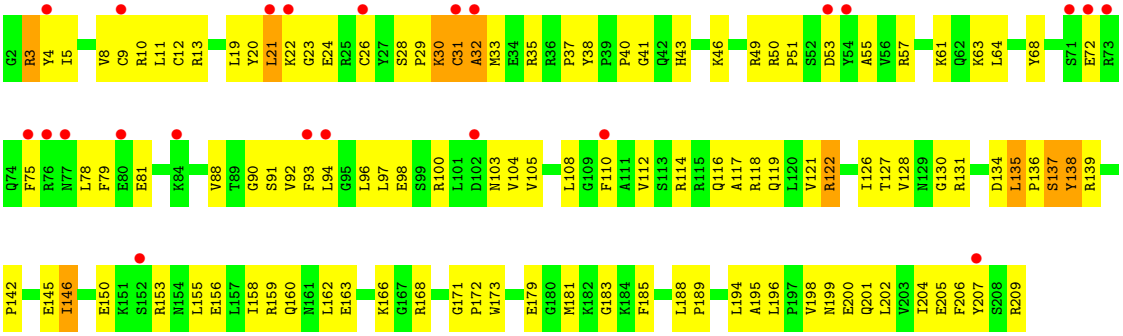
• Molecule 3: 30S ribosomal protein S3

Chain CC:



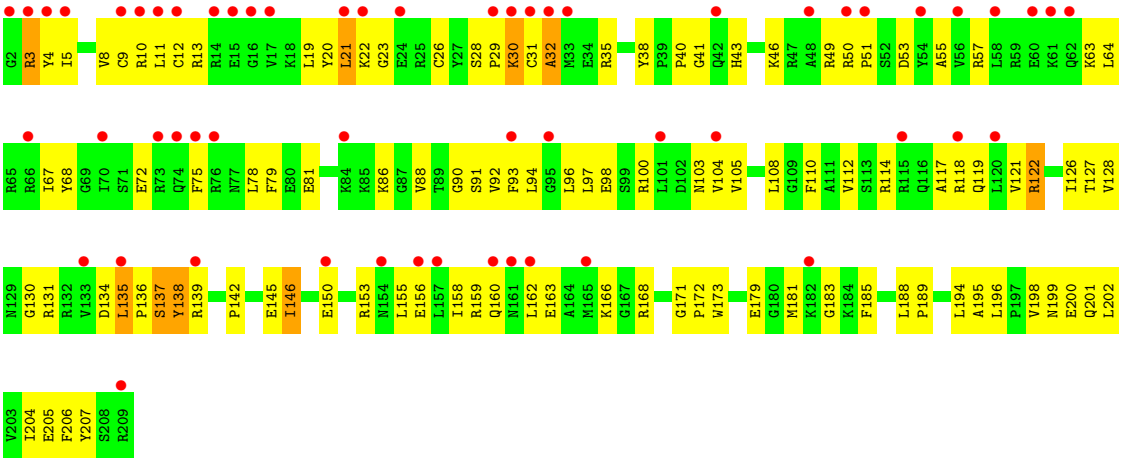
• Molecule 4: 30S ribosomal protein S4

Chain AD:



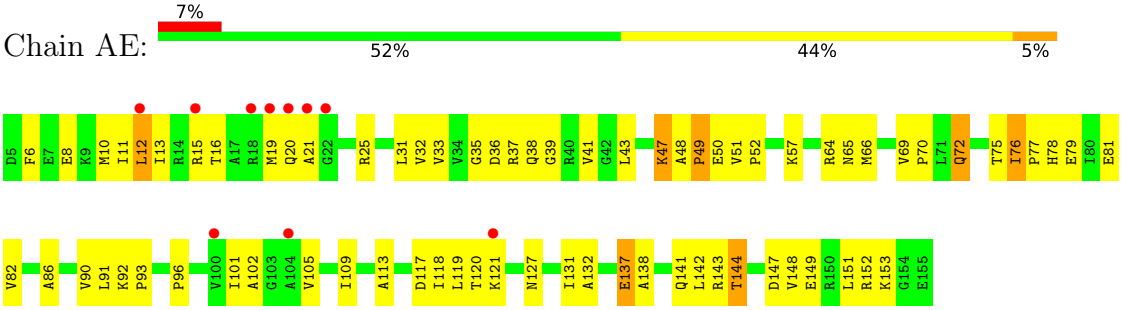
• Molecule 4: 30S ribosomal protein S4

Chain CD:



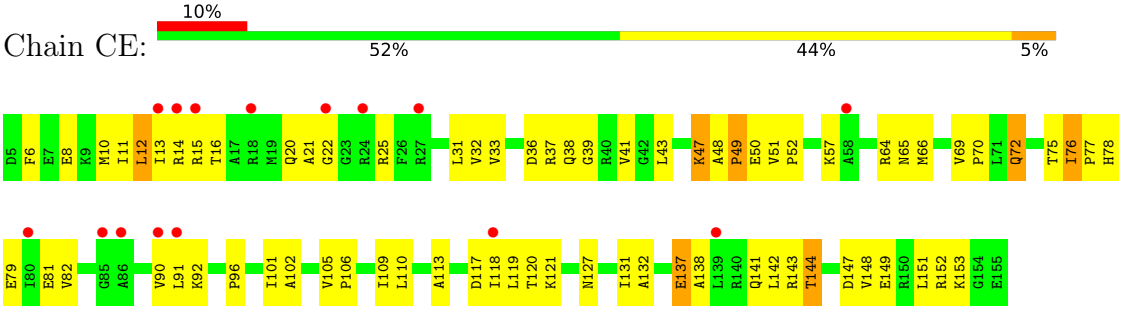
• Molecule 5: 30S ribosomal protein S5

Chain AE:



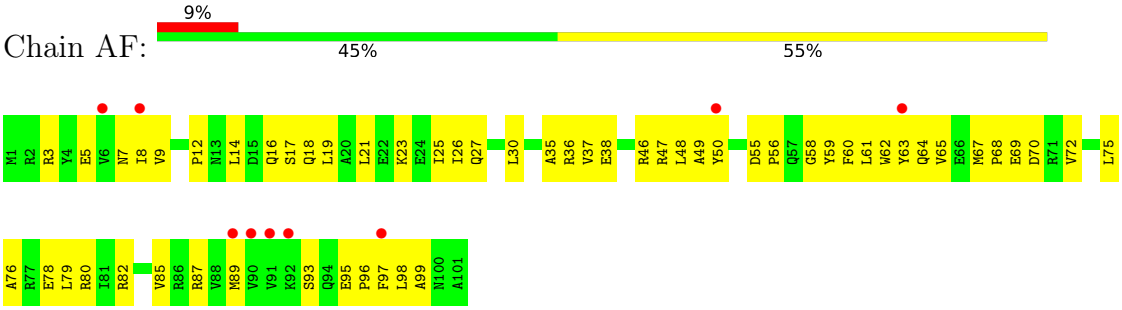
• Molecule 5: 30S ribosomal protein S5

Chain CE:



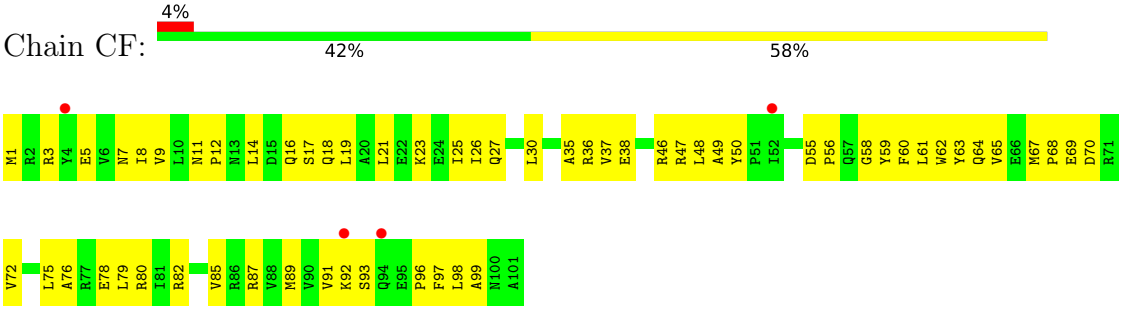
• Molecule 6: 30S ribosomal protein S6

Chain AF:



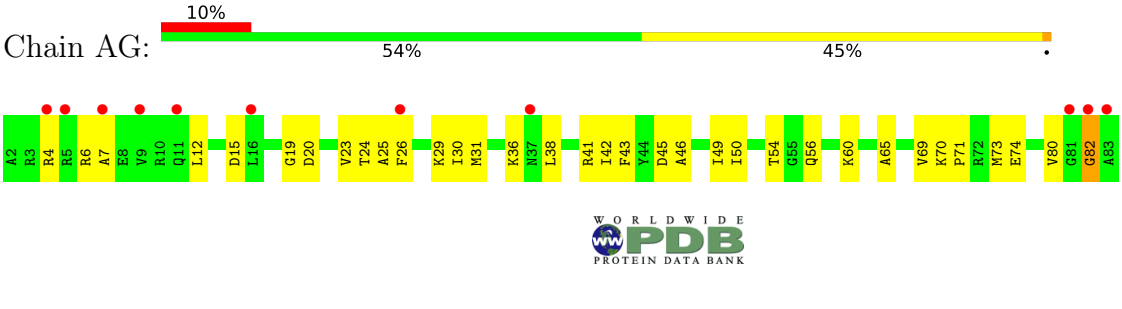
• Molecule 6: 30S ribosomal protein S6

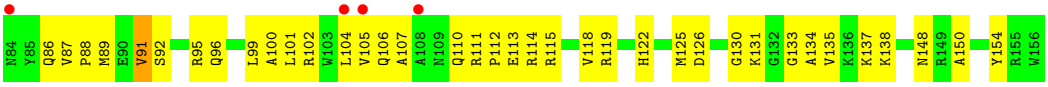
Chain CF:



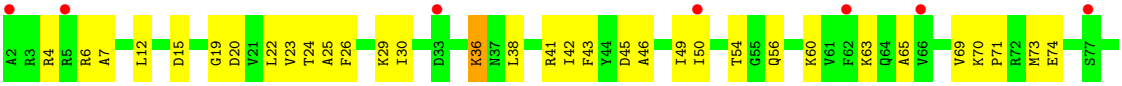
• Molecule 7: 30S ribosomal protein S7

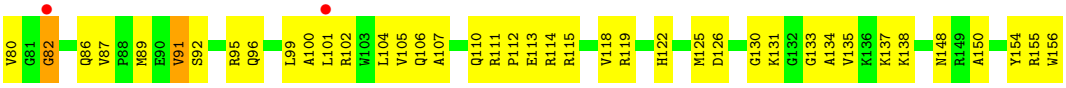
Chain AG:



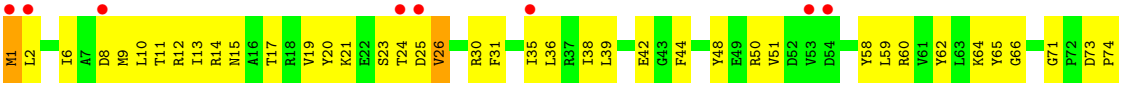


• Molecule 7: 30S ribosomal protein S7



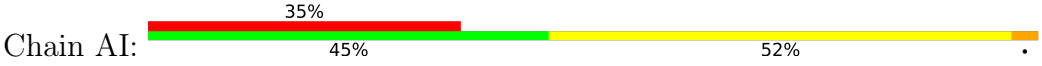


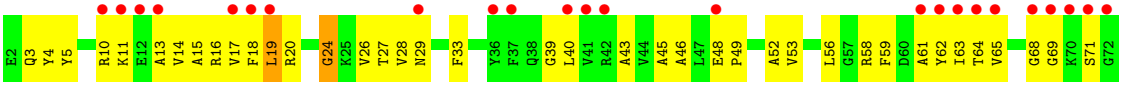
• Molecule 8: 30S ribosomal protein S8

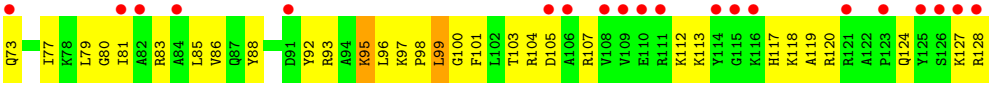


• Molecule 8: 30S ribosomal protein S8

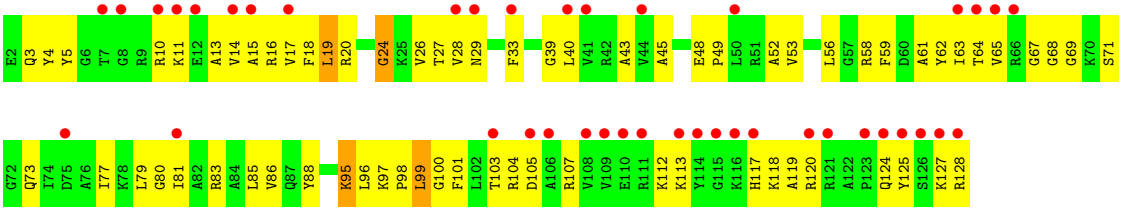
• Molecule 9: 30S ribosomal protein S9





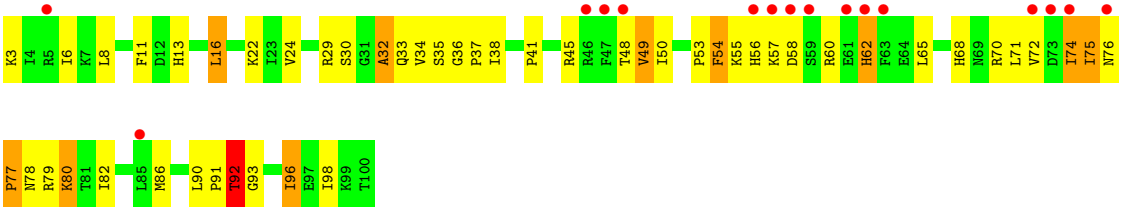


• Molecule 9: 30S ribosomal protein S9



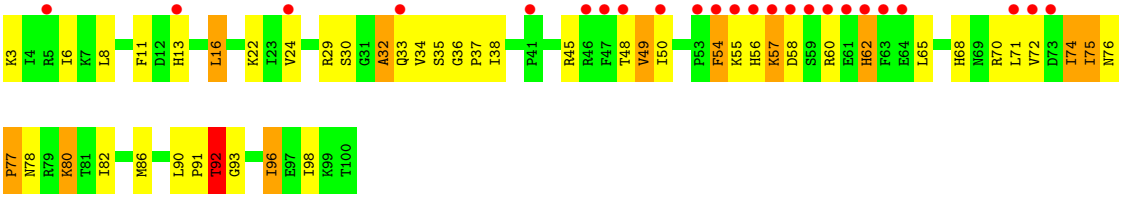
• Molecule 10: 30S ribosomal protein S10

Chain AJ:



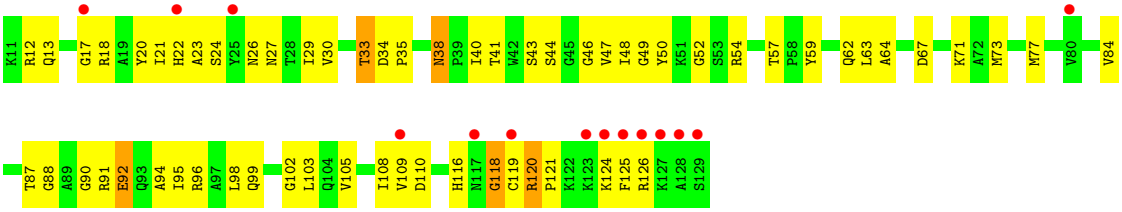
• Molecule 10: 30S ribosomal protein S10

Chain CJ:



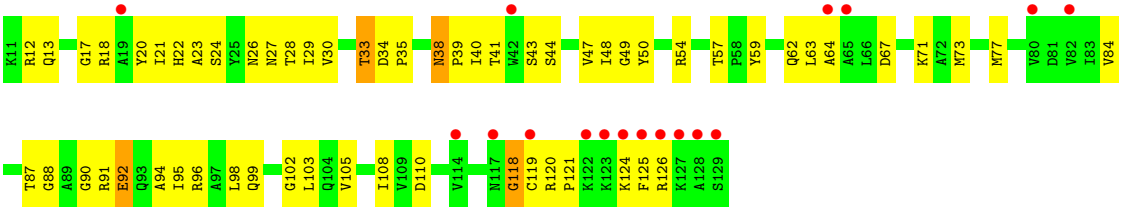
• Molecule 11: 30S ribosomal protein S11

Chain AK:



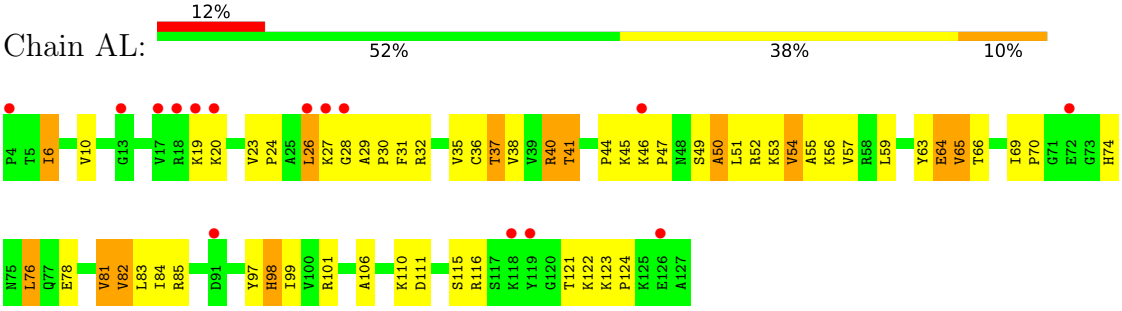
• Molecule 11: 30S ribosomal protein S11

Chain CK:



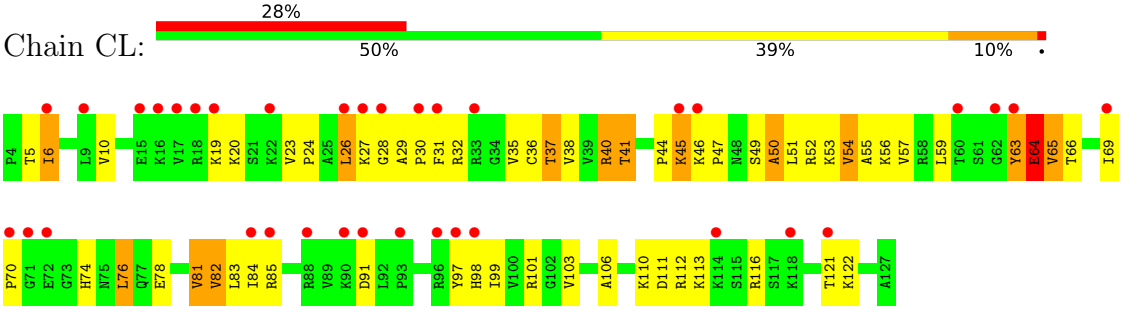
• Molecule 12: 30S ribosomal protein S12

Chain AL:



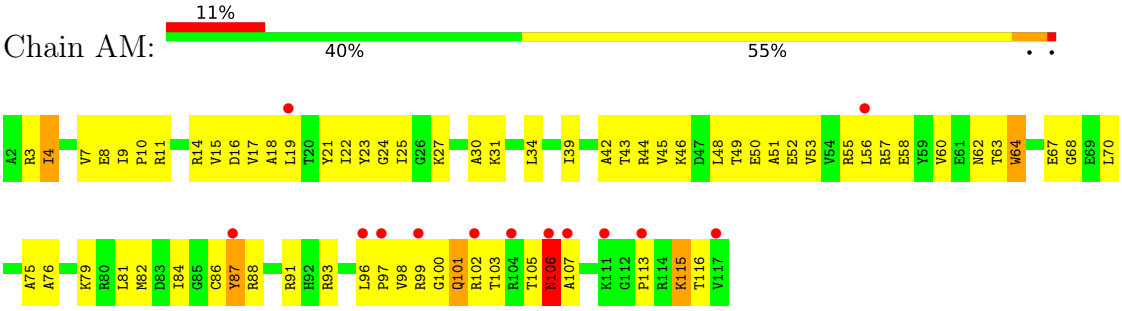
• Molecule 12: 30S ribosomal protein S12

Chain CL:



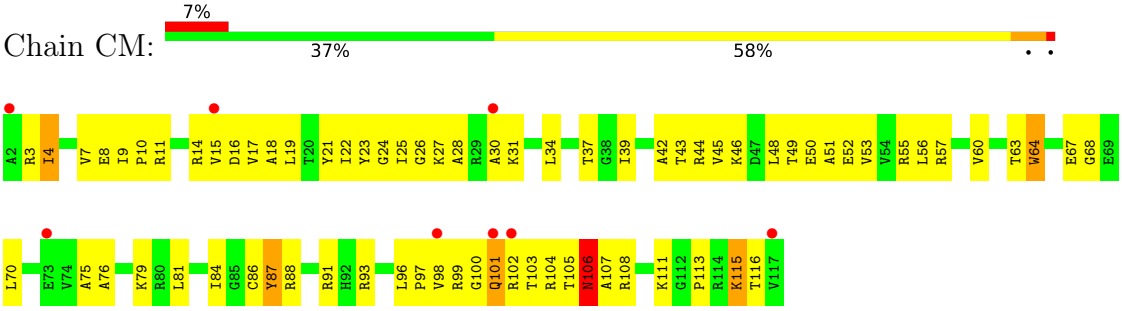
• Molecule 13: 30S ribosomal protein S13

Chain AM:



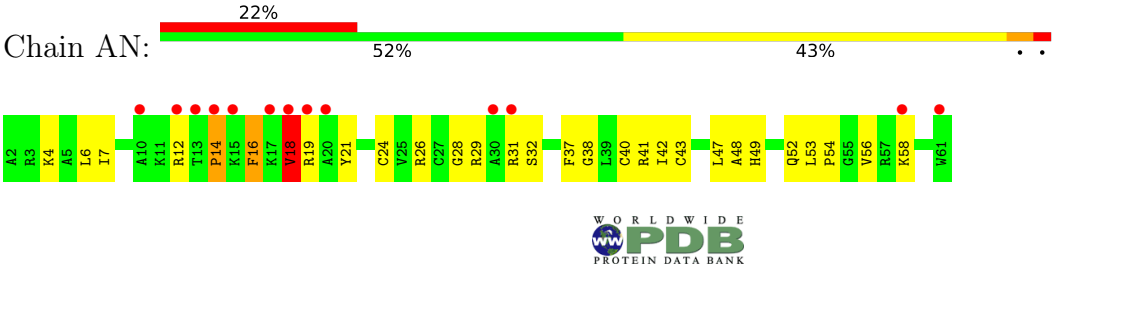
• Molecule 13: 30S ribosomal protein S13

Chain CM:



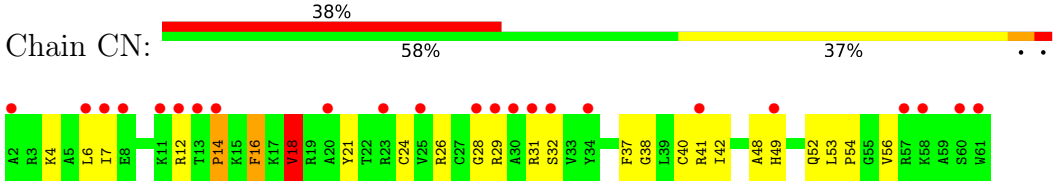
• Molecule 14: 30S ribosomal protein S14 type Z

Chain AN:



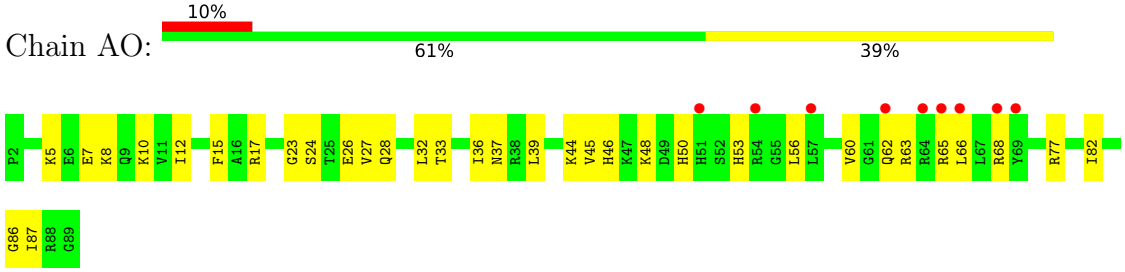
• Molecule 14: 30S ribosomal protein S14 type Z

Chain CN:



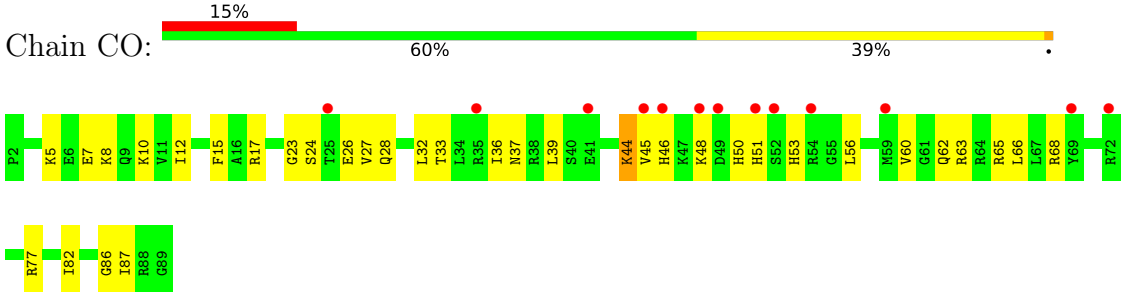
• Molecule 15: 30S ribosomal protein S15

Chain AO:



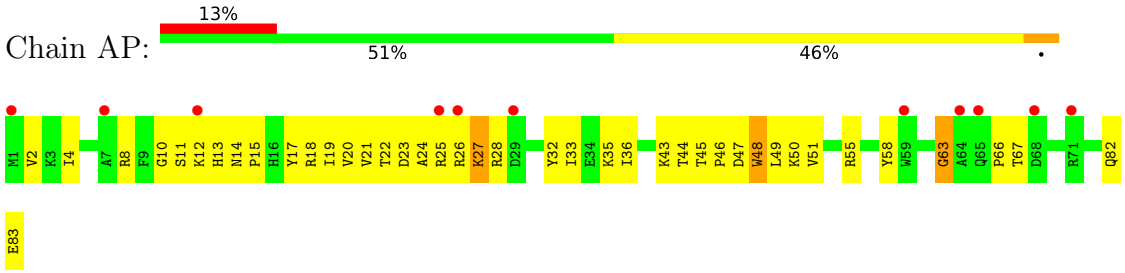
• Molecule 15: 30S ribosomal protein S15

Chain CO:



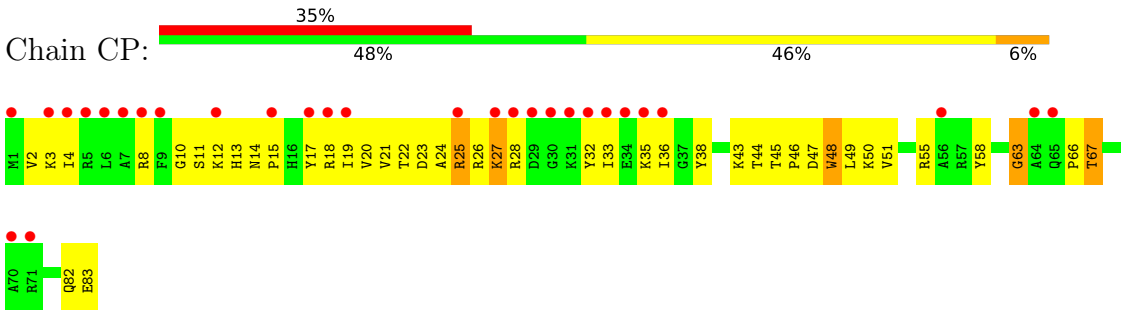
• Molecule 16: 30S ribosomal protein S16

Chain AP:



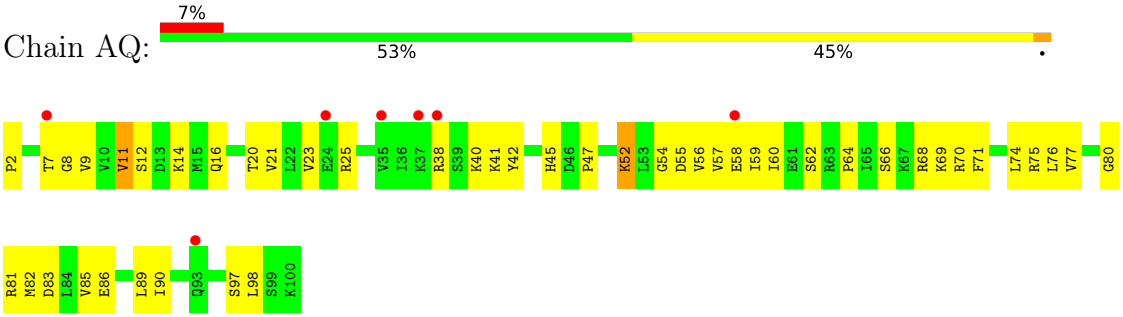
• Molecule 16: 30S ribosomal protein S16

Chain CP:



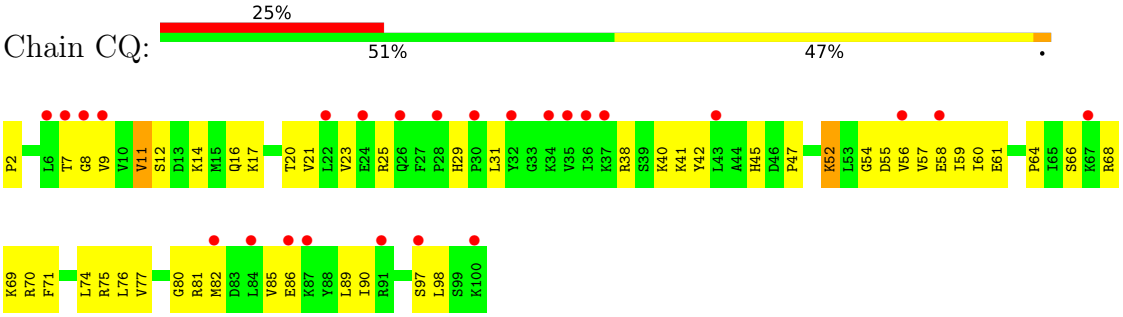
• Molecule 17: 30S ribosomal protein S17

Chain AQ:



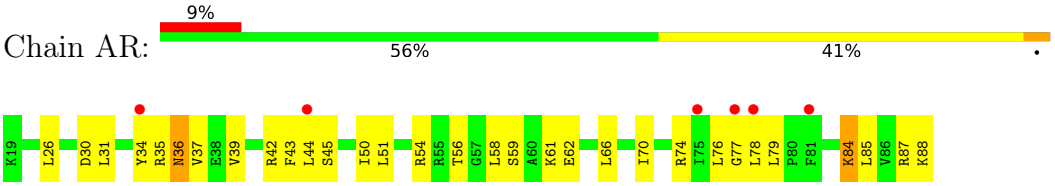
• Molecule 17: 30S ribosomal protein S17

Chain CQ:



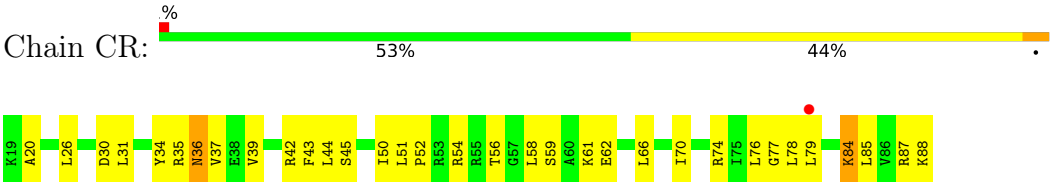
• Molecule 18: 30S ribosomal protein S18

Chain AR:



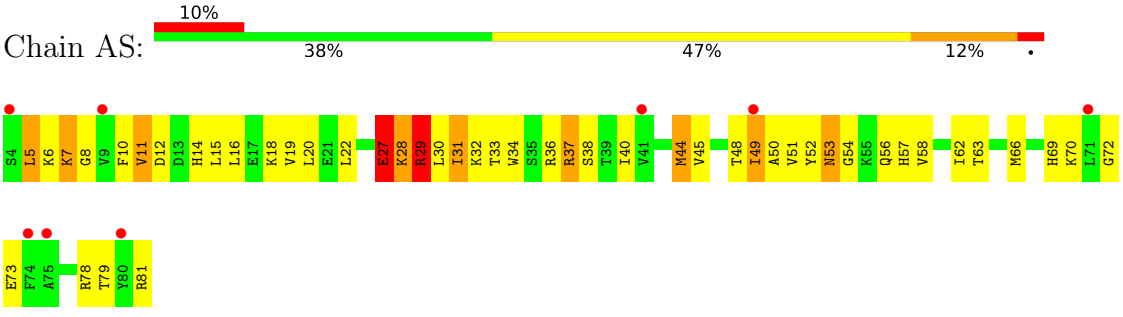
• Molecule 18: 30S ribosomal protein S18

Chain CR:



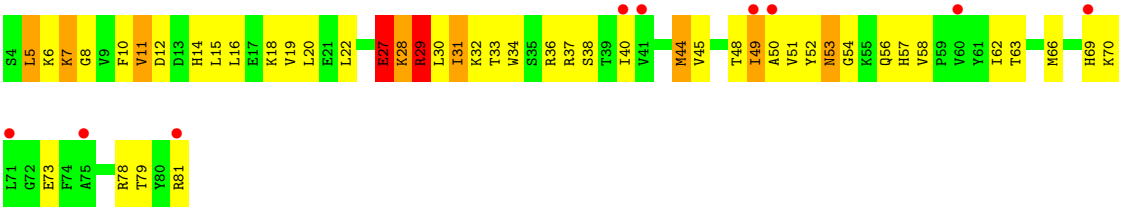
• Molecule 19: 30S ribosomal protein S19

Chain AS:

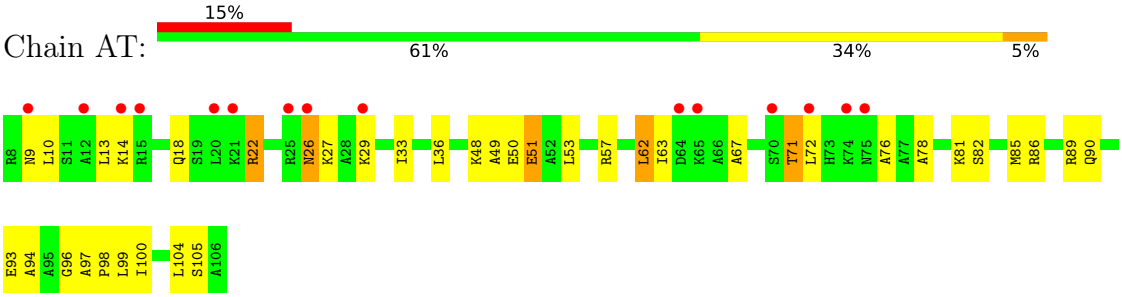


• Molecule 19: 30S ribosomal protein S19

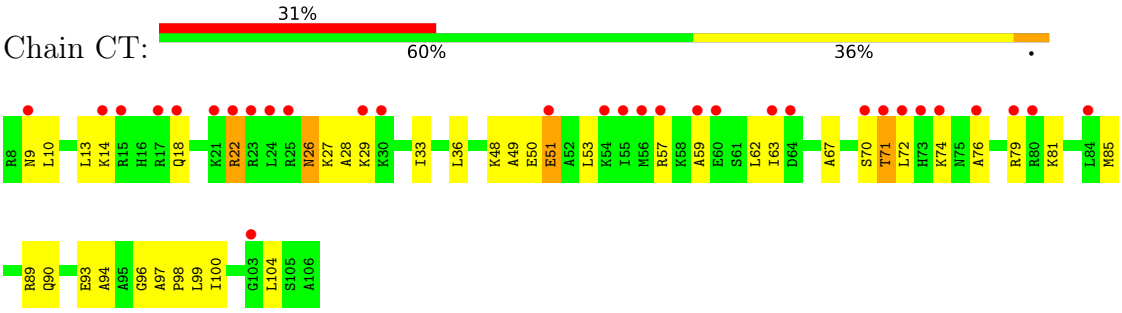
Chain CS:



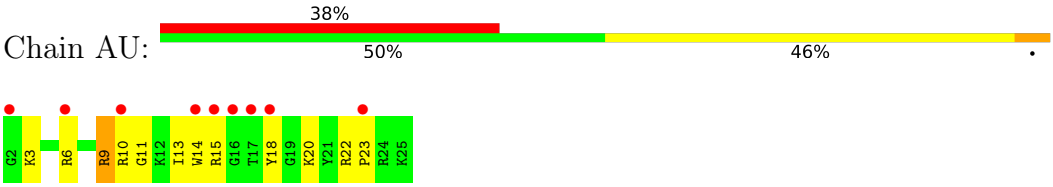
• Molecule 20: 30S ribosomal protein S20



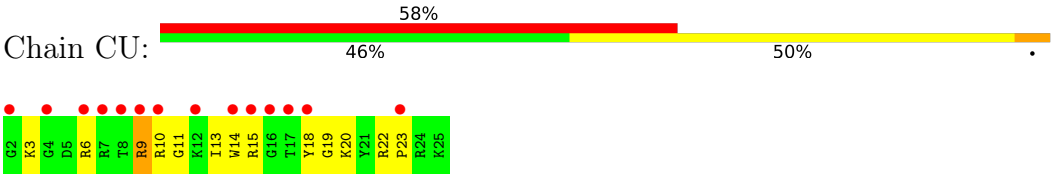
• Molecule 20: 30S ribosomal protein S20



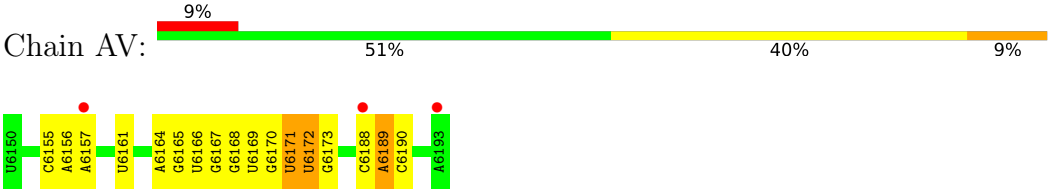
• Molecule 21: 30S ribosomal protein Thx



• Molecule 21: 30S ribosomal protein Thx

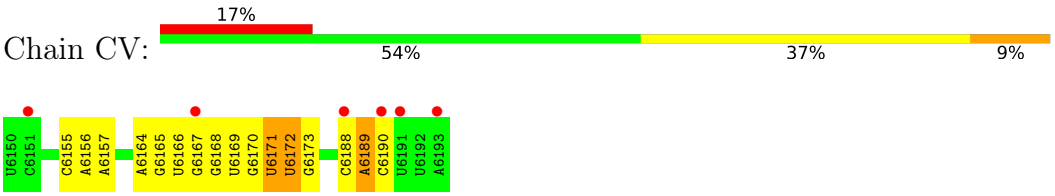


• Molecule 22: domain 3 of PSIC IGR IRES RNA



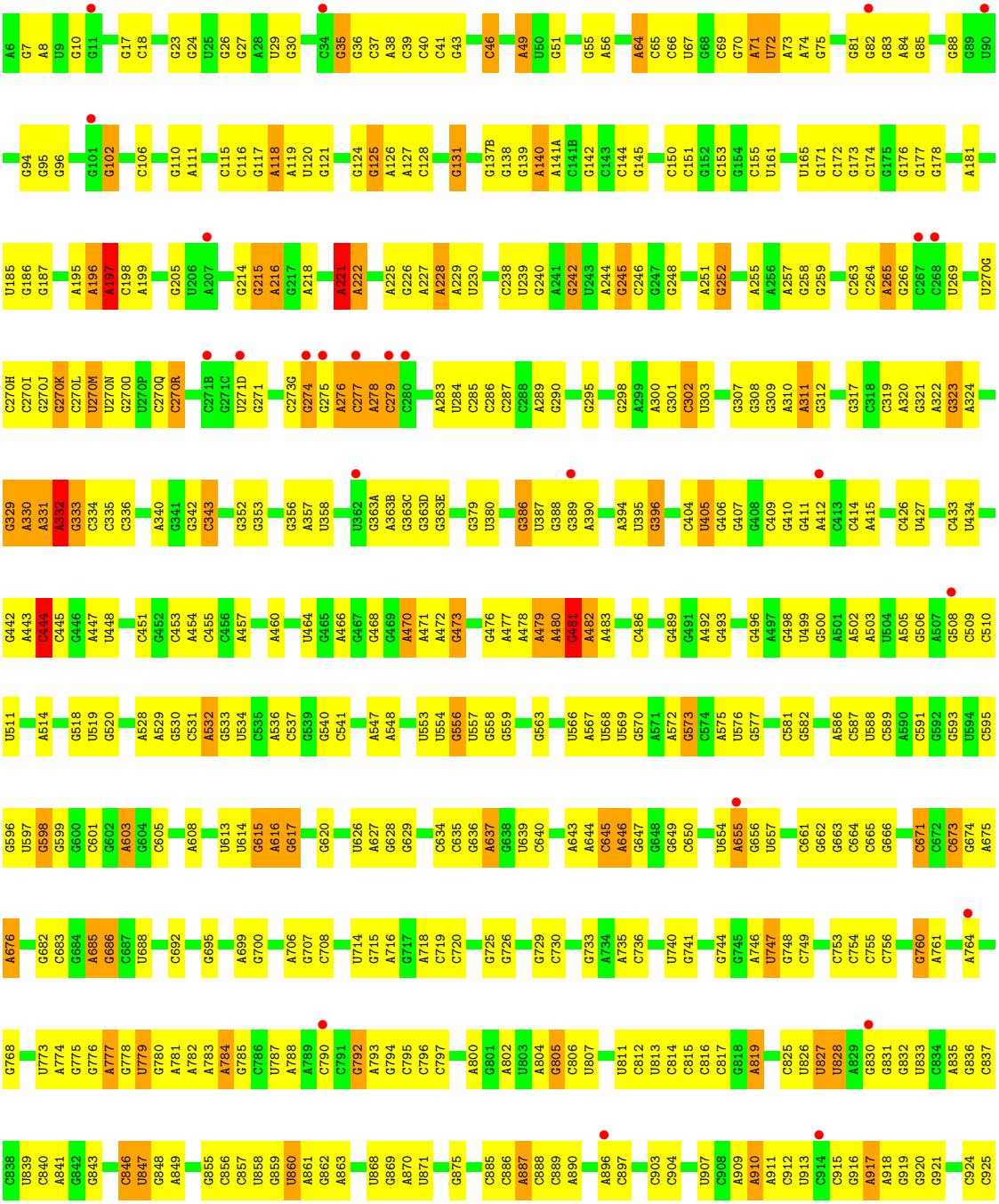
• Molecule 22: domain 3 of PSIC IGR IRES RNA

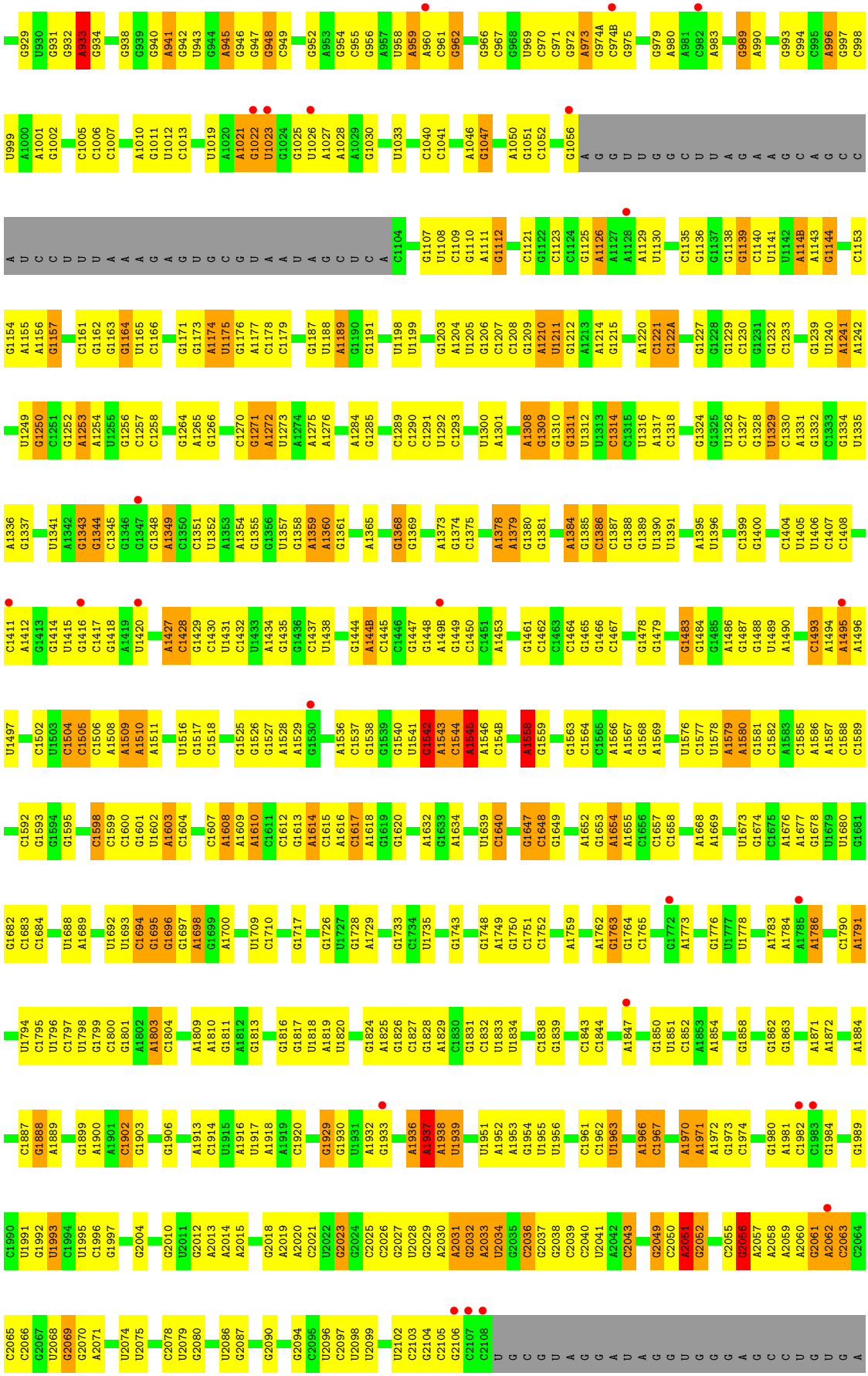
Chain CV:

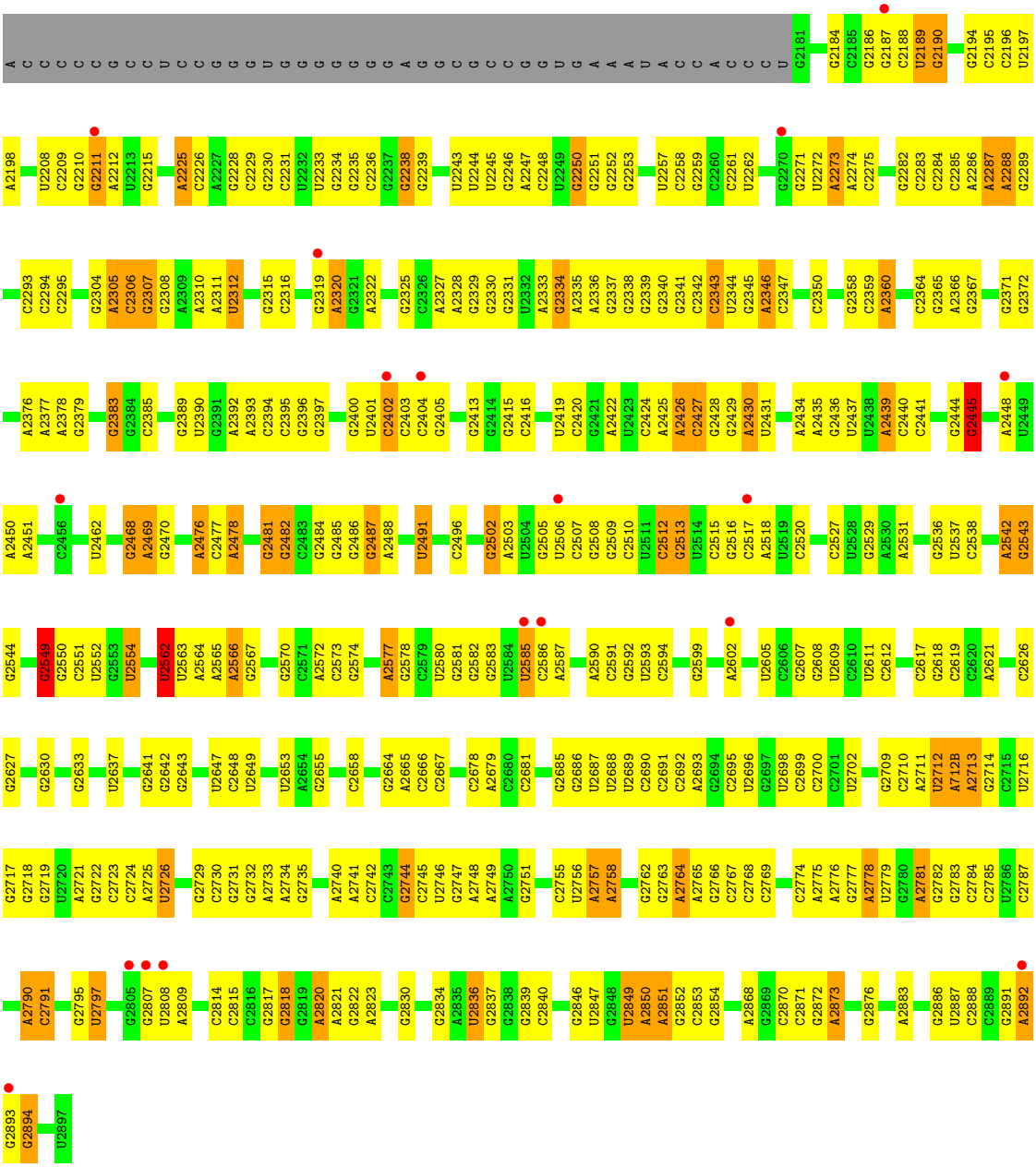


• Molecule 23: 23S ribosomal RNA

Chain BA:

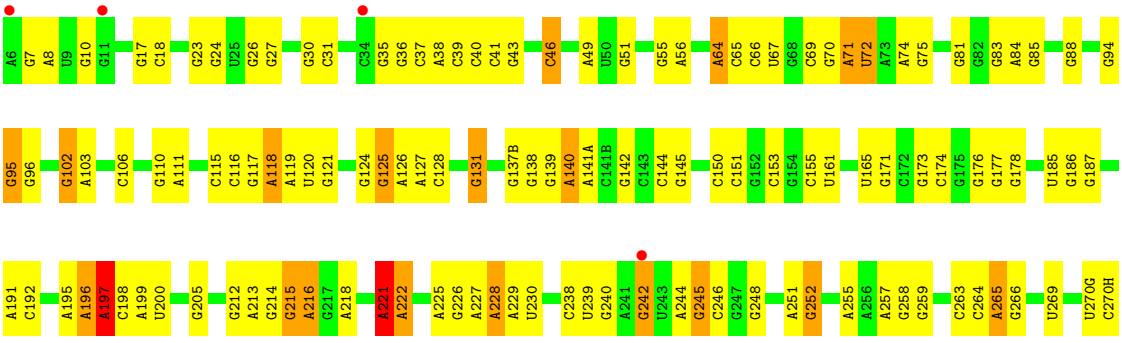


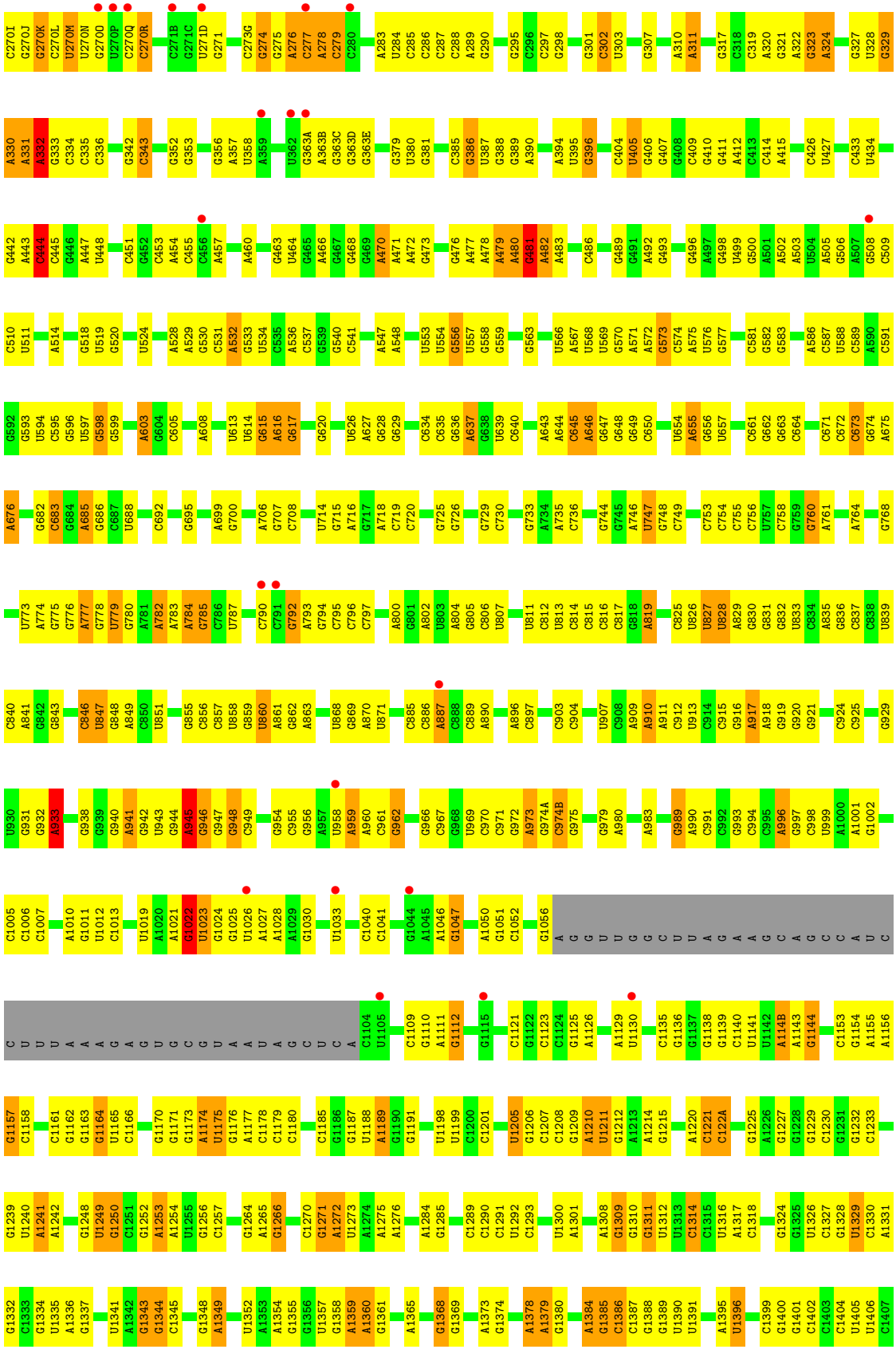


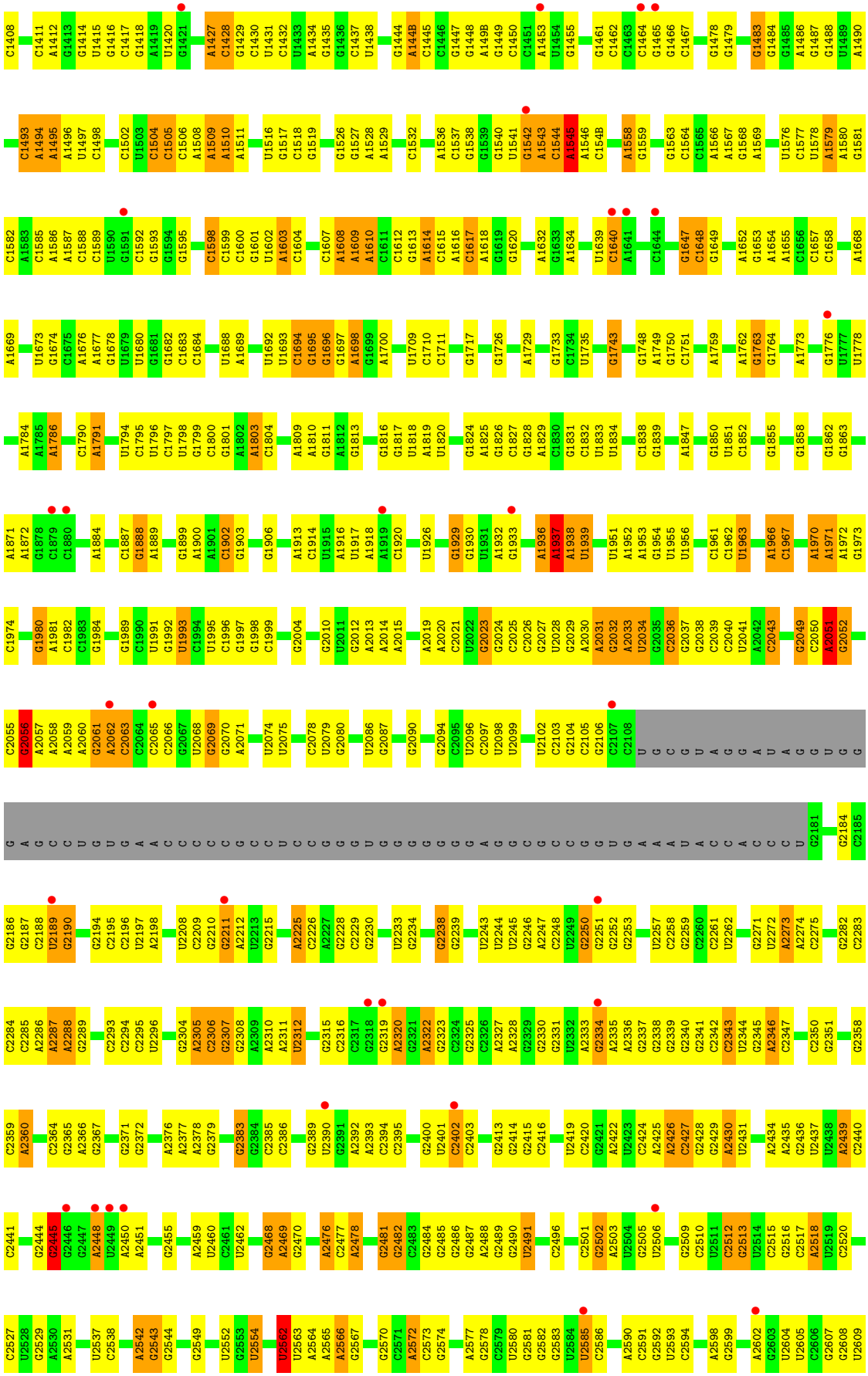


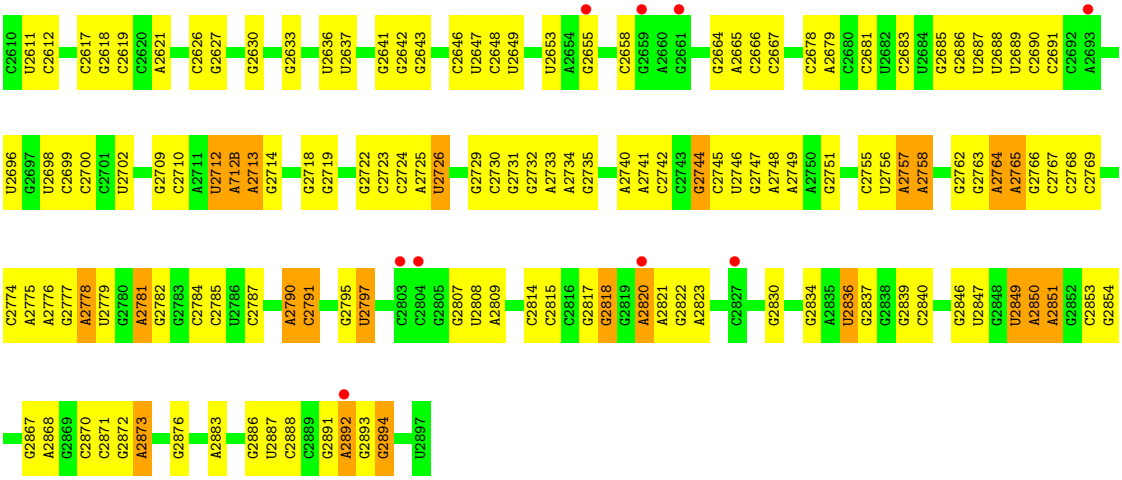
• Molecule 23: 23S ribosomal RNA

Chain DA:



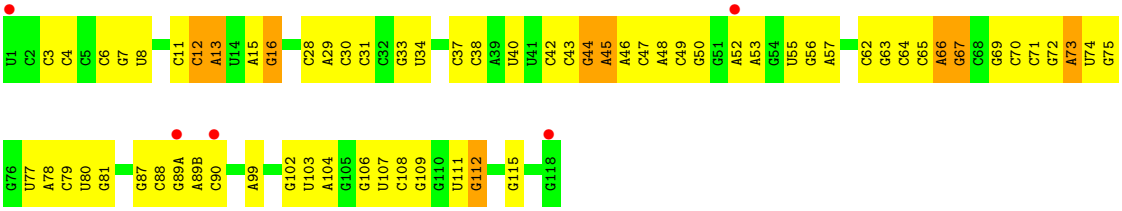






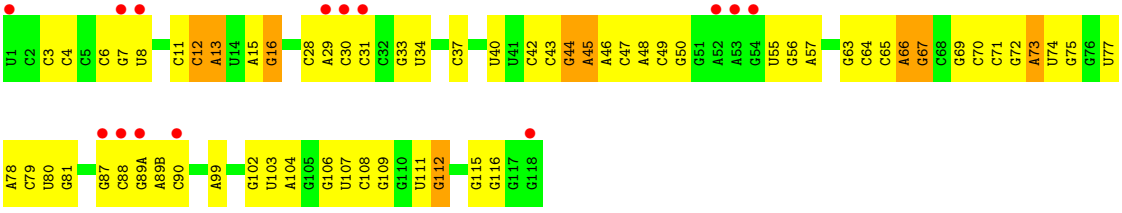
• Molecule 24: 5S ribosomal RNA

Chain BB:



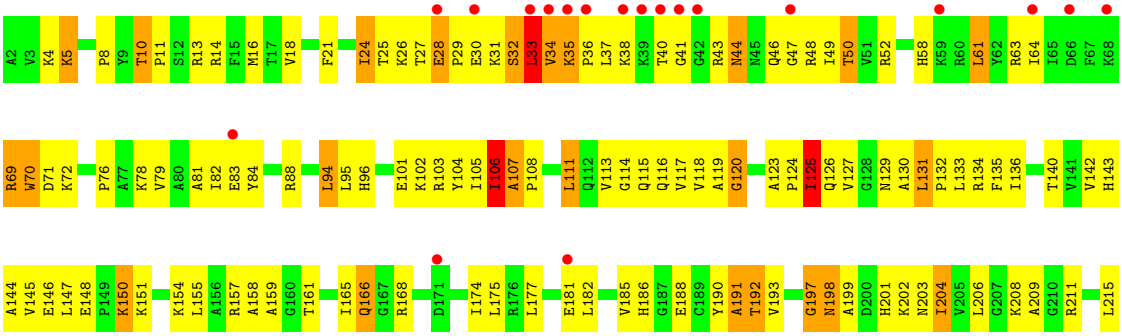
• Molecule 24: 5S ribosomal RNA

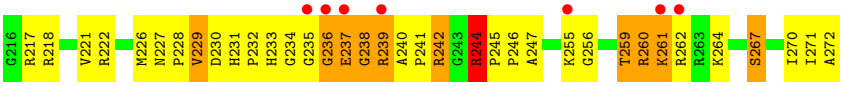
Chain DB:



• Molecule 25: 50S ribosomal protein L2

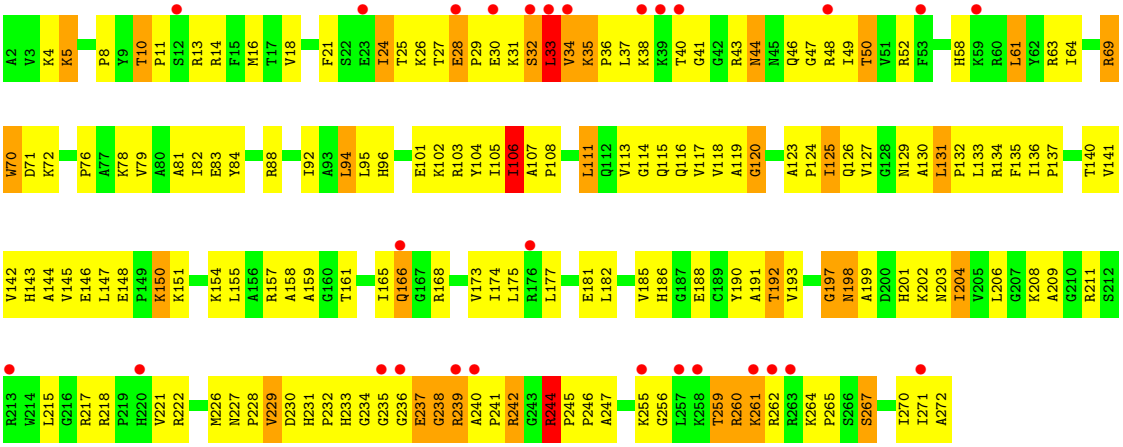
Chain BC:





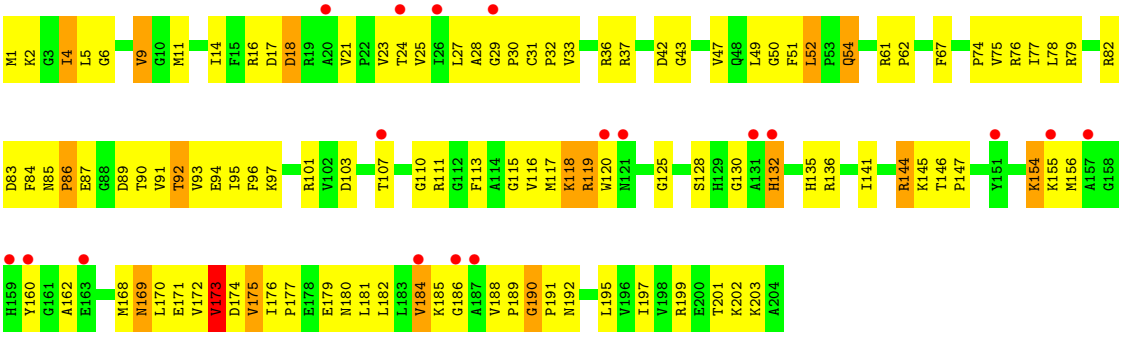
• Molecule 25: 50S ribosomal protein L2

Chain DC:



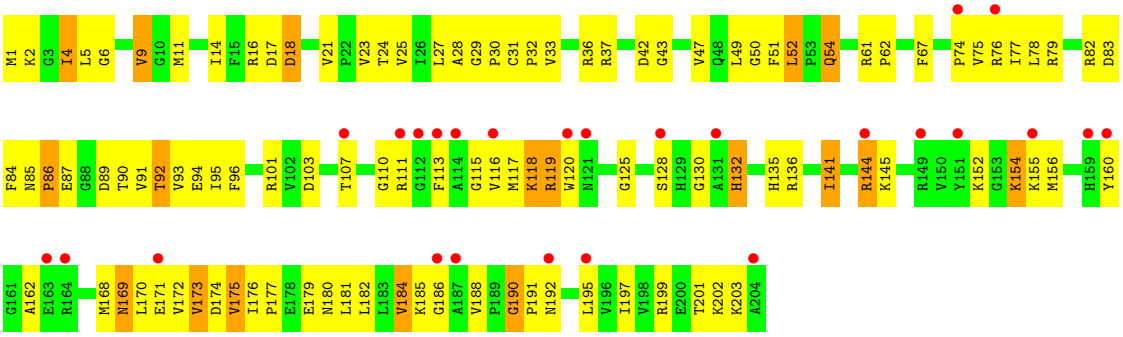
• Molecule 26: 50S ribosomal protein L3

Chain BD:



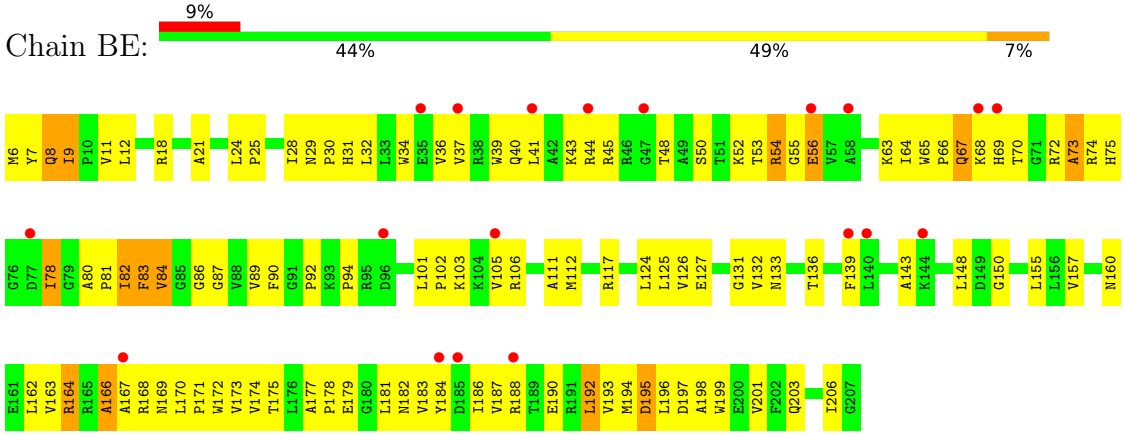
• Molecule 26: 50S ribosomal protein L3

Chain DD:



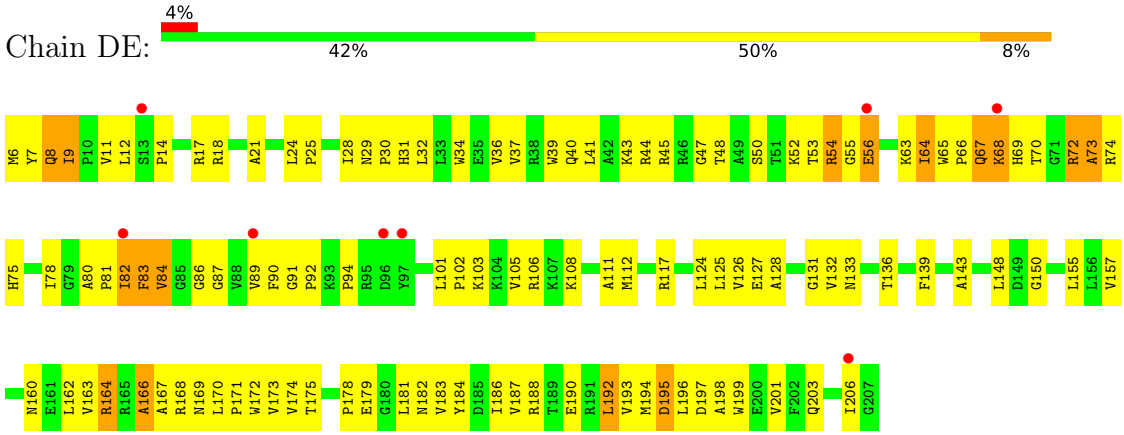
• Molecule 27: 50S ribosomal protein L4

Chain BE:



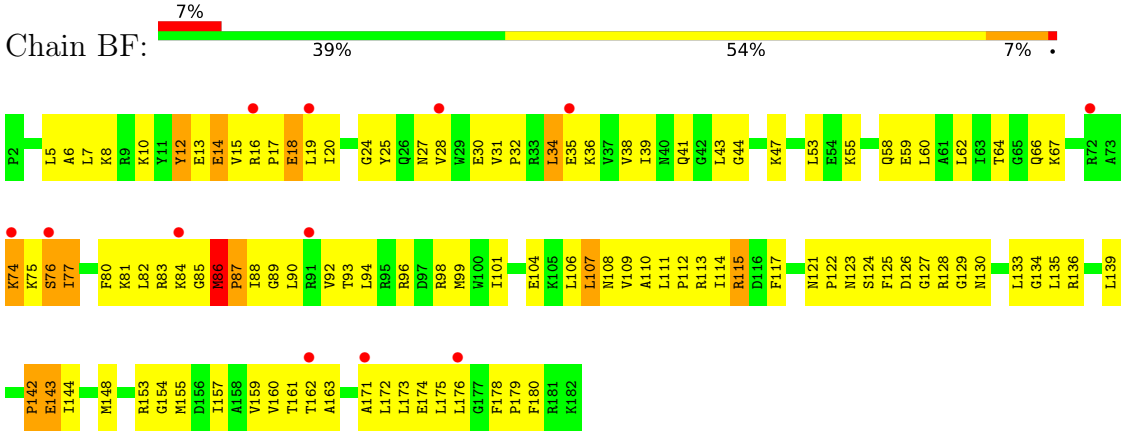
• Molecule 27: 50S ribosomal protein L4

Chain DE:



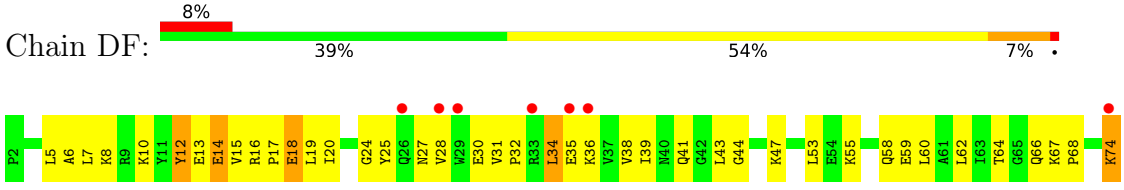
• Molecule 28: 50S ribosomal protein L5

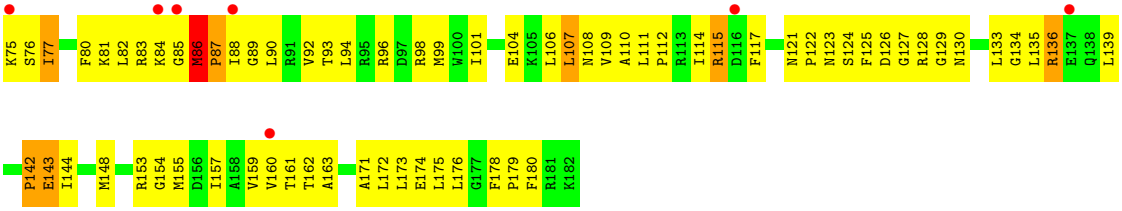
Chain BF:



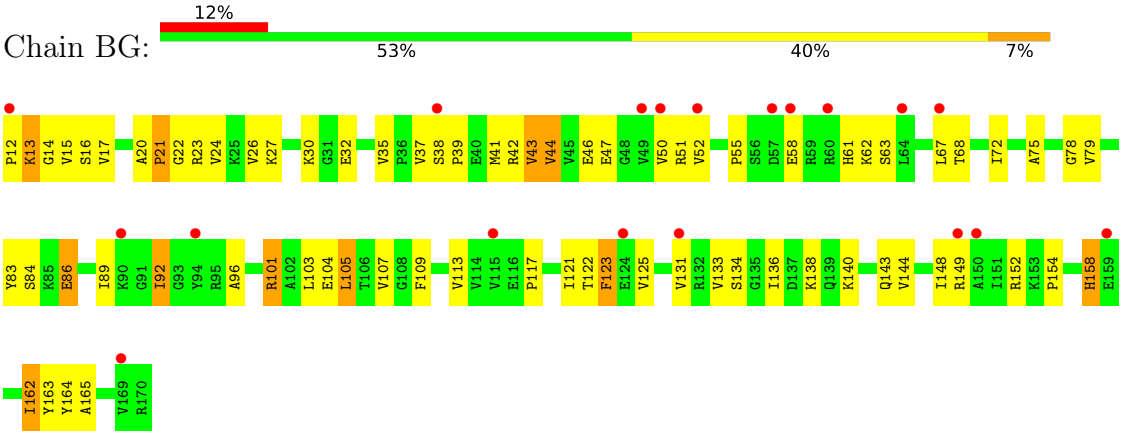
• Molecule 28: 50S ribosomal protein L5

Chain DF:

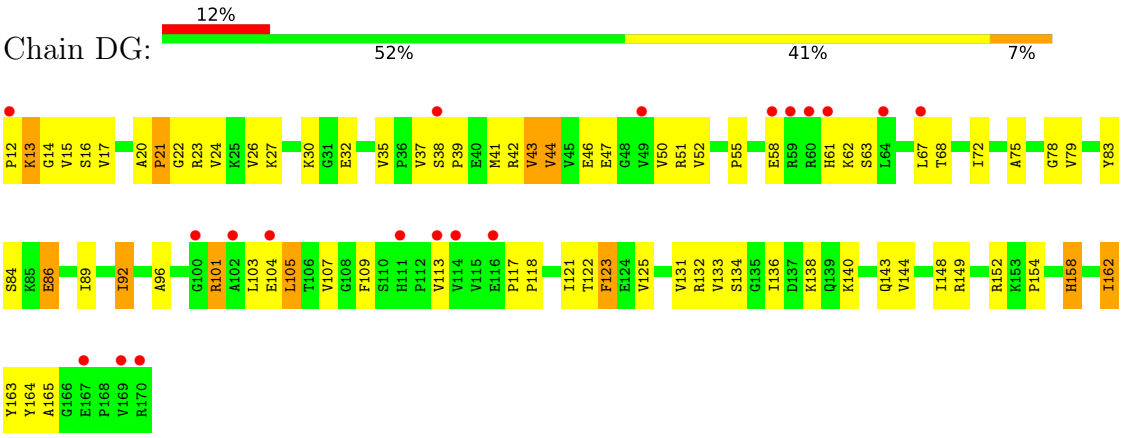




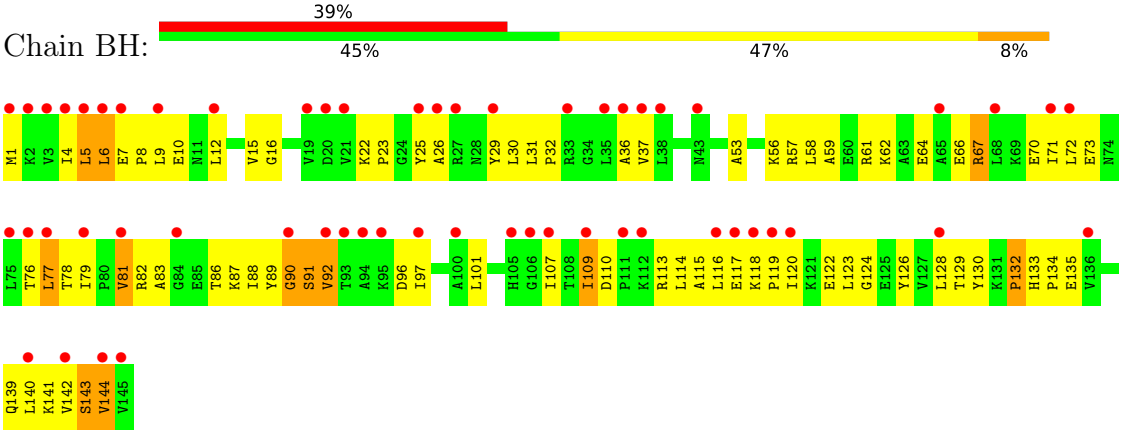
• Molecule 29: 50S ribosomal protein L6



• Molecule 29: 50S ribosomal protein L6

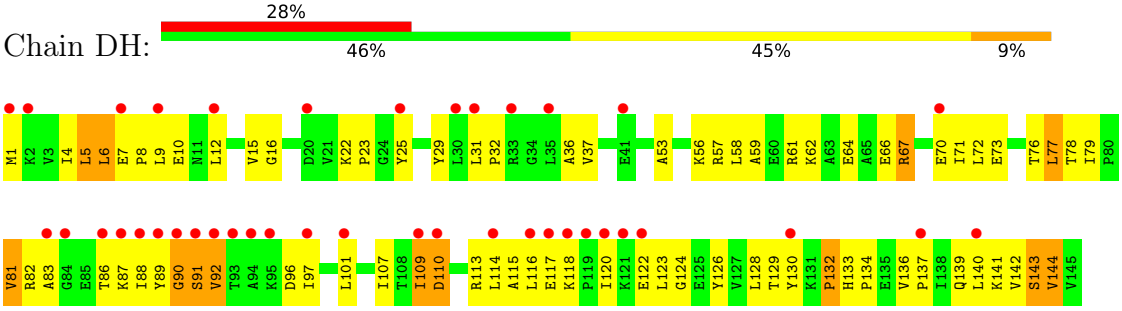


• Molecule 30: 50S ribosomal protein L9



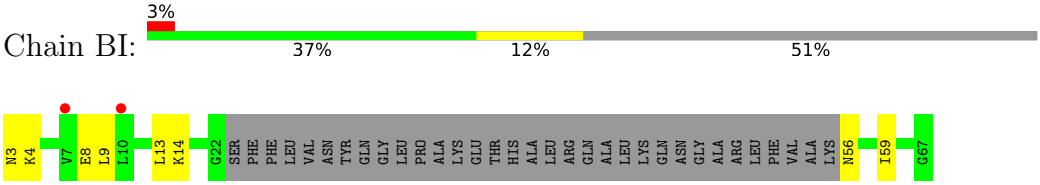
• Molecule 30: 50S ribosomal protein L9

Chain DH:



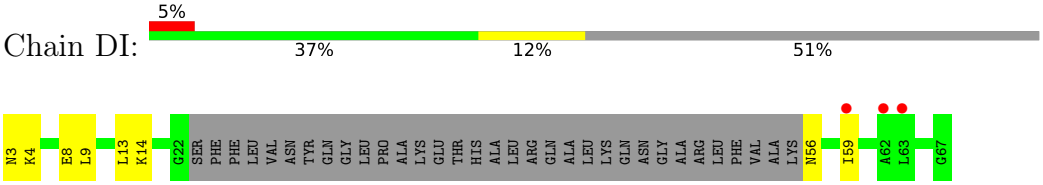
• Molecule 31: 50S ribosomal protein L10

Chain BI:



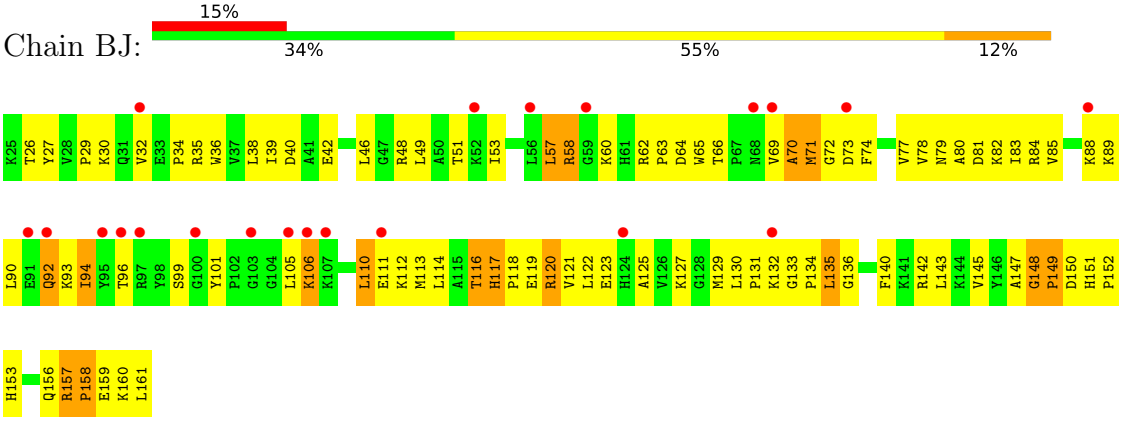
• Molecule 31: 50S ribosomal protein L10

Chain DI:



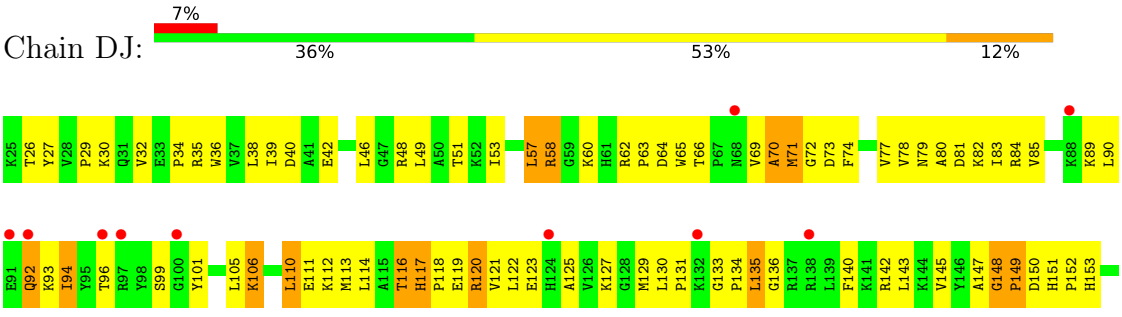
• Molecule 32: 50S ribosomal protein L13

Chain BJ:



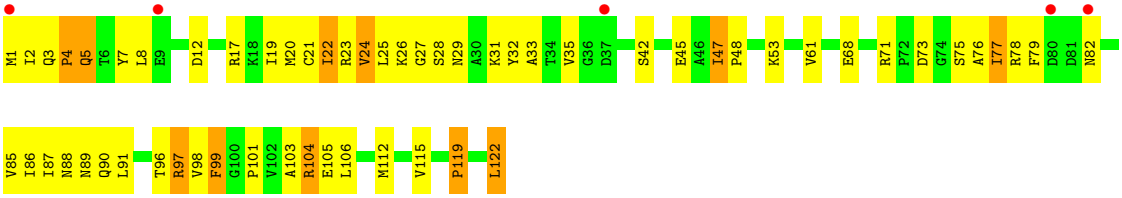
• Molecule 32: 50S ribosomal protein L13

Chain DJ:



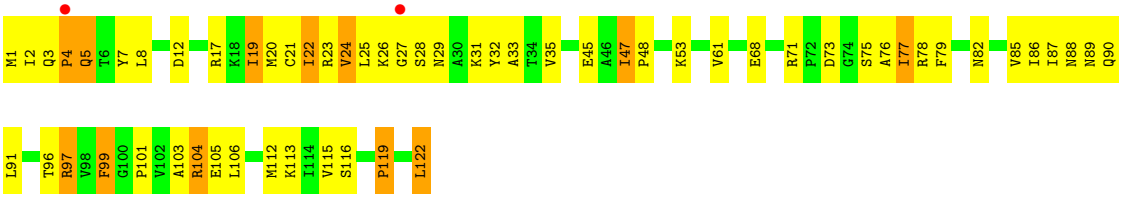
• Molecule 33: 50S ribosomal protein L14

Chain BK:



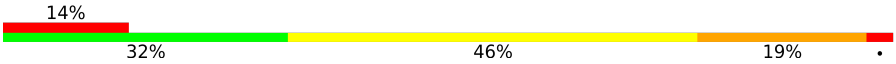
• Molecule 33: 50S ribosomal protein L14

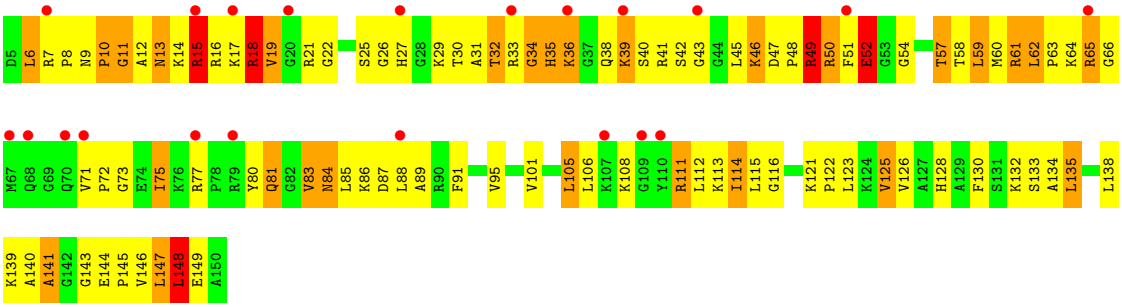
Chain DK:



• Molecule 34: 50S ribosomal protein L15

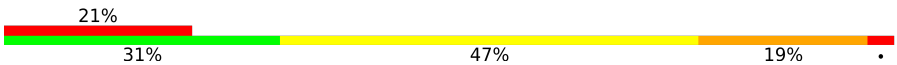
Chain BL:

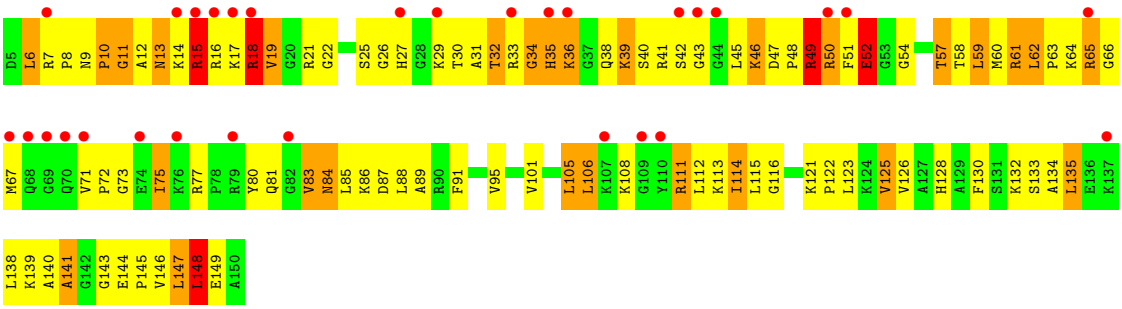




• Molecule 34: 50S ribosomal protein L15

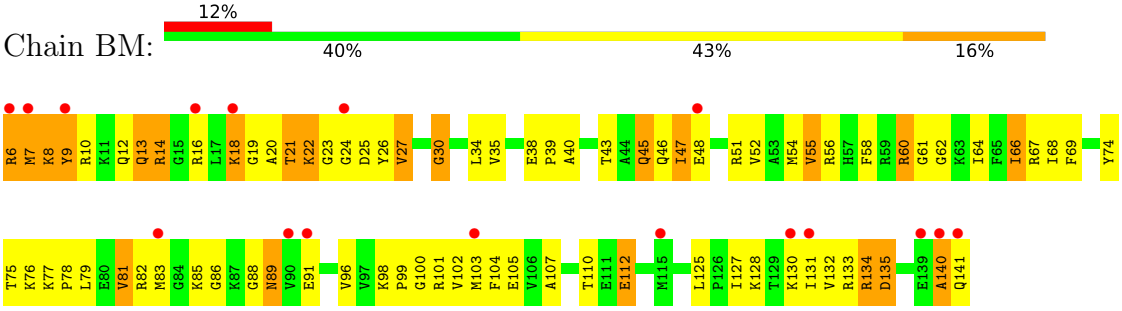
Chain DL:





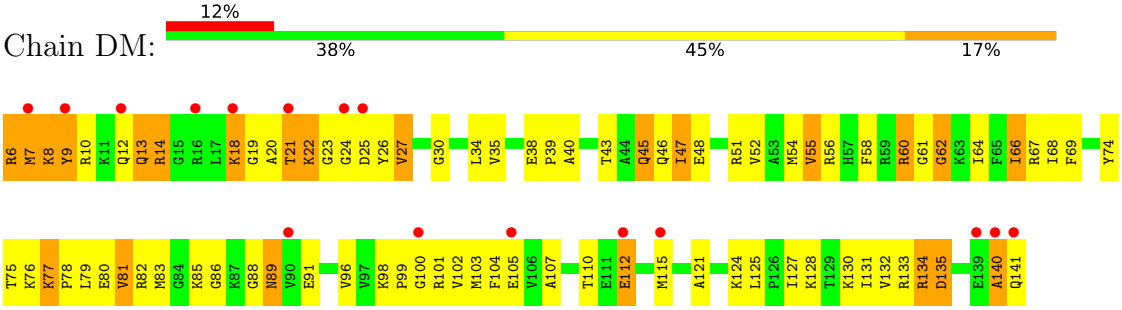
• Molecule 35: 50S ribosomal protein L16

Chain BM:



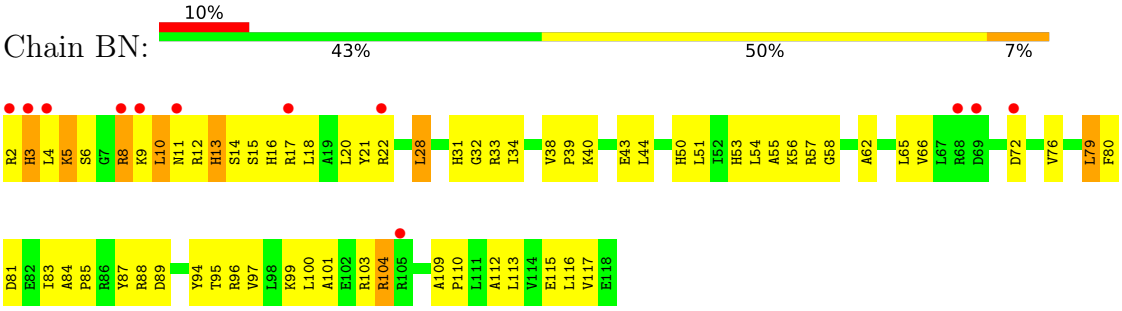
• Molecule 35: 50S ribosomal protein L16

Chain DM:



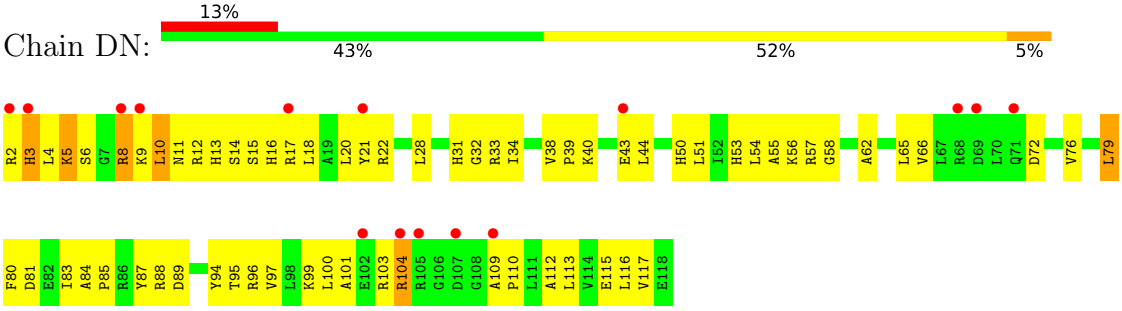
• Molecule 36: 50S ribosomal protein L17

Chain BN:



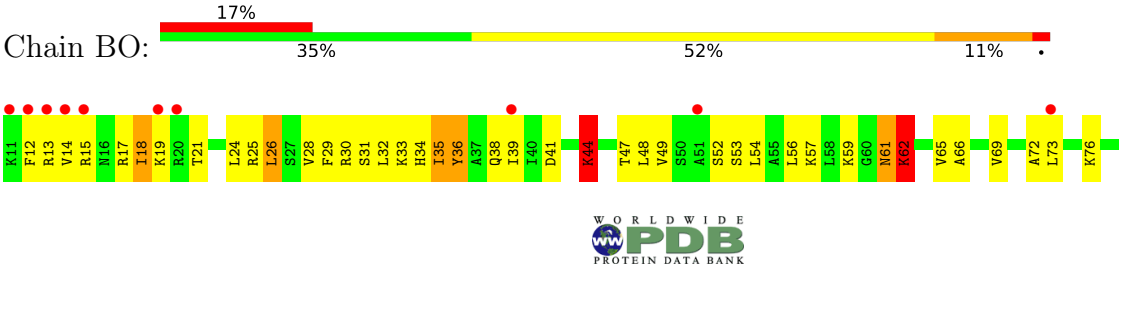
• Molecule 36: 50S ribosomal protein L17

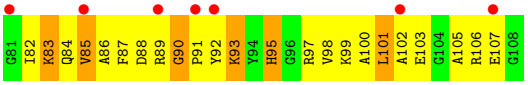
Chain DN:



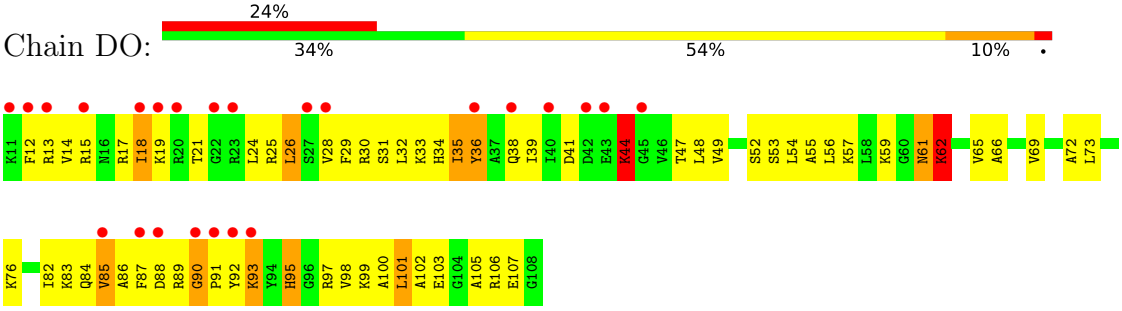
• Molecule 37: 50S ribosomal protein L18

Chain BO:

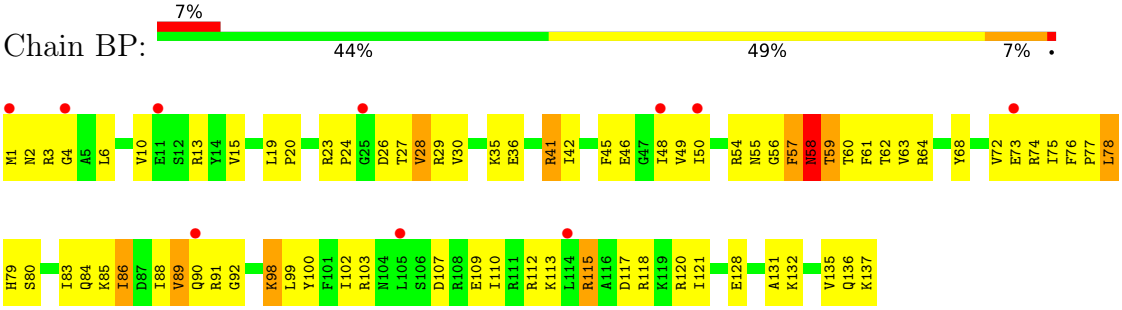




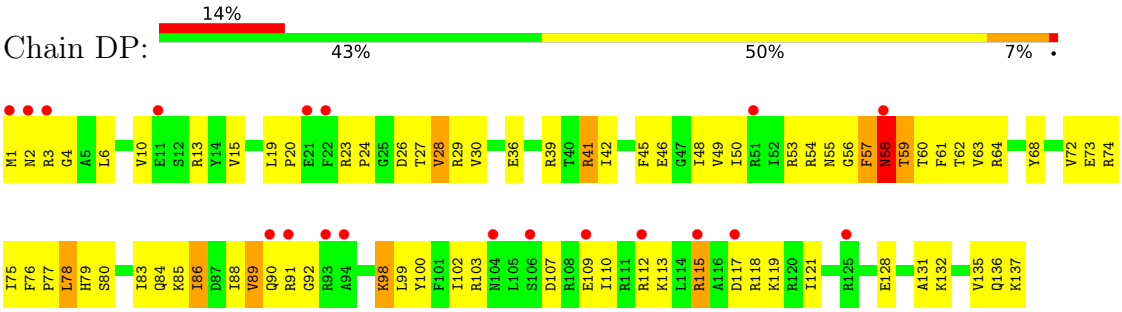
• Molecule 37: 50S ribosomal protein L18



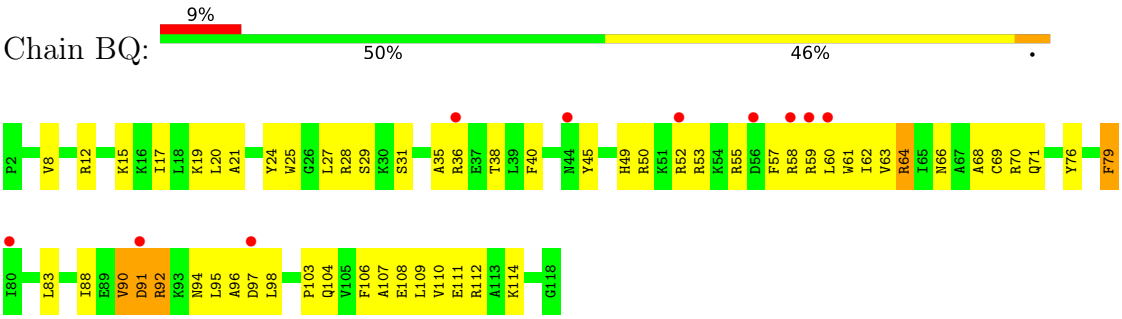
• Molecule 38: 50S ribosomal protein L19



• Molecule 38: 50S ribosomal protein L19

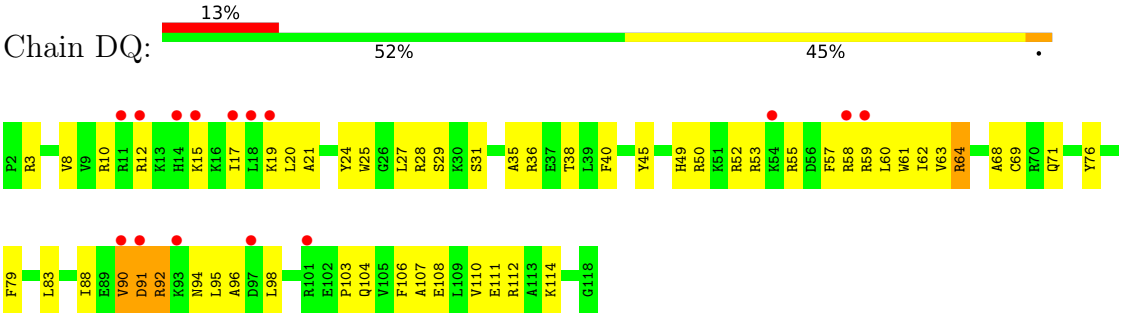


• Molecule 39: 50S ribosomal protein L20



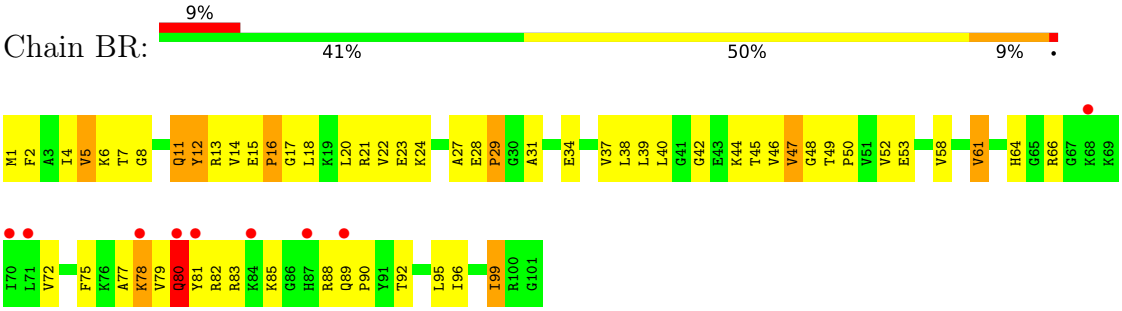
• Molecule 39: 50S ribosomal protein L20

Chain DQ:



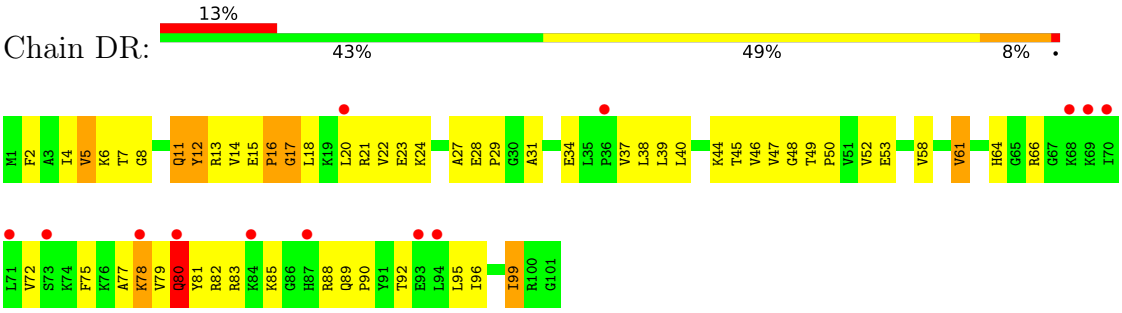
• Molecule 40: 50S ribosomal protein L21

Chain BR:



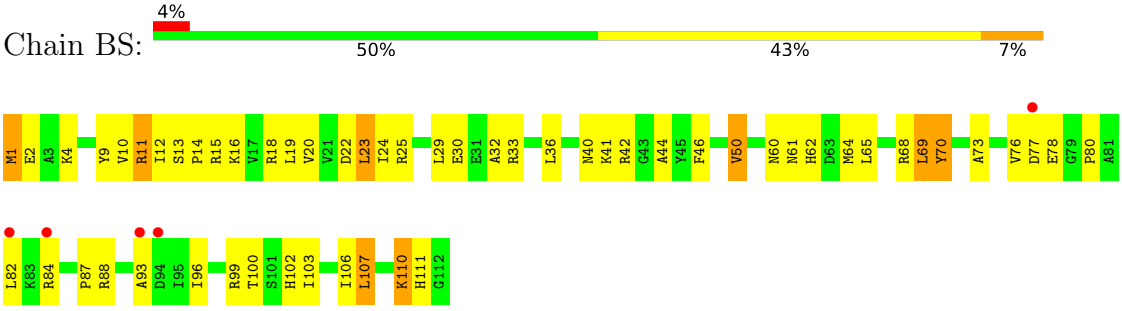
• Molecule 40: 50S ribosomal protein L21

Chain DR:



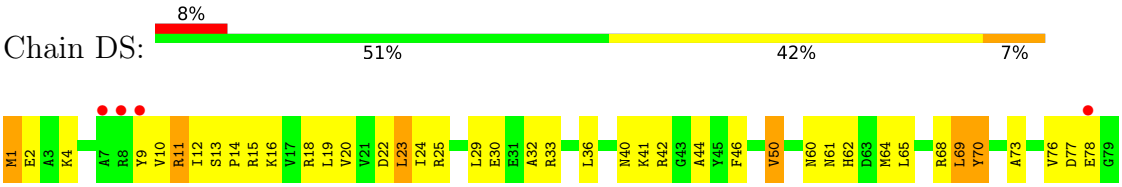
• Molecule 41: 50S ribosomal protein L22

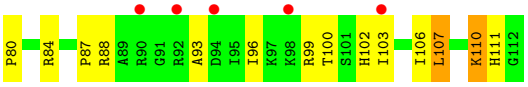
Chain BS:



• Molecule 41: 50S ribosomal protein L22

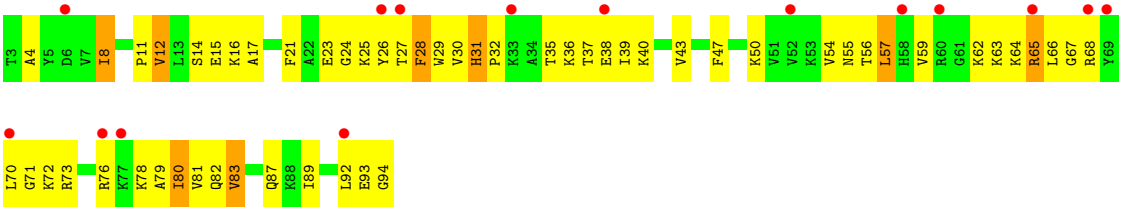
Chain DS:





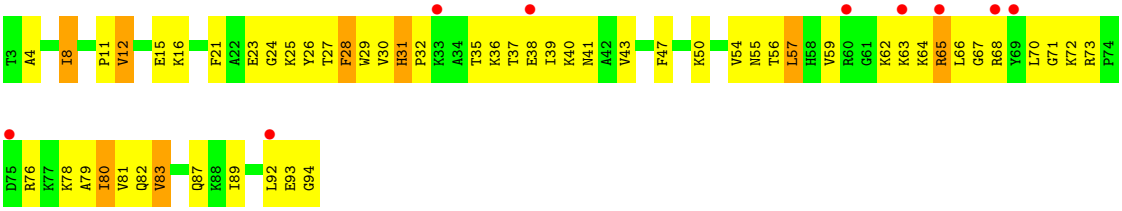
• Molecule 42: 50S ribosomal protein L23

Chain BT:



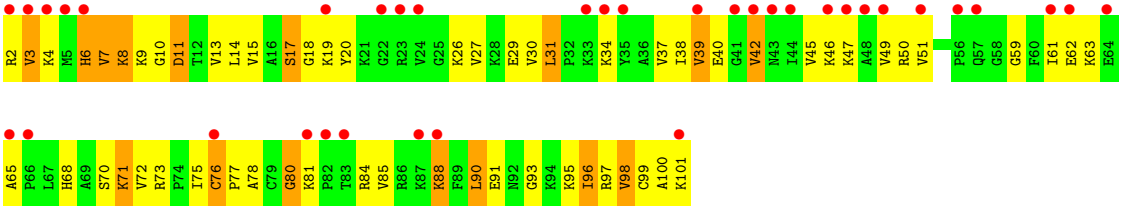
• Molecule 42: 50S ribosomal protein L23

Chain DT:



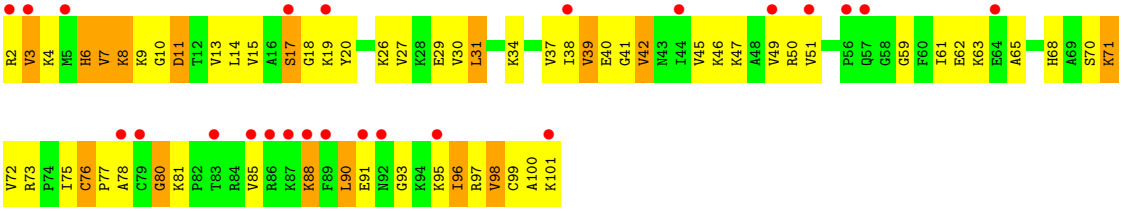
• Molecule 43: 50S ribosomal protein L24

Chain BU:



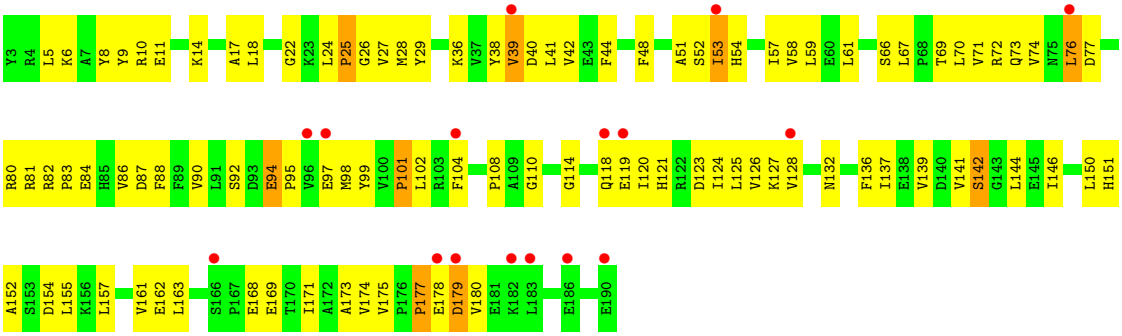
• Molecule 43: 50S ribosomal protein L24

Chain DU:

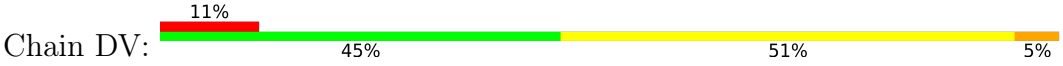


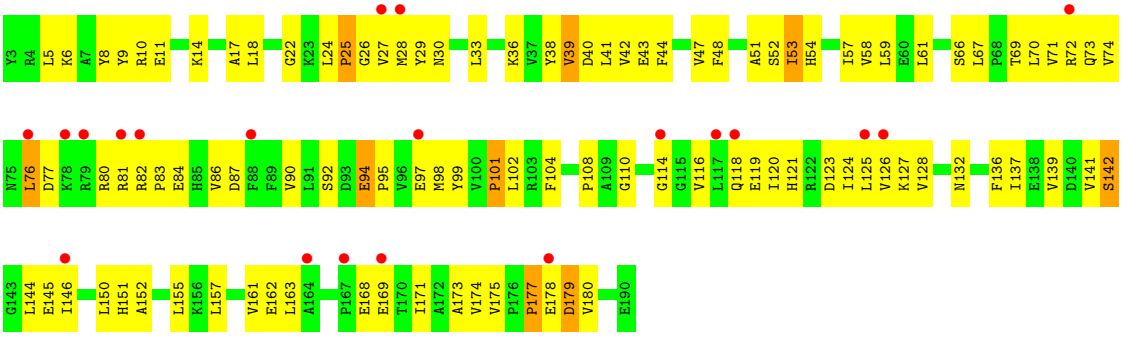
• Molecule 44: 50S ribosomal protein L25

Chain BV:



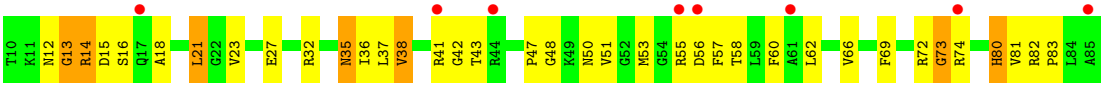
• Molecule 44: 50S ribosomal protein L25



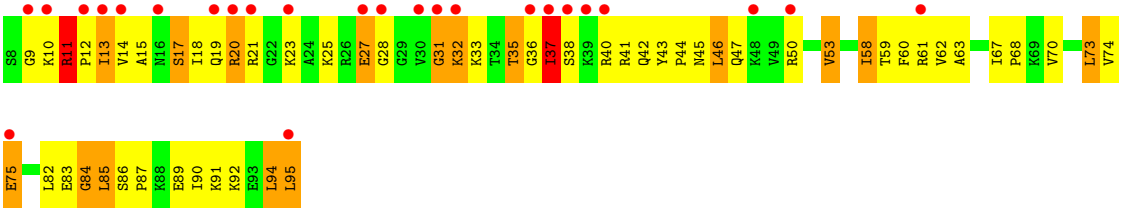


• Molecule 45: 50S ribosomal protein L27

• Molecule 45: 50S ribosomal protein L27

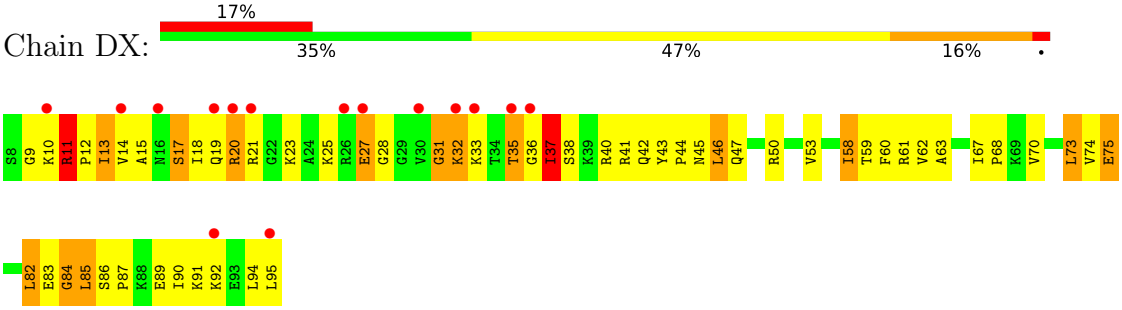


• Molecule 46: 50S ribosomal protein L28



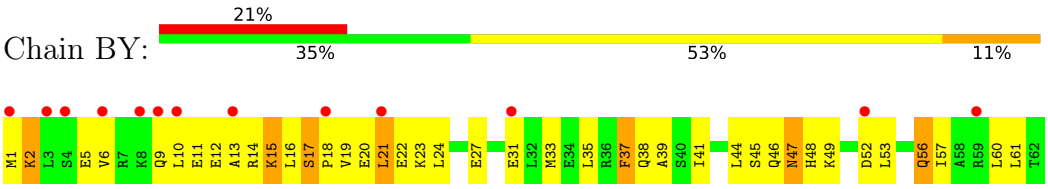
• Molecule 46: 50S ribosomal protein L28

Chain DX:



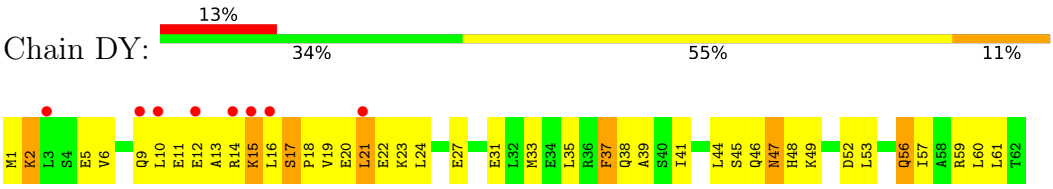
• Molecule 47: 50S ribosomal protein L29

Chain BY:



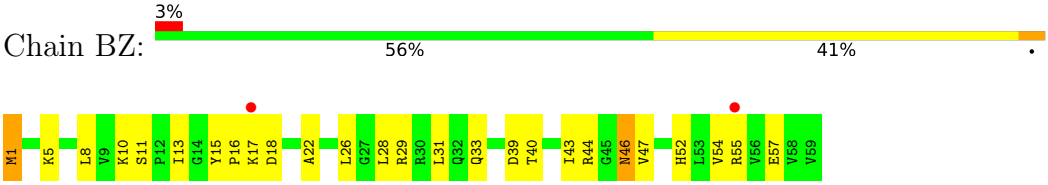
• Molecule 47: 50S ribosomal protein L29

Chain DY:



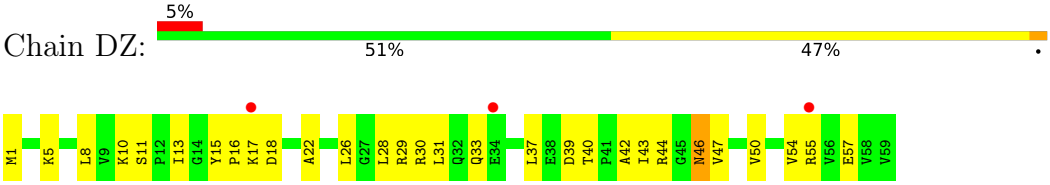
• Molecule 48: 50S ribosomal protein L30

Chain BZ:



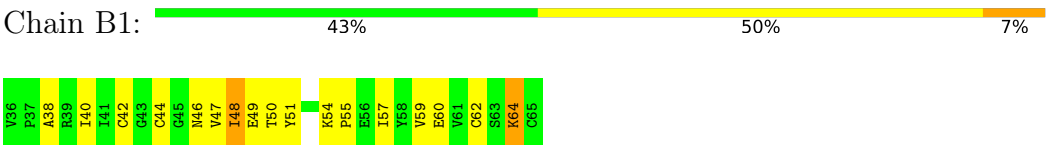
• Molecule 48: 50S ribosomal protein L30

Chain DZ:



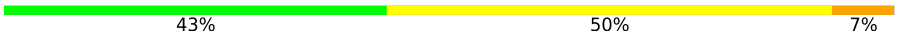
• Molecule 49: 50S ribosomal protein L31

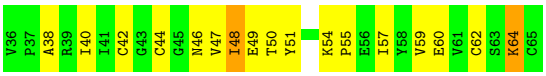
Chain B1:



• Molecule 49: 50S ribosomal protein L31

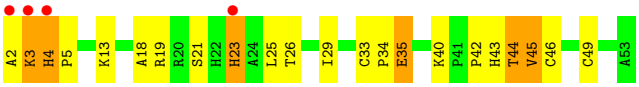
Chain D1:





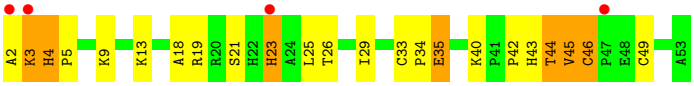
• Molecule 50: 50S ribosomal protein L32

Chain B2:



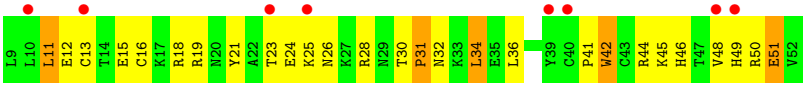
• Molecule 50: 50S ribosomal protein L32

Chain D2:



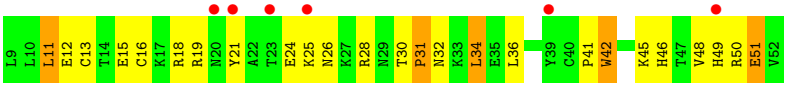
• Molecule 51: 50S ribosomal protein L33

Chain B3:



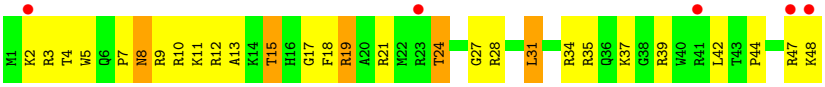
• Molecule 51: 50S ribosomal protein L33

Chain D3:



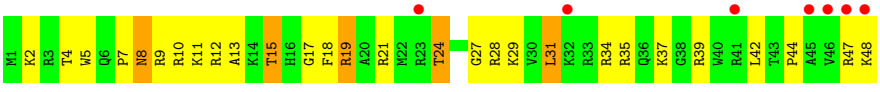
• Molecule 52: 50S ribosomal protein L34

Chain B4:



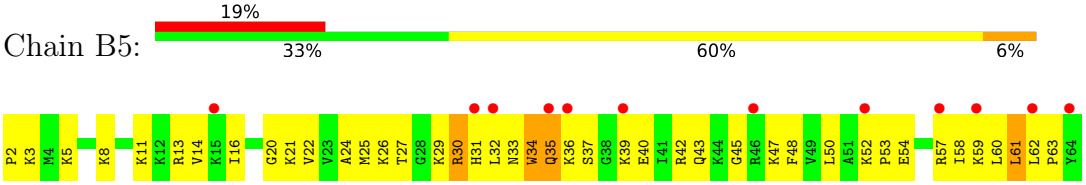
• Molecule 52: 50S ribosomal protein L34

Chain D4:



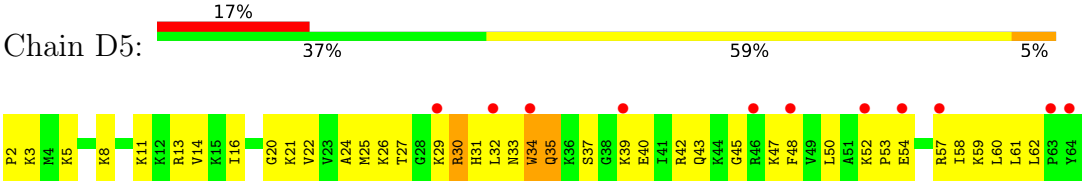
• Molecule 53: 50S ribosomal protein L35

Chain B5:



• Molecule 53: 50S ribosomal protein L35

Chain D5:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	211.94Å 455.59Å 618.02Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	50.00 – 3.50 50.00 – 3.50	Depositor EDS
% Data completeness (in resolution range)	99.9 (50.00-3.50) 99.8 (50.00-3.50)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.61 (at 3.49Å)	Xtriage
Refinement program	PHENIX 1.5_2, CNS	Depositor
R, R_{free}	0.233 , 0.264 0.233 , 0.262	Depositor DCC
R_{free} test set	7410 reflections (0.99%)	wwPDB-VP
Wilson B-factor (Å^2)	106.2	Xtriage
Anisotropy	0.163	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.25 , 96.2	EDS
L-test for twinning[2]	$< \|L\| > = 0.38$, $< L^2 > = 0.21$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.92	EDS
Total number of atoms	283641	wwPDB-VP
Average B, all atoms (Å^2)	127.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.63% 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	0.38	0/36238	0.78	17/56561 (0.0%)
1	CA	0.38	0/36238	0.77	15/56561 (0.0%)
2	AB	0.27	0/1936	0.73	2/2609 (0.1%)
2	CB	0.26	0/1936	0.73	2/2609 (0.1%)
3	AC	0.28	0/1637	0.66	0/2205
3	CC	0.27	0/1637	0.67	0/2205
4	AD	0.31	0/1733	0.74	1/2318 (0.0%)
4	CD	0.28	0/1733	0.73	0/2318
5	AE	0.31	0/1172	0.74	0/1576
5	CE	0.29	0/1172	0.74	0/1576
6	AF	0.27	0/856	0.75	0/1154
6	CF	0.29	0/856	0.75	0/1154
7	AG	0.27	0/1276	0.69	0/1709
7	CG	0.27	0/1276	0.69	0/1709
8	AH	0.29	0/1136	0.77	1/1527 (0.1%)
8	CH	0.28	0/1136	0.77	0/1527
9	AI	0.26	0/1029	0.68	0/1378
9	CI	0.26	0/1029	0.68	0/1378
10	AJ	0.28	0/808	0.72	0/1085
10	CJ	0.28	0/808	0.72	0/1085
11	AK	0.29	0/900	0.79	4/1213 (0.3%)
11	CK	0.28	0/900	0.77	2/1213 (0.2%)
12	AL	0.33	0/987	0.82	0/1320
12	CL	0.32	0/987	0.81	0/1320
13	AM	0.31	0/939	0.74	0/1258
13	CM	0.31	0/939	0.74	0/1258
14	AN	0.31	0/501	0.68	0/664
14	CN	0.30	0/501	0.68	0/664
15	AO	0.32	0/745	0.67	0/992
15	CO	0.34	0/745	0.68	0/992
16	AP	0.36	0/717	0.69	0/963
16	CP	0.39	0/717	0.69	0/963

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	AQ	0.28	0/837	0.74	0/1117
17	CQ	0.26	0/837	0.72	0/1117
18	AR	0.27	0/579	0.72	0/768
18	CR	0.27	0/579	0.75	0/768
19	AS	0.27	0/643	0.66	0/865
19	CS	0.27	0/643	0.66	0/865
20	AT	0.31	0/764	0.69	0/1006
20	CT	0.28	0/764	0.69	0/1006
21	AU	0.26	0/213	0.63	0/277
21	CU	0.23	0/213	0.64	0/277
22	AV	0.39	0/821	0.71	0/1275
22	CV	0.38	0/821	0.72	0/1275
23	BA	0.41	0/66575	0.89	63/103930 (0.1%)
23	DA	0.43	0/66575	0.90	61/103930 (0.1%)
24	BB	0.39	0/2853	0.80	0/4451
24	DB	0.39	0/2853	0.80	0/4451
25	BC	0.42	0/2155	0.85	7/2905 (0.2%)
25	DC	0.43	0/2155	0.86	7/2905 (0.2%)
26	BD	0.34	0/1597	0.83	4/2153 (0.2%)
26	DD	0.34	0/1597	0.84	4/2153 (0.2%)
27	BE	0.38	0/1622	0.84	0/2194
27	DE	0.40	0/1622	0.84	2/2194 (0.1%)
28	BF	0.29	0/1500	0.75	3/2017 (0.1%)
28	DF	0.29	0/1500	0.75	2/2017 (0.1%)
29	BG	0.29	0/1246	0.76	1/1682 (0.1%)
29	DG	0.31	0/1246	0.76	1/1682 (0.1%)
30	BH	0.37	0/1148	0.79	0/1552
30	DH	0.39	0/1148	0.82	2/1552 (0.1%)
31	BI	0.26	0/252	0.66	0/333
31	DI	0.27	0/252	0.66	0/333
32	BJ	0.34	0/1124	0.83	2/1515 (0.1%)
32	DJ	0.35	0/1124	0.83	2/1515 (0.1%)
33	BK	0.36	0/942	0.81	0/1268
33	DK	0.36	0/942	0.82	0/1268
34	BL	0.40	0/1131	0.89	4/1504 (0.3%)
34	DL	0.42	0/1131	0.90	4/1504 (0.3%)
35	BM	0.39	0/1099	0.84	4/1468 (0.3%)
35	DM	0.40	0/1099	0.85	4/1468 (0.3%)
36	BN	0.35	0/974	0.75	0/1302
36	DN	0.34	0/974	0.74	0/1302
37	BO	0.31	0/779	0.75	0/1036
37	DO	0.31	0/779	0.76	0/1036
38	BP	0.33	0/1158	0.74	0/1544

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	DP	0.33	0/1158	0.74	0/1544
39	BQ	0.40	0/970	0.79	0/1290
39	DQ	0.42	0/970	0.80	0/1290
40	BR	0.33	0/790	0.73	1/1057 (0.1%)
40	DR	0.35	0/790	0.73	0/1057
41	BS	0.41	0/902	0.82	0/1209
41	DS	0.41	0/902	0.81	0/1209
42	BT	0.34	0/740	0.85	2/993 (0.2%)
42	DT	0.38	0/740	0.86	2/993 (0.2%)
43	BU	0.32	0/789	0.82	0/1051
43	DU	0.34	0/789	0.83	0/1051
44	BV	0.29	0/1524	0.77	1/2068 (0.0%)
44	DV	0.29	0/1524	0.77	1/2068 (0.0%)
45	BW	0.31	0/613	0.71	0/816
45	DW	0.31	0/613	0.71	0/816
46	BX	0.40	0/702	0.97	3/932 (0.3%)
46	DX	0.43	0/702	0.98	3/932 (0.3%)
47	BY	0.37	0/523	0.82	0/690
47	DY	0.40	0/523	0.85	0/690
48	BZ	0.32	0/473	0.80	2/634 (0.3%)
48	DZ	0.32	0/473	0.79	2/634 (0.3%)
49	B1	0.29	0/229	0.64	0/309
49	D1	0.29	0/229	0.65	0/309
50	B2	0.41	0/419	0.95	2/567 (0.4%)
50	D2	0.41	0/419	0.97	2/567 (0.4%)
51	B3	0.27	0/388	0.67	0/518
51	D3	0.27	0/388	0.67	0/518
52	B4	0.45	0/427	0.87	0/561
52	D4	0.50	0/427	0.88	0/561
53	B5	0.36	0/516	0.74	0/679
53	D5	0.39	0/516	0.76	0/679
All	All	0.39	0/305254	0.83	242/456136 (0.1%)

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
28	BF	0	1
28	DF	0	1
34	BL	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
34	DL	0	1
All	All	0	4

There are no bond length outliers.

All (242) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
46	BX	35	THR	N-CA-C	10.79	122.11	108.19
46	DX	35	THR	N-CA-C	10.68	121.97	108.19
1	AA	136(B)	C	O3'-P-O5'	-8.83	90.75	104.00
23	BA	945	A	C1'-O4'-C4'	-8.18	101.52	109.70
46	BX	27	GLU	N-CA-C	8.02	118.48	107.73
23	BA	1786	A	C1'-O4'-C4'	-8.00	101.70	109.70
46	DX	27	GLU	N-CA-C	7.96	118.39	107.73
23	DA	676	A	C1'-O4'-C4'	-7.83	102.07	109.90
23	DA	1786	A	C1'-O4'-C4'	-7.63	102.07	109.70
23	DA	945	A	C1'-O4'-C4'	-7.59	102.11	109.70
23	BA	676	A	C1'-O4'-C4'	-7.58	102.32	109.90
23	BA	2818	G	C1'-O4'-C4'	-7.39	102.51	109.90
32	BJ	133	GLY	CA-C-N	7.29	127.14	119.05
32	BJ	133	GLY	C-N-CA	7.29	127.14	119.05
32	DJ	133	GLY	CA-C-N	7.27	127.12	119.05
32	DJ	133	GLY	C-N-CA	7.27	127.12	119.05
23	DA	2818	G	C1'-O4'-C4'	-7.27	102.63	109.90
34	BL	22	GLY	CA-C-N	7.16	126.79	119.56
34	BL	22	GLY	C-N-CA	7.16	126.79	119.56
48	BZ	15	TYR	CA-C-N	7.08	127.11	119.89
48	BZ	15	TYR	C-N-CA	7.08	127.11	119.89
23	DA	265	A	C3'-C2'-C1'	-6.97	94.53	101.50
23	BA	265	A	C3'-C2'-C1'	-6.95	94.55	101.50
2	AB	193	ASP	CA-C-N	6.88	126.40	119.24
2	AB	193	ASP	C-N-CA	6.88	126.40	119.24
1	CA	99	C	P-O3'-C3'	6.87	130.50	120.20
35	DM	9	TYR	N-CA-C	6.86	118.77	107.73
2	CB	193	ASP	CA-C-N	6.83	126.35	119.24
2	CB	193	ASP	C-N-CA	6.83	126.35	119.24
35	BM	9	TYR	N-CA-C	6.83	118.72	107.73
23	DA	748	G	C1'-O4'-C4'	-6.83	103.08	109.90
34	DL	22	GLY	CA-C-N	6.77	126.40	119.56
34	DL	22	GLY	C-N-CA	6.77	126.40	119.56
34	DL	54	GLY	N-CA-C	-6.75	106.35	113.58
1	AA	99	C	P-O3'-C3'	6.70	130.25	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	BL	52	GLU	N-CA-C	6.68	119.66	110.24
23	BA	1984	G	C4'-C3'-C2'	-6.67	95.93	102.60
26	BD	190	GLY	CA-C-N	6.62	127.87	120.66
26	BD	190	GLY	C-N-CA	6.62	127.87	120.66
48	DZ	15	TYR	CA-C-N	6.59	126.61	119.89
48	DZ	15	TYR	C-N-CA	6.59	126.61	119.89
23	BA	2445	G	C4'-C3'-C2'	-6.58	96.02	102.60
26	DD	190	GLY	CA-C-N	6.56	127.81	120.66
26	DD	190	GLY	C-N-CA	6.56	127.81	120.66
23	DA	1786	A	C3'-C2'-C1'	-6.47	95.03	101.50
23	DA	2445	G	C4'-C3'-C2'	-6.47	96.13	102.60
23	BA	1786	A	C3'-C2'-C1'	-6.41	95.09	101.50
35	DM	135	ASP	CB-CA-C	-6.39	109.22	116.63
23	DA	933	A	C4'-C3'-C2'	-6.38	96.22	102.60
23	BA	1189	A	O3'-P-O5'	-6.38	94.44	104.00
34	DL	52	GLU	N-CA-C	6.33	119.17	110.24
23	BA	933	A	C4'-C3'-C2'	-6.32	96.28	102.60
25	BC	46	GLN	N-CA-C	-6.32	102.38	110.53
23	BA	1614	A	C1'-O4'-C4'	-6.27	103.63	109.90
35	BM	135	ASP	CB-CA-C	-6.24	109.39	116.63
23	DA	1984	G	C4'-C3'-C2'	-6.23	96.37	102.60
23	DA	131	G	O4'-C4'-C3'	-6.19	97.81	104.00
23	BA	748	G	C1'-O4'-C4'	-6.17	103.73	109.90
23	DA	221	A	P-O3'-C3'	6.16	129.45	120.20
23	DA	1614	A	C1'-O4'-C4'	-6.16	103.74	109.90
25	DC	46	GLN	N-CA-C	-6.15	102.60	110.53
23	DA	1189	A	O3'-P-O5'	-6.08	94.87	104.00
23	DA	673	C	C4'-C3'-C2'	-6.08	96.52	102.60
1	CA	266	G	P-O3'-C3'	6.04	129.26	120.20
1	AA	266	G	P-O3'-C3'	6.02	129.23	120.20
23	DA	760	G	C4'-C3'-C2'	-6.01	96.59	102.60
23	BA	2052	G	C4'-C3'-C2'	-5.97	96.63	102.60
25	DC	120	GLY	CA-C-N	5.96	125.67	119.05
25	DC	120	GLY	C-N-CA	5.96	125.67	119.05
23	BA	221	A	P-O3'-C3'	5.94	129.12	120.20
23	DA	945	A	C3'-C2'-C1'	-5.94	95.56	101.50
34	BL	54	GLY	N-CA-C	-5.92	107.25	113.58
50	D2	26	THR	CA-C-N	5.92	123.98	119.66
50	D2	26	THR	C-N-CA	5.92	123.98	119.66
23	BA	938	G	C4'-C3'-C2'	-5.90	96.70	102.60
23	DA	2562	U	C4'-C3'-C2'	-5.89	96.70	102.60
25	BC	120	GLY	CA-C-N	5.88	125.57	119.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BC	120	GLY	C-N-CA	5.88	125.57	119.05
23	BA	825	C	C4'-C3'-C2'	-5.87	96.73	102.60
23	BA	407	G	C4'-C3'-C2'	-5.86	96.74	102.60
23	BA	481	G	P-O3'-C3'	5.86	128.98	120.20
50	B2	26	THR	CA-C-N	5.85	123.93	119.66
50	B2	26	THR	C-N-CA	5.85	123.93	119.66
42	DT	31	HIS	CA-C-N	5.84	125.31	119.24
42	DT	31	HIS	C-N-CA	5.84	125.31	119.24
23	BA	1786	A	O4'-C1'-C2'	-5.82	99.98	105.80
23	DA	1937	A	P-O3'-C3'	5.79	128.89	120.20
23	DA	2049	G	C4'-C3'-C2'	-5.79	96.81	102.60
23	BA	945	A	C3'-C2'-C1'	-5.78	95.72	101.50
23	DA	825	C	C4'-C3'-C2'	-5.78	96.83	102.60
1	AA	1498	U	P-O3'-C3'	5.77	128.86	120.20
23	DA	807	U	C4'-C3'-C2'	-5.76	96.84	102.60
23	BA	807	U	C4'-C3'-C2'	-5.76	96.84	102.60
23	DA	2051	A	O5'-C5'-C4'	-5.75	103.08	111.70
23	BA	1937	A	P-O3'-C3'	5.74	128.81	120.20
1	CA	1529	G	C1'-O4'-C4'	-5.71	103.99	109.70
4	AD	31	CYS	N-CA-C	-5.66	106.41	113.15
23	DA	444	C	C4'-C3'-C2'	-5.66	96.94	102.60
23	DA	481	G	P-O3'-C3'	5.66	128.69	120.20
23	DA	2512	C	C4'-C3'-C2'	-5.65	96.95	102.60
23	BA	242	G	C3'-C2'-C1'	-5.64	95.86	101.50
23	DA	242	G	C3'-C2'-C1'	-5.62	95.88	101.50
1	AA	243	A	P-O3'-C3'	5.60	128.61	120.20
28	BF	77	ILE	N-CA-C	5.60	115.72	107.15
23	BA	933	A	O4'-C4'-C3'	-5.60	98.40	104.00
25	BC	107	ALA	CA-C-N	5.58	125.56	120.03
25	BC	107	ALA	C-N-CA	5.58	125.56	120.03
23	DA	385	C	C4'-C3'-O3'	-5.58	104.64	113.00
23	BA	131	G	O4'-C4'-C3'	-5.57	98.43	104.00
28	DF	77	ILE	N-CA-C	5.57	115.67	107.15
23	DA	1395	A	C1'-O4'-C4'	-5.55	104.35	109.90
23	DA	197	A	O4'-C1'-C2'	-5.55	102.05	107.60
25	BC	244	ARG	CA-C-N	-5.55	114.67	120.38
25	BC	244	ARG	C-N-CA	-5.55	114.67	120.38
23	BA	940	G	C4'-C3'-C2'	-5.51	97.09	102.60
23	DA	95	G	C4'-C3'-C2'	-5.50	97.11	102.60
23	DA	2225	A	C2'-C3'-O3'	5.49	117.73	109.50
23	DA	940	G	C4'-C3'-C2'	-5.48	97.12	102.60
23	BA	2562	U	C4'-C3'-C2'	-5.48	97.12	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1698	A	C3'-C2'-C1'	-5.47	96.03	101.50
25	DC	107	ALA	CA-C-N	5.47	125.45	120.03
25	DC	107	ALA	C-N-CA	5.47	125.45	120.03
1	CA	243	A	P-O3'-C3'	5.47	128.40	120.20
23	BA	1395	A	C1'-O4'-C4'	-5.46	104.44	109.90
1	AA	356	A	C4'-C3'-C2'	-5.45	97.15	102.60
1	CA	1498	U	P-O3'-C3'	5.45	128.38	120.20
1	CA	358	U	P-O3'-C3'	-5.45	112.03	120.20
1	AA	1529	G	C1'-O4'-C4'	-5.44	104.26	109.70
1	AA	438	G	P-O3'-C3'	5.44	128.35	120.20
23	DA	938	G	C4'-C3'-C2'	-5.43	97.17	102.60
23	BA	760	G	C4'-C3'-C2'	-5.42	97.18	102.60
1	CA	438	G	P-O3'-C3'	5.42	128.33	120.20
42	BT	31	HIS	CA-C-N	5.41	124.87	119.24
42	BT	31	HIS	C-N-CA	5.41	124.87	119.24
23	BA	1786	A	N9-C1'-C2'	5.41	122.11	114.00
23	BA	95	G	C4'-C3'-C2'	-5.40	97.20	102.60
23	DA	407	G	C4'-C3'-C2'	-5.39	97.21	102.60
23	BA	673	C	C4'-C3'-C2'	-5.39	97.21	102.60
23	DA	1786	A	O4'-C1'-C2'	-5.38	100.42	105.80
27	DE	91	GLY	CA-C-N	5.38	125.68	119.93
27	DE	91	GLY	C-N-CA	5.38	125.68	119.93
23	BA	197	A	O4'-C1'-C2'	-5.38	102.22	107.60
23	DA	1022	G	P-O3'-C3'	5.37	128.26	120.20
23	DA	2052	G	C4'-C3'-C2'	-5.37	97.23	102.60
23	BA	1162	G	C4'-C3'-C2'	-5.37	97.23	102.60
25	DC	244	ARG	CA-C-N	-5.36	114.86	120.38
25	DC	244	ARG	C-N-CA	-5.36	114.86	120.38
23	BA	2549	G	C4'-C3'-C2'	-5.35	97.25	102.60
46	BX	37	ILE	N-CA-C	5.34	117.48	109.20
23	BA	2512	C	C4'-C3'-C2'	-5.34	97.26	102.60
23	BA	2225	A	C2'-C3'-O3'	5.30	117.45	109.50
23	DA	1545	A	C1'-O4'-C4'	-5.30	104.60	109.90
1	AA	1067	A	C2'-C3'-O3'	5.30	117.45	109.50
23	DA	131	G	C1'-O4'-C4'	-5.30	104.60	109.90
29	DG	47	GLU	CB-CA-C	-5.29	109.49	115.79
23	DA	1162	G	C4'-C3'-C2'	-5.29	97.31	102.60
29	BG	47	GLU	CB-CA-C	-5.28	109.50	115.79
23	BA	2049	G	C4'-C3'-C2'	-5.28	97.32	102.60
23	BA	2056	G	C4'-C3'-C2'	-5.28	97.32	102.60
23	BA	1698	A	C3'-C2'-C1'	-5.28	96.22	101.50
23	BA	2818	G	O4'-C4'-C3'	-5.28	98.72	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	989	G	C1'-O4'-C4'	-5.27	104.43	109.70
23	BA	807	U	O4'-C4'-C3'	-5.27	98.73	104.00
23	BA	444	C	C4'-C3'-C2'	-5.26	97.34	102.60
1	CA	1361	G	O3'-P-O5'	5.25	111.88	104.00
1	CA	1525	G	C4'-C3'-C2'	-5.25	97.35	102.60
1	AA	1525	G	C4'-C3'-C2'	-5.24	97.36	102.60
23	BA	781	A	C4'-C3'-O3'	-5.24	105.14	113.00
23	DA	1786	A	N9-C1'-C2'	5.23	121.85	114.00
1	AA	136(B)	C	P-O3'-C3'	-5.23	112.35	120.20
23	BA	1308	A	C2'-C3'-O3'	-5.22	105.87	113.70
1	CA	1129	C	P-O3'-C3'	5.22	128.03	120.20
11	AK	38	ASN	CA-C-N	5.22	125.21	119.89
11	AK	38	ASN	C-N-CA	5.22	125.21	119.89
23	DA	1613	G	C4'-C3'-C2'	-5.21	97.39	102.60
23	BA	1613	G	C4'-C3'-C2'	-5.21	97.39	102.60
23	DA	974(B)	C	O4'-C1'-C2'	-5.21	100.59	105.80
44	DV	52	SER	CB-CA-C	-5.21	110.55	116.54
23	BA	332	A	P-O3'-C3'	5.20	128.00	120.20
23	DA	1855	G	C4'-C3'-C2'	-5.20	97.40	102.60
23	DA	1266	G	C3'-C2'-C1'	-5.20	96.30	101.50
23	BA	601	C	C4'-C3'-C2'	-5.18	97.42	102.60
28	DF	44	GLY	N-CA-C	-5.18	108.97	114.67
23	DA	2049	G	C1'-O4'-C4'	-5.18	104.72	109.90
1	AA	1129	C	P-O3'-C3'	5.18	127.97	120.20
30	DH	110	ASP	CA-C-N	5.17	125.25	119.87
30	DH	110	ASP	C-N-CA	5.17	125.25	119.87
23	BA	989	G	C1'-O4'-C4'	-5.15	104.55	109.70
23	BA	2051	A	O5'-C5'-C4'	-5.15	103.98	111.70
11	CK	38	ASN	CA-C-N	5.15	125.14	119.89
11	CK	38	ASN	C-N-CA	5.15	125.14	119.89
1	CA	527	G	C4'-C3'-C2'	-5.14	97.46	102.60
1	AA	1077	G	C4'-C3'-C2'	-5.13	97.47	102.60
23	DA	2056	G	C4'-C3'-C2'	-5.13	97.47	102.60
23	DA	692	C	C4'-C3'-C2'	-5.13	97.47	102.60
23	DA	463	G	C4'-C3'-C2'	-5.12	97.48	102.60
23	DA	807	U	O4'-C4'-C3'	-5.12	98.88	104.00
1	CA	356	A	C4'-C3'-C2'	-5.12	97.48	102.60
23	DA	332	A	P-O3'-C3'	5.12	127.88	120.20
23	DA	2744	G	C4'-C3'-C2'	-5.12	97.48	102.60
1	AA	358	U	C4'-C3'-O3'	-5.11	105.33	113.00
23	BA	1558	A	P-O3'-C3'	5.11	127.86	120.20
23	DA	933	A	O4'-C4'-C3'	-5.11	98.89	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	BF	44	GLY	N-CA-C	-5.11	109.05	114.67
26	DD	125	GLY	CA-C-N	5.11	124.87	119.76
26	DD	125	GLY	C-N-CA	5.11	124.87	119.76
1	AA	1201	A	P-O3'-C3'	5.10	127.86	120.20
26	BD	125	GLY	CA-C-N	5.10	124.86	119.76
26	BD	125	GLY	C-N-CA	5.10	124.86	119.76
23	DA	1385	G	C3'-C2'-C1'	-5.09	96.41	101.50
1	AA	119	A	P-O3'-C3'	5.09	127.84	120.20
46	DX	37	ILE	N-CA-C	5.09	117.09	109.20
23	BA	2577	A	C2'-C3'-O3'	-5.09	106.07	113.70
1	CA	358	U	C4'-C3'-O3'	-5.08	105.38	113.00
23	DA	1504	C	N1-C1'-C2'	-5.08	106.37	114.00
23	BA	692	C	C4'-C3'-C2'	-5.08	97.52	102.60
23	BA	2744	G	C4'-C3'-C2'	-5.07	97.53	102.60
1	CA	1077	G	C4'-C3'-C2'	-5.07	97.53	102.60
23	BA	2049	G	C1'-O4'-C4'	-5.06	104.84	109.90
1	CA	1067	A	C2'-C3'-O3'	5.06	117.09	109.50
35	DM	77	LYS	CA-C-N	5.06	126.17	119.84
35	DM	77	LYS	C-N-CA	5.06	126.17	119.84
1	AA	687	A	P-O3'-C3'	5.06	127.79	120.20
11	AK	120	ARG	CA-C-N	5.05	125.06	120.21
11	AK	120	ARG	C-N-CA	5.05	125.06	120.21
28	BF	76	SER	N-CA-C	5.05	118.19	110.36
23	BA	1021	A	C3'-C2'-C1'	-5.05	96.25	101.30
23	DA	324	A	C4'-C3'-C2'	-5.04	97.56	102.60
23	BA	1542	G	P-O3'-C3'	5.03	127.75	120.20
40	BR	47	VAL	N-CA-C	5.03	111.59	106.21
23	BA	741	G	C4'-C3'-C2'	-5.03	97.57	102.60
23	BA	1545	A	C1'-O4'-C4'	-5.03	104.87	109.90
23	DA	672	C	C4'-C3'-C2'	-5.02	97.58	102.60
23	BA	671	C	C4'-C3'-C2'	-5.02	97.58	102.60
23	BA	35	G	C4'-C3'-C2'	-5.01	97.59	102.60
44	BV	52	SER	CB-CA-C	-5.01	110.78	116.54
23	DA	1743	G	C4'-C3'-C2'	-5.01	97.59	102.60
8	AH	44	PHE	N-CA-C	-5.00	108.20	114.56
35	BM	77	LYS	CA-C-N	5.00	126.09	119.84
35	BM	77	LYS	C-N-CA	5.00	126.09	119.84
23	BA	1504	C	N1-C1'-C2'	-5.00	106.50	114.00
23	BA	1654	A	C4'-C3'-C2'	-5.00	97.60	102.60

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
28	BF	75	LYS	Peptide
34	BL	52	GLU	Peptide
28	DF	75	LYS	Peptide
34	DL	52	GLU	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	32372	0	16339	686	0
1	CA	32372	0	16339	697	0
2	AB	1901	0	1951	114	0
2	CB	1901	0	1951	114	0
3	AC	1613	0	1677	97	0
3	CC	1613	0	1677	97	0
4	AD	1703	0	1764	106	0
4	CD	1703	0	1765	101	0
5	AE	1156	0	1213	70	0
5	CE	1156	0	1213	67	0
6	AF	843	0	857	48	0
6	CF	843	0	857	50	0
7	AG	1257	0	1296	63	0
7	CG	1257	0	1296	65	0
8	AH	1116	0	1177	62	0
8	CH	1116	0	1177	62	0
9	AI	1011	0	1043	66	0
9	CI	1011	0	1043	62	0
10	AJ	795	0	840	60	0
10	CJ	795	0	840	60	0
11	AK	885	0	904	60	0
11	CK	885	0	904	53	0
12	AL	971	0	1057	60	0
12	CL	971	0	1057	66	0
13	AM	929	0	987	68	0
13	CM	929	0	987	66	0
14	AN	492	0	529	29	0
14	CN	492	0	533	26	0
15	AO	734	0	771	26	0
15	CO	734	0	771	30	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
16	AP	701	0	720	34	0
16	CP	701	0	720	42	0
17	AQ	824	0	893	44	0
17	CQ	824	0	893	48	0
18	AR	574	0	644	33	0
18	CR	574	0	644	35	0
19	AS	630	0	652	63	0
19	CS	630	0	652	58	0
20	AT	762	0	859	33	0
20	CT	762	0	859	32	0
21	AU	209	0	221	13	0
21	CU	209	0	221	14	0
22	AV	736	0	378	19	0
22	CV	736	0	378	17	0
23	BA	59442	0	29966	1290	0
23	DA	59442	0	29966	1296	0
24	BB	2551	0	1295	53	0
24	DB	2551	0	1295	53	0
25	BC	2105	0	2182	211	0
25	DC	2105	0	2182	226	0
26	BD	1564	0	1629	122	0
26	DD	1564	0	1629	116	0
27	BE	1587	0	1632	110	0
27	DE	1587	0	1632	110	0
28	BF	1475	0	1537	112	0
28	DF	1475	0	1537	113	0
29	BG	1223	0	1282	65	0
29	DG	1223	0	1282	67	0
30	BH	1133	0	1220	86	0
30	DH	1133	0	1220	83	0
31	BI	254	0	275	8	0
31	DI	254	0	275	8	0
32	BJ	1097	0	1168	85	0
32	DJ	1097	0	1168	85	0
33	BK	932	0	994	58	0
33	DK	932	0	994	61	0
34	BL	1114	0	1187	171	0
34	DL	1114	0	1187	172	0
35	BM	1079	0	1127	97	0
35	DM	1079	0	1127	103	0
36	BN	960	0	1021	80	0
36	DN	960	0	1021	78	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
37	BO	771	0	832	68	0
37	DO	771	0	832	70	0
38	BP	1144	0	1211	73	0
38	DP	1144	0	1211	78	0
39	BQ	953	0	1013	74	0
39	DQ	953	0	1013	74	0
40	BR	779	0	852	78	0
40	DR	779	0	852	75	0
41	BS	891	0	951	52	0
41	DS	891	0	951	54	0
42	BT	726	0	778	60	0
42	DT	726	0	778	60	0
43	BU	776	0	870	80	0
43	DU	776	0	870	79	0
44	BV	1492	0	1513	100	0
44	DV	1492	0	1513	97	0
45	BW	605	0	628	38	0
45	DW	605	0	628	41	0
46	BX	695	0	764	70	0
46	DX	695	0	764	69	0
47	BY	521	0	575	47	0
47	DY	521	0	575	50	0
48	BZ	468	0	523	21	0
48	DZ	468	0	523	25	0
49	B1	226	0	225	17	0
49	D1	226	0	225	17	0
50	B2	405	0	420	27	0
50	D2	405	0	420	29	0
51	B3	381	0	391	28	0
51	D3	381	0	391	26	0
52	B4	419	0	467	32	0
52	D4	419	0	467	33	0
53	B5	508	0	576	59	0
53	D5	508	0	576	58	0
54	AA	279	0	0	0	0
54	AB	3	0	0	0	0
54	AC	2	0	0	0	0
54	AD	3	0	0	0	0
54	AE	5	0	0	0	0
54	AF	1	0	0	0	0
54	AG	2	0	0	0	0
54	AH	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	AI	1	0	0	0	0
54	AK	2	0	0	0	0
54	AL	2	0	0	0	0
54	AM	1	0	0	0	0
54	AN	1	0	0	0	0
54	AO	3	0	0	0	0
54	AQ	3	0	0	0	0
54	AS	1	0	0	0	0
54	AT	2	0	0	0	0
54	AV	8	0	0	0	0
54	B2	3	0	0	0	0
54	B3	1	0	0	0	0
54	B4	1	0	0	0	0
54	B5	1	0	0	0	0
54	BA	781	0	0	0	0
54	BB	27	0	0	0	0
54	BC	3	0	0	0	0
54	BE	2	0	0	0	0
54	BF	1	0	0	0	0
54	BH	1	0	0	0	0
54	BI	1	0	0	0	0
54	BJ	3	0	0	0	0
54	BK	1	0	0	0	0
54	BM	3	0	0	0	0
54	BN	2	0	0	0	0
54	BO	1	0	0	0	0
54	BP	2	0	0	0	0
54	BR	1	0	0	0	0
54	BS	1	0	0	0	0
54	BT	2	0	0	0	0
54	BU	2	0	0	0	0
54	BV	3	0	0	0	0
54	BW	1	0	0	0	0
54	BX	2	0	0	0	0
54	BY	3	0	0	0	0
54	CA	372	0	0	0	0
54	CB	3	0	0	0	0
54	CC	8	0	0	0	0
54	CD	3	0	0	0	0
54	CE	5	0	0	0	0
54	CF	2	0	0	0	0
54	CG	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	CK	1	0	0	0	0
54	CL	6	0	0	0	0
54	CM	2	0	0	0	0
54	CN	1	0	0	0	0
54	CO	4	0	0	0	0
54	CQ	2	0	0	0	0
54	CV	7	0	0	0	0
54	D1	1	0	0	0	0
54	D2	3	0	0	0	0
54	D3	1	0	0	0	0
54	D4	4	0	0	0	0
54	D5	3	0	0	0	0
54	DA	964	0	0	0	0
54	DB	43	0	0	0	0
54	DC	3	0	0	0	0
54	DD	6	0	0	0	0
54	DE	3	0	0	0	0
54	DF	2	0	0	0	0
54	DG	3	0	0	0	0
54	DI	1	0	0	0	0
54	DJ	6	0	0	0	0
54	DK	3	0	0	0	0
54	DL	3	0	0	0	0
54	DM	1	0	0	0	0
54	DN	1	0	0	0	0
54	DO	1	0	0	0	0
54	DP	2	0	0	0	0
54	DQ	2	0	0	0	0
54	DS	2	0	0	0	0
54	DU	1	0	0	0	0
54	DV	4	0	0	0	0
54	DW	1	0	0	0	0
54	DX	3	0	0	0	0
54	DY	2	0	0	0	0
55	AD	1	0	0	0	0
55	AN	1	0	0	0	0
55	CD	1	0	0	0	0
55	CN	1	0	0	0	0
All	All	283641	0	191757	9546	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 20.

All (9546) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1399:C:H4'	1:AA:1400:C:H5'	1.26	1.16
34:BL:33:ARG:HG3	34:BL:36:LYS:HD3	1.31	1.12
34:BL:128:HIS:HA	34:BL:147:LEU:HB3	1.30	1.11
23:DA:2015:A:H1'	50:D2:2:ALA:HA	1.33	1.08
34:DL:33:ARG:HG3	34:DL:36:LYS:HD3	1.33	1.08
1:CA:1399:C:H4'	1:CA:1400:C:H5'	1.27	1.08
23:BA:2015:A:H1'	50:B2:2:ALA:HA	1.34	1.07
34:DL:49:ARG:HG2	34:DL:50:ARG:H	1.18	1.06
34:DL:128:HIS:HA	34:DL:147:LEU:HB3	1.30	1.06
34:BL:49:ARG:HG2	34:BL:50:ARG:H	1.16	1.04
7:AG:113:GLU:HB2	7:AG:119:ARG:HG2	1.38	1.04
45:BW:23:VAL:HA	45:BW:38:VAL:HG22	1.37	1.03
32:DJ:70:ALA:HB2	32:DJ:135:LEU:HD12	1.41	1.03
45:DW:23:VAL:HA	45:DW:38:VAL:HG22	1.37	1.03
37:BO:24:LEU:HD12	37:BO:84:GLN:HB3	1.38	1.03
30:BH:92:VAL:HG13	30:BH:120:ILE:HB	1.41	1.03
7:CG:113:GLU:HB2	7:CG:119:ARG:HG2	1.38	1.02
9:AI:19:LEU:HD21	9:AI:59:PHE:HB3	1.41	1.02
37:DO:24:LEU:HD12	37:DO:84:GLN:HB3	1.38	1.02
39:DQ:92:ARG:HH11	39:DQ:92:ARG:HB2	1.24	1.01
39:BQ:92:ARG:HB2	39:BQ:92:ARG:HH11	1.25	1.01
25:BC:242:ARG:H	25:BC:242:ARG:HD3	1.21	1.00
9:CI:19:LEU:HD21	9:CI:59:PHE:HB3	1.40	1.00
15:AO:63:ARG:HH21	15:AO:87:ILE:HG21	1.27	0.99
25:DC:242:ARG:HD3	25:DC:242:ARG:H	1.23	0.99
5:AE:76:ILE:HG12	5:AE:77:PRO:HD2	1.43	0.99
30:DH:92:VAL:HG13	30:DH:120:ILE:HB	1.42	0.99
23:DA:2681:C:H5	23:DA:2725:A:H62	0.99	0.98
23:DA:2781:A:H5'	23:DA:2782:G:H5'	1.46	0.98
32:BJ:70:ALA:HB2	32:BJ:135:LEU:HD12	1.41	0.98
42:BT:11:PRO:HA	42:BT:28:PHE:HB3	1.47	0.97
23:BA:2781:A:H5'	23:BA:2782:G:H5'	1.44	0.97
23:DA:1163:G:H2'	23:DA:1164:G:H5"	1.46	0.97
15:CO:63:ARG:HH21	15:CO:87:ILE:HG21	1.28	0.96
23:BA:1163:G:H2'	23:BA:1164:G:H5"	1.46	0.96
34:BL:50:ARG:HB2	53:B5:60:LEU:HD11	1.47	0.96
13:CM:76:ALA:HA	13:CM:79:LYS:HE2	1.48	0.96
5:CE:76:ILE:HG12	5:CE:77:PRO:HD2	1.43	0.95
42:DT:11:PRO:HA	42:DT:28:PHE:HB3	1.47	0.95
1:AA:1443:G:H3'	1:AA:1446:A:H5"	1.48	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1021:A:H8	23:BA:1021:A:H3'	1.31	0.95
32:BJ:157:ARG:H	32:BJ:158:PRO:HD3	1.30	0.95
23:DA:2068:U:H3	23:DA:2430:A:H2	1.13	0.95
47:DY:2:LYS:HA	47:DY:5:GLU:CD	1.90	0.95
1:CA:522:C:H41	12:CL:52:ARG:HH22	1.11	0.95
2:CB:185:ILE:HG22	2:CB:199:TYR:HB2	1.47	0.95
1:CA:1443:G:H3'	1:CA:1446:A:H5"	1.48	0.95
44:DV:18:LEU:HD23	44:DV:25:PRO:HG3	1.49	0.95
1:AA:955:U:H1'	1:AA:1227:A:H61	1.31	0.94
23:DA:780:G:H21	23:DA:783:A:H62	1.15	0.94
43:DU:8:LYS:HZ2	43:DU:8:LYS:H	1.04	0.94
23:DA:1899:G:H21	23:DA:1902:C:H41	1.07	0.94
2:AB:185:ILE:HG22	2:AB:199:TYR:HB2	1.47	0.94
23:BA:2420:C:OP1	53:B5:34:TRP:HA	1.68	0.93
47:BY:2:LYS:HA	47:BY:5:GLU:CD	1.94	0.93
32:DJ:42:GLU:HA	32:DJ:82:LYS:HB3	1.50	0.93
23:BA:1021:A:H3'	23:BA:1021:A:C8	2.04	0.93
23:BA:1899:G:H21	23:BA:1902:C:H41	1.08	0.93
10:CJ:50:ILE:HB	14:CN:41:ARG:HH21	1.33	0.93
1:CA:955:U:H1'	1:CA:1227:A:H61	1.31	0.93
29:BG:16:SER:HB2	29:BG:27:LYS:HB2	1.51	0.92
1:CA:1378:C:H5"	7:CG:6:ARG:HE	1.33	0.92
32:BJ:42:GLU:HA	32:BJ:82:LYS:HB3	1.50	0.92
13:AM:76:ALA:HA	13:AM:79:LYS:HE2	1.48	0.92
23:DA:1046:A:N3	31:DI:4:LYS:HD3	1.84	0.92
35:DM:22:LYS:HE2	35:DM:22:LYS:HA	1.50	0.92
23:BA:270(J):G:HO2'	23:BA:270(K):G:H8	1.17	0.92
35:BM:22:LYS:HE2	35:BM:22:LYS:HA	1.51	0.92
32:DJ:157:ARG:H	32:DJ:158:PRO:HD3	1.30	0.92
28:BF:60:LEU:HD11	28:BF:92:VAL:HG11	1.52	0.92
23:BA:1019:U:HO2'	23:BA:1021:A:H2	0.99	0.91
26:BD:117:MET:HE1	26:BD:136:ARG:HA	1.53	0.91
23:DA:1021:A:C8	23:DA:1021:A:H3'	2.05	0.91
28:DF:60:LEU:HD11	28:DF:92:VAL:HG11	1.52	0.91
34:DL:50:ARG:HB2	53:D5:60:LEU:HD11	1.49	0.91
23:BA:886:C:H2'	23:BA:887:A:H4'	1.52	0.91
23:DA:1019:U:HO2'	23:DA:1021:A:H2	0.95	0.91
34:DL:49:ARG:HG2	34:DL:50:ARG:N	1.84	0.91
23:BA:2068:U:H3	23:BA:2430:A:H2	1.11	0.91
34:DL:114:ILE:HD11	34:DL:130:PHE:CD1	2.05	0.91
23:DA:2420:C:OP1	53:D5:34:TRP:HA	1.71	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:587:C:H42	34:DL:33:ARG:HG2	1.35	0.90
12:CL:26:LEU:HD13	12:CL:27:LYS:H	1.36	0.90
29:DG:16:SER:HB2	29:DG:27:LYS:HB2	1.52	0.90
10:AJ:50:ILE:HB	14:AN:41:ARG:HH21	1.34	0.90
23:BA:1046:A:N3	31:BI:4:LYS:HD3	1.84	0.90
23:BA:587:C:H42	34:BL:33:ARG:HG2	1.34	0.90
23:BA:2681:C:H5	23:BA:2725:A:H62	0.98	0.90
33:DK:3:GLN:HB2	33:DK:4:PRO:HD2	1.53	0.90
23:BA:761:A:H8	23:BA:761:A:O5'	1.53	0.90
44:BV:18:LEU:HD23	44:BV:25:PRO:HG3	1.52	0.90
23:DA:547:A:H2'	23:DA:548:A:C8	2.07	0.90
23:DA:1021:A:H3'	23:DA:1021:A:H8	1.32	0.90
19:AS:19:VAL:HG21	19:AS:44:MET:HG3	1.55	0.89
23:DA:2426:A:H3'	23:DA:2427:C:H5"	1.54	0.89
1:CA:1223:C:H5'	1:CA:1224:G:H5"	1.54	0.89
43:DU:81:LYS:HD2	43:DU:96:ILE:HD12	1.54	0.89
1:CA:1261:A:H62	1:CA:1274:G:H21	1.18	0.89
21:CU:22:ARG:HD2	21:CU:23:PRO:HD2	1.55	0.89
23:DA:761:A:O5'	23:DA:761:A:H8	1.56	0.89
23:BA:996:A:H4'	39:BQ:92:ARG:NH1	1.87	0.89
41:BS:24:ILE:HG21	41:BS:36:LEU:HD21	1.55	0.89
1:CA:736:C:H2'	1:CA:737:A:C8	2.07	0.89
23:BA:547:A:H2'	23:BA:548:A:C8	2.08	0.89
1:AA:134:A:H61	16:AP:25:ARG:NH1	1.69	0.89
12:AL:26:LEU:HD13	12:AL:27:LYS:H	1.36	0.89
49:D1:50:THR:HG22	49:D1:51:TYR:H	1.37	0.89
1:AA:736:C:H2'	1:AA:737:A:C8	2.08	0.89
19:CS:19:VAL:HG21	19:CS:44:MET:HG3	1.54	0.88
23:BA:142:G:H4'	42:BT:35:THR:HG21	1.55	0.88
23:DA:996:A:H4'	39:DQ:92:ARG:NH1	1.87	0.88
29:DG:101:ARG:H	29:DG:101:ARG:HE	1.18	0.88
1:CA:979:C:H3'	1:CA:980:C:H5"	1.55	0.88
43:BU:8:LYS:H	43:BU:8:LYS:HZ2	1.18	0.88
34:BL:49:ARG:HG2	34:BL:50:ARG:N	1.83	0.88
23:BA:780:G:H21	23:BA:783:A:H62	1.14	0.88
34:BL:114:ILE:HD11	34:BL:130:PHE:CD1	2.07	0.88
23:DA:954:G:H5"	35:DM:13:GLN:HG3	1.54	0.88
26:DD:117:MET:HE1	26:DD:136:ARG:HA	1.56	0.88
5:AE:51:VAL:HB	5:AE:52:PRO:HD3	1.56	0.88
23:DA:886:C:H2'	23:DA:887:A:H4'	1.53	0.88
23:DA:2331:G:H4'	45:DW:43:THR:H	1.36	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:151:LEU:HD13	8:AH:77:GLU:HG2	1.56	0.88
23:BA:197:A:H5'	23:BA:197:A:H8	1.36	0.88
29:BG:89:ILE:HG12	29:BG:162:ILE:HG22	1.56	0.88
23:DA:197:A:H5'	23:DA:197:A:H8	1.36	0.88
47:DY:17:SER:HB3	47:DY:18:PRO:HD3	1.57	0.87
29:BG:101:ARG:HE	29:BG:101:ARG:H	1.18	0.87
23:BA:857:C:H4'	45:BW:23:VAL:HG21	1.55	0.87
33:BK:3:GLN:HB2	33:BK:4:PRO:HD2	1.54	0.87
50:B2:35:GLU:HB2	50:B2:49:CYS:SG	2.14	0.87
1:CA:922:G:H4'	5:CE:20:GLN:HA	1.56	0.87
41:DS:24:ILE:HG21	41:DS:36:LEU:HD21	1.56	0.87
27:BE:67:GLN:HG3	27:BE:67:GLN:O	1.73	0.87
23:DA:142:G:H4'	42:DT:35:THR:HG21	1.55	0.87
1:CA:93:U:H2'	1:CA:95:G:C8	2.09	0.87
43:DU:8:LYS:HZ2	43:DU:8:LYS:N	1.73	0.87
50:D2:35:GLU:HB2	50:D2:49:CYS:SG	2.15	0.87
21:AU:22:ARG:HD2	21:AU:23:PRO:HD2	1.56	0.86
43:BU:81:LYS:HD2	43:BU:96:ILE:HD12	1.57	0.86
9:CI:103:THR:HG22	9:CI:105:ASP:H	1.40	0.86
1:AA:1223:C:H5'	1:AA:1224:G:H5"	1.55	0.86
23:BA:2426:A:H3'	23:BA:2427:C:H5"	1.56	0.86
49:B1:50:THR:HG22	49:B1:51:TYR:H	1.38	0.86
9:AI:103:THR:HG22	9:AI:105:ASP:H	1.40	0.86
23:BA:676:A:H8	23:BA:2069:G:H21	1.24	0.86
23:BA:954:G:H5"	35:BM:13:GLN:HG3	1.57	0.86
23:BA:2331:G:H4'	45:BW:43:THR:H	1.38	0.86
23:DA:857:C:H4'	45:DW:23:VAL:HG21	1.55	0.86
23:DA:1899:G:H21	23:DA:1902:C:N4	1.73	0.86
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.55	0.86
1:AA:1261:A:H62	1:AA:1274:G:H21	1.19	0.86
1:AA:93:U:H2'	1:AA:95:G:C8	2.11	0.85
37:BO:35:ILE:HG12	37:BO:101:LEU:HD21	1.57	0.85
3:CC:105:GLU:HG2	3:CC:106:VAL:H	1.40	0.85
27:DE:67:GLN:HG3	27:DE:67:GLN:O	1.74	0.85
23:BA:2681:C:H5	23:BA:2725:A:N6	1.74	0.85
47:BY:17:SER:HB3	47:BY:18:PRO:HD3	1.56	0.85
39:DQ:88:ILE:HB	39:DQ:90:VAL:HG12	1.58	0.85
1:AA:979:C:H3'	1:AA:980:C:H5"	1.56	0.85
23:BA:2712:U:H1'	23:BA:712(B):A:C8	2.11	0.85
43:BU:88:LYS:HE2	43:BU:93:GLY:HA3	1.58	0.85
49:B1:59:VAL:HG12	49:B1:60:GLU:H	1.40	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BT:35:THR:O	42:BT:39:ILE:HG12	1.77	0.85
33:DK:119:PRO:HB2	38:DP:68:TYR:HE1	1.41	0.85
37:DO:35:ILE:HG12	37:DO:101:LEU:HD21	1.57	0.85
49:D1:59:VAL:HG12	49:D1:60:GLU:H	1.40	0.85
5:CE:151:LEU:HD13	8:CH:77:GLU:HG2	1.56	0.85
23:DA:2681:C:H5	23:DA:2725:A:N6	1.74	0.85
42:DT:35:THR:O	42:DT:39:ILE:HG12	1.76	0.85
39:BQ:88:ILE:HB	39:BQ:90:VAL:HG12	1.59	0.85
10:CJ:48:THR:HA	10:CJ:62:HIS:HB3	1.55	0.85
30:DH:5:LEU:HD23	30:DH:5:LEU:H	1.40	0.85
43:DU:2:ARG:HG2	43:DU:3:VAL:HG23	1.59	0.85
1:AA:91:C:H2'	1:AA:92:G:H8	1.42	0.85
3:AC:105:GLU:HG2	3:AC:106:VAL:H	1.41	0.85
17:CQ:9:VAL:HG12	17:CQ:56:VAL:HG22	1.58	0.84
23:BA:2439:A:H5'	23:BA:2439:A:C8	2.13	0.84
28:DF:41:GLN:HG2	28:DF:155:MET:HB3	1.59	0.84
30:BH:5:LEU:HD23	30:BH:5:LEU:H	1.39	0.84
43:BU:45:VAL:HG22	43:BU:62:GLU:HB3	1.59	0.84
23:BA:1813:G:H1'	25:BC:50:THR:HG21	1.59	0.84
23:DA:2712:U:H1'	23:DA:712(B):A:C8	2.12	0.84
43:BU:2:ARG:HG2	43:BU:3:VAL:HG23	1.59	0.84
28:BF:41:GLN:HG2	28:BF:155:MET:HB3	1.60	0.84
33:BK:119:PRO:HB2	38:BP:68:TYR:HE1	1.39	0.84
34:DL:41:ARG:HH22	34:DL:45:LEU:HB2	1.43	0.84
1:CA:1346:A:H61	1:CA:1374:A:H3'	1.42	0.84
23:DA:2426:A:H3'	23:DA:2427:C:C5'	2.08	0.84
23:DA:2744:G:H21	29:DG:143:GLN:HE22	1.23	0.84
46:DX:11:ARG:HB3	46:DX:12:PRO:HD2	1.60	0.84
17:AQ:9:VAL:HG12	17:AQ:56:VAL:HG22	1.57	0.84
46:BX:11:ARG:HB3	46:BX:12:PRO:HD2	1.59	0.84
34:DL:45:LEU:HD23	34:DL:46:LYS:H	1.43	0.84
1:CA:91:C:H2'	1:CA:92:G:H8	1.43	0.83
23:DA:245:G:H5'	34:DL:73:GLY:HA2	1.59	0.83
29:DG:89:ILE:HG12	29:DG:162:ILE:HG22	1.58	0.83
5:CE:51:VAL:HB	5:CE:52:PRO:HD3	1.59	0.83
23:DA:270(J):G:HO2'	23:DA:270(K):G:H8	1.24	0.83
45:DW:35:ASN:HD22	45:DW:35:ASN:H	1.25	0.83
23:BA:2426:A:H3'	23:BA:2427:C:C5'	2.08	0.83
26:DD:91:VAL:HB	26:DD:95:ILE:HD11	1.60	0.83
28:DF:55:LYS:HD2	28:DF:58:GLN:HE21	1.42	0.83
38:DP:26:ASP:HB2	38:DP:91:ARG:HA	1.61	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:848:G:H2'	23:DA:849:A:C8	2.13	0.83
23:DA:2439:A:H5'	23:DA:2439:A:C8	2.14	0.83
41:DS:13:SER:HB3	41:DS:16:LYS:HD2	1.59	0.83
25:BC:133:LEU:HD23	25:BC:136:ILE:HD12	1.60	0.83
36:BN:54:LEU:HD11	36:BN:65:LEU:HD23	1.61	0.83
44:DV:97:GLU:HB3	44:DV:125:LEU:HD21	1.61	0.83
6:AF:99:ALA:HB2	18:AR:31:LEU:HD22	1.61	0.83
23:BA:848:G:H2'	23:BA:849:A:C8	2.14	0.83
25:BC:159:ALA:HB1	25:BC:198:ASN:O	1.78	0.83
44:BV:97:GLU:HB3	44:BV:125:LEU:HD21	1.60	0.82
43:DU:45:VAL:HG22	43:DU:62:GLU:HB3	1.59	0.82
1:AA:942:G:H21	9:AI:124:GLN:HE22	1.26	0.82
1:AA:1346:A:H61	1:AA:1374:A:H3'	1.42	0.82
23:BA:1899:G:H21	23:BA:1902:C:N4	1.74	0.82
38:BP:26:ASP:HB2	38:BP:91:ARG:HA	1.60	0.82
25:DC:159:ALA:HB1	25:DC:198:ASN:O	1.78	0.82
28:BF:55:LYS:HD2	28:BF:58:GLN:HE21	1.42	0.82
23:BA:2744:G:H21	29:BG:143:GLN:HE22	1.25	0.82
23:DA:676:A:H8	23:DA:2069:G:H21	1.25	0.82
10:CJ:75:ILE:HG13	10:CJ:76:ASN:H	1.44	0.82
1:CA:105:G:H2'	1:CA:106:C:C6	2.15	0.82
11:CK:22:HIS:HB3	11:CK:29:ILE:HG13	1.61	0.82
13:CM:99:ARG:HB2	13:CM:101:GLN:HE21	1.45	0.82
23:DA:2327:A:H2'	23:DA:2328:A:C8	2.15	0.82
34:DL:89:ALA:HB1	34:DL:121:LYS:HD3	1.62	0.82
1:AA:673:G:H2'	1:AA:674:G:C8	2.15	0.82
33:BK:119:PRO:HB2	38:BP:68:TYR:CE1	2.14	0.82
29:DG:92:ILE:H	29:DG:92:ILE:HD12	1.45	0.82
11:AK:22:HIS:HB3	11:AK:29:ILE:HG13	1.60	0.81
45:BW:35:ASN:HD22	45:BW:35:ASN:H	1.24	0.81
52:B4:8:ASN:ND2	52:B4:11:LYS:H	1.78	0.81
17:CQ:12:SER:HB3	17:CQ:20:THR:HB	1.62	0.81
25:DC:30:GLU:CD	25:DC:63:ARG:HE	1.87	0.81
34:BL:41:ARG:HH22	34:BL:45:LEU:HB2	1.44	0.81
23:DA:2400:G:H4'	51:D3:19:ARG:HD3	1.61	0.81
25:DC:25:THR:O	25:DC:27:THR:HG22	1.80	0.81
25:DC:133:LEU:HD23	25:DC:136:ILE:HD12	1.61	0.81
43:DU:88:LYS:HE2	43:DU:93:GLY:HA3	1.62	0.81
23:BA:245:G:H5'	34:BL:73:GLY:HA2	1.61	0.81
23:BA:947:G:C2'	23:BA:948:G:H5"	2.10	0.81
27:BE:41:LEU:HA	27:BE:44:ARG:HD3	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BU:78:ALA:HB3	43:BU:81:LYS:HE3	1.63	0.81
23:DA:1899:G:N2	23:DA:1902:C:H41	1.79	0.81
43:DU:78:ALA:HB3	43:DU:81:LYS:HE3	1.62	0.81
10:AJ:75:ILE:HG13	10:AJ:76:ASN:H	1.43	0.81
13:AM:99:ARG:HB2	13:AM:101:GLN:HE21	1.46	0.81
26:BD:91:VAL:HB	26:BD:95:ILE:HD11	1.61	0.81
23:BA:2327:A:H2'	23:BA:2328:A:C8	2.15	0.81
34:BL:89:ALA:HB1	34:BL:121:LYS:HD3	1.62	0.81
1:AA:690:G:H2'	1:AA:691:G:C8	2.15	0.81
1:CA:1129:C:H4'	1:CA:1130:A:H5"	1.62	0.81
36:DN:54:LEU:HD11	36:DN:65:LEU:HD23	1.60	0.81
53:D5:54:GLU:HA	53:D5:57:ARG:HH12	1.46	0.81
3:AC:195:VAL:HG12	3:AC:196:LEU:H	1.46	0.81
23:BA:2400:G:H4'	51:B3:19:ARG:HD3	1.61	0.81
41:BS:13:SER:HB3	41:BS:16:LYS:HD2	1.62	0.81
1:CA:673:G:H2'	1:CA:674:G:C8	2.15	0.81
28:DF:109:VAL:HG11	28:DF:142:PRO:HG3	1.62	0.81
29:DG:162:ILE:HD13	29:DG:162:ILE:H	1.45	0.81
35:DM:81:VAL:HG12	35:DM:82:ARG:HG2	1.62	0.81
43:DU:81:LYS:HD3	43:DU:97:ARG:HB3	1.63	0.81
5:AE:78:HIS:HE1	5:AE:143:ARG:H	1.27	0.81
29:BG:162:ILE:HD13	29:BG:162:ILE:H	1.46	0.81
23:DA:1813:G:H1'	25:DC:50:THR:HG21	1.63	0.81
30:DH:71:ILE:HG23	30:DH:72:LEU:HD22	1.63	0.81
1:AA:1348:U:H4'	9:AI:120:ARG:HD2	1.63	0.80
1:CA:1347:G:C8	9:CI:107:ARG:HB3	2.15	0.80
39:BQ:83:LEU:HG	39:BQ:88:ILE:HD11	1.63	0.80
1:AA:82:U:H2'	1:AA:85:U:H5	1.46	0.80
3:CC:195:VAL:HG12	3:CC:196:LEU:H	1.46	0.80
23:DA:947:G:H2'	23:DA:948:G:H5"	1.63	0.80
1:AA:38:G:H22	1:AA:397:A:H5'	1.47	0.80
1:AA:105:G:H2'	1:AA:106:C:C6	2.17	0.80
1:CA:82:U:H2'	1:CA:85:U:H5	1.46	0.80
5:CE:78:HIS:HE1	5:CE:143:ARG:H	1.27	0.80
6:CF:99:ALA:HB2	18:CR:31:LEU:HD22	1.62	0.80
23:DA:1658:C:OP1	26:DD:132:HIS:ND1	2.15	0.80
27:DE:41:LEU:HA	27:DE:44:ARG:HD3	1.62	0.80
1:CA:690:G:H2'	1:CA:691:G:C8	2.16	0.80
1:CA:942:G:H21	9:CI:124:GLN:HE22	1.26	0.80
23:DA:947:G:C2'	23:DA:948:G:H5"	2.11	0.80
43:BU:81:LYS:HD3	43:BU:97:ARG:HB3	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:60:VAL:HG13	13:CM:64:TRP:HE1	1.47	0.80
33:DK:119:PRO:HB2	38:DP:68:TYR:CE1	2.16	0.80
23:BA:2873:A:C2	36:BN:6:SER:HB2	2.17	0.80
52:D4:8:ASN:C	52:D4:8:ASN:HD22	1.90	0.80
28:BF:109:VAL:HG11	28:BF:142:PRO:HG3	1.61	0.79
1:AA:1346:A:H5'	9:AI:120:ARG:HH12	1.45	0.79
30:DH:62:LYS:HB2	30:DH:133:HIS:CE1	2.18	0.79
23:BA:996:A:H4'	39:BQ:92:ARG:HH12	1.45	0.79
27:BE:192:LEU:HD21	27:BE:194:MET:HE3	1.65	0.79
35:BM:81:VAL:HG12	35:BM:82:ARG:HG2	1.63	0.79
3:CC:43:LEU:O	3:CC:47:LEU:HB3	1.82	0.79
3:CC:141:VAL:HG11	3:CC:202:ILE:HD12	1.63	0.79
23:DA:2873:A:C2	36:DN:6:SER:HB2	2.17	0.79
25:BC:30:GLU:CD	25:BC:63:ARG:HE	1.90	0.79
29:BG:92:ILE:HD12	29:BG:92:ILE:H	1.47	0.79
34:BL:45:LEU:HD23	34:BL:46:LYS:H	1.44	0.79
23:DA:2025:C:H2'	23:DA:2026:C:C6	2.18	0.79
42:DT:29:TRP:CZ3	42:DT:78:LYS:HG3	2.16	0.79
52:D4:8:ASN:ND2	52:D4:11:LYS:H	1.79	0.79
23:BA:1579:A:H5'	23:BA:1579:A:H8	1.45	0.79
27:BE:65:TRP:CZ3	27:BE:75:HIS:HD2	2.01	0.79
34:BL:6:LEU:H	34:BL:6:LEU:HD23	1.48	0.79
48:BZ:8:LEU:HD12	48:BZ:31:LEU:HA	1.63	0.79
3:AC:141:VAL:HG11	3:AC:202:ILE:HD12	1.65	0.79
23:DA:948:G:H5'	23:DA:948:G:H8	1.47	0.79
1:CA:1224:G:H4'	13:CM:102:ARG:HH22	1.48	0.79
1:CA:1443:G:H3'	1:CA:1446:A:C5'	2.11	0.79
44:DV:77:ASP:HB2	44:DV:84:GLU:HG3	1.63	0.79
1:AA:957:U:H4'	19:AS:79:THR:HB	1.63	0.79
1:AA:1443:G:H3'	1:AA:1446:A:C5'	2.11	0.79
5:AE:43:LEU:HD11	5:AE:132:ALA:HB1	1.65	0.79
23:BA:773:U:C4'	25:BC:47:GLY:HA3	2.13	0.79
1:CA:957:U:H4'	19:CS:79:THR:HB	1.64	0.79
25:DC:264:LYS:O	25:DC:267:SER:HB2	1.83	0.79
34:DL:6:LEU:HD23	34:DL:6:LEU:H	1.46	0.79
23:BA:2637:U:H5"	26:BD:82:ARG:NH2	1.97	0.79
25:BC:25:THR:O	25:BC:27:THR:HG22	1.83	0.79
1:AA:977:A:H2'	1:AA:978:A:H5"	1.65	0.78
1:AA:1129:C:H4'	1:AA:1130:A:H5"	1.62	0.78
2:AB:101:MET:HA	2:AB:108:ILE:HG13	1.65	0.78
23:BA:2394:C:OP1	34:BL:63:PRO:HD2	1.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BK:35:VAL:HG11	33:BK:103:ALA:HB3	1.65	0.78
44:BV:77:ASP:HB2	44:BV:84:GLU:HG3	1.63	0.78
1:CA:977:A:H2'	1:CA:978:A:H5"	1.65	0.78
2:CB:101:MET:HA	2:CB:108:ILE:HG13	1.65	0.78
42:DT:15:GLU:CD	42:DT:15:GLU:H	1.91	0.78
23:DA:996:A:H4'	39:DQ:92:ARG:HH12	1.45	0.78
23:DA:1021:A:H62	23:DA:1141:U:H3	1.31	0.78
2:AB:77:ALA:HB2	2:AB:211:ILE:HD13	1.64	0.78
5:CE:43:LEU:HD11	5:CE:132:ALA:HB1	1.66	0.78
23:DA:125:G:H4'	23:DA:126:A:OP2	1.82	0.78
27:DE:65:TRP:CZ3	27:DE:75:HIS:HD2	2.01	0.78
27:DE:192:LEU:HD21	27:DE:194:MET:HE3	1.63	0.78
35:DM:75:THR:HA	35:DM:88:GLY:HA2	1.64	0.78
39:DQ:92:ARG:HB2	39:DQ:92:ARG:NH1	1.97	0.78
53:B5:54:GLU:HA	53:B5:57:ARG:HH12	1.47	0.78
34:DL:36:LYS:HG3	34:DL:41:ARG:HB2	1.63	0.78
16:AP:4:ILE:HG13	16:AP:21:VAL:HG12	1.65	0.78
28:DF:66:GLN:HG2	28:DF:67:LYS:H	1.48	0.78
3:AC:150:LYS:HB3	3:AC:201:TYR:HB2	1.66	0.78
23:BA:947:G:H2'	23:BA:948:G:H5"	1.64	0.78
25:BC:71:ASP:HB3	25:BC:103:ARG:HH22	1.49	0.78
37:DO:49:VAL:HG12	37:DO:73:LEU:HD23	1.65	0.78
47:DY:16:LEU:HB2	47:DY:20:GLU:HG3	1.63	0.78
23:BA:2025:C:H2'	23:BA:2026:C:C6	2.17	0.78
47:BY:16:LEU:HB2	47:BY:20:GLU:HG3	1.64	0.78
1:CA:1279:A:H62	3:CC:26:LYS:HE2	1.49	0.78
25:BC:244:ARG:HG3	25:BC:245:PRO:HD2	1.65	0.78
37:DO:24:LEU:O	37:DO:86:ALA:HB3	1.82	0.78
48:DZ:8:LEU:HD12	48:DZ:31:LEU:HA	1.66	0.78
23:BA:1311:G:H5'	23:BA:1311:G:H8	1.48	0.78
30:BH:62:LYS:HB2	30:BH:133:HIS:CE1	2.19	0.78
30:BH:71:ILE:HG23	30:BH:72:LEU:HD22	1.64	0.78
37:BO:24:LEU:O	37:BO:86:ALA:HB3	1.82	0.78
1:CA:38:G:H22	1:CA:397:A:H5'	1.48	0.78
1:CA:91:C:H2'	1:CA:92:G:C8	2.19	0.78
1:CA:922:G:H2'	1:CA:923:A:C8	2.19	0.78
23:DA:773:U:C4'	25:DC:47:GLY:HA3	2.14	0.78
13:AM:60:VAL:HG13	13:AM:64:TRP:HE1	1.47	0.78
42:DT:63:LYS:NZ	42:DT:72:LYS:HB3	1.99	0.78
1:AA:328:C:H4'	1:AA:329:A:H5'	1.65	0.77
1:AA:673:G:H5"	6:AF:87:ARG:NH1	2.00	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BT:29:TRP:CZ3	42:BT:78:LYS:HG3	2.19	0.77
45:BW:35:ASN:H	45:BW:35:ASN:ND2	1.81	0.77
23:DA:1006:C:O2	32:DJ:129:MET:HG2	1.83	0.77
23:BA:1021:A:H62	23:BA:1141:U:H3	1.32	0.77
23:BA:1899:G:N2	23:BA:1902:C:H41	1.79	0.77
35:BM:8:LYS:HG3	35:BM:9:TYR:H	1.50	0.77
42:BT:15:GLU:CD	42:BT:15:GLU:H	1.91	0.77
23:DA:587:C:N3	34:DL:33:ARG:HD2	2.00	0.77
23:DA:2210:G:H3'	23:DA:2210:G:N3	1.99	0.77
34:DL:122:PRO:HA	34:DL:141:ALA:O	1.84	0.77
23:BA:587:C:N3	34:BL:33:ARG:HD2	2.00	0.77
35:BM:75:THR:HA	35:BM:88:GLY:HA2	1.65	0.77
3:CC:150:LYS:HB3	3:CC:201:TYR:HB2	1.65	0.77
23:DA:1311:G:H8	23:DA:1311:G:H5'	1.48	0.77
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.20	0.77
23:BA:1006:C:O2	32:BJ:129:MET:HG2	1.84	0.77
25:BC:264:LYS:O	25:BC:267:SER:HB2	1.84	0.77
1:CA:1348:U:H4'	9:CI:120:ARG:HD2	1.65	0.77
8:AH:42:GLU:HG3	8:AH:109:ILE:HD12	1.66	0.77
17:AQ:69:LYS:C	17:AQ:70:ARG:HD2	2.10	0.77
23:BA:1658:C:OP1	26:BD:132:HIS:ND1	2.16	0.77
23:DA:1579:A:H5'	23:DA:1579:A:H8	1.47	0.77
25:DC:33:LEU:HD23	25:DC:33:LEU:H	1.50	0.77
1:AA:922:G:H2'	1:AA:923:A:C8	2.20	0.77
25:BC:242:ARG:HD3	25:BC:242:ARG:N	1.98	0.77
34:BL:36:LYS:HG3	34:BL:41:ARG:HB2	1.67	0.77
17:CQ:69:LYS:C	17:CQ:70:ARG:HD2	2.10	0.77
27:DE:53:THR:HG23	27:DE:55:GLY:H	1.49	0.77
17:AQ:12:SER:HB3	17:AQ:20:THR:HB	1.65	0.77
1:AA:91:C:H2'	1:AA:92:G:C8	2.19	0.77
23:BA:1210:A:H5"	23:BA:1210:A:C8	2.20	0.77
28:BF:66:GLN:HG2	28:BF:67:LYS:H	1.48	0.77
38:BP:27:THR:HG23	38:BP:89:VAL:HG13	1.67	0.77
35:DM:75:THR:HA	35:DM:88:GLY:CA	2.15	0.77
39:DQ:83:LEU:HG	39:DQ:88:ILE:HD11	1.65	0.77
23:BA:1210:A:H5"	23:BA:1210:A:H8	1.48	0.77
39:BQ:24:TYR:HB2	39:BQ:29:SER:HB3	1.65	0.77
23:DA:1175:U:H2'	23:DA:1176:G:H8	1.50	0.77
7:AG:69:VAL:HA	7:AG:138:LYS:HD2	1.67	0.77
23:BA:773:U:H4'	25:BC:47:GLY:HA3	1.66	0.77
39:BQ:92:ARG:HB2	39:BQ:92:ARG:NH1	1.98	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DC:71:ASP:HB3	25:DC:103:ARG:HH22	1.49	0.77
39:DQ:24:TYR:HB2	39:DQ:29:SER:HB3	1.65	0.77
23:BA:125:G:H4'	23:BA:126:A:OP2	1.84	0.76
1:CA:1346:A:H5'	9:CI:120:ARG:HH12	1.50	0.76
38:DP:27:THR:HG23	38:DP:89:VAL:HG13	1.66	0.76
12:AL:82:VAL:HG23	12:AL:106:ALA:HB2	1.68	0.76
27:BE:53:THR:HG23	27:BE:55:GLY:H	1.50	0.76
37:BO:49:VAL:HG12	37:BO:73:LEU:HD23	1.67	0.76
2:CB:20:GLU:HB2	2:CB:190:THR:HB	1.67	0.76
23:DA:2394:C:OP1	34:DL:63:PRO:HD2	1.85	0.76
23:DA:2637:U:H5"	26:DD:82:ARG:NH2	2.00	0.76
37:DO:103:GLU:O	37:DO:107:GLU:HG2	1.84	0.76
43:DU:27:VAL:HG12	43:DU:39:VAL:HG22	1.68	0.76
52:D4:12:ARG:NH2	52:D4:44:PRO:HB3	2.00	0.76
10:AJ:92:THR:HG23	10:AJ:93:GLY:H	1.50	0.76
23:BA:2210:G:H3'	23:BA:2210:G:N3	2.00	0.76
1:CA:1327:C:OP1	21:CU:20:LYS:HB3	1.85	0.76
26:DD:201:THR:HG22	26:DD:202:LYS:H	1.50	0.76
23:BA:1510:A:H2'	23:BA:1511:A:C8	2.21	0.76
1:CA:328:C:H4'	1:CA:329:A:H5'	1.68	0.76
40:DR:4:ILE:HB	40:DR:39:LEU:HB2	1.68	0.76
47:BY:39:ALA:HA	47:BY:45:SER:HB3	1.66	0.76
52:B4:8:ASN:HD22	52:B4:8:ASN:C	1.92	0.76
1:CA:1014:A:H5'	19:CS:14:HIS:CD2	2.21	0.76
1:CA:1056:U:H5'	3:CC:163:ALA:HB2	1.68	0.76
6:CF:16:GLN:H	6:CF:16:GLN:CD	1.93	0.76
1:AA:1378:C:H5"	7:AG:6:ARG:HE	1.50	0.76
23:BA:2377:A:H2'	23:BA:2378:A:C8	2.21	0.76
25:BC:33:LEU:HD23	25:BC:33:LEU:H	1.50	0.76
30:BH:82:ARG:HB3	30:BH:89:TYR:HB2	1.67	0.76
16:CP:4:ILE:HG13	16:CP:21:VAL:HG12	1.65	0.76
3:AC:43:LEU:O	3:AC:47:LEU:HB3	1.84	0.76
13:AM:67:GLU:HG3	13:AM:68:GLY:H	1.50	0.76
23:BA:948:G:H8	23:BA:948:G:H5'	1.48	0.76
26:BD:201:THR:HG22	26:BD:202:LYS:H	1.50	0.76
23:DA:1510:A:H2'	23:DA:1511:A:C8	2.21	0.76
23:BA:140:A:H8	23:BA:1408:C:HO2'	1.31	0.76
1:CA:134:A:H61	16:CP:25:ARG:NH1	1.83	0.76
3:CC:14:ILE:HG23	3:CC:15:THR:H	1.51	0.76
12:CL:82:VAL:HG23	12:CL:106:ALA:HB2	1.68	0.76
23:DA:140:A:H8	23:DA:1408:C:HO2'	1.34	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1210:A:H5"	23:DA:1210:A:H8	1.51	0.76
43:DU:31:LEU:HD23	43:DU:31:LEU:H	1.50	0.76
2:AB:91:PRO:HA	2:AB:154:LEU:HD11	1.68	0.75
34:BL:115:LEU:HA	34:BL:134:ALA:HB2	1.67	0.75
23:DA:773:U:H4'	25:DC:47:GLY:HA3	1.68	0.75
23:DA:2377:A:H2'	23:DA:2378:A:C8	2.20	0.75
47:DY:39:ALA:HA	47:DY:45:SER:HB3	1.67	0.75
23:BA:1175:U:H2'	23:BA:1176:G:H8	1.50	0.75
26:BD:2:LYS:HD3	26:BD:95:ILE:HG22	1.67	0.75
2:CB:77:ALA:HB2	2:CB:211:ILE:HD13	1.67	0.75
8:CH:42:GLU:HG3	8:CH:109:ILE:HD12	1.66	0.75
34:DL:115:LEU:HA	34:DL:134:ALA:HB2	1.69	0.75
37:BO:103:GLU:O	37:BO:107:GLU:HG2	1.86	0.75
23:BA:603:A:N1	23:BA:655:A:H1'	2.00	0.75
29:BG:35:VAL:HG21	29:BG:75:ALA:HB2	1.66	0.75
23:DA:2542:A:N3	23:DA:2542:A:H5"	2.01	0.75
26:DD:52:LEU:HD12	26:DD:52:LEU:H	1.50	0.75
34:DL:45:LEU:HD23	34:DL:46:LYS:N	2.01	0.75
42:DT:63:LYS:HZ2	42:DT:72:LYS:HB3	1.51	0.75
6:AF:16:GLN:CD	6:AF:16:GLN:H	1.95	0.75
25:BC:16:MET:HE1	25:BC:208:LYS:HE2	1.67	0.75
34:BL:122:PRO:HA	34:BL:141:ALA:O	1.86	0.75
42:BT:63:LYS:NZ	42:BT:72:LYS:HB3	2.01	0.75
23:DA:528:A:H8	23:DA:528:A:H3'	1.52	0.75
23:DA:603:A:N1	23:DA:655:A:H1'	2.02	0.75
26:DD:201:THR:HG22	26:DD:202:LYS:N	2.01	0.75
30:BH:83:ALA:HB2	30:BH:88:ILE:HD13	1.69	0.75
34:BL:45:LEU:HD23	34:BL:46:LYS:N	2.01	0.75
36:DN:10:LEU:HB2	36:DN:17:ARG:HE	1.52	0.75
23:BA:343:C:H6	23:BA:343:C:H5'	1.50	0.75
35:BM:75:THR:HA	35:BM:88:GLY:CA	2.16	0.75
2:CB:91:PRO:HA	2:CB:154:LEU:HD11	1.68	0.75
7:CG:69:VAL:HA	7:CG:138:LYS:HD2	1.67	0.75
13:CM:67:GLU:HG3	13:CM:68:GLY:H	1.50	0.75
23:BA:2039:C:H2'	23:BA:2040:C:H6	1.52	0.75
23:BA:2427:C:H5'	23:BA:2427:C:H6	1.51	0.75
34:BL:33:ARG:CG	34:BL:36:LYS:HD3	2.13	0.75
9:CI:13:ALA:HB2	9:CI:68:GLY:HA3	1.68	0.75
26:BD:201:THR:HG22	26:BD:202:LYS:N	2.03	0.74
40:BR:66:ARG:HD2	40:BR:88:ARG:CZ	2.17	0.74
23:DA:343:C:H5'	23:DA:343:C:H6	1.49	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.70	0.74
28:BF:86:MET:SD	28:BF:87:PRO:HD3	2.27	0.74
40:BR:4:ILE:HB	40:BR:39:LEU:HB2	1.67	0.74
32:DJ:57:LEU:O	32:DJ:72:GLY:HA3	1.87	0.74
1:AA:1220:G:H21	19:AS:54:GLY:HA2	1.52	0.74
2:AB:20:GLU:HB2	2:AB:190:THR:HB	1.67	0.74
26:DD:2:LYS:HD3	26:DD:95:ILE:HG22	1.67	0.74
25:BC:227:ASN:HB3	25:BC:228:PRO:HD2	1.69	0.74
52:B4:11:LYS:O	52:B4:15:THR:HG23	1.87	0.74
23:DA:2039:C:H2'	23:DA:2040:C:H6	1.52	0.74
28:DF:28:VAL:O	28:DF:31:VAL:HG12	1.88	0.74
43:BU:27:VAL:HG12	43:BU:39:VAL:HG22	1.69	0.74
25:DC:244:ARG:HG3	25:DC:245:PRO:HD2	1.68	0.74
45:DW:35:ASN:H	45:DW:35:ASN:ND2	1.81	0.74
43:BU:71:LYS:HB2	43:BU:71:LYS:NZ	2.03	0.74
1:CA:1371:G:OP1	9:CI:11:LYS:HB3	1.87	0.74
8:CH:10:LEU:HD22	8:CH:83:ILE:HD11	1.69	0.74
23:DA:547:A:H2'	23:DA:548:A:H8	1.51	0.74
23:DA:674:G:H1'	27:DE:74:ARG:HD3	1.69	0.74
23:DA:2056:G:N2	50:D2:4:HIS:O	2.20	0.74
3:AC:30:ARG:HD3	14:AN:38:GLY:HA3	1.70	0.74
42:BT:50:LYS:H	42:BT:87:GLN:HE22	1.35	0.74
3:CC:30:ARG:HD3	14:CN:38:GLY:HA3	1.70	0.74
23:DA:2427:C:H6	23:DA:2427:C:H5'	1.52	0.74
36:DN:10:LEU:HB2	36:DN:17:ARG:NE	2.03	0.74
1:AA:199:G:H2'	1:AA:200:G:H5"	1.70	0.74
10:AJ:74:ILE:HD13	10:AJ:74:ILE:H	1.53	0.74
33:BK:71:ARG:HH12	38:BP:74:ARG:HH22	1.36	0.74
42:BT:30:VAL:HG11	42:BT:39:ILE:HD12	1.69	0.74
33:DK:71:ARG:HH12	38:DP:74:ARG:HH22	1.32	0.74
23:BA:1019:U:H3	23:BA:114(B):A:H62	1.36	0.74
24:BB:13:A:N7	24:BB:70:C:H4'	2.02	0.74
23:DA:2287:A:O2'	23:DA:2288:A:H5"	1.88	0.74
35:DM:8:LYS:HG3	35:DM:9:TYR:H	1.51	0.74
42:DT:30:VAL:HG11	42:DT:39:ILE:HD12	1.69	0.74
25:BC:118:VAL:HG22	25:BC:119:ALA:H	1.53	0.74
10:CJ:92:THR:HG23	10:CJ:93:GLY:H	1.50	0.74
30:DH:83:ALA:HB2	30:DH:88:ILE:HD13	1.68	0.74
38:DP:84:GLN:HG3	38:DP:85:LYS:HG3	1.70	0.74
23:BA:2056:G:N2	50:B2:4:HIS:O	2.21	0.73
32:BJ:157:ARG:N	32:BJ:158:PRO:HD3	2.03	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BV:48:PHE:HA	44:BV:51:ALA:HB3	1.70	0.73
34:DL:26:GLY:HA2	34:DL:30:THR:HG23	1.69	0.73
23:BA:2025:C:H2'	23:BA:2026:C:H6	1.51	0.73
23:BA:2542:A:N3	23:BA:2542:A:H5"	2.02	0.73
13:CM:9:ILE:HG22	13:CM:11:ARG:HG3	1.71	0.73
23:DA:1314:C:H5'	23:DA:1314:C:H6	1.53	0.73
32:DJ:157:ARG:H	32:DJ:158:PRO:CD	2.01	0.73
34:DL:33:ARG:CG	34:DL:36:LYS:HD3	2.13	0.73
42:DT:50:LYS:H	42:DT:87:GLN:HE22	1.34	0.73
23:BA:528:A:H8	23:BA:528:A:H3'	1.53	0.73
24:BB:43:C:H4'	28:BF:98:ARG:HH12	1.52	0.73
3:AC:14:ILE:HG23	3:AC:15:THR:H	1.51	0.73
32:BJ:157:ARG:H	32:BJ:158:PRO:CD	2.01	0.73
38:BP:84:GLN:HG3	38:BP:85:LYS:HG3	1.70	0.73
5:CE:39:GLY:HA2	5:CE:69:VAL:HB	1.70	0.73
30:DH:82:ARG:HB3	30:DH:89:TYR:HB2	1.70	0.73
32:DJ:157:ARG:N	32:DJ:158:PRO:HD3	2.03	0.73
9:AI:13:ALA:HB2	9:AI:68:GLY:HA3	1.68	0.73
25:BC:186:HIS:HD2	25:BC:188:GLU:H	1.37	0.73
32:BJ:57:LEU:O	32:BJ:72:GLY:HA3	1.88	0.73
23:DA:2025:C:H2'	23:DA:2026:C:H6	1.53	0.73
24:DB:43:C:H4'	28:DF:98:ARG:HH12	1.52	0.73
25:DC:238:GLY:O	25:DC:239:ARG:C	2.32	0.73
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.71	0.73
40:BR:5:VAL:HG23	40:BR:37:VAL:HG23	1.70	0.73
28:DF:86:MET:SD	28:DF:87:PRO:HD3	2.29	0.73
12:AL:74:HIS:CD2	12:AL:76:LEU:H	2.07	0.73
23:DA:528:A:H2	23:DA:2043:C:H4'	1.52	0.73
24:DB:13:A:N7	24:DB:70:C:H4'	2.04	0.73
25:DC:147:LEU:HD13	25:DC:155:LEU:HD11	1.69	0.73
44:DV:126:VAL:HG12	44:DV:163:LEU:HA	1.71	0.73
30:BH:9:LEU:HB3	30:BH:12:LEU:HD23	1.71	0.73
26:DD:51:PHE:HD1	26:DD:52:LEU:HG	1.53	0.73
23:BA:2287:A:O2'	23:BA:2288:A:H5"	1.88	0.73
36:BN:10:LEU:HB2	36:BN:17:ARG:HE	1.53	0.73
37:BO:30:ARG:HB3	37:BO:35:ILE:HD13	1.71	0.73
44:BV:126:VAL:HG12	44:BV:163:LEU:HA	1.71	0.73
7:CG:122:HIS:HA	7:CG:125:MET:HE2	1.71	0.73
28:DF:77:ILE:HG22	28:DF:80:PHE:H	1.54	0.73
23:BA:806:C:OP2	34:BL:39:LYS:HD2	1.89	0.73
23:BA:973:A:OP2	40:BR:78:LYS:NZ	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2469:A:H2	23:BA:2481:G:H21	1.35	0.73
1:CA:736:C:H2'	1:CA:737:A:H8	1.53	0.73
2:CB:60:ASP:O	2:CB:64:ARG:HG2	1.89	0.73
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.69	0.73
23:DA:1678:G:O5'	23:DA:1678:G:H8	1.72	0.73
29:DG:35:VAL:HG21	29:DG:75:ALA:HB2	1.70	0.73
43:BU:96:ILE:HD11	43:BU:99:CYS:HB2	1.69	0.72
53:B5:57:ARG:HB2	53:B5:57:ARG:NH1	2.04	0.72
1:CA:1123:A:H4'	10:CJ:36:GLY:HA3	1.71	0.72
10:CJ:96:ILE:HD13	10:CJ:96:ILE:H	1.54	0.72
23:DA:2469:A:H2	23:DA:2481:G:H21	1.34	0.72
34:DL:29:LYS:N	34:DL:29:LYS:HD2	2.04	0.72
37:DO:30:ARG:HB3	37:DO:35:ILE:HD13	1.72	0.72
19:AS:6:LYS:HG2	19:AS:7:LYS:HD3	1.71	0.72
27:BE:139:PHE:HB2	27:BE:166:ALA:HB1	1.71	0.72
28:BF:77:ILE:HG22	28:BF:80:PHE:H	1.53	0.72
36:BN:10:LEU:HB2	36:BN:17:ARG:NE	2.04	0.72
1:CA:1129:C:H4'	1:CA:1130:A:C5'	2.19	0.72
43:DU:71:LYS:HB2	43:DU:71:LYS:NZ	2.04	0.72
1:AA:716:A:H1'	11:AK:118:GLY:HA2	1.69	0.72
35:BM:75:THR:HG21	35:BM:85:LYS:NZ	2.04	0.72
26:DD:154:LYS:HA	26:DD:154:LYS:HE3	1.71	0.72
5:AE:39:GLY:HA2	5:AE:69:VAL:HB	1.71	0.72
23:BA:547:A:H2'	23:BA:548:A:H8	1.51	0.72
23:DA:1210:A:H5"	23:DA:1210:A:C8	2.24	0.72
25:DC:30:GLU:HG3	25:DC:63:ARG:NH2	2.04	0.72
43:DU:96:ILE:HD11	43:DU:99:CYS:HB2	1.70	0.72
28:BF:28:VAL:O	28:BF:31:VAL:HG12	1.89	0.72
49:B1:38:ALA:HA	49:B1:55:PRO:HA	1.72	0.72
23:BA:1314:C:H6	23:BA:1314:C:H5'	1.55	0.72
25:BC:30:GLU:HG3	25:BC:63:ARG:NH2	2.04	0.72
23:DA:848:G:C4	23:DA:933:A:H8	2.07	0.72
23:DA:1405:U:H2'	23:DA:1406:U:C6	2.25	0.72
44:DV:48:PHE:HA	44:DV:51:ALA:HB3	1.71	0.72
44:DV:136:PHE:C	44:DV:137:ILE:HD12	2.15	0.72
2:AB:55:PHE:HE1	2:AB:218:ALA:HA	1.54	0.72
10:AJ:96:ILE:HD13	10:AJ:96:ILE:H	1.54	0.72
16:AP:27:LYS:HD2	16:AP:27:LYS:H	1.53	0.72
23:BA:848:G:C4	23:BA:933:A:H8	2.07	0.72
26:BD:51:PHE:HD1	26:BD:52:LEU:HG	1.53	0.72
26:BD:52:LEU:H	26:BD:52:LEU:HD12	1.53	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:6:PHE:HD2	5:CE:36:ASP:HB3	1.54	0.72
5:CE:78:HIS:CE1	5:CE:143:ARG:H	2.08	0.72
16:CP:27:LYS:H	16:CP:27:LYS:HD2	1.55	0.72
34:DL:59:LEU:HA	34:DL:61:ARG:NE	2.04	0.72
40:DR:66:ARG:HD2	40:DR:88:ARG:CZ	2.20	0.72
46:DX:17:SER:HB3	46:DX:44:PRO:HD3	1.70	0.72
53:D5:57:ARG:NH1	53:D5:57:ARG:HB2	2.05	0.72
1:AA:1320:C:H42	19:AS:36:ARG:HG3	1.52	0.72
4:AD:49:ARG:NH2	4:AD:50:ARG:HB2	2.04	0.72
23:BA:106:C:H1'	43:BU:2:ARG:HE	1.54	0.72
34:BL:64:LYS:HB2	53:B5:25:MET:HG3	1.72	0.72
25:DC:242:ARG:HD3	25:DC:242:ARG:N	2.00	0.72
33:DK:35:VAL:HG11	33:DK:103:ALA:HB3	1.69	0.72
47:DY:2:LYS:H	47:DY:2:LYS:CD	2.03	0.72
26:BD:179:GLU:HB3	26:BD:181:LEU:HD23	1.72	0.72
48:BZ:43:ILE:O	48:BZ:47:VAL:HG23	1.89	0.72
1:CA:1378:C:H5"	7:CG:6:ARG:NE	2.05	0.72
2:CB:55:PHE:HE1	2:CB:218:ALA:HA	1.54	0.72
23:DA:106:C:H1'	43:DU:2:ARG:HE	1.52	0.72
1:AA:1422:G:H5"	33:BK:48:PRO:HB3	1.71	0.72
23:BA:528:A:H2	23:BA:2043:C:H4'	1.54	0.72
23:BA:556:G:H2'	23:BA:557:U:C6	2.24	0.72
23:BA:1021:A:C8	23:BA:1021:A:C3'	2.72	0.72
23:BA:2287:A:H62	23:BA:2344:U:H3	1.37	0.72
30:BH:110:ASP:HB2	30:BH:113:ARG:HG2	1.70	0.72
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.71	0.72
12:CL:74:HIS:CD2	12:CL:76:LEU:H	2.07	0.72
15:CO:63:ARG:NH2	15:CO:87:ILE:HG21	2.03	0.72
27:DE:160:ASN:OD1	27:DE:163:VAL:HG23	1.90	0.72
27:BE:155:LEU:HD23	27:BE:186:ILE:HD13	1.71	0.71
42:BT:63:LYS:HD2	42:BT:72:LYS:HA	1.72	0.71
52:B4:35:ARG:HG3	52:B4:42:LEU:HD11	1.71	0.71
11:CK:21:ILE:HG13	11:CK:30:VAL:HG12	1.71	0.71
35:DM:43:THR:HB	35:DM:45:GLN:HE21	1.55	0.71
6:AF:23:LYS:O	6:AF:27:GLN:HG2	1.88	0.71
10:AJ:50:ILE:HB	14:AN:41:ARG:NH2	2.05	0.71
11:AK:21:ILE:HG13	11:AK:30:VAL:HG12	1.71	0.71
25:BC:27:THR:HG23	25:BC:27:THR:O	1.91	0.71
44:BV:163:LEU:HD23	44:BV:163:LEU:H	1.55	0.71
17:CQ:54:GLY:HA3	17:CQ:82:MET:HE1	1.72	0.71
19:CS:18:LYS:HG2	19:CS:31:ILE:HD13	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1019:U:H3	23:DA:114(B):A:H62	1.37	0.71
23:DA:1516:U:H2'	23:DA:1517:G:H8	1.55	0.71
26:DD:179:GLU:HB3	26:DD:181:LEU:HD23	1.72	0.71
5:AE:6:PHE:HD2	5:AE:36:ASP:HB3	1.54	0.71
23:BA:1343:G:C8	23:BA:1343:G:H5'	2.24	0.71
23:BA:2075:U:H2'	23:BA:2238:G:N2	2.05	0.71
23:BA:2543:G:H5'	23:BA:2543:G:H8	1.53	0.71
34:BL:29:LYS:HD2	34:BL:29:LYS:N	2.05	0.71
51:B3:42:TRP:HA	51:B3:42:TRP:CE3	2.25	0.71
1:CA:392:G:H2'	1:CA:393:A:H8	1.54	0.71
1:CA:1220:G:H21	19:CS:54:GLY:HA2	1.55	0.71
23:DA:1429:G:H2'	23:DA:1430:C:C6	2.25	0.71
23:DA:2075:U:H2'	23:DA:2238:G:N2	2.06	0.71
53:D5:26:LYS:HA	53:D5:48:PHE:HE2	1.55	0.71
23:BA:1311:G:H5'	23:BA:1311:G:C8	2.26	0.71
25:BC:147:LEU:HD13	25:BC:155:LEU:HD11	1.71	0.71
34:BL:49:ARG:CG	34:BL:50:ARG:N	2.52	0.71
1:CA:199:G:H2'	1:CA:200:G:H5"	1.71	0.71
23:DA:2415:G:H4'	34:DL:66:GLY:CA	2.20	0.71
27:DE:139:PHE:HB2	27:DE:166:ALA:HB1	1.73	0.71
42:DT:63:LYS:HD2	42:DT:72:LYS:HA	1.71	0.71
7:AG:122:HIS:HA	7:AG:125:MET:HE2	1.71	0.71
8:AH:10:LEU:HD22	8:AH:83:ILE:HD11	1.71	0.71
23:BA:1429:G:H2'	23:BA:1430:C:C6	2.26	0.71
34:BL:59:LEU:HA	34:BL:61:ARG:NE	2.05	0.71
4:CD:49:ARG:NH2	4:CD:50:ARG:HB2	2.04	0.71
10:CJ:50:ILE:HB	14:CN:41:ARG:NH2	2.04	0.71
25:DC:35:LYS:HG3	25:DC:104:TYR:CE2	2.26	0.71
31:DI:14:LYS:HE2	31:DI:14:LYS:HA	1.71	0.71
1:AA:736:C:H2'	1:AA:737:A:H8	1.54	0.71
23:BA:1516:U:H2'	23:BA:1517:G:H8	1.56	0.71
46:BX:17:SER:HB3	46:BX:44:PRO:HD3	1.69	0.71
12:CL:74:HIS:HD2	12:CL:76:LEU:H	1.38	0.71
23:DA:1336:A:H2'	23:DA:1337:G:H8	1.55	0.71
48:DZ:43:ILE:O	48:DZ:47:VAL:HG23	1.91	0.71
1:AA:1129:C:H4'	1:AA:1130:A:C5'	2.19	0.71
23:BA:2415:G:H4'	34:BL:66:GLY:CA	2.20	0.71
28:BF:83:ARG:HG3	28:BF:84:LYS:H	1.56	0.71
34:BL:16:ARG:HE	34:BL:17:LYS:N	1.89	0.71
37:BO:34:HIS:HA	37:BO:54:LEU:HD23	1.72	0.71
43:BU:8:LYS:HZ2	43:BU:8:LYS:N	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B5:26:LYS:HA	53:B5:48:PHE:HE2	1.55	0.71
19:CS:6:LYS:HG2	19:CS:7:LYS:HD3	1.71	0.71
23:DA:556:G:H2'	23:DA:557:U:C6	2.26	0.71
2:AB:54:THR:HG21	2:AB:201:ILE:HD11	1.72	0.71
23:BA:1336:A:H2'	23:BA:1337:G:H8	1.55	0.71
2:CB:54:THR:HG21	2:CB:201:ILE:HD11	1.72	0.71
10:CJ:74:ILE:HD13	10:CJ:74:ILE:H	1.54	0.71
28:DF:83:ARG:HG3	28:DF:84:LYS:H	1.54	0.71
37:DO:34:HIS:HA	37:DO:54:LEU:HD23	1.72	0.71
28:BF:19:LEU:HD11	28:BF:172:LEU:HD13	1.72	0.71
23:DA:197:A:H5'	23:DA:197:A:C8	2.24	0.71
23:DA:1343:G:H5'	23:DA:1343:G:C8	2.26	0.71
34:DL:16:ARG:HE	34:DL:17:LYS:N	1.88	0.71
40:DR:5:VAL:HG23	40:DR:37:VAL:HG23	1.71	0.71
4:AD:4:TYR:CE1	4:AD:11:LEU:HD11	2.26	0.71
13:AM:9:ILE:HG22	13:AM:11:ARG:HG3	1.71	0.71
18:AR:50:ILE:HD12	18:AR:70:ILE:HG21	1.73	0.71
35:BM:43:THR:HB	35:BM:45:GLN:HE21	1.54	0.71
43:BU:31:LEU:HD23	43:BU:31:LEU:H	1.54	0.71
4:CD:20:TYR:HD2	4:CD:26:CYS:HB3	1.56	0.71
25:DC:227:ASN:HB3	25:DC:228:PRO:HD2	1.72	0.71
30:DH:9:LEU:HB3	30:DH:12:LEU:HD23	1.73	0.71
35:DM:75:THR:HG21	35:DM:85:LYS:NZ	2.06	0.71
7:CG:15:ASP:HB3	7:CG:19:GLY:H	1.56	0.70
23:DA:1541:U:H3'	23:DA:1542:G:O3'	1.91	0.70
1:AA:168:G:H2'	1:AA:169:C:H5"	1.73	0.70
32:BJ:65:TRP:HA	32:BJ:71:MET:HE1	1.73	0.70
39:DQ:15:LYS:O	39:DQ:19:LYS:HG3	1.91	0.70
46:DX:50:ARG:HG2	46:DX:59:THR:HG22	1.73	0.70
7:AG:69:VAL:HG22	7:AG:135:VAL:HG22	1.72	0.70
38:BP:26:ASP:CB	38:BP:91:ARG:HA	2.21	0.70
1:CA:82:U:H2'	1:CA:85:U:C5	2.25	0.70
6:CF:23:LYS:O	6:CF:27:GLN:HG2	1.91	0.70
11:CK:110:ASP:HB3	18:CR:85:LEU:HB3	1.74	0.70
23:DA:1021:A:C8	23:DA:1021:A:C3'	2.73	0.70
23:DA:2392:A:H2	23:DA:2424:C:H42	1.39	0.70
25:DC:118:VAL:HG22	25:DC:119:ALA:H	1.54	0.70
25:DC:155:LEU:HD23	25:DC:177:LEU:HD21	1.72	0.70
5:AE:78:HIS:CE1	5:AE:143:ARG:H	2.08	0.70
19:AS:63:THR:HG22	19:AS:66:MET:HE3	1.73	0.70
23:BA:796:C:H2'	23:BA:797:C:C6	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BF:7:LEU:HD23	28:BF:10:LYS:HD2	1.74	0.70
23:DA:322:A:H3'	27:DE:169:ASN:ND2	2.06	0.70
23:DA:860:U:H5	23:DA:917:A:N7	1.89	0.70
52:D4:11:LYS:O	52:D4:15:THR:HG23	1.89	0.70
23:BA:2740:A:H2'	23:BA:2741:A:C8	2.26	0.70
25:BC:238:GLY:O	25:BC:239:ARG:C	2.33	0.70
7:CG:69:VAL:HG22	7:CG:135:VAL:HG22	1.72	0.70
22:CV:6189:A:H2'	22:CV:6190:C:H6	1.56	0.70
23:DA:806:C:OP2	34:DL:39:LYS:HD2	1.90	0.70
25:DC:144:ALA:HB3	25:DC:192:THR:HG23	1.73	0.70
28:DF:19:LEU:HD11	28:DF:172:LEU:HD13	1.73	0.70
30:DH:76:THR:HG22	30:DH:141:LYS:HD3	1.74	0.70
44:DV:108:PRO:HG3	44:DV:141:VAL:HG22	1.73	0.70
2:AB:60:ASP:O	2:AB:64:ARG:HG2	1.91	0.70
19:AS:18:LYS:HG2	19:AS:31:ILE:HD13	1.72	0.70
23:BA:141(A):A:H8	23:BA:1595:G:H21	1.38	0.70
23:BA:674:G:H1'	27:BE:74:ARG:HD3	1.73	0.70
7:CG:102:ARG:HG2	7:CG:106:GLN:HE21	1.56	0.70
23:DA:2036:C:H6	23:DA:2036:C:H5'	1.56	0.70
32:DJ:90:LEU:H	32:DJ:90:LEU:HD12	1.54	0.70
44:DV:104:PHE:HA	44:DV:139:VAL:HB	1.73	0.70
49:D1:38:ALA:HA	49:D1:55:PRO:HA	1.71	0.70
23:BA:2261:C:C6	45:BW:16:SER:HB3	2.27	0.70
30:BH:56:LYS:HA	30:BH:59:ALA:HB3	1.73	0.70
52:B4:12:ARG:NH2	52:B4:44:PRO:HB3	2.05	0.70
23:DA:1899:G:N2	23:DA:1902:C:N4	2.38	0.70
23:DA:2261:C:C6	45:DW:16:SER:HB3	2.25	0.70
25:DC:16:MET:HE1	25:DC:208:LYS:HE2	1.72	0.70
51:D3:15:GLU:OE2	51:D3:18:ARG:HD2	1.92	0.70
2:AB:90:MET:HE2	2:AB:90:MET:HA	1.74	0.70
23:BA:2036:C:H5'	23:BA:2036:C:H6	1.57	0.70
30:BH:76:THR:HG22	30:BH:141:LYS:HD3	1.74	0.70
34:BL:26:GLY:HA2	34:BL:30:THR:HG23	1.71	0.70
44:BV:136:PHE:C	44:BV:137:ILE:HD12	2.15	0.70
52:B4:5:TRP:NE1	52:B4:7:PRO:HG3	2.06	0.70
6:CF:69:GLU:O	6:CF:72:VAL:HG12	1.92	0.70
23:DA:1657:C:H2'	23:DA:1658:C:H6	1.54	0.70
1:AA:392:G:H2'	1:AA:393:A:H8	1.56	0.70
3:AC:6:HIS:HD2	3:AC:7:PRO:HD2	1.56	0.70
3:AC:206:GLU:HG2	3:AC:207:VAL:HG23	1.73	0.70
23:BA:2068:U:N3	23:BA:2430:A:H2	1.89	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BC:201:HIS:O	25:BC:204:ILE:HG13	1.90	0.70
37:BO:90:GLY:O	37:BO:92:TYR:N	2.25	0.70
44:BV:76:LEU:H	44:BV:76:LEU:HD12	1.56	0.70
1:CA:729:A:H2'	1:CA:730:G:H8	1.57	0.70
3:CC:6:HIS:HD2	3:CC:7:PRO:HD2	1.56	0.70
23:DA:528:A:H3'	23:DA:528:A:C8	2.26	0.70
23:DA:2543:G:H5'	23:DA:2543:G:H8	1.57	0.70
27:DE:155:LEU:HD23	27:DE:186:ILE:HD13	1.72	0.70
47:DY:16:LEU:O	47:DY:20:GLU:HB2	1.92	0.70
14:AN:24:CYS:HB3	14:AN:29:ARG:H	1.57	0.70
28:BF:121:ASN:HD22	28:BF:122:PRO:HD2	1.56	0.70
31:BI:14:LYS:HA	31:BI:14:LYS:HE2	1.72	0.70
32:BJ:90:LEU:H	32:BJ:90:LEU:HD12	1.56	0.70
23:DA:2740:A:H2'	23:DA:2741:A:C8	2.26	0.70
4:AD:20:TYR:HD2	4:AD:26:CYS:HB3	1.56	0.69
8:AH:86:ILE:HB	8:AH:133:LEU:HD22	1.74	0.69
22:AV:6189:A:H2'	22:AV:6190:C:H6	1.56	0.69
42:BT:27:THR:HB	42:BT:80:ILE:HB	1.74	0.69
42:BT:50:LYS:H	42:BT:87:GLN:NE2	1.90	0.69
47:BY:2:LYS:H	47:BY:2:LYS:CD	2.05	0.69
34:DL:49:ARG:CG	34:DL:50:ARG:N	2.53	0.69
37:DO:90:GLY:O	37:DO:92:TYR:N	2.25	0.69
46:DX:27:GLU:HB2	46:DX:33:LYS:HA	1.74	0.69
17:AQ:54:GLY:HA3	17:AQ:82:MET:HE1	1.75	0.69
23:BA:760:G:H2'	23:BA:761:A:H5'	1.74	0.69
23:BA:1541:U:H3'	23:BA:1542:G:O3'	1.92	0.69
39:BQ:15:LYS:O	39:BQ:19:LYS:HG3	1.92	0.69
23:DA:1418:G:H8	23:DA:1418:G:O5'	1.74	0.69
25:DC:186:HIS:HD2	25:DC:188:GLU:H	1.38	0.69
29:DG:17:VAL:HG22	29:DG:26:VAL:HG22	1.74	0.69
29:DG:43:VAL:HA	29:DG:52:VAL:HG22	1.73	0.69
48:DZ:8:LEU:CD1	48:DZ:31:LEU:HD12	2.22	0.69
52:D4:5:TRP:NE1	52:D4:7:PRO:HG3	2.07	0.69
11:AK:87:THR:HA	11:AK:91:ARG:HH21	1.57	0.69
12:AL:74:HIS:HD2	12:AL:76:LEU:H	1.38	0.69
15:AO:63:ARG:NH2	15:AO:87:ILE:HG21	2.04	0.69
23:BA:1678:G:H8	23:BA:1678:G:O5'	1.75	0.69
23:DA:1311:G:H5'	23:DA:1311:G:C8	2.27	0.69
25:DC:27:THR:HG23	25:DC:27:THR:O	1.91	0.69
34:DL:64:LYS:HB2	53:D5:25:MET:HG3	1.73	0.69
42:DT:27:THR:HB	42:DT:80:ILE:HB	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:522:C:H41	12:AL:52:ARG:HH22	1.39	0.69
1:AA:922:G:H4'	5:AE:20:GLN:HA	1.74	0.69
6:AF:7:ASN:HD21	18:AR:34:TYR:HE1	1.40	0.69
25:BC:35:LYS:HG3	25:BC:104:TYR:CE2	2.26	0.69
4:CD:4:TYR:CE1	4:CD:11:LEU:HD11	2.26	0.69
11:CK:18:ARG:HB3	11:CK:33:THR:HG23	1.73	0.69
28:DF:121:ASN:HD22	28:DF:122:PRO:HD2	1.56	0.69
30:DH:1:MET:HE2	30:DH:23:PRO:HA	1.75	0.69
30:DH:110:ASP:HB2	30:DH:113:ARG:HG2	1.72	0.69
13:AM:14:ARG:NH1	13:AM:42:ALA:HA	2.06	0.69
23:BA:2023:G:H5'	23:BA:2617:C:H4'	1.74	0.69
1:CA:1152:A:OP1	10:CJ:68:HIS:HD2	1.75	0.69
1:CA:1224:G:H4'	13:CM:102:ARG:NH2	2.07	0.69
3:CC:206:GLU:HG2	3:CC:207:VAL:HG23	1.73	0.69
44:DV:163:LEU:HD23	44:DV:163:LEU:H	1.56	0.69
1:AA:82:U:H2'	1:AA:85:U:C5	2.25	0.69
39:BQ:50:ARG:HH22	40:BR:72:VAL:HG12	1.58	0.69
46:BX:83:GLU:HG2	46:BX:84:GLY:H	1.57	0.69
19:CS:63:THR:HG22	19:CS:66:MET:HE3	1.74	0.69
23:DA:1174:A:H3'	23:DA:1175:U:H5"	1.73	0.69
26:BD:154:LYS:HE3	26:BD:154:LYS:HA	1.74	0.69
32:BJ:36:TRP:HB2	32:BJ:156:GLN:HB2	1.75	0.69
46:BX:50:ARG:HG2	46:BX:59:THR:HG22	1.73	0.69
4:CD:189:PRO:HB2	4:CD:194:LEU:HD21	1.75	0.69
11:CK:87:THR:HA	11:CK:91:ARG:HH21	1.58	0.69
18:CR:50:ILE:HD12	18:CR:70:ILE:HG21	1.75	0.69
23:DA:796:C:H2'	23:DA:797:C:C6	2.27	0.69
30:DH:56:LYS:HA	30:DH:59:ALA:HB3	1.74	0.69
23:BA:1163:G:C2'	23:BA:1164:G:H5"	2.23	0.69
23:BA:1174:A:H3'	23:BA:1175:U:H5"	1.73	0.69
23:BA:1542:G:H1'	23:BA:1543:A:C4	2.28	0.69
23:BA:2415:G:H4'	34:BL:66:GLY:HA3	1.75	0.69
35:BM:60:ARG:H	44:BV:179:ASP:HB2	1.56	0.69
1:CA:168:G:H2'	1:CA:169:C:H5"	1.73	0.69
1:CA:1226:C:H2'	13:CM:103:THR:HB	1.75	0.69
1:CA:1427:U:H2'	1:CA:1428:A:C8	2.28	0.69
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.74	0.69
23:DA:1046:A:H3'	23:DA:1047:G:H5"	1.75	0.69
30:DH:78:THR:HA	30:DH:143:SER:HB3	1.75	0.69
46:DX:83:GLU:HG2	46:DX:84:GLY:H	1.57	0.69
51:D3:42:TRP:HA	51:D3:42:TRP:CE3	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:47:ARG:HH12	6:AF:56:PRO:HB2	1.58	0.69
11:AK:110:ASP:HB3	18:AR:85:LEU:HB3	1.74	0.69
23:BA:1544:C:H3'	23:BA:1545:A:H5'	1.75	0.69
27:BE:160:ASN:OD1	27:BE:163:VAL:HG23	1.93	0.69
23:DA:2287:A:H62	23:DA:2344:U:H3	1.38	0.69
30:DH:79:ILE:HB	30:DH:144:VAL:HA	1.73	0.69
50:D2:45:VAL:HG12	50:D2:46:CYS:H	1.58	0.69
3:AC:19:GLU:HG2	3:AC:40:ARG:HH22	1.56	0.69
23:BA:1046:A:H1'	31:BI:4:LYS:CD	2.23	0.69
23:BA:1899:G:N2	23:BA:1902:C:N4	2.39	0.69
23:BA:2062:A:O2'	23:BA:2063:C:H5'	1.93	0.69
23:DA:1778:U:H2'	23:DA:1784:A:N6	2.07	0.69
23:DA:2415:G:H4'	34:DL:66:GLY:HA3	1.75	0.69
38:DP:26:ASP:CB	38:DP:91:ARG:HA	2.22	0.69
50:B2:45:VAL:HG12	50:B2:46:CYS:H	1.56	0.68
51:B3:15:GLU:OE2	51:B3:18:ARG:HD2	1.92	0.68
51:B3:42:TRP:HA	51:B3:42:TRP:HE3	1.58	0.68
8:CH:86:ILE:HB	8:CH:133:LEU:HD22	1.73	0.68
32:DJ:65:TRP:HA	32:DJ:71:MET:HE1	1.73	0.68
35:DM:60:ARG:H	44:DV:179:ASP:HB2	1.57	0.68
1:AA:729:A:H2'	1:AA:730:G:H8	1.59	0.68
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.28	0.68
39:BQ:55:ARG:HA	39:BQ:58:ARG:HD2	1.73	0.68
44:BV:104:PHE:HA	44:BV:139:VAL:HB	1.74	0.68
46:BX:11:ARG:HB3	46:BX:12:PRO:CD	2.21	0.68
46:BX:27:GLU:HB2	46:BX:33:LYS:HA	1.75	0.68
3:CC:95:THR:HG22	3:CC:96:GLY:H	1.58	0.68
23:DA:1516:U:H2'	23:DA:1517:G:C8	2.28	0.68
25:DC:155:LEU:HD23	25:DC:177:LEU:CD2	2.23	0.68
35:DM:24:GLY:HA2	35:DM:101:ARG:HA	1.75	0.68
23:BA:591:C:O2	53:B5:2:PRO:HA	1.94	0.68
30:BH:79:ILE:HB	30:BH:144:VAL:HA	1.75	0.68
1:CA:939:G:H5"	7:CG:102:ARG:HH12	1.58	0.68
14:CN:24:CYS:HB3	14:CN:29:ARG:H	1.56	0.68
28:DF:7:LEU:HD23	28:DF:10:LYS:HD2	1.74	0.68
39:DQ:90:VAL:HG13	39:DQ:91:ASP:H	1.58	0.68
39:DQ:104:GLN:HB3	40:DR:44:LYS:HZ1	1.57	0.68
1:AA:1286:A:C8	21:AU:22:ARG:NH2	2.61	0.68
23:BA:1516:U:H2'	23:BA:1517:G:C8	2.29	0.68
35:BM:24:GLY:HA2	35:BM:101:ARG:HA	1.75	0.68
1:CA:673:G:H5"	6:CF:87:ARG:NH1	2.08	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.28	0.68
12:CL:56:LYS:HG2	12:CL:66:THR:HG22	1.75	0.68
17:CQ:81:ARG:H	17:CQ:82:MET:HE2	1.59	0.68
24:DB:79:C:H2'	24:DB:80:U:O4'	1.94	0.68
34:DL:59:LEU:HA	34:DL:61:ARG:CZ	2.24	0.68
46:DX:11:ARG:HB3	46:DX:12:PRO:CD	2.23	0.68
7:AG:102:ARG:HG2	7:AG:106:GLN:HE21	1.57	0.68
12:AL:56:LYS:HG2	12:AL:66:THR:HG22	1.74	0.68
23:BA:528:A:H3'	23:BA:528:A:C8	2.28	0.68
23:BA:733:G:N7	23:BA:761:A:C6	2.62	0.68
23:BA:2056:G:H2'	23:BA:2056:G:N3	2.08	0.68
23:DA:1542:G:H1'	23:DA:1543:A:C4	2.28	0.68
1:AA:1056:U:H5'	3:AC:163:ALA:HB2	1.74	0.68
3:AC:31:HIS:O	3:AC:35:GLU:HG2	1.94	0.68
4:AD:3:ARG:HH21	4:AD:118:ARG:HD3	1.58	0.68
19:AS:69:HIS:HB3	19:AS:73:GLU:HG3	1.76	0.68
23:BA:587:C:N4	34:BL:33:ARG:HG2	2.08	0.68
23:BA:860:U:H5	23:BA:917:A:N7	1.91	0.68
24:BB:55:U:H4'	28:BF:27:ASN:HD21	1.58	0.68
1:CA:1512:U:H2'	1:CA:1513:A:C8	2.29	0.68
23:DA:2023:G:H5'	23:DA:2617:C:H4'	1.75	0.68
23:DA:2068:U:N3	23:DA:2430:A:H2	1.90	0.68
42:DT:50:LYS:H	42:DT:87:GLN:NE2	1.90	0.68
4:AD:189:PRO:HB2	4:AD:194:LEU:HD21	1.75	0.68
17:AQ:81:ARG:H	17:AQ:82:MET:HE2	1.59	0.68
25:BC:155:LEU:HD23	25:BC:177:LEU:HD21	1.74	0.68
29:BG:43:VAL:HA	29:BG:52:VAL:HG22	1.74	0.68
3:CC:195:VAL:HG12	3:CC:196:LEU:N	2.08	0.68
23:DA:1826:G:H4'	25:DC:242:ARG:HE	1.59	0.68
51:D3:36:LEU:HD23	51:D3:36:LEU:H	1.58	0.68
7:AG:15:ASP:HB3	7:AG:19:GLY:H	1.57	0.68
15:AO:5:LYS:HD3	15:AO:5:LYS:N	2.09	0.68
23:BA:1316:U:H2'	23:BA:1317:A:C8	2.29	0.68
25:BC:244:ARG:HG3	25:BC:245:PRO:CD	2.24	0.68
4:CD:23:GLY:HA3	4:CD:112:VAL:HG22	1.76	0.68
15:CO:5:LYS:HD3	15:CO:5:LYS:N	2.08	0.68
25:DC:201:HIS:O	25:DC:204:ILE:HG13	1.94	0.68
1:AA:1346:A:N1	1:AA:1374:A:H5"	2.09	0.68
25:BC:96:HIS:HD2	25:BC:102:LYS:HG2	1.59	0.68
34:BL:146:VAL:HG22	34:BL:147:LEU:H	1.59	0.68
51:B3:36:LEU:HD23	51:B3:36:LEU:H	1.59	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:591:C:O2	53:D5:2:PRO:HA	1.93	0.68
25:DC:148:GLU:HB2	25:DC:151:LYS:HD2	1.75	0.68
52:D4:35:ARG:HG3	52:D4:42:LEU:HD11	1.76	0.68
1:AA:1014:A:H5'	19:AS:14:HIS:CD2	2.28	0.68
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.29	0.68
30:BH:1:MET:HE2	30:BH:23:PRO:HA	1.76	0.68
32:BJ:66:THR:HB	32:BJ:69:VAL:HG12	1.76	0.68
39:BQ:90:VAL:HG13	39:BQ:91:ASP:H	1.58	0.68
43:BU:42:VAL:HG12	43:BU:65:ALA:HB3	1.76	0.68
3:CC:31:HIS:O	3:CC:35:GLU:HG2	1.94	0.68
4:CD:9:CYS:HB3	4:CD:32:ALA:HB2	1.76	0.68
6:CF:7:ASN:HD21	18:CR:34:TYR:HE1	1.41	0.68
18:CR:66:LEU:O	18:CR:70:ILE:HG12	1.94	0.68
23:DA:973:A:OP2	40:DR:78:LYS:NZ	2.23	0.68
41:DS:18:ARG:HG2	41:DS:76:VAL:CG1	2.24	0.68
51:D3:42:TRP:HA	51:D3:42:TRP:HE3	1.58	0.68
1:AA:939:G:H5"	7:AG:102:ARG:NH1	2.09	0.67
1:CA:1347:G:H22	1:CA:1373:G:H2'	1.58	0.67
23:DA:673:C:H5"	27:DE:81:PRO:HD2	1.75	0.67
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.75	0.67
3:AC:107:GLN:H	3:AC:107:GLN:CD	2.02	0.67
11:AK:18:ARG:HB3	11:AK:33:THR:HG23	1.74	0.67
23:BA:1175:U:H2'	23:BA:1176:G:C8	2.29	0.67
23:BA:1826:G:H4'	25:BC:242:ARG:HE	1.58	0.67
25:BC:217:ARG:HG2	25:BC:217:ARG:HH11	1.59	0.67
30:BH:87:LYS:HA	30:BH:122:GLU:HA	1.76	0.67
4:CD:3:ARG:HH21	4:CD:118:ARG:HD3	1.58	0.67
6:CF:47:ARG:HH12	6:CF:56:PRO:HB2	1.58	0.67
10:CJ:32:ALA:H	10:CJ:78:ASN:HD21	1.43	0.67
23:DA:1544:C:H3'	23:DA:1545:A:H5'	1.75	0.67
30:DH:87:LYS:HA	30:DH:122:GLU:HA	1.76	0.67
3:AC:17:ASP:HB2	3:AC:21:ARG:HH22	1.59	0.67
23:BA:1405:U:H2'	23:BA:1406:U:C6	2.28	0.67
44:BV:108:PRO:HG3	44:BV:141:VAL:HG22	1.75	0.67
1:CA:1285:A:H4'	1:CA:1286:A:O5'	1.95	0.67
8:CH:51:VAL:HG21	8:CH:60:ARG:HG3	1.76	0.67
18:CR:44:LEU:HD22	18:CR:79:LEU:HD22	1.75	0.67
23:DA:141(A):A:H8	23:DA:1595:G:H21	1.40	0.67
25:DC:96:HIS:HD2	25:DC:102:LYS:HG2	1.58	0.67
3:AC:195:VAL:HG12	3:AC:196:LEU:N	2.08	0.67
6:AF:60:PHE:C	6:AF:61:LEU:HD12	2.19	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2637:U:H5"	26:BD:82:ARG:HH21	1.59	0.67
30:BH:92:VAL:HA	30:BH:96:ASP:OD2	1.95	0.67
23:DA:185:U:H2'	23:DA:186:G:C8	2.29	0.67
47:DY:46:GLN:O	47:DY:47:ASN:HB2	1.93	0.67
1:AA:1427:U:H2'	1:AA:1428:A:C8	2.29	0.67
25:BC:78:LYS:HD3	25:BC:114:GLY:HA2	1.77	0.67
32:BJ:118:PRO:O	32:BJ:121:VAL:HG22	1.94	0.67
24:DB:66:A:H61	24:DB:107:U:H2'	1.59	0.67
10:AJ:45:ARG:HB2	10:AJ:65:LEU:HB3	1.76	0.67
28:BF:148:MET:HA	28:BF:148:MET:HE3	1.77	0.67
48:BZ:8:LEU:CD1	48:BZ:31:LEU:HD12	2.24	0.67
3:CC:107:GLN:CD	3:CC:107:GLN:H	2.03	0.67
10:CJ:45:ARG:HB2	10:CJ:65:LEU:HB3	1.76	0.67
19:CS:69:HIS:HB3	19:CS:73:GLU:HG3	1.76	0.67
23:DA:65:C:H2'	23:DA:66:C:H6	1.60	0.67
27:DE:8:GLN:HA	27:DE:21:ALA:HA	1.77	0.67
4:AD:9:CYS:HB3	4:AD:32:ALA:HB2	1.77	0.67
4:AD:30:LYS:C	4:AD:32:ALA:H	2.00	0.67
4:AD:108:LEU:HD23	4:AD:110:PHE:HE2	1.60	0.67
28:BF:98:ARG:HD2	28:BF:98:ARG:H	1.60	0.67
23:DA:587:C:N4	34:DL:33:ARG:HG2	2.09	0.67
23:DA:760:G:H2'	23:DA:761:A:H5'	1.77	0.67
39:DQ:50:ARG:HH22	40:DR:72:VAL:HG12	1.58	0.67
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.59	0.67
18:AR:44:LEU:HD22	18:AR:79:LEU:HD22	1.76	0.67
22:AV:6155:C:H2'	22:AV:6156:A:C8	2.30	0.67
23:BA:1046:A:H3'	23:BA:1047:G:H5"	1.75	0.67
26:BD:92:THR:HB	26:BD:94:GLU:HG2	1.77	0.67
29:BG:17:VAL:HG22	29:BG:26:VAL:HG22	1.76	0.67
3:CC:19:GLU:HG2	3:CC:40:ARG:HH22	1.56	0.67
5:CE:149:GLU:O	5:CE:153:LYS:HB2	1.95	0.67
23:DA:245:G:H2'	23:DA:246:C:H6	1.59	0.67
23:DA:480:A:OP2	43:DU:46:LYS:HE2	1.95	0.67
23:DA:1046:A:H1'	31:DI:4:LYS:CD	2.23	0.67
23:DA:2056:G:H2'	23:DA:2056:G:N3	2.08	0.67
39:DQ:55:ARG:HA	39:DQ:58:ARG:HD2	1.76	0.67
3:AC:95:THR:HG22	3:AC:96:GLY:H	1.59	0.67
23:BA:1657:C:H2'	23:BA:1658:C:H6	1.59	0.67
25:BC:144:ALA:HB3	25:BC:192:THR:HG23	1.75	0.67
1:CA:1443:G:N2	38:DP:119:LYS:HA	2.09	0.67
23:DA:1316:U:H2'	23:DA:1317:A:C8	2.29	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DB:55:U:H4'	28:DF:27:ASN:HD21	1.59	0.67
32:DJ:66:THR:HB	32:DJ:69:VAL:HG12	1.76	0.67
1:AA:541:G:O2'	4:AD:41:GLY:HA2	1.94	0.67
23:BA:443:A:H2'	27:BE:45:ARG:HH12	1.60	0.67
23:BA:1336:A:H2'	23:BA:1337:G:C8	2.30	0.67
23:BA:1858:G:H1'	23:BA:1884:A:N6	2.10	0.67
26:BD:30:PRO:HD3	26:BD:180:ASN:ND2	2.10	0.67
42:BT:26:TYR:HB3	42:BT:92:LEU:HD13	1.77	0.67
1:CA:1151:A:HO2'	1:CA:1152:A:H8	1.41	0.67
1:CA:1151:A:O2'	1:CA:1152:A:H8	1.78	0.67
2:CB:90:MET:HA	2:CB:90:MET:HE2	1.75	0.67
23:DA:443:A:H2'	27:DE:45:ARG:HH12	1.60	0.67
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.60	0.66
7:AG:100:ALA:O	7:AG:104:LEU:HD23	1.95	0.66
24:BB:13:A:H5'	45:BW:74:ARG:HH21	1.60	0.66
23:DA:954:G:H5"	35:DM:13:GLN:CG	2.25	0.66
23:DA:1348:G:H2'	23:DA:1349:A:H5"	1.77	0.66
25:DC:69:ARG:HH21	25:DC:130:ALA:HB2	1.59	0.66
34:DL:62:LEU:HD11	53:D5:27:THR:HA	1.76	0.66
53:D5:39:LYS:O	53:D5:43:GLN:HG2	1.96	0.66
23:BA:586:A:H5'	27:BE:89:VAL:HG21	1.77	0.66
23:BA:2822:G:H2'	23:BA:2823:A:H5"	1.77	0.66
27:BE:139:PHE:CB	27:BE:166:ALA:HB1	2.25	0.66
34:BL:148:LEU:HD13	34:BL:148:LEU:H	1.60	0.66
1:CA:1079:G:H2'	1:CA:1080:A:C8	2.30	0.66
6:CF:60:PHE:C	6:CF:61:LEU:HD12	2.20	0.66
23:DA:1794:U:H2'	23:DA:1795:C:H6	1.59	0.66
26:DD:30:PRO:HD3	26:DD:180:ASN:ND2	2.10	0.66
32:DJ:118:PRO:O	32:DJ:121:VAL:HG22	1.94	0.66
44:DV:24:LEU:HB2	44:DV:41:LEU:HD23	1.77	0.66
12:AL:69:ILE:HG13	12:AL:99:ILE:HG21	1.77	0.66
23:BA:65:C:H2'	23:BA:66:C:H6	1.60	0.66
23:BA:330:A:C2	23:BA:1210:A:H2'	2.31	0.66
25:BC:186:HIS:CD2	25:BC:188:GLU:H	2.14	0.66
30:BH:82:ARG:HB3	30:BH:89:TYR:CB	2.24	0.66
34:BL:62:LEU:HD11	53:B5:27:THR:HA	1.77	0.66
53:B5:22:VAL:HB	53:B5:54:GLU:HG2	1.77	0.66
1:CA:7:G:H21	5:CE:121:LYS:HE2	1.60	0.66
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.30	0.66
3:CC:17:ASP:HB2	3:CC:21:ARG:HH22	1.60	0.66
12:CL:69:ILE:HG13	12:CL:99:ILE:HG21	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:691:G:C6	11:AK:52:GLY:HA2	2.31	0.66
46:BX:10:LYS:O	46:BX:11:ARG:HG2	1.96	0.66
1:CA:277:C:H5"	17:CQ:68:ARG:NH2	2.11	0.66
1:CA:878:G:H5'	8:CH:89:PRO:HG2	1.77	0.66
1:CA:1346:A:N1	1:CA:1374:A:H5"	2.10	0.66
13:CM:14:ARG:NH1	13:CM:42:ALA:HA	2.09	0.66
23:DA:588:U:H2'	23:DA:589:C:C6	2.30	0.66
28:DF:98:ARG:H	28:DF:98:ARG:HD2	1.59	0.66
3:AC:18:TRP:CD1	14:AN:54:PRO:HA	2.31	0.66
18:AR:70:ILE:O	18:AR:74:ARG:HG3	1.96	0.66
25:BC:94:LEU:HB2	25:BC:104:TYR:HE1	1.60	0.66
39:BQ:92:ARG:HD2	39:BQ:95:LEU:HG	1.77	0.66
47:BY:16:LEU:O	47:BY:20:GLU:HB2	1.95	0.66
7:CG:100:ALA:O	7:CG:104:LEU:HD23	1.94	0.66
23:DA:528:A:C2	23:DA:2043:C:H4'	2.31	0.66
23:DA:1175:U:H2'	23:DA:1176:G:C8	2.29	0.66
1:AA:878:G:H5'	8:AH:89:PRO:HG2	1.77	0.66
1:AA:955:U:H1'	1:AA:1227:A:N6	2.08	0.66
17:AQ:8:GLY:HA3	17:AQ:23:VAL:HG12	1.78	0.66
23:BA:126:A:OP2	52:B4:19:ARG:HB2	1.95	0.66
34:BL:111:ARG:HG3	34:BL:128:HIS:CG	2.30	0.66
41:BS:18:ARG:HG2	41:BS:76:VAL:CG1	2.25	0.66
22:CV:6155:C:H2'	22:CV:6156:A:C8	2.30	0.66
22:CV:6172:U:H2'	22:CV:6173:G:H8	1.60	0.66
23:DA:1163:G:C2'	23:DA:1164:G:H5"	2.23	0.66
25:DC:217:ARG:HG2	25:DC:217:ARG:HH11	1.60	0.66
34:DL:146:VAL:HG22	34:DL:147:LEU:H	1.57	0.66
43:DU:42:VAL:HG12	43:DU:65:ALA:HB3	1.78	0.66
1:AA:1285:A:H4'	1:AA:1286:A:O5'	1.95	0.66
6:AF:76:ALA:O	6:AF:80:ARG:HG2	1.96	0.66
23:BA:1348:G:H2'	23:BA:1349:A:H5"	1.77	0.66
24:BB:66:A:H61	24:BB:107:U:H2'	1.60	0.66
34:DL:148:LEU:H	34:DL:148:LEU:HD13	1.59	0.66
42:DT:26:TYR:HB3	42:DT:92:LEU:HD13	1.77	0.66
1:AA:939:G:H5"	7:AG:102:ARG:HH12	1.61	0.66
1:AA:1512:U:H2'	1:AA:1513:A:C8	2.31	0.66
23:BA:1614:A:N6	41:BS:87:PRO:HA	2.11	0.66
27:BE:8:GLN:HA	27:BE:21:ALA:HA	1.77	0.66
27:BE:83:PHE:O	27:BE:84:VAL:C	2.38	0.66
40:BR:40:LEU:HD23	40:BR:47:VAL:HG23	1.78	0.66
42:BT:8:ILE:H	42:BT:8:ILE:HD12	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:18:TRP:CD1	14:CN:54:PRO:HA	2.31	0.66
28:DF:148:MET:HE3	28:DF:148:MET:HA	1.78	0.66
45:DW:37:LEU:O	45:DW:38:VAL:HG23	1.96	0.66
1:AA:1151:A:HO2'	1:AA:1152:A:H8	1.44	0.66
25:BC:148:GLU:HB2	25:BC:151:LYS:HD2	1.76	0.66
1:CA:955:U:H1'	1:CA:1227:A:N6	2.09	0.66
23:DA:251:A:C5	23:DA:252:G:H1'	2.31	0.66
25:DC:94:LEU:HB2	25:DC:104:TYR:HE1	1.60	0.66
32:DJ:36:TRP:HB2	32:DJ:156:GLN:HB2	1.76	0.66
23:BA:1778:U:H2'	23:BA:1784:A:N6	2.11	0.66
29:BG:101:ARG:H	29:BG:101:ARG:NE	1.93	0.66
34:BL:59:LEU:HA	34:BL:61:ARG:CZ	2.26	0.66
50:B2:40:LYS:HE2	50:B2:46:CYS:HB3	1.78	0.66
1:CA:1512:U:H2'	1:CA:1513:A:H8	1.61	0.66
23:BA:1418:G:H8	23:BA:1418:G:O5'	1.78	0.65
25:DC:270:ILE:O	25:DC:271:ILE:HG13	1.96	0.65
30:DH:92:VAL:HA	30:DH:96:ASP:OD2	1.96	0.65
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.31	0.65
3:AC:59:ARG:HG2	3:AC:64:VAL:HG22	1.78	0.65
4:AD:23:GLY:HA3	4:AD:112:VAL:HG22	1.76	0.65
5:AE:149:GLU:O	5:AE:153:LYS:HB2	1.96	0.65
25:BC:155:LEU:HD23	25:BC:177:LEU:CD2	2.26	0.65
33:BK:20:MET:HG2	33:BK:21:CYS:O	1.96	0.65
39:BQ:110:VAL:O	39:BQ:114:LYS:HG2	1.96	0.65
1:CA:243:A:H4'	1:CA:244:U:O5'	1.96	0.65
4:CD:22:LYS:HB2	4:CD:26:CYS:SG	2.35	0.65
9:CI:113:LYS:H	9:CI:119:ALA:HA	1.61	0.65
23:DA:2359:C:H2'	23:DA:2360:A:C8	2.31	0.65
3:AC:58:GLU:O	3:AC:64:VAL:HA	1.97	0.65
22:AV:6172:U:H2'	22:AV:6173:G:H8	1.61	0.65
23:BA:251:A:C5	23:BA:252:G:H1'	2.31	0.65
23:BA:673:C:H5"	27:BE:81:PRO:HD2	1.78	0.65
23:BA:1694:C:H6	23:BA:1694:C:H5"	1.62	0.65
23:BA:2392:A:H2	23:BA:2424:C:H42	1.43	0.65
24:BB:74:U:H2'	24:BB:75:G:C8	2.31	0.65
1:CA:397:A:H3'	1:CA:397:A:N3	2.11	0.65
3:CC:83:ARG:O	3:CC:87:LEU:HG	1.96	0.65
15:CO:48:LYS:HE2	15:CO:48:LYS:HA	1.79	0.65
23:DA:270(G):U:H2'	23:DA:270(H):C:C6	2.31	0.65
23:DA:675:A:H4'	27:DE:67:GLN:NE2	2.12	0.65
23:DA:948:G:H5'	23:DA:948:G:C8	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:92:THR:HB	26:DD:94:GLU:HG2	1.78	0.65
27:DE:83:PHE:O	27:DE:84:VAL:C	2.40	0.65
33:DK:103:ALA:HB1	33:DK:105:GLU:OE1	1.97	0.65
34:DL:111:ARG:HG3	34:DL:128:HIS:CG	2.30	0.65
5:AE:91:LEU:HA	5:AE:120:THR:HG22	1.79	0.65
8:AH:51:VAL:HG21	8:AH:60:ARG:HG3	1.77	0.65
22:AV:6189:A:H2'	22:AV:6190:C:C6	2.32	0.65
25:BC:79:VAL:HG21	25:BC:111:LEU:HD11	1.77	0.65
27:BE:53:THR:HG22	27:BE:56:GLU:CD	2.22	0.65
28:BF:32:PRO:HB2	28:BF:172:LEU:HD22	1.77	0.65
47:BY:46:GLN:O	47:BY:47:ASN:HB2	1.94	0.65
1:CA:1194:U:H2'	1:CA:1195:C:C6	2.31	0.65
12:CL:26:LEU:CD1	12:CL:27:LYS:H	2.07	0.65
13:CM:16:ASP:HB3	13:CM:34:LEU:HD11	1.78	0.65
23:DA:1332:G:H5'	23:DA:1332:G:C8	2.32	0.65
24:DB:74:U:H2'	24:DB:75:G:C8	2.32	0.65
18:AR:66:LEU:O	18:AR:70:ILE:HG12	1.95	0.65
23:BA:675:A:H4'	27:BE:67:GLN:NE2	2.11	0.65
23:BA:910:A:H62	35:BM:12:GLN:HA	1.61	0.65
23:BA:1332:G:C8	23:BA:1332:G:H5'	2.32	0.65
23:BA:2359:C:H2'	23:BA:2360:A:C8	2.32	0.65
30:BH:83:ALA:HB3	30:BH:123:LEU:HD12	1.79	0.65
34:BL:41:ARG:NH2	34:BL:45:LEU:HD12	2.11	0.65
37:BO:99:LYS:O	37:BO:103:GLU:HB2	1.97	0.65
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.61	0.65
23:DA:389:G:O6	34:DL:71:VAL:HG23	1.97	0.65
23:DA:1336:A:H2'	23:DA:1337:G:C8	2.30	0.65
23:DA:1858:G:H1'	23:DA:1884:A:N6	2.11	0.65
27:DE:103:LYS:HA	27:DE:106:ARG:HG3	1.77	0.65
28:DF:32:PRO:HB2	28:DF:172:LEU:HD22	1.77	0.65
34:DL:41:ARG:NH2	34:DL:45:LEU:HD12	2.12	0.65
39:DQ:110:VAL:O	39:DQ:114:LYS:HG2	1.97	0.65
40:DR:49:THR:HB	40:DR:50:PRO:HD2	1.78	0.65
6:AF:69:GLU:O	6:AF:72:VAL:HG12	1.95	0.65
44:BV:24:LEU:HB2	44:BV:41:LEU:HD23	1.77	0.65
1:CA:939:G:H5"	7:CG:102:ARG:NH1	2.12	0.65
23:DA:2822:G:H2'	23:DA:2823:A:H5"	1.77	0.65
10:AJ:32:ALA:H	10:AJ:78:ASN:HD21	1.43	0.65
23:BA:197:A:H5'	23:BA:197:A:C8	2.24	0.65
23:BA:342:G:C2'	23:BA:343:C:H5"	2.27	0.65
1:CA:1225:A:N3	1:CA:1225:A:H2'	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:6189:A:H2'	22:CV:6190:C:C6	2.32	0.65
23:DA:733:G:N7	23:DA:761:A:C6	2.64	0.65
23:DA:1607:C:H4'	23:DA:1608:A:O5'	1.97	0.65
23:DA:2599:G:C8	25:DC:237:GLU:HG3	2.32	0.65
37:DO:99:LYS:O	37:DO:103:GLU:HB2	1.96	0.65
13:AM:16:ASP:HB3	13:AM:34:LEU:HD11	1.78	0.65
20:AT:50:GLU:HB3	20:AT:100:ILE:HD13	1.77	0.65
1:CA:105:G:H2'	1:CA:106:C:H6	1.61	0.65
23:DA:342:G:C2'	23:DA:343:C:H5"	2.26	0.65
23:DA:343:C:H5'	23:DA:343:C:C6	2.32	0.65
40:DR:22:VAL:HG12	40:DR:23:GLU:N	2.10	0.65
53:D5:22:VAL:HB	53:D5:54:GLU:HG2	1.77	0.65
1:AA:1225:A:H2'	1:AA:1225:A:N3	2.11	0.65
4:AD:28:SER:HB3	4:AD:29:PRO:HD2	1.79	0.65
6:AF:97:PHE:HD2	18:AR:31:LEU:HD21	1.62	0.65
39:BQ:92:ARG:HD3	39:BQ:94:ASN:HB3	1.79	0.65
51:B3:11:LEU:HG	51:B3:26:ASN:HB2	1.78	0.65
1:CA:942:G:H21	9:CI:124:GLN:NE2	1.95	0.65
3:CC:58:GLU:O	3:CC:64:VAL:HA	1.96	0.65
23:DA:811:U:O2	23:DA:1250:G:H2'	1.97	0.65
23:DA:910:A:H62	35:DM:12:GLN:HA	1.62	0.65
1:AA:1079:G:H2'	1:AA:1080:A:C8	2.32	0.65
3:AC:83:ARG:O	3:AC:87:LEU:HG	1.96	0.65
23:BA:860:U:O2'	23:BA:861:A:H5'	1.96	0.65
23:BA:2724:C:OP1	26:BD:118:LYS:HE3	1.97	0.65
25:BC:142:VAL:HG23	25:BC:192:THR:O	1.97	0.65
40:BR:22:VAL:HG12	40:BR:23:GLU:N	2.11	0.65
40:BR:49:THR:HB	40:BR:50:PRO:HD2	1.77	0.65
47:BY:6:VAL:O	47:BY:10:LEU:HG	1.96	0.65
4:CD:108:LEU:HD23	4:CD:110:PHE:HE2	1.61	0.65
20:CT:26:ASN:HB2	20:CT:71:THR:HG23	1.78	0.65
20:CT:50:GLU:HB3	20:CT:100:ILE:HD13	1.78	0.65
25:DC:10:THR:HG23	25:DC:13:ARG:CB	2.27	0.65
25:DC:244:ARG:HG3	25:DC:245:PRO:CD	2.26	0.65
1:AA:430:A:OP1	4:AD:9:CYS:HB2	1.96	0.64
22:AV:6157:A:H61	22:AV:6172:U:H3	1.42	0.64
4:CD:30:LYS:C	4:CD:32:ALA:H	2.03	0.64
5:CE:91:LEU:HA	5:CE:120:THR:HG22	1.78	0.64
23:DA:330:A:C2	23:DA:1210:A:H2'	2.33	0.64
30:DH:6:LEU:HD23	30:DH:6:LEU:H	1.63	0.64
1:AA:438:G:H4'	1:AA:439:A:OP1	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:55:LYS:O	10:AJ:55:LYS:HD2	1.97	0.64
23:BA:140:A:H8	23:BA:1408:C:O2'	1.79	0.64
23:BA:322:A:H3'	27:BE:169:ASN:ND2	2.12	0.64
23:BA:528:A:C2	23:BA:2043:C:H4'	2.32	0.64
23:BA:1343:G:H5'	23:BA:1343:G:H8	1.62	0.64
23:BA:2506:U:H5	23:BA:2583:G:H1	1.45	0.64
25:BC:158:ALA:HB3	25:BC:161:THR:HG21	1.79	0.64
1:CA:1298:C:H4'	1:CA:1299:A:C8	2.33	0.64
23:DA:661:C:O3'	34:DL:18:ARG:HG2	1.98	0.64
23:DA:2637:U:H5"	26:DD:82:ARG:HH21	1.61	0.64
34:DL:9:ASN:N	34:DL:10:PRO:HD3	2.12	0.64
52:D4:8:ASN:C	52:D4:8:ASN:ND2	2.53	0.64
1:AA:38:G:N2	1:AA:397:A:H5'	2.13	0.64
1:AA:397:A:H3'	1:AA:397:A:N3	2.12	0.64
23:BA:270(G):U:H2'	23:BA:270(H):C:C6	2.32	0.64
23:BA:588:U:H2'	23:BA:589:C:C6	2.32	0.64
23:BA:2078:C:H2'	23:BA:2079:U:H6	1.62	0.64
26:BD:51:PHE:H	26:BD:75:VAL:HB	1.62	0.64
50:B2:40:LYS:CE	50:B2:46:CYS:HB3	2.27	0.64
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.31	0.64
2:CB:168:THR:OG1	2:CB:192:SER:HA	1.97	0.64
29:DG:55:PRO:HG2	29:DG:61:HIS:HD2	1.62	0.64
46:DX:10:LYS:O	46:DX:11:ARG:HG2	1.97	0.64
51:D3:11:LEU:HG	51:D3:26:ASN:HB2	1.78	0.64
1:AA:79:G:H2'	1:AA:80:G:C8	2.32	0.64
23:BA:1022:G:H8	32:BJ:92:GLN:NE2	1.96	0.64
23:BA:1607:C:H4'	23:BA:1608:A:O5'	1.97	0.64
23:BA:1794:U:H2'	23:BA:1795:C:H6	1.62	0.64
23:BA:1799:G:H8	25:BC:181:GLU:CD	2.06	0.64
48:BZ:5:LYS:HB3	48:BZ:57:GLU:HB2	1.80	0.64
1:CA:7:G:H21	5:CE:121:LYS:CE	2.11	0.64
1:CA:323:U:H4'	20:CT:22:ARG:HB3	1.78	0.64
6:CF:97:PHE:HD2	18:CR:31:LEU:HD21	1.63	0.64
17:CQ:8:GLY:HA3	17:CQ:23:VAL:HG12	1.78	0.64
19:CS:29:ARG:HB2	19:CS:48:THR:H	1.63	0.64
23:DA:663:G:H5"	34:DL:21:ARG:HD3	1.80	0.64
23:DA:1652:A:OP1	36:DN:9:LYS:HE3	1.98	0.64
25:DC:131:LEU:CD1	25:DC:136:ILE:HG12	2.28	0.64
27:DE:102:PRO:HB2	27:DE:105:VAL:HG23	1.80	0.64
1:AA:1151:A:O2'	1:AA:1152:A:H8	1.79	0.64
12:AL:26:LEU:CD1	12:AL:27:LYS:H	2.07	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2873:A:N3	36:BN:6:SER:HB2	2.13	0.64
36:BN:4:LEU:C	36:BN:6:SER:H	2.05	0.64
1:CA:986:A:H1'	19:CS:54:GLY:O	1.97	0.64
11:CK:24:SER:HB3	11:CK:27:ASN:O	1.97	0.64
23:DA:81:G:H21	43:DU:2:ARG:NH2	1.96	0.64
1:AA:105:G:H2'	1:AA:106:C:H6	1.63	0.64
12:AL:44:PRO:HG3	12:AL:52:ARG:HD3	1.79	0.64
36:BN:9:LYS:O	36:BN:10:LEU:HG	1.96	0.64
42:BT:70:LEU:HD23	42:BT:71:GLY:N	2.13	0.64
10:CJ:55:LYS:HD2	10:CJ:55:LYS:O	1.96	0.64
23:DA:1614:A:N6	41:DS:87:PRO:HA	2.11	0.64
23:DA:2271:G:OP1	45:DW:18:ALA:HB1	1.96	0.64
47:DY:6:VAL:O	47:DY:10:LEU:HG	1.97	0.64
1:AA:243:A:H4'	1:AA:244:U:O5'	1.97	0.64
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.33	0.64
3:AC:22:TRP:HB3	3:AC:59:ARG:H	1.63	0.64
27:BE:31:HIS:HB2	34:BL:13:ASN:HB3	1.79	0.64
32:BJ:36:TRP:HB2	32:BJ:156:GLN:CB	2.27	0.64
35:BM:110:THR:HB	35:BM:112:GLU:OE1	1.98	0.64
37:BO:33:LYS:O	37:BO:33:LYS:HD3	1.98	0.64
45:BW:37:LEU:O	45:BW:38:VAL:HG23	1.98	0.64
53:B5:39:LYS:O	53:B5:43:GLN:HG2	1.97	0.64
23:DA:860:U:C5	23:DA:917:A:N7	2.66	0.64
23:DA:2506:U:H5	23:DA:2583:G:H1	1.44	0.64
24:DB:13:A:H5'	45:DW:74:ARG:HH21	1.62	0.64
30:DH:82:ARG:HB3	30:DH:89:TYR:CB	2.27	0.64
32:DJ:135:LEU:HD23	32:DJ:136:GLY:N	2.12	0.64
40:DR:81:TYR:C	40:DR:82:ARG:HG3	2.21	0.64
1:AA:1224:G:H4'	13:AM:102:ARG:HH22	1.62	0.64
23:BA:1210:A:H4'	23:BA:1211:U:O5'	1.98	0.64
23:BA:2599:G:C8	25:BC:237:GLU:HG3	2.32	0.64
24:BB:79:C:H2'	24:BB:80:U:O4'	1.97	0.64
29:BG:149:ARG:HA	29:BG:162:ILE:CG1	2.28	0.64
39:BQ:104:GLN:HB3	40:BR:44:LYS:HZ1	1.63	0.64
1:CA:413:G:N2	1:CA:428:G:H1'	2.13	0.64
12:CL:23:VAL:HG13	12:CL:97:TYR:CE2	2.33	0.64
12:CL:44:PRO:HG3	12:CL:52:ARG:HD3	1.80	0.64
17:CQ:45:HIS:CD2	17:CQ:47:PRO:HD3	2.33	0.64
23:DA:2402:C:H5'	23:DA:2403:C:OP2	1.97	0.64
27:DE:139:PHE:CB	27:DE:166:ALA:HB1	2.28	0.64
29:DG:149:ARG:HA	29:DG:162:ILE:CG1	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DJ:36:TRP:HB2	32:DJ:156:GLN:CB	2.28	0.64
36:DN:38:VAL:HB	36:DN:39:PRO:HD3	1.78	0.64
36:DN:79:LEU:HD23	36:DN:83:ILE:HB	1.79	0.64
48:DZ:5:LYS:HB3	48:DZ:57:GLU:HB2	1.79	0.64
1:AA:413:G:N2	1:AA:428:G:H1'	2.13	0.64
2:AB:168:THR:OG1	2:AB:192:SER:HA	1.98	0.64
9:AI:28:VAL:HG22	9:AI:63:ILE:HB	1.79	0.64
15:AO:48:LYS:HE2	15:AO:48:LYS:HA	1.78	0.64
16:AP:13:HIS:C	16:AP:15:PRO:HD3	2.23	0.64
17:AQ:45:HIS:CD2	17:AQ:47:PRO:HD3	2.32	0.64
23:BA:1007:C:O2'	32:BJ:131:PRO:HA	1.98	0.64
23:BA:1529:A:H62	23:BA:1542:G:N2	1.96	0.64
23:BA:2777:G:H5"	23:BA:2778:A:H5'	1.78	0.64
36:BN:38:VAL:HB	36:BN:39:PRO:HD3	1.80	0.64
37:BO:31:SER:HB3	37:BO:34:HIS:HB2	1.78	0.64
1:CA:255:G:O3'	17:CQ:17:LYS:HD3	1.98	0.64
1:CA:438:G:H4'	1:CA:439:A:OP1	1.97	0.64
23:DA:1799:G:H8	25:DC:181:GLU:CD	2.05	0.64
25:DC:78:LYS:HD3	25:DC:114:GLY:HA2	1.80	0.64
26:DD:51:PHE:H	26:DD:75:VAL:HB	1.60	0.64
36:DN:9:LYS:O	36:DN:10:LEU:HG	1.97	0.64
8:AH:1:MET:H3	8:AH:1:MET:HE2	1.63	0.64
9:AI:27:THR:O	9:AI:62:TYR:HA	1.98	0.64
23:BA:185:U:H2'	23:BA:186:G:C8	2.32	0.64
23:BA:480:A:OP2	43:BU:46:LYS:HE2	1.97	0.64
23:BA:664:C:H4'	23:BA:941:A:OP1	1.98	0.64
23:BA:811:U:O2	23:BA:1250:G:H2'	1.98	0.64
25:BC:206:LEU:O	25:BC:211:ARG:HD3	1.98	0.64
25:BC:270:ILE:O	25:BC:271:ILE:HG13	1.97	0.64
43:BU:50:ARG:HD3	43:BU:51:VAL:H	1.63	0.64
1:CA:1298:C:N4	7:CG:114:ARG:HD3	2.13	0.64
9:CI:28:VAL:HG22	9:CI:63:ILE:HB	1.79	0.64
23:DA:1331:A:HO2'	23:DA:1332:G:H8	1.45	0.64
29:DG:101:ARG:H	29:DG:101:ARG:NE	1.93	0.64
12:AL:70:PRO:HD3	12:AL:99:ILE:HG22	1.80	0.63
20:AT:26:ASN:HB2	20:AT:71:THR:HG23	1.79	0.63
23:BA:954:G:H5"	35:BM:13:GLN:CG	2.27	0.63
23:BA:1434:A:H2'	23:BA:1435:G:C8	2.33	0.63
23:BA:2271:G:OP1	45:BW:18:ALA:HB1	1.97	0.63
36:BN:79:LEU:HD23	36:BN:83:ILE:HB	1.79	0.63
1:CA:265:G:H5'	17:CQ:64:PRO:O	1.97	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:59:ARG:HG2	3:CC:64:VAL:HG22	1.79	0.63
8:CH:64:LYS:HG2	8:CH:79:VAL:HG21	1.80	0.63
23:DA:2687:U:C4	23:DA:2688:U:C5	2.86	0.63
32:DJ:112:LYS:O	32:DJ:116:THR:HG22	1.98	0.63
33:DK:7:TYR:HE1	33:DK:20:MET:HE3	1.63	0.63
37:DO:66:ALA:HB1	37:DO:101:LEU:HD22	1.80	0.63
1:AA:1126:U:H2'	1:AA:1127:G:C8	2.34	0.63
8:AH:91:ARG:HB2	12:AL:6:ILE:HD13	1.80	0.63
23:BA:948:G:H5'	23:BA:948:G:C8	2.32	0.63
23:BA:2210:G:H21	23:BA:2211:G:H5'	1.64	0.63
24:BB:11:C:H3'	24:BB:12:C:H6	1.63	0.63
39:BQ:90:VAL:HG23	40:BR:39:LEU:HB3	1.81	0.63
44:BV:24:LEU:HD21	44:BV:86:VAL:CG2	2.29	0.63
9:CI:27:THR:O	9:CI:62:TYR:HA	1.97	0.63
12:CL:70:PRO:HD3	12:CL:99:ILE:HG22	1.81	0.63
22:CV:6157:A:H61	22:CV:6172:U:H3	1.43	0.63
23:DA:1694:C:H6	23:DA:1694:C:C5'	2.11	0.63
23:DA:1803:A:H5"	23:DA:1804:C:OP2	1.98	0.63
26:DD:119:ARG:HD3	26:DD:120:TRP:CE2	2.33	0.63
35:DM:83:MET:HG3	35:DM:83:MET:O	1.97	0.63
37:DO:31:SER:HB3	37:DO:34:HIS:HB2	1.79	0.63
46:DX:86:SER:O	46:DX:90:ILE:HG12	1.98	0.63
23:BA:389:G:O6	34:BL:71:VAL:HG23	1.97	0.63
23:BA:1652:A:OP1	36:BN:9:LYS:HE3	1.98	0.63
23:BA:2294:C:H2'	23:BA:2295:C:H6	1.62	0.63
29:BG:101:ARG:HE	29:BG:101:ARG:N	1.94	0.63
46:BX:13:ILE:HD11	46:BX:15:ALA:HB2	1.79	0.63
46:BX:46:LEU:O	46:BX:46:LEU:HD23	1.99	0.63
4:CD:28:SER:HB3	4:CD:29:PRO:HD2	1.79	0.63
16:CP:13:HIS:C	16:CP:15:PRO:HD3	2.23	0.63
23:DA:126:A:OP2	52:D4:19:ARG:HB2	1.97	0.63
23:DA:1434:A:H2'	23:DA:1435:G:C8	2.34	0.63
23:DA:1657:C:H2'	23:DA:1658:C:C6	2.33	0.63
35:DM:6:ARG:O	35:DM:7:MET:HB2	1.98	0.63
26:BD:119:ARG:HD3	26:BD:120:TRP:CE2	2.34	0.63
33:BK:103:ALA:HB1	33:BK:105:GLU:OE1	1.98	0.63
2:CB:8:LYS:HA	2:CB:217:ARG:HH12	1.63	0.63
23:DA:140:A:H8	23:DA:1408:C:O2'	1.81	0.63
23:DA:586:A:H5'	27:DE:89:VAL:HG21	1.78	0.63
25:DC:11:PRO:C	25:DC:13:ARG:H	2.07	0.63
25:DC:158:ALA:HB3	25:DC:161:THR:HG21	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DM:20:ALA:HB1	35:DM:99:PRO:O	1.98	0.63
23:BA:637:A:O5'	34:BL:116:GLY:HA2	1.99	0.63
3:CC:22:TRP:HB3	3:CC:59:ARG:H	1.63	0.63
6:CF:76:ALA:O	6:CF:80:ARG:HG2	1.98	0.63
23:DA:637:A:O5'	34:DL:116:GLY:HA2	1.98	0.63
23:DA:1937:A:O2'	23:DA:1938:A:H5'	1.98	0.63
25:DC:186:HIS:CD2	25:DC:188:GLU:H	2.16	0.63
1:AA:1298:C:H4'	1:AA:1299:A:C8	2.33	0.63
21:AU:10:ARG:HA	21:AU:13:ILE:HB	1.80	0.63
23:BA:2401:U:H2'	23:BA:2402:C:H5"	1.79	0.63
1:CA:79:G:H2'	1:CA:80:G:C8	2.33	0.63
2:CB:70:PHE:O	2:CB:92:TYR:HA	1.98	0.63
8:CH:91:ARG:HB2	12:CL:6:ILE:HD13	1.80	0.63
19:CS:49:ILE:H	19:CS:49:ILE:HD12	1.64	0.63
23:DA:2062:A:O2'	23:DA:2063:C:H5'	1.98	0.63
23:DA:2401:U:H2'	23:DA:2402:C:H5"	1.80	0.63
35:DM:110:THR:HB	35:DM:112:GLU:OE1	1.98	0.63
39:DQ:92:ARG:HD3	39:DQ:94:ASN:HB3	1.79	0.63
46:DX:19:GLN:HG2	46:DX:41:ARG:HB2	1.80	0.63
1:AA:406:G:H5"	4:AD:5:ILE:HD12	1.81	0.63
16:AP:19:ILE:HG22	16:AP:36:ILE:HD11	1.80	0.63
23:BA:1314:C:H5'	23:BA:1314:C:C6	2.34	0.63
23:BA:1316:U:H2'	23:BA:1317:A:H8	1.63	0.63
27:BE:103:LYS:HA	27:BE:106:ARG:HG3	1.78	0.63
40:BR:39:LEU:HD12	40:BR:47:VAL:HG11	1.81	0.63
46:BX:86:SER:O	46:BX:90:ILE:HG12	1.97	0.63
1:CA:38:G:N2	1:CA:397:A:H5'	2.13	0.63
1:CA:674:G:H2'	1:CA:675:A:H8	1.64	0.63
9:CI:17:VAL:HA	9:CI:63:ILE:HG13	1.80	0.63
23:DA:7:G:H2'	23:DA:8:A:H8	1.64	0.63
23:DA:1210:A:H4'	23:DA:1211:U:O5'	1.99	0.63
23:DA:1437:C:H2'	23:DA:1438:U:C6	2.34	0.63
23:DA:2350:C:H5"	53:D5:42:ARG:HD3	1.81	0.63
23:DA:2873:A:N3	36:DN:6:SER:HB2	2.14	0.63
25:DC:5:LYS:HD2	25:DC:5:LYS:N	2.14	0.63
36:DN:4:LEU:C	36:DN:6:SER:H	2.05	0.63
37:DO:24:LEU:HD13	37:DO:82:ILE:HG23	1.81	0.63
37:DO:33:LYS:O	37:DO:33:LYS:HD3	1.97	0.63
40:DR:39:LEU:HD12	40:DR:47:VAL:HG11	1.81	0.63
2:AB:70:PHE:O	2:AB:92:TYR:HA	1.98	0.63
9:AI:113:LYS:H	9:AI:119:ALA:HA	1.61	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:29:ILE:HG22	11:AK:44:SER:HB3	1.81	0.63
19:AS:29:ARG:HB2	19:AS:48:THR:H	1.64	0.63
25:BC:131:LEU:CD1	25:BC:136:ILE:HG12	2.29	0.63
26:BD:36:ARG:NH1	26:BD:86:PRO:HD2	2.14	0.63
34:BL:14:LYS:O	34:BL:15:ARG:HB2	1.98	0.63
36:BN:18:LEU:HD11	36:BN:22:ARG:CZ	2.29	0.63
23:DA:1694:C:H6	23:DA:1694:C:H5"	1.62	0.63
26:DD:36:ARG:NH1	26:DD:86:PRO:HD2	2.14	0.63
1:AA:674:G:H2'	1:AA:675:A:H8	1.63	0.63
7:AG:126:ASP:HB3	7:AG:131:LYS:O	1.99	0.63
9:AI:69:GLY:O	9:AI:73:GLN:HG3	1.99	0.63
23:BA:214:G:H1'	23:BA:216:A:O2'	1.99	0.63
23:BA:663:G:H5"	34:BL:21:ARG:HD3	1.79	0.63
23:BA:1694:C:H6	23:BA:1694:C:C5'	2.12	0.63
32:BJ:112:LYS:O	32:BJ:116:THR:HG22	1.99	0.63
1:CA:1227:A:OP2	13:CM:111:LYS:HE3	1.99	0.63
18:CR:70:ILE:O	18:CR:74:ARG:HG3	1.97	0.63
23:DA:1309:G:H3'	52:D4:9:ARG:HH12	1.64	0.63
23:DA:2724:C:OP1	26:DD:118:LYS:HE3	1.98	0.63
25:DC:61:LEU:O	25:DC:63:ARG:NH1	2.31	0.63
36:DN:10:LEU:CB	36:DN:17:ARG:HE	2.12	0.63
40:DR:38:LEU:O	40:DR:39:LEU:HD13	1.99	0.63
40:DR:40:LEU:HD23	40:DR:47:VAL:HG23	1.80	0.63
46:DX:13:ILE:HD11	46:DX:15:ALA:HB2	1.80	0.63
1:AA:976:G:H22	1:AA:136(A):C:H2'	1.64	0.62
2:AB:8:LYS:HA	2:AB:217:ARG:HH12	1.63	0.62
23:BA:780:G:H21	23:BA:783:A:N6	1.93	0.62
23:BA:1389:G:H2'	23:BA:1390:U:C6	2.34	0.62
23:BA:2402:C:H5'	23:BA:2403:C:OP2	1.98	0.62
36:BN:17:ARG:HG3	36:BN:18:LEU:N	2.14	0.62
38:BP:50:ILE:HA	38:BP:99:LEU:HD11	1.81	0.62
1:CA:392:G:H2'	1:CA:393:A:C8	2.32	0.62
1:CA:1071:C:H5"	5:CE:49:PRO:HG2	1.81	0.62
19:CS:11:VAL:HG23	19:CS:38:SER:HB2	1.81	0.62
23:DA:1388:G:H2'	23:DA:1389:G:H8	1.64	0.62
23:DA:2777:G:H5"	23:DA:2778:A:H5'	1.80	0.62
25:DC:142:VAL:HG23	25:DC:192:THR:O	1.98	0.62
27:DE:170:LEU:HD12	27:DE:171:PRO:HD2	1.81	0.62
29:DG:101:ARG:HE	29:DG:101:ARG:N	1.93	0.62
33:DK:71:ARG:NH1	38:DP:74:ARG:HH22	1.95	0.62
43:DU:50:ARG:HD3	43:DU:51:VAL:H	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:18:LYS:O	19:AS:22:LEU:HD23	1.99	0.62
19:AS:49:ILE:H	19:AS:49:ILE:HD12	1.63	0.62
23:BA:242:G:C8	53:B5:5:LYS:HG2	2.33	0.62
23:BA:510:C:H2'	23:BA:511:U:O4'	1.99	0.62
23:BA:1953:A:H2	23:BA:2549:G:N3	1.97	0.62
29:BG:84:SER:HA	29:BG:133:VAL:O	1.99	0.62
34:BL:62:LEU:HD13	34:BL:62:LEU:N	2.14	0.62
37:BO:66:ALA:HB1	37:BO:101:LEU:HD22	1.80	0.62
1:CA:137:C:O4'	16:CP:63:GLY:HA3	1.99	0.62
1:CA:1298:C:H41	7:CG:114:ARG:HD3	1.64	0.62
5:CE:82:VAL:HG21	5:CE:138:ALA:HA	1.80	0.62
23:DA:65:C:H2'	23:DA:66:C:C6	2.34	0.62
23:DA:1314:C:H5'	23:DA:1314:C:C6	2.34	0.62
25:DC:95:LEU:HD12	25:DC:95:LEU:O	1.98	0.62
1:AA:427:U:OP1	4:AD:13:ARG:NH2	2.32	0.62
7:AG:111:ARG:HB3	7:AG:113:GLU:HG2	1.80	0.62
11:AK:24:SER:HB3	11:AK:27:ASN:O	1.99	0.62
25:BC:10:THR:HG23	25:BC:13:ARG:CB	2.29	0.62
1:CA:979:C:H42	14:CN:18:VAL:HG12	1.63	0.62
6:CF:12:PRO:HD3	6:CF:58:GLY:HA2	1.81	0.62
20:CT:72:LEU:HD21	20:CT:76:ALA:C	2.24	0.62
21:CU:10:ARG:HA	21:CU:13:ILE:HB	1.80	0.62
23:DA:747:U:OP2	50:D2:3:LYS:HD3	1.99	0.62
27:DE:31:HIS:HB2	34:DL:13:ASN:HB3	1.80	0.62
27:DE:53:THR:HG22	27:DE:56:GLU:CD	2.23	0.62
34:DL:14:LYS:O	34:DL:15:ARG:HB2	1.99	0.62
23:BA:2687:U:C4	23:BA:2688:U:C5	2.88	0.62
25:BC:11:PRO:C	25:BC:13:ARG:H	2.07	0.62
30:BH:6:LEU:HD23	30:BH:6:LEU:H	1.63	0.62
32:BJ:135:LEU:HD23	32:BJ:136:GLY:N	2.13	0.62
33:BK:71:ARG:NH1	38:BP:74:ARG:HH22	1.98	0.62
34:BL:9:ASN:N	34:BL:10:PRO:HD3	2.15	0.62
23:DA:1316:U:H2'	23:DA:1317:A:H8	1.64	0.62
23:DA:1389:G:H2'	23:DA:1390:U:C6	2.34	0.62
23:DA:2078:C:H2'	23:DA:2079:U:H6	1.64	0.62
34:DL:30:THR:HG22	34:DL:31:ALA:N	2.15	0.62
42:DT:64:LYS:HG2	42:DT:65:ARG:H	1.64	0.62
9:AI:17:VAL:HA	9:AI:63:ILE:HG13	1.80	0.62
23:BA:2075:U:H2'	23:BA:2238:G:H22	1.63	0.62
23:BA:2350:C:H5"	53:B5:42:ARG:HD3	1.81	0.62
23:BA:2502:G:H5'	23:BA:2503:A:H5"	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:132:HIS:CD2	26:BD:135:HIS:NE2	2.68	0.62
33:BK:104:ARG:HB3	33:BK:104:ARG:HH11	1.63	0.62
39:BQ:21:ALA:CB	39:BQ:35:ALA:HB1	2.29	0.62
1:CA:1349:A:H2'	1:CA:1350:A:C8	2.35	0.62
2:CB:27:LYS:HG3	2:CB:194:PRO:HD2	1.82	0.62
23:DA:1022:G:H8	32:DJ:92:GLN:NE2	1.96	0.62
25:DC:79:VAL:HG21	25:DC:111:LEU:HD11	1.80	0.62
25:DC:206:LEU:O	25:DC:211:ARG:HD3	2.00	0.62
27:DE:178:PRO:HB3	27:DE:201:VAL:HG11	1.82	0.62
33:DK:20:MET:HG2	33:DK:21:CYS:O	2.00	0.62
34:DL:62:LEU:HD13	34:DL:62:LEU:N	2.14	0.62
1:AA:976:G:N2	1:AA:136(A):C:H2'	2.14	0.62
4:AD:166:LYS:HE2	25:DC:134:ARG:HH21	1.63	0.62
23:BA:185:U:H4'	23:BA:218:A:H4'	1.82	0.62
24:BB:50:G:OP2	37:BO:62:LYS:HD3	2.00	0.62
34:BL:16:ARG:NH1	34:BL:18:ARG:HG3	2.15	0.62
40:BR:81:TYR:C	40:BR:82:ARG:HG3	2.24	0.62
44:BV:102:LEU:HD23	44:BV:137:ILE:HB	1.81	0.62
1:CA:922:G:H2'	1:CA:923:A:H8	1.63	0.62
2:CB:178:ARG:HE	8:CH:74:PRO:HD3	1.65	0.62
7:CG:111:ARG:HB3	7:CG:113:GLU:HG2	1.80	0.62
23:DA:1794:U:H2'	23:DA:1795:C:C6	2.35	0.62
26:DD:9:VAL:HG22	26:DD:25:VAL:HB	1.81	0.62
32:DJ:127:LYS:HB2	32:DJ:140:PHE:CE1	2.33	0.62
39:DQ:90:VAL:HG23	40:DR:39:LEU:HB3	1.81	0.62
46:DX:25:LYS:HG2	46:DX:35:THR:HG22	1.80	0.62
1:AA:190:G:H4'	1:AA:191(A):G:OP2	2.00	0.62
1:AA:948:C:OP1	13:AM:107:ALA:HA	1.99	0.62
9:AI:26:VAL:HG13	9:AI:61:ALA:HB3	1.82	0.62
20:AT:72:LEU:HD21	20:AT:76:ALA:C	2.24	0.62
7:CG:126:ASP:HB3	7:CG:131:LYS:O	2.00	0.62
19:CS:18:LYS:O	19:CS:22:LEU:HD23	2.00	0.62
23:DA:2210:G:H21	23:DA:2211:G:H5'	1.64	0.62
23:DA:2307:G:H2'	23:DA:2308:G:H5'	1.81	0.62
33:DK:104:ARG:HB3	33:DK:104:ARG:HH11	1.65	0.62
35:DM:75:THR:HG21	35:DM:85:LYS:HZ2	1.63	0.62
43:DU:90:LEU:HG	43:DU:91:GLU:N	2.15	0.62
1:AA:624:C:O3'	16:AP:10:GLY:HA2	2.00	0.62
23:BA:492:A:H2'	23:BA:493:G:O4'	2.00	0.62
25:BC:221:VAL:HG13	25:BC:226:MET:HE2	1.81	0.62
35:BM:38:GLU:HB2	35:BM:127:ILE:HG23	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1529:A:H62	23:DA:1542:G:N2	1.98	0.62
29:DG:68:THR:O	29:DG:72:ILE:HG12	2.00	0.62
33:DK:2:ILE:HD11	33:DK:82:ASN:HD22	1.64	0.62
44:DV:69:THR:HG22	44:DV:90:VAL:HG22	1.82	0.62
45:DW:23:VAL:HA	45:DW:38:VAL:CG2	2.24	0.62
46:DX:46:LEU:O	46:DX:46:LEU:HD23	2.00	0.62
4:AD:22:LYS:HB2	4:AD:26:CYS:SG	2.40	0.62
5:AE:6:PHE:CD2	5:AE:36:ASP:HB3	2.35	0.62
19:AS:62:ILE:HA	19:AS:66:MET:SD	2.40	0.62
23:BA:81:G:H21	43:BU:2:ARG:NH2	1.98	0.62
23:BA:343:C:H5'	23:BA:343:C:C6	2.32	0.62
23:BA:674:G:H2'	23:BA:804:A:H61	1.62	0.62
23:BA:1937:A:O2'	23:BA:1938:A:H5'	1.99	0.62
23:BA:2186:G:H2'	23:BA:2187:G:H8	1.65	0.62
23:BA:2577:A:H5"	23:BA:2578:G:H5'	1.81	0.62
30:BH:78:THR:HA	30:BH:143:SER:HB3	1.80	0.62
45:BW:23:VAL:HA	45:BW:38:VAL:CG2	2.24	0.62
46:BX:25:LYS:HG2	46:BX:35:THR:HG22	1.81	0.62
46:BX:73:LEU:HD21	46:BX:94:LEU:HG	1.82	0.62
1:CA:370:C:H2'	1:CA:371:G:H8	1.65	0.62
17:CQ:40:LYS:HD2	17:CQ:42:TYR:CZ	2.35	0.62
17:CQ:64:PRO:HA	17:CQ:70:ARG:HG3	1.82	0.62
23:DA:1542:G:H4'	23:DA:1543:A:O5'	2.00	0.62
29:DG:84:SER:HA	29:DG:133:VAL:O	2.00	0.62
42:DT:59:VAL:HB	42:DT:76:ARG:HG3	1.81	0.62
44:DV:102:LEU:HD23	44:DV:137:ILE:HB	1.80	0.62
1:AA:946:A:H2'	1:AA:947:G:H8	1.65	0.62
23:BA:273(G):C:H2'	23:BA:274:G:H5"	1.82	0.62
25:BC:30:GLU:HG3	25:BC:63:ARG:HH21	1.63	0.62
32:BJ:127:LYS:HB2	32:BJ:140:PHE:CE1	2.35	0.62
34:BL:30:THR:HG22	34:BL:31:ALA:N	2.15	0.62
1:CA:1220:G:H21	19:CS:54:GLY:CA	2.13	0.62
5:CE:6:PHE:CD2	5:CE:36:ASP:HB3	2.35	0.62
23:DA:38:A:H2'	23:DA:39:C:C6	2.34	0.62
23:DA:492:A:H2'	23:DA:493:G:O4'	2.00	0.62
26:DD:132:HIS:HA	26:DD:135:HIS:NE2	2.15	0.62
39:DQ:21:ALA:CB	39:DQ:35:ALA:HB1	2.30	0.62
39:DQ:92:ARG:HD2	39:DQ:95:LEU:HG	1.81	0.62
46:DX:27:GLU:CD	46:DX:33:LYS:HE3	2.24	0.62
46:DX:27:GLU:HB3	46:DX:33:LYS:HG3	1.82	0.62
1:AA:801:U:H2'	1:AA:802:A:C8	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:12:PRO:HD3	6:AF:58:GLY:HA2	1.82	0.61
12:AL:23:VAL:HG13	12:AL:97:TYR:CE2	2.35	0.61
13:AM:14:ARG:CZ	13:AM:42:ALA:HA	2.30	0.61
23:BA:1046:A:H1'	31:BI:4:LYS:HD3	1.82	0.61
26:BD:4:ILE:CG1	26:BD:28:ALA:HB1	2.30	0.61
35:BM:20:ALA:HB1	35:BM:99:PRO:O	2.00	0.61
1:CA:801:U:H2'	1:CA:802:A:C8	2.35	0.61
1:CA:1126:U:H2'	1:CA:1127:G:C8	2.35	0.61
1:CA:1322:C:OP2	13:CM:100:GLY:HA3	2.00	0.61
19:CS:31:ILE:HG23	19:CS:49:ILE:HA	1.81	0.61
23:DA:664:C:H4'	23:DA:941:A:OP1	2.00	0.61
23:DA:779:U:H5'	25:DC:49:ILE:HD11	1.82	0.61
23:DA:1007:C:O2'	32:DJ:131:PRO:HA	1.99	0.61
23:DA:1343:G:H5'	23:DA:1343:G:H8	1.64	0.61
24:DB:50:G:OP2	37:DO:62:LYS:HD3	2.00	0.61
46:DX:27:GLU:CB	46:DX:33:LYS:HA	2.30	0.61
50:D2:40:LYS:CE	50:D2:46:CYS:HB3	2.29	0.61
1:AA:392:G:H2'	1:AA:393:A:C8	2.34	0.61
1:AA:754:C:H3'	1:AA:754:C:O2	2.01	0.61
2:AB:25:ASN:HD22	2:AB:25:ASN:N	1.98	0.61
23:BA:729:G:C5	25:BC:208:LYS:HB2	2.35	0.61
23:BA:1021:A:O2'	23:BA:1123:C:H5"	2.00	0.61
23:BA:2653:U:H3	23:BA:2667:C:H42	1.48	0.61
25:BC:21:PHE:O	25:BC:24:ILE:HG22	2.00	0.61
27:BE:199:TRP:O	27:BE:203:GLN:HG2	2.00	0.61
30:BH:123:LEU:HD23	30:BH:124:GLY:N	2.15	0.61
43:BU:8:LYS:HE2	43:BU:37:VAL:HG11	1.82	0.61
23:DA:860:U:O2'	23:DA:861:A:H5'	1.99	0.61
23:DA:2346:A:H5"	23:DA:2383:G:H1'	1.82	0.61
23:DA:2393:A:C5'	34:DL:62:LEU:HD12	2.31	0.61
23:DA:2502:G:H5'	23:DA:2503:A:H5"	1.81	0.61
23:DA:2787:C:H1'	26:DD:62:PRO:HG3	1.81	0.61
34:DL:71:VAL:HB	34:DL:72:PRO:HD3	1.82	0.61
43:DU:8:LYS:HE2	43:DU:37:VAL:HG11	1.81	0.61
46:DX:19:GLN:HE21	46:DX:41:ARG:HE	1.48	0.61
1:AA:370:C:H2'	1:AA:371:G:H8	1.66	0.61
23:BA:1291:C:H2'	23:BA:1292:U:C6	2.35	0.61
25:BC:108:PRO:HG3	25:BC:143:HIS:CE1	2.36	0.61
33:BK:2:ILE:HD11	33:BK:82:ASN:HD22	1.65	0.61
1:CA:600:C:OP1	8:CH:97:VAL:HG12	2.00	0.61
9:CI:79:LEU:HD23	9:CI:101:PHE:O	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DH:126:TYR:H	30:DH:142:VAL:HB	1.65	0.61
32:DJ:57:LEU:HD21	32:DJ:143:LEU:HB2	1.82	0.61
41:DS:1:MET:HA	41:DS:1:MET:HE3	1.82	0.61
43:DU:8:LYS:H	43:DU:8:LYS:NZ	1.89	0.61
17:AQ:40:LYS:HD2	17:AQ:42:TYR:CZ	2.35	0.61
23:BA:2562:U:H1'	33:BK:23:ARG:NH1	2.15	0.61
32:BJ:57:LEU:HD21	32:BJ:143:LEU:HB2	1.80	0.61
42:BT:64:LYS:HG2	42:BT:65:ARG:H	1.65	0.61
6:CF:37:VAL:HA	6:CF:65:VAL:HG12	1.81	0.61
9:CI:26:VAL:HG13	9:CI:61:ALA:HB3	1.81	0.61
16:CP:19:ILE:HG22	16:CP:36:ILE:HD11	1.82	0.61
23:DA:639:U:H2'	23:DA:640:C:C6	2.35	0.61
23:DA:729:G:C5	25:DC:208:LYS:HB2	2.36	0.61
23:DA:2593:U:H2'	23:DA:2594:C:C6	2.36	0.61
24:DB:11:C:H3'	24:DB:12:C:H6	1.65	0.61
26:DD:132:HIS:CD2	26:DD:135:HIS:NE2	2.68	0.61
33:DK:47:ILE:HG13	33:DK:48:PRO:HD2	1.82	0.61
34:DL:16:ARG:NH1	34:DL:18:ARG:HG3	2.16	0.61
35:DM:38:GLU:O	35:DM:127:ILE:HD13	2.01	0.61
35:DM:38:GLU:HB2	35:DM:127:ILE:HG23	1.83	0.61
1:AA:684:A:H2'	1:AA:685:G:C8	2.35	0.61
1:AA:1349:A:H2'	1:AA:1350:A:C8	2.35	0.61
4:AD:166:LYS:HE2	25:DC:134:ARG:NH2	2.15	0.61
5:AE:82:VAL:HG21	5:AE:138:ALA:HA	1.81	0.61
10:AJ:48:THR:HA	10:AJ:62:HIS:CB	2.29	0.61
11:AK:120:ARG:HH21	11:AK:126:ARG:HH21	1.49	0.61
23:BA:7:G:H2'	23:BA:8:A:H8	1.64	0.61
23:BA:639:U:H2'	23:BA:640:C:C6	2.35	0.61
25:BC:5:LYS:HD2	25:BC:5:LYS:N	2.14	0.61
27:BE:32:LEU:HD23	27:BE:32:LEU:C	2.26	0.61
27:BE:102:PRO:HB2	27:BE:105:VAL:HG23	1.81	0.61
35:BM:83:MET:O	35:BM:83:MET:HG3	1.98	0.61
38:BP:98:LYS:HB3	38:BP:100:TYR:CE1	2.36	0.61
2:CB:83:MET:HE2	2:CB:233:SER:HB2	1.82	0.61
4:CD:4:TYR:HE1	4:CD:11:LEU:HD11	1.65	0.61
23:DA:774:A:H2	23:DA:787:U:HO2'	1.47	0.61
23:DA:1408:C:C2	23:DA:1595:G:N2	2.69	0.61
23:DA:2294:C:H2'	23:DA:2295:C:H6	1.66	0.61
36:DN:17:ARG:HG3	36:DN:18:LEU:N	2.14	0.61
38:DP:41:ARG:HD2	38:DP:42:ILE:H	1.66	0.61
38:DP:50:ILE:HA	38:DP:99:LEU:HD11	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DU:76:CYS:HB3	43:DU:77:PRO:HD2	1.81	0.61
48:DZ:1:MET:SD	48:DZ:40:THR:HA	2.41	0.61
1:AA:114:U:H2'	1:AA:115:G:C8	2.36	0.61
1:AA:920:U:H2'	1:AA:921:U:C6	2.36	0.61
1:AA:932:C:OP1	7:AG:4:ARG:HG2	2.01	0.61
4:AD:4:TYR:HE1	4:AD:11:LEU:HD11	1.65	0.61
8:AH:64:LYS:HG2	8:AH:79:VAL:HG21	1.82	0.61
18:AR:26:LEU:HD13	18:AR:39:VAL:HG13	1.83	0.61
23:BA:860:U:C5	23:BA:917:A:N7	2.68	0.61
23:BA:996:A:C4'	39:BQ:92:ARG:HH12	2.12	0.61
23:BA:1678:G:N2	23:BA:1989:G:H22	1.98	0.61
25:BC:25:THR:HG22	25:BC:82:ILE:O	2.01	0.61
29:BG:55:PRO:HG2	29:BG:61:HIS:HD2	1.63	0.61
38:BP:41:ARG:HD2	38:BP:42:ILE:H	1.65	0.61
43:BU:7:VAL:HB	43:BU:8:LYS:HZ2	1.65	0.61
23:DA:780:G:H21	23:DA:783:A:N6	1.94	0.61
25:DC:44:ASN:HB3	25:DC:50:THR:HG21	1.82	0.61
36:DN:84:ALA:HB3	36:DN:85:PRO:HD3	1.83	0.61
41:DS:78:GLU:OE2	41:DS:99:ARG:HD3	2.00	0.61
42:DT:70:LEU:HD23	42:DT:71:GLY:N	2.13	0.61
47:DY:2:LYS:H	47:DY:2:LYS:HD2	1.65	0.61
50:D2:40:LYS:HE2	50:D2:46:CYS:HB3	1.81	0.61
23:BA:245:G:H2'	23:BA:246:C:H6	1.65	0.61
23:BA:1388:G:H2'	23:BA:1389:G:H8	1.64	0.61
23:BA:1408:C:C2	23:BA:1595:G:N2	2.68	0.61
23:BA:2787:C:H1'	26:BD:62:PRO:HG3	1.82	0.61
23:BA:2850:A:H5'	23:BA:2850:A:C8	2.36	0.61
41:BS:78:GLU:OE2	41:BS:99:ARG:HD3	2.00	0.61
45:BW:21:LEU:H	45:BW:21:LEU:HD12	1.66	0.61
46:BX:67:ILE:N	46:BX:68:PRO:HD2	2.15	0.61
1:CA:737:A:H2'	1:CA:738:C:C6	2.35	0.61
5:CE:101:ILE:HD11	5:CE:119:LEU:HD23	1.82	0.61
9:CI:69:GLY:O	9:CI:73:GLN:HG3	2.00	0.61
11:CK:29:ILE:HG22	11:CK:44:SER:HB3	1.82	0.61
23:DA:2562:U:H1'	33:DK:23:ARG:NH1	2.15	0.61
25:DC:267:SER:O	25:DC:270:ILE:HG13	2.01	0.61
26:DD:4:ILE:CG1	26:DD:28:ALA:HB1	2.31	0.61
28:DF:10:LYS:O	28:DF:14:GLU:HB3	2.00	0.61
34:DL:140:ALA:O	34:DL:141:ALA:HB2	2.00	0.61
36:DN:4:LEU:O	36:DN:4:LEU:HG	2.00	0.61
38:DP:98:LYS:HB3	38:DP:100:TYR:CE1	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.15	0.61
23:BA:1358:G:O2'	23:BA:1359:A:H5"	2.01	0.61
25:BC:31:LYS:O	25:BC:36:PRO:HD3	2.01	0.61
26:BD:32:PRO:HA	26:BD:90:THR:HG22	1.83	0.61
26:BD:51:PHE:CD1	26:BD:52:LEU:HG	2.36	0.61
26:BD:173:VAL:HG12	26:BD:174:ASP:H	1.65	0.61
32:BJ:62:ARG:NH2	32:BJ:64:ASP:HB2	2.15	0.61
34:BL:140:ALA:O	34:BL:141:ALA:HB2	2.00	0.61
42:BT:59:VAL:HB	42:BT:76:ARG:HG3	1.81	0.61
43:BU:90:LEU:HG	43:BU:91:GLU:N	2.16	0.61
48:BZ:17:LYS:C	48:BZ:17:LYS:HD3	2.26	0.61
1:CA:475:G:H2'	1:CA:476:G:H8	1.66	0.61
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.14	0.61
23:DA:1543:A:H5'	23:DA:1544:C:OP2	2.00	0.61
23:DA:1678:G:N2	23:DA:1989:G:H22	1.98	0.61
23:DA:2393:A:H5"	34:DL:62:LEU:HB3	1.83	0.61
25:DC:21:PHE:O	25:DC:24:ILE:HG22	2.01	0.61
25:DC:30:GLU:HG3	25:DC:63:ARG:HH21	1.64	0.61
32:DJ:62:ARG:NH2	32:DJ:64:ASP:HB2	2.16	0.61
34:DL:91:PHE:CE2	34:DL:95:VAL:HG12	2.35	0.61
2:AB:27:LYS:HG3	2:AB:194:PRO:HD2	1.81	0.61
8:AH:1:MET:HE2	8:AH:1:MET:N	2.16	0.61
12:AL:70:PRO:HD2	12:AL:101:ARG:HD3	1.82	0.61
19:AS:31:ILE:HG23	19:AS:49:ILE:HA	1.81	0.61
23:BA:38:A:H2'	23:BA:39:C:C6	2.35	0.61
23:BA:1542:G:H4'	23:BA:1543:A:O5'	2.01	0.61
41:BS:65:LEU:HB2	41:BS:68:ARG:HG2	1.82	0.61
1:CA:1152:A:OP1	10:CJ:68:HIS:CD2	2.54	0.61
11:CK:57:THR:HG22	11:CK:59:TYR:H	1.64	0.61
23:DA:674:G:H2'	23:DA:804:A:H61	1.66	0.61
23:DA:1021:A:O2'	23:DA:1123:C:H5"	2.01	0.61
23:DA:1429:G:H2'	23:DA:1430:C:H6	1.65	0.61
25:DC:25:THR:HG22	25:DC:82:ILE:O	2.00	0.61
25:DC:70:TRP:CZ2	25:DC:150:LYS:HA	2.36	0.61
41:DS:65:LEU:HB2	41:DS:68:ARG:HG2	1.83	0.61
43:DU:76:CYS:CB	43:DU:77:PRO:HD2	2.31	0.61
6:AF:37:VAL:HA	6:AF:65:VAL:HG12	1.82	0.61
19:AS:11:VAL:HG23	19:AS:38:SER:HB2	1.81	0.61
23:BA:65:C:H2'	23:BA:66:C:C6	2.35	0.61
23:BA:245:G:O6	53:B5:8:LYS:HE3	2.01	0.61
23:BA:1311:G:H8	23:BA:1311:G:C5'	2.12	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BH:126:TYR:H	30:BH:142:VAL:HB	1.65	0.61
36:BN:9:LYS:C	36:BN:10:LEU:HG	2.26	0.61
30:DH:83:ALA:HB3	30:DH:123:LEU:HD12	1.82	0.61
41:DS:29:LEU:HD22	41:DS:69:LEU:HD11	1.81	0.61
44:DV:58:VAL:HA	44:DV:67:LEU:O	2.01	0.61
47:DY:17:SER:HB3	47:DY:18:PRO:CD	2.30	0.61
23:BA:1437:C:H2'	23:BA:1438:U:C6	2.36	0.60
23:BA:1543:A:H5'	23:BA:1544:C:OP2	2.00	0.60
23:BA:2039:C:H2'	23:BA:2040:C:C6	2.35	0.60
23:BA:2078:C:H2'	23:BA:2079:U:C6	2.36	0.60
25:BC:69:ARG:HH21	25:BC:130:ALA:HB2	1.62	0.60
28:BF:36:LYS:HB3	28:BF:160:VAL:HB	1.83	0.60
46:BX:27:GLU:CB	46:BX:33:LYS:HA	2.31	0.60
53:B5:57:ARG:HB2	53:B5:57:ARG:HH11	1.66	0.60
1:CA:754:C:H3'	1:CA:754:C:O2	2.00	0.60
1:CA:1104:G:H4'	2:CB:111:ARG:NH1	2.15	0.60
4:CD:63:LYS:HD2	4:CD:198:VAL:HG22	1.83	0.60
23:DA:185:U:H2'	23:DA:186:G:H8	1.63	0.60
23:DA:2075:U:H2'	23:DA:2238:G:H22	1.64	0.60
23:DA:2186:G:H2'	23:DA:2187:G:H8	1.65	0.60
1:AA:735:C:H2'	1:AA:736:C:H6	1.66	0.60
1:AA:1220:G:H21	19:AS:54:GLY:CA	2.14	0.60
2:AB:83:MET:HE2	2:AB:233:SER:HB2	1.83	0.60
2:AB:87:ARG:O	2:AB:87:ARG:HD2	2.01	0.60
2:AB:97:TRP:HH2	2:AB:176:GLU:CD	2.09	0.60
3:AC:66:VAL:HB	3:AC:101:LEU:HD23	1.84	0.60
3:AC:77:ILE:C	3:AC:83:ARG:HB3	2.25	0.60
4:AD:63:LYS:HD2	4:AD:198:VAL:HG22	1.83	0.60
23:BA:1309:G:H3'	52:B4:9:ARG:HH12	1.65	0.60
23:BA:1478:G:O2'	23:BA:1558:A:H2	1.84	0.60
29:BG:68:THR:O	29:BG:72:ILE:HG12	2.01	0.60
33:BK:7:TYR:HE1	33:BK:20:MET:HE3	1.66	0.60
34:BL:33:ARG:O	34:BL:34:GLY:C	2.44	0.60
36:BN:84:ALA:HB3	36:BN:85:PRO:HD3	1.83	0.60
46:BX:31:GLY:O	46:BX:32:LYS:HB2	2.01	0.60
8:CH:1:MET:HE2	8:CH:1:MET:N	2.16	0.60
23:DA:242:G:C8	53:D5:5:LYS:HG2	2.35	0.60
23:DA:1587:A:H2'	23:DA:1588:C:C6	2.37	0.60
27:DE:164:ARG:HG3	27:DE:175:THR:OG1	2.00	0.60
27:DE:199:TRP:O	27:DE:203:GLN:HG2	2.00	0.60
32:DJ:80:ALA:O	32:DJ:83:ILE:HG13	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DM:30:GLY:HA2	35:DM:107:ALA:HB2	1.83	0.60
1:AA:7:G:H21	5:AE:121:LYS:HE2	1.67	0.60
1:AA:475:G:H2'	1:AA:476:G:H8	1.65	0.60
1:AA:922:G:H2'	1:AA:923:A:H8	1.64	0.60
14:AN:32:SER:HB3	14:AN:41:ARG:HG2	1.84	0.60
23:BA:747:U:OP2	50:B2:3:LYS:HD3	2.00	0.60
23:BA:2074:U:H2'	23:BA:2075:U:C6	2.36	0.60
25:BC:61:LEU:O	25:BC:63:ARG:NH1	2.34	0.60
35:BM:6:ARG:O	35:BM:7:MET:HB2	2.00	0.60
36:BN:4:LEU:HG	36:BN:4:LEU:O	2.01	0.60
36:BN:10:LEU:CB	36:BN:17:ARG:HE	2.13	0.60
43:BU:76:CYS:HB3	43:BU:77:PRO:HD2	1.83	0.60
53:B5:22:VAL:HB	53:B5:54:GLU:CG	2.31	0.60
1:CA:33:A:H2'	1:CA:34:C:C6	2.36	0.60
3:CC:77:ILE:C	3:CC:83:ARG:HB3	2.26	0.60
19:CS:6:LYS:HD3	19:CS:7:LYS:HE2	1.83	0.60
23:DA:85:G:H8	23:DA:85:G:H5"	1.65	0.60
23:DA:214:G:H1'	23:DA:216:A:O2'	2.00	0.60
23:DA:795:C:H2'	23:DA:796:C:H6	1.65	0.60
23:DA:996:A:C4'	39:DQ:92:ARG:HH12	2.13	0.60
23:DA:1953:A:H2	23:DA:2549:G:N3	1.98	0.60
30:DH:90:GLY:O	30:DH:91:SER:HB2	2.00	0.60
34:DL:33:ARG:O	34:DL:34:GLY:C	2.44	0.60
7:AG:46:ALA:O	7:AG:50:ILE:HG12	2.02	0.60
13:AM:27:LYS:HG3	13:AM:31:LYS:HE3	1.83	0.60
23:BA:85:G:H5"	23:BA:85:G:H8	1.66	0.60
23:BA:2893:G:H5"	23:BA:2894:G:O4'	2.02	0.60
42:BT:63:LYS:HZ2	42:BT:72:LYS:HB3	1.66	0.60
46:BX:19:GLN:HG2	46:BX:41:ARG:HB2	1.83	0.60
1:CA:1528:U:H6	1:CA:1528:U:H5"	1.66	0.60
5:CE:47:LYS:HD3	5:CE:47:LYS:N	2.16	0.60
10:CJ:24:VAL:HG21	10:CJ:37:PRO:HD3	1.82	0.60
23:DA:510:C:H2'	23:DA:511:U:O4'	2.00	0.60
23:DA:2850:A:H5'	23:DA:2850:A:C8	2.36	0.60
33:DK:3:GLN:CB	33:DK:4:PRO:HD2	2.27	0.60
36:DN:9:LYS:C	36:DN:10:LEU:HG	2.26	0.60
42:DT:8:ILE:H	42:DT:8:ILE:HD12	1.64	0.60
53:D5:22:VAL:HB	53:D5:54:GLU:CG	2.31	0.60
1:AA:299:G:H2'	1:AA:300:A:C8	2.36	0.60
2:AB:178:ARG:HE	8:AH:74:PRO:HD3	1.66	0.60
5:AE:48:ALA:HB2	5:AE:57:LYS:HD3	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BC:34:VAL:O	25:BC:35:LYS:HD3	2.01	0.60
42:BT:8:ILE:HD12	42:BT:8:ILE:N	2.16	0.60
46:BX:83:GLU:HG2	46:BX:84:GLY:N	2.17	0.60
1:CA:505:G:H2'	1:CA:506:G:H8	1.66	0.60
1:CA:920:U:H2'	1:CA:921:U:C6	2.36	0.60
2:CB:87:ARG:HD2	2:CB:87:ARG:O	2.02	0.60
18:CR:26:LEU:HD13	18:CR:39:VAL:HG13	1.83	0.60
23:DA:2653:U:H3	23:DA:2667:C:H42	1.50	0.60
25:DC:34:VAL:O	25:DC:35:LYS:HD3	2.01	0.60
26:DD:51:PHE:CD1	26:DD:52:LEU:HG	2.36	0.60
46:DX:73:LEU:HD21	46:DX:94:LEU:HG	1.83	0.60
1:AA:1014:A:C2	1:AA:1219:U:H1'	2.37	0.60
1:AA:1106:G:H5"	3:AC:172:ARG:HG2	1.83	0.60
1:AA:1346:A:H5'	9:AI:120:ARG:NH1	2.16	0.60
9:AI:79:LEU:HD23	9:AI:101:PHE:O	2.00	0.60
10:AJ:24:VAL:HG21	10:AJ:37:PRO:HD3	1.83	0.60
23:BA:558:G:OP1	32:BJ:134:PRO:HD2	2.00	0.60
23:BA:795:C:H2'	23:BA:796:C:H6	1.66	0.60
23:BA:2439:A:C8	23:BA:2439:A:C5'	2.84	0.60
28:BF:10:LYS:O	28:BF:14:GLU:HB3	2.00	0.60
28:BF:114:ILE:HG23	28:BF:115:ARG:HD2	1.84	0.60
32:BJ:117:HIS:CE1	32:BJ:120:ARG:HE	2.19	0.60
34:BL:38:GLN:HG3	34:BL:39:LYS:H	1.66	0.60
36:BN:11:ASN:OD1	36:BN:12:ARG:N	2.30	0.60
44:BV:24:LEU:HD21	44:BV:86:VAL:HG21	1.82	0.60
1:CA:1014:A:C2	1:CA:1219:U:H1'	2.37	0.60
11:CK:29:ILE:HG22	11:CK:44:SER:CB	2.31	0.60
15:CO:5:LYS:HD3	15:CO:5:LYS:H	1.66	0.60
23:DA:83:G:H22	23:DA:102:G:H2'	1.65	0.60
23:DA:342:G:H2'	23:DA:343:C:H5"	1.82	0.60
26:DD:32:PRO:HA	26:DD:90:THR:HG22	1.83	0.60
34:DL:57:THR:HG23	34:DL:59:LEU:CB	2.31	0.60
1:AA:1152:A:OP1	10:AJ:68:HIS:HD2	1.85	0.60
5:AE:101:ILE:HD11	5:AE:119:LEU:HD23	1.83	0.60
19:AS:5:LEU:HD12	19:AS:8:GLY:O	2.02	0.60
23:BA:153:C:OP1	46:BX:92:LYS:HE2	2.02	0.60
26:BD:132:HIS:HA	26:BD:135:HIS:NE2	2.15	0.60
27:BE:164:ARG:HG3	27:BE:175:THR:OG1	2.02	0.60
1:CA:1223:C:C5'	1:CA:1224:G:H5"	2.30	0.60
7:CG:26:PHE:O	7:CG:30:ILE:HG12	2.01	0.60
10:CJ:6:ILE:HG12	10:CJ:72:VAL:O	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:62:ILE:HA	19:CS:66:MET:SD	2.41	0.60
23:DA:955:C:OP1	35:DM:85:LYS:HE2	2.00	0.60
23:DA:1156:A:H4'	23:DA:1157:G:OP2	2.02	0.60
23:DA:1568:G:P	25:DC:63:ARG:HH22	2.24	0.60
46:DX:31:GLY:O	46:DX:32:LYS:HB2	2.01	0.60
46:DX:67:ILE:N	46:DX:68:PRO:HD2	2.15	0.60
23:BA:414:C:H2'	23:BA:415:A:C8	2.37	0.60
25:BC:28:GLU:HB3	25:BC:29:PRO:HD3	1.84	0.60
33:BK:53:LYS:N	33:BK:53:LYS:HD2	2.17	0.60
1:CA:328:C:H4'	1:CA:329:A:C5'	2.31	0.60
12:CL:54:VAL:HG12	12:CL:55:ALA:H	1.65	0.60
23:DA:273(G):C:H2'	23:DA:274:G:H5"	1.84	0.60
18:AR:58:LEU:HB3	18:AR:62:GLU:HB2	1.83	0.60
23:BA:1429:G:H2'	23:BA:1430:C:H6	1.66	0.60
23:BA:2776:A:H4'	23:BA:2777:G:H5"	1.83	0.60
34:BL:71:VAL:HB	34:BL:72:PRO:HD3	1.84	0.60
41:BS:40:ASN:O	41:BS:41:LYS:HG2	2.02	0.60
43:BU:8:LYS:H	43:BU:8:LYS:NZ	1.95	0.60
46:BX:19:GLN:NE2	46:BX:41:ARG:HE	1.98	0.60
48:BZ:1:MET:SD	48:BZ:40:THR:HA	2.42	0.60
1:CA:299:G:H2'	1:CA:300:A:C8	2.36	0.60
12:CL:41:THR:OG1	12:CL:51:LEU:HB3	2.02	0.60
18:CR:58:LEU:HB3	18:CR:62:GLU:HB2	1.83	0.60
23:DA:153:C:OP1	46:DX:92:LYS:HE2	2.02	0.60
23:DA:839:U:H2'	23:DA:840:C:C6	2.37	0.60
23:DA:2893:G:H5"	23:DA:2894:G:O4'	2.02	0.60
34:DL:38:GLN:HG3	34:DL:39:LYS:H	1.66	0.60
35:DM:76:LYS:N	35:DM:88:GLY:HA2	2.17	0.60
36:DN:11:ASN:OD1	36:DN:12:ARG:N	2.32	0.60
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.37	0.60
1:AA:1512:U:H2'	1:AA:1513:A:H8	1.65	0.60
31:BI:4:LYS:HG2	31:BI:8:GLU:HG3	1.84	0.60
35:BM:30:GLY:HA2	35:BM:107:ALA:HB2	1.83	0.60
37:BO:24:LEU:HD13	37:BO:82:ILE:HG23	1.82	0.60
41:BS:1:MET:HA	41:BS:1:MET:HE3	1.84	0.60
46:BX:27:GLU:CD	46:BX:33:LYS:HE3	2.27	0.60
9:CI:97:LYS:HB3	9:CI:98:PRO:HD3	1.84	0.60
23:DA:1603:A:H5'	23:DA:1603:A:C8	2.37	0.60
23:DA:1980:G:H3'	23:DA:1981:A:H5"	1.84	0.60
25:DC:28:GLU:HB3	25:DC:29:PRO:HD3	1.83	0.60
35:DM:45:GLN:CD	35:DM:45:GLN:H	2.10	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:186(B):C:O2'	20:AT:89:ARG:HD2	2.02	0.59
1:AA:841:U:O2'	1:AA:842:C:H5"	2.02	0.59
2:AB:95:GLN:HG3	2:AB:147:LYS:O	2.01	0.59
19:AS:44:MET:HA	19:AS:44:MET:HE3	1.83	0.59
23:BA:295:G:H4'	43:BU:2:ARG:NH1	2.16	0.59
23:BA:760:G:C2'	23:BA:761:A:H5'	2.31	0.59
23:BA:1803:A:H5"	23:BA:1804:C:OP2	2.01	0.59
23:BA:2038:G:H2'	23:BA:2039:C:C6	2.36	0.59
23:BA:2243:U:H2'	23:BA:2244:U:C6	2.37	0.59
30:BH:113:ARG:HB2	30:BH:130:TYR:CE1	2.37	0.59
33:BK:3:GLN:CB	33:BK:4:PRO:HD2	2.29	0.59
35:BM:38:GLU:O	35:BM:127:ILE:HD13	2.02	0.59
35:BM:76:LYS:N	35:BM:88:GLY:HA2	2.17	0.59
41:BS:29:LEU:HD22	41:BS:69:LEU:HD11	1.83	0.59
1:CA:735:C:H2'	1:CA:736:C:H6	1.67	0.59
2:CB:97:TRP:HH2	2:CB:176:GLU:CD	2.09	0.59
23:DA:426:C:H2'	23:DA:427:U:H6	1.67	0.59
23:DA:656:G:H2'	23:DA:657:U:O4'	2.02	0.59
28:DF:83:ARG:HG3	28:DF:84:LYS:N	2.16	0.59
35:DM:112:GLU:CD	35:DM:112:GLU:H	2.10	0.59
46:DX:19:GLN:NE2	46:DX:41:ARG:HE	2.00	0.59
1:AA:505:G:H2'	1:AA:506:G:H8	1.65	0.59
12:AL:35:VAL:HG12	12:AL:36:CYS:O	2.01	0.59
23:BA:2307:G:H2'	23:BA:2308:G:H5'	1.82	0.59
23:BA:2593:U:H2'	23:BA:2594:C:C6	2.37	0.59
24:BB:70:C:H2'	24:BB:71:C:H6	1.68	0.59
27:BE:170:LEU:HD12	27:BE:171:PRO:HD2	1.84	0.59
42:BT:47:PHE:HB3	42:BT:89:ILE:HD12	1.84	0.59
44:BV:69:THR:HG22	44:BV:90:VAL:HG22	1.84	0.59
2:CB:25:ASN:HD22	2:CB:25:ASN:N	1.99	0.59
2:CB:93:VAL:HG21	2:CB:101:MET:HE1	1.84	0.59
23:DA:476:G:H4'	23:DA:502:A:N1	2.17	0.59
23:DA:1046:A:H1'	31:DI:4:LYS:HD3	1.83	0.59
23:DA:2038:G:H2'	23:DA:2039:C:C6	2.36	0.59
25:DC:221:VAL:HG13	25:DC:226:MET:HE2	1.84	0.59
33:DK:53:LYS:HD2	33:DK:53:LYS:N	2.17	0.59
1:AA:328:C:H4'	1:AA:329:A:C5'	2.30	0.59
1:AA:1187:G:H5'	9:AI:113:LYS:HE2	1.83	0.59
11:AK:29:ILE:HG22	11:AK:44:SER:CB	2.31	0.59
23:BA:826:U:O2	23:BA:832:G:C2	2.56	0.59
23:BA:835:A:OP1	53:B5:52:LYS:HG2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BB:13:A:H5'	45:BW:74:ARG:NH2	2.16	0.59
26:BD:9:VAL:HG22	26:BD:25:VAL:HB	1.84	0.59
43:BU:76:CYS:CB	43:BU:77:PRO:HD2	2.32	0.59
52:B4:21:ARG:HB3	52:B4:31:LEU:HD21	1.84	0.59
1:CA:324:G:OP1	20:CT:70:SER:HB2	2.02	0.59
1:CA:1064:G:N2	1:CA:1190:G:H2'	2.18	0.59
1:CA:1498:U:H1'	1:CA:1499:A:N7	2.17	0.59
7:CG:46:ALA:O	7:CG:50:ILE:HG12	2.02	0.59
8:CH:1:MET:HE2	8:CH:1:MET:H3	1.67	0.59
13:CM:75:ALA:O	13:CM:79:LYS:HG3	2.02	0.59
19:CS:44:MET:HE3	19:CS:44:MET:HA	1.83	0.59
23:DA:1264:G:OP1	50:D2:19:ARG:NH2	2.34	0.59
23:DA:1540:G:H2'	23:DA:1541:U:O4'	2.02	0.59
23:DA:2074:U:H2'	23:DA:2075:U:C6	2.38	0.59
25:DC:108:PRO:HG3	25:DC:143:HIS:CE1	2.37	0.59
26:DD:50:GLY:HA3	26:DD:75:VAL:HG11	1.83	0.59
1:AA:1104:G:H4'	2:AB:111:ARG:NH1	2.17	0.59
3:AC:15:THR:HG21	3:AC:181:ASN:HA	1.83	0.59
17:AQ:64:PRO:HA	17:AQ:70:ARG:HG3	1.83	0.59
23:BA:342:G:H2'	23:BA:343:C:H5"	1.84	0.59
25:BC:267:SER:O	25:BC:270:ILE:HG13	2.02	0.59
33:BK:104:ARG:HB3	33:BK:104:ARG:NH1	2.18	0.59
35:BM:75:THR:HG21	35:BM:85:LYS:HZ2	1.66	0.59
1:CA:304:U:H2'	1:CA:305:G:C8	2.37	0.59
1:CA:692:U:H5	11:CK:26:ASN:ND2	1.99	0.59
1:CA:805:C:H2'	1:CA:806:C:H6	1.67	0.59
1:CA:1111:A:H8	1:CA:1111:A:O5'	1.85	0.59
3:CC:15:THR:HG21	3:CC:181:ASN:HA	1.84	0.59
3:CC:112:SER:O	3:CC:116:VAL:HG23	2.02	0.59
12:CL:35:VAL:HG12	12:CL:36:CYS:O	2.01	0.59
14:CN:32:SER:HB3	14:CN:41:ARG:HG2	1.83	0.59
23:DA:185:U:H4'	23:DA:218:A:H4'	1.83	0.59
23:DA:942:G:H5'	34:DL:35:HIS:HB2	1.85	0.59
23:DA:2712:U:H1'	23:DA:712(B):A:H8	1.66	0.59
32:DJ:117:HIS:CE1	32:DJ:120:ARG:HE	2.19	0.59
47:DY:13:ALA:O	47:DY:17:SER:HA	2.02	0.59
52:D4:21:ARG:HB3	52:D4:31:LEU:HD21	1.83	0.59
1:AA:737:A:H2'	1:AA:738:C:C6	2.38	0.59
1:AA:1296:C:H5"	13:AM:44:ARG:HH22	1.68	0.59
2:AB:158:LEU:H	2:AB:158:LEU:HD12	1.68	0.59
10:AJ:32:ALA:H	10:AJ:78:ASN:ND2	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:6:LYS:HD3	19:AS:7:LYS:HE2	1.83	0.59
23:BA:185:U:H2'	23:BA:186:G:H8	1.67	0.59
23:BA:661:C:O3'	34:BL:18:ARG:HG2	2.02	0.59
23:BA:839:U:H2'	23:BA:840:C:C6	2.37	0.59
25:BC:44:ASN:HB3	25:BC:50:THR:HG21	1.84	0.59
26:BD:50:GLY:HA3	26:BD:75:VAL:HG11	1.84	0.59
34:BL:91:PHE:CE2	34:BL:95:VAL:HG12	2.37	0.59
46:BX:19:GLN:HE21	46:BX:41:ARG:HE	1.47	0.59
1:CA:464:G:O6	1:CA:466:G:H5"	2.02	0.59
13:CM:49:THR:HG22	13:CM:51:ALA:H	1.67	0.59
23:DA:1291:C:H2'	23:DA:1292:U:C6	2.37	0.59
23:DA:2577:A:H5"	23:DA:2578:G:H5'	1.82	0.59
24:DB:87:G:H21	24:DB:89(B):A:H62	1.51	0.59
25:DC:35:LYS:HE3	25:DC:104:TYR:CD2	2.37	0.59
26:DD:173:VAL:HG12	26:DD:174:ASP:H	1.66	0.59
32:DJ:39:ILE:HG22	32:DJ:40:ASP:O	2.03	0.59
34:DL:57:THR:HG23	34:DL:59:LEU:HB2	1.85	0.59
35:DM:141:GLN:HG2	44:DV:72:ARG:HA	1.84	0.59
36:DN:18:LEU:HD11	36:DN:22:ARG:CZ	2.32	0.59
40:DR:12:TYR:OH	40:DR:22:VAL:HG13	2.02	0.59
42:DT:12:VAL:HG12	42:DT:28:PHE:HA	1.84	0.59
53:D5:57:ARG:HB2	53:D5:57:ARG:HH11	1.66	0.59
1:AA:1097:C:H2'	1:AA:1098:C:C6	2.37	0.59
1:AA:1528:U:H5"	1:AA:1528:U:H6	1.67	0.59
5:AE:47:LYS:HD3	5:AE:47:LYS:N	2.17	0.59
7:AG:26:PHE:O	7:AG:30:ILE:HG12	2.02	0.59
10:AJ:54:PHE:CD2	10:AJ:55:LYS:HG3	2.38	0.59
15:AO:5:LYS:HD3	15:AO:5:LYS:H	1.67	0.59
23:BA:330:A:H2	23:BA:1210:A:H2'	1.68	0.59
23:BA:442:G:H1'	27:BE:48:THR:HG21	1.85	0.59
23:BA:1264:G:OP1	50:B2:19:ARG:NH2	2.33	0.59
23:BA:2476:A:H2'	23:BA:2476:A:N3	2.17	0.59
32:BJ:80:ALA:O	32:BJ:83:ILE:HG13	2.01	0.59
7:CG:102:ARG:HG2	7:CG:106:GLN:NE2	2.17	0.59
23:DA:779:U:OP1	25:DC:49:ILE:HG13	2.02	0.59
23:DA:1358:G:O2'	23:DA:1359:A:H5"	2.01	0.59
24:DB:13:A:H5'	45:DW:74:ARG:NH2	2.18	0.59
30:DH:92:VAL:HG21	30:DH:97:ILE:HD11	1.84	0.59
32:DJ:119:GLU:O	32:DJ:123:GLU:HG3	2.02	0.59
47:DY:38:GLN:HB3	47:DY:44:LEU:HB3	1.84	0.59
1:AA:33:A:H2'	1:AA:34:C:C6	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:429:U:H1'	1:AA:430:A:H5"	1.85	0.59
23:BA:83:G:H22	23:BA:102:G:H2'	1.65	0.59
23:BA:779:U:H5'	25:BC:49:ILE:HD11	1.85	0.59
23:BA:1794:U:H2'	23:BA:1795:C:C6	2.37	0.59
23:BA:2392:A:OP1	53:B5:32:LEU:HB3	2.02	0.59
23:BA:2496:C:OP1	35:BM:81:VAL:HG13	2.03	0.59
40:BR:38:LEU:HD23	40:BR:39:LEU:N	2.17	0.59
47:BY:13:ALA:O	47:BY:17:SER:HA	2.03	0.59
1:CA:190:G:H4'	1:CA:191(A):G:OP2	2.00	0.59
1:CA:828:A:H2'	1:CA:829:G:O4'	2.02	0.59
1:CA:841:U:O2'	1:CA:842:C:H5"	2.03	0.59
1:CA:946:A:H2'	1:CA:947:G:H8	1.66	0.59
11:CK:120:ARG:HH21	11:CK:126:ARG:HH21	1.49	0.59
12:CL:70:PRO:HD2	12:CL:101:ARG:HD3	1.82	0.59
23:DA:295:G:H4'	43:DU:2:ARG:NH1	2.17	0.59
23:DA:1993:U:H4'	26:DD:128:SER:HB3	1.83	0.59
25:DC:30:GLU:CG	25:DC:63:ARG:HH21	2.16	0.59
26:DD:36:ARG:HH12	26:DD:86:PRO:HD2	1.68	0.59
27:DE:181:LEU:HD22	27:DE:186:ILE:HD11	1.85	0.59
39:DQ:50:ARG:NH2	40:DR:72:VAL:HG12	2.17	0.59
11:AK:57:THR:HG22	11:AK:59:TYR:H	1.68	0.59
13:AM:49:THR:HG22	13:AM:51:ALA:H	1.66	0.59
23:BA:426:C:H2'	23:BA:427:U:H6	1.68	0.59
23:BA:814:C:C5	34:BL:27:HIS:NE2	2.71	0.59
23:BA:2346:A:H5"	23:BA:2383:G:H1'	1.84	0.59
27:BE:178:PRO:HB3	27:BE:201:VAL:HG11	1.83	0.59
32:BJ:113:MET:HA	32:BJ:113:MET:HE2	1.85	0.59
39:BQ:50:ARG:NH2	40:BR:72:VAL:HG12	2.17	0.59
40:BR:12:TYR:OH	40:BR:22:VAL:HG13	2.02	0.59
52:B4:8:ASN:HD21	52:B4:11:LYS:H	1.51	0.59
1:CA:57:G:H2'	1:CA:58:C:C6	2.38	0.59
1:CA:114:U:H2'	1:CA:115:G:C8	2.37	0.59
1:CA:552:U:O2	12:CL:30:PRO:HB3	2.03	0.59
2:CB:95:GLN:HG3	2:CB:147:LYS:O	2.03	0.59
19:CS:63:THR:HG22	19:CS:66:MET:HG2	1.83	0.59
23:DA:1311:G:H8	23:DA:1311:G:C5'	2.13	0.59
23:DA:1566:A:O2'	23:DA:1567:A:H5'	2.03	0.59
23:DA:2815:C:O2'	50:D2:43:HIS:HD2	1.86	0.59
27:DE:32:LEU:HD23	27:DE:32:LEU:C	2.28	0.59
28:DF:60:LEU:HD11	28:DF:92:VAL:CG1	2.31	0.59
43:DU:13:VAL:HG11	43:DU:72:VAL:HB	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DY:38:GLN:O	47:DY:41:ILE:HG12	2.03	0.59
3:AC:91:LEU:HD13	3:AC:99:VAL:HB	1.84	0.59
7:AG:102:ARG:HG2	7:AG:106:GLN:NE2	2.17	0.59
23:BA:1188:U:O2'	23:BA:1189:A:H5'	2.03	0.59
23:BA:2563:U:O2	23:BA:2565:A:H8	1.85	0.59
30:BH:113:ARG:HB2	30:BH:130:TYR:CZ	2.38	0.59
34:BL:57:THR:HG23	34:BL:59:LEU:CB	2.33	0.59
38:BP:132:LYS:O	38:BP:136:GLN:HG3	2.03	0.59
39:BQ:36:ARG:HG2	39:BQ:40:PHE:CE1	2.38	0.59
40:BR:38:LEU:O	40:BR:39:LEU:HD13	2.03	0.59
42:BT:12:VAL:HG12	42:BT:28:PHE:HA	1.85	0.59
43:BU:13:VAL:HG11	43:BU:72:VAL:HB	1.84	0.59
46:BX:58:ILE:HD11	46:BX:91:LYS:HG2	1.84	0.59
49:B1:50:THR:HG22	49:B1:51:TYR:N	2.15	0.59
2:CB:158:LEU:HD12	2:CB:158:LEU:H	1.66	0.59
3:CC:66:VAL:HB	3:CC:101:LEU:HD23	1.84	0.59
13:CM:14:ARG:CZ	13:CM:42:ALA:HA	2.32	0.59
23:DA:674:G:C1'	27:DE:74:ARG:HD3	2.33	0.59
23:DA:784:A:C5	25:DC:229:VAL:HG21	2.37	0.59
23:DA:826:U:O2	23:DA:832:G:C2	2.56	0.59
23:DA:2468:G:H22	23:DA:2481:G:H2'	1.67	0.59
27:DE:150:GLY:HA2	27:DE:172:TRP:CE3	2.37	0.59
33:DK:96:THR:O	33:DK:97:ARG:C	2.46	0.59
1:AA:464:G:O6	1:AA:466:G:H5"	2.03	0.59
1:AA:1111:A:H8	1:AA:1111:A:O5'	1.86	0.59
1:AA:1391:U:H2'	1:AA:1392:G:H8	1.67	0.59
2:AB:93:VAL:HG21	2:AB:101:MET:HE1	1.85	0.59
10:AJ:6:ILE:HG12	10:AJ:72:VAL:O	2.02	0.59
12:AL:35:VAL:HG22	12:AL:81:VAL:HG13	1.84	0.59
25:BC:95:LEU:HD12	25:BC:95:LEU:O	2.03	0.59
27:BE:80:ALA:O	27:BE:83:PHE:HB2	2.02	0.59
43:BU:59:GLY:C	43:BU:61:ILE:H	2.10	0.59
44:BV:58:VAL:HA	44:BV:67:LEU:O	2.01	0.59
3:CC:91:LEU:HD13	3:CC:99:VAL:HB	1.84	0.59
23:DA:2607:G:H2'	23:DA:2608:G:O4'	2.03	0.59
44:DV:14:LYS:HB2	44:DV:17:ALA:HB3	1.85	0.59
45:DW:21:LEU:H	45:DW:21:LEU:HD12	1.68	0.59
47:DY:2:LYS:HD2	47:DY:2:LYS:N	2.18	0.59
49:D1:50:THR:HG22	49:D1:51:TYR:N	2.15	0.59
2:AB:118:LEU:HD13	2:AB:142:LEU:HA	1.84	0.58
26:BD:33:VAL:HG12	26:BD:89:ASP:O	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BE:150:GLY:HA2	27:BE:172:TRP:CE3	2.38	0.58
37:BO:52:SER:HB2	37:BO:56:LEU:HB2	1.85	0.58
40:BR:28:GLU:HB2	40:BR:31:ALA:HB2	1.85	0.58
51:B3:11:LEU:HD13	51:B3:12:GLU:N	2.18	0.58
23:DA:760:G:C2'	23:DA:761:A:H5'	2.32	0.58
23:DA:835:A:OP1	53:D5:52:LYS:HG2	2.03	0.58
33:DK:122:LEU:HD13	38:DP:72:VAL:HG11	1.83	0.58
38:DP:20:PRO:HD2	38:DP:86:ILE:HG23	1.84	0.58
38:DP:132:LYS:O	38:DP:136:GLN:HG3	2.02	0.58
42:DT:47:PHE:HB3	42:DT:89:ILE:HD12	1.83	0.58
46:DX:37:ILE:CG2	46:DX:38:SER:N	2.66	0.58
47:DY:24:LEU:HD22	47:DY:60:LEU:HD13	1.86	0.58
52:D4:34:ARG:HD2	52:D4:39:ARG:HG3	1.85	0.58
1:AA:687:A:H4'	1:AA:688:G:O5'	2.04	0.58
4:AD:8:VAL:HB	4:AD:21:LEU:HD22	1.84	0.58
4:AD:108:LEU:HD21	4:AD:183:GLY:HA3	1.84	0.58
7:AG:115:ARG:O	7:AG:118:VAL:HG22	2.02	0.58
23:BA:1331:A:O2'	23:BA:1332:G:H8	1.86	0.58
44:BV:14:LYS:HB2	44:BV:17:ALA:HB3	1.85	0.58
1:CA:1502:A:H5'	1:CA:1504:G:N7	2.18	0.58
4:CD:12:CYS:SG	4:CD:19:LEU:HB2	2.43	0.58
23:DA:414:C:H2'	23:DA:415:A:C8	2.38	0.58
1:AA:1064:G:N2	1:AA:1190:G:H2'	2.17	0.58
1:AA:1498:U:H1'	1:AA:1499:A:N7	2.18	0.58
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.67	0.58
3:AC:89:GLU:O	3:AC:93:LYS:HB2	2.03	0.58
15:AO:56:LEU:HD21	23:BA:715:G:C2	2.38	0.58
23:BA:71:A:C2	42:BT:31:HIS:HE1	2.21	0.58
23:BA:603:A:H61	23:BA:655:A:H1'	1.68	0.58
26:BD:132:HIS:CG	26:BD:135:HIS:NE2	2.72	0.58
30:BH:53:ALA:O	30:BH:57:ARG:HB2	2.04	0.58
53:B5:37:SER:OG	53:B5:40:GLU:HG2	2.03	0.58
1:CA:892:A:H2'	1:CA:893:C:C6	2.38	0.58
4:CD:108:LEU:HD21	4:CD:183:GLY:HA3	1.85	0.58
13:CM:27:LYS:HG3	13:CM:31:LYS:HE3	1.84	0.58
23:DA:1434:A:H2'	23:DA:1435:G:H8	1.68	0.58
23:DA:1478:G:O2'	23:DA:1558:A:H2	1.86	0.58
23:DA:2776:A:H4'	23:DA:2777:G:H5"	1.84	0.58
26:DD:1:MET:HB3	26:DD:83:ASP:O	2.02	0.58
29:DG:13:LYS:HE2	29:DG:14:GLY:H	1.66	0.58
40:DR:38:LEU:HD23	40:DR:39:LEU:N	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DZ:8:LEU:HB2	48:DZ:28:LEU:HD23	1.85	0.58
48:DZ:17:LYS:HD3	48:DZ:17:LYS:C	2.28	0.58
6:AF:35:ALA:HA	6:AF:67:MET:HB3	1.85	0.58
15:AO:53:HIS:CE1	23:BA:715:G:O6	2.57	0.58
23:BA:7:G:H2'	23:BA:8:A:C8	2.37	0.58
23:BA:784:A:C5	25:BC:229:VAL:HG21	2.38	0.58
25:BC:30:GLU:CG	25:BC:63:ARG:HH21	2.16	0.58
25:BC:70:TRP:CZ2	25:BC:150:LYS:HA	2.38	0.58
26:BD:36:ARG:HH12	26:BD:86:PRO:HD2	1.68	0.58
34:BL:32:THR:OG1	34:BL:36:LYS:HB3	2.04	0.58
35:BM:45:GLN:H	35:BM:45:GLN:CD	2.10	0.58
35:BM:141:GLN:HG2	44:BV:72:ARG:HA	1.84	0.58
38:BP:20:PRO:HD2	38:BP:86:ILE:HG23	1.85	0.58
4:CD:8:VAL:HB	4:CD:21:LEU:HD22	1.84	0.58
10:CJ:54:PHE:CD2	10:CJ:55:LYS:HG3	2.38	0.58
23:DA:603:A:H61	23:DA:655:A:H1'	1.68	0.58
23:DA:2476:A:N3	23:DA:2476:A:H2'	2.17	0.58
25:DC:8:PRO:HB3	25:DC:14:ARG:CB	2.33	0.58
1:AA:304:U:H2'	1:AA:305:G:C8	2.39	0.58
20:AT:90:GLN:O	20:AT:93:GLU:HB3	2.03	0.58
23:BA:278:A:H4'	23:BA:279:C:OP1	2.04	0.58
23:BA:476:G:H4'	23:BA:502:A:N1	2.19	0.58
23:BA:942:G:H5'	34:BL:35:HIS:HB2	1.86	0.58
23:BA:1657:C:H2'	23:BA:1658:C:C6	2.38	0.58
23:BA:1966:A:H4'	23:BA:1967:C:OP1	2.02	0.58
26:BD:92:THR:O	26:BD:95:ILE:HG13	2.03	0.58
27:BE:164:ARG:O	27:BE:168:ARG:HB2	2.03	0.58
32:BJ:119:GLU:O	32:BJ:123:GLU:HG3	2.04	0.58
33:BK:96:THR:O	33:BK:97:ARG:C	2.47	0.58
42:BT:26:TYR:O	42:BT:81:VAL:HG22	2.03	0.58
1:CA:1149:C:H2'	1:CA:1150:U:C6	2.37	0.58
1:CA:1327:C:H2'	1:CA:1328:C:C6	2.39	0.58
2:CB:118:LEU:HD13	2:CB:142:LEU:HA	1.84	0.58
12:CL:35:VAL:HG22	12:CL:81:VAL:HG13	1.85	0.58
12:CL:82:VAL:HG21	12:CL:99:ILE:HD11	1.86	0.58
23:DA:528:A:C8	23:DA:528:A:C3'	2.87	0.58
23:DA:886:C:C2'	23:DA:887:A:H4'	2.31	0.58
23:DA:1161:C:O2'	40:DR:8:GLY:HA2	2.04	0.58
23:DA:1952:A:C5	33:DK:22:ILE:HD12	2.39	0.58
30:DH:123:LEU:HD23	30:DH:124:GLY:N	2.18	0.58
41:DS:40:ASN:O	41:DS:41:LYS:HG2	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:186(A):C:H5'	20:AT:78:ALA:HB1	1.85	0.58
1:AA:707:C:H4'	11:AK:20:TYR:CD1	2.38	0.58
9:AI:97:LYS:HB3	9:AI:98:PRO:HD3	1.84	0.58
30:BH:114:LEU:HD21	30:BH:128:LEU:HD13	1.85	0.58
32:BJ:39:ILE:HG22	32:BJ:40:ASP:O	2.03	0.58
34:BL:18:ARG:CZ	34:BL:18:ARG:HB3	2.34	0.58
39:BQ:92:ARG:HG2	40:BR:11:GLN:NE2	2.19	0.58
47:BY:24:LEU:HD22	47:BY:60:LEU:HD13	1.85	0.58
2:CB:97:TRP:HZ2	2:CB:102:LEU:HD13	1.69	0.58
23:DA:7:G:H2'	23:DA:8:A:C8	2.37	0.58
23:DA:71:A:C2	42:DT:31:HIS:HE1	2.22	0.58
23:DA:558:G:OP1	32:DJ:134:PRO:HD2	2.03	0.58
23:DA:795:C:H2'	23:DA:796:C:C6	2.37	0.58
23:DA:966:G:H2'	23:DA:967:C:H6	1.67	0.58
23:DA:2392:A:OP1	53:D5:32:LEU:HB3	2.04	0.58
25:DC:130:ALA:HB2	25:DC:192:THR:HB	1.86	0.58
26:DD:132:HIS:CG	26:DD:135:HIS:NE2	2.71	0.58
30:DH:53:ALA:O	30:DH:57:ARG:HB2	2.03	0.58
32:DJ:125:ALA:O	32:DJ:129:MET:HE3	2.03	0.58
34:DL:58:THR:C	34:DL:60:MET:H	2.12	0.58
39:DQ:95:LEU:O	39:DQ:98:LEU:HG	2.04	0.58
1:AA:1108:G:H5'	3:AC:176:HIS:CD2	2.38	0.58
10:AJ:6:ILE:HD11	10:AJ:72:VAL:HB	1.86	0.58
23:BA:656:G:H2'	23:BA:657:U:O4'	2.02	0.58
23:BA:1603:A:H5'	23:BA:1603:A:C8	2.39	0.58
23:BA:2393:A:H5"	34:BL:62:LEU:HB3	1.85	0.58
24:BB:11:C:H3'	24:BB:12:C:C6	2.39	0.58
33:BK:47:ILE:HG13	33:BK:48:PRO:HD2	1.85	0.58
43:BU:45:VAL:HA	43:BU:62:GLU:HA	1.86	0.58
46:BX:27:GLU:HB3	46:BX:33:LYS:HG3	1.85	0.58
3:CC:189:ALA:HB3	3:CC:196:LEU:HB3	1.86	0.58
13:CM:27:LYS:HE2	13:CM:31:LYS:HE2	1.86	0.58
23:DA:1378:A:O2'	23:DA:1379:A:H3'	2.03	0.58
24:DB:70:C:H2'	24:DB:71:C:H6	1.68	0.58
26:DD:92:THR:O	26:DD:95:ILE:HG13	2.03	0.58
28:DF:36:LYS:HB3	28:DF:160:VAL:HB	1.84	0.58
35:DM:66:ILE:HG22	35:DM:104:PHE:CD2	2.39	0.58
1:AA:1327:C:H2'	1:AA:1328:C:C6	2.38	0.58
3:AC:47:LEU:HD21	3:AC:68:VAL:HG11	1.86	0.58
5:AE:137:GLU:O	5:AE:141:GLN:HG3	2.03	0.58
23:BA:955:C:OP1	35:BM:85:LYS:HE2	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:13:LYS:HE2	29:BG:14:GLY:H	1.67	0.58
47:BY:17:SER:HB3	47:BY:18:PRO:CD	2.30	0.58
47:BY:38:GLN:O	47:BY:41:ILE:HG12	2.03	0.58
7:CG:115:ARG:O	7:CG:118:VAL:HG22	2.03	0.58
10:CJ:16:LEU:HD12	10:CJ:70:ARG:HD2	1.86	0.58
10:CJ:32:ALA:H	10:CJ:78:ASN:ND2	2.01	0.58
19:CS:5:LEU:HD12	19:CS:8:GLY:O	2.03	0.58
23:DA:270(J):G:O2'	23:DA:270(K):G:H8	1.87	0.58
28:DF:114:ILE:HG23	28:DF:115:ARG:HD2	1.84	0.58
34:DL:128:HIS:HA	34:DL:147:LEU:CB	2.21	0.58
1:AA:828:A:H2'	1:AA:829:G:O4'	2.03	0.58
1:AA:1429:C:H2'	1:AA:1430:C:C6	2.39	0.58
7:AG:115:ARG:O	7:AG:119:ARG:HG3	2.03	0.58
12:AL:37:THR:HG23	12:AL:38:VAL:H	1.69	0.58
13:AM:27:LYS:HE2	13:AM:31:LYS:HE2	1.85	0.58
13:AM:75:ALA:O	13:AM:79:LYS:HG3	2.03	0.58
23:BA:1311:G:C8	23:BA:1311:G:C5'	2.86	0.58
23:BA:2294:C:H2'	23:BA:2295:C:C6	2.38	0.58
28:BF:83:ARG:HG3	28:BF:84:LYS:N	2.17	0.58
47:BY:2:LYS:H	47:BY:2:LYS:HD2	1.68	0.58
1:CA:250:A:H8	1:CA:250:A:O5'	1.87	0.58
3:CC:35:GLU:O	3:CC:39:ILE:HG13	2.04	0.58
4:CD:173:TRP:CD1	4:CD:189:PRO:HG3	2.39	0.58
20:CT:90:GLN:O	20:CT:93:GLU:HB3	2.03	0.58
23:DA:2039:C:H2'	23:DA:2040:C:C6	2.35	0.58
25:DC:31:LYS:O	25:DC:36:PRO:HD3	2.03	0.58
29:DG:55:PRO:HG2	29:DG:61:HIS:CD2	2.38	0.58
30:DH:113:ARG:HB2	30:DH:130:TYR:CE1	2.38	0.58
31:DI:4:LYS:HG2	31:DI:8:GLU:HG3	1.85	0.58
33:DK:86:ILE:H	33:DK:86:ILE:HD12	1.68	0.58
37:DO:52:SER:HB2	37:DO:56:LEU:HB2	1.85	0.58
1:AA:57:G:H2'	1:AA:58:C:C6	2.38	0.58
8:AH:9:MET:HG3	8:AH:26:VAL:HG21	1.86	0.58
10:AJ:13:HIS:HB3	10:AJ:68:HIS:NE2	2.19	0.58
19:AS:40:ILE:HD13	19:AS:62:ILE:HD11	1.86	0.58
23:BA:2393:A:C5'	34:BL:62:LEU:HD12	2.34	0.58
25:BC:35:LYS:HE3	25:BC:104:TYR:CD2	2.38	0.58
25:BC:271:ILE:O	25:BC:272:ALA:HB3	2.03	0.58
30:BH:130:TYR:CD2	30:BH:132:PRO:HG3	2.39	0.58
47:BY:2:LYS:HD2	47:BY:2:LYS:N	2.19	0.58
1:CA:1320:C:H2'	1:CA:1321:C:O4'	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:814:C:C5	34:DL:27:HIS:NE2	2.72	0.58
44:DV:24:LEU:HD21	44:DV:86:VAL:CG2	2.33	0.58
47:DY:16:LEU:HB2	47:DY:20:GLU:CG	2.34	0.58
53:D5:37:SER:OG	53:D5:40:GLU:HG2	2.04	0.58
1:AA:250:A:H8	1:AA:250:A:O5'	1.87	0.57
1:AA:1372:U:H2'	1:AA:1373:G:O4'	2.04	0.57
18:AR:54:ARG:HD2	18:AR:54:ARG:N	2.19	0.57
19:AS:63:THR:HG22	19:AS:66:MET:HG2	1.84	0.57
23:BA:83:G:N2	23:BA:102:G:H2'	2.19	0.57
23:BA:1540:G:H2'	23:BA:1541:U:O4'	2.03	0.57
23:BA:1980:G:H3'	23:BA:1981:A:H5"	1.85	0.57
23:BA:2468:G:H22	23:BA:2481:G:H2'	1.68	0.57
25:BC:35:LYS:HZ1	25:BC:104:TYR:H	1.51	0.57
28:BF:47:LYS:HG3	28:BF:82:LEU:HD22	1.86	0.57
28:BF:134:GLY:C	28:BF:135:LEU:HD12	2.29	0.57
37:BO:26:LEU:O	37:BO:88:ASP:HB3	2.04	0.57
1:CA:976:G:C8	1:CA:1358:U:H2'	2.39	0.57
3:CC:22:TRP:HZ3	3:CC:24:ALA:HB2	1.68	0.57
5:CE:48:ALA:HB2	5:CE:57:LYS:HD3	1.85	0.57
10:CJ:13:HIS:HB3	10:CJ:68:HIS:NE2	2.18	0.57
23:DA:83:G:N2	23:DA:102:G:H2'	2.18	0.57
23:DA:245:G:O6	53:D5:8:LYS:HE3	2.04	0.57
23:DA:278:A:H4'	23:DA:279:C:OP1	2.04	0.57
23:DA:114(B):A:H4'	32:DJ:48:ARG:HH22	1.69	0.57
23:DA:2439:A:C8	23:DA:2439:A:C5'	2.86	0.57
25:DC:35:LYS:HZ1	25:DC:104:TYR:H	1.52	0.57
27:DE:80:ALA:O	27:DE:83:PHE:HB2	2.04	0.57
32:DJ:113:MET:HE2	32:DJ:113:MET:HA	1.86	0.57
36:DN:101:ALA:HB2	50:D2:44:THR:HG21	1.86	0.57
40:DR:28:GLU:HB2	40:DR:31:ALA:HB2	1.85	0.57
42:DT:57:LEU:N	42:DT:57:LEU:HD12	2.19	0.57
43:DU:59:GLY:C	43:DU:61:ILE:H	2.11	0.57
10:AJ:16:LEU:HD12	10:AJ:70:ARG:HD2	1.86	0.57
10:AJ:49:VAL:O	10:AJ:60:ARG:HB2	2.04	0.57
13:AM:44:ARG:HB2	13:AM:46:LYS:HG2	1.86	0.57
23:BA:832:G:OP1	34:BL:40:SER:HB3	2.03	0.57
23:BA:114(B):A:H4'	32:BJ:48:ARG:HH22	1.69	0.57
23:BA:1566:A:O2'	23:BA:1567:A:H5'	2.04	0.57
23:BA:1568:G:P	25:BC:63:ARG:HH22	2.27	0.57
23:BA:1993:U:H4'	26:BD:128:SER:HB3	1.84	0.57
23:BA:2233:U:H2'	23:BA:2234:G:C8	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2647:U:H2'	23:BA:2648:C:C6	2.39	0.57
27:BE:195:ASP:OD2	27:BE:197:ASP:HB3	2.04	0.57
1:CA:262:A:H2'	1:CA:263:A:C8	2.39	0.57
1:CA:716:A:H1'	11:CK:118:GLY:HA2	1.85	0.57
1:CA:979:C:H3'	1:CA:980:C:C5'	2.31	0.57
1:CA:1506:U:O2'	1:CA:1507:A:H5'	2.03	0.57
2:CB:25:ASN:HB3	2:CB:27:LYS:HE2	1.86	0.57
5:CE:137:GLU:O	5:CE:141:GLN:HG3	2.03	0.57
8:CH:8:ASP:O	8:CH:12:ARG:HG2	2.05	0.57
10:CJ:48:THR:HA	10:CJ:62:HIS:CB	2.29	0.57
11:CK:50:TYR:HB3	11:CK:54:ARG:HB2	1.86	0.57
23:DA:534:U:O2'	39:DQ:49:HIS:HD2	1.87	0.57
23:DA:1275:A:C8	36:DN:16:HIS:CD2	2.92	0.57
23:DA:2633:G:O2'	26:DD:61:ARG:HD3	2.05	0.57
25:DC:246:PRO:HD2	25:DC:255:LYS:HD3	1.86	0.57
26:DD:84:PHE:CZ	26:DD:86:PRO:HG3	2.39	0.57
28:DF:47:LYS:HG3	28:DF:82:LEU:HD22	1.85	0.57
46:DX:83:GLU:HG2	46:DX:84:GLY:N	2.17	0.57
1:AA:1320:C:H2'	1:AA:1321:C:O4'	2.04	0.57
1:AA:1327:C:OP1	21:AU:20:LYS:HB3	2.04	0.57
2:AB:25:ASN:HB3	2:AB:27:LYS:HE2	1.85	0.57
23:BA:221:A:H4'	23:BA:222:A:O5'	2.03	0.57
23:BA:795:C:H2'	23:BA:796:C:C6	2.39	0.57
23:BA:1241:A:H5'	23:BA:1241:A:N3	2.19	0.57
23:BA:1587:A:H2'	23:BA:1588:C:C6	2.39	0.57
23:BA:2056:G:N2	23:BA:2057:A:H1'	2.20	0.57
23:BA:2104:G:H2'	23:BA:2105:C:C6	2.40	0.57
26:BD:1:MET:HB3	26:BD:83:ASP:O	2.03	0.57
30:BH:90:GLY:O	30:BH:91:SER:HB2	2.02	0.57
23:DA:929:G:O5'	23:DA:929:G:H8	1.88	0.57
23:DA:2243:U:H2'	23:DA:2244:U:C6	2.39	0.57
34:DL:18:ARG:HB3	34:DL:18:ARG:CZ	2.33	0.57
9:AI:3:GLN:HG2	9:AI:20:ARG:HG2	1.87	0.57
23:BA:46:C:OP2	23:BA:215:G:H2'	2.04	0.57
23:BA:2376:A:N6	37:BO:89:ARG:HD2	2.20	0.57
26:BD:5:LEU:HB2	26:BD:51:PHE:CD2	2.39	0.57
33:BK:86:ILE:HD12	33:BK:86:ILE:H	1.68	0.57
42:BT:57:LEU:HD12	42:BT:57:LEU:N	2.18	0.57
1:CA:974:A:H8	1:CA:974:A:OP1	1.88	0.57
1:CA:1014:A:H4'	19:CS:14:HIS:CE1	2.40	0.57
10:CJ:49:VAL:O	10:CJ:60:ARG:HB2	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:D3:11:LEU:HD11	51:D3:51:GLU:HG3	1.87	0.57
1:AA:976:G:C8	1:AA:1358:U:H2'	2.39	0.57
1:AA:1294:G:H2'	1:AA:1295:G:C8	2.40	0.57
8:AH:8:ASP:O	8:AH:12:ARG:HG2	2.04	0.57
12:AL:116:ARG:HB3	12:AL:121:THR:O	2.04	0.57
23:BA:534:U:O2'	39:BQ:49:HIS:HD2	1.87	0.57
23:BA:2607:G:H2'	23:BA:2608:G:O4'	2.05	0.57
24:BB:30:C:OP2	37:BO:32:LEU:HD11	2.03	0.57
29:BG:121:ILE:HD11	29:BG:140:LYS:HD3	1.87	0.57
32:BJ:148:GLY:HA3	32:BJ:149:PRO:O	2.05	0.57
33:BK:122:LEU:HD13	38:BP:72:VAL:HG11	1.86	0.57
34:BL:57:THR:HG23	34:BL:59:LEU:HB2	1.87	0.57
34:BL:143:GLY:C	34:BL:145:PRO:HD3	2.30	0.57
35:BM:40:ALA:HB3	35:BM:127:ILE:HD11	1.87	0.57
36:BN:13:HIS:CE1	36:BN:16:HIS:HB2	2.39	0.57
50:B2:33:CYS:SG	50:B2:40:LYS:HE3	2.45	0.57
2:CB:162:ILE:HD12	2:CB:162:ILE:O	2.04	0.57
3:CC:89:GLU:O	3:CC:93:LYS:HB2	2.04	0.57
6:CF:35:ALA:HA	6:CF:67:MET:HB3	1.86	0.57
9:CI:85:LEU:HD11	9:CI:96:LEU:HD22	1.86	0.57
23:DA:572:A:C2	23:DA:2033:A:C2	2.93	0.57
23:DA:1579:A:H5'	23:DA:1579:A:C8	2.35	0.57
23:DA:2647:U:H2'	23:DA:2648:C:C6	2.40	0.57
23:DA:2790:A:H2'	23:DA:2791:C:H5"	1.87	0.57
24:DB:30:C:OP2	37:DO:32:LEU:HD11	2.04	0.57
26:DD:5:LEU:HB2	26:DD:51:PHE:CD2	2.39	0.57
27:DE:164:ARG:O	27:DE:168:ARG:HB2	2.05	0.57
29:DG:20:ALA:HB1	29:DG:21:PRO:HD2	1.87	0.57
40:DR:64:HIS:CD2	40:DR:92:THR:HG22	2.39	0.57
46:DX:58:ILE:HD11	46:DX:91:LYS:HG2	1.85	0.57
51:D3:11:LEU:HD13	51:D3:12:GLU:N	2.19	0.57
51:D3:13:CYS:SG	51:D3:24:GLU:HG3	2.45	0.57
1:AA:222:U:H2'	1:AA:223:U:C6	2.39	0.57
2:AB:184:VAL:HG12	2:AB:197:VAL:HG13	1.87	0.57
4:AD:134:ASP:O	4:AD:136:PRO:HD3	2.04	0.57
24:BB:111:U:H2'	24:BB:112:G:H8	1.70	0.57
30:BH:142:VAL:HG12	30:BH:143:SER:H	1.69	0.57
34:BL:135:LEU:O	34:BL:139:LYS:HB2	2.04	0.57
35:BM:112:GLU:H	35:BM:112:GLU:CD	2.11	0.57
38:BP:117:ASP:O	38:BP:121:ILE:HG13	2.05	0.57
52:B4:8:ASN:ND2	52:B4:8:ASN:C	2.54	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:22:TRP:CZ3	3:CC:24:ALA:HB2	2.40	0.57
10:CJ:6:ILE:HD11	10:CJ:72:VAL:HB	1.85	0.57
12:CL:46:LYS:HG2	12:CL:47:PRO:N	2.19	0.57
23:DA:1154:G:H8	23:DA:1154:G:O5'	1.88	0.57
23:DA:2104:G:H2'	23:DA:2105:C:C6	2.39	0.57
25:DC:231:HIS:CG	25:DC:232:PRO:HD2	2.39	0.57
27:DE:195:ASP:OD2	27:DE:197:ASP:HB3	2.05	0.57
30:DH:113:ARG:HB2	30:DH:130:TYR:CZ	2.39	0.57
53:D5:54:GLU:HA	53:D5:57:ARG:NH1	2.19	0.57
1:AA:1038:C:H2'	1:AA:1039:C:C6	2.39	0.57
14:AN:4:LYS:O	14:AN:7:ILE:HG13	2.05	0.57
23:BA:966:G:H2'	23:BA:967:C:H6	1.69	0.57
34:BL:114:ILE:O	34:BL:114:ILE:HD12	2.05	0.57
49:B1:48:ILE:HD12	49:B1:48:ILE:H	1.70	0.57
1:CA:222:U:H2'	1:CA:223:U:C6	2.40	0.57
1:CA:353:A:H5'	1:CA:353:A:H8	1.70	0.57
1:CA:1070:U:H2'	1:CA:1071:C:H6	1.70	0.57
1:CA:1097:C:H2'	1:CA:1098:C:C6	2.39	0.57
1:CA:1372:U:H2'	1:CA:1373:G:O4'	2.04	0.57
10:CJ:90:LEU:N	10:CJ:91:PRO:HD3	2.19	0.57
11:CK:29:ILE:C	11:CK:29:ILE:HD12	2.30	0.57
23:DA:832:G:OP1	34:DL:40:SER:HB3	2.05	0.57
28:DF:136:ARG:O	28:DF:154:GLY:HA2	2.05	0.57
44:DV:94:GLU:H	44:DV:94:GLU:CD	2.12	0.57
23:BA:1434:A:H2'	23:BA:1435:G:H8	1.67	0.57
23:BA:1544:C:H3'	23:BA:1545:A:C5'	2.33	0.57
23:BA:1819:A:H4'	23:BA:1820:U:H5"	1.86	0.57
25:BC:130:ALA:HB2	25:BC:192:THR:HB	1.86	0.57
25:BC:217:ARG:HG2	25:BC:217:ARG:NH1	2.19	0.57
25:BC:231:HIS:CG	25:BC:232:PRO:HD2	2.40	0.57
27:BE:179:GLU:H	27:BE:179:GLU:CD	2.12	0.57
29:BG:20:ALA:HB1	29:BG:21:PRO:HD2	1.87	0.57
40:BR:64:HIS:CD2	40:BR:92:THR:HG22	2.40	0.57
47:BY:23:LYS:O	47:BY:27:GLU:HG3	2.04	0.57
47:BY:38:GLN:HB3	47:BY:44:LEU:HB3	1.84	0.57
1:CA:684:A:H2'	1:CA:685:G:C8	2.39	0.57
1:CA:841:U:HO2'	1:CA:842:C:H6	1.51	0.57
1:CA:1038:C:H2'	1:CA:1039:C:C6	2.40	0.57
1:CA:1294:G:H2'	1:CA:1295:G:C8	2.40	0.57
1:CA:1320:C:H42	19:CS:36:ARG:HG3	1.69	0.57
23:DA:1360:A:H5'	23:DA:1361:G:OP2	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DK:68:GLU:CD	33:DK:68:GLU:H	2.12	0.57
42:DT:26:TYR:O	42:DT:81:VAL:HG22	2.04	0.57
1:AA:723:U:H5"	1:AA:724:G:OP2	2.05	0.57
1:AA:1320:C:N4	19:AS:36:ARG:HG3	2.18	0.57
4:AD:126:ILE:HG22	4:AD:127:THR:H	1.69	0.57
8:AH:102:ARG:HE	8:AH:102:ARG:N	2.03	0.57
21:AU:9:ARG:O	21:AU:13:ILE:HD13	2.05	0.57
23:BA:529:A:H62	23:BA:2041:U:H3	1.53	0.57
23:BA:1046:A:C3'	23:BA:1047:G:H5"	2.35	0.57
23:BA:2746:U:H2'	23:BA:2747:G:H5'	1.87	0.57
24:BB:43:C:H2'	24:BB:44:G:H5"	1.87	0.57
25:BC:8:PRO:HB3	25:BC:14:ARG:CB	2.34	0.57
29:BG:55:PRO:HG2	29:BG:61:HIS:CD2	2.40	0.57
30:BH:6:LEU:HA	30:BH:15:VAL:HG13	1.87	0.57
47:BY:12:GLU:C	47:BY:14:ARG:H	2.13	0.57
1:CA:237:C:H5"	17:CQ:25:ARG:CZ	2.35	0.57
7:CG:115:ARG:O	7:CG:119:ARG:HG3	2.04	0.57
8:CH:9:MET:HG3	8:CH:26:VAL:HG21	1.87	0.57
13:CM:44:ARG:HB2	13:CM:46:LYS:HG2	1.86	0.57
23:DA:1544:C:H3'	23:DA:1545:A:C5'	2.34	0.57
25:DC:8:PRO:HB3	25:DC:14:ARG:HB3	1.87	0.57
34:DL:143:GLY:C	34:DL:145:PRO:HD3	2.29	0.57
1:AA:300:A:H8	1:AA:300:A:O5'	1.88	0.57
1:AA:663:A:H5"	18:AR:61:LYS:HE2	1.87	0.57
23:BA:528:A:C8	23:BA:528:A:C3'	2.88	0.57
23:BA:2633:G:O2'	26:BD:61:ARG:HD3	2.05	0.57
26:BD:67:PHE:CE2	26:BD:75:VAL:HG22	2.40	0.57
26:BD:67:PHE:HE2	26:BD:75:VAL:HG22	1.70	0.57
27:BE:52:LYS:HB3	27:BE:56:GLU:O	2.05	0.57
28:BF:136:ARG:O	28:BF:154:GLY:HA2	2.04	0.57
34:BL:58:THR:C	34:BL:60:MET:H	2.12	0.57
44:BV:95:PRO:HB2	44:BV:127:LYS:HE3	1.87	0.57
46:BX:37:ILE:CG2	46:BX:38:SER:N	2.68	0.57
48:BZ:8:LEU:HB2	48:BZ:28:LEU:HD23	1.86	0.57
1:CA:429:U:H1'	1:CA:430:A:H5"	1.85	0.57
1:CA:1075:C:H5"	2:CB:179:LYS:NZ	2.20	0.57
12:CL:6:ILE:O	12:CL:10:VAL:HG23	2.05	0.57
12:CL:116:ARG:HB3	12:CL:121:THR:O	2.05	0.57
23:DA:46:C:OP2	23:DA:215:G:H2'	2.05	0.57
23:DA:301:G:C4	23:DA:302:C:C5	2.93	0.57
23:DA:319:C:H2'	23:DA:320:A:C8	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:581:C:OP1	39:DQ:31:SER:HB2	2.05	0.57
23:DA:2563:U:O2	23:DA:2565:A:H8	1.86	0.57
26:DD:33:VAL:HG12	26:DD:89:ASP:O	2.04	0.57
27:DE:52:LYS:HB3	27:DE:56:GLU:O	2.04	0.57
42:DT:12:VAL:HG12	42:DT:27:THR:O	2.05	0.57
53:D5:53:PRO:HB2	53:D5:57:ARG:HH21	1.70	0.57
1:AA:262:A:H2'	1:AA:263:A:C8	2.39	0.56
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.05	0.56
2:AB:162:ILE:HD12	2:AB:162:ILE:O	2.05	0.56
3:AC:22:TRP:HZ3	3:AC:24:ALA:HB2	1.70	0.56
4:AD:26:CYS:HA	4:AD:31:CYS:HA	1.86	0.56
8:AH:19:VAL:HG23	8:AH:21:LYS:HG2	1.87	0.56
23:BA:556:G:H2'	23:BA:557:U:H6	1.67	0.56
23:BA:761:A:O5'	23:BA:761:A:C8	2.45	0.56
23:BA:1275:A:C8	36:BN:16:HIS:CD2	2.93	0.56
23:BA:1360:A:H5'	23:BA:1361:G:OP2	2.05	0.56
23:BA:2790:A:H2'	23:BA:2791:C:H5"	1.87	0.56
42:BT:15:GLU:CD	42:BT:15:GLU:N	2.62	0.56
1:CA:932:C:OP1	7:CG:4:ARG:HG2	2.04	0.56
4:CD:91:SER:HA	4:CD:94:LEU:HD12	1.87	0.56
13:CM:113:PRO:O	13:CM:115:LYS:HD3	2.05	0.56
23:DA:330:A:H2	23:DA:1210:A:H2'	1.70	0.56
23:DA:2078:C:H2'	23:DA:2079:U:C6	2.38	0.56
23:DA:2376:A:N6	37:DO:89:ARG:HD2	2.20	0.56
34:DL:16:ARG:HE	34:DL:16:ARG:C	2.13	0.56
34:DL:135:LEU:O	34:DL:139:LYS:HB2	2.04	0.56
42:DT:31:HIS:ND1	42:DT:32:PRO:HD2	2.19	0.56
1:AA:237:C:H5"	17:AQ:25:ARG:CZ	2.34	0.56
12:AL:6:ILE:O	12:AL:10:VAL:HG23	2.05	0.56
23:BA:301:G:C4	23:BA:302:C:C5	2.93	0.56
23:BA:2892:A:H2'	23:BA:2893:G:H5'	1.87	0.56
24:BB:87:G:H21	24:BB:89(B):A:H62	1.52	0.56
25:BC:125:ILE:HD12	25:BC:125:ILE:H	1.70	0.56
28:BF:5:LEU:HD21	49:B1:50:THR:HG23	1.87	0.56
28:BF:81:LYS:O	28:BF:82:LEU:HD23	2.04	0.56
38:BP:19:LEU:HD13	38:BP:78:LEU:HD22	1.87	0.56
1:CA:537:G:H5"	12:CL:112:ARG:NH2	2.20	0.56
1:CA:687:A:H4'	1:CA:688:G:O5'	2.05	0.56
3:CC:76:VAL:HG21	3:CC:103:VAL:HG11	1.88	0.56
5:CE:33:VAL:HG11	5:CE:109:ILE:HD13	1.87	0.56
23:DA:1495:A:H2'	23:DA:1496:A:N3	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DB:37:C:H2'	37:DO:95:HIS:HE1	1.70	0.56
27:DE:203:GLN:HA	27:DE:206:ILE:O	2.05	0.56
34:DL:111:ARG:HG3	34:DL:128:HIS:CB	2.36	0.56
39:DQ:36:ARG:HG2	39:DQ:40:PHE:CE1	2.40	0.56
39:DQ:68:ALA:O	39:DQ:71:GLN:HB3	2.04	0.56
47:DY:21:LEU:HD23	47:DY:22:GLU:N	2.19	0.56
1:AA:353:A:H8	1:AA:353:A:H5'	1.69	0.56
1:AA:382:A:H2'	1:AA:383:A:C8	2.41	0.56
1:AA:979:C:H3'	1:AA:980:C:C5'	2.31	0.56
4:AD:3:ARG:HD3	4:AD:5:ILE:CD1	2.36	0.56
4:AD:91:SER:HA	4:AD:94:LEU:HD12	1.87	0.56
10:AJ:6:ILE:HG22	10:AJ:98:ILE:HG23	1.88	0.56
10:AJ:90:LEU:N	10:AJ:91:PRO:HD3	2.20	0.56
13:AM:113:PRO:O	13:AM:115:LYS:HD3	2.06	0.56
23:BA:195:A:OP1	34:BL:46:LYS:HE2	2.06	0.56
23:BA:278:A:H2'	23:BA:279:C:O4'	2.06	0.56
23:BA:568:U:O4	40:BR:78:LYS:NZ	2.37	0.56
23:BA:626:U:O2	34:BL:105:LEU:HB3	2.05	0.56
23:BA:943:U:OP2	34:BL:38:GLN:CD	2.48	0.56
23:BA:2439:A:H5'	23:BA:2439:A:H8	1.68	0.56
26:BD:27:LEU:HD13	38:BP:1:MET:HE1	1.87	0.56
28:BF:85:GLY:C	28:BF:86:MET:HG3	2.30	0.56
32:BJ:62:ARG:HH21	32:BJ:64:ASP:HB2	1.69	0.56
34:BL:115:LEU:HA	34:BL:134:ALA:CB	2.35	0.56
37:BO:49:VAL:HG13	37:BO:76:LYS:HD2	1.87	0.56
1:CA:1235:U:H5"	21:CU:3:LYS:HD2	1.87	0.56
1:CA:1429:C:H2'	1:CA:1430:C:C6	2.40	0.56
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	1.86	0.56
3:CC:7:PRO:HG3	3:CC:175:LEU:HD11	1.87	0.56
3:CC:47:LEU:HD21	3:CC:68:VAL:HG11	1.86	0.56
8:CH:102:ARG:HE	8:CH:102:ARG:N	2.04	0.56
14:CN:29:ARG:HG2	14:CN:31:ARG:O	2.05	0.56
19:CS:29:ARG:HD3	19:CS:48:THR:HB	1.87	0.56
23:DA:319:C:H2'	23:DA:320:A:H8	1.71	0.56
23:DA:747:U:C4	50:D2:2:ALA:N	2.74	0.56
23:DA:806:C:O2'	23:DA:2445:G:H4'	2.05	0.56
23:DA:1046:A:C3'	23:DA:1047:G:H5"	2.35	0.56
25:DC:233:HIS:CE1	25:DC:247:ALA:H	2.23	0.56
28:DF:5:LEU:HD21	49:D1:50:THR:HG23	1.87	0.56
33:DK:104:ARG:HB3	33:DK:104:ARG:NH1	2.20	0.56
34:DL:58:THR:C	34:DL:61:ARG:HE	2.13	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DL:125:VAL:O	34:DL:145:PRO:HD2	2.05	0.56
42:DT:8:ILE:HD12	42:DT:8:ILE:N	2.20	0.56
44:DV:24:LEU:HD21	44:DV:86:VAL:HG21	1.87	0.56
47:DY:23:LYS:O	47:DY:27:GLU:HG3	2.05	0.56
1:AA:1502:A:H5'	1:AA:1504:G:N7	2.19	0.56
2:AB:88:ALA:HB2	2:AB:219:VAL:HG13	1.86	0.56
7:AG:69:VAL:CA	7:AG:138:LYS:HD2	2.35	0.56
9:AI:85:LEU:HD11	9:AI:96:LEU:HD22	1.86	0.56
12:AL:54:VAL:HG12	12:AL:55:ALA:H	1.69	0.56
19:AS:29:ARG:HD3	19:AS:48:THR:HB	1.88	0.56
23:BA:779:U:OP1	25:BC:49:ILE:HG13	2.04	0.56
23:BA:1378:A:O2'	23:BA:1379:A:H3'	2.06	0.56
23:BA:1952:A:C5	33:BK:22:ILE:HD12	2.41	0.56
34:BL:58:THR:C	34:BL:61:ARG:HE	2.13	0.56
43:BU:76:CYS:SG	43:BU:77:PRO:HD2	2.46	0.56
51:B3:11:LEU:HD11	51:B3:51:GLU:HG3	1.86	0.56
5:CE:127:ASN:O	5:CE:131:ILE:HG12	2.05	0.56
12:CL:37:THR:HG23	12:CL:38:VAL:H	1.70	0.56
20:CT:53:LEU:O	20:CT:57:ARG:HD3	2.06	0.56
23:DA:1373:A:H2'	23:DA:1374:G:O4'	2.06	0.56
23:DA:1430:C:H2'	23:DA:1431:U:C6	2.40	0.56
23:DA:1966:A:H4'	23:DA:1967:C:OP1	2.04	0.56
23:DA:2305:A:H5"	28:DF:134:GLY:HA3	1.87	0.56
24:DB:8:U:H5"	37:DO:15:ARG:HH22	1.71	0.56
25:DC:44:ASN:HB3	25:DC:50:THR:CG2	2.36	0.56
1:AA:673:G:H5"	6:AF:87:ARG:HH12	1.71	0.56
2:AB:70:PHE:O	2:AB:71:VAL:HG13	2.05	0.56
3:AC:22:TRP:CZ3	3:AC:24:ALA:HB2	2.41	0.56
23:BA:706:A:H2'	23:BA:707:G:O4'	2.06	0.56
23:BA:828:U:H4'	23:BA:831:G:N1	2.20	0.56
23:BA:1588:C:H2'	23:BA:1589:C:H6	1.70	0.56
26:BD:84:PHE:CZ	26:BD:86:PRO:HG3	2.41	0.56
33:BK:68:GLU:H	33:BK:68:GLU:CD	2.13	0.56
34:BL:64:LYS:HD2	53:B5:25:MET:SD	2.46	0.56
35:BM:66:ILE:HG22	35:BM:104:PHE:CD2	2.40	0.56
38:BP:28:VAL:HA	38:BP:89:VAL:HG12	1.86	0.56
44:BV:94:GLU:CD	44:BV:94:GLU:H	2.14	0.56
1:CA:555:C:H2'	1:CA:556:C:C6	2.41	0.56
1:CA:1117:G:H21	1:CA:1180:A:H1'	1.71	0.56
1:CA:1191:A:H5"	3:CC:4:LYS:NZ	2.20	0.56
4:CD:3:ARG:N	4:CD:3:ARG:HD2	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:97:PHE:O	18:CR:31:LEU:HD23	2.05	0.56
16:CP:20:VAL:HG21	16:CP:32:TYR:CG	2.40	0.56
23:DA:1187:G:H5"	40:DR:81:TYR:CE2	2.41	0.56
26:DD:27:LEU:HD13	38:DP:1:MET:HE1	1.87	0.56
26:DD:67:PHE:HE2	26:DD:75:VAL:HG22	1.70	0.56
34:DL:143:GLY:O	34:DL:145:PRO:HD3	2.05	0.56
47:DY:2:LYS:CD	47:DY:2:LYS:N	2.69	0.56
1:AA:116:A:H61	1:AA:313:A:H1'	1.70	0.56
3:AC:112:SER:O	3:AC:116:VAL:HG23	2.06	0.56
6:AF:61:LEU:HB3	6:AF:63:TYR:HE2	1.71	0.56
12:AL:82:VAL:HG21	12:AL:99:ILE:HD11	1.86	0.56
15:AO:56:LEU:O	15:AO:60:VAL:HG23	2.06	0.56
17:AQ:14:LYS:H	17:AQ:14:LYS:HD2	1.71	0.56
23:BA:886:C:C2'	23:BA:887:A:H4'	2.31	0.56
25:BC:126:GLN:O	25:BC:193:VAL:HG11	2.05	0.56
34:BL:128:HIS:HA	34:BL:147:LEU:CB	2.20	0.56
36:BN:51:LEU:HD22	36:BN:66:VAL:HG13	1.87	0.56
38:BP:80:SER:HB3	38:BP:83:ILE:HG13	1.86	0.56
1:CA:109:A:C6	1:CA:326:G:C6	2.94	0.56
1:CA:520:A:OP2	12:CL:50:ALA:O	2.23	0.56
1:CA:1157:A:H61	1:CA:1178:G:H1'	1.71	0.56
4:CD:90:GLY:CA	4:CD:204:ILE:HD11	2.35	0.56
8:CH:51:VAL:HG21	8:CH:60:ARG:CG	2.35	0.56
10:CJ:6:ILE:HG22	10:CJ:98:ILE:HG23	1.87	0.56
13:CM:4:ILE:HA	13:CM:57:ARG:HG3	1.87	0.56
23:DA:911:A:C6	35:DM:9:TYR:HE1	2.24	0.56
23:DA:1241:A:H5'	23:DA:1241:A:N3	2.21	0.56
23:DA:1311:G:C8	23:DA:1311:G:C5'	2.87	0.56
23:DA:1434:A:H61	23:DA:1558:A:N6	2.03	0.56
23:DA:1541:U:H3'	23:DA:1542:G:C3'	2.35	0.56
23:DA:2496:C:OP1	35:DM:81:VAL:HG13	2.05	0.56
23:DA:2746:U:H2'	23:DA:2747:G:H5'	1.86	0.56
24:DB:43:C:H2'	24:DB:44:G:H5"	1.86	0.56
25:DC:182:LEU:O	25:DC:271:ILE:HD12	2.06	0.56
28:DF:85:GLY:C	28:DF:86:MET:HG3	2.31	0.56
29:DG:121:ILE:HD11	29:DG:140:LYS:HD3	1.87	0.56
32:DJ:148:GLY:HA3	32:DJ:149:PRO:O	2.04	0.56
32:DJ:151:HIS:HD2	32:DJ:152:PRO:O	1.89	0.56
36:DN:51:LEU:HD22	36:DN:66:VAL:HG13	1.88	0.56
44:DV:95:PRO:HB2	44:DV:127:LYS:HE3	1.88	0.56
47:DY:12:GLU:C	47:DY:14:ARG:H	2.13	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D5:14:VAL:HG13	53:D5:22:VAL:HG13	1.88	0.56
1:AA:59:A:H1'	1:AA:354:G:N2	2.20	0.56
1:AA:160:A:H2'	1:AA:161:A:O4'	2.06	0.56
1:AA:805:C:H2'	1:AA:806:C:H6	1.69	0.56
1:AA:946:A:H2'	1:AA:947:G:C8	2.40	0.56
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.71	0.56
3:AC:189:ALA:HB3	3:AC:196:LEU:HB3	1.86	0.56
8:AH:103:VAL:HG21	8:AH:109:ILE:C	2.30	0.56
23:BA:966:G:H2'	23:BA:967:C:C6	2.41	0.56
23:BA:1826:G:H4'	25:BC:242:ARG:NE	2.21	0.56
23:BA:2744:G:N2	29:BG:143:GLN:HE22	2.01	0.56
26:BD:103:ASP:OD2	26:BD:168:MET:HE3	2.06	0.56
27:BE:181:LEU:HD22	27:BE:186:ILE:HD11	1.88	0.56
32:BJ:90:LEU:O	32:BJ:111:GLU:HG3	2.06	0.56
39:BQ:58:ARG:O	39:BQ:62:ILE:HG12	2.05	0.56
1:CA:377:G:OP1	16:CP:3:LYS:HD2	2.06	0.56
4:CD:126:ILE:HG22	4:CD:127:THR:H	1.70	0.56
8:CH:103:VAL:HG21	8:CH:109:ILE:C	2.30	0.56
9:CI:3:GLN:HG2	9:CI:20:ARG:HG2	1.88	0.56
14:CN:4:LYS:O	14:CN:7:ILE:HG13	2.05	0.56
15:CO:28:GLN:O	15:CO:32:LEU:HG	2.06	0.56
23:DA:626:U:O2	34:DL:105:LEU:HB3	2.04	0.56
23:DA:2058:A:N6	23:DA:2059:A:N6	2.54	0.56
27:DE:184:TYR:CE2	27:DE:188:ARG:HD2	2.40	0.56
35:DM:40:ALA:HB3	35:DM:127:ILE:HD11	1.87	0.56
36:DN:13:HIS:CE1	36:DN:16:HIS:HB2	2.39	0.56
38:DP:28:VAL:HA	38:DP:89:VAL:HG12	1.88	0.56
52:D4:37:LYS:HD3	52:D4:39:ARG:HE	1.71	0.56
1:AA:942:G:N2	9:AI:124:GLN:HE22	2.02	0.56
2:AB:27:LYS:CG	2:AB:194:PRO:HD2	2.36	0.56
7:AG:12:LEU:H	7:AG:12:LEU:HD23	1.71	0.56
23:BA:581:C:H2'	23:BA:582:G:H8	1.69	0.56
23:BA:1373:A:H2'	23:BA:1374:G:O4'	2.05	0.56
52:B4:37:LYS:HD3	52:B4:39:ARG:HE	1.70	0.56
1:CA:99:C:H3'	1:CA:99:C:C6	2.41	0.56
1:CA:819:A:H4'	1:CA:820:U:OP2	2.05	0.56
1:CA:1254:C:OP1	10:CJ:45:ARG:HD3	2.06	0.56
8:CH:19:VAL:HG23	8:CH:21:LYS:HG2	1.87	0.56
18:CR:84:LYS:HA	18:CR:84:LYS:NZ	2.21	0.56
19:CS:40:ILE:HD13	19:CS:62:ILE:HD11	1.86	0.56
23:DA:828:U:H4'	23:DA:831:G:N1	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1005:C:O2'	32:DJ:51:THR:HG21	2.06	0.56
23:DA:2233:U:H2'	23:DA:2234:G:C8	2.41	0.56
28:DF:134:GLY:C	28:DF:135:LEU:HD12	2.30	0.56
35:DM:58:PHE:CD1	35:DM:58:PHE:O	2.59	0.56
38:DP:117:ASP:O	38:DP:121:ILE:HG13	2.05	0.56
49:D1:48:ILE:H	49:D1:48:ILE:HD12	1.69	0.56
1:AA:555:C:H2'	1:AA:556:C:C6	2.41	0.56
1:AA:1157:A:H61	1:AA:1178:G:H1'	1.71	0.56
2:AB:80:ILE:HD11	2:AB:208:ILE:HG23	1.88	0.56
8:AH:51:VAL:HG21	8:AH:60:ARG:CG	2.36	0.56
10:AJ:38:ILE:HB	10:AJ:71:LEU:HB3	1.88	0.56
23:BA:276:A:H3'	23:BA:277:C:H5"	1.88	0.56
23:BA:343:C:H6	23:BA:343:C:C5'	2.18	0.56
23:BA:572:A:C2	23:BA:2033:A:C2	2.93	0.56
23:BA:1156:A:H4'	23:BA:1157:G:OP2	2.05	0.56
23:BA:1655:A:H1'	26:BD:113:PHE:CD2	2.41	0.56
24:BB:8:U:H5"	37:BO:15:ARG:HH22	1.71	0.56
25:BC:233:HIS:CE1	25:BC:247:ALA:H	2.23	0.56
30:BH:12:LEU:H	30:BH:12:LEU:HD22	1.71	0.56
1:CA:59:A:H1'	1:CA:354:G:N2	2.20	0.56
1:CA:255:G:H1'	17:CQ:16:GLN:NE2	2.21	0.56
1:CA:382:A:H2'	1:CA:383:A:C8	2.40	0.56
1:CA:1228:C:P	13:CM:108:ARG:HH22	2.27	0.56
18:CR:54:ARG:N	18:CR:54:ARG:HD2	2.20	0.56
21:CU:9:ARG:O	21:CU:13:ILE:HD13	2.05	0.56
23:DA:999:U:H5"	23:DA:1154:G:O6	2.05	0.56
23:DA:2036:C:H5'	23:DA:2036:C:C6	2.38	0.56
23:DA:2294:C:H2'	23:DA:2295:C:C6	2.41	0.56
28:DF:110:ALA:O	28:DF:114:ILE:HG13	2.05	0.56
37:DO:26:LEU:O	37:DO:88:ASP:HB3	2.06	0.56
37:DO:35:ILE:CG1	37:DO:101:LEU:HD21	2.34	0.56
40:DR:77:ALA:O	40:DR:79:VAL:N	2.39	0.56
51:D3:11:LEU:HB2	51:D3:26:ASN:H	1.70	0.56
3:AC:54:ARG:O	3:AC:69:HIS:HD2	1.89	0.56
4:AD:173:TRP:CD1	4:AD:189:PRO:HG3	2.41	0.56
6:AF:97:PHE:O	18:AR:31:LEU:HD23	2.05	0.56
7:AG:38:LEU:O	7:AG:42:ILE:HG13	2.06	0.56
23:BA:1813:G:H1'	25:BC:50:THR:CG2	2.35	0.56
28:BF:110:ALA:O	28:BF:114:ILE:HG13	2.06	0.56
40:BR:13:ARG:HD2	40:BR:13:ARG:C	2.31	0.56
51:B3:13:CYS:SG	51:B3:24:GLU:HG3	2.45	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:977:A:C2'	1:CA:978:A:H5"	2.35	0.56
19:CS:6:LYS:H	19:CS:6:LYS:HD2	1.71	0.56
23:DA:706:A:H2'	23:DA:707:G:O4'	2.07	0.56
25:DC:126:GLN:O	25:DC:193:VAL:HG11	2.05	0.56
37:DO:49:VAL:HG13	37:DO:76:LYS:HD2	1.87	0.56
38:DP:48:ILE:HD12	38:DP:48:ILE:H	1.70	0.56
41:DS:73:ALA:O	41:DS:106:ILE:HG12	2.05	0.56
43:DU:96:ILE:HG23	43:DU:101:LYS:O	2.06	0.56
50:D2:33:CYS:SG	50:D2:40:LYS:HE3	2.46	0.56
16:AP:49:LEU:HD12	16:AP:50:LYS:H	1.71	0.55
23:BA:2517:C:C6	23:BA:2542:A:C2	2.94	0.55
25:BC:44:ASN:HB3	25:BC:50:THR:CG2	2.36	0.55
35:BM:58:PHE:CD1	35:BM:58:PHE:O	2.59	0.55
39:BQ:68:ALA:O	39:BQ:71:GLN:HB3	2.05	0.55
39:BQ:95:LEU:O	39:BQ:98:LEU:HG	2.05	0.55
42:BT:30:VAL:HG12	42:BT:31:HIS:N	2.21	0.55
4:CD:122:ARG:C	4:CD:122:ARG:HD3	2.32	0.55
6:CF:69:GLU:CD	6:CF:69:GLU:H	2.15	0.55
23:DA:442:G:H1'	27:DE:48:THR:HG21	1.88	0.55
23:DA:1331:A:O2'	23:DA:1332:G:H8	1.88	0.55
23:DA:1996:C:OP1	33:DK:31:LYS:HE3	2.06	0.55
23:DA:2036:C:H6	23:DA:2036:C:C5'	2.18	0.55
24:DB:111:U:H2'	24:DB:112:G:H8	1.70	0.55
25:DC:271:ILE:O	25:DC:272:ALA:HB3	2.06	0.55
1:AA:892:A:H2'	1:AA:893:C:C6	2.41	0.55
1:AA:1223:C:C5'	1:AA:1224:G:H5"	2.31	0.55
1:AA:1530:G:H2'	1:AA:1531:A:C8	2.41	0.55
14:AN:29:ARG:HG2	14:AN:31:ARG:O	2.05	0.55
23:BA:1173:G:H1'	23:BA:1177:A:H61	1.71	0.55
25:BC:8:PRO:HB3	25:BC:14:ARG:HB3	1.88	0.55
30:BH:92:VAL:HG21	30:BH:97:ILE:HD11	1.86	0.55
34:BL:16:ARG:HE	34:BL:16:ARG:C	2.14	0.55
38:BP:59:THR:O	38:BP:78:LEU:HB2	2.06	0.55
1:CA:193:C:H2'	1:CA:194:C:C6	2.42	0.55
1:CA:918:A:H2'	1:CA:919:A:C8	2.41	0.55
4:CD:3:ARG:HD3	4:CD:5:ILE:CD1	2.37	0.55
6:CF:5:GLU:HB3	6:CF:62:TRP:HE1	1.71	0.55
23:DA:221:A:H4'	23:DA:222:A:O5'	2.06	0.55
23:DA:1588:C:H2'	23:DA:1589:C:H6	1.71	0.55
23:DA:2210:G:N2	23:DA:2211:G:H5'	2.21	0.55
32:DJ:62:ARG:HH21	32:DJ:64:ASP:HB2	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DL:114:ILE:HD12	34:DL:114:ILE:O	2.05	0.55
44:DV:8:TYR:HB2	44:DV:38:TYR:CZ	2.41	0.55
46:DX:27:GLU:CB	46:DX:33:LYS:HG3	2.37	0.55
53:D5:52:LYS:N	53:D5:53:PRO:HD2	2.20	0.55
1:AA:7:G:H21	5:AE:121:LYS:CE	2.19	0.55
8:AH:50:ARG:H	8:AH:50:ARG:HD2	1.72	0.55
11:AK:29:ILE:C	11:AK:29:ILE:HD12	2.31	0.55
15:AO:24:SER:H	15:AO:27:VAL:HB	1.71	0.55
15:AO:28:GLN:O	15:AO:32:LEU:HG	2.07	0.55
23:BA:1187:G:H5"	40:BR:81:TYR:CE2	2.41	0.55
23:BA:1430:C:H2'	23:BA:1431:U:C6	2.41	0.55
26:BD:14:ILE:C	26:BD:14:ILE:HD12	2.31	0.55
30:BH:92:VAL:HG23	30:BH:96:ASP:HB2	1.88	0.55
33:BK:103:ALA:O	33:BK:106:LEU:HD13	2.06	0.55
36:BN:101:ALA:HB2	50:B2:44:THR:HG21	1.88	0.55
1:CA:405:U:H3'	1:CA:406:G:H5'	1.89	0.55
1:CA:434:U:H2'	1:CA:435:C:C6	2.41	0.55
1:CA:723:U:H5"	1:CA:724:G:OP2	2.06	0.55
19:CS:6:LYS:HD3	19:CS:7:LYS:CE	2.36	0.55
23:DA:64:A:O2'	42:DT:71:GLY:HA3	2.06	0.55
23:DA:278:A:H2'	23:DA:279:C:O4'	2.06	0.55
25:DC:242:ARG:H	25:DC:242:ARG:CD	2.08	0.55
28:DF:173:LEU:HD23	28:DF:176:LEU:HD12	1.88	0.55
34:DL:18:ARG:HB3	34:DL:18:ARG:NH1	2.22	0.55
38:DP:80:SER:HB3	38:DP:83:ILE:HG13	1.88	0.55
40:DR:13:ARG:HD2	40:DR:13:ARG:C	2.31	0.55
1:AA:109:A:C6	1:AA:326:G:C6	2.95	0.55
1:AA:691:G:O6	11:AK:52:GLY:HA2	2.06	0.55
1:AA:1506:U:O2'	1:AA:1507:A:H5'	2.06	0.55
4:AD:13:ARG:HB3	4:AD:38:TYR:O	2.07	0.55
6:AF:75:LEU:O	6:AF:79:LEU:HG	2.06	0.55
12:AL:31:PHE:HB3	12:AL:83:LEU:HD22	1.89	0.55
12:AL:32:ARG:HA	12:AL:32:ARG:HE	1.72	0.55
23:BA:1541:U:H3'	23:BA:1542:G:C3'	2.37	0.55
27:BE:203:GLN:HA	27:BE:206:ILE:O	2.06	0.55
33:BK:73:ASP:OD1	33:BK:75:SER:HB3	2.07	0.55
39:BQ:92:ARG:HD2	39:BQ:95:LEU:CG	2.37	0.55
40:BR:77:ALA:O	40:BR:79:VAL:N	2.39	0.55
43:BU:71:LYS:HB2	43:BU:71:LYS:HZ2	1.70	0.55
51:B3:11:LEU:HB2	51:B3:26:ASN:H	1.70	0.55
23:DA:343:C:H6	23:DA:343:C:C5'	2.18	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DB:11:C:H3'	24:DB:12:C:C6	2.41	0.55
38:DP:19:LEU:HD13	38:DP:78:LEU:HD22	1.89	0.55
39:DQ:92:ARG:HG2	40:DR:11:GLN:NE2	2.21	0.55
43:DU:45:VAL:HA	43:DU:62:GLU:HA	1.87	0.55
48:DZ:11:SER:OG	48:DZ:13:ILE:HG12	2.06	0.55
1:AA:790:A:H5'	22:AV:6168:G:H4'	1.89	0.55
1:AA:1227:A:H2'	1:AA:1227:A:N3	2.22	0.55
1:AA:1320:C:N3	19:AS:72:GLY:HA3	2.21	0.55
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.42	0.55
12:AL:46:LYS:HG2	12:AL:47:PRO:N	2.21	0.55
20:AT:53:LEU:O	20:AT:57:ARG:HD3	2.07	0.55
23:BA:747:U:C4	50:B2:2:ALA:N	2.74	0.55
23:BA:1579:A:H5'	23:BA:1579:A:C8	2.33	0.55
23:BA:2058:A:N6	23:BA:2059:A:N6	2.54	0.55
23:BA:2749:A:H4'	29:BG:62:LYS:HB3	1.89	0.55
30:BH:77:LEU:HD11	30:BH:101:LEU:HB2	1.88	0.55
44:BV:8:TYR:HB2	44:BV:38:TYR:CZ	2.41	0.55
44:BV:76:LEU:HD12	44:BV:76:LEU:N	2.21	0.55
47:BY:21:LEU:HD23	47:BY:22:GLU:N	2.22	0.55
53:B5:11:LYS:C	53:B5:11:LYS:HD3	2.31	0.55
1:CA:376:G:OP2	16:CP:67:THR:HG21	2.07	0.55
2:CB:70:PHE:O	2:CB:71:VAL:HG13	2.06	0.55
15:CO:24:SER:H	15:CO:27:VAL:HB	1.72	0.55
27:DE:179:GLU:H	27:DE:179:GLU:CD	2.13	0.55
34:DL:115:LEU:HA	34:DL:134:ALA:CB	2.36	0.55
47:DY:2:LYS:HA	47:DY:5:GLU:OE2	2.07	0.55
1:AA:255:G:H2'	1:AA:256:U:C6	2.42	0.55
1:AA:1004:A:H8	1:AA:1026:G:C8	2.25	0.55
4:AD:3:ARG:HD2	4:AD:3:ARG:N	2.21	0.55
11:AK:50:TYR:HB3	11:AK:54:ARG:HB2	1.87	0.55
13:AM:106:ASN:O	13:AM:107:ALA:HB3	2.06	0.55
23:BA:195:A:H61	23:BA:198:C:H3'	1.72	0.55
23:BA:1996:C:OP1	33:BK:31:LYS:HE3	2.06	0.55
23:BA:2210:G:N2	23:BA:2211:G:H5'	2.21	0.55
23:BA:2305:A:H5"	28:BF:134:GLY:HA3	1.88	0.55
23:BA:2393:A:H5'	34:BL:62:LEU:HD12	1.88	0.55
23:BA:2439:A:C5'	23:BA:2439:A:H8	2.20	0.55
27:BE:192:LEU:HD23	27:BE:193:VAL:N	2.22	0.55
34:BL:112:LEU:HD23	34:BL:113:LYS:N	2.22	0.55
37:BO:30:ARG:HD2	37:BO:30:ARG:C	2.31	0.55
1:CA:406:G:H5"	4:CD:5:ILE:HD12	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1227:A:N3	1:CA:1227:A:H2'	2.21	0.55
23:DA:55:G:H2'	23:DA:56:A:H8	1.72	0.55
23:DA:195:A:OP1	34:DL:46:LYS:HE2	2.07	0.55
23:DA:1046:A:H1'	31:DI:4:LYS:HD2	1.89	0.55
23:DA:1639:U:H2'	23:DA:1640:C:H5"	1.89	0.55
23:DA:2892:A:H2'	23:DA:2893:G:H5'	1.87	0.55
24:DB:104:A:O4'	44:DV:29:TYR:HE1	1.90	0.55
30:DH:12:LEU:HD22	30:DH:12:LEU:H	1.71	0.55
36:DN:88:ARG:HG3	36:DN:89:ASP:OD1	2.07	0.55
45:DW:51:VAL:N	45:DW:62:LEU:HD12	2.22	0.55
48:DZ:1:MET:HA	48:DZ:1:MET:HE2	1.89	0.55
48:DZ:1:MET:HA	48:DZ:39:ASP:HB3	1.88	0.55
1:AA:99:C:H3'	1:AA:99:C:C6	2.42	0.55
1:AA:601:C:H2'	1:AA:602:A:H8	1.72	0.55
1:AA:819:A:H4'	1:AA:820:U:OP2	2.05	0.55
1:AA:1279:A:H62	3:AC:26:LYS:HE2	1.71	0.55
3:AC:35:GLU:O	3:AC:39:ILE:HG13	2.05	0.55
13:AM:82:MET:HG3	23:BA:888:C:H5'	1.89	0.55
23:BA:1292:U:H2'	23:BA:1293:C:C6	2.42	0.55
23:BA:2815:C:O2'	50:B2:43:HIS:HD2	1.88	0.55
29:BG:44:VAL:O	29:BG:50:VAL:HG13	2.07	0.55
34:BL:111:ARG:HG3	34:BL:128:HIS:CB	2.36	0.55
52:B4:34:ARG:HD2	52:B4:39:ARG:HG3	1.87	0.55
1:CA:255:G:H2'	1:CA:256:U:C6	2.42	0.55
1:CA:1427:U:H2'	1:CA:1428:A:H8	1.72	0.55
1:CA:1530:G:H2'	1:CA:1531:A:C8	2.41	0.55
2:CB:75:LYS:HD3	2:CB:75:LYS:C	2.32	0.55
3:CC:120:VAL:HG21	3:CC:137:ALA:HB2	1.89	0.55
23:DA:1173:G:H1'	23:DA:1177:A:H61	1.71	0.55
25:DC:71:ASP:HB3	25:DC:103:ARG:NH2	2.20	0.55
32:DJ:42:GLU:HA	32:DJ:82:LYS:CB	2.32	0.55
37:DO:30:ARG:HD2	37:DO:30:ARG:C	2.32	0.55
38:DP:57:PHE:O	38:DP:59:THR:N	2.39	0.55
46:DX:23:LYS:HB3	46:DX:37:ILE:HG12	1.87	0.55
52:D4:8:ASN:HD21	52:D4:11:LYS:H	1.52	0.55
1:AA:1117:G:H21	1:AA:1180:A:H1'	1.70	0.55
1:AA:1224:G:H4'	13:AM:102:ARG:NH2	2.21	0.55
1:AA:1501:C:C4	1:AA:1504:G:C6	2.95	0.55
3:AC:76:VAL:HG21	3:AC:103:VAL:HG11	1.88	0.55
11:AK:120:ARG:HH21	11:AK:126:ARG:NH2	2.05	0.55
12:AL:41:THR:OG1	12:AL:51:LEU:HB3	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:82:MET:O	17:AQ:86:GLU:HG2	2.06	0.55
19:AS:6:LYS:HD3	19:AS:7:LYS:CE	2.36	0.55
23:BA:483:A:H4'	43:BU:49:VAL:HG23	1.89	0.55
23:BA:775:G:C4	23:BA:794:G:C8	2.94	0.55
23:BA:1971:A:C4	25:BC:241:PRO:HG3	2.41	0.55
23:BA:2036:C:H5'	23:BA:2036:C:C6	2.39	0.55
23:BA:2648:C:H2'	23:BA:2649:U:C6	2.42	0.55
42:BT:12:VAL:HG12	42:BT:27:THR:O	2.07	0.55
46:BX:23:LYS:HB3	46:BX:37:ILE:HG12	1.89	0.55
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.06	0.55
2:CB:27:LYS:CG	2:CB:194:PRO:HD2	2.36	0.55
14:CN:24:CYS:HB3	14:CN:29:ARG:N	2.20	0.55
23:DA:1292:U:H2'	23:DA:1293:C:C6	2.42	0.55
26:DD:67:PHE:CE2	26:DD:75:VAL:HG22	2.41	0.55
29:DG:44:VAL:O	29:DG:50:VAL:HG13	2.07	0.55
53:D5:25:MET:HE1	53:D5:45:GLY:O	2.07	0.55
1:AA:149:A:H2'	1:AA:150:C:C6	2.42	0.55
1:AA:692:U:H5	11:AK:26:ASN:ND2	2.03	0.55
1:AA:1504:G:OP1	1:AA:1507:A:H4'	2.07	0.55
4:AD:155:LEU:O	4:AD:159:ARG:HG2	2.06	0.55
15:AO:53:HIS:HE1	23:BA:715:G:O6	1.90	0.55
16:AP:20:VAL:HG21	16:AP:32:TYR:CG	2.42	0.55
19:AS:6:LYS:H	19:AS:6:LYS:HD2	1.71	0.55
23:BA:323:G:H5'	27:BE:169:ASN:HD21	1.71	0.55
23:BA:2014:A:H2'	23:BA:2015:A:C8	2.42	0.55
25:BC:182:LEU:O	25:BC:271:ILE:HD12	2.06	0.55
26:BD:111:ARG:HD2	26:BD:160:TYR:CE1	2.42	0.55
33:BK:24:VAL:HG23	33:BK:33:ALA:HB2	1.89	0.55
41:BS:1:MET:HE2	41:BS:2:GLU:H	1.72	0.55
48:BZ:1:MET:HA	48:BZ:39:ASP:HB3	1.88	0.55
53:B5:14:VAL:HG13	53:B5:22:VAL:HG13	1.89	0.55
1:CA:976:G:H8	1:CA:1358:U:H2'	1.72	0.55
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.42	0.55
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.41	0.55
2:CB:184:VAL:HG12	2:CB:197:VAL:HG13	1.89	0.55
3:CC:11:ARG:HB3	3:CC:15:THR:HB	1.89	0.55
4:CD:134:ASP:O	4:CD:136:PRO:HD3	2.06	0.55
5:CE:12:LEU:C	5:CE:12:LEU:HD22	2.32	0.55
7:CG:38:LEU:O	7:CG:42:ILE:HG13	2.07	0.55
8:CH:50:ARG:H	8:CH:50:ARG:HD2	1.72	0.55
10:CJ:8:LEU:HG	10:CJ:96:ILE:HG22	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:676:A:H2	23:DA:802:A:H61	1.54	0.55
23:DA:1188:U:O2'	23:DA:1189:A:H5'	2.06	0.55
23:DA:1276:A:O2'	36:DN:16:HIS:HE1	1.90	0.55
23:DA:1826:G:H4'	25:DC:242:ARG:NE	2.22	0.55
28:DF:81:LYS:O	28:DF:82:LEU:HD23	2.06	0.55
34:DL:33:ARG:HG3	34:DL:36:LYS:CD	2.22	0.55
2:AB:235:SER:O	2:AB:239:VAL:HG23	2.07	0.55
4:AD:90:GLY:CA	4:AD:204:ILE:HD11	2.36	0.55
10:AJ:8:LEU:HG	10:AJ:96:ILE:HG22	1.88	0.55
12:AL:53:LYS:N	12:AL:53:LYS:HD2	2.22	0.55
17:AQ:86:GLU:O	17:AQ:90:ILE:HG12	2.07	0.55
23:BA:2543:G:H5'	23:BA:2543:G:C8	2.40	0.55
30:BH:116:LEU:HD22	30:BH:128:LEU:HD21	1.89	0.55
41:BS:4:LYS:HG2	41:BS:106:ILE:HG22	1.88	0.55
53:B5:52:LYS:N	53:B5:53:PRO:HD2	2.22	0.55
1:CA:18:C:H5"	5:CE:127:ASN:ND2	2.22	0.55
1:CA:946:A:H2'	1:CA:947:G:C8	2.41	0.55
1:CA:971:G:H1'	1:CA:1365:G:O2'	2.07	0.55
2:CB:235:SER:O	2:CB:239:VAL:HG23	2.06	0.55
4:CD:13:ARG:HB3	4:CD:38:TYR:O	2.07	0.55
23:DA:1448:G:H2'	23:DA:149(B):A:C8	2.41	0.55
23:DA:1833:U:H2'	23:DA:1834:U:H6	1.70	0.55
35:DM:75:THR:HA	35:DM:88:GLY:HA3	1.88	0.55
48:DZ:26:LEU:HB2	48:DZ:28:LEU:HD13	1.89	0.55
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.42	0.54
8:AH:58:TYR:O	8:AH:59:LEU:HD23	2.07	0.54
23:BA:380:U:O2'	46:BX:20:ARG:HB3	2.08	0.54
41:BS:103:ILE:H	41:BS:103:ILE:HD12	1.73	0.54
1:CA:300:A:O5'	1:CA:300:A:H8	1.90	0.54
1:CA:624:C:O3'	16:CP:10:GLY:HA2	2.07	0.54
1:CA:1065:U:H4'	1:CA:1066:C:O5'	2.07	0.54
6:CF:75:LEU:O	6:CF:79:LEU:HG	2.07	0.54
12:CL:53:LYS:HD2	12:CL:53:LYS:N	2.22	0.54
23:DA:2102:U:H2'	23:DA:2103:C:C6	2.43	0.54
25:DC:217:ARG:HG2	25:DC:217:ARG:NH1	2.19	0.54
36:DN:12:ARG:HD3	36:DN:16:HIS:ND1	2.23	0.54
23:BA:270(Q):C:HO2'	23:BA:270(R):C:H6	1.50	0.54
23:BA:1005:C:O2'	32:BJ:51:THR:HG21	2.06	0.54
23:BA:1266:G:H5"	50:B2:23:HIS:NE2	2.21	0.54
23:BA:1510:A:H2'	23:BA:1511:A:H8	1.72	0.54
23:BA:1932:A:H3'	23:BA:1933:G:H8	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BL:84:ASN:HB3	34:BL:86:LYS:HG2	1.90	0.54
37:BO:34:HIS:ND1	37:BO:54:LEU:HB2	2.22	0.54
48:BZ:26:LEU:HB2	48:BZ:28:LEU:HD13	1.89	0.54
49:B1:46:ASN:HB2	49:B1:64:LYS:HB2	1.90	0.54
23:DA:1614:A:H62	41:DS:93:ALA:HB2	1.72	0.54
23:DA:2393:A:H5'	34:DL:62:LEU:HD12	1.89	0.54
30:DH:114:LEU:HD21	30:DH:128:LEU:HD13	1.89	0.54
32:DJ:90:LEU:O	32:DJ:111:GLU:HG3	2.07	0.54
33:DK:68:GLU:HB3	33:DK:78:ARG:HB2	1.90	0.54
35:DM:26:TYR:HA	44:DV:81:ARG:HH21	1.72	0.54
35:DM:140:ALA:HB3	44:DV:53:ILE:HD13	1.89	0.54
39:DQ:60:LEU:C	39:DQ:60:LEU:HD23	2.32	0.54
41:DS:4:LYS:HG2	41:DS:106:ILE:HG22	1.89	0.54
42:DT:28:PHE:HE2	42:DT:92:LEU:HD11	1.71	0.54
43:DU:71:LYS:HB2	43:DU:71:LYS:HZ2	1.72	0.54
1:AA:974:A:H8	1:AA:974:A:OP1	1.89	0.54
1:AA:1065:U:H4'	1:AA:1066:C:O5'	2.07	0.54
1:AA:1157:A:H4'	1:AA:1158:C:O5'	2.08	0.54
13:AM:34:LEU:HD22	13:AM:39:ILE:HB	1.89	0.54
23:BA:806:C:O2'	23:BA:2445:G:H4'	2.07	0.54
23:BA:999:U:H5"	23:BA:1154:G:O6	2.06	0.54
23:BA:1448:G:H2'	23:BA:149(B):A:C8	2.42	0.54
23:BA:1647:G:H3'	23:BA:1647:G:OP2	2.08	0.54
23:BA:2036:C:H6	23:BA:2036:C:C5'	2.20	0.54
28:BF:173:LEU:HD23	28:BF:176:LEU:HD12	1.89	0.54
35:BM:26:TYR:HA	44:BV:81:ARG:HH21	1.72	0.54
35:BM:81:VAL:CG1	35:BM:82:ARG:HG2	2.37	0.54
1:CA:269:C:H2'	1:CA:270:A:C8	2.42	0.54
1:CA:363:A:C8	12:CL:32:ARG:NH2	2.76	0.54
1:CA:1152:A:H2'	1:CA:1153:C:H6	1.73	0.54
1:CA:1347:G:H8	9:CI:107:ARG:HB3	1.70	0.54
1:CA:1501:C:C4	1:CA:1504:G:C6	2.94	0.54
6:CF:12:PRO:HG2	6:CF:55:ASP:OD2	2.07	0.54
7:CG:12:LEU:HD23	7:CG:12:LEU:H	1.71	0.54
23:DA:1257:C:H4'	27:DE:83:PHE:CE2	2.42	0.54
25:DC:25:THR:HG21	25:DC:81:ALA:HB1	1.89	0.54
27:DE:192:LEU:HD21	27:DE:194:MET:CE	2.36	0.54
27:DE:192:LEU:HD23	27:DE:193:VAL:N	2.22	0.54
33:DK:73:ASP:OD1	33:DK:75:SER:HB3	2.07	0.54
4:AD:108:LEU:HD23	4:AD:110:PHE:CE2	2.42	0.54
8:AH:97:VAL:HG13	8:AH:98:LYS:N	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:15:VAL:O	13:AM:19:LEU:HD23	2.08	0.54
18:AR:84:LYS:HA	18:AR:84:LYS:NZ	2.22	0.54
21:AU:18:TYR:O	21:AU:22:ARG:HB3	2.07	0.54
23:BA:137(B):G:H2'	23:BA:139:G:N7	2.23	0.54
23:BA:1046:A:H1'	31:BI:4:LYS:HD2	1.89	0.54
23:BA:1434:A:H61	23:BA:1558:A:N6	2.05	0.54
23:BA:1639:U:H2'	23:BA:1640:C:H5"	1.88	0.54
26:BD:101:ARG:HD3	26:BD:169:ASN:ND2	2.22	0.54
34:BL:143:GLY:O	34:BL:145:PRO:HD3	2.08	0.54
39:BQ:79:PHE:CD1	39:BQ:79:PHE:C	2.85	0.54
1:CA:1100:C:OP2	2:CB:96:ARG:HG2	2.08	0.54
3:CC:35:GLU:HA	3:CC:38:ARG:HG2	1.90	0.54
3:CC:54:ARG:O	3:CC:69:HIS:HD2	1.90	0.54
9:CI:17:VAL:HG13	9:CI:63:ILE:HD11	1.90	0.54
13:CM:10:PRO:HB2	13:CM:18:ALA:HB1	1.90	0.54
17:CQ:14:LYS:H	17:CQ:14:LYS:HD2	1.72	0.54
23:DA:910:A:C4	35:DM:13:GLN:NE2	2.74	0.54
23:DA:2014:A:H2'	23:DA:2015:A:C8	2.43	0.54
27:DE:183:VAL:O	27:DE:187:VAL:HG23	2.08	0.54
34:DL:112:LEU:HD23	34:DL:113:LYS:N	2.22	0.54
38:DP:59:THR:O	38:DP:78:LEU:HB2	2.07	0.54
39:DQ:79:PHE:C	39:DQ:79:PHE:CD1	2.86	0.54
1:AA:793:U:H3'	1:AA:794:A:C5'	2.36	0.54
1:AA:977:A:C2'	1:AA:978:A:H5"	2.35	0.54
1:AA:1017:G:H2'	1:AA:1018:C:C6	2.43	0.54
1:AA:1152:A:H2'	1:AA:1153:C:H6	1.73	0.54
2:AB:75:LYS:C	2:AB:75:LYS:HD3	2.32	0.54
3:AC:7:PRO:HG3	3:AC:175:LEU:HD11	1.89	0.54
3:AC:120:VAL:HG21	3:AC:137:ALA:HB2	1.88	0.54
23:BA:910:A:C4	35:BM:13:GLN:NE2	2.76	0.54
23:BA:1495:A:H2'	23:BA:1496:A:N3	2.22	0.54
23:BA:1614:A:H61	41:BS:88:ARG:H	1.56	0.54
34:BL:125:VAL:O	34:BL:145:PRO:HD2	2.07	0.54
45:BW:35:ASN:ND2	45:BW:35:ASN:N	2.55	0.54
52:B4:34:ARG:HB3	52:B4:42:LEU:HD22	1.88	0.54
1:CA:559:A:H4'	1:CA:560:U:H5"	1.90	0.54
1:CA:1004:A:H8	1:CA:1026:G:C8	2.25	0.54
1:CA:1017:G:H2'	1:CA:1018:C:C6	2.42	0.54
13:CM:106:ASN:O	13:CM:107:ALA:HB3	2.06	0.54
21:CU:18:TYR:O	21:CU:22:ARG:HB3	2.08	0.54
23:DA:819:A:C4	23:DA:1189:A:C2	2.95	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:919:G:H5'	24:DB:81:G:H1'	1.89	0.54
23:DA:966:G:H2'	23:DA:967:C:C6	2.41	0.54
23:DA:2749:A:H4'	29:DG:62:LYS:HB3	1.89	0.54
30:DH:92:VAL:HG23	30:DH:96:ASP:HB2	1.90	0.54
34:DL:64:LYS:HD2	53:D5:25:MET:SD	2.48	0.54
40:DR:6:LYS:O	40:DR:37:VAL:HG21	2.08	0.54
47:DY:11:GLU:OE1	47:DY:11:GLU:N	2.40	0.54
1:AA:176:C:H5"	20:AT:29:LYS:NZ	2.23	0.54
20:AT:97:ALA:O	20:AT:99:LEU:N	2.41	0.54
23:BA:64:A:O2'	42:BT:71:GLY:HA3	2.07	0.54
23:BA:319:C:H2'	23:BA:320:A:C8	2.42	0.54
23:BA:576:U:H2'	23:BA:577:G:C8	2.43	0.54
23:BA:774:A:H2	23:BA:787:U:HO2'	1.52	0.54
23:BA:948:G:H8	23:BA:948:G:C5'	2.20	0.54
23:BA:1833:U:H2'	23:BA:1834:U:H6	1.72	0.54
36:BN:88:ARG:HG3	36:BN:89:ASP:OD1	2.06	0.54
1:CA:692:U:H5	11:CK:26:ASN:HD22	1.55	0.54
1:CA:793:U:H3'	1:CA:794:A:C5'	2.37	0.54
1:CA:1223:C:P	19:CS:78:ARG:HH21	2.29	0.54
4:CD:26:CYS:HA	4:CD:31:CYS:HA	1.90	0.54
23:DA:2774:C:H2'	23:DA:2775:A:O4'	2.06	0.54
27:DE:63:LYS:HE3	27:DE:75:HIS:O	2.08	0.54
29:DG:27:LYS:HG2	29:DG:32:GLU:HB2	1.90	0.54
33:DK:103:ALA:O	33:DK:106:LEU:HD13	2.07	0.54
35:DM:141:GLN:HA	44:DV:71:VAL:O	2.08	0.54
43:DU:8:LYS:N	43:DU:8:LYS:NZ	2.51	0.54
44:DV:74:VAL:O	44:DV:76:LEU:HD12	2.07	0.54
4:AD:195:ALA:C	4:AD:196:LEU:HD12	2.32	0.54
17:AQ:56:VAL:HG23	17:AQ:81:ARG:HG3	1.89	0.54
23:BA:919:G:H5'	24:BB:81:G:H1'	1.90	0.54
23:BA:1161:C:O2'	40:BR:23:GLU:HG2	2.08	0.54
23:BA:2102:U:H2'	23:BA:2103:C:C6	2.42	0.54
23:BA:2186:G:H2'	23:BA:2187:G:C8	2.42	0.54
23:BA:2305:A:C2	28:BF:154:GLY:HA3	2.43	0.54
25:BC:25:THR:HG21	25:BC:81:ALA:HB1	1.90	0.54
32:BJ:151:HIS:HD2	32:BJ:152:PRO:O	1.90	0.54
40:BR:38:LEU:HD22	40:BR:52:VAL:HG11	1.90	0.54
42:BT:23:GLU:HG3	42:BT:24:GLY:H	1.72	0.54
53:B5:54:GLU:HA	53:B5:57:ARG:NH1	2.20	0.54
5:CE:76:ILE:HD11	5:CE:142:LEU:HD11	1.90	0.54
10:CJ:38:ILE:HB	10:CJ:71:LEU:HB3	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:120:ARG:HH21	11:CK:126:ARG:NH2	2.05	0.54
23:DA:276:A:H3'	23:DA:277:C:H5"	1.89	0.54
23:DA:529:A:H62	23:DA:2041:U:H3	1.54	0.54
23:DA:1819:A:H4'	23:DA:1820:U:H5"	1.88	0.54
23:DA:2726:U:H5'	23:DA:2726:U:O2	2.08	0.54
23:DA:2744:G:H21	29:DG:143:GLN:NE2	2.00	0.54
25:DC:125:ILE:H	25:DC:125:ILE:HD12	1.72	0.54
53:D5:52:LYS:H	53:D5:53:PRO:HD2	1.73	0.54
1:AA:512:U:H2'	1:AA:513:C:H6	1.73	0.54
1:AA:559:A:H4'	1:AA:560:U:H5"	1.90	0.54
1:AA:563:A:H2'	1:AA:563:A:N3	2.23	0.54
1:AA:918:A:H2'	1:AA:919:A:C8	2.42	0.54
4:AD:12:CYS:SG	4:AD:19:LEU:HB2	2.48	0.54
5:AE:127:ASN:O	5:AE:131:ILE:HG12	2.08	0.54
23:BA:319:C:H2'	23:BA:320:A:H8	1.73	0.54
23:BA:929:G:H8	23:BA:929:G:O5'	1.90	0.54
23:BA:1161:C:O2'	40:BR:8:GLY:HA2	2.08	0.54
23:BA:2726:U:H5'	23:BA:2726:U:O2	2.08	0.54
23:BA:2729:G:H2'	23:BA:2730:C:C6	2.43	0.54
25:BC:25:THR:HG21	25:BC:81:ALA:CB	2.38	0.54
25:BC:123:ALA:HB3	25:BC:131:LEU:HD23	1.89	0.54
25:BC:246:PRO:HD2	25:BC:255:LYS:HD3	1.89	0.54
32:BJ:125:ALA:O	32:BJ:129:MET:HE3	2.08	0.54
34:BL:62:LEU:H	34:BL:62:LEU:HD22	1.73	0.54
35:BM:54:MET:HG2	35:BM:64:ILE:HD13	1.90	0.54
42:BT:28:PHE:HE2	42:BT:92:LEU:HD11	1.71	0.54
45:BW:51:VAL:N	45:BW:62:LEU:HD12	2.22	0.54
47:BY:2:LYS:CD	47:BY:2:LYS:N	2.69	0.54
1:CA:673:G:H5"	6:CF:87:ARG:HH12	1.72	0.54
1:CA:950:U:H2'	1:CA:951:G:H8	1.73	0.54
1:CA:1281:U:H4'	1:CA:1282:C:OP2	2.07	0.54
2:CB:22:LYS:H	2:CB:22:LYS:HZ3	1.56	0.54
3:CC:105:GLU:HG2	3:CC:106:VAL:N	2.17	0.54
11:CK:124:LYS:C	11:CK:126:ARG:H	2.16	0.54
13:CM:15:VAL:O	13:CM:19:LEU:HD23	2.07	0.54
13:CM:34:LEU:HD22	13:CM:39:ILE:HB	1.89	0.54
20:CT:29:LYS:O	20:CT:33:ILE:HG12	2.08	0.54
23:DA:947:G:N2	23:DA:971:C:C2	2.76	0.54
23:DA:1647:G:H3'	23:DA:1647:G:OP2	2.06	0.54
23:DA:2293:C:H4'	37:DO:93:LYS:NZ	2.23	0.54
23:DA:2393:A:H5"	34:DL:62:LEU:HD12	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DC:123:ALA:HB3	25:DC:131:LEU:HD23	1.88	0.54
29:DG:121:ILE:HD11	29:DG:140:LYS:HB3	1.90	0.54
44:DV:110:GLY:HA3	44:DV:174:VAL:HG11	1.90	0.54
1:AA:80:G:H2'	1:AA:81:G:C8	2.43	0.54
1:AA:405:U:H3'	1:AA:406:G:H5'	1.89	0.54
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.43	0.54
2:AB:51:LEU:O	2:AB:55:PHE:HD2	1.91	0.54
3:AC:50:ALA:HB2	3:AC:75:VAL:HB	1.89	0.54
23:BA:2731:G:C6	23:BA:2732:G:O6	2.61	0.54
24:BB:49:C:OP1	37:BO:97:ARG:HG3	2.08	0.54
28:BF:60:LEU:HD11	28:BF:92:VAL:CG1	2.30	0.54
30:BH:101:LEU:HG	30:BH:107:ILE:HG23	1.90	0.54
35:BM:8:LYS:O	35:BM:9:TYR:HB3	2.08	0.54
37:BO:35:ILE:CG1	37:BO:101:LEU:HD21	2.34	0.54
41:BS:73:ALA:O	41:BS:106:ILE:HG12	2.07	0.54
1:CA:80:G:H2'	1:CA:81:G:C8	2.43	0.54
1:CA:116:A:H61	1:CA:313:A:H1'	1.72	0.54
6:CF:61:LEU:HB3	6:CF:63:TYR:HE2	1.72	0.54
15:CO:56:LEU:O	15:CO:60:VAL:HG23	2.07	0.54
16:CP:49:LEU:HD12	16:CP:50:LYS:H	1.73	0.54
23:DA:2744:G:N2	29:DG:143:GLN:HE22	1.99	0.54
39:DQ:79:PHE:HE1	39:DQ:83:LEU:HD21	1.72	0.54
43:DU:37:VAL:HG21	43:DU:72:VAL:HG21	1.89	0.54
1:AA:323:U:H4'	20:AT:22:ARG:HB3	1.90	0.54
1:AA:1369:C:H2'	1:AA:1370:G:H8	1.72	0.54
20:AT:29:LYS:O	20:AT:33:ILE:HG12	2.07	0.54
24:BB:40:U:O5'	24:BB:40:U:H6	1.91	0.54
25:BC:131:LEU:HA	25:BC:190:TYR:CE2	2.43	0.54
26:BD:25:VAL:HG12	26:BD:181:LEU:HD12	1.90	0.54
27:BE:53:THR:HG23	27:BE:55:GLY:N	2.18	0.54
33:BK:1:MET:HE2	33:BK:32:TYR:CG	2.43	0.54
36:BN:96:ARG:HH22	36:BN:117:VAL:HG23	1.73	0.54
42:BT:39:ILE:O	42:BT:43:VAL:HG12	2.08	0.54
8:CH:58:TYR:O	8:CH:59:LEU:HD23	2.08	0.54
8:CH:86:ILE:CB	8:CH:133:LEU:HD22	2.38	0.54
23:DA:137(B):G:H2'	23:DA:139:G:N7	2.22	0.54
23:DA:605:C:H1'	23:DA:657:U:O2'	2.08	0.54
23:DA:614:U:H4'	23:DA:615:G:H5"	1.90	0.54
23:DA:2422:A:N7	53:D5:31:HIS:CE1	2.76	0.54
29:DG:109:PHE:CE1	29:DG:152:ARG:HD3	2.43	0.54
30:DH:77:LEU:HD11	30:DH:101:LEU:HB2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DK:2:ILE:HG12	33:DK:8:LEU:HD11	1.88	0.54
41:DS:1:MET:HE2	41:DS:2:GLU:H	1.72	0.54
43:DU:76:CYS:SG	43:DU:77:PRO:HD2	2.48	0.54
49:D1:59:VAL:HG12	49:D1:60:GLU:N	2.19	0.54
1:AA:137:C:O4'	16:AP:63:GLY:HA3	2.08	0.53
1:AA:269:C:H2'	1:AA:270:A:C8	2.42	0.53
8:AH:89:PRO:HA	8:AH:92:ARG:HH11	1.72	0.53
9:AI:17:VAL:HG13	9:AI:63:ILE:HD11	1.90	0.53
13:AM:4:ILE:HA	13:AM:57:ARG:HG3	1.88	0.53
17:AQ:40:LYS:HG2	17:AQ:41:LYS:N	2.23	0.53
23:BA:955:C:OP2	35:BM:14:ARG:HD2	2.08	0.53
25:BC:132:PRO:HD3	25:BC:190:TYR:CZ	2.44	0.53
27:BE:183:VAL:O	27:BE:187:VAL:HG23	2.08	0.53
28:BF:47:LYS:HG3	28:BF:82:LEU:CD2	2.39	0.53
34:BL:18:ARG:HB3	34:BL:18:ARG:NH1	2.22	0.53
34:BL:132:LYS:N	34:BL:132:LYS:HD2	2.22	0.53
39:BQ:92:ARG:CD	39:BQ:94:ASN:HB3	2.38	0.53
44:BV:110:GLY:HA3	44:BV:174:VAL:HG11	1.90	0.53
1:CA:563:A:H2'	1:CA:563:A:N3	2.23	0.53
2:CB:80:ILE:HD11	2:CB:208:ILE:HG23	1.88	0.53
2:CB:158:LEU:HD12	2:CB:158:LEU:N	2.23	0.53
17:CQ:40:LYS:HG2	17:CQ:41:LYS:N	2.23	0.53
17:CQ:86:GLU:O	17:CQ:90:ILE:HG12	2.07	0.53
24:DB:40:U:H6	24:DB:40:U:O5'	1.92	0.53
25:DC:25:THR:HG21	25:DC:81:ALA:CB	2.37	0.53
25:DC:71:ASP:CB	25:DC:103:ARG:HH22	2.20	0.53
37:DO:87:PHE:CE2	37:DO:89:ARG:HA	2.43	0.53
39:DQ:92:ARG:CD	39:DQ:94:ASN:HB3	2.38	0.53
1:AA:1191:A:H5"	3:AC:4:LYS:NZ	2.23	0.53
5:AE:12:LEU:C	5:AE:12:LEU:HD22	2.32	0.53
16:AP:20:VAL:HG23	16:AP:35:LYS:HA	1.90	0.53
19:AS:16:LEU:O	19:AS:20:LEU:HG	2.09	0.53
23:BA:320:A:H2'	27:BE:136:THR:HG21	1.91	0.53
23:BA:674:G:C1'	27:BE:74:ARG:HD3	2.37	0.53
23:BA:911:A:C6	35:BM:9:TYR:HE1	2.25	0.53
23:BA:1154:G:O5'	23:BA:1154:G:H8	1.90	0.53
23:BA:2032:G:O2'	26:BD:145:LYS:HE2	2.09	0.53
24:BB:37:C:H2'	37:BO:95:HIS:HE1	1.71	0.53
29:BG:27:LYS:HG2	29:BG:32:GLU:HB2	1.90	0.53
33:BK:24:VAL:CG2	33:BK:33:ALA:HB2	2.38	0.53
53:B5:25:MET:HE1	53:B5:45:GLY:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:363:A:H8	12:CL:32:ARG:HH21	1.56	0.53
1:CA:512:U:H2'	1:CA:513:C:H6	1.73	0.53
1:CA:1063:C:H3'	1:CA:1064:G:H2'	1.91	0.53
1:CA:1157:A:H4'	1:CA:1158:C:O5'	2.08	0.53
1:CA:1373:G:H5"	7:CG:36:LYS:HZ3	1.73	0.53
17:CQ:56:VAL:HG23	17:CQ:81:ARG:HG3	1.89	0.53
23:DA:17:G:H4'	39:DQ:25:TRP:CH2	2.42	0.53
25:DC:233:HIS:HE1	25:DC:247:ALA:H	1.56	0.53
26:DD:14:ILE:C	26:DD:14:ILE:HD12	2.33	0.53
26:DD:47:VAL:HG21	26:DD:86:PRO:HD3	1.90	0.53
27:DE:36:VAL:O	27:DE:40:GLN:HG3	2.07	0.53
30:DH:76:THR:HA	30:DH:141:LYS:HB2	1.89	0.53
34:DL:132:LYS:HD2	34:DL:132:LYS:N	2.21	0.53
37:DO:34:HIS:ND1	37:DO:54:LEU:HB2	2.22	0.53
40:DR:22:VAL:HG12	40:DR:23:GLU:H	1.73	0.53
47:DY:46:GLN:OE1	47:DY:46:GLN:HA	2.09	0.53
52:D4:8:ASN:ND2	52:D4:11:LYS:N	2.54	0.53
1:AA:193:C:H2'	1:AA:194:C:C6	2.42	0.53
1:AA:434:U:H2'	1:AA:435:C:C6	2.42	0.53
1:AA:501:C:H2'	1:AA:502:G:C8	2.43	0.53
2:AB:22:LYS:HA	2:AB:22:LYS:HZ2	1.73	0.53
3:AC:11:ARG:HB3	3:AC:15:THR:HB	1.89	0.53
4:AD:189:PRO:CB	4:AD:194:LEU:HD21	2.38	0.53
17:AQ:59:ILE:N	17:AQ:59:ILE:HD12	2.23	0.53
17:AQ:97:SER:O	17:AQ:98:LEU:HD23	2.09	0.53
23:BA:2293:C:H4'	37:BO:93:LYS:NZ	2.23	0.53
34:BL:88:LEU:HD22	34:BL:114:ILE:HG21	1.90	0.53
40:BR:22:VAL:HG12	40:BR:23:GLU:H	1.73	0.53
50:B2:3:LYS:O	50:B2:4:HIS:C	2.51	0.53
51:B3:11:LEU:HD21	51:B3:51:GLU:CD	2.33	0.53
1:CA:1251:A:H2'	1:CA:1252:A:C8	2.43	0.53
3:CC:173:VAL:N	3:CC:174:PRO:HD3	2.23	0.53
15:CO:36:ILE:HG22	15:CO:37:ASN:HD22	1.73	0.53
23:DA:581:C:H2'	23:DA:582:G:H8	1.74	0.53
23:DA:1655:A:H1'	26:DD:113:PHE:CD2	2.43	0.53
23:DA:2186:G:H2'	23:DA:2187:G:C8	2.42	0.53
23:DA:2814:C:O2'	50:D2:29:ILE:HG13	2.08	0.53
26:DD:25:VAL:HG12	26:DD:181:LEU:HD12	1.91	0.53
30:DH:130:TYR:CD2	30:DH:132:PRO:HG3	2.43	0.53
34:DL:84:ASN:HB3	34:DL:86:LYS:HG2	1.90	0.53
39:DQ:79:PHE:C	39:DQ:79:PHE:HD1	2.16	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DV:54:HIS:HA	44:DV:98:MET:HE1	1.90	0.53
53:D5:34:TRP:CG	53:D5:35:GLN:N	2.76	0.53
1:AA:1223:C:P	19:AS:78:ARG:HH21	2.31	0.53
1:AA:1236:A:H2'	1:AA:1237:C:C6	2.44	0.53
1:AA:1427:U:H2'	1:AA:1428:A:H8	1.73	0.53
2:AB:178:ARG:HH21	8:AH:74:PRO:HG3	1.73	0.53
5:AE:10:MET:HA	5:AE:32:VAL:HA	1.91	0.53
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.90	0.53
23:BA:17:G:H4'	39:BQ:25:TRP:CH2	2.43	0.53
23:BA:1614:A:H62	41:BS:93:ALA:HB2	1.73	0.53
23:BA:1692:U:O2'	23:BA:1693:U:H2'	2.08	0.53
23:BA:1809:A:H2'	23:BA:1810:A:C8	2.43	0.53
23:BA:2543:G:H2'	23:BA:2544:G:C8	2.44	0.53
23:BA:2814:C:O2'	50:B2:29:ILE:HG13	2.08	0.53
27:BE:29:ASN:H	27:BE:112:MET:CE	2.22	0.53
30:BH:142:VAL:HG12	30:BH:143:SER:N	2.23	0.53
35:BM:78:PRO:O	35:BM:79:LEU:HB2	2.09	0.53
38:BP:58:ASN:C	38:BP:58:ASN:HD22	2.17	0.53
39:BQ:79:PHE:C	39:BQ:79:PHE:HD1	2.16	0.53
42:BT:31:HIS:ND1	42:BT:32:PRO:HD2	2.22	0.53
43:BU:11:ASP:O	43:BU:26:LYS:HA	2.09	0.53
3:CC:50:ALA:HB2	3:CC:75:VAL:HB	1.90	0.53
4:CD:155:LEU:O	4:CD:159:ARG:HG2	2.08	0.53
8:CH:89:PRO:HA	8:CH:92:ARG:HH11	1.73	0.53
20:CT:97:ALA:O	20:CT:99:LEU:N	2.41	0.53
23:DA:2401:U:C2'	23:DA:2402:C:H5"	2.39	0.53
23:DA:2481:G:O2'	23:DA:2482:G:P	2.65	0.53
26:DD:111:ARG:HD2	26:DD:160:TYR:CE1	2.44	0.53
28:DF:96:ARG:O	28:DF:99:MET:HB3	2.09	0.53
32:DJ:58:ARG:C	32:DJ:60:LYS:H	2.15	0.53
36:DN:104:ARG:NH1	36:DN:109:ALA:HB3	2.24	0.53
42:DT:23:GLU:HG3	42:DT:24:GLY:H	1.73	0.53
45:DW:32:ARG:C	45:DW:35:ASN:HD21	2.15	0.53
1:AA:1281:U:H4'	1:AA:1282:C:OP2	2.07	0.53
3:AC:182:ILE:HG12	3:AC:203:PHE:HA	1.91	0.53
4:AD:104:VAL:HG11	4:AD:146:ILE:CD1	2.38	0.53
8:AH:88:LYS:HB3	8:AH:89:PRO:HD2	1.91	0.53
16:AP:22:THR:HA	16:AP:33:ILE:HG12	1.90	0.53
23:BA:176:G:O2'	23:BA:177:G:H5'	2.09	0.53
25:BC:244:ARG:HG3	25:BC:245:PRO:N	2.24	0.53
28:BF:41:GLN:HG2	28:BF:155:MET:CB	2.37	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BJ:42:GLU:HA	32:BJ:82:LYS:CB	2.32	0.53
34:BL:62:LEU:CD2	53:B5:25:MET:HB2	2.38	0.53
37:BO:87:PHE:CE2	37:BO:89:ARG:HA	2.43	0.53
38:BP:57:PHE:O	38:BP:59:THR:N	2.41	0.53
47:BY:16:LEU:HB2	47:BY:20:GLU:CG	2.35	0.53
53:B5:50:LEU:HB2	53:B5:54:GLU:HG3	1.91	0.53
1:CA:20:U:H2'	1:CA:21:G:O4'	2.09	0.53
1:CA:413:G:H21	1:CA:428:G:H1'	1.73	0.53
1:CA:1236:A:H2'	1:CA:1237:C:C6	2.43	0.53
2:CB:205:ASP:O	2:CB:211:ILE:HD11	2.09	0.53
4:CD:104:VAL:HG11	4:CD:146:ILE:CD1	2.38	0.53
10:CJ:13:HIS:HB3	10:CJ:68:HIS:CD2	2.44	0.53
14:CN:48:ALA:HB2	14:CN:53:LEU:HD12	1.90	0.53
17:CQ:82:MET:O	17:CQ:86:GLU:HG2	2.08	0.53
23:DA:483:A:H4'	43:DU:49:VAL:HG23	1.89	0.53
23:DA:814:C:O2'	23:DA:815:C:H5'	2.08	0.53
23:DA:1266:G:H5"	50:D2:23:HIS:NE2	2.23	0.53
23:DA:1932:A:H3'	23:DA:1933:G:H8	1.73	0.53
24:DB:49:C:OP1	37:DO:97:ARG:HG3	2.08	0.53
28:DF:32:PRO:HA	28:DF:162:THR:OG1	2.09	0.53
36:DN:96:ARG:HH22	36:DN:117:VAL:HG23	1.73	0.53
51:D3:11:LEU:HD21	51:D3:51:GLU:CD	2.33	0.53
1:AA:78:G:H2'	1:AA:79:G:C8	2.44	0.53
1:AA:939:G:H2'	1:AA:940:C:C6	2.44	0.53
1:AA:1152:A:OP1	10:AJ:68:HIS:CD2	2.62	0.53
3:AC:35:GLU:HA	3:AC:38:ARG:HG2	1.91	0.53
5:AE:33:VAL:HG11	5:AE:109:ILE:HD13	1.89	0.53
6:AF:16:GLN:HA	6:AF:19:LEU:HB3	1.89	0.53
23:BA:605:C:H1'	23:BA:657:U:O2'	2.09	0.53
23:BA:1309:G:H3'	52:B4:9:ARG:NH1	2.23	0.53
34:BL:52:GLU:HA	34:BL:52:GLU:OE1	2.08	0.53
38:BP:26:ASP:HB2	38:BP:90:GLN:O	2.09	0.53
39:BQ:60:LEU:HD23	39:BQ:60:LEU:C	2.33	0.53
39:BQ:92:ARG:NH2	40:BR:11:GLN:H	2.06	0.53
48:BZ:1:MET:HA	48:BZ:1:MET:HE2	1.90	0.53
2:CB:178:ARG:HH21	8:CH:74:PRO:HG3	1.72	0.53
4:CD:122:ARG:HD3	4:CD:122:ARG:O	2.08	0.53
6:CF:5:GLU:HG3	6:CF:93:SER:OG	2.09	0.53
14:CN:24:CYS:O	14:CN:28:GLY:HA2	2.09	0.53
20:CT:81:LYS:O	20:CT:85:MET:HG2	2.09	0.53
23:DA:1309:G:H3'	52:D4:9:ARG:NH1	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1692:U:O2'	23:DA:1693:U:H2'	2.09	0.53
23:DA:1862:G:H2'	23:DA:1863:G:H8	1.73	0.53
34:DL:27:HIS:HE1	40:DR:83:ARG:HH12	1.56	0.53
34:DL:62:LEU:HD22	34:DL:62:LEU:H	1.74	0.53
39:DQ:58:ARG:O	39:DQ:62:ILE:HG12	2.08	0.53
44:DV:108:PRO:HA	44:DV:142:SER:O	2.07	0.53
53:D5:50:LEU:HB2	53:D5:54:GLU:HG3	1.90	0.53
5:AE:72:GLN:O	5:AE:75:THR:HG22	2.09	0.53
14:AN:24:CYS:HB3	14:AN:29:ARG:N	2.21	0.53
24:BB:30:C:H2'	24:BB:31:C:H5'	1.90	0.53
25:BC:242:ARG:H	25:BC:242:ARG:CD	2.07	0.53
26:BD:9:VAL:HG13	26:BD:25:VAL:O	2.09	0.53
28:BF:107:LEU:HA	28:BF:111:LEU:HD12	1.91	0.53
28:BF:109:VAL:C	28:BF:112:PRO:HD2	2.34	0.53
29:BG:109:PHE:CE1	29:BG:152:ARG:HD3	2.44	0.53
32:BJ:49:LEU:O	32:BJ:53:ILE:HG13	2.09	0.53
33:BK:68:GLU:HB3	33:BK:78:ARG:HB2	1.89	0.53
35:BM:48:GLU:O	35:BM:52:VAL:HG12	2.08	0.53
38:BP:1:MET:O	38:BP:3:ARG:N	2.41	0.53
41:BS:80:PRO:O	41:BS:100:THR:HG22	2.09	0.53
44:BV:108:PRO:HA	44:BV:142:SER:O	2.08	0.53
1:CA:626:U:H2'	1:CA:627:G:C8	2.44	0.53
1:CA:1125:U:O5'	1:CA:1125:U:H6	1.92	0.53
1:CA:1317:C:C2	14:CN:16:PHE:CZ	2.96	0.53
22:CV:6168:G:H2'	22:CV:6169:U:H6	1.74	0.53
23:DA:1386:C:H2'	23:DA:1387:C:C6	2.44	0.53
23:DA:1386:C:H2'	23:DA:1387:C:H6	1.74	0.53
25:DC:72:LYS:HE3	25:DC:101:GLU:HG2	1.91	0.53
26:DD:33:VAL:HG23	26:DD:47:VAL:HG13	1.91	0.53
32:DJ:157:ARG:N	32:DJ:158:PRO:CD	2.65	0.53
41:DS:103:ILE:H	41:DS:103:ILE:HD12	1.74	0.53
1:AA:765:G:H5"	1:AA:766:A:OP1	2.09	0.53
1:AA:942:G:H21	9:AI:124:GLN:NE2	2.00	0.53
1:AA:963:G:H2'	1:AA:964:A:C8	2.44	0.53
1:AA:1125:U:O5'	1:AA:1125:U:H6	1.92	0.53
1:AA:1317:C:C2	14:AN:16:PHE:CZ	2.97	0.53
7:AG:15:ASP:HA	7:AG:24:THR:HG23	1.91	0.53
17:AQ:80:GLY:O	17:AQ:81:ARG:HG2	2.09	0.53
20:AT:81:LYS:O	20:AT:85:MET:HG2	2.09	0.53
23:BA:637:A:OP1	34:BL:133:SER:HB3	2.09	0.53
23:BA:1257:C:H4'	27:BE:83:PHE:CE2	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1862:G:H2'	23:BA:1863:G:H8	1.74	0.53
26:BD:47:VAL:HG21	26:BD:86:PRO:HD3	1.90	0.53
39:BQ:8:VAL:HG11	39:BQ:12:ARG:CZ	2.39	0.53
43:BU:2:ARG:C	43:BU:4:LYS:H	2.17	0.53
53:B5:53:PRO:HB2	53:B5:57:ARG:HH21	1.72	0.53
1:CA:149:A:H2'	1:CA:150:C:C6	2.43	0.53
1:CA:238:G:P	17:CQ:25:ARG:HH22	2.32	0.53
1:CA:939:G:H2'	1:CA:940:C:C6	2.44	0.53
1:CA:1154:G:H2'	1:CA:1155:G:H8	1.74	0.53
8:CH:97:VAL:HG13	8:CH:98:LYS:N	2.24	0.53
11:CK:43:SER:HA	11:CK:47:VAL:HG21	1.91	0.53
17:CQ:97:SER:O	17:CQ:98:LEU:HD23	2.09	0.53
23:DA:127:A:H5"	23:DA:128:C:O4'	2.09	0.53
23:DA:322:A:H3'	27:DE:169:ASN:HD21	1.72	0.53
23:DA:597:U:O2'	34:DL:15:ARG:HG2	2.09	0.53
23:DA:943:U:OP2	34:DL:38:GLN:CD	2.51	0.53
23:DA:2394:C:H2'	23:DA:2395:C:C6	2.44	0.53
23:DA:2543:G:H2'	23:DA:2544:G:C8	2.44	0.53
23:DA:2648:C:H2'	23:DA:2649:U:C6	2.43	0.53
25:DC:131:LEU:HA	25:DC:190:TYR:CE2	2.43	0.53
29:DG:149:ARG:HA	29:DG:162:ILE:HG12	1.90	0.53
38:DP:1:MET:O	38:DP:3:ARG:N	2.40	0.53
38:DP:58:ASN:HD22	38:DP:58:ASN:C	2.17	0.53
43:DU:11:ASP:O	43:DU:26:LYS:HA	2.09	0.53
44:DV:76:LEU:HD12	44:DV:76:LEU:H	1.73	0.53
46:DX:45:ASN:ND2	46:DX:47:GLN:HE21	2.07	0.53
1:AA:950:U:H2'	1:AA:951:G:H8	1.74	0.53
1:AA:971:G:H1'	1:AA:1365:G:O2'	2.08	0.53
6:AF:5:GLU:HB3	6:AF:62:TRP:HE1	1.73	0.53
6:AF:12:PRO:HG2	6:AF:55:ASP:OD2	2.09	0.53
23:BA:1028:A:N6	23:BA:1125:G:H2'	2.24	0.53
23:BA:1971:A:C5	25:BC:241:PRO:HG3	2.44	0.53
23:BA:2056:G:N2	23:BA:2057:A:C1'	2.72	0.53
23:BA:2401:U:C2'	23:BA:2402:C:H5"	2.38	0.53
24:BB:104:A:O4'	44:BV:29:TYR:HE1	1.92	0.53
34:BL:75:ILE:HD13	34:BL:77:ARG:NE	2.24	0.53
35:BM:68:ILE:HG23	35:BM:103:MET:HA	1.91	0.53
35:BM:140:ALA:HB3	44:BV:53:ILE:HD13	1.90	0.53
35:BM:141:GLN:HA	44:BV:71:VAL:O	2.08	0.53
46:BX:27:GLU:CB	46:BX:33:LYS:HG3	2.39	0.53
53:B5:34:TRP:CG	53:B5:35:GLN:N	2.76	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:59:A:H3'	1:CA:331:G:H22	1.74	0.53
1:CA:1356:G:H2'	1:CA:1357:A:H8	1.74	0.53
7:CG:69:VAL:CA	7:CG:138:LYS:HD2	2.35	0.53
9:CI:65:VAL:HG21	9:CI:73:GLN:HB3	1.91	0.53
10:CJ:54:PHE:HD2	10:CJ:55:LYS:HG3	1.73	0.53
12:CL:82:VAL:HG22	12:CL:83:LEU:N	2.24	0.53
22:CV:6168:G:H2'	22:CV:6169:U:C6	2.44	0.53
23:DA:1614:A:H61	41:DS:88:ARG:H	1.55	0.53
23:DA:2731:G:C6	23:DA:2732:G:O6	2.62	0.53
23:DA:2822:G:O6	36:DN:4:LEU:HD23	2.08	0.53
25:DC:132:PRO:HD3	25:DC:190:TYR:CZ	2.44	0.53
34:DL:17:LYS:O	34:DL:19:VAL:HG22	2.09	0.53
37:DO:41:ASP:OD2	37:DO:44:LYS:HD3	2.09	0.53
41:DS:14:PRO:O	41:DS:15:ARG:C	2.52	0.53
41:DS:110:LYS:HG3	41:DS:111:HIS:ND1	2.24	0.53
43:DU:2:ARG:C	43:DU:4:LYS:H	2.17	0.53
44:DV:118:GLN:HB2	44:DV:173:ALA:O	2.09	0.53
49:D1:42:CYS:SG	49:D1:46:ASN:HB3	2.49	0.53
53:D5:11:LYS:C	53:D5:11:LYS:HD3	2.34	0.53
1:AA:161:A:H2'	1:AA:162:A:C8	2.44	0.53
1:AA:735:C:H2'	1:AA:736:C:C6	2.42	0.53
2:AB:17:PHE:HB2	2:AB:42:ILE:CG2	2.39	0.53
6:AF:69:GLU:CD	6:AF:69:GLU:H	2.16	0.53
9:AI:10:ARG:HH21	9:AI:107:ARG:HB2	1.74	0.53
9:AI:83:ARG:HA	9:AI:86:VAL:HG12	1.91	0.53
12:AL:65:VAL:HG11	12:AL:97:TYR:CE1	2.44	0.53
23:BA:55:G:H2'	23:BA:56:A:H8	1.73	0.53
23:BA:1386:C:H2'	23:BA:1387:C:H6	1.74	0.53
23:BA:2422:A:N7	53:B5:31:HIS:CE1	2.77	0.53
23:BA:2481:G:O2'	23:BA:2482:G:P	2.67	0.53
27:BE:18:ARG:HG3	27:BE:18:ARG:O	2.08	0.53
36:BN:12:ARG:HD3	36:BN:16:HIS:ND1	2.24	0.53
49:B1:42:CYS:SG	49:B1:46:ASN:HB3	2.48	0.53
1:CA:735:C:H2'	1:CA:736:C:C6	2.44	0.53
2:CB:17:PHE:HB2	2:CB:42:ILE:CG2	2.40	0.53
6:CF:67:MET:HB2	6:CF:68:PRO:HD2	1.90	0.53
9:CI:10:ARG:HH21	9:CI:107:ARG:HB2	1.74	0.53
12:CL:32:ARG:HA	12:CL:32:ARG:HE	1.71	0.53
13:CM:87:TYR:O	13:CM:91:ARG:HG2	2.08	0.53
23:DA:323:G:H5'	27:DE:169:ASN:HD21	1.73	0.53
23:DA:486:C:H4'	41:DS:60:ASN:HD22	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:637:A:OP1	34:DL:133:SER:HB3	2.09	0.53
23:DA:948:G:H8	23:DA:948:G:C5'	2.18	0.53
23:DA:1164:G:C5'	23:DA:1164:G:H8	2.22	0.53
23:DA:2010:G:H5"	41:DS:42:ARG:HB2	1.91	0.53
28:DF:107:LEU:HA	28:DF:111:LEU:HD12	1.91	0.53
30:DH:117:GLU:HG3	30:DH:118:LYS:N	2.24	0.53
40:DR:38:LEU:HD22	40:DR:52:VAL:HG11	1.91	0.53
42:DT:54:VAL:C	42:DT:55:ASN:HD22	2.17	0.53
1:AA:501:C:H2'	1:AA:502:G:H8	1.72	0.52
1:AA:1053:G:N7	1:AA:1200:C:H5"	2.24	0.52
3:AC:173:VAL:N	3:AC:174:PRO:HD3	2.24	0.52
3:AC:184:TYR:HE2	3:AC:186:PHE:HB2	1.74	0.52
11:AK:124:LYS:C	11:AK:126:ARG:H	2.16	0.52
13:AM:10:PRO:HB2	13:AM:18:ALA:HB1	1.90	0.52
13:AM:17:VAL:HG12	13:AM:21:TYR:HE1	1.74	0.52
13:AM:87:TYR:O	13:AM:91:ARG:HG2	2.09	0.52
15:AO:36:ILE:HD12	15:AO:63:ARG:HH11	1.74	0.52
17:AQ:55:ASP:HB3	17:AQ:76:LEU:HD13	1.92	0.52
23:BA:270(L):C:H2'	23:BA:270(M):U:H5"	1.91	0.52
27:BE:63:LYS:HE3	27:BE:75:HIS:O	2.09	0.52
37:BO:35:ILE:O	37:BO:53:SER:HB2	2.09	0.52
37:BO:41:ASP:OD2	37:BO:44:LYS:HD3	2.09	0.52
40:BR:6:LYS:O	40:BR:37:VAL:HG21	2.10	0.52
43:BU:95:LYS:HG2	43:BU:100:ALA:HA	1.91	0.52
1:CA:160:A:H2'	1:CA:161:A:O4'	2.08	0.52
1:CA:772:U:H2'	1:CA:773:G:O4'	2.09	0.52
1:CA:865:A:H5'	1:CA:1078:U:O4	2.08	0.52
1:CA:1229:A:H2'	1:CA:1230:C:C6	2.44	0.52
4:CD:142:PRO:HA	4:CD:185:PHE:HD2	1.74	0.52
7:CG:15:ASP:HA	7:CG:24:THR:HG23	1.91	0.52
19:CS:16:LEU:O	19:CS:20:LEU:HG	2.09	0.52
23:DA:176:G:O2'	23:DA:177:G:H5'	2.09	0.52
23:DA:263:C:H2'	23:DA:264:C:O4'	2.09	0.52
23:DA:1510:A:H2'	23:DA:1511:A:H8	1.71	0.52
36:DN:10:LEU:HD22	36:DN:17:ARG:CD	2.39	0.52
42:DT:39:ILE:O	42:DT:43:VAL:HG12	2.09	0.52
45:DW:48:GLY:HA3	45:DW:80:HIS:ND1	2.24	0.52
1:AA:1154:G:H2'	1:AA:1155:G:H8	1.74	0.52
2:AB:158:LEU:HD12	2:AB:158:LEU:N	2.24	0.52
8:AH:80:ILE:HD12	8:AH:80:ILE:N	2.25	0.52
10:AJ:30:SER:HB2	10:AJ:80:LYS:CG	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:48:ALA:HB2	14:AN:53:LEU:HD12	1.91	0.52
20:AT:26:ASN:HD22	20:AT:27:LYS:N	2.07	0.52
23:BA:263:C:H2'	23:BA:264:C:O4'	2.09	0.52
23:BA:498:G:N3	43:BU:47:LYS:HE3	2.24	0.52
23:BA:676:A:H2	23:BA:802:A:H61	1.57	0.52
23:BA:2210:G:H21	23:BA:2211:G:C5'	2.23	0.52
25:BC:154:LYS:C	25:BC:155:LEU:HD12	2.34	0.52
33:BK:2:ILE:HG12	33:BK:8:LEU:HD11	1.91	0.52
45:BW:48:GLY:HA3	45:BW:80:HIS:ND1	2.24	0.52
1:CA:17:U:H2'	1:CA:18:C:C6	2.45	0.52
1:CA:601:C:H2'	1:CA:602:A:H8	1.73	0.52
5:CE:10:MET:HA	5:CE:32:VAL:HA	1.91	0.52
8:CH:88:LYS:HB3	8:CH:89:PRO:HD2	1.90	0.52
17:CQ:80:GLY:O	17:CQ:81:ARG:HG2	2.09	0.52
23:DA:2271:G:H2'	23:DA:2272:U:C6	2.44	0.52
23:DA:2358:G:C6	23:DA:2359:C:C4	2.97	0.52
28:DF:47:LYS:HG3	28:DF:82:LEU:CD2	2.38	0.52
30:DH:77:LEU:HG	30:DH:101:LEU:HD13	1.91	0.52
1:AA:1014:A:H2	1:AA:1219:U:H1'	1.75	0.52
5:AE:10:MET:HG3	5:AE:13:ILE:HD11	1.90	0.52
9:AI:113:LYS:HG2	9:AI:119:ALA:HA	1.91	0.52
10:AJ:13:HIS:HB3	10:AJ:68:HIS:CD2	2.45	0.52
12:AL:82:VAL:HG22	12:AL:83:LEU:N	2.24	0.52
16:AP:21:VAL:HG23	16:AP:33:ILE:HB	1.91	0.52
23:BA:118:A:N3	23:BA:178:G:H1'	2.25	0.52
23:BA:1276:A:O2'	36:BN:16:HIS:HE1	1.92	0.52
23:BA:1790:C:O2'	25:BC:209:ALA:HB2	2.09	0.52
23:BA:2358:G:C6	23:BA:2359:C:C4	2.97	0.52
25:BC:71:ASP:HB3	25:BC:103:ARG:NH2	2.20	0.52
30:BH:66:GLU:HB3	30:BH:67:ARG:NH1	2.24	0.52
30:BH:76:THR:HA	30:BH:141:LYS:HB2	1.90	0.52
35:BM:60:ARG:H	44:BV:179:ASP:CB	2.22	0.52
36:BN:10:LEU:HD22	36:BN:17:ARG:CD	2.40	0.52
36:BN:21:TYR:HE2	36:BN:43:GLU:HB3	1.73	0.52
38:BP:6:LEU:O	38:BP:10:VAL:HG23	2.09	0.52
40:BR:15:GLU:HB3	40:BR:16:PRO:HD2	1.92	0.52
41:BS:110:LYS:HG3	41:BS:111:HIS:ND1	2.25	0.52
47:BY:2:LYS:HA	47:BY:5:GLU:OE2	2.08	0.52
1:CA:332:G:OP2	20:CT:10:LEU:HD23	2.10	0.52
1:CA:512:U:H2'	1:CA:513:C:C6	2.44	0.52
1:CA:765:G:H5"	1:CA:766:A:OP1	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1369:C:H2'	1:CA:1370:G:H8	1.72	0.52
2:CB:51:LEU:O	2:CB:55:PHE:HD2	1.91	0.52
4:CD:100:ARG:NH1	4:CD:137:SER:HA	2.24	0.52
9:CI:62:TYR:C	9:CI:63:ILE:HD12	2.35	0.52
12:CL:40:ARG:HD3	12:CL:41:THR:O	2.09	0.52
13:CM:3:ARG:HH21	13:CM:7:VAL:HG13	1.74	0.52
23:DA:568:U:O4	40:DR:78:LYS:NZ	2.40	0.52
23:DA:593:G:O2'	53:D5:62:LEU:HD13	2.09	0.52
23:DA:775:G:C4	23:DA:794:G:C8	2.97	0.52
23:DA:1022:G:H8	32:DJ:92:GLN:HE22	1.56	0.52
23:DA:2517:C:C6	23:DA:2542:A:C2	2.96	0.52
35:DM:58:PHE:O	35:DM:58:PHE:HD1	1.92	0.52
35:DM:78:PRO:O	35:DM:79:LEU:HB2	2.09	0.52
39:DQ:88:ILE:O	39:DQ:88:ILE:HG13	2.09	0.52
1:AA:1260:C:H4'	1:AA:1284:C:H5'	1.92	0.52
1:AA:1347:G:C8	9:AI:107:ARG:HB3	2.44	0.52
4:AD:166:LYS:HD2	4:AD:166:LYS:O	2.10	0.52
9:AI:65:VAL:HG21	9:AI:73:GLN:HB3	1.91	0.52
11:AK:21:ILE:N	11:AK:21:ILE:HD12	2.25	0.52
23:BA:1173:G:H3'	23:BA:1174:A:C5'	2.40	0.52
23:BA:1567:A:H2'	25:BC:84:TYR:HE2	1.75	0.52
23:BA:1817:G:OP1	25:BC:88:ARG:NH2	2.42	0.52
23:BA:2050:C:H1'	26:BD:156:MET:HE1	1.92	0.52
23:BA:2774:C:H2'	23:BA:2775:A:O4'	2.09	0.52
26:BD:33:VAL:HG23	26:BD:47:VAL:HG13	1.90	0.52
28:BF:96:ARG:O	28:BF:99:MET:HB3	2.09	0.52
30:BH:72:LEU:HD12	30:BH:140:LEU:HD13	1.91	0.52
38:BP:48:ILE:H	38:BP:48:ILE:HD12	1.73	0.52
53:B5:50:LEU:HD13	53:B5:57:ARG:CZ	2.40	0.52
1:CA:350:G:O2'	1:CA:351:G:H5'	2.08	0.52
17:CQ:54:GLY:O	17:CQ:81:ARG:HB2	2.09	0.52
23:DA:779:U:P	25:DC:49:ILE:HG13	2.49	0.52
37:DO:49:VAL:HG11	37:DO:73:LEU:HA	1.92	0.52
38:DP:57:PHE:HE2	38:DP:79:HIS:HB2	1.74	0.52
39:DQ:49:HIS:HA	39:DQ:52:ARG:HB2	1.92	0.52
43:DU:90:LEU:HG	43:DU:91:GLU:HG2	1.91	0.52
44:DV:5:LEU:HB3	44:DV:59:LEU:HD23	1.92	0.52
50:D2:3:LYS:O	50:D2:4:HIS:C	2.52	0.52
52:D4:21:ARG:HB3	52:D4:31:LEU:CD2	2.40	0.52
1:AA:164:U:H2'	1:AA:165:C:C6	2.45	0.52
1:AA:136(B):C:H5'	1:AA:1363:A:H2'	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:205:ASP:O	2:AB:211:ILE:HD11	2.09	0.52
6:AF:14:LEU:HD21	6:AF:18:GLN:HB2	1.92	0.52
23:BA:127:A:H5"	23:BA:128:C:O4'	2.09	0.52
23:BA:1164:G:C5'	23:BA:1164:G:H8	2.22	0.52
23:BA:1386:C:H2'	23:BA:1387:C:C6	2.44	0.52
44:BV:54:HIS:HA	44:BV:98:MET:HE1	1.90	0.52
1:CA:817:C:H1'	1:CA:819:A:H5'	1.91	0.52
1:CA:909:A:OP1	12:CL:20:LYS:HD2	2.08	0.52
1:CA:1504:G:OP1	1:CA:1507:A:H4'	2.10	0.52
5:CE:10:MET:HG3	5:CE:13:ILE:HD11	1.90	0.52
10:CJ:30:SER:HB2	10:CJ:80:LYS:CG	2.39	0.52
15:CO:36:ILE:HD12	15:CO:63:ARG:HH11	1.74	0.52
23:DA:1826:G:OP1	25:DC:233:HIS:HD2	1.92	0.52
23:DA:2439:A:C5'	23:DA:2439:A:H8	2.22	0.52
27:DE:34:TRP:HB2	34:DL:10:PRO:O	2.10	0.52
27:DE:53:THR:HG23	27:DE:55:GLY:N	2.19	0.52
28:DF:139:LEU:HA	28:DF:144:ILE:HG21	1.91	0.52
33:DK:112:MET:HA	33:DK:115:VAL:HG22	1.91	0.52
34:DL:62:LEU:CD2	53:D5:25:MET:HB2	2.38	0.52
1:AA:413:G:H21	1:AA:428:G:H1'	1.73	0.52
1:AA:976:G:H8	1:AA:1358:U:H2'	1.72	0.52
14:AN:24:CYS:O	14:AN:28:GLY:HA2	2.09	0.52
15:AO:36:ILE:HG22	15:AO:37:ASN:HD22	1.74	0.52
17:AQ:81:ARG:HA	17:AQ:81:ARG:HE	1.75	0.52
23:BA:1027:A:C2	23:BA:2488:A:H5'	2.45	0.52
23:BA:2712:U:H1'	23:BA:712(B):A:H8	1.66	0.52
25:BC:242:ARG:N	25:BC:242:ARG:CD	2.70	0.52
26:BD:201:THR:CG2	26:BD:202:LYS:N	2.73	0.52
29:BG:149:ARG:HA	29:BG:162:ILE:HG12	1.91	0.52
1:CA:1240:U:OP1	7:CG:115:ARG:HA	2.09	0.52
3:CC:182:ILE:HG12	3:CC:203:PHE:HA	1.92	0.52
4:CD:153:ARG:HB3	4:CD:181:MET:HE1	1.91	0.52
8:CH:31:PHE:O	8:CH:35:ILE:HG12	2.10	0.52
16:CP:20:VAL:HG23	16:CP:35:LYS:HA	1.90	0.52
23:DA:871:U:H4'	35:DM:69:PHE:CE2	2.45	0.52
23:DA:959:A:O2'	23:DA:960:A:H5'	2.10	0.52
30:DH:6:LEU:HA	30:DH:15:VAL:HG13	1.90	0.52
34:DL:88:LEU:HD22	34:DL:114:ILE:HG21	1.90	0.52
35:DM:60:ARG:H	44:DV:179:ASP:CB	2.22	0.52
38:DP:26:ASP:HB2	38:DP:90:GLN:O	2.09	0.52
40:DR:15:GLU:HB3	40:DR:16:PRO:HD2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DV:98:MET:HE2	44:DV:99:TYR:O	2.10	0.52
47:DY:39:ALA:HA	47:DY:45:SER:CB	2.39	0.52
1:AA:488:C:O5'	1:AA:488:C:H6	1.93	0.52
2:AB:74:LYS:O	2:AB:78:GLN:HG3	2.10	0.52
4:AD:122:ARG:C	4:AD:122:ARG:HD3	2.34	0.52
6:AF:21:LEU:O	6:AF:25:ILE:HG12	2.10	0.52
6:AF:87:ARG:HG2	6:AF:87:ARG:HH11	1.74	0.52
8:AH:86:ILE:CB	8:AH:133:LEU:HD22	2.38	0.52
17:AQ:54:GLY:O	17:AQ:81:ARG:HB2	2.10	0.52
23:BA:49:A:H5"	23:BA:51:G:O4'	2.10	0.52
23:BA:814:C:O2'	23:BA:815:C:H5'	2.09	0.52
23:BA:819:A:C4	23:BA:1189:A:C2	2.97	0.52
23:BA:1953:A:C2	23:BA:2549:G:N3	2.78	0.52
25:BC:31:LYS:HE3	25:BC:33:LEU:HD21	1.92	0.52
25:BC:233:HIS:HE1	25:BC:247:ALA:H	1.58	0.52
27:BE:192:LEU:HD21	27:BE:194:MET:CE	2.35	0.52
29:BG:121:ILE:HD11	29:BG:140:LYS:HB3	1.90	0.52
47:BY:39:ALA:HA	47:BY:45:SER:CB	2.39	0.52
1:CA:626:U:H2'	1:CA:627:G:H8	1.75	0.52
1:CA:715:A:H2'	1:CA:716:A:C8	2.45	0.52
1:CA:721:G:H4'	1:CA:722:A:O4'	2.09	0.52
1:CA:1053:G:N7	1:CA:1200:C:H5"	2.24	0.52
15:CO:39:LEU:HD12	15:CO:56:LEU:HB2	1.92	0.52
23:DA:144:C:H2'	23:DA:145:G:C8	2.45	0.52
23:DA:195:A:H61	23:DA:198:C:H3'	1.75	0.52
23:DA:270(L):C:H2'	23:DA:270(M):U:H5"	1.91	0.52
23:DA:298:G:P	43:DU:85:VAL:HG22	2.49	0.52
23:DA:553:U:O2'	23:DA:554:U:H5'	2.10	0.52
23:DA:830:G:H4'	23:DA:831:G:OP2	2.09	0.52
23:DA:1592:C:H2'	23:DA:1593:G:H8	1.75	0.52
25:DC:204:ILE:HD12	25:DC:204:ILE:O	2.10	0.52
27:DE:18:ARG:HG3	27:DE:18:ARG:O	2.09	0.52
28:DF:47:LYS:HZ1	28:DF:86:MET:HE1	1.74	0.52
37:DO:35:ILE:O	37:DO:53:SER:HB2	2.10	0.52
49:D1:46:ASN:HB2	49:D1:64:LYS:HB2	1.90	0.52
1:AA:20:U:H2'	1:AA:21:G:O4'	2.10	0.52
1:AA:216:G:H2'	1:AA:217:C:C6	2.45	0.52
1:AA:255:G:H1'	17:AQ:16:GLN:NE2	2.25	0.52
1:AA:817:C:H1'	1:AA:819:A:H5'	1.90	0.52
3:AC:19:GLU:HA	3:AC:54:ARG:HE	1.75	0.52
23:BA:298:G:P	43:BU:85:VAL:HG22	2.49	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:871:U:H4'	35:BM:69:PHE:CE2	2.45	0.52
23:BA:2822:G:O6	36:BN:4:LEU:HD23	2.10	0.52
24:BB:71:C:C2	24:BB:72:G:C8	2.97	0.52
32:BJ:135:LEU:HD23	32:BJ:136:GLY:H	1.75	0.52
34:BL:27:HIS:HE1	40:BR:83:ARG:HH12	1.56	0.52
39:BQ:8:VAL:HG11	39:BQ:12:ARG:NE	2.24	0.52
39:BQ:92:ARG:HG2	40:BR:11:GLN:CD	2.35	0.52
43:BU:96:ILE:HG23	43:BU:101:LYS:O	2.09	0.52
1:CA:501:C:H2'	1:CA:502:G:C8	2.45	0.52
1:CA:836:G:C6	1:CA:851:G:C6	2.98	0.52
1:CA:1226:C:N4	13:CM:104:ARG:HB2	2.23	0.52
1:CA:1423:G:H2'	1:CA:1424:C:C6	2.44	0.52
4:CD:195:ALA:C	4:CD:196:LEU:HD12	2.35	0.52
6:CF:87:ARG:HG2	6:CF:87:ARG:HH11	1.75	0.52
23:DA:556:G:H2'	23:DA:557:U:H6	1.70	0.52
23:DA:2688:U:O2	23:DA:2688:U:H3'	2.09	0.52
25:DC:166:GLN:CA	25:DC:166:GLN:HE21	2.22	0.52
26:DD:101:ARG:HD3	26:DD:169:ASN:ND2	2.24	0.52
26:DD:172:VAL:HG13	26:DD:182:LEU:HD11	1.90	0.52
26:DD:201:THR:CG2	26:DD:202:LYS:N	2.72	0.52
35:DM:58:PHE:CD1	35:DM:61:GLY:HA3	2.45	0.52
35:DM:81:VAL:CG1	35:DM:82:ARG:HG2	2.37	0.52
39:DQ:92:ARG:NH2	40:DR:11:GLN:H	2.07	0.52
40:DR:28:GLU:HB2	40:DR:31:ALA:CB	2.39	0.52
41:DS:46:PHE:O	41:DS:50:VAL:HG12	2.09	0.52
41:DS:80:PRO:O	41:DS:100:THR:HG22	2.10	0.52
43:DU:31:LEU:HD23	43:DU:31:LEU:N	2.23	0.52
1:AA:17:U:H2'	1:AA:18:C:C6	2.44	0.52
1:AA:512:U:H2'	1:AA:513:C:C6	2.44	0.52
1:AA:1063:C:H3'	1:AA:1064:G:H2'	1.91	0.52
1:AA:1151:A:OP1	10:AJ:41:PRO:HA	2.10	0.52
5:AE:36:ASP:O	5:AE:37:ARG:HB2	2.10	0.52
6:AF:5:GLU:HG3	6:AF:93:SER:OG	2.10	0.52
10:AJ:54:PHE:HD2	10:AJ:55:LYS:HG3	1.73	0.52
19:AS:12:ASP:HB2	19:AS:15:LEU:HD23	1.92	0.52
23:BA:1022:G:O2'	23:BA:1023:U:OP2	2.25	0.52
26:BD:5:LEU:C	26:BD:51:PHE:HE2	2.18	0.52
27:BE:36:VAL:O	27:BE:40:GLN:HG3	2.08	0.52
32:BJ:58:ARG:C	32:BJ:60:LYS:H	2.18	0.52
35:BM:58:PHE:O	35:BM:58:PHE:HD1	1.91	0.52
41:BS:14:PRO:O	41:BS:15:ARG:C	2.52	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B5:60:LEU:C	53:B5:62:LEU:H	2.17	0.52
1:CA:794:A:H4'	1:CA:1521:G:O2'	2.09	0.52
1:CA:983:A:H3'	1:CA:983:A:N3	2.24	0.52
1:CA:1225:A:H5"	1:CA:1226:C:OP2	2.10	0.52
4:CD:166:LYS:HD2	4:CD:166:LYS:O	2.10	0.52
6:CF:16:GLN:HA	6:CF:19:LEU:HB3	1.92	0.52
9:CI:83:ARG:HA	9:CI:86:VAL:HG12	1.91	0.52
16:CP:8:ARG:HB3	16:CP:28:ARG:NH1	2.25	0.52
23:DA:661:C:H2'	23:DA:662:G:C8	2.45	0.52
23:DA:1173:G:H3'	23:DA:1174:A:C5'	2.40	0.52
23:DA:1495:A:H2'	23:DA:1495:A:N3	2.25	0.52
23:DA:1568:G:OP2	25:DC:63:ARG:NH2	2.43	0.52
23:DA:1980:G:H3'	23:DA:1981:A:C5'	2.40	0.52
23:DA:2210:G:H21	23:DA:2211:G:C5'	2.22	0.52
23:DA:2258:C:H4'	23:DA:2259:G:OP2	2.10	0.52
23:DA:2305:A:C2	28:DF:154:GLY:HA3	2.44	0.52
23:DA:2371:G:O2'	51:D3:45:LYS:HB3	2.10	0.52
25:DC:154:LYS:C	25:DC:155:LEU:HD12	2.35	0.52
26:DD:5:LEU:C	26:DD:51:PHE:HE2	2.18	0.52
32:DJ:135:LEU:HD23	32:DJ:136:GLY:H	1.75	0.52
33:DK:1:MET:HE2	33:DK:32:TYR:CG	2.44	0.52
34:DL:52:GLU:OE1	34:DL:52:GLU:HA	2.10	0.52
37:DO:15:ARG:O	37:DO:19:LYS:HG3	2.10	0.52
42:DT:30:VAL:HG12	42:DT:31:HIS:N	2.24	0.52
52:D4:34:ARG:HB3	52:D4:42:LEU:HD22	1.92	0.52
1:AA:513:C:H2'	1:AA:514:C:C6	2.46	0.52
1:AA:794:A:H4'	1:AA:1521:G:O2'	2.10	0.52
1:AA:1201:A:H4'	1:AA:1202:G:O5'	2.10	0.52
1:AA:1229:A:H2'	1:AA:1230:C:C6	2.44	0.52
4:AD:21:LEU:HD12	4:AD:22:LYS:H	1.75	0.52
16:AP:4:ILE:HD13	16:AP:66:PRO:HG3	1.92	0.52
23:BA:614:U:H4'	23:BA:615:G:H5"	1.92	0.52
23:BA:917:A:H2'	23:BA:918:A:O4'	2.09	0.52
23:BA:959:A:O2'	23:BA:960:A:H5'	2.09	0.52
23:BA:1206:G:C6	23:BA:1207:C:C4	2.98	0.52
23:BA:2094:G:N2	23:BA:2196:C:H1'	2.24	0.52
23:BA:2371:G:O2'	51:B3:45:LYS:HB3	2.09	0.52
25:BC:72:LYS:HE3	25:BC:101:GLU:HG2	1.92	0.52
25:BC:204:ILE:HD12	25:BC:204:ILE:O	2.10	0.52
28:BF:143:GLU:CD	28:BF:143:GLU:H	2.17	0.52
36:BN:81:ASP:O	36:BN:85:PRO:HG2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BQ:79:PHE:HE1	39:BQ:83:LEU:HD21	1.75	0.52
43:BU:81:LYS:CD	43:BU:97:ARG:HB3	2.39	0.52
52:B4:8:ASN:ND2	52:B4:11:LYS:N	2.53	0.52
53:B5:52:LYS:H	53:B5:53:PRO:HD2	1.75	0.52
1:CA:216:G:H2'	1:CA:217:C:C6	2.45	0.52
1:CA:729:A:H2'	1:CA:730:G:C8	2.43	0.52
1:CA:1306:A:H2'	1:CA:1307:U:C6	2.45	0.52
3:CC:184:TYR:CE2	3:CC:186:PHE:HB2	2.45	0.52
16:CP:21:VAL:HG23	16:CP:33:ILE:HB	1.92	0.52
23:DA:588:U:H1'	27:DE:90:PHE:CD1	2.45	0.52
23:DA:848:G:C4	23:DA:933:A:C8	2.95	0.52
23:DA:1790:C:O2'	25:DC:209:ALA:HB2	2.10	0.52
23:DA:2305:A:H3'	23:DA:2306:C:H5"	1.92	0.52
35:DM:52:VAL:O	35:DM:56:ARG:HB2	2.10	0.52
35:DM:54:MET:HG2	35:DM:64:ILE:HD13	1.91	0.52
41:DS:19:LEU:HB3	50:D2:25:LEU:CD1	2.41	0.52
51:D3:30:THR:HG22	51:D3:31:PRO:HD2	1.92	0.52
53:D5:60:LEU:C	53:D5:62:LEU:H	2.18	0.52
1:AA:80:G:P	1:AA:80:G:H8	2.32	0.51
6:AF:36:ARG:HH21	6:AF:38:GLU:HG2	1.76	0.51
11:AK:43:SER:HA	11:AK:47:VAL:HG21	1.92	0.51
23:BA:380:U:O2	46:BX:20:ARG:NH2	2.43	0.51
23:BA:486:C:H4'	41:BS:60:ASN:HD22	1.74	0.51
23:BA:518:G:H4'	41:BS:18:ARG:NH1	2.24	0.51
23:BA:1537:C:H2'	23:BA:1538:G:O4'	2.10	0.51
23:BA:2090:G:H21	46:BX:45:ASN:ND2	2.08	0.51
23:BA:2188:C:H2'	23:BA:2189:U:O4'	2.10	0.51
23:BA:2747:G:O6	23:BA:2755:C:H5"	2.10	0.51
27:BE:182:ASN:O	27:BE:186:ILE:HG12	2.10	0.51
28:BF:139:LEU:HA	28:BF:144:ILE:HG21	1.91	0.51
39:BQ:88:ILE:HG13	39:BQ:88:ILE:O	2.10	0.51
40:BR:28:GLU:HB2	40:BR:31:ALA:CB	2.40	0.51
43:BU:90:LEU:HG	43:BU:91:GLU:HG2	1.92	0.51
1:CA:513:C:H2'	1:CA:514:C:C6	2.44	0.51
1:CA:663:A:H5"	18:CR:61:LYS:HE2	1.92	0.51
3:CC:19:GLU:HA	3:CC:54:ARG:HE	1.75	0.51
16:CP:22:THR:HA	16:CP:33:ILE:HG12	1.91	0.51
17:CQ:81:ARG:HA	17:CQ:81:ARG:HE	1.75	0.51
23:DA:2094:G:N2	23:DA:2196:C:H1'	2.25	0.51
23:DA:2320:A:H2'	23:DA:2320:A:N3	2.25	0.51
23:DA:2415:G:H4'	34:DL:66:GLY:HA2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2729:G:H2'	23:DA:2730:C:C6	2.45	0.51
23:DA:2747:G:O6	23:DA:2755:C:H5"	2.10	0.51
27:DE:82:ILE:O	27:DE:82:ILE:HG13	2.09	0.51
28:DF:143:GLU:CD	28:DF:143:GLU:H	2.17	0.51
30:DH:92:VAL:HG22	30:DH:120:ILE:HD12	1.92	0.51
30:DH:142:VAL:HG12	30:DH:143:SER:H	1.74	0.51
33:DK:24:VAL:HG23	33:DK:33:ALA:HB2	1.92	0.51
39:DQ:92:ARG:HD2	39:DQ:95:LEU:CG	2.38	0.51
41:DS:84:ARG:HB2	41:DS:96:ILE:HG22	1.92	0.51
1:AA:1520:G:H2'	1:AA:1521:G:H8	1.75	0.51
2:AB:163:PHE:HD1	2:AB:185:ILE:HG13	1.75	0.51
4:AD:8:VAL:C	4:AD:10:ARG:H	2.18	0.51
7:AG:113:GLU:HB3	7:AG:118:VAL:HG23	1.92	0.51
11:AK:73:MET:HG2	11:AK:103:LEU:HD11	1.91	0.51
18:AR:50:ILE:HD11	18:AR:74:ARG:NH1	2.24	0.51
23:BA:566:U:H2'	23:BA:567:A:O4'	2.10	0.51
23:BA:2094:G:P	30:BH:22:LYS:HD2	2.50	0.51
23:BA:2688:U:O2	23:BA:2688:U:H3'	2.10	0.51
23:BA:2758:A:C4	29:BG:67:LEU:HD21	2.45	0.51
25:BC:166:GLN:HE21	25:BC:166:GLN:CA	2.22	0.51
28:BF:74:LYS:HA	28:BF:74:LYS:HE3	1.93	0.51
30:BH:107:ILE:HG13	30:BH:109:ILE:HG23	1.92	0.51
32:BJ:157:ARG:N	32:BJ:158:PRO:CD	2.65	0.51
35:BM:75:THR:HA	35:BM:88:GLY:HA3	1.89	0.51
38:BP:57:PHE:HE2	38:BP:79:HIS:HB2	1.76	0.51
42:BT:11:PRO:HG3	47:BY:37:PHE:CE2	2.46	0.51
1:CA:1194:U:H2'	1:CA:1195:C:H6	1.75	0.51
1:CA:1267:C:O2	1:CA:1327:C:H4'	2.10	0.51
3:CC:184:TYR:HE2	3:CC:186:PHE:HB2	1.75	0.51
6:CF:14:LEU:HD21	6:CF:18:GLN:HB2	1.91	0.51
23:DA:1028:A:N6	23:DA:1125:G:H2'	2.25	0.51
23:DA:1444:G:H2'	23:DA:1445:C:C5	2.46	0.51
23:DA:144(B):A:H5"	23:DA:1445:C:H5	1.75	0.51
23:DA:1973:G:H2'	23:DA:1974:C:H6	1.75	0.51
23:DA:2032:G:O2'	26:DD:145:LYS:HE2	2.09	0.51
23:DA:2056:G:N2	23:DA:2057:A:H1'	2.25	0.51
23:DA:2105:C:H2'	23:DA:2106:G:C8	2.45	0.51
23:DA:2188:C:H2'	23:DA:2189:U:O4'	2.10	0.51
33:DK:2:ILE:CG1	33:DK:8:LEU:HD11	2.40	0.51
36:DN:10:LEU:HB2	36:DN:17:ARG:CZ	2.40	0.51
44:DV:104:PHE:HB3	44:DV:141:VAL:HG11	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DX:13:ILE:HG23	46:DX:14:VAL:H	1.75	0.51
1:AA:1389:C:H2'	1:AA:1390:U:O4'	2.09	0.51
1:AA:1423:G:H2'	1:AA:1424:C:C6	2.45	0.51
1:AA:1520:G:H2'	1:AA:1521:G:C8	2.44	0.51
8:AH:11:THR:HA	8:AH:14:ARG:NH1	2.26	0.51
9:AI:16:ARG:O	9:AI:63:ILE:HG23	2.10	0.51
23:BA:389:G:C6	34:BL:71:VAL:HG23	2.45	0.51
23:BA:780:G:N2	23:BA:783:A:H62	1.95	0.51
23:BA:830:G:H4'	23:BA:831:G:OP2	2.11	0.51
23:BA:848:G:C4	23:BA:933:A:C8	2.95	0.51
23:BA:2744:G:H21	29:BG:143:GLN:NE2	2.02	0.51
27:BE:155:LEU:CD2	27:BE:186:ILE:HD13	2.39	0.51
29:BG:92:ILE:H	29:BG:92:ILE:CD1	2.22	0.51
37:BO:26:LEU:HD13	37:BO:87:PHE:HD1	1.76	0.51
43:BU:37:VAL:HG21	43:BU:72:VAL:HG21	1.93	0.51
43:BU:76:CYS:O	43:BU:77:PRO:C	2.52	0.51
44:BV:98:MET:HE2	44:BV:99:TYR:O	2.09	0.51
1:CA:983:A:H2	1:CA:984:C:C5	2.28	0.51
2:CB:135:GLN:O	2:CB:139:LYS:HG2	2.10	0.51
4:CD:189:PRO:CB	4:CD:194:LEU:HD21	2.38	0.51
8:CH:80:ILE:HD12	8:CH:80:ILE:N	2.24	0.51
9:CI:16:ARG:O	9:CI:63:ILE:HG23	2.10	0.51
17:CQ:59:ILE:CG2	17:CQ:71:PHE:HB3	2.41	0.51
23:DA:2252:G:H2'	23:DA:2253:G:H8	1.76	0.51
23:DA:2378:A:H2'	37:DO:21:THR:HG21	1.92	0.51
24:DB:71:C:C2	24:DB:72:G:C8	2.98	0.51
28:DF:74:LYS:HE3	28:DF:74:LYS:HA	1.92	0.51
30:DH:142:VAL:HG12	30:DH:143:SER:N	2.26	0.51
36:DN:21:TYR:HE2	36:DN:43:GLU:HB3	1.75	0.51
38:DP:6:LEU:O	38:DP:10:VAL:HG23	2.10	0.51
43:DU:76:CYS:O	43:DU:77:PRO:C	2.53	0.51
1:AA:59:A:H3'	1:AA:331:G:H22	1.75	0.51
1:AA:626:U:H2'	1:AA:627:G:C8	2.45	0.51
1:AA:1267:C:O2	1:AA:1327:C:H4'	2.10	0.51
1:AA:1308:U:H5"	13:AM:98:VAL:HG23	1.92	0.51
3:AC:184:TYR:CE2	3:AC:186:PHE:HB2	2.45	0.51
15:AO:15:PHE:O	15:AO:27:VAL:HG22	2.10	0.51
20:AT:14:LYS:O	20:AT:18:GLN:HG3	2.10	0.51
22:AV:6166:U:C4	22:AV:6167:G:N7	2.78	0.51
23:BA:69:C:O2'	23:BA:70:G:H5'	2.11	0.51
23:BA:144:C:H2'	23:BA:145:G:C8	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:588:U:H1'	27:BE:90:PHE:CD1	2.45	0.51
23:BA:588:U:C2	27:BE:90:PHE:CE1	2.99	0.51
23:BA:661:C:H2'	23:BA:662:G:C8	2.46	0.51
23:BA:1444:G:H2'	23:BA:1445:C:C5	2.46	0.51
23:BA:2105:C:H2'	23:BA:2106:G:C8	2.45	0.51
27:BE:34:TRP:HB2	34:BL:10:PRO:O	2.10	0.51
37:BO:15:ARG:O	37:BO:19:LYS:HG3	2.10	0.51
39:BQ:107:ALA:O	39:BQ:111:GLU:HG2	2.11	0.51
41:BS:19:LEU:HB3	50:B2:25:LEU:CD1	2.40	0.51
42:BT:30:VAL:HG11	42:BT:39:ILE:CD1	2.38	0.51
47:BY:46:GLN:OE1	47:BY:46:GLN:HA	2.09	0.51
1:CA:37:U:OP1	12:CL:122:LYS:HG3	2.10	0.51
1:CA:80:G:P	1:CA:80:G:H8	2.33	0.51
1:CA:164:U:H2'	1:CA:165:C:C6	2.45	0.51
1:CA:176:C:H5"	20:CT:29:LYS:NZ	2.25	0.51
1:CA:643:C:H5'	8:CH:31:PHE:CD1	2.45	0.51
2:CB:27:LYS:H	2:CB:27:LYS:HD3	1.76	0.51
2:CB:69:LEU:HB3	2:CB:162:ILE:HG22	1.93	0.51
4:CD:21:LEU:HD12	4:CD:22:LYS:H	1.75	0.51
7:CG:38:LEU:HD12	7:CG:41:ARG:HH12	1.76	0.51
8:CH:11:THR:HG22	8:CH:15:ASN:ND2	2.26	0.51
8:CH:66:GLY:HA3	8:CH:77:GLU:HB3	1.92	0.51
9:CI:113:LYS:HG2	9:CI:119:ALA:HA	1.92	0.51
15:CO:15:PHE:O	15:CO:27:VAL:HG22	2.10	0.51
23:DA:1010:A:H1'	23:DA:1153:C:H1'	1.93	0.51
28:DF:109:VAL:C	28:DF:112:PRO:HD2	2.35	0.51
30:DH:86:THR:O	30:DH:122:GLU:HG3	2.11	0.51
30:DH:116:LEU:HD22	30:DH:128:LEU:HD21	1.91	0.51
39:DQ:8:VAL:HG11	39:DQ:12:ARG:CZ	2.39	0.51
1:AA:721:G:H4'	1:AA:722:A:O4'	2.11	0.51
3:AC:17:ASP:CB	3:AC:21:ARG:HH22	2.23	0.51
4:AD:108:LEU:HB3	4:AD:110:PHE:CD2	2.45	0.51
4:AD:142:PRO:HA	4:AD:185:PHE:HD2	1.74	0.51
8:AH:31:PHE:O	8:AH:35:ILE:HG12	2.10	0.51
18:AR:74:ARG:HA	18:AR:79:LEU:O	2.11	0.51
22:AV:6168:G:H2'	22:AV:6169:U:C6	2.46	0.51
23:BA:603:A:H61	23:BA:655:A:C1'	2.24	0.51
23:BA:719:C:H2'	23:BA:720:C:H6	1.75	0.51
23:BA:774:A:H2	23:BA:787:U:O2'	1.93	0.51
23:BA:814:C:H5	34:BL:27:HIS:NE2	2.08	0.51
23:BA:954:G:C5	23:BA:955:C:C5	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:960:A:H61	35:BM:82:ARG:HH21	1.58	0.51
23:BA:1188:U:C2'	23:BA:1189:A:H5'	2.40	0.51
23:BA:1344:G:H4'	23:BA:1384:A:C5	2.46	0.51
23:BA:1824:G:OP1	25:BC:52:ARG:HD3	2.11	0.51
25:BC:118:VAL:HG22	25:BC:119:ALA:N	2.24	0.51
28:BF:32:PRO:HA	28:BF:162:THR:OG1	2.10	0.51
30:BH:31:LEU:HB3	30:BH:32:PRO:HD3	1.92	0.51
34:BL:83:VAL:O	34:BL:114:ILE:HA	2.10	0.51
35:BM:58:PHE:CD1	35:BM:61:GLY:HA3	2.45	0.51
36:BN:10:LEU:HB2	36:BN:17:ARG:CZ	2.41	0.51
36:BN:72:ASP:O	36:BN:76:VAL:HG12	2.11	0.51
39:BQ:106:PHE:O	39:BQ:110:VAL:HG23	2.10	0.51
1:CA:78:G:H2'	1:CA:79:G:C8	2.44	0.51
4:CD:108:LEU:HD23	4:CD:110:PHE:CE2	2.44	0.51
5:CE:72:GLN:O	5:CE:75:THR:HG22	2.09	0.51
13:CM:60:VAL:HG13	13:CM:64:TRP:NE1	2.22	0.51
15:CO:26:GLU:OE2	15:CO:77:ARG:HD2	2.11	0.51
16:CP:4:ILE:HD13	16:CP:66:PRO:HG3	1.92	0.51
23:DA:310:A:OP1	43:DU:18:GLY:HA2	2.11	0.51
23:DA:320:A:H2'	27:DE:136:THR:HG21	1.91	0.51
23:DA:498:G:N3	43:DU:47:LYS:HE3	2.25	0.51
23:DA:915:C:H2'	23:DA:916:G:C8	2.46	0.51
23:DA:1206:G:C6	23:DA:1207:C:C4	2.98	0.51
23:DA:1541:U:H3'	23:DA:1542:G:H3'	1.93	0.51
27:DE:182:ASN:O	27:DE:186:ILE:HG12	2.11	0.51
30:DH:101:LEU:HG	30:DH:107:ILE:HG23	1.92	0.51
34:DL:85:LEU:HD23	34:DL:85:LEU:H	1.75	0.51
46:DX:27:GLU:HB2	46:DX:32:LYS:O	2.11	0.51
1:AA:715:A:H2'	1:AA:716:A:C8	2.46	0.51
4:AD:100:ARG:NH1	4:AD:137:SER:HA	2.24	0.51
4:AD:153:ARG:HB3	4:AD:181:MET:HE1	1.92	0.51
5:AE:76:ILE:HD11	5:AE:142:LEU:HD11	1.91	0.51
15:AO:26:GLU:OE2	15:AO:77:ARG:HD2	2.10	0.51
22:AV:6168:G:H2'	22:AV:6169:U:H6	1.76	0.51
23:BA:363(D):G:H2'	23:BA:363(E):G:H8	1.76	0.51
23:BA:1022:G:H8	32:BJ:92:GLN:HE22	1.57	0.51
25:BC:71:ASP:CB	25:BC:103:ARG:HH22	2.20	0.51
29:BG:92:ILE:HD12	29:BG:92:ILE:N	2.22	0.51
1:CA:434:U:H2'	1:CA:435:C:H6	1.74	0.51
6:CF:21:LEU:O	6:CF:25:ILE:HG12	2.10	0.51
15:CO:45:VAL:HG23	15:CO:46:HIS:ND1	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:6166:U:C4	22:CV:6167:G:N7	2.78	0.51
23:DA:389:G:C6	34:DL:71:VAL:HG23	2.45	0.51
23:DA:1187:G:O5'	23:DA:1187:G:H8	1.94	0.51
23:DA:1335:U:H2'	23:DA:1336:A:H8	1.76	0.51
23:DA:2537:U:H2'	23:DA:2538:C:H6	1.75	0.51
34:DL:75:ILE:HD13	34:DL:77:ARG:NE	2.25	0.51
35:DM:75:THR:CA	35:DM:88:GLY:HA2	2.39	0.51
40:DR:75:PHE:CD1	40:DR:75:PHE:C	2.89	0.51
46:DX:11:ARG:HB2	46:DX:13:ILE:HG22	1.93	0.51
1:AA:321:A:H2'	1:AA:322:C:C6	2.46	0.51
1:AA:1190:G:OP2	3:AC:5:ILE:HG23	2.11	0.51
1:AA:1203:C:H2'	1:AA:1204:A:H8	1.76	0.51
3:AC:58:GLU:HB2	3:AC:65:ALA:HB3	1.92	0.51
11:AK:99:GLN:HE22	11:AK:105:VAL:HG21	1.76	0.51
15:AO:45:VAL:HG23	15:AO:46:HIS:ND1	2.25	0.51
22:AV:6157:A:N6	22:AV:6172:U:H3	2.09	0.51
23:BA:581:C:OP1	39:BQ:31:SER:HB2	2.11	0.51
23:BA:920:G:H2'	23:BA:921:G:H8	1.76	0.51
23:BA:2378:A:H2'	37:BO:21:THR:HG21	1.92	0.51
23:BA:2893:G:H3'	23:BA:2894:G:H5'	1.93	0.51
24:BB:71:C:C4	24:BB:72:G:N7	2.79	0.51
28:BF:77:ILE:HG22	28:BF:80:PHE:N	2.24	0.51
28:BF:81:LYS:C	28:BF:82:LEU:HD23	2.35	0.51
37:BO:49:VAL:HG11	37:BO:73:LEU:HA	1.92	0.51
39:BQ:49:HIS:HA	39:BQ:52:ARG:HB2	1.91	0.51
48:BZ:11:SER:OG	48:BZ:13:ILE:HG12	2.10	0.51
1:CA:1290:G:N3	1:CA:1290:G:H2'	2.26	0.51
1:CA:1520:G:H2'	1:CA:1521:G:C8	2.46	0.51
23:DA:23:G:H2'	23:DA:24:G:H8	1.75	0.51
23:DA:588:U:C2	27:DE:90:PHE:CE1	2.98	0.51
23:DA:2893:G:H3'	23:DA:2894:G:H5'	1.93	0.51
37:DO:38:GLN:HB3	37:DO:47:THR:CG2	2.40	0.51
52:D4:24:THR:O	52:D4:28:ARG:HG3	2.11	0.51
1:AA:189:U:O4	17:AQ:62:SER:HB3	2.11	0.51
1:AA:617:G:H4'	16:AP:44:THR:HB	1.93	0.51
1:AA:824:C:C6	1:AA:824:C:H3'	2.46	0.51
2:AB:135:GLN:O	2:AB:139:LYS:HG2	2.11	0.51
9:AI:17:VAL:HG21	9:AI:80:GLY:C	2.36	0.51
13:AM:60:VAL:HG13	13:AM:64:TRP:NE1	2.23	0.51
19:AS:22:LEU:HD13	19:AS:27:GLU:HB2	1.93	0.51
23:BA:379:G:N2	46:BX:20:ARG:HH12	2.08	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:388:G:OP1	46:BX:33:LYS:HB3	2.11	0.51
23:BA:2698:U:H2'	23:BA:2699:C:C6	2.46	0.51
23:BA:2777:G:C5'	23:BA:2778:A:H5'	2.41	0.51
32:BJ:105:LEU:O	32:BJ:106:LYS:C	2.54	0.51
34:BL:135:LEU:O	34:BL:135:LEU:HD13	2.11	0.51
36:BN:104:ARG:NH1	36:BN:109:ALA:HB3	2.25	0.51
39:BQ:90:VAL:HG13	39:BQ:91:ASP:N	2.26	0.51
39:BQ:95:LEU:HD11	40:BR:12:TYR:HA	1.92	0.51
43:BU:71:LYS:HB2	43:BU:71:LYS:HZ3	1.76	0.51
44:BV:104:PHE:HB3	44:BV:141:VAL:HG11	1.93	0.51
44:BV:118:GLN:HB2	44:BV:173:ALA:O	2.11	0.51
1:CA:10:A:H2'	1:CA:11:G:H8	1.76	0.51
1:CA:161:A:H2'	1:CA:162:A:C8	2.46	0.51
1:CA:501:C:H2'	1:CA:502:G:H8	1.74	0.51
16:CP:23:ASP:O	16:CP:26:ARG:HB2	2.10	0.51
17:CQ:52:LYS:H	17:CQ:52:LYS:HD2	1.76	0.51
20:CT:26:ASN:HD22	20:CT:27:LYS:N	2.07	0.51
23:DA:49:A:H5"	23:DA:51:G:O4'	2.10	0.51
23:DA:719:C:H2'	23:DA:720:C:H6	1.75	0.51
23:DA:917:A:H2'	23:DA:918:A:O4'	2.10	0.51
23:DA:1404:C:O2'	23:DA:1405:U:H5'	2.10	0.51
23:DA:1817:G:OP1	25:DC:88:ARG:NH2	2.43	0.51
34:DL:138:LEU:HD11	34:DL:144:GLU:HB3	1.93	0.51
35:DM:74:TYR:CD2	35:DM:91:GLU:HB2	2.46	0.51
42:DT:89:ILE:O	42:DT:93:GLU:HG2	2.11	0.51
43:DU:71:LYS:HB2	43:DU:71:LYS:HZ3	1.76	0.51
47:DY:14:ARG:HA	47:DY:17:SER:HB2	1.93	0.51
53:D5:50:LEU:HD13	53:D5:57:ARG:CZ	2.40	0.51
1:AA:89:U:H2'	1:AA:90:C:C6	2.46	0.51
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.46	0.51
1:AA:1225:A:H5"	1:AA:1226:C:OP2	2.11	0.51
7:AG:38:LEU:HD12	7:AG:41:ARG:HH12	1.76	0.51
8:AH:66:GLY:HA3	8:AH:77:GLU:HB3	1.92	0.51
9:AI:62:TYR:C	9:AI:63:ILE:HD12	2.36	0.51
13:AM:70:LEU:HD23	13:AM:70:LEU:C	2.36	0.51
21:AU:6:ARG:NE	21:AU:15:ARG:HH12	2.09	0.51
23:BA:597:U:O2'	34:BL:15:ARG:HG2	2.10	0.51
23:BA:2305:A:H3'	23:BA:2306:C:H5"	1.92	0.51
23:BA:2795:G:H3'	23:BA:2797:U:C5'	2.41	0.51
28:BF:47:LYS:HZ1	28:BF:86:MET:HE1	1.75	0.51
35:BM:74:TYR:CD2	35:BM:91:GLU:HB2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BP:100:TYR:HD2	38:BP:103:ARG:NH2	2.09	0.51
51:B3:30:THR:HG22	51:B3:31:PRO:HD2	1.92	0.51
2:CB:163:PHE:HD1	2:CB:185:ILE:HG13	1.75	0.51
2:CB:178:ARG:HD2	8:CH:71:GLY:O	2.11	0.51
3:CC:57:ILE:HD13	3:CC:66:VAL:HA	1.93	0.51
5:CE:12:LEU:C	5:CE:13:ILE:HD12	2.36	0.51
8:CH:110:ALA:HB3	8:CH:121:ASP:HB3	1.93	0.51
9:CI:19:LEU:HD23	9:CI:20:ARG:N	2.26	0.51
12:CL:31:PHE:HB3	12:CL:83:LEU:HD22	1.92	0.51
15:CO:53:HIS:HE1	23:DA:715:G:O6	1.94	0.51
17:CQ:55:ASP:HB3	17:CQ:76:LEU:HD13	1.91	0.51
19:CS:22:LEU:HD13	19:CS:27:GLU:HB2	1.93	0.51
23:DA:2698:U:H2'	23:DA:2699:C:C6	2.46	0.51
23:DA:2795:G:H3'	23:DA:2797:U:C5'	2.41	0.51
24:DB:30:C:H2'	24:DB:31:C:H5'	1.93	0.51
25:DC:118:VAL:HG22	25:DC:119:ALA:N	2.25	0.51
30:DH:4:ILE:HD11	30:DH:16:GLY:HA2	1.92	0.51
35:DM:68:ILE:HG23	35:DM:103:MET:HA	1.92	0.51
36:DN:17:ARG:O	36:DN:20:LEU:HB3	2.11	0.51
37:DO:26:LEU:HG	37:DO:39:ILE:CD1	2.40	0.51
53:D5:53:PRO:HB2	53:D5:57:ARG:NH2	2.26	0.51
1:AA:836:G:C6	1:AA:851:G:C6	2.99	0.51
3:AC:79:ARG:HD3	3:AC:79:ARG:N	2.26	0.51
13:AM:3:ARG:HH21	13:AM:7:VAL:HG13	1.75	0.51
23:BA:270(J):G:O2'	23:BA:270(K):G:H8	1.87	0.51
23:BA:1335:U:H2'	23:BA:1336:A:H8	1.76	0.51
23:BA:144(B):A:H5"	23:BA:1445:C:H5	1.75	0.51
23:BA:2484:G:H5"	35:BM:45:GLN:HB2	1.92	0.51
23:BA:2840:C:H4'	36:BN:53:HIS:CD2	2.46	0.51
23:BA:2853:C:H2'	23:BA:2854:G:H8	1.76	0.51
25:BC:43:ARG:HB2	25:BC:48:ARG:O	2.11	0.51
27:BE:184:TYR:CE2	27:BE:188:ARG:HD2	2.46	0.51
30:BH:82:ARG:HG2	30:BH:89:TYR:CD1	2.46	0.51
41:BS:46:PHE:O	41:BS:50:VAL:HG12	2.11	0.51
1:CA:475:G:H2'	1:CA:476:G:C8	2.46	0.51
1:CA:963:G:H2'	1:CA:964:A:C8	2.46	0.51
2:CB:96:ARG:N	2:CB:96:ARG:HD2	2.25	0.51
11:CK:73:MET:HG2	11:CK:103:LEU:HD11	1.92	0.51
11:CK:105:VAL:HG23	11:CK:105:VAL:O	2.11	0.51
12:CL:65:VAL:HG11	12:CL:97:TYR:CE1	2.45	0.51
17:CQ:59:ILE:HD12	17:CQ:59:ILE:N	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:74:LEU:HD12	17:CQ:75:ARG:HG2	1.93	0.51
23:DA:566:U:H2'	23:DA:567:A:O4'	2.11	0.51
23:DA:1680:U:O2	23:DA:1763:G:H3'	2.11	0.51
23:DA:1809:A:H2'	23:DA:1810:A:C8	2.46	0.51
24:DB:63:G:H2'	24:DB:64:C:C6	2.46	0.51
25:DC:37:LEU:HD12	25:DC:38:LYS:H	1.75	0.51
26:DD:103:ASP:OD2	26:DD:168:MET:HE3	2.10	0.51
30:DH:72:LEU:HD12	30:DH:140:LEU:HD13	1.92	0.51
33:DK:2:ILE:CD1	33:DK:82:ASN:HD22	2.23	0.51
34:DL:147:LEU:HD13	34:DL:148:LEU:O	2.11	0.51
35:DM:48:GLU:O	35:DM:52:VAL:HG12	2.11	0.51
36:DN:72:ASP:O	36:DN:76:VAL:HG12	2.10	0.51
39:DQ:8:VAL:HG11	39:DQ:12:ARG:NE	2.26	0.51
40:DR:77:ALA:C	40:DR:79:VAL:H	2.19	0.51
43:DU:95:LYS:HG2	43:DU:100:ALA:HA	1.92	0.51
1:AA:674:G:H2'	1:AA:675:A:C8	2.46	0.50
1:AA:772:U:H2'	1:AA:773:G:O4'	2.10	0.50
1:AA:983:A:H3'	1:AA:983:A:N3	2.26	0.50
2:AB:27:LYS:HD3	2:AB:27:LYS:H	1.75	0.50
18:AR:36:ASN:HD22	18:AR:39:VAL:HG21	1.76	0.50
23:BA:94:G:H21	47:BY:47:ASN:ND2	2.09	0.50
23:BA:744:G:OP1	26:BD:132:HIS:HB2	2.12	0.50
23:BA:2038:G:H2'	23:BA:2039:C:H6	1.76	0.50
23:BA:2366:A:H2'	23:BA:2367:G:O4'	2.11	0.50
34:BL:85:LEU:HD23	34:BL:85:LEU:H	1.76	0.50
44:BV:5:LEU:HB3	44:BV:59:LEU:HD23	1.92	0.50
1:CA:38:G:C2	1:CA:397:A:C2	2.99	0.50
1:CA:176:C:H5"	20:CT:29:LYS:HZ1	1.77	0.50
1:CA:1014:A:H2	1:CA:1219:U:H1'	1.75	0.50
1:CA:1260:C:H4'	1:CA:1284:C:H5'	1.92	0.50
23:DA:628:G:H2'	23:DA:629:G:H8	1.75	0.50
23:DA:955:C:OP2	35:DM:14:ARG:HD2	2.11	0.50
23:DA:1178:C:H2'	23:DA:1179:C:H6	1.75	0.50
23:DA:1537:C:H2'	23:DA:1538:G:O4'	2.11	0.50
23:DA:1929:G:N3	23:DA:1929:G:H5"	2.26	0.50
23:DA:2419:U:O4	53:D5:30:ARG:CZ	2.60	0.50
25:DC:131:LEU:HD11	25:DC:136:ILE:HG12	1.92	0.50
25:DC:238:GLY:O	25:DC:240:ALA:N	2.44	0.50
28:DF:60:LEU:C	28:DF:60:LEU:HD13	2.36	0.50
35:DM:8:LYS:O	35:DM:9:TYR:HB3	2.11	0.50
42:DT:30:VAL:HG11	42:DT:39:ILE:CD1	2.38	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DX:62:VAL:HG22	46:DX:63:ALA:N	2.26	0.50
1:AA:665:A:H2'	1:AA:732:C:O2	2.11	0.50
1:AA:979:C:H42	14:AN:18:VAL:HG12	1.76	0.50
1:AA:1306:A:H2'	1:AA:1307:U:C6	2.46	0.50
3:AC:57:ILE:HD13	3:AC:66:VAL:HA	1.94	0.50
23:BA:1111:A:N3	23:BA:1112:G:H1'	2.26	0.50
23:BA:2340:G:H2'	23:BA:2341:G:H8	1.76	0.50
23:BA:2822:G:O5'	23:BA:2822:G:H8	1.95	0.50
26:BD:117:MET:HE1	26:BD:136:ARG:CA	2.35	0.50
34:BL:33:ARG:HG3	34:BL:36:LYS:CD	2.22	0.50
37:BO:36:TYR:N	37:BO:36:TYR:CD1	2.79	0.50
46:BX:45:ASN:ND2	46:BX:47:GLN:HE21	2.10	0.50
46:BX:90:ILE:O	46:BX:94:LEU:HB2	2.10	0.50
1:CA:447:G:H2'	1:CA:485:G:N2	2.26	0.50
1:CA:464:G:H8	1:CA:464:G:O5'	1.94	0.50
1:CA:1201:A:H4'	1:CA:1202:G:O5'	2.10	0.50
1:CA:1389:C:H2'	1:CA:1390:U:O4'	2.10	0.50
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.47	0.50
8:CH:81:HIS:HB2	8:CH:138:TRP:OXT	2.11	0.50
19:CS:53:ASN:HD22	19:CS:53:ASN:C	2.19	0.50
20:CT:67:ALA:HA	20:CT:72:LEU:O	2.12	0.50
23:DA:150:C:H2'	23:DA:151:C:C6	2.46	0.50
23:DA:390:A:C6	34:DL:71:VAL:HG21	2.46	0.50
23:DA:646:A:H5'	23:DA:646:A:N3	2.27	0.50
23:DA:675:A:H4'	27:DE:67:GLN:HE21	1.76	0.50
23:DA:814:C:H5	34:DL:27:HIS:NE2	2.09	0.50
23:DA:960:A:H61	35:DM:82:ARG:HH21	1.60	0.50
23:DA:2050:C:H1'	26:DD:156:MET:HE1	1.92	0.50
23:DA:2777:G:C5'	23:DA:2778:A:H5'	2.42	0.50
28:DF:81:LYS:C	28:DF:82:LEU:HD23	2.37	0.50
28:DF:133:LEU:HD21	28:DF:157:ILE:HG13	1.93	0.50
32:DJ:127:LYS:HA	32:DJ:130:LEU:HD12	1.93	0.50
43:DU:20:TYR:CE1	43:DU:42:VAL:HA	2.46	0.50
1:AA:1148:U:C2	9:AI:16:ARG:NH2	2.79	0.50
2:AB:96:ARG:N	2:AB:96:ARG:HD2	2.25	0.50
8:AH:6:ILE:O	8:AH:10:LEU:HG	2.12	0.50
9:AI:4:TYR:CE2	9:AI:88:TYR:HB2	2.47	0.50
10:AJ:29:ARG:O	10:AJ:29:ARG:HG2	2.12	0.50
12:AL:44:PRO:HD2	12:AL:49:SER:HA	1.93	0.50
23:BA:593:G:O2'	53:B5:62:LEU:HD13	2.11	0.50
23:BA:1178:C:H2'	23:BA:1179:C:H6	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1404:C:O2'	23:BA:1405:U:H5'	2.11	0.50
23:BA:1504:C:O2'	23:BA:1505:C:H6	1.95	0.50
23:BA:1541:U:H3'	23:BA:1542:G:H3'	1.93	0.50
23:BA:1929:G:H5"	23:BA:1929:G:N3	2.26	0.50
23:BA:2208:U:O2'	23:BA:2209:C:H5'	2.11	0.50
23:BA:2271:G:H2'	23:BA:2272:U:C6	2.46	0.50
25:BC:33:LEU:HD23	25:BC:33:LEU:N	2.24	0.50
25:BC:102:LYS:C	25:BC:103:ARG:HG2	2.37	0.50
26:BD:172:VAL:HG13	26:BD:182:LEU:HD11	1.92	0.50
37:BO:26:LEU:HG	37:BO:39:ILE:CD1	2.41	0.50
39:BQ:112:ARG:HH21	40:BR:46:VAL:HG21	1.76	0.50
42:BT:89:ILE:O	42:BT:93:GLU:HG2	2.11	0.50
46:BX:62:VAL:HG22	46:BX:63:ALA:N	2.26	0.50
52:B4:24:THR:O	52:B4:28:ARG:HG3	2.11	0.50
4:CD:8:VAL:C	4:CD:10:ARG:H	2.18	0.50
8:CH:11:THR:HA	8:CH:14:ARG:NH1	2.26	0.50
10:CJ:75:ILE:HG13	10:CJ:76:ASN:N	2.22	0.50
11:CK:99:GLN:HE22	11:CK:105:VAL:HG21	1.76	0.50
23:DA:379:G:N2	46:DX:20:ARG:HH12	2.09	0.50
23:DA:1165:U:H2'	23:DA:1166:C:C6	2.47	0.50
23:DA:1813:G:H1'	25:DC:50:THR:CG2	2.37	0.50
23:DA:2335:A:C8	23:DA:2337:G:C5	3.00	0.50
23:DA:2641:G:H5"	32:DJ:99:SER:HB3	1.94	0.50
30:DH:107:ILE:HG13	30:DH:109:ILE:HG23	1.92	0.50
32:DJ:49:LEU:O	32:DJ:53:ILE:HG13	2.11	0.50
37:DO:26:LEU:HD13	37:DO:87:PHE:HD1	1.76	0.50
38:DP:57:PHE:CG	38:DP:58:ASN:N	2.80	0.50
39:DQ:88:ILE:HB	39:DQ:90:VAL:CG1	2.35	0.50
39:DQ:112:ARG:HH21	40:DR:46:VAL:HG21	1.76	0.50
44:DV:27:VAL:HG22	44:DV:36:LYS:HA	1.93	0.50
44:DV:39:VAL:HG21	44:DV:44:PHE:CD2	2.47	0.50
1:AA:841:U:HO2'	1:AA:842:C:H6	1.59	0.50
1:AA:983:A:H2	1:AA:984:C:C5	2.29	0.50
1:AA:1356:G:H2'	1:AA:1357:A:H8	1.74	0.50
2:AB:24:TRP:HE3	2:AB:25:ASN:O	1.95	0.50
2:AB:69:LEU:HB3	2:AB:162:ILE:HG22	1.92	0.50
12:AL:81:VAL:O	12:AL:82:VAL:HB	2.12	0.50
23:BA:1010:A:H1'	23:BA:1153:C:H1'	1.92	0.50
23:BA:2462:U:H1'	23:BA:2491:U:O4	2.12	0.50
25:BC:244:ARG:HB2	25:BC:244:ARG:HH11	1.77	0.50
27:BE:12:LEU:HB2	27:BE:124:LEU:HD11	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BJ:57:LEU:HD11	32:BJ:142:ARG:HB2	1.92	0.50
32:BJ:127:LYS:HA	32:BJ:130:LEU:HD12	1.92	0.50
34:BL:147:LEU:HD13	34:BL:148:LEU:O	2.12	0.50
44:BV:125:LEU:HD23	44:BV:126:VAL:N	2.26	0.50
4:CD:105:VAL:HG13	4:CD:110:PHE:HB2	1.93	0.50
4:CD:108:LEU:HB3	4:CD:110:PHE:CD2	2.46	0.50
11:CK:20:TYR:O	11:CK:30:VAL:HA	2.11	0.50
11:CK:21:ILE:HD12	11:CK:21:ILE:N	2.26	0.50
17:CQ:57:VAL:HG12	17:CQ:76:LEU:HA	1.94	0.50
23:DA:576:U:H2'	23:DA:577:G:C8	2.46	0.50
23:DA:628:G:H2'	23:DA:629:G:C8	2.47	0.50
23:DA:780:G:N2	23:DA:783:A:H62	1.96	0.50
23:DA:1056:G:H8	23:DA:1056:G:O5'	1.94	0.50
23:DA:2462:U:H1'	23:DA:2491:U:O4	2.10	0.50
25:DC:43:ARG:HB2	25:DC:48:ARG:O	2.10	0.50
28:DF:74:LYS:HE2	28:DF:84:LYS:HE3	1.94	0.50
37:DO:25:ARG:HD2	37:DO:88:ASP:OD1	2.12	0.50
1:AA:38:G:C2	1:AA:397:A:C2	3.00	0.50
1:AA:444:C:H2'	1:AA:445:G:C8	2.47	0.50
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.46	0.50
4:AD:88:VAL:O	4:AD:92:VAL:HG23	2.12	0.50
12:AL:19:LYS:HD3	12:AL:19:LYS:H	1.77	0.50
19:AS:53:ASN:HD21	19:AS:56:GLN:H	1.59	0.50
23:BA:270(H):C:H2'	23:BA:270(I):C:H6	1.76	0.50
23:BA:1056:G:O5'	23:BA:1056:G:H8	1.94	0.50
23:BA:2517:C:C5	23:BA:2542:A:C2	2.99	0.50
28:BF:25:TYR:CD1	28:BF:30:GLU:HB3	2.47	0.50
28:BF:74:LYS:HE2	28:BF:84:LYS:HE3	1.94	0.50
29:BG:30:LYS:HB2	29:BG:79:VAL:HA	1.94	0.50
37:BO:14:VAL:O	37:BO:18:ILE:HG12	2.12	0.50
40:BR:49:THR:HB	40:BR:50:PRO:CD	2.42	0.50
1:CA:90:C:H2'	1:CA:91:C:C6	2.47	0.50
1:CA:321:A:H2'	1:CA:322:C:C6	2.47	0.50
1:CA:629:G:H2'	1:CA:630:G:C8	2.47	0.50
5:CE:36:ASP:O	5:CE:37:ARG:HB2	2.12	0.50
7:CG:113:GLU:HB3	7:CG:118:VAL:HG23	1.93	0.50
13:CM:49:THR:O	13:CM:53:VAL:HG23	2.12	0.50
13:CM:70:LEU:HD23	13:CM:70:LEU:C	2.36	0.50
18:CR:74:ARG:HA	18:CR:79:LEU:O	2.11	0.50
19:CS:32:LYS:HA	19:CS:50:ALA:HB3	1.94	0.50
23:DA:363(D):G:H2'	23:DA:363(E):G:H8	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1824:G:OP1	25:DC:52:ARG:HD3	2.11	0.50
23:DA:2758:A:C4	29:DG:67:LEU:HD21	2.47	0.50
25:DC:244:ARG:HG3	25:DC:245:PRO:N	2.25	0.50
27:DE:29:ASN:H	27:DE:112:MET:CE	2.25	0.50
29:DG:46:GLU:HG3	29:DG:51:ARG:NE	2.26	0.50
30:DH:31:LEU:HB3	30:DH:32:PRO:HD3	1.94	0.50
32:DJ:57:LEU:HD11	32:DJ:142:ARG:HB2	1.93	0.50
37:DO:36:TYR:N	37:DO:36:TYR:CD1	2.79	0.50
39:DQ:90:VAL:HG13	39:DQ:91:ASP:N	2.26	0.50
42:DT:11:PRO:HG3	47:DY:37:PHE:CE2	2.46	0.50
43:DU:14:LEU:HD23	43:DU:15:VAL:N	2.26	0.50
44:DV:125:LEU:HD23	44:DV:126:VAL:N	2.27	0.50
1:AA:434:U:H2'	1:AA:435:C:H6	1.76	0.50
23:BA:116:C:H2'	23:BA:117:G:C8	2.47	0.50
23:BA:775:G:C5	23:BA:794:G:C8	2.99	0.50
23:BA:1980:G:H3'	23:BA:1981:A:C5'	2.42	0.50
23:BA:2320:A:N3	23:BA:2320:A:H2'	2.25	0.50
25:BC:131:LEU:HD11	25:BC:136:ILE:HG12	1.94	0.50
26:BD:120:TRP:CD1	26:BD:155:LYS:HB3	2.47	0.50
27:BE:192:LEU:HD23	27:BE:192:LEU:C	2.37	0.50
28:BF:60:LEU:C	28:BF:60:LEU:HD13	2.37	0.50
42:BT:54:VAL:C	42:BT:55:ASN:HD22	2.20	0.50
1:CA:370:C:H2'	1:CA:371:G:C8	2.47	0.50
1:CA:824:C:H3'	1:CA:824:C:C6	2.47	0.50
2:CB:47:THR:O	2:CB:51:LEU:HG	2.12	0.50
2:CB:74:LYS:O	2:CB:78:GLN:HG3	2.12	0.50
6:CF:36:ARG:HH21	6:CF:38:GLU:HG2	1.75	0.50
13:CM:17:VAL:HG12	13:CM:21:TYR:HE1	1.75	0.50
23:DA:518:G:H4'	41:DS:18:ARG:NH1	2.26	0.50
23:DA:557:U:H2'	23:DA:558:G:H8	1.76	0.50
23:DA:774:A:H2	23:DA:787:U:O2'	1.95	0.50
23:DA:1567:A:H2'	25:DC:84:TYR:HE2	1.76	0.50
23:DA:2846:G:H2'	23:DA:2847:U:O4'	2.12	0.50
25:DC:132:PRO:HG3	25:DC:190:TYR:CE1	2.46	0.50
29:DG:92:ILE:HD12	29:DG:92:ILE:N	2.21	0.50
30:DH:6:LEU:HD23	30:DH:6:LEU:N	2.25	0.50
32:DJ:105:LEU:O	32:DJ:106:LYS:C	2.55	0.50
36:DN:10:LEU:CB	36:DN:17:ARG:NE	2.73	0.50
37:DO:69:VAL:O	37:DO:72:ALA:HB3	2.11	0.50
40:DR:81:TYR:O	40:DR:82:ARG:HG3	2.12	0.50
1:AA:447:G:H2'	1:AA:485:G:N2	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:922:G:N3	1:AA:1398:A:H2	2.09	0.50
1:AA:1123:A:H4'	10:AJ:36:GLY:HA3	1.94	0.50
2:AB:7:VAL:O	2:AB:11:LEU:HG	2.12	0.50
2:AB:178:ARG:HD2	8:AH:71:GLY:O	2.12	0.50
10:AJ:33:GLN:O	10:AJ:75:ILE:HG12	2.12	0.50
17:AQ:74:LEU:HD12	17:AQ:75:ARG:HG2	1.93	0.50
22:AV:6171:U:H2'	22:AV:6172:U:C6	2.47	0.50
23:BA:481:G:H1'	23:BA:506:G:N2	2.27	0.50
23:BA:1495:A:H2'	23:BA:1495:A:N3	2.26	0.50
30:BH:6:LEU:HD23	30:BH:6:LEU:N	2.26	0.50
30:BH:77:LEU:HG	30:BH:101:LEU:HD13	1.94	0.50
34:BL:17:LYS:O	34:BL:19:VAL:HG22	2.12	0.50
37:BO:38:GLN:HB3	37:BO:47:THR:CG2	2.41	0.50
38:BP:57:PHE:CG	38:BP:58:ASN:N	2.80	0.50
41:BS:4:LYS:HG2	41:BS:106:ILE:CG2	2.42	0.50
43:BU:8:LYS:N	43:BU:8:LYS:NZ	2.57	0.50
1:CA:273:A:H1'	17:CQ:16:GLN:OE1	2.11	0.50
1:CA:922:G:N3	1:CA:1398:A:H2	2.10	0.50
2:CB:7:VAL:O	2:CB:11:LEU:HG	2.12	0.50
3:CC:30:ARG:CD	14:CN:38:GLY:HA3	2.40	0.50
3:CC:91:LEU:HB3	3:CC:99:VAL:HG11	1.94	0.50
20:CT:10:LEU:O	20:CT:13:LEU:HD13	2.11	0.50
20:CT:72:LEU:HD23	20:CT:72:LEU:C	2.37	0.50
23:DA:1405:U:H2'	23:DA:1406:U:H6	1.75	0.50
23:DA:1504:C:O2'	23:DA:1505:C:H6	1.95	0.50
23:DA:1602:U:H3'	23:DA:1603:A:H5"	1.94	0.50
23:DA:2244:U:O2'	23:DA:2245:U:H5'	2.11	0.50
25:DC:150:LYS:HA	25:DC:150:LYS:HE3	1.94	0.50
27:DE:28:ILE:O	27:DE:30:PRO:HD3	2.11	0.50
28:DF:16:ARG:O	28:DF:20:ILE:HG12	2.12	0.50
28:DF:25:TYR:CD1	28:DF:30:GLU:HB3	2.47	0.50
29:DG:23:ARG:HD3	29:DG:23:ARG:N	2.27	0.50
39:DQ:95:LEU:HD11	40:DR:12:TYR:HA	1.93	0.50
1:AA:90:C:H2'	1:AA:91:C:C6	2.47	0.50
1:AA:350:G:O2'	1:AA:351:G:H5'	2.11	0.50
1:AA:464:G:H8	1:AA:464:G:O5'	1.94	0.50
1:AA:629:G:H2'	1:AA:630:G:C8	2.47	0.50
2:AB:83:MET:HE1	2:AB:234:PRO:HG2	1.94	0.50
10:AJ:30:SER:HB2	10:AJ:80:LYS:HG2	1.93	0.50
12:AL:40:ARG:HD3	12:AL:41:THR:O	2.12	0.50
23:BA:41:C:H2'	23:BA:43:G:O4'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:310:A:OP1	43:BU:18:GLY:HA2	2.11	0.50
23:BA:2641:G:H5"	32:BJ:99:SER:HB3	1.93	0.50
24:BB:46:A:H2'	24:BB:47:C:C6	2.47	0.50
28:BF:125:PHE:C	28:BF:127:GLY:H	2.20	0.50
33:BK:61:VAL:HG13	33:BK:61:VAL:O	2.12	0.50
40:BR:77:ALA:C	40:BR:79:VAL:H	2.19	0.50
45:BW:37:LEU:HG	45:BW:60:PHE:HA	1.92	0.50
1:CA:909:A:H2'	1:CA:910:C:O4'	2.11	0.50
2:CB:17:PHE:CD1	2:CB:44:LEU:HD21	2.47	0.50
4:CD:121:VAL:O	4:CD:134:ASP:HA	2.11	0.50
6:CF:89:MET:HE2	18:CR:76:LEU:HD21	1.94	0.50
8:CH:6:ILE:O	8:CH:10:LEU:HG	2.11	0.50
20:CT:26:ASN:HD22	20:CT:27:LYS:H	1.60	0.50
23:DA:37:C:H2'	23:DA:38:A:C8	2.47	0.50
23:DA:1341:U:O4	42:DT:16:LYS:HE2	2.12	0.50
23:DA:2246:G:H2'	23:DA:2247:A:C8	2.47	0.50
23:DA:2572:A:H62	26:DD:145:LYS:HG3	1.77	0.50
34:DL:83:VAL:O	34:DL:114:ILE:HA	2.11	0.50
38:DP:107:ASP:O	38:DP:110:ILE:HG22	2.11	0.50
39:DQ:92:ARG:HG2	40:DR:11:GLN:CD	2.37	0.50
39:DQ:106:PHE:O	39:DQ:110:VAL:HG23	2.12	0.50
1:AA:1080:A:H5"	1:AA:1081:G:OP2	2.12	0.50
2:AB:17:PHE:CD1	2:AB:44:LEU:HD21	2.47	0.50
5:AE:65:ASN:O	5:AE:66:MET:HB2	2.12	0.50
8:AH:9:MET:HE2	8:AH:10:LEU:HD23	1.93	0.50
23:BA:37:C:H2'	23:BA:38:A:C8	2.46	0.50
23:BA:646:A:N3	23:BA:646:A:H5'	2.27	0.50
23:BA:773:U:H4'	25:BC:47:GLY:CA	2.39	0.50
23:BA:2846:G:H2'	23:BA:2847:U:O4'	2.11	0.50
25:BC:70:TRP:CD1	25:BC:70:TRP:C	2.90	0.50
25:BC:150:LYS:HA	25:BC:150:LYS:HE3	1.94	0.50
28:BF:173:LEU:HA	28:BF:176:LEU:HD12	1.94	0.50
30:BH:4:ILE:HD11	30:BH:16:GLY:HA2	1.94	0.50
44:BV:39:VAL:HG21	44:BV:44:PHE:CD2	2.47	0.50
1:CA:1070:U:H2'	1:CA:1071:C:C6	2.47	0.50
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.47	0.50
3:CC:58:GLU:HB2	3:CC:65:ALA:HB3	1.92	0.50
3:CC:195:VAL:CG1	3:CC:196:LEU:H	2.20	0.50
4:CD:162:LEU:HD13	4:CD:181:MET:HG2	1.94	0.50
19:CS:12:ASP:HB2	19:CS:15:LEU:HD23	1.93	0.50
20:CT:85:MET:HB2	20:CT:104:LEU:HD21	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:860:U:O4'	23:DA:860:U:O2	2.30	0.50
23:DA:1344:G:H4'	23:DA:1384:A:C5	2.47	0.50
23:DA:1603:A:H5'	23:DA:1603:A:H8	1.77	0.50
25:DC:81:ALA:HB3	25:DC:94:LEU:HB3	1.93	0.50
28:DF:130:ASN:OD1	28:DF:160:VAL:HA	2.11	0.50
38:DP:54:ARG:HA	38:DP:59:THR:OG1	2.12	0.50
38:DP:100:TYR:HD2	38:DP:103:ARG:NH2	2.10	0.50
43:DU:7:VAL:HB	43:DU:8:LYS:HZ2	1.77	0.50
43:DU:29:GLU:HB3	43:DU:38:ILE:HB	1.94	0.50
3:AC:6:HIS:CD2	3:AC:7:PRO:HD2	2.43	0.49
10:AJ:82:ILE:O	10:AJ:86:MET:HB2	2.12	0.49
16:AP:23:ASP:O	16:AP:26:ARG:HB2	2.11	0.49
17:AQ:59:ILE:HG22	17:AQ:60:ILE:N	2.27	0.49
23:BA:496:G:H1'	41:BS:61:ASN:ND2	2.27	0.49
23:BA:581:C:H2'	23:BA:582:G:C8	2.47	0.49
23:BA:903:C:H2'	23:BA:904:C:C6	2.47	0.49
23:BA:1165:U:H2'	23:BA:1166:C:C6	2.47	0.49
23:BA:1827:C:H2'	23:BA:1828:G:O4'	2.12	0.49
23:BA:2894:G:H2'	23:BA:2894:G:N3	2.27	0.49
25:BC:132:PRO:HG3	25:BC:190:TYR:CE1	2.46	0.49
33:BK:2:ILE:CD1	33:BK:82:ASN:HD22	2.25	0.49
43:BU:29:GLU:HB3	43:BU:38:ILE:HB	1.94	0.49
44:BV:76:LEU:H	44:BV:76:LEU:CD1	2.24	0.49
47:BY:11:GLU:OE1	47:BY:11:GLU:N	2.43	0.49
1:CA:80:G:H2'	1:CA:81:G:H8	1.77	0.49
1:CA:114:U:H2'	1:CA:115:G:H8	1.77	0.49
1:CA:127:G:HO2'	17:CQ:2:PRO:N	2.09	0.49
1:CA:345:C:OP2	38:DP:39:ARG:NH2	2.45	0.49
1:CA:1520:G:H2'	1:CA:1521:G:H8	1.77	0.49
17:CQ:21:VAL:HG11	17:CQ:59:ILE:HD11	1.93	0.49
23:DA:661:C:H4'	34:DL:16:ARG:CD	2.42	0.49
23:DA:1111:A:N3	23:DA:1112:G:H1'	2.27	0.49
23:DA:1486:A:N6	23:DA:1504:C:H42	2.10	0.49
23:DA:2208:U:O2'	23:DA:2209:C:H5'	2.12	0.49
25:DC:72:LYS:CE	25:DC:101:GLU:HG2	2.42	0.49
26:DD:9:VAL:HG13	26:DD:25:VAL:O	2.11	0.49
30:DH:77:LEU:O	30:DH:143:SER:HB3	2.12	0.49
31:DI:9:LEU:O	31:DI:13:LEU:HG	2.12	0.49
46:DX:90:ILE:O	46:DX:94:LEU:HB2	2.12	0.49
1:AA:1295:G:O2'	13:AM:14:ARG:CZ	2.60	0.49
3:AC:105:GLU:HG2	3:AC:106:VAL:N	2.18	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:122:ARG:HD3	4:AD:122:ARG:O	2.12	0.49
15:AO:39:LEU:HD12	15:AO:56:LEU:HB2	1.93	0.49
23:BA:144:C:H2'	23:BA:145:G:H8	1.77	0.49
23:BA:390:A:C6	34:BL:71:VAL:HG21	2.47	0.49
23:BA:1578:U:H2'	23:BA:1579:A:H5"	1.94	0.49
23:BA:1689:A:H62	23:BA:1698:A:H2	1.59	0.49
23:BA:2246:G:H2'	23:BA:2247:A:C8	2.48	0.49
23:BA:2419:U:O4	53:B5:30:ARG:CZ	2.60	0.49
28:BF:16:ARG:O	28:BF:20:ILE:HG12	2.12	0.49
39:BQ:88:ILE:HB	39:BQ:90:VAL:CG1	2.36	0.49
44:BV:82:ARG:HG2	44:BV:83:PRO:HD2	1.94	0.49
45:BW:32:ARG:C	45:BW:35:ASN:HD21	2.19	0.49
1:CA:724:G:C2	1:CA:725:G:C8	3.00	0.49
1:CA:971:G:C8	1:CA:1365:G:H4'	2.48	0.49
1:CA:1152:A:H2'	1:CA:1153:C:C6	2.46	0.49
1:CA:1203:C:H2'	1:CA:1204:A:H8	1.77	0.49
2:CB:61:LEU:HD21	2:CB:68:ILE:HG12	1.95	0.49
2:CB:83:MET:HE1	2:CB:234:PRO:HG2	1.93	0.49
2:CB:187:LEU:HD11	2:CB:204:ASN:O	2.12	0.49
3:CC:14:ILE:HG23	3:CC:15:THR:N	2.25	0.49
8:CH:9:MET:HE2	8:CH:10:LEU:HD23	1.94	0.49
9:CI:17:VAL:HG21	9:CI:80:GLY:C	2.37	0.49
23:DA:270(Q):C:HO2'	23:DA:270(R):C:H6	1.58	0.49
23:DA:114(B):A:N3	23:DA:1144:G:C8	2.80	0.49
23:DA:1161:C:O2'	40:DR:23:GLU:HG2	2.11	0.49
23:DA:2392:A:H2	23:DA:2424:C:N4	2.08	0.49
23:DA:2853:C:H2'	23:DA:2854:G:H8	1.77	0.49
24:DB:71:C:C4	24:DB:72:G:N7	2.80	0.49
25:DC:244:ARG:HH11	25:DC:244:ARG:HB2	1.77	0.49
26:DD:51:PHE:HB3	26:DD:52:LEU:HD12	1.94	0.49
26:DD:78:LEU:C	26:DD:79:ARG:HD2	2.36	0.49
26:DD:120:TRP:CD1	26:DD:155:LYS:HB3	2.47	0.49
28:DF:153:ARG:NH1	28:DF:153:ARG:HB3	2.27	0.49
30:DH:82:ARG:HG2	30:DH:89:TYR:CD1	2.47	0.49
33:DK:24:VAL:CG2	33:DK:33:ALA:HB2	2.41	0.49
33:DK:61:VAL:O	33:DK:61:VAL:HG13	2.11	0.49
40:DR:14:VAL:HG13	40:DR:96:ILE:HG13	1.94	0.49
1:AA:1226:C:H2'	13:AM:103:THR:HB	1.93	0.49
1:AA:1286:A:N7	21:AU:22:ARG:NH2	2.61	0.49
1:AA:1290:G:H2'	1:AA:1290:G:N3	2.25	0.49
2:AB:145:LEU:O	2:AB:149:LEU:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:175:LEU:O	3:AC:175:LEU:HD23	2.11	0.49
11:AK:20:TYR:C	11:AK:21:ILE:HD12	2.37	0.49
13:AM:98:VAL:HB	13:AM:99:ARG:HH11	1.77	0.49
16:AP:8:ARG:HB3	16:AP:28:ARG:NH1	2.26	0.49
23:BA:150:C:H2'	23:BA:151:C:C6	2.47	0.49
23:BA:603:A:N6	23:BA:655:A:H1'	2.27	0.49
23:BA:860:U:O2	23:BA:860:U:O4'	2.29	0.49
23:BA:956:G:N2	23:BA:959:A:H3'	2.26	0.49
23:BA:114(B):A:N3	23:BA:1144:G:C8	2.81	0.49
23:BA:1568:G:OP2	25:BC:63:ARG:NH2	2.45	0.49
23:BA:2010:G:H5"	41:BS:42:ARG:HB2	1.94	0.49
23:BA:2394:C:H2'	23:BA:2395:C:C6	2.48	0.49
24:BB:63:G:H2'	24:BB:64:C:C6	2.47	0.49
25:BC:10:THR:HG23	25:BC:13:ARG:HB3	1.94	0.49
27:BE:53:THR:C	27:BE:55:GLY:N	2.70	0.49
27:BE:143:ALA:HB1	27:BE:148:LEU:HB2	1.94	0.49
30:BH:57:ARG:O	30:BH:61:ARG:HG3	2.12	0.49
33:BK:112:MET:HA	33:BK:115:VAL:HG22	1.93	0.49
36:BN:103:ARG:HH12	36:BN:110:PRO:HG3	1.78	0.49
43:BU:20:TYR:CE1	43:BU:42:VAL:HA	2.47	0.49
46:BX:11:ARG:HB2	46:BX:13:ILE:HG22	1.94	0.49
1:CA:665:A:H2'	1:CA:732:C:O2	2.12	0.49
1:CA:1157:A:N6	1:CA:1178:G:H1'	2.27	0.49
23:DA:165:U:H2'	23:DA:171:G:O4'	2.13	0.49
23:DA:603:A:H61	23:DA:655:A:C1'	2.25	0.49
23:DA:827:U:O2	23:DA:2246:G:H4'	2.12	0.49
23:DA:903:C:H2'	23:DA:904:C:C6	2.47	0.49
23:DA:114(B):A:C4	23:DA:1144:G:N7	2.80	0.49
23:DA:1431:U:H2'	23:DA:1432:C:C6	2.47	0.49
23:DA:1478:G:H2'	23:DA:1479:G:H8	1.77	0.49
23:DA:2335:A:H2'	37:DO:13:ARG:HH22	1.77	0.49
25:DC:70:TRP:C	25:DC:70:TRP:CD1	2.90	0.49
35:DM:60:ARG:N	44:DV:179:ASP:HB2	2.27	0.49
40:DR:38:LEU:C	40:DR:39:LEU:HD22	2.36	0.49
1:AA:767:A:H2'	1:AA:768:A:O4'	2.12	0.49
1:AA:1014:A:H4'	19:AS:14:HIS:CE1	2.46	0.49
19:AS:53:ASN:C	19:AS:53:ASN:HD22	2.20	0.49
23:BA:754:C:H2'	23:BA:755:C:C6	2.47	0.49
23:BA:114(B):A:C4	23:BA:1144:G:N7	2.80	0.49
23:BA:1937:A:N7	23:BA:1939:U:H2'	2.28	0.49
25:BC:81:ALA:HB3	25:BC:94:LEU:HB3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BK:2:ILE:CG1	33:BK:8:LEU:HD11	2.42	0.49
35:BM:23:GLY:HA3	35:BM:98:LYS:HB2	1.94	0.49
35:BM:52:VAL:O	35:BM:56:ARG:HB2	2.12	0.49
35:BM:60:ARG:N	44:BV:179:ASP:HB2	2.26	0.49
51:B3:13:CYS:O	51:B3:21:TYR:HA	2.13	0.49
51:B3:16:CYS:SG	51:B3:48:VAL:HG23	2.52	0.49
53:B5:33:ASN:ND2	53:B5:34:TRP:H	2.11	0.49
1:CA:444:C:H2'	1:CA:445:G:C8	2.47	0.49
1:CA:1305:G:H1'	1:CA:1306:A:C8	2.48	0.49
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.47	0.49
9:CI:4:TYR:CE2	9:CI:88:TYR:HB2	2.47	0.49
10:CJ:33:GLN:O	10:CJ:75:ILE:HG12	2.12	0.49
19:CS:16:LEU:HA	19:CS:19:VAL:HG12	1.94	0.49
22:CV:6171:U:H2'	22:CV:6172:U:C6	2.47	0.49
23:DA:41:C:H2'	23:DA:43:G:O4'	2.11	0.49
23:DA:471:A:H2'	23:DA:472:A:O4'	2.12	0.49
23:DA:855:G:H2'	23:DA:856:C:C6	2.47	0.49
23:DA:966:G:C4	23:DA:967:C:C5	3.00	0.49
23:DA:1486:A:C6	23:DA:1504:C:N4	2.80	0.49
23:DA:1971:A:C4	25:DC:241:PRO:HG3	2.47	0.49
23:DA:2516:G:C6	23:DA:2517:C:N4	2.80	0.49
23:DA:2894:G:H2'	23:DA:2894:G:N3	2.27	0.49
24:DB:75:G:N1	24:DB:102:G:N2	2.60	0.49
25:DC:10:THR:HG23	25:DC:13:ARG:HB2	1.94	0.49
27:DE:155:LEU:CD2	27:DE:186:ILE:HD13	2.40	0.49
27:DE:192:LEU:HD23	27:DE:192:LEU:C	2.37	0.49
29:DG:51:ARG:O	29:DG:52:VAL:HG23	2.13	0.49
32:DJ:77:VAL:HB	32:DJ:145:VAL:HG22	1.93	0.49
37:DO:14:VAL:O	37:DO:18:ILE:HG12	2.13	0.49
38:DP:24:PRO:HA	38:DP:49:VAL:HG13	1.93	0.49
41:DS:12:ILE:HD12	41:DS:46:PHE:CE2	2.48	0.49
50:D2:33:CYS:SG	50:D2:49:CYS:SG	3.07	0.49
51:D3:16:CYS:SG	51:D3:48:VAL:HG23	2.53	0.49
51:D3:36:LEU:HB3	51:D3:50:ARG:NH1	2.27	0.49
53:D5:14:VAL:CG1	53:D5:22:VAL:HG13	2.42	0.49
1:AA:626:U:H2'	1:AA:627:G:H8	1.76	0.49
1:AA:1413:A:C6	1:AA:1414:U:C4	3.00	0.49
4:AD:43:HIS:HA	4:AD:46:LYS:HE3	1.94	0.49
9:AI:19:LEU:HD23	9:AI:20:ARG:N	2.26	0.49
11:AK:17:GLY:HA3	11:AK:77:MET:SD	2.52	0.49
11:AK:20:TYR:O	11:AK:30:VAL:HA	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:23:G:H2'	23:BA:24:G:H8	1.77	0.49
23:BA:405:U:H3'	23:BA:406:G:H5'	1.94	0.49
23:BA:1437:C:H2'	23:BA:1438:U:H6	1.78	0.49
23:BA:1592:C:H2'	23:BA:1593:G:H8	1.78	0.49
23:BA:1826:G:OP1	25:BC:233:HIS:HD2	1.96	0.49
23:BA:2564:A:OP1	23:BA:2648:C:H4'	2.13	0.49
25:BC:79:VAL:O	25:BC:113:VAL:HG13	2.11	0.49
27:BE:125:LEU:HB3	27:BE:196:LEU:HD23	1.94	0.49
28:BF:86:MET:H	28:BF:87:PRO:CD	2.25	0.49
28:BF:133:LEU:HD21	28:BF:157:ILE:HG13	1.94	0.49
35:BM:76:LYS:H	35:BM:88:GLY:HA2	1.76	0.49
36:BN:87:TYR:OH	36:BN:116:LEU:HB3	2.13	0.49
51:B3:36:LEU:HB3	51:B3:50:ARG:NH1	2.27	0.49
1:CA:89:U:H2'	1:CA:90:C:C6	2.47	0.49
1:CA:1366:C:H2'	1:CA:1367:C:C6	2.48	0.49
2:CB:8:LYS:HG2	2:CB:217:ARG:NH1	2.27	0.49
2:CB:20:GLU:OE1	2:CB:20:GLU:HA	2.12	0.49
2:CB:24:TRP:HE3	2:CB:25:ASN:O	1.96	0.49
4:CD:53:ASP:O	4:CD:57:ARG:HD3	2.13	0.49
10:CJ:29:ARG:O	10:CJ:29:ARG:HG2	2.12	0.49
10:CJ:30:SER:HB2	10:CJ:80:LYS:HG2	1.93	0.49
12:CL:57:VAL:O	12:CL:59:LEU:HD22	2.13	0.49
23:DA:596:G:C6	23:DA:597:U:C4	3.01	0.49
23:DA:1354:A:C8	23:DA:1355:G:C8	3.01	0.49
23:DA:1963:U:O2	23:DA:1963:U:H2'	2.13	0.49
23:DA:2340:G:H2'	23:DA:2341:G:H8	1.77	0.49
23:DA:2439:A:H5'	23:DA:2439:A:H8	1.70	0.49
26:DD:201:THR:O	26:DD:202:LYS:HD3	2.13	0.49
28:DF:125:PHE:C	28:DF:127:GLY:H	2.19	0.49
29:DG:92:ILE:H	29:DG:92:ILE:CD1	2.21	0.49
43:DU:90:LEU:HG	43:DU:91:GLU:H	1.76	0.49
17:AQ:59:ILE:CG2	17:AQ:71:PHE:HB3	2.42	0.49
18:AR:43:PHE:O	18:AR:51:LEU:HB2	2.12	0.49
20:AT:85:MET:HB2	20:AT:104:LEU:HD21	1.94	0.49
23:BA:557:U:H2'	23:BA:558:G:H8	1.76	0.49
23:BA:596:G:C6	23:BA:597:U:C4	3.01	0.49
23:BA:733:G:H8	23:BA:733:G:O5'	1.96	0.49
23:BA:1022:G:C6	23:BA:1140:C:C4	3.01	0.49
23:BA:1833:U:C2	23:BA:1834:U:C6	3.00	0.49
23:BA:1970:A:H4'	23:BA:1971:A:OP1	2.12	0.49
23:BA:2258:C:H4'	23:BA:2259:G:OP2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BC:108:PRO:CG	25:BC:143:HIS:CE1	2.96	0.49
26:BD:5:LEU:HB2	26:BD:51:PHE:HD2	1.77	0.49
28:BF:130:ASN:OD1	28:BF:160:VAL:HA	2.13	0.49
29:BG:23:ARG:HD3	29:BG:23:ARG:N	2.27	0.49
30:BH:92:VAL:HG22	30:BH:120:ILE:HD12	1.94	0.49
32:BJ:80:ALA:HB3	32:BJ:147:ALA:HB2	1.95	0.49
34:BL:57:THR:C	34:BL:59:LEU:H	2.21	0.49
1:CA:488:C:H6	1:CA:488:C:O5'	1.94	0.49
1:CA:624:C:H2'	1:CA:625:G:H8	1.78	0.49
1:CA:979:C:N4	14:CN:18:VAL:HG12	2.28	0.49
1:CA:1080:A:H5"	1:CA:1081:G:OP2	2.12	0.49
3:CC:17:ASP:CB	3:CC:21:ARG:HH22	2.23	0.49
3:CC:79:ARG:HD3	3:CC:79:ARG:N	2.27	0.49
12:CL:76:LEU:HD11	12:CL:106:ALA:HA	1.95	0.49
19:CS:53:ASN:HD21	19:CS:56:GLN:H	1.59	0.49
23:DA:69:C:H2'	23:DA:70:G:C8	2.47	0.49
23:DA:118:A:N3	23:DA:178:G:H1'	2.27	0.49
23:DA:144:C:H2'	23:DA:145:G:H8	1.77	0.49
23:DA:322:A:OP2	27:DE:169:ASN:HB2	2.12	0.49
23:DA:1188:U:C2'	23:DA:1189:A:H5'	2.42	0.49
23:DA:1608:A:HO2'	23:DA:1610:A:P	2.35	0.49
29:DG:22:GLY:C	29:DG:23:ARG:HD3	2.38	0.49
34:DL:126:VAL:HA	34:DL:145:PRO:HB2	1.95	0.49
36:DN:81:ASP:O	36:DN:85:PRO:HG2	2.12	0.49
1:AA:19:C:H5"	5:AE:86:ALA:HB1	1.95	0.49
1:AA:475:G:H2'	1:AA:476:G:C8	2.45	0.49
1:AA:909:A:H2'	1:AA:910:C:O4'	2.13	0.49
1:AA:1300:G:O2'	1:AA:1301:U:P	2.71	0.49
4:AD:162:LEU:HD13	4:AD:181:MET:HG2	1.95	0.49
7:AG:41:ARG:HB3	7:AG:41:ARG:NH1	2.28	0.49
11:AK:21:ILE:HB	11:AK:84:VAL:HG12	1.94	0.49
17:AQ:57:VAL:HG12	17:AQ:76:LEU:HA	1.95	0.49
20:AT:49:ALA:HB3	20:AT:99:LEU:HD12	1.94	0.49
23:BA:795:C:O2'	23:BA:796:C:H5'	2.13	0.49
23:BA:1973:G:H2'	23:BA:1974:C:H6	1.77	0.49
23:BA:2892:A:N6	23:BA:2893:G:C2	2.81	0.49
27:BE:28:ILE:HA	27:BE:112:MET:HE3	1.94	0.49
33:BK:12:ASP:OD1	33:BK:85:VAL:HG13	2.13	0.49
35:BM:43:THR:OG1	35:BM:46:GLN:HG3	2.12	0.49
45:BW:50:ASN:HD22	45:BW:83:PRO:HD3	1.78	0.49
45:BW:53:MET:HA	45:BW:58:THR:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BY:14:ARG:HA	47:BY:17:SER:HB2	1.94	0.49
1:CA:134:A:H61	16:CP:25:ARG:HH12	1.56	0.49
1:CA:1349:A:H2'	1:CA:1350:A:H8	1.76	0.49
2:CB:17:PHE:HB2	2:CB:42:ILE:HG22	1.95	0.49
3:CC:19:GLU:HG3	3:CC:54:ARG:HD2	1.95	0.49
3:CC:113:ALA:HB3	3:CC:114:PRO:HD3	1.95	0.49
4:CD:88:VAL:O	4:CD:92:VAL:HG23	2.12	0.49
6:CF:26:ILE:O	6:CF:30:LEU:HG	2.13	0.49
10:CJ:82:ILE:O	10:CJ:86:MET:HB2	2.12	0.49
21:CU:6:ARG:NE	21:CU:15:ARG:HH12	2.10	0.49
23:DA:116:C:H2'	23:DA:117:G:C8	2.47	0.49
23:DA:258:G:H2'	23:DA:259:G:H8	1.78	0.49
23:DA:289:A:H2'	23:DA:290:G:O4'	2.13	0.49
23:DA:405:U:H3'	23:DA:406:G:H5'	1.95	0.49
23:DA:603:A:N6	23:DA:655:A:H1'	2.28	0.49
23:DA:1887:C:H3'	23:DA:1888:G:H5"	1.95	0.49
23:DA:2784:C:H2'	23:DA:2785:C:C6	2.47	0.49
28:DF:98:ARG:O	28:DF:101:ILE:HG12	2.12	0.49
33:DK:88:ASN:OD1	33:DK:89:ASN:N	2.46	0.49
34:DL:32:THR:OG1	34:DL:36:LYS:HB3	2.13	0.49
45:DW:37:LEU:HG	45:DW:60:PHE:HA	1.95	0.49
1:AA:1157:A:N6	1:AA:1178:G:H1'	2.27	0.49
2:AB:8:LYS:HG2	2:AB:217:ARG:NH1	2.28	0.49
2:AB:212:GLN:HE22	2:AB:216:SER:HB2	1.77	0.49
3:AC:73:PRO:O	3:AC:76:VAL:HG22	2.13	0.49
3:AC:195:VAL:CG1	3:AC:196:LEU:H	2.20	0.49
4:AD:8:VAL:C	4:AD:10:ARG:N	2.70	0.49
8:AH:110:ALA:HB3	8:AH:121:ASP:HB3	1.94	0.49
10:AJ:32:ALA:CB	10:AJ:76:ASN:HB2	2.43	0.49
19:AS:32:LYS:HA	19:AS:50:ALA:HB3	1.95	0.49
19:AS:51:VAL:O	19:AS:58:VAL:HG22	2.12	0.49
20:AT:72:LEU:C	20:AT:72:LEU:HD23	2.38	0.49
23:BA:783:A:C8	23:BA:783:A:H3'	2.48	0.49
23:BA:1486:A:C6	23:BA:1504:C:N4	2.80	0.49
23:BA:2012:G:O2'	41:BS:96:ILE:HD11	2.12	0.49
23:BA:2537:U:H2'	23:BA:2538:C:H6	1.77	0.49
25:BC:105:ILE:CG1	25:BC:106:ILE:HD12	2.42	0.49
28:BF:153:ARG:NH1	28:BF:153:ARG:HB3	2.27	0.49
29:BG:22:GLY:C	29:BG:23:ARG:HD3	2.38	0.49
30:BH:5:LEU:H	30:BH:5:LEU:CD2	2.18	0.49
52:B4:21:ARG:HB3	52:B4:31:LEU:CD2	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:255:G:H2'	1:CA:256:U:H6	1.78	0.49
1:CA:538:G:O3'	12:CL:113:LYS:HG3	2.13	0.49
1:CA:1154:G:H2'	1:CA:1155:G:C8	2.48	0.49
1:CA:1443:G:H22	38:DP:119:LYS:HA	1.78	0.49
1:CA:1503:A:H5"	1:CA:1531:A:H1'	1.94	0.49
2:CB:28:PHE:CD1	2:CB:190:THR:HA	2.48	0.49
2:CB:88:ALA:HA	2:CB:223:ILE:HD11	1.95	0.49
2:CB:212:GLN:HE22	2:CB:216:SER:HB2	1.78	0.49
4:CD:43:HIS:HA	4:CD:46:LYS:HE3	1.93	0.49
12:CL:81:VAL:O	12:CL:82:VAL:HB	2.12	0.49
20:CT:49:ALA:HB3	20:CT:99:LEU:HD12	1.94	0.49
23:DA:1022:G:O2'	23:DA:1023:U:OP2	2.28	0.49
23:DA:1027:A:C2	23:DA:2488:A:H5'	2.47	0.49
23:DA:2365:G:O6	53:D5:39:LYS:HE3	2.13	0.49
23:DA:2512:C:H5"	23:DA:2513:G:OP2	2.13	0.49
25:DC:10:THR:HG23	25:DC:13:ARG:HB3	1.93	0.49
25:DC:260:ARG:O	25:DC:261:LYS:C	2.55	0.49
26:DD:169:ASN:ND2	26:DD:201:THR:HG21	2.28	0.49
44:DV:82:ARG:HG2	44:DV:83:PRO:HD2	1.95	0.49
45:DW:53:MET:HA	45:DW:58:THR:O	2.12	0.49
51:D3:13:CYS:O	51:D3:21:TYR:HA	2.13	0.49
1:AA:724:G:C2	1:AA:725:G:C8	3.00	0.49
1:AA:1100:C:OP2	2:AB:96:ARG:HG2	2.13	0.49
1:AA:1313:U:OP1	19:AS:6:LYS:HG3	2.12	0.49
2:AB:118:LEU:O	2:AB:122:PHE:HB2	2.13	0.49
3:AC:6:HIS:ND1	14:AN:49:HIS:HB3	2.28	0.49
3:AC:14:ILE:HG23	3:AC:15:THR:N	2.25	0.49
17:AQ:52:LYS:H	17:AQ:52:LYS:HD2	1.77	0.49
17:AQ:76:LEU:HD12	17:AQ:77:VAL:H	1.77	0.49
23:BA:110:G:C2	23:BA:111:A:C8	3.01	0.49
23:BA:433:C:H2'	23:BA:434:U:C6	2.48	0.49
23:BA:747:U:O2	23:BA:2014:A:H1'	2.12	0.49
23:BA:1614:A:C6	41:BS:87:PRO:HA	2.48	0.49
23:BA:1963:U:O2	23:BA:1963:U:H2'	2.12	0.49
26:BD:101:ARG:HG2	26:BD:171:GLU:HA	1.95	0.49
46:BX:13:ILE:HG23	46:BX:14:VAL:H	1.77	0.49
46:BX:58:ILE:HD11	46:BX:91:LYS:CG	2.43	0.49
1:CA:509:A:C6	1:CA:510:A:N1	2.81	0.49
1:CA:1194:U:H4'	5:CE:22:GLY:O	2.12	0.49
4:CD:8:VAL:C	4:CD:10:ARG:N	2.70	0.49
19:CS:5:LEU:HG	19:CS:10:PHE:HB3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:51:VAL:O	19:CS:58:VAL:HG22	2.12	0.49
23:DA:466:A:N3	23:DA:683:C:H1'	2.28	0.49
23:DA:1171:G:H2'	23:DA:1173:G:O4'	2.13	0.49
23:DA:1495:A:H2'	23:DA:1496:A:C2	2.48	0.49
23:DA:1517:G:H2'	23:DA:1518:C:C6	2.48	0.49
25:DC:102:LYS:C	25:DC:103:ARG:HG2	2.37	0.49
28:DF:86:MET:H	28:DF:87:PRO:CD	2.26	0.49
30:DH:115:ALA:HB3	30:DH:129:THR:O	2.12	0.49
36:DN:50:HIS:O	36:DN:54:LEU:HB2	2.13	0.49
1:AA:865:A:H8	1:AA:865:A:O5'	1.96	0.49
3:AC:19:GLU:HG3	3:AC:54:ARG:HD2	1.95	0.49
4:AD:163:GLU:O	4:AD:166:LYS:HG3	2.13	0.49
9:AI:99:LEU:HD12	9:AI:101:PHE:HE2	1.77	0.49
13:AM:49:THR:O	13:AM:53:VAL:HG23	2.12	0.49
23:BA:1486:A:N6	23:BA:1504:C:H42	2.09	0.49
23:BA:1680:U:O2	23:BA:1763:G:H3'	2.12	0.49
23:BA:2784:C:H2'	23:BA:2785:C:C6	2.48	0.49
25:BC:25:THR:HG21	25:BC:81:ALA:CA	2.43	0.49
25:BC:72:LYS:HE3	25:BC:101:GLU:CB	2.43	0.49
25:BC:142:VAL:HG23	25:BC:192:THR:C	2.38	0.49
32:BJ:160:LYS:CD	32:BJ:161:LEU:H	2.26	0.49
34:BL:95:VAL:HG23	34:BL:125:VAL:HA	1.94	0.49
38:BP:107:ASP:O	38:BP:110:ILE:HG22	2.12	0.49
40:BR:47:VAL:HG12	40:BR:49:THR:O	2.13	0.49
1:CA:565:U:C6	1:CA:566:G:C8	3.01	0.49
4:CD:31:CYS:O	4:CD:32:ALA:HB3	2.12	0.49
6:CF:19:LEU:O	6:CF:23:LYS:HG3	2.13	0.49
7:CG:41:ARG:HB3	7:CG:41:ARG:NH1	2.28	0.49
11:CK:17:GLY:HA3	11:CK:77:MET:SD	2.52	0.49
11:CK:44:SER:OG	11:CK:47:VAL:HG23	2.12	0.49
12:CL:82:VAL:HG21	12:CL:99:ILE:CD1	2.43	0.49
23:DA:69:C:O2'	23:DA:70:G:H5'	2.13	0.49
23:DA:634:C:H2'	23:DA:635:C:C6	2.48	0.49
25:DC:31:LYS:HE3	25:DC:33:LEU:HD21	1.94	0.49
25:DC:70:TRP:CH2	25:DC:150:LYS:HA	2.48	0.49
25:DC:142:VAL:HG23	25:DC:192:THR:C	2.38	0.49
25:DC:242:ARG:N	25:DC:242:ARG:CD	2.71	0.49
26:DD:201:THR:CG2	26:DD:202:LYS:H	2.22	0.49
33:DK:79:PHE:HD2	38:DP:72:VAL:HG22	1.78	0.49
35:DM:76:LYS:H	35:DM:88:GLY:HA2	1.76	0.49
40:DR:47:VAL:HG13	40:DR:52:VAL:N	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:427:U:C4	1:AA:428:G:C6	3.01	0.48
8:AH:81:HIS:HB2	8:AH:138:TRP:OXT	2.11	0.48
12:AL:57:VAL:O	12:AL:59:LEU:HD22	2.12	0.48
16:AP:27:LYS:HD2	16:AP:27:LYS:N	2.26	0.48
20:AT:67:ALA:HA	20:AT:72:LEU:O	2.12	0.48
23:BA:165:U:H2'	23:BA:171:G:O4'	2.13	0.48
23:BA:322:A:H3'	27:BE:169:ASN:HD21	1.78	0.48
23:BA:481:G:O2'	23:BA:482:A:P	2.71	0.48
23:BA:947:G:N2	23:BA:971:C:C2	2.81	0.48
23:BA:1001:A:H2'	23:BA:1002:G:O4'	2.12	0.48
23:BA:1270:C:H5"	23:BA:1271:G:O5'	2.13	0.48
23:BA:1431:U:H2'	23:BA:1432:C:C6	2.48	0.48
23:BA:2252:G:H2'	23:BA:2253:G:H8	1.78	0.48
23:BA:2741:A:H2'	23:BA:2742:C:O4'	2.13	0.48
25:BC:72:LYS:CE	25:BC:101:GLU:HG2	2.42	0.48
28:BF:55:LYS:HD2	28:BF:58:GLN:NE2	2.20	0.48
38:BP:54:ARG:HA	38:BP:59:THR:OG1	2.12	0.48
43:BU:14:LEU:HD23	43:BU:15:VAL:N	2.28	0.48
47:BY:1:MET:SD	47:BY:1:MET:O	2.71	0.48
1:CA:427:U:C4	1:CA:428:G:C6	3.00	0.48
1:CA:600:C:H2'	1:CA:601:C:C6	2.48	0.48
1:CA:1237:C:OP1	1:CA:1238:A:H1'	2.13	0.48
1:CA:1300:G:O2'	1:CA:1301:U:P	2.71	0.48
3:CC:73:PRO:O	3:CC:76:VAL:HG22	2.13	0.48
3:CC:175:LEU:O	3:CC:175:LEU:HD23	2.12	0.48
17:CQ:59:ILE:HG22	17:CQ:60:ILE:N	2.28	0.48
18:CR:50:ILE:HD11	18:CR:74:ARG:NH1	2.28	0.48
18:CR:56:THR:HB	18:CR:58:LEU:HD13	1.94	0.48
23:DA:329:G:H1	43:DU:19:LYS:HE3	1.78	0.48
23:DA:733:G:H8	23:DA:733:G:O5'	1.96	0.48
23:DA:784:A:N7	25:DC:229:VAL:HG21	2.27	0.48
23:DA:1437:C:H2'	23:DA:1438:U:H6	1.75	0.48
23:DA:1615:C:O2'	23:DA:1616:A:H5'	2.13	0.48
23:DA:2436:G:C5	23:DA:2437:U:C5	3.01	0.48
23:DA:2795:G:H3'	23:DA:2797:U:H5"	1.95	0.48
27:DE:12:LEU:HB2	27:DE:124:LEU:HD11	1.94	0.48
28:DF:173:LEU:HA	28:DF:176:LEU:HD12	1.93	0.48
50:D2:3:LYS:HD2	50:D2:3:LYS:N	2.28	0.48
1:AA:80:G:H2'	1:AA:81:G:H8	1.78	0.48
1:AA:112:G:C2	1:AA:113:G:C8	3.02	0.48
1:AA:1378:C:H5"	7:AG:6:ARG:NE	2.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.48	0.48
6:AF:89:MET:HE2	18:AR:76:LEU:HD21	1.93	0.48
11:AK:105:VAL:O	11:AK:105:VAL:HG23	2.13	0.48
19:AS:16:LEU:HA	19:AS:19:VAL:HG12	1.94	0.48
23:BA:1252:G:C2	23:BA:1253:A:C2	3.01	0.48
23:BA:2039:C:C2	23:BA:2040:C:C5	3.01	0.48
23:BA:2415:G:H4'	34:BL:66:GLY:HA2	1.92	0.48
25:BC:43:ARG:HB2	25:BC:49:ILE:HA	1.96	0.48
30:BH:77:LEU:O	30:BH:143:SER:HB3	2.13	0.48
34:BL:138:LEU:HD11	34:BL:144:GLU:HB3	1.94	0.48
35:BM:39:PRO:O	35:BM:40:ALA:HB2	2.13	0.48
40:BR:38:LEU:C	40:BR:39:LEU:HD22	2.38	0.48
40:BR:47:VAL:HG13	40:BR:52:VAL:N	2.28	0.48
1:CA:277:C:OP1	17:CQ:41:LYS:HE3	2.12	0.48
1:CA:832:C:N4	1:CA:855:G:O6	2.47	0.48
1:CA:1412:C:H2'	1:CA:1413:A:H8	1.77	0.48
10:CJ:32:ALA:CB	10:CJ:76:ASN:HB2	2.43	0.48
13:CM:98:VAL:HB	13:CM:99:ARG:HH11	1.78	0.48
23:DA:380:U:O2	46:DX:20:ARG:NH2	2.46	0.48
23:DA:718:A:O5'	23:DA:718:A:H8	1.96	0.48
23:DA:114(B):A:C4	23:DA:1144:G:C8	3.01	0.48
23:DA:1937:A:N7	23:DA:1939:U:H2'	2.27	0.48
27:DE:53:THR:C	27:DE:55:GLY:N	2.70	0.48
35:DM:43:THR:OG1	35:DM:46:GLN:HG3	2.13	0.48
44:DV:99:TYR:CE2	44:DV:125:LEU:HD12	2.48	0.48
1:AA:600:C:H2'	1:AA:601:C:C6	2.48	0.48
1:AA:971:G:C8	1:AA:1365:G:H4'	2.48	0.48
1:AA:1237:C:OP1	1:AA:1238:A:H1'	2.12	0.48
1:AA:1503:A:H5"	1:AA:1531:A:H1'	1.93	0.48
4:AD:53:ASP:O	4:AD:57:ARG:HD3	2.14	0.48
5:AE:70:PRO:HB3	5:AE:144:THR:HG22	1.95	0.48
10:AJ:34:VAL:CG2	10:AJ:74:ILE:HG22	2.43	0.48
12:AL:26:LEU:HD13	12:AL:27:LYS:N	2.17	0.48
19:AS:34:TRP:CZ2	19:AS:57:HIS:HE1	2.31	0.48
23:BA:996:A:H4'	39:BQ:92:ARG:CZ	2.44	0.48
23:BA:1171:G:H2'	23:BA:1173:G:O4'	2.13	0.48
23:BA:1632:A:H8	23:BA:1632:A:O5'	1.96	0.48
23:BA:2699:C:H2'	23:BA:2700:C:O4'	2.13	0.48
37:BO:25:ARG:HD2	37:BO:88:ASP:OD1	2.12	0.48
42:BT:63:LYS:HZ1	42:BT:72:LYS:HB3	1.77	0.48
43:BU:90:LEU:HG	43:BU:91:GLU:H	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:45:U:O5'	1:CA:45:U:H6	1.97	0.48
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.49	0.48
3:CC:6:HIS:ND1	14:CN:49:HIS:HB3	2.28	0.48
4:CD:153:ARG:HH11	4:CD:181:MET:HE3	1.78	0.48
10:CJ:33:GLN:HB2	10:CJ:75:ILE:HD11	1.95	0.48
12:CL:19:LYS:HD3	12:CL:19:LYS:H	1.78	0.48
23:DA:124:G:N7	52:D4:19:ARG:NH2	2.61	0.48
23:DA:270(H):C:H2'	23:DA:270(I):C:H6	1.77	0.48
23:DA:496:G:H1'	41:DS:61:ASN:ND2	2.29	0.48
23:DA:1001:A:H2'	23:DA:1002:G:O4'	2.13	0.48
23:DA:1567:A:H5"	25:DC:58:HIS:CD2	2.48	0.48
23:DA:1953:A:C2	23:DA:2549:G:N3	2.79	0.48
23:DA:2516:G:O6	23:DA:2517:C:N4	2.47	0.48
26:DD:31:CYS:HB3	26:DD:49:LEU:HB3	1.95	0.48
28:DF:55:LYS:O	28:DF:59:GLU:HG3	2.13	0.48
30:DH:88:ILE:CG2	30:DH:89:TYR:N	2.76	0.48
34:DL:114:ILE:CD1	34:DL:130:PHE:CD1	2.90	0.48
43:DU:76:CYS:CB	43:DU:77:PRO:CD	2.91	0.48
44:DV:10:ARG:HH21	44:DV:26:GLY:H	1.62	0.48
1:AA:277:C:H5"	17:AQ:68:ARG:NH2	2.28	0.48
1:AA:363:A:H8	12:AL:32:ARG:HH21	1.59	0.48
1:AA:1154:G:H2'	1:AA:1155:G:C8	2.48	0.48
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.48	0.48
2:AB:187:LEU:HD11	2:AB:204:ASN:O	2.12	0.48
3:AC:30:ARG:CD	14:AN:38:GLY:HA3	2.40	0.48
3:AC:91:LEU:HB3	3:AC:99:VAL:HG11	1.94	0.48
17:AQ:21:VAL:HG11	17:AQ:59:ILE:HD11	1.95	0.48
23:BA:478:A:C6	23:BA:480:A:C6	3.01	0.48
23:BA:675:A:H4'	27:BE:67:GLN:HE21	1.76	0.48
23:BA:1478:G:H2'	23:BA:1479:G:H8	1.78	0.48
23:BA:2887:U:H2'	23:BA:2888:C:H6	1.78	0.48
28:BF:55:LYS:O	28:BF:59:GLU:HG3	2.14	0.48
28:BF:60:LEU:O	28:BF:64:THR:HG22	2.14	0.48
37:BO:89:ARG:O	37:BO:90:GLY:O	2.31	0.48
42:BT:30:VAL:HG21	42:BT:79:ALA:HB3	1.94	0.48
1:CA:1305:G:H1'	1:CA:1306:A:N7	2.28	0.48
1:CA:1329:A:P	13:CM:28:ALA:HB3	2.53	0.48
2:CB:118:LEU:O	2:CB:122:PHE:HB2	2.13	0.48
7:CG:106:GLN:O	7:CG:110:GLN:HG3	2.13	0.48
11:CK:21:ILE:HB	11:CK:84:VAL:HG12	1.95	0.48
23:DA:363(A):G:H2'	23:DA:363(B):A:H8	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:826:U:C5	23:DA:828:U:H1'	2.49	0.48
23:DA:1614:A:C6	41:DS:87:PRO:HA	2.48	0.48
23:DA:1995:U:H3'	23:DA:1996:C:H2'	1.96	0.48
23:DA:2590:A:C2	23:DA:2605:U:C2	3.02	0.48
23:DA:2741:A:H2'	23:DA:2742:C:O4'	2.13	0.48
23:DA:2815:C:O2'	50:D2:43:HIS:CD2	2.64	0.48
36:DN:103:ARG:HH12	36:DN:110:PRO:HG3	1.79	0.48
39:DQ:62:ILE:HD12	39:DQ:76:TYR:CE1	2.49	0.48
41:DS:24:ILE:HG21	41:DS:36:LEU:CD2	2.37	0.48
43:DU:14:LEU:HD23	43:DU:14:LEU:C	2.38	0.48
47:DY:10:LEU:O	47:DY:13:ALA:HB3	2.13	0.48
1:AA:269:C:H2'	1:AA:270:A:H8	1.78	0.48
1:AA:924:C:H2'	1:AA:925:G:H8	1.78	0.48
1:AA:941:G:C2	1:AA:942:G:C8	3.01	0.48
8:AH:9:MET:HE1	8:AH:35:ILE:HG21	1.96	0.48
8:AH:11:THR:HG22	8:AH:15:ASN:ND2	2.28	0.48
11:AK:44:SER:OG	11:AK:47:VAL:HG23	2.14	0.48
11:AK:92:GLU:O	11:AK:96:ARG:HG2	2.13	0.48
13:AM:45:VAL:O	13:AM:48:LEU:HD22	2.13	0.48
18:AR:56:THR:HB	18:AR:58:LEU:HD13	1.95	0.48
23:BA:1509:A:H4'	23:BA:1510:A:C1'	2.44	0.48
23:BA:1615:C:O2'	23:BA:1616:A:H5'	2.13	0.48
23:BA:1797:C:O2'	25:BC:259:THR:HG23	2.14	0.48
23:BA:2335:A:H2'	37:BO:13:ARG:HH22	1.78	0.48
28:BF:98:ARG:O	28:BF:101:ILE:HG12	2.13	0.48
30:BH:29:TYR:C	30:BH:32:PRO:HD2	2.38	0.48
30:BH:88:ILE:CG2	30:BH:89:TYR:N	2.76	0.48
32:BJ:26:THR:HG22	32:BJ:27:TYR:N	2.29	0.48
33:BK:88:ASN:OD1	33:BK:89:ASN:N	2.47	0.48
41:BS:12:ILE:HD12	41:BS:46:PHE:CE2	2.49	0.48
42:BT:70:LEU:HD23	42:BT:70:LEU:C	2.39	0.48
44:BV:10:ARG:HB3	44:BV:36:LYS:HB3	1.95	0.48
47:BY:52:ASP:O	47:BY:56:GLN:HB2	2.14	0.48
48:BZ:40:THR:O	48:BZ:44:ARG:HG3	2.13	0.48
1:CA:112:G:C2	1:CA:113:G:C8	3.02	0.48
13:CM:45:VAL:O	13:CM:48:LEU:HD22	2.14	0.48
16:CP:24:ALA:C	16:CP:26:ARG:H	2.21	0.48
23:DA:481:G:O2'	23:DA:482:A:P	2.71	0.48
23:DA:481:G:H1'	23:DA:506:G:N2	2.27	0.48
23:DA:768:G:O2'	23:DA:1379:A:N6	2.46	0.48
23:DA:956:G:N2	23:DA:959:A:H3'	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1051:G:H2'	23:DA:1052:C:C6	2.49	0.48
23:DA:1289:C:H2'	23:DA:1290:C:H6	1.79	0.48
23:DA:2286:A:H4'	23:DA:2287:A:O4'	2.14	0.48
33:DK:12:ASP:OD1	33:DK:85:VAL:HG13	2.12	0.48
33:DK:71:ARG:HH12	38:DP:74:ARG:NH2	2.08	0.48
34:DL:36:LYS:HG3	34:DL:41:ARG:CB	2.40	0.48
40:DR:45:THR:O	40:DR:46:VAL:C	2.56	0.48
48:DZ:8:LEU:HA	48:DZ:54:VAL:HG12	1.96	0.48
1:AA:562:C:N4	1:AA:884:U:C6	2.82	0.48
2:AB:28:PHE:CD2	2:AB:194:PRO:HG3	2.49	0.48
4:AD:121:VAL:O	4:AD:134:ASP:HA	2.14	0.48
4:AD:153:ARG:HH11	4:AD:181:MET:HE3	1.78	0.48
20:AT:26:ASN:HD22	20:AT:27:LYS:H	1.61	0.48
23:BA:792:G:H5"	23:BA:793:A:H5'	1.94	0.48
23:BA:1399:C:O2'	23:BA:1400:G:H5'	2.14	0.48
23:BA:1478:G:O2'	23:BA:1558:A:C2	2.66	0.48
23:BA:1887:C:H3'	23:BA:1888:G:H5"	1.96	0.48
23:BA:2293:C:H4'	37:BO:93:LYS:HZ1	1.78	0.48
27:BE:28:ILE:O	27:BE:30:PRO:HD3	2.13	0.48
28:BF:128:ARG:HH21	28:BF:130:ASN:HD21	1.61	0.48
30:BH:86:THR:O	30:BH:122:GLU:HG3	2.14	0.48
39:BQ:62:ILE:HD12	39:BQ:76:TYR:CE1	2.48	0.48
44:BV:10:ARG:HH21	44:BV:26:GLY:H	1.62	0.48
53:B5:53:PRO:HB2	53:B5:57:ARG:NH2	2.28	0.48
1:CA:57:G:H2'	1:CA:58:C:H6	1.77	0.48
1:CA:321:A:C2	1:CA:333:G:C2	3.01	0.48
1:CA:404:U:H2'	1:CA:405:U:C6	2.49	0.48
22:CV:6157:A:N6	22:CV:6172:U:H3	2.10	0.48
23:DA:747:U:O2	23:DA:2014:A:H1'	2.13	0.48
23:DA:754:C:H2'	23:DA:755:C:C6	2.48	0.48
23:DA:920:G:H2'	23:DA:921:G:H8	1.79	0.48
23:DA:948:G:OP1	23:DA:962:G:OP1	2.32	0.48
23:DA:1040:C:H2'	23:DA:1041:C:C6	2.49	0.48
23:DA:1239:G:O2'	23:DA:1240:U:H5'	2.13	0.48
23:DA:1504:C:O2'	23:DA:1505:C:O5'	2.31	0.48
23:DA:1689:A:H62	23:DA:1698:A:H2	1.60	0.48
23:DA:2090:G:H21	46:DX:45:ASN:ND2	2.10	0.48
23:DA:2366:A:H2'	23:DA:2367:G:O4'	2.14	0.48
23:DA:2517:C:C5	23:DA:2542:A:C2	3.02	0.48
24:DB:46:A:H2'	24:DB:47:C:C6	2.48	0.48
27:DE:126:VAL:O	27:DE:196:LEU:HG	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DG:30:LYS:HB2	29:DG:79:VAL:HA	1.94	0.48
32:DJ:160:LYS:CD	32:DJ:161:LEU:H	2.27	0.48
34:DL:85:LEU:HA	34:DL:88:LEU:CB	2.43	0.48
35:DM:23:GLY:HA3	35:DM:98:LYS:HB2	1.95	0.48
38:DP:46:GLU:OE2	38:DP:89:VAL:HG11	2.14	0.48
42:DT:15:GLU:CD	42:DT:15:GLU:N	2.62	0.48
44:DV:10:ARG:HB3	44:DV:36:LYS:HB3	1.94	0.48
1:AA:15:G:C4	1:AA:16:A:C8	3.01	0.48
1:AA:199:G:C2'	1:AA:200:G:H5"	2.41	0.48
1:AA:444:C:H2'	1:AA:445:G:H8	1.78	0.48
1:AA:716:A:N3	11:AK:118:GLY:HA2	2.29	0.48
1:AA:949:A:OP1	13:AM:101:GLN:HB3	2.14	0.48
1:AA:1305:G:H1'	1:AA:1306:A:C8	2.48	0.48
1:AA:1508:G:H2'	1:AA:1509:C:C6	2.48	0.48
2:AB:88:ALA:HA	2:AB:223:ILE:HD11	1.95	0.48
5:AE:81:GLU:HG2	5:AE:90:VAL:HG22	1.96	0.48
8:AH:36:LEU:HA	8:AH:39:LEU:HB3	1.95	0.48
12:AL:30:PRO:HB2	12:AL:31:PHE:CD1	2.49	0.48
16:AP:24:ALA:C	16:AP:26:ARG:H	2.21	0.48
23:BA:649:G:H2'	23:BA:650:C:C6	2.49	0.48
23:BA:661:C:H4'	34:BL:16:ARG:HD2	1.95	0.48
23:BA:855:G:H2'	23:BA:856:C:C6	2.48	0.48
23:BA:903:C:H2'	23:BA:904:C:H6	1.79	0.48
23:BA:1615:C:C6	23:BA:1617:C:C5	3.01	0.48
23:BA:2027:G:H2'	23:BA:2028:U:O4'	2.14	0.48
23:BA:2061:G:H5"	23:BA:2503:A:C2	2.48	0.48
23:BA:2537:U:H2'	23:BA:2538:C:C6	2.49	0.48
23:BA:2572:A:H62	26:BD:145:LYS:HG3	1.79	0.48
23:BA:2815:C:O2'	50:B2:43:HIS:CD2	2.66	0.48
24:BB:78:A:C2	24:BB:99:A:C4	3.02	0.48
25:BC:25:THR:HG21	25:BC:81:ALA:HA	1.95	0.48
36:BN:17:ARG:O	36:BN:20:LEU:HB3	2.14	0.48
41:BS:62:HIS:O	41:BS:64:MET:HG3	2.14	0.48
1:CA:269:C:H2'	1:CA:270:A:H8	1.78	0.48
1:CA:444:C:H2'	1:CA:445:G:H8	1.79	0.48
1:CA:523:A:N1	12:CL:91:ASP:HB2	2.28	0.48
1:CA:1213:A:O2'	1:CA:1214:C:H5'	2.14	0.48
2:CB:52:GLU:O	2:CB:56:ARG:HG3	2.13	0.48
2:CB:145:LEU:O	2:CB:149:LEU:HB2	2.13	0.48
3:CC:23:TYR:CG	3:CC:24:ALA:N	2.82	0.48
5:CE:11:ILE:HG21	5:CE:105:VAL:HG22	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:64:LYS:HD2	8:CH:79:VAL:HG11	1.96	0.48
19:CS:34:TRP:CZ2	19:CS:57:HIS:HE1	2.32	0.48
23:DA:196:A:H2'	23:DA:196:A:N3	2.28	0.48
23:DA:380:U:O2'	46:DX:20:ARG:HB3	2.13	0.48
23:DA:1357:U:H2'	23:DA:1358:G:O4'	2.14	0.48
23:DA:1390:U:O2'	23:DA:1391:U:H5'	2.13	0.48
23:DA:1478:G:N3	23:DA:1479:G:C8	2.82	0.48
23:DA:1709:U:C2	23:DA:1750:G:C2	3.01	0.48
23:DA:2484:G:H5"	35:DM:45:GLN:HB2	1.95	0.48
23:DA:2784:C:H2'	23:DA:2785:C:H6	1.79	0.48
23:DA:2840:C:H4'	36:DN:53:HIS:CD2	2.49	0.48
23:DA:2892:A:N6	23:DA:2893:G:C2	2.81	0.48
25:DC:25:THR:HG21	25:DC:81:ALA:CA	2.43	0.48
25:DC:105:ILE:CG1	25:DC:106:ILE:HD12	2.43	0.48
28:DF:60:LEU:O	28:DF:64:THR:HG22	2.12	0.48
32:DJ:80:ALA:HB3	32:DJ:147:ALA:HB2	1.94	0.48
34:DL:8:PRO:C	34:DL:10:PRO:HD3	2.39	0.48
37:DO:85:VAL:HG11	37:DO:106:ARG:HD2	1.95	0.48
40:DR:49:THR:HB	40:DR:50:PRO:CD	2.43	0.48
43:DU:81:LYS:CD	43:DU:97:ARG:HB3	2.39	0.48
44:DV:119:GLU:O	44:DV:119:GLU:HG3	2.14	0.48
45:DW:50:ASN:HD22	45:DW:83:PRO:HD3	1.77	0.48
46:DX:19:GLN:HA	46:DX:41:ARG:HA	1.96	0.48
1:AA:18:C:H5"	5:AE:127:ASN:ND2	2.28	0.48
1:AA:32:A:C6	1:AA:33:A:C6	3.02	0.48
1:AA:363:A:C8	12:AL:32:ARG:NH2	2.82	0.48
1:AA:600:C:OP1	8:AH:97:VAL:HG12	2.14	0.48
1:AA:675:A:H1'	11:AK:116:HIS:CD2	2.49	0.48
1:AA:738:C:H2'	1:AA:739:C:C6	2.48	0.48
2:AB:28:PHE:CD1	2:AB:190:THR:HA	2.48	0.48
2:AB:187:LEU:HD23	2:AB:201:ILE:HG22	1.95	0.48
4:AD:92:VAL:O	4:AD:96:LEU:HD23	2.14	0.48
5:AE:12:LEU:C	5:AE:13:ILE:HD12	2.38	0.48
10:AJ:3:LYS:HD2	10:AJ:77:PRO:HD3	1.96	0.48
23:BA:310:A:OP1	43:BU:17:SER:O	2.31	0.48
23:BA:1210:A:H8	23:BA:1210:A:C5'	2.22	0.48
23:BA:1639:U:H4'	23:BA:2699:C:H4'	1.94	0.48
23:BA:2244:U:O2'	23:BA:2245:U:H5'	2.13	0.48
23:BA:2334:G:H4'	23:BA:2335:A:OP2	2.14	0.48
25:BC:94:LEU:HB2	25:BC:104:TYR:CE1	2.47	0.48
29:BG:46:GLU:HG3	29:BG:51:ARG:NE	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:58:GLU:HB2	29:BG:61:HIS:ND1	2.29	0.48
35:BM:81:VAL:HG12	35:BM:82:ARG:CG	2.41	0.48
45:BW:32:ARG:CB	45:BW:35:ASN:HD21	2.27	0.48
47:BY:10:LEU:O	47:BY:13:ALA:HB3	2.13	0.48
48:BZ:8:LEU:HA	48:BZ:54:VAL:HG12	1.95	0.48
1:CA:705:U:C5	1:CA:706:A:C5	3.02	0.48
1:CA:820:U:H4'	1:CA:821:G:OP2	2.14	0.48
5:CE:70:PRO:HB3	5:CE:144:THR:HG22	1.95	0.48
12:CL:44:PRO:HD2	12:CL:49:SER:HA	1.94	0.48
23:DA:380:U:H1'	46:DX:20:ARG:NH1	2.29	0.48
23:DA:714:U:O2	23:DA:716:A:C8	2.67	0.48
23:DA:2056:G:N2	23:DA:2057:A:C1'	2.77	0.48
23:DA:2481:G:HO2'	23:DA:2482:G:P	2.37	0.48
25:DC:25:THR:O	25:DC:25:THR:HG23	2.14	0.48
25:DC:40:THR:HG22	25:DC:41:GLY:N	2.28	0.48
25:DC:79:VAL:O	25:DC:113:VAL:HG13	2.14	0.48
28:DF:77:ILE:HG22	28:DF:80:PHE:N	2.25	0.48
30:DH:66:GLU:HB3	30:DH:67:ARG:NH1	2.28	0.48
34:DL:48:PRO:O	34:DL:49:ARG:C	2.57	0.48
34:DL:95:VAL:HG23	34:DL:125:VAL:HA	1.95	0.48
37:DO:39:ILE:O	37:DO:48:LEU:HD13	2.14	0.48
44:DV:5:LEU:HD23	44:DV:6:LYS:N	2.29	0.48
45:DW:66:VAL:O	45:DW:81:VAL:HA	2.13	0.48
48:DZ:40:THR:O	48:DZ:44:ARG:HG3	2.14	0.48
53:D5:33:ASN:ND2	53:D5:34:TRP:H	2.11	0.48
1:AA:624:C:H2'	1:AA:625:G:H8	1.78	0.48
1:AA:1017:G:H2'	1:AA:1018:C:H6	1.79	0.48
1:AA:1327:C:H2'	1:AA:1328:C:H6	1.78	0.48
4:AD:93:PHE:O	4:AD:97:LEU:HG	2.14	0.48
23:BA:242:G:N7	53:B5:5:LYS:HG2	2.28	0.48
23:BA:1517:G:H2'	23:BA:1518:C:C6	2.49	0.48
23:BA:2850:A:H2'	23:BA:2851:A:C8	2.49	0.48
24:BB:8:U:H5"	37:BO:15:ARG:NH2	2.29	0.48
27:BE:37:VAL:HG13	27:BE:184:TYR:HD1	1.78	0.48
31:BI:9:LEU:O	31:BI:13:LEU:HG	2.13	0.48
32:BJ:77:VAL:HB	32:BJ:145:VAL:HG22	1.94	0.48
34:BL:8:PRO:C	34:BL:10:PRO:HD3	2.39	0.48
38:BP:24:PRO:HA	38:BP:49:VAL:HG13	1.95	0.48
43:BU:9:LYS:O	43:BU:27:VAL:HG21	2.14	0.48
1:CA:688:G:H2'	1:CA:689:C:H6	1.78	0.48
4:CD:51:PRO:HB3	4:CD:55:ALA:HB3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:31:LEU:HD23	5:CE:32:VAL:N	2.29	0.48
5:CE:76:ILE:HG23	5:CE:78:HIS:H	1.78	0.48
5:CE:81:GLU:HG2	5:CE:90:VAL:HG22	1.96	0.48
23:DA:270(Q):C:O2'	23:DA:270(R):C:H6	1.97	0.48
23:DA:356:G:H2'	23:DA:357:A:C8	2.49	0.48
24:DB:28:C:H2'	24:DB:29:A:O4'	2.14	0.48
25:DC:72:LYS:HE3	25:DC:101:GLU:CB	2.44	0.48
36:DN:87:TYR:HE1	36:DN:117:VAL:HG13	1.79	0.48
39:DQ:107:ALA:O	39:DQ:111:GLU:HG2	2.13	0.48
45:DW:27:GLU:HB2	45:DW:69:PHE:HD1	1.79	0.48
53:D5:29:LYS:NZ	53:D5:29:LYS:HB3	2.29	0.48
1:AA:10:A:H2'	1:AA:11:G:H8	1.78	0.48
1:AA:91:C:O2'	1:AA:92:G:H5'	2.14	0.48
1:AA:92:G:H2'	1:AA:93:U:O4'	2.14	0.48
1:AA:404:U:H2'	1:AA:405:U:C6	2.49	0.48
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.48	0.48
1:AA:1084:G:H5'	1:AA:1102:A:OP2	2.14	0.48
1:AA:1305:G:H1'	1:AA:1306:A:N7	2.28	0.48
2:AB:61:LEU:HD21	2:AB:68:ILE:HG12	1.95	0.48
4:AD:51:PRO:HB3	4:AD:55:ALA:HB3	1.96	0.48
5:AE:76:ILE:HG23	5:AE:78:HIS:H	1.78	0.48
6:AF:19:LEU:O	6:AF:23:LYS:HG3	2.13	0.48
8:AH:48:TYR:HA	8:AH:60:ARG:O	2.14	0.48
8:AH:82:HIS:HD2	8:AH:138:TRP:NE1	2.12	0.48
13:AM:3:ARG:NH1	28:BF:113:ARG:HD2	2.28	0.48
19:AS:5:LEU:HG	19:AS:10:PHE:HB3	1.95	0.48
23:BA:39:C:H2'	23:BA:40:C:C6	2.49	0.48
23:BA:409:C:O2'	23:BA:410:G:H5'	2.13	0.48
23:BA:2599:G:N7	25:BC:237:GLU:HG3	2.29	0.48
24:BB:6:C:C2	24:BB:115:G:N2	2.82	0.48
25:BC:40:THR:HG22	25:BC:41:GLY:N	2.28	0.48
29:BG:86:GLU:CD	29:BG:86:GLU:H	2.22	0.48
30:BH:117:GLU:HG3	30:BH:118:LYS:N	2.28	0.48
36:BN:50:HIS:O	36:BN:54:LEU:HB2	2.14	0.48
38:BP:27:THR:CG2	38:BP:90:GLN:HB3	2.44	0.48
38:BP:60:THR:HG22	38:BP:77:PRO:HA	1.96	0.48
40:BR:81:TYR:O	40:BR:82:ARG:HG3	2.13	0.48
1:CA:9:G:H2'	1:CA:10:A:H8	1.79	0.48
1:CA:622:A:C8	1:CA:623:C:C6	3.02	0.48
1:CA:675:A:H2'	1:CA:676:A:H8	1.79	0.48
1:CA:857:C:H2'	1:CA:858:G:O4'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:941:G:C2	1:CA:942:G:C8	3.02	0.48
1:CA:1349:A:H2'	1:CA:1350:A:O4'	2.14	0.48
1:CA:1504:G:O2'	1:CA:1505:G:P	2.72	0.48
8:CH:36:LEU:HA	8:CH:39:LEU:HB3	1.96	0.48
17:CQ:76:LEU:HD12	17:CQ:77:VAL:H	1.78	0.48
23:DA:649:G:H2'	23:DA:650:C:C6	2.49	0.48
23:DA:954:G:C5	23:DA:955:C:C5	3.01	0.48
23:DA:1973:G:H2'	23:DA:1974:C:C6	2.49	0.48
23:DA:2252:G:H2'	23:DA:2253:G:C8	2.49	0.48
23:DA:2537:U:H2'	23:DA:2538:C:C6	2.48	0.48
30:DH:109:ILE:HD13	30:DH:109:ILE:N	2.29	0.48
35:DM:88:GLY:C	35:DM:89:ASN:CG	2.82	0.48
36:DN:97:VAL:HA	36:DN:113:LEU:O	2.14	0.48
37:DO:34:HIS:CG	37:DO:54:LEU:HB2	2.49	0.48
42:DT:70:LEU:HD23	42:DT:70:LEU:C	2.39	0.48
44:DV:81:ARG:O	44:DV:82:ARG:HB2	2.13	0.48
1:AA:832:C:N4	1:AA:855:G:O6	2.47	0.47
1:AA:963:G:H2'	1:AA:964:A:H8	1.77	0.47
1:AA:1203:C:H2'	1:AA:1204:A:C8	2.49	0.47
1:AA:1349:A:H2'	1:AA:1350:A:H8	1.76	0.47
2:AB:20:GLU:HA	2:AB:20:GLU:OE1	2.13	0.47
5:AE:101:ILE:HD11	5:AE:119:LEU:CD2	2.44	0.47
9:AI:14:VAL:O	9:AI:65:VAL:HG23	2.14	0.47
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HG22	1.96	0.47
10:AJ:80:LYS:HB2	10:AJ:80:LYS:NZ	2.30	0.47
23:BA:124:G:N7	52:B4:19:ARG:NH2	2.62	0.47
23:BA:603:A:C6	23:BA:655:A:H1'	2.48	0.47
23:BA:661:C:H4'	34:BL:16:ARG:CD	2.44	0.47
23:BA:784:A:N7	25:BC:229:VAL:HG21	2.29	0.47
23:BA:114(B):A:C4	23:BA:1144:G:C8	3.01	0.47
23:BA:1478:G:N3	23:BA:1479:G:C8	2.82	0.47
23:BA:1796:U:H2'	23:BA:1797:C:C6	2.49	0.47
23:BA:2286:A:H4'	23:BA:2287:A:O4'	2.14	0.47
25:BC:235:GLY:C	25:BC:237:GLU:H	2.22	0.47
26:BD:31:CYS:HB3	26:BD:49:LEU:HB3	1.95	0.47
26:BD:78:LEU:C	26:BD:79:ARG:HD2	2.38	0.47
30:BH:25:TYR:O	30:BH:29:TYR:HB3	2.14	0.47
30:BH:79:ILE:HG22	30:BH:81:VAL:CG2	2.44	0.47
34:BL:16:ARG:CZ	34:BL:18:ARG:HG3	2.44	0.47
41:BS:84:ARG:HB2	41:BS:96:ILE:HG22	1.96	0.47
43:BU:76:CYS:CB	43:BU:77:PRO:CD	2.92	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BV:5:LEU:HD23	44:BV:6:LYS:N	2.29	0.47
53:B5:14:VAL:CG1	53:B5:22:VAL:HG13	2.43	0.47
1:CA:865:A:H8	1:CA:865:A:O5'	1.97	0.47
1:CA:1455:G:O2'	20:CT:28:ALA:HB1	2.14	0.47
8:CH:23:SER:HB3	8:CH:62:TYR:HA	1.96	0.47
9:CI:99:LEU:HD12	9:CI:101:PHE:HE2	1.78	0.47
15:CO:33:THR:HG23	15:CO:63:ARG:HH22	1.79	0.47
16:CP:18:ARG:HD3	16:CP:35:LYS:HD2	1.95	0.47
18:CR:36:ASN:HD22	18:CR:39:VAL:HG21	1.78	0.47
18:CR:43:PHE:O	18:CR:51:LEU:HB2	2.13	0.47
23:DA:226:G:N2	23:DA:228:A:H62	2.12	0.47
23:DA:409:C:O2'	23:DA:410:G:H5'	2.14	0.47
23:DA:587:C:C5	23:DA:671:C:H1'	2.49	0.47
23:DA:598:G:H5'	34:DL:15:ARG:CB	2.44	0.47
23:DA:761:A:O5'	23:DA:761:A:C8	2.48	0.47
23:DA:909:A:H2'	23:DA:912:C:H5	1.79	0.47
23:DA:1198:U:O2	23:DA:1249:U:H1'	2.14	0.47
23:DA:1317:A:N6	23:DA:1336:A:N6	2.62	0.47
23:DA:2476:A:C2	23:DA:2477:C:C6	3.02	0.47
26:DD:101:ARG:HG2	26:DD:171:GLU:HA	1.96	0.47
26:DD:171:GLU:HG2	26:DD:185:LYS:HG2	1.96	0.47
32:DJ:63:PRO:O	39:DQ:64:ARG:HD2	2.14	0.47
34:DL:35:HIS:O	34:DL:36:LYS:HB2	2.13	0.47
34:DL:135:LEU:O	34:DL:135:LEU:HD13	2.14	0.47
36:DN:11:ASN:CG	36:DN:12:ARG:H	2.22	0.47
37:DO:89:ARG:O	37:DO:90:GLY:O	2.31	0.47
38:DP:27:THR:HA	38:DP:48:ILE:HA	1.96	0.47
38:DP:60:THR:HG22	38:DP:77:PRO:HA	1.96	0.47
40:DR:47:VAL:HG12	40:DR:49:THR:O	2.13	0.47
42:DT:30:VAL:HG21	42:DT:79:ALA:HB3	1.96	0.47
43:DU:10:GLY:HA2	43:DU:27:VAL:HG23	1.95	0.47
1:AA:171:A:H2'	1:AA:172:A:C8	2.49	0.47
1:AA:636:U:H5'	17:AQ:2:PRO:HD3	1.95	0.47
1:AA:820:U:H4'	1:AA:821:G:OP2	2.13	0.47
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.49	0.47
3:AC:18:TRP:HE3	3:AC:18:TRP:H	1.61	0.47
16:AP:18:ARG:HD3	16:AP:35:LYS:HD2	1.96	0.47
17:AQ:66:SER:OG	17:AQ:69:LYS:HB3	2.13	0.47
23:BA:239:U:O2'	23:BA:240:G:H5'	2.14	0.47
23:BA:471:A:H2'	23:BA:472:A:O4'	2.14	0.47
23:BA:634:C:H2'	23:BA:635:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:783:A:C8	23:BA:783:A:C3'	2.97	0.47
23:BA:827:U:O2	23:BA:2246:G:H4'	2.14	0.47
23:BA:861:A:H2'	23:BA:862:G:O4'	2.15	0.47
23:BA:1007:C:HO2'	32:BJ:131:PRO:HA	1.78	0.47
23:BA:1040:C:H2'	23:BA:1041:C:C6	2.49	0.47
23:BA:1289:C:H2'	23:BA:1290:C:H6	1.79	0.47
23:BA:1331:A:O2'	23:BA:1332:G:C8	2.66	0.47
23:BA:1448:G:H21	23:BA:1529:A:H2	1.62	0.47
23:BA:2512:C:H5"	23:BA:2513:G:OP2	2.14	0.47
23:BA:2751:G:H2'	23:BA:2751:G:N3	2.29	0.47
25:BC:259:THR:O	25:BC:260:ARG:HB2	2.14	0.47
28:BF:92:VAL:O	28:BF:92:VAL:HG13	2.14	0.47
40:BR:22:VAL:CG1	40:BR:23:GLU:N	2.76	0.47
41:BS:9:TYR:H	41:BS:102:HIS:HD2	1.63	0.47
1:CA:746:A:H2'	1:CA:747:C:C6	2.50	0.47
1:CA:1508:G:H2'	1:CA:1509:C:C6	2.49	0.47
2:CB:15:VAL:C	2:CB:16:HIS:CG	2.93	0.47
2:CB:162:ILE:HD11	2:CB:184:VAL:HG13	1.96	0.47
4:CD:79:PHE:CE1	4:CD:204:ILE:HA	2.49	0.47
5:CE:101:ILE:HD11	5:CE:119:LEU:CD2	2.44	0.47
8:CH:82:HIS:HD2	8:CH:138:TRP:NE1	2.12	0.47
16:CP:45:THR:HB	16:CP:46:PRO:HD2	1.96	0.47
19:CS:28:LYS:HB3	19:CS:29:ARG:NH1	2.29	0.47
20:CT:14:LYS:O	20:CT:18:GLN:HG3	2.13	0.47
20:CT:26:ASN:HB2	20:CT:71:THR:CG2	2.44	0.47
23:DA:603:A:C6	23:DA:655:A:H1'	2.50	0.47
23:DA:1308:A:N6	23:DA:1309:G:C2	2.83	0.47
23:DA:1971:A:C5	25:DC:241:PRO:HG3	2.48	0.47
23:DA:2552:U:H2'	23:DA:2554:U:OP2	2.14	0.47
23:DA:2593:U:H2'	23:DA:2594:C:H6	1.79	0.47
26:DD:5:LEU:HB2	26:DD:51:PHE:HD2	1.77	0.47
28:DF:92:VAL:HG13	28:DF:92:VAL:O	2.15	0.47
29:DG:154:PRO:HB3	29:DG:163:TYR:CE2	2.49	0.47
30:DH:6:LEU:HD23	30:DH:36:ALA:HA	1.96	0.47
30:DH:57:ARG:O	30:DH:61:ARG:HG3	2.14	0.47
40:DR:79:VAL:O	40:DR:79:VAL:HG12	2.14	0.47
45:DW:12:ASN:O	45:DW:14:ARG:HB2	2.14	0.47
1:AA:114:U:H2'	1:AA:115:G:H8	1.75	0.47
1:AA:255:G:H2'	1:AA:256:U:H6	1.78	0.47
1:AA:370:C:H2'	1:AA:371:G:C8	2.47	0.47
1:AA:1213:A:O2'	1:AA:1214:C:H5'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1480:G:C5	1:AA:1481:U:C5	3.03	0.47
5:AE:31:LEU:HD23	5:AE:32:VAL:N	2.29	0.47
10:AJ:33:GLN:HB2	10:AJ:75:ILE:HD11	1.96	0.47
12:AL:76:LEU:HD11	12:AL:106:ALA:HA	1.96	0.47
23:BA:124:G:C5	52:B4:19:ARG:NH2	2.82	0.47
23:BA:714:U:O2	23:BA:716:A:C8	2.67	0.47
23:BA:768:G:O2'	23:BA:1379:A:N6	2.47	0.47
23:BA:966:G:C6	23:BA:967:C:N4	2.82	0.47
23:BA:1504:C:O2'	23:BA:1505:C:O5'	2.31	0.47
23:BA:1871:A:H2'	23:BA:1872:A:C8	2.50	0.47
25:BC:136:ILE:O	25:BC:168:ARG:NH2	2.47	0.47
35:BM:47:ILE:HG22	35:BM:48:GLU:N	2.28	0.47
36:BN:96:ARG:NH2	36:BN:117:VAL:HG23	2.29	0.47
42:BT:93:GLU:O	42:BT:94:GLY:C	2.56	0.47
1:CA:738:C:H2'	1:CA:739:C:C6	2.48	0.47
1:CA:858:G:O6	1:CA:869:G:C8	2.67	0.47
1:CA:1423:G:H2'	1:CA:1424:C:H6	1.79	0.47
5:CE:91:LEU:N	5:CE:91:LEU:HD12	2.30	0.47
10:CJ:34:VAL:CG2	10:CJ:74:ILE:HG22	2.43	0.47
12:CL:24:PRO:HD2	12:CL:97:TYR:OH	2.14	0.47
12:CL:26:LEU:HD13	12:CL:27:LYS:N	2.18	0.47
12:CL:44:PRO:CD	12:CL:50:ALA:H	2.28	0.47
16:CP:22:THR:HG22	16:CP:32:TYR:HA	1.95	0.47
21:CU:22:ARG:HD2	21:CU:23:PRO:CD	2.37	0.47
23:DA:903:C:H2'	23:DA:904:C:H6	1.79	0.47
23:DA:919:G:H2'	23:DA:920:G:C8	2.50	0.47
23:DA:1411:C:H2'	23:DA:1412:A:C8	2.50	0.47
23:DA:1509:A:H4'	23:DA:1510:A:C1'	2.44	0.47
23:DA:2542:A:C8	23:DA:2544:G:O6	2.67	0.47
23:DA:2822:G:H8	23:DA:2822:G:O5'	1.97	0.47
26:DD:78:LEU:N	26:DD:78:LEU:HD23	2.29	0.47
26:DD:103:ASP:OD1	26:DD:201:THR:HG23	2.15	0.47
30:DH:78:THR:HA	30:DH:143:SER:CB	2.41	0.47
36:DN:4:LEU:C	36:DN:6:SER:N	2.72	0.47
40:DR:99:ILE:HD13	40:DR:99:ILE:N	2.28	0.47
1:AA:186(A):C:C5'	20:AT:78:ALA:HB1	2.43	0.47
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.79	0.47
1:AA:1240:U:OP1	7:AG:115:ARG:HA	2.15	0.47
2:AB:47:THR:O	2:AB:51:LEU:HG	2.14	0.47
3:AC:11:ARG:HH21	3:AC:180:ALA:HB3	1.80	0.47
23:BA:356:G:H2'	23:BA:357:A:C8	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:363(A):G:H2'	23:BA:363(B):A:H8	1.79	0.47
23:BA:380:U:H1'	46:BX:20:ARG:NH1	2.29	0.47
23:BA:2516:G:C6	23:BA:2517:C:N4	2.83	0.47
26:BD:51:PHE:HB3	26:BD:52:LEU:HD12	1.96	0.47
26:BD:171:GLU:HG2	26:BD:185:LYS:HG2	1.96	0.47
27:BE:126:VAL:O	27:BE:196:LEU:HG	2.14	0.47
35:BM:6:ARG:HE	35:BM:6:ARG:N	2.12	0.47
36:BN:54:LEU:HD23	36:BN:62:ALA:HB1	1.97	0.47
36:BN:87:TYR:HE1	36:BN:117:VAL:HG13	1.79	0.47
37:BO:69:VAL:O	37:BO:72:ALA:HB3	2.14	0.47
37:BO:85:VAL:HG11	37:BO:106:ARG:HD2	1.95	0.47
44:BV:27:VAL:HG22	44:BV:36:LYS:HA	1.95	0.47
1:CA:1017:G:H2'	1:CA:1018:C:H6	1.79	0.47
23:DA:94:G:H21	47:DY:47:ASN:ND2	2.12	0.47
23:DA:451:C:H41	23:DA:453:C:H3'	1.78	0.47
23:DA:1478:G:O2'	23:DA:1558:A:C2	2.67	0.47
23:DA:1709:U:H2'	23:DA:1710:C:C6	2.49	0.47
23:DA:1936:A:OP1	23:DA:1936:A:H3'	2.14	0.47
23:DA:2038:G:H2'	23:DA:2039:C:H6	1.78	0.47
23:DA:2056:G:N3	23:DA:2056:G:C2'	2.77	0.47
23:DA:2699:C:H2'	23:DA:2700:C:O4'	2.14	0.47
25:DC:25:THR:O	25:DC:27:THR:N	2.48	0.47
25:DC:69:ARG:HH12	25:DC:117:VAL:CG2	2.26	0.47
26:DD:152:LYS:HB3	26:DD:152:LYS:HE2	1.72	0.47
27:DE:125:LEU:HB3	27:DE:196:LEU:HD23	1.95	0.47
30:DH:58:LEU:HD23	30:DH:61:ARG:HD2	1.96	0.47
35:DM:39:PRO:O	35:DM:40:ALA:HB2	2.14	0.47
35:DM:81:VAL:HG12	35:DM:82:ARG:N	2.29	0.47
36:DN:53:HIS:O	36:DN:56:LYS:HB3	2.14	0.47
42:DT:93:GLU:O	42:DT:94:GLY:C	2.57	0.47
46:DX:19:GLN:HG2	46:DX:41:ARG:CB	2.45	0.47
1:AA:46:G:O2'	1:AA:365:U:H1'	2.15	0.47
3:AC:23:TYR:HA	10:AJ:11:PHE:CE1	2.50	0.47
4:AD:79:PHE:CE1	4:AD:204:ILE:HA	2.49	0.47
6:AF:75:LEU:HD23	6:AF:75:LEU:C	2.39	0.47
7:AG:69:VAL:O	7:AG:69:VAL:HG12	2.15	0.47
8:AH:97:VAL:HG13	8:AH:98:LYS:H	1.80	0.47
10:AJ:49:VAL:HG21	14:AN:41:ARG:CB	2.44	0.47
11:AK:59:TYR:CZ	11:AK:63:LEU:HD11	2.49	0.47
19:AS:28:LYS:HB3	19:AS:29:ARG:NH1	2.29	0.47
23:BA:1341:U:O4	42:BT:16:LYS:HE2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1709:U:H2'	23:BA:1710:C:C6	2.49	0.47
23:BA:2481:G:HO2'	23:BA:2482:G:P	2.37	0.47
24:BB:75:G:N1	24:BB:102:G:N2	2.61	0.47
25:BC:76:PRO:HB3	25:BC:116:GLN:HE21	1.80	0.47
26:BD:4:ILE:HG12	26:BD:28:ALA:HB1	1.95	0.47
28:BF:16:ARG:HB3	28:BF:17:PRO:HD3	1.97	0.47
28:BF:104:GLU:O	28:BF:108:ASN:HB2	2.14	0.47
29:BG:103:LEU:HD22	29:BG:123:PHE:CE1	2.50	0.47
34:BL:84:ASN:HA	34:BL:115:LEU:O	2.15	0.47
40:BR:99:ILE:HD13	40:BR:99:ILE:N	2.29	0.47
50:B2:18:ALA:O	50:B2:21:SER:HB2	2.14	0.47
1:CA:522:C:N4	1:CA:528:C:H42	2.11	0.47
1:CA:716:A:N3	11:CK:118:GLY:HA2	2.29	0.47
1:CA:1410:G:H2'	1:CA:1411:C:C6	2.49	0.47
4:CD:93:PHE:O	4:CD:97:LEU:HG	2.13	0.47
5:CE:65:ASN:O	5:CE:66:MET:HB2	2.14	0.47
12:CL:78:GLU:HG2	12:CL:78:GLU:O	2.14	0.47
13:CM:15:VAL:HG13	13:CM:43:THR:O	2.14	0.47
23:DA:124:G:C5	52:D4:19:ARG:NH2	2.82	0.47
23:DA:320:A:H5"	23:DA:321:G:OP1	2.15	0.47
23:DA:1431:U:H2'	23:DA:1432:C:H6	1.80	0.47
23:DA:1578:U:H2'	23:DA:1579:A:H5"	1.95	0.47
23:DA:1827:C:H2'	23:DA:1828:G:O4'	2.14	0.47
23:DA:2630:G:H1'	23:DA:2894:G:H1'	1.97	0.47
23:DA:2687:U:C4	23:DA:2688:U:H5	2.30	0.47
23:DA:2846:G:H2'	23:DA:2847:U:C6	2.50	0.47
30:DH:12:LEU:HD22	30:DH:12:LEU:N	2.29	0.47
34:DL:57:THR:C	34:DL:59:LEU:H	2.21	0.47
50:D2:4:HIS:HB2	50:D2:5:PRO:CD	2.45	0.47
1:AA:375:U:H4'	16:AP:17:TYR:CE2	2.49	0.47
1:AA:1194:U:H2'	1:AA:1195:C:H6	1.76	0.47
1:AA:1446:A:N1	38:BP:118:ARG:CZ	2.78	0.47
3:AC:23:TYR:CG	3:AC:24:ALA:N	2.82	0.47
14:AN:40:CYS:SG	14:AN:42:ILE:HB	2.55	0.47
23:BA:718:A:H8	23:BA:718:A:O5'	1.96	0.47
23:BA:1022:G:N2	23:BA:114(B):A:C2	2.83	0.47
23:BA:1326:U:O2'	23:BA:1327:C:H5'	2.15	0.47
23:BA:2836:U:C4	23:BA:2883:A:N6	2.82	0.47
29:BG:154:PRO:HB3	29:BG:163:TYR:CE2	2.49	0.47
37:BO:49:VAL:CG1	37:BO:76:LYS:HB2	2.45	0.47
44:BV:81:ARG:O	44:BV:82:ARG:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BX:27:GLU:HB2	46:BX:32:LYS:O	2.14	0.47
47:BY:41:ILE:HD11	47:BY:44:LEU:HD12	1.95	0.47
1:CA:617:G:H4'	16:CP:44:THR:HB	1.95	0.47
1:CA:632:A:H2'	1:CA:633:G:O4'	2.15	0.47
1:CA:1203:C:H2'	1:CA:1204:A:C8	2.50	0.47
4:CD:163:GLU:O	4:CD:166:LYS:HG3	2.14	0.47
6:CF:82:ARG:HA	6:CF:82:ARG:HH11	1.78	0.47
13:CM:81:LEU:HD22	13:CM:86:CYS:SG	2.54	0.47
19:CS:40:ILE:HG21	19:CS:62:ILE:HD11	1.97	0.47
21:CU:6:ARG:HG3	21:CU:15:ARG:NH1	2.30	0.47
23:DA:775:G:C5	23:DA:794:G:C8	3.02	0.47
23:DA:1030:G:OP2	35:DM:128:LYS:HE3	2.14	0.47
23:DA:1658:C:OP1	26:DD:132:HIS:O	2.33	0.47
23:DA:2247:A:H2'	23:DA:2248:C:C6	2.49	0.47
23:DA:2887:U:H2'	23:DA:2888:C:H6	1.80	0.47
24:DB:106:G:C6	24:DB:107:U:C4	3.03	0.47
25:DC:108:PRO:CG	25:DC:143:HIS:CE1	2.97	0.47
26:DD:4:ILE:HG12	26:DD:28:ALA:HB1	1.95	0.47
26:DD:54:GLN:HB2	26:DD:74:PRO:O	2.15	0.47
27:DE:28:ILE:HA	27:DE:112:MET:HE3	1.95	0.47
36:DN:87:TYR:OH	36:DN:116:LEU:HB3	2.15	0.47
36:DN:96:ARG:NH2	36:DN:117:VAL:HG23	2.30	0.47
38:DP:109:GLU:HA	38:DP:112:ARG:HG3	1.97	0.47
41:DS:4:LYS:HG2	41:DS:106:ILE:CG2	2.44	0.47
53:D5:53:PRO:C	53:D5:57:ARG:NH2	2.73	0.47
1:AA:45:U:H6	1:AA:45:U:O5'	1.97	0.47
1:AA:57:G:H2'	1:AA:58:C:H6	1.77	0.47
1:AA:102:G:H2'	1:AA:103:C:C6	2.49	0.47
1:AA:342:C:N3	1:AA:348:G:C2	2.83	0.47
1:AA:406:G:N2	1:AA:437:U:C2	2.83	0.47
1:AA:746:A:H2'	1:AA:747:C:C6	2.50	0.47
1:AA:818:G:H3'	1:AA:819:A:H5"	1.97	0.47
1:AA:920:U:H2'	1:AA:921:U:H6	1.80	0.47
1:AA:973:G:H3'	1:AA:974:A:H5"	1.97	0.47
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.79	0.47
1:AA:1504:G:O2'	1:AA:1505:G:P	2.73	0.47
2:AB:17:PHE:HB2	2:AB:42:ILE:HG22	1.95	0.47
2:AB:91:PRO:CA	2:AB:154:LEU:HD11	2.42	0.47
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.97	0.47
5:AE:51:VAL:HB	5:AE:52:PRO:CD	2.37	0.47
5:AE:144:THR:O	5:AE:148:VAL:HG23	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:26:ILE:O	6:AF:30:LEU:HG	2.15	0.47
15:AO:33:THR:HG23	15:AO:63:ARG:HH22	1.80	0.47
16:AP:22:THR:HG22	16:AP:32:TYR:HA	1.96	0.47
23:BA:270(L):C:H6	23:BA:270(L):C:O5'	1.97	0.47
23:BA:628:G:H2'	23:BA:629:G:H8	1.79	0.47
23:BA:744:G:OP1	26:BD:132:HIS:CB	2.62	0.47
23:BA:1051:G:H2'	23:BA:1052:C:C6	2.49	0.47
23:BA:1121:C:O5'	23:BA:1121:C:H6	1.98	0.47
23:BA:1357:U:H2'	23:BA:1358:G:O4'	2.15	0.47
23:BA:1495:A:H2'	23:BA:1496:A:C2	2.50	0.47
23:BA:2365:G:O6	53:B5:39:LYS:HE3	2.15	0.47
23:BA:2730:C:O2'	23:BA:2731:G:H5'	2.14	0.47
23:BA:2784:C:H2'	23:BA:2785:C:H6	1.80	0.47
23:BA:2836:U:H2'	23:BA:2837:G:C8	2.50	0.47
25:BC:238:GLY:O	25:BC:240:ALA:N	2.48	0.47
26:BD:49:LEU:O	26:BD:78:LEU:HA	2.15	0.47
29:BG:51:ARG:O	29:BG:52:VAL:HG23	2.15	0.47
30:BH:82:ARG:HB3	30:BH:89:TYR:CG	2.49	0.47
30:BH:83:ALA:CB	30:BH:123:LEU:HD12	2.43	0.47
30:BH:130:TYR:HD2	30:BH:132:PRO:HG3	1.80	0.47
32:BJ:30:LYS:O	32:BJ:32:VAL:HG23	2.15	0.47
34:BL:126:VAL:HA	34:BL:145:PRO:HB2	1.95	0.47
41:BS:24:ILE:HG21	41:BS:36:LEU:CD2	2.36	0.47
44:BV:99:TYR:CE2	44:BV:125:LEU:HD12	2.49	0.47
44:BV:119:GLU:HG3	44:BV:119:GLU:O	2.14	0.47
45:BW:66:VAL:O	45:BW:81:VAL:HA	2.15	0.47
1:CA:15:G:C4	1:CA:16:A:C8	3.03	0.47
1:CA:91:C:O2'	1:CA:92:G:H5'	2.15	0.47
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.47	0.47
1:CA:1410:G:H2'	1:CA:1411:C:H6	1.80	0.47
3:CC:18:TRP:HE3	3:CC:18:TRP:H	1.62	0.47
3:CC:23:TYR:HA	10:CJ:11:PHE:CE1	2.50	0.47
7:CG:101:LEU:O	7:CG:105:VAL:HG23	2.15	0.47
10:CJ:34:VAL:HG22	10:CJ:74:ILE:HG22	1.96	0.47
11:CK:92:GLU:O	11:CK:96:ARG:HG2	2.13	0.47
13:CM:84:ILE:HD13	19:CS:66:MET:HE1	1.97	0.47
23:DA:816:C:O2'	23:DA:817:C:H5'	2.15	0.47
23:DA:1449:G:H2'	23:DA:1450:C:C6	2.50	0.47
23:DA:1639:U:H4'	23:DA:2699:C:H4'	1.96	0.47
23:DA:1833:U:C2	23:DA:1834:U:C6	3.01	0.47
23:DA:1900:A:N1	23:DA:1970:A:C6	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2469:A:H5'	23:DA:2470:G:OP2	2.15	0.47
23:DA:2564:A:OP1	23:DA:2648:C:H4'	2.14	0.47
23:DA:2751:G:N3	23:DA:2751:G:H2'	2.30	0.47
24:DB:78:A:C2	24:DB:99:A:C4	3.02	0.47
25:DC:259:THR:O	25:DC:260:ARG:HB2	2.15	0.47
26:DD:176:ILE:HG22	26:DD:176:ILE:O	2.15	0.47
28:DF:104:GLU:O	28:DF:108:ASN:HB2	2.15	0.47
32:DJ:30:LYS:O	32:DJ:32:VAL:HG23	2.15	0.47
32:DJ:127:LYS:HB2	32:DJ:140:PHE:HE1	1.77	0.47
34:DL:6:LEU:HD23	34:DL:6:LEU:N	2.23	0.47
35:DM:6:ARG:HE	35:DM:6:ARG:N	2.13	0.47
36:DN:54:LEU:HD23	36:DN:62:ALA:HB1	1.95	0.47
38:DP:27:THR:CG2	38:DP:90:GLN:HB3	2.44	0.47
40:DR:77:ALA:C	40:DR:79:VAL:N	2.73	0.47
41:DS:20:VAL:O	41:DS:23:LEU:HB2	2.14	0.47
41:DS:22:ASP:HA	41:DS:25:ARG:HH12	1.79	0.47
41:DS:62:HIS:O	41:DS:64:MET:HG3	2.14	0.47
43:DU:13:VAL:HG13	43:DU:73:ARG:O	2.14	0.47
46:DX:58:ILE:HD11	46:DX:91:LYS:CG	2.44	0.47
53:D5:32:LEU:HD23	53:D5:33:ASN:H	1.80	0.47
1:AA:9:G:H2'	1:AA:10:A:H8	1.80	0.47
1:AA:859:A:H2'	1:AA:860:A:O4'	2.14	0.47
1:AA:1188:A:H4'	14:AN:58:LYS:NZ	2.29	0.47
4:AD:105:VAL:HG13	4:AD:110:PHE:HB2	1.96	0.47
5:AE:96:PRO:HA	5:AE:117:ASP:OD2	2.15	0.47
20:AT:10:LEU:O	20:AT:13:LEU:HD13	2.14	0.47
23:BA:245:G:H2'	23:BA:246:C:C6	2.49	0.47
23:BA:329:G:H1	43:BU:19:LYS:HE3	1.79	0.47
23:BA:636:G:OP1	34:BL:132:LYS:HD3	2.15	0.47
23:BA:828:U:O2	23:BA:828:U:H3'	2.15	0.47
23:BA:915:C:H2'	23:BA:916:G:C8	2.50	0.47
23:BA:2026:C:C2	23:BA:2027:G:C8	3.03	0.47
23:BA:2247:A:H2'	23:BA:2248:C:C6	2.50	0.47
23:BA:2261:C:H3'	45:BW:16:SER:CB	2.45	0.47
23:BA:2335:A:C8	23:BA:2337:G:C5	3.02	0.47
23:BA:2887:U:H2'	23:BA:2888:C:C6	2.50	0.47
25:BC:33:LEU:O	25:BC:35:LYS:N	2.48	0.47
26:BD:103:ASP:OD1	26:BD:201:THR:HG23	2.14	0.47
26:BD:169:ASN:ND2	26:BD:201:THR:HG21	2.30	0.47
27:BE:157:VAL:HB	27:BE:194:MET:HB3	1.96	0.47
28:BF:38:VAL:HG22	28:BF:93:THR:HG23	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BK:79:PHE:HD2	38:BP:72:VAL:HG22	1.78	0.47
34:BL:140:ALA:O	34:BL:141:ALA:CB	2.63	0.47
35:BM:24:GLY:HA2	35:BM:100:GLY:C	2.39	0.47
36:BN:31:HIS:HB2	36:BN:34:ILE:HD11	1.97	0.47
38:BP:88:ILE:HG13	38:BP:89:VAL:N	2.30	0.47
40:BR:6:LYS:HA	40:BR:11:GLN:HB3	1.97	0.47
40:BR:14:VAL:HG13	40:BR:96:ILE:HG13	1.97	0.47
40:BR:40:LEU:C	40:BR:45:THR:HB	2.40	0.47
40:BR:45:THR:O	40:BR:46:VAL:C	2.56	0.47
43:BU:13:VAL:HG13	43:BU:73:ARG:O	2.14	0.47
43:BU:88:LYS:HE2	43:BU:93:GLY:CA	2.39	0.47
45:BW:12:ASN:O	45:BW:14:ARG:HB2	2.15	0.47
52:B4:24:THR:HG23	52:B4:27:GLY:HA3	1.96	0.47
1:CA:731:G:H5'	1:CA:766:A:H4'	1.96	0.47
1:CA:859:A:H2'	1:CA:860:A:O4'	2.14	0.47
1:CA:1480:G:C5	1:CA:1481:U:C5	3.02	0.47
4:CD:92:VAL:O	4:CD:96:LEU:HD23	2.14	0.47
10:CJ:3:LYS:HD2	10:CJ:77:PRO:HD3	1.96	0.47
10:CJ:80:LYS:HB2	10:CJ:80:LYS:NZ	2.29	0.47
16:CP:27:LYS:HD2	16:CP:27:LYS:N	2.28	0.47
18:CR:59:SER:HB3	18:CR:62:GLU:HG3	1.96	0.47
23:DA:270(L):C:O5'	23:DA:270(L):C:H6	1.98	0.47
23:DA:322:A:P	27:DE:169:ASN:HB2	2.55	0.47
23:DA:433:C:H2'	23:DA:434:U:C6	2.50	0.47
23:DA:2190:G:H5'	23:DA:2190:G:H8	1.79	0.47
23:DA:2730:C:O2'	23:DA:2731:G:H5'	2.14	0.47
28:DF:6:ALA:HB1	28:DF:10:LYS:HE3	1.97	0.47
30:DH:79:ILE:HG22	30:DH:81:VAL:CG2	2.45	0.47
34:DL:50:ARG:HD3	34:DL:51:PHE:HB2	1.97	0.47
36:DN:10:LEU:HB2	36:DN:17:ARG:NH2	2.30	0.47
41:DS:20:VAL:HG11	41:DS:44:ALA:HA	1.97	0.47
46:DX:11:ARG:HD2	46:DX:60:PHE:HD2	1.79	0.47
1:AA:624:C:H4'	16:AP:11:SER:N	2.29	0.47
1:AA:857:C:H2'	1:AA:858:G:O4'	2.15	0.47
1:AA:1322:C:OP2	13:AM:100:GLY:HA3	2.15	0.47
2:AB:84:GLU:HG3	2:AB:215:LEU:HB3	1.97	0.47
4:AD:96:LEU:HD12	4:AD:139:ARG:CD	2.45	0.47
9:AI:52:ALA:C	9:AI:95:LYS:HZ1	2.23	0.47
11:AK:67:ASP:OD1	11:AK:71:LYS:HE3	2.15	0.47
23:BA:96:G:H4'	47:BY:48:HIS:CD2	2.50	0.47
23:BA:196:A:N3	23:BA:196:A:H2'	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:396:G:H1'	46:BX:42:GLN:OE1	2.15	0.47
23:BA:1411:C:H2'	23:BA:1412:A:C8	2.50	0.47
23:BA:1655:A:H1'	26:BD:113:PHE:CE2	2.50	0.47
25:BC:271:ILE:O	25:BC:272:ALA:CB	2.63	0.47
40:BR:78:LYS:HG3	40:BR:79:VAL:HG23	1.97	0.47
46:BX:11:ARG:HD2	46:BX:60:PHE:HD2	1.79	0.47
50:B2:3:LYS:N	50:B2:3:LYS:HD2	2.29	0.47
1:CA:562:C:N4	1:CA:884:U:C6	2.83	0.47
1:CA:950:U:H2'	1:CA:951:G:C8	2.50	0.47
2:CB:28:PHE:CD2	2:CB:194:PRO:HG3	2.49	0.47
4:CD:68:TYR:CE2	4:CD:97:LEU:HB3	2.50	0.47
5:CE:76:ILE:HG12	5:CE:77:PRO:CD	2.31	0.47
9:CI:73:GLN:O	9:CI:77:ILE:HG13	2.15	0.47
20:CT:94:ALA:C	20:CT:96:GLY:H	2.23	0.47
23:DA:125:G:H5'	52:D4:19:ARG:HG3	1.96	0.47
23:DA:244:A:C2	23:DA:255:A:C4	3.03	0.47
23:DA:649:G:C5	23:DA:650:C:C4	3.03	0.47
23:DA:966:G:C6	23:DA:967:C:N4	2.82	0.47
23:DA:2850:A:H2'	23:DA:2851:A:C8	2.50	0.47
25:DC:33:LEU:O	25:DC:35:LYS:N	2.48	0.47
27:DE:37:VAL:HG13	27:DE:184:TYR:HD1	1.80	0.47
37:DO:90:GLY:O	37:DO:92:TYR:CD1	2.68	0.47
40:DR:6:LYS:HA	40:DR:11:GLN:HB3	1.97	0.47
40:DR:24:LYS:HA	40:DR:92:THR:HG23	1.96	0.47
1:AA:67:C:H2'	1:AA:68:G:C8	2.50	0.47
1:AA:683:G:C6	1:AA:684:A:C5	3.03	0.47
1:AA:688:G:H2'	1:AA:689:C:H6	1.80	0.47
1:AA:731:G:H5'	1:AA:766:A:H4'	1.96	0.47
1:AA:1239:A:H4'	1:AA:1240:U:H5'	1.96	0.47
2:AB:20:GLU:HG3	2:AB:191:ASP:H	1.80	0.47
6:AF:61:LEU:HD23	6:AF:63:TYR:OH	2.14	0.47
13:AM:15:VAL:HG13	13:AM:43:THR:O	2.14	0.47
13:AM:52:GLU:HA	13:AM:55:ARG:HB3	1.97	0.47
17:AQ:69:LYS:O	17:AQ:70:ARG:HD2	2.15	0.47
17:AQ:85:VAL:O	17:AQ:89:LEU:HG	2.15	0.47
23:BA:753:C:H2'	23:BA:754:C:H6	1.80	0.47
23:BA:909:A:H2'	23:BA:912:C:H5	1.79	0.47
23:BA:1506:C:H2'	23:BA:1508:A:C8	2.50	0.47
24:BB:106:G:C6	24:BB:107:U:C4	3.03	0.47
25:BC:260:ARG:O	25:BC:261:LYS:C	2.58	0.47
26:BD:86:PRO:HB2	26:BD:87:GLU:H	1.41	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BK:79:PHE:CD2	38:BP:72:VAL:HG22	2.50	0.47
35:BM:81:VAL:HG12	35:BM:82:ARG:N	2.29	0.47
36:BN:97:VAL:HA	36:BN:113:LEU:O	2.15	0.47
43:BU:10:GLY:HA2	43:BU:27:VAL:HG23	1.96	0.47
46:BX:19:GLN:HA	46:BX:41:ARG:HA	1.96	0.47
1:CA:235:C:H1'	17:CQ:61:GLU:CD	2.40	0.47
1:CA:522:C:O2'	1:CA:523:A:H5'	2.14	0.47
1:CA:544:G:H2'	1:CA:545:C:C6	2.50	0.47
1:CA:963:G:H2'	1:CA:964:A:H8	1.80	0.47
1:CA:1239:A:H4'	1:CA:1240:U:H5'	1.97	0.47
1:CA:1373:G:H5"	7:CG:36:LYS:NZ	2.29	0.47
2:CB:187:LEU:HD23	2:CB:201:ILE:HG22	1.96	0.47
3:CC:182:ILE:HG23	3:CC:202:ILE:C	2.40	0.47
3:CC:195:VAL:CG1	3:CC:196:LEU:N	2.77	0.47
5:CE:43:LEU:CD1	5:CE:132:ALA:HB1	2.41	0.47
9:CI:14:VAL:O	9:CI:65:VAL:HG23	2.14	0.47
17:CQ:85:VAL:O	17:CQ:89:LEU:HG	2.15	0.47
23:DA:536:A:H2'	23:DA:537:C:C6	2.50	0.47
23:DA:2730:C:H4'	26:DD:168:MET:O	2.14	0.47
23:DA:2836:U:C4	23:DA:2883:A:N6	2.83	0.47
23:DA:2836:U:H2'	23:DA:2837:G:C8	2.49	0.47
24:DB:8:U:H5"	37:DO:15:ARG:NH2	2.29	0.47
25:DC:43:ARG:HB2	25:DC:49:ILE:HA	1.97	0.47
25:DC:136:ILE:O	25:DC:168:ARG:NH2	2.48	0.47
27:DE:132:VAL:HG23	27:DE:133:ASN:N	2.30	0.47
29:DG:86:GLU:CD	29:DG:86:GLU:H	2.22	0.47
29:DG:123:PHE:HA	29:DG:133:VAL:HA	1.97	0.47
34:DL:38:GLN:HG3	34:DL:41:ARG:HG2	1.96	0.47
34:DL:61:ARG:HH11	53:D5:13:ARG:HD2	1.80	0.47
34:DL:62:LEU:HA	34:DL:63:PRO:HD3	1.78	0.47
35:DM:35:VAL:HA	35:DM:101:ARG:O	2.14	0.47
40:DR:99:ILE:HD13	40:DR:99:ILE:H	1.80	0.47
42:DT:66:LEU:HD23	42:DT:67:GLY:N	2.29	0.47
45:DW:42:GLY:HA2	45:DW:57:PHE:CD2	2.50	0.47
47:DY:52:ASP:O	47:DY:56:GLN:HB2	2.14	0.47
50:D2:4:HIS:HB2	50:D2:5:PRO:HD3	1.97	0.47
1:AA:986:A:H1'	19:AS:54:GLY:O	2.15	0.46
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.46	0.46
2:AB:141:GLU:O	2:AB:145:LEU:HD23	2.14	0.46
6:AF:82:ARG:HA	6:AF:82:ARG:HH11	1.79	0.46
7:AG:106:GLN:O	7:AG:110:GLN:HG3	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:6:LEU:HD22	14:AN:21:TYR:OH	2.16	0.46
14:AN:37:PHE:HZ	14:AN:56:VAL:HG21	1.80	0.46
20:AT:26:ASN:HB2	20:AT:71:THR:CG2	2.44	0.46
23:BA:532:A:C8	23:BA:2021:C:C5	3.03	0.46
23:BA:966:G:C4	23:BA:967:C:C5	3.03	0.46
23:BA:1762:A:H8	23:BA:1762:A:O5'	1.98	0.46
24:BB:56:G:H4'	24:BB:57:A:C8	2.50	0.46
25:BC:25:THR:O	25:BC:25:THR:HG23	2.14	0.46
25:BC:25:THR:O	25:BC:27:THR:N	2.49	0.46
25:BC:37:LEU:HD12	25:BC:38:LYS:H	1.79	0.46
33:BK:77:ILE:HD13	33:BK:78:ARG:N	2.30	0.46
35:BM:35:VAL:HA	35:BM:101:ARG:O	2.14	0.46
36:BN:53:HIS:O	36:BN:56:LYS:HB3	2.15	0.46
38:BP:50:ILE:HA	38:BP:99:LEU:CD1	2.45	0.46
44:BV:179:ASP:CG	44:BV:180:VAL:N	2.73	0.46
53:B5:54:GLU:O	53:B5:58:ILE:HG12	2.14	0.46
1:CA:46:G:O2'	1:CA:365:U:H1'	2.16	0.46
1:CA:171:A:H2'	1:CA:172:A:C8	2.50	0.46
1:CA:186(B):C:O2'	20:CT:89:ARG:HD2	2.15	0.46
1:CA:262:A:C6	1:CA:263:A:C6	3.03	0.46
1:CA:909:A:H3'	1:CA:910:C:H6	1.80	0.46
1:CA:1084:G:H5'	1:CA:1102:A:OP2	2.15	0.46
1:CA:1187:G:H5'	9:CI:113:LYS:HE2	1.97	0.46
1:CA:1319:A:OP2	19:CS:5:LEU:HD23	2.15	0.46
2:CB:77:ALA:HB1	2:CB:165:VAL:HG11	1.96	0.46
2:CB:221:LEU:O	2:CB:221:LEU:HD13	2.16	0.46
3:CC:11:ARG:HH21	3:CC:180:ALA:HB3	1.80	0.46
5:CE:144:THR:O	5:CE:148:VAL:HG23	2.15	0.46
7:CG:69:VAL:O	7:CG:69:VAL:HG12	2.15	0.46
17:CQ:66:SER:OG	17:CQ:69:LYS:HB3	2.14	0.46
23:DA:636:G:OP1	34:DL:132:LYS:HD3	2.15	0.46
23:DA:661:C:H4'	34:DL:16:ARG:HD2	1.96	0.46
23:DA:773:U:H4'	25:DC:47:GLY:CA	2.40	0.46
23:DA:1952:A:C4	33:DK:22:ILE:HD12	2.49	0.46
23:DA:2272:U:H5"	23:DA:2273:A:OP1	2.15	0.46
25:DC:147:LEU:HD13	25:DC:155:LEU:CD1	2.43	0.46
26:DD:49:LEU:O	26:DD:78:LEU:HA	2.14	0.46
26:DD:175:VAL:O	26:DD:177:PRO:HD3	2.15	0.46
28:DF:38:VAL:HG22	28:DF:93:THR:HG23	1.97	0.46
28:DF:174:GLU:HG2	28:DF:180:PHE:HD1	1.81	0.46
30:DH:82:ARG:HD2	30:DH:89:TYR:CD2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DL:57:THR:CG2	34:DL:59:LEU:HB2	2.45	0.46
38:DP:30:VAL:HG12	38:DP:86:ILE:CG1	2.45	0.46
45:DW:32:ARG:CB	45:DW:35:ASN:HD21	2.28	0.46
1:AA:515:G:H2'	1:AA:516:U:O4'	2.16	0.46
7:AG:101:LEU:O	7:AG:105:VAL:HG23	2.15	0.46
8:AH:102:ARG:HE	8:AH:102:ARG:H	1.62	0.46
9:AI:29:ASN:OD1	9:AI:64:THR:HA	2.15	0.46
9:AI:73:GLN:O	9:AI:77:ILE:HG13	2.15	0.46
12:AL:82:VAL:HG21	12:AL:99:ILE:CD1	2.45	0.46
13:AM:81:LEU:HD22	13:AM:86:CYS:SG	2.54	0.46
23:BA:226:G:N2	23:BA:228:A:H62	2.13	0.46
23:BA:322:A:OP2	27:BE:169:ASN:HB2	2.14	0.46
23:BA:1019:U:H3	23:BA:114(B):A:N6	2.09	0.46
23:BA:1567:A:H5"	25:BC:58:HIS:CD2	2.50	0.46
23:BA:1602:U:H3'	23:BA:1603:A:H5"	1.97	0.46
23:BA:1668:A:H4'	23:BA:1669:A:O5'	2.16	0.46
23:BA:2393:A:H5"	34:BL:62:LEU:HD12	1.97	0.46
23:BA:2531:A:H2	23:BA:2658:C:O2	1.98	0.46
24:BB:28:C:H2'	24:BB:29:A:O4'	2.15	0.46
30:BH:12:LEU:HD22	30:BH:12:LEU:N	2.30	0.46
32:BJ:34:PRO:HB3	32:BJ:74:PHE:CE1	2.50	0.46
35:BM:75:THR:CA	35:BM:88:GLY:HA2	2.40	0.46
36:BN:10:LEU:HD23	36:BN:21:TYR:OH	2.15	0.46
40:BR:34:GLU:HG3	40:BR:58:VAL:HG22	1.97	0.46
40:BR:77:ALA:C	40:BR:79:VAL:N	2.73	0.46
47:BY:31:GLU:O	47:BY:35:LEU:HB2	2.15	0.46
1:CA:32:A:C6	1:CA:33:A:C6	3.03	0.46
1:CA:92:G:H2'	1:CA:93:U:O4'	2.15	0.46
1:CA:376:G:H2'	1:CA:377:G:H8	1.80	0.46
1:CA:506:G:C6	1:CA:507:C:C4	3.03	0.46
1:CA:1298:C:C5	7:CG:114:ARG:NH1	2.84	0.46
1:CA:1501:C:C2	1:CA:1504:G:O6	2.68	0.46
6:CF:75:LEU:HD23	6:CF:75:LEU:C	2.40	0.46
12:CL:30:PRO:HB2	12:CL:31:PHE:CD1	2.50	0.46
23:DA:71:A:C2	42:DT:31:HIS:CE1	3.03	0.46
23:DA:242:G:N7	53:D5:5:LYS:HG2	2.30	0.46
23:DA:532:A:C8	23:DA:2021:C:C5	3.04	0.46
23:DA:661:C:H4'	34:DL:18:ARG:HG2	1.96	0.46
23:DA:2027:G:H2'	23:DA:2028:U:O4'	2.15	0.46
25:DC:25:THR:HG21	25:DC:81:ALA:HA	1.96	0.46
25:DC:197:GLY:O	25:DC:198:ASN:C	2.58	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DH:29:TYR:C	30:DH:32:PRO:HD2	2.40	0.46
31:DI:56:ASN:HA	31:DI:59:ILE:HD12	1.98	0.46
33:DK:76:ALA:HB3	38:DP:75:ILE:HB	1.97	0.46
38:DP:29:ARG:HA	38:DP:45:PHE:O	2.15	0.46
40:DR:20:LEU:HD12	40:DR:21:ARG:H	1.81	0.46
40:DR:22:VAL:CG1	40:DR:23:GLU:N	2.76	0.46
52:D4:18:PHE:C	52:D4:18:PHE:CD2	2.93	0.46
1:AA:505:G:H2'	1:AA:506:G:C8	2.48	0.46
1:AA:619:U:C2	4:AD:135:LEU:HD21	2.50	0.46
1:AA:793:U:H3'	1:AA:794:A:H5"	1.97	0.46
1:AA:818:G:C3'	1:AA:819:A:H5"	2.45	0.46
1:AA:1295:G:H2'	1:AA:1296:C:O4'	2.15	0.46
1:AA:1423:G:H2'	1:AA:1424:C:H6	1.80	0.46
2:AB:77:ALA:HB1	2:AB:165:VAL:HG11	1.97	0.46
9:AI:19:LEU:HD23	9:AI:20:ARG:H	1.81	0.46
10:AJ:55:LYS:O	10:AJ:56:HIS:CG	2.68	0.46
11:AK:120:ARG:HA	11:AK:121:PRO:HD3	1.79	0.46
18:AR:84:LYS:HA	18:AR:84:LYS:HZ3	1.79	0.46
23:BA:380:U:O2'	46:BX:20:ARG:HG2	2.16	0.46
23:BA:510:C:OP1	23:BA:511:U:OP2	2.34	0.46
23:BA:943:U:OP1	34:BL:38:GLN:HB3	2.16	0.46
23:BA:1010:A:H1'	23:BA:1153:C:C1'	2.45	0.46
23:BA:1187:G:H8	23:BA:1187:G:O5'	1.98	0.46
23:BA:2287:A:C6	23:BA:2289:G:C4	3.03	0.46
23:BA:2666:C:H3'	23:BA:2667:C:C6	2.50	0.46
23:BA:2687:U:C4	23:BA:2688:U:H5	2.33	0.46
23:BA:2730:C:H4'	26:BD:168:MET:O	2.15	0.46
23:BA:2795:G:H3'	23:BA:2797:U:H5"	1.95	0.46
25:BC:11:PRO:C	25:BC:13:ARG:N	2.70	0.46
25:BC:76:PRO:CB	25:BC:116:GLN:HE21	2.28	0.46
26:BD:175:VAL:O	26:BD:177:PRO:HD3	2.16	0.46
26:BD:201:THR:O	26:BD:202:LYS:HD3	2.15	0.46
27:BE:132:VAL:HG23	27:BE:133:ASN:N	2.30	0.46
30:BH:58:LEU:HD23	30:BH:61:ARG:HD2	1.97	0.46
33:BK:76:ALA:HB3	38:BP:75:ILE:HB	1.97	0.46
34:BL:128:HIS:CA	34:BL:147:LEU:HB3	2.22	0.46
37:BO:39:ILE:O	37:BO:48:LEU:HD13	2.15	0.46
49:B1:42:CYS:HA	49:B1:59:VAL:C	2.40	0.46
1:CA:515:G:H2'	1:CA:516:U:O4'	2.15	0.46
1:CA:675:A:H2'	1:CA:676:A:C8	2.51	0.46
1:CA:972:C:H4'	10:CJ:57:LYS:HG3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1327:C:H2'	1:CA:1328:C:H6	1.79	0.46
1:CA:1502:A:C8	1:CA:1505:G:N2	2.83	0.46
2:CB:168:THR:HG1	2:CB:192:SER:HA	1.81	0.46
4:CD:131:ARG:HD3	4:CD:131:ARG:N	2.31	0.46
5:CE:20:GLN:O	5:CE:21:ALA:C	2.59	0.46
8:CH:9:MET:HE1	8:CH:35:ILE:HG21	1.96	0.46
8:CH:38:ILE:HD12	8:CH:118:VAL:HG12	1.97	0.46
8:CH:102:ARG:HE	8:CH:102:ARG:H	1.63	0.46
10:CJ:49:VAL:HG21	14:CN:41:ARG:CB	2.45	0.46
11:CK:59:TYR:CZ	11:CK:63:LEU:HD11	2.50	0.46
23:DA:110:G:C2	23:DA:111:A:C8	3.03	0.46
23:DA:380:U:O2'	46:DX:20:ARG:HG2	2.15	0.46
23:DA:448:U:H1'	27:DE:84:VAL:CG2	2.45	0.46
23:DA:2590:A:O2'	23:DA:2591:C:H5'	2.15	0.46
23:DA:2627:G:H8	23:DA:2627:G:O5'	1.98	0.46
23:DA:2745:C:C4	23:DA:2746:U:C4	3.03	0.46
23:DA:2887:U:H2'	23:DA:2888:C:C6	2.50	0.46
25:DC:35:LYS:HD2	25:DC:35:LYS:HA	1.62	0.46
25:DC:76:PRO:CB	25:DC:116:GLN:HE21	2.28	0.46
27:DE:83:PHE:O	27:DE:86:GLY:N	2.44	0.46
30:DH:31:LEU:HD13	30:DH:37:VAL:HA	1.98	0.46
30:DH:83:ALA:CB	30:DH:123:LEU:HD12	2.45	0.46
44:DV:179:ASP:CG	44:DV:180:VAL:N	2.74	0.46
46:DX:11:ARG:HB2	46:DX:13:ILE:CG2	2.46	0.46
1:AA:579:G:H2'	1:AA:580:U:C6	2.51	0.46
1:AA:625:G:H2'	1:AA:626:U:H6	1.80	0.46
1:AA:1463:C:H2'	1:AA:1464:G:H8	1.81	0.46
2:AB:52:GLU:O	2:AB:56:ARG:HG3	2.14	0.46
2:AB:162:ILE:HD11	2:AB:184:VAL:HG13	1.97	0.46
16:AP:45:THR:HB	16:AP:46:PRO:HD2	1.98	0.46
21:AU:6:ARG:HG3	21:AU:15:ARG:NH1	2.30	0.46
23:BA:289:A:H2'	23:BA:290:G:O4'	2.15	0.46
23:BA:1431:U:H2'	23:BA:1432:C:H6	1.81	0.46
23:BA:1620:G:O2'	52:B4:2:LYS:HG2	2.16	0.46
23:BA:1936:A:OP1	23:BA:1936:A:H3'	2.15	0.46
23:BA:2190:G:H8	23:BA:2190:G:H5'	1.79	0.46
23:BA:2469:A:H5'	23:BA:2470:G:OP2	2.15	0.46
23:BA:2734:A:C8	23:BA:2735:G:C8	3.04	0.46
27:BE:167:ALA:HB1	27:BE:173:VAL:HG11	1.97	0.46
28:BF:6:ALA:HB1	28:BF:10:LYS:HE3	1.97	0.46
28:BF:15:VAL:O	28:BF:19:LEU:HG	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BL:128:HIS:HB3	34:BL:147:LEU:HD23	1.98	0.46
1:CA:110:C:H2'	1:CA:111:G:O4'	2.14	0.46
1:CA:520:A:N1	1:CA:536:C:H1'	2.30	0.46
1:CA:623:C:C4	1:CA:624:C:C5	3.04	0.46
1:CA:1097:C:H2'	1:CA:1098:C:H6	1.80	0.46
1:CA:1413:A:C6	1:CA:1414:U:C4	3.02	0.46
1:CA:1463:C:H2'	1:CA:1464:G:H8	1.80	0.46
1:CA:1480:G:C6	1:CA:1481:U:C4	3.04	0.46
8:CH:48:TYR:HA	8:CH:60:ARG:O	2.16	0.46
15:CO:44:LYS:N	15:CO:44:LYS:HZ3	2.13	0.46
16:CP:47:ASP:C	16:CP:49:LEU:H	2.23	0.46
19:CS:29:ARG:HD2	19:CS:30:LEU:N	2.30	0.46
23:DA:69:C:H2'	23:DA:70:G:H8	1.81	0.46
23:DA:307:G:N1	23:DA:310:A:OP2	2.49	0.46
23:DA:394:A:O2'	23:DA:395:U:H5'	2.15	0.46
23:DA:1588:C:H2'	23:DA:1589:C:C6	2.50	0.46
23:DA:2228:G:C6	23:DA:2229:C:C4	3.03	0.46
23:DA:2320:A:C8	23:DA:2333:A:N6	2.83	0.46
23:DA:2543:G:H5'	23:DA:2543:G:C8	2.43	0.46
23:DA:2599:G:N7	25:DC:237:GLU:HG3	2.31	0.46
23:DA:2846:G:H2'	23:DA:2847:U:H6	1.81	0.46
25:DC:31:LYS:HD2	25:DC:31:LYS:HA	1.67	0.46
28:DF:53:LEU:CD1	28:DF:88:ILE:HG12	2.46	0.46
32:DJ:34:PRO:HB3	32:DJ:74:PHE:CE1	2.50	0.46
34:DL:80:TYR:CE1	34:DL:111:ARG:HG2	2.50	0.46
44:DV:22:GLY:O	44:DV:41:LEU:HG	2.15	0.46
44:DV:54:HIS:HB3	44:DV:101:PRO:HD3	1.98	0.46
46:DX:27:GLU:HG3	46:DX:33:LYS:CD	2.45	0.46
1:AA:192:U:O2'	1:AA:193:C:H5'	2.16	0.46
1:AA:522:C:N4	1:AA:528:C:H42	2.14	0.46
1:AA:1015:A:H8	1:AA:1015:A:O5'	1.98	0.46
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.16	0.46
3:AC:21:ARG:O	3:AC:58:GLU:HA	2.16	0.46
8:AH:23:SER:HB3	8:AH:62:TYR:HA	1.97	0.46
18:AR:59:SER:HB3	18:AR:62:GLU:HG3	1.96	0.46
19:AS:40:ILE:HG21	19:AS:62:ILE:HD11	1.97	0.46
23:BA:448:U:H1'	27:BE:84:VAL:CG2	2.45	0.46
23:BA:2037:G:H2'	23:BA:2038:G:C8	2.51	0.46
23:BA:2056:G:N3	23:BA:2056:G:C2'	2.78	0.46
23:BA:2830:G:N3	23:BA:2883:A:H2	2.13	0.46
27:BE:124:LEU:HD12	27:BE:125:LEU:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BK:31:LYS:HB3	33:BK:32:TYR:CE1	2.51	0.46
33:BK:71:ARG:HH21	33:BK:77:ILE:HG21	1.79	0.46
34:BL:85:LEU:HA	34:BL:88:LEU:CB	2.45	0.46
38:BP:27:THR:HA	38:BP:48:ILE:HA	1.96	0.46
39:BQ:69:CYS:SG	39:BQ:79:PHE:HD2	2.38	0.46
43:BU:14:LEU:HD23	43:BU:14:LEU:C	2.40	0.46
45:BW:56:ASP:O	45:BW:57:PHE:HB2	2.16	0.46
48:BZ:28:LEU:HA	48:BZ:33:GLN:OE1	2.16	0.46
1:CA:674:G:H2'	1:CA:675:A:C8	2.47	0.46
1:CA:767:A:H2'	1:CA:768:A:O4'	2.15	0.46
1:CA:1242:C:O2'	1:CA:1303:C:H5"	2.15	0.46
2:CB:97:TRP:CH2	2:CB:176:GLU:CD	2.93	0.46
23:DA:245:G:H2'	23:DA:246:C:C6	2.44	0.46
27:DE:54:ARG:HA	27:DE:87:GLY:HA3	1.97	0.46
28:DF:15:VAL:O	28:DF:19:LEU:HG	2.16	0.46
28:DF:64:THR:HG23	28:DF:66:GLN:N	2.31	0.46
32:DJ:92:GLN:O	32:DJ:94:ILE:HG13	2.15	0.46
34:DL:16:ARG:CZ	34:DL:18:ARG:HG3	2.45	0.46
34:DL:84:ASN:HA	34:DL:115:LEU:O	2.16	0.46
36:DN:33:ARG:HG3	36:DN:115:GLU:HG3	1.98	0.46
47:DY:1:MET:O	47:DY:1:MET:SD	2.73	0.46
47:DY:41:ILE:HD11	47:DY:44:LEU:HD12	1.96	0.46
1:AA:238:G:P	17:AQ:25:ARG:HH22	2.39	0.46
1:AA:1371:G:OP1	9:AI:11:LYS:HB3	2.15	0.46
1:AA:1442:G:H3'	1:AA:1442:G:H8	1.81	0.46
1:AA:1505:G:H4'	1:AA:1506:U:H5'	1.98	0.46
5:AE:77:PRO:HG2	5:AE:78:HIS:ND1	2.30	0.46
12:AL:84:ILE:HG23	12:AL:97:TYR:HB3	1.98	0.46
23:BA:69:C:H2'	23:BA:70:G:C8	2.50	0.46
23:BA:587:C:H42	34:BL:33:ARG:CG	2.18	0.46
23:BA:958:U:H5'	35:BM:14:ARG:NH1	2.30	0.46
23:BA:1173:G:H3'	23:BA:1174:A:H5"	1.96	0.46
23:BA:2745:C:C4	23:BA:2746:U:C4	3.03	0.46
23:BA:2815:C:O2'	50:B2:42:PRO:HB2	2.16	0.46
28:BF:53:LEU:CD1	28:BF:88:ILE:HG12	2.46	0.46
28:BF:86:MET:O	28:BF:87:PRO:O	2.34	0.46
30:BH:15:VAL:HG12	30:BH:16:GLY:N	2.30	0.46
36:BN:21:TYR:CE2	36:BN:43:GLU:HB3	2.50	0.46
38:BP:30:VAL:HG12	38:BP:86:ILE:CG1	2.45	0.46
44:BV:74:VAL:O	44:BV:76:LEU:HD12	2.16	0.46
46:BX:27:GLU:HG2	46:BX:28:GLY:N	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:67:C:H2'	1:CA:68:G:C8	2.50	0.46
1:CA:668:G:H1'	15:CO:46:HIS:HD2	1.81	0.46
1:CA:828:A:H5"	1:CA:859:A:C2	2.50	0.46
2:CB:22:LYS:HZ3	2:CB:22:LYS:N	2.13	0.46
4:CD:138:TYR:C	4:CD:138:TYR:CD1	2.94	0.46
5:CE:102:ALA:HB2	5:CE:120:THR:OG1	2.16	0.46
23:DA:96:G:H4'	47:DY:48:HIS:CD2	2.51	0.46
23:DA:836:G:H2'	23:DA:837:C:C6	2.51	0.46
23:DA:1019:U:H3	23:DA:114(B):A:N6	2.10	0.46
23:DA:1173:G:H3'	23:DA:1174:A:H5"	1.97	0.46
23:DA:1448:G:H21	23:DA:1529:A:H2	1.63	0.46
23:DA:1762:A:H8	23:DA:1762:A:O5'	1.97	0.46
23:DA:2667:C:H1'	29:DG:109:PHE:HD2	1.81	0.46
27:DE:143:ALA:HB1	27:DE:148:LEU:HB2	1.97	0.46
29:DG:58:GLU:HB2	29:DG:61:HIS:ND1	2.30	0.46
29:DG:103:LEU:HD22	29:DG:123:PHE:CE1	2.50	0.46
30:DH:83:ALA:CA	30:DH:89:TYR:HD1	2.28	0.46
38:DP:100:TYR:C	38:DP:102:ILE:N	2.73	0.46
40:DR:40:LEU:C	40:DR:45:THR:HB	2.41	0.46
42:DT:26:TYR:HE1	42:DT:83:VAL:HG21	1.80	0.46
48:DZ:55:ARG:HA	48:DZ:55:ARG:HD3	1.65	0.46
50:D2:18:ALA:O	50:D2:21:SER:HB2	2.16	0.46
1:AA:102:G:H2'	1:AA:103:C:H6	1.81	0.46
1:AA:110:C:H2'	1:AA:111:G:O4'	2.15	0.46
1:AA:324:G:N2	1:AA:327:A:C8	2.83	0.46
1:AA:509:A:C6	1:AA:510:A:N1	2.84	0.46
1:AA:828:A:H5"	1:AA:859:A:C2	2.50	0.46
1:AA:924:C:H2'	1:AA:925:G:C8	2.50	0.46
1:AA:950:U:H2'	1:AA:951:G:C8	2.50	0.46
2:AB:15:VAL:C	2:AB:16:HIS:CG	2.92	0.46
3:AC:8:ILE:CD1	3:AC:16:ARG:HH21	2.29	0.46
5:AE:11:ILE:HG21	5:AE:105:VAL:HG22	1.98	0.46
23:BA:258:G:H2'	23:BA:259:G:H8	1.80	0.46
23:BA:394:A:O2'	23:BA:395:U:H5'	2.16	0.46
23:BA:613:U:H4'	23:BA:616:A:N6	2.31	0.46
23:BA:1449:G:H2'	23:BA:1450:C:C6	2.50	0.46
23:BA:2320:A:C8	23:BA:2333:A:N6	2.83	0.46
23:BA:2476:A:C2	23:BA:2477:C:C6	3.03	0.46
23:BA:2590:A:O2'	23:BA:2591:C:H5'	2.15	0.46
25:BC:69:ARG:HH12	25:BC:117:VAL:CG2	2.29	0.46
26:BD:78:LEU:N	26:BD:78:LEU:HD23	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BE:29:ASN:H	27:BE:112:MET:HE1	1.81	0.46
38:BP:63:VAL:O	38:BP:73:GLU:HA	2.16	0.46
40:BR:24:LYS:HA	40:BR:92:THR:HG23	1.97	0.46
51:B3:34:LEU:HD13	51:B3:34:LEU:N	2.31	0.46
1:CA:804:U:H5"	1:CA:805:C:OP2	2.16	0.46
1:CA:814:A:N7	1:CA:816:A:C4	2.84	0.46
2:CB:20:GLU:HG3	2:CB:191:ASP:H	1.80	0.46
7:CG:45:ASP:O	7:CG:49:ILE:HG12	2.16	0.46
7:CG:69:VAL:O	7:CG:71:PRO:HD3	2.16	0.46
10:CJ:6:ILE:HG22	10:CJ:98:ILE:CG2	2.45	0.46
13:CM:52:GLU:HA	13:CM:55:ARG:HB3	1.98	0.46
23:DA:286:C:H2'	23:DA:287:C:H6	1.81	0.46
23:DA:1121:C:O5'	23:DA:1121:C:H6	1.99	0.46
23:DA:1164:G:C5'	23:DA:1164:G:C8	2.99	0.46
23:DA:1632:A:O5'	23:DA:1632:A:H8	1.99	0.46
23:DA:2012:G:O2'	41:DS:96:ILE:HD11	2.16	0.46
23:DA:2273:A:H2'	23:DA:2274:A:C8	2.51	0.46
23:DA:2287:A:C6	23:DA:2289:G:C4	3.02	0.46
23:DA:2582:G:C2	23:DA:2583:G:C8	3.03	0.46
25:DC:130:ALA:HA	25:DC:192:THR:HA	1.96	0.46
25:DC:132:PRO:HD3	25:DC:190:TYR:CE2	2.51	0.46
25:DC:270:ILE:C	25:DC:271:ILE:HG13	2.40	0.46
27:DE:63:LYS:HG2	27:DE:65:TRP:O	2.15	0.46
28:DF:86:MET:O	28:DF:87:PRO:O	2.33	0.46
32:DJ:81:ASP:N	32:DJ:81:ASP:OD1	2.49	0.46
33:DK:79:PHE:CD2	38:DP:72:VAL:HG22	2.50	0.46
35:DM:47:ILE:HG22	35:DM:48:GLU:N	2.30	0.46
39:DQ:28:ARG:HG3	39:DQ:38:THR:OG1	2.15	0.46
40:DR:34:GLU:HG3	40:DR:58:VAL:HG22	1.98	0.46
41:DS:9:TYR:H	41:DS:102:HIS:CD2	2.34	0.46
45:DW:50:ASN:ND2	45:DW:83:PRO:HD3	2.30	0.46
1:AA:321:A:C2	1:AA:333:G:C2	3.04	0.46
1:AA:520:A:N1	1:AA:536:C:H1'	2.31	0.46
1:AA:596:C:H6	1:AA:596:C:H5'	1.81	0.46
1:AA:729:A:H2'	1:AA:730:G:C8	2.45	0.46
1:AA:1188:A:H2'	1:AA:1189:C:O4'	2.16	0.46
1:AA:1254:C:OP1	10:AJ:45:ARG:HD3	2.15	0.46
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.51	0.46
7:AG:69:VAL:O	7:AG:71:PRO:HD3	2.15	0.46
7:AG:74:GLU:HG2	7:AG:91:VAL:HG22	1.98	0.46
10:AJ:75:ILE:HG13	10:AJ:76:ASN:N	2.20	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:23:TYR:HE1	13:AM:70:LEU:HD22	1.81	0.46
13:AM:27:LYS:HE2	13:AM:31:LYS:CE	2.45	0.46
23:BA:221:A:N7	23:BA:266:G:C5	2.84	0.46
23:BA:451:C:H41	23:BA:453:C:H3'	1.80	0.46
23:BA:534:U:O2'	39:BQ:49:HIS:CD2	2.69	0.46
23:BA:1678:G:H22	23:BA:1989:G:H22	1.62	0.46
23:BA:2273:A:H2'	23:BA:2274:A:C8	2.50	0.46
23:BA:2764:A:N7	23:BA:2766:G:C6	2.83	0.46
24:BB:79:C:O5'	24:BB:79:C:H6	1.99	0.46
27:BE:50:SER:HB2	27:BE:94:PRO:HD3	1.97	0.46
28:BF:39:ILE:HG12	28:BF:157:ILE:HG22	1.98	0.46
30:BH:78:THR:HA	30:BH:143:SER:CB	2.44	0.46
34:BL:38:GLN:CG	34:BL:39:LYS:H	2.28	0.46
38:BP:29:ARG:HA	38:BP:45:PHE:O	2.16	0.46
38:BP:62:THR:HG22	38:BP:75:ILE:HG13	1.98	0.46
42:BT:55:ASN:HB2	42:BT:80:ILE:HG23	1.97	0.46
46:BX:27:GLU:HG3	46:BX:33:LYS:CD	2.46	0.46
1:CA:224:C:H2'	1:CA:225:C:C6	2.51	0.46
1:CA:790:A:H5'	22:CV:6168:G:H4'	1.97	0.46
1:CA:892:A:H2'	1:CA:893:C:H6	1.77	0.46
1:CA:1432:G:H8	1:CA:1432:G:O5'	1.99	0.46
4:CD:9:CYS:HB3	4:CD:32:ALA:CB	2.45	0.46
9:CI:29:ASN:OD1	9:CI:64:THR:HA	2.15	0.46
9:CI:77:ILE:O	9:CI:81:ILE:HG13	2.15	0.46
11:CK:12:ARG:HG2	11:CK:13:GLN:N	2.30	0.46
14:CN:6:LEU:HD22	14:CN:21:TYR:OH	2.16	0.46
14:CN:37:PHE:HZ	14:CN:56:VAL:HG21	1.81	0.46
19:CS:29:ARG:O	19:CS:31:ILE:HG22	2.16	0.46
23:DA:36:G:N1	23:DA:445:C:C4	2.84	0.46
23:DA:558:G:H2'	23:DA:559:G:H8	1.80	0.46
23:DA:1178:C:H2'	23:DA:1179:C:C6	2.51	0.46
23:DA:1348:G:C2'	23:DA:1349:A:H5"	2.45	0.46
23:DA:1354:A:H2'	23:DA:1355:G:O4'	2.16	0.46
27:DE:198:ALA:O	27:DE:201:VAL:HG12	2.16	0.46
28:DF:88:ILE:HG13	28:DF:89:GLY:N	2.31	0.46
30:DH:82:ARG:C	30:DH:89:TYR:HB2	2.41	0.46
37:DO:49:VAL:CG1	37:DO:76:LYS:HB2	2.46	0.46
41:DS:9:TYR:H	41:DS:102:HIS:HD2	1.62	0.46
49:D1:57:ILE:HG22	49:D1:59:VAL:CG2	2.46	0.46
51:D3:25:LYS:HD3	53:D5:34:TRP:CZ3	2.50	0.46
1:AA:224:C:H2'	1:AA:225:C:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:622:A:C8	1:AA:623:C:C6	3.04	0.46
2:AB:73:THR:HA	2:AB:94:ASN:O	2.16	0.46
2:AB:221:LEU:HD13	2:AB:221:LEU:O	2.16	0.46
4:AD:179:GLU:CD	4:AD:179:GLU:H	2.24	0.46
8:AH:35:ILE:O	8:AH:39:LEU:HB2	2.16	0.46
12:AL:110:LYS:O	12:AL:111:ASP:HB2	2.16	0.46
17:AQ:45:HIS:HB2	17:AQ:69:LYS:HE2	1.98	0.46
19:AS:19:VAL:HG22	19:AS:44:MET:HE2	1.98	0.46
19:AS:29:ARG:HD2	19:AS:30:LEU:N	2.30	0.46
23:BA:71:A:OP1	23:BA:72:U:H2'	2.16	0.46
23:BA:155:C:H2'	23:BA:161:U:H5'	1.98	0.46
23:BA:558:G:H2'	23:BA:559:G:H8	1.81	0.46
23:BA:661:C:H4'	34:BL:18:ARG:HG2	1.98	0.46
23:BA:1317:A:N6	23:BA:1336:A:N6	2.64	0.46
23:BA:1354:A:C8	23:BA:1355:G:C8	3.03	0.46
23:BA:1833:U:C2	23:BA:1834:U:C5	3.04	0.46
23:BA:2252:G:H2'	23:BA:2253:G:C8	2.51	0.46
23:BA:2306:C:H4'	28:BF:136:ARG:HH22	1.80	0.46
23:BA:2630:G:H1'	23:BA:2894:G:H1'	1.98	0.46
23:BA:2647:U:H2'	23:BA:2648:C:H6	1.80	0.46
23:BA:2666:C:H3'	23:BA:2667:C:H6	1.81	0.46
23:BA:2678:C:H2'	23:BA:2679:A:H8	1.81	0.46
23:BA:2722:G:H4'	36:BN:5:LYS:HB3	1.98	0.46
25:BC:70:TRP:CH2	25:BC:150:LYS:HA	2.51	0.46
25:BC:146:GLU:OE2	25:BC:150:LYS:N	2.49	0.46
26:BD:118:LYS:NZ	36:BN:2:ARG:HH22	2.13	0.46
27:BE:63:LYS:HG2	27:BE:65:TRP:O	2.15	0.46
32:BJ:81:ASP:OD1	32:BJ:81:ASP:N	2.48	0.46
32:BJ:92:GLN:O	32:BJ:94:ILE:HG13	2.16	0.46
35:BM:134:ARG:O	35:BM:135:ASP:HB2	2.16	0.46
36:BN:9:LYS:C	36:BN:10:LEU:CG	2.89	0.46
38:BP:109:GLU:HA	38:BP:112:ARG:HG3	1.98	0.46
39:BQ:69:CYS:CB	39:BQ:79:PHE:HD2	2.29	0.46
45:BW:14:ARG:O	45:BW:15:ASP:HB2	2.16	0.46
46:BX:11:ARG:HB2	46:BX:13:ILE:CG2	2.45	0.46
51:B3:34:LEU:HD23	51:B3:36:LEU:HD22	1.98	0.46
1:CA:505:G:H2'	1:CA:506:G:C8	2.49	0.46
2:CB:141:GLU:O	2:CB:145:LEU:HD23	2.15	0.46
5:CE:96:PRO:HA	5:CE:117:ASP:OD2	2.16	0.46
7:CG:80:VAL:C	7:CG:82:GLY:H	2.24	0.46
11:CK:20:TYR:C	11:CK:21:ILE:HD12	2.41	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:45:HIS:HB2	17:CQ:69:LYS:HE2	1.98	0.46
19:CS:10:PHE:O	19:CS:11:VAL:HB	2.16	0.46
19:CS:49:ILE:HD12	19:CS:49:ILE:N	2.31	0.46
23:DA:478:A:C6	23:DA:480:A:C6	3.03	0.46
23:DA:958:U:H5'	35:DM:14:ARG:NH1	2.31	0.46
23:DA:1252:G:C2	23:DA:1253:A:C2	3.04	0.46
23:DA:1654:A:OP2	36:DN:3:HIS:NE2	2.49	0.46
23:DA:2039:C:C2	23:DA:2040:C:C5	3.04	0.46
23:DA:2315:G:H2'	23:DA:2316:C:C6	2.51	0.46
23:DA:2527:C:H6	23:DA:2527:C:O5'	1.98	0.46
26:DD:190:GLY:HA2	26:DD:191:PRO:HD3	1.75	0.46
27:DE:70:THR:HG23	27:DE:72:ARG:H	1.81	0.46
36:DN:21:TYR:CE2	36:DN:43:GLU:HB3	2.50	0.46
39:DQ:69:CYS:CB	39:DQ:79:PHE:HD2	2.29	0.46
42:DT:25:LYS:HE3	42:DT:82:GLN:OE1	2.16	0.46
47:DY:59:ARG:H	47:DY:59:ARG:HG2	1.59	0.46
1:AA:321:A:N7	1:AA:328:C:C6	2.84	0.46
1:AA:843:U:H5'	1:AA:848:C:C6	2.51	0.46
1:AA:892:A:H2'	1:AA:893:C:H6	1.80	0.46
1:AA:1480:G:C6	1:AA:1481:U:C4	3.04	0.46
2:AB:131:PRO:O	2:AB:135:GLN:HG3	2.16	0.46
2:AB:138:LEU:O	2:AB:141:GLU:HB2	2.16	0.46
4:AD:9:CYS:HB3	4:AD:32:ALA:CB	2.44	0.46
4:AD:103:ASN:OD1	4:AD:114:ARG:NH2	2.49	0.46
4:AD:131:ARG:HD3	4:AD:131:ARG:N	2.31	0.46
4:AD:138:TYR:CD1	4:AD:138:TYR:C	2.93	0.46
5:AE:91:LEU:HD12	5:AE:91:LEU:N	2.30	0.46
6:AF:62:TRP:CB	18:AR:35:ARG:HH12	2.29	0.46
8:AH:114:THR:HG21	8:AH:119:LEU:HD12	1.98	0.46
16:AP:4:ILE:HD12	16:AP:4:ILE:N	2.31	0.46
23:BA:587:C:C5	23:BA:671:C:H1'	2.51	0.46
23:BA:826:U:C5	23:BA:828:U:H1'	2.50	0.46
23:BA:833:U:H5"	34:BL:48:PRO:HB2	1.97	0.46
23:BA:919:G:H2'	23:BA:920:G:C8	2.50	0.46
23:BA:1006:C:H5'	32:BJ:51:THR:HG23	1.97	0.46
23:BA:2627:G:H8	23:BA:2627:G:O5'	1.99	0.46
23:BA:2667:C:H1'	29:BG:109:PHE:HD2	1.81	0.46
25:BC:130:ALA:HA	25:BC:192:THR:HA	1.97	0.46
26:BD:24:THR:HB	26:BD:186:GLY:O	2.16	0.46
28:BF:64:THR:HG23	28:BF:66:GLN:N	2.30	0.46
37:BO:34:HIS:CG	37:BO:54:LEU:HB2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BR:79:VAL:O	40:BR:79:VAL:HG12	2.16	0.46
42:BT:24:GLY:O	42:BT:83:VAL:HG22	2.15	0.46
43:BU:68:HIS:ND1	43:BU:70:SER:HB3	2.31	0.46
44:BV:24:LEU:HD21	44:BV:86:VAL:HG23	1.98	0.46
45:BW:42:GLY:HA2	45:BW:57:PHE:CD2	2.51	0.46
49:B1:59:VAL:HG12	49:B1:60:GLU:N	2.19	0.46
1:CA:39:G:C2	1:CA:40:C:C6	3.04	0.46
1:CA:947:G:H2'	1:CA:948:C:C6	2.51	0.46
1:CA:1224:G:C4'	13:CM:102:ARG:HH22	2.24	0.46
4:CD:64:LEU:HB2	4:CD:198:VAL:HG11	1.98	0.46
4:CD:96:LEU:HD12	4:CD:139:ARG:CD	2.45	0.46
4:CD:117:ALA:O	4:CD:121:VAL:HG23	2.16	0.46
7:CG:113:GLU:HB2	7:CG:119:ARG:CG	2.28	0.46
19:CS:19:VAL:HG22	19:CS:44:MET:HE2	1.97	0.46
23:DA:239:U:O2'	23:DA:240:G:H5'	2.15	0.46
23:DA:356:G:H2'	23:DA:357:A:H8	1.81	0.46
23:DA:414:C:H2'	23:DA:415:A:H8	1.80	0.46
23:DA:863:A:OP1	35:DM:21:THR:HB	2.16	0.46
23:DA:1487:G:H2'	23:DA:1488:G:H8	1.80	0.46
23:DA:1748:G:H2'	23:DA:1749:A:C8	2.51	0.46
23:DA:2830:G:N3	23:DA:2883:A:H2	2.14	0.46
24:DB:56:G:H4'	24:DB:57:A:C8	2.50	0.46
27:DE:167:ALA:HB1	27:DE:173:VAL:HG11	1.97	0.46
28:DF:128:ARG:HH21	28:DF:130:ASN:HD21	1.63	0.46
29:DG:24:VAL:HG23	29:DG:37:VAL:HG21	1.98	0.46
38:DP:20:PRO:CD	38:DP:86:ILE:HG23	2.45	0.46
39:DQ:69:CYS:SG	39:DQ:79:PHE:HD2	2.39	0.46
41:DS:10:VAL:O	41:DS:12:ILE:N	2.49	0.46
44:DV:54:HIS:CG	44:DV:101:PRO:HG3	2.51	0.46
44:DV:71:VAL:HG11	44:DV:74:VAL:CG2	2.46	0.46
45:DW:12:ASN:O	45:DW:14:ARG:N	2.49	0.46
1:AA:81:G:C5	1:AA:82:U:C4	3.04	0.45
1:AA:404:U:H2'	1:AA:405:U:H6	1.81	0.45
1:AA:705:U:C5	1:AA:706:A:C5	3.03	0.45
2:AB:162:ILE:O	2:AB:185:ILE:HG12	2.16	0.45
4:AD:3:ARG:HD3	4:AD:5:ILE:HD13	1.97	0.45
5:AE:20:GLN:O	5:AE:21:ALA:C	2.58	0.45
11:AK:108:ILE:O	18:AR:87:ARG:HA	2.16	0.45
16:AP:47:ASP:C	16:AP:49:LEU:H	2.25	0.45
20:AT:71:THR:HG22	20:AT:72:LEU:N	2.32	0.45
20:AT:94:ALA:C	20:AT:96:GLY:H	2.24	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1164:G:C5'	23:BA:1164:G:C8	2.99	0.45
23:BA:1378:A:H4'	23:BA:1379:A:OP1	2.15	0.45
23:BA:1599:C:OP2	42:BT:36:LYS:HD3	2.15	0.45
23:BA:1748:G:H2'	23:BA:1749:A:C8	2.51	0.45
23:BA:2027:G:C2	23:BA:2028:U:H1'	2.51	0.45
23:BA:2033:A:O2'	23:BA:2034:U:P	2.74	0.45
23:BA:2392:A:H2	23:BA:2424:C:N4	2.11	0.45
27:BE:89:VAL:HG12	27:BE:90:PHE:CD2	2.51	0.45
27:BE:198:ALA:O	27:BE:201:VAL:HG12	2.15	0.45
28:BF:25:TYR:CZ	28:BF:32:PRO:HD3	2.51	0.45
29:BG:38:SER:HB2	29:BG:41:MET:HG3	1.98	0.45
31:BI:56:ASN:HA	31:BI:59:ILE:HD12	1.98	0.45
33:BK:5:GLN:HG3	33:BK:20:MET:HE2	1.98	0.45
34:BL:48:PRO:O	34:BL:49:ARG:C	2.59	0.45
34:BL:65:ARG:H	34:BL:65:ARG:HD2	1.80	0.45
37:BO:72:ALA:O	37:BO:76:LYS:HG3	2.16	0.45
38:BP:46:GLU:OE2	38:BP:89:VAL:HG11	2.16	0.45
40:BR:7:THR:HG23	40:BR:22:VAL:HG11	1.98	0.45
40:BR:72:VAL:CG2	40:BR:85:LYS:HB3	2.46	0.45
1:CA:404:U:H2'	1:CA:405:U:H6	1.80	0.45
1:CA:819:A:N6	1:CA:1529:G:C5	2.84	0.45
1:CA:1188:A:H2'	1:CA:1189:C:O4'	2.16	0.45
1:CA:1505:G:H4'	1:CA:1506:U:H5'	1.98	0.45
4:CD:3:ARG:HD3	4:CD:5:ILE:HD13	1.98	0.45
11:CK:57:THR:HG22	11:CK:59:TYR:N	2.30	0.45
11:CK:67:ASP:OD1	11:CK:71:LYS:HE3	2.16	0.45
11:CK:87:THR:HA	11:CK:91:ARG:NH2	2.29	0.45
13:CM:23:TYR:HE1	13:CM:70:LEU:HD22	1.82	0.45
23:DA:95:G:O2'	47:DY:48:HIS:ND1	2.49	0.45
23:DA:1010:A:H1'	23:DA:1153:C:C1'	2.46	0.45
23:DA:1210:A:H8	23:DA:1210:A:C5'	2.26	0.45
25:DC:174:ILE:N	25:DC:174:ILE:HD12	2.31	0.45
25:DC:235:GLY:C	25:DC:237:GLU:H	2.24	0.45
27:DE:11:VAL:HG13	27:DE:196:LEU:HD21	1.97	0.45
27:DE:157:VAL:HB	27:DE:194:MET:HB3	1.97	0.45
34:DL:65:ARG:H	34:DL:65:ARG:HD2	1.81	0.45
35:DM:66:ILE:HG22	35:DM:104:PHE:HD2	1.80	0.45
36:DN:31:HIS:HB2	36:DN:34:ILE:HD11	1.97	0.45
43:DU:11:ASP:H	43:DU:27:VAL:CG2	2.29	0.45
45:DW:14:ARG:O	45:DW:15:ASP:HB2	2.16	0.45
46:DX:45:ASN:HD21	46:DX:47:GLN:NE2	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DY:33:MET:O	47:DY:37:PHE:HB2	2.15	0.45
51:D3:34:LEU:HD23	51:D3:36:LEU:HD22	1.98	0.45
1:AA:39:G:C2	1:AA:40:C:C6	3.04	0.45
1:AA:99:C:C6	1:AA:99:C:C3'	3.00	0.45
1:AA:337:C:H2'	1:AA:338:A:H8	1.80	0.45
1:AA:376:G:H2'	1:AA:377:G:H8	1.80	0.45
1:AA:384:G:H2'	1:AA:385:C:C6	2.51	0.45
1:AA:522:C:O2'	1:AA:523:A:H5'	2.16	0.45
1:AA:1238:A:C8	1:AA:1303:C:H1'	2.51	0.45
1:AA:1319:A:OP2	19:AS:5:LEU:HD23	2.15	0.45
1:AA:1372:U:OP1	9:AI:71:SER:HB3	2.16	0.45
1:AA:1448:C:H2'	1:AA:1449:C:H6	1.81	0.45
12:AL:78:GLU:HG2	12:AL:78:GLU:O	2.16	0.45
15:AO:62:GLN:O	15:AO:66:LEU:HD13	2.16	0.45
21:AU:14:TRP:CE3	21:AU:15:ARG:HG2	2.51	0.45
23:BA:125:G:H5'	52:B4:19:ARG:HG3	1.97	0.45
23:BA:270(Q):C:O2'	23:BA:270(R):C:H6	1.98	0.45
23:BA:414:C:H2'	23:BA:415:A:H8	1.79	0.45
23:BA:628:G:H2'	23:BA:629:G:C8	2.51	0.45
23:BA:947:G:H2'	23:BA:948:G:C5'	2.43	0.45
23:BA:956:G:H22	23:BA:959:A:H3'	1.81	0.45
23:BA:1750:G:H2'	23:BA:1751:C:C6	2.52	0.45
23:BA:1850:G:C6	23:BA:1851:U:C4	3.04	0.45
23:BA:2582:G:C2	23:BA:2583:G:C8	3.03	0.45
23:BA:2585:U:H4'	23:BA:2586:C:OP1	2.16	0.45
26:BD:54:GLN:HB2	26:BD:74:PRO:O	2.16	0.45
28:BF:174:GLU:HG2	28:BF:180:PHE:CD1	2.51	0.45
32:BJ:62:ARG:CZ	32:BJ:64:ASP:HB2	2.46	0.45
32:BJ:63:PRO:O	39:BQ:64:ARG:HD2	2.17	0.45
33:BK:99:PHE:CD1	33:BK:99:PHE:N	2.85	0.45
40:BR:75:PHE:C	40:BR:75:PHE:CD1	2.94	0.45
41:BS:9:TYR:H	41:BS:102:HIS:CD2	2.34	0.45
42:BT:30:VAL:HG12	42:BT:31:HIS:H	1.80	0.45
44:BV:10:ARG:HG2	44:BV:11:GLU:N	2.32	0.45
44:BV:58:VAL:HG11	44:BV:66:SER:HB2	1.98	0.45
49:B1:57:ILE:HG22	49:B1:59:VAL:CG2	2.46	0.45
53:B5:29:LYS:NZ	53:B5:29:LYS:HB3	2.31	0.45
1:CA:270:A:C6	1:CA:271:C:C4	3.04	0.45
1:CA:392:G:C2	1:CA:393:A:C4	3.04	0.45
1:CA:625:G:H2'	1:CA:626:U:H6	1.81	0.45
1:CA:775:G:H2'	1:CA:776:G:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:922:G:C6	1:CA:923:A:C6	3.04	0.45
1:CA:1245:A:OP2	21:CU:9:ARG:NH2	2.49	0.45
1:CA:1279:A:N6	3:CC:26:LYS:HE2	2.24	0.45
1:CA:1296:C:H5"	1:CA:1297:C:OP2	2.15	0.45
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.15	0.45
2:CB:84:GLU:HG3	2:CB:215:LEU:HB3	1.96	0.45
23:DA:357:A:H2'	23:DA:358:U:C6	2.51	0.45
23:DA:532:A:N1	23:DA:2020:A:H1'	2.30	0.45
23:DA:581:C:H2'	23:DA:582:G:C8	2.51	0.45
23:DA:868:U:C4	23:DA:869:G:N7	2.85	0.45
23:DA:943:U:OP1	34:DL:38:GLN:HB3	2.16	0.45
23:DA:1006:C:H5'	32:DJ:51:THR:HG23	1.98	0.45
23:DA:1022:G:N2	23:DA:114(B):A:C2	2.84	0.45
23:DA:1270:C:H5"	23:DA:1271:G:O5'	2.16	0.45
23:DA:1826:G:H2'	23:DA:1827:C:C6	2.52	0.45
23:DA:1970:A:H4'	23:DA:1971:A:OP1	2.15	0.45
23:DA:2359:C:H2'	23:DA:2360:A:H8	1.81	0.45
23:DA:2655:G:N2	23:DA:2664:G:C5	2.84	0.45
23:DA:2722:G:H4'	36:DN:5:LYS:HB3	1.97	0.45
24:DB:6:C:C2	24:DB:115:G:N2	2.84	0.45
25:DC:5:LYS:HD2	25:DC:5:LYS:H	1.80	0.45
25:DC:76:PRO:HB3	25:DC:116:GLN:HE21	1.81	0.45
25:DC:228:PRO:HD3	25:DC:234:GLY:O	2.16	0.45
34:DL:30:THR:HG22	34:DL:31:ALA:H	1.79	0.45
35:DM:24:GLY:HA2	35:DM:100:GLY:C	2.41	0.45
35:DM:115:MET:HE3	35:DM:115:MET:HB2	1.91	0.45
36:DN:14:SER:O	36:DN:15:SER:C	2.59	0.45
43:DU:13:VAL:CG1	43:DU:72:VAL:HB	2.47	0.45
43:DU:15:VAL:HG22	43:DU:72:VAL:HG12	1.98	0.45
43:DU:88:LYS:HE2	43:DU:93:GLY:CA	2.42	0.45
1:AA:235:C:H2'	1:AA:236:G:H8	1.81	0.45
1:AA:819:A:N6	1:AA:1529:G:C5	2.84	0.45
1:AA:934:C:H5	1:AA:1344:C:H2'	1.81	0.45
1:AA:1349:A:H2'	1:AA:1350:A:O4'	2.17	0.45
2:AB:97:TRP:CH2	2:AB:176:GLU:CD	2.94	0.45
3:AC:33:LEU:HD21	14:AN:53:LEU:CD2	2.46	0.45
4:AD:64:LEU:HB2	4:AD:198:VAL:HG11	1.98	0.45
23:BA:238:C:O2'	23:BA:608:A:H1'	2.16	0.45
23:BA:447:A:C5	23:BA:473:G:C5	3.05	0.45
23:BA:779:U:P	25:BC:49:ILE:HG13	2.56	0.45
23:BA:1354:A:H2'	23:BA:1355:G:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1427:A:H4'	23:BA:1428:C:O5'	2.17	0.45
23:BA:1588:C:H2'	23:BA:1589:C:C6	2.49	0.45
23:BA:1709:U:C2	23:BA:1750:G:C2	3.05	0.45
23:BA:1995:U:H3'	23:BA:1996:C:H2'	1.99	0.45
25:BC:31:LYS:HA	25:BC:31:LYS:HD2	1.65	0.45
25:BC:124:PRO:HG2	25:BC:129:ASN:ND2	2.31	0.45
25:BC:132:PRO:HD3	25:BC:190:TYR:CE2	2.52	0.45
26:BD:101:ARG:HB3	26:BD:169:ASN:HD22	1.82	0.45
34:BL:50:ARG:HD3	34:BL:51:PHE:HB2	1.98	0.45
35:BM:51:ARG:O	35:BM:55:VAL:HG13	2.16	0.45
36:BN:11:ASN:CG	36:BN:12:ARG:H	2.21	0.45
37:BO:61:ASN:O	37:BO:62:LYS:C	2.59	0.45
40:BR:72:VAL:HG22	40:BR:85:LYS:O	2.16	0.45
41:BS:20:VAL:O	41:BS:23:LEU:HB2	2.16	0.45
42:BT:26:TYR:HE1	42:BT:83:VAL:HG21	1.81	0.45
42:BT:66:LEU:HD23	42:BT:67:GLY:N	2.30	0.45
45:BW:12:ASN:O	45:BW:14:ARG:N	2.49	0.45
1:CA:192:U:H2'	1:CA:193:C:H6	1.82	0.45
1:CA:452:A:OP1	16:CP:43:LYS:NZ	2.43	0.45
1:CA:793:U:H3'	1:CA:794:A:H5"	1.97	0.45
1:CA:1238:A:C8	1:CA:1303:C:H1'	2.51	0.45
1:CA:1295:G:H2'	1:CA:1296:C:O4'	2.16	0.45
2:CB:73:THR:HA	2:CB:94:ASN:O	2.16	0.45
4:CD:173:TRP:NE1	4:CD:189:PRO:HG3	2.31	0.45
6:CF:17:SER:O	6:CF:21:LEU:HD23	2.16	0.45
9:CI:19:LEU:HD23	9:CI:20:ARG:H	1.81	0.45
11:CK:33:THR:HA	11:CK:40:ILE:HG12	1.97	0.45
23:DA:301:G:H5'	23:DA:334:C:O2'	2.15	0.45
23:DA:388:G:OP1	46:DX:33:LYS:HB3	2.16	0.45
23:DA:519:U:H2'	23:DA:520:G:H8	1.82	0.45
23:DA:919:G:C5'	24:DB:81:G:H1'	2.47	0.45
23:DA:969:U:H2'	23:DA:970:C:C6	2.52	0.45
23:DA:1331:A:O2'	23:DA:1332:G:C8	2.68	0.45
23:DA:1461:G:O2'	23:DA:1462:C:H5'	2.16	0.45
23:DA:2346:A:H5"	23:DA:2383:G:C1'	2.45	0.45
28:DF:174:GLU:HG2	28:DF:180:PHE:CD1	2.51	0.45
37:DO:61:ASN:O	37:DO:62:LYS:C	2.59	0.45
43:DU:68:HIS:ND1	43:DU:70:SER:HB3	2.31	0.45
1:AA:191(G):G:C6	1:AA:192:U:C4	3.04	0.45
1:AA:495:A:H4'	1:AA:496:A:OP1	2.16	0.45
1:AA:947:G:H2'	1:AA:948:C:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:50:GLU:HG3	5:AE:52:PRO:HD2	1.98	0.45
7:AG:45:ASP:O	7:AG:49:ILE:HG12	2.16	0.45
7:AG:80:VAL:C	7:AG:82:GLY:H	2.24	0.45
22:AV:6170:G:H2'	22:AV:6171:U:C6	2.52	0.45
23:BA:226:G:N2	23:BA:227:A:C2	2.85	0.45
23:BA:1021:A:H2'	23:BA:1023:U:H5'	1.98	0.45
23:BA:1178:C:H2'	23:BA:1179:C:C6	2.51	0.45
23:BA:1971:A:N3	25:BC:239:ARG:O	2.50	0.45
23:BA:1973:G:H2'	23:BA:1974:C:C6	2.51	0.45
23:BA:2516:G:O6	23:BA:2517:C:N4	2.49	0.45
23:BA:2542:A:C8	23:BA:2544:G:O6	2.70	0.45
25:BC:174:ILE:HD12	25:BC:174:ILE:N	2.31	0.45
25:BC:197:GLY:O	25:BC:198:ASN:C	2.59	0.45
26:BD:192:ASN:N	26:BD:192:ASN:HD22	2.15	0.45
30:BH:31:LEU:HD13	30:BH:37:VAL:HA	1.98	0.45
36:BN:14:SER:O	36:BN:15:SER:C	2.60	0.45
38:BP:30:VAL:HG12	38:BP:86:ILE:HG12	1.99	0.45
41:BS:20:VAL:HG11	41:BS:44:ALA:HA	1.98	0.45
42:BT:25:LYS:HE3	42:BT:82:GLN:OE1	2.16	0.45
44:BV:71:VAL:HG11	44:BV:74:VAL:CG2	2.46	0.45
46:BX:84:GLY:O	46:BX:85:LEU:C	2.59	0.45
50:B2:4:HIS:HB2	50:B2:5:PRO:HD3	1.99	0.45
51:B3:25:LYS:HD3	53:B5:34:TRP:CZ3	2.51	0.45
1:CA:191(G):G:C6	1:CA:192:U:C4	3.04	0.45
1:CA:384:G:H2'	1:CA:385:C:C6	2.51	0.45
1:CA:902:G:H2'	1:CA:903:G:H8	1.82	0.45
1:CA:1031:G:H8	1:CA:1031:G:O5'	2.00	0.45
2:CB:138:LEU:O	2:CB:141:GLU:HB2	2.16	0.45
3:CC:8:ILE:CD1	3:CC:16:ARG:HH21	2.28	0.45
8:CH:17:THR:C	8:CH:78:GLN:HE22	2.24	0.45
8:CH:35:ILE:O	8:CH:39:LEU:HB2	2.16	0.45
13:CM:14:ARG:HG2	13:CM:44:ARG:NH1	2.32	0.45
22:CV:6170:G:H2'	22:CV:6171:U:C6	2.51	0.45
23:DA:861:A:H2'	23:DA:862:G:O4'	2.17	0.45
23:DA:1021:A:H2'	23:DA:1023:U:H5'	1.97	0.45
23:DA:1208:C:C4	23:DA:1209:G:N7	2.85	0.45
23:DA:1733:G:H8	23:DA:1733:G:O5'	2.00	0.45
23:DA:1954:G:N2	23:DA:1956:U:H3	2.14	0.45
23:DA:2015:A:N3	50:D2:2:ALA:N	2.64	0.45
23:DA:2031:A:N3	23:DA:2455:G:O2'	2.43	0.45
23:DA:2033:A:O2'	23:DA:2034:U:P	2.74	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2094:G:P	30:DH:22:LYS:HD2	2.57	0.45
23:DA:2259:G:C2	23:DA:2282:G:N1	2.84	0.45
23:DA:2261:C:H3'	45:DW:16:SER:CB	2.46	0.45
23:DA:2271:G:H2'	23:DA:2272:U:H6	1.81	0.45
23:DA:2531:A:H2	23:DA:2658:C:O2	1.99	0.45
23:DA:2563:U:H4'	33:DK:28:SER:HA	1.99	0.45
23:DA:2734:A:C8	23:DA:2735:G:C8	3.05	0.45
23:DA:2764:A:N7	23:DA:2766:G:C6	2.84	0.45
28:DF:39:ILE:HG12	28:DF:157:ILE:HG22	1.98	0.45
32:DJ:101:TYR:N	32:DJ:101:TYR:CD1	2.85	0.45
33:DK:71:ARG:HH21	33:DK:77:ILE:HG21	1.80	0.45
34:DL:12:ALA:HB1	34:DL:16:ARG:HB2	1.98	0.45
34:DL:85:LEU:HA	34:DL:88:LEU:HB2	1.98	0.45
34:DL:140:ALA:O	34:DL:141:ALA:CB	2.63	0.45
38:DP:63:VAL:O	38:DP:73:GLU:HA	2.16	0.45
40:DR:78:LYS:HG3	40:DR:79:VAL:HG23	1.98	0.45
43:DU:9:LYS:O	43:DU:27:VAL:HG21	2.17	0.45
48:DZ:28:LEU:HA	48:DZ:33:GLN:OE1	2.16	0.45
49:D1:42:CYS:HA	49:D1:59:VAL:C	2.41	0.45
53:D5:54:GLU:O	53:D5:58:ILE:HG12	2.16	0.45
1:AA:191(F):U:O2	20:AT:105:SER:HB2	2.17	0.45
1:AA:392:G:C2	1:AA:393:A:C4	3.05	0.45
1:AA:515:G:C2	1:AA:537:G:C2	3.05	0.45
1:AA:544:G:H2'	1:AA:545:C:C6	2.51	0.45
1:AA:565:U:C6	1:AA:566:G:C8	3.05	0.45
1:AA:632:A:H2'	1:AA:633:G:O4'	2.16	0.45
1:AA:675:A:H2'	1:AA:676:A:H8	1.81	0.45
1:AA:775:G:H2'	1:AA:776:G:O4'	2.16	0.45
3:AC:27:LYS:HZ2	3:AC:27:LYS:HB3	1.81	0.45
4:AD:200:GLU:CD	4:AD:200:GLU:H	2.24	0.45
4:AD:201:GLN:O	4:AD:205:GLU:HG3	2.17	0.45
5:AE:43:LEU:CD1	5:AE:132:ALA:HB1	2.41	0.45
5:AE:102:ALA:HB2	5:AE:120:THR:OG1	2.16	0.45
6:AF:17:SER:O	6:AF:21:LEU:HD23	2.16	0.45
7:AG:54:THR:C	7:AG:56:GLN:H	2.25	0.45
19:AS:10:PHE:O	19:AS:11:VAL:HB	2.16	0.45
23:BA:36:G:N1	23:BA:445:C:C4	2.84	0.45
23:BA:186:G:H2'	23:BA:187:G:H8	1.82	0.45
23:BA:390:A:C5	34:BL:71:VAL:HG21	2.52	0.45
23:BA:868:U:C4	23:BA:869:G:N7	2.85	0.45
23:BA:919:G:C5'	24:BB:81:G:H1'	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1858:G:H1'	23:BA:1884:A:H61	1.82	0.45
27:BE:83:PHE:O	27:BE:86:GLY:N	2.45	0.45
29:BG:149:ARG:HD2	29:BG:164:TYR:HE1	1.82	0.45
34:BL:17:LYS:C	34:BL:19:VAL:H	2.25	0.45
34:BL:38:GLN:HG3	34:BL:41:ARG:HG2	1.99	0.45
35:BM:78:PRO:C	35:BM:79:LEU:HD12	2.42	0.45
38:BP:100:TYR:C	38:BP:102:ILE:N	2.74	0.45
41:BS:70:TYR:O	41:BS:107:LEU:HA	2.17	0.45
1:CA:315:A:H5"	1:CA:317:G:OP2	2.17	0.45
1:CA:624:C:H4'	16:CP:10:GLY:HA2	1.98	0.45
1:CA:687:A:H2'	1:CA:701:C:H41	1.82	0.45
1:CA:973:G:H3'	1:CA:974:A:H5"	1.97	0.45
1:CA:1015:A:O5'	1:CA:1015:A:H8	1.99	0.45
1:CA:1106:G:H5"	3:CC:172:ARG:HG2	1.98	0.45
2:CB:32:ILE:HG12	2:CB:40:HIS:HD2	1.81	0.45
7:CG:15:ASP:HB3	7:CG:19:GLY:N	2.28	0.45
9:CI:48:GLU:N	9:CI:49:PRO:CD	2.79	0.45
12:CL:110:LYS:O	12:CL:111:ASP:HB2	2.16	0.45
14:CN:37:PHE:HE1	14:CN:53:LEU:HD22	1.82	0.45
19:CS:33:THR:HG22	19:CS:51:VAL:HA	1.98	0.45
23:DA:639:U:H2'	23:DA:640:C:H6	1.81	0.45
23:DA:813:U:H2'	23:DA:814:C:C6	2.52	0.45
23:DA:1229:G:H2'	23:DA:1230:C:C6	2.51	0.45
23:DA:1506:C:H2'	23:DA:1508:A:C8	2.50	0.45
23:DA:1587:A:H2'	23:DA:1588:C:H6	1.81	0.45
23:DA:1599:C:OP2	42:DT:36:LYS:HD3	2.17	0.45
23:DA:1871:A:H2'	23:DA:1872:A:C8	2.51	0.45
23:DA:2306:C:H4'	28:DF:136:ARG:HH22	1.82	0.45
25:DC:27:THR:O	25:DC:27:THR:CG2	2.63	0.45
25:DC:32:SER:O	25:DC:33:LEU:O	2.35	0.45
27:DE:124:LEU:HD12	27:DE:125:LEU:N	2.31	0.45
44:DV:118:GLN:HB2	44:DV:173:ALA:C	2.42	0.45
1:AA:192:U:H2'	1:AA:193:C:H6	1.81	0.45
1:AA:501:C:OP1	12:AL:116:ARG:NH2	2.49	0.45
1:AA:942:G:H2'	1:AA:943:U:C6	2.52	0.45
1:AA:1454:G:H2'	1:AA:1455:G:H8	1.82	0.45
3:AC:182:ILE:HG23	3:AC:202:ILE:C	2.41	0.45
6:AF:50:TYR:CE1	18:AR:77:GLY:HA2	2.52	0.45
7:AG:86:GLN:HB2	7:AG:148:ASN:HD22	1.82	0.45
23:BA:553:U:O2'	23:BA:554:U:H5'	2.16	0.45
23:BA:558:G:P	32:BJ:134:PRO:HD2	2.57	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:777:A:O2'	23:BA:778:G:H5'	2.16	0.45
23:BA:1567:A:C8	25:BC:84:TYR:CE2	3.05	0.45
23:BA:2436:G:C5	23:BA:2437:U:C5	3.04	0.45
23:BA:2655:G:N2	23:BA:2664:G:C5	2.85	0.45
23:BA:2722:G:H2'	23:BA:2723:C:C6	2.51	0.45
23:BA:2817:G:H21	23:BA:2836:U:H1'	1.82	0.45
26:BD:21:VAL:HG12	26:BD:23:VAL:HG13	1.99	0.45
29:BG:38:SER:HB2	29:BG:41:MET:CG	2.46	0.45
35:BM:88:GLY:C	35:BM:89:ASN:CG	2.82	0.45
38:BP:20:PRO:CD	38:BP:86:ILE:HG23	2.46	0.45
43:BU:75:ILE:HG13	43:BU:80:GLY:H	1.82	0.45
49:B1:40:ILE:O	49:B1:47:VAL:HA	2.16	0.45
1:CA:102:G:H2'	1:CA:103:C:C6	2.51	0.45
1:CA:308:C:O2	1:CA:308:C:H2'	2.17	0.45
3:CC:131:ARG:HH21	5:CE:50:GLU:HG2	1.81	0.45
11:CK:48:ILE:HD11	11:CK:64:ALA:HA	1.99	0.45
11:CK:108:ILE:O	18:CR:87:ARG:HA	2.16	0.45
17:CQ:54:GLY:HA3	17:CQ:82:MET:CE	2.44	0.45
21:CU:14:TRP:CE3	21:CU:15:ARG:HG2	2.52	0.45
23:DA:116:C:O2'	23:DA:117:G:H5'	2.17	0.45
23:DA:1272:A:O2'	23:DA:1273:U:H5'	2.17	0.45
23:DA:1599:C:H2'	23:DA:1600:C:C6	2.52	0.45
23:DA:1826:G:H2'	23:DA:1827:C:H6	1.81	0.45
23:DA:2334:G:H4'	23:DA:2335:A:OP2	2.17	0.45
23:DA:2807:G:C6	23:DA:2893:G:O6	2.69	0.45
23:DA:2815:C:O2'	50:D2:42:PRO:HB2	2.16	0.45
26:DD:37:ARG:HD3	26:DD:42:ASP:OD1	2.17	0.45
26:DD:203:LYS:HD2	26:DD:203:LYS:O	2.17	0.45
33:DK:31:LYS:HB3	33:DK:32:TYR:CE1	2.51	0.45
34:DL:27:HIS:CE1	40:DR:83:ARG:HH12	2.34	0.45
34:DL:57:THR:HG23	34:DL:59:LEU:HB3	1.97	0.45
37:DO:72:ALA:O	37:DO:76:LYS:HG3	2.17	0.45
38:DP:27:THR:HG22	38:DP:90:GLN:HB3	1.99	0.45
38:DP:50:ILE:HA	38:DP:99:LEU:CD1	2.46	0.45
46:DX:84:GLY:O	46:DX:85:LEU:C	2.58	0.45
1:AA:683:G:C5	1:AA:684:A:N7	2.85	0.45
1:AA:1296:C:H5"	1:AA:1297:C:OP2	2.16	0.45
1:AA:1318:A:O2'	19:AS:37:ARG:HB2	2.16	0.45
1:AA:1410:G:H2'	1:AA:1411:C:H6	1.81	0.45
2:AB:32:ILE:HG12	2:AB:40:HIS:HD2	1.81	0.45
8:AH:17:THR:C	8:AH:78:GLN:HE22	2.25	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:39:GLY:O	9:AI:40:LEU:HD23	2.17	0.45
12:AL:44:PRO:CD	12:AL:50:ALA:H	2.29	0.45
14:AN:37:PHE:HE1	14:AN:53:LEU:HD22	1.81	0.45
16:AP:43:LYS:HA	16:AP:48:TRP:HB3	1.99	0.45
23:BA:356:G:H2'	23:BA:357:A:H8	1.81	0.45
23:BA:557:U:H2'	23:BA:558:G:C8	2.51	0.45
23:BA:1006:C:H1'	32:BJ:129:MET:HG2	1.99	0.45
23:BA:1028:A:N3	23:BA:2486:G:O2'	2.39	0.45
23:BA:1188:U:H4'	40:BR:79:VAL:HG13	1.98	0.45
23:BA:1208:C:C4	23:BA:1209:G:N7	2.85	0.45
23:BA:1348:G:C2'	23:BA:1349:A:H5"	2.45	0.45
23:BA:1952:A:C4	33:BK:22:ILE:HD12	2.50	0.45
23:BA:2025:C:C2	23:BA:2026:C:C5	3.05	0.45
23:BA:2346:A:H5"	23:BA:2383:G:C1'	2.46	0.45
23:BA:2552:U:H2'	23:BA:2554:U:OP2	2.16	0.45
23:BA:2807:G:C6	23:BA:2893:G:O6	2.69	0.45
25:BC:35:LYS:HD2	25:BC:35:LYS:HA	1.62	0.45
26:BD:201:THR:CG2	26:BD:202:LYS:H	2.22	0.45
29:BG:13:LYS:HE2	29:BG:14:GLY:N	2.32	0.45
30:BH:9:LEU:HB2	30:BH:12:LEU:HB2	1.98	0.45
36:BN:4:LEU:C	36:BN:6:SER:N	2.72	0.45
36:BN:10:LEU:HB2	36:BN:17:ARG:NH2	2.31	0.45
41:BS:1:MET:HG3	41:BS:2:GLU:N	2.32	0.45
50:B2:4:HIS:HB2	50:B2:5:PRO:CD	2.46	0.45
1:CA:192:U:O2'	1:CA:193:C:H5'	2.17	0.45
1:CA:342:C:N3	1:CA:348:G:C2	2.85	0.45
1:CA:505:G:C6	1:CA:535:A:C2	3.04	0.45
1:CA:515:G:C2	1:CA:537:G:C2	3.04	0.45
1:CA:554:C:H2'	1:CA:555:C:H6	1.82	0.45
1:CA:1075:C:H5"	2:CB:179:LYS:HZ3	1.79	0.45
1:CA:1250:A:H5'	9:CI:67:GLY:HA2	1.98	0.45
2:CB:153:ARG:NH1	2:CB:153:ARG:HB2	2.31	0.45
6:CF:50:TYR:CE1	18:CR:77:GLY:HA2	2.52	0.45
13:CM:102:ARG:HB3	13:CM:105:THR:OG1	2.17	0.45
23:DA:644:A:C2	23:DA:646:A:C4	3.05	0.45
23:DA:996:A:H4'	39:DQ:92:ARG:CZ	2.44	0.45
23:DA:1022:G:C6	23:DA:1140:C:C4	3.04	0.45
23:DA:1188:U:H4'	40:DR:79:VAL:HG13	1.99	0.45
23:DA:1694:C:C5'	23:DA:1694:C:C6	2.96	0.45
23:DA:1804:C:O5'	23:DA:1804:C:H6	1.99	0.45
23:DA:1850:G:C6	23:DA:1851:U:C4	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1971:A:N3	25:DC:239:ARG:O	2.49	0.45
23:DA:2210:G:N3	23:DA:2210:G:C3'	2.77	0.45
23:DA:2817:G:H21	23:DA:2836:U:H1'	1.82	0.45
25:DC:211:ARG:O	25:DC:215:LEU:HG	2.16	0.45
28:DF:41:GLN:HG2	28:DF:155:MET:CB	2.37	0.45
29:DG:46:GLU:HG3	29:DG:51:ARG:CD	2.47	0.45
32:DJ:26:THR:HG22	32:DJ:27:TYR:N	2.31	0.45
32:DJ:93:LYS:HB3	32:DJ:110:LEU:HB2	1.99	0.45
33:DK:22:ILE:HA	33:DK:22:ILE:HD13	1.77	0.45
34:DL:57:THR:C	34:DL:59:LEU:N	2.75	0.45
36:DN:9:LYS:C	36:DN:10:LEU:CG	2.90	0.45
38:DP:115:ARG:H	38:DP:115:ARG:HG2	1.53	0.45
44:DV:152:ALA:N	44:DV:169:GLU:O	2.48	0.45
47:DY:31:GLU:O	47:DY:35:LEU:HB2	2.17	0.45
1:AA:645:C:H2'	1:AA:646:U:O4'	2.16	0.45
1:AA:735:C:C2	1:AA:736:C:C5	3.05	0.45
1:AA:862:C:O2'	1:AA:863:U:H5'	2.17	0.45
1:AA:1281:U:H5'	1:AA:1282:C:H5	1.82	0.45
1:AA:1298:C:H41	7:AG:114:ARG:HD3	1.81	0.45
1:AA:1396:A:C2	5:AE:19:MET:HG3	2.52	0.45
1:AA:1501:C:C2	1:AA:1504:G:O6	2.70	0.45
1:AA:1502:A:C8	1:AA:1505:G:N2	2.85	0.45
2:AB:153:ARG:NH1	2:AB:153:ARG:HB2	2.31	0.45
3:AC:20:SER:HB2	3:AC:40:ARG:NH1	2.31	0.45
5:AE:152:ARG:HD3	8:AH:42:GLU:O	2.16	0.45
9:AI:5:TYR:HA	9:AI:17:VAL:O	2.17	0.45
11:AK:12:ARG:HG2	11:AK:13:GLN:N	2.30	0.45
11:AK:33:THR:HA	11:AK:40:ILE:HG12	1.98	0.45
23:BA:244:A:C2	23:BA:255:A:C4	3.05	0.45
23:BA:301:G:C6	23:BA:317:G:C6	3.05	0.45
23:BA:979:G:H3'	23:BA:980:A:H5"	1.99	0.45
23:BA:994:C:OP1	39:BQ:53:ARG:NH2	2.49	0.45
23:BA:1682:G:H2'	23:BA:1683:C:C6	2.51	0.45
23:BA:2580:U:H4'	26:BD:130:GLY:HA2	1.98	0.45
23:BA:2850:A:H5'	23:BA:2850:A:H8	1.79	0.45
26:BD:6:GLY:HA2	26:BD:51:PHE:CZ	2.51	0.45
26:BD:170:LEU:HB3	26:BD:184:VAL:HG12	1.99	0.45
28:BF:106:LEU:HB3	28:BF:107:LEU:HD23	1.99	0.45
32:BJ:116:THR:HG23	32:BJ:117:HIS:N	2.32	0.45
42:BT:62:LYS:O	42:BT:73:ARG:HB2	2.16	0.45
43:BU:27:VAL:HG23	43:BU:27:VAL:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:284:G:H2'	1:CA:285:G:H8	1.80	0.45
1:CA:321:A:N7	1:CA:328:C:C6	2.84	0.45
1:CA:406:G:N2	1:CA:437:U:C2	2.85	0.45
1:CA:695:A:H2'	1:CA:696:A:C8	2.52	0.45
1:CA:818:G:C3'	1:CA:819:A:H5"	2.47	0.45
1:CA:843:U:H5'	1:CA:848:C:C6	2.52	0.45
1:CA:1468:A:H2'	1:CA:1469:G:O4'	2.17	0.45
6:CF:61:LEU:HD23	6:CF:63:TYR:OH	2.17	0.45
8:CH:97:VAL:HG13	8:CH:98:LYS:H	1.81	0.45
23:DA:380:U:H4'	46:DX:21:ARG:O	2.17	0.45
23:DA:643:A:C2	23:DA:644:A:C4	3.05	0.45
23:DA:661:C:H2'	23:DA:662:G:H8	1.82	0.45
23:DA:1326:U:O2'	23:DA:1327:C:H5'	2.17	0.45
23:DA:1615:C:C6	23:DA:1617:C:C5	3.04	0.45
23:DA:2394:C:H2'	23:DA:2395:C:H6	1.81	0.45
23:DA:2515:C:H1'	23:DA:2570:G:N2	2.32	0.45
26:DD:6:GLY:HA2	26:DD:51:PHE:CZ	2.51	0.45
26:DD:24:THR:HB	26:DD:186:GLY:O	2.17	0.45
33:DK:77:ILE:HD13	33:DK:78:ARG:N	2.31	0.45
34:DL:64:LYS:O	34:DL:65:ARG:C	2.59	0.45
37:DO:38:GLN:HB3	37:DO:47:THR:HG23	1.98	0.45
42:DT:64:LYS:HG2	42:DT:65:ARG:N	2.30	0.45
46:DX:21:ARG:HA	46:DX:21:ARG:HD3	1.86	0.45
51:D3:34:LEU:N	51:D3:34:LEU:HD13	2.32	0.45
1:AA:262:A:C6	1:AA:263:A:C6	3.05	0.45
9:AI:17:VAL:HG22	9:AI:63:ILE:HG13	1.99	0.45
10:AJ:6:ILE:HG22	10:AJ:98:ILE:CG2	2.45	0.45
13:AM:30:ALA:O	13:AM:34:LEU:HG	2.17	0.45
16:AP:12:LYS:C	16:AP:14:ASN:H	2.23	0.45
22:AV:6167:G:H2'	22:AV:6168:G:C8	2.52	0.45
23:BA:66:C:H2'	23:BA:67:U:H6	1.81	0.45
23:BA:142:G:H1'	42:BT:37:THR:HG21	1.98	0.45
23:BA:454:A:H4'	23:BA:455:C:OP2	2.17	0.45
23:BA:598:G:H2'	23:BA:599:G:O4'	2.16	0.45
23:BA:1022:G:C5	23:BA:1140:C:N4	2.85	0.45
23:BA:1291:C:H2'	23:BA:1292:U:H6	1.79	0.45
23:BA:1578:U:C2'	23:BA:1579:A:H5"	2.46	0.45
23:BA:2712:U:O2'	23:BA:712(B):A:P	2.75	0.45
25:BC:5:LYS:HD2	25:BC:5:LYS:H	1.80	0.45
27:BE:63:LYS:NZ	27:BE:67:GLN:HE21	2.15	0.45
28:BF:88:ILE:HG13	28:BF:89:GLY:N	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BG:105:LEU:HD13	29:BG:105:LEU:N	2.31	0.45
32:BJ:127:LYS:HB2	32:BJ:140:PHE:HE1	1.78	0.45
34:BL:105:LEU:H	34:BL:105:LEU:HD12	1.82	0.45
43:BU:90:LEU:N	43:BU:90:LEU:HD23	2.31	0.45
45:BW:50:ASN:ND2	45:BW:83:PRO:HD3	2.31	0.45
47:BY:33:MET:O	47:BY:37:PHE:HB2	2.17	0.45
1:CA:246:A:C2	1:CA:282:A:C5	3.05	0.45
1:CA:740:U:O3'	15:CO:39:LEU:HD23	2.16	0.45
2:CB:112:VAL:O	2:CB:115:LEU:HB3	2.17	0.45
3:CC:6:HIS:CD2	3:CC:7:PRO:HD2	2.43	0.45
4:CD:30:LYS:HD3	4:CD:35:ARG:NH2	2.32	0.45
4:CD:103:ASN:OD1	4:CD:114:ARG:NH2	2.50	0.45
5:CE:43:LEU:HD12	5:CE:109:ILE:HD11	1.99	0.45
5:CE:50:GLU:HG3	5:CE:52:PRO:HD2	1.98	0.45
7:CG:86:GLN:HB2	7:CG:148:ASN:HD22	1.81	0.45
15:CO:62:GLN:O	15:CO:66:LEU:HD13	2.17	0.45
17:CQ:69:LYS:O	17:CQ:70:ARG:HD2	2.16	0.45
23:DA:311:A:C8	23:DA:332:A:C5	3.05	0.45
23:DA:2748:A:C2	23:DA:2757:A:C4	3.04	0.45
27:DE:89:VAL:HG12	27:DE:90:PHE:CD2	2.52	0.45
27:DE:160:ASN:ND2	27:DE:162:LEU:H	2.15	0.45
29:DG:13:LYS:HE2	29:DG:14:GLY:N	2.32	0.45
34:DL:128:HIS:HB3	34:DL:147:LEU:HD23	1.97	0.45
44:DV:8:TYR:HB2	44:DV:38:TYR:CE2	2.52	0.45
1:AA:284:G:H2'	1:AA:285:G:H8	1.82	0.45
1:AA:740:U:O3'	15:AO:39:LEU:HD23	2.16	0.45
1:AA:1057:G:H4'	3:AC:197:GLY:N	2.32	0.45
2:AB:187:LEU:HD13	2:AB:187:LEU:C	2.42	0.45
5:AE:90:VAL:O	5:AE:120:THR:HA	2.17	0.45
23:BA:380:U:H4'	46:BX:21:ARG:O	2.17	0.45
23:BA:1006:C:C2	23:BA:1138:G:N2	2.85	0.45
23:BA:1390:U:O2'	23:BA:1391:U:H5'	2.16	0.45
23:BA:1478:G:C2	23:BA:1479:G:C8	3.04	0.45
23:BA:1658:C:OP1	26:BD:132:HIS:O	2.34	0.45
23:BA:2196:C:O2'	23:BA:2197:U:H5'	2.17	0.45
23:BA:2259:G:C2	23:BA:2282:G:N1	2.85	0.45
23:BA:2287:A:C4	23:BA:2289:G:C8	3.04	0.45
23:BA:2315:G:H2'	23:BA:2316:C:C6	2.52	0.45
23:BA:2543:G:H2'	23:BA:2544:G:O4'	2.17	0.45
23:BA:2850:A:H5"	23:BA:2868:A:C2	2.51	0.45
23:BA:2886:G:H2'	23:BA:2887:U:H6	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:91:VAL:HB	26:BD:95:ILE:CD1	2.40	0.45
27:BE:54:ARG:HA	27:BE:87:GLY:HA3	1.98	0.45
27:BE:124:LEU:HB3	27:BE:193:VAL:HG22	1.99	0.45
27:BE:192:LEU:C	27:BE:192:LEU:CD2	2.90	0.45
32:BJ:62:ARG:NE	32:BJ:64:ASP:HB2	2.32	0.45
34:BL:50:ARG:HB3	53:B5:60:LEU:HD21	1.98	0.45
35:BM:85:LYS:HG3	35:BM:86:GLY:N	2.32	0.45
35:BM:101:ARG:HG3	35:BM:102:VAL:N	2.32	0.45
41:BS:32:ALA:O	41:BS:33:ARG:C	2.60	0.45
44:BV:22:GLY:O	44:BV:41:LEU:HG	2.17	0.45
1:CA:81:G:C5	1:CA:82:U:C4	3.05	0.45
1:CA:99:C:C6	1:CA:99:C:C3'	2.99	0.45
1:CA:179:A:H2'	1:CA:180:U:H6	1.81	0.45
1:CA:324:G:N2	1:CA:327:A:C8	2.85	0.45
1:CA:818:G:H3'	1:CA:819:A:H5"	1.98	0.45
1:CA:964:A:H5'	1:CA:1199:U:OP1	2.16	0.45
1:CA:1130:A:N6	1:CA:1144:G:H21	2.15	0.45
1:CA:1305:G:OP2	1:CA:1305:G:C8	2.70	0.45
13:CM:115:LYS:O	13:CM:116:THR:C	2.60	0.45
16:CP:12:LYS:C	16:CP:14:ASN:H	2.24	0.45
23:DA:155:C:H2'	23:DA:161:U:H5'	1.99	0.45
23:DA:637:A:OP2	34:DL:115:LEU:HB2	2.16	0.45
23:DA:846:C:C2	23:DA:847:U:C5	3.05	0.45
23:DA:1427:A:H4'	23:DA:1428:C:O5'	2.17	0.45
23:DA:1600:C:O2'	23:DA:1601:G:H5'	2.17	0.45
23:DA:2346:A:C2	23:DA:2383:G:C2	3.05	0.45
25:DC:108:PRO:HB3	25:DC:143:HIS:CE1	2.52	0.45
25:DC:124:PRO:HG2	25:DC:129:ASN:ND2	2.32	0.45
25:DC:218:ARG:HG3	25:DC:218:ARG:HH11	1.82	0.45
32:DJ:42:GLU:O	32:DJ:42:GLU:HG3	2.17	0.45
32:DJ:116:THR:O	32:DJ:118:PRO:HD3	2.17	0.45
34:DL:16:ARG:NH2	34:DL:18:ARG:H	2.15	0.45
34:DL:39:LYS:HA	34:DL:39:LYS:HD3	1.71	0.45
35:DM:51:ARG:O	35:DM:55:VAL:HG13	2.18	0.45
51:D3:41:PRO:HG3	51:D3:49:HIS:HE1	1.82	0.45
53:D5:14:VAL:HG22	53:D5:24:ALA:HB2	1.99	0.45
1:AA:506:G:C6	1:AA:507:C:C4	3.04	0.44
1:AA:554:C:H2'	1:AA:555:C:H6	1.82	0.44
1:AA:695:A:H2'	1:AA:696:A:C8	2.52	0.44
4:AD:68:TYR:CE2	4:AD:97:LEU:HB3	2.51	0.44
7:AG:15:ASP:CB	7:AG:20:ASP:H	2.29	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:107:ALA:HB2	7:AG:134:ALA:HB2	1.99	0.44
16:AP:55:ARG:O	16:AP:58:TYR:HB3	2.17	0.44
23:BA:102:G:H5"	23:BA:102:G:H8	1.82	0.44
23:BA:225:A:O2'	23:BA:257:A:H4'	2.17	0.44
23:BA:2037:G:C6	23:BA:2038:G:C6	3.05	0.44
25:BC:133:LEU:O	25:BC:134:ARG:C	2.61	0.44
25:BC:211:ARG:O	25:BC:215:LEU:HG	2.17	0.44
26:BD:37:ARG:HD3	26:BD:42:ASP:OD1	2.18	0.44
28:BF:58:GLN:O	28:BF:62:LEU:HD13	2.17	0.44
29:BG:24:VAL:HG23	29:BG:37:VAL:HG21	1.98	0.44
30:BH:82:ARG:C	30:BH:89:TYR:HB2	2.42	0.44
30:BH:82:ARG:HD2	30:BH:89:TYR:CD2	2.52	0.44
32:BJ:57:LEU:CD1	32:BJ:142:ARG:HB2	2.48	0.44
32:BJ:156:GLN:O	32:BJ:157:ARG:HB2	2.17	0.44
33:BK:86:ILE:HD12	33:BK:86:ILE:N	2.31	0.44
34:BL:64:LYS:O	34:BL:65:ARG:C	2.60	0.44
37:BO:90:GLY:O	37:BO:92:TYR:CD1	2.69	0.44
38:BP:3:ARG:O	38:BP:4:GLY:C	2.60	0.44
39:BQ:96:ALA:C	39:BQ:98:LEU:H	2.25	0.44
39:BQ:104:GLN:HB3	40:BR:44:LYS:NZ	2.32	0.44
42:BT:64:LYS:HG2	42:BT:65:ARG:N	2.31	0.44
45:BW:27:GLU:HB2	45:BW:69:PHE:HD1	1.81	0.44
53:B5:11:LYS:HB2	53:B5:61:LEU:HD22	1.99	0.44
53:B5:53:PRO:C	53:B5:57:ARG:NH2	2.74	0.44
1:CA:262:A:H5'	20:CT:74:LYS:HG3	1.98	0.44
1:CA:266:G:HO2'	1:CA:267:C:P	2.39	0.44
1:CA:862:C:O2'	1:CA:863:U:H5'	2.17	0.44
2:CB:142:LEU:HD23	2:CB:142:LEU:C	2.43	0.44
4:CD:201:GLN:O	4:CD:205:GLU:HG3	2.17	0.44
5:CE:33:VAL:CG1	5:CE:109:ILE:HD13	2.47	0.44
7:CG:54:THR:C	7:CG:56:GLN:H	2.25	0.44
8:CH:13:ILE:O	8:CH:17:THR:HG23	2.16	0.44
9:CI:5:TYR:HA	9:CI:17:VAL:O	2.16	0.44
12:CL:29:ALA:HA	12:CL:30:PRO:HD3	1.78	0.44
12:CL:44:PRO:HG3	12:CL:52:ARG:CD	2.46	0.44
12:CL:84:ILE:HD12	12:CL:84:ILE:N	2.32	0.44
13:CM:27:LYS:HE2	13:CM:31:LYS:CE	2.46	0.44
13:CM:30:ALA:O	13:CM:34:LEU:HG	2.17	0.44
15:CO:65:ARG:O	15:CO:68:ARG:HB2	2.17	0.44
23:DA:404:C:H4'	23:DA:405:U:H5'	1.99	0.44
23:DA:644:A:O2'	23:DA:645:C:H5"	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:662:G:OP1	34:DL:18:ARG:HD2	2.17	0.44
23:DA:813:U:O2'	23:DA:1225:G:H1'	2.17	0.44
23:DA:1448:G:N2	23:DA:149(B):A:N6	2.66	0.44
23:DA:1578:U:C2'	23:DA:1579:A:H5"	2.47	0.44
23:DA:2250:G:C4	35:DM:82:ARG:HG3	2.52	0.44
23:DA:2287:A:C4	23:DA:2289:G:C8	3.04	0.44
23:DA:2666:C:H3'	23:DA:2667:C:C6	2.52	0.44
28:DF:16:ARG:HB3	28:DF:17:PRO:HD3	1.98	0.44
29:DG:105:LEU:HD13	29:DG:105:LEU:N	2.31	0.44
29:DG:122:THR:O	29:DG:134:SER:HB2	2.16	0.44
35:DM:22:LYS:HA	35:DM:22:LYS:CE	2.35	0.44
38:DP:88:ILE:HG13	38:DP:89:VAL:N	2.31	0.44
41:DS:70:TYR:O	41:DS:107:LEU:HA	2.17	0.44
42:DT:55:ASN:HB2	42:DT:80:ILE:HG23	1.99	0.44
43:DU:81:LYS:NZ	43:DU:99:CYS:SG	2.90	0.44
44:DV:58:VAL:HG11	44:DV:66:SER:HB2	1.98	0.44
48:DZ:26:LEU:HB2	48:DZ:28:LEU:CD1	2.47	0.44
1:AA:9:G:OP2	5:AE:121:LYS:HG3	2.17	0.44
1:AA:179:A:H2'	1:AA:180:U:H6	1.82	0.44
1:AA:838:G:N2	1:AA:849:C:C2	2.85	0.44
1:AA:909:A:H3'	1:AA:910:C:H6	1.82	0.44
1:AA:1305:G:C8	1:AA:1305:G:OP2	2.71	0.44
1:AA:1511:G:C6	1:AA:1512:U:C4	3.05	0.44
1:AA:1528:U:H5"	1:AA:1528:U:C6	2.50	0.44
5:AE:92:LYS:HB3	5:AE:119:LEU:HB2	1.99	0.44
13:AM:102:ARG:HB3	13:AM:105:THR:OG1	2.17	0.44
23:BA:570:G:H2'	23:BA:2030:A:C5	2.52	0.44
23:BA:816:C:O2'	23:BA:817:C:H5'	2.16	0.44
23:BA:1317:A:C6	23:BA:1318:C:C4	3.05	0.44
23:BA:1600:C:O2'	23:BA:1601:G:H5'	2.17	0.44
23:BA:1603:A:H5'	23:BA:1603:A:H8	1.81	0.44
23:BA:1608:A:HO2'	23:BA:1610:A:P	2.40	0.44
23:BA:1900:A:N1	23:BA:1970:A:C6	2.85	0.44
23:BA:1916:A:H2'	23:BA:1917:U:O4'	2.18	0.44
23:BA:2028:U:O4	23:BA:2033:A:OP1	2.35	0.44
23:BA:2250:G:C4	35:BM:82:ARG:HG3	2.52	0.44
23:BA:2809:A:C6	23:BA:2892:A:C8	3.05	0.44
26:BD:4:ILE:CG2	26:BD:96:PHE:HE1	2.30	0.44
27:BE:53:THR:C	27:BE:55:GLY:H	2.26	0.44
27:BE:139:PHE:HB2	27:BE:166:ALA:CB	2.45	0.44
30:BH:7:GLU:OE1	30:BH:8:PRO:HD2	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BL:30:THR:HG22	34:BL:31:ALA:H	1.80	0.44
37:BO:18:ILE:HA	37:BO:21:THR:OG1	2.17	0.44
40:BR:99:ILE:HD13	40:BR:99:ILE:H	1.81	0.44
44:BV:92:SER:HB2	44:BV:94:GLU:OE2	2.16	0.44
44:BV:150:LEU:HD23	44:BV:151:HIS:N	2.32	0.44
49:B1:64:LYS:HA	49:B1:64:LYS:HE3	2.00	0.44
1:CA:37:U:OP2	12:CL:122:LYS:HE3	2.18	0.44
1:CA:284:G:H2'	1:CA:285:G:C8	2.52	0.44
1:CA:1014:A:H5'	19:CS:14:HIS:NE2	2.32	0.44
1:CA:1187:G:H2'	1:CA:1188:A:H8	1.82	0.44
1:CA:1207:G:H2'	1:CA:1208:C:H6	1.82	0.44
2:CB:187:LEU:HD13	2:CB:187:LEU:C	2.41	0.44
5:CE:77:PRO:HG2	5:CE:78:HIS:ND1	2.32	0.44
7:CG:74:GLU:HG2	7:CG:91:VAL:HG22	2.00	0.44
15:CO:53:HIS:CE1	23:DA:715:G:O6	2.71	0.44
19:CS:58:VAL:HG23	19:CS:58:VAL:O	2.18	0.44
23:DA:572:A:H5"	23:DA:573:G:OP2	2.16	0.44
23:DA:744:G:OP1	26:DD:132:HIS:HB2	2.18	0.44
23:DA:1652:A:H2'	23:DA:1653:G:O4'	2.18	0.44
23:DA:1797:C:O2'	25:DC:259:THR:HG23	2.17	0.44
23:DA:2712:U:O2'	23:DA:712(B):A:P	2.75	0.44
26:DD:118:LYS:NZ	36:DN:2:ARG:HH22	2.15	0.44
27:DE:53:THR:C	27:DE:55:GLY:H	2.24	0.44
29:DG:20:ALA:HB1	29:DG:21:PRO:CD	2.47	0.44
33:DK:7:TYR:CE1	33:DK:20:MET:HE3	2.49	0.44
35:DM:78:PRO:C	35:DM:79:LEU:HD12	2.42	0.44
35:DM:141:GLN:HE21	44:DV:72:ARG:HG2	1.82	0.44
38:DP:98:LYS:HB3	38:DP:100:TYR:HE1	1.82	0.44
44:DV:137:ILE:HD12	44:DV:137:ILE:N	2.33	0.44
46:DX:90:ILE:O	46:DX:94:LEU:N	2.50	0.44
49:D1:40:ILE:O	49:D1:47:VAL:HA	2.17	0.44
49:D1:46:ASN:HB2	49:D1:64:LYS:CB	2.47	0.44
2:AB:124:SER:C	2:AB:126:GLU:H	2.25	0.44
2:AB:142:LEU:HD23	2:AB:142:LEU:C	2.43	0.44
4:AD:30:LYS:HD3	4:AD:35:ARG:NH2	2.32	0.44
5:AE:25:ARG:HD2	5:AE:25:ARG:N	2.33	0.44
8:AH:64:LYS:HD2	8:AH:79:VAL:HG11	1.97	0.44
9:AI:19:LEU:CD2	9:AI:59:PHE:HB3	2.30	0.44
23:BA:17:G:H2'	23:BA:18:C:C6	2.52	0.44
23:BA:404:C:H4'	23:BA:405:U:H5'	1.99	0.44
23:BA:774:A:C2	23:BA:787:U:O2'	2.68	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1487:G:H2'	23:BA:1488:G:H8	1.81	0.44
28:BF:115:ARG:CD	28:BF:115:ARG:H	2.31	0.44
28:BF:174:GLU:HG2	28:BF:180:PHE:HD1	1.80	0.44
32:BJ:116:THR:O	32:BJ:118:PRO:HD3	2.18	0.44
1:CA:199:G:C2'	1:CA:200:G:H5"	2.42	0.44
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.50	0.44
1:CA:579:G:H2'	1:CA:580:U:C6	2.51	0.44
1:CA:801:U:H2'	1:CA:802:A:H8	1.80	0.44
1:CA:1010:G:H2'	1:CA:1011:G:C8	2.53	0.44
1:CA:1371:G:O3'	9:CI:69:GLY:HA3	2.17	0.44
1:CA:1442:G:H3'	1:CA:1442:G:H8	1.81	0.44
4:CD:57:ARG:HB3	4:CD:206:PHE:HB2	1.99	0.44
5:CE:152:ARG:HD3	8:CH:42:GLU:O	2.17	0.44
23:DA:226:G:N2	23:DA:227:A:C2	2.84	0.44
23:DA:753:C:H2'	23:DA:754:C:H6	1.82	0.44
23:DA:783:A:C8	23:DA:783:A:H3'	2.52	0.44
23:DA:792:G:H5"	23:DA:793:A:H5'	1.98	0.44
23:DA:1378:A:H4'	23:DA:1379:A:OP1	2.17	0.44
23:DA:1478:G:C2	23:DA:1479:G:C8	3.05	0.44
25:DC:30:GLU:HG3	25:DC:63:ARG:CZ	2.47	0.44
26:DD:4:ILE:CG2	26:DD:96:PHE:HE1	2.29	0.44
28:DF:25:TYR:CZ	28:DF:32:PRO:HD3	2.51	0.44
30:DH:128:LEU:HG	30:DH:142:VAL:CG2	2.48	0.44
32:DJ:62:ARG:NE	32:DJ:64:ASP:HB2	2.32	0.44
32:DJ:114:LEU:HA	32:DJ:118:PRO:HB3	1.99	0.44
41:DS:1:MET:HG3	41:DS:2:GLU:N	2.32	0.44
53:D5:11:LYS:HB2	53:D5:61:LEU:HD22	2.00	0.44
1:AA:236:G:C6	1:AA:237:C:C4	3.05	0.44
1:AA:308:C:H2'	1:AA:308:C:O2	2.17	0.44
1:AA:409:G:OP1	4:AD:24:GLU:N	2.50	0.44
1:AA:623:C:C4	1:AA:624:C:C5	3.04	0.44
1:AA:945:G:N3	1:AA:945:G:H2'	2.33	0.44
1:AA:1031:G:H8	1:AA:1031:G:O5'	2.00	0.44
3:AC:150:LYS:O	3:AC:200:ALA:HA	2.17	0.44
9:AI:45:ALA:O	9:AI:48:GLU:HB2	2.17	0.44
11:AK:57:THR:HG22	11:AK:59:TYR:N	2.33	0.44
12:AL:44:PRO:HG3	12:AL:52:ARG:CD	2.46	0.44
13:AM:84:ILE:HD13	19:AS:66:MET:HE1	1.99	0.44
15:AO:33:THR:HA	15:AO:63:ARG:HH12	1.82	0.44
17:AQ:7:THR:HG22	17:AQ:58:GLU:HG2	1.99	0.44
18:AR:56:THR:CB	18:AR:58:LEU:HD13	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:29:ARG:O	19:AS:31:ILE:HG22	2.16	0.44
23:BA:142:G:H1'	42:BT:37:THR:CG2	2.47	0.44
23:BA:357:A:H2'	23:BA:358:U:C6	2.52	0.44
23:BA:363(C):G:H2'	23:BA:363(D):G:H8	1.83	0.44
23:BA:2820:A:O4'	36:BN:5:LYS:HG3	2.17	0.44
23:BA:2849:U:H4'	23:BA:2868:A:C2	2.52	0.44
26:BD:117:MET:HB2	26:BD:117:MET:HE3	1.65	0.44
28:BF:172:LEU:O	28:BF:176:LEU:HG	2.17	0.44
30:BH:6:LEU:HD23	30:BH:36:ALA:HA	1.99	0.44
32:BJ:116:THR:OG1	32:BJ:117:HIS:N	2.51	0.44
35:BM:141:GLN:HE21	44:BV:72:ARG:HG2	1.82	0.44
41:BS:22:ASP:HA	41:BS:25:ARG:HH12	1.83	0.44
43:BU:15:VAL:HG22	43:BU:72:VAL:HG12	1.99	0.44
44:BV:6:LYS:HG3	44:BV:8:TYR:CZ	2.53	0.44
44:BV:54:HIS:CG	44:BV:101:PRO:HG3	2.53	0.44
1:CA:833:U:C2	1:CA:834:C:C5	3.05	0.44
2:CB:162:ILE:O	2:CB:185:ILE:HG12	2.17	0.44
3:CC:21:ARG:O	3:CC:58:GLU:HA	2.16	0.44
4:CD:128:VAL:HA	4:CD:145:GLU:O	2.16	0.44
6:CF:63:TYR:O	6:CF:65:VAL:HG13	2.18	0.44
10:CJ:55:LYS:O	10:CJ:56:HIS:CG	2.70	0.44
16:CP:4:ILE:HD12	16:CP:4:ILE:N	2.31	0.44
18:CR:51:LEU:HA	18:CR:52:PRO:HD3	1.87	0.44
23:DA:616:A:C4'	23:DA:617:G:OP1	2.66	0.44
23:DA:828:U:O2	23:DA:828:U:H3'	2.18	0.44
23:DA:1536:A:H5"	23:DA:1537:C:OP2	2.17	0.44
23:DA:1916:A:H2'	23:DA:1917:U:O4'	2.18	0.44
23:DA:2027:G:C2	23:DA:2028:U:H1'	2.53	0.44
23:DA:2330:G:O2'	45:DW:41:ARG:HB2	2.18	0.44
23:DA:2501:C:H6	23:DA:2501:C:H2'	1.56	0.44
23:DA:2598:A:H5"	25:DC:235:GLY:HA2	1.98	0.44
25:DC:11:PRO:C	25:DC:13:ARG:N	2.70	0.44
25:DC:175:LEU:HD12	25:DC:185:VAL:HG21	1.98	0.44
26:DD:91:VAL:HB	26:DD:95:ILE:CD1	2.39	0.44
28:DF:58:GLN:O	28:DF:62:LEU:HD13	2.17	0.44
28:DF:106:LEU:HB3	28:DF:107:LEU:HD23	1.99	0.44
29:DG:12:PRO:O	29:DG:15:VAL:HG22	2.18	0.44
30:DH:7:GLU:OE1	30:DH:8:PRO:HD2	2.17	0.44
30:DH:114:LEU:HA	30:DH:130:TYR:HD1	1.83	0.44
36:DN:9:LYS:HD3	36:DN:43:GLU:OE1	2.18	0.44
36:DN:54:LEU:HD22	36:DN:66:VAL:HG23	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DP:30:VAL:HG12	38:DP:86:ILE:HG12	1.99	0.44
38:DP:62:THR:HG22	38:DP:75:ILE:HG13	1.98	0.44
42:DT:24:GLY:O	42:DT:83:VAL:HG22	2.17	0.44
43:DU:75:ILE:HG12	43:DU:76:CYS:N	2.32	0.44
44:DV:10:ARG:HG2	44:DV:11:GLU:N	2.32	0.44
45:DW:51:VAL:HG21	45:DW:80:HIS:HA	2.00	0.44
1:AA:964:A:H5'	1:AA:1199:U:OP1	2.17	0.44
1:AA:1242:C:O2'	1:AA:1303:C:H5"	2.17	0.44
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.18	0.44
3:AC:186:PHE:CG	3:AC:187:ALA:N	2.86	0.44
12:AL:84:ILE:N	12:AL:84:ILE:HD12	2.33	0.44
18:AR:45:SER:HB3	18:AR:51:LEU:CG	2.48	0.44
19:AS:33:THR:HG22	19:AS:51:VAL:HA	1.99	0.44
23:BA:71:A:C2	42:BT:31:HIS:CE1	3.04	0.44
23:BA:466:A:N3	23:BA:683:C:H1'	2.32	0.44
23:BA:572:A:H5"	23:BA:573:G:OP2	2.17	0.44
23:BA:1030:G:OP2	35:BM:128:LYS:HE3	2.17	0.44
23:BA:1654:A:OP2	36:BN:3:HIS:NE2	2.51	0.44
23:BA:1733:G:O5'	23:BA:1733:G:H8	2.01	0.44
25:BC:108:PRO:HB3	25:BC:143:HIS:CE1	2.52	0.44
25:BC:226:MET:HB3	25:BC:230:ASP:HB2	2.00	0.44
25:BC:270:ILE:C	25:BC:271:ILE:HG13	2.41	0.44
26:BD:93:VAL:HG21	26:BD:177:PRO:HA	1.99	0.44
26:BD:176:ILE:O	26:BD:176:ILE:HG22	2.17	0.44
26:BD:176:ILE:HD12	26:BD:176:ILE:N	2.33	0.44
29:BG:123:PHE:HA	29:BG:133:VAL:HA	1.99	0.44
30:BH:83:ALA:CA	30:BH:89:TYR:HD1	2.29	0.44
32:BJ:161:LEU:N	32:BJ:161:LEU:HD23	2.32	0.44
34:BL:65:ARG:HD2	34:BL:65:ARG:N	2.33	0.44
36:BN:54:LEU:HD22	36:BN:66:VAL:HG23	2.00	0.44
38:BP:107:ASP:OD2	38:BP:109:GLU:HB2	2.17	0.44
51:B3:41:PRO:HG3	51:B3:49:HIS:HE1	1.82	0.44
1:CA:236:G:C6	1:CA:237:C:C4	3.05	0.44
1:CA:624:C:H4'	16:CP:11:SER:N	2.33	0.44
1:CA:833:U:H2'	1:CA:834:C:H6	1.83	0.44
1:CA:1324:A:O4'	1:CA:136(A):C:H4'	2.18	0.44
3:CC:20:SER:HB2	3:CC:40:ARG:NH1	2.31	0.44
6:CF:62:TRP:CB	18:CR:35:ARG:HH12	2.30	0.44
7:CG:15:ASP:CB	7:CG:20:ASP:H	2.30	0.44
22:CV:6167:G:H2'	22:CV:6168:G:O4'	2.18	0.44
23:DA:225:A:O2'	23:DA:257:A:H4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:613:U:H4'	23:DA:616:A:N6	2.33	0.44
23:DA:1174:A:H3'	23:DA:1175:U:C5'	2.46	0.44
23:DA:1668:A:H4'	23:DA:1669:A:O5'	2.18	0.44
23:DA:2364:C:H1'	45:DW:36:ILE:HD11	2.00	0.44
23:DA:2484:G:C2	23:DA:2485:G:C8	3.06	0.44
23:DA:2767:C:H2'	23:DA:2768:C:H6	1.83	0.44
27:DE:50:SER:HA	27:DE:92:PRO:O	2.17	0.44
27:DE:124:LEU:HB3	27:DE:193:VAL:HG22	1.98	0.44
28:DF:172:LEU:O	28:DF:176:LEU:HG	2.18	0.44
29:DG:38:SER:HB2	29:DG:41:MET:HG3	1.99	0.44
34:DL:38:GLN:CG	34:DL:39:LYS:H	2.28	0.44
35:DM:141:GLN:N	44:DV:53:ILE:HB	2.33	0.44
36:DN:10:LEU:HD23	36:DN:21:TYR:OH	2.18	0.44
37:DO:98:VAL:O	37:DO:101:LEU:HB2	2.18	0.44
38:DP:110:ILE:HD12	38:DP:110:ILE:HA	1.85	0.44
39:DQ:60:LEU:HD23	39:DQ:60:LEU:O	2.16	0.44
43:DU:63:LYS:HE3	43:DU:63:LYS:HB2	1.81	0.44
43:DU:90:LEU:N	43:DU:90:LEU:HD23	2.33	0.44
1:AA:164:U:H2'	1:AA:165:C:C5	2.53	0.44
1:AA:1010:G:H2'	1:AA:1011:G:C8	2.53	0.44
1:AA:1071:C:H5"	5:AE:49:PRO:HG2	2.00	0.44
1:AA:1298:C:N4	7:AG:114:ARG:HD3	2.33	0.44
1:AA:1499:A:H1'	1:AA:1520:G:H5'	2.00	0.44
1:AA:1528:U:O2'	1:AA:1530:G:H5'	2.18	0.44
2:AB:163:PHE:HA	2:AB:185:ILE:O	2.18	0.44
2:AB:178:ARG:HB2	2:AB:178:ARG:HH11	1.82	0.44
3:AC:131:ARG:HH21	5:AE:50:GLU:HG2	1.83	0.44
4:AD:3:ARG:NH2	4:AD:118:ARG:HD3	2.30	0.44
8:AH:1:MET:HG2	8:AH:2:LEU:O	2.17	0.44
8:AH:89:PRO:HA	8:AH:92:ARG:NH1	2.33	0.44
13:AM:81:LEU:HD11	13:AM:88:ARG:HH21	1.82	0.44
20:AT:48:LYS:HD3	20:AT:51:GLU:OE2	2.17	0.44
20:AT:50:GLU:HG3	20:AT:51:GLU:N	2.33	0.44
23:BA:813:U:H2'	23:BA:814:C:C6	2.52	0.44
23:BA:1028:A:H61	23:BA:1125:G:H2'	1.83	0.44
23:BA:1483:G:H2'	23:BA:1484:G:C8	2.53	0.44
23:BA:2346:A:C2	23:BA:2383:G:C2	3.06	0.44
23:BA:2450:A:O2'	23:BA:2451:A:H5'	2.18	0.44
25:BC:10:THR:HG23	25:BC:13:ARG:HB2	1.97	0.44
25:BC:35:LYS:HB3	25:BC:36:PRO:HD3	2.00	0.44
25:BC:235:GLY:O	25:BC:237:GLU:N	2.45	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:47:VAL:HG23	26:BD:84:PHE:O	2.18	0.44
26:BD:190:GLY:HA2	26:BD:191:PRO:HD3	1.74	0.44
32:BJ:149:PRO:O	32:BJ:150:ASP:HB2	2.17	0.44
35:BM:141:GLN:N	44:BV:53:ILE:HB	2.33	0.44
36:BN:109:ALA:HA	36:BN:110:PRO:HD3	1.84	0.44
43:BU:75:ILE:HG12	43:BU:76:CYS:N	2.32	0.44
43:BU:81:LYS:NZ	43:BU:99:CYS:SG	2.91	0.44
44:BV:5:LEU:HD21	44:BV:39:VAL:HB	1.99	0.44
44:BV:54:HIS:HB3	44:BV:101:PRO:HD3	1.99	0.44
44:BV:110:GLY:HA2	44:BV:146:ILE:HG23	1.99	0.44
44:BV:121:HIS:C	44:BV:123:ASP:H	2.26	0.44
1:CA:754:C:O2	1:CA:754:C:C3'	2.66	0.44
1:CA:934:C:H5	1:CA:1344:C:H2'	1.82	0.44
1:CA:1272:G:H2'	1:CA:1273:G:C8	2.52	0.44
6:CF:1:MET:HE2	6:CF:1:MET:H1	1.82	0.44
23:DA:186:G:H2'	23:DA:187:G:H8	1.82	0.44
23:DA:212:G:O2'	23:DA:213:A:H5'	2.18	0.44
23:DA:794:G:C5	23:DA:795:C:C4	3.06	0.44
23:DA:956:G:OP1	35:DM:86:GLY:N	2.48	0.44
23:DA:2285:C:H41	51:D3:25:LYS:NZ	2.16	0.44
23:DA:2543:G:H2'	23:DA:2544:G:O4'	2.17	0.44
23:DA:2580:U:H4'	26:DD:130:GLY:HA2	1.99	0.44
23:DA:2666:C:H3'	23:DA:2667:C:H6	1.82	0.44
23:DA:2850:A:H5'	23:DA:2850:A:H8	1.80	0.44
25:DC:199:ALA:C	25:DC:201:HIS:H	2.25	0.44
26:DD:21:VAL:HG12	26:DD:23:VAL:HG13	1.98	0.44
28:DF:126:ASP:OD2	28:DF:130:ASN:HB2	2.18	0.44
30:DH:25:TYR:O	30:DH:29:TYR:HB3	2.18	0.44
32:DJ:156:GLN:O	32:DJ:157:ARG:HB2	2.16	0.44
32:DJ:161:LEU:N	32:DJ:161:LEU:HD23	2.32	0.44
39:DQ:96:ALA:C	39:DQ:98:LEU:H	2.25	0.44
40:DR:27:ALA:HB3	40:DR:61:VAL:HG11	1.99	0.44
47:DY:16:LEU:HD22	47:DY:16:LEU:N	2.33	0.44
47:DY:46:GLN:O	47:DY:47:ASN:CB	2.60	0.44
48:DZ:46:ASN:HD22	48:DZ:46:ASN:HA	1.66	0.44
1:AA:505:G:C6	1:AA:535:A:C2	3.06	0.44
1:AA:554:C:H2'	1:AA:555:C:C6	2.53	0.44
1:AA:691:G:H3'	11:AK:26:ASN:HD21	1.82	0.44
1:AA:922:G:C6	1:AA:923:A:C6	3.05	0.44
1:AA:1187:G:H2'	1:AA:1188:A:H8	1.83	0.44
1:AA:1235:U:H5"	21:AU:3:LYS:HB2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1528:U:H6	1:AA:1528:U:C5'	2.31	0.44
2:AB:115:LEU:HD12	2:AB:118:LEU:HD12	1.99	0.44
3:AC:44:GLU:OE1	3:AC:52:LEU:HD21	2.18	0.44
4:AD:172:PRO:HD2	4:AD:173:TRP:CE3	2.53	0.44
4:AD:188:LEU:HA	4:AD:189:PRO:HD3	1.77	0.44
7:AG:86:GLN:HB2	7:AG:148:ASN:ND2	2.33	0.44
23:BA:637:A:OP2	34:BL:115:LEU:HB2	2.17	0.44
23:BA:649:G:C5	23:BA:650:C:C4	3.05	0.44
23:BA:1308:A:N6	23:BA:1309:G:C2	2.86	0.44
25:BC:120:GLY:O	25:BC:131:LEU:HB3	2.17	0.44
28:BF:16:ARG:HB3	28:BF:17:PRO:CD	2.48	0.44
32:BJ:78:VAL:O	32:BJ:79:ASN:HB2	2.18	0.44
34:BL:12:ALA:HB1	34:BL:16:ARG:HB2	1.99	0.44
36:BN:11:ASN:O	36:BN:12:ARG:HB2	2.18	0.44
39:BQ:92:ARG:CD	39:BQ:95:LEU:H	2.31	0.44
39:BQ:112:ARG:NH2	40:BR:46:VAL:HG21	2.33	0.44
42:BT:21:PHE:CD2	42:BT:26:TYR:HD2	2.35	0.44
43:BU:4:LYS:H	43:BU:4:LYS:HD3	1.83	0.44
46:BX:11:ARG:NH1	46:BX:61:ARG:H	2.16	0.44
46:BX:90:ILE:O	46:BX:94:LEU:N	2.50	0.44
1:CA:336:C:H2'	1:CA:337:C:C6	2.53	0.44
1:CA:358:U:H2'	1:CA:359:U:C6	2.52	0.44
1:CA:551:U:O2'	12:CL:85:ARG:HD2	2.18	0.44
1:CA:645:C:H2'	1:CA:646:U:O4'	2.18	0.44
1:CA:735:C:C2	1:CA:736:C:C5	3.05	0.44
1:CA:942:G:H2'	1:CA:943:U:C6	2.52	0.44
1:CA:1235:U:H5"	21:CU:3:LYS:CD	2.47	0.44
1:CA:1417:G:N2	1:CA:1482:G:H2'	2.33	0.44
1:CA:1499:A:H1'	1:CA:1520:G:H5'	1.99	0.44
2:CB:131:PRO:O	2:CB:135:GLN:HG3	2.17	0.44
3:CC:33:LEU:HD21	14:CN:53:LEU:CD2	2.46	0.44
9:CI:45:ALA:O	9:CI:48:GLU:HB2	2.17	0.44
12:CL:84:ILE:HG23	12:CL:97:TYR:HB3	2.00	0.44
23:DA:238:C:O2'	23:DA:608:A:H1'	2.17	0.44
23:DA:464:U:H4'	52:D4:5:TRP:CZ3	2.53	0.44
23:DA:534:U:O2'	39:DQ:49:HIS:CD2	2.69	0.44
23:DA:994:C:OP1	39:DQ:53:ARG:NH2	2.51	0.44
23:DA:1655:A:O2'	26:DD:115:GLY:HA2	2.18	0.44
23:DA:1833:U:C2	23:DA:1834:U:C5	3.06	0.44
23:DA:2376:A:H61	37:DO:89:ARG:HG3	1.83	0.44
23:DA:2647:U:H2'	23:DA:2648:C:H6	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DC:69:ARG:HH12	25:DC:117:VAL:HG21	1.82	0.44
25:DC:120:GLY:O	25:DC:131:LEU:HB3	2.17	0.44
26:DD:47:VAL:HG23	26:DD:84:PHE:O	2.17	0.44
26:DD:77:ILE:HG22	26:DD:78:LEU:N	2.33	0.44
34:DL:17:LYS:C	34:DL:19:VAL:H	2.25	0.44
38:DP:107:ASP:OD2	38:DP:109:GLU:HB2	2.18	0.44
40:DR:72:VAL:HG22	40:DR:85:LYS:O	2.18	0.44
44:DV:5:LEU:HD21	44:DV:39:VAL:HB	2.00	0.44
44:DV:92:SER:HB2	44:DV:94:GLU:OE2	2.17	0.44
46:DX:27:GLU:HG2	46:DX:28:GLY:N	2.31	0.44
46:DX:43:TYR:HA	46:DX:44:PRO:HD3	1.77	0.44
47:DY:24:LEU:O	47:DY:24:LEU:HD23	2.18	0.44
48:DZ:16:PRO:HB2	48:DZ:18:ASP:OD1	2.18	0.44
1:AA:675:A:H2'	1:AA:676:A:C8	2.52	0.44
2:AB:98:LEU:O	2:AB:101:MET:HG3	2.17	0.44
2:AB:168:THR:HG1	2:AB:192:SER:HA	1.83	0.44
6:AF:63:TYR:O	6:AF:65:VAL:HG13	2.17	0.44
8:AH:13:ILE:O	8:AH:17:THR:HG23	2.17	0.44
10:AJ:74:ILE:O	10:AJ:74:ILE:HG12	2.17	0.44
11:AK:102:GLY:C	11:AK:103:LEU:HD22	2.43	0.44
14:AN:52:GLN:O	14:AN:54:PRO:HD3	2.18	0.44
22:AV:6167:G:H2'	22:AV:6168:G:O4'	2.17	0.44
23:BA:598:G:H5'	34:BL:15:ARG:CB	2.48	0.44
23:BA:1526:G:H2'	23:BA:1527:G:C8	2.53	0.44
23:BA:1615:C:C5	23:BA:1617:C:C4	3.06	0.44
23:BA:1652:A:H2'	23:BA:1653:G:O4'	2.18	0.44
23:BA:2591:C:H2'	23:BA:2592:G:C8	2.53	0.44
25:BC:222:ARG:HH12	25:BC:239:ARG:CZ	2.31	0.44
34:BL:35:HIS:O	34:BL:36:LYS:HB2	2.17	0.44
34:BL:57:THR:C	34:BL:59:LEU:N	2.74	0.44
38:BP:27:THR:HG22	38:BP:90:GLN:HB3	1.98	0.44
41:BS:10:VAL:O	41:BS:12:ILE:N	2.50	0.44
1:CA:622:A:C8	1:CA:623:C:C5	3.05	0.44
1:CA:1399:C:H4'	1:CA:1400:C:C5'	2.19	0.44
1:CA:1511:G:C6	1:CA:1512:U:C4	3.06	0.44
2:CB:163:PHE:HA	2:CB:185:ILE:O	2.18	0.44
5:CE:11:ILE:HG13	5:CE:31:LEU:HD22	2.00	0.44
6:CF:98:LEU:O	6:CF:98:LEU:HD12	2.18	0.44
7:CG:86:GLN:HB2	7:CG:148:ASN:ND2	2.33	0.44
7:CG:107:ALA:HB2	7:CG:134:ALA:HB2	2.00	0.44
11:CK:38:ASN:HA	11:CK:39:PRO:HD3	1.88	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:115:LYS:HE3	13:CM:115:LYS:HB2	1.87	0.44
14:CN:52:GLN:O	14:CN:54:PRO:HD3	2.18	0.44
18:CR:84:LYS:HA	18:CR:84:LYS:HZ3	1.83	0.44
23:DA:301:G:C6	23:DA:317:G:C6	3.06	0.44
23:DA:528:A:H2	23:DA:2043:C:C4'	2.28	0.44
23:DA:557:U:H2'	23:DA:558:G:C8	2.52	0.44
23:DA:851:U:O2'	48:DZ:42:ALA:O	2.34	0.44
23:DA:2722:G:H2'	23:DA:2723:C:C6	2.53	0.44
23:DA:2768:C:C4	23:DA:2769:C:C5	3.06	0.44
25:DC:33:LEU:O	25:DC:36:PRO:HD2	2.18	0.44
25:DC:35:LYS:O	25:DC:64:ILE:HD12	2.18	0.44
25:DC:83:GLU:OE1	25:DC:104:TYR:OH	2.31	0.44
26:DD:176:ILE:HD12	26:DD:176:ILE:N	2.33	0.44
28:DF:5:LEU:O	28:DF:8:LYS:HB3	2.18	0.44
32:DJ:62:ARG:CZ	32:DJ:64:ASP:HB2	2.47	0.44
39:DQ:79:PHE:HE2	39:DQ:106:PHE:CZ	2.36	0.44
40:DR:7:THR:HG23	40:DR:22:VAL:HG11	1.99	0.44
42:DT:35:THR:HB	42:DT:38:GLU:H	1.82	0.44
44:DV:110:GLY:HA2	44:DV:146:ILE:HG23	1.99	0.44
44:DV:118:GLN:HG3	44:DV:175:VAL:HG13	1.99	0.44
44:DV:163:LEU:H	44:DV:163:LEU:CD2	2.29	0.44
47:DY:19:VAL:HG12	47:DY:23:LYS:HE3	2.00	0.44
52:D4:24:THR:HG23	52:D4:27:GLY:HA3	1.99	0.44
1:AA:270:A:C6	1:AA:271:C:C4	3.05	0.44
1:AA:801:U:H2'	1:AA:802:A:H8	1.81	0.44
1:AA:814:A:N7	1:AA:816:A:C4	2.85	0.44
1:AA:920:U:O4'	1:AA:1080:A:C2	2.71	0.44
3:AC:121:ALA:HB2	3:AC:198:VAL:HG21	1.99	0.44
9:AI:10:ARG:HD3	9:AI:11:LYS:N	2.33	0.44
9:AI:77:ILE:O	9:AI:81:ILE:HG13	2.18	0.44
12:AL:24:PRO:HD2	12:AL:97:TYR:OH	2.17	0.44
13:AM:14:ARG:HG2	13:AM:44:ARG:NH1	2.31	0.44
23:BA:322:A:P	27:BE:169:ASN:HB2	2.58	0.44
23:BA:405:U:H3'	23:BA:406:G:C5'	2.48	0.44
23:BA:1328:G:H2'	23:BA:1330:C:C5	2.52	0.44
23:BA:1536:A:H5"	23:BA:1537:C:OP2	2.17	0.44
23:BA:2285:C:H41	51:B3:25:LYS:NZ	2.15	0.44
23:BA:2376:A:H61	37:BO:89:ARG:HG3	1.82	0.44
24:BB:102:G:H1'	44:BV:73:GLN:HE22	1.82	0.44
25:BC:33:LEU:O	25:BC:36:PRO:HD2	2.18	0.44
25:BC:72:LYS:HE3	25:BC:101:GLU:HB3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BC:228:PRO:HD3	25:BC:234:GLY:O	2.18	0.44
26:BD:77:ILE:HG22	26:BD:78:LEU:N	2.33	0.44
27:BE:11:VAL:HG13	27:BE:196:LEU:HD21	2.00	0.44
27:BE:82:ILE:O	27:BE:82:ILE:HG13	2.17	0.44
36:BN:9:LYS:HD3	36:BN:43:GLU:OE1	2.18	0.44
41:BS:14:PRO:O	41:BS:18:ARG:HG3	2.18	0.44
44:BV:141:VAL:HA	44:BV:144:LEU:HD23	2.00	0.44
44:BV:150:LEU:HD23	44:BV:150:LEU:C	2.43	0.44
47:BY:16:LEU:N	47:BY:16:LEU:HD22	2.33	0.44
52:B4:3:ARG:HD3	52:B4:3:ARG:HA	1.75	0.44
52:B4:13:ALA:O	52:B4:17:GLY:HA3	2.17	0.44
1:CA:965:A:C2	1:CA:969:A:C2	3.06	0.44
1:CA:1378:C:H5	1:CA:1379:G:C8	2.36	0.44
3:CC:36:ASP:HA	3:CC:39:ILE:HD12	2.00	0.44
3:CC:44:GLU:OE1	3:CC:52:LEU:HD21	2.18	0.44
4:CD:30:LYS:C	4:CD:32:ALA:N	2.72	0.44
4:CD:118:ARG:O	4:CD:122:ARG:HB2	2.18	0.44
6:CF:61:LEU:HB3	6:CF:63:TYR:CE2	2.51	0.44
9:CI:18:PHE:HB2	9:CI:62:TYR:HD2	1.83	0.44
9:CI:19:LEU:CD2	9:CI:59:PHE:HB3	2.29	0.44
10:CJ:74:ILE:O	10:CJ:74:ILE:HG12	2.18	0.44
12:CL:54:VAL:HG12	12:CL:55:ALA:N	2.32	0.44
13:CM:81:LEU:HD11	13:CM:88:ARG:HH21	1.82	0.44
17:CQ:38:ARG:HD2	17:CQ:38:ARG:N	2.33	0.44
23:DA:637:A:C5’	34:DL:116:GLY:HA2	2.48	0.44
23:DA:826:U:H2’	23:DA:828:U:O4’	2.18	0.44
23:DA:855:G:H2’	23:DA:856:C:H6	1.83	0.44
23:DA:1717:G:C6	23:DA:1743:G:C6	3.06	0.44
23:DA:1798:U:H5”	25:DC:259:THR:O	2.17	0.44
23:DA:2562:U:H1’	33:DK:23:ARG:HH12	1.81	0.44
23:DA:2574:G:O5’	23:DA:2574:G:H8	2.01	0.44
23:DA:2809:A:C6	23:DA:2892:A:C8	3.05	0.44
23:DA:2850:A:H5”	23:DA:2868:A:C2	2.52	0.44
24:DB:65:C:O2’	24:DB:66:A:H5’	2.18	0.44
24:DB:79:C:O5’	24:DB:79:C:H6	2.01	0.44
25:DC:132:PRO:HA	25:DC:190:TYR:HA	2.00	0.44
25:DC:133:LEU:O	25:DC:134:ARG:C	2.61	0.44
25:DC:271:ILE:O	25:DC:272:ALA:CB	2.65	0.44
29:DG:38:SER:HB2	29:DG:41:MET:CG	2.48	0.44
32:DJ:116:THR:HG23	32:DJ:117:HIS:N	2.33	0.44
34:DL:85:LEU:HD21	34:DL:116:GLY:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DO:26:LEU:HG	37:DO:39:ILE:HD11	2.00	0.44
37:DO:36:TYR:HD1	37:DO:36:TYR:H	1.64	0.44
38:DP:74:ARG:HD3	38:DP:76:PHE:CE2	2.53	0.44
44:DV:121:HIS:C	44:DV:123:ASP:H	2.26	0.44
1:AA:179:A:H2'	1:AA:180:U:C6	2.53	0.43
1:AA:818:G:H1'	1:AA:820:U:H5	1.83	0.43
1:AA:1295:G:O2'	13:AM:14:ARG:NH1	2.51	0.43
1:AA:1340:A:O2'	22:AV:6161:U:H5'	2.17	0.43
1:AA:1411:C:O2'	1:AA:1412:C:H5'	2.18	0.43
1:AA:1448:C:H2'	1:AA:1449:C:C6	2.53	0.43
2:AB:113:HIS:O	2:AB:116:GLU:HG2	2.18	0.43
3:AC:8:ILE:HD12	3:AC:16:ARG:HH21	1.83	0.43
5:AE:11:ILE:HG13	5:AE:31:LEU:HD22	2.00	0.43
5:AE:41:VAL:HG11	5:AE:113:ALA:HA	2.00	0.43
7:AG:65:ALA:O	7:AG:69:VAL:HG23	2.18	0.43
20:AT:36:LEU:HA	20:AT:36:LEU:HD13	1.86	0.43
21:AU:11:GLY:O	21:AU:15:ARG:HG3	2.18	0.43
23:BA:616:A:C4'	23:BA:617:G:OP1	2.66	0.43
23:BA:863:A:OP1	35:BM:21:THR:HB	2.18	0.43
23:BA:1285:G:C5	23:BA:1329:U:C4	3.06	0.43
23:BA:1694:C:C5'	23:BA:1694:C:C6	2.96	0.43
23:BA:2094:G:OP1	30:BH:22:LYS:HD2	2.17	0.43
23:BA:2096:U:H2'	23:BA:2097:C:C6	2.53	0.43
23:BA:2709:G:O2'	23:BA:2710:C:H5'	2.18	0.43
34:BL:16:ARG:NH2	34:BL:18:ARG:H	2.15	0.43
34:BL:27:HIS:CE1	40:BR:83:ARG:HH12	2.35	0.43
34:BL:101:VAL:HG23	34:BL:108:LYS:H	1.83	0.43
36:BN:10:LEU:CB	36:BN:17:ARG:NE	2.74	0.43
43:BU:63:LYS:HB2	43:BU:63:LYS:HE3	1.80	0.43
45:BW:12:ASN:O	45:BW:13:GLY:C	2.61	0.43
49:B1:46:ASN:HB2	49:B1:64:LYS:CB	2.47	0.43
1:CA:805:C:H2'	1:CA:806:C:C6	2.51	0.43
1:CA:1117:G:N2	1:CA:1180:A:H1'	2.33	0.43
1:CA:1206:G:H2'	1:CA:1207:G:O4'	2.18	0.43
2:CB:124:SER:C	2:CB:126:GLU:H	2.25	0.43
2:CB:178:ARG:HB2	2:CB:178:ARG:HH11	1.83	0.43
6:CF:46:ARG:HH12	18:CR:37:VAL:HG21	1.83	0.43
23:DA:150:C:H2'	23:DA:151:C:H6	1.82	0.43
23:DA:265:A:C8	23:DA:266:G:H1'	2.53	0.43
23:DA:514:A:H1'	23:DA:581:C:O2'	2.18	0.43
23:DA:843:G:H5"	23:DA:843:G:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1191:G:OP1	34:DL:35:HIS:CD2	2.71	0.43
23:DA:2777:G:H4'	23:DA:2778:A:H5'	2.00	0.43
23:DA:2839:G:C5	23:DA:2840:C:C4	3.06	0.43
27:DE:50:SER:HB2	27:DE:94:PRO:HD3	1.99	0.43
27:DE:192:LEU:C	27:DE:192:LEU:CD2	2.91	0.43
29:DG:42:ARG:O	29:DG:52:VAL:HA	2.18	0.43
30:DH:9:LEU:HB2	30:DH:12:LEU:HB2	2.00	0.43
30:DH:15:VAL:HG12	30:DH:16:GLY:N	2.32	0.43
33:DK:5:GLN:HG3	33:DK:20:MET:HE2	2.00	0.43
52:D4:13:ALA:O	52:D4:17:GLY:HA3	2.18	0.43
1:AA:934:C:C5	1:AA:1344:C:H2'	2.53	0.43
1:AA:1272:G:H2'	1:AA:1273:G:C8	2.53	0.43
1:AA:1403:C:H6	1:AA:1403:C:O5'	2.02	0.43
2:AB:71:VAL:HG12	2:AB:93:VAL:HB	2.00	0.43
3:AC:23:TYR:HB2	10:AJ:93:GLY:O	2.19	0.43
4:AD:166:LYS:HD2	4:AD:166:LYS:C	2.44	0.43
9:AI:24:GLY:O	9:AI:26:VAL:HG23	2.19	0.43
9:AI:48:GLU:N	9:AI:49:PRO:CD	2.80	0.43
19:AS:58:VAL:HG23	19:AS:58:VAL:O	2.18	0.43
19:AS:63:THR:CG2	19:AS:66:MET:HE3	2.46	0.43
23:BA:500:G:N2	23:BA:502:A:H2'	2.33	0.43
23:BA:699:A:H4'	23:BA:1634:A:N7	2.33	0.43
23:BA:941:A:H4'	34:BL:35:HIS:CD2	2.54	0.43
23:BA:114(B):A:O2'	23:BA:1143:A:H3'	2.17	0.43
23:BA:1211:U:H4'	23:BA:1212:G:OP2	2.18	0.43
23:BA:2257:U:O2'	23:BA:2258:C:H5'	2.18	0.43
25:BC:175:LEU:HD12	25:BC:185:VAL:HG21	2.00	0.43
26:BD:203:LYS:HD2	26:BD:203:LYS:O	2.18	0.43
29:BG:107:VAL:HG23	29:BG:109:PHE:CE1	2.52	0.43
30:BH:115:ALA:HB3	30:BH:129:THR:O	2.18	0.43
36:BN:33:ARG:HG3	36:BN:115:GLU:HG3	1.98	0.43
36:BN:44:LEU:HD13	36:BN:44:LEU:C	2.44	0.43
37:BO:26:LEU:HG	37:BO:39:ILE:HD11	2.00	0.43
37:BO:36:TYR:HD1	37:BO:36:TYR:H	1.64	0.43
40:BR:6:LYS:O	40:BR:6:LYS:HG3	2.19	0.43
40:BR:40:LEU:H	40:BR:47:VAL:CG2	2.31	0.43
40:BR:89:GLN:HA	40:BR:90:PRO:HD3	1.81	0.43
43:BU:6:HIS:O	43:BU:7:VAL:O	2.35	0.43
44:BV:152:ALA:N	44:BV:169:GLU:O	2.49	0.43
47:BY:19:VAL:HG12	47:BY:23:LYS:HE3	2.00	0.43
1:CA:164:U:H2'	1:CA:165:C:C5	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:235:C:H2'	1:CA:236:G:H8	1.80	0.43
1:CA:555:C:H2'	1:CA:556:C:H6	1.82	0.43
1:CA:920:U:H2'	1:CA:921:U:H6	1.80	0.43
1:CA:1124:G:H5'	10:CJ:35:SER:HB2	1.99	0.43
1:CA:1361:G:C6	1:CA:136(A):C:C4	3.06	0.43
2:CB:154:LEU:C	2:CB:154:LEU:HD22	2.43	0.43
3:CC:121:ALA:HB2	3:CC:198:VAL:HG21	1.99	0.43
8:CH:24:THR:HG22	8:CH:25:ASP:N	2.34	0.43
23:DA:251:A:H5"	34:DL:51:PHE:CE1	2.52	0.43
23:DA:1317:A:C6	23:DA:1318:C:C4	3.05	0.43
23:DA:1335:U:H2'	23:DA:1336:A:C8	2.53	0.43
23:DA:1483:G:H2'	23:DA:1484:G:C8	2.53	0.43
23:DA:1678:G:O5'	23:DA:1678:G:C8	2.62	0.43
25:DC:8:PRO:C	25:DC:10:THR:H	2.27	0.43
26:DD:192:ASN:N	26:DD:192:ASN:HD22	2.16	0.43
29:DG:86:GLU:HG2	29:DG:164:TYR:O	2.18	0.43
29:DG:149:ARG:HD2	29:DG:164:TYR:HE1	1.82	0.43
32:DJ:57:LEU:CD1	32:DJ:142:ARG:HB2	2.48	0.43
35:DM:85:LYS:HG3	35:DM:86:GLY:N	2.32	0.43
35:DM:101:ARG:HG3	35:DM:102:VAL:N	2.33	0.43
36:DN:8:ARG:CZ	36:DN:43:GLU:HG3	2.48	0.43
38:DP:26:ASP:O	38:DP:26:ASP:OD1	2.36	0.43
42:DT:62:LYS:O	42:DT:73:ARG:HB2	2.17	0.43
43:DU:76:CYS:HB3	43:DU:77:PRO:CD	2.48	0.43
44:DV:141:VAL:HA	44:DV:144:LEU:HD23	2.00	0.43
45:DW:56:ASP:O	45:DW:57:PHE:HB2	2.19	0.43
46:DX:75:GLU:OE1	46:DX:75:GLU:HA	2.18	0.43
48:DZ:40:THR:OG1	48:DZ:43:ILE:HG12	2.19	0.43
51:D3:11:LEU:HD13	51:D3:12:GLU:H	1.83	0.43
53:D5:25:MET:SD	53:D5:47:LYS:HG2	2.58	0.43
1:AA:424:G:H8	1:AA:424:G:O5'	2.00	0.43
1:AA:622:A:C8	1:AA:623:C:C5	3.06	0.43
1:AA:781:A:H4'	1:AA:1522:U:O2'	2.18	0.43
1:AA:902:G:H2'	1:AA:903:G:H8	1.83	0.43
1:AA:909:A:OP1	12:AL:20:LYS:HD2	2.18	0.43
1:AA:927:G:N1	1:AA:1391:U:C2	2.86	0.43
1:AA:965:A:C2	1:AA:969:A:C2	3.06	0.43
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.18	0.43
1:AA:1464:G:O2'	1:AA:1465:C:H5'	2.18	0.43
2:AB:86:GLU:C	2:AB:88:ALA:H	2.26	0.43
3:AC:57:ILE:HD11	3:AC:66:VAL:HG13	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:148:GLY:HA3	3:AC:203:PHE:HB3	2.01	0.43
4:AD:173:TRP:NE1	4:AD:189:PRO:HG3	2.33	0.43
5:AE:43:LEU:HD12	5:AE:109:ILE:HD11	1.99	0.43
6:AF:61:LEU:HB3	6:AF:63:TYR:CE2	2.51	0.43
6:AF:98:LEU:HD12	6:AF:98:LEU:O	2.18	0.43
7:AG:111:ARG:HA	7:AG:112:PRO:HD3	1.82	0.43
8:AH:86:ILE:HD13	8:AH:86:ILE:HA	1.86	0.43
8:AH:100:ILE:HA	8:AH:101:PRO:HD3	1.80	0.43
13:AM:115:LYS:O	13:AM:116:THR:C	2.60	0.43
19:AS:53:ASN:ND2	19:AS:56:GLN:H	2.17	0.43
23:BA:36:G:C5	23:BA:37:C:C5	3.06	0.43
23:BA:662:G:OP1	34:BL:18:ARG:HD2	2.18	0.43
23:BA:685:A:H1'	23:BA:688:U:O4	2.18	0.43
23:BA:836:G:H2'	23:BA:837:C:C6	2.53	0.43
23:BA:997:G:O2'	23:BA:998:C:H5'	2.18	0.43
23:BA:1139:G:O2'	23:BA:1143:A:N1	2.47	0.43
23:BA:1272:A:O2'	23:BA:1273:U:H5'	2.18	0.43
23:BA:1525:G:H2'	23:BA:1526:G:C8	2.54	0.43
23:BA:1655:A:H4'	26:BD:115:GLY:N	2.33	0.43
23:BA:1826:G:H2'	23:BA:1827:C:H6	1.82	0.43
23:BA:2050:C:H2'	23:BA:2051:A:C8	2.53	0.43
23:BA:2271:G:H2'	23:BA:2272:U:H6	1.82	0.43
23:BA:2550:G:C6	23:BA:2551:C:C4	3.07	0.43
23:BA:2658:C:H4'	29:BG:158:HIS:CE1	2.53	0.43
25:BC:30:GLU:HG3	25:BC:63:ARG:CZ	2.48	0.43
25:BC:166:GLN:HB2	25:BC:174:ILE:HG22	2.00	0.43
28:BF:66:GLN:NE2	28:BF:94:LEU:HB3	2.33	0.43
28:BF:126:ASP:OD2	28:BF:130:ASN:HB2	2.18	0.43
32:BJ:42:GLU:O	32:BJ:42:GLU:HG3	2.18	0.43
39:BQ:25:TRP:O	39:BQ:28:ARG:HB3	2.18	0.43
44:BV:137:ILE:HD12	44:BV:137:ILE:N	2.33	0.43
46:BX:10:LYS:O	46:BX:11:ARG:CG	2.66	0.43
48:BZ:22:ALA:O	48:BZ:26:LEU:HG	2.18	0.43
51:B3:11:LEU:HD22	51:B3:11:LEU:HA	1.89	0.43
1:CA:620:C:C2	4:CD:135:LEU:HG	2.54	0.43
1:CA:945:G:H2'	1:CA:945:G:N3	2.33	0.43
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.53	0.43
2:CB:98:LEU:O	2:CB:101:MET:HG3	2.19	0.43
3:CC:33:LEU:HD21	14:CN:53:LEU:HD23	2.00	0.43
3:CC:57:ILE:HD11	3:CC:66:VAL:HG13	1.99	0.43
3:CC:150:LYS:O	3:CC:200:ALA:HA	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:1:MET:HG2	8:CH:2:LEU:O	2.17	0.43
9:CI:39:GLY:O	9:CI:40:LEU:HD23	2.18	0.43
12:CL:63:TYR:HB3	12:CL:64:GLU:H	1.66	0.43
18:CR:56:THR:CB	18:CR:58:LEU:HD13	2.47	0.43
21:CU:11:GLY:O	21:CU:15:ARG:HG3	2.18	0.43
23:DA:102:G:H8	23:DA:102:G:H5"	1.82	0.43
23:DA:221:A:N7	23:DA:266:G:C5	2.86	0.43
23:DA:286:C:C2	23:DA:287:C:C5	3.07	0.43
23:DA:363(C):G:H2'	23:DA:363(D):G:H8	1.84	0.43
23:DA:598:G:H2'	23:DA:599:G:O4'	2.18	0.43
23:DA:708:C:O5'	23:DA:708:C:H6	2.01	0.43
23:DA:833:U:H5"	34:DL:48:PRO:HB2	1.98	0.43
23:DA:1291:C:H2'	23:DA:1292:U:H6	1.81	0.43
23:DA:1655:A:H1'	26:DD:113:PHE:CE2	2.53	0.43
23:DA:1655:A:H4'	26:DD:115:GLY:N	2.34	0.43
23:DA:1750:G:H2'	23:DA:1751:C:C6	2.53	0.43
24:DB:66:A:HO2'	24:DB:67:G:P	2.41	0.43
25:DC:145:VAL:HG12	25:DC:146:GLU:O	2.17	0.43
28:DF:66:GLN:NE2	28:DF:94:LEU:HB3	2.33	0.43
28:DF:84:LYS:HG3	28:DF:85:GLY:H	1.83	0.43
32:DJ:78:VAL:O	32:DJ:79:ASN:HB2	2.18	0.43
36:DN:44:LEU:C	36:DN:44:LEU:HD13	2.43	0.43
38:DP:77:PRO:HB2	38:DP:80:SER:HB2	2.01	0.43
39:DQ:90:VAL:O	39:DQ:92:ARG:N	2.52	0.43
40:DR:28:GLU:OE1	40:DR:31:ALA:HB2	2.18	0.43
45:DW:14:ARG:HB2	45:DW:14:ARG:HE	1.50	0.43
45:DW:32:ARG:C	45:DW:35:ASN:ND2	2.76	0.43
46:DX:73:LEU:HD23	46:DX:73:LEU:C	2.43	0.43
48:DZ:22:ALA:O	48:DZ:26:LEU:HG	2.18	0.43
1:AA:380:G:N2	1:AA:384:G:C5	2.86	0.43
1:AA:1130:A:N6	1:AA:1144:G:H21	2.16	0.43
2:AB:8:LYS:HA	2:AB:217:ARG:NH1	2.33	0.43
3:AC:134:ILE:HD11	3:AC:153:VAL:HG22	2.00	0.43
5:AE:78:HIS:HD2	8:AH:104:ARG:HD2	1.83	0.43
7:AG:73:MET:HE3	7:AG:89:MET:HA	2.01	0.43
11:AK:23:ALA:HB1	11:AK:88:GLY:HA3	2.01	0.43
11:AK:87:THR:HA	11:AK:91:ARG:NH2	2.28	0.43
22:AV:6166:U:H2'	22:AV:6167:G:O4'	2.18	0.43
23:BA:479:A:H4'	23:BA:480:A:O5'	2.18	0.43
23:BA:816:C:H2'	23:BA:817:C:H6	1.83	0.43
23:BA:869:G:C2	23:BA:870:A:C8	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:969:U:H2'	23:BA:970:C:C6	2.53	0.43
23:BA:1050:A:H2'	23:BA:1051:G:C8	2.54	0.43
23:BA:1461:G:O2'	23:BA:1462:C:H5'	2.18	0.43
23:BA:1717:G:C6	23:BA:1743:G:C6	3.07	0.43
23:BA:1818:U:H2'	25:BC:157:ARG:HG3	2.00	0.43
23:BA:2515:C:H1'	23:BA:2570:G:N2	2.33	0.43
23:BA:2590:A:H2'	23:BA:2591:C:C6	2.54	0.43
26:BD:107:THR:O	26:BD:190:GLY:HA2	2.18	0.43
37:BO:98:VAL:O	37:BO:101:LEU:HB2	2.18	0.43
38:BP:61:PHE:CZ	38:BP:76:PHE:HB2	2.54	0.43
42:BT:56:THR:C	42:BT:57:LEU:HD12	2.43	0.43
47:BY:9:GLN:O	47:BY:12:GLU:HB3	2.19	0.43
47:BY:21:LEU:CD2	47:BY:22:GLU:HG3	2.49	0.43
52:B4:10:ARG:O	52:B4:11:LYS:C	2.61	0.43
1:CA:179:A:H2'	1:CA:180:U:C6	2.53	0.43
1:CA:1368:G:O2'	1:CA:1369:C:H5'	2.19	0.43
3:CC:70:VAL:O	3:CC:106:VAL:HG23	2.18	0.43
3:CC:186:PHE:CG	3:CC:187:ALA:N	2.86	0.43
5:CE:76:ILE:CG1	5:CE:77:PRO:HD2	2.32	0.43
7:CG:133:GLY:O	7:CG:137:LYS:HG3	2.18	0.43
8:CH:114:THR:HG21	8:CH:119:LEU:HD12	2.00	0.43
9:CI:17:VAL:HG22	9:CI:63:ILE:HG13	1.99	0.43
11:CK:120:ARG:HA	11:CK:121:PRO:HD3	1.79	0.43
20:CT:71:THR:HG22	20:CT:72:LEU:N	2.34	0.43
23:DA:390:A:C5	34:DL:71:VAL:HG21	2.52	0.43
23:DA:405:U:H3'	23:DA:406:G:C5'	2.48	0.43
23:DA:510:C:OP1	23:DA:511:U:OP2	2.36	0.43
23:DA:777:A:O2'	23:DA:778:G:H5'	2.17	0.43
24:DB:73:A:H3'	24:DB:74:U:C6	2.54	0.43
26:DD:36:ARG:HD3	26:DD:85:ASN:HD21	1.84	0.43
27:DE:181:LEU:CD2	27:DE:186:ILE:HD11	2.47	0.43
32:DJ:149:PRO:O	32:DJ:150:ASP:HB2	2.19	0.43
33:DK:47:ILE:HD12	33:DK:47:ILE:HA	1.88	0.43
34:DL:65:ARG:HD2	34:DL:65:ARG:N	2.33	0.43
34:DL:112:LEU:HD23	34:DL:112:LEU:C	2.44	0.43
35:DM:61:GLY:O	44:DV:177:PRO:HA	2.19	0.43
37:DO:18:ILE:HA	37:DO:21:THR:OG1	2.18	0.43
40:DR:61:VAL:O	40:DR:61:VAL:HG23	2.19	0.43
45:DW:32:ARG:CA	45:DW:35:ASN:HD21	2.32	0.43
48:DZ:26:LEU:HD21	48:DZ:46:ASN:HB3	2.00	0.43
48:DZ:30:ARG:H	48:DZ:30:ARG:HG2	1.63	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:315:A:H5"	1:AA:317:G:OP2	2.17	0.43
1:AA:687:A:H2'	1:AA:701:C:H41	1.82	0.43
1:AA:833:U:C2	1:AA:834:C:C5	3.07	0.43
1:AA:858:G:O6	1:AA:869:G:C8	2.72	0.43
1:AA:1029:G:N2	1:AA:103(A):A:N7	2.67	0.43
1:AA:1116:C:C3'	1:AA:1117:G:H5"	2.48	0.43
3:AC:36:ASP:HA	3:AC:39:ILE:HD12	2.00	0.43
4:AD:31:CYS:O	4:AD:32:ALA:HB3	2.18	0.43
4:AD:104:VAL:HG11	4:AD:146:ILE:HD12	2.00	0.43
4:AD:128:VAL:HA	4:AD:145:GLU:O	2.17	0.43
9:AI:117:HIS:C	9:AI:118:LYS:HG3	2.44	0.43
12:AL:54:VAL:HG12	12:AL:55:ALA:N	2.33	0.43
19:AS:49:ILE:HD12	19:AS:49:ILE:N	2.30	0.43
23:BA:251:A:H5"	34:BL:51:PHE:CE1	2.53	0.43
23:BA:532:A:N1	23:BA:2020:A:H1'	2.34	0.43
23:BA:719:C:H2'	23:BA:720:C:C6	2.53	0.43
23:BA:778:G:C5	23:BA:779:U:C4	3.07	0.43
23:BA:956:G:OP1	35:BM:86:GLY:N	2.48	0.43
23:BA:1693:U:H1'	25:BC:14:ARG:NH2	2.34	0.43
23:BA:1748:G:H2'	23:BA:1749:A:H8	1.84	0.43
23:BA:1826:G:H2'	23:BA:1827:C:C6	2.53	0.43
23:BA:2247:A:H2'	23:BA:2248:C:H6	1.83	0.43
27:BE:50:SER:HA	27:BE:92:PRO:O	2.17	0.43
29:BG:20:ALA:HB1	29:BG:21:PRO:CD	2.47	0.43
29:BG:42:ARG:O	29:BG:52:VAL:HA	2.18	0.43
37:BO:17:ARG:HG2	37:BO:18:ILE:HD13	2.00	0.43
38:BP:35:LYS:HE3	38:BP:35:LYS:HB2	1.89	0.43
40:BR:20:LEU:HD12	40:BR:21:ARG:H	1.82	0.43
40:BR:27:ALA:HB3	40:BR:61:VAL:HG11	1.99	0.43
44:BV:8:TYR:HB2	44:BV:38:TYR:CE2	2.52	0.43
50:B2:33:CYS:HB2	50:B2:34:PRO:HD2	2.01	0.43
51:B3:11:LEU:HD13	51:B3:12:GLU:H	1.83	0.43
1:CA:102:G:H2'	1:CA:103:C:H6	1.83	0.43
1:CA:380:G:N2	1:CA:384:G:C5	2.87	0.43
1:CA:391:G:C6	1:CA:392:G:C5	3.07	0.43
1:CA:1058:G:H2'	1:CA:1059:C:C6	2.53	0.43
1:CA:1295:G:H21	1:CA:1302:U:H3	1.66	0.43
1:CA:1454:G:H2'	1:CA:1455:G:H8	1.81	0.43
5:CE:78:HIS:HD2	8:CH:104:ARG:HD2	1.82	0.43
5:CE:90:VAL:O	5:CE:120:THR:HA	2.17	0.43
9:CI:10:ARG:HD3	9:CI:11:LYS:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:117:HIS:C	9:CI:118:LYS:HG3	2.43	0.43
16:CP:55:ARG:O	16:CP:58:TYR:HB3	2.19	0.43
20:CT:48:LYS:HD3	20:CT:51:GLU:OE2	2.18	0.43
22:CV:6166:U:H2'	22:CV:6167:G:O4'	2.18	0.43
23:DA:36:G:C5	23:DA:37:C:C5	3.06	0.43
23:DA:71:A:OP1	23:DA:72:U:H2'	2.18	0.43
23:DA:142:G:H1'	42:DT:37:THR:HG21	2.01	0.43
23:DA:454:A:H4'	23:DA:455:C:OP2	2.19	0.43
23:DA:685:A:H1'	23:DA:688:U:O4	2.18	0.43
23:DA:1563:G:H2'	23:DA:1564:C:H6	1.83	0.43
23:DA:1825:A:H2'	23:DA:1826:G:C8	2.54	0.43
23:DA:1826:G:C6	23:DA:1827:C:C4	3.06	0.43
23:DA:1851:U:H2'	23:DA:1852:C:H6	1.83	0.43
23:DA:2037:G:H2'	23:DA:2038:G:C8	2.53	0.43
23:DA:2061:G:H5"	23:DA:2503:A:C2	2.53	0.43
23:DA:2572:A:C8	26:DD:144:ARG:HB3	2.53	0.43
23:DA:2867:G:C5	38:DP:23:ARG:NH1	2.87	0.43
26:DD:86:PRO:HB2	26:DD:87:GLU:H	1.42	0.43
28:DF:16:ARG:HB3	28:DF:17:PRO:CD	2.49	0.43
29:DG:96:ALA:CB	29:DG:105:LEU:HB3	2.48	0.43
30:DH:72:LEU:HD12	30:DH:140:LEU:CD1	2.48	0.43
33:DK:99:PHE:CD1	33:DK:99:PHE:N	2.85	0.43
35:DM:134:ARG:O	35:DM:135:ASP:HB2	2.17	0.43
42:DT:21:PHE:CD2	42:DT:26:TYR:HD2	2.36	0.43
43:DU:4:LYS:H	43:DU:4:LYS:HD3	1.83	0.43
44:DV:28:MET:HE1	44:DV:61:LEU:HD21	2.00	0.43
45:DW:27:GLU:HB2	45:DW:69:PHE:CD1	2.54	0.43
1:AA:1505:G:H5"	1:AA:1506:U:OP1	2.19	0.43
4:AD:117:ALA:O	4:AD:121:VAL:HG23	2.18	0.43
4:AD:128:VAL:C	4:AD:130:GLY:H	2.27	0.43
4:AD:188:LEU:N	4:AD:188:LEU:HD12	2.33	0.43
6:AF:46:ARG:HH12	18:AR:37:VAL:HG21	1.84	0.43
7:AG:133:GLY:O	7:AG:137:LYS:HG3	2.18	0.43
8:AH:24:THR:HG22	8:AH:25:ASP:N	2.34	0.43
12:AL:69:ILE:HA	12:AL:99:ILE:HG22	2.00	0.43
16:AP:20:VAL:HG22	16:AP:21:VAL:N	2.33	0.43
19:AS:27:GLU:HB3	19:AS:28:LYS:H	1.69	0.43
23:BA:2015:A:N3	50:B2:2:ALA:N	2.66	0.43
23:BA:2086:U:H2'	23:BA:2087:G:C8	2.54	0.43
23:BA:2286:A:C8	23:BA:2287:A:N6	2.87	0.43
36:BN:10:LEU:HD22	36:BN:17:ARG:HD3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BN:94:TYR:C	36:BN:117:VAL:HG12	2.43	0.43
38:BP:13:ARG:C	38:BP:15:VAL:H	2.27	0.43
38:BP:26:ASP:OD1	38:BP:26:ASP:O	2.36	0.43
40:BR:61:VAL:HG23	40:BR:61:VAL:O	2.18	0.43
43:BU:11:ASP:H	43:BU:27:VAL:CG2	2.32	0.43
46:BX:19:GLN:HG2	46:BX:41:ARG:CB	2.46	0.43
46:BX:75:GLU:OE1	46:BX:75:GLU:HA	2.19	0.43
49:B1:48:ILE:HD12	49:B1:48:ILE:N	2.34	0.43
1:CA:495:A:H4'	1:CA:496:A:OP1	2.19	0.43
1:CA:584:G:H2'	1:CA:585:G:C8	2.54	0.43
1:CA:596:C:H5'	1:CA:596:C:H6	1.84	0.43
1:CA:838:G:N2	1:CA:849:C:C2	2.87	0.43
1:CA:934:C:C5	1:CA:1344:C:H2'	2.54	0.43
1:CA:1098:C:C2	1:CA:1099:G:C8	3.06	0.43
1:CA:1272:G:H2'	1:CA:1273:G:H8	1.84	0.43
1:CA:1385:G:C2	1:CA:1386:G:C8	3.06	0.43
1:CA:1505:G:H5"	1:CA:1506:U:OP1	2.19	0.43
2:CB:91:PRO:CA	2:CB:154:LEU:HD11	2.42	0.43
3:CC:23:TYR:CD2	3:CC:24:ALA:N	2.87	0.43
4:CD:3:ARG:NH2	4:CD:118:ARG:HD3	2.30	0.43
4:CD:128:VAL:C	4:CD:130:GLY:H	2.26	0.43
9:CI:24:GLY:O	9:CI:26:VAL:HG23	2.18	0.43
12:CL:82:VAL:HG22	12:CL:83:LEU:H	1.83	0.43
13:CM:96:LEU:HB3	13:CM:97:PRO:HD2	2.01	0.43
23:DA:17:G:H2'	23:DA:18:C:C6	2.53	0.43
23:DA:39:C:H2'	23:DA:40:C:C6	2.53	0.43
23:DA:379:G:N2	46:DX:20:ARG:NH1	2.66	0.43
23:DA:426:C:C2	23:DA:427:U:C5	3.07	0.43
23:DA:744:G:OP1	26:DD:132:HIS:CB	2.67	0.43
23:DA:1464:C:H2'	23:DA:1465:G:C8	2.53	0.43
24:DB:45:A:H2'	24:DB:45:A:N3	2.34	0.43
24:DB:102:G:H1'	44:DV:73:GLN:HE22	1.83	0.43
25:DC:25:THR:HG23	25:DC:27:THR:HG22	2.00	0.43
25:DC:146:GLU:OE2	25:DC:150:LYS:N	2.51	0.43
34:DL:47:ASP:HB3	34:DL:48:PRO:CA	2.49	0.43
36:DN:11:ASN:O	36:DN:12:ARG:HB2	2.18	0.43
43:DU:75:ILE:HG13	43:DU:80:GLY:H	1.83	0.43
47:DY:9:GLN:O	47:DY:12:GLU:HB3	2.18	0.43
1:AA:697:U:H2'	1:AA:698:G:H5'	2.01	0.43
3:AC:23:TYR:CD2	3:AC:24:ALA:N	2.86	0.43
4:AD:137:SER:O	4:AD:138:TYR:O	2.37	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:18:PHE:HB2	9:AI:62:TYR:HD2	1.83	0.43
10:AJ:48:THR:HG22	10:AJ:62:HIS:ND1	2.34	0.43
12:AL:51:LEU:HD12	12:AL:51:LEU:N	2.34	0.43
12:AL:74:HIS:CD2	12:AL:76:LEU:HB2	2.54	0.43
23:BA:379:G:N2	46:BX:20:ARG:NH1	2.66	0.43
23:BA:519:U:H2'	23:BA:520:G:H8	1.82	0.43
23:BA:644:A:C2	23:BA:646:A:C4	3.07	0.43
23:BA:1464:C:H2'	23:BA:1465:G:C8	2.54	0.43
23:BA:2748:A:C2	23:BA:2757:A:C4	3.06	0.43
23:BA:2839:G:C5	23:BA:2840:C:C4	3.07	0.43
23:BA:2850:A:H5"	23:BA:2868:A:H2	1.83	0.43
25:BC:25:THR:HG23	25:BC:27:THR:HG22	2.01	0.43
25:BC:270:ILE:C	25:BC:270:ILE:HD12	2.44	0.43
27:BE:70:THR:HG23	27:BE:72:ARG:H	1.83	0.43
34:BL:86:LYS:HG3	34:BL:87:ASP:N	2.34	0.43
35:BM:104:PHE:HE1	35:BM:125:LEU:HD11	1.83	0.43
37:BO:38:GLN:HB3	37:BO:47:THR:HG23	1.99	0.43
44:BV:40:ASP:OD1	44:BV:42:VAL:HG12	2.19	0.43
48:BZ:16:PRO:HB2	48:BZ:18:ASP:OD1	2.18	0.43
53:B5:21:LYS:HA	53:B5:54:GLU:OE2	2.18	0.43
1:CA:484:G:C8	1:CA:486:U:C2	3.06	0.43
1:CA:683:G:C6	1:CA:684:A:C5	3.06	0.43
1:CA:1130:A:H61	1:CA:1144:G:H21	1.67	0.43
1:CA:1190:G:OP2	3:CC:5:ILE:HG23	2.18	0.43
1:CA:1411:C:O2'	1:CA:1412:C:H5'	2.18	0.43
5:CE:25:ARG:N	5:CE:25:ARG:HD2	2.32	0.43
8:CH:100:ILE:HA	8:CH:101:PRO:HD3	1.80	0.43
9:CI:17:VAL:HG21	9:CI:80:GLY:HA3	2.01	0.43
10:CJ:32:ALA:HB2	10:CJ:76:ASN:HB2	2.01	0.43
16:CP:43:LYS:HA	16:CP:48:TRP:HB3	2.00	0.43
18:CR:87:ARG:HD2	18:CR:87:ARG:C	2.44	0.43
23:DA:616:A:H4'	23:DA:617:G:OP1	2.18	0.43
23:DA:1567:A:C8	25:DC:84:TYR:CE2	3.07	0.43
23:DA:1579:A:H2'	23:DA:1580:A:C8	2.54	0.43
23:DA:1620:G:O2'	52:D4:2:LYS:HG2	2.18	0.43
23:DA:2025:C:C2	23:DA:2026:C:C5	3.07	0.43
23:DA:2389:G:H5"	23:DA:2390:U:H5'	2.01	0.43
23:DA:2450:A:O2'	23:DA:2451:A:H5'	2.18	0.43
23:DA:2590:A:H2'	23:DA:2591:C:C6	2.54	0.43
23:DA:2678:C:H2'	23:DA:2679:A:H8	1.83	0.43
25:DC:72:LYS:HE3	25:DC:101:GLU:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DD:170:LEU:HB3	26:DD:184:VAL:HG12	1.99	0.43
28:DF:128:ARG:HG2	28:DF:129:GLY:H	1.84	0.43
30:DH:92:VAL:HG22	30:DH:92:VAL:O	2.19	0.43
32:DJ:38:LEU:HD13	32:DJ:39:ILE:N	2.33	0.43
35:DM:24:GLY:HA2	35:DM:101:ARG:CA	2.47	0.43
35:DM:130:LYS:HG2	35:DM:131:ILE:N	2.33	0.43
36:DN:55:ALA:HA	36:DN:80:PHE:CE1	2.53	0.43
36:DN:94:TYR:C	36:DN:117:VAL:HG12	2.44	0.43
38:DP:19:LEU:HA	38:DP:20:PRO:HD3	1.74	0.43
38:DP:56:GLY:O	38:DP:59:THR:HG22	2.18	0.43
39:DQ:112:ARG:NH2	40:DR:46:VAL:HG21	2.34	0.43
41:DS:32:ALA:O	41:DS:33:ARG:C	2.61	0.43
44:DV:70:LEU:N	44:DV:70:LEU:HD23	2.34	0.43
44:DV:150:LEU:HD23	44:DV:151:HIS:N	2.33	0.43
49:D1:48:ILE:HD12	49:D1:48:ILE:N	2.33	0.43
1:AA:185:A:N3	20:AT:81:LYS:NZ	2.66	0.43
1:AA:290:C:O5'	1:AA:290:C:H6	2.02	0.43
1:AA:692:U:O4	11:AK:52:GLY:C	2.62	0.43
1:AA:1004:A:H8	1:AA:1026:G:N7	2.17	0.43
1:AA:1148:U:H4'	9:AI:14:VAL:HG11	2.01	0.43
1:AA:1385:G:C2	1:AA:1386:G:C8	3.07	0.43
2:AB:154:LEU:C	2:AB:154:LEU:HD22	2.43	0.43
4:AD:57:ARG:HB3	4:AD:206:PHE:HB2	2.00	0.43
7:AG:150:ALA:HA	11:AK:59:TYR:HD2	1.84	0.43
8:AH:85:ARG:HH12	8:AH:134:ILE:HG23	1.84	0.43
12:AL:82:VAL:HG23	12:AL:106:ALA:CB	2.44	0.43
15:AO:65:ARG:O	15:AO:68:ARG:HB2	2.18	0.43
19:AS:51:VAL:HG12	19:AS:52:TYR:O	2.19	0.43
23:BA:322:A:O4'	23:BA:340:A:H1'	2.19	0.43
23:BA:644:A:O2'	23:BA:645:C:H5"	2.18	0.43
23:BA:708:C:O5'	23:BA:708:C:H6	2.01	0.43
23:BA:843:G:H5"	23:BA:843:G:C8	2.54	0.43
23:BA:1239:G:O2'	23:BA:1240:U:H5'	2.18	0.43
29:BG:78:GLY:HA2	29:BG:83:TYR:CE1	2.54	0.43
30:BH:72:LEU:HD12	30:BH:140:LEU:CD1	2.48	0.43
32:BJ:160:LYS:HD2	32:BJ:161:LEU:H	1.83	0.43
36:BN:8:ARG:CZ	36:BN:43:GLU:HG3	2.49	0.43
37:BO:31:SER:HB3	37:BO:34:HIS:H	1.84	0.43
44:BV:118:GLN:HB2	44:BV:173:ALA:C	2.43	0.43
44:BV:118:GLN:HG3	44:BV:175:VAL:HG13	2.00	0.43
51:B3:44:ARG:HB3	51:B3:45:LYS:H	1.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:B4:18:PHE:CD2	52:B4:18:PHE:C	2.96	0.43
1:CA:424:G:O5'	1:CA:424:G:H8	2.01	0.43
1:CA:586:C:O2'	1:CA:878:G:H4'	2.19	0.43
1:CA:774:G:H2'	1:CA:775:G:H5'	2.00	0.43
1:CA:932:C:H2'	1:CA:933:G:H8	1.83	0.43
1:CA:1145:C:H4'	1:CA:1146:A:H8	1.84	0.43
1:CA:1191:A:H5"	3:CC:4:LYS:HZ3	1.82	0.43
1:CA:1342:C:O2'	1:CA:1343:G:H5'	2.18	0.43
1:CA:1464:G:O2'	1:CA:1465:C:H5'	2.18	0.43
2:CB:71:VAL:HG12	2:CB:93:VAL:HB	2.01	0.43
4:CD:79:PHE:CD1	4:CD:207:TYR:HD1	2.37	0.43
5:CE:92:LYS:O	5:CE:118:ILE:HD12	2.18	0.43
7:CG:65:ALA:O	7:CG:69:VAL:HG23	2.18	0.43
15:CO:36:ILE:HD12	15:CO:63:ARG:NH1	2.34	0.43
23:DA:214:G:O2'	23:DA:215:G:O4'	2.33	0.43
23:DA:1796:U:H2'	23:DA:1797:C:C6	2.53	0.43
23:DA:2026:C:C2	23:DA:2027:G:C8	3.07	0.43
23:DA:2050:C:H2'	23:DA:2051:A:C8	2.54	0.43
23:DA:2509:G:C5	23:DA:2510:C:C5	3.06	0.43
25:DC:245:PRO:O	25:DC:246:PRO:C	2.61	0.43
28:DF:8:LYS:O	28:DF:12:TYR:HD1	2.02	0.43
30:DH:64:GLU:C	30:DH:66:GLU:H	2.25	0.43
34:DL:50:ARG:HB2	53:D5:60:LEU:CD1	2.35	0.43
34:DL:50:ARG:HB3	53:D5:60:LEU:HD21	2.00	0.43
37:DO:93:LYS:HA	37:DO:93:LYS:HE3	2.01	0.43
39:DQ:25:TRP:O	39:DQ:28:ARG:HB3	2.19	0.43
44:DV:71:VAL:HA	44:DV:87:ASP:O	2.19	0.43
45:DW:12:ASN:O	45:DW:13:GLY:C	2.61	0.43
45:DW:43:THR:HG22	45:DW:43:THR:O	2.19	0.43
45:DW:72:ARG:O	45:DW:73:GLY:C	2.62	0.43
1:AA:66:G:H4'	1:AA:173:U:C5	2.53	0.43
1:AA:265:G:H5'	17:AQ:64:PRO:O	2.19	0.43
1:AA:484:G:C8	1:AA:486:U:C2	3.07	0.43
1:AA:932:C:H2'	1:AA:933:G:H8	1.84	0.43
4:AD:104:VAL:O	4:AD:108:LEU:HB2	2.19	0.43
7:AG:87:VAL:HG11	7:AG:154:TYR:O	2.19	0.43
9:AI:17:VAL:HG21	9:AI:80:GLY:HA3	2.00	0.43
9:AI:118:LYS:C	9:AI:120:ARG:H	2.26	0.43
12:AL:123:LYS:HA	12:AL:124:PRO:HD3	1.89	0.43
15:AO:7:GLU:HA	15:AO:10:LYS:HB3	2.01	0.43
23:BA:433:C:O2'	23:BA:434:U:H5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2330:G:O2'	45:BW:41:ARG:HB2	2.17	0.43
23:BA:2562:U:H1'	33:BK:23:ARG:HH12	1.81	0.43
23:BA:2768:C:C4	23:BA:2769:C:C5	3.07	0.43
23:BA:2891:G:H8	23:BA:2891:G:O5'	2.01	0.43
24:BB:66:A:HO2'	24:BB:67:G:P	2.42	0.43
25:BC:140:THR:O	25:BC:165:ILE:HD12	2.18	0.43
28:BF:84:LYS:HG3	28:BF:85:GLY:H	1.84	0.43
34:BL:57:THR:CG2	34:BL:59:LEU:HB2	2.48	0.43
34:BL:114:ILE:CD1	34:BL:130:PHE:CD1	2.92	0.43
36:BN:104:ARG:HB2	36:BN:104:ARG:HH11	1.84	0.43
39:BQ:79:PHE:HE2	39:BQ:106:PHE:CZ	2.36	0.43
43:BU:13:VAL:CG1	43:BU:72:VAL:HB	2.48	0.43
44:BV:38:TYR:CD1	44:BV:38:TYR:O	2.72	0.43
44:BV:71:VAL:HA	44:BV:87:ASP:O	2.18	0.43
1:CA:781:A:H4'	1:CA:1522:U:O2'	2.18	0.43
1:CA:782:A:O3'	1:CA:1515:C:H4'	2.19	0.43
1:CA:1057:G:H2'	1:CA:1058:G:O4'	2.19	0.43
3:CC:8:ILE:HD12	3:CC:16:ARG:HH21	1.83	0.43
3:CC:148:GLY:HA3	3:CC:203:PHE:HB3	2.00	0.43
4:CD:172:PRO:HD2	4:CD:173:TRP:CE3	2.53	0.43
7:CG:60:LYS:HD2	7:CG:60:LYS:HA	1.91	0.43
7:CG:155:ARG:O	7:CG:156:TRP:CD1	2.72	0.43
9:CI:52:ALA:C	9:CI:95:LYS:HZ1	2.25	0.43
9:CI:118:LYS:C	9:CI:120:ARG:H	2.27	0.43
23:DA:330:A:O2'	23:DA:331:A:C8	2.72	0.43
23:DA:448:U:H1'	27:DE:84:VAL:HG21	2.01	0.43
23:DA:587:C:C6	23:DA:671:C:H1'	2.54	0.43
23:DA:795:C:O2'	23:DA:796:C:H5'	2.18	0.43
23:DA:1028:A:N3	23:DA:2486:G:O2'	2.38	0.43
23:DA:1536:A:H8	23:DA:1536:A:O5'	2.02	0.43
23:DA:1678:G:H22	23:DA:1989:G:H22	1.64	0.43
23:DA:2086:U:H2'	23:DA:2087:G:C8	2.54	0.43
23:DA:2563:U:O2	23:DA:2565:A:C8	2.71	0.43
23:DA:2585:U:H4'	23:DA:2586:C:OP1	2.17	0.43
23:DA:2683:C:OP1	38:DP:53:ARG:NH2	2.51	0.43
25:DC:35:LYS:HB3	25:DC:36:PRO:HD3	2.00	0.43
25:DC:124:PRO:C	25:DC:126:GLN:H	2.27	0.43
25:DC:222:ARG:HE	25:DC:222:ARG:HB2	1.70	0.43
26:DD:93:VAL:HG21	26:DD:177:PRO:HA	1.99	0.43
28:DF:55:LYS:HD2	28:DF:58:GLN:NE2	2.21	0.43
28:DF:123:ASN:C	28:DF:125:PHE:H	2.27	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DL:105:LEU:H	34:DL:105:LEU:HD12	1.83	0.43
39:DQ:79:PHE:HE1	39:DQ:83:LEU:CD2	2.31	0.43
40:DR:95:LEU:HD23	40:DR:95:LEU:C	2.44	0.43
49:D1:64:LYS:HA	49:D1:64:LYS:HE3	2.00	0.43
53:D5:21:LYS:HA	53:D5:54:GLU:OE2	2.19	0.43
1:AA:757:U:H5"	1:AA:822:C:O2	2.19	0.43
1:AA:809:G:C6	1:AA:810:C:C5	3.07	0.43
1:AA:970:C:H42	9:AI:128:ARG:C	2.26	0.43
1:AA:1151:A:O2'	1:AA:1152:A:O5'	2.37	0.43
1:AA:1206:G:H2'	1:AA:1207:G:O4'	2.19	0.43
4:AD:118:ARG:O	4:AD:122:ARG:HB2	2.18	0.43
17:AQ:38:ARG:HD2	17:AQ:38:ARG:N	2.33	0.43
22:AV:6164:A:H2'	22:AV:6165:G:C8	2.54	0.43
23:BA:102:G:H5"	23:BA:102:G:C8	2.54	0.43
23:BA:302:C:O2'	23:BA:303:U:H5'	2.19	0.43
23:BA:643:A:C2	23:BA:644:A:C4	3.07	0.43
23:BA:855:G:H2'	23:BA:856:C:H6	1.84	0.43
23:BA:907:U:O2'	35:BM:101:ARG:NH2	2.46	0.43
23:BA:1191:G:OP1	34:BL:35:HIS:CD2	2.72	0.43
23:BA:1232:G:H2'	23:BA:1233:C:H6	1.84	0.43
23:BA:1335:U:H2'	23:BA:1336:A:C8	2.54	0.43
23:BA:1961:C:O2'	23:BA:1962:C:H5'	2.18	0.43
23:BA:2777:G:H4'	23:BA:2778:A:H5'	2.01	0.43
24:BB:65:C:O2'	24:BB:66:A:H5'	2.18	0.43
28:BF:5:LEU:O	28:BF:8:LYS:HB3	2.19	0.43
29:BG:104:GLU:C	29:BG:105:LEU:HD13	2.44	0.43
45:BW:43:THR:HG22	45:BW:43:THR:O	2.19	0.43
47:BY:15:LYS:HE2	47:BY:15:LYS:HA	2.01	0.43
48:BZ:26:LEU:HB2	48:BZ:28:LEU:CD1	2.48	0.43
1:CA:337:C:H2'	1:CA:338:A:H8	1.83	0.43
1:CA:967:C:H4'	9:CI:125:TYR:OH	2.19	0.43
1:CA:1129:C:H1'	1:CA:1130:A:OP2	2.18	0.43
1:CA:1281:U:H5'	1:CA:1282:C:H5	1.83	0.43
2:CB:86:GLU:C	2:CB:88:ALA:H	2.26	0.43
2:CB:115:LEU:HD12	2:CB:118:LEU:HD12	1.99	0.43
4:CD:153:ARG:NH1	4:CD:181:MET:HE3	2.33	0.43
4:CD:188:LEU:HD12	4:CD:188:LEU:N	2.33	0.43
16:CP:50:LYS:HD3	16:CP:51:VAL:N	2.34	0.43
23:DA:533:G:N3	39:DQ:45:TYR:CE1	2.87	0.43
23:DA:848:G:N9	23:DA:933:A:H8	2.17	0.43
23:DA:944:G:H5"	23:DA:945:A:C5'	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1576:U:C2	23:DA:1577:C:C5	3.07	0.43
23:DA:1996:C:H5	33:DK:32:TYR:OH	2.02	0.43
23:DA:2591:C:H2'	23:DA:2592:G:C8	2.54	0.43
24:DB:106:G:O2'	24:DB:107:U:H5'	2.19	0.43
25:DC:140:THR:O	25:DC:165:ILE:HD12	2.19	0.43
27:DE:117:ARG:HD2	27:DE:190:GLU:O	2.18	0.43
28:DF:161:THR:HG21	28:DF:172:LEU:HD23	2.01	0.43
32:DJ:85:VAL:HG22	32:DJ:89:LYS:HG3	2.01	0.43
33:DK:86:ILE:HD12	33:DK:86:ILE:N	2.31	0.43
34:DL:58:THR:C	34:DL:60:MET:N	2.76	0.43
34:DL:101:VAL:HG23	34:DL:108:LYS:H	1.84	0.43
36:DN:2:ARG:HB3	36:DN:3:HIS:CE1	2.54	0.43
40:DR:72:VAL:CG2	40:DR:85:LYS:HB3	2.48	0.43
41:DS:70:TYR:H	41:DS:70:TYR:HD2	1.66	0.43
44:DV:51:ALA:HB1	44:DV:57:ILE:HD11	2.01	0.43
44:DV:128:VAL:CG2	44:DV:132:ASN:HB2	2.49	0.43
51:D3:30:THR:CG2	51:D3:31:PRO:HD2	2.48	0.43
1:AA:386:C:H2'	1:AA:387:U:H5"	2.00	0.42
1:AA:1117:G:N2	1:AA:1180:A:H1'	2.33	0.42
2:AB:11:LEU:HD12	2:AB:217:ARG:NH2	2.34	0.42
8:AH:36:LEU:HD23	8:AH:39:LEU:HD23	2.00	0.42
8:AH:38:ILE:HD12	8:AH:118:VAL:HG12	2.00	0.42
13:AM:96:LEU:HB3	13:AM:97:PRO:HD2	2.00	0.42
15:AO:50:HIS:O	15:AO:53:HIS:HB3	2.19	0.42
18:AR:87:ARG:HD2	18:AR:87:ARG:C	2.44	0.42
19:AS:29:ARG:HB2	19:AS:48:THR:N	2.33	0.42
23:BA:26:G:C6	23:BA:27:G:N1	2.88	0.42
23:BA:116:C:O2'	23:BA:117:G:H5'	2.19	0.42
23:BA:460:A:C6	23:BA:470:A:C8	3.07	0.42
23:BA:477:A:H2'	23:BA:478:A:C8	2.54	0.42
23:BA:661:C:H2'	23:BA:662:G:H8	1.83	0.42
23:BA:993:G:H1'	40:BR:89:GLN:OE1	2.19	0.42
23:BA:1405:U:H2'	23:BA:1406:U:H6	1.79	0.42
23:BA:1576:U:C2	23:BA:1577:C:C5	3.07	0.42
23:BA:2389:G:H5"	23:BA:2390:U:H5'	2.00	0.42
23:BA:2846:G:H2'	23:BA:2847:U:C6	2.53	0.42
25:BC:27:THR:O	25:BC:27:THR:CG2	2.62	0.42
25:BC:32:SER:O	25:BC:33:LEU:O	2.36	0.42
25:BC:132:PRO:HA	25:BC:190:TYR:HA	2.01	0.42
25:BC:199:ALA:C	25:BC:201:HIS:H	2.26	0.42
26:BD:36:ARG:HD3	26:BD:85:ASN:HD21	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:111:ARG:HD2	26:BD:160:TYR:HE1	1.84	0.42
26:BD:197:ILE:HD11	26:BD:199:ARG:HE	1.84	0.42
28:BF:123:ASN:C	28:BF:125:PHE:H	2.27	0.42
28:BF:161:THR:HG21	28:BF:172:LEU:HD23	2.01	0.42
34:BL:80:TYR:CE1	34:BL:111:ARG:HG2	2.53	0.42
39:BQ:59:ARG:O	39:BQ:63:VAL:HG23	2.19	0.42
43:BU:17:SER:HB2	43:BU:71:LYS:HD2	2.01	0.42
44:BV:48:PHE:CE2	44:BV:71:VAL:HG21	2.54	0.42
50:B2:44:THR:HG22	50:B2:45:VAL:N	2.34	0.42
53:B5:29:LYS:O	53:B5:29:LYS:HG2	2.19	0.42
53:B5:32:LEU:HD23	53:B5:33:ASN:H	1.83	0.42
1:CA:375:U:H4'	16:CP:17:TYR:CE2	2.54	0.42
1:CA:970:C:H42	9:CI:128:ARG:C	2.27	0.42
4:CD:156:GLU:O	4:CD:160:GLN:HG3	2.19	0.42
5:CE:41:VAL:HG11	5:CE:113:ALA:HA	2.01	0.42
8:CH:89:PRO:HA	8:CH:92:ARG:NH1	2.34	0.42
11:CK:102:GLY:C	11:CK:103:LEU:HD22	2.44	0.42
16:CP:50:LYS:HD3	16:CP:50:LYS:C	2.44	0.42
22:CV:6167:G:H2'	22:CV:6168:G:C8	2.53	0.42
23:DA:775:G:C2	23:DA:777:A:N6	2.86	0.42
23:DA:783:A:C8	23:DA:783:A:C3'	3.00	0.42
23:DA:2243:U:H2'	23:DA:2244:U:H6	1.84	0.42
23:DA:2286:A:C8	23:DA:2287:A:N6	2.87	0.42
23:DA:2646:C:OP2	23:DA:2732:G:O2'	2.34	0.42
23:DA:2723:C:O5'	23:DA:2723:C:H6	2.02	0.42
25:DC:33:LEU:HD23	25:DC:33:LEU:N	2.25	0.42
25:DC:226:MET:HB3	25:DC:230:ASP:HB2	2.00	0.42
29:DG:107:VAL:HG23	29:DG:109:PHE:CE1	2.54	0.42
30:DH:114:LEU:HA	30:DH:130:TYR:CD1	2.54	0.42
32:DJ:27:TYR:O	32:DJ:29:PRO:HD3	2.19	0.42
32:DJ:160:LYS:HD2	32:DJ:161:LEU:H	1.83	0.42
38:DP:3:ARG:O	38:DP:4:GLY:C	2.61	0.42
41:DS:10:VAL:HG21	41:DS:103:ILE:HD13	2.01	0.42
46:DX:11:ARG:NH1	46:DX:61:ARG:H	2.17	0.42
47:DY:6:VAL:HA	47:DY:9:GLN:CD	2.44	0.42
50:D2:33:CYS:HB2	50:D2:34:PRO:HD2	2.01	0.42
1:AA:37:U:OP1	12:AL:122:LYS:HG3	2.19	0.42
1:AA:152:A:N6	1:AA:170:U:C2	2.87	0.42
1:AA:156:G:C2	1:AA:166:G:C2	3.07	0.42
1:AA:246:A:C2	1:AA:282:A:C5	3.07	0.42
1:AA:833:U:H2'	1:AA:834:C:H6	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1098:C:C2	1:AA:1099:G:C8	3.07	0.42
1:AA:1342:C:O2'	1:AA:1343:G:H5'	2.18	0.42
2:AB:112:VAL:O	2:AB:115:LEU:HB3	2.18	0.42
10:AJ:6:ILE:HB	10:AJ:98:ILE:HG12	2.01	0.42
16:AP:50:LYS:HD3	16:AP:51:VAL:N	2.34	0.42
23:BA:284:U:H2'	23:BA:285:C:C6	2.54	0.42
23:BA:616:A:H4'	23:BA:617:G:OP1	2.19	0.42
23:BA:848:G:N9	23:BA:933:A:H8	2.16	0.42
23:BA:1310:G:C3'	23:BA:1311:G:H5"	2.49	0.42
23:BA:1546:A:H2'	23:BA:154(B):C:O4'	2.19	0.42
23:BA:1612:C:O3'	52:B4:5:TRP:HD1	2.02	0.42
23:BA:1688:U:O2	23:BA:1700:A:H8	2.02	0.42
23:BA:2343:C:O2'	23:BA:2344:U:H5'	2.19	0.42
23:BA:2394:C:H2'	23:BA:2395:C:H6	1.84	0.42
23:BA:2527:C:O5'	23:BA:2527:C:H6	2.01	0.42
23:BA:2626:C:H2'	23:BA:2627:G:O4'	2.19	0.42
23:BA:2712:U:O2'	23:BA:2713:A:H5'	2.19	0.42
23:BA:2846:G:H2'	23:BA:2847:U:H6	1.84	0.42
23:BA:2852:G:H2'	23:BA:2853:C:C6	2.54	0.42
24:BB:73:A:C4	24:BB:104:A:C2	3.07	0.42
28:BF:8:LYS:O	28:BF:12:TYR:HD1	2.02	0.42
28:BF:129:GLY:HA3	28:BF:163:ALA:HB3	2.01	0.42
29:BG:122:THR:O	29:BG:134:SER:HB2	2.19	0.42
30:BH:64:GLU:C	30:BH:66:GLU:H	2.26	0.42
30:BH:66:GLU:O	30:BH:70:GLU:HG2	2.20	0.42
32:BJ:93:LYS:HB3	32:BJ:110:LEU:HB2	2.01	0.42
37:BO:49:VAL:HG13	37:BO:76:LYS:HB2	2.01	0.42
38:BP:64:ARG:HA	38:BP:72:VAL:O	2.19	0.42
38:BP:98:LYS:HB3	38:BP:100:TYR:HE1	1.82	0.42
39:BQ:60:LEU:HD23	39:BQ:60:LEU:O	2.19	0.42
39:BQ:90:VAL:O	39:BQ:92:ARG:N	2.52	0.42
42:BT:35:THR:HB	42:BT:38:GLU:H	1.84	0.42
46:BX:45:ASN:HD21	46:BX:47:GLN:NE2	2.17	0.42
53:B5:14:VAL:HG22	53:B5:24:ALA:HB2	2.01	0.42
1:CA:66:G:H4'	1:CA:173:U:C5	2.54	0.42
1:CA:1179:A:H2'	1:CA:1180:A:O4'	2.18	0.42
4:CD:179:GLU:H	4:CD:179:GLU:CD	2.26	0.42
4:CD:200:GLU:H	4:CD:200:GLU:CD	2.27	0.42
5:CE:92:LYS:HB3	5:CE:119:LEU:HB2	2.01	0.42
11:CK:91:ARG:HD3	18:CR:88:LYS:HE2	2.00	0.42
17:CQ:7:THR:HG22	17:CQ:58:GLU:HG2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:6164:A:H2'	22:CV:6165:G:C8	2.54	0.42
23:DA:66:C:H2'	23:DA:67:U:H6	1.84	0.42
23:DA:141(A):A:C8	23:DA:1408:C:H1'	2.54	0.42
23:DA:142:G:H1'	42:DT:37:THR:CG2	2.49	0.42
23:DA:195:A:H4'	23:DA:251:A:O2'	2.20	0.42
23:DA:500:G:N2	23:DA:502:A:H2'	2.34	0.42
23:DA:735:A:H3'	23:DA:736:C:C6	2.53	0.42
23:DA:811:U:H3'	34:DL:25:SER:O	2.19	0.42
23:DA:816:C:H2'	23:DA:817:C:H6	1.84	0.42
23:DA:993:G:H1'	40:DR:89:GLN:OE1	2.19	0.42
23:DA:1526:G:H2'	23:DA:1527:G:C8	2.54	0.42
23:DA:1581:G:H2'	23:DA:1582:C:O4'	2.19	0.42
23:DA:1599:C:H2'	23:DA:1600:C:H6	1.84	0.42
23:DA:1683:C:H2'	23:DA:1684:C:C6	2.54	0.42
25:DC:31:LYS:HG3	25:DC:33:LEU:HG	2.01	0.42
25:DC:33:LEU:HB2	25:DC:34:VAL:H	1.64	0.42
25:DC:202:LYS:HG3	25:DC:203:ASN:OD1	2.19	0.42
26:DD:110:GLY:HA2	26:DD:162:ALA:HB2	2.02	0.42
27:DE:139:PHE:HB2	27:DE:166:ALA:CB	2.48	0.42
34:DL:6:LEU:H	34:DL:6:LEU:CD2	2.26	0.42
36:DN:10:LEU:HD22	36:DN:17:ARG:HD3	2.01	0.42
37:DO:100:ALA:HA	37:DO:103:GLU:HB3	2.00	0.42
40:DR:79:VAL:O	40:DR:80:GLN:C	2.62	0.42
41:DS:84:ARG:HB2	41:DS:96:ILE:CG2	2.49	0.42
43:DU:68:HIS:C	43:DU:70:SER:H	2.27	0.42
46:DX:45:ASN:HD21	46:DX:47:GLN:HE21	1.67	0.42
1:AA:625:G:H2'	1:AA:626:U:C6	2.54	0.42
1:AA:1130:A:H61	1:AA:1144:G:H21	1.67	0.42
1:AA:1207:G:H2'	1:AA:1208:C:H6	1.83	0.42
3:AC:25:GLY:C	3:AC:27:LYS:H	2.27	0.42
4:AD:51:PRO:HB3	4:AD:55:ALA:CB	2.49	0.42
6:AF:9:VAL:HG13	6:AF:59:TYR:O	2.19	0.42
7:AG:95:ARG:O	7:AG:99:LEU:HG	2.19	0.42
8:AH:84:ARG:O	8:AH:135:CYS:HB2	2.20	0.42
11:AK:41:THR:HG21	11:AK:71:LYS:HB2	2.01	0.42
11:AK:91:ARG:HD3	18:AR:88:LYS:HE2	2.01	0.42
15:AO:8:LYS:O	15:AO:12:ILE:HG13	2.20	0.42
23:BA:94:G:N3	47:BY:47:ASN:ND2	2.66	0.42
23:BA:286:C:H2'	23:BA:287:C:H6	1.83	0.42
23:BA:471:A:H8	23:BA:471:A:O5'	2.02	0.42
23:BA:628:G:C6	23:BA:636:G:C2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:840:C:H2'	23:BA:841:A:C8	2.54	0.42
23:BA:910:A:C6	23:BA:911:A:C6	3.08	0.42
23:BA:1414:G:C4	23:BA:1415:U:C5	3.07	0.42
23:BA:1536:A:O5'	23:BA:1536:A:H8	2.02	0.42
23:BA:1683:C:H2'	23:BA:1684:C:C6	2.55	0.42
23:BA:1790:C:H5"	23:BA:1791:A:P	2.59	0.42
23:BA:2272:U:H5"	23:BA:2273:A:OP1	2.19	0.42
23:BA:2364:C:H1'	45:BW:36:ILE:HD11	2.01	0.42
23:BA:2563:U:H4'	33:BK:28:SER:HA	2.00	0.42
26:BD:171:GLU:O	26:BD:171:GLU:HG3	2.19	0.42
27:BE:63:LYS:NZ	27:BE:67:GLN:NE2	2.67	0.42
28:BF:13:GLU:O	28:BF:14:GLU:HB2	2.19	0.42
32:BJ:85:VAL:HG22	32:BJ:89:LYS:HG3	2.00	0.42
33:BK:71:ARG:HH12	38:BP:74:ARG:NH2	2.11	0.42
35:BM:141:GLN:NE2	44:BV:72:ARG:HG2	2.35	0.42
36:BN:55:ALA:HA	36:BN:80:PHE:CE1	2.54	0.42
38:BP:56:GLY:O	38:BP:59:THR:HG22	2.20	0.42
39:BQ:92:ARG:HH21	40:BR:11:GLN:H	1.67	0.42
44:BV:102:LEU:HD21	44:BV:124:ILE:HD11	2.02	0.42
44:BV:128:VAL:CG2	44:BV:132:ASN:HB2	2.49	0.42
1:CA:152:A:N6	1:CA:170:U:C2	2.87	0.42
1:CA:338:A:C6	1:CA:339:C:N4	2.87	0.42
1:CA:668:G:H4'	15:CO:48:LYS:HB2	2.02	0.42
1:CA:757:U:H5"	1:CA:822:C:O2	2.19	0.42
1:CA:927:G:N1	1:CA:1391:U:C2	2.87	0.42
1:CA:1528:U:H5"	1:CA:1528:U:C6	2.49	0.42
1:CA:1528:U:O2'	1:CA:1530:G:H5'	2.19	0.42
2:CB:80:ILE:HD12	2:CB:211:ILE:HB	2.00	0.42
4:CD:122:ARG:O	4:CD:134:ASP:HB2	2.19	0.42
4:CD:137:SER:O	4:CD:138:TYR:O	2.37	0.42
4:CD:166:LYS:HD2	4:CD:166:LYS:C	2.44	0.42
8:CH:36:LEU:HD23	8:CH:39:LEU:HD23	2.00	0.42
9:CI:14:VAL:HG12	9:CI:15:ALA:N	2.34	0.42
15:CO:33:THR:HA	15:CO:63:ARG:HH12	1.83	0.42
20:CT:50:GLU:HG3	20:CT:51:GLU:N	2.33	0.42
23:DA:571:A:C8	23:DA:2030:A:N6	2.87	0.42
23:DA:598:G:H5'	34:DL:15:ARG:CG	2.50	0.42
23:DA:755:C:H2'	23:DA:756:C:C6	2.54	0.42
23:DA:909:A:C4	23:DA:912:C:C5	3.07	0.42
23:DA:1344:G:H5'	23:DA:1384:A:C6	2.55	0.42
23:DA:1831:G:C5	23:DA:1832:C:C5	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2037:G:C6	23:DA:2038:G:C6	3.06	0.42
23:DA:2287:A:C2	23:DA:2289:G:C8	3.07	0.42
23:DA:2891:G:H8	23:DA:2891:G:O5'	2.02	0.42
24:DB:16:G:C6	24:DB:69:G:C2	3.07	0.42
26:DD:91:VAL:CB	26:DD:95:ILE:HD11	2.42	0.42
32:DJ:40:ASP:OD1	32:DJ:42:GLU:HG2	2.20	0.42
33:DK:7:TYR:CE1	33:DK:20:MET:HB2	2.54	0.42
35:DM:45:GLN:CD	35:DM:45:GLN:N	2.77	0.42
36:DN:104:ARG:HB2	36:DN:104:ARG:HH11	1.85	0.42
40:DR:40:LEU:H	40:DR:47:VAL:CG2	2.33	0.42
47:DY:15:LYS:HE2	47:DY:15:LYS:HA	2.00	0.42
1:AA:1020:U:H2'	1:AA:1021:G:H8	1.85	0.42
1:AA:1129:C:H1'	1:AA:1130:A:OP2	2.18	0.42
1:AA:1145:C:H4'	1:AA:1146:A:H8	1.85	0.42
1:AA:1149:C:H6	1:AA:1149:C:O5'	2.02	0.42
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.55	0.42
2:AB:32:ILE:HD12	2:AB:32:ILE:HA	1.89	0.42
3:AC:110:ASN:O	3:AC:141:VAL:HG22	2.19	0.42
5:AE:76:ILE:HG12	5:AE:77:PRO:CD	2.31	0.42
6:AF:82:ARG:HB2	6:AF:85:VAL:HG23	2.01	0.42
11:AK:48:ILE:HD11	11:AK:64:ALA:HA	2.00	0.42
12:AL:82:VAL:HG22	12:AL:83:LEU:H	1.83	0.42
23:BA:150:C:H2'	23:BA:151:C:H6	1.83	0.42
23:BA:301:G:H5'	23:BA:334:C:O2'	2.19	0.42
23:BA:572:A:H2'	23:BA:573:G:O4'	2.20	0.42
23:BA:637:A:C5'	34:BL:116:GLY:HA2	2.49	0.42
23:BA:909:A:C4	23:BA:912:C:C5	3.07	0.42
23:BA:1109:C:H2'	23:BA:1110:G:O4'	2.19	0.42
23:BA:1229:G:H2'	23:BA:1230:C:C6	2.54	0.42
23:BA:1324:G:H4'	23:BA:1616:A:C2	2.54	0.42
23:BA:1648:C:H2'	23:BA:1649:G:O5'	2.19	0.42
23:BA:1833:U:N3	23:BA:1834:U:C5	2.88	0.42
23:BA:1954:G:N2	23:BA:1956:U:H3	2.18	0.42
23:BA:2572:A:C8	26:BD:144:ARG:HB3	2.54	0.42
23:BA:2716:U:O2'	23:BA:2717:G:H5'	2.19	0.42
23:BA:2777:G:H8	23:BA:2777:G:H3'	1.84	0.42
24:BB:73:A:H3'	24:BB:74:U:C6	2.54	0.42
27:BE:29:ASN:N	27:BE:112:MET:HE1	2.35	0.42
28:BF:34:LEU:HD21	28:BF:159:VAL:HG21	2.00	0.42
30:BH:88:ILE:HG13	30:BH:144:VAL:HG11	2.02	0.42
32:BJ:38:LEU:HD13	32:BJ:39:ILE:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BJ:157:ARG:HG2	32:BJ:157:ARG:O	2.20	0.42
35:BM:66:ILE:HG22	35:BM:104:PHE:HD2	1.82	0.42
36:BN:100:LEU:HD21	36:BN:113:LEU:HB2	2.02	0.42
42:BT:30:VAL:HG21	42:BT:79:ALA:CB	2.50	0.42
43:BU:31:LEU:HD23	43:BU:31:LEU:N	2.26	0.42
46:BX:35:THR:HB	46:BX:36:GLY:H	1.54	0.42
53:B5:36:LYS:O	53:B5:37:SER:C	2.62	0.42
1:CA:502:G:H2'	1:CA:503:C:O4'	2.20	0.42
1:CA:541:G:O2'	4:CD:41:GLY:HA2	2.19	0.42
1:CA:554:C:H2'	1:CA:555:C:C6	2.53	0.42
1:CA:619:U:C2	4:CD:135:LEU:HD21	2.54	0.42
1:CA:979:C:H42	14:CN:18:VAL:CG1	2.28	0.42
1:CA:1004:A:H3'	1:CA:1004:A:N3	2.35	0.42
3:CC:131:ARG:HH21	5:CE:50:GLU:CG	2.32	0.42
7:CG:87:VAL:HG11	7:CG:154:TYR:O	2.20	0.42
7:CG:95:ARG:O	7:CG:99:LEU:HG	2.20	0.42
8:CH:84:ARG:O	8:CH:135:CYS:HB2	2.19	0.42
23:DA:55:G:H2'	23:DA:56:A:C8	2.54	0.42
23:DA:102:G:H5"	23:DA:102:G:C8	2.55	0.42
23:DA:910:A:C6	23:DA:911:A:C6	3.08	0.42
23:DA:1006:C:C2	23:DA:1138:G:N2	2.87	0.42
23:DA:114(B):A:O2'	23:DA:1143:A:H3'	2.19	0.42
23:DA:1285:G:C5	23:DA:1329:U:C4	3.07	0.42
23:DA:1399:C:O2'	23:DA:1400:G:H5'	2.17	0.42
23:DA:1414:G:C4	23:DA:1415:U:C5	3.07	0.42
23:DA:1493:C:C4	23:DA:2210:G:O2'	2.73	0.42
23:DA:1541:U:C3'	23:DA:1542:G:O3'	2.65	0.42
23:DA:2096:U:H2'	23:DA:2097:C:C6	2.55	0.42
23:DA:2777:G:H8	23:DA:2777:G:H3'	1.85	0.42
23:DA:2820:A:O4'	36:DN:5:LYS:HG3	2.18	0.42
26:DD:17:ASP:OD1	26:DD:18:ASP:N	2.53	0.42
26:DD:197:ILE:HD11	26:DD:199:ARG:HE	1.84	0.42
27:DE:29:ASN:H	27:DE:112:MET:HE1	1.83	0.42
27:DE:65:TRP:HZ3	27:DE:75:HIS:HD2	1.60	0.42
28:DF:129:GLY:HA3	28:DF:163:ALA:HB3	2.01	0.42
28:DF:178:PHE:HA	28:DF:179:PRO:HD3	1.79	0.42
43:DU:6:HIS:O	43:DU:7:VAL:O	2.37	0.42
44:DV:6:LYS:HG3	44:DV:8:TYR:CZ	2.54	0.42
44:DV:150:LEU:HD23	44:DV:150:LEU:C	2.44	0.42
47:DY:17:SER:O	47:DY:18:PRO:C	2.60	0.42
48:DZ:50:VAL:O	48:DZ:54:VAL:HG22	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D2:9:LYS:HD3	50:D2:9:LYS:HA	1.88	0.42
53:D5:29:LYS:HG2	53:D5:29:LYS:O	2.19	0.42
1:AA:284:G:H2'	1:AA:285:G:C8	2.54	0.42
1:AA:769:G:H4'	1:AA:1513:A:H4'	2.02	0.42
1:AA:1234:C:O2'	1:AA:1235:U:H5'	2.20	0.42
1:AA:1259:C:H6	1:AA:1259:C:O5'	2.03	0.42
1:AA:1378:C:H5	1:AA:1379:G:C8	2.36	0.42
4:AD:78:LEU:O	4:AD:81:GLU:HB3	2.18	0.42
7:AG:87:VAL:HA	7:AG:88:PRO:HD3	1.80	0.42
10:AJ:79:ARG:HA	10:AJ:79:ARG:HD3	1.88	0.42
13:AM:24:GLY:O	13:AM:25:ILE:HD13	2.19	0.42
16:AP:48:TRP:CD1	16:AP:48:TRP:H	2.37	0.42
17:AQ:54:GLY:HA3	17:AQ:82:MET:CE	2.46	0.42
23:BA:332:A:O2'	23:BA:334:C:OP2	2.30	0.42
23:BA:335:C:C2	23:BA:336:C:C5	3.07	0.42
23:BA:643:A:O2'	23:BA:644:A:H5'	2.19	0.42
23:BA:846:C:C2	23:BA:847:U:C5	3.07	0.42
23:BA:1541:U:C3'	23:BA:1542:G:O3'	2.66	0.42
23:BA:1759:A:C8	23:BA:2696:U:H1'	2.53	0.42
24:BB:16:G:C6	24:BB:69:G:C2	3.08	0.42
26:BD:11:MET:CB	26:BD:24:THR:HA	2.50	0.42
26:BD:110:GLY:HA2	26:BD:162:ALA:HB2	2.01	0.42
27:BE:9:ILE:HD13	27:BE:9:ILE:H	1.83	0.42
27:BE:63:LYS:HZ1	27:BE:67:GLN:NE2	2.18	0.42
27:BE:160:ASN:ND2	27:BE:162:LEU:H	2.18	0.42
35:BM:26:TYR:CD1	35:BM:26:TYR:O	2.72	0.42
41:BS:4:LYS:HA	41:BS:106:ILE:HG22	2.02	0.42
44:BV:9:TYR:O	44:BV:38:TYR:HE2	2.02	0.42
1:CA:1004:A:H8	1:CA:1026:G:N7	2.17	0.42
1:CA:1149:C:O5'	1:CA:1149:C:H6	2.02	0.42
1:CA:1151:A:O2'	1:CA:1152:A:O5'	2.37	0.42
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.55	0.42
2:CB:32:ILE:HD12	2:CB:32:ILE:HA	1.90	0.42
3:CC:173:VAL:O	3:CC:173:VAL:HG12	2.19	0.42
5:CE:147:ASP:O	5:CE:151:LEU:HG	2.20	0.42
7:CG:73:MET:HE3	7:CG:89:MET:HA	2.01	0.42
19:CS:63:THR:CG2	19:CS:66:MET:HE3	2.47	0.42
23:DA:646:A:H2'	23:DA:647:G:O4'	2.20	0.42
23:DA:947:G:H2'	23:DA:948:G:C5'	2.43	0.42
23:DA:1265:A:H3'	50:D2:19:ARG:NH1	2.35	0.42
23:DA:1324:G:H4'	23:DA:1616:A:C2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1495:A:N3	23:DA:1496:A:C2	2.87	0.42
23:DA:1546:A:H2'	23:DA:154(B):C:O4'	2.20	0.42
23:DA:1759:A:C8	23:DA:2696:U:H1'	2.54	0.42
23:DA:2196:C:O2'	23:DA:2197:U:H5'	2.19	0.42
23:DA:2516:G:C6	23:DA:2517:C:C4	3.07	0.42
23:DA:2850:A:H2'	23:DA:2851:A:O4'	2.19	0.42
26:DD:4:ILE:HG13	26:DD:28:ALA:HB1	2.01	0.42
26:DD:11:MET:CB	26:DD:24:THR:HA	2.49	0.42
30:DH:82:ARG:HB3	30:DH:89:TYR:CG	2.55	0.42
35:DM:68:ILE:HD13	35:DM:103:MET:HG3	2.02	0.42
44:DV:48:PHE:CE2	44:DV:71:VAL:HG21	2.55	0.42
1:AA:192:U:H2'	1:AA:193:C:C6	2.55	0.42
1:AA:338:A:C6	1:AA:339:C:N4	2.87	0.42
1:AA:980:C:O2	14:AN:19:ARG:HA	2.18	0.42
4:AD:199:ASN:ND2	4:AD:202:LEU:HG	2.35	0.42
5:AE:33:VAL:CG1	5:AE:109:ILE:HD13	2.50	0.42
6:AF:3:ARG:HD3	6:AF:64:GLN:OE1	2.20	0.42
7:AG:15:ASP:HB3	7:AG:19:GLY:N	2.28	0.42
10:AJ:53:PRO:HA	14:AN:42:ILE:HD11	2.02	0.42
11:AK:38:ASN:N	11:AK:38:ASN:ND2	2.67	0.42
16:AP:50:LYS:HD3	16:AP:50:LYS:C	2.44	0.42
23:BA:536:A:H2'	23:BA:537:C:C6	2.55	0.42
23:BA:540:G:C4	23:BA:541:C:C5	3.08	0.42
23:BA:1996:C:H5	33:BK:32:TYR:OH	2.03	0.42
23:BA:2767:C:H2'	23:BA:2768:C:H6	1.84	0.42
23:BA:2809:A:N6	23:BA:2892:A:C8	2.88	0.42
25:BC:218:ARG:HH11	25:BC:218:ARG:HG3	1.84	0.42
29:BG:46:GLU:HG3	29:BG:51:ARG:CD	2.49	0.42
30:BH:118:LYS:HA	30:BH:119:PRO:HD3	1.86	0.42
35:BM:18:LYS:HB3	35:BM:19:GLY:H	1.63	0.42
35:BM:74:TYR:O	35:BM:89:ASN:N	2.53	0.42
39:BQ:79:PHE:HE1	39:BQ:83:LEU:CD2	2.32	0.42
42:BT:66:LEU:HD23	42:BT:66:LEU:C	2.44	0.42
44:BV:70:LEU:N	44:BV:70:LEU:HD23	2.34	0.42
53:B5:59:LYS:C	53:B5:60:LEU:HD23	2.45	0.42
1:CA:222:U:H2'	1:CA:223:U:H6	1.83	0.42
1:CA:666:G:C5	1:CA:741:G:C6	3.08	0.42
1:CA:1116:C:C3'	1:CA:1117:G:H5"	2.49	0.42
1:CA:1201:A:O2'	1:CA:1202:G:OP2	2.34	0.42
1:CA:1466:C:H2'	1:CA:1467:G:O4'	2.20	0.42
2:CB:11:LEU:HD12	2:CB:217:ARG:NH2	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:23:TYR:HB2	10:CJ:93:GLY:O	2.19	0.42
13:CM:24:GLY:O	13:CM:25:ILE:HD13	2.20	0.42
14:CN:12:ARG:HB3	14:CN:14:PRO:HD3	2.02	0.42
15:CO:8:LYS:O	15:CO:12:ILE:HG13	2.19	0.42
23:DA:85:G:H5"	23:DA:85:G:C8	2.50	0.42
23:DA:94:G:N3	47:DY:47:ASN:ND2	2.67	0.42
23:DA:297:C:H2'	23:DA:298:G:O4'	2.20	0.42
23:DA:648:G:O4'	23:DA:2351:G:H5"	2.20	0.42
23:DA:778:G:C5	23:DA:779:U:C4	3.07	0.42
23:DA:840:C:H2'	23:DA:841:A:C8	2.54	0.42
23:DA:1310:G:C3'	23:DA:1311:G:H5"	2.49	0.42
23:DA:1310:G:H2'	23:DA:1311:G:H5"	2.00	0.42
23:DA:1828:G:OP2	25:DC:239:ARG:NH2	2.53	0.42
23:DA:1918:A:O2'	23:DA:1920:C:N4	2.53	0.42
23:DA:2070:G:H2'	23:DA:2071:A:O4'	2.19	0.42
23:DA:2322:A:H3'	23:DA:2323:G:H8	1.83	0.42
23:DA:2618:G:C6	23:DA:2619:C:C4	3.07	0.42
23:DA:2749:A:H1'	29:DG:63:SER:OG	2.20	0.42
23:DA:2870:C:H2'	23:DA:2871:C:O4'	2.20	0.42
25:DC:126:GLN:HG2	25:DC:127:VAL:H	1.85	0.42
26:DD:101:ARG:HB3	26:DD:169:ASN:HD22	1.83	0.42
26:DD:107:THR:O	26:DD:190:GLY:HA2	2.20	0.42
27:DE:179:GLU:CD	27:DE:179:GLU:N	2.78	0.42
28:DF:115:ARG:CD	28:DF:115:ARG:H	2.30	0.42
33:DK:19:ILE:H	33:DK:19:ILE:HD13	1.84	0.42
34:DL:9:ASN:N	34:DL:10:PRO:CD	2.81	0.42
35:DM:62:GLY:HA2	44:DV:116:VAL:HG22	2.02	0.42
35:DM:141:GLN:NE2	44:DV:72:ARG:HG2	2.35	0.42
42:DT:30:VAL:HG12	42:DT:31:HIS:H	1.84	0.42
1:AA:222:U:H2'	1:AA:223:U:H6	1.83	0.42
1:AA:338:A:C6	1:AA:339:C:C4	3.08	0.42
1:AA:1399:C:H4'	1:AA:1400:C:C5'	2.20	0.42
1:AA:1419:G:C6	1:AA:1420:C:C4	3.07	0.42
3:AC:33:LEU:HD21	14:AN:53:LEU:HD23	2.00	0.42
7:AG:23:VAL:HG13	7:AG:43:PHE:CE2	2.55	0.42
9:AI:33:PHE:HZ	9:AI:43:ALA:O	2.03	0.42
10:AJ:32:ALA:HB2	10:AJ:76:ASN:HB2	2.00	0.42
12:AL:74:HIS:HD2	12:AL:76:LEU:HB2	1.84	0.42
23:BA:56:A:C2	23:BA:115:C:O2	2.73	0.42
23:BA:72:U:O2'	23:BA:73:A:H5'	2.19	0.42
23:BA:286:C:C2	23:BA:287:C:C5	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:363(D):G:H2'	23:BA:363(E):G:C8	2.55	0.42
23:BA:426:C:C2	23:BA:427:U:C5	3.08	0.42
23:BA:588:U:H2'	23:BA:589:C:H6	1.82	0.42
23:BA:665:C:O2'	23:BA:666:G:H5'	2.20	0.42
23:BA:804:A:H5"	23:BA:805:G:OP1	2.20	0.42
23:BA:919:G:H2'	23:BA:920:G:H8	1.85	0.42
23:BA:1678:G:O5'	23:BA:1678:G:C8	2.64	0.42
23:BA:1828:G:OP2	25:BC:239:ARG:NH2	2.53	0.42
23:BA:2090:G:H21	46:BX:45:ASN:HD21	1.67	0.42
23:BA:2262:U:H4'	23:BA:2328:A:C2	2.55	0.42
23:BA:2484:G:C2	23:BA:2485:G:C8	3.07	0.42
23:BA:2711:A:OP1	23:BA:712(B):A:P	2.78	0.42
25:BC:27:THR:CG2	25:BC:83:GLU:HG2	2.50	0.42
25:BC:31:LYS:HG3	25:BC:33:LEU:HG	2.02	0.42
25:BC:79:VAL:HG11	25:BC:111:LEU:CD1	2.50	0.42
25:BC:124:PRO:C	25:BC:126:GLN:H	2.28	0.42
25:BC:147:LEU:HD13	25:BC:155:LEU:CD1	2.45	0.42
26:BD:91:VAL:CB	26:BD:95:ILE:HD11	2.43	0.42
26:BD:97:LYS:HE2	26:BD:97:LYS:HB3	1.91	0.42
29:BG:96:ALA:CB	29:BG:105:LEU:HB3	2.49	0.42
32:BJ:35:ARG:O	32:BJ:73:ASP:HB3	2.20	0.42
34:BL:7:ARG:O	34:BL:10:PRO:HD3	2.19	0.42
34:BL:47:ASP:HB3	34:BL:48:PRO:CA	2.49	0.42
35:BM:130:LYS:HG2	35:BM:131:ILE:N	2.33	0.42
39:BQ:62:ILE:HD12	39:BQ:76:TYR:CZ	2.54	0.42
41:BS:107:LEU:N	41:BS:107:LEU:CD1	2.82	0.42
46:BX:43:TYR:HA	46:BX:44:PRO:HD3	1.77	0.42
47:BY:56:GLN:O	47:BY:60:LEU:HG	2.20	0.42
51:B3:34:LEU:HD13	51:B3:34:LEU:H	1.85	0.42
1:CA:192:U:H2'	1:CA:193:C:C6	2.55	0.42
1:CA:338:A:C6	1:CA:339:C:C4	3.08	0.42
1:CA:392:G:C2	1:CA:393:A:C5	3.08	0.42
1:CA:1281:U:O2'	1:CA:1282:C:P	2.78	0.42
1:CA:1328:C:H5"	13:CM:28:ALA:HB1	2.02	0.42
1:CA:1419:G:C6	1:CA:1420:C:C4	3.08	0.42
1:CA:1528:U:H6	1:CA:1528:U:C5'	2.31	0.42
4:CD:51:PRO:HB3	4:CD:55:ALA:CB	2.49	0.42
6:CF:3:ARG:HD3	6:CF:64:GLN:OE1	2.20	0.42
6:CF:8:ILE:HD11	6:CF:79:LEU:HD13	2.01	0.42
6:CF:96:PRO:HB3	18:CR:30:ASP:CG	2.45	0.42
7:CG:22:LEU:HD23	7:CG:63:LYS:HZ2	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:73:ASP:CG	8:CH:75:ARG:HD3	2.45	0.42
11:CK:124:LYS:C	11:CK:126:ARG:N	2.78	0.42
16:CP:20:VAL:HG22	16:CP:21:VAL:N	2.34	0.42
23:DA:191:A:H2'	23:DA:192:C:C6	2.55	0.42
23:DA:433:C:O2'	23:DA:434:U:H5'	2.19	0.42
23:DA:460:A:C6	23:DA:470:A:C8	3.08	0.42
23:DA:628:G:C6	23:DA:636:G:C2	3.07	0.42
23:DA:839:U:H2'	23:DA:840:C:H6	1.82	0.42
23:DA:919:G:H2'	23:DA:920:G:H8	1.85	0.42
23:DA:1040:C:H2'	23:DA:1041:C:H6	1.85	0.42
23:DA:1695:G:N2	23:DA:1696:G:C8	2.88	0.42
24:DB:3:C:H2'	24:DB:4:C:C6	2.55	0.42
25:DC:32:SER:HA	25:DC:36:PRO:HG2	2.01	0.42
25:DC:114:GLY:O	25:DC:115:GLN:C	2.62	0.42
25:DC:166:GLN:HB2	25:DC:174:ILE:HG22	2.00	0.42
28:DF:111:LEU:N	28:DF:112:PRO:CD	2.83	0.42
30:DH:88:ILE:HG13	30:DH:144:VAL:HG11	2.02	0.42
30:DH:133:HIS:HA	30:DH:134:PRO:HD3	1.90	0.42
34:DL:86:LYS:HG3	34:DL:87:ASP:N	2.34	0.42
36:DN:100:LEU:HD21	36:DN:113:LEU:HB2	2.01	0.42
38:DP:57:PHE:C	38:DP:59:THR:N	2.78	0.42
39:DQ:57:PHE:HB3	39:DQ:61:TRP:CZ2	2.55	0.42
41:DS:4:LYS:HA	41:DS:106:ILE:HG22	2.01	0.42
41:DS:30:GLU:HA	41:DS:33:ARG:HD2	2.01	0.42
50:D2:13:LYS:HE2	50:D2:13:LYS:HB3	1.85	0.42
1:AA:586:C:O2'	1:AA:878:G:H4'	2.20	0.42
1:AA:663:A:O2'	1:AA:664:G:H5'	2.20	0.42
1:AA:815:A:H4'	1:AA:817:C:C5	2.55	0.42
3:AC:173:VAL:O	3:AC:173:VAL:HG12	2.20	0.42
5:AE:92:LYS:O	5:AE:118:ILE:HD12	2.20	0.42
6:AF:8:ILE:HD11	6:AF:79:LEU:HD13	2.02	0.42
6:AF:96:PRO:HB3	18:AR:30:ASP:CG	2.44	0.42
23:BA:514:A:H1'	23:BA:581:C:O2'	2.19	0.42
23:BA:948:G:OP1	23:BA:962:G:OP1	2.38	0.42
23:BA:1107:G:O2'	23:BA:1108:U:H5'	2.19	0.42
23:BA:1465:G:C2	23:BA:1466:G:C8	3.07	0.42
23:BA:1751:C:H2'	23:BA:1752:C:C6	2.54	0.42
23:BA:2444:G:C6	23:BA:2445:G:C5	3.08	0.42
23:BA:2536:G:C6	23:BA:2537:U:C4	3.08	0.42
25:BC:105:ILE:HG13	25:BC:106:ILE:HD12	2.02	0.42
25:BC:114:GLY:O	25:BC:115:GLN:C	2.62	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:17:ASP:OD1	26:BD:18:ASP:N	2.52	0.42
27:BE:106:ARG:H	27:BE:106:ARG:HG2	1.54	0.42
28:BF:111:LEU:N	28:BF:112:PRO:CD	2.83	0.42
30:BH:101:LEU:HG	30:BH:107:ILE:CG2	2.49	0.42
32:BJ:40:ASP:OD1	32:BJ:42:GLU:HG2	2.20	0.42
36:BN:2:ARG:HB3	36:BN:3:HIS:CE1	2.54	0.42
38:BP:131:ALA:O	38:BP:135:VAL:HG23	2.20	0.42
40:BR:28:GLU:OE1	40:BR:31:ALA:HB2	2.19	0.42
41:BS:18:ARG:HG2	41:BS:76:VAL:HG11	2.02	0.42
43:BU:34:LYS:HE2	43:BU:34:LYS:HB3	1.80	0.42
1:CA:156:G:C2	1:CA:166:G:C2	3.07	0.42
1:CA:1346:A:H5'	9:CI:120:ARG:NH1	2.25	0.42
2:CB:187:LEU:CD1	2:CB:205:ASP:HB3	2.50	0.42
3:CC:59:ARG:HA	3:CC:63:ASN:O	2.20	0.42
4:CD:49:ARG:HD2	4:CD:49:ARG:HA	1.89	0.42
23:DA:173:G:H2'	23:DA:174:C:C6	2.54	0.42
23:DA:330:A:HO2'	23:DA:331:A:H8	1.66	0.42
23:DA:335:C:C2	23:DA:336:C:C5	3.08	0.42
23:DA:479:A:H4'	23:DA:480:A:O5'	2.20	0.42
23:DA:573:G:O2'	23:DA:574:C:H3'	2.20	0.42
23:DA:870:A:OP1	35:DM:7:MET:HE2	2.19	0.42
23:DA:924:C:H2'	23:DA:925:C:C6	2.54	0.42
23:DA:114(B):A:C2	23:DA:1144:G:C8	3.08	0.42
23:DA:1349:A:N6	23:DA:1598:C:H42	2.17	0.42
23:DA:2341:G:H2'	23:DA:2342:C:C6	2.54	0.42
23:DA:2444:G:C6	23:DA:2445:G:C5	3.07	0.42
23:DA:2477:C:HO2'	23:DA:2478:A:P	2.43	0.42
25:DC:222:ARG:HH12	25:DC:239:ARG:CZ	2.33	0.42
25:DC:261:LYS:HB2	25:DC:261:LYS:NZ	2.35	0.42
26:DD:171:GLU:HG2	26:DD:185:LYS:CG	2.50	0.42
29:DG:144:VAL:O	29:DG:148:ILE:HG12	2.20	0.42
32:DJ:35:ARG:O	32:DJ:73:ASP:HB3	2.20	0.42
34:DL:51:PHE:HB3	34:DL:52:GLU:H	1.76	0.42
35:DM:81:VAL:HG12	35:DM:82:ARG:CG	2.41	0.42
43:DU:27:VAL:HG23	43:DU:27:VAL:O	2.19	0.42
45:DW:82:ARG:HA	45:DW:83:PRO:HD2	1.91	0.42
47:DY:2:LYS:H	47:DY:2:LYS:HD3	1.84	0.42
52:D4:47:ARG:O	52:D4:48:LYS:HB2	2.19	0.42
1:AA:69:G:H2'	1:AA:73:G:H8	1.84	0.42
1:AA:272:C:H2'	1:AA:273:A:H8	1.85	0.42
1:AA:502:G:OP1	12:AL:115:SER:HA	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:804:U:H5”	1:AA:805:C:OP2	2.20	0.42
1:AA:1330:U:H4’	13:AM:23:TYR:CE2	2.54	0.42
1:AA:1428:A:H2’	1:AA:1429:C:C6	2.55	0.42
2:AB:71:VAL:HG23	2:AB:164:VAL:HG13	2.02	0.42
4:AD:30:LYS:C	4:AD:32:ALA:N	2.70	0.42
4:AD:122:ARG:O	4:AD:134:ASP:HB2	2.19	0.42
5:AE:76:ILE:CG1	5:AE:77:PRO:HD2	2.31	0.42
5:AE:147:ASP:O	5:AE:151:LEU:HG	2.20	0.42
7:AG:25:ALA:O	7:AG:29:LYS:HG2	2.20	0.42
9:AI:14:VAL:HG12	9:AI:15:ALA:N	2.35	0.42
10:AJ:58:ASP:C	10:AJ:60:ARG:N	2.78	0.42
14:AN:12:ARG:HB3	14:AN:14:PRO:HD3	2.02	0.42
15:AO:36:ILE:HD12	15:AO:63:ARG:NH1	2.33	0.42
19:AS:30:LEU:HD23	19:AS:30:LEU:C	2.45	0.42
23:BA:173:G:H2’	23:BA:174:C:C6	2.55	0.42
23:BA:307:G:N1	23:BA:310:A:OP2	2.53	0.42
23:BA:464:U:H4’	52:B4:5:TRP:CZ3	2.54	0.42
23:BA:1349:A:N6	23:BA:1598:C:H42	2.18	0.42
23:BA:1464:C:O2	23:BA:1528:A:H2	2.03	0.42
23:BA:1579:A:H2’	23:BA:1580:A:C8	2.55	0.42
23:BA:1655:A:O2’	26:BD:115:GLY:HA2	2.19	0.42
23:BA:1951:U:O2	23:BA:1953:A:H8	2.03	0.42
23:BA:2194:G:H2’	23:BA:2195:C:H6	1.84	0.42
23:BA:2396:G:O2’	23:BA:2397:G:H5’	2.20	0.42
23:BA:2686:G:C5	23:BA:2687:U:C4	3.08	0.42
25:BC:145:VAL:HG12	25:BC:146:GLU:O	2.20	0.42
25:BC:261:LYS:HB2	25:BC:261:LYS:NZ	2.35	0.42
28:BF:128:ARG:HH21	28:BF:130:ASN:ND2	2.17	0.42
29:BG:12:PRO:O	29:BG:15:VAL:HG22	2.20	0.42
33:BK:17:ARG:HB2	33:BK:45:GLU:HG3	2.02	0.42
34:BL:58:THR:C	34:BL:60:MET:N	2.77	0.42
36:BN:18:LEU:C	36:BN:18:LEU:HD13	2.44	0.42
38:BP:23:ARG:NH2	38:BP:120:ARG:HD3	2.35	0.42
39:BQ:83:LEU:HG	39:BQ:88:ILE:CD1	2.43	0.42
41:BS:70:TYR:HD2	41:BS:70:TYR:H	1.68	0.42
42:BT:26:TYR:CE1	42:BT:83:VAL:HG21	2.55	0.42
43:BU:30:VAL:HG13	43:BU:37:VAL:HG12	2.01	0.42
44:BV:97:GLU:HB3	44:BV:125:LEU:CD2	2.43	0.42
44:BV:179:ASP:CG	44:BV:180:VAL:H	2.28	0.42
51:B3:30:THR:CG2	51:B3:31:PRO:HD2	2.48	0.42
53:B5:25:MET:SD	53:B5:47:LYS:HG2	2.59	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B5:33:ASN:ND2	53:B5:34:TRP:N	2.67	0.42
1:CA:119:A:C5	1:CA:240:C:C4	3.07	0.42
1:CA:862:C:H2'	1:CA:863:U:O4'	2.20	0.42
1:CA:948:C:OP1	13:CM:107:ALA:HA	2.20	0.42
1:CA:1020:U:H2'	1:CA:1021:G:H8	1.85	0.42
1:CA:1130:A:H4'	9:CI:20:ARG:HH22	1.84	0.42
2:CB:113:HIS:O	2:CB:116:GLU:HG2	2.19	0.42
4:CD:31:CYS:O	4:CD:32:ALA:CB	2.68	0.42
4:CD:104:VAL:HG11	4:CD:146:ILE:HD12	2.01	0.42
12:CL:69:ILE:HA	12:CL:99:ILE:HG22	2.01	0.42
15:CO:7:GLU:HA	15:CO:10:LYS:HB3	2.01	0.42
18:CR:45:SER:HB3	18:CR:51:LEU:CG	2.49	0.42
19:CS:53:ASN:ND2	19:CS:56:GLN:H	2.17	0.42
23:DA:1726:G:C2	23:DA:1735:U:O2	2.73	0.42
23:DA:1862:G:H2'	23:DA:1863:G:C8	2.53	0.42
23:DA:2247:A:H2'	23:DA:2248:C:H6	1.83	0.42
23:DA:2262:U:H4'	23:DA:2328:A:C2	2.55	0.42
23:DA:2414:G:H21	34:DL:67:MET:HE1	1.85	0.42
23:DA:2809:A:N6	23:DA:2892:A:C8	2.88	0.42
25:DC:35:LYS:HG3	25:DC:104:TYR:CD2	2.55	0.42
25:DC:35:LYS:CB	25:DC:36:PRO:HD3	2.50	0.42
25:DC:76:PRO:HA	25:DC:118:VAL:HG23	2.02	0.42
25:DC:105:ILE:HG12	25:DC:106:ILE:HD12	2.02	0.42
33:DK:17:ARG:HB2	33:DK:45:GLU:HG3	2.01	0.42
35:DM:74:TYR:O	35:DM:89:ASN:N	2.52	0.42
39:DQ:59:ARG:O	39:DQ:63:VAL:HG23	2.20	0.42
39:DQ:92:ARG:CD	39:DQ:95:LEU:H	2.32	0.42
39:DQ:92:ARG:HH21	40:DR:11:GLN:H	1.67	0.42
42:DT:26:TYR:CE1	42:DT:83:VAL:HG21	2.55	0.42
42:DT:56:THR:C	42:DT:57:LEU:HD12	2.45	0.42
44:DV:157:LEU:HD12	44:DV:157:LEU:N	2.34	0.42
46:DX:37:ILE:HG23	46:DX:38:SER:N	2.35	0.42
47:DY:21:LEU:CD2	47:DY:22:GLU:HG3	2.50	0.42
1:AA:173:U:C6	1:AA:197:A:C2	3.08	0.42
1:AA:391:G:C6	1:AA:392:G:C5	3.08	0.42
1:AA:429:U:H4'	1:AA:430:A:O5'	2.20	0.42
1:AA:805:C:H2'	1:AA:806:C:C6	2.53	0.42
1:AA:1004:A:H3'	1:AA:1004:A:N3	2.34	0.42
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.55	0.42
5:AE:35:GLY:HA3	5:AE:41:VAL:HG12	2.02	0.42
7:AG:60:LYS:HD2	7:AG:60:LYS:HA	1.91	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:70:LYS:HA	7:AG:71:PRO:HD2	1.94	0.42
10:AJ:30:SER:HB2	10:AJ:80:LYS:HG3	2.02	0.42
11:AK:59:TYR:O	11:AK:62:GLN:HB3	2.19	0.42
11:AK:124:LYS:C	11:AK:126:ARG:N	2.78	0.42
18:AR:45:SER:HB3	18:AR:51:LEU:HG	2.02	0.42
23:BA:311:A:C8	23:BA:332:A:C5	3.07	0.42
23:BA:388:G:OP1	46:BX:33:LYS:CB	2.68	0.42
23:BA:924:C:H2'	23:BA:925:C:C6	2.55	0.42
23:BA:1334:G:C6	23:BA:1335:U:C4	3.07	0.42
23:BA:1447:G:N3	23:BA:1545:A:H2	2.18	0.42
23:BA:2050:C:H1'	26:BD:156:MET:CE	2.49	0.42
23:BA:2590:A:C2	23:BA:2605:U:C2	3.08	0.42
23:BA:2762:G:O2'	23:BA:2763:G:H5'	2.20	0.42
23:BA:2870:C:H2'	23:BA:2871:C:O4'	2.19	0.42
24:BB:33:G:O2'	24:BB:34:U:H5'	2.20	0.42
24:BB:106:G:C5	24:BB:107:U:C5	3.08	0.42
25:BC:190:TYR:O	25:BC:191:ALA:HB2	2.20	0.42
26:BD:144:ARG:HB3	26:BD:145:LYS:H	1.57	0.42
27:BE:179:GLU:CD	27:BE:179:GLU:N	2.77	0.42
28:BF:18:GLU:HB3	28:BF:175:LEU:HD13	2.02	0.42
28:BF:128:ARG:HG2	28:BF:129:GLY:H	1.85	0.42
33:BK:22:ILE:HG12	33:BK:42:SER:H	1.85	0.42
34:BL:61:ARG:HH11	53:B5:13:ARG:HD2	1.84	0.42
34:BL:85:LEU:HD21	34:BL:116:GLY:O	2.20	0.42
36:BN:39:PRO:O	36:BN:40:LYS:C	2.63	0.42
40:BR:1:MET:SD	40:BR:42:GLY:HA3	2.60	0.42
41:BS:30:GLU:HA	41:BS:33:ARG:HD2	2.02	0.42
1:CA:386:C:H2'	1:CA:387:U:H5"	2.02	0.42
1:CA:685:G:O2'	1:CA:686:U:H5'	2.20	0.42
1:CA:1020:U:H2'	1:CA:1021:G:C8	2.55	0.42
1:CA:1328:C:H5"	13:CM:28:ALA:CB	2.49	0.42
1:CA:1432:G:OP1	38:DP:107:ASP:HB2	2.20	0.42
3:CC:34:LEU:HD21	3:CC:38:ARG:HH21	1.84	0.42
4:CD:50:ARG:HA	4:CD:51:PRO:HD3	1.85	0.42
4:CD:108:LEU:HB3	4:CD:110:PHE:HD2	1.85	0.42
6:CF:82:ARG:HB2	6:CF:85:VAL:HG23	2.01	0.42
7:CG:111:ARG:HA	7:CG:112:PRO:HD3	1.82	0.42
8:CH:85:ARG:HH12	8:CH:134:ILE:HG23	1.85	0.42
10:CJ:33:GLN:HB2	10:CJ:75:ILE:CD1	2.50	0.42
19:CS:51:VAL:HG12	19:CS:52:TYR:O	2.20	0.42
20:CT:63:ILE:HG21	20:CT:81:LYS:HG3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:56:A:C2	23:DA:115:C:O2	2.73	0.42
23:DA:284:U:H2'	23:DA:285:C:C6	2.55	0.42
23:DA:595:C:H2'	23:DA:596:G:O4'	2.20	0.42
23:DA:699:A:H4'	23:DA:1634:A:N7	2.34	0.42
23:DA:907:U:O2'	35:DM:101:ARG:NH2	2.49	0.42
23:DA:912:C:C2	23:DA:913:U:C5	3.08	0.42
23:DA:1140:C:OP1	32:DJ:46:LEU:HB3	2.20	0.42
23:DA:1602:U:H3'	23:DA:1603:A:C5'	2.50	0.42
23:DA:2028:U:O4	23:DA:2033:A:OP1	2.38	0.42
23:DA:2284:C:O5'	23:DA:2284:C:H6	2.03	0.42
23:DA:2886:G:H2'	23:DA:2887:U:H6	1.84	0.42
25:DC:94:LEU:HB2	25:DC:104:TYR:CE1	2.47	0.42
26:DD:117:MET:HB2	26:DD:117:MET:HE3	1.65	0.42
28:DF:34:LEU:HD21	28:DF:159:VAL:HG21	2.02	0.42
28:DF:161:THR:HG21	28:DF:172:LEU:CD2	2.50	0.42
29:DG:78:GLY:HA2	29:DG:83:TYR:CE1	2.54	0.42
37:DO:49:VAL:HG13	37:DO:76:LYS:HB2	2.02	0.42
38:DP:131:ALA:O	38:DP:135:VAL:HG23	2.20	0.42
41:DS:107:LEU:N	41:DS:107:LEU:CD1	2.83	0.42
42:DT:31:HIS:HA	42:DT:32:PRO:HD3	1.97	0.42
43:DU:59:GLY:C	43:DU:61:ILE:N	2.77	0.42
44:DV:40:ASP:OD1	44:DV:42:VAL:HG12	2.19	0.42
49:D1:50:THR:CG2	49:D1:51:TYR:H	2.14	0.42
53:D5:33:ASN:ND2	53:D5:34:TRP:N	2.67	0.42
1:AA:35:G:C6	1:AA:36:C:N4	2.87	0.41
1:AA:119:A:C5	1:AA:240:C:C4	3.08	0.41
2:AB:69:LEU:HD22	2:AB:159:PRO:HG2	2.02	0.41
2:AB:80:ILE:HD12	2:AB:211:ILE:HB	2.01	0.41
2:AB:187:LEU:CD1	2:AB:205:ASP:HB3	2.50	0.41
5:AE:41:VAL:CG1	5:AE:113:ALA:HA	2.49	0.41
7:AG:92:SER:O	7:AG:96:GLN:HG3	2.20	0.41
7:AG:150:ALA:HA	11:AK:59:TYR:CD2	2.55	0.41
18:AR:45:SER:HB3	18:AR:51:LEU:HD21	2.01	0.41
23:BA:320:A:H5"	23:BA:321:G:OP1	2.19	0.41
23:BA:811:U:H3'	34:BL:25:SER:O	2.20	0.41
23:BA:1284:A:H2'	23:BA:1285:G:O4'	2.20	0.41
23:BA:1374:G:C5	23:BA:1375:C:C5	3.08	0.41
23:BA:1851:U:H2'	23:BA:1852:C:H6	1.85	0.41
23:BA:2338:G:C2	23:BA:2339:G:C8	3.08	0.41
23:BA:2718:G:H2'	23:BA:2719:G:C8	2.55	0.41
23:BA:2809:A:N1	23:BA:2892:A:C4	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BB:72:G:N2	24:BB:103:U:C5	2.88	0.41
27:BE:117:ARG:HD2	27:BE:190:GLU:O	2.20	0.41
28:BF:15:VAL:HG22	28:BF:175:LEU:HB3	2.02	0.41
34:BL:62:LEU:N	34:BL:62:LEU:HD22	2.35	0.41
36:BN:94:TYR:O	36:BN:117:VAL:HG12	2.20	0.41
36:BN:100:LEU:HD23	36:BN:112:ALA:HA	2.02	0.41
40:BR:95:LEU:HD23	40:BR:95:LEU:C	2.45	0.41
47:BY:46:GLN:O	47:BY:47:ASN:CB	2.61	0.41
1:CA:625:G:H2'	1:CA:626:U:C6	2.55	0.41
1:CA:683:G:C5	1:CA:684:A:N7	2.88	0.41
1:CA:697:U:H2'	1:CA:698:G:H5'	2.01	0.41
1:CA:1448:C:H2'	1:CA:1449:C:H6	1.84	0.41
2:CB:140:HIS:O	2:CB:144:ARG:HG2	2.20	0.41
3:CC:137:ALA:O	3:CC:141:VAL:HG23	2.20	0.41
4:CD:75:PHE:HE2	4:CD:207:TYR:HE1	1.67	0.41
7:CG:150:ALA:HA	11:CK:59:TYR:HD2	1.85	0.41
9:CI:56:LEU:HD23	9:CI:56:LEU:C	2.45	0.41
12:CL:74:HIS:CD2	12:CL:76:LEU:HB2	2.55	0.41
12:CL:82:VAL:HG23	12:CL:106:ALA:CB	2.45	0.41
13:CM:106:ASN:HB2	13:CM:107:ALA:H	1.55	0.41
15:CO:50:HIS:O	15:CO:53:HIS:HB3	2.19	0.41
19:CS:29:ARG:HB2	19:CS:48:THR:N	2.32	0.41
23:DA:65:C:O2'	23:DA:66:C:H5'	2.20	0.41
23:DA:270(K):G:H2'	23:DA:270(L):C:O4'	2.20	0.41
23:DA:363(A):G:H2'	23:DA:363(B):A:C8	2.54	0.41
23:DA:725:G:C6	23:DA:726:G:N1	2.88	0.41
23:DA:1284:A:H2'	23:DA:1285:G:O4'	2.19	0.41
23:DA:1543:A:H3'	23:DA:1543:A:C8	2.55	0.41
23:DA:2230:G:H1'	46:DX:45:ASN:HB2	2.02	0.41
23:DA:2846:G:C5	23:DA:2847:U:C5	3.08	0.41
25:DC:235:GLY:O	25:DC:237:GLU:N	2.48	0.41
26:DD:116:VAL:HG13	26:DD:117:MET:N	2.34	0.41
28:DF:114:ILE:HB	28:DF:117:PHE:HB2	2.02	0.41
33:DK:90:GLN:O	33:DK:91:LEU:HB2	2.20	0.41
35:DM:121:ALA:HA	35:DM:124:LYS:HG3	2.02	0.41
36:DN:32:GLY:C	36:DN:33:ARG:HD2	2.45	0.41
37:DO:28:VAL:HG13	37:DO:35:ILE:HD11	2.02	0.41
38:DP:61:PHE:CZ	38:DP:76:PHE:HB2	2.54	0.41
38:DP:128:GLU:O	38:DP:132:LYS:HG3	2.19	0.41
39:DQ:28:ARG:CG	39:DQ:38:THR:OG1	2.68	0.41
41:DS:12:ILE:HD12	41:DS:46:PHE:HE2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:17:U:N3	1:AA:18:C:C4	2.88	0.41
1:AA:584:G:H2'	1:AA:585:G:C8	2.55	0.41
1:AA:841:U:O2'	1:AA:842:C:H6	2.03	0.41
1:AA:1116:C:H3'	1:AA:1117:G:H5"	2.02	0.41
1:AA:1289:A:C8	1:AA:1290:G:C8	3.08	0.41
1:AA:1368:G:O2'	1:AA:1369:C:H5'	2.20	0.41
3:AC:108:ASN:HA	3:AC:109:PRO:HD2	1.87	0.41
4:AD:79:PHE:CD1	4:AD:207:TYR:HD1	2.38	0.41
13:AM:19:LEU:HA	13:AM:22:ILE:HG12	2.03	0.41
20:AT:33:ILE:CD1	20:AT:62:LEU:HD22	2.50	0.41
21:AU:6:ARG:HG3	21:AU:15:ARG:HH11	1.85	0.41
22:AV:6165:G:C6	22:AV:6166:U:C4	3.08	0.41
23:BA:71:A:H4'	23:BA:72:U:H5"	2.02	0.41
23:BA:388:G:C4	23:BA:390:A:C6	3.09	0.41
23:BA:735:A:H3'	23:BA:736:C:C6	2.54	0.41
23:BA:1027:A:N6	23:BA:1126:A:N9	2.67	0.41
23:BA:1486:A:N6	23:BA:1504:C:N4	2.68	0.41
23:BA:2065:C:H2'	23:BA:2066:C:C6	2.55	0.41
23:BA:2210:G:N3	23:BA:2210:G:C3'	2.77	0.41
23:BA:2287:A:C5	23:BA:2289:G:C5	3.08	0.41
23:BA:2306:C:H4'	28:BF:136:ARG:NH2	2.34	0.41
23:BA:2509:G:C5	23:BA:2510:C:C5	3.08	0.41
23:BA:2723:C:O5'	23:BA:2723:C:H6	2.03	0.41
25:BC:105:ILE:HG12	25:BC:106:ILE:HD12	2.01	0.41
25:BC:126:GLN:HG2	25:BC:127:VAL:H	1.85	0.41
25:BC:202:LYS:HG3	25:BC:203:ASN:OD1	2.19	0.41
29:BG:144:VAL:O	29:BG:148:ILE:HG12	2.20	0.41
32:BJ:27:TYR:O	32:BJ:29:PRO:HD3	2.20	0.41
34:BL:57:THR:HG23	34:BL:59:LEU:HB3	1.99	0.41
34:BL:112:LEU:HD23	34:BL:112:LEU:C	2.45	0.41
37:BO:66:ALA:HA	37:BO:69:VAL:HG12	2.02	0.41
38:BP:110:ILE:HA	38:BP:110:ILE:HD12	1.86	0.41
43:BU:17:SER:CB	43:BU:71:LYS:HD2	2.50	0.41
44:BV:157:LEU:HD12	44:BV:157:LEU:N	2.35	0.41
46:BX:11:ARG:HG3	46:BX:62:VAL:HA	2.02	0.41
46:BX:73:LEU:HD23	46:BX:73:LEU:C	2.45	0.41
1:CA:35:G:C6	1:CA:36:C:N4	2.88	0.41
1:CA:173:U:C6	1:CA:197:A:C2	3.08	0.41
1:CA:626:U:H5"	16:CP:38:TYR:CD2	2.55	0.41
1:CA:786:G:H2'	1:CA:787:A:O4'	2.21	0.41
1:CA:1289:A:C8	1:CA:1290:G:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:134:ILE:HD11	3:CC:153:VAL:HG22	2.01	0.41
5:CE:48:ALA:HA	5:CE:49:PRO:HD3	1.91	0.41
23:DA:342:G:O2'	23:DA:343:C:H5"	2.20	0.41
23:DA:828:U:C5	23:DA:829:A:N6	2.88	0.41
23:DA:1388:G:N3	23:DA:1389:G:C8	2.89	0.41
23:DA:1465:G:C2	23:DA:1466:G:C8	3.08	0.41
23:DA:1502:C:O5'	23:DA:1502:C:H6	2.04	0.41
23:DA:1518:C:O2'	23:DA:1519:G:H5'	2.20	0.41
23:DA:1688:U:O2	23:DA:1700:A:H8	2.03	0.41
23:DA:1926:U:O2	23:DA:1929:G:C2	2.73	0.41
23:DA:2194:G:H2'	23:DA:2195:C:H6	1.85	0.41
23:DA:2304:G:H1	23:DA:2312:U:H3	1.67	0.41
23:DA:2518:A:H5'	23:DA:2518:A:C8	2.55	0.41
23:DA:2809:A:N1	23:DA:2892:A:C4	2.88	0.41
23:DA:2849:U:H4'	23:DA:2868:A:C2	2.55	0.41
25:DC:27:THR:CG2	25:DC:83:GLU:HG2	2.50	0.41
25:DC:135:PHE:O	25:DC:136:ILE:C	2.63	0.41
36:DN:14:SER:HA	36:DN:17:ARG:HG2	2.02	0.41
37:DO:102:ALA:HA	37:DO:105:ALA:HB3	2.02	0.41
43:DU:95:LYS:HB3	43:DU:99:CYS:O	2.19	0.41
44:DV:9:TYR:O	44:DV:38:TYR:HE2	2.03	0.41
44:DV:24:LEU:HD21	44:DV:86:VAL:HG23	2.01	0.41
46:DX:11:ARG:HH11	46:DX:60:PHE:HA	1.85	0.41
1:AA:123:C:OP1	1:AA:312:C:H5'	2.20	0.41
1:AA:1020:U:H2'	1:AA:1021:G:C8	2.55	0.41
1:AA:1281:U:O2'	1:AA:1282:C:P	2.78	0.41
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.56	0.41
2:AB:140:HIS:O	2:AB:144:ARG:HG2	2.19	0.41
2:AB:167:PRO:O	2:AB:171:ALA:HB2	2.20	0.41
4:AD:75:PHE:HE2	4:AD:207:TYR:HE1	1.67	0.41
4:AD:153:ARG:NH1	4:AD:181:MET:HE3	2.34	0.41
5:AE:15:ARG:O	5:AE:15:ARG:HG2	2.21	0.41
7:AG:70:LYS:HG3	7:AG:96:GLN:HB3	2.02	0.41
10:AJ:78:ASN:O	10:AJ:82:ILE:HG12	2.20	0.41
11:AK:34:ASP:HB2	11:AK:35:PRO:HD2	2.02	0.41
11:AK:54:ARG:H	11:AK:54:ARG:HG2	1.67	0.41
13:AM:3:ARG:HH12	28:BF:113:ARG:HD2	1.83	0.41
13:AM:56:LEU:O	13:AM:56:LEU:HD13	2.20	0.41
16:AP:49:LEU:HD12	16:AP:50:LYS:N	2.35	0.41
23:BA:448:U:H1'	27:BE:84:VAL:HG21	2.02	0.41
23:BA:826:U:H2'	23:BA:828:U:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1354:A:H8	23:BA:1354:A:O5'	2.03	0.41
23:BA:1496:A:C8	23:BA:1577:C:O2'	2.71	0.41
23:BA:1676:A:N6	23:BA:1677:A:C6	2.88	0.41
23:BA:2013:A:H4'	41:BS:96:ILE:HD12	2.02	0.41
23:BA:2070:G:H2'	23:BA:2071:A:O4'	2.20	0.41
23:BA:2476:A:N1	23:BA:2477:C:C4	2.88	0.41
23:BA:2593:U:H2'	23:BA:2594:C:H6	1.81	0.41
25:BC:32:SER:HA	25:BC:36:PRO:HG2	2.01	0.41
27:BE:111:ALA:HB2	27:BE:206:ILE:HD12	2.00	0.41
28:BF:5:LEU:HD21	49:B1:50:THR:CG2	2.50	0.41
35:BM:20:ALA:O	35:BM:21:THR:O	2.38	0.41
35:BM:24:GLY:HA2	35:BM:101:ARG:CA	2.46	0.41
38:BP:115:ARG:H	38:BP:115:ARG:HG2	1.51	0.41
40:BR:28:GLU:HB3	40:BR:29:PRO:HD2	2.02	0.41
43:BU:2:ARG:HG2	43:BU:3:VAL:N	2.35	0.41
44:BV:28:MET:HE1	44:BV:61:LEU:HD21	2.02	0.41
52:B4:47:ARG:O	52:B4:48:LYS:HB2	2.20	0.41
1:CA:940:C:H2'	1:CA:941:G:H8	1.85	0.41
1:CA:950:U:H4'	1:CA:971:G:N2	2.36	0.41
1:CA:1089:G:C6	1:CA:1090:U:C4	3.08	0.41
3:CC:61:ALA:C	3:CC:63:ASN:H	2.28	0.41
5:CE:15:ARG:HG2	5:CE:15:ARG:O	2.20	0.41
7:CG:23:VAL:HG13	7:CG:43:PHE:CE2	2.55	0.41
10:CJ:30:SER:HB2	10:CJ:80:LYS:HG3	2.02	0.41
19:CS:30:LEU:C	19:CS:30:LEU:HD23	2.45	0.41
23:DA:125:G:H5'	52:D4:19:ARG:CG	2.50	0.41
23:DA:396:G:H1'	46:DX:42:GLN:OE1	2.20	0.41
23:DA:486:C:H4'	41:DS:60:ASN:ND2	2.35	0.41
23:DA:558:G:P	32:DJ:134:PRO:HD2	2.61	0.41
23:DA:588:U:H2'	23:DA:589:C:H6	1.81	0.41
23:DA:1028:A:H61	23:DA:1125:G:H2'	1.84	0.41
23:DA:1328:G:H2'	23:DA:1330:C:C5	2.55	0.41
23:DA:1464:C:O2	23:DA:1528:A:H2	2.03	0.41
23:DA:1682:G:H2'	23:DA:1683:C:C6	2.55	0.41
23:DA:1939:U:OP1	23:DA:2604:U:O2'	2.36	0.41
23:DA:1998:G:H2'	23:DA:1999:C:C6	2.56	0.41
23:DA:2057:A:H2'	23:DA:2058:A:O4'	2.20	0.41
23:DA:2686:G:C5	23:DA:2687:U:C4	3.08	0.41
23:DA:2718:G:H2'	23:DA:2719:G:C8	2.55	0.41
28:DF:53:LEU:HD13	28:DF:88:ILE:HG12	2.02	0.41
32:DJ:90:LEU:H	32:DJ:90:LEU:CD1	2.30	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DP:64:ARG:HA	38:DP:72:VAL:O	2.20	0.41
42:DT:24:GLY:HA3	42:DT:82:GLN:HE22	1.85	0.41
44:DV:102:LEU:HD21	44:DV:124:ILE:HD11	2.01	0.41
45:DW:36:ILE:HG23	45:DW:58:THR:HG23	2.03	0.41
46:DX:23:LYS:O	46:DX:23:LYS:HG3	2.20	0.41
52:D4:21:ARG:CB	52:D4:31:LEU:HD21	2.50	0.41
1:AA:366:C:O2'	1:AA:367:U:P	2.78	0.41
1:AA:659:U:O2'	1:AA:660:G:H5'	2.20	0.41
1:AA:1057:G:H2'	1:AA:1058:G:O4'	2.20	0.41
1:AA:1432:G:H8	1:AA:1432:G:O5'	2.02	0.41
3:AC:59:ARG:HA	3:AC:63:ASN:O	2.20	0.41
5:AE:66:MET:HE3	5:AE:66:MET:HB3	2.00	0.41
8:AH:73:ASP:CG	8:AH:75:ARG:HD3	2.45	0.41
10:AJ:33:GLN:HB2	10:AJ:75:ILE:CD1	2.50	0.41
11:AK:91:ARG:O	11:AK:95:ILE:HG13	2.20	0.41
13:AM:3:ARG:HH11	28:BF:113:ARG:HH11	1.69	0.41
17:AQ:11:VAL:O	17:AQ:11:VAL:HG22	2.21	0.41
20:AT:82:SER:O	20:AT:86:ARG:HB3	2.21	0.41
23:BA:312:G:H5'	23:BA:331:A:H2'	2.01	0.41
23:BA:486:C:H4'	41:BS:60:ASN:ND2	2.35	0.41
23:BA:595:C:H2'	23:BA:596:G:O4'	2.21	0.41
23:BA:796:C:H2'	23:BA:797:C:H6	1.81	0.41
23:BA:960:A:H61	35:BM:82:ARG:NH2	2.18	0.41
23:BA:1203:G:C6	23:BA:1204:A:C6	3.09	0.41
23:BA:1289:C:H2'	23:BA:1290:C:C6	2.55	0.41
23:BA:1695:G:N2	23:BA:1696:G:C8	2.88	0.41
23:BA:2228:G:C6	23:BA:2229:C:C4	3.09	0.41
23:BA:2783:G:N2	26:BD:37:ARG:HH12	2.19	0.41
25:BC:69:ARG:HH12	25:BC:117:VAL:HG21	1.85	0.41
27:BE:39:TRP:CD1	27:BE:101:LEU:HB2	2.56	0.41
27:BE:181:LEU:CD2	27:BE:186:ILE:HD11	2.50	0.41
32:BJ:88:LYS:O	32:BJ:92:GLN:HB3	2.20	0.41
32:BJ:114:LEU:HA	32:BJ:118:PRO:HB3	2.01	0.41
34:BL:62:LEU:HA	34:BL:63:PRO:HD3	1.77	0.41
34:BL:81:GLN:HE21	34:BL:81:GLN:HB2	1.59	0.41
37:BO:102:ALA:HA	37:BO:105:ALA:HB3	2.03	0.41
38:BP:77:PRO:HB2	38:BP:80:SER:HB2	2.03	0.41
39:BQ:28:ARG:HG3	39:BQ:38:THR:OG1	2.19	0.41
39:BQ:106:PHE:HA	39:BQ:109:LEU:HD12	2.02	0.41
45:BW:14:ARG:HB2	45:BW:14:ARG:HE	1.50	0.41
47:BY:6:VAL:HA	47:BY:9:GLN:CD	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BZ:55:ARG:HD3	48:BZ:55:ARG:HA	1.65	0.41
1:CA:57:G:C6	1:CA:58:C:C4	3.09	0.41
1:CA:1038:C:H2'	1:CA:1039:C:H6	1.85	0.41
1:CA:1422:G:H5"	33:DK:48:PRO:HB3	2.01	0.41
2:CB:167:PRO:O	2:CB:171:ALA:HB2	2.20	0.41
3:CC:22:TRP:HE3	3:CC:23:TYR:O	2.02	0.41
4:CD:78:LEU:O	4:CD:81:GLU:HB3	2.21	0.41
4:CD:156:GLU:H	4:CD:156:GLU:CD	2.28	0.41
11:CK:91:ARG:O	11:CK:95:ILE:HG13	2.19	0.41
13:CM:8:GLU:OE1	13:CM:22:ILE:HG23	2.21	0.41
23:DA:572:A:H2'	23:DA:573:G:O4'	2.20	0.41
23:DA:1214:A:H2'	23:DA:1215:G:O4'	2.20	0.41
23:DA:1396:U:O2	23:DA:1396:U:H2'	2.18	0.41
23:DA:1414:G:C5	23:DA:1415:U:C5	3.08	0.41
23:DA:2029:G:H2'	23:DA:2031:A:OP1	2.20	0.41
23:DA:2050:C:H1'	26:DD:156:MET:CE	2.49	0.41
23:DA:2542:A:H8	23:DA:2544:G:O6	2.03	0.41
28:DF:115:ARG:HD2	28:DF:115:ARG:N	2.35	0.41
28:DF:122:PRO:O	28:DF:125:PHE:HD1	2.03	0.41
29:DG:104:GLU:C	29:DG:105:LEU:HD13	2.45	0.41
34:DL:36:LYS:O	34:DL:38:GLN:HG2	2.20	0.41
35:DM:18:LYS:HB3	35:DM:19:GLY:H	1.62	0.41
37:DO:31:SER:HB3	37:DO:34:HIS:H	1.84	0.41
44:DV:97:GLU:O	44:DV:98:MET:HB3	2.21	0.41
1:AA:743:U:O5'	1:AA:743:U:H6	2.04	0.41
1:AA:940:C:H2'	1:AA:941:G:H8	1.86	0.41
1:AA:1038:C:H2'	1:AA:1039:C:H6	1.84	0.41
4:AD:33:MET:HG2	4:AD:37:PRO:HA	2.03	0.41
5:AE:48:ALA:C	5:AE:50:GLU:H	2.28	0.41
9:AI:86:VAL:CG2	9:AI:93:ARG:HB2	2.51	0.41
23:BA:342:G:O2'	23:BA:343:C:H5"	2.21	0.41
23:BA:482:A:H8	23:BA:482:A:O5'	2.04	0.41
23:BA:699:A:H2'	23:BA:700:G:O4'	2.20	0.41
23:BA:755:C:H2'	23:BA:756:C:C6	2.55	0.41
23:BA:1140:C:OP1	32:BJ:46:LEU:HB3	2.21	0.41
23:BA:1265:A:H3'	50:B2:19:ARG:NH1	2.36	0.41
23:BA:1270:C:H5"	23:BA:1271:G:C5'	2.50	0.41
23:BA:1493:C:C4	23:BA:2210:G:O2'	2.73	0.41
23:BA:1543:A:H8	23:BA:1543:A:H3'	1.85	0.41
23:BA:1581:G:H2'	23:BA:1582:C:O4'	2.20	0.41
23:BA:1696:G:C6	23:BA:1697:G:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2284:C:H6	23:BA:2284:C:O5'	2.03	0.41
23:BA:2420:C:P	53:B5:34:TRP:HA	2.60	0.41
23:BA:2487:G:H2'	23:BA:2488:A:C8	2.56	0.41
25:BC:35:LYS:CB	25:BC:36:PRO:HD3	2.50	0.41
26:BD:181:LEU:HA	26:BD:181:LEU:HD13	1.73	0.41
29:BG:86:GLU:HG2	29:BG:164:TYR:O	2.19	0.41
32:BJ:57:LEU:HA	32:BJ:57:LEU:HD13	1.72	0.41
32:BJ:101:TYR:CD1	32:BJ:101:TYR:N	2.88	0.41
34:BL:126:VAL:HG22	34:BL:145:PRO:HB2	2.02	0.41
35:BM:61:GLY:O	44:BV:177:PRO:HA	2.20	0.41
44:BV:161:VAL:HG12	44:BV:162:GLU:N	2.36	0.41
48:BZ:52:HIS:H	48:BZ:52:HIS:CD2	2.37	0.41
1:CA:290:C:O5'	1:CA:290:C:H6	2.03	0.41
1:CA:698:G:C6	1:CA:699:C:C4	3.08	0.41
1:CA:1372:U:OP1	9:CI:71:SER:HB3	2.21	0.41
1:CA:1428:A:H2'	1:CA:1429:C:C6	2.55	0.41
4:CD:63:LYS:O	4:CD:67:ILE:HG13	2.21	0.41
4:CD:90:GLY:HA2	4:CD:204:ILE:HD11	2.02	0.41
4:CD:188:LEU:HD12	4:CD:188:LEU:H	1.85	0.41
6:CF:70:ASP:OD1	6:CF:70:ASP:N	2.51	0.41
7:CG:25:ALA:O	7:CG:29:LYS:HG2	2.20	0.41
10:CJ:58:ASP:C	10:CJ:60:ARG:N	2.78	0.41
10:CJ:78:ASN:O	10:CJ:82:ILE:HG12	2.20	0.41
14:CN:40:CYS:SG	14:CN:42:ILE:HB	2.60	0.41
17:CQ:11:VAL:O	17:CQ:11:VAL:HG22	2.21	0.41
22:CV:6165:G:C6	22:CV:6166:U:C4	3.09	0.41
23:DA:30:G:C5	23:DA:31:C:C4	3.09	0.41
23:DA:302:C:H2'	23:DA:303:U:C6	2.56	0.41
23:DA:302:C:O2'	23:DA:303:U:H5'	2.21	0.41
23:DA:330:A:O2'	23:DA:331:A:H8	2.04	0.41
23:DA:719:C:H2'	23:DA:720:C:C6	2.53	0.41
23:DA:971:C:H2'	23:DA:972:G:H5'	2.03	0.41
23:DA:1022:G:C5	23:DA:1140:C:N4	2.88	0.41
23:DA:1109:C:H2'	23:DA:1110:G:O4'	2.20	0.41
23:DA:1170:G:N2	23:DA:1180:C:C2	2.89	0.41
23:DA:1276:A:H5"	23:DA:1276:A:H8	1.85	0.41
23:DA:1494:A:H4'	23:DA:1495:A:OP1	2.21	0.41
23:DA:1543:A:H3'	23:DA:1543:A:H8	1.85	0.41
23:DA:1612:C:O3'	52:D4:5:TRP:HD1	2.03	0.41
23:DA:1951:U:O2	23:DA:1953:A:H8	2.02	0.41
25:DC:61:LEU:HD12	25:DC:61:LEU:HA	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DC:108:PRO:HG3	25:DC:143:HIS:NE2	2.35	0.41
25:DC:136:ILE:HA	25:DC:137:PRO:HD3	1.96	0.41
26:DD:201:THR:C	26:DD:202:LYS:HD3	2.46	0.41
27:DE:155:LEU:HA	27:DE:174:VAL:HG23	2.03	0.41
28:DF:5:LEU:HD23	28:DF:5:LEU:HA	1.84	0.41
28:DF:171:ALA:O	28:DF:175:LEU:HG	2.20	0.41
29:DG:105:LEU:HD22	29:DG:113:VAL:HB	2.02	0.41
32:DJ:151:HIS:CD2	32:DJ:152:PRO:O	2.73	0.41
35:DM:104:PHE:HE1	35:DM:125:LEU:HD11	1.84	0.41
37:DO:65:VAL:O	37:DO:69:VAL:HG12	2.20	0.41
39:DQ:104:GLN:HB3	40:DR:44:LYS:NZ	2.32	0.41
42:DT:30:VAL:HG21	42:DT:79:ALA:CB	2.50	0.41
43:DU:17:SER:CB	43:DU:71:LYS:HD2	2.50	0.41
44:DV:38:TYR:O	44:DV:38:TYR:CD1	2.73	0.41
50:D2:44:THR:HG22	50:D2:45:VAL:N	2.36	0.41
1:AA:370:C:O2'	1:AA:371:G:H5'	2.21	0.41
1:AA:407:G:H4'	4:AD:116:GLN:HA	2.02	0.41
1:AA:674:G:P	6:AF:87:ARG:HH22	2.42	0.41
1:AA:817:C:H1'	1:AA:819:A:C5'	2.51	0.41
1:AA:1124:G:H5'	10:AJ:35:SER:HB2	2.01	0.41
1:AA:1229:A:H2'	1:AA:1230:C:H6	1.86	0.41
2:AB:80:ILE:HD11	2:AB:208:ILE:CG2	2.51	0.41
4:AD:156:GLU:O	4:AD:160:GLN:HG3	2.21	0.41
16:AP:45:THR:C	16:AP:47:ASP:H	2.29	0.41
20:AT:63:ILE:HG21	20:AT:81:LYS:HG3	2.02	0.41
22:AV:6171:U:O2'	22:AV:6172:U:P	2.79	0.41
23:BA:302:C:H2'	23:BA:303:U:C6	2.55	0.41
23:BA:643:A:OP1	51:B3:42:TRP:NE1	2.54	0.41
23:BA:675:A:C4'	27:BE:67:GLN:NE2	2.81	0.41
23:BA:846:C:H4'	23:BA:847:U:O5'	2.21	0.41
23:BA:933:A:H2'	23:BA:934:G:H5'	2.03	0.41
23:BA:114(B):A:C2	23:BA:1144:G:C8	3.08	0.41
23:BA:1351:C:C2	23:BA:1381:G:C2	3.08	0.41
23:BA:1750:G:H2'	23:BA:1751:C:H6	1.84	0.41
23:BA:2057:A:H2'	23:BA:2058:A:O4'	2.21	0.41
23:BA:2235:G:H2'	23:BA:2236:C:C6	2.55	0.41
23:BA:2341:G:H2'	23:BA:2342:C:C6	2.55	0.41
23:BA:2642:G:O2'	23:BA:2643:G:H5'	2.21	0.41
24:BB:3:C:H2'	24:BB:4:C:C6	2.55	0.41
24:BB:48:A:H2'	24:BB:49:C:C6	2.55	0.41
24:BB:52:A:H2'	24:BB:53:A:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BE:72:ARG:O	27:BE:73:ALA:O	2.38	0.41
27:BE:150:GLY:HA2	27:BE:172:TRP:CD2	2.56	0.41
28:BF:87:PRO:O	28:BF:88:ILE:HB	2.21	0.41
28:BF:122:PRO:O	28:BF:125:PHE:HD1	2.02	0.41
28:BF:178:PHE:HA	28:BF:179:PRO:HD3	1.79	0.41
30:BH:133:HIS:HD2	30:BH:135:GLU:HG2	1.85	0.41
33:BK:71:ARG:NH2	33:BK:77:ILE:HG21	2.35	0.41
34:BL:9:ASN:N	34:BL:10:PRO:CD	2.83	0.41
34:BL:36:LYS:O	34:BL:38:GLN:HG2	2.19	0.41
34:BL:85:LEU:HA	34:BL:88:LEU:HB2	2.01	0.41
36:BN:32:GLY:C	36:BN:33:ARG:HD2	2.45	0.41
39:BQ:76:TYR:CD2	39:BQ:76:TYR:C	2.97	0.41
40:BR:38:LEU:O	40:BR:52:VAL:HG12	2.21	0.41
43:BU:95:LYS:HB3	43:BU:99:CYS:O	2.20	0.41
47:BY:6:VAL:O	47:BY:9:GLN:HB2	2.21	0.41
47:BY:12:GLU:C	47:BY:14:ARG:N	2.79	0.41
1:CA:261:U:H5	20:CT:79:ARG:CZ	2.33	0.41
1:CA:562:C:H5'	1:CA:562:C:H6	1.85	0.41
1:CA:755:G:H2'	1:CA:756:C:C6	2.56	0.41
1:CA:865:A:H5'	1:CA:1078:U:C4	2.56	0.41
1:CA:1403:C:O5'	1:CA:1403:C:H6	2.03	0.41
2:CB:71:VAL:HG23	2:CB:164:VAL:HG13	2.02	0.41
6:CF:91:VAL:HG12	6:CF:92:LYS:O	2.20	0.41
7:CG:70:LYS:CG	7:CG:96:GLN:HB3	2.51	0.41
12:CL:51:LEU:N	12:CL:51:LEU:HD12	2.34	0.41
23:DA:477:A:H2'	23:DA:478:A:C8	2.54	0.41
23:DA:979:G:H3'	23:DA:980:A:H5"	2.02	0.41
23:DA:1232:G:H2'	23:DA:1233:C:H6	1.85	0.41
23:DA:1676:A:N6	23:DA:1677:A:C6	2.88	0.41
23:DA:1818:U:H2'	25:DC:157:ARG:HG3	2.02	0.41
23:DA:1952:A:C2	33:DK:22:ILE:HG23	2.56	0.41
23:DA:2257:U:O2'	23:DA:2258:C:H5'	2.21	0.41
23:DA:2416:C:OP1	34:DL:64:LYS:O	2.39	0.41
23:DA:2422:A:C5	23:DA:2424:C:C4	3.09	0.41
23:DA:2777:G:C4'	23:DA:2778:A:H5'	2.50	0.41
24:DB:72:G:N2	24:DB:103:U:C5	2.88	0.41
25:DC:37:LEU:HD12	25:DC:38:LYS:N	2.36	0.41
25:DC:262:ARG:C	25:DC:264:LYS:H	2.27	0.41
27:DE:6:MET:HB3	27:DE:7:TYR:H	1.55	0.41
27:DE:150:GLY:HA2	27:DE:172:TRP:CD2	2.55	0.41
28:DF:15:VAL:HG22	28:DF:175:LEU:HB3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DF:32:PRO:CB	28:DF:172:LEU:HD22	2.49	0.41
28:DF:128:ARG:HH21	28:DF:130:ASN:ND2	2.17	0.41
29:DG:83:TYR:CZ	29:DG:138:LYS:HG3	2.55	0.41
35:DM:26:TYR:O	35:DM:26:TYR:CD1	2.73	0.41
35:DM:127:ILE:HG22	35:DM:128:LYS:N	2.35	0.41
36:DN:99:LYS:HB3	36:DN:99:LYS:HE3	1.86	0.41
40:DR:22:VAL:CG1	40:DR:23:GLU:H	2.33	0.41
42:DT:66:LEU:HD23	42:DT:66:LEU:C	2.45	0.41
43:DU:39:VAL:O	43:DU:40:GLU:CD	2.64	0.41
46:DX:11:ARG:HG3	46:DX:62:VAL:HA	2.02	0.41
47:DY:21:LEU:HD23	47:DY:21:LEU:C	2.46	0.41
47:DY:47:ASN:C	47:DY:49:LYS:N	2.78	0.41
51:D3:34:LEU:HD13	51:D3:34:LEU:H	1.86	0.41
53:D5:59:LYS:C	53:D5:60:LEU:HD23	2.45	0.41
1:AA:336:C:H2'	1:AA:337:C:C6	2.55	0.41
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.51	0.41
1:AA:1058:G:H2'	1:AA:1059:C:C6	2.55	0.41
1:AA:1408:A:C6	1:AA:1494:G:C6	3.09	0.41
3:AC:34:LEU:HD21	3:AC:38:ARG:HH21	1.84	0.41
3:AC:70:VAL:O	3:AC:106:VAL:HG23	2.19	0.41
4:AD:156:GLU:H	4:AD:156:GLU:CD	2.28	0.41
8:AH:11:THR:HA	8:AH:14:ARG:HH12	1.85	0.41
9:AI:29:ASN:ND2	9:AI:65:VAL:O	2.51	0.41
9:AI:112:LYS:HA	9:AI:119:ALA:HB2	2.02	0.41
13:AM:86:CYS:SG	13:AM:88:ARG:HB2	2.61	0.41
23:BA:870:A:OP1	35:BM:7:MET:HE2	2.21	0.41
23:BA:1214:A:H2'	23:BA:1215:G:O4'	2.21	0.41
23:BA:1308:A:H2'	23:BA:1309:G:O4'	2.20	0.41
23:BA:1407:C:H2'	23:BA:1408:C:C6	2.55	0.41
23:BA:1414:G:C5	23:BA:1415:U:C5	3.09	0.41
23:BA:1495:A:N3	23:BA:1496:A:C2	2.89	0.41
23:BA:1804:C:O5'	23:BA:1804:C:H6	2.04	0.41
23:BA:1854:A:H62	23:BA:1888:G:H8	1.69	0.41
23:BA:2329:G:H2'	23:BA:2330:G:C8	2.56	0.41
23:BA:2618:G:C6	23:BA:2619:C:C4	3.09	0.41
23:BA:2692:C:H2'	23:BA:2693:A:H8	1.86	0.41
23:BA:2721:A:H1'	23:BA:2873:A:O2'	2.21	0.41
26:BD:171:GLU:HG2	26:BD:185:LYS:CG	2.50	0.41
27:BE:78:ILE:H	27:BE:78:ILE:HD12	1.85	0.41
28:BF:161:THR:HG21	28:BF:172:LEU:CD2	2.50	0.41
30:BH:26:ALA:HA	30:BH:30:LEU:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BH:109:ILE:HD13	30:BH:109:ILE:N	2.35	0.41
34:BL:6:LEU:HD23	34:BL:6:LEU:N	2.25	0.41
38:BP:74:ARG:HD3	38:BP:76:PHE:CE2	2.55	0.41
39:BQ:66:ASN:HD21	39:BQ:70:ARG:HH21	1.69	0.41
41:BS:84:ARG:HB2	41:BS:96:ILE:CG2	2.51	0.41
46:BX:70:VAL:O	46:BX:74:VAL:HG23	2.21	0.41
48:BZ:26:LEU:HD21	48:BZ:46:ASN:HB3	2.01	0.41
1:CA:818:G:H1'	1:CA:820:U:H5	1.85	0.41
1:CA:832:C:O2'	1:CA:833:U:H6	2.03	0.41
1:CA:1010:G:H2'	1:CA:1011:G:H8	1.86	0.41
2:CB:8:LYS:HA	2:CB:217:ARG:NH1	2.33	0.41
3:CC:25:GLY:C	3:CC:27:LYS:H	2.28	0.41
4:CD:104:VAL:O	4:CD:108:LEU:HB2	2.21	0.41
5:CE:41:VAL:CG1	5:CE:113:ALA:HA	2.51	0.41
7:CG:91:VAL:HG12	7:CG:95:ARG:HB3	2.03	0.41
8:CH:64:LYS:CG	8:CH:79:VAL:HG21	2.49	0.41
12:CL:69:ILE:N	12:CL:69:ILE:HD12	2.36	0.41
16:CP:48:TRP:CD1	16:CP:48:TRP:H	2.37	0.41
23:DA:310:A:OP1	43:DU:17:SER:O	2.38	0.41
23:DA:335:C:H2'	23:DA:336:C:C6	2.55	0.41
23:DA:426:C:C2	23:DA:427:U:C6	3.09	0.41
23:DA:773:U:C5'	25:DC:47:GLY:HA3	2.51	0.41
23:DA:846:C:H4'	23:DA:847:U:O5'	2.20	0.41
23:DA:956:G:H22	23:DA:959:A:H3'	1.85	0.41
23:DA:1050:A:H2'	23:DA:1051:G:C8	2.55	0.41
23:DA:1248:G:C5	39:DQ:3:ARG:HB2	2.55	0.41
23:DA:1496:A:C8	23:DA:1498:C:N3	2.88	0.41
23:DA:1648:C:H2'	23:DA:1649:G:O5'	2.20	0.41
23:DA:1676:A:H2'	23:DA:1677:A:O4'	2.20	0.41
23:DA:1798:U:C5'	25:DC:259:THR:O	2.69	0.41
23:DA:2296:U:O4	37:DO:13:ARG:NH2	2.50	0.41
24:DB:106:G:C5	24:DB:107:U:C5	3.08	0.41
25:DC:105:ILE:HG13	25:DC:106:ILE:HD12	2.02	0.41
27:DE:12:LEU:HD13	27:DE:17:ARG:HG2	2.03	0.41
28:DF:13:GLU:O	28:DF:14:GLU:HB2	2.19	0.41
34:DL:7:ARG:O	34:DL:10:PRO:HD3	2.21	0.41
38:DP:3:ARG:HD2	38:DP:6:LEU:HD23	2.03	0.41
41:DS:24:ILE:CG2	41:DS:36:LEU:HD21	2.39	0.41
1:AA:293:G:C6	1:AA:294:U:C4	3.09	0.41
1:AA:349:A:O2'	1:AA:350:G:H5'	2.21	0.41
1:AA:754:C:O2	1:AA:754:C:C3'	2.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:815:A:H4'	1:AA:817:C:C4	2.55	0.41
1:AA:824:C:C6	1:AA:824:C:C3'	3.04	0.41
1:AA:1089:G:C6	1:AA:1090:U:C4	3.09	0.41
1:AA:1442:G:H3'	1:AA:1442:G:C8	2.55	0.41
1:AA:1466:C:H2'	1:AA:1467:G:O4'	2.20	0.41
2:AB:16:HIS:CD2	2:AB:210:SER:HA	2.56	0.41
3:AC:61:ALA:C	3:AC:63:ASN:H	2.28	0.41
4:AD:61:LYS:HE3	4:AD:207:TYR:OH	2.20	0.41
9:AI:46:ALA:O	9:AI:49:PRO:HD2	2.21	0.41
23:BA:29:U:O2'	23:BA:30:G:H5'	2.21	0.41
23:BA:82:G:H5'	23:BA:295:G:HO2'	1.86	0.41
23:BA:85:G:H5"	23:BA:85:G:C8	2.51	0.41
23:BA:161:U:O2	23:BA:165:U:O4	2.39	0.41
23:BA:308:G:H2'	23:BA:309:G:O4'	2.21	0.41
23:BA:861:A:C2	23:BA:917:A:C4	3.09	0.41
23:BA:912:C:C2	23:BA:913:U:C5	3.09	0.41
23:BA:1206:G:C5	23:BA:1207:C:C5	3.09	0.41
23:BA:1239:G:C6	23:BA:1240:U:C4	3.09	0.41
23:BA:1543:A:H3'	23:BA:1543:A:C8	2.56	0.41
23:BA:1794:U:H1'	23:BA:1900:A:N3	2.35	0.41
23:BA:1952:A:C2	33:BK:22:ILE:HG23	2.55	0.41
23:BA:2695:C:H2'	23:BA:2696:U:C6	2.56	0.41
23:BA:2817:G:H21	23:BA:2836:U:C1'	2.33	0.41
23:BA:2850:A:H2'	23:BA:2851:A:O4'	2.20	0.41
24:BB:7:G:H5"	37:BO:29:PHE:CD2	2.56	0.41
27:BE:101:LEU:O	27:BE:106:ARG:NH1	2.53	0.41
28:BF:41:GLN:HB3	28:BF:43:LEU:HD13	2.03	0.41
29:BG:101:ARG:HB2	29:BG:117:PRO:HG2	2.03	0.41
29:BG:105:LEU:HD22	29:BG:113:VAL:HB	2.01	0.41
32:BJ:116:THR:HG23	32:BJ:117:HIS:H	1.86	0.41
37:BO:100:ALA:HA	37:BO:103:GLU:HB3	2.01	0.41
38:BP:57:PHE:C	38:BP:59:THR:N	2.78	0.41
40:BR:79:VAL:O	40:BR:80:GLN:C	2.62	0.41
42:BT:14:SER:O	42:BT:17:ALA:N	2.54	0.41
42:BT:24:GLY:HA3	42:BT:82:GLN:HE22	1.86	0.41
43:BU:76:CYS:CB	43:BU:96:ILE:HD13	2.50	0.41
44:BV:71:VAL:HG11	44:BV:74:VAL:HG23	2.02	0.41
46:BX:37:ILE:HG23	46:BX:38:SER:N	2.36	0.41
52:B4:24:THR:HG23	52:B4:27:GLY:H	1.85	0.41
53:B5:60:LEU:C	53:B5:62:LEU:N	2.79	0.41
1:CA:161:A:H2'	1:CA:162:A:H8	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:342:C:C2'	1:CA:343:U:H5'	2.51	0.41
1:CA:429:U:H4'	1:CA:430:A:O5'	2.20	0.41
1:CA:658:G:C6	1:CA:659:U:C4	3.09	0.41
1:CA:878:G:C5'	8:CH:89:PRO:HG2	2.46	0.41
1:CA:983:A:H2	1:CA:984:C:C6	2.39	0.41
1:CA:1371:G:C6	1:CA:1372:U:C4	3.09	0.41
2:CB:67:THR:HG22	2:CB:90:MET:HE1	2.02	0.41
4:CD:199:ASN:ND2	4:CD:202:LEU:HG	2.35	0.41
7:CG:70:LYS:HG3	7:CG:96:GLN:HB3	2.02	0.41
10:CJ:6:ILE:HB	10:CJ:98:ILE:HG12	2.02	0.41
10:CJ:48:THR:HG22	10:CJ:62:HIS:ND1	2.35	0.41
10:CJ:54:PHE:HB3	10:CJ:55:LYS:H	1.63	0.41
11:CK:41:THR:HG21	11:CK:71:LYS:HB2	2.03	0.41
18:CR:35:ARG:O	18:CR:37:VAL:N	2.49	0.41
18:CR:45:SER:HB3	18:CR:51:LEU:HG	2.02	0.41
23:DA:161:U:O2	23:DA:165:U:O4	2.39	0.41
23:DA:288:C:O2'	23:DA:289:A:H5'	2.20	0.41
23:DA:489:G:C5	23:DA:1284:A:C2	3.09	0.41
23:DA:861:A:C2	23:DA:917:A:C4	3.09	0.41
23:DA:1024:G:H8	23:DA:1024:G:O5'	2.03	0.41
23:DA:1257:C:H4'	27:DE:83:PHE:CD2	2.56	0.41
23:DA:1271:G:O3'	23:DA:1272:A:H4'	2.21	0.41
23:DA:1447:G:N3	23:DA:1545:A:H2	2.18	0.41
23:DA:1696:G:C6	23:DA:1697:G:C4	3.08	0.41
23:DA:2306:C:H4'	28:DF:136:ARG:NH2	2.35	0.41
24:DB:7:G:H5"	37:DO:29:PHE:CD2	2.55	0.41
24:DB:33:G:O2'	24:DB:34:U:H5'	2.20	0.41
24:DB:116:G:H4'	37:DO:55:ALA:O	2.21	0.41
26:DD:76:ARG:HG2	26:DD:77:ILE:HG13	2.03	0.41
28:DF:41:GLN:HB3	28:DF:43:LEU:HD13	2.03	0.41
28:DF:66:GLN:HG2	28:DF:67:LYS:N	2.26	0.41
35:DM:20:ALA:O	35:DM:21:THR:O	2.39	0.41
35:DM:34:LEU:HD12	35:DM:130:LYS:O	2.21	0.41
37:DO:17:ARG:HG2	37:DO:18:ILE:HD13	2.02	0.41
41:DS:14:PRO:O	41:DS:18:ARG:HG3	2.21	0.41
44:DV:30:ASN:OD1	44:DV:33:LEU:N	2.53	0.41
44:DV:179:ASP:CG	44:DV:180:VAL:H	2.28	0.41
53:D5:13:ARG:HG3	53:D5:14:VAL:HG23	2.02	0.41
1:AA:392:G:C2	1:AA:393:A:C5	3.09	0.41
1:AA:502:G:H2'	1:AA:503:C:O4'	2.21	0.41
1:AA:737:A:H2'	1:AA:738:C:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1051:C:C4	1:AA:1052:U:C4	3.09	0.41
1:AA:1116:C:H2'	1:AA:1117:G:H5"	2.03	0.41
1:AA:1130:A:H4'	9:AI:20:ARG:HH22	1.86	0.41
1:AA:1147:C:H6	1:AA:1147:C:O5'	2.04	0.41
1:AA:1272:G:H2'	1:AA:1273:G:H8	1.84	0.41
2:AB:166:ASP:HA	2:AB:167:PRO:HD2	1.87	0.41
3:AC:131:ARG:HH21	5:AE:50:GLU:CG	2.34	0.41
7:AG:70:LYS:CG	7:AG:96:GLN:HB3	2.51	0.41
7:AG:88:PRO:O	7:AG:89:MET:HB3	2.21	0.41
8:AH:64:LYS:CG	8:AH:79:VAL:HG21	2.50	0.41
9:AI:53:VAL:HG11	9:AI:85:LEU:HD22	2.02	0.41
9:AI:56:LEU:HD23	9:AI:56:LEU:C	2.45	0.41
12:AL:29:ALA:HA	12:AL:30:PRO:HD3	1.80	0.41
12:AL:85:ARG:HH21	12:AL:98:HIS:CG	2.39	0.41
13:AM:50:GLU:CD	13:AM:50:GLU:H	2.28	0.41
23:BA:332:A:O2'	23:BA:333:G:P	2.79	0.41
23:BA:444:C:H2'	23:BA:445:C:H6	1.85	0.41
23:BA:533:G:N3	39:BQ:45:TYR:CE1	2.89	0.41
23:BA:725:G:C6	23:BA:726:G:N1	2.89	0.41
23:BA:733:G:N7	23:BA:761:A:N6	2.68	0.41
23:BA:773:U:C5'	25:BC:47:GLY:HA3	2.51	0.41
23:BA:885:C:H6	23:BA:885:C:O5'	2.04	0.41
23:BA:1164:G:H5"	23:BA:1164:G:H8	1.86	0.41
23:BA:1258:C:O4'	27:BE:84:VAL:HG11	2.21	0.41
23:BA:1368:G:C2	23:BA:1369:G:C8	3.09	0.41
23:BA:1374:G:H2'	23:BA:1375:C:H6	1.86	0.41
23:BA:1563:G:H2'	23:BA:1564:C:H6	1.85	0.41
23:BA:1676:A:H8	23:BA:1676:A:O5'	2.04	0.41
23:BA:1765:C:H6	23:BA:1765:C:O5'	2.04	0.41
23:BA:1798:U:H5"	25:BC:259:THR:O	2.21	0.41
23:BA:1825:A:H2'	23:BA:1826:G:C8	2.56	0.41
23:BA:1826:G:C6	23:BA:1827:C:C4	3.09	0.41
23:BA:2304:G:H1	23:BA:2312:U:H3	1.67	0.41
23:BA:2507:C:C2	23:BA:2508:G:C8	3.09	0.41
23:BA:2516:G:C6	23:BA:2517:C:C4	3.08	0.41
23:BA:2749:A:H4'	29:BG:62:LYS:CB	2.51	0.41
24:BB:45:A:H2'	24:BB:45:A:N3	2.35	0.41
24:BB:106:G:O2'	24:BB:107:U:H5'	2.20	0.41
25:BC:108:PRO:HG3	25:BC:143:HIS:NE2	2.36	0.41
26:BD:116:VAL:HG13	26:BD:117:MET:N	2.35	0.41
26:BD:146:THR:HA	26:BD:147:PRO:C	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BE:6:MET:HB3	27:BE:7:TYR:H	1.55	0.41
27:BE:24:LEU:HA	27:BE:25:PRO:HD3	1.85	0.41
27:BE:177:ALA:HB1	27:BE:178:PRO:HD2	2.03	0.41
28:BF:5:LEU:HD23	28:BF:5:LEU:HA	1.85	0.41
29:BG:125:VAL:HG22	29:BG:131:VAL:HG22	2.03	0.41
30:BH:123:LEU:HD23	30:BH:123:LEU:C	2.46	0.41
33:BK:3:GLN:O	33:BK:4:PRO:C	2.64	0.41
33:BK:47:ILE:HD12	33:BK:47:ILE:HA	1.87	0.41
34:BL:11:GLY:O	34:BL:12:ALA:C	2.64	0.41
34:BL:39:LYS:HD3	34:BL:39:LYS:HA	1.71	0.41
35:BM:68:ILE:HD13	35:BM:103:MET:HG3	2.02	0.41
35:BM:132:VAL:HG11	44:BV:81:ARG:NH1	2.36	0.41
36:BN:3:HIS:C	36:BN:5:LYS:H	2.27	0.41
37:BO:28:VAL:HG13	37:BO:35:ILE:HD11	2.01	0.41
37:BO:65:VAL:O	37:BO:69:VAL:HG12	2.21	0.41
38:BP:68:TYR:N	38:BP:68:TYR:CD2	2.89	0.41
39:BQ:57:PHE:HB3	39:BQ:61:TRP:CZ2	2.55	0.41
41:BS:10:VAL:HG21	41:BS:103:ILE:HD13	2.01	0.41
43:BU:59:GLY:C	43:BU:61:ILE:N	2.77	0.41
44:BV:51:ALA:HB1	44:BV:57:ILE:HD11	2.02	0.41
44:BV:53:ILE:CG2	44:BV:71:VAL:HB	2.51	0.41
44:BV:155:LEU:HD21	44:BV:171:ILE:HG13	2.02	0.41
45:BW:32:ARG:C	45:BW:35:ASN:ND2	2.79	0.41
45:BW:51:VAL:HG21	45:BW:80:HIS:HA	2.01	0.41
46:BX:11:ARG:HH11	46:BX:60:PHE:HA	1.85	0.41
46:BX:95:LEU:HD22	46:BX:95:LEU:HA	1.82	0.41
50:B2:13:LYS:HE2	50:B2:13:LYS:HB3	1.88	0.41
1:CA:300:A:C8	1:CA:300:A:H3'	2.56	0.41
1:CA:438:G:C4'	1:CA:439:A:OP1	2.67	0.41
1:CA:663:A:O2'	1:CA:664:G:H5'	2.21	0.41
1:CA:802:A:H2'	1:CA:803:G:O4'	2.21	0.41
1:CA:1228:C:H5'	13:CM:115:LYS:O	2.21	0.41
1:CA:1329:A:H5"	13:CM:26:GLY:N	2.36	0.41
1:CA:1442:G:H3'	1:CA:1442:G:C8	2.55	0.41
2:CB:36:ARG:HD2	2:CB:36:ARG:N	2.35	0.41
5:CE:106:PRO:O	5:CE:110:LEU:HG	2.21	0.41
7:CG:15:ASP:HA	7:CG:24:THR:CG2	2.51	0.41
7:CG:41:ARG:HB3	7:CG:41:ARG:HH11	1.86	0.41
7:CG:92:SER:O	7:CG:96:GLN:HG3	2.21	0.41
10:CJ:56:HIS:O	10:CJ:58:ASP:N	2.45	0.41
11:CK:94:ALA:O	11:CK:98:LEU:HG	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:103:VAL:O	12:CL:106:ALA:HB3	2.21	0.41
13:CM:50:GLU:CD	13:CM:50:GLU:H	2.28	0.41
23:DA:26:G:C6	23:DA:27:G:N1	2.89	0.41
23:DA:71:A:H4'	23:DA:72:U:H5"	2.03	0.41
23:DA:270(H):C:H2'	23:DA:270(I):C:C6	2.56	0.41
23:DA:447:A:C5	23:DA:473:G:C5	3.09	0.41
23:DA:468:G:N7	52:D4:39:ARG:NH2	2.69	0.41
23:DA:583:G:OP2	39:DQ:10:ARG:HD2	2.21	0.41
23:DA:593:G:C6	23:DA:594:U:C4	3.09	0.41
23:DA:699:A:H2'	23:DA:700:G:O4'	2.20	0.41
23:DA:827:U:H2'	23:DA:2068:U:C2	2.56	0.41
23:DA:924:C:H2'	23:DA:925:C:H6	1.86	0.41
23:DA:997:G:O2'	23:DA:998:C:H5'	2.21	0.41
23:DA:1006:C:H1'	32:DJ:129:MET:HG2	2.02	0.41
23:DA:1221:C:H2'	23:DA:122(A):C:C6	2.56	0.41
23:DA:1332:G:N2	23:DA:1609:A:O2'	2.54	0.41
23:DA:1748:G:H2'	23:DA:1749:A:H8	1.84	0.41
23:DA:1790:C:H5"	23:DA:1791:A:P	2.61	0.41
23:DA:2019:A:H5"	39:DQ:27:LEU:HD12	2.03	0.41
23:DA:2024:G:H2'	23:DA:2025:C:H6	1.86	0.41
23:DA:2247:A:O2'	23:DA:2248:C:H5'	2.20	0.41
23:DA:2476:A:N1	23:DA:2477:C:C4	2.88	0.41
23:DA:2636:U:H2'	23:DA:2637:U:H6	1.86	0.41
23:DA:2658:C:H4'	29:DG:158:HIS:CE1	2.56	0.41
23:DA:2709:G:O2'	23:DA:2710:C:H5'	2.20	0.41
23:DA:2712:U:O2'	23:DA:2713:A:H5'	2.21	0.41
23:DA:2765:A:H5'	23:DA:2766:G:OP2	2.21	0.41
23:DA:2817:G:H21	23:DA:2836:U:C1'	2.33	0.41
23:DA:2836:U:H2'	23:DA:2837:G:H8	1.86	0.41
24:DB:74:U:H2'	24:DB:75:G:H8	1.83	0.41
25:DC:140:THR:HG22	25:DC:141:VAL:N	2.36	0.41
26:DD:141:ILE:O	26:DD:141:ILE:HG13	2.21	0.41
27:DE:14:PRO:HD3	27:DE:128:ALA:HB2	2.02	0.41
27:DE:29:ASN:N	27:DE:112:MET:HE1	2.36	0.41
27:DE:40:GLN:O	27:DE:43:LYS:HG2	2.21	0.41
27:DE:181:LEU:HD23	27:DE:181:LEU:HA	1.93	0.41
28:DF:5:LEU:HD21	49:D1:50:THR:CG2	2.50	0.41
28:DF:18:GLU:HB3	28:DF:175:LEU:HD13	2.03	0.41
30:DH:5:LEU:H	30:DH:5:LEU:CD2	2.18	0.41
32:DJ:57:LEU:HA	32:DJ:57:LEU:HD13	1.73	0.41
34:DL:11:GLY:O	34:DL:12:ALA:C	2.63	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DL:47:ASP:HB3	34:DL:48:PRO:HA	2.01	0.41
36:DN:2:ARG:C	36:DN:4:LEU:H	2.29	0.41
36:DN:4:LEU:O	36:DN:4:LEU:CG	2.66	0.41
36:DN:94:TYR:O	36:DN:117:VAL:HG12	2.20	0.41
36:DN:104:ARG:HH11	36:DN:104:ARG:CB	2.33	0.41
36:DN:116:LEU:HA	36:DN:116:LEU:HD23	1.79	0.41
38:DP:13:ARG:C	38:DP:15:VAL:H	2.28	0.41
38:DP:118:ARG:HA	38:DP:121:ILE:HD12	2.03	0.41
40:DR:4:ILE:HG22	40:DR:5:VAL:N	2.36	0.41
40:DR:17:GLY:HA2	40:DR:96:ILE:O	2.21	0.41
41:DS:22:ASP:HA	41:DS:25:ARG:NH1	2.36	0.41
43:DU:17:SER:HB2	43:DU:71:LYS:HD2	2.02	0.41
43:DU:34:LYS:HE2	43:DU:34:LYS:HB3	1.80	0.41
44:DV:43:GLU:O	44:DV:47:VAL:HG23	2.21	0.41
44:DV:155:LEU:HD21	44:DV:171:ILE:HG13	2.02	0.41
46:DX:37:ILE:HG22	46:DX:38:SER:N	2.36	0.41
48:DZ:37:LEU:HD23	48:DZ:37:LEU:HA	1.95	0.41
52:D4:8:ASN:HD21	52:D4:10:ARG:HB3	1.86	0.41
53:D5:59:LYS:HA	53:D5:62:LEU:HD11	2.03	0.41
1:AA:688:G:H5'	11:AK:46:GLY:C	2.46	0.41
1:AA:862:C:H2'	1:AA:863:U:O4'	2.20	0.41
1:AA:901:A:C5	1:AA:902:G:H1'	2.56	0.41
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.56	0.41
2:AB:137:ARG:O	2:AB:141:GLU:HG2	2.21	0.41
6:AF:70:ASP:OD1	6:AF:70:ASP:N	2.50	0.41
7:AG:15:ASP:HA	7:AG:24:THR:CG2	2.51	0.41
7:AG:91:VAL:HG12	7:AG:95:ARG:HB3	2.02	0.41
10:AJ:49:VAL:HG21	14:AN:41:ARG:HB2	2.02	0.41
13:AM:106:ASN:O	13:AM:107:ALA:CB	2.69	0.41
17:AQ:83:ASP:O	17:AQ:86:GLU:HB2	2.21	0.41
19:AS:6:LYS:HD2	19:AS:6:LYS:N	2.34	0.41
23:BA:172:C:H2'	23:BA:173:G:H8	1.86	0.41
23:BA:195:A:H4'	23:BA:251:A:O2'	2.21	0.41
23:BA:270(K):G:H2'	23:BA:270(L):C:O4'	2.21	0.41
23:BA:686:G:N2	23:BA:788:A:H61	2.18	0.41
23:BA:952:G:P	35:BM:16:ARG:HH22	2.44	0.41
23:BA:1831:G:C5	23:BA:1832:C:C5	3.09	0.41
23:BA:1862:G:H2'	23:BA:1863:G:C8	2.54	0.41
23:BA:2230:G:C6	23:BA:2231:C:C4	3.09	0.41
23:BA:2586:C:O5'	23:BA:2586:C:H6	2.04	0.41
23:BA:2836:U:H2'	23:BA:2837:G:H8	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BB:62:C:C2	24:BB:63:G:C8	3.09	0.41
25:BC:135:PHE:O	25:BC:136:ILE:C	2.64	0.41
28:BF:115:ARG:HD2	28:BF:115:ARG:N	2.36	0.41
32:BJ:83:ILE:HG22	32:BJ:84:ARG:O	2.21	0.41
36:BN:104:ARG:HH11	36:BN:104:ARG:CB	2.33	0.41
39:BQ:61:TRP:O	39:BQ:62:ILE:C	2.64	0.41
40:BR:22:VAL:CG1	40:BR:23:GLU:H	2.32	0.41
43:BU:39:VAL:O	43:BU:40:GLU:CD	2.64	0.41
45:BW:27:GLU:HB2	45:BW:69:PHE:CD1	2.55	0.41
48:BZ:40:THR:OG1	48:BZ:43:ILE:HG12	2.20	0.41
53:B5:59:LYS:HA	53:B5:62:LEU:HD11	2.03	0.41
53:B5:62:LEU:HB2	53:B5:63:PRO:HD3	2.02	0.41
1:CA:355:C:C4	1:CA:356:A:N7	2.89	0.41
1:CA:809:G:C6	1:CA:810:C:C5	3.09	0.41
1:CA:874:G:C5	1:CA:875:C:C5	3.09	0.41
1:CA:973:G:H4’	10:CJ:54:PHE:O	2.20	0.41
1:CA:1352:C:H2’	1:CA:1353:G:C8	2.56	0.41
1:CA:1448:C:H2’	1:CA:1449:C:C6	2.55	0.41
1:CA:1501:C:C5	1:CA:1504:G:C5	3.09	0.41
2:CB:69:LEU:HD22	2:CB:159:PRO:HG2	2.02	0.41
2:CB:178:ARG:HH22	2:CB:196:LEU:C	2.29	0.41
6:CF:11:ASN:HA	6:CF:12:PRO:HD2	1.86	0.41
9:CI:33:PHE:HZ	9:CI:43:ALA:O	2.03	0.41
11:CK:27:ASN:CG	11:CK:28:THR:N	2.79	0.41
12:CL:45:LYS:HE2	12:CL:45:LYS:HB3	1.87	0.41
13:CM:106:ASN:O	13:CM:107:ALA:CB	2.69	0.41
15:CO:45:VAL:HG23	15:CO:46:HIS:N	2.36	0.41
16:CP:4:ILE:HD12	16:CP:4:ILE:H	1.86	0.41
17:CQ:29:HIS:C	17:CQ:31:LEU:H	2.29	0.41
23:DA:499:U:C4’	43:DU:47:LYS:HZ1	2.33	0.41
23:DA:540:G:C4	23:DA:541:C:C5	3.09	0.41
23:DA:643:A:O2’	23:DA:644:A:H5’	2.21	0.41
23:DA:885:C:O5’	23:DA:885:C:H6	2.04	0.41
23:DA:945:A:O2’	23:DA:946:G:H4’	2.21	0.41
23:DA:948:G:C8	23:DA:948:G:C5’	3.00	0.41
23:DA:1198:U:H2’	23:DA:1199:U:C6	2.56	0.41
23:DA:1229:G:H2’	23:DA:1230:C:H6	1.86	0.41
23:DA:1334:G:C6	23:DA:1335:U:C4	3.09	0.41
23:DA:1368:G:C2	23:DA:1369:G:C8	3.09	0.41
23:DA:1647:G:H3’	23:DA:1647:G:P	2.61	0.41
23:DA:1778:U:H2’	23:DA:1784:A:H62	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2013:A:H4'	41:DS:96:ILE:HD12	2.03	0.41
23:DA:2459:A:C4	23:DA:2460:U:C6	3.09	0.41
26:DD:181:LEU:HA	26:DD:181:LEU:HD13	1.70	0.41
27:DE:9:ILE:H	27:DE:9:ILE:HD13	1.86	0.41
27:DE:24:LEU:HA	27:DE:25:PRO:HD3	1.86	0.41
27:DE:111:ALA:HB2	27:DE:206:ILE:HD12	2.03	0.41
28:DF:16:ARG:N	28:DF:17:PRO:HD2	2.36	0.41
28:DF:47:LYS:C	28:DF:47:LYS:HD3	2.46	0.41
28:DF:60:LEU:HD12	28:DF:68:PRO:HB3	2.03	0.41
28:DF:87:PRO:O	28:DF:88:ILE:HB	2.21	0.41
35:DM:132:VAL:HG11	44:DV:81:ARG:NH1	2.36	0.41
36:DN:100:LEU:HD23	36:DN:112:ALA:HA	2.02	0.41
37:DO:66:ALA:HA	37:DO:69:VAL:HG12	2.03	0.41
38:DP:137:LYS:HD2	38:DP:137:LYS:N	2.36	0.41
46:DX:70:VAL:O	46:DX:74:VAL:HG23	2.20	0.41
1:AA:658:G:C6	1:AA:659:U:C4	3.09	0.40
1:AA:738:C:H2'	1:AA:739:C:H6	1.85	0.40
1:AA:874:G:C5	1:AA:875:C:C5	3.09	0.40
4:AD:172:PRO:HD2	4:AD:173:TRP:CZ3	2.56	0.40
13:AM:3:ARG:HG2	13:AM:9:ILE:CD1	2.51	0.40
13:AM:58:GLU:OE1	13:AM:62:ASN:HB2	2.21	0.40
13:AM:115:LYS:HE3	13:AM:115:LYS:HB2	1.86	0.40
14:AN:43:CYS:O	14:AN:47:LEU:HG	2.21	0.40
23:BA:276:A:C3'	23:BA:277:C:H5"	2.51	0.40
23:BA:300:A:OP1	43:BU:84:ARG:NH2	2.54	0.40
23:BA:646:A:H2'	23:BA:647:G:O4'	2.20	0.40
23:BA:972:G:H3'	23:BA:973:A:H2'	2.04	0.40
23:BA:1174:A:H3'	23:BA:1175:U:C5'	2.46	0.40
23:BA:1198:U:H2'	23:BA:1199:U:C6	2.55	0.40
23:BA:1502:C:H6	23:BA:1502:C:O5'	2.04	0.40
23:BA:1509:A:H4'	23:BA:1510:A:N9	2.36	0.40
23:BA:1726:G:C2	23:BA:1735:U:O2	2.74	0.40
23:BA:1936:A:N3	23:BA:1936:A:H5"	2.36	0.40
23:BA:2018:G:C6	23:BA:2019:A:C6	3.09	0.40
23:BA:2028:U:H2'	23:BA:2029:G:C8	2.55	0.40
23:BA:2685:G:N3	23:BA:2725:A:C2	2.89	0.40
23:BA:2749:A:H1'	29:BG:63:SER:OG	2.21	0.40
23:BA:2777:G:C4'	23:BA:2778:A:H5'	2.51	0.40
25:BC:262:ARG:C	25:BC:264:LYS:H	2.28	0.40
26:BD:173:VAL:O	26:BD:174:ASP:C	2.65	0.40
26:BD:201:THR:C	26:BD:202:LYS:HD3	2.47	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BH:92:VAL:HG22	30:BH:92:VAL:O	2.20	0.40
33:BK:7:TYR:CE1	33:BK:20:MET:HB2	2.56	0.40
34:BL:122:PRO:O	34:BL:123:LEU:HB3	2.21	0.40
35:BM:34:LEU:HD12	35:BM:130:LYS:O	2.21	0.40
36:BN:28:LEU:HD23	36:BN:34:ILE:HG12	2.02	0.40
38:BP:19:LEU:HA	38:BP:20:PRO:HD3	1.73	0.40
41:BS:82:LEU:HD23	41:BS:84:ARG:NH2	2.36	0.40
44:BV:48:PHE:HE2	44:BV:71:VAL:HG21	1.86	0.40
44:BV:97:GLU:O	44:BV:98:MET:HB3	2.20	0.40
44:BV:152:ALA:C	44:BV:154:ASP:H	2.29	0.40
1:CA:16:A:N1	1:CA:919:A:H2	2.19	0.40
1:CA:17:U:N3	1:CA:18:C:C4	2.89	0.40
1:CA:667:G:H4'	15:CO:51:HIS:CE1	2.56	0.40
1:CA:711:G:O2'	1:CA:712:A:H5'	2.21	0.40
1:CA:735:C:O2'	1:CA:736:C:H5'	2.20	0.40
1:CA:1399:C:C2	1:CA:1401:G:C6	3.09	0.40
1:CA:1498:U:HO2'	1:CA:1499:A:P	2.44	0.40
4:CD:23:GLY:HA3	4:CD:112:VAL:CG2	2.49	0.40
6:CF:67:MET:HB2	6:CF:67:MET:HE3	1.97	0.40
9:CI:112:LYS:HA	9:CI:119:ALA:HB2	2.03	0.40
10:CJ:22:LYS:O	10:CJ:22:LYS:HD2	2.21	0.40
11:CK:34:ASP:HB2	11:CK:35:PRO:HD2	2.03	0.40
13:CM:56:LEU:HD13	13:CM:56:LEU:O	2.21	0.40
13:CM:86:CYS:SG	13:CM:88:ARG:HB2	2.61	0.40
13:CM:91:ARG:CD	19:CS:81:ARG:HH22	2.35	0.40
23:DA:323:G:HO2'	23:DA:1205:U:H3	1.68	0.40
23:DA:386:G:H4'	23:DA:387:U:OP2	2.21	0.40
23:DA:524:U:O2'	23:DA:554:U:H4'	2.21	0.40
23:DA:784:A:H5'	23:DA:785:G:OP1	2.20	0.40
23:DA:941:A:H4'	34:DL:35:HIS:CD2	2.56	0.40
23:DA:1532:C:O5'	23:DA:1532:C:H6	2.04	0.40
23:DA:2343:C:O2'	23:DA:2344:U:H5'	2.21	0.40
23:DA:2626:C:H2'	23:DA:2627:G:O4'	2.21	0.40
23:DA:2642:G:O2'	23:DA:2643:G:H5'	2.21	0.40
23:DA:2762:G:O2'	23:DA:2763:G:H5'	2.21	0.40
24:DB:73:A:C4	24:DB:104:A:C2	3.09	0.40
25:DC:79:VAL:HG11	25:DC:111:LEU:CD1	2.51	0.40
25:DC:118:VAL:HG13	25:DC:119:ALA:N	2.37	0.40
25:DC:133:LEU:HB3	25:DC:173:VAL:HG11	2.02	0.40
25:DC:270:ILE:C	25:DC:270:ILE:HD12	2.46	0.40
27:DE:39:TRP:CD1	27:DE:101:LEU:HB2	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DE:47:GLY:O	27:DE:94:PRO:HB3	2.21	0.40
29:DG:104:GLU:HA	29:DG:113:VAL:O	2.22	0.40
30:DH:66:GLU:O	30:DH:70:GLU:HG2	2.20	0.40
32:DJ:116:THR:OG1	32:DJ:117:HIS:N	2.51	0.40
33:DK:106:LEU:HD12	33:DK:106:LEU:N	2.36	0.40
34:DL:21:ARG:H	34:DL:21:ARG:HG2	1.73	0.40
35:DM:60:ARG:HB2	35:DM:60:ARG:HH11	1.86	0.40
35:DM:81:VAL:C	35:DM:82:ARG:HH11	2.28	0.40
37:DO:38:GLN:HB3	37:DO:47:THR:HG21	2.03	0.40
40:DR:89:GLN:HA	40:DR:90:PRO:HD3	1.80	0.40
43:DU:30:VAL:HG13	43:DU:37:VAL:HG12	2.03	0.40
1:AA:542:G:H5'	4:AD:41:GLY:HA2	2.03	0.40
1:AA:552:U:H4'	12:AL:85:ARG:HG2	2.04	0.40
1:AA:555:C:H2'	1:AA:556:C:H6	1.84	0.40
1:AA:691:G:H3'	11:AK:26:ASN:ND2	2.35	0.40
1:AA:735:C:O2'	1:AA:736:C:H5'	2.21	0.40
1:AA:838:G:N2	1:AA:849:C:N3	2.70	0.40
1:AA:936:C:H2'	1:AA:937:A:O4'	2.22	0.40
1:AA:987:G:H2'	1:AA:988:G:C8	2.56	0.40
1:AA:1010:G:H2'	1:AA:1011:G:H8	1.87	0.40
1:AA:1437:C:H2'	1:AA:1438:G:C8	2.56	0.40
2:AB:27:LYS:O	2:AB:30:ARG:HG2	2.21	0.40
2:AB:187:LEU:HD11	2:AB:205:ASP:HB3	2.04	0.40
4:AD:49:ARG:CZ	4:AD:50:ARG:HB2	2.51	0.40
4:AD:209:ARG:HA	4:AD:209:ARG:HD2	1.90	0.40
5:AE:92:LYS:HA	5:AE:93:PRO:HD2	1.89	0.40
11:AK:109:VAL:HG12	11:AK:110:ASP:N	2.36	0.40
13:AM:91:ARG:CD	19:AS:81:ARG:HH22	2.35	0.40
23:BA:69:C:H2'	23:BA:70:G:H8	1.84	0.40
23:BA:265:A:C8	23:BA:266:G:H1'	2.55	0.40
23:BA:534:U:H1'	39:BQ:49:HIS:CD2	2.56	0.40
23:BA:603:A:C2	23:BA:655:A:N3	2.89	0.40
23:BA:827:U:H2'	23:BA:2068:U:C2	2.56	0.40
23:BA:1203:G:C6	23:BA:1204:A:N6	2.89	0.40
23:BA:1271:G:O3'	23:BA:1272:A:H4'	2.21	0.40
23:BA:1276:A:H5"	23:BA:1276:A:H8	1.86	0.40
23:BA:1918:A:O2'	23:BA:1920:C:N4	2.54	0.40
23:BA:2029:G:H2'	23:BA:2031:A:OP1	2.22	0.40
23:BA:2422:A:C5	23:BA:2424:C:C4	3.09	0.40
25:BC:174:ILE:N	25:BC:174:ILE:CD1	2.84	0.40
26:BD:5:LEU:HD22	26:BD:197:ILE:HG22	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BE:40:GLN:O	27:BE:43:LYS:HG2	2.21	0.40
28:BF:16:ARG:N	28:BF:17:PRO:HD2	2.36	0.40
28:BF:53:LEU:HD13	28:BF:88:ILE:HG12	2.03	0.40
30:BH:114:LEU:HA	30:BH:130:TYR:HD1	1.86	0.40
30:BH:128:LEU:HG	30:BH:142:VAL:CG2	2.50	0.40
32:BJ:132:LYS:H	32:BJ:132:LYS:HG2	1.61	0.40
32:BJ:159:GLU:HG2	32:BJ:160:LYS:N	2.36	0.40
35:BM:22:LYS:HA	35:BM:22:LYS:CE	2.35	0.40
35:BM:67:ARG:HD2	35:BM:105:GLU:OE2	2.21	0.40
35:BM:141:GLN:O	44:BV:53:ILE:HG22	2.20	0.40
36:BN:14:SER:HA	36:BN:17:ARG:HG2	2.03	0.40
40:BR:4:ILE:HG22	40:BR:5:VAL:N	2.35	0.40
45:BW:32:ARG:CA	45:BW:35:ASN:HD21	2.34	0.40
46:BX:23:LYS:O	46:BX:23:LYS:HG3	2.20	0.40
47:BY:24:LEU:HD23	47:BY:24:LEU:O	2.21	0.40
47:BY:47:ASN:C	47:BY:49:LYS:N	2.80	0.40
51:B3:23:THR:O	51:B3:24:GLU:HG2	2.22	0.40
53:B5:13:ARG:HG3	53:B5:14:VAL:HG23	2.02	0.40
1:CA:105:G:C4	1:CA:106:C:C5	3.09	0.40
1:CA:187:C:O2	1:CA:191(A):G:C6	2.74	0.40
1:CA:815:A:H4’	1:CA:817:C:C5	2.56	0.40
1:CA:901:A:C5	1:CA:902:G:H1’	2.55	0.40
1:CA:1046:A:H3’	1:CA:1047:G:H8	1.86	0.40
1:CA:1226:C:C4	13:CM:104:ARG:HB2	2.57	0.40
1:CA:1269:A:H5’	21:CU:19:GLY:HA2	2.04	0.40
1:CA:1437:C:H2’	1:CA:1438:G:C8	2.56	0.40
2:CB:137:ARG:O	2:CB:141:GLU:HG2	2.21	0.40
11:CK:23:ALA:HB1	11:CK:88:GLY:HA3	2.03	0.40
23:DA:388:G:C4	23:DA:390:A:C6	3.10	0.40
23:DA:451:C:N4	23:DA:453:C:H3’	2.36	0.40
23:DA:570:G:H2’	23:DA:2030:A:C5	2.55	0.40
23:DA:1270:C:H5”	23:DA:1271:G:C5’	2.52	0.40
23:DA:1289:C:H2’	23:DA:1290:C:C6	2.55	0.40
23:DA:1639:U:C2’	23:DA:1640:C:H5”	2.51	0.40
23:DA:2293:C:H4’	37:DO:93:LYS:HZ2	1.87	0.40
23:DA:2685:G:N3	23:DA:2725:A:C2	2.89	0.40
25:DC:131:LEU:HD12	25:DC:136:ILE:HG12	2.02	0.40
27:DE:68:LYS:C	27:DE:70:THR:N	2.78	0.40
29:DG:86:GLU:HB3	29:DG:132:ARG:NH1	2.37	0.40
33:DK:113:LYS:O	33:DK:116:SER:OG	2.39	0.40
34:DL:126:VAL:HG22	34:DL:145:PRO:HB2	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DM:67:ARG:HD2	35:DM:105:GLU:OE2	2.21	0.40
35:DM:81:VAL:O	35:DM:82:ARG:HD3	2.21	0.40
40:DR:6:LYS:O	40:DR:6:LYS:HG3	2.21	0.40
42:DT:41:ASN:N	42:DT:41:ASN:HD22	2.19	0.40
43:DU:97:ARG:HD3	43:DU:98:VAL:HG12	2.04	0.40
44:DV:144:LEU:HD22	44:DV:144:LEU:N	2.36	0.40
44:DV:161:VAL:HG12	44:DV:162:GLU:N	2.35	0.40
46:DX:10:LYS:O	46:DX:11:ARG:CG	2.67	0.40
46:DX:82:LEU:N	46:DX:82:LEU:HD12	2.36	0.40
1:AA:57:G:C6	1:AA:58:C:C4	3.09	0.40
1:AA:161:A:H2'	1:AA:162:A:H8	1.85	0.40
1:AA:438:G:C4'	1:AA:439:A:OP1	2.67	0.40
1:AA:562:C:H6	1:AA:562:C:H5'	1.85	0.40
1:AA:604:G:C6	1:AA:605:U:C4	3.09	0.40
1:AA:692:U:C5	11:AK:26:ASN:ND2	2.87	0.40
1:AA:712:A:O2'	1:AA:713:G:H5'	2.21	0.40
1:AA:900:A:H2'	1:AA:901:A:C8	2.56	0.40
1:AA:954:G:H2'	1:AA:955:U:C6	2.56	0.40
2:AB:178:ARG:HH22	2:AB:196:LEU:C	2.29	0.40
4:AD:188:LEU:HD12	4:AD:188:LEU:H	1.86	0.40
10:AJ:22:LYS:O	10:AJ:22:LYS:HD2	2.21	0.40
13:AM:8:GLU:OE1	13:AM:22:ILE:HG23	2.21	0.40
13:AM:99:ARG:HB2	13:AM:101:GLN:NE2	2.26	0.40
17:AQ:82:MET:HE2	17:AQ:82:MET:N	2.37	0.40
23:BA:252:G:OP2	34:BL:50:ARG:NH2	2.49	0.40
23:BA:386:G:H4'	23:BA:387:U:OP2	2.22	0.40
23:BA:480:A:N3	23:BA:480:A:H2'	2.36	0.40
23:BA:775:G:C2	23:BA:777:A:N6	2.89	0.40
23:BA:839:U:H2'	23:BA:840:C:H6	1.81	0.40
23:BA:1221:C:H2'	23:BA:122(A):C:C6	2.56	0.40
23:BA:1344:G:H5'	23:BA:1384:A:C6	2.56	0.40
23:BA:1488:G:C5	23:BA:1489:U:C5	3.10	0.40
23:BA:1493:C:H2'	23:BA:1493:C:O2	2.21	0.40
23:BA:1599:C:H2'	23:BA:1600:C:C6	2.56	0.40
23:BA:1728:G:O5'	23:BA:1728:G:H8	2.05	0.40
23:BA:1858:G:H1'	23:BA:1884:A:H62	1.86	0.40
23:BA:2404:C:H2'	23:BA:2405:G:O4'	2.22	0.40
23:BA:2416:C:OP1	34:BL:64:LYS:O	2.40	0.40
23:BA:2574:G:H8	23:BA:2574:G:O5'	2.04	0.40
25:BC:107:ALA:HA	25:BC:108:PRO:HD3	1.78	0.40
25:BC:236:GLY:O	25:BC:238:GLY:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BD:76:ARG:HG2	26:BD:77:ILE:HG13	2.03	0.40
28:BF:114:ILE:HB	28:BF:117:PHE:HB2	2.02	0.40
34:BL:39:LYS:CD	34:BL:40:SER:H	2.35	0.40
34:BL:62:LEU:HD22	34:BL:62:LEU:O	2.22	0.40
35:BM:127:ILE:HG22	35:BM:128:LYS:N	2.36	0.40
36:BN:10:LEU:N	36:BN:10:LEU:HD12	2.37	0.40
38:BP:137:LYS:N	38:BP:137:LYS:HD2	2.36	0.40
44:BV:144:LEU:HD22	44:BV:144:LEU:N	2.37	0.40
46:BX:41:ARG:HD3	46:BX:43:TYR:CE2	2.57	0.40
46:BX:46:LEU:HB2	46:BX:63:ALA:HA	2.04	0.40
46:BX:53:VAL:HG22	46:BX:74:VAL:HG13	2.03	0.40
46:BX:73:LEU:HD21	46:BX:94:LEU:CG	2.49	0.40
1:CA:69:G:H2'	1:CA:73:G:H8	1.86	0.40
1:CA:235:C:H1'	17:CQ:61:GLU:OE1	2.21	0.40
1:CA:605:U:H2'	1:CA:606:G:O4'	2.22	0.40
1:CA:1053:G:C3'	1:CA:1054:C:H5'	2.51	0.40
1:CA:1079:G:C6	1:CA:1080:A:N6	2.89	0.40
2:CB:80:ILE:HD11	2:CB:208:ILE:CG2	2.50	0.40
2:CB:102:LEU:HD12	2:CB:102:LEU:N	2.37	0.40
6:CF:9:VAL:HG13	6:CF:59:TYR:O	2.21	0.40
7:CG:150:ALA:HA	11:CK:59:TYR:CD2	2.56	0.40
8:CH:82:HIS:HD2	8:CH:138:TRP:HE1	1.69	0.40
9:CI:53:VAL:HG11	9:CI:85:LEU:HD22	2.02	0.40
12:CL:74:HIS:HD2	12:CL:76:LEU:HB2	1.85	0.40
13:CM:19:LEU:HA	13:CM:22:ILE:HG12	2.02	0.40
13:CM:37:THR:OG1	13:CM:56:LEU:HD23	2.22	0.40
16:CP:49:LEU:HD12	16:CP:50:LYS:N	2.36	0.40
19:CS:6:LYS:HD2	19:CS:6:LYS:N	2.34	0.40
20:CT:36:LEU:HB3	20:CT:59:ALA:HB2	2.03	0.40
23:DA:327:G:C2	23:DA:328:U:C2	3.10	0.40
23:DA:643:A:OP1	51:D3:42:TRP:NE1	2.54	0.40
23:DA:656:G:H8	23:DA:656:G:O5'	2.05	0.40
23:DA:830:G:C4	23:DA:2448:A:C6	3.09	0.40
23:DA:1509:A:H4'	23:DA:1510:A:N9	2.36	0.40
23:DA:2246:G:H2'	23:DA:2247:A:H8	1.87	0.40
23:DA:2386:C:H4'	45:DW:55:ARG:O	2.21	0.40
24:DB:70:C:H2'	24:DB:71:C:C6	2.52	0.40
25:DC:175:LEU:HD23	25:DC:175:LEU:HA	1.95	0.40
25:DC:265:PRO:C	25:DC:267:SER:N	2.79	0.40
26:DD:184:VAL:HG12	26:DD:185:LYS:H	1.86	0.40
28:DF:7:LEU:HA	28:DF:10:LYS:HD2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DG:103:LEU:HG	29:DG:105:LEU:CD1	2.51	0.40
29:DG:117:PRO:HA	29:DG:118:PRO:HD2	1.93	0.40
32:DJ:83:ILE:HG22	32:DJ:84:ARG:O	2.21	0.40
35:DM:77:LYS:HA	35:DM:78:PRO:HD3	1.73	0.40
39:DQ:83:LEU:N	39:DQ:83:LEU:HD12	2.36	0.40
41:DS:18:ARG:NH1	41:DS:76:VAL:HG13	2.36	0.40
44:DV:127:LYS:HB3	44:DV:162:GLU:CG	2.51	0.40
53:D5:60:LEU:C	53:D5:62:LEU:N	2.79	0.40
1:AA:620:C:C2	4:AD:135:LEU:HG	2.56	0.40
1:AA:1296:C:OP1	13:AM:44:ARG:NH2	2.51	0.40
1:AA:1320:C:C2	19:AS:72:GLY:HA3	2.56	0.40
1:AA:1501:C:C5	1:AA:1504:G:C5	3.09	0.40
2:AB:67:THR:HG22	2:AB:90:MET:HE1	2.03	0.40
7:AG:15:ASP:HB2	7:AG:20:ASP:O	2.21	0.40
23:BA:118:A:H1'	23:BA:178:G:O4'	2.22	0.40
23:BA:141(A):A:C8	23:BA:1408:C:H1'	2.57	0.40
23:BA:270(H):C:H2'	23:BA:270(I):C:C6	2.56	0.40
23:BA:587:C:H4'	23:BA:588:U:C6	2.57	0.40
23:BA:875:G:N2	23:BA:903:C:C2	2.90	0.40
23:BA:1310:G:H2'	23:BA:1311:G:H5"	2.03	0.40
23:BA:1783:A:C2	23:BA:2587:A:C4	3.10	0.40
23:BA:1843:C:O2'	23:BA:1844:C:H5'	2.22	0.40
23:BA:2019:A:H5"	39:BQ:27:LEU:HD12	2.04	0.40
23:BA:2477:C:HO2'	23:BA:2478:A:P	2.44	0.40
23:BA:2565:A:H5"	23:BA:2566:A:OP2	2.22	0.40
24:BB:37:C:C5	24:BB:38:C:C5	3.09	0.40
26:BD:85:ASN:HA	26:BD:86:PRO:HD3	1.78	0.40
28:BF:39:ILE:HG23	28:BF:157:ILE:HG22	2.04	0.40
28:BF:133:LEU:HD23	28:BF:133:LEU:N	2.36	0.40
28:BF:171:ALA:O	28:BF:175:LEU:HG	2.21	0.40
29:BG:83:TYR:CZ	29:BG:138:LYS:HG3	2.56	0.40
30:BH:133:HIS:HA	30:BH:134:PRO:HD3	1.92	0.40
34:BL:27:HIS:CD2	34:BL:27:HIS:C	3.00	0.40
34:BL:47:ASP:HB3	34:BL:48:PRO:HA	2.02	0.40
37:BO:82:ILE:HG22	37:BO:83:LYS:N	2.35	0.40
40:BR:72:VAL:O	40:BR:72:VAL:HG23	2.22	0.40
41:BS:50:VAL:HG11	41:BS:103:ILE:HG21	2.04	0.40
43:BU:98:VAL:O	43:BU:98:VAL:HG22	2.21	0.40
44:BV:98:MET:HE3	44:BV:98:MET:HB2	1.84	0.40
49:B1:40:ILE:N	49:B1:40:ILE:HD12	2.36	0.40
1:CA:506:G:C6	1:CA:507:C:N4	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:892:A:C6	1:CA:893:C:C4	3.09	0.40
1:CA:987:G:H2'	1:CA:988:G:C8	2.57	0.40
1:CA:1051:C:C4	1:CA:1052:U:C4	3.09	0.40
1:CA:1079:G:O3'	5:CE:14:ARG:NH2	2.54	0.40
5:CE:43:LEU:HD23	5:CE:43:LEU:C	2.47	0.40
11:CK:44:SER:H	11:CK:47:VAL:HB	1.87	0.40
13:CM:3:ARG:HG2	13:CM:9:ILE:CD1	2.52	0.40
17:CQ:82:MET:HE2	17:CQ:82:MET:N	2.37	0.40
23:DA:270(I):C:O2'	23:DA:270(J):G:H5'	2.22	0.40
23:DA:443:A:H1'	23:DA:1201:C:O4'	2.21	0.40
23:DA:991:C:C5	23:DA:1185:C:C4	3.09	0.40
23:DA:1007:C:HO2'	32:DJ:131:PRO:HA	1.83	0.40
23:DA:1211:U:H4'	23:DA:1212:G:OP2	2.22	0.40
23:DA:1401:G:H2'	23:DA:1402:C:C6	2.57	0.40
23:DA:1408:C:N3	23:DA:1595:G:C2	2.89	0.40
23:DA:2065:C:H2'	23:DA:2066:C:C6	2.56	0.40
23:DA:2230:G:H1'	46:DX:45:ASN:CB	2.51	0.40
23:DA:2338:G:C2	23:DA:2339:G:C8	3.10	0.40
23:DA:2484:G:H2'	23:DA:2485:G:H8	1.86	0.40
27:DE:64:ILE:HD12	27:DE:64:ILE:HA	1.81	0.40
27:DE:72:ARG:O	27:DE:73:ALA:O	2.39	0.40
27:DE:108:LYS:HD3	27:DE:108:LYS:HA	1.94	0.40
30:DH:83:ALA:N	30:DH:89:TYR:HD1	2.20	0.40
30:DH:130:TYR:C	30:DH:132:PRO:HD3	2.46	0.40
30:DH:130:TYR:HD2	30:DH:132:PRO:HG3	1.83	0.40
30:DH:136:VAL:N	30:DH:137:PRO:HD3	2.37	0.40
32:DJ:117:HIS:HA	32:DJ:118:PRO:HD2	1.98	0.40
33:DK:71:ARG:NH2	33:DK:77:ILE:HG21	2.37	0.40
34:DL:106:LEU:HD22	34:DL:106:LEU:HA	1.86	0.40
35:DM:80:GLU:HA	35:DM:80:GLU:OE2	2.21	0.40
38:DP:3:ARG:NH1	38:DP:6:LEU:HD23	2.37	0.40
39:DQ:61:TRP:O	39:DQ:62:ILE:C	2.64	0.40
39:DQ:76:TYR:CD2	39:DQ:76:TYR:C	2.99	0.40
44:DV:71:VAL:HG11	44:DV:74:VAL:HG23	2.02	0.40
46:DX:35:THR:HB	46:DX:36:GLY:H	1.54	0.40
47:DY:1:MET:SD	47:DY:5:GLU:OE2	2.80	0.40
51:D3:25:LYS:HD3	53:D5:34:TRP:CH2	2.56	0.40
1:AA:176:C:H5"	20:AT:29:LYS:HZ1	1.87	0.40
1:AA:300:A:C8	1:AA:300:A:H3'	2.57	0.40
1:AA:608:A:C4	1:AA:609:A:C8	3.09	0.40
1:AA:663:A:H2'	1:AA:664:G:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1046:A:H3'	1:AA:1047:G:H8	1.87	0.40
1:AA:1228:C:H5'	13:AM:115:LYS:O	2.21	0.40
1:AA:1250:A:H2	1:AA:1353:G:H21	1.69	0.40
1:AA:1316:G:H22	1:AA:1319:A:H5"	1.86	0.40
1:AA:1374:A:O4'	7:AG:31:MET:HE1	2.21	0.40
2:AB:46:LYS:HD2	2:AB:49:GLU:OE1	2.22	0.40
2:AB:130:ARG:HA	2:AB:131:PRO:HD2	1.95	0.40
6:AF:95:GLU:HA	6:AF:96:PRO:HD3	1.96	0.40
8:AH:20:TYR:HA	8:AH:65:TYR:CE2	2.57	0.40
9:AI:92:TYR:O	9:AI:96:LEU:HB2	2.22	0.40
9:AI:99:LEU:HD12	9:AI:101:PHE:CE2	2.56	0.40
11:AK:94:ALA:O	11:AK:98:LEU:HG	2.21	0.40
19:AS:45:VAL:HA	19:AS:62:ILE:HG23	2.03	0.40
23:BA:319:C:C2	23:BA:320:A:C8	3.10	0.40
23:BA:468:G:N7	52:B4:39:ARG:NH2	2.68	0.40
23:BA:489:G:C5	23:BA:1284:A:C2	3.09	0.40
23:BA:499:U:C4'	43:BU:47:LYS:HZ1	2.33	0.40
23:BA:1647:G:H3'	23:BA:1647:G:P	2.62	0.40
23:BA:2057:A:N6	23:BA:2058:A:C6	2.89	0.40
23:BA:2764:A:N6	23:BA:2766:G:C2	2.90	0.40
23:BA:2846:G:C5	23:BA:2847:U:C5	3.09	0.40
25:BC:35:LYS:O	25:BC:64:ILE:HD12	2.21	0.40
26:BD:14:ILE:HD12	26:BD:14:ILE:O	2.22	0.40
27:BE:155:LEU:HA	27:BE:174:VAL:HG23	2.03	0.40
30:BH:114:LEU:HA	30:BH:130:TYR:CD1	2.57	0.40
33:BK:90:GLN:O	33:BK:91:LEU:HB2	2.21	0.40
35:BM:27:VAL:H	44:BV:81:ARG:NH2	2.19	0.40
36:BN:2:ARG:C	36:BN:4:LEU:H	2.29	0.40
36:BN:99:LYS:HE3	36:BN:99:LYS:HB3	1.87	0.40
37:BO:26:LEU:HB3	37:BO:87:PHE:HA	2.03	0.40
37:BO:87:PHE:HE2	37:BO:89:ARG:HA	1.87	0.40
38:BP:92:GLY:HA2	38:BP:117:ASP:H	1.87	0.40
38:BP:128:GLU:O	38:BP:132:LYS:HG3	2.20	0.40
44:BV:28:MET:HA	44:BV:88:PHE:HB2	2.03	0.40
1:CA:179:A:C4	1:CA:180:U:C5	3.09	0.40
1:CA:272:C:H2'	1:CA:273:A:H8	1.86	0.40
1:CA:928:G:C2	1:CA:1390:U:O2	2.74	0.40
1:CA:942:G:H2'	1:CA:943:U:H6	1.86	0.40
1:CA:1234:C:O2'	1:CA:1235:U:H5'	2.22	0.40
1:CA:1259:C:O5'	1:CA:1259:C:H6	2.03	0.40
2:CB:16:HIS:CD2	2:CB:210:SER:HA	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:108:LEU:HD12	4:CD:108:LEU:HA	1.94	0.40
11:CK:26:ASN:O	11:CK:27:ASN:HB2	2.21	0.40
11:CK:59:TYR:O	11:CK:62:GLN:HB3	2.22	0.40
16:CP:45:THR:C	16:CP:47:ASP:H	2.29	0.40
18:CR:45:SER:HB3	18:CR:51:LEU:HD21	2.03	0.40
19:CS:45:VAL:HA	19:CS:62:ILE:HG23	2.02	0.40
23:DA:7:G:H2'	23:DA:8:A:O4'	2.21	0.40
23:DA:319:C:C2	23:DA:320:A:C8	3.08	0.40
23:DA:380:U:H2'	23:DA:381:G:H8	1.87	0.40
23:DA:444:C:H2'	23:DA:445:C:H6	1.86	0.40
23:DA:758:C:O2	23:DA:1981:A:H2	2.04	0.40
23:DA:782:A:H5'	23:DA:783:A:C2	2.57	0.40
23:DA:1710:C:O2'	23:DA:1711:C:H5'	2.22	0.40
23:DA:1750:G:H2'	23:DA:1751:C:H6	1.87	0.40
23:DA:1961:C:O2'	23:DA:1962:C:H5'	2.22	0.40
23:DA:2287:A:C5	23:DA:2289:G:C5	3.10	0.40
23:DA:2489:G:C6	23:DA:2490:G:N1	2.89	0.40
23:DA:2565:A:H5"	23:DA:2566:A:OP2	2.22	0.40
24:DB:48:A:H2'	24:DB:49:C:C6	2.57	0.40
26:DD:173:VAL:O	26:DD:174:ASP:C	2.64	0.40
28:DF:87:PRO:HB2	28:DF:88:ILE:H	1.65	0.40
29:DG:125:VAL:HG22	29:DG:131:VAL:HG22	2.03	0.40
32:DJ:64:ASP:OD1	32:DJ:64:ASP:N	2.54	0.40
32:DJ:157:ARG:O	32:DJ:157:ARG:HG2	2.21	0.40
34:DL:114:ILE:HD11	34:DL:130:PHE:CG	2.54	0.40
34:DL:122:PRO:O	34:DL:123:LEU:HB3	2.21	0.40
35:DM:27:VAL:H	44:DV:81:ARG:NH2	2.20	0.40
36:DN:38:VAL:HG22	36:DN:112:ALA:HB2	2.04	0.40
36:DN:39:PRO:O	36:DN:40:LYS:C	2.63	0.40
37:DO:26:LEU:HB3	37:DO:87:PHE:HA	2.03	0.40
38:DP:26:ASP:HB3	38:DP:92:GLY:H	1.86	0.40
39:DQ:91:ASP:OD2	39:DQ:96:ALA:HB2	2.22	0.40
41:DS:29:LEU:HD22	41:DS:69:LEU:CD1	2.49	0.40
44:DV:145:GLU:HG3	44:DV:146:ILE:N	2.37	0.40
52:D4:10:ARG:O	52:D4:11:LYS:C	2.62	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	AB	232/234 (99%)	194 (84%)	32 (14%)	6 (3%)	4 27
2	CB	232/234 (99%)	194 (84%)	32 (14%)	6 (3%)	4 27
3	AC	204/206 (99%)	153 (75%)	38 (19%)	13 (6%)	1 11
3	CC	204/206 (99%)	154 (76%)	37 (18%)	13 (6%)	1 11
4	AD	206/208 (99%)	172 (84%)	26 (13%)	8 (4%)	2 20
4	CD	206/208 (99%)	172 (84%)	25 (12%)	9 (4%)	2 17
5	AE	149/151 (99%)	123 (83%)	22 (15%)	4 (3%)	4 27
5	CE	149/151 (99%)	126 (85%)	19 (13%)	4 (3%)	4 27
6	AF	99/101 (98%)	90 (91%)	8 (8%)	1 (1%)	12 44
6	CF	99/101 (98%)	90 (91%)	8 (8%)	1 (1%)	12 44
7	AG	153/155 (99%)	132 (86%)	18 (12%)	3 (2%)	6 32
7	CG	153/155 (99%)	133 (87%)	17 (11%)	3 (2%)	6 32
8	AH	136/138 (99%)	119 (88%)	17 (12%)	0	100 100
8	CH	136/138 (99%)	119 (88%)	17 (12%)	0	100 100
9	AI	125/127 (98%)	102 (82%)	20 (16%)	3 (2%)	4 29
9	CI	125/127 (98%)	101 (81%)	21 (17%)	3 (2%)	4 29
10	AJ	96/98 (98%)	78 (81%)	12 (12%)	6 (6%)	1 12
10	CJ	96/98 (98%)	78 (81%)	12 (12%)	6 (6%)	1 12
11	AK	117/119 (98%)	97 (83%)	16 (14%)	4 (3%)	3 23
11	CK	117/119 (98%)	97 (83%)	16 (14%)	4 (3%)	3 23
12	AL	122/124 (98%)	94 (77%)	22 (18%)	6 (5%)	1 16
12	CL	122/124 (98%)	94 (77%)	22 (18%)	6 (5%)	1 16
13	AM	114/116 (98%)	94 (82%)	16 (14%)	4 (4%)	3 23
13	CM	114/116 (98%)	94 (82%)	16 (14%)	4 (4%)	3 23
14	AN	58/60 (97%)	50 (86%)	5 (9%)	3 (5%)	1 14

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
14	CN	58/60 (97%)	50 (86%)	5 (9%)	3 (5%)	1 14
15	AO	86/88 (98%)	77 (90%)	7 (8%)	2 (2%)	5 30
15	CO	86/88 (98%)	77 (90%)	7 (8%)	2 (2%)	5 30
16	AP	81/83 (98%)	65 (80%)	14 (17%)	2 (2%)	4 28
16	CP	81/83 (98%)	65 (80%)	13 (16%)	3 (4%)	2 21
17	AQ	97/99 (98%)	81 (84%)	15 (16%)	1 (1%)	12 44
17	CQ	97/99 (98%)	81 (84%)	15 (16%)	1 (1%)	12 44
18	AR	68/70 (97%)	53 (78%)	13 (19%)	2 (3%)	3 26
18	CR	68/70 (97%)	53 (78%)	12 (18%)	3 (4%)	2 17
19	AS	76/78 (97%)	57 (75%)	14 (18%)	5 (7%)	1 11
19	CS	76/78 (97%)	57 (75%)	14 (18%)	5 (7%)	1 11
20	AT	97/99 (98%)	82 (84%)	12 (12%)	3 (3%)	3 25
20	CT	97/99 (98%)	82 (84%)	12 (12%)	3 (3%)	3 25
21	AU	22/24 (92%)	17 (77%)	4 (18%)	1 (4%)	2 17
21	CU	22/24 (92%)	17 (77%)	4 (18%)	1 (4%)	2 17
25	BC	269/271 (99%)	220 (82%)	31 (12%)	18 (7%)	1 11
25	DC	269/271 (99%)	218 (81%)	33 (12%)	18 (7%)	1 11
26	BD	202/204 (99%)	168 (83%)	26 (13%)	8 (4%)	2 19
26	DD	202/204 (99%)	167 (83%)	29 (14%)	6 (3%)	3 25
27	BE	200/202 (99%)	165 (82%)	28 (14%)	7 (4%)	3 23
27	DE	200/202 (99%)	165 (82%)	28 (14%)	7 (4%)	3 23
28	BF	179/181 (99%)	134 (75%)	37 (21%)	8 (4%)	2 17
28	DF	179/181 (99%)	133 (74%)	37 (21%)	9 (5%)	1 15
29	BG	157/159 (99%)	126 (80%)	27 (17%)	4 (2%)	4 28
29	DG	157/159 (99%)	125 (80%)	28 (18%)	4 (2%)	4 28
30	BH	143/145 (99%)	109 (76%)	28 (20%)	6 (4%)	2 19
30	DH	143/145 (99%)	109 (76%)	28 (20%)	6 (4%)	2 19
31	BI	28/65 (43%)	27 (96%)	1 (4%)	0	100 100
31	DI	28/65 (43%)	27 (96%)	1 (4%)	0	100 100
32	BJ	135/137 (98%)	108 (80%)	19 (14%)	8 (6%)	1 12
32	DJ	135/137 (98%)	108 (80%)	19 (14%)	8 (6%)	1 12

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
33	BK	120/122 (98%)	105 (88%)	8 (7%)	7 (6%)	1 13
33	DK	120/122 (98%)	107 (89%)	6 (5%)	7 (6%)	1 13
34	BL	144/146 (99%)	94 (65%)	35 (24%)	15 (10%)	0 5
34	DL	144/146 (99%)	92 (64%)	37 (26%)	15 (10%)	0 5
35	BM	134/136 (98%)	98 (73%)	22 (16%)	14 (10%)	0 5
35	DM	134/136 (98%)	97 (72%)	24 (18%)	13 (10%)	0 6
36	BN	115/117 (98%)	97 (84%)	13 (11%)	5 (4%)	2 18
36	DN	115/117 (98%)	97 (84%)	14 (12%)	4 (4%)	3 23
37	BO	96/98 (98%)	65 (68%)	18 (19%)	13 (14%)	0 3
37	DO	96/98 (98%)	65 (68%)	18 (19%)	13 (14%)	0 3
38	BP	135/137 (98%)	99 (73%)	30 (22%)	6 (4%)	2 17
38	DP	135/137 (98%)	99 (73%)	30 (22%)	6 (4%)	2 17
39	BQ	114/116 (98%)	99 (87%)	13 (11%)	2 (2%)	6 34
39	DQ	114/116 (98%)	99 (87%)	13 (11%)	2 (2%)	6 34
40	BR	99/101 (98%)	71 (72%)	19 (19%)	9 (9%)	0 7
40	DR	99/101 (98%)	71 (72%)	19 (19%)	9 (9%)	0 7
41	BS	110/112 (98%)	94 (86%)	14 (13%)	2 (2%)	6 34
41	DS	110/112 (98%)	94 (86%)	14 (13%)	2 (2%)	6 34
42	BT	90/92 (98%)	82 (91%)	7 (8%)	1 (1%)	11 43
42	DT	90/92 (98%)	82 (91%)	7 (8%)	1 (1%)	11 43
43	BU	98/100 (98%)	65 (66%)	22 (22%)	11 (11%)	0 5
43	DU	98/100 (98%)	63 (64%)	23 (24%)	12 (12%)	0 4
44	BV	186/188 (99%)	140 (75%)	36 (19%)	10 (5%)	1 14
44	DV	186/188 (99%)	140 (75%)	36 (19%)	10 (5%)	1 14
45	BW	74/76 (97%)	59 (80%)	12 (16%)	3 (4%)	2 19
45	DW	74/76 (97%)	57 (77%)	14 (19%)	3 (4%)	2 19
46	BX	86/88 (98%)	57 (66%)	20 (23%)	9 (10%)	0 5
46	DX	86/88 (98%)	57 (66%)	20 (23%)	9 (10%)	0 5
47	BY	60/62 (97%)	48 (80%)	9 (15%)	3 (5%)	1 15
47	DY	60/62 (97%)	49 (82%)	8 (13%)	3 (5%)	1 15
48	BZ	57/59 (97%)	51 (90%)	5 (9%)	1 (2%)	6 34

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
48	DZ	57/59 (97%)	51 (90%)	5 (9%)	1 (2%)	6 34
49	B1	28/30 (93%)	15 (54%)	10 (36%)	3 (11%)	0 5
49	D1	28/30 (93%)	15 (54%)	10 (36%)	3 (11%)	0 5
50	B2	50/52 (96%)	39 (78%)	8 (16%)	3 (6%)	1 12
50	D2	50/52 (96%)	40 (80%)	6 (12%)	4 (8%)	1 8
51	B3	42/44 (96%)	35 (83%)	2 (5%)	5 (12%)	0 4
51	D3	42/44 (96%)	35 (83%)	2 (5%)	5 (12%)	0 4
52	B4	46/48 (96%)	42 (91%)	4 (9%)	0	100 100
52	D4	46/48 (96%)	41 (89%)	5 (11%)	0	100 100
53	B5	61/63 (97%)	43 (70%)	13 (21%)	5 (8%)	0 8
53	D5	61/63 (97%)	44 (72%)	13 (21%)	4 (7%)	1 11
All	All	11192/11458 (98%)	8966 (80%)	1699 (15%)	527 (5%)	2 17

All (527) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	AC	15	THR
4	AD	30	LYS
4	AD	137	SER
4	AD	138	TYR
4	AD	168	ARG
13	AM	63	THR
13	AM	106	ASN
19	AS	28	LYS
20	AT	71	THR
25	BC	26	LYS
25	BC	33	LEU
25	BC	35	LYS
25	BC	237	GLU
25	BC	239	ARG
25	BC	260	ARG
26	BD	16	ARG
27	BE	73	ALA
28	BF	87	PRO
29	BG	92	ILE
29	BG	165	ALA
30	BH	91	SER
32	BJ	116	THR

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Mol	Chain	Res	Type
32	BJ	149	PRO
32	BJ	157	ARG
34	BL	15	ARG
34	BL	36	LYS
34	BL	46	LYS
34	BL	59	LEU
34	BL	141	ALA
35	BM	8	LYS
35	BM	21	THR
37	BO	12	PHE
37	BO	59	LYS
37	BO	62	LYS
37	BO	90	GLY
37	BO	91	PRO
38	BP	58	ASN
38	BP	115	ARG
40	BR	53	GLU
40	BR	78	LYS
41	BS	110	LYS
43	BU	3	VAL
43	BU	7	VAL
44	BV	178	GLU
45	BW	47	PRO
46	BX	11	ARG
47	BY	47	ASN
50	B2	4	HIS
50	B2	35	GLU
51	B3	28	ARG
3	CC	15	THR
4	CD	30	LYS
4	CD	137	SER
4	CD	138	TYR
4	CD	168	ARG
13	CM	63	THR
13	CM	106	ASN
19	CS	28	LYS
20	CT	71	THR
25	DC	26	LYS
25	DC	33	LEU
25	DC	35	LYS
25	DC	237	GLU
25	DC	239	ARG

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Mol	Chain	Res	Type
25	DC	260	ARG
26	DD	16	ARG
27	DE	73	ALA
28	DF	87	PRO
29	DG	92	ILE
29	DG	165	ALA
30	DH	91	SER
32	DJ	116	THR
32	DJ	149	PRO
32	DJ	157	ARG
34	DL	15	ARG
34	DL	36	LYS
34	DL	46	LYS
34	DL	59	LEU
34	DL	141	ALA
35	DM	8	LYS
35	DM	21	THR
37	DO	12	PHE
37	DO	59	LYS
37	DO	62	LYS
37	DO	90	GLY
37	DO	91	PRO
38	DP	58	ASN
38	DP	115	ARG
40	DR	53	GLU
40	DR	78	LYS
41	DS	110	LYS
43	DU	3	VAL
43	DU	7	VAL
44	DV	178	GLU
45	DW	47	PRO
46	DX	11	ARG
47	DY	47	ASN
50	D2	35	GLU
51	D3	28	ARG
2	AB	18	GLY
2	AB	150	SER
4	AD	171	GLY
10	AJ	92	THR
12	AL	45	LYS
12	AL	63	TYR
13	AM	4	ILE

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Mol	Chain	Res	Type
14	AN	26	ARG
19	AS	11	VAL
19	AS	29	ARG
20	AT	9	ASN
25	BC	34	VAL
25	BC	69	ARG
25	BC	70	TRP
25	BC	106	ILE
25	BC	197	GLY
26	BD	86	PRO
27	BE	84	VAL
28	BF	14	GLU
28	BF	24	GLY
28	BF	86	MET
30	BH	10	GLU
30	BH	90	GLY
30	BH	143	SER
32	BJ	106	LYS
32	BJ	153	HIS
34	BL	11	GLY
34	BL	34	GLY
34	BL	149	GLU
35	BM	7	MET
35	BM	10	ARG
35	BM	18	LYS
35	BM	62	GLY
36	BN	3	HIS
36	BN	57	ARG
37	BO	35	ILE
37	BO	44	LYS
37	BO	57	LYS
38	BP	2	ASN
43	BU	17	SER
43	BU	42	VAL
43	BU	80	GLY
43	BU	98	VAL
44	BV	114	GLY
44	BV	120	ILE
44	BV	177	PRO
44	BV	179	ASP
45	BW	13	GLY
45	BW	73	GLY

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Mol	Chain	Res	Type
46	BX	85	LEU
53	B5	3	LYS
2	CB	18	GLY
2	CB	150	SER
4	CD	171	GLY
10	CJ	92	THR
12	CL	45	LYS
12	CL	63	TYR
13	CM	4	ILE
14	CN	26	ARG
19	CS	11	VAL
19	CS	29	ARG
20	CT	9	ASN
25	DC	34	VAL
25	DC	69	ARG
25	DC	70	TRP
25	DC	106	ILE
25	DC	125	ILE
25	DC	197	GLY
26	DD	86	PRO
27	DE	84	VAL
28	DF	14	GLU
28	DF	24	GLY
28	DF	86	MET
30	DH	10	GLU
30	DH	90	GLY
32	DJ	106	LYS
32	DJ	153	HIS
34	DL	11	GLY
34	DL	34	GLY
34	DL	149	GLU
35	DM	7	MET
35	DM	10	ARG
35	DM	18	LYS
35	DM	62	GLY
36	DN	3	HIS
36	DN	57	ARG
37	DO	35	ILE
37	DO	44	LYS
37	DO	57	LYS
38	DP	2	ASN
43	DU	17	SER

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Mol	Chain	Res	Type
43	DU	42	VAL
43	DU	80	GLY
43	DU	98	VAL
44	DV	120	ILE
44	DV	177	PRO
44	DV	179	ASP
45	DW	13	GLY
45	DW	73	GLY
46	DX	85	LEU
50	D2	4	HIS
53	D5	3	LYS
2	AB	19	HIS
3	AC	45	LYS
3	AC	47	LEU
3	AC	105	GLU
3	AC	189	ALA
4	AD	32	ALA
4	AD	40	PRO
6	AF	49	ALA
7	AG	7	ALA
10	AJ	32	ALA
11	AK	49	GLY
12	AL	50	ALA
13	AM	101	GLN
19	AS	31	ILE
20	AT	98	PRO
21	AU	9	ARG
25	BC	125	ILE
25	BC	238	GLY
26	BD	18	ASP
27	BE	68	LYS
27	BE	127	GLU
27	BE	166	ALA
29	BG	21	PRO
32	BJ	148	GLY
33	BK	4	PRO
33	BK	26	LYS
33	BK	97	ARG
34	BL	18	ARG
34	BL	42	SER
34	BL	49	ARG
34	BL	148	LEU

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Mol	Chain	Res	Type
35	BM	133	ARG
36	BN	58	GLY
37	BO	95	HIS
38	BP	36	GLU
40	BR	17	GLY
40	BR	29	PRO
40	BR	80	GLN
43	BU	88	LYS
43	BU	96	ILE
44	BV	168	GLU
46	BX	9	GLY
46	BX	31	GLY
46	BX	32	LYS
47	BY	17	SER
49	B1	44	CYS
49	B1	62	CYS
51	B3	31	PRO
51	B3	46	HIS
53	B5	34	TRP
53	B5	35	GLN
2	CB	19	HIS
3	CC	47	LEU
3	CC	105	GLU
3	CC	189	ALA
4	CD	32	ALA
4	CD	40	PRO
6	CF	49	ALA
7	CG	7	ALA
10	CJ	32	ALA
10	CJ	57	LYS
11	CK	49	GLY
13	CM	101	GLN
16	CP	48	TRP
19	CS	31	ILE
20	CT	98	PRO
21	CU	9	ARG
26	DD	18	ASP
27	DE	68	LYS
27	DE	166	ALA
29	DG	21	PRO
30	DH	143	SER
32	DJ	148	GLY

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Mol	Chain	Res	Type
33	DK	4	PRO
33	DK	26	LYS
33	DK	97	ARG
34	DL	18	ARG
34	DL	42	SER
34	DL	49	ARG
34	DL	148	LEU
36	DN	58	GLY
37	DO	85	VAL
37	DO	95	HIS
38	DP	36	GLU
38	DP	57	PHE
40	DR	17	GLY
40	DR	29	PRO
40	DR	80	GLN
43	DU	88	LYS
43	DU	96	ILE
44	DV	114	GLY
44	DV	168	GLU
46	DX	9	GLY
46	DX	31	GLY
46	DX	32	LYS
47	DY	17	SER
49	D1	44	CYS
49	D1	62	CYS
51	D3	31	PRO
51	D3	46	HIS
53	D5	34	TRP
53	D5	35	GLN
2	AB	130	ARG
3	AC	60	ALA
3	AC	129	ALA
5	AE	38	GLN
5	AE	72	GLN
9	AI	24	GLY
9	AI	58	ARG
10	AJ	57	LYS
11	AK	90	GLY
12	AL	64	GLU
14	AN	18	VAL
17	AQ	11	VAL
18	AR	36	ASN

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Mol	Chain	Res	Type
19	AS	27	GLU
25	BC	32	SER
25	BC	191	ALA
25	BC	256	GLY
26	BD	43	GLY
28	BF	35	GLU
28	BF	124	SER
30	BH	132	PRO
32	BJ	70	ALA
33	BK	29	ASN
34	BL	65	ARG
35	BM	81	VAL
35	BM	134	ARG
35	BM	140	ALA
36	BN	8	ARG
37	BO	83	LYS
37	BO	85	VAL
37	BO	101	LEU
38	BP	57	PHE
39	BQ	91	ASP
40	BR	2	PHE
41	BS	11	ARG
42	BT	4	ALA
43	BU	39	VAL
43	BU	90	LEU
44	BV	80	ARG
44	BV	142	SER
47	BY	15	LYS
48	BZ	29	ARG
49	B1	54	LYS
50	B2	45	VAL
51	B3	32	ASN
51	B3	51	GLU
53	B5	20	GLY
2	CB	130	ARG
3	CC	45	LYS
3	CC	60	ALA
3	CC	129	ALA
5	CE	38	GLN
5	CE	72	GLN
9	CI	24	GLY
9	CI	58	ARG

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Mol	Chain	Res	Type
11	CK	90	GLY
12	CL	50	ALA
12	CL	64	GLU
14	CN	18	VAL
17	CQ	11	VAL
18	CR	36	ASN
19	CS	27	GLU
25	DC	32	SER
25	DC	238	GLY
25	DC	256	GLY
26	DD	43	GLY
27	DE	127	GLU
28	DF	35	GLU
28	DF	124	SER
30	DH	132	PRO
32	DJ	70	ALA
33	DK	29	ASN
34	DL	65	ARG
35	DM	81	VAL
35	DM	133	ARG
35	DM	134	ARG
35	DM	140	ALA
36	DN	8	ARG
37	DO	83	LYS
37	DO	101	LEU
39	DQ	91	ASP
40	DR	2	PHE
41	DS	11	ARG
42	DT	4	ALA
43	DU	39	VAL
43	DU	90	LEU
44	DV	80	ARG
44	DV	142	SER
47	DY	15	LYS
48	DZ	29	ARG
49	D1	54	LYS
50	D2	45	VAL
51	D3	32	ASN
51	D3	51	GLU
53	D5	20	GLY
2	AB	15	VAL
2	AB	234	PRO

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Mol	Chain	Res	Type
3	AC	127	ARG
3	AC	159	GLY
5	AE	49	PRO
5	AE	64	ARG
9	AI	100	GLY
10	AJ	54	PHE
11	AK	118	GLY
11	AK	125	PHE
12	AL	82	VAL
15	AO	23	GLY
16	AP	48	TRP
18	AR	78	LEU
25	BC	198	ASN
28	BF	12	TYR
35	BM	25	ASP
37	BO	61	ASN
38	BP	55	ASN
40	BR	48	GLY
46	BX	53	VAL
46	BX	84	GLY
46	BX	87	PRO
53	B5	61	LEU
2	CB	15	VAL
2	CB	234	PRO
3	CC	81	GLY
3	CC	127	ARG
3	CC	159	GLY
5	CE	49	PRO
9	CI	100	GLY
10	CJ	54	PHE
11	CK	118	GLY
12	CL	82	VAL
15	CO	23	GLY
18	CR	78	LEU
25	DC	191	ALA
25	DC	198	ASN
28	DF	12	TYR
35	DM	25	ASP
37	DO	61	ASN
38	DP	55	ASN
40	DR	48	GLY
46	DX	53	VAL

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Mol	Chain	Res	Type
46	DX	84	GLY
46	DX	87	PRO
3	AC	81	GLY
3	AC	96	GLY
3	AC	145	GLY
10	AJ	75	ILE
14	AN	14	PRO
26	BD	29	GLY
28	BF	142	PRO
29	BG	39	PRO
34	BL	43	GLY
35	BM	27	VAL
36	BN	13	HIS
43	BU	11	ASP
46	BX	58	ILE
3	CC	96	GLY
3	CC	145	GLY
4	CD	86	LYS
5	CE	64	ARG
10	CJ	75	ILE
11	CK	125	PHE
14	CN	14	PRO
16	CP	25	ARG
18	CR	20	ALA
26	DD	29	GLY
28	DF	136	ARG
28	DF	142	PRO
29	DG	39	PRO
34	DL	43	GLY
35	DM	27	VAL
43	DU	11	ASP
3	AC	14	ILE
7	AG	130	GLY
15	AO	86	GLY
25	BC	236	GLY
34	BL	10	PRO
35	BM	96	VAL
3	CC	14	ILE
7	CG	130	GLY
15	CO	86	GLY
25	DC	236	GLY
33	DK	27	GLY

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Mol	Chain	Res	Type
34	DL	10	PRO
46	DX	58	ILE
7	AG	82	GLY
12	AL	28	GLY
16	AP	63	GLY
27	BE	131	GLY
33	BK	27	GLY
40	BR	61	VAL
7	CG	82	GLY
12	CL	28	GLY
16	CP	63	GLY
27	DE	131	GLY
35	DM	96	VAL
40	DR	61	VAL
26	BD	4	ILE
35	BM	30	GLY
40	BR	16	PRO
44	BV	39	VAL
26	DD	4	ILE
33	DK	101	PRO
39	DQ	90	VAL
40	DR	16	PRO
44	DV	101	PRO
4	AD	146	ILE
10	AJ	77	PRO
26	BD	189	PRO
27	BE	82	ILE
30	BH	144	VAL
33	BK	101	PRO
33	BK	119	PRO
39	BQ	90	VAL
44	BV	101	PRO
4	CD	146	ILE
32	DJ	158	PRO
33	DK	119	PRO
44	DV	39	VAL
50	D2	46	CYS
26	BD	173	VAL
32	BJ	158	PRO
10	CJ	77	PRO
27	DE	82	ILE
30	DH	144	VAL

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Mol	Chain	Res	Type
43	DU	41	GLY

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	AB	202/202 (100%)	186 (92%)	16 (8%)	11 36
2	CB	202/202 (100%)	186 (92%)	16 (8%)	11 36
3	AC	160/160 (100%)	155 (97%)	5 (3%)	35 59
3	CC	160/160 (100%)	155 (97%)	5 (3%)	35 59
4	AD	180/180 (100%)	171 (95%)	9 (5%)	22 48
4	CD	180/180 (100%)	171 (95%)	9 (5%)	22 48
5	AE	116/116 (100%)	108 (93%)	8 (7%)	14 39
5	CE	116/116 (100%)	108 (93%)	8 (7%)	14 39
6	AF	90/90 (100%)	88 (98%)	2 (2%)	45 65
6	CF	90/90 (100%)	88 (98%)	2 (2%)	45 65
7	AG	126/126 (100%)	124 (98%)	2 (2%)	55 70
7	CG	126/126 (100%)	124 (98%)	2 (2%)	55 70
8	AH	119/119 (100%)	111 (93%)	8 (7%)	15 41
8	CH	119/119 (100%)	111 (93%)	8 (7%)	15 41
9	AI	98/98 (100%)	93 (95%)	5 (5%)	21 48
9	CI	98/98 (100%)	93 (95%)	5 (5%)	21 48
10	AJ	88/88 (100%)	81 (92%)	7 (8%)	11 35
10	CJ	88/88 (100%)	81 (92%)	7 (8%)	11 35
11	AK	90/90 (100%)	87 (97%)	3 (3%)	33 58
11	CK	90/90 (100%)	87 (97%)	3 (3%)	33 58
12	AL	104/104 (100%)	93 (89%)	11 (11%)	6 27
12	CL	104/104 (100%)	92 (88%)	12 (12%)	5 24
13	AM	94/94 (100%)	89 (95%)	5 (5%)	20 47

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
13	CM	94/94 (100%)	89 (95%)	5 (5%)	20 47
14	AN	49/49 (100%)	47 (96%)	2 (4%)	27 53
14	CN	49/49 (100%)	47 (96%)	2 (4%)	27 53
15	AO	79/79 (100%)	76 (96%)	3 (4%)	29 55
15	CO	79/79 (100%)	76 (96%)	3 (4%)	29 55
16	AP	72/72 (100%)	67 (93%)	5 (7%)	14 39
16	CP	72/72 (100%)	67 (93%)	5 (7%)	14 39
17	AQ	94/94 (100%)	93 (99%)	1 (1%)	65 74
17	CQ	94/94 (100%)	93 (99%)	1 (1%)	65 74
18	AR	61/61 (100%)	59 (97%)	2 (3%)	33 58
18	CR	61/61 (100%)	59 (97%)	2 (3%)	33 58
19	AS	69/69 (100%)	60 (87%)	9 (13%)	4 21
19	CS	69/69 (100%)	60 (87%)	9 (13%)	4 21
20	AT	76/76 (100%)	72 (95%)	4 (5%)	20 47
20	CT	76/76 (100%)	72 (95%)	4 (5%)	20 47
21	AU	19/19 (100%)	19 (100%)	0	100 100
21	CU	19/19 (100%)	19 (100%)	0	100 100
25	BC	213/213 (100%)	188 (88%)	25 (12%)	5 24
25	DC	213/213 (100%)	188 (88%)	25 (12%)	5 24
26	BD	165/165 (100%)	149 (90%)	16 (10%)	8 30
26	DD	165/165 (100%)	149 (90%)	16 (10%)	8 30
27	BE	161/161 (100%)	148 (92%)	13 (8%)	11 35
27	DE	161/161 (100%)	147 (91%)	14 (9%)	9 33
28	BF	155/155 (100%)	146 (94%)	9 (6%)	18 44
28	DF	155/155 (100%)	146 (94%)	9 (6%)	18 44
29	BG	132/132 (100%)	122 (92%)	10 (8%)	12 37
29	DG	132/132 (100%)	122 (92%)	10 (8%)	12 37
30	BH	122/122 (100%)	113 (93%)	9 (7%)	13 37
30	DH	122/122 (100%)	113 (93%)	9 (7%)	13 37
31	BI	27/53 (51%)	26 (96%)	1 (4%)	30 56
31	DI	27/53 (51%)	26 (96%)	1 (4%)	30 56

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
32	BJ	116/116 (100%)	105 (90%)	11 (10%)	8 31
32	DJ	116/116 (100%)	105 (90%)	11 (10%)	8 31
33	BK	100/100 (100%)	88 (88%)	12 (12%)	5 23
33	DK	100/100 (100%)	89 (89%)	11 (11%)	6 26
34	BL	112/112 (100%)	86 (77%)	26 (23%)	1 5
34	DL	112/112 (100%)	86 (77%)	26 (23%)	1 5
35	BM	106/106 (100%)	95 (90%)	11 (10%)	7 27
35	DM	106/106 (100%)	95 (90%)	11 (10%)	7 27
36	BN	100/100 (100%)	94 (94%)	6 (6%)	17 44
36	DN	100/100 (100%)	94 (94%)	6 (6%)	17 44
37	BO	77/77 (100%)	71 (92%)	6 (8%)	11 36
37	DO	77/77 (100%)	71 (92%)	6 (8%)	11 36
38	BP	121/121 (100%)	112 (93%)	9 (7%)	13 37
38	DP	121/121 (100%)	112 (93%)	9 (7%)	13 37
39	BQ	92/92 (100%)	84 (91%)	8 (9%)	9 33
39	DQ	92/92 (100%)	86 (94%)	6 (6%)	15 42
40	BR	82/82 (100%)	76 (93%)	6 (7%)	13 38
40	DR	82/82 (100%)	76 (93%)	6 (7%)	13 38
41	BS	91/91 (100%)	83 (91%)	8 (9%)	9 32
41	DS	91/91 (100%)	83 (91%)	8 (9%)	9 32
42	BT	74/74 (100%)	65 (88%)	9 (12%)	5 22
42	DT	74/74 (100%)	65 (88%)	9 (12%)	5 22
43	BU	84/84 (100%)	79 (94%)	5 (6%)	17 44
43	DU	84/84 (100%)	79 (94%)	5 (6%)	17 44
44	BV	163/163 (100%)	159 (98%)	4 (2%)	42 63
44	DV	163/163 (100%)	159 (98%)	4 (2%)	42 63
45	BW	61/61 (100%)	56 (92%)	5 (8%)	10 34
45	DW	61/61 (100%)	56 (92%)	5 (8%)	10 34
46	BX	73/73 (100%)	59 (81%)	14 (19%)	1 8
46	DX	73/73 (100%)	60 (82%)	13 (18%)	2 10
47	BY	58/58 (100%)	51 (88%)	7 (12%)	5 22

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
47	DY	58/58 (100%)	51 (88%)	7 (12%)	5 22
48	BZ	51/51 (100%)	48 (94%)	3 (6%)	18 44
48	DZ	51/51 (100%)	49 (96%)	2 (4%)	28 54
49	B1	27/27 (100%)	24 (89%)	3 (11%)	6 25
49	D1	27/27 (100%)	24 (89%)	3 (11%)	6 25
50	B2	45/45 (100%)	42 (93%)	3 (7%)	15 41
50	D2	45/45 (100%)	42 (93%)	3 (7%)	15 41
51	B3	43/43 (100%)	40 (93%)	3 (7%)	14 39
51	D3	43/43 (100%)	40 (93%)	3 (7%)	14 39
52	B4	41/41 (100%)	35 (85%)	6 (15%)	3 17
52	D4	41/41 (100%)	34 (83%)	7 (17%)	2 12
53	B5	53/53 (100%)	51 (96%)	2 (4%)	29 55
53	D5	53/53 (100%)	51 (96%)	2 (4%)	29 55
All	All	9462/9514 (100%)	8750 (92%)	712 (8%)	12 37

All (712) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	22	LYS
2	AB	25	ASN
2	AB	27	LYS
2	AB	32	ILE
2	AB	71	VAL
2	AB	74	LYS
2	AB	116	GLU
2	AB	117	GLU
2	AB	126	GLU
2	AB	153	ARG
2	AB	154	LEU
2	AB	164	VAL
2	AB	169	LYS
2	AB	178	ARG
2	AB	187	LEU
2	AB	221	LEU
3	AC	5	ILE
3	AC	27	LYS
3	AC	91	LEU

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Mol	Chain	Res	Type
3	AC	95	THR
3	AC	196	LEU
4	AD	3	ARG
4	AD	21	LEU
4	AD	72	GLU
4	AD	98	GLU
4	AD	119	GLN
4	AD	122	ARG
4	AD	135	LEU
4	AD	150	GLU
4	AD	158	ILE
5	AE	8	GLU
5	AE	12	LEU
5	AE	16	THR
5	AE	47	LYS
5	AE	76	ILE
5	AE	79	GLU
5	AE	137	GLU
5	AE	144	THR
6	AF	48	LEU
6	AF	78	GLU
7	AG	36	LYS
7	AG	91	VAL
8	AH	1	MET
8	AH	26	VAL
8	AH	30	ARG
8	AH	76	PRO
8	AH	83	ILE
8	AH	102	ARG
8	AH	116	LYS
8	AH	136	GLU
9	AI	19	LEU
9	AI	95	LYS
9	AI	99	LEU
9	AI	104	ARG
9	AI	127	LYS
10	AJ	16	LEU
10	AJ	49	VAL
10	AJ	62	HIS
10	AJ	74	ILE
10	AJ	80	LYS
10	AJ	92	THR

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Mol	Chain	Res	Type
10	AJ	96	ILE
11	AK	33	THR
11	AK	92	GLU
11	AK	119	CYS
12	AL	6	ILE
12	AL	26	LEU
12	AL	37	THR
12	AL	40	ARG
12	AL	41	THR
12	AL	54	VAL
12	AL	64	GLU
12	AL	65	VAL
12	AL	76	LEU
12	AL	81	VAL
12	AL	98	HIS
13	AM	64	TRP
13	AM	87	TYR
13	AM	93	ARG
13	AM	106	ASN
13	AM	115	LYS
14	AN	16	PHE
14	AN	18	VAL
15	AO	17	ARG
15	AO	44	LYS
15	AO	82	ILE
16	AP	2	VAL
16	AP	27	LYS
16	AP	67	THR
16	AP	82	GLN
16	AP	83	GLU
17	AQ	52	LYS
18	AR	42	ARG
18	AR	84	LYS
19	AS	5	LEU
19	AS	7	LYS
19	AS	27	GLU
19	AS	29	ARG
19	AS	37	ARG
19	AS	44	MET
19	AS	49	ILE
19	AS	53	ASN
19	AS	70	LYS

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Mol	Chain	Res	Type
20	AT	22	ARG
20	AT	26	ASN
20	AT	51	GLU
20	AT	62	LEU
25	BC	4	LYS
25	BC	5	LYS
25	BC	10	THR
25	BC	18	VAL
25	BC	24	ILE
25	BC	28	GLU
25	BC	33	LEU
25	BC	44	ASN
25	BC	50	THR
25	BC	61	LEU
25	BC	94	LEU
25	BC	106	ILE
25	BC	111	LEU
25	BC	125	ILE
25	BC	131	LEU
25	BC	150	LYS
25	BC	166	GLN
25	BC	192	THR
25	BC	204	ILE
25	BC	229	VAL
25	BC	242	ARG
25	BC	244	ARG
25	BC	259	THR
25	BC	261	LYS
25	BC	267	SER
26	BD	9	VAL
26	BD	52	LEU
26	BD	54	GLN
26	BD	92	THR
26	BD	118	LYS
26	BD	119	ARG
26	BD	132	HIS
26	BD	141	ILE
26	BD	144	ARG
26	BD	154	LYS
26	BD	169	ASN
26	BD	173	VAL
26	BD	175	VAL

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Mol	Chain	Res	Type
26	BD	184	VAL
26	BD	188	VAL
26	BD	195	LEU
27	BE	8	GLN
27	BE	9	ILE
27	BE	54	ARG
27	BE	56	GLU
27	BE	64	ILE
27	BE	66	PRO
27	BE	67	GLN
27	BE	69	HIS
27	BE	78	ILE
27	BE	83	PHE
27	BE	164	ARG
27	BE	192	LEU
27	BE	195	ASP
28	BF	18	GLU
28	BF	34	LEU
28	BF	74	LYS
28	BF	76	SER
28	BF	86	MET
28	BF	90	LEU
28	BF	107	LEU
28	BF	115	ARG
28	BF	143	GLU
29	BG	13	LYS
29	BG	43	VAL
29	BG	44	VAL
29	BG	86	GLU
29	BG	101	ARG
29	BG	105	LEU
29	BG	123	PHE
29	BG	136	ILE
29	BG	158	HIS
29	BG	162	ILE
30	BH	5	LEU
30	BH	6	LEU
30	BH	67	ARG
30	BH	73	GLU
30	BH	77	LEU
30	BH	81	VAL
30	BH	92	VAL

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Mol	Chain	Res	Type
30	BH	109	ILE
30	BH	139	GLN
31	BI	3	ASN
32	BJ	57	LEU
32	BJ	58	ARG
32	BJ	71	MET
32	BJ	92	GLN
32	BJ	94	ILE
32	BJ	96	THR
32	BJ	110	LEU
32	BJ	117	HIS
32	BJ	120	ARG
32	BJ	122	LEU
32	BJ	135	LEU
33	BK	5	GLN
33	BK	19	ILE
33	BK	22	ILE
33	BK	24	VAL
33	BK	25	LEU
33	BK	47	ILE
33	BK	77	ILE
33	BK	87	ILE
33	BK	98	VAL
33	BK	99	PHE
33	BK	104	ARG
33	BK	122	LEU
34	BL	6	LEU
34	BL	13	ASN
34	BL	15	ARG
34	BL	18	ARG
34	BL	19	VAL
34	BL	32	THR
34	BL	35	HIS
34	BL	39	LYS
34	BL	49	ARG
34	BL	50	ARG
34	BL	52	GLU
34	BL	57	THR
34	BL	61	ARG
34	BL	62	LEU
34	BL	75	ILE
34	BL	81	GLN

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Mol	Chain	Res	Type
34	BL	83	VAL
34	BL	84	ASN
34	BL	105	LEU
34	BL	106	LEU
34	BL	111	ARG
34	BL	114	ILE
34	BL	125	VAL
34	BL	135	LEU
34	BL	147	LEU
34	BL	148	LEU
35	BM	6	ARG
35	BM	13	GLN
35	BM	14	ARG
35	BM	22	LYS
35	BM	45	GLN
35	BM	47	ILE
35	BM	55	VAL
35	BM	60	ARG
35	BM	66	ILE
35	BM	89	ASN
35	BM	112	GLU
36	BN	5	LYS
36	BN	10	LEU
36	BN	28	LEU
36	BN	79	LEU
36	BN	95	THR
36	BN	104	ARG
37	BO	18	ILE
37	BO	26	LEU
37	BO	36	TYR
37	BO	44	LYS
37	BO	62	LYS
37	BO	93	LYS
38	BP	28	VAL
38	BP	41	ARG
38	BP	58	ASN
38	BP	59	THR
38	BP	78	LEU
38	BP	86	ILE
38	BP	89	VAL
38	BP	98	LYS
38	BP	113	LYS

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Mol	Chain	Res	Type
39	BQ	17	ILE
39	BQ	20	LEU
39	BQ	64	ARG
39	BQ	79	PHE
39	BQ	92	ARG
39	BQ	97	ASP
39	BQ	103	PRO
39	BQ	108	GLU
40	BR	5	VAL
40	BR	11	GLN
40	BR	12	TYR
40	BR	18	LEU
40	BR	80	GLN
40	BR	99	ILE
41	BS	1	MET
41	BS	11	ARG
41	BS	23	LEU
41	BS	50	VAL
41	BS	69	LEU
41	BS	70	TYR
41	BS	77	ASP
41	BS	107	LEU
42	BT	8	ILE
42	BT	12	VAL
42	BT	28	PHE
42	BT	40	LYS
42	BT	57	LEU
42	BT	65	ARG
42	BT	68	ARG
42	BT	80	ILE
42	BT	83	VAL
43	BU	6	HIS
43	BU	8	LYS
43	BU	31	LEU
43	BU	71	LYS
43	BU	76	CYS
44	BV	25	PRO
44	BV	53	ILE
44	BV	76	LEU
44	BV	94	GLU
45	BW	14	ARG
45	BW	21	LEU

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Mol	Chain	Res	Type
45	BW	35	ASN
45	BW	38	VAL
45	BW	80	HIS
46	BX	11	ARG
46	BX	13	ILE
46	BX	17	SER
46	BX	18	ILE
46	BX	20	ARG
46	BX	37	ILE
46	BX	40	ARG
46	BX	46	LEU
46	BX	73	LEU
46	BX	75	GLU
46	BX	82	LEU
46	BX	89	GLU
46	BX	94	LEU
46	BX	95	LEU
47	BY	2	LYS
47	BY	21	LEU
47	BY	37	PHE
47	BY	53	LEU
47	BY	56	GLN
47	BY	57	ILE
47	BY	61	LEU
48	BZ	1	MET
48	BZ	10	LYS
48	BZ	46	ASN
49	B1	48	ILE
49	B1	49	GLU
49	B1	64	LYS
50	B2	3	LYS
50	B2	23	HIS
50	B2	44	THR
51	B3	11	LEU
51	B3	34	LEU
51	B3	42	TRP
52	B4	4	THR
52	B4	8	ASN
52	B4	15	THR
52	B4	19	ARG
52	B4	24	THR
52	B4	31	LEU

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Mol	Chain	Res	Type
53	B5	16	ILE
53	B5	30	ARG
2	CB	22	LYS
2	CB	25	ASN
2	CB	27	LYS
2	CB	32	ILE
2	CB	71	VAL
2	CB	74	LYS
2	CB	116	GLU
2	CB	117	GLU
2	CB	126	GLU
2	CB	153	ARG
2	CB	154	LEU
2	CB	164	VAL
2	CB	169	LYS
2	CB	178	ARG
2	CB	187	LEU
2	CB	221	LEU
3	CC	5	ILE
3	CC	27	LYS
3	CC	91	LEU
3	CC	95	THR
3	CC	196	LEU
4	CD	3	ARG
4	CD	21	LEU
4	CD	72	GLU
4	CD	98	GLU
4	CD	119	GLN
4	CD	122	ARG
4	CD	135	LEU
4	CD	150	GLU
4	CD	158	ILE
5	CE	8	GLU
5	CE	12	LEU
5	CE	16	THR
5	CE	47	LYS
5	CE	76	ILE
5	CE	79	GLU
5	CE	137	GLU
5	CE	144	THR
6	CF	48	LEU
6	CF	78	GLU

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Mol	Chain	Res	Type
7	CG	36	LYS
7	CG	91	VAL
8	CH	1	MET
8	CH	26	VAL
8	CH	30	ARG
8	CH	76	PRO
8	CH	83	ILE
8	CH	102	ARG
8	CH	116	LYS
8	CH	136	GLU
9	CI	19	LEU
9	CI	95	LYS
9	CI	99	LEU
9	CI	104	ARG
9	CI	127	LYS
10	CJ	16	LEU
10	CJ	49	VAL
10	CJ	62	HIS
10	CJ	74	ILE
10	CJ	80	LYS
10	CJ	92	THR
10	CJ	96	ILE
11	CK	33	THR
11	CK	92	GLU
11	CK	119	CYS
12	CL	5	THR
12	CL	6	ILE
12	CL	26	LEU
12	CL	37	THR
12	CL	40	ARG
12	CL	41	THR
12	CL	54	VAL
12	CL	64	GLU
12	CL	65	VAL
12	CL	76	LEU
12	CL	81	VAL
12	CL	98	HIS
13	CM	64	TRP
13	CM	87	TYR
13	CM	93	ARG
13	CM	106	ASN
13	CM	115	LYS

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Mol	Chain	Res	Type
14	CN	16	PHE
14	CN	18	VAL
15	CO	17	ARG
15	CO	44	LYS
15	CO	82	ILE
16	CP	2	VAL
16	CP	27	LYS
16	CP	67	THR
16	CP	82	GLN
16	CP	83	GLU
17	CQ	52	LYS
18	CR	42	ARG
18	CR	84	LYS
19	CS	5	LEU
19	CS	7	LYS
19	CS	27	GLU
19	CS	29	ARG
19	CS	37	ARG
19	CS	44	MET
19	CS	49	ILE
19	CS	53	ASN
19	CS	70	LYS
20	CT	22	ARG
20	CT	26	ASN
20	CT	51	GLU
20	CT	62	LEU
25	DC	4	LYS
25	DC	5	LYS
25	DC	10	THR
25	DC	18	VAL
25	DC	24	ILE
25	DC	28	GLU
25	DC	33	LEU
25	DC	44	ASN
25	DC	50	THR
25	DC	61	LEU
25	DC	92	ILE
25	DC	94	LEU
25	DC	106	ILE
25	DC	111	LEU
25	DC	131	LEU
25	DC	150	LYS

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Mol	Chain	Res	Type
25	DC	166	GLN
25	DC	192	THR
25	DC	204	ILE
25	DC	229	VAL
25	DC	242	ARG
25	DC	244	ARG
25	DC	259	THR
25	DC	261	LYS
25	DC	267	SER
26	DD	9	VAL
26	DD	52	LEU
26	DD	54	GLN
26	DD	92	THR
26	DD	118	LYS
26	DD	119	ARG
26	DD	132	HIS
26	DD	141	ILE
26	DD	144	ARG
26	DD	154	LYS
26	DD	169	ASN
26	DD	173	VAL
26	DD	175	VAL
26	DD	184	VAL
26	DD	188	VAL
26	DD	195	LEU
27	DE	8	GLN
27	DE	9	ILE
27	DE	54	ARG
27	DE	56	GLU
27	DE	64	ILE
27	DE	66	PRO
27	DE	67	GLN
27	DE	69	HIS
27	DE	72	ARG
27	DE	78	ILE
27	DE	83	PHE
27	DE	164	ARG
27	DE	192	LEU
27	DE	195	ASP
28	DF	18	GLU
28	DF	34	LEU
28	DF	74	LYS

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Mol	Chain	Res	Type
28	DF	76	SER
28	DF	86	MET
28	DF	90	LEU
28	DF	107	LEU
28	DF	115	ARG
28	DF	143	GLU
29	DG	13	LYS
29	DG	43	VAL
29	DG	44	VAL
29	DG	86	GLU
29	DG	101	ARG
29	DG	105	LEU
29	DG	123	PHE
29	DG	136	ILE
29	DG	158	HIS
29	DG	162	ILE
30	DH	5	LEU
30	DH	6	LEU
30	DH	67	ARG
30	DH	73	GLU
30	DH	77	LEU
30	DH	81	VAL
30	DH	92	VAL
30	DH	109	ILE
30	DH	139	GLN
31	DI	3	ASN
32	DJ	57	LEU
32	DJ	58	ARG
32	DJ	71	MET
32	DJ	92	GLN
32	DJ	94	ILE
32	DJ	96	THR
32	DJ	110	LEU
32	DJ	117	HIS
32	DJ	120	ARG
32	DJ	122	LEU
32	DJ	135	LEU
33	DK	5	GLN
33	DK	19	ILE
33	DK	22	ILE
33	DK	24	VAL
33	DK	25	LEU

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Mol	Chain	Res	Type
33	DK	47	ILE
33	DK	77	ILE
33	DK	87	ILE
33	DK	99	PHE
33	DK	104	ARG
33	DK	122	LEU
34	DL	6	LEU
34	DL	13	ASN
34	DL	15	ARG
34	DL	18	ARG
34	DL	19	VAL
34	DL	32	THR
34	DL	35	HIS
34	DL	39	LYS
34	DL	49	ARG
34	DL	50	ARG
34	DL	52	GLU
34	DL	57	THR
34	DL	61	ARG
34	DL	62	LEU
34	DL	75	ILE
34	DL	81	GLN
34	DL	83	VAL
34	DL	84	ASN
34	DL	105	LEU
34	DL	106	LEU
34	DL	111	ARG
34	DL	114	ILE
34	DL	125	VAL
34	DL	135	LEU
34	DL	147	LEU
34	DL	148	LEU
35	DM	6	ARG
35	DM	13	GLN
35	DM	14	ARG
35	DM	22	LYS
35	DM	45	GLN
35	DM	47	ILE
35	DM	55	VAL
35	DM	60	ARG
35	DM	66	ILE
35	DM	89	ASN

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Mol	Chain	Res	Type
35	DM	112	GLU
36	DN	5	LYS
36	DN	10	LEU
36	DN	28	LEU
36	DN	79	LEU
36	DN	95	THR
36	DN	104	ARG
37	DO	18	ILE
37	DO	26	LEU
37	DO	36	TYR
37	DO	44	LYS
37	DO	62	LYS
37	DO	93	LYS
38	DP	28	VAL
38	DP	41	ARG
38	DP	58	ASN
38	DP	59	THR
38	DP	78	LEU
38	DP	86	ILE
38	DP	89	VAL
38	DP	98	LYS
38	DP	113	LYS
39	DQ	17	ILE
39	DQ	20	LEU
39	DQ	64	ARG
39	DQ	92	ARG
39	DQ	103	PRO
39	DQ	108	GLU
40	DR	5	VAL
40	DR	11	GLN
40	DR	12	TYR
40	DR	18	LEU
40	DR	80	GLN
40	DR	99	ILE
41	DS	1	MET
41	DS	11	ARG
41	DS	23	LEU
41	DS	50	VAL
41	DS	69	LEU
41	DS	70	TYR
41	DS	77	ASP
41	DS	107	LEU

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Mol	Chain	Res	Type
42	DT	8	ILE
42	DT	12	VAL
42	DT	28	PHE
42	DT	40	LYS
42	DT	57	LEU
42	DT	65	ARG
42	DT	68	ARG
42	DT	80	ILE
42	DT	83	VAL
43	DU	6	HIS
43	DU	8	LYS
43	DU	31	LEU
43	DU	71	LYS
43	DU	76	CYS
44	DV	25	PRO
44	DV	53	ILE
44	DV	76	LEU
44	DV	94	GLU
45	DW	14	ARG
45	DW	21	LEU
45	DW	35	ASN
45	DW	38	VAL
45	DW	80	HIS
46	DX	11	ARG
46	DX	13	ILE
46	DX	17	SER
46	DX	18	ILE
46	DX	20	ARG
46	DX	37	ILE
46	DX	40	ARG
46	DX	46	LEU
46	DX	73	LEU
46	DX	75	GLU
46	DX	82	LEU
46	DX	89	GLU
46	DX	95	LEU
47	DY	2	LYS
47	DY	21	LEU
47	DY	37	PHE
47	DY	53	LEU
47	DY	56	GLN
47	DY	57	ILE

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Mol	Chain	Res	Type
47	DY	61	LEU
48	DZ	10	LYS
48	DZ	46	ASN
49	D1	48	ILE
49	D1	49	GLU
49	D1	64	LYS
50	D2	3	LYS
50	D2	23	HIS
50	D2	44	THR
51	D3	11	LEU
51	D3	34	LEU
51	D3	42	TRP
52	D4	4	THR
52	D4	8	ASN
52	D4	15	THR
52	D4	19	ARG
52	D4	24	THR
52	D4	29	LYS
52	D4	31	LEU
53	D5	16	ILE
53	D5	30	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (273) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	16	HIS
2	AB	25	ASN
2	AB	37	ASN
2	AB	40	HIS
2	AB	146	GLN
2	AB	212	GLN
3	AC	28	GLN
3	AC	69	HIS
3	AC	170	GLN
3	AC	176	HIS
3	AC	181	ASN
4	AD	119	GLN
4	AD	123	HIS
5	AE	20	GLN
5	AE	73	ASN
5	AE	78	HIS
6	AF	27	GLN

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Mol	Chain	Res	Type
6	AF	32	ASN
6	AF	100	ASN
7	AG	13	GLN
7	AG	28	ASN
7	AG	84	ASN
7	AG	106	GLN
7	AG	148	ASN
8	AH	82	HIS
9	AI	3	GLN
9	AI	23	ASN
9	AI	117	HIS
9	AI	124	GLN
10	AJ	68	HIS
10	AJ	78	ASN
11	AK	26	ASN
11	AK	38	ASN
11	AK	116	HIS
11	AK	117	ASN
12	AL	48	ASN
12	AL	74	HIS
13	AM	101	GLN
15	AO	37	ASN
15	AO	46	HIS
15	AO	50	HIS
15	AO	53	HIS
16	AP	13	HIS
16	AP	16	HIS
16	AP	82	GLN
17	AQ	16	GLN
19	AS	14	HIS
19	AS	47	HIS
19	AS	53	ASN
19	AS	57	HIS
20	AT	16	HIS
20	AT	26	ASN
25	BC	58	HIS
25	BC	87	ASN
25	BC	96	HIS
25	BC	116	GLN
25	BC	126	GLN
25	BC	166	GLN
25	BC	186	HIS

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Mol	Chain	Res	Type
25	BC	198	ASN
25	BC	227	ASN
25	BC	233	HIS
26	BD	66	HIS
26	BD	129	HIS
26	BD	143	ASN
26	BD	159	HIS
26	BD	169	ASN
26	BD	192	ASN
27	BE	67	GLN
27	BE	69	HIS
27	BE	75	HIS
27	BE	169	ASN
28	BF	27	ASN
28	BF	40	ASN
28	BF	58	GLN
28	BF	66	GLN
28	BF	108	ASN
28	BF	121	ASN
29	BG	139	GLN
29	BG	143	GLN
29	BG	147	ASN
30	BH	133	HIS
31	BI	3	ASN
31	BI	6	ASN
32	BJ	124	HIS
32	BJ	151	HIS
32	BJ	154	GLN
33	BK	89	ASN
34	BL	13	ASN
34	BL	27	HIS
34	BL	35	HIS
34	BL	38	GLN
34	BL	70	GLN
34	BL	81	GLN
35	BM	13	GLN
35	BM	45	GLN
35	BM	141	GLN
36	BN	13	HIS
36	BN	16	HIS
36	BN	24	GLN
36	BN	61	HIS

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Mol	Chain	Res	Type
36	BN	71	GLN
36	BN	91	GLN
37	BO	61	ASN
37	BO	95	HIS
38	BP	43	GLN
38	BP	58	ASN
38	BP	79	HIS
38	BP	84	GLN
38	BP	90	GLN
39	BQ	49	HIS
39	BQ	72	HIS
41	BS	34	ASN
41	BS	57	ASN
41	BS	61	ASN
41	BS	102	HIS
42	BT	31	HIS
42	BT	41	ASN
42	BT	55	ASN
42	BT	87	GLN
43	BU	6	HIS
44	BV	32	HIS
44	BV	118	GLN
45	BW	35	ASN
45	BW	70	GLN
46	BX	19	GLN
46	BX	45	ASN
46	BX	56	GLN
46	BX	66	HIS
47	BY	47	ASN
48	BZ	19	GLN
48	BZ	46	ASN
49	B1	46	ASN
50	B2	43	HIS
51	B3	29	ASN
52	B4	8	ASN
52	B4	36	GLN
53	B5	31	HIS
53	B5	33	ASN
53	B5	35	GLN
2	CB	16	HIS
2	CB	37	ASN
2	CB	40	HIS

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Mol	Chain	Res	Type
2	CB	146	GLN
2	CB	212	GLN
3	CC	28	GLN
3	CC	69	HIS
3	CC	170	GLN
3	CC	181	ASN
4	CD	119	GLN
4	CD	123	HIS
5	CE	20	GLN
5	CE	73	ASN
5	CE	78	HIS
6	CF	27	GLN
6	CF	32	ASN
6	CF	100	ASN
7	CG	84	ASN
7	CG	106	GLN
7	CG	153	HIS
8	CH	82	HIS
9	CI	3	GLN
9	CI	23	ASN
9	CI	117	HIS
9	CI	124	GLN
10	CJ	68	HIS
10	CJ	78	ASN
10	CJ	84	GLN
11	CK	38	ASN
11	CK	117	ASN
12	CL	74	HIS
13	CM	101	GLN
15	CO	37	ASN
15	CO	46	HIS
15	CO	53	HIS
16	CP	13	HIS
16	CP	16	HIS
16	CP	82	GLN
17	CQ	16	GLN
19	CS	14	HIS
19	CS	47	HIS
19	CS	53	ASN
19	CS	57	HIS
20	CT	26	ASN
25	DC	58	HIS

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Mol	Chain	Res	Type
25	DC	87	ASN
25	DC	96	HIS
25	DC	116	GLN
25	DC	126	GLN
25	DC	166	GLN
25	DC	186	HIS
25	DC	198	ASN
25	DC	227	ASN
25	DC	233	HIS
26	DD	66	HIS
26	DD	129	HIS
26	DD	143	ASN
26	DD	159	HIS
26	DD	169	ASN
26	DD	192	ASN
27	DE	67	GLN
27	DE	69	HIS
27	DE	75	HIS
27	DE	169	ASN
28	DF	27	ASN
28	DF	40	ASN
28	DF	58	GLN
28	DF	66	GLN
28	DF	108	ASN
28	DF	121	ASN
29	DG	143	GLN
29	DG	147	ASN
29	DG	158	HIS
30	DH	133	HIS
31	DI	3	ASN
31	DI	6	ASN
32	DJ	124	HIS
32	DJ	151	HIS
32	DJ	154	GLN
33	DK	89	ASN
34	DL	13	ASN
34	DL	27	HIS
34	DL	35	HIS
34	DL	38	GLN
34	DL	70	GLN
34	DL	81	GLN
35	DM	13	GLN

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Mol	Chain	Res	Type
35	DM	45	GLN
35	DM	141	GLN
36	DN	13	HIS
36	DN	16	HIS
36	DN	24	GLN
36	DN	61	HIS
36	DN	71	GLN
36	DN	91	GLN
37	DO	61	ASN
37	DO	95	HIS
38	DP	43	GLN
38	DP	58	ASN
38	DP	79	HIS
38	DP	84	GLN
38	DP	90	GLN
39	DQ	49	HIS
39	DQ	72	HIS
41	DS	34	ASN
41	DS	57	ASN
41	DS	61	ASN
41	DS	102	HIS
42	DT	31	HIS
42	DT	41	ASN
42	DT	55	ASN
42	DT	87	GLN
43	DU	6	HIS
44	DV	32	HIS
44	DV	118	GLN
45	DW	35	ASN
45	DW	70	GLN
46	DX	19	GLN
46	DX	45	ASN
46	DX	56	GLN
46	DX	66	HIS
47	DY	47	ASN
48	DZ	19	GLN
48	DZ	46	ASN
48	DZ	52	HIS
49	D1	46	ASN
50	D2	43	HIS
51	D3	29	ASN
52	D4	8	ASN

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Mol	Chain	Res	Type
52	D4	36	GLN
53	D5	31	HIS
53	D5	33	ASN
53	D5	35	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1505/1506 (99%)	208 (13%)	35 (2%)
1	CA	1505/1506 (99%)	209 (13%)	35 (2%)
22	AV	34/35 (97%)	2 (5%)	2 (5%)
22	CV	34/35 (97%)	2 (5%)	2 (5%)
23	BA	2757/2879 (95%)	423 (15%)	69 (2%)
23	DA	2757/2879 (95%)	425 (15%)	70 (2%)
24	BB	118/119 (99%)	16 (13%)	1 (0%)
24	DB	118/119 (99%)	16 (13%)	1 (0%)
All	All	8828/9078 (97%)	1301 (14%)	215 (2%)

All (1301) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	7	G
1	AA	8	A
1	AA	9	G
1	AA	22	G
1	AA	32	A
1	AA	39	G
1	AA	41	G
1	AA	47	C
1	AA	48	C
1	AA	51	A
1	AA	61	G
1	AA	88	C
1	AA	99	C
1	AA	101	A
1	AA	108	G
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	131	C
1	AA	169	C

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Mol	Chain	Res	Type
1	AA	182	U
1	AA	195	A
1	AA	197	A
1	AA	200	G
1	AA	209	U
1	AA	210	U
1	AA	243	A
1	AA	244	U
1	AA	247	G
1	AA	251	G
1	AA	266	G
1	AA	267	C
1	AA	289	G
1	AA	321	A
1	AA	328	C
1	AA	329	A
1	AA	332	G
1	AA	344	A
1	AA	345	C
1	AA	346	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	358	U
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	382	A
1	AA	387	U
1	AA	397	A
1	AA	398	C
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	422	C
1	AA	423	G
1	AA	429	U
1	AA	430	A
1	AA	439	A
1	AA	465	A
1	AA	467	G
1	AA	485	G

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Mol	Chain	Res	Type
1	AA	496	A
1	AA	497	U
1	AA	511	C
1	AA	512	U
1	AA	518	C
1	AA	527	G
1	AA	531	U
1	AA	532	A
1	AA	533	A
1	AA	547	A
1	AA	559	A
1	AA	561	U
1	AA	562	C
1	AA	563	A
1	AA	572	A
1	AA	573	A
1	AA	576	G
1	AA	596	C
1	AA	653	A
1	AA	687	A
1	AA	688	G
1	AA	703	G
1	AA	731	G
1	AA	755	G
1	AA	777	A
1	AA	793	U
1	AA	794	A
1	AA	796	C
1	AA	816	A
1	AA	817	C
1	AA	818	G
1	AA	819	A
1	AA	828	A
1	AA	829	G
1	AA	833	U
1	AA	841	U
1	AA	842	C
1	AA	843	U
1	AA	855	G
1	AA	859	A
1	AA	873	A
1	AA	902	G

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Mol	Chain	Res	Type
1	AA	913	A
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	960	U
1	AA	961	U
1	AA	969	A
1	AA	971	G
1	AA	974	A
1	AA	976	G
1	AA	977	A
1	AA	980	C
1	AA	981	U
1	AA	992	U
1	AA	993	G
1	AA	1004	A
1	AA	1006	C
1	AA	1045	C
1	AA	1054	C
1	AA	1065	U
1	AA	1066	C
1	AA	1068	G
1	AA	1081	G
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1113	C
1	AA	1117	G
1	AA	1118	C
1	AA	1125	U
1	AA	1126	U
1	AA	1129	C
1	AA	1130	A
1	AA	1131	G
1	AA	1136	U
1	AA	1137	C
1	AA	1139	G
1	AA	1146	A
1	AA	1151	A
1	AA	1152	A

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Mol	Chain	Res	Type
1	AA	1159	U
1	AA	1160	G
1	AA	1181	G
1	AA	1182	G
1	AA	1193	G
1	AA	1196	U
1	AA	1197	G
1	AA	1202	G
1	AA	1212	U
1	AA	1213	A
1	AA	1214	C
1	AA	1224	G
1	AA	1225	A
1	AA	1238	A
1	AA	1240	U
1	AA	1241	G
1	AA	1256	A
1	AA	1257	U
1	AA	1280	A
1	AA	1281	U
1	AA	1282	C
1	AA	1285	A
1	AA	1286	A
1	AA	1287	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1305	G
1	AA	1317	C
1	AA	1320	C
1	AA	1322	C
1	AA	1331	G
1	AA	1335	C
1	AA	1346	A
1	AA	1347	G
1	AA	136(B)	C
1	AA	1363	A
1	AA	1364	U
1	AA	1400	C
1	AA	1419	G
1	AA	1442	G
1	AA	1443	G

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Mol	Chain	Res	Type
1	AA	1446	A
1	AA	1447	G
1	AA	1451	A
1	AA	1452	C
1	AA	1454	G
1	AA	1493	A
1	AA	1494	G
1	AA	1497	G
1	AA	1499	A
1	AA	1502	A
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1517	G
1	AA	1519	A
1	AA	1520	G
1	AA	1528	U
1	AA	1529	G
1	AA	1530	G
22	AV	6172	U
22	AV	6189	A
23	BA	10	G
23	BA	35	G
23	BA	46	C
23	BA	49	A
23	BA	64	A
23	BA	71	A
23	BA	72	U
23	BA	74	A
23	BA	75	G
23	BA	84	A
23	BA	88	G
23	BA	102	G
23	BA	118	A
23	BA	119	A
23	BA	120	U
23	BA	121	G
23	BA	125	G
23	BA	131	G
23	BA	138	G
23	BA	140	A

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Mol	Chain	Res	Type
23	BA	181	A
23	BA	196	A
23	BA	197	A
23	BA	199	A
23	BA	205	G
23	BA	215	G
23	BA	216	A
23	BA	221	A
23	BA	222	A
23	BA	228	A
23	BA	229	A
23	BA	230	U
23	BA	245	G
23	BA	248	G
23	BA	252	G
23	BA	269	U
23	BA	270(K)	G
23	BA	270(M)	U
23	BA	270(N)	U
23	BA	270(O)	G
23	BA	270(R)	C
23	BA	271(D)	U
23	BA	271	G
23	BA	274	G
23	BA	275	G
23	BA	276	A
23	BA	277	C
23	BA	278	A
23	BA	279	C
23	BA	283	A
23	BA	302	C
23	BA	311	A
23	BA	323	G
23	BA	324	A
23	BA	329	G
23	BA	330	A
23	BA	332	A
23	BA	333	G
23	BA	343	C
23	BA	352	G
23	BA	353	G
23	BA	386	G

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Mol	Chain	Res	Type
23	BA	396	G
23	BA	405	U
23	BA	411	G
23	BA	412	A
23	BA	444	C
23	BA	457	A
23	BA	470	A
23	BA	473	G
23	BA	480	A
23	BA	481	G
23	BA	482	A
23	BA	505	A
23	BA	508	G
23	BA	509	C
23	BA	530	G
23	BA	531	C
23	BA	532	A
23	BA	556	G
23	BA	563	G
23	BA	569	U
23	BA	573	G
23	BA	575	A
23	BA	598	G
23	BA	603	A
23	BA	615	G
23	BA	617	G
23	BA	620	G
23	BA	627	A
23	BA	637	A
23	BA	645	C
23	BA	646	A
23	BA	654	U
23	BA	655	A
23	BA	685	A
23	BA	686	G
23	BA	695	G
23	BA	730	C
23	BA	740	U
23	BA	746	A
23	BA	747	U
23	BA	749	C
23	BA	764	A

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Mol	Chain	Res	Type
23	BA	776	G
23	BA	777	A
23	BA	779	U
23	BA	782	A
23	BA	784	A
23	BA	785	G
23	BA	790	C
23	BA	792	G
23	BA	800	A
23	BA	805	G
23	BA	812	C
23	BA	819	A
23	BA	827	U
23	BA	828	U
23	BA	846	C
23	BA	847	U
23	BA	858	U
23	BA	859	G
23	BA	860	U
23	BA	887	A
23	BA	889	C
23	BA	890	A
23	BA	896	A
23	BA	897	C
23	BA	910	A
23	BA	917	A
23	BA	931	G
23	BA	932	G
23	BA	941	A
23	BA	945	A
23	BA	946	G
23	BA	948	G
23	BA	949	C
23	BA	959	A
23	BA	961	C
23	BA	962	G
23	BA	973	A
23	BA	974(A)	G
23	BA	974(B)	C
23	BA	975	G
23	BA	983	A
23	BA	989	G

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Mol	Chain	Res	Type
23	BA	990	A
23	BA	996	A
23	BA	1011	G
23	BA	1012	U
23	BA	1013	C
23	BA	1022	G
23	BA	1023	U
23	BA	1025	G
23	BA	1026	U
23	BA	1033	U
23	BA	1047	G
23	BA	1112	G
23	BA	1126	A
23	BA	1129	A
23	BA	1130	U
23	BA	1135	C
23	BA	1136	G
23	BA	1139	G
23	BA	114(B)	A
23	BA	1144	G
23	BA	1155	A
23	BA	1164	G
23	BA	1174	A
23	BA	1175	U
23	BA	1205	U
23	BA	1210	A
23	BA	1211	U
23	BA	1220	A
23	BA	1221	C
23	BA	122(A)	C
23	BA	1227	G
23	BA	1241	A
23	BA	1242	A
23	BA	1249	U
23	BA	1250	G
23	BA	1253	A
23	BA	1254	A
23	BA	1256	G
23	BA	1271	G
23	BA	1272	A
23	BA	1300	U
23	BA	1301	A

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Mol	Chain	Res	Type
23	BA	1309	G
23	BA	1311	G
23	BA	1312	U
23	BA	1314	C
23	BA	1329	U
23	BA	1343	G
23	BA	1344	G
23	BA	1345	C
23	BA	1349	A
23	BA	1352	U
23	BA	1359	A
23	BA	1360	A
23	BA	1365	A
23	BA	1368	G
23	BA	1378	A
23	BA	1379	A
23	BA	1380	G
23	BA	1384	A
23	BA	1385	G
23	BA	1386	C
23	BA	1396	U
23	BA	1416	G
23	BA	1417	C
23	BA	1420	U
23	BA	1427	A
23	BA	1428	C
23	BA	144(B)	A
23	BA	1453	A
23	BA	1467	C
23	BA	1483	G
23	BA	1490	A
23	BA	1493	C
23	BA	1494	A
23	BA	1495	A
23	BA	1497	U
23	BA	1505	C
23	BA	1509	A
23	BA	1510	A
23	BA	1542	G
23	BA	1543	A
23	BA	1544	C
23	BA	1545	A

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Mol	Chain	Res	Type
23	BA	1558	A
23	BA	1559	G
23	BA	1569	A
23	BA	1579	A
23	BA	1580	A
23	BA	1585	C
23	BA	1586	A
23	BA	1598	C
23	BA	1603	A
23	BA	1604	C
23	BA	1608	A
23	BA	1609	A
23	BA	1610	A
23	BA	1617	C
23	BA	1618	A
23	BA	1640	C
23	BA	1647	G
23	BA	1648	C
23	BA	1673	U
23	BA	1674	G
23	BA	1694	C
23	BA	1695	G
23	BA	1696	G
23	BA	1729	A
23	BA	1763	G
23	BA	1764	G
23	BA	1773	A
23	BA	1776	G
23	BA	1786	A
23	BA	1791	A
23	BA	1800	C
23	BA	1801	G
23	BA	1803	A
23	BA	1811	G
23	BA	1816	G
23	BA	1829	A
23	BA	1838	C
23	BA	1839	G
23	BA	1847	A
23	BA	1888	G
23	BA	1889	A
23	BA	1902	C

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Mol	Chain	Res	Type
23	BA	1903	G
23	BA	1906	G
23	BA	1913	A
23	BA	1914	C
23	BA	1929	G
23	BA	1930	G
23	BA	1936	A
23	BA	1938	A
23	BA	1939	U
23	BA	1955	U
23	BA	1963	U
23	BA	1966	A
23	BA	1967	C
23	BA	1970	A
23	BA	1971	A
23	BA	1972	A
23	BA	1982	C
23	BA	1991	U
23	BA	1992	G
23	BA	1993	U
23	BA	1997	G
23	BA	2004	G
23	BA	2023	G
23	BA	2031	A
23	BA	2032	G
23	BA	2033	A
23	BA	2034	U
23	BA	2036	C
23	BA	2043	C
23	BA	2049	G
23	BA	2051	A
23	BA	2052	G
23	BA	2055	C
23	BA	2056	G
23	BA	2060	A
23	BA	2061	G
23	BA	2062	A
23	BA	2063	C
23	BA	2069	G
23	BA	2080	G
23	BA	2099	U
23	BA	2184	G

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Mol	Chain	Res	Type
23	BA	2189	U
23	BA	2190	G
23	BA	2198	A
23	BA	2211	G
23	BA	2212	A
23	BA	2215	G
23	BA	2225	A
23	BA	2226	C
23	BA	2238	G
23	BA	2239	G
23	BA	2251	G
23	BA	2273	A
23	BA	2275	C
23	BA	2283	C
23	BA	2287	A
23	BA	2288	A
23	BA	2305	A
23	BA	2306	C
23	BA	2307	G
23	BA	2310	A
23	BA	2311	A
23	BA	2312	U
23	BA	2319	G
23	BA	2320	A
23	BA	2322	A
23	BA	2325	G
23	BA	2334	G
23	BA	2336	A
23	BA	2343	C
23	BA	2345	G
23	BA	2346	A
23	BA	2347	C
23	BA	2360	A
23	BA	2372	G
23	BA	2379	G
23	BA	2383	G
23	BA	2385	C
23	BA	2402	C
23	BA	2413	G
23	BA	2425	A
23	BA	2427	C
23	BA	2428	G

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Mol	Chain	Res	Type
23	BA	2429	G
23	BA	2430	A
23	BA	2431	U
23	BA	2434	A
23	BA	2435	A
23	BA	2439	A
23	BA	2440	C
23	BA	2441	C
23	BA	2445	G
23	BA	2448	A
23	BA	2469	A
23	BA	2476	A
23	BA	2478	A
23	BA	2482	G
23	BA	2487	G
23	BA	2491	U
23	BA	2502	G
23	BA	2505	G
23	BA	2513	G
23	BA	2518	A
23	BA	2520	C
23	BA	2529	G
23	BA	2542	A
23	BA	2543	G
23	BA	2549	G
23	BA	2554	U
23	BA	2562	U
23	BA	2566	A
23	BA	2567	G
23	BA	2573	C
23	BA	2602	A
23	BA	2609	U
23	BA	2611	U
23	BA	2612	C
23	BA	2621	A
23	BA	2665	A
23	BA	2690	C
23	BA	2691	C
23	BA	2702	U
23	BA	2712	U
23	BA	712(B)	A
23	BA	2713	A

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Mol	Chain	Res	Type
23	BA	2714	G
23	BA	2726	U
23	BA	2733	A
23	BA	2757	A
23	BA	2758	A
23	BA	2764	A
23	BA	2765	A
23	BA	2778	A
23	BA	2779	U
23	BA	2781	A
23	BA	2790	A
23	BA	2791	C
23	BA	2797	U
23	BA	2808	U
23	BA	2818	G
23	BA	2820	A
23	BA	2821	A
23	BA	2834	G
23	BA	2836	U
23	BA	2850	A
23	BA	2851	A
23	BA	2872	G
23	BA	2876	G
23	BA	2892	A
23	BA	2894	G
24	BB	12	C
24	BB	13	A
24	BB	15	A
24	BB	16	G
24	BB	42	C
24	BB	44	G
24	BB	45	A
24	BB	67	G
24	BB	73	A
24	BB	77	U
24	BB	88	C
24	BB	89(A)	G
24	BB	90	C
24	BB	108	C
24	BB	109	G
24	BB	112	G
1	CA	7	G

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Mol	Chain	Res	Type
1	CA	8	A
1	CA	9	G
1	CA	22	G
1	CA	32	A
1	CA	39	G
1	CA	41	G
1	CA	47	C
1	CA	48	C
1	CA	51	A
1	CA	61	G
1	CA	88	C
1	CA	99	C
1	CA	101	A
1	CA	108	G
1	CA	116	A
1	CA	120	A
1	CA	121	C
1	CA	131	C
1	CA	169	C
1	CA	182	U
1	CA	195	A
1	CA	197	A
1	CA	200	G
1	CA	209	U
1	CA	210	U
1	CA	243	A
1	CA	244	U
1	CA	247	G
1	CA	251	G
1	CA	266	G
1	CA	267	C
1	CA	289	G
1	CA	321	A
1	CA	328	C
1	CA	329	A
1	CA	332	G
1	CA	344	A
1	CA	345	C
1	CA	346	G
1	CA	352	C
1	CA	353	A
1	CA	354	G

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Mol	Chain	Res	Type
1	CA	358	U
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	382	A
1	CA	387	U
1	CA	397	A
1	CA	398	C
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	422	C
1	CA	423	G
1	CA	429	U
1	CA	430	A
1	CA	439	A
1	CA	465	A
1	CA	467	G
1	CA	485	G
1	CA	496	A
1	CA	497	U
1	CA	511	C
1	CA	512	U
1	CA	518	C
1	CA	527	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
1	CA	547	A
1	CA	559	A
1	CA	561	U
1	CA	562	C
1	CA	563	A
1	CA	572	A
1	CA	573	A
1	CA	576	G
1	CA	596	C
1	CA	653	A
1	CA	687	A
1	CA	688	G
1	CA	703	G
1	CA	731	G

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Mol	Chain	Res	Type
1	CA	755	G
1	CA	777	A
1	CA	793	U
1	CA	794	A
1	CA	796	C
1	CA	816	A
1	CA	817	C
1	CA	818	G
1	CA	819	A
1	CA	828	A
1	CA	829	G
1	CA	833	U
1	CA	841	U
1	CA	842	C
1	CA	843	U
1	CA	855	G
1	CA	859	A
1	CA	873	A
1	CA	902	G
1	CA	913	A
1	CA	914	A
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	960	U
1	CA	961	U
1	CA	969	A
1	CA	971	G
1	CA	974	A
1	CA	976	G
1	CA	977	A
1	CA	980	C
1	CA	981	U
1	CA	992	U
1	CA	993	G
1	CA	1004	A
1	CA	1006	C
1	CA	1045	C
1	CA	1054	C
1	CA	1065	U
1	CA	1066	C

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Mol	Chain	Res	Type
1	CA	1068	G
1	CA	1081	G
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1113	C
1	CA	1117	G
1	CA	1118	C
1	CA	1125	U
1	CA	1126	U
1	CA	1129	C
1	CA	1130	A
1	CA	1131	G
1	CA	1136	U
1	CA	1137	C
1	CA	1139	G
1	CA	1146	A
1	CA	1151	A
1	CA	1152	A
1	CA	1159	U
1	CA	1160	G
1	CA	1181	G
1	CA	1182	G
1	CA	1193	G
1	CA	1196	U
1	CA	1197	G
1	CA	1202	G
1	CA	1212	U
1	CA	1213	A
1	CA	1214	C
1	CA	1224	G
1	CA	1225	A
1	CA	1238	A
1	CA	1240	U
1	CA	1241	G
1	CA	1256	A
1	CA	1257	U
1	CA	1280	A
1	CA	1281	U
1	CA	1282	C
1	CA	1285	A
1	CA	1286	A

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Mol	Chain	Res	Type
1	CA	1287	A
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1305	G
1	CA	1317	C
1	CA	1320	C
1	CA	1322	C
1	CA	1331	G
1	CA	1335	C
1	CA	1346	A
1	CA	1347	G
1	CA	136(B)	C
1	CA	1363	A
1	CA	1364	U
1	CA	1400	C
1	CA	1401	G
1	CA	1419	G
1	CA	1442	G
1	CA	1443	G
1	CA	1446	A
1	CA	1447	G
1	CA	1451	A
1	CA	1452	C
1	CA	1454	G
1	CA	1493	A
1	CA	1494	G
1	CA	1497	G
1	CA	1499	A
1	CA	1502	A
1	CA	1503	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1517	G
1	CA	1519	A
1	CA	1520	G
1	CA	1528	U
1	CA	1529	G
1	CA	1530	G
22	CV	6172	U
22	CV	6189	A

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Mol	Chain	Res	Type
23	DA	10	G
23	DA	35	G
23	DA	46	C
23	DA	64	A
23	DA	71	A
23	DA	72	U
23	DA	74	A
23	DA	75	G
23	DA	84	A
23	DA	88	G
23	DA	102	G
23	DA	103	A
23	DA	118	A
23	DA	119	A
23	DA	120	U
23	DA	121	G
23	DA	125	G
23	DA	131	G
23	DA	138	G
23	DA	140	A
23	DA	196	A
23	DA	197	A
23	DA	199	A
23	DA	200	U
23	DA	205	G
23	DA	215	G
23	DA	216	A
23	DA	221	A
23	DA	222	A
23	DA	228	A
23	DA	229	A
23	DA	230	U
23	DA	245	G
23	DA	248	G
23	DA	252	G
23	DA	269	U
23	DA	270(K)	G
23	DA	270(M)	U
23	DA	270(N)	U
23	DA	270(O)	G
23	DA	270(R)	C
23	DA	271(D)	U

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Mol	Chain	Res	Type
23	DA	271	G
23	DA	274	G
23	DA	275	G
23	DA	276	A
23	DA	277	C
23	DA	278	A
23	DA	279	C
23	DA	283	A
23	DA	302	C
23	DA	311	A
23	DA	323	G
23	DA	324	A
23	DA	329	G
23	DA	330	A
23	DA	332	A
23	DA	333	G
23	DA	343	C
23	DA	352	G
23	DA	353	G
23	DA	386	G
23	DA	396	G
23	DA	405	U
23	DA	411	G
23	DA	412	A
23	DA	444	C
23	DA	457	A
23	DA	470	A
23	DA	480	A
23	DA	481	G
23	DA	482	A
23	DA	505	A
23	DA	508	G
23	DA	509	C
23	DA	530	G
23	DA	531	C
23	DA	532	A
23	DA	556	G
23	DA	563	G
23	DA	569	U
23	DA	573	G
23	DA	575	A
23	DA	598	G

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Mol	Chain	Res	Type
23	DA	603	A
23	DA	615	G
23	DA	617	G
23	DA	620	G
23	DA	627	A
23	DA	637	A
23	DA	645	C
23	DA	646	A
23	DA	654	U
23	DA	655	A
23	DA	682	G
23	DA	683	C
23	DA	685	A
23	DA	686	G
23	DA	695	G
23	DA	730	C
23	DA	746	A
23	DA	747	U
23	DA	749	C
23	DA	764	A
23	DA	776	G
23	DA	777	A
23	DA	779	U
23	DA	782	A
23	DA	784	A
23	DA	785	G
23	DA	790	C
23	DA	792	G
23	DA	800	A
23	DA	805	G
23	DA	812	C
23	DA	819	A
23	DA	827	U
23	DA	828	U
23	DA	846	C
23	DA	847	U
23	DA	858	U
23	DA	859	G
23	DA	860	U
23	DA	887	A
23	DA	889	C
23	DA	890	A

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Mol	Chain	Res	Type
23	DA	896	A
23	DA	897	C
23	DA	910	A
23	DA	917	A
23	DA	931	G
23	DA	932	G
23	DA	941	A
23	DA	945	A
23	DA	946	G
23	DA	948	G
23	DA	949	C
23	DA	959	A
23	DA	961	C
23	DA	962	G
23	DA	973	A
23	DA	974(A)	G
23	DA	974(B)	C
23	DA	975	G
23	DA	983	A
23	DA	989	G
23	DA	990	A
23	DA	996	A
23	DA	1011	G
23	DA	1012	U
23	DA	1013	C
23	DA	1022	G
23	DA	1023	U
23	DA	1025	G
23	DA	1026	U
23	DA	1033	U
23	DA	1047	G
23	DA	1112	G
23	DA	1126	A
23	DA	1129	A
23	DA	1130	U
23	DA	1135	C
23	DA	1136	G
23	DA	1139	G
23	DA	114(B)	A
23	DA	1144	G
23	DA	1155	A
23	DA	1157	G

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Mol	Chain	Res	Type
23	DA	1158	C
23	DA	1164	G
23	DA	1174	A
23	DA	1175	U
23	DA	1205	U
23	DA	1210	A
23	DA	1211	U
23	DA	1220	A
23	DA	1221	C
23	DA	122(A)	C
23	DA	1227	G
23	DA	1241	A
23	DA	1242	A
23	DA	1249	U
23	DA	1250	G
23	DA	1253	A
23	DA	1254	A
23	DA	1256	G
23	DA	1271	G
23	DA	1272	A
23	DA	1300	U
23	DA	1301	A
23	DA	1309	G
23	DA	1311	G
23	DA	1312	U
23	DA	1314	C
23	DA	1329	U
23	DA	1343	G
23	DA	1344	G
23	DA	1345	C
23	DA	1349	A
23	DA	1352	U
23	DA	1359	A
23	DA	1360	A
23	DA	1365	A
23	DA	1368	G
23	DA	1378	A
23	DA	1379	A
23	DA	1380	G
23	DA	1384	A
23	DA	1385	G
23	DA	1386	C

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Mol	Chain	Res	Type
23	DA	1396	U
23	DA	1416	G
23	DA	1417	C
23	DA	1420	U
23	DA	1427	A
23	DA	1428	C
23	DA	144(B)	A
23	DA	1453	A
23	DA	1455	G
23	DA	1467	C
23	DA	1483	G
23	DA	1490	A
23	DA	1493	C
23	DA	1494	A
23	DA	1495	A
23	DA	1497	U
23	DA	1505	C
23	DA	1509	A
23	DA	1510	A
23	DA	1542	G
23	DA	1543	A
23	DA	1544	C
23	DA	1545	A
23	DA	1558	A
23	DA	1559	G
23	DA	1569	A
23	DA	1579	A
23	DA	1585	C
23	DA	1586	A
23	DA	1598	C
23	DA	1603	A
23	DA	1604	C
23	DA	1608	A
23	DA	1609	A
23	DA	1610	A
23	DA	1617	C
23	DA	1618	A
23	DA	1640	C
23	DA	1647	G
23	DA	1648	C
23	DA	1673	U
23	DA	1674	G

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Mol	Chain	Res	Type
23	DA	1694	C
23	DA	1695	G
23	DA	1696	G
23	DA	1729	A
23	DA	1763	G
23	DA	1764	G
23	DA	1773	A
23	DA	1776	G
23	DA	1786	A
23	DA	1791	A
23	DA	1800	C
23	DA	1801	G
23	DA	1803	A
23	DA	1811	G
23	DA	1816	G
23	DA	1829	A
23	DA	1838	C
23	DA	1839	G
23	DA	1847	A
23	DA	1888	G
23	DA	1889	A
23	DA	1902	C
23	DA	1903	G
23	DA	1906	G
23	DA	1913	A
23	DA	1914	C
23	DA	1929	G
23	DA	1930	G
23	DA	1936	A
23	DA	1938	A
23	DA	1939	U
23	DA	1955	U
23	DA	1963	U
23	DA	1966	A
23	DA	1967	C
23	DA	1970	A
23	DA	1971	A
23	DA	1972	A
23	DA	1982	C
23	DA	1991	U
23	DA	1992	G
23	DA	1993	U

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Mol	Chain	Res	Type
23	DA	1997	G
23	DA	2004	G
23	DA	2023	G
23	DA	2031	A
23	DA	2032	G
23	DA	2033	A
23	DA	2034	U
23	DA	2036	C
23	DA	2043	C
23	DA	2049	G
23	DA	2051	A
23	DA	2052	G
23	DA	2055	C
23	DA	2056	G
23	DA	2060	A
23	DA	2061	G
23	DA	2062	A
23	DA	2063	C
23	DA	2069	G
23	DA	2080	G
23	DA	2099	U
23	DA	2184	G
23	DA	2189	U
23	DA	2190	G
23	DA	2198	A
23	DA	2211	G
23	DA	2212	A
23	DA	2215	G
23	DA	2225	A
23	DA	2226	C
23	DA	2238	G
23	DA	2239	G
23	DA	2251	G
23	DA	2273	A
23	DA	2275	C
23	DA	2283	C
23	DA	2287	A
23	DA	2288	A
23	DA	2305	A
23	DA	2306	C
23	DA	2307	G
23	DA	2310	A

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Mol	Chain	Res	Type
23	DA	2311	A
23	DA	2312	U
23	DA	2319	G
23	DA	2320	A
23	DA	2322	A
23	DA	2325	G
23	DA	2334	G
23	DA	2336	A
23	DA	2343	C
23	DA	2345	G
23	DA	2346	A
23	DA	2347	C
23	DA	2360	A
23	DA	2372	G
23	DA	2379	G
23	DA	2383	G
23	DA	2385	C
23	DA	2402	C
23	DA	2413	G
23	DA	2425	A
23	DA	2427	C
23	DA	2428	G
23	DA	2429	G
23	DA	2430	A
23	DA	2431	U
23	DA	2434	A
23	DA	2435	A
23	DA	2439	A
23	DA	2440	C
23	DA	2441	C
23	DA	2445	G
23	DA	2448	A
23	DA	2469	A
23	DA	2476	A
23	DA	2478	A
23	DA	2482	G
23	DA	2487	G
23	DA	2491	U
23	DA	2502	G
23	DA	2505	G
23	DA	2513	G
23	DA	2518	A

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Mol	Chain	Res	Type
23	DA	2520	C
23	DA	2529	G
23	DA	2542	A
23	DA	2543	G
23	DA	2554	U
23	DA	2562	U
23	DA	2566	A
23	DA	2567	G
23	DA	2572	A
23	DA	2573	C
23	DA	2602	A
23	DA	2609	U
23	DA	2611	U
23	DA	2612	C
23	DA	2621	A
23	DA	2665	A
23	DA	2690	C
23	DA	2691	C
23	DA	2702	U
23	DA	2712	U
23	DA	712(B)	A
23	DA	2713	A
23	DA	2714	G
23	DA	2726	U
23	DA	2733	A
23	DA	2757	A
23	DA	2758	A
23	DA	2764	A
23	DA	2765	A
23	DA	2778	A
23	DA	2779	U
23	DA	2781	A
23	DA	2790	A
23	DA	2791	C
23	DA	2797	U
23	DA	2808	U
23	DA	2818	G
23	DA	2820	A
23	DA	2821	A
23	DA	2834	G
23	DA	2836	U
23	DA	2850	A

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Mol	Chain	Res	Type
23	DA	2851	A
23	DA	2872	G
23	DA	2876	G
23	DA	2892	A
23	DA	2894	G
24	DB	12	C
24	DB	13	A
24	DB	15	A
24	DB	16	G
24	DB	42	C
24	DB	44	G
24	DB	45	A
24	DB	67	G
24	DB	73	A
24	DB	77	U
24	DB	88	C
24	DB	89(A)	G
24	DB	90	C
24	DB	108	C
24	DB	109	G
24	DB	112	G

All (215) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	7	G
1	AA	99	C
1	AA	119	A
1	AA	121	C
1	AA	243	A
1	AA	250	A
1	AA	266	G
1	AA	328	C
1	AA	353	A
1	AA	366	C
1	AA	428	G
1	AA	429	U
1	AA	438	G
1	AA	496	A
1	AA	560	U
1	AA	561	U
1	AA	562	C

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Mol	Chain	Res	Type
1	AA	687	A
1	AA	913	A
1	AA	1064	G
1	AA	1065	U
1	AA	1067	A
1	AA	1129	C
1	AA	1145	C
1	AA	1201	A
1	AA	1281	U
1	AA	1285	A
1	AA	1300	G
1	AA	1400	C
1	AA	1492	A
1	AA	1493	A
1	AA	1498	U
1	AA	1504	G
1	AA	1528	U
1	AA	1529	G
22	AV	6171	U
22	AV	6188	C
23	BA	102	G
23	BA	119	A
23	BA	120	U
23	BA	131	G
23	BA	199	A
23	BA	221	A
23	BA	278	A
23	BA	331	A
23	BA	332	A
23	BA	479	A
23	BA	481	G
23	BA	503	A
23	BA	616	A
23	BA	682	G
23	BA	685	A
23	BA	746	A
23	BA	764	A
23	BA	776	G
23	BA	846	C
23	BA	858	U
23	BA	859	G
23	BA	933	A

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Mol	Chain	Res	Type
23	BA	945	A
23	BA	948	G
23	BA	961	C
23	BA	974(A)	G
23	BA	989	G
23	BA	1022	G
23	BA	1157	G
23	BA	1210	A
23	BA	1221	C
23	BA	1253	A
23	BA	1311	G
23	BA	1314	C
23	BA	1343	G
23	BA	1378	A
23	BA	1379	A
23	BA	1427	A
23	BA	1494	A
23	BA	1542	G
23	BA	1558	A
23	BA	1579	A
23	BA	1603	A
23	BA	1608	A
23	BA	1694	C
23	BA	1786	A
23	BA	1800	C
23	BA	1929	G
23	BA	1930	G
23	BA	1937	A
23	BA	2033	A
23	BA	2051	A
23	BA	2062	A
23	BA	2098	U
23	BA	2225	A
23	BA	2250	G
23	BA	2311	A
23	BA	2426	A
23	BA	2427	C
23	BA	2439	A
23	BA	2468	G
23	BA	2481	G
23	BA	2581	G
23	BA	2585	U

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Mol	Chain	Res	Type
23	BA	2689	U
23	BA	2756	U
23	BA	2849	U
23	BA	2850	A
23	BA	2873	A
24	BB	66	A
1	CA	7	G
1	CA	99	C
1	CA	119	A
1	CA	121	C
1	CA	243	A
1	CA	250	A
1	CA	266	G
1	CA	328	C
1	CA	353	A
1	CA	366	C
1	CA	428	G
1	CA	429	U
1	CA	438	G
1	CA	496	A
1	CA	560	U
1	CA	561	U
1	CA	562	C
1	CA	687	A
1	CA	913	A
1	CA	1064	G
1	CA	1065	U
1	CA	1067	A
1	CA	1129	C
1	CA	1145	C
1	CA	1201	A
1	CA	1281	U
1	CA	1285	A
1	CA	1300	G
1	CA	1400	C
1	CA	1492	A
1	CA	1493	A
1	CA	1498	U
1	CA	1504	G
1	CA	1528	U
1	CA	1529	G
22	CV	6171	U

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Mol	Chain	Res	Type
22	CV	6188	C
23	DA	102	G
23	DA	119	A
23	DA	120	U
23	DA	131	G
23	DA	199	A
23	DA	221	A
23	DA	278	A
23	DA	331	A
23	DA	332	A
23	DA	343	C
23	DA	479	A
23	DA	481	G
23	DA	503	A
23	DA	616	A
23	DA	682	G
23	DA	685	A
23	DA	746	A
23	DA	764	A
23	DA	776	G
23	DA	846	C
23	DA	858	U
23	DA	859	G
23	DA	933	A
23	DA	945	A
23	DA	948	G
23	DA	961	C
23	DA	974(A)	G
23	DA	989	G
23	DA	1022	G
23	DA	1157	G
23	DA	1210	A
23	DA	1221	C
23	DA	1253	A
23	DA	1311	G
23	DA	1314	C
23	DA	1343	G
23	DA	1378	A
23	DA	1379	A
23	DA	1427	A
23	DA	1494	A
23	DA	1542	G

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Mol	Chain	Res	Type
23	DA	1558	A
23	DA	1579	A
23	DA	1603	A
23	DA	1608	A
23	DA	1694	C
23	DA	1800	C
23	DA	1929	G
23	DA	1930	G
23	DA	1937	A
23	DA	1980	G
23	DA	2033	A
23	DA	2051	A
23	DA	2062	A
23	DA	2098	U
23	DA	2225	A
23	DA	2250	G
23	DA	2311	A
23	DA	2426	A
23	DA	2427	C
23	DA	2439	A
23	DA	2468	G
23	DA	2481	G
23	DA	2581	G
23	DA	2585	U
23	DA	2689	U
23	DA	2756	U
23	DA	2849	U
23	DA	2850	A
23	DA	2873	A
24	DB	66	A

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

Of 2661 ligands modelled in this entry, 2661 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	AA	1506/1506 (100%)	0.39	81 (5%) 31 18	66, 119, 257, 429	0
1	CA	1506/1506 (100%)	0.74	155 (10%) 12 8	75, 164, 286, 403	0
2	AB	234/234 (100%)	0.59	19 (8%) 18 12	88, 178, 260, 354	0
2	CB	234/234 (100%)	0.65	26 (11%) 10 7	106, 202, 279, 372	0
3	AC	206/206 (100%)	0.60	15 (7%) 21 13	83, 165, 233, 293	0
3	CC	206/206 (100%)	0.65	26 (12%) 8 6	124, 198, 272, 337	0
4	AD	208/208 (100%)	0.69	23 (11%) 10 7	45, 119, 180, 228	0
4	CD	208/208 (100%)	1.43	57 (27%) 1 2	96, 186, 253, 314	0
5	AE	151/151 (100%)	0.44	10 (6%) 24 15	71, 118, 191, 293	0
5	CE	151/151 (100%)	0.69	15 (9%) 13 8	72, 165, 223, 282	0
6	AF	101/101 (100%)	0.63	9 (8%) 15 10	87, 160, 207, 278	0
6	CF	101/101 (100%)	0.30	4 (3%) 42 23	60, 130, 195, 271	0
7	AG	155/155 (100%)	0.63	15 (9%) 13 9	134, 201, 260, 328	0
7	CG	155/155 (100%)	0.46	9 (5%) 29 17	124, 213, 271, 320	0
8	AH	138/138 (100%)	0.54	13 (9%) 14 9	60, 122, 190, 265	0
8	CH	138/138 (100%)	0.85	15 (10%) 10 7	101, 171, 217, 257	0
9	AI	127/127 (100%)	1.66	44 (34%) 1 1	119, 228, 303, 333	0
9	CI	127/127 (100%)	1.50	41 (32%) 1 1	148, 229, 297, 370	0
10	AJ	98/98 (100%)	1.08	16 (16%) 4 4	113, 203, 294, 334	0
10	CJ	98/98 (100%)	1.20	24 (24%) 2 2	133, 232, 290, 339	0
11	AK	119/119 (100%)	0.65	14 (11%) 9 6	66, 136, 219, 274	0
11	CK	119/119 (100%)	0.73	17 (14%) 6 5	87, 145, 207, 287	0
12	AL	124/124 (100%)	0.69	15 (12%) 8 6	56, 108, 182, 328	0
12	CL	124/124 (100%)	1.67	35 (28%) 1 1	77, 139, 236, 271	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	AM	116/116 (100%)	0.64	13 (11%) 10 7	129, 216, 277, 325	0
13	CM	116/116 (100%)	0.65	8 (6%) 23 14	119, 238, 307, 372	0
14	AN	60/60 (100%)	1.35	13 (21%) 2 3	94, 178, 243, 278	0
14	CN	60/60 (100%)	1.56	23 (38%) 1 1	110, 207, 261, 344	0
15	AO	88/88 (100%)	0.63	9 (10%) 12 8	73, 127, 187, 281	0
15	CO	88/88 (100%)	0.79	13 (14%) 5 5	73, 138, 201, 244	0
16	AP	83/83 (100%)	0.85	11 (13%) 7 6	67, 109, 175, 245	0
16	CP	83/83 (100%)	1.66	29 (34%) 1 1	128, 171, 247, 277	0
17	AQ	99/99 (100%)	0.55	7 (7%) 22 14	63, 112, 169, 222	0
17	CQ	99/99 (100%)	1.34	25 (25%) 1 2	99, 155, 196, 228	0
18	AR	70/70 (100%)	0.68	6 (8%) 16 11	82, 149, 241, 325	0
18	CR	70/70 (100%)	0.32	1 (1%) 73 48	76, 145, 204, 232	0
19	AS	78/78 (100%)	0.61	8 (10%) 12 8	133, 212, 274, 295	0
19	CS	78/78 (100%)	0.81	9 (11%) 9 6	173, 235, 302, 347	0
20	AT	99/99 (100%)	0.98	15 (15%) 5 5	65, 131, 220, 241	0
20	CT	99/99 (100%)	1.56	31 (31%) 1 1	103, 178, 284, 301	0
21	AU	24/24 (100%)	2.32	9 (37%) 1 1	122, 220, 292, 333	0
21	CU	24/24 (100%)	2.47	14 (58%) 0 0	173, 236, 317, 346	0
22	AV	35/35 (100%)	0.80	3 (8%) 16 11	96, 223, 325, 366	0
22	CV	35/35 (100%)	1.10	6 (17%) 4 4	117, 192, 362, 386	0
23	BA	2760/2879 (95%)	0.02	68 (2%) 58 35	38, 86, 205, 371	0
23	DA	2760/2879 (95%)	-0.00	67 (2%) 59 35	33, 77, 196, 377	0
24	BB	119/119 (100%)	0.42	5 (4%) 40 22	83, 149, 196, 251	0
24	DB	119/119 (100%)	0.63	14 (11%) 9 6	87, 132, 198, 274	0
25	BC	271/271 (100%)	0.52	26 (9%) 13 9	24, 81, 150, 209	0
25	DC	271/271 (100%)	0.60	28 (10%) 12 8	26, 72, 144, 220	0
26	BD	204/204 (100%)	0.73	18 (8%) 15 10	45, 96, 173, 331	0
26	DD	204/204 (100%)	0.79	26 (12%) 8 6	36, 90, 189, 305	0
27	BE	202/202 (100%)	0.55	19 (9%) 14 9	32, 94, 172, 311	0
27	DE	202/202 (100%)	0.44	8 (3%) 42 23	20, 85, 182, 249	0
28	BF	181/181 (100%)	0.45	12 (6%) 24 15	107, 202, 262, 297	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	DF	181/181 (100%)	0.51	14 (7%) 19 13	109, 198, 281, 324	0
29	BG	159/159 (100%)	0.71	19 (11%) 9 6	102, 192, 269, 331	0
29	DG	159/159 (100%)	0.73	19 (11%) 9 6	61, 117, 190, 269	0
30	BH	145/145 (100%)	1.88	56 (38%) 1 1	60, 224, 376, 453	0
30	DH	145/145 (100%)	1.63	40 (27%) 1 1	60, 210, 372, 482	0
31	BI	32/65 (49%)	0.79	2 (6%) 26 15	163, 256, 325, 352	0
31	DI	32/65 (49%)	0.74	3 (9%) 14 9	176, 235, 294, 325	0
32	BJ	137/137 (100%)	0.87	21 (15%) 5 5	58, 105, 182, 221	0
32	DJ	137/137 (100%)	0.63	10 (7%) 21 13	55, 100, 170, 219	0
33	BK	122/122 (100%)	0.24	5 (4%) 41 22	48, 90, 142, 194	0
33	DK	122/122 (100%)	0.31	2 (1%) 70 45	41, 90, 153, 251	0
34	BL	146/146 (100%)	0.91	21 (14%) 6 5	40, 114, 204, 306	0
34	DL	146/146 (100%)	1.23	30 (20%) 2 3	27, 111, 206, 324	0
35	BM	136/136 (100%)	0.80	17 (12%) 8 6	57, 110, 205, 344	0
35	DM	136/136 (100%)	0.90	16 (11%) 9 6	46, 106, 199, 388	0
36	BN	117/117 (100%)	0.71	12 (10%) 12 8	44, 92, 166, 282	0
36	DN	117/117 (100%)	0.71	15 (12%) 7 6	41, 89, 173, 285	0
37	BO	98/98 (100%)	1.06	17 (17%) 4 4	89, 155, 230, 299	0
37	DO	98/98 (100%)	1.25	24 (24%) 2 2	80, 148, 221, 299	0
38	BP	137/137 (100%)	0.60	10 (7%) 21 13	52, 115, 216, 248	0
38	DP	137/137 (100%)	0.71	19 (13%) 6 5	60, 119, 249, 299	0
39	BQ	116/116 (100%)	0.55	10 (8%) 16 11	43, 88, 163, 244	0
39	DQ	116/116 (100%)	0.78	15 (12%) 7 6	34, 84, 154, 205	0
40	BR	101/101 (100%)	0.58	9 (8%) 15 10	55, 134, 187, 294	0
40	DR	101/101 (100%)	0.78	13 (12%) 7 6	52, 132, 197, 321	0
41	BS	112/112 (100%)	0.31	5 (4%) 38 20	45, 78, 151, 250	0
41	DS	112/112 (100%)	0.31	9 (8%) 18 12	40, 72, 166, 277	0
42	BT	92/92 (100%)	0.94	15 (16%) 4 4	57, 107, 174, 204	0
42	DT	92/92 (100%)	0.47	9 (9%) 13 9	41, 78, 161, 204	0
43	BU	100/100 (100%)	1.72	36 (36%) 1 1	59, 139, 289, 344	0
43	DU	100/100 (100%)	1.20	24 (24%) 2 2	49, 119, 264, 373	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	BV	188/188 (100%)	0.62	16 (8%) 16 11	80, 160, 224, 277	0
44	DV	188/188 (100%)	0.57	20 (10%) 11 8	67, 154, 220, 254	0
45	BW	76/76 (100%)	0.69	9 (11%) 9 6	61, 101, 160, 258	0
45	DW	76/76 (100%)	0.90	8 (10%) 11 8	54, 101, 167, 254	0
46	BX	88/88 (100%)	1.48	25 (28%) 1 1	50, 106, 191, 346	0
46	DX	88/88 (100%)	0.95	15 (17%) 4 4	31, 83, 196, 340	0
47	BY	62/62 (100%)	1.38	13 (20%) 2 3	61, 141, 244, 287	0
47	DY	62/62 (100%)	0.74	8 (12%) 7 6	45, 99, 224, 304	0
48	BZ	59/59 (100%)	0.49	2 (3%) 48 27	47, 102, 174, 342	0
48	DZ	59/59 (100%)	0.52	3 (5%) 33 19	45, 102, 189, 335	0
49	B1	30/30 (100%)	0.04	0 100 100	161, 244, 282, 323	0
49	D1	30/30 (100%)	-0.08	0 100 100	187, 262, 306, 326	0
50	B2	52/52 (100%)	0.44	4 (7%) 19 13	36, 93, 189, 273	0
50	D2	52/52 (100%)	0.51	4 (7%) 19 13	24, 93, 214, 262	0
51	B3	44/44 (100%)	1.04	8 (18%) 3 4	151, 254, 304, 322	0
51	D3	44/44 (100%)	1.15	6 (13%) 7 5	191, 247, 298, 313	0
52	B4	48/48 (100%)	0.62	5 (10%) 11 8	43, 66, 132, 297	0
52	D4	48/48 (100%)	0.50	7 (14%) 6 5	23, 45, 122, 217	0
53	B5	63/63 (100%)	1.06	12 (19%) 3 3	47, 94, 171, 222	0
53	D5	63/63 (100%)	1.13	11 (17%) 4 4	43, 92, 170, 208	0
All	All	20232/20536 (98%)	0.55	1935 (9%) 13 9	20, 120, 258, 482	0

All (1935) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
35	BM	140	ALA	11.5
47	BY	3	LEU	10.9
9	AI	109	VAL	10.6
1	AA	82	U	10.5
12	CL	27	LYS	10.2
35	DM	140	ALA	10.0
30	DH	120	ILE	9.9
37	DO	11	LYS	9.7
23	DA	508	G	9.7
11	AK	129	SER	9.7

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Mol	Chain	Res	Type	RSRZ
17	CQ	24	GLU	9.6
17	CQ	37	LYS	9.4
1	AA	81	G	9.2
1	AA	85	U	8.8
1	AA	1224	G	8.4
10	AJ	58	ASP	8.4
1	AA	86	U	8.3
30	DH	92	VAL	8.1
29	DG	60	ARG	8.1
30	BH	1	MET	7.9
30	BH	72	LEU	7.8
12	CL	28	GLY	7.8
46	BX	10	LYS	7.7
37	BO	11	LYS	7.7
16	CP	29	ASP	7.7
23	DA	2602	A	7.7
9	CI	128	ARG	7.6
30	DH	119	PRO	7.6
37	BO	13	ARG	7.5
9	CI	66	ARG	7.4
52	B4	47	ARG	7.4
1	AA	1129	C	7.3
17	CQ	26	GLN	7.3
40	BR	68	LYS	7.3
11	CK	128	ALA	7.3
4	CD	4	TYR	7.3
21	CU	10	ARG	7.3
13	AM	99	ARG	7.0
21	AU	6	ARG	7.0
20	CT	9	ASN	7.0
43	BU	83	THR	7.0
10	CJ	73	ASP	7.0
11	CK	127	LYS	6.9
46	BX	20	ARG	6.8
4	AD	4	TYR	6.6
9	CI	127	LYS	6.6
46	DX	30	VAL	6.6
21	AU	10	ARG	6.5
43	BU	3	VAL	6.5
11	CK	129	SER	6.5
46	BX	30	VAL	6.5
12	CL	114	LYS	6.4

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Mol	Chain	Res	Type	RSRZ
13	AM	102	ARG	6.4
37	DO	19	LYS	6.3
14	AN	14	PRO	6.2
45	DW	17	GLN	6.2
29	DG	116	GLU	6.2
36	BN	2	ARG	6.2
36	BN	3	HIS	6.2
2	AB	12	GLU	6.2
17	CQ	35	VAL	6.1
43	DU	88	LYS	6.1
15	AO	65	ARG	6.1
35	DM	24	GLY	6.1
30	BH	93	THR	6.1
3	CC	206	GLU	6.1
9	CI	64	THR	6.0
20	AT	64	ASP	6.0
23	DA	1026	U	6.0
9	AI	11	LYS	6.0
11	AK	128	ALA	6.0
52	D4	47	ARG	5.9
12	AL	27	LYS	5.9
14	AN	20	ALA	5.9
30	DH	88	ILE	5.9
36	DN	8	ARG	5.9
38	DP	1	MET	5.8
2	CB	141	GLU	5.8
44	BV	186	GLU	5.8
2	CB	144	ARG	5.7
37	DO	20	ARG	5.7
52	B4	48	LYS	5.7
36	DN	3	HIS	5.7
12	AL	118	LYS	5.7
43	BU	2	ARG	5.7
17	AQ	37	LYS	5.6
25	DC	34	VAL	5.6
20	AT	25	ARG	5.6
9	AI	125	TYR	5.6
21	CU	14	TRP	5.6
38	DP	11	GLU	5.6
34	DL	110	TYR	5.6
42	BT	60	ARG	5.5
1	CA	508	C	5.5

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Mol	Chain	Res	Type	RSRZ
12	CL	118	LYS	5.5
20	CT	55	ILE	5.5
34	DL	15	ARG	5.5
34	DL	27	HIS	5.5
20	CT	14	LYS	5.5
27	BE	140	LEU	5.5
23	BA	2107	C	5.5
46	DX	36	GLY	5.4
2	CB	12	GLU	5.4
34	BL	67	MET	5.4
11	AK	117	ASN	5.4
30	DH	121	LYS	5.4
46	DX	10	LYS	5.4
46	BX	19	GLN	5.4
32	BJ	69	VAL	5.3
36	DN	2	ARG	5.3
10	AJ	46	ARG	5.3
23	DA	2449	U	5.3
28	DF	35	GLU	5.3
12	CL	19	LYS	5.3
1	CA	91	C	5.2
23	BA	2211	G	5.2
9	AI	110	GLU	5.2
25	BC	262	ARG	5.2
44	DV	78	LYS	5.2
4	AD	73	ARG	5.2
12	CL	31	PHE	5.2
34	DL	50	ARG	5.2
26	DD	159	HIS	5.2
25	DC	40	THR	5.2
29	DG	169	VAL	5.2
30	BH	112	LYS	5.2
12	CL	18	ARG	5.2
46	BX	14	VAL	5.1
46	BX	23	LYS	5.1
30	DH	118	LYS	5.1
34	BL	36	LYS	5.1
4	AD	32	ALA	5.1
9	CI	120	ARG	5.1
1	AA	84	U	5.1
10	CJ	72	VAL	5.1
17	AQ	24	GLU	5.1

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Mol	Chain	Res	Type	RSRZ
8	AH	1	MET	5.1
16	CP	8	ARG	5.1
25	BC	41	GLY	5.1
47	BY	9	GLN	5.1
22	AV	6188	C	5.1
20	CT	60	GLU	5.0
1	CA	975	A	5.0
20	AT	9	ASN	5.0
1	CA	44	G	5.0
4	CD	54	TYR	5.0
26	DD	195	LEU	5.0
10	AJ	47	PHE	5.0
20	AT	21	LYS	5.0
26	BD	186	GLY	5.0
37	DO	43	GLU	5.0
6	CF	92	LYS	4.9
9	AI	106	ALA	4.9
1	CA	45	U	4.9
45	BW	17	GLN	4.9
6	AF	89	MET	4.9
21	AU	14	TRP	4.9
1	CA	1280	A	4.9
38	BP	25	GLY	4.9
34	BL	71	VAL	4.9
37	DO	42	ASP	4.9
20	CT	22	ARG	4.9
1	AA	728	A	4.8
7	CG	82	GLY	4.8
9	AI	69	GLY	4.8
52	D4	48	LYS	4.8
34	DL	67	MET	4.8
32	DJ	91	GLU	4.8
35	BM	91	GLU	4.8
2	CB	138	LEU	4.8
20	CT	59	ALA	4.8
16	CP	65	GLN	4.8
36	BN	68	ARG	4.8
2	CB	134	GLU	4.8
16	CP	7	ALA	4.7
14	CN	14	PRO	4.7
32	BJ	92	GLN	4.7
46	BX	21	ARG	4.7

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Mol	Chain	Res	Type	RSRZ
30	BH	68	LEU	4.7
15	AO	68	ARG	4.7
30	BH	21	VAL	4.7
30	BH	4	ILE	4.7
1	CA	1249	C	4.7
30	BH	117	GLU	4.7
30	BH	37	VAL	4.7
43	BU	5	MET	4.7
3	CC	179	ARG	4.7
29	DG	114	VAL	4.7
30	BH	111	PRO	4.7
23	BA	101	G	4.7
4	CD	56	VAL	4.7
19	CS	71	LEU	4.7
25	BC	30	GLU	4.7
21	CU	6	ARG	4.6
4	CD	58	LEU	4.6
21	AU	17	THR	4.6
16	CP	9	PHE	4.6
9	CI	105	ASP	4.6
43	DU	5	MET	4.6
34	BL	7	ARG	4.6
1	CA	90	C	4.6
35	BM	141	GLN	4.6
47	DY	3	LEU	4.6
47	DY	16	LEU	4.6
1	AA	80	G	4.6
1	CA	31	G	4.6
34	BL	27	HIS	4.6
30	BH	79	ILE	4.6
8	CH	2	LEU	4.5
1	AA	87	A	4.5
23	BA	1026	U	4.5
45	BW	13	GLY	4.5
12	CL	30	PRO	4.5
23	BA	508	G	4.5
22	CV	6188	C	4.5
25	BC	34	VAL	4.5
26	BD	163	GLU	4.5
35	DM	139	GLU	4.5
32	BJ	88	LYS	4.5
30	DH	94	ALA	4.5

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Mol	Chain	Res	Type	RSRZ
8	AH	25	ASP	4.5
9	AI	70	LYS	4.5
9	AI	108	VAL	4.5
35	DM	141	GLN	4.5
4	CD	10	ARG	4.5
23	BA	2892	A	4.5
28	DF	33	ARG	4.5
37	DO	13	ARG	4.5
53	B5	64	TYR	4.4
9	AI	72	GLY	4.4
34	BL	43	GLY	4.4
6	AF	90	VAL	4.4
16	CP	12	LYS	4.4
34	DL	43	GLY	4.4
23	BA	34	C	4.4
23	BA	275	G	4.4
50	D2	2	ALA	4.4
46	DX	32	LYS	4.4
47	DY	10	LEU	4.4
16	AP	68	ASP	4.4
8	CH	1	MET	4.3
34	DL	7	ARG	4.3
16	CP	31	LYS	4.3
10	CJ	62	HIS	4.3
16	CP	18	ARG	4.3
7	CG	62	PHE	4.3
32	BJ	132	LYS	4.3
5	CE	22	GLY	4.3
47	BY	1	MET	4.3
19	CS	41	VAL	4.3
30	BH	19	VAL	4.3
32	BJ	124	HIS	4.3
10	CJ	61	GLU	4.3
34	DL	14	LYS	4.3
43	BU	47	LYS	4.3
26	DD	112	GLY	4.3
46	BX	36	GLY	4.3
9	AI	12	GLU	4.3
15	CO	69	TYR	4.3
43	BU	22	GLY	4.3
34	DL	70	GLN	4.2
25	BC	239	ARG	4.2

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Mol	Chain	Res	Type	RSRZ
12	AL	46	LYS	4.2
4	CD	15	GLU	4.2
10	CJ	55	LYS	4.2
12	CL	46	LYS	4.2
23	DA	362	U	4.2
1	CA	509	A	4.2
53	D5	64	TYR	4.2
43	BU	87	LYS	4.2
32	DJ	92	GLN	4.2
4	CD	154	ASN	4.2
39	DQ	91	ASP	4.2
37	BO	12	PHE	4.2
47	BY	10	LEU	4.2
9	CI	65	VAL	4.2
23	BA	2602	A	4.2
31	DI	59	ILE	4.2
4	CD	42	GLN	4.2
26	BD	159	HIS	4.2
39	DQ	15	LYS	4.2
14	AN	13	THR	4.2
1	CA	743	U	4.2
10	CJ	47	PHE	4.2
30	BH	43	ASN	4.2
9	AI	64	THR	4.1
32	DJ	88	LYS	4.1
42	DT	65	ARG	4.1
17	CQ	84	LEU	4.1
23	BA	389	G	4.1
23	DA	277	C	4.1
26	BD	131	ALA	4.1
34	BL	15	ARG	4.1
9	CI	126	SER	4.1
10	CJ	57	LYS	4.1
20	AT	70	SER	4.1
39	BQ	97	ASP	4.1
37	DO	92	TYR	4.1
46	DX	14	VAL	4.1
4	CD	9	CYS	4.1
16	AP	29	ASP	4.1
37	DO	22	GLY	4.1
14	CN	31	ARG	4.1
23	DA	2804	C	4.1

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Mol	Chain	Res	Type	RSRZ
1	AA	1001	G	4.1
10	CJ	54	PHE	4.1
1	AA	975	A	4.1
12	CL	45	LYS	4.1
10	CJ	71	LEU	4.1
21	CU	15	ARG	4.1
47	BY	4	SER	4.1
10	AJ	57	LYS	4.0
13	CM	15	VAL	4.0
23	DA	34	C	4.0
30	BH	36	ALA	4.0
40	BR	78	LYS	4.0
40	BR	80	GLN	4.0
40	DR	80	GLN	4.0
16	CP	34	GLU	4.0
43	BU	64	GLU	4.0
45	DW	74	ARG	4.0
14	CN	11	LYS	4.0
25	DC	261	LYS	4.0
13	CM	101	GLN	4.0
24	DB	88	C	4.0
16	CP	1	MET	4.0
31	DI	62	ALA	4.0
11	CK	124	LYS	4.0
5	CE	15	ARG	4.0
26	DD	163	GLU	4.0
30	DH	117	GLU	4.0
30	DH	90	GLY	4.0
4	CD	31	CYS	4.0
50	B2	2	ALA	4.0
7	AG	104	LEU	4.0
10	CJ	53	PRO	4.0
23	DA	6	A	4.0
29	DG	61	HIS	4.0
2	AB	163	PHE	4.0
35	DM	9	TYR	4.0
46	BX	38	SER	4.0
47	BY	8	LYS	4.0
16	AP	7	ALA	4.0
41	DS	7	ALA	4.0
45	DW	55	ARG	4.0
1	AA	977	A	3.9

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Mol	Chain	Res	Type	RSRZ
16	CP	35	LYS	3.9
37	DO	36	TYR	3.9
1	CA	727	G	3.9
40	BR	70	ILE	3.9
7	AG	105	VAL	3.9
46	BX	32	LYS	3.9
35	BM	7	MET	3.9
8	CH	42	GLU	3.9
8	CH	94	TYR	3.9
51	D3	20	ASN	3.9
23	BA	267	C	3.9
25	DC	39	LYS	3.9
30	DH	35	LEU	3.9
28	BF	35	GLU	3.9
1	CA	399	G	3.9
1	CA	1529	G	3.9
43	BU	4	LYS	3.9
44	BV	97	GLU	3.9
15	AO	64	ARG	3.9
17	CQ	30	PRO	3.9
25	BC	35	LYS	3.9
1	CA	30	U	3.9
2	AB	214	ILE	3.9
45	BW	74	ARG	3.9
21	AU	23	PRO	3.9
9	CI	111	ARG	3.8
12	CL	88	ARG	3.8
39	DQ	17	ILE	3.8
23	BA	2808	U	3.8
43	BU	76	CYS	3.8
9	AI	71	SER	3.8
30	DH	87	LYS	3.8
4	CD	32	ALA	3.8
21	AU	16	GLY	3.8
4	CD	133	VAL	3.8
4	CD	50	ARG	3.8
21	CU	17	THR	3.8
27	BE	47	GLY	3.8
30	BH	35	LEU	3.8
9	CI	110	GLU	3.8
2	CB	96	ARG	3.8
25	DC	262	ARG	3.8

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Mol	Chain	Res	Type	RSRZ
32	DJ	97	ARG	3.8
32	BJ	100	GLY	3.8
1	AA	1128	C	3.8
11	AK	119	CYS	3.8
15	CO	54	ARG	3.8
3	CC	158	GLY	3.8
10	AJ	73	ASP	3.8
34	DL	68	GLN	3.8
1	CA	81	G	3.8
7	AG	37	ASN	3.8
2	CB	148	TYR	3.8
34	BL	110	TYR	3.8
34	DL	35	HIS	3.8
37	BO	107	GLU	3.8
6	AF	6	VAL	3.8
30	BH	140	LEU	3.7
10	AJ	5	ARG	3.7
36	BN	8	ARG	3.7
10	AJ	63	PHE	3.7
9	AI	115	GLY	3.7
9	CI	106	ALA	3.7
34	DL	74	GLU	3.7
5	AE	20	GLN	3.7
3	AC	166	GLU	3.7
4	AD	80	GLU	3.7
30	DH	130	TYR	3.7
35	BM	48	GLU	3.7
7	CG	5	ARG	3.7
11	AK	127	LYS	3.7
16	CP	30	GLY	3.7
2	AB	51	LEU	3.7
4	CD	5	ILE	3.7
20	CT	25	ARG	3.7
14	AN	58	LYS	3.7
7	AG	108	ALA	3.7
36	BN	11	ASN	3.7
7	AG	82	GLY	3.7
1	AA	1092	A	3.7
51	B3	39	TYR	3.7
24	DB	8	U	3.7
23	DA	2211	G	3.7
46	BX	28	GLY	3.7

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Mol	Chain	Res	Type	RSRZ
4	CD	33	MET	3.7
12	AL	17	VAL	3.7
12	AL	18	ARG	3.7
1	AA	1130	A	3.6
1	AA	1183	A	3.6
22	AV	6193	A	3.6
4	CD	2	GLY	3.6
30	BH	144	VAL	3.6
42	DT	33	LYS	3.6
43	BU	35	TYR	3.6
23	DA	2251	G	3.6
8	CH	132	GLU	3.6
1	AA	1397	C	3.6
23	BA	790	C	3.6
43	DU	51	VAL	3.6
2	CB	98	LEU	3.6
46	BX	95	LEU	3.6
9	CI	123	PRO	3.6
3	CC	166	GLU	3.6
29	BG	159	GLU	3.6
1	CA	397	A	3.6
10	AJ	48	THR	3.6
25	DC	236	GLY	3.6
23	BA	1420	U	3.6
30	BH	3	VAL	3.6
30	BH	97	ILE	3.6
3	AC	201	TYR	3.6
10	AJ	61	GLU	3.6
1	CA	1129	C	3.6
23	BA	982	C	3.6
10	CJ	60	ARG	3.6
29	BG	169	VAL	3.6
43	BU	51	VAL	3.6
30	DH	91	SER	3.6
9	CI	63	ILE	3.6
17	AQ	93	GLN	3.6
30	BH	109	ILE	3.6
26	DD	160	TYR	3.6
20	CT	15	ARG	3.6
34	DL	79	ARG	3.6
29	DG	111	HIS	3.6
30	BH	105	HIS	3.6

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Mol	Chain	Res	Type	RSRZ
53	D5	52	LYS	3.5
34	BL	79	ARG	3.5
23	BA	274	G	3.5
25	DC	32	SER	3.5
22	CV	6193	A	3.5
20	CT	64	ASP	3.5
43	DU	92	ASN	3.5
3	CC	101	LEU	3.5
30	DH	114	LEU	3.5
16	AP	25	ARG	3.5
39	DQ	11	ARG	3.5
8	AH	8	ASP	3.5
27	BE	77	ASP	3.5
36	BN	72	ASP	3.5
21	CU	16	GLY	3.5
42	BT	27	THR	3.5
15	AO	62	GLN	3.5
12	CL	85	ARG	3.5
14	CN	61	TRP	3.5
23	DA	2065	C	3.5
5	CE	80	ILE	3.5
32	BJ	56	LEU	3.5
40	DR	20	LEU	3.5
23	BA	2106	G	3.5
2	AB	170	GLU	3.5
12	AL	126	GLU	3.5
30	BH	120	ILE	3.5
2	AB	47	THR	3.5
20	CT	70	SER	3.5
25	BC	42	GLY	3.5
21	CU	8	THR	3.5
35	DM	21	THR	3.5
44	DV	76	LEU	3.5
16	AP	65	GLN	3.5
46	BX	16	ASN	3.5
10	CJ	41	PRO	3.5
15	CO	51	HIS	3.5
1	CA	728	A	3.4
32	DJ	100	GLY	3.4
43	DU	17	SER	3.4
53	B5	32	LEU	3.4
14	AN	19	ARG	3.4

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Mol	Chain	Res	Type	RSRZ
9	CI	29	ASN	3.4
6	AF	8	ILE	3.4
16	CP	33	ILE	3.4
26	DD	155	LYS	3.4
30	DH	97	ILE	3.4
30	BH	26	ALA	3.4
29	DG	38	SER	3.4
17	AQ	7	THR	3.4
1	CA	972	C	3.4
3	CC	164	ARG	3.4
9	AI	10	ARG	3.4
9	AI	18	PHE	3.4
10	CJ	63	PHE	3.4
12	CL	96	ARG	3.4
26	DD	111	ARG	3.4
29	DG	170	ARG	3.4
37	DO	12	PHE	3.4
1	CA	294	U	3.4
9	AI	123	PRO	3.4
9	CI	81	ILE	3.4
34	DL	17	LYS	3.4
15	AO	66	LEU	3.4
30	DH	140	LEU	3.4
38	BP	105	LEU	3.4
28	BF	28	VAL	3.4
25	DC	23	GLU	3.4
4	CD	76	ARG	3.4
38	DP	51	ARG	3.4
1	CA	105	G	3.4
1	CA	631	G	3.4
1	CA	1127	G	3.4
53	B5	31	HIS	3.4
10	CJ	64	GLU	3.4
7	AG	26	PHE	3.4
8	AH	54	ASP	3.4
10	CJ	58	ASP	3.4
14	CN	29	ARG	3.4
35	DM	18	LYS	3.4
43	DU	87	LYS	3.4
45	BW	75	LEU	3.4
15	CO	59	MET	3.4
12	CL	17	VAL	3.4

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Mol	Chain	Res	Type	RSRZ
27	DE	56	GLU	3.4
29	DG	104	GLU	3.4
30	DH	33	ARG	3.4
45	DW	41	ARG	3.4
9	AI	127	LYS	3.4
25	BC	261	LYS	3.4
23	BA	974(B)	C	3.4
23	DA	280	C	3.4
43	BU	56	PRO	3.4
13	CM	98	VAL	3.4
12	CL	98	HIS	3.4
29	DG	59	ARG	3.4
20	CT	51	GLU	3.3
29	DG	167	GLU	3.3
9	CI	41	VAL	3.3
1	AA	107	G	3.3
4	CD	66	ARG	3.3
27	BE	68	LYS	3.3
27	BE	188	ARG	3.3
35	BM	18	LYS	3.3
9	CI	8	GLY	3.3
24	DB	52	A	3.3
39	BQ	56	ASP	3.3
30	BH	65	ALA	3.3
2	CB	133	LYS	3.3
19	AS	4	SER	3.3
9	AI	62	TYR	3.3
34	BL	109	GLY	3.3
3	AC	161	GLU	3.3
3	AC	176	HIS	3.3
1	AA	1190	G	3.3
1	CA	111	G	3.3
16	CP	71	ARG	3.3
4	CD	11	LEU	3.3
29	DG	100	GLY	3.3
17	AQ	35	VAL	3.3
43	DU	3	VAL	3.3
7	AG	81	GLY	3.3
34	DL	36	LYS	3.3
36	DN	9	LYS	3.3
1	CA	1352	C	3.3
21	AU	15	ARG	3.3

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Mol	Chain	Res	Type	RSRZ
31	DI	63	LEU	3.3
34	BL	65	ARG	3.3
26	DD	107	THR	3.3
17	CQ	100	LYS	3.3
44	DV	178	GLU	3.3
30	DH	116	LEU	3.2
42	BT	92	LEU	3.2
9	CI	15	ALA	3.2
14	AN	12	ARG	3.2
14	CN	12	ARG	3.2
29	BG	12	PRO	3.2
24	DB	1	U	3.2
24	DB	31	C	3.2
32	BJ	103	GLY	3.2
1	AA	324	G	3.2
1	AA	1371	G	3.2
38	BP	11	GLU	3.2
43	BU	6	HIS	3.2
5	CE	86	ALA	3.2
4	CD	17	VAL	3.2
25	BC	36	PRO	3.2
37	DO	91	PRO	3.2
9	AI	105	ASP	3.2
9	CI	11	LYS	3.2
14	CN	58	LYS	3.2
34	DL	109	GLY	3.2
3	CC	201	TYR	3.2
30	DH	89	TYR	3.2
36	DN	105	ARG	3.2
25	DC	220	HIS	3.2
4	AD	71	SER	3.2
17	CQ	28	PRO	3.2
35	DM	7	MET	3.2
1	CA	1394	A	3.2
25	DC	255	LYS	3.2
1	AA	28	G	3.2
1	CA	1187	G	3.2
9	AI	40	LEU	3.2
18	AR	78	LEU	3.2
27	BE	185	ASP	3.2
43	BU	62	GLU	3.2
9	AI	126	SER	3.2

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Mol	Chain	Res	Type	RSRZ
20	AT	65	LYS	3.2
40	DR	78	LYS	3.2
14	CN	7	ILE	3.2
23	DA	1640	C	3.2
30	BH	95	LYS	3.2
30	BH	119	PRO	3.2
43	BU	82	PRO	3.2
1	AA	1186	G	3.2
1	CA	29	G	3.2
1	CA	530	G	3.2
4	CD	12	CYS	3.2
10	CJ	50	ILE	3.2
11	AK	126	ARG	3.2
43	DU	86	ARG	3.2
11	CK	82	VAL	3.2
30	BH	92	VAL	3.2
43	DU	49	VAL	3.2
43	DU	85	VAL	3.2
18	AR	44	LEU	3.2
23	DA	1453	A	3.1
23	DA	1880	C	3.1
25	BC	40	THR	3.1
39	DQ	19	LYS	3.1
53	B5	52	LYS	3.1
9	CI	12	GLU	3.1
30	BH	20	ASP	3.1
47	BY	6	VAL	3.1
1	AA	631	G	3.1
23	BA	2319	G	3.1
23	DA	2334	G	3.1
18	AR	75	ILE	3.1
9	AI	128	ARG	3.1
11	CK	126	ARG	3.1
22	CV	6191	U	3.1
20	CT	54	LYS	3.1
20	AT	12	ALA	3.1
26	BD	157	ALA	3.1
26	BD	184	VAL	3.1
30	DH	9	LEU	3.1
39	BQ	60	LEU	3.1
1	CA	1183	A	3.1
8	AH	35	ILE	3.1

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Mol	Chain	Res	Type	RSRZ
25	DC	53	PHE	3.1
20	AT	29	LYS	3.1
1	CA	306	G	3.1
1	CA	331	G	3.1
4	AD	72	GLU	3.1
23	DA	271(D)	U	3.1
37	BO	39	ILE	3.1
4	CD	22	LYS	3.1
10	CJ	46	ARG	3.1
11	CK	123	LYS	3.1
14	CN	23	ARG	3.1
16	AP	12	LYS	3.1
36	BN	17	ARG	3.1
1	CA	609	A	3.1
23	BA	1847	A	3.1
23	BA	2402	C	3.1
23	DA	2107	C	3.1
38	DP	106	SER	3.1
43	BU	43	ASN	3.1
29	DG	102	ALA	3.1
25	BC	83	GLU	3.1
36	DN	43	GLU	3.1
53	D5	63	PRO	3.1
34	DL	44	GLY	3.1
1	CA	551	U	3.1
10	CJ	33	GLN	3.1
1	CA	973	G	3.1
2	CB	214	ILE	3.1
5	AE	21	ALA	3.1
26	BD	121	ASN	3.1
36	DN	109	ALA	3.1
37	DO	28	VAL	3.1
4	CD	73	ARG	3.1
10	CJ	5	ARG	3.1
16	CP	25	ARG	3.1
1	AA	1000	A	3.1
24	BB	52	A	3.1
16	CP	6	LEU	3.1
1	CA	1149	C	3.1
9	CI	117	HIS	3.1
29	BG	49	VAL	3.0
30	BH	145	VAL	3.0

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Mol	Chain	Res	Type	RSRZ
37	BO	92	TYR	3.0
1	CA	1351	U	3.0
4	CD	120	LEU	3.0
30	BH	6	LEU	3.0
1	CA	976	G	3.0
23	BA	11	G	3.0
23	DA	1465	G	3.0
46	DX	19	GLN	3.0
37	BO	85	VAL	3.0
7	AG	4	ARG	3.0
8	AH	94	TYR	3.0
36	DN	17	ARG	3.0
52	D4	23	ARG	3.0
1	CA	990	C	3.0
3	CC	9	GLY	3.0
26	DD	186	GLY	3.0
27	DE	96	ASP	3.0
3	CC	152	ILE	3.0
9	AI	63	ILE	3.0
30	BH	94	ALA	3.0
25	DC	239	ARG	3.0
26	BD	151	TYR	3.0
35	BM	103	MET	3.0
37	BO	73	LEU	3.0
1	AA	1291	G	3.0
17	CQ	7	THR	3.0
20	CT	18	GLN	3.0
34	BL	107	LYS	3.0
14	CN	30	ALA	3.0
23	DA	2402	C	3.0
38	DP	93	ARG	3.0
39	DQ	59	ARG	3.0
41	DS	90	ARG	3.0
26	DD	121	ASN	3.0
30	BH	107	ILE	3.0
26	BD	24	THR	3.0
2	AB	43	ASP	3.0
4	CD	21	LEU	3.0
5	AE	19	MET	3.0
30	BH	77	LEU	3.0
9	CI	10	ARG	3.0
20	CT	17	ARG	3.0

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Mol	Chain	Res	Type	RSRZ
47	BY	13	ALA	3.0
1	AA	108	G	3.0
1	AA	965	A	3.0
12	CL	97	TYR	3.0
23	DA	1641	A	3.0
26	DD	151	TYR	3.0
4	CD	60	GLU	3.0
8	AH	99	GLU	3.0
51	B3	40	CYS	3.0
11	AK	123	LYS	3.0
51	B3	25	LYS	3.0
1	CA	985	C	3.0
4	CD	16	GLY	3.0
4	CD	95	GLY	3.0
30	BH	128	LEU	3.0
3	CC	66	VAL	3.0
9	CI	14	VAL	3.0
14	AN	18	VAL	3.0
46	DX	20	ARG	3.0
23	DA	2585	U	3.0
26	BD	160	TYR	2.9
44	DV	97	GLU	2.9
29	BG	64	LEU	2.9
3	CC	159	GLY	2.9
35	DM	100	GLY	2.9
9	CI	7	THR	2.9
36	DN	68	ARG	2.9
1	AA	971	G	2.9
1	AA	5	U	2.9
3	CC	167	TRP	2.9
44	DV	88	PHE	2.9
3	CC	207	VAL	2.9
30	DH	86	THR	2.9
15	CO	48	LYS	2.9
28	DF	75	LYS	2.9
40	DR	84	LYS	2.9
41	BS	82	LEU	2.9
30	DH	7	GLU	2.9
20	CT	56	MET	2.9
16	AP	59	TRP	2.9
1	CA	502	G	2.9
23	DA	363(A)	G	2.9

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Mol	Chain	Res	Type	RSRZ
1	CA	934	C	2.9
22	CV	6190	C	2.9
27	BE	58	ALA	2.9
43	BU	65	ALA	2.9
53	B5	36	LYS	2.9
1	AA	1065	U	2.9
1	CA	982	U	2.9
8	CH	109	ILE	2.9
12	CL	84	ILE	2.9
23	BA	2585	U	2.9
36	BN	4	LEU	2.9
39	DQ	97	ASP	2.9
51	D3	49	HIS	2.9
4	CD	3	ARG	2.9
27	BE	37	VAL	2.9
34	DL	82	GLY	2.9
9	CI	116	LYS	2.9
20	CT	29	LYS	2.9
45	DW	61	ALA	2.9
23	BA	2448	A	2.9
23	DA	2820	A	2.9
39	BQ	52	ARG	2.9
45	BW	41	ARG	2.9
53	D5	57	ARG	2.9
1	CA	754	C	2.9
1	CA	793	U	2.9
20	CT	21	LYS	2.9
22	CV	6167	G	2.9
25	DC	166	GLN	2.9
32	BJ	59	GLY	2.9
39	DQ	90	VAL	2.9
43	DU	19	LYS	2.9
44	BV	96	VAL	2.9
12	CL	60	THR	2.9
10	AJ	74	ILE	2.9
46	BX	37	ILE	2.9
53	D5	48	PHE	2.9
3	AC	164	ARG	2.9
12	CL	93	PRO	2.9
35	DM	16	ARG	2.9
39	DQ	58	ARG	2.9
40	BR	81	TYR	2.9

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Mol	Chain	Res	Type	RSRZ
11	AK	22	HIS	2.8
26	DD	192	ASN	2.9
1	CA	969	A	2.8
23	BA	960	A	2.8
39	BQ	91	ASP	2.8
35	BM	90	VAL	2.8
14	CN	2	ALA	2.8
2	CB	101	MET	2.8
23	DA	2390	U	2.8
23	BA	2108	C	2.8
23	DA	1644	C	2.8
1	CA	933	G	2.8
16	CP	17	TYR	2.8
24	DB	54	G	2.8
36	DN	21	TYR	2.8
46	DX	92	LYS	2.8
5	CE	139	LEU	2.8
24	DB	53	A	2.8
44	DV	72	ARG	2.8
47	DY	14	ARG	2.8
4	AD	152	SER	2.8
7	CG	101	LEU	2.8
8	AH	129	VAL	2.8
15	CO	52	SER	2.8
35	DM	112	GLU	2.8
1	AA	1358	U	2.8
1	CA	1148	U	2.8
26	BD	20	ALA	2.8
42	BT	6	ASP	2.8
44	DV	164	ALA	2.8
1	CA	868	C	2.8
14	AN	61	TRP	2.8
12	CL	90	LYS	2.8
1	AA	731	G	2.8
1	CA	670	G	2.8
16	CP	28	ARG	2.8
36	BN	9	LYS	2.8
52	B4	2	LYS	2.8
23	BA	2805	G	2.8
4	AD	94	LEU	2.8
29	BG	67	LEU	2.8
7	CG	77	SER	2.8

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Mol	Chain	Res	Type	RSRZ
28	DF	160	VAL	2.8
12	AL	13	GLY	2.8
30	BH	84	GLY	2.8
10	CJ	48	THR	2.8
20	CT	71	THR	2.8
20	CT	73	HIS	2.8
46	BX	48	LYS	2.8
20	CT	80	ARG	2.8
27	BE	44	ARG	2.8
41	BS	84	ARG	2.8
46	BX	61	ARG	2.8
1	CA	84	U	2.8
19	CS	49	ILE	2.8
7	AG	11	GLN	2.8
30	DH	84	GLY	2.8
46	DX	27	GLU	2.8
4	AD	22	LYS	2.8
26	BD	155	LYS	2.8
1	CA	491	G	2.8
23	DA	2661	G	2.8
41	DS	94	ASP	2.8
42	BT	68	ARG	2.8
44	BV	76	LEU	2.8
47	BY	21	LEU	2.8
1	CA	968	A	2.8
4	CD	62	GLN	2.8
28	BF	84	LYS	2.8
33	BK	82	ASN	2.8
46	BX	75	GLU	2.8
43	BU	34	LYS	2.8
14	CN	41	ARG	2.7
15	AO	51	HIS	2.7
20	CT	23	ARG	2.7
25	DC	213	ARG	2.7
44	DV	81	ARG	2.7
46	BX	40	ARG	2.7
53	D5	46	ARG	2.7
37	DO	40	ILE	2.7
4	AD	31	CYS	2.7
23	BA	2456	C	2.7
8	CH	97	VAL	2.7
10	AJ	59	SER	2.7

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Mol	Chain	Res	Type	RSRZ
3	AC	2	GLY	2.7
12	CL	71	GLY	2.7
1	CA	391	G	2.7
1	CA	550	G	2.7
1	CA	1186	G	2.7
9	CI	103	THR	2.7
4	CD	157	LEU	2.7
34	DL	18	ARG	2.7
34	DL	65	ARG	2.7
1	CA	109	A	2.7
2	CB	140	HIS	2.7
40	BR	87	HIS	2.7
24	BB	1	U	2.7
43	DU	95	LYS	2.7
35	BM	9	TYR	2.7
16	AP	64	ALA	2.7
30	DH	122	GLU	2.7
35	BM	139	GLU	2.7
30	BH	27	ARG	2.7
38	DP	112	ARG	2.7
30	DH	109	ILE	2.7
4	CD	84	LYS	2.7
28	DF	36	LYS	2.7
39	DQ	93	LYS	2.7
40	DR	73	SER	2.7
1	CA	32	A	2.7
1	CA	1353	G	2.7
9	AI	61	ALA	2.7
9	CI	125	TYR	2.7
17	CQ	8	GLY	2.7
19	AS	71	LEU	2.7
23	BA	2807	G	2.7
23	DA	1542	G	2.7
23	DA	2450	A	2.7
30	BH	38	LEU	2.7
37	DO	38	GLN	2.7
38	BP	114	LEU	2.7
46	DX	95	LEU	2.7
26	DD	131	ALA	2.7
29	BG	149	ARG	2.7
39	BQ	36	ARG	2.7
52	B4	41	ARG	2.7

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Mol	Chain	Res	Type	RSRZ
1	AA	950	U	2.7
42	BT	58	HIS	2.7
43	BU	33	LYS	2.7
46	DX	33	LYS	2.7
13	AM	117	VAL	2.7
45	DW	56	ASP	2.7
1	CA	110	C	2.7
1	CA	307	C	2.7
8	CH	119	LEU	2.7
24	BB	90	C	2.7
3	CC	193	TYR	2.7
17	CQ	32	TYR	2.7
19	CS	81	ARG	2.7
37	BO	102	ALA	2.7
43	BU	48	ALA	2.7
47	BY	59	ARG	2.7
35	DM	105	GLU	2.7
43	DU	64	GLU	2.7
20	CT	30	LYS	2.7
50	D2	3	LYS	2.7
1	AA	1323	G	2.7
1	CA	38	G	2.7
1	CA	41	G	2.7
8	AH	2	LEU	2.7
11	AK	109	VAL	2.7
1	CA	723	U	2.7
23	BA	2187	G	2.7
24	BB	118	G	2.7
4	CD	209	ARG	2.7
42	DT	60	ARG	2.7
46	DX	26	ARG	2.7
52	B4	23	ARG	2.7
11	CK	19	ALA	2.7
12	CL	62	GLY	2.7
13	CM	2	ALA	2.7
14	CN	28	GLY	2.7
35	BM	24	GLY	2.7
1	CA	967	C	2.7
30	BH	12	LEU	2.7
47	DY	21	LEU	2.7
7	AG	5	ARG	2.6
9	AI	81	ILE	2.6

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Mol	Chain	Res	Type	RSRZ
15	AO	54	ARG	2.6
19	CS	40	ILE	2.6
44	DV	118	GLN	2.6
16	CP	56	ALA	2.6
18	AR	77	GLY	2.6
20	CT	103	GLY	2.6
29	BG	150	ALA	2.6
6	AF	92	LYS	2.6
12	AL	20	LYS	2.6
26	BD	107	THR	2.6
34	DL	107	LYS	2.6
42	BT	33	LYS	2.6
37	DO	87	PHE	2.6
43	DU	89	PHE	2.6
27	DE	13	SER	2.6
43	BU	24	VAL	2.6
4	CD	118	ARG	2.6
26	BD	132	HIS	2.6
51	B3	49	HIS	2.6
4	CD	48	ALA	2.6
7	AG	7	ALA	2.6
9	AI	84	ALA	2.6
35	DM	12	GLN	2.6
4	AD	84	LYS	2.6
4	CD	30	LYS	2.6
21	CU	4	GLY	2.6
43	BU	19	LYS	2.6
44	BV	182	LYS	2.6
9	AI	36	TYR	2.6
1	CA	40	C	2.6
42	DT	38	GLU	2.6
13	CM	102	ARG	2.6
23	BA	1128	A	2.6
30	BH	33	ARG	2.6
43	BU	61	ILE	2.6
37	BO	91	PRO	2.6
50	D2	23	HIS	2.6
1	CA	1281	U	2.6
53	D5	29	LYS	2.6
21	AU	2	GLY	2.6
30	BH	100	ALA	2.6
35	BM	115	MET	2.6

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Mol	Chain	Res	Type	RSRZ
34	BL	88	LEU	2.6
45	BW	10	THR	2.6
34	DL	51	PHE	2.6
1	CA	610	G	2.6
1	CA	1356	G	2.6
24	DB	89(A)	G	2.6
38	DP	21	GLU	2.6
7	CG	66	VAL	2.6
35	BM	131	ILE	2.6
35	DM	90	VAL	2.6
37	BO	20	ARG	2.6
27	BE	144	LYS	2.6
29	BG	90	LYS	2.6
1	CA	501	C	2.6
1	CA	514	C	2.6
1	CA	1209	C	2.6
1	CA	1389	C	2.6
52	D4	45	ALA	2.6
2	AB	48	MET	2.6
17	CQ	22	LEU	2.6
35	DM	115	MET	2.6
44	DV	117	LEU	2.6
11	AK	125	PHE	2.6
12	CL	121	THR	2.6
1	AA	787	A	2.6
1	AA	1492	A	2.6
1	CA	389	A	2.6
33	BK	9	GLU	2.6
42	BT	38	GLU	2.6
44	BV	178	GLU	2.6
10	CJ	59	SER	2.6
12	CL	6	ILE	2.6
17	CQ	91	ARG	2.6
19	AS	9	VAL	2.6
34	DL	71	VAL	2.6
44	BV	53	ILE	2.6
3	AC	162	GLN	2.6
9	AI	73	GLN	2.6
17	CQ	82	MET	2.6
26	BD	187	ALA	2.6
27	BE	69	HIS	2.6
1	CA	69	G	2.6

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Mol	Chain	Res	Type	RSRZ
1	CA	293	G	2.6
1	CA	388	G	2.6
1	CA	515	G	2.6
1	CA	542	G	2.6
1	CA	971	G	2.6
17	CQ	36	ILE	2.6
46	BX	27	GLU	2.6
1	CA	1096	C	2.6
9	CI	121	ARG	2.6
23	BA	2517	C	2.6
28	DF	116	ASP	2.6
42	BT	76	ARG	2.6
43	BU	101	LYS	2.6
2	CB	215	LEU	2.6
4	CD	135	LEU	2.6
17	CQ	6	LEU	2.6
40	BR	71	LEU	2.6
42	DT	92	LEU	2.6
1	AA	733	A	2.6
20	CT	76	ALA	2.6
9	AI	68	GLY	2.6
38	DP	22	PHE	2.6
42	BT	69	TYR	2.5
2	CB	169	LYS	2.5
2	CB	170	GLU	2.5
11	AK	124	LYS	2.5
29	DG	58	GLU	2.5
10	AJ	72	VAL	2.5
29	BG	131	VAL	2.5
30	DH	110	ASP	2.5
1	AA	38	G	2.5
1	AA	92	G	2.5
1	AA	951	G	2.5
1	CA	61	G	2.5
1	CA	664	G	2.5
1	CA	1202	G	2.5
4	CD	160	GLN	2.5
23	DA	1115	G	2.5
1	AA	88	C	2.5
1	AA	1116	C	2.5
1	CA	136	C	2.5
15	CO	25	THR	2.5

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Mol	Chain	Res	Type	RSRZ
47	DY	15	LYS	2.5
3	CC	127	ARG	2.5
5	AE	18	ARG	2.5
16	AP	71	ARG	2.5
48	BZ	55	ARG	2.5
17	CQ	9	VAL	2.5
1	AA	766	A	2.5
12	AL	26	LEU	2.5
23	DA	1130	U	2.5
31	BI	10	LEU	2.5
16	AP	1	MET	2.5
30	DH	1	MET	2.5
30	DH	20	ASP	2.5
19	AS	75	ALA	2.5
43	BU	66	PRO	2.5
44	DV	167	PRO	2.5
2	AB	201	ILE	2.5
4	CD	61	LYS	2.5
16	CP	36	ILE	2.5
25	BC	255	LYS	2.5
25	DC	38	LYS	2.5
32	DJ	132	LYS	2.5
34	DL	76	LYS	2.5
3	CC	165	THR	2.5
15	AO	69	TYR	2.5
21	CU	18	TYR	2.5
6	AF	91	VAL	2.5
12	CL	9	LEU	2.5
17	CQ	58	GLU	2.5
28	DF	29	TRP	2.5
20	AT	26	ASN	2.5
23	DA	1421	G	2.5
23	DA	2655	G	2.5
23	BA	914	C	2.5
23	BA	1983	C	2.5
24	DB	90	C	2.5
13	CM	30	ALA	2.5
38	BP	90	GLN	2.5
1	AA	1281	U	2.5
1	AA	1364	U	2.5
1	CA	1150	U	2.5
1	CA	1289	A	2.5

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Mol	Chain	Res	Type	RSRZ
23	BA	271(D)	U	2.5
23	BA	412	A	2.5
23	DA	1033	U	2.5
7	AG	16	LEU	2.5
20	CT	24	LEU	2.5
30	DH	101	LEU	2.5
10	CJ	24	VAL	2.5
2	CB	97	TRP	2.5
13	CM	73	GLU	2.5
30	DH	70	GLU	2.5
12	CL	22	LYS	2.5
32	BJ	52	LYS	2.5
37	BO	19	LYS	2.5
46	BX	13	ILE	2.5
9	AI	42	ARG	2.5
20	CT	72	LEU	2.5
36	DN	104	ARG	2.5
44	DV	82	ARG	2.5
4	AD	207	TYR	2.5
30	BH	136	VAL	2.5
43	BU	42	VAL	2.5
1	AA	1317	C	2.5
1	CA	400	C	2.5
1	AA	1353	G	2.5
1	CA	410	G	2.5
1	CA	823	G	2.5
17	AQ	58	GLU	2.5
23	BA	82	G	2.5
24	DB	87	G	2.5
53	D5	54	GLU	2.5
1	AA	50	A	2.5
1	CA	408	A	2.5
4	CD	182	LYS	2.5
23	DA	1919	A	2.5
34	BL	39	LYS	2.5
52	D4	32	LYS	2.5
4	CD	51	PRO	2.5
16	CP	15	PRO	2.5
3	CC	30	ARG	2.5
33	BK	80	ASP	2.5
38	DP	115	ARG	2.5
52	D4	41	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
34	DL	42	SER	2.5
9	AI	17	VAL	2.5
11	AK	80	VAL	2.5
29	DG	113	VAL	2.5
6	AF	63	TYR	2.5
42	DT	69	TYR	2.5
3	CC	161	GLU	2.4
18	AR	81	PHE	2.4
27	BE	56	GLU	2.4
30	BH	118	LYS	2.4
48	DZ	17	LYS	2.4
39	BQ	44	ASN	2.4
13	AM	97	PRO	2.4
20	AT	72	LEU	2.4
30	DH	12	LEU	2.4
44	DV	125	LEU	2.4
3	AC	96	GLY	2.4
1	AA	503	C	2.4
1	CA	726	C	2.4
23	DA	270(Q)	C	2.4
24	DB	30	C	2.4
1	AA	978	A	2.4
1	AA	1357	A	2.4
1	CA	547	A	2.4
1	CA	755	G	2.4
1	CA	1418	A	2.4
23	BA	764	A	2.4
23	DA	2318	G	2.4
24	DB	118	G	2.4
29	BG	115	VAL	2.4
14	CN	34	TYR	2.4
21	CU	12	LYS	2.4
10	AJ	62	HIS	2.4
17	CQ	86	GLU	2.4
30	DH	41	GLU	2.4
18	CR	79	LEU	2.4
28	DF	26	GLN	2.4
43	DU	78	ALA	2.4
15	CO	72	ARG	2.4
21	CU	7	ARG	2.4
41	DS	8	ARG	2.4
45	BW	32	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
2	CB	203	GLY	2.4
4	CD	165	MET	2.4
42	DT	75	ASP	2.4
5	CE	90	VAL	2.4
25	DC	59	LYS	2.4
28	DF	28	VAL	2.4
3	AC	10	PHE	2.4
28	DF	74	LYS	2.4
48	BZ	17	LYS	2.4
4	AD	54	TYR	2.4
51	D3	39	TYR	2.4
5	AE	12	LEU	2.4
1	AA	1325	C	2.4
2	CB	188	ALA	2.4
11	CK	65	ALA	2.4
23	DA	958	U	2.4
34	BL	68	GLN	2.4
37	BO	15	ARG	2.4
37	DO	15	ARG	2.4
42	DT	68	ARG	2.4
1	CA	935	A	2.4
7	AG	84	ASN	2.4
38	DP	104	ASN	2.4
1	CA	80	G	2.4
11	CK	122	LYS	2.4
40	DR	69	LYS	2.4
51	B3	23	THR	2.4
29	BG	52	VAL	2.4
37	BO	14	VAL	2.4
43	DU	38	ILE	2.4
9	AI	19	LEU	2.4
25	DC	33	LEU	2.4
29	BG	94	TYR	2.4
40	DR	94	LEU	2.4
43	DU	91	GLU	2.4
4	CD	139	ARG	2.4
9	AI	13	ALA	2.4
9	AI	111	ARG	2.4
16	CP	5	ARG	2.4
25	DC	240	ALA	2.4
34	DL	33	ARG	2.4
36	BN	105	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
38	DP	91	ARG	2.4
37	BO	81	GLY	2.4
43	BU	41	GLY	2.4
43	DU	56	PRO	2.4
12	AL	19	LYS	2.4
17	CQ	34	LYS	2.4
50	B2	3	LYS	2.4
8	CH	19	VAL	2.4
13	CM	117	VAL	2.4
28	BF	162	THR	2.4
29	DG	49	VAL	2.4
8	CH	111	ILE	2.4
19	AS	49	ILE	2.4
23	BA	362	U	2.4
13	AM	96	LEU	2.4
1	CA	295	C	2.4
1	CA	1298	C	2.4
1	CA	1285	A	2.4
21	AU	18	TYR	2.4
30	DH	25	TYR	2.4
42	BT	26	TYR	2.4
5	CE	27	ARG	2.4
25	BC	181	GLU	2.4
25	DC	263	ARG	2.4
26	DD	76	ARG	2.4
44	DV	169	GLU	2.4
48	DZ	34	GLU	2.4
33	BK	1	MET	2.4
39	DQ	14	HIS	2.4
1	AA	1139	G	2.4
17	CQ	87	LYS	2.4
23	BA	1056	G	2.4
23	DA	11	G	2.4
50	D2	47	PRO	2.4
11	CK	125	PHE	2.4
7	AG	9	VAL	2.4
7	CG	50	ILE	2.4
30	DH	93	THR	2.4
32	BJ	96	THR	2.4
10	AJ	85	LEU	2.4
2	CB	137	ARG	2.4
28	BF	16	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
32	DJ	138	ARG	2.4
35	BM	16	ARG	2.4
39	BQ	59	ARG	2.4
42	BT	65	ARG	2.4
53	B5	57	ARG	2.4
38	BP	1	MET	2.4
3	AC	150	LYS	2.4
20	AT	74	LYS	2.4
27	DE	68	LYS	2.4
37	DO	93	LYS	2.4
23	DA	2189	U	2.3
4	AD	9	CYS	2.3
27	BE	139	PHE	2.3
1	AA	655	A	2.3
1	AA	974	A	2.3
1	AA	1111	A	2.3
1	CA	106	C	2.3
1	CA	393	A	2.3
1	CA	1101	A	2.3
23	BA	2062	A	2.3
23	DA	2062	A	2.3
23	DA	2892	A	2.3
42	BT	70	LEU	2.3
5	AE	100	VAL	2.3
8	AH	53	VAL	2.3
30	BH	81	VAL	2.3
51	B3	48	VAL	2.3
25	DC	176	ARG	2.3
2	AB	148	TYR	2.3
20	CT	74	LYS	2.3
23	DA	1933	G	2.3
24	DB	7	G	2.3
25	DC	258	LYS	2.3
2	AB	218	ALA	2.3
11	CK	64	ALA	2.3
26	DD	114	ALA	2.3
45	DW	85	ALA	2.3
47	DY	12	GLU	2.3
26	DD	113	PHE	2.3
6	CF	52	ILE	2.3
13	AM	113	PRO	2.3
29	DG	12	PRO	2.3

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Mol	Chain	Res	Type	RSRZ
40	DR	87	HIS	2.3
17	CQ	97	SER	2.3
37	DO	27	SER	2.3
44	BV	166	SER	2.3
4	CD	161	ASN	2.3
8	CH	93	VAL	2.3
43	DU	83	THR	2.3
1	AA	723	U	2.3
1	AA	1125	U	2.3
3	CC	172	ARG	2.3
23	DA	1105	U	2.3
37	DO	23	ARG	2.3
48	DZ	55	ARG	2.3
25	BC	38	LYS	2.3
42	DT	63	LYS	2.3
53	B5	15	LYS	2.3
9	CI	114	TYR	2.3
18	AR	34	TYR	2.3
1	AA	91	C	2.3
1	CA	744	C	2.3
1	CA	1100	C	2.3
12	CL	72	GLU	2.3
22	CV	6151	C	2.3
23	BA	277	C	2.3
24	DB	29	A	2.3
26	DD	171	GLU	2.3
27	BE	96	ASP	2.3
43	DU	57	GLN	2.3
4	AD	21	LEU	2.3
4	AD	110	PHE	2.3
9	CI	50	LEU	2.3
32	DJ	124	HIS	2.3
34	DL	69	GLY	2.3
9	CI	17	VAL	2.3
42	BT	52	VAL	2.3
13	AM	111	LYS	2.3
14	AN	17	LYS	2.3
44	DV	79	ARG	2.3
1	AA	1127	G	2.3
1	CA	108	G	2.3
23	DA	1776	G	2.3
13	AM	56	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
14	CN	20	ALA	2.3
16	CP	70	ALA	2.3
38	DP	94	ALA	2.3
4	CD	150	GLU	2.3
25	BC	237	GLU	2.3
47	BY	31	GLU	2.3
1	CA	531	U	2.3
1	CA	1126	U	2.3
26	BD	29	GLY	2.3
46	BX	31	GLY	2.3
9	CI	108	VAL	2.3
15	CO	46	HIS	2.3
44	BV	128	VAL	2.3
32	DJ	96	THR	2.3
1	CA	787	A	2.3
8	CH	92	ARG	2.3
20	AT	15	ARG	2.3
1	CA	1317	C	2.3
23	DA	2803	C	2.3
23	DA	2827	C	2.3
4	CD	162	LEU	2.3
32	BJ	105	LEU	2.3
40	DR	71	LEU	2.3
44	BV	183	LEU	2.3
51	B3	10	LEU	2.3
16	CP	19	ILE	2.3
25	BC	64	ILE	2.3
32	BJ	95	TYR	2.3
43	BU	44	ILE	2.3
29	BG	124	GLU	2.3
40	DR	93	GLU	2.3
25	BC	66	ASP	2.3
19	AS	41	VAL	2.3
31	BI	7	VAL	2.3
33	DK	27	GLY	2.3
37	DO	45	GLY	2.3
34	BL	17	LYS	2.3
40	DR	68	LYS	2.3
3	CC	177	THR	2.3
5	CE	14	ARG	2.3
11	CK	117	ASN	2.3
20	AT	75	ASN	2.3

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Mol	Chain	Res	Type	RSRZ
38	DP	2	ASN	2.3
38	DP	3	ARG	2.3
53	B5	46	ARG	2.3
1	AA	1042	G	2.3
1	CA	230	G	2.3
23	BA	1772	G	2.3
23	DA	2319	G	2.3
23	DA	2659	G	2.3
13	AM	19	LEU	2.3
17	CQ	43	LEU	2.3
5	CE	118	ILE	2.3
9	AI	37	PHE	2.3
7	CG	2	ALA	2.3
11	AK	25	TYR	2.3
12	CL	63	TYR	2.3
14	AN	10	ALA	2.3
1	CA	572	A	2.3
1	CA	663	A	2.3
15	CO	41	GLU	2.3
23	BA	896	A	2.3
28	DF	137	GLU	2.3
30	BH	7	GLU	2.3
44	BV	190	GLU	2.3
1	AA	883	C	2.3
1	CA	330	C	2.3
1	CA	543	C	2.3
1	CA	1344	C	2.3
9	CI	113	LYS	2.3
16	CP	3	LYS	2.3
21	CU	23	PRO	2.3
28	BF	74	LYS	2.3
30	DH	95	LYS	2.3
37	DO	90	GLY	2.3
43	BU	81	LYS	2.3
51	D3	25	LYS	2.3
4	AD	102	ASP	2.3
37	BO	89	ARG	2.3
37	DO	88	ASP	2.3
50	B2	4	HIS	2.2
50	B2	23	HIS	2.2
5	CE	91	LEU	2.2
20	CT	84	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
26	BD	26	ILE	2.2
53	B5	35	GLN	2.2
32	BJ	107	LYS	2.2
1	CA	1368	G	2.2
5	AE	22	GLY	2.2
23	BA	1416	G	2.2
23	BA	1530	G	2.2
23	BA	2506	U	2.2
23	DA	2446	G	2.2
25	BC	47	GLY	2.2
44	BV	39	VAL	2.2
44	DV	27	VAL	2.2
45	BW	53	MET	2.2
13	AM	104	ARG	2.2
17	AQ	38	ARG	2.2
26	DD	149	ARG	2.2
39	BQ	58	ARG	2.2
39	DQ	12	ARG	2.2
45	DW	44	ARG	2.2
7	CG	33	ASP	2.2
15	AO	57	LEU	2.2
35	DM	25	ASP	2.2
51	D3	23	THR	2.2
14	CN	49	HIS	2.2
34	BL	51	PHE	2.2
1	CA	26	A	2.2
19	CS	50	ALA	2.2
2	AB	133	LYS	2.2
9	CI	124	GLN	2.2
25	BC	68	LYS	2.2
38	DP	90	GLN	2.2
43	BU	88	LYS	2.2
46	BX	39	LYS	2.2
14	CN	32	SER	2.2
26	DD	128	SER	2.2
28	BF	76	SER	2.2
12	AL	72	GLU	2.2
9	CI	115	GLY	2.2
12	CL	33	ARG	2.2
2	CB	187	LEU	2.2
29	DG	67	LEU	2.2
30	DH	137	PRO	2.2

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Mol	Chain	Res	Type	RSRZ
4	AD	26	CYS	2.2
51	B3	13	CYS	2.2
46	DX	35	THR	2.2
3	CC	10	PHE	2.2
4	AD	53	ASP	2.2
25	DC	271	ILE	2.2
4	AD	93	PHE	2.2
32	BJ	68	ASN	2.2
1	AA	982	U	2.2
16	CP	27	LYS	2.2
17	CQ	67	LYS	2.2
53	D5	34	TRP	2.2
1	AA	105	G	2.2
1	CA	324	G	2.2
1	CA	492	G	2.2
1	CA	742	G	2.2
23	BA	1022	G	2.2
2	CB	145	LEU	2.2
27	DE	89	VAL	2.2
28	BF	72	ARG	2.2
30	BH	5	LEU	2.2
30	BH	75	LEU	2.2
43	BU	39	VAL	2.2
46	DX	21	ARG	2.2
12	AL	28	GLY	2.2
25	DC	30	GLU	2.2
32	BJ	111	GLU	2.2
19	AS	74	PHE	2.2
1	CA	63	C	2.2
1	CA	217	C	2.2
1	CA	1383	C	2.2
4	AD	77	ASN	2.2
23	BA	2586	C	2.2
23	DA	790	C	2.2
53	B5	39	LYS	2.2
26	BD	120	TRP	2.2
4	AD	76	ARG	2.2
26	DD	144	ARG	2.2
2	CB	71	VAL	2.2
9	AI	41	VAL	2.2
11	CK	114	VAL	2.2
19	CS	60	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
27	BE	105	VAL	2.2
4	CD	156	GLU	2.2
32	BJ	91	GLU	2.2
38	BP	48	ILE	2.2
40	DR	70	ILE	2.2
5	AE	121	LYS	2.2
43	BU	46	LYS	2.2
32	DJ	68	ASN	2.2
46	DX	16	ASN	2.2
5	AE	104	ALA	2.2
12	CL	91	ASP	2.2
1	CA	506	G	2.2
1	CA	1331	G	2.2
23	BA	2893	G	2.2
23	DA	270(O)	G	2.2
28	BF	19	LEU	2.2
53	D5	32	LEU	2.2
29	BG	60	ARG	2.2
35	BM	6	ARG	2.2
2	AB	164	VAL	2.2
9	AI	65	VAL	2.2
9	CI	109	VAL	2.2
11	CK	80	VAL	2.2
13	AM	87	TYR	2.2
30	BH	142	VAL	2.2
1	AA	390	C	2.2
1	AA	934	C	2.2
1	CA	58	C	2.2
1	CA	308	C	2.2
1	CA	355	C	2.2
1	CA	545	C	2.2
2	AB	200	ILE	2.2
2	CB	172	ILE	2.2
2	AB	26	PRO	2.2
11	AK	17	GLY	2.2
12	CL	70	PRO	2.2
23	BA	279	C	2.2
23	DA	1879	C	2.2
25	DC	235	GLY	2.2
2	AB	22	LYS	2.2
20	AT	14	LYS	2.2
39	DQ	54	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
3	CC	189	ALA	2.1
9	CI	40	LEU	2.2
14	AN	30	ALA	2.1
27	BE	41	LEU	2.2
1	AA	1240	U	2.1
15	CO	35	ARG	2.1
16	AP	26	ARG	2.1
34	BL	77	ARG	2.1
36	BN	69	ASP	2.1
43	DU	2	ARG	2.1
47	DY	9	GLN	2.1
4	CD	104	VAL	2.1
20	CT	63	ILE	2.1
28	DF	88	ILE	2.1
5	CE	85	GLY	2.1
9	AI	116	LYS	2.1
14	AN	15	LYS	2.1
21	CU	2	GLY	2.1
25	BC	235	GLY	2.1
30	BH	2	LYS	2.1
32	BJ	106	LYS	2.1
33	DK	4	PRO	2.1
38	BP	73	GLU	2.1
38	DP	109	GLU	2.1
1	AA	923	A	2.1
23	BA	1495	A	2.1
1	AA	630	G	2.1
1	AA	1036	G	2.1
1	CA	1133	G	2.1
4	CD	101	LEU	2.1
25	BC	33	LEU	2.1
44	DV	28	MET	2.1
37	BO	51	ALA	2.1
38	DP	58	ASN	2.1
4	CD	14	ARG	2.1
32	BJ	97	ARG	2.1
1	CA	513	C	2.1
1	CA	1359	C	2.1
1	CA	1367	C	2.1
23	BA	1411	C	2.1
23	BA	2404	C	2.1
23	DA	791	C	2.1

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Mol	Chain	Res	Type	RSRZ
25	DC	12	SER	2.1
34	BL	70	GLN	2.1
44	BV	118	GLN	2.1
9	CI	28	VAL	2.1
16	CP	4	ILE	2.1
27	DE	82	ILE	2.1
29	BG	57	ASP	2.1
30	BH	71	ILE	2.1
32	BJ	73	ASP	2.1
37	DO	85	VAL	2.1
38	BP	50	ILE	2.1
43	BU	49	VAL	2.1
43	DU	44	ILE	2.1
4	CD	75	PHE	2.1
27	BE	184	TYR	2.1
30	DH	2	LYS	2.1
41	DS	98	LYS	2.1
2	AB	167	PRO	2.1
2	CB	202	PRO	2.1
28	DF	85	GLY	2.1
34	BL	20	GLY	2.1
41	DS	78	GLU	2.1
44	BV	119	GLU	2.1
1	CA	669	U	2.1
1	CA	1393	U	2.1
5	CE	24	ARG	2.1
13	AM	107	ALA	2.1
19	CS	75	ALA	2.1
25	DC	48	ARG	2.1
26	DD	204	ALA	2.1
36	BN	22	ARG	2.1
41	BS	93	ALA	2.1
39	BQ	80	ILE	2.1
43	BU	57	GLN	2.1
44	DV	146	ILE	2.1
6	AF	97	PHE	2.1
53	B5	59	LYS	2.1
23	BA	655	A	2.1
23	DA	2448	A	2.1
6	AF	50	TYR	2.1
9	AI	114	TYR	2.1
11	CK	42	TRP	2.1

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Mol	Chain	Res	Type	RSRZ
27	DE	97	TYR	2.1
25	BC	236	GLY	2.1
30	BH	90	GLY	2.1
47	BY	18	PRO	2.1
3	CC	12	LEU	2.1
12	CL	26	LEU	2.1
1	AA	727	G	2.1
1	AA	1182	G	2.1
1	CA	818	G	2.1
1	CA	902	G	2.1
1	CA	1504	G	2.1
23	DA	1044	G	2.1
23	DA	1591	G	2.1
30	BH	76	THR	2.1
1	CA	681	C	2.1
1	CA	1054	C	2.1
23	BA	271(B)	C	2.1
4	CD	115	ARG	2.1
21	CU	9	ARG	2.1
43	BU	23	ARG	2.1
46	BX	50	ARG	2.1
2	CB	29	ALA	2.1
5	CE	13	ILE	2.1
9	AI	29	ASN	2.1
25	BC	59	LYS	2.1
34	DL	137	LYS	2.1
40	BR	84	LYS	2.1
2	AB	165	VAL	2.1
6	CF	4	TYR	2.1
8	CH	133	LEU	2.1
9	AI	91	ASP	2.1
16	CP	32	TYR	2.1
30	DH	30	LEU	2.1
36	DN	107	ASP	2.1
41	BS	94	ASP	2.1
51	D3	21	TYR	2.1
53	B5	62	LEU	2.1
40	DR	36	PRO	2.1
4	CD	24	GLU	2.1
9	AI	48	GLU	2.1
11	CK	119	CYS	2.1
12	CL	15	GLU	2.1

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Mol	Chain	Res	Type	RSRZ
14	CN	13	THR	2.1
27	BE	35	GLU	2.1
36	DN	102	GLU	2.1
9	AI	121	ARG	2.1
14	CN	57	ARG	2.1
41	DS	92	ARG	2.1
1	CA	532	A	2.1
1	CA	983	A	2.1
2	AB	177	ALA	2.1
23	BA	1785	A	2.1
23	DA	359	A	2.1
26	DD	187	ALA	2.1
37	DO	18	ILE	2.1
8	AH	98	LYS	2.1
12	CL	16	LYS	2.1
10	AJ	76	ASN	2.1
40	BR	89	GLN	2.1
3	CC	153	VAL	2.1
17	CQ	56	VAL	2.1
14	CN	6	LEU	2.1
20	AT	20	LEU	2.1
25	DC	257	LEU	2.1
39	DQ	18	LEU	2.1
1	AA	312	C	2.1
1	CA	732	C	2.1
1	CA	396	G	2.1
1	CA	966	G	2.1
8	AH	131	GLY	2.1
19	AS	80	TYR	2.1
23	BA	280	C	2.1
23	DA	271(B)	C	2.1
23	BA	830	G	2.1
23	BA	2270	G	2.1
24	BB	89(A)	G	2.1
35	BM	83	MET	2.1
25	BC	171	ASP	2.1
36	DN	69	ASP	2.1
38	BP	4	GLY	2.1
12	AL	4	PRO	2.1
26	DD	74	PRO	2.1
38	DP	117	ASP	2.1
8	AH	24	THR	2.1

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Mol	Chain	Res	Type	RSRZ
28	BF	91	ARG	2.1
39	DQ	101	ARG	2.1
1	AA	952	U	2.1
1	AA	1091	U	2.1
23	BA	1023	U	2.1
23	DA	2506	U	2.1
25	BC	39	LYS	2.1
34	DL	29	LYS	2.1
43	DU	101	LYS	2.1
5	CE	58	ALA	2.1
30	DH	83	ALA	2.1
2	CB	152	PHE	2.1
4	CD	93	PHE	2.1
6	CF	94	GLN	2.1
9	CI	33	PHE	2.1
36	DN	71	GLN	2.1
44	BV	104	PHE	2.1
13	AM	106	ASN	2.1
29	DG	64	LEU	2.1
30	BH	9	LEU	2.1
30	BH	116	LEU	2.1
32	BJ	32	VAL	2.1
10	AJ	56	HIS	2.0
10	CJ	13	HIS	2.0
4	CD	29	PRO	2.0
23	BA	207	A	2.0
23	DA	887	A	2.0
23	DA	2693	A	2.0
30	BH	25	TYR	2.0
5	AE	15	ARG	2.0
8	CH	8	ASP	2.0
12	AL	91	ASP	2.0
26	DD	164	ARG	2.0
33	BK	37	ASP	2.0
41	BS	77	ASP	2.0
53	D5	39	LYS	2.0
9	AI	82	ALA	2.0
4	AD	75	PHE	2.0
14	CN	60	SER	2.0
27	BE	167	ALA	2.0
28	BF	171	ALA	2.0
29	BG	38	SER	2.0

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Mol	Chain	Res	Type	RSRZ
45	BW	18	ALA	2.0
1	AA	1249	C	2.0
1	AA	1384	C	2.0
1	CA	398	C	2.0
1	CA	503	C	2.0
9	CI	44	VAL	2.0
23	BA	268	C	2.0
23	BA	1982	C	2.0
23	DA	1464	C	2.0
43	DU	79	CYS	2.0
26	DD	116	VAL	2.0
44	DV	126	VAL	2.0
52	D4	46	VAL	2.0
1	CA	28	G	2.0
1	CA	402	G	2.0
1	CA	1198	G	2.0
1	CA	1258	G	2.0
23	BA	1347	G	2.0
23	BA	1933	G	2.0
23	DA	242	G	2.0
23	BA	90	U	2.0
23	DA	270(P)	U	2.0
44	DV	114	GLY	2.0
3	AC	167	TRP	2.0
4	CD	70	ILE	2.0
5	CE	18	ARG	2.0
10	CJ	56	HIS	2.0
19	CS	69	HIS	2.0
30	BH	29	TYR	2.0
41	DS	9	TYR	2.0
12	CL	69	ILE	2.0
14	AN	31	ARG	2.0
20	CT	79	ARG	2.0
27	DE	206	ILE	2.0
28	DF	84	LYS	2.0
34	BL	33	ARG	2.0
38	DP	125	ARG	2.0
42	BT	77	LYS	2.0
14	CN	8	GLU	2.0
25	BC	28	GLU	2.0
25	DC	28	GLU	2.0
26	DD	120	TRP	2.0

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Mol	Chain	Res	Type	RSRZ
29	BG	58	GLU	2.0
3	CC	160	ALA	2.0
3	CC	175	LEU	2.0
7	AG	83	ALA	2.0
1	AA	729	A	2.0
1	AA	1306	A	2.0
1	CA	1350	A	2.0
4	CD	74	GLN	2.0
14	CN	25	VAL	2.0
22	AV	6157	A	2.0
23	BA	149(B)	A	2.0
3	AC	13	GLY	2.0
3	AC	158	GLY	2.0
3	AC	152	ILE	2.0
12	AL	119	TYR	2.0
20	CT	57	ARG	2.0
30	BH	106	GLY	2.0
34	DL	16	ARG	2.0
35	BM	130	LYS	2.0
46	BX	9	GLY	2.0
41	DS	103	ILE	2.0
46	BX	12	PRO	2.0
1	CA	218	C	2.0
8	CH	99	GLU	2.0
23	DA	456	C	2.0
3	AC	17	ASP	2.0
9	CI	75	ASP	2.0
15	CO	49	ASP	2.0
28	BF	176	LEU	2.0
30	DH	31	LEU	2.0
16	CP	64	ALA	2.0
44	BV	179	ASP	2.0
47	BY	52	ASP	2.0
15	CO	45	VAL	2.0
29	BG	50	VAL	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
54	MG	AA	1688	1/1	-0.11	0.22	140,140,140,140	0
54	MG	CC	303	1/1	0.08	0.16	147,147,147,147	0
54	MG	DA	3585	1/1	0.08	0.22	154,154,154,154	0
54	MG	CA	1867	1/1	0.11	0.17	123,123,123,123	0
54	MG	CA	1704	1/1	0.17	0.14	140,140,140,140	0
54	MG	AA	1680	1/1	0.22	0.24	140,140,140,140	0
54	MG	CA	1919	1/1	0.23	0.17	145,145,145,145	0
54	MG	BB	216	1/1	0.26	0.50	154,154,154,154	0
54	MG	AA	1866	1/1	0.27	0.27	108,108,108,108	0
54	MG	BA	3393	1/1	0.27	0.12	136,136,136,136	0
54	MG	CM	202	1/1	0.31	0.10	164,164,164,164	0
54	MG	DA	3836	1/1	0.32	0.10	135,135,135,135	0
54	MG	CA	1912	1/1	0.34	0.10	138,138,138,138	0
54	MG	CE	204	1/1	0.35	0.10	109,109,109,109	0
54	MG	DA	3735	1/1	0.40	0.08	97,97,97,97	0
54	MG	DA	3509	1/1	0.41	0.18	148,148,148,148	0
54	MG	AG	202	1/1	0.41	0.34	129,129,129,129	0
54	MG	BA	3106	1/1	0.42	0.12	142,142,142,142	0
54	MG	DA	3063	1/1	0.43	0.57	126,126,126,126	0
54	MG	CA	1797	1/1	0.44	0.10	133,133,133,133	0
54	MG	CA	1629	1/1	0.45	0.18	93,93,93,93	0
54	MG	AA	1674	1/1	0.45	0.33	113,113,113,113	0
54	MG	DA	3668	1/1	0.46	0.35	133,133,133,133	0
54	MG	CA	1730	1/1	0.47	0.18	112,112,112,112	0
54	MG	CA	1820	1/1	0.47	0.27	99,99,99,99	0
54	MG	CA	1958	1/1	0.48	0.34	125,125,125,125	0
54	MG	AA	1857	1/1	0.50	0.16	103,103,103,103	0
54	MG	DA	3614	1/1	0.51	0.12	128,128,128,128	0
54	MG	BA	3397	1/1	0.51	0.08	125,125,125,125	0
54	MG	BA	3372	1/1	0.51	0.28	123,123,123,123	0
54	MG	CO	104	1/1	0.51	0.09	99,99,99,99	0
54	MG	CA	1793	1/1	0.52	0.22	125,125,125,125	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1723	1/1	0.52	0.20	126,126,126,126	0
54	MG	AA	1785	1/1	0.52	0.15	117,117,117,117	0
54	MG	AC	301	1/1	0.52	0.08	104,104,104,104	0
54	MG	CC	306	1/1	0.52	0.12	117,117,117,117	0
54	MG	BA	3202	1/1	0.53	0.17	126,126,126,126	0
54	MG	CA	1858	1/1	0.53	0.26	107,107,107,107	0
54	MG	BA	3070	1/1	0.53	0.16	85,85,85,85	0
54	MG	BJ	203	1/1	0.54	0.13	89,89,89,89	0
54	MG	BA	3614	1/1	0.54	0.10	112,112,112,112	0
54	MG	AA	1769	1/1	0.54	0.18	118,118,118,118	0
54	MG	AA	1873	1/1	0.55	0.10	105,105,105,105	0
54	MG	AA	1786	1/1	0.55	0.14	119,119,119,119	0
54	MG	BA	3303	1/1	0.55	0.13	157,157,157,157	0
54	MG	AA	1776	1/1	0.55	0.28	108,108,108,108	0
54	MG	BA	3060	1/1	0.55	0.52	110,110,110,110	0
54	MG	CA	1886	1/1	0.55	0.18	105,105,105,105	0
54	MG	AA	1633	1/1	0.55	0.26	123,123,123,123	0
54	MG	DA	3618	1/1	0.56	0.07	129,129,129,129	0
54	MG	AA	1830	1/1	0.56	0.12	105,105,105,105	0
54	MG	DA	3588	1/1	0.56	0.27	96,96,96,96	0
54	MG	CA	1660	1/1	0.56	0.15	158,158,158,158	0
54	MG	AA	1766	1/1	0.57	0.27	106,106,106,106	0
54	MG	BA	3589	1/1	0.57	0.27	105,105,105,105	0
54	MG	BA	3590	1/1	0.57	0.22	119,119,119,119	0
54	MG	DA	3775	1/1	0.57	0.10	98,98,98,98	0
54	MG	DA	3786	1/1	0.57	0.45	104,104,104,104	0
54	MG	CA	1706	1/1	0.57	0.23	106,106,106,106	0
54	MG	CA	1754	1/1	0.58	0.41	121,121,121,121	0
54	MG	CO	102	1/1	0.58	0.19	103,103,103,103	0
54	MG	AA	1687	1/1	0.58	0.55	108,108,108,108	0
54	MG	AA	1844	1/1	0.58	0.24	121,121,121,121	0
54	MG	CA	1901	1/1	0.58	0.12	76,76,76,76	0
54	MG	BA	3135	1/1	0.58	0.14	61,61,61,61	0
54	MG	DA	3830	1/1	0.58	0.24	125,125,125,125	0
54	MG	CF	201	1/1	0.58	0.09	131,131,131,131	0
54	MG	BA	3346	1/1	0.59	0.13	136,136,136,136	0
54	MG	CA	1651	1/1	0.59	0.25	111,111,111,111	0
54	MG	AA	1808	1/1	0.59	0.21	97,97,97,97	0
54	MG	BA	3594	1/1	0.59	0.14	129,129,129,129	0
54	MG	DA	3616	1/1	0.60	0.29	103,103,103,103	0
54	MG	AA	1734	1/1	0.60	0.15	96,96,96,96	0
54	MG	DA	3803	1/1	0.60	0.24	123,123,123,123	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3596	1/1	0.60	0.13	113,113,113,113	0
54	MG	DA	3066	1/1	0.60	0.25	114,114,114,114	0
54	MG	CA	1891	1/1	0.61	0.27	113,113,113,113	0
54	MG	DA	3743	1/1	0.61	0.08	105,105,105,105	0
54	MG	DA	3598	1/1	0.61	0.13	108,108,108,108	0
54	MG	AA	1717	1/1	0.61	0.43	103,103,103,103	0
54	MG	CO	101	1/1	0.61	0.20	127,127,127,127	0
54	MG	BA	3362	1/1	0.61	0.31	130,130,130,130	0
54	MG	BA	3150	1/1	0.61	0.30	97,97,97,97	0
54	MG	DV	202	1/1	0.61	0.12	115,115,115,115	0
54	MG	AA	1660	1/1	0.62	0.15	122,122,122,122	0
54	MG	AA	1843	1/1	0.62	0.27	126,126,126,126	0
54	MG	DA	3312	1/1	0.62	0.11	130,130,130,130	0
54	MG	DA	3464	1/1	0.62	0.18	133,133,133,133	0
54	MG	BA	3501	1/1	0.62	0.48	105,105,105,105	0
54	MG	BP	201	1/1	0.62	0.08	122,122,122,122	0
54	MG	CA	1917	1/1	0.62	0.23	105,105,105,105	0
54	MG	CA	1846	1/1	0.63	0.16	135,135,135,135	0
54	MG	CA	1728	1/1	0.63	0.21	120,120,120,120	0
54	MG	DA	3766	1/1	0.63	0.09	123,123,123,123	0
54	MG	DA	3772	1/1	0.63	0.22	114,114,114,114	0
54	MG	BA	3681	1/1	0.63	0.09	95,95,95,95	0
54	MG	CA	1882	1/1	0.63	0.09	135,135,135,135	0
54	MG	AV	6206	1/1	0.63	0.08	87,87,87,87	0
54	MG	BB	224	1/1	0.63	0.20	140,140,140,140	0
54	MG	AA	1879	1/1	0.63	0.10	119,119,119,119	0
54	MG	DL	202	1/1	0.63	1.23	146,146,146,146	0
54	MG	BA	3163	1/1	0.63	0.17	87,87,87,87	0
54	MG	DV	203	1/1	0.63	0.10	128,128,128,128	0
54	MG	DA	3095	1/1	0.64	0.27	72,72,72,72	0
54	MG	DA	3306	1/1	0.64	0.22	152,152,152,152	0
54	MG	BA	3462	1/1	0.64	0.30	80,80,80,80	0
54	MG	AA	1877	1/1	0.64	0.37	102,102,102,102	0
54	MG	CA	1900	1/1	0.64	0.10	86,86,86,86	0
54	MG	DA	3699	1/1	0.64	0.14	96,96,96,96	0
54	MG	CA	1789	1/1	0.64	0.17	103,103,103,103	0
54	MG	CA	1712	1/1	0.64	0.19	108,108,108,108	0
54	MG	BA	3503	1/1	0.64	0.21	90,90,90,90	0
54	MG	BA	3297	1/1	0.65	0.22	98,98,98,98	0
54	MG	DA	3353	1/1	0.65	0.26	105,105,105,105	0
54	MG	BA	3414	1/1	0.65	0.44	137,137,137,137	0
54	MG	AA	1700	1/1	0.65	0.20	114,114,114,114	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3676	1/1	0.65	0.24	92,92,92,92	0
54	MG	BA	3376	1/1	0.65	0.09	123,123,123,123	0
54	MG	DJ	202	1/1	0.65	0.07	126,126,126,126	0
54	MG	CA	1611	1/1	0.65	0.21	128,128,128,128	0
54	MG	DA	3163	1/1	0.65	0.28	113,113,113,113	0
54	MG	AA	1753	1/1	0.65	0.08	103,103,103,103	0
54	MG	DA	3829	1/1	0.66	0.11	96,96,96,96	0
54	MG	DA	3251	1/1	0.66	0.12	77,77,77,77	0
54	MG	DA	3265	1/1	0.66	0.39	138,138,138,138	0
54	MG	BA	3520	1/1	0.66	0.27	95,95,95,95	0
54	MG	AA	1712	1/1	0.66	0.10	105,105,105,105	0
54	MG	DA	3109	1/1	0.66	0.13	88,88,88,88	0
54	MG	BA	3510	1/1	0.66	0.26	86,86,86,86	0
54	MG	AA	1617	1/1	0.67	0.24	84,84,84,84	0
54	MG	CG	201	1/1	0.67	0.10	104,104,104,104	0
54	MG	AM	201	1/1	0.67	0.11	126,126,126,126	0
54	MG	BA	3155	1/1	0.67	0.26	99,99,99,99	0
54	MG	DA	3819	1/1	0.67	0.15	130,130,130,130	0
54	MG	DA	3825	1/1	0.67	0.16	103,103,103,103	0
54	MG	BA	3092	1/1	0.67	0.33	123,123,123,123	0
54	MG	AG	201	1/1	0.67	0.07	106,106,106,106	0
54	MG	BA	3259	1/1	0.67	0.08	105,105,105,105	0
54	MG	DB	237	1/1	0.67	0.16	109,109,109,109	0
54	MG	DA	3495	1/1	0.67	0.16	111,111,111,111	0
54	MG	BA	3564	1/1	0.67	0.22	146,146,146,146	0
54	MG	BA	3269	1/1	0.67	0.09	104,104,104,104	0
54	MG	BA	3288	1/1	0.67	0.19	113,113,113,113	0
54	MG	BA	3599	1/1	0.68	0.08	94,94,94,94	0
54	MG	CA	1807	1/1	0.68	0.14	125,125,125,125	0
54	MG	DA	3359	1/1	0.68	0.17	96,96,96,96	0
54	MG	DA	3387	1/1	0.68	0.14	124,124,124,124	0
54	MG	BA	3567	1/1	0.68	0.11	126,126,126,126	0
54	MG	BA	3642	1/1	0.68	0.07	98,98,98,98	0
54	MG	BA	3647	1/1	0.68	0.21	149,149,149,149	0
54	MG	DA	3222	1/1	0.68	0.27	112,112,112,112	0
54	MG	DA	3760	1/1	0.68	0.10	97,97,97,97	0
54	MG	AE	202	1/1	0.68	0.32	173,173,173,173	0
54	MG	BA	3341	1/1	0.68	0.07	125,125,125,125	0
54	MG	AA	1743	1/1	0.68	0.23	140,140,140,140	0
54	MG	CA	1818	1/1	0.69	0.06	91,91,91,91	0
54	MG	AA	1646	1/1	0.69	0.25	89,89,89,89	0
54	MG	DA	3367	1/1	0.69	0.49	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3242	1/1	0.69	0.22	112,112,112,112	0
54	MG	DA	3405	1/1	0.69	0.24	67,67,67,67	0
54	MG	DA	3432	1/1	0.69	0.12	84,84,84,84	0
54	MG	BB	225	1/1	0.69	0.37	96,96,96,96	0
54	MG	DA	3785	1/1	0.69	0.23	109,109,109,109	0
54	MG	CA	1863	1/1	0.69	0.15	125,125,125,125	0
54	MG	CA	1700	1/1	0.69	0.11	129,129,129,129	0
54	MG	DA	3145	1/1	0.69	0.21	100,100,100,100	0
54	MG	CA	1792	1/1	0.69	0.32	93,93,93,93	0
54	MG	DA	3591	1/1	0.69	0.25	90,90,90,90	0
54	MG	DA	3193	1/1	0.69	0.16	86,86,86,86	0
54	MG	AA	1759	1/1	0.69	0.11	110,110,110,110	0
54	MG	DA	3840	1/1	0.69	0.31	81,81,81,81	0
54	MG	AA	1771	1/1	0.69	0.30	111,111,111,111	0
54	MG	CG	202	1/1	0.69	0.08	131,131,131,131	0
54	MG	CA	1798	1/1	0.69	0.11	111,111,111,111	0
54	MG	BA	3040	1/1	0.69	0.42	76,76,76,76	0
54	MG	DA	3342	1/1	0.69	0.22	112,112,112,112	0
54	MG	BA	3144	1/1	0.70	0.22	148,148,148,148	0
54	MG	BA	3208	1/1	0.70	0.16	96,96,96,96	0
54	MG	DA	3740	1/1	0.70	0.14	99,99,99,99	0
54	MG	BA	3470	1/1	0.70	0.30	71,71,71,71	0
54	MG	BA	3480	1/1	0.70	0.33	79,79,79,79	0
54	MG	DA	3397	1/1	0.70	0.55	124,124,124,124	0
54	MG	BA	3606	1/1	0.70	0.63	118,118,118,118	0
54	MG	CA	1640	1/1	0.70	0.32	133,133,133,133	0
54	MG	DA	3450	1/1	0.70	0.27	81,81,81,81	0
54	MG	AA	1851	1/1	0.70	0.23	93,93,93,93	0
54	MG	BA	3634	1/1	0.70	0.14	98,98,98,98	0
54	MG	CA	1936	1/1	0.70	0.16	102,102,102,102	0
54	MG	CA	1811	1/1	0.70	0.07	181,181,181,181	0
54	MG	CA	1969	1/1	0.70	0.19	124,124,124,124	0
54	MG	DA	3210	1/1	0.70	0.27	92,92,92,92	0
54	MG	CA	1698	1/1	0.70	0.17	123,123,123,123	0
54	MG	BA	3246	1/1	0.70	0.16	164,164,164,164	0
54	MG	DB	213	1/1	0.70	0.18	113,113,113,113	0
54	MG	DB	234	1/1	0.70	0.20	105,105,105,105	0
54	MG	DA	3260	1/1	0.70	0.34	90,90,90,90	0
54	MG	AA	1670	1/1	0.70	0.08	93,93,93,93	0
54	MG	BA	2971	1/1	0.70	0.22	76,76,76,76	0
54	MG	BA	3173	1/1	0.70	0.16	87,87,87,87	0
54	MG	BA	3192	1/1	0.70	0.17	110,110,110,110	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3195	1/1	0.71	0.59	91,91,91,91	0
54	MG	CA	1928	1/1	0.71	0.11	117,117,117,117	0
54	MG	DA	3295	1/1	0.71	0.15	107,107,107,107	0
54	MG	AA	1705	1/1	0.71	0.29	62,62,62,62	0
54	MG	DD	306	1/1	0.71	0.18	107,107,107,107	0
54	MG	DA	3128	1/1	0.71	0.33	85,85,85,85	0
54	MG	DA	3664	1/1	0.71	0.39	109,109,109,109	0
54	MG	DA	3333	1/1	0.71	0.20	90,90,90,90	0
54	MG	AS	101	1/1	0.71	0.20	106,106,106,106	0
54	MG	DA	2937	1/1	0.72	0.30	43,43,43,43	0
54	MG	CA	1666	1/1	0.72	0.23	104,104,104,104	0
54	MG	AA	1815	1/1	0.72	0.26	78,78,78,78	0
54	MG	BA	3523	1/1	0.72	0.34	99,99,99,99	0
54	MG	BA	3301	1/1	0.72	0.12	58,58,58,58	0
54	MG	AA	1767	1/1	0.72	0.05	118,118,118,118	0
54	MG	CC	308	1/1	0.72	0.04	110,110,110,110	0
54	MG	CA	1898	1/1	0.72	0.23	87,87,87,87	0
54	MG	CA	1617	1/1	0.72	0.06	104,104,104,104	0
54	MG	BA	3308	1/1	0.72	0.12	99,99,99,99	0
54	MG	CA	1909	1/1	0.72	0.06	135,135,135,135	0
54	MG	DA	3437	1/1	0.72	0.11	120,120,120,120	0
54	MG	BA	3229	1/1	0.72	0.15	90,90,90,90	0
54	MG	CA	1845	1/1	0.72	0.25	100,100,100,100	0
54	MG	DG	203	1/1	0.72	0.11	98,98,98,98	0
54	MG	DA	3471	1/1	0.72	0.14	104,104,104,104	0
54	MG	BA	3171	1/1	0.72	0.12	127,127,127,127	0
54	MG	BA	3516	1/1	0.72	0.18	100,100,100,100	0
54	MG	DA	3574	1/1	0.72	0.46	152,152,152,152	0
54	MG	BA	3266	1/1	0.73	0.10	104,104,104,104	0
54	MG	BA	3652	1/1	0.73	0.06	109,109,109,109	0
54	MG	BT	102	1/1	0.73	0.13	66,66,66,66	0
54	MG	DA	3501	1/1	0.73	0.11	96,96,96,96	0
54	MG	CN	102	1/1	0.73	0.31	134,134,134,134	0
54	MG	DA	3271	1/1	0.73	0.25	99,99,99,99	0
54	MG	DA	3580	1/1	0.73	0.09	162,162,162,162	0
54	MG	CA	1608	1/1	0.73	0.27	121,121,121,121	0
54	MG	CA	1824	1/1	0.73	0.11	123,123,123,123	0
54	MG	BA	3172	1/1	0.73	0.19	74,74,74,74	0
54	MG	DA	3317	1/1	0.73	0.15	96,96,96,96	0
54	MG	BA	3478	1/1	0.73	0.31	78,78,78,78	0
54	MG	BB	221	1/1	0.73	0.09	89,89,89,89	0
54	MG	BA	3635	1/1	0.73	0.06	113,113,113,113	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3086	1/1	0.73	0.20	71,71,71,71	0
54	MG	CA	1647	1/1	0.73	0.10	94,94,94,94	0
54	MG	AA	1729	1/1	0.73	0.24	107,107,107,107	0
54	MG	BC	303	1/1	0.73	0.19	95,95,95,95	0
54	MG	BI	101	1/1	0.73	0.09	109,109,109,109	0
54	MG	CA	1897	1/1	0.73	0.22	74,74,74,74	0
54	MG	CE	205	1/1	0.73	0.16	104,104,104,104	0
54	MG	CA	1670	1/1	0.73	0.18	106,106,106,106	0
54	MG	DV	204	1/1	0.73	0.11	96,96,96,96	0
54	MG	BA	3532	1/1	0.74	0.06	107,107,107,107	0
54	MG	CA	1894	1/1	0.74	0.07	97,97,97,97	0
54	MG	BA	3055	1/1	0.74	0.19	78,78,78,78	0
54	MG	BB	222	1/1	0.74	0.18	112,112,112,112	0
54	MG	DA	3187	1/1	0.74	0.14	114,114,114,114	0
54	MG	DA	3700	1/1	0.74	0.41	96,96,96,96	0
54	MG	BA	3139	1/1	0.74	0.09	100,100,100,100	0
54	MG	DA	3205	1/1	0.74	0.32	97,97,97,97	0
54	MG	BA	3580	1/1	0.74	0.30	94,94,94,94	0
54	MG	AA	1794	1/1	0.74	0.08	112,112,112,112	0
54	MG	DA	3026	1/1	0.74	0.19	83,83,83,83	0
54	MG	AO	103	1/1	0.74	0.09	111,111,111,111	0
54	MG	BA	3025	1/1	0.74	0.24	76,76,76,76	0
54	MG	DA	3613	1/1	0.74	0.12	121,121,121,121	0
54	MG	CA	1918	1/1	0.74	0.24	84,84,84,84	0
54	MG	AA	1835	1/1	0.74	0.14	158,158,158,158	0
54	MG	BA	3676	1/1	0.75	0.10	112,112,112,112	0
54	MG	BA	3484	1/1	0.75	0.20	56,56,56,56	0
54	MG	DA	3755	1/1	0.75	0.17	89,89,89,89	0
54	MG	BA	3374	1/1	0.75	0.18	108,108,108,108	0
54	MG	AA	1730	1/1	0.75	0.24	107,107,107,107	0
54	MG	CA	1951	1/1	0.75	0.10	87,87,87,87	0
54	MG	DA	3520	1/1	0.75	0.12	133,133,133,133	0
54	MG	CA	1788	1/1	0.75	0.17	95,95,95,95	0
54	MG	BA	3066	1/1	0.75	0.38	91,91,91,91	0
54	MG	CB	303	1/1	0.75	0.05	122,122,122,122	0
54	MG	DA	3332	1/1	0.75	0.19	88,88,88,88	0
54	MG	DA	3087	1/1	0.75	0.29	71,71,71,71	0
54	MG	DA	3337	1/1	0.75	0.08	88,88,88,88	0
54	MG	CA	1790	1/1	0.75	0.10	132,132,132,132	0
54	MG	BA	3512	1/1	0.75	0.27	77,77,77,77	0
54	MG	AL	201	1/1	0.75	0.06	109,109,109,109	0
54	MG	DB	209	1/1	0.75	0.08	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1716	1/1	0.75	0.22	96,96,96,96	0
54	MG	BA	3521	1/1	0.75	0.21	88,88,88,88	0
54	MG	CA	1676	1/1	0.75	0.18	90,90,90,90	0
54	MG	DB	240	1/1	0.75	0.14	123,123,123,123	0
54	MG	DA	3665	1/1	0.75	0.37	137,137,137,137	0
54	MG	BA	3158	1/1	0.75	0.31	99,99,99,99	0
54	MG	BA	3349	1/1	0.75	0.20	95,95,95,95	0
54	MG	AA	1876	1/1	0.75	0.08	80,80,80,80	0
54	MG	DM	1400	1/1	0.75	0.29	106,106,106,106	0
54	MG	AA	1708	1/1	0.75	0.18	137,137,137,137	0
54	MG	DA	3730	1/1	0.75	0.08	61,61,61,61	0
54	MG	DA	3453	1/1	0.75	0.11	87,87,87,87	0
54	MG	CA	1723	1/1	0.76	0.33	85,85,85,85	0
54	MG	CA	1614	1/1	0.76	0.22	66,66,66,66	0
54	MG	CB	302	1/1	0.76	0.07	112,112,112,112	0
54	MG	BA	3678	1/1	0.76	0.23	122,122,122,122	0
54	MG	CA	1746	1/1	0.76	0.12	141,141,141,141	0
54	MG	CA	1877	1/1	0.76	0.22	126,126,126,126	0
54	MG	DA	3461	1/1	0.76	0.12	88,88,88,88	0
54	MG	BA	3165	1/1	0.76	0.13	73,73,73,73	0
54	MG	CA	1768	1/1	0.76	0.10	123,123,123,123	0
54	MG	CA	1635	1/1	0.76	0.10	99,99,99,99	0
54	MG	CA	1892	1/1	0.76	0.27	114,114,114,114	0
54	MG	DA	3225	1/1	0.76	0.20	139,139,139,139	0
54	MG	AA	1790	1/1	0.76	0.07	109,109,109,109	0
54	MG	BA	3608	1/1	0.76	0.11	101,101,101,101	0
54	MG	AA	1812	1/1	0.76	0.23	81,81,81,81	0
54	MG	BA	3576	1/1	0.76	0.11	83,83,83,83	0
54	MG	BA	3577	1/1	0.76	0.06	142,142,142,142	0
54	MG	DA	3304	1/1	0.76	0.08	85,85,85,85	0
54	MG	BA	3316	1/1	0.76	0.06	97,97,97,97	0
54	MG	BA	3425	1/1	0.76	0.27	85,85,85,85	0
54	MG	DB	230	1/1	0.76	0.37	114,114,114,114	0
54	MG	DA	3314	1/1	0.76	0.15	105,105,105,105	0
54	MG	CQ	201	1/1	0.76	0.08	103,103,103,103	0
54	MG	AK	201	1/1	0.76	0.30	101,101,101,101	0
54	MG	BA	3670	1/1	0.76	0.16	90,90,90,90	0
54	MG	DG	201	1/1	0.76	0.14	108,108,108,108	0
54	MG	DA	3633	1/1	0.76	0.18	83,83,83,83	0
54	MG	DA	3029	1/1	0.76	0.22	74,74,74,74	0
54	MG	BA	3675	1/1	0.76	0.14	120,120,120,120	0
54	MG	CA	1822	1/1	0.76	0.22	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3531	1/1	0.76	0.06	91,91,91,91	0
54	MG	BA	3677	1/1	0.76	0.18	72,72,72,72	0
54	MG	DA	3091	1/1	0.76	0.11	127,127,127,127	0
54	MG	CA	1815	1/1	0.77	0.18	97,97,97,97	0
54	MG	DA	3787	1/1	0.77	0.14	114,114,114,114	0
54	MG	DA	3800	1/1	0.77	0.12	95,95,95,95	0
54	MG	CA	1816	1/1	0.77	0.12	107,107,107,107	0
54	MG	BA	3243	1/1	0.77	0.14	85,85,85,85	0
54	MG	BH	201	1/1	0.77	0.07	107,107,107,107	0
54	MG	AA	1744	1/1	0.77	0.10	96,96,96,96	0
54	MG	CA	1650	1/1	0.77	0.15	111,111,111,111	0
54	MG	BA	3220	1/1	0.77	0.14	79,79,79,79	0
54	MG	BA	3348	1/1	0.77	0.22	107,107,107,107	0
54	MG	DA	3844	1/1	0.77	0.18	132,132,132,132	0
54	MG	DA	3854	1/1	0.77	0.10	124,124,124,124	0
54	MG	CA	1856	1/1	0.77	0.29	118,118,118,118	0
54	MG	BT	101	1/1	0.77	0.18	101,101,101,101	0
54	MG	CA	1668	1/1	0.77	0.11	86,86,86,86	0
54	MG	CA	1939	1/1	0.77	0.14	144,144,144,144	0
54	MG	AA	1875	1/1	0.77	0.06	97,97,97,97	0
54	MG	DA	3288	1/1	0.77	0.08	104,104,104,104	0
54	MG	BA	3487	1/1	0.77	0.12	90,90,90,90	0
54	MG	DA	3031	1/1	0.77	0.16	79,79,79,79	0
54	MG	BA	3351	1/1	0.77	0.12	116,116,116,116	0
54	MG	CA	1885	1/1	0.77	0.08	75,75,75,75	0
54	MG	AV	6205	1/1	0.77	0.09	107,107,107,107	0
54	MG	CA	1615	1/1	0.77	0.13	70,70,70,70	0
54	MG	DS	201	1/1	0.77	0.13	98,98,98,98	0
54	MG	BA	3662	1/1	0.77	0.06	108,108,108,108	0
54	MG	BA	3533	1/1	0.77	0.13	83,83,83,83	0
54	MG	CE	201	1/1	0.77	0.11	117,117,117,117	0
54	MG	AA	1804	1/1	0.78	0.34	80,80,80,80	0
54	MG	DA	3711	1/1	0.78	0.21	84,84,84,84	0
54	MG	DA	3074	1/1	0.78	0.24	43,43,43,43	0
54	MG	CA	1850	1/1	0.78	0.08	129,129,129,129	0
54	MG	AA	1666	1/1	0.78	0.25	93,93,93,93	0
54	MG	BA	3390	1/1	0.78	0.07	103,103,103,103	0
54	MG	BA	3593	1/1	0.78	0.13	81,81,81,81	0
54	MG	BA	3391	1/1	0.78	0.12	93,93,93,93	0
54	MG	DA	3426	1/1	0.78	0.16	96,96,96,96	0
54	MG	CA	1761	1/1	0.78	0.23	88,88,88,88	0
54	MG	DA	3141	1/1	0.78	0.17	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3779	1/1	0.78	0.20	81,81,81,81	0
54	MG	BA	3241	1/1	0.78	0.18	69,69,69,69	0
54	MG	BA	3604	1/1	0.78	0.09	89,89,89,89	0
54	MG	AO	101	1/1	0.78	0.12	115,115,115,115	0
54	MG	CE	202	1/1	0.78	0.06	80,80,80,80	0
54	MG	BA	2926	1/1	0.78	0.23	50,50,50,50	0
54	MG	CA	1654	1/1	0.78	0.14	78,78,78,78	0
54	MG	BA	3420	1/1	0.78	0.16	94,94,94,94	0
54	MG	CA	1895	1/1	0.78	0.18	88,88,88,88	0
54	MG	BA	2931	1/1	0.78	0.29	49,49,49,49	0
54	MG	DA	3832	1/1	0.78	0.07	77,77,77,77	0
54	MG	DA	3259	1/1	0.78	0.13	87,87,87,87	0
54	MG	DA	3837	1/1	0.78	0.07	95,95,95,95	0
54	MG	CK	201	1/1	0.78	0.10	136,136,136,136	0
54	MG	AA	1756	1/1	0.78	0.23	111,111,111,111	0
54	MG	DA	3587	1/1	0.78	0.13	113,113,113,113	0
54	MG	BA	3264	1/1	0.78	0.15	87,87,87,87	0
54	MG	DA	3286	1/1	0.78	0.10	76,76,76,76	0
54	MG	DB	222	1/1	0.78	0.19	137,137,137,137	0
54	MG	BA	3549	1/1	0.78	0.22	87,87,87,87	0
54	MG	DB	232	1/1	0.78	0.06	84,84,84,84	0
54	MG	BA	3197	1/1	0.78	0.10	84,84,84,84	0
54	MG	DA	3604	1/1	0.78	0.12	103,103,103,103	0
54	MG	DA	3299	1/1	0.78	0.18	104,104,104,104	0
54	MG	BA	3002	1/1	0.78	0.56	96,96,96,96	0
54	MG	DA	3615	1/1	0.78	0.17	99,99,99,99	0
54	MG	B5	101	1/1	0.78	0.12	78,78,78,78	0
54	MG	DI	101	1/1	0.78	0.12	104,104,104,104	0
54	MG	DA	3309	1/1	0.78	0.21	127,127,127,127	0
54	MG	CA	1705	1/1	0.78	0.15	122,122,122,122	0
54	MG	BA	3281	1/1	0.78	0.31	123,123,123,123	0
54	MG	BA	3095	1/1	0.78	0.31	96,96,96,96	0
54	MG	CA	1722	1/1	0.78	0.07	116,116,116,116	0
54	MG	DA	3036	1/1	0.78	0.29	72,72,72,72	0
54	MG	CA	1937	1/1	0.78	0.36	100,100,100,100	0
54	MG	CA	1902	1/1	0.79	0.13	77,77,77,77	0
54	MG	BA	3527	1/1	0.79	0.19	65,65,65,65	0
54	MG	BA	3027	1/1	0.79	0.29	72,72,72,72	0
54	MG	DA	3113	1/1	0.79	0.24	66,66,66,66	0
54	MG	BA	3036	1/1	0.79	0.42	57,57,57,57	0
54	MG	DA	3808	1/1	0.79	0.11	116,116,116,116	0
54	MG	CG	203	1/1	0.79	0.07	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1737	1/1	0.79	0.07	111,111,111,111	0
54	MG	CL	205	1/1	0.79	0.22	97,97,97,97	0
54	MG	BA	3628	1/1	0.79	0.08	102,102,102,102	0
54	MG	DA	3351	1/1	0.79	0.19	89,89,89,89	0
54	MG	CA	1772	1/1	0.79	0.07	112,112,112,112	0
54	MG	BA	3256	1/1	0.79	0.21	105,105,105,105	0
54	MG	DA	3209	1/1	0.79	0.44	94,94,94,94	0
54	MG	DA	3370	1/1	0.79	0.30	92,92,92,92	0
54	MG	BA	3559	1/1	0.79	0.17	70,70,70,70	0
54	MG	DA	3855	1/1	0.79	0.10	104,104,104,104	0
54	MG	DA	3216	1/1	0.79	0.17	91,91,91,91	0
54	MG	BA	3493	1/1	0.79	0.14	75,75,75,75	0
54	MG	BA	3045	1/1	0.79	0.14	94,94,94,94	0
54	MG	DA	3248	1/1	0.79	0.20	80,80,80,80	0
54	MG	DB	231	1/1	0.79	0.10	117,117,117,117	0
54	MG	DA	3435	1/1	0.79	0.23	97,97,97,97	0
54	MG	BA	3109	1/1	0.79	0.20	77,77,77,77	0
54	MG	BA	3659	1/1	0.79	0.23	68,68,68,68	0
54	MG	DB	238	1/1	0.79	0.07	74,74,74,74	0
54	MG	BA	3505	1/1	0.79	0.09	81,81,81,81	0
54	MG	BA	3211	1/1	0.79	0.25	100,100,100,100	0
54	MG	BA	3418	1/1	0.79	0.18	88,88,88,88	0
54	MG	DA	3741	1/1	0.79	0.15	84,84,84,84	0
54	MG	DA	3465	1/1	0.79	0.26	105,105,105,105	0
54	MG	AV	6204	1/1	0.79	0.16	124,124,124,124	0
54	MG	DA	3479	1/1	0.79	0.14	130,130,130,130	0
54	MG	BA	3009	1/1	0.79	0.22	73,73,73,73	0
54	MG	DA	3769	1/1	0.79	0.12	90,90,90,90	0
54	MG	BA	3233	1/1	0.79	0.24	97,97,97,97	0
54	MG	AA	1720	1/1	0.79	0.29	101,101,101,101	0
54	MG	BA	3602	1/1	0.79	0.28	98,98,98,98	0
54	MG	DW	101	1/1	0.79	0.12	56,56,56,56	0
54	MG	D5	103	1/1	0.79	0.11	71,71,71,71	0
54	MG	BA	3586	1/1	0.80	0.07	97,97,97,97	0
54	MG	BA	3240	1/1	0.80	0.24	157,157,157,157	0
54	MG	BA	2920	1/1	0.80	0.27	24,24,24,24	0
54	MG	CA	1960	1/1	0.80	0.07	91,91,91,91	0
54	MG	AA	1631	1/1	0.80	0.20	76,76,76,76	0
54	MG	DA	3420	1/1	0.80	0.11	110,110,110,110	0
54	MG	DA	3133	1/1	0.80	0.14	114,114,114,114	0
54	MG	DA	3135	1/1	0.80	0.23	114,114,114,114	0
54	MG	CA	1836	1/1	0.80	0.25	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3776	1/1	0.80	0.34	172,172,172,172	0
54	MG	CA	1841	1/1	0.80	0.10	95,95,95,95	0
54	MG	AA	1728	1/1	0.80	0.06	71,71,71,71	0
54	MG	BA	3067	1/1	0.80	0.26	103,103,103,103	0
54	MG	BA	3600	1/1	0.80	0.07	93,93,93,93	0
54	MG	DA	3797	1/1	0.80	0.06	101,101,101,101	0
54	MG	BA	3253	1/1	0.80	0.18	88,88,88,88	0
54	MG	BA	3255	1/1	0.80	0.12	101,101,101,101	0
54	MG	DA	3470	1/1	0.80	0.10	127,127,127,127	0
54	MG	AA	1846	1/1	0.80	0.14	88,88,88,88	0
54	MG	AA	1692	1/1	0.80	0.19	89,89,89,89	0
54	MG	DA	3218	1/1	0.80	0.05	79,79,79,79	0
54	MG	BA	3613	1/1	0.80	0.22	103,103,103,103	0
54	MG	DA	3504	1/1	0.80	0.23	97,97,97,97	0
54	MG	BX	102	1/1	0.80	0.22	103,103,103,103	0
54	MG	CA	1884	1/1	0.80	0.15	99,99,99,99	0
54	MG	DA	3521	1/1	0.80	0.10	101,101,101,101	0
54	MG	AO	102	1/1	0.80	0.27	114,114,114,114	0
54	MG	DA	3852	1/1	0.80	0.07	80,80,80,80	0
54	MG	CA	1748	1/1	0.80	0.10	115,115,115,115	0
54	MG	DA	3583	1/1	0.80	0.53	119,119,119,119	0
54	MG	CL	201	1/1	0.80	0.13	99,99,99,99	0
54	MG	AA	1658	1/1	0.80	0.11	84,84,84,84	0
54	MG	DA	3269	1/1	0.80	0.09	109,109,109,109	0
54	MG	AE	201	1/1	0.80	0.20	123,123,123,123	0
54	MG	CA	1766	1/1	0.80	0.11	77,77,77,77	0
54	MG	BA	3129	1/1	0.80	0.06	98,98,98,98	0
54	MG	BA	3404	1/1	0.80	0.11	80,80,80,80	0
54	MG	CA	1778	1/1	0.80	0.16	94,94,94,94	0
54	MG	BA	3413	1/1	0.80	0.17	65,65,65,65	0
54	MG	CA	1627	1/1	0.80	0.52	99,99,99,99	0
54	MG	BA	3205	1/1	0.80	0.11	70,70,70,70	0
54	MG	DE	302	1/1	0.80	0.30	83,83,83,83	0
54	MG	DA	3028	1/1	0.80	0.29	58,58,58,58	0
54	MG	BA	3537	1/1	0.80	0.08	60,60,60,60	0
54	MG	DA	3634	1/1	0.80	0.18	106,106,106,106	0
54	MG	DA	3316	1/1	0.80	0.09	94,94,94,94	0
54	MG	DJ	206	1/1	0.80	0.14	135,135,135,135	0
54	MG	AA	1834	1/1	0.80	0.26	77,77,77,77	0
54	MG	AA	1782	1/1	0.80	0.18	104,104,104,104	0
54	MG	DP	202	1/1	0.80	0.05	90,90,90,90	0
54	MG	DA	3052	1/1	0.80	0.29	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3042	1/1	0.80	0.20	92,92,92,92	0
54	MG	BA	3304	1/1	0.80	0.21	100,100,100,100	0
54	MG	AA	1874	1/1	0.80	0.14	87,87,87,87	0
54	MG	BA	3048	1/1	0.80	0.34	70,70,70,70	0
54	MG	BA	3332	1/1	0.80	0.13	65,65,65,65	0
54	MG	BA	3660	1/1	0.81	0.08	119,119,119,119	0
54	MG	DA	3215	1/1	0.81	0.23	73,73,73,73	0
54	MG	BA	3344	1/1	0.81	0.13	99,99,99,99	0
54	MG	AA	1788	1/1	0.81	0.07	148,148,148,148	0
54	MG	BA	3020	1/1	0.81	0.23	88,88,88,88	0
54	MG	DA	3223	1/1	0.81	0.09	83,83,83,83	0
54	MG	BA	3177	1/1	0.81	0.18	119,119,119,119	0
54	MG	DA	3228	1/1	0.81	0.19	54,54,54,54	0
54	MG	DA	3230	1/1	0.81	0.11	80,80,80,80	0
54	MG	BA	3186	1/1	0.81	0.14	85,85,85,85	0
54	MG	DA	3485	1/1	0.81	0.17	119,119,119,119	0
54	MG	BA	3353	1/1	0.81	0.24	85,85,85,85	0
54	MG	BA	3496	1/1	0.81	0.06	67,67,67,67	0
54	MG	BB	205	1/1	0.81	0.10	108,108,108,108	0
54	MG	DA	3814	1/1	0.81	0.49	186,186,186,186	0
54	MG	CA	1806	1/1	0.81	0.21	110,110,110,110	0
54	MG	CA	1911	1/1	0.81	0.28	90,90,90,90	0
54	MG	BB	207	1/1	0.81	0.07	111,111,111,111	0
54	MG	DA	3522	1/1	0.81	0.12	147,147,147,147	0
54	MG	DA	3559	1/1	0.81	0.34	92,92,92,92	0
54	MG	DA	3274	1/1	0.81	0.18	116,116,116,116	0
54	MG	AA	1652	1/1	0.81	0.17	95,95,95,95	0
54	MG	AA	1754	1/1	0.81	0.07	98,98,98,98	0
54	MG	AA	1795	1/1	0.81	0.06	111,111,111,111	0
54	MG	CA	1921	1/1	0.81	0.09	97,97,97,97	0
54	MG	CA	1682	1/1	0.81	0.13	88,88,88,88	0
54	MG	AA	1695	1/1	0.81	0.04	96,96,96,96	0
54	MG	DA	3862	1/1	0.81	0.18	119,119,119,119	0
54	MG	AA	1850	1/1	0.81	0.12	70,70,70,70	0
54	MG	AA	1806	1/1	0.81	0.14	65,65,65,65	0
54	MG	CA	1946	1/1	0.81	0.14	137,137,137,137	0
54	MG	AA	1781	1/1	0.81	0.20	92,92,92,92	0
54	MG	AA	1727	1/1	0.81	0.20	104,104,104,104	0
54	MG	BA	3403	1/1	0.81	0.33	106,106,106,106	0
54	MG	CA	1962	1/1	0.81	0.05	96,96,96,96	0
54	MG	CA	1718	1/1	0.81	0.06	109,109,109,109	0
54	MG	BA	3611	1/1	0.81	0.10	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3343	1/1	0.81	0.19	97,97,97,97	0
54	MG	BA	3157	1/1	0.81	0.27	94,94,94,94	0
54	MG	AA	1870	1/1	0.81	0.11	98,98,98,98	0
54	MG	CA	1859	1/1	0.81	0.08	93,93,93,93	0
54	MG	DG	202	1/1	0.81	0.10	102,102,102,102	0
54	MG	AA	1685	1/1	0.81	0.15	64,64,64,64	0
54	MG	DA	3693	1/1	0.81	0.06	63,63,63,63	0
54	MG	DA	3698	1/1	0.81	0.20	61,61,61,61	0
54	MG	BA	2996	1/1	0.81	0.15	125,125,125,125	0
54	MG	BA	3330	1/1	0.81	0.14	101,101,101,101	0
54	MG	BA	3542	1/1	0.81	0.19	102,102,102,102	0
54	MG	BA	3166	1/1	0.81	0.36	86,86,86,86	0
54	MG	DA	3734	1/1	0.81	0.12	76,76,76,76	0
54	MG	DA	3200	1/1	0.81	0.22	97,97,97,97	0
54	MG	DA	3423	1/1	0.81	0.06	79,79,79,79	0
54	MG	BA	3554	1/1	0.81	0.29	90,90,90,90	0
54	MG	AA	1690	1/1	0.81	0.33	88,88,88,88	0
54	MG	D2	101	1/1	0.81	0.39	78,78,78,78	0
54	MG	DA	3433	1/1	0.81	0.14	67,67,67,67	0
54	MG	DA	3033	1/1	0.82	0.15	79,79,79,79	0
54	MG	DA	3034	1/1	0.82	0.22	89,89,89,89	0
54	MG	BA	3283	1/1	0.82	0.10	100,100,100,100	0
54	MG	DA	3040	1/1	0.82	0.23	76,76,76,76	0
54	MG	BA	3402	1/1	0.82	0.09	90,90,90,90	0
54	MG	DA	3275	1/1	0.82	0.28	92,92,92,92	0
54	MG	BA	3284	1/1	0.82	0.13	95,95,95,95	0
54	MG	DA	3065	1/1	0.82	0.27	61,61,61,61	0
54	MG	DA	3292	1/1	0.82	0.26	73,73,73,73	0
54	MG	DA	3798	1/1	0.82	0.19	88,88,88,88	0
54	MG	CA	1762	1/1	0.82	0.15	114,114,114,114	0
54	MG	CA	1763	1/1	0.82	0.15	90,90,90,90	0
54	MG	BA	3620	1/1	0.82	0.27	88,88,88,88	0
54	MG	BA	3138	1/1	0.82	0.21	88,88,88,88	0
54	MG	CA	1770	1/1	0.82	0.07	125,125,125,125	0
54	MG	DA	3311	1/1	0.82	0.22	95,95,95,95	0
54	MG	CA	1659	1/1	0.82	0.24	100,100,100,100	0
54	MG	BA	3631	1/1	0.82	0.06	85,85,85,85	0
54	MG	BA	3167	1/1	0.82	0.24	87,87,87,87	0
54	MG	DA	3835	1/1	0.82	0.13	111,111,111,111	0
54	MG	DA	3122	1/1	0.82	0.17	93,93,93,93	0
54	MG	DA	3592	1/1	0.82	0.11	114,114,114,114	0
54	MG	DA	3318	1/1	0.82	0.10	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3320	1/1	0.82	0.20	80,80,80,80	0
54	MG	BA	2948	1/1	0.82	0.24	62,62,62,62	0
54	MG	DA	3612	1/1	0.82	0.08	74,74,74,74	0
54	MG	AT	201	1/1	0.82	0.12	103,103,103,103	0
54	MG	BA	3643	1/1	0.82	0.38	92,92,92,92	0
54	MG	CA	1680	1/1	0.82	0.20	63,63,63,63	0
54	MG	AA	1676	1/1	0.82	0.13	90,90,90,90	0
54	MG	AA	1625	1/1	0.82	0.07	53,53,53,53	0
54	MG	AA	1805	1/1	0.82	0.18	66,66,66,66	0
54	MG	CA	1703	1/1	0.82	0.09	113,113,113,113	0
54	MG	DA	3657	1/1	0.82	0.35	57,57,57,57	0
54	MG	BA	3464	1/1	0.82	0.29	67,67,67,67	0
54	MG	AA	1630	1/1	0.82	0.14	81,81,81,81	0
54	MG	DA	3377	1/1	0.82	0.22	107,107,107,107	0
54	MG	DA	3670	1/1	0.82	0.15	83,83,83,83	0
54	MG	DB	243	1/1	0.82	0.07	101,101,101,101	0
54	MG	BA	3596	1/1	0.82	0.06	71,71,71,71	0
54	MG	BA	3381	1/1	0.82	0.25	82,82,82,82	0
54	MG	CA	1717	1/1	0.82	0.11	103,103,103,103	0
54	MG	AA	1645	1/1	0.82	0.17	138,138,138,138	0
54	MG	BA	3536	1/1	0.82	0.14	83,83,83,83	0
54	MG	DA	3705	1/1	0.82	0.11	86,86,86,86	0
54	MG	CO	103	1/1	0.82	0.17	203,203,203,203	0
54	MG	CA	1832	1/1	0.82	0.09	92,92,92,92	0
54	MG	DA	3731	1/1	0.82	0.11	60,60,60,60	0
54	MG	CA	1924	1/1	0.82	0.11	116,116,116,116	0
54	MG	CA	1925	1/1	0.82	0.12	77,77,77,77	0
54	MG	BA	3335	1/1	0.82	0.27	80,80,80,80	0
54	MG	DA	3244	1/1	0.82	0.25	85,85,85,85	0
54	MG	AA	1659	1/1	0.82	0.34	74,74,74,74	0
54	MG	BA	3396	1/1	0.82	0.07	108,108,108,108	0
54	MG	DA	3255	1/1	0.82	0.17	70,70,70,70	0
54	MG	DA	3764	1/1	0.82	0.13	80,80,80,80	0
54	MG	BB	206	1/1	0.82	0.21	125,125,125,125	0
54	MG	CA	1764	1/1	0.83	0.14	65,65,65,65	0
54	MG	BA	3257	1/1	0.83	0.40	108,108,108,108	0
54	MG	DA	3762	1/1	0.83	0.11	103,103,103,103	0
54	MG	BA	3133	1/1	0.83	0.31	86,86,86,86	0
54	MG	BA	3134	1/1	0.83	0.09	90,90,90,90	0
54	MG	BA	3360	1/1	0.83	0.08	75,75,75,75	0
54	MG	DA	3468	1/1	0.83	0.13	79,79,79,79	0
54	MG	CA	1776	1/1	0.83	0.05	118,118,118,118	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1662	1/1	0.83	0.24	78,78,78,78	0
54	MG	BA	3673	1/1	0.83	0.12	92,92,92,92	0
54	MG	BA	3583	1/1	0.83	0.15	105,105,105,105	0
54	MG	DA	3489	1/1	0.83	0.12	97,97,97,97	0
54	MG	CV	6203	1/1	0.83	0.07	80,80,80,80	0
54	MG	DA	2924	1/1	0.83	0.39	68,68,68,68	0
54	MG	DA	3502	1/1	0.83	0.15	93,93,93,93	0
54	MG	CA	1655	1/1	0.83	0.15	100,100,100,100	0
54	MG	CA	1903	1/1	0.83	0.16	84,84,84,84	0
54	MG	CA	1791	1/1	0.83	0.23	93,93,93,93	0
54	MG	AA	1787	1/1	0.83	0.08	68,68,68,68	0
54	MG	DA	3278	1/1	0.83	0.34	99,99,99,99	0
54	MG	BA	3201	1/1	0.83	0.18	107,107,107,107	0
54	MG	DA	3827	1/1	0.83	0.17	103,103,103,103	0
54	MG	AA	1719	1/1	0.83	0.22	66,66,66,66	0
54	MG	BA	3502	1/1	0.83	0.10	81,81,81,81	0
54	MG	BA	3140	1/1	0.83	0.10	62,62,62,62	0
54	MG	BA	3385	1/1	0.83	0.05	125,125,125,125	0
54	MG	BA	3598	1/1	0.83	0.09	100,100,100,100	0
54	MG	AA	1809	1/1	0.83	0.23	94,94,94,94	0
54	MG	BA	3292	1/1	0.83	0.17	71,71,71,71	0
54	MG	CA	1934	1/1	0.83	0.07	80,80,80,80	0
54	MG	AA	1621	1/1	0.83	0.37	71,71,71,71	0
54	MG	AA	1653	1/1	0.83	0.10	102,102,102,102	0
54	MG	BA	3223	1/1	0.83	0.07	76,76,76,76	0
54	MG	AA	1820	1/1	0.83	0.17	94,94,94,94	0
54	MG	AA	1862	1/1	0.83	0.11	84,84,84,84	0
54	MG	DA	3106	1/1	0.83	0.10	69,69,69,69	0
54	MG	CA	1833	1/1	0.83	0.07	79,79,79,79	0
54	MG	AA	1825	1/1	0.83	0.21	79,79,79,79	0
54	MG	CA	1837	1/1	0.83	0.16	83,83,83,83	0
54	MG	BA	3410	1/1	0.83	0.07	112,112,112,112	0
54	MG	DA	3132	1/1	0.83	0.26	62,62,62,62	0
54	MG	CB	301	1/1	0.83	0.08	115,115,115,115	0
54	MG	BA	3616	1/1	0.83	0.21	89,89,89,89	0
54	MG	DA	3356	1/1	0.83	0.10	70,70,70,70	0
54	MG	DA	3666	1/1	0.83	0.14	81,81,81,81	0
54	MG	BA	3076	1/1	0.83	0.17	68,68,68,68	0
54	MG	BA	3621	1/1	0.83	0.16	107,107,107,107	0
54	MG	CA	1851	1/1	0.83	0.23	103,103,103,103	0
54	MG	DA	3678	1/1	0.83	0.14	58,58,58,58	0
54	MG	DA	3691	1/1	0.83	0.26	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3164	1/1	0.83	0.36	83,83,83,83	0
54	MG	DA	3378	1/1	0.83	0.12	68,68,68,68	0
54	MG	CA	1724	1/1	0.83	0.10	124,124,124,124	0
54	MG	BA	3026	1/1	0.83	0.06	68,68,68,68	0
54	MG	BA	3629	1/1	0.83	0.04	86,86,86,86	0
54	MG	DA	3417	1/1	0.83	0.30	72,72,72,72	0
54	MG	DQ	202	1/1	0.83	0.08	97,97,97,97	0
54	MG	AA	1656	1/1	0.83	0.06	86,86,86,86	0
54	MG	DV	201	1/1	0.83	0.05	90,90,90,90	0
54	MG	BA	3031	1/1	0.83	0.24	80,80,80,80	0
54	MG	CA	1874	1/1	0.83	0.23	76,76,76,76	0
54	MG	BA	3108	1/1	0.83	0.23	72,72,72,72	0
54	MG	BA	3552	1/1	0.83	0.09	99,99,99,99	0
54	MG	BA	3034	1/1	0.83	0.25	69,69,69,69	0
54	MG	AA	1697	1/1	0.83	0.07	73,73,73,73	0
54	MG	CA	1636	1/1	0.84	0.10	98,98,98,98	0
54	MG	AA	1864	1/1	0.84	0.09	75,75,75,75	0
54	MG	DA	3505	1/1	0.84	0.22	105,105,105,105	0
54	MG	DA	3081	1/1	0.84	0.26	67,67,67,67	0
54	MG	DA	3515	1/1	0.84	0.30	73,73,73,73	0
54	MG	DA	3516	1/1	0.84	0.10	73,73,73,73	0
54	MG	CA	1641	1/1	0.84	0.15	79,79,79,79	0
54	MG	DA	3302	1/1	0.84	0.23	102,102,102,102	0
54	MG	BA	3357	1/1	0.84	0.09	80,80,80,80	0
54	MG	BA	3422	1/1	0.84	0.11	93,93,93,93	0
54	MG	BA	3110	1/1	0.84	0.23	72,72,72,72	0
54	MG	DA	3100	1/1	0.84	0.21	78,78,78,78	0
54	MG	DA	3105	1/1	0.84	0.21	87,87,87,87	0
54	MG	BA	3445	1/1	0.84	0.30	61,61,61,61	0
54	MG	CA	1880	1/1	0.84	0.18	83,83,83,83	0
54	MG	CC	304	1/1	0.84	0.07	121,121,121,121	0
54	MG	BB	213	1/1	0.84	0.06	111,111,111,111	0
54	MG	CA	1883	1/1	0.84	0.12	75,75,75,75	0
54	MG	BA	2966	1/1	0.84	0.09	38,38,38,38	0
54	MG	AA	1865	1/1	0.84	0.13	107,107,107,107	0
54	MG	AA	1823	1/1	0.84	0.14	148,148,148,148	0
54	MG	BA	3052	1/1	0.84	0.16	73,73,73,73	0
54	MG	BA	3306	1/1	0.84	0.07	78,78,78,78	0
54	MG	DA	3349	1/1	0.84	0.10	116,116,116,116	0
54	MG	BB	226	1/1	0.84	0.33	98,98,98,98	0
54	MG	DA	3849	1/1	0.84	0.11	89,89,89,89	0
54	MG	BA	3555	1/1	0.84	0.09	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3384	1/1	0.84	0.21	93,93,93,93	0
54	MG	DA	3632	1/1	0.84	0.16	111,111,111,111	0
54	MG	DA	3856	1/1	0.84	0.08	86,86,86,86	0
54	MG	CA	1692	1/1	0.84	0.28	115,115,115,115	0
54	MG	CA	1696	1/1	0.84	0.12	75,75,75,75	0
54	MG	DA	3652	1/1	0.84	0.21	66,66,66,66	0
54	MG	DB	221	1/1	0.84	0.11	98,98,98,98	0
54	MG	BA	2997	1/1	0.84	0.26	81,81,81,81	0
54	MG	DA	3660	1/1	0.84	0.16	65,65,65,65	0
54	MG	AA	1649	1/1	0.84	0.08	74,74,74,74	0
54	MG	CA	1810	1/1	0.84	0.09	99,99,99,99	0
54	MG	CA	1904	1/1	0.84	0.17	97,97,97,97	0
54	MG	BA	3062	1/1	0.84	0.18	79,79,79,79	0
54	MG	AA	1872	1/1	0.84	0.07	88,88,88,88	0
54	MG	AE	203	1/1	0.84	0.04	91,91,91,91	0
54	MG	BV	203	1/1	0.84	0.08	104,104,104,104	0
54	MG	DD	303	1/1	0.84	0.07	70,70,70,70	0
54	MG	BA	3339	1/1	0.84	0.06	103,103,103,103	0
54	MG	DA	3226	1/1	0.84	0.14	86,86,86,86	0
54	MG	BA	3401	1/1	0.84	0.08	85,85,85,85	0
54	MG	BA	3506	1/1	0.84	0.18	89,89,89,89	0
54	MG	DA	2942	1/1	0.84	0.36	54,54,54,54	0
54	MG	AE	205	1/1	0.84	0.05	106,106,106,106	0
54	MG	AA	1796	1/1	0.84	0.14	106,106,106,106	0
54	MG	DA	3713	1/1	0.84	0.24	96,96,96,96	0
54	MG	BA	3513	1/1	0.84	0.19	74,74,74,74	0
54	MG	AA	1741	1/1	0.84	0.17	112,112,112,112	0
54	MG	CA	1622	1/1	0.84	0.34	77,77,77,77	0
54	MG	DA	3261	1/1	0.84	0.10	57,57,57,57	0
54	MG	AH	201	1/1	0.84	0.09	78,78,78,78	0
54	MG	AA	1763	1/1	0.84	0.08	121,121,121,121	0
54	MG	CA	1943	1/1	0.84	0.13	87,87,87,87	0
54	MG	DA	3047	1/1	0.84	0.30	74,74,74,74	0
54	MG	CA	1751	1/1	0.84	0.14	117,117,117,117	0
54	MG	DA	3277	1/1	0.84	0.22	59,59,59,59	0
54	MG	AA	1714	1/1	0.84	0.06	81,81,81,81	0
54	MG	CA	1955	1/1	0.84	0.18	98,98,98,98	0
54	MG	BY	101	1/1	0.85	0.23	42,42,42,42	0
54	MG	DA	3355	1/1	0.85	0.10	76,76,76,76	0
54	MG	DA	3126	1/1	0.85	0.22	64,64,64,64	0
54	MG	CA	1842	1/1	0.85	0.22	103,103,103,103	0
54	MG	CA	1843	1/1	0.85	0.15	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1844	1/1	0.85	0.11	78,78,78,78	0
54	MG	DA	3714	1/1	0.85	0.06	96,96,96,96	0
54	MG	DA	3716	1/1	0.85	0.13	78,78,78,78	0
54	MG	BA	3179	1/1	0.85	0.07	79,79,79,79	0
54	MG	CA	1721	1/1	0.85	0.14	118,118,118,118	0
54	MG	DA	3380	1/1	0.85	0.09	84,84,84,84	0
54	MG	DA	3143	1/1	0.85	0.06	67,67,67,67	0
54	MG	AA	1760	1/1	0.85	0.23	88,88,88,88	0
54	MG	DA	3155	1/1	0.85	0.07	70,70,70,70	0
54	MG	CA	1610	1/1	0.85	0.24	90,90,90,90	0
54	MG	DA	3754	1/1	0.85	0.29	121,121,121,121	0
54	MG	AA	1672	1/1	0.85	0.33	78,78,78,78	0
54	MG	CA	1613	1/1	0.85	0.12	68,68,68,68	0
54	MG	DA	3191	1/1	0.85	0.21	62,62,62,62	0
54	MG	BA	3145	1/1	0.85	0.20	74,74,74,74	0
54	MG	CA	1860	1/1	0.85	0.13	68,68,68,68	0
54	MG	DA	3768	1/1	0.85	0.28	102,102,102,102	0
54	MG	CA	1734	1/1	0.85	0.19	90,90,90,90	0
54	MG	BA	3310	1/1	0.85	0.22	109,109,109,109	0
54	MG	BA	3196	1/1	0.85	0.24	80,80,80,80	0
54	MG	CA	1750	1/1	0.85	0.09	87,87,87,87	0
54	MG	BA	3324	1/1	0.85	0.15	109,109,109,109	0
54	MG	CA	1625	1/1	0.85	0.24	67,67,67,67	0
54	MG	BA	3100	1/1	0.85	0.14	79,79,79,79	0
54	MG	AA	1620	1/1	0.85	0.26	56,56,56,56	0
54	MG	CL	202	1/1	0.85	0.11	105,105,105,105	0
54	MG	CL	203	1/1	0.85	0.20	123,123,123,123	0
54	MG	DA	3474	1/1	0.85	0.13	81,81,81,81	0
54	MG	BB	201	1/1	0.85	0.25	63,63,63,63	0
54	MG	BB	204	1/1	0.85	0.12	102,102,102,102	0
54	MG	CA	1638	1/1	0.85	0.15	101,101,101,101	0
54	MG	DA	3816	1/1	0.85	0.06	52,52,52,52	0
54	MG	DA	3245	1/1	0.85	0.48	100,100,100,100	0
54	MG	BA	3550	1/1	0.85	0.07	79,79,79,79	0
54	MG	AA	1740	1/1	0.85	0.08	76,76,76,76	0
54	MG	DA	3828	1/1	0.85	0.09	85,85,85,85	0
54	MG	CA	1645	1/1	0.85	0.09	80,80,80,80	0
54	MG	BA	3021	1/1	0.85	0.25	66,66,66,66	0
54	MG	BB	210	1/1	0.85	0.19	82,82,82,82	0
54	MG	DA	3514	1/1	0.85	0.07	68,68,68,68	0
54	MG	CA	1899	1/1	0.85	0.12	98,98,98,98	0
54	MG	CA	1784	1/1	0.85	0.10	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3838	1/1	0.85	0.21	117,117,117,117	0
54	MG	DA	3839	1/1	0.85	0.13	86,86,86,86	0
54	MG	DA	3517	1/1	0.85	0.08	102,102,102,102	0
54	MG	DA	3267	1/1	0.85	0.09	43,43,43,43	0
54	MG	BB	211	1/1	0.85	0.06	85,85,85,85	0
54	MG	DA	3270	1/1	0.85	0.19	82,82,82,82	0
54	MG	DA	3526	1/1	0.85	0.18	84,84,84,84	0
54	MG	DA	3539	1/1	0.85	0.05	81,81,81,81	0
54	MG	BB	212	1/1	0.85	0.08	107,107,107,107	0
54	MG	BA	3022	1/1	0.85	0.15	83,83,83,83	0
54	MG	BA	3618	1/1	0.85	0.13	76,76,76,76	0
54	MG	DA	3582	1/1	0.85	0.16	85,85,85,85	0
54	MG	BA	3399	1/1	0.85	0.06	104,104,104,104	0
54	MG	CA	1663	1/1	0.85	0.16	128,128,128,128	0
54	MG	DB	227	1/1	0.85	0.06	104,104,104,104	0
54	MG	DA	3280	1/1	0.85	0.25	85,85,85,85	0
54	MG	DA	3283	1/1	0.85	0.24	71,71,71,71	0
54	MG	BA	3560	1/1	0.85	0.17	74,74,74,74	0
54	MG	CA	1913	1/1	0.85	0.18	109,109,109,109	0
54	MG	DB	235	1/1	0.85	0.22	91,91,91,91	0
54	MG	BA	3114	1/1	0.85	0.17	69,69,69,69	0
54	MG	CA	1803	1/1	0.85	0.17	99,99,99,99	0
54	MG	DA	3043	1/1	0.85	0.20	59,59,59,59	0
54	MG	BA	3216	1/1	0.85	0.19	87,87,87,87	0
54	MG	AA	1648	1/1	0.85	0.22	90,90,90,90	0
54	MG	BB	227	1/1	0.85	0.19	80,80,80,80	0
54	MG	AA	1868	1/1	0.85	0.09	101,101,101,101	0
54	MG	BA	3409	1/1	0.85	0.10	51,51,51,51	0
54	MG	BA	3637	1/1	0.85	0.06	105,105,105,105	0
54	MG	AA	1821	1/1	0.85	0.27	91,91,91,91	0
54	MG	DA	3083	1/1	0.85	0.12	120,120,120,120	0
54	MG	DA	3084	1/1	0.85	0.30	65,65,65,65	0
54	MG	DA	3644	1/1	0.85	0.25	75,75,75,75	0
54	MG	AA	1847	1/1	0.85	0.18	90,90,90,90	0
54	MG	CA	1938	1/1	0.85	0.07	81,81,81,81	0
54	MG	DA	3321	1/1	0.85	0.35	110,110,110,110	0
54	MG	DA	3331	1/1	0.85	0.09	90,90,90,90	0
54	MG	AA	1693	1/1	0.85	0.26	83,83,83,83	0
54	MG	AA	1772	1/1	0.85	0.09	111,111,111,111	0
54	MG	BV	201	1/1	0.85	0.15	98,98,98,98	0
54	MG	CA	1947	1/1	0.85	0.07	136,136,136,136	0
54	MG	BA	3653	1/1	0.85	0.36	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3347	1/1	0.85	0.17	67,67,67,67	0
54	MG	CA	1711	1/1	0.85	0.12	76,76,76,76	0
54	MG	BA	3361	1/1	0.85	0.09	154,154,154,154	0
54	MG	DA	3697	1/1	0.86	0.19	92,92,92,92	0
54	MG	CA	1612	1/1	0.86	0.19	76,76,76,76	0
54	MG	BA	2956	1/1	0.86	0.33	49,49,49,49	0
54	MG	BA	3494	1/1	0.86	0.06	66,66,66,66	0
54	MG	CA	1854	1/1	0.86	0.16	111,111,111,111	0
54	MG	BA	3585	1/1	0.86	0.08	69,69,69,69	0
54	MG	DA	3383	1/1	0.86	0.09	112,112,112,112	0
54	MG	AD	304	1/1	0.86	0.05	113,113,113,113	0
54	MG	DA	3395	1/1	0.86	0.21	75,75,75,75	0
54	MG	DA	3723	1/1	0.86	0.13	67,67,67,67	0
54	MG	DA	3171	1/1	0.86	0.08	93,93,93,93	0
54	MG	CA	1618	1/1	0.86	0.22	84,84,84,84	0
54	MG	CC	307	1/1	0.86	0.04	108,108,108,108	0
54	MG	BA	3101	1/1	0.86	0.28	74,74,74,74	0
54	MG	DA	3737	1/1	0.86	0.29	136,136,136,136	0
54	MG	DA	3422	1/1	0.86	0.16	62,62,62,62	0
54	MG	DA	3195	1/1	0.86	0.07	83,83,83,83	0
54	MG	CA	1624	1/1	0.86	0.20	94,94,94,94	0
54	MG	AA	1858	1/1	0.86	0.07	86,86,86,86	0
54	MG	CA	1872	1/1	0.86	0.17	84,84,84,84	0
54	MG	BA	3230	1/1	0.86	0.24	111,111,111,111	0
54	MG	CA	1628	1/1	0.86	0.27	84,84,84,84	0
54	MG	DA	3445	1/1	0.86	0.54	137,137,137,137	0
54	MG	BA	3038	1/1	0.86	0.23	63,63,63,63	0
54	MG	BA	2981	1/1	0.86	0.20	56,56,56,56	0
54	MG	BA	3041	1/1	0.86	0.23	62,62,62,62	0
54	MG	DA	3463	1/1	0.86	0.07	69,69,69,69	0
54	MG	CA	1765	1/1	0.86	0.04	95,95,95,95	0
54	MG	BA	3320	1/1	0.86	0.08	71,71,71,71	0
54	MG	AA	1860	1/1	0.86	0.35	138,138,138,138	0
54	MG	CA	1887	1/1	0.86	0.08	75,75,75,75	0
54	MG	CA	1889	1/1	0.86	0.15	74,74,74,74	0
54	MG	CA	1890	1/1	0.86	0.31	78,78,78,78	0
54	MG	DA	3793	1/1	0.86	0.11	106,106,106,106	0
54	MG	AA	1713	1/1	0.86	0.26	98,98,98,98	0
54	MG	DA	3482	1/1	0.86	0.09	69,69,69,69	0
54	MG	CA	1771	1/1	0.86	0.10	98,98,98,98	0
54	MG	BA	3603	1/1	0.86	0.09	86,86,86,86	0
54	MG	DA	3253	1/1	0.86	0.08	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3809	1/1	0.86	0.29	84,84,84,84	0
54	MG	BA	3001	1/1	0.86	0.20	65,65,65,65	0
54	MG	BA	3605	1/1	0.86	0.10	69,69,69,69	0
54	MG	AA	1810	1/1	0.86	0.33	86,86,86,86	0
54	MG	BA	3254	1/1	0.86	0.19	68,68,68,68	0
54	MG	DA	2915	1/1	0.86	0.27	49,49,49,49	0
54	MG	DA	3266	1/1	0.86	0.06	85,85,85,85	0
54	MG	BA	3190	1/1	0.86	0.12	72,72,72,72	0
54	MG	BA	3342	1/1	0.86	0.19	62,62,62,62	0
54	MG	AA	1635	1/1	0.86	0.24	37,37,37,37	0
54	MG	DA	2953	1/1	0.86	0.27	46,46,46,46	0
54	MG	DA	3007	1/1	0.86	0.13	44,44,44,44	0
54	MG	DA	3010	1/1	0.86	0.17	72,72,72,72	0
54	MG	BA	3019	1/1	0.86	0.26	67,67,67,67	0
54	MG	DA	3531	1/1	0.86	0.35	93,93,93,93	0
54	MG	AA	1784	1/1	0.86	0.33	89,89,89,89	0
54	MG	AA	1757	1/1	0.86	0.08	98,98,98,98	0
54	MG	DA	3565	1/1	0.86	0.06	97,97,97,97	0
54	MG	DA	3573	1/1	0.86	0.20	85,85,85,85	0
54	MG	BA	3540	1/1	0.86	0.08	80,80,80,80	0
54	MG	DA	3576	1/1	0.86	0.30	99,99,99,99	0
54	MG	BA	3350	1/1	0.86	0.09	66,66,66,66	0
54	MG	DA	3857	1/1	0.86	0.08	98,98,98,98	0
54	MG	BA	3198	1/1	0.86	0.14	85,85,85,85	0
54	MG	DB	208	1/1	0.86	0.13	86,86,86,86	0
54	MG	CA	1916	1/1	0.86	0.11	118,118,118,118	0
54	MG	AB	303	1/1	0.86	0.05	108,108,108,108	0
54	MG	CA	1808	1/1	0.86	0.08	98,98,98,98	0
54	MG	CA	1685	1/1	0.86	0.13	109,109,109,109	0
54	MG	BA	3280	1/1	0.86	0.09	61,61,61,61	0
54	MG	DB	229	1/1	0.86	0.13	134,134,134,134	0
54	MG	BP	202	1/1	0.86	0.04	84,84,84,84	0
54	MG	DA	3307	1/1	0.86	0.30	84,84,84,84	0
54	MG	AA	1736	1/1	0.86	0.07	112,112,112,112	0
54	MG	BA	3468	1/1	0.86	0.29	57,57,57,57	0
54	MG	DA	3609	1/1	0.86	0.18	113,113,113,113	0
54	MG	DB	236	1/1	0.86	0.09	84,84,84,84	0
54	MG	CA	1929	1/1	0.86	0.10	95,95,95,95	0
54	MG	CA	1932	1/1	0.86	0.05	84,84,84,84	0
54	MG	DB	239	1/1	0.86	0.22	107,107,107,107	0
54	MG	BU	201	1/1	0.86	0.18	70,70,70,70	0
54	MG	AC	302	1/1	0.86	0.28	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3206	1/1	0.86	0.07	96,96,96,96	0
54	MG	CA	1825	1/1	0.86	0.21	97,97,97,97	0
54	MG	DA	3621	1/1	0.86	0.06	88,88,88,88	0
54	MG	DF	202	1/1	0.86	0.08	129,129,129,129	0
54	MG	BA	3479	1/1	0.86	0.09	69,69,69,69	0
54	MG	DA	3327	1/1	0.86	0.09	79,79,79,79	0
54	MG	CA	1710	1/1	0.86	0.07	169,169,169,169	0
54	MG	BA	3370	1/1	0.86	0.21	76,76,76,76	0
54	MG	DA	3647	1/1	0.86	0.27	54,54,54,54	0
54	MG	BA	3569	1/1	0.86	0.08	116,116,116,116	0
54	MG	CA	1949	1/1	0.86	0.10	98,98,98,98	0
54	MG	CA	1950	1/1	0.86	0.13	107,107,107,107	0
54	MG	CA	1601	1/1	0.86	0.26	60,60,60,60	0
54	MG	DA	3114	1/1	0.86	0.24	66,66,66,66	0
54	MG	DA	3348	1/1	0.86	0.06	83,83,83,83	0
54	MG	CA	1953	1/1	0.86	0.17	120,120,120,120	0
54	MG	CA	1954	1/1	0.86	0.06	89,89,89,89	0
54	MG	BA	3654	1/1	0.86	0.14	122,122,122,122	0
54	MG	CA	1719	1/1	0.86	0.12	78,78,78,78	0
54	MG	DA	3681	1/1	0.86	0.16	78,78,78,78	0
54	MG	D1	101	1/1	0.86	0.10	80,80,80,80	0
54	MG	BA	3078	1/1	0.86	0.24	104,104,104,104	0
54	MG	AN	102	1/1	0.86	0.19	91,91,91,91	0
54	MG	DA	3719	1/1	0.87	0.24	84,84,84,84	0
54	MG	BA	3548	1/1	0.87	0.08	61,61,61,61	0
54	MG	AA	1814	1/1	0.87	0.14	82,82,82,82	0
54	MG	DA	3441	1/1	0.87	0.12	60,60,60,60	0
54	MG	BA	3421	1/1	0.87	0.08	80,80,80,80	0
54	MG	CA	1888	1/1	0.87	0.08	109,109,109,109	0
54	MG	AV	6202	1/1	0.87	0.17	97,97,97,97	0
54	MG	DA	3454	1/1	0.87	0.15	81,81,81,81	0
54	MG	CL	206	1/1	0.87	0.13	87,87,87,87	0
54	MG	BA	3087	1/1	0.87	0.33	84,84,84,84	0
54	MG	BA	3272	1/1	0.87	0.24	81,81,81,81	0
54	MG	CA	1626	1/1	0.87	0.28	68,68,68,68	0
54	MG	BA	3456	1/1	0.87	0.21	64,64,64,64	0
54	MG	BA	3274	1/1	0.87	0.26	98,98,98,98	0
54	MG	AA	1878	1/1	0.87	0.12	92,92,92,92	0
54	MG	BA	3565	1/1	0.87	0.24	104,104,104,104	0
54	MG	CQ	202	1/1	0.87	0.07	79,79,79,79	0
54	MG	AA	1696	1/1	0.87	0.12	120,120,120,120	0
54	MG	BA	3282	1/1	0.87	0.09	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3774	1/1	0.87	0.06	74,74,74,74	0
54	MG	DA	3264	1/1	0.87	0.11	78,78,78,78	0
54	MG	DA	3490	1/1	0.87	0.16	70,70,70,70	0
54	MG	CA	1786	1/1	0.87	0.08	94,94,94,94	0
54	MG	DA	3781	1/1	0.87	0.11	55,55,55,55	0
54	MG	DA	3784	1/1	0.87	0.07	108,108,108,108	0
54	MG	DA	3500	1/1	0.87	0.08	108,108,108,108	0
54	MG	BA	3473	1/1	0.87	0.21	70,70,70,70	0
54	MG	BA	3475	1/1	0.87	0.23	67,67,67,67	0
54	MG	BA	3096	1/1	0.87	0.23	76,76,76,76	0
54	MG	DA	2985	1/1	0.87	0.20	40,40,40,40	0
54	MG	DA	2994	1/1	0.87	0.14	54,54,54,54	0
54	MG	DA	3512	1/1	0.87	0.25	159,159,159,159	0
54	MG	CA	1905	1/1	0.87	0.27	130,130,130,130	0
54	MG	CA	1908	1/1	0.87	0.16	104,104,104,104	0
54	MG	BA	3582	1/1	0.87	0.13	102,102,102,102	0
54	MG	AA	1852	1/1	0.87	0.05	84,84,84,84	0
54	MG	BA	3584	1/1	0.87	0.08	83,83,83,83	0
54	MG	DA	3282	1/1	0.87	0.33	69,69,69,69	0
54	MG	BA	3213	1/1	0.87	0.15	102,102,102,102	0
54	MG	DA	3523	1/1	0.87	0.05	77,77,77,77	0
54	MG	AA	1853	1/1	0.87	0.05	86,86,86,86	0
54	MG	BA	3587	1/1	0.87	0.09	77,77,77,77	0
54	MG	BA	3102	1/1	0.87	0.14	72,72,72,72	0
54	MG	DA	3541	1/1	0.87	0.06	76,76,76,76	0
54	MG	BA	3105	1/1	0.87	0.16	72,72,72,72	0
54	MG	DA	3564	1/1	0.87	0.08	77,77,77,77	0
54	MG	BA	3592	1/1	0.87	0.38	79,79,79,79	0
54	MG	BA	3378	1/1	0.87	0.13	80,80,80,80	0
54	MG	BA	3012	1/1	0.87	0.33	71,71,71,71	0
54	MG	BA	3382	1/1	0.87	0.13	85,85,85,85	0
54	MG	DA	3842	1/1	0.87	0.22	105,105,105,105	0
54	MG	DA	3578	1/1	0.87	0.04	96,96,96,96	0
54	MG	AA	1871	1/1	0.87	0.04	110,110,110,110	0
54	MG	BA	3049	1/1	0.87	0.20	58,58,58,58	0
54	MG	BA	3504	1/1	0.87	0.24	94,94,94,94	0
54	MG	CA	1686	1/1	0.87	0.17	82,82,82,82	0
54	MG	AA	1604	1/1	0.87	0.29	62,62,62,62	0
54	MG	BC	301	1/1	0.87	0.28	60,60,60,60	0
54	MG	CA	1697	1/1	0.87	0.04	83,83,83,83	0
54	MG	BA	3174	1/1	0.87	0.07	67,67,67,67	0
54	MG	CA	1945	1/1	0.87	0.12	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3507	1/1	0.87	0.13	68,68,68,68	0
54	MG	DA	3323	1/1	0.87	0.25	78,78,78,78	0
54	MG	BA	3392	1/1	0.87	0.26	108,108,108,108	0
54	MG	CA	1839	1/1	0.87	0.14	92,92,92,92	0
54	MG	DB	228	1/1	0.87	0.11	88,88,88,88	0
54	MG	BA	3315	1/1	0.87	0.08	84,84,84,84	0
54	MG	BK	201	1/1	0.87	0.21	77,77,77,77	0
54	MG	CA	1952	1/1	0.87	0.07	88,88,88,88	0
54	MG	DA	3339	1/1	0.87	0.22	81,81,81,81	0
54	MG	AA	1614	1/1	0.87	0.15	68,68,68,68	0
54	MG	DA	3118	1/1	0.87	0.18	50,50,50,50	0
54	MG	BA	2955	1/1	0.87	0.16	63,63,63,63	0
54	MG	BA	3517	1/1	0.87	0.20	87,87,87,87	0
54	MG	AA	1822	1/1	0.87	0.05	92,92,92,92	0
54	MG	DA	3635	1/1	0.87	0.10	73,73,73,73	0
54	MG	CA	1849	1/1	0.87	0.10	167,167,167,167	0
54	MG	BA	3615	1/1	0.87	0.08	93,93,93,93	0
54	MG	DA	3650	1/1	0.87	0.14	55,55,55,55	0
54	MG	DD	304	1/1	0.87	0.14	94,94,94,94	0
54	MG	BA	3400	1/1	0.87	0.08	83,83,83,83	0
54	MG	CA	1852	1/1	0.87	0.12	101,101,101,101	0
54	MG	AA	1664	1/1	0.87	0.19	80,80,80,80	0
54	MG	DA	3364	1/1	0.87	0.49	75,75,75,75	0
54	MG	BA	3191	1/1	0.87	0.35	90,90,90,90	0
54	MG	DA	3148	1/1	0.87	0.10	94,94,94,94	0
54	MG	DA	3154	1/1	0.87	0.13	50,50,50,50	0
54	MG	AA	1638	1/1	0.87	0.19	89,89,89,89	0
54	MG	BY	102	1/1	0.87	0.08	110,110,110,110	0
54	MG	B2	102	1/1	0.87	0.25	65,65,65,65	0
54	MG	BA	3627	1/1	0.87	0.12	67,67,67,67	0
54	MG	DA	3390	1/1	0.87	0.17	72,72,72,72	0
54	MG	BA	3338	1/1	0.87	0.08	78,78,78,78	0
54	MG	CD	303	1/1	0.87	0.08	76,76,76,76	0
54	MG	CA	1870	1/1	0.87	0.06	94,94,94,94	0
54	MG	BA	3137	1/1	0.87	0.08	90,90,90,90	0
54	MG	CA	1744	1/1	0.87	0.07	80,80,80,80	0
54	MG	BA	3535	1/1	0.87	0.20	95,95,95,95	0
54	MG	BA	2978	1/1	0.87	0.25	58,58,58,58	0
54	MG	BA	3075	1/1	0.87	0.06	60,60,60,60	0
54	MG	BA	3343	1/1	0.87	0.11	87,87,87,87	0
54	MG	D4	102	1/1	0.87	0.20	65,65,65,65	0
54	MG	BA	3261	1/1	0.87	0.30	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3579	1/1	0.88	0.48	107,107,107,107	0
54	MG	BA	3483	1/1	0.88	0.17	71,71,71,71	0
54	MG	DA	3434	1/1	0.88	0.19	89,89,89,89	0
54	MG	AA	1628	1/1	0.88	0.26	86,86,86,86	0
54	MG	DA	3727	1/1	0.88	0.10	88,88,88,88	0
54	MG	DA	3436	1/1	0.88	0.20	101,101,101,101	0
54	MG	AA	1683	1/1	0.88	0.19	64,64,64,64	0
54	MG	BA	3679	1/1	0.88	0.09	75,75,75,75	0
54	MG	BA	3058	1/1	0.88	0.34	78,78,78,78	0
54	MG	DA	3224	1/1	0.88	0.09	55,55,55,55	0
54	MG	DA	3452	1/1	0.88	0.12	74,74,74,74	0
54	MG	AA	1770	1/1	0.88	0.10	76,76,76,76	0
54	MG	AA	1657	1/1	0.88	0.11	79,79,79,79	0
54	MG	DA	3745	1/1	0.88	0.04	109,109,109,109	0
54	MG	DA	3753	1/1	0.88	0.11	79,79,79,79	0
54	MG	AT	202	1/1	0.88	0.30	80,80,80,80	0
54	MG	BA	3294	1/1	0.88	0.12	89,89,89,89	0
54	MG	DA	3239	1/1	0.88	0.13	126,126,126,126	0
54	MG	AD	303	1/1	0.88	0.15	68,68,68,68	0
54	MG	BA	3298	1/1	0.88	0.05	126,126,126,126	0
54	MG	BA	3018	1/1	0.88	0.26	88,88,88,88	0
54	MG	AV	6203	1/1	0.88	0.06	62,62,62,62	0
54	MG	DA	3472	1/1	0.88	0.19	95,95,95,95	0
54	MG	AA	1675	1/1	0.88	0.18	82,82,82,82	0
54	MG	CA	1658	1/1	0.88	0.06	94,94,94,94	0
54	MG	BA	3597	1/1	0.88	0.16	56,56,56,56	0
54	MG	AA	1837	1/1	0.88	0.10	115,115,115,115	0
54	MG	DA	3777	1/1	0.88	0.10	90,90,90,90	0
54	MG	DA	3488	1/1	0.88	0.22	102,102,102,102	0
54	MG	CA	1907	1/1	0.88	0.04	87,87,87,87	0
54	MG	CA	1796	1/1	0.88	0.09	87,87,87,87	0
54	MG	DA	2955	1/1	0.88	0.32	45,45,45,45	0
54	MG	DA	2976	1/1	0.88	0.34	68,68,68,68	0
54	MG	AA	1838	1/1	0.88	0.13	77,77,77,77	0
54	MG	BA	3023	1/1	0.88	0.20	57,57,57,57	0
54	MG	AA	1774	1/1	0.88	0.10	70,70,70,70	0
54	MG	CA	1669	1/1	0.88	0.06	76,76,76,76	0
54	MG	DA	3025	1/1	0.88	0.25	80,80,80,80	0
54	MG	BA	3237	1/1	0.88	0.11	64,64,64,64	0
54	MG	DA	3276	1/1	0.88	0.35	86,86,86,86	0
54	MG	CA	1672	1/1	0.88	0.13	137,137,137,137	0
54	MG	BA	3318	1/1	0.88	0.18	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1642	1/1	0.88	0.19	100,100,100,100	0
54	MG	CA	1812	1/1	0.88	0.22	92,92,92,92	0
54	MG	BC	302	1/1	0.88	0.08	82,82,82,82	0
54	MG	DA	3285	1/1	0.88	0.09	65,65,65,65	0
54	MG	CA	1684	1/1	0.88	0.11	63,63,63,63	0
54	MG	BA	3098	1/1	0.88	0.17	90,90,90,90	0
54	MG	DA	3041	1/1	0.88	0.23	76,76,76,76	0
54	MG	DA	3537	1/1	0.88	0.16	101,101,101,101	0
54	MG	CA	1819	1/1	0.88	0.07	109,109,109,109	0
54	MG	DA	3046	1/1	0.88	0.14	37,37,37,37	0
54	MG	DA	3544	1/1	0.88	0.28	53,53,53,53	0
54	MG	AA	1845	1/1	0.88	0.04	71,71,71,71	0
54	MG	CA	1821	1/1	0.88	0.06	96,96,96,96	0
54	MG	DA	3305	1/1	0.88	0.20	99,99,99,99	0
54	MG	BA	3407	1/1	0.88	0.23	79,79,79,79	0
54	MG	AA	1778	1/1	0.88	0.15	113,113,113,113	0
54	MG	AA	1779	1/1	0.88	0.22	108,108,108,108	0
54	MG	CA	1829	1/1	0.88	0.05	89,89,89,89	0
54	MG	BA	3103	1/1	0.88	0.31	74,74,74,74	0
54	MG	AA	1818	1/1	0.88	0.07	76,76,76,76	0
54	MG	AA	1755	1/1	0.88	0.06	98,98,98,98	0
54	MG	BA	3185	1/1	0.88	0.25	85,85,85,85	0
54	MG	CA	1948	1/1	0.88	0.05	99,99,99,99	0
54	MG	BA	2970	1/1	0.88	0.14	55,55,55,55	0
54	MG	BA	3624	1/1	0.88	0.08	82,82,82,82	0
54	MG	DB	212	1/1	0.88	0.13	85,85,85,85	0
54	MG	BA	3188	1/1	0.88	0.10	103,103,103,103	0
54	MG	DB	220	1/1	0.88	0.07	75,75,75,75	0
54	MG	BX	101	1/1	0.88	0.07	71,71,71,71	0
54	MG	BA	3189	1/1	0.88	0.11	76,76,76,76	0
54	MG	DB	226	1/1	0.88	0.03	73,73,73,73	0
54	MG	DA	3602	1/1	0.88	0.22	91,91,91,91	0
54	MG	BA	3426	1/1	0.88	0.16	87,87,87,87	0
54	MG	DA	3605	1/1	0.88	0.25	103,103,103,103	0
54	MG	BA	3262	1/1	0.88	0.09	75,75,75,75	0
54	MG	CA	1956	1/1	0.88	0.07	85,85,85,85	0
54	MG	AA	1797	1/1	0.88	0.17	72,72,72,72	0
54	MG	BA	2972	1/1	0.88	0.20	61,61,61,61	0
54	MG	BA	3268	1/1	0.88	0.26	84,84,84,84	0
54	MG	CA	1967	1/1	0.88	0.12	93,93,93,93	0
54	MG	DA	3129	1/1	0.88	0.22	93,93,93,93	0
54	MG	AA	1803	1/1	0.88	0.20	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1971	1/1	0.88	0.08	86,86,86,86	0
54	MG	DA	3134	1/1	0.88	0.24	69,69,69,69	0
54	MG	BA	3270	1/1	0.88	0.04	93,93,93,93	0
54	MG	BA	3128	1/1	0.88	0.16	65,65,65,65	0
54	MG	BA	3566	1/1	0.88	0.14	72,72,72,72	0
54	MG	DA	3144	1/1	0.88	0.15	69,69,69,69	0
54	MG	CA	1732	1/1	0.88	0.17	78,78,78,78	0
54	MG	DE	303	1/1	0.88	0.11	81,81,81,81	0
54	MG	DA	3368	1/1	0.88	0.14	98,98,98,98	0
54	MG	AA	1854	1/1	0.88	0.14	114,114,114,114	0
54	MG	CA	1740	1/1	0.88	0.08	117,117,117,117	0
54	MG	BA	2984	1/1	0.88	0.11	50,50,50,50	0
54	MG	DA	3159	1/1	0.88	0.36	106,106,106,106	0
54	MG	BA	3656	1/1	0.88	0.08	107,107,107,107	0
54	MG	DA	3667	1/1	0.88	0.37	59,59,59,59	0
54	MG	DA	3386	1/1	0.88	0.07	76,76,76,76	0
54	MG	BA	3570	1/1	0.88	0.11	67,67,67,67	0
54	MG	DA	3169	1/1	0.88	0.19	54,54,54,54	0
54	MG	DA	3393	1/1	0.88	0.11	77,77,77,77	0
54	MG	DA	3394	1/1	0.88	0.35	110,110,110,110	0
54	MG	BA	3572	1/1	0.88	0.04	87,87,87,87	0
54	MG	CA	1875	1/1	0.88	0.19	63,63,63,63	0
54	MG	CA	1621	1/1	0.88	0.18	67,67,67,67	0
54	MG	DA	3407	1/1	0.88	0.05	108,108,108,108	0
54	MG	CA	1752	1/1	0.88	0.17	71,71,71,71	0
54	MG	DX	101	1/1	0.88	0.64	103,103,103,103	0
54	MG	BA	3363	1/1	0.88	0.09	113,113,113,113	0
54	MG	CA	1756	1/1	0.88	0.14	84,84,84,84	0
54	MG	D3	101	1/1	0.88	0.07	90,90,90,90	0
54	MG	BA	3365	1/1	0.88	0.09	131,131,131,131	0
54	MG	BA	3578	1/1	0.88	0.04	74,74,74,74	0
55	ZN	CN	101	1/1	0.88	0.11	244,244,244,244	0
54	MG	CA	1906	1/1	0.89	0.07	80,80,80,80	0
54	MG	DA	3430	1/1	0.89	0.08	103,103,103,103	0
54	MG	CV	6204	1/1	0.89	0.09	112,112,112,112	0
54	MG	CA	1804	1/1	0.89	0.13	100,100,100,100	0
54	MG	AA	1632	1/1	0.89	0.29	65,65,65,65	0
54	MG	BA	3515	1/1	0.89	0.12	54,54,54,54	0
54	MG	AA	1643	1/1	0.89	0.22	63,63,63,63	0
54	MG	DA	2949	1/1	0.89	0.21	52,52,52,52	0
54	MG	BA	3394	1/1	0.89	0.08	95,95,95,95	0
54	MG	DA	3442	1/1	0.89	0.14	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	2976	1/1	0.89	0.15	65,65,65,65	0
54	MG	AA	1745	1/1	0.89	0.27	119,119,119,119	0
54	MG	BA	3322	1/1	0.89	0.23	71,71,71,71	0
54	MG	BA	3612	1/1	0.89	0.17	85,85,85,85	0
54	MG	BA	3526	1/1	0.89	0.05	66,66,66,66	0
54	MG	DA	3250	1/1	0.89	0.07	70,70,70,70	0
54	MG	BM	201	1/1	0.89	0.13	50,50,50,50	0
54	MG	DA	3021	1/1	0.89	0.39	68,68,68,68	0
54	MG	AQ	203	1/1	0.89	0.04	101,101,101,101	0
54	MG	BA	3326	1/1	0.89	0.26	82,82,82,82	0
54	MG	AA	1750	1/1	0.89	0.10	128,128,128,128	0
54	MG	DA	3759	1/1	0.89	0.07	97,97,97,97	0
54	MG	BA	3331	1/1	0.89	0.22	66,66,66,66	0
54	MG	DA	3030	1/1	0.89	0.13	73,73,73,73	0
54	MG	BA	3182	1/1	0.89	0.18	78,78,78,78	0
54	MG	DA	3477	1/1	0.89	0.18	78,78,78,78	0
54	MG	BU	202	1/1	0.89	0.06	74,74,74,74	0
54	MG	CA	1831	1/1	0.89	0.09	90,90,90,90	0
54	MG	BA	3406	1/1	0.89	0.17	88,88,88,88	0
54	MG	DA	3486	1/1	0.89	0.24	124,124,124,124	0
54	MG	BA	2992	1/1	0.89	0.17	69,69,69,69	0
54	MG	BA	3120	1/1	0.89	0.09	85,85,85,85	0
54	MG	BA	3126	1/1	0.89	0.09	60,60,60,60	0
54	MG	DA	3492	1/1	0.89	0.10	102,102,102,102	0
54	MG	DA	3494	1/1	0.89	0.10	63,63,63,63	0
54	MG	AD	302	1/1	0.89	0.06	76,76,76,76	0
54	MG	AA	1842	1/1	0.89	0.06	69,69,69,69	0
54	MG	AV	6201	1/1	0.89	0.07	67,67,67,67	0
54	MG	DA	3062	1/1	0.89	0.14	129,129,129,129	0
54	MG	AA	1751	1/1	0.89	0.10	88,88,88,88	0
54	MG	BA	3636	1/1	0.89	0.08	76,76,76,76	0
54	MG	BA	3193	1/1	0.89	0.21	81,81,81,81	0
54	MG	AA	1867	1/1	0.89	0.06	114,114,114,114	0
54	MG	DA	3076	1/1	0.89	0.19	78,78,78,78	0
54	MG	BA	3556	1/1	0.89	0.30	77,77,77,77	0
54	MG	AA	1673	1/1	0.89	0.07	95,95,95,95	0
54	MG	AA	1816	1/1	0.89	0.21	89,89,89,89	0
54	MG	DA	3297	1/1	0.89	0.18	76,76,76,76	0
54	MG	DA	3298	1/1	0.89	0.34	72,72,72,72	0
54	MG	DA	3822	1/1	0.89	0.04	70,70,70,70	0
54	MG	AA	1817	1/1	0.89	0.21	84,84,84,84	0
54	MG	DA	3301	1/1	0.89	0.21	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3352	1/1	0.89	0.10	80,80,80,80	0
54	MG	DA	3090	1/1	0.89	0.09	59,59,59,59	0
54	MG	DA	3532	1/1	0.89	0.12	106,106,106,106	0
54	MG	BA	3199	1/1	0.89	0.11	61,61,61,61	0
54	MG	DA	3094	1/1	0.89	0.23	67,67,67,67	0
54	MG	BA	3657	1/1	0.89	0.18	84,84,84,84	0
54	MG	BA	3354	1/1	0.89	0.10	123,123,123,123	0
54	MG	DA	3549	1/1	0.89	0.20	115,115,115,115	0
54	MG	DA	3552	1/1	0.89	0.07	68,68,68,68	0
54	MG	BA	2904	1/1	0.89	0.27	40,40,40,40	0
54	MG	CA	1968	1/1	0.89	0.08	87,87,87,87	0
54	MG	BA	3661	1/1	0.89	0.10	82,82,82,82	0
54	MG	DA	3571	1/1	0.89	0.12	72,72,72,72	0
54	MG	DA	3572	1/1	0.89	0.12	93,93,93,93	0
54	MG	DA	3112	1/1	0.89	0.16	91,91,91,91	0
54	MG	CA	1864	1/1	0.89	0.15	90,90,90,90	0
54	MG	AF	201	1/1	0.89	0.05	90,90,90,90	0
54	MG	DA	3577	1/1	0.89	0.19	73,73,73,73	0
54	MG	DA	3115	1/1	0.89	0.15	58,58,58,58	0
54	MG	DA	3864	1/1	0.89	0.18	53,53,53,53	0
54	MG	BA	3471	1/1	0.89	0.14	70,70,70,70	0
54	MG	DA	3121	1/1	0.89	0.13	38,38,38,38	0
54	MG	CA	1758	1/1	0.89	0.07	77,77,77,77	0
54	MG	BA	3203	1/1	0.89	0.08	67,67,67,67	0
54	MG	AA	1624	1/1	0.89	0.12	58,58,58,58	0
54	MG	BA	3146	1/1	0.89	0.08	99,99,99,99	0
54	MG	DA	3336	1/1	0.89	0.14	70,70,70,70	0
54	MG	DB	223	1/1	0.89	0.05	82,82,82,82	0
54	MG	DA	3131	1/1	0.89	0.12	63,63,63,63	0
54	MG	BA	3364	1/1	0.89	0.07	107,107,107,107	0
54	MG	DA	3597	1/1	0.89	0.06	124,124,124,124	0
54	MG	AA	1665	1/1	0.89	0.08	70,70,70,70	0
54	MG	BA	3366	1/1	0.89	0.12	80,80,80,80	0
54	MG	BA	3210	1/1	0.89	0.10	86,86,86,86	0
54	MG	DA	3138	1/1	0.89	0.11	81,81,81,81	0
54	MG	BA	3371	1/1	0.89	0.22	114,114,114,114	0
54	MG	BB	202	1/1	0.89	0.18	48,48,48,48	0
54	MG	CA	1646	1/1	0.89	0.15	115,115,115,115	0
54	MG	BA	3154	1/1	0.89	0.15	139,139,139,139	0
54	MG	BA	2944	1/1	0.89	0.31	47,47,47,47	0
54	MG	CA	1781	1/1	0.89	0.11	76,76,76,76	0
54	MG	AA	1640	1/1	0.89	0.24	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3366	1/1	0.89	0.05	73,73,73,73	0
54	MG	BA	3499	1/1	0.89	0.21	66,66,66,66	0
54	MG	DA	3160	1/1	0.89	0.10	53,53,53,53	0
54	MG	DD	305	1/1	0.89	0.10	52,52,52,52	0
54	MG	CA	1893	1/1	0.89	0.13	127,127,127,127	0
54	MG	BA	3299	1/1	0.89	0.13	72,72,72,72	0
54	MG	DA	3638	1/1	0.89	0.30	22,22,22,22	0
54	MG	DA	3643	1/1	0.89	0.20	40,40,40,40	0
54	MG	BA	3380	1/1	0.89	0.10	55,55,55,55	0
54	MG	DA	3379	1/1	0.89	0.15	78,78,78,78	0
54	MG	CA	1896	1/1	0.89	0.07	70,70,70,70	0
54	MG	DA	3183	1/1	0.89	0.13	76,76,76,76	0
54	MG	DA	3384	1/1	0.89	0.10	84,84,84,84	0
54	MG	AA	1678	1/1	0.89	0.06	78,78,78,78	0
54	MG	DK	201	1/1	0.89	0.14	87,87,87,87	0
54	MG	DK	202	1/1	0.89	0.17	69,69,69,69	0
54	MG	BA	3028	1/1	0.89	0.39	61,61,61,61	0
54	MG	AA	1739	1/1	0.89	0.07	81,81,81,81	0
54	MG	AA	1709	1/1	0.89	0.05	87,87,87,87	0
54	MG	DQ	201	1/1	0.89	0.10	57,57,57,57	0
54	MG	DA	3197	1/1	0.89	0.08	46,46,46,46	0
54	MG	DA	3198	1/1	0.89	0.10	65,65,65,65	0
54	MG	CA	1667	1/1	0.89	0.17	77,77,77,77	0
54	MG	DA	3202	1/1	0.89	0.16	76,76,76,76	0
54	MG	BA	3388	1/1	0.89	0.21	66,66,66,66	0
54	MG	DA	3410	1/1	0.89	0.08	48,48,48,48	0
54	MG	DA	3411	1/1	0.89	0.17	68,68,68,68	0
54	MG	DA	3692	1/1	0.89	0.26	86,86,86,86	0
54	MG	DA	3207	1/1	0.89	0.15	43,43,43,43	0
54	MG	DA	3694	1/1	0.89	0.20	64,64,64,64	0
54	MG	DA	3695	1/1	0.89	0.17	76,76,76,76	0
54	MG	AA	1726	1/1	0.89	0.10	103,103,103,103	0
54	MG	CA	1800	1/1	0.89	0.14	89,89,89,89	0
54	MG	BA	3170	1/1	0.89	0.21	87,87,87,87	0
54	MG	DA	3480	1/1	0.90	0.06	76,76,76,76	0
54	MG	BA	3563	1/1	0.90	0.18	58,58,58,58	0
54	MG	BA	3033	1/1	0.90	0.32	77,77,77,77	0
54	MG	BA	2979	1/1	0.90	0.13	86,86,86,86	0
54	MG	BA	2916	1/1	0.90	0.31	37,37,37,37	0
54	MG	DA	3747	1/1	0.90	0.05	78,78,78,78	0
54	MG	DA	3748	1/1	0.90	0.10	61,61,61,61	0
54	MG	DA	3752	1/1	0.90	0.17	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3088	1/1	0.90	0.09	83,83,83,83	0
54	MG	DA	3089	1/1	0.90	0.22	71,71,71,71	0
54	MG	AA	1780	1/1	0.90	0.06	101,101,101,101	0
54	MG	B4	101	1/1	0.90	0.18	91,91,91,91	0
54	MG	BA	3232	1/1	0.90	0.16	68,68,68,68	0
54	MG	DA	3761	1/1	0.90	0.05	100,100,100,100	0
54	MG	DA	3289	1/1	0.90	0.10	44,44,44,44	0
54	MG	BA	2987	1/1	0.90	0.09	79,79,79,79	0
54	MG	CA	1857	1/1	0.90	0.23	76,76,76,76	0
54	MG	DA	3767	1/1	0.90	0.06	73,73,73,73	0
54	MG	DA	3101	1/1	0.90	0.28	75,75,75,75	0
54	MG	DA	3103	1/1	0.90	0.10	58,58,58,58	0
54	MG	AA	1636	1/1	0.90	0.06	96,96,96,96	0
54	MG	DA	3510	1/1	0.90	0.12	64,64,64,64	0
54	MG	AA	1749	1/1	0.90	0.08	90,90,90,90	0
54	MG	DA	3108	1/1	0.90	0.21	54,54,54,54	0
54	MG	CA	1743	1/1	0.90	0.09	88,88,88,88	0
54	MG	BA	3655	1/1	0.90	0.08	92,92,92,92	0
54	MG	BA	3043	1/1	0.90	0.06	50,50,50,50	0
54	MG	CC	301	1/1	0.90	0.05	93,93,93,93	0
54	MG	DA	3308	1/1	0.90	0.16	83,83,83,83	0
54	MG	BA	2932	1/1	0.90	0.25	44,44,44,44	0
54	MG	BA	3389	1/1	0.90	0.10	66,66,66,66	0
54	MG	BA	3500	1/1	0.90	0.09	72,72,72,72	0
54	MG	BA	3046	1/1	0.90	0.15	65,65,65,65	0
54	MG	BA	3245	1/1	0.90	0.28	95,95,95,95	0
54	MG	DA	3799	1/1	0.90	0.15	96,96,96,96	0
54	MG	DA	3536	1/1	0.90	0.13	92,92,92,92	0
54	MG	DA	3801	1/1	0.90	0.04	83,83,83,83	0
54	MG	CA	1755	1/1	0.90	0.07	69,69,69,69	0
54	MG	DA	3806	1/1	0.90	0.07	92,92,92,92	0
54	MG	CD	304	1/1	0.90	0.07	108,108,108,108	0
54	MG	CA	1619	1/1	0.90	0.17	62,62,62,62	0
54	MG	BA	3668	1/1	0.90	0.17	97,97,97,97	0
54	MG	BA	2939	1/1	0.90	0.20	47,47,47,47	0
54	MG	DA	3817	1/1	0.90	0.11	76,76,76,76	0
54	MG	BA	3248	1/1	0.90	0.21	82,82,82,82	0
54	MG	DA	3328	1/1	0.90	0.31	85,85,85,85	0
54	MG	DA	3824	1/1	0.90	0.42	113,113,113,113	0
54	MG	BA	3113	1/1	0.90	0.19	59,59,59,59	0
54	MG	AA	1661	1/1	0.90	0.05	51,51,51,51	0
54	MG	AA	1602	1/1	0.90	0.30	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3122	1/1	0.90	0.15	56,56,56,56	0
54	MG	BA	2951	1/1	0.90	0.35	53,53,53,53	0
54	MG	BA	3258	1/1	0.90	0.11	78,78,78,78	0
54	MG	AA	1762	1/1	0.90	0.24	91,91,91,91	0
54	MG	BA	3595	1/1	0.90	0.05	108,108,108,108	0
54	MG	BB	203	1/1	0.90	0.28	74,74,74,74	0
54	MG	DA	3156	1/1	0.90	0.20	52,52,52,52	0
54	MG	DA	3158	1/1	0.90	0.17	42,42,42,42	0
54	MG	AI	201	1/1	0.90	0.07	70,70,70,70	0
54	MG	CA	1643	1/1	0.90	0.08	70,70,70,70	0
54	MG	BA	2962	1/1	0.90	0.19	54,54,54,54	0
54	MG	DA	3845	1/1	0.90	0.14	94,94,94,94	0
54	MG	DA	3846	1/1	0.90	0.10	94,94,94,94	0
54	MG	BA	3518	1/1	0.90	0.05	81,81,81,81	0
54	MG	DA	3850	1/1	0.90	0.08	52,52,52,52	0
54	MG	DA	3851	1/1	0.90	0.09	74,74,74,74	0
54	MG	DA	3357	1/1	0.90	0.35	169,169,169,169	0
54	MG	DA	3166	1/1	0.90	0.09	73,73,73,73	0
54	MG	DA	3168	1/1	0.90	0.27	67,67,67,67	0
54	MG	BA	3263	1/1	0.90	0.16	107,107,107,107	0
54	MG	AA	1742	1/1	0.90	0.05	90,90,90,90	0
54	MG	DA	3860	1/1	0.90	0.03	78,78,78,78	0
54	MG	DA	3178	1/1	0.90	0.33	54,54,54,54	0
54	MG	DA	3181	1/1	0.90	0.13	96,96,96,96	0
54	MG	BA	3601	1/1	0.90	0.10	76,76,76,76	0
54	MG	BA	3347	1/1	0.90	0.05	77,77,77,77	0
54	MG	BA	2968	1/1	0.90	0.18	47,47,47,47	0
54	MG	BB	214	1/1	0.90	0.10	84,84,84,84	0
54	MG	AA	1626	1/1	0.90	0.23	88,88,88,88	0
54	MG	BB	219	1/1	0.90	0.06	69,69,69,69	0
54	MG	DA	2922	1/1	0.90	0.24	37,37,37,37	0
54	MG	DA	3199	1/1	0.90	0.09	108,108,108,108	0
54	MG	BB	220	1/1	0.90	0.09	75,75,75,75	0
54	MG	CA	1799	1/1	0.90	0.03	109,109,109,109	0
54	MG	BA	3071	1/1	0.90	0.05	71,71,71,71	0
54	MG	BA	3415	1/1	0.90	0.10	128,128,128,128	0
54	MG	BB	223	1/1	0.90	0.15	94,94,94,94	0
54	MG	DA	3404	1/1	0.90	0.11	79,79,79,79	0
54	MG	BA	3073	1/1	0.90	0.10	63,63,63,63	0
54	MG	DB	233	1/1	0.90	0.13	67,67,67,67	0
54	MG	AL	202	1/1	0.90	0.09	67,67,67,67	0
54	MG	DA	3408	1/1	0.90	0.36	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3409	1/1	0.90	0.38	110,110,110,110	0
54	MG	AA	1807	1/1	0.90	0.28	76,76,76,76	0
54	MG	CA	1675	1/1	0.90	0.09	74,74,74,74	0
54	MG	DA	3005	1/1	0.90	0.15	41,41,41,41	0
54	MG	BA	3279	1/1	0.90	0.11	85,85,85,85	0
54	MG	DA	3421	1/1	0.90	0.07	63,63,63,63	0
54	MG	DC	303	1/1	0.90	0.14	80,80,80,80	0
54	MG	DD	301	1/1	0.90	0.22	39,39,39,39	0
54	MG	CA	1679	1/1	0.90	0.18	89,89,89,89	0
54	MG	AA	1789	1/1	0.90	0.13	106,106,106,106	0
54	MG	CA	1922	1/1	0.90	0.11	127,127,127,127	0
54	MG	DA	3227	1/1	0.90	0.10	43,43,43,43	0
54	MG	DA	3675	1/1	0.90	0.11	46,46,46,46	0
54	MG	BA	3086	1/1	0.90	0.13	63,63,63,63	0
54	MG	BA	2977	1/1	0.90	0.38	69,69,69,69	0
54	MG	BF	201	1/1	0.90	0.10	122,122,122,122	0
54	MG	DA	3682	1/1	0.90	0.23	59,59,59,59	0
54	MG	DA	3241	1/1	0.90	0.07	76,76,76,76	0
54	MG	BA	3617	1/1	0.90	0.09	96,96,96,96	0
54	MG	BA	3088	1/1	0.90	0.15	57,57,57,57	0
54	MG	DJ	204	1/1	0.90	0.09	32,32,32,32	0
54	MG	BJ	201	1/1	0.90	0.05	75,75,75,75	0
54	MG	CA	1935	1/1	0.90	0.12	101,101,101,101	0
54	MG	BA	3459	1/1	0.90	0.19	30,30,30,30	0
54	MG	DA	3038	1/1	0.90	0.23	44,44,44,44	0
54	MG	AA	1738	1/1	0.90	0.29	104,104,104,104	0
54	MG	DO	201	1/1	0.90	0.17	55,55,55,55	0
54	MG	CA	1699	1/1	0.90	0.04	76,76,76,76	0
54	MG	DA	3702	1/1	0.90	0.15	74,74,74,74	0
54	MG	BA	3623	1/1	0.90	0.16	64,64,64,64	0
54	MG	DA	3708	1/1	0.90	0.17	63,63,63,63	0
54	MG	CA	1942	1/1	0.90	0.08	104,104,104,104	0
54	MG	DA	3262	1/1	0.90	0.17	73,73,73,73	0
54	MG	BA	3093	1/1	0.90	0.17	67,67,67,67	0
54	MG	BA	3626	1/1	0.90	0.08	64,64,64,64	0
54	MG	BA	3094	1/1	0.90	0.13	63,63,63,63	0
54	MG	DA	3721	1/1	0.90	0.19	88,88,88,88	0
54	MG	BA	3214	1/1	0.90	0.23	79,79,79,79	0
54	MG	BA	3215	1/1	0.90	0.26	64,64,64,64	0
54	MG	BA	3630	1/1	0.90	0.10	151,151,151,151	0
54	MG	BA	3032	1/1	0.90	0.22	76,76,76,76	0
54	MG	BV	202	1/1	0.90	0.09	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3561	1/1	0.90	0.07	75,75,75,75	0
54	MG	BA	2938	1/1	0.91	0.17	51,51,51,51	0
54	MG	BA	3287	1/1	0.91	0.14	83,83,83,83	0
54	MG	AA	1792	1/1	0.91	0.04	101,101,101,101	0
54	MG	CC	302	1/1	0.91	0.05	79,79,79,79	0
54	MG	BA	3291	1/1	0.91	0.12	102,102,102,102	0
54	MG	BA	3672	1/1	0.91	0.17	92,92,92,92	0
54	MG	BA	3543	1/1	0.91	0.17	76,76,76,76	0
54	MG	CA	1774	1/1	0.91	0.04	79,79,79,79	0
54	MG	DA	3746	1/1	0.91	0.06	94,94,94,94	0
54	MG	BA	3545	1/1	0.91	0.17	59,59,59,59	0
54	MG	AA	1699	1/1	0.91	0.07	57,57,57,57	0
54	MG	DA	3750	1/1	0.91	0.14	87,87,87,87	0
54	MG	AA	1869	1/1	0.91	0.08	74,74,74,74	0
54	MG	CA	1783	1/1	0.91	0.10	139,139,139,139	0
54	MG	AA	1856	1/1	0.91	0.07	58,58,58,58	0
54	MG	AA	1824	1/1	0.91	0.16	81,81,81,81	0
54	MG	CA	1787	1/1	0.91	0.24	37,37,37,37	0
54	MG	DA	3503	1/1	0.91	0.05	91,91,91,91	0
54	MG	BA	3485	1/1	0.91	0.20	72,72,72,72	0
54	MG	CF	202	1/1	0.91	0.05	83,83,83,83	0
54	MG	DA	3506	1/1	0.91	0.19	101,101,101,101	0
54	MG	DA	3507	1/1	0.91	0.23	70,70,70,70	0
54	MG	AA	1611	1/1	0.91	0.20	55,55,55,55	0
54	MG	BA	3111	1/1	0.91	0.21	64,64,64,64	0
54	MG	DA	3511	1/1	0.91	0.17	52,52,52,52	0
54	MG	CA	1688	1/1	0.91	0.17	80,80,80,80	0
54	MG	BA	3557	1/1	0.91	0.13	67,67,67,67	0
54	MG	CA	1694	1/1	0.91	0.06	79,79,79,79	0
54	MG	CA	1795	1/1	0.91	0.08	131,131,131,131	0
54	MG	BA	3558	1/1	0.91	0.04	91,91,91,91	0
54	MG	BA	2961	1/1	0.91	0.24	51,51,51,51	0
54	MG	DA	3780	1/1	0.91	0.12	67,67,67,67	0
54	MG	BA	3495	1/1	0.91	0.10	74,74,74,74	0
54	MG	CM	201	1/1	0.91	0.11	85,85,85,85	0
54	MG	DA	3142	1/1	0.91	0.16	61,61,61,61	0
54	MG	DA	3524	1/1	0.91	0.05	87,87,87,87	0
54	MG	BA	3037	1/1	0.91	0.14	62,62,62,62	0
54	MG	BA	3359	1/1	0.91	0.04	89,89,89,89	0
54	MG	DA	3794	1/1	0.91	0.09	104,104,104,104	0
54	MG	CA	1801	1/1	0.91	0.13	82,82,82,82	0
54	MG	DA	3535	1/1	0.91	0.24	107,107,107,107	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3169	1/1	0.91	0.17	43,43,43,43	0
54	MG	DA	3150	1/1	0.91	0.12	56,56,56,56	0
54	MG	DA	3329	1/1	0.91	0.07	96,96,96,96	0
54	MG	DA	3540	1/1	0.91	0.06	93,93,93,93	0
54	MG	DA	3151	1/1	0.91	0.29	76,76,76,76	0
54	MG	DA	3152	1/1	0.91	0.20	43,43,43,43	0
54	MG	DA	3545	1/1	0.91	0.19	94,94,94,94	0
54	MG	AA	1703	1/1	0.91	0.22	63,63,63,63	0
54	MG	DA	3550	1/1	0.91	0.05	65,65,65,65	0
54	MG	BA	3083	1/1	0.91	0.11	70,70,70,70	0
54	MG	BA	3313	1/1	0.91	0.06	67,67,67,67	0
54	MG	DA	3561	1/1	0.91	0.22	85,85,85,85	0
54	MG	CA	1709	1/1	0.91	0.06	107,107,107,107	0
54	MG	DA	3341	1/1	0.91	0.15	75,75,75,75	0
54	MG	DA	3569	1/1	0.91	0.25	36,36,36,36	0
54	MG	BA	3084	1/1	0.91	0.30	82,82,82,82	0
54	MG	BB	217	1/1	0.91	0.07	72,72,72,72	0
54	MG	BA	3005	1/1	0.91	0.16	53,53,53,53	0
54	MG	DA	2917	1/1	0.91	0.22	71,71,71,71	0
54	MG	DA	2918	1/1	0.91	0.27	25,25,25,25	0
54	MG	DA	3167	1/1	0.91	0.10	58,58,58,58	0
54	MG	CA	1813	1/1	0.91	0.04	107,107,107,107	0
54	MG	CA	1713	1/1	0.91	0.09	92,92,92,92	0
54	MG	DA	2929	1/1	0.91	0.18	21,21,21,21	0
54	MG	DA	3174	1/1	0.91	0.22	66,66,66,66	0
54	MG	CA	1714	1/1	0.91	0.06	123,123,123,123	0
54	MG	DA	3360	1/1	0.91	0.18	107,107,107,107	0
54	MG	CA	1715	1/1	0.91	0.10	107,107,107,107	0
54	MG	DA	3590	1/1	0.91	0.12	47,47,47,47	0
54	MG	BA	2963	1/1	0.91	0.11	34,34,34,34	0
54	MG	DA	3186	1/1	0.91	0.19	82,82,82,82	0
54	MG	BA	3132	1/1	0.91	0.18	66,66,66,66	0
54	MG	BA	3509	1/1	0.91	0.07	64,64,64,64	0
54	MG	DA	3853	1/1	0.91	0.17	114,114,114,114	0
54	MG	DA	2969	1/1	0.91	0.26	39,39,39,39	0
54	MG	BA	3416	1/1	0.91	0.04	83,83,83,83	0
54	MG	AA	1861	1/1	0.91	0.08	81,81,81,81	0
54	MG	DA	2987	1/1	0.91	0.19	28,28,28,28	0
54	MG	DA	3606	1/1	0.91	0.09	68,68,68,68	0
54	MG	DA	2993	1/1	0.91	0.20	47,47,47,47	0
54	MG	CA	1926	1/1	0.91	0.08	76,76,76,76	0
54	MG	DA	3003	1/1	0.91	0.24	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1634	1/1	0.91	0.06	78,78,78,78	0
54	MG	BA	3217	1/1	0.91	0.08	55,55,55,55	0
54	MG	DA	3208	1/1	0.91	0.10	56,56,56,56	0
54	MG	DB	215	1/1	0.91	0.07	103,103,103,103	0
54	MG	CA	1930	1/1	0.91	0.07	89,89,89,89	0
54	MG	DA	3013	1/1	0.91	0.13	52,52,52,52	0
54	MG	CA	1830	1/1	0.91	0.07	82,82,82,82	0
54	MG	DA	3400	1/1	0.91	0.13	127,127,127,127	0
54	MG	DB	224	1/1	0.91	0.10	95,95,95,95	0
54	MG	DA	3402	1/1	0.91	0.07	95,95,95,95	0
54	MG	DA	3024	1/1	0.91	0.15	58,58,58,58	0
54	MG	BA	3373	1/1	0.91	0.09	61,61,61,61	0
54	MG	CA	1637	1/1	0.91	0.07	98,98,98,98	0
54	MG	BA	3219	1/1	0.91	0.10	80,80,80,80	0
54	MG	BA	3640	1/1	0.91	0.10	97,97,97,97	0
54	MG	DA	3648	1/1	0.91	0.34	60,60,60,60	0
54	MG	CA	1735	1/1	0.91	0.06	77,77,77,77	0
54	MG	CA	1838	1/1	0.91	0.09	94,94,94,94	0
54	MG	DA	3653	1/1	0.91	0.23	51,51,51,51	0
54	MG	DA	3412	1/1	0.91	0.10	86,86,86,86	0
54	MG	DA	3032	1/1	0.91	0.28	80,80,80,80	0
54	MG	DA	3661	1/1	0.91	0.31	98,98,98,98	0
54	MG	CA	1941	1/1	0.91	0.05	70,70,70,70	0
54	MG	CA	1737	1/1	0.91	0.07	70,70,70,70	0
54	MG	DB	242	1/1	0.91	0.07	113,113,113,113	0
54	MG	DA	3233	1/1	0.91	0.06	67,67,67,67	0
54	MG	DC	302	1/1	0.91	0.26	164,164,164,164	0
54	MG	DA	3237	1/1	0.91	0.25	64,64,64,64	0
54	MG	CA	1738	1/1	0.91	0.04	93,93,93,93	0
54	MG	DA	3669	1/1	0.91	0.07	61,61,61,61	0
54	MG	BA	3017	1/1	0.91	0.09	55,55,55,55	0
54	MG	DA	3671	1/1	0.91	0.30	69,69,69,69	0
54	MG	CA	1741	1/1	0.91	0.09	100,100,100,100	0
54	MG	CA	1642	1/1	0.91	0.07	79,79,79,79	0
54	MG	DA	3677	1/1	0.91	0.38	60,60,60,60	0
54	MG	DF	201	1/1	0.91	0.12	70,70,70,70	0
54	MG	DA	3247	1/1	0.91	0.12	92,92,92,92	0
54	MG	BA	2906	1/1	0.91	0.22	24,24,24,24	0
54	MG	CA	1644	1/1	0.91	0.10	94,94,94,94	0
54	MG	DA	3685	1/1	0.91	0.17	82,82,82,82	0
54	MG	BA	3437	1/1	0.91	0.26	42,42,42,42	0
54	MG	BA	3648	1/1	0.91	0.11	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1773	1/1	0.91	0.10	97,97,97,97	0
54	MG	DA	3443	1/1	0.91	0.07	92,92,92,92	0
54	MG	AA	1863	1/1	0.91	0.07	119,119,119,119	0
54	MG	DA	3446	1/1	0.91	0.08	57,57,57,57	0
54	MG	CA	1853	1/1	0.91	0.04	113,113,113,113	0
54	MG	CA	1753	1/1	0.91	0.13	97,97,97,97	0
54	MG	AA	1819	1/1	0.91	0.17	73,73,73,73	0
54	MG	DA	3075	1/1	0.91	0.10	50,50,50,50	0
54	MG	DA	3456	1/1	0.91	0.47	121,121,121,121	0
54	MG	DA	3458	1/1	0.91	0.14	95,95,95,95	0
54	MG	BA	3383	1/1	0.91	0.08	66,66,66,66	0
54	MG	AA	1710	1/1	0.91	0.25	84,84,84,84	0
54	MG	BN	201	1/1	0.91	0.12	49,49,49,49	0
54	MG	CA	1964	1/1	0.91	0.16	99,99,99,99	0
54	MG	CA	1759	1/1	0.91	0.11	89,89,89,89	0
54	MG	BA	3466	1/1	0.91	0.18	61,61,61,61	0
54	MG	AA	1748	1/1	0.91	0.09	56,56,56,56	0
54	MG	DY	102	1/1	0.91	0.16	69,69,69,69	0
54	MG	DA	3725	1/1	0.91	0.12	65,65,65,65	0
54	MG	DA	3726	1/1	0.91	0.28	106,106,106,106	0
54	MG	CA	1661	1/1	0.91	0.06	80,80,80,80	0
54	MG	DA	3728	1/1	0.91	0.19	83,83,83,83	0
54	MG	DA	3729	1/1	0.91	0.10	81,81,81,81	0
54	MG	BA	2937	1/1	0.91	0.07	56,56,56,56	0
54	MG	AA	1655	1/1	0.92	0.22	58,58,58,58	0
54	MG	DA	3712	1/1	0.92	0.07	41,41,41,41	0
54	MG	BA	3267	1/1	0.92	0.05	65,65,65,65	0
54	MG	DA	3447	1/1	0.92	0.14	73,73,73,73	0
54	MG	DA	3715	1/1	0.92	0.14	57,57,57,57	0
54	MG	DA	3000	1/1	0.92	0.11	23,23,23,23	0
54	MG	BA	3419	1/1	0.92	0.10	67,67,67,67	0
54	MG	DA	3720	1/1	0.92	0.16	79,79,79,79	0
54	MG	AA	1629	1/1	0.92	0.27	66,66,66,66	0
54	MG	BA	3538	1/1	0.92	0.17	75,75,75,75	0
54	MG	DA	3008	1/1	0.92	0.18	50,50,50,50	0
54	MG	AA	1829	1/1	0.92	0.09	64,64,64,64	0
54	MG	BJ	202	1/1	0.92	0.12	69,69,69,69	0
54	MG	DA	3020	1/1	0.92	0.15	47,47,47,47	0
54	MG	DA	3238	1/1	0.92	0.13	56,56,56,56	0
54	MG	CA	1689	1/1	0.92	0.19	130,130,130,130	0
54	MG	DA	3467	1/1	0.92	0.10	97,97,97,97	0
54	MG	DA	3732	1/1	0.92	0.38	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1927	1/1	0.92	0.06	88,88,88,88	0
54	MG	BA	3077	1/1	0.92	0.26	55,55,55,55	0
54	MG	AA	1791	1/1	0.92	0.04	106,106,106,106	0
54	MG	DA	3739	1/1	0.92	0.30	133,133,133,133	0
54	MG	BA	3544	1/1	0.92	0.10	81,81,81,81	0
54	MG	CA	1931	1/1	0.92	0.04	99,99,99,99	0
54	MG	DA	3475	1/1	0.92	0.16	120,120,120,120	0
54	MG	AA	1722	1/1	0.92	0.22	53,53,53,53	0
54	MG	CA	1933	1/1	0.92	0.04	137,137,137,137	0
54	MG	BA	3275	1/1	0.92	0.15	68,68,68,68	0
54	MG	BA	3278	1/1	0.92	0.09	88,88,88,88	0
54	MG	DA	3749	1/1	0.92	0.12	59,59,59,59	0
54	MG	BA	3446	1/1	0.92	0.24	53,53,53,53	0
54	MG	DA	3751	1/1	0.92	0.29	76,76,76,76	0
54	MG	BA	3450	1/1	0.92	0.35	46,46,46,46	0
54	MG	BA	2908	1/1	0.92	0.20	26,26,26,26	0
54	MG	DA	3039	1/1	0.92	0.17	70,70,70,70	0
54	MG	BA	2913	1/1	0.92	0.26	27,27,27,27	0
54	MG	DA	3757	1/1	0.92	0.12	89,89,89,89	0
54	MG	DA	3491	1/1	0.92	0.09	99,99,99,99	0
54	MG	CA	1940	1/1	0.92	0.09	72,72,72,72	0
54	MG	BA	3461	1/1	0.92	0.24	48,48,48,48	0
54	MG	DA	3045	1/1	0.92	0.25	39,39,39,39	0
54	MG	BA	3638	1/1	0.92	0.35	127,127,127,127	0
54	MG	BA	3207	1/1	0.92	0.05	70,70,70,70	0
54	MG	DA	3051	1/1	0.92	0.23	60,60,60,60	0
54	MG	BA	3641	1/1	0.92	0.05	95,95,95,95	0
54	MG	DA	3053	1/1	0.92	0.14	63,63,63,63	0
54	MG	DA	3771	1/1	0.92	0.10	58,58,58,58	0
54	MG	DA	3054	1/1	0.92	0.39	72,72,72,72	0
54	MG	AK	202	1/1	0.92	0.07	101,101,101,101	0
54	MG	AA	1813	1/1	0.92	0.06	76,76,76,76	0
54	MG	DA	3508	1/1	0.92	0.09	70,70,70,70	0
54	MG	DA	3064	1/1	0.92	0.20	127,127,127,127	0
54	MG	BA	3646	1/1	0.92	0.08	82,82,82,82	0
54	MG	B2	101	1/1	0.92	0.05	27,27,27,27	0
54	MG	DA	3068	1/1	0.92	0.12	64,64,64,64	0
54	MG	DA	3072	1/1	0.92	0.14	80,80,80,80	0
54	MG	CA	1835	1/1	0.92	0.07	76,76,76,76	0
54	MG	BA	3089	1/1	0.92	0.23	69,69,69,69	0
54	MG	BA	3091	1/1	0.92	0.15	72,72,72,72	0
54	MG	DA	3294	1/1	0.92	0.07	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3649	1/1	0.92	0.11	67,67,67,67	0
54	MG	BA	3650	1/1	0.92	0.12	69,69,69,69	0
54	MG	BA	3369	1/1	0.92	0.10	108,108,108,108	0
54	MG	BA	3151	1/1	0.92	0.20	70,70,70,70	0
54	MG	BA	3153	1/1	0.92	0.06	79,79,79,79	0
54	MG	DA	3529	1/1	0.92	0.08	61,61,61,61	0
54	MG	CA	1959	1/1	0.92	0.04	106,106,106,106	0
54	MG	AA	1859	1/1	0.92	0.04	87,87,87,87	0
54	MG	DA	3807	1/1	0.92	0.20	61,61,61,61	0
54	MG	BA	2983	1/1	0.92	0.08	44,44,44,44	0
54	MG	CA	1963	1/1	0.92	0.07	99,99,99,99	0
54	MG	DA	3813	1/1	0.92	0.05	50,50,50,50	0
54	MG	BA	2929	1/1	0.92	0.38	50,50,50,50	0
54	MG	DA	3538	1/1	0.92	0.15	66,66,66,66	0
54	MG	CA	1848	1/1	0.92	0.10	96,96,96,96	0
54	MG	BA	3481	1/1	0.92	0.25	71,71,71,71	0
54	MG	DA	3821	1/1	0.92	0.14	79,79,79,79	0
54	MG	BA	2985	1/1	0.92	0.18	43,43,43,43	0
54	MG	DA	3823	1/1	0.92	0.14	84,84,84,84	0
54	MG	BA	3574	1/1	0.92	0.12	62,62,62,62	0
54	MG	BA	3222	1/1	0.92	0.05	86,86,86,86	0
54	MG	DA	3826	1/1	0.92	0.10	100,100,100,100	0
54	MG	BA	3666	1/1	0.92	0.16	72,72,72,72	0
54	MG	BA	3667	1/1	0.92	0.11	85,85,85,85	0
54	MG	BA	3379	1/1	0.92	0.09	86,86,86,86	0
54	MG	BA	3160	1/1	0.92	0.19	87,87,87,87	0
54	MG	DA	3831	1/1	0.92	0.07	66,66,66,66	0
54	MG	BA	3489	1/1	0.92	0.16	73,73,73,73	0
54	MG	AA	1647	1/1	0.92	0.14	63,63,63,63	0
54	MG	BA	3674	1/1	0.92	0.15	55,55,55,55	0
54	MG	DA	3567	1/1	0.92	0.09	87,87,87,87	0
54	MG	BA	3581	1/1	0.92	0.16	127,127,127,127	0
54	MG	DA	3570	1/1	0.92	0.20	90,90,90,90	0
54	MG	CA	1632	1/1	0.92	0.15	59,59,59,59	0
54	MG	CA	1633	1/1	0.92	0.13	85,85,85,85	0
54	MG	DA	3123	1/1	0.92	0.15	59,59,59,59	0
54	MG	CA	1868	1/1	0.92	0.06	71,71,71,71	0
54	MG	DA	3127	1/1	0.92	0.10	76,76,76,76	0
54	MG	AA	1668	1/1	0.92	0.22	77,77,77,77	0
54	MG	BA	2994	1/1	0.92	0.36	90,90,90,90	0
54	MG	CA	1873	1/1	0.92	0.09	58,58,58,58	0
54	MG	AA	1839	1/1	0.92	0.09	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1757	1/1	0.92	0.10	102,102,102,102	0
54	MG	AA	1841	1/1	0.92	0.11	83,83,83,83	0
54	MG	CA	1878	1/1	0.92	0.11	82,82,82,82	0
54	MG	CA	1879	1/1	0.92	0.07	76,76,76,76	0
54	MG	DA	3350	1/1	0.92	0.08	95,95,95,95	0
54	MG	BA	3047	1/1	0.92	0.11	72,72,72,72	0
54	MG	DA	3861	1/1	0.92	0.07	90,90,90,90	0
54	MG	CA	1760	1/1	0.92	0.15	66,66,66,66	0
54	MG	AA	1752	1/1	0.92	0.07	94,94,94,94	0
54	MG	AQ	202	1/1	0.92	0.11	85,85,85,85	0
54	MG	AA	1768	1/1	0.92	0.05	87,87,87,87	0
54	MG	DA	3599	1/1	0.92	0.14	58,58,58,58	0
54	MG	CL	204	1/1	0.92	0.14	86,86,86,86	0
54	MG	AA	1801	1/1	0.92	0.16	71,71,71,71	0
54	MG	DB	216	1/1	0.92	0.06	101,101,101,101	0
54	MG	DB	218	1/1	0.92	0.05	113,113,113,113	0
54	MG	AA	1702	1/1	0.92	0.12	56,56,56,56	0
54	MG	BA	3247	1/1	0.92	0.09	109,109,109,109	0
54	MG	AA	1694	1/1	0.92	0.14	71,71,71,71	0
54	MG	DA	3610	1/1	0.92	0.18	81,81,81,81	0
54	MG	DA	3611	1/1	0.92	0.17	74,74,74,74	0
54	MG	CA	1769	1/1	0.92	0.16	67,67,67,67	0
54	MG	DA	3369	1/1	0.92	0.09	99,99,99,99	0
54	MG	BA	3112	1/1	0.92	0.17	65,65,65,65	0
54	MG	BA	2957	1/1	0.92	0.43	75,75,75,75	0
54	MG	BA	2958	1/1	0.92	0.29	46,46,46,46	0
54	MG	BA	3333	1/1	0.92	0.16	54,54,54,54	0
54	MG	DA	3161	1/1	0.92	0.20	70,70,70,70	0
54	MG	DA	3382	1/1	0.92	0.06	92,92,92,92	0
54	MG	BA	3116	1/1	0.92	0.19	70,70,70,70	0
54	MG	CA	1777	1/1	0.92	0.17	98,98,98,98	0
54	MG	CV	6201	1/1	0.92	0.07	95,95,95,95	0
54	MG	DA	3637	1/1	0.92	0.23	15,15,15,15	0
54	MG	CV	6202	1/1	0.92	0.10	108,108,108,108	0
54	MG	BA	3117	1/1	0.92	0.18	91,91,91,91	0
54	MG	DA	3391	1/1	0.92	0.19	82,82,82,82	0
54	MG	CA	1780	1/1	0.92	0.04	93,93,93,93	0
54	MG	BA	3118	1/1	0.92	0.07	95,95,95,95	0
54	MG	DA	3649	1/1	0.92	0.41	50,50,50,50	0
54	MG	BB	218	1/1	0.92	0.20	79,79,79,79	0
54	MG	DA	3651	1/1	0.92	0.19	51,51,51,51	0
54	MG	DA	3177	1/1	0.92	0.20	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3398	1/1	0.92	0.24	80,80,80,80	0
54	MG	DA	3655	1/1	0.92	0.20	60,60,60,60	0
54	MG	AA	1608	1/1	0.92	0.12	46,46,46,46	0
54	MG	DA	3659	1/1	0.92	0.31	61,61,61,61	0
54	MG	DA	3180	1/1	0.92	0.09	78,78,78,78	0
54	MG	CA	1662	1/1	0.92	0.14	84,84,84,84	0
54	MG	BA	3068	1/1	0.92	0.14	55,55,55,55	0
54	MG	DA	2925	1/1	0.92	0.32	34,34,34,34	0
54	MG	DA	2926	1/1	0.92	0.26	25,25,25,25	0
54	MG	DA	3188	1/1	0.92	0.22	69,69,69,69	0
54	MG	DA	3189	1/1	0.92	0.20	73,73,73,73	0
54	MG	DA	2928	1/1	0.92	0.36	31,31,31,31	0
54	MG	CA	1665	1/1	0.92	0.17	71,71,71,71	0
54	MG	DA	3413	1/1	0.92	0.13	60,60,60,60	0
54	MG	DA	3673	1/1	0.92	0.24	85,85,85,85	0
54	MG	DA	2935	1/1	0.92	0.23	23,23,23,23	0
54	MG	DA	2936	1/1	0.92	0.16	42,42,42,42	0
54	MG	DL	203	1/1	0.92	0.13	66,66,66,66	0
54	MG	BA	3408	1/1	0.92	0.07	86,86,86,86	0
54	MG	BA	3522	1/1	0.92	0.14	54,54,54,54	0
54	MG	DA	2945	1/1	0.92	0.17	29,29,29,29	0
54	MG	DA	3424	1/1	0.92	0.05	90,90,90,90	0
54	MG	DA	3425	1/1	0.92	0.08	113,113,113,113	0
54	MG	DA	3689	1/1	0.92	0.16	67,67,67,67	0
54	MG	DA	3690	1/1	0.92	0.21	70,70,70,70	0
54	MG	AA	1706	1/1	0.92	0.16	78,78,78,78	0
54	MG	DA	3427	1/1	0.92	0.19	85,85,85,85	0
54	MG	BA	3524	1/1	0.92	0.07	107,107,107,107	0
54	MG	AA	1732	1/1	0.92	0.04	104,104,104,104	0
54	MG	BA	3345	1/1	0.92	0.17	71,71,71,71	0
54	MG	DA	2971	1/1	0.92	0.23	38,38,38,38	0
54	MG	CA	1673	1/1	0.92	0.04	61,61,61,61	0
54	MG	DA	3211	1/1	0.92	0.17	64,64,64,64	0
54	MG	DA	3212	1/1	0.92	0.19	75,75,75,75	0
54	MG	BA	3072	1/1	0.92	0.10	57,57,57,57	0
54	MG	D5	101	1/1	0.92	0.05	46,46,46,46	0
54	MG	BA	3265	1/1	0.92	0.11	53,53,53,53	0
54	MG	DA	2989	1/1	0.92	0.05	39,39,39,39	0
54	MG	DA	3736	1/1	0.93	0.33	134,134,134,134	0
54	MG	BA	3051	1/1	0.93	0.19	62,62,62,62	0
54	MG	BA	3367	1/1	0.93	0.06	74,74,74,74	0
54	MG	CA	1794	1/1	0.93	0.12	122,122,122,122	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BR	201	1/1	0.93	0.03	75,75,75,75	0
54	MG	BA	3368	1/1	0.93	0.04	58,58,58,58	0
54	MG	BA	3010	1/1	0.93	0.08	73,73,73,73	0
54	MG	BA	3104	1/1	0.93	0.08	49,49,49,49	0
54	MG	DA	2902	1/1	0.93	0.27	17,17,17,17	0
54	MG	DA	2907	1/1	0.93	0.28	17,17,17,17	0
54	MG	DA	2910	1/1	0.93	0.21	38,38,38,38	0
54	MG	DA	2914	1/1	0.93	0.20	23,23,23,23	0
54	MG	DA	3315	1/1	0.93	0.21	58,58,58,58	0
54	MG	DA	3518	1/1	0.93	0.06	102,102,102,102	0
54	MG	CA	1690	1/1	0.93	0.05	65,65,65,65	0
54	MG	AA	1733	1/1	0.93	0.08	89,89,89,89	0
54	MG	CA	1693	1/1	0.93	0.09	95,95,95,95	0
54	MG	DA	3756	1/1	0.93	0.27	80,80,80,80	0
54	MG	BA	2911	1/1	0.93	0.24	33,33,33,33	0
54	MG	AA	1848	1/1	0.93	0.16	77,77,77,77	0
54	MG	BA	2914	1/1	0.93	0.27	24,24,24,24	0
54	MG	DA	3528	1/1	0.93	0.05	87,87,87,87	0
54	MG	BA	3231	1/1	0.93	0.09	64,64,64,64	0
54	MG	BA	3377	1/1	0.93	0.06	68,68,68,68	0
54	MG	BA	3064	1/1	0.93	0.09	61,61,61,61	0
54	MG	DA	2930	1/1	0.93	0.20	34,34,34,34	0
54	MG	CA	1923	1/1	0.93	0.04	74,74,74,74	0
54	MG	CA	1702	1/1	0.93	0.12	114,114,114,114	0
54	MG	DA	3770	1/1	0.93	0.04	79,79,79,79	0
54	MG	DA	3334	1/1	0.93	0.04	53,53,53,53	0
54	MG	BA	3065	1/1	0.93	0.05	59,59,59,59	0
54	MG	AA	1667	1/1	0.93	0.24	78,78,78,78	0
54	MG	DA	3338	1/1	0.93	0.09	123,123,123,123	0
54	MG	DA	3543	1/1	0.93	0.04	87,87,87,87	0
54	MG	BA	3239	1/1	0.93	0.19	62,62,62,62	0
54	MG	DA	3340	1/1	0.93	0.09	59,59,59,59	0
54	MG	DA	3547	1/1	0.93	0.34	115,115,115,115	0
54	MG	B2	103	1/1	0.93	0.06	75,75,75,75	0
54	MG	DA	3782	1/1	0.93	0.09	67,67,67,67	0
54	MG	DA	2952	1/1	0.93	0.23	25,25,25,25	0
54	MG	CA	1707	1/1	0.93	0.16	102,102,102,102	0
54	MG	DA	3553	1/1	0.93	0.05	91,91,91,91	0
54	MG	DA	3554	1/1	0.93	0.26	136,136,136,136	0
54	MG	DA	3557	1/1	0.93	0.09	128,128,128,128	0
54	MG	DA	2954	1/1	0.93	0.25	41,41,41,41	0
54	MG	DA	3796	1/1	0.93	0.07	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1708	1/1	0.93	0.06	60,60,60,60	0
54	MG	DA	3563	1/1	0.93	0.16	95,95,95,95	0
54	MG	DA	2959	1/1	0.93	0.20	42,42,42,42	0
54	MG	BA	3571	1/1	0.93	0.06	74,74,74,74	0
54	MG	BA	2969	1/1	0.93	0.33	69,69,69,69	0
54	MG	DA	3802	1/1	0.93	0.07	84,84,84,84	0
54	MG	DA	2973	1/1	0.93	0.18	50,50,50,50	0
54	MG	AA	1637	1/1	0.93	0.09	62,62,62,62	0
54	MG	CA	1602	1/1	0.93	0.20	43,43,43,43	0
54	MG	CA	1607	1/1	0.93	0.07	62,62,62,62	0
54	MG	DA	3172	1/1	0.93	0.19	88,88,88,88	0
54	MG	DA	2988	1/1	0.93	0.15	23,23,23,23	0
54	MG	DA	3361	1/1	0.93	0.06	69,69,69,69	0
54	MG	CA	1828	1/1	0.93	0.09	88,88,88,88	0
54	MG	BA	3490	1/1	0.93	0.07	67,67,67,67	0
54	MG	DA	3179	1/1	0.93	0.16	105,105,105,105	0
54	MG	DA	3820	1/1	0.93	0.58	59,59,59,59	0
54	MG	BA	3314	1/1	0.93	0.23	69,69,69,69	0
54	MG	DA	2999	1/1	0.93	0.17	69,69,69,69	0
54	MG	DA	3584	1/1	0.93	0.28	130,130,130,130	0
54	MG	BA	3115	1/1	0.93	0.09	76,76,76,76	0
54	MG	DA	3371	1/1	0.93	0.06	53,53,53,53	0
54	MG	DA	3376	1/1	0.93	0.14	44,44,44,44	0
54	MG	DA	3589	1/1	0.93	0.13	51,51,51,51	0
54	MG	DA	3002	1/1	0.93	0.15	52,52,52,52	0
54	MG	BA	3386	1/1	0.93	0.40	134,134,134,134	0
54	MG	BA	2924	1/1	0.93	0.19	48,48,48,48	0
54	MG	DA	3006	1/1	0.93	0.15	60,60,60,60	0
54	MG	CA	1720	1/1	0.93	0.05	69,69,69,69	0
54	MG	BA	3497	1/1	0.93	0.06	61,61,61,61	0
54	MG	DA	3194	1/1	0.93	0.12	74,74,74,74	0
54	MG	DA	3385	1/1	0.93	0.10	69,69,69,69	0
54	MG	BA	3669	1/1	0.93	0.04	84,84,84,84	0
54	MG	BA	3498	1/1	0.93	0.11	67,67,67,67	0
54	MG	DA	3389	1/1	0.93	0.18	76,76,76,76	0
54	MG	DA	3841	1/1	0.93	0.10	80,80,80,80	0
54	MG	DA	3019	1/1	0.93	0.19	48,48,48,48	0
54	MG	BA	3671	1/1	0.93	0.09	100,100,100,100	0
54	MG	BA	3317	1/1	0.93	0.08	84,84,84,84	0
54	MG	CA	1729	1/1	0.93	0.05	58,58,58,58	0
54	MG	DA	3204	1/1	0.93	0.07	53,53,53,53	0
54	MG	BA	3244	1/1	0.93	0.07	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3206	1/1	0.93	0.16	89,89,89,89	0
54	MG	AA	1793	1/1	0.93	0.13	68,68,68,68	0
54	MG	BA	3183	1/1	0.93	0.14	68,68,68,68	0
54	MG	DA	3620	1/1	0.93	0.17	115,115,115,115	0
54	MG	BA	3323	1/1	0.93	0.15	98,98,98,98	0
54	MG	DA	3626	1/1	0.93	0.23	106,106,106,106	0
54	MG	DA	3630	1/1	0.93	0.14	101,101,101,101	0
54	MG	BA	3184	1/1	0.93	0.06	67,67,67,67	0
54	MG	DA	3406	1/1	0.93	0.06	59,59,59,59	0
54	MG	BA	2928	1/1	0.93	0.21	28,28,28,28	0
54	MG	BA	3252	1/1	0.93	0.14	60,60,60,60	0
54	MG	DB	205	1/1	0.93	0.17	78,78,78,78	0
54	MG	BA	3680	1/1	0.93	0.16	97,97,97,97	0
54	MG	AA	1682	1/1	0.93	0.18	91,91,91,91	0
54	MG	BA	3187	1/1	0.93	0.16	73,73,73,73	0
54	MG	DA	3220	1/1	0.93	0.18	98,98,98,98	0
54	MG	BA	3121	1/1	0.93	0.14	69,69,69,69	0
54	MG	DA	3416	1/1	0.93	0.05	101,101,101,101	0
54	MG	BA	3074	1/1	0.93	0.19	87,87,87,87	0
54	MG	DB	219	1/1	0.93	0.10	73,73,73,73	0
54	MG	AA	1764	1/1	0.93	0.17	99,99,99,99	0
54	MG	BA	3127	1/1	0.93	0.15	61,61,61,61	0
54	MG	BA	3029	1/1	0.93	0.17	41,41,41,41	0
54	MG	DA	3044	1/1	0.93	0.14	45,45,45,45	0
54	MG	AA	1623	1/1	0.93	0.16	99,99,99,99	0
54	MG	AA	1654	1/1	0.93	0.18	99,99,99,99	0
54	MG	DA	3231	1/1	0.93	0.20	81,81,81,81	0
54	MG	BA	3081	1/1	0.93	0.16	67,67,67,67	0
54	MG	DA	3234	1/1	0.93	0.10	64,64,64,64	0
54	MG	DA	3663	1/1	0.93	0.26	75,75,75,75	0
54	MG	DA	3048	1/1	0.93	0.16	51,51,51,51	0
54	MG	CA	1865	1/1	0.93	0.06	93,93,93,93	0
54	MG	AA	1800	1/1	0.93	0.36	69,69,69,69	0
54	MG	DA	3240	1/1	0.93	0.04	69,69,69,69	0
54	MG	AA	1840	1/1	0.93	0.04	91,91,91,91	0
54	MG	DA	3242	1/1	0.93	0.12	59,59,59,59	0
54	MG	DA	3243	1/1	0.93	0.09	59,59,59,59	0
54	MG	BA	2941	1/1	0.93	0.18	31,31,31,31	0
54	MG	BA	3200	1/1	0.93	0.20	93,93,93,93	0
54	MG	BA	3525	1/1	0.93	0.11	67,67,67,67	0
54	MG	CA	1649	1/1	0.93	0.14	96,96,96,96	0
54	MG	DA	3249	1/1	0.93	0.18	111,111,111,111	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1619	1/1	0.93	0.07	57,57,57,57	0
54	MG	DA	3679	1/1	0.93	0.08	50,50,50,50	0
54	MG	BA	2991	1/1	0.93	0.13	42,42,42,42	0
54	MG	DA	3067	1/1	0.93	0.34	91,91,91,91	0
54	MG	CD	302	1/1	0.93	0.06	74,74,74,74	0
54	MG	DA	3069	1/1	0.93	0.22	61,61,61,61	0
54	MG	DA	3071	1/1	0.93	0.11	49,49,49,49	0
54	MG	BA	3528	1/1	0.93	0.10	73,73,73,73	0
54	MG	BA	2947	1/1	0.93	0.13	37,37,37,37	0
54	MG	DA	3263	1/1	0.93	0.06	55,55,55,55	0
54	MG	CA	1657	1/1	0.93	0.05	60,60,60,60	0
54	MG	DA	3466	1/1	0.93	0.05	117,117,117,117	0
54	MG	CA	1767	1/1	0.93	0.07	72,72,72,72	0
54	MG	DA	3079	1/1	0.93	0.21	51,51,51,51	0
54	MG	CE	203	1/1	0.93	0.06	79,79,79,79	0
54	MG	AA	1616	1/1	0.93	0.24	54,54,54,54	0
54	MG	AA	1618	1/1	0.93	0.10	71,71,71,71	0
54	MG	DJ	205	1/1	0.93	0.15	91,91,91,91	0
54	MG	AA	1651	1/1	0.93	0.05	56,56,56,56	0
54	MG	DA	3706	1/1	0.93	0.12	75,75,75,75	0
54	MG	BA	3147	1/1	0.93	0.24	123,123,123,123	0
54	MG	DA	3709	1/1	0.93	0.29	75,75,75,75	0
54	MG	BA	3358	1/1	0.93	0.18	81,81,81,81	0
54	MG	BA	3427	1/1	0.93	0.04	74,74,74,74	0
54	MG	AV	6208	1/1	0.93	0.05	79,79,79,79	0
54	MG	AA	1704	1/1	0.93	0.11	77,77,77,77	0
54	MG	BA	3625	1/1	0.93	0.10	53,53,53,53	0
54	MG	CA	1779	1/1	0.93	0.09	79,79,79,79	0
54	MG	BA	3212	1/1	0.93	0.06	67,67,67,67	0
54	MG	DU	201	1/1	0.93	0.04	84,84,84,84	0
54	MG	BA	3003	1/1	0.93	0.16	55,55,55,55	0
54	MG	BA	3451	1/1	0.93	0.35	47,47,47,47	0
54	MG	BA	3455	1/1	0.93	0.16	32,32,32,32	0
54	MG	AA	1758	1/1	0.93	0.04	69,69,69,69	0
54	MG	DA	3291	1/1	0.93	0.08	57,57,57,57	0
54	MG	BA	2959	1/1	0.93	0.16	40,40,40,40	0
54	MG	DX	102	1/1	0.93	0.10	91,91,91,91	0
54	MG	DA	3496	1/1	0.93	0.18	95,95,95,95	0
54	MG	DA	3497	1/1	0.93	0.15	62,62,62,62	0
54	MG	BA	3551	1/1	0.93	0.06	95,95,95,95	0
54	MG	D2	103	1/1	0.93	0.16	56,56,56,56	0
54	MG	DA	3111	1/1	0.93	0.13	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1678	1/1	0.93	0.05	81,81,81,81	0
54	MG	DA	3733	1/1	0.93	0.18	84,84,84,84	0
54	MG	BA	3050	1/1	0.93	0.24	57,57,57,57	0
54	MG	BA	3553	1/1	0.93	0.04	72,72,72,72	0
54	MG	BA	2954	1/1	0.94	0.16	73,73,73,73	0
54	MG	B3	101	1/1	0.94	0.08	96,96,96,96	0
54	MG	DA	3313	1/1	0.94	0.10	78,78,78,78	0
54	MG	DA	3140	1/1	0.94	0.17	50,50,50,50	0
54	MG	BA	3562	1/1	0.94	0.08	40,40,40,40	0
54	MG	DA	3742	1/1	0.94	0.15	47,47,47,47	0
54	MG	BA	3312	1/1	0.94	0.29	71,71,71,71	0
54	MG	BA	3476	1/1	0.94	0.14	53,53,53,53	0
54	MG	AA	1681	1/1	0.94	0.07	65,65,65,65	0
54	MG	AA	1606	1/1	0.94	0.21	62,62,62,62	0
54	MG	DA	3147	1/1	0.94	0.16	86,86,86,86	0
54	MG	DA	3519	1/1	0.94	0.08	74,74,74,74	0
54	MG	AA	1731	1/1	0.94	0.06	83,83,83,83	0
54	MG	DA	3324	1/1	0.94	0.09	95,95,95,95	0
54	MG	DA	3325	1/1	0.94	0.16	66,66,66,66	0
54	MG	DA	3149	1/1	0.94	0.12	60,60,60,60	0
54	MG	AA	1641	1/1	0.94	0.10	66,66,66,66	0
54	MG	BA	3249	1/1	0.94	0.08	36,36,36,36	0
54	MG	DA	3527	1/1	0.94	0.14	104,104,104,104	0
54	MG	DA	2961	1/1	0.94	0.32	58,58,58,58	0
54	MG	AA	1677	1/1	0.94	0.16	50,50,50,50	0
54	MG	DA	3530	1/1	0.94	0.06	71,71,71,71	0
54	MG	AA	1761	1/1	0.94	0.06	68,68,68,68	0
54	MG	BA	3664	1/1	0.94	0.05	69,69,69,69	0
54	MG	DA	2975	1/1	0.94	0.07	50,50,50,50	0
54	MG	DA	3765	1/1	0.94	0.08	64,64,64,64	0
54	MG	CA	1827	1/1	0.94	0.06	82,82,82,82	0
54	MG	BA	3486	1/1	0.94	0.13	60,60,60,60	0
54	MG	BA	3321	1/1	0.94	0.21	179,179,179,179	0
54	MG	BA	3006	1/1	0.94	0.26	61,61,61,61	0
54	MG	BA	3007	1/1	0.94	0.07	98,98,98,98	0
54	MG	DA	3165	1/1	0.94	0.06	59,59,59,59	0
54	MG	BA	3492	1/1	0.94	0.08	70,70,70,70	0
54	MG	DA	3344	1/1	0.94	0.09	75,75,75,75	0
54	MG	BA	3008	1/1	0.94	0.16	70,70,70,70	0
54	MG	DA	2996	1/1	0.94	0.20	32,32,32,32	0
54	MG	AA	1707	1/1	0.94	0.12	86,86,86,86	0
54	MG	CA	1725	1/1	0.94	0.06	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3327	1/1	0.94	0.15	86,86,86,86	0
54	MG	DA	3352	1/1	0.94	0.07	121,121,121,121	0
54	MG	BA	3328	1/1	0.94	0.19	80,80,80,80	0
54	MG	BA	3329	1/1	0.94	0.13	113,113,113,113	0
54	MG	AA	1828	1/1	0.94	0.06	82,82,82,82	0
54	MG	DA	3560	1/1	0.94	0.24	83,83,83,83	0
54	MG	CA	1733	1/1	0.94	0.09	78,78,78,78	0
54	MG	BA	3152	1/1	0.94	0.04	76,76,76,76	0
54	MG	DA	3009	1/1	0.94	0.12	54,54,54,54	0
54	MG	CA	1631	1/1	0.94	0.12	82,82,82,82	0
54	MG	DA	3362	1/1	0.94	0.16	78,78,78,78	0
54	MG	DA	3363	1/1	0.94	0.06	74,74,74,74	0
54	MG	DA	3012	1/1	0.94	0.09	48,48,48,48	0
54	MG	CA	1736	1/1	0.94	0.17	73,73,73,73	0
54	MG	DA	3014	1/1	0.94	0.14	52,52,52,52	0
54	MG	DA	3016	1/1	0.94	0.17	47,47,47,47	0
54	MG	DA	3190	1/1	0.94	0.07	69,69,69,69	0
54	MG	DA	3804	1/1	0.94	0.14	72,72,72,72	0
54	MG	DA	3018	1/1	0.94	0.35	60,60,60,60	0
54	MG	BA	3011	1/1	0.94	0.07	51,51,51,51	0
54	MG	DA	3372	1/1	0.94	0.17	90,90,90,90	0
54	MG	DA	3579	1/1	0.94	0.27	80,80,80,80	0
54	MG	AA	1849	1/1	0.94	0.08	79,79,79,79	0
54	MG	DA	3581	1/1	0.94	0.05	68,68,68,68	0
54	MG	CA	1739	1/1	0.94	0.10	102,102,102,102	0
54	MG	AA	1650	1/1	0.94	0.08	92,92,92,92	0
54	MG	DA	3818	1/1	0.94	0.04	78,78,78,78	0
54	MG	BA	3336	1/1	0.94	0.21	87,87,87,87	0
54	MG	AA	1679	1/1	0.94	0.15	78,78,78,78	0
54	MG	CA	1961	1/1	0.94	0.08	63,63,63,63	0
54	MG	BA	3209	1/1	0.94	0.11	81,81,81,81	0
54	MG	BA	2930	1/1	0.94	0.18	47,47,47,47	0
54	MG	CA	1855	1/1	0.94	0.09	107,107,107,107	0
54	MG	BA	3405	1/1	0.94	0.03	68,68,68,68	0
54	MG	AA	1831	1/1	0.94	0.23	67,67,67,67	0
54	MG	DA	3388	1/1	0.94	0.07	51,51,51,51	0
54	MG	BA	3162	1/1	0.94	0.04	86,86,86,86	0
54	MG	CA	1970	1/1	0.94	0.08	98,98,98,98	0
54	MG	AA	1725	1/1	0.94	0.09	93,93,93,93	0
54	MG	DA	3600	1/1	0.94	0.09	86,86,86,86	0
54	MG	CA	1972	1/1	0.94	0.04	67,67,67,67	0
54	MG	BA	2975	1/1	0.94	0.15	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3213	1/1	0.94	0.06	59,59,59,59	0
54	MG	CA	1862	1/1	0.94	0.16	96,96,96,96	0
54	MG	DA	3042	1/1	0.94	0.10	81,81,81,81	0
54	MG	DA	3217	1/1	0.94	0.14	59,59,59,59	0
54	MG	BA	2934	1/1	0.94	0.22	33,33,33,33	0
54	MG	DA	3403	1/1	0.94	0.06	56,56,56,56	0
54	MG	BA	3411	1/1	0.94	0.24	90,90,90,90	0
54	MG	AA	1689	1/1	0.94	0.06	75,75,75,75	0
54	MG	CA	1866	1/1	0.94	0.14	102,102,102,102	0
54	MG	AA	1855	1/1	0.94	0.11	81,81,81,81	0
54	MG	BA	3276	1/1	0.94	0.06	67,67,67,67	0
54	MG	DA	3619	1/1	0.94	0.08	83,83,83,83	0
54	MG	CA	1869	1/1	0.94	0.04	96,96,96,96	0
54	MG	BA	3277	1/1	0.94	0.09	110,110,110,110	0
54	MG	DA	3623	1/1	0.94	0.10	104,104,104,104	0
54	MG	CA	1653	1/1	0.94	0.12	133,133,133,133	0
54	MG	DA	3628	1/1	0.94	0.14	56,56,56,56	0
54	MG	BA	3607	1/1	0.94	0.28	62,62,62,62	0
54	MG	DA	3058	1/1	0.94	0.08	56,56,56,56	0
54	MG	DA	3859	1/1	0.94	0.07	55,55,55,55	0
54	MG	BA	3218	1/1	0.94	0.06	55,55,55,55	0
54	MG	BA	3610	1/1	0.94	0.24	80,80,80,80	0
54	MG	DA	3418	1/1	0.94	0.13	65,65,65,65	0
54	MG	DA	3235	1/1	0.94	0.14	59,59,59,59	0
54	MG	CA	1876	1/1	0.94	0.13	69,69,69,69	0
54	MG	DB	207	1/1	0.94	0.15	58,58,58,58	0
54	MG	AA	1783	1/1	0.94	0.09	123,123,123,123	0
54	MG	AA	1799	1/1	0.94	0.15	58,58,58,58	0
54	MG	BA	3221	1/1	0.94	0.13	141,141,141,141	0
54	MG	BA	2982	1/1	0.94	0.06	38,38,38,38	0
54	MG	DB	214	1/1	0.94	0.10	72,72,72,72	0
54	MG	BA	3030	1/1	0.94	0.15	61,61,61,61	0
54	MG	DA	3070	1/1	0.94	0.09	85,85,85,85	0
54	MG	DB	217	1/1	0.94	0.09	93,93,93,93	0
54	MG	BA	3226	1/1	0.94	0.10	59,59,59,59	0
54	MG	CA	1664	1/1	0.94	0.07	85,85,85,85	0
54	MG	DA	3246	1/1	0.94	0.04	57,57,57,57	0
54	MG	DA	3654	1/1	0.94	0.24	59,59,59,59	0
54	MG	BA	3529	1/1	0.94	0.36	79,79,79,79	0
54	MG	BA	3119	1/1	0.94	0.09	73,73,73,73	0
54	MG	BA	3435	1/1	0.94	0.21	29,29,29,29	0
54	MG	DB	225	1/1	0.94	0.04	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1775	1/1	0.94	0.16	64,64,64,64	0
54	MG	DA	3439	1/1	0.94	0.06	52,52,52,52	0
54	MG	DA	3662	1/1	0.94	0.32	71,71,71,71	0
54	MG	DA	3080	1/1	0.94	0.22	83,83,83,83	0
54	MG	AV	6207	1/1	0.94	0.07	78,78,78,78	0
54	MG	DA	3254	1/1	0.94	0.32	71,71,71,71	0
54	MG	BA	3622	1/1	0.94	0.13	90,90,90,90	0
54	MG	BA	3438	1/1	0.94	0.17	29,29,29,29	0
54	MG	BA	3442	1/1	0.94	0.24	26,26,26,26	0
54	MG	DA	3448	1/1	0.94	0.13	99,99,99,99	0
54	MG	BA	3443	1/1	0.94	0.23	36,36,36,36	0
54	MG	DA	3451	1/1	0.94	0.21	80,80,80,80	0
54	MG	BA	3290	1/1	0.94	0.08	79,79,79,79	0
54	MG	CA	1782	1/1	0.94	0.04	80,80,80,80	0
54	MG	BA	2946	1/1	0.94	0.07	37,37,37,37	0
54	MG	CA	1677	1/1	0.94	0.28	93,93,93,93	0
54	MG	DA	3457	1/1	0.94	0.15	86,86,86,86	0
54	MG	DC	301	1/1	0.94	0.30	67,67,67,67	0
54	MG	BA	3448	1/1	0.94	0.30	51,51,51,51	0
54	MG	DA	3460	1/1	0.94	0.19	86,86,86,86	0
54	MG	AA	1644	1/1	0.94	0.08	62,62,62,62	0
54	MG	DD	302	1/1	0.94	0.11	61,61,61,61	0
54	MG	DA	3462	1/1	0.94	0.29	83,83,83,83	0
54	MG	DA	3686	1/1	0.94	0.06	52,52,52,52	0
54	MG	DA	3268	1/1	0.94	0.37	51,51,51,51	0
54	MG	DA	3099	1/1	0.94	0.12	49,49,49,49	0
54	MG	BA	3079	1/1	0.94	0.07	73,73,73,73	0
54	MG	BA	3235	1/1	0.94	0.11	54,54,54,54	0
54	MG	DA	3273	1/1	0.94	0.10	94,94,94,94	0
54	MG	CA	1683	1/1	0.94	0.04	72,72,72,72	0
54	MG	DA	3104	1/1	0.94	0.12	49,49,49,49	0
54	MG	BA	3236	1/1	0.94	0.10	56,56,56,56	0
54	MG	BA	2903	1/1	0.94	0.35	22,22,22,22	0
54	MG	DA	3107	1/1	0.94	0.06	50,50,50,50	0
54	MG	DJ	201	1/1	0.94	0.07	61,61,61,61	0
54	MG	BA	3460	1/1	0.94	0.15	47,47,47,47	0
54	MG	DJ	203	1/1	0.94	0.10	84,84,84,84	0
54	MG	DA	3701	1/1	0.94	0.08	56,56,56,56	0
54	MG	CV	6205	1/1	0.94	0.14	159,159,159,159	0
54	MG	DA	3703	1/1	0.94	0.05	60,60,60,60	0
54	MG	DA	3478	1/1	0.94	0.12	48,48,48,48	0
54	MG	DA	2901	1/1	0.94	0.25	9,9,9,9	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3707	1/1	0.94	0.10	54,54,54,54	0
54	MG	BA	2950	1/1	0.94	0.13	68,68,68,68	0
54	MG	AA	1691	1/1	0.94	0.07	69,69,69,69	0
54	MG	DA	3710	1/1	0.94	0.07	92,92,92,92	0
54	MG	DP	201	1/1	0.94	0.13	72,72,72,72	0
54	MG	BA	3639	1/1	0.94	0.09	88,88,88,88	0
54	MG	BA	3463	1/1	0.94	0.17	54,54,54,54	0
54	MG	DA	3487	1/1	0.94	0.10	66,66,66,66	0
54	MG	DA	3116	1/1	0.94	0.07	52,52,52,52	0
54	MG	BA	3131	1/1	0.94	0.11	47,47,47,47	0
54	MG	DA	3293	1/1	0.94	0.11	66,66,66,66	0
54	MG	DA	3120	1/1	0.94	0.12	61,61,61,61	0
54	MG	BA	3305	1/1	0.94	0.07	87,87,87,87	0
54	MG	DA	3493	1/1	0.94	0.08	59,59,59,59	0
54	MG	BW	101	1/1	0.94	0.09	57,57,57,57	0
54	MG	CA	1914	1/1	0.94	0.04	97,97,97,97	0
54	MG	CA	1915	1/1	0.94	0.08	58,58,58,58	0
54	MG	DX	103	1/1	0.94	0.17	60,60,60,60	0
54	MG	BA	2993	1/1	0.94	0.10	49,49,49,49	0
54	MG	BA	3645	1/1	0.94	0.08	69,69,69,69	0
54	MG	BA	3469	1/1	0.94	0.20	58,58,58,58	0
54	MG	DA	3130	1/1	0.94	0.10	68,68,68,68	0
54	MG	BA	3039	1/1	0.94	0.10	54,54,54,54	0
54	MG	D4	101	1/1	0.94	0.10	55,55,55,55	0
54	MG	BA	3375	1/1	0.94	0.20	62,62,62,62	0
54	MG	D4	104	1/1	0.94	0.18	76,76,76,76	0
54	MG	DA	2932	1/1	0.94	0.19	24,24,24,24	0
54	MG	BA	3472	1/1	0.94	0.20	65,65,65,65	0
54	MG	DA	3310	1/1	0.94	0.10	54,54,54,54	0
54	MG	DA	3117	1/1	0.95	0.08	31,31,31,31	0
54	MG	DA	2956	1/1	0.95	0.19	44,44,44,44	0
54	MG	DA	3119	1/1	0.95	0.15	74,74,74,74	0
54	MG	DA	2957	1/1	0.95	0.28	40,40,40,40	0
54	MG	BA	3573	1/1	0.95	0.06	58,58,58,58	0
54	MG	BA	3271	1/1	0.95	0.07	83,83,83,83	0
54	MG	DA	3783	1/1	0.95	0.05	63,63,63,63	0
54	MG	DA	3272	1/1	0.95	0.26	87,87,87,87	0
54	MG	DA	3429	1/1	0.95	0.06	79,79,79,79	0
54	MG	DA	2963	1/1	0.95	0.08	32,32,32,32	0
54	MG	DA	3601	1/1	0.95	0.05	59,59,59,59	0
54	MG	DA	3788	1/1	0.95	0.13	92,92,92,92	0
54	MG	DA	3790	1/1	0.95	0.14	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3791	1/1	0.95	0.08	108,108,108,108	0
54	MG	DA	3431	1/1	0.95	0.13	94,94,94,94	0
54	MG	DA	2965	1/1	0.95	0.21	34,34,34,34	0
54	MG	BA	3059	1/1	0.95	0.15	48,48,48,48	0
54	MG	BA	3441	1/1	0.95	0.15	35,35,35,35	0
54	MG	DA	3608	1/1	0.95	0.25	128,128,128,128	0
54	MG	BM	203	1/1	0.95	0.11	90,90,90,90	0
54	MG	BA	3511	1/1	0.95	0.41	78,78,78,78	0
54	MG	BO	201	1/1	0.95	0.06	70,70,70,70	0
54	MG	DA	2977	1/1	0.95	0.25	49,49,49,49	0
54	MG	DA	3440	1/1	0.95	0.10	125,125,125,125	0
54	MG	AA	1836	1/1	0.95	0.04	91,91,91,91	0
54	MG	DA	3805	1/1	0.95	0.04	70,70,70,70	0
54	MG	DA	2986	1/1	0.95	0.29	41,41,41,41	0
54	MG	BA	3097	1/1	0.95	0.10	57,57,57,57	0
54	MG	BA	2933	1/1	0.95	0.13	36,36,36,36	0
54	MG	DA	3139	1/1	0.95	0.09	40,40,40,40	0
54	MG	DA	3810	1/1	0.95	0.06	102,102,102,102	0
54	MG	BA	3651	1/1	0.95	0.07	77,77,77,77	0
54	MG	BA	3099	1/1	0.95	0.05	56,56,56,56	0
54	MG	DA	3622	1/1	0.95	0.10	45,45,45,45	0
54	MG	DA	3449	1/1	0.95	0.04	79,79,79,79	0
54	MG	BA	3063	1/1	0.95	0.42	85,85,85,85	0
54	MG	BA	3141	1/1	0.95	0.28	91,91,91,91	0
54	MG	BA	3519	1/1	0.95	0.05	50,50,50,50	0
54	MG	BA	2995	1/1	0.95	0.33	57,57,57,57	0
54	MG	AA	1613	1/1	0.95	0.24	55,55,55,55	0
54	MG	BA	3588	1/1	0.95	0.21	52,52,52,52	0
54	MG	DA	3004	1/1	0.95	0.09	38,38,38,38	0
54	MG	BA	3238	1/1	0.95	0.07	49,49,49,49	0
54	MG	DA	3303	1/1	0.95	0.07	67,67,67,67	0
54	MG	DA	3640	1/1	0.95	0.10	24,24,24,24	0
54	MG	DA	3642	1/1	0.95	0.29	52,52,52,52	0
54	MG	CA	1681	1/1	0.95	0.08	66,66,66,66	0
54	MG	BA	3337	1/1	0.95	0.09	77,77,77,77	0
54	MG	DA	3646	1/1	0.95	0.17	45,45,45,45	0
54	MG	BA	2967	1/1	0.95	0.18	51,51,51,51	0
54	MG	BA	3663	1/1	0.95	0.12	89,89,89,89	0
54	MG	BY	103	1/1	0.95	0.12	95,95,95,95	0
54	MG	DA	3011	1/1	0.95	0.11	36,36,36,36	0
54	MG	BA	2998	1/1	0.95	0.07	75,75,75,75	0
54	MG	BA	3665	1/1	0.95	0.13	123,123,123,123	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3285	1/1	0.95	0.13	91,91,91,91	0
54	MG	DA	3015	1/1	0.95	0.16	33,33,33,33	0
54	MG	BA	3148	1/1	0.95	0.10	62,62,62,62	0
54	MG	DA	3843	1/1	0.95	0.25	55,55,55,55	0
54	MG	DA	3656	1/1	0.95	0.13	36,36,36,36	0
54	MG	DA	3473	1/1	0.95	0.11	61,61,61,61	0
54	MG	AA	1686	1/1	0.95	0.04	65,65,65,65	0
54	MG	DA	3848	1/1	0.95	0.26	105,105,105,105	0
54	MG	CC	305	1/1	0.95	0.07	93,93,93,93	0
54	MG	DA	3476	1/1	0.95	0.09	87,87,87,87	0
54	MG	CA	1785	1/1	0.95	0.05	76,76,76,76	0
54	MG	BA	3289	1/1	0.95	0.11	61,61,61,61	0
54	MG	AA	1601	1/1	0.95	0.20	35,35,35,35	0
54	MG	BA	3035	1/1	0.95	0.14	57,57,57,57	0
54	MG	CA	1603	1/1	0.95	0.22	48,48,48,48	0
54	MG	CA	1604	1/1	0.95	0.21	43,43,43,43	0
54	MG	CA	1606	1/1	0.95	0.13	57,57,57,57	0
54	MG	DA	3326	1/1	0.95	0.17	81,81,81,81	0
54	MG	AA	1671	1/1	0.95	0.04	74,74,74,74	0
54	MG	CA	1701	1/1	0.95	0.16	83,83,83,83	0
54	MG	BA	3534	1/1	0.95	0.18	82,82,82,82	0
54	MG	DA	3863	1/1	0.95	0.28	104,104,104,104	0
54	MG	CA	1609	1/1	0.95	0.13	66,66,66,66	0
54	MG	DB	202	1/1	0.95	0.06	33,33,33,33	0
54	MG	DB	203	1/1	0.95	0.05	69,69,69,69	0
54	MG	DB	204	1/1	0.95	0.12	56,56,56,56	0
54	MG	DA	3182	1/1	0.95	0.07	63,63,63,63	0
54	MG	BA	3293	1/1	0.95	0.03	60,60,60,60	0
54	MG	BA	2910	1/1	0.95	0.16	17,17,17,17	0
54	MG	AA	1603	1/1	0.95	0.23	37,37,37,37	0
54	MG	DB	211	1/1	0.95	0.03	65,65,65,65	0
54	MG	BA	3474	1/1	0.95	0.19	72,72,72,72	0
54	MG	BA	3539	1/1	0.95	0.12	97,97,97,97	0
54	MG	DA	3683	1/1	0.95	0.06	58,58,58,58	0
54	MG	DA	3499	1/1	0.95	0.08	87,87,87,87	0
54	MG	BA	2973	1/1	0.95	0.13	60,60,60,60	0
54	MG	DA	3687	1/1	0.95	0.12	57,57,57,57	0
54	MG	BA	3541	1/1	0.95	0.23	89,89,89,89	0
54	MG	BA	2974	1/1	0.95	0.21	81,81,81,81	0
54	MG	CA	1805	1/1	0.95	0.11	94,94,94,94	0
54	MG	BA	3477	1/1	0.95	0.06	50,50,50,50	0
54	MG	BA	2945	1/1	0.95	0.11	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3345	1/1	0.95	0.12	88,88,88,88	0
54	MG	BA	3302	1/1	0.95	0.09	84,84,84,84	0
54	MG	CA	1623	1/1	0.95	0.07	93,93,93,93	0
54	MG	DA	3049	1/1	0.95	0.16	43,43,43,43	0
54	MG	DA	3050	1/1	0.95	0.26	89,89,89,89	0
54	MG	DA	3203	1/1	0.95	0.12	67,67,67,67	0
54	MG	CA	1716	1/1	0.95	0.13	89,89,89,89	0
54	MG	CA	1910	1/1	0.95	0.14	109,109,109,109	0
54	MG	BA	3355	1/1	0.95	0.13	72,72,72,72	0
54	MG	BA	3161	1/1	0.95	0.14	64,64,64,64	0
54	MG	DA	3057	1/1	0.95	0.13	79,79,79,79	0
54	MG	BA	2912	1/1	0.95	0.19	19,19,19,19	0
54	MG	AA	1724	1/1	0.95	0.10	79,79,79,79	0
54	MG	BB	208	1/1	0.95	0.13	67,67,67,67	0
54	MG	AA	1663	1/1	0.95	0.16	54,54,54,54	0
54	MG	BA	3619	1/1	0.95	0.19	145,145,145,145	0
54	MG	AA	1735	1/1	0.95	0.04	68,68,68,68	0
54	MG	DA	3365	1/1	0.95	0.13	83,83,83,83	0
54	MG	DB	241	1/1	0.95	0.04	90,90,90,90	0
54	MG	AA	1746	1/1	0.95	0.07	86,86,86,86	0
54	MG	CA	1920	1/1	0.95	0.07	87,87,87,87	0
54	MG	BA	3085	1/1	0.95	0.11	53,53,53,53	0
54	MG	DA	3219	1/1	0.95	0.11	60,60,60,60	0
54	MG	CV	6206	1/1	0.95	0.11	107,107,107,107	0
54	MG	BB	215	1/1	0.95	0.06	82,82,82,82	0
54	MG	BA	2923	1/1	0.95	0.24	13,13,13,13	0
54	MG	DA	3724	1/1	0.95	0.11	109,109,109,109	0
54	MG	DA	3533	1/1	0.95	0.14	60,60,60,60	0
54	MG	DA	3373	1/1	0.95	0.07	78,78,78,78	0
54	MG	DA	3374	1/1	0.95	0.06	80,80,80,80	0
54	MG	DA	3375	1/1	0.95	0.11	63,63,63,63	0
54	MG	AA	1747	1/1	0.95	0.12	116,116,116,116	0
54	MG	DA	2908	1/1	0.95	0.33	20,20,20,20	0
54	MG	AA	1715	1/1	0.95	0.07	58,58,58,58	0
54	MG	AA	1832	1/1	0.95	0.07	66,66,66,66	0
54	MG	BA	3090	1/1	0.95	0.16	84,84,84,84	0
54	MG	DA	3229	1/1	0.95	0.06	59,59,59,59	0
54	MG	DA	2916	1/1	0.95	0.17	15,15,15,15	0
54	MG	BA	3175	1/1	0.95	0.15	71,71,71,71	0
54	MG	BA	3319	1/1	0.95	0.09	79,79,79,79	0
54	MG	DA	2921	1/1	0.95	0.16	32,32,32,32	0
54	MG	CA	1834	1/1	0.95	0.06	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3236	1/1	0.95	0.09	75,75,75,75	0
54	MG	BA	3423	1/1	0.95	0.10	72,72,72,72	0
54	MG	DA	3556	1/1	0.95	0.07	110,110,110,110	0
54	MG	DA	3744	1/1	0.95	0.06	64,64,64,64	0
54	MG	BA	3424	1/1	0.95	0.15	115,115,115,115	0
54	MG	BA	3632	1/1	0.95	0.12	61,61,61,61	0
54	MG	BA	3633	1/1	0.95	0.07	88,88,88,88	0
54	MG	DA	3093	1/1	0.95	0.10	47,47,47,47	0
54	MG	DA	3562	1/1	0.95	0.08	60,60,60,60	0
54	MG	CA	1742	1/1	0.95	0.11	91,91,91,91	0
54	MG	AA	1833	1/1	0.95	0.09	75,75,75,75	0
54	MG	DA	3096	1/1	0.95	0.21	59,59,59,59	0
54	MG	DA	3566	1/1	0.95	0.34	91,91,91,91	0
54	MG	DA	3097	1/1	0.95	0.26	55,55,55,55	0
54	MG	DA	3401	1/1	0.95	0.06	100,100,100,100	0
54	MG	AA	1684	1/1	0.95	0.05	71,71,71,71	0
54	MG	DA	2933	1/1	0.95	0.23	25,25,25,25	0
54	MG	DA	3758	1/1	0.95	0.08	60,60,60,60	0
54	MG	DA	2934	1/1	0.95	0.22	13,13,13,13	0
54	MG	CA	1745	1/1	0.95	0.07	77,77,77,77	0
54	MG	BA	3057	1/1	0.95	0.08	64,64,64,64	0
54	MG	CA	1747	1/1	0.95	0.08	69,69,69,69	0
54	MG	DA	2939	1/1	0.95	0.19	21,21,21,21	0
54	MG	BA	3568	1/1	0.95	0.06	69,69,69,69	0
54	MG	BE	301	1/1	0.95	0.09	75,75,75,75	0
54	MG	BA	3428	1/1	0.95	0.07	90,90,90,90	0
54	MG	DA	2950	1/1	0.95	0.22	33,33,33,33	0
54	MG	DA	2951	1/1	0.95	0.25	56,56,56,56	0
54	MG	DA	3415	1/1	0.95	0.07	66,66,66,66	0
54	MG	D4	103	1/1	0.95	0.11	73,73,73,73	0
54	MG	CA	1944	1/1	0.95	0.14	66,66,66,66	0
54	MG	BA	3429	1/1	0.95	0.09	79,79,79,79	0
54	MG	AA	1775	1/1	0.95	0.07	105,105,105,105	0
54	MG	BA	3436	1/1	0.95	0.25	38,38,38,38	0
54	MG	DA	3639	1/1	0.96	0.09	26,26,26,26	0
54	MG	DA	3092	1/1	0.96	0.24	56,56,56,56	0
54	MG	DA	3641	1/1	0.96	0.11	13,13,13,13	0
54	MG	CA	1726	1/1	0.96	0.05	49,49,49,49	0
54	MG	DA	2967	1/1	0.96	0.07	34,34,34,34	0
54	MG	CA	1648	1/1	0.96	0.09	61,61,61,61	0
54	MG	BA	3432	1/1	0.96	0.17	12,12,12,12	0
54	MG	DA	2972	1/1	0.96	0.13	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3221	1/1	0.96	0.05	73,73,73,73	0
54	MG	BA	3433	1/1	0.96	0.20	21,21,21,21	0
54	MG	DA	2974	1/1	0.96	0.12	60,60,60,60	0
54	MG	DA	3811	1/1	0.96	0.05	60,60,60,60	0
54	MG	DA	3812	1/1	0.96	0.04	87,87,87,87	0
54	MG	CA	1809	1/1	0.96	0.04	92,92,92,92	0
54	MG	DA	3102	1/1	0.96	0.09	50,50,50,50	0
54	MG	DA	3815	1/1	0.96	0.07	74,74,74,74	0
54	MG	CA	1731	1/1	0.96	0.04	76,76,76,76	0
54	MG	AA	1798	1/1	0.96	0.18	46,46,46,46	0
54	MG	DA	2981	1/1	0.96	0.17	40,40,40,40	0
54	MG	CA	1652	1/1	0.96	0.08	87,87,87,87	0
54	MG	BA	3309	1/1	0.96	0.12	84,84,84,84	0
54	MG	BA	3514	1/1	0.96	0.15	83,83,83,83	0
54	MG	AA	1627	1/1	0.96	0.08	59,59,59,59	0
54	MG	DA	3110	1/1	0.96	0.12	65,65,65,65	0
54	MG	BA	3311	1/1	0.96	0.14	87,87,87,87	0
54	MG	DA	2992	1/1	0.96	0.12	60,60,60,60	0
54	MG	BA	3440	1/1	0.96	0.17	23,23,23,23	0
54	MG	AA	1827	1/1	0.96	0.04	71,71,71,71	0
54	MG	BA	3204	1/1	0.96	0.20	68,68,68,68	0
54	MG	DA	2997	1/1	0.96	0.13	46,46,46,46	0
54	MG	AB	302	1/1	0.96	0.09	57,57,57,57	0
54	MG	CA	1823	1/1	0.96	0.07	61,61,61,61	0
54	MG	BA	3591	1/1	0.96	0.09	99,99,99,99	0
54	MG	DA	3833	1/1	0.96	0.25	73,73,73,73	0
54	MG	DA	3834	1/1	0.96	0.05	60,60,60,60	0
54	MG	AA	1639	1/1	0.96	0.18	54,54,54,54	0
54	MG	DA	3672	1/1	0.96	0.21	80,80,80,80	0
54	MG	BA	3159	1/1	0.96	0.23	59,59,59,59	0
54	MG	BA	3004	1/1	0.96	0.13	49,49,49,49	0
54	MG	BA	3260	1/1	0.96	0.05	64,64,64,64	0
54	MG	DA	3381	1/1	0.96	0.10	49,49,49,49	0
54	MG	DA	3125	1/1	0.96	0.18	36,36,36,36	0
54	MG	BA	2915	1/1	0.96	0.14	20,20,20,20	0
54	MG	DA	3680	1/1	0.96	0.18	41,41,41,41	0
54	MG	AA	1721	1/1	0.96	0.04	56,56,56,56	0
54	MG	CA	1749	1/1	0.96	0.12	77,77,77,77	0
54	MG	DA	3252	1/1	0.96	0.03	52,52,52,52	0
54	MG	BA	2919	1/1	0.96	0.18	14,14,14,14	0
54	MG	BA	3458	1/1	0.96	0.10	77,77,77,77	0
54	MG	BA	3164	1/1	0.96	0.05	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3256	1/1	0.96	0.06	65,65,65,65	0
54	MG	DA	3258	1/1	0.96	0.20	67,67,67,67	0
54	MG	AA	1701	1/1	0.96	0.19	84,84,84,84	0
54	MG	CA	1674	1/1	0.96	0.10	70,70,70,70	0
54	MG	BA	3082	1/1	0.96	0.05	38,38,38,38	0
54	MG	DA	3534	1/1	0.96	0.12	83,83,83,83	0
54	MG	BA	3044	1/1	0.96	0.05	39,39,39,39	0
54	MG	DA	3858	1/1	0.96	0.10	58,58,58,58	0
54	MG	DA	3696	1/1	0.96	0.06	82,82,82,82	0
54	MG	DA	3136	1/1	0.96	0.10	57,57,57,57	0
54	MG	DA	3137	1/1	0.96	0.06	29,29,29,29	0
54	MG	CA	1840	1/1	0.96	0.09	76,76,76,76	0
54	MG	BA	2949	1/1	0.96	0.15	65,65,65,65	0
54	MG	BA	2922	1/1	0.96	0.30	38,38,38,38	0
54	MG	BA	3124	1/1	0.96	0.05	87,87,87,87	0
54	MG	AA	1711	1/1	0.96	0.06	58,58,58,58	0
54	MG	DA	3704	1/1	0.96	0.24	68,68,68,68	0
54	MG	BA	2952	1/1	0.96	0.11	59,59,59,59	0
54	MG	DB	206	1/1	0.96	0.15	63,63,63,63	0
54	MG	BA	3609	1/1	0.96	0.12	65,65,65,65	0
54	MG	DA	3546	1/1	0.96	0.06	56,56,56,56	0
54	MG	DA	3027	1/1	0.96	0.12	53,53,53,53	0
54	MG	DB	210	1/1	0.96	0.07	92,92,92,92	0
54	MG	DA	3548	1/1	0.96	0.20	110,110,110,110	0
54	MG	DA	3146	1/1	0.96	0.14	31,31,31,31	0
54	MG	CA	1847	1/1	0.96	0.04	58,58,58,58	0
54	MG	DA	3551	1/1	0.96	0.06	80,80,80,80	0
54	MG	BA	3273	1/1	0.96	0.06	73,73,73,73	0
54	MG	BA	3016	1/1	0.96	0.21	54,54,54,54	0
54	MG	AA	1607	1/1	0.96	0.23	46,46,46,46	0
54	MG	DA	3555	1/1	0.96	0.33	61,61,61,61	0
54	MG	DA	3717	1/1	0.96	0.13	65,65,65,65	0
54	MG	BA	3176	1/1	0.96	0.14	53,53,53,53	0
54	MG	CV	6207	1/1	0.96	0.03	94,94,94,94	0
54	MG	BA	3224	1/1	0.96	0.16	97,97,97,97	0
54	MG	DA	3722	1/1	0.96	0.18	138,138,138,138	0
54	MG	BA	3225	1/1	0.96	0.06	54,54,54,54	0
54	MG	DA	3037	1/1	0.96	0.29	44,44,44,44	0
54	MG	DA	2904	1/1	0.96	0.17	16,16,16,16	0
54	MG	DA	3287	1/1	0.96	0.12	104,104,104,104	0
54	MG	BA	2925	1/1	0.96	0.07	12,12,12,12	0
54	MG	BA	3227	1/1	0.96	0.18	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	2909	1/1	0.96	0.21	22,22,22,22	0
54	MG	DA	3162	1/1	0.96	0.10	30,30,30,30	0
54	MG	DA	3568	1/1	0.96	0.07	78,78,78,78	0
54	MG	AA	1669	1/1	0.96	0.13	54,54,54,54	0
54	MG	DA	3428	1/1	0.96	0.09	71,71,71,71	0
54	MG	DA	2911	1/1	0.96	0.21	11,11,11,11	0
54	MG	DA	2913	1/1	0.96	0.20	21,21,21,21	0
54	MG	BA	3181	1/1	0.96	0.05	62,62,62,62	0
54	MG	BA	3054	1/1	0.96	0.09	65,65,65,65	0
54	MG	DA	3738	1/1	0.96	0.11	91,91,91,91	0
54	MG	DA	3575	1/1	0.96	0.29	85,85,85,85	0
54	MG	CA	1616	1/1	0.96	0.14	94,94,94,94	0
54	MG	AA	1634	1/1	0.96	0.04	48,48,48,48	0
54	MG	AA	1612	1/1	0.96	0.26	39,39,39,39	0
54	MG	BA	3286	1/1	0.96	0.08	68,68,68,68	0
54	MG	BA	3234	1/1	0.96	0.07	73,73,73,73	0
54	MG	DA	3438	1/1	0.96	0.04	54,54,54,54	0
54	MG	DA	3175	1/1	0.96	0.15	102,102,102,102	0
54	MG	DA	3176	1/1	0.96	0.08	50,50,50,50	0
54	MG	BA	3136	1/1	0.96	0.18	64,64,64,64	0
54	MG	BA	2986	1/1	0.96	0.37	54,54,54,54	0
54	MG	BA	3488	1/1	0.96	0.22	53,53,53,53	0
54	MG	DA	3055	1/1	0.96	0.18	59,59,59,59	0
54	MG	DE	301	1/1	0.96	0.06	32,32,32,32	0
54	MG	BA	2901	1/1	0.96	0.22	8,8,8,8	0
54	MG	BA	3412	1/1	0.96	0.07	49,49,49,49	0
54	MG	DA	3061	1/1	0.96	0.14	55,55,55,55	0
54	MG	DA	3184	1/1	0.96	0.07	38,38,38,38	0
54	MG	DA	3594	1/1	0.96	0.03	58,58,58,58	0
54	MG	BA	3491	1/1	0.96	0.13	79,79,79,79	0
54	MG	CA	1871	1/1	0.96	0.05	76,76,76,76	0
54	MG	BA	2988	1/1	0.96	0.14	40,40,40,40	0
54	MG	BA	3061	1/1	0.96	0.12	54,54,54,54	0
54	MG	DA	3319	1/1	0.96	0.10	38,38,38,38	0
54	MG	DA	3455	1/1	0.96	0.39	97,97,97,97	0
54	MG	BA	2989	1/1	0.96	0.17	50,50,50,50	0
54	MG	CA	1957	1/1	0.96	0.10	73,73,73,73	0
54	MG	DA	3192	1/1	0.96	0.08	49,49,49,49	0
54	MG	DA	3459	1/1	0.96	0.14	61,61,61,61	0
54	MG	BA	2990	1/1	0.96	0.07	35,35,35,35	0
54	MG	BA	3356	1/1	0.96	0.08	33,33,33,33	0
54	MG	DA	2940	1/1	0.96	0.22	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3295	1/1	0.96	0.12	60,60,60,60	0
54	MG	DA	2944	1/1	0.96	0.28	25,25,25,25	0
54	MG	BA	3296	1/1	0.96	0.04	71,71,71,71	0
54	MG	DA	2947	1/1	0.96	0.20	37,37,37,37	0
54	MG	BA	2960	1/1	0.96	0.21	39,39,39,39	0
54	MG	AA	1615	1/1	0.96	0.18	67,67,67,67	0
54	MG	DA	3778	1/1	0.96	0.08	80,80,80,80	0
54	MG	DA	3469	1/1	0.96	0.10	83,83,83,83	0
54	MG	AE	204	1/1	0.96	0.06	74,74,74,74	0
54	MG	DA	3335	1/1	0.96	0.06	46,46,46,46	0
54	MG	CA	1966	1/1	0.96	0.07	97,97,97,97	0
54	MG	AQ	201	1/1	0.96	0.05	90,90,90,90	0
54	MG	BE	302	1/1	0.96	0.15	93,93,93,93	0
54	MG	DA	3625	1/1	0.96	0.15	84,84,84,84	0
54	MG	BA	3149	1/1	0.96	0.23	65,65,65,65	0
54	MG	DA	3627	1/1	0.96	0.12	63,63,63,63	0
54	MG	BA	2964	1/1	0.96	0.21	43,43,43,43	0
54	MG	DA	3789	1/1	0.96	0.05	56,56,56,56	0
54	MG	DA	3629	1/1	0.96	0.14	89,89,89,89	0
54	MG	BA	3069	1/1	0.96	0.10	52,52,52,52	0
54	MG	DA	3792	1/1	0.96	0.14	40,40,40,40	0
54	MG	AA	1622	1/1	0.96	0.24	62,62,62,62	0
54	MG	BA	3251	1/1	0.96	0.18	95,95,95,95	0
54	MG	DA	3795	1/1	0.96	0.22	80,80,80,80	0
54	MG	BA	3430	1/1	0.96	0.14	6,6,6,6	0
54	MG	DA	3214	1/1	0.96	0.12	34,34,34,34	0
54	MG	D5	102	1/1	0.96	0.07	59,59,59,59	0
54	MG	DA	3483	1/1	0.96	0.14	63,63,63,63	0
54	MG	DA	3484	1/1	0.96	0.11	21,21,21,21	0
54	MG	BA	3482	1/1	0.97	0.05	40,40,40,40	0
54	MG	AA	1698	1/1	0.97	0.07	88,88,88,88	0
54	MG	DA	3624	1/1	0.97	0.11	92,92,92,92	0
54	MG	BA	3447	1/1	0.97	0.25	39,39,39,39	0
54	MG	DA	3414	1/1	0.97	0.22	55,55,55,55	0
54	MG	CA	1727	1/1	0.97	0.11	76,76,76,76	0
54	MG	BA	3417	1/1	0.97	0.12	65,65,65,65	0
54	MG	DA	2960	1/1	0.97	0.13	33,33,33,33	0
54	MG	BS	201	1/1	0.97	0.04	52,52,52,52	0
54	MG	DA	3631	1/1	0.97	0.04	73,73,73,73	0
54	MG	DA	2962	1/1	0.97	0.10	37,37,37,37	0
54	MG	BA	3449	1/1	0.97	0.19	31,31,31,31	0
54	MG	DA	2964	1/1	0.97	0.14	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3644	1/1	0.97	0.12	86,86,86,86	0
54	MG	DA	3525	1/1	0.97	0.11	73,73,73,73	0
54	MG	DB	201	1/1	0.97	0.11	44,44,44,44	0
54	MG	BA	3125	1/1	0.97	0.05	78,78,78,78	0
54	MG	BA	3340	1/1	0.97	0.05	85,85,85,85	0
54	MG	BA	3452	1/1	0.97	0.08	41,41,41,41	0
54	MG	DA	3232	1/1	0.97	0.05	67,67,67,67	0
54	MG	BA	3454	1/1	0.97	0.14	41,41,41,41	0
54	MG	BA	3053	1/1	0.97	0.20	69,69,69,69	0
54	MG	BA	3168	1/1	0.97	0.17	20,20,20,20	0
54	MG	BA	3530	1/1	0.97	0.10	65,65,65,65	0
54	MG	DA	3059	1/1	0.97	0.19	39,39,39,39	0
54	MG	DA	3060	1/1	0.97	0.28	77,77,77,77	0
54	MG	CA	1687	1/1	0.97	0.13	63,63,63,63	0
54	MG	BA	3457	1/1	0.97	0.21	48,48,48,48	0
54	MG	DA	3763	1/1	0.97	0.10	57,57,57,57	0
54	MG	BA	2935	1/1	0.97	0.16	26,26,26,26	0
54	MG	DA	2982	1/1	0.97	0.10	39,39,39,39	0
54	MG	DA	2983	1/1	0.97	0.22	52,52,52,52	0
54	MG	DA	2984	1/1	0.97	0.12	22,22,22,22	0
54	MG	DA	3542	1/1	0.97	0.11	65,65,65,65	0
54	MG	AA	1765	1/1	0.97	0.02	91,91,91,91	0
54	MG	CA	1691	1/1	0.97	0.07	92,92,92,92	0
54	MG	DA	3658	1/1	0.97	0.07	23,23,23,23	0
54	MG	CA	1965	1/1	0.97	0.05	78,78,78,78	0
54	MG	DA	3773	1/1	0.97	0.10	37,37,37,37	0
54	MG	DA	2905	1/1	0.97	0.13	18,18,18,18	0
54	MG	DA	3444	1/1	0.97	0.17	72,72,72,72	0
54	MG	DA	2906	1/1	0.97	0.17	16,16,16,16	0
54	MG	DA	2990	1/1	0.97	0.23	20,20,20,20	0
54	MG	DA	3073	1/1	0.97	0.14	69,69,69,69	0
54	MG	DA	2991	1/1	0.97	0.13	36,36,36,36	0
54	MG	BA	3194	1/1	0.97	0.25	64,64,64,64	0
54	MG	BA	3575	1/1	0.97	0.13	59,59,59,59	0
54	MG	DA	3078	1/1	0.97	0.04	48,48,48,48	0
54	MG	AA	1610	1/1	0.97	0.09	29,29,29,29	0
54	MG	DA	3354	1/1	0.97	0.09	79,79,79,79	0
54	MG	DA	2995	1/1	0.97	0.09	26,26,26,26	0
54	MG	DA	3558	1/1	0.97	0.12	148,148,148,148	0
54	MG	BA	3658	1/1	0.97	0.06	68,68,68,68	0
54	MG	BA	3130	1/1	0.97	0.07	47,47,47,47	0
54	MG	DA	3358	1/1	0.97	0.14	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	2998	1/1	0.97	0.17	36,36,36,36	0
54	MG	DA	3173	1/1	0.97	0.13	73,73,73,73	0
54	MG	DA	3085	1/1	0.97	0.12	68,68,68,68	0
54	MG	BA	3024	1/1	0.97	0.08	52,52,52,52	0
54	MG	BA	2902	1/1	0.97	0.21	12,12,12,12	0
54	MG	BA	3465	1/1	0.97	0.13	31,31,31,31	0
54	MG	BA	2980	1/1	0.97	0.15	51,51,51,51	0
54	MG	DA	3684	1/1	0.97	0.17	69,69,69,69	0
54	MG	BA	3467	1/1	0.97	0.09	30,30,30,30	0
54	MG	BA	2940	1/1	0.97	0.10	30,30,30,30	0
54	MG	CA	1605	1/1	0.97	0.28	54,54,54,54	0
54	MG	DA	3688	1/1	0.97	0.13	50,50,50,50	0
54	MG	BA	3431	1/1	0.97	0.21	26,26,26,26	0
54	MG	BA	3156	1/1	0.97	0.14	70,70,70,70	0
54	MG	CA	1656	1/1	0.97	0.04	78,78,78,78	0
54	MG	BA	3178	1/1	0.97	0.05	74,74,74,74	0
54	MG	DA	2927	1/1	0.97	0.15	18,18,18,18	0
54	MG	BA	3547	1/1	0.97	0.19	87,87,87,87	0
54	MG	CA	1814	1/1	0.97	0.09	47,47,47,47	0
54	MG	BA	3508	1/1	0.97	0.04	90,90,90,90	0
54	MG	DA	2931	1/1	0.97	0.16	21,21,21,21	0
54	MG	DA	3281	1/1	0.97	0.05	62,62,62,62	0
54	MG	AA	1777	1/1	0.97	0.06	49,49,49,49	0
54	MG	DA	3017	1/1	0.97	0.12	38,38,38,38	0
54	MG	DA	3284	1/1	0.97	0.12	79,79,79,79	0
54	MG	DA	3481	1/1	0.97	0.14	77,77,77,77	0
54	MG	CA	1817	1/1	0.97	0.03	89,89,89,89	0
54	MG	BA	3180	1/1	0.97	0.20	88,88,88,88	0
54	MG	DA	3196	1/1	0.97	0.15	84,84,84,84	0
54	MG	DK	203	1/1	0.97	0.03	73,73,73,73	0
54	MG	AA	1802	1/1	0.97	0.10	62,62,62,62	0
54	MG	BA	2918	1/1	0.97	0.31	43,43,43,43	0
54	MG	DA	3290	1/1	0.97	0.04	61,61,61,61	0
54	MG	DN	201	1/1	0.97	0.05	88,88,88,88	0
54	MG	DA	3022	1/1	0.97	0.09	35,35,35,35	0
54	MG	DA	3595	1/1	0.97	0.09	61,61,61,61	0
54	MG	DA	3023	1/1	0.97	0.06	23,23,23,23	0
54	MG	DA	3201	1/1	0.97	0.03	46,46,46,46	0
54	MG	BA	3014	1/1	0.97	0.03	45,45,45,45	0
54	MG	DA	3392	1/1	0.97	0.15	76,76,76,76	0
54	MG	DS	202	1/1	0.97	0.22	62,62,62,62	0
54	MG	AA	1718	1/1	0.97	0.03	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3296	1/1	0.97	0.09	70,70,70,70	0
54	MG	BA	2999	1/1	0.97	0.20	39,39,39,39	0
54	MG	DA	3718	1/1	0.97	0.10	70,70,70,70	0
54	MG	DA	3603	1/1	0.97	0.40	64,64,64,64	0
54	MG	DA	3396	1/1	0.97	0.05	78,78,78,78	0
54	MG	DA	2941	1/1	0.97	0.07	21,21,21,21	0
54	MG	DA	3498	1/1	0.97	0.14	51,51,51,51	0
54	MG	AA	1811	1/1	0.97	0.04	61,61,61,61	0
54	MG	DY	101	1/1	0.97	0.17	12,12,12,12	0
54	MG	DA	3399	1/1	0.97	0.07	75,75,75,75	0
54	MG	DA	2943	1/1	0.97	0.14	5,5,5,5	0
54	MG	CA	1881	1/1	0.97	0.12	74,74,74,74	0
54	MG	D2	102	1/1	0.97	0.03	42,42,42,42	0
54	MG	BA	3444	1/1	0.97	0.14	26,26,26,26	0
54	MG	DA	2946	1/1	0.97	0.19	25,25,25,25	0
54	MG	CA	1826	1/1	0.97	0.08	97,97,97,97	0
54	MG	CA	1620	1/1	0.97	0.10	51,51,51,51	0
54	MG	DA	3035	1/1	0.97	0.14	43,43,43,43	0
54	MG	AA	1605	1/1	0.97	0.15	65,65,65,65	0
54	MG	CA	1773	1/1	0.97	0.03	97,97,97,97	0
54	MG	DA	3847	1/1	0.97	0.13	91,91,91,91	0
54	MG	CA	1671	1/1	0.97	0.11	51,51,51,51	0
55	ZN	AN	101	1/1	0.97	0.06	144,144,144,144	0
54	MG	BN	202	1/1	0.97	0.09	78,78,78,78	0
54	MG	BA	3300	1/1	0.98	0.10	93,93,93,93	0
54	MG	DA	3279	1/1	0.98	0.10	38,38,38,38	0
54	MG	BA	3387	1/1	0.98	0.11	84,84,84,84	0
54	MG	DA	3674	1/1	0.98	0.23	47,47,47,47	0
54	MG	BA	3439	1/1	0.98	0.11	17,17,17,17	0
54	MG	DA	2948	1/1	0.98	0.09	21,21,21,21	0
54	MG	BA	3143	1/1	0.98	0.04	48,48,48,48	0
54	MG	DA	3617	1/1	0.98	0.04	59,59,59,59	0
54	MG	BA	2943	1/1	0.98	0.08	34,34,34,34	0
54	MG	BA	3080	1/1	0.98	0.06	43,43,43,43	0
54	MG	BA	3013	1/1	0.98	0.04	21,21,21,21	0
54	MG	DA	3185	1/1	0.98	0.06	54,54,54,54	0
54	MG	DA	2912	1/1	0.98	0.16	19,19,19,19	0
54	MG	BA	3325	1/1	0.98	0.23	168,168,168,168	0
54	MG	DA	3001	1/1	0.98	0.06	25,25,25,25	0
54	MG	DA	3346	1/1	0.98	0.08	68,68,68,68	0
54	MG	BA	3250	1/1	0.98	0.02	67,67,67,67	0
54	MG	AA	1826	1/1	0.98	0.11	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3395	1/1	0.98	0.14	84,84,84,84	0
54	MG	BA	3307	1/1	0.98	0.04	63,63,63,63	0
54	MG	BA	3015	1/1	0.98	0.04	55,55,55,55	0
54	MG	DA	3098	1/1	0.98	0.17	46,46,46,46	0
54	MG	BA	3398	1/1	0.98	0.07	74,74,74,74	0
54	MG	BA	2953	1/1	0.98	0.14	45,45,45,45	0
54	MG	DA	2923	1/1	0.98	0.21	12,12,12,12	0
54	MG	BA	3056	1/1	0.98	0.08	31,31,31,31	0
54	MG	BA	3453	1/1	0.98	0.12	27,27,27,27	0
54	MG	DA	2966	1/1	0.98	0.18	39,39,39,39	0
54	MG	BA	2907	1/1	0.98	0.17	15,15,15,15	0
54	MG	DA	2968	1/1	0.98	0.26	36,36,36,36	0
54	MG	DA	3153	1/1	0.98	0.10	33,33,33,33	0
54	MG	AB	301	1/1	0.98	0.07	92,92,92,92	0
54	MG	DA	2970	1/1	0.98	0.11	29,29,29,29	0
54	MG	BA	3334	1/1	0.98	0.06	60,60,60,60	0
54	MG	DA	3645	1/1	0.98	0.11	23,23,23,23	0
54	MG	DA	3419	1/1	0.98	0.02	60,60,60,60	0
54	MG	DA	3257	1/1	0.98	0.05	48,48,48,48	0
54	MG	DA	3157	1/1	0.98	0.04	33,33,33,33	0
54	MG	CA	1695	1/1	0.98	0.05	65,65,65,65	0
54	MG	BA	2965	1/1	0.98	0.15	51,51,51,51	0
54	MG	CA	1630	1/1	0.98	0.09	49,49,49,49	0
54	MG	BA	2909	1/1	0.98	0.28	16,16,16,16	0
54	MG	DA	3593	1/1	0.98	0.20	125,125,125,125	0
54	MG	BA	2927	1/1	0.98	0.13	25,25,25,25	0
54	MG	CA	1802	1/1	0.98	0.04	94,94,94,94	0
54	MG	DA	2978	1/1	0.98	0.16	23,23,23,23	0
54	MG	BA	2905	1/1	0.98	0.20	19,19,19,19	0
54	MG	BB	209	1/1	0.98	0.03	61,61,61,61	0
54	MG	BA	3123	1/1	0.98	0.03	40,40,40,40	0
54	MG	DA	2938	1/1	0.98	0.11	7,7,7,7	0
54	MG	BM	202	1/1	0.98	0.06	85,85,85,85	0
54	MG	DA	3170	1/1	0.98	0.17	56,56,56,56	0
54	MG	BA	3546	1/1	0.98	0.11	67,67,67,67	0
54	MG	BA	3434	1/1	0.98	0.08	19,19,19,19	0
54	MG	DA	3124	1/1	0.98	0.10	51,51,51,51	0
54	MG	CA	1639	1/1	0.98	0.08	59,59,59,59	0
54	MG	DA	3607	1/1	0.98	0.13	79,79,79,79	0
54	MG	DA	3330	1/1	0.98	0.11	100,100,100,100	0
55	ZN	AD	301	1/1	0.98	0.17	51,51,51,51	0
54	MG	BA	2942	1/1	0.98	0.09	19,19,19,19	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	ZN	CD	301	1/1	0.98	0.23	116,116,116,116	0
54	MG	BA	3000	1/1	0.98	0.07	49,49,49,49	0
54	MG	DA	2958	1/1	0.99	0.05	31,31,31,31	0
54	MG	BA	3107	1/1	0.99	0.03	25,25,25,25	0
54	MG	DA	3056	1/1	0.99	0.01	25,25,25,25	0
54	MG	BA	3228	1/1	0.99	0.03	42,42,42,42	0
54	MG	AA	1609	1/1	0.99	0.10	26,26,26,26	0
54	MG	BA	2936	1/1	0.99	0.08	32,32,32,32	0
54	MG	BA	2921	1/1	0.99	0.13	17,17,17,17	0
54	MG	DL	201	1/1	0.99	0.06	7,7,7,7	0
54	MG	DA	2919	1/1	0.99	0.15	12,12,12,12	0
54	MG	DA	3586	1/1	0.99	0.06	79,79,79,79	0
54	MG	DA	3077	1/1	0.99	0.08	33,33,33,33	0
54	MG	DA	2920	1/1	0.99	0.12	14,14,14,14	0
54	MG	DA	3300	1/1	0.99	0.08	46,46,46,46	0
54	MG	BA	2917	1/1	0.99	0.09	6,6,6,6	0
54	MG	DA	2979	1/1	0.99	0.06	16,16,16,16	0
54	MG	DA	2980	1/1	0.99	0.16	12,12,12,12	0
54	MG	DA	3322	1/1	0.99	0.05	65,65,65,65	0
54	MG	DA	3636	1/1	0.99	0.17	12,12,12,12	0
54	MG	DA	3513	1/1	0.99	0.19	30,30,30,30	0
54	MG	DA	3082	1/1	0.99	0.12	68,68,68,68	0
54	MG	CA	1861	1/1	0.99	0.03	64,64,64,64	0
54	MG	DA	2903	1/1	0.99	0.14	16,16,16,16	0
54	MG	BA	3142	1/1	0.99	0.09	47,47,47,47	0

6.5 Other polymers (i)

There are no such residues in this entry.