



Full wwPDB X-ray Structure Validation Report ⓘ

Aug 5, 2026 – 04:45 PM EDT

PDB ID : 6XQD / pdb_00006xqd
Title : Crystal structure of the *Thermus thermophilus* 70S ribosome in complex with sarecycline, UUC-mRNA, and deacylated P-site tRNA at 2.80Å resolution
Authors : Batool, Z.; Lomakin, I.B.; Bunick, C.G.; Polikanov, Y.S.
Deposited on : 2020-07-09
Resolution : 2.80 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
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.50

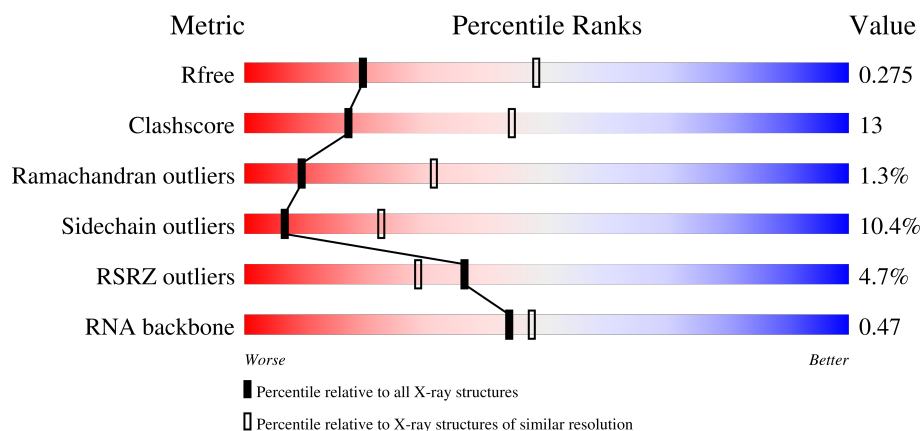
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.80 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.



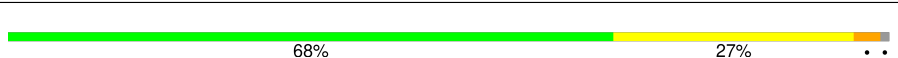
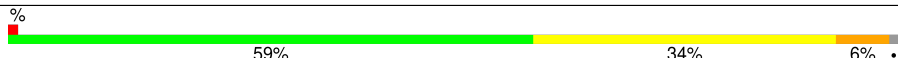
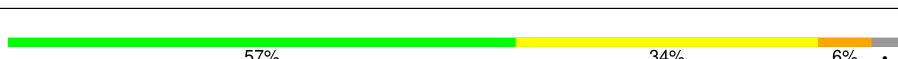
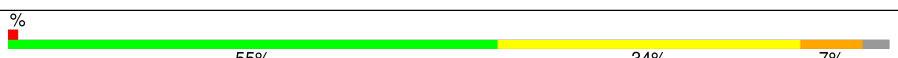
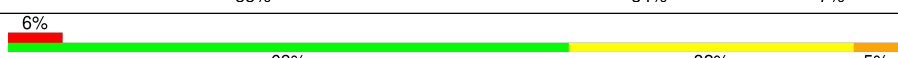
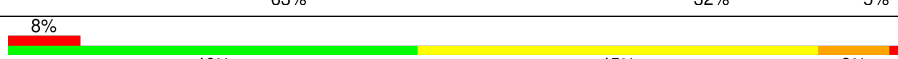
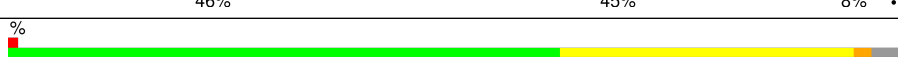
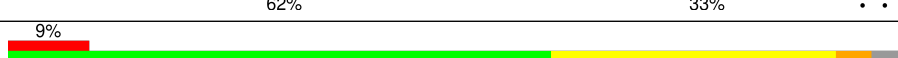
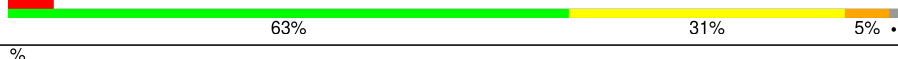
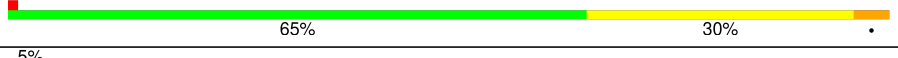
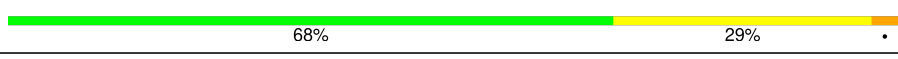
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	3866 (2.80-2.80)
Clashscore	190562	4276 (2.80-2.80)
Ramachandran outliers	187476	4196 (2.80-2.80)
Sidechain outliers	187428	4198 (2.80-2.80)
RSRZ outliers	180081	3869 (2.80-2.80)
RNA backbone	3983	1114 (3.00-2.60)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments 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 $\leq 5\%$. 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	1A	2915	2% 50% 40% 9%
1	2A	2915	3% 45% 42% 9%
2	1B	121	% 60% 33% 6%
2	2B	121	5% 39% 47% 13%

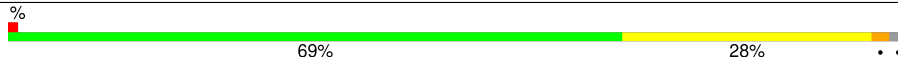
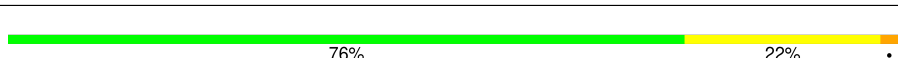
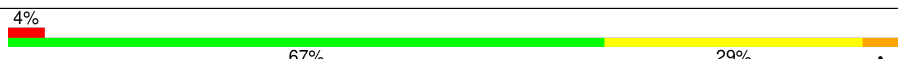
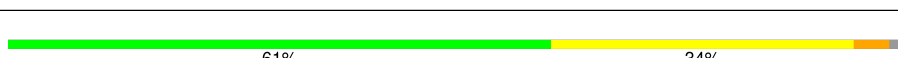
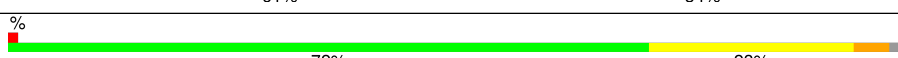
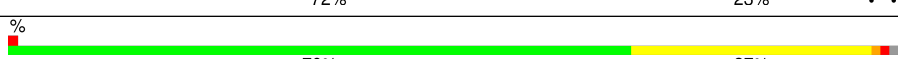
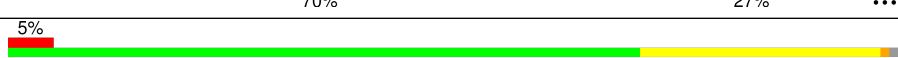
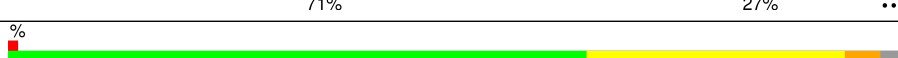
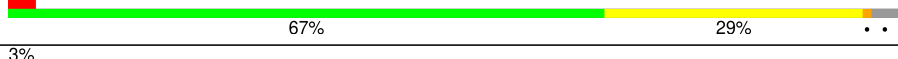
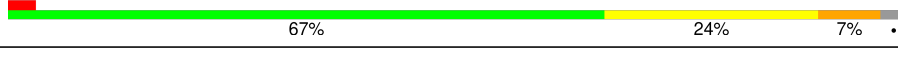
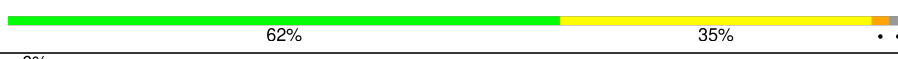
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Mol	Chain	Length	Quality of chain
3	1D	276	
3	2D	276	
4	1E	206	
4	2E	206	
5	1F	210	
5	2F	210	
6	1G	182	
6	2G	182	
7	1H	180	
7	2H	180	
8	1I	148	
8	2I	148	
9	1N	140	
9	2N	140	
10	1O	122	
10	2O	122	
11	1P	150	
11	2P	150	
12	1Q	141	
12	2Q	141	
13	1R	118	
13	2R	118	
14	1S	112	
14	2S	112	
15	1T	146	

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Mol	Chain	Length	Quality of chain
15	2T	146	
16	1U	118	
16	2U	118	
17	1V	101	
17	2V	101	
18	1W	113	
18	2W	113	
19	1X	96	
19	2X	96	
20	1Y	110	
20	2Y	110	
21	1Z	206	
21	2Z	206	
22	10	85	
22	20	85	
23	11	98	
23	21	98	
24	12	72	
24	22	72	
25	13	60	
25	23	60	
26	14	71	
26	24	71	
27	15	60	
27	25	60	

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Mol	Chain	Length	Quality of chain
28	16	54	
28	26	54	
29	17	49	
29	27	49	
30	18	65	
30	28	65	
31	19	37	
31	29	37	
32	1a	1521	
32	2a	1521	
33	1b	256	
33	2b	256	
34	1c	239	
34	2c	239	
35	1d	209	
35	2d	209	
36	1e	162	
36	2e	162	
37	1f	101	
37	2f	101	
38	1g	156	
38	2g	156	
39	1h	138	
39	2h	138	
40	1i	128	

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Mol	Chain	Length	Quality of chain
40	2i	128	
41	1j	105	
41	2j	105	
42	1k	129	
42	2k	129	
43	1l	132	
43	2l	132	
44	1m	126	
44	2m	126	
45	1n	61	
45	2n	61	
46	1o	89	
46	2o	89	
47	1p	88	
47	2p	88	
48	1q	105	
48	2q	105	
49	1r	88	
49	2r	88	
50	1s	93	
50	2s	93	
51	1t	106	
51	2t	106	
52	1u	27	
52	2u	27	

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Mol	Chain	Length	Quality of chain
53	1v	24	
53	2v	24	
54	1x	77	
54	2x	77	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	1A	3541	-	-	-	X
55	MG	1B	229	-	-	-	X
55	MG	1U	207	-	-	-	X
55	MG	1a	1662	-	-	-	X
55	MG	2A	3484	-	-	-	X
55	MG	2a	3092	-	-	-	X
55	MG	2i	201	-	-	-	X
58	SF4	1d	501	-	-	X	-

2 Entry composition

There are 59 unique types of molecules in this entry. The entry contains 292670 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 23S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	1A	2871	Total	C	N	O	P	0	0	0
			61852	27531	11572	19878	2871			
1	2A	2800	Total	C	N	O	P	0	0	0
			60322	26848	11284	19390	2800			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1B	120	Total	C	N	O	P	0	0	0
			2577	1146	476	835	120			
2	2B	120	Total	C	N	O	P	0	0	0
			2575	1146	476	833	120			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	1D	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			
3	2D	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	1E	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			
4	2E	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	1F	203	Total	C	N	O	S	0	0	1
			1584	1009	298	275	2			
5	2F	203	Total	C	N	O	S	0	0	1
			1580	1007	297	274	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	1G	181	Total	C	N	O	S	0	0	0
			1423	913	253	253	4			
6	2G	181	Total	C	N	O	S	0	0	0
			1428	913	258	253	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	1H	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			
7	2H	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	1I	146	Total	C	N	O	S	0	0	0
			1097	701	191	204	1			
8	2I	146	Total	C	N	O	S	0	0	0
			1064	681	186	196	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	1N	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			
9	2N	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1O	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	2O	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	1P	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			
11	2P	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	1Q	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
12	2Q	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	1R	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
13	2R	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	1S	110	Total	C	N	O	0	0	0
			873	550	174	149			
14	2S	110	Total	C	N	O	0	0	0
			870	549	173	148			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	1T	131	Total	C	N	O	S	0	0	0
			1091	680	225	185	1			
15	2T	131	Total	C	N	O	S	0	0	0
			1083	675	224	183	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	1U	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			
16	2U	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	1V	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			
17	2V	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	1W	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			
18	2W	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	1X	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			
19	2X	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	1Y	107	Total	C	N	O	S	0	0	0
			806	517	152	131	6			
20	2Y	107	Total	C	N	O	S	0	0	0
			806	517	152	131	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	1Z	154	Total	C	N	O	S	0	0	0
			1240	795	222	220	3			
21	2Z	160	Total	C	N	O	S	0	0	0
			1271	814	228	227	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	10	83	Total	C	N	O	S	0	0	0
			653	404	139	109	1			
22	20	83	Total	C	N	O	S	0	0	0
			653	404	139	109	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	11	97	Total	C	N	O	S	0	0	0
			755	475	148	131	1			
23	21	97	Total	C	N	O	S	0	0	0
			755	475	148	131	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	12	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			
24	22	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
25	13	59	Total	C	N	O	0	0	0
			469	298	90	81			
25	23	59	Total	C	N	O	0	0	0
			464	296	90	78			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	14	69	Total	C	N	O	S	0	0	0
			552	349	99	99	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	24	69	Total	C	N	O	S	0	0	0
			532	339	97	91	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	15	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			
27	25	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	16	53	Total	C	N	O	S	0	0	0
			453	281	91	77	4			
28	26	53	Total	C	N	O	S	0	0	0
			449	279	91	75	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	17	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			
29	27	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	18	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			
30	28	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			

- Molecule 31 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	19	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			
31	29	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			

- Molecule 32 is a RNA chain called 16S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	1a	1500	Total	C	N	O	P	0	0	0
			32246	14358	5975	10413	1500			
32	2a	1503	Total	C	N	O	P	0	0	0
			32327	14396	5990	10438	1503			

- Molecule 33 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	1b	231	Total	C	N	O	S	0	0	0
			1846	1179	331	331	5			
33	2b	231	Total	C	N	O	S	0	0	0
			1825	1167	326	327	5			

- Molecule 34 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	1c	206	Total	C	N	O	S	0	0	0
			1548	973	301	273	1			
34	2c	206	Total	C	N	O	S	0	0	0
			1542	968	300	273	1			

- Molecule 35 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	1d	208	Total	C	N	O	S	0	0	0
			1655	1038	326	284	7			
35	2d	208	Total	C	N	O	S	0	0	0
			1674	1050	333	284	7			

- Molecule 36 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	1e	148	Total	C	N	O	S	0	0	0
			1129	714	213	198	4			
36	2e	148	Total	C	N	O	S	0	0	0
			1133	716	214	199	4			

- Molecule 37 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	1f	100	Total	C	N	O	S	0	0	0
			810	514	144	149	3			
37	2f	100	Total	C	N	O	S	0	0	0
			816	516	146	151	3			

- Molecule 38 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	1g	155	Total	C	N	O	S	0	0	0
			1231	766	243	216	6			
38	2g	155	Total	C	N	O	S	0	0	0
			1235	769	244	216	6			

- Molecule 39 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	1h	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			
39	2h	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			

- Molecule 40 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
40	1i	127	Total	C	N	O	0	0	0
			983	623	193	167			
40	2i	127	Total	C	N	O	0	0	0
			978	619	190	169			

- Molecule 41 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
41	1j	97	Total	C	N	O	0	0	0
			709	440	138	131			
41	2j	96	Total	C	N	O	0	0	0
			714	445	138	131			

- Molecule 42 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	1k	114	Total	C	N	O	S	0	0	0
			829	516	155	155	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	2k	114	Total	C	N	O	S	0	0	0
			833	519	156	155	3			

- Molecule 43 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	1l	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			
43	2l	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			

- Molecule 44 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	1m	122	Total	C	N	O	S	0	0	0
			951	587	197	165	2			
44	2m	121	Total	C	N	O	S	0	0	0
			943	581	196	164	2			

- Molecule 45 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	1n	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
45	2n	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 46 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	1o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			
46	2o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			

- Molecule 47 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	1p	82	Total	C	N	O	S	0	0	0
			681	433	134	113	1			
47	2p	82	Total	C	N	O	S	0	0	0
			677	430	133	113	1			

- Molecule 48 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	1q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
48	2q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

- Molecule 49 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	1r	68	Total	C	N	O		0	0	0
			555	355	108	92				
49	2r	68	Total	C	N	O		0	0	0
			555	355	108	92				

- Molecule 50 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	1s	83	Total	C	N	O	S	0	0	0
			652	417	120	113	2			
50	2s	83	Total	C	N	O	S	0	0	0
			646	412	119	113	2			

- Molecule 51 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	1t	96	Total	C	N	O	S	0	0	0
			728	446	156	124	2			
51	2t	96	Total	C	N	O	S	0	0	0
			727	446	155	124	2			

- Molecule 52 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
52	1u	23	Total	C	N	O	0	0	0
			199	122	48	29			
52	2u	23	Total	C	N	O	0	0	0
			199	122	48	29			

- Molecule 53 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	1v	10	Total	C	N	O	P	0	0	0
			213	96	39	68	10			
53	2v	6	Total	C	N	O	P	0	0	0
			113	49	22	36	6			

- Molecule 54 is a RNA chain called P-site tRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	1x	76	Total	C	N	O	P	S	0	0
			1625	725	294	529	76	1		
54	2x	76	Total	C	N	O	P	S	0	0
			1625	725	294	529	76	1		

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	1A	1117	Total	Mg	0	0
			1117	1117		
55	1B	35	Total	Mg	0	0
			35	35		
55	1D	13	Total	Mg	0	0
			13	13		
55	1E	11	Total	Mg	0	0
			11	11		
55	1F	11	Total	Mg	0	0
			11	11		
55	1G	4	Total	Mg	0	0
			4	4		
55	1N	4	Total	Mg	0	0
			4	4		
55	1O	4	Total	Mg	0	0
			4	4		
55	1P	3	Total	Mg	0	0
			3	3		
55	1Q	7	Total	Mg	0	0
			7	7		
55	1R	2	Total	Mg	0	0
			2	2		
55	1S	1	Total	Mg	0	0
			1	1		
55	1T	3	Total	Mg	0	0
			3	3		
55	1U	7	Total	Mg	0	0
			7	7		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	1V	4	Total Mg 4 4	0	0
55	1W	5	Total Mg 5 5	0	0
55	1X	6	Total Mg 6 6	0	0
55	1Y	4	Total Mg 4 4	0	0
55	1Z	2	Total Mg 2 2	0	0
55	10	5	Total Mg 5 5	0	0
55	11	4	Total Mg 4 4	0	0
55	12	2	Total Mg 2 2	0	0
55	13	3	Total Mg 3 3	0	0
55	15	5	Total Mg 5 5	0	0
55	16	1	Total Mg 1 1	0	0
55	17	4	Total Mg 4 4	0	0
55	18	6	Total Mg 6 6	0	0
55	19	1	Total Mg 1 1	0	0
55	1a	234	Total Mg 234 234	0	0
55	1b	1	Total Mg 1 1	0	0
55	1e	2	Total Mg 2 2	0	0
55	1f	2	Total Mg 2 2	0	0
55	1l	4	Total Mg 4 4	0	0
55	1n	2	Total Mg 2 2	0	0
55	1t	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	1v	2	Total 2	Mg 2	0	0
55	1x	13	Total 13	Mg 13	0	0
55	2A	862	Total 862	Mg 862	0	0
55	2B	19	Total 19	Mg 19	0	0
55	2D	3	Total 3	Mg 3	0	0
55	2E	9	Total 9	Mg 9	0	0
55	2F	6	Total 6	Mg 6	0	0
55	2G	1	Total 1	Mg 1	0	0
55	2N	2	Total 2	Mg 2	0	0
55	2O	2	Total 2	Mg 2	0	0
55	2P	2	Total 2	Mg 2	0	0
55	2Q	4	Total 4	Mg 4	0	0
55	2R	2	Total 2	Mg 2	0	0
55	2T	3	Total 3	Mg 3	0	0
55	2U	2	Total 2	Mg 2	0	0
55	2V	3	Total 3	Mg 3	0	0
55	2W	2	Total 2	Mg 2	0	0
55	2X	2	Total 2	Mg 2	0	0
55	2Z	1	Total 1	Mg 1	0	0
55	20	1	Total 1	Mg 1	0	0
55	23	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	25	2	Total 2	Mg 2	0	0
55	26	1	Total 1	Mg 1	0	0
55	27	1	Total 1	Mg 1	0	0
55	28	3	Total 3	Mg 3	0	0
55	2a	209	Total 209	Mg 209	0	0
55	2d	2	Total 2	Mg 2	0	0
55	2e	1	Total 1	Mg 1	0	0
55	2f	2	Total 2	Mg 2	0	0
55	2g	1	Total 1	Mg 1	0	0
55	2i	1	Total 1	Mg 1	0	0
55	2j	2	Total 2	Mg 2	0	0
55	2l	3	Total 3	Mg 3	0	0
55	2p	1	Total 1	Mg 1	0	0
55	2q	1	Total 1	Mg 1	0	0
55	2r	1	Total 1	Mg 1	0	0
55	2t	1	Total 1	Mg 1	0	0
55	2x	5	Total 5	Mg 5	0	0

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

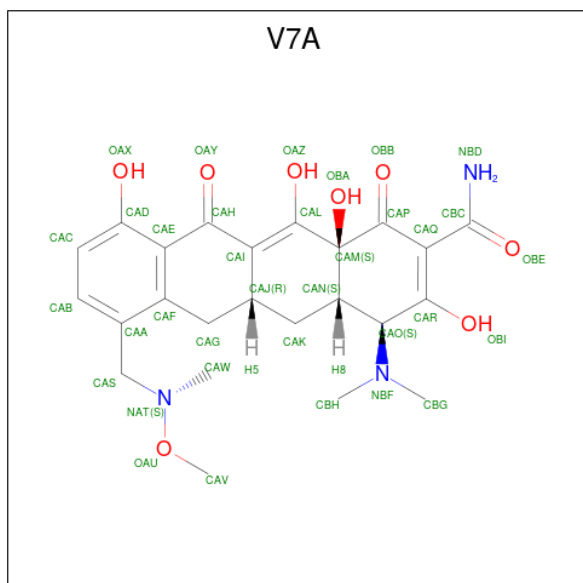
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1Y	1	Total 1	Zn 1	0	0
56	14	1	Total 1	Zn 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	15	1	Total	Zn	0	0
			1	1		
56	16	1	Total	Zn	0	0
			1	1		
56	19	1	Total	Zn	0	0
			1	1		
56	1n	1	Total	Zn	0	0
			1	1		
56	2Y	1	Total	Zn	0	0
			1	1		
56	24	1	Total	Zn	0	0
			1	1		
56	25	1	Total	Zn	0	0
			1	1		
56	26	1	Total	Zn	0	0
			1	1		
56	29	1	Total	Zn	0	0
			1	1		
56	2n	1	Total	Zn	0	0
			1	1		

- Molecule 57 is Sarecycline (CCD ID: V7A) (formula: $C_{24}H_{29}N_3O_8$).



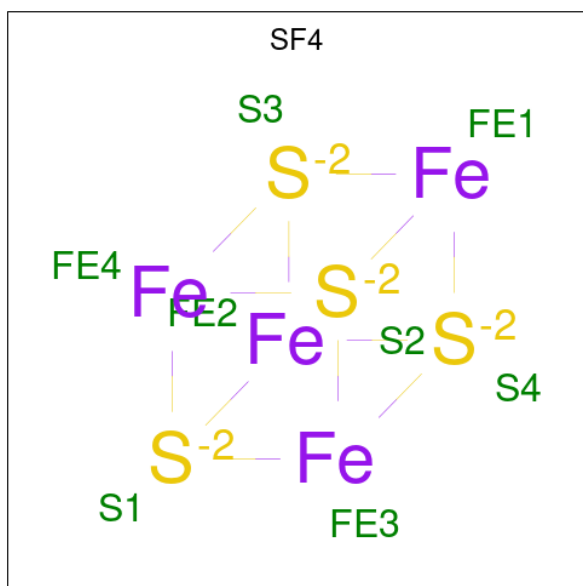
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
57	1a	1	Total	C	N	O	0	0
			35	24	3	8		

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
57	2a	1	Total	C	N	O	0	0
			35	24	3	8		

- Molecule 58 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
58	1d	1	Total	Fe	S	0	0
			8	4	4		
58	2d	1	Total	Fe	S	0	0
			8	4	4		

- Molecule 59 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	1A	1716	Total	O	0	0
			1716	1716		
59	1B	47	Total	O	0	0
			47	47		
59	1D	21	Total	O	0	0
			21	21		
59	1E	25	Total	O	0	0
			25	25		
59	1F	13	Total	O	0	0
			13	13		
59	1G	2	Total	O	0	0
			2	2		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	1H	2	Total	O	0	0
			2	2		
59	1I	2	Total	O	0	0
			2	2		
59	1N	3	Total	O	0	0
			3	3		
59	1O	7	Total	O	0	0
			7	7		
59	1P	17	Total	O	0	0
			17	17		
59	1Q	6	Total	O	0	0
			6	6		
59	1R	9	Total	O	0	0
			9	9		
59	1S	1	Total	O	0	0
			1	1		
59	1T	8	Total	O	0	0
			8	8		
59	1U	13	Total	O	0	0
			13	13		
59	1V	9	Total	O	0	0
			9	9		
59	1W	8	Total	O	0	0
			8	8		
59	1X	6	Total	O	0	0
			6	6		
59	1Y	2	Total	O	0	0
			2	2		
59	10	8	Total	O	0	0
			8	8		
59	11	7	Total	O	0	0
			7	7		
59	12	1	Total	O	0	0
			1	1		
59	13	4	Total	O	0	0
			4	4		
59	15	7	Total	O	0	0
			7	7		
59	16	2	Total	O	0	0
			2	2		
59	17	6	Total	O	0	0
			6	6		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	18	9	Total 9	O 9	0	0
59	1a	294	Total 294	O 294	0	0
59	1b	1	Total 1	O 1	0	0
59	1d	3	Total 3	O 3	0	0
59	1e	1	Total 1	O 1	0	0
59	1i	1	Total 1	O 1	0	0
59	1j	1	Total 1	O 1	0	0
59	1l	4	Total 4	O 4	0	0
59	1m	1	Total 1	O 1	0	0
59	1o	1	Total 1	O 1	0	0
59	1q	2	Total 2	O 2	0	0
59	1v	4	Total 4	O 4	0	0
59	1x	17	Total 17	O 17	0	0
59	2A	867	Total 867	O 867	0	0
59	2B	14	Total 14	O 14	0	0
59	2D	16	Total 16	O 16	0	0
59	2E	8	Total 8	O 8	0	0
59	2F	13	Total 13	O 13	0	0
59	2I	1	Total 1	O 1	0	0
59	2N	1	Total 1	O 1	0	0
59	2O	1	Total 1	O 1	0	0

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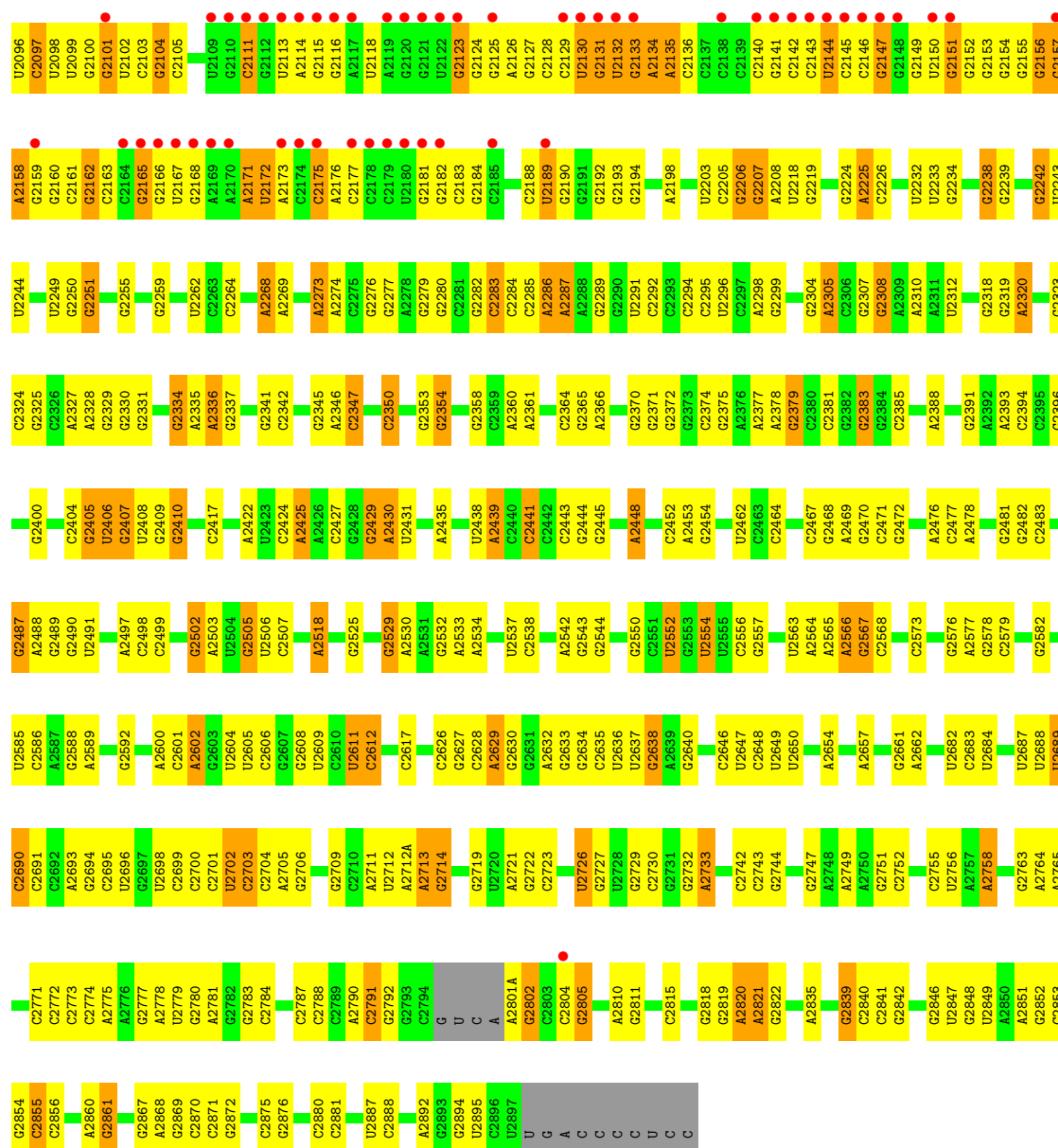
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	2P	4	Total 4	O 4	0	0
59	2Q	2	Total 2	O 2	0	0
59	2R	2	Total 2	O 2	0	0
59	2T	4	Total 4	O 4	0	0
59	2U	3	Total 3	O 3	0	0
59	2W	5	Total 5	O 5	0	0
59	2X	2	Total 2	O 2	0	0
59	2Z	1	Total 1	O 1	0	0
59	20	3	Total 3	O 3	0	0
59	21	8	Total 8	O 8	0	0
59	22	1	Total 1	O 1	0	0
59	25	1	Total 1	O 1	0	0
59	27	1	Total 1	O 1	0	0
59	28	3	Total 3	O 3	0	0
59	29	1	Total 1	O 1	0	0
59	2a	146	Total 146	O 146	0	0
59	2g	1	Total 1	O 1	0	0
59	2j	2	Total 2	O 2	0	0
59	2l	4	Total 4	O 4	0	0
59	2p	1	Total 1	O 1	0	0
59	2r	1	Total 1	O 1	0	0

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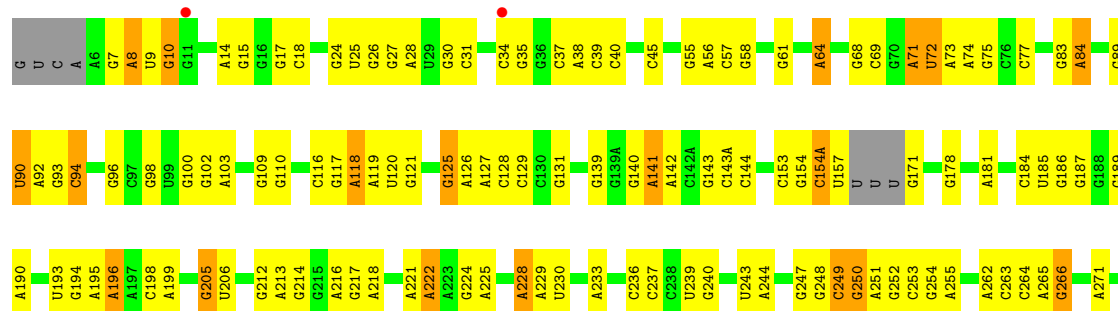
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	2t	1	Total	O	0	0
			1	1		
59	2v	1	Total	O	0	0
			1	1		
59	2x	6	Total	O	0	0
			6	6		

C1999	U1915	A1810	G1702	A1603	C1511	A1419	G1324	G1235	G1139	C1075	A1010	U922	G832
A2012	A1916	G1811	G1703	C1604	U1512	U1420	G1328	G1236	C1140	C1076	G1011	C923	U833
A2013	A1917	A1812	C1711	C1604	C1513	G1421	G1328	A1237	U1142	A1077	U1012	G928	G836
A2014	A1918	A1815	C1712	C1607	G1517	G1424	G1332	G1238	U1143	C1078	U1013	G928	C837
U2017	C1920	G1816	G1721	A1608	U1518	G1425	G1333	G1239	A1143	C1080	U1014	G932	C838
U2020	G1921	G1817	A1722	A1609	G1519	G1426	G1334	U1240	G1144	U1081	C1018	G938	U839
C2021	G1922	A1818	U1739	A1616	G1525	A1427	U1335	A1241	G1149	U1082	U1019	G938	G848
U2022	C1925	A1819	G1740	C1617	A1528	C1428	G1339	A1242	G1152	A1084	A1020	U943	A849
G2023	G1926	G1823	A1741	G1627	A1529	C1430	G1342	G1244	C1153	A1085	G1022	G944	G857
G2029	A1927	A1825	G1746	G1635	G1530	U1431	G1343	A1245	G1154	A1086	G1025	A945	U858
A2030	C1928	G1826	G1750	C1636	C1531	C1432	G1344	A1247	G1155	A1088	U1026	G946	G859
A2031	G1929	C1827	G1751	A1637	U1532	U1433	G1348	G1248	U1165	A1089	A1027	G949	U860
G2032	U1931	A1829	G1756	C1638	C1532	G1441	G1352	G1250	C1166	U1090	A1028	G952	A861
A2033	A1932	G1833	U1756	C1638	U1533	G1442	U1352	C1251	G1170	C1092	A1029	A953	G862
C2036	G1933	A1841	A1759	G1642	A1534	A1445	A1353	G1252	G1171	G1093	G1030	G954	A863
G2037	C1934	G1843	C1759	G1642	C1537	G1448	G1355	A1253	G1173	U1094	G1031	C955	G864
G2038	A1936	C1844	A1762	C1647	G1537	A1449	G1356	G1256	U1174	U1095	A1032	G956	C865
C2039	A1937	G1763	G1763	G1647	G1541	G1450	U1357	C1257	U1175	A1096	G1034	A957	C867
A2040	A1938	G1764	G1764	G1648	A1542	G1450	G1358	C1257	U1176	A1096	U1035	U958	U868
U2041	U1939	A1847	C1765	C1651	G1546	U1453	A1359	G1260	A1177	G1099	G1036	A959	G869
A2042	C1942	A1853	U1766	A1652	C1546	G1455	A1360	C1261	C1178	U1101	G1037	A960	C876
C2043	G1943	G1858	C1767	G1653	C1547	G1456	G1364	A1262	C1179	C1102	C1038	C961	U877
A2051	A1952	A1859	A1773	A1654	C1548	G1466	G1365	G1263	C1180	A1103	G1039	G962	G880
C2055	G1953	G1860	G1774	A1655	A1553	G1466	A1366	G1264	C1181	C1104	C1040	U963	G881
G2056	G1954	G1861	U1775	C1656	G1554	C1467	A1367	A1265	A1182	U1105	G1044	U969	G882
U2059	U1955	G1862	U1779	C1658	G1555	A1472	G1368	U1267	G1184	G1106	A1045	C970	G883
A2060	C1957	A1664	A1780	A1665	C1556	G1473	G1369	A1268	C1185	U1108	A1046	C971	C884
G2061	C1958	G1666	C1781	G1665	C1557	C1474	G1370	G1271	G1186	C1109	G1047	G972	C885
A2062	G1962	G1667	A1783	G1667	A1558	G1475	G1371	U1272	G1187	A973	A1048	A973	C886
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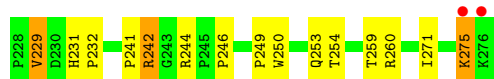


- Molecule 1: 23S Ribosomal RNA

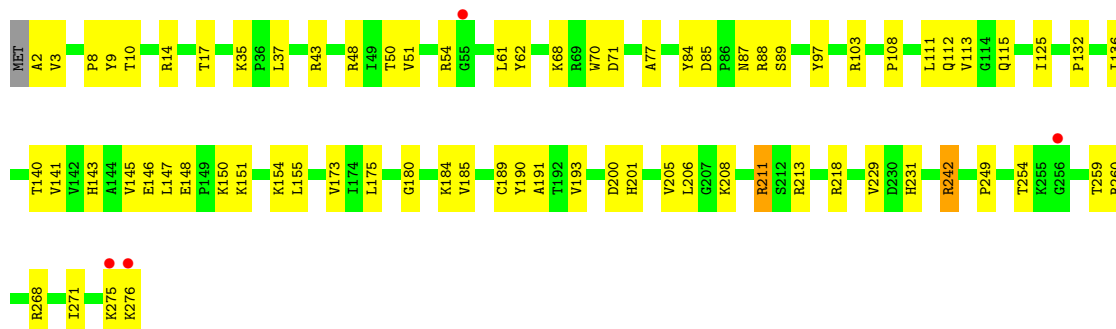
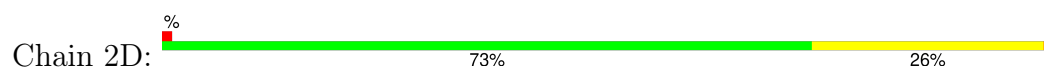




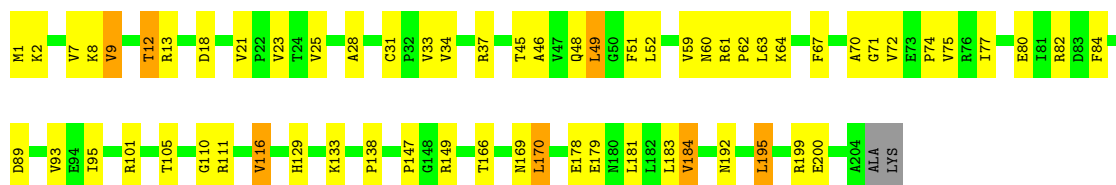
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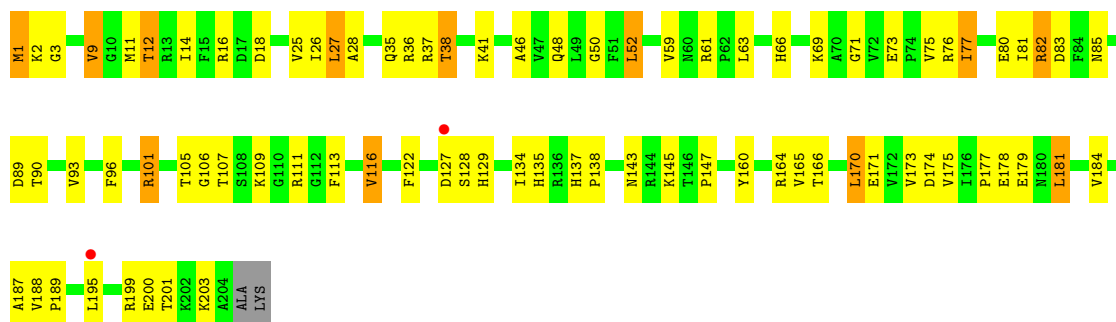
• Molecule 3: 50S ribosomal protein L2



• Molecule 4: 50S ribosomal protein L3

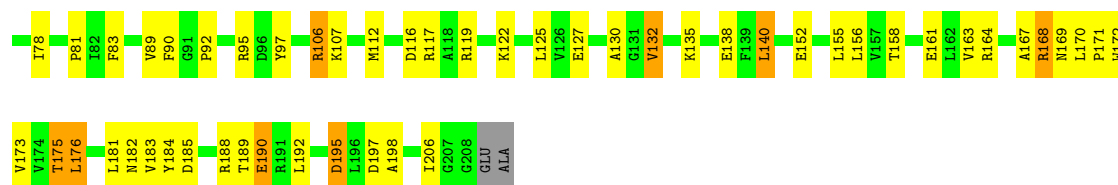


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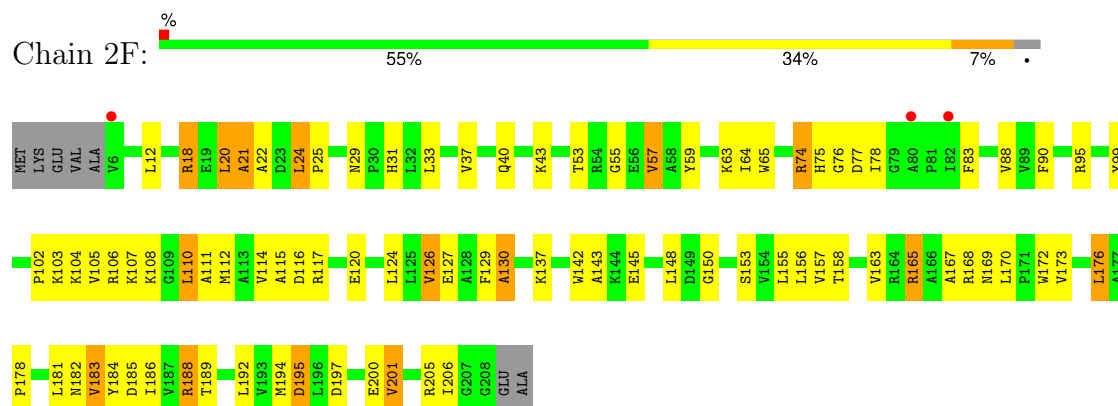


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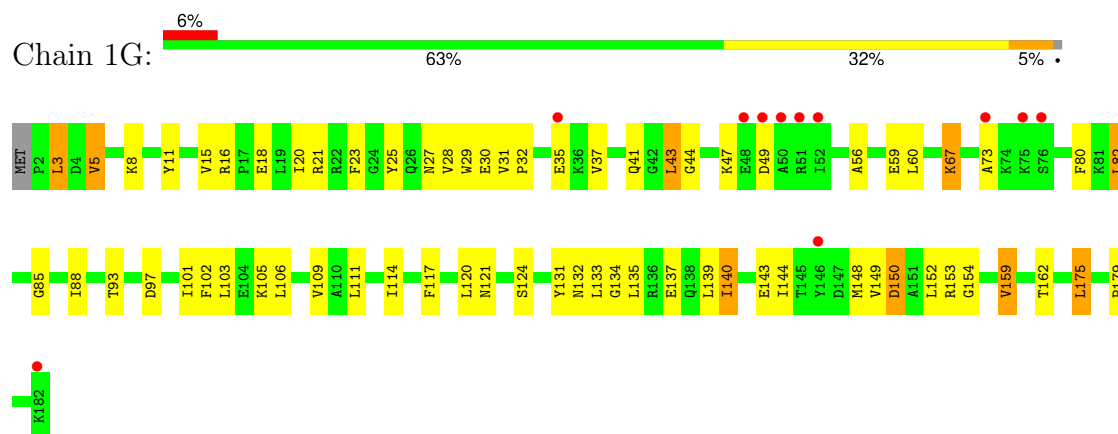




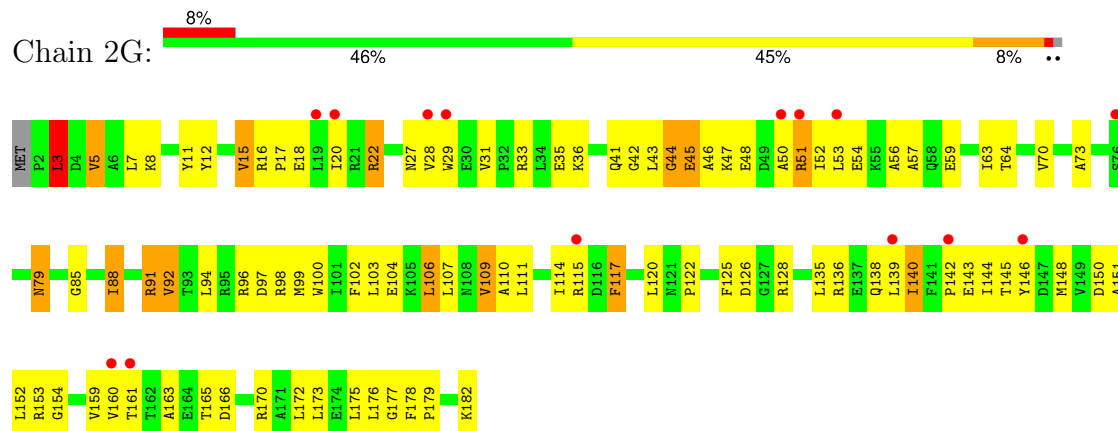
- Molecule 5: 50S ribosomal protein L4



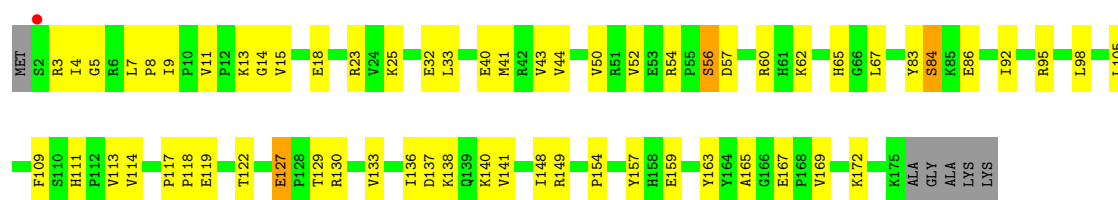
- Molecule 6: 50S ribosomal protein L5



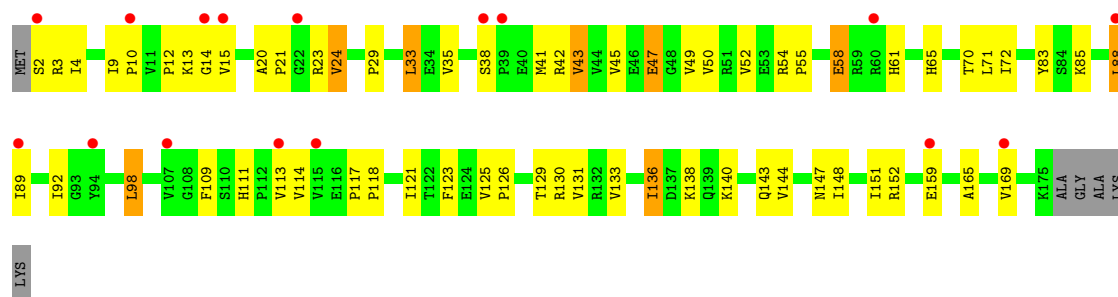
- Molecule 6: 50S ribosomal protein L5



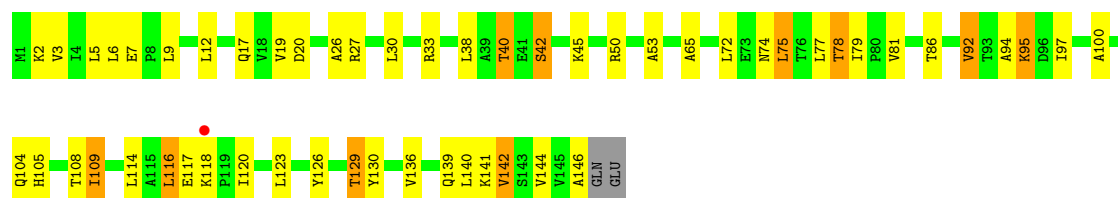
- Molecule 7: 50S ribosomal protein L6



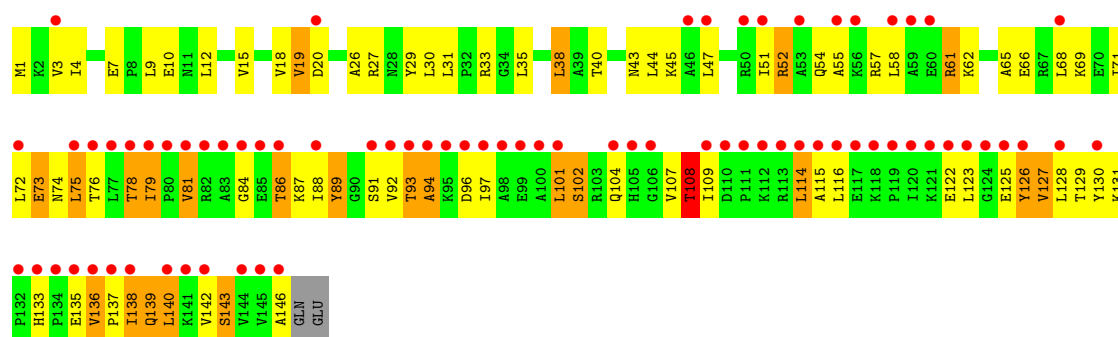
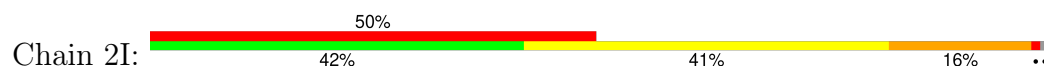
• Molecule 7: 50S ribosomal protein L6



• Molecule 8: 50S ribosomal protein L9

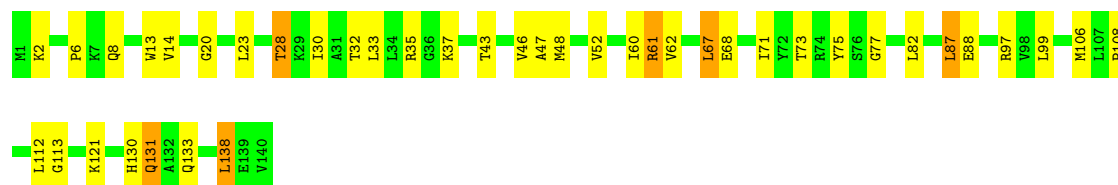


• Molecule 8: 50S ribosomal protein L9

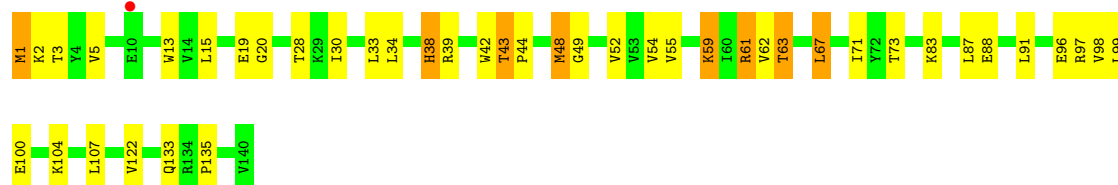


• Molecule 9: 50S ribosomal protein L13

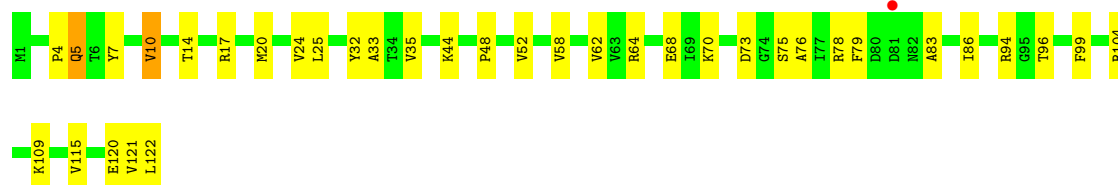




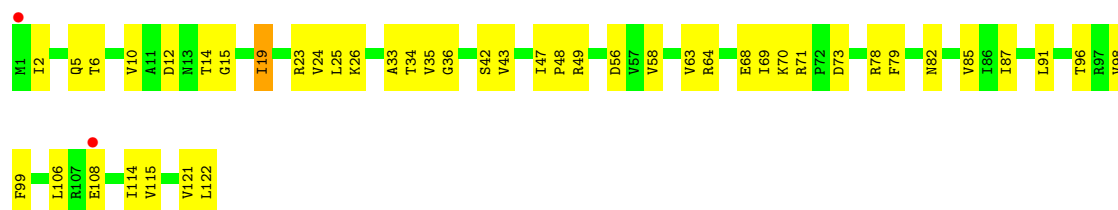
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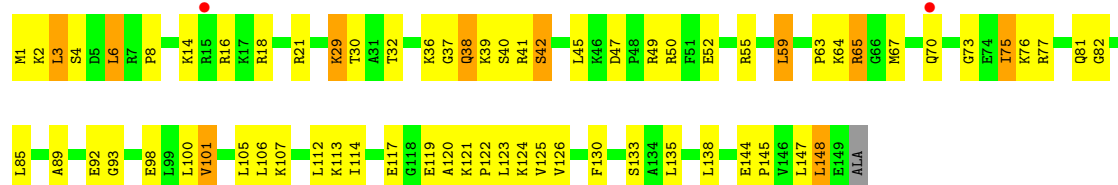
• Molecule 10: 50S ribosomal protein L14



• Molecule 10: 50S ribosomal protein L14



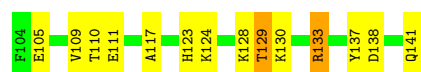
• Molecule 11: 50S ribosomal protein L15



• Molecule 11: 50S ribosomal protein L15



- Molecule 12: 50S ribosomal protein L16



- Molecule 12: 50S ribosomal protein L16



- Molecule 13: 50S ribosomal protein L17

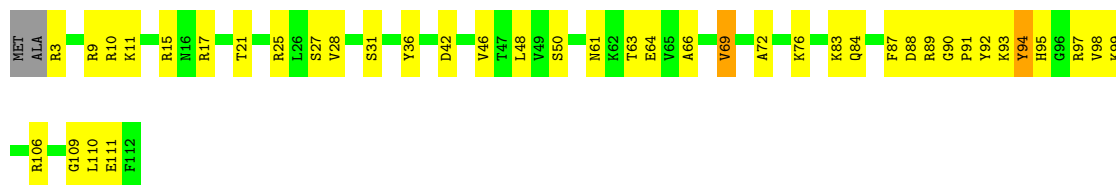


- Molecule 13: 50S ribosomal protein L17



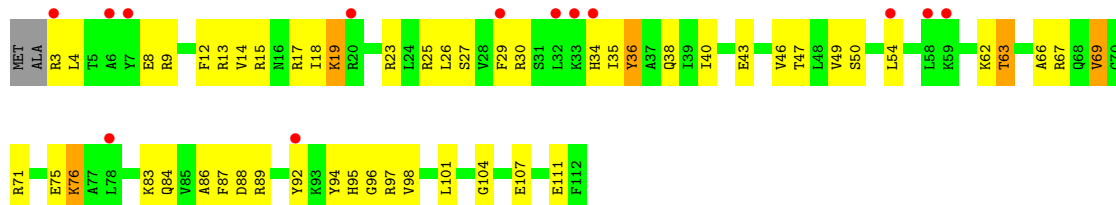
- Molecule 14: 50S ribosomal protein L18

Chain 1S:  62% 35% ..



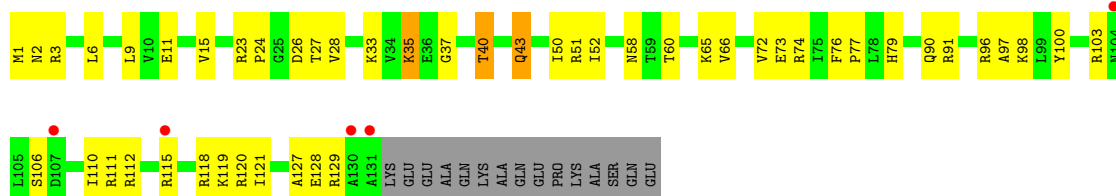
- Molecule 14: 50S ribosomal protein L18

Chain 2S:  12% 52% 42% ..



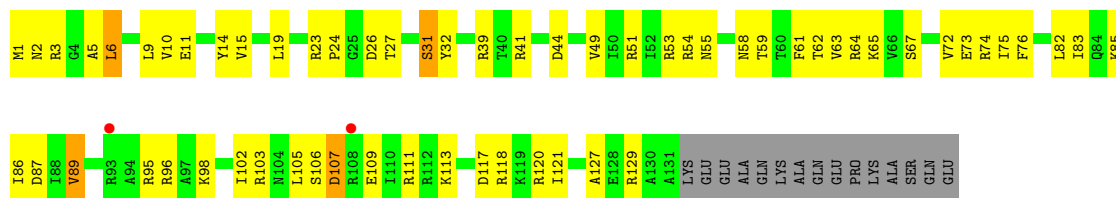
- Molecule 15: 50S ribosomal protein L19

Chain 1T:  3% 56% 32% 10%



- Molecule 15: 50S ribosomal protein L19

Chain 2T:  % 48% 39% 10%

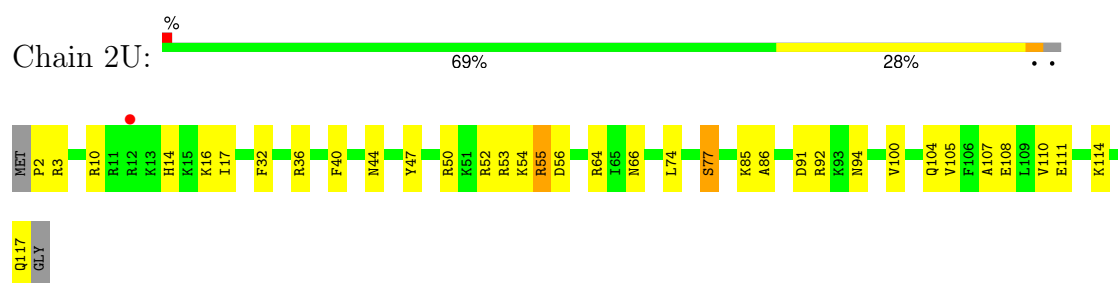


- Molecule 16: 50S ribosomal protein L20

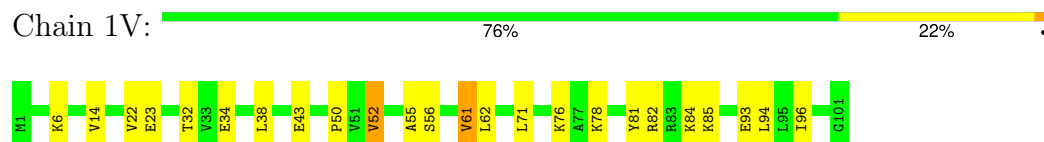
Chain 1U:  % 75% 20%



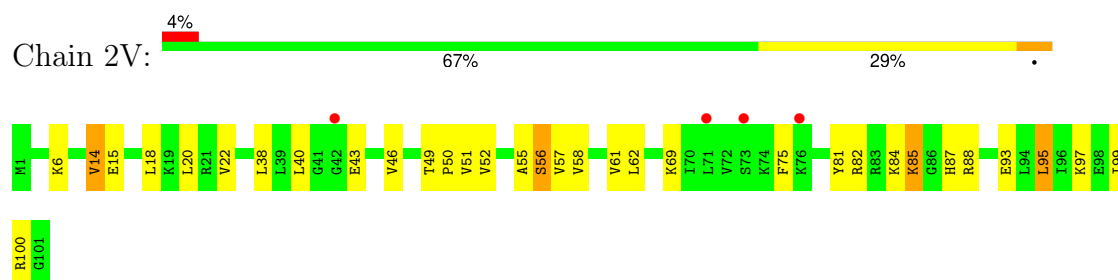
- Molecule 16: 50S ribosomal protein L20



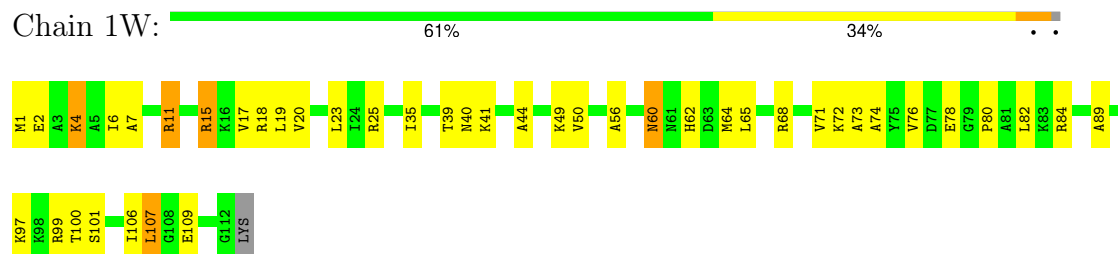
- Molecule 17: 50S ribosomal protein L21



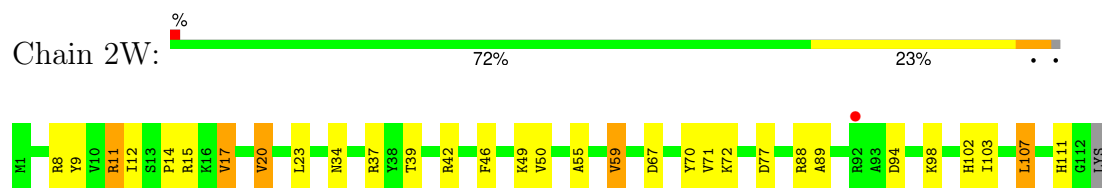
- Molecule 17: 50S ribosomal protein L21



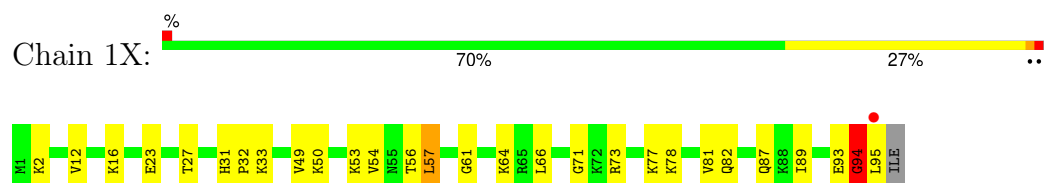
- Molecule 18: 50S ribosomal protein L22



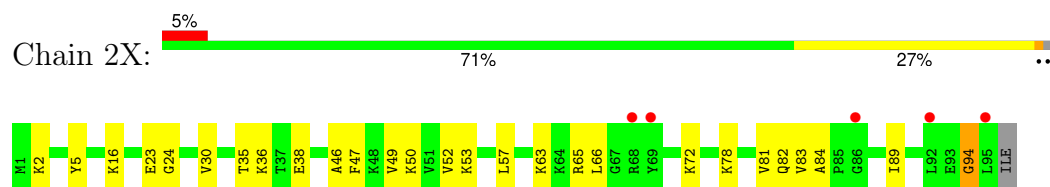
- Molecule 18: 50S ribosomal protein L22



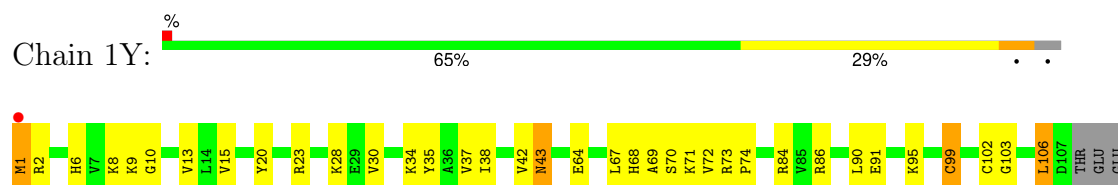
- Molecule 19: 50S ribosomal protein L23



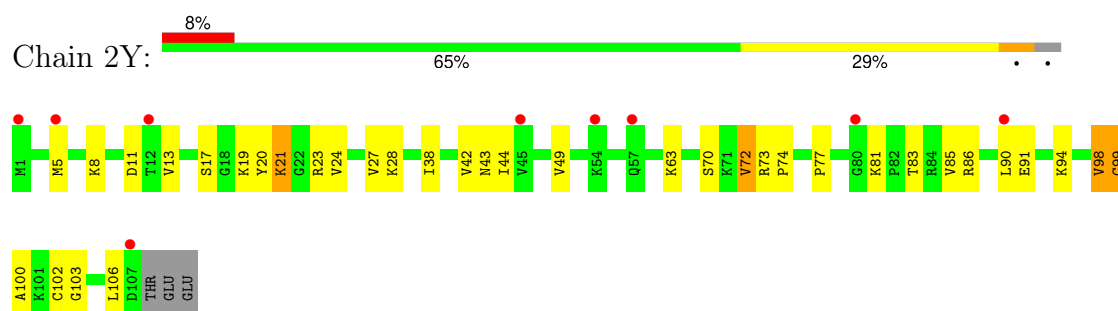
- Molecule 19: 50S ribosomal protein L23



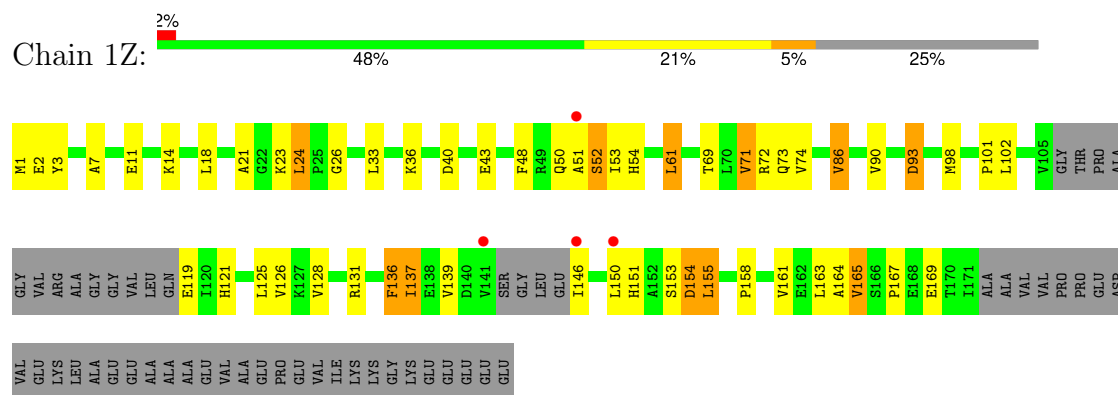
- Molecule 20: 50S ribosomal protein L24



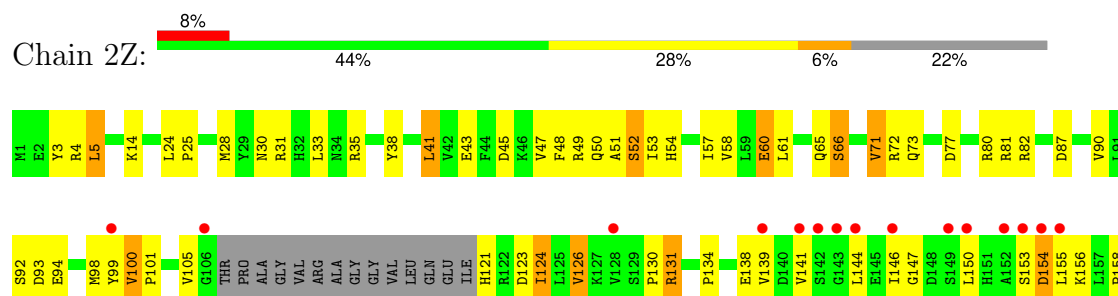
- Molecule 20: 50S ribosomal protein L24

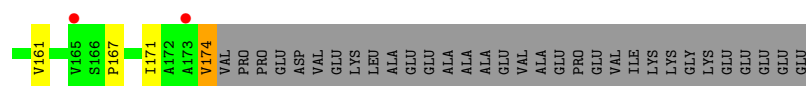


- Molecule 21: 50S ribosomal protein L25

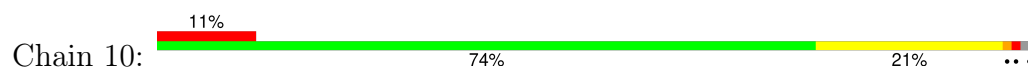


- Molecule 21: 50S ribosomal protein L25

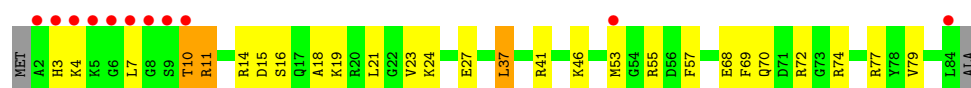




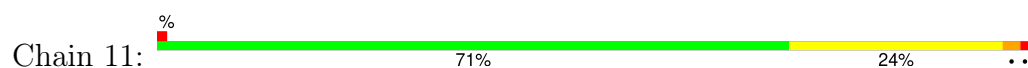
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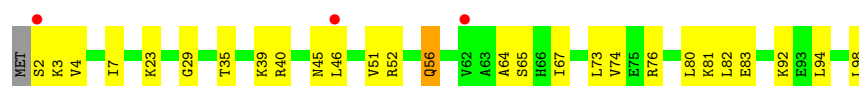
- Molecule 22: 50S ribosomal protein L27



- Molecule 23: 50S ribosomal protein L28



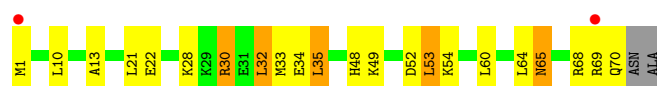
- Molecule 23: 50S ribosomal protein L28



- Molecule 24: 50S ribosomal protein L29

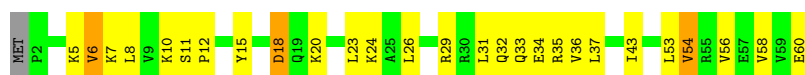


- Molecule 24: 50S ribosomal protein L29



- Molecule 25: 50S ribosomal protein L30

Chain 13:  53% 40% 5% .



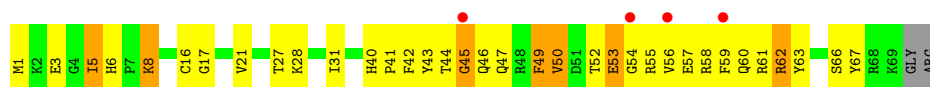
- Molecule 25: 50S ribosomal protein L30

Chain 23:  62% 35% ..



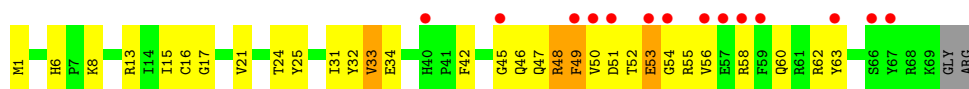
- Molecule 26: 50S ribosomal protein L31

Chain 14:  6% 48% 39% 10% .



- Molecule 26: 50S ribosomal protein L31

Chain 24:  20% 54% 38% 6% .



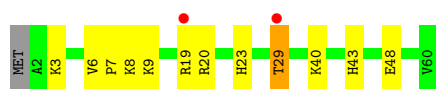
- Molecule 27: 50S ribosomal protein L32

Chain 15:  2% 75% 20% ..



- Molecule 27: 50S ribosomal protein L32

Chain 25:  3% 78% 18% ..



- Molecule 28: 50S ribosomal protein L33

Chain 16:  59% 28% 11% .



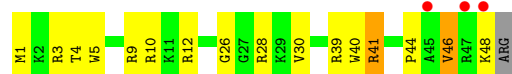
- Molecule 28: 50S ribosomal protein L33



- Molecule 29: 50S ribosomal protein L34



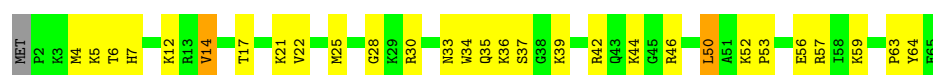
- Molecule 29: 50S ribosomal protein L34



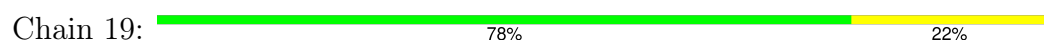
- Molecule 30: 50S ribosomal protein L35



- Molecule 30: 50S ribosomal protein L35



- Molecule 31: 50S ribosomal protein L36

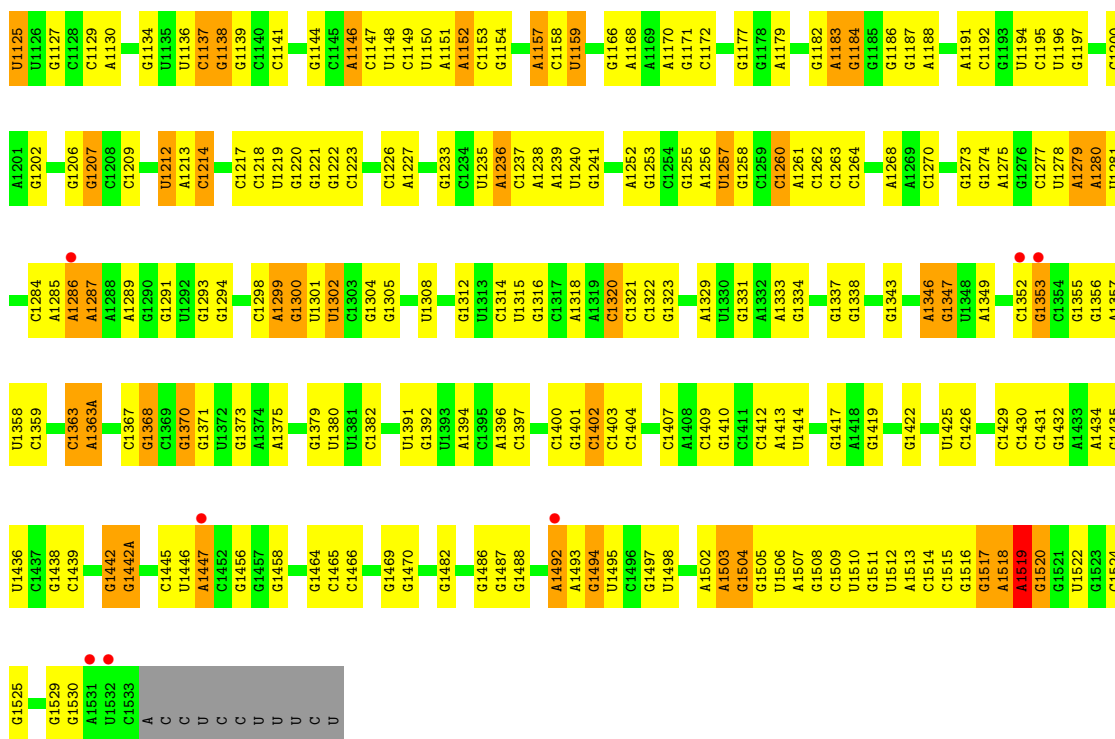


- Molecule 31: 50S ribosomal protein L36

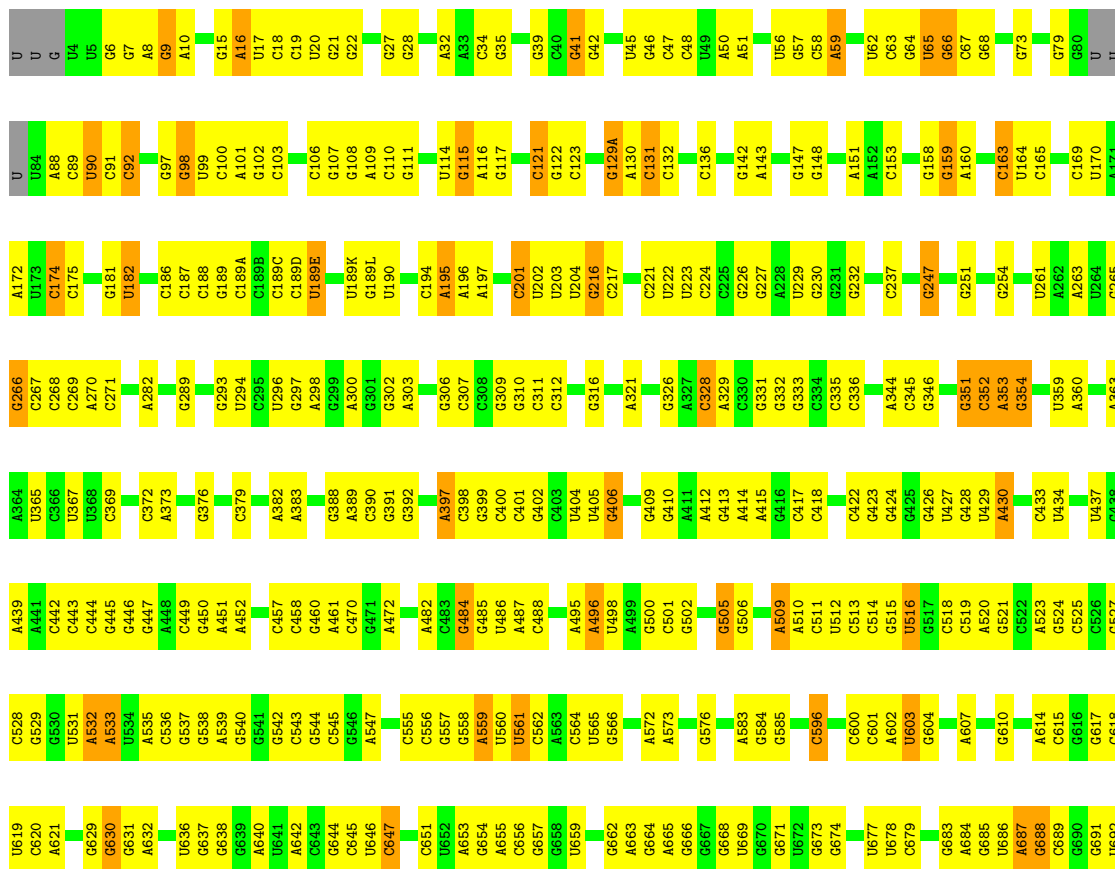


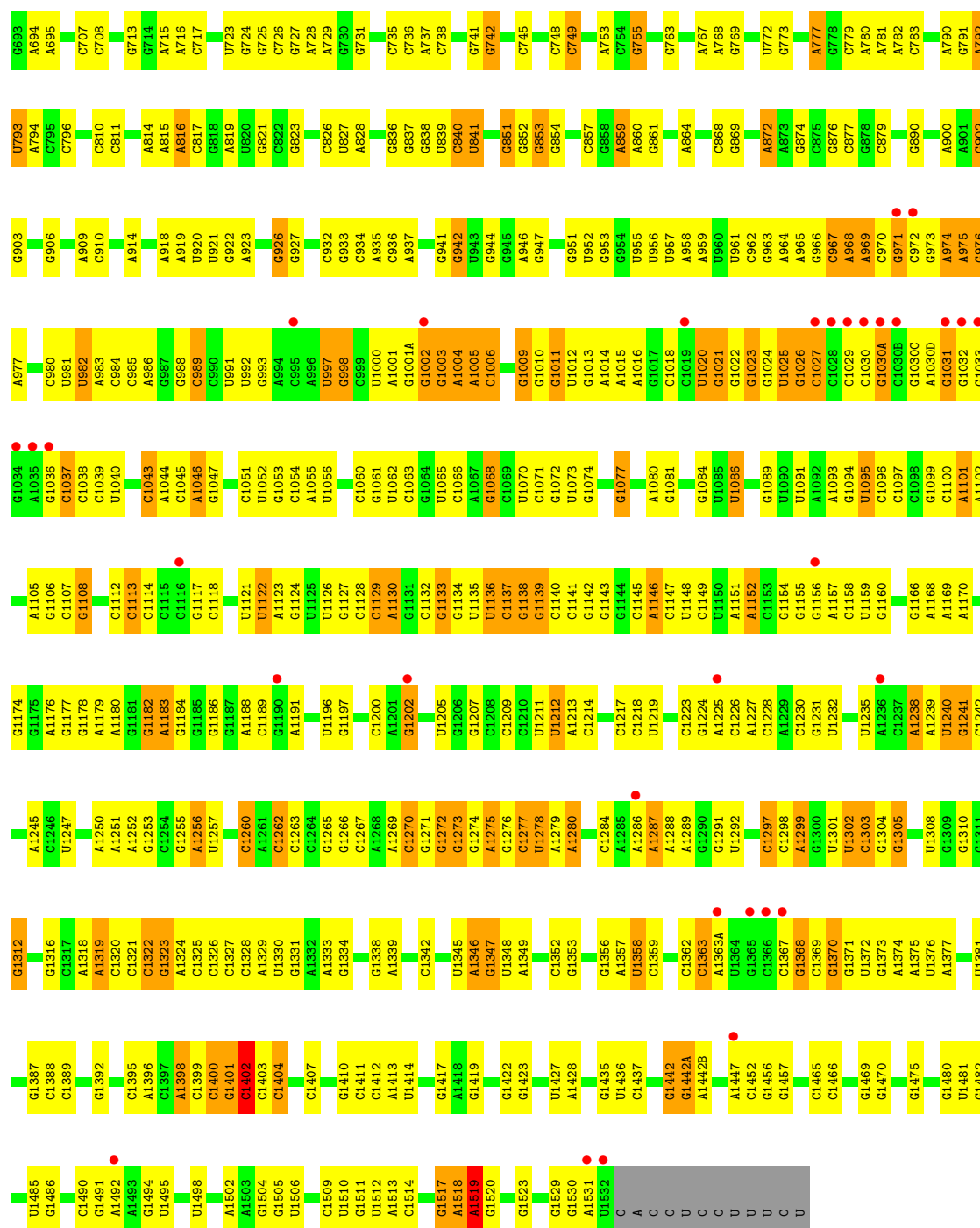
- Molecule 32: 16S Ribosomal RNA



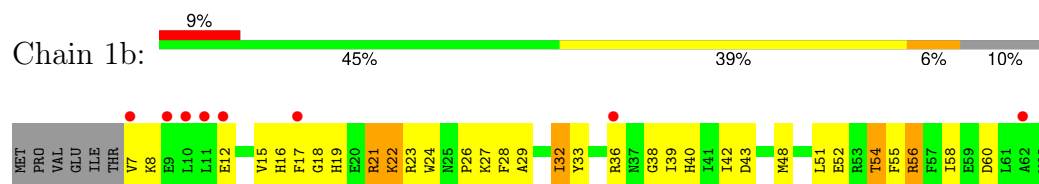


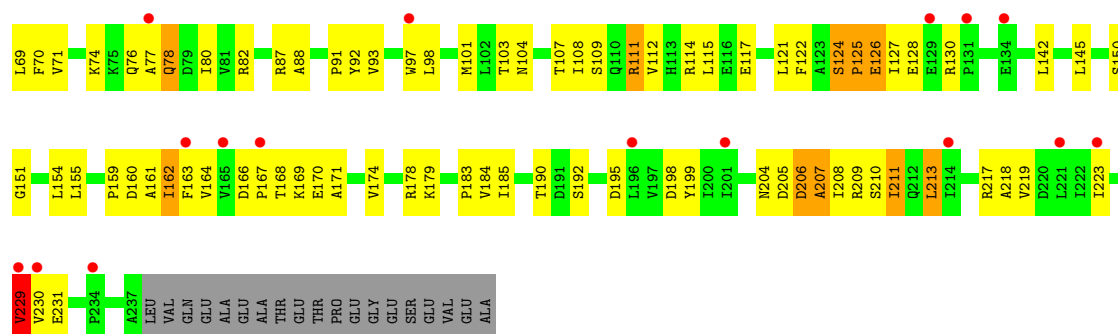
- Molecule 32: 16S Ribosomal RNA



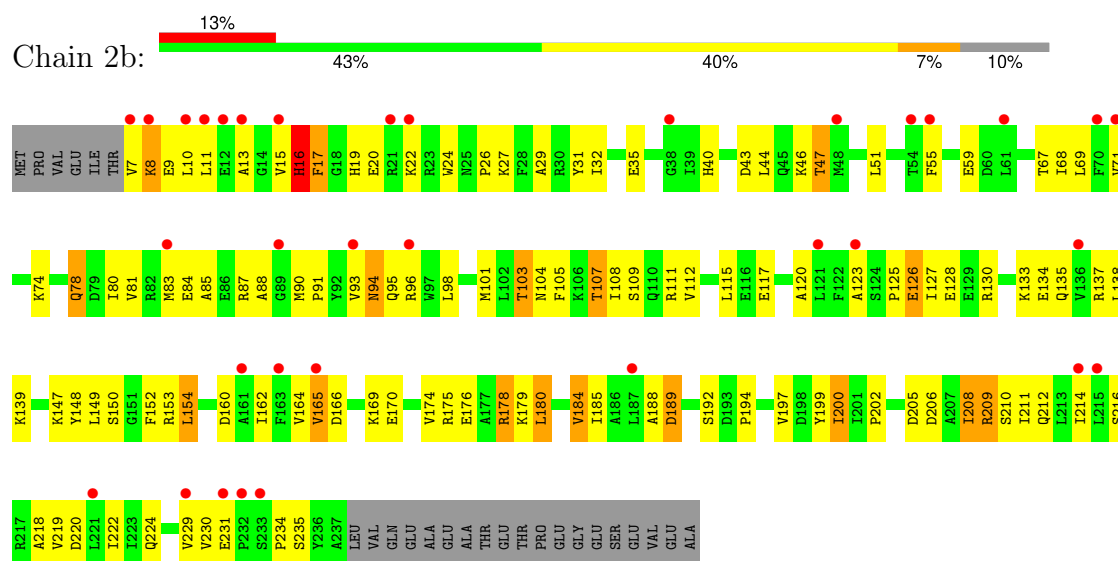


- Molecule 33: 30S ribosomal protein S2

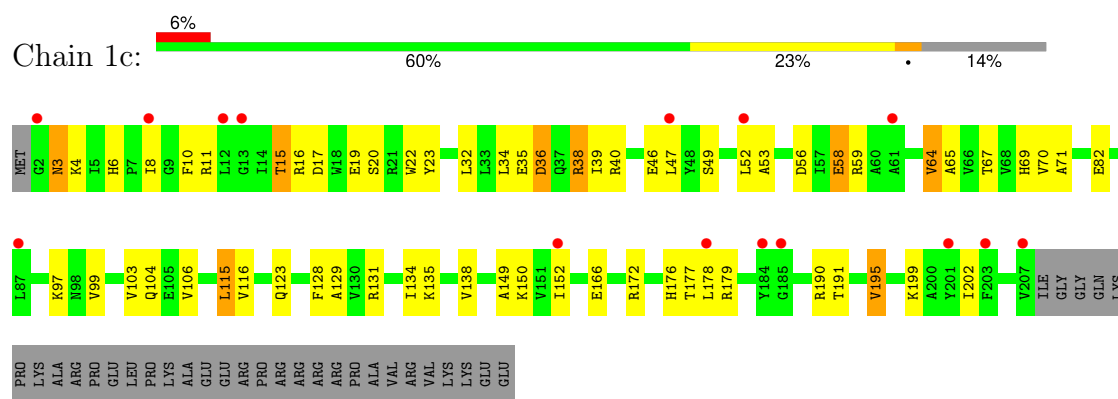




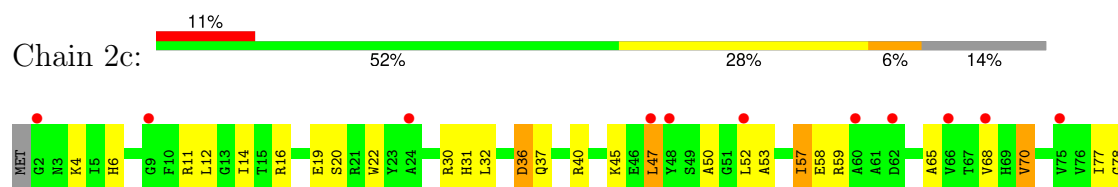
• Molecule 33: 30S ribosomal protein S2

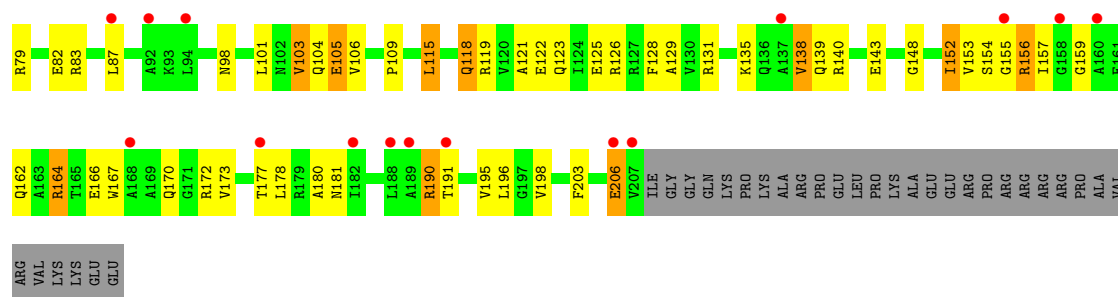


• Molecule 34: 30S ribosomal protein S3

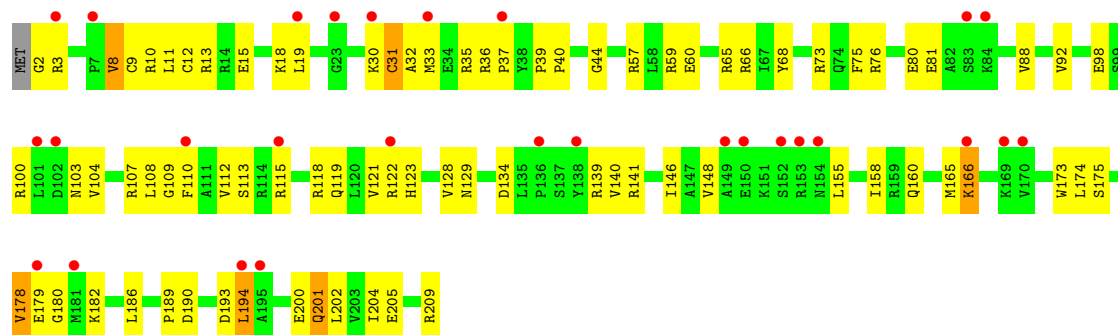


• Molecule 34: 30S ribosomal protein S3

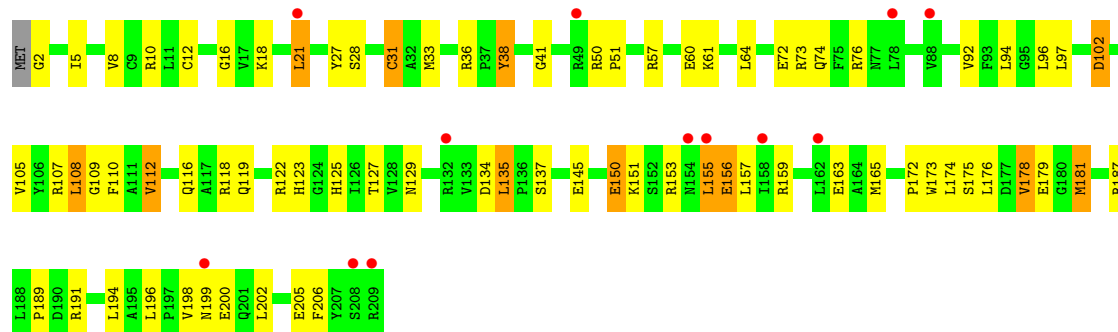




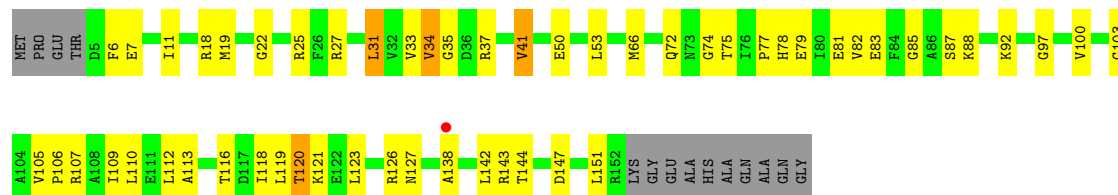
• Molecule 35: 30S ribosomal protein S4



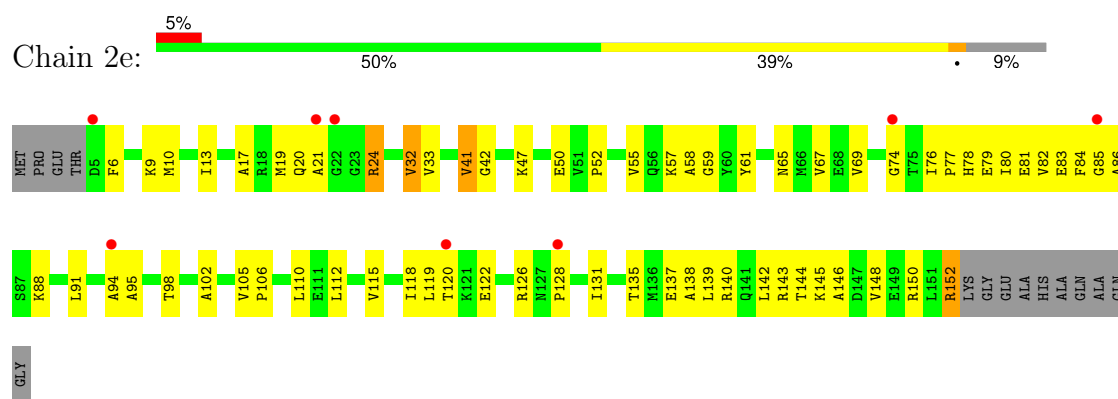
• Molecule 35: 30S ribosomal protein S4



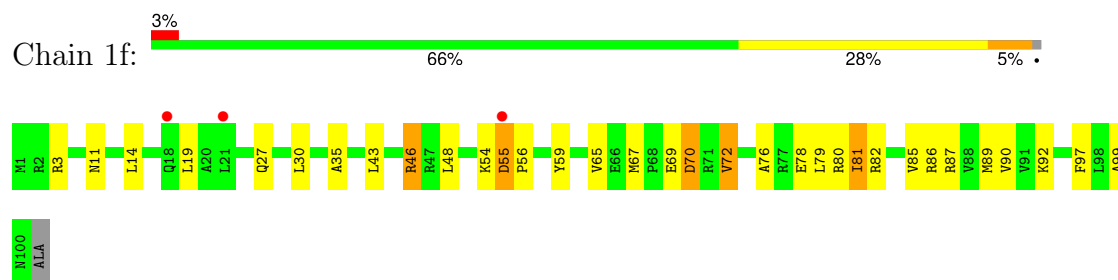
• Molecule 36: 30S ribosomal protein S5



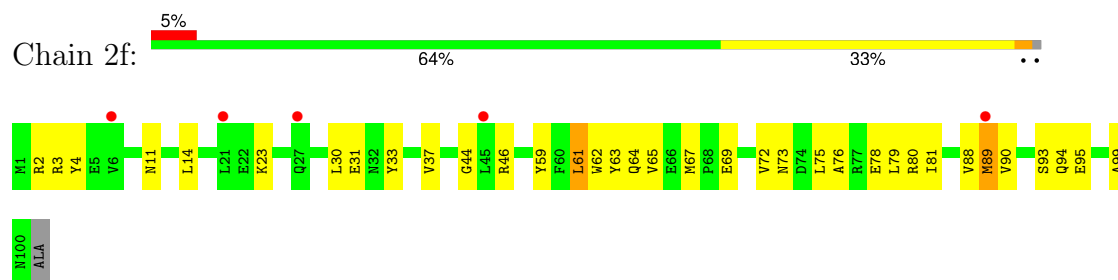
• Molecule 36: 30S ribosomal protein S5



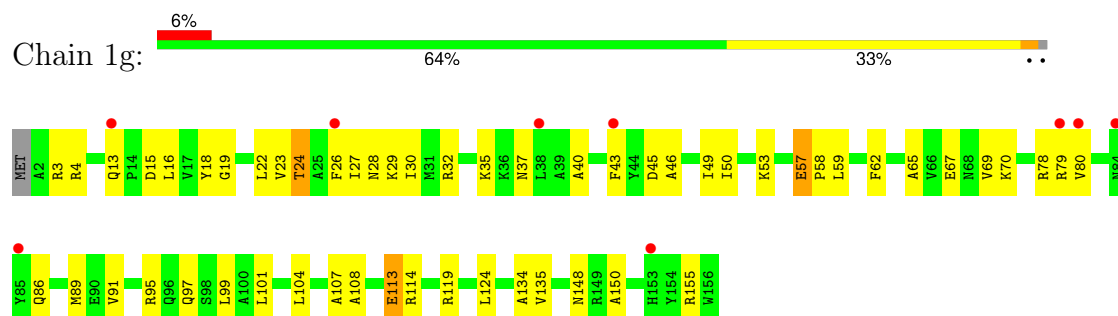
- Molecule 37: 30S ribosomal protein S6



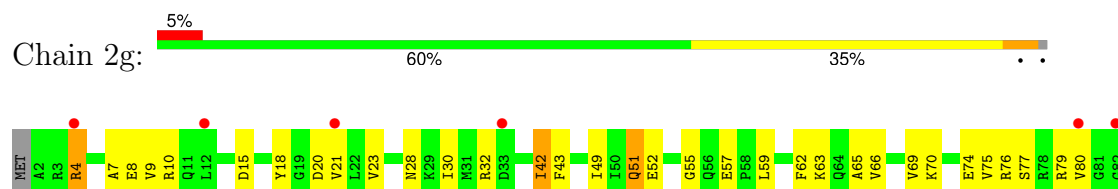
- Molecule 37: 30S ribosomal protein S6



- Molecule 38: 30S ribosomal protein S7

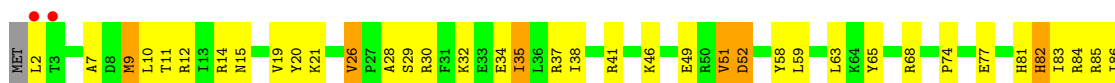


- Molecule 38: 30S ribosomal protein S7





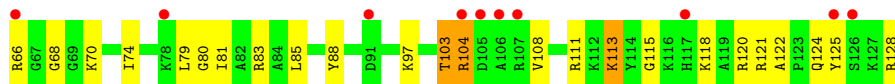
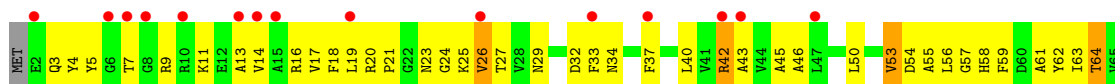
• Molecule 39: 30S ribosomal protein S8



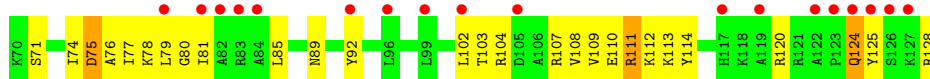
• Molecule 39: 30S ribosomal protein S8



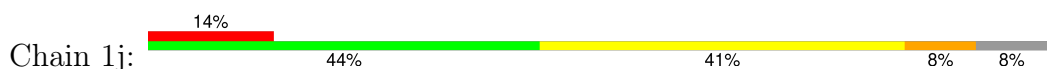
• Molecule 40: 30S ribosomal protein S9



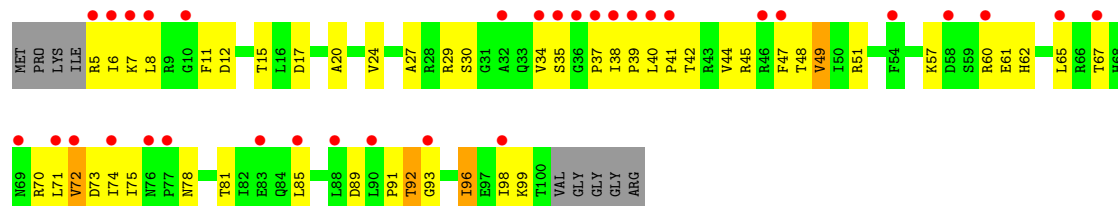
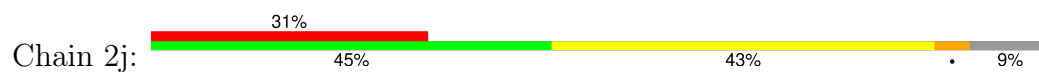
• Molecule 40: 30S ribosomal protein S9



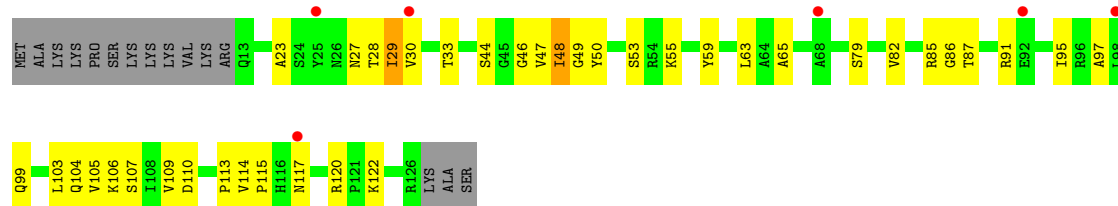
• Molecule 41: 30S ribosomal protein S10



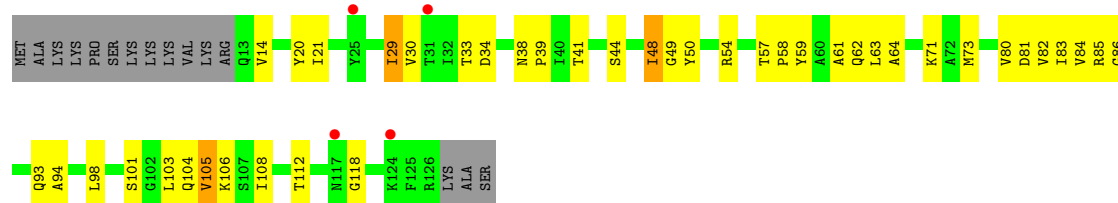
- Molecule 41: 30S ribosomal protein S10



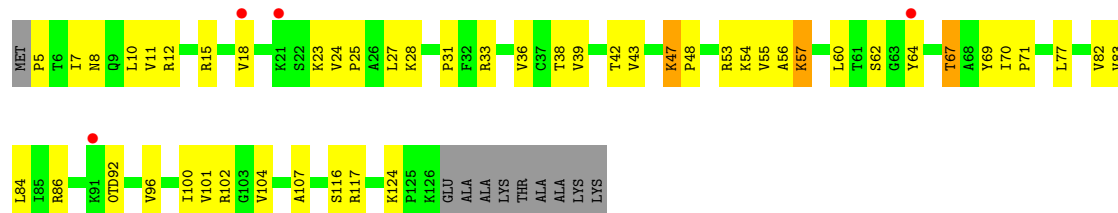
- Molecule 42: 30S ribosomal protein S11



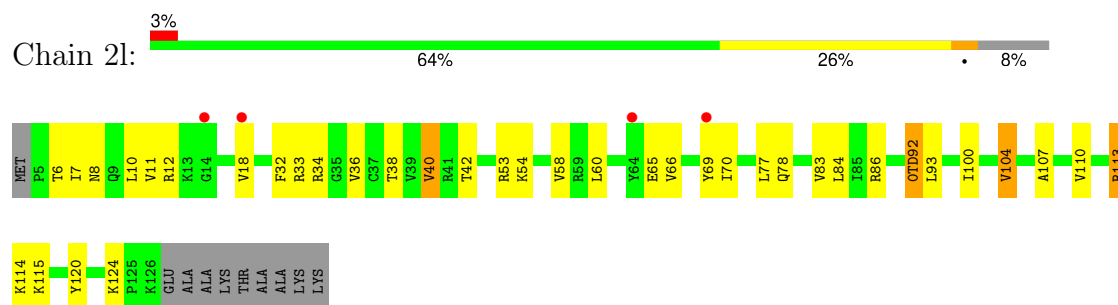
- Molecule 42: 30S ribosomal protein S11



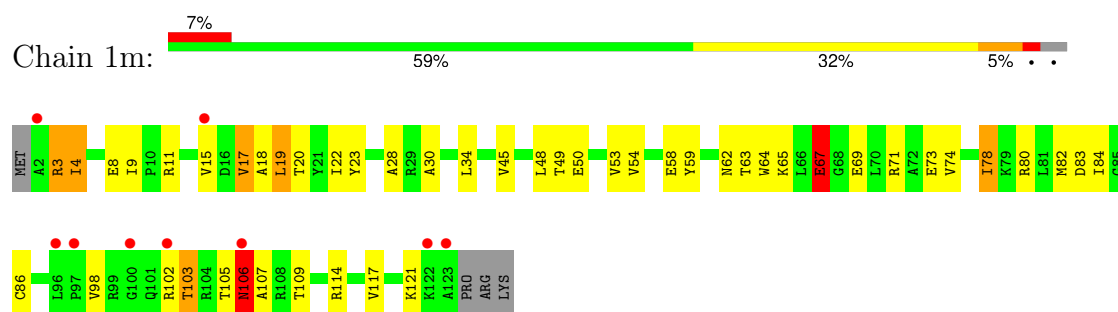
- Molecule 43: 30S ribosomal protein S12



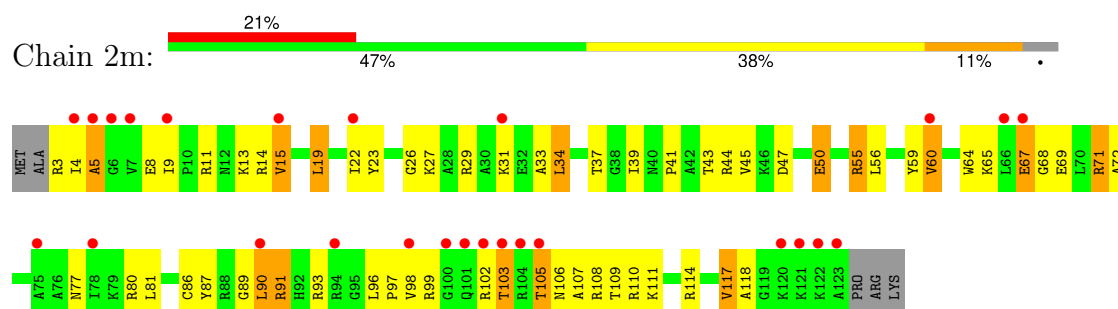
- Molecule 43: 30S ribosomal protein S12



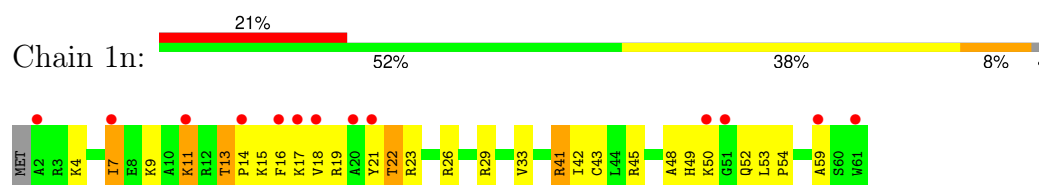
- Molecule 44: 30S ribosomal protein S13



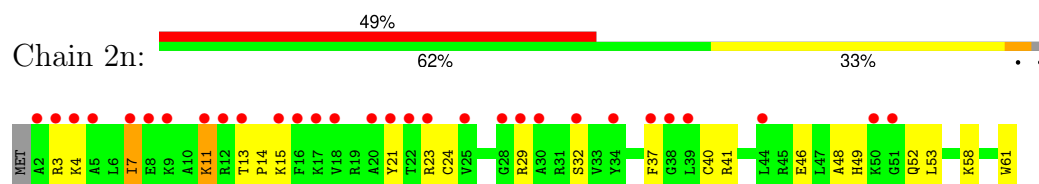
- Molecule 44: 30S ribosomal protein S13



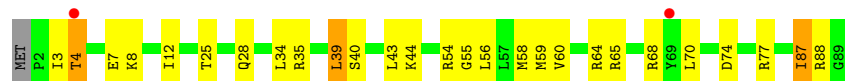
- Molecule 45: 30S ribosomal protein S14 type Z



- Molecule 45: 30S ribosomal protein S14 type Z



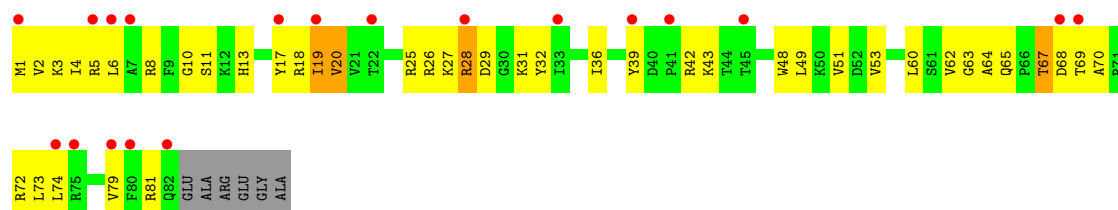
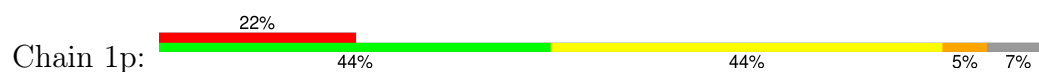
- Molecule 46: 30S ribosomal protein S15



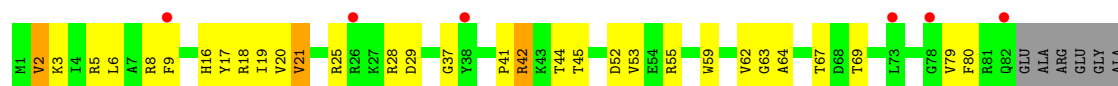
- Molecule 46: 30S ribosomal protein S15



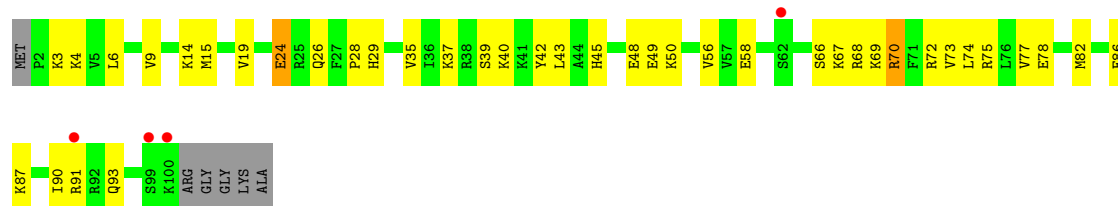
- Molecule 47: 30S ribosomal protein S16



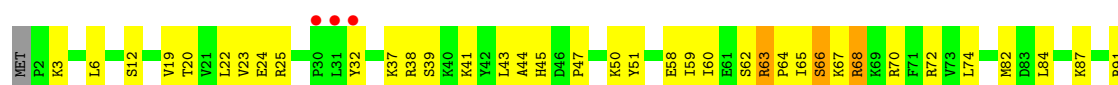
- Molecule 47: 30S ribosomal protein S16

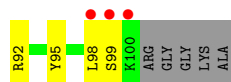


- Molecule 48: 30S ribosomal protein S17



- Molecule 48: 30S ribosomal protein S17





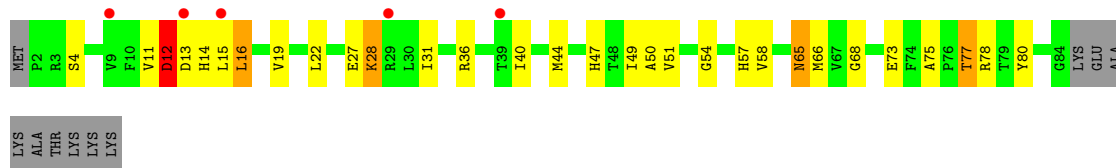
- Molecule 49: 30S ribosomal protein S18



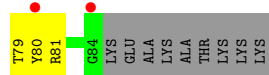
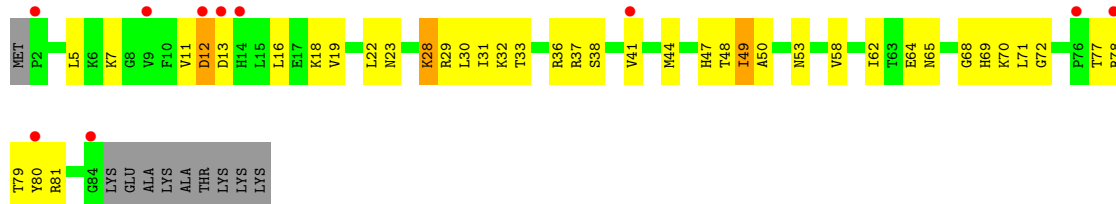
- Molecule 49: 30S ribosomal protein S18



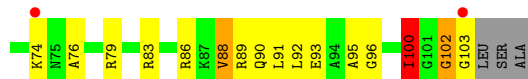
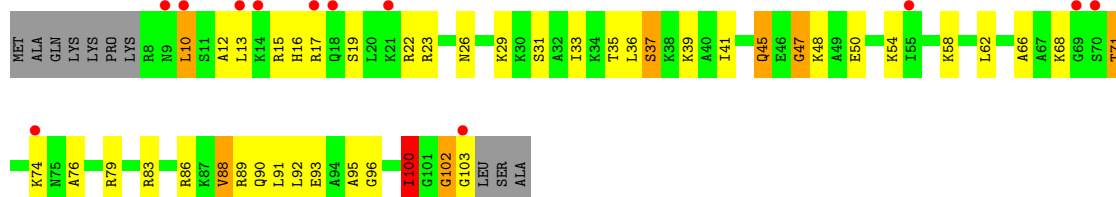
- Molecule 50: 30S ribosomal protein S19



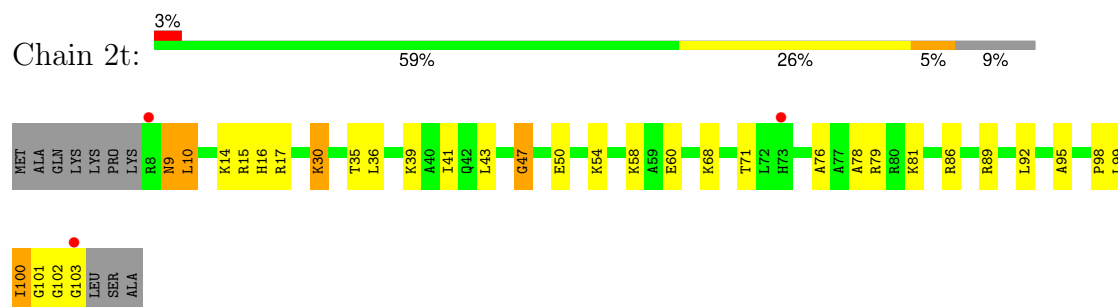
- Molecule 50: 30S ribosomal protein S19



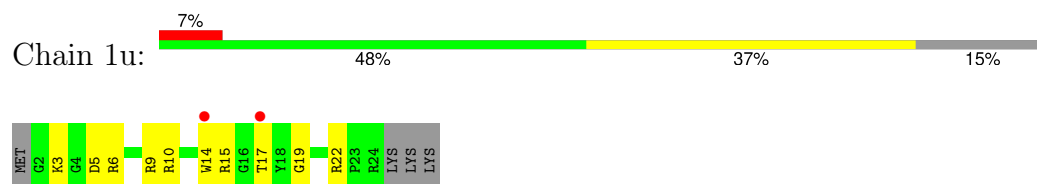
- Molecule 51: 30S ribosomal protein S20



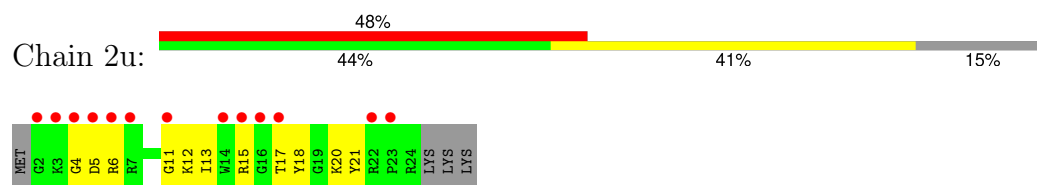
- Molecule 51: 30S ribosomal protein S20



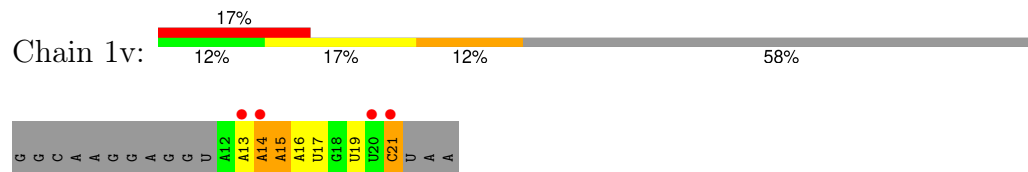
- Molecule 52: 30S ribosomal protein Thx



- Molecule 52: 30S ribosomal protein Thx



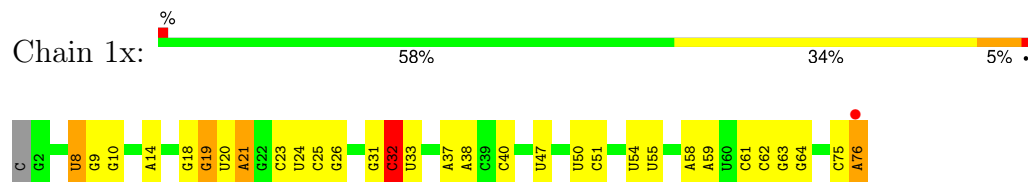
- Molecule 53: mRNA



- Molecule 53: mRNA

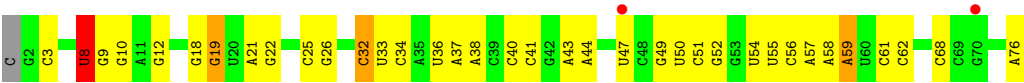


- Molecule 54: P-site tRNA



- Molecule 54: P-site tRNA





4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	208.33Å 447.60Å 612.33Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	75.46 – 2.80 75.46 – 2.80	Depositor EDS
% Data completeness (in resolution range)	98.3 (75.46-2.80) 98.3 (75.46-2.80)	Depositor EDS
R_{merge}	0.21	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.21 (at 2.82Å)	Xtriage
Refinement program	PHENIX 1.8.2	Depositor
R, R_{free}	0.225 , 0.276 0.226 , 0.275	Depositor DCC
R_{free} test set	68487 reflections (4.94%)	wwPDB-VP
Wilson B-factor (Å ²)	54.7	Xtriage
Anisotropy	0.309	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.28 , 45.5	EDS
L-test for twinning ²	$\langle L \rangle = 0.41$, $\langle L^2 \rangle = 0.24$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	292670	wwPDB-VP
Average B, all atoms (Å ²)	59.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.59% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ 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: 2MU, 5MC, 2MA, OMG, PSU, V7A, 4OC, 2MG, MG, UR3, 0TD, MA6, 7MG, 4SU, 5MU, ZN, SF4, M2G

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	1A	0.30	0/69009	0.46	1/107712 (0.0%)
1	2A	0.23	0/67293	0.41	2/105034 (0.0%)
2	1B	0.25	0/2882	0.41	0/4494
2	2B	0.19	0/2879	0.39	0/4487
3	1D	0.27	0/2186	0.50	0/2944
3	2D	0.24	0/2186	0.46	0/2944
4	1E	0.27	0/1592	0.52	0/2149
4	2E	0.22	0/1592	0.45	0/2149
5	1F	0.27	0/1619	0.49	0/2193
5	2F	0.21	0/1615	0.47	2/2188 (0.1%)
6	1G	0.22	0/1448	0.45	0/1957
6	2G	0.20	0/1453	0.46	0/1963
7	1H	0.23	0/1356	0.43	0/1834
7	2H	0.18	0/1356	0.37	0/1834
8	1I	0.22	0/1112	0.44	0/1514
8	2I	2.31	2/1079 (0.2%)	0.77	4/1475 (0.3%)
9	1N	0.26	0/1144	0.46	0/1543
9	2N	0.18	0/1144	0.40	0/1543
10	1O	0.26	0/943	0.51	0/1269
10	2O	0.23	0/943	0.47	0/1269
11	1P	0.28	0/1152	0.56	0/1533
11	2P	0.22	0/1152	0.50	0/1533
12	1Q	0.27	0/1143	0.48	0/1527
12	2Q	0.19	0/1143	0.42	0/1527
13	1R	0.28	0/982	0.48	0/1312
13	2R	0.20	0/982	0.44	0/1312
14	1S	0.22	0/883	0.47	0/1176
14	2S	0.19	0/880	0.44	0/1172
15	1T	0.25	0/1105	0.48	0/1477
15	2T	0.23	0/1097	0.44	0/1468
16	1U	0.31	0/977	0.47	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	2U	0.21	0/977	0.43	0/1301
17	1V	0.24	0/782	0.46	0/1049
17	2V	0.19	0/782	0.40	0/1049
18	1W	0.28	0/897	0.45	0/1205
18	2W	0.22	0/897	0.40	0/1205
19	1X	0.27	0/764	0.52	2/1025 (0.2%)
19	2X	0.20	0/764	0.49	2/1025 (0.2%)
20	1Y	0.25	0/819	0.47	0/1095
20	2Y	0.19	0/819	0.41	0/1095
21	1Z	0.23	0/1267	0.48	0/1717
21	2Z	0.20	0/1299	0.46	0/1763
22	10	0.28	0/662	0.49	0/881
22	20	0.22	0/662	0.48	0/881
23	11	0.26	0/762	0.46	0/1014
23	21	0.25	0/762	0.44	0/1014
24	12	0.25	0/590	0.44	0/781
24	22	0.19	0/590	0.37	0/781
25	13	0.26	0/474	0.46	0/635
25	23	0.25	0/469	0.46	0/630
26	14	0.27	0/565	0.58	0/761
26	24	0.27	0/545	0.65	1/737 (0.1%)
27	15	0.32	0/469	0.53	0/635
27	25	0.23	0/469	0.41	0/635
28	16	0.29	0/460	0.51	0/613
28	26	0.20	0/456	0.42	0/608
29	17	0.30	0/426	0.53	0/561
29	27	0.24	0/426	0.48	0/561
30	18	0.29	0/525	0.53	0/691
30	28	0.22	0/525	0.42	0/691
31	19	0.25	0/310	0.50	0/407
31	29	0.20	0/310	0.45	0/407
32	1a	0.35	10/35795 (0.0%)	0.40	2/55864 (0.0%)
32	2a	0.19	0/35886	0.38	0/56005
33	1b	0.22	0/1881	0.50	0/2542
33	2b	0.23	0/1860	0.48	0/2518
34	1c	0.18	0/1572	0.39	0/2126
34	2c	0.21	0/1566	0.48	1/2119 (0.0%)
35	1d	0.21	0/1685	0.46	0/2262
35	2d	0.20	0/1704	0.42	0/2284
36	1e	0.21	0/1145	0.44	0/1543
36	2e	0.21	0/1149	0.47	0/1548
37	1f	0.18	0/823	0.39	0/1115
37	2f	0.19	0/829	0.41	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	1g	0.19	0/1250	0.43	0/1679
38	2g	0.18	0/1254	0.41	0/1683
39	1h	0.19	0/1108	0.42	0/1494
39	2h	0.17	0/1108	0.40	0/1494
40	1i	0.22	0/1002	0.48	0/1346
40	2i	0.21	0/997	0.50	0/1343
41	1j	0.19	0/722	0.42	0/982
41	2j	0.20	0/727	0.44	0/988
42	1k	0.20	0/844	0.49	0/1145
42	2k	0.19	0/848	0.47	1/1149 (0.1%)
43	1l	0.20	0/937	0.43	0/1260
43	2l	0.20	0/937	0.42	0/1260
44	1m	0.23	0/961	0.49	0/1290
44	2m	0.21	0/953	0.55	1/1279 (0.1%)
45	1n	0.19	0/501	0.44	0/664
45	2n	0.20	0/501	0.46	0/664
46	1o	0.19	0/739	0.40	0/985
46	2o	0.18	0/739	0.37	0/985
47	1p	0.21	0/697	0.44	0/939
47	2p	0.19	0/693	0.45	0/935
48	1q	0.19	0/836	0.45	0/1117
48	2q	0.20	0/836	0.41	0/1117
49	1r	0.20	0/560	0.42	0/746
49	2r	0.19	0/560	0.41	0/746
50	1s	0.20	0/667	0.48	0/900
50	2s	0.23	0/661	0.55	0/893
51	1t	0.20	0/730	0.45	0/965
51	2t	0.21	0/729	0.49	0/965
52	1u	0.19	0/203	0.47	0/266
52	2u	0.23	0/203	0.49	0/266
53	1v	0.23	0/238	0.38	0/368
53	2v	0.27	0/126	0.41	0/195
54	1x	0.26	0/1725	0.41	0/2689
54	2x	0.24	0/1725	0.39	0/2689
All	All	0.29	12/310063 (0.0%)	0.43	19/463821 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
21	1Z	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
32	1a	0	1
33	1b	0	2
All	All	0	4

All (12) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	2I	89	TYR	CE1-CZ	55.02	2.70	1.38
8	2I	89	TYR	CD2-CE2	51.24	2.92	1.38
32	1a	55	A	C5-C4	35.15	2.09	1.38
32	1a	55	A	N7-C5	15.61	1.70	1.39
32	1a	55	A	C8-N7	15.23	1.62	1.31
32	1a	55	A	N9-C8	14.83	1.67	1.37
32	1a	55	A	N9-C4	14.14	1.66	1.37
32	1a	55	A	C5-C6	13.25	1.67	1.41
32	1a	55	A	N3-C4	12.65	1.60	1.34
32	1a	55	A	C6-N1	12.64	1.60	1.35
32	1a	55	A	N1-C2	12.46	1.59	1.34
32	1a	55	A	C2-N3	11.88	1.57	1.33

All (19) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	2I	89	TYR	CZ-CE2-CD2	-11.38	99.12	119.60
8	2I	89	TYR	CD1-CE1-CZ	10.32	138.18	119.60
26	24	54	GLY	N-CA-C	-9.43	103.85	115.08
8	2I	89	TYR	CG-CD2-CE2	8.93	134.59	121.20
32	1a	357	G	OP1-P-O3'	-8.67	81.98	108.00
44	2m	91	ARG	N-CA-C	-8.41	105.04	114.62
32	1a	357	G	OP2-P-O3'	-7.03	86.91	108.00
8	2I	89	TYR	CE1-CZ-CE2	-6.63	107.04	120.30
42	2k	118	GLY	N-CA-C	6.48	116.11	110.21
1	1A	1992	G	C2'-C3'-O3'	5.54	117.81	109.50
34	2c	139	GLN	N-CA-C	-5.52	108.33	114.62
1	2A	1992	G	C2'-C3'-O3'	5.50	117.75	109.50
19	2X	94	GLY	CA-C-N	5.42	131.47	121.70
19	2X	94	GLY	C-N-CA	5.42	131.47	121.70
19	1X	94	GLY	CA-C-N	5.40	131.41	121.70
19	1X	94	GLY	C-N-CA	5.40	131.41	121.70
5	2F	21	ALA	CA-C-N	5.18	131.02	121.70
5	2F	21	ALA	C-N-CA	5.18	131.02	121.70
1	2A	271(M)	G	P-O3'-C3'	5.13	125.85	119.70

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
21	1Z	136	PHE	Peptide
32	1a	55	A	Sidechain
33	1b	122	PHE	Peptide
33	1b	126	GLU	Peptide

5.2 Too-close contacts

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	1A	61852	0	31187	997	0
1	2A	60322	0	30423	1063	0
2	1B	2577	0	1305	39	0
2	2B	2575	0	1303	60	0
3	1D	2136	0	2218	69	0
3	2D	2136	0	2218	66	0
4	1E	1559	0	1618	37	0
4	2E	1559	0	1618	62	0
5	1F	1584	0	1625	61	0
5	2F	1580	0	1619	59	0
6	1G	1423	0	1436	42	0
6	2G	1428	0	1438	70	0
7	1H	1330	0	1407	35	0
7	2H	1330	0	1407	33	0
8	1I	1097	0	1140	38	0
8	2I	1064	0	1082	60	12
9	1N	1117	0	1184	21	0
9	2N	1117	0	1184	23	0
10	1O	933	0	996	24	0
10	2O	933	0	996	38	0
11	1P	1135	0	1212	61	0
11	2P	1135	0	1212	46	0
12	1Q	1122	0	1179	39	0
12	2Q	1122	0	1179	37	0
13	1R	968	0	1033	23	0
13	2R	968	0	1033	26	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
14	1S	873	0	927	36	0
14	2S	870	0	923	41	0
15	1T	1091	0	1151	33	0
15	2T	1083	0	1136	45	0
16	1U	959	0	1019	22	0
16	2U	959	0	1019	26	0
17	1V	771	0	830	12	0
17	2V	771	0	830	22	0
18	1W	886	0	940	28	0
18	2W	886	0	940	22	0
19	1X	750	0	814	17	0
19	2X	750	0	814	13	0
20	1Y	806	0	881	21	0
20	2Y	806	0	881	21	0
21	1Z	1240	0	1240	34	0
21	2Z	1271	0	1273	52	0
22	10	653	0	674	15	0
22	20	653	0	674	21	0
23	11	755	0	826	19	0
23	21	755	0	826	17	0
24	12	588	0	643	11	0
24	22	588	0	643	14	0
25	13	469	0	518	17	0
25	23	464	0	514	12	0
26	14	552	0	533	26	0
26	24	532	0	503	24	0
27	15	455	0	465	10	0
27	25	455	0	465	9	0
28	16	453	0	473	16	0
28	26	449	0	469	9	0
29	17	418	0	467	13	0
29	27	418	0	467	13	0
30	18	517	0	582	34	0
30	28	517	0	582	25	0
31	19	307	0	335	5	0
31	29	307	0	335	11	0
32	1a	32246	0	16295	626	12
32	2a	32327	0	16339	656	0
33	1b	1846	0	1867	77	0
33	2b	1825	0	1828	70	0
34	1c	1548	0	1535	45	0
34	2c	1542	0	1517	50	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
35	1d	1655	0	1672	67	0
35	2d	1674	0	1714	59	0
36	1e	1129	0	1185	42	0
36	2e	1133	0	1191	48	0
37	1f	810	0	804	26	0
37	2f	816	0	808	20	0
38	1g	1231	0	1238	38	0
38	2g	1235	0	1249	42	0
39	1h	1088	0	1126	44	0
39	2h	1088	0	1126	44	0
40	1i	983	0	986	50	0
40	2i	978	0	966	54	0
41	1j	709	0	650	44	0
41	2j	714	0	672	37	0
42	1k	829	0	825	25	0
42	2k	833	0	836	23	0
43	1l	932	0	981	31	0
43	2l	932	0	981	23	0
44	1m	951	0	995	30	0
44	2m	943	0	981	49	0
45	1n	492	0	529	28	0
45	2n	492	0	529	17	0
46	1o	728	0	760	19	0
46	2o	728	0	760	24	0
47	1p	681	0	697	32	0
47	2p	677	0	686	22	0
48	1q	823	0	891	28	0
48	2q	823	0	891	26	0
49	1r	555	0	618	15	0
49	2r	555	0	618	9	0
50	1s	652	0	662	28	0
50	2s	646	0	644	28	0
51	1t	728	0	798	28	0
51	2t	727	0	796	25	0
52	1u	199	0	208	6	0
52	2u	199	0	208	8	0
53	1v	213	0	108	5	0
53	2v	113	0	54	1	0
54	1x	1625	0	829	19	0
54	2x	1625	0	829	21	0
55	10	5	0	0	0	0
55	11	4	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	12	2	0	0	0	0
55	13	3	0	0	0	0
55	15	5	0	0	0	0
55	16	1	0	0	0	0
55	17	4	0	0	0	0
55	18	6	0	0	0	0
55	19	1	0	0	0	0
55	1A	1117	0	0	0	0
55	1B	35	0	0	0	0
55	1D	13	0	0	0	0
55	1E	11	0	0	0	0
55	1F	11	0	0	0	0
55	1G	4	0	0	0	0
55	1N	4	0	0	0	0
55	1O	4	0	0	0	0
55	1P	3	0	0	0	0
55	1Q	7	0	0	0	0
55	1R	2	0	0	0	0
55	1S	1	0	0	0	0
55	1T	3	0	0	0	0
55	1U	7	0	0	0	0
55	1V	4	0	0	0	0
55	1W	5	0	0	0	0
55	1X	6	0	0	0	0
55	1Y	4	0	0	0	0
55	1Z	2	0	0	0	0
55	1a	234	0	0	0	0
55	1b	1	0	0	0	0
55	1e	2	0	0	0	0
55	1f	2	0	0	0	0
55	1l	4	0	0	0	0
55	1n	2	0	0	0	0
55	1t	1	0	0	0	0
55	1v	2	0	0	0	0
55	1x	13	0	0	0	0
55	20	1	0	0	0	0
55	23	1	0	0	0	0
55	25	2	0	0	0	0
55	26	1	0	0	0	0
55	27	1	0	0	0	0
55	28	3	0	0	0	0
55	2A	862	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	2B	19	0	0	0	0
55	2D	3	0	0	0	0
55	2E	9	0	0	0	0
55	2F	6	0	0	0	0
55	2G	1	0	0	0	0
55	2N	2	0	0	0	0
55	2O	2	0	0	0	0
55	2P	2	0	0	0	0
55	2Q	4	0	0	0	0
55	2R	2	0	0	0	0
55	2T	3	0	0	0	0
55	2U	2	0	0	0	0
55	2V	3	0	0	0	0
55	2W	2	0	0	0	0
55	2X	2	0	0	0	0
55	2Z	1	0	0	0	0
55	2a	209	0	0	0	0
55	2d	2	0	0	0	0
55	2e	1	0	0	0	0
55	2f	2	0	0	0	0
55	2g	1	0	0	0	0
55	2i	1	0	0	0	0
55	2j	2	0	0	0	0
55	2l	3	0	0	0	0
55	2p	1	0	0	0	0
55	2q	1	0	0	0	0
55	2r	1	0	0	0	0
55	2t	1	0	0	0	0
55	2x	5	0	0	0	0
56	14	1	0	0	0	0
56	15	1	0	0	0	0
56	16	1	0	0	0	0
56	19	1	0	0	0	0
56	1Y	1	0	0	0	0
56	1n	1	0	0	0	0
56	24	1	0	0	0	0
56	25	1	0	0	0	0
56	26	1	0	0	0	0
56	29	1	0	0	0	0
56	2Y	1	0	0	0	0
56	2n	1	0	0	0	0
57	1a	35	0	0	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	2a	35	0	0	4	0
58	1d	8	0	0	3	0
58	2d	8	0	0	1	0
59	10	8	0	0	1	0
59	11	7	0	0	1	0
59	12	1	0	0	0	0
59	13	4	0	0	0	0
59	15	7	0	0	0	0
59	16	2	0	0	0	0
59	17	6	0	0	3	0
59	18	9	0	0	1	0
59	1A	1716	0	0	124	0
59	1B	47	0	0	1	0
59	1D	21	0	0	3	0
59	1E	25	0	0	1	0
59	1F	13	0	0	0	0
59	1G	2	0	0	0	0
59	1H	2	0	0	0	0
59	1I	2	0	0	0	0
59	1N	3	0	0	1	0
59	1O	7	0	0	0	0
59	1P	17	0	0	1	0
59	1Q	6	0	0	0	0
59	1R	9	0	0	0	0
59	1S	1	0	0	0	0
59	1T	8	0	0	0	0
59	1U	13	0	0	1	0
59	1V	9	0	0	0	0
59	1W	8	0	0	0	0
59	1X	6	0	0	0	0
59	1Y	2	0	0	1	0
59	1a	294	0	0	23	0
59	1b	1	0	0	0	0
59	1d	3	0	0	0	0
59	1e	1	0	0	0	0
59	1i	1	0	0	0	0
59	1j	1	0	0	0	0
59	1l	4	0	0	0	0
59	1m	1	0	0	0	0
59	1o	1	0	0	0	0
59	1q	2	0	0	0	0
59	1v	4	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	1x	17	0	0	2	0
59	20	3	0	0	0	0
59	21	8	0	0	0	0
59	22	1	0	0	0	0
59	25	1	0	0	0	0
59	27	1	0	0	0	0
59	28	3	0	0	0	0
59	29	1	0	0	0	0
59	2A	867	0	0	80	0
59	2B	14	0	0	3	0
59	2D	16	0	0	0	0
59	2E	8	0	0	1	0
59	2F	13	0	0	0	0
59	2I	1	0	0	0	0
59	2N	1	0	0	0	0
59	2O	1	0	0	0	0
59	2P	4	0	0	0	0
59	2Q	2	0	0	0	0
59	2R	2	0	0	0	0
59	2T	4	0	0	0	0
59	2U	3	0	0	1	0
59	2W	5	0	0	1	0
59	2X	2	0	0	0	0
59	2Z	1	0	0	0	0
59	2a	146	0	0	11	0
59	2g	1	0	0	0	0
59	2j	2	0	0	0	0
59	2l	4	0	0	1	0
59	2p	1	0	0	0	0
59	2r	1	0	0	0	0
59	2t	1	0	0	0	0
59	2v	1	0	0	0	0
59	2x	6	0	0	0	0
All	All	292670	0	193346	5696	12

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 13.

All (5696) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:55:A:C5	32:1a:55:A:N7	1.70	1.56
32:1a:55:A:C5	32:1a:55:A:C4	2.09	1.39
1:1A:1082:U:H3	1:1A:1086:A:N6	1.39	1.17
1:2A:2138:C:N4	1:2A:2153:G:H1	1.51	1.07
1:1A:1059:G:H1	1:1A:1079:C:N4	1.56	1.03
1:1A:1082:U:O4	1:1A:1086:A:N1	1.92	1.02
1:1A:1062:G:H1	1:1A:1077:A:H61	1.08	0.98
1:1A:2822:G:OP2	59:1A:4213:HOH:O	1.81	0.97
1:1A:2128:C:H42	1:1A:2160:G:H1	1.09	0.96
1:1A:1054:A:N6	1:1A:1105:U:H3	1.63	0.95
32:2a:1133:G:H1	32:2a:1141:C:H42	0.96	0.95
50:2s:28:LYS:HB2	50:2s:29:ARG:HA	1.46	0.95
1:2A:2129:C:H42	1:2A:2159:G:H1	0.96	0.94
1:2A:2104:G:H1	1:2A:2185:C:H42	1.04	0.94
1:1A:1054:A:H61	1:1A:1105:U:H3	1.05	0.92
1:1A:2099:U:H3	1:1A:2190:G:H1	0.94	0.92
32:2a:1133:G:H1	32:2a:1141:C:N4	1.66	0.91
32:1a:559:A:H4'	32:1a:560:U:H3'	1.51	0.91
1:1A:1059:G:H1	1:1A:1079:C:H42	0.91	0.91
1:1A:1082:U:N3	1:1A:1086:A:N6	2.07	0.91
21:2Z:156:LYS:HE3	21:2Z:158:PRO:HD3	1.53	0.91
1:1A:1670:C:OP2	59:1A:4214:HOH:O	1.88	0.91
1:2A:2129:C:N4	1:2A:2159:G:H1	1.69	0.90
32:2a:656:C:O2'	46:2o:28:GLN:NE2	2.05	0.89
1:1A:2821:A:OP2	59:1A:4213:HOH:O	1.89	0.89
33:1b:16:HIS:HB2	33:1b:204:ASN:HB3	1.56	0.88
32:2a:975:A:H4'	32:2a:976:G:H5''	1.55	0.88
1:1A:2096:U:H3	1:1A:2193:G:H1	1.22	0.86
1:1A:826:U:OP1	59:1A:4215:HOH:O	1.94	0.86
1:1A:2123:G:H1	1:1A:2175:C:H42	1.19	0.86
32:1a:987:G:H1	32:1a:1218:C:H42	1.22	0.86
32:2a:1025:U:H3	32:2a:1036:G:H1	1.24	0.86
32:2a:1055:A:N7	32:2a:1200:C:N4	2.24	0.85
8:2I:92:VAL:HG23	8:2I:96:ASP:HB3	1.59	0.85
50:1s:27:GLU:HB2	50:1s:28:LYS:HA	1.59	0.85
32:2a:1086:U:H3	32:2a:1099:G:H22	1.23	0.85
1:1A:1264:G:OP1	27:15:19:ARG:NH2	2.07	0.85
1:2A:2138:C:N3	1:2A:2153:G:N2	2.25	0.85
21:2Z:141:VAL:HG13	21:2Z:144:LEU:HB3	1.59	0.84
10:2O:48:PRO:HB3	32:2a:1422:G:H5''	1.59	0.83
21:2Z:4:ARG:HG2	21:2Z:58:VAL:HB	1.59	0.83
1:2A:2592:G:OP1	59:2A:3905:HOH:O	1.95	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:559:A:H4'	32:2a:560:U:H3'	1.59	0.83
32:2a:1000:U:H2'	32:2a:1001:A:H8	1.41	0.83
1:1A:2136:C:N3	1:1A:2155:G:N2	2.26	0.83
10:2O:24:VAL:HG13	10:2O:33:ALA:HB2	1.60	0.83
32:2a:1256:A:H61	32:2a:1278:U:H1'	1.43	0.83
19:1X:57:LEU:HD11	19:1X:78:LYS:HE2	1.59	0.83
22:10:11:ARG:O	22:10:14:ARG:NH2	2.11	0.83
32:1a:945:G:OP2	59:1a:1903:HOH:O	1.97	0.83
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.14	0.83
32:1a:1030(C):G:N7	32:1a:1031:G:N2	2.26	0.82
11:2P:56:SER:HB2	11:2P:61:ARG:HD2	1.59	0.82
1:2A:2104:G:H1	1:2A:2185:C:N4	1.78	0.82
32:1a:501:C:OP1	43:1l:117:ARG:NH2	2.13	0.82
32:2a:584:G:H5'	48:2q:91:ARG:HH12	1.44	0.81
1:1A:279:C:H42	1:1A:361:G:H1	1.26	0.81
10:1O:48:PRO:HB3	32:1a:1422:G:H5''	1.63	0.81
44:2m:34:LEU:HD13	44:2m:41:PRO:HB3	1.62	0.81
1:1A:2592:G:OP1	59:1A:4217:HOH:O	1.98	0.81
1:1A:1970:A:OP1	59:1A:4216:HOH:O	1.98	0.81
1:1A:2756:U:O4	1:1A:2758:A:N6	2.14	0.81
1:1A:956:G:O6	59:1A:4220:HOH:O	1.99	0.80
1:2A:631:A:OP1	11:2P:65:ARG:NH1	2.13	0.80
35:1d:107:ARG:HH21	35:1d:194:LEU:HD21	1.43	0.80
32:2a:363:A:OP2	43:2l:34:ARG:NH1	2.15	0.80
32:2a:1030(A):G:N2	32:2a:1030(D):A:OP2	2.14	0.80
19:2X:57:LEU:HD11	19:2X:78:LYS:HE2	1.63	0.80
32:1a:975:A:H4'	32:1a:976:G:H5''	1.62	0.80
8:2I:89:TYR:CE1	8:2I:89:TYR:CZ	2.70	0.80
1:1A:2427:C:OP1	59:1A:4215:HOH:O	1.99	0.80
15:1T:35:LYS:HG2	15:1T:40:THR:HG22	1.63	0.80
34:2c:79:ARG:H	34:2c:82:GLU:HB3	1.47	0.80
1:1A:762:U:OP1	59:1A:4218:HOH:O	1.98	0.79
1:1A:2128:C:N4	1:1A:2160:G:H1	1.80	0.79
4:2E:127:ASP:OD2	59:2E:401:HOH:O	2.00	0.79
8:2I:69:LYS:HD2	8:2I:138:ILE:HG12	1.63	0.79
1:1A:2453:A:OP1	59:1A:4219:HOH:O	1.99	0.79
28:16:25:LYS:NZ	28:16:51:GLU:OE2	2.15	0.79
32:1a:407:G:H5''	35:1d:115:ARG:HG2	1.64	0.79
1:2A:1670:C:OP1	59:2A:3907:HOH:O	2.00	0.79
32:2a:1274:G:N2	32:2a:1275:A:N7	2.26	0.79
41:2j:35:SER:HB3	41:2j:73:ASP:HB2	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:55:ARG:H	26:14:56:VAL:HA	1.46	0.79
32:1a:1008:C:N3	32:1a:1021:G:O6	2.14	0.79
51:2t:50:GLU:HG3	51:2t:100:ILE:HD11	1.63	0.79
34:2c:118:GLN:HA	34:2c:121:ALA:HB3	1.63	0.79
1:1A:2136:C:N4	1:1A:2155:G:N1	2.30	0.79
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.15	0.79
1:1A:1669:A:OP2	59:1A:4214:HOH:O	2.01	0.79
59:1A:4213:HOH:O	4:1E:110:GLY:O	2.00	0.79
1:2A:2682:U:O2'	15:2T:58:ASN:ND2	2.15	0.79
1:1A:392:C:OP1	59:1A:4221:HOH:O	1.99	0.79
44:1m:58:GLU:O	44:1m:62:ASN:ND2	2.15	0.79
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.47	0.79
11:1P:52:GLU:OE1	11:1P:55:ARG:NH1	2.15	0.78
32:1a:1086:U:H3	32:1a:1099:G:H22	1.31	0.78
43:2l:32:PHE:HB3	43:2l:84:LEU:HD11	1.65	0.78
3:1D:180:GLY:HA3	3:1D:275:LYS:HG2	1.65	0.78
1:2A:1785:A:OP1	59:2A:3906:HOH:O	2.00	0.78
1:1A:301:G:OP2	20:1Y:84:ARG:NH2	2.17	0.78
1:1A:1014:U:OP2	59:1A:4224:HOH:O	2.02	0.78
1:1A:2163:C:OP1	1:1A:2165:G:N2	2.17	0.78
32:1a:1314:C:OP2	50:1s:4:SER:OG	2.00	0.78
1:1A:1653:G:H3'	13:1R:2:ARG:HD3	1.65	0.78
1:1A:1059:G:N2	1:1A:1079:C:N3	2.31	0.78
1:1A:1604:C:OP2	59:1A:4223:HOH:O	2.02	0.78
32:1a:877:C:OP1	39:1h:88:LYS:NZ	2.13	0.78
1:1A:272(G):C:H42	1:1A:363(C):G:H1	1.32	0.77
32:1a:1004:A:H5''	32:1a:1024:G:H22	1.49	0.77
32:1a:1027:C:C2	32:1a:1034:G:N2	2.52	0.77
6:2G:73:ALA:HB3	6:2G:85:GLY:H	1.47	0.77
32:1a:506:G:OP1	59:1a:1904:HOH:O	2.01	0.77
1:1A:272(J):C:H2'	1:1A:274:G:H8	1.50	0.77
1:1A:2405:G:H5''	11:1P:75:ILE:HG21	1.66	0.77
1:1A:792:G:O6	59:1A:4222:HOH:O	2.01	0.77
32:2a:953:G:H5'	32:2a:965:A:H61	1.47	0.77
1:1A:2123:G:H2'	1:1A:2124:G:H8	1.50	0.77
1:2A:64:A:N6	1:2A:90:U:O4	2.17	0.77
36:1e:144:THR:H	36:1e:147:ASP:HB2	1.50	0.77
1:2A:888:C:OP1	44:2m:93:ARG:NH1	2.18	0.77
32:2a:1402:4OC:HM22	32:2a:1403:C:H5'	1.64	0.77
35:1d:12:CYS:HB2	58:1d:501:SF4:S2	2.25	0.77
1:2A:228:A:OP1	11:2P:76:LYS:NZ	2.17	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2404:C:O3'	11:2P:77:ARG:NH2	2.18	0.77
1:2A:2162:G:H4'	1:2A:2172:U:H2'	1.67	0.76
12:1Q:18:LYS:O	12:1Q:98:LYS:NZ	2.15	0.76
43:1l:84:LEU:HB3	43:1l:104:VAL:HG21	1.67	0.76
51:1t:89:ARG:HH22	51:1t:103:GLY:HA3	1.51	0.76
6:1G:27:ASN:HB3	6:1G:30:GLU:HG3	1.67	0.76
1:2A:601:C:O2'	5:2F:104:LYS:NZ	2.19	0.76
48:2q:67:LYS:HA	48:2q:70:ARG:HH12	1.50	0.76
1:2A:857:C:OP2	22:20:77:ARG:NH2	2.19	0.76
8:2I:52:ARG:HA	8:2I:55:ALA:HB3	1.67	0.76
32:2a:376:G:H5''	47:2p:5:ARG:HB2	1.68	0.76
1:2A:987:G:O2'	1:2A:1000:A:N3	2.17	0.76
1:2A:2297:C:O2	1:2A:2321:G:N2	2.14	0.76
1:2A:2807:G:N1	1:2A:2893:G:O6	2.18	0.76
45:1n:4:LYS:HA	45:1n:7:ILE:HG23	1.68	0.76
1:1A:568:U:O2'	59:1A:4226:HOH:O	2.03	0.76
1:1A:1968:G:OP1	59:1A:4217:HOH:O	2.04	0.76
1:2A:587:C:OP2	11:2P:21:ARG:NH2	2.19	0.76
9:2N:20:GLY:HA2	9:2N:61:ARG:HD2	1.68	0.76
44:1m:65:LYS:HB2	44:1m:69:GLU:HG2	1.68	0.75
2:1B:31:C:O2	2:1B:53:A:N6	2.20	0.75
42:1k:99:GLN:HE21	42:1k:105:VAL:HG11	1.51	0.75
47:1p:67:THR:H	47:1p:70:ALA:HB3	1.50	0.75
1:2A:2127:G:O2'	1:2A:2173:A:N3	2.17	0.75
40:1i:50:LEU:HD13	40:1i:56:LEU:HA	1.68	0.75
1:1A:1990:C:OP2	59:1A:4225:HOH:O	2.03	0.75
1:2A:568:U:O4	59:2A:3911:HOH:O	2.05	0.75
1:2A:752:A:H3'	29:27:1:MET:HE1	1.68	0.75
33:2b:88:ALA:HB2	33:2b:219:VAL:HG13	1.67	0.75
1:1A:1648:C:OP1	59:1A:4227:HOH:O	2.03	0.75
1:1A:2683:C:O2	10:1O:70:LYS:NZ	2.15	0.75
40:1i:21:PRO:HA	40:1i:59:PHE:HA	1.68	0.75
42:1k:85:ARG:HD3	42:1k:113:PRO:HD3	1.67	0.75
1:2A:2821:A:OP2	59:2A:3908:HOH:O	2.03	0.75
32:2a:1000:U:H2'	32:2a:1001:A:C8	2.21	0.75
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	1.69	0.75
1:1A:441:U:O2	5:1F:46:ARG:NH2	2.20	0.74
32:1a:55:A:C5	32:1a:55:A:C8	2.75	0.74
1:2A:1968:G:OP1	59:2A:3905:HOH:O	2.04	0.74
2:1B:66:A:H61	2:1B:109:C:H5'	1.52	0.74
25:13:10:LYS:NZ	25:13:15:TYR:OH	2.20	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2448:A:OP1	59:2A:3909:HOH:O	2.04	0.74
14:2S:83:LYS:HB2	14:2S:111:GLU:HG3	1.67	0.74
32:2a:1129:C:O2'	32:2a:1130:A:N7	2.18	0.74
1:1A:631:A:OP1	11:1P:65:ARG:NH1	2.21	0.74
42:2k:62:GLN:OE1	42:2k:93:GLN:NE2	2.21	0.74
1:2A:2364:C:OP1	22:20:55:ARG:NH1	2.20	0.74
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.51	0.74
1:1A:1185:C:OP2	59:1A:4228:HOH:O	2.04	0.74
33:1b:21:ARG:HH22	33:1b:23:ARG:HD2	1.51	0.74
32:2a:959:A:HO2'	32:2a:984:C:HO2'	1.26	0.74
32:2a:1128:C:H1'	32:2a:1147:C:H42	1.53	0.74
26:14:16:CYS:SG	26:14:17:GLY:N	2.61	0.74
1:2A:218:A:OP2	59:2A:3912:HOH:O	2.05	0.74
23:21:23:LYS:HB3	23:21:29:GLY:HA3	1.68	0.74
32:2a:151:A:N6	32:2a:170:U:O2	2.18	0.74
1:1A:1418:G:N7	59:1A:4292:HOH:O	2.20	0.74
1:1A:2839:G:H5'	13:1R:46:GLY:HA2	1.69	0.74
1:1A:298:G:OP2	59:1A:4229:HOH:O	2.05	0.74
32:1a:518:C:O2'	32:1a:1492:A:N6	2.21	0.74
44:2m:37:THR:O	44:2m:55:ARG:NH1	2.21	0.74
1:1A:1930:G:O6	59:1A:4232:HOH:O	2.05	0.74
32:1a:584:G:H5'	48:1q:91:ARG:HH22	1.53	0.74
35:2d:122:ARG:NH1	35:2d:134:ASP:O	2.20	0.74
36:1e:78:HIS:HE1	36:1e:143:ARG:H	1.36	0.73
1:2A:1633:G:OP2	59:2A:3910:HOH:O	2.05	0.73
2:2B:48:A:H4'	14:2S:95:HIS:HD2	1.52	0.73
8:2I:78:THR:HG1	8:2I:143:SER:HG	1.24	0.73
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.69	0.73
11:2P:126:VAL:HG12	11:2P:148:LEU:HD22	1.69	0.73
2:2B:54:G:OP2	59:2B:301:HOH:O	2.07	0.73
20:2Y:77:PRO:HD2	20:2Y:106:LEU:HD22	1.70	0.73
34:2c:52:LEU:HD13	34:2c:68:VAL:HG13	1.67	0.73
1:1A:833:U:O2	11:1P:55:ARG:NH2	2.20	0.73
32:1a:642:A:N3	39:1h:113:SER:OG	2.21	0.73
32:2a:742:G:OP2	46:2o:35:ARG:NH1	2.22	0.73
1:1A:422:A:OP2	59:1A:4233:HOH:O	2.06	0.73
1:1A:1865:G:OP1	59:1A:4230:HOH:O	2.05	0.73
21:1Z:139:VAL:HG22	21:1Z:155:LEU:HD11	1.71	0.73
1:2A:2138:C:H42	1:2A:2153:G:H1	0.79	0.73
40:2i:46:ALA:HA	40:2i:78:LYS:HB2	1.71	0.73
1:2A:2436:G:O6	59:2A:3913:HOH:O	2.06	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:1P:50:ARG:HD3	30:18:7:HIS:HD2	1.53	0.73
32:1a:14:U:OP2	59:1a:1905:HOH:O	2.07	0.72
32:1a:1021:G:O2'	32:1a:1022:G:O5'	2.07	0.72
50:2s:11:VAL:O	50:2s:13:ASP:N	2.21	0.72
1:1A:467:G:OP1	29:17:33:ARG:NH1	2.22	0.72
1:1A:637:A:H8	11:1P:117:GLU:HG3	1.52	0.72
1:1A:2452:C:OP1	59:1A:4234:HOH:O	2.07	0.72
2:1B:89:G:OP1	59:1B:301:HOH:O	2.06	0.72
1:2A:2057:A:OP2	59:2A:3915:HOH:O	2.07	0.72
1:2A:2589:A:OP1	59:2A:3914:HOH:O	2.07	0.72
3:2D:71:ASP:HB2	3:2D:103:ARG:HH12	1.53	0.72
1:2A:602:G:O2'	1:2A:655:A:N6	2.23	0.72
35:1d:15:GLU:OE2	35:1d:66:ARG:NH1	2.22	0.72
39:1h:119:LEU:HB3	39:1h:123:GLU:HB2	1.71	0.72
44:1m:80:ARG:NH1	50:1s:65:ASN:O	2.21	0.72
46:2o:87:ILE:HG22	46:2o:88:ARG:H	1.55	0.72
1:2A:1204:A:H2	1:2A:1241:A:H62	1.36	0.72
1:2A:1689:A:H62	1:2A:1698:A:H2	1.37	0.72
21:2Z:45:ASP:OD1	21:2Z:49:ARG:NH1	2.21	0.72
24:22:32:LEU:HD11	24:22:54:LYS:HG3	1.70	0.72
40:2i:23:ASN:HD21	40:2i:25:LYS:HG2	1.55	0.72
1:1A:918:A:N3	2:1B:80:U:O2'	2.22	0.72
8:1I:79:ILE:HD13	8:1I:92:VAL:HG21	1.71	0.72
32:2a:642:A:N3	39:2h:113:SER:OG	2.23	0.72
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.25	0.72
21:2Z:100:VAL:HG21	21:2Z:134:PRO:HG2	1.72	0.72
43:1I:70:ILE:HG12	43:1I:100:ILE:HD12	1.70	0.72
15:2T:41:ARG:NH2	32:2a:346:G:OP1	2.22	0.72
32:2a:1232:U:OP1	40:2i:124:GLN:NE2	2.23	0.72
3:1D:8:PRO:HB3	3:1D:14:ARG:HB3	1.72	0.72
17:1V:76:LYS:HB2	17:1V:81:TYR:HB3	1.71	0.72
32:1a:812:C:N3	59:1a:1919:HOH:O	2.22	0.72
1:2A:994:C:H3'	16:2U:54:LYS:HE3	1.71	0.72
32:2a:1381:U:H1'	38:2g:79:ARG:HE	1.55	0.72
1:2A:637:A:H8	11:2P:117:GLU:HG3	1.54	0.71
1:2A:2552:2MU:OP2	59:2A:3917:HOH:O	2.08	0.71
1:1A:530:G:N1	1:1A:2023:G:OP1	2.22	0.71
1:1A:1062:G:P	1:1A:1070:A:H1'	2.30	0.71
1:1A:2100:G:H1	1:1A:2189:U:H3	0.76	0.71
33:1b:69:LEU:HD23	33:1b:91:PRO:HB2	1.72	0.71
46:1o:54:ARG:HG2	46:1o:58:MET:HE2	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.23	0.71
32:2a:823:G:H1	32:2a:877:C:H42	1.36	0.71
1:1A:307:G:N7	59:1A:4306:HOH:O	2.23	0.71
1:1A:2749:A:OP1	7:1H:3:ARG:NH1	2.22	0.71
3:1D:71:ASP:HB3	3:1D:103:ARG:HH12	1.54	0.71
32:1a:559:A:OP1	36:1e:126:ARG:NH2	2.22	0.71
32:1a:1108:G:O6	59:1a:1906:HOH:O	2.07	0.71
32:2a:401:C:OP2	35:2d:73:ARG:NH2	2.23	0.71
32:2a:1027:C:N4	32:2a:1036:G:O6	2.22	0.71
12:1Q:111:GLU:OE2	12:1Q:133:ARG:NH2	2.23	0.71
32:1a:1445:C:O2'	32:1a:1447:A:N6	2.24	0.71
1:1A:448:U:OP2	59:1A:4237:HOH:O	2.09	0.71
34:1c:131:ARG:HH11	34:1c:166:GLU:HG3	1.53	0.71
39:2h:34:GLU:HB3	39:2h:118:VAL:HG11	1.72	0.71
44:2m:31:LYS:HA	44:2m:34:LEU:HD12	1.72	0.71
1:1A:2646:C:OP2	1:1A:2732:G:O2'	2.07	0.71
32:1a:719:C:H1'	49:1r:49:LYS:HB3	1.73	0.71
1:2A:586:A:N1	1:2A:809:G:O2'	2.22	0.71
1:2A:761:A:OP2	59:2A:3923:HOH:O	2.09	0.71
1:2A:2292:C:OP1	14:2S:17:ARG:NH2	2.21	0.71
1:1A:248:G:OP1	59:1A:4236:HOH:O	2.08	0.71
1:1A:2379:G:O2'	14:1S:17:ARG:NH1	2.20	0.71
1:1A:1058:G:H1	1:1A:1080:C:H42	1.36	0.71
32:1a:574:A:OP2	59:1a:1909:HOH:O	2.09	0.71
1:2A:222:A:OP1	59:2A:3920:HOH:O	2.09	0.71
1:2A:1975:G:OP2	59:2A:3919:HOH:O	2.09	0.71
1:1A:918:A:O2'	2:1B:97:G:N2	2.24	0.70
1:1A:2123:G:H1	1:1A:2175:C:N4	1.89	0.70
39:1h:9:MET:HE3	39:1h:32:LYS:HB3	1.72	0.70
1:2A:882:G:H1	1:2A:894:C:H42	1.39	0.70
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.73	0.70
32:2a:1011:G:H1	32:2a:1018:C:N4	1.88	0.70
41:2j:6:ILE:HG12	41:2j:98:ILE:HG22	1.72	0.70
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.26	0.70
1:2A:2518:A:OP2	59:2A:3916:HOH:O	2.08	0.70
32:2a:117:G:OP2	59:2a:3302:HOH:O	2.08	0.70
32:2a:1133:G:N2	32:2a:1141:C:N3	2.37	0.70
35:2d:18:LYS:NZ	35:2d:31:CYS:SG	2.64	0.70
39:2h:119:LEU:HB3	39:2h:123:GLU:HG3	1.72	0.70
1:1A:1784:A:OP2	59:1A:4241:HOH:O	2.09	0.70
1:2A:2126:A:N6	1:2A:2162:G:O2'	2.23	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:86:C:H4'	1:1A:104:U:H1'	1.72	0.70
3:1D:242:ARG:O	59:1D:401:HOH:O	2.08	0.70
18:2W:34:ASN:OD1	18:2W:37:ARG:NH2	2.25	0.70
44:2m:33:ALA:O	44:2m:37:THR:OG1	2.08	0.70
1:1A:2059:A:OP2	59:1A:4235:HOH:O	2.08	0.70
1:1A:2153:G:H2'	1:1A:2154:G:H8	1.56	0.70
1:1A:2855:C:H2'	1:1A:2856:C:H6	1.56	0.70
1:1A:2156:G:H2'	1:1A:2157:G:C2	2.27	0.70
23:11:77:ALA:HB2	23:11:94:LEU:HD21	1.73	0.70
32:1a:766:A:OP2	59:1a:1907:HOH:O	2.08	0.70
1:2A:198:C:OP2	59:2A:3903:HOH:O	2.10	0.70
1:2A:2049:G:N7	59:2A:3976:HOH:O	2.25	0.70
32:1a:558:G:OP1	59:1a:1908:HOH:O	2.09	0.70
51:1t:83:ARG:HA	51:1t:86:ARG:HH11	1.57	0.70
1:1A:995:C:OP2	16:1U:54:LYS:NZ	2.25	0.70
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.27	0.70
5:1F:32:LEU:HD13	5:1F:112:MET:HE1	1.73	0.70
1:2A:2547:U:O2	10:2O:23:ARG:NH2	2.25	0.70
32:2a:903:G:OP1	59:2a:3303:HOH:O	2.10	0.70
32:2a:1273:G:H3'	32:2a:1274:G:H8	1.56	0.70
22:10:27:GLU:HG3	22:10:68:GLU:HA	1.73	0.69
44:1m:3:ARG:HG2	44:1m:8:GLU:HA	1.72	0.69
1:1A:1332:G:OP1	59:1A:4243:HOH:O	2.09	0.69
1:2A:2502:G:OP2	59:2A:3918:HOH:O	2.08	0.69
1:1A:615:G:OP2	5:1F:43:LYS:NZ	2.24	0.69
1:1A:2589:A:OP1	59:1A:4240:HOH:O	2.09	0.69
32:1a:1008:C:O2	32:1a:1021:G:N1	2.21	0.69
54:1x:8:4SU:O2	54:1x:21:A:H2	1.75	0.69
1:2A:1604:C:OP1	59:2A:3922:HOH:O	2.09	0.69
1:2A:1671:U:OP2	59:2A:3907:HOH:O	2.10	0.69
32:2a:9:G:H2'	32:2a:10:A:H8	1.58	0.69
32:1a:1002:G:H3'	32:1a:1003:G:H4'	1.75	0.69
30:28:33:ASN:HA	30:28:36:LYS:HD2	1.74	0.69
1:1A:962:G:OP1	59:1A:4242:HOH:O	2.09	0.69
11:1P:42:SER:O	59:1P:302:HOH:O	2.10	0.69
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.74	0.69
1:2A:745:G:O6	59:2A:3925:HOH:O	2.10	0.69
1:2A:2242:G:OP1	59:2A:3927:HOH:O	2.10	0.69
7:2H:33:LEU:HD21	7:2H:136:ILE:HB	1.75	0.69
38:2g:115:ARG:HG2	38:2g:118:VAL:HG23	1.74	0.69
1:1A:1324:G:OP2	59:1A:4246:HOH:O	2.10	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.73	0.69
1:1A:511:U:OP2	59:1A:4249:HOH:O	2.11	0.69
1:1A:1010:A:OP2	59:1A:4247:HOH:O	2.10	0.69
26:14:58:ARG:HG3	50:1s:68:GLY:H	1.56	0.69
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.28	0.69
1:2A:1434:A:H61	1:2A:1558:A:H62	1.40	0.69
7:2H:15:VAL:HG12	7:2H:29:PRO:HD3	1.74	0.69
23:21:2:SER:HB3	23:21:46:LEU:HD12	1.74	0.69
32:2a:316:G:OP2	32:2a:351:G:O2'	2.10	0.69
1:1A:399:G:OP2	59:1A:4244:HOH:O	2.09	0.69
1:1A:1244:G:OP2	59:1A:4239:HOH:O	2.09	0.69
1:1A:2131:G:N2	1:1A:2133:G:N3	2.41	0.69
9:1N:77:GLY:O	59:1N:301:HOH:O	2.09	0.69
52:1u:17:THR:O	52:1u:22:ARG:NH1	2.26	0.69
1:2A:637:A:H5''	11:2P:117:GLU:HG2	1.73	0.69
32:2a:596:C:O2	32:2a:644:G:N2	2.17	0.69
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.75	0.69
1:1A:2206:G:H3'	1:1A:2207:G:C8	2.29	0.69
35:1d:100:ARG:HH22	35:1d:118:ARG:HH21	1.39	0.69
44:1m:23:TYR:HB3	44:1m:67:GLU:HA	1.74	0.69
1:2A:1383:C:O2	59:2A:3924:HOH:O	2.09	0.69
32:2a:539:A:H2'	32:2a:540:G:C8	2.28	0.69
1:1A:773:U:OP1	59:1A:4238:HOH:O	2.09	0.68
16:1U:27:LEU:HB3	16:1U:31:SER:HB3	1.72	0.68
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.75	0.68
1:1A:602:G:O2'	1:1A:655:A:N6	2.26	0.68
1:1A:2499:C:OP1	59:1A:4253:HOH:O	2.11	0.68
1:2A:2042:A:OP1	59:2A:3931:HOH:O	2.12	0.68
41:2j:17:ASP:OD1	41:2j:70:ARG:NE	2.25	0.68
44:2m:107:ALA:HB3	44:2m:111:LYS:HE3	1.74	0.68
1:1A:1047:G:H2'	1:1A:1110:G:H22	1.56	0.68
1:1A:1997:G:OP2	59:1A:4248:HOH:O	2.11	0.68
1:1A:2285:C:OP2	28:16:6:ARG:NH1	2.26	0.68
35:1d:88:VAL:HA	36:1e:97:GLY:HA3	1.74	0.68
54:2x:40:C:H2'	54:2x:41:C:H6	1.58	0.68
1:1A:400:G:N7	59:1A:4321:HOH:O	2.25	0.68
1:1A:2550:G:OP1	59:1A:4214:HOH:O	2.10	0.68
1:2A:271(H):G:H5'	23:21:81:LYS:HE3	1.74	0.68
1:2A:370:G:OP2	59:2A:3928:HOH:O	2.11	0.68
4:2E:105:THR:OG1	4:2E:199:ARG:NH2	2.25	0.68
12:2Q:26:TYR:O	12:2Q:67:ARG:NH1	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1453:U:O2'	1:1A:1455:G:N7	2.27	0.68
3:1D:12:SER:HB3	3:1D:208:LYS:HB3	1.74	0.68
8:1I:129:THR:HG22	8:1I:139:GLN:HE22	1.59	0.68
15:2T:85:LYS:NZ	15:2T:87:ASP:OD2	2.25	0.68
32:2a:1011:G:H1	32:2a:1018:C:H42	1.40	0.68
32:2a:1245:A:H61	32:2a:1292:U:H3	1.41	0.68
30:18:6:THR:HG22	30:18:63:PRO:HD2	1.76	0.68
35:1d:3:ARG:HD3	35:1d:118:ARG:HD2	1.75	0.68
34:2c:47:LEU:HB3	34:2c:52:LEU:HB2	1.75	0.68
1:1A:2763:G:OP2	59:1A:4251:HOH:O	2.11	0.68
41:1j:38:ILE:HG13	41:1j:71:LEU:HB3	1.76	0.68
1:2A:89:G:H3'	1:2A:90:U:H5''	1.76	0.68
32:2a:1029:C:N4	32:2a:1031:G:O6	2.27	0.68
43:2l:60:LEU:HD11	43:2l:66:VAL:HG22	1.75	0.68
20:1Y:15:VAL:HG21	20:1Y:42:VAL:HG11	1.76	0.68
37:1f:89:MET:HE1	49:1r:72:ARG:HB3	1.74	0.68
47:1p:53:VAL:HG13	47:1p:79:VAL:HG22	1.76	0.68
21:2Z:48:PHE:HE1	21:2Z:71:VAL:HG11	1.58	0.68
1:1A:2366:A:OP1	59:1A:4250:HOH:O	2.11	0.68
32:1a:330:C:O2	59:1a:1910:HOH:O	2.12	0.68
13:2R:97:VAL:HG22	13:2R:114:VAL:HG13	1.76	0.68
1:1A:1448:G:O2'	1:1A:1528(A):A:N1	2.28	0.67
20:1Y:30:VAL:HG22	20:1Y:37:VAL:HG12	1.76	0.67
32:1a:356:A:N3	32:1a:368:U:O2'	2.26	0.67
51:1t:29:LYS:HD2	51:1t:71:THR:HG21	1.74	0.67
1:2A:761:A:OP1	59:2A:3930:HOH:O	2.12	0.67
1:2A:782:A:OP2	59:2A:3933:HOH:O	2.12	0.67
1:2A:870:A:OP1	12:2Q:6:ARG:NE	2.26	0.67
32:2a:737:A:H1'	37:2f:73:ASN:HD21	1.59	0.67
1:1A:2483:C:N3	12:1Q:124:LYS:NZ	2.39	0.67
4:1E:12:THR:HG21	15:1T:11:GLU:HG2	1.76	0.67
32:1a:1075:C:OP1	33:1b:179:LYS:NZ	2.22	0.67
36:1e:7:GLU:OE2	36:1e:37:ARG:NH2	2.27	0.67
1:2A:2746:U:OP1	7:2H:85:LYS:NZ	2.26	0.67
3:2D:2:ALA:N	3:2D:200:ASP:OD2	2.28	0.67
5:2F:18:ARG:NH1	5:2F:127:GLU:OE2	2.27	0.67
21:2Z:31:ARG:HH11	21:2Z:94:GLU:HG2	1.58	0.67
32:2a:677:U:H3	32:2a:713:G:H22	1.42	0.67
33:2b:87:ARG:HH11	33:2b:219:VAL:HG12	1.60	0.67
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.26	0.67
3:1D:37:LEU:HD13	3:1D:62:TYR:HB2	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:987:G:H1	32:1a:1218:C:N4	1.92	0.67
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.25	0.67
8:2I:38:LEU:H	8:2I:38:LEU:HD12	1.60	0.67
21:2Z:153:SER:HB2	21:2Z:167:PRO:HB3	1.76	0.67
32:2a:1348:U:H4'	40:2i:120:ARG:HD2	1.76	0.67
1:2A:2808:U:O2	1:2A:2892:A:N6	2.28	0.67
21:2Z:41:LEU:HD11	21:2Z:82:ARG:HH12	1.59	0.67
32:2a:890:G:O2'	32:2a:906:G:O6	2.13	0.67
33:2b:179:LYS:HD3	39:2h:72:PRO:HG3	1.76	0.67
1:2A:1507:A:O2'	1:2A:1508:A:O4'	2.12	0.67
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.76	0.67
34:1c:19:GLU:O	34:1c:40:ARG:NH2	2.28	0.67
1:2A:2608:G:N7	59:2A:3992:HOH:O	2.28	0.67
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.77	0.67
32:2a:976:G:H5'	32:2a:1358:U:O2'	1.95	0.67
1:1A:1069:A:H1'	1:1A:1096:A:H4'	1.76	0.67
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.29	0.67
6:1G:5:VAL:HG23	6:1G:8:LYS:HE2	1.76	0.67
43:1I:47:LYS:HG2	43:1I:48:PRO:HA	1.77	0.67
1:2A:1713:U:H2'	1:2A:1714:G:H8	1.60	0.67
1:1A:1183:G:O2'	25:13:29:ARG:NH1	2.28	0.67
1:1A:2445:G:OP1	5:1F:74:ARG:NH2	2.28	0.67
34:2c:70:VAL:O	34:2c:106:VAL:N	2.26	0.67
32:1a:1009:G:O6	32:1a:1020:U:O2	2.13	0.67
33:1b:82:ARG:NH1	33:1b:92:TYR:OH	2.28	0.67
1:2A:1376:C:OP2	59:2A:3929:HOH:O	2.11	0.67
32:2a:664:G:H22	32:2a:741:G:H1	1.39	0.67
32:2a:1060:C:H5''	41:2j:51:ARG:HG2	1.77	0.67
5:2F:24:LEU:HD23	5:2F:115:ALA:HA	1.76	0.67
35:2d:156:GLU:HA	35:2d:159:ARG:HE	1.59	0.67
32:1a:1352:C:OP1	52:1u:3:LYS:NZ	2.23	0.66
1:2A:1339:G:H5''	19:2X:16:LYS:HD3	1.77	0.66
1:2A:1939:5MU:OP1	1:2A:2604:U:O2'	2.14	0.66
1:1A:527:C:OP1	59:1A:4260:HOH:O	2.14	0.66
1:2A:1648:C:OP1	59:2A:3934:HOH:O	2.12	0.66
1:2A:2759:G:OP2	59:2A:3932:HOH:O	2.12	0.66
1:1A:1064:C:H1'	1:1A:1076:C:H5	1.60	0.66
1:1A:2331:G:N7	59:1A:4331:HOH:O	2.27	0.66
3:1D:2:ALA:N	59:1D:403:HOH:O	2.28	0.66
34:1c:56:ASP:HB2	34:1c:67:THR:HB	1.76	0.66
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2445:G:OP1	5:2F:74:ARG:NH2	2.29	0.66
32:2a:1345:U:OP2	59:2a:3305:HOH:O	2.14	0.66
1:1A:2140:C:N3	1:1A:2151:G:O6	2.28	0.66
2:1B:13:A:N1	2:1B:69:G:O2'	2.24	0.66
24:12:32:LEU:HD11	24:12:54:LYS:HG3	1.75	0.66
43:2l:84:LEU:HB3	43:2l:104:VAL:HG21	1.76	0.66
1:1A:249:C:O2	30:18:12:LYS:NZ	2.22	0.66
1:1A:1315:C:OP2	59:1A:4243:HOH:O	2.12	0.66
1:1A:2099:U:O2	1:1A:2190:G:N2	2.23	0.66
2:1B:105:A:OP1	21:1Z:72:ARG:NH1	2.27	0.66
3:1D:241:PRO:O	59:1D:402:HOH:O	2.12	0.66
8:1I:75:LEU:HD22	8:1I:105:HIS:HD2	1.59	0.66
32:1a:1047:G:H5''	45:1n:4:LYS:HD3	1.75	0.66
1:2A:2206:G:H5''	1:2A:2207:G:N7	2.11	0.66
32:2a:369:C:H42	32:2a:392:G:H1	1.44	0.66
1:1A:1890:A:OP2	59:1A:4264:HOH:O	2.14	0.66
3:2D:180:GLY:HA3	3:2D:275:LYS:HG2	1.77	0.66
15:2T:51:ARG:HB2	15:2T:98:LYS:HD2	1.76	0.66
34:2c:11:ARG:NH2	34:2c:177:THR:O	2.29	0.66
13:1R:53:HIS:ND1	13:1R:94:TYR:OH	2.27	0.66
22:10:10:THR:HG22	22:10:12:ASN:H	1.60	0.66
15:2T:27:THR:HB	15:2T:89:VAL:HG22	1.77	0.66
32:2a:1347:G:H5''	40:2i:107:ARG:HB3	1.78	0.66
1:1A:1252:G:OP2	59:1A:4255:HOH:O	2.13	0.66
1:1A:1658:C:OP1	59:1A:4254:HOH:O	2.12	0.66
1:1A:2130:U:H2'	1:1A:2158:A:H61	1.61	0.66
1:1A:2155:G:H3'	1:1A:2156:G:H8	1.60	0.66
1:1A:2588:G:OP1	59:1A:4257:HOH:O	2.13	0.66
3:1D:17:THR:O	3:1D:211:ARG:NH2	2.27	0.66
18:1W:4:LYS:HD2	18:1W:6:ILE:HD11	1.77	0.66
3:2D:146:GLU:HB2	3:2D:189:CYS:HB3	1.78	0.66
1:1A:1930:G:O2'	1:1A:1968:G:O6	2.11	0.66
33:1b:162:ILE:HD11	33:1b:184:VAL:HG22	1.78	0.66
1:2A:1299:G:OP1	59:2A:3936:HOH:O	2.14	0.66
7:2H:125:VAL:HG22	7:2H:131:VAL:HG22	1.79	0.66
1:1A:1528:A:OP2	59:1A:4267:HOH:O	2.15	0.65
1:1A:1859:A:N6	1:1A:1883:G:O2'	2.29	0.65
1:2A:465:G:O6	59:2A:3926:HOH:O	2.10	0.65
34:2c:148:GLY:HA3	34:2c:203:PHE:HB3	1.79	0.65
1:1A:2400:G:O6	59:1A:4258:HOH:O	2.13	0.65
1:2A:463:G:OP2	59:2A:3938:HOH:O	2.14	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1022:G:N2	1:2A:1023:U:O4	2.29	0.65
2:2B:26:A:O2'	59:2B:302:HOH:O	2.14	0.65
5:2F:155:LEU:HB2	5:2F:189:THR:HG21	1.78	0.65
1:1A:1105:U:H2'	1:1A:1106:G:C8	2.32	0.65
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.79	0.65
1:1A:449:A:N7	59:1A:4351:HOH:O	2.29	0.65
4:1E:105:THR:OG1	4:1E:199:ARG:NH2	2.30	0.65
32:1a:1159:U:O4'	32:1a:1182:G:N2	2.30	0.65
46:1o:74:ASP:HB3	46:1o:77:ARG:HB2	1.76	0.65
1:2A:1688:U:O2	1:2A:1700:A:H5'	1.95	0.65
1:1A:578:A:OP2	59:1A:4259:HOH:O	2.13	0.65
24:12:63:VAL:HA	24:12:66:GLU:HG2	1.79	0.65
28:16:11:LEU:HB2	28:16:21:TYR:HB2	1.77	0.65
32:1a:412:A:OP2	35:1d:35:ARG:NH2	2.29	0.65
46:1o:55:GLY:HA2	46:1o:58:MET:HE3	1.78	0.65
11:2P:62:LEU:HD11	30:28:50:LEU:HD11	1.78	0.65
1:1A:217:G:OP2	59:1A:4269:HOH:O	2.15	0.65
26:14:55:ARG:N	26:14:56:VAL:HA	2.10	0.65
1:2A:2248:C:OP2	59:2A:3939:HOH:O	2.15	0.65
40:2i:16:ARG:HB2	40:2i:64:THR:HG22	1.77	0.65
8:1I:77:LEU:HB3	8:1I:142:VAL:HG12	1.79	0.65
2:2B:22:U:H3	2:2B:61:G:H1	1.45	0.65
32:2a:560:U:OP2	59:2a:3307:HOH:O	2.14	0.65
1:1A:761:A:N7	59:1A:4358:HOH:O	2.29	0.65
1:1A:2176:A:H2'	1:1A:2177:C:C6	2.32	0.65
1:1A:2532:G:O2'	1:1A:2657:A:N1	2.30	0.65
32:1a:1010:G:N2	32:1a:1020:U:O2'	2.30	0.65
32:2a:1280:A:H5'	41:2j:41:PRO:HD2	1.79	0.65
1:1A:2867:G:OP2	15:1T:119:LYS:NZ	2.22	0.65
32:1a:103:C:O2'	32:1a:172:A:N1	2.27	0.65
32:1a:452:A:H4'	47:1p:72:ARG:CZ	2.26	0.65
32:1a:1070:U:H2'	32:1a:1071:C:H6	1.62	0.65
46:1o:39:LEU:HD13	46:1o:56:LEU:HB2	1.76	0.65
1:2A:1603:A:OP1	59:2A:3937:HOH:O	2.14	0.65
32:2a:610:G:OP2	59:2a:3306:HOH:O	2.14	0.65
33:2b:74:LYS:NZ	33:2b:205:ASP:O	2.29	0.65
24:12:32:LEU:HD22	24:12:36:ARG:HH11	1.62	0.65
32:1a:673:G:H2'	32:1a:674:G:C8	2.32	0.65
34:2c:119:ARG:HE	34:2c:140:ARG:NH2	1.95	0.65
37:2f:99:ALA:HB2	49:2r:31:LEU:HD11	1.78	0.65
44:2m:33:ALA:HB2	44:2m:64:TRP:HH2	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:2r:32:ARG:HA	49:2r:69:THR:HG21	1.79	0.65
1:1A:1358:G:OP2	59:1A:4263:HOH:O	2.14	0.64
34:1c:64:VAL:HG12	34:1c:99:VAL:HA	1.78	0.64
41:1j:27:ALA:HA	41:1j:81:THR:HG21	1.79	0.64
1:2A:783:A:OP2	59:2A:3914:HOH:O	2.14	0.64
1:2A:796:C:H2'	1:2A:797:C:C6	2.32	0.64
11:2P:89:ALA:HA	11:2P:121:LYS:HD3	1.79	0.64
14:2S:104:GLY:HA2	14:2S:107:GLU:HB2	1.80	0.64
32:2a:790:A:OP1	54:2x:38:A:O2'	2.15	0.64
1:1A:2350:C:OP2	59:1A:4268:HOH:O	2.15	0.64
32:1a:972:C:OP2	41:1j:57:LYS:NZ	2.23	0.64
1:2A:2741:A:OP1	31:29:22:ARG:NH2	2.27	0.64
8:2I:78:THR:O	8:2I:104:GLN:NE2	2.30	0.64
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.78	0.64
32:2a:1490:C:H2'	32:2a:1491:G:O4'	1.98	0.64
34:2c:32:LEU:HD21	34:2c:59:ARG:HD2	1.78	0.64
1:1A:1456:G:OP2	59:1A:4266:HOH:O	2.14	0.64
1:1A:1828:G:OP2	59:1A:4256:HOH:O	2.13	0.64
1:1A:2280:G:O2'	1:1A:2388:A:N1	2.30	0.64
1:1A:2304:G:H22	1:1A:2312:U:H3	1.44	0.64
1:1A:2502:G:OP2	59:1A:4261:HOH:O	2.14	0.64
40:1i:13:ALA:HB2	40:1i:68:GLY:HA3	1.79	0.64
1:1A:2815:C:H5'	27:15:29:THR:HG21	1.80	0.64
11:1P:29:LYS:HD3	11:1P:30:THR:HG23	1.79	0.64
33:1b:29:ALA:HA	33:1b:32:ILE:HG13	1.78	0.64
1:2A:253:C:OP2	30:28:5:LYS:NZ	2.24	0.64
1:1A:1975:G:OP2	59:1A:4265:HOH:O	2.14	0.64
1:1A:2123:G:H2'	1:1A:2124:G:C8	2.33	0.64
1:1A:2242:G:OP1	59:1A:4270:HOH:O	2.15	0.64
21:1Z:21:ALA:O	21:1Z:23:LYS:NZ	2.30	0.64
23:11:18:ILE:HG12	23:11:37:ILE:HG23	1.79	0.64
32:1a:936:C:O2	32:1a:1382:C:N4	2.30	0.64
39:1h:96:GLY:N	39:1h:99:GLU:OE1	2.30	0.64
54:1x:75:C:OP1	59:1x:201:HOH:O	2.15	0.64
17:2V:62:LEU:HD21	17:2V:95:LEU:HB2	1.80	0.64
1:1A:1518:U:H2'	1:1A:1519:G:O4'	1.97	0.64
4:1E:170:LEU:HB3	4:1E:184:VAL:HG22	1.80	0.64
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.13	0.64
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.33	0.64
32:1a:1518:MA6:N6	32:1a:1519:MA6:H103	2.12	0.64
1:2A:1814:G:H5''	3:2D:54:ARG:HH21	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:104:ASN:OD1	33:2b:107:THR:OG1	2.14	0.64
40:2i:85:LEU:O	40:2i:89:ASN:N	2.31	0.64
1:1A:1816:G:O6	3:1D:35:LYS:NZ	2.28	0.64
11:1P:126:VAL:HG12	11:1P:148:LEU:HD22	1.80	0.64
23:11:65:SER:OG	23:11:66:HIS:ND1	2.24	0.64
32:1a:974:A:OP2	45:1n:41:ARG:NH2	2.29	0.64
32:1a:1035:A:N3	32:1a:1036:G:N2	2.46	0.64
1:2A:2189:U:H2'	1:2A:2190:G:C8	2.33	0.64
6:2G:42:GLY:O	6:2G:44:GLY:N	2.30	0.64
34:2c:53:ALA:HB2	34:2c:115:LEU:HD13	1.80	0.64
35:2d:50:ARG:HD3	35:2d:51:PRO:HD2	1.79	0.64
1:2A:1226:A:OP1	17:2V:84:LYS:NZ	2.27	0.64
1:2A:2615:U:OP1	59:2A:3940:HOH:O	2.15	0.64
6:2G:120:LEU:N	6:2G:179:PRO:O	2.29	0.64
8:2I:84:GLY:H	8:2I:87:LYS:HG2	1.62	0.64
1:1A:286:C:H2'	1:1A:287:C:C6	2.33	0.64
32:1a:67:C:H2'	32:1a:68:G:C8	2.33	0.64
33:1b:24:TRP:HZ3	33:1b:29:ALA:HB2	1.61	0.64
1:2A:531:C:OP1	1:2A:561:G:N1	2.29	0.64
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.79	0.64
41:2j:30:SER:O	41:2j:81:THR:OG1	2.14	0.64
1:1A:952:G:OP1	12:1Q:16:ARG:NH2	2.31	0.63
35:1d:31:CYS:SG	35:1d:32:ALA:N	2.70	0.63
1:2A:1693:U:O2'	3:2D:14:ARG:NH2	2.30	0.63
32:2a:373:A:O2'	32:2a:451:A:N7	2.30	0.63
32:2a:1327:C:OP1	52:2u:12:LYS:NZ	2.31	0.63
39:2h:10:LEU:HD22	39:2h:83:ILE:HD11	1.80	0.63
11:1P:63:PRO:HG2	30:18:25:MET:HB2	1.79	0.63
32:1a:67:C:H2'	32:1a:68:G:H8	1.63	0.63
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.79	0.63
1:1A:807:U:OP2	11:1P:41:ARG:NH2	2.31	0.63
32:1a:1036:G:H5''	32:1a:1037:C:C5	2.32	0.63
1:2A:2801(A):A:H5'	1:2A:2802:G:C8	2.33	0.63
32:2a:266:G:H5''	32:2a:268:C:H41	1.63	0.63
32:2a:328:C:H4'	32:2a:329:A:H5'	1.80	0.63
38:2g:20:ASP:HB3	38:2g:23:VAL:HB	1.80	0.63
1:1A:1300:U:H4'	1:1A:1301:A:H5''	1.80	0.63
1:1A:1603:A:OP1	59:1A:4223:HOH:O	2.16	0.63
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.33	0.63
5:2F:155:LEU:HD23	5:2F:192:LEU:HD13	1.79	0.63
1:1A:583:G:N7	59:1A:4369:HOH:O	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1456:G:O6	51:1t:54:LYS:NZ	2.29	0.63
1:2A:882:G:H1	1:2A:894:C:N4	1.97	0.63
1:2A:2141:G:O6	1:2A:2150:U:O2	2.16	0.63
5:2F:185:ASP:HA	5:2F:188:ARG:HD3	1.79	0.63
11:2P:37:GLY:O	11:2P:40:SER:OG	2.14	0.63
33:2b:95:GLN:HG3	33:2b:147:LYS:HG3	1.80	0.63
1:1A:2079:U:O3'	23:11:35:THR:OG1	2.17	0.63
23:11:54:ALA:HB1	23:11:83:GLU:HG3	1.80	0.63
1:2A:2065:C:H4'	1:2A:2251:OMG:HM23	1.80	0.63
1:2A:2405:G:H5''	11:2P:75:ILE:HG21	1.79	0.63
1:2A:2815:C:H5'	27:25:29:THR:HG21	1.80	0.63
32:2a:56:U:H2'	32:2a:57:G:C8	2.34	0.63
32:2a:501:C:H2'	32:2a:502:G:H8	1.63	0.63
1:1A:955:C:OP1	12:1Q:87:LYS:HE3	1.98	0.63
1:1A:1153:C:OP2	59:1A:4271:HOH:O	2.16	0.63
32:1a:128:G:O2'	48:1q:3:LYS:NZ	2.31	0.63
32:1a:1035:A:H2'	32:1a:1036:G:H21	1.64	0.63
1:2A:1815:A:P	3:2D:54:ARG:HH22	2.21	0.63
1:2A:1865:G:N2	1:2A:1877:A:OP2	2.31	0.63
1:2A:2562:U:H1'	10:2O:23:ARG:HE	1.64	0.63
13:2R:117:VAL:HG12	13:2R:118:GLU:H	1.62	0.63
17:2V:40:LEU:HB2	17:2V:46:VAL:HB	1.80	0.63
41:1j:8:LEU:HD22	41:1j:96:ILE:HG22	1.80	0.63
1:2A:2129:C:N3	1:2A:2159:G:N2	2.45	0.63
9:2N:104:LYS:HA	9:2N:107:LEU:HD12	1.79	0.63
26:24:16:CYS:SG	26:24:17:GLY:N	2.71	0.63
7:1H:149:ARG:NH1	7:1H:167:GLU:OE2	2.30	0.63
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.79	0.63
1:2A:2313:C:H2'	1:2A:2314:C:H6	1.63	0.63
10:2O:49:ARG:NH2	32:2a:1423:G:OP1	2.29	0.63
11:2P:89:ALA:O	11:2P:121:LYS:NZ	2.32	0.63
32:2a:1209:C:O2'	32:2a:1214:C:N4	2.30	0.63
11:1P:59:LEU:HD11	30:18:10:ALA:HB2	1.81	0.62
32:1a:45:U:H2'	32:1a:46:G:C8	2.34	0.62
32:1a:299:G:O6	59:1a:1908:HOH:O	2.12	0.62
32:1a:1030:C:N4	32:1a:1030(A):G:N3	2.47	0.62
38:1g:69:VAL:HG21	38:1g:104:LEU:HD11	1.80	0.62
1:2A:1670:C:O2	4:2E:129:HIS:NE2	2.29	0.62
1:2A:2086:U:H2'	1:2A:2087:G:C8	2.34	0.62
5:2F:157:VAL:HB	5:2F:194:MET:HG2	1.81	0.62
32:2a:501:C:H2'	32:2a:502:G:C8	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1338:G:H21	54:2x:41:C:H1'	1.62	0.62
1:1A:2611:U:C4	27:15:3:LYS:HG2	2.34	0.62
32:1a:40:C:H2'	32:1a:41:G:H8	1.64	0.62
1:2A:995:C:O2	9:2N:3:THR:OG1	2.16	0.62
8:2I:31:LEU:HD21	8:2I:38:LEU:HG	1.81	0.62
32:1a:730:G:N2	32:1a:766:A:OP1	2.28	0.62
33:1b:104:ASN:OD1	33:1b:107:THR:OG1	2.16	0.62
1:2A:2198:A:O2'	1:2A:2224:G:N2	2.29	0.62
34:2c:131:ARG:NH2	36:2e:50:GLU:HG3	2.14	0.62
35:2d:38:TYR:HD2	35:2d:38:TYR:H	1.46	0.62
21:1Z:128:VAL:HG23	21:1Z:161:VAL:HG12	1.82	0.62
41:1j:16:LEU:HD23	41:1j:68:HIS:HB2	1.82	0.62
44:1m:9:ILE:HB	44:1m:18:ALA:HB1	1.80	0.62
32:2a:662:G:H2'	32:2a:663:A:C8	2.34	0.62
33:2b:200:ILE:HD12	33:2b:202:PRO:HD3	1.81	0.62
45:2n:7:ILE:HA	45:2n:23:ARG:HD3	1.82	0.62
1:1A:586:A:H5'	5:1F:89:VAL:HG21	1.81	0.62
36:1e:35:GLY:HA3	36:1e:112:LEU:HB3	1.80	0.62
41:1j:5:ARG:HD3	41:1j:71:LEU:HD11	1.81	0.62
1:2A:2313:C:H4'	6:2G:91:ARG:HG3	1.82	0.62
35:2d:57:ARG:HB3	35:2d:206:PHE:HB2	1.79	0.62
48:2q:45:HIS:H	48:2q:72:ARG:HA	1.64	0.62
50:2s:19:VAL:O	50:2s:23:ASN:ND2	2.32	0.62
39:1h:34:GLU:OE1	39:1h:37:ARG:NH1	2.33	0.62
20:2Y:28:LYS:HB3	20:2Y:38:ILE:HG22	1.82	0.62
38:2g:18:TYR:HB3	38:2g:59:LEU:HD22	1.81	0.62
46:2o:25:THR:HG21	46:2o:70:LEU:HB2	1.81	0.62
1:1A:286:C:H2'	1:1A:287:C:H6	1.64	0.62
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.80	0.62
14:1S:61:ASN:HD22	14:1S:64:GLU:H	1.46	0.62
32:1a:828:A:H2'	32:1a:829:G:O4'	1.99	0.62
32:1a:1237:C:O2'	32:1a:1300:G:N2	2.26	0.62
57:1a:1835:V7A:NBD	57:1a:1835:V7A:OBB	2.30	0.62
33:1b:98:LEU:HD12	33:1b:101:MET:HE3	1.82	0.62
35:2d:112:VAL:H	35:2d:116:GLN:NE2	1.98	0.62
35:2d:191:ARG:NH1	35:2d:191:ARG:O	2.33	0.62
45:2n:21:TYR:HE1	45:2n:23:ARG:HD2	1.65	0.62
1:1A:2023:G:H5'	1:1A:2617:C:H4'	1.81	0.62
6:1G:150:ASP:N	6:1G:150:ASP:OD1	2.33	0.62
32:1a:1299:A:O2'	32:1a:1301:U:O4'	2.17	0.62
57:2a:3210:V7A:NBD	57:2a:3210:V7A:OBB	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:2j:5:ARG:N	41:2j:99:LYS:O	2.32	0.62
18:1W:73:ALA:HB3	18:1W:106:ILE:HD12	1.80	0.62
1:2A:948:G:O6	59:2A:3945:HOH:O	2.16	0.62
1:2A:1824:G:N3	3:2D:254:THR:OG1	2.33	0.62
32:2a:269:C:H2'	32:2a:270:A:C8	2.35	0.62
1:1A:859:G:O2'	1:1A:916:G:O6	2.16	0.62
1:1A:2155:G:H3'	1:1A:2156:G:C8	2.35	0.62
16:1U:46:ALA:O	16:1U:50:ARG:HG2	1.99	0.62
18:1W:11:ARG:HA	18:1W:100:THR:HG22	1.81	0.62
33:2b:216:SER:O	33:2b:220:ASP:N	2.21	0.62
40:2i:50:LEU:HD13	40:2i:56:LEU:HA	1.81	0.62
41:2j:34:VAL:HG12	41:2j:74:ILE:HG22	1.80	0.62
47:2p:53:VAL:HG13	47:2p:79:VAL:HG22	1.82	0.62
1:1A:668:G:H5'	1:1A:669:G:OP2	2.00	0.61
1:1A:1003:G:O2'	1:1A:1010:A:N1	2.31	0.61
32:1a:204:U:H4'	32:1a:216:G:O5'	2.00	0.61
34:1c:3:ASN:OD1	34:1c:3:ASN:N	2.32	0.61
1:2A:581:C:H2'	1:2A:582:G:H8	1.65	0.61
1:2A:674:G:O2'	5:2F:74:ARG:HD3	2.00	0.61
5:2F:156:LEU:HD21	5:2F:163:VAL:HG12	1.82	0.61
32:2a:1002:G:C6	32:2a:1003:G:H8	2.17	0.61
33:2b:74:LYS:O	33:2b:78:GLN:HG2	1.99	0.61
38:1g:78:ARG:HG2	38:1g:79:ARG:H	1.64	0.61
47:1p:17:TYR:HB2	47:1p:39:TYR:HB3	1.83	0.61
2:2B:7:G:H21	14:2S:38:GLN:HE22	1.48	0.61
26:24:53:GLU:C	26:24:55:ARG:H	2.07	0.61
32:1a:1033:G:H2'	32:1a:1034:G:H8	1.64	0.61
1:2A:574:C:N3	4:2E:145:LYS:NZ	2.42	0.61
6:2G:63:ILE:HD11	6:2G:144:ILE:HG12	1.82	0.61
8:2I:1:MET:N	8:2I:20:ASP:OD1	2.21	0.61
28:26:25:LYS:HE3	28:26:27:LYS:HB3	1.81	0.61
32:2a:1417:G:O6	59:2a:3304:HOH:O	2.12	0.61
1:1A:271(M):G:N2	8:1I:50:ARG:HH12	1.99	0.61
1:1A:910:A:N3	1:1A:2264:C:O2'	2.30	0.61
1:1A:1429:G:H2'	1:1A:1430:C:C6	2.35	0.61
4:1E:70:ALA:O	4:1E:72:VAL:N	2.34	0.61
22:10:27:GLU:HB2	22:10:69:PHE:HD1	1.66	0.61
1:1A:2292:C:OP1	14:1S:17:ARG:NH2	2.33	0.61
3:1D:175:LEU:HD12	3:1D:185:VAL:HG21	1.81	0.61
32:1a:1505:G:O2'	53:1v:13:A:O2'	2.19	0.61
35:1d:108:LEU:HD21	35:1d:174:LEU:HD22	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:17:VAL:HG21	40:1i:81:ILE:HG13	1.83	0.61
1:2A:854:G:H2'	1:2A:855:G:H8	1.65	0.61
14:2S:50:SER:O	14:2S:76:LYS:NZ	2.33	0.61
1:1A:2224:G:H4'	1:1A:2226:C:C2	2.35	0.61
1:2A:468:G:N7	29:27:39:ARG:NH2	2.48	0.61
1:2A:1324:G:O6	59:2A:3935:HOH:O	2.13	0.61
14:2S:35:ILE:HD11	14:2S:101:LEU:HD12	1.82	0.61
32:2a:196:A:N3	32:2a:222:U:H1'	2.16	0.61
32:2a:673:G:H2'	32:2a:674:G:C8	2.35	0.61
32:2a:1074:G:O2'	32:2a:1101:A:N1	2.32	0.61
39:2h:19:VAL:HG23	39:2h:21:LYS:HG3	1.82	0.61
40:2i:42:ARG:NH1	40:2i:75:ASP:OD1	2.34	0.61
44:2m:86:CYS:SG	44:2m:87:TYR:N	2.73	0.61
1:1A:242:G:O2'	1:1A:254:G:O6	2.17	0.61
32:1a:1305:G:H22	32:1a:1331:G:H1'	1.65	0.61
32:1a:1356:G:H2'	32:1a:1357:A:H8	1.64	0.61
1:2A:2116:G:N2	1:2A:2162:G:OP1	2.33	0.61
6:2G:64:THR:HB	6:2G:94:LEU:HD21	1.82	0.61
41:2j:11:PHE:HE1	41:2j:67:THR:HG22	1.66	0.61
50:2s:49:ILE:HG22	50:2s:62:ILE:HD11	1.82	0.61
1:1A:28:A:OP2	59:1A:4272:HOH:O	2.16	0.61
1:1A:2469:A:O2'	12:1Q:56:ARG:NH1	2.34	0.61
8:1I:95:LYS:H	8:1I:95:LYS:HD3	1.66	0.61
32:1a:110:C:O2'	47:1p:25:ARG:O	2.19	0.61
33:1b:48:MET:HA	33:1b:51:LEU:HD12	1.83	0.61
50:1s:22:LEU:HB3	50:1s:27:GLU:HB3	1.81	0.61
1:2A:947:G:O2'	1:2A:984:A:N1	2.33	0.61
1:2A:1932:A:H2'	1:2A:1933:G:O4'	2.00	0.61
1:2A:2148:G:H2'	1:2A:2149:G:C8	2.36	0.61
1:2A:2803:C:H2'	1:2A:2804:C:C6	2.35	0.61
10:2O:73:ASP:HB2	15:2T:82:LEU:HD13	1.81	0.61
32:2a:6:G:H1	36:2e:98:THR:HG21	1.66	0.61
1:1A:1071:G:H1'	1:1A:1089:G:H2'	1.81	0.61
1:1A:2687:U:H2'	1:1A:2688:U:O4'	2.01	0.61
1:2A:1378:A:O2'	1:2A:1380:G:N7	2.30	0.61
1:2A:1920:4OC:HM22	1:2A:1921:G:H5'	1.82	0.61
30:28:4:MET:HE3	30:28:63:PRO:HG3	1.83	0.61
32:2a:405:U:O4	35:2d:2:GLY:N	2.34	0.61
40:2i:26:VAL:HG22	40:2i:61:ALA:HB3	1.82	0.61
21:1Z:26:GLY:HA3	21:1Z:86:VAL:HG23	1.83	0.61
1:2A:1379:A:H4'	1:2A:1380:G:OP2	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1991:U:H2'	1:2A:1992:G:H5''	1.83	0.61
1:2A:2446:G:N2	1:2A:2449:U:O2	2.32	0.61
6:2G:146:TYR:HB3	44:2m:11:ARG:HH22	1.66	0.61
32:2a:107:G:N7	51:2t:15:ARG:NH2	2.49	0.61
32:2a:1142:G:H3'	32:2a:1143:G:H8	1.64	0.61
1:1A:1636:C:H2'	1:1A:1637:A:C8	2.35	0.60
1:1A:2787:C:H1'	4:1E:62:PRO:HG3	1.82	0.60
11:1P:59:LEU:HD21	30:18:10:ALA:HA	1.82	0.60
15:1T:60:THR:HG22	15:1T:77:PRO:HA	1.82	0.60
1:2A:30:G:O2'	1:2A:1214:A:N3	2.30	0.60
1:2A:451:C:N4	1:2A:454:A:OP2	2.23	0.60
1:2A:1639:U:H2'	1:2A:1640:C:H5''	1.83	0.60
4:2E:77:ILE:HD13	4:2E:195:LEU:HD22	1.84	0.60
1:1A:2100:G:O6	1:1A:2189:U:O4	2.19	0.60
1:2A:2268:A:OP1	59:2A:3942:HOH:O	2.16	0.60
7:2H:24:VAL:HG23	7:2H:35:VAL:HB	1.83	0.60
32:2a:34:C:H2'	32:2a:35:G:C8	2.36	0.60
51:2t:43:LEU:O	51:2t:47:GLY:N	2.26	0.60
1:1A:2125:G:N1	1:1A:2172:U:OP1	2.27	0.60
1:1A:2751:G:H4'	7:1H:4:ILE:HD11	1.83	0.60
32:1a:557:G:OP1	59:1a:1912:HOH:O	2.16	0.60
32:1a:1025:U:O2	32:1a:1036:G:O6	2.18	0.60
1:2A:455:C:N3	1:2A:472:A:H2'	2.16	0.60
2:2B:55:U:O3'	6:2G:27:ASN:ND2	2.34	0.60
23:21:64:ALA:HA	23:21:67:ILE:HG13	1.83	0.60
35:2d:150:GLU:OE1	35:2d:151:LYS:N	2.33	0.60
4:1E:77:ILE:HD13	4:1E:195:LEU:HD13	1.83	0.60
6:1G:15:VAL:HG22	6:1G:175:LEU:HB3	1.83	0.60
20:1Y:34:LYS:NZ	59:1Y:301:HOH:O	2.34	0.60
32:1a:300:A:O2'	32:1a:564:C:N3	2.33	0.60
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.37	0.60
1:2A:1503:U:H2'	1:2A:1504:C:C6	2.36	0.60
1:2A:2183:C:H2'	1:2A:2184:G:H8	1.66	0.60
32:2a:600:C:H2'	32:2a:601:C:C6	2.36	0.60
32:2a:922:G:H2'	32:2a:923:A:C8	2.36	0.60
32:2a:1128:C:O2'	32:2a:1147:C:N3	2.26	0.60
34:2c:122:GLU:O	34:2c:125:GLU:HG2	2.01	0.60
1:1A:2544:G:H1'	1:1A:2646:C:H4'	1.81	0.60
32:1a:136:C:H42	32:1a:227:G:H1	1.50	0.60
32:1a:1226:C:H2'	44:1m:103:THR:HB	1.83	0.60
32:1a:1503:A:O2'	53:1v:13:A:N1	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:26:GLN:HG2	48:1q:37:LYS:HG2	1.83	0.60
8:2I:4:ILE:HD11	8:2I:44:LEU:HD23	1.84	0.60
32:2a:1518:MA6:N6	32:2a:1519:MA6:H103	2.16	0.60
1:1A:2165:G:H1	1:1A:2171:A:H2'	1.67	0.60
19:1X:94:GLY:H	19:1X:95:LEU:C	2.09	0.60
32:1a:707:C:OP1	42:1k:85:ARG:NH1	2.35	0.60
1:2A:922:U:H2'	1:2A:923:C:C6	2.36	0.60
1:2A:994:C:O2'	1:2A:996:A:OP1	2.17	0.60
1:2A:1349:A:OP1	59:2A:3941:HOH:O	2.15	0.60
32:2a:1089:G:H1	32:2a:1096:C:H42	1.49	0.60
35:2d:173:TRP:CD1	35:2d:189:PRO:HG3	2.36	0.60
1:1A:694:U:OP1	3:1D:59:LYS:NZ	2.32	0.60
14:1S:84:GLN:HA	14:1S:111:GLU:HB2	1.81	0.60
17:1V:6:LYS:HB2	17:1V:38:LEU:HD11	1.83	0.60
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.75	0.60
26:14:60:GLN:HA	26:14:62:ARG:HG2	1.84	0.60
36:1e:78:HIS:HD2	39:1h:104:ARG:HD2	1.64	0.60
43:1I:71:PRO:O	43:1I:102:ARG:NH1	2.34	0.60
1:2A:212:G:H2'	1:2A:213:A:O4'	2.02	0.60
1:2A:740:U:H2'	1:2A:741:G:C8	2.37	0.60
4:2E:2:LYS:HG3	4:2E:200:GLU:HB2	1.83	0.60
33:2b:80:ILE:HD13	33:2b:211:ILE:HB	1.84	0.60
8:1I:109:ILE:HG13	8:1I:130:TYR:CZ	2.37	0.60
39:1h:11:THR:HG22	39:1h:14:ARG:HH12	1.67	0.60
1:2A:900:A:O2'	1:2A:901:A:OP1	2.18	0.60
4:2E:9:VAL:HB	15:2T:3:ARG:HG2	1.84	0.60
13:2R:36:THR:HG22	13:2R:37:THR:H	1.66	0.60
39:2h:11:THR:HG22	39:2h:14:ARG:HH12	1.67	0.60
1:1A:1617:C:OP2	59:1A:4273:HOH:O	2.17	0.60
1:1A:2298:A:N6	1:1A:2318:G:O2'	2.31	0.60
32:1a:427:U:OP1	35:1d:13:ARG:NH1	2.29	0.60
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.37	0.60
39:1h:121:ASP:OD2	39:1h:125:ARG:NH2	2.34	0.60
47:1p:74:LEU:HG	47:1p:79:VAL:HG21	1.82	0.60
1:2A:249:C:O2	30:28:12:LYS:NZ	2.30	0.60
1:2A:2751:G:H5'	7:2H:2:SER:HA	1.84	0.60
1:2A:2821:A:O2'	1:2A:2826:A:N1	2.34	0.60
2:2B:75:G:H22	21:2Z:73:GLN:HE21	1.49	0.60
7:2H:20:ALA:HB3	7:2H:23:ARG:HB2	1.82	0.60
35:2d:74:GLN:NE2	35:2d:137:SER:OG	2.34	0.60
41:2j:57:LYS:O	41:2j:60:ARG:NE	2.30	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1174:A:H4'	1:1A:1175:U:OP1	2.00	0.60
3:1D:4:LYS:HB3	3:1D:18:VAL:HG23	1.84	0.60
33:1b:82:ARG:NH1	33:1b:150:SER:OG	2.35	0.60
1:2A:2680:C:OP2	4:2E:111:ARG:NH2	2.29	0.60
21:2Z:77:ASP:OD2	21:2Z:80:ARG:NH1	2.35	0.60
1:1A:1028:A:N6	1:1A:1125:G:H2'	2.17	0.59
1:1A:2627:G:O2'	1:1A:2781:A:N1	2.33	0.59
32:1a:863:U:O2'	32:1a:865:A:N7	2.33	0.59
33:1b:74:LYS:NZ	33:1b:205:ASP:O	2.34	0.59
36:1e:78:HIS:CD2	39:1h:104:ARG:HD2	2.37	0.59
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	1.84	0.59
52:1u:6:ARG:HG2	52:1u:15:ARG:HD2	1.83	0.59
1:2A:1159:U:H2'	1:2A:1160:G:H8	1.67	0.59
1:2A:1278:A:OP1	13:2R:36:THR:HG23	2.01	0.59
1:2A:2884:U:O4	27:25:40:LYS:NZ	2.32	0.59
12:2Q:111:GLU:OE2	12:2Q:133:ARG:NH2	2.35	0.59
20:2Y:83:THR:HG21	20:2Y:99:CYS:HB2	1.82	0.59
32:2a:514:C:H2'	32:2a:515:G:H8	1.67	0.59
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.83	0.59
32:2a:964:A:N3	32:2a:969:A:O2'	2.31	0.59
1:1A:1817:G:OP1	3:1D:88:ARG:NH2	2.34	0.59
42:1k:29:ILE:HG23	42:1k:44:SER:HB3	1.84	0.59
1:2A:588:U:H1'	5:2F:90:PHE:HB3	1.83	0.59
32:2a:45:U:H2'	32:2a:46:G:C8	2.37	0.59
2:1B:86:G:H1	2:1B:91:C:H42	1.49	0.59
32:1a:1409:C:H2'	32:1a:1410:G:C8	2.38	0.59
41:1j:11:PHE:HE1	41:1j:67:THR:HG22	1.66	0.59
1:2A:2104:G:N2	1:2A:2185:C:N3	2.47	0.59
1:2A:2116:G:H22	1:2A:2162:G:H5'	1.66	0.59
6:2G:125:PHE:HB3	6:2G:166:ASP:CG	2.28	0.59
32:2a:1134:G:C2	32:2a:1135:U:H1'	2.37	0.59
34:2c:58:GLU:HB3	41:2j:92:THR:HG21	1.84	0.59
1:1A:1750:G:O2'	1:1A:2860:A:N1	2.28	0.59
5:1F:167:ALA:HB1	5:1F:173:VAL:HG11	1.83	0.59
6:1G:121:ASN:O	6:1G:131:TYR:OH	2.19	0.59
1:2A:2134:A:H62	1:2A:2157:G:H4'	1.68	0.59
1:2A:2646:C:OP2	1:2A:2732:G:O2'	2.19	0.59
1:2A:2680:C:H5'	4:2E:189:PRO:HA	1.85	0.59
7:2H:143:GLN:HG3	7:2H:147:ASN:HD21	1.67	0.59
44:2m:4:ILE:HG23	44:2m:5:ALA:H	1.67	0.59
1:1A:861:A:N3	2:1B:79:C:O2'	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2855:C:H2'	1:1A:2856:C:C6	2.36	0.59
1:2A:637:A:OP1	11:2P:133:SER:OG	2.15	0.59
1:2A:2090:G:N2	23:21:45:ASN:OD1	2.24	0.59
1:2A:2773:C:OP1	4:2E:166:THR:OG1	2.20	0.59
8:2I:93:THR:OG1	8:2I:94:ALA:N	2.34	0.59
22:20:27:GLU:HG3	22:20:68:GLU:HA	1.83	0.59
32:2a:1272:G:N2	32:2a:1273:G:N7	2.49	0.59
32:2a:1356:G:H2'	32:2a:1357:A:C8	2.38	0.59
33:2b:9:GLU:HG3	33:2b:10:LEU:H	1.66	0.59
38:2g:23:VAL:HG13	38:2g:43:PHE:CE2	2.38	0.59
1:1A:800:A:H8	1:1A:800:A:OP1	1.86	0.59
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.37	0.59
1:1A:1478:G:H2'	1:1A:1479:G:H8	1.66	0.59
25:13:5:LYS:NZ	25:13:34:GLU:OE2	2.34	0.59
32:1a:343:U:O2'	32:1a:346:G:O6	2.13	0.59
32:1a:1034:G:N2	32:1a:1035:A:N3	2.51	0.59
1:2A:878:A:N6	1:2A:899:A:O2'	2.35	0.59
32:2a:509:A:N3	32:2a:543:C:O2'	2.35	0.59
32:2a:1250:A:H4'	40:2i:68:GLY:N	2.18	0.59
1:1A:2404:C:O3'	11:1P:77:ARG:NH2	2.36	0.59
54:1x:8:4SU:O2	54:1x:21:A:C2	2.55	0.59
1:2A:195:A:H61	1:2A:198:C:H3'	1.67	0.59
1:2A:568:U:H5'	1:2A:945:A:N1	2.18	0.59
1:2A:2166:G:N7	1:2A:2168:G:N2	2.50	0.59
32:2a:783:C:OP2	59:2a:3308:HOH:O	2.17	0.59
32:2a:1316:G:H22	32:2a:1319:A:H5''	1.68	0.59
1:1A:2429:G:OP1	59:1A:4215:HOH:O	2.16	0.59
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.38	0.59
1:2A:581:C:H2'	1:2A:582:G:C8	2.37	0.59
1:2A:952:G:OP1	12:2Q:16:ARG:NH2	2.36	0.59
1:2A:1816:G:O6	3:2D:35:LYS:NZ	2.35	0.59
1:1A:1007:C:H5''	9:1N:35:ARG:HH11	1.68	0.59
1:1A:1266:G:O5'	18:1W:15:ARG:NH2	2.36	0.59
5:1F:117:ARG:NH2	5:1F:189:THR:O	2.32	0.59
7:1H:25:LYS:NZ	7:1H:32:GLU:OE1	2.36	0.59
10:1O:64:ARG:HG2	10:1O:83:ALA:HB3	1.84	0.59
14:1S:61:ASN:HD22	14:1S:64:GLU:HG3	1.68	0.59
14:1S:83:LYS:HB3	14:1S:111:GLU:HG3	1.85	0.59
32:1a:398:C:H2'	32:1a:399:G:C8	2.38	0.59
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.38	0.59
8:2I:69:LYS:O	8:2I:73:GLU:HB3	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:2k:85:ARG:HA	42:2k:112:THR:HG22	1.84	0.59
1:1A:587:C:OP2	11:1P:21:ARG:NH2	2.36	0.59
1:1A:1054:A:N6	1:1A:1105:U:N3	2.33	0.59
32:1a:53:A:OP2	59:1a:1913:HOH:O	2.17	0.59
32:1a:445:G:H2'	32:1a:446:G:C8	2.38	0.59
32:1a:1209:C:O2'	32:1a:1214:C:N4	2.33	0.59
41:1j:35:SER:HB3	41:1j:73:ASP:HB2	1.84	0.59
1:2A:2577:A:OP1	59:2A:3944:HOH:O	2.16	0.59
1:1A:2312:U:H5'	6:1G:88:ILE:HD11	1.85	0.58
4:1E:18:ASP:OD2	15:1T:33:LYS:NZ	2.22	0.58
32:1a:102:G:O2'	32:1a:151:A:N3	2.34	0.58
32:1a:398:C:H2'	32:1a:399:G:H8	1.68	0.58
1:2A:2533:A:OP1	1:2A:2665:A:O2'	2.21	0.58
13:2R:56:LYS:NZ	13:2R:90:ARG:O	2.35	0.58
32:2a:951:G:N7	44:2m:102:ARG:NH2	2.51	0.58
1:1A:2518:A:OP2	59:1A:4276:HOH:O	2.17	0.58
4:1E:111:ARG:O	59:1E:402:HOH:O	2.16	0.58
32:1a:976:G:H5'	32:1a:1358:U:O2'	2.03	0.58
33:1b:16:HIS:HB2	33:1b:204:ASN:CB	2.31	0.58
38:1g:108:ALA:O	38:1g:119:ARG:HD2	2.04	0.58
40:1i:128:ARG:NH2	54:1x:33:U:OP2	2.36	0.58
1:2A:2079:U:O3'	23:21:35:THR:OG1	2.20	0.58
1:2A:2802:G:H2'	1:2A:2803:C:O4'	2.04	0.58
6:2G:97:ASP:HA	6:2G:100:TRP:HD1	1.68	0.58
32:2a:692:U:O2'	32:2a:694:A:N7	2.31	0.58
35:2d:119:GLN:HG3	35:2d:123:HIS:HD2	1.69	0.58
48:2q:6:LEU:HD23	48:2q:23:VAL:HG11	1.85	0.58
1:1A:8:A:H2'	1:1A:9:U:H6	1.68	0.58
3:1D:147:LEU:HD13	3:1D:155:LEU:HD21	1.85	0.58
32:1a:401:C:O2'	32:1a:621:A:N3	2.35	0.58
1:2A:445:C:OP1	16:2U:2:PRO:HA	2.02	0.58
1:2A:1828:G:OP1	59:2A:3947:HOH:O	2.17	0.58
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.37	0.58
1:2A:2821:A:H2'	1:2A:2822:G:C8	2.38	0.58
32:2a:1327:C:H2'	32:2a:1328:C:C6	2.38	0.58
36:2e:80:ILE:HG22	36:2e:91:LEU:HB2	1.84	0.58
1:1A:948:G:OP2	59:1A:4275:HOH:O	2.17	0.58
1:1A:1093:G:H3'	1:1A:1094:U:H5''	1.85	0.58
1:1A:2111:C:N3	1:1A:2145:C:O2'	2.34	0.58
1:1A:2255:G:OP2	59:1A:4277:HOH:O	2.17	0.58
32:1a:976:G:N2	32:1a:1363:C:OP2	2.25	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1151:A:HO2'	32:1a:1152:A:H8	1.50	0.58
32:1a:1337:G:OP2	59:1a:1911:HOH:O	2.16	0.58
43:1l:56:ALA:HB2	43:1l:70:ILE:HD11	1.85	0.58
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.38	0.58
1:2A:1599:C:OP1	59:2A:3948:HOH:O	2.17	0.58
1:2A:2723:C:OP2	4:2E:109:LYS:NZ	2.35	0.58
2:2B:17:C:H2'	2:2B:18:G:O4'	2.03	0.58
4:2E:9:VAL:HG13	4:2E:25:VAL:O	2.03	0.58
42:2k:29:ILE:HG23	42:2k:44:SER:HB3	1.85	0.58
1:1A:1292:U:H2'	1:1A:1293:C:C6	2.39	0.58
1:1A:2090:G:O6	59:1A:4262:HOH:O	2.14	0.58
6:1G:5:VAL:HG11	6:1G:101:ILE:HG12	1.85	0.58
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.39	0.58
25:13:18:ASP:OD1	25:13:18:ASP:N	2.33	0.58
32:1a:429:U:OP2	35:1d:36:ARG:NH2	2.36	0.58
32:1a:693:G:OP2	59:1a:1915:HOH:O	2.17	0.58
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.18	0.58
1:2A:1316:U:H2'	1:2A:1317:A:C8	2.37	0.58
5:2F:155:LEU:HD11	5:2F:176:LEU:HD12	1.86	0.58
7:2H:88:LEU:HD11	7:2H:165:ALA:HA	1.86	0.58
19:2X:46:ALA:HB1	24:22:33:MET:HE1	1.85	0.58
1:1A:1246:A:N6	59:1A:4398:HOH:O	2.34	0.58
4:1E:59:VAL:HG12	4:1E:64:LYS:HG3	1.84	0.58
32:1a:234:C:H5''	48:1q:70:ARG:HH21	1.68	0.58
36:1e:78:HIS:CE1	36:1e:143:ARG:H	2.21	0.58
36:1e:142:LEU:O	36:1e:143:ARG:NH1	2.37	0.58
1:2A:576:U:O4	59:2A:3943:HOH:O	2.16	0.58
16:2U:52:ARG:HA	16:2U:55:ARG:HD2	1.85	0.58
32:2a:9:G:H2'	32:2a:10:A:C8	2.38	0.58
32:2a:726:C:H2'	32:2a:727:G:H8	1.67	0.58
34:2c:19:GLU:O	34:2c:57:ILE:N	2.34	0.58
1:1A:1053:C:H42	1:1A:1106:G:H1	1.51	0.58
1:1A:1864:U:OP1	1:1A:2410:G:O2'	2.13	0.58
1:1A:2393:A:H2'	1:1A:2394:C:H6	1.68	0.58
1:1A:2682:U:O2'	15:1T:58:ASN:ND2	2.37	0.58
25:13:8:LEU:HG	25:13:31:LEU:HD23	1.86	0.58
32:1a:800:G:O6	59:1a:1914:HOH:O	2.17	0.58
38:1g:86:GLN:HB2	38:1g:148:ASN:ND2	2.19	0.58
14:2S:67:ARG:HG2	14:2S:71:ARG:HD2	1.85	0.58
15:2T:105:LEU:HD22	15:2T:109:GLU:HB3	1.86	0.58
26:24:24:THR:OG1	26:24:25:TYR:N	2.21	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:918:A:H2'	32:2a:919:A:C8	2.38	0.58
36:2e:77:PRO:HD2	36:2e:142:LEU:HD22	1.85	0.58
37:2f:67:MET:HE1	37:2f:75:LEU:HD22	1.84	0.58
25:13:12:PRO:HB2	25:13:20:LYS:HG2	1.86	0.58
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.02	0.58
35:1d:12:CYS:CB	58:1d:501:SF4:S2	2.89	0.58
1:2A:302:C:OP2	20:2Y:73:ARG:NH1	2.28	0.58
1:2A:1651:G:H2'	1:2A:1652:A:O4'	2.04	0.58
1:2A:2162:G:H4'	1:2A:2172:U:C2'	2.34	0.58
32:2a:1273:G:H3'	32:2a:1274:G:C8	2.37	0.58
32:2a:1316:G:N7	50:2s:7:LYS:NZ	2.52	0.58
35:2d:102:ASP:HB2	35:2d:118:ARG:HG2	1.86	0.58
4:1E:105:THR:HG1	4:1E:166:THR:HG1	1.51	0.58
8:1I:78:THR:O	8:1I:104:GLN:NE2	2.33	0.58
32:1a:34:C:H2'	32:1a:35:G:C8	2.39	0.58
1:2A:621:A:OP2	11:2P:108:LYS:NZ	2.34	0.58
2:2B:75:G:H22	21:2Z:73:GLN:NE2	2.01	0.58
3:2D:17:THR:O	3:2D:211:ARG:NH2	2.37	0.58
4:2E:105:THR:HG1	4:2E:199:ARG:HH21	1.50	0.58
20:2Y:86:ARG:HE	20:2Y:100:ALA:HA	1.68	0.58
32:2a:426:G:OP1	35:2d:38:TYR:OH	2.17	0.58
32:2a:748:C:H4'	32:2a:749:C:O5'	2.03	0.58
1:1A:311:A:OP2	59:1A:4278:HOH:O	2.17	0.58
1:1A:2135:A:H5'	1:1A:2160:G:H4'	1.84	0.58
21:1Z:69:THR:HG22	21:1Z:90:VAL:HA	1.85	0.58
32:1a:1414:U:H3	32:1a:1486:G:H1	1.51	0.58
34:1c:34:LEU:HD21	34:1c:38:ARG:HE	1.69	0.58
36:1e:33:VAL:HG21	36:1e:109:ILE:HA	1.86	0.58
2:2B:9:G:OP2	14:2S:15:ARG:NH1	2.35	0.58
4:2E:105:THR:HG21	4:2E:164:ARG:CZ	2.34	0.58
15:2T:127:ALA:C	15:2T:129:ARG:H	2.12	0.58
32:2a:1291:G:O2'	40:2i:38:GLN:OE1	2.21	0.58
32:2a:1312:G:H5'	50:2s:5:LEU:HD11	1.84	0.58
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.39	0.57
21:1Z:3:TYR:CD2	21:1Z:51:ALA:HB2	2.39	0.57
32:1a:186:C:H2'	32:1a:187:C:C6	2.38	0.57
32:1a:974:A:OP2	45:1n:29:ARG:NH1	2.37	0.57
33:1b:195:ASP:O	39:1h:68:ARG:NH2	2.36	0.57
1:2A:760:G:H2'	1:2A:761:A:O4'	2.04	0.57
1:2A:2165:G:H2'	1:2A:2166:G:O4'	2.04	0.57
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2S:35:ILE:HB	14:2S:97:ARG:HH21	1.68	0.57
24:22:65:ASN:HD21	24:22:69:ARG:HD3	1.69	0.57
32:2a:309:G:H2'	32:2a:310:G:H8	1.69	0.57
32:2a:1316:G:N2	32:2a:1319:A:OP2	2.37	0.57
34:2c:78:GLY:HA3	34:2c:83:ARG:H	1.69	0.57
50:2s:64:GLU:CD	50:2s:64:GLU:H	2.11	0.57
1:1A:1642:G:N7	59:1A:4383:HOH:O	2.32	0.57
26:14:50:VAL:HG21	44:1m:64:TRP:C	2.29	0.57
28:16:13:CYS:SG	28:16:47:THR:HG21	2.44	0.57
32:1a:195:A:H2'	32:1a:196:A:C4	2.39	0.57
32:1a:453:A:O2'	47:1p:68:ASP:O	2.23	0.57
32:1a:503:C:OP2	43:1l:116:SER:OG	2.16	0.57
32:1a:1192:C:O2	36:1e:25:ARG:NH2	2.37	0.57
32:1a:1456:G:O3'	51:1t:39:LYS:NZ	2.34	0.57
34:1c:11:ARG:NH2	34:1c:177:THR:O	2.37	0.57
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.04	0.57
5:2F:25:PRO:HD2	5:2F:115:ALA:HB2	1.84	0.57
8:2I:89:TYR:CD2	8:2I:89:TYR:CE2	2.92	0.57
32:2a:998:G:H1	32:2a:1043:C:H42	1.50	0.57
33:2b:178:ARG:HH12	39:2h:68:ARG:HH22	1.50	0.57
35:2d:172:PRO:HB2	35:2d:187:ARG:HH21	1.69	0.57
50:2s:37:ARG:O	50:2s:70:LYS:NZ	2.29	0.57
1:1A:1239:G:H2'	1:1A:1240:U:O4'	2.04	0.57
1:1A:1419:A:O2'	1:1A:1421:G:N7	2.36	0.57
14:1S:25:ARG:NH1	14:1S:42:ASP:OD1	2.37	0.57
14:1S:27:SER:HA	14:1S:88:ASP:HB3	1.86	0.57
46:1o:64:ARG:HH12	46:1o:68:ARG:HH21	1.52	0.57
1:2A:646:A:H2'	1:2A:647:G:O4'	2.05	0.57
1:2A:698:C:O2'	1:2A:734:A:N6	2.37	0.57
1:2A:1462:C:H4'	1:2A:2703:C:H5'	1.86	0.57
2:2B:24:G:H4'	2:2B:25:A:C8	2.39	0.57
32:2a:1071:C:H2'	32:2a:1072:G:H8	1.69	0.57
41:2j:37:PRO:HA	41:2j:72:VAL:HG12	1.85	0.57
1:1A:2291:U:O2'	1:1A:2374:C:O2	2.17	0.57
3:1D:61:LEU:O	3:1D:63:ARG:NH1	2.37	0.57
32:1a:944:G:OP1	59:1a:1903:HOH:O	2.17	0.57
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.30	0.57
1:2A:1499:C:H2'	1:2A:1500:G:H8	1.69	0.57
1:2A:2285:C:OP2	28:26:6:ARG:NH1	2.38	0.57
1:2A:2513:G:N2	4:2E:143:ASN:OD1	2.37	0.57
32:2a:1305:G:N2	32:2a:1331:G:HI'	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:105:VAL:HG21	36:2e:128:PRO:HB3	1.85	0.57
1:1A:579:G:H2'	1:1A:580:C:C6	2.39	0.57
1:1A:956:G:H2'	1:1A:957:A:H2'	1.84	0.57
1:1A:999:U:OP2	59:1A:4271:HOH:O	2.17	0.57
1:1A:1664:A:OP1	59:1A:4274:HOH:O	2.17	0.57
1:2A:1341:U:OP2	1:2A:1394:U:O2'	2.19	0.57
1:2A:2031:A:N3	1:2A:2455:G:O2'	2.31	0.57
2:2B:14:U:OP2	2:2B:70:C:O2'	2.17	0.57
4:2E:201:THR:HG23	4:2E:203:LYS:H	1.70	0.57
11:2P:96:THR:HG23	11:2P:99:LEU:HD12	1.85	0.57
18:2W:20:VAL:HG12	18:2W:39:THR:HG21	1.87	0.57
32:2a:108:G:N1	51:2t:15:ARG:HG2	2.20	0.57
32:2a:1230:C:H2'	32:2a:1231:G:H8	1.70	0.57
32:2a:1240:U:C2	38:2g:32:ARG:HG3	2.39	0.57
35:2d:112:VAL:H	35:2d:116:GLN:HE21	1.52	0.57
39:2h:11:THR:HG22	39:2h:14:ARG:NH1	2.19	0.57
42:2k:48:ILE:HD11	42:2k:64:ALA:HA	1.85	0.57
5:1F:70:THR:HG23	5:1F:72:ARG:H	1.70	0.57
32:1a:662:G:H2'	32:1a:663:A:C8	2.39	0.57
33:1b:168:THR:OG1	33:1b:192:SER:HA	2.04	0.57
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.20	0.57
1:2A:1798:U:H5'	3:2D:259:THR:CG2	2.35	0.57
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.40	0.57
6:2G:11:TYR:CZ	6:2G:16:ARG:HD3	2.40	0.57
32:2a:984:C:H2'	32:2a:985:C:C6	2.40	0.57
41:2j:61:GLU:OE1	45:2n:49:HIS:NE2	2.35	0.57
1:1A:210:C:OP2	29:17:29:LYS:NZ	2.30	0.57
1:1A:1357:U:H2'	1:1A:1358:G:O4'	2.05	0.57
1:1A:2036:C:OP1	59:1A:4280:HOH:O	2.18	0.57
1:1A:2131:G:H5''	1:1A:2132:U:H3'	1.86	0.57
5:1F:107:LYS:HE2	5:1F:206:ILE:HA	1.87	0.57
7:1H:56:SER:OG	7:1H:57:ASP:N	2.36	0.57
1:2A:1259:G:H2'	1:2A:1260:G:C8	2.39	0.57
1:2A:2183:C:H2'	1:2A:2184:G:C8	2.39	0.57
22:20:15:ASP:OD1	22:20:16:SER:N	2.38	0.57
24:22:1:MET:H1	24:22:52:ASP:CG	2.13	0.57
30:28:63:PRO:HG2	30:28:64:TYR:CE2	2.39	0.57
32:2a:985:C:H2'	32:2a:986:A:C8	2.39	0.57
32:2a:1346:A:H5''	40:2i:120:ARG:HH12	1.70	0.57
4:1E:7:VAL:HG23	4:1E:51:PHE:HE2	1.70	0.57
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2314:C:H2'	1:2A:2315:G:C8	2.40	0.57
7:2H:98:LEU:HD13	7:2H:125:VAL:HG23	1.86	0.57
21:2Z:138:GLU:H	21:2Z:156:LYS:HE2	1.69	0.57
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.39	0.57
34:2c:140:ARG:HA	34:2c:143:GLU:HB2	1.85	0.57
38:2g:59:LEU:HG	38:2g:63:LYS:HE2	1.87	0.57
48:2q:66:SER:O	48:2q:70:ARG:NH1	2.37	0.57
50:2s:36:ARG:HA	50:2s:71:LEU:HD23	1.87	0.57
1:1A:1062:G:H1	1:1A:1077:A:N6	1.91	0.57
21:1Z:153:SER:HA	21:1Z:167:PRO:HB3	1.86	0.57
1:2A:271(H):G:H2'	1:2A:271(I):G:H8	1.70	0.57
10:1O:64:ARG:NH2	10:1O:99:PHE:O	2.38	0.57
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.69	0.57
1:2A:2232:U:P	23:21:40:ARG:HH12	2.27	0.57
1:2A:2822:G:OP2	59:2A:3908:HOH:O	2.17	0.57
17:2V:43:GLU:OE1	17:2V:43:GLU:N	2.38	0.57
21:2Z:124:ILE:HG22	21:2Z:126:VAL:HG23	1.85	0.57
23:21:56:GLN:HA	23:21:56:GLN:HE21	1.70	0.57
32:2a:254:G:OP1	48:2q:66:SER:OG	2.23	0.57
32:2a:382:A:H2'	32:2a:383:A:C8	2.39	0.57
32:2a:1182:G:H4'	32:2a:1183:A:H5''	1.86	0.57
32:2a:1292:U:H4'	40:2i:38:GLN:HE22	1.69	0.57
36:2e:76:ILE:HD12	36:2e:142:LEU:HD21	1.86	0.57
37:2f:79:LEU:HB3	37:2f:88:VAL:HG21	1.87	0.57
46:2o:11:VAL:HG21	46:2o:34:LEU:HD22	1.86	0.57
1:1A:1226:A:OP1	17:1V:84:LYS:NZ	2.36	0.56
1:1A:1354:A:H2'	1:1A:1355:G:O4'	2.05	0.56
52:1u:3:LYS:HD3	52:1u:14:TRP:CD1	2.40	0.56
12:2Q:39:PRO:HD3	12:2Q:99:PRO:HG3	1.86	0.56
21:2Z:33:LEU:HD21	21:2Z:90:VAL:HG11	1.85	0.56
32:2a:164:U:H2'	32:2a:165:C:C6	2.40	0.56
32:2a:1053:G:H4'	32:2a:1054:C:H3'	1.87	0.56
32:2a:1270:C:H2'	32:2a:1271:G:C8	2.40	0.56
43:2l:53:ARG:HB3	43:2l:69:TYR:HE1	1.69	0.56
1:1A:279:C:N4	1:1A:361:G:H1	1.97	0.56
1:1A:336:C:O2'	20:1Y:35:TYR:OH	2.22	0.56
1:1A:793:A:OP2	1:1A:2071:A:O2'	2.23	0.56
1:1A:1076:C:O2'	1:1A:1077:A:N7	2.38	0.56
8:1I:5:LEU:H	8:1I:5:LEU:HD12	1.71	0.56
34:1c:59:ARG:HG2	34:1c:64:VAL:HG23	1.87	0.56
38:1g:16:LEU:HD21	40:1i:45:ALA:HB2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:26:VAL:HG13	40:1i:61:ALA:HB3	1.87	0.56
47:1p:43:LYS:HA	47:1p:48:TRP:HB3	1.87	0.56
49:1r:25:THR:HG21	49:1r:42:ARG:HH12	1.70	0.56
54:1x:10:G:N2	54:1x:26:G:H1'	2.19	0.56
1:2A:893:C:H2'	1:2A:894:C:C5	2.40	0.56
32:2a:726:C:H2'	32:2a:727:G:C8	2.39	0.56
32:2a:1271:G:C2	32:2a:1272:G:N7	2.73	0.56
32:2a:1316:G:N2	32:2a:1318:A:H3'	2.20	0.56
54:2x:40:C:H2'	54:2x:41:C:C6	2.40	0.56
1:1A:279:C:N3	1:1A:361:G:N2	2.50	0.56
1:1A:475:U:H4'	1:1A:510:C:H5'	1.87	0.56
1:1A:673:C:H5''	5:1F:81:PRO:HD2	1.87	0.56
1:1A:826:U:H4'	11:1P:55:ARG:HB3	1.87	0.56
1:1A:1671:U:O4	59:1A:4214:HOH:O	2.16	0.56
10:1O:64:ARG:HD3	10:1O:79:PHE:CD1	2.40	0.56
14:1S:31:SER:O	14:1S:97:ARG:NH2	2.34	0.56
15:1T:127:ALA:C	15:1T:129:ARG:H	2.13	0.56
32:1a:193:C:H2'	32:1a:194:C:H6	1.70	0.56
32:1a:1095:U:P	32:1a:1108:G:H1	2.28	0.56
32:1a:1130:A:OP2	40:1i:62:TYR:OH	2.12	0.56
46:1o:64:ARG:HH12	46:1o:68:ARG:NH2	2.03	0.56
49:1r:70:ILE:O	49:1r:74:ARG:HG3	2.05	0.56
49:1r:70:ILE:HG22	49:1r:74:ARG:HD2	1.85	0.56
1:2A:247:G:H4'	1:2A:386:G:C5	2.40	0.56
1:2A:2189:U:H2'	1:2A:2190:G:H8	1.70	0.56
1:2A:2264:C:N4	22:20:15:ASP:OD2	2.36	0.56
8:2I:123:LEU:HD21	8:2I:146:ALA:HB2	1.87	0.56
31:29:14:CYS:HA	31:29:27:CYS:HB2	1.85	0.56
32:2a:1052:U:O2'	32:2a:1055:A:OP2	2.16	0.56
32:2a:1189:C:OP1	41:2j:51:ARG:NH2	2.36	0.56
40:2i:128:ARG:NH2	54:2x:33:U:OP2	2.38	0.56
49:2r:53:ARG:O	49:2r:57:GLY:N	2.38	0.56
32:1a:414:A:H2'	32:1a:415:A:C8	2.41	0.56
32:1a:1015:A:H2'	32:1a:1016:A:C8	2.40	0.56
37:1f:78:GLU:O	37:1f:81:ILE:HG22	2.05	0.56
47:1p:49:LEU:HD21	47:1p:51:VAL:HG23	1.88	0.56
5:2F:12:LEU:HB2	5:2F:124:LEU:HD11	1.85	0.56
12:2Q:27:VAL:HG23	12:2Q:28:ALA:H	1.70	0.56
32:2a:269:C:H2'	32:2a:270:A:H8	1.70	0.56
33:2b:31:TYR:CZ	33:2b:200:ILE:HD13	2.41	0.56
1:1A:613:G:N2	1:1A:614(C):A:O2'	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:739:G:OP1	59:1A:4279:HOH:O	2.17	0.56
1:1A:848:G:H2'	1:1A:849:A:C8	2.41	0.56
1:1A:1171:G:OP2	1:1A:1174:A:N6	2.38	0.56
1:1A:2334:G:H5'	14:1S:9:ARG:HG2	1.86	0.56
1:1A:2683:C:H2'	1:1A:2684:U:H6	1.70	0.56
32:1a:1289:A:N1	32:1a:1371:G:O2'	2.35	0.56
35:1d:178:VAL:C	35:1d:180:GLY:H	2.13	0.56
38:1g:89:MET:SD	38:1g:155:ARG:HB2	2.45	0.56
1:2A:1426:G:O2'	1:2A:1572:A:N6	2.36	0.56
1:2A:2375:G:O2'	1:2A:2377:A:N7	2.26	0.56
8:2I:12:LEU:HD22	8:2I:19:VAL:HG21	1.87	0.56
32:2a:688:G:H2'	32:2a:689:C:H6	1.70	0.56
32:2a:1275:A:H3'	32:2a:1276:G:H8	1.69	0.56
33:2b:55:PHE:O	33:2b:59:GLU:N	2.33	0.56
39:2h:30:ARG:O	39:2h:34:GLU:HG2	2.05	0.56
40:2i:14:VAL:HG23	40:2i:66:ARG:HG3	1.85	0.56
48:2q:24:GLU:HA	48:2q:39:SER:HA	1.87	0.56
21:1Z:93:ASP:HB2	21:1Z:131:ARG:HH22	1.69	0.56
32:1a:165:C:H2'	32:1a:166:G:H8	1.69	0.56
32:1a:772:U:H2'	32:1a:773:G:O4'	2.04	0.56
38:1g:62:PHE:HA	38:1g:124:LEU:HD22	1.86	0.56
1:2A:154(A):C:H42	1:2A:171:G:H1	1.53	0.56
1:2A:1266:G:O4'	18:2W:15:ARG:NH2	2.38	0.56
12:2Q:135:ASP:OD2	21:2Z:49:ARG:NH2	2.38	0.56
32:2a:79:G:H1	32:2a:90:U:H3	1.54	0.56
32:2a:583:A:P	46:2o:68:ARG:HH22	2.28	0.56
46:2o:36:ILE:HG23	46:2o:56:LEU:HD11	1.87	0.56
1:1A:624:C:O2'	1:1A:657:U:OP1	2.22	0.56
9:1N:67:LEU:HD12	9:1N:87:LEU:HD13	1.87	0.56
32:1a:123:C:OP1	32:1a:311:C:O2'	2.14	0.56
32:1a:136:C:O2'	47:1p:65:GLN:NE2	2.38	0.56
33:1b:8:LYS:O	33:1b:217:ARG:NH1	2.39	0.56
35:1d:109:GLY:HA3	35:1d:165:MET:HG3	1.88	0.56
38:1g:27:ILE:HD13	38:1g:40:ALA:HA	1.86	0.56
32:2a:390:C:O3'	47:2p:28:ARG:NH2	2.39	0.56
43:2l:10:LEU:HB3	48:2q:32:TYR:CE2	2.40	0.56
44:2m:96:LEU:HD23	44:2m:103:THR:HG21	1.87	0.56
1:1A:2022:U:O2'	1:1A:2617:C:H5'	2.06	0.56
1:1A:2136:C:N4	1:1A:2155:G:C6	2.74	0.56
6:1G:179:PRO:HG3	26:14:43:TYR:OH	2.05	0.56
33:1b:16:HIS:CD2	33:1b:204:ASN:H	2.23	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1f:65:VAL:HG21	37:1f:67:MET:HE2	1.86	0.56
4:2E:36:ARG:NH1	4:2E:85:ASN:OD1	2.38	0.56
10:2O:68:GLU:OE1	10:2O:78:ARG:NH1	2.39	0.56
36:2e:126:ARG:HA	36:2e:131:ILE:HD11	1.87	0.56
1:1A:2130:U:H2'	1:1A:2158:A:N6	2.19	0.56
1:1A:2600:A:N6	59:1A:4323:HOH:O	2.25	0.56
32:1a:100:C:H2'	32:1a:101:A:C8	2.41	0.56
1:2A:143:G:H2'	1:2A:143(A):C:C6	2.40	0.56
1:2A:1449:A:O2'	1:2A:1529:G:N2	2.29	0.56
10:2O:34:THR:OG1	10:2O:35:VAL:N	2.38	0.56
18:2W:88:ARG:NH1	18:2W:94:ASP:OD2	2.39	0.56
32:2a:736:C:H2'	32:2a:737:A:C8	2.41	0.56
39:2h:64:LYS:HG2	39:2h:79:VAL:HG21	1.88	0.56
43:2l:86:ARG:NH1	59:2l:301:HOH:O	2.38	0.56
1:1A:221:A:N1	1:1A:265:A:O2'	2.36	0.56
1:1A:363(A):A:H2'	1:1A:363(B):G:C8	2.41	0.56
1:1A:489:G:N7	18:1W:49:LYS:NZ	2.54	0.56
1:1A:1385:G:O2'	1:1A:1396:U:O2	2.18	0.56
1:1A:1490:A:O2'	3:1D:99:ASP:OD1	2.23	0.56
1:1A:2576:G:OP1	59:1A:4281:HOH:O	2.18	0.56
10:1O:64:ARG:HB2	10:1O:79:PHE:CG	2.41	0.56
32:1a:194:C:H2'	32:1a:195:A:H5''	1.88	0.56
32:1a:539:A:H2'	32:1a:540:G:H8	1.70	0.56
32:1a:967:5MC:H4'	40:1i:125:TYR:HE1	1.71	0.56
40:1i:24:GLY:HA3	40:1i:57:GLY:HA2	1.88	0.56
1:2A:27:G:N2	1:2A:512:G:H1'	2.20	0.56
1:2A:428:A:OP1	59:2A:3950:HOH:O	2.18	0.56
3:2D:37:LEU:HD13	3:2D:62:TYR:HB2	1.86	0.56
14:2S:27:SER:HA	14:2S:88:ASP:HB3	1.88	0.56
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.88	0.56
33:2b:31:TYR:CE2	33:2b:194:PRO:HB3	2.40	0.56
1:1A:2537:U:H2'	1:1A:2538:C:C6	2.42	0.55
1:1A:2701:C:H2'	1:1A:2702:U:H2'	1.89	0.55
32:1a:542:G:OP1	35:1d:10:ARG:NH2	2.30	0.55
33:1b:155:LEU:HD11	33:1b:159:PRO:HG3	1.89	0.55
34:1c:36:ASP:N	34:1c:36:ASP:OD1	2.37	0.55
38:1g:69:VAL:HG22	38:1g:135:VAL:HG22	1.87	0.55
40:1i:11:LYS:H	40:1i:104:ARG:HH21	1.53	0.55
1:2A:1568:G:H5''	3:2D:61:LEU:HD13	1.88	0.55
1:2A:2273:A:H2'	1:2A:2274:A:C8	2.42	0.55
32:2a:861:G:HO2'	32:2a:874:G:HO2'	1.49	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1060:C:H2'	32:2a:1061:G:H8	1.70	0.55
32:2a:1346:A:N6	32:2a:1375:A:OP2	2.29	0.55
41:2j:20:ALA:O	41:2j:24:VAL:N	2.38	0.55
1:1A:2136:C:N4	1:1A:2155:G:H1	2.03	0.55
23:11:60:PHE:HE1	23:11:95:LEU:HD21	1.71	0.55
35:1d:31:CYS:SG	35:1d:33:MET:N	2.79	0.55
42:1k:27:ASN:OD1	42:1k:28:THR:N	2.38	0.55
1:2A:1183:G:H5''	25:23:30:ARG:NH2	2.21	0.55
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.20	0.55
1:2A:2529:G:O6	31:29:31:LYS:NZ	2.38	0.55
1:2A:2657:A:N6	1:2A:2664:G:O2'	2.40	0.55
8:2I:108:THR:HG22	8:2I:109:ILE:H	1.70	0.55
40:2i:3:GLN:HE21	40:2i:20:ARG:HE	1.54	0.55
8:1I:3:VAL:HA	8:1I:38:LEU:HA	1.89	0.55
21:1Z:40:ASP:HB3	21:1Z:43:GLU:HB2	1.88	0.55
26:14:46:GLN:O	26:14:46:GLN:HG2	2.07	0.55
32:1a:1005:A:H1'	32:1a:1036:G:O6	2.06	0.55
1:2A:55:G:H2'	1:2A:56:A:H8	1.72	0.55
1:2A:307:G:N2	1:2A:310:A:O5'	2.40	0.55
1:2A:857:C:H4'	22:20:23:VAL:HG21	1.87	0.55
2:2B:115:G:H2'	2:2B:116:G:O4'	2.06	0.55
5:2F:143:ALA:HB1	5:2F:148:LEU:HB2	1.87	0.55
7:2H:3:ARG:NH1	7:2H:4:ILE:H	2.05	0.55
7:2H:9:ILE:HB	7:2H:50:VAL:HG13	1.87	0.55
32:2a:17:U:H2'	32:2a:18:C:C6	2.42	0.55
32:2a:1346:A:N1	32:2a:1374:A:H5''	2.21	0.55
34:2c:131:ARG:HH21	36:2e:50:GLU:HG3	1.70	0.55
1:1A:1213:A:N3	1:1A:1238:G:O2'	2.36	0.55
1:1A:1482:G:N2	1:1A:1507:A:H1'	2.22	0.55
1:1A:2286:A:H4'	1:1A:2287:A:O4'	2.06	0.55
12:1Q:10:ARG:NH2	12:1Q:90:VAL:H	2.05	0.55
32:1a:1074:G:O2'	33:1b:103:THR:OG1	2.22	0.55
38:1g:67:GLU:OE1	38:1g:70:LYS:NZ	2.30	0.55
1:2A:784:A:C6	3:2D:229:VAL:HG11	2.41	0.55
1:2A:2522:U:O2'	1:2A:2647:U:OP1	2.24	0.55
32:2a:1029:C:C2	32:2a:1032:G:N2	2.75	0.55
32:2a:1176:A:H2'	32:2a:1177:G:C8	2.42	0.55
34:2c:58:GLU:HB2	34:2c:65:ALA:HB3	1.87	0.55
1:1A:588:U:H2'	1:1A:589:C:C6	2.41	0.55
1:1A:2136:C:N3	1:1A:2155:G:C2	2.74	0.55
1:1A:2319:G:H22	14:1S:3:ARG:HD3	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:108:PRO:HB3	3:1D:143:HIS:CE1	2.42	0.55
7:1H:92:ILE:HD12	7:1H:92:ILE:H	1.72	0.55
18:1W:19:LEU:HB3	27:15:25:LEU:HG	1.88	0.55
33:1b:22:LYS:HG2	33:1b:40:HIS:HE1	1.72	0.55
1:2A:83:G:N2	1:2A:103:A:OP2	2.39	0.55
1:2A:746:A:HO2'	1:2A:2611:U:HO2'	1.52	0.55
32:2a:815:A:N7	32:2a:1509:C:O2'	2.37	0.55
32:2a:864:A:H5'	36:2e:86:ALA:HB2	1.87	0.55
32:2a:1485:U:H2'	32:2a:1486:G:C8	2.41	0.55
36:2e:57:LYS:HG2	36:2e:61:TYR:HE2	1.71	0.55
1:1A:223:A:N1	1:1A:407:G:O2'	2.39	0.55
1:1A:1598:C:H2'	1:1A:1599:C:H6	1.72	0.55
1:1A:1815:A:OP1	59:1A:4285:HOH:O	2.18	0.55
1:1A:2072:G:N2	59:1A:4441:HOH:O	2.39	0.55
5:1F:34:TRP:HA	11:1P:6:LEU:HD13	1.89	0.55
5:1F:140:LEU:HD11	5:1F:170:LEU:HD21	1.89	0.55
16:1U:10:ARG:NH2	59:1U:301:HOH:O	2.40	0.55
32:1a:1298:C:H2'	38:1g:114:ARG:NH2	2.22	0.55
32:1a:1409:C:H2'	32:1a:1410:G:H8	1.71	0.55
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.41	0.55
33:1b:167:PRO:HG2	33:1b:192:SER:HB3	1.88	0.55
1:2A:1266:G:O2'	1:2A:2012:G:O6	2.25	0.55
1:2A:2134:A:N6	1:2A:2157:G:H4'	2.21	0.55
2:2B:19:G:H2'	2:2B:20:C:O4'	2.07	0.55
14:2S:15:ARG:O	14:2S:19:LYS:HG2	2.06	0.55
25:23:10:LYS:HB3	25:23:53:LEU:HA	1.88	0.55
30:28:6:THR:HG23	30:28:64:TYR:HD2	1.71	0.55
32:2a:15:G:O4'	36:2e:24:ARG:NH2	2.39	0.55
40:2i:85:LEU:HB3	40:2i:92:TYR:CD2	2.42	0.55
42:2k:82:VAL:HB	42:2k:108:ILE:HG12	1.88	0.55
1:1A:819:A:OP2	1:1A:1187:G:N2	2.33	0.55
1:1A:882:G:H1	1:1A:894:C:H42	1.55	0.55
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.06	0.55
5:1F:164:ARG:HD2	5:1F:175:THR:HG23	1.89	0.55
41:1j:49:VAL:HB	45:1n:41:ARG:HG3	1.88	0.55
1:2A:1019:U:H3	1:2A:1142(A):A:H62	1.54	0.55
2:2B:11:C:H3'	2:2B:12:C:C6	2.42	0.55
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	1.88	0.55
30:28:56:GLU:HA	30:28:59:LYS:HE3	1.87	0.55
32:2a:56:U:H2'	32:2a:57:G:H8	1.69	0.55
32:2a:619:U:N3	35:2d:134:ASP:OD1	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:728:A:H2'	32:2a:729:A:C8	2.42	0.55
32:2a:974:A:OP2	45:2n:29:ARG:NH1	2.40	0.55
32:2a:1404:5MC:O2	32:2a:1519:MA6:O2'	2.21	0.55
48:2q:45:HIS:NE2	48:2q:47:PRO:HG3	2.22	0.55
1:1A:1466:G:H2'	1:1A:1547:C:H41	1.72	0.55
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.20	0.55
28:16:18:ARG:HD2	28:16:42:TRP:CG	2.42	0.55
32:1a:973:G:OP1	41:1j:57:LYS:NZ	2.31	0.55
1:2A:954:G:H5''	12:2Q:13:GLN:HB3	1.89	0.55
1:2A:1186:G:C2	1:2A:1187:G:H1'	2.41	0.55
1:2A:1419:A:H5'	1:2A:1579:A:H61	1.71	0.55
1:2A:2101:G:O6	1:2A:2188:C:N3	2.39	0.55
7:2H:159:GLU:HG3	7:2H:169:VAL:HG11	1.88	0.55
12:2Q:111:GLU:O	12:2Q:115:MET:HG2	2.07	0.55
17:2V:56:SER:H	17:2V:100:ARG:HB2	1.72	0.55
26:24:62:ARG:HA	26:24:62:ARG:CZ	2.36	0.55
39:2h:20:TYR:HA	39:2h:65:TYR:CZ	2.42	0.55
48:2q:84:LEU:O	48:2q:87:LYS:HG3	2.06	0.55
1:1A:1047:G:H2'	1:1A:1110:G:N2	2.22	0.55
6:1G:11:TYR:HA	6:1G:15:VAL:HB	1.88	0.55
1:2A:910:A:C5	12:2Q:13:GLN:HG3	2.42	0.55
1:2A:1477:A:H2'	1:2A:1478:G:O4'	2.07	0.55
1:2A:2689:U:OP2	1:2A:2719:G:N2	2.34	0.55
3:2D:145:VAL:HG13	3:2D:191:ALA:HB2	1.87	0.55
15:2T:54:ARG:HA	15:2T:59:THR:HG23	1.88	0.55
32:2a:707:C:H2'	32:2a:708:C:C6	2.41	0.55
36:2e:32:VAL:HG11	36:2e:59:GLY:HA2	1.89	0.55
1:1A:1031:G:N3	31:19:36:GLN:NE2	2.50	0.55
1:1A:1991:U:H2'	1:1A:1992:G:H5''	1.88	0.55
32:1a:977:A:H2'	32:1a:978:A:H5''	1.89	0.55
32:1a:1068:G:H8	32:1a:1068:G:OP2	1.89	0.55
47:1p:4:ILE:HG13	47:1p:64:ALA:HB1	1.89	0.55
1:2A:2334:G:H5'	14:2S:9:ARG:HG2	1.89	0.55
15:2T:51:ARG:HG2	15:2T:62:THR:HB	1.89	0.55
32:2a:131:C:H2'	32:2a:132:C:C6	2.42	0.55
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.88	0.55
32:2a:1084:G:H5'	32:2a:1102:A:OP2	2.06	0.55
32:2a:1136:U:OP2	32:2a:1137:C:N4	2.40	0.55
38:2g:153:HIS:HE1	42:2k:57:THR:HB	1.72	0.55
1:1A:1416:G:N2	1:1A:1582:C:O2	2.20	0.54
5:1F:34:TRP:CE3	5:1F:35:GLU:HG2	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:328:C:H4'	32:1a:329:A:H5'	1.88	0.54
32:1a:601:C:H2'	32:1a:602:A:H8	1.73	0.54
37:1f:35:ALA:HA	37:1f:67:MET:HB3	1.90	0.54
1:2A:1946:U:H2'	1:2A:1947:C:C6	2.42	0.54
1:2A:2108:C:H2'	1:2A:2109:U:C6	2.42	0.54
1:2A:2164:C:H5''	1:2A:2165:G:C8	2.42	0.54
1:2A:2467:C:H4'	12:2Q:123:HIS:CD2	2.42	0.54
1:2A:2683:C:O2	10:2O:70:LYS:NZ	2.26	0.54
32:2a:147:G:H2'	32:2a:148:G:H8	1.72	0.54
37:2f:46:ARG:HH22	49:2r:37:VAL:HG11	1.72	0.54
1:1A:1060:U:H3	1:1A:1062:G:H1'	1.71	0.54
1:1A:2134:A:H61	1:1A:2157:G:H4'	1.72	0.54
4:1E:1:MET:O	4:1E:84:PHE:HB2	2.06	0.54
10:1O:75:SER:OG	15:1T:74:ARG:NH1	2.39	0.54
15:1T:91:ARG:HB2	15:1T:121:ILE:HG13	1.88	0.54
32:1a:950:U:H2'	32:1a:951:G:H8	1.72	0.54
32:1a:958:A:N3	32:1a:985:C:O2'	2.32	0.54
32:1a:1027:C:C4	32:1a:1034:G:N1	2.76	0.54
35:1d:76:ARG:NH2	35:1d:80:GLU:OE2	2.35	0.54
37:1f:43:LEU:HD22	37:1f:46:ARG:HH21	1.72	0.54
1:2A:7:G:H2'	1:2A:8:A:C8	2.42	0.54
1:2A:658:C:H2'	1:2A:659:C:C6	2.43	0.54
1:2A:2648:C:H2'	1:2A:2649:U:H6	1.72	0.54
4:2E:109:LYS:O	4:2E:111:ARG:NH1	2.40	0.54
18:2W:15:ARG:NH1	59:2W:301:HOH:O	2.40	0.54
32:2a:646:U:H2'	32:2a:647:C:C6	2.42	0.54
32:2a:1138:G:C6	32:2a:1140:C:H1'	2.42	0.54
32:2a:1202:G:N2	45:2n:46:GLU:OE2	2.35	0.54
32:2a:1263:C:C4	32:2a:1272:G:O6	2.61	0.54
5:1F:156:LEU:HD21	5:1F:163:VAL:HG12	1.89	0.54
32:1a:96:U:H2'	32:1a:97:G:C8	2.42	0.54
32:1a:237:C:OP2	48:1q:40:LYS:NZ	2.39	0.54
32:1a:373:A:H2'	32:1a:374:A:H8	1.72	0.54
32:1a:539:A:H2'	32:1a:540:G:C8	2.42	0.54
32:1a:677:U:H3	32:1a:713:G:H22	1.54	0.54
35:1d:81:GLU:CD	35:1d:139:ARG:HH22	2.16	0.54
1:2A:2848:G:O6	59:2A:3952:HOH:O	2.18	0.54
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.42	0.54
18:2W:12:ILE:HD13	18:2W:17:VAL:HG13	1.89	0.54
1:1A:135:G:N7	59:1A:4394:HOH:O	2.33	0.54
1:1A:1047:G:HO2'	1:1A:1048:A:H8	1.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1063:G:H2'	1:1A:1064:C:C6	2.43	0.54
5:1F:135:LYS:HB2	5:1F:138:GLU:CD	2.32	0.54
6:1G:117:PHE:HZ	6:1G:179:PRO:HG2	1.72	0.54
18:1W:65:LEU:HD12	18:1W:68:ARG:HE	1.71	0.54
32:1a:472:A:H2'	32:1a:473:G:O4'	2.08	0.54
32:1a:950:U:H2'	32:1a:951:G:C8	2.43	0.54
32:1a:1148:U:H2'	32:1a:1149:C:O4'	2.07	0.54
1:2A:2022:U:O2'	1:2A:2616:C:O2'	2.15	0.54
3:2D:108:PRO:HD2	3:2D:111:LEU:HD22	1.88	0.54
14:2S:26:LEU:N	14:2S:86:ALA:O	2.36	0.54
32:2a:515:G:H2'	32:2a:516:PSU:C6	2.42	0.54
32:2a:953:G:H5'	32:2a:965:A:N6	2.21	0.54
38:2g:23:VAL:HG13	38:2g:43:PHE:HE2	1.72	0.54
1:1A:1815:A:P	3:1D:54:ARG:HH22	2.30	0.54
1:1A:1936:A:OP1	1:1A:1937:A:H5'	2.06	0.54
15:1T:51:ARG:HG3	15:1T:98:LYS:HD2	1.90	0.54
32:1a:197:A:C6	32:1a:221:C:H4'	2.43	0.54
32:1a:266:G:H5''	32:1a:268:C:H41	1.72	0.54
32:1a:1346:A:OP1	40:1i:120:ARG:NH1	2.28	0.54
33:1b:21:ARG:HB3	33:1b:39:ILE:HA	1.89	0.54
1:2A:639:U:H2'	1:2A:640:C:C6	2.42	0.54
1:2A:652(D):C:H42	1:2A:652(U):G:H1	1.55	0.54
1:2A:686:G:N2	1:2A:788:A:H61	2.05	0.54
1:2A:821:A:H2'	1:2A:946:G:H5''	1.88	0.54
1:2A:1021:A:H62	1:2A:1141:U:H3	1.55	0.54
1:2A:1713:U:H2'	1:2A:1714:G:C8	2.41	0.54
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.07	0.54
1:2A:2408:U:H2'	1:2A:2409:G:C8	2.43	0.54
1:2A:2638:G:P	4:2E:82:ARG:HH22	2.31	0.54
12:2Q:85:LYS:HD3	22:20:7:LEU:HD22	1.89	0.54
19:2X:50:LYS:HB3	19:2X:84:ALA:HB2	1.90	0.54
31:29:2:LYS:NZ	31:29:31:LYS:O	2.41	0.54
32:2a:603:U:H2'	32:2a:604:G:H8	1.71	0.54
45:2n:48:ALA:HB2	45:2n:53:LEU:HD12	1.90	0.54
1:1A:213:A:OP2	59:1A:4282:HOH:O	2.18	0.54
1:1A:1902:C:H5'	3:1D:246:PRO:HD3	1.88	0.54
11:1P:70:GLN:N	11:1P:70:GLN:OE1	2.41	0.54
12:1Q:27:VAL:O	12:1Q:67:ARG:NH1	2.41	0.54
32:1a:108:G:N1	51:1t:15:ARG:HG2	2.23	0.54
32:1a:262:A:H2'	32:1a:263:A:C8	2.42	0.54
1:2A:2319:G:N2	14:2S:3:ARG:HD2	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1029:C:C4	32:2a:1032:G:N1	2.76	0.54
1:1A:1044:G:H1'	1:1A:1048:A:H1'	1.90	0.54
32:1a:630:G:H2'	32:1a:631:G:H8	1.73	0.54
33:1b:33:TYR:HB2	33:1b:43:ASP:HB2	1.90	0.54
40:1i:17:VAL:HA	40:1i:63:ILE:HG23	1.89	0.54
1:2A:2680:C:H1'	4:2E:187:ALA:HB1	1.88	0.54
12:2Q:75:THR:HG21	12:2Q:87:LYS:HE2	1.90	0.54
16:2U:17:ILE:HG13	16:2U:32:PHE:HE1	1.72	0.54
21:2Z:33:LEU:HD11	21:2Z:90:VAL:HG21	1.90	0.54
36:2e:139:LEU:HA	36:2e:142:LEU:HD12	1.89	0.54
1:1A:783:A:O2'	1:1A:785:G:OP1	2.25	0.54
1:1A:1179:C:H2'	1:1A:1180:C:H6	1.73	0.54
1:1A:2031:A:C6	1:1A:2498:C:H1'	2.43	0.54
20:1Y:20:TYR:CE2	20:1Y:43:ASN:HA	2.43	0.54
32:1a:129:U:H5'	48:1q:3:LYS:HZ1	1.73	0.54
32:1a:1052:U:OP2	59:1a:1916:HOH:O	2.18	0.54
51:1t:33:ILE:O	51:1t:37:SER:OG	2.24	0.54
1:2A:125:G:C6	29:27:10:ARG:HG3	2.42	0.54
1:2A:1456:G:OP2	59:2A:3953:HOH:O	2.19	0.54
1:2A:2055:C:N3	59:2A:4025:HOH:O	2.33	0.54
1:2A:2127:G:C6	1:2A:2161:C:N4	2.76	0.54
5:2F:103:LYS:HA	5:2F:106:ARG:HD3	1.90	0.54
11:2P:38:GLN:HB3	11:2P:45:LEU:HD23	1.90	0.54
22:20:53:MET:HG2	22:20:57:PHE:HA	1.90	0.54
32:2a:1396:A:H2	36:2e:19:MET:HG3	1.73	0.54
32:2a:1465:C:H2'	32:2a:1466:C:O4'	2.08	0.54
39:2h:12:ARG:HD2	39:2h:26:VAL:HG12	1.90	0.54
1:1A:2377:A:H2'	1:1A:2378:A:C8	2.43	0.54
1:2A:2857:G:N2	1:2A:2860:A:OP2	2.40	0.54
21:2Z:28:MET:HE1	21:2Z:61:LEU:HD21	1.89	0.54
21:2Z:47:VAL:HA	21:2Z:50:GLN:HE22	1.73	0.54
21:2Z:52:SER:HB3	21:2Z:54:HIS:ND1	2.22	0.54
32:2a:1329:A:H5'	44:2m:29:ARG:HE	1.72	0.54
33:2b:27:LYS:HB2	33:2b:194:PRO:HD2	1.89	0.54
35:2d:36:ARG:HD2	35:2d:38:TYR:HE2	1.73	0.54
54:2x:61:C:H2'	54:2x:62:C:H6	1.73	0.54
1:1A:1091:G:C6	1:1A:1101:U:C2	2.96	0.54
1:1A:1759:A:H1'	1:1A:2711:A:C2	2.43	0.54
8:1I:38:LEU:HG	8:1I:40:THR:HG22	1.89	0.54
1:2A:84:A:H5''	20:2Y:8:LYS:HE3	1.88	0.54
1:2A:140:G:H1'	1:2A:141:A:H2	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:774:A:H2'	1:2A:774:A:N3	2.23	0.54
1:2A:1259:G:H2'	1:2A:1260:G:H8	1.72	0.54
1:2A:1662:C:O2'	1:2A:2687:U:OP1	2.25	0.54
13:2R:2:ARG:NH1	13:2R:5:LYS:O	2.41	0.54
26:24:62:ARG:HA	26:24:62:ARG:NH1	2.23	0.54
32:2a:1240:U:N3	38:2g:30:ILE:O	2.29	0.54
32:2a:1301:U:O2'	32:2a:1302:U:H5'	2.08	0.54
1:1A:1055:G:H1	1:1A:1104:C:H42	1.57	0.53
1:1A:1266:G:O2'	1:1A:2012:G:O6	2.24	0.53
1:1A:2462:U:H1'	1:1A:2491:U:O4	2.08	0.53
14:1S:28:VAL:HG11	14:1S:98:VAL:HG13	1.90	0.53
32:1a:406:G:N2	35:1d:119:GLN:HE22	2.05	0.53
48:1q:14:LYS:HD3	48:1q:14:LYS:H	1.73	0.53
1:2A:1803:A:O2'	3:2D:259:THR:HG21	2.08	0.53
1:2A:2010:G:H5''	18:2W:42:ARG:HB2	1.90	0.53
1:2A:2801(A):A:H5'	1:2A:2802:G:H8	1.73	0.53
5:2F:117:ARG:NH2	5:2F:189:THR:O	2.38	0.53
32:2a:1095:U:OP1	32:2a:1108:G:N1	2.39	0.53
37:2f:30:LEU:HD23	37:2f:75:LEU:HD11	1.89	0.53
1:1A:825:C:O2'	11:1P:55:ARG:HD3	2.08	0.53
1:1A:1876:A:H2'	1:1A:1877:A:C8	2.42	0.53
32:1a:685:G:N2	32:1a:704:A:OP2	2.40	0.53
32:1a:1308:U:OP1	44:1m:98:VAL:N	2.39	0.53
1:2A:1113:U:H2'	1:2A:1114:G:C8	2.43	0.53
1:2A:1187:G:H5'	17:2V:81:TYR:CE1	2.44	0.53
1:2A:2110:G:H3'	1:2A:2111:C:H5'	1.90	0.53
1:2A:2495:G:H5''	12:2Q:82:ARG:HG2	1.90	0.53
33:2b:219:VAL:HA	33:2b:222:ILE:HG12	1.90	0.53
34:2c:20:SER:OG	34:2c:36:ASP:OD2	2.21	0.53
1:1A:207:A:H2'	1:1A:208:C:O4'	2.07	0.53
1:1A:963:U:OP1	59:1A:4287:HOH:O	2.19	0.53
1:1A:993:G:OP1	16:1U:50:ARG:NH2	2.41	0.53
1:1A:2305:A:H5''	6:1G:134:GLY:HA3	1.90	0.53
12:1Q:17:LEU:HD22	12:1Q:96:VAL:HG13	1.90	0.53
32:1a:406:G:H21	35:1d:119:GLN:HE22	1.55	0.53
32:1a:695:A:OP2	42:1k:53:SER:N	2.38	0.53
32:1a:1127:G:H5'	32:1a:1280:A:O2'	2.08	0.53
50:1s:51:VAL:HB	50:1s:75:ALA:HB2	1.91	0.53
1:2A:72:U:OP1	59:2A:3955:HOH:O	2.19	0.53
1:2A:251:A:C5	1:2A:252:G:H1'	2.43	0.53
1:2A:1015:G:H2'	1:2A:1016:G:H8	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:245:G:O6	30:18:8:LYS:NZ	2.34	0.53
22:10:40:GLN:OE1	22:10:44:ARG:N	2.40	0.53
32:1a:1067:A:N1	32:1a:1108:G:O2'	2.39	0.53
1:2A:1446:C:H42	1:2A:1465:G:H1	1.54	0.53
1:2A:1836:C:H2'	1:2A:1837:C:H6	1.73	0.53
6:2G:15:VAL:HB	6:2G:175:LEU:HD23	1.90	0.53
6:2G:43:LEU:O	6:2G:45:GLU:N	2.34	0.53
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.08	0.53
32:2a:495:A:H1'	32:2a:496:A:H5''	1.90	0.53
32:2a:952:U:H2'	32:2a:953:G:C8	2.43	0.53
32:2a:1226:C:H4'	50:2s:80:TYR:CZ	2.43	0.53
32:2a:1239:A:H4'	32:2a:1240:U:H5'	1.90	0.53
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.41	0.53
1:1A:1058:G:H1	1:1A:1080:C:N4	2.04	0.53
1:1A:1069:A:H4'	1:1A:1070:A:H8	1.73	0.53
1:1A:1301:A:O2'	1:1A:1302:A:H3'	2.08	0.53
1:1A:1339:G:H5''	19:1X:16:LYS:HD3	1.91	0.53
1:1A:1504:C:H2'	1:1A:1505:C:C6	2.42	0.53
5:1F:132:VAL:HA	5:1F:138:GLU:HB3	1.91	0.53
5:1F:155:LEU:HB2	5:1F:189:THR:HG21	1.90	0.53
17:1V:52:VAL:HG22	17:1V:55:ALA:HB3	1.91	0.53
32:1a:160:A:H1'	32:1a:344:A:N7	2.24	0.53
32:1a:473:G:H2'	32:1a:474:G:C8	2.44	0.53
57:1a:1835:V7A:OAZ	57:1a:1835:V7A:OAY	2.25	0.53
37:1f:48:LEU:HB2	37:1f:56:PRO:O	2.07	0.53
40:1i:4:TYR:HB2	40:1i:19:LEU:HB2	1.89	0.53
1:2A:84:A:N1	1:2A:98:G:O2'	2.37	0.53
1:2A:390:A:N6	59:2A:4074:HOH:O	2.41	0.53
1:2A:458:G:O2'	1:2A:469:G:O6	2.26	0.53
1:2A:849:A:H2	25:23:24:LYS:HB3	1.73	0.53
1:2A:2503:2MA:O2'	1:2A:2505:G:OP2	2.18	0.53
6:2G:44:GLY:C	6:2G:46:ALA:H	2.16	0.53
7:2H:43:VAL:HG13	7:2H:52:VAL:HG22	1.89	0.53
14:2S:38:GLN:HE21	14:2S:47:THR:HG1	1.49	0.53
32:2a:514:C:H2'	32:2a:515:G:C8	2.43	0.53
32:2a:840:C:H4'	32:2a:841:U:OP1	2.08	0.53
32:2a:1137:C:H5''	32:2a:1138:G:OP1	2.08	0.53
32:2a:1288:A:H2'	32:2a:1289:A:C8	2.43	0.53
38:2g:42:ILE:HG21	38:2g:116:ALA:HB3	1.88	0.53
1:1A:7:G:H2'	1:1A:8:A:C8	2.43	0.53
1:1A:526:A:OP1	59:1A:4260:HOH:O	2.18	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:747:U:O2	1:1A:2014:A:H1'	2.07	0.53
1:1A:2075:U:OP2	1:1A:2238:G:O2'	2.19	0.53
7:1H:43:VAL:HG22	7:1H:52:VAL:HG22	1.91	0.53
37:1f:69:GLU:H	37:1f:69:GLU:CD	2.16	0.53
1:2A:322:A:OP2	5:2F:169:ASN:HB2	2.09	0.53
1:2A:2163:C:H5'	1:2A:2172:U:C5'	2.37	0.53
1:2A:2413:G:H21	11:2P:70:GLN:HE22	1.55	0.53
17:2V:6:LYS:HB2	17:2V:38:LEU:HD11	1.91	0.53
1:1A:183:C:N4	1:1A:213:A:H61	2.06	0.53
1:1A:1188:U:C2'	1:1A:1189:A:H5'	2.38	0.53
5:1F:195:ASP:HB3	5:1F:198:ALA:H	1.72	0.53
40:1i:17:VAL:HG11	40:1i:80:GLY:C	2.34	0.53
1:2A:2105:C:H2'	1:2A:2106:G:C8	2.44	0.53
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.44	0.53
2:2B:105:A:H5'	2:2B:106:G:OP2	2.09	0.53
6:2G:54:GLU:HA	6:2G:57:ALA:HB3	1.91	0.53
21:2Z:31:ARG:NH1	21:2Z:94:GLU:HG2	2.23	0.53
32:2a:973:G:H3'	32:2a:974:A:H5''	1.91	0.53
32:2a:1267:C:O2	52:2u:20:LYS:NZ	2.38	0.53
1:1A:409:C:OP1	59:1A:4221:HOH:O	2.18	0.53
1:1A:536:A:H2'	1:1A:537:C:C6	2.44	0.53
1:1A:1153:C:OP1	16:1U:92:ARG:NH2	2.37	0.53
1:1A:1512:U:H2'	1:1A:1513:C:C6	2.43	0.53
1:1A:2689:U:OP2	1:1A:2719:G:N2	2.37	0.53
5:1F:70:THR:CG2	5:1F:72:ARG:H	2.22	0.53
18:1W:39:THR:O	18:1W:41:LYS:N	2.42	0.53
38:1g:91:VAL:HG13	38:1g:95:ARG:HD3	1.91	0.53
1:2A:271(R):G:OP1	23:21:76:ARG:NE	2.41	0.53
1:2A:1316:U:H2'	1:2A:1317:A:H8	1.72	0.53
1:2A:2315:G:H2'	1:2A:2316:C:C6	2.44	0.53
15:2T:102:ILE:HA	15:2T:105:LEU:HD12	1.90	0.53
32:2a:533:A:O2'	32:2a:535:A:OP2	2.17	0.53
42:2k:81:ASP:OD1	42:2k:106:LYS:HB2	2.09	0.53
44:2m:108:ARG:HD2	44:2m:114:ARG:HG2	1.90	0.53
47:2p:28:ARG:NH1	47:2p:29:ASP:OD1	2.42	0.53
54:2x:18:G:O2'	54:2x:19:G:H5'	2.09	0.53
1:1A:1957:C:H2'	1:1A:1958:C:C6	2.44	0.53
2:1B:66:A:N6	2:1B:109:C:H5'	2.23	0.53
18:1W:68:ARG:HB2	18:1W:109:GLU:HG2	1.91	0.53
32:1a:946:A:H2'	32:1a:947:G:C8	2.44	0.53
32:1a:1129:C:OP1	40:1i:66:ARG:NH1	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:93:VAL:HG21	33:1b:97:TRP:HD1	1.72	0.53
1:2A:2630:G:H2'	1:2A:2631:G:C8	2.44	0.53
10:2O:68:GLU:CD	10:2O:68:GLU:H	2.17	0.53
28:26:6:ARG:NH1	28:26:26:ASN:HB2	2.23	0.53
32:2a:691:G:H2'	32:2a:692:U:C6	2.44	0.53
32:2a:1148:U:O4'	40:2i:16:ARG:HD2	2.07	0.53
32:2a:1224:G:OP1	59:2a:3309:HOH:O	2.19	0.53
32:2a:1245:A:N6	32:2a:1292:U:H3	2.07	0.53
40:2i:85:LEU:HB3	40:2i:92:TYR:HD2	1.73	0.53
1:1A:2331:G:O2'	1:1A:2336:A:N1	2.26	0.53
1:1A:2430:A:N3	1:1A:2430:A:H2'	2.23	0.53
2:1B:8:U:O3'	14:1S:25:ARG:NH2	2.41	0.53
2:1B:86:G:H1	2:1B:91:C:N4	2.07	0.53
3:1D:232:PRO:HB3	3:1D:244:ARG:CZ	2.39	0.53
32:1a:688:G:H2'	32:1a:689:C:H6	1.73	0.53
40:1i:9:ARG:HG2	40:1i:14:VAL:HG23	1.91	0.53
40:1i:53:VAL:O	40:1i:55:ALA:N	2.41	0.53
1:2A:784:A:N6	3:2D:229:VAL:HG11	2.24	0.53
1:2A:2378:A:H4'	14:2S:23:ARG:NH1	2.24	0.53
1:2A:2705:A:OP2	59:2A:3949:HOH:O	2.18	0.53
2:2B:81:G:OP2	59:2B:303:HOH:O	2.19	0.53
3:2D:85:ASP:OD2	3:2D:88:ARG:NH1	2.36	0.53
32:2a:1179:A:H2'	32:2a:1180:A:O4'	2.09	0.53
32:2a:1269:A:N3	32:2a:1326:C:H1'	2.24	0.53
1:1A:639:U:H2'	1:1A:640:C:C6	2.44	0.52
7:1H:154:PRO:HB3	7:1H:163:TYR:CE1	2.44	0.52
32:1a:656:C:O2'	46:1o:28:GLN:NE2	2.36	0.52
32:1a:1002:G:H3'	32:1a:1003:G:C4'	2.37	0.52
32:1a:1095:U:H5''	32:1a:1109:C:O2	2.09	0.52
36:1e:11:ILE:HD11	36:1e:33:VAL:HB	1.91	0.52
37:1f:99:ALA:O	49:1r:28:GLU:HA	2.09	0.52
1:2A:900:A:H3'	1:2A:901:A:H8	1.74	0.52
1:2A:1567:A:OP2	3:2D:84:TYR:OH	2.24	0.52
2:2B:5:C:OP1	2:2B:61:G:O2'	2.22	0.52
32:2a:500:G:H2'	32:2a:501:C:C6	2.44	0.52
32:2a:545:C:OP1	35:2d:61:LYS:NZ	2.41	0.52
32:2a:951:G:N3	32:2a:970:C:O2'	2.41	0.52
32:2a:1316:G:N2	32:2a:1319:A:H5''	2.24	0.52
36:2e:105:VAL:HB	36:2e:106:PRO:HD3	1.90	0.52
38:2g:89:MET:SD	38:2g:155:ARG:HB2	2.49	0.52
51:2t:9:ASN:O	51:2t:10:LEU:HB2	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:305:U:H2'	1:1A:306:U:C6	2.44	0.52
1:1A:573:G:O2'	1:1A:574:C:H3'	2.09	0.52
1:1A:1588:C:H2'	1:1A:1589:C:H6	1.74	0.52
1:1A:1913:A:H61	32:1a:1493:A:H2'	1.74	0.52
1:1A:2153:G:H2'	1:1A:2154:G:C8	2.40	0.52
1:1A:2567:G:H2'	1:1A:2568:C:C6	2.44	0.52
12:1Q:85:LYS:HG2	22:10:7:LEU:HB3	1.90	0.52
32:1a:1106:G:H5''	34:1c:172:ARG:HG2	1.91	0.52
32:1a:1108:G:H5'	34:1c:176:HIS:CD2	2.43	0.52
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.44	0.52
1:2A:370:G:OP1	1:2A:403:U:N3	2.31	0.52
1:2A:524:U:H2'	1:2A:525:U:C6	2.44	0.52
1:2A:746:A:H2'	1:2A:2612:C:H5''	1.91	0.52
1:2A:793:A:OP2	1:2A:2071:A:O2'	2.26	0.52
1:2A:1942:5MC:HM52	1:2A:1943:U:C2	2.44	0.52
1:2A:2065:C:H2'	1:2A:2066:C:C6	2.45	0.52
1:2A:2131:G:H4'	1:2A:2132:U:H5'	1.91	0.52
2:2B:41:U:H5	6:2G:70:VAL:H	1.58	0.52
8:2I:87:LYS:O	8:2I:123:LEU:HD13	2.09	0.52
25:23:11:SER:HA	25:23:31:LEU:HD11	1.90	0.52
32:2a:91:C:H2'	32:2a:92:C:H6	1.74	0.52
32:2a:677:U:O2	32:2a:777:A:O2'	2.26	0.52
32:2a:1106:G:H2'	32:2a:1107:C:C6	2.44	0.52
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.25	0.52
38:2g:153:HIS:CE1	42:2k:58:PRO:HD2	2.44	0.52
1:1A:448:U:H5'	59:1A:4351:HOH:O	2.09	0.52
1:1A:652(C):G:N2	1:1A:653:A:H1'	2.24	0.52
2:1B:43:C:OP1	26:14:6:HIS:NE2	2.38	0.52
9:1N:13:TRP:CE2	9:1N:133:GLN:HG2	2.44	0.52
33:1b:207:ALA:O	33:1b:210:SER:N	2.42	0.52
41:1j:62:HIS:HB3	45:1n:59:ALA:HB3	1.91	0.52
42:1k:99:GLN:HG2	42:1k:105:VAL:HG21	1.92	0.52
47:1p:13:HIS:O	47:1p:42:ARG:NH2	2.42	0.52
48:1q:24:GLU:HA	48:1q:39:SER:HA	1.91	0.52
1:2A:1990:C:H2'	1:2A:1991:U:O4'	2.10	0.52
1:2A:2679:A:H4'	4:2E:165:VAL:HG11	1.91	0.52
1:2A:2684:U:H1'	10:2O:70:LYS:HD2	1.90	0.52
3:2D:89:SER:HB2	3:2D:201:HIS:CD2	2.44	0.52
32:2a:984:C:H2'	32:2a:985:C:H6	1.75	0.52
32:2a:1030(A):G:N2	32:2a:1030(C):G:H3'	2.23	0.52
32:2a:1286:A:C8	32:2a:1287:A:H4'	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:15:VAL:O	44:2m:19:LEU:HG	2.09	0.52
1:1A:142:A:OP2	1:1A:142(A):C:N4	2.40	0.52
1:1A:1783:A:H5'	1:1A:2608:G:H4'	1.92	0.52
1:1A:2151:G:H2'	1:1A:2152:G:C8	2.44	0.52
1:1A:2875:C:O2'	15:1T:2:ASN:OD1	2.23	0.52
59:1A:4709:HOH:O	54:1x:76:A:H1'	2.08	0.52
3:1D:67:PHE:HB3	3:1D:153:ALA:H	1.74	0.52
11:1P:89:ALA:O	11:1P:121:LYS:NZ	2.43	0.52
32:1a:17:U:H2'	32:1a:18:C:C6	2.44	0.52
32:1a:44:G:C2	32:1a:45:U:H1'	2.44	0.52
32:1a:141:A:H4'	32:1a:182:U:H1'	1.91	0.52
34:1c:58:GLU:HB3	41:1j:92:THR:HG21	1.92	0.52
1:2A:263:C:H2'	1:2A:264:C:O4'	2.10	0.52
1:2A:1141:U:OP2	9:2N:63:THR:OG1	2.26	0.52
1:2A:2126:A:H61	1:2A:2162:G:HO2'	1.52	0.52
1:2A:2127:G:N2	1:2A:2161:C:C2	2.78	0.52
23:21:73:LEU:HB3	23:21:94:LEU:HD22	1.92	0.52
24:22:22:GLU:OE2	24:22:68:ARG:NH2	2.43	0.52
32:2a:7:G:H5'	32:2a:298:A:O4'	2.10	0.52
32:2a:524:G:H2'	32:2a:525:C:C6	2.45	0.52
32:2a:560:U:H4'	32:2a:561:U:O5'	2.08	0.52
32:2a:1146:A:H2'	32:2a:1147:C:O4'	2.10	0.52
32:2a:1348:U:H2'	32:2a:1349:A:H8	1.73	0.52
43:2l:40:VAL:HG21	43:2l:78:GLN:HA	1.92	0.52
1:1A:272:G:N7	1:1A:421:U:H2'	2.25	0.52
1:1A:528:A:O2'	1:1A:529:A:H5'	2.09	0.52
1:1A:1582:C:O2'	1:1A:1586:A:N3	2.42	0.52
1:1A:2319:G:N2	14:1S:3:ARG:HA	2.25	0.52
32:1a:831:U:H2'	32:1a:832:C:C6	2.44	0.52
1:2A:330:A:H2	1:2A:1210:A:HO2'	1.58	0.52
1:2A:403:U:H4'	1:2A:404:C:H5'	1.92	0.52
1:2A:2299:G:N1	1:2A:2318:G:N7	2.58	0.52
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.09	0.52
5:2F:126:VAL:HG21	5:2F:129:PHE:CZ	2.44	0.52
8:2I:86:THR:C	8:2I:123:LEU:HB2	2.35	0.52
17:2V:62:LEU:HD12	17:2V:93:GLU:HG2	1.91	0.52
31:29:22:ARG:HB2	31:29:24:TYR:HE2	1.74	0.52
32:2a:792:A:H4'	32:2a:793:U:H5''	1.92	0.52
32:2a:952:U:H2'	32:2a:953:G:H8	1.74	0.52
32:2a:1272:G:N2	32:2a:1273:G:C5	2.78	0.52
32:2a:1369:C:OP2	40:2i:112:LYS:N	2.34	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:50:LEU:HD12	40:2i:51:ARG:HD3	1.91	0.52
1:1A:1186:G:H2'	1:1A:1187:G:O4'	2.10	0.52
3:1D:26:LYS:NZ	3:1D:30:GLU:OE1	2.39	0.52
7:1H:105:LEU:HD11	7:1H:148:ILE:HG23	1.91	0.52
32:1a:221:C:H2'	32:1a:222:U:H6	1.74	0.52
32:1a:258:G:H2'	32:1a:259:G:H8	1.74	0.52
32:1a:476:G:H2'	32:1a:477:A:C8	2.44	0.52
46:1o:56:LEU:O	46:1o:60:VAL:HG23	2.09	0.52
1:2A:1149:G:H2'	1:2A:1150:C:C6	2.45	0.52
1:2A:2313:C:H2'	1:2A:2314:C:C6	2.43	0.52
1:2A:2805:G:H2'	1:2A:2807:G:H8	1.74	0.52
1:1A:1779:U:H2'	59:1A:4404:HOH:O	2.09	0.52
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.92	0.52
9:1N:121:LYS:HD3	9:1N:130:HIS:CE1	2.44	0.52
12:1Q:34:LEU:HD11	12:1Q:129:THR:HB	1.92	0.52
32:1a:128:G:H4'	48:1q:3:LYS:HG2	1.92	0.52
32:1a:1118:C:OP1	40:1i:9:ARG:HD2	2.10	0.52
32:1a:1367:C:H5'	41:1j:60:ARG:NH1	2.25	0.52
40:1i:55:ALA:HA	40:1i:58:HIS:CD2	2.44	0.52
1:2A:800:A:H8	1:2A:800:A:OP1	1.92	0.52
1:2A:1166:C:H2'	1:2A:1167:U:C6	2.44	0.52
1:2A:1342:A:OP1	19:2X:36:LYS:NZ	2.30	0.52
6:2G:106:LEU:HA	6:2G:110:ALA:HB3	1.91	0.52
6:2G:120:LEU:HD23	6:2G:179:PRO:HD2	1.92	0.52
9:2N:42:TRP:HA	9:2N:48:MET:SD	2.50	0.52
32:2a:538:G:H5''	43:2l:114:LYS:HB2	1.91	0.52
32:2a:988:G:H2'	32:2a:989:C:O4'	2.09	0.52
32:2a:1015:A:H1'	32:2a:1219:U:H5'	1.92	0.52
35:2d:189:PRO:HB2	35:2d:194:LEU:HD11	1.90	0.52
1:1A:1062:G:H5''	1:1A:1070:A:H1'	1.92	0.52
15:1T:1:MET:HE2	15:1T:3:ARG:HG2	1.92	0.52
32:1a:266:G:H2'	32:1a:266:G:N3	2.24	0.52
32:1a:458:C:H2'	32:1a:460:G:O4'	2.10	0.52
32:1a:714:G:H2'	32:1a:715:A:C8	2.45	0.52
36:1e:6:PHE:HB2	36:1e:34:VAL:HG22	1.92	0.52
5:2F:110:LEU:HD21	5:2F:181:LEU:HD23	1.91	0.52
13:2R:92:GLY:HA2	13:2R:94:TYR:CZ	2.45	0.52
24:22:65:ASN:OD1	24:22:69:ARG:NH1	2.42	0.52
32:2a:107:G:H2'	32:2a:108:G:O4'	2.09	0.52
32:2a:1235:U:O2'	32:2a:1305:G:O5'	2.28	0.52
38:2g:151:TYR:OH	42:2k:54:ARG:NH1	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:2h:85:ARG:HH11	39:2h:134:ILE:HG23	1.75	0.52
52:2u:6:ARG:HG2	52:2u:15:ARG:HD2	1.92	0.52
1:1A:29:U:H2'	1:1A:30:G:C8	2.45	0.52
1:1A:320:A:OP1	5:1F:135:LYS:NZ	2.41	0.52
1:1A:593:G:H4'	30:18:4:MET:HE2	1.92	0.52
1:1A:1174:A:H1'	1:1A:1175:U:H5''	1.92	0.52
1:1A:1807:G:O6	59:1A:4283:HOH:O	2.18	0.52
13:1R:97:VAL:HG22	13:1R:114:VAL:HG13	1.91	0.52
14:1S:15:ARG:NE	14:1S:88:ASP:OD2	2.27	0.52
20:1Y:99:CYS:HB2	20:1Y:106:LEU:HD21	1.92	0.52
32:1a:40:C:H2'	32:1a:41:G:C8	2.45	0.52
32:1a:1458:G:OP1	51:1t:35:THR:OG1	2.27	0.52
38:1g:16:LEU:HD22	40:1i:42:ARG:HA	1.90	0.52
39:1h:41:ARG:NH2	39:1h:123:GLU:OE2	2.43	0.52
42:1k:48:ILE:HD12	42:1k:63:LEU:HB2	1.92	0.52
47:1p:1:MET:HG3	47:1p:3:LYS:HG3	1.92	0.52
1:2A:625:G:N7	11:2P:107:LYS:NZ	2.55	0.52
1:2A:724:U:H2'	1:2A:725:G:O4'	2.10	0.52
1:2A:1275:A:N1	1:2A:1295:C:O2'	2.38	0.52
1:2A:2567:G:H2'	1:2A:2568:C:C6	2.45	0.52
1:2A:2698:U:O4	59:2A:3954:HOH:O	2.19	0.52
1:2A:2734:A:H2'	1:2A:2735:G:O4'	2.10	0.52
2:2B:9:G:OP1	14:2S:25:ARG:NH1	2.26	0.52
8:2I:61:ARG:HH11	8:2I:61:ARG:H	1.58	0.52
8:2I:128:LEU:C	8:2I:139:GLN:HB3	2.34	0.52
18:2W:11:ARG:HH21	18:2W:98:LYS:HD3	1.74	0.52
32:2a:532:A:N1	34:2c:156:ARG:NH1	2.53	0.52
33:2b:111:ARG:HH11	33:2b:111:ARG:HA	1.74	0.52
1:1A:1833:U:O2'	1:1A:1969:A:N1	2.38	0.52
4:1E:179:GLU:HG3	15:1T:9:LEU:HD21	1.92	0.52
32:1a:1177:G:OP2	40:1i:97:LYS:NZ	2.39	0.52
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.90	0.52
54:1x:23:C:H2'	54:1x:24:U:C6	2.45	0.52
1:2A:863:A:H2'	1:2A:864:G:C8	2.45	0.52
1:2A:2889:C:H2'	1:2A:2891:G:O4'	2.09	0.52
6:2G:107:LEU:HD23	6:2G:111:LEU:HD12	1.91	0.52
10:2O:2:ILE:HD12	10:2O:6:THR:HG21	1.92	0.52
10:2O:98:VAL:HG21	10:2O:114:ILE:HG23	1.92	0.52
20:2Y:13:VAL:HB	20:2Y:72:VAL:HG22	1.91	0.52
32:2a:1051:C:H2'	32:2a:1052:U:C6	2.45	0.52
37:2f:3:ARG:HB3	37:2f:93:SER:HB2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:9:ARG:HG2	40:2i:14:VAL:HG12	1.92	0.52
1:1A:1783:A:N7	59:1A:4404:HOH:O	2.35	0.51
4:1E:8:LYS:HG2	4:1E:192:ASN:HA	1.92	0.51
12:1Q:67:ARG:O	12:1Q:101:ARG:NH2	2.39	0.51
22:10:18:ALA:HB3	22:10:20:ARG:NH1	2.26	0.51
32:1a:1239:A:H62	32:1a:1299:A:N6	2.08	0.51
35:1d:205:GLU:OE2	36:1e:107:ARG:NH1	2.43	0.51
37:1f:79:LEU:O	37:1f:85:VAL:HG11	2.10	0.51
40:1i:111:ARG:O	40:1i:113:LYS:NZ	2.43	0.51
43:1l:11:VAL:HG13	48:1q:29:HIS:HD2	1.75	0.51
1:2A:190:A:OP2	23:21:39:LYS:HE3	2.10	0.51
1:2A:705:A:C2	1:2A:727:A:H1'	2.44	0.51
4:2E:18:ASP:HB3	15:2T:82:LEU:HD21	1.92	0.51
32:2a:1071:C:H2'	32:2a:1072:G:C8	2.43	0.51
32:2a:1324:A:O4'	32:2a:1362:C:H4'	2.11	0.51
40:2i:8:GLY:HA2	40:2i:79:LEU:HD23	1.91	0.51
40:2i:71:SER:HA	40:2i:74:ILE:HD12	1.92	0.51
42:2k:86:GLY:H	42:2k:112:THR:HG22	1.75	0.51
43:2l:70:ILE:HG12	43:2l:100:ILE:HD12	1.91	0.51
50:2s:49:ILE:HD13	50:2s:71:LEU:HD11	1.92	0.51
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.44	0.51
1:1A:2533:A:H2'	1:1A:2534:A:O4'	2.10	0.51
5:1F:22:ALA:HB1	5:1F:24:LEU:HD13	1.92	0.51
12:1Q:38:GLU:HA	12:1Q:99:PRO:HG3	1.92	0.51
32:1a:191:G:N2	51:1t:102:GLY:O	2.37	0.51
32:1a:971:G:N2	32:1a:1363(A):A:OP2	2.36	0.51
32:1a:972:C:O2'	41:1j:55:LYS:O	2.23	0.51
32:1a:1095:U:OP2	32:1a:1108:G:N1	2.37	0.51
51:1t:47:GLY:HA2	51:1t:48:LYS:C	2.35	0.51
53:1v:14:A:H3'	53:1v:15:A:H8	1.75	0.51
1:2A:205:G:N2	1:2A:206:U:O4	2.33	0.51
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.24	0.51
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.25	0.51
4:2E:52:LEU:O	4:2E:76:ARG:N	2.36	0.51
10:2O:63:VAL:HG11	10:2O:85:VAL:HG23	1.92	0.51
32:2a:841:U:H6	32:2a:841:U:P	2.33	0.51
39:2h:51:VAL:HG11	39:2h:60:ARG:HH12	1.75	0.51
44:2m:80:ARG:HH21	50:2s:69:HIS:CE1	2.29	0.51
45:2n:32:SER:O	45:2n:40:CYS:HA	2.10	0.51
1:1A:600:G:N2	1:1A:605:C:O3'	2.43	0.51
1:1A:1793:C:H2'	1:1A:1794:U:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:1R:12:ARG:O	13:1R:17:ARG:NH1	2.44	0.51
32:1a:376:G:H5''	47:1p:5:ARG:HB3	1.92	0.51
32:1a:958:A:N6	32:1a:959:A:N1	2.58	0.51
32:1a:966:M2G:HM13	32:1a:967:5MC:H1'	1.93	0.51
32:1a:1221:G:OP1	32:1a:1320:C:N4	2.42	0.51
32:1a:1375:A:H4'	38:1g:29:LYS:HD3	1.92	0.51
1:2A:606:U:H4'	1:2A:658:C:H4'	1.93	0.51
1:2A:1923:U:H2'	1:2A:1924:C:C6	2.46	0.51
1:2A:2198:A:OP1	8:2I:33:ARG:NH2	2.44	0.51
1:2A:2360:A:H2'	1:2A:2361:A:O4'	2.09	0.51
4:2E:101:ARG:CZ	4:2E:171:GLU:HB2	2.39	0.51
8:2I:54:GLN:O	8:2I:58:LEU:N	2.43	0.51
16:2U:10:ARG:NH1	59:2U:301:HOH:O	2.42	0.51
19:2X:5:TYR:CZ	24:22:30:ARG:HB2	2.45	0.51
32:2a:926:G:H22	53:2v:15:A:H3'	1.75	0.51
34:2c:180:ALA:HB1	34:2c:203:PHE:HE1	1.76	0.51
38:2g:114:ARG:O	38:2g:119:ARG:NH1	2.44	0.51
1:1A:647:G:N3	1:1A:2350:C:O2'	2.44	0.51
1:1A:2602:A:OP1	59:1x:201:HOH:O	2.19	0.51
22:10:46:LYS:HB2	22:10:78:TYR:CE1	2.46	0.51
32:1a:69:G:H2'	32:1a:70:G:H8	1.75	0.51
32:1a:540:G:H2'	32:1a:541:G:O4'	2.09	0.51
32:1a:815:A:N7	32:1a:1509:C:O2'	2.35	0.51
1:2A:479:A:N3	1:2A:481:G:H5''	2.26	0.51
1:2A:2032:G:OP2	1:2A:2454:G:O2'	2.26	0.51
1:2A:2595:G:N7	59:2A:4020:HOH:O	2.33	0.51
4:2E:50:GLY:HA3	4:2E:75:VAL:HG21	1.93	0.51
5:2F:150:GLY:HA2	5:2F:172:TRP:CD2	2.45	0.51
5:2F:184:TYR:O	5:2F:188:ARG:HG3	2.10	0.51
6:2G:170:ARG:NH2	6:2G:182:LYS:O	2.44	0.51
32:2a:64:G:H4'	32:2a:65:U:H3'	1.91	0.51
32:2a:539:A:OP2	43:2l:115:LYS:HE2	2.10	0.51
32:2a:1166:G:N2	32:2a:1170:A:OP2	2.43	0.51
32:2a:1329:A:H5''	44:2m:26:GLY:H	1.75	0.51
33:2b:81:VAL:O	33:2b:85:ALA:N	2.43	0.51
50:2s:38:SER:HB2	50:2s:71:LEU:HD22	1.92	0.51
54:2x:43:A:H2'	54:2x:44:A:C8	2.46	0.51
1:1A:1686:C:H2'	1:1A:1687:G:O4'	2.11	0.51
1:1A:2029:G:H2'	1:1A:2031:A:OP1	2.10	0.51
4:1E:116:VAL:HG21	4:1E:138:PRO:HB3	1.92	0.51
32:1a:1035:A:C4	32:1a:1036:G:N2	2.79	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1150:U:H4'	41:1j:41:PRO:HG3	1.92	0.51
35:1d:18:LYS:HB2	58:1d:501:SF4:S1	2.50	0.51
40:1i:29:ASN:OD1	40:1i:64:THR:HA	2.10	0.51
1:2A:1223:G:O6	17:2V:69:LYS:NZ	2.44	0.51
1:2A:2152:G:H2'	1:2A:2153:G:O4'	2.11	0.51
32:2a:537:G:H2'	32:2a:538:G:H8	1.74	0.51
36:2e:84:PHE:O	36:2e:86:ALA:N	2.42	0.51
44:2m:3:ARG:HB3	44:2m:9:ILE:H	1.76	0.51
44:2m:89:GLY:C	44:2m:91:ARG:H	2.19	0.51
1:1A:10:G:N2	1:1A:2802:G:OP1	2.32	0.51
1:1A:190:A:OP2	23:11:39:LYS:HE3	2.11	0.51
1:1A:476:G:H4'	1:1A:502:A:N1	2.26	0.51
1:1A:628:G:H2'	1:1A:629:G:C8	2.46	0.51
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.26	0.51
1:1A:2161:C:O2'	1:1A:2162:G:H5''	2.11	0.51
1:1A:2887:U:H2'	1:1A:2888:C:C6	2.45	0.51
6:1G:16:ARG:O	6:1G:20:ILE:HG13	2.11	0.51
6:1G:124:SER:HB2	6:1G:131:TYR:CE1	2.45	0.51
8:1I:126:TYR:HB2	8:1I:142:VAL:HG23	1.91	0.51
18:1W:2:GLU:OE2	18:1W:72:LYS:NZ	2.31	0.51
32:1a:408:A:OP1	35:1d:113:SER:OG	2.24	0.51
32:1a:794:A:OP2	59:1a:1917:HOH:O	2.19	0.51
32:1a:1104:G:H4'	33:1b:111:ARG:NH2	2.25	0.51
32:1a:1438:G:H2'	32:1a:1439:C:C6	2.46	0.51
33:1b:71:VAL:HB	33:1b:164:VAL:HA	1.91	0.51
34:1c:71:ALA:HA	34:1c:106:VAL:HG21	1.92	0.51
54:1x:8:4SU:O5'	54:1x:8:4SU:H6	2.09	0.51
1:2A:1495:A:H2'	1:2A:1496:A:C8	2.46	0.51
8:2I:127:VAL:HA	8:2I:140:LEU:O	2.11	0.51
32:2a:1517:G:H3'	32:2a:1518:MA6:H8	1.92	0.51
1:1A:64:A:C5	19:1X:66:LEU:HD13	2.45	0.51
1:1A:606:U:H4'	1:1A:658:C:H4'	1.92	0.51
1:1A:1790:C:H5''	1:1A:1791:A:OP1	2.10	0.51
1:1A:2353:G:H2'	1:1A:2354:G:O4'	2.11	0.51
15:1T:73:GLU:OE2	15:1T:103:ARG:NE	2.28	0.51
19:1X:53:LYS:HB3	19:1X:82:GLN:HB3	1.93	0.51
32:1a:384:G:H2'	32:1a:385:C:C6	2.45	0.51
32:1a:403:C:H4'	35:1d:122:ARG:HE	1.76	0.51
32:1a:565:U:H3'	32:1a:566:G:H2'	1.92	0.51
32:1a:1144:G:N2	32:1a:1146:A:H62	2.08	0.51
33:1b:68:ILE:HG12	33:1b:161:ALA:HB3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:1p:48:TRP:CD1	47:1p:48:TRP:H	2.28	0.51
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.45	0.51
1:2A:1638:C:H5''	1:2A:2710:C:O2'	2.10	0.51
21:2Z:4:ARG:NH2	21:2Z:66:SER:OG	2.44	0.51
22:20:11:ARG:O	22:20:14:ARG:NH2	2.40	0.51
24:22:13:ALA:HB1	24:22:21:LEU:HD21	1.93	0.51
36:2e:82:VAL:HG11	36:2e:137:GLU:HG3	1.91	0.51
38:2g:149:ARG:NE	42:2k:59:TYR:OH	2.44	0.51
1:1A:1843:C:H5'	3:1D:253:GLN:OE1	2.11	0.51
1:1A:1858:G:N2	1:1A:1883:G:H2'	2.26	0.51
1:1A:2134:A:H61	1:1A:2157:G:C4'	2.23	0.51
32:1a:256:U:H2'	32:1a:257:G:C8	2.46	0.51
32:1a:715:A:H2'	32:1a:716:A:C8	2.45	0.51
32:1a:1192:C:OP2	34:1c:4:LYS:NZ	2.34	0.51
32:1a:1347:G:N2	32:1a:1373:G:H2'	2.25	0.51
40:1i:5:TYR:HD1	40:1i:17:VAL:O	1.93	0.51
40:1i:7:THR:H	40:1i:83:ARG:HD3	1.76	0.51
1:2A:1204:A:H2	1:2A:1241:A:N6	2.07	0.51
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.75	0.51
1:2A:1709:U:H2'	1:2A:1710:C:C6	2.46	0.51
1:2A:2376:A:H3'	1:2A:2377:A:H8	1.76	0.51
2:2B:14:U:O3'	2:2B:108:U:O2'	2.24	0.51
5:2F:24:LEU:HD21	5:2F:114:VAL:HG12	1.93	0.51
5:2F:165:ARG:HG2	5:2F:168:ARG:NH2	2.26	0.51
36:2e:78:HIS:CE1	36:2e:142:LEU:HD23	2.45	0.51
51:2t:100:ILE:HG22	51:2t:101:GLY:H	1.75	0.51
52:2u:5:ASP:O	52:2u:11:GLY:HA3	2.10	0.51
1:1A:675:A:H5''	59:1A:4932:HOH:O	2.10	0.51
1:1A:2505:G:O6	1:1A:2576:G:H2'	2.10	0.51
2:1B:78:A:C2	2:1B:100:A:C4	2.98	0.51
32:1a:19:C:H2'	32:1a:20:U:C6	2.45	0.51
32:1a:509:A:H3'	59:1a:1998:HOH:O	2.10	0.51
32:1a:848:C:H2'	32:1a:849:C:H6	1.76	0.51
32:1a:1015:A:O3'	45:1n:15:LYS:NZ	2.44	0.51
42:1k:79:SER:HA	42:1k:104:GLN:HB3	1.93	0.51
1:2A:414:C:H2'	1:2A:415:A:C8	2.46	0.51
1:2A:587:C:P	11:2P:21:ARG:HH22	2.34	0.51
1:2A:862:G:O2'	2:2B:78:A:N3	2.44	0.51
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.43	0.51
1:2A:2148:G:H2'	1:2A:2149:G:H8	1.73	0.51
6:2G:15:VAL:HB	6:2G:175:LEU:HB3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:73:GLU:OE1	8:2I:74:ASN:ND2	2.39	0.51
12:2Q:45:GLN:OE1	12:2Q:45:GLN:N	2.37	0.51
15:2T:73:GLU:OE2	15:2T:103:ARG:NE	2.35	0.51
20:2Y:13:VAL:HG12	20:2Y:74:PRO:HA	1.93	0.51
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.45	0.51
32:2a:1427:U:H2'	32:2a:1428:A:C8	2.45	0.51
40:2i:9:ARG:O	40:2i:104:ARG:HG3	2.10	0.51
43:2l:77:LEU:HD21	43:2l:107:ALA:HB2	1.93	0.51
1:1A:36:G:N3	1:1A:450:G:O2'	2.44	0.51
1:1A:58:G:O2'	1:1A:73:A:N1	2.41	0.51
1:1A:637:A:H5''	11:1P:117:GLU:HG2	1.93	0.51
1:1A:792:G:N3	1:1A:2072:G:O2'	2.35	0.51
1:1A:1364:G:N7	23:11:3:LYS:HD2	2.25	0.51
1:1A:1657:C:H4'	4:1E:133:LYS:HB3	1.91	0.51
1:1A:2839:G:H5'	13:1R:46:GLY:CA	2.40	0.51
1:1A:2848:G:C8	15:1T:97:ALA:HB2	2.45	0.51
10:1O:75:SER:OG	10:1O:76:ALA:N	2.44	0.51
12:1Q:8:LYS:HB3	12:1Q:9:TYR:CD2	2.45	0.51
31:19:16:VAL:HG22	31:19:25:VAL:HG22	1.92	0.51
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.46	0.51
32:1a:1030(D):A:H62	32:1a:1031:G:H21	1.59	0.51
32:1a:1031:G:H2'	32:1a:1032:G:C8	2.46	0.51
33:1b:69:LEU:HB2	33:1b:159:PRO:HG2	1.92	0.51
35:1d:10:ARG:HB2	35:1d:40:PRO:HG3	1.92	0.51
37:1f:99:ALA:HB1	49:1r:23:LYS:HE2	1.93	0.51
1:2A:386:G:O2'	59:2A:3946:HOH:O	2.17	0.51
1:2A:992:C:O2'	17:2V:87:HIS:ND1	2.37	0.51
1:2A:1653:G:H3'	13:2R:2:ARG:HD3	1.93	0.51
1:2A:1697:G:OP2	1:2A:1698:A:O2'	2.21	0.51
1:2A:1997:G:OP2	59:2A:3956:HOH:O	2.19	0.51
7:2H:58:GLU:OE2	7:2H:61:HIS:N	2.40	0.51
21:2Z:50:GLN:OE1	21:2Z:50:GLN:N	2.41	0.51
32:2a:537:G:H5''	43:2l:113:ARG:NH1	2.26	0.51
32:2a:1010:G:N1	32:2a:1020:U:H1'	2.26	0.51
33:2b:212:GLN:HE21	33:2b:235:SER:HA	1.76	0.51
36:2e:83:GLU:HG2	36:2e:88:LYS:HD2	1.92	0.51
50:2s:28:LYS:HB2	50:2s:29:ARG:CA	2.30	0.51
1:1A:296:C:H2'	1:1A:297:C:H6	1.76	0.50
1:1A:881:G:C2	1:1A:882:G:H1'	2.46	0.50
1:1A:1105:U:H2'	1:1A:1106:G:H8	1.73	0.50
1:1A:1893:C:OP1	59:1A:4286:HOH:O	2.19	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:1P:130:PHE:HB2	11:1P:135:LEU:HG	1.93	0.50
30:18:33:ASN:HA	30:18:36:LYS:HD2	1.93	0.50
30:18:62:LEU:HB3	30:18:65:GLU:HG3	1.93	0.50
32:1a:6:G:H4'	32:1a:298:A:H4'	1.93	0.50
32:1a:324:G:N2	32:1a:327:A:OP2	2.44	0.50
32:1a:715:A:OP1	32:1a:805:C:O2'	2.24	0.50
32:1a:1273:G:H3'	32:1a:1274:G:H8	1.74	0.50
35:1d:189:PRO:HB3	35:1d:193:ASP:HB2	1.92	0.50
1:2A:144:C:H5'	19:2X:2:LYS:HG2	1.93	0.50
1:2A:184:C:H2'	1:2A:185:U:C6	2.45	0.50
1:2A:254:G:N7	30:28:5:LYS:HE2	2.27	0.50
1:2A:297:C:H2'	1:2A:298:G:O4'	2.11	0.50
1:2A:1550:C:H2'	1:2A:1551:C:C6	2.46	0.50
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.45	0.50
8:2I:66:GLU:OE2	8:2I:69:LYS:HD3	2.11	0.50
8:2I:93:THR:C	8:2I:97:ILE:HG12	2.35	0.50
32:2a:129(A):G:C6	32:2a:189(E):U:H4'	2.45	0.50
40:2i:28:VAL:HG22	40:2i:63:ILE:HB	1.93	0.50
1:1A:983:A:O3'	59:1A:4290:HOH:O	2.19	0.50
1:1A:1466:G:H2'	1:1A:1547:C:N4	2.26	0.50
1:1A:2529:G:H5''	1:1A:2530:A:H5''	1.94	0.50
10:1O:115:VAL:HG13	10:1O:121:VAL:HG21	1.92	0.50
32:1a:374:A:C6	32:1a:375:U:C4	2.99	0.50
32:1a:392:G:H2'	32:1a:393:A:H8	1.76	0.50
32:1a:684:A:N6	59:1a:1956:HOH:O	2.43	0.50
1:2A:265:A:H1'	1:2A:266:G:O4'	2.12	0.50
1:2A:327:G:N2	20:2Y:70:SER:OG	2.44	0.50
1:2A:764:A:N1	1:2A:1789:A:O2'	2.43	0.50
1:2A:807:U:P	11:2P:36:LYS:HD3	2.52	0.50
1:2A:947:G:H2'	1:2A:948:G:C8	2.46	0.50
1:2A:958:U:H5''	12:2Q:14:ARG:HD3	1.93	0.50
1:2A:1529:G:O6	1:2A:1530:C:N4	2.45	0.50
1:2A:1537:G:H2'	1:2A:1538:G:H8	1.76	0.50
2:2B:30:C:H2'	2:2B:31:C:H5'	1.94	0.50
11:2P:63:PRO:HG2	30:28:25:MET:HB2	1.92	0.50
32:2a:20:U:H2'	32:2a:21:G:O4'	2.12	0.50
33:2b:212:GLN:NE2	33:2b:234:PRO:O	2.44	0.50
38:2g:79:ARG:H	38:2g:79:ARG:HD3	1.76	0.50
1:1A:125:G:H5''	29:17:19:ARG:HD3	1.92	0.50
1:1A:1195:G:O2'	1:1A:1226:A:N1	2.41	0.50
1:1A:1430:C:H2'	1:1A:1431:U:C6	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2408:U:H2'	1:1A:2409:G:C8	2.46	0.50
1:1A:2841:C:H2'	1:1A:2842:G:H8	1.75	0.50
7:1H:157:TYR:CE1	7:1H:172:LYS:HG3	2.47	0.50
25:13:6:VAL:HG12	25:13:54:VAL:HG21	1.93	0.50
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.93	0.50
32:1a:1047:G:H5''	45:1n:4:LYS:CD	2.40	0.50
32:1a:1073:U:O2	33:1b:104:ASN:ND2	2.41	0.50
32:1a:1157:A:H5'	32:1a:1158:C:C6	2.46	0.50
1:2A:118:A:N3	1:2A:178:G:H1'	2.26	0.50
1:2A:585:G:O2'	1:2A:1254:A:N6	2.40	0.50
1:2A:829:A:N7	1:2A:2248:C:H5'	2.26	0.50
1:2A:847:U:H5'	1:2A:848:G:OP2	2.10	0.50
1:2A:1478:G:O2'	1:2A:1558:A:N1	2.39	0.50
1:2A:1769:G:O2'	1:2A:1958:C:OP1	2.24	0.50
1:2A:2127:G:C2	1:2A:2161:C:N3	2.79	0.50
1:2A:2134:A:H1'	1:2A:2158:A:C6	2.46	0.50
32:2a:975:A:N1	41:2j:48:THR:HB	2.26	0.50
32:2a:1105:A:H2'	32:2a:1106:G:H8	1.77	0.50
47:2p:8:ARG:HB3	47:2p:28:ARG:NH1	2.27	0.50
48:2q:62:SER:OG	48:2q:72:ARG:HG2	2.11	0.50
1:1A:323:G:H1'	1:1A:1205:U:O2	2.12	0.50
1:1A:729:G:H2'	1:1A:1775:U:H1'	1.93	0.50
1:1A:1040:C:H2'	1:1A:1041:C:O4'	2.12	0.50
1:1A:1053:C:N4	1:1A:1106:G:H1	2.09	0.50
1:1A:1793:C:H2'	1:1A:1794:U:H6	1.75	0.50
6:1G:137:GLU:HB2	6:1G:140:ILE:HD13	1.93	0.50
32:1a:119:A:H4'	32:1a:120:A:C8	2.45	0.50
32:1a:255:G:H2'	32:1a:256:U:C6	2.47	0.50
32:1a:345:C:H5'	32:1a:346:G:C5	2.46	0.50
33:1b:19:HIS:CE1	33:1b:206:ASP:HB2	2.46	0.50
1:2A:240:G:O6	59:2A:3951:HOH:O	2.18	0.50
1:2A:323:G:H1'	1:2A:1205:U:O2	2.12	0.50
33:2b:175:ARG:O	33:2b:179:LYS:HG2	2.12	0.50
34:2c:22:TRP:HA	41:2j:93:GLY:HA2	1.92	0.50
1:1A:179:G:N7	59:1A:4407:HOH:O	2.35	0.50
1:1A:722:A:H2'	1:1A:723:G:C8	2.47	0.50
1:1A:787:U:H5''	1:1A:788:A:H5'	1.93	0.50
1:1A:1823:G:OP1	3:1D:54:ARG:NH1	2.44	0.50
1:1A:2774:C:H2'	1:1A:2775:A:O4'	2.11	0.50
4:1E:147:PRO:HB2	4:1E:149:ARG:HG2	1.92	0.50
6:1G:139:LEU:HA	6:1G:144:ILE:HB	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:1R:72:ASP:O	13:1R:76:VAL:HG13	2.12	0.50
18:1W:56:ALA:O	18:1W:60:ASN:HB2	2.12	0.50
23:11:2:SER:N	59:11:201:HOH:O	2.44	0.50
32:1a:153:C:N4	32:1a:169:C:H42	2.10	0.50
32:1a:176:C:H2'	32:1a:177:C:H6	1.77	0.50
32:1a:457:C:H2'	32:1a:458:C:C6	2.46	0.50
32:1a:659:U:H2'	32:1a:660:G:C8	2.46	0.50
35:1d:103:ASN:O	35:1d:107:ARG:HG2	2.10	0.50
42:1k:95:ILE:O	42:1k:99:GLN:HG3	2.12	0.50
44:1m:67:GLU:HG3	44:1m:71:ARG:HH22	1.75	0.50
1:2A:55:G:O2'	1:2A:127:A:N1	2.37	0.50
1:2A:239:U:H2'	1:2A:240:G:O4'	2.12	0.50
1:2A:859:G:N2	1:2A:917:A:OP2	2.37	0.50
1:2A:1448:G:H4'	1:2A:1542:A:OP1	2.11	0.50
1:2A:2820:A:OP2	13:2R:2:ARG:NH2	2.44	0.50
3:2D:9:TYR:HD1	3:2D:10:THR:HG23	1.75	0.50
8:2I:3:VAL:HG12	8:2I:38:LEU:HA	1.93	0.50
32:2a:1323:G:H2'	32:2a:1324:A:C8	2.46	0.50
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.46	0.50
50:2s:12:ASP:OD2	50:2s:37:ARG:NH1	2.44	0.50
51:2t:60:GLU:HG3	51:2t:81:LYS:HD2	1.94	0.50
1:1A:9:U:H3	1:1A:2629:A:H2	1.57	0.50
1:1A:83:G:OP1	20:1Y:95:LYS:NZ	2.43	0.50
5:1F:39:TRP:O	5:1F:43:LYS:HG2	2.12	0.50
32:1a:601:C:H2'	32:1a:602:A:C8	2.46	0.50
32:1a:874:G:H21	39:1h:15:ASN:HD21	1.59	0.50
32:1a:953:G:H2'	32:1a:954:G:O4'	2.12	0.50
32:1a:1240:U:C2	38:1g:32:ARG:HG3	2.47	0.50
32:1a:1320:C:O2	50:1s:36:ARG:NH2	2.45	0.50
1:2A:142:A:HO2'	1:2A:1407:C:HO2'	1.54	0.50
1:2A:504:U:H5'	1:2A:506:G:OP2	2.12	0.50
1:2A:887:A:H4'	1:2A:888:C:H5	1.76	0.50
1:2A:900:A:H3'	1:2A:901:A:C8	2.47	0.50
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.70	0.50
1:2A:2391:G:O6	1:2A:2425:A:H8	1.95	0.50
1:2A:2584:U:H2'	1:2A:2585:U:H2'	1.92	0.50
7:2H:10:PRO:O	7:2H:12:PRO:HD3	2.10	0.50
9:2N:96:GLU:CD	9:2N:96:GLU:H	2.19	0.50
11:2P:63:PRO:HB2	30:28:30:ARG:HH21	1.77	0.50
16:2U:107:ALA:O	16:2U:111:GLU:HG2	2.12	0.50
32:2a:583:A:OP1	46:2o:68:ARG:NH2	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:982:U:N3	32:2a:1223:C:N3	2.59	0.50
32:2a:1004:A:H5''	32:2a:1024:G:H22	1.77	0.50
33:2b:95:GLN:HB2	33:2b:148:TYR:CD1	2.46	0.50
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.46	0.50
1:1A:1751:C:HO2'	1:1A:2861:G:HO2'	1.59	0.50
1:1A:1795:C:H2'	1:1A:1796:U:O4'	2.11	0.50
2:1B:1:U:O2'	2:1B:2:C:OP1	2.27	0.50
14:1S:46:VAL:HG12	14:1S:48:LEU:HD12	1.92	0.50
15:1T:74:ARG:HG2	15:1T:76:PHE:CZ	2.46	0.50
19:1X:49:VAL:HG11	19:1X:89:ILE:HG12	1.94	0.50
25:13:37:LEU:HB3	25:13:43:ILE:HD13	1.94	0.50
34:1c:152:ILE:HB	34:1c:199:LYS:HB2	1.94	0.50
37:1f:55:ASP:HB2	37:1f:86:ARG:HH12	1.76	0.50
1:2A:286:C:H2'	1:2A:287:C:H6	1.76	0.50
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.46	0.50
1:2A:2206:G:OP1	3:2D:68:LYS:NZ	2.45	0.50
1:2A:2648:C:H2'	1:2A:2649:U:C6	2.47	0.50
3:2D:9:TYR:CD1	3:2D:10:THR:HG23	2.47	0.50
14:2S:62:LYS:HB3	14:2S:97:ARG:HD2	1.93	0.50
32:2a:187:C:H2'	32:2a:188:C:H6	1.76	0.50
32:2a:261:U:OP2	51:2t:79:ARG:NH2	2.45	0.50
32:2a:677:U:H3	32:2a:713:G:N2	2.09	0.50
32:2a:1011:G:N2	32:2a:1018:C:N3	2.58	0.50
36:2e:145:LYS:HA	36:2e:148:VAL:HG22	1.93	0.50
39:2h:20:TYR:HA	39:2h:65:TYR:CE1	2.46	0.50
44:2m:3:ARG:HB3	44:2m:8:GLU:HA	1.93	0.50
46:2o:24:SER:O	46:2o:28:GLN:HG3	2.12	0.50
48:2q:95:TYR:HA	48:2q:98:LEU:HD12	1.93	0.50
1:1A:70:G:H5''	1:1A:112:U:O2	2.12	0.50
1:1A:753:C:H2'	1:1A:754:C:H6	1.76	0.50
1:1A:910:A:N1	1:1A:2277:G:H1'	2.26	0.50
1:1A:1010:A:N3	1:1A:1153:C:H1'	2.26	0.50
1:1A:1230:C:H2'	1:1A:1231:G:C8	2.46	0.50
21:1Z:136:PHE:O	21:1Z:137:ILE:HG13	2.12	0.50
21:1Z:154:ASP:OD1	21:1Z:154:ASP:N	2.45	0.50
32:1a:66:G:C2	32:1a:104:G:H1'	2.47	0.50
32:1a:599:C:H4'	39:1h:130:GLY:C	2.36	0.50
32:1a:1111:A:N1	34:1c:177:THR:OG1	2.39	0.50
33:1b:52:GLU:O	33:1b:56:ARG:HB3	2.12	0.50
48:1q:66:SER:OG	48:1q:67:LYS:N	2.43	0.50
1:2A:224:G:N7	1:2A:420:C:H4'	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:459:U:H5''	29:27:40:TRP:CD2	2.47	0.50
1:2A:718:A:H3'	1:2A:719:C:H6	1.77	0.50
1:2A:2347:C:H4'	1:2A:2347:C:OP1	2.12	0.50
1:2A:2651:C:H2'	1:2A:2652:C:H6	1.76	0.50
2:2B:98:G:H3'	2:2B:99:G:H8	1.76	0.50
32:2a:457:C:H2'	32:2a:458:C:H6	1.77	0.50
33:2b:128:GLU:C	33:2b:130:ARG:H	2.20	0.50
34:2c:122:GLU:O	34:2c:126:ARG:HG3	2.11	0.50
48:2q:3:LYS:HD2	48:2q:60:ILE:HD11	1.93	0.50
1:1A:8:A:H2'	1:1A:9:U:C6	2.45	0.50
1:1A:598:G:H2'	1:1A:599:G:O4'	2.12	0.50
1:1A:674:G:H1'	5:1F:74:ARG:HD3	1.93	0.50
1:1A:2337:G:OP1	59:1A:4288:HOH:O	2.19	0.50
14:1S:106:ARG:O	14:1S:109:GLY:N	2.44	0.50
15:1T:112:ARG:HG3	15:1T:115:ARG:HH21	1.76	0.50
30:18:39:LYS:O	30:18:43:GLN:HG3	2.11	0.50
32:1a:1027:C:C4	32:1a:1034:G:C2	3.00	0.50
33:1b:166:ASP:HB3	33:1b:169:LYS:HB3	1.93	0.50
51:1t:90:GLN:HA	51:1t:93:GLU:HG2	1.93	0.50
1:2A:616:G:H5'	5:2F:205:ARG:HD3	1.94	0.50
1:2A:2305:A:H1'	6:2G:136:ARG:HB3	1.94	0.50
1:2A:2412:A:H2'	1:2A:2413:G:O4'	2.11	0.50
2:2B:7:G:N2	14:2S:38:GLN:HE22	2.10	0.50
9:2N:73:THR:HA	9:2N:83:LYS:O	2.12	0.50
21:2Z:146:ILE:HA	21:2Z:174:VAL:HG12	1.93	0.50
28:26:23:THR:OG1	28:26:24:GLU:N	2.44	0.50
32:2a:952:U:H4'	32:2a:964:A:N1	2.26	0.50
32:2a:1070:U:H2'	32:2a:1071:C:C6	2.46	0.50
32:2a:1240:U:OP2	38:2g:115:ARG:HA	2.12	0.50
32:2a:1411:C:H2'	32:2a:1412:C:C6	2.47	0.50
33:2b:7:VAL:HG22	33:2b:8:LYS:H	1.77	0.50
33:2b:178:ARG:NH1	39:2h:68:ARG:HH22	2.10	0.50
39:2h:10:LEU:HD12	39:2h:85:ARG:HG2	1.92	0.50
42:2k:34:ASP:OD1	42:2k:38:ASN:N	2.44	0.50
1:1A:1314:C:OP1	59:1A:4243:HOH:O	2.19	0.49
1:1A:1668:A:O2'	1:1A:1674:G:N7	2.41	0.49
26:14:41:PRO:HA	26:14:47:GLN:HB3	1.94	0.49
33:1b:77:ALA:HA	33:1b:80:ILE:HD13	1.92	0.49
39:1h:19:VAL:HG23	39:1h:21:LYS:HG3	1.94	0.49
1:2A:657:U:H2'	1:2A:658:C:C6	2.47	0.49
1:2A:1660:C:H2'	1:2A:1661:G:H8	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:2T:24:PRO:HA	15:2T:49:VAL:HG23	1.92	0.49
21:2Z:3:TYR:O	21:2Z:57:ILE:HA	2.12	0.49
21:2Z:92:SER:O	21:2Z:130:PRO:HG3	2.12	0.49
32:2a:201:C:H42	32:2a:216:G:H1	1.60	0.49
32:2a:1333:A:H2'	32:2a:1334:G:O4'	2.12	0.49
1:1A:234:C:H2'	1:1A:235:U:C6	2.47	0.49
1:1A:1070:A:N7	1:1A:1096:A:O2'	2.35	0.49
1:1A:1432:C:H2'	1:1A:1433:U:O4'	2.12	0.49
1:1A:1478:G:H2'	1:1A:1479:G:C8	2.47	0.49
6:1G:43:LEU:HD22	6:1G:153:ARG:HD2	1.92	0.49
32:1a:580:U:H2'	32:1a:581:G:O4'	2.12	0.49
32:1a:629:G:H2'	32:1a:630:G:O4'	2.11	0.49
32:1a:1095:U:OP1	32:1a:1108:G:N2	2.45	0.49
32:1a:1333:A:H2'	32:1a:1334:G:O4'	2.12	0.49
1:2A:907:U:O2'	12:2Q:101:ARG:NH2	2.34	0.49
1:2A:1003:G:O2'	1:2A:1010:A:N1	2.37	0.49
1:2A:1247:A:OP1	5:2F:95:ARG:NH2	2.44	0.49
1:2A:1889:A:N1	1:2A:2234:G:H1'	2.27	0.49
1:2A:2118:U:OP1	1:2A:2149:G:H5'	2.12	0.49
1:2A:2127:G:N1	1:2A:2161:C:C4	2.80	0.49
1:2A:2136:C:N3	1:2A:2155:G:N2	2.53	0.49
7:2H:113:VAL:HG11	7:2H:151:ILE:HD13	1.93	0.49
35:2d:8:VAL:HG21	35:2d:21:LEU:HB2	1.94	0.49
41:2j:27:ALA:HB2	41:2j:85:LEU:HD21	1.94	0.49
48:2q:19:VAL:HG23	48:2q:44:ALA:HB3	1.93	0.49
1:1A:2635:C:O2'	4:1E:80:GLU:OE2	2.29	0.49
3:1D:223:GLY:HA2	3:1D:226:MET:HE3	1.94	0.49
6:1G:80:PHE:HB2	6:1G:82:LEU:HB2	1.92	0.49
24:12:1:MET:H1	24:12:52:ASP:CG	2.21	0.49
32:1a:401:C:H2'	32:1a:402:G:C8	2.47	0.49
32:1a:520:A:N1	32:1a:536:C:H1'	2.27	0.49
32:1a:691:G:H2'	32:1a:692:U:C6	2.47	0.49
32:1a:1352:C:H2'	32:1a:1353:G:C8	2.48	0.49
49:1r:59:SER:OG	49:1r:60:ALA:N	2.45	0.49
1:2A:409:C:H2'	1:2A:410:G:C8	2.47	0.49
1:2A:749:C:OP2	59:2A:3959:HOH:O	2.20	0.49
1:2A:1803:A:H4'	3:2D:259:THR:HG23	1.93	0.49
5:2F:63:LYS:HG3	5:2F:76:GLY:HA2	1.94	0.49
9:2N:43:THR:HG22	9:2N:44:PRO:HD2	1.94	0.49
32:2a:123:C:OP1	32:2a:311:C:O2'	2.25	0.49
32:2a:876:G:H1'	39:2h:11:THR:HG21	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:923:A:N6	32:2a:1392:G:O6	2.45	0.49
32:2a:1056:U:N3	32:2a:1205:U:O2	2.44	0.49
43:2l:8:ASN:O	43:2l:12:ARG:HG3	2.12	0.49
1:1A:30:G:H2'	1:1A:31:C:O4'	2.12	0.49
1:1A:2478:A:OP2	31:19:2:LYS:NZ	2.30	0.49
1:1A:2612:C:OP2	27:15:2:ALA:N	2.45	0.49
1:1A:2773:C:H2'	1:1A:2774:C:H6	1.76	0.49
3:1D:125:ILE:HB	37:1f:81:ILE:HD11	1.94	0.49
6:1G:18:GLU:OE2	6:1G:21:ARG:NH1	2.45	0.49
32:1a:353:A:H5'	32:1a:353:A:H8	1.77	0.49
38:1g:46:ALA:O	38:1g:50:ILE:HG12	2.13	0.49
41:1j:6:ILE:HA	41:1j:98:ILE:HA	1.93	0.49
44:1m:23:TYR:CE2	44:1m:71:ARG:HG3	2.47	0.49
51:1t:36:LEU:HD13	51:1t:58:LYS:HG3	1.93	0.49
1:2A:1401:G:H2'	1:2A:1402:C:O4'	2.12	0.49
4:2E:134:ILE:HA	4:2E:137:HIS:CD2	2.47	0.49
5:2F:197:ASP:HA	5:2F:200:GLU:HB3	1.95	0.49
7:2H:24:VAL:HG21	7:2H:72:ILE:HG12	1.94	0.49
32:2a:1068:G:H8	32:2a:1068:G:OP2	1.94	0.49
32:2a:1142:G:H3'	32:2a:1143:G:C8	2.46	0.49
32:2a:1218:C:H2'	32:2a:1219:U:C6	2.47	0.49
32:2a:1286:A:H2	52:2u:18:TYR:OH	1.95	0.49
32:2a:1512:U:H2'	32:2a:1513:A:C8	2.48	0.49
33:2b:29:ALA:HA	33:2b:32:ILE:HD12	1.94	0.49
33:2b:135:GLN:O	33:2b:139:LYS:HB2	2.12	0.49
38:2g:70:LYS:HG2	38:2g:100:ALA:HB2	1.95	0.49
1:1A:292:C:C2	1:1A:349:G:C2	3.01	0.49
1:1A:784:A:O4'	3:1D:227:ASN:ND2	2.45	0.49
1:1A:1045:A:H1'	1:1A:1047:G:N3	2.27	0.49
1:1A:1153:C:H2'	1:1A:1154:G:O4'	2.12	0.49
2:1B:29:A:O2'	2:1B:58:A:N1	2.38	0.49
4:1E:59:VAL:HG21	4:1E:74:PRO:HB3	1.94	0.49
6:1G:37:VAL:HG21	6:1G:103:LEU:HD11	1.95	0.49
25:13:26:LEU:O	25:13:35:ARG:HD3	2.13	0.49
32:1a:202:U:O2'	32:1a:203:U:O5'	2.22	0.49
1:2A:492:A:H2'	1:2A:493:G:O4'	2.12	0.49
1:2A:1813:G:H1'	3:2D:50:THR:OG1	2.12	0.49
1:2A:1999:C:H4'	1:2A:2723:C:O2	2.12	0.49
1:2A:2144:U:O2'	1:2A:2147:G:O6	2.31	0.49
1:2A:2318:G:H21	14:2S:3:ARG:NE	2.09	0.49
6:2G:172:LEU:O	6:2G:176:LEU:N	2.39	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2P:90:ARG:HH12	11:2P:105:LEU:HD11	1.76	0.49
32:2a:108:G:C6	51:2t:15:ARG:HG2	2.47	0.49
32:2a:409:G:C2	32:2a:410:G:H1'	2.47	0.49
32:2a:1142:G:H2'	32:2a:1143:G:O4'	2.12	0.49
32:2a:1381:U:H1'	38:2g:79:ARG:NE	2.25	0.49
48:2q:45:HIS:HB2	48:2q:65:ILE:HD13	1.95	0.49
50:2s:11:VAL:C	50:2s:13:ASP:H	2.19	0.49
1:1A:1065:U:H5''	1:1A:1066:U:OP2	2.12	0.49
1:1A:1798:U:H5'	3:1D:259:THR:CG2	2.43	0.49
32:1a:165:C:H2'	32:1a:166:G:C8	2.46	0.49
32:1a:407:G:H2'	32:1a:408:A:C8	2.48	0.49
32:1a:542:G:P	35:1d:10:ARG:HH22	2.33	0.49
32:1a:978:A:O2'	32:1a:1322:C:N3	2.40	0.49
32:1a:1058:G:OP1	34:1c:199:LYS:NZ	2.45	0.49
32:1a:1070:U:H2'	32:1a:1071:C:C6	2.45	0.49
41:1j:40:LEU:HB2	41:1j:69:ASN:HB2	1.95	0.49
1:2A:342:G:H2'	1:2A:343:C:H6	1.76	0.49
1:2A:494:G:O6	59:2A:3958:HOH:O	2.20	0.49
1:2A:571:A:N6	1:2A:2499:C:O3'	2.46	0.49
1:2A:839:U:H1'	1:2A:1191:G:H1'	1.93	0.49
1:2A:2291:U:O2'	1:2A:2374:C:O2	2.28	0.49
1:2A:2552:2MU:H6	1:2A:2552:2MU:O5'	2.11	0.49
2:2B:64:C:H2'	2:2B:65:C:C6	2.48	0.49
2:2B:106:G:OP1	21:2Z:31:ARG:HG2	2.12	0.49
4:2E:26:ILE:HD11	4:2E:188:VAL:HG21	1.93	0.49
24:22:64:LEU:O	24:22:68:ARG:HG3	2.12	0.49
32:2a:97:G:H2'	32:2a:98:G:O4'	2.12	0.49
32:2a:663:A:H5''	49:2r:61:LYS:HE3	1.95	0.49
32:2a:1095:U:P	32:2a:1108:G:H1	2.36	0.49
32:2a:1367:C:P	40:2i:112:LYS:HZ1	2.36	0.49
33:2b:90:MET:HA	33:2b:90:MET:HE2	1.94	0.49
34:2c:37:GLN:NE2	45:2n:52:GLN:OE1	2.33	0.49
39:2h:121:ASP:OD1	39:2h:121:ASP:N	2.45	0.49
1:1A:459:U:H5''	29:17:40:TRP:CD2	2.48	0.49
1:1A:971:C:H2'	1:1A:972:G:O4'	2.12	0.49
1:1A:1932:A:H2'	1:1A:1933:G:O4'	2.12	0.49
1:1A:2441:C:OP2	1:1A:2586:C:O2'	2.30	0.49
11:1P:39:LYS:HB2	11:1P:45:LEU:HD21	1.94	0.49
14:1S:61:ASN:ND2	14:1S:64:GLU:H	2.09	0.49
14:1S:93:LYS:O	14:1S:95:HIS:N	2.45	0.49
32:1a:1525:G:OP1	42:1k:120:ARG:NH2	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:26:PHE:CE2	38:1g:30:ILE:HD11	2.48	0.49
41:1j:11:PHE:CE1	41:1j:67:THR:HG22	2.47	0.49
1:2A:648:G:O2'	1:2A:2351:G:OP1	2.24	0.49
1:2A:984:A:H5''	1:2A:985:C:H5	1.76	0.49
1:2A:2155:G:C5	1:2A:2156:G:H1'	2.48	0.49
1:2A:2689:U:P	1:2A:2719:G:H22	2.36	0.49
4:2E:27:LEU:HD22	15:2T:1:MET:HE1	1.94	0.49
6:2G:114:ILE:HG12	6:2G:140:ILE:HG12	1.94	0.49
7:2H:113:VAL:HG11	7:2H:151:ILE:HG21	1.94	0.49
8:2I:114:LEU:O	8:2I:116:LEU:N	2.45	0.49
10:2O:36:GLY:HA2	10:2O:106:LEU:HD23	1.93	0.49
13:2R:51:LEU:HD22	13:2R:66:VAL:HG13	1.94	0.49
15:2T:83:ILE:HD13	15:2T:86:ILE:HD11	1.94	0.49
33:2b:162:ILE:HG13	33:2b:184:VAL:HA	1.95	0.49
34:2c:109:PRO:HB3	34:2c:115:LEU:HD23	1.95	0.49
34:2c:138:VAL:O	34:2c:170:GLN:NE2	2.45	0.49
54:2x:61:C:H2'	54:2x:62:C:C6	2.48	0.49
1:1A:888:C:O2	44:1m:83:ASP:HA	2.13	0.49
1:1A:2467:C:H4'	12:1Q:123:HIS:CD2	2.48	0.49
1:1A:2801(A):A:H1'	1:1A:2895:U:H1'	1.94	0.49
2:1B:24:G:N7	2:1B:56:G:H2'	2.28	0.49
12:1Q:81:VAL:HB	22:10:7:LEU:HG	1.95	0.49
29:17:21:ARG:NH1	59:17:201:HOH:O	2.44	0.49
32:1a:19:C:H2'	32:1a:20:U:H6	1.78	0.49
32:1a:189(C):C:H2'	32:1a:189(D):C:O4'	2.13	0.49
32:1a:222:U:H2'	32:1a:223:U:C6	2.48	0.49
32:1a:236:G:H5''	48:1q:42:TYR:OH	2.13	0.49
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.13	0.49
32:1a:1504:G:OP1	32:1a:1507:A:H4'	2.13	0.49
53:1v:16:A:H2'	53:1v:17:U:O4'	2.13	0.49
54:1x:50:U:H2'	54:1x:51:C:C6	2.48	0.49
1:2A:27:G:O2'	1:2A:28:A:OP2	2.30	0.49
1:2A:30:G:H2'	1:2A:31:C:C6	2.48	0.49
1:2A:154(A):C:N4	1:2A:171:G:H1	2.11	0.49
1:2A:582:G:H2'	1:2A:583:G:C8	2.48	0.49
1:2A:1227:G:OP2	16:2U:16:LYS:NZ	2.37	0.49
1:2A:2291:U:H2'	1:2A:2292:C:C6	2.47	0.49
1:2A:2682:U:HO2'	15:2T:58:ASN:ND2	2.11	0.49
21:2Z:154:ASP:OD1	21:2Z:154:ASP:N	2.46	0.49
32:2a:946:A:H2'	32:2a:947:G:C8	2.48	0.49
32:2a:1004:A:N3	32:2a:1038:C:C2	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1107:C:C4	32:2a:1108:G:C8	3.00	0.49
35:2d:194:LEU:HB3	35:2d:196:LEU:HD13	1.94	0.49
1:1A:768:G:O2'	1:1A:1379:A:N1	2.46	0.49
1:1A:784:A:C5	3:1D:229:VAL:HG21	2.48	0.49
1:1A:1638:C:O3'	1:1A:2709:G:N2	2.46	0.49
1:1A:2543:G:H2'	1:1A:2544:G:C8	2.47	0.49
1:1A:2732:G:H3'	1:1A:2733:A:O4'	2.13	0.49
9:1N:73:THR:HB	9:1N:82:LEU:HD11	1.95	0.49
21:1Z:53:ILE:HG22	21:1Z:71:VAL:HG12	1.95	0.49
21:1Z:126:VAL:HG12	21:1Z:128:VAL:HB	1.95	0.49
32:1a:69:G:H2'	32:1a:70:G:C8	2.48	0.49
32:1a:664:G:P	49:1r:64:ARG:HH21	2.36	0.49
32:1a:1260:C:O5'	32:1a:1284:C:H4'	2.13	0.49
40:1i:23:ASN:HB2	40:1i:25:LYS:HE2	1.95	0.49
41:1j:50:ILE:HD11	41:1j:57:LYS:HD3	1.94	0.49
1:2A:1820:U:H4'	1:2A:1821:A:OP2	2.13	0.49
1:2A:2126:A:N3	1:2A:2127:G:H1'	2.28	0.49
1:2A:2630:G:H2'	1:2A:2631:G:H8	1.78	0.49
8:2I:78:THR:H	8:2I:104:GLN:HE22	1.60	0.49
32:2a:16:A:H4'	36:2e:17:ALA:H	1.78	0.49
32:2a:147:G:H2'	32:2a:148:G:C8	2.48	0.49
32:2a:528:C:H5'	32:2a:529:G:OP2	2.13	0.49
32:2a:971:G:N2	32:2a:1363(A):A:OP2	2.36	0.49
34:2c:77:ILE:HG22	34:2c:103:VAL:HG21	1.95	0.49
1:1A:153:C:OP2	23:11:92:LYS:NZ	2.28	0.49
1:1A:570:G:H2'	1:1A:2030:A:C5	2.48	0.49
1:1A:1009:A:OP2	9:1N:37:LYS:NZ	2.45	0.49
1:1A:1188:U:H2'	1:1A:1189:A:H5'	1.95	0.49
1:1A:2347:C:OP1	28:16:38:LYS:NZ	2.46	0.49
4:1E:1:MET:HE1	4:1E:200:GLU:O	2.12	0.49
19:1X:54:VAL:HG13	19:1X:81:VAL:HG12	1.95	0.49
34:1c:190:ARG:HA	34:1c:195:VAL:HG23	1.94	0.49
39:1h:14:ARG:NH2	39:1h:83:ILE:O	2.39	0.49
40:1i:37:PHE:HD1	40:1i:40:LEU:HD12	1.76	0.49
50:1s:11:VAL:HG11	50:1s:16:LEU:HB2	1.94	0.49
1:2A:1268:A:H2'	1:2A:1269:A:O4'	2.13	0.49
1:2A:1364:G:N7	23:21:3:LYS:HD2	2.28	0.49
1:2A:1782:C:H1'	1:2A:2609:U:H5''	1.95	0.49
1:2A:2549:G:H2'	1:2A:2550:G:H8	1.77	0.49
4:2E:179:GLU:HG3	15:2T:9:LEU:HD21	1.93	0.49
8:2I:71:ILE:O	8:2I:75:LEU:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:2N:38:HIS:CE1	9:2N:39:ARG:HG3	2.48	0.49
31:29:29:ASN:HD22	31:29:32:HIS:CE1	2.31	0.49
32:2a:450:G:H4'	47:2p:41:PRO:HB2	1.95	0.49
32:2a:1305:G:H5'	52:2u:4:GLY:HA3	1.95	0.49
33:2b:189:ASP:OD2	33:2b:189:ASP:N	2.35	0.49
41:2j:7:LYS:HG3	41:2j:71:LEU:HD13	1.95	0.49
50:2s:23:ASN:HD21	50:2s:47:HIS:HE1	1.61	0.49
1:1A:826:U:C4'	11:1P:55:ARG:HB3	2.43	0.48
1:1A:1298:C:H5''	1:1A:1299:G:OP2	2.13	0.48
1:1A:1570:A:H2'	1:1A:1571:A:C8	2.47	0.48
1:1A:2703:C:H2'	1:1A:2704:C:H6	1.78	0.48
33:1b:54:THR:HG23	33:1b:199:TYR:HB3	1.94	0.48
39:1h:7:ALA:HB2	39:1h:85:ARG:HG3	1.95	0.48
41:1j:5:ARG:NE	41:1j:73:ASP:OD1	2.41	0.48
44:1m:102:ARG:HH21	44:1m:105:THR:HG23	1.79	0.48
50:1s:50:ALA:HA	50:1s:58:VAL:O	2.13	0.48
54:1x:32:5MC:HM52	54:1x:33:U:O4	2.13	0.48
1:2A:443:A:H1'	1:2A:1201:C:O4'	2.13	0.48
1:2A:2116:G:N7	1:2A:2166:G:N2	2.61	0.48
1:2A:2576:G:O2'	1:2A:2579:C:OP2	2.22	0.48
1:2A:2732:G:H3'	1:2A:2733:A:O4'	2.12	0.48
3:2D:77:ALA:HA	3:2D:97:TYR:HA	1.95	0.48
6:2G:144:ILE:HA	6:2G:148:MET:SD	2.53	0.48
32:2a:187:C:H5''	51:2t:86:ARG:HG3	1.94	0.48
32:2a:767:A:H2'	32:2a:768:A:O4'	2.12	0.48
33:2b:101:MET:HA	33:2b:108:ILE:HD12	1.95	0.48
34:2c:155:GLY:HA3	34:2c:196:LEU:HD13	1.95	0.48
40:2i:53:VAL:O	40:2i:55:ALA:N	2.46	0.48
44:2m:33:ALA:HA	44:2m:59:TYR:CE2	2.48	0.48
1:1A:64:A:O3'	19:1X:71:GLY:HA3	2.13	0.48
1:1A:1557:C:H5''	1:1A:1558:A:OP2	2.12	0.48
3:1D:206:LEU:HD22	3:1D:211:ARG:HG2	1.95	0.48
4:1E:60:ASN:OD1	4:1E:63:LEU:HG	2.13	0.48
17:1V:62:LEU:HD12	17:1V:93:GLU:HG2	1.94	0.48
32:1a:656:C:C2'	46:1o:28:GLN:HE22	2.26	0.48
32:1a:728:A:H2'	32:1a:729:A:C8	2.47	0.48
40:1i:40:LEU:HD11	40:1i:70:LYS:HD3	1.95	0.48
41:1j:13:HIS:HA	41:1j:16:LEU:HB3	1.94	0.48
47:1p:19:ILE:HG22	47:1p:36:ILE:HG13	1.94	0.48
1:2A:1133:U:O4	1:2A:2026:C:H1'	2.13	0.48
1:2A:1385:G:O2'	1:2A:1396:U:O2	2.24	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1821:A:H2'	1:2A:1822:G:C8	2.46	0.48
8:2I:93:THR:O	8:2I:97:ILE:HG12	2.14	0.48
8:2I:126:TYR:HD2	8:2I:142:VAL:HB	1.78	0.48
15:2T:61:PHE:CE2	15:2T:76:PHE:HB2	2.48	0.48
32:2a:662:G:H2'	32:2a:663:A:H8	1.78	0.48
32:2a:664:G:N2	32:2a:741:G:H1	2.10	0.48
32:2a:1106:G:H2'	32:2a:1107:C:H6	1.78	0.48
1:1A:27:G:N2	1:1A:512:G:H1'	2.28	0.48
1:1A:1047:G:O2'	1:1A:1048:A:H8	1.96	0.48
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.48	0.48
1:1A:2443:C:OP1	5:1F:68:LYS:HD3	2.13	0.48
1:1A:2841:C:H2'	1:1A:2842:G:C8	2.48	0.48
1:1A:2848:G:H8	15:1T:97:ALA:HB2	1.77	0.48
3:1D:254:THR:O	3:1D:254:THR:OG1	2.30	0.48
4:1E:2:LYS:HB2	4:1E:95:ILE:HD12	1.94	0.48
4:1E:67:PHE:CE1	4:1E:75:VAL:HG22	2.49	0.48
15:1T:91:ARG:HH11	15:1T:120:ARG:HH12	1.61	0.48
32:1a:68:G:H1	32:1a:101:A:H61	1.60	0.48
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.48	0.48
32:1a:1118:C:P	40:1i:104:ARG:HH11	2.34	0.48
33:1b:36:ARG:C	33:1b:38:GLY:H	2.21	0.48
39:1h:35:ILE:HD11	39:1h:134:ILE:HG21	1.94	0.48
39:1h:124:ALA:O	39:1h:128:GLY:N	2.44	0.48
1:2A:286:C:H42	1:2A:355:G:H1	1.61	0.48
1:2A:819:A:OP2	1:2A:1187:G:N2	2.32	0.48
1:2A:1507:A:O2'	1:2A:1508:A:O5'	2.32	0.48
1:2A:2030:A:H4'	1:2A:2031:A:C8	2.49	0.48
1:2A:2690:C:N4	1:2A:2713:A:H1'	2.27	0.48
5:2F:129:PHE:CD2	5:2F:163:VAL:HG21	2.48	0.48
8:2I:51:ILE:HB	8:2I:52:ARG:NH1	2.28	0.48
8:2I:84:GLY:HA3	8:2I:87:LYS:HE2	1.95	0.48
17:2V:58:VAL:O	17:2V:97:LYS:N	2.44	0.48
30:28:14:VAL:HG13	30:28:22:VAL:HG13	1.94	0.48
30:28:34:TRP:CG	30:28:35:GLN:N	2.81	0.48
32:2a:447:G:O5'	32:2a:447:G:H8	1.96	0.48
32:2a:1352:C:H2'	32:2a:1353:G:C8	2.47	0.48
44:2m:5:ALA:HB2	44:2m:22:ILE:HD13	1.95	0.48
50:2s:36:ARG:NH1	50:2s:53:ASN:HA	2.28	0.48
1:1A:1495:A:C6	1:1A:1496:A:C6	3.02	0.48
5:1F:170:LEU:HD13	5:1F:172:TRP:CZ2	2.49	0.48
15:1T:100:TYR:HB3	15:1T:103:ARG:NH1	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:755:G:OP2	46:1o:65:ARG:HD2	2.13	0.48
35:1d:98:GLU:O	35:1d:103:ASN:ND2	2.47	0.48
36:1e:88:LYS:HB3	36:1e:123:LEU:HB2	1.94	0.48
37:1f:82:ARG:HB2	37:1f:85:VAL:HG23	1.94	0.48
1:2A:271(Z):C:H1'	1:2A:272(C):G:H1'	1.95	0.48
1:2A:2615:U:C2	27:25:7:PRO:HA	2.48	0.48
5:2F:126:VAL:HG22	5:2F:195:ASP:HA	1.95	0.48
6:2G:161:THR:C	6:2G:163:ALA:H	2.22	0.48
32:2a:110:C:H2'	32:2a:111:G:O4'	2.13	0.48
32:2a:1359:C:O2'	32:2a:1362:C:N4	2.46	0.48
39:2h:12:ARG:NH1	39:2h:27:PRO:HD3	2.28	0.48
39:2h:87:SER:HB2	39:2h:93:VAL:HB	1.94	0.48
50:2s:32:LYS:HA	50:2s:50:ALA:HB3	1.95	0.48
1:1A:271(P):C:O3'	8:1I:42:SER:OG	2.32	0.48
1:1A:1082:U:C4	1:1A:1086:A:N1	2.78	0.48
1:1A:1791:A:H3'	1:1A:1792:G:H8	1.79	0.48
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.48	0.48
1:1A:2705:A:O2'	1:1A:2852:G:OP1	2.28	0.48
6:1G:67:LYS:HE2	26:14:5:ILE:HD12	1.96	0.48
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	1.94	0.48
28:16:18:ARG:HD2	28:16:42:TRP:CD1	2.48	0.48
32:1a:297:G:N2	32:1a:300:A:OP2	2.43	0.48
32:1a:476:G:H2'	32:1a:477:A:H8	1.76	0.48
32:1a:1425:U:H2'	32:1a:1426:C:H6	1.77	0.48
32:1a:1429:C:H2'	32:1a:1430:C:C6	2.47	0.48
33:1b:88:ALA:HB2	33:1b:219:VAL:HG13	1.95	0.48
35:1d:128:VAL:HG12	35:1d:129:ASN:ND2	2.28	0.48
37:1f:97:PHE:HB2	49:1r:32:ARG:HD2	1.96	0.48
44:1m:59:TYR:O	44:1m:63:THR:OG1	2.22	0.48
47:1p:20:VAL:HG21	47:1p:32:TYR:CD2	2.49	0.48
1:2A:189:G:H2'	1:2A:205:G:N2	2.29	0.48
1:2A:484:C:H2'	1:2A:485:C:C6	2.48	0.48
1:2A:577:G:O2'	1:2A:1254:A:OP1	2.28	0.48
1:2A:675:A:OP1	5:2F:63:LYS:NZ	2.44	0.48
21:2Z:52:SER:C	21:2Z:54:HIS:H	2.22	0.48
32:2a:153:C:N3	32:2a:169:C:N4	2.61	0.48
32:2a:542:G:P	35:2d:10:ARG:HH22	2.36	0.48
32:2a:1121:U:O2'	32:2a:1122:U:H5'	2.13	0.48
33:2b:80:ILE:HD12	33:2b:208:ILE:HD13	1.96	0.48
39:2h:9:MET:HE3	39:2h:32:LYS:HE2	1.95	0.48
54:2x:25:C:H2'	54:2x:26:G:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:296:C:H2'	1:1A:297:C:C6	2.49	0.48
1:1A:1655:A:H3'	1:1A:1656:C:C6	2.48	0.48
1:1A:2628:C:O2'	1:1A:2781:A:H2'	2.13	0.48
32:1a:266:G:H4'	32:1a:267:C:C5	2.48	0.48
32:1a:544:G:OP2	35:1d:66:ARG:NH2	2.47	0.48
32:1a:741:G:H2'	32:1a:742:G:O4'	2.13	0.48
32:1a:1033:G:H2'	32:1a:1034:G:C8	2.47	0.48
33:1b:183:PRO:HA	33:1b:198:ASP:OD2	2.14	0.48
44:1m:84:ILE:HB	50:1s:66:MET:HE2	1.96	0.48
1:2A:613:G:O2'	1:2A:614(C):A:N1	2.42	0.48
1:2A:729:G:C6	3:2D:208:LYS:HB2	2.48	0.48
1:2A:852:G:H2'	1:2A:853:G:C8	2.48	0.48
1:2A:2774:C:H2'	1:2A:2775:A:O4'	2.13	0.48
2:2B:5:C:H42	2:2B:116:G:H1	1.60	0.48
2:2B:7:G:H5'	14:2S:29:PHE:CE2	2.48	0.48
3:2D:175:LEU:HD12	3:2D:185:VAL:HG21	1.96	0.48
5:2F:20:LEU:HD23	5:2F:22:ALA:HB2	1.94	0.48
8:2I:9:LEU:HD21	8:2I:35:LEU:HD13	1.95	0.48
9:2N:30:ILE:HG23	9:2N:52:VAL:HG11	1.95	0.48
10:2O:64:ARG:NH2	10:2O:99:PHE:O	2.47	0.48
15:2T:74:ARG:HG2	15:2T:76:PHE:CZ	2.48	0.48
32:2a:187:C:H2'	32:2a:188:C:C6	2.48	0.48
32:2a:1023:G:H3'	32:2a:1024:G:H8	1.78	0.48
35:2d:94:LEU:HA	35:2d:97:LEU:HD12	1.94	0.48
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.48	0.48
1:1A:2467:C:H4'	12:1Q:123:HIS:CG	2.48	0.48
1:1A:2637:U:C2'	1:1A:2638:G:H5'	2.44	0.48
1:1A:2819:G:OP1	59:1A:4289:HOH:O	2.19	0.48
7:1H:3:ARG:NH1	7:1H:4:ILE:H	2.11	0.48
7:1H:86:GLU:HB2	7:1H:165:ALA:HB2	1.96	0.48
9:1N:14:VAL:HB	9:1N:138:LEU:HD12	1.95	0.48
14:1S:10:ARG:HG2	14:1S:91:PRO:HA	1.95	0.48
20:1Y:28:LYS:HB3	20:1Y:38:ILE:HG22	1.94	0.48
32:1a:1316:G:H5''	45:1n:17:LYS:HE3	1.95	0.48
1:2A:489:G:H2'	1:2A:491:G:O4'	2.13	0.48
1:2A:1125:G:H5'	31:29:37:GLY:HA2	1.96	0.48
1:2A:1628:G:H2'	1:2A:1629:U:C6	2.48	0.48
1:2A:2111:C:O4'	1:2A:2118:U:H1'	2.14	0.48
1:2A:2136:C:N4	1:2A:2155:G:H1	2.11	0.48
1:2A:2788:C:OP1	4:2E:61:ARG:NH2	2.47	0.48
2:2B:31:C:H4'	6:2G:29:TRP:CZ2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:2T:39:ARG:NH2	32:2a:345:C:OP2	2.41	0.48
26:24:46:GLN:HG2	26:24:48:ARG:H	1.79	0.48
32:2a:601:C:H2'	32:2a:602:A:C8	2.48	0.48
32:2a:998:G:H1	32:2a:1043:C:N4	2.11	0.48
32:2a:1271:G:N2	32:2a:1272:G:N7	2.61	0.48
32:2a:1326:C:H2'	32:2a:1327:C:C6	2.49	0.48
46:2o:82:ILE:HD11	46:2o:88:ARG:HH11	1.78	0.48
1:1A:862:G:H2'	1:1A:863:A:O4'	2.14	0.48
1:1A:1081:U:H2'	1:1A:1082:U:C6	2.49	0.48
1:1A:2683:C:H2'	1:1A:2684:U:C6	2.48	0.48
2:1B:42:C:O2	6:1G:93:THR:N	2.40	0.48
8:1I:6:LEU:O	8:1I:7:GLU:HG3	2.13	0.48
11:1P:106:LEU:HD22	11:1P:112:LEU:HB2	1.94	0.48
11:1P:138:LEU:HD23	11:1P:145:PRO:HB3	1.95	0.48
32:1a:176:C:H2'	32:1a:177:C:C6	2.49	0.48
32:1a:881:G:P	43:1l:12:ARG:HH22	2.36	0.48
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.48	0.48
38:1g:22:LEU:HD11	38:1g:101:LEU:HD21	1.96	0.48
1:2A:412:A:OP2	1:2A:412:A:H8	1.96	0.48
1:2A:445:C:O2'	1:2A:449:A:N3	2.41	0.48
1:2A:1291:C:H2'	1:2A:1292:U:C6	2.49	0.48
16:2U:110:VAL:O	16:2U:114:LYS:HG2	2.14	0.48
21:2Z:138:GLU:HG2	21:2Z:156:LYS:NZ	2.29	0.48
32:2a:303:A:HO2'	32:2a:555:C:HO2'	1.61	0.48
32:2a:973:G:OP1	41:2j:57:LYS:NZ	2.40	0.48
32:2a:1015:A:H2'	32:2a:1016:A:C8	2.47	0.48
32:2a:1121:U:H2'	32:2a:1122:U:C6	2.49	0.48
32:2a:1149:C:O2'	32:2a:1280:A:N1	2.46	0.48
32:2a:1414:U:H3	32:2a:1486:G:H1	1.61	0.48
1:1A:239:U:H2'	1:1A:240:G:O4'	2.13	0.48
1:1A:945:A:C4	1:1A:2448:A:C2	3.02	0.48
1:1A:1429:G:H2'	1:1A:1430:C:H6	1.79	0.48
1:1A:1698:A:OP2	59:1A:4291:HOH:O	2.20	0.48
23:11:8:SER:HB3	23:11:66:HIS:CD2	2.49	0.48
23:11:64:ALA:HA	23:11:67:ILE:HG13	1.95	0.48
32:1a:341:C:H2'	32:1a:342:C:C6	2.49	0.48
32:1a:373:A:O2'	32:1a:451:A:N7	2.47	0.48
32:1a:435:C:H2'	32:1a:436:C:H6	1.79	0.48
32:1a:865:A:C2	32:1a:918:A:H4'	2.48	0.48
32:1a:973:G:H3'	32:1a:974:A:H5''	1.94	0.48
34:1c:150:LYS:HE2	34:1c:152:ILE:HD11	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1j:78:ASN:O	41:1j:80:LYS:N	2.47	0.48
1:2A:139:G:H2'	1:2A:140:G:N7	2.29	0.48
1:2A:286:C:H2'	1:2A:287:C:C6	2.49	0.48
1:2A:322:A:OP1	5:2F:168:ARG:HD2	2.14	0.48
1:2A:884:C:H3'	1:2A:885:C:H6	1.78	0.48
1:2A:1257:C:H4'	5:2F:83:PHE:CD1	2.49	0.48
1:2A:1913:A:H4'	1:2A:1914:C:C5'	2.44	0.48
3:2D:70:TRP:CE2	3:2D:150:LYS:HD2	2.48	0.48
6:2G:103:LEU:HD23	6:2G:106:LEU:HD12	1.96	0.48
12:2Q:27:VAL:HG21	12:2Q:134:ARG:HG3	1.96	0.48
22:20:27:GLU:HB2	22:20:69:PHE:HD1	1.79	0.48
35:2d:129:ASN:OD1	35:2d:145:GLU:N	2.47	0.48
46:2o:5:LYS:O	46:2o:9:GLN:HG2	2.13	0.48
1:1A:1063:G:H2'	1:1A:1064:C:H6	1.78	0.48
1:1A:1766:U:H2'	1:1A:1767:C:H6	1.79	0.48
1:1A:2482:G:O6	12:1Q:124:LYS:NZ	2.47	0.48
1:1A:2627:G:N2	1:1A:2777:G:OP2	2.46	0.48
7:1H:9:ILE:HB	7:1H:50:VAL:HG12	1.96	0.48
7:1H:40:GLU:CD	7:1H:60:ARG:HH21	2.22	0.48
26:14:58:ARG:O	26:14:61:ARG:HG2	2.14	0.48
29:17:18:PHE:N	29:17:43:THR:HG21	2.29	0.48
32:1a:175:C:H2'	32:1a:176:C:C6	2.49	0.48
32:1a:670:G:H2'	32:1a:671:G:O4'	2.14	0.48
32:1a:688:G:H2'	32:1a:689:C:C6	2.49	0.48
38:1g:107:ALA:HB2	38:1g:134:ALA:HB2	1.96	0.48
1:2A:496:G:H2'	1:2A:497:A:H5'	1.95	0.48
1:2A:851:U:O2'	25:23:42:ALA:O	2.31	0.48
1:2A:1431:U:H2'	1:2A:1432:C:C6	2.49	0.48
1:2A:2786:U:H2'	1:2A:2787:C:C6	2.49	0.48
6:2G:15:VAL:HG11	6:2G:176:LEU:HD23	1.96	0.48
11:2P:84:ASN:OD1	11:2P:117:GLU:HB2	2.14	0.48
32:2a:545:C:H5'	35:2d:72:GLU:HB2	1.96	0.48
33:2b:165:VAL:HG13	33:2b:166:ASP:H	1.78	0.48
42:2k:41:THR:HG21	42:2k:71:LYS:HB2	1.96	0.48
42:2k:105:VAL:HG23	42:2k:105:VAL:O	2.12	0.48
1:1A:214:G:N3	1:1A:216:A:O2'	2.43	0.47
1:1A:220:G:O2'	1:1A:233:A:N3	2.44	0.47
1:1A:247:G:H4'	1:1A:386:G:C5	2.49	0.47
1:1A:358:U:H2'	1:1A:359:A:C8	2.49	0.47
1:1A:1665:A:H2'	1:1A:1666:G:O4'	2.13	0.47
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2849:U:H4'	1:1A:2868:A:C2	2.49	0.47
1:1A:2853:C:H2'	1:1A:2854:G:C8	2.49	0.47
1:1A:2853:C:H2'	1:1A:2854:G:H8	1.79	0.47
3:1D:68:LYS:HE3	3:1D:70:TRP:CH2	2.49	0.47
4:1E:101:ARG:HG2	4:1E:169:ASN:OD1	2.14	0.47
5:1F:106:ARG:H	5:1F:106:ARG:HG2	1.46	0.47
7:1H:119:GLU:O	7:1H:140:LYS:NZ	2.46	0.47
10:1O:73:ASP:OD1	10:1O:75:SER:HB3	2.13	0.47
21:1Z:150:LEU:HD11	21:1Z:154:ASP:OD2	2.13	0.47
32:1a:106:C:O2'	32:1a:379:C:H5''	2.14	0.47
32:1a:757:U:H2'	32:1a:758:G:O4'	2.14	0.47
32:1a:1106:G:H2'	32:1a:1107:C:C6	2.49	0.47
41:1j:40:LEU:HB2	41:1j:69:ASN:CB	2.44	0.47
1:2A:483:A:O2'	20:2Y:49:VAL:O	2.21	0.47
1:2A:1301:A:H2	1:2A:1626:G:N3	2.12	0.47
1:2A:2555:U:H5''	1:2A:2556:C:OP2	2.13	0.47
1:2A:2679:A:OP2	4:2E:160:TYR:OH	2.27	0.47
1:2A:2785:C:O3'	4:2E:69:LYS:NZ	2.46	0.47
1:2A:2884:U:P	27:25:43:HIS:HE2	2.37	0.47
32:2a:852:G:H2'	32:2a:853:G:O4'	2.14	0.47
32:2a:919:A:H8	32:2a:919:A:O5'	1.95	0.47
32:2a:1014:A:N3	32:2a:1219:U:H1'	2.28	0.47
32:2a:1026:G:N2	32:2a:1027:C:O4'	2.47	0.47
32:2a:1368:G:H5'	40:2i:112:LYS:HB3	1.95	0.47
41:2j:12:ASP:O	41:2j:15:THR:OG1	2.28	0.47
43:2l:7:ILE:O	43:2l:11:VAL:HG23	2.13	0.47
1:1A:443:A:C5	5:1F:45:ARG:HD2	2.49	0.47
1:1A:989:G:OP2	25:13:11:SER:OG	2.23	0.47
1:1A:1783:A:OP1	59:1A:4241:HOH:O	2.20	0.47
1:1A:2408:U:H2'	1:1A:2409:G:H8	1.79	0.47
1:1A:2564:A:OP1	1:1A:2648:C:H4'	2.14	0.47
1:1A:2699:C:H2'	1:1A:2700:C:O4'	2.13	0.47
2:1B:2:C:H2'	2:1B:3:C:C6	2.49	0.47
9:1N:6:PRO:HD2	9:1N:43:THR:OG1	2.14	0.47
18:1W:78:GLU:OE2	18:1W:99:ARG:NH1	2.35	0.47
32:1a:313:A:H2'	32:1a:314:C:C6	2.49	0.47
32:1a:921:U:O2	36:1e:19:MET:HB2	2.14	0.47
32:1a:977:A:H1'	32:1a:982:U:O4	2.14	0.47
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	1.96	0.47
47:1p:6:LEU:HB3	47:1p:17:TYR:CD1	2.49	0.47
1:2A:910:A:N1	1:2A:2277:G:H1'	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1651:G:N7	13:2R:11:ASN:ND2	2.61	0.47
1:2A:2136:C:N4	1:2A:2155:G:N1	2.62	0.47
2:2B:117:G:H8	2:2B:117:G:O5'	1.97	0.47
6:2G:106:LEU:HD22	6:2G:111:LEU:HG	1.96	0.47
9:2N:19:GLU:HG3	9:2N:59:LYS:HB3	1.96	0.47
14:2S:3:ARG:NH1	14:2S:4:LEU:H	2.12	0.47
32:2a:109:A:C6	32:2a:326:G:C6	3.02	0.47
32:2a:1305:G:H22	32:2a:1331:G:H1'	1.78	0.47
32:2a:1328:C:OP1	52:2u:21:TYR:OH	2.19	0.47
42:2k:73:MET:HG2	42:2k:103:LEU:HD21	1.96	0.47
48:2q:58:GLU:O	48:2q:74:LEU:N	2.41	0.47
1:1A:285:C:H2'	1:1A:286:C:C6	2.49	0.47
1:1A:1983:C:H4'	1:1A:2606:C:H4'	1.96	0.47
11:1P:1:MET:HE2	11:1P:1:MET:HB2	1.82	0.47
18:1W:71:VAL:HA	18:1W:107:LEU:HD12	1.95	0.47
28:16:12:GLU:HA	28:16:19:ARG:HA	1.97	0.47
32:1a:7:G:H2'	36:1e:119:LEU:HD22	1.96	0.47
32:1a:1255:G:N7	41:1j:43:ARG:NH2	2.60	0.47
34:1c:35:GLU:O	34:1c:39:ILE:N	2.42	0.47
39:1h:46:LYS:HE2	39:1h:63:LEU:O	2.14	0.47
43:1l:23:LYS:C	43:1l:25:PRO:HD3	2.39	0.47
48:1q:45:HIS:O	48:1q:73:VAL:HG23	2.15	0.47
1:2A:1296:G:OP1	1:2A:2709:G:O2'	2.22	0.47
1:2A:1639:U:O2'	1:2A:2699:C:H4'	2.14	0.47
1:2A:1709:U:H2'	1:2A:1710:C:H6	1.78	0.47
1:2A:1981:A:N7	59:2A:4036:HOH:O	2.35	0.47
1:2A:2294:C:OP2	14:2S:89:ARG:NH2	2.29	0.47
14:2S:34:HIS:O	14:2S:97:ARG:NH2	2.47	0.47
19:2X:49:VAL:HG11	19:2X:89:ILE:HG12	1.95	0.47
28:26:9:LEU:HA	28:26:54:ILE:HB	1.95	0.47
32:2a:629:G:H2'	32:2a:630:G:O4'	2.14	0.47
32:2a:1186:G:O3'	40:2i:113:LYS:NZ	2.36	0.47
32:2a:1272:G:N2	32:2a:1273:G:C8	2.81	0.47
54:2x:8:4SU:O5'	54:2x:8:4SU:H6	2.14	0.47
1:1A:174:C:H2'	1:1A:175:G:O4'	2.14	0.47
1:1A:300:A:OP1	20:1Y:86:ARG:NH2	2.44	0.47
1:1A:1371:G:H2'	1:1A:1372:U:H5	1.79	0.47
1:1A:2279:G:O6	22:10:14:ARG:HG3	2.15	0.47
5:1F:13:SER:OG	5:1F:127:GLU:OE1	2.32	0.47
6:1G:3:LEU:O	6:1G:8:LYS:NZ	2.41	0.47
6:1G:103:LEU:HD23	6:1G:106:LEU:HD23	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1G:111:LEU:HD22	6:1G:120:LEU:HD21	1.96	0.47
12:1Q:16:ARG:HG2	12:1Q:18:LYS:HE2	1.97	0.47
13:1R:9:LYS:O	13:1R:17:ARG:NH1	2.46	0.47
13:1R:14:SER:OG	13:1R:15:SER:N	2.47	0.47
13:1R:28:LEU:HD23	13:1R:48:VAL:HG21	1.95	0.47
26:14:44:THR:O	26:14:46:GLN:N	2.48	0.47
32:1a:316:G:OP2	32:1a:351:G:O2'	2.30	0.47
32:1a:1442:G:O2'	32:1a:1442(A):G:H5'	2.14	0.47
33:1b:21:ARG:C	33:1b:23:ARG:H	2.23	0.47
44:1m:15:VAL:HG11	44:1m:48:LEU:HD21	1.95	0.47
45:1n:48:ALA:HB2	45:1n:53:LEU:HD12	1.96	0.47
47:1p:49:LEU:HD11	47:1p:73:LEU:HB3	1.95	0.47
1:2A:69:C:N4	59:2A:4001:HOH:O	2.47	0.47
1:2A:195:A:H2'	1:2A:198:C:N4	2.28	0.47
1:2A:608:A:H2'	1:2A:609:A:O4'	2.14	0.47
1:2A:1580:A:H3'	1:2A:1581:G:C8	2.49	0.47
1:2A:2261:C:C6	22:20:16:SER:HB3	2.49	0.47
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.15	0.47
1:2A:2850:A:H2	13:2R:61:HIS:CG	2.32	0.47
6:2G:50:ALA:O	6:2G:52:ILE:N	2.48	0.47
14:2S:38:GLN:NE2	14:2S:47:THR:OG1	2.25	0.47
32:2a:34:C:H2'	32:2a:35:G:H8	1.76	0.47
32:2a:933:G:N2	32:2a:935:A:O4'	2.47	0.47
32:2a:957:U:H2'	32:2a:959:A:OP2	2.14	0.47
32:2a:967:5MC:H2'	32:2a:968:A:C8	2.49	0.47
35:2d:57:ARG:N	35:2d:57:ARG:HD2	2.30	0.47
40:2i:108:VAL:HG22	40:2i:109:VAL:H	1.80	0.47
1:1A:700:G:H2'	1:1A:701:G:O4'	2.15	0.47
1:1A:795:C:H2'	1:1A:796:C:C6	2.49	0.47
1:1A:820:A:H1'	1:1A:943:U:H1'	1.96	0.47
1:1A:1268:A:C2	1:1A:2013:A:C4	3.03	0.47
1:1A:2097:C:H2'	1:1A:2098:U:C6	2.50	0.47
7:1H:83:TYR:CE2	7:1H:138:LYS:HB2	2.50	0.47
15:1T:27:THR:HB	15:1T:90:GLN:HB3	1.96	0.47
28:16:38:LYS:HB2	28:16:49:HIS:CD2	2.49	0.47
32:1a:437:U:H5'	35:1d:155:LEU:HD11	1.97	0.47
1:2A:10:G:H1'	1:2A:2801(A):A:N7	2.29	0.47
1:2A:55:G:H2'	1:2A:56:A:C8	2.49	0.47
1:2A:271(H):G:H2'	1:2A:271(I):G:C8	2.49	0.47
1:2A:302:C:H42	1:2A:315:G:H1	1.63	0.47
1:2A:1027:A:C6	1:2A:1126:A:C4	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1341:U:OP1	1:2A:1397:U:N3	2.43	0.47
1:2A:1607:C:H5''	1:2A:1608:A:H5'	1.97	0.47
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.50	0.47
1:2A:2050:C:N4	1:2A:2051:A:C6	2.83	0.47
1:2A:2427:C:H5''	1:2A:2428:G:OP1	2.14	0.47
1:2A:2785:C:O2'	4:2E:66:HIS:ND1	2.46	0.47
6:2G:63:ILE:HD13	6:2G:143:GLU:HB2	1.96	0.47
10:2O:122:LEU:HD13	15:2T:72:VAL:HG11	1.95	0.47
15:2T:26:ASP:O	15:2T:49:VAL:HG22	2.14	0.47
15:2T:65:LYS:HE3	15:2T:67:SER:HB2	1.95	0.47
32:2a:728:A:N7	46:2o:54:ARG:HD3	2.30	0.47
35:2d:176:LEU:HG	35:2d:178:VAL:HG22	1.96	0.47
39:2h:6:ILE:O	39:2h:10:LEU:HG	2.14	0.47
54:2x:58:A:H4'	54:2x:59:A:OP1	2.13	0.47
1:1A:566:U:H5''	11:1P:29:LYS:HE3	1.96	0.47
1:1A:662:G:H5''	11:1P:16:ARG:HG2	1.97	0.47
13:1R:26:LYS:HE2	13:1R:70:LEU:O	2.15	0.47
18:1W:35:ILE:O	18:1W:39:THR:OG1	2.28	0.47
30:18:8:LYS:O	30:18:12:LYS:HG3	2.15	0.47
33:1b:71:VAL:HA	33:1b:93:VAL:HG22	1.96	0.47
54:1x:19:G:H4'	54:1x:20:U:OP2	2.15	0.47
1:2A:996:A:H4'	16:2U:91:ASP:OD2	2.13	0.47
1:2A:1196:C:H2'	1:2A:1197:G:C8	2.49	0.47
1:2A:2330:G:H2'	1:2A:2331:G:O4'	2.14	0.47
11:2P:59:LEU:HD23	11:2P:60:MET:HE2	1.96	0.47
21:2Z:24:LEU:HD12	21:2Z:25:PRO:HD2	1.96	0.47
32:2a:1118:C:H1'	32:2a:1179:A:C5	2.48	0.47
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.29	0.47
33:2b:24:TRP:CZ3	33:2b:26:PRO:HA	2.49	0.47
33:2b:84:GLU:O	33:2b:219:VAL:HG21	2.14	0.47
1:1A:414:C:H4'	1:1A:1879:C:O2	2.15	0.47
1:1A:1074:G:N1	1:1A:1075:C:H1'	2.29	0.47
1:1A:1427:A:H4'	1:1A:1428:C:O4'	2.14	0.47
1:1A:1495:A:H2'	1:1A:1496:A:C8	2.48	0.47
1:1A:1926:U:O2'	1:1A:1928:A:N7	2.46	0.47
1:1A:2291:U:H2'	1:1A:2292:C:C6	2.50	0.47
5:1F:95:ARG:HD3	5:1F:97:TYR:CZ	2.49	0.47
8:1I:27:ARG:HD3	23:11:71:TYR:CE2	2.50	0.47
32:1a:189(B):C:H2'	32:1a:189(C):C:C6	2.50	0.47
32:1a:288:A:H2'	32:1a:289:G:H4'	1.97	0.47
32:1a:412:A:C6	35:1d:35:ARG:HG2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:414:A:H2'	32:1a:415:A:H8	1.78	0.47
32:1a:444:C:H2'	32:1a:445:G:H8	1.79	0.47
32:1a:711:G:OP1	37:1f:54:LYS:NZ	2.40	0.47
32:1a:1008:C:N3	32:1a:1021:G:C6	2.81	0.47
32:1a:1112:C:H1'	34:1c:179:ARG:HG2	1.96	0.47
32:1a:1149:C:H2'	32:1a:1150:U:H6	1.79	0.47
32:1a:1315:U:H2'	32:1a:1316:G:O4'	2.14	0.47
32:1a:1343:G:H4'	40:1i:122:ALA:HB3	1.96	0.47
33:1b:208:ILE:HA	33:1b:211:ILE:HG13	1.97	0.47
34:1c:134:ILE:O	34:1c:138:VAL:HG23	2.15	0.47
37:1f:27:GLN:HA	37:1f:30:LEU:HD12	1.95	0.47
41:1j:15:THR:O	41:1j:19:SER:OG	2.25	0.47
41:1j:42:THR:HG21	41:1j:66:ARG:HH11	1.79	0.47
43:1l:7:ILE:HA	43:1l:10:LEU:HD12	1.97	0.47
51:1t:10:LEU:HD12	51:1t:12:ALA:H	1.80	0.47
1:2A:656:G:H2'	1:2A:657:U:O4'	2.15	0.47
1:2A:763:G:H1'	1:2A:765:G:O4'	2.15	0.47
1:2A:992:C:OP1	16:2U:47:TYR:OH	2.24	0.47
1:2A:1011:G:OP2	16:2U:66:ASN:ND2	2.48	0.47
1:2A:1376:C:OP1	59:2A:3963:HOH:O	2.20	0.47
1:2A:1428:C:N4	1:2A:1570:A:OP2	2.44	0.47
1:2A:1486:A:H2'	1:2A:1487:G:C8	2.49	0.47
1:2A:1550:C:H2'	1:2A:1551:C:H6	1.79	0.47
1:2A:1671:U:O2'	1:2A:1673:U:H5	1.98	0.47
1:2A:1817:G:OP1	3:2D:88:ARG:NH2	2.45	0.47
1:2A:2466:C:H5''	31:29:6:SER:HB2	1.95	0.47
1:2A:2601:C:H2'	1:2A:2603:G:C8	2.50	0.47
2:2B:25:A:H2'	2:2B:26:A:C8	2.50	0.47
2:2B:90:A:C5	2:2B:91:C:H1'	2.50	0.47
4:2E:174:ASP:OD1	4:2E:175:VAL:N	2.44	0.47
8:2I:73:GLU:HG2	8:2I:73:GLU:O	2.15	0.47
10:2O:15:GLY:O	10:2O:47:ILE:HG12	2.15	0.47
12:2Q:54:MET:HB3	12:2Q:117:ALA:HB1	1.95	0.47
16:2U:86:ALA:O	17:2V:49:THR:HG23	2.14	0.47
18:2W:17:VAL:HG11	18:2W:103:ILE:HD11	1.96	0.47
19:2X:2:LYS:NZ	19:2X:38:GLU:OE2	2.38	0.47
26:24:50:VAL:HG11	44:2m:65:LYS:HG3	1.97	0.47
32:2a:223:U:H2'	32:2a:224:C:H6	1.79	0.47
32:2a:352:C:H4'	32:2a:354:G:OP1	2.15	0.47
32:2a:406:G:H21	35:2d:119:GLN:NE2	2.12	0.47
32:2a:449:C:H3'	32:2a:450:G:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:458:C:H2'	32:2a:460:G:O4'	2.15	0.47
32:2a:707:C:H2'	32:2a:708:C:H6	1.77	0.47
32:2a:936:C:H2'	32:2a:937:A:O4'	2.14	0.47
32:2a:980:C:H3'	32:2a:981:U:C6	2.50	0.47
32:2a:1100:C:H2'	32:2a:1102:A:O5'	2.15	0.47
32:2a:1151:A:O2'	32:2a:1152:A:H8	1.97	0.47
32:2a:1174:G:N7	59:2a:3317:HOH:O	2.35	0.47
32:2a:1518:MA6:H93	32:2a:1519:MA6:H92	1.96	0.47
35:2d:64:LEU:HB2	35:2d:198:VAL:HG21	1.96	0.47
38:2g:70:LYS:HD2	38:2g:96:GLN:HB3	1.97	0.47
38:2g:108:ALA:HA	38:2g:111:ARG:HD2	1.97	0.47
38:2g:153:HIS:CE1	42:2k:57:THR:HB	2.49	0.47
39:2h:29:SER:HB3	39:2h:32:LYS:HG3	1.96	0.47
44:2m:60:VAL:HG22	44:2m:64:TRP:HZ3	1.79	0.47
47:2p:42:ARG:HB3	47:2p:44:THR:HG23	1.96	0.47
1:1A:443:A:H1'	1:1A:1201:C:O4'	2.14	0.47
1:1A:631:A:H2'	1:1A:632:A:O4'	2.15	0.47
1:1A:657:U:H2'	1:1A:658:C:C6	2.50	0.47
1:1A:721:C:H2'	1:1A:722:A:C8	2.50	0.47
1:1A:1441:G:H2'	1:1A:1442:G:H8	1.80	0.47
1:1A:1829:A:N3	3:1D:15:PHE:HZ	2.13	0.47
1:1A:1935:G:H1'	1:1A:1964:G:N2	2.29	0.47
2:1B:17:C:H2'	2:1B:18:G:O4'	2.15	0.47
2:1B:48:A:H4'	14:1S:95:HIS:HD2	1.80	0.47
20:1Y:6:HIS:H	20:1Y:6:HIS:CD2	2.32	0.47
24:12:14:ARG:O	24:12:67:LYS:NZ	2.43	0.47
26:14:8:LYS:HE2	26:14:8:LYS:HB3	1.64	0.47
32:1a:277:C:H5''	48:1q:68:ARG:NH2	2.29	0.47
33:1b:109:SER:O	33:1b:112:VAL:HG22	2.15	0.47
43:1l:77:LEU:HD21	43:1l:107:ALA:HB2	1.96	0.47
1:2A:705:A:H1'	3:2D:9:TYR:CE2	2.50	0.47
3:2D:108:PRO:HB3	3:2D:143:HIS:HE1	1.79	0.47
11:2P:138:LEU:HD23	11:2P:145:PRO:HB3	1.97	0.47
13:2R:50:HIS:O	13:2R:54:LEU:HG	2.15	0.47
15:2T:31:SER:OG	15:2T:44:ASP:OD1	2.21	0.47
32:2a:45:U:OP1	32:2a:307:C:O2'	2.28	0.47
32:2a:114:U:H2'	32:2a:115:G:C8	2.50	0.47
32:2a:519:C:H2'	32:2a:520:A:O4'	2.15	0.47
32:2a:1370:G:C8	40:2i:109:VAL:HG11	2.50	0.47
32:2a:1401:G:C2	32:2a:1402:4OC:H1'	2.50	0.47
40:2i:3:GLN:HE21	40:2i:20:ARG:HH21	1.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:21:PRO:HA	40:2i:59:PHE:HA	1.97	0.47
1:1A:628:G:H2'	1:1A:629:G:H8	1.78	0.47
1:1A:644:A:H4'	1:1A:645:C:H5	1.80	0.47
1:1A:686:G:N2	1:1A:788:A:H61	2.13	0.47
1:1A:2017:U:O2	27:15:10:LYS:HB2	2.15	0.47
1:1A:2633:G:H2'	1:1A:2634:G:O4'	2.15	0.47
1:1A:2771:C:H2'	1:1A:2772:C:C6	2.49	0.47
4:1E:7:VAL:HG23	4:1E:51:PHE:CE2	2.50	0.47
6:1G:25:TYR:CZ	6:1G:32:PRO:HD3	2.50	0.47
7:1H:7:LEU:HD12	7:1H:8:PRO:HD2	1.97	0.47
14:1S:15:ARG:HE	14:1S:88:ASP:CG	2.20	0.47
32:1a:135:C:O2	47:1p:1:MET:N	2.48	0.47
32:1a:219:C:H2'	32:1a:220:G:O4'	2.15	0.47
32:1a:263:A:OP1	51:1t:79:ARG:NH1	2.48	0.47
32:1a:436:C:H2'	32:1a:437:U:O4'	2.15	0.47
32:1a:487:A:C2	32:1a:488:C:H1'	2.50	0.47
32:1a:676:A:H1'	42:1k:115:PRO:HB3	1.96	0.47
32:1a:826:C:H4'	39:1h:12:ARG:HD3	1.96	0.47
32:1a:938:A:C6	32:1a:939:G:C5	3.03	0.47
32:1a:1187:G:H2'	32:1a:1188:A:C8	2.50	0.47
32:1a:1291:G:OP1	38:1g:37:ASN:ND2	2.48	0.47
32:1a:1349:A:OP1	40:1i:118:LYS:HB2	2.14	0.47
41:1j:64:GLU:HB3	45:1n:59:ALA:HB2	1.97	0.47
48:1q:67:LYS:HA	48:1q:70:ARG:NH1	2.30	0.47
50:1s:31:ILE:HB	50:1s:49:ILE:HG23	1.97	0.47
1:2A:196:A:N3	1:2A:196:A:H2'	2.30	0.47
1:2A:395:U:O2'	59:2A:3961:HOH:O	2.20	0.47
1:2A:632:A:H2'	1:2A:633:A:C8	2.50	0.47
1:2A:1580:A:H3'	1:2A:1581:G:H8	1.80	0.47
1:2A:2247:A:H2'	1:2A:2248:C:H6	1.80	0.47
6:2G:102:PHE:O	6:2G:106:LEU:HB2	2.15	0.47
11:2P:6:LEU:HA	11:2P:6:LEU:HD23	1.66	0.47
12:2Q:24:GLY:HA2	12:2Q:67:ARG:NH2	2.29	0.47
14:2S:36:TYR:OH	14:2S:54:LEU:HD22	2.15	0.47
20:2Y:19:LYS:HE2	20:2Y:20:TYR:HE2	1.80	0.47
21:2Z:147:GLY:N	21:2Z:174:VAL:O	2.45	0.47
24:22:35:LEU:HD13	24:22:53:LEU:HD12	1.96	0.47
32:2a:19:C:H5''	36:2e:86:ALA:HB1	1.97	0.47
32:2a:174:C:H2'	32:2a:175:C:C6	2.50	0.47
32:2a:932:C:H2'	32:2a:933:G:C8	2.49	0.47
42:2k:61:ALA:HB1	42:2k:94:ALA:HB2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:90:LEU:HA	44:2m:93:ARG:HE	1.80	0.47
48:2q:41:LYS:NZ	48:2q:92:ARG:HH21	2.13	0.47
1:1A:234:C:H2'	1:1A:235:U:H6	1.79	0.47
6:1G:56:ALA:HA	6:1G:59:GLU:HG2	1.95	0.47
8:1I:94:ALA:H	8:1I:116:LEU:HD22	1.79	0.47
32:1a:475:G:O2'	32:1a:476:G:H5'	2.15	0.47
32:1a:874:G:H21	39:1h:15:ASN:ND2	2.13	0.47
32:1a:1014:A:H4'	50:1s:14:HIS:CE1	2.49	0.47
45:1n:15:LYS:HD2	45:1n:16:PHE:CE2	2.50	0.47
1:2A:607:U:OP1	5:2F:102:PRO:HA	2.14	0.47
1:2A:637:A:C8	11:2P:117:GLU:HG3	2.42	0.47
1:2A:783:A:O2'	1:2A:785:G:OP1	2.25	0.47
1:2A:955:C:OP1	12:2Q:87:LYS:HE3	2.15	0.47
1:2A:1221(A):C:C2	1:2A:1229:G:C2	3.03	0.47
1:2A:1252:G:OP2	16:2U:14:HIS:NE2	2.33	0.47
1:2A:1359:A:H2'	1:2A:1360:A:H5'	1.97	0.47
1:2A:1926:U:O2'	1:2A:1928:A:N7	2.39	0.47
1:2A:2250:G:OP1	12:2Q:85:LYS:NZ	2.48	0.47
1:2A:2530:A:O2'	1:2A:2532:G:OP2	2.24	0.47
1:2A:2556:C:H2'	1:2A:2557:G:O4'	2.15	0.47
1:2A:2823:A:OP1	4:2E:113:PHE:HB2	2.14	0.47
3:2D:184:LYS:HE3	3:2D:271:ILE:HD11	1.97	0.47
6:2G:12:TYR:HA	6:2G:16:ARG:HB2	1.97	0.47
11:2P:38:GLN:C	11:2P:40:SER:H	2.23	0.47
21:2Z:77:ASP:CG	21:2Z:80:ARG:HH11	2.23	0.47
31:29:3:VAL:HA	31:29:35:ARG:O	2.15	0.47
32:2a:121:C:H4'	32:2a:122:G:OP1	2.15	0.47
38:2g:62:PHE:O	38:2g:66:VAL:HG12	2.14	0.47
41:2j:38:ILE:HD11	41:2j:71:LEU:HD23	1.97	0.47
1:1A:1027:A:C2	1:1A:2488:A:H5'	2.50	0.46
1:1A:1056:G:H5''	1:1A:1057:A:O4'	2.15	0.46
1:1A:1862:G:H2'	1:1A:1863:G:H8	1.80	0.46
1:1A:2487:G:OP2	59:1A:4293:HOH:O	2.21	0.46
1:1A:2706:G:N7	59:1A:4412:HOH:O	2.36	0.46
8:1I:5:LEU:HD13	8:1I:17:GLN:HB3	1.97	0.46
32:1a:1009:G:O6	32:1a:1020:U:C2	2.68	0.46
32:1a:1217:C:H5''	45:1n:9:LYS:HE2	1.96	0.46
32:1a:1235:U:H2'	32:1a:1236:A:O4'	2.14	0.46
32:1a:1425:U:H2'	32:1a:1426:C:C6	2.50	0.46
42:1k:23:ALA:O	42:1k:86:GLY:HA3	2.15	0.46
1:2A:271(M):G:H4'	1:2A:271(N):U:OP1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:271(P):C:H2'	1:2A:271(Q):G:O4'	2.15	0.46
1:2A:1636:C:H2'	1:2A:1637:A:C8	2.49	0.46
1:2A:2552:2MU:H2'	1:2A:2554:U:H5''	1.97	0.46
2:2B:89:G:C6	2:2B:90:A:C6	3.03	0.46
6:2G:79:ASN:OD1	6:2G:79:ASN:N	2.29	0.46
25:23:46:ASN:O	25:23:50:VAL:HG22	2.14	0.46
32:2a:1274:G:H2'	32:2a:1275:A:H5''	1.96	0.46
38:2g:9:VAL:HG13	38:2g:94:ARG:HE	1.80	0.46
1:1A:588:U:O4	1:1A:670:A:H1'	2.15	0.46
1:1A:1866:C:H2'	1:1A:1876:A:O4'	2.15	0.46
1:1A:1882:C:H2'	1:1A:1883:G:O4'	2.15	0.46
1:1A:2074:U:H2'	1:1A:2075:U:C6	2.50	0.46
10:1O:4:PRO:O	10:1O:5:GLN:HB2	2.15	0.46
33:1b:126:GLU:O	33:1b:127:ILE:HG23	2.15	0.46
34:1c:138:VAL:HG13	34:1c:149:ALA:HB3	1.96	0.46
38:1g:26:PHE:O	38:1g:30:ILE:HG13	2.15	0.46
1:2A:224:G:O6	1:2A:420:C:H5'	2.16	0.46
1:2A:307:G:N1	1:2A:310:A:OP2	2.47	0.46
1:2A:861:A:H2'	1:2A:862:G:O4'	2.14	0.46
1:2A:1412:A:H2'	1:2A:1413:G:C8	2.50	0.46
1:2A:1428:C:O2'	1:2A:1429:G:H5'	2.15	0.46
1:2A:1557:C:OP2	1:2A:1558:A:O2'	2.21	0.46
1:2A:1834:U:H4'	1:2A:1969:A:C6	2.50	0.46
1:2A:2061:G:H5''	1:2A:2503:2MA:C2	2.45	0.46
1:2A:2151:G:C2	1:2A:2152:G:C4	3.04	0.46
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.47	0.46
6:2G:16:ARG:HD2	6:2G:16:ARG:HA	1.70	0.46
8:2I:75:LEU:HD12	8:2I:140:LEU:HD11	1.97	0.46
10:2O:87:ILE:HD12	10:2O:91:LEU:HA	1.97	0.46
26:24:46:GLN:C	26:24:48:ARG:H	2.23	0.46
32:2a:1091:U:H2'	32:2a:1093:A:OP2	2.15	0.46
1:1A:2743:C:H2'	1:1A:2744:G:O4'	2.15	0.46
6:1G:114:ILE:HG12	6:1G:140:ILE:HG12	1.96	0.46
8:1I:45:LYS:HB3	8:1I:45:LYS:HE2	1.75	0.46
9:1N:131:GLN:H	9:1N:131:GLN:HG2	1.44	0.46
35:1d:60:GLU:HG3	35:1d:202:LEU:HD12	1.98	0.46
1:2A:251:A:C4	1:2A:252:G:H1'	2.51	0.46
1:2A:307:G:H21	1:2A:330:A:H62	1.62	0.46
1:2A:489:G:N7	18:2W:49:LYS:NZ	2.63	0.46
1:2A:500:G:C2	1:2A:503:A:C8	3.04	0.46
1:2A:1027:A:C2	1:2A:2488:A:H5'	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1420:U:O2'	1:2A:1421:G:OP1	2.29	0.46
1:2A:1702:G:H2'	1:2A:1703:G:O4'	2.16	0.46
1:2A:1777:U:H2'	1:2A:1778:U:C6	2.50	0.46
1:2A:1936:A:OP2	1:2A:1962:5MC:N4	2.44	0.46
1:2A:2419:U:H2'	1:2A:2420:C:C6	2.51	0.46
4:2E:170:LEU:HB3	4:2E:184:VAL:CG2	2.45	0.46
5:2F:65:TRP:CZ2	5:2F:75:HIS:HD2	2.34	0.46
8:2I:65:ALA:HA	8:2I:68:LEU:HD12	1.97	0.46
32:2a:160:A:H1'	32:2a:344:A:C8	2.50	0.46
32:2a:637:G:H2'	32:2a:638:G:C8	2.50	0.46
33:2b:8:LYS:HD3	33:2b:51:LEU:HD13	1.98	0.46
34:2c:157:ILE:HD13	34:2c:164:ARG:HB3	1.96	0.46
35:2d:108:LEU:HD11	35:2d:174:LEU:HB3	1.96	0.46
43:2l:92:0TD:H4	43:2l:92:0TD:H8	1.78	0.46
1:1A:34:C:H5''	1:1A:35:G:OP2	2.15	0.46
1:1A:142:A:O2'	1:1A:1407:C:O2'	2.32	0.46
1:1A:2123:G:N2	1:1A:2175:C:N3	2.55	0.46
4:1E:178:GLU:N	4:1E:178:GLU:OE2	2.47	0.46
10:1O:35:VAL:HA	10:1O:62:VAL:HG12	1.97	0.46
12:1Q:2:LEU:HD23	12:1Q:2:LEU:HA	1.74	0.46
32:1a:812:C:OP1	32:1a:903:G:H1'	2.15	0.46
32:1a:1257:U:O4	45:1n:17:LYS:NZ	2.46	0.46
32:1a:1273:G:H3'	32:1a:1274:G:C8	2.50	0.46
33:1b:18:GLY:HA3	33:1b:42:ILE:HG13	1.98	0.46
37:1f:72:VAL:CG1	37:1f:90:VAL:HG11	2.45	0.46
40:1i:17:VAL:HG23	40:1i:63:ILE:HG12	1.97	0.46
51:1t:16:HIS:O	51:1t:19:SER:OG	2.27	0.46
51:1t:45:GLN:HG2	51:1t:91:LEU:HG	1.97	0.46
1:2A:1410:G:H2'	1:2A:1411:C:C6	2.50	0.46
1:2A:2579:C:H2'	1:2A:2580:U:O4'	2.16	0.46
1:2A:2820:A:O2'	1:2A:2821:A:OP1	2.31	0.46
5:2F:167:ALA:HB1	5:2F:173:VAL:HG11	1.97	0.46
15:2T:107:ASP:O	15:2T:111:ARG:HG3	2.14	0.46
32:2a:130:A:N3	32:2a:263:A:O2'	2.42	0.46
32:2a:1226:C:O2'	44:2m:111:LYS:NZ	2.29	0.46
32:2a:1400:5MC:N4	54:2x:34:C:H1'	2.31	0.46
34:2c:135:LYS:HZ3	36:2e:52:PRO:HG2	1.79	0.46
38:2g:116:ALA:O	38:2g:120:ILE:HG13	2.16	0.46
46:2o:39:LEU:HD23	46:2o:39:LEU:HA	1.70	0.46
48:2q:25:ARG:HG2	48:2q:38:ARG:O	2.15	0.46
1:1A:153:C:H2'	1:1A:154:G:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:515:A:H1'	1:1A:581:C:H1'	1.98	0.46
1:1A:818:G:H4'	1:1A:838:C:O3'	2.16	0.46
1:1A:1242:A:N1	11:1P:4:SER:OG	2.49	0.46
1:1A:1826:G:H2'	1:1A:1827:C:O4'	2.16	0.46
1:1A:2101:G:H2'	1:1A:2102:U:C6	2.50	0.46
1:1A:2147:G:H3'	1:1A:2147:G:N3	2.31	0.46
2:1B:90:A:C5	2:1B:91:C:H1'	2.50	0.46
6:1G:124:SER:HB3	6:1G:132:ASN:O	2.15	0.46
32:1a:42:G:O2'	32:1a:622:A:N1	2.48	0.46
32:1a:399:G:H2'	32:1a:400:C:C6	2.50	0.46
32:1a:713:G:H2'	32:1a:714:G:C8	2.51	0.46
39:1h:38:ILE:HG23	39:1h:120:THR:HG22	1.98	0.46
1:2A:937:U:H2'	1:2A:938:G:O4'	2.16	0.46
1:2A:1011:G:OP1	16:2U:77:SER:OG	2.22	0.46
1:2A:1291:C:H2'	1:2A:1292:U:H6	1.80	0.46
1:2A:2262:U:H4'	1:2A:2328:A:C2	2.50	0.46
5:2F:192:LEU:HD21	5:2F:194:MET:HE2	1.97	0.46
6:2G:73:ALA:HB3	6:2G:85:GLY:N	2.24	0.46
8:2I:45:LYS:HE2	8:2I:45:LYS:HB3	1.57	0.46
10:2O:48:PRO:CB	32:2a:1422:G:H5''	2.39	0.46
13:2R:13:HIS:CE1	13:2R:16:HIS:HB2	2.50	0.46
21:2Z:3:TYR:CD2	21:2Z:51:ALA:HB2	2.50	0.46
21:2Z:5:LEU:HD12	21:2Z:47:VAL:HB	1.97	0.46
32:2a:237:C:H5''	48:2q:25:ARG:CZ	2.46	0.46
32:2a:1118:C:N3	32:2a:1156:G:N2	2.63	0.46
32:2a:1238:A:N7	32:2a:1303:C:H1'	2.30	0.46
33:2b:208:ILE:C	33:2b:210:SER:H	2.23	0.46
36:2e:102:ALA:HB2	36:2e:120:THR:HG21	1.96	0.46
38:2g:74:GLU:HG2	38:2g:91:VAL:HG22	1.98	0.46
38:2g:152:ALA:O	38:2g:155:ARG:HD3	2.15	0.46
44:2m:13:LYS:O	44:2m:45:VAL:HG23	2.14	0.46
47:2p:28:ARG:HG2	47:2p:29:ASP:OD1	2.16	0.46
1:1A:469:G:O6	29:17:37:LYS:HE2	2.16	0.46
1:1A:1094:U:H2'	1:1A:1095:A:C8	2.50	0.46
1:1A:1999:C:H4'	1:1A:2723:C:O2	2.15	0.46
3:1D:184:LYS:HE3	3:1D:271:ILE:HD11	1.98	0.46
5:1F:17:ARG:NH2	5:1F:19:GLU:OE2	2.48	0.46
21:1Z:11:GLU:O	21:1Z:36:LYS:NZ	2.28	0.46
32:1a:114:U:H1'	32:1a:353:A:H1'	1.98	0.46
32:1a:1429:C:H2'	32:1a:1430:C:H6	1.80	0.46
33:1b:77:ALA:HB2	33:1b:211:ILE:HG21	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:124:SER:HA	33:1b:125:PRO:HA	1.64	0.46
43:1l:53:ARG:HB3	43:1l:69:TYR:HE1	1.80	0.46
1:2A:588:U:H1'	5:2F:90:PHE:CG	2.51	0.46
1:2A:1952:A:OP1	10:2O:42:SER:OG	2.31	0.46
1:2A:2647:U:H2'	1:2A:2648:C:C6	2.50	0.46
4:2E:3:GLY:HA3	4:2E:81:ILE:HG21	1.98	0.46
8:2I:126:TYR:CD2	8:2I:142:VAL:HB	2.51	0.46
9:2N:15:LEU:HB2	9:2N:135:PRO:HB2	1.97	0.46
18:2W:71:VAL:HA	18:2W:107:LEU:HD12	1.97	0.46
32:2a:189(C):C:H2'	32:2a:189(D):C:O4'	2.15	0.46
32:2a:728:A:H2'	32:2a:729:A:H8	1.79	0.46
32:2a:814:A:H2'	32:2a:816:A:H5''	1.98	0.46
32:2a:1046:A:H3'	32:2a:1047:G:H8	1.80	0.46
32:2a:1179:A:H4'	40:2i:103:THR:HA	1.98	0.46
33:2b:134:GLU:O	33:2b:138:LEU:HG	2.15	0.46
36:2e:42:GLY:HA2	36:2e:65:ASN:O	2.15	0.46
36:2e:146:ALA:O	36:2e:150:ARG:HG2	2.16	0.46
47:2p:2:VAL:O	47:2p:64:ALA:HA	2.16	0.46
1:1A:253:C:OP2	30:18:5:LYS:NZ	2.41	0.46
1:1A:667:U:O2	30:18:2:PRO:HD2	2.15	0.46
1:1A:1670:C:O2	4:1E:129:HIS:NE2	2.39	0.46
1:1A:1939:5MU:OP1	1:1A:2604:U:O2'	2.32	0.46
6:1G:37:VAL:HG22	6:1G:159:VAL:HG13	1.98	0.46
8:1I:109:ILE:HD12	8:1I:109:ILE:HA	1.72	0.46
11:1P:47:ASP:OD2	11:1P:49:ARG:NH2	2.48	0.46
11:1P:112:LEU:HD21	11:1P:114:ILE:HD11	1.97	0.46
12:1Q:17:LEU:HD21	12:1Q:41:TRP:HE1	1.80	0.46
12:1Q:137:TYR:O	12:1Q:141:GLN:HG2	2.16	0.46
14:1S:61:ASN:HD21	14:1S:63:THR:HB	1.79	0.46
32:1a:262:A:C6	32:1a:263:A:C6	3.03	0.46
38:1g:13:GLN:O	38:1g:24:THR:HG21	2.15	0.46
41:1j:38:ILE:H	41:1j:38:ILE:HG12	1.48	0.46
42:1k:30:VAL:HG21	42:1k:65:ALA:HA	1.98	0.46
43:1l:101:VAL:O	43:1l:104:VAL:HG22	2.16	0.46
46:1o:4:THR:HG23	46:1o:7:GLU:HG2	1.97	0.46
54:1x:25:C:H2'	54:1x:26:G:O4'	2.16	0.46
1:2A:184:C:O2'	1:2A:217:G:N3	2.46	0.46
1:2A:1292:U:H2'	1:2A:1293:C:C6	2.51	0.46
1:2A:1952:A:N6	1:2A:1953:A:N1	2.63	0.46
1:2A:2401:U:OP1	28:26:18:ARG:NH2	2.42	0.46
1:2A:2853:C:H2'	1:2A:2854:G:C8	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:7:G:H21	14:2S:38:GLN:NE2	2.13	0.46
22:20:69:PHE:CE2	22:20:79:VAL:HG22	2.50	0.46
26:24:15:ILE:HD13	26:24:21:VAL:HG23	1.98	0.46
32:2a:445:G:H2'	32:2a:446:G:C8	2.50	0.46
32:2a:620:C:C2	35:2d:135:LEU:HG	2.51	0.46
32:2a:1010:G:N2	32:2a:1020:U:O2'	2.49	0.46
32:2a:1269:A:C8	32:2a:1270:C:H1'	2.50	0.46
34:2c:125:GLU:O	34:2c:190:ARG:NH1	2.46	0.46
36:2e:95:ALA:O	36:2e:98:THR:HG23	2.15	0.46
36:2e:152:ARG:HG2	39:2h:42:GLU:O	2.15	0.46
37:2f:33:TYR:CE2	37:2f:78:GLU:HG3	2.51	0.46
37:2f:89:MET:HG3	37:2f:90:VAL:N	2.30	0.46
39:2h:123:GLU:H	39:2h:123:GLU:HG2	1.56	0.46
42:2k:21:ILE:HB	42:2k:84:VAL:HG12	1.97	0.46
1:1A:26:G:C6	1:1A:27:G:N1	2.84	0.46
1:1A:581:C:H2'	1:1A:582:G:C8	2.50	0.46
1:1A:911:A:H2'	12:1Q:9:TYR:OH	2.16	0.46
1:1A:1062:G:H5''	1:1A:1070:A:C1'	2.46	0.46
1:1A:2114:A:C2	1:1A:2168:G:H1'	2.51	0.46
1:1A:2693:A:H2'	1:1A:2694:G:H8	1.81	0.46
2:1B:11:C:H3'	2:1B:12:C:H6	1.81	0.46
30:18:4:MET:HE3	30:18:63:PRO:HG3	1.98	0.46
32:1a:392:G:H2'	32:1a:393:A:C8	2.50	0.46
32:1a:737:A:H2'	32:1a:738:C:C6	2.50	0.46
32:1a:858:G:O6	32:1a:869:G:H3'	2.16	0.46
44:1m:11:ARG:HA	44:1m:45:VAL:HB	1.98	0.46
1:2A:57:C:H2'	1:2A:58:G:O4'	2.16	0.46
1:2A:1005:C:H2'	1:2A:1006:C:C6	2.50	0.46
1:2A:1264:G:H2'	1:2A:2014:A:N6	2.30	0.46
1:2A:1355:G:C6	1:2A:1356:G:C5	3.04	0.46
1:2A:1399:C:H2'	1:2A:1400:G:H8	1.81	0.46
1:2A:1987:G:H2'	1:2A:1988:C:C6	2.50	0.46
1:2A:2839:G:C5'	13:2R:46:GLY:HA2	2.45	0.46
2:2B:11:C:OP2	2:2B:12:C:N4	2.36	0.46
4:2E:25:VAL:HG21	15:2T:10:VAL:HG21	1.97	0.46
6:2G:31:VAL:O	6:2G:33:ARG:NH1	2.48	0.46
9:2N:34:LEU:HD12	9:2N:107:LEU:HD21	1.97	0.46
9:2N:91:LEU:HG	9:2N:98:VAL:HG21	1.97	0.46
23:21:80:LEU:HD23	23:21:82:LEU:HD21	1.97	0.46
26:24:48:ARG:NH1	26:24:51:ASP:O	2.49	0.46
32:2a:427:U:H3'	32:2a:428:G:H2'	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:859:A:H2'	32:2a:860:A:O4'	2.16	0.46
32:2a:997:U:H3	32:2a:1044:A:H61	1.62	0.46
32:2a:1005:A:H5''	32:2a:1006:C:C5	2.51	0.46
32:2a:1176:A:H2'	32:2a:1177:G:H8	1.78	0.46
34:2c:6:HIS:HB3	45:2n:49:HIS:ND1	2.31	0.46
35:2d:92:VAL:O	35:2d:96:LEU:HG	2.15	0.46
36:2e:9:LYS:O	36:2e:33:VAL:HG12	2.16	0.46
1:1A:469:G:OP1	5:1F:60:SER:N	2.44	0.46
1:1A:684:G:OP1	29:17:16:HIS:ND1	2.45	0.46
1:1A:824:A:H1'	1:1A:2358:G:N7	2.31	0.46
1:1A:952:G:P	12:1Q:16:ARG:HH21	2.39	0.46
1:1A:1271:G:OP2	59:1A:4227:HOH:O	2.20	0.46
1:1A:1279:G:H4'	13:1R:31:HIS:CD2	2.50	0.46
1:1A:1547:C:H2'	1:1A:1548:C:C6	2.51	0.46
1:1A:1641:A:H2'	1:1A:1642:G:O4'	2.16	0.46
1:1A:2341:G:H2'	1:1A:2342:C:C6	2.51	0.46
1:1A:2364:C:H4'	22:10:56:ASP:OD1	2.16	0.46
1:1A:2417:C:OP1	11:1P:65:ARG:NH2	2.48	0.46
7:1H:41:MET:HE2	7:1H:65:HIS:HA	1.98	0.46
23:11:72:GLU:O	23:11:76:ARG:HG2	2.16	0.46
32:1a:7:G:O2'	36:1e:120:THR:O	2.34	0.46
32:1a:134:A:H61	47:1p:25:ARG:NH1	2.14	0.46
32:1a:410:G:H2'	32:1a:429:U:C5	2.51	0.46
32:1a:1166:G:N2	32:1a:1170:A:OP2	2.49	0.46
41:1j:7:LYS:HD3	41:1j:71:LEU:HD13	1.96	0.46
1:2A:236:C:H2'	1:2A:237:C:C6	2.50	0.46
1:2A:251:A:P	30:28:7:HIS:HE2	2.38	0.46
1:2A:661:C:N4	59:2A:4100:HOH:O	2.48	0.46
1:2A:2302:G:N2	6:2G:126:ASP:OD1	2.40	0.46
1:2A:2674:G:H2'	1:2A:2675:A:C8	2.51	0.46
4:2E:181:LEU:HD12	4:2E:181:LEU:HA	1.69	0.46
5:2F:64:ILE:HG21	5:2F:78:ILE:HG23	1.96	0.46
5:2F:107:LYS:HG3	5:2F:206:ILE:HA	1.98	0.46
10:2O:49:ARG:NH1	32:2a:1422:G:O3'	2.45	0.46
11:2P:1:MET:HE2	11:2P:1:MET:HB2	1.73	0.46
12:2Q:18:LYS:O	12:2Q:98:LYS:NZ	2.27	0.46
14:2S:15:ARG:O	14:2S:18:ILE:N	2.48	0.46
30:28:39:LYS:HA	30:28:42:ARG:NH1	2.30	0.46
32:2a:520:A:N1	32:2a:536:C:H1'	2.30	0.46
32:2a:678:U:H2'	32:2a:679:C:C6	2.50	0.46
32:2a:1089:G:H1	32:2a:1096:C:N4	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1287:A:H2	32:2a:1353:G:H1'	1.80	0.46
35:2d:172:PRO:HD2	35:2d:173:TRP:CZ3	2.51	0.46
39:2h:7:ALA:O	39:2h:11:THR:HG23	2.15	0.46
39:2h:78:GLN:O	39:2h:81:HIS:NE2	2.49	0.46
40:2i:23:ASN:ND2	40:2i:25:LYS:HG2	2.27	0.46
1:1A:1257:C:H4'	5:1F:83:PHE:CD1	2.51	0.46
2:1B:11:C:H3'	2:1B:12:C:C6	2.52	0.46
17:1V:34:GLU:HB3	17:1V:56:SER:HB2	1.98	0.46
19:1X:32:PRO:HA	19:1X:77:LYS:HB2	1.98	0.46
27:15:40:LYS:HD3	27:15:46:CYS:HA	1.98	0.46
32:1a:128:G:O3'	48:1q:3:LYS:NZ	2.49	0.46
32:1a:1130:A:O3'	40:1i:3:GLN:NE2	2.47	0.46
32:1a:1252:A:H2'	32:1a:1253:G:O4'	2.16	0.46
33:1b:115:LEU:HD12	33:1b:145:LEU:HB3	1.97	0.46
40:1i:32:ASP:OD1	40:1i:33:PHE:N	2.48	0.46
1:2A:116:C:H2'	1:2A:117:G:O4'	2.16	0.46
1:2A:918:A:H5''	2:2B:98:G:O2'	2.16	0.46
1:2A:1897:G:H2'	1:2A:1898:U:H6	1.81	0.46
1:2A:2632:A:O2'	1:2A:2811:G:O2'	2.20	0.46
1:2A:2635:C:O2'	4:2E:80:GLU:OE2	2.33	0.46
1:2A:2643:G:H2'	1:2A:2644:G:O4'	2.16	0.46
1:2A:2895:U:H2'	1:2A:2896:C:O4'	2.15	0.46
2:2B:79:C:H2'	2:2B:80:U:O4'	2.16	0.46
6:2G:17:PRO:HA	6:2G:20:ILE:HG22	1.98	0.46
13:2R:59:ASP:OD2	13:2R:61:HIS:HB3	2.15	0.46
15:2T:117:ASP:O	15:2T:121:ILE:HG13	2.15	0.46
32:2a:158:G:H2'	32:2a:159:G:O4'	2.16	0.46
32:2a:186:C:H2'	32:2a:187:C:C6	2.51	0.46
32:2a:216:G:H2'	32:2a:217:C:C6	2.51	0.46
32:2a:814:A:N7	32:2a:816:A:C4	2.84	0.46
32:2a:1097:C:H1'	32:2a:1170:A:H1'	1.97	0.46
32:2a:1113:C:O2'	34:2c:14:ILE:HD11	2.16	0.46
35:2d:150:GLU:HA	35:2d:153:ARG:HG3	1.98	0.46
1:1A:534:U:H2'	1:1A:535:C:C6	2.51	0.45
1:1A:827:U:H5'	1:1A:828:U:O5'	2.16	0.45
1:1A:1637:A:H4'	1:1A:2711:A:O2'	2.16	0.45
1:1A:2661:G:H2'	1:1A:2662:A:C8	2.51	0.45
4:1E:21:VAL:O	4:1E:23:VAL:HG13	2.16	0.45
8:1I:104:GLN:HB3	8:1I:105:HIS:ND1	2.31	0.45
32:1a:940:C:H2'	32:1a:941:G:C8	2.52	0.45
35:1d:65:ARG:HG2	35:1d:75:PHE:CD1	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1f:69:GLU:O	37:1f:72:VAL:HG23	2.16	0.45
1:2A:1802:A:N1	1:2A:1822:G:H1'	2.31	0.45
1:2A:2067:G:O2'	1:2A:2069:G:H5'	2.15	0.45
7:2H:54:ARG:HG2	7:2H:65:HIS:CE1	2.51	0.45
32:2a:189(L):G:H2'	32:2a:190:U:H6	1.81	0.45
32:2a:1005:A:H3'	32:2a:1006:C:C6	2.51	0.45
33:2b:24:TRP:CD1	33:2b:24:TRP:H	2.34	0.45
38:2g:59:LEU:O	38:2g:63:LYS:HG3	2.16	0.45
1:1A:782:A:N7	3:1D:221:VAL:HG21	2.31	0.45
1:1A:1472:A:H2'	1:1A:1473:G:O4'	2.16	0.45
1:1A:1810:A:H2'	1:1A:1811:G:O4'	2.16	0.45
1:1A:2262:U:OP2	22:10:19:LYS:NZ	2.49	0.45
1:1A:2698:U:H2'	1:1A:2699:C:C6	2.51	0.45
1:1A:2747:G:O6	1:1A:2755:C:H5''	2.16	0.45
8:1I:65:ALA:HB1	8:1I:136:VAL:HG11	1.98	0.45
8:1I:77:LEU:HD23	8:1I:97:ILE:HG23	1.97	0.45
26:14:56:VAL:O	26:14:60:GLN:HB2	2.17	0.45
32:1a:1028:C:H2'	32:1a:1029:C:O4'	2.17	0.45
32:1a:1068:G:N2	32:1a:1191:A:N3	2.60	0.45
35:1d:110:PHE:CE1	35:1d:148:VAL:HG23	2.50	0.45
41:1j:24:VAL:O	41:1j:28:ARG:N	2.49	0.45
45:1n:29:ARG:HH21	45:1n:42:ILE:HD11	1.80	0.45
1:2A:37:C:H2'	1:2A:38:A:C8	2.51	0.45
1:2A:264:C:O2'	1:2A:265:A:H2'	2.17	0.45
1:2A:745:G:O2'	1:2A:750:A:N6	2.48	0.45
1:2A:1161:C:H2'	1:2A:1162:G:C8	2.50	0.45
1:2A:1479:G:H5''	1:2A:1560:G:H4'	1.98	0.45
1:2A:1792:G:H5'	3:2D:205:VAL:HG13	1.97	0.45
1:2A:2287:A:C8	1:2A:2289:G:C8	3.04	0.45
1:2A:2340:G:H2'	1:2A:2341:G:H8	1.82	0.45
2:2B:24:G:N7	2:2B:56:G:H2'	2.32	0.45
6:2G:11:TYR:O	6:2G:15:VAL:HG22	2.16	0.45
8:2I:93:THR:OG1	8:2I:116:LEU:HD22	2.15	0.45
8:2I:102:SER:OG	8:2I:108:THR:HG23	2.17	0.45
17:2V:69:LYS:HA	17:2V:88:ARG:HG2	1.98	0.45
23:21:3:LYS:HB3	23:21:4:VAL:H	1.50	0.45
32:2a:6:G:H22	36:2e:98:THR:HG22	1.80	0.45
32:2a:186:C:H2'	32:2a:187:C:H6	1.82	0.45
32:2a:397:A:H3'	32:2a:397:A:N3	2.31	0.45
32:2a:837:G:H2'	32:2a:838:G:C8	2.52	0.45
33:2b:31:TYR:HE2	33:2b:194:PRO:HB3	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:126:GLU:CD	33:2b:126:GLU:H	2.24	0.45
34:2c:157:ILE:C	34:2c:159:GLY:H	2.24	0.45
37:2f:76:ALA:O	37:2f:80:ARG:HG3	2.16	0.45
51:2t:10:LEU:HD12	51:2t:10:LEU:HA	1.84	0.45
51:2t:98:PRO:O	51:2t:99:LEU:HB2	2.15	0.45
1:1A:220:G:H5''	1:1A:221:A:OP1	2.15	0.45
1:1A:548:A:H1'	1:1A:549:G:OP1	2.16	0.45
1:1A:670:A:H4'	1:1A:671:C:O5'	2.16	0.45
1:1A:748:G:C8	18:1W:89:ALA:HB1	2.51	0.45
1:1A:780:G:H1'	1:1A:785:G:C2	2.52	0.45
1:1A:1076:C:H4'	1:1A:1077:A:OP1	2.16	0.45
1:1A:1190:G:H5''	11:1P:32:THR:O	2.16	0.45
1:1A:1418:G:O5'	1:1A:1418:G:H8	1.99	0.45
1:1A:1824:G:O3'	3:1D:249:PRO:HD3	2.16	0.45
2:1B:29:A:H2'	2:1B:30:C:O4'	2.17	0.45
11:1P:98:GLU:O	11:1P:101:VAL:HG12	2.17	0.45
24:12:22:GLU:OE2	24:12:68:ARG:NH2	2.48	0.45
26:14:43:TYR:O	26:14:45:GLY:N	2.48	0.45
32:1a:625:G:H2'	32:1a:626:U:C6	2.51	0.45
32:1a:673:G:O3'	37:1f:87:ARG:NH2	2.50	0.45
32:1a:1221:G:H1'	50:1s:54:GLY:HA3	1.97	0.45
33:1b:78:GLN:HA	33:1b:78:GLN:HE21	1.80	0.45
1:2A:948:G:H21	1:2A:985:C:P	2.39	0.45
1:2A:1239:G:H2'	1:2A:1240:U:O4'	2.16	0.45
1:2A:2284:C:OP2	28:26:2:ALA:N	2.50	0.45
7:2H:143:GLN:HG3	7:2H:147:ASN:ND2	2.32	0.45
8:2I:62:LYS:NZ	8:2I:136:VAL:HG22	2.31	0.45
9:2N:67:LEU:O	9:2N:88:GLU:HG3	2.16	0.45
13:2R:72:ASP:HB3	13:2R:75:LEU:HB3	1.96	0.45
20:2Y:5:MET:HE2	20:2Y:5:MET:HB3	1.83	0.45
32:2a:147:G:H1	32:2a:175:C:H42	1.65	0.45
32:2a:1101:A:N3	32:2a:1102:A:H1'	2.31	0.45
32:2a:1273:G:H5'	32:2a:1274:G:OP2	2.16	0.45
32:2a:1308:U:P	44:2m:99:ARG:HG3	2.57	0.45
32:2a:1469:G:H2'	32:2a:1470:G:C8	2.51	0.45
36:2e:79:GLU:HA	36:2e:91:LEU:O	2.17	0.45
38:2g:75:VAL:HB	38:2g:86:GLN:HB3	1.98	0.45
41:2j:8:LEU:HB3	41:2j:96:ILE:HG23	1.98	0.45
44:2m:19:LEU:HD21	44:2m:56:LEU:HD21	1.98	0.45
44:2m:23:TYR:CE2	44:2m:71:ARG:HG3	2.52	0.45
1:1A:36:G:H4'	1:1A:451:C:C2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:55:G:O2'	1:1A:127:A:N1	2.42	0.45
1:1A:245:G:O5'	11:1P:73:GLY:HA2	2.16	0.45
1:1A:493:G:H2'	1:1A:494:G:O4'	2.16	0.45
1:1A:524:U:H4'	1:1A:555:U:H4'	1.97	0.45
1:1A:987:G:O2'	1:1A:1000:A:N3	2.45	0.45
1:1A:1059:G:H2'	1:1A:1060:U:C5	2.50	0.45
1:1A:1203:G:H5'	11:1P:3:LEU:HD13	1.97	0.45
1:1A:1474:C:H2'	1:1A:1475:G:C8	2.51	0.45
1:1A:1711:C:H2'	1:1A:1712:C:C6	2.51	0.45
1:1A:1889:A:H1'	1:1A:2087:G:O4'	2.16	0.45
1:1A:1952:A:C6	1:1A:1953:A:N1	2.85	0.45
1:1A:2640:G:P	9:1N:97:ARG:HH22	2.39	0.45
2:1B:14:U:O2	2:1B:108:U:H4'	2.16	0.45
5:1F:28:ILE:O	5:1F:30:PRO:HD3	2.16	0.45
5:1F:34:TRP:CE2	11:1P:8:PRO:HB3	2.51	0.45
12:1Q:68:ILE:HG23	12:1Q:103:MET:HA	1.97	0.45
14:1S:66:ALA:O	14:1S:69:VAL:HG13	2.15	0.45
19:1X:61:GLY:HA3	19:1X:73:ARG:O	2.16	0.45
24:12:32:LEU:HD22	24:12:36:ARG:NH1	2.28	0.45
30:18:62:LEU:HB3	30:18:65:GLU:CG	2.46	0.45
32:1a:224:C:H2'	32:1a:225:C:C6	2.51	0.45
32:1a:1084:G:C5	32:1a:1085:U:C4	3.03	0.45
32:1a:1511:G:H2'	32:1a:1512:U:O4'	2.17	0.45
35:1d:18:LYS:HB3	35:1d:33:MET:CB	2.47	0.45
39:1h:82:HIS:CD2	39:1h:82:HIS:C	2.94	0.45
45:1n:50:LYS:HG2	45:1n:52:GLN:HG3	1.99	0.45
1:2A:668:G:H5'	1:2A:669:G:OP2	2.16	0.45
1:2A:1639:U:C2'	1:2A:1640:C:H5''	2.47	0.45
1:2A:1814:G:H4'	3:2D:51:VAL:HG21	1.98	0.45
1:2A:2282:G:H4'	1:2A:2389:G:O2'	2.16	0.45
3:2D:68:LYS:HE3	3:2D:70:TRP:CH2	2.51	0.45
4:2E:14:ILE:HB	15:2T:14:TYR:CZ	2.51	0.45
18:2W:46:PHE:O	18:2W:50:VAL:HG23	2.16	0.45
20:2Y:86:ARG:HB2	20:2Y:98:VAL:HG22	1.97	0.45
32:2a:58:C:O2'	32:2a:388:G:N7	2.37	0.45
32:2a:537:G:H2'	32:2a:538:G:C8	2.51	0.45
32:2a:857:C:OP2	59:2a:3310:HOH:O	2.21	0.45
32:2a:1251:A:H2'	32:2a:1252:A:C8	2.51	0.45
32:2a:1297:C:H4'	32:2a:1298:C:H5'	1.98	0.45
33:2b:47:THR:HG23	33:2b:202:PRO:HG2	1.99	0.45
41:2j:5:ARG:O	41:2j:98:ILE:HA	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:29:ARG:HD3	44:2m:64:TRP:CD1	2.51	0.45
1:1A:470:A:H5'	59:1A:4360:HOH:O	2.16	0.45
1:1A:478:A:C6	1:1A:480:A:C6	3.04	0.45
1:1A:588:U:H1'	5:1F:90:PHE:CG	2.52	0.45
1:1A:1028:A:H61	1:1A:1125:G:H2'	1.81	0.45
1:1A:1252:G:C2	1:1A:1253:A:C2	3.05	0.45
1:1A:1803:A:H4'	3:1D:259:THR:HG23	1.97	0.45
1:1A:2051:A:H5'	1:1A:2578:G:O4'	2.17	0.45
8:1I:75:LEU:HD22	8:1I:105:HIS:CD2	2.47	0.45
28:16:8:LYS:HG2	30:18:34:TRP:CD1	2.51	0.45
32:1a:1090:U:H2'	32:1a:1091:U:H6	1.81	0.45
32:1a:1171:G:H2'	32:1a:1172:C:C6	2.52	0.45
33:1b:54:THR:O	33:1b:58:ILE:HD12	2.17	0.45
35:1d:39:PRO:O	35:1d:44:GLY:HA3	2.15	0.45
36:1e:82:VAL:HG21	36:1e:138:ALA:HA	1.99	0.45
40:1i:24:GLY:HA2	40:1i:59:PHE:O	2.17	0.45
54:1x:37:A:H2'	54:1x:38:A:O4'	2.17	0.45
1:2A:93:G:H2'	1:2A:94:C:C6	2.51	0.45
1:2A:249:C:H4'	1:2A:250:G:O5'	2.17	0.45
1:2A:807:U:OP2	11:2P:41:ARG:NH2	2.49	0.45
1:2A:1159:U:H2'	1:2A:1160:G:C8	2.49	0.45
1:2A:1274:A:N3	1:2A:1297:C:H1'	2.31	0.45
1:2A:1755:A:OP2	15:2T:113:LYS:NZ	2.47	0.45
1:2A:1826:G:H4'	3:2D:242:ARG:CZ	2.45	0.45
1:2A:1999:C:H5''	1:2A:2723:C:O2'	2.16	0.45
1:2A:2515:C:H2'	1:2A:2516:G:H8	1.82	0.45
1:2A:2704:C:H2'	1:2A:2705:A:O4'	2.16	0.45
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.52	0.45
2:2B:1:U:H2'	2:2B:2:C:C6	2.51	0.45
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	1.98	0.45
8:2I:61:ARG:HH11	8:2I:61:ARG:N	2.15	0.45
32:2a:968:A:H4'	32:2a:969:A:OP2	2.17	0.45
32:2a:1024:G:H2'	32:2a:1025:U:H5''	1.99	0.45
32:2a:1121:U:H2'	32:2a:1122:U:H6	1.81	0.45
33:2b:74:LYS:HG2	33:2b:169:LYS:HG2	1.98	0.45
37:2f:2:ARG:HB2	37:2f:4:TYR:CE2	2.52	0.45
37:2f:23:LYS:HG2	37:2f:61:LEU:HD21	1.97	0.45
44:2m:13:LYS:HA	44:2m:44:ARG:HH11	1.80	0.45
44:2m:117:VAL:HG12	44:2m:118:ALA:H	1.81	0.45
48:2q:23:VAL:HG21	48:2q:59:ILE:HD11	1.99	0.45
1:1A:84:A:H5''	20:1Y:8:LYS:HG2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:129:C:H2'	1:1A:130:C:C6	2.52	0.45
1:1A:250:G:H2'	1:1A:251:A:C8	2.51	0.45
1:1A:407:G:H2'	1:1A:408:G:C8	2.51	0.45
1:1A:2299:G:H22	1:1A:2318:G:H1'	1.81	0.45
2:1B:96:U:OP1	21:1Z:14:LYS:NZ	2.49	0.45
8:1I:141:LYS:HE3	8:1I:141:LYS:HB2	1.81	0.45
20:1Y:20:TYR:HB3	20:1Y:23:ARG:HG3	1.98	0.45
25:13:7:LYS:NZ	25:13:32:GLN:O	2.50	0.45
30:18:26:LYS:HD2	30:18:48:PHE:CD2	2.51	0.45
32:1a:246:A:N1	32:1a:278:G:O2'	2.50	0.45
32:1a:783:C:OP1	32:1a:1515:C:O2'	2.28	0.45
32:1a:909:A:H2'	32:1a:910:C:O4'	2.15	0.45
36:1e:18:ARG:HH11	36:1e:27:ARG:HH12	1.63	0.45
1:2A:313:C:H2'	1:2A:314:A:H8	1.82	0.45
1:2A:506:G:O3'	1:2A:507:A:H8	1.99	0.45
1:2A:793:A:O2'	59:2A:3966:HOH:O	2.21	0.45
1:2A:911:A:H2'	12:2Q:9:TYR:OH	2.16	0.45
1:2A:1429:G:H2'	1:2A:1430:C:C6	2.51	0.45
1:2A:1721:G:H5'	1:2A:1722:A:OP2	2.16	0.45
32:2a:560:U:H6	32:2a:560:U:H2'	1.58	0.45
32:2a:1371:G:OP1	40:2i:12:GLU:HB2	2.17	0.45
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.52	0.45
33:2b:94:ASN:HB3	33:2b:95:GLN:NE2	2.32	0.45
35:2d:31:CYS:SG	35:2d:33:MET:N	2.87	0.45
49:2r:74:ARG:H	49:2r:74:ARG:HG3	1.62	0.45
1:1A:1636:C:H2'	1:1A:1637:A:H8	1.78	0.45
1:1A:2101:G:H1	1:1A:2188:C:H42	1.65	0.45
1:1A:2161:C:HO2'	1:1A:2162:G:H5''	1.81	0.45
15:1T:111:ARG:NH2	32:1a:1464:G:OP2	2.50	0.45
18:1W:1:MET:HE3	18:1W:62:HIS:HB3	1.98	0.45
18:1W:20:VAL:HA	18:1W:23:LEU:HD12	1.99	0.45
32:1a:491:G:H2'	32:1a:492:G:O4'	2.17	0.45
32:1a:536:C:H2'	32:1a:537:G:C8	2.51	0.45
32:1a:630:G:H2'	32:1a:631:G:C8	2.52	0.45
32:1a:986:A:H2'	32:1a:987:G:O4'	2.17	0.45
37:1f:19:LEU:HD11	37:1f:59:TYR:CE1	2.51	0.45
41:1j:51:ARG:HH11	45:1n:45:ARG:HH21	1.65	0.45
46:1o:8:LYS:O	46:1o:12:ILE:HG13	2.16	0.45
1:2A:660:G:H5'	5:2F:99:TYR:CE1	2.51	0.45
1:2A:2432:A:C6	1:2A:2433:A:C6	3.05	0.45
1:2A:2512:C:H2'	1:2A:2513:G:O4'	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:2T:118:ARG:HA	15:2T:121:ILE:HD12	1.99	0.45
21:2Z:73:GLN:HB3	21:2Z:87:ASP:HB2	1.98	0.45
32:2a:67:C:H2'	32:2a:68:G:C8	2.52	0.45
32:2a:103:C:O2'	32:2a:172:A:N1	2.41	0.45
32:2a:1128:C:O2'	32:2a:1129:C:OP1	2.35	0.45
32:2a:1323:G:H4'	32:2a:1363:C:C2	2.51	0.45
39:2h:36:LEU:HA	39:2h:39:LEU:HD12	1.99	0.45
1:1A:809:G:H2'	1:1A:810:U:C6	2.51	0.45
1:1A:1018:C:O3'	1:1A:1120:G:N2	2.49	0.45
1:1A:1366:A:H2'	1:1A:1367:A:O4'	2.16	0.45
1:1A:1826:G:OP1	3:1D:224:ALA:N	2.43	0.45
1:1A:2078:C:C4	1:1A:2079:U:C4	3.05	0.45
1:1A:2099:U:O4	1:1A:2190:G:O6	2.34	0.45
1:1A:2345:G:N3	1:1A:2381:C:H2'	2.31	0.45
1:1A:2691:C:O3'	1:1A:2871:C:H4'	2.17	0.45
32:1a:18:C:H5''	36:1e:127:ASN:ND2	2.32	0.45
32:1a:219:C:O2'	32:1a:381:C:H5'	2.17	0.45
32:1a:1192:C:P	34:1c:4:LYS:HZ1	2.40	0.45
32:1a:1223:C:P	50:1s:78:ARG:HH21	2.40	0.45
35:1d:9:CYS:O	35:1d:13:ARG:HG3	2.17	0.45
48:1q:67:LYS:HA	48:1q:70:ARG:HH12	1.81	0.45
1:2A:884:C:N4	1:2A:893:C:O2	2.43	0.45
1:2A:1423:G:H2'	1:2A:1424:G:H8	1.82	0.45
1:2A:2222:G:O2'	3:2D:148:GLU:HG2	2.17	0.45
1:2A:2277:G:OP2	22:20:10:THR:HG21	2.17	0.45
1:2A:2465:C:O2	1:2A:2486:G:C2	2.70	0.45
1:2A:2683:C:OP1	15:2T:53:ARG:NH2	2.50	0.45
1:2A:2853:C:H2'	1:2A:2854:G:H8	1.80	0.45
4:2E:105:THR:HG22	4:2E:106:GLY:H	1.81	0.45
6:2G:114:ILE:HA	6:2G:140:ILE:HD11	1.99	0.45
7:2H:89:ILE:H	7:2H:89:ILE:HD12	1.81	0.45
7:2H:152:ARG:HD3	7:2H:152:ARG:HA	1.68	0.45
9:2N:97:ARG:HA	9:2N:100:GLU:HB2	1.98	0.45
32:2a:110:C:O2'	47:2p:25:ARG:O	2.27	0.45
32:2a:505:G:H2'	32:2a:506:G:H8	1.82	0.45
32:2a:1148:U:H2'	32:2a:1149:C:O4'	2.17	0.45
33:2b:96:ARG:HB3	33:2b:148:TYR:CE1	2.52	0.45
33:2b:170:GLU:O	33:2b:174:VAL:HG23	2.17	0.45
33:2b:218:ALA:O	33:2b:222:ILE:HG23	2.16	0.45
37:2f:80:ARG:HG2	37:2f:88:VAL:HB	1.99	0.45
39:2h:21:LYS:O	39:2h:65:TYR:OH	2.19	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:2q:12:SER:HB3	48:2q:20:THR:HB	1.98	0.45
50:2s:41:VAL:HG22	50:2s:44:MET:SD	2.57	0.45
1:1A:644:A:H4'	1:1A:645:C:C5	2.51	0.45
1:1A:828:U:H4'	1:1A:831:G:N1	2.31	0.45
1:1A:954:G:O2'	1:1A:2274:A:N1	2.47	0.45
1:1A:1466:G:O2'	1:1A:1546:C:O2'	2.28	0.45
1:1A:2104:G:H2'	1:1A:2105:C:C6	2.52	0.45
1:1A:2232:U:P	23:11:40:ARG:HH12	2.39	0.45
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.52	0.45
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.17	0.45
1:1A:2846:G:H2'	1:1A:2847:U:O4'	2.17	0.45
4:1E:37:ARG:HB2	4:1E:46:ALA:H	1.81	0.45
9:1N:30:ILE:HG23	9:1N:52:VAL:HG11	1.97	0.45
15:1T:23:ARG:N	15:1T:26:ASP:OD2	2.44	0.45
32:1a:405:U:O4	35:1d:2:GLY:N	2.50	0.45
32:1a:848:C:H2'	32:1a:849:C:C6	2.51	0.45
32:1a:865:A:H2	32:1a:918:A:H4'	1.82	0.45
34:1c:47:LEU:HD13	34:1c:70:VAL:HG11	1.99	0.45
39:1h:11:THR:HG22	39:1h:14:ARG:HH22	1.81	0.45
39:1h:81:HIS:N	39:1h:138:TRP:O	2.49	0.45
41:1j:38:ILE:CG1	41:1j:71:LEU:HB3	2.46	0.45
41:1j:81:THR:C	41:1j:83:GLU:H	2.23	0.45
47:1p:18:ARG:NH1	47:1p:32:TYR:OH	2.50	0.45
1:2A:826:U:H5''	1:2A:2428:G:O3'	2.17	0.45
1:2A:884:C:H3'	1:2A:885:C:C6	2.52	0.45
1:2A:1686:C:H2'	1:2A:1687:G:O4'	2.17	0.45
1:2A:1978:A:H2'	1:2A:1979:C:O4'	2.17	0.45
1:2A:2504:U:OP2	59:2A:3965:HOH:O	2.21	0.45
6:2G:41:GLN:HG3	6:2G:154:GLY:O	2.17	0.45
25:23:26:LEU:O	25:23:35:ARG:NE	2.50	0.45
26:24:47:GLN:O	26:24:49:PHE:N	2.40	0.45
32:2a:98:G:H5'	32:2a:99:U:OP2	2.17	0.45
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.52	0.45
32:2a:659:U:OP1	46:2o:9:GLN:NE2	2.49	0.45
32:2a:684:A:O2'	42:2k:39:PRO:O	2.34	0.45
32:2a:922:G:N3	32:2a:1398:A:H2	2.15	0.45
32:2a:944:G:H1'	32:2a:1339:A:H61	1.82	0.45
32:2a:946:A:O2'	32:2a:1333:A:N3	2.38	0.45
32:2a:1080:A:OP1	36:2e:47:LYS:HD3	2.16	0.45
32:2a:1134:G:H2'	32:2a:1135:U:O4'	2.17	0.45
32:2a:1145:C:H4'	32:2a:1146:A:H5'	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1250:A:H4'	40:2i:68:GLY:H	1.81	0.45
38:2g:69:VAL:HG11	38:2g:134:ALA:HB1	1.99	0.45
1:1A:271(M):G:O2'	1:1A:271(N):U:H5''	2.17	0.45
1:1A:559:G:H22	16:1U:49:HIS:CE1	2.35	0.45
1:1A:810:U:C4	11:1P:29:LYS:O	2.70	0.45
1:1A:1012:U:C5	9:1N:28:THR:HG21	2.52	0.45
1:1A:2840:C:H2'	1:1A:2841:C:C6	2.52	0.45
3:1D:31:LYS:C	3:1D:33:LEU:H	2.25	0.45
3:1D:69:ARG:NH1	3:1D:128:GLY:O	2.33	0.45
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.30	0.45
11:1P:67:MET:HE3	11:1P:67:MET:HB2	1.80	0.45
30:18:26:LYS:HG2	30:18:46:ARG:O	2.16	0.45
32:1a:413:G:N2	32:1a:428:G:H1'	2.32	0.45
32:1a:719:C:N4	49:1r:71:LYS:HE2	2.32	0.45
32:1a:839:U:H3'	32:1a:840:C:H5'	1.98	0.45
32:1a:1117:G:O3'	40:1i:104:ARG:HD3	2.17	0.45
34:1c:131:ARG:NH1	34:1c:166:GLU:HG3	2.26	0.45
35:1d:110:PHE:CD1	35:1d:148:VAL:HG23	2.51	0.45
43:1l:54:LYS:HD2	43:1l:54:LYS:N	2.32	0.45
51:1t:89:ARG:NH2	51:1t:103:GLY:HA3	2.27	0.45
1:2A:599:G:OP1	11:2P:9:ASN:ND2	2.50	0.45
1:2A:754:C:O2'	1:2A:1272:A:N1	2.46	0.45
1:2A:1258:C:H5'	59:2A:4334:HOH:O	2.17	0.45
1:2A:2557:G:H2'	1:2A:2558:C:H6	1.82	0.45
1:2A:2786:U:H2'	1:2A:2787:C:H6	1.82	0.45
2:2B:55:U:H2'	2:2B:56:G:O4'	2.16	0.45
4:2E:35:GLN:H	4:2E:48:GLN:HB3	1.82	0.45
5:2F:31:HIS:HB2	11:2P:9:ASN:OD1	2.17	0.45
6:2G:151:ALA:O	6:2G:153:ARG:HG3	2.17	0.45
8:2I:4:ILE:HG12	8:2I:18:VAL:HG12	1.98	0.45
29:27:1:MET:HE3	29:27:3:ARG:NH2	2.32	0.45
32:2a:8:A:N6	35:2d:205:GLU:O	2.44	0.45
32:2a:99:U:H2'	32:2a:100:C:C6	2.52	0.45
32:2a:557:G:C6	32:2a:558:G:C6	3.05	0.45
32:2a:614:A:H2'	32:2a:615:C:C6	2.52	0.45
32:2a:617:G:H4'	47:2p:44:THR:O	2.17	0.45
33:2b:22:LYS:HE3	33:2b:40:HIS:CE1	2.52	0.45
48:2q:50:LYS:HB2	48:2q:51:TYR:CE2	2.52	0.45
48:2q:67:LYS:CA	48:2q:70:ARG:HH12	2.25	0.45
1:1A:518:G:H2'	1:1A:519:U:C6	2.52	0.44
1:1A:531:C:H4'	1:1A:532:A:H5''	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1688:U:H1'	1:1A:1701:A:C6	2.53	0.44
1:1A:2023:G:H4'	1:1A:2617:C:O3'	2.17	0.44
1:1A:2037:G:H2'	1:1A:2038:G:C8	2.52	0.44
1:1A:2136:C:C2	1:1A:2155:G:N2	2.85	0.44
1:1A:2471:C:H2'	1:1A:2472:G:O4'	2.17	0.44
1:1A:2695:C:H2'	1:1A:2696:U:C6	2.52	0.44
1:1A:2742:C:OP1	31:19:1:MET:HE3	2.16	0.44
3:1D:168:ARG:HG2	3:1D:173:VAL:HG12	1.99	0.44
6:1G:105:LYS:O	6:1G:109:VAL:HG22	2.17	0.44
11:1P:85:LEU:HD13	11:1P:120:ALA:HB2	1.98	0.44
16:1U:89:GLU:HG3	17:1V:50:PRO:HB3	1.97	0.44
24:12:21:LEU:HD13	24:12:64:LEU:HA	1.99	0.44
32:1a:7:G:H5'	32:1a:298:A:O4'	2.17	0.44
32:1a:114:U:H2'	32:1a:115:G:C8	2.52	0.44
32:1a:452:A:H4'	47:1p:72:ARG:NH1	2.31	0.44
32:1a:1191:A:H5''	34:1c:4:LYS:NZ	2.32	0.44
32:1a:1273:G:C2	32:1a:1274:G:H1'	2.52	0.44
34:1c:135:LYS:HE2	36:1e:53:LEU:HD11	1.99	0.44
36:1e:77:PRO:HD2	36:1e:142:LEU:HD13	1.99	0.44
37:1f:11:ASN:HB3	37:1f:14:LEU:HG	1.99	0.44
39:1h:86:ILE:HG13	39:1h:133:LEU:HD22	1.99	0.44
50:1s:15:LEU:O	50:1s:19:VAL:HG23	2.16	0.44
1:2A:388:G:O2'	1:2A:389:G:N7	2.50	0.44
1:2A:879:G:H5'	1:2A:880:G:OP2	2.17	0.44
1:2A:1359:A:N6	1:2A:1372:U:H3	2.14	0.44
1:2A:1794:U:H2'	1:2A:1795:C:H6	1.82	0.44
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.52	0.44
1:2A:2319:G:H22	14:2S:3:ARG:HD2	1.81	0.44
1:2A:2416:C:H2'	1:2A:2417:C:C6	2.51	0.44
1:2A:2843:G:H1	1:2A:2874:C:H42	1.65	0.44
6:2G:3:LEU:HD13	26:24:25:TYR:CE2	2.52	0.44
6:2G:56:ALA:HB2	6:2G:153:ARG:HD2	1.98	0.44
15:2T:118:ARG:HG2	32:2a:1442(A):G:C8	2.52	0.44
17:2V:57:VAL:HG22	17:2V:99:ILE:HG23	1.99	0.44
24:22:28:LYS:HD2	24:22:60:LEU:HD11	1.99	0.44
32:2a:160:A:H1'	32:2a:344:A:N7	2.31	0.44
32:2a:1113:C:H2'	32:2a:1114:C:C6	2.52	0.44
32:2a:1241:G:H2'	32:2a:1242:C:C6	2.52	0.44
37:2f:62:TRP:CH2	37:2f:64:GLN:HB2	2.52	0.44
38:2g:42:ILE:H	38:2g:42:ILE:HG13	1.43	0.44
40:2i:17:VAL:HA	40:2i:63:ILE:HG23	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:2n:24:CYS:HB3	45:2n:29:ARG:HB2	1.99	0.44
47:2p:6:LEU:HD23	47:2p:17:TYR:CD2	2.52	0.44
47:2p:9:PHE:CE1	47:2p:18:ARG:HD2	2.52	0.44
47:2p:21:VAL:HG21	47:2p:59:TRP:CD2	2.52	0.44
1:1A:26:G:H1'	1:1A:514:A:N6	2.32	0.44
1:1A:264:C:O2'	1:1A:265:A:H2'	2.17	0.44
1:1A:1093:G:C6	1:1A:1094:U:C5	3.05	0.44
1:1A:1348:G:H1'	59:1A:4764:HOH:O	2.18	0.44
1:1A:1972:A:H2'	1:1A:1973:G:H8	1.83	0.44
1:1A:2497:A:H5''	59:1A:4335:HOH:O	2.16	0.44
12:1Q:27:VAL:HG23	12:1Q:138:ASP:OD2	2.17	0.44
32:1a:130:A:N3	32:1a:263:A:O2'	2.46	0.44
32:1a:598:U:H4'	39:1h:94:TYR:CG	2.52	0.44
32:1a:857:C:H2'	32:1a:858:G:O4'	2.17	0.44
32:1a:974:A:H8	32:1a:974:A:OP1	2.01	0.44
34:1c:10:PHE:CE2	34:1c:178:LEU:HG	2.53	0.44
35:1d:166:LYS:HA	35:1d:178:VAL:HG21	1.98	0.44
48:1q:75:ARG:NH2	48:1q:77:VAL:HG22	2.32	0.44
1:2A:9:U:H2'	1:2A:10:G:C8	2.52	0.44
1:2A:315:G:H2'	1:2A:316:C:C6	2.52	0.44
1:2A:1003:G:N2	1:2A:1153:C:C2	2.86	0.44
1:2A:1598:C:H2'	1:2A:1599:C:C6	2.53	0.44
1:2A:1833:U:O2'	1:2A:1969:A:N1	2.41	0.44
2:2B:83:G:H1	2:2B:94:C:H42	1.65	0.44
5:2F:117:ARG:NH2	5:2F:186:ILE:O	2.50	0.44
11:2P:93:GLY:H	11:2P:123:LEU:HD22	1.82	0.44
18:2W:9:TYR:H	18:2W:102:HIS:CE1	2.34	0.44
26:24:50:VAL:HG21	44:2m:64:TRP:C	2.42	0.44
28:26:13:CYS:SG	28:26:47:THR:HG21	2.57	0.44
32:2a:1029:C:N3	32:2a:1032:G:N2	2.65	0.44
32:2a:1130:A:H5''	40:2i:62:TYR:HE2	1.81	0.44
32:2a:1310:G:H5'	44:2m:77:ASN:ND2	2.33	0.44
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.17	0.44
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.52	0.44
33:2b:16:HIS:CB	33:2b:210:SER:HB2	2.47	0.44
34:2c:152:ILE:HB	34:2c:167:TRP:HB3	1.99	0.44
36:2e:32:VAL:HB	36:2e:58:ALA:HB1	1.98	0.44
37:2f:44:GLY:HA2	37:2f:59:TYR:CE1	2.53	0.44
40:2i:111:ARG:HD2	45:2n:61:TRP:NE1	2.32	0.44
41:2j:89:ASP:O	41:2j:91:PRO:HD3	2.18	0.44
1:1A:16:G:H5''	27:15:17:ASP:HB2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:734:A:C4	1:1A:735:A:C8	3.05	0.44
1:1A:2134:A:O2'	1:1A:2135:A:OP1	2.31	0.44
1:1A:2406:U:H2'	1:1A:2406:U:OP2	2.16	0.44
1:1A:2488:A:H2'	1:1A:2489:G:O4'	2.18	0.44
5:1F:65:TRP:CZ2	5:1F:75:HIS:HD2	2.36	0.44
8:1I:117:GLU:HG3	8:1I:118:LYS:H	1.82	0.44
10:1O:122:LEU:HD13	15:1T:72:VAL:HG11	1.99	0.44
32:1a:323:U:H5'	51:1t:23:ARG:HB2	1.99	0.44
32:1a:902:G:H2'	32:1a:903:G:H8	1.81	0.44
32:1a:1027:C:N4	32:1a:1034:G:C6	2.85	0.44
32:1a:1111:A:N6	34:1c:176:HIS:O	2.50	0.44
32:1a:1125:U:H4'	41:1j:5:ARG:NH2	2.32	0.44
32:1a:1401:G:C2	32:1a:1402:4OC:H1'	2.52	0.44
32:1a:1458:G:H5''	51:1t:31:SER:HB2	1.98	0.44
34:1c:20:SER:HB3	45:1n:54:PRO:HG3	1.99	0.44
35:1d:121:VAL:O	35:1d:134:ASP:HA	2.18	0.44
35:1d:182:LYS:HG3	35:1d:182:LYS:O	2.18	0.44
39:1h:51:VAL:HG12	39:1h:52:ASP:H	1.82	0.44
40:1i:18:PHE:HB2	40:1i:62:TYR:O	2.17	0.44
40:1i:79:LEU:HD22	40:1i:104:ARG:HB2	1.98	0.44
45:1n:11:LYS:HB2	45:1n:11:LYS:NZ	2.31	0.44
1:2A:128:C:H2'	1:2A:129:C:C6	2.52	0.44
1:2A:478:A:C6	1:2A:480:A:C6	3.05	0.44
1:2A:824:A:H2'	1:2A:825:C:O4'	2.18	0.44
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.53	0.44
7:2H:20:ALA:HB1	7:2H:21:PRO:HD2	1.98	0.44
8:2I:26:ALA:HA	8:2I:30:LEU:HB2	1.99	0.44
8:2I:79:ILE:HG13	8:2I:81:VAL:HB	1.98	0.44
8:2I:84:GLY:N	8:2I:87:LYS:HE2	2.33	0.44
26:24:8:LYS:HD3	26:24:8:LYS:HA	1.79	0.44
32:2a:181:G:H4'	32:2a:182:U:H5'	2.00	0.44
32:2a:955:U:O4	32:2a:1225:A:N1	2.50	0.44
32:2a:1286:A:H3'	32:2a:1286:A:H8	1.83	0.44
32:2a:1511:G:H2'	32:2a:1512:U:O4'	2.18	0.44
33:2b:13:ALA:O	33:2b:17:PHE:HD2	1.99	0.44
36:2e:82:VAL:HB	36:2e:138:ALA:HB2	1.99	0.44
40:2i:63:ILE:HD13	40:2i:77:ILE:HG23	1.99	0.44
1:1A:620:G:N3	1:1A:620:G:H5'	2.33	0.44
1:1A:833:U:OP1	11:1P:45:LEU:HD13	2.18	0.44
1:1A:969:U:H2'	1:1A:970:C:C6	2.52	0.44
1:1A:1553:A:C6	1:1A:1555:G:H1'	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1800:C:OP1	3:1D:260:ARG:NH2	2.50	0.44
1:1A:2233:U:H2'	1:1A:2234:G:C8	2.52	0.44
5:1F:184:TYR:CE1	11:1P:3:LEU:HD11	2.52	0.44
6:1G:23:PHE:HB2	6:1G:25:TYR:CE2	2.52	0.44
16:1U:69:CYS:HB3	16:1U:74:LEU:HD13	1.99	0.44
17:1V:61:VAL:HA	17:1V:94:LEU:HD23	2.00	0.44
26:14:60:GLN:C	26:14:62:ARG:H	2.25	0.44
32:1a:524:G:H2'	32:1a:525:C:C6	2.52	0.44
34:1c:22:TRP:CE2	45:1n:54:PRO:HG2	2.52	0.44
39:1h:9:MET:HB2	39:1h:32:LYS:HE3	1.98	0.44
42:1k:44:SER:OG	42:1k:47:VAL:HG23	2.17	0.44
45:1n:21:TYR:HE1	45:1n:23:ARG:HD3	1.82	0.44
46:1o:40:SER:O	46:1o:44:LYS:HG3	2.17	0.44
1:2A:195:A:OP1	11:2P:46:LYS:NZ	2.43	0.44
1:2A:311:A:C6	1:2A:328:U:C4	3.05	0.44
1:2A:480:A:N1	1:2A:503:A:N6	2.66	0.44
1:2A:1170:G:O6	1:2A:1180:C:N4	2.51	0.44
1:2A:1916:A:O5'	1:2A:1916:A:H8	2.00	0.44
7:2H:13:LYS:HA	7:2H:14:GLY:HA2	1.48	0.44
13:2R:57:ARG:NE	13:2R:59:ASP:OD1	2.45	0.44
16:2U:50:ARG:O	16:2U:54:LYS:NZ	2.46	0.44
21:2Z:30:ASN:HB3	21:2Z:90:VAL:HB	2.00	0.44
26:24:32:TYR:CE2	44:2m:50:GLU:HG3	2.52	0.44
32:2a:59:A:H3'	32:2a:331:G:H22	1.82	0.44
32:2a:433:C:H2'	32:2a:434:U:C6	2.53	0.44
32:2a:840:C:H5''	32:2a:841:U:H5	1.83	0.44
32:2a:947:G:O3'	44:2m:109:THR:OG1	2.36	0.44
32:2a:1072:G:H2'	32:2a:1073:U:C6	2.52	0.44
38:2g:101:LEU:O	38:2g:105:VAL:HG23	2.17	0.44
39:2h:9:MET:HE1	39:2h:32:LYS:HB3	2.00	0.44
42:2k:98:LEU:O	42:2k:101:SER:OG	2.36	0.44
1:1A:18:C:O2'	1:1A:554:U:OP1	2.29	0.44
1:1A:1366:A:OP1	23:11:3:LYS:NZ	2.36	0.44
1:1A:1501:C:O4'	3:1D:100:GLY:HA2	2.18	0.44
1:1A:2203:U:O2'	1:1A:2205:C:H5'	2.16	0.44
1:1A:2274:A:C5	1:1A:2276:G:C8	3.06	0.44
1:1A:2294:C:H2'	1:1A:2295:C:H6	1.82	0.44
2:1B:15:A:OP2	2:1B:69:G:N2	2.45	0.44
9:1N:23:LEU:HA	9:1N:60:ILE:HD11	2.00	0.44
13:1R:65:LEU:HA	13:1R:65:LEU:HD12	1.76	0.44
23:11:3:LYS:HB3	23:11:4:VAL:H	1.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:92:C:H2'	32:1a:93:G:H8	1.82	0.44
32:1a:450:G:OP1	47:1p:43:LYS:NZ	2.38	0.44
32:1a:889:A:H61	32:1a:907:A:H5''	1.82	0.44
32:1a:1221:G:H4'	50:1s:77:THR:HG22	2.00	0.44
32:1a:1502:A:C8	32:1a:1505:G:N2	2.85	0.44
35:1d:104:VAL:HG11	35:1d:140:VAL:HG21	1.98	0.44
35:1d:109:GLY:HA3	35:1d:165:MET:CG	2.47	0.44
36:1e:50:GLU:HB2	36:1e:53:LEU:HD13	1.99	0.44
46:1o:87:ILE:HG22	46:1o:88:ARG:H	1.83	0.44
1:2A:407:G:H2'	1:2A:408:G:H8	1.82	0.44
1:2A:515:A:H1'	1:2A:581:C:H1'	1.99	0.44
1:2A:697:C:H2'	1:2A:698:C:C6	2.52	0.44
1:2A:833:U:H1'	11:2P:55:ARG:HH21	1.82	0.44
1:2A:1288:U:C2	1:2A:1327:C:O2	2.70	0.44
1:2A:1805:U:O2	3:2D:50:THR:HB	2.18	0.44
1:2A:1919:A:N1	32:2a:1495:U:O2'	2.36	0.44
1:2A:2207:G:H2'	1:2A:2208:A:C2	2.53	0.44
1:2A:2305:A:H2'	1:2A:2306:C:O4'	2.18	0.44
1:2A:2419:U:H2'	1:2A:2420:C:H6	1.81	0.44
1:2A:2815:C:C5'	27:25:29:THR:HG21	2.48	0.44
3:2D:43:ARG:HA	3:2D:48:ARG:O	2.18	0.44
16:2U:104:GLN:NE2	16:2U:105:VAL:HG23	2.33	0.44
20:2Y:102:CYS:SG	20:2Y:103:GLY:N	2.90	0.44
32:2a:196:A:OP1	51:2t:68:LYS:NZ	2.43	0.44
32:2a:487:A:H3'	32:2a:488:C:C6	2.53	0.44
32:2a:1260:C:P	32:2a:1284:C:H4'	2.58	0.44
35:2d:112:VAL:HG13	35:2d:116:GLN:HE22	1.82	0.44
38:2g:76:ARG:O	38:2g:87:VAL:N	2.43	0.44
39:2h:110:ALA:HB1	39:2h:133:LEU:HD11	2.00	0.44
40:2i:6:GLY:HA3	40:2i:80:GLY:O	2.18	0.44
50:2s:18:LYS:HD3	50:2s:31:ILE:HG21	1.99	0.44
1:1A:218:A:C2	1:1A:235:U:H4'	2.53	0.44
1:1A:322:A:OP2	5:1F:169:ASN:HB2	2.17	0.44
1:1A:518:G:H4'	18:1W:18:ARG:NE	2.32	0.44
1:1A:774:A:N3	1:1A:774:A:H2'	2.32	0.44
1:1A:857:C:H4'	22:10:23:VAL:HG21	1.99	0.44
1:1A:922:U:H2'	1:1A:923:C:C6	2.52	0.44
1:1A:1069:A:H4'	1:1A:1070:A:C8	2.53	0.44
1:1A:1371:G:H2'	1:1A:1372:U:C5	2.53	0.44
1:1A:2848:G:H1'	1:1A:2867:G:N2	2.32	0.44
4:1E:9:VAL:HG13	4:1E:25:VAL:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:152:GLU:HB3	5:1F:190:GLU:HB3	1.99	0.44
5:1F:182:ASN:HD21	5:1F:185:ASP:CG	2.23	0.44
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.54	0.44
16:1U:110:VAL:O	16:1U:114:LYS:HG2	2.17	0.44
18:1W:76:VAL:HG13	18:1W:101:SER:HB3	2.00	0.44
29:17:30:VAL:O	29:17:34:ARG:HG3	2.18	0.44
32:1a:352:C:O2'	32:1a:354:G:OP1	2.32	0.44
32:1a:1179:A:O3'	40:1i:103:THR:HB	2.18	0.44
35:1d:57:ARG:HD3	35:1d:205:GLU:HB3	1.99	0.44
41:1j:50:ILE:HB	45:1n:41:ARG:HD2	1.99	0.44
43:1l:42:THR:HA	43:1l:53:ARG:O	2.17	0.44
51:1t:88:VAL:O	51:1t:92:LEU:HG	2.17	0.44
54:1x:31:G:C2	54:1x:40:C:C2	3.05	0.44
1:2A:24:G:H1'	18:2W:77:ASP:HB3	2.00	0.44
1:2A:109:G:H2'	1:2A:110:G:O4'	2.17	0.44
1:2A:194:G:H2'	1:2A:195:A:O4'	2.18	0.44
1:2A:754:C:H2'	1:2A:755:C:C6	2.52	0.44
1:2A:1131:G:O6	1:2A:2040:C:H1'	2.17	0.44
1:2A:1499:C:H2'	1:2A:1500:G:C8	2.50	0.44
1:2A:1504:C:H2'	1:2A:1505:C:C6	2.53	0.44
1:2A:1530:C:O2'	1:2A:1531:C:O5'	2.31	0.44
1:2A:2255:G:O2'	54:2x:3:C:H5'	2.18	0.44
1:2A:2317:C:N4	1:2A:2318:G:O6	2.50	0.44
1:2A:2529:G:H5''	1:2A:2530:A:H5''	2.00	0.44
6:2G:56:ALA:HA	6:2G:59:GLU:HG2	1.99	0.44
8:2I:133:HIS:O	8:2I:136:VAL:HG23	2.17	0.44
17:2V:50:PRO:HG2	17:2V:51:VAL:HG23	1.98	0.44
18:2W:11:ARG:NH2	18:2W:98:LYS:HD3	2.32	0.44
20:2Y:20:TYR:CE2	20:2Y:43:ASN:HA	2.53	0.44
21:2Z:28:MET:HB3	21:2Z:35:ARG:HB2	2.00	0.44
26:24:48:ARG:O	26:24:50:VAL:N	2.49	0.44
32:2a:136:C:H42	32:2a:227:G:H1	1.66	0.44
32:2a:645:C:H2'	32:2a:646:U:C6	2.53	0.44
32:2a:1009:G:H22	32:2a:1021:G:H1'	1.82	0.44
32:2a:1129:C:H5'	32:2a:1130:A:OP1	2.17	0.44
32:2a:1270:C:H2'	32:2a:1271:G:H8	1.83	0.44
39:2h:103:VAL:HG21	39:2h:110:ALA:HB2	1.98	0.44
51:2t:14:LYS:HA	51:2t:17:ARG:CZ	2.47	0.44
1:1A:185:U:H4'	1:1A:218:A:H4'	1.99	0.44
1:1A:320:A:H4'	1:1A:322:A:C8	2.53	0.44
1:1A:1032:A:H2	1:1A:1122:G:H22	1.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1342:A:O2'	1:1A:1344:G:OP2	2.30	0.44
1:1A:2299:G:N2	1:1A:2318:G:H1'	2.32	0.44
1:1A:2726:U:O2'	1:1A:2727:G:H8	2.00	0.44
7:1H:33:LEU:HD21	7:1H:136:ILE:HG13	2.00	0.44
8:1I:72:LEU:HA	8:1I:75:LEU:HD11	1.99	0.44
18:1W:20:VAL:HG11	18:1W:44:ALA:HA	1.98	0.44
21:1Z:52:SER:C	21:1Z:54:HIS:H	2.24	0.44
24:12:64:LEU:HD11	24:12:68:ARG:HE	1.83	0.44
24:12:64:LEU:HD11	24:12:68:ARG:HH21	1.82	0.44
32:1a:189(D):C:H2'	32:1a:189(E):U:O4'	2.18	0.44
32:1a:339:C:H2'	32:1a:340:U:C6	2.53	0.44
32:1a:363:A:C6	43:1l:31:PRO:HD2	2.52	0.44
32:1a:447:G:O6	32:1a:485:G:O2'	2.28	0.44
32:1a:872:A:C8	32:1a:874:G:C8	3.06	0.44
32:1a:875:C:O2'	39:1h:14:ARG:NH1	2.44	0.44
34:1c:116:VAL:HG21	34:1c:202:ILE:HD11	1.99	0.44
54:1x:37:A:C4	54:1x:38:A:C8	3.06	0.44
1:2A:1599:C:H2'	1:2A:1600:C:C6	2.52	0.44
1:2A:1996:C:H4'	1:2A:1997:G:H5'	2.00	0.44
3:2D:132:PRO:HD3	3:2D:190:TYR:CZ	2.53	0.44
3:2D:218:ARG:CZ	3:2D:218:ARG:HB3	2.47	0.44
6:2G:96:ARG:N	6:2G:99:MET:HE2	2.31	0.44
9:2N:48:MET:HE2	9:2N:48:MET:HB2	1.83	0.44
12:2Q:110:THR:HB	12:2Q:113:GLN:HB2	2.00	0.44
15:2T:2:ASN:OD1	15:2T:5:ALA:N	2.43	0.44
32:2a:131:C:H2'	32:2a:132:C:H6	1.83	0.44
32:2a:457:C:H2'	32:2a:458:C:C6	2.53	0.44
32:2a:687:A:N3	32:2a:688:G:H1'	2.33	0.44
32:2a:1132:C:H2'	32:2a:1133:G:C8	2.53	0.44
32:2a:1330:U:H4'	44:2m:23:TYR:CZ	2.53	0.44
33:2b:19:HIS:CE1	33:2b:206:ASP:HB2	2.53	0.44
44:2m:27:LYS:HD2	44:2m:27:LYS:HA	1.69	0.44
1:1A:272(J):C:H2'	1:1A:274:G:C8	2.41	0.44
1:1A:897:C:H2'	1:1A:898:C:H6	1.81	0.44
8:1I:50:ARG:HA	8:1I:53:ALA:HB3	1.99	0.44
12:1Q:57:HIS:HD2	12:1Q:117:ALA:HB2	1.82	0.44
32:1a:299:G:H2'	32:1a:300:A:C8	2.52	0.44
32:1a:501:C:H1'	32:1a:549:C:H1'	2.00	0.44
32:1a:720:C:OP2	32:1a:721:G:O2'	2.32	0.44
41:1j:38:ILE:HG12	41:1j:71:LEU:O	2.17	0.44
44:1m:74:VAL:O	44:1m:78:ILE:HG13	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:1s:11:VAL:O	50:1s:13:ASP:N	2.51	0.44
1:2A:300:A:OP1	20:2Y:86:ARG:NH2	2.48	0.44
1:2A:400:G:O6	59:2A:3957:HOH:O	2.19	0.44
1:2A:452:G:C4	1:2A:458:G:C6	3.05	0.44
1:2A:748:G:OP1	1:2A:2612:C:N4	2.51	0.44
1:2A:1486:A:H2'	1:2A:1487:G:H8	1.83	0.44
1:2A:1721:G:H8	1:2A:1741:A:H62	1.65	0.44
1:2A:1914:C:C6	1:2A:1915:5MU:H72	2.52	0.44
1:2A:1992:G:O2'	59:2A:3921:HOH:O	2.09	0.44
1:2A:2626:C:H2'	1:2A:2627:G:O4'	2.18	0.44
1:2A:2745:C:C4	1:2A:2746:U:C4	3.06	0.44
1:2A:2850:A:N7	1:2A:2868:A:O2'	2.49	0.44
6:2G:179:PRO:HB2	26:24:42:PHE:CE2	2.53	0.44
11:2P:99:LEU:HD23	11:2P:102:ARG:HH12	1.83	0.44
32:2a:333:G:H4'	51:2t:16:HIS:CE1	2.53	0.44
32:2a:737:A:H2'	32:2a:738:C:C6	2.53	0.44
32:2a:955:U:H2'	32:2a:956:U:O4'	2.18	0.44
32:2a:1299:A:H2'	32:2a:1299:A:N3	2.33	0.44
35:2d:181:MET:HE3	35:2d:181:MET:HB2	1.85	0.44
35:2d:191:ARG:NH1	35:2d:194:LEU:O	2.49	0.44
1:1A:242:G:C8	30:18:5:LYS:HG2	2.53	0.44
1:1A:287:C:H2'	1:1A:288:C:C6	2.53	0.44
1:1A:740:U:OP2	59:1A:4241:HOH:O	2.21	0.44
1:1A:963:U:H2'	1:1A:964:C:C6	2.52	0.44
1:1A:1038:C:H42	1:1A:1117:G:H1	1.66	0.44
1:1A:1054:A:N1	1:1A:1105:U:O2	2.51	0.44
1:1A:1919:A:N1	32:1a:1495:U:O2'	2.38	0.44
1:1A:2424:C:O2	1:1A:2429:G:O2'	2.31	0.44
5:1F:34:TRP:CZ2	11:1P:8:PRO:HB3	2.52	0.44
11:1P:63:PRO:HD3	30:18:27:THR:HG22	2.00	0.44
32:1a:333:G:H2'	32:1a:334:C:H6	1.83	0.44
32:1a:555:C:H2'	32:1a:556:C:C6	2.53	0.44
32:1a:890:G:O2'	32:1a:906:G:O6	2.28	0.44
32:1a:1149:C:H2'	32:1a:1150:U:C6	2.52	0.44
32:1a:1261:A:H3'	32:1a:1262:C:H6	1.82	0.44
40:1i:4:TYR:CZ	40:1i:88:TYR:HD1	2.36	0.44
47:1p:69:THR:O	47:1p:73:LEU:HG	2.17	0.44
48:1q:56:VAL:HB	48:1q:78:GLU:HB3	1.99	0.44
48:1q:86:GLU:O	48:1q:90:ILE:HG13	2.17	0.44
52:1u:9:ARG:HH22	52:1u:10:ARG:NH2	2.16	0.44
1:2A:39:C:H2'	1:2A:40:C:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:271(G):C:H2'	1:2A:271(H):G:H8	1.83	0.44
1:2A:631:A:H2'	1:2A:632:A:O4'	2.18	0.44
1:2A:826:U:H2'	1:2A:828:U:O4'	2.18	0.44
1:2A:1430:C:H2'	1:2A:1431:U:C6	2.53	0.44
1:2A:2224:G:OP1	3:2D:268:ARG:NE	2.51	0.44
1:2A:2262:U:P	22:20:19:LYS:HE2	2.57	0.44
1:2A:2345:G:H1'	1:2A:2382:G:H5'	2.00	0.44
8:2I:101:LEU:HB3	8:2I:107:VAL:O	2.18	0.44
12:2Q:139:GLU:C	12:2Q:141:GLN:H	2.26	0.44
15:2T:23:ARG:HD3	15:2T:120:ARG:NH1	2.33	0.44
21:2Z:131:ARG:H	21:2Z:131:ARG:HG3	1.49	0.44
23:21:73:LEU:HD23	23:21:73:LEU:HA	1.81	0.44
32:2a:417:C:H2'	32:2a:418:C:C6	2.52	0.44
32:2a:505:G:H2'	32:2a:506:G:C8	2.53	0.44
32:2a:620:C:H2'	32:2a:621:A:O4'	2.18	0.44
32:2a:1122:U:C2	32:2a:1123:A:C8	3.05	0.44
32:2a:1395:C:N4	32:2a:1396:A:H62	2.16	0.44
34:2c:32:LEU:O	34:2c:36:ASP:HB2	2.17	0.44
40:2i:102:LEU:H	40:2i:102:LEU:HD23	1.83	0.44
1:1A:593:G:C4'	30:18:4:MET:HE2	2.48	0.43
1:1A:836:G:C5	1:1A:837:C:C4	3.06	0.43
1:1A:1030:G:OP2	12:1Q:128:LYS:NZ	2.51	0.43
1:1A:1174:A:H1'	1:1A:1175:U:C5'	2.48	0.43
1:1A:1210:A:H5''	1:1A:1212:G:O4'	2.18	0.43
1:1A:1912:A:HO2'	32:1a:1494:G:HO2'	1.54	0.43
1:1A:2346:A:C5	1:1A:2383:G:C2	3.05	0.43
1:1A:2552:2MU:O5'	1:1A:2552:2MU:H6	2.18	0.43
7:1H:41:MET:HE1	7:1H:54:ARG:HB3	2.00	0.43
9:1N:75:TYR:CE2	9:1N:77:GLY:HA2	2.53	0.43
15:1T:91:ARG:HH11	15:1T:120:ARG:NH1	2.16	0.43
16:1U:76:TYR:CZ	16:1U:80:ILE:HG13	2.53	0.43
32:1a:112:G:H21	32:1a:354:G:C4'	2.31	0.43
32:1a:899:C:H2'	32:1a:900:A:C8	2.53	0.43
32:1a:1034:G:C2	32:1a:1035:A:C4	3.05	0.43
33:1b:114:ARG:NH1	33:1b:117:GLU:OE1	2.51	0.43
35:1d:11:LEU:HG	35:1d:66:ARG:HD3	2.00	0.43
37:1f:3:ARG:HA	37:1f:65:VAL:O	2.17	0.43
1:2A:312:G:H4'	1:2A:331:A:N3	2.33	0.43
1:2A:493:G:H2'	1:2A:494:G:O4'	2.18	0.43
1:2A:1022:G:H22	1:2A:1142(A):A:H2	1.63	0.43
1:2A:1710:C:H5'	1:2A:2859:G:H1'	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1902:C:OP1	3:2D:242:ARG:HD2	2.18	0.43
1:2A:2019:A:N7	27:25:9:LYS:HE2	2.33	0.43
1:2A:2131:G:H1	1:2A:2158:A:H62	1.66	0.43
1:2A:2187:G:H2'	1:2A:2188:C:O4'	2.18	0.43
1:2A:2410:G:C2	1:2A:2411:A:H1'	2.53	0.43
2:2B:11:C:H3'	2:2B:12:C:H6	1.83	0.43
4:2E:11:MET:HE2	4:2E:11:MET:HB3	1.78	0.43
9:2N:13:TRP:CE2	9:2N:133:GLN:HG2	2.53	0.43
10:2O:71:ARG:NH2	10:2O:122:LEU:O	2.40	0.43
32:2a:265:G:H5'	48:2q:64:PRO:O	2.17	0.43
32:2a:1051:C:H2'	32:2a:1052:U:H6	1.82	0.43
57:2a:3210:V7A:OAZ	57:2a:3210:V7A:OAY	2.31	0.43
34:2c:50:ALA:HB1	34:2c:70:VAL:HG11	1.99	0.43
36:2e:67:VAL:HG22	36:2e:69:VAL:H	1.83	0.43
41:2j:48:THR:HG23	41:2j:62:HIS:CE1	2.53	0.43
1:1A:709:U:H2'	1:1A:710:G:C8	2.53	0.43
1:1A:1386:C:H2'	1:1A:1387:C:C6	2.53	0.43
7:1H:127:GLU:OE2	7:1H:130:ARG:NE	2.50	0.43
18:1W:62:HIS:O	18:1W:64:MET:HG3	2.18	0.43
21:1Z:7:ALA:HB3	21:1Z:61:LEU:HD12	2.00	0.43
32:1a:193:C:H2'	32:1a:194:C:C6	2.51	0.43
32:1a:841:U:O2	32:1a:841:U:H2'	2.17	0.43
32:1a:1314:C:H2'	32:1a:1315:U:C6	2.53	0.43
33:1b:15:VAL:HG13	33:1b:209:ARG:HG3	2.00	0.43
1:2A:68:G:H2'	1:2A:69:C:O4'	2.19	0.43
1:2A:357:A:H2'	1:2A:358:U:C6	2.53	0.43
1:2A:740:U:H2'	1:2A:741:G:H8	1.83	0.43
1:2A:2096:U:H2'	1:2A:2097:C:C6	2.53	0.43
3:2D:71:ASP:CB	3:2D:103:ARG:HH12	2.28	0.43
15:2T:106:SER:N	15:2T:109:GLU:OE1	2.45	0.43
25:23:18:ASP:OD1	25:23:18:ASP:N	2.51	0.43
32:2a:136:C:O2'	47:2p:63:GLY:O	2.31	0.43
32:2a:772:U:H2'	32:2a:773:G:O4'	2.18	0.43
32:2a:1225:A:OP1	44:2m:103:THR:OG1	2.31	0.43
33:2b:103:THR:HG23	33:2b:180:LEU:HD21	1.98	0.43
35:2d:150:GLU:H	35:2d:150:GLU:HG3	1.59	0.43
39:2h:4:ASP:HB3	39:2h:7:ALA:HB3	2.00	0.43
43:2l:110:VAL:HG23	43:2l:120:TYR:HB3	2.00	0.43
1:1A:182:A:H8	1:1A:182:A:OP2	2.00	0.43
1:1A:572:A:H2'	1:1A:573:G:O4'	2.18	0.43
1:1A:893:C:H2'	1:1A:894:C:C6	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1693:U:OP1	59:1A:4295:HOH:O	2.21	0.43
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.53	0.43
1:1A:2407:G:OP1	59:1A:4294:HOH:O	2.21	0.43
1:1A:2556:C:H2'	1:1A:2557:G:O4'	2.18	0.43
2:1B:57:A:H1'	6:1G:29:TRP:HB2	2.01	0.43
4:1E:37:ARG:O	4:1E:45:THR:HA	2.18	0.43
5:1F:116:ASP:OD1	5:1F:119:ARG:NH2	2.51	0.43
6:1G:131:TYR:CE2	6:1G:133:LEU:HD23	2.54	0.43
7:1H:137:ASP:HB3	7:1H:140:LYS:HB3	2.00	0.43
12:1Q:10:ARG:HH21	12:1Q:90:VAL:H	1.64	0.43
13:1R:79:LEU:HA	13:1R:83:ILE:HB	1.99	0.43
13:1R:118:GLU:H	13:1R:118:GLU:CD	2.26	0.43
15:1T:106:SER:O	15:1T:110:ILE:HG13	2.18	0.43
25:13:7:LYS:HA	25:13:33:GLN:O	2.18	0.43
29:17:12:ARG:NH2	29:17:44:PRO:HB3	2.33	0.43
32:1a:411:A:OP1	35:1d:30:LYS:HE3	2.17	0.43
32:1a:729:A:H2'	32:1a:730:G:H8	1.83	0.43
32:1a:782:A:O3'	32:1a:1515:C:H4'	2.18	0.43
32:1a:831:U:H2'	32:1a:832:C:H6	1.82	0.43
32:1a:1220:G:H2'	32:1a:1221:G:H8	1.83	0.43
32:1a:1417:G:C6	32:1a:1482:G:C6	3.06	0.43
32:1a:1524:C:OP1	42:1k:120:ARG:NH1	2.52	0.43
44:1m:106:ASN:HB2	44:1m:107:ALA:H	1.49	0.43
44:1m:121:LYS:HE3	44:1m:121:LYS:HB2	1.87	0.43
50:1s:11:VAL:C	50:1s:13:ASP:H	2.26	0.43
1:2A:17:G:H2'	1:2A:18:C:C6	2.52	0.43
1:2A:71:A:H5''	1:2A:73:A:C8	2.53	0.43
1:2A:873:G:N2	1:2A:905:U:O2	2.52	0.43
1:2A:1162:G:H2'	1:2A:1163:G:H8	1.82	0.43
1:2A:1491:G:H2'	1:2A:1492:G:H8	1.83	0.43
1:2A:1695:G:H8	3:2D:8:PRO:O	2.00	0.43
1:2A:2397:G:N2	1:2A:2420:C:H1'	2.33	0.43
2:2B:24:G:H4'	2:2B:25:A:N7	2.33	0.43
3:2D:68:LYS:HE3	3:2D:70:TRP:CZ2	2.53	0.43
4:2E:37:ARG:HB2	4:2E:46:ALA:HB3	2.00	0.43
6:2G:96:ARG:O	6:2G:99:MET:HB3	2.19	0.43
8:2I:84:GLY:CA	8:2I:87:LYS:HE2	2.48	0.43
10:2O:64:ARG:HB2	10:2O:79:PHE:CG	2.53	0.43
10:2O:68:GLU:HB3	10:2O:78:ARG:HB3	1.98	0.43
18:2W:70:TYR:OH	18:2W:72:LYS:HG3	2.18	0.43
32:2a:302:G:N3	32:2a:556:C:H4'	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:309:G:O2'	32:2a:607:A:N1	2.47	0.43
32:2a:596:C:N3	32:2a:644:G:N1	2.42	0.43
32:2a:1304:G:O2'	32:2a:1333:A:N6	2.47	0.43
33:2b:120:ALA:O	33:2b:125:PRO:HD2	2.18	0.43
51:2t:30:LYS:HE3	51:2t:30:LYS:HB2	1.73	0.43
1:1A:450:G:OP2	59:1A:4296:HOH:O	2.21	0.43
1:1A:557:U:H2'	1:1A:558:G:C8	2.53	0.43
1:1A:897:C:H2'	1:1A:898:C:C6	2.54	0.43
1:1A:1107:G:O2'	1:1A:1108:U:OP1	2.27	0.43
1:1A:2335:A:C8	1:1A:2337:G:C5	3.06	0.43
7:1H:109:PHE:HB3	7:1H:111:HIS:CD2	2.52	0.43
32:1a:107:G:H2'	32:1a:108:G:O4'	2.19	0.43
32:1a:872:A:H4'	32:1a:873:A:OP1	2.18	0.43
32:1a:957:U:O2'	32:1a:959:A:N7	2.34	0.43
32:1a:1508:G:H2'	32:1a:1509:C:O4'	2.18	0.43
33:1b:55:PHE:CE1	33:1b:218:ALA:HA	2.53	0.43
34:1c:52:LEU:HD13	34:1c:70:VAL:HG12	2.00	0.43
36:1e:11:ILE:HB	36:1e:31:LEU:HB3	2.01	0.43
39:1h:11:THR:HG22	39:1h:14:ARG:NH1	2.31	0.43
46:1o:74:ASP:OD2	46:1o:77:ARG:HD3	2.19	0.43
1:2A:464:U:H4'	29:27:5:TRP:CZ3	2.53	0.43
1:2A:576:U:H2'	1:2A:577:G:C8	2.52	0.43
1:2A:854:G:H2'	1:2A:855:G:C8	2.48	0.43
1:2A:900:A:O2'	1:2A:901:A:H5'	2.18	0.43
1:2A:998:C:H2'	1:2A:999:U:O4'	2.18	0.43
1:2A:1479:G:H1'	1:2A:1558:A:OP1	2.18	0.43
1:2A:2477:C:H2'	31:29:2:LYS:HE2	2.00	0.43
5:2F:40:GLN:NE2	5:2F:182:ASN:HB2	2.33	0.43
34:2c:79:ARG:N	34:2c:82:GLU:HB3	2.25	0.43
42:2k:20:TYR:CZ	42:2k:83:ILE:HD13	2.53	0.43
1:1A:184:C:H2'	1:1A:185:U:C6	2.54	0.43
1:1A:376:C:H2'	1:1A:377:C:C6	2.53	0.43
1:1A:1114:G:H2'	1:1A:1115:G:O4'	2.19	0.43
1:1A:1827:C:OP2	3:1D:222:ARG:HD2	2.19	0.43
1:1A:2334:G:H4'	1:1A:2335:A:OP2	2.19	0.43
8:1I:114:LEU:HD13	8:1I:130:TYR:HD1	1.84	0.43
10:1O:20:MET:HE2	10:1O:44:LYS:HE2	2.00	0.43
25:13:15:TYR:CE2	25:13:53:LEU:HD21	2.53	0.43
32:1a:1121:U:H2'	32:1a:1122:U:C6	2.54	0.43
33:1b:70:PHE:O	33:1b:92:TYR:HA	2.18	0.43
35:1d:200:GLU:HG2	35:1d:201:GLN:N	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:41:VAL:O	36:1e:66:MET:HA	2.17	0.43
39:1h:28:ALA:HA	39:1h:59:LEU:HG	2.01	0.43
43:1l:28:LYS:HE3	43:1l:64:TYR:CE2	2.54	0.43
1:2A:250:G:C6	1:2A:251:A:C6	3.06	0.43
1:2A:764:A:O4'	3:2D:213:ARG:HG3	2.19	0.43
1:2A:839:U:H2'	1:2A:840:C:C6	2.53	0.43
1:2A:1814:G:O3'	3:2D:54:ARG:NH2	2.52	0.43
1:2A:1815:A:OP2	3:2D:54:ARG:NH2	2.45	0.43
1:2A:1927:A:C6	1:2A:1928:A:C6	3.06	0.43
1:2A:2295:C:H1'	1:2A:2338:G:N2	2.32	0.43
2:2B:3:C:H2'	2:2B:4:C:C6	2.53	0.43
2:2B:54:G:H21	6:2G:29:TRP:HE1	1.66	0.43
3:2D:206:LEU:HD22	3:2D:211:ARG:HG2	1.99	0.43
7:2H:109:PHE:C	7:2H:111:HIS:H	2.27	0.43
8:2I:97:ILE:O	8:2I:101:LEU:HB2	2.19	0.43
9:2N:1:MET:HE1	16:2U:94:ASN:ND2	2.33	0.43
10:2O:64:ARG:HB2	10:2O:79:PHE:CD2	2.54	0.43
13:2R:87:TYR:OH	13:2R:117:VAL:O	2.35	0.43
32:2a:187:C:O2	51:2t:103:GLY:HA2	2.19	0.43
32:2a:189(L):G:H2'	32:2a:190:U:C6	2.53	0.43
32:2a:404:U:H2'	32:2a:405:U:C6	2.52	0.43
32:2a:600:C:H5'	39:2h:129:VAL:HA	2.00	0.43
34:2c:104:GLN:HG3	34:2c:105:GLU:N	2.33	0.43
1:1A:414:C:H2'	1:1A:415:A:C8	2.54	0.43
1:1A:1916:A:H2'	1:1A:1917:PSU:O4'	2.19	0.43
1:1A:2319:G:C2	14:1S:3:ARG:HA	2.53	0.43
1:1A:2375:G:O2'	1:1A:2377:A:N7	2.46	0.43
1:1A:2393:A:H2'	1:1A:2394:C:C6	2.50	0.43
1:1A:2729:G:H2'	1:1A:2730:C:O4'	2.19	0.43
5:1F:176:LEU:HA	5:1F:176:LEU:HD23	1.81	0.43
7:1H:105:LEU:HB2	7:1H:113:VAL:HB	2.01	0.43
9:1N:20:GLY:HA2	9:1N:61:ARG:HD2	2.01	0.43
21:1Z:24:LEU:HD21	21:1Z:86:VAL:HG13	2.00	0.43
32:1a:44:G:H2'	32:1a:45:U:O4'	2.19	0.43
32:1a:66:G:O4'	32:1a:173:U:C4	2.72	0.43
32:1a:198:G:C5	32:1a:220:G:C2	3.07	0.43
32:1a:270:A:H2'	32:1a:271:C:O4'	2.18	0.43
32:1a:781:A:O2'	32:1a:1522:U:O2	2.33	0.43
32:1a:866:C:C4	32:1a:867:G:H1'	2.54	0.43
32:1a:1284:C:H3'	32:1a:1285:A:H8	1.84	0.43
32:1a:1516:G:H2'	32:1a:1518:MA6:OP2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:15:MET:HE1	48:1q:43:LEU:HD22	2.00	0.43
50:1s:40:ILE:HA	50:1s:44:MET:SD	2.59	0.43
1:2A:359:A:H2'	1:2A:360:G:O4'	2.17	0.43
1:2A:610:G:H2'	1:2A:611:C:C6	2.53	0.43
1:2A:787:U:OP1	59:2A:3962:HOH:O	2.20	0.43
1:2A:1121:C:H2'	1:2A:1122:G:O4'	2.18	0.43
1:2A:2540:C:O2'	1:2A:2740:A:N3	2.48	0.43
1:2A:2654:A:N1	1:2A:2665:A:H5''	2.34	0.43
2:2B:57:A:N3	6:2G:29:TRP:HB3	2.34	0.43
4:2E:12:THR:HG21	15:2T:11:GLU:HG2	2.00	0.43
9:2N:54:VAL:HB	9:2N:122:VAL:HG22	2.00	0.43
32:2a:472:A:H5''	47:2p:80:PHE:HB3	2.01	0.43
32:2a:515:G:H2'	32:2a:516:PSU:H6	1.84	0.43
32:2a:1012:U:H2'	32:2a:1013:G:C8	2.53	0.43
32:2a:1232:U:H5''	40:2i:124:GLN:O	2.18	0.43
33:2b:74:LYS:HD2	33:2b:166:ASP:HB2	1.99	0.43
34:2c:83:ARG:O	34:2c:87:LEU:HB2	2.19	0.43
49:2r:58:LEU:HD23	49:2r:58:LEU:HA	1.74	0.43
51:2t:36:LEU:CD2	51:2t:58:LYS:HG3	2.49	0.43
1:1A:250:G:P	30:18:13:ARG:HH22	2.42	0.43
1:1A:253:C:H2'	1:1A:254:G:O4'	2.19	0.43
1:1A:459:U:H2'	1:1A:460:A:H8	1.83	0.43
1:1A:725:G:C6	1:1A:726:G:N1	2.86	0.43
1:1A:858:U:O2	1:1A:2268:A:H2'	2.19	0.43
1:1A:881:G:H3'	1:1A:882:G:H8	1.83	0.43
1:1A:1142(A):A:C4	1:1A:1144:G:N7	2.87	0.43
1:1A:2259:G:H1'	1:1A:2427:C:H2'	2.01	0.43
1:1A:2292:C:H4'	1:1A:2375:G:H4'	2.01	0.43
5:1F:9:ILE:HG21	5:1F:125:LEU:HD13	1.99	0.43
10:1O:24:VAL:HG13	10:1O:33:ALA:HB2	2.01	0.43
12:1Q:130:LYS:HE2	12:1Q:130:LYS:HB3	1.71	0.43
15:1T:15:VAL:HG13	15:1T:79:HIS:CE1	2.54	0.43
15:1T:65:LYS:HG2	15:1T:66:VAL:N	2.33	0.43
20:1Y:13:VAL:HG12	20:1Y:74:PRO:HA	2.01	0.43
26:14:53:GLU:HG3	26:14:54:GLY:H	1.84	0.43
28:16:9:LEU:HD13	28:16:51:GLU:HB2	2.01	0.43
32:1a:90:U:H4'	32:1a:91:C:OP1	2.18	0.43
32:1a:567:G:O6	43:1l:5:PRO:HD3	2.18	0.43
34:1c:19:GLU:HB3	34:1c:40:ARG:HH21	1.83	0.43
36:1e:92:LYS:HB3	36:1e:119:LEU:HB2	1.99	0.43
44:1m:17:VAL:O	44:1m:20:THR:OG1	2.27	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:30:ALA:O	44:1m:34:LEU:HG	2.19	0.43
50:1s:12:ASP:C	50:1s:14:HIS:H	2.26	0.43
1:2A:652(B):A:N6	1:2A:655:A:H1'	2.34	0.43
1:2A:679:C:H2'	1:2A:680:G:C8	2.53	0.43
1:2A:1400:G:H2'	1:2A:1401:G:C8	2.54	0.43
1:2A:1907:G:C6	1:2A:1908:C:C4	3.05	0.43
3:2D:184:LYS:CE	3:2D:271:ILE:HD11	2.48	0.43
6:2G:173:LEU:HB3	6:2G:178:PHE:CG	2.54	0.43
15:2T:6:LEU:O	15:2T:10:VAL:HG23	2.19	0.43
15:2T:64:ARG:NH1	15:2T:103:ARG:HA	2.34	0.43
32:2a:106:C:O2'	32:2a:379:C:OP1	2.33	0.43
32:2a:232:G:O2'	32:2a:263:A:N1	2.49	0.43
32:2a:247:G:O2'	32:2a:282:A:N1	2.47	0.43
32:2a:353:A:OP1	59:2a:3311:HOH:O	2.21	0.43
32:2a:781:A:OP1	32:2a:1523:G:H5'	2.18	0.43
32:2a:1122:U:H2'	32:2a:1123:A:O4'	2.18	0.43
35:2d:12:CYS:O	35:2d:16:GLY:N	2.52	0.43
40:2i:3:GLN:NE2	40:2i:20:ARG:HH21	2.17	0.43
50:2s:16:LEU:HD23	50:2s:16:LEU:H	1.83	0.43
54:2x:10:G:N2	54:2x:26:G:H1'	2.34	0.43
1:1A:607:U:C5	1:1A:620:G:C5	3.07	0.43
1:1A:646:A:H2'	1:1A:647:G:O4'	2.19	0.43
1:1A:724:U:H2'	1:1A:725:G:O4'	2.19	0.43
1:1A:1794:U:H2'	1:1A:1795:C:C6	2.54	0.43
1:1A:2469:A:C2	1:1A:2470:G:H1'	2.54	0.43
2:1B:1:U:HO2'	2:1B:2:C:P	2.40	0.43
6:1G:131:TYR:HE2	6:1G:133:LEU:HD23	1.84	0.43
6:1G:179:PRO:HG3	26:14:43:TYR:CZ	2.54	0.43
15:1T:26:ASP:OD1	15:1T:120:ARG:NH2	2.39	0.43
21:1Z:69:THR:HG22	21:1Z:90:VAL:HG22	2.01	0.43
28:16:40:CYS:SG	28:16:42:TRP:HB2	2.59	0.43
32:1a:92:C:H2'	32:1a:93:G:C8	2.53	0.43
32:1a:435:C:H2'	32:1a:436:C:C6	2.53	0.43
32:1a:560:U:H6	32:1a:560:U:H2'	1.61	0.43
32:1a:792:A:H4'	32:1a:793:U:H5''	2.00	0.43
32:1a:1223:C:OP2	50:1s:78:ARG:NH2	2.49	0.43
34:1c:53:ALA:HB3	34:1c:69:HIS:O	2.19	0.43
38:1g:95:ARG:HE	38:1g:99:LEU:HD11	1.83	0.43
44:1m:15:VAL:O	44:1m:19:LEU:HD22	2.19	0.43
49:1r:22:VAL:HG12	49:1r:56:THR:HA	2.01	0.43
1:2A:127:A:H5''	1:2A:128:C:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:244:A:C2	1:2A:255:A:C4	3.07	0.43
1:2A:744:G:H2'	1:2A:745:G:O4'	2.18	0.43
1:2A:1043:C:P	1:2A:1043:C:H3'	2.59	0.43
1:2A:1910:G:H2'	1:2A:1911:PSU:H6	1.82	0.43
1:2A:2057:A:H2'	1:2A:2058:A:O4'	2.19	0.43
1:2A:2364:C:H2'	1:2A:2365:G:O4'	2.19	0.43
1:2A:2750:A:H8	1:2A:2750:A:OP1	2.01	0.43
6:2G:114:ILE:HB	6:2G:117:PHE:HB2	2.01	0.43
17:2V:40:LEU:HD23	17:2V:40:LEU:HA	1.88	0.43
32:2a:270:A:H2'	32:2a:271:C:C6	2.53	0.43
32:2a:745:C:OP1	32:2a:851:G:O2'	2.27	0.43
32:2a:1124:G:H1	32:2a:1149:C:H42	1.66	0.43
32:2a:1126:U:N3	41:2j:40:LEU:HD11	2.34	0.43
32:2a:1225:A:H2'	32:2a:1226:C:C5	2.54	0.43
32:2a:1436:U:H2'	32:2a:1437:C:O4'	2.19	0.43
35:2d:179:GLU:O	35:2d:181:MET:HE2	2.19	0.43
39:2h:81:HIS:ND1	39:2h:138:TRP:OXT	2.43	0.43
54:2x:8:4SU:H5''	54:2x:49:G:H5'	2.01	0.43
1:1A:690:G:O2'	3:1D:43:ARG:NH2	2.50	0.43
1:1A:1059:G:O6	1:1A:1088:A:H1'	2.18	0.43
1:1A:1152:C:H1'	16:1U:77:SER:HB3	2.01	0.43
1:1A:1263:U:OP1	27:15:16:ARG:NH1	2.46	0.43
1:1A:1453:U:OP1	13:1R:77:ARG:NH1	2.41	0.43
1:1A:2330:G:H2'	1:1A:2331:G:O4'	2.18	0.43
1:1A:2636:U:H2'	1:1A:2637:U:C6	2.54	0.43
1:1A:2801(A):A:H5''	1:1A:2802:G:C8	2.53	0.43
8:1I:5:LEU:HD23	8:1I:9:LEU:HD12	2.00	0.43
9:1N:108:PRO:O	9:1N:113:GLY:HA3	2.19	0.43
30:18:61:LEU:O	30:18:63:PRO:HD3	2.18	0.43
32:1a:1304:G:C6	32:1a:1305:G:N1	2.87	0.43
44:1m:20:THR:C	44:1m:22:ILE:H	2.27	0.43
45:1n:13:THR:HA	45:1n:14:PRO:HD3	1.87	0.43
46:1o:35:ARG:NH2	46:1o:59:MET:HE2	2.34	0.43
50:1s:19:VAL:HA	50:1s:22:LEU:HD12	2.01	0.43
1:2A:237:C:O2	1:2A:609:A:O2'	2.33	0.43
1:2A:271:A:N6	1:2A:271(X):G:H1'	2.34	0.43
1:2A:484:C:H2'	1:2A:485:C:H6	1.83	0.43
1:2A:846:C:H4'	1:2A:847:U:O4'	2.19	0.43
1:2A:1263:U:C4	1:2A:1264:G:C6	3.07	0.43
1:2A:1347:G:H2'	1:2A:1348:G:H8	1.84	0.43
1:2A:1394:U:H2'	1:2A:1395:A:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1528(A):A:H2'	1:2A:1529:G:O4'	2.19	0.43
1:2A:2318:G:H21	14:2S:3:ARG:CD	2.32	0.43
1:2A:2483:C:H2'	1:2A:2484:G:O4'	2.19	0.43
1:2A:2838:G:C6	1:2A:2839:G:C5	3.07	0.43
2:2B:55:U:H1'	6:2G:29:TRP:CD1	2.53	0.43
4:2E:143:ASN:HD22	4:2E:147:PRO:CD	2.28	0.43
10:2O:108:GLU:H	10:2O:108:GLU:HG2	1.68	0.43
15:2T:19:LEU:HD13	15:2T:86:ILE:HD12	2.01	0.43
20:2Y:44:ILE:HA	20:2Y:63:LYS:O	2.19	0.43
26:24:48:ARG:HG3	26:24:52:THR:HA	2.01	0.43
32:2a:163:C:H2'	32:2a:164:U:O4'	2.19	0.43
32:2a:354:G:N2	32:2a:388:G:O2'	2.22	0.43
32:2a:1029:C:N4	32:2a:1032:G:N1	2.67	0.43
32:2a:1037:C:H2'	32:2a:1038:C:C6	2.53	0.43
32:2a:1145:C:H4'	32:2a:1146:A:H8	1.84	0.43
32:2a:1262:C:H2'	32:2a:1263:C:H5'	1.99	0.43
32:2a:1263:C:N3	32:2a:1272:G:O6	2.51	0.43
32:2a:1286:A:C8	32:2a:1286:A:H3'	2.53	0.43
32:2a:1502:A:C8	32:2a:1505:G:N2	2.87	0.43
35:2d:119:GLN:HG3	35:2d:123:HIS:CD2	2.52	0.43
35:2d:199:ASN:HB3	35:2d:202:LEU:HD12	2.01	0.43
1:1A:191:A:H2'	1:1A:192:C:C6	2.54	0.43
1:1A:444:C:H4'	5:1F:49:ALA:HB2	2.00	0.43
1:1A:571:A:H5'	1:1A:2030:A:N7	2.34	0.43
1:1A:671:C:H2'	1:1A:672:C:C6	2.54	0.43
1:1A:848:G:O6	1:1A:928:G:H2'	2.19	0.43
1:1A:849:A:H2	25:13:24:LYS:HB3	1.84	0.43
1:1A:864:G:O2'	1:1A:865:C:H5'	2.19	0.43
1:1A:1379:A:H4'	1:1A:1380:G:OP2	2.18	0.43
1:1A:1400:G:H2'	1:1A:1401:G:C8	2.53	0.43
1:1A:1580:A:OP2	1:1A:1580:A:H8	2.02	0.43
3:1D:89:SER:HB2	3:1D:201:HIS:CD2	2.53	0.43
5:1F:51:THR:HG23	5:1F:92:PRO:HD2	2.00	0.43
7:1H:3:ARG:CZ	7:1H:5:GLY:H	2.32	0.43
8:1I:92:VAL:HG11	8:1I:144:VAL:HG11	2.01	0.43
21:1Z:98:MET:O	21:1Z:125:LEU:HA	2.19	0.43
28:16:33:LYS:HA	28:16:33:LYS:HD3	1.88	0.43
30:18:29:LYS:HD3	30:18:44:LYS:C	2.43	0.43
32:1a:474:G:H5'	32:1a:475:G:OP2	2.18	0.43
32:1a:724:G:C2	32:1a:725:G:C8	3.07	0.43
32:1a:731:G:H5'	32:1a:766:A:H4'	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:103:GLY:O	36:1e:106:PRO:HD2	2.19	0.43
37:1f:86:ARG:O	37:1f:87:ARG:HG2	2.18	0.43
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	2.01	0.43
47:1p:26:ARG:HG3	47:1p:27:LYS:O	2.19	0.43
1:2A:118:A:H1'	1:2A:178:G:O4'	2.18	0.43
1:2A:1024:G:C6	1:2A:1025:G:C6	3.07	0.43
1:2A:1651:G:H4'	13:2R:39:PRO:HG2	2.00	0.43
1:2A:2028:U:H2'	1:2A:2029:G:O4'	2.18	0.43
1:2A:2199:A:H3'	1:2A:2200:C:H6	1.83	0.43
3:2D:112:GLN:O	3:2D:115:GLN:HG2	2.18	0.43
4:2E:48:GLN:HA	4:2E:80:GLU:HA	2.01	0.43
8:2I:54:GLN:HA	8:2I:57:ARG:HB2	2.00	0.43
13:2R:67:LEU:HD23	13:2R:67:LEU:HA	1.88	0.43
16:2U:52:ARG:O	16:2U:56:ASP:N	2.47	0.43
30:28:17:THR:HG1	30:28:21:LYS:H	1.67	0.43
33:2b:174:VAL:O	33:2b:178:ARG:HG2	2.18	0.43
36:2e:74:GLY:O	36:2e:115:VAL:HA	2.18	0.43
43:2I:53:ARG:HB2	43:2I:93:LEU:HD11	2.01	0.43
1:1A:880:G:H8	1:1A:880:G:OP2	2.01	0.42
1:1A:996:A:OP2	16:1U:93:LYS:NZ	2.46	0.42
1:1A:1141:U:H4'	1:1A:1142(A):A:O4'	2.19	0.42
3:1D:30:GLU:HB3	3:1D:33:LEU:HD12	2.01	0.42
4:1E:31:CYS:HB3	4:1E:49:LEU:HG	2.01	0.42
5:1F:8:GLN:HE22	5:1F:21:ALA:HB2	1.84	0.42
5:1F:64:ILE:HG21	5:1F:78:ILE:HG23	2.01	0.42
7:1H:40:GLU:OE2	7:1H:60:ARG:NH2	2.49	0.42
7:1H:159:GLU:HG3	7:1H:169:VAL:HG11	2.01	0.42
10:1O:25:LEU:HD23	10:1O:25:LEU:HA	1.78	0.42
16:1U:85:LYS:HE3	16:1U:116:ALA:O	2.18	0.42
17:1V:14:VAL:HB	17:1V:96:ILE:HG13	2.00	0.42
21:1Z:125:LEU:HG	21:1Z:164:ALA:HB3	2.01	0.42
32:1a:567:G:H2'	32:1a:568:G:O4'	2.19	0.42
32:1a:766:A:C8	32:1a:814:A:N6	2.87	0.42
32:1a:779:C:H5''	42:1k:122:LYS:HG3	2.01	0.42
32:1a:864:A:N1	32:1a:917:G:O2'	2.47	0.42
32:1a:1025:U:C2	32:1a:1036:G:O6	2.72	0.42
32:1a:1239:A:H62	32:1a:1299:A:H62	1.66	0.42
33:1b:16:HIS:HB3	33:1b:210:SER:HB2	2.00	0.42
36:1e:41:VAL:HG22	36:1e:113:ALA:HA	2.00	0.42
40:1i:81:ILE:O	40:1i:85:LEU:HG	2.19	0.42
43:1I:36:VAL:HG12	43:1I:82:VAL:HG22	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:58:GLU:O	48:1q:74:LEU:N	2.51	0.42
1:2A:228:A:C4	1:2A:230:U:H1'	2.53	0.42
1:2A:414:C:H2'	1:2A:415:A:H8	1.84	0.42
1:2A:601:C:O2'	1:2A:605:C:H5''	2.19	0.42
1:2A:945:A:C4	1:2A:2448:A:C2	3.07	0.42
1:2A:1674:G:H1'	1:2A:1676:A:N6	2.34	0.42
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.54	0.42
1:2A:2125:G:H1'	1:2A:2173:A:N6	2.34	0.42
1:2A:2351:G:H8	1:2A:2351:G:O5'	2.02	0.42
1:2A:2801(A):A:H1'	1:2A:2895:U:O2'	2.19	0.42
1:2A:2820:A:HO2'	1:2A:2821:A:P	2.40	0.42
5:2F:29:ASN:HB3	5:2F:112:MET:HE1	1.99	0.42
6:2G:142:PRO:HB2	26:24:31:ILE:HG21	2.00	0.42
22:20:70:GLN:HG2	22:20:72:ARG:HG3	2.00	0.42
32:2a:45:U:H2'	32:2a:46:G:H8	1.82	0.42
32:2a:657:G:N2	46:2o:22:THR:OG1	2.47	0.42
32:2a:685:G:N2	32:2a:686:U:O4	2.52	0.42
32:2a:922:G:O2'	32:2a:1398:A:N1	2.49	0.42
32:2a:1247:U:H1'	32:2a:1291:G:N2	2.33	0.42
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.33	0.42
35:2d:159:ARG:O	35:2d:163:GLU:N	2.51	0.42
40:2i:128:ARG:NE	54:2x:32:5MC:OP2	2.52	0.42
1:1A:11:G:H2'	1:1A:12:U:H5''	2.00	0.42
1:1A:121:G:H4'	1:1A:149:A:H5'	2.01	0.42
1:1A:1074:G:C6	1:1A:1075:C:H1'	2.54	0.42
1:1A:1213:A:H1'	1:1A:1238:G:N3	2.35	0.42
1:1A:1816:G:H8	3:1D:62:TYR:CZ	2.36	0.42
1:1A:1996:C:H5	10:1O:32:TYR:OH	2.01	0.42
1:1A:2128:C:N3	1:1A:2160:G:N2	2.51	0.42
1:1A:2881:C:O2'	13:1R:96:ARG:HA	2.19	0.42
2:1B:75:G:H22	21:1Z:73:GLN:NE2	2.17	0.42
6:1G:56:ALA:HB2	6:1G:153:ARG:NE	2.34	0.42
18:1W:11:ARG:NH1	18:1W:99:ARG:O	2.52	0.42
32:1a:116:A:H61	32:1a:313:A:H1'	1.84	0.42
32:1a:129:U:H5'	48:1q:3:LYS:NZ	2.32	0.42
32:1a:245:C:C2	32:1a:284:G:C2	3.07	0.42
32:1a:508:C:OP1	35:1d:209:ARG:NH2	2.45	0.42
32:1a:721:G:H4'	32:1a:722:A:O4'	2.19	0.42
32:1a:1146:A:H2'	32:1a:1147:C:O4'	2.19	0.42
33:1b:185:ILE:HG22	33:1b:199:TYR:HD2	1.83	0.42
36:1e:53:LEU:H	36:1e:53:LEU:HD12	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:150:ALA:HA	42:1k:59:TYR:HB3	2.01	0.42
1:2A:31:C:H5''	1:2A:1239:G:OP1	2.20	0.42
1:2A:681:G:H2'	1:2A:682:G:O4'	2.19	0.42
1:2A:863:A:H2'	1:2A:864:G:H8	1.83	0.42
1:2A:1766:U:H2'	1:2A:1767:C:H6	1.83	0.42
1:2A:2144:U:H1'	1:2A:2148:G:H22	1.84	0.42
1:2A:2840:C:H2'	1:2A:2841:C:C6	2.54	0.42
10:2O:106:LEU:HD23	10:2O:106:LEU:HA	1.89	0.42
12:2Q:54:MET:H	12:2Q:54:MET:HG2	1.58	0.42
12:2Q:132:VAL:HB	21:2Z:81:ARG:HH21	1.83	0.42
16:2U:44:ASN:HD21	17:2V:75:PHE:HB3	1.85	0.42
25:23:7:LYS:HE3	25:23:32:GLN:HA	2.01	0.42
32:2a:59:A:H1'	32:2a:354:G:N2	2.34	0.42
32:2a:559:A:H4'	32:2a:560:U:H5''	2.01	0.42
32:2a:741:G:H2'	32:2a:742:G:O4'	2.19	0.42
32:2a:976:G:N2	32:2a:1363:C:OP2	2.52	0.42
33:2b:210:SER:O	33:2b:214:ILE:HD12	2.18	0.42
34:2c:180:ALA:HB1	34:2c:203:PHE:CE1	2.53	0.42
35:2d:107:ARG:C	35:2d:109:GLY:H	2.28	0.42
36:2e:33:VAL:HG13	36:2e:112:LEU:HD12	1.99	0.42
39:2h:7:ALA:HB2	39:2h:85:ARG:HG3	1.99	0.42
39:2h:28:ALA:HB3	39:2h:57:PRO:HB2	2.00	0.42
44:2m:14:ARG:HA	44:2m:43:THR:O	2.19	0.42
51:2t:39:LYS:HE2	51:2t:39:LYS:HB2	1.89	0.42
1:1A:82:G:N1	1:1A:103:A:OP2	2.47	0.42
1:1A:263:C:H2'	1:1A:264:C:O4'	2.19	0.42
1:1A:554:U:O2'	1:1A:555:U:H5'	2.20	0.42
1:1A:904:C:H2'	1:1A:905:U:C6	2.53	0.42
1:1A:1353:A:O4'	1:1A:1569:A:H2	2.03	0.42
1:1A:1364:G:N2	1:1A:1367:A:OP2	2.36	0.42
1:1A:1372:U:H2'	1:1A:1373:A:O4'	2.19	0.42
5:1F:117:ARG:HD3	5:1F:117:ARG:HA	1.77	0.42
12:1Q:29:PHE:HB2	12:1Q:105:GLU:OE1	2.18	0.42
12:1Q:85:LYS:HD3	22:10:7:LEU:HD22	2.01	0.42
19:1X:50:LYS:N	19:1X:87:GLN:OE1	2.46	0.42
21:1Z:1:MET:HA	21:1Z:2:GLU:HA	1.88	0.42
21:1Z:54:HIS:CG	21:1Z:101:PRO:HG3	2.54	0.42
32:1a:1136:U:H5''	32:1a:1137:C:C6	2.55	0.42
32:1a:1144:G:H21	32:1a:1146:A:H62	1.67	0.42
32:1a:1241:G:OP1	38:1g:35:LYS:NZ	2.52	0.42
32:1a:1316:G:N2	32:1a:1318:A:H3'	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:143:G:C2	1:2A:143(A):C:C2	3.07	0.42
1:2A:222:A:H3'	1:2A:421:U:H5'	2.01	0.42
1:2A:338:G:H2'	1:2A:339:U:H6	1.83	0.42
1:2A:686:G:H21	1:2A:788:A:H61	1.65	0.42
1:2A:900:A:C3'	1:2A:901:A:H8	2.32	0.42
1:2A:997:G:H5''	16:2U:92:ARG:HH12	1.83	0.42
1:2A:1012:U:O4	9:2N:28:THR:HG21	2.19	0.42
1:2A:1157:G:C6	1:2A:1158:C:C4	3.07	0.42
1:2A:2040:C:H2'	1:2A:2041:U:O4'	2.18	0.42
1:2A:2237:G:H5''	1:2A:2238:G:OP1	2.19	0.42
1:2A:2382:G:H21	30:28:42:ARG:NH2	2.16	0.42
2:2B:48:A:H4'	14:2S:95:HIS:CD2	2.43	0.42
5:2F:176:LEU:HD23	5:2F:176:LEU:HA	1.74	0.42
5:2F:178:PRO:HB2	5:2F:201:VAL:HG21	2.01	0.42
11:2P:88:LEU:HD11	11:2P:114:ILE:HD12	2.00	0.42
21:2Z:99:TYR:HA	21:2Z:124:ILE:O	2.19	0.42
32:2a:229:U:H2'	32:2a:230:G:O4'	2.19	0.42
32:2a:391:G:C6	32:2a:392:G:C5	3.07	0.42
36:2e:143:ARG:HE	39:2h:77:GLU:CD	2.26	0.42
42:2k:21:ILE:HG12	42:2k:30:VAL:HG12	2.01	0.42
42:2k:33:THR:HA	42:2k:39:PRO:HA	2.00	0.42
46:2o:87:ILE:HG22	46:2o:88:ARG:N	2.30	0.42
50:2s:36:ARG:O	50:2s:71:LEU:HB3	2.18	0.42
1:1A:27:G:C2	1:1A:512:G:N3	2.87	0.42
1:1A:266:G:N2	1:1A:427:U:H1'	2.34	0.42
1:1A:271(G):C:H2'	1:1A:271(H):G:H8	1.85	0.42
1:1A:464:U:H2'	1:1A:465:G:O4'	2.19	0.42
1:1A:589:C:H2'	1:1A:590:A:C8	2.54	0.42
1:1A:868:U:C4	1:1A:869:G:N7	2.87	0.42
1:1A:957:A:H4'	12:1Q:74:TYR:OH	2.18	0.42
1:1A:1424:G:H2'	1:1A:1425:G:O4'	2.19	0.42
1:1A:1509(B):A:H2'	1:1A:1510:G:O4'	2.20	0.42
1:1A:1593:G:H2'	1:1A:1594:G:C8	2.53	0.42
1:1A:2723:C:OP1	13:1R:3:HIS:ND1	2.48	0.42
3:1D:249:PRO:HD2	3:1D:250:TRP:CZ3	2.54	0.42
7:1H:11:VAL:HG13	7:1H:15:VAL:CG2	2.49	0.42
8:1I:123:LEU:HD12	8:1I:123:LEU:HA	1.95	0.42
11:1P:64:LYS:O	30:18:30:ARG:NH2	2.51	0.42
21:1Z:48:PHE:CE1	21:1Z:71:VAL:HG11	2.55	0.42
21:1Z:158:PRO:O	21:1Z:161:VAL:HG22	2.20	0.42
24:12:2:LYS:O	24:12:6:VAL:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:13:6:VAL:HG12	25:13:54:VAL:CG2	2.48	0.42
32:1a:9:G:OP2	36:1e:121:LYS:NZ	2.32	0.42
32:1a:502:G:C6	32:1a:503:C:C4	3.07	0.42
32:1a:688:G:H5'	42:1k:46:GLY:C	2.44	0.42
32:1a:1359:C:OP1	45:1n:22:THR:OG1	2.31	0.42
36:1e:74:GLY:HA3	36:1e:116:THR:HG22	2.01	0.42
44:1m:3:ARG:HG3	44:1m:4:ILE:N	2.34	0.42
54:1x:63:G:H2'	54:1x:64:G:H8	1.84	0.42
1:2A:272(E):G:C2	1:2A:364:C:C2	3.08	0.42
1:2A:578:A:OP2	59:2A:3967:HOH:O	2.21	0.42
1:2A:932:G:H4'	1:2A:933:A:O5'	2.19	0.42
1:2A:1403:C:O5'	1:2A:1471:A:H1'	2.18	0.42
1:2A:1464:C:H2'	1:2A:1465:G:C8	2.54	0.42
1:2A:2184:G:C2'	1:2A:2185:C:H5'	2.49	0.42
5:2F:57:VAL:HG13	5:2F:59:TYR:H	1.84	0.42
6:2G:36:LYS:HG3	6:2G:160:VAL:HB	2.02	0.42
9:2N:42:TRP:O	16:2U:64:ARG:NE	2.48	0.42
13:2R:94:TYR:C	13:2R:117:VAL:HG23	2.44	0.42
14:2S:66:ALA:O	14:2S:69:VAL:HG13	2.20	0.42
21:2Z:150:LEU:HD23	21:2Z:154:ASP:OD2	2.19	0.42
26:24:15:ILE:O	26:24:33:VAL:HG23	2.20	0.42
32:2a:130:A:H5'	48:2q:63:ARG:HE	1.85	0.42
32:2a:501:C:OP1	43:2l:124:LYS:HD2	2.19	0.42
32:2a:600:C:H2'	32:2a:601:C:H6	1.84	0.42
32:2a:724:G:H2'	32:2a:725:G:H8	1.85	0.42
32:2a:1095:U:OP1	32:2a:1108:G:N2	2.52	0.42
32:2a:1252:A:H2'	32:2a:1253:G:O4'	2.20	0.42
32:2a:1403:C:C2	32:2a:1404:5MC:HM52	2.55	0.42
32:2a:1457:G:H5''	51:2t:35:THR:HG21	2.01	0.42
33:2b:109:SER:O	33:2b:112:VAL:HB	2.18	0.42
34:2c:122:GLU:HA	34:2c:125:GLU:CD	2.44	0.42
38:2g:15:ASP:OD1	38:2g:20:ASP:N	2.52	0.42
41:2j:12:ASP:HB3	41:2j:15:THR:HG23	2.02	0.42
43:2l:93:LEU:HD23	43:2l:93:LEU:HA	1.86	0.42
50:2s:50:ALA:HA	50:2s:58:VAL:O	2.19	0.42
54:2x:50:U:H2'	54:2x:51:C:C6	2.55	0.42
1:1A:335:C:H4'	20:1Y:73:ARG:HD2	2.02	0.42
1:1A:340:A:H2'	1:1A:341:G:O4'	2.20	0.42
1:1A:1011:G:OP1	16:1U:77:SER:OG	2.36	0.42
1:1A:1358:G:O2'	1:1A:1373:A:N6	2.47	0.42
1:1A:1371:G:N7	59:1A:4421:HOH:O	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1406:U:H2'	1:1A:1407:C:C6	2.54	0.42
1:1A:2040:C:H2'	1:1A:2041:U:O4'	2.20	0.42
1:1A:2636:U:H2'	1:1A:2637:U:H6	1.84	0.42
14:1S:61:ASN:ND2	14:1S:64:GLU:HG3	2.33	0.42
19:1X:12:VAL:HG21	19:1X:27:THR:HG22	2.00	0.42
21:1Z:54:HIS:ND1	21:1Z:101:PRO:HG3	2.34	0.42
32:1a:1004:A:H5'	32:1a:1024:G:H1	1.84	0.42
32:1a:1030(C):G:H2'	32:1a:1030(D):A:C8	2.54	0.42
32:1a:1293:G:H2'	32:1a:1294:G:C8	2.54	0.42
33:1b:28:PHE:CD2	33:1b:190:THR:HA	2.55	0.42
36:1e:78:HIS:HE1	36:1e:143:ARG:N	2.12	0.42
37:1f:76:ALA:O	37:1f:80:ARG:HG3	2.20	0.42
47:1p:43:LYS:HG2	47:1p:48:TRP:CD2	2.54	0.42
1:2A:38:A:H2'	1:2A:39:C:C6	2.55	0.42
1:2A:90:U:H1'	1:2A:92:A:C8	2.54	0.42
1:2A:459:U:H4'	29:27:40:TRP:CZ3	2.54	0.42
1:2A:649:G:C6	1:2A:650:C:C4	3.07	0.42
1:2A:722:A:H2'	1:2A:723:G:O4'	2.19	0.42
1:2A:860:U:H1'	1:2A:2268:A:H5'	2.01	0.42
1:2A:912:C:P	12:2Q:8:LYS:HZ3	2.41	0.42
1:2A:1475:G:C2	1:2A:1517:G:C2	3.08	0.42
1:2A:2027:G:H2'	1:2A:2028:U:O4'	2.19	0.42
1:2A:2128:C:H2'	1:2A:2129:C:O4'	2.20	0.42
1:2A:2690:C:OP1	13:2R:17:ARG:NH2	2.52	0.42
1:2A:2881:C:H2'	1:2A:2882:A:O4'	2.19	0.42
2:2B:12:C:O2	22:20:74:ARG:NH2	2.52	0.42
2:2B:50:G:OP1	14:2S:63:THR:N	2.51	0.42
3:2D:70:TRP:HB3	3:2D:190:TYR:CE2	2.55	0.42
3:2D:136:ILE:HG22	3:2D:140:THR:OG1	2.19	0.42
6:2G:47:LYS:HG3	6:2G:48:GLU:H	1.84	0.42
6:2G:151:ALA:HB3	6:2G:153:ARG:NH1	2.35	0.42
7:2H:38:SER:HB3	7:2H:41:MET:HG2	2.01	0.42
19:2X:24:GLY:O	19:2X:83:VAL:HG22	2.19	0.42
32:2a:373:A:H61	32:2a:391:G:H1'	1.85	0.42
32:2a:941:G:H2'	32:2a:942:G:O4'	2.19	0.42
32:2a:1158:C:O2'	33:2b:133:LYS:HE2	2.19	0.42
33:2b:149:LEU:HA	33:2b:152:PHE:HB3	2.02	0.42
33:2b:178:ARG:HH12	39:2h:68:ARG:NH2	2.16	0.42
34:2c:206:GLU:H	34:2c:206:GLU:HG3	1.74	0.42
37:2f:2:ARG:HD2	37:2f:69:GLU:HB3	2.02	0.42
39:2h:86:ILE:HG21	39:2h:133:LEU:HD23	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:2j:6:ILE:HB	41:2j:72:VAL:HG22	2.01	0.42
51:2t:92:LEU:HD23	51:2t:92:LEU:HA	1.71	0.42
1:1A:557:U:H2'	1:1A:558:G:H8	1.84	0.42
1:1A:571:A:O2'	17:1V:78:LYS:HE2	2.20	0.42
1:1A:729:G:O5'	3:1D:208:LYS:NZ	2.52	0.42
1:1A:1051:G:H4'	1:1A:2752:C:H4'	2.00	0.42
1:1A:1095:A:C8	1:1A:1096:A:C8	3.08	0.42
1:1A:1923:U:H2'	1:1A:1924:C:C6	2.54	0.42
1:1A:2118:U:O4	1:1A:2149:G:H1'	2.19	0.42
1:1A:2393:A:H5''	11:1P:63:PRO:HB3	2.02	0.42
1:1A:2690:C:N4	1:1A:2713:A:H1'	2.35	0.42
1:1A:2821:A:H2'	1:1A:2822:G:C8	2.55	0.42
28:16:34:LEU:N	28:16:51:GLU:HG2	2.34	0.42
29:17:23:ARG:NH2	59:17:203:HOH:O	2.51	0.42
30:18:46:ARG:HE	30:18:46:ARG:HB3	1.73	0.42
32:1a:171:A:H2'	32:1a:172:A:C8	2.54	0.42
32:1a:509:A:O2'	32:1a:510:A:OP1	2.35	0.42
32:1a:564:C:OP1	43:1l:15:ARG:NE	2.41	0.42
32:1a:738:C:H2'	32:1a:739:C:H6	1.84	0.42
32:1a:1025:U:O2	32:1a:1036:G:C6	2.71	0.42
32:1a:1053:G:N7	32:1a:1200:C:H5'	2.33	0.42
32:1a:1279:A:O2'	32:1a:1281:U:OP2	2.26	0.42
33:1b:162:ILE:O	33:1b:185:ILE:HG12	2.19	0.42
34:1c:15:THR:C	34:1c:16:ARG:HG2	2.45	0.42
34:1c:23:TYR:HA	41:1j:11:PHE:CE2	2.54	0.42
41:1j:55:LYS:HE2	41:1j:56:HIS:CE1	2.55	0.42
50:1s:44:MET:O	50:1s:47:HIS:HB2	2.20	0.42
54:1x:58:A:H4'	54:1x:59:A:OP1	2.20	0.42
1:2A:198:C:H4'	1:2A:2243:U:O2'	2.19	0.42
1:2A:522:G:C2	1:2A:523:C:C2	3.07	0.42
1:2A:748:G:C8	18:2W:89:ALA:HB1	2.55	0.42
1:2A:1301:A:O2'	1:2A:1302:A:H3'	2.18	0.42
2:2B:6:C:H42	2:2B:115:G:H1	1.66	0.42
6:2G:18:GLU:O	6:2G:22:ARG:HB2	2.20	0.42
10:2O:78:ARG:HH22	15:2T:75:ILE:HD11	1.85	0.42
13:2R:66:VAL:HG12	13:2R:70:LEU:HD12	2.01	0.42
14:2S:36:TYR:CD2	14:2S:36:TYR:N	2.87	0.42
17:2V:20:LEU:HG	17:2V:22:VAL:HG13	2.00	0.42
20:2Y:11:ASP:O	20:2Y:27:VAL:HG23	2.19	0.42
29:27:46:VAL:HG13	29:27:48:LYS:NZ	2.34	0.42
32:2a:142:G:H2'	32:2a:143:A:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:293:G:H5'	32:2a:610:G:C2	2.54	0.42
32:2a:430:A:OP2	35:2d:8:VAL:HG12	2.18	0.42
32:2a:662:G:O2'	32:2a:836:G:O5'	2.37	0.42
32:2a:872:A:C4	32:2a:874:G:N7	2.87	0.42
32:2a:902:G:H2'	32:2a:903:G:H8	1.83	0.42
32:2a:1060:C:C5'	41:2j:51:ARG:HG2	2.48	0.42
32:2a:1217:C:H2'	32:2a:1218:C:O4'	2.20	0.42
35:2d:105:VAL:HG13	35:2d:110:PHE:HB2	2.00	0.42
38:2g:51:GLN:O	38:2g:55:GLY:HA2	2.19	0.42
40:2i:8:GLY:HA3	40:2i:76:ALA:O	2.18	0.42
44:2m:97:PRO:HA	44:2m:110:ARG:HD3	2.02	0.42
1:1A:1607:C:H4'	1:1A:1608:A:O5'	2.19	0.42
1:1A:1635:G:C6	1:1A:1636:C:C4	3.07	0.42
1:1A:1680:U:O2	1:1A:1763:G:H3'	2.19	0.42
1:1A:1919:A:O3'	32:1a:1517:G:H1'	2.20	0.42
1:1A:2093:G:C6	1:1A:2225:A:C8	3.07	0.42
1:1A:2115:G:H8	1:1A:2115:G:O5'	2.02	0.42
1:1A:2391:G:O6	1:1A:2425:A:H8	2.02	0.42
1:1A:2464:C:H1'	59:1A:5146:HOH:O	2.20	0.42
2:1B:33:G:C2	2:1B:50:G:C2	3.08	0.42
2:1B:41:U:OP1	2:1B:42:C:H5	2.02	0.42
11:1P:81:GLN:NE2	11:1P:105:LEU:O	2.51	0.42
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.56	0.42
21:1Z:151:HIS:HB3	21:1Z:169:GLU:O	2.19	0.42
32:1a:510:A:N3	32:1a:543:C:H1'	2.34	0.42
32:1a:708:C:OP1	42:1k:85:ARG:NH2	2.51	0.42
32:1a:859:A:H2'	32:1a:860:A:O4'	2.20	0.42
32:1a:1367:C:O2'	41:1j:48:THR:HG21	2.20	0.42
32:1a:1434:A:H2'	32:1a:1435:G:O4'	2.19	0.42
33:1b:127:ILE:HG13	33:1b:130:ARG:NH2	2.35	0.42
38:1g:23:VAL:HG13	38:1g:43:PHE:CZ	2.54	0.42
40:1i:33:PHE:HD2	40:1i:34:ASN:HD22	1.68	0.42
45:1n:29:ARG:NH2	45:1n:42:ILE:HD11	2.34	0.42
46:1o:39:LEU:HD22	46:1o:43:LEU:HG	2.02	0.42
54:1x:63:G:H2'	54:1x:64:G:C8	2.54	0.42
1:2A:96:G:H4'	24:22:48:HIS:CD2	2.55	0.42
1:2A:569:U:C4	1:2A:570:G:C6	3.08	0.42
1:2A:817:C:H2'	1:2A:818:G:O4'	2.20	0.42
1:2A:1000:A:C6	1:2A:1001:A:N1	2.88	0.42
1:2A:1115:G:C2	1:2A:1116:C:C2	3.08	0.42
1:2A:1233:C:H2'	1:2A:1234:U:H6	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1848:A:C4	1:2A:1849:G:C8	3.07	0.42
1:2A:1853:A:N3	1:2A:2233:U:O2'	2.35	0.42
1:2A:2379:G:H2'	1:2A:2380:C:C6	2.55	0.42
1:2A:2755:C:HO2'	1:2A:2756:U:H6	1.67	0.42
6:2G:146:TYR:HB3	44:2m:11:ARG:NH2	2.32	0.42
7:2H:83:TYR:CE2	7:2H:138:LYS:HB2	2.54	0.42
12:2Q:29:PHE:HB2	12:2Q:105:GLU:OE1	2.19	0.42
17:2V:14:VAL:HA	17:2V:18:LEU:HD23	2.01	0.42
32:2a:585:G:O2'	32:2a:879:C:OP1	2.33	0.42
57:2a:3210:V7A:OAY	57:2a:3210:V7A:OAX	2.36	0.42
36:2e:94:ALA:HB1	36:2e:98:THR:HG21	2.00	0.42
38:2g:133:GLY:O	38:2g:137:LYS:HD3	2.20	0.42
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	2.02	0.42
51:2t:76:ALA:HA	51:2t:79:ARG:NH1	2.34	0.42
1:1A:93:G:H2'	1:1A:94:C:C6	2.55	0.42
1:1A:530:G:H4'	1:1A:531:C:OP1	2.20	0.42
1:1A:1107:G:O2'	1:1A:1108:U:H5'	2.20	0.42
1:1A:1920:4OC:HM22	1:1A:1921:G:O4'	2.19	0.42
1:1A:2102:U:H2'	1:1A:2103:C:C6	2.55	0.42
1:1A:2820:A:N3	1:1A:2820:A:H2'	2.35	0.42
2:1B:66:A:H61	2:1B:109:C:C5'	2.27	0.42
5:1F:176:LEU:HD13	5:1F:181:LEU:HA	2.01	0.42
6:1G:102:PHE:HA	6:1G:105:LYS:HE2	2.02	0.42
14:1S:87:PHE:HZ	14:1S:98:VAL:HG12	1.85	0.42
16:1U:21:ALA:HB2	16:1U:35:ALA:HB1	2.00	0.42
17:1V:22:VAL:HG23	17:1V:23:GLU:O	2.20	0.42
20:1Y:35:TYR:CE2	20:1Y:69:ALA:HB3	2.54	0.42
25:13:12:PRO:O	25:13:20:LYS:HE3	2.19	0.42
32:1a:344:A:O5'	32:1a:345:C:H5	2.03	0.42
32:1a:553:A:H2'	32:1a:554:C:O4'	2.20	0.42
32:1a:1355:G:H2'	32:1a:1356:G:C8	2.55	0.42
32:1a:1430:C:H2'	32:1a:1431:C:O4'	2.20	0.42
32:1a:1465:C:H2'	32:1a:1466:C:O4'	2.19	0.42
34:1c:34:LEU:HD21	34:1c:38:ARG:NE	2.33	0.42
43:1l:24:VAL:HB	43:1l:27:LEU:HD12	2.01	0.42
43:1l:39:VAL:HG21	43:1l:57:LYS:HE3	2.02	0.42
54:1x:61:C:H2'	54:1x:62:C:H6	1.84	0.42
1:2A:353:G:H2'	1:2A:354:G:C8	2.55	0.42
1:2A:923:C:H2'	1:2A:924:C:H6	1.83	0.42
1:2A:959:A:C6	1:2A:960:A:C6	3.07	0.42
1:2A:1448:G:H2'	1:2A:1449:A:C8	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1525:G:H2'	1:2A:1526:G:C8	2.55	0.42
1:2A:1827:C:H5'	1:2A:1971:A:H4'	2.02	0.42
1:2A:2023:G:H5'	1:2A:2617:C:H4'	2.00	0.42
1:2A:2086:U:H2'	1:2A:2087:G:H8	1.80	0.42
1:2A:2515:C:H2'	1:2A:2516:G:C8	2.55	0.42
8:2I:72:LEU:HG	8:2I:140:LEU:HB2	2.02	0.42
32:2a:399:G:H2'	32:2a:400:C:C6	2.54	0.42
32:2a:401:C:H2'	32:2a:402:G:H8	1.83	0.42
32:2a:512:U:H2'	32:2a:513:C:C6	2.54	0.42
32:2a:1151:A:H5''	41:2j:42:THR:H	1.84	0.42
32:2a:1480:G:H2'	32:2a:1481:U:O4'	2.19	0.42
36:2e:41:VAL:HG23	36:2e:67:VAL:CG1	2.50	0.42
41:2j:8:LEU:HD23	41:2j:8:LEU:H	1.83	0.42
43:2l:42:THR:HG22	43:2l:54:LYS:HG3	2.02	0.42
54:2x:36:U:H2'	54:2x:37:A:O4'	2.20	0.42
1:1A:278:A:H2'	1:1A:279:C:C6	2.55	0.42
1:1A:284:U:H2'	1:1A:285:C:C6	2.55	0.42
1:1A:649:G:H2'	1:1A:650:C:C6	2.55	0.42
1:1A:796:C:H2'	1:1A:797:C:C6	2.55	0.42
1:1A:1138:G:N3	9:1N:106:MET:HE2	2.35	0.42
1:1A:1359:A:H2'	1:1A:1360:A:H5'	2.01	0.42
1:1A:1651:G:H2'	1:1A:1652:A:O4'	2.20	0.42
1:1A:1669:A:O4'	10:1O:5:GLN:HG3	2.20	0.42
1:1A:1721:G:H1'	1:1A:1741:A:H61	1.85	0.42
1:1A:2626:C:H2'	1:1A:2627:G:O4'	2.20	0.42
1:1A:2649:U:H2'	1:1A:2650:U:C6	2.54	0.42
2:1B:96:U:H2'	2:1B:97:G:C8	2.55	0.42
15:1T:2:ASN:O	15:1T:6:LEU:HD13	2.20	0.42
22:10:4:LYS:NZ	59:10:203:HOH:O	2.51	0.42
26:14:1:MET:HB3	26:14:6:HIS:CD2	2.55	0.42
26:14:40:HIS:O	26:14:43:TYR:N	2.50	0.42
28:16:8:LYS:HG2	30:18:34:TRP:CG	2.54	0.42
28:16:14:THR:HG21	28:16:48:VAL:HG13	2.02	0.42
32:1a:437:U:H5'	35:1d:155:LEU:CD1	2.50	0.42
32:1a:707:C:H5''	42:1k:85:ARG:HH12	1.85	0.42
32:1a:749:C:H2'	32:1a:750:G:H8	1.85	0.42
32:1a:942:G:H21	40:1i:124:GLN:NE2	2.17	0.42
32:1a:1268:A:O3'	52:1u:19:GLY:HA2	2.20	0.42
33:1b:71:VAL:N	33:1b:163:PHE:O	2.48	0.42
40:1i:3:GLN:HE21	40:1i:20:ARG:NH1	2.18	0.42
1:2A:534:U:H2'	1:2A:535:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:705:A:H2'	1:2A:706:A:O4'	2.20	0.42
1:2A:718:A:H3'	1:2A:719:C:C6	2.54	0.42
1:2A:886:C:H2'	1:2A:887:A:H1'	2.02	0.42
1:2A:1019:U:O2'	1:2A:1021:A:H2	2.03	0.42
1:2A:1248:G:C5	16:2U:3:ARG:HB2	2.55	0.42
1:2A:1346:G:C5	1:2A:1347:G:N7	2.88	0.42
1:2A:1417:C:H2'	1:2A:1418:G:O4'	2.20	0.42
1:2A:1598:C:H2'	1:2A:1599:C:H6	1.85	0.42
1:2A:1658:C:OP1	59:2A:3969:HOH:O	2.22	0.42
1:2A:2184:G:H2'	1:2A:2185:C:H5'	2.02	0.42
10:2O:12:ASP:CG	10:2O:14:THR:HG23	2.44	0.42
10:2O:43:VAL:HG23	10:2O:56:ASP:O	2.20	0.42
17:2V:85:LYS:NZ	17:2V:85:LYS:HB3	2.35	0.42
21:2Z:60:GLU:H	21:2Z:60:GLU:HG2	1.58	0.42
26:24:1:MET:HB3	26:24:6:HIS:CD2	2.54	0.42
32:2a:297:G:N2	32:2a:300:A:OP2	2.53	0.42
32:2a:311:C:H2'	32:2a:312:C:O4'	2.20	0.42
32:2a:523:A:H61	43:2l:92:0TD:CG	2.32	0.42
32:2a:636:U:H2'	32:2a:637:G:C8	2.55	0.42
32:2a:640:A:N3	39:2h:115:SER:HB3	2.35	0.42
32:2a:792:A:H4'	32:2a:793:U:C5'	2.49	0.42
32:2a:962:C:H2'	32:2a:963:G:O4'	2.19	0.42
32:2a:1032:G:H2'	32:2a:1033:G:C8	2.55	0.42
32:2a:1168:A:H3'	32:2a:1169:A:H8	1.85	0.42
32:2a:1346:A:N7	38:2g:10:ARG:NH1	2.68	0.42
34:2c:36:ASP:O	34:2c:40:ARG:HG3	2.19	0.42
38:2g:65:ALA:O	38:2g:69:VAL:HG23	2.20	0.42
44:2m:105:THR:HG22	44:2m:106:ASN:H	1.84	0.42
1:1A:466:A:N3	1:1A:683:C:H1'	2.34	0.42
1:1A:540:C:H2'	1:1A:541:C:C6	2.55	0.42
1:1A:581:C:H2'	1:1A:582:G:H8	1.85	0.42
1:1A:603:A:O4'	1:1A:655:A:N6	2.53	0.42
1:1A:714:U:O2'	1:1A:716:A:N7	2.45	0.42
1:1A:865:C:N3	1:1A:908:C:N4	2.68	0.42
1:1A:1011:G:H4'	16:1U:75:ASN:ND2	2.34	0.42
1:1A:1878:G:H2'	1:1A:1879:C:C6	2.55	0.42
1:1A:2075:U:H2'	1:1A:2238:G:N2	2.34	0.42
1:1A:2143:C:H3'	1:1A:2144:U:H5''	2.01	0.42
1:1A:2320:A:H2'	1:1A:2320:A:N3	2.35	0.42
1:1A:2869:G:H2'	1:1A:2870:C:O4'	2.20	0.42
2:1B:89:G:H2'	2:1B:90:A:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:37:LEU:HD22	3:1D:87:ASN:ND2	2.34	0.42
7:1H:3:ARG:HE	7:1H:54:ARG:HH12	1.68	0.42
8:1I:26:ALA:HA	8:1I:30:LEU:HB2	2.02	0.42
9:1N:47:ALA:HB2	9:1N:112:LEU:HD11	2.01	0.42
11:1P:37:GLY:C	11:1P:38:GLN:O	2.62	0.42
11:1P:63:PRO:HB2	30:18:30:ARG:NH2	2.35	0.42
12:1Q:36:ALA:HB2	12:1Q:103:MET:SD	2.60	0.42
21:1Z:137:ILE:CG2	21:1Z:155:LEU:HG	2.50	0.42
32:1a:345:C:H4'	32:1a:346:G:H5''	2.02	0.42
32:1a:790:A:N1	32:1a:1497:G:H5''	2.35	0.42
32:1a:980:C:H1'	45:1n:19:ARG:HA	2.02	0.42
32:1a:1114:C:H42	32:1a:1186:G:H1	1.67	0.42
32:1a:1137:C:H5''	32:1a:1138:G:O5'	2.20	0.42
32:1a:1226:C:H4'	50:1s:80:TYR:OH	2.20	0.42
32:1a:1343:G:H1'	40:1i:121:ARG:NH1	2.35	0.42
33:1b:178:ARG:NH2	39:1h:74:PRO:HB3	2.35	0.42
36:1e:100:VAL:O	36:1e:107:ARG:NH1	2.51	0.42
42:1k:48:ILE:O	42:1k:50:TYR:N	2.53	0.42
43:1l:33:ARG:HD2	43:1l:62:SER:HB3	2.02	0.42
1:2A:720:C:H2'	1:2A:721:C:C6	2.54	0.42
1:2A:729:G:H2'	1:2A:1775:U:O2	2.20	0.42
1:2A:887:A:H4'	1:2A:888:C:C5	2.55	0.42
1:2A:993:G:OP1	16:2U:50:ARG:HD2	2.20	0.42
1:2A:1114:G:H2'	1:2A:1115:G:H8	1.85	0.42
1:2A:2106:G:H2'	1:2A:2107:C:O4'	2.19	0.42
1:2A:2199:A:H3'	1:2A:2200:C:C6	2.55	0.42
1:2A:2328:A:H2'	1:2A:2329:G:C8	2.55	0.42
1:2A:2406:U:C4	11:2P:72:PRO:HD2	2.55	0.42
1:2A:2489:G:C6	1:2A:2490:G:C6	3.08	0.42
2:2B:4:C:H42	2:2B:117:G:H1	1.67	0.42
2:2B:103:G:H21	21:2Z:73:GLN:NE2	2.18	0.42
4:2E:96:PHE:O	4:2E:175:VAL:HG21	2.20	0.42
4:2E:175:VAL:O	4:2E:177:PRO:HD3	2.20	0.42
22:20:21:LEU:HD21	22:20:41:ARG:CZ	2.50	0.42
32:2a:958:A:N6	50:2s:77:THR:O	2.53	0.42
32:2a:991:U:C4	32:2a:1212:U:H1'	2.55	0.42
32:2a:1047:G:H5''	45:2n:4:LYS:HD3	2.02	0.42
32:2a:1255:G:P	41:2j:45:ARG:HH21	2.43	0.42
32:2a:1371:G:C6	32:2a:1372:U:C4	3.08	0.42
35:2d:163:GLU:C	35:2d:165:MET:H	2.27	0.42
47:2p:19:ILE:N	47:2p:37:GLY:O	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:330:A:N7	1:1A:1210:A:O2'	2.33	0.41
1:1A:887:A:OP1	1:1A:888:C:H5	2.03	0.41
1:1A:2038:G:H2'	1:1A:2039:C:O4'	2.20	0.41
1:1A:2439:A:H5'	1:1A:2439:A:C8	2.55	0.41
1:1A:2563:U:H1'	1:1A:2566:A:C6	2.56	0.41
1:1A:2577:A:O4'	27:15:3:LYS:HB2	2.19	0.41
3:1D:26:LYS:HE2	3:1D:28:GLU:O	2.21	0.41
7:1H:23:ARG:HE	7:1H:23:ARG:HB2	1.61	0.41
10:1O:68:GLU:HB3	10:1O:78:ARG:HB2	2.01	0.41
16:1U:17:ILE:HD12	16:1U:32:PHE:CE1	2.55	0.41
18:1W:25:ARG:NH2	18:1W:74:ALA:O	2.52	0.41
32:1a:501:C:H2'	32:1a:502:G:C8	2.55	0.41
32:1a:684:A:H2'	32:1a:685:G:C8	2.55	0.41
32:1a:922:G:C6	32:1a:923:A:C6	3.08	0.41
32:1a:1263:C:H2'	32:1a:1264:C:C6	2.55	0.41
32:1a:1302:U:H5	44:1m:17:VAL:HG21	1.84	0.41
33:1b:19:HIS:HA	33:1b:39:ILE:HG21	2.01	0.41
34:1c:69:HIS:HA	34:1c:104:GLN:HB3	2.02	0.41
38:1g:65:ALA:HB3	38:1g:124:LEU:HD23	2.00	0.41
47:1p:8:ARG:HB2	47:1p:17:TYR:CE1	2.55	0.41
51:1t:50:GLU:HG3	51:1t:100:ILE:HG12	2.02	0.41
1:2A:948:G:N1	1:2A:970:C:O2	2.53	0.41
1:2A:1268:A:C2	1:2A:2013:A:C4	3.07	0.41
1:2A:1493:C:N4	1:2A:2206:G:O2'	2.49	0.41
1:2A:1608:A:H1'	1:2A:1610:A:OP2	2.20	0.41
1:2A:1654:A:O4'	1:2A:2823:A:H5'	2.20	0.41
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.20	0.41
1:2A:2131:G:H4'	1:2A:2132:U:H3'	2.01	0.41
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.55	0.41
1:2A:2391:G:O2'	1:2A:2422:A:N7	2.53	0.41
6:2G:138:GLN:OE1	6:2G:138:GLN:N	2.53	0.41
7:2H:123:PHE:CD1	7:2H:133:VAL:HG22	2.55	0.41
9:2N:34:LEU:O	9:2N:49:GLY:HA3	2.19	0.41
12:2Q:63:LYS:HD3	12:2Q:65:PHE:CZ	2.55	0.41
16:2U:44:ASN:ND2	17:2V:75:PHE:HB3	2.35	0.41
26:24:58:ARG:HE	50:2s:68:GLY:HA3	1.85	0.41
32:2a:226:G:H2'	32:2a:227:G:H8	1.85	0.41
32:2a:266:G:H2'	32:2a:266:G:N3	2.34	0.41
1:1A:568:U:O5'	1:1A:945:A:N6	2.52	0.41
1:1A:1248:G:P	5:1F:92:PRO:HG3	2.60	0.41
1:1A:1287:A:C6	1:1A:1288:U:N3	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1334:G:C6	1:1A:1335:U:C4	3.08	0.41
1:1A:2206:G:OP2	1:1A:2206:G:H4'	2.20	0.41
1:1A:2360:A:H8	1:1A:2360:A:O5'	2.04	0.41
3:1D:166:GLN:NE2	32:1a:713:G:OP1	2.48	0.41
8:1I:2:LYS:HA	8:1I:19:VAL:O	2.20	0.41
8:1I:38:LEU:HD23	8:1I:38:LEU:H	1.85	0.41
9:1N:67:LEU:HD12	9:1N:67:LEU:HA	1.72	0.41
18:1W:18:ARG:HG2	18:1W:76:VAL:HB	2.02	0.41
20:1Y:1:MET:HB2	20:1Y:2:ARG:H	1.68	0.41
20:1Y:68:HIS:HB3	20:1Y:71:LYS:HG3	2.02	0.41
21:1Z:101:PRO:O	21:1Z:102:LEU:HD12	2.20	0.41
32:1a:269:C:H2'	32:1a:270:A:C8	2.55	0.41
32:1a:689:C:OP2	42:1k:55:LYS:NZ	2.45	0.41
32:1a:742:G:H4'	46:1o:58:MET:HE1	2.01	0.41
32:1a:1152:A:H5'	41:1j:13:HIS:CG	2.55	0.41
32:1a:1370:G:C2	32:1a:1371:G:C8	3.09	0.41
33:1b:12:GLU:HB2	33:1b:213:LEU:HD11	2.01	0.41
33:1b:76:GLN:O	33:1b:208:ILE:HG22	2.20	0.41
34:1c:6:HIS:CD2	34:1c:8:ILE:HG12	2.56	0.41
35:1d:65:ARG:O	35:1d:68:TYR:N	2.52	0.41
36:1e:105:VAL:HB	36:1e:106:PRO:HD3	2.03	0.41
39:1h:30:ARG:O	39:1h:34:GLU:HG2	2.20	0.41
39:1h:86:ILE:HG21	39:1h:133:LEU:HD13	2.02	0.41
41:1j:21:GLN:O	41:1j:25:GLU:HG2	2.19	0.41
43:1l:77:LEU:HD23	43:1l:77:LEU:HA	1.84	0.41
44:1m:86:CYS:HB2	50:1s:73:GLU:HB3	2.02	0.41
1:2A:153:C:H2'	1:2A:154:G:H8	1.85	0.41
1:2A:523:C:H5''	1:2A:540:C:O2'	2.20	0.41
1:2A:528:A:C2	1:2A:2043:C:H4'	2.54	0.41
1:2A:882:G:H2'	1:2A:883:G:H8	1.85	0.41
1:2A:1022:G:H1	1:2A:1142(A):A:H2	1.68	0.41
1:2A:1161:C:H2'	1:2A:1162:G:H8	1.85	0.41
1:2A:1218:C:H42	1:2A:1231:G:H1	1.68	0.41
1:2A:1759:A:H1'	1:2A:2711:A:C2	2.55	0.41
1:2A:2142:C:H2'	1:2A:2143:C:C6	2.55	0.41
1:2A:2322:A:H2'	1:2A:2323:G:O4'	2.20	0.41
1:2A:2406:U:H6	1:2A:2406:U:H2'	1.70	0.41
1:2A:2511:U:O2'	4:2E:138:PRO:O	2.34	0.41
1:2A:2577:A:OP2	27:25:3:LYS:NZ	2.51	0.41
1:2A:2781:A:H5''	1:2A:2782:G:H5'	2.00	0.41
1:2A:2831:G:O2'	1:2A:2883:A:H2'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:1:MET:HE1	8:2I:27:ARG:HH12	1.84	0.41
8:2I:29:TYR:HD2	8:2I:30:LEU:HD23	1.84	0.41
14:2S:30:ARG:HG3	14:2S:97:ARG:CZ	2.50	0.41
21:2Z:105:VAL:N	21:2Z:139:VAL:O	2.36	0.41
22:20:24:LYS:N	22:20:37:LEU:O	2.47	0.41
25:23:16:PRO:HB2	25:23:18:ASP:OD1	2.21	0.41
32:2a:542:G:H5'	35:2d:41:GLY:HA3	2.02	0.41
32:2a:715:A:H2'	32:2a:716:A:C8	2.55	0.41
33:2b:188:ALA:O	33:2b:202:PRO:HA	2.19	0.41
40:2i:4:TYR:O	40:2i:19:LEU:N	2.45	0.41
44:2m:91:ARG:HD2	44:2m:96:LEU:HB2	2.01	0.41
45:2n:32:SER:O	45:2n:32:SER:OG	2.33	0.41
46:2o:28:GLN:HE21	46:2o:28:GLN:HB3	1.62	0.41
47:2p:3:LYS:O	47:2p:21:VAL:HA	2.20	0.41
1:1A:129:C:H2'	1:1A:130:C:H6	1.85	0.41
1:1A:1022:G:C5	1:1A:1140:C:C4	3.07	0.41
1:1A:1056:G:C2'	1:1A:1103:A:H61	2.34	0.41
1:1A:1230:C:H2'	1:1A:1231:G:H8	1.85	0.41
1:1A:1826:G:H4'	3:1D:242:ARG:CZ	2.50	0.41
1:1A:2875:C:H2'	1:1A:2876:G:O4'	2.20	0.41
5:1F:53:THR:HG23	5:1F:55:GLY:H	1.85	0.41
8:1I:100:ALA:O	8:1I:104:GLN:HB2	2.21	0.41
11:1P:101:VAL:HG23	11:1P:106:LEU:O	2.20	0.41
13:1R:56:LYS:NZ	13:1R:90:ARG:O	2.54	0.41
14:1S:92:TYR:CB	14:1S:98:VAL:HG21	2.51	0.41
16:1U:97:ASP:OD1	16:1U:101:ARG:HD2	2.19	0.41
26:14:53:GLU:HB2	26:14:55:ARG:O	2.19	0.41
31:19:32:HIS:O	31:19:34:GLN:HG3	2.19	0.41
32:1a:375:U:O3'	47:1p:6:LEU:HB2	2.20	0.41
32:1a:510:A:H8	59:1a:1931:HOH:O	2.02	0.41
32:1a:1084:G:N2	59:1a:1941:HOH:O	2.35	0.41
32:1a:1090:U:H2'	32:1a:1091:U:C6	2.55	0.41
32:1a:1168:A:P	32:1a:1168:A:H8	2.42	0.41
32:1a:1194:U:H2'	32:1a:1195:C:C6	2.56	0.41
38:1g:28:ASN:HD22	38:1g:28:ASN:HA	1.70	0.41
38:1g:97:GLN:HG2	38:1g:101:LEU:HD11	2.03	0.41
1:2A:272(E):G:C6	1:2A:272(F):C:C4	3.08	0.41
1:2A:750:A:C4	1:2A:753:C:H1'	2.56	0.41
1:2A:851:U:H5'	25:23:49:LYS:HD2	2.03	0.41
1:2A:1158:C:C2'	1:2A:1159:U:H5'	2.51	0.41
1:2A:1206:G:C6	1:2A:1207:C:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2014:A:H2'	1:2A:2015:A:C8	2.55	0.41
1:2A:2497:A:H5''	59:2A:4033:HOH:O	2.19	0.41
1:2A:2547:U:H2'	1:2A:2548:G:C8	2.55	0.41
1:2A:2633:G:H2'	1:2A:2634:G:O4'	2.19	0.41
1:2A:2849:U:O4	15:2T:23:ARG:NH2	2.52	0.41
6:2G:122:PRO:HB3	6:2G:170:ARG:HH21	1.84	0.41
11:2P:49:ARG:O	30:28:57:ARG:NH2	2.43	0.41
14:2S:26:LEU:HD22	14:2S:87:PHE:CE1	2.55	0.41
20:2Y:20:TYR:HB3	20:2Y:23:ARG:HG3	2.01	0.41
32:2a:46:G:HO2'	32:2a:365:U:H1'	1.84	0.41
32:2a:102:G:H2'	32:2a:103:C:H6	1.84	0.41
32:2a:376:G:OP2	47:2p:67:THR:HG21	2.20	0.41
32:2a:920:U:H2'	32:2a:921:U:C6	2.55	0.41
32:2a:1112:C:N3	34:2c:178:LEU:HD12	2.36	0.41
32:2a:1188:A:H2'	32:2a:1189:C:O4'	2.20	0.41
34:2c:12:LEU:HA	34:2c:16:ARG:O	2.20	0.41
35:2d:38:TYR:CD2	35:2d:38:TYR:N	2.87	0.41
37:2f:11:ASN:HB3	37:2f:14:LEU:HG	2.02	0.41
39:2h:56:LYS:HD3	39:2h:56:LYS:HA	1.83	0.41
46:2o:7:GLU:OE1	46:2o:38:ARG:NH2	2.54	0.41
47:2p:59:TRP:HB3	47:2p:64:ALA:CB	2.50	0.41
48:2q:22:LEU:HD13	48:2q:41:LYS:HG2	2.02	0.41
49:2r:37:VAL:HB	49:2r:78:LEU:HB3	2.02	0.41
54:2x:19:G:C4	54:2x:57:A:C2	3.09	0.41
1:1A:196:A:H2'	1:1A:196:A:N3	2.35	0.41
1:1A:583:G:OP2	16:1U:10:ARG:HD2	2.21	0.41
1:1A:784:A:C8	1:1A:792:G:C5	3.08	0.41
1:1A:819:A:C4	1:1A:1189:A:C2	3.08	0.41
1:1A:1025:G:O2'	59:1A:4231:HOH:O	2.05	0.41
1:1A:1356:G:N2	1:1A:1376:C:C2	2.89	0.41
1:1A:1448:G:H4'	1:1A:1542:A:OP1	2.21	0.41
1:1A:1721:G:H1'	1:1A:1741:A:N6	2.35	0.41
1:1A:1815:A:OP1	1:1A:1815:A:H8	2.03	0.41
1:1A:1843:C:H2'	1:1A:1844:C:C6	2.54	0.41
1:1A:2378:A:H2'	14:1S:21:THR:HG21	2.02	0.41
1:1A:2443:C:H2'	1:1A:2444:G:C8	2.55	0.41
1:1A:2712:U:OP1	1:1A:2714:G:H4'	2.21	0.41
14:1S:72:ALA:O	14:1S:76:LYS:HG3	2.21	0.41
26:14:57:GLU:HA	26:14:58:ARG:HA	1.79	0.41
32:1a:46:G:O2'	32:1a:365:U:H1'	2.19	0.41
32:1a:143:A:H2	32:1a:220:G:H1	1.66	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:363:A:C5	43:1l:31:PRO:HD2	2.56	0.41
32:1a:401:C:P	35:1d:73:ARG:HH21	2.42	0.41
33:1b:171:ALA:HA	33:1b:174:VAL:HG22	2.01	0.41
33:1b:178:ARG:NH1	33:1b:198:ASP:OD1	2.42	0.41
35:1d:88:VAL:O	35:1d:92:VAL:HG23	2.19	0.41
35:1d:173:TRP:CE2	35:1d:189:PRO:HG3	2.55	0.41
36:1e:31:LEU:HD23	36:1e:31:LEU:HA	1.68	0.41
36:1e:110:LEU:HD13	36:1e:118:ILE:HD13	2.02	0.41
43:1l:28:LYS:HE3	43:1l:64:TYR:HE2	1.85	0.41
1:2A:317:G:C2	1:2A:318:C:C2	3.08	0.41
1:2A:642:G:H21	1:2A:646:A:H2	1.69	0.41
1:2A:709:U:H2'	1:2A:710:G:C8	2.55	0.41
1:2A:898:C:H2'	1:2A:899:A:H5'	2.00	0.41
1:2A:1028:A:H61	1:2A:1125:G:H2'	1.83	0.41
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.55	0.41
1:2A:1788:C:H2'	1:2A:1789:A:O4'	2.21	0.41
1:2A:1810:A:H2'	1:2A:1811:G:O4'	2.21	0.41
1:2A:2578:G:H1'	59:2A:4268:HOH:O	2.20	0.41
1:2A:2688:U:H1'	1:2A:2721:A:N6	2.36	0.41
5:2F:130:ALA:H	5:2F:142:TRP:CD1	2.38	0.41
6:2G:5:VAL:HG23	6:2G:8:LYS:HB3	2.01	0.41
7:2H:121:ILE:HD11	7:2H:140:LYS:HD2	2.02	0.41
12:2Q:50:ALA:HB1	12:2Q:121:ALA:HB1	2.02	0.41
20:2Y:19:LYS:HE2	20:2Y:20:TYR:CE2	2.55	0.41
32:2a:41:G:H2'	32:2a:42:G:C8	2.55	0.41
32:2a:57:G:H2'	32:2a:58:C:C6	2.55	0.41
32:2a:186:C:H5'	51:2t:78:ALA:HB1	2.03	0.41
32:2a:293:G:C6	32:2a:294:U:C4	3.09	0.41
32:2a:779:C:H2'	32:2a:780:A:O4'	2.20	0.41
32:2a:826:C:H2'	32:2a:827:U:C6	2.56	0.41
32:2a:838:G:H2'	32:2a:839:U:H2'	2.02	0.41
57:2a:3210:V7A:OBE	57:2a:3210:V7A:OBI	2.34	0.41
1:1A:272(C):G:H2'	1:1A:272(D):G:O4'	2.20	0.41
1:1A:370:G:O5'	1:1A:423:A:N6	2.53	0.41
1:1A:952:G:C6	1:1A:953:A:N7	2.88	0.41
1:1A:1039:G:H1	1:1A:1116:C:H42	1.66	0.41
1:1A:1668:A:H4'	1:1A:1669:A:O5'	2.20	0.41
1:1A:1968:G:OP2	59:1A:4299:HOH:O	2.22	0.41
1:1A:2171:A:O2'	1:1A:2172:U:H5''	2.20	0.41
2:1B:78:A:H2'	2:1B:79:C:O4'	2.20	0.41
8:1I:81:VAL:O	8:1I:146:ALA:HA	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:1T:96:ARG:HG2	15:1T:98:LYS:O	2.19	0.41
32:1a:303:A:H2'	32:1a:304:U:O4'	2.21	0.41
32:1a:835:U:OP1	49:1r:64:ARG:NH1	2.32	0.41
32:1a:947:G:H2'	32:1a:948:C:C6	2.56	0.41
32:1a:1431:C:H2'	32:1a:1432:G:O4'	2.20	0.41
32:1a:1512:U:H2'	32:1a:1513:A:C8	2.56	0.41
34:1c:123:GLN:O	34:1c:128:PHE:HB2	2.21	0.41
35:1d:166:LYS:NZ	35:1d:166:LYS:HB2	2.36	0.41
36:1e:83:GLU:HA	36:1e:87:SER:O	2.20	0.41
48:1q:28:PRO:HA	48:1q:35:VAL:HA	2.03	0.41
48:1q:66:SER:HB3	48:1q:69:LYS:HB2	2.03	0.41
50:1s:12:ASP:HB3	50:1s:14:HIS:CE1	2.54	0.41
1:2A:615:G:OP2	5:2F:43:LYS:NZ	2.44	0.41
1:2A:810:U:OP1	59:2A:3968:HOH:O	2.22	0.41
1:2A:1257:C:O5'	1:2A:1257:C:H6	2.03	0.41
1:2A:1580:A:H5'	1:2A:1581:G:OP2	2.21	0.41
1:2A:1788:C:C2	1:2A:1789:A:C8	3.09	0.41
1:2A:1812:A:H2'	1:2A:1813:G:H8	1.84	0.41
1:2A:2484:G:C2	1:2A:2485:G:C8	3.09	0.41
1:2A:2572:A:N7	4:2E:145:LYS:HB2	2.35	0.41
1:2A:2739:U:O2	1:2A:2766:G:N2	2.53	0.41
1:2A:2836:U:C4	1:2A:2883:A:N6	2.89	0.41
3:2D:275:LYS:HD2	3:2D:276:LYS:HG3	2.02	0.41
4:2E:105:THR:HG23	4:2E:166:THR:OG1	2.20	0.41
5:2F:37:VAL:HG22	5:2F:183:VAL:HG23	2.02	0.41
6:2G:7:LEU:HD13	6:2G:104:GLU:HA	2.02	0.41
8:2I:114:LEU:HB2	8:2I:130:TYR:HD1	1.85	0.41
10:2O:78:ARG:NE	15:2T:73:GLU:OE1	2.50	0.41
14:2S:92:TYR:HB3	14:2S:98:VAL:HG21	2.03	0.41
25:23:3:ARG:NH2	25:23:36:VAL:HG11	2.36	0.41
32:2a:335:C:H2'	32:2a:336:C:C6	2.56	0.41
32:2a:369:C:N4	32:2a:392:G:H1	2.14	0.41
32:2a:422:C:H4'	32:2a:423:G:C4	2.55	0.41
32:2a:737:A:H1'	37:2f:73:ASN:ND2	2.32	0.41
32:2a:755:G:OP2	46:2o:65:ARG:HD2	2.20	0.41
32:2a:1062:U:H2'	32:2a:1063:C:C5	2.55	0.41
32:2a:1095:U:C4	32:2a:1096:C:C4	3.08	0.41
32:2a:1177:G:C6	32:2a:1178:G:C4	3.09	0.41
32:2a:1271:G:H2'	32:2a:1272:G:H5''	2.02	0.41
32:2a:1304:G:C6	32:2a:1305:G:N1	2.87	0.41
43:2l:58:VAL:O	43:2l:65:GLU:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:2o:5:LYS:H	46:2o:5:LYS:HG2	1.58	0.41
46:2o:39:LEU:HD13	46:2o:56:LEU:HB2	2.01	0.41
1:1A:90:U:H1'	1:1A:92:A:C8	2.55	0.41
1:1A:197:A:N6	1:1A:2430:A:O2'	2.53	0.41
1:1A:274:G:H2'	1:1A:274:G:N3	2.35	0.41
1:1A:419:C:H2'	1:1A:420:C:O4'	2.20	0.41
1:1A:576:U:H2'	1:1A:577:G:C8	2.56	0.41
1:1A:1062:G:C5	1:1A:1088:A:H2'	2.55	0.41
1:1A:1692:U:O2'	1:1A:1693:U:H2'	2.21	0.41
1:1A:2323:G:C6	1:1A:2324:C:C4	3.08	0.41
1:1A:2693:A:H2'	1:1A:2694:G:C8	2.56	0.41
1:1A:2851:A:H2'	1:1A:2852:G:O4'	2.20	0.41
6:1G:41:GLN:NE2	6:1G:154:GLY:O	2.32	0.41
8:1I:3:VAL:HG12	8:1I:38:LEU:HA	2.01	0.41
10:1O:14:THR:HG21	10:1O:86:ILE:HB	2.02	0.41
32:1a:60:A:N3	32:1a:61:G:H1'	2.36	0.41
32:1a:261:U:O2'	32:1a:263:A:N7	2.48	0.41
32:1a:1003:G:N3	32:1a:1004:A:H2	2.19	0.41
32:1a:1016:A:H2'	32:1a:1017:G:O4'	2.21	0.41
32:1a:1380:U:C4	38:1g:3:ARG:HG3	2.55	0.41
35:1d:178:VAL:HG12	35:1d:179:GLU:H	1.85	0.41
39:1h:112:LEU:HB3	39:1h:133:LEU:HA	2.02	0.41
42:1k:65:ALA:HB3	42:1k:97:ALA:HB3	2.02	0.41
49:1r:25:THR:CG2	49:1r:42:ARG:HH12	2.33	0.41
51:1t:13:LEU:O	51:1t:17:ARG:HG3	2.20	0.41
51:1t:66:ALA:C	51:1t:68:LYS:H	2.29	0.41
51:1t:83:ARG:HA	51:1t:86:ARG:NH1	2.31	0.41
1:2A:243:U:OP1	30:28:6:THR:OG1	2.31	0.41
1:2A:342:G:H2'	1:2A:343:C:C6	2.54	0.41
1:2A:812:C:H5''	1:2A:1250:G:O2'	2.20	0.41
1:2A:873:G:N2	1:2A:905:U:C2	2.88	0.41
1:2A:1252:G:C2	1:2A:1253:A:C2	3.09	0.41
1:2A:1269:A:N7	59:2A:4053:HOH:O	2.37	0.41
1:2A:2558:C:H2'	1:2A:2559:C:O4'	2.21	0.41
1:2A:2692:C:H5''	1:2A:2870:C:O2'	2.21	0.41
2:2B:17:C:N4	2:2B:109:C:C2	2.89	0.41
8:2I:131:LYS:CB	8:2I:137:PRO:HA	2.50	0.41
23:21:7:ILE:HG23	23:21:98:LEU:HD11	2.02	0.41
27:25:20:ARG:HG2	27:25:23:HIS:ND1	2.34	0.41
32:2a:674:G:N2	32:2a:717:C:O2	2.54	0.41
32:2a:868:C:H2'	32:2a:869:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:909:A:H2'	32:2a:910:C:O4'	2.20	0.41
32:2a:1277:C:O2'	32:2a:1278:U:O5'	2.39	0.41
32:2a:1322:C:OP1	50:2s:78:ARG:NH1	2.52	0.41
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.55	0.41
41:2j:5:ARG:HA	41:2j:73:ASP:OD1	2.21	0.41
41:2j:47:PHE:CZ	45:2n:37:PHE:HE2	2.38	0.41
1:1A:57:C:H2'	1:1A:58:G:O4'	2.21	0.41
1:1A:445:C:O2'	1:1A:446:G:H5'	2.19	0.41
1:1A:527:C:N3	1:1A:2779:U:H2'	2.36	0.41
1:1A:1182:A:H2'	1:1A:1183:G:C8	2.56	0.41
1:1A:1235:G:C6	1:1A:1236:G:N1	2.89	0.41
1:1A:1530:C:H2'	1:1A:1531:C:H6	1.86	0.41
1:1A:1800:C:OP2	3:1D:183:ARG:NH2	2.53	0.41
1:1A:2032:G:OP2	1:1A:2454:G:O2'	2.32	0.41
1:1A:2443:C:H2'	1:1A:2444:G:H8	1.86	0.41
1:1A:2542:A:H4'	1:1A:2543:G:H8	1.85	0.41
6:1G:143:GLU:HG3	26:14:31:ILE:HD11	2.03	0.41
6:1G:179:PRO:HB2	26:14:42:PHE:CE2	2.56	0.41
11:1P:2:LYS:HG3	11:1P:4:SER:H	1.86	0.41
11:1P:122:PRO:O	11:1P:123:LEU:HD23	2.21	0.41
12:1Q:7:MET:HE2	12:1Q:7:MET:HB3	1.92	0.41
13:1R:12:ARG:HG2	13:1R:16:HIS:CE1	2.56	0.41
32:1a:39:G:C6	32:1a:40:C:C4	3.09	0.41
32:1a:189:G:C6	32:1a:189(L):G:N1	2.89	0.41
32:1a:545:C:H2'	32:1a:546:G:O4'	2.21	0.41
32:1a:577:G:H2'	32:1a:578:C:H6	1.85	0.41
32:1a:996:A:H2'	32:1a:997:U:O4'	2.21	0.41
32:1a:1091:U:H2'	32:1a:1093:A:OP2	2.20	0.41
32:1a:1152:A:H2'	32:1a:1153:C:H6	1.86	0.41
32:1a:1304:G:C5	32:1a:1305:G:C6	3.09	0.41
32:1a:1519:MA6:N7	32:1a:1520:G:H1'	2.35	0.41
33:1b:174:VAL:O	33:1b:178:ARG:HG3	2.20	0.41
34:1c:32:LEU:HG	34:1c:59:ARG:NH1	2.36	0.41
35:1d:202:LEU:HD23	35:1d:202:LEU:HA	1.77	0.41
39:1h:20:TYR:HA	39:1h:65:TYR:CZ	2.55	0.41
40:1i:43:ALA:HA	40:1i:74:ILE:HD13	2.02	0.41
1:2A:407:G:H2'	1:2A:408:G:C8	2.56	0.41
1:2A:812:C:H2'	1:2A:813:U:H6	1.85	0.41
1:2A:1357:U:H2'	1:2A:1358:G:O4'	2.21	0.41
1:2A:1368:G:OP1	29:27:28:ARG:NH2	2.53	0.41
1:2A:1453:U:O2'	1:2A:1455:G:N7	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1773:A:C5	1:2A:1829:A:H1'	2.56	0.41
1:2A:1897:G:H2'	1:2A:1898:U:C6	2.55	0.41
1:2A:2114:A:H2'	1:2A:2114:A:N3	2.36	0.41
3:2D:231:HIS:CD2	3:2D:249:PRO:HG3	2.56	0.41
4:2E:1:MET:HB3	4:2E:83:ASP:O	2.21	0.41
11:2P:47:ASP:CG	11:2P:49:ARG:HE	2.29	0.41
12:2Q:36:ALA:HB2	12:2Q:103:MET:SD	2.60	0.41
16:2U:36:ARG:HG2	16:2U:40:PHE:CZ	2.56	0.41
18:2W:55:ALA:O	18:2W:59:VAL:HG23	2.20	0.41
32:2a:62:U:H2'	32:2a:63:C:C6	2.55	0.41
32:2a:559:A:OP1	36:2e:126:ARG:NH2	2.54	0.41
32:2a:935:A:H2'	32:2a:936:C:C6	2.56	0.41
32:2a:1084:G:OP1	32:2a:1086:U:C2	2.74	0.41
34:2c:123:GLN:O	34:2c:128:PHE:HB2	2.21	0.41
35:2d:191:ARG:HE	35:2d:200:GLU:CD	2.29	0.41
36:2e:110:LEU:HD13	36:2e:118:ILE:HG21	2.03	0.41
44:2m:67:GLU:HB3	44:2m:68:GLY:H	1.67	0.41
1:1A:53:A:H2'	1:1A:54:G:O4'	2.21	0.41
1:1A:226:G:H21	1:1A:228:A:H62	1.68	0.41
1:1A:376:C:H2'	1:1A:377:C:H6	1.86	0.41
1:1A:637:A:H4'	1:1A:638:G:O5'	2.21	0.41
1:1A:686:G:OP2	1:1A:686:G:H4'	2.20	0.41
1:1A:838:C:H2'	1:1A:839:U:H6	1.85	0.41
1:1A:1358:G:N2	1:1A:1372:U:C5	2.88	0.41
1:1A:1541:G:H3'	1:1A:1542:A:H2'	2.01	0.41
1:1A:1594:G:H2'	1:1A:1595:G:O4'	2.20	0.41
1:1A:1653:G:O3'	13:1R:2:ARG:HB2	2.20	0.41
1:1A:2167:U:O2	1:1A:2167:U:H2'	2.20	0.41
1:1A:2405:G:O2'	1:1A:2406:U:OP1	2.30	0.41
1:1A:2804:C:H2'	1:1A:2805:G:O4'	2.20	0.41
11:1P:100:LEU:HD12	11:1P:112:LEU:HD22	2.02	0.41
32:1a:160:A:H1'	32:1a:344:A:C5	2.55	0.41
32:1a:530:G:O6	53:1v:21:C:H1'	2.20	0.41
32:1a:600:C:H4'	39:1h:128:GLY:O	2.21	0.41
32:1a:738:C:OP2	37:1f:92:LYS:NZ	2.35	0.41
32:1a:1413:A:C2	32:1a:1488:G:C2	3.09	0.41
39:1h:29:SER:HB3	39:1h:32:LYS:HD3	2.03	0.41
45:1n:26:ARG:HD3	45:1n:43:CYS:SG	2.60	0.41
48:1q:4:LYS:HG3	48:1q:6:LEU:CD1	2.51	0.41
1:2A:222:A:H5''	1:2A:421:U:OP1	2.21	0.41
1:2A:262:A:N3	1:2A:430:G:O2'	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:651:G:OP1	30:28:17:THR:HB	2.20	0.41
1:2A:784:A:C8	1:2A:792:G:C5	3.09	0.41
1:2A:804:A:H2'	1:2A:806:C:C4	2.56	0.41
1:2A:1030:G:OP2	12:2Q:128:LYS:NZ	2.53	0.41
1:2A:1354:A:H2'	1:2A:1355:G:O4'	2.21	0.41
1:2A:1563:G:H2'	1:2A:1564:C:O4'	2.20	0.41
1:2A:1942:5MC:OP2	1:2A:1943:U:O2'	2.31	0.41
1:2A:1993:U:H4'	4:2E:128:SER:OG	2.21	0.41
1:2A:2133:G:O2'	1:2A:2157:G:N2	2.53	0.41
1:2A:2494:G:O2'	12:2Q:80:GLU:HA	2.21	0.41
2:2B:43:C:H5''	26:24:1:MET:HG2	2.02	0.41
3:2D:132:PRO:O	3:2D:136:ILE:HG13	2.20	0.41
4:2E:59:VAL:HG13	4:2E:63:LEU:HB2	2.03	0.41
5:2F:102:PRO:HB2	5:2F:105:VAL:HG23	2.01	0.41
21:2Z:45:ASP:OD1	21:2Z:49:ARG:HD3	2.21	0.41
30:28:28:GLY:O	30:28:36:LYS:NZ	2.38	0.41
30:28:30:ARG:HD3	30:28:30:ARG:HA	1.95	0.41
32:2a:27:G:H2'	32:2a:28:G:C8	2.56	0.41
32:2a:309:G:H2'	32:2a:310:G:C8	2.53	0.41
32:2a:376:G:O3'	47:2p:5:ARG:HD2	2.20	0.41
32:2a:601:C:H2'	32:2a:602:A:H8	1.86	0.41
32:2a:790:A:C6	32:2a:791:G:C6	3.09	0.41
32:2a:932:C:H5''	38:2g:4:ARG:CZ	2.50	0.41
32:2a:983:A:H2	32:2a:984:C:C6	2.38	0.41
32:2a:1121:U:C2'	32:2a:1122:U:H5'	2.51	0.41
32:2a:1154:G:H2'	32:2a:1155:G:H8	1.86	0.41
32:2a:1186:G:H4'	40:2i:110:GLU:OE2	2.20	0.41
32:2a:1191:A:H5''	34:2c:4:LYS:HE3	2.03	0.41
40:2i:8:GLY:HA2	40:2i:79:LEU:HB3	2.03	0.41
46:2o:29:VAL:HG13	46:2o:63:ARG:HG3	2.03	0.41
1:1A:272(H):C:N4	1:1A:272(I):U:O4	2.54	0.41
1:1A:459:U:H4'	29:17:40:TRP:CZ3	2.56	0.41
1:1A:1035:U:H2'	1:1A:1036:G:C8	2.56	0.41
1:1A:1324:G:C4	1:1A:1328:G:O6	2.74	0.41
1:1A:1368:G:C2	1:1A:1369:G:C8	3.08	0.41
1:1A:1517:G:C6	1:1A:1518:U:C4	3.08	0.41
1:1A:1702:G:H2'	1:1A:1703:G:O4'	2.21	0.41
1:1A:1952:A:C5	1:1A:1953:A:C6	3.09	0.41
1:1A:2251:OMG:HM23	1:1A:2251:OMG:H1'	1.90	0.41
1:1A:2308:G:O2'	1:1A:2310:A:N7	2.46	0.41
1:1A:2370:G:C6	1:1A:2371:G:C6	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2788:C:OP1	4:1E:61:ARG:NH2	2.53	0.41
3:1D:70:TRP:HB3	3:1D:190:TYR:CZ	2.55	0.41
3:1D:145:VAL:HG12	3:1D:146:GLU:O	2.21	0.41
3:1D:202:LYS:NZ	32:1a:774:G:OP1	2.52	0.41
3:1D:223:GLY:HA3	3:1D:231:HIS:CE1	2.56	0.41
4:1E:12:THR:HG22	4:1E:13:ARG:H	1.86	0.41
5:1F:34:TRP:HE3	5:1F:35:GLU:HG2	1.82	0.41
6:1G:97:ASP:O	6:1G:101:ILE:HG13	2.21	0.41
7:1H:84:SER:HA	7:1H:133:VAL:O	2.21	0.41
10:1O:10:VAL:HG13	10:1O:17:ARG:O	2.21	0.41
11:1P:75:ILE:H	11:1P:75:ILE:HD12	1.85	0.41
14:1S:11:LYS:HG3	14:1S:91:PRO:HD3	2.03	0.41
18:1W:7:ALA:HB2	18:1W:50:VAL:HG22	2.03	0.41
18:1W:80:PRO:O	18:1W:100:THR:OG1	2.37	0.41
21:1Z:125:LEU:HB3	21:1Z:165:VAL:HG12	2.02	0.41
29:17:33:ARG:NH2	59:17:202:HOH:O	2.46	0.41
32:1a:78:G:C6	32:1a:91:C:N4	2.89	0.41
32:1a:182:U:OP2	59:1a:1918:HOH:O	2.21	0.41
32:1a:255:G:H2'	32:1a:256:U:H6	1.85	0.41
32:1a:431:A:H2'	32:1a:432:A:O4'	2.21	0.41
32:1a:499:A:O3'	32:1a:500:G:H8	2.04	0.41
32:1a:593:G:H2'	32:1a:594:G:O4'	2.21	0.41
32:1a:624:C:O3'	47:1p:10:GLY:HA2	2.20	0.41
32:1a:826:C:H2'	32:1a:827:U:C6	2.56	0.41
32:1a:991:U:C5	32:1a:1212:U:H1'	2.56	0.41
32:1a:996:A:H8	32:1a:996:A:O5'	2.04	0.41
32:1a:1020:U:O2	32:1a:1020:U:H2'	2.20	0.41
32:1a:1151:A:O2'	32:1a:1152:A:H8	2.02	0.41
32:1a:1220:G:H2'	32:1a:1221:G:C8	2.56	0.41
32:1a:1367:C:OP1	40:1i:115:GLY:N	2.48	0.41
33:1b:60:ASP:O	33:1b:64:ARG:HD2	2.21	0.41
33:1b:93:VAL:HG21	33:1b:97:TRP:CD1	2.55	0.41
34:1c:58:GLU:HB2	34:1c:65:ALA:HB3	2.03	0.41
35:1d:173:TRP:C	35:1d:186:LEU:HB2	2.46	0.41
36:1e:27:ARG:NH1	36:1e:27:ARG:HB2	2.36	0.41
38:1g:15:ASP:OD1	38:1g:19:GLY:N	2.54	0.41
38:1g:18:TYR:CE1	38:1g:59:LEU:HB2	2.55	0.41
39:1h:26:VAL:C	39:1h:58:TYR:HD1	2.29	0.41
41:1j:61:GLU:OE2	45:1n:49:HIS:NE2	2.54	0.41
43:1l:55:VAL:HB	43:1l:67:THR:HG23	2.02	0.41
44:1m:78:ILE:HG22	44:1m:82:MET:HE2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:4:LYS:HG3	48:1q:6:LEU:HD13	2.03	0.41
51:1t:22:ARG:C	51:1t:26:ASN:HD22	2.29	0.41
1:2A:186:G:H2'	1:2A:187:G:H8	1.84	0.41
1:2A:193:U:O3'	1:2A:803:U:H4'	2.20	0.41
1:2A:298:G:H5''	1:2A:299:A:OP1	2.20	0.41
1:2A:414:C:H5''	1:2A:1879:C:O2'	2.21	0.41
1:2A:479:A:O2'	1:2A:481:G:H5'	2.21	0.41
1:2A:494:G:H5'	18:2W:8:ARG:HD3	2.03	0.41
1:2A:500:G:N2	1:2A:502:A:H3'	2.36	0.41
1:2A:529:A:C5	1:2A:2042:A:C2	3.09	0.41
1:2A:729:G:C5	3:2D:208:LYS:HB2	2.56	0.41
1:2A:956:G:H2'	1:2A:957:A:H2'	2.03	0.41
1:2A:956:G:N2	1:2A:959:A:H3'	2.35	0.41
1:2A:1312:U:OP2	19:2X:63:LYS:HD3	2.20	0.41
1:2A:1459:G:H2'	1:2A:1461:G:OP2	2.21	0.41
1:2A:1491:G:H2'	1:2A:1492:G:C8	2.56	0.41
1:2A:1518:U:H2'	1:2A:1519:G:O4'	2.20	0.41
1:2A:2134:A:H1'	1:2A:2158:A:N1	2.35	0.41
1:2A:2207:G:H3'	1:2A:2208:A:H5''	2.02	0.41
1:2A:2462:U:H1'	1:2A:2491:U:O4	2.21	0.41
1:2A:2478:A:C2	1:2A:2529:G:H2'	2.56	0.41
1:2A:2607:G:H2'	1:2A:2608:G:O4'	2.20	0.41
1:2A:2792:G:H2'	1:2A:2792:G:N3	2.36	0.41
1:2A:2872:G:O2'	1:2A:2873:A:H5'	2.21	0.41
1:2A:2880:C:O3'	13:2R:90:ARG:NH1	2.54	0.41
2:2B:17:C:N4	2:2B:109:C:N3	2.69	0.41
2:2B:32:C:H2'	2:2B:33:G:O4'	2.21	0.41
2:2B:95:C:H2'	2:2B:96:U:C6	2.56	0.41
4:2E:16:ARG:NH1	4:2E:173:VAL:HG13	2.35	0.41
4:2E:38:THR:OG1	4:2E:41:LYS:N	2.42	0.41
5:2F:116:ASP:O	5:2F:120:GLU:HG2	2.21	0.41
10:2O:2:ILE:HD11	10:2O:82:ASN:HB3	2.03	0.41
12:2Q:132:VAL:HB	21:2Z:81:ARG:NH2	2.36	0.41
21:2Z:35:ARG:HD2	21:2Z:35:ARG:HA	1.72	0.41
21:2Z:43:GLU:O	21:2Z:47:VAL:HG12	2.21	0.41
21:2Z:54:HIS:HB3	21:2Z:101:PRO:HG3	2.02	0.41
21:2Z:98:MET:HE2	21:2Z:98:MET:HB2	1.95	0.41
26:24:60:GLN:O	26:24:62:ARG:NH2	2.54	0.41
29:27:9:ARG:HB3	29:27:46:VAL:HG23	2.03	0.41
29:27:12:ARG:NH2	29:27:44:PRO:HB3	2.35	0.41
29:27:26:GLY:O	29:27:30:VAL:HG23	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:189(D):C:H2'	32:2a:189(E):U:O4'	2.20	0.41
32:2a:631:G:H2'	32:2a:632:A:C8	2.55	0.41
32:2a:841:U:OP1	32:2a:841:U:H6	2.04	0.41
32:2a:983:A:H3'	32:2a:983:A:N3	2.35	0.41
32:2a:1122:U:C4	32:2a:1123:A:N7	2.87	0.41
32:2a:1265:G:C6	32:2a:1266:G:C6	3.09	0.41
33:2b:43:ASP:OD2	33:2b:46:LYS:N	2.54	0.41
33:2b:98:LEU:HD12	33:2b:98:LEU:HA	1.93	0.41
33:2b:160:ASP:OD1	33:2b:160:ASP:N	2.54	0.41
34:2c:6:HIS:CG	45:2n:49:HIS:HB3	2.55	0.41
35:2d:33:MET:HB2	58:2d:303:SF4:S2	2.61	0.41
35:2d:155:LEU:O	35:2d:159:ARG:HG2	2.20	0.41
36:2e:9:LYS:HB2	36:2e:112:LEU:HD11	2.03	0.41
36:2e:57:LYS:HE3	36:2e:57:LYS:HB2	1.72	0.41
38:2g:69:VAL:HG21	38:2g:104:LEU:HD21	2.02	0.41
45:2n:7:ILE:HD12	45:2n:11:LYS:HE3	2.03	0.41
1:1A:64:A:C4	19:1X:66:LEU:HD13	2.56	0.41
1:1A:306:U:H2'	1:1A:307:G:O4'	2.21	0.41
1:1A:817:C:H4'	1:1A:932:G:C5	2.56	0.41
1:1A:1274:A:N3	1:1A:1297:C:H1'	2.36	0.41
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.56	0.41
1:1A:1688:U:O2	1:1A:1700:A:H5'	2.21	0.41
1:1A:2296:U:OP2	14:1S:9:ARG:NH2	2.54	0.41
1:1A:2563:U:O2	1:1A:2565:A:H8	2.04	0.41
1:1A:2632:A:O2'	1:1A:2811:G:O2'	2.23	0.41
2:1B:2:C:H2'	2:1B:3:C:H6	1.86	0.41
3:1D:35:LYS:HD3	3:1D:64:ILE:HD11	2.03	0.41
5:1F:197:ASP:OD1	5:1F:197:ASP:N	2.54	0.41
10:1O:52:VAL:HG12	10:1O:94:ARG:NH2	2.36	0.41
11:1P:82:GLY:HA2	11:1P:113:LYS:O	2.20	0.41
14:1S:87:PHE:CZ	14:1S:98:VAL:HG12	2.55	0.41
17:1V:71:LEU:HD23	17:1V:71:LEU:HA	1.92	0.41
19:1X:64:LYS:HD3	19:1X:64:LYS:HA	1.87	0.41
30:18:54:GLU:O	30:18:58:ILE:HD12	2.21	0.41
32:1a:10:A:H2'	32:1a:11:G:H8	1.85	0.41
32:1a:503:C:H2'	32:1a:504:C:H6	1.86	0.41
32:1a:607:A:H2'	32:1a:608:A:H8	1.85	0.41
32:1a:674:G:H2'	32:1a:675:A:C8	2.56	0.41
32:1a:880:C:P	43:1l:8:ASN:HD22	2.43	0.41
32:1a:1206:G:C6	32:1a:1207:2MG:C5	3.08	0.41
32:1a:1298:C:C4	38:1g:114:ARG:HD3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1329:A:P	44:1m:28:ALA:HB3	2.61	0.41
33:1b:151:GLY:HA2	33:1b:154:LEU:HD13	2.03	0.41
34:1c:115:LEU:HD12	34:1c:115:LEU:HA	1.85	0.41
39:1h:82:HIS:NE2	39:1h:84:ARG:HG2	2.35	0.41
51:1t:76:ALA:HA	51:1t:79:ARG:NH1	2.36	0.41
1:2A:523:C:H2'	1:2A:524:U:O4'	2.21	0.41
1:2A:1658:C:OP1	4:2E:135:HIS:NE2	2.52	0.41
1:2A:1908:C:O2	54:2x:12:G:H4'	2.21	0.41
7:2H:144:VAL:O	7:2H:148:ILE:HG13	2.21	0.41
32:2a:15:G:C4	32:2a:16:A:C8	3.08	0.41
32:2a:359:U:H2'	32:2a:360:A:C8	2.56	0.41
32:2a:389:A:C5	32:2a:390:C:H1'	2.56	0.41
32:2a:654:G:H2'	32:2a:655:A:O4'	2.21	0.41
32:2a:668:G:H2'	32:2a:669:U:C6	2.56	0.41
32:2a:839:U:H3'	32:2a:840:C:C6	2.56	0.41
32:2a:1077:G:N1	32:2a:1080:A:OP2	2.49	0.41
33:2b:69:LEU:HD12	33:2b:69:LEU:HA	1.90	0.41
37:2f:63:TYR:O	37:2f:65:VAL:HG13	2.20	0.41
38:2g:77:SER:OG	38:2g:86:GLN:NE2	2.54	0.41
46:2o:31:LEU:HA	46:2o:31:LEU:HD23	1.76	0.41
50:2s:36:ARG:NH2	50:2s:72:GLY:O	2.54	0.41
1:1A:84:A:C5'	20:1Y:8:LYS:HG2	2.50	0.40
1:1A:184:C:H1'	1:1A:217:G:H1'	2.03	0.40
1:1A:363(B):G:C4	1:1A:363(C):G:C8	3.09	0.40
1:1A:611:C:H42	1:1A:616:G:H1	1.68	0.40
1:1A:664:C:H2'	1:1A:665:C:H6	1.85	0.40
1:1A:1011:G:H4'	16:1U:75:ASN:HD22	1.86	0.40
1:1A:1020:A:N1	1:1A:1141:U:O2'	2.47	0.40
1:1A:1101:U:H2'	1:1A:1102:C:O4'	2.21	0.40
1:1A:1266:G:H3'	59:1A:5127:HOH:O	2.21	0.40
1:1A:1805:U:H2'	1:1A:1806:C:C6	2.56	0.40
1:1A:1818:U:H2'	3:1D:157:ARG:HG3	2.02	0.40
1:1A:2065:C:H2'	1:1A:2066:C:C6	2.55	0.40
1:1A:2470:G:OP1	12:1Q:56:ARG:NH2	2.54	0.40
7:1H:117:PRO:HA	7:1H:118:PRO:HD3	1.96	0.40
18:1W:82:LEU:HD22	18:1W:84:ARG:HH22	1.86	0.40
19:1X:56:THR:HB	19:1X:77:LYS:HE2	2.02	0.40
32:1a:79:G:C6	32:1a:90:U:N3	2.90	0.40
32:1a:189:G:C6	32:1a:189(L):G:C6	3.09	0.40
32:1a:880:C:OP1	43:1l:8:ASN:ND2	2.54	0.40
32:1a:1137:C:H4'	32:1a:1138:G:C2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1367:C:H2'	32:1a:1368:G:O4'	2.21	0.40
32:1a:1469:G:H2'	32:1a:1470:G:C8	2.56	0.40
35:1d:119:GLN:HE21	35:1d:123:HIS:CD2	2.40	0.40
37:1f:70:ASP:OD1	37:1f:70:ASP:N	2.47	0.40
1:2A:324:A:N6	1:2A:338:G:O2'	2.52	0.40
1:2A:652:C:O2'	1:2A:652(A):A:H5'	2.20	0.40
1:2A:652(D):C:N4	1:2A:652(U):G:H1	2.17	0.40
1:2A:1037:G:H2'	1:2A:1038:C:O4'	2.21	0.40
1:2A:1288:U:C2	1:2A:1327:C:C2	3.10	0.40
1:2A:1416:G:O2'	1:2A:1417:C:OP2	2.32	0.40
1:2A:1581:G:H2'	1:2A:1582:C:O4'	2.21	0.40
1:2A:2312:U:H5'	6:2G:88:ILE:HD11	2.02	0.40
1:2A:2332:U:O2'	1:2A:2335:A:N3	2.54	0.40
1:2A:2629:A:H1'	1:2A:2630:G:H5''	2.03	0.40
2:2B:33:G:C6	2:2B:34:U:C4	3.09	0.40
8:2I:102:SER:HB3	8:2I:108:THR:OG1	2.21	0.40
18:2W:11:ARG:HD2	18:2W:11:ARG:HA	1.83	0.40
18:2W:14:PRO:HA	18:2W:17:VAL:HG23	2.02	0.40
19:2X:47:PHE:O	19:2X:49:VAL:HG13	2.21	0.40
30:28:52:LYS:N	30:28:53:PRO:HD2	2.36	0.40
32:2a:142:G:H1	32:2a:221:C:H42	1.69	0.40
32:2a:405:U:OP1	32:2a:406:G:O2'	2.31	0.40
32:2a:736:C:H2'	32:2a:737:A:H8	1.84	0.40
32:2a:737:A:H5'	37:2f:90:VAL:O	2.22	0.40
32:2a:823:G:H1	32:2a:877:C:N4	2.12	0.40
32:2a:1124:G:C2	32:2a:1127:G:N2	2.89	0.40
32:2a:1305:G:C2	32:2a:1331:G:H1'	2.56	0.40
33:2b:91:PRO:HG3	33:2b:154:LEU:HD22	2.02	0.40
33:2b:192:SER:O	33:2b:194:PRO:HD3	2.20	0.40
34:2c:30:ARG:HG3	34:2c:31:HIS:ND1	2.36	0.40
44:2m:29:ARG:HH11	44:2m:64:TRP:CD1	2.38	0.40
1:1A:69:C:O2	1:1A:73:A:O2'	2.31	0.40
1:1A:226:G:N2	1:1A:228:A:H62	2.19	0.40
1:1A:1260:G:H2'	1:1A:1261:C:O4'	2.21	0.40
1:1A:1367:A:C5	1:1A:1368:G:H1'	2.56	0.40
1:1A:1815:A:OP2	3:1D:54:ARG:NH2	2.54	0.40
1:1A:2135:A:N6	1:1A:2156:G:O2'	2.54	0.40
1:1A:2136:C:C4	1:1A:2155:G:N1	2.89	0.40
1:1A:2193:G:H2'	1:1A:2194:G:C8	2.56	0.40
1:1A:2406:U:H2'	1:1A:2406:U:H6	1.65	0.40
1:1A:2721:A:H2'	1:1A:2722:G:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:1S:94:TYR:CE2	14:1S:99:LYS:HG3	2.57	0.40
18:1W:18:ARG:CG	18:1W:76:VAL:HB	2.51	0.40
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.39	0.40
21:1Z:150:LEU:HA	21:1Z:150:LEU:HD12	1.81	0.40
32:1a:49:U:C2	32:1a:361:G:N2	2.89	0.40
32:1a:430:A:OP2	35:1d:8:VAL:HG12	2.21	0.40
32:1a:598:U:H4'	39:1h:94:TYR:CD2	2.56	0.40
32:1a:757:U:O2'	32:1a:879:C:O2	2.35	0.40
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.55	0.40
32:1a:1121:U:H2'	32:1a:1122:U:H6	1.85	0.40
33:1b:24:TRP:CD1	33:1b:24:TRP:H	2.38	0.40
35:1d:182:LYS:HE3	35:1d:182:LYS:HB2	1.70	0.40
42:1k:103:LEU:HD23	42:1k:103:LEU:HA	1.93	0.40
43:1l:60:LEU:HD12	43:1l:64:TYR:HB2	2.04	0.40
51:1t:74:LYS:HA	51:1t:74:LYS:HD2	1.90	0.40
1:2A:205:G:O6	23:21:39:LYS:NZ	2.45	0.40
1:2A:299:A:N1	1:2A:322:A:O2'	2.46	0.40
1:2A:864:G:OP2	12:2Q:22:LYS:HE2	2.21	0.40
1:2A:956:G:O2'	1:2A:959:A:N7	2.53	0.40
1:2A:966:G:C6	1:2A:967:C:N4	2.89	0.40
1:2A:2488:A:O5'	1:2A:2488:A:H8	2.04	0.40
1:2A:2843:G:H1	1:2A:2874:C:N4	2.18	0.40
6:2G:107:LEU:HD21	6:2G:178:PHE:CE1	2.55	0.40
10:2O:19:ILE:HG22	10:2O:43:VAL:HA	2.03	0.40
11:2P:75:ILE:HD12	11:2P:75:ILE:H	1.86	0.40
20:2Y:17:SER:HA	20:2Y:21:LYS:HB3	2.03	0.40
28:26:11:LEU:HB3	28:26:49:HIS:HB3	2.03	0.40
29:27:40:TRP:HE3	29:27:41:ARG:HH21	1.69	0.40
32:2a:46:G:O2'	32:2a:365:U:H1'	2.21	0.40
32:2a:142:G:H2'	32:2a:143:A:C8	2.57	0.40
32:2a:445:G:H2'	32:2a:446:G:H8	1.85	0.40
32:2a:583:A:H2'	32:2a:584:G:O4'	2.21	0.40
32:2a:811:C:H4'	32:2a:900:A:N6	2.37	0.40
32:2a:1286:A:H2'	32:2a:1287:A:H5'	2.02	0.40
32:2a:1387:G:H2'	32:2a:1388:C:H6	1.87	0.40
33:2b:185:ILE:HB	33:2b:199:TYR:HB2	2.03	0.40
49:2r:70:ILE:O	49:2r:74:ARG:HG3	2.20	0.40
51:2t:43:LEU:HD23	51:2t:43:LEU:HA	1.97	0.40
1:1A:84:A:N1	1:1A:98:G:O2'	2.51	0.40
1:1A:657:U:H2'	1:1A:658:C:H6	1.86	0.40
1:1A:662:G:H5'	11:1P:14:LYS:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:876:C:H2'	1:1A:877:U:O4'	2.21	0.40
1:1A:1027:A:C6	1:1A:1126:A:C4	3.09	0.40
1:1A:1598:C:H2'	1:1A:1599:C:C6	2.54	0.40
1:1A:2168:G:N1	1:1A:2171:A:C8	2.89	0.40
1:1A:2283:C:H2'	1:1A:2284:C:O4'	2.22	0.40
3:1D:145:VAL:HG11	3:1D:175:LEU:HD11	2.03	0.40
9:1N:67:LEU:O	9:1N:88:GLU:HG3	2.21	0.40
10:1O:104:ARG:NH2	15:1T:43:GLN:OE1	2.50	0.40
12:1Q:65:PHE:HB2	12:1Q:105:GLU:HB2	2.03	0.40
13:1R:67:LEU:HG	13:1R:76:VAL:HG11	2.03	0.40
14:1S:11:LYS:O	14:1S:15:ARG:HG3	2.21	0.40
23:11:18:ILE:HG12	23:11:37:ILE:CG2	2.49	0.40
23:11:23:LYS:HB3	23:11:29:GLY:HA3	2.02	0.40
30:18:14:VAL:HG11	30:18:58:ILE:HG21	2.03	0.40
32:1a:142:G:H2'	32:1a:143:A:H8	1.86	0.40
32:1a:604:G:C6	32:1a:605:U:C4	3.09	0.40
32:1a:626:U:C2	32:1a:627:G:C8	3.10	0.40
32:1a:964:A:O2'	41:1j:55:LYS:HD2	2.21	0.40
32:1a:1220:G:O3'	50:1s:36:ARG:HD3	2.21	0.40
33:1b:223:ILE:HD12	33:1b:229:VAL:HA	2.03	0.40
35:1d:107:ARG:HA	35:1d:107:ARG:HD2	1.87	0.40
35:1d:128:VAL:HG12	35:1d:129:ASN:HD22	1.86	0.40
35:1d:173:TRP:CE3	35:1d:174:LEU:HG	2.55	0.40
38:1g:18:TYR:CD1	38:1g:59:LEU:HD13	2.56	0.40
40:1i:111:ARG:HH22	41:1j:62:HIS:HE2	1.70	0.40
47:1p:28:ARG:HE	47:1p:29:ASP:CG	2.30	0.40
48:1q:48:GLU:HB2	48:1q:50:LYS:HG3	2.03	0.40
1:2A:77:C:H5''	24:22:10:LEU:HD21	2.04	0.40
1:2A:320:A:H4'	1:2A:322:A:C8	2.56	0.40
1:2A:805:G:O4'	11:2P:38:GLN:HG3	2.21	0.40
1:2A:840:C:H2'	1:2A:841:A:C8	2.56	0.40
1:2A:858:U:O2	1:2A:2268:A:H2'	2.22	0.40
1:2A:1001:A:C8	1:2A:1002:G:C8	3.09	0.40
1:2A:1131:G:H8	1:2A:2025:C:H4'	1.86	0.40
1:2A:2018:G:H2'	1:2A:2019:A:O4'	2.21	0.40
1:2A:2163:C:H5'	1:2A:2172:U:H5''	2.03	0.40
1:2A:2271:G:OP1	22:20:18:ALA:HB1	2.22	0.40
5:2F:110:LEU:HA	5:2F:183:VAL:HG12	2.03	0.40
5:2F:178:PRO:HB2	5:2F:201:VAL:CG2	2.51	0.40
6:2G:115:ARG:NH1	6:2G:115:ARG:HB2	2.36	0.40
7:2H:12:PRO:O	7:2H:15:VAL:HG22	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:2O:73:ASP:OD2	15:2T:32:TYR:OH	2.36	0.40
22:20:21:LEU:HD21	22:20:41:ARG:NH2	2.37	0.40
32:2a:6:G:H1	36:2e:98:THR:CG2	2.34	0.40
32:2a:66:G:H8	32:2a:66:G:OP1	2.04	0.40
32:2a:443:C:H2'	32:2a:444:C:H6	1.86	0.40
32:2a:484:G:C8	32:2a:486:U:C2	3.09	0.40
32:2a:683:G:C6	32:2a:684:A:C5	3.09	0.40
32:2a:942:G:C2	32:2a:1342:C:C2	3.09	0.40
32:2a:1126:U:H3	41:2j:40:LEU:HD21	1.85	0.40
32:2a:1133:G:N2	32:2a:1142:G:C4	2.89	0.40
40:2i:77:ILE:O	40:2i:81:ILE:HG12	2.22	0.40
44:2m:33:ALA:HB2	44:2m:64:TRP:CH2	2.49	0.40
1:1A:149:A:C6	1:1A:150:C:N3	2.90	0.40
1:1A:1249:U:O4	11:1P:18:ARG:HD2	2.22	0.40
1:1A:1529:G:H2'	1:1A:1530:C:C6	2.56	0.40
1:1A:2552:2MU:C2	1:1A:2554:U:H5'	2.52	0.40
1:1A:2783:G:C2	1:1A:2784:C:C2	3.09	0.40
1:1A:2791:C:H2'	1:1A:2792:G:H8	1.87	0.40
1:1A:2810:A:H2'	1:1A:2811:G:O4'	2.21	0.40
3:1D:118:VAL:HG22	3:1D:119:ALA:H	1.85	0.40
3:1D:159:ALA:HB1	3:1D:198:ASN:O	2.21	0.40
5:1F:7:TYR:O	5:1F:21:ALA:HA	2.21	0.40
7:1H:7:LEU:HA	7:1H:8:PRO:HD3	1.97	0.40
11:1P:124:LYS:HA	11:1P:144:GLU:O	2.22	0.40
12:1Q:39:PRO:HA	12:1Q:97:VAL:O	2.21	0.40
14:1S:89:ARG:O	14:1S:90:GLY:C	2.65	0.40
19:1X:94:GLY:N	19:1X:95:LEU:HB2	2.37	0.40
32:1a:22:G:H4'	32:1a:885:G:C8	2.57	0.40
32:1a:310:G:H5''	47:1p:31:LYS:HB2	2.04	0.40
32:1a:676:A:H2'	32:1a:677:U:C6	2.56	0.40
32:1a:1120:G:C6	32:1a:1121:U:C4	3.09	0.40
36:1e:72:GLN:O	36:1e:75:THR:HG22	2.22	0.40
38:1g:45:ASP:O	38:1g:49:ILE:HG13	2.22	0.40
51:1t:41:ILE:HG23	51:1t:91:LEU:HD21	2.03	0.40
1:2A:24:G:H2'	1:2A:25:U:O4'	2.22	0.40
1:2A:25:U:C4	1:2A:26:G:C6	3.10	0.40
1:2A:676:A:H1'	1:2A:2443:C:H1'	2.03	0.40
1:2A:797:C:C2	1:2A:798:G:C8	3.09	0.40
1:2A:1812:A:H2'	1:2A:1813:G:C8	2.56	0.40
1:2A:1864:U:OP1	1:2A:2410:G:O2'	2.36	0.40
1:2A:1910:G:H22	1:2A:1920:4OC:C2	2.33	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2110:G:OP1	1:2A:2118:U:N3	2.54	0.40
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.21	0.40
1:2A:2292:C:H4'	1:2A:2375:G:H4'	2.03	0.40
1:2A:2362:G:OP1	30:28:44:LYS:NZ	2.47	0.40
1:2A:2386:C:H2'	1:2A:2387:U:C6	2.56	0.40
1:2A:2525:G:C2	1:2A:2539:C:C2	3.09	0.40
1:2A:2562:U:H4'	10:2O:25:LEU:HD21	2.03	0.40
5:2F:111:ALA:HB2	5:2F:206:ILE:HG21	2.04	0.40
6:2G:64:THR:HG21	6:2G:92:VAL:HG11	2.04	0.40
10:2O:70:LYS:HB3	10:2O:70:LYS:HE2	1.59	0.40
17:2V:55:ALA:HA	17:2V:100:ARG:HB2	2.04	0.40
22:20:46:LYS:N	22:20:77:ARG:O	2.48	0.40
24:22:35:LEU:HD21	24:22:49:LYS:HB2	2.04	0.40
32:2a:296:U:O2'	32:2a:556:C:O2	2.34	0.40
32:2a:401:C:H2'	32:2a:402:G:C8	2.55	0.40
32:2a:414:A:H2'	32:2a:415:A:C8	2.57	0.40
32:2a:437:U:O2'	35:2d:125:HIS:HE1	2.05	0.40
32:2a:543:C:O2'	32:2a:544:G:H5'	2.22	0.40
32:2a:559:A:H5''	32:2a:560:U:H3'	2.02	0.40
32:2a:957:U:O2	32:2a:959:A:H8	2.04	0.40
32:2a:1388:C:H2'	32:2a:1389:C:O4'	2.22	0.40
35:2d:108:LEU:HA	35:2d:108:LEU:HD12	1.91	0.40
44:2m:68:GLY:O	44:2m:72:ALA:N	2.37	0.40
51:2t:89:ARG:NH2	51:2t:103:GLY:HA3	2.37	0.40
1:1A:41:C:H2'	1:1A:42:G:O4'	2.22	0.40
1:1A:630:G:OP1	30:18:47:LYS:NZ	2.46	0.40
1:1A:963:U:H1'	1:1A:2250:G:O6	2.21	0.40
1:1A:1784:A:H4'	1:1A:1785:A:O5'	2.22	0.40
1:1A:1818:U:O4	3:1D:154:LYS:HD2	2.22	0.40
1:1A:1972:A:H2'	1:1A:1973:G:C8	2.57	0.40
1:1A:2365:G:H5''	59:1A:4250:HOH:O	2.21	0.40
2:1B:79:C:H2'	2:1B:80:U:O4'	2.22	0.40
4:1E:34:VAL:HB	4:1E:48:GLN:HE21	1.86	0.40
5:1F:74:ARG:H	5:1F:74:ARG:HG3	1.47	0.40
5:1F:161:GLU:HG2	5:1F:164:ARG:NH2	2.37	0.40
6:1G:73:ALA:HB3	6:1G:85:GLY:H	1.85	0.40
10:1O:7:TYR:CZ	10:1O:44:LYS:HG3	2.56	0.40
11:1P:38:GLN:O	11:1P:40:SER:N	2.47	0.40
12:1Q:54:MET:HG2	12:1Q:117:ALA:HB1	2.04	0.40
13:1R:63:ARG:HA	13:1R:80:PHE:CZ	2.57	0.40
25:13:8:LEU:HG	25:13:31:LEU:CD2	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:54:GLY:N	26:14:55:ARG:HA	2.36	0.40
30:18:42:ARG:HD2	59:18:201:HOH:O	2.21	0.40
32:1a:107:G:C2	32:1a:108:G:H1'	2.57	0.40
32:1a:658:G:H2'	32:1a:659:U:H6	1.87	0.40
32:1a:925:G:H1	32:1a:1391:U:H3	1.69	0.40
32:1a:1104:G:H4'	33:1b:111:ARG:CZ	2.51	0.40
32:1a:1183:A:O2'	32:1a:1184:G:H5''	2.22	0.40
32:1a:1391:U:H2'	32:1a:1392:G:H8	1.83	0.40
33:1b:21:ARG:CB	33:1b:39:ILE:HA	2.50	0.40
38:1g:57:GLU:HA	38:1g:58:PRO:HD3	1.99	0.40
38:1g:69:VAL:HG12	38:1g:69:VAL:O	2.21	0.40
38:1g:113:GLU:H	38:1g:113:GLU:HG2	1.58	0.40
44:1m:50:GLU:O	44:1m:54:VAL:HG22	2.22	0.40
1:2A:252:G:OP1	11:2P:50:ARG:NH1	2.51	0.40
1:2A:634:C:H2'	1:2A:635:C:C6	2.56	0.40
1:2A:747:U:O2	1:2A:2014:A:H1'	2.22	0.40
1:2A:1422:G:H1'	1:2A:1496:A:N1	2.37	0.40
1:2A:1422:G:C6	1:2A:1423:G:C5	3.10	0.40
1:2A:1557:C:H2'	1:2A:1558:A:C2	2.57	0.40
1:2A:1789:A:H2'	1:2A:1790:C:O4'	2.22	0.40
1:2A:1801:G:OP2	3:2D:154:LYS:NZ	2.47	0.40
1:2A:1814:G:H5''	3:2D:54:ARG:NH2	2.35	0.40
1:2A:2611:U:H3'	1:2A:2611:U:OP2	2.21	0.40
3:2D:147:LEU:HD13	3:2D:155:LEU:HD21	2.04	0.40
6:2G:150:ASP:OD1	6:2G:150:ASP:N	2.54	0.40
7:2H:117:PRO:HA	7:2H:118:PRO:HD3	1.89	0.40
21:2Z:14:LYS:HE2	21:2Z:14:LYS:HB3	1.85	0.40
32:2a:6:G:C4	36:2e:119:LEU:HD11	2.56	0.40
32:2a:194:C:H2'	32:2a:195:A:H5''	2.03	0.40
32:2a:404:U:H2'	32:2a:405:U:H6	1.85	0.40
32:2a:512:U:H2'	32:2a:513:C:H6	1.86	0.40
32:2a:565:U:OP2	32:2a:566:G:O2'	2.36	0.40
32:2a:671:G:H1	32:2a:735:C:H42	1.69	0.40
32:2a:1325:C:H5''	52:2u:17:THR:HG21	2.04	0.40
32:2a:1342:C:O2'	40:2i:124:GLN:HA	2.21	0.40
32:2a:1417:G:C6	32:2a:1482:G:C6	3.09	0.40
47:2p:52:ASP:CG	47:2p:55:ARG:HG2	2.47	0.40

All (12) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:55:A:C5	8:2I:89:TYR:CZ[2_655]	1.80	0.40
32:1a:55:A:C4	8:2I:89:TYR:CZ[2_655]	1.82	0.38
32:1a:55:A:C4	8:2I:89:TYR:CE2[2_655]	1.95	0.25
32:1a:55:A:C5	8:2I:89:TYR:CE2[2_655]	1.98	0.22
32:1a:55:A:C8	8:2I:89:TYR:CE1[2_655]	2.01	0.19
32:1a:55:A:N7	8:2I:89:TYR:CE1[2_655]	2.02	0.18
32:1a:55:A:N7	8:2I:89:TYR:CZ[2_655]	2.05	0.15
32:1a:55:A:C5	8:2I:89:TYR:CE1[2_655]	2.05	0.15
32:1a:55:A:N9	8:2I:89:TYR:CZ[2_655]	2.07	0.13
32:1a:55:A:N9	8:2I:89:TYR:CE1[2_655]	2.08	0.12
32:1a:55:A:C4	8:2I:89:TYR:CE1[2_655]	2.09	0.11
32:1a:55:A:N1	8:2I:89:TYR:CD2[2_655]	2.17	0.03

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	1D	273/276 (99%)	255 (93%)	18 (7%)	0	100	100
3	2D	273/276 (99%)	251 (92%)	21 (8%)	1 (0%)	30	60
4	1E	202/206 (98%)	188 (93%)	12 (6%)	2 (1%)	12	38
4	2E	202/206 (98%)	187 (93%)	13 (6%)	2 (1%)	12	38
5	1F	201/210 (96%)	194 (96%)	4 (2%)	3 (2%)	8	28
5	2F	201/210 (96%)	188 (94%)	12 (6%)	1 (0%)	24	55
6	1G	179/182 (98%)	162 (90%)	13 (7%)	4 (2%)	5	19
6	2G	179/182 (98%)	148 (83%)	24 (13%)	7 (4%)	2	8
7	1H	172/180 (96%)	158 (92%)	14 (8%)	0	100	100
7	2H	172/180 (96%)	151 (88%)	17 (10%)	4 (2%)	5	18
8	1I	144/148 (97%)	126 (88%)	16 (11%)	2 (1%)	9	30
8	2I	144/148 (97%)	112 (78%)	26 (18%)	6 (4%)	2	7
9	1N	138/140 (99%)	135 (98%)	2 (1%)	1 (1%)	18	47

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	2N	138/140 (99%)	131 (95%)	6 (4%)	1 (1%)	18	47
10	1O	120/122 (98%)	108 (90%)	11 (9%)	1 (1%)	16	44
10	2O	120/122 (98%)	107 (89%)	12 (10%)	1 (1%)	16	44
11	1P	147/150 (98%)	134 (91%)	10 (7%)	3 (2%)	6	21
11	2P	147/150 (98%)	133 (90%)	12 (8%)	2 (1%)	9	30
12	1Q	139/141 (99%)	128 (92%)	10 (7%)	1 (1%)	18	47
12	2Q	139/141 (99%)	124 (89%)	15 (11%)	0	100	100
13	1R	116/118 (98%)	108 (93%)	8 (7%)	0	100	100
13	2R	116/118 (98%)	108 (93%)	7 (6%)	1 (1%)	14	41
14	1S	108/112 (96%)	96 (89%)	11 (10%)	1 (1%)	14	41
14	2S	108/112 (96%)	101 (94%)	4 (4%)	3 (3%)	4	14
15	1T	129/146 (88%)	121 (94%)	7 (5%)	1 (1%)	16	44
15	2T	129/146 (88%)	121 (94%)	8 (6%)	0	100	100
16	1U	114/118 (97%)	112 (98%)	2 (2%)	0	100	100
16	2U	114/118 (97%)	112 (98%)	2 (2%)	0	100	100
17	1V	99/101 (98%)	90 (91%)	8 (8%)	1 (1%)	12	38
17	2V	99/101 (98%)	93 (94%)	6 (6%)	0	100	100
18	1W	110/113 (97%)	106 (96%)	3 (3%)	1 (1%)	14	41
18	2W	110/113 (97%)	108 (98%)	2 (2%)	0	100	100
19	1X	93/96 (97%)	85 (91%)	6 (6%)	2 (2%)	5	19
19	2X	93/96 (97%)	87 (94%)	5 (5%)	1 (1%)	11	36
20	1Y	105/110 (96%)	101 (96%)	4 (4%)	0	100	100
20	2Y	105/110 (96%)	93 (89%)	11 (10%)	1 (1%)	12	38
21	1Z	148/206 (72%)	130 (88%)	16 (11%)	2 (1%)	9	30
21	2Z	156/206 (76%)	128 (82%)	24 (15%)	4 (3%)	4	15
22	10	81/85 (95%)	76 (94%)	4 (5%)	1 (1%)	10	34
22	20	81/85 (95%)	76 (94%)	4 (5%)	1 (1%)	10	34
23	11	95/98 (97%)	91 (96%)	2 (2%)	2 (2%)	5	20
23	21	95/98 (97%)	91 (96%)	4 (4%)	0	100	100
24	12	68/72 (94%)	67 (98%)	1 (2%)	0	100	100
24	22	68/72 (94%)	60 (88%)	8 (12%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
25	13	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
25	23	57/60 (95%)	52 (91%)	4 (7%)	1 (2%)	6	23
26	14	67/71 (94%)	56 (84%)	7 (10%)	4 (6%)	1	3
26	24	67/71 (94%)	53 (79%)	13 (19%)	1 (2%)	8	28
27	15	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
27	25	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
28	16	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
28	26	51/54 (94%)	47 (92%)	4 (8%)	0	100	100
29	17	46/49 (94%)	46 (100%)	0	0	100	100
29	27	46/49 (94%)	46 (100%)	0	0	100	100
30	18	62/65 (95%)	59 (95%)	3 (5%)	0	100	100
30	28	62/65 (95%)	58 (94%)	4 (6%)	0	100	100
31	19	35/37 (95%)	35 (100%)	0	0	100	100
31	29	35/37 (95%)	30 (86%)	4 (11%)	1 (3%)	3	13
33	1b	229/256 (90%)	193 (84%)	29 (13%)	7 (3%)	3	12
33	2b	229/256 (90%)	199 (87%)	21 (9%)	9 (4%)	2	8
34	1c	204/239 (85%)	179 (88%)	24 (12%)	1 (0%)	24	55
34	2c	204/239 (85%)	179 (88%)	22 (11%)	3 (2%)	8	28
35	1d	206/209 (99%)	184 (89%)	21 (10%)	1 (0%)	24	55
35	2d	206/209 (99%)	191 (93%)	15 (7%)	0	100	100
36	1e	146/162 (90%)	128 (88%)	16 (11%)	2 (1%)	9	30
36	2e	146/162 (90%)	126 (86%)	18 (12%)	2 (1%)	9	30
37	1f	98/101 (97%)	89 (91%)	9 (9%)	0	100	100
37	2f	98/101 (97%)	91 (93%)	7 (7%)	0	100	100
38	1g	153/156 (98%)	134 (88%)	17 (11%)	2 (1%)	9	31
38	2g	153/156 (98%)	132 (86%)	18 (12%)	3 (2%)	6	21
39	1h	135/138 (98%)	125 (93%)	10 (7%)	0	100	100
39	2h	135/138 (98%)	124 (92%)	11 (8%)	0	100	100
40	1i	125/128 (98%)	106 (85%)	17 (14%)	2 (2%)	7	27
40	2i	125/128 (98%)	106 (85%)	18 (14%)	1 (1%)	16	44
41	1j	95/105 (90%)	77 (81%)	13 (14%)	5 (5%)	1	5

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
41	2j	94/105 (90%)	82 (87%)	8 (8%)	4 (4%)	2	7
42	1k	112/129 (87%)	101 (90%)	7 (6%)	4 (4%)	2	10
42	2k	112/129 (87%)	99 (88%)	11 (10%)	2 (2%)	6	23
43	1l	119/132 (90%)	107 (90%)	12 (10%)	0	100	100
43	2l	119/132 (90%)	105 (88%)	14 (12%)	0	100	100
44	1m	120/126 (95%)	107 (89%)	11 (9%)	2 (2%)	7	25
44	2m	119/126 (94%)	105 (88%)	11 (9%)	3 (2%)	4	16
45	1n	58/61 (95%)	52 (90%)	6 (10%)	0	100	100
45	2n	58/61 (95%)	54 (93%)	3 (5%)	1 (2%)	7	25
46	1o	86/89 (97%)	81 (94%)	5 (6%)	0	100	100
46	2o	86/89 (97%)	78 (91%)	8 (9%)	0	100	100
47	1p	80/88 (91%)	68 (85%)	9 (11%)	3 (4%)	2	9
47	2p	80/88 (91%)	71 (89%)	9 (11%)	0	100	100
48	1q	97/105 (92%)	87 (90%)	10 (10%)	0	100	100
48	2q	97/105 (92%)	86 (89%)	10 (10%)	1 (1%)	12	38
49	1r	66/88 (75%)	58 (88%)	7 (11%)	1 (2%)	8	28
49	2r	66/88 (75%)	65 (98%)	1 (2%)	0	100	100
50	1s	81/93 (87%)	67 (83%)	13 (16%)	1 (1%)	10	34
50	2s	81/93 (87%)	71 (88%)	8 (10%)	2 (2%)	4	16
51	1t	94/106 (89%)	82 (87%)	7 (7%)	5 (5%)	1	5
51	2t	94/106 (89%)	82 (87%)	7 (7%)	5 (5%)	1	5
52	1u	21/27 (78%)	18 (86%)	2 (10%)	1 (5%)	2	6
52	2u	21/27 (78%)	17 (81%)	4 (19%)	0	100	100
All	All	11368/12128 (94%)	10282 (90%)	942 (8%)	144 (1%)	9	31

All (144) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	1E	71	GLY
5	1F	130	ALA
11	1P	36	LYS
11	1P	38	GLN
12	1Q	27	VAL
14	1S	94	TYR

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Mol	Chain	Res	Type
26	14	62	ARG
33	1b	17	PHE
33	1b	125	PRO
38	1g	80	VAL
40	1i	54	ASP
44	1m	67	GLU
44	1m	106	ASN
5	2F	130	ALA
7	2H	126	PRO
8	2I	127	VAL
10	2O	5	GLN
11	2P	45	LEU
33	2b	16	HIS
33	2b	123	ALA
40	2i	54	ASP
42	2k	105	VAL
50	2s	12	ASP
51	2t	10	LEU
5	1F	168	ARG
6	1G	43	LEU
18	1W	40	ASN
21	1Z	52	SER
23	11	3	LYS
26	14	45	GLY
26	14	49	PHE
34	1c	129	ALA
36	1e	85	GLY
41	1j	56	HIS
41	1j	79	ARG
42	1k	49	GLY
42	1k	107	SER
4	2E	71	GLY
6	2G	45	GLU
6	2G	51	ARG
8	2I	108	THR
8	2I	115	ALA
11	2P	38	GLN
14	2S	96	GLY
19	2X	94	GLY
21	2Z	65	GLN
21	2Z	66	SER
26	24	45	GLY

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Mol	Chain	Res	Type
33	2b	126	GLU
36	2e	21	ALA
36	2e	85	GLY
42	2k	49	GLY
44	2m	67	GLU
48	2q	68	ARG
4	1E	52	LEU
6	1G	44	GLY
17	1V	43	GLU
19	1X	94	GLY
26	14	53	GLU
33	1b	124	SER
38	1g	4	ARG
42	1k	91	ARG
47	1p	28	ARG
47	1p	81	ARG
50	1s	12	ASP
51	1t	102	GLY
52	1u	5	ASP
6	2G	117	PHE
8	2I	135	GLU
9	2N	2	LYS
14	2S	94	TYR
21	2Z	52	SER
31	29	21	GLY
33	2b	78	GLN
33	2b	105	PHE
51	2t	9	ASN
51	2t	95	ALA
6	1G	47	LYS
23	11	84	GLY
33	1b	231	GLU
40	1i	42	ARG
42	1k	106	LYS
49	1r	33	ASP
51	1t	47	GLY
51	1t	95	ALA
51	1t	100	ILE
4	2E	52	LEU
7	2H	47	GLU
7	2H	55	PRO
7	2H	92	ILE

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Mol	Chain	Res	Type
8	2I	94	ALA
14	2S	84	GLN
34	2c	129	ALA
34	2c	181	ASN
38	2g	7	ALA
38	2g	80	VAL
41	2j	29	ARG
41	2j	78	ASN
45	2n	14	PRO
5	1F	122	LYS
6	1G	49	ASP
8	1I	33	ARG
8	1I	42	SER
9	1N	2	LYS
10	1O	5	GLN
21	1Z	137	ILE
22	10	4	LYS
33	1b	22	LYS
47	1p	63	GLY
51	1t	96	GLY
8	2I	10	GLU
33	2b	17	PHE
33	2b	20	GLU
33	2b	209	ARG
38	2g	4	ARG
11	1P	93	GLY
19	1X	2	LYS
33	1b	207	ALA
41	1j	75	ILE
41	1j	78	ASN
6	2G	3	LEU
6	2G	44	GLY
20	2Y	21	LYS
21	2Z	93	ASP
22	20	4	LYS
33	2b	231	GLU
41	2j	39	PRO
44	2m	5	ALA
44	2m	90	LEU
50	2s	33	THR
51	2t	47	GLY
15	1T	37	GLY

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Mol	Chain	Res	Type
33	1b	229	VAL
41	1j	77	PRO
51	2t	102	GLY
36	1e	22	GLY
3	2D	125	ILE
34	2c	138	VAL
25	23	59	VAL
41	2j	75	ILE
35	1d	37	PRO
6	2G	109	VAL
6	2G	177	GLY
13	2R	117	VAL

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	1D	215/218 (99%)	200 (93%)	15 (7%)	14	40
3	2D	215/218 (99%)	206 (96%)	9 (4%)	26	61
4	1E	164/166 (99%)	152 (93%)	12 (7%)	13	38
4	2E	164/166 (99%)	148 (90%)	16 (10%)	7	25
5	1F	160/166 (96%)	142 (89%)	18 (11%)	5	19
5	2F	159/166 (96%)	137 (86%)	22 (14%)	3	12
6	1G	143/156 (92%)	126 (88%)	17 (12%)	5	17
6	2G	143/156 (92%)	120 (84%)	23 (16%)	2	8
7	1H	144/148 (97%)	131 (91%)	13 (9%)	9	28
7	2H	144/148 (97%)	128 (89%)	16 (11%)	6	20
8	1I	113/124 (91%)	98 (87%)	15 (13%)	4	14
8	2I	105/124 (85%)	73 (70%)	32 (30%)	0	1
9	1N	118/119 (99%)	103 (87%)	15 (13%)	4	15
9	2N	118/119 (99%)	103 (87%)	15 (13%)	4	15

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
10	1O	100/100 (100%)	95 (95%)	5 (5%)	22	54
10	2O	100/100 (100%)	94 (94%)	6 (6%)	17	47
11	1P	115/116 (99%)	99 (86%)	16 (14%)	3	12
11	2P	115/116 (99%)	103 (90%)	12 (10%)	7	22
12	1Q	111/111 (100%)	101 (91%)	10 (9%)	9	28
12	2Q	111/111 (100%)	99 (89%)	12 (11%)	6	21
13	1R	101/101 (100%)	90 (89%)	11 (11%)	6	21
13	2R	101/101 (100%)	93 (92%)	8 (8%)	11	35
14	1S	86/88 (98%)	82 (95%)	4 (5%)	23	57
14	2S	85/88 (97%)	72 (85%)	13 (15%)	3	10
15	1T	115/127 (91%)	108 (94%)	7 (6%)	17	46
15	2T	113/127 (89%)	104 (92%)	9 (8%)	11	34
16	1U	93/94 (99%)	88 (95%)	5 (5%)	20	51
16	2U	93/94 (99%)	86 (92%)	7 (8%)	12	37
17	1V	80/82 (98%)	75 (94%)	5 (6%)	16	45
17	2V	80/82 (98%)	72 (90%)	8 (10%)	7	24
18	1W	90/92 (98%)	83 (92%)	7 (8%)	11	35
18	2W	90/92 (98%)	82 (91%)	8 (9%)	9	29
19	1X	77/78 (99%)	74 (96%)	3 (4%)	28	64
19	2X	77/78 (99%)	69 (90%)	8 (10%)	7	22
20	1Y	85/91 (93%)	75 (88%)	10 (12%)	5	17
20	2Y	85/91 (93%)	75 (88%)	10 (12%)	5	17
21	1Z	135/179 (75%)	119 (88%)	16 (12%)	5	17
21	2Z	137/179 (76%)	119 (87%)	18 (13%)	4	14
22	10	65/67 (97%)	61 (94%)	4 (6%)	16	45
22	20	65/67 (97%)	61 (94%)	4 (6%)	16	45
23	11	80/83 (96%)	76 (95%)	4 (5%)	22	54
23	21	80/83 (96%)	73 (91%)	7 (9%)	9	29
24	12	65/67 (97%)	57 (88%)	8 (12%)	4	16
24	22	65/67 (97%)	58 (89%)	7 (11%)	6	21
25	13	51/52 (98%)	43 (84%)	8 (16%)	2	9

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
25	23	50/52 (96%)	46 (92%)	4 (8%)	11	34
26	14	59/63 (94%)	46 (78%)	13 (22%)	1	3
26	24	53/63 (84%)	45 (85%)	8 (15%)	3	10
27	15	50/52 (96%)	44 (88%)	6 (12%)	5	17
27	25	50/52 (96%)	46 (92%)	4 (8%)	11	34
28	16	51/52 (98%)	44 (86%)	7 (14%)	3	13
28	26	50/52 (96%)	46 (92%)	4 (8%)	11	34
29	17	41/42 (98%)	38 (93%)	3 (7%)	13	38
29	27	41/42 (98%)	38 (93%)	3 (7%)	13	38
30	18	54/55 (98%)	52 (96%)	2 (4%)	30	65
30	28	54/55 (98%)	50 (93%)	4 (7%)	13	37
31	19	34/34 (100%)	33 (97%)	1 (3%)	37	73
31	29	34/34 (100%)	32 (94%)	2 (6%)	18	48
33	1b	192/220 (87%)	170 (88%)	22 (12%)	5	18
33	2b	187/220 (85%)	151 (81%)	36 (19%)	1	5
34	1c	142/188 (76%)	127 (89%)	15 (11%)	6	22
34	2c	140/188 (74%)	115 (82%)	25 (18%)	2	6
35	1d	169/181 (93%)	153 (90%)	16 (10%)	8	26
35	2d	173/181 (96%)	153 (88%)	20 (12%)	5	18
36	1e	113/123 (92%)	106 (94%)	7 (6%)	16	45
36	2e	114/123 (93%)	102 (90%)	12 (10%)	6	22
37	1f	84/90 (93%)	79 (94%)	5 (6%)	17	47
37	2f	85/90 (94%)	77 (91%)	8 (9%)	8	27
38	1g	119/127 (94%)	115 (97%)	4 (3%)	32	68
38	2g	120/127 (94%)	105 (88%)	15 (12%)	4	15
39	1h	114/119 (96%)	99 (87%)	15 (13%)	4	14
39	2h	114/119 (96%)	100 (88%)	14 (12%)	4	16
40	1i	90/99 (91%)	81 (90%)	9 (10%)	7	24
40	2i	89/99 (90%)	79 (89%)	10 (11%)	6	19
41	1j	66/92 (72%)	56 (85%)	10 (15%)	3	10
41	2j	69/92 (75%)	63 (91%)	6 (9%)	9	30

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
42	1k	82/99 (83%)	73 (89%)	9 (11%)	6	20
42	2k	83/99 (84%)	76 (92%)	7 (8%)	10	32
43	1l	96/108 (89%)	86 (90%)	10 (10%)	7	22
43	2l	96/108 (89%)	87 (91%)	9 (9%)	8	27
44	1m	92/101 (91%)	78 (85%)	14 (15%)	3	10
44	2m	91/101 (90%)	76 (84%)	15 (16%)	2	8
45	1n	49/50 (98%)	42 (86%)	7 (14%)	3	11
45	2n	49/50 (98%)	43 (88%)	6 (12%)	5	16
46	1o	78/80 (98%)	73 (94%)	5 (6%)	16	44
46	2o	78/80 (98%)	70 (90%)	8 (10%)	7	23
47	1p	69/74 (93%)	62 (90%)	7 (10%)	7	23
47	2p	68/74 (92%)	60 (88%)	8 (12%)	5	17
48	1q	94/97 (97%)	85 (90%)	9 (10%)	8	26
48	2q	94/97 (97%)	87 (93%)	7 (7%)	13	37
49	1r	59/77 (77%)	54 (92%)	5 (8%)	10	31
49	2r	59/77 (77%)	50 (85%)	9 (15%)	3	10
50	1s	69/80 (86%)	64 (93%)	5 (7%)	13	39
50	2s	67/80 (84%)	59 (88%)	8 (12%)	5	17
51	1t	70/82 (85%)	63 (90%)	7 (10%)	7	24
51	2t	70/82 (85%)	65 (93%)	5 (7%)	13	39
52	1u	18/22 (82%)	18 (100%)	0	100	100
52	2u	18/22 (82%)	17 (94%)	1 (6%)	19	50
All	All	9301/10064 (92%)	8332 (90%)	969 (10%)	7	22

All (969) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	3	VAL
3	1D	27	THR
3	1D	32	SER
3	1D	34	VAL
3	1D	35	LYS
3	1D	61	LEU
3	1D	113	VAL

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Mol	Chain	Res	Type
3	1D	122	ASP
3	1D	142	VAL
3	1D	193	VAL
3	1D	206	LEU
3	1D	211	ARG
3	1D	229	VAL
3	1D	242	ARG
3	1D	275	LYS
4	1E	9	VAL
4	1E	12	THR
4	1E	33	VAL
4	1E	49	LEU
4	1E	82	ARG
4	1E	89	ASP
4	1E	116	VAL
4	1E	170	LEU
4	1E	181	LEU
4	1E	183	LEU
4	1E	184	VAL
4	1E	195	LEU
5	1F	17	ARG
5	1F	18	ARG
5	1F	33	LEU
5	1F	53	THR
5	1F	57	VAL
5	1F	70	THR
5	1F	74	ARG
5	1F	106	ARG
5	1F	132	VAL
5	1F	140	LEU
5	1F	158	THR
5	1F	168	ARG
5	1F	175	THR
5	1F	176	LEU
5	1F	183	VAL
5	1F	190	GLU
5	1F	192	LEU
5	1F	195	ASP
6	1G	3	LEU
6	1G	5	VAL
6	1G	28	VAL
6	1G	31	VAL

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Mol	Chain	Res	Type
6	1G	35	GLU
6	1G	60	LEU
6	1G	67	LYS
6	1G	82	LEU
6	1G	135	LEU
6	1G	140	ILE
6	1G	148	MET
6	1G	149	VAL
6	1G	150	ASP
6	1G	152	LEU
6	1G	159	VAL
6	1G	162	THR
6	1G	175	LEU
7	1H	18	GLU
7	1H	44	VAL
7	1H	56	SER
7	1H	62	LYS
7	1H	67	LEU
7	1H	84	SER
7	1H	95	ARG
7	1H	98	LEU
7	1H	114	VAL
7	1H	122	THR
7	1H	127	GLU
7	1H	129	THR
7	1H	141	VAL
8	1I	12	LEU
8	1I	20	ASP
8	1I	40	THR
8	1I	74	ASN
8	1I	75	LEU
8	1I	78	THR
8	1I	86	THR
8	1I	92	VAL
8	1I	95	LYS
8	1I	108	THR
8	1I	109	ILE
8	1I	116	LEU
8	1I	129	THR
8	1I	140	LEU
8	1I	142	VAL
9	1N	8	GLN

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Mol	Chain	Res	Type
9	1N	28	THR
9	1N	32	THR
9	1N	33	LEU
9	1N	46	VAL
9	1N	48	MET
9	1N	61	ARG
9	1N	62	VAL
9	1N	67	LEU
9	1N	68	GLU
9	1N	71	ILE
9	1N	87	LEU
9	1N	99	LEU
9	1N	131	GLN
9	1N	138	LEU
10	1O	10	VAL
10	1O	58	VAL
10	1O	96	THR
10	1O	109	LYS
10	1O	120	GLU
11	1P	3	LEU
11	1P	6	LEU
11	1P	29	LYS
11	1P	42	SER
11	1P	59	LEU
11	1P	65	ARG
11	1P	75	ILE
11	1P	76	LYS
11	1P	92	GLU
11	1P	101	VAL
11	1P	107	LYS
11	1P	119	GLU
11	1P	125	VAL
11	1P	133	SER
11	1P	147	LEU
11	1P	148	LEU
12	1Q	8	LYS
12	1Q	56	ARG
12	1Q	63	LYS
12	1Q	75	THR
12	1Q	79	LEU
12	1Q	81	VAL
12	1Q	109	VAL

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Mol	Chain	Res	Type
12	1Q	110	THR
12	1Q	129	THR
12	1Q	133	ARG
13	1R	1	MET
13	1R	6	SER
13	1R	8	ARG
13	1R	33	ARG
13	1R	36	THR
13	1R	38	VAL
13	1R	65	LEU
13	1R	76	VAL
13	1R	96	ARG
13	1R	102	GLU
13	1R	114	VAL
14	1S	36	TYR
14	1S	50	SER
14	1S	69	VAL
14	1S	110	LEU
15	1T	28	VAL
15	1T	35	LYS
15	1T	40	THR
15	1T	43	GLN
15	1T	50	ILE
15	1T	118	ARG
15	1T	128	GLU
16	1U	31	SER
16	1U	74	LEU
16	1U	77	SER
16	1U	85	LYS
16	1U	100	VAL
17	1V	32	THR
17	1V	52	VAL
17	1V	61	VAL
17	1V	82	ARG
17	1V	85	LYS
18	1W	4	LYS
18	1W	11	ARG
18	1W	15	ARG
18	1W	17	VAL
18	1W	60	ASN
18	1W	97	LYS
18	1W	107	LEU

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Mol	Chain	Res	Type
19	1X	23	GLU
19	1X	57	LEU
19	1X	93	GLU
20	1Y	1	MET
20	1Y	43	ASN
20	1Y	64	GLU
20	1Y	67	LEU
20	1Y	70	SER
20	1Y	72	VAL
20	1Y	90	LEU
20	1Y	91	GLU
20	1Y	99	CYS
20	1Y	106	LEU
21	1Z	18	LEU
21	1Z	24	LEU
21	1Z	33	LEU
21	1Z	50	GLN
21	1Z	61	LEU
21	1Z	71	VAL
21	1Z	74	VAL
21	1Z	86	VAL
21	1Z	93	ASP
21	1Z	119	GLU
21	1Z	121	HIS
21	1Z	146	ILE
21	1Z	154	ASP
21	1Z	155	LEU
21	1Z	163	LEU
21	1Z	165	VAL
22	10	3	HIS
22	10	4	LYS
22	10	14	ARG
22	10	82	ARG
23	11	3	LYS
23	11	37	ILE
23	11	74	VAL
23	11	83	GLU
24	12	3	LEU
24	12	4	SER
24	12	5	GLU
24	12	19	VAL
24	12	53	LEU

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Mol	Chain	Res	Type
24	12	65	ASN
24	12	67	LYS
24	12	70	GLN
25	13	6	VAL
25	13	18	ASP
25	13	23	LEU
25	13	36	VAL
25	13	54	VAL
25	13	56	VAL
25	13	58	VAL
25	13	60	GLU
26	14	3	GLU
26	14	5	ILE
26	14	8	LYS
26	14	21	VAL
26	14	27	THR
26	14	28	LYS
26	14	49	PHE
26	14	50	VAL
26	14	52	THR
26	14	59	PHE
26	14	63	TYR
26	14	66	SER
26	14	67	TYR
27	15	6	VAL
27	15	29	THR
27	15	40	LYS
27	15	48	GLU
27	15	58	LEU
27	15	60	VAL
28	16	6	ARG
28	16	9	LEU
28	16	14	THR
28	16	19	ARG
28	16	38	LYS
28	16	48	VAL
28	16	53	LYS
29	17	1	MET
29	17	4	THR
29	17	43	THR
30	18	14	VAL
30	18	29	LYS

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Mol	Chain	Res	Type
31	19	13	LYS
33	1b	7	VAL
33	1b	21	ARG
33	1b	27	LYS
33	1b	32	ILE
33	1b	54	THR
33	1b	56	ARG
33	1b	67	THR
33	1b	78	GLN
33	1b	87	ARG
33	1b	108	ILE
33	1b	111	ARG
33	1b	121	LEU
33	1b	128	GLU
33	1b	142	LEU
33	1b	160	ASP
33	1b	162	ILE
33	1b	170	GLU
33	1b	206	ASP
33	1b	211	ILE
33	1b	213	LEU
33	1b	229	VAL
33	1b	230	VAL
34	1c	3	ASN
34	1c	15	THR
34	1c	17	ASP
34	1c	36	ASP
34	1c	38	ARG
34	1c	46	GLU
34	1c	49	SER
34	1c	58	GLU
34	1c	64	VAL
34	1c	82	GLU
34	1c	97	LYS
34	1c	103	VAL
34	1c	115	LEU
34	1c	191	THR
34	1c	195	VAL
35	1d	8	VAL
35	1d	19	LEU
35	1d	31	CYS
35	1d	59	ARG

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Mol	Chain	Res	Type
35	1d	112	VAL
35	1d	141	ARG
35	1d	146	ILE
35	1d	158	ILE
35	1d	160	GLN
35	1d	166	LYS
35	1d	175	SER
35	1d	178	VAL
35	1d	190	ASP
35	1d	194	LEU
35	1d	201	GLN
35	1d	204	ILE
36	1e	31	LEU
36	1e	34	VAL
36	1e	41	VAL
36	1e	79	GLU
36	1e	81	GLU
36	1e	120	THR
36	1e	151	LEU
37	1f	46	ARG
37	1f	55	ASP
37	1f	70	ASP
37	1f	72	VAL
37	1f	81	ILE
38	1g	24	THR
38	1g	53	LYS
38	1g	57	GLU
38	1g	113	GLU
39	1h	2	LEU
39	1h	9	MET
39	1h	26	VAL
39	1h	35	ILE
39	1h	49	GLU
39	1h	51	VAL
39	1h	52	ASP
39	1h	77	GLU
39	1h	82	HIS
39	1h	91	ARG
39	1h	99	GLU
39	1h	109	ILE
39	1h	120	THR
39	1h	123	GLU

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Mol	Chain	Res	Type
39	1h	127	LEU
40	1i	16	ARG
40	1i	26	VAL
40	1i	27	THR
40	1i	53	VAL
40	1i	64	THR
40	1i	103	THR
40	1i	104	ARG
40	1i	108	VAL
40	1i	113	LYS
41	1j	17	ASP
41	1j	19	SER
41	1j	21	GLN
41	1j	30	SER
41	1j	38	ILE
41	1j	44	VAL
41	1j	48	THR
41	1j	65	LEU
41	1j	81	THR
41	1j	98	ILE
42	1k	29	ILE
42	1k	33	THR
42	1k	48	ILE
42	1k	82	VAL
42	1k	87	THR
42	1k	109	VAL
42	1k	110	ASP
42	1k	114	VAL
42	1k	117	ASN
43	1l	18	VAL
43	1l	38	THR
43	1l	43	VAL
43	1l	47	LYS
43	1l	57	LYS
43	1l	67	THR
43	1l	83	VAL
43	1l	86	ARG
43	1l	96	VAL
43	1l	124	LYS
44	1m	3	ARG
44	1m	4	ILE
44	1m	17	VAL

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Mol	Chain	Res	Type
44	1m	19	LEU
44	1m	49	THR
44	1m	53	VAL
44	1m	67	GLU
44	1m	73	GLU
44	1m	78	ILE
44	1m	103	THR
44	1m	106	ASN
44	1m	109	THR
44	1m	114	ARG
44	1m	117	VAL
45	1n	7	ILE
45	1n	11	LYS
45	1n	13	THR
45	1n	18	VAL
45	1n	22	THR
45	1n	33	VAL
45	1n	41	ARG
46	1o	3	ILE
46	1o	4	THR
46	1o	34	LEU
46	1o	39	LEU
46	1o	87	ILE
47	1p	2	VAL
47	1p	11	SER
47	1p	19	ILE
47	1p	20	VAL
47	1p	60	LEU
47	1p	62	VAL
47	1p	67	THR
48	1q	9	VAL
48	1q	19	VAL
48	1q	24	GLU
48	1q	49	GLU
48	1q	70	ARG
48	1q	72	ARG
48	1q	82	MET
48	1q	87	LYS
48	1q	93	GLN
49	1r	22	VAL
49	1r	25	THR
49	1r	37	VAL

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Mol	Chain	Res	Type
49	1r	68	LYS
49	1r	82	THR
50	1s	12	ASP
50	1s	16	LEU
50	1s	28	LYS
50	1s	65	ASN
50	1s	77	THR
51	1t	10	LEU
51	1t	37	SER
51	1t	45	GLN
51	1t	62	LEU
51	1t	71	THR
51	1t	88	VAL
51	1t	100	ILE
3	2D	3	VAL
3	2D	87	ASN
3	2D	113	VAL
3	2D	141	VAL
3	2D	173	VAL
3	2D	193	VAL
3	2D	211	ARG
3	2D	242	ARG
3	2D	260	ARG
4	2E	1	MET
4	2E	9	VAL
4	2E	12	THR
4	2E	27	LEU
4	2E	38	THR
4	2E	73	GLU
4	2E	77	ILE
4	2E	82	ARG
4	2E	89	ASP
4	2E	90	THR
4	2E	101	ARG
4	2E	107	THR
4	2E	116	VAL
4	2E	170	LEU
4	2E	178	GLU
4	2E	181	LEU
5	2F	18	ARG
5	2F	20	LEU
5	2F	24	LEU

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Mol	Chain	Res	Type
5	2F	33	LEU
5	2F	57	VAL
5	2F	74	ARG
5	2F	77	ASP
5	2F	88	VAL
5	2F	108	LYS
5	2F	110	LEU
5	2F	126	VAL
5	2F	137	LYS
5	2F	145	GLU
5	2F	153	SER
5	2F	158	THR
5	2F	165	ARG
5	2F	170	LEU
5	2F	176	LEU
5	2F	183	VAL
5	2F	188	ARG
5	2F	195	ASP
5	2F	201	VAL
6	2G	3	LEU
6	2G	5	VAL
6	2G	15	VAL
6	2G	22	ARG
6	2G	28	VAL
6	2G	35	GLU
6	2G	51	ARG
6	2G	53	LEU
6	2G	79	ASN
6	2G	88	ILE
6	2G	91	ARG
6	2G	92	VAL
6	2G	98	ARG
6	2G	106	LEU
6	2G	109	VAL
6	2G	128	ARG
6	2G	135	LEU
6	2G	139	LEU
6	2G	140	ILE
6	2G	145	THR
6	2G	152	LEU
6	2G	159	VAL
6	2G	165	THR

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Mol	Chain	Res	Type
7	2H	24	VAL
7	2H	33	LEU
7	2H	42	ARG
7	2H	43	VAL
7	2H	45	VAL
7	2H	47	GLU
7	2H	49	VAL
7	2H	58	GLU
7	2H	70	THR
7	2H	71	LEU
7	2H	88	LEU
7	2H	98	LEU
7	2H	114	VAL
7	2H	129	THR
7	2H	130	ARG
7	2H	136	ILE
8	2I	7	GLU
8	2I	15	VAL
8	2I	19	VAL
8	2I	38	LEU
8	2I	40	THR
8	2I	43	ASN
8	2I	47	LEU
8	2I	52	ARG
8	2I	61	ARG
8	2I	73	GLU
8	2I	75	LEU
8	2I	76	THR
8	2I	78	THR
8	2I	79	ILE
8	2I	81	VAL
8	2I	86	THR
8	2I	88	ILE
8	2I	91	SER
8	2I	93	THR
8	2I	101	LEU
8	2I	102	SER
8	2I	108	THR
8	2I	114	LEU
8	2I	122	GLU
8	2I	125	GLU
8	2I	126	TYR

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Mol	Chain	Res	Type
8	2I	129	THR
8	2I	136	VAL
8	2I	138	ILE
8	2I	139	GLN
8	2I	140	LEU
8	2I	143	SER
9	2N	1	MET
9	2N	5	VAL
9	2N	33	LEU
9	2N	38	HIS
9	2N	43	THR
9	2N	48	MET
9	2N	55	VAL
9	2N	59	LYS
9	2N	61	ARG
9	2N	62	VAL
9	2N	63	THR
9	2N	67	LEU
9	2N	71	ILE
9	2N	87	LEU
9	2N	99	LEU
10	2O	10	VAL
10	2O	19	ILE
10	2O	26	LYS
10	2O	58	VAL
10	2O	69	ILE
10	2O	96	THR
11	2P	1	MET
11	2P	3	LEU
11	2P	30	THR
11	2P	56	SER
11	2P	77	ARG
11	2P	83	VAL
11	2P	91	PHE
11	2P	96	THR
11	2P	101	VAL
11	2P	119	GLU
11	2P	125	VAL
11	2P	148	LEU
12	2Q	1	MET
12	2Q	7	MET
12	2Q	38	GLU

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Mol	Chain	Res	Type
12	2Q	52	VAL
12	2Q	54	MET
12	2Q	56	ARG
12	2Q	85	LYS
12	2Q	98	LYS
12	2Q	106	VAL
12	2Q	109	VAL
12	2Q	112	GLU
12	2Q	133	ARG
13	2R	15	SER
13	2R	35	THR
13	2R	65	LEU
13	2R	73	VAL
13	2R	95	THR
13	2R	96	ARG
13	2R	114	VAL
13	2R	117	VAL
14	2S	8	GLU
14	2S	12	PHE
14	2S	13	ARG
14	2S	19	LYS
14	2S	36	TYR
14	2S	40	ILE
14	2S	43	GLU
14	2S	46	VAL
14	2S	49	VAL
14	2S	63	THR
14	2S	69	VAL
14	2S	75	GLU
14	2S	76	LYS
15	2T	6	LEU
15	2T	15	VAL
15	2T	31	SER
15	2T	55	ASN
15	2T	63	VAL
15	2T	89	VAL
15	2T	95	ARG
15	2T	96	ARG
15	2T	107	ASP
16	2U	55	ARG
16	2U	74	LEU
16	2U	77	SER

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Mol	Chain	Res	Type
16	2U	85	LYS
16	2U	100	VAL
16	2U	108	GLU
16	2U	117	GLN
17	2V	14	VAL
17	2V	15	GLU
17	2V	52	VAL
17	2V	56	SER
17	2V	61	VAL
17	2V	82	ARG
17	2V	85	LYS
17	2V	95	LEU
18	2W	11	ARG
18	2W	17	VAL
18	2W	20	VAL
18	2W	23	LEU
18	2W	59	VAL
18	2W	67	ASP
18	2W	107	LEU
18	2W	111	HIS
19	2X	23	GLU
19	2X	30	VAL
19	2X	35	THR
19	2X	52	VAL
19	2X	65	ARG
19	2X	66	LEU
19	2X	72	LYS
19	2X	81	VAL
20	2Y	24	VAL
20	2Y	42	VAL
20	2Y	72	VAL
20	2Y	81	LYS
20	2Y	85	VAL
20	2Y	90	LEU
20	2Y	91	GLU
20	2Y	94	LYS
20	2Y	98	VAL
20	2Y	99	CYS
21	2Z	5	LEU
21	2Z	38	TYR
21	2Z	41	LEU
21	2Z	53	ILE

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Mol	Chain	Res	Type
21	2Z	60	GLU
21	2Z	71	VAL
21	2Z	72	ARG
21	2Z	100	VAL
21	2Z	121	HIS
21	2Z	123	ASP
21	2Z	124	ILE
21	2Z	126	VAL
21	2Z	131	ARG
21	2Z	154	ASP
21	2Z	155	LEU
21	2Z	161	VAL
21	2Z	171	ILE
21	2Z	174	VAL
22	20	3	HIS
22	20	10	THR
22	20	11	ARG
22	20	37	LEU
23	21	51	VAL
23	21	52	ARG
23	21	56	GLN
23	21	65	SER
23	21	74	VAL
23	21	83	GLU
23	21	92	LYS
24	22	30	ARG
24	22	32	LEU
24	22	34	GLU
24	22	35	LEU
24	22	53	LEU
24	22	65	ASN
24	22	70	GLN
25	23	6	VAL
25	23	31	LEU
25	23	54	VAL
25	23	56	VAL
26	24	13	ARG
26	24	33	VAL
26	24	34	GLU
26	24	48	ARG
26	24	49	PHE
26	24	53	GLU

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Mol	Chain	Res	Type
26	24	56	VAL
26	24	63	TYR
27	25	6	VAL
27	25	8	LYS
27	25	29	THR
27	25	48	GLU
28	26	9	LEU
28	26	13	CYS
28	26	20	ASN
28	26	50	ARG
29	27	4	THR
29	27	41	ARG
29	27	46	VAL
30	28	14	VAL
30	28	37	SER
30	28	46	ARG
30	28	50	LEU
31	29	7	VAL
31	29	26	ILE
33	2b	8	LYS
33	2b	11	LEU
33	2b	15	VAL
33	2b	16	HIS
33	2b	35	GLU
33	2b	44	LEU
33	2b	47	THR
33	2b	67	THR
33	2b	68	ILE
33	2b	71	VAL
33	2b	83	MET
33	2b	93	VAL
33	2b	94	ASN
33	2b	103	THR
33	2b	107	THR
33	2b	115	LEU
33	2b	117	GLU
33	2b	127	ILE
33	2b	137	ARG
33	2b	150	SER
33	2b	153	ARG
33	2b	154	LEU
33	2b	164	VAL

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Mol	Chain	Res	Type
33	2b	165	VAL
33	2b	176	GLU
33	2b	178	ARG
33	2b	180	LEU
33	2b	184	VAL
33	2b	189	ASP
33	2b	197	VAL
33	2b	200	ILE
33	2b	208	ILE
33	2b	209	ARG
33	2b	224	GLN
33	2b	229	VAL
33	2b	230	VAL
34	2c	36	ASP
34	2c	45	LYS
34	2c	47	LEU
34	2c	57	ILE
34	2c	70	VAL
34	2c	98	ASN
34	2c	101	LEU
34	2c	103	VAL
34	2c	105	GLU
34	2c	115	LEU
34	2c	118	GLN
34	2c	152	ILE
34	2c	153	VAL
34	2c	154	SER
34	2c	156	ARG
34	2c	162	GLN
34	2c	164	ARG
34	2c	166	GLU
34	2c	172	ARG
34	2c	173	VAL
34	2c	190	ARG
34	2c	191	THR
34	2c	195	VAL
34	2c	198	VAL
34	2c	206	GLU
35	2d	5	ILE
35	2d	21	LEU
35	2d	27	TYR
35	2d	28	SER

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Mol	Chain	Res	Type
35	2d	31	CYS
35	2d	38	TYR
35	2d	60	GLU
35	2d	76	ARG
35	2d	102	ASP
35	2d	108	LEU
35	2d	112	VAL
35	2d	127	THR
35	2d	135	LEU
35	2d	150	GLU
35	2d	155	LEU
35	2d	156	GLU
35	2d	157	LEU
35	2d	175	SER
35	2d	178	VAL
35	2d	181	MET
36	2e	6	PHE
36	2e	10	MET
36	2e	13	ILE
36	2e	24	ARG
36	2e	32	VAL
36	2e	41	VAL
36	2e	55	VAL
36	2e	81	GLU
36	2e	135	THR
36	2e	140	ARG
36	2e	144	THR
36	2e	152	ARG
37	2f	31	GLU
37	2f	37	VAL
37	2f	61	LEU
37	2f	72	VAL
37	2f	81	ILE
37	2f	89	MET
37	2f	94	GLN
37	2f	95	GLU
38	2g	8	GLU
38	2g	21	VAL
38	2g	28	ASN
38	2g	42	ILE
38	2g	49	ILE
38	2g	51	GLN

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Mol	Chain	Res	Type
38	2g	52	GLU
38	2g	57	GLU
38	2g	85	TYR
38	2g	87	VAL
38	2g	114	ARG
38	2g	115	ARG
38	2g	119	ARG
38	2g	135	VAL
38	2g	154	TYR
39	2h	2	LEU
39	2h	9	MET
39	2h	25	ASP
39	2h	63	LEU
39	2h	81	HIS
39	2h	85	ARG
39	2h	98	LYS
39	2h	99	GLU
39	2h	112	LEU
39	2h	115	SER
39	2h	118	VAL
39	2h	123	GLU
39	2h	127	LEU
39	2h	137	VAL
40	2i	14	VAL
40	2i	41	VAL
40	2i	53	VAL
40	2i	64	THR
40	2i	65	VAL
40	2i	75	ASP
40	2i	111	ARG
40	2i	114	TYR
40	2i	124	GLN
40	2i	125	TYR
41	2j	44	VAL
41	2j	49	VAL
41	2j	65	LEU
41	2j	72	VAL
41	2j	92	THR
41	2j	96	ILE
42	2k	14	VAL
42	2k	29	ILE
42	2k	48	ILE

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Mol	Chain	Res	Type
42	2k	50	TYR
42	2k	63	LEU
42	2k	80	VAL
42	2k	104	GLN
43	2l	6	THR
43	2l	18	VAL
43	2l	33	ARG
43	2l	36	VAL
43	2l	38	THR
43	2l	40	VAL
43	2l	83	VAL
43	2l	104	VAL
43	2l	113	ARG
44	2m	15	VAL
44	2m	19	LEU
44	2m	34	LEU
44	2m	39	ILE
44	2m	47	ASP
44	2m	50	GLU
44	2m	55	ARG
44	2m	60	VAL
44	2m	69	GLU
44	2m	71	ARG
44	2m	81	LEU
44	2m	98	VAL
44	2m	103	THR
44	2m	105	THR
44	2m	117	VAL
45	2n	3	ARG
45	2n	7	ILE
45	2n	11	LYS
45	2n	13	THR
45	2n	15	LYS
45	2n	58	LYS
46	2o	5	LYS
46	2o	7	GLU
46	2o	25	THR
46	2o	35	ARG
46	2o	39	LEU
46	2o	62	GLN
46	2o	64	ARG
46	2o	83	GLU

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Mol	Chain	Res	Type
47	2p	2	VAL
47	2p	16	HIS
47	2p	20	VAL
47	2p	21	VAL
47	2p	42	ARG
47	2p	45	THR
47	2p	62	VAL
47	2p	69	THR
48	2q	37	LYS
48	2q	43	LEU
48	2q	63	ARG
48	2q	66	SER
48	2q	68	ARG
48	2q	82	MET
48	2q	99	SER
49	2r	25	THR
49	2r	26	LEU
49	2r	31	LEU
49	2r	37	VAL
49	2r	54	ARG
49	2r	65	ILE
49	2r	68	LYS
49	2r	74	ARG
49	2r	85	LEU
50	2s	22	LEU
50	2s	28	LYS
50	2s	30	LEU
50	2s	48	THR
50	2s	49	ILE
50	2s	65	ASN
50	2s	79	THR
50	2s	81	ARG
51	2t	30	LYS
51	2t	41	ILE
51	2t	54	LYS
51	2t	71	THR
51	2t	100	ILE
52	2u	13	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (125) such sidechains are listed below:

Mol	Chain	Res	Type
4	1E	121	ASN
5	1F	8	GLN
5	1F	133	ASN
6	1G	26	GLN
8	1I	54	GLN
8	1I	139	GLN
9	1N	131	GLN
10	1O	5	GLN
11	1P	35	HIS
12	1Q	57	HIS
12	1Q	123	HIS
13	1R	13	HIS
13	1R	31	HIS
13	1R	61	HIS
13	1R	71	GLN
13	1R	91	GLN
14	1S	61	ASN
15	1T	58	ASN
16	1U	94	ASN
19	1X	82	GLN
20	1Y	6	HIS
21	1Z	73	GLN
21	1Z	75	ASN
21	1Z	151	HIS
22	10	3	HIS
23	11	56	GLN
24	12	38	GLN
33	1b	16	HIS
33	1b	78	GLN
33	1b	94	ASN
34	1c	6	HIS
34	1c	31	HIS
34	1c	98	ASN
34	1c	110	ASN
34	1c	162	GLN
35	1d	42	GLN
35	1d	45	GLN
35	1d	116	GLN
35	1d	119	GLN
35	1d	123	HIS
36	1e	78	HIS
37	1f	13	ASN
37	1f	18	GLN

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Mol	Chain	Res	Type
37	1f	100	ASN
38	1g	28	ASN
38	1g	64	GLN
38	1g	110	GLN
39	1h	15	ASN
40	1i	3	GLN
40	1i	34	ASN
40	1i	58	HIS
40	1i	73	GLN
40	1i	124	GLN
41	1j	56	HIS
41	1j	84	GLN
42	1k	99	GLN
42	1k	116	HIS
44	1m	12	ASN
46	1o	28	GLN
46	1o	46	HIS
47	1p	16	HIS
47	1p	65	GLN
48	1q	26	GLN
49	1r	63	GLN
50	1s	14	HIS
50	1s	57	HIS
50	1s	69	HIS
50	1s	83	HIS
4	2E	48	GLN
5	2F	75	HIS
6	2G	58	GLN
8	2I	133	HIS
9	2N	8	GLN
12	2Q	123	HIS
13	2R	61	HIS
14	2S	38	GLN
15	2T	43	GLN
15	2T	58	ASN
15	2T	84	GLN
16	2U	94	ASN
18	2W	60	ASN
20	2Y	6	HIS
20	2Y	92	ASN
21	2Z	73	GLN
22	20	17	GLN

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Mol	Chain	Res	Type
22	20	35	ASN
23	21	56	GLN
24	22	46	GLN
24	22	56	GLN
28	26	20	ASN
30	28	43	GLN
33	2b	19	HIS
33	2b	40	HIS
33	2b	212	GLN
33	2b	224	GLN
34	2c	6	HIS
34	2c	108	ASN
35	2d	74	GLN
35	2d	77	ASN
35	2d	116	GLN
35	2d	119	GLN
35	2d	123	HIS
35	2d	125	HIS
36	2e	38	GLN
36	2e	78	HIS
38	2g	28	ASN
38	2g	86	GLN
38	2g	109	ASN
38	2g	122	HIS
38	2g	153	HIS
40	2i	3	GLN
40	2i	23	ASN
40	2i	124	GLN
41	2j	33	GLN
42	2k	99	GLN
43	2l	99	HIS
44	2m	77	ASN
46	2o	28	GLN
46	2o	62	GLN
47	2p	13	HIS
47	2p	16	HIS
48	2q	16	GLN
48	2q	26	GLN
49	2r	63	GLN
50	2s	23	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2864/2915 (98%)	481 (16%)	37 (1%)
1	2A	2791/2915 (95%)	530 (18%)	25 (0%)
2	1B	120/121 (99%)	12 (10%)	1 (0%)
2	2B	118/121 (97%)	31 (26%)	0
32	1a	1497/1521 (98%)	286 (19%)	0
32	2a	1501/1521 (98%)	262 (17%)	0
53	1v	9/24 (37%)	4 (44%)	0
53	2v	4/24 (16%)	0	0
54	1x	75/77 (97%)	8 (10%)	0
54	2x	75/77 (97%)	11 (14%)	0
All	All	9054/9316 (97%)	1625 (17%)	63 (0%)

All (1625) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	10	G
1	1A	12	U
1	1A	13	A
1	1A	14	A
1	1A	15	G
1	1A	34	C
1	1A	36	G
1	1A	45	C
1	1A	51	G
1	1A	55	G
1	1A	58	G
1	1A	64	A
1	1A	71	A
1	1A	74	A
1	1A	75	G
1	1A	84	A
1	1A	95	G
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	125	G
1	1A	131	G
1	1A	139	G
1	1A	139(A)	G
1	1A	154	G
1	1A	181	A
1	1A	182	A
1	1A	188	G

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Mol	Chain	Res	Type
1	1A	196	A
1	1A	199	A
1	1A	205	G
1	1A	214	G
1	1A	216	A
1	1A	222	A
1	1A	225	A
1	1A	228	A
1	1A	229	A
1	1A	233	A
1	1A	248	G
1	1A	250	G
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(N)	U
1	1A	271(R)	G
1	1A	272(B)	G
1	1A	275	G
1	1A	279	C
1	1A	311	A
1	1A	329	G
1	1A	330	A
1	1A	352	G
1	1A	363	G
1	1A	363(B)	G
1	1A	363(E)	U
1	1A	363(F)	A
1	1A	370	G
1	1A	380	U
1	1A	386	G
1	1A	389	G
1	1A	396	G
1	1A	405	U
1	1A	411	G
1	1A	428	A
1	1A	442	G
1	1A	444	C
1	1A	446	G
1	1A	448	U
1	1A	457	A
1	1A	481	G
1	1A	504	U

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Mol	Chain	Res	Type
1	1A	505	A
1	1A	509	C
1	1A	512	G
1	1A	530	G
1	1A	531	C
1	1A	532	A
1	1A	533	G
1	1A	545	G
1	1A	549	G
1	1A	555	U
1	1A	563	G
1	1A	573	G
1	1A	574	C
1	1A	575	A
1	1A	594	U
1	1A	603	A
1	1A	604	G
1	1A	607	U
1	1A	614(A)	U
1	1A	614(B)	G
1	1A	615	G
1	1A	619	G
1	1A	627	A
1	1A	637	A
1	1A	645	C
1	1A	646	A
1	1A	652(A)	A
1	1A	652(E)	G
1	1A	652(T)	C
1	1A	669	G
1	1A	686	G
1	1A	717	G
1	1A	726	G
1	1A	730	C
1	1A	764	A
1	1A	775	G
1	1A	776	G
1	1A	782	A
1	1A	784	A
1	1A	785	G
1	1A	792	G
1	1A	802	A

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Mol	Chain	Res	Type
1	1A	805	G
1	1A	812	C
1	1A	819	A
1	1A	827	U
1	1A	828	U
1	1A	859	G
1	1A	867	C
1	1A	880	G
1	1A	881	G
1	1A	884	C
1	1A	885	C
1	1A	886	C
1	1A	887	A
1	1A	888	C
1	1A	889	C
1	1A	890	A
1	1A	896	A
1	1A	897	C
1	1A	898	C
1	1A	907	U
1	1A	910	A
1	1A	932	G
1	1A	938	G
1	1A	945	A
1	1A	946	G
1	1A	953	A
1	1A	958	U
1	1A	959	A
1	1A	961	C
1	1A	974	G
1	1A	975	C
1	1A	983	A
1	1A	990	A
1	1A	996	A
1	1A	1005	C
1	1A	1006	C
1	1A	1008	C
1	1A	1009	A
1	1A	1012	U
1	1A	1013	C
1	1A	1022	G
1	1A	1026	U

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Mol	Chain	Res	Type
1	1A	1033	U
1	1A	1038	C
1	1A	1041	C
1	1A	1045	A
1	1A	1046	A
1	1A	1047	G
1	1A	1048	A
1	1A	1054	A
1	1A	1055	G
1	1A	1058	G
1	1A	1066	U
1	1A	1068	G
1	1A	1070	A
1	1A	1071	G
1	1A	1073	A
1	1A	1075	C
1	1A	1076	C
1	1A	1078	U
1	1A	1079	C
1	1A	1082	U
1	1A	1083	U
1	1A	1084	A
1	1A	1086	A
1	1A	1088	A
1	1A	1089	G
1	1A	1090	U
1	1A	1091	G
1	1A	1094	U
1	1A	1096	A
1	1A	1101	U
1	1A	1103	A
1	1A	1106	G
1	1A	1108	U
1	1A	1111	A
1	1A	1112	G
1	1A	1115	G
1	1A	1116	C
1	1A	1128	A
1	1A	1129	A
1	1A	1130	U
1	1A	1132	A
1	1A	1135	C

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Mol	Chain	Res	Type
1	1A	1136	G
1	1A	1149	G
1	1A	1155	A
1	1A	1170	G
1	1A	1171	G
1	1A	1173	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1177	A
1	1A	1178	C
1	1A	1189	A
1	1A	1211	U
1	1A	1218	C
1	1A	1220	A
1	1A	1237	A
1	1A	1244	G
1	1A	1250	G
1	1A	1253	A
1	1A	1256	G
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U
1	1A	1274	A
1	1A	1289	C
1	1A	1290	C
1	1A	1298	C
1	1A	1300	U
1	1A	1301	A
1	1A	1316	U
1	1A	1352	U
1	1A	1354	A
1	1A	1359	A
1	1A	1360	A
1	1A	1365	A
1	1A	1370	C
1	1A	1372	U
1	1A	1384	A
1	1A	1385	G
1	1A	1396	U
1	1A	1416	G
1	1A	1417	C

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Mol	Chain	Res	Type
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1445	A
1	1A	1450	G
1	1A	1455	G
1	1A	1467	C
1	1A	1482	G
1	1A	1493	C
1	1A	1497	U
1	1A	1504	C
1	1A	1508	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1525	G
1	1A	1541	G
1	1A	1542	A
1	1A	1558	A
1	1A	1566	A
1	1A	1569	A
1	1A	1578	U
1	1A	1580	A
1	1A	1581	G
1	1A	1584	C
1	1A	1586	A
1	1A	1608	A
1	1A	1609	A
1	1A	1616	A
1	1A	1627	G
1	1A	1647	G
1	1A	1648	C
1	1A	1653	G
1	1A	1654	A
1	1A	1656	C
1	1A	1667	G
1	1A	1674	G
1	1A	1675	C
1	1A	1696	G
1	1A	1700	A
1	1A	1701	A
1	1A	1722	A
1	1A	1739	U

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Mol	Chain	Res	Type
1	1A	1746	G
1	1A	1756	G
1	1A	1762	A
1	1A	1763	G
1	1A	1764	G
1	1A	1773	A
1	1A	1780	A
1	1A	1782	C
1	1A	1791	A
1	1A	1800	C
1	1A	1801	G
1	1A	1812	A
1	1A	1816	G
1	1A	1817	G
1	1A	1819	A
1	1A	1829	A
1	1A	1847	A
1	1A	1853	A
1	1A	1858	G
1	1A	1861	G
1	1A	1878	G
1	1A	1889	A
1	1A	1900	A
1	1A	1906	G
1	1A	1913	A
1	1A	1915	5MU
1	1A	1919	A
1	1A	1927	A
1	1A	1929	G
1	1A	1930	G
1	1A	1938	A
1	1A	1955	U
1	1A	1962	5MC
1	1A	1963	U
1	1A	1964	G
1	1A	1967	C
1	1A	1970	A
1	1A	1971	A
1	1A	1972	A
1	1A	1983	C
1	1A	1993	U
1	1A	1997	G

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Mol	Chain	Res	Type
1	1A	2020	A
1	1A	2023	G
1	1A	2031	A
1	1A	2032	G
1	1A	2033	A
1	1A	2043	C
1	1A	2055	C
1	1A	2056	G
1	1A	2060	A
1	1A	2061	G
1	1A	2062	A
1	1A	2069	G
1	1A	2092	U
1	1A	2097	C
1	1A	2101	G
1	1A	2104	G
1	1A	2111	C
1	1A	2113	U
1	1A	2116	G
1	1A	2123	G
1	1A	2126	A
1	1A	2127	G
1	1A	2129	C
1	1A	2130	U
1	1A	2131	G
1	1A	2132	U
1	1A	2133	G
1	1A	2134	A
1	1A	2135	A
1	1A	2141	G
1	1A	2142	C
1	1A	2144	U
1	1A	2146	C
1	1A	2147	G
1	1A	2150	U
1	1A	2151	G
1	1A	2156	G
1	1A	2157	G
1	1A	2158	A
1	1A	2159	G
1	1A	2162	G
1	1A	2165	G

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Mol	Chain	Res	Type
1	1A	2166	G
1	1A	2171	A
1	1A	2172	U
1	1A	2173	A
1	1A	2175	C
1	1A	2181	G
1	1A	2182	G
1	1A	2183	C
1	1A	2184	G
1	1A	2189	U
1	1A	2192	G
1	1A	2198	A
1	1A	2206	G
1	1A	2207	G
1	1A	2208	A
1	1A	2218	U
1	1A	2219	G
1	1A	2225	A
1	1A	2238	G
1	1A	2239	G
1	1A	2242	G
1	1A	2249	U
1	1A	2268	A
1	1A	2269	A
1	1A	2273	A
1	1A	2282	G
1	1A	2283	C
1	1A	2286	A
1	1A	2287	A
1	1A	2289	G
1	1A	2305	A
1	1A	2307	G
1	1A	2308	G
1	1A	2320	A
1	1A	2325	G
1	1A	2334	G
1	1A	2336	A
1	1A	2347	C
1	1A	2350	C
1	1A	2354	G
1	1A	2361	A
1	1A	2372	G

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Mol	Chain	Res	Type
1	1A	2379	G
1	1A	2383	G
1	1A	2385	C
1	1A	2396	G
1	1A	2405	G
1	1A	2406	U
1	1A	2407	G
1	1A	2410	G
1	1A	2422	A
1	1A	2425	A
1	1A	2429	G
1	1A	2430	A
1	1A	2431	U
1	1A	2435	A
1	1A	2438	U
1	1A	2439	A
1	1A	2441	C
1	1A	2448	A
1	1A	2468	G
1	1A	2476	A
1	1A	2477	C
1	1A	2481	G
1	1A	2487	G
1	1A	2490	G
1	1A	2502	G
1	1A	2505	G
1	1A	2506	U
1	1A	2507	C
1	1A	2518	A
1	1A	2525	G
1	1A	2529	G
1	1A	2554	U
1	1A	2566	A
1	1A	2567	G
1	1A	2573	C
1	1A	2579	C
1	1A	2582	G
1	1A	2585	U
1	1A	2602	A
1	1A	2609	U
1	1A	2611	U
1	1A	2612	C

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Mol	Chain	Res	Type
1	1A	2629	A
1	1A	2630	G
1	1A	2638	G
1	1A	2654	A
1	1A	2689	U
1	1A	2690	C
1	1A	2702	U
1	1A	2703	C
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2714	G
1	1A	2726	U
1	1A	2733	A
1	1A	2758	A
1	1A	2764	A
1	1A	2765	A
1	1A	2778	A
1	1A	2780	G
1	1A	2790	A
1	1A	2791	C
1	1A	2802	G
1	1A	2805	G
1	1A	2818	G
1	1A	2820	A
1	1A	2821	A
1	1A	2835	A
1	1A	2839	G
1	1A	2855	C
1	1A	2861	G
1	1A	2872	G
1	1A	2880	C
1	1A	2892	A
1	1A	2894	G
2	1B	2	C
2	1B	13	A
2	1B	15	A
2	1B	35	U
2	1B	50	G
2	1B	52	A
2	1B	56	G
2	1B	73	A
2	1B	85	G

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Mol	Chain	Res	Type
2	1B	91	C
2	1B	106	G
2	1B	110	G
32	1a	9	G
32	1a	26	A
32	1a	31	G
32	1a	32	A
32	1a	39	G
32	1a	44	G
32	1a	48	C
32	1a	50	A
32	1a	51	A
32	1a	61	G
32	1a	78	G
32	1a	79	G
32	1a	91	C
32	1a	98	G
32	1a	101	A
32	1a	105	G
32	1a	116	A
32	1a	121	C
32	1a	129(A)	G
32	1a	131	C
32	1a	151	A
32	1a	162	A
32	1a	163	C
32	1a	164	U
32	1a	174	C
32	1a	176	C
32	1a	182	U
32	1a	189(F)	U
32	1a	195	A
32	1a	197	A
32	1a	199	G
32	1a	201	C
32	1a	202	U
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	247	G
32	1a	251	G
32	1a	258	G

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Mol	Chain	Res	Type
32	1a	266	G
32	1a	267	C
32	1a	279	A
32	1a	289	G
32	1a	316	G
32	1a	321	A
32	1a	327	A
32	1a	328	C
32	1a	330	C
32	1a	332	G
32	1a	345	C
32	1a	348	G
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	358	U
32	1a	359	U
32	1a	363	A
32	1a	367	U
32	1a	372	C
32	1a	373	A
32	1a	378	G
32	1a	382	A
32	1a	384	G
32	1a	397	A
32	1a	398	C
32	1a	406	G
32	1a	412	A
32	1a	414	A
32	1a	415	A
32	1a	421	U
32	1a	423	G
32	1a	424	G
32	1a	429	U
32	1a	430	A
32	1a	433	C
32	1a	437	U
32	1a	438	G
32	1a	439	A
32	1a	442	C
32	1a	451	A
32	1a	452	A

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Mol	Chain	Res	Type
32	1a	457	C
32	1a	461	A
32	1a	470	C
32	1a	471	G
32	1a	474	G
32	1a	480	U
32	1a	485	G
32	1a	496	A
32	1a	498	U
32	1a	505	G
32	1a	506	G
32	1a	509	A
32	1a	510	A
32	1a	511	C
32	1a	518	C
32	1a	519	C
32	1a	531	U
32	1a	532	A
32	1a	533	A
32	1a	534	U
32	1a	536	C
32	1a	547	A
32	1a	559	A
32	1a	560	U
32	1a	561	U
32	1a	562	C
32	1a	568	G
32	1a	572	A
32	1a	573	A
32	1a	574	A
32	1a	576	G
32	1a	577	G
32	1a	596	C
32	1a	607	A
32	1a	618	C
32	1a	630	G
32	1a	633	G
32	1a	653	A
32	1a	657	G
32	1a	659	U
32	1a	665	A
32	1a	671	G

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Mol	Chain	Res	Type
32	1a	684	A
32	1a	686	U
32	1a	687	A
32	1a	688	G
32	1a	693	G
32	1a	695	A
32	1a	723	U
32	1a	724	G
32	1a	731	G
32	1a	749	C
32	1a	755	G
32	1a	759	A
32	1a	766	A
32	1a	773	G
32	1a	774	G
32	1a	777	A
32	1a	792	A
32	1a	793	U
32	1a	794	A
32	1a	810	C
32	1a	815	A
32	1a	817	C
32	1a	821	G
32	1a	828	A
32	1a	832	C
32	1a	836	G
32	1a	840	C
32	1a	841	U
32	1a	851	G
32	1a	855	G
32	1a	859	A
32	1a	870	U
32	1a	873	A
32	1a	902	G
32	1a	914	A
32	1a	926	G
32	1a	927	G
32	1a	934	C
32	1a	935	A
32	1a	936	C
32	1a	960	U
32	1a	961	U

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Mol	Chain	Res	Type
32	1a	968	A
32	1a	969	A
32	1a	971	G
32	1a	974	A
32	1a	975	A
32	1a	976	G
32	1a	977	A
32	1a	982	U
32	1a	992	U
32	1a	993	G
32	1a	994	A
32	1a	997	U
32	1a	998	G
32	1a	999	C
32	1a	1000	U
32	1a	1003	G
32	1a	1005	A
32	1a	1006	C
32	1a	1009	G
32	1a	1011	G
32	1a	1020	U
32	1a	1022	G
32	1a	1023	G
32	1a	1025	U
32	1a	1026	G
32	1a	1027	C
32	1a	1028	C
32	1a	1030	C
32	1a	1030(A)	G
32	1a	1030(C)	G
32	1a	1031	G
32	1a	1035	A
32	1a	1039	C
32	1a	1043	C
32	1a	1044	A
32	1a	1045	C
32	1a	1050	G
32	1a	1054	C
32	1a	1056	U
32	1a	1065	U
32	1a	1066	C
32	1a	1068	G

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Mol	Chain	Res	Type
32	1a	1081	G
32	1a	1086	U
32	1a	1094	G
32	1a	1095	U
32	1a	1096	C
32	1a	1101	A
32	1a	1121	U
32	1a	1122	U
32	1a	1124	G
32	1a	1125	U
32	1a	1134	G
32	1a	1137	C
32	1a	1138	G
32	1a	1139	G
32	1a	1141	C
32	1a	1146	A
32	1a	1152	A
32	1a	1154	G
32	1a	1157	A
32	1a	1159	U
32	1a	1183	A
32	1a	1184	G
32	1a	1196	U
32	1a	1197	G
32	1a	1202	G
32	1a	1212	U
32	1a	1213	A
32	1a	1214	C
32	1a	1222	G
32	1a	1227	A
32	1a	1233	G
32	1a	1236	A
32	1a	1238	A
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1260	C
32	1a	1270	C
32	1a	1275	A
32	1a	1278	U
32	1a	1279	A
32	1a	1280	A

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Mol	Chain	Res	Type
32	1a	1286	A
32	1a	1287	A
32	1a	1299	A
32	1a	1300	G
32	1a	1302	U
32	1a	1312	G
32	1a	1320	C
32	1a	1323	G
32	1a	1338	G
32	1a	1346	A
32	1a	1347	G
32	1a	1353	G
32	1a	1363	C
32	1a	1363(A)	A
32	1a	1368	G
32	1a	1370	G
32	1a	1379	G
32	1a	1394	A
32	1a	1396	A
32	1a	1397	C
32	1a	1403	C
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1446	U
32	1a	1447	A
32	1a	1487	G
32	1a	1492	A
32	1a	1494	G
32	1a	1503	A
32	1a	1504	G
32	1a	1506	U
32	1a	1517	G
32	1a	1519	MA6
32	1a	1520	G
32	1a	1529	G
32	1a	1530	G
53	1v	14	A
53	1v	15	A
53	1v	19	U
53	1v	21	C
54	1x	9	G

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Mol	Chain	Res	Type
54	1x	14	A
54	1x	18	G
54	1x	19	G
54	1x	21	A
54	1x	32	5MC
54	1x	47	U
54	1x	76	A
1	2A	8	A
1	2A	10	G
1	2A	14	A
1	2A	15	G
1	2A	34	C
1	2A	35	G
1	2A	45	C
1	2A	61	G
1	2A	64	A
1	2A	71	A
1	2A	72	U
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	90	U
1	2A	94	C
1	2A	100	G
1	2A	102	G
1	2A	118	A
1	2A	119	A
1	2A	120	U
1	2A	121	G
1	2A	125	G
1	2A	126	A
1	2A	131	G
1	2A	141	A
1	2A	154(A)	C
1	2A	157	U
1	2A	181	A
1	2A	196	A
1	2A	199	A
1	2A	205	G
1	2A	214	G
1	2A	216	A
1	2A	221	A

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Mol	Chain	Res	Type
1	2A	222	A
1	2A	225	A
1	2A	228	A
1	2A	229	A
1	2A	233	A
1	2A	248	G
1	2A	249	C
1	2A	250	G
1	2A	271(J)	C
1	2A	271(K)	U
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	271(O)	C
1	2A	272(B)	G
1	2A	274	G
1	2A	277	C
1	2A	278	A
1	2A	279	C
1	2A	280	C
1	2A	294	A
1	2A	303	U
1	2A	311	A
1	2A	317	G
1	2A	324	A
1	2A	327	G
1	2A	329	G
1	2A	330	A
1	2A	333	G
1	2A	352	G
1	2A	362	U
1	2A	363	G
1	2A	363(B)	G
1	2A	363(D)	G
1	2A	372	G
1	2A	386	G
1	2A	396	G
1	2A	399	G
1	2A	405	U
1	2A	407	G
1	2A	411	G
1	2A	421	U

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Mol	Chain	Res	Type
1	2A	422	A
1	2A	435	C
1	2A	444	C
1	2A	454	A
1	2A	455	C
1	2A	457	A
1	2A	474	G
1	2A	479	A
1	2A	481	G
1	2A	496	G
1	2A	499	U
1	2A	504	U
1	2A	505	A
1	2A	509	C
1	2A	519	U
1	2A	529	A
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G
1	2A	545	G
1	2A	551	G
1	2A	563	G
1	2A	568	U
1	2A	573	G
1	2A	575	A
1	2A	588	U
1	2A	595	C
1	2A	599	G
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	609	A
1	2A	614(A)	U
1	2A	614(B)	G
1	2A	614(C)	A
1	2A	615	G
1	2A	620	G
1	2A	627	A
1	2A	637	A
1	2A	645	C
1	2A	652(B)	A

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Mol	Chain	Res	Type
1	2A	669	G
1	2A	686	G
1	2A	709	U
1	2A	717	G
1	2A	718	A
1	2A	726	G
1	2A	730	C
1	2A	752	A
1	2A	753	C
1	2A	771	G
1	2A	775	G
1	2A	776	G
1	2A	779	U
1	2A	782	A
1	2A	783	A
1	2A	784	A
1	2A	785	G
1	2A	790	C
1	2A	791	C
1	2A	792	G
1	2A	805	G
1	2A	812	C
1	2A	819	A
1	2A	825	C
1	2A	827	U
1	2A	828	U
1	2A	832	G
1	2A	847	U
1	2A	857	C
1	2A	859	G
1	2A	869	G
1	2A	870	A
1	2A	874	G
1	2A	879	G
1	2A	880	G
1	2A	884	C
1	2A	886	C
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	892	G
1	2A	893	C

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Mol	Chain	Res	Type
1	2A	894	C
1	2A	895	U
1	2A	896	A
1	2A	900	A
1	2A	901	A
1	2A	904	C
1	2A	910	A
1	2A	914	C
1	2A	917	A
1	2A	932	G
1	2A	941	A
1	2A	945	A
1	2A	946	G
1	2A	953	A
1	2A	958	U
1	2A	959	A
1	2A	961	C
1	2A	974	G
1	2A	975	C
1	2A	983	A
1	2A	996	A
1	2A	997	G
1	2A	998	C
1	2A	1012	U
1	2A	1013	C
1	2A	1017	G
1	2A	1020	A
1	2A	1022	G
1	2A	1025	G
1	2A	1033	U
1	2A	1038	C
1	2A	1039	G
1	2A	1043	C
1	2A	1116	C
1	2A	1117	G
1	2A	1126	A
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1139	G
1	2A	1143	A
1	2A	1155	A

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Mol	Chain	Res	Type
1	2A	1159	U
1	2A	1171	G
1	2A	1188	U
1	2A	1195	G
1	2A	1204	A
1	2A	1211	U
1	2A	1220	A
1	2A	1229	G
1	2A	1236	G
1	2A	1237	A
1	2A	1247	A
1	2A	1253	A
1	2A	1256	G
1	2A	1271	G
1	2A	1272	A
1	2A	1273	U
1	2A	1284	A
1	2A	1300	U
1	2A	1301	A
1	2A	1303	G
1	2A	1314	C
1	2A	1318	C
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1368	G
1	2A	1370	C
1	2A	1380	G
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1395	A
1	2A	1400	G
1	2A	1416	G
1	2A	1417	C
1	2A	1420	U
1	2A	1421	G
1	2A	1427	A
1	2A	1428	C
1	2A	1437	C
1	2A	1445	A

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Mol	Chain	Res	Type
1	2A	1445(A)	C
1	2A	1449	A
1	2A	1450	G
1	2A	1455	G
1	2A	1460	A
1	2A	1461	G
1	2A	1467	C
1	2A	1471	A
1	2A	1482	G
1	2A	1493	C
1	2A	1495	A
1	2A	1497	U
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1531	C
1	2A	1532	C
1	2A	1533	G
1	2A	1541	G
1	2A	1543	C
1	2A	1558	A
1	2A	1559	G
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1580	A
1	2A	1584	C
1	2A	1586	A
1	2A	1589	C
1	2A	1595	G
1	2A	1603	A
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1613	G
1	2A	1616	A
1	2A	1640	C
1	2A	1647	G
1	2A	1648	C
1	2A	1654	A
1	2A	1664	A
1	2A	1672	C

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Mol	Chain	Res	Type
1	2A	1674	G
1	2A	1675	C
1	2A	1696	G
1	2A	1700	A
1	2A	1701	A
1	2A	1708	C
1	2A	1722	A
1	2A	1739	U
1	2A	1740	G
1	2A	1745(A)	C
1	2A	1746	G
1	2A	1748	G
1	2A	1756	G
1	2A	1762	A
1	2A	1763	G
1	2A	1764	G
1	2A	1773	A
1	2A	1780	A
1	2A	1782	C
1	2A	1786	A
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1811	G
1	2A	1812	A
1	2A	1816	G
1	2A	1828	G
1	2A	1829	A
1	2A	1835	G
1	2A	1836	C
1	2A	1847	A
1	2A	1857	G
1	2A	1877	A
1	2A	1878	G
1	2A	1885	A
1	2A	1900	A
1	2A	1906	G
1	2A	1910	G
1	2A	1913	A
1	2A	1914	C
1	2A	1915	5MU
1	2A	1929	G

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Mol	Chain	Res	Type
1	2A	1930	G
1	2A	1931	U
1	2A	1936	A
1	2A	1937	A
1	2A	1938	A
1	2A	1955	U
1	2A	1963	U
1	2A	1964	G
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1993	U
1	2A	1997	G
1	2A	2020	A
1	2A	2023	G
1	2A	2031	A
1	2A	2032	G
1	2A	2033	A
1	2A	2036	C
1	2A	2043	C
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A
1	2A	2061	G
1	2A	2062	A
1	2A	2069	G
1	2A	2093	G
1	2A	2098	U
1	2A	2104	G
1	2A	2108	C
1	2A	2110	G
1	2A	2111	C
1	2A	2112	G
1	2A	2116	G
1	2A	2117	A
1	2A	2119	A
1	2A	2120	G
1	2A	2122	U
1	2A	2126	A
1	2A	2127	G
1	2A	2129	C

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Mol	Chain	Res	Type
1	2A	2131	G
1	2A	2132	U
1	2A	2133	G
1	2A	2134	A
1	2A	2135	A
1	2A	2136	C
1	2A	2137	C
1	2A	2138	C
1	2A	2140	C
1	2A	2142	C
1	2A	2143	C
1	2A	2146	C
1	2A	2150	U
1	2A	2151	G
1	2A	2153	G
1	2A	2154	G
1	2A	2155	G
1	2A	2156	G
1	2A	2157	G
1	2A	2158	A
1	2A	2160	G
1	2A	2161	C
1	2A	2162	G
1	2A	2164	C
1	2A	2166	G
1	2A	2167	U
1	2A	2168	G
1	2A	2171	A
1	2A	2172	U
1	2A	2177	C
1	2A	2178	C
1	2A	2181	G
1	2A	2182	G
1	2A	2185	C
1	2A	2186	G
1	2A	2189	U
1	2A	2190	G
1	2A	2192	G
1	2A	2197	U
1	2A	2198	A
1	2A	2200	C
1	2A	2206	G

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Mol	Chain	Res	Type
1	2A	2207	G
1	2A	2208	A
1	2A	2218	U
1	2A	2225	A
1	2A	2235	G
1	2A	2238	G
1	2A	2239	G
1	2A	2275	C
1	2A	2278	A
1	2A	2279	G
1	2A	2283	C
1	2A	2287	A
1	2A	2288	A
1	2A	2294	C
1	2A	2305	A
1	2A	2308	G
1	2A	2312	U
1	2A	2319	G
1	2A	2320	A
1	2A	2325	G
1	2A	2334	G
1	2A	2336	A
1	2A	2347	C
1	2A	2350	C
1	2A	2372	G
1	2A	2376	A
1	2A	2377	A
1	2A	2383	G
1	2A	2385	C
1	2A	2391	G
1	2A	2403	C
1	2A	2406	U
1	2A	2410	G
1	2A	2414	G
1	2A	2422	A
1	2A	2425	A
1	2A	2428	G
1	2A	2429	G
1	2A	2430	A
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C

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Mol	Chain	Res	Type
1	2A	2448	A
1	2A	2458	G
1	2A	2465	C
1	2A	2468	G
1	2A	2469	A
1	2A	2474	C
1	2A	2476	A
1	2A	2477	C
1	2A	2480	C
1	2A	2486	G
1	2A	2487	G
1	2A	2490	G
1	2A	2502	G
1	2A	2505	G
1	2A	2506	U
1	2A	2507	C
1	2A	2518	A
1	2A	2520	C
1	2A	2525	G
1	2A	2529	G
1	2A	2543	G
1	2A	2554	U
1	2A	2555	U
1	2A	2566	A
1	2A	2567	G
1	2A	2569	G
1	2A	2574	G
1	2A	2585	U
1	2A	2592	G
1	2A	2601	C
1	2A	2602	A
1	2A	2608	G
1	2A	2609	U
1	2A	2611	U
1	2A	2612	C
1	2A	2620	C
1	2A	2630	G
1	2A	2634	G
1	2A	2654	A
1	2A	2679	A
1	2A	2689	U
1	2A	2690	C

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Mol	Chain	Res	Type
1	2A	2702	U
1	2A	2703	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2718	G
1	2A	2726	U
1	2A	2733	A
1	2A	2751	G
1	2A	2757	A
1	2A	2758	A
1	2A	2759	G
1	2A	2761	G
1	2A	2764	A
1	2A	2765	A
1	2A	2766	G
1	2A	2778	A
1	2A	2789	C
1	2A	2793	G
1	2A	2802	G
1	2A	2803	C
1	2A	2808	U
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2833	G
1	2A	2835	A
1	2A	2872	G
1	2A	2873	A
1	2A	2880	C
1	2A	2894	G
1	2A	2895	U
1	2A	2897	U
2	2B	2	C
2	2B	5	C
2	2B	8	U
2	2B	19	G
2	2B	20	C
2	2B	25	A
2	2B	30	C
2	2B	41	U
2	2B	42	C

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Mol	Chain	Res	Type
2	2B	52	A
2	2B	53	A
2	2B	56	G
2	2B	63	G
2	2B	67	G
2	2B	73	A
2	2B	74	U
2	2B	75	G
2	2B	85	G
2	2B	88	C
2	2B	89	G
2	2B	91	C
2	2B	94	C
2	2B	106	G
2	2B	108	U
2	2B	110	G
2	2B	111	G
2	2B	114	C
2	2B	116	G
2	2B	117	G
2	2B	119	G
2	2B	120	A
32	2a	9	G
32	2a	16	A
32	2a	22	G
32	2a	32	A
32	2a	39	G
32	2a	41	G
32	2a	47	C
32	2a	48	C
32	2a	50	A
32	2a	51	A
32	2a	59	A
32	2a	65	U
32	2a	66	G
32	2a	73	G
32	2a	88	A
32	2a	89	C
32	2a	90	U
32	2a	92	C
32	2a	98	G
32	2a	101	A

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Mol	Chain	Res	Type
32	2a	115	G
32	2a	116	A
32	2a	121	C
32	2a	129(A)	G
32	2a	131	C
32	2a	159	G
32	2a	163	C
32	2a	174	C
32	2a	182	U
32	2a	189	G
32	2a	189(A)	C
32	2a	189(E)	U
32	2a	195	A
32	2a	197	A
32	2a	201	C
32	2a	202	U
32	2a	203	U
32	2a	204	U
32	2a	216	G
32	2a	247	G
32	2a	251	G
32	2a	266	G
32	2a	267	C
32	2a	289	G
32	2a	306	G
32	2a	321	A
32	2a	328	C
32	2a	332	G
32	2a	351	G
32	2a	352	C
32	2a	353	A
32	2a	354	G
32	2a	367	U
32	2a	372	C
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	412	A
32	2a	413	G
32	2a	424	G
32	2a	429	U
32	2a	430	A

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Mol	Chain	Res	Type
32	2a	439	A
32	2a	442	C
32	2a	452	A
32	2a	461	A
32	2a	470	C
32	2a	482	A
32	2a	484	G
32	2a	485	G
32	2a	496	A
32	2a	498	U
32	2a	505	G
32	2a	509	A
32	2a	510	A
32	2a	511	C
32	2a	518	C
32	2a	521	G
32	2a	531	U
32	2a	532	A
32	2a	533	A
32	2a	547	A
32	2a	559	A
32	2a	561	U
32	2a	562	C
32	2a	564	C
32	2a	572	A
32	2a	573	A
32	2a	576	G
32	2a	596	C
32	2a	603	U
32	2a	618	C
32	2a	630	G
32	2a	647	C
32	2a	651	C
32	2a	653	A
32	2a	665	A
32	2a	666	G
32	2a	687	A
32	2a	688	G
32	2a	695	A
32	2a	723	U
32	2a	731	G
32	2a	742	G

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Mol	Chain	Res	Type
32	2a	749	C
32	2a	753	A
32	2a	755	G
32	2a	763	G
32	2a	777	A
32	2a	782	A
32	2a	792	A
32	2a	793	U
32	2a	794	A
32	2a	796	C
32	2a	810	C
32	2a	816	A
32	2a	817	C
32	2a	819	A
32	2a	821	G
32	2a	828	A
32	2a	840	C
32	2a	841	U
32	2a	851	G
32	2a	853	G
32	2a	854	G
32	2a	859	A
32	2a	872	A
32	2a	902	G
32	2a	914	A
32	2a	926	G
32	2a	927	G
32	2a	934	C
32	2a	942	G
32	2a	961	U
32	2a	968	A
32	2a	969	A
32	2a	971	G
32	2a	972	C
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A
32	2a	982	U
32	2a	989	C
32	2a	992	U
32	2a	993	G

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Mol	Chain	Res	Type
32	2a	997	U
32	2a	998	G
32	2a	1001(A)	G
32	2a	1002	G
32	2a	1003	G
32	2a	1004	A
32	2a	1005	A
32	2a	1006	C
32	2a	1009	G
32	2a	1011	G
32	2a	1020	U
32	2a	1021	G
32	2a	1022	G
32	2a	1023	G
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1030	C
32	2a	1030(A)	G
32	2a	1031	G
32	2a	1037	C
32	2a	1039	C
32	2a	1040	U
32	2a	1043	C
32	2a	1045	C
32	2a	1046	A
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1077	G
32	2a	1081	G
32	2a	1086	U
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1108	G
32	2a	1113	C
32	2a	1117	G
32	2a	1122	U
32	2a	1129	C
32	2a	1130	A
32	2a	1133	G

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Mol	Chain	Res	Type
32	2a	1136	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G
32	2a	1146	A
32	2a	1152	A
32	2a	1157	A
32	2a	1159	U
32	2a	1160	G
32	2a	1182	G
32	2a	1183	A
32	2a	1184	G
32	2a	1196	U
32	2a	1197	G
32	2a	1202	G
32	2a	1211	U
32	2a	1212	U
32	2a	1213	A
32	2a	1227	A
32	2a	1228	C
32	2a	1238	A
32	2a	1240	U
32	2a	1241	G
32	2a	1256	A
32	2a	1257	U
32	2a	1260	C
32	2a	1262	C
32	2a	1270	C
32	2a	1272	G
32	2a	1273	G
32	2a	1275	A
32	2a	1277	C
32	2a	1278	U
32	2a	1279	A
32	2a	1280	A
32	2a	1287	A
32	2a	1297	C
32	2a	1299	A
32	2a	1302	U
32	2a	1303	C
32	2a	1305	G
32	2a	1312	G

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Mol	Chain	Res	Type
32	2a	1319	A
32	2a	1322	C
32	2a	1323	G
32	2a	1346	A
32	2a	1347	G
32	2a	1358	U
32	2a	1363	C
32	2a	1368	G
32	2a	1370	G
32	2a	1398	A
32	2a	1399	C
32	2a	1401	G
32	2a	1402	4OC
32	2a	1410	G
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1442(B)	A
32	2a	1447	A
32	2a	1452	C
32	2a	1456	G
32	2a	1475	G
32	2a	1492	A
32	2a	1494	G
32	2a	1504	G
32	2a	1506	U
32	2a	1517	G
32	2a	1519	MA6
32	2a	1520	G
32	2a	1529	G
32	2a	1530	G
32	2a	1531	A
54	2x	8	4SU
54	2x	9	G
54	2x	19	G
54	2x	21	A
54	2x	22	G
54	2x	47	U
54	2x	52	G
54	2x	56	C
54	2x	59	A
54	2x	68	C

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Mol	Chain	Res	Type
54	2x	76	A

All (63) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	90	U
1	1A	195	A
1	1A	266	G
1	1A	271(K)	U
1	1A	278	A
1	1A	351	G
1	1A	548	A
1	1A	574	C
1	1A	746	A
1	1A	774	A
1	1A	895	U
1	1A	974	G
1	1A	1047	G
1	1A	1065	U
1	1A	1067	A
1	1A	1078	U
1	1A	1107	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1210	A
1	1A	1384	A
1	1A	1442	G
1	1A	1508	A
1	1A	1608	A
1	1A	1653	G
1	1A	1992	G
1	1A	2134	A
1	1A	2156	G
1	1A	2158	A
1	1A	2181	G
1	1A	2183	C
1	1A	2406	U
1	1A	2422	A
1	1A	2430	A
1	1A	2601	C
1	1A	2689	U

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Mol	Chain	Res	Type
2	1B	1	U
1	2A	34	C
1	2A	196	A
1	2A	228	A
1	2A	266	G
1	2A	271(K)	U
1	2A	271(M)	G
1	2A	277	C
1	2A	528	A
1	2A	752	A
1	2A	774	A
1	2A	805	G
1	2A	856	C
1	2A	900	A
1	2A	1210	A
1	2A	1379	A
1	2A	1420	U
1	2A	1442	G
1	2A	1530	C
1	2A	1608	A
1	2A	1653	G
1	2A	1913	A
1	2A	1992	G
1	2A	2119	A
1	2A	2126	A
1	2A	2689	U

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

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
32	UR3	1a	1498	32	19,22,23	1.02	1 (5%)	26,32,35	1.78	3 (11%)
54	5MC	1x	32	55,54	19,22,23	1.64	3 (15%)	26,32,35	1.26	2 (7%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	5MC	1a	967	32	19,22,23	1.53	3 (15%)	26,32,35	1.23	4 (15%)
32	5MC	2a	1400	54,32	19,22,23	1.71	3 (15%)	26,32,35	1.30	3 (11%)
32	5MC	1a	1407	32	19,22,23	1.66	3 (15%)	26,32,35	1.08	2 (7%)
1	OMG	2A	2251	55,1,54	23,26,27	1.22	3 (13%)	32,38,41	1.93	6 (18%)
32	MA6	1a	1519	32	23,26,27	1.58	5 (21%)	33,38,41	2.21	13 (39%)
1	2MA	2A	2503	55,1	22,25,26	1.47	5 (22%)	32,37,40	2.22	9 (28%)
32	4OC	2a	1402	55,32	20,23,24	0.80	0	25,32,35	0.98	1 (4%)
1	5MC	1A	1942	55,1	19,22,23	1.46	3 (15%)	26,32,35	1.16	2 (7%)
1	PSU	2A	2605	1	18,21,22	1.39	3 (16%)	21,30,33	2.00	4 (19%)
54	PSU	1x	55	54	18,21,22	1.32	2 (11%)	21,30,33	1.98	4 (19%)
54	5MU	2x	54	54	19,22,23	1.39	5 (26%)	27,32,35	2.05	7 (25%)
32	PSU	2a	516	55,32	18,21,22	1.35	2 (11%)	21,30,33	1.94	4 (19%)
32	7MG	2a	527	55,32	23,26,27	1.38	4 (17%)	27,39,42	2.54	5 (18%)
32	2MG	2a	1207	32	23,26,27	1.26	4 (17%)	33,38,41	2.13	8 (24%)
32	5MC	2a	1407	32	19,22,23	1.51	3 (15%)	26,32,35	1.14	2 (7%)
1	5MC	1A	1962	55,1	19,22,23	1.57	3 (15%)	26,32,35	1.06	2 (7%)
1	5MC	2A	1962	55,1	19,22,23	1.55	3 (15%)	26,32,35	1.15	2 (7%)
32	M2G	2a	966	55,32	24,27,28	1.35	4 (16%)	33,40,43	1.95	5 (15%)
1	4OC	1A	1920	1	19,22,24	0.79	0	25,31,35	1.00	1 (4%)
54	5MU	1x	54	55,54	19,22,23	1.39	5 (26%)	27,32,35	1.84	7 (25%)
43	0TD	1l	92	43	8,9,10	4.46	1 (12%)	6,11,13	4.35	3 (50%)
1	5MU	1A	1939	55,1	19,22,23	1.40	5 (26%)	27,32,35	2.29	6 (22%)
32	7MG	1a	527	55,32	23,26,27	1.35	3 (13%)	27,39,42	2.64	7 (25%)
1	PSU	2A	1911	1	18,21,22	1.39	2 (11%)	21,30,33	2.03	3 (14%)
32	5MC	2a	967	32	19,22,23	1.67	3 (15%)	26,32,35	1.16	3 (11%)
32	MA6	2a	1519	32	23,26,27	1.57	4 (17%)	33,38,41	2.29	11 (33%)
1	5MC	2A	1942	1	19,22,23	1.65	3 (15%)	26,32,35	1.13	2 (7%)
1	5MU	2A	1939	1	19,22,23	1.44	5 (26%)	27,32,35	2.40	6 (22%)
32	5MC	1a	1400	32	19,22,23	1.71	3 (15%)	26,32,35	1.16	2 (7%)
32	5MC	2a	1404	32	19,22,23	1.55	3 (15%)	26,32,35	1.11	2 (7%)
43	0TD	2l	92	43	8,9,10	4.58	1 (12%)	6,11,13	6.85	3 (50%)
54	4SU	1x	8	54	18,21,22	2.12	4 (22%)	25,30,33	1.59	5 (20%)
54	4SU	2x	8	54	18,21,22	2.03	6 (33%)	25,30,33	1.50	4 (16%)
1	5MU	2A	1915	1	19,22,23	1.56	5 (26%)	27,32,35	2.03	7 (25%)
1	OMG	1A	2251	55,1,54	23,26,27	1.24	3 (13%)	32,38,41	1.98	6 (18%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	4OC	1a	1402	32	20,23,24	0.79	0	25,32,35	0.97	2 (8%)
54	5MC	2x	32	54	19,22,23	1.75	3 (15%)	26,32,35	1.21	3 (11%)
32	MA6	2a	1518	32	23,26,27	1.55	5 (21%)	33,38,41	2.27	13 (39%)
1	PSU	2A	1917	55,1	18,21,22	1.41	2 (11%)	21,30,33	1.91	3 (14%)
54	PSU	2x	55	54	18,21,22	1.39	2 (11%)	21,30,33	2.00	4 (19%)
1	2MU	1A	2552	55,1	19,22,24	1.18	1 (5%)	25,31,36	2.05	6 (24%)
32	5MC	1a	1404	32	19,22,23	1.86	3 (15%)	26,32,35	1.17	3 (11%)
32	UR3	2a	1498	32	19,22,23	1.02	2 (10%)	26,32,35	1.76	3 (11%)
32	PSU	1a	516	55,32	18,21,22	1.40	2 (11%)	21,30,33	1.94	4 (19%)
1	2MU	2A	2552	55,1	19,22,24	1.27	3 (15%)	25,31,36	1.86	5 (20%)
32	M2G	1a	966	55,32	24,27,28	1.33	4 (16%)	33,40,43	1.85	5 (15%)
1	PSU	1A	1911	1	18,21,22	1.33	2 (11%)	21,30,33	1.99	3 (14%)
32	MA6	1a	1518	32	23,26,27	1.48	6 (26%)	33,38,41	2.37	13 (39%)
1	2MA	1A	2503	55,1	22,25,26	1.47	5 (22%)	32,37,40	2.17	9 (28%)
1	PSU	1A	1917	1	18,21,22	1.35	3 (16%)	21,30,33	2.08	4 (19%)
1	4OC	2A	1920	1	19,22,24	0.77	0	25,31,35	1.05	2 (8%)
1	5MU	1A	1915	1	19,22,23	1.42	5 (26%)	27,32,35	2.08	7 (25%)
1	PSU	1A	2605	1	18,21,22	1.41	4 (22%)	21,30,33	2.00	4 (19%)
32	2MG	1a	1207	55,32	23,26,27	1.23	2 (8%)	33,38,41	2.18	8 (24%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
54	5MC	1x	32	55,54	-	0/7/25/26	0/2/2/2
32	5MC	1a	967	32	-	2/7/25/26	0/2/2/2
32	5MC	2a	1400	54,32	-	2/7/25/26	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
1	OMG	2A	2251	55,1,54	-	0/9/27/28	0/3/3/3
32	MA6	1a	1519	32	-	4/11/29/30	0/3/3/3
1	2MA	2A	2503	55,1	-	0/7/25/26	0/3/3/3
32	4OC	2a	1402	55,32	-	2/9/29/30	0/2/2/2
1	5MC	1A	1942	55,1	-	0/7/25/26	0/2/2/2
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
54	PSU	1x	55	54	-	0/7/25/26	0/2/2/2
54	5MU	2x	54	54	-	0/7/25/26	0/2/2/2
32	PSU	2a	516	55,32	-	0/7/25/26	0/2/2/2
32	7MG	2a	527	55,32	-	2/7/37/38	0/3/3/3
32	2MG	2a	1207	32	-	0/9/27/28	0/3/3/3
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
1	5MC	1A	1962	55,1	-	0/7/25/26	0/2/2/2
1	5MC	2A	1962	55,1	-	0/7/25/26	0/2/2/2
32	M2G	2a	966	55,32	-	0/11/29/30	0/3/3/3
1	4OC	1A	1920	1	-	0/9/27/30	0/2/2/2
54	5MU	1x	54	55,54	-	0/7/25/26	0/2/2/2
43	0TD	1l	92	43	-	1/7/12/14	-
1	5MU	1A	1939	55,1	-	0/7/25/26	0/2/2/2
32	7MG	1a	527	55,32	-	1/7/37/38	0/3/3/3
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
32	MA6	2a	1519	32	-	4/11/29/30	0/3/3/3
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
1	5MU	2A	1939	1	-	0/7/25/26	0/2/2/2
32	5MC	1a	1400	32	-	0/7/25/26	0/2/2/2
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
43	0TD	2l	92	43	-	3/7/12/14	-
54	4SU	1x	8	54	-	0/7/25/26	0/2/2/2
54	4SU	2x	8	54	-	0/7/25/26	0/2/2/2
1	5MU	2A	1915	1	-	0/7/25/26	0/2/2/2
1	OMG	1A	2251	55,1,54	-	0/9/27/28	0/3/3/3
32	4OC	1a	1402	32	-	1/9/29/30	0/2/2/2
54	5MC	2x	32	54	-	0/7/25/26	0/2/2/2
32	MA6	2a	1518	32	-	2/11/29/30	0/3/3/3
1	PSU	2A	1917	55,1	-	0/7/25/26	0/2/2/2
54	PSU	2x	55	54	-	2/7/25/26	0/2/2/2
1	2MU	1A	2552	55,1	-	0/9/27/28	0/2/2/2
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
32	UR3	2a	1498	32	-	0/7/25/26	0/2/2/2
32	PSU	1a	516	55,32	-	0/7/25/26	0/2/2/2
1	2MU	2A	2552	55,1	-	0/9/27/28	0/2/2/2
32	M2G	1a	966	55,32	-	0/11/29/30	0/3/3/3
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
32	MA6	1a	1518	32	-	3/11/29/30	0/3/3/3
1	2MA	1A	2503	55,1	-	1/7/25/26	0/3/3/3
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	4OC	2A	1920	1	-	2/9/27/30	0/2/2/2
1	5MU	1A	1915	1	-	2/7/25/26	0/2/2/2
1	PSU	1A	2605	1	-	0/7/25/26	0/2/2/2
32	2MG	1a	1207	55,32	-	0/9/27/28	0/3/3/3

All (172) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	2l	92	0TD	CB-SB	-12.61	1.69	1.82
43	1l	92	0TD	CB-SB	-12.16	1.70	1.82
32	1a	1404	5MC	C5-C4	6.96	1.49	1.44
54	2x	32	5MC	C5-C4	6.25	1.48	1.44
32	1a	1400	5MC	C5-C4	6.20	1.48	1.44
32	2a	967	5MC	C5-C4	6.13	1.48	1.44
32	2a	1400	5MC	C5-C4	6.03	1.48	1.44
32	1a	1407	5MC	C5-C4	6.03	1.48	1.44
1	2A	1942	5MC	C5-C4	6.00	1.48	1.44
54	1x	32	5MC	C5-C4	5.67	1.48	1.44
1	1A	1962	5MC	C5-C4	5.61	1.48	1.44
32	2a	1404	5MC	C5-C4	5.51	1.48	1.44
1	2A	1962	5MC	C5-C4	5.40	1.48	1.44
32	1a	967	5MC	C5-C4	5.27	1.48	1.44
32	2a	1407	5MC	C5-C4	5.20	1.48	1.44
54	1x	8	4SU	C4-S4	-4.92	1.60	1.68
1	1A	1942	5MC	C5-C4	4.88	1.47	1.44
32	1a	1519	MA6	C5-C4	4.86	1.47	1.39
32	2a	1519	MA6	C5-C4	4.85	1.47	1.39
32	2a	1518	MA6	C5-C4	4.78	1.47	1.39
54	2x	8	4SU	C4-S4	-4.51	1.60	1.68
54	1x	8	4SU	C4-N3	-4.48	1.33	1.37
32	1a	1518	MA6	C5-C4	4.48	1.47	1.39
54	2x	8	4SU	C4-N3	-4.48	1.33	1.37
1	1A	2503	2MA	C5-C4	4.40	1.46	1.39
1	2A	2503	2MA	C5-C4	4.38	1.46	1.39
54	1x	8	4SU	C2-N3	-3.90	1.31	1.38
54	2x	55	PSU	C6-C5	3.88	1.39	1.35
32	1a	516	PSU	C6-C5	3.87	1.39	1.35
1	2A	1917	PSU	C6-C5	3.84	1.39	1.35
54	1x	55	PSU	C6-C5	3.60	1.39	1.35
1	2A	1911	PSU	C6-C5	3.54	1.39	1.35
54	1x	8	4SU	C5-C4	-3.47	1.38	1.42
1	1A	1911	PSU	C6-C5	3.44	1.39	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	1207	2MG	C5-C4	3.37	1.48	1.38
32	2a	966	M2G	C5-C4	3.34	1.47	1.38
32	2a	527	7MG	C5-C4	3.33	1.47	1.37
1	2A	2605	PSU	C6-C5	3.31	1.39	1.35
32	1a	966	M2G	C5-C4	3.31	1.47	1.38
32	1a	527	7MG	C5-C4	3.27	1.47	1.37
1	2A	2251	OMG	C5-C4	3.21	1.47	1.38
32	2a	516	PSU	C6-C5	3.19	1.38	1.35
1	2A	1915	5MU	C6-C5	3.17	1.39	1.34
54	2x	32	5MC	C6-C5	3.16	1.39	1.34
32	1a	527	7MG	C4-N9	-3.15	1.34	1.37
54	1x	32	5MC	C6-C5	3.11	1.39	1.34
1	1A	1917	PSU	C6-C5	3.08	1.38	1.35
54	2x	8	4SU	C5-C4	-3.07	1.38	1.42
32	2a	527	7MG	C4-N9	-3.06	1.34	1.37
32	1a	1207	2MG	C5-C4	3.04	1.47	1.38
1	1A	1939	5MU	C6-C5	3.02	1.39	1.34
1	2A	1915	5MU	C2-N1	3.01	1.43	1.38
1	1A	2251	OMG	C5-C4	3.00	1.47	1.38
1	1A	2605	PSU	C4-N3	-2.99	1.33	1.38
32	2a	966	M2G	C2-N2	2.98	1.40	1.35
1	2A	2552	2MU	C4-N3	-2.94	1.33	1.38
54	2x	8	4SU	C2-N3	-2.93	1.32	1.38
32	2a	1519	MA6	C5-C6	2.93	1.48	1.41
32	1a	1404	5MC	C6-C5	2.92	1.39	1.34
1	2A	1939	5MU	C4-N3	-2.91	1.33	1.38
32	1a	1519	MA6	C5-C6	2.90	1.48	1.41
32	2a	1518	MA6	C5-C6	2.88	1.48	1.41
1	2A	1915	5MU	C4-C5	2.87	1.49	1.44
32	1a	1518	MA6	C5-C6	2.87	1.48	1.41
32	1a	1400	5MC	C6-C5	2.82	1.39	1.34
1	1A	1942	5MC	C6-C5	2.82	1.39	1.34
32	1a	966	M2G	C2-N2	2.82	1.40	1.35
32	1a	1407	5MC	C6-C5	2.81	1.39	1.34
1	1A	2251	OMG	C6-N1	-2.81	1.33	1.38
32	2a	1400	5MC	C6-C5	2.81	1.39	1.34
1	2A	1939	5MU	C6-C5	2.80	1.39	1.34
32	2a	1404	5MC	C6-C5	2.78	1.39	1.34
1	1A	1939	5MU	C4-N3	-2.77	1.33	1.38
1	1A	2552	2MU	C4-N3	-2.77	1.33	1.38
1	1A	1962	5MC	C6-C5	2.75	1.39	1.34
54	2x	54	5MU	C6-C5	2.74	1.39	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	1x	54	5MU	C4-N3	-2.73	1.33	1.38
1	1A	1915	5MU	C2-N1	2.73	1.42	1.38
1	1A	1917	PSU	C4-N3	-2.72	1.33	1.38
32	1a	967	5MC	C6-C5	2.71	1.39	1.34
1	1A	1915	5MU	C6-C5	2.69	1.39	1.34
32	1a	966	M2G	C6-N1	-2.66	1.33	1.38
32	2a	527	7MG	C6-N1	-2.66	1.33	1.38
54	1x	54	5MU	C6-C5	2.66	1.38	1.34
1	2A	2251	OMG	C6-N1	-2.65	1.33	1.38
1	2A	2605	PSU	C4-N3	-2.64	1.33	1.38
32	2a	967	5MC	C6-C5	2.61	1.38	1.34
1	2A	1911	PSU	C4-N3	-2.61	1.34	1.38
1	2A	1962	5MC	C6-C5	2.61	1.38	1.34
1	2A	1942	5MC	C6-C5	2.60	1.38	1.34
1	2A	1939	5MU	C6-N1	-2.60	1.33	1.38
1	2A	1915	5MU	C4-N3	-2.58	1.34	1.38
54	2x	54	5MU	C4-N3	-2.58	1.34	1.38
32	1a	1207	2MG	C6-N1	-2.58	1.34	1.38
32	2a	1407	5MC	C6-N1	-2.57	1.33	1.38
1	2A	2503	2MA	C5-N7	-2.55	1.34	1.39
1	1A	2503	2MA	C5-C6	2.54	1.48	1.41
32	2a	966	M2G	C6-N1	-2.51	1.34	1.38
1	2A	1939	5MU	C4-C5	2.51	1.48	1.44
1	1A	1915	5MU	C4-C5	2.51	1.48	1.44
32	2a	1518	MA6	C8-N7	2.47	1.36	1.31
32	2a	1407	5MC	C6-C5	2.46	1.38	1.34
32	2a	1400	5MC	C6-N1	-2.46	1.33	1.38
54	2x	54	5MU	C4-C5	2.46	1.48	1.44
1	2A	2503	2MA	C5-C6	2.44	1.47	1.41
1	1A	1939	5MU	C6-N1	-2.44	1.33	1.38
54	2x	55	PSU	C4-N3	-2.43	1.34	1.38
32	2a	516	PSU	C4-N3	-2.43	1.34	1.38
1	1A	2605	PSU	C2-N3	-2.43	1.33	1.37
1	1A	2503	2MA	C4-N9	-2.42	1.32	1.37
1	1A	2503	2MA	C8-N7	2.42	1.36	1.31
1	1A	1942	5MC	C6-N1	-2.40	1.33	1.38
1	2A	1939	5MU	C2-N3	-2.39	1.33	1.38
1	1A	1915	5MU	C4-N3	-2.39	1.34	1.38
54	1x	55	PSU	C4-N3	-2.38	1.34	1.38
32	1a	1498	UR3	C2-N1	2.37	1.41	1.38
1	2A	1917	PSU	C4-N3	-2.37	1.34	1.38
1	1A	2605	PSU	C2-N1	-2.37	1.33	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	1962	5MC	C6-N1	-2.37	1.34	1.38
32	1a	516	PSU	C4-N3	-2.36	1.34	1.38
1	2A	2251	OMG	C5-N7	-2.36	1.34	1.39
1	2A	2552	2MU	C5-C4	2.35	1.48	1.43
1	1A	1911	PSU	C4-N3	-2.35	1.34	1.38
1	2A	2503	2MA	C8-N7	2.34	1.36	1.31
1	1A	1939	5MU	C2-N3	-2.34	1.33	1.38
32	2a	1519	MA6	C5-N7	-2.32	1.34	1.39
1	2A	2552	2MU	C2-N3	-2.32	1.33	1.38
1	1A	2503	2MA	C5-N7	-2.31	1.34	1.39
1	2A	1942	5MC	C6-N1	-2.31	1.34	1.38
54	1x	32	5MC	C6-N1	-2.30	1.34	1.38
32	1a	1519	MA6	C4-N9	-2.30	1.32	1.37
32	2a	1518	MA6	C4-N9	-2.30	1.32	1.37
54	2x	8	4SU	C2-N1	2.29	1.42	1.38
32	1a	1519	MA6	C5-N7	-2.29	1.34	1.39
1	1A	2605	PSU	C6-C5	2.29	1.37	1.35
32	2a	1519	MA6	C8-N7	2.28	1.36	1.31
32	1a	967	5MC	C6-N1	-2.27	1.34	1.38
32	2a	1207	2MG	C6-N1	-2.26	1.34	1.38
32	1a	1400	5MC	C6-N1	-2.24	1.34	1.38
54	1x	54	5MU	C4-C5	2.23	1.48	1.44
32	2a	1498	UR3	C2-N1	2.23	1.41	1.38
32	1a	527	7MG	C6-N1	-2.23	1.34	1.38
54	2x	54	5MU	C2-N1	2.20	1.41	1.38
32	2a	966	M2G	C5-N7	-2.19	1.34	1.39
32	2a	967	5MC	C6-N1	-2.19	1.34	1.38
1	2A	2503	2MA	C4-N9	-2.19	1.33	1.37
32	1a	1404	5MC	C6-N1	-2.19	1.34	1.38
32	2a	527	7MG	C8-N9	2.19	1.47	1.45
54	1x	54	5MU	C2-N3	-2.18	1.34	1.38
32	1a	1518	MA6	C4-N9	-2.17	1.33	1.37
1	1A	1962	5MC	C6-N1	-2.17	1.34	1.38
32	2a	1518	MA6	C5-N7	-2.16	1.35	1.39
54	1x	54	5MU	C6-N1	-2.15	1.34	1.38
32	1a	1518	MA6	C5-N7	-2.13	1.35	1.39
32	1a	1519	MA6	C8-N7	2.12	1.35	1.31
32	2a	1404	5MC	C6-N1	-2.11	1.34	1.38
54	2x	8	4SU	O2-C2	2.11	1.26	1.23
1	1A	2251	OMG	C5-N7	-2.09	1.34	1.39
32	1a	966	M2G	C5-N7	-2.08	1.34	1.39
1	1A	1915	5MU	C6-N1	-2.07	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	1a	1518	MA6	C8-N7	2.06	1.35	1.31
1	1A	1917	PSU	C2-N3	-2.06	1.34	1.37
32	2a	1498	UR3	C6-C5	2.05	1.39	1.35
54	2x	54	5MU	C6-N1	-2.05	1.34	1.38
32	2a	1207	2MG	C5-N7	-2.04	1.35	1.39
32	1a	1407	5MC	C6-N1	-2.02	1.34	1.38
1	1A	1939	5MU	C4-C5	2.02	1.48	1.44
54	2x	32	5MC	C6-N1	-2.02	1.34	1.38
32	2a	1207	2MG	C2-N3	2.02	1.35	1.32
1	2A	1915	5MU	C2-N3	-2.02	1.34	1.38
32	1a	1518	MA6	C8-N9	-2.01	1.34	1.37
1	2A	2605	PSU	C2-N3	-2.00	1.34	1.37

All (267) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	2l	92	0TD	CSB-SB-CB	-16.09	73.45	102.36
43	1l	92	0TD	CSB-SB-CB	-9.64	85.04	102.36
32	1a	527	7MG	N9-C4-N3	8.98	138.62	125.46
32	2a	527	7MG	N9-C4-N3	8.54	137.97	125.46
1	2A	2503	2MA	C5-C4-N3	-7.80	118.96	127.18
1	1A	2503	2MA	C5-C4-N3	-7.22	119.58	127.18
32	1a	1498	UR3	C4-N3-C2	-7.08	118.89	124.58
32	2a	1498	UR3	C4-N3-C2	-7.04	118.92	124.58
32	1a	1207	2MG	C2-N3-C4	6.89	120.62	112.00
32	2a	1207	2MG	C2-N3-C4	6.88	120.61	112.00
32	2a	966	M2G	C5-C4-N3	-6.71	117.71	128.39
32	1a	966	M2G	C5-C4-N3	-6.30	118.37	128.39
1	1A	1917	PSU	N1-C2-N3	6.28	121.79	115.17
54	2x	55	PSU	N1-C2-N3	6.25	121.76	115.17
1	2A	1911	PSU	N1-C2-N3	6.23	121.74	115.17
1	2A	2605	PSU	N1-C2-N3	6.15	121.66	115.17
1	2A	2251	OMG	C5-C4-N3	-6.10	118.68	128.39
1	1A	1911	PSU	N1-C2-N3	6.02	121.52	115.17
1	2A	1939	5MU	C4-N3-C2	-6.00	119.47	127.34
1	2A	1917	PSU	N1-C2-N3	5.98	121.48	115.17
32	2a	1207	2MG	C5-C4-N3	-5.98	118.88	128.39
54	1x	55	PSU	N1-C2-N3	5.96	121.46	115.17
32	1a	516	PSU	N1-C2-N3	5.94	121.44	115.17
1	1A	2605	PSU	N1-C2-N3	5.86	121.35	115.17
1	1A	2251	OMG	C5-C4-N3	-5.83	119.11	128.39
32	2a	516	PSU	N1-C2-N3	5.82	121.31	115.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	2503	2MA	N3-C4-N9	5.78	134.32	126.99
32	1a	1207	2MG	C5-C4-N3	-5.77	119.20	128.39
1	2A	1939	5MU	N3-C2-N1	5.71	122.32	114.89
32	2a	1519	MA6	C5-C4-N3	-5.54	119.08	126.72
1	1A	1939	5MU	N3-C2-N1	5.50	122.06	114.89
32	1a	527	7MG	C5-C4-N3	-5.43	117.94	128.13
32	1a	1518	MA6	C5-C4-N3	-5.43	119.24	126.72
1	1A	1939	5MU	C4-N3-C2	-5.39	120.28	127.34
32	2a	527	7MG	C5-C4-N3	-5.38	118.03	128.13
32	1a	527	7MG	N9-C8-N7	-5.33	95.83	103.37
1	1A	2503	2MA	N3-C4-N9	5.33	133.75	126.99
1	1A	2552	2MU	N3-C2-N1	5.31	121.80	114.89
1	2A	1915	5MU	N3-C2-N1	5.22	121.68	114.89
32	2a	527	7MG	N9-C8-N7	-5.13	96.11	103.37
32	2a	966	M2G	N9-C4-N3	5.12	136.18	125.95
32	1a	1518	MA6	C9-N6-C6	-5.07	107.61	120.52
54	2x	54	5MU	N3-C2-N1	5.05	121.47	114.89
1	2A	2251	OMG	N9-C4-N3	5.02	136.00	125.95
1	1A	1915	5MU	C4-N3-C2	-4.98	120.82	127.34
1	2A	2552	2MU	N3-C2-N1	4.95	121.33	114.89
32	2a	1518	MA6	C5-C4-N3	-4.94	119.91	126.72
32	1a	1519	MA6	C5-C4-N3	-4.94	119.92	126.72
1	1A	2552	2MU	C4-N3-C2	-4.88	120.56	126.61
1	2A	1939	5MU	C5-C4-N3	4.87	119.55	115.32
32	2a	1518	MA6	C9-N6-C6	-4.86	108.16	120.52
54	2x	54	5MU	C4-N3-C2	-4.86	120.97	127.34
1	1A	1915	5MU	N3-C2-N1	4.83	121.18	114.89
1	1A	2251	OMG	C2-N3-C4	4.82	120.60	112.30
1	2A	1915	5MU	C4-N3-C2	-4.82	121.02	127.34
1	2A	2552	2MU	C4-N3-C2	-4.79	120.67	126.61
1	2A	1939	5MU	C5-C6-N1	-4.68	118.23	123.31
32	2a	966	M2G	C2-N3-C4	4.66	121.13	112.51
32	1a	966	M2G	N9-C4-N3	4.58	135.10	125.95
1	2A	2251	OMG	C2-N3-C4	4.52	120.09	112.30
54	1x	54	5MU	N3-C2-N1	4.51	120.76	114.89
32	1a	527	7MG	C2-N3-C4	4.49	120.04	112.30
54	1x	8	4SU	C5-C4-N3	4.48	118.92	114.75
1	1A	1917	PSU	C4-N3-C2	-4.47	120.22	126.37
1	1A	1939	5MU	O2-C2-N1	-4.46	116.99	122.80
32	1a	1519	MA6	C2-N1-C6	4.45	122.71	111.83
32	2a	1518	MA6	C2-N1-C6	4.43	122.64	111.83
1	1A	1915	5MU	C5-C4-N3	4.42	119.16	115.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	1939	5MU	O4-C4-C5	-4.40	119.89	124.92
32	1a	1518	MA6	C4-C5-N7	-4.38	105.58	110.58
32	2a	527	7MG	C2-N3-C4	4.35	119.79	112.30
32	1a	1518	MA6	C2-N1-C6	4.31	122.37	111.83
1	1A	2251	OMG	N9-C4-N3	4.31	134.57	125.95
32	2a	1519	MA6	C2-N1-C6	4.30	122.32	111.83
1	1A	1939	5MU	C5-C6-N1	-4.28	118.66	123.31
32	1a	966	M2G	C2-N3-C4	4.28	120.42	112.51
54	1x	54	5MU	C4-N3-C2	-4.27	121.75	127.34
32	2a	1519	MA6	N3-C4-N9	4.24	134.38	127.17
54	2x	55	PSU	C4-N3-C2	-4.20	120.58	126.37
1	1A	1939	5MU	C5-C4-N3	4.17	118.95	115.32
1	2A	1915	5MU	C5-C4-N3	4.14	118.92	115.32
1	1A	2605	PSU	C4-N3-C2	-4.14	120.67	126.37
32	1a	1518	MA6	N3-C4-N9	4.12	134.17	127.17
32	2a	1207	2MG	N9-C4-N3	4.12	134.19	125.95
54	2x	54	5MU	C5-C4-N3	4.11	118.90	115.32
32	1a	1207	2MG	N9-C4-N3	4.11	134.17	125.95
1	2A	2605	PSU	C4-N3-C2	-4.09	120.73	126.37
32	1a	1519	MA6	C9-N6-C6	-4.06	110.20	120.52
1	1A	1915	5MU	O4-C4-C5	-4.06	120.28	124.92
1	1A	1911	PSU	C4-N3-C2	-4.05	120.80	126.37
54	1x	55	PSU	C4-N3-C2	-4.04	120.80	126.37
32	2a	1519	MA6	C9-N6-C6	-4.03	110.26	120.52
1	1A	2552	2MU	O2-C2-N1	-4.02	117.56	122.80
32	2a	1518	MA6	C4-C5-N7	-3.99	106.02	110.58
32	1a	1519	MA6	N3-C4-N9	3.98	133.93	127.17
1	2A	1939	5MU	O2-C2-N1	-3.96	117.65	122.80
54	1x	32	5MC	C5-C6-N1	-3.95	119.02	123.31
1	2A	1911	PSU	C4-N3-C2	-3.95	120.93	126.37
1	2A	1939	5MU	O4-C4-C5	-3.92	120.43	124.92
32	1a	1404	5MC	C5-C6-N1	-3.82	119.16	123.31
32	2a	1519	MA6	C4-C5-N7	-3.80	106.24	110.58
32	2a	516	PSU	C4-N3-C2	-3.79	121.15	126.37
54	2x	54	5MU	O4-C4-C5	-3.78	120.60	124.92
1	2A	1911	PSU	O2-C2-N1	-3.75	118.92	122.79
54	2x	8	4SU	C5-C4-N3	3.75	118.24	114.75
1	1A	1911	PSU	O2-C2-N1	-3.75	118.92	122.79
32	1a	516	PSU	C4-N3-C2	-3.74	121.22	126.37
1	2A	1917	PSU	C4-N3-C2	-3.74	121.22	126.37
32	1a	1400	5MC	C5-C6-N1	-3.72	119.27	123.31
54	1x	54	5MU	C5-C4-N3	3.72	118.55	115.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	1519	MA6	C4-C5-N7	-3.70	106.36	110.58
1	2A	2503	2MA	C4-C5-N7	-3.65	106.41	110.58
43	2l	92	0TD	OD2-CG-CB	3.64	121.02	113.15
32	2a	1518	MA6	N3-C4-N9	3.63	133.34	127.17
32	1a	1518	MA6	C2-N3-C4	3.62	120.67	111.83
54	2x	32	5MC	C5-C6-N1	-3.61	119.39	123.31
32	1a	1207	2MG	C6-C5-N7	3.58	136.80	130.29
43	1l	92	0TD	OD2-CG-CB	3.54	120.79	113.15
32	2a	516	PSU	O2-C2-N1	-3.53	119.15	122.79
1	1A	2503	2MA	C4-C5-N7	-3.52	106.56	110.58
54	1x	8	4SU	C6-C5-C4	-3.51	116.91	119.95
1	1A	2251	OMG	C6-C5-N7	3.51	136.68	130.29
1	1A	1942	5MC	C5-C6-N1	-3.50	119.51	123.31
32	2a	1519	MA6	C2-N3-C4	3.50	120.38	111.83
54	2x	8	4SU	C1'-N1-C2	3.44	123.78	117.59
1	2A	1942	5MC	C5-C6-N1	-3.42	119.60	123.31
1	1A	2552	2MU	C2'-C1'-N1	-3.42	107.75	114.24
32	2a	1518	MA6	C2-N3-C4	3.40	120.13	111.83
1	1A	1917	PSU	O2-C2-N1	-3.40	119.29	122.79
32	2a	1207	2MG	C6-C5-N7	3.39	136.46	130.29
54	1x	54	5MU	O4-C4-C5	-3.36	121.08	124.92
1	2A	1962	5MC	C5-C6-N1	-3.35	119.67	123.31
1	2A	2605	PSU	O2-C2-N1	-3.35	119.34	122.79
32	2a	967	5MC	C5-C6-N1	-3.34	119.68	123.31
32	1a	1519	MA6	C2-N3-C4	3.34	119.99	111.83
1	2A	2552	2MU	O2-C2-N1	-3.33	118.46	122.80
1	1A	2605	PSU	O2-C2-N1	-3.33	119.36	122.79
32	1a	1518	MA6	N1-C2-N3	-3.32	123.56	128.58
32	1a	1498	UR3	C5-C4-N3	3.32	119.41	115.04
32	2a	1400	5MC	C5-C6-N1	-3.30	119.73	123.31
32	2a	1518	MA6	N1-C2-N3	-3.30	123.59	128.58
32	2a	1498	UR3	C5-C4-N3	3.30	119.38	115.04
32	1a	1519	MA6	N1-C2-N3	-3.26	123.64	128.58
1	2A	1917	PSU	O2-C2-N1	-3.25	119.44	122.79
32	2a	1519	MA6	N1-C6-N6	3.25	120.81	116.86
32	1a	1518	MA6	C4-N9-C8	3.24	109.14	105.74
54	1x	55	PSU	O2-C2-N1	-3.24	119.45	122.79
1	1A	1962	5MC	C5-C6-N1	-3.19	119.85	123.31
32	1a	516	PSU	O2-C2-N1	-3.18	119.51	122.79
1	2A	2552	2MU	C5-C4-N3	3.17	119.24	114.80
1	1A	2503	2MA	N6-C6-N1	3.12	121.24	117.03
32	1a	1518	MA6	C5-N7-C8	3.12	108.35	103.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1519	MA6	N1-C2-N3	-3.12	123.86	128.58
32	1a	1519	MA6	C4-N9-C8	3.10	109.00	105.74
32	2a	1400	5MC	C5-C4-N3	-3.08	118.60	121.75
54	1x	54	5MU	C5-C6-N1	-3.07	119.98	123.31
1	2A	1915	5MU	O4-C4-C5	-3.07	121.41	124.92
1	1A	2503	2MA	C2-N1-C6	3.05	122.79	118.10
1	1A	2552	2MU	C5-C4-N3	3.01	119.02	114.80
54	1x	32	5MC	C5-C4-N3	-3.01	118.67	121.75
32	2a	1407	5MC	C5-C6-N1	-3.00	120.05	123.31
1	2A	1915	5MU	C5-C6-N1	-3.00	120.06	123.31
1	1A	1942	5MC	C5-C4-N3	-2.99	118.69	121.75
32	1a	966	M2G	C6-C5-N7	2.99	135.73	130.29
1	1A	2552	2MU	O4-C4-C5	-2.98	120.02	125.16
32	2a	1407	5MC	C5-C4-N3	-2.97	118.71	121.75
54	2x	54	5MU	C5-C6-N1	-2.92	120.14	123.31
32	2a	1207	2MG	C4-C5-N7	-2.89	106.09	110.67
32	1a	1407	5MC	C5-C4-N3	-2.89	118.79	121.75
32	2a	1518	MA6	C4-N9-C8	2.88	108.76	105.74
54	2x	8	4SU	C6-C5-C4	-2.87	117.46	119.95
54	2x	32	5MC	C5-C4-N3	-2.83	118.85	121.75
1	1A	1915	5MU	C5-C6-N1	-2.81	120.26	123.31
32	1a	1407	5MC	C5-C6-N1	-2.81	120.27	123.31
32	2a	527	7MG	C5-C6-N1	2.81	115.88	110.94
54	2x	55	PSU	O2-C2-N1	-2.80	119.90	122.79
1	1A	2503	2MA	C4-N9-C8	2.78	108.65	105.74
32	2a	1404	5MC	C5-C4-N3	-2.75	118.93	121.75
32	2a	1404	5MC	C5-C6-N1	-2.75	120.33	123.31
32	2a	1518	MA6	C10-N6-C6	-2.74	113.55	120.52
32	1a	527	7MG	C5-C6-N1	2.74	115.76	110.94
1	2A	2503	2MA	C2-N1-C6	2.73	122.30	118.10
1	1A	2251	OMG	C4-C5-N7	-2.72	106.35	110.67
32	2a	1518	MA6	C10-N6-C9	-2.72	107.44	116.18
54	2x	54	5MU	O2-C2-N1	-2.70	119.28	122.80
32	1a	1207	2MG	C4-C5-N7	-2.70	106.40	110.67
32	2a	967	5MC	C5-C4-N3	-2.69	119.00	121.75
1	2A	2503	2MA	N6-C6-N1	2.68	120.64	117.03
54	2x	32	5MC	O2-C2-N3	-2.67	118.11	122.33
32	2a	966	M2G	C6-C5-N7	2.67	135.15	130.29
32	2a	1518	MA6	C5-N7-C8	2.66	107.63	103.45
1	2A	1920	4OC	O2-C2-N3	-2.65	118.15	122.33
32	1a	966	M2G	C4-C5-N7	-2.65	106.47	110.67
1	2A	2503	2MA	C5-N7-C8	2.65	107.62	103.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	967	5MC	C5-C6-N1	-2.65	120.44	123.31
32	1a	1518	MA6	C6-C5-N7	2.65	137.66	133.43
32	1a	1207	2MG	N1-C2-N2	2.64	119.26	116.56
32	2a	1519	MA6	C5-N7-C8	2.64	107.59	103.45
1	2A	1962	5MC	C5-C4-N3	-2.63	119.06	121.75
32	2a	1519	MA6	C10-N6-C6	-2.63	113.84	120.52
43	2l	92	0TD	OD1-CG-CB	-2.62	116.95	122.44
54	1x	8	4SU	O2-C2-N1	2.59	126.16	122.80
32	1a	1519	MA6	C5-N7-C8	2.58	107.50	103.45
32	1a	1518	MA6	C10-N6-C6	-2.57	113.98	120.52
32	1a	1404	5MC	C5-C4-N3	-2.57	119.12	121.75
1	1A	1917	PSU	C5-C6-N1	-2.56	118.58	122.14
32	1a	967	5MC	C5-C4-N3	-2.55	119.14	121.75
1	2A	2503	2MA	C4-N9-C8	2.55	108.42	105.74
32	1a	967	5MC	C1'-N1-C6	-2.54	116.96	121.15
1	1A	1962	5MC	C5-C4-N3	-2.54	119.16	121.75
32	1a	1518	MA6	N9-C8-N7	-2.53	110.34	113.94
32	1a	1400	5MC	C5-C4-N3	-2.52	119.17	121.75
1	2A	1942	5MC	C5-C4-N3	-2.51	119.18	121.75
32	1a	1519	MA6	N1-C6-N6	2.50	119.90	116.86
32	2a	966	M2G	C4-C5-N7	-2.48	106.73	110.67
1	2A	2251	OMG	C6-C5-N7	2.47	134.79	130.29
54	1x	54	5MU	O2-C2-N1	-2.45	119.60	122.80
32	2a	1519	MA6	C4-N9-C8	2.45	108.31	105.74
1	1A	2503	2MA	C6-C5-N7	2.44	136.80	132.09
1	1A	1915	5MU	C5M-C5-C4	2.44	121.39	118.78
32	1a	1519	MA6	C10-N6-C6	-2.43	114.34	120.52
1	2A	2251	OMG	O6-C6-C5	-2.43	120.12	126.53
1	1A	2503	2MA	C5-N7-C8	2.42	107.26	103.45
32	2a	1518	MA6	C6-C5-N7	2.42	137.29	133.43
32	2a	1498	UR3	C3U-N3-C4	2.40	121.20	117.87
54	1x	8	4SU	C1'-N1-C2	2.38	121.87	117.59
32	1a	1518	MA6	C10-N6-C9	-2.35	108.64	116.18
32	2a	1400	5MC	O2-C2-N3	-2.34	118.64	122.33
54	2x	54	5MU	C5M-C5-C4	2.31	121.25	118.78
1	2A	2605	PSU	C5-C6-N1	-2.30	118.95	122.14
32	2a	1207	2MG	N1-C2-N2	2.29	118.90	116.56
1	2A	1915	5MU	C5M-C5-C4	2.29	121.23	118.78
54	1x	8	4SU	O2-C2-N3	-2.29	117.27	121.49
54	1x	55	PSU	C5-C6-N1	-2.28	118.98	122.14
32	2a	1402	4OC	C6-C5-C4	2.28	119.74	117.00
32	1a	527	7MG	C5-C4-N9	-2.27	103.43	106.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	967	5MC	O2-C2-N3	-2.26	118.76	122.33
54	2x	8	4SU	O2-C2-N1	2.26	125.74	122.80
1	2A	2503	2MA	C6-C5-N7	2.23	136.39	132.09
32	1a	527	7MG	O6-C6-C5	-2.23	122.15	127.62
32	1a	1207	2MG	N2-C2-N3	-2.21	117.69	120.51
32	1a	516	PSU	C6-C5-C4	-2.21	116.68	118.17
1	2A	1915	5MU	O2-C2-N3	-2.19	117.44	121.49
32	2a	1518	MA6	N9-C8-N7	-2.19	110.83	113.94
1	2A	2503	2MA	N9-C8-N7	-2.19	110.83	113.94
1	1A	2503	2MA	N9-C8-N7	-2.17	110.86	113.94
43	1l	92	0TD	OD1-CG-CB	-2.16	117.91	122.44
32	2a	967	5MC	O2-C2-N3	-2.16	118.92	122.33
32	1a	1498	UR3	C3U-N3-C4	2.15	120.86	117.87
32	1a	1402	4OC	CM4-N4-C4	-2.14	118.27	122.45
32	2a	516	PSU	O4'-C1'-C2'	2.14	108.11	105.15
32	1a	1207	2MG	CM2-N2-C2	-2.12	119.10	123.65
1	1A	2605	PSU	C5-C6-N1	-2.11	119.21	122.14
1	1A	1915	5MU	O2-C2-N1	-2.11	120.05	122.80
32	2a	1207	2MG	CM2-N2-C2	-2.11	119.12	123.65
1	1A	2251	OMG	O6-C6-C5	-2.10	121.00	126.53
32	1a	1404	5MC	CM5-C5-C6	-2.09	120.02	122.85
32	1a	1519	MA6	C6-C5-N7	2.08	136.76	133.43
32	1a	1519	MA6	N9-C8-N7	-2.07	110.99	113.94
32	1a	1402	4OC	C6-C5-C4	2.06	119.49	117.00
54	2x	55	PSU	C5-C6-N1	-2.06	119.28	122.14
1	2A	2552	2MU	O4-C4-C5	-2.06	121.61	125.16
1	1A	1920	4OC	O2-C2-N3	-2.06	119.09	122.33
32	2a	1207	2MG	N2-C2-N3	-2.03	117.92	120.51
1	2A	2251	OMG	C4-C5-N7	-2.03	107.45	110.67
1	2A	1920	4OC	C1'-N1-C2	2.02	122.91	118.44
54	1x	54	5MU	C5M-C5-C4	2.01	120.93	118.78

There are no chirality outliers.

All (34) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
32	1a	1518	MA6	C5-C6-N6-C9
32	1a	1519	MA6	O4'-C4'-C5'-O5'
32	2a	1402	4OC	O4'-C4'-C5'-O5'
32	2a	1519	MA6	O4'-C4'-C5'-O5'
1	1A	1915	5MU	O4'-C4'-C5'-O5'
32	1a	967	5MC	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
32	1a	967	5MC	C3'-C4'-C5'-O5'
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	1518	MA6	N1-C6-N6-C9
32	2a	1402	4OC	C3'-C4'-C5'-O5'
1	1A	1915	5MU	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
32	2a	1518	MA6	C5-C6-N6-C10
32	2a	527	7MG	C3'-C4'-C5'-O5'
32	2a	1400	5MC	O4'-C4'-C5'-O5'
32	1a	1519	MA6	C5-C6-N6-C10
32	2a	1518	MA6	C5-C6-N6-C9
54	2x	55	PSU	O4'-C1'-C5-C4
32	1a	527	7MG	C3'-C4'-C5'-O5'
32	2a	527	7MG	O4'-C4'-C5'-O5'
32	1a	1519	MA6	C5-C6-N6-C9
32	2a	1519	MA6	C5-C6-N6-C10
1	2A	1920	4OC	C3'-C2'-O2'-CM2
32	1a	1402	4OC	O4'-C4'-C5'-O5'
32	2a	1400	5MC	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C4'-C5'-O5'-P
43	2l	92	0TD	SB-CB-CG-OD2
54	2x	55	PSU	O4'-C1'-C5-C6
32	1a	1518	MA6	C5-C6-N6-C10
43	2l	92	0TD	CA-CB-CG-OD2
43	1l	92	0TD	CG-CB-SB-CSB
43	2l	92	0TD	CG-CB-SB-CSB
1	1A	2503	2MA	C4'-C5'-O5'-P
1	2A	1920	4OC	C2'-C1'-N1-C2

There are no ring outliers.

32 monomers are involved in 47 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
54	1x	32	5MC	1	0
32	1a	967	5MC	2	0
32	2a	1400	5MC	1	0
1	2A	2251	OMG	1	0
32	1a	1519	MA6	2	0
1	2A	2503	2MA	2	0
32	2a	1402	4OC	2	0
32	2a	516	PSU	2	0
1	2A	1962	5MC	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	1A	1920	4OC	1	0
1	1A	1939	5MU	1	0
1	2A	1911	PSU	1	0
32	2a	967	5MC	1	0
32	2a	1519	MA6	3	0
1	2A	1942	5MC	2	0
1	2A	1939	5MU	1	0
32	2a	1404	5MC	2	0
43	2l	92	0TD	2	0
54	1x	8	4SU	3	0
54	2x	8	4SU	2	0
1	2A	1915	5MU	1	0
1	1A	2251	OMG	1	0
32	1a	1402	4OC	1	0
54	2x	32	5MC	1	0
32	2a	1518	MA6	3	0
1	1A	2552	2MU	2	0
1	2A	2552	2MU	3	0
32	1a	966	M2G	1	0
32	1a	1518	MA6	2	0
1	1A	1917	PSU	1	0
1	2A	1920	4OC	2	0
32	1a	1207	2MG	1	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2715 ligands modelled in this entry, 2711 are monoatomic - leaving 4 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
58	SF4	1d	501	35	0,12,12	-	-	-		
58	SF4	2d	303	35	0,12,12	-	-	-		
57	V7A	2a	3210	55	37,38,38	3.93	11 (29%)	43,60,60	1.65	9 (20%)
57	V7A	1a	1835	55	37,38,38	4.19	12 (32%)	43,60,60	1.77	9 (20%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	SF4	1d	501	35	-	-	0/6/5/5
58	SF4	2d	303	35	-	-	0/6/5/5
57	V7A	2a	3210	55	-	4/13/72/72	0/4/4/4
57	V7A	1a	1835	55	-	4/13/72/72	0/4/4/4

All (23) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	1a	1835	V7A	CAM-CAL	-14.48	1.39	1.52
57	2a	3210	V7A	CAM-CAL	-12.85	1.40	1.52
57	1a	1835	V7A	CAM-CAP	-11.58	1.39	1.55
57	1a	1835	V7A	CAJ-CAI	-11.22	1.40	1.51
57	2a	3210	V7A	CAJ-CAI	-10.67	1.40	1.51
57	2a	3210	V7A	CAM-CAP	-10.41	1.41	1.55
57	1a	1835	V7A	CAS-CAA	-7.08	1.39	1.51
57	2a	3210	V7A	CAS-CAA	-7.04	1.39	1.51
57	2a	3210	V7A	CAG-CAF	-6.80	1.41	1.51
57	1a	1835	V7A	CAG-CAF	-6.49	1.41	1.51
57	1a	1835	V7A	CAO-CAR	-5.35	1.41	1.51
57	2a	3210	V7A	CAO-CAR	-5.28	1.41	1.51
57	2a	3210	V7A	CAQ-CBC	-3.72	1.39	1.47
57	1a	1835	V7A	CAQ-CBC	-3.51	1.40	1.47
57	1a	1835	V7A	CAI-CAH	-3.32	1.39	1.46
57	2a	3210	V7A	CAI-CAL	3.22	1.40	1.36
57	2a	3210	V7A	CAI-CAH	-3.12	1.39	1.46
57	1a	1835	V7A	CAE-CAH	-3.05	1.38	1.46
57	2a	3210	V7A	CAE-CAH	-2.90	1.39	1.46
57	1a	1835	V7A	CAQ-CAP	-2.60	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	2a	3210	V7A	CAQ-CAP	-2.51	1.39	1.46
57	1a	1835	V7A	CAM-CAN	-2.44	1.51	1.53
57	1a	1835	V7A	CAI-CAL	2.15	1.38	1.36

All (18) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	1a	1835	V7A	CAJ-CAK-CAN	-3.90	103.74	110.38
57	1a	1835	V7A	OAZ-CAL-CAI	-3.74	116.27	123.52
57	2a	3210	V7A	OBI-CAR-CAQ	-3.73	116.69	122.93
57	1a	1835	V7A	OBI-CAR-CAQ	-3.62	116.88	122.93
57	2a	3210	V7A	OAZ-CAL-CAI	-3.61	116.51	123.52
57	2a	3210	V7A	CAJ-CAK-CAN	-3.50	104.42	110.38
57	1a	1835	V7A	CBG-NBF-CAO	-3.31	106.57	114.10
57	1a	1835	V7A	OAZ-CAL-CAM	3.19	117.99	113.37
57	2a	3210	V7A	CAM-CAP-CAQ	3.11	120.70	115.75
57	1a	1835	V7A	CAM-CAP-CAQ	2.90	120.35	115.75
57	2a	3210	V7A	OAZ-CAL-CAM	2.87	117.52	113.37
57	2a	3210	V7A	CAM-CAL-CAI	2.85	125.96	123.06
57	1a	1835	V7A	CAM-CAL-CAI	2.63	125.73	123.06
57	2a	3210	V7A	OAX-CAD-CAE	-2.43	116.66	121.14
57	1a	1835	V7A	OAX-CAD-CAE	-2.36	116.78	121.14
57	1a	1835	V7A	CAK-CAN-CAO	2.33	117.10	113.73
57	2a	3210	V7A	CBH-NBF-CAO	-2.32	108.81	114.10
57	2a	3210	V7A	OBB-CAP-CAQ	-2.13	118.73	123.23

There are no chirality outliers.

All (8) torsion outliers are listed below:

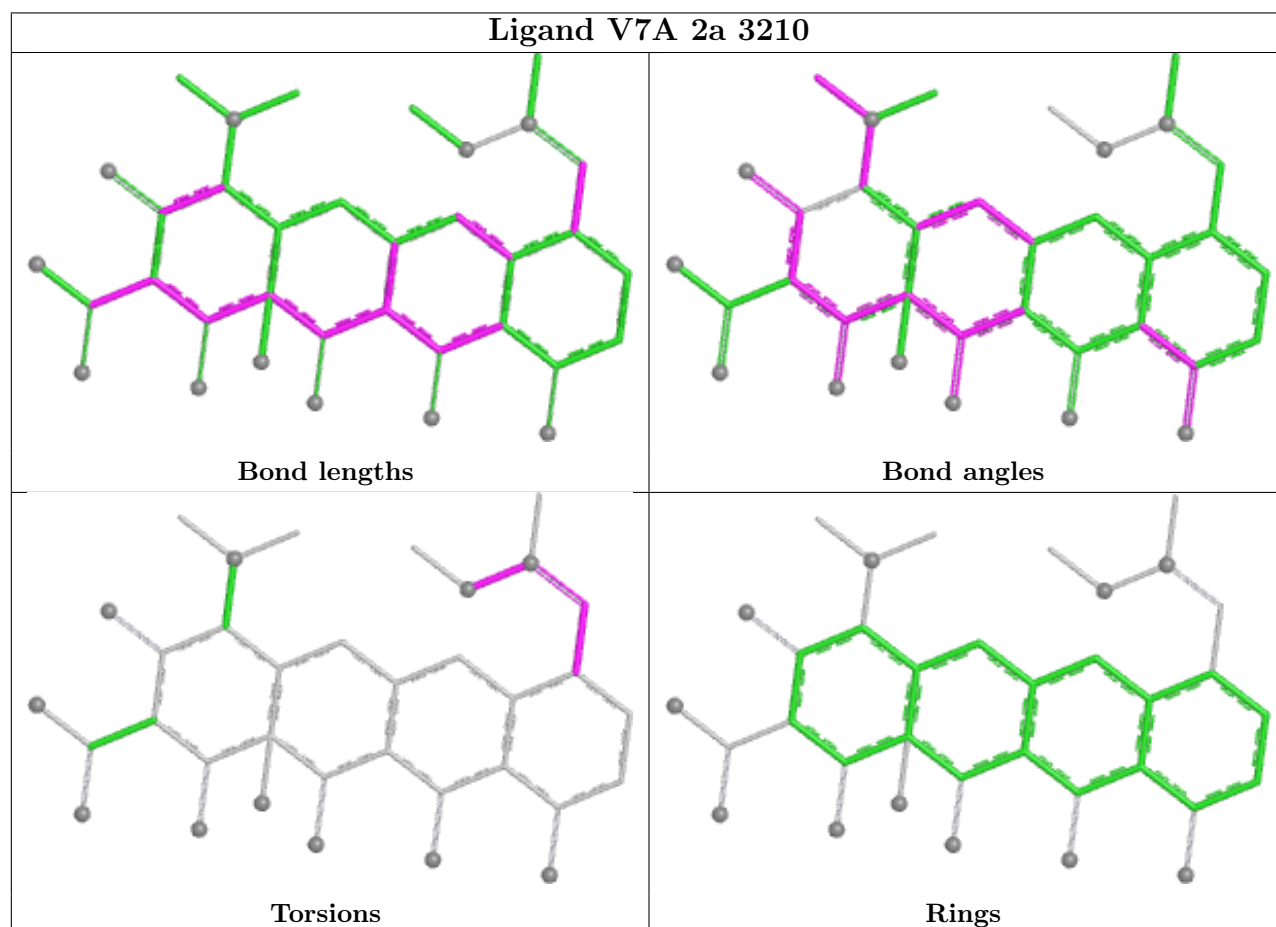
Mol	Chain	Res	Type	Atoms
57	1a	1835	V7A	CAN-CAO-NBF-CBH
57	1a	1835	V7A	CAA-CAS-NAT-CAW
57	1a	1835	V7A	CAA-CAS-NAT-OAU
57	1a	1835	V7A	CAW-NAT-OAU-CAV
57	2a	3210	V7A	CAA-CAS-NAT-CAW
57	2a	3210	V7A	CAA-CAS-NAT-OAU
57	2a	3210	V7A	CAW-NAT-OAU-CAV
57	2a	3210	V7A	CAF-CAA-CAS-NAT

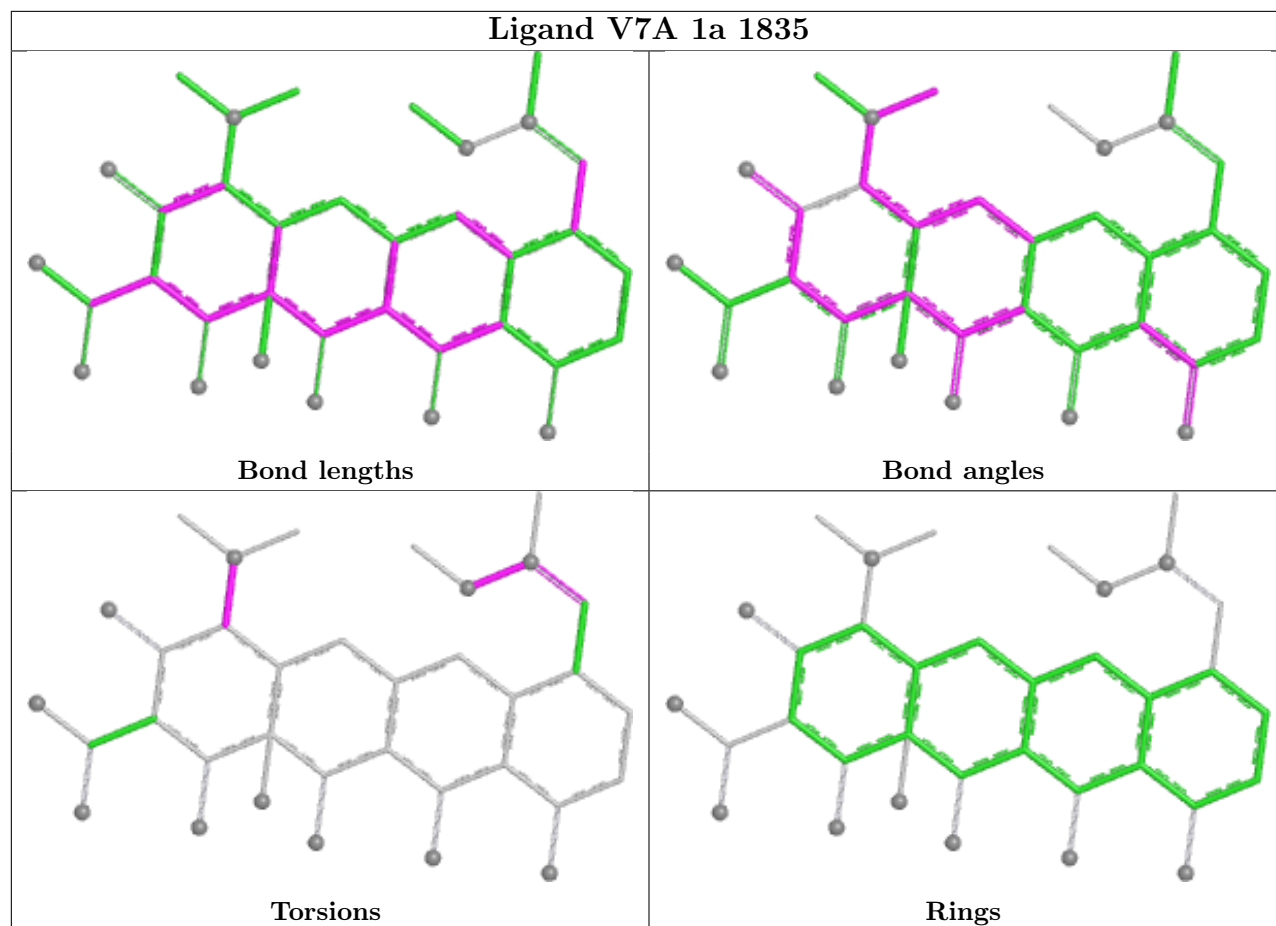
There are no ring outliers.

4 monomers are involved in 10 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	1d	501	SF4	3	0
58	2d	303	SF4	1	0
57	2a	3210	V7A	4	0
57	1a	1835	V7A	2	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.





5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data [i](#)

6.1 Protein, DNA and RNA chains [i](#)

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, 95th 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	1A	2860/2915 (98%)	-0.41	71 (2%) 58 48	17, 35, 97, 110	0
1	2A	2789/2915 (95%)	-0.06	82 (2%) 53 43	28, 55, 93, 117	0
2	1B	120/121 (99%)	-0.41	1 (0%) 82 75	25, 50, 67, 89	0
2	2B	120/121 (99%)	0.60	6 (5%) 34 26	58, 79, 89, 99	0
3	1D	275/276 (99%)	-0.05	3 (1%) 78 70	19, 36, 50, 75	0
3	2D	275/276 (99%)	0.17	4 (1%) 72 63	28, 48, 62, 79	0
4	1E	204/206 (99%)	-0.25	0 100 100	18, 38, 58, 75	0
4	2E	204/206 (99%)	0.21	2 (0%) 79 72	32, 53, 69, 78	0
5	1F	203/210 (96%)	-0.15	0 100 100	19, 40, 65, 83	0
5	2F	203/210 (96%)	0.43	3 (1%) 72 63	33, 64, 80, 88	0
6	1G	181/182 (99%)	0.51	11 (6%) 27 20	37, 58, 72, 86	0
6	2G	181/182 (99%)	1.06	14 (7%) 19 14	63, 79, 86, 94	0
7	1H	174/180 (96%)	-0.05	1 (0%) 85 80	35, 51, 64, 72	0
7	2H	174/180 (96%)	0.95	16 (9%) 14 10	67, 80, 89, 95	0
8	1I	146/148 (98%)	0.43	1 (0%) 84 77	40, 70, 78, 83	0
8	2I	146/148 (98%)	2.22	74 (50%) 0 0	52, 87, 98, 104	0
9	1N	140/140 (100%)	-0.18	0 100 100	22, 38, 60, 71	0
9	2N	140/140 (100%)	0.29	1 (0%) 84 77	44, 63, 78, 87	0
10	1O	122/122 (100%)	-0.12	1 (0%) 82 75	28, 40, 55, 60	0
10	2O	122/122 (100%)	0.11	2 (1%) 70 61	40, 52, 64, 72	0
11	1P	149/150 (99%)	0.04	2 (1%) 75 66	18, 43, 64, 71	0
11	2P	149/150 (99%)	0.52	8 (5%) 31 24	37, 65, 80, 88	0
12	1Q	141/141 (100%)	0.04	2 (1%) 73 64	28, 39, 54, 69	0
12	2Q	141/141 (100%)	0.64	7 (4%) 34 26	46, 62, 74, 79	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	1R	118/118 (100%)	-0.15	0 100 100	24, 32, 47, 60	0
13	2R	118/118 (100%)	-0.04	0 100 100	37, 49, 61, 66	0
14	1S	110/112 (98%)	-0.03	0 100 100	35, 48, 58, 63	0
14	2S	110/112 (98%)	0.96	13 (11%) 9 7	59, 72, 80, 87	0
15	1T	131/146 (89%)	-0.05	5 (3%) 44 35	30, 44, 68, 78	0
15	2T	131/146 (89%)	0.41	2 (1%) 72 63	47, 57, 73, 82	0
16	1U	116/118 (98%)	-0.35	1 (0%) 81 74	20, 29, 43, 63	0
16	2U	116/118 (98%)	0.32	1 (0%) 81 74	40, 59, 72, 80	0
17	1V	101/101 (100%)	-0.34	0 100 100	21, 36, 58, 67	0
17	2V	101/101 (100%)	0.41	4 (3%) 42 33	40, 68, 79, 84	0
18	1W	112/113 (99%)	-0.44	0 100 100	19, 29, 46, 82	0
18	2W	112/113 (99%)	0.24	1 (0%) 81 74	39, 49, 66, 86	0
19	1X	95/96 (98%)	-0.10	1 (1%) 78 70	24, 36, 56, 75	0
19	2X	95/96 (98%)	0.56	5 (5%) 32 24	47, 59, 75, 81	0
20	1Y	107/110 (97%)	0.22	1 (0%) 81 74	33, 47, 69, 79	0
20	2Y	107/110 (97%)	0.91	9 (8%) 17 12	56, 70, 80, 92	0
21	1Z	154/206 (74%)	0.33	4 (2%) 57 47	38, 56, 70, 78	0
21	2Z	160/206 (77%)	0.99	17 (10%) 11 8	63, 74, 86, 94	0
22	10	83/85 (97%)	0.26	9 (10%) 11 8	25, 35, 69, 86	0
22	20	83/85 (97%)	0.86	11 (13%) 7 5	50, 61, 79, 89	0
23	11	97/98 (98%)	0.13	1 (1%) 79 72	23, 41, 68, 75	0
23	21	97/98 (98%)	0.54	3 (3%) 51 41	40, 54, 73, 81	0
24	12	70/72 (97%)	0.23	2 (2%) 53 43	35, 47, 57, 76	0
24	22	70/72 (97%)	0.54	2 (2%) 53 43	56, 69, 80, 85	0
25	13	59/60 (98%)	-0.28	0 100 100	23, 35, 54, 72	0
25	23	59/60 (98%)	0.43	0 100 100	47, 58, 75, 83	0
26	14	69/71 (97%)	0.58	4 (5%) 29 22	56, 74, 88, 94	0
26	24	69/71 (97%)	1.17	14 (20%) 3 2	75, 86, 93, 98	0
27	15	59/60 (98%)	-0.35	1 (1%) 69 60	18, 32, 51, 67	0
27	25	59/60 (98%)	0.09	2 (3%) 48 39	35, 50, 66, 83	0
28	16	53/54 (98%)	-0.11	0 100 100	28, 38, 51, 59	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	26	53/54 (98%)	0.83	3 (5%) 29 22	49, 58, 69, 71	0
29	17	48/49 (97%)	0.03	4 (8%) 17 12	22, 26, 55, 59	0
29	27	48/49 (97%)	0.17	3 (6%) 26 19	31, 41, 62, 75	0
30	18	64/65 (98%)	-0.07	0 100 100	25, 31, 39, 53	0
30	28	64/65 (98%)	0.45	0 100 100	44, 54, 61, 73	0
31	19	37/37 (100%)	-0.03	0 100 100	28, 38, 56, 62	0
31	29	37/37 (100%)	0.86	2 (5%) 31 24	53, 64, 75, 77	0
32	1a	1488/1521 (97%)	0.28	25 (1%) 69 60	37, 71, 95, 109	0
32	2a	1491/1521 (98%)	0.32	32 (2%) 63 54	44, 75, 96, 111	0
33	1b	231/256 (90%)	0.92	24 (10%) 11 8	64, 78, 90, 97	0
33	2b	231/256 (90%)	1.09	34 (14%) 6 4	67, 83, 90, 100	0
34	1c	206/239 (86%)	0.86	15 (7%) 21 15	64, 76, 85, 90	0
34	2c	206/239 (86%)	1.16	26 (12%) 8 6	71, 82, 90, 93	0
35	1d	208/209 (99%)	0.97	28 (13%) 7 5	59, 74, 87, 97	0
35	2d	208/209 (99%)	0.75	12 (5%) 29 22	58, 70, 80, 85	0
36	1e	148/162 (91%)	0.41	1 (0%) 84 77	54, 66, 74, 77	0
36	2e	148/162 (91%)	0.68	8 (5%) 31 24	60, 71, 81, 85	0
37	1f	100/101 (99%)	0.56	3 (3%) 52 42	55, 69, 76, 79	0
37	2f	100/101 (99%)	0.54	5 (5%) 34 26	63, 71, 79, 82	0
38	1g	155/156 (99%)	0.61	9 (5%) 29 22	63, 73, 86, 90	0
38	2g	155/156 (99%)	0.68	8 (5%) 33 25	69, 80, 91, 96	0
39	1h	137/138 (99%)	0.49	3 (2%) 62 52	56, 68, 76, 82	0
39	2h	137/138 (99%)	0.64	6 (4%) 39 31	61, 74, 80, 87	0
40	1i	127/128 (99%)	1.37	25 (19%) 3 2	61, 78, 84, 86	0
40	2i	127/128 (99%)	1.55	33 (25%) 1 1	70, 85, 92, 94	0
41	1j	97/105 (92%)	1.32	15 (15%) 5 4	64, 80, 90, 91	0
41	2j	96/105 (91%)	1.70	33 (34%) 1 1	75, 85, 93, 95	0
42	1k	114/129 (88%)	0.41	6 (5%) 32 24	44, 67, 78, 80	0
42	2k	114/129 (88%)	0.58	4 (3%) 47 38	55, 73, 80, 84	0
43	1l	121/132 (91%)	0.45	4 (3%) 49 39	49, 61, 70, 76	0
43	2l	121/132 (91%)	0.55	4 (3%) 49 39	53, 63, 73, 80	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	1m	122/126 (96%)	0.82	9 (7%) 20 15	61, 72, 82, 84	0
44	2m	121/126 (96%)	1.45	26 (21%) 2 2	73, 82, 87, 93	0
45	1n	60/61 (98%)	1.47	13 (21%) 2 2	67, 74, 80, 81	0
45	2n	60/61 (98%)	2.03	30 (50%) 0 0	72, 83, 87, 90	0
46	1o	88/89 (98%)	0.38	2 (2%) 61 51	48, 63, 76, 86	0
46	2o	88/89 (98%)	0.52	2 (2%) 61 51	56, 69, 76, 81	0
47	1p	82/88 (93%)	1.44	19 (23%) 2 1	62, 75, 84, 87	0
47	2p	82/88 (93%)	0.81	6 (7%) 21 15	58, 68, 77, 82	0
48	1q	99/105 (94%)	0.71	4 (4%) 42 33	56, 65, 74, 79	0
48	2q	99/105 (94%)	0.78	6 (6%) 27 20	55, 68, 78, 84	0
49	1r	68/88 (77%)	0.44	2 (2%) 53 43	59, 69, 77, 81	0
49	2r	68/88 (77%)	0.46	2 (2%) 53 43	62, 70, 79, 83	0
50	1s	83/93 (89%)	0.81	5 (6%) 27 21	63, 76, 85, 89	0
50	2s	83/93 (89%)	1.25	10 (12%) 9 6	75, 83, 91, 94	0
51	1t	96/106 (90%)	0.92	12 (12%) 8 6	61, 71, 80, 84	0
51	2t	96/106 (90%)	0.53	3 (3%) 51 41	58, 68, 76, 79	0
52	1u	23/27 (85%)	1.04	2 (8%) 16 11	66, 72, 77, 80	0
52	2u	23/27 (85%)	2.02	13 (56%) 0 0	75, 80, 82, 85	0
53	1v	10/24 (41%)	1.47	4 (40%) 1 0	54, 92, 98, 99	0
53	2v	6/24 (25%)	0.76	1 (16%) 4 3	67, 72, 86, 96	0
54	1x	72/77 (93%)	-0.03	1 (1%) 73 64	38, 64, 78, 89	0
54	2x	72/77 (93%)	0.23	2 (2%) 55 45	49, 77, 89, 93	0
All	All	20598/21444 (96%)	0.28	974 (4%) 36 29	17, 63, 89, 117	0

All (974) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	2A	2147	G	9.5
1	1A	2145	C	8.9
1	2A	2111	C	7.8
8	2I	111	PRO	7.8
1	2A	2148	G	7.6
8	2I	119	PRO	7.5
8	2I	145	VAL	7.4

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Mol	Chain	Res	Type	RSRZ
44	2m	102	ARG	7.2
22	10	6	GLY	6.9
1	2A	2146	C	6.7
44	1m	123	ALA	6.6
8	2I	118	LYS	6.6
1	2A	2155	G	6.3
1	2A	2166	G	6.3
1	1A	2121	G	6.2
1	2A	2112	G	6.2
8	2I	86	THR	5.9
23	2I	2	SER	5.9
8	2I	100	ALA	5.9
1	2A	2120	G	5.8
8	2I	97	ILE	5.8
1	1A	2113	U	5.6
32	2a	1030(B)	C	5.6
8	2I	92	VAL	5.6
1	1A	2111	C	5.5
1	2A	2143	C	5.5
44	2m	6	GLY	5.4
1	1A	2115	G	5.4
1	2A	2145	C	5.4
1	1A	2112	G	5.3
8	2I	120	ILE	5.2
50	1s	39	THR	5.1
8	2I	124	GLY	5.1
8	2I	93	THR	5.0
47	1p	68	ASP	5.0
38	2g	80	VAL	5.0
1	2A	2167	U	4.9
1	2A	2110	G	4.9
22	20	6	GLY	4.8
8	2I	144	VAL	4.8
1	2A	2144	U	4.8
44	2m	7	VAL	4.8
1	2A	2168	G	4.7
1	2A	2138	C	4.7
22	20	4	LYS	4.7
8	2I	99	GLU	4.7
40	2i	126	SER	4.6
1	2A	2117	A	4.6
8	2I	109	ILE	4.6

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Mol	Chain	Res	Type	RSRZ
1	1A	2117	A	4.6
8	2I	121	LYS	4.6
22	20	7	LEU	4.5
1	2A	2142	C	4.5
34	2c	2	GLY	4.5
40	1i	126	SER	4.5
40	2i	102	LEU	4.5
17	2V	73	SER	4.5
8	2I	94	ALA	4.4
33	2b	7	VAL	4.4
32	1a	1030(B)	C	4.4
1	2A	2113	U	4.4
44	1m	122	LYS	4.4
22	10	9	SER	4.4
21	2Z	143	GLY	4.4
1	2A	2122	U	4.4
1	1A	2110	G	4.3
1	2A	2169	A	4.3
22	20	2	ALA	4.3
1	2A	2109	U	4.3
1	1A	2147	G	4.3
1	2A	2121	G	4.3
8	2I	126	TYR	4.3
22	10	7	LEU	4.3
22	10	8	GLY	4.2
45	2n	13	THR	4.2
45	2n	25	VAL	4.2
34	2c	206	GLU	4.2
31	29	12	ASP	4.2
41	2j	5	ARG	4.1
40	1i	106	ALA	4.1
1	1A	2119	A	4.1
45	1n	2	ALA	4.1
51	1t	103	GLY	4.1
21	2Z	142	SER	4.1
1	2A	2165	G	4.1
28	26	5	VAL	4.0
32	1a	1030	C	4.0
1	2A	2115	G	4.0
8	2I	140	LEU	4.0
33	2b	165	VAL	4.0
1	1A	2181	G	4.0

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Mol	Chain	Res	Type	RSRZ
32	2a	1033	G	4.0
6	2G	28	VAL	4.0
38	2g	83	ALA	3.9
1	1A	2143	C	3.9
8	2I	83	ALA	3.9
40	1i	105	ASP	3.9
44	2m	121	LYS	3.9
1	1A	2146	C	3.9
33	2b	187	LEU	3.9
8	2I	142	VAL	3.9
8	2I	133	HIS	3.9
8	2I	134	PRO	3.9
40	2i	105	ASP	3.9
1	1A	2120	G	3.9
8	2I	88	ILE	3.9
1	2A	2161	C	3.9
35	1d	166	LYS	3.8
1	2A	2118	U	3.8
33	1b	7	VAL	3.8
16	1U	117	GLN	3.8
44	2m	5	ALA	3.8
22	10	4	LYS	3.8
1	1A	2122	U	3.8
1	1A	2170	A	3.8
26	24	56	VAL	3.8
8	2I	79	ILE	3.8
24	12	70	GLN	3.8
44	1m	102	ARG	3.8
1	2A	2149	G	3.8
40	2i	43	ALA	3.7
32	1a	1030(A)	G	3.7
8	2I	76	THR	3.7
8	2I	117	GLU	3.7
1	1A	2109	U	3.7
1	1A	2174	C	3.7
1	1A	2141	G	3.7
1	2A	2116	G	3.7
8	2I	116	LEU	3.7
19	2X	92	LEU	3.7
20	2Y	80	GLY	3.7
43	2l	18	VAL	3.7
1	1A	1064	C	3.6

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Mol	Chain	Res	Type	RSRZ
22	20	3	HIS	3.6
40	1i	15	ALA	3.6
11	2P	109	GLY	3.6
21	1Z	146	ILE	3.6
33	1b	201	ILE	3.6
14	2S	32	LEU	3.6
32	1a	1447	A	3.6
8	2I	84	GLY	3.6
44	2m	98	VAL	3.6
40	1i	13	ALA	3.6
1	2A	2108	C	3.6
53	2v	14	A	3.6
6	2G	139	LEU	3.6
47	1p	1	MET	3.6
44	2m	122	LYS	3.6
1	2A	2140	C	3.6
6	1G	146	TYR	3.6
1	2A	2170	A	3.6
51	1t	18	GLN	3.5
1	2A	2159	G	3.5
26	24	49	PHE	3.5
23	11	2	SER	3.5
8	2I	128	LEU	3.5
1	2A	2114	A	3.5
52	2u	6	ARG	3.5
31	29	37	GLY	3.5
1	2A	2123	G	3.5
38	1g	84	ASN	3.5
1	2A	2174	C	3.5
6	2G	53	LEU	3.5
8	2I	123	LEU	3.5
32	2a	1034	G	3.5
8	2I	138	ILE	3.5
1	1A	2179	C	3.5
1	1A	1078	U	3.5
8	2I	141	LYS	3.5
35	1d	150	GLU	3.5
1	1A	2168	G	3.4
8	2I	101	LEU	3.4
8	2I	112	LYS	3.4
21	2Z	150	LEU	3.4
44	2m	90	LEU	3.4

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Mol	Chain	Res	Type	RSRZ
45	2n	11	LYS	3.4
1	2A	2139	C	3.4
40	1i	7	THR	3.4
34	2c	158	GLY	3.4
8	2I	77	LEU	3.4
40	1i	47	LEU	3.4
41	2j	40	LEU	3.4
32	2a	1030(A)	G	3.4
15	1T	131	ALA	3.4
51	1t	9	ASN	3.4
7	1H	2	SER	3.4
1	2A	2119	A	3.4
1	2A	2141	G	3.4
42	2k	117	ASN	3.4
35	1d	179	GLU	3.4
40	2i	21	PRO	3.4
1	1A	2180	U	3.4
22	10	5	LYS	3.4
33	1b	17	PHE	3.4
34	2c	62	ASP	3.4
38	2g	84	ASN	3.3
48	1q	100	LYS	3.3
38	1g	80	VAL	3.3
44	2m	60	VAL	3.3
51	2t	8	ARG	3.3
1	2A	2157	G	3.3
1	2A	2160	G	3.3
8	2I	72	LEU	3.3
6	2G	29	TRP	3.3
33	1b	129	GLU	3.3
48	2q	30	PRO	3.3
6	1G	52	ILE	3.3
38	1g	79	ARG	3.3
8	2I	110	ASP	3.3
40	1i	125	TYR	3.3
41	1j	77	PRO	3.3
34	2c	92	ALA	3.3
40	2i	119	ALA	3.3
1	2A	2162	G	3.3
1	1A	2114	A	3.2
43	1l	18	VAL	3.2
39	1h	3	THR	3.2

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Mol	Chain	Res	Type	RSRZ
3	2D	276	LYS	3.2
52	2u	14	TRP	3.2
35	1d	33	MET	3.2
50	2s	13	ASP	3.2
33	2b	161	ALA	3.2
35	1d	3	ARG	3.2
32	2a	1028	C	3.2
32	2a	1532	U	3.2
35	2d	154	ASN	3.2
33	2b	10	LEU	3.2
6	2G	160	VAL	3.2
45	2n	38	GLY	3.2
45	2n	22	THR	3.2
21	2Z	153	SER	3.2
29	17	47	ARG	3.2
35	2d	155	LEU	3.2
1	2A	2133	G	3.2
8	2I	132	PRO	3.2
1	1A	1095	A	3.1
8	2I	98	ALA	3.1
45	2n	20	ALA	3.1
41	2j	47	PHE	3.1
42	2k	124	LYS	3.1
32	2a	1116	C	3.1
1	1A	1063	G	3.1
24	12	69	ARG	3.1
38	1g	38	LEU	3.1
48	2q	32	TYR	3.1
26	24	66	SER	3.1
41	2j	32	ALA	3.1
49	1r	78	LEU	3.1
12	2Q	63	LYS	3.1
29	27	45	ALA	3.1
43	2l	64	TYR	3.1
45	1n	21	TYR	3.1
1	1A	2182	G	3.1
1	2A	2182	G	3.1
38	2g	33	ASP	3.1
40	1i	14	VAL	3.1
40	1i	33	PHE	3.1
1	1A	2169	A	3.1
6	2G	20	ILE	3.1

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Mol	Chain	Res	Type	RSRZ
39	2h	112	LEU	3.1
7	2H	115	VAL	3.1
26	24	59	PHE	3.1
1	2A	2156	G	3.1
11	2P	15	ARG	3.1
41	2j	8	LEU	3.1
40	2i	5	TYR	3.0
47	1p	28	ARG	3.0
52	2u	15	ARG	3.0
28	26	4	GLU	3.0
15	1T	130	ALA	3.0
11	2P	44	GLY	3.0
38	2g	82	GLY	3.0
40	1i	104	ARG	3.0
34	1c	87	LEU	3.0
1	1A	1096	A	3.0
34	2c	189	ALA	3.0
44	2m	123	ALA	3.0
20	2Y	1	MET	3.0
1	1A	1093	G	3.0
54	2x	70	G	3.0
1	1A	2178	C	3.0
1	2A	2107	C	3.0
11	2P	79	ARG	3.0
26	24	54	GLY	3.0
32	2a	1029	C	3.0
32	2a	1030	C	3.0
45	2n	51	GLY	3.0
9	2N	10	GLU	3.0
40	1i	2	GLU	3.0
41	2j	41	PRO	3.0
47	1p	41	PRO	3.0
33	2b	48	MET	3.0
40	1i	26	VAL	3.0
45	2n	21	TYR	3.0
45	2n	29	ARG	3.0
47	1p	39	TYR	3.0
34	2c	182	ILE	3.0
8	2I	106	GLY	3.0
34	1c	185	GLY	3.0
45	2n	44	LEU	3.0
51	1t	69	GLY	3.0

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Mol	Chain	Res	Type	RSRZ
6	1G	48	GLU	3.0
8	2I	85	GLU	3.0
6	1G	73	ALA	3.0
34	2c	160	ALA	3.0
33	1b	229	VAL	3.0
14	2S	34	HIS	3.0
40	2i	33	PHE	3.0
41	2j	54	PHE	3.0
3	2D	275	LYS	2.9
40	1i	66	ARG	2.9
32	1a	1286	A	2.9
32	2a	1286	A	2.9
41	2j	74	ILE	2.9
33	1b	9	GLU	2.9
41	2j	58	ASP	2.9
45	2n	5	ALA	2.9
8	2I	51	ILE	2.9
47	1p	19	ILE	2.9
37	2f	45	LEU	2.9
38	1g	85	TYR	2.9
8	2I	80	PRO	2.9
32	1a	1001	A	2.9
51	1t	70	SER	2.9
26	14	56	VAL	2.9
12	2Q	60	ARG	2.9
41	1j	98	ILE	2.9
33	2b	232	PRO	2.9
40	1i	91	ASP	2.9
8	2I	146	ALA	2.9
34	2c	207	VAL	2.9
18	2W	92	ARG	2.9
52	2u	17	THR	2.9
14	2S	58	LEU	2.9
21	2Z	155	LEU	2.9
1	1A	2175	C	2.9
1	1A	2144	U	2.9
1	2A	2150	U	2.9
1	2A	2104	G	2.9
20	2Y	5	MET	2.9
35	1d	154	ASN	2.9
32	2a	1492	A	2.9
33	2b	221	LEU	2.9

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Mol	Chain	Res	Type	RSRZ
41	2j	10	GLY	2.8
1	2A	2188	C	2.8
52	2u	3	LYS	2.8
1	1A	2148	G	2.8
1	2A	2127	G	2.8
50	2s	41	VAL	2.8
35	1d	152	SER	2.8
44	2m	105	THR	2.8
1	1A	1070	A	2.8
1	1A	2130	U	2.8
21	1Z	141	VAL	2.8
45	2n	30	ALA	2.8
53	1v	21	C	2.8
26	24	51	ASP	2.8
32	1a	1353	G	2.8
45	2n	15	LYS	2.8
8	2I	104	GLN	2.8
41	2j	37	PRO	2.8
33	1b	134	GLU	2.8
46	1o	69	TYR	2.8
1	1A	1065	U	2.8
33	2b	123	ALA	2.8
8	1I	118	LYS	2.8
29	27	48	LYS	2.8
44	2m	31	LYS	2.8
1	1A	2123	G	2.8
1	2A	2134	A	2.8
32	2a	1035	A	2.8
40	1i	42	ARG	2.8
19	2X	69	TYR	2.8
35	1d	149	ALA	2.8
36	2e	21	ALA	2.8
8	2I	114	LEU	2.8
45	1n	50	LYS	2.8
1	2A	2175	C	2.8
33	2b	233	SER	2.8
34	2c	9	GLY	2.8
51	2t	103	GLY	2.8
35	1d	37	PRO	2.8
7	2H	107	VAL	2.7
1	1A	1099	G	2.7
32	1a	1531	A	2.7

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Mol	Chain	Res	Type	RSRZ
32	2a	971	G	2.7
33	1b	214	ILE	2.7
42	1k	25	TYR	2.7
47	1p	45	THR	2.7
7	2H	22	GLY	2.7
45	2n	32	SER	2.7
20	2Y	57	GLN	2.7
8	2I	60	GLU	2.7
40	2i	14	VAL	2.7
41	2j	6	ILE	2.7
1	1A	2167	U	2.7
6	2G	115	ARG	2.7
11	1P	70	GLN	2.7
29	17	46	VAL	2.7
8	2I	58	LEU	2.7
12	2Q	114	ALA	2.7
32	1a	1029	C	2.7
33	1b	196	LEU	2.7
35	2d	78	LEU	2.7
44	2m	66	LEU	2.7
45	2n	2	ALA	2.7
12	2Q	22	LYS	2.7
34	1c	184	TYR	2.7
1	1A	1094	U	2.7
32	1a	204	U	2.7
53	1v	20	U	2.7
14	2S	20	ARG	2.7
15	2T	93	ARG	2.7
16	2U	12	ARG	2.7
33	1b	131	PRO	2.7
44	2m	104	ARG	2.7
1	1A	2101	G	2.7
1	2A	2124	G	2.7
32	1a	1030(C)	G	2.7
8	2I	125	GLU	2.7
33	1b	230	VAL	2.7
6	2G	19	LEU	2.7
14	2S	54	LEU	2.7
37	2f	21	LEU	2.7
37	2f	89	MET	2.7
22	20	10	THR	2.7
8	2I	122	GLU	2.7

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Mol	Chain	Res	Type	RSRZ
34	2c	75	VAL	2.7
50	1s	9	VAL	2.7
5	2F	82	ILE	2.6
33	2b	163	PHE	2.6
35	1d	169	LYS	2.6
40	2i	127	LYS	2.6
40	2i	122	ALA	2.6
1	1A	2133	G	2.6
47	1p	17	TYR	2.6
41	2j	36	GLY	2.6
1	1A	2132	U	2.6
4	2E	195	LEU	2.6
8	2I	20	ASP	2.6
51	1t	10	LEU	2.6
44	2m	4	ILE	2.6
44	2m	78	ILE	2.6
53	1v	13	A	2.6
40	2i	15	ALA	2.6
40	2i	10	ARG	2.6
42	2k	25	TYR	2.6
45	2n	23	ARG	2.6
39	2h	72	PRO	2.6
1	2A	2164	C	2.6
34	1c	52	LEU	2.6
34	2c	47	LEU	2.6
41	2j	90	LEU	2.6
8	2I	96	ASP	2.6
1	2A	2158	A	2.6
40	2i	117	HIS	2.6
26	24	67	TYR	2.6
35	1d	7	PRO	2.6
52	2u	4	GLY	2.6
6	1G	75	LYS	2.6
8	2I	78	THR	2.6
19	1X	95	LEU	2.6
7	2H	89	ILE	2.6
26	24	50	VAL	2.6
33	1b	223	ILE	2.6
42	1k	92	GLU	2.6
33	1b	163	PHE	2.6
36	1e	138	ALA	2.6
1	1A	1060	U	2.6

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Mol	Chain	Res	Type	RSRZ
8	2I	50	ARG	2.6
44	2m	94	ARG	2.6
14	2S	33	LYS	2.6
45	2n	34	TYR	2.6
21	2Z	139	VAL	2.6
41	2j	34	VAL	2.6
52	1u	17	THR	2.6
40	2i	124	GLN	2.6
3	1D	93	ALA	2.6
20	2Y	107	ASP	2.6
1	2A	2173	A	2.5
7	2H	14	GLY	2.5
26	14	54	GLY	2.5
34	1c	2	GLY	2.5
26	24	63	TYR	2.5
47	2p	82	GLN	2.5
8	2I	59	ALA	2.5
14	2S	6	ALA	2.5
32	2a	1032	G	2.5
1	1A	2164	C	2.5
34	2c	188	LEU	2.5
39	1h	89	PRO	2.5
36	2e	74	GLY	2.5
50	1s	15	LEU	2.5
14	2S	7	TYR	2.5
33	2b	136	VAL	2.5
33	2b	229	VAL	2.5
43	2l	69	TYR	2.5
34	2c	60	ALA	2.5
45	1n	20	ALA	2.5
41	1j	46	ARG	2.5
46	2o	68	ARG	2.5
52	2u	22	ARG	2.5
10	1O	81	ASP	2.5
50	1s	13	ASP	2.5
1	2A	2189	U	2.5
33	2b	121	LEU	2.5
34	1c	178	LEU	2.5
41	2j	93	GLY	2.5
41	1j	34	VAL	2.5
47	1p	79	VAL	2.5
1	1A	2140	C	2.5

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Mol	Chain	Res	Type	RSRZ
32	2a	1366	C	2.5
32	2a	1036	G	2.5
32	2a	1202	G	2.5
44	1m	2	ALA	2.5
41	2j	7	LYS	2.5
43	1l	91	LYS	2.5
40	2i	79	LEU	2.5
7	2H	39	PRO	2.5
1	1A	2189	U	2.5
22	20	8	GLY	2.5
41	1j	96	ILE	2.5
37	2f	6	VAL	2.5
7	2H	159	GLU	2.5
33	2b	70	PHE	2.5
35	1d	138	TYR	2.5
40	2i	36	TYR	2.5
19	2X	68	ARG	2.5
21	1Z	51	ALA	2.5
1	1A	2138	C	2.5
1	2A	1536	C	2.5
1	2A	2137	C	2.5
34	2c	177	THR	2.5
47	1p	7	ALA	2.5
44	2m	120	LYS	2.5
45	2n	50	LYS	2.5
1	2A	2154	G	2.5
1	2A	2893	G	2.5
22	10	3	HIS	2.5
7	2H	88	LEU	2.4
37	1f	55	ASP	2.4
40	2i	96	LEU	2.4
42	1k	98	LEU	2.4
38	2g	21	VAL	2.4
44	1m	15	VAL	2.4
52	2u	16	GLY	2.4
38	2g	4	ARG	2.4
40	1i	10	ARG	2.4
40	1i	107	ARG	2.4
47	2p	26	ARG	2.4
5	2F	80	ALA	2.4
7	2H	94	TYR	2.4
36	2e	94	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
40	2i	82	ALA	2.4
41	1j	42	THR	2.4
26	24	40	HIS	2.4
8	2I	75	LEU	2.4
40	2i	19	LEU	2.4
1	2A	1171	G	2.4
32	1a	102	G	2.4
32	1a	630	G	2.4
41	2j	77	PRO	2.4
26	14	45	GLY	2.4
33	1b	165	VAL	2.4
34	2c	68	VAL	2.4
8	2I	91	SER	2.4
12	1Q	60	ARG	2.4
26	24	57	GLU	2.4
32	1a	1532	U	2.4
43	1l	64	TYR	2.4
22	10	10	THR	2.4
41	2j	67	THR	2.4
21	2Z	144	LEU	2.4
41	1j	65	LEU	2.4
41	2j	65	LEU	2.4
1	2A	2163	C	2.4
1	2A	2179	C	2.4
21	2Z	165	VAL	2.4
1	2A	2176	A	2.4
53	1v	14	A	2.4
6	1G	51	ARG	2.4
22	20	5	LYS	2.4
45	2n	17	LYS	2.4
51	1t	14	LYS	2.4
6	1G	35	GLU	2.4
14	2S	29	PHE	2.4
32	2a	1156	G	2.4
33	2b	55	PHE	2.4
33	2b	231	GLU	2.4
44	2m	67	GLU	2.4
47	2p	9	PHE	2.4
12	2Q	28	ALA	2.4
34	2c	137	ALA	2.4
2	2B	55	U	2.4
44	2m	103	THR	2.4

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Mol	Chain	Res	Type	RSRZ
14	2S	59	LYS	2.4
36	2e	85	GLY	2.4
35	1d	153	ARG	2.4
45	2n	3	ARG	2.4
1	1A	2142	C	2.4
8	2I	55	ALA	2.4
33	2b	13	ALA	2.4
35	1d	195	ALA	2.4
42	1k	68	ALA	2.4
45	1n	59	ALA	2.4
11	2P	70	GLN	2.4
35	1d	83	SER	2.4
1	1A	2166	G	2.4
27	25	29	THR	2.4
35	1d	181	MET	2.4
23	21	46	LEU	2.4
33	2b	215	LEU	2.4
41	2j	71	LEU	2.4
44	1m	96	LEU	2.4
51	1t	13	LEU	2.4
40	2i	123	PRO	2.4
3	1D	276	LYS	2.3
8	2I	113	ARG	2.3
21	2Z	141	VAL	2.3
40	1i	78	LYS	2.3
19	2X	86	GLY	2.3
41	2j	46	ARG	2.3
45	2n	12	ARG	2.3
45	2n	28	GLY	2.3
44	2m	75	ALA	2.3
1	2A	34	C	2.3
2	1B	88	C	2.3
11	2P	68	GLN	2.3
47	1p	82	GLN	2.3
33	2b	54	THR	2.3
34	1c	12	LEU	2.3
45	1n	7	ILE	2.3
47	1p	33	ILE	2.3
17	2V	76	LYS	2.3
33	2b	8	LYS	2.3
41	2j	39	PRO	2.3
1	1A	2116	G	2.3

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Mol	Chain	Res	Type	RSRZ
1	2A	11	G	2.3
1	2A	2106	G	2.3
8	2I	3	VAL	2.3
12	2Q	109	VAL	2.3
26	24	58	ARG	2.3
45	1n	18	VAL	2.3
33	2b	38	GLY	2.3
40	2i	59	PHE	2.3
8	2I	135	GLU	2.3
8	2I	68	LEU	2.3
34	1c	47	LEU	2.3
39	1h	2	LEU	2.3
39	2h	2	LEU	2.3
41	2j	88	LEU	2.3
45	1n	61	TRP	2.3
1	2A	2136	C	2.3
2	2B	6	C	2.3
42	2k	31	THR	2.3
32	2a	1225	A	2.3
8	2I	95	LYS	2.3
29	17	48	LYS	2.3
33	2b	96	ARG	2.3
35	2d	132	ARG	2.3
7	2H	169	VAL	2.3
8	2I	81	VAL	2.3
27	15	60	VAL	2.3
50	2s	9	VAL	2.3
34	2c	155	GLY	2.3
49	2r	43	PHE	2.3
1	2A	2100	G	2.3
1	2A	2125	G	2.3
10	2O	108	GLU	2.3
22	10	2	ALA	2.3
32	1a	1001(A)	G	2.3
32	1a	1024	G	2.3
32	1a	1036	G	2.3
32	2a	1031	G	2.3
40	2i	2	GLU	2.3
41	1j	25	GLU	2.3
4	2E	127	ASP	2.3
22	20	84	LEU	2.3
37	1f	21	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
47	1p	6	LEU	2.3
47	2p	73	LEU	2.3
33	2b	214	ILE	2.3
38	1g	153	HIS	2.3
35	2d	208	SER	2.3
48	2q	99	SER	2.3
48	2q	100	LYS	2.3
52	1u	14	TRP	2.3
5	2F	6	VAL	2.3
36	2e	128	PRO	2.3
50	2s	2	PRO	2.3
32	1a	1352	C	2.3
32	2a	1027	C	2.3
35	1d	23	GLY	2.3
52	2u	11	GLY	2.3
33	1b	12	GLU	2.3
45	2n	8	GLU	2.3
20	2Y	90	LEU	2.3
33	1b	221	LEU	2.3
52	2u	5	ASP	2.3
45	1n	17	LYS	2.3
32	1a	1023	G	2.3
35	1d	115	ARG	2.3
48	1q	99	SER	2.3
7	2H	10	PRO	2.3
34	2c	48	TYR	2.3
35	1d	170	VAL	2.3
40	2i	69	GLY	2.3
41	1j	52	GLY	2.3
1	2A	2105	C	2.2
1	2A	2135	A	2.2
1	2A	2789	C	2.2
2	2B	88	C	2.2
38	1g	26	PHE	2.2
45	1n	16	PHE	2.2
8	2I	53	ALA	2.2
33	1b	77	ALA	2.2
41	1j	55	LYS	2.2
41	1j	75	ILE	2.2
35	2d	49	ARG	2.2
33	1b	97	TRP	2.2
35	1d	136	PRO	2.2

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Mol	Chain	Res	Type	RSRZ
40	2i	92	TYR	2.2
1	1A	2159	G	2.2
44	1m	100	GLY	2.2
34	1c	203	PHE	2.2
38	1g	43	PHE	2.2
45	2n	37	PHE	2.2
1	2A	2172	U	2.2
32	1a	1000	U	2.2
6	2G	50	ALA	2.2
33	2b	12	GLU	2.2
1	1A	2129	C	2.2
1	1A	2804	C	2.2
1	2A	277	C	2.2
32	1a	1492	A	2.2
32	2a	1447	A	2.2
35	2d	21	LEU	2.2
41	2j	85	LEU	2.2
48	2q	98	LEU	2.2
7	2H	60	ARG	2.2
15	2T	108	ARG	2.2
21	2Z	154	ASP	2.2
29	27	47	ARG	2.2
6	2G	142	PRO	2.2
8	2I	137	PRO	2.2
34	2c	191	THR	2.2
35	2d	88	VAL	2.2
45	1n	14	PRO	2.2
47	1p	22	THR	2.2
21	2Z	106	GLY	2.2
36	2e	22	GLY	2.2
35	1d	110	PHE	2.2
1	1A	1059	G	2.2
1	1A	1062	G	2.2
1	1A	2151	G	2.2
1	2A	2181	G	2.2
6	1G	50	ALA	2.2
32	2a	1190	G	2.2
32	2a	1365	G	2.2
33	2b	11	LEU	2.2
34	2c	87	LEU	2.2
40	1i	19	LEU	2.2
45	2n	39	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
42	1k	117	ASN	2.2
39	2h	80	ILE	2.2
44	2m	101	GLN	2.2
47	1p	75	ARG	2.2
48	1q	91	ARG	2.2
32	2a	1236	A	2.2
32	1a	1028	C	2.2
50	2s	12	ASP	2.2
33	2b	15	VAL	2.2
33	2b	93	VAL	2.2
11	2P	34	GLY	2.2
21	2Z	99	TYR	2.2
40	1i	8	GLY	2.2
52	2u	2	GLY	2.2
45	2n	4	LYS	2.2
8	2I	47	LEU	2.2
17	2V	71	LEU	2.2
33	1b	11	LEU	2.2
38	2g	12	LEU	2.2
27	25	19	ARG	2.2
41	2j	98	ILE	2.2
37	1f	18	GLN	2.2
41	2j	69	ASN	2.2
1	1A	1058	G	2.2
35	1d	102	ASP	2.2
50	2s	76	PRO	2.2
54	1x	76	A	2.2
1	2A	2177	C	2.2
8	2I	130	TYR	2.2
14	2S	92	TYR	2.2
26	14	59	PHE	2.2
40	2i	62	TYR	2.2
47	1p	80	PHE	2.2
47	1p	74	LEU	2.2
48	2q	31	LEU	2.2
8	2I	115	ALA	2.2
34	2c	168	ALA	2.2
35	2d	158	ILE	2.1
41	2j	60	ARG	2.1
44	2m	9	ILE	2.1
41	2j	76	ASN	2.1
8	2I	136	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
23	21	62	VAL	2.1
33	2b	71	VAL	2.1
6	1G	49	ASP	2.1
15	1T	107	ASP	2.1
1	1A	2131	G	2.1
45	1n	11	LYS	2.1
1	1A	2177	C	2.1
35	1d	194	LEU	2.1
49	1r	31	LEU	2.1
21	2Z	149	SER	2.1
40	1i	43	ALA	2.1
14	2S	3	ARG	2.1
24	22	69	ARG	2.1
40	2i	66	ARG	2.1
41	2j	83	GLU	2.1
47	1p	5	ARG	2.1
40	2i	81	ILE	2.1
44	2m	22	ILE	2.1
7	2H	15	VAL	2.1
7	2H	113	VAL	2.1
34	2c	66	VAL	2.1
24	22	1	MET	2.1
41	1j	39	PRO	2.1
41	2j	72	VAL	2.1
20	2Y	54	LYS	2.1
43	1l	21	LYS	2.1
45	2n	9	LYS	2.1
51	1t	21	LYS	2.1
3	2D	55	GLY	2.1
17	2V	42	GLY	2.1
40	1i	6	GLY	2.1
45	1n	51	GLY	2.1
33	1b	10	LEU	2.1
35	2d	162	LEU	2.1
1	1A	1069	A	2.1
2	2B	53	A	2.1
6	2G	146	TYR	2.1
8	2I	46	ALA	2.1
29	17	45	ALA	2.1
33	2b	21	ARG	2.1
34	2c	24	ALA	2.1
1	2A	2318	G	2.1

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Mol	Chain	Res	Type	RSRZ
2	2B	23	G	2.1
11	2P	74	GLU	2.1
34	1c	8	ILE	2.1
45	2n	7	ILE	2.1
1	2A	2178	C	2.1
6	1G	76	SER	2.1
7	2H	2	SER	2.1
22	20	9	SER	2.1
39	2h	70	GLN	2.1
50	2s	14	HIS	2.1
6	1G	182	LYS	2.1
41	1j	86	MET	2.1
44	1m	106	ASN	2.1
1	1A	2150	U	2.1
33	2b	61	LEU	2.1
35	1d	101	LEU	2.1
20	2Y	12	THR	2.1
36	2e	5	ASP	2.1
8	2I	82	ARG	2.1
33	1b	36	ARG	2.1
52	2u	7	ARG	2.1
21	2Z	146	ILE	2.1
21	2Z	173	ALA	2.1
33	1b	62	ALA	2.1
34	1c	61	ALA	2.1
46	2o	6	GLU	2.1
47	2p	38	TYR	2.1
1	1A	2173	A	2.1
1	2A	899	A	2.1
2	2B	59	A	2.1
32	2a	1363(A)	A	2.1
41	2j	35	SER	2.1
37	2f	27	GLN	2.1
1	2A	2129	C	2.1
20	1Y	1	MET	2.1
32	1a	1002	G	2.1
32	1a	1003	G	2.1
32	1a	1039	C	2.1
32	2a	972	C	2.1
32	2a	995	C	2.1
32	2a	1019	C	2.1
35	1d	84	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
40	1i	117	HIS	2.1
33	1b	167	PRO	2.1
39	2h	67	PRO	2.1
21	1Z	150	LEU	2.1
26	24	45	GLY	2.1
34	1c	13	GLY	2.1
40	1i	37	PHE	2.1
47	2p	78	GLY	2.1
50	2s	84	GLY	2.1
6	2G	51	ARG	2.1
11	1P	15	ARG	2.1
40	2i	83	ARG	2.1
51	1t	17	ARG	2.1
40	2i	84	ALA	2.1
41	2j	38	ILE	2.1
34	1c	201	TYR	2.1
6	2G	76	SER	2.0
7	2H	38	SER	2.0
8	2I	56	LYS	2.0
22	20	53	MET	2.0
41	1j	35	SER	2.0
48	1q	62	SER	2.0
41	1j	33	GLN	2.0
51	1t	74	LYS	2.0
51	2t	73	HIS	2.0
21	2Z	128	VAL	2.0
32	2a	1531	A	2.0
34	1c	207	VAL	2.0
42	1k	30	VAL	2.0
45	2n	18	VAL	2.0
33	1b	234	PRO	2.0
44	1m	97	PRO	2.0
52	2u	23	PRO	2.0
1	1A	154(A)	C	2.0
14	2S	78	LEU	2.0
34	2c	94	LEU	2.0
35	1d	19	LEU	2.0
40	2i	99	LEU	2.0
1	1A	2125	G	2.0
1	1A	2165	G	2.0
15	1T	115	ARG	2.0
33	2b	89	GLY	2.0

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Mol	Chain	Res	Type	RSRZ
35	2d	209	ARG	2.0
43	2l	14	GLY	2.0
45	2n	16	PHE	2.0
6	2G	161	THR	2.0
34	1c	152	ILE	2.0
49	2r	82	THR	2.0
51	1t	55	ILE	2.0
12	1Q	28	ALA	2.0
21	2Z	152	ALA	2.0
50	2s	80	TYR	2.0
10	2O	1	MET	2.0
33	2b	83	MET	2.0
8	2I	105	HIS	2.0
20	2Y	45	VAL	2.0
38	1g	13	GLN	2.0
19	2X	95	LEU	2.0
34	2c	52	LEU	2.0
15	1T	104	ASN	2.0
28	26	6	ARG	2.0
35	1d	122	ARG	2.0
35	2d	199	ASN	2.0
50	1s	29	ARG	2.0
50	2s	78	ARG	2.0
3	2D	256	GLY	2.0
12	2Q	61	GLY	2.0
44	2m	100	GLY	2.0
1	1A	2185	C	2.0
32	2a	1367	C	2.0
36	2e	120	THR	2.0
40	2i	64	THR	2.0
46	1o	4	THR	2.0
47	1p	69	THR	2.0
1	1A	12	U	2.0
54	2x	47	U	2.0
1	1A	2157	G	2.0
1	2A	2319	G	2.0
3	1D	275	LYS	2.0
26	24	53	GLU	2.0
32	2a	1002	G	2.0
33	2b	22	LYS	2.0
35	1d	30	LYS	2.0
40	2i	125	TYR	2.0

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Mol	Chain	Res	Type	RSRZ
44	2m	15	VAL	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th 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
1	5MU	2A	1915	21/22	0.73	0.12	74,81,86,91	0
54	PSU	2x	55	20/21	0.78	0.12	72,78,85,91	0
32	PSU	2a	516	20/21	0.86	0.12	70,76,79,84	0
32	5MC	2a	1400	21/22	0.86	0.15	65,72,79,81	0
54	4SU	2x	8	20/21	0.86	0.11	72,83,87,87	0
1	5MU	1A	1915	21/22	0.86	0.11	58,70,76,89	0
32	2MG	2a	1207	24/25	0.87	0.11	77,83,89,92	0
43	0TD	2l	92	10/11	0.87	0.15	57,66,71,84	0
54	PSU	1x	55	20/21	0.88	0.10	61,67,75,78	0
54	5MC	2x	32	21/22	0.89	0.15	61,79,80,82	0
32	PSU	1a	516	20/21	0.89	0.10	65,70,76,78	0
32	7MG	2a	527	24/25	0.90	0.11	59,66,71,72	0
54	5MC	1x	32	21/22	0.90	0.13	52,64,68,76	0
1	PSU	2A	1911	20/21	0.90	0.10	57,65,72,79	0
32	4OC	2a	1402	22/23	0.90	0.13	55,63,68,75	0
32	M2G	2a	966	25/26	0.91	0.14	63,69,81,83	0
32	2MG	1a	1207	24/25	0.91	0.09	60,76,82,87	0
43	0TD	1l	92	10/11	0.91	0.11	52,57,60,75	0
54	5MU	2x	54	21/22	0.91	0.09	72,79,82,87	0
54	4SU	1x	8	20/21	0.91	0.10	58,68,74,78	0
54	5MU	1x	54	21/22	0.92	0.10	64,69,77,83	0
32	5MC	2a	967	21/22	0.93	0.14	67,72,79,80	0
1	PSU	2A	1917	20/21	0.93	0.08	60,70,75,77	0
32	M2G	1a	966	25/26	0.93	0.13	51,59,65,73	0
1	5MC	2A	1962	21/22	0.94	0.09	40,53,61,65	0
1	2MA	2A	2503	23/24	0.94	0.10	30,34,39,42	0
32	5MC	2a	1404	21/22	0.94	0.09	45,57,67,68	0
32	UR3	2a	1498	21/22	0.94	0.10	52,59,63,70	0
32	MA6	2a	1518	24/25	0.94	0.12	55,62,66,67	0
32	5MC	1a	1404	21/22	0.94	0.10	34,46,49,51	0
1	PSU	1A	1917	20/21	0.94	0.08	50,59,68,74	0
32	7MG	1a	527	24/25	0.94	0.10	51,57,63,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
1	4OC	2A	1920	21/23	0.94	0.10	53,65,68,71	0
1	5MU	2A	1939	21/22	0.94	0.10	39,43,47,50	0
32	5MC	1a	967	21/22	0.95	0.10	54,62,71,74	0
1	OMG	2A	2251	24/25	0.95	0.10	30,40,46,46	0
32	5MC	1a	1407	21/22	0.95	0.09	41,43,48,52	0
1	PSU	1A	1911	20/21	0.95	0.08	42,49,56,58	0
32	4OC	1a	1402	22/23	0.95	0.10	49,53,59,62	0
1	5MC	2A	1942	21/22	0.95	0.08	47,55,60,63	0
32	5MC	2a	1407	21/22	0.96	0.09	51,57,62,64	0
1	5MC	1A	1942	21/22	0.96	0.08	28,34,40,43	0
1	4OC	1A	1920	21/23	0.96	0.08	34,46,49,54	0
32	MA6	2a	1519	24/25	0.96	0.11	56,60,65,67	0
32	5MC	1a	1400	21/22	0.96	0.09	36,57,61,62	0
32	MA6	1a	1518	24/25	0.96	0.10	35,43,48,52	0
1	2MU	2A	2552	21/23	0.96	0.07	34,38,44,47	0
1	PSU	2A	2605	20/21	0.96	0.09	28,38,44,46	0
32	MA6	1a	1519	24/25	0.96	0.10	38,43,48,51	0
32	UR3	1a	1498	21/22	0.97	0.07	39,46,49,52	0
1	5MU	1A	1939	21/22	0.97	0.07	22,27,32,34	0
1	OMG	1A	2251	24/25	0.97	0.08	23,29,33,35	0
1	PSU	1A	2605	20/21	0.97	0.07	20,27,29,31	0
1	2MA	1A	2503	23/24	0.98	0.06	14,21,24,25	0
1	2MU	1A	2552	21/23	0.98	0.07	26,29,34,37	0
1	5MC	1A	1962	21/22	0.98	0.07	28,37,44,54	0

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th 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($\text{\AA}^2$)	Q<0.9
55	MG	2a	3173	1/1	0.30	0.26	76,76,76,76	0
55	MG	1B	232	1/1	0.43	0.27	65,65,65,65	0
55	MG	1a	1765	1/1	0.45	0.17	90,90,90,90	0
55	MG	1B	230	1/1	0.56	0.24	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1a	1678	1/1	0.56	0.23	85,85,85,85	0
55	MG	2A	3464	1/1	0.58	0.30	77,77,77,77	0
55	MG	2A	3741	1/1	0.58	0.22	72,72,72,72	0
55	MG	1A	3624	1/1	0.58	0.29	81,81,81,81	0
55	MG	1B	229	1/1	0.59	0.42	72,72,72,72	0
55	MG	2A	3735	1/1	0.59	0.17	60,60,60,60	0
55	MG	2a	3024	1/1	0.60	0.35	77,77,77,77	0
55	MG	1A	3541	1/1	0.61	0.58	67,67,67,67	0
55	MG	2A	3270	1/1	0.62	0.27	70,70,70,70	0
55	MG	2B	213	1/1	0.62	0.31	76,76,76,76	0
55	MG	1a	1677	1/1	0.62	0.30	75,75,75,75	0
55	MG	1x	113	1/1	0.62	0.16	68,68,68,68	0
55	MG	2A	3854	1/1	0.63	0.28	68,68,68,68	0
55	MG	2a	3128	1/1	0.64	0.17	90,90,90,90	0
55	MG	2a	3139	1/1	0.64	0.21	69,69,69,69	0
55	MG	2A	3222	1/1	0.64	0.21	68,68,68,68	0
55	MG	2A	3377	1/1	0.67	0.13	65,65,65,65	0
55	MG	1a	1662	1/1	0.67	0.45	69,69,69,69	0
55	MG	1a	1638	1/1	0.68	0.17	55,55,55,55	0
55	MG	1A	3347	1/1	0.68	0.31	60,60,60,60	0
55	MG	2a	3082	1/1	0.68	0.26	75,75,75,75	0
55	MG	2A	3289	1/1	0.68	0.34	75,75,75,75	0
55	MG	2A	3830	1/1	0.68	0.16	76,76,76,76	0
55	MG	1U	207	1/1	0.68	0.43	54,54,54,54	0
55	MG	2A	3653	1/1	0.69	0.20	72,72,72,72	0
55	MG	2a	3083	1/1	0.69	0.12	64,64,64,64	0
55	MG	2A	3690	1/1	0.69	0.12	64,64,64,64	0
55	MG	1a	1681	1/1	0.69	0.21	76,76,76,76	0
55	MG	1a	1789	1/1	0.69	0.19	79,79,79,79	0
55	MG	1a	1715	1/1	0.70	0.15	53,53,53,53	0
55	MG	2A	3294	1/1	0.70	0.22	61,61,61,61	0
55	MG	2A	3317	1/1	0.70	0.12	78,78,78,78	0
55	MG	2a	3180	1/1	0.70	0.27	63,63,63,63	0
55	MG	1a	1769	1/1	0.71	0.19	71,71,71,71	0
55	MG	1a	1718	1/1	0.71	0.33	68,68,68,68	0
55	MG	2a	3050	1/1	0.71	0.33	79,79,79,79	0
55	MG	2a	3040	1/1	0.72	0.15	55,55,55,55	0
55	MG	1a	1719	1/1	0.73	0.36	61,61,61,61	0
55	MG	1a	1612	1/1	0.73	0.12	57,57,57,57	0
55	MG	2d	302	1/1	0.73	0.19	73,73,73,73	0
55	MG	2B	216	1/1	0.74	0.21	65,65,65,65	0
55	MG	1A	3219	1/1	0.74	0.29	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2a	3029	1/1	0.74	0.37	78,78,78,78	0
55	MG	1A	3248	1/1	0.74	0.22	66,66,66,66	0
55	MG	2i	201	1/1	0.74	0.57	82,82,82,82	0
55	MG	2x	101	1/1	0.74	0.21	84,84,84,84	0
55	MG	2A	3498	1/1	0.75	0.39	74,74,74,74	0
55	MG	2a	3174	1/1	0.75	0.20	75,75,75,75	0
55	MG	1A	3499	1/1	0.75	0.35	65,65,65,65	0
55	MG	2a	3206	1/1	0.75	0.23	78,78,78,78	0
55	MG	2a	3092	1/1	0.75	0.42	68,68,68,68	0
55	MG	1A	4023	1/1	0.75	0.10	73,73,73,73	0
55	MG	2j	202	1/1	0.75	0.18	74,74,74,74	0
55	MG	2T	201	1/1	0.75	0.31	65,65,65,65	0
55	MG	2A	3252	1/1	0.76	0.10	50,50,50,50	0
55	MG	2a	3190	1/1	0.76	0.22	66,66,66,66	0
55	MG	2a	3130	1/1	0.76	0.35	69,69,69,69	0
55	MG	1A	3926	1/1	0.76	0.11	45,45,45,45	0
55	MG	2a	3158	1/1	0.76	0.19	70,70,70,70	0
55	MG	1A	3851	1/1	0.76	0.15	49,49,49,49	0
55	MG	2A	3229	1/1	0.76	0.17	59,59,59,59	0
55	MG	2A	3092	1/1	0.77	0.29	62,62,62,62	0
55	MG	2A	3163	1/1	0.77	0.22	64,64,64,64	0
55	MG	2a	3105	1/1	0.77	0.22	80,80,80,80	0
55	MG	2a	3117	1/1	0.77	0.31	49,49,49,49	0
55	MG	2A	3760	1/1	0.77	0.10	76,76,76,76	0
55	MG	2A	3346	1/1	0.77	0.11	67,67,67,67	0
55	MG	2A	3359	1/1	0.77	0.20	63,63,63,63	0
55	MG	2B	204	1/1	0.77	0.20	75,75,75,75	0
55	MG	2A	3361	1/1	0.77	0.19	64,64,64,64	0
55	MG	1a	1702	1/1	0.77	0.25	60,60,60,60	0
55	MG	2A	3441	1/1	0.77	0.14	63,63,63,63	0
55	MG	1A	3947	1/1	0.77	0.12	23,23,23,23	0
55	MG	2a	3205	1/1	0.77	0.22	59,59,59,59	0
55	MG	1A	3450	1/1	0.77	0.18	74,74,74,74	0
55	MG	1A	3741	1/1	0.77	0.10	56,56,56,56	0
55	MG	2A	3089	1/1	0.77	0.20	72,72,72,72	0
55	MG	2a	3061	1/1	0.77	0.23	68,68,68,68	0
55	MG	2A	3715	1/1	0.77	0.14	66,66,66,66	0
55	MG	2x	104	1/1	0.77	0.17	70,70,70,70	0
55	MG	2A	3365	1/1	0.78	0.18	66,66,66,66	0
55	MG	2A	3080	1/1	0.78	0.21	67,67,67,67	0
55	MG	2A	3258	1/1	0.78	0.25	64,64,64,64	0
55	MG	1a	1750	1/1	0.78	0.15	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	18	105	1/1	0.78	0.22	75,75,75,75	0
55	MG	2a	3145	1/1	0.78	0.39	67,67,67,67	0
55	MG	2B	214	1/1	0.78	0.37	82,82,82,82	0
55	MG	2A	3612	1/1	0.78	0.30	53,53,53,53	0
55	MG	1A	3988	1/1	0.78	0.12	50,50,50,50	0
55	MG	2A	3689	1/1	0.78	0.12	71,71,71,71	0
55	MG	1A	3549	1/1	0.78	0.29	45,45,45,45	0
55	MG	2A	3707	1/1	0.78	0.13	56,56,56,56	0
55	MG	2A	3227	1/1	0.78	0.21	69,69,69,69	0
55	MG	2A	3725	1/1	0.78	0.29	68,68,68,68	0
55	MG	1a	1642	1/1	0.78	0.27	67,67,67,67	0
55	MG	2A	3740	1/1	0.78	0.20	68,68,68,68	0
55	MG	2a	3091	1/1	0.78	0.26	71,71,71,71	0
55	MG	2A	3230	1/1	0.78	0.10	78,78,78,78	0
55	MG	1A	3346	1/1	0.79	0.15	55,55,55,55	0
55	MG	2a	3110	1/1	0.79	0.18	61,61,61,61	0
55	MG	2B	206	1/1	0.79	0.21	57,57,57,57	0
55	MG	2A	3654	1/1	0.79	0.12	63,63,63,63	0
55	MG	2a	3129	1/1	0.79	0.40	64,64,64,64	0
55	MG	1a	1636	1/1	0.79	0.22	63,63,63,63	0
55	MG	1A	3464	1/1	0.79	0.08	40,40,40,40	0
55	MG	2F	306	1/1	0.79	0.14	62,62,62,62	0
55	MG	1A	3303	1/1	0.79	0.13	62,62,62,62	0
55	MG	2U	201	1/1	0.79	0.27	58,58,58,58	0
55	MG	1A	3683	1/1	0.79	0.09	53,53,53,53	0
55	MG	1a	1748	1/1	0.79	0.13	63,63,63,63	0
55	MG	2A	3094	1/1	0.79	0.14	67,67,67,67	0
55	MG	2A	3484	1/1	0.79	0.58	58,58,58,58	0
55	MG	1A	3527	1/1	0.79	0.29	53,53,53,53	0
55	MG	2a	3069	1/1	0.79	0.28	57,57,57,57	0
55	MG	2A	3551	1/1	0.79	0.15	42,42,42,42	0
55	MG	2A	3827	1/1	0.79	0.16	64,64,64,64	0
55	MG	2A	3570	1/1	0.79	0.19	65,65,65,65	0
55	MG	1a	1601	1/1	0.79	0.12	63,63,63,63	0
55	MG	2A	3158	1/1	0.80	0.21	51,51,51,51	0
55	MG	1a	1773	1/1	0.80	0.21	70,70,70,70	0
55	MG	2A	3170	1/1	0.80	0.31	65,65,65,65	0
55	MG	2B	210	1/1	0.80	0.19	59,59,59,59	0
55	MG	1A	3284	1/1	0.80	0.09	37,37,37,37	0
55	MG	1A	3742	1/1	0.80	0.18	51,51,51,51	0
55	MG	1a	1618	1/1	0.80	0.12	51,51,51,51	0
55	MG	1A	3305	1/1	0.80	0.25	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3369	1/1	0.80	0.18	78,78,78,78	0
55	MG	2A	3090	1/1	0.80	0.23	57,57,57,57	0
55	MG	2a	3162	1/1	0.80	0.22	61,61,61,61	0
55	MG	2a	3021	1/1	0.80	0.12	55,55,55,55	0
55	MG	1A	3858	1/1	0.80	0.16	69,69,69,69	0
55	MG	2a	3175	1/1	0.80	0.15	70,70,70,70	0
55	MG	2A	3454	1/1	0.80	0.14	47,47,47,47	0
55	MG	2A	3461	1/1	0.80	0.19	60,60,60,60	0
55	MG	2A	3260	1/1	0.80	0.25	60,60,60,60	0
55	MG	2A	3475	1/1	0.80	0.19	67,67,67,67	0
55	MG	2a	3063	1/1	0.80	0.33	69,69,69,69	0
55	MG	2A	3778	1/1	0.80	0.11	63,63,63,63	0
55	MG	1B	223	1/1	0.80	0.15	56,56,56,56	0
55	MG	2A	3285	1/1	0.80	0.14	52,52,52,52	0
55	MG	2A	3852	1/1	0.80	0.20	61,61,61,61	0
55	MG	1a	1803	1/1	0.81	0.11	66,66,66,66	0
55	MG	1a	1834	1/1	0.81	0.37	68,68,68,68	0
55	MG	1t	201	1/1	0.81	0.28	59,59,59,59	0
55	MG	1v	102	1/1	0.81	0.18	74,74,74,74	0
55	MG	1x	109	1/1	0.81	0.22	73,73,73,73	0
55	MG	1A	3824	1/1	0.81	0.29	47,47,47,47	0
55	MG	2A	3049	1/1	0.81	0.15	68,68,68,68	0
55	MG	2A	3465	1/1	0.81	0.28	54,54,54,54	0
55	MG	1A	3212	1/1	0.81	0.19	53,53,53,53	0
55	MG	1Y	203	1/1	0.81	0.07	68,68,68,68	0
55	MG	1A	3120	1/1	0.81	0.13	49,49,49,49	0
55	MG	2a	3135	1/1	0.81	0.31	64,64,64,64	0
55	MG	2A	3516	1/1	0.81	0.28	60,60,60,60	0
55	MG	2A	3521	1/1	0.81	0.14	55,55,55,55	0
55	MG	2A	3527	1/1	0.81	0.15	54,54,54,54	0
55	MG	1B	207	1/1	0.81	0.16	49,49,49,49	0
55	MG	2A	3554	1/1	0.81	0.23	67,67,67,67	0
55	MG	2D	303	1/1	0.81	0.15	62,62,62,62	0
55	MG	2A	3290	1/1	0.81	0.36	68,68,68,68	0
55	MG	2a	3176	1/1	0.81	0.25	67,67,67,67	0
55	MG	2A	3596	1/1	0.81	0.11	48,48,48,48	0
55	MG	1A	3861	1/1	0.81	0.08	48,48,48,48	0
55	MG	2A	3645	1/1	0.81	0.22	54,54,54,54	0
55	MG	2A	3118	1/1	0.81	0.18	59,59,59,59	0
55	MG	2A	3323	1/1	0.81	0.21	67,67,67,67	0
55	MG	2A	3130	1/1	0.81	0.25	57,57,57,57	0
55	MG	2A	3348	1/1	0.81	0.30	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3873	1/1	0.81	0.20	75,75,75,75	0
55	MG	1A	3131	1/1	0.81	0.09	73,73,73,73	0
55	MG	2a	3101	1/1	0.82	0.19	73,73,73,73	0
55	MG	2A	3068	1/1	0.82	0.34	69,69,69,69	0
55	MG	2A	3310	1/1	0.82	0.20	66,66,66,66	0
55	MG	2a	3116	1/1	0.82	0.21	54,54,54,54	0
55	MG	2A	3666	1/1	0.82	0.23	72,72,72,72	0
55	MG	2a	3125	1/1	0.82	0.29	61,61,61,61	0
55	MG	2A	3678	1/1	0.82	0.11	79,79,79,79	0
55	MG	1a	1671	1/1	0.82	0.29	63,63,63,63	0
55	MG	2A	3234	1/1	0.82	0.24	61,61,61,61	0
55	MG	2A	3704	1/1	0.82	0.12	53,53,53,53	0
55	MG	1a	1787	1/1	0.82	0.12	73,73,73,73	0
55	MG	2A	3710	1/1	0.82	0.15	50,50,50,50	0
55	MG	2a	3150	1/1	0.82	0.29	71,71,71,71	0
55	MG	2A	3253	1/1	0.82	0.08	64,64,64,64	0
55	MG	2a	3004	1/1	0.82	0.33	65,65,65,65	0
55	MG	2a	3164	1/1	0.82	0.15	66,66,66,66	0
55	MG	2A	3355	1/1	0.82	0.19	61,61,61,61	0
55	MG	2A	3730	1/1	0.82	0.10	60,60,60,60	0
55	MG	1A	3680	1/1	0.82	0.18	33,33,33,33	0
55	MG	2a	3037	1/1	0.82	0.22	80,80,80,80	0
55	MG	2A	3166	1/1	0.82	0.26	71,71,71,71	0
55	MG	2A	3266	1/1	0.82	0.15	59,59,59,59	0
55	MG	2a	3191	1/1	0.82	0.26	55,55,55,55	0
55	MG	1A	3879	1/1	0.82	0.14	64,64,64,64	0
55	MG	2A	3201	1/1	0.82	0.17	66,66,66,66	0
55	MG	2a	3208	1/1	0.82	0.20	58,58,58,58	0
55	MG	2a	3209	1/1	0.82	0.24	63,63,63,63	0
55	MG	2A	3582	1/1	0.82	0.13	56,56,56,56	0
55	MG	2A	3384	1/1	0.82	0.21	68,68,68,68	0
55	MG	2A	3836	1/1	0.82	0.15	49,49,49,49	0
55	MG	1A	3603	1/1	0.82	0.32	53,53,53,53	0
55	MG	2A	3111	1/1	0.82	0.17	65,65,65,65	0
55	MG	1a	1727	1/1	0.83	0.35	67,67,67,67	0
55	MG	1A	3302	1/1	0.83	0.17	45,45,45,45	0
55	MG	2A	3070	1/1	0.83	0.12	60,60,60,60	0
55	MG	1A	3488	1/1	0.83	0.11	58,58,58,58	0
55	MG	2A	3082	1/1	0.83	0.26	57,57,57,57	0
55	MG	1A	3895	1/1	0.83	0.13	41,41,41,41	0
55	MG	1A	3901	1/1	0.83	0.13	48,48,48,48	0
55	MG	2A	3486	1/1	0.83	0.30	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2a	3108	1/1	0.83	0.23	72,72,72,72	0
55	MG	2A	3773	1/1	0.83	0.19	62,62,62,62	0
55	MG	1a	1670	1/1	0.83	0.10	67,67,67,67	0
55	MG	2A	3817	1/1	0.83	0.16	40,40,40,40	0
55	MG	1A	3156	1/1	0.83	0.25	36,36,36,36	0
55	MG	2a	3127	1/1	0.83	0.23	60,60,60,60	0
55	MG	2A	3095	1/1	0.83	0.30	65,65,65,65	0
55	MG	1D	310	1/1	0.83	0.15	40,40,40,40	0
55	MG	2A	3536	1/1	0.83	0.32	58,58,58,58	0
55	MG	2A	3540	1/1	0.83	0.15	40,40,40,40	0
55	MG	2B	201	1/1	0.83	0.13	68,68,68,68	0
55	MG	1A	3940	1/1	0.83	0.15	52,52,52,52	0
55	MG	1a	1807	1/1	0.83	0.15	63,63,63,63	0
55	MG	2A	3151	1/1	0.83	0.17	68,68,68,68	0
55	MG	2a	3159	1/1	0.83	0.15	53,53,53,53	0
55	MG	1a	1815	1/1	0.83	0.23	63,63,63,63	0
55	MG	1a	1829	1/1	0.83	0.16	79,79,79,79	0
55	MG	2A	3165	1/1	0.83	0.11	60,60,60,60	0
55	MG	2A	3615	1/1	0.83	0.27	67,67,67,67	0
55	MG	1A	3509	1/1	0.83	0.20	32,32,32,32	0
55	MG	2G	201	1/1	0.83	0.16	68,68,68,68	0
55	MG	1A	3523	1/1	0.83	0.17	47,47,47,47	0
55	MG	2A	3177	1/1	0.83	0.35	56,56,56,56	0
55	MG	20	101	1/1	0.83	0.14	65,65,65,65	0
55	MG	2a	3197	1/1	0.83	0.20	57,57,57,57	0
55	MG	2A	3189	1/1	0.83	0.10	55,55,55,55	0
55	MG	2A	3669	1/1	0.83	0.26	52,52,52,52	0
55	MG	2A	3676	1/1	0.83	0.11	69,69,69,69	0
55	MG	2a	3028	1/1	0.83	0.22	70,70,70,70	0
55	MG	2A	3190	1/1	0.83	0.31	65,65,65,65	0
55	MG	1A	3223	1/1	0.83	0.24	55,55,55,55	0
55	MG	2j	201	1/1	0.83	0.08	71,71,71,71	0
55	MG	1A	4027	1/1	0.83	0.10	21,21,21,21	0
55	MG	2A	3378	1/1	0.83	0.10	67,67,67,67	0
55	MG	1A	4107	1/1	0.83	0.16	63,63,63,63	0
55	MG	2A	3320	1/1	0.84	0.11	64,64,64,64	0
55	MG	2A	3083	1/1	0.84	0.11	35,35,35,35	0
55	MG	1a	1714	1/1	0.84	0.15	51,51,51,51	0
55	MG	2A	3781	1/1	0.84	0.15	62,62,62,62	0
55	MG	1A	3620	1/1	0.84	0.24	38,38,38,38	0
55	MG	2A	3563	1/1	0.84	0.12	41,41,41,41	0
55	MG	1a	1639	1/1	0.84	0.29	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	15	105	1/1	0.84	0.10	43,43,43,43	0
55	MG	1a	1831	1/1	0.84	0.29	70,70,70,70	0
55	MG	2A	3853	1/1	0.84	0.07	64,64,64,64	0
55	MG	2A	3605	1/1	0.84	0.14	34,34,34,34	0
55	MG	1A	3385	1/1	0.84	0.13	48,48,48,48	0
55	MG	2A	3244	1/1	0.84	0.20	51,51,51,51	0
55	MG	2B	205	1/1	0.84	0.13	64,64,64,64	0
55	MG	2A	3374	1/1	0.84	0.13	65,65,65,65	0
55	MG	2A	3646	1/1	0.84	0.20	70,70,70,70	0
55	MG	1A	3654	1/1	0.84	0.13	36,36,36,36	0
55	MG	1a	1604	1/1	0.84	0.19	65,65,65,65	0
55	MG	2A	3141	1/1	0.84	0.30	69,69,69,69	0
55	MG	1A	3804	1/1	0.84	0.12	24,24,24,24	0
55	MG	2A	3674	1/1	0.84	0.15	57,57,57,57	0
55	MG	1a	1614	1/1	0.84	0.10	69,69,69,69	0
55	MG	2A	3161	1/1	0.84	0.30	50,50,50,50	0
55	MG	2A	3685	1/1	0.84	0.11	68,68,68,68	0
55	MG	2A	3462	1/1	0.84	0.24	60,60,60,60	0
55	MG	28	103	1/1	0.84	0.30	67,67,67,67	0
55	MG	2A	3274	1/1	0.84	0.09	54,54,54,54	0
55	MG	2a	3017	1/1	0.84	0.14	49,49,49,49	0
55	MG	2A	3280	1/1	0.84	0.17	70,70,70,70	0
55	MG	1A	4113	1/1	0.84	0.16	57,57,57,57	0
55	MG	1a	1775	1/1	0.84	0.18	59,59,59,59	0
55	MG	1a	1783	1/1	0.84	0.18	61,61,61,61	0
55	MG	2A	3716	1/1	0.84	0.10	64,64,64,64	0
55	MG	2A	3720	1/1	0.84	0.20	53,53,53,53	0
55	MG	2a	3041	1/1	0.84	0.10	55,55,55,55	0
55	MG	2A	3492	1/1	0.84	0.24	49,49,49,49	0
55	MG	2A	3077	1/1	0.84	0.13	64,64,64,64	0
55	MG	1a	1686	1/1	0.84	0.22	67,67,67,67	0
55	MG	2t	201	1/1	0.84	0.18	62,62,62,62	0
55	MG	1A	3465	1/1	0.84	0.24	57,57,57,57	0
55	MG	2A	3318	1/1	0.84	0.33	81,81,81,81	0
55	MG	2a	3030	1/1	0.85	0.17	60,60,60,60	0
55	MG	1a	1643	1/1	0.85	0.09	65,65,65,65	0
55	MG	1a	1753	1/1	0.85	0.20	67,67,67,67	0
55	MG	1a	1763	1/1	0.85	0.14	59,59,59,59	0
55	MG	2a	3044	1/1	0.85	0.12	78,78,78,78	0
55	MG	2a	3048	1/1	0.85	0.18	68,68,68,68	0
55	MG	1a	1644	1/1	0.85	0.14	72,72,72,72	0
55	MG	2a	3052	1/1	0.85	0.27	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1a	1656	1/1	0.85	0.18	59,59,59,59	0
55	MG	2A	3259	1/1	0.85	0.20	61,61,61,61	0
55	MG	1A	3912	1/1	0.85	0.13	27,27,27,27	0
55	MG	2A	3485	1/1	0.85	0.12	60,60,60,60	0
55	MG	1A	4038	1/1	0.85	0.09	73,73,73,73	0
55	MG	2a	3088	1/1	0.85	0.22	61,61,61,61	0
55	MG	2a	3090	1/1	0.85	0.12	72,72,72,72	0
55	MG	1A	4098	1/1	0.85	0.10	57,57,57,57	0
55	MG	1A	3239	1/1	0.85	0.18	35,35,35,35	0
55	MG	1A	3928	1/1	0.85	0.09	44,44,44,44	0
55	MG	2A	3115	1/1	0.85	0.16	42,42,42,42	0
55	MG	1a	1792	1/1	0.85	0.19	84,84,84,84	0
55	MG	2A	3806	1/1	0.85	0.22	37,37,37,37	0
55	MG	2a	3111	1/1	0.85	0.20	47,47,47,47	0
55	MG	1A	3930	1/1	0.85	0.20	53,53,53,53	0
55	MG	2A	3136	1/1	0.85	0.20	59,59,59,59	0
55	MG	2a	3124	1/1	0.85	0.24	49,49,49,49	0
55	MG	1A	3495	1/1	0.85	0.13	60,60,60,60	0
55	MG	2A	3315	1/1	0.85	0.10	69,69,69,69	0
55	MG	2A	3844	1/1	0.85	0.30	73,73,73,73	0
55	MG	2A	3847	1/1	0.85	0.18	72,72,72,72	0
55	MG	1A	3384	1/1	0.85	0.14	37,37,37,37	0
55	MG	1a	1703	1/1	0.85	0.19	66,66,66,66	0
55	MG	1a	1708	1/1	0.85	0.24	58,58,58,58	0
55	MG	2A	3861	1/1	0.85	0.12	50,50,50,50	0
55	MG	2a	3147	1/1	0.85	0.29	56,56,56,56	0
55	MG	1a	1832	1/1	0.85	0.14	61,61,61,61	0
55	MG	2B	202	1/1	0.85	0.15	43,43,43,43	0
55	MG	2A	3332	1/1	0.85	0.18	61,61,61,61	0
55	MG	2A	3342	1/1	0.85	0.07	47,47,47,47	0
55	MG	1A	3900	1/1	0.85	0.13	50,50,50,50	0
55	MG	2A	3618	1/1	0.85	0.23	28,28,28,28	0
55	MG	1f	201	1/1	0.85	0.24	64,64,64,64	0
55	MG	1n	102	1/1	0.85	0.13	66,66,66,66	0
55	MG	2A	3647	1/1	0.85	0.12	74,74,74,74	0
55	MG	1a	1621	1/1	0.85	0.22	72,72,72,72	0
55	MG	2A	3185	1/1	0.85	0.09	55,55,55,55	0
55	MG	1v	101	1/1	0.85	0.29	71,71,71,71	0
55	MG	1a	1717	1/1	0.85	0.13	62,62,62,62	0
55	MG	1A	3992	1/1	0.85	0.18	58,58,58,58	0
55	MG	2X	101	1/1	0.85	0.21	63,63,63,63	0
55	MG	2A	3675	1/1	0.85	0.28	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	23	101	1/1	0.85	0.13	58,58,58,58	0
55	MG	2A	3375	1/1	0.85	0.20	65,65,65,65	0
55	MG	1A	3872	1/1	0.85	0.12	52,52,52,52	0
55	MG	1a	1726	1/1	0.85	0.22	54,54,54,54	0
55	MG	1P	202	1/1	0.85	0.17	59,59,59,59	0
55	MG	2r	101	1/1	0.85	0.24	66,66,66,66	0
55	MG	2A	3414	1/1	0.85	0.45	52,52,52,52	0
55	MG	2A	3698	1/1	0.85	0.23	64,64,64,64	0
55	MG	1U	202	1/1	0.85	0.52	49,49,49,49	0
55	MG	2A	3238	1/1	0.86	0.20	56,56,56,56	0
55	MG	1a	1668	1/1	0.86	0.09	62,62,62,62	0
55	MG	1A	3554	1/1	0.86	0.10	49,49,49,49	0
55	MG	1A	4104	1/1	0.86	0.12	46,46,46,46	0
55	MG	2A	3717	1/1	0.86	0.17	65,65,65,65	0
55	MG	1a	1673	1/1	0.86	0.28	59,59,59,59	0
55	MG	1a	1676	1/1	0.86	0.28	59,59,59,59	0
55	MG	2A	3472	1/1	0.86	0.29	60,60,60,60	0
55	MG	1A	3717	1/1	0.86	0.13	41,41,41,41	0
55	MG	1A	4109	1/1	0.86	0.12	50,50,50,50	0
55	MG	1a	1602	1/1	0.86	0.24	64,64,64,64	0
55	MG	1A	3938	1/1	0.86	0.23	28,28,28,28	0
55	MG	1a	1814	1/1	0.86	0.11	71,71,71,71	0
55	MG	2A	3776	1/1	0.86	0.14	59,59,59,59	0
55	MG	2A	3493	1/1	0.86	0.14	55,55,55,55	0
55	MG	1a	1608	1/1	0.86	0.14	57,57,57,57	0
55	MG	2A	3784	1/1	0.86	0.12	39,39,39,39	0
55	MG	2A	3499	1/1	0.86	0.22	59,59,59,59	0
55	MG	2A	3288	1/1	0.86	0.11	72,72,72,72	0
55	MG	2A	3133	1/1	0.86	0.12	62,62,62,62	0
55	MG	1A	3576	1/1	0.86	0.13	54,54,54,54	0
55	MG	1a	1704	1/1	0.86	0.41	59,59,59,59	0
55	MG	2A	3296	1/1	0.86	0.15	47,47,47,47	0
55	MG	2A	3299	1/1	0.86	0.20	53,53,53,53	0
55	MG	2A	3300	1/1	0.86	0.29	53,53,53,53	0
55	MG	2A	3142	1/1	0.86	0.28	54,54,54,54	0
55	MG	2A	3147	1/1	0.86	0.19	60,60,60,60	0
55	MG	1A	3512	1/1	0.86	0.10	56,56,56,56	0
55	MG	2A	3595	1/1	0.86	0.34	51,51,51,51	0
55	MG	1B	226	1/1	0.86	0.20	68,68,68,68	0
55	MG	2A	3598	1/1	0.86	0.15	59,59,59,59	0
55	MG	1b	301	1/1	0.86	0.15	74,74,74,74	0
55	MG	2a	3148	1/1	0.86	0.39	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3982	1/1	0.86	0.11	26,26,26,26	0
55	MG	1A	3394	1/1	0.86	0.27	65,65,65,65	0
55	MG	2B	211	1/1	0.86	0.26	63,63,63,63	0
55	MG	2a	3160	1/1	0.86	0.09	81,81,81,81	0
55	MG	1A	3991	1/1	0.86	0.10	53,53,53,53	0
55	MG	2A	3625	1/1	0.86	0.11	41,41,41,41	0
55	MG	2a	3165	1/1	0.86	0.12	77,77,77,77	0
55	MG	2A	3630	1/1	0.86	0.38	54,54,54,54	0
55	MG	1A	3264	1/1	0.86	0.08	41,41,41,41	0
55	MG	2E	304	1/1	0.86	0.25	60,60,60,60	0
55	MG	1A	3165	1/1	0.86	0.17	51,51,51,51	0
55	MG	2A	3350	1/1	0.86	0.16	55,55,55,55	0
55	MG	1x	101	1/1	0.86	0.26	59,59,59,59	0
55	MG	1T	203	1/1	0.86	0.14	56,56,56,56	0
55	MG	2A	3660	1/1	0.86	0.19	54,54,54,54	0
55	MG	2a	3198	1/1	0.86	0.17	66,66,66,66	0
55	MG	1a	1741	1/1	0.86	0.26	58,58,58,58	0
55	MG	2A	3364	1/1	0.86	0.23	56,56,56,56	0
55	MG	2A	3192	1/1	0.86	0.22	70,70,70,70	0
55	MG	2A	3043	1/1	0.86	0.12	49,49,49,49	0
55	MG	2a	3012	1/1	0.86	0.15	63,63,63,63	0
55	MG	1A	3857	1/1	0.86	0.14	42,42,42,42	0
55	MG	1a	1654	1/1	0.86	0.13	42,42,42,42	0
55	MG	1A	3231	1/1	0.86	0.13	55,55,55,55	0
55	MG	2p	101	1/1	0.86	0.14	51,51,51,51	0
55	MG	1V	204	1/1	0.86	0.14	65,65,65,65	0
55	MG	2A	3380	1/1	0.86	0.18	74,74,74,74	0
55	MG	2A	3232	1/1	0.86	0.15	58,58,58,58	0
55	MG	1a	1663	1/1	0.86	0.10	65,65,65,65	0
55	MG	1A	3788	1/1	0.87	0.17	51,51,51,51	0
55	MG	1a	1679	1/1	0.87	0.18	64,64,64,64	0
55	MG	1A	3539	1/1	0.87	0.20	48,48,48,48	0
55	MG	28	101	1/1	0.87	0.16	63,63,63,63	0
55	MG	2A	3322	1/1	0.87	0.24	57,57,57,57	0
55	MG	2A	3150	1/1	0.87	0.21	66,66,66,66	0
55	MG	2a	3005	1/1	0.87	0.21	53,53,53,53	0
55	MG	2A	3327	1/1	0.87	0.30	53,53,53,53	0
55	MG	2A	3330	1/1	0.87	0.12	63,63,63,63	0
55	MG	1A	3810	1/1	0.87	0.10	52,52,52,52	0
55	MG	2A	3341	1/1	0.87	0.14	56,56,56,56	0
55	MG	2A	3157	1/1	0.87	0.12	60,60,60,60	0
55	MG	1A	3819	1/1	0.87	0.14	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	4008	1/1	0.87	0.16	25,25,25,25	0
55	MG	2a	3032	1/1	0.87	0.24	58,58,58,58	0
55	MG	2a	3034	1/1	0.87	0.27	56,56,56,56	0
55	MG	1A	4018	1/1	0.87	0.38	57,57,57,57	0
55	MG	1A	3298	1/1	0.87	0.20	42,42,42,42	0
55	MG	1n	101	1/1	0.87	0.49	78,78,78,78	0
55	MG	1A	3839	1/1	0.87	0.20	64,64,64,64	0
55	MG	2A	3362	1/1	0.87	0.13	57,57,57,57	0
55	MG	1A	3431	1/1	0.87	0.07	36,36,36,36	0
55	MG	2A	3183	1/1	0.87	0.21	53,53,53,53	0
55	MG	1A	3016	1/1	0.87	0.17	55,55,55,55	0
55	MG	1A	3241	1/1	0.87	0.12	42,42,42,42	0
55	MG	1A	3585	1/1	0.87	0.21	44,44,44,44	0
55	MG	2A	3376	1/1	0.87	0.20	60,60,60,60	0
55	MG	2A	3191	1/1	0.87	0.10	62,62,62,62	0
55	MG	2a	3087	1/1	0.87	0.25	61,61,61,61	0
55	MG	1x	107	1/1	0.87	0.18	66,66,66,66	0
55	MG	2A	3200	1/1	0.87	0.25	66,66,66,66	0
55	MG	2A	3382	1/1	0.87	0.14	66,66,66,66	0
55	MG	1a	1723	1/1	0.87	0.23	49,49,49,49	0
55	MG	2a	3098	1/1	0.87	0.25	62,62,62,62	0
55	MG	2A	3718	1/1	0.87	0.17	57,57,57,57	0
55	MG	2A	3202	1/1	0.87	0.13	55,55,55,55	0
55	MG	2A	3423	1/1	0.87	0.21	48,48,48,48	0
55	MG	1A	3592	1/1	0.87	0.17	50,50,50,50	0
55	MG	2A	3445	1/1	0.87	0.15	52,52,52,52	0
55	MG	2A	3036	1/1	0.87	0.10	49,49,49,49	0
55	MG	2A	3457	1/1	0.87	0.21	62,62,62,62	0
55	MG	2A	3039	1/1	0.87	0.13	49,49,49,49	0
55	MG	2A	3766	1/1	0.87	0.19	47,47,47,47	0
55	MG	2A	3768	1/1	0.87	0.15	58,58,58,58	0
55	MG	1A	3060	1/1	0.87	0.29	46,46,46,46	0
55	MG	1A	3329	1/1	0.87	0.24	58,58,58,58	0
55	MG	2A	3063	1/1	0.87	0.25	50,50,50,50	0
55	MG	1A	3256	1/1	0.87	0.16	37,37,37,37	0
55	MG	2A	3069	1/1	0.87	0.10	41,41,41,41	0
55	MG	2a	3143	1/1	0.87	0.27	56,56,56,56	0
55	MG	2A	3250	1/1	0.87	0.10	56,56,56,56	0
55	MG	1A	3081	1/1	0.87	0.11	57,57,57,57	0
55	MG	2A	3071	1/1	0.87	0.17	55,55,55,55	0
55	MG	1a	1650	1/1	0.87	0.24	69,69,69,69	0
55	MG	2a	3152	1/1	0.87	0.23	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3655	1/1	0.87	0.09	30,30,30,30	0
55	MG	2A	3841	1/1	0.87	0.10	57,57,57,57	0
55	MG	1A	3904	1/1	0.87	0.14	20,20,20,20	0
55	MG	1B	231	1/1	0.87	0.13	30,30,30,30	0
55	MG	2A	3505	1/1	0.87	0.18	48,48,48,48	0
55	MG	2A	3085	1/1	0.87	0.11	60,60,60,60	0
55	MG	2A	3520	1/1	0.87	0.12	44,44,44,44	0
55	MG	2A	3856	1/1	0.87	0.30	63,63,63,63	0
55	MG	1a	1770	1/1	0.87	0.13	65,65,65,65	0
55	MG	1A	3502	1/1	0.87	0.10	45,45,45,45	0
55	MG	2a	3177	1/1	0.87	0.10	64,64,64,64	0
55	MG	1a	1667	1/1	0.87	0.17	61,61,61,61	0
55	MG	2a	3185	1/1	0.87	0.12	58,58,58,58	0
55	MG	1A	3350	1/1	0.87	0.20	62,62,62,62	0
55	MG	2A	3550	1/1	0.87	0.20	37,37,37,37	0
55	MG	2a	3193	1/1	0.87	0.19	47,47,47,47	0
55	MG	1a	1786	1/1	0.87	0.18	74,74,74,74	0
55	MG	2A	3106	1/1	0.87	0.10	62,62,62,62	0
55	MG	1A	3376	1/1	0.87	0.10	39,39,39,39	0
55	MG	2A	3568	1/1	0.87	0.15	38,38,38,38	0
55	MG	1A	3737	1/1	0.87	0.11	23,23,23,23	0
55	MG	2A	3571	1/1	0.87	0.17	69,69,69,69	0
55	MG	1A	3282	1/1	0.87	0.24	58,58,58,58	0
55	MG	2A	3586	1/1	0.87	0.13	66,66,66,66	0
55	MG	2F	302	1/1	0.87	0.11	43,43,43,43	0
55	MG	1a	1795	1/1	0.87	0.13	79,79,79,79	0
55	MG	1A	3088	1/1	0.87	0.23	35,35,35,35	0
55	MG	1A	3776	1/1	0.87	0.10	60,60,60,60	0
55	MG	2A	3599	1/1	0.87	0.19	60,60,60,60	0
55	MG	2W	201	1/1	0.87	0.09	36,36,36,36	0
55	MG	2W	202	1/1	0.87	0.21	52,52,52,52	0
57	V7A	1a	1835	35/35	0.87	0.16	65,73,81,85	0
57	V7A	2a	3210	35/35	0.87	0.17	68,82,90,91	0
55	MG	1A	4084	1/1	0.88	0.13	43,43,43,43	0
55	MG	1A	4088	1/1	0.88	0.12	28,28,28,28	0
55	MG	2A	3333	1/1	0.88	0.20	58,58,58,58	0
55	MG	2A	3627	1/1	0.88	0.19	39,39,39,39	0
55	MG	1A	3170	1/1	0.88	0.16	47,47,47,47	0
55	MG	1A	3505	1/1	0.88	0.22	65,65,65,65	0
55	MG	1a	1657	1/1	0.88	0.26	56,56,56,56	0
55	MG	2a	3018	1/1	0.88	0.10	60,60,60,60	0
55	MG	2A	3152	1/1	0.88	0.18	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2a	3023	1/1	0.88	0.27	60,60,60,60	0
55	MG	1A	3877	1/1	0.88	0.18	40,40,40,40	0
55	MG	2A	3353	1/1	0.88	0.12	61,61,61,61	0
55	MG	1A	3262	1/1	0.88	0.09	54,54,54,54	0
55	MG	1a	1666	1/1	0.88	0.23	69,69,69,69	0
55	MG	2A	3162	1/1	0.88	0.29	66,66,66,66	0
55	MG	2A	3671	1/1	0.88	0.32	60,60,60,60	0
55	MG	1a	1825	1/1	0.88	0.19	58,58,58,58	0
55	MG	1A	3028	1/1	0.88	0.13	65,65,65,65	0
55	MG	1A	3708	1/1	0.88	0.16	25,25,25,25	0
55	MG	1A	3413	1/1	0.88	0.11	55,55,55,55	0
55	MG	2a	3047	1/1	0.88	0.37	67,67,67,67	0
55	MG	2A	3681	1/1	0.88	0.10	37,37,37,37	0
55	MG	2a	3049	1/1	0.88	0.21	67,67,67,67	0
55	MG	2A	3174	1/1	0.88	0.34	58,58,58,58	0
55	MG	1B	224	1/1	0.88	0.11	53,53,53,53	0
55	MG	2a	3056	1/1	0.88	0.21	47,47,47,47	0
55	MG	2a	3058	1/1	0.88	0.14	52,52,52,52	0
55	MG	1A	3735	1/1	0.88	0.12	58,58,58,58	0
55	MG	1A	3268	1/1	0.88	0.11	46,46,46,46	0
55	MG	1A	3915	1/1	0.88	0.11	25,25,25,25	0
55	MG	2a	3076	1/1	0.88	0.20	50,50,50,50	0
55	MG	1A	3434	1/1	0.88	0.21	51,51,51,51	0
55	MG	1A	3436	1/1	0.88	0.17	45,45,45,45	0
55	MG	1A	3445	1/1	0.88	0.24	51,51,51,51	0
55	MG	2A	3403	1/1	0.88	0.17	55,55,55,55	0
55	MG	1a	1684	1/1	0.88	0.22	49,49,49,49	0
55	MG	2A	3422	1/1	0.88	0.13	51,51,51,51	0
55	MG	1G	203	1/1	0.88	0.14	50,50,50,50	0
55	MG	2a	3093	1/1	0.88	0.14	51,51,51,51	0
55	MG	2A	3432	1/1	0.88	0.22	50,50,50,50	0
55	MG	2A	3729	1/1	0.88	0.27	51,51,51,51	0
55	MG	2a	3102	1/1	0.88	0.20	67,67,67,67	0
55	MG	2a	3103	1/1	0.88	0.22	54,54,54,54	0
55	MG	1O	202	1/1	0.88	0.13	56,56,56,56	0
55	MG	2A	3205	1/1	0.88	0.19	51,51,51,51	0
55	MG	2A	3738	1/1	0.88	0.10	50,50,50,50	0
55	MG	2A	3447	1/1	0.88	0.29	71,71,71,71	0
55	MG	2A	3448	1/1	0.88	0.14	49,49,49,49	0
55	MG	2A	3219	1/1	0.88	0.07	50,50,50,50	0
55	MG	1A	3096	1/1	0.88	0.18	60,60,60,60	0
55	MG	1A	3567	1/1	0.88	0.15	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3771	1/1	0.88	0.14	56,56,56,56	0
55	MG	2A	3003	1/1	0.88	0.20	50,50,50,50	0
55	MG	1A	3946	1/1	0.88	0.10	50,50,50,50	0
55	MG	2A	3231	1/1	0.88	0.17	65,65,65,65	0
55	MG	2a	3134	1/1	0.88	0.27	47,47,47,47	0
55	MG	2A	3467	1/1	0.88	0.35	64,64,64,64	0
55	MG	1A	3569	1/1	0.88	0.29	40,40,40,40	0
55	MG	2a	3140	1/1	0.88	0.41	59,59,59,59	0
55	MG	2a	3141	1/1	0.88	0.22	66,66,66,66	0
55	MG	2A	3793	1/1	0.88	0.13	49,49,49,49	0
55	MG	1V	203	1/1	0.88	0.14	47,47,47,47	0
55	MG	2A	3813	1/1	0.88	0.13	52,52,52,52	0
55	MG	2A	3044	1/1	0.88	0.26	66,66,66,66	0
55	MG	1A	3039	1/1	0.88	0.12	57,57,57,57	0
55	MG	1A	3984	1/1	0.88	0.19	53,53,53,53	0
55	MG	2a	3157	1/1	0.88	0.12	61,61,61,61	0
55	MG	1l	104	1/1	0.88	0.16	62,62,62,62	0
55	MG	1A	3288	1/1	0.88	0.13	40,40,40,40	0
55	MG	1A	3989	1/1	0.88	0.15	36,36,36,36	0
55	MG	1A	3589	1/1	0.88	0.15	28,28,28,28	0
55	MG	1a	1730	1/1	0.88	0.37	60,60,60,60	0
55	MG	1a	1731	1/1	0.88	0.25	63,63,63,63	0
55	MG	1A	3847	1/1	0.88	0.10	35,35,35,35	0
55	MG	2A	3855	1/1	0.88	0.15	52,52,52,52	0
55	MG	1a	1744	1/1	0.88	0.15	50,50,50,50	0
55	MG	2A	3860	1/1	0.88	0.10	43,43,43,43	0
55	MG	1a	1745	1/1	0.88	0.21	62,62,62,62	0
55	MG	2A	3086	1/1	0.88	0.25	66,66,66,66	0
55	MG	1A	3850	1/1	0.88	0.09	56,56,56,56	0
55	MG	1a	1749	1/1	0.88	0.14	56,56,56,56	0
55	MG	1A	3361	1/1	0.88	0.12	56,56,56,56	0
55	MG	2A	3552	1/1	0.88	0.17	38,38,38,38	0
55	MG	2A	3293	1/1	0.88	0.19	68,68,68,68	0
55	MG	2A	3558	1/1	0.88	0.12	36,36,36,36	0
55	MG	2a	3202	1/1	0.88	0.37	76,76,76,76	0
55	MG	1A	3489	1/1	0.88	0.31	40,40,40,40	0
55	MG	1A	3369	1/1	0.88	0.12	49,49,49,49	0
55	MG	2a	3207	1/1	0.88	0.21	53,53,53,53	0
55	MG	1A	3255	1/1	0.88	0.14	53,53,53,53	0
55	MG	2A	3107	1/1	0.88	0.11	74,74,74,74	0
55	MG	2A	3108	1/1	0.88	0.09	61,61,61,61	0
55	MG	1A	4041	1/1	0.88	0.09	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	4045	1/1	0.88	0.09	49,49,49,49	0
55	MG	1A	4050	1/1	0.88	0.31	70,70,70,70	0
55	MG	2N	201	1/1	0.88	0.29	62,62,62,62	0
55	MG	2q	201	1/1	0.88	0.21	67,67,67,67	0
55	MG	1A	4061	1/1	0.88	0.16	62,62,62,62	0
55	MG	2A	3131	1/1	0.88	0.07	64,64,64,64	0
55	MG	1A	4076	1/1	0.88	0.10	61,61,61,61	0
55	MG	2A	3606	1/1	0.88	0.23	39,39,39,39	0
55	MG	2A	3607	1/1	0.88	0.22	49,49,49,49	0
55	MG	1A	4081	1/1	0.88	0.15	43,43,43,43	0
55	MG	2A	3617	1/1	0.89	0.10	23,23,23,23	0
55	MG	1x	105	1/1	0.89	0.24	65,65,65,65	0
55	MG	2A	3347	1/1	0.89	0.10	46,46,46,46	0
55	MG	1A	3897	1/1	0.89	0.25	28,28,28,28	0
55	MG	1A	4062	1/1	0.89	0.08	37,37,37,37	0
55	MG	1x	111	1/1	0.89	0.17	65,65,65,65	0
55	MG	2A	3172	1/1	0.89	0.23	41,41,41,41	0
55	MG	2a	3019	1/1	0.89	0.25	60,60,60,60	0
55	MG	1A	3419	1/1	0.89	0.10	46,46,46,46	0
55	MG	2A	3648	1/1	0.89	0.16	55,55,55,55	0
55	MG	1A	3785	1/1	0.89	0.15	46,46,46,46	0
55	MG	2A	3005	1/1	0.89	0.11	38,38,38,38	0
55	MG	2A	3659	1/1	0.89	0.36	44,44,44,44	0
55	MG	2A	3020	1/1	0.89	0.15	54,54,54,54	0
55	MG	2A	3021	1/1	0.89	0.13	40,40,40,40	0
55	MG	2A	3025	1/1	0.89	0.15	56,56,56,56	0
55	MG	2a	3035	1/1	0.89	0.13	63,63,63,63	0
55	MG	2A	3372	1/1	0.89	0.25	59,59,59,59	0
55	MG	1A	3601	1/1	0.89	0.13	56,56,56,56	0
55	MG	1A	3481	1/1	0.89	0.14	56,56,56,56	0
55	MG	2a	3043	1/1	0.89	0.13	60,60,60,60	0
55	MG	2A	3199	1/1	0.89	0.09	52,52,52,52	0
55	MG	2a	3046	1/1	0.89	0.08	56,56,56,56	0
55	MG	1a	1624	1/1	0.89	0.10	59,59,59,59	0
55	MG	1A	3808	1/1	0.89	0.15	40,40,40,40	0
55	MG	1A	3919	1/1	0.89	0.09	33,33,33,33	0
55	MG	1A	4105	1/1	0.89	0.11	53,53,53,53	0
55	MG	2A	3215	1/1	0.89	0.16	69,69,69,69	0
55	MG	2A	3218	1/1	0.89	0.24	49,49,49,49	0
55	MG	2A	3405	1/1	0.89	0.24	57,57,57,57	0
55	MG	2A	3406	1/1	0.89	0.24	45,45,45,45	0
55	MG	2A	3066	1/1	0.89	0.15	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3418	1/1	0.89	0.16	56,56,56,56	0
55	MG	1A	3922	1/1	0.89	0.11	38,38,38,38	0
55	MG	2a	3079	1/1	0.89	0.40	61,61,61,61	0
55	MG	1A	3609	1/1	0.89	0.15	27,27,27,27	0
55	MG	2A	3425	1/1	0.89	0.19	43,43,43,43	0
55	MG	2A	3427	1/1	0.89	0.36	54,54,54,54	0
55	MG	2A	3721	1/1	0.89	0.16	48,48,48,48	0
55	MG	1A	3818	1/1	0.89	0.14	40,40,40,40	0
55	MG	1A	3486	1/1	0.89	0.15	56,56,56,56	0
55	MG	2A	3076	1/1	0.89	0.11	75,75,75,75	0
55	MG	2A	3732	1/1	0.89	0.14	44,44,44,44	0
55	MG	2A	3734	1/1	0.89	0.17	42,42,42,42	0
55	MG	1B	209	1/1	0.89	0.25	53,53,53,53	0
55	MG	1B	214	1/1	0.89	0.22	51,51,51,51	0
55	MG	2A	3081	1/1	0.89	0.22	69,69,69,69	0
55	MG	1A	3932	1/1	0.89	0.35	38,38,38,38	0
55	MG	2a	3107	1/1	0.89	0.24	65,65,65,65	0
55	MG	2A	3743	1/1	0.89	0.17	69,69,69,69	0
55	MG	2A	3754	1/1	0.89	0.27	48,48,48,48	0
55	MG	2A	3758	1/1	0.89	0.12	53,53,53,53	0
55	MG	2A	3459	1/1	0.89	0.43	52,52,52,52	0
55	MG	1A	3524	1/1	0.89	0.26	59,59,59,59	0
55	MG	1A	3644	1/1	0.89	0.14	21,21,21,21	0
55	MG	1A	3842	1/1	0.89	0.43	35,35,35,35	0
55	MG	2A	3254	1/1	0.89	0.16	49,49,49,49	0
55	MG	2A	3255	1/1	0.89	0.17	61,61,61,61	0
55	MG	1A	3371	1/1	0.89	0.14	40,40,40,40	0
55	MG	1A	3185	1/1	0.89	0.22	50,50,50,50	0
55	MG	1A	3492	1/1	0.89	0.10	47,47,47,47	0
55	MG	2A	3265	1/1	0.89	0.19	56,56,56,56	0
55	MG	1A	3852	1/1	0.89	0.08	39,39,39,39	0
55	MG	2A	3807	1/1	0.89	0.12	36,36,36,36	0
55	MG	2A	3268	1/1	0.89	0.12	68,68,68,68	0
55	MG	2a	3142	1/1	0.89	0.19	54,54,54,54	0
55	MG	2A	3816	1/1	0.89	0.26	54,54,54,54	0
55	MG	2A	3269	1/1	0.89	0.11	55,55,55,55	0
55	MG	2A	3494	1/1	0.89	0.15	64,64,64,64	0
55	MG	2A	3496	1/1	0.89	0.10	53,53,53,53	0
55	MG	2a	3149	1/1	0.89	0.10	59,59,59,59	0
55	MG	1F	310	1/1	0.89	0.21	46,46,46,46	0
55	MG	1A	3493	1/1	0.89	0.15	45,45,45,45	0
55	MG	2A	3275	1/1	0.89	0.10	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3513	1/1	0.89	0.12	43,43,43,43	0
55	MG	2A	3276	1/1	0.89	0.26	60,60,60,60	0
55	MG	1a	1804	1/1	0.89	0.14	49,49,49,49	0
55	MG	1a	1806	1/1	0.89	0.14	43,43,43,43	0
55	MG	1A	3027	1/1	0.89	0.26	55,55,55,55	0
55	MG	1A	3496	1/1	0.89	0.16	59,59,59,59	0
55	MG	2A	3858	1/1	0.89	0.13	68,68,68,68	0
55	MG	2A	3859	1/1	0.89	0.20	53,53,53,53	0
55	MG	1A	3862	1/1	0.89	0.11	52,52,52,52	0
55	MG	2A	3548	1/1	0.89	0.12	39,39,39,39	0
55	MG	2A	3291	1/1	0.89	0.21	47,47,47,47	0
55	MG	2a	3179	1/1	0.89	0.19	54,54,54,54	0
55	MG	1A	4012	1/1	0.89	0.18	47,47,47,47	0
55	MG	2a	3183	1/1	0.89	0.15	53,53,53,53	0
55	MG	1A	3497	1/1	0.89	0.11	31,31,31,31	0
55	MG	1A	4019	1/1	0.89	0.11	28,28,28,28	0
55	MG	1a	1692	1/1	0.89	0.16	55,55,55,55	0
55	MG	1a	1698	1/1	0.89	0.20	51,51,51,51	0
55	MG	1A	3002	1/1	0.89	0.11	49,49,49,49	0
55	MG	2A	3145	1/1	0.89	0.31	51,51,51,51	0
55	MG	2A	3146	1/1	0.89	0.18	42,42,42,42	0
55	MG	1Y	201	1/1	0.89	0.08	48,48,48,48	0
55	MG	2A	3148	1/1	0.89	0.07	48,48,48,48	0
55	MG	2E	301	1/1	0.89	0.20	55,55,55,55	0
55	MG	2A	3321	1/1	0.89	0.06	70,70,70,70	0
55	MG	2F	301	1/1	0.89	0.12	49,49,49,49	0
55	MG	2A	3149	1/1	0.89	0.12	61,61,61,61	0
55	MG	2e	201	1/1	0.89	0.07	80,80,80,80	0
55	MG	1l	202	1/1	0.89	0.18	61,61,61,61	0
55	MG	1A	3180	1/1	0.89	0.15	49,49,49,49	0
55	MG	1A	3290	1/1	0.89	0.25	48,48,48,48	0
55	MG	1A	3883	1/1	0.89	0.21	30,30,30,30	0
55	MG	2T	202	1/1	0.89	0.18	59,59,59,59	0
55	MG	1A	3892	1/1	0.89	0.14	36,36,36,36	0
55	MG	2A	3609	1/1	0.89	0.22	33,33,33,33	0
55	MG	2A	3610	1/1	0.89	0.17	59,59,59,59	0
55	MG	1A	3764	1/1	0.89	0.09	45,45,45,45	0
55	MG	2x	105	1/1	0.89	0.24	67,67,67,67	0
55	MG	2A	3613	1/1	0.89	0.11	40,40,40,40	0
55	MG	1A	4058	1/1	0.89	0.13	38,38,38,38	0
55	MG	1A	3466	1/1	0.90	0.09	50,50,50,50	0
55	MG	1a	1820	1/1	0.90	0.20	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3611	1/1	0.90	0.10	47,47,47,47	0
55	MG	2A	3334	1/1	0.90	0.19	64,64,64,64	0
55	MG	2A	3338	1/1	0.90	0.07	52,52,52,52	0
55	MG	28	102	1/1	0.90	0.41	59,59,59,59	0
55	MG	2A	3614	1/1	0.90	0.23	44,44,44,44	0
55	MG	1a	1824	1/1	0.90	0.15	64,64,64,64	0
55	MG	1A	3476	1/1	0.90	0.10	45,45,45,45	0
55	MG	2a	3006	1/1	0.90	0.21	57,57,57,57	0
55	MG	2A	3344	1/1	0.90	0.24	45,45,45,45	0
55	MG	2a	3013	1/1	0.90	0.17	56,56,56,56	0
55	MG	2a	3015	1/1	0.90	0.19	55,55,55,55	0
55	MG	1a	1826	1/1	0.90	0.23	45,45,45,45	0
55	MG	2A	3156	1/1	0.90	0.12	58,58,58,58	0
55	MG	2A	3628	1/1	0.90	0.16	33,33,33,33	0
55	MG	1a	1827	1/1	0.90	0.20	48,48,48,48	0
55	MG	1a	1828	1/1	0.90	0.09	50,50,50,50	0
55	MG	1A	3740	1/1	0.90	0.10	34,34,34,34	0
55	MG	2a	3025	1/1	0.90	0.21	55,55,55,55	0
55	MG	2a	3027	1/1	0.90	0.29	50,50,50,50	0
55	MG	1A	3326	1/1	0.90	0.16	40,40,40,40	0
55	MG	1A	3516	1/1	0.90	0.17	69,69,69,69	0
55	MG	2A	3650	1/1	0.90	0.10	56,56,56,56	0
55	MG	2A	3360	1/1	0.90	0.20	56,56,56,56	0
55	MG	1a	1833	1/1	0.90	0.16	61,61,61,61	0
55	MG	1E	306	1/1	0.90	0.14	22,22,22,22	0
55	MG	1a	1675	1/1	0.90	0.25	57,57,57,57	0
55	MG	1A	4011	1/1	0.90	0.12	57,57,57,57	0
55	MG	2A	3173	1/1	0.90	0.13	44,44,44,44	0
55	MG	2A	3670	1/1	0.90	0.20	49,49,49,49	0
55	MG	1A	3748	1/1	0.90	0.18	45,45,45,45	0
55	MG	1G	204	1/1	0.90	0.11	50,50,50,50	0
55	MG	1O	201	1/1	0.90	0.31	45,45,45,45	0
55	MG	1A	4015	1/1	0.90	0.13	39,39,39,39	0
55	MG	1a	1683	1/1	0.90	0.22	46,46,46,46	0
55	MG	1A	3762	1/1	0.90	0.10	54,54,54,54	0
55	MG	2A	3682	1/1	0.90	0.14	59,59,59,59	0
55	MG	2A	3683	1/1	0.90	0.08	79,79,79,79	0
55	MG	1Q	203	1/1	0.90	0.09	55,55,55,55	0
55	MG	2a	3060	1/1	0.90	0.31	63,63,63,63	0
55	MG	1T	202	1/1	0.90	0.07	44,44,44,44	0
55	MG	1A	3878	1/1	0.90	0.16	57,57,57,57	0
55	MG	2a	3064	1/1	0.90	0.16	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2a	3066	1/1	0.90	0.14	61,61,61,61	0
55	MG	2A	3392	1/1	0.90	0.21	31,31,31,31	0
55	MG	2a	3075	1/1	0.90	0.12	59,59,59,59	0
55	MG	2A	3402	1/1	0.90	0.24	47,47,47,47	0
55	MG	1a	1701	1/1	0.90	0.17	54,54,54,54	0
55	MG	1A	3602	1/1	0.90	0.14	39,39,39,39	0
55	MG	1A	3775	1/1	0.90	0.09	19,19,19,19	0
55	MG	2A	3412	1/1	0.90	0.22	55,55,55,55	0
55	MG	2A	3002	1/1	0.90	0.17	53,53,53,53	0
55	MG	2a	3089	1/1	0.90	0.14	59,59,59,59	0
55	MG	1A	4029	1/1	0.90	0.07	42,42,42,42	0
55	MG	2A	3719	1/1	0.90	0.16	70,70,70,70	0
55	MG	1A	3890	1/1	0.90	0.11	52,52,52,52	0
55	MG	2A	3013	1/1	0.90	0.13	51,51,51,51	0
55	MG	2a	3096	1/1	0.90	0.07	44,44,44,44	0
55	MG	1a	1710	1/1	0.90	0.06	53,53,53,53	0
55	MG	2a	3099	1/1	0.90	0.19	66,66,66,66	0
55	MG	1A	3519	1/1	0.90	0.09	48,48,48,48	0
55	MG	2A	3228	1/1	0.90	0.09	58,58,58,58	0
55	MG	2A	3023	1/1	0.90	0.10	49,49,49,49	0
55	MG	1A	3182	1/1	0.90	0.07	38,38,38,38	0
55	MG	1a	1716	1/1	0.90	0.28	56,56,56,56	0
55	MG	2A	3737	1/1	0.90	0.19	50,50,50,50	0
55	MG	1A	3095	1/1	0.90	0.20	51,51,51,51	0
55	MG	1A	3796	1/1	0.90	0.10	34,34,34,34	0
55	MG	17	101	1/1	0.90	0.21	54,54,54,54	0
55	MG	2A	3045	1/1	0.90	0.17	57,57,57,57	0
55	MG	1A	3800	1/1	0.90	0.10	22,22,22,22	0
55	MG	1a	1724	1/1	0.90	0.18	49,49,49,49	0
55	MG	2A	3463	1/1	0.90	0.22	25,25,25,25	0
55	MG	1A	3084	1/1	0.90	0.21	33,33,33,33	0
55	MG	2A	3067	1/1	0.90	0.13	53,53,53,53	0
55	MG	1A	3109	1/1	0.90	0.22	50,50,50,50	0
55	MG	2A	3468	1/1	0.90	0.35	51,51,51,51	0
55	MG	2A	3775	1/1	0.90	0.16	74,74,74,74	0
55	MG	2a	3137	1/1	0.90	0.17	58,58,58,58	0
55	MG	1A	4079	1/1	0.90	0.20	61,61,61,61	0
55	MG	1A	3914	1/1	0.90	0.12	35,35,35,35	0
55	MG	1a	1740	1/1	0.90	0.32	42,42,42,42	0
55	MG	2A	3783	1/1	0.90	0.09	72,72,72,72	0
55	MG	2A	3264	1/1	0.90	0.31	55,55,55,55	0
55	MG	1A	3292	1/1	0.90	0.24	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3801	1/1	0.90	0.14	51,51,51,51	0
55	MG	2A	3488	1/1	0.90	0.20	73,73,73,73	0
55	MG	1A	3367	1/1	0.90	0.13	34,34,34,34	0
55	MG	1A	4089	1/1	0.90	0.26	39,39,39,39	0
55	MG	1a	1619	1/1	0.90	0.10	70,70,70,70	0
55	MG	2a	3154	1/1	0.90	0.19	47,47,47,47	0
55	MG	1A	3662	1/1	0.90	0.10	42,42,42,42	0
55	MG	2A	3826	1/1	0.90	0.14	72,72,72,72	0
55	MG	1A	4102	1/1	0.90	0.09	38,38,38,38	0
55	MG	1a	1625	1/1	0.90	0.13	58,58,58,58	0
55	MG	2A	3834	1/1	0.90	0.10	29,29,29,29	0
55	MG	1a	1758	1/1	0.90	0.12	51,51,51,51	0
55	MG	1A	3668	1/1	0.90	0.11	49,49,49,49	0
55	MG	2a	3167	1/1	0.90	0.11	50,50,50,50	0
55	MG	2A	3282	1/1	0.90	0.12	72,72,72,72	0
55	MG	2A	3283	1/1	0.90	0.39	54,54,54,54	0
55	MG	1A	3833	1/1	0.90	0.14	52,52,52,52	0
55	MG	1a	1766	1/1	0.90	0.19	49,49,49,49	0
55	MG	1A	3221	1/1	0.90	0.18	54,54,54,54	0
55	MG	2A	3537	1/1	0.90	0.28	54,54,54,54	0
55	MG	1a	1641	1/1	0.90	0.21	60,60,60,60	0
55	MG	2A	3541	1/1	0.90	0.13	40,40,40,40	0
55	MG	2A	3543	1/1	0.90	0.11	35,35,35,35	0
55	MG	2a	3188	1/1	0.90	0.26	60,60,60,60	0
55	MG	2A	3545	1/1	0.90	0.16	45,45,45,45	0
55	MG	2A	3099	1/1	0.90	0.13	54,54,54,54	0
55	MG	2A	3292	1/1	0.90	0.12	45,45,45,45	0
55	MG	1A	3117	1/1	0.90	0.17	31,31,31,31	0
55	MG	1A	3844	1/1	0.90	0.07	45,45,45,45	0
55	MG	2a	3199	1/1	0.90	0.30	69,69,69,69	0
55	MG	1A	3703	1/1	0.90	0.11	41,41,41,41	0
55	MG	1a	1645	1/1	0.90	0.18	70,70,70,70	0
55	MG	1a	1649	1/1	0.90	0.30	61,61,61,61	0
55	MG	2A	3567	1/1	0.90	0.18	38,38,38,38	0
55	MG	1A	3229	1/1	0.90	0.09	51,51,51,51	0
55	MG	2A	3312	1/1	0.90	0.09	51,51,51,51	0
55	MG	1B	210	1/1	0.90	0.18	50,50,50,50	0
55	MG	2A	3581	1/1	0.90	0.13	55,55,55,55	0
55	MG	2g	201	1/1	0.90	0.08	73,73,73,73	0
55	MG	1A	3715	1/1	0.90	0.11	40,40,40,40	0
55	MG	1A	3949	1/1	0.90	0.14	56,56,56,56	0
55	MG	1a	1658	1/1	0.90	0.23	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3024	1/1	0.90	0.12	23,23,23,23	0
55	MG	1A	3854	1/1	0.90	0.11	33,33,33,33	0
55	MG	1a	1808	1/1	0.90	0.11	67,67,67,67	0
55	MG	2A	3601	1/1	0.90	0.09	57,57,57,57	0
55	MG	2O	201	1/1	0.90	0.22	56,56,56,56	0
55	MG	2x	102	1/1	0.90	0.16	73,73,73,73	0
55	MG	2A	3602	1/1	0.90	0.10	65,65,65,65	0
55	MG	1a	1812	1/1	0.90	0.15	71,71,71,71	0
55	MG	1a	1664	1/1	0.90	0.18	68,68,68,68	0
55	MG	2A	3331	1/1	0.90	0.26	64,64,64,64	0
55	MG	1A	3579	1/1	0.91	0.17	45,45,45,45	0
55	MG	1A	3583	1/1	0.91	0.17	36,36,36,36	0
55	MG	2V	201	1/1	0.91	0.38	62,62,62,62	0
55	MG	1a	1606	1/1	0.91	0.11	49,49,49,49	0
55	MG	1a	1607	1/1	0.91	0.08	75,75,75,75	0
55	MG	1a	1784	1/1	0.91	0.19	58,58,58,58	0
55	MG	1A	3234	1/1	0.91	0.14	29,29,29,29	0
55	MG	2A	3339	1/1	0.91	0.27	60,60,60,60	0
55	MG	1a	1611	1/1	0.91	0.07	43,43,43,43	0
55	MG	1A	4016	1/1	0.91	0.13	22,22,22,22	0
55	MG	1A	3286	1/1	0.91	0.18	40,40,40,40	0
55	MG	1a	1794	1/1	0.91	0.08	50,50,50,50	0
55	MG	1A	3590	1/1	0.91	0.07	31,31,31,31	0
55	MG	1A	3834	1/1	0.91	0.16	33,33,33,33	0
55	MG	2a	3007	1/1	0.91	0.26	59,59,59,59	0
55	MG	2a	3008	1/1	0.91	0.13	62,62,62,62	0
55	MG	2A	3349	1/1	0.91	0.08	45,45,45,45	0
55	MG	1A	3482	1/1	0.91	0.11	50,50,50,50	0
55	MG	2A	3632	1/1	0.91	0.11	53,53,53,53	0
55	MG	2A	3638	1/1	0.91	0.19	53,53,53,53	0
55	MG	2A	3639	1/1	0.91	0.15	67,67,67,67	0
55	MG	2A	3352	1/1	0.91	0.23	43,43,43,43	0
55	MG	1A	3596	1/1	0.91	0.18	43,43,43,43	0
55	MG	1A	4034	1/1	0.91	0.20	57,57,57,57	0
55	MG	2A	3357	1/1	0.91	0.07	44,44,44,44	0
55	MG	1a	1626	1/1	0.91	0.10	48,48,48,48	0
55	MG	1A	3103	1/1	0.91	0.29	58,58,58,58	0
55	MG	1A	4040	1/1	0.91	0.09	57,57,57,57	0
55	MG	1A	3487	1/1	0.91	0.11	44,44,44,44	0
55	MG	1A	3190	1/1	0.91	0.73	34,34,34,34	0
55	MG	2a	3031	1/1	0.91	0.17	51,51,51,51	0
55	MG	2A	3662	1/1	0.91	0.12	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1a	1821	1/1	0.91	0.11	53,53,53,53	0
55	MG	1A	3208	1/1	0.91	0.14	64,64,64,64	0
55	MG	2A	3371	1/1	0.91	0.16	68,68,68,68	0
55	MG	1A	3610	1/1	0.91	0.15	44,44,44,44	0
55	MG	1A	3853	1/1	0.91	0.12	30,30,30,30	0
55	MG	1A	3380	1/1	0.91	0.21	38,38,38,38	0
55	MG	1A	4072	1/1	0.91	0.09	47,47,47,47	0
55	MG	1A	3250	1/1	0.91	0.10	40,40,40,40	0
55	MG	1a	1830	1/1	0.91	0.14	59,59,59,59	0
55	MG	2A	3179	1/1	0.91	0.14	56,56,56,56	0
55	MG	2A	3182	1/1	0.91	0.11	63,63,63,63	0
55	MG	1A	3627	1/1	0.91	0.16	41,41,41,41	0
55	MG	2a	3051	1/1	0.91	0.16	45,45,45,45	0
55	MG	2A	3391	1/1	0.91	0.21	45,45,45,45	0
55	MG	1A	3634	1/1	0.91	0.36	55,55,55,55	0
55	MG	2a	3057	1/1	0.91	0.23	45,45,45,45	0
55	MG	2A	3697	1/1	0.91	0.14	57,57,57,57	0
55	MG	1A	3641	1/1	0.91	0.11	23,23,23,23	0
55	MG	1A	3870	1/1	0.91	0.14	46,46,46,46	0
55	MG	2A	3706	1/1	0.91	0.10	39,39,39,39	0
55	MG	1A	3253	1/1	0.91	0.19	55,55,55,55	0
55	MG	1e	201	1/1	0.91	0.09	71,71,71,71	0
55	MG	2a	3067	1/1	0.91	0.27	58,58,58,58	0
55	MG	2a	3068	1/1	0.91	0.22	50,50,50,50	0
55	MG	2A	3711	1/1	0.91	0.14	39,39,39,39	0
55	MG	2a	3070	1/1	0.91	0.13	63,63,63,63	0
55	MG	2A	3193	1/1	0.91	0.45	54,54,54,54	0
55	MG	2A	3197	1/1	0.91	0.20	54,54,54,54	0
55	MG	1A	3388	1/1	0.91	0.16	28,28,28,28	0
55	MG	2a	3081	1/1	0.91	0.13	75,75,75,75	0
55	MG	1A	4101	1/1	0.91	0.15	61,61,61,61	0
55	MG	1A	3154	1/1	0.91	0.05	34,34,34,34	0
55	MG	2a	3086	1/1	0.91	0.13	56,56,56,56	0
55	MG	1A	3657	1/1	0.91	0.16	36,36,36,36	0
55	MG	2A	3426	1/1	0.91	0.21	56,56,56,56	0
55	MG	2A	3722	1/1	0.91	0.12	72,72,72,72	0
55	MG	1A	3408	1/1	0.91	0.25	45,45,45,45	0
55	MG	1A	3411	1/1	0.91	0.15	43,43,43,43	0
55	MG	1A	4108	1/1	0.91	0.19	53,53,53,53	0
55	MG	2A	3442	1/1	0.91	0.12	51,51,51,51	0
55	MG	2a	3094	1/1	0.91	0.19	63,63,63,63	0
55	MG	1A	3679	1/1	0.91	0.12	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3062	1/1	0.91	0.11	43,43,43,43	0
55	MG	1A	3310	1/1	0.91	0.23	60,60,60,60	0
55	MG	2A	3453	1/1	0.91	0.21	66,66,66,66	0
55	MG	1A	3511	1/1	0.91	0.10	48,48,48,48	0
55	MG	1A	3428	1/1	0.91	0.09	41,41,41,41	0
55	MG	2A	3742	1/1	0.91	0.17	59,59,59,59	0
55	MG	1A	3323	1/1	0.91	0.14	52,52,52,52	0
55	MG	2A	3748	1/1	0.91	0.10	50,50,50,50	0
55	MG	2A	3751	1/1	0.91	0.07	50,50,50,50	0
55	MG	2A	3001	1/1	0.91	0.20	48,48,48,48	0
55	MG	1B	220	1/1	0.91	0.09	40,40,40,40	0
55	MG	1A	3903	1/1	0.91	0.19	54,54,54,54	0
55	MG	2A	3761	1/1	0.91	0.12	49,49,49,49	0
55	MG	2A	3765	1/1	0.91	0.12	72,72,72,72	0
55	MG	2A	3236	1/1	0.91	0.12	51,51,51,51	0
55	MG	2A	3237	1/1	0.91	0.26	50,50,50,50	0
55	MG	1A	3517	1/1	0.91	0.08	50,50,50,50	0
55	MG	2A	3012	1/1	0.91	0.14	36,36,36,36	0
55	MG	2A	3248	1/1	0.91	0.27	58,58,58,58	0
55	MG	1A	3907	1/1	0.91	0.12	28,28,28,28	0
55	MG	2a	3136	1/1	0.91	0.41	59,59,59,59	0
55	MG	2A	3478	1/1	0.91	0.22	30,30,30,30	0
55	MG	2A	3779	1/1	0.91	0.19	73,73,73,73	0
55	MG	1A	3723	1/1	0.91	0.12	14,14,14,14	0
55	MG	1A	3518	1/1	0.91	0.09	50,50,50,50	0
55	MG	1A	3110	1/1	0.91	0.53	35,35,35,35	0
55	MG	1A	3435	1/1	0.91	0.09	47,47,47,47	0
55	MG	2a	3144	1/1	0.91	0.20	57,57,57,57	0
55	MG	2A	3489	1/1	0.91	0.12	49,49,49,49	0
55	MG	1A	3055	1/1	0.91	0.28	47,47,47,47	0
55	MG	1E	301	1/1	0.91	0.18	45,45,45,45	0
55	MG	2A	3041	1/1	0.91	0.25	55,55,55,55	0
55	MG	1E	302	1/1	0.91	0.19	26,26,26,26	0
55	MG	1A	3338	1/1	0.91	0.20	46,46,46,46	0
55	MG	2A	3824	1/1	0.91	0.13	54,54,54,54	0
55	MG	1A	3745	1/1	0.91	0.14	48,48,48,48	0
55	MG	1G	201	1/1	0.91	0.22	39,39,39,39	0
55	MG	2A	3058	1/1	0.91	0.16	41,41,41,41	0
55	MG	2A	3831	1/1	0.91	0.09	51,51,51,51	0
55	MG	2A	3832	1/1	0.91	0.17	65,65,65,65	0
55	MG	2A	3833	1/1	0.91	0.12	57,57,57,57	0
55	MG	1A	3747	1/1	0.91	0.07	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3517	1/1	0.91	0.12	65,65,65,65	0
55	MG	1A	3529	1/1	0.91	0.21	42,42,42,42	0
55	MG	1A	3937	1/1	0.91	0.15	33,33,33,33	0
55	MG	1A	3532	1/1	0.91	0.17	33,33,33,33	0
55	MG	1a	1722	1/1	0.91	0.17	66,66,66,66	0
55	MG	1A	3537	1/1	0.91	0.17	44,44,44,44	0
55	MG	1A	3767	1/1	0.91	0.07	43,43,43,43	0
55	MG	1A	3768	1/1	0.91	0.13	36,36,36,36	0
55	MG	1A	3448	1/1	0.91	0.14	40,40,40,40	0
55	MG	1A	3950	1/1	0.91	0.07	51,51,51,51	0
55	MG	2A	3547	1/1	0.91	0.15	59,59,59,59	0
55	MG	1A	3449	1/1	0.91	0.14	58,58,58,58	0
55	MG	1A	3047	1/1	0.91	0.19	43,43,43,43	0
55	MG	2a	3192	1/1	0.91	0.23	55,55,55,55	0
55	MG	1A	3270	1/1	0.91	0.17	43,43,43,43	0
55	MG	1a	1742	1/1	0.91	0.28	35,35,35,35	0
55	MG	2A	3553	1/1	0.91	0.16	42,42,42,42	0
55	MG	1A	3564	1/1	0.91	0.12	31,31,31,31	0
55	MG	2A	3087	1/1	0.91	0.10	45,45,45,45	0
55	MG	2a	3204	1/1	0.91	0.16	55,55,55,55	0
55	MG	1A	3349	1/1	0.91	0.12	42,42,42,42	0
55	MG	1A	3129	1/1	0.91	0.13	39,39,39,39	0
55	MG	2A	3301	1/1	0.91	0.12	62,62,62,62	0
55	MG	2A	3303	1/1	0.91	0.10	60,60,60,60	0
55	MG	2B	215	1/1	0.91	0.15	47,47,47,47	0
55	MG	13	102	1/1	0.91	0.17	41,41,41,41	0
55	MG	2B	219	1/1	0.91	0.27	60,60,60,60	0
55	MG	2f	201	1/1	0.91	0.15	55,55,55,55	0
55	MG	15	101	1/1	0.91	0.15	34,34,34,34	0
55	MG	1A	3999	1/1	0.91	0.14	64,64,64,64	0
55	MG	2E	303	1/1	0.91	0.15	50,50,50,50	0
55	MG	1A	4005	1/1	0.91	0.10	34,34,34,34	0
55	MG	2l	201	1/1	0.91	0.28	76,76,76,76	0
55	MG	17	104	1/1	0.91	0.11	45,45,45,45	0
55	MG	1a	1764	1/1	0.91	0.19	39,39,39,39	0
55	MG	1A	3470	1/1	0.91	0.10	46,46,46,46	0
55	MG	19	101	1/1	0.91	0.15	43,43,43,43	0
55	MG	2A	3114	1/1	0.91	0.08	46,46,46,46	0
55	MG	2A	3325	1/1	0.91	0.09	44,44,44,44	0
55	MG	2Q	201	1/1	0.91	0.16	57,57,57,57	0
55	MG	2Q	202	1/1	0.91	0.28	56,56,56,56	0
55	MG	2R	201	1/1	0.91	0.12	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	4009	1/1	0.91	0.19	30,30,30,30	0
55	MG	2A	3006	1/1	0.92	0.07	56,56,56,56	0
55	MG	2D	302	1/1	0.92	0.24	42,42,42,42	0
55	MG	2A	3267	1/1	0.92	0.11	66,66,66,66	0
55	MG	2A	3008	1/1	0.92	0.12	46,46,46,46	0
55	MG	1B	201	1/1	0.92	0.14	50,50,50,50	0
55	MG	1A	3418	1/1	0.92	0.17	58,58,58,58	0
55	MG	2E	307	1/1	0.92	0.11	56,56,56,56	0
55	MG	2E	309	1/1	0.92	0.07	38,38,38,38	0
55	MG	2A	3272	1/1	0.92	0.21	57,57,57,57	0
55	MG	2A	3273	1/1	0.92	0.07	50,50,50,50	0
55	MG	1A	3736	1/1	0.92	0.10	17,17,17,17	0
55	MG	1A	3520	1/1	0.92	0.23	58,58,58,58	0
55	MG	1A	3917	1/1	0.92	0.08	43,43,43,43	0
55	MG	2A	3562	1/1	0.92	0.17	57,57,57,57	0
55	MG	2A	3277	1/1	0.92	0.21	50,50,50,50	0
55	MG	1A	3522	1/1	0.92	0.37	43,43,43,43	0
55	MG	1A	3127	1/1	0.92	0.20	34,34,34,34	0
55	MG	1A	3423	1/1	0.92	0.17	43,43,43,43	0
55	MG	1A	3525	1/1	0.92	0.23	35,35,35,35	0
55	MG	1a	1693	1/1	0.92	0.25	59,59,59,59	0
55	MG	2U	202	1/1	0.92	0.22	30,30,30,30	0
55	MG	1A	3426	1/1	0.92	0.09	50,50,50,50	0
55	MG	2V	202	1/1	0.92	0.42	53,53,53,53	0
55	MG	2A	3585	1/1	0.92	0.17	34,34,34,34	0
55	MG	1a	1699	1/1	0.92	0.28	48,48,48,48	0
55	MG	2A	3589	1/1	0.92	0.10	44,44,44,44	0
55	MG	2Z	301	1/1	0.92	0.19	67,67,67,67	0
55	MG	2A	3594	1/1	0.92	0.16	49,49,49,49	0
55	MG	1A	3427	1/1	0.92	0.10	55,55,55,55	0
55	MG	25	102	1/1	0.92	0.08	43,43,43,43	0
55	MG	2A	3050	1/1	0.92	0.15	56,56,56,56	0
55	MG	1A	3936	1/1	0.92	0.09	39,39,39,39	0
55	MG	1A	3240	1/1	0.92	0.10	61,61,61,61	0
55	MG	2A	3295	1/1	0.92	0.08	52,52,52,52	0
55	MG	1B	234	1/1	0.92	0.10	44,44,44,44	0
55	MG	2A	3297	1/1	0.92	0.14	47,47,47,47	0
55	MG	1a	1707	1/1	0.92	0.06	62,62,62,62	0
55	MG	1D	309	1/1	0.92	0.11	53,53,53,53	0
55	MG	2a	3010	1/1	0.92	0.09	55,55,55,55	0
55	MG	1a	1709	1/1	0.92	0.27	59,59,59,59	0
55	MG	1A	3171	1/1	0.92	0.11	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2a	3014	1/1	0.92	0.11	71,71,71,71	0
55	MG	2A	3308	1/1	0.92	0.10	54,54,54,54	0
55	MG	1D	312	1/1	0.92	0.22	41,41,41,41	0
55	MG	1A	3433	1/1	0.92	0.19	44,44,44,44	0
55	MG	2A	3313	1/1	0.92	0.07	68,68,68,68	0
55	MG	2a	3020	1/1	0.92	0.40	67,67,67,67	0
55	MG	1A	3944	1/1	0.92	0.13	56,56,56,56	0
55	MG	2a	3022	1/1	0.92	0.09	47,47,47,47	0
55	MG	1A	3308	1/1	0.92	0.14	36,36,36,36	0
55	MG	1E	310	1/1	0.92	0.26	43,43,43,43	0
55	MG	2A	3621	1/1	0.92	0.12	46,46,46,46	0
55	MG	2a	3026	1/1	0.92	0.23	49,49,49,49	0
55	MG	1F	305	1/1	0.92	0.15	41,41,41,41	0
55	MG	1A	3244	1/1	0.92	0.24	38,38,38,38	0
55	MG	1A	3319	1/1	0.92	0.15	54,54,54,54	0
55	MG	1A	3438	1/1	0.92	0.13	41,41,41,41	0
55	MG	1A	3965	1/1	0.92	0.08	27,27,27,27	0
55	MG	2A	3633	1/1	0.92	0.19	50,50,50,50	0
55	MG	1N	201	1/1	0.92	0.23	43,43,43,43	0
55	MG	1N	204	1/1	0.92	0.20	47,47,47,47	0
55	MG	1A	3967	1/1	0.92	0.14	49,49,49,49	0
55	MG	1a	1738	1/1	0.92	0.27	52,52,52,52	0
55	MG	1A	3972	1/1	0.92	0.14	43,43,43,43	0
55	MG	2A	3098	1/1	0.92	0.13	44,44,44,44	0
55	MG	2A	3335	1/1	0.92	0.10	57,57,57,57	0
55	MG	2a	3045	1/1	0.92	0.12	92,92,92,92	0
55	MG	2A	3652	1/1	0.92	0.14	50,50,50,50	0
55	MG	1A	3973	1/1	0.92	0.10	67,67,67,67	0
55	MG	1A	3975	1/1	0.92	0.08	53,53,53,53	0
55	MG	1Q	204	1/1	0.92	0.07	51,51,51,51	0
55	MG	1A	3115	1/1	0.92	0.08	47,47,47,47	0
55	MG	2A	3343	1/1	0.92	0.06	50,50,50,50	0
55	MG	2A	3665	1/1	0.92	0.12	55,55,55,55	0
55	MG	1A	3794	1/1	0.92	0.10	29,29,29,29	0
55	MG	1A	3031	1/1	0.92	0.24	32,32,32,32	0
55	MG	1A	3184	1/1	0.92	0.12	40,40,40,40	0
55	MG	2A	3116	1/1	0.92	0.18	43,43,43,43	0
55	MG	2A	3673	1/1	0.92	0.13	52,52,52,52	0
55	MG	1a	1752	1/1	0.92	0.10	58,58,58,58	0
55	MG	2A	3129	1/1	0.92	0.13	57,57,57,57	0
55	MG	1V	202	1/1	0.92	0.18	45,45,45,45	0
55	MG	1a	1755	1/1	0.92	0.08	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3333	1/1	0.92	0.07	41,41,41,41	0
55	MG	1A	3805	1/1	0.92	0.18	33,33,33,33	0
55	MG	1A	3995	1/1	0.92	0.16	53,53,53,53	0
55	MG	2a	3074	1/1	0.92	0.20	47,47,47,47	0
55	MG	1A	3998	1/1	0.92	0.14	57,57,57,57	0
55	MG	10	103	1/1	0.92	0.18	55,55,55,55	0
55	MG	1A	3452	1/1	0.92	0.10	45,45,45,45	0
55	MG	1A	3458	1/1	0.92	0.18	47,47,47,47	0
55	MG	1A	3463	1/1	0.92	0.19	48,48,48,48	0
55	MG	2A	3368	1/1	0.92	0.18	54,54,54,54	0
55	MG	1A	3336	1/1	0.92	0.18	53,53,53,53	0
55	MG	1a	1782	1/1	0.92	0.08	57,57,57,57	0
55	MG	1A	3134	1/1	0.92	0.08	45,45,45,45	0
55	MG	1A	3137	1/1	0.92	0.29	35,35,35,35	0
55	MG	1A	3598	1/1	0.92	0.27	47,47,47,47	0
55	MG	1A	3599	1/1	0.92	0.15	39,39,39,39	0
55	MG	1A	3260	1/1	0.92	0.10	38,38,38,38	0
55	MG	1A	3471	1/1	0.92	0.07	27,27,27,27	0
55	MG	1a	1793	1/1	0.92	0.10	63,63,63,63	0
55	MG	1A	4021	1/1	0.92	0.12	64,64,64,64	0
55	MG	1A	4022	1/1	0.92	0.11	57,57,57,57	0
55	MG	2A	3385	1/1	0.92	0.17	37,37,37,37	0
55	MG	2A	3724	1/1	0.92	0.13	61,61,61,61	0
55	MG	1a	1796	1/1	0.92	0.17	69,69,69,69	0
55	MG	2A	3168	1/1	0.92	0.09	51,51,51,51	0
55	MG	1a	1798	1/1	0.92	0.15	73,73,73,73	0
55	MG	1a	1800	1/1	0.92	0.08	72,72,72,72	0
55	MG	1a	1802	1/1	0.92	0.08	66,66,66,66	0
55	MG	1A	3348	1/1	0.92	0.19	55,55,55,55	0
55	MG	2A	3175	1/1	0.92	0.19	52,52,52,52	0
55	MG	2a	3112	1/1	0.92	0.16	58,58,58,58	0
55	MG	1A	4026	1/1	0.92	0.10	29,29,29,29	0
55	MG	1A	3607	1/1	0.92	0.24	33,33,33,33	0
55	MG	2a	3119	1/1	0.92	0.36	62,62,62,62	0
55	MG	2a	3120	1/1	0.92	0.16	57,57,57,57	0
55	MG	2A	3419	1/1	0.92	0.16	53,53,53,53	0
55	MG	2A	3420	1/1	0.92	0.21	38,38,38,38	0
55	MG	1A	3261	1/1	0.92	0.11	33,33,33,33	0
55	MG	2A	3745	1/1	0.92	0.18	27,27,27,27	0
55	MG	1A	3196	1/1	0.92	0.07	41,41,41,41	0
55	MG	2A	3424	1/1	0.92	0.26	48,48,48,48	0
55	MG	2A	3753	1/1	0.92	0.18	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1a	1810	1/1	0.92	0.07	58,58,58,58	0
55	MG	2A	3188	1/1	0.92	0.17	48,48,48,48	0
55	MG	1a	1615	1/1	0.92	0.05	73,73,73,73	0
55	MG	2a	3138	1/1	0.92	0.32	67,67,67,67	0
55	MG	2A	3429	1/1	0.92	0.27	63,63,63,63	0
55	MG	2A	3431	1/1	0.92	0.19	46,46,46,46	0
55	MG	1A	4037	1/1	0.92	0.11	58,58,58,58	0
55	MG	1A	3617	1/1	0.92	0.08	29,29,29,29	0
55	MG	2A	3770	1/1	0.92	0.08	69,69,69,69	0
55	MG	1a	1818	1/1	0.92	0.08	73,73,73,73	0
55	MG	2A	3772	1/1	0.92	0.13	80,80,80,80	0
55	MG	2a	3146	1/1	0.92	0.23	38,38,38,38	0
55	MG	1A	3619	1/1	0.92	0.10	32,32,32,32	0
55	MG	2A	3774	1/1	0.92	0.15	42,42,42,42	0
55	MG	2A	3196	1/1	0.92	0.11	50,50,50,50	0
55	MG	1A	3356	1/1	0.92	0.13	62,62,62,62	0
55	MG	2A	3449	1/1	0.92	0.07	66,66,66,66	0
55	MG	1A	3138	1/1	0.92	0.09	20,20,20,20	0
55	MG	1A	3859	1/1	0.92	0.19	59,59,59,59	0
55	MG	1a	1628	1/1	0.92	0.17	61,61,61,61	0
55	MG	1a	1630	1/1	0.92	0.09	44,44,44,44	0
55	MG	2A	3785	1/1	0.92	0.09	60,60,60,60	0
55	MG	2A	3789	1/1	0.92	0.10	47,47,47,47	0
55	MG	1A	4057	1/1	0.92	0.10	47,47,47,47	0
55	MG	2A	3798	1/1	0.92	0.07	57,57,57,57	0
55	MG	2A	3208	1/1	0.92	0.39	57,57,57,57	0
55	MG	1A	3266	1/1	0.92	0.08	50,50,50,50	0
55	MG	1A	3210	1/1	0.92	0.11	43,43,43,43	0
55	MG	1a	1640	1/1	0.92	0.09	48,48,48,48	0
55	MG	2A	3221	1/1	0.92	0.15	47,47,47,47	0
55	MG	1A	3144	1/1	0.92	0.13	39,39,39,39	0
55	MG	2A	3226	1/1	0.92	0.09	61,61,61,61	0
55	MG	1A	4064	1/1	0.92	0.09	39,39,39,39	0
55	MG	2a	3181	1/1	0.92	0.20	56,56,56,56	0
55	MG	2A	3477	1/1	0.92	0.20	34,34,34,34	0
55	MG	2A	3828	1/1	0.92	0.12	48,48,48,48	0
55	MG	2a	3187	1/1	0.92	0.23	75,75,75,75	0
55	MG	1A	3279	1/1	0.92	0.10	47,47,47,47	0
55	MG	2A	3480	1/1	0.92	0.26	37,37,37,37	0
55	MG	1A	3377	1/1	0.92	0.14	37,37,37,37	0
55	MG	1A	3215	1/1	0.92	0.14	36,36,36,36	0
55	MG	1A	3382	1/1	0.92	0.13	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	4082	1/1	0.92	0.06	42,42,42,42	0
55	MG	1l	204	1/1	0.92	0.07	64,64,64,64	0
55	MG	1A	3145	1/1	0.92	0.14	25,25,25,25	0
55	MG	2A	3846	1/1	0.92	0.10	51,51,51,51	0
55	MG	2a	3203	1/1	0.92	0.14	72,72,72,72	0
55	MG	1A	3881	1/1	0.92	0.09	34,34,34,34	0
55	MG	2A	3848	1/1	0.92	0.21	55,55,55,55	0
55	MG	1A	3069	1/1	0.92	0.14	36,36,36,36	0
55	MG	2A	3241	1/1	0.92	0.30	58,58,58,58	0
55	MG	1A	3678	1/1	0.92	0.12	20,20,20,20	0
55	MG	1a	1659	1/1	0.92	0.07	67,67,67,67	0
55	MG	1A	3124	1/1	0.92	0.13	47,47,47,47	0
55	MG	2A	3506	1/1	0.92	0.16	60,60,60,60	0
55	MG	2A	3509	1/1	0.92	0.16	57,57,57,57	0
55	MG	1A	3508	1/1	0.92	0.17	35,35,35,35	0
55	MG	1A	3161	1/1	0.92	0.11	37,37,37,37	0
55	MG	1A	3395	1/1	0.92	0.06	58,58,58,58	0
55	MG	2A	3519	1/1	0.92	0.12	39,39,39,39	0
55	MG	1A	3291	1/1	0.92	0.23	43,43,43,43	0
55	MG	2A	3257	1/1	0.92	0.12	52,52,52,52	0
55	MG	1A	3410	1/1	0.92	0.10	40,40,40,40	0
55	MG	2B	207	1/1	0.92	0.18	57,57,57,57	0
55	MG	2A	3528	1/1	0.92	0.08	32,32,32,32	0
55	MG	2A	3529	1/1	0.92	0.11	49,49,49,49	0
55	MG	1A	3162	1/1	0.92	0.14	43,43,43,43	0
55	MG	2x	103	1/1	0.92	0.18	63,63,63,63	0
55	MG	1A	4110	1/1	0.92	0.16	53,53,53,53	0
55	MG	1A	3125	1/1	0.92	0.58	30,30,30,30	0
55	MG	1A	4117	1/1	0.92	0.22	49,49,49,49	0
55	MG	2B	218	1/1	0.92	0.08	59,59,59,59	0
55	MG	2A	3518	1/1	0.93	0.21	68,68,68,68	0
55	MG	1a	1637	1/1	0.93	0.25	59,59,59,59	0
55	MG	1A	3421	1/1	0.93	0.27	52,52,52,52	0
55	MG	1A	3875	1/1	0.93	0.12	32,32,32,32	0
55	MG	2A	3240	1/1	0.93	0.17	54,54,54,54	0
55	MG	1A	3017	1/1	0.93	0.07	25,25,25,25	0
55	MG	1A	3646	1/1	0.93	0.13	30,30,30,30	0
55	MG	2A	3531	1/1	0.93	0.20	31,31,31,31	0
55	MG	1A	3052	1/1	0.93	0.20	21,21,21,21	0
55	MG	1A	3098	1/1	0.93	0.06	36,36,36,36	0
55	MG	2E	302	1/1	0.93	0.10	47,47,47,47	0
55	MG	1l	201	1/1	0.93	0.11	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3337	1/1	0.93	0.11	45,45,45,45	0
55	MG	1A	3889	1/1	0.93	0.15	43,43,43,43	0
55	MG	1A	3659	1/1	0.93	0.18	52,52,52,52	0
55	MG	1A	3430	1/1	0.93	0.35	41,41,41,41	0
55	MG	1a	1653	1/1	0.93	0.10	69,69,69,69	0
55	MG	2A	3549	1/1	0.93	0.13	35,35,35,35	0
55	MG	1A	3274	1/1	0.93	0.09	37,37,37,37	0
55	MG	1A	3896	1/1	0.93	0.38	32,32,32,32	0
55	MG	1A	3669	1/1	0.93	0.08	21,21,21,21	0
55	MG	1A	4106	1/1	0.93	0.08	52,52,52,52	0
55	MG	1x	106	1/1	0.93	0.13	55,55,55,55	0
55	MG	2Q	203	1/1	0.93	0.09	43,43,43,43	0
55	MG	1A	3675	1/1	0.93	0.10	14,14,14,14	0
55	MG	2R	202	1/1	0.93	0.22	52,52,52,52	0
55	MG	1a	1660	1/1	0.93	0.15	77,77,77,77	0
55	MG	1a	1661	1/1	0.93	0.15	62,62,62,62	0
55	MG	1x	112	1/1	0.93	0.13	64,64,64,64	0
55	MG	1A	3054	1/1	0.93	0.11	37,37,37,37	0
55	MG	1A	3186	1/1	0.93	0.13	37,37,37,37	0
55	MG	1A	3128	1/1	0.93	0.41	37,37,37,37	0
55	MG	2A	3573	1/1	0.93	0.13	34,34,34,34	0
55	MG	2A	3576	1/1	0.93	0.10	50,50,50,50	0
55	MG	1a	1665	1/1	0.93	0.15	49,49,49,49	0
55	MG	1A	4112	1/1	0.93	0.10	56,56,56,56	0
55	MG	1A	3159	1/1	0.93	0.21	47,47,47,47	0
55	MG	1A	4114	1/1	0.93	0.17	53,53,53,53	0
55	MG	1A	4116	1/1	0.93	0.13	61,61,61,61	0
55	MG	26	101	1/1	0.93	0.25	52,52,52,52	0
55	MG	2A	3591	1/1	0.93	0.14	56,56,56,56	0
55	MG	2A	3593	1/1	0.93	0.12	68,68,68,68	0
55	MG	1A	3910	1/1	0.93	0.09	41,41,41,41	0
55	MG	2a	3001	1/1	0.93	0.10	57,57,57,57	0
55	MG	2A	3015	1/1	0.93	0.24	63,63,63,63	0
55	MG	2A	3017	1/1	0.93	0.12	46,46,46,46	0
55	MG	2A	3597	1/1	0.93	0.10	49,49,49,49	0
55	MG	1a	1672	1/1	0.93	0.12	47,47,47,47	0
55	MG	1A	3688	1/1	0.93	0.11	52,52,52,52	0
55	MG	1a	1674	1/1	0.93	0.32	56,56,56,56	0
55	MG	1A	3695	1/1	0.93	0.09	20,20,20,20	0
55	MG	2A	3029	1/1	0.93	0.12	27,27,27,27	0
55	MG	2A	3030	1/1	0.93	0.34	56,56,56,56	0
55	MG	2A	3033	1/1	0.93	0.28	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2a	3016	1/1	0.93	0.05	46,46,46,46	0
55	MG	1A	3247	1/1	0.93	0.19	57,57,57,57	0
55	MG	1A	3444	1/1	0.93	0.16	43,43,43,43	0
55	MG	2A	3040	1/1	0.93	0.15	59,59,59,59	0
55	MG	1A	3206	1/1	0.93	0.14	36,36,36,36	0
55	MG	2A	3042	1/1	0.93	0.08	54,54,54,54	0
55	MG	1A	3035	1/1	0.93	0.35	36,36,36,36	0
55	MG	1A	3362	1/1	0.93	0.27	52,52,52,52	0
55	MG	2A	3616	1/1	0.93	0.17	45,45,45,45	0
55	MG	1a	1682	1/1	0.93	0.09	45,45,45,45	0
55	MG	1A	3528	1/1	0.93	0.13	29,29,29,29	0
55	MG	1B	225	1/1	0.93	0.11	46,46,46,46	0
55	MG	2A	3624	1/1	0.93	0.13	47,47,47,47	0
55	MG	1A	3251	1/1	0.93	0.08	28,28,28,28	0
55	MG	2A	3060	1/1	0.93	0.21	38,38,38,38	0
55	MG	2A	3061	1/1	0.93	0.17	51,51,51,51	0
55	MG	1a	1688	1/1	0.93	0.09	53,53,53,53	0
55	MG	1a	1689	1/1	0.93	0.18	42,42,42,42	0
55	MG	1A	3451	1/1	0.93	0.09	36,36,36,36	0
55	MG	1A	3296	1/1	0.93	0.13	27,27,27,27	0
55	MG	1A	3455	1/1	0.93	0.09	48,48,48,48	0
55	MG	2A	3641	1/1	0.93	0.15	55,55,55,55	0
55	MG	2A	3643	1/1	0.93	0.08	64,64,64,64	0
55	MG	1A	3004	1/1	0.93	0.07	23,23,23,23	0
55	MG	1B	233	1/1	0.93	0.15	53,53,53,53	0
55	MG	1A	3939	1/1	0.93	0.06	49,49,49,49	0
55	MG	1D	301	1/1	0.93	0.46	36,36,36,36	0
55	MG	2A	3079	1/1	0.93	0.11	35,35,35,35	0
55	MG	1A	3546	1/1	0.93	0.09	31,31,31,31	0
55	MG	1A	3460	1/1	0.93	0.14	38,38,38,38	0
55	MG	1A	3551	1/1	0.93	0.16	31,31,31,31	0
55	MG	1A	3750	1/1	0.93	0.08	41,41,41,41	0
55	MG	2a	3055	1/1	0.93	0.15	59,59,59,59	0
55	MG	1A	3752	1/1	0.93	0.13	23,23,23,23	0
55	MG	2A	3661	1/1	0.93	0.18	52,52,52,52	0
55	MG	1a	1713	1/1	0.93	0.17	49,49,49,49	0
55	MG	1E	304	1/1	0.93	0.16	37,37,37,37	0
55	MG	1A	3461	1/1	0.93	0.21	48,48,48,48	0
55	MG	2a	3062	1/1	0.93	0.07	50,50,50,50	0
55	MG	1A	3962	1/1	0.93	0.15	51,51,51,51	0
55	MG	1A	3963	1/1	0.93	0.24	42,42,42,42	0
55	MG	1A	3462	1/1	0.93	0.12	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3765	1/1	0.93	0.08	34,34,34,34	0
55	MG	1A	3766	1/1	0.93	0.24	64,64,64,64	0
55	MG	1A	3254	1/1	0.93	0.30	58,58,58,58	0
55	MG	2A	3103	1/1	0.93	0.06	30,30,30,30	0
55	MG	2a	3072	1/1	0.93	0.12	62,62,62,62	0
55	MG	2a	3073	1/1	0.93	0.24	61,61,61,61	0
55	MG	1A	3132	1/1	0.93	0.17	40,40,40,40	0
55	MG	2A	3356	1/1	0.93	0.08	37,37,37,37	0
55	MG	1a	1725	1/1	0.93	0.20	48,48,48,48	0
55	MG	2a	3077	1/1	0.93	0.22	39,39,39,39	0
55	MG	1A	3981	1/1	0.93	0.08	59,59,59,59	0
55	MG	1A	3213	1/1	0.93	0.21	50,50,50,50	0
55	MG	2A	3112	1/1	0.93	0.10	89,89,89,89	0
55	MG	1a	1729	1/1	0.93	0.18	54,54,54,54	0
55	MG	2a	3085	1/1	0.93	0.24	64,64,64,64	0
55	MG	2A	3691	1/1	0.93	0.14	57,57,57,57	0
55	MG	1A	3307	1/1	0.93	0.22	43,43,43,43	0
55	MG	1O	204	1/1	0.93	0.17	60,60,60,60	0
55	MG	2A	3701	1/1	0.93	0.14	49,49,49,49	0
55	MG	2A	3366	1/1	0.93	0.19	49,49,49,49	0
55	MG	1A	3987	1/1	0.93	0.13	32,32,32,32	0
55	MG	2A	3123	1/1	0.93	0.15	39,39,39,39	0
55	MG	2A	3127	1/1	0.93	0.18	44,44,44,44	0
55	MG	1Q	202	1/1	0.93	0.07	35,35,35,35	0
55	MG	2a	3095	1/1	0.93	0.20	46,46,46,46	0
55	MG	2A	3373	1/1	0.93	0.22	64,64,64,64	0
55	MG	1A	3777	1/1	0.93	0.07	51,51,51,51	0
55	MG	1A	3469	1/1	0.93	0.29	49,49,49,49	0
55	MG	2A	3132	1/1	0.93	0.18	52,52,52,52	0
55	MG	1a	1743	1/1	0.93	0.25	62,62,62,62	0
55	MG	1R	201	1/1	0.93	0.35	44,44,44,44	0
55	MG	2A	3379	1/1	0.93	0.06	45,45,45,45	0
55	MG	1A	3089	1/1	0.93	0.11	42,42,42,42	0
55	MG	1a	1746	1/1	0.93	0.28	52,52,52,52	0
55	MG	2a	3109	1/1	0.93	0.07	75,75,75,75	0
55	MG	1a	1747	1/1	0.93	0.30	50,50,50,50	0
55	MG	2A	3726	1/1	0.93	0.12	51,51,51,51	0
55	MG	1A	3586	1/1	0.93	0.11	44,44,44,44	0
55	MG	2a	3113	1/1	0.93	0.13	50,50,50,50	0
55	MG	2A	3386	1/1	0.93	0.15	53,53,53,53	0
55	MG	2A	3389	1/1	0.93	0.23	47,47,47,47	0
55	MG	1A	3309	1/1	0.93	0.16	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3997	1/1	0.93	0.08	56,56,56,56	0
55	MG	2A	3396	1/1	0.93	0.25	47,47,47,47	0
55	MG	2A	3398	1/1	0.93	0.22	33,33,33,33	0
55	MG	2a	3126	1/1	0.93	0.27	62,62,62,62	0
55	MG	2A	3739	1/1	0.93	0.18	43,43,43,43	0
55	MG	1A	3472	1/1	0.93	0.26	54,54,54,54	0
55	MG	1A	3092	1/1	0.93	0.20	32,32,32,32	0
55	MG	1A	4000	1/1	0.93	0.13	60,60,60,60	0
55	MG	1W	202	1/1	0.93	0.10	44,44,44,44	0
55	MG	2A	3410	1/1	0.93	0.18	35,35,35,35	0
55	MG	2A	3747	1/1	0.93	0.10	56,56,56,56	0
55	MG	2A	3411	1/1	0.93	0.25	51,51,51,51	0
55	MG	2A	3154	1/1	0.93	0.11	38,38,38,38	0
55	MG	2A	3413	1/1	0.93	0.36	42,42,42,42	0
55	MG	2A	3155	1/1	0.93	0.10	47,47,47,47	0
55	MG	2A	3417	1/1	0.93	0.10	50,50,50,50	0
55	MG	1a	1762	1/1	0.93	0.20	54,54,54,54	0
55	MG	1X	103	1/1	0.93	0.13	37,37,37,37	0
55	MG	1A	3479	1/1	0.93	0.12	33,33,33,33	0
55	MG	2A	3160	1/1	0.93	0.13	30,30,30,30	0
55	MG	1A	4007	1/1	0.93	0.12	25,25,25,25	0
55	MG	1Y	204	1/1	0.93	0.24	49,49,49,49	0
55	MG	1A	3480	1/1	0.93	0.12	42,42,42,42	0
55	MG	11	103	1/1	0.93	0.08	35,35,35,35	0
55	MG	1a	1772	1/1	0.93	0.08	64,64,64,64	0
55	MG	2a	3151	1/1	0.93	0.13	69,69,69,69	0
55	MG	1A	3313	1/1	0.93	0.14	44,44,44,44	0
55	MG	1a	1774	1/1	0.93	0.16	34,34,34,34	0
55	MG	12	102	1/1	0.93	0.15	43,43,43,43	0
55	MG	1A	3814	1/1	0.93	0.09	41,41,41,41	0
55	MG	1A	3600	1/1	0.93	0.15	40,40,40,40	0
55	MG	1A	3314	1/1	0.93	0.06	27,27,27,27	0
55	MG	2A	3782	1/1	0.93	0.20	77,77,77,77	0
55	MG	1A	3399	1/1	0.93	0.17	32,32,32,32	0
55	MG	17	102	1/1	0.93	0.14	39,39,39,39	0
55	MG	1a	1788	1/1	0.93	0.20	66,66,66,66	0
55	MG	2a	3172	1/1	0.93	0.16	56,56,56,56	0
55	MG	2A	3452	1/1	0.93	0.50	46,46,46,46	0
55	MG	2A	3791	1/1	0.93	0.20	46,46,46,46	0
55	MG	1A	3827	1/1	0.93	0.13	42,42,42,42	0
55	MG	2A	3795	1/1	0.93	0.08	42,42,42,42	0
55	MG	2A	3796	1/1	0.93	0.13	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	18	104	1/1	0.93	0.11	40,40,40,40	0
55	MG	2A	3800	1/1	0.93	0.10	52,52,52,52	0
55	MG	2A	3456	1/1	0.93	0.07	54,54,54,54	0
55	MG	1A	3400	1/1	0.93	0.09	40,40,40,40	0
55	MG	1A	3318	1/1	0.93	0.26	51,51,51,51	0
55	MG	1A	3409	1/1	0.93	0.08	54,54,54,54	0
55	MG	1A	3177	1/1	0.93	0.13	41,41,41,41	0
55	MG	2a	3189	1/1	0.93	0.21	62,62,62,62	0
55	MG	1A	3612	1/1	0.93	0.28	61,61,61,61	0
55	MG	2A	3819	1/1	0.93	0.15	33,33,33,33	0
55	MG	1a	1605	1/1	0.93	0.19	60,60,60,60	0
55	MG	1A	3320	1/1	0.93	0.21	45,45,45,45	0
55	MG	2a	3194	1/1	0.93	0.18	61,61,61,61	0
55	MG	1A	3321	1/1	0.93	0.17	47,47,47,47	0
55	MG	1A	3416	1/1	0.93	0.30	49,49,49,49	0
55	MG	2A	3469	1/1	0.93	0.16	48,48,48,48	0
55	MG	1A	3621	1/1	0.93	0.12	26,26,26,26	0
55	MG	2A	3473	1/1	0.93	0.23	23,23,23,23	0
55	MG	1A	3263	1/1	0.93	0.16	38,38,38,38	0
55	MG	1A	3625	1/1	0.93	0.23	50,50,50,50	0
55	MG	2A	3203	1/1	0.93	0.34	45,45,45,45	0
55	MG	2A	3204	1/1	0.93	0.21	49,49,49,49	0
55	MG	2A	3483	1/1	0.93	0.18	34,34,34,34	0
55	MG	1A	3626	1/1	0.93	0.12	53,53,53,53	0
55	MG	1a	1616	1/1	0.93	0.13	51,51,51,51	0
55	MG	1A	3179	1/1	0.93	0.17	42,42,42,42	0
55	MG	1A	3630	1/1	0.93	0.22	30,30,30,30	0
55	MG	1a	1816	1/1	0.93	0.16	48,48,48,48	0
55	MG	1a	1620	1/1	0.93	0.13	46,46,46,46	0
55	MG	1A	3631	1/1	0.93	0.21	16,16,16,16	0
55	MG	2A	3223	1/1	0.93	0.10	52,52,52,52	0
55	MG	2A	3224	1/1	0.93	0.13	45,45,45,45	0
55	MG	1A	3632	1/1	0.93	0.14	35,35,35,35	0
55	MG	1A	3869	1/1	0.93	0.10	60,60,60,60	0
55	MG	2A	3501	1/1	0.93	0.17	58,58,58,58	0
55	MG	1A	3633	1/1	0.93	0.09	54,54,54,54	0
55	MG	1A	3501	1/1	0.93	0.11	46,46,46,46	0
55	MG	2B	203	1/1	0.93	0.10	40,40,40,40	0
55	MG	1A	4069	1/1	0.93	0.10	34,34,34,34	0
55	MG	2A	3512	1/1	0.93	0.19	53,53,53,53	0
55	MG	1a	1632	1/1	0.93	0.17	50,50,50,50	0
55	MG	1a	1633	1/1	0.93	0.26	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	4071	1/1	0.93	0.08	20,20,20,20	0
55	MG	2A	3842	1/1	0.94	0.13	48,48,48,48	0
55	MG	1A	3608	1/1	0.94	0.19	23,23,23,23	0
55	MG	1A	3823	1/1	0.94	0.12	17,17,17,17	0
55	MG	1a	1811	1/1	0.94	0.14	73,73,73,73	0
55	MG	1A	3072	1/1	0.94	0.10	17,17,17,17	0
55	MG	2A	3850	1/1	0.94	0.09	51,51,51,51	0
55	MG	2A	3851	1/1	0.94	0.17	49,49,49,49	0
55	MG	1A	3390	1/1	0.94	0.29	34,34,34,34	0
55	MG	1A	4030	1/1	0.94	0.05	21,21,21,21	0
55	MG	1A	4032	1/1	0.94	0.07	39,39,39,39	0
55	MG	2A	3482	1/1	0.94	0.25	51,51,51,51	0
55	MG	1A	3831	1/1	0.94	0.12	31,31,31,31	0
55	MG	1A	3832	1/1	0.94	0.30	32,32,32,32	0
55	MG	2A	3209	1/1	0.94	0.09	45,45,45,45	0
55	MG	2A	3212	1/1	0.94	0.08	42,42,42,42	0
55	MG	2A	3487	1/1	0.94	0.36	49,49,49,49	0
55	MG	1a	1622	1/1	0.94	0.15	44,44,44,44	0
55	MG	2A	3217	1/1	0.94	0.07	35,35,35,35	0
55	MG	1a	1623	1/1	0.94	0.08	50,50,50,50	0
55	MG	1A	3393	1/1	0.94	0.06	43,43,43,43	0
55	MG	1A	3613	1/1	0.94	0.08	32,32,32,32	0
55	MG	2A	3495	1/1	0.94	0.16	43,43,43,43	0
55	MG	1A	3838	1/1	0.94	0.12	40,40,40,40	0
55	MG	1A	3104	1/1	0.94	0.12	31,31,31,31	0
55	MG	1a	1629	1/1	0.94	0.17	51,51,51,51	0
55	MG	1A	4047	1/1	0.94	0.10	56,56,56,56	0
55	MG	2A	3503	1/1	0.94	0.12	39,39,39,39	0
55	MG	1A	3136	1/1	0.94	0.08	44,44,44,44	0
55	MG	1A	3843	1/1	0.94	0.07	44,44,44,44	0
55	MG	1A	3077	1/1	0.94	0.09	30,30,30,30	0
55	MG	1A	3845	1/1	0.94	0.11	29,29,29,29	0
55	MG	1A	3311	1/1	0.94	0.07	28,28,28,28	0
55	MG	2A	3515	1/1	0.94	0.15	57,57,57,57	0
55	MG	1A	3848	1/1	0.94	0.09	37,37,37,37	0
55	MG	2A	3233	1/1	0.94	0.08	54,54,54,54	0
55	MG	1A	4065	1/1	0.94	0.14	26,26,26,26	0
55	MG	1f	202	1/1	0.94	0.07	48,48,48,48	0
55	MG	1A	4066	1/1	0.94	0.11	29,29,29,29	0
55	MG	1A	3622	1/1	0.94	0.13	37,37,37,37	0
55	MG	2A	3525	1/1	0.94	0.10	42,42,42,42	0
55	MG	2A	3526	1/1	0.94	0.12	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3239	1/1	0.94	0.13	49,49,49,49	0
55	MG	1A	3623	1/1	0.94	0.11	38,38,38,38	0
55	MG	1A	3312	1/1	0.94	0.12	38,38,38,38	0
55	MG	1A	3188	1/1	0.94	0.17	46,46,46,46	0
55	MG	2A	3245	1/1	0.94	0.09	64,64,64,64	0
55	MG	1a	1646	1/1	0.94	0.12	37,37,37,37	0
55	MG	1A	3011	1/1	0.94	0.15	39,39,39,39	0
55	MG	1A	4080	1/1	0.94	0.17	40,40,40,40	0
55	MG	2A	3542	1/1	0.94	0.23	45,45,45,45	0
55	MG	1a	1652	1/1	0.94	0.19	51,51,51,51	0
55	MG	2A	3544	1/1	0.94	0.10	41,41,41,41	0
55	MG	1x	103	1/1	0.94	0.25	67,67,67,67	0
55	MG	1A	3316	1/1	0.94	0.18	42,42,42,42	0
55	MG	1A	3140	1/1	0.94	0.16	36,36,36,36	0
55	MG	1A	4083	1/1	0.94	0.06	26,26,26,26	0
55	MG	1x	108	1/1	0.94	0.06	55,55,55,55	0
55	MG	1A	3198	1/1	0.94	0.09	38,38,38,38	0
55	MG	2A	3262	1/1	0.94	0.21	41,41,41,41	0
55	MG	1A	3202	1/1	0.94	0.08	38,38,38,38	0
55	MG	1A	3112	1/1	0.94	0.10	38,38,38,38	0
55	MG	1A	3865	1/1	0.94	0.05	45,45,45,45	0
55	MG	1A	3083	1/1	0.94	0.14	41,41,41,41	0
55	MG	1A	3422	1/1	0.94	0.16	41,41,41,41	0
55	MG	2A	3565	1/1	0.94	0.13	44,44,44,44	0
55	MG	2A	3566	1/1	0.94	0.17	48,48,48,48	0
55	MG	1A	3871	1/1	0.94	0.06	32,32,32,32	0
55	MG	1A	3515	1/1	0.94	0.13	55,55,55,55	0
55	MG	2a	3002	1/1	0.94	0.14	60,60,60,60	0
55	MG	1A	3645	1/1	0.94	0.08	50,50,50,50	0
55	MG	1A	3874	1/1	0.94	0.10	50,50,50,50	0
55	MG	2A	3011	1/1	0.94	0.10	50,50,50,50	0
55	MG	2A	3574	1/1	0.94	0.17	48,48,48,48	0
55	MG	1A	3324	1/1	0.94	0.24	43,43,43,43	0
55	MG	1A	3650	1/1	0.94	0.11	12,12,12,12	0
55	MG	1a	1669	1/1	0.94	0.12	54,54,54,54	0
55	MG	2A	3278	1/1	0.94	0.16	76,76,76,76	0
55	MG	1A	3147	1/1	0.94	0.07	32,32,32,32	0
55	MG	2A	3587	1/1	0.94	0.10	39,39,39,39	0
55	MG	2A	3281	1/1	0.94	0.05	42,42,42,42	0
55	MG	2A	3590	1/1	0.94	0.08	53,53,53,53	0
55	MG	2A	3019	1/1	0.94	0.13	53,53,53,53	0
55	MG	1A	3053	1/1	0.94	0.24	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3284	1/1	0.94	0.23	50,50,50,50	0
55	MG	1A	3331	1/1	0.94	0.08	41,41,41,41	0
55	MG	2A	3286	1/1	0.94	0.19	60,60,60,60	0
55	MG	2A	3022	1/1	0.94	0.10	54,54,54,54	0
55	MG	1A	3040	1/1	0.94	0.24	35,35,35,35	0
55	MG	1A	4115	1/1	0.94	0.13	59,59,59,59	0
55	MG	2A	3600	1/1	0.94	0.12	50,50,50,50	0
55	MG	1A	3521	1/1	0.94	0.11	40,40,40,40	0
55	MG	1A	3267	1/1	0.94	0.09	33,33,33,33	0
55	MG	2A	3604	1/1	0.94	0.09	31,31,31,31	0
55	MG	2A	3031	1/1	0.94	0.25	45,45,45,45	0
55	MG	1A	3157	1/1	0.94	0.14	26,26,26,26	0
55	MG	1A	3672	1/1	0.94	0.11	37,37,37,37	0
55	MG	2a	3033	1/1	0.94	0.31	60,60,60,60	0
55	MG	2A	3037	1/1	0.94	0.15	35,35,35,35	0
55	MG	2A	3038	1/1	0.94	0.18	44,44,44,44	0
55	MG	1A	3674	1/1	0.94	0.11	14,14,14,14	0
55	MG	2a	3038	1/1	0.94	0.12	45,45,45,45	0
55	MG	1A	3216	1/1	0.94	0.08	37,37,37,37	0
55	MG	1A	3676	1/1	0.94	0.12	55,55,55,55	0
55	MG	2a	3042	1/1	0.94	0.20	54,54,54,54	0
55	MG	1A	3677	1/1	0.94	0.11	57,57,57,57	0
55	MG	2A	3304	1/1	0.94	0.21	51,51,51,51	0
55	MG	2A	3305	1/1	0.94	0.12	53,53,53,53	0
55	MG	2A	3307	1/1	0.94	0.08	47,47,47,47	0
55	MG	1A	3340	1/1	0.94	0.10	35,35,35,35	0
55	MG	1A	3526	1/1	0.94	0.12	43,43,43,43	0
55	MG	2A	3622	1/1	0.94	0.15	61,61,61,61	0
55	MG	1A	3341	1/1	0.94	0.10	33,33,33,33	0
55	MG	1A	3908	1/1	0.94	0.12	40,40,40,40	0
55	MG	2A	3314	1/1	0.94	0.08	50,50,50,50	0
55	MG	1a	1691	1/1	0.94	0.17	46,46,46,46	0
55	MG	2A	3629	1/1	0.94	0.18	36,36,36,36	0
55	MG	2A	3316	1/1	0.94	0.26	48,48,48,48	0
55	MG	1B	228	1/1	0.94	0.14	37,37,37,37	0
55	MG	1A	3681	1/1	0.94	0.07	34,34,34,34	0
55	MG	2A	3635	1/1	0.94	0.08	42,42,42,42	0
55	MG	1a	1694	1/1	0.94	0.05	53,53,53,53	0
55	MG	1a	1695	1/1	0.94	0.13	39,39,39,39	0
55	MG	1A	3911	1/1	0.94	0.11	17,17,17,17	0
55	MG	2a	3065	1/1	0.94	0.22	60,60,60,60	0
55	MG	1A	3217	1/1	0.94	0.13	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3644	1/1	0.94	0.17	68,68,68,68	0
55	MG	1A	3686	1/1	0.94	0.07	33,33,33,33	0
55	MG	1A	3687	1/1	0.94	0.07	35,35,35,35	0
55	MG	1A	3439	1/1	0.94	0.09	37,37,37,37	0
55	MG	1A	3918	1/1	0.94	0.09	38,38,38,38	0
55	MG	2A	3074	1/1	0.94	0.19	43,43,43,43	0
55	MG	1a	1705	1/1	0.94	0.11	57,57,57,57	0
55	MG	1a	1706	1/1	0.94	0.24	54,54,54,54	0
55	MG	1A	3531	1/1	0.94	0.24	49,49,49,49	0
55	MG	1A	3920	1/1	0.94	0.07	56,56,56,56	0
55	MG	2a	3078	1/1	0.94	0.28	53,53,53,53	0
55	MG	1D	311	1/1	0.94	0.28	30,30,30,30	0
55	MG	2a	3080	1/1	0.94	0.18	51,51,51,51	0
55	MG	2A	3340	1/1	0.94	0.10	61,61,61,61	0
55	MG	1A	3921	1/1	0.94	0.07	45,45,45,45	0
55	MG	1A	3121	1/1	0.94	0.15	29,29,29,29	0
55	MG	1A	3925	1/1	0.94	0.18	49,49,49,49	0
55	MG	1A	3122	1/1	0.94	0.19	34,34,34,34	0
55	MG	2A	3345	1/1	0.94	0.12	49,49,49,49	0
55	MG	1A	3714	1/1	0.94	0.08	30,30,30,30	0
55	MG	1A	3538	1/1	0.94	0.07	44,44,44,44	0
55	MG	1A	3716	1/1	0.94	0.13	30,30,30,30	0
55	MG	1A	3123	1/1	0.94	0.09	35,35,35,35	0
55	MG	1F	311	1/1	0.94	0.15	27,27,27,27	0
55	MG	1A	3041	1/1	0.94	0.14	45,45,45,45	0
55	MG	2A	3096	1/1	0.94	0.20	47,47,47,47	0
55	MG	1A	3725	1/1	0.94	0.07	25,25,25,25	0
55	MG	1A	3731	1/1	0.94	0.08	31,31,31,31	0
55	MG	1A	3733	1/1	0.94	0.16	20,20,20,20	0
55	MG	2A	3358	1/1	0.94	0.15	37,37,37,37	0
55	MG	1A	3542	1/1	0.94	0.36	35,35,35,35	0
55	MG	1a	1728	1/1	0.94	0.13	50,50,50,50	0
55	MG	2A	3693	1/1	0.94	0.08	44,44,44,44	0
55	MG	2A	3696	1/1	0.94	0.10	36,36,36,36	0
55	MG	1A	3354	1/1	0.94	0.12	48,48,48,48	0
55	MG	1A	3548	1/1	0.94	0.28	42,42,42,42	0
55	MG	1A	3355	1/1	0.94	0.10	45,45,45,45	0
55	MG	2A	3703	1/1	0.94	0.11	55,55,55,55	0
55	MG	1a	1734	1/1	0.94	0.22	43,43,43,43	0
55	MG	1A	3550	1/1	0.94	0.21	41,41,41,41	0
55	MG	2A	3367	1/1	0.94	0.20	41,41,41,41	0
55	MG	2a	3114	1/1	0.94	0.26	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2a	3115	1/1	0.94	0.38	57,57,57,57	0
55	MG	1A	3952	1/1	0.94	0.10	45,45,45,45	0
55	MG	2A	3117	1/1	0.94	0.19	38,38,38,38	0
55	MG	2a	3118	1/1	0.94	0.17	45,45,45,45	0
55	MG	2A	3712	1/1	0.94	0.12	61,61,61,61	0
55	MG	1A	3287	1/1	0.94	0.13	51,51,51,51	0
55	MG	2A	3120	1/1	0.94	0.16	55,55,55,55	0
55	MG	1A	3360	1/1	0.94	0.11	41,41,41,41	0
55	MG	2A	3124	1/1	0.94	0.20	55,55,55,55	0
55	MG	1A	3560	1/1	0.94	0.07	41,41,41,41	0
55	MG	1A	3456	1/1	0.94	0.15	32,32,32,32	0
55	MG	1A	3969	1/1	0.94	0.10	45,45,45,45	0
55	MG	1A	3042	1/1	0.94	0.10	25,25,25,25	0
55	MG	1A	3232	1/1	0.94	0.15	23,23,23,23	0
55	MG	1A	3755	1/1	0.94	0.15	55,55,55,55	0
55	MG	1A	3979	1/1	0.94	0.07	52,52,52,52	0
55	MG	2A	3727	1/1	0.94	0.07	66,66,66,66	0
55	MG	2A	3138	1/1	0.94	0.21	52,52,52,52	0
55	MG	2A	3139	1/1	0.94	0.16	59,59,59,59	0
55	MG	1A	3756	1/1	0.94	0.07	49,49,49,49	0
55	MG	2A	3388	1/1	0.94	0.14	42,42,42,42	0
55	MG	1A	3364	1/1	0.94	0.07	29,29,29,29	0
55	MG	2A	3143	1/1	0.94	0.20	44,44,44,44	0
55	MG	1X	101	1/1	0.94	0.12	35,35,35,35	0
55	MG	2A	3394	1/1	0.94	0.27	37,37,37,37	0
55	MG	2A	3395	1/1	0.94	0.23	35,35,35,35	0
55	MG	1a	1754	1/1	0.94	0.24	61,61,61,61	0
55	MG	1A	3983	1/1	0.94	0.10	56,56,56,56	0
55	MG	2A	3399	1/1	0.94	0.06	47,47,47,47	0
55	MG	2A	3744	1/1	0.94	0.17	61,61,61,61	0
55	MG	2A	3400	1/1	0.94	0.36	48,48,48,48	0
55	MG	1A	3763	1/1	0.94	0.07	46,46,46,46	0
55	MG	1A	3046	1/1	0.94	0.07	33,33,33,33	0
55	MG	2A	3749	1/1	0.94	0.18	45,45,45,45	0
55	MG	2A	3750	1/1	0.94	0.11	40,40,40,40	0
55	MG	1A	3368	1/1	0.94	0.10	40,40,40,40	0
55	MG	1Z	301	1/1	0.94	0.09	36,36,36,36	0
55	MG	2A	3407	1/1	0.94	0.21	53,53,53,53	0
55	MG	2a	3163	1/1	0.94	0.09	60,60,60,60	0
55	MG	2A	3755	1/1	0.94	0.06	52,52,52,52	0
55	MG	2A	3757	1/1	0.94	0.12	50,50,50,50	0
55	MG	2a	3166	1/1	0.94	0.21	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	10	102	1/1	0.94	0.07	37,37,37,37	0
55	MG	2a	3168	1/1	0.94	0.17	40,40,40,40	0
55	MG	1A	3237	1/1	0.94	0.20	33,33,33,33	0
55	MG	1A	3370	1/1	0.94	0.13	42,42,42,42	0
55	MG	1A	3588	1/1	0.94	0.33	58,58,58,58	0
55	MG	1A	3993	1/1	0.94	0.07	54,54,54,54	0
55	MG	2A	3415	1/1	0.94	0.10	57,57,57,57	0
55	MG	2A	3416	1/1	0.94	0.23	44,44,44,44	0
55	MG	13	101	1/1	0.94	0.11	50,50,50,50	0
55	MG	2A	3159	1/1	0.94	0.16	48,48,48,48	0
55	MG	1A	3770	1/1	0.94	0.08	37,37,37,37	0
55	MG	1A	3293	1/1	0.94	0.23	31,31,31,31	0
55	MG	2A	3421	1/1	0.94	0.27	48,48,48,48	0
55	MG	15	102	1/1	0.94	0.07	47,47,47,47	0
55	MG	2A	3777	1/1	0.94	0.08	52,52,52,52	0
55	MG	15	103	1/1	0.94	0.11	41,41,41,41	0
55	MG	1A	3372	1/1	0.94	0.22	38,38,38,38	0
55	MG	1A	3591	1/1	0.94	0.14	48,48,48,48	0
55	MG	2A	3167	1/1	0.94	0.18	68,68,68,68	0
55	MG	1A	3172	1/1	0.94	0.23	28,28,28,28	0
55	MG	1A	3063	1/1	0.94	0.14	44,44,44,44	0
55	MG	18	101	1/1	0.94	0.12	44,44,44,44	0
55	MG	2A	3787	1/1	0.94	0.26	66,66,66,66	0
55	MG	1a	1790	1/1	0.94	0.09	48,48,48,48	0
55	MG	2A	3436	1/1	0.94	0.07	55,55,55,55	0
55	MG	2A	3437	1/1	0.94	0.18	36,36,36,36	0
55	MG	1a	1791	1/1	0.94	0.09	54,54,54,54	0
55	MG	18	102	1/1	0.94	0.39	46,46,46,46	0
55	MG	2A	3443	1/1	0.94	0.13	41,41,41,41	0
55	MG	2A	3176	1/1	0.94	0.24	56,56,56,56	0
55	MG	1A	3025	1/1	0.94	0.09	44,44,44,44	0
55	MG	2A	3178	1/1	0.94	0.09	37,37,37,37	0
55	MG	2d	301	1/1	0.94	0.18	50,50,50,50	0
55	MG	1A	3381	1/1	0.94	0.05	38,38,38,38	0
55	MG	2A	3450	1/1	0.94	0.28	61,61,61,61	0
55	MG	2A	3451	1/1	0.94	0.48	51,51,51,51	0
55	MG	2A	3181	1/1	0.94	0.08	59,59,59,59	0
55	MG	1A	3243	1/1	0.94	0.06	41,41,41,41	0
55	MG	2A	3821	1/1	0.94	0.21	54,54,54,54	0
55	MG	2A	3823	1/1	0.94	0.23	60,60,60,60	0
55	MG	1A	3803	1/1	0.94	0.06	45,45,45,45	0
55	MG	2l	203	1/1	0.94	0.07	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3184	1/1	0.94	0.06	39,39,39,39	0
55	MG	1A	3102	1/1	0.94	0.09	47,47,47,47	0
55	MG	1A	3306	1/1	0.94	0.08	47,47,47,47	0
55	MG	1A	3806	1/1	0.94	0.09	28,28,28,28	0
55	MG	1A	3387	1/1	0.94	0.27	34,34,34,34	0
55	MG	1A	3605	1/1	0.94	0.12	33,33,33,33	0
55	MG	1a	1805	1/1	0.94	0.12	74,74,74,74	0
55	MG	1A	3606	1/1	0.94	0.18	37,37,37,37	0
55	MG	2A	3194	1/1	0.94	0.09	28,28,28,28	0
55	MG	2A	3837	1/1	0.94	0.11	48,48,48,48	0
55	MG	1A	3485	1/1	0.94	0.09	50,50,50,50	0
55	MG	2A	3474	1/1	0.95	0.17	38,38,38,38	0
55	MG	1A	3322	1/1	0.95	0.18	43,43,43,43	0
55	MG	2A	3476	1/1	0.95	0.26	37,37,37,37	0
55	MG	1A	3797	1/1	0.95	0.13	26,26,26,26	0
55	MG	2A	3829	1/1	0.95	0.10	40,40,40,40	0
55	MG	1A	3798	1/1	0.95	0.15	29,29,29,29	0
55	MG	2A	3479	1/1	0.95	0.41	51,51,51,51	0
55	MG	2A	3207	1/1	0.95	0.10	50,50,50,50	0
55	MG	1A	3038	1/1	0.95	0.14	18,18,18,18	0
55	MG	15	104	1/1	0.95	0.09	36,36,36,36	0
55	MG	2A	3835	1/1	0.95	0.05	59,59,59,59	0
55	MG	2A	3211	1/1	0.95	0.07	38,38,38,38	0
55	MG	1A	3126	1/1	0.95	0.27	37,37,37,37	0
55	MG	2A	3839	1/1	0.95	0.13	40,40,40,40	0
55	MG	2A	3840	1/1	0.95	0.17	43,43,43,43	0
55	MG	1A	4001	1/1	0.95	0.07	43,43,43,43	0
55	MG	1A	3325	1/1	0.95	0.18	48,48,48,48	0
55	MG	1A	3500	1/1	0.95	0.07	37,37,37,37	0
55	MG	1A	3265	1/1	0.95	0.06	37,37,37,37	0
55	MG	2A	3491	1/1	0.95	0.26	49,49,49,49	0
55	MG	1A	3414	1/1	0.95	0.04	47,47,47,47	0
55	MG	2A	3849	1/1	0.95	0.07	48,48,48,48	0
55	MG	1a	1819	1/1	0.95	0.05	71,71,71,71	0
55	MG	1A	4010	1/1	0.95	0.09	54,54,54,54	0
55	MG	1A	3503	1/1	0.95	0.27	49,49,49,49	0
55	MG	1A	3812	1/1	0.95	0.09	24,24,24,24	0
55	MG	1A	4013	1/1	0.95	0.24	35,35,35,35	0
55	MG	1A	3415	1/1	0.95	0.08	44,44,44,44	0
55	MG	2A	3500	1/1	0.95	0.17	38,38,38,38	0
55	MG	1A	3506	1/1	0.95	0.18	21,21,21,21	0
55	MG	1A	3327	1/1	0.95	0.11	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3417	1/1	0.95	0.08	44,44,44,44	0
55	MG	1A	3510	1/1	0.95	0.14	33,33,33,33	0
55	MG	2A	3507	1/1	0.95	0.13	30,30,30,30	0
55	MG	1A	3826	1/1	0.95	0.08	35,35,35,35	0
55	MG	1a	1610	1/1	0.95	0.08	63,63,63,63	0
55	MG	1A	3628	1/1	0.95	0.11	54,54,54,54	0
55	MG	1A	4024	1/1	0.95	0.15	39,39,39,39	0
55	MG	1A	3100	1/1	0.95	0.17	40,40,40,40	0
55	MG	1A	3330	1/1	0.95	0.09	34,34,34,34	0
55	MG	2B	209	1/1	0.95	0.10	57,57,57,57	0
55	MG	1A	3513	1/1	0.95	0.15	39,39,39,39	0
55	MG	1A	3073	1/1	0.95	0.16	37,37,37,37	0
55	MG	1A	3835	1/1	0.95	0.09	39,39,39,39	0
55	MG	1A	3836	1/1	0.95	0.11	40,40,40,40	0
55	MG	2A	3522	1/1	0.95	0.15	31,31,31,31	0
55	MG	2A	3523	1/1	0.95	0.12	42,42,42,42	0
55	MG	2A	3524	1/1	0.95	0.10	37,37,37,37	0
55	MG	2A	3247	1/1	0.95	0.08	54,54,54,54	0
55	MG	1l	203	1/1	0.95	0.07	54,54,54,54	0
55	MG	1A	4035	1/1	0.95	0.10	57,57,57,57	0
55	MG	1A	3837	1/1	0.95	0.10	51,51,51,51	0
55	MG	1A	3163	1/1	0.95	0.21	23,23,23,23	0
55	MG	1A	3334	1/1	0.95	0.14	33,33,33,33	0
55	MG	2A	3533	1/1	0.95	0.25	50,50,50,50	0
55	MG	1A	3642	1/1	0.95	0.14	26,26,26,26	0
55	MG	2A	3256	1/1	0.95	0.17	47,47,47,47	0
55	MG	1A	3425	1/1	0.95	0.07	53,53,53,53	0
55	MG	1a	1627	1/1	0.95	0.13	52,52,52,52	0
55	MG	2F	304	1/1	0.95	0.19	51,51,51,51	0
55	MG	1A	3335	1/1	0.95	0.14	36,36,36,36	0
55	MG	1A	3164	1/1	0.95	0.17	42,42,42,42	0
55	MG	1A	4054	1/1	0.95	0.09	37,37,37,37	0
55	MG	2N	202	1/1	0.95	0.06	48,48,48,48	0
55	MG	1a	1631	1/1	0.95	0.13	57,57,57,57	0
55	MG	2P	201	1/1	0.95	0.07	40,40,40,40	0
55	MG	2A	3546	1/1	0.95	0.21	33,33,33,33	0
55	MG	1A	4056	1/1	0.95	0.14	56,56,56,56	0
55	MG	1A	3074	1/1	0.95	0.14	24,24,24,24	0
55	MG	1x	110	1/1	0.95	0.14	63,63,63,63	0
55	MG	1A	3277	1/1	0.95	0.07	38,38,38,38	0
55	MG	1A	4059	1/1	0.95	0.06	34,34,34,34	0
55	MG	1A	3849	1/1	0.95	0.07	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2T	203	1/1	0.95	0.09	35,35,35,35	0
55	MG	2A	3271	1/1	0.95	0.23	61,61,61,61	0
55	MG	1A	3278	1/1	0.95	0.07	40,40,40,40	0
55	MG	2A	3555	1/1	0.95	0.17	44,44,44,44	0
55	MG	2A	3556	1/1	0.95	0.08	35,35,35,35	0
55	MG	2V	203	1/1	0.95	0.08	47,47,47,47	0
55	MG	1A	4063	1/1	0.95	0.12	36,36,36,36	0
55	MG	1A	3166	1/1	0.95	0.15	28,28,28,28	0
55	MG	1A	3658	1/1	0.95	0.10	43,43,43,43	0
55	MG	1A	3167	1/1	0.95	0.11	37,37,37,37	0
55	MG	1A	3168	1/1	0.95	0.08	38,38,38,38	0
55	MG	2A	3009	1/1	0.95	0.11	40,40,40,40	0
55	MG	2A	3010	1/1	0.95	0.06	30,30,30,30	0
55	MG	2A	3569	1/1	0.95	0.14	38,38,38,38	0
55	MG	1A	3667	1/1	0.95	0.20	49,49,49,49	0
55	MG	1A	3225	1/1	0.95	0.12	26,26,26,26	0
55	MG	1a	1647	1/1	0.95	0.13	53,53,53,53	0
55	MG	1A	4074	1/1	0.95	0.09	14,14,14,14	0
55	MG	1A	3169	1/1	0.95	0.10	26,26,26,26	0
55	MG	2A	3577	1/1	0.95	0.09	44,44,44,44	0
55	MG	2A	3578	1/1	0.95	0.21	28,28,28,28	0
55	MG	2A	3579	1/1	0.95	0.08	55,55,55,55	0
55	MG	1A	4077	1/1	0.95	0.10	34,34,34,34	0
55	MG	1A	3670	1/1	0.95	0.08	46,46,46,46	0
55	MG	2A	3583	1/1	0.95	0.16	53,53,53,53	0
55	MG	2a	3011	1/1	0.95	0.32	55,55,55,55	0
55	MG	2A	3584	1/1	0.95	0.10	35,35,35,35	0
55	MG	1A	3671	1/1	0.95	0.05	36,36,36,36	0
55	MG	1a	1655	1/1	0.95	0.20	39,39,39,39	0
55	MG	1A	3130	1/1	0.95	0.11	27,27,27,27	0
55	MG	2A	3588	1/1	0.95	0.12	49,49,49,49	0
55	MG	2A	3024	1/1	0.95	0.16	40,40,40,40	0
55	MG	1A	3057	1/1	0.95	0.07	21,21,21,21	0
55	MG	2A	3026	1/1	0.95	0.13	42,42,42,42	0
55	MG	1A	3233	1/1	0.95	0.21	38,38,38,38	0
55	MG	1A	3446	1/1	0.95	0.07	31,31,31,31	0
55	MG	1A	3447	1/1	0.95	0.09	42,42,42,42	0
55	MG	1A	3079	1/1	0.95	0.15	34,34,34,34	0
55	MG	1A	4090	1/1	0.95	0.06	42,42,42,42	0
55	MG	1A	4094	1/1	0.95	0.10	14,14,14,14	0
55	MG	1A	4096	1/1	0.95	0.08	47,47,47,47	0
55	MG	1A	4097	1/1	0.95	0.12	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3359	1/1	0.95	0.07	44,44,44,44	0
55	MG	2A	3306	1/1	0.95	0.14	55,55,55,55	0
55	MG	1A	4100	1/1	0.95	0.09	37,37,37,37	0
55	MG	1A	3235	1/1	0.95	0.18	35,35,35,35	0
55	MG	1A	3876	1/1	0.95	0.11	19,19,19,19	0
55	MG	2A	3311	1/1	0.95	0.12	41,41,41,41	0
55	MG	1A	4103	1/1	0.95	0.10	57,57,57,57	0
55	MG	1A	3295	1/1	0.95	0.08	31,31,31,31	0
55	MG	2A	3046	1/1	0.95	0.17	55,55,55,55	0
55	MG	2A	3047	1/1	0.95	0.12	53,53,53,53	0
55	MG	1A	3058	1/1	0.95	0.17	35,35,35,35	0
55	MG	1A	3685	1/1	0.95	0.08	34,34,34,34	0
55	MG	2A	3053	1/1	0.95	0.06	41,41,41,41	0
55	MG	2A	3319	1/1	0.95	0.22	62,62,62,62	0
55	MG	2A	3056	1/1	0.95	0.06	42,42,42,42	0
55	MG	1A	3297	1/1	0.95	0.12	36,36,36,36	0
55	MG	2A	3620	1/1	0.95	0.15	38,38,38,38	0
55	MG	1A	3365	1/1	0.95	0.10	48,48,48,48	0
55	MG	1A	3885	1/1	0.95	0.10	50,50,50,50	0
55	MG	2A	3623	1/1	0.95	0.15	26,26,26,26	0
55	MG	2A	3062	1/1	0.95	0.20	45,45,45,45	0
55	MG	1A	3238	1/1	0.95	0.10	31,31,31,31	0
55	MG	2A	3626	1/1	0.95	0.19	44,44,44,44	0
55	MG	2a	3053	1/1	0.95	0.10	42,42,42,42	0
55	MG	2A	3328	1/1	0.95	0.06	43,43,43,43	0
55	MG	1A	3553	1/1	0.95	0.06	33,33,33,33	0
55	MG	1A	3699	1/1	0.95	0.09	21,21,21,21	0
55	MG	1A	3299	1/1	0.95	0.15	42,42,42,42	0
55	MG	1A	3704	1/1	0.95	0.11	42,42,42,42	0
55	MG	1A	3705	1/1	0.95	0.09	23,23,23,23	0
55	MG	1A	3556	1/1	0.95	0.20	31,31,31,31	0
55	MG	2A	3636	1/1	0.95	0.13	57,57,57,57	0
55	MG	2A	3637	1/1	0.95	0.28	38,38,38,38	0
55	MG	2A	3337	1/1	0.95	0.12	51,51,51,51	0
55	MG	1A	3710	1/1	0.95	0.07	21,21,21,21	0
55	MG	2A	3640	1/1	0.95	0.10	55,55,55,55	0
55	MG	1B	203	1/1	0.95	0.13	39,39,39,39	0
55	MG	2A	3642	1/1	0.95	0.07	69,69,69,69	0
55	MG	1B	204	1/1	0.95	0.13	52,52,52,52	0
55	MG	2A	3078	1/1	0.95	0.09	43,43,43,43	0
55	MG	1B	205	1/1	0.95	0.07	39,39,39,39	0
55	MG	1A	3902	1/1	0.95	0.07	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3712	1/1	0.95	0.10	41,41,41,41	0
55	MG	1A	3713	1/1	0.95	0.14	42,42,42,42	0
55	MG	2A	3649	1/1	0.95	0.07	40,40,40,40	0
55	MG	1B	211	1/1	0.95	0.05	33,33,33,33	0
55	MG	1a	1696	1/1	0.95	0.27	55,55,55,55	0
55	MG	1A	3558	1/1	0.95	0.36	30,30,30,30	0
55	MG	1B	217	1/1	0.95	0.06	38,38,38,38	0
55	MG	2A	3656	1/1	0.95	0.09	53,53,53,53	0
55	MG	1A	3300	1/1	0.95	0.05	28,28,28,28	0
55	MG	2a	3084	1/1	0.95	0.06	69,69,69,69	0
55	MG	1A	3111	1/1	0.95	0.18	30,30,30,30	0
55	MG	1A	3565	1/1	0.95	0.12	40,40,40,40	0
55	MG	2A	3093	1/1	0.95	0.21	48,48,48,48	0
55	MG	2A	3663	1/1	0.95	0.10	52,52,52,52	0
55	MG	1A	3719	1/1	0.95	0.06	60,60,60,60	0
55	MG	1A	3913	1/1	0.95	0.08	22,22,22,22	0
55	MG	1B	227	1/1	0.95	0.11	57,57,57,57	0
55	MG	1A	3721	1/1	0.95	0.09	27,27,27,27	0
55	MG	1A	3566	1/1	0.95	0.09	32,32,32,32	0
55	MG	2A	3672	1/1	0.95	0.14	59,59,59,59	0
55	MG	2A	3102	1/1	0.95	0.07	63,63,63,63	0
55	MG	1A	3916	1/1	0.95	0.18	68,68,68,68	0
55	MG	1A	3051	1/1	0.95	0.15	23,23,23,23	0
55	MG	1a	1711	1/1	0.95	0.06	57,57,57,57	0
55	MG	2A	3677	1/1	0.95	0.08	37,37,37,37	0
55	MG	1a	1712	1/1	0.95	0.16	65,65,65,65	0
55	MG	2A	3680	1/1	0.95	0.12	47,47,47,47	0
55	MG	2a	3104	1/1	0.95	0.10	64,64,64,64	0
55	MG	2A	3109	1/1	0.95	0.15	52,52,52,52	0
55	MG	2a	3106	1/1	0.95	0.10	46,46,46,46	0
55	MG	1A	3726	1/1	0.95	0.08	64,64,64,64	0
55	MG	1A	3304	1/1	0.95	0.22	34,34,34,34	0
55	MG	2A	3370	1/1	0.95	0.08	63,63,63,63	0
55	MG	2A	3688	1/1	0.95	0.16	32,32,32,32	0
55	MG	2A	3113	1/1	0.95	0.08	40,40,40,40	0
55	MG	1A	3572	1/1	0.95	0.06	32,32,32,32	0
55	MG	1A	3574	1/1	0.95	0.12	41,41,41,41	0
55	MG	1D	304	1/1	0.95	0.13	32,32,32,32	0
55	MG	1D	307	1/1	0.95	0.29	38,38,38,38	0
55	MG	1D	308	1/1	0.95	0.37	35,35,35,35	0
55	MG	1a	1720	1/1	0.95	0.10	41,41,41,41	0
55	MG	1A	3373	1/1	0.95	0.20	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3181	1/1	0.95	0.17	58,58,58,58	0
55	MG	2A	3125	1/1	0.95	0.23	58,58,58,58	0
55	MG	2A	3705	1/1	0.95	0.06	55,55,55,55	0
55	MG	1A	3242	1/1	0.95	0.17	36,36,36,36	0
55	MG	2A	3128	1/1	0.95	0.13	35,35,35,35	0
55	MG	1A	3018	1/1	0.95	0.20	43,43,43,43	0
55	MG	1A	3929	1/1	0.95	0.08	37,37,37,37	0
55	MG	1A	3086	1/1	0.95	0.12	39,39,39,39	0
55	MG	1A	3744	1/1	0.95	0.05	53,53,53,53	0
55	MG	2A	3390	1/1	0.95	0.12	53,53,53,53	0
55	MG	1E	305	1/1	0.95	0.21	30,30,30,30	0
55	MG	2A	3134	1/1	0.95	0.08	45,45,45,45	0
55	MG	1A	3935	1/1	0.95	0.09	21,21,21,21	0
55	MG	1E	307	1/1	0.95	0.11	44,44,44,44	0
55	MG	1a	1732	1/1	0.95	0.12	42,42,42,42	0
55	MG	2A	3140	1/1	0.95	0.08	40,40,40,40	0
55	MG	1a	1733	1/1	0.95	0.20	50,50,50,50	0
55	MG	1A	3587	1/1	0.95	0.07	57,57,57,57	0
55	MG	2A	3401	1/1	0.95	0.24	43,43,43,43	0
55	MG	1a	1737	1/1	0.95	0.14	42,42,42,42	0
55	MG	2A	3728	1/1	0.95	0.07	53,53,53,53	0
55	MG	1F	304	1/1	0.95	0.19	46,46,46,46	0
55	MG	2A	3404	1/1	0.95	0.12	61,61,61,61	0
55	MG	1A	3746	1/1	0.95	0.24	39,39,39,39	0
55	MG	2A	3733	1/1	0.95	0.13	49,49,49,49	0
55	MG	1F	308	1/1	0.95	0.11	34,34,34,34	0
55	MG	1A	3044	1/1	0.95	0.17	27,27,27,27	0
55	MG	2A	3408	1/1	0.95	0.30	60,60,60,60	0
55	MG	2A	3409	1/1	0.95	0.22	45,45,45,45	0
55	MG	1A	3474	1/1	0.95	0.19	39,39,39,39	0
55	MG	1A	3067	1/1	0.95	0.10	49,49,49,49	0
55	MG	1A	3751	1/1	0.95	0.17	50,50,50,50	0
55	MG	1A	3477	1/1	0.95	0.08	49,49,49,49	0
55	MG	2a	3161	1/1	0.95	0.13	51,51,51,51	0
55	MG	2A	3153	1/1	0.95	0.19	47,47,47,47	0
55	MG	1A	3478	1/1	0.95	0.08	44,44,44,44	0
55	MG	1N	203	1/1	0.95	0.06	47,47,47,47	0
55	MG	1A	3594	1/1	0.95	0.15	23,23,23,23	0
55	MG	1A	3757	1/1	0.95	0.10	55,55,55,55	0
55	MG	1A	3951	1/1	0.95	0.09	34,34,34,34	0
55	MG	1A	3036	1/1	0.95	0.07	34,34,34,34	0
55	MG	2a	3171	1/1	0.95	0.15	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1P	201	1/1	0.95	0.20	27,27,27,27	0
55	MG	2A	3752	1/1	0.95	0.18	51,51,51,51	0
55	MG	1A	3958	1/1	0.95	0.11	31,31,31,31	0
55	MG	1A	3961	1/1	0.95	0.08	41,41,41,41	0
55	MG	1A	3597	1/1	0.95	0.21	45,45,45,45	0
55	MG	1A	3149	1/1	0.95	0.31	30,30,30,30	0
55	MG	1A	3964	1/1	0.95	0.13	18,18,18,18	0
55	MG	1R	202	1/1	0.95	0.11	35,35,35,35	0
55	MG	1S	201	1/1	0.95	0.09	47,47,47,47	0
55	MG	2A	3430	1/1	0.95	0.22	31,31,31,31	0
55	MG	1A	3195	1/1	0.95	0.06	40,40,40,40	0
55	MG	2A	3767	1/1	0.95	0.19	51,51,51,51	0
55	MG	1A	3152	1/1	0.95	0.10	26,26,26,26	0
55	MG	2A	3769	1/1	0.95	0.11	48,48,48,48	0
55	MG	2A	3435	1/1	0.95	0.16	41,41,41,41	0
55	MG	1A	3483	1/1	0.95	0.31	53,53,53,53	0
55	MG	1U	206	1/1	0.95	0.18	28,28,28,28	0
55	MG	2A	3438	1/1	0.95	0.17	51,51,51,51	0
55	MG	2A	3440	1/1	0.95	0.19	50,50,50,50	0
55	MG	2a	3195	1/1	0.95	0.04	62,62,62,62	0
55	MG	1A	3971	1/1	0.95	0.14	42,42,42,42	0
55	MG	1A	3391	1/1	0.95	0.18	52,52,52,52	0
55	MG	1a	1778	1/1	0.95	0.12	43,43,43,43	0
55	MG	2a	3200	1/1	0.95	0.13	47,47,47,47	0
55	MG	1a	1780	1/1	0.95	0.17	42,42,42,42	0
55	MG	1A	3070	1/1	0.95	0.16	49,49,49,49	0
55	MG	1A	3772	1/1	0.95	0.09	16,16,16,16	0
55	MG	1A	3976	1/1	0.95	0.07	46,46,46,46	0
55	MG	1W	205	1/1	0.95	0.10	35,35,35,35	0
55	MG	1A	3977	1/1	0.95	0.05	40,40,40,40	0
55	MG	1A	3604	1/1	0.95	0.15	31,31,31,31	0
55	MG	1A	3155	1/1	0.95	0.10	32,32,32,32	0
55	MG	1A	3205	1/1	0.95	0.07	39,39,39,39	0
55	MG	1A	3778	1/1	0.95	0.09	29,29,29,29	0
55	MG	1A	3784	1/1	0.95	0.09	49,49,49,49	0
55	MG	2A	3794	1/1	0.95	0.06	57,57,57,57	0
55	MG	10	101	1/1	0.95	0.06	31,31,31,31	0
55	MG	1A	3071	1/1	0.95	0.09	28,28,28,28	0
55	MG	2A	3797	1/1	0.95	0.07	35,35,35,35	0
55	MG	1A	3207	1/1	0.95	0.12	41,41,41,41	0
55	MG	2A	3799	1/1	0.95	0.15	56,56,56,56	0
55	MG	2A	3195	1/1	0.95	0.09	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	10	105	1/1	0.95	0.05	44,44,44,44	0
55	MG	2A	3802	1/1	0.95	0.08	40,40,40,40	0
55	MG	11	102	1/1	0.95	0.08	28,28,28,28	0
55	MG	2A	3198	1/1	0.95	0.26	47,47,47,47	0
55	MG	2A	3812	1/1	0.95	0.07	55,55,55,55	0
55	MG	1A	3789	1/1	0.95	0.12	37,37,37,37	0
55	MG	1A	3790	1/1	0.95	0.12	16,16,16,16	0
55	MG	2A	3470	1/1	0.95	0.13	49,49,49,49	0
55	MG	2A	3471	1/1	0.95	0.12	21,21,21,21	0
56	ZN	24	501	1/1	0.95	0.09	132,132,132,132	0
55	MG	1A	3791	1/1	0.95	0.09	24,24,24,24	0
55	MG	1A	3404	1/1	0.95	0.13	55,55,55,55	0
55	MG	1A	3825	1/1	0.96	0.04	27,27,27,27	0
55	MG	2A	3336	1/1	0.96	0.20	48,48,48,48	0
55	MG	1P	203	1/1	0.96	0.15	49,49,49,49	0
55	MG	2A	3104	1/1	0.96	0.18	51,51,51,51	0
55	MG	2B	217	1/1	0.96	0.07	57,57,57,57	0
55	MG	1Q	201	1/1	0.96	0.17	28,28,28,28	0
55	MG	2A	3592	1/1	0.96	0.12	36,36,36,36	0
55	MG	1A	3994	1/1	0.96	0.12	36,36,36,36	0
55	MG	1a	1735	1/1	0.96	0.20	50,50,50,50	0
55	MG	1A	3091	1/1	0.96	0.11	49,49,49,49	0
55	MG	1A	3996	1/1	0.96	0.06	50,50,50,50	0
55	MG	1a	1739	1/1	0.96	0.18	47,47,47,47	0
55	MG	1A	3150	1/1	0.96	0.08	25,25,25,25	0
55	MG	1A	3828	1/1	0.96	0.10	25,25,25,25	0
55	MG	2E	308	1/1	0.96	0.06	26,26,26,26	0
55	MG	1A	3829	1/1	0.96	0.08	24,24,24,24	0
55	MG	1A	3543	1/1	0.96	0.10	48,48,48,48	0
55	MG	1A	3545	1/1	0.96	0.17	31,31,31,31	0
55	MG	2F	303	1/1	0.96	0.15	45,45,45,45	0
55	MG	2A	3603	1/1	0.96	0.12	34,34,34,34	0
55	MG	2F	305	1/1	0.96	0.14	49,49,49,49	0
55	MG	1A	4002	1/1	0.96	0.07	60,60,60,60	0
55	MG	2A	3351	1/1	0.96	0.19	38,38,38,38	0
55	MG	2A	3119	1/1	0.96	0.20	32,32,32,32	0
55	MG	1A	4004	1/1	0.96	0.11	14,14,14,14	0
55	MG	2A	3608	1/1	0.96	0.22	38,38,38,38	0
55	MG	2O	202	1/1	0.96	0.16	46,46,46,46	0
55	MG	2A	3122	1/1	0.96	0.13	32,32,32,32	0
55	MG	1A	3383	1/1	0.96	0.12	35,35,35,35	0
55	MG	1A	4006	1/1	0.96	0.08	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3547	1/1	0.96	0.23	30,30,30,30	0
55	MG	1A	3007	1/1	0.96	0.08	39,39,39,39	0
55	MG	1a	1751	1/1	0.96	0.10	54,54,54,54	0
55	MG	1A	3226	1/1	0.96	0.18	32,32,32,32	0
55	MG	1A	3227	1/1	0.96	0.06	41,41,41,41	0
55	MG	1A	3228	1/1	0.96	0.17	44,44,44,44	0
55	MG	1A	3673	1/1	0.96	0.17	40,40,40,40	0
55	MG	2A	3619	1/1	0.96	0.18	48,48,48,48	0
55	MG	1X	104	1/1	0.96	0.07	40,40,40,40	0
55	MG	1X	105	1/1	0.96	0.05	34,34,34,34	0
55	MG	2A	3135	1/1	0.96	0.05	36,36,36,36	0
55	MG	1A	3840	1/1	0.96	0.10	28,28,28,28	0
55	MG	2A	3137	1/1	0.96	0.20	51,51,51,51	0
55	MG	1A	4014	1/1	0.96	0.09	39,39,39,39	0
55	MG	1A	3841	1/1	0.96	0.13	38,38,38,38	0
55	MG	1A	3552	1/1	0.96	0.04	33,33,33,33	0
55	MG	1Z	302	1/1	0.96	0.12	43,43,43,43	0
55	MG	25	101	1/1	0.96	0.11	44,44,44,44	0
55	MG	1A	4017	1/1	0.96	0.10	20,20,20,20	0
55	MG	1A	3389	1/1	0.96	0.14	48,48,48,48	0
55	MG	27	101	1/1	0.96	0.08	44,44,44,44	0
55	MG	2A	3631	1/1	0.96	0.11	35,35,35,35	0
55	MG	2A	3144	1/1	0.96	0.22	45,45,45,45	0
55	MG	1A	3093	1/1	0.96	0.10	41,41,41,41	0
55	MG	10	104	1/1	0.96	0.09	51,51,51,51	0
55	MG	1A	3555	1/1	0.96	0.21	32,32,32,32	0
55	MG	2A	3381	1/1	0.96	0.04	49,49,49,49	0
55	MG	1A	3001	1/1	0.96	0.05	33,33,33,33	0
55	MG	2A	3383	1/1	0.96	0.14	52,52,52,52	0
55	MG	1A	3557	1/1	0.96	0.12	21,21,21,21	0
55	MG	1a	1781	1/1	0.96	0.15	56,56,56,56	0
55	MG	2a	3009	1/1	0.96	0.12	59,59,59,59	0
55	MG	1A	3392	1/1	0.96	0.07	53,53,53,53	0
55	MG	12	101	1/1	0.96	0.08	42,42,42,42	0
55	MG	1A	3020	1/1	0.96	0.07	22,22,22,22	0
55	MG	1A	3561	1/1	0.96	0.19	38,38,38,38	0
55	MG	1A	3473	1/1	0.96	0.15	36,36,36,36	0
55	MG	1A	3283	1/1	0.96	0.18	26,26,26,26	0
55	MG	2A	3393	1/1	0.96	0.10	40,40,40,40	0
55	MG	1A	4031	1/1	0.96	0.09	33,33,33,33	0
55	MG	1A	3475	1/1	0.96	0.15	40,40,40,40	0
55	MG	2A	3651	1/1	0.96	0.06	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3855	1/1	0.96	0.18	50,50,50,50	0
55	MG	1A	3032	1/1	0.96	0.08	20,20,20,20	0
55	MG	1A	3692	1/1	0.96	0.08	36,36,36,36	0
55	MG	2A	3655	1/1	0.96	0.05	39,39,39,39	0
55	MG	1A	3397	1/1	0.96	0.14	38,38,38,38	0
55	MG	17	103	1/1	0.96	0.09	32,32,32,32	0
55	MG	2A	3164	1/1	0.96	0.09	57,57,57,57	0
55	MG	1A	3860	1/1	0.96	0.07	38,38,38,38	0
55	MG	1A	3697	1/1	0.96	0.08	48,48,48,48	0
55	MG	1A	4042	1/1	0.96	0.06	57,57,57,57	0
55	MG	2A	3664	1/1	0.96	0.10	58,58,58,58	0
55	MG	1a	1801	1/1	0.96	0.15	62,62,62,62	0
55	MG	2A	3169	1/1	0.96	0.24	48,48,48,48	0
55	MG	18	103	1/1	0.96	0.16	38,38,38,38	0
55	MG	1A	4043	1/1	0.96	0.05	49,49,49,49	0
55	MG	1A	3570	1/1	0.96	0.17	31,31,31,31	0
55	MG	2a	3036	1/1	0.96	0.06	43,43,43,43	0
55	MG	1A	3863	1/1	0.96	0.07	45,45,45,45	0
55	MG	1A	3398	1/1	0.96	0.22	29,29,29,29	0
55	MG	2a	3039	1/1	0.96	0.11	43,43,43,43	0
55	MG	1A	3868	1/1	0.96	0.05	57,57,57,57	0
55	MG	1a	1603	1/1	0.96	0.08	55,55,55,55	0
55	MG	1A	3332	1/1	0.96	0.12	44,44,44,44	0
55	MG	1A	3285	1/1	0.96	0.13	38,38,38,38	0
55	MG	2A	3180	1/1	0.96	0.11	44,44,44,44	0
55	MG	2A	3679	1/1	0.96	0.05	43,43,43,43	0
55	MG	1A	3577	1/1	0.96	0.24	37,37,37,37	0
55	MG	1a	1813	1/1	0.96	0.13	40,40,40,40	0
55	MG	1A	3709	1/1	0.96	0.08	23,23,23,23	0
55	MG	1A	4060	1/1	0.96	0.08	37,37,37,37	0
55	MG	2A	3684	1/1	0.96	0.04	54,54,54,54	0
55	MG	1a	1609	1/1	0.96	0.29	62,62,62,62	0
55	MG	1A	3578	1/1	0.96	0.08	33,33,33,33	0
55	MG	1A	3401	1/1	0.96	0.07	37,37,37,37	0
55	MG	2a	3054	1/1	0.96	0.21	46,46,46,46	0
55	MG	1A	3580	1/1	0.96	0.08	35,35,35,35	0
55	MG	1a	1613	1/1	0.96	0.11	37,37,37,37	0
55	MG	1a	1822	1/1	0.96	0.16	54,54,54,54	0
55	MG	2A	3695	1/1	0.96	0.17	29,29,29,29	0
55	MG	2a	3059	1/1	0.96	0.10	50,50,50,50	0
55	MG	1a	1823	1/1	0.96	0.25	51,51,51,51	0
55	MG	1A	3581	1/1	0.96	0.14	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3187	1/1	0.96	0.08	29,29,29,29	0
55	MG	2A	3699	1/1	0.96	0.06	43,43,43,43	0
55	MG	1A	3584	1/1	0.96	0.28	33,33,33,33	0
55	MG	2A	3434	1/1	0.96	0.05	69,69,69,69	0
55	MG	1A	3406	1/1	0.96	0.14	37,37,37,37	0
55	MG	1A	3880	1/1	0.96	0.10	21,21,21,21	0
55	MG	1A	3407	1/1	0.96	0.10	49,49,49,49	0
55	MG	1A	3158	1/1	0.96	0.11	34,34,34,34	0
55	MG	1A	4075	1/1	0.96	0.10	58,58,58,58	0
55	MG	1A	3884	1/1	0.96	0.12	28,28,28,28	0
55	MG	1A	3722	1/1	0.96	0.07	33,33,33,33	0
55	MG	2A	3713	1/1	0.96	0.06	52,52,52,52	0
55	MG	2A	3714	1/1	0.96	0.11	55,55,55,55	0
55	MG	1A	4078	1/1	0.96	0.08	61,61,61,61	0
55	MG	1A	3888	1/1	0.96	0.04	29,29,29,29	0
55	MG	2A	3446	1/1	0.96	0.08	48,48,48,48	0
55	MG	1A	3236	1/1	0.96	0.16	23,23,23,23	0
55	MG	1A	3056	1/1	0.96	0.10	39,39,39,39	0
55	MG	1A	3891	1/1	0.96	0.08	39,39,39,39	0
55	MG	1A	3191	1/1	0.96	0.17	29,29,29,29	0
55	MG	1A	3893	1/1	0.96	0.08	35,35,35,35	0
55	MG	2A	3723	1/1	0.96	0.07	29,29,29,29	0
55	MG	2A	3213	1/1	0.96	0.13	57,57,57,57	0
55	MG	2A	3214	1/1	0.96	0.28	43,43,43,43	0
55	MG	1A	3727	1/1	0.96	0.12	31,31,31,31	0
55	MG	1A	3730	1/1	0.96	0.07	16,16,16,16	0
55	MG	1A	3339	1/1	0.96	0.25	42,42,42,42	0
55	MG	2A	3458	1/1	0.96	0.13	52,52,52,52	0
55	MG	1A	3898	1/1	0.96	0.16	22,22,22,22	0
55	MG	2A	3220	1/1	0.96	0.14	62,62,62,62	0
55	MG	1A	3899	1/1	0.96	0.11	41,41,41,41	0
55	MG	1A	3193	1/1	0.96	0.47	33,33,33,33	0
55	MG	1A	3494	1/1	0.96	0.15	35,35,35,35	0
55	MG	2A	3736	1/1	0.96	0.05	58,58,58,58	0
55	MG	2a	3097	1/1	0.96	0.07	75,75,75,75	0
55	MG	1A	4099	1/1	0.96	0.08	37,37,37,37	0
55	MG	1x	102	1/1	0.96	0.06	59,59,59,59	0
55	MG	1A	3595	1/1	0.96	0.15	36,36,36,36	0
55	MG	1A	3160	1/1	0.96	0.11	29,29,29,29	0
55	MG	1A	3739	1/1	0.96	0.15	27,27,27,27	0
55	MG	1A	3905	1/1	0.96	0.07	23,23,23,23	0
55	MG	1A	3342	1/1	0.96	0.21	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3345	1/1	0.96	0.26	25,25,25,25	0
55	MG	1A	3498	1/1	0.96	0.09	24,24,24,24	0
55	MG	1A	3743	1/1	0.96	0.18	49,49,49,49	0
55	MG	2A	3235	1/1	0.96	0.07	53,53,53,53	0
55	MG	1A	3101	1/1	0.96	0.14	39,39,39,39	0
55	MG	1A	3197	1/1	0.96	0.14	42,42,42,42	0
55	MG	1A	3420	1/1	0.96	0.06	45,45,45,45	0
55	MG	1A	3033	1/1	0.96	0.07	24,24,24,24	0
55	MG	2A	3481	1/1	0.96	0.17	38,38,38,38	0
55	MG	1A	3199	1/1	0.96	0.16	18,18,18,18	0
55	MG	1A	3245	1/1	0.96	0.13	57,57,57,57	0
55	MG	2A	3242	1/1	0.96	0.20	49,49,49,49	0
55	MG	1A	3352	1/1	0.96	0.07	40,40,40,40	0
55	MG	2A	3759	1/1	0.96	0.09	46,46,46,46	0
55	MG	1A	3353	1/1	0.96	0.07	50,50,50,50	0
55	MG	2a	3121	1/1	0.96	0.38	51,51,51,51	0
55	MG	2a	3122	1/1	0.96	0.25	34,34,34,34	0
55	MG	1A	3246	1/1	0.96	0.15	43,43,43,43	0
55	MG	1A	3021	1/1	0.96	0.06	24,24,24,24	0
55	MG	1A	3429	1/1	0.96	0.09	48,48,48,48	0
55	MG	2A	3490	1/1	0.96	0.19	46,46,46,46	0
55	MG	1A	3759	1/1	0.96	0.06	39,39,39,39	0
55	MG	1A	3203	1/1	0.96	0.17	29,29,29,29	0
55	MG	1A	3357	1/1	0.96	0.05	36,36,36,36	0
55	MG	2a	3131	1/1	0.96	0.21	37,37,37,37	0
55	MG	2a	3133	1/1	0.96	0.41	46,46,46,46	0
55	MG	1A	3614	1/1	0.96	0.14	15,15,15,15	0
55	MG	1A	3615	1/1	0.96	0.20	48,48,48,48	0
55	MG	1A	3931	1/1	0.96	0.17	35,35,35,35	0
55	MG	1B	212	1/1	0.96	0.14	52,52,52,52	0
55	MG	1A	3616	1/1	0.96	0.21	38,38,38,38	0
55	MG	1B	215	1/1	0.96	0.06	43,43,43,43	0
55	MG	1B	216	1/1	0.96	0.11	48,48,48,48	0
55	MG	1A	3934	1/1	0.96	0.06	28,28,28,28	0
55	MG	1A	3514	1/1	0.96	0.09	59,59,59,59	0
55	MG	1B	221	1/1	0.96	0.06	34,34,34,34	0
55	MG	1A	3358	1/1	0.96	0.10	56,56,56,56	0
55	MG	2A	3508	1/1	0.96	0.14	50,50,50,50	0
55	MG	1A	3249	1/1	0.96	0.15	37,37,37,37	0
55	MG	1A	3771	1/1	0.96	0.13	33,33,33,33	0
55	MG	2A	3035	1/1	0.96	0.17	58,58,58,58	0
55	MG	1A	3204	1/1	0.96	0.06	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1a	1680	1/1	0.96	0.08	61,61,61,61	0
55	MG	2A	3792	1/1	0.96	0.08	60,60,60,60	0
55	MG	1A	3013	1/1	0.96	0.18	27,27,27,27	0
55	MG	1A	3252	1/1	0.96	0.15	33,33,33,33	0
55	MG	2a	3156	1/1	0.96	0.15	48,48,48,48	0
55	MG	1A	3945	1/1	0.96	0.10	56,56,56,56	0
55	MG	1A	3108	1/1	0.96	0.04	29,29,29,29	0
55	MG	1a	1685	1/1	0.96	0.13	58,58,58,58	0
55	MG	1A	3440	1/1	0.96	0.17	39,39,39,39	0
55	MG	1A	3948	1/1	0.96	0.07	30,30,30,30	0
55	MG	1A	3780	1/1	0.96	0.08	57,57,57,57	0
55	MG	1A	3443	1/1	0.96	0.09	33,33,33,33	0
55	MG	1A	3049	1/1	0.96	0.11	27,27,27,27	0
55	MG	1A	3050	1/1	0.96	0.18	36,36,36,36	0
55	MG	1A	3954	1/1	0.96	0.06	52,52,52,52	0
55	MG	2A	3051	1/1	0.96	0.22	53,53,53,53	0
55	MG	2A	3287	1/1	0.96	0.10	46,46,46,46	0
55	MG	2a	3169	1/1	0.96	0.14	59,59,59,59	0
55	MG	2A	3815	1/1	0.96	0.10	40,40,40,40	0
55	MG	1A	3957	1/1	0.96	0.13	28,28,28,28	0
55	MG	2A	3535	1/1	0.96	0.11	39,39,39,39	0
55	MG	2A	3054	1/1	0.96	0.23	47,47,47,47	0
55	MG	2A	3820	1/1	0.96	0.12	33,33,33,33	0
55	MG	1A	3064	1/1	0.96	0.17	40,40,40,40	0
55	MG	2A	3538	1/1	0.96	0.16	32,32,32,32	0
55	MG	2A	3539	1/1	0.96	0.09	57,57,57,57	0
55	MG	1A	3065	1/1	0.96	0.20	50,50,50,50	0
55	MG	2A	3059	1/1	0.96	0.05	42,42,42,42	0
55	MG	2a	3182	1/1	0.96	0.09	51,51,51,51	0
55	MG	1A	3114	1/1	0.96	0.15	38,38,38,38	0
55	MG	2a	3184	1/1	0.96	0.10	72,72,72,72	0
55	MG	1A	3793	1/1	0.96	0.06	42,42,42,42	0
55	MG	1A	3087	1/1	0.96	0.17	29,29,29,29	0
55	MG	1A	3315	1/1	0.96	0.16	51,51,51,51	0
55	MG	1A	3966	1/1	0.96	0.11	57,57,57,57	0
55	MG	1A	3635	1/1	0.96	0.12	49,49,49,49	0
55	MG	1A	3637	1/1	0.96	0.07	39,39,39,39	0
55	MG	1A	3638	1/1	0.96	0.13	43,43,43,43	0
55	MG	2A	3302	1/1	0.96	0.06	42,42,42,42	0
55	MG	1E	309	1/1	0.96	0.07	43,43,43,43	0
55	MG	2A	3838	1/1	0.96	0.10	46,46,46,46	0
55	MG	2a	3196	1/1	0.96	0.11	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3005	1/1	0.96	0.04	34,34,34,34	0
55	MG	2A	3072	1/1	0.96	0.18	29,29,29,29	0
55	MG	1F	301	1/1	0.96	0.08	49,49,49,49	0
55	MG	1A	3317	1/1	0.96	0.21	36,36,36,36	0
55	MG	1A	3533	1/1	0.96	0.09	24,24,24,24	0
55	MG	2A	3845	1/1	0.96	0.17	42,42,42,42	0
55	MG	2A	3557	1/1	0.96	0.11	40,40,40,40	0
55	MG	1A	3534	1/1	0.96	0.19	31,31,31,31	0
55	MG	2A	3559	1/1	0.96	0.11	50,50,50,50	0
55	MG	1F	309	1/1	0.96	0.11	41,41,41,41	0
55	MG	1A	3454	1/1	0.96	0.26	46,46,46,46	0
55	MG	1A	3809	1/1	0.96	0.10	28,28,28,28	0
55	MG	1A	3980	1/1	0.96	0.06	34,34,34,34	0
55	MG	1G	202	1/1	0.96	0.11	57,57,57,57	0
55	MG	2A	3084	1/1	0.96	0.25	48,48,48,48	0
55	MG	1A	3647	1/1	0.96	0.06	42,42,42,42	0
55	MG	2f	202	1/1	0.96	0.15	56,56,56,56	0
55	MG	1A	3648	1/1	0.96	0.15	41,41,41,41	0
55	MG	1a	1721	1/1	0.96	0.14	28,28,28,28	0
55	MG	2A	3088	1/1	0.96	0.07	32,32,32,32	0
55	MG	1A	3649	1/1	0.96	0.10	21,21,21,21	0
55	MG	2A	3575	1/1	0.96	0.18	49,49,49,49	0
55	MG	2l	202	1/1	0.96	0.07	67,67,67,67	0
55	MG	2A	3862	1/1	0.96	0.08	56,56,56,56	0
55	MG	1N	202	1/1	0.96	0.10	33,33,33,33	0
55	MG	1A	3174	1/1	0.96	0.16	25,25,25,25	0
55	MG	1A	3652	1/1	0.96	0.16	26,26,26,26	0
55	MG	1A	3820	1/1	0.96	0.09	22,22,22,22	0
55	MG	1A	3822	1/1	0.96	0.14	21,21,21,21	0
55	MG	1O	203	1/1	0.96	0.05	35,35,35,35	0
55	MG	1A	3068	1/1	0.96	0.12	34,34,34,34	0
55	MG	2B	208	1/1	0.96	0.27	57,57,57,57	0
55	MG	1A	3540	1/1	0.96	0.20	41,41,41,41	0
55	MG	2A	3100	1/1	0.96	0.12	27,27,27,27	0
55	MG	2A	3101	1/1	0.96	0.08	44,44,44,44	0
55	MG	2B	212	1/1	0.96	0.26	52,52,52,52	0
55	MG	1A	3432	1/1	0.97	0.12	32,32,32,32	0
55	MG	2A	3324	1/1	0.97	0.14	45,45,45,45	0
55	MG	1A	3294	1/1	0.97	0.14	40,40,40,40	0
55	MG	2A	3326	1/1	0.97	0.13	46,46,46,46	0
55	MG	1A	3618	1/1	0.97	0.12	23,23,23,23	0
55	MG	1A	3008	1/1	0.97	0.05	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3329	1/1	0.97	0.23	45,45,45,45	0
55	MG	1A	3218	1/1	0.97	0.18	39,39,39,39	0
55	MG	1A	3094	1/1	0.97	0.09	16,16,16,16	0
55	MG	2A	3731	1/1	0.97	0.04	59,59,59,59	0
55	MG	1A	3220	1/1	0.97	0.11	44,44,44,44	0
55	MG	1A	3133	1/1	0.97	0.23	31,31,31,31	0
55	MG	1A	3043	1/1	0.97	0.12	25,25,25,25	0
55	MG	1A	3441	1/1	0.97	0.14	32,32,32,32	0
55	MG	1Q	205	1/1	0.97	0.15	36,36,36,36	0
55	MG	1A	4067	1/1	0.97	0.07	26,26,26,26	0
55	MG	1A	3442	1/1	0.97	0.10	51,51,51,51	0
55	MG	1A	3559	1/1	0.97	0.20	31,31,31,31	0
55	MG	2A	3534	1/1	0.97	0.09	40,40,40,40	0
55	MG	1T	201	1/1	0.97	0.05	50,50,50,50	0
55	MG	1A	3942	1/1	0.97	0.08	34,34,34,34	0
55	MG	1A	4073	1/1	0.97	0.06	61,61,61,61	0
55	MG	1A	3257	1/1	0.97	0.06	40,40,40,40	0
55	MG	1U	204	1/1	0.97	0.09	25,25,25,25	0
55	MG	2A	3746	1/1	0.97	0.22	37,37,37,37	0
55	MG	1a	1690	1/1	0.97	0.11	28,28,28,28	0
55	MG	1x	104	1/1	0.97	0.16	41,41,41,41	0
55	MG	1U	205	1/1	0.97	0.21	32,32,32,32	0
55	MG	1A	3258	1/1	0.97	0.08	47,47,47,47	0
55	MG	1A	3729	1/1	0.97	0.06	23,23,23,23	0
55	MG	1V	201	1/1	0.97	0.23	26,26,26,26	0
55	MG	1A	3563	1/1	0.97	0.10	36,36,36,36	0
55	MG	1A	3343	1/1	0.97	0.11	33,33,33,33	0
55	MG	2A	3171	1/1	0.97	0.09	45,45,45,45	0
55	MG	2A	3354	1/1	0.97	0.10	28,28,28,28	0
55	MG	1a	1697	1/1	0.97	0.19	35,35,35,35	0
55	MG	1A	3732	1/1	0.97	0.15	27,27,27,27	0
55	MG	1W	201	1/1	0.97	0.17	34,34,34,34	0
55	MG	1A	3344	1/1	0.97	0.07	37,37,37,37	0
55	MG	2A	3762	1/1	0.97	0.10	74,74,74,74	0
55	MG	2A	3764	1/1	0.97	0.06	65,65,65,65	0
55	MG	1W	203	1/1	0.97	0.09	29,29,29,29	0
55	MG	1W	204	1/1	0.97	0.08	38,38,38,38	0
55	MG	1A	3734	1/1	0.97	0.10	16,16,16,16	0
55	MG	1A	3504	1/1	0.97	0.07	41,41,41,41	0
55	MG	2A	3363	1/1	0.97	0.06	44,44,44,44	0
55	MG	2A	3007	1/1	0.97	0.07	43,43,43,43	0
55	MG	2A	3560	1/1	0.97	0.13	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1X	102	1/1	0.97	0.05	31,31,31,31	0
55	MG	1A	3259	1/1	0.97	0.29	36,36,36,36	0
55	MG	2A	3564	1/1	0.97	0.09	40,40,40,40	0
55	MG	1A	3955	1/1	0.97	0.14	50,50,50,50	0
55	MG	1A	4086	1/1	0.97	0.06	27,27,27,27	0
55	MG	1X	106	1/1	0.97	0.08	47,47,47,47	0
55	MG	1A	3636	1/1	0.97	0.13	15,15,15,15	0
55	MG	2A	3014	1/1	0.97	0.09	38,38,38,38	0
55	MG	2A	3780	1/1	0.97	0.05	53,53,53,53	0
55	MG	2a	3071	1/1	0.97	0.14	51,51,51,51	0
55	MG	1Y	202	1/1	0.97	0.19	45,45,45,45	0
55	MG	1A	3568	1/1	0.97	0.05	25,25,25,25	0
55	MG	2A	3572	1/1	0.97	0.15	27,27,27,27	0
55	MG	1A	3960	1/1	0.97	0.07	36,36,36,36	0
55	MG	1A	4091	1/1	0.97	0.12	24,24,24,24	0
55	MG	1A	4092	1/1	0.97	0.06	41,41,41,41	0
55	MG	2A	3788	1/1	0.97	0.05	73,73,73,73	0
55	MG	1A	4093	1/1	0.97	0.07	41,41,41,41	0
55	MG	1A	3189	1/1	0.97	0.06	43,43,43,43	0
55	MG	1A	3507	1/1	0.97	0.13	27,27,27,27	0
55	MG	1A	3029	1/1	0.97	0.25	30,30,30,30	0
55	MG	1A	3643	1/1	0.97	0.09	43,43,43,43	0
55	MG	2A	3027	1/1	0.97	0.13	31,31,31,31	0
55	MG	2A	3028	1/1	0.97	0.07	41,41,41,41	0
55	MG	1l	101	1/1	0.97	0.11	34,34,34,34	0
55	MG	1A	3573	1/1	0.97	0.08	28,28,28,28	0
55	MG	1A	3082	1/1	0.97	0.09	29,29,29,29	0
55	MG	2A	3387	1/1	0.97	0.18	29,29,29,29	0
55	MG	2A	3032	1/1	0.97	0.10	42,42,42,42	0
55	MG	2A	3206	1/1	0.97	0.05	38,38,38,38	0
55	MG	2A	3804	1/1	0.97	0.09	46,46,46,46	0
55	MG	2A	3805	1/1	0.97	0.06	54,54,54,54	0
55	MG	1A	3575	1/1	0.97	0.12	32,32,32,32	0
55	MG	1A	3192	1/1	0.97	0.09	32,32,32,32	0
55	MG	2A	3809	1/1	0.97	0.07	43,43,43,43	0
55	MG	2A	3810	1/1	0.97	0.13	38,38,38,38	0
55	MG	1A	3856	1/1	0.97	0.18	40,40,40,40	0
55	MG	1A	3119	1/1	0.97	0.10	30,30,30,30	0
55	MG	2a	3100	1/1	0.97	0.11	57,57,57,57	0
55	MG	1A	3749	1/1	0.97	0.12	37,37,37,37	0
55	MG	13	103	1/1	0.97	0.07	41,41,41,41	0
55	MG	1A	3974	1/1	0.97	0.09	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3818	1/1	0.97	0.12	41,41,41,41	0
55	MG	2A	3397	1/1	0.97	0.10	25,25,25,25	0
55	MG	1A	3453	1/1	0.97	0.35	46,46,46,46	0
55	MG	2A	3216	1/1	0.97	0.06	50,50,50,50	0
55	MG	1A	3351	1/1	0.97	0.04	38,38,38,38	0
55	MG	1A	3651	1/1	0.97	0.09	29,29,29,29	0
55	MG	1A	3753	1/1	0.97	0.07	48,48,48,48	0
55	MG	1a	1736	1/1	0.97	0.27	39,39,39,39	0
55	MG	16	101	1/1	0.97	0.04	42,42,42,42	0
55	MG	1A	3194	1/1	0.97	0.18	35,35,35,35	0
55	MG	1A	3139	1/1	0.97	0.06	37,37,37,37	0
55	MG	1A	3866	1/1	0.97	0.17	45,45,45,45	0
55	MG	2A	3225	1/1	0.97	0.09	54,54,54,54	0
55	MG	1A	3867	1/1	0.97	0.10	37,37,37,37	0
55	MG	2A	3052	1/1	0.97	0.06	30,30,30,30	0
55	MG	1A	3582	1/1	0.97	0.04	32,32,32,32	0
55	MG	1A	3758	1/1	0.97	0.09	34,34,34,34	0
55	MG	2A	3055	1/1	0.97	0.07	34,34,34,34	0
55	MG	1A	3045	1/1	0.97	0.08	37,37,37,37	0
55	MG	2a	3123	1/1	0.97	0.22	46,46,46,46	0
55	MG	2A	3057	1/1	0.97	0.07	40,40,40,40	0
55	MG	1A	3459	1/1	0.97	0.40	37,37,37,37	0
55	MG	1A	3141	1/1	0.97	0.07	32,32,32,32	0
55	MG	18	106	1/1	0.97	0.10	55,55,55,55	0
55	MG	1A	3661	1/1	0.97	0.09	46,46,46,46	0
55	MG	1A	3269	1/1	0.97	0.12	52,52,52,52	0
55	MG	1B	208	1/1	0.97	0.06	54,54,54,54	0
55	MG	2A	3064	1/1	0.97	0.16	47,47,47,47	0
55	MG	2a	3132	1/1	0.97	0.32	45,45,45,45	0
55	MG	2A	3065	1/1	0.97	0.11	48,48,48,48	0
55	MG	1A	3142	1/1	0.97	0.12	15,15,15,15	0
55	MG	1A	3273	1/1	0.97	0.08	36,36,36,36	0
55	MG	2A	3243	1/1	0.97	0.14	39,39,39,39	0
55	MG	1A	3037	1/1	0.97	0.06	28,28,28,28	0
55	MG	1A	3769	1/1	0.97	0.04	42,42,42,42	0
55	MG	2A	3246	1/1	0.97	0.09	51,51,51,51	0
55	MG	1B	213	1/1	0.97	0.20	44,44,44,44	0
55	MG	1A	3412	1/1	0.97	0.10	33,33,33,33	0
55	MG	2A	3857	1/1	0.97	0.18	36,36,36,36	0
55	MG	2A	3433	1/1	0.97	0.23	47,47,47,47	0
55	MG	1a	1761	1/1	0.97	0.04	49,49,49,49	0
55	MG	2A	3251	1/1	0.97	0.06	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3030	1/1	0.97	0.09	39,39,39,39	0
55	MG	1A	3467	1/1	0.97	0.29	46,46,46,46	0
55	MG	1A	3882	1/1	0.97	0.08	47,47,47,47	0
55	MG	2A	3439	1/1	0.97	0.08	64,64,64,64	0
55	MG	1B	219	1/1	0.97	0.10	38,38,38,38	0
55	MG	1A	3773	1/1	0.97	0.19	29,29,29,29	0
55	MG	1a	1767	1/1	0.97	0.05	32,32,32,32	0
55	MG	2a	3153	1/1	0.97	0.11	36,36,36,36	0
55	MG	1A	3593	1/1	0.97	0.23	53,53,53,53	0
55	MG	2a	3155	1/1	0.97	0.13	58,58,58,58	0
55	MG	2A	3444	1/1	0.97	0.09	18,18,18,18	0
55	MG	1A	3048	1/1	0.97	0.05	32,32,32,32	0
55	MG	1a	1771	1/1	0.97	0.08	64,64,64,64	0
55	MG	1A	3009	1/1	0.97	0.06	28,28,28,28	0
55	MG	1A	3363	1/1	0.97	0.18	36,36,36,36	0
55	MG	1A	3779	1/1	0.97	0.11	28,28,28,28	0
55	MG	1A	3280	1/1	0.97	0.24	45,45,45,45	0
55	MG	1a	1777	1/1	0.97	0.06	45,45,45,45	0
55	MG	1A	3105	1/1	0.97	0.18	31,31,31,31	0
55	MG	1a	1779	1/1	0.97	0.09	49,49,49,49	0
55	MG	1A	3151	1/1	0.97	0.14	38,38,38,38	0
55	MG	2A	3455	1/1	0.97	0.05	56,56,56,56	0
55	MG	1A	3894	1/1	0.97	0.08	26,26,26,26	0
55	MG	2D	301	1/1	0.97	0.05	31,31,31,31	0
55	MG	2a	3170	1/1	0.97	0.13	36,36,36,36	0
55	MG	2A	3657	1/1	0.97	0.09	44,44,44,44	0
55	MG	2A	3658	1/1	0.97	0.05	58,58,58,58	0
55	MG	1A	3178	1/1	0.97	0.10	31,31,31,31	0
55	MG	1A	3106	1/1	0.97	0.10	35,35,35,35	0
55	MG	1A	3535	1/1	0.97	0.09	41,41,41,41	0
55	MG	2A	3097	1/1	0.97	0.07	43,43,43,43	0
55	MG	2E	306	1/1	0.97	0.14	42,42,42,42	0
55	MG	2a	3178	1/1	0.97	0.15	43,43,43,43	0
55	MG	1A	3536	1/1	0.97	0.17	56,56,56,56	0
55	MG	1A	3209	1/1	0.97	0.08	27,27,27,27	0
55	MG	1D	302	1/1	0.97	0.07	23,23,23,23	0
55	MG	2A	3279	1/1	0.97	0.10	40,40,40,40	0
55	MG	2A	3667	1/1	0.97	0.07	46,46,46,46	0
55	MG	1A	3107	1/1	0.97	0.13	31,31,31,31	0
55	MG	1D	305	1/1	0.97	0.07	33,33,33,33	0
55	MG	2a	3186	1/1	0.97	0.16	50,50,50,50	0
55	MG	1A	3424	1/1	0.97	0.14	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3691	1/1	0.97	0.07	24,24,24,24	0
55	MG	1a	1634	1/1	0.97	0.14	58,58,58,58	0
55	MG	1A	3211	1/1	0.97	0.33	33,33,33,33	0
55	MG	1A	3693	1/1	0.97	0.06	26,26,26,26	0
55	MG	1A	3801	1/1	0.97	0.11	18,18,18,18	0
55	MG	2A	3110	1/1	0.97	0.09	56,56,56,56	0
55	MG	1A	3694	1/1	0.97	0.09	19,19,19,19	0
55	MG	1A	3026	1/1	0.97	0.11	32,32,32,32	0
55	MG	1A	3696	1/1	0.97	0.07	39,39,39,39	0
55	MG	1A	3374	1/1	0.97	0.05	31,31,31,31	0
55	MG	1A	3006	1/1	0.97	0.07	50,50,50,50	0
55	MG	1A	3700	1/1	0.97	0.05	23,23,23,23	0
55	MG	1A	3611	1/1	0.97	0.11	12,12,12,12	0
55	MG	2a	3201	1/1	0.97	0.06	55,55,55,55	0
55	MG	1E	308	1/1	0.97	0.13	16,16,16,16	0
55	MG	2A	3686	1/1	0.97	0.05	49,49,49,49	0
55	MG	1A	3811	1/1	0.97	0.07	43,43,43,43	0
55	MG	2A	3298	1/1	0.97	0.07	43,43,43,43	0
55	MG	1A	4036	1/1	0.97	0.07	45,45,45,45	0
55	MG	2A	3121	1/1	0.97	0.14	39,39,39,39	0
55	MG	1a	1809	1/1	0.97	0.14	49,49,49,49	0
55	MG	1E	311	1/1	0.97	0.05	43,43,43,43	0
55	MG	1a	1651	1/1	0.97	0.13	41,41,41,41	0
55	MG	1A	3484	1/1	0.97	0.04	35,35,35,35	0
55	MG	1A	3813	1/1	0.97	0.06	41,41,41,41	0
55	MG	1A	4039	1/1	0.97	0.07	38,38,38,38	0
55	MG	1F	306	1/1	0.97	0.28	20,20,20,20	0
55	MG	2A	3702	1/1	0.97	0.05	45,45,45,45	0
55	MG	1F	307	1/1	0.97	0.08	33,33,33,33	0
55	MG	1A	3183	1/1	0.97	0.09	46,46,46,46	0
55	MG	1A	3815	1/1	0.97	0.08	16,16,16,16	0
55	MG	1A	3816	1/1	0.97	0.13	42,42,42,42	0
55	MG	1A	3817	1/1	0.97	0.08	50,50,50,50	0
55	MG	2A	3709	1/1	0.97	0.07	39,39,39,39	0
55	MG	1A	3706	1/1	0.97	0.08	15,15,15,15	0
55	MG	2A	3502	1/1	0.97	0.06	48,48,48,48	0
55	MG	1A	4046	1/1	0.97	0.04	66,66,66,66	0
55	MG	2A	3504	1/1	0.97	0.11	35,35,35,35	0
55	MG	1A	3924	1/1	0.97	0.09	38,38,38,38	0
55	MG	1A	4048	1/1	0.97	0.06	40,40,40,40	0
55	MG	1A	4049	1/1	0.97	0.11	53,53,53,53	0
55	MG	1A	3378	1/1	0.97	0.16	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3076	1/1	0.97	0.14	40,40,40,40	0
55	MG	2A	3510	1/1	0.97	0.08	36,36,36,36	0
56	ZN	2n	501	1/1	0.97	0.05	100,100,100,100	0
55	MG	1A	4055	1/1	0.97	0.13	38,38,38,38	0
55	MG	1A	3927	1/1	0.97	0.12	34,34,34,34	0
55	MG	1A	3328	1/1	0.98	0.20	40,40,40,40	0
55	MG	1A	3629	1/1	0.98	0.07	32,32,32,32	0
55	MG	1A	3738	1/1	0.98	0.06	34,34,34,34	0
55	MG	2A	3016	1/1	0.98	0.05	40,40,40,40	0
55	MG	2A	3249	1/1	0.98	0.05	59,59,59,59	0
55	MG	1A	3143	1/1	0.98	0.03	28,28,28,28	0
55	MG	2E	305	1/1	0.98	0.14	38,38,38,38	0
55	MG	1B	218	1/1	0.98	0.07	20,20,20,20	0
55	MG	1A	3396	1/1	0.98	0.16	31,31,31,31	0
55	MG	1A	3959	1/1	0.98	0.08	40,40,40,40	0
55	MG	1A	4044	1/1	0.98	0.06	57,57,57,57	0
55	MG	1B	222	1/1	0.98	0.09	28,28,28,28	0
55	MG	1A	3097	1/1	0.98	0.08	30,30,30,30	0
55	MG	1A	3682	1/1	0.98	0.07	33,33,33,33	0
55	MG	1A	3075	1/1	0.98	0.04	11,11,11,11	0
55	MG	1A	3684	1/1	0.98	0.05	44,44,44,44	0
55	MG	2A	3756	1/1	0.98	0.04	53,53,53,53	0
55	MG	2A	3497	1/1	0.98	0.06	41,41,41,41	0
55	MG	1a	1776	1/1	0.98	0.09	40,40,40,40	0
55	MG	2A	3261	1/1	0.98	0.08	43,43,43,43	0
55	MG	1A	3886	1/1	0.98	0.07	28,28,28,28	0
55	MG	2A	3263	1/1	0.98	0.07	50,50,50,50	0
55	MG	1A	3887	1/1	0.98	0.03	31,31,31,31	0
55	MG	2A	3763	1/1	0.98	0.15	49,49,49,49	0
55	MG	1A	4051	1/1	0.98	0.04	41,41,41,41	0
55	MG	1A	3301	1/1	0.98	0.05	32,32,32,32	0
55	MG	2Q	204	1/1	0.98	0.23	43,43,43,43	0
55	MG	1A	3146	1/1	0.98	0.20	21,21,21,21	0
55	MG	1A	3968	1/1	0.98	0.07	40,40,40,40	0
55	MG	2A	3634	1/1	0.98	0.08	52,52,52,52	0
55	MG	1A	3214	1/1	0.98	0.11	36,36,36,36	0
55	MG	1A	3970	1/1	0.98	0.04	71,71,71,71	0
55	MG	1A	3402	1/1	0.98	0.11	35,35,35,35	0
55	MG	1A	3366	1/1	0.98	0.11	39,39,39,39	0
55	MG	2A	3511	1/1	0.98	0.10	51,51,51,51	0
55	MG	1A	3639	1/1	0.98	0.08	21,21,21,21	0
55	MG	1A	3099	1/1	0.98	0.10	14,14,14,14	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1D	306	1/1	0.98	0.13	45,45,45,45	0
55	MG	1A	3148	1/1	0.98	0.04	31,31,31,31	0
55	MG	1A	3113	1/1	0.98	0.10	34,34,34,34	0
55	MG	1A	3754	1/1	0.98	0.09	30,30,30,30	0
55	MG	1A	3978	1/1	0.98	0.06	40,40,40,40	0
55	MG	1a	1687	1/1	0.98	0.16	52,52,52,52	0
55	MG	2A	3048	1/1	0.98	0.05	52,52,52,52	0
55	MG	1A	3562	1/1	0.98	0.08	17,17,17,17	0
55	MG	1A	3275	1/1	0.98	0.34	28,28,28,28	0
55	MG	1D	313	1/1	0.98	0.18	30,30,30,30	0
55	MG	2A	3786	1/1	0.98	0.04	72,72,72,72	0
55	MG	1A	3698	1/1	0.98	0.08	39,39,39,39	0
55	MG	1A	3012	1/1	0.98	0.06	28,28,28,28	0
55	MG	1E	303	1/1	0.98	0.14	27,27,27,27	0
55	MG	2A	3790	1/1	0.98	0.05	59,59,59,59	0
55	MG	2a	3003	1/1	0.98	0.17	49,49,49,49	0
55	MG	1A	3061	1/1	0.98	0.08	31,31,31,31	0
55	MG	1A	3701	1/1	0.98	0.06	18,18,18,18	0
55	MG	2A	3530	1/1	0.98	0.16	41,41,41,41	0
55	MG	1A	3986	1/1	0.98	0.06	24,24,24,24	0
55	MG	2A	3532	1/1	0.98	0.17	42,42,42,42	0
55	MG	1A	3116	1/1	0.98	0.06	30,30,30,30	0
55	MG	1A	3153	1/1	0.98	0.09	49,49,49,49	0
55	MG	1A	3281	1/1	0.98	0.14	36,36,36,36	0
55	MG	1a	1700	1/1	0.98	0.06	42,42,42,42	0
55	MG	1A	3175	1/1	0.98	0.05	20,20,20,20	0
55	MG	1A	3909	1/1	0.98	0.07	37,37,37,37	0
55	MG	1A	3707	1/1	0.98	0.12	18,18,18,18	0
55	MG	1F	302	1/1	0.98	0.15	33,33,33,33	0
55	MG	2A	3668	1/1	0.98	0.08	36,36,36,36	0
55	MG	1F	303	1/1	0.98	0.09	30,30,30,30	0
55	MG	1A	3224	1/1	0.98	0.10	35,35,35,35	0
55	MG	1a	1817	1/1	0.98	0.04	68,68,68,68	0
55	MG	1A	3653	1/1	0.98	0.05	40,40,40,40	0
55	MG	2A	3811	1/1	0.98	0.14	35,35,35,35	0
55	MG	1A	3379	1/1	0.98	0.06	16,16,16,16	0
55	MG	1A	3711	1/1	0.98	0.04	31,31,31,31	0
55	MG	2A	3814	1/1	0.98	0.06	48,48,48,48	0
55	MG	1A	3176	1/1	0.98	0.05	24,24,24,24	0
55	MG	2A	3073	1/1	0.98	0.24	43,43,43,43	0
55	MG	1A	3010	1/1	0.98	0.07	24,24,24,24	0
55	MG	1A	3774	1/1	0.98	0.05	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3309	1/1	0.98	0.06	63,63,63,63	0
55	MG	1A	3457	1/1	0.98	0.05	21,21,21,21	0
55	MG	2A	3428	1/1	0.98	0.16	32,32,32,32	0
55	MG	1A	3200	1/1	0.98	0.06	22,22,22,22	0
55	MG	1A	4003	1/1	0.98	0.04	48,48,48,48	0
55	MG	2A	3825	1/1	0.98	0.05	42,42,42,42	0
55	MG	1A	3660	1/1	0.98	0.09	22,22,22,22	0
55	MG	1A	4095	1/1	0.98	0.05	31,31,31,31	0
55	MG	1A	3201	1/1	0.98	0.09	32,32,32,32	0
55	MG	2A	3687	1/1	0.98	0.07	53,53,53,53	0
55	MG	1a	1617	1/1	0.98	0.07	63,63,63,63	0
55	MG	1A	3718	1/1	0.98	0.07	19,19,19,19	0
55	MG	2A	3561	1/1	0.98	0.09	46,46,46,46	0
55	MG	1A	3118	1/1	0.98	0.08	26,26,26,26	0
55	MG	2A	3692	1/1	0.98	0.08	54,54,54,54	0
55	MG	1A	3782	1/1	0.98	0.08	38,38,38,38	0
55	MG	1A	3783	1/1	0.98	0.07	26,26,26,26	0
55	MG	1A	3720	1/1	0.98	0.07	31,31,31,31	0
55	MG	1A	3663	1/1	0.98	0.03	23,23,23,23	0
55	MG	1A	3786	1/1	0.98	0.09	38,38,38,38	0
55	MG	2A	3091	1/1	0.98	0.14	37,37,37,37	0
55	MG	2A	3700	1/1	0.98	0.06	51,51,51,51	0
55	MG	1A	3787	1/1	0.98	0.07	13,13,13,13	0
55	MG	2A	3843	1/1	0.98	0.14	37,37,37,37	0
55	MG	1A	3664	1/1	0.98	0.06	18,18,18,18	0
55	MG	1A	3665	1/1	0.98	0.07	25,25,25,25	0
55	MG	1A	3724	1/1	0.98	0.11	12,12,12,12	0
55	MG	1A	3230	1/1	0.98	0.18	44,44,44,44	0
55	MG	1A	3792	1/1	0.98	0.07	20,20,20,20	0
55	MG	1A	3864	1/1	0.98	0.11	43,43,43,43	0
55	MG	2A	3708	1/1	0.98	0.04	36,36,36,36	0
55	MG	1A	4111	1/1	0.98	0.04	51,51,51,51	0
55	MG	1Q	207	1/1	0.98	0.18	39,39,39,39	0
55	MG	1A	3386	1/1	0.98	0.22	23,23,23,23	0
55	MG	1A	3090	1/1	0.98	0.09	29,29,29,29	0
55	MG	1A	3795	1/1	0.98	0.06	21,21,21,21	0
55	MG	1A	3941	1/1	0.98	0.05	54,54,54,54	0
55	MG	2A	3105	1/1	0.98	0.05	30,30,30,30	0
55	MG	1A	4025	1/1	0.98	0.08	25,25,25,25	0
55	MG	1A	3728	1/1	0.98	0.04	31,31,31,31	0
55	MG	1U	201	1/1	0.98	0.26	33,33,33,33	0
55	MG	2A	3460	1/1	0.98	0.20	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3943	1/1	0.98	0.07	39,39,39,39	0
55	MG	1U	203	1/1	0.98	0.02	22,22,22,22	0
55	MG	1B	202	1/1	0.98	0.09	35,35,35,35	0
55	MG	1A	4028	1/1	0.98	0.04	44,44,44,44	0
55	MG	1A	3080	1/1	0.98	0.13	34,34,34,34	0
55	MG	2A	3466	1/1	0.98	0.31	42,42,42,42	0
55	MG	1A	3015	1/1	0.98	0.06	33,33,33,33	0
55	MG	1a	1648	1/1	0.98	0.16	36,36,36,36	0
55	MG	1B	206	1/1	0.98	0.12	40,40,40,40	0
55	MG	1A	3544	1/1	0.98	0.10	30,30,30,30	0
55	MG	1A	3003	1/1	0.98	0.07	22,22,22,22	0
55	MG	2A	3004	1/1	0.98	0.04	43,43,43,43	0
55	MG	1A	4033	1/1	0.98	0.04	36,36,36,36	0
55	MG	1A	3802	1/1	0.98	0.04	32,32,32,32	0
55	MG	1A	3023	1/1	0.98	0.07	35,35,35,35	0
55	MG	1a	1756	1/1	0.98	0.04	41,41,41,41	0
55	MG	1A	3034	1/1	0.98	0.09	24,24,24,24	0
56	ZN	14	501	1/1	0.98	0.07	109,109,109,109	0
55	MG	1a	1759	1/1	0.98	0.06	40,40,40,40	0
55	MG	2A	3126	1/1	0.98	0.16	34,34,34,34	0
55	MG	1a	1760	1/1	0.98	0.14	39,39,39,39	0
55	MG	1A	3085	1/1	0.98	0.07	24,24,24,24	0
58	SF4	1d	501	8/8	0.98	0.05	57,70,76,77	0
58	SF4	2d	303	8/8	0.98	0.05	58,77,87,92	0
55	MG	1A	4070	1/1	0.99	0.07	19,19,19,19	0
55	MG	1A	3985	1/1	0.99	0.05	24,24,24,24	0
55	MG	1A	3689	1/1	0.99	0.09	28,28,28,28	0
55	MG	2A	3822	1/1	0.99	0.11	26,26,26,26	0
55	MG	1A	3690	1/1	0.99	0.16	35,35,35,35	0
55	MG	1A	3640	1/1	0.99	0.05	28,28,28,28	0
55	MG	1A	3490	1/1	0.99	0.12	28,28,28,28	0
55	MG	1A	3990	1/1	0.99	0.06	56,56,56,56	0
55	MG	1A	3846	1/1	0.99	0.03	28,28,28,28	0
55	MG	1A	3666	1/1	0.99	0.07	22,22,22,22	0
55	MG	2A	3694	1/1	0.99	0.06	24,24,24,24	0
55	MG	1A	3953	1/1	0.99	0.03	19,19,19,19	0
55	MG	2A	3186	1/1	0.99	0.15	40,40,40,40	0
55	MG	2A	3187	1/1	0.99	0.05	53,53,53,53	0
55	MG	1A	3491	1/1	0.99	0.16	29,29,29,29	0
55	MG	1A	3437	1/1	0.99	0.03	36,36,36,36	0
55	MG	1a	1757	1/1	0.99	0.12	47,47,47,47	0
55	MG	1A	3956	1/1	0.99	0.08	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2P	202	1/1	0.99	0.06	48,48,48,48	0
55	MG	1A	3405	1/1	0.99	0.13	40,40,40,40	0
55	MG	1A	3272	1/1	0.99	0.13	22,22,22,22	0
55	MG	1A	4085	1/1	0.99	0.04	39,39,39,39	0
55	MG	1A	3014	1/1	0.99	0.05	18,18,18,18	0
55	MG	1A	4087	1/1	0.99	0.04	37,37,37,37	0
55	MG	2A	3075	1/1	0.99	0.03	29,29,29,29	0
55	MG	1A	3135	1/1	0.99	0.10	25,25,25,25	0
55	MG	2A	3514	1/1	0.99	0.08	26,26,26,26	0
55	MG	1A	3923	1/1	0.99	0.05	29,29,29,29	0
55	MG	2A	3580	1/1	0.99	0.10	45,45,45,45	0
55	MG	2A	3018	1/1	0.99	0.05	32,32,32,32	0
55	MG	1A	3019	1/1	0.99	0.10	28,28,28,28	0
55	MG	1A	3276	1/1	0.99	0.08	38,38,38,38	0
55	MG	1a	1768	1/1	0.99	0.05	40,40,40,40	0
55	MG	1A	3702	1/1	0.99	0.09	14,14,14,14	0
55	MG	1A	3289	1/1	0.99	0.06	33,33,33,33	0
55	MG	1A	3760	1/1	0.99	0.06	24,24,24,24	0
55	MG	2X	102	1/1	0.99	0.10	52,52,52,52	0
55	MG	1A	3761	1/1	0.99	0.08	14,14,14,14	0
55	MG	1A	3066	1/1	0.99	0.07	26,26,26,26	0
55	MG	1A	3173	1/1	0.99	0.03	24,24,24,24	0
55	MG	2A	3210	1/1	0.99	0.12	35,35,35,35	0
55	MG	1A	3222	1/1	0.99	0.11	28,28,28,28	0
55	MG	1A	4052	1/1	0.99	0.04	24,24,24,24	0
55	MG	1A	4053	1/1	0.99	0.04	29,29,29,29	0
55	MG	1A	3933	1/1	0.99	0.03	24,24,24,24	0
55	MG	1A	3022	1/1	0.99	0.04	29,29,29,29	0
55	MG	1A	3830	1/1	0.99	0.06	31,31,31,31	0
55	MG	2A	3034	1/1	0.99	0.09	36,36,36,36	0
55	MG	1e	202	1/1	0.99	0.09	56,56,56,56	0
55	MG	1A	3078	1/1	0.99	0.03	30,30,30,30	0
55	MG	1B	235	1/1	0.99	0.04	23,23,23,23	0
55	MG	1A	3656	1/1	0.99	0.06	20,20,20,20	0
55	MG	1A	3799	1/1	0.99	0.04	41,41,41,41	0
55	MG	1a	1785	1/1	0.99	0.06	51,51,51,51	0
55	MG	1D	303	1/1	0.99	0.09	43,43,43,43	0
55	MG	2A	3803	1/1	0.99	0.06	29,29,29,29	0
55	MG	1A	3059	1/1	0.99	0.05	28,28,28,28	0
55	MG	1A	3468	1/1	0.99	0.08	46,46,46,46	0
55	MG	1A	3271	1/1	0.99	0.11	26,26,26,26	0
55	MG	1Q	206	1/1	0.99	0.04	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3808	1/1	0.99	0.04	45,45,45,45	0
55	MG	1a	1635	1/1	0.99	0.10	30,30,30,30	0
55	MG	1A	4020	1/1	0.99	0.04	26,26,26,26	0
55	MG	1A	3403	1/1	0.99	0.07	38,38,38,38	0
56	ZN	1Y	205	1/1	0.99	0.02	57,57,57,57	0
55	MG	1A	3571	1/1	0.99	0.09	32,32,32,32	0
56	ZN	15	106	1/1	0.99	0.03	46,46,46,46	0
56	ZN	16	102	1/1	0.99	0.04	41,41,41,41	0
56	ZN	19	102	1/1	0.99	0.05	41,41,41,41	0
56	ZN	1n	103	1/1	0.99	0.03	69,69,69,69	0
56	ZN	2Y	501	1/1	0.99	0.02	77,77,77,77	0
55	MG	1A	3375	1/1	0.99	0.04	26,26,26,26	0
56	ZN	26	102	1/1	0.99	0.07	54,54,54,54	0
56	ZN	29	501	1/1	0.99	0.05	61,61,61,61	0
55	MG	1A	3530	1/1	0.99	0.12	19,19,19,19	0
55	MG	1a	1797	1/1	0.99	0.08	58,58,58,58	0
55	MG	1A	4068	1/1	0.99	0.07	23,23,23,23	0
55	MG	1a	1799	1/1	0.99	0.07	68,68,68,68	0
55	MG	1A	3807	1/1	0.99	0.08	36,36,36,36	0
56	ZN	25	103	1/1	1.00	0.02	52,52,52,52	0
55	MG	1A	3821	1/1	1.00	0.08	21,21,21,21	0
55	MG	1A	3906	1/1	1.00	0.04	17,17,17,17	0
55	MG	1A	3781	1/1	1.00	0.03	37,37,37,37	0

6.5 Other polymers

There are no such residues in this entry.